

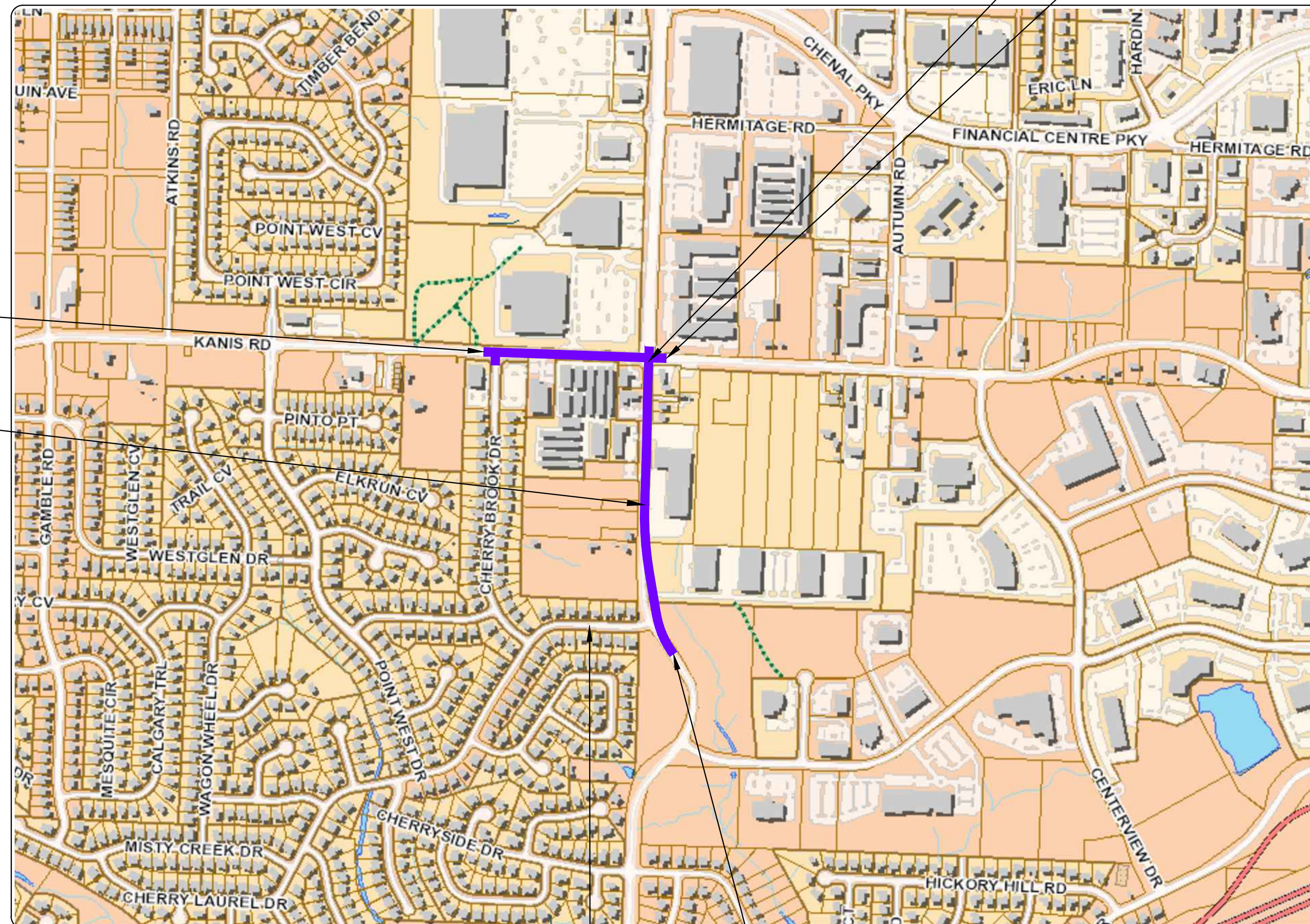
PROJECT LOCATION - WARD 6

# BOWMAN RD. RECONSTRUCTION (LITTLE ROCK) (S) (KANIS ROAD TO CHERRY LAUREL DRIVE)

**PULASKI COUNTY  
FED. AID PROJ. STPU-9253(96)  
JOB 061693**

BOWMAN PROJECT  
END STA. 30+10

KANIS PROJECT  
END STA. 48+00



KANIS PROJECT  
BEGIN STA. 37+00

*PROJECT  
LOCATION*



**2019-2021  
BOND PROGRAM**

CHERRY LAUREL DR.

PROJECT START  
STATION 13+39

DEPARTMENT OF PUBLIC WORKS  
CIVIL ENGINEERING  
701 WEST MARKHAM STREET  
LITTLE ROCK, ARKANSAS 72201

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REVISIONS	DATE

CITY OF LITTLE ROCK, ARKANSAS  
BOWMAN ROAD RECONSTRUCTION  
COVER SHEET

DEPARTMENT OF PUBLIC WORKS  
CIVIL ENGINEERING  
701 W. MARKHAM  
LITTLE ROCK, ARKANSAS 72201

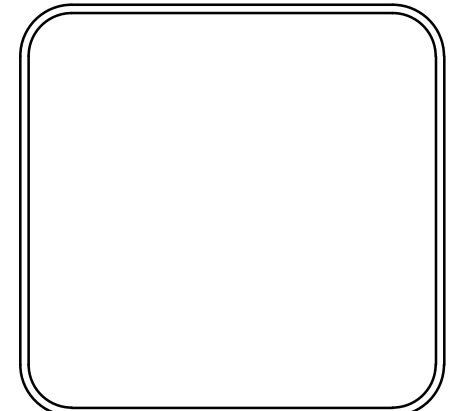


Know what's below.  
Call before you dig.

**Michael Baker**

**INTERNATIONAL**

1400 WEST MARKHAM  
SUITE 204  
LITTLE ROCK, ARKANSAS 72201  
(501) 907-6223



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DESIGNED COF
CHECKED BOL
DATE 12-11-2020
SCALE N.T.S.
PROJECT NO. CLR 6-15-ST-249
SHEET NO. C1.0



REVISIONS	DATE

**CITY OF LITTLE ROCK, ARKANSAS**  
**BOWMAN ROAD RECONSTRUCTION**  
**GENERAL NOTES, LEGEND AND QUANTITIES**

**DEPARTMENT OF PUBLIC WORKS**  
**CIVIL ENGINEERING**  
**701 W. MARKHAM**  
**LITTLE ROCK, ARKANSAS 72201**



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**12-11-2020**  
**SCALE**  
**N.T.S.**  
**PROJECT NO.**  
**CLR 6-15-ST-249**  
**SHEET NO.**  
**C2.0**

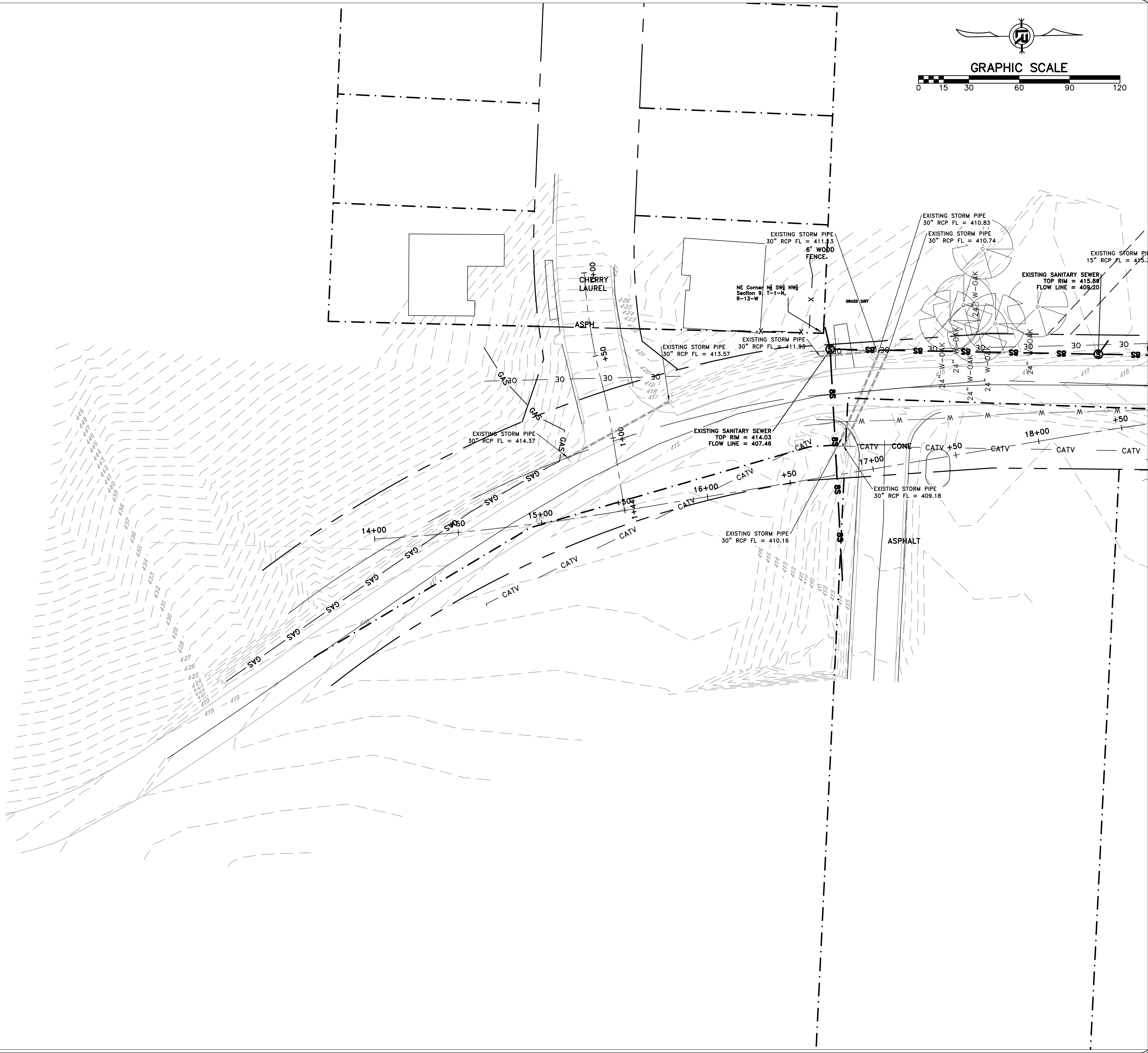
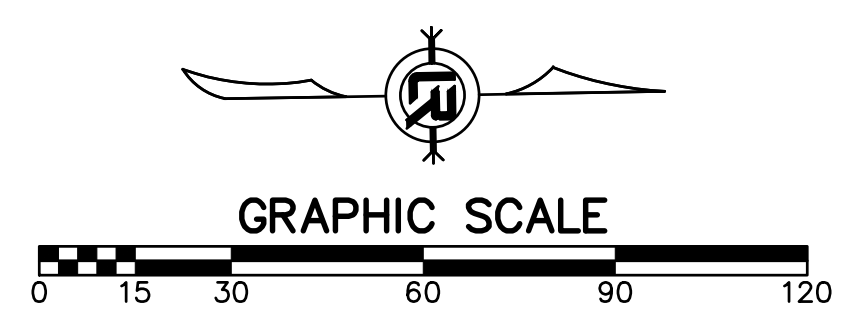
PRICING OF ESTIMATED QUANTITIES			
CLR PROJECT 6-15-ST-249			
BOWMAN ROAD STREET RECONSTRUCTION			
29-Oct-20			
ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY
2.01	SITE PREPARATION	LS	1
2.02	R&D OF CONCRETE PAVEMENT	SY	1379
3.01	UNCLASSIFIED EXCAVATION	CY	7735
3.06	COMPACTED EMBANKMENT	CY	5126
4.01	AGGREGATE BASE COURSE	TONS	3801
5.01	TACK COAT	GAL	13688
6.01	ASPHALT SURFACE COURSE	TON	1949
6.01	ASPHALT LEVELING	TON	1050
6.02	ASPHALT BINDER COURSE	TON	1694
7.04	CONCRETE DRIVEWAY (6" THICK)	SF	523
7.05	CONCRETE DRIVEWAY (8" THICK)	SF	4851
7.06	ASPHALT DRIVEWAY (2" THICK)	SF	919
7.07	ASPHALT DRIVEWAY (4" THICK)	SF	7584
7.08	GRAVEL DRIVEWAY (8" THICK)	SF	1737
8.03	CONCRETE CURB AND GUTTER (CLASS 1)	LF	3209
9.04	CONCRETE SIDEWALK (4" THICK)	SF	12891
9.40	CONCRETE SIDEWALK "TURN UP" WALL (PW-44) (PW-45)	SF	428
10.00	CURB INLET - 4' BOX	EA	19
10.07	WING 3' EXTENSION	EA	15
10.10	WING 6' EXTENSION	EA	5
10.14	WING 10' EXTENSION	EA	2
11.02	REINFORCED CONCRETE PRECAST BOX CULVERT (5'x4')	CY	75
11.05	REINFORCED CONCRETE PRECAST HEADWALL	CY	7
11.20	REINFORCED CONCRETE RETAINING WALL	CY	100
13.18S	STORM DRAIN PIPE, 18" RCP (SIDE DRAIN)	LF	600
13.18C	STORM DRAIN PIPE, 18" RCP (CROSS DRAIN)	LF	240
13.24C	STORM DRAIN PIPE, 24" RCP (SIDE DRAIN)	LF	680
13.24C	STORM DRAIN PIPE, 30" RCP (SIDE DRAIN)	LF	480
13.24C	STORM DRAIN PIPE, 30" RCP (CROSS DRAIN)	LF	80
13.36S	STORM DRAIN PIPE, 36" RCP (SIDE DRAIN)	LF	260
13.61	TIE INTO EXISTING JUNCTION BOX	EA	4
13.61	TIE PIPE INTO BOX CULVERT	EA	2
14.01	SOLID SODDING, BERMUDA	SY	7101
16.01	MAINTENANCE OF TRAFFIC	LS	1
18.45	RIPRAP	CY	3
18.50	ACCESS RAMP (TYPE 2)	SF	151
18.50	ACCESS RAMP (TYPE 3)	SF	1008
18.40	HANDRAIL	LF	705
19.01	FINAL CLEANUP	LS	1
24.01	CONSTRUCTION ENTRANCE (CO)	EA	2
24.02	CHECK DAM (CD)	CY	3
24.03	SILT FENCE - TYPE A (SFA)	LF	1575
24.04	TRIANGULAR SILT DIKED	LF	1040
26.10	TRENCH & EXCAVATION SAFETY	LS	1
50.00	THERMOPLASTIC PAVEMENT MARKING WHITE (4")	LF	2051
50.01	THERMOPLASTIC PAVEMENT MARKING YELLOW (4")	LF	4265
50.02	THERMOPLASTIC PAVEMENT MARKING WHITE (8")	LF	229
50.03	THERMOPLASTIC PAVEMENT MARKING WHITE (12")	LF	254
50.04	THERMOPLASTIC PAVEMENT MARKING WORD	EA	5
50.05	THERMOPLASTIC PAVEMENT MARKING ARROW	EA	12

