

9/29/2026 M:\MSD\20-600-041-002_Disciplines_SHEETS\2_Sheets - civil\Upper Lisbon Channel\Arkansas to Sugar Channel\206041-CV01-ARK_SUG.dwg



SOUTHERN SANDOVAL
COUNTY ARROYO FLOOD
CONTROL AUTHORITY



CONSTRUCTION PLANS
FOR

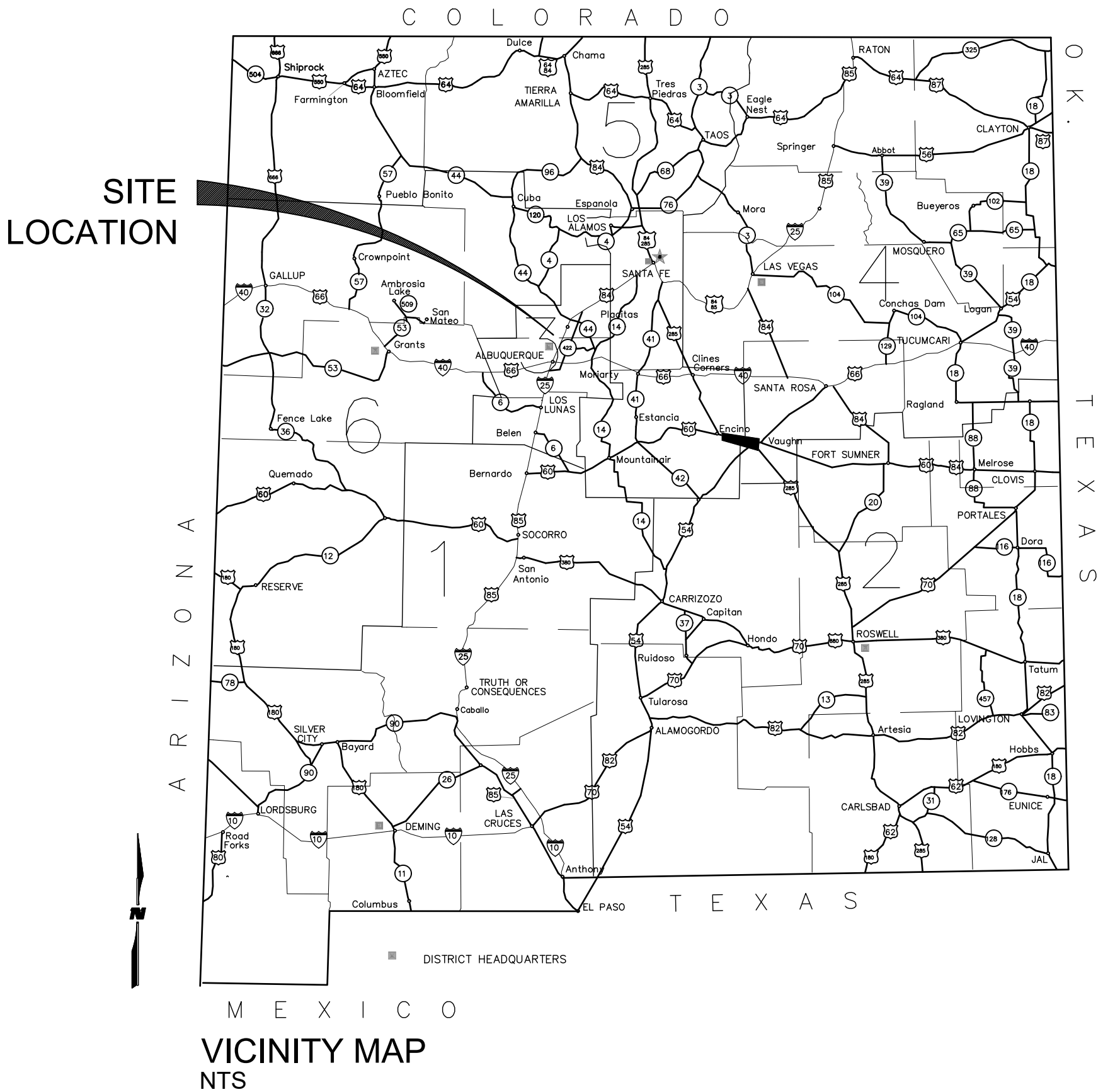
LISBON CHANNEL

CHANNEL IMPROVEMENTS - PHASE 3
SUGAR CHANNEL TO ARKANSAS CHANNEL

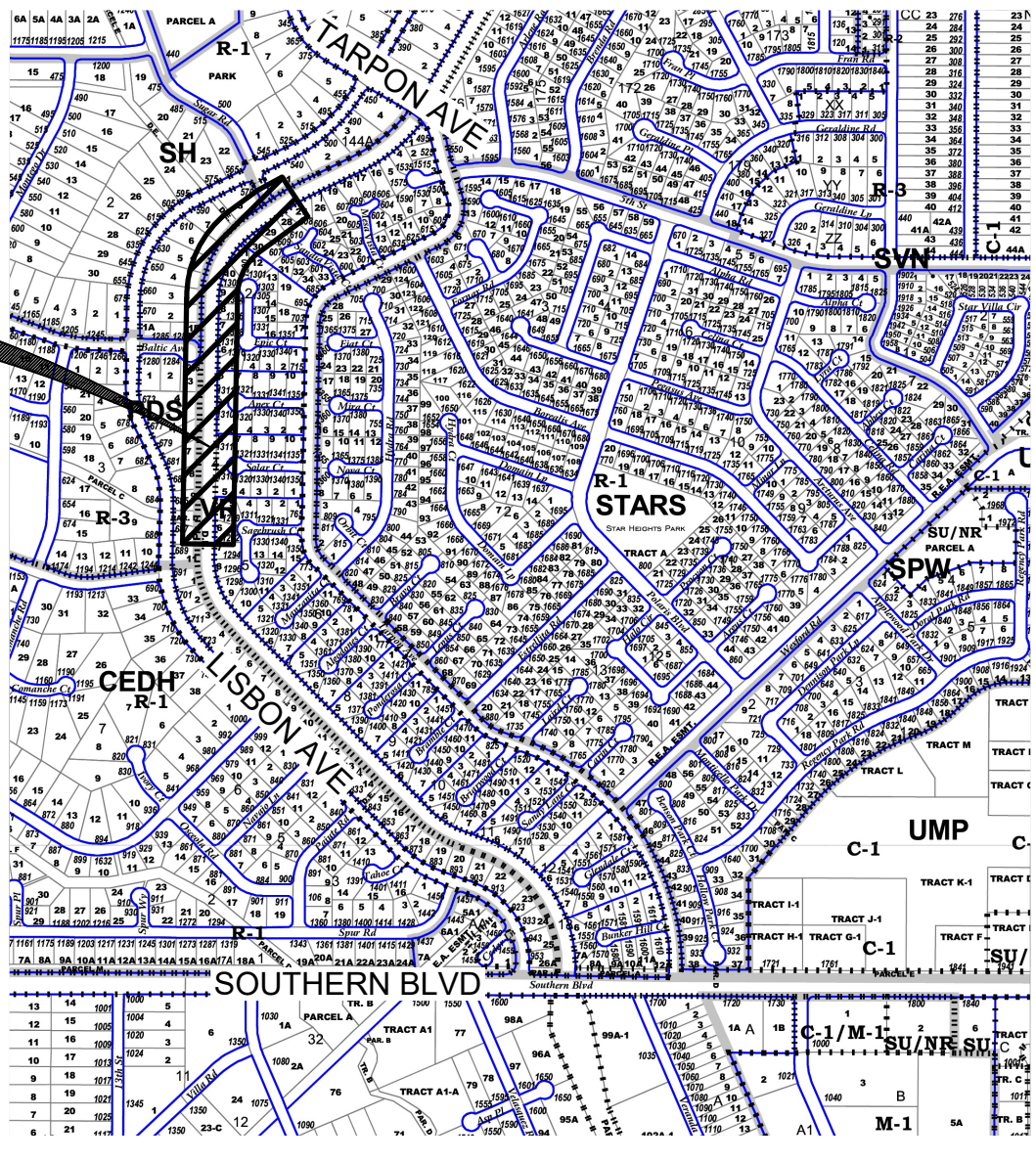
PROJECT #: BL P0036-03

INDEX OF SHEETS

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C-501 thru C-507	DETAILS



PROJECT
LOCATION



LOCATION MAP
NTS

David Gatterman
Digitally signed by David Gatterman
DN: c=US, E=dgatterman@sscafca.com,
O=SSCAFCA, CN=David Gatterman
Date: 2026.10.08 09:57:52-06'00'

10/8/2026

DAVE GATTERMAN, PE, EXECUTIVE ENGINEER
SSCAFCA

DATE

DAVID SERRANO

Digitally signed by DAVID SERRANO
DN: cn=DAVID SERRANO, ou=users,
ou=Executives, ou=Development Services,
ou=Civil&E, ou=Departments, ou=CDRR,
dc=sscf, dc=nm, dc=gov
Date: 2026.10.06 14:27:05-06'00'

10/06/2026

DEVELOPMENT SERVICES DEPARTMENT
CITY OF RIO RANCHO

DATE

**WILSON
& COMPANY**

4401 WASTHEAD ST. NE, SUITE 150
ALBUQUERQUE, NM 87109
PHONE: 505-348-4000
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www.wilsonco.com

CONSULTANTS



PROJECT NAME

LISBON CHANNEL
IMPROVEMENTS
PHASE 3
SUGAR CHANNEL TO
ARKANSAS CHANNEL

REV.	DATE	DESCRIPTION	BY

WCI NO: 2060004100

SSCAFCA NO: BL P0036-02

DESIGNED BY: JEL

DRAWN BY: JEM

CHECKED BY: TJA

DATE: SEP 2026

SHEET TITLE

COVER SHEET

SHEET NO:

G-001

[illegible]

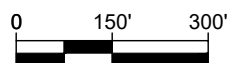
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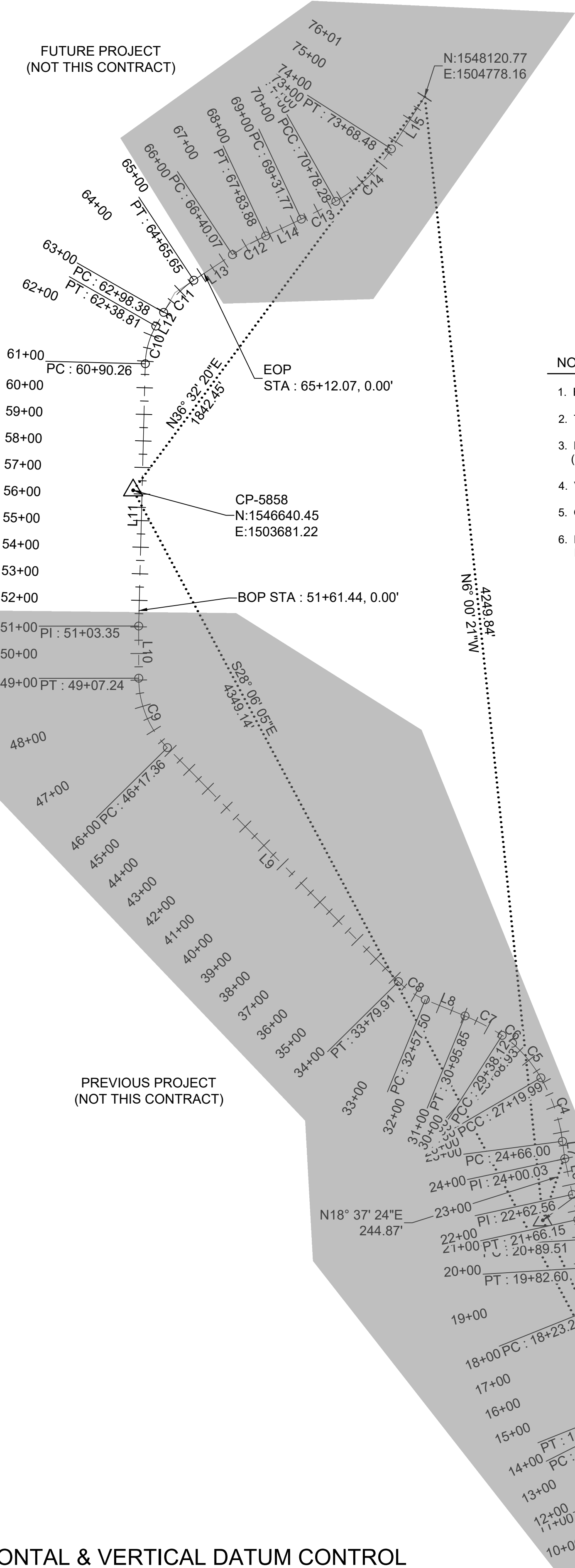
A1

HORIZONTAL & VERTICAL DATUM CONTROL

SCALE: 1" = 300'



FUTURE PROJECT
(NOT THIS CONTRACT)



NOTES:

1. FIELD SURVEY PERFORMED IN JANUARY 2016.
2. TARGET MAP SCALE IS 1" = 20'. CONTOUR INTERVAL = 1'.
3. HORIZONTAL DATUM = NAD 83 (2011) NM STATE PLANE, CENTRAL ZONE (SCALED TO GROUND). US SURVEY FEET UNITS.
4. VERTICAL DATUM = NAVD 88.
5. GEOID MODEL = GEOID 12B
6. FIELD DATA COLLECTED UTILIZING ROBOTIC TOTAL STATION AND GPS RTK EQUIPMENT.

FUTURE PROJECT
(NOT THIS CONTRACT)

FUTURE PROJECT
(NOT THIS CONTRACT)

FUTURE PROJECT
(NOT THIS CONTRACT)

FUTURE PROJECT
(NOT THIS CONTRACT)

SOUTHERN BLVD SE

FUTURE PROJECT
(NOT THIS CONTRACT)

LISBON CHANNEL

NUMBER	LENGTH	RADIUS	DIRECTION	BEGIN	END
C1	43.551	500.00'	N24° 18' 39.70"W	N: 1543156.95; E: 1505570.37	N: 1543196.63; E: 1505552.45
C2	159.386	500.00'	N12° 41' 00.96"W	N: 1543560.11; E: 1505406.95	N: 1543714.94; E: 1505372.10
C3	76.638	500.00'	N07° 56' 33.01"W	N: 1543821.65; E: 1505365.48	N: 1543897.48; E: 1505354.90
C4	253.985	639.43'	N18° 50' 16.01"W	N: 1544191.50; E: 1505296.97	N: 1544430.31; E: 1505215.50
C5	168.942	533.18'	N39° 17' 39.07"W	N: 1544430.31; E: 1505215.50	N: 1544560.51; E: 1505108.96
C6	49.191	316.50'	N52° 49' 26.35"W	N: 1544560.51; E: 1505108.96	N: 1544590.20; E: 1505069.80
C7	157.733	870.64'	N62° 27' 59.38"W	N: 1544590.20; E: 1505069.80	N: 1544663.01; E: 1504930.12
C8	122.405	304.95'	N56° 09' 26.54"W	N: 1544724.47; E: 1504780.61	N: 1544792.18; E: 1504679.62
C9	289.883	372.64'	N22° 22' 20.88"W	N: 1545672.39; E: 1503809.85	N: 1545933.75; E: 1503702.28

THIS PROJECT

C10	148.548	300.58'	N15° 36' 11.08"E	N: 1547116.45; E: 1503726.87	N: 1547258.08; E: 1503766.42
C11	167.272	357.96'	N43° 08' 52.30"E	N: 1547309.79; E: 1503795.99	N: 1547430.72; E: 1503909.35
C12	143.808	1000.00'	N60° 39' 16.40"E	N: 1547526.90; E: 1504054.85	N: 1547597.32; E: 1504180.10
C13	146.514	2018.96'	N62° 41' 43.44"E	N: 1547660.35; E: 1504313.88	N: 1547727.54; E: 1504444.04
C14	290.199	593.69'	N46° 36' 47.32"E	N: 1547727.54; E: 1504444.04	N: 1547924.91; E: 1504652.85
L1	116.14'		N18° 27' 30.75"W	N: 1542804.01; E: 1505729.81	N: 1542914.18; E: 1505693.04
L2	272.00'		N26° 48' 22.68"W	N: 1542914.18; E: 1505693.04	N: 1543156.95; E: 1505570.37
L3	391.52'		N21° 48' 56.71"W	N: 1543196.63; E: 1505552.45	N: 1543560.11; E: 1505406.95
L4	106.91'		N03° 33' 05.20"W	N: 1543714.94; E: 1505372.10	N: 1543821.65; E: 1505365.48
L5	96.41'		N12° 20' 00.82"W	N: 1543897.48; E: 1505354.90	N: 1543991.67; E: 1505334.30
L6	137.47'		N12° 04' 48.14"W	N: 1543991.67; E: 1505334.30	N: 1544126.09; E: 1505305.54

LISBON CHANNEL

NUMBER	LENGTH	RADIUS	DIRECTION	BEGIN	END
L7	65.97'		N07° 27' 31.43"W	N: 1544126.09; E: 1505305.54	N: 1544191.50; E: 1505296.97
L8	161.65'		N67° 39' 23.62"W	N: 1544663.01; E: 1504930.12	N: 1544724.47; E: 1504780.61
L9	1237.45'		N44° 39' 29.45"W	N: 1544792.18; E: 1504679.62	N: 1545672.39; E: 1503809.85
L10	196.11'		N00° 05' 12.30"W	N: 1545933.75; E: 1503702.28	N: 1546129.86; E: 1503701.98
L11	986.91'		N01° 26' 42.68"E	N: 1546129.86; E: 1503701.98	N: 1547116.45; E: 1503726.87
L12	59.57'		N29° 45' 39.47"E	N: 1547258.08; E: 1503766.42	N: 1547309.79; E: 1503795.99
L13	174.42'		N56° 32' 05.12"E	N: 1547430.72; E: 1503909.35	N: 1547526.90; E: 1504054.85
L14	147.89'		N64° 46' 27.68"E	N: 1547597.32; E: 1504180.10	N: 1547660.35; E: 1504313.88
L15	232.52'		N32° 36' 35.43"E	N: 1547924.91; E: 1504652.85	N: 1548120.77; E: 1504778.16

THIS PROJECT

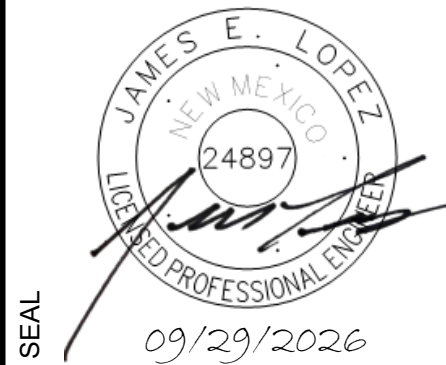
LEGEND



FUTURE OR PREVIOUS LIMITS NOT IN THIS CONTRACT

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CONSULTANTS



**LISBON CHANNEL
IMPROVEMENTS
PHASE 3
SUGAR CHANNEL TO
ARKANSAS CHANNEL**

REV.	DATE	DESCRIPTION	BY

WCI NO:	2060004100
SSCAFA NO:	BL P0036-02
DESIGNED BY:	JEL
DRAWN BY:	JEM
CHECKED BY:	TJA
DATE:	SEP 2026

SHEET TITLE

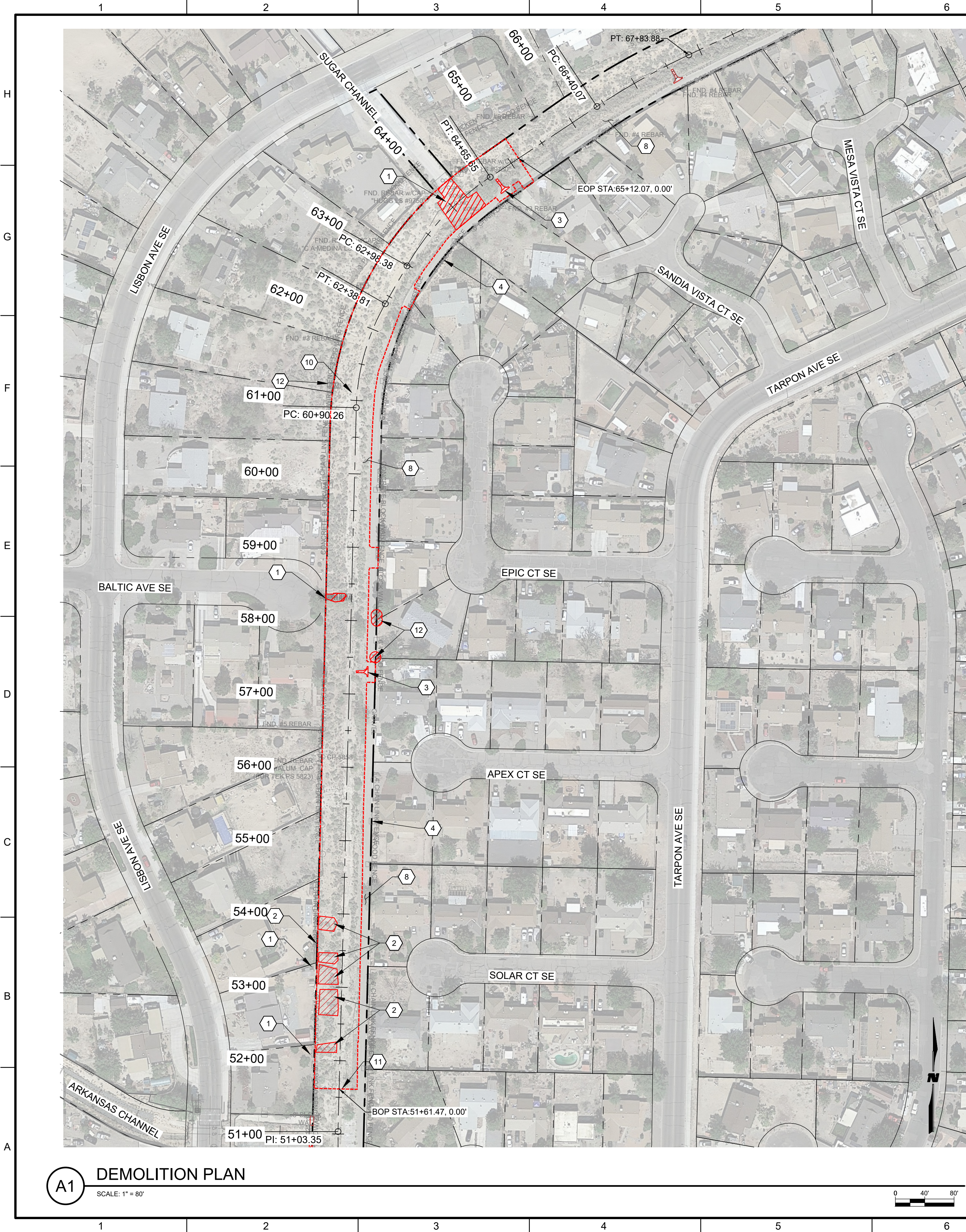
**HORIZONTAL &
VERTICAL DATUM
CONTROL**

SHEET NO:

C-101

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9/29/2026



A1 DEMOLITION PLAN

SCALE: 1" = 80'