Kanis Road Phase 4: Kanis Bowman Intersection			
ITEM#	ITEM DESCRIPTION	QUANTITY	UNIT
2.01	SITE PREPARATION	1	LS
3.01	UNCLASSIFIED EXCAVATION	5206	CY
3.06 & SP	COMPACTED EMBANKMENT	670	CY
4.01	AGGREGATE BASE COURSE	2700	TON
5.01	TACK COAT	300	GAL
6.01	ACHM SURFACE COURSE	2000	TON
6.20	ACHM BINDER COURSE	2000	TON
7.18	CONCRETE DRIVEWAY (8" THICK), STANDARD FINISH	3466	SF
8.03	CONCRETE CURB AND GUTTER (CLASS 1)	1850	LF
9.04	CONCRETE SIDEWALK (4" THICK)	10050	SF
10.01	JUNCTION BOX (4") IN ROADWAY	1	EA
10.04	CURB INLET - 4' BOX	9	EA
10.06	CURB INLET - 6' BOX	1	EA
10.06	WING 6' EXTENSION	10	EA
10.40	AREA INLET - 4' BOX	1	EA
11.20	REINFORCED CONCRETE RETAINING WALL	26	CY
13.18C	STORM DRAIN PIPE, 18" CROSS DRAIN	321	LF
13.18S	STORM DRAIN PIPE, 18" SIDE DRAIN	728	LF
13.24C	STORM DRAIN PIPE, 24" CROSS DRAIN	214	LF
13.24S	STORM DRAIN PIPE, 24" SIDE DRAIN	35	LF
13.36S	STORM DRAIN PIPE, 36" SIDE DRAIN	41	LF
13.42S	STORM DRAIN PIPE, 42" SIDE DRAIN	50	LF
14.01	SOLID SODDING, BERMUDA	2600	SY
16.01	MAINTENANCE OF TRAFFIC	1	LS
18.50	ACCESS RAMP	525	SF
18.55	WATER FOR DUST CONTROL	2000	GAL
19.01	FINAL CLEANUP	1	LS
24.09	SEDIMENT BARRIER, BLOCK (SD4)	10	EA
24.12	SILT FENCE - TYPE B (SFB)	2000	LF
24.17	DISTURBED AREA STABILIZATION - TEMPORARY GRASSING (TS2)	2	AC
24.18	DISTURBED AREA STABILIZATION - PERMANENT GRASSING (TS3)	1	AC
26.10	TRENCH & EXCAVATION SAFETY	1	LS
27.10	COLD MILLING ASPHALT PAVEMENT	150	SY
604.05	FURNISH & INSTALL PRECAST CONCRETE BARRIER WALL	1000	LF
604.06	RELOCATE PRECAST CONCRETE BARRIER WALL	1000	LF
606.24S	FLARED END SECTION 24" SIDE	1	EA
606.48C	FLARED END SECTION 48" RCP	1	EA
606.36S	FLARED END SECTION 36" SIDE	1	EA
719.04W	THERMOPLASTIC PAVEMENT MARKING WHITE (4")	650	LF
719.04Y	THERMOPLASTIC PAVEMENT MARKING YELLOW (4")	1026	LF
719.12W	THERMOPLASTIC PAVEMENT MARKING WHITE (12")	640	LF
719.60	THERMOPLASTIC PAVEMENT MARKING ARROWS	16	EA
SP & 706	TRAFFIC SIGNAL HEAD, LED, (3 SECTION, 1 WAY)	14	EA
SP & 707	COUNTDOWN PEDESTRIAN SIGNAL HEAD, LED	8	EA
708.01	TRAFFIC SIGNAL CABLE (5c/14 A.W.G.)	940	LF
708.02	TRAFFIC SIGNAL CABLE (7c/14 A.W.G.)	325	LF
708.03	TRAFFIC SIGNAL CABLE (12c/14 A.W.G.)	180	LF
708.04	TRAFFIC SIGNAL CABLE (20c/14 A.W.G.)	680	LF
710.02	NON-METALLIC CONDUIT (2")	375	LF
710.03	NON-METALLIC CONDUIT (3")	650	LF
711.02	CONCRETE PULL BOX (TYPE 2 HD)	6	EA
714.05	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (54')	1	EA
714.06	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (56')	2	EA
715.01	TRAFFIC SIGNAL PEDESTAL POLE WITH FOUNDATION	3	EA
733.02	VIDEO CABLE (CAT 5E WITH 3C/14AWG)	990	LF
733.03	VIDEO DETECTOR (CLR)	4	EA
733.04	VIDEO MONITOR (CLR)	1	EA
733.05	VIDEO PROCESSOR (RYTHEM ENGINEERING)	2	EA
733.06	ELECTRICAL CONDUCTORS -IN- CONDUIT (3c/12 A.W.G.)	925	LF
733.07	ELECTRICAL CONDUCTORS-IN-CONDUIT (1C/8 A.W.G., EGC)	100	LF
733.10	LUMINAIRE ASSEMBLY	4	EA
733.11	18" STREET NAME SIGN	4	EA
733.12	EHTERNET RADIO (UBIQUIRT NSM 5	1	EA
733.13	ANTENNA CABLE (CAT 5E)	240	LF
733.15	REMOVAL OF TRAFFIC SIGNAL EQUIPMENT	1	LS

EXISTING	PROPOSED		
IRON ROD	○ IR	PROPOSED CONTOUR	
PK NAIL	○ PK	PROPOSED SPOT ELEVATION	
R.R. SPIKE	○ RR(Sp)	PROPOSED SPOT CURB ELEVATION	
CONC. MONUMENT	□ CM	STORM SEWER - PIPE	
WATER VALVE	⊗ WV	STORM SEWER - MITERED END SECTION	
WATER METER	□ WM	STORM SEWER - GRATE INLET	
FIRE HYDRANT	⊕ FH	STORM SEWER - JUNCTION BOX	
GAS METER	⊗ GM	STORM SEWER - FLARED END SECTION	
GAS VALVE	⊗ GV	STORM SEWER - HEADWALL	
CLEAN-OUT	○ CO	STORM SEWER - SINGLE WING	
GUARD POST (BOLLARD)	● GP	STORM SEWER - DOUBLE WING	
SIGN POST		STORM SEWER - AREA INLET	
BENCHMARK		GRADE BREAK LINE	
STORM SEWER MANHOLE	⊙	HIGH POINT	HP
SANITARY SEWER MANHOLE	⊙	LOW POINT	LP
TELEPHONE MANHOLE	⊙	CUT LINE	C
ELECTRIC MANHOLE	⊙	FILL LINE	F
TELEPHONE BOX	⊙	SANITARY SEWER PIPE	SAN
ELECTRIC BOX	⊙	SANITARY SEWER MANHOLE	⊙
CABLE BOX	⊙	PROPOSED CURB	
UTILITY POLE	⊙	PROPOSED CONCRETE	
GUY WIRE	⊙	ASPHALT DRIVEWAY	
LIGHT POLE	⊙	GRAVEL DRIVEWAY	
POST OR POLE (TYPE AS NOTED)	⊙	ASPHALT OVERLAY	
MAILBOX	⊙	FULL DEPTH ASPHALT	
DECIDUOUS TREE		CONSTRUCTION - ENTRANCE/EXIT	
EVERGREEN/CONIFEROUS TREE		CHECK DAM	
BUSH		DIVERSION BERM	
PROPERTY LINE		DOWNDRAIN STRUCTURE - TEMPORARY	
SETBACK LINE		ROCK DAM	
EASEMENT LINE		SEDIMENT BARRIER - SILT FENCE	
CURB		SEDIMENT BARRIER - GRAVEL RING	
FENCE		SEDIMENT BARRIER - BLOCK & GRAVEL	
OVERHEAD ELECTRIC		SEDIMENT BARRIER - BLOCK	
OVERHEAD TELEPHONE		TEMPORARY SEDIMENT BASIN	
OVERHEAD CABLE		SILT FENCE - TYPE A	
UNDERGROUND TELEPHONE		SILT FENCE - TYPE B	
UNDERGROUND ELECTRIC		SILT FENCE - TYPE C	
UNDERGROUND CABLE		STORM DRAIN OUTLET PROTECTION	
WATER LINE		SURFACE ROUGHENING	
SEWER LINE		DISTURBED AREA STABILIZATION - TEMPORARY STABILIZATION	
GAS LINE		DISTURBED AREA STABILIZATION - TEMPORARY GRASSING	
STORM SEWER/CULVERT		DISTURBED AREA STABILIZATION - PERMANENT GRASSING	
EDGE OF WOODS		MATTING/BLANKETS	
CONTOUR LINE			
TREE REMOVAL			

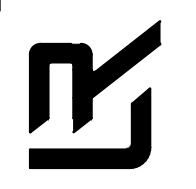


REVISIONS	DATE

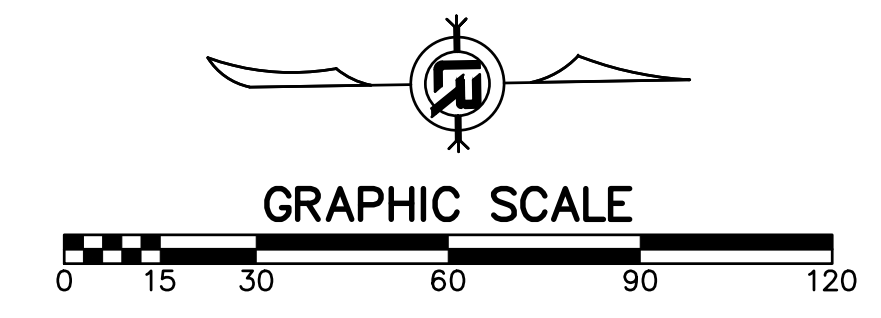
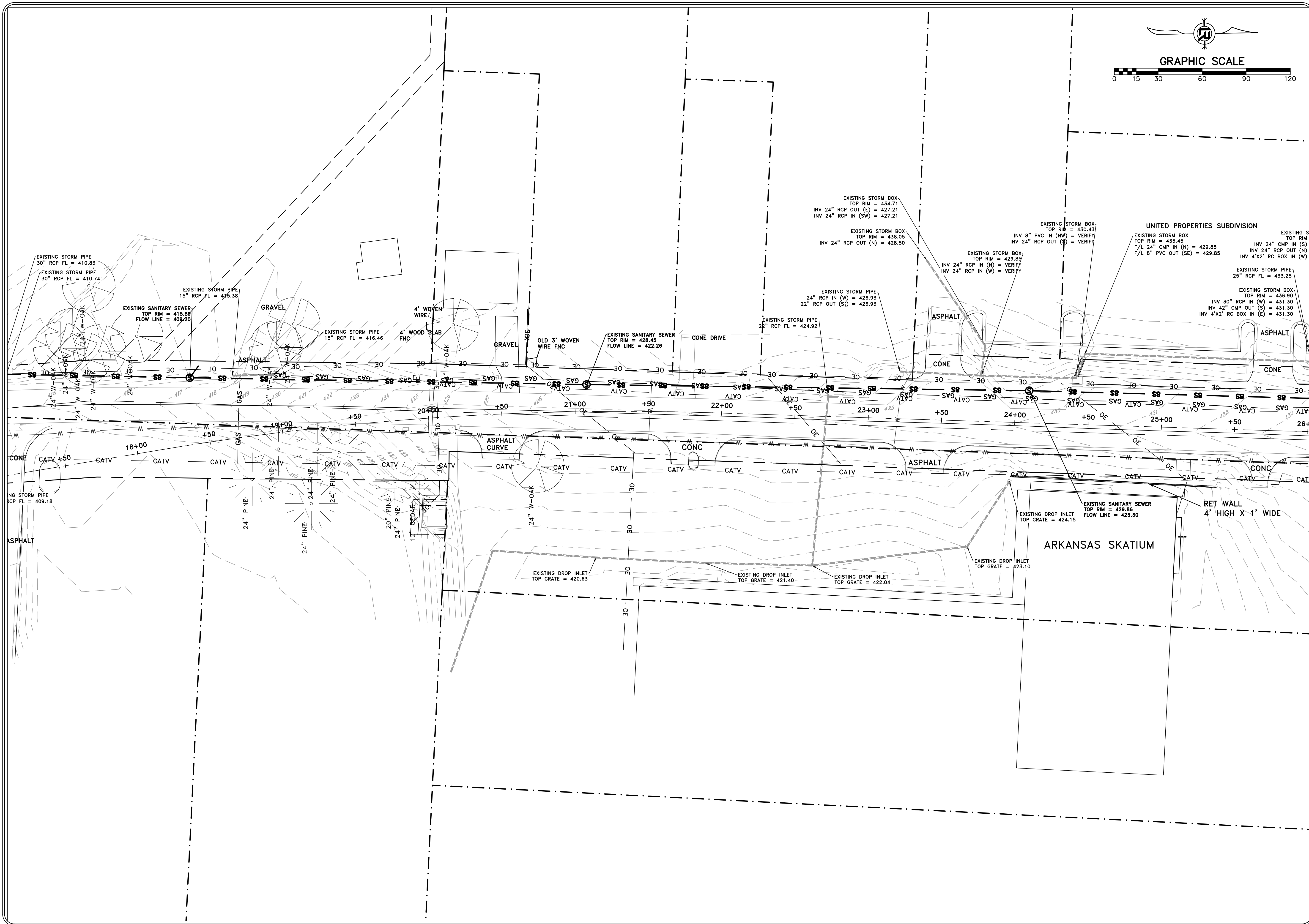


CITY OF LITTLE ROCK, ARKANSAS  
 BOWMAN ROAD RECONSTRUCTION  
 EXISTING CONDITIONS (1)

DEPARTMENT OF PUBLIC WORKS  
 CIVIL ENGINEERING  
 701 W. MARKHAM  
 LITTLE ROCK, ARKANSAS 72201



<b>DRAWN BY</b> KLL
<b>DESIGNED</b> COF
<b>CHECKED</b> BOL
<b>DATE</b> 12-11-2020
<b>SCALE</b> 1" = 20'
<b>PROJECT NO.</b> CLR 6-15-ST-249
<b>SHEET NO.</b> C3.0



REVISIONS	DATE

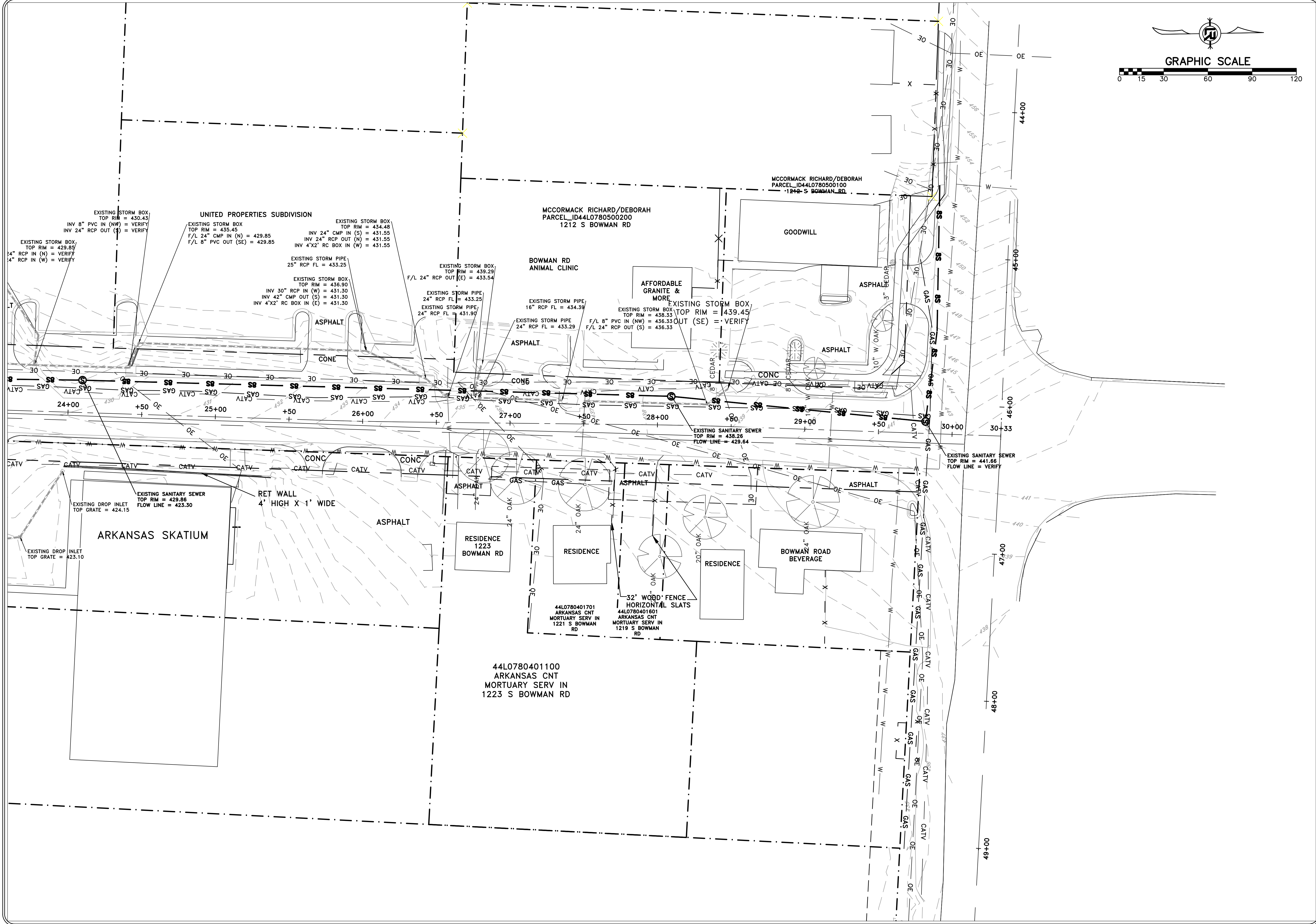
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BOWMAN ROAD RECONSTRUCTION  
EXISTING CONDITIONS (2)

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CHECKED  
BOL  
DATE  
12-11-2020  
SCALE  
1" = 20'  
PROJECT NO.  
CLR 6-15-ST-249  
SHEET NO.  
C3.1





REVISIONS	DATE

CITY OF LITTLE ROCK, ARKANSAS  
 BOWMAN ROAD RECONSTRUCTION  
 EXISTING CONDITIONS (3)

DEPARTMENT OF PUBLIC WORKS  
 CIVIL ENGINEERING  
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 LITTLE ROCK, ARKANSAS 72201