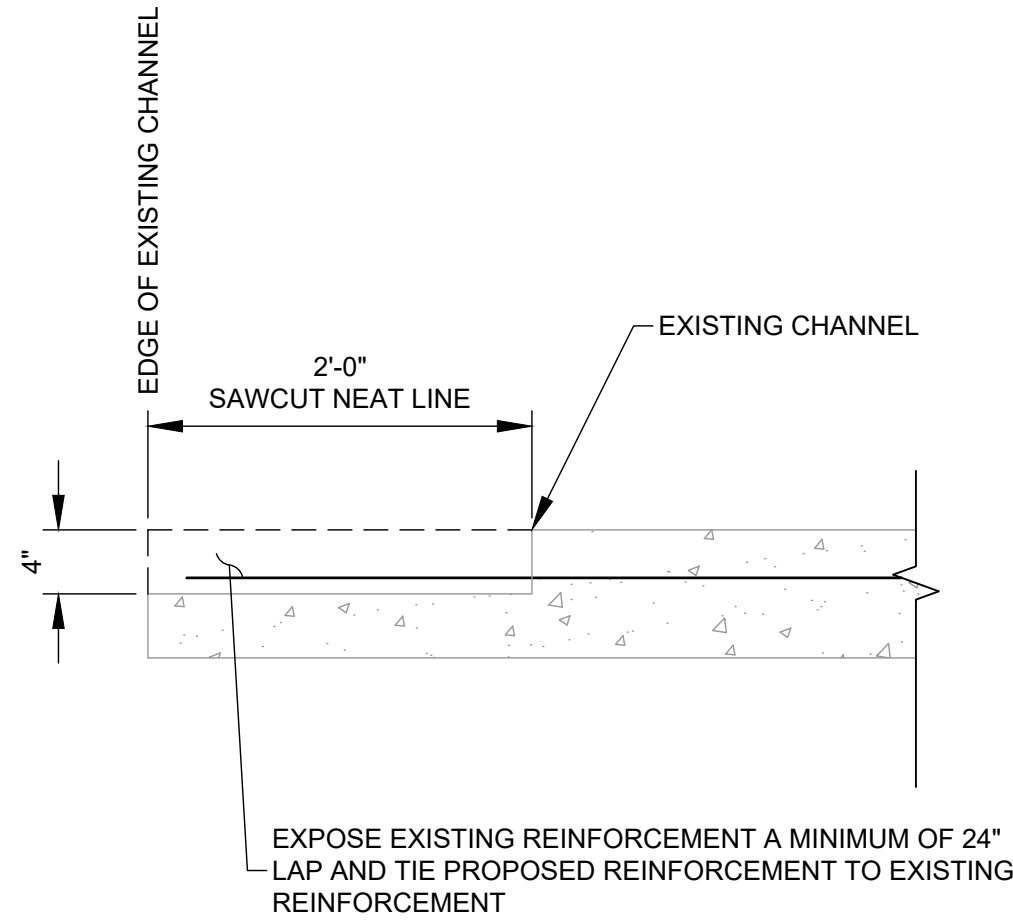


A6 DEMOLITION PLAN

SCALE: 1" = 10'

KEYNOTES

1. REMOVE AND DISPOSE CONCRETE STRUCTURE.
2. REMOVE AND DISPOSE CONCRETE DEBRIS.
3. REMOVE AND DISPOSE RUNDOWN.
4. PROTECT EXISTING HANDRAIL. ANY DAMAGE SHALL BE REPAIRED OR REPLACED IN-KIND BY THE CONTRACTOR.
5. SAWCUT NEAT LINE. REMOVE AND DISPOSE CONCRETE CHANNEL.
6. REMOVE AND DISPOSE DRIVEPAD AND CONCRETE SIDEWALK... SEE SHEET C-104 FOR DETAILS.
7. PROTECT EXISTING CONCRETE APRON. ANY DAMAGE SHALL BE REPAIRED OR REPLACED IN-KIND BY THE CONTRACTOR.
8. NOT USED.
9. NOT USED.
10. CLEAR AND GRUB EXISTING CHANNEL.
11. REMOVE SACRIFICIAL CUTOFF WALL, DO NOT SAW CUT, PROTECT HORIZONTAL REBAR.
12. PROTECT EXISTING PEDESTALS. ANY DAMAGE SHALL BE REPAIRED OR REPLACED IN-KIND BY THE CONTRACTOR.



NOTE:
REBAR SHALL NOT BE EXCESSIVELY BENT IN EITHER VERTICAL
OR HORIZONTAL DIRECTION

D9 SAWCUT DETAIL

SCALE: 1" = 1'

LEGEND

- APPROXIMATE REMOVAL LIMITS
- PROJECT LIMITS

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PROJECT NAME

**LISBON CHANNEL
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PHASE 3
SUGAR CHANNEL TO
ARKANSAS CHANNEL**

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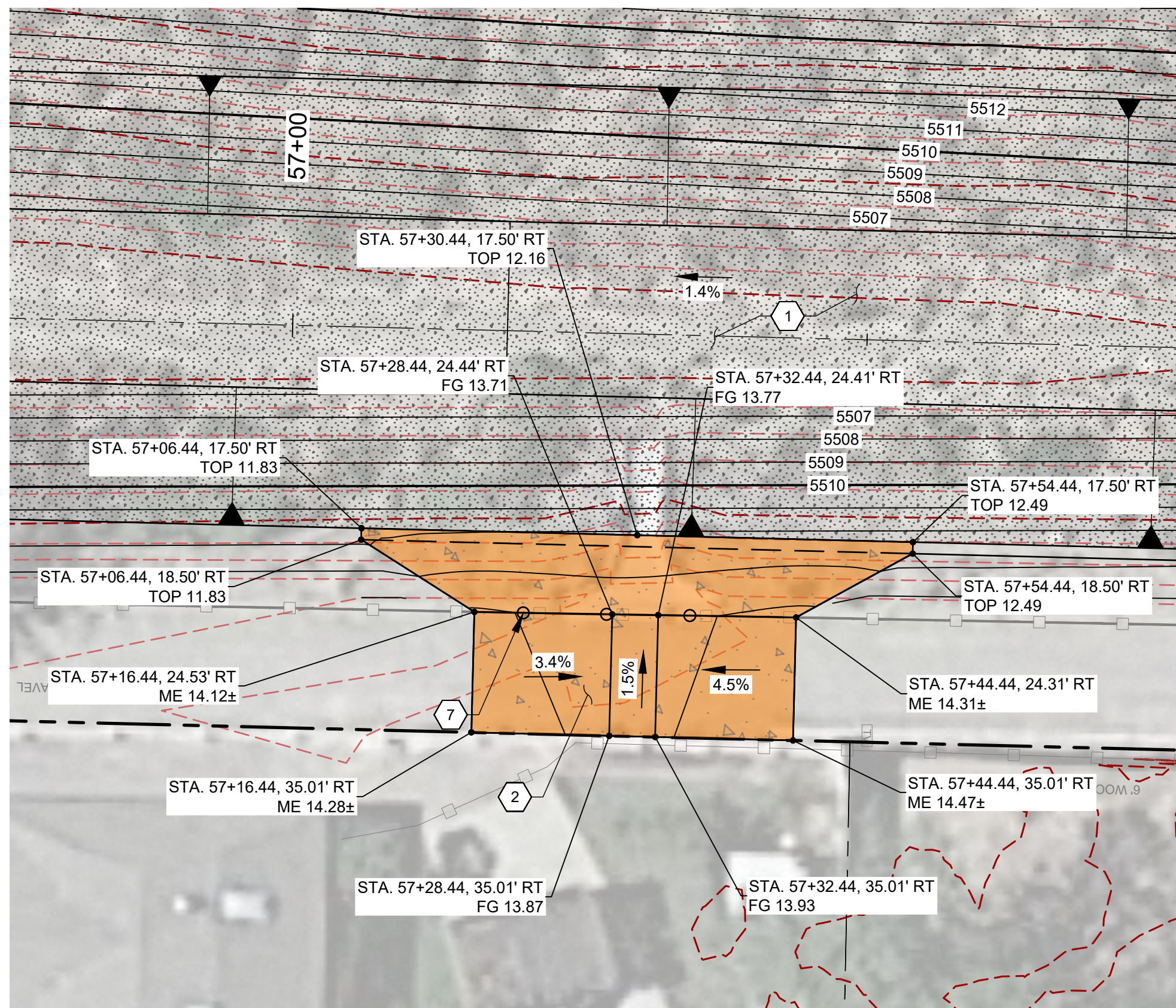
WCI NO: 2060004100
SSCAFA NO: BL P0036-02
DESIGNED BY: JEL
DRAWN BY: JEM
CHECKED BY: TJA
DATE: SEP 2026
SHEET TITLE

DEMOLITION PLAN

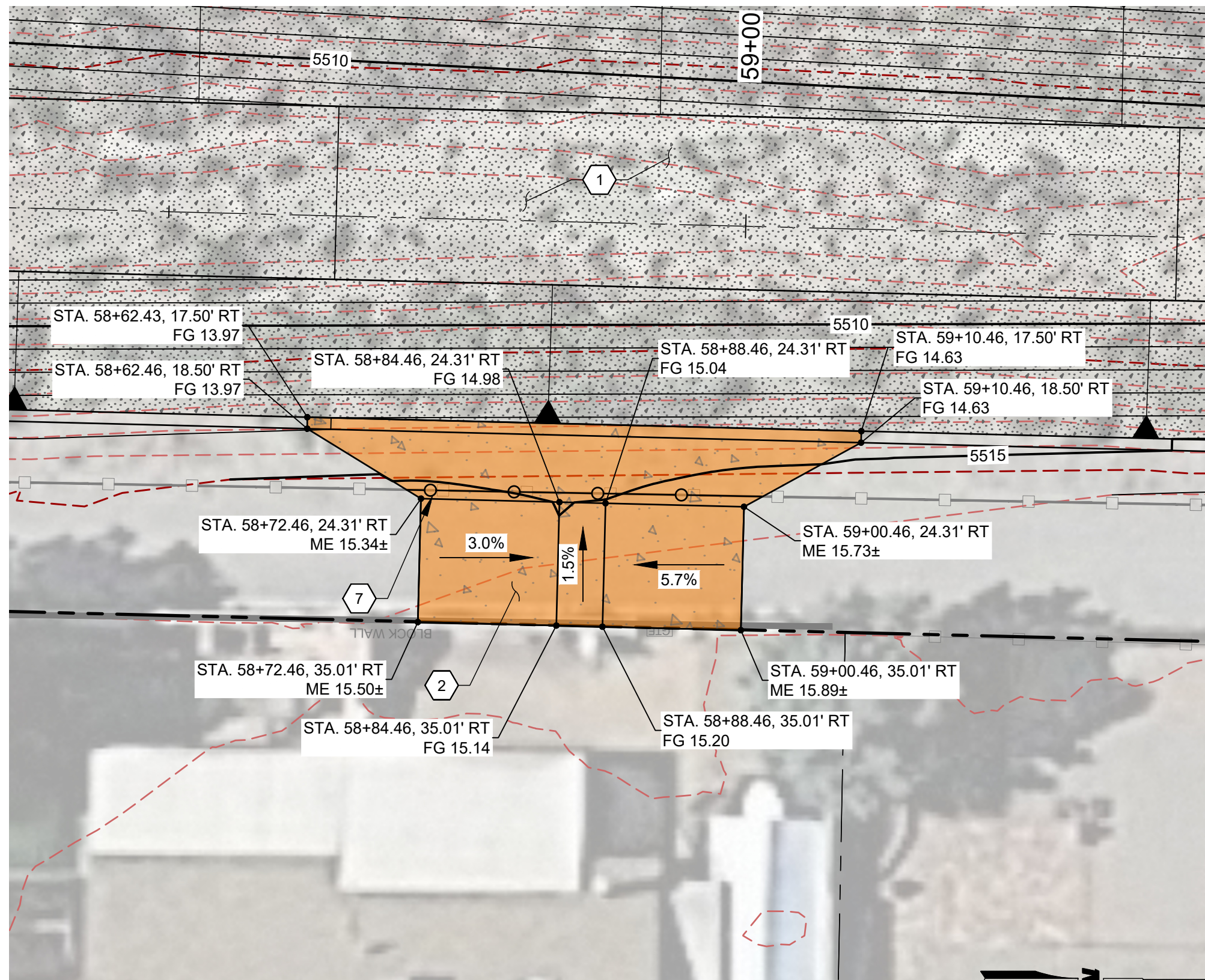
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C-102

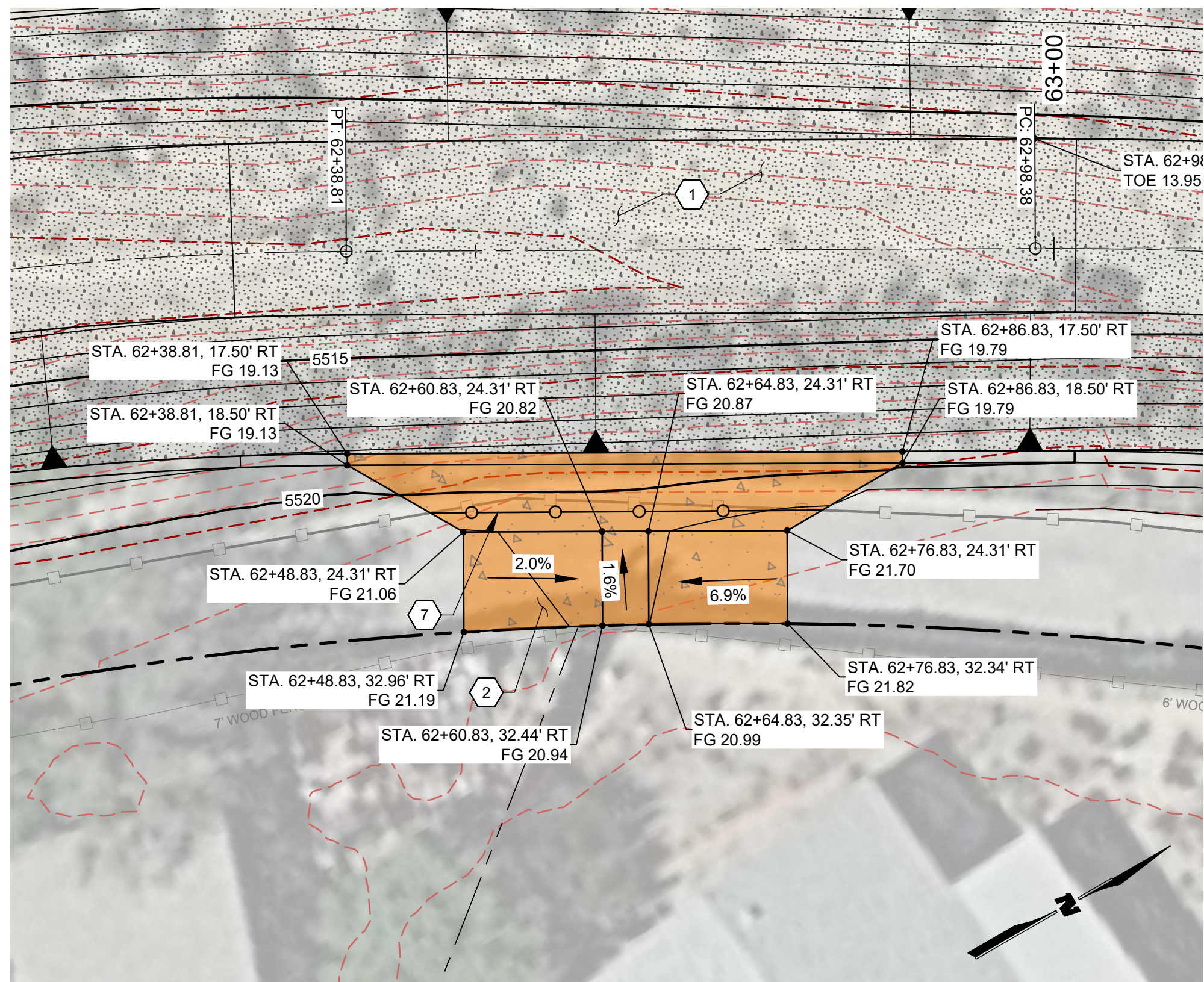
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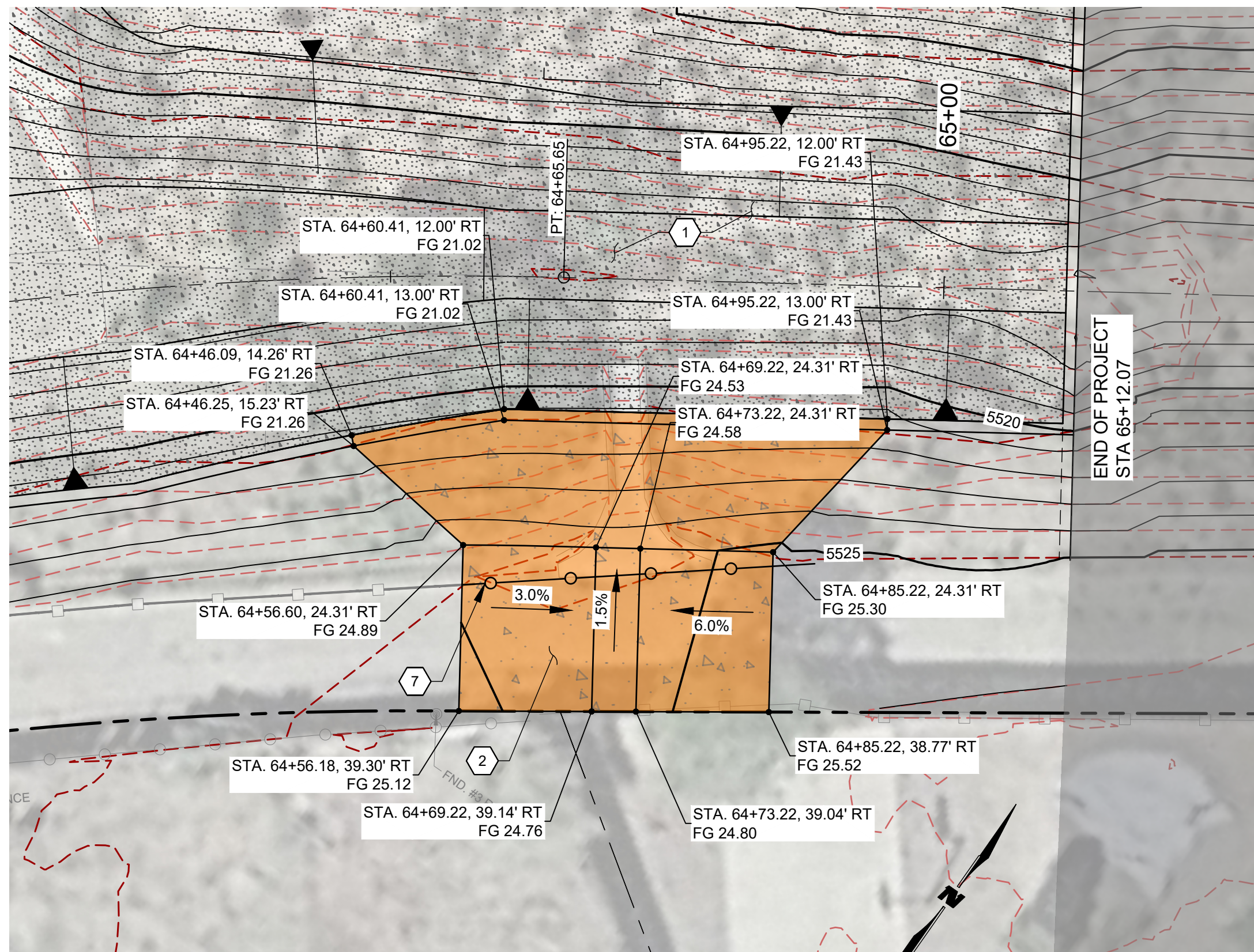
E1 RUNDOWN #5 GRADING PLAN
SCALE: 1" = 10'



E5 RUNDOWN #6 GRADING PLAN
SCALE: 1" = 10'



A1 RUNDOWN #7 GRADING PLAN
SCALE: 1" = 10'



A5 RUNDOWN #8 GRADING PLAN
SCALE: 1" = 10'

KEYNOTES (AS APPLICABLE)

1. CONSTRUCT SHOTCRETE CHANNEL. SEE DETAIL A1, SHEET C-503. SEE DETAIL A1, SHEET C-504 FOR SHOTCRETE CHANNEL WEST BANK SLOPE CONNECTION DETAILS.
2. CONSTRUCT REINFORCED CONCRETE RUNDOWN, TYPE 'A'. SEE DETAIL A6, SHEET C-501.
3. TIE INTO EXISTING CONCRETE APRON. SEE "STANDARD PLACE CONCRETE TO NEW SHOTCRETE JOINT" DETAIL A1, SHEET C-503.
4. TIE INTO EXISTING CHANNEL. SEE "NEW TO EXISTING CHANNEL LINING CONSTRUCTION JOINT" DETAIL A1, SHEET C-503.
5. CONSTRUCT 4" PCC SIDEWALK. SEE DETAIL E4, SHEET C-502.
6. CONSTRUCT 6" REINFORCED CONCRETE DRIVEPAD. SEE DETAIL E4, SHEET C-502.
7. REMOVE AND REPLACE PIPE RAILING FOR CONSTRUCTION OF RUNDOWN

LEGEND

	REINFORCED CONCRETE PAVEMENT
	SHOTCRETE
	GRAVEL MULCH (3:1 OR FLATTER)
	ANGULAR AGGREGATE (3:1 to 2:1)
	CONCRETE PAVEMENT
	PIPE RAILING
	PREVIOUS OR FUTURE PROJECT LIMITS
ME	MATCH EXISTING ELEVATION
TB	TOP OF PEDESTRIAN BRIDGE ELEVATION
TOE	TOE OF CHANNEL ELEVATION
TOP	TOP OF CHANNEL ELEVATION
FG	FINISHED GRADE

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CONSULTANTS



PROJECT NAME
LISBON CHANNEL
IMPROVEMENTS
PHASE 3
SUGAR CHANNEL TO
ARKANSAS CHANNEL

REV.	DATE	DESCRIPTION	BY

WCI NO:	2060004100
SSACFA NO:	BL P0036-02
DESIGNED BY:	JEL
DRAWN BY:	JEM
CHECKED BY:	TJA
DATE:	SEP 2026
SHEET TITLE	

GRADING &
DRAINAGE PLAN

SHEET NO:

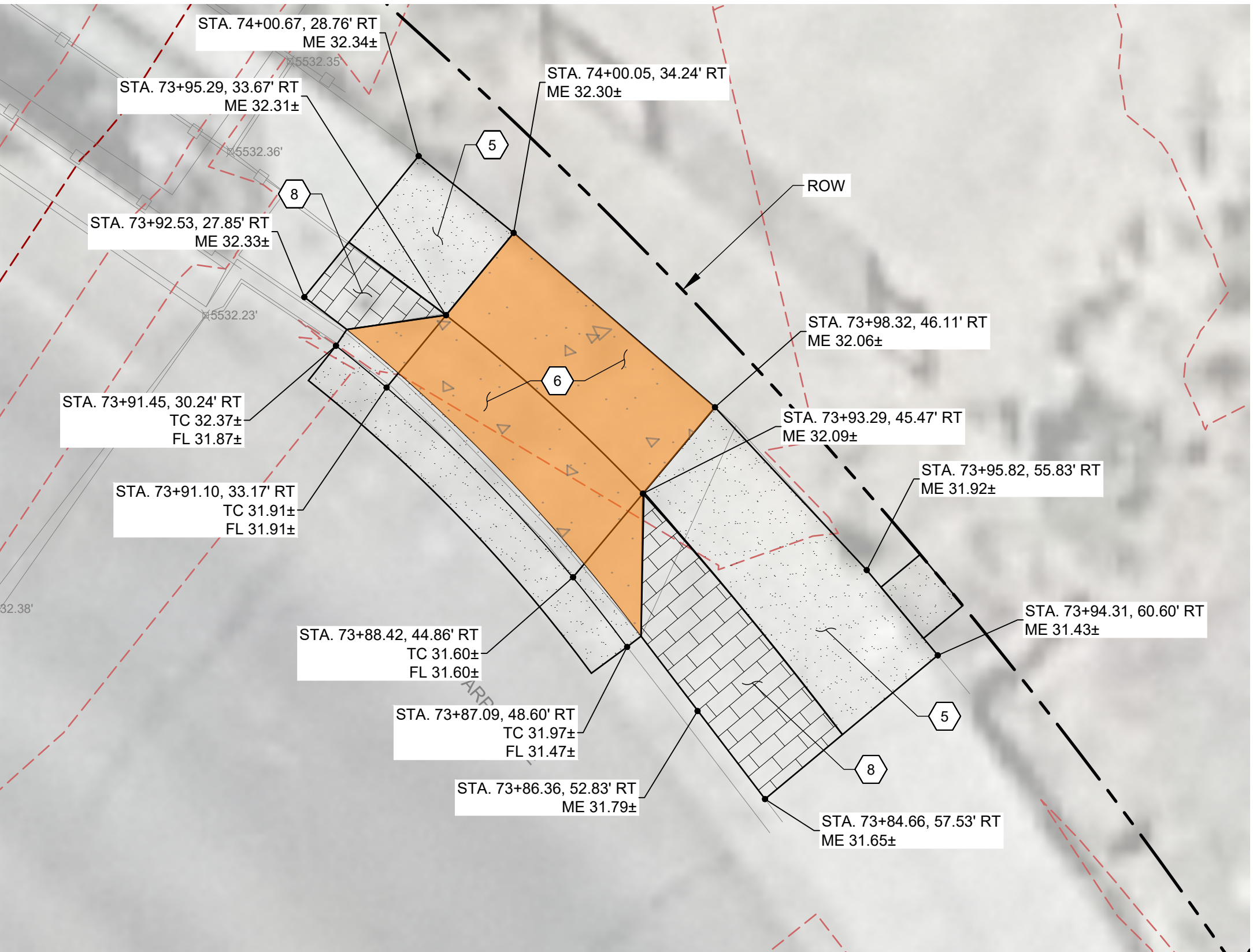
C-103

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9/29/2026



F4 DRIVEPAD REMOVAL LIMITS (LOOKING NE)
SCALE: NTS



A4 GRADING & DRAINAGE PLAN
SCALE: 1" = 5'

KEYNOTES (AS APPLICABLE)

1. CONSTRUCT SHOTCRETE CHANNEL. SEE DETAIL A1, SHEET C-503. SEE DETAIL A1, SHEET C-504 FOR SHOTCRETE CHANNEL WEST BANK SLOPE CONNECTION DETAILS.
2. CONSTRUCT REINFORCED CONCRETE RUNDOWN, TYPE 'A'. SEE DETAIL A6, SHEET C-501.
3. TIE INTO EXISTING CONCRETE APRON. SEE "STANDARD PLACE CONCRETE TO NEW SHOTCRETE JOINT" DETAIL A1, SHEET C-503.
4. TIE INTO EXISTING CHANNEL. SEE "NEW TO EXISTING CHANNEL LINING CONSTRUCTION JOINT" DETAIL A1, SHEET C-503.
5. CONSTRUCT 4" PCC SIDEWALK. SEE DETAIL E4, SHEET C-502.
6. CONSTRUCT 6" REINFORCED CONCRETE DRIVEPAD. SEE DETAIL E4, SHEET C-502.
7. REMOVE AND REPLACE PIPE RAILING FOR CONSTRUCTION OF RUNDOWN.
8. CONSTRUCT 4" PCC SIDEWALK w/ BRICK STAMP PATTERN. MATCH EXISTING BRICK PATTERN. SEE DETAIL E4, SHEET C-502.

LEGEND

- | | |
|-----|--|
| | REINFORCED CONCRETE PAVEMENT |
| | SHOTCRETE |
| | GRAVEL MULCH (3:1 OR FLATTER) |
| | ANGULAR AGGREGATE (3:1 to 2:1) |
| | CONCRETE PAVEMENT |
| | CONCRETE PAVEMENT w/ STAMPED BRICK PATTERN |
| | PIPE RAILING |
| | PREVIOUS OR FUTURE PROJECT LIMITS |
| ME | MATCH EXISTING ELEVATION |
| TB | TOP OF PEDESTRIAN BRIDGE ELEVATION |
| TOE | TOE OF CHANNEL ELEVATION |
| TOP | TOP OF CHANNEL ELEVATION |
| FG | FINISHED GRADE |

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PROJECT NAME
LISBON CHANNEL
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PHASE 3
SUGAR CHANNEL TO
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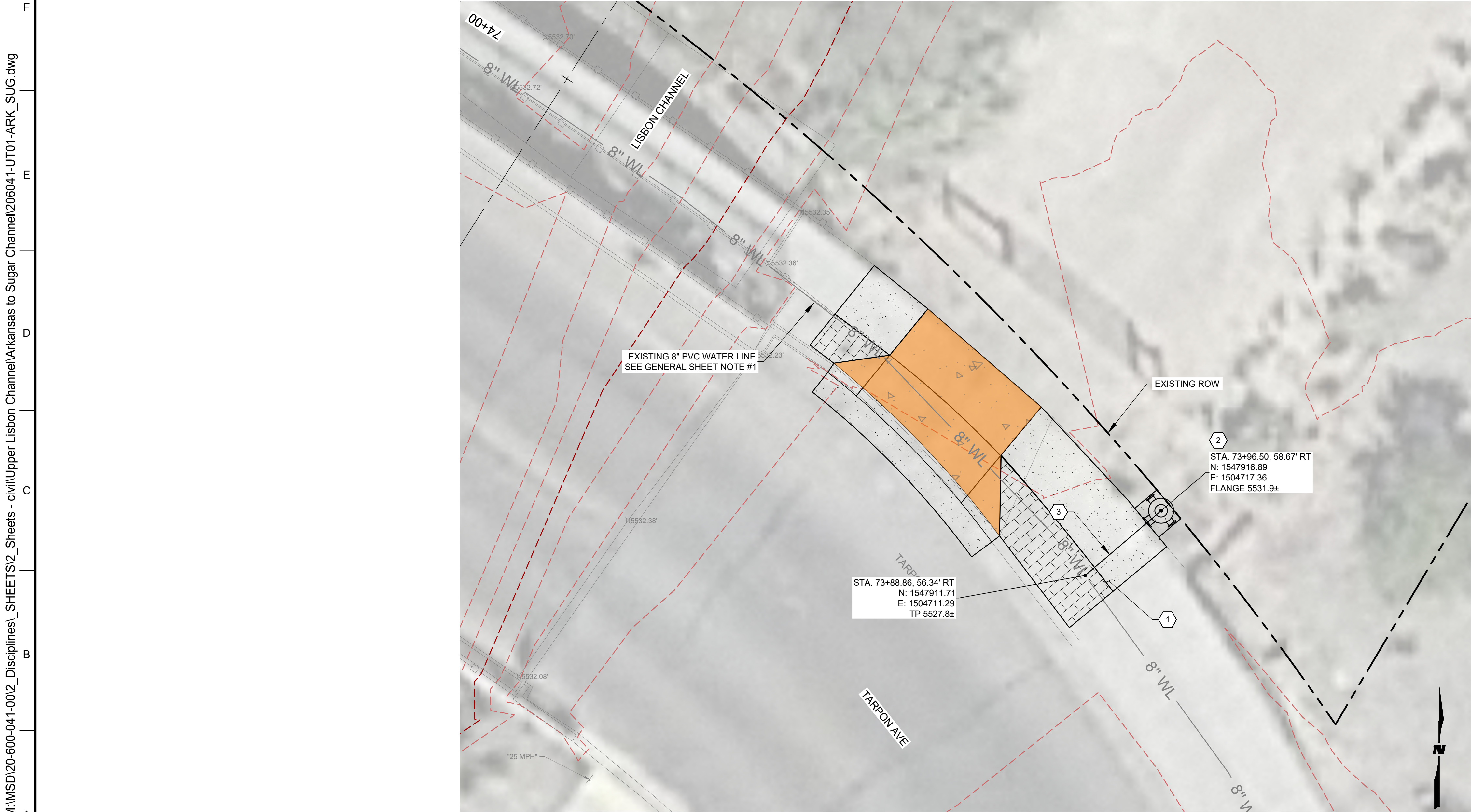
SHEET TITLE

GRADING &
DRAINAGE PLAN

SHEET NO:

C-104

9/29/2026 M:\MSD\20-600-041-002_Disciplines_SHEETS\2_Sheets - civil\Upper Lisbon Channel\Arkansas to Sugar Channel\206041-UT01-ARK_SUG.dwg



A3 UTILITY PLAN
SCALE: 1" = 5'



GENERAL SHEET NOTES

1. CONTRACTOR WILL VERIFY LOCATION AND DEPTH OF EXISTING 8" WATER LINE. LOCATION OF EXISTING WATER LINE SHOWN IS BASED ON GIS DATA FROM GIS.RRNM.GOV/RIORANCHO/

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KEYNOTES

1. REMOVE, DISPOSE, AND REPLACE EXISTING CONCRETE SIDEWALK IN-KIND TO THE NEAREST JOINT.
2. INSTALL FIRE HYDRANT. SEE DETAIL E2, SHEET C-501.
3. INSTALL 6" PVC WATER LINE W/TAPPING SADDLE PER CITY OF RIO RANCHO STANDARD DRAWING SHEET. SEE DETAIL E2, SHEET C-501.

PROJECT NAME
LISBON CHANNEL
IMPROVEMENTS
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SUGAR CHANNEL TO
ARKANSAS CHANNEL

REV.	DATE	DESCRIPTION	BY

LEGEND

- CONCRETE SIDEWALK
CONCRETE SIDEWALK w/ STAMPED BRICK PATTERN
REINFORCED CONCRETE PAVEMENT

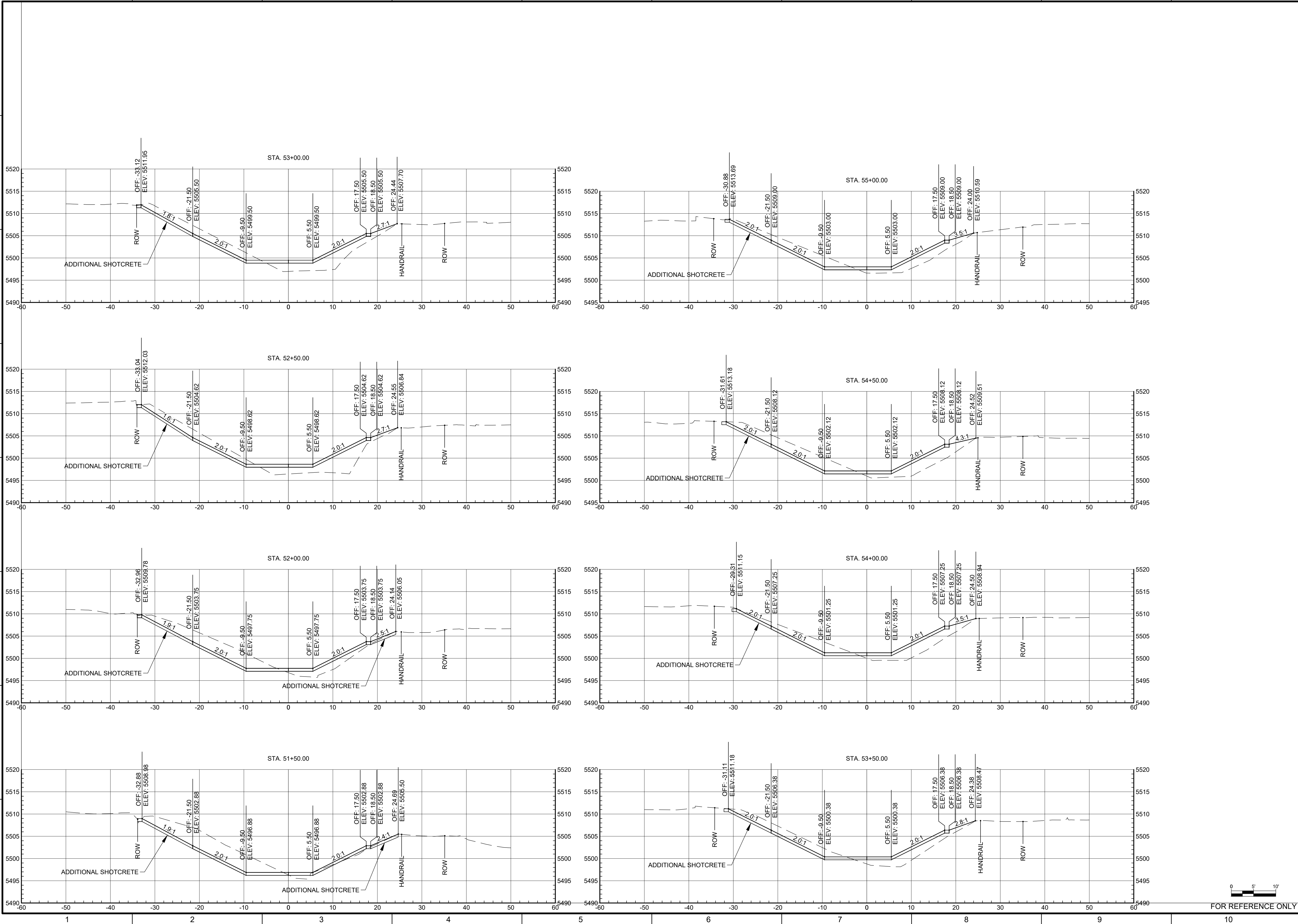
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UTILITY PLAN

SHEET NO:

C-105

9/29/2026 M:\MSD\20-600-041-00\2_Disciplines_SHEETS\2_Sheets - civil\Upper Lisbon Channel\Arkansas to Sugar Channel\Arkansas to Sugar Channel\2060041-CS01-ARK_SUG.dwg



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CONSULTANTS

JAMES E. LOPEZ

24897

NEW MEXICO

REGISTERED PROFESSIONAL ENGINEER

09/29/2026

SEAL

PROJECT NAME

LISBON CHANNEL
IMPROVEMENTS
PHASE 3
SUGAR CHANNEL TO
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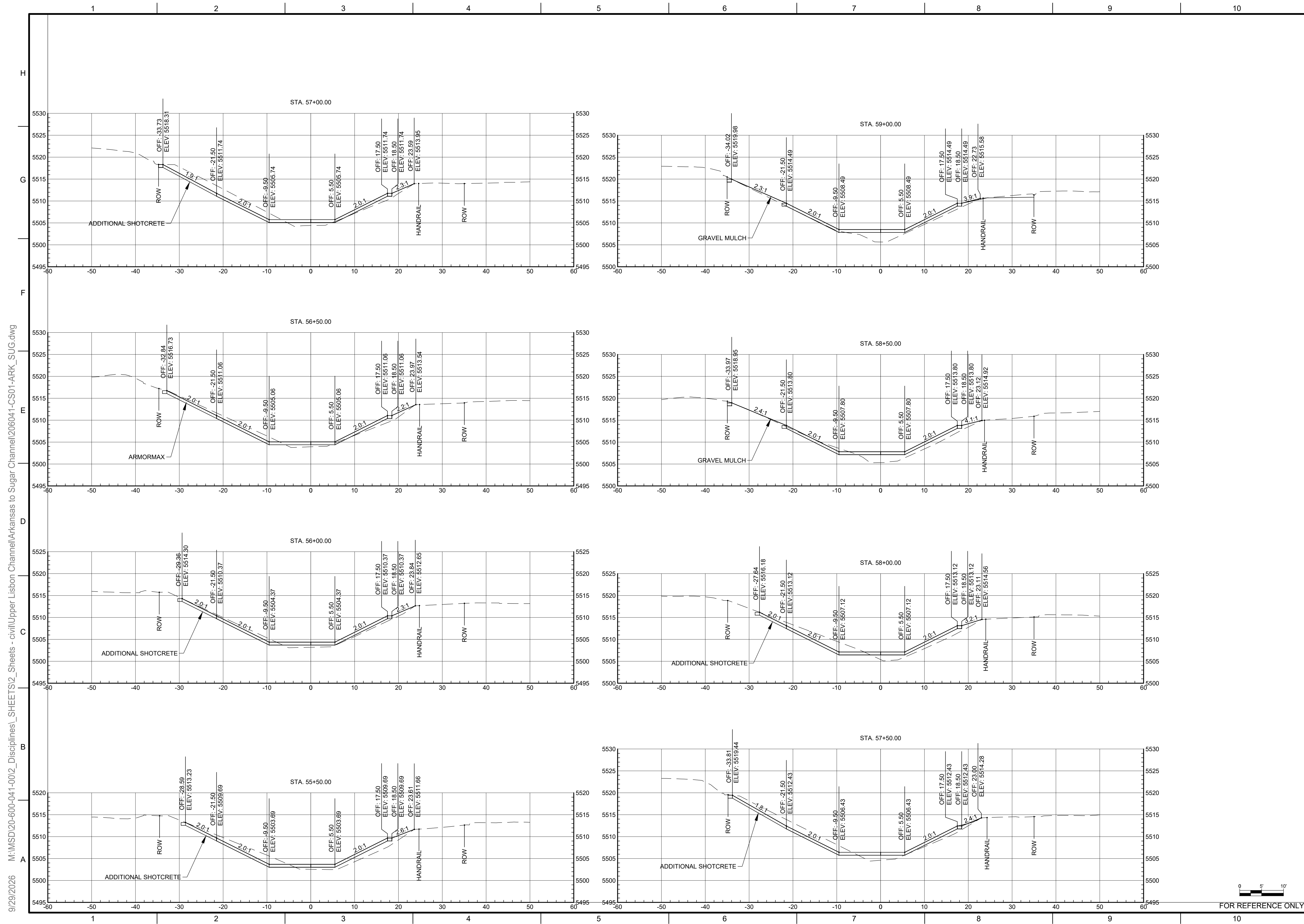
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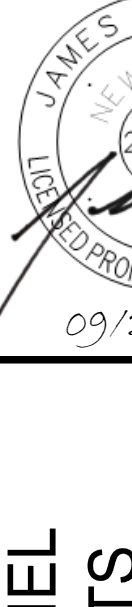
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C-302

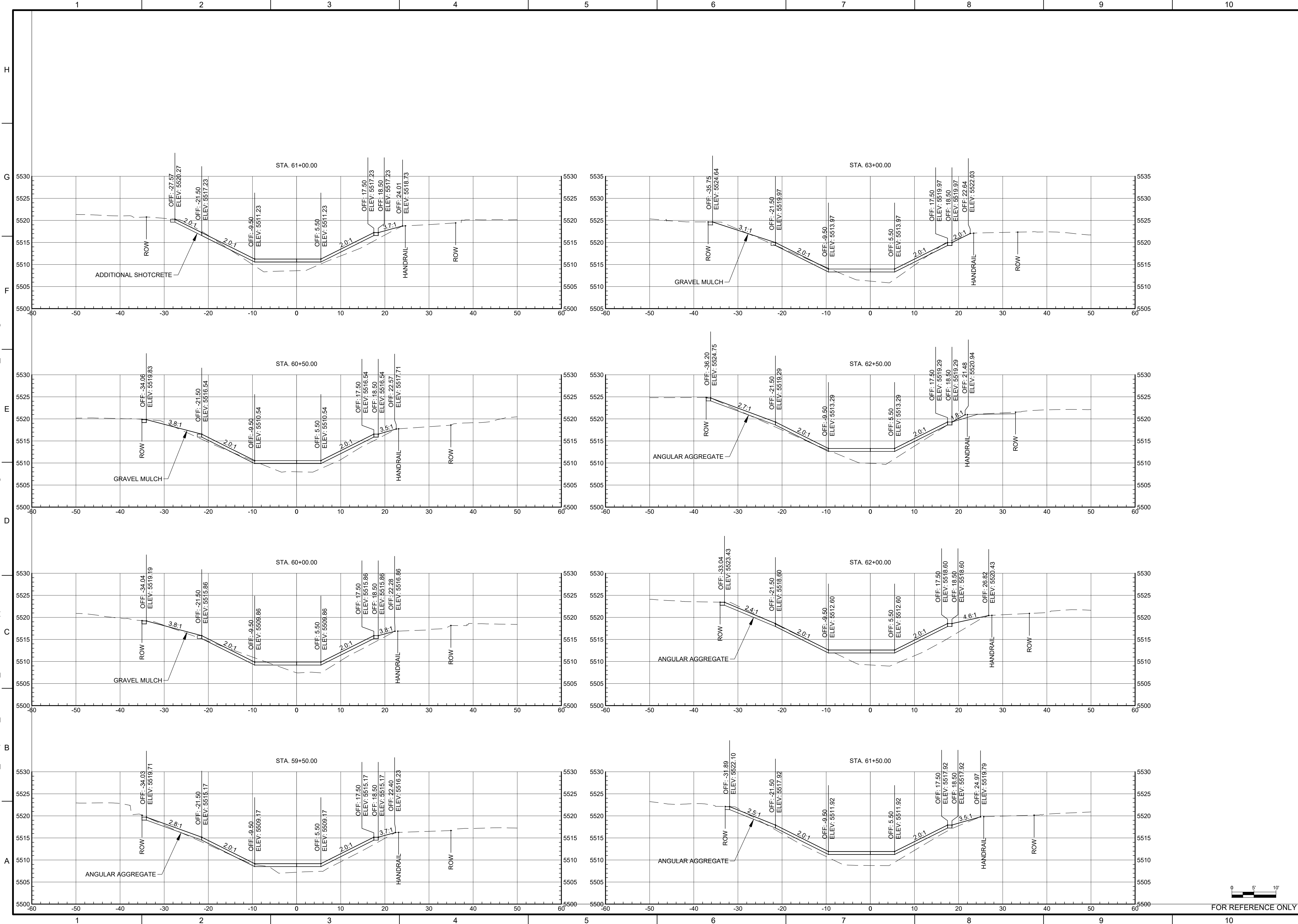
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FOR REFERENCE ONLY



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CONSULTANTS							
							
SEAL LISBON CHANNEL IMPROVEMENTS PHASE 3 SUGAR CHANNEL TO ARKANSAS CHANNEL							
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DATE:		SEP 2026					
SHEET TITLE							
CROSS SECTIONS							
SHEET NO:							
C-303							