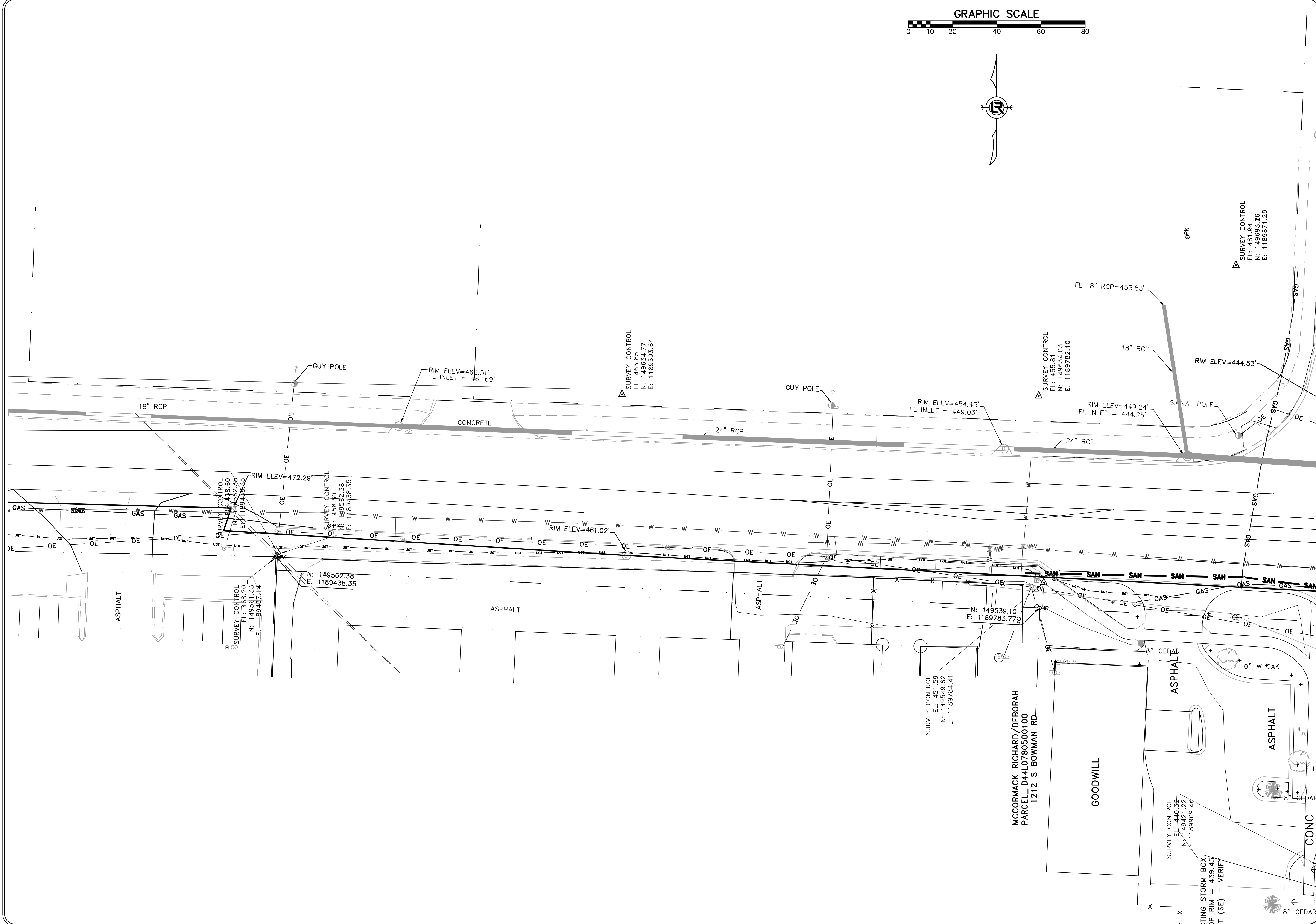
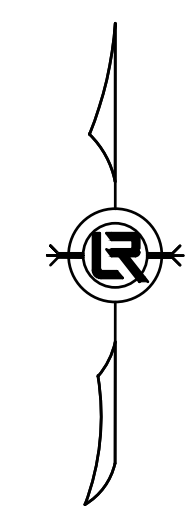
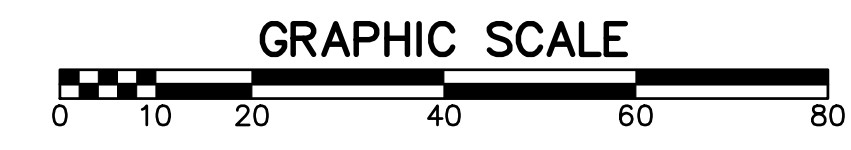


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 PROJECT NO.  
 CLR 6-15-ST-249  
 SHEET NO.  
 C3.2









REVISIONS	DATE

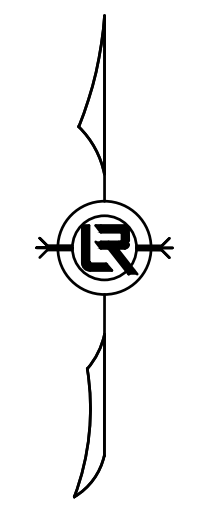
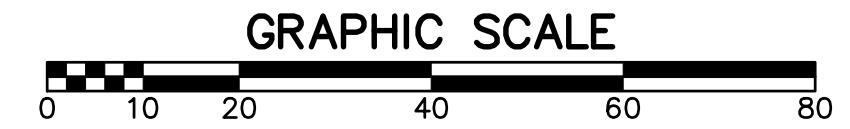
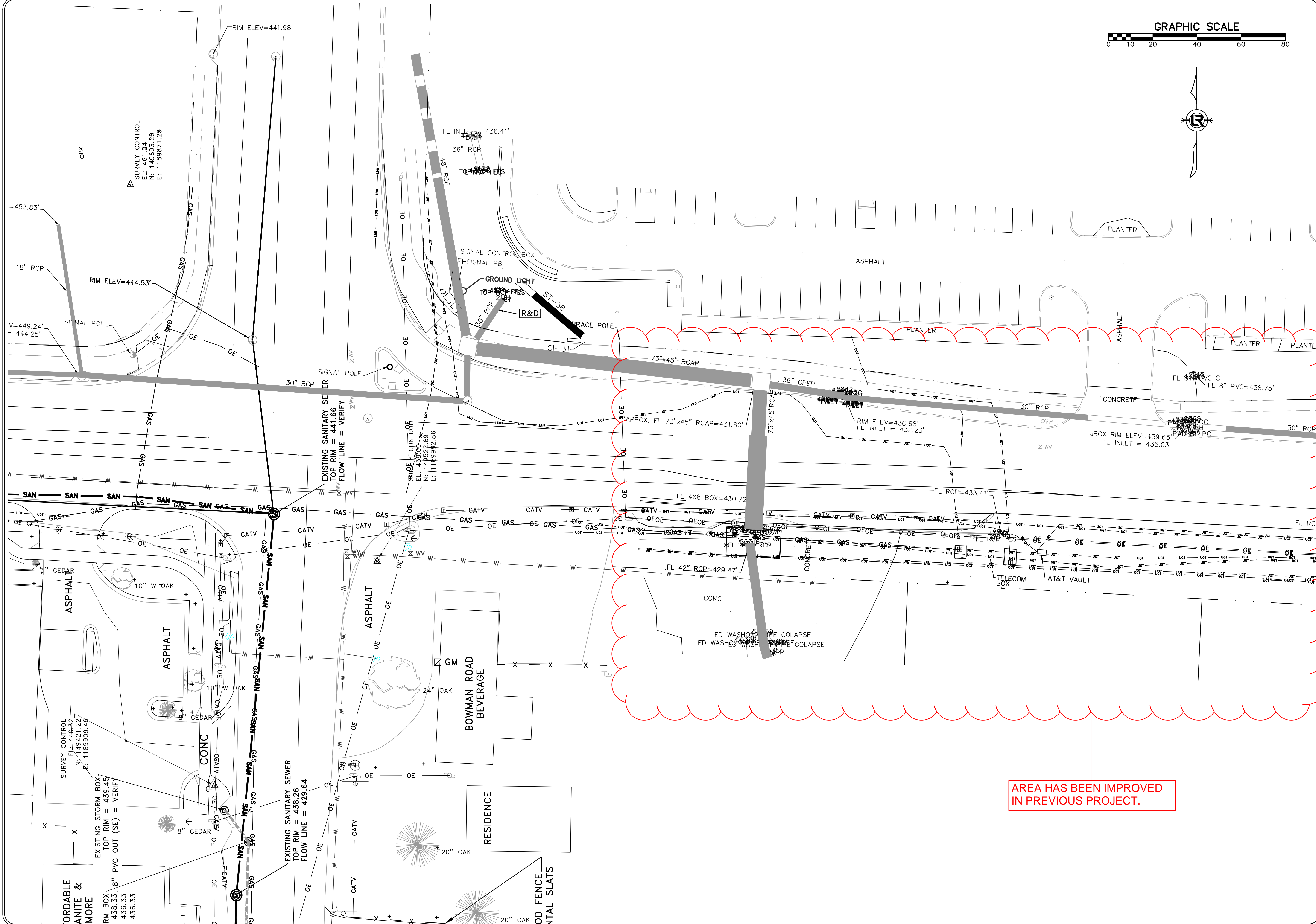
**CITY OF LITTLE ROCK, ARKANSAS**  
**BOWMAN ROAD RECONSTRUCTION**  
**EXISTING CONDITIONS**

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**CHECKED**  
**BOL**  
**DATE**  
**12-11-2020**  
**SCALE**  
**H: 1"=20'**  
**V: 1"=5'**  
**PROJECT NO.**  
**CLR 6-15-ST-249**  
**SHEET NO.**  
**C3.4**





REVISIONS	DATE

CITY OF LITTLE ROCK, ARKANSAS  
BOWMAN ROAD RECONSTRUCTION  
EXISTING CONDITIONS

DEPARTMENT OF PUBLIC WORKS  
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701 W. MARKHAM  
LITTLE ROCK, ARKANSAS 72201



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DESIGNED  
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CHECKED  
BOL  
DATE  
12-11-2020  
SCALE  
H: 1"=20'  
V: 1"=5'  
PROJECT NO.  
CLR 6-15-ST-249  
SHEET NO.  
C3.5



REVISIONS	DATE

CITY OF LITTLE ROCK, ARKANSAS  
BOWMAN ROAD RECONSTRUCTION  
SPECIAL DETAILS (1)

DEPARTMENT OF PUBLIC WORKS  
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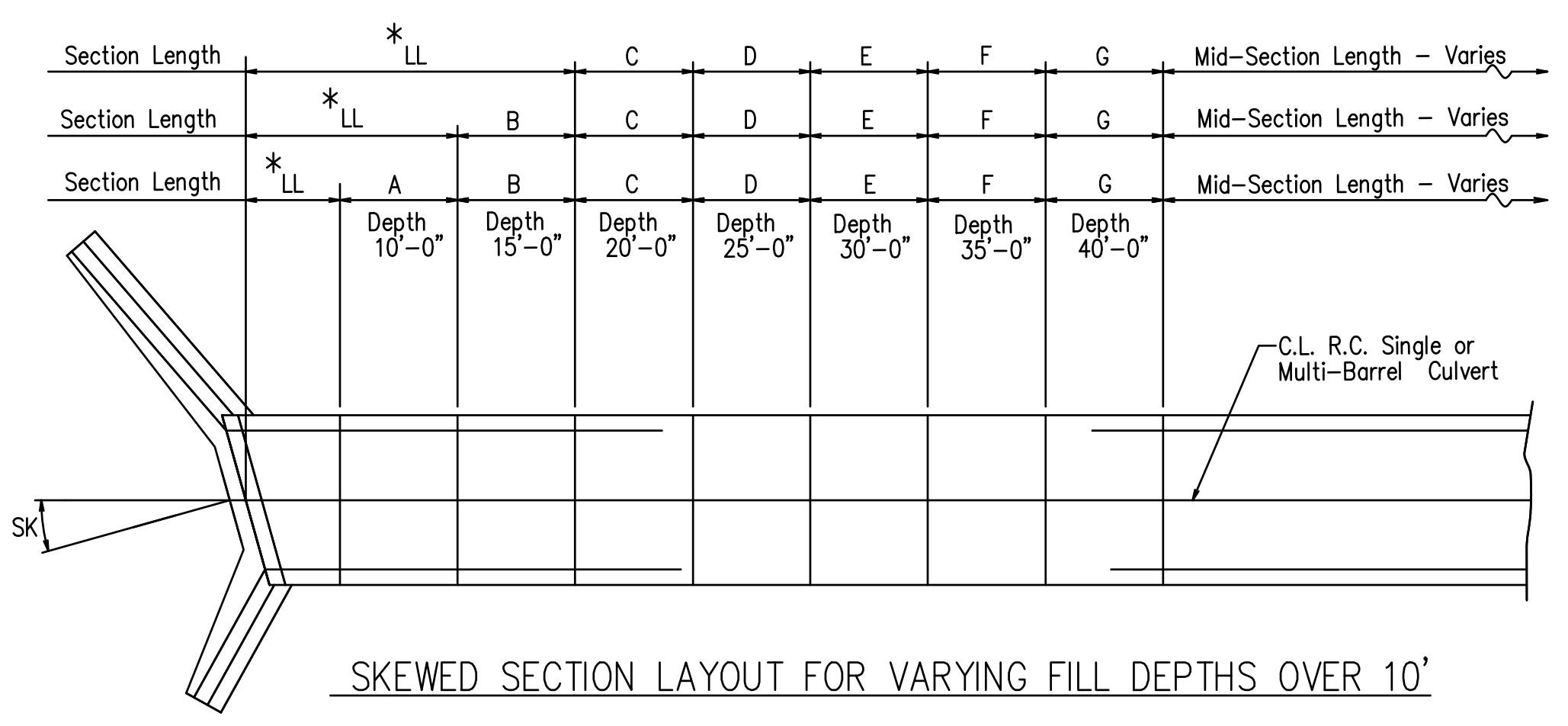


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12-11-2020  
**SCALE**  
N.T.S.  
**PROJECT NO.**  
CLR 6-15-ST-249  
**SHEET NO.**  
C4.0

2:1 Slope	20'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"
3:1 Slope	30'-0"	15'-0"	15'-0"	15'-0"	15'-0"	15'-0"	15'-0"
4:1 Slope	40'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"

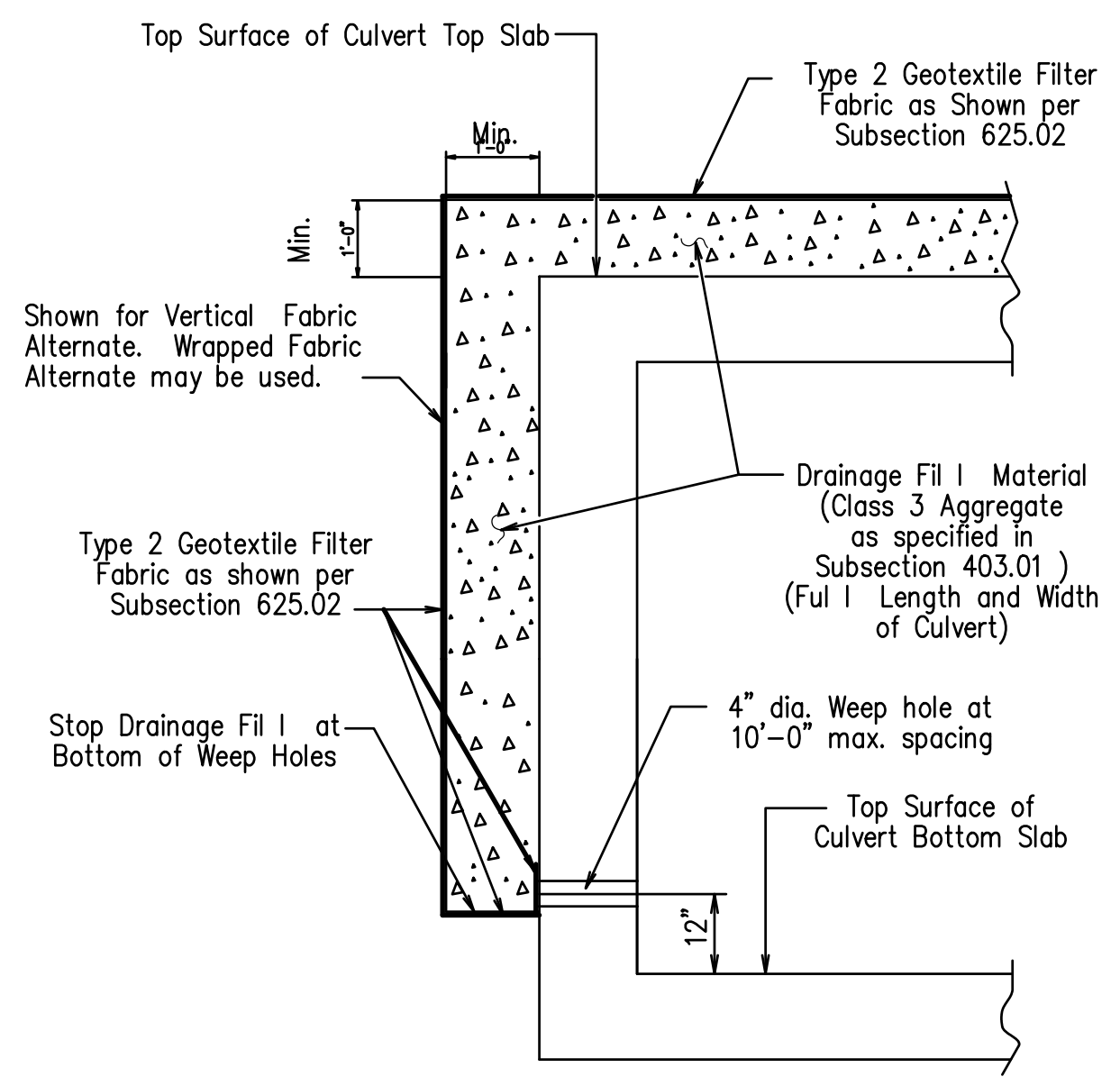
Note: For fill depths 10' and under, use Mid-Section full length of box culvert.

\* LL = Skewed End Section Length - See "Skewed End Section Details"  
Length LL varies with skew angle, overall box width and fill depth and may eliminate the need for some slope section lengths as shown.

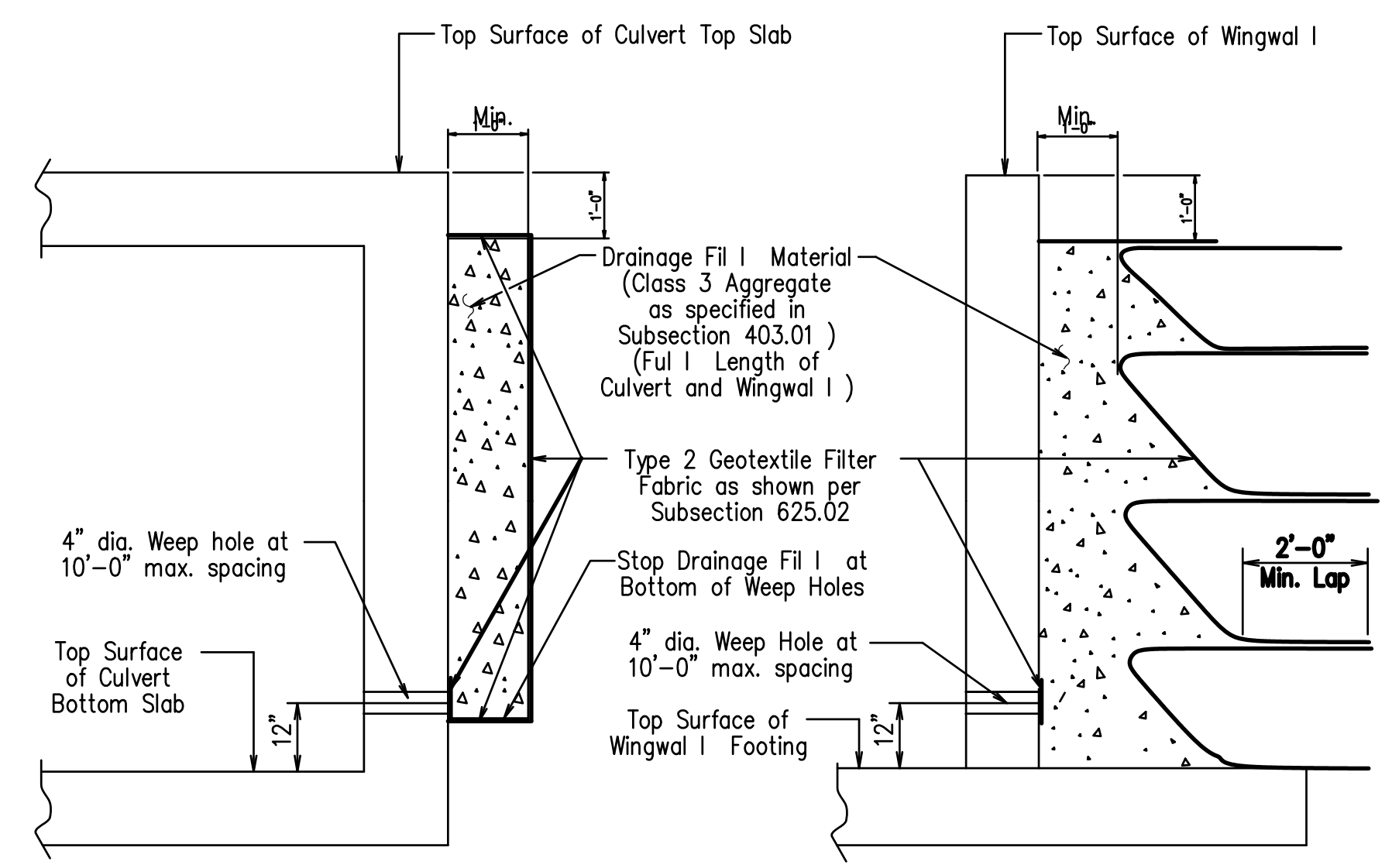


LONGITUDINAL SECTION LENGTH SCHEDULE FOR VARYING FILL DEPTHS OVER 10'  
Lengths for Non-Skewed Boxes

Slope Section Length @ 2:1 Slope	A=12'-0"	B=6'-0"	C=6'-0"	D=6'-0"	E=6'-0"	F=6'-0"	G=6'-0"	Mid-Section Length - Varies
Slope Section Length @ 3:1 Slope	A=22'-0"	B=11'-0"	C=11'-0"	D=11'-0"	E=11'-0"	F=11'-0"	G=11'-0"	Mid-Section Length - Varies
Slope Section Length @ 4:1 Slope	A=32'-0"	B=16'-0"	C=16'-0"	D=16'-0"	E=16'-0"	F=16'-0"	G=16'-0"	Mid-Section Length - Varies

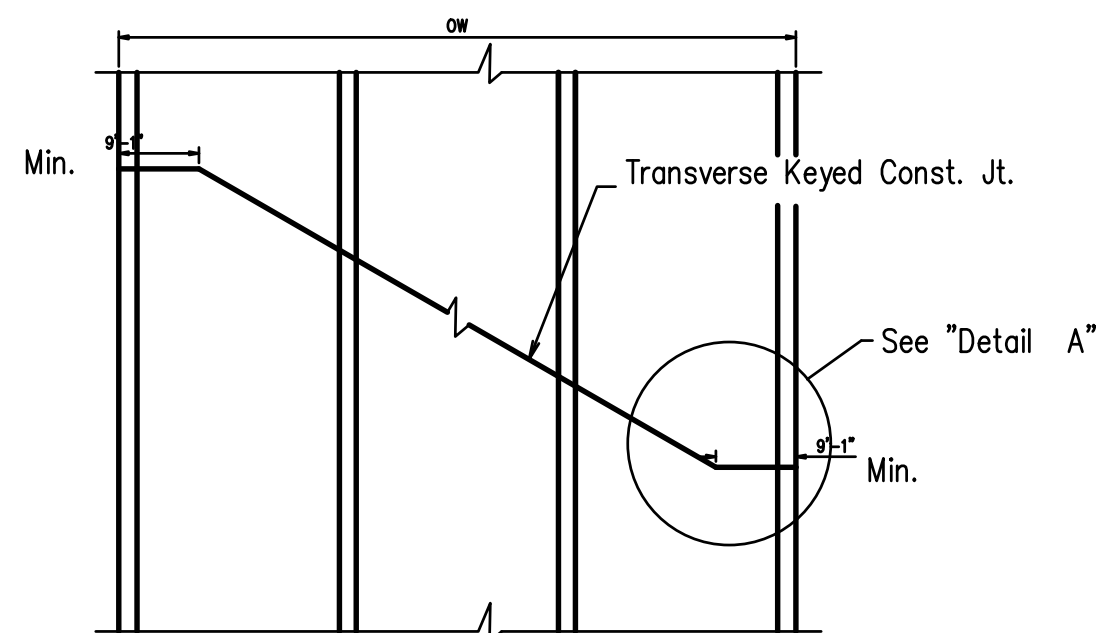


CULVERT DRAINAGE DETAIL FOR ROCK FILL  
This detail shall be used when rock fill is specified for embankment construction.