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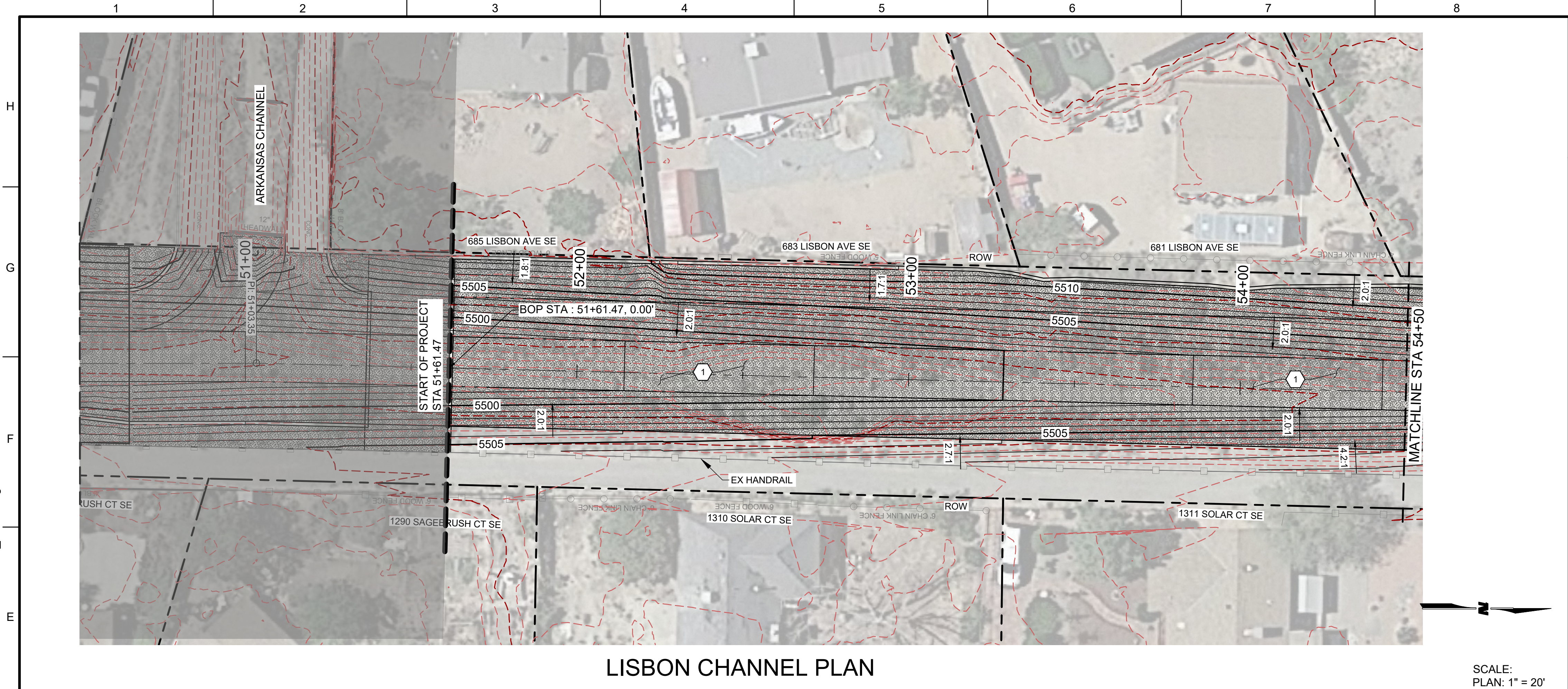
SHEET TITLE

CROSS SECTIONS

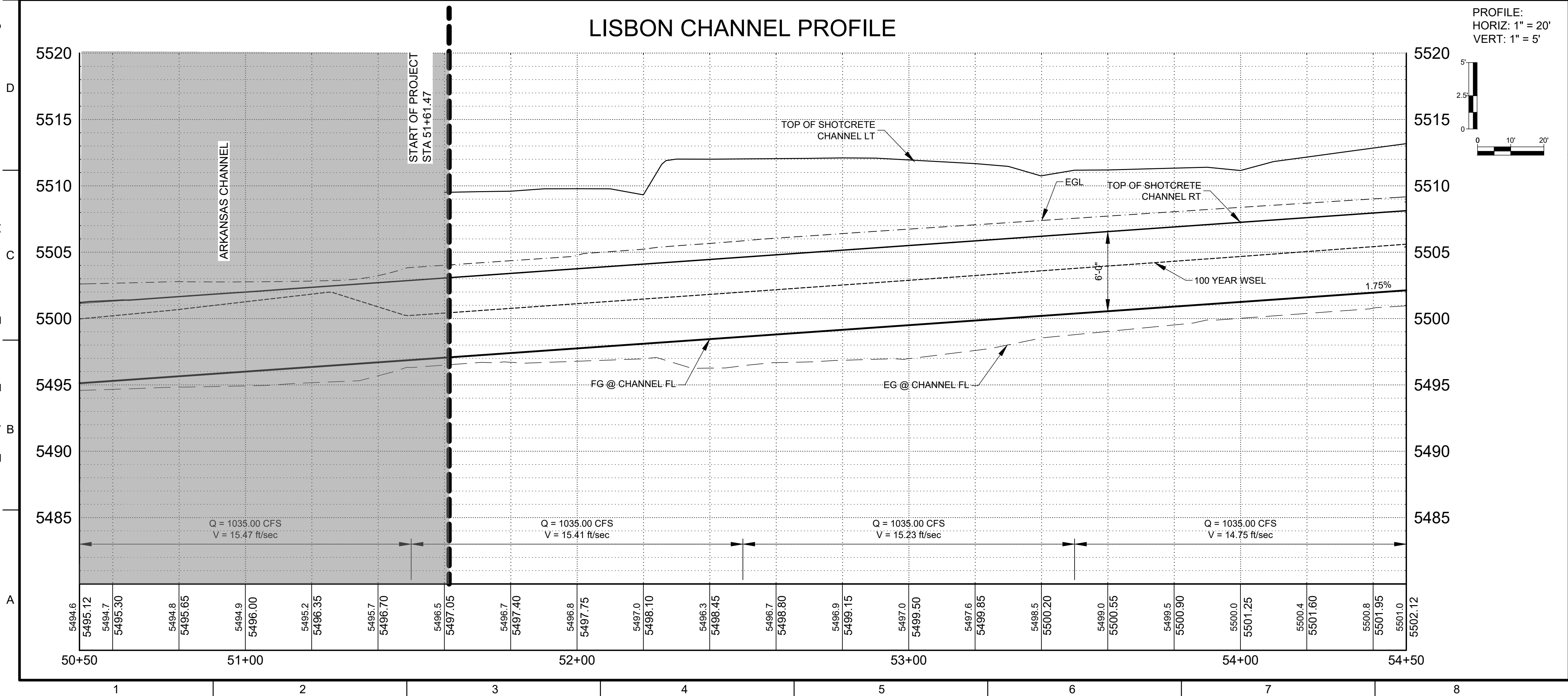
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C-304

9/29/2026 M:\MSD\20-600-041-002_Disciplines_SHEETS\2_Sheets - civil\Upper Lisbon Channel\Arkansas to Sugar Channel\206041-PP01-ARK_SUG.dwg



LISBON CHANNEL PLAN



LISBON CHANNEL PROFILE

KEYNOTES (AS APPLICABLE)

1. CONSTRUCT SHOTCRETE CHANNEL. SEE DETAIL A1, SHEET C-503.
2. CONSTRUCT REINFORCED CONCRETE RUNDOWN, TYPE 'A'. SEE DETAIL A6, SHEET C-501.
3. INSTALL ANGULAR AGGREGATE.
4. TIE INTO EXISTING CHANNEL. SEE "NEW TO EXISTING CHANNEL LINING CONSTRUCTION JOINT" DETAIL A1, SHEET C-503.
5. INSTALL GRAVEL MULCH.
6. INSTALL PIPE RAILING. SEE DETAIL A1, SHEET C-505.
7. CONSTRUCT ADDITIONAL SHOTCRETE AT THE CONFLUENCE OF SUGAR AND LISBON CHANNEL. USE SAME TYPICAL SECTION AS THE SHOTCRETE CHANNEL SHOWN ON DETAIL A1, SHEET C-503.
8. CONSTRUCT CUT-OFF WALL. SEE DETAIL A2, SHEET C-501.
9. TRANSITION FROM 15'-0" WIDE, 6'-0" HIGH TRAPEZOIDAL CHANNEL TO 8'-0" WIDE, 5' HIGH TRAPEZOIDAL CHANNEL.
10. CONSTRUCT REINFORCED CONCRETE RUNDOWN, TYPE 'B'. SEE DETAIL A6, SHEET C-507

LEGEND

- REINFORCED CONCRETE
- SHOTCRETE
- GRAVEL MULCH (3:1 OR FLATTER)
- ANGULAR AGGREGATE (3:1 to 2:1)
- PIPE RAILING
- POST AND CABLE
- PREVIOUS OR FUTURE PROJECT LIMITS

WILSON & COMPANY
4401 WASTHEAD ST. NE, SUITE 150
ALBUQUERQUE, NM 87109
PHONE: 505-348-4000
FAX: 505-348-4072
www.wilsonco.com

CONSULTANTS



PROJECT NAME
**LISBON CHANNEL IMPROVEMENTS
PHASE 3
SUGAR CHANNEL TO ARKANSAS CHANNEL**

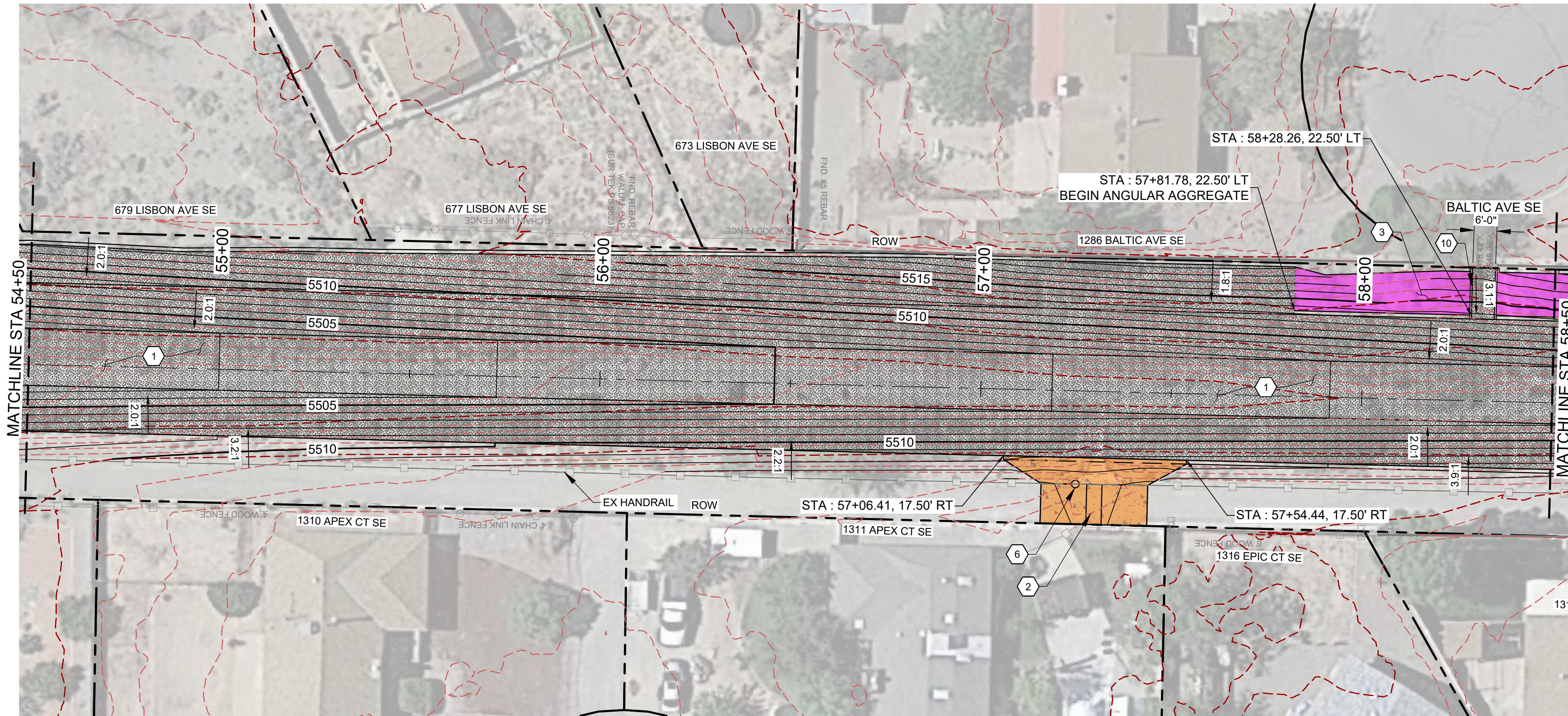
REV.	DATE	DESCRIPTION	BY

WCI NO: 2060004100
SSCAFCA NO: BL P0036-02
DESIGNED BY: JEL
DRAWN BY: JEM
CHECKED BY: TJA
DATE: SEP 2026

SHEET TITLE
UPPER LISBON CHANNEL PLAN & PROFILE

SHEET NO:
C-407

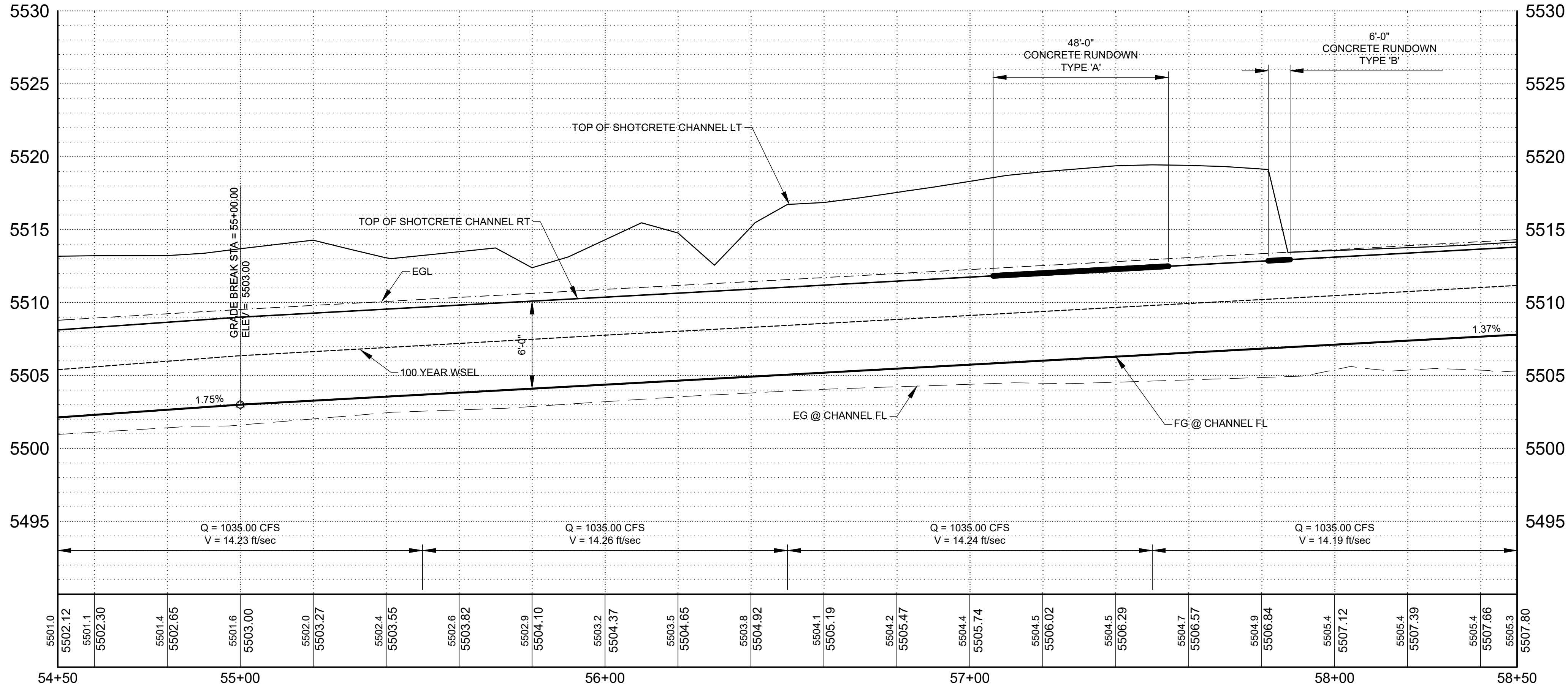
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LISBON CHANNEL PLAN

SCALE:
PLAN: 1" = 20'

LISBON CHANNEL PROFILE



PROFILE:
HORIZ: 1" = 20'
VERT: 1" = 5'

KEYNOTES (AS APPLICABLE)

1. CONSTRUCT SHOTCRETE CHANNEL. SEE DETAIL A1, SHEET C-503.
2. CONSTRUCT REINFORCED CONCRETE RUNDOWN, TYPE 'A'. SEE DETAIL A6, SHEET C-501.
3. INSTALL ANGULAR AGGREGATE.
4. TIE INTO EXISTING CHANNEL. SEE "NEW TO EXISTING CHANNEL LINING CONSTRUCTION JOINT" DETAIL A1, SHEET C-503.
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8. CONSTRUCT CUT-OFF WALL. SEE DETAIL A2, SHEET C-501.
9. TRANSITION FROM 15'-0" WIDE, 6'-0" HIGH TRAPEZOIDAL CHANNEL TO 8'-0" WIDE, 5' HIGH TRAPEZOIDAL CHANNEL.
10. CONSTRUCT REINFORCED CONCRETE RUNDOWN, TYPE 'B'. SEE DETAIL A6, SHEET C-507

LEGEND

- REINFORCED CONCRETE
- SHOTCRETE
- GRAVEL MULCH (3:1 OR FLATTER)
- ANGULAR AGGREGATE (3:1 TO 2:1)
- PIPE RAILING
- POST AND CABLE
- PREVIOUS OR FUTURE PROJECT LIMITS

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ALBUQUERQUE, NM 87109
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CONSULTANTS



PROJECT NAME

LISBON CHANNEL
IMPROVEMENTS
PHASE 3
SUGAR CHANNEL TO
ARKANSAS CHANNEL

REV.	DATE	DESCRIPTION	BY

WCI NO: 2060004100

SSCAFA NO: BL P0036-02

DESIGNED BY: JEL

DRAWN BY: JEM

CHECKED BY: TJA

DATE: SEP 2026

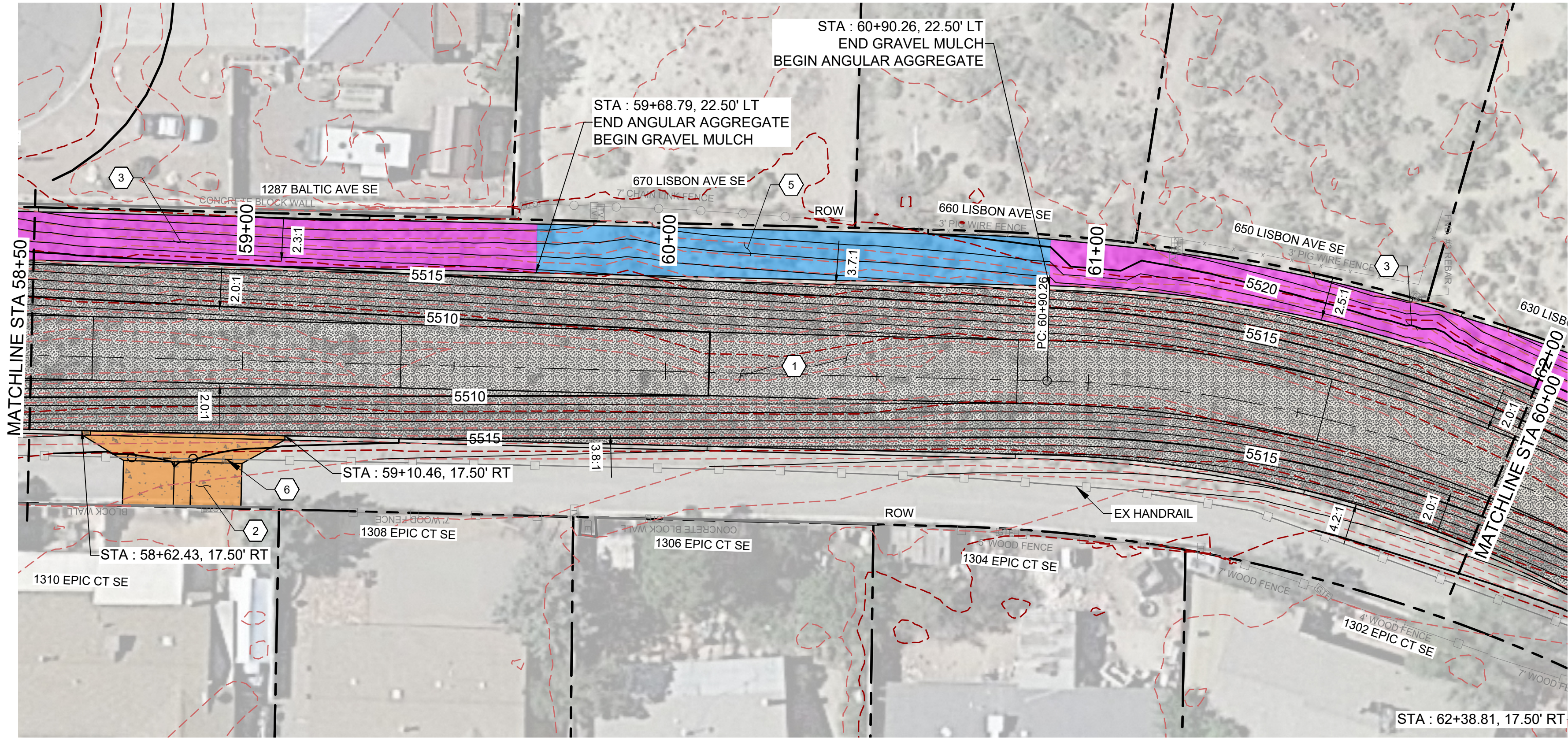
SHEET TITLE

UPPER LISBON
CHANNEL PLAN &
PROFILE

SHEET NO:

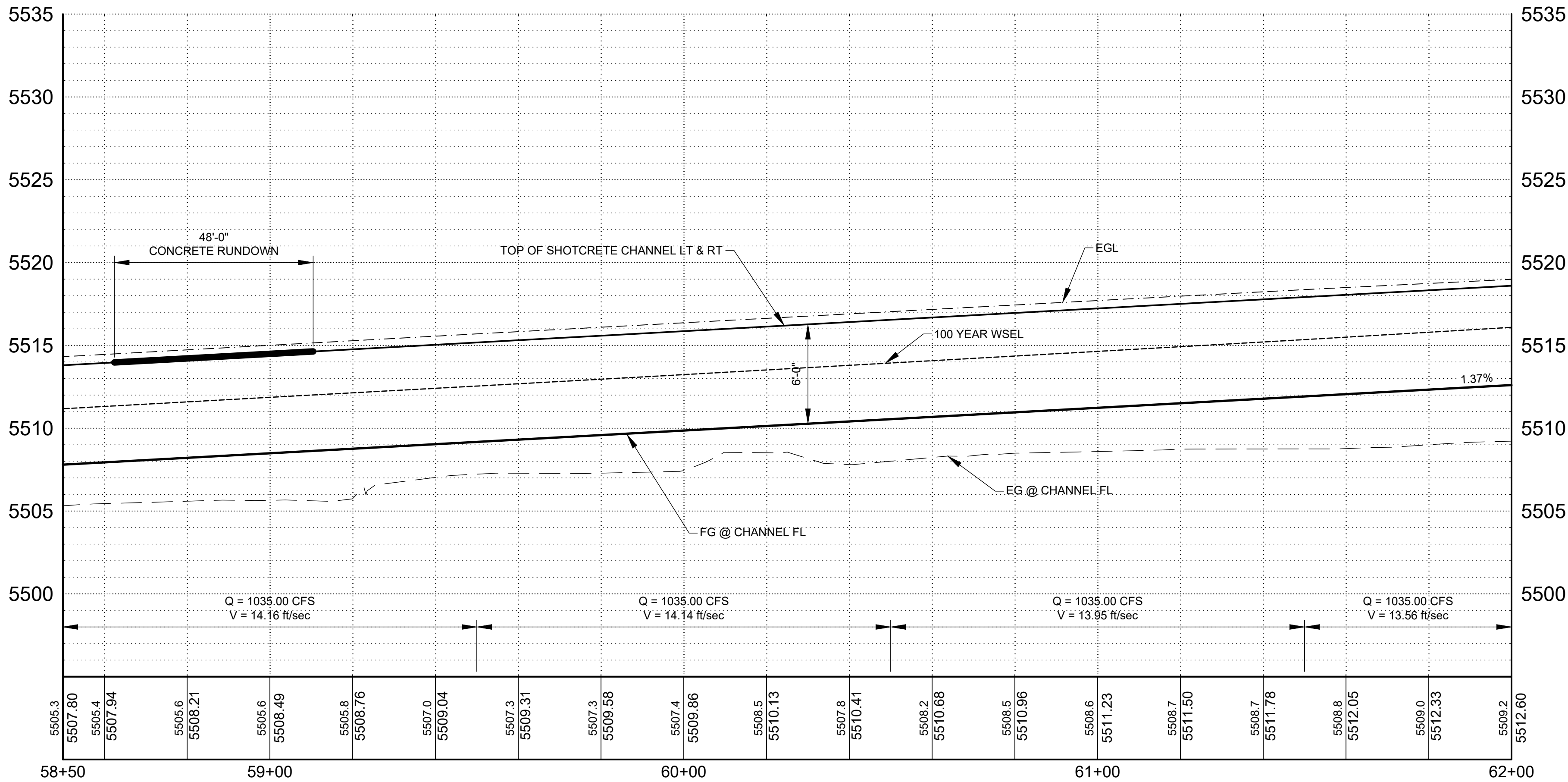
C-408

9/29/2026 M:\MSD\20-600-041-002_Disciplines_SHEETS2_Sheets - civil\Upper Lisbon Channel\Arkansas to Sugar Channel\2060041-PP01-ARK_SUG.dwg