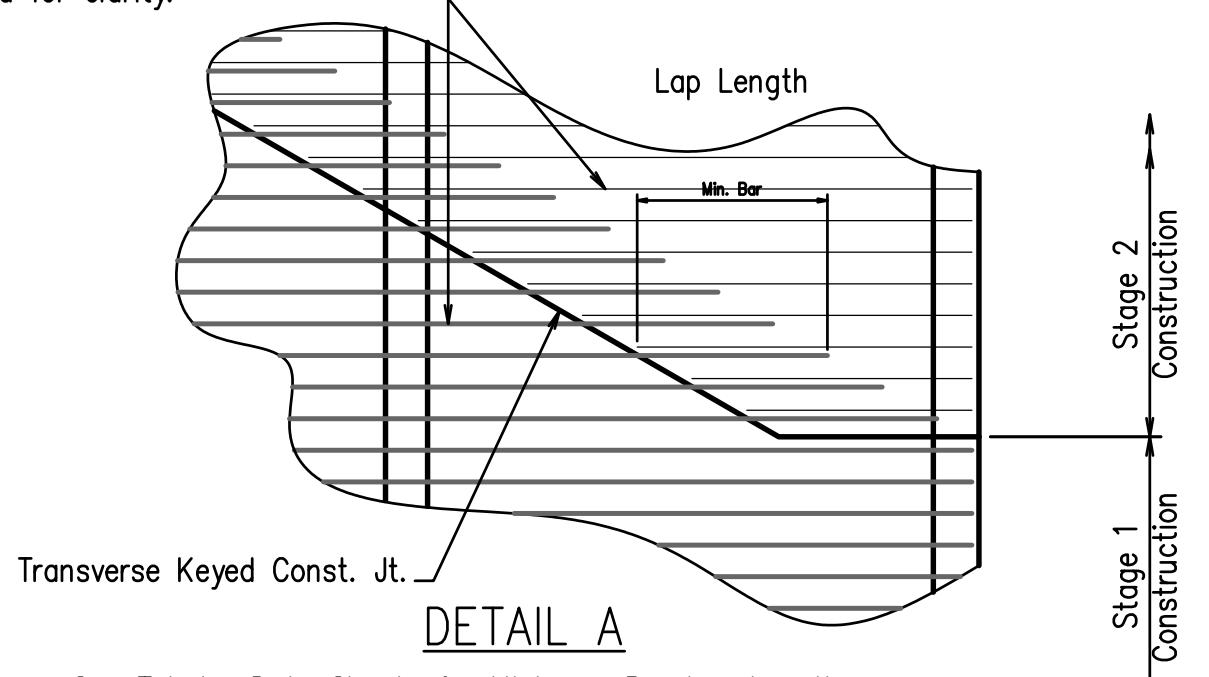


VERTICAL FABRIC ALTERNATE (Shown for Culvert, Similar for Wingwall I)  
WRAPPED FABRIC ALTERNATE (Shown for Wingwall I, Similar for Culvert)  
WINGWALL & CULVERT DRAINAGE DETAIL

Slab bars "a", "b", "c", "d", "b1", or "f".  
Slab distribution and Wall reinforcing omitted for clarity.



SKEWED TRANSVERSE JOINT DETAIL  
This detail shall be used to construct a skewed transverse joint only for Multi-Barrel Culverts and only when required by the Maintenance of Traffic Plans. Otherwise, transverse joints should be made normal to the centerline of the barrel.



DETAIL A  
See Tabular Data Sheets for Minimum Bar Lap Lengths.  
Shown for transverse reinforcing, longitudinal reinforcing similar.

GENERAL NOTES:

CONSTRUCTION SPECIFICATIONS: Arkansas State Highway and Transportation Department Standard Specifications for Highway Construction (2014 edition) with applicable Supplemental Specifications and Special Provisions. Section and Subsection refer to the Standard Construction Specifications unless otherwise noted in the Plans.

DESIGN SPECIFICATIONS: AASHTO LRFD Bridge Design Specifications, Fifth Edition (2010) with 2010 interim revisions.

LIVE LOADING: HL-93

All concrete shall be Class 5 with a minimum 28-day compressive strength of 3,500 psi and shall be poured in the dry. All exposed corners to have 3/4" chamfers.

Reinforcing Steel shall be Grade 60 (yield strength = 60,000 psi) conforming to AASHTO M31 or M322, Type A, with mill test reports.

Reinforcing Steel Tolerances: The tolerances for reinforcing steel shall meet those listed in 'Manual of Standard Practice' published by Concrete Reinforcing Steel Institute (CRSI) except that the tolerance for truss bars such as Figure 3 on page 7-4 of the CRSI Manual shall be minus zero to plus 1/2 inch.

Excavation and backfilling shall be in accordance with the requirements of Section 801.

Membrane Waterproofing shall conform to the requirements of Section 815. Membrane Waterproofing shall be Type C and as directed by the Engineer applied to all construction joints in the top slab and the sidewalls of R.C. Box culverts and to the construction joint between wingwalls and R.C. Box culvert walls.

Weep Holes in box culvert walls shall have a maximum horizontal spacing of 10'-0" and shall be spaced to clear all reinforcing steel. The drain opening shall be 4" diameter and shall be placed 12" above the top of the bottom slab.

Weep Holes in wingwalls shall have a maximum horizontal spacing of 10'-0" and shall be spaced to clear all reinforcing steel. There shall be a minimum of two (2) weep holes in each wingwall. The drain opening shall be 4" diameter and shall be placed 12" above the top of the wingwall footing.

The barrel components of the culvert may be constructed using continuous pours. For longer culvert construction, the Contractor may use multiple pours with transverse construction joints spaced a minimum of 50 feet apart unless superseded by stage construction or site constraints as approved by the Engineer. Construction joints between footings and walls shall be made only where shown in the Plans. Joints shall be keyed and shall be normal to the centerline of barrel except as noted. Reinforcing shall be continuous through joints unless noted otherwise. Reinforcing through stage construction joints shall provide the minimum bar lap length shown on the Tabular Data Sheets. All longitudinal construction joints shall be submitted to the Engineer for approval.

Membrane Waterproofing, Weep Holes, Geotextile Filter Fabric, and Drainage Fill Material will not be paid for directly but shall be considered subsidiary to Class 5 Concrete.

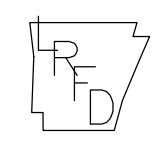
When the top slab of the box culvert serves as finished roadway surface, curing and finishing shall be in accordance with subsections 802.17 and 802.20 for bridge roadway surface and a fine finish shall be applied in accordance with subsection 802.19 for Class 5 Tined Bridge Roadway Surface Finish. Curing and finishing shall not be paid for directly, but shall be considered incidental to the item "Class 5 Concrete-Roadway". Class 1 Protective Surface Treatment shall be applied to the roadway surface and this work shall be paid for under the unit price bid for "Class 1 Protective Surface Treatment".

When precast reinforced concrete box culverts are substituted for cast in place box culverts, they shall be manufactured according to ASTM C 1577 and meet the requirements of Section 607. When the top slab of the box culvert serves as the finished roadway surface, a precast reinforced concrete box culvert substitution is not allowed.

SHEET 1 OF 4  
GENERAL DETAILS OF R.C. BOX CULVERT

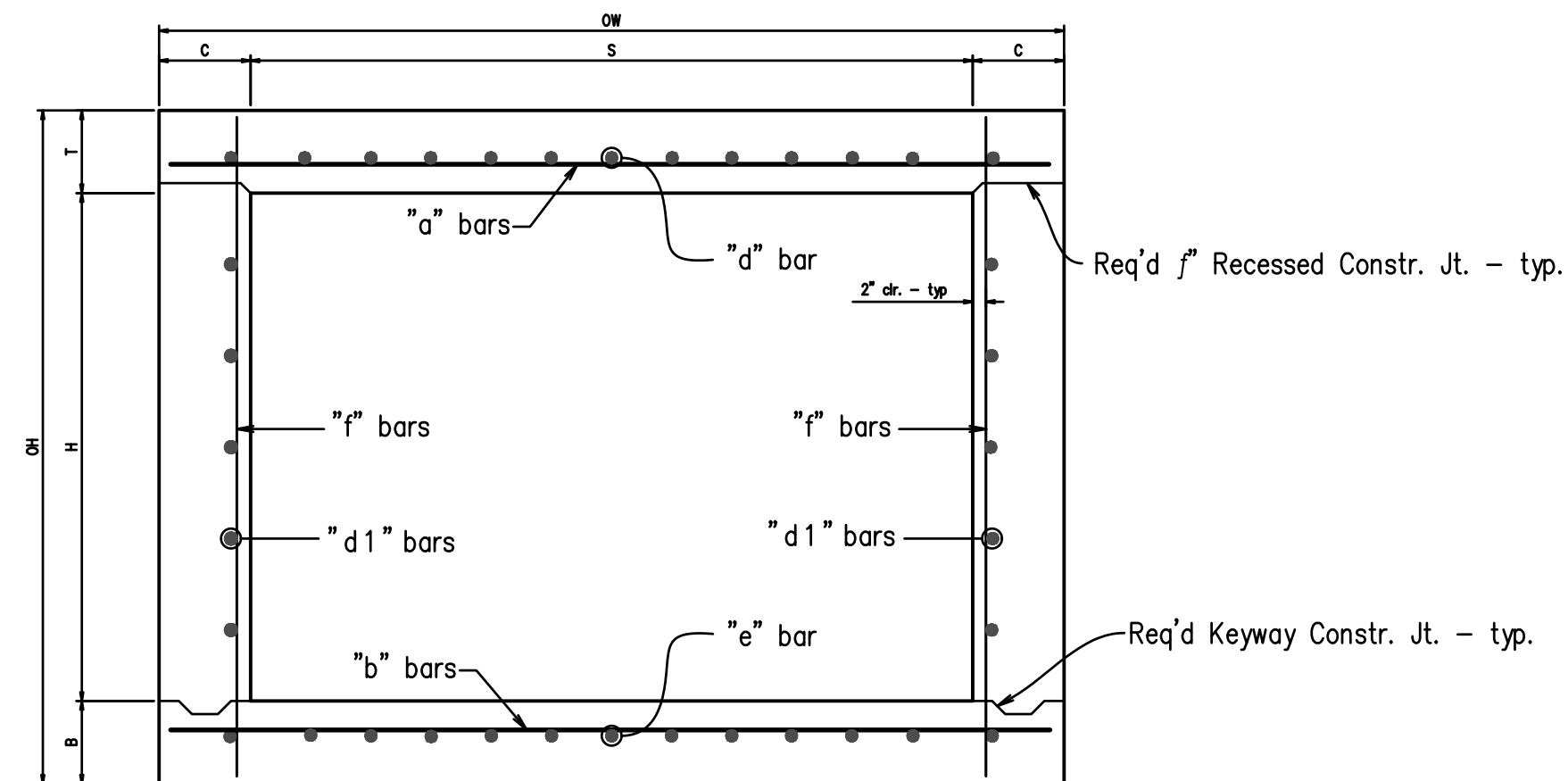
GENERAL NOTES &  
LONGITUDINAL SECTION LENGTH SCHEDULE

SPECIAL DETAILS

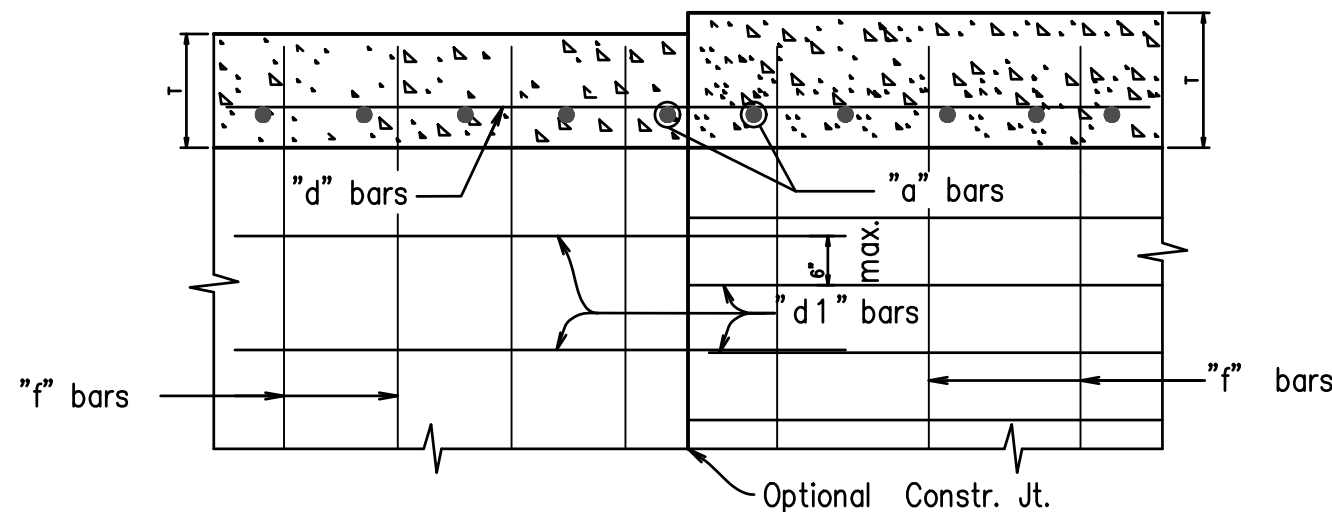




Note: When top slab of culvert serves as finished roadway surface, see General Notes on Sheet 1 of 4.