LISBON CHANNEL PLAN

LISBON CHANNEL PROFILE



SCALE:
PLAN: 1" = 20'

PROFILE:
HORIZ: 1" = 20'
VERT: 1" = 5'

KEYNOTES (AS APPLICABLE)

1. CONSTRUCT SHOTCRETE CHANNEL. SEE DETAIL A1, SHEET C-503.
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10. CONSTRUCT REINFORCED CONCRETE RUNDOWN, TYPE 'B'. SEE DETAIL A6, SHEET C-507

LEGEND

- REINFORCED CONCRETE
- SHOTCRETE
- GRAVEL MULCH (3:1 OR FLATTER)
- ANGULAR AGGREGATE (3:1 to 2:1)
- PIPE RAILING
- POST AND CABLE
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CONSULTANTS



LISBON CHANNEL
IMPROVEMENTS
PHASE 3
SUGAR CHANNEL TO
ARKANSAS CHANNEL

REV.	DATE	DESCRIPTION	BY

WCI NO: 2060004100
SSCAFA NO: BL P0036-02
DESIGNED BY: JEL
DRAWN BY: JEM
CHECKED BY: TJA
DATE: SEP 2026

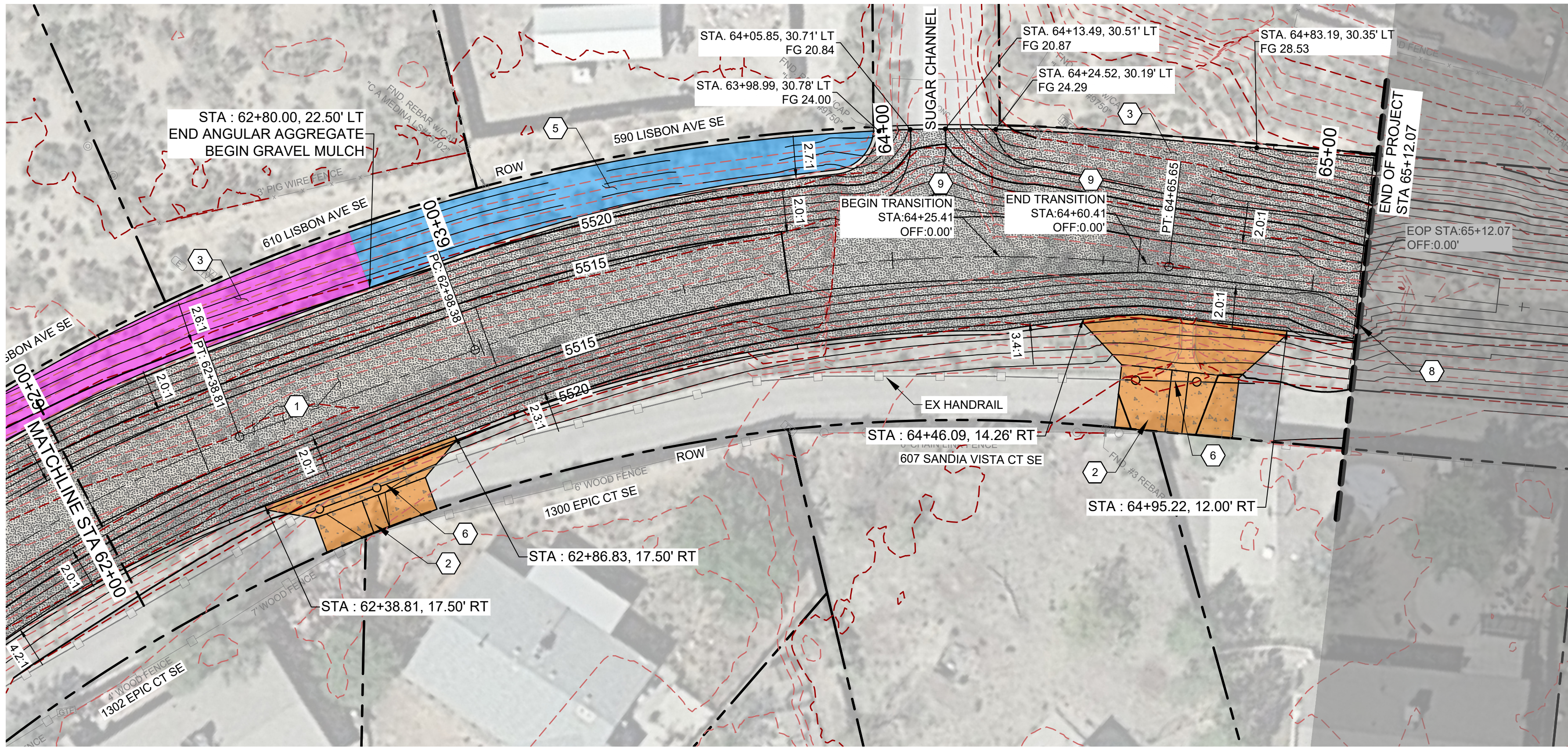
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UPPER LISBON
CHANNEL PLAN &
PROFILE

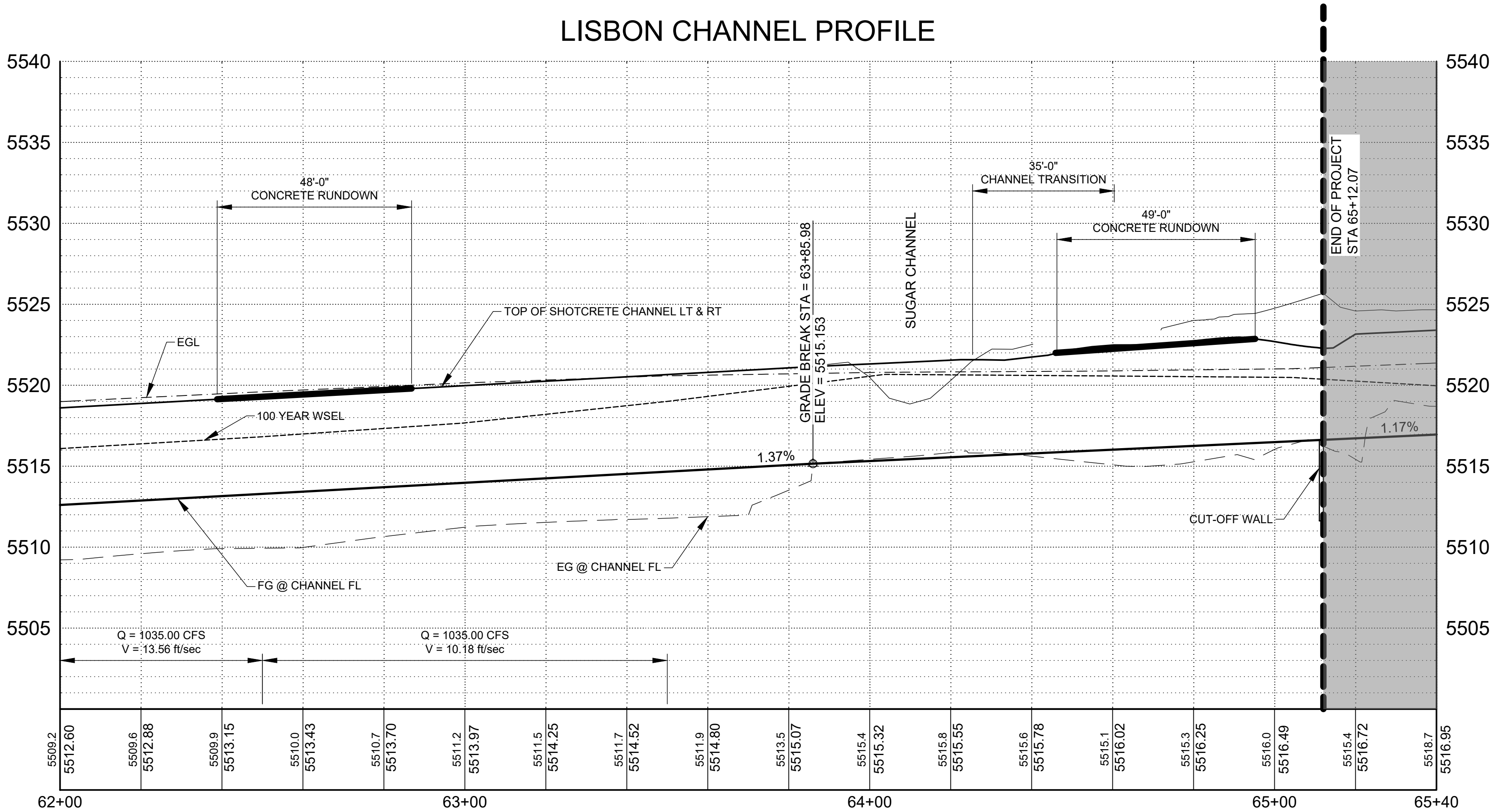
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C-409

9/29/2026 M:\MSD\20-600-041-002_Disciplines_SHEETS2_Sheets - civil\Upper Lisbon Channel\Arkansas to Sugar Channel\206041-PP01-ARK_SUG.dwg



LISBON CHANNEL PLAN



LISBON CHANNEL PROFILE

SCALE:
PLAN: 1" = 20'

PROFILE:
HORIZ: 1" = 20'
VERT: 1" = 5'

KEYNOTES (AS APPLICABLE)

1. CONSTRUCT SHOTCRETE CHANNEL. SEE DETAIL A1, SHEET C-503.
2. CONSTRUCT REINFORCED CONCRETE RUNDOWN, TYPE 'A'. SEE DETAIL A6, SHEET C-501.
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8. CONSTRUCT CUT-OFF WALL. SEE DETAIL A2, SHEET C-501.
9. TRANSITION FROM 15'-0" WIDE, 6'-0" HIGH TRAPEZOIDAL CHANNEL TO 8'-0" WIDE, 5' HIGH TRAPEZOIDAL CHANNEL.
10. CONSTRUCT REINFORCED CONCRETE RUNDOWN, TYPE 'B'. SEE DETAIL A6, SHEET C-507

LEGEND

- REINFORCED CONCRETE
- SHOTCRETE
- GRAVEL MULCH (3:1 OR FLATTER)
- ANGULAR AGGREGATE (3:1 to 2:1)
- PIPE RAILING
- POST AND CABLE
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CONSULTANTS



LISBON CHANNEL
IMPROVEMENTS
PHASE 3
SUGAR CHANNEL TO
ARKANSAS CHANNEL

REV.	DATE	DESCRIPTION	BY

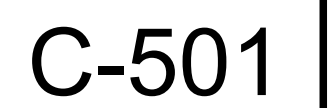
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SSCAFA NO: BL P0036-02
DESIGNED BY: JEL
DRAWN BY: JEM
CHECKED BY: TJA
DATE: SEP 2026

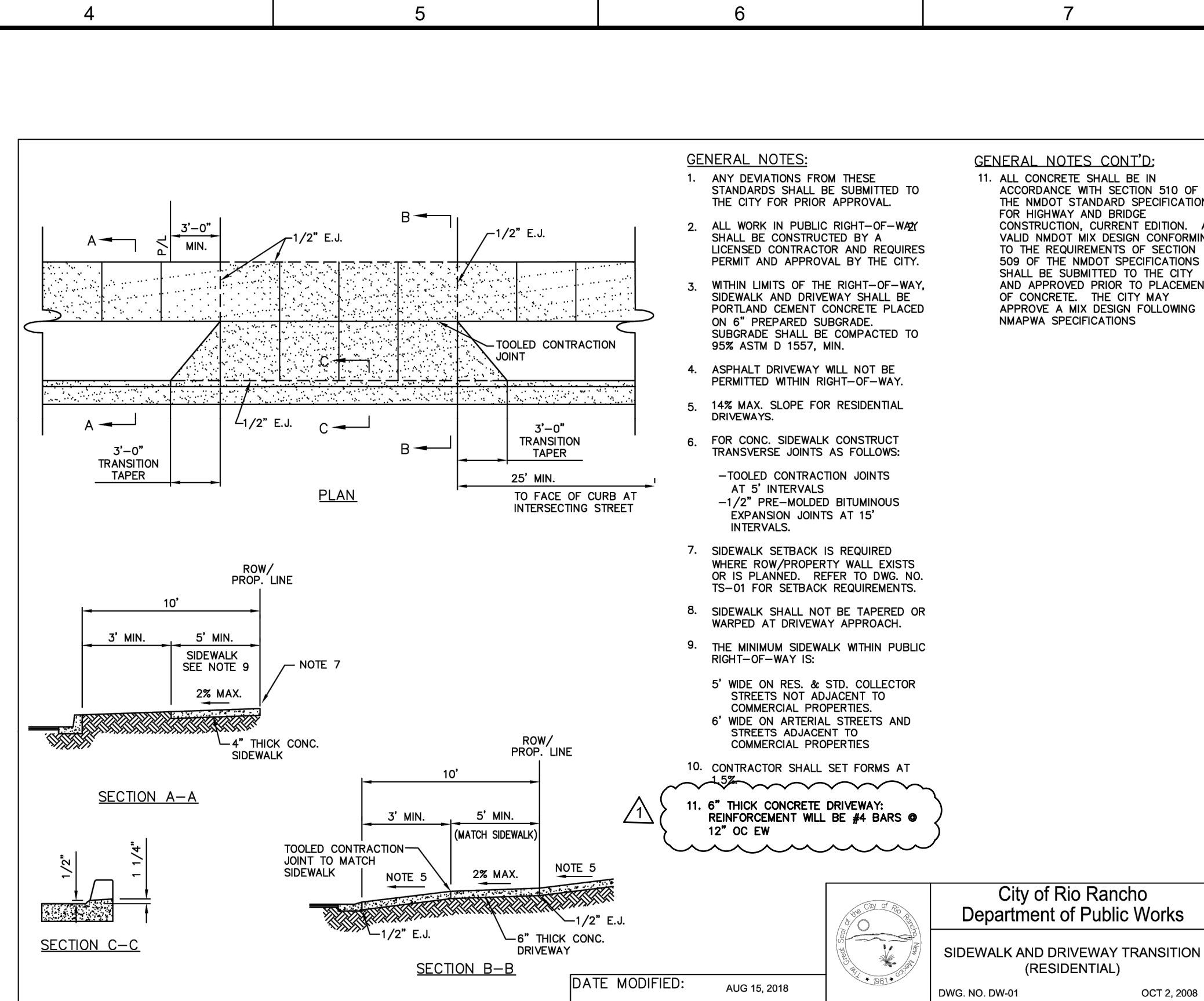
SHEET TITLE

UPPER LISBON
CHANNEL PLAN &
PROFILE

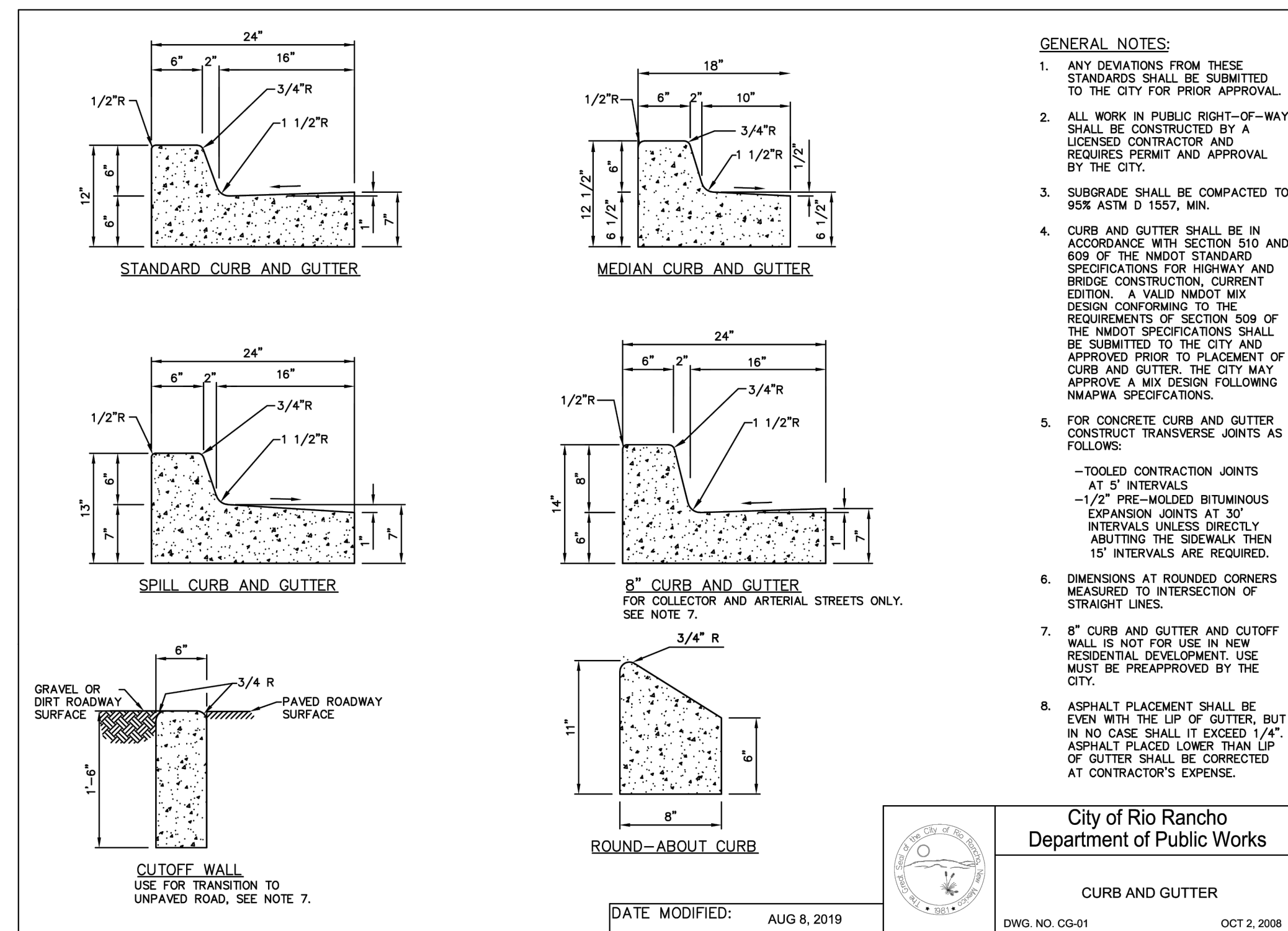
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C-410

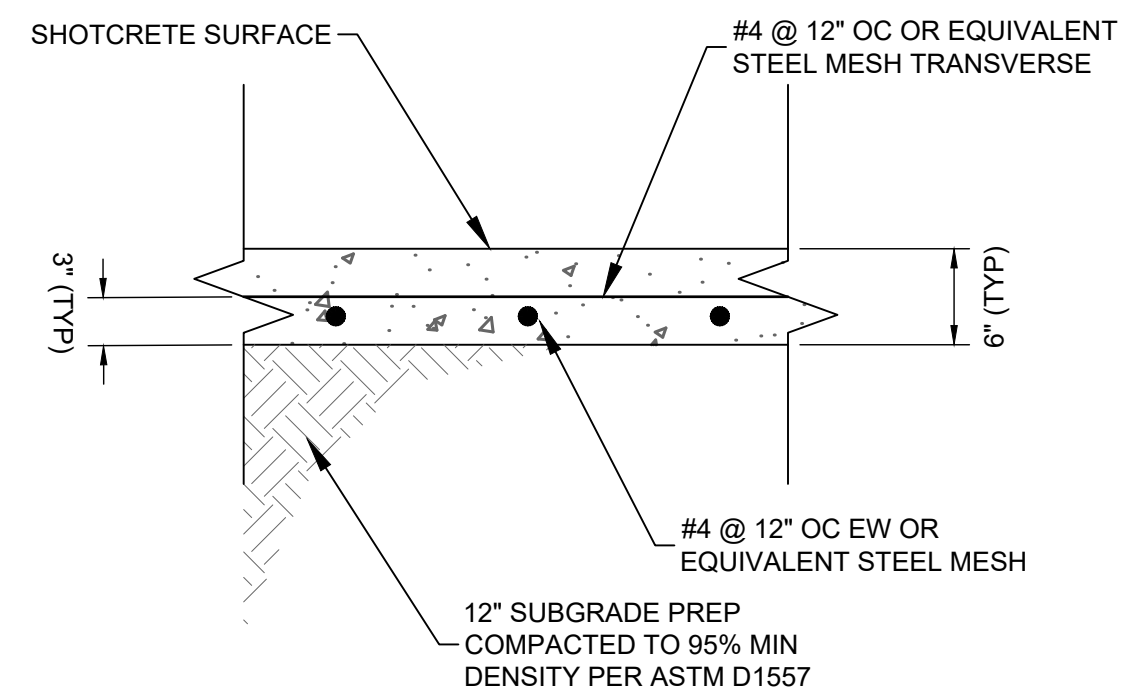




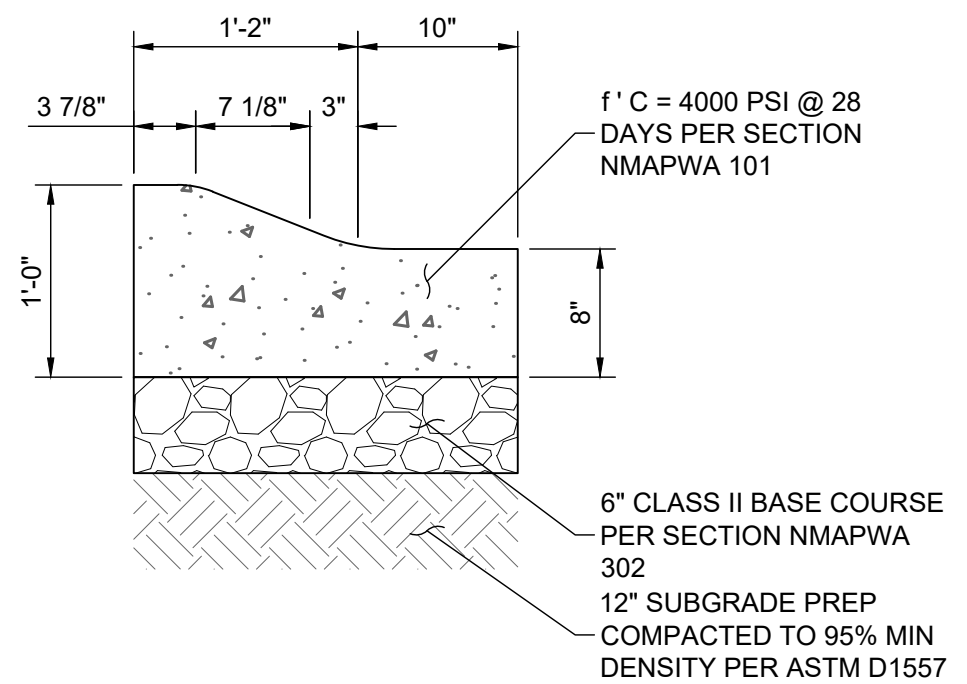
E4 DRIVEPAD DETAIL (CORR STD DWG DW-01)
SCALE: NTS



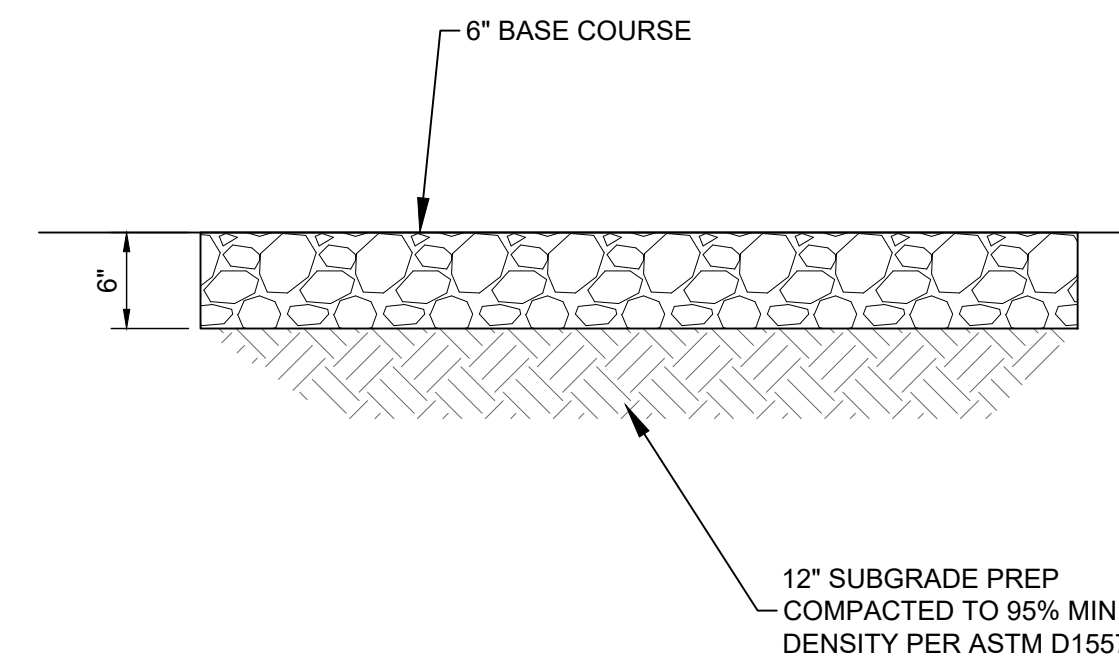
A4 CURB AND GUTTER DETAILS (CORR STD DWG CG-01)
SCALE: NTS



G9 SHOTCRETE PAVEMENT SECTION
SCALE: 1" = 1'

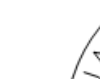


E9 MOUNTABLE C&G DETAIL
SCALE: 1" = 1'



C8 6" BASE COURSE DETAIL
SCALE: 1" = 1'

SEAL



09/29/2026

ST NAME

LISBON CHANNEL IMPROVEMENTS PHASE 3	SUGAR CHANNEL TO ARKANSAS CHANNEL
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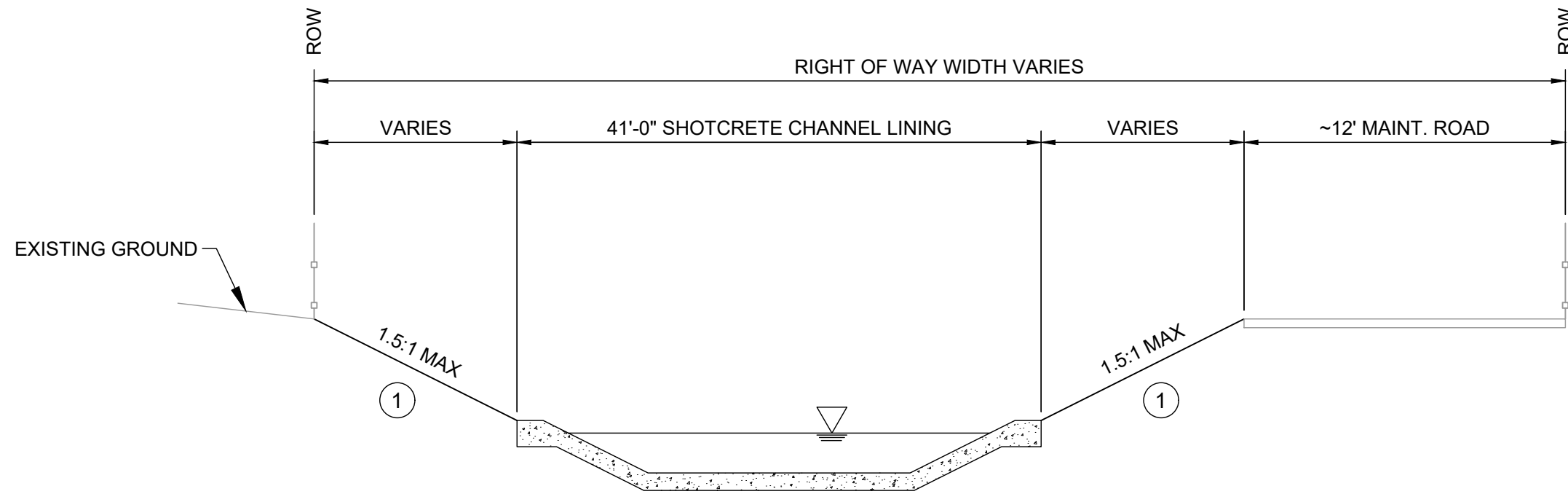
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SSCAFCA NO:	BL P0036-02
DESIGNED BY:	JEL
DRAWN BY:	JEM
CHECKED BY:	TJA
DATE:	SEP 2026
SHEET TITLE	

DETAILS

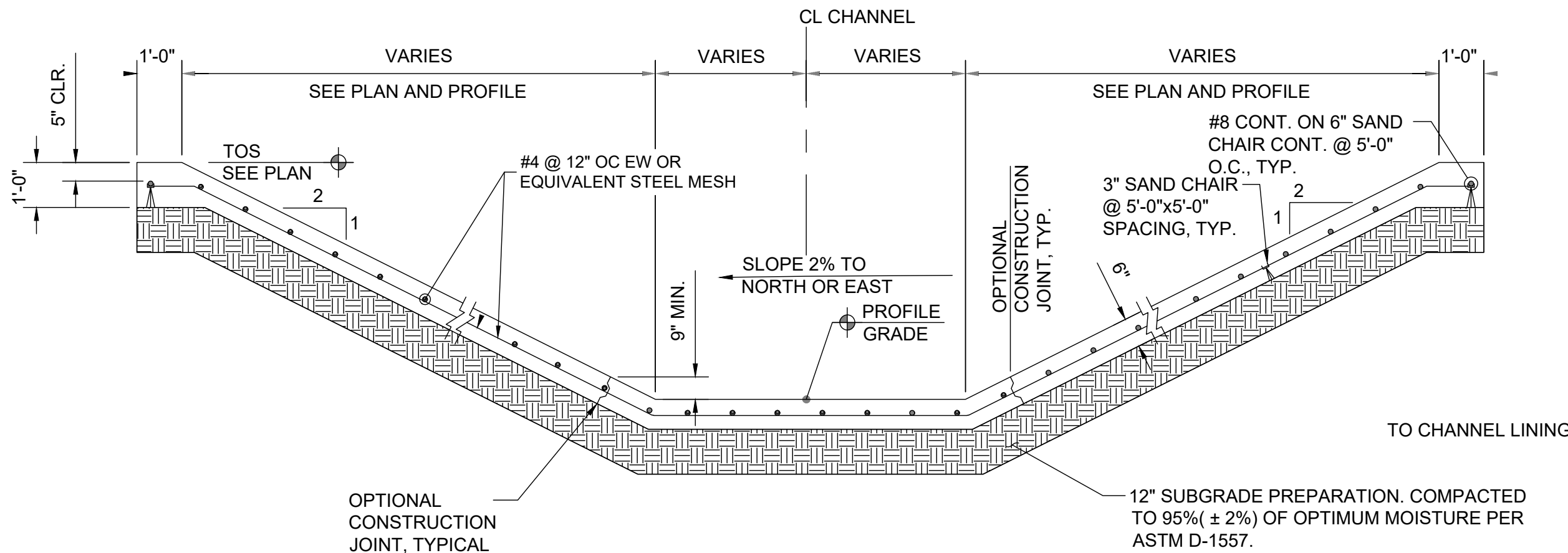
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10/1/2026

H
G
F
E
D
C
B
A



TYPICAL CHANNEL SECTION



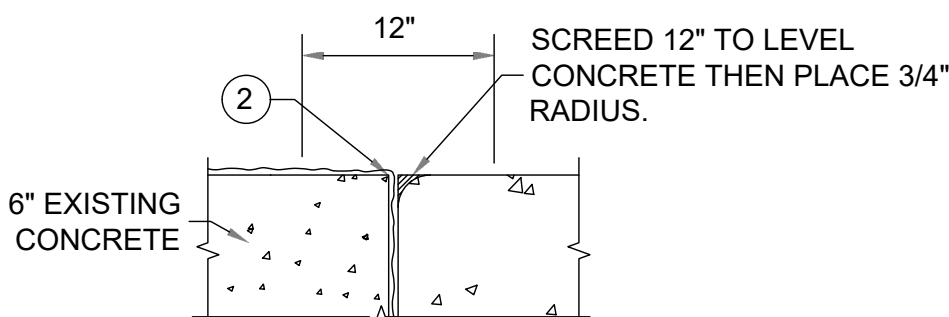
SHOTCRETE CHANNEL LINING

NOTES FOR SHOTCRETE CHANNEL CONSTRUCTION

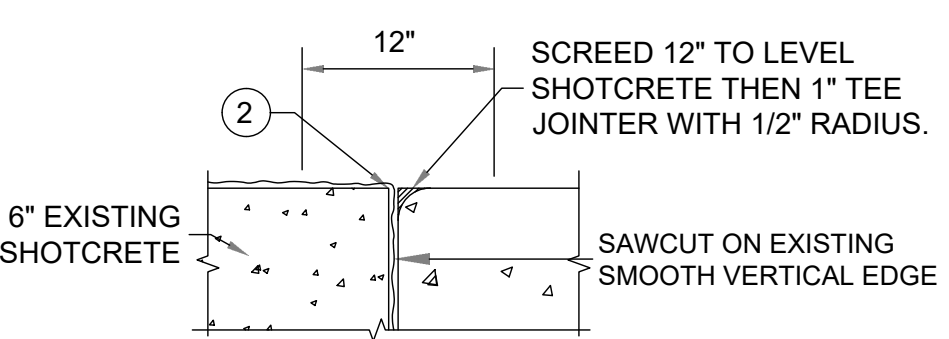
- SHOTCRETE: CONCRETE SHALL BE IN ACCORDANCE WITH PROJECT SPECIFICATIONS. (f_c = 4000 psi MINIMUM). 3/4" CHAMFER ON ALL EXPOSED FORMED EDGES UNLESS NOTED OTHERWISE.
- REINFORCING STEEL: STEEL REINFORCEMENT AND PLACEMENT SHALL BE IN ACCORDANCE WITH PROJECT SPECIFICATIONS AND SHALL CONFORM TO ASTM A615, GRADE 60. ALL LAP SPLICES SHALL BE CLASS "B" UNLESS NOTED OTHERWISE. REINFORCING STEEL SHALL BE INCIDENTAL TO CONCRETE BID ITEMS.
- ALL EXPOSED SHOTCRETE AND CONCRETE SHALL BE TINTED WITH SAN DIEGO BUFF (DAVIS COLOR 5237) AT THE REDUCED DOSAGE OF 1 LB PER SACK OF CEMENT, OR APPROVED EQUAL. TINT SHALL BE INCIDENTAL TO THE COST OF THE RESPECTIVE CONCRETE.
- NEW TO EXISTING CHANNEL CONSTRUCTION: EUCO ARC LITHIUM NITRATE OR APPROVED EQUAL TREATMENT IS REQUIRED FOR ANY EXISTING CONCRETE CHANNELS. SEE DETAILS FOR INSTALLATION REQUIREMENTS, THIS SHEET.
- MINIMUM REBAR LAP LENGTH (CLASS B LAPS):
#4 = 24"
#5 = 26"
#7 = 43"
#8 = 54"

KEYED NOTES

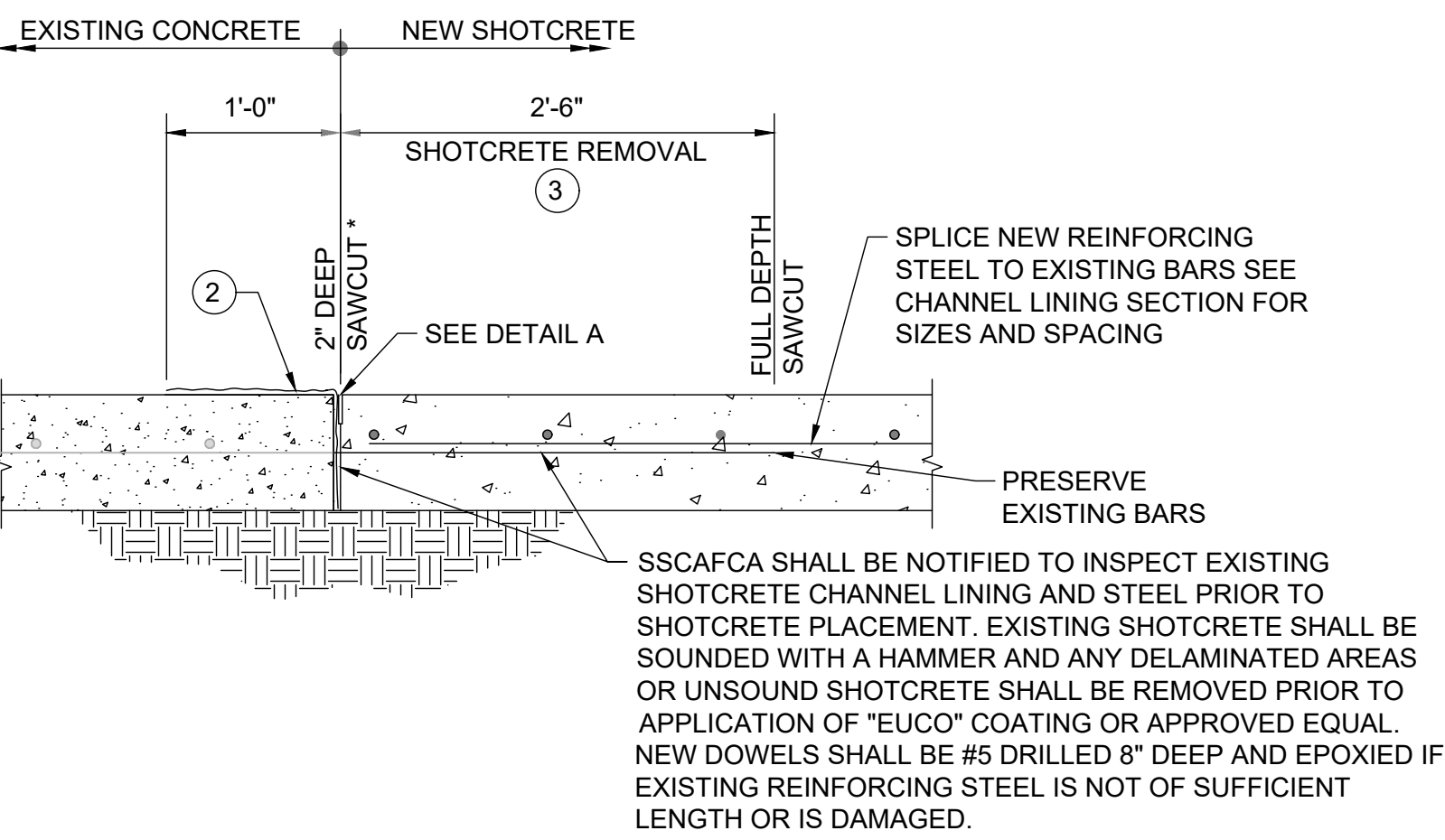
- NATIVE RE-VEGETATION. SEE NM APWA SPECIFICATION SECTION 1012. GRAVEL MULCH IS REQUIRED FOR SLOPES GREATER THAN 2H:1V.
- EUCO ARC LITHIUM NITRATE COATING OR APPROVED EQUAL APPLIED TO VERTICAL SURFACE AND 12" OF TOP SURFACE OF EXISTING CONCRETE TO REMAIN.
- REMOVAL OF CONCRETE ADJACENT TO THE 2" SAWCUT WILL BE WITH A 30 LB., MAX. PNEUMATIC HAMMER. IN THE EVENT OF DAMAGE TO THE CONCRETE TO REMAIN, THE CONTRACTOR SHALL RE SAW THE 2" JOINT AND REMOVE AND REPLACE THAT CONCRETE AT NO COST.



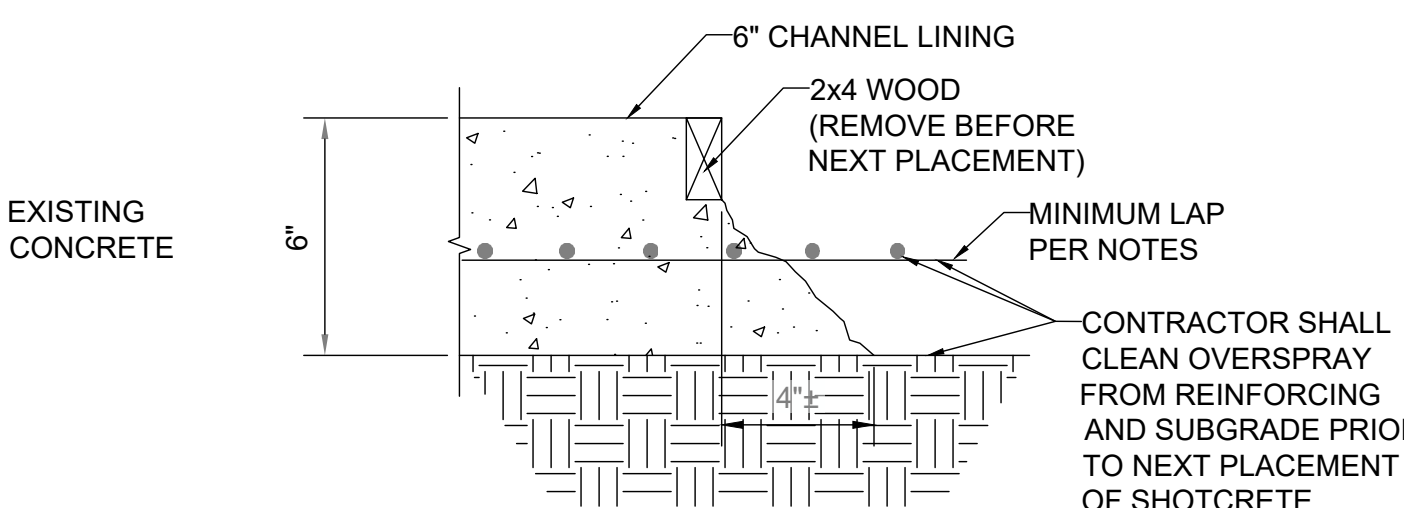
STANDARD PLACE CONCRETE TO NEW SHOTCRETE JOINT DETAIL



EXISTING SHOTCRETE TO NEW SHOTCRETE



NEW TO EXISTING CHANNEL LINING CONSTRUCTION JOINT



6" SHOTCRETE TYPICAL CONSTRUCTION JOINT

A1 SHOTCRETE CHANNEL DETAIL
SCALE: NTS

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ALBUQUERQUE, NM 87109
PHONE: 505-348-4000
FAX: 505-348-4072
www.wilsonco.com

CONSULTANTS
SEAL
JAMES E. LOPEZ
NEW MEXICO
24897
PROFESSIONAL ENGINEER
09/29/2026

PROJECT NAME
LISBON CHANNEL
IMPROVEMENTS
PHASE 3
SUGAR CHANNEL TO
ARKANSAS CHANNEL

REV.	DATE	DESCRIPTION	BY

WCI NO:	2060004100
SSCAFC A NO:	BL P0036-02
DESIGNED BY:	JEL
DRAWN BY:	JEM
CHECKED BY:	TJA
DATE:	SEP 2026

SHEET TITLE
DETAILS

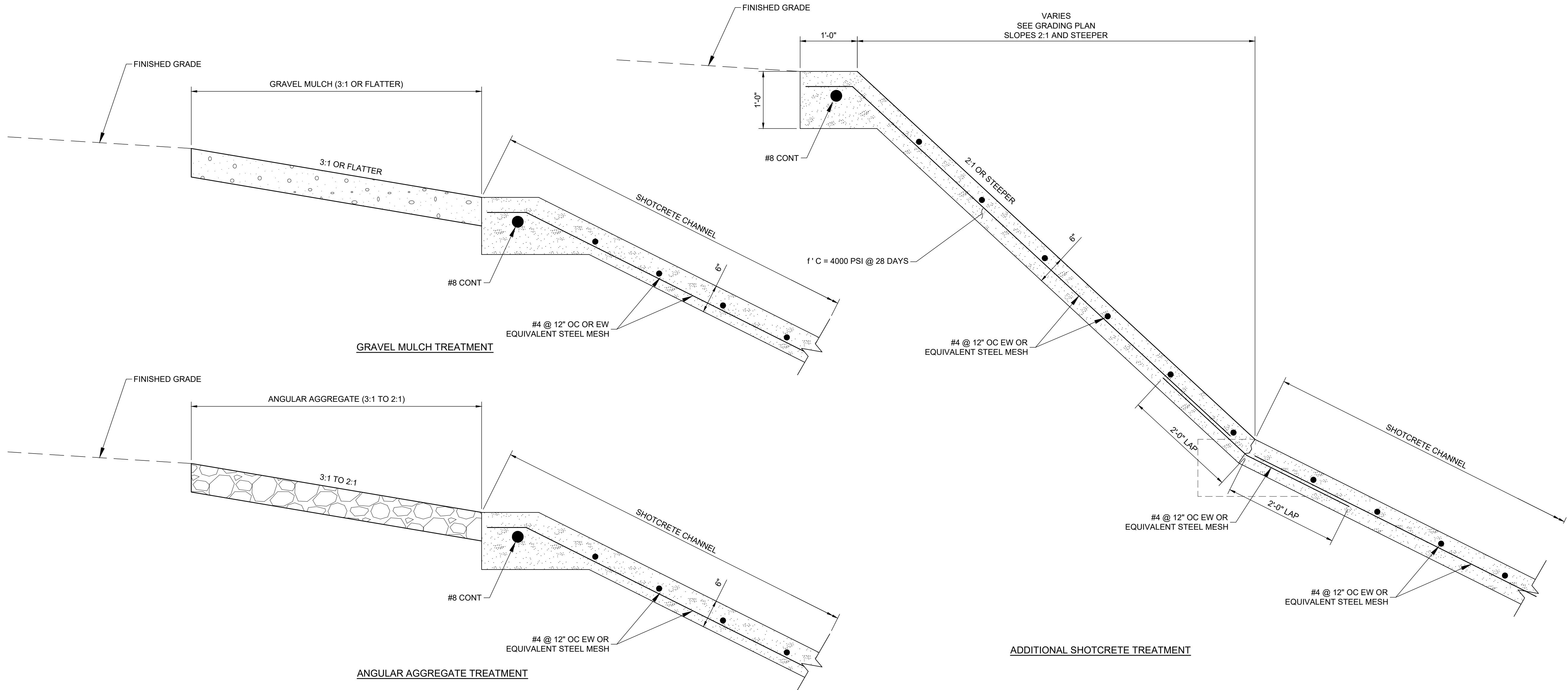
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C-503

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10/1/2026

A1

SHOTCRETE CHANNEL WEST BANK SLOPE CONNECTION DETAILS

SCALE: NTS



NOTE:
1. SEE SHEET C-503 FOR SHOTCRETE CHANNEL DETAILS AND CONSTRUCTION NOTES

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CONSULTANTS



PROJECT NAME
**LISBON CHANNEL
IMPROVEMENTS
PHASE 3
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DATE: SEP 2026

SHEET TITLE

DETAILS

SHEET NO:

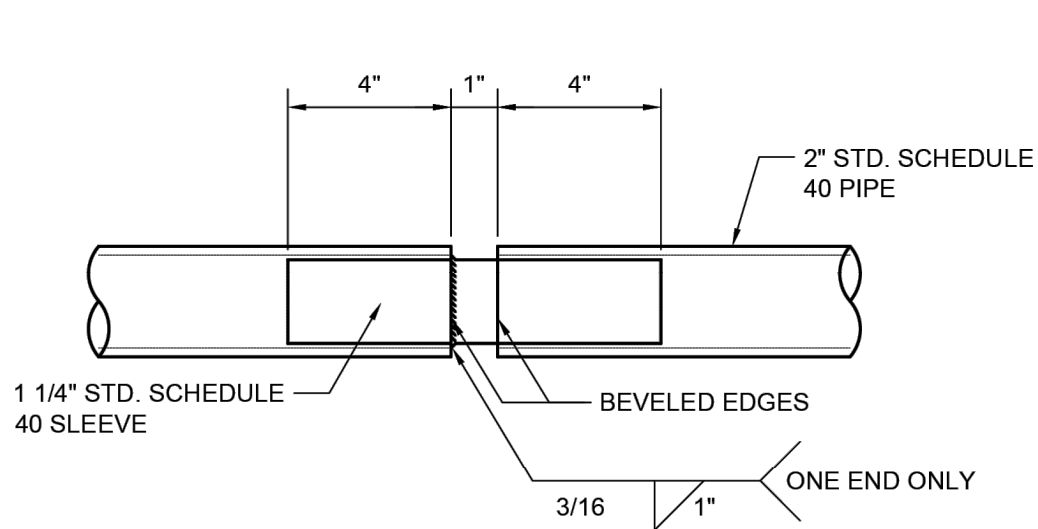
C-504

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A1

PIPE RAILING DETAIL

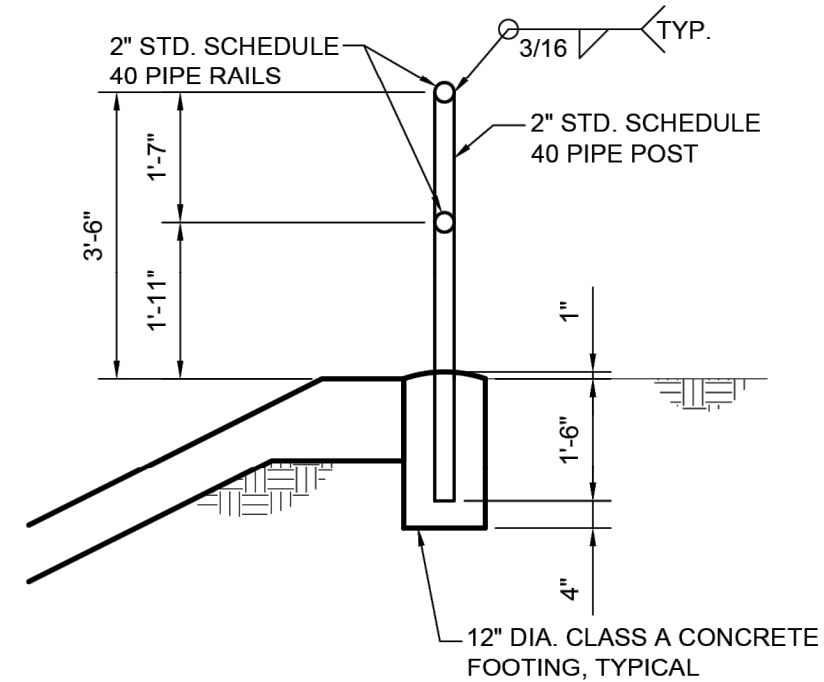
SCALE: NTS



FOR RAILING LONGER THAN 50'-0", INSTALL EXPANSION JOINTS EQUALLY SPACED BUT NOT MORE THAN 40'-0" O.C. ON ALL HORIZONTAL RAILS.

TYPICAL RAILING EXPANSION JOINT

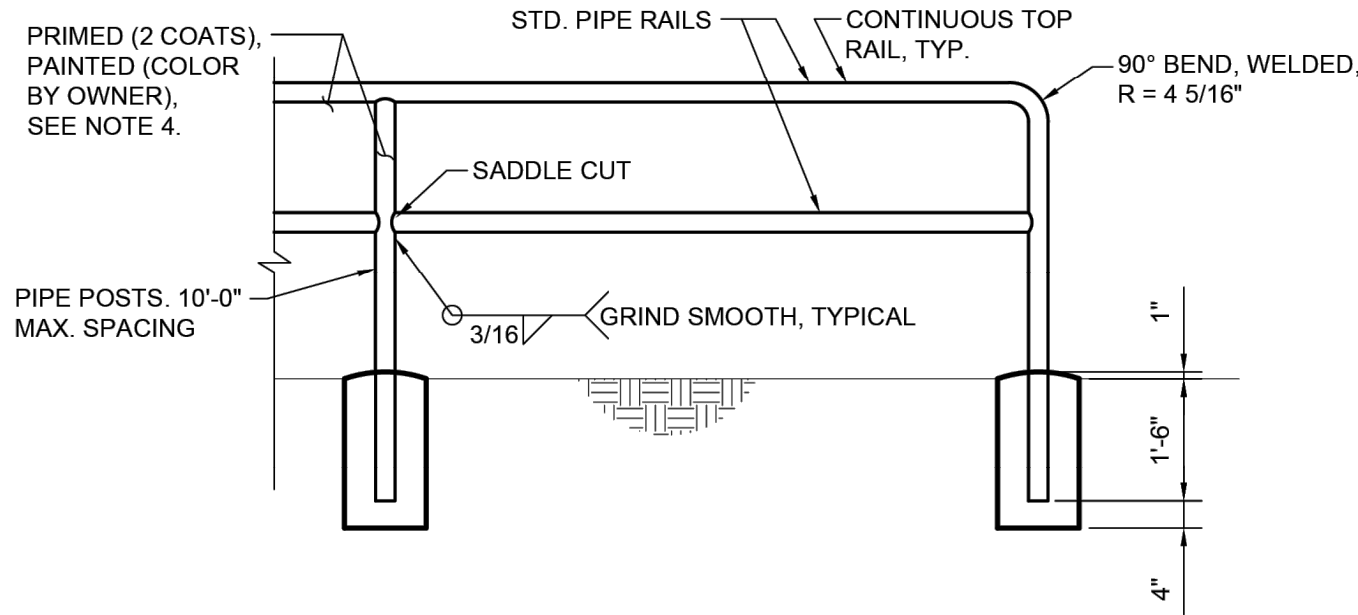
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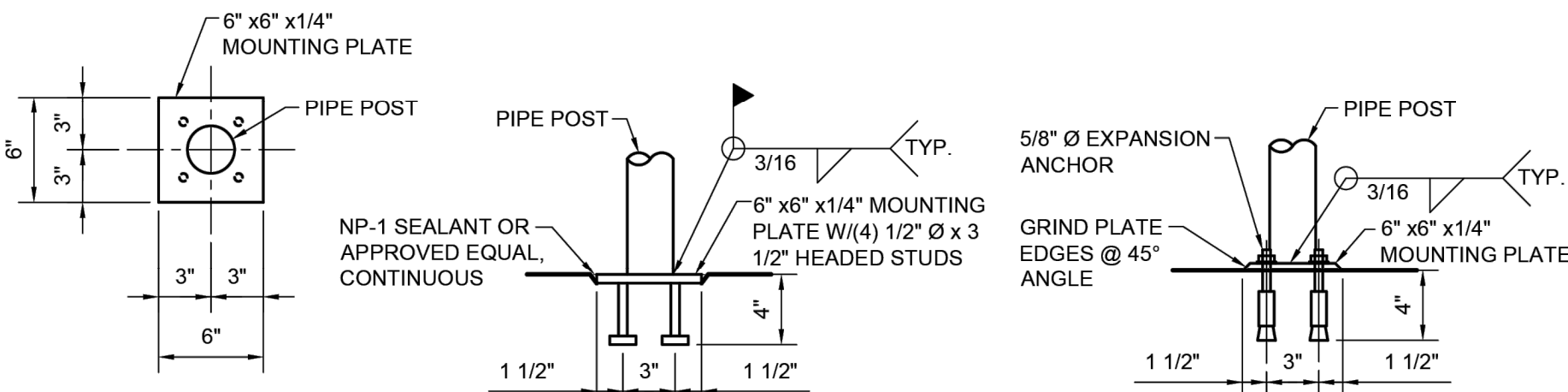
TYPICAL SECTION

TYPICAL PIPE RAIL MOUNTED ON GRADE

NO SCALE



TYPICAL FRAME ELVEVATION

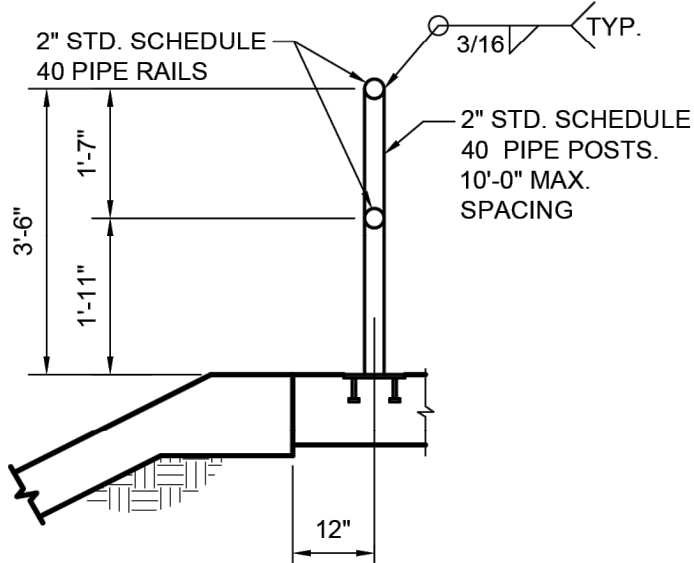


MOUNTING PLATE - PLAN

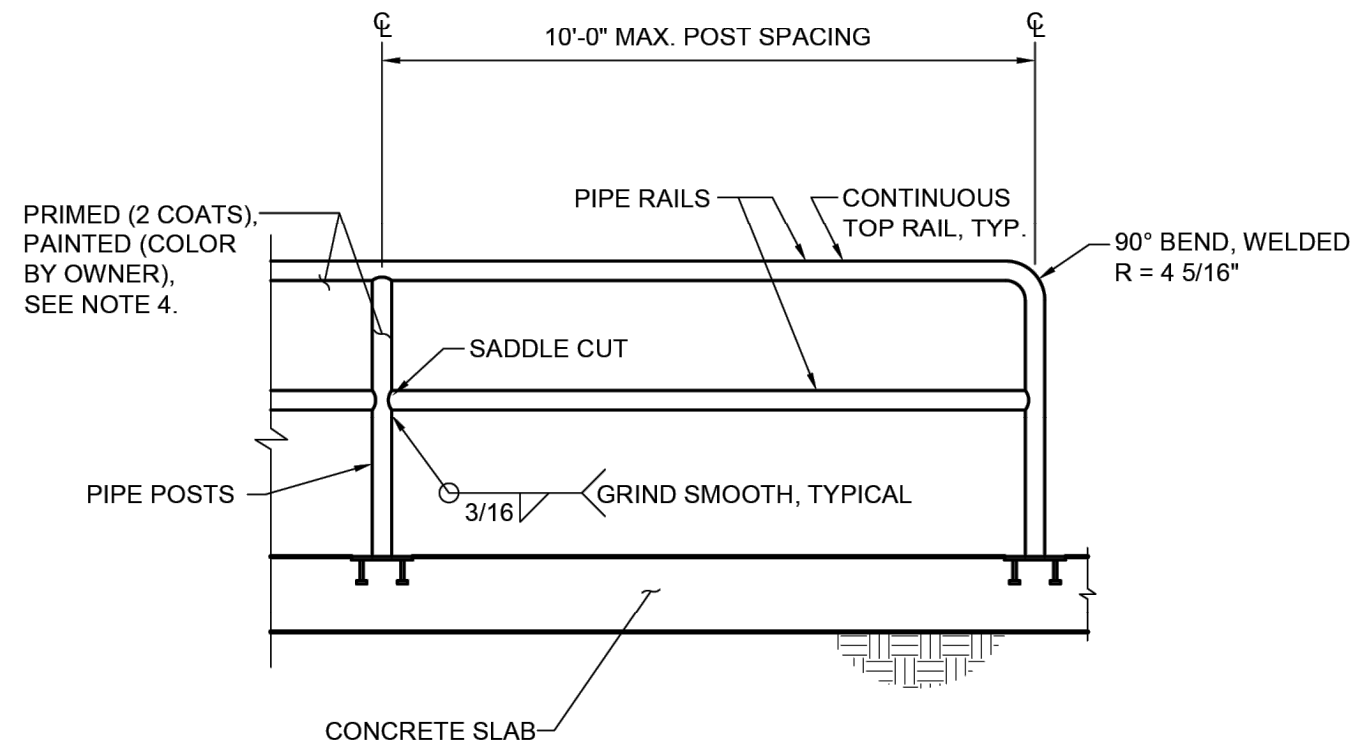
NEW CONCRETE SLAB

EXISTING CONCRETE SLAB

MOUNT - ELEVATION



TYPICAL SECTION

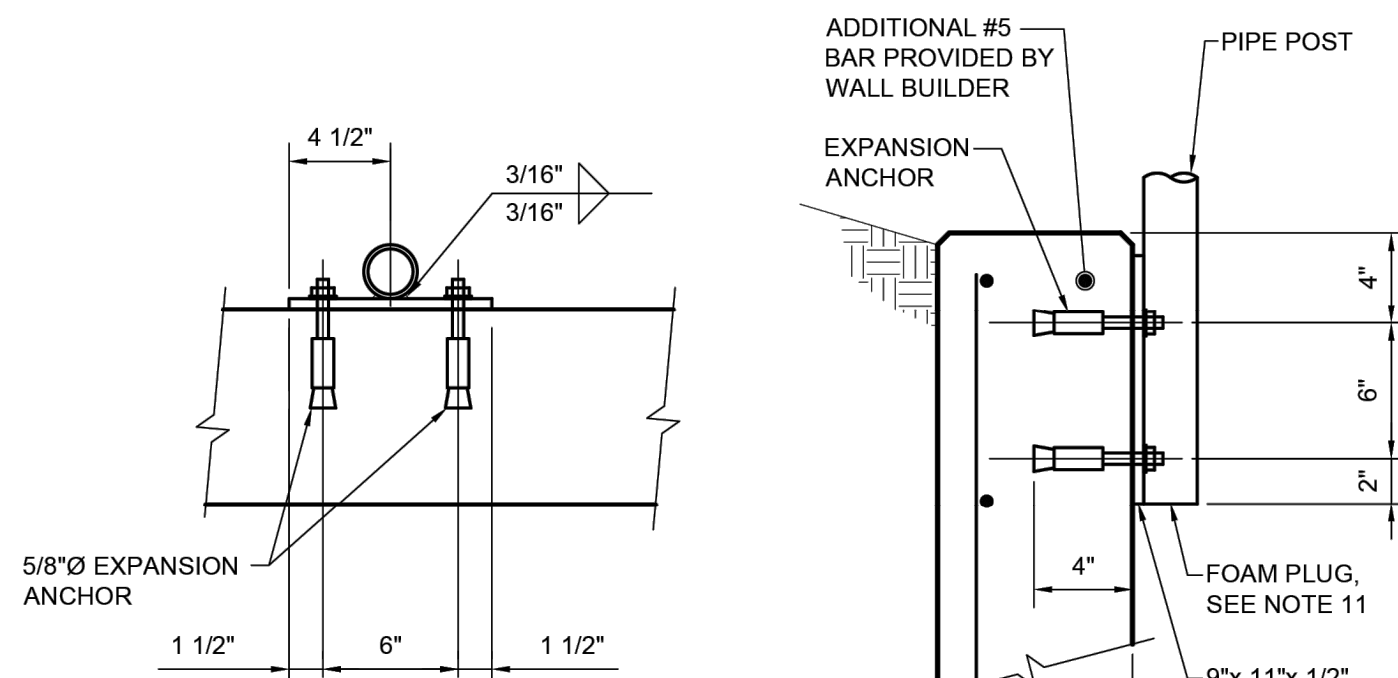


TYPICAL FRAME ELVEVATION

TYPICAL PIPE RAIL MOUNTED ON SLAB

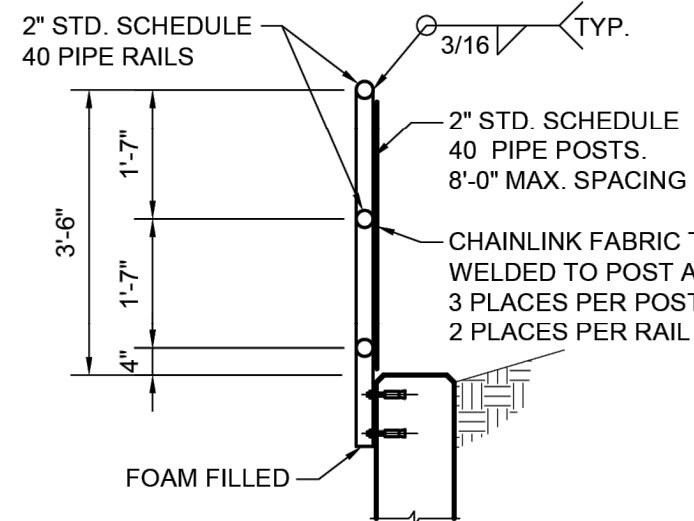
* OR AS DETERMINED BY THE ENGINEER

NO SCALE

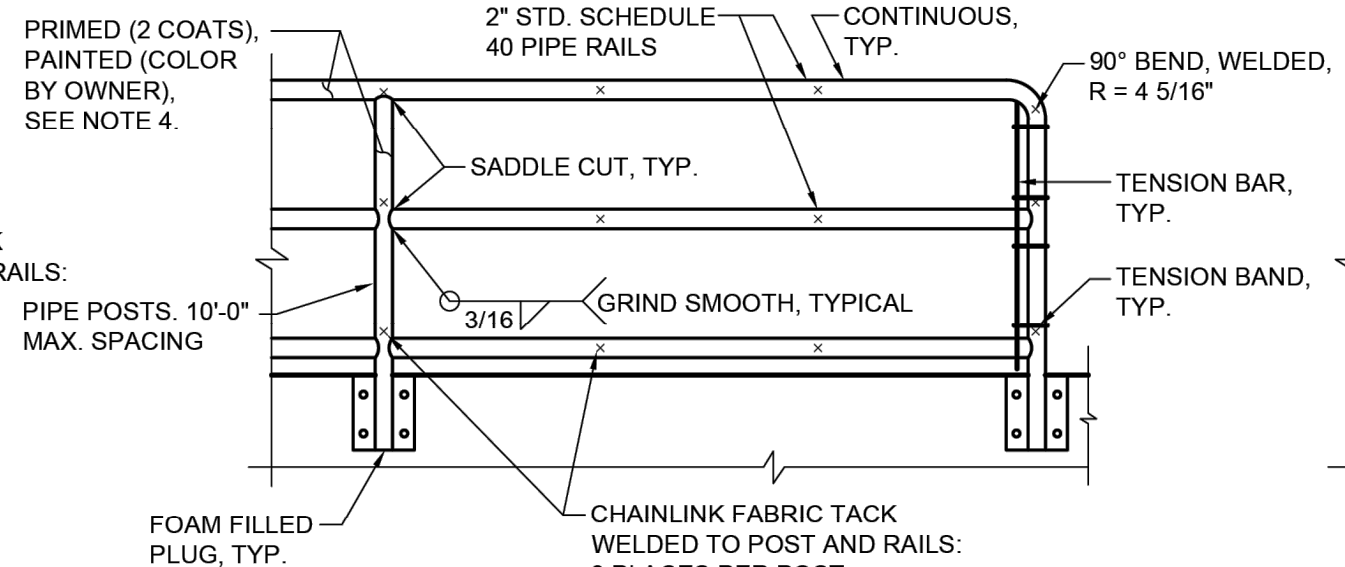


MOUNT - PLAN

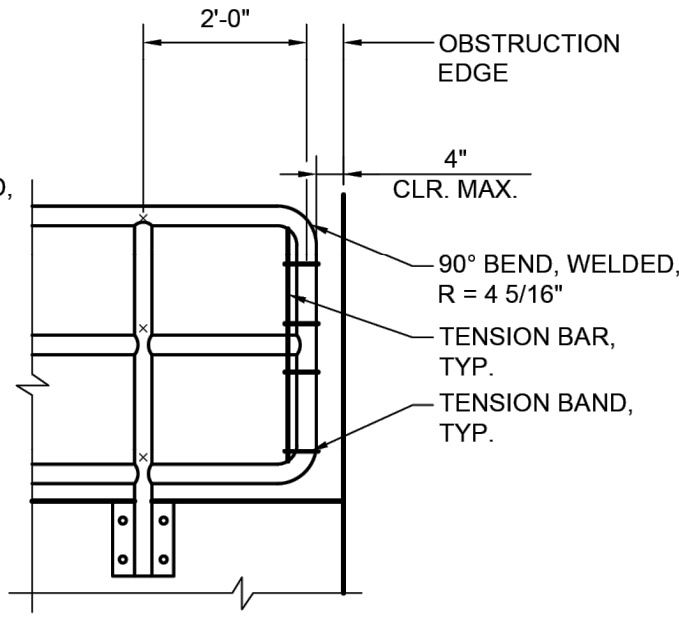
MOUNT - ELEVATION



TYPICAL SECTION



TYPICAL FRAME ELVEVATION



TYPICAL END FRAME AT OBSTRUCTION

TYPICAL PIPE RAIL W/ CHAINLINK FENCE MOUNTED ON CONCRETE WALL

NO SCALE

NOTES FOR PIPE RAILS

- WORKMANSHIP AND MATERIALS SHALL CONFORM TO THE NEW MEXICO DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION AND SUPPLEMENTAL SPECIFICATIONS, 2019 EDITION, LATEST EDITION, AS ACCEPTED BY AMAFCA.
 - ALL PIPE SHALL BE 2" SCHEDULE 40 STEEL PIPE AND CONFORM WITH ASTM A53 GRADE B. THE TOP RAIL SHALL BE CONTINUOUS, WITH POSTS, MIDDLE RAIL AND BOTTOM RAILS SADDLE CUT, WELDED ALL AROUND AND GRIND BEFORE PAINTING.
 - CHAINLINK SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M181, WITH A CLASS C COATING OR BETTER. THE WIRE SHALL BE GALVANIZED, 9 GAUGE, WITH A 2" MESH. SELVAGE ON TOP AND BOTTOM TO BE KNUCKLE/KNUCKLE. THE CHAINLINK SHALL BE TACK WELDED AT 3 PLACES PER POST AND 2 PLACES PER RAIL.
 - ALL RAILS, PIPES, PLATES AND TUBING TO BE COLOR COATED. COLOR COATING SHALL BE DUNN-EDWARDS SYN-LUSTRO RUST PREVENTION ALKYD SEMI-GLOSS ENAMEL 9V SERIES OR PITTSBURG PAINT AND GLASS PITTHANE ULTRA URETHANE ENAMEL COATINGS, OR APPROVED EQUAL. PRIOR TO COLOR COATING, RAIL IS TO BE PRIMED WITH 2 COATS OF PRIMER BY THE RESPECTIVE MANUFACTURER. COLOR OF FINAL COATING TO BE SELECTED BY AMAFCA.
 - GALVANIZED TENSION BARS AND CLAMPS SHALL BE INSTALLED ON ALL ENDS AND AT ALL CORNERS AND ANGLE POINTS WHERE CHAINLINK IS REQUIRED.
 - NEW MATERIAL SHALL BE USED THROUGHOUT.
 - ALL ANCHOR BOLTS SHALL BE 5/8" DIAMETER EXPANSION ANCHOR WITH A MINIMUM OF 4" EMBEDMENT. PROVIDE HILTI KWIK BOLT II EXPANSION ANCHOR (KB II) OR ENGINEER APPROVED EQUAL. PROVIDE FLAT WASHERS BETWEEN ALL NUTS AND BASE PLATES.
 - BOLTS SHALL CONFORM TO ASTM A325, WASHERS SHALL BE INSTALLED UNDER NUTS OF FASTENERS.
 - BASE PLATES SHALL CONFORM TO ASTM A36. TUBE STEEL SHALL CONFORM TO ASTM A500 GRADE B.
 - ALL WELDING OR GAS CUTTING SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARDS OF THE AMERICAN WELDING SOCIETY D1.1-2000. ALL WELDING SHALL USE E70XX ELECTRODES.
 - PROVIDE EXPANDING POLYSTYRENE FOAM PLUG (2" MIN.) AT THE BASE OF ALL POSTS ON THE WALL MOUNTED PIPE RAIL.
- * COLOR SHALL BE OSHA SAFETY BLUE OR APPROVED EQUAL.

WILSON & COMPANY

4401 WASTHEAD ST. NE, SUITE 150
ALBUQUERQUE, NM 87109
PHONE: 505-348-4000
FAX: 505-348-4072
www.wilsonco.com

CONSULTANTS



PROJECT NAME

LISBON CHANNEL
IMPROVEMENTS
PHASE 3
SUGAR CHANNEL TO
ARKANSAS CHANNEL

REV.	DATE	DESCRIPTION	BY

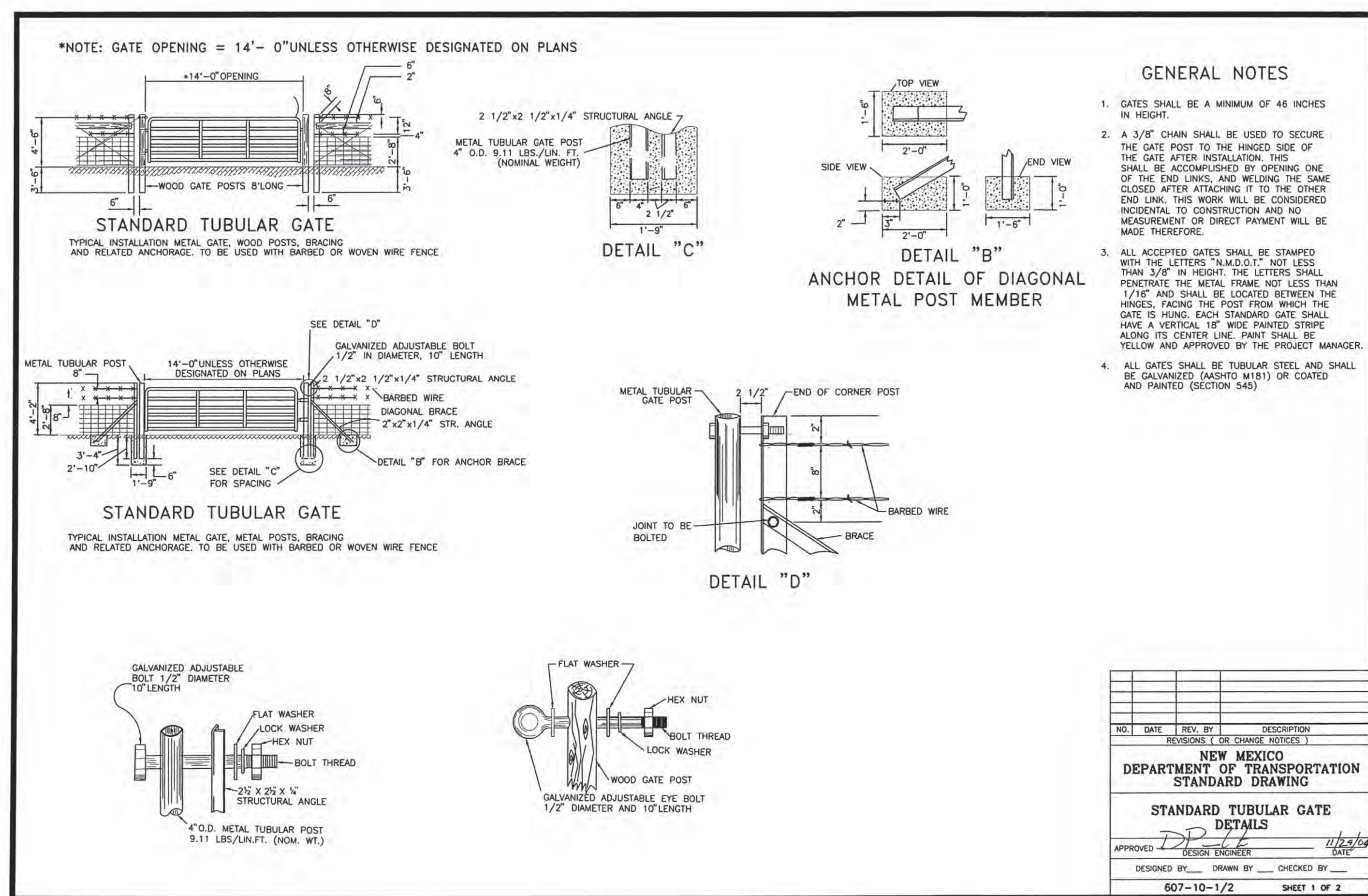
WCI NO:	2060004100
SSCAFA NO:	BL P0036-02
DESIGNED BY:	JEL
DRAWN BY:	JEM
CHECKED BY:	TJA
DATE:	SEP 2026

SHEET TITLE

DETAILS

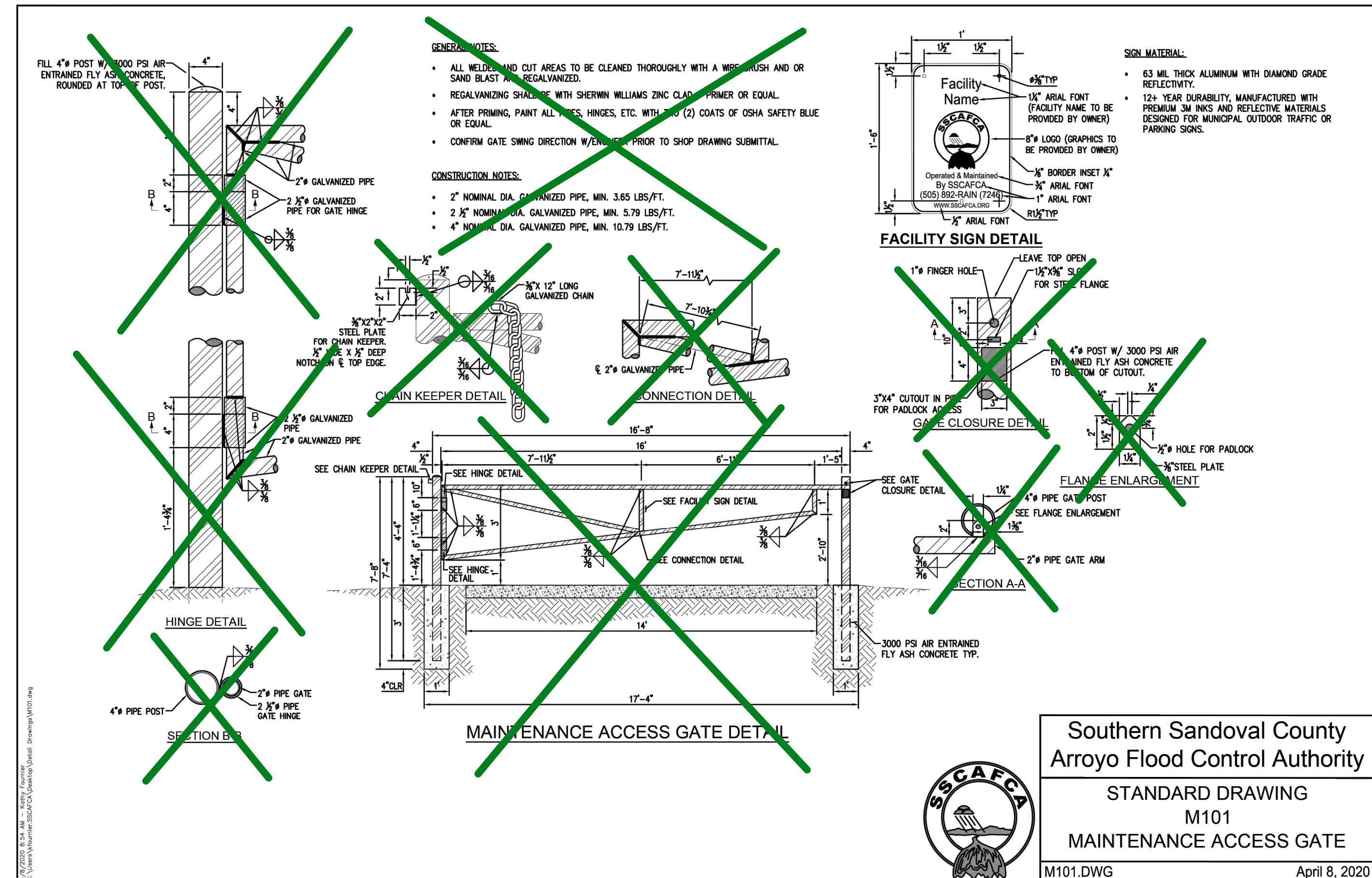
SHEET NO:

C-505

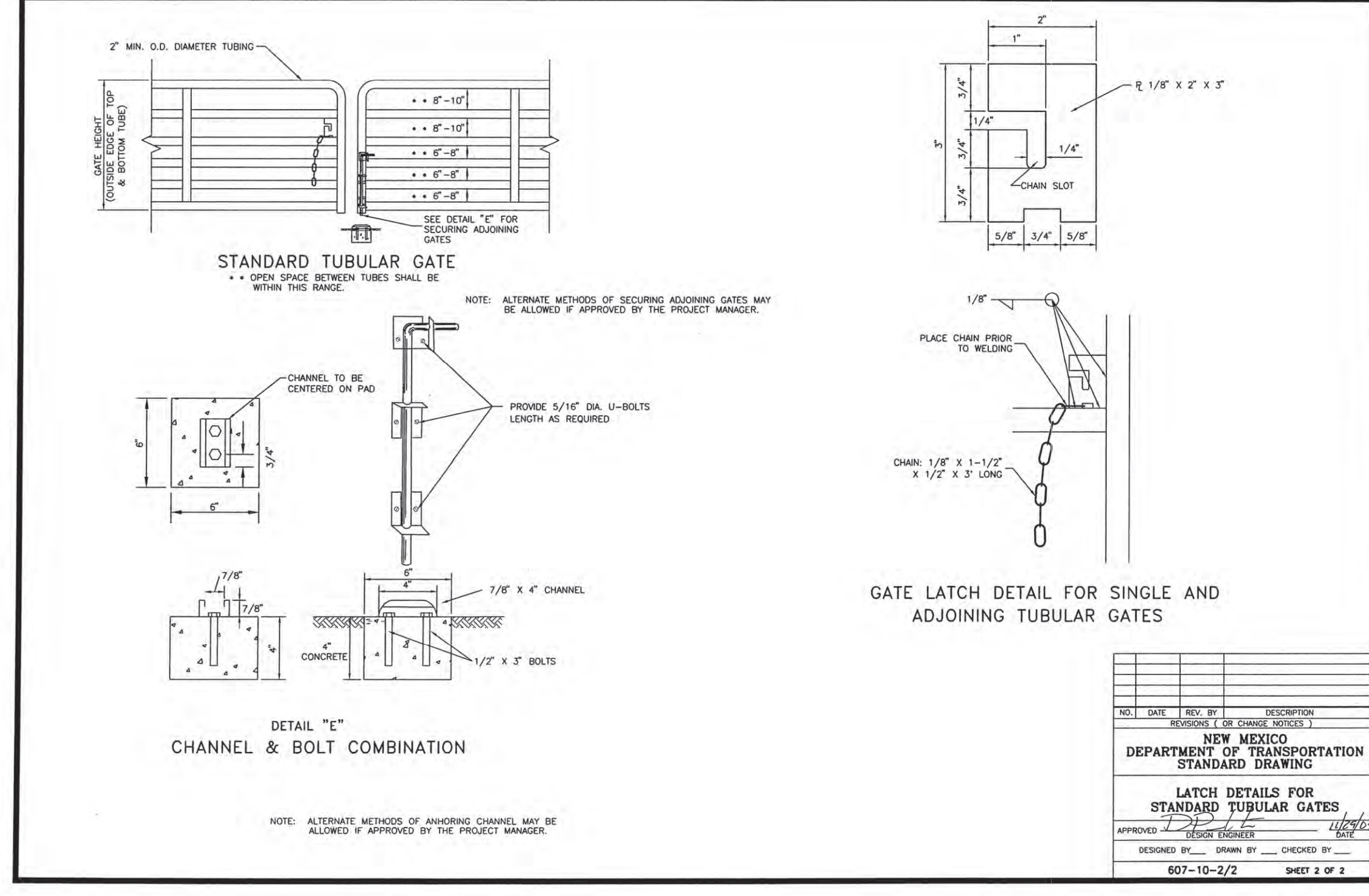


E1 NMDOT STANDARD TUBULAR GATE DETAILS

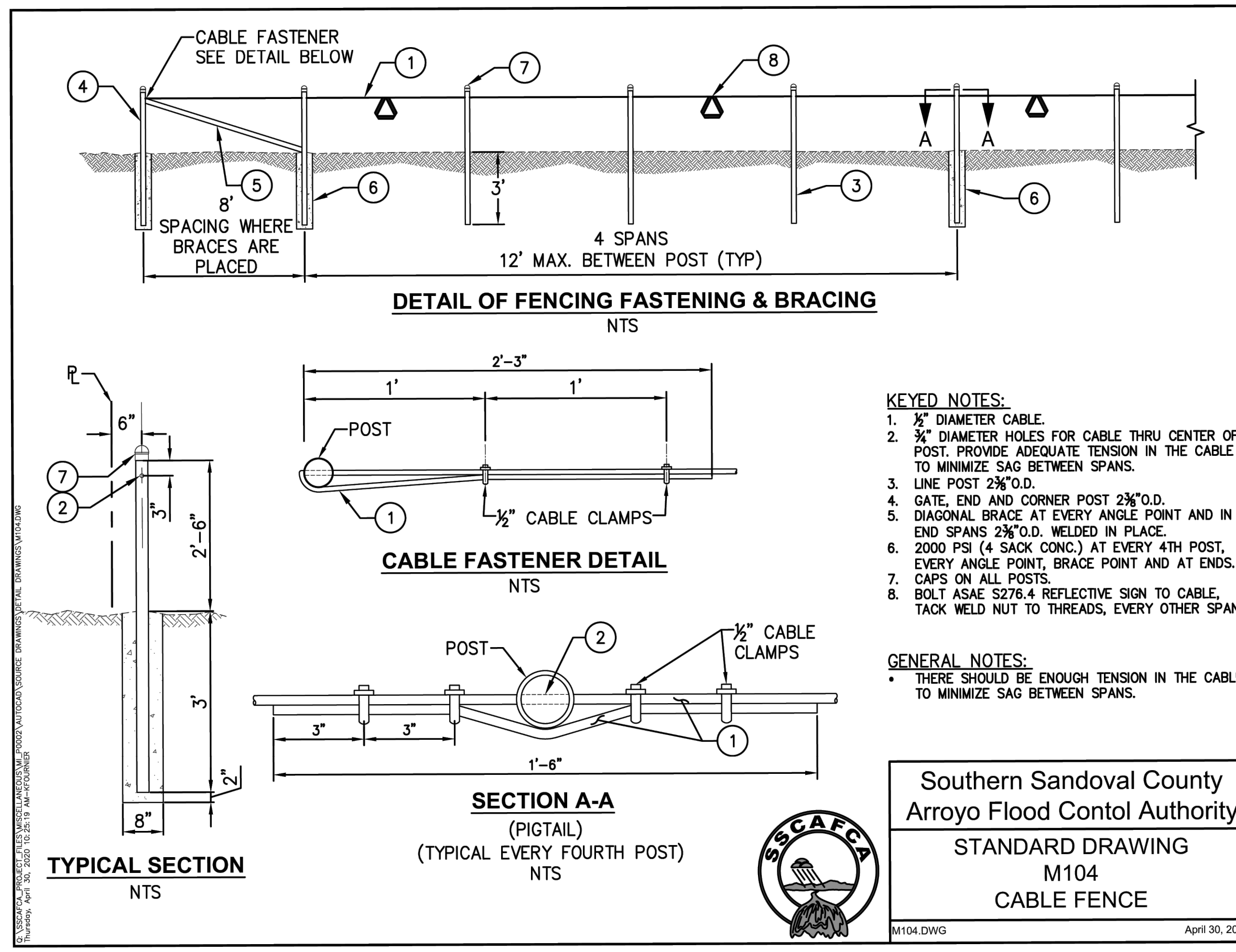
SCALE: NTS



A1 SSCAFCA MAINTENANCE ACCESS GATE DETAIL



E6 NMDOT LATCH DETAILS FOR STANDARD TUBULAR GATES



A6 SSCAFCA POST AND CABLE DETAIL
SCALE: NTS

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SEAL

PROJECT NAME LISBON CHANNEL
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PHASE 3
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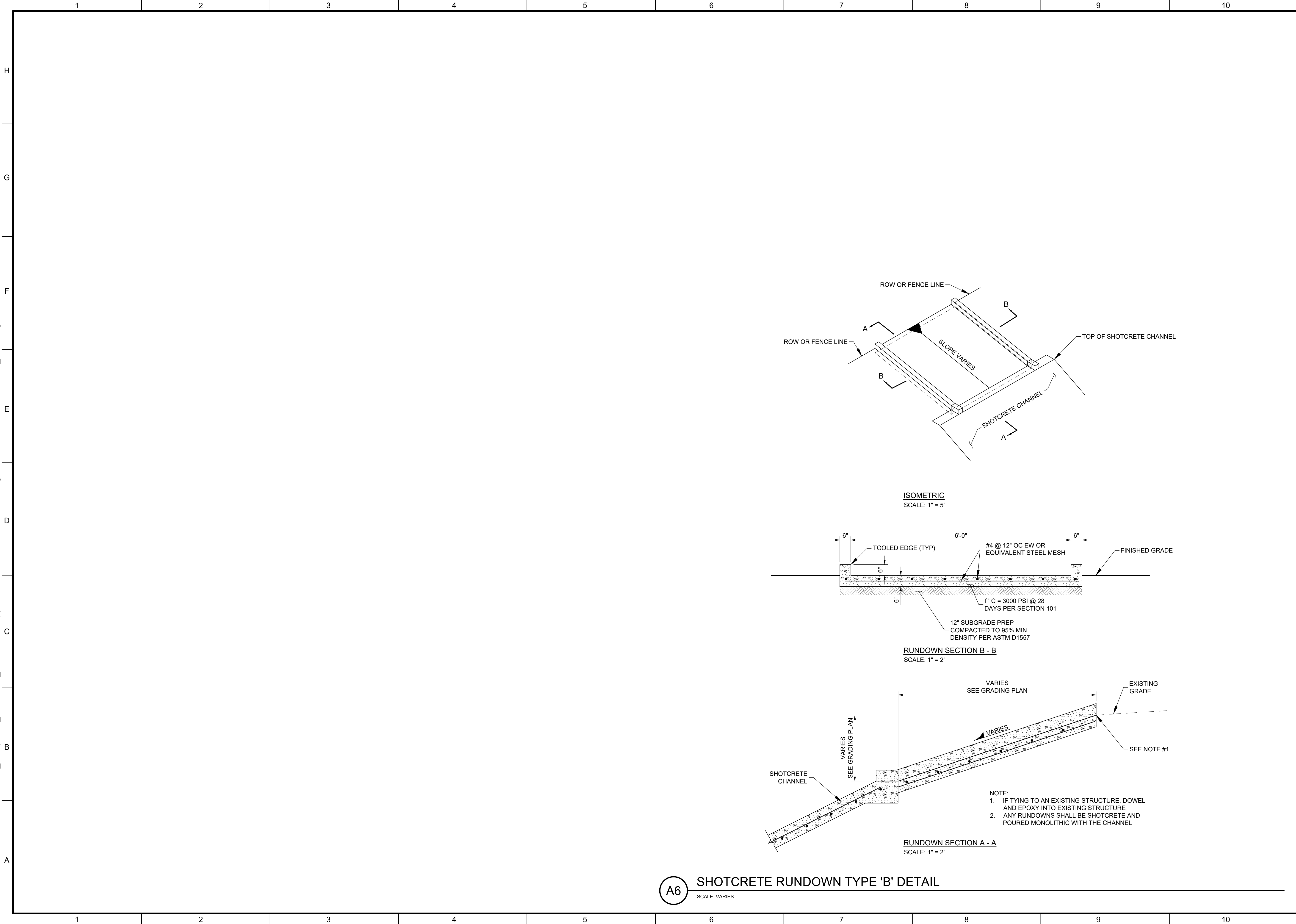
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DETAILS

SHEET NO:

C-506

10/1/2026 M:\MSD\20-600-041-002_Disciplines\ SHEETS\2_Sheets - civil\Upper Lisbon Channel\Arkansas to Sugar Channel\2060041-DT01-ARK_SUG.dwg



A6 SHOTCRETE RUNDOWN TYPE 'B' DETAIL
SCALE: VARIES

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PROJECT NAME
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SHEET TITLE

DETAILS

SHEET NO:

C-507