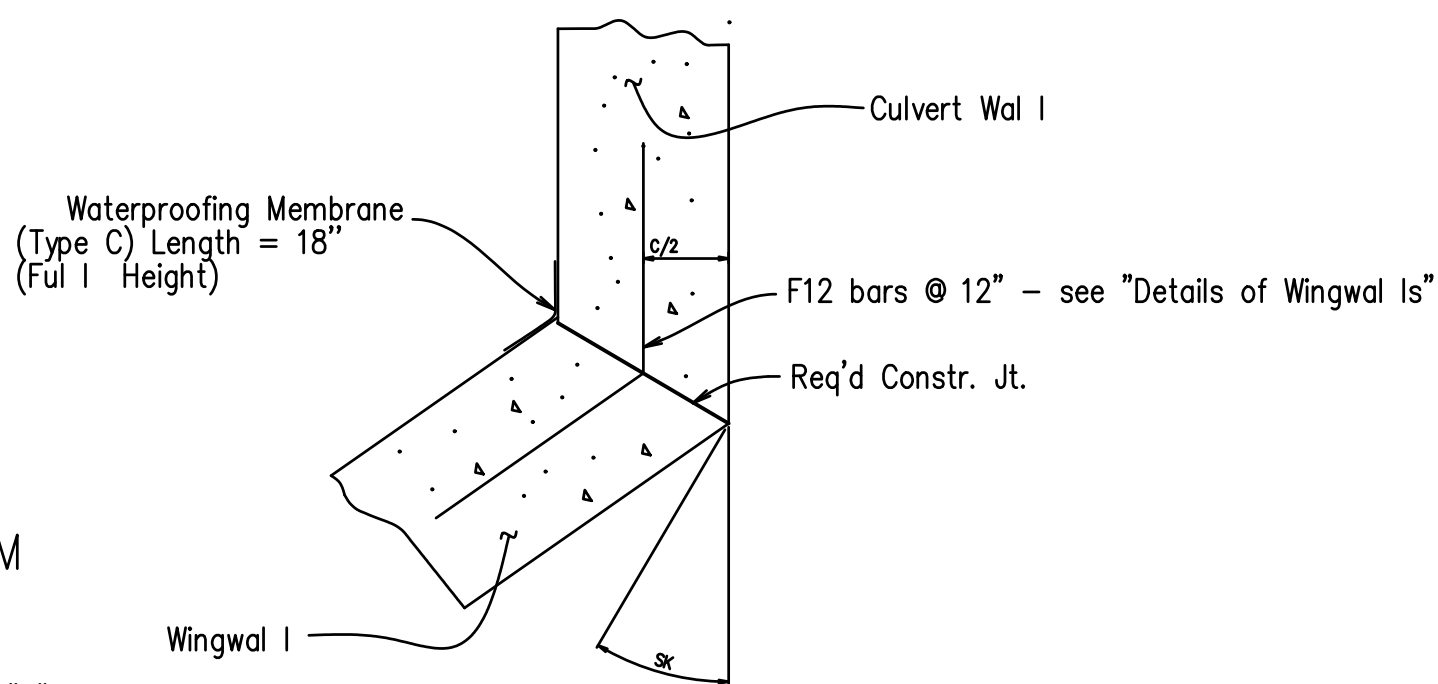


TYPICAL SECTION M-M



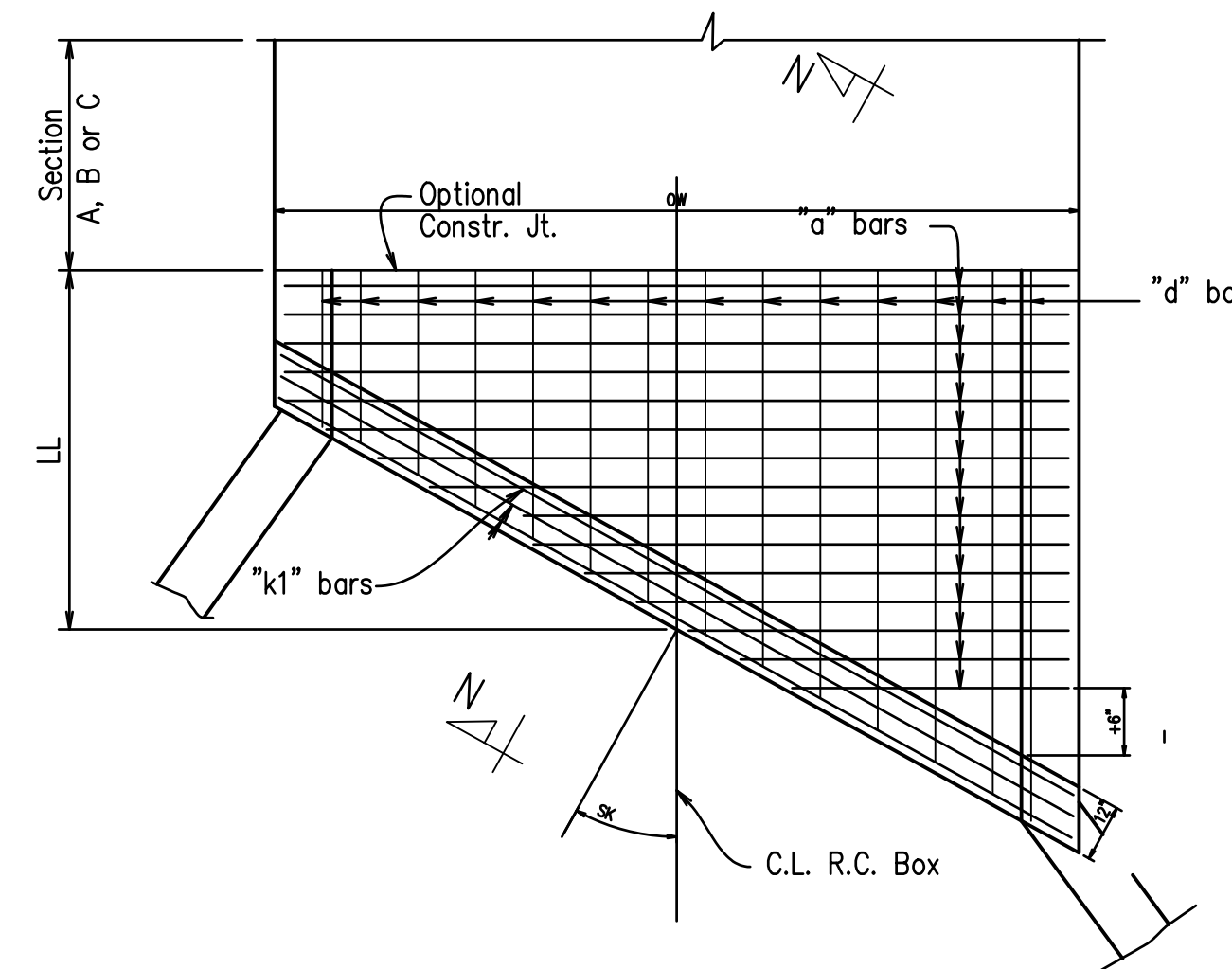
LONGITUDINAL LAP DETAIL AT CHANGE IN SECTIONS

TOP SLAB SHOWN, BOTTOM SLAB SIMILAR

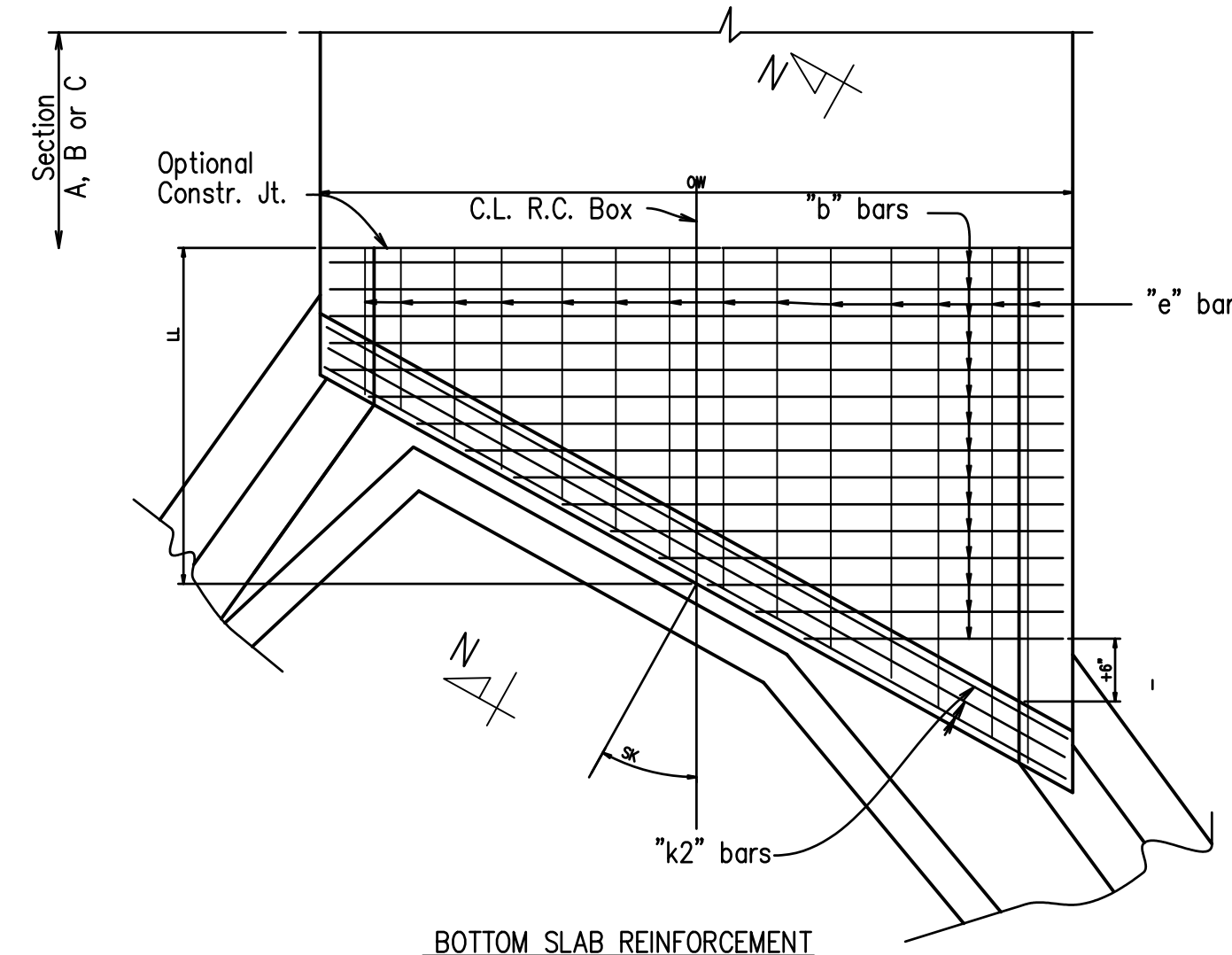


WINGWALL ATTACHMENT

See "Details of Wingwal Is" for additional information and wingwal I details.

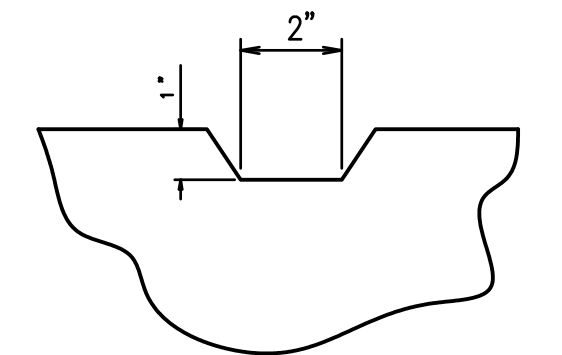


TOP SLAB REINFORCEMENT



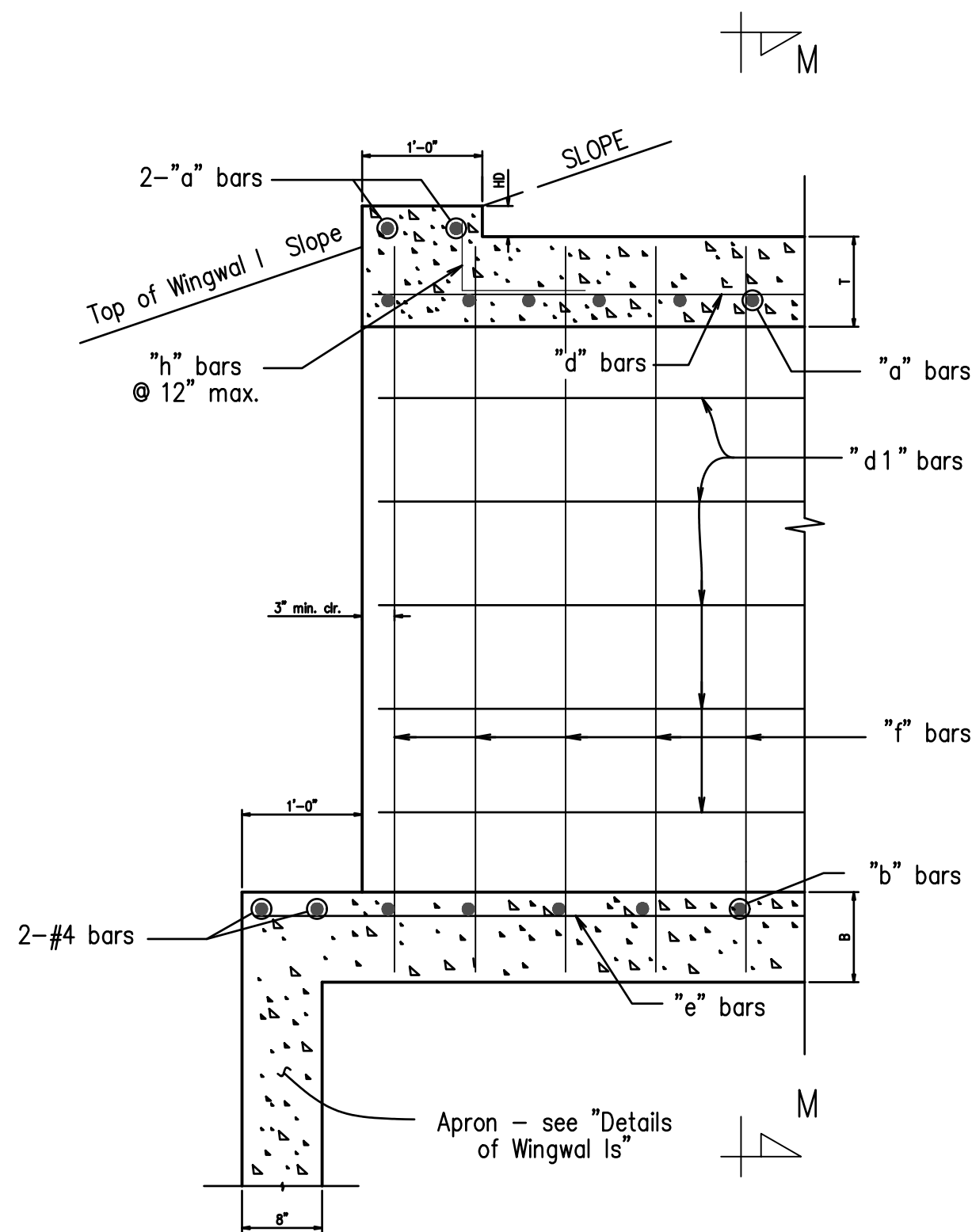
BOTTOM SLAB REINFORCEMENT

SKewed END SECTION DETAILS



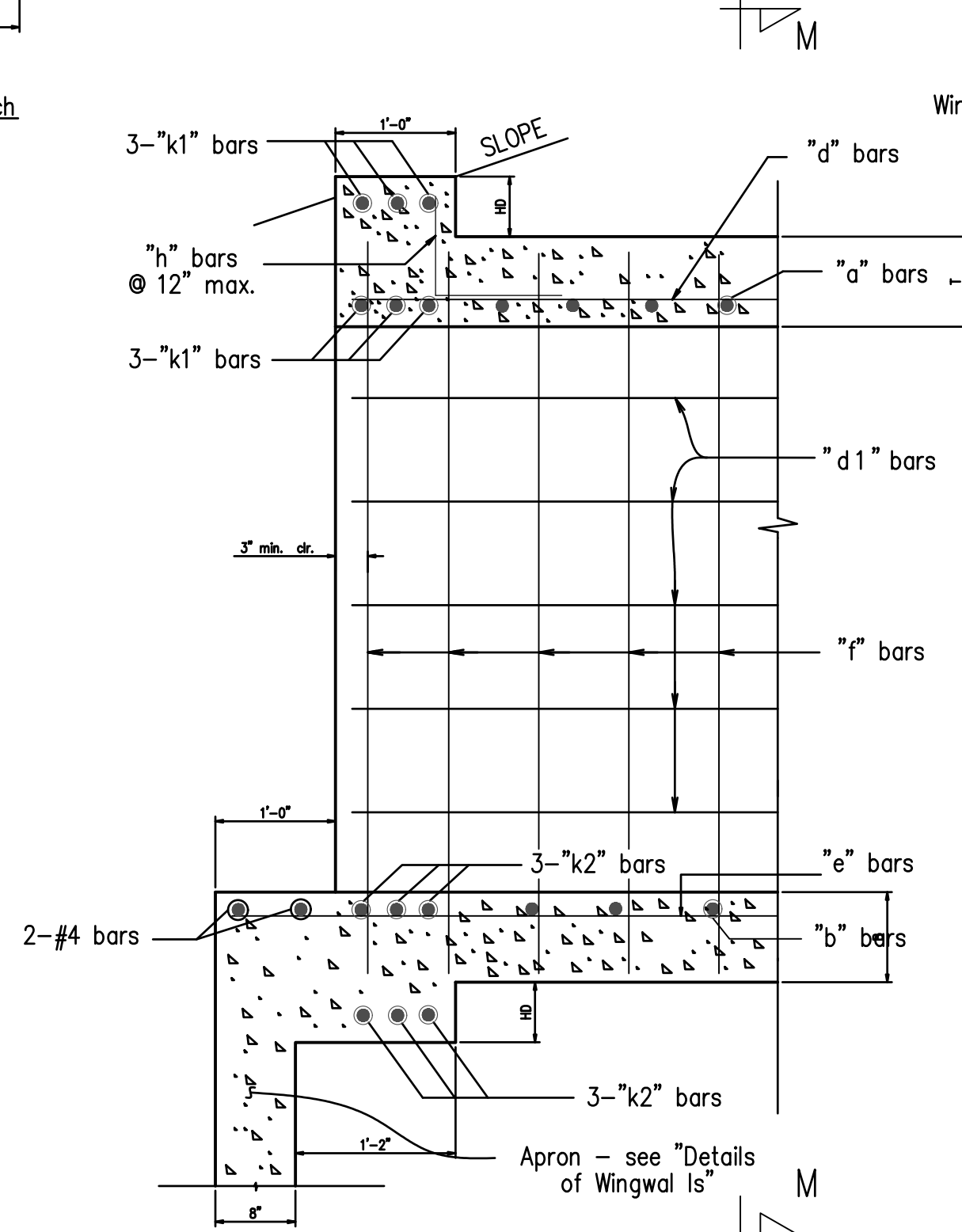
TYPICAL KEYWAY DETAIL

(All Construction Joints)



PART LONGITUDINAL SECTION

(Non-Skewed Ends)



PART LONGITUDINAL SECTION N-N

(Skewed Ends)

SHEET 2 OF 4  
GENERAL DETAILS OF R.C. BOX CULVERT

DETAILS OF SINGLE BARREL  
R.C. BOX CULVERT

SPECIAL DETAILS



REVISIONS	DATE

CITY OF LITTLE ROCK, ARKANSAS  
BOWMAN ROAD RECONSTRUCTION  
SPECIAL DETAILS (2)

DEPARTMENT OF PUBLIC WORKS  
CIVIL ENGINEERING  
701 W. MARKHAM  
LITTLE ROCK, ARKANSAS 72201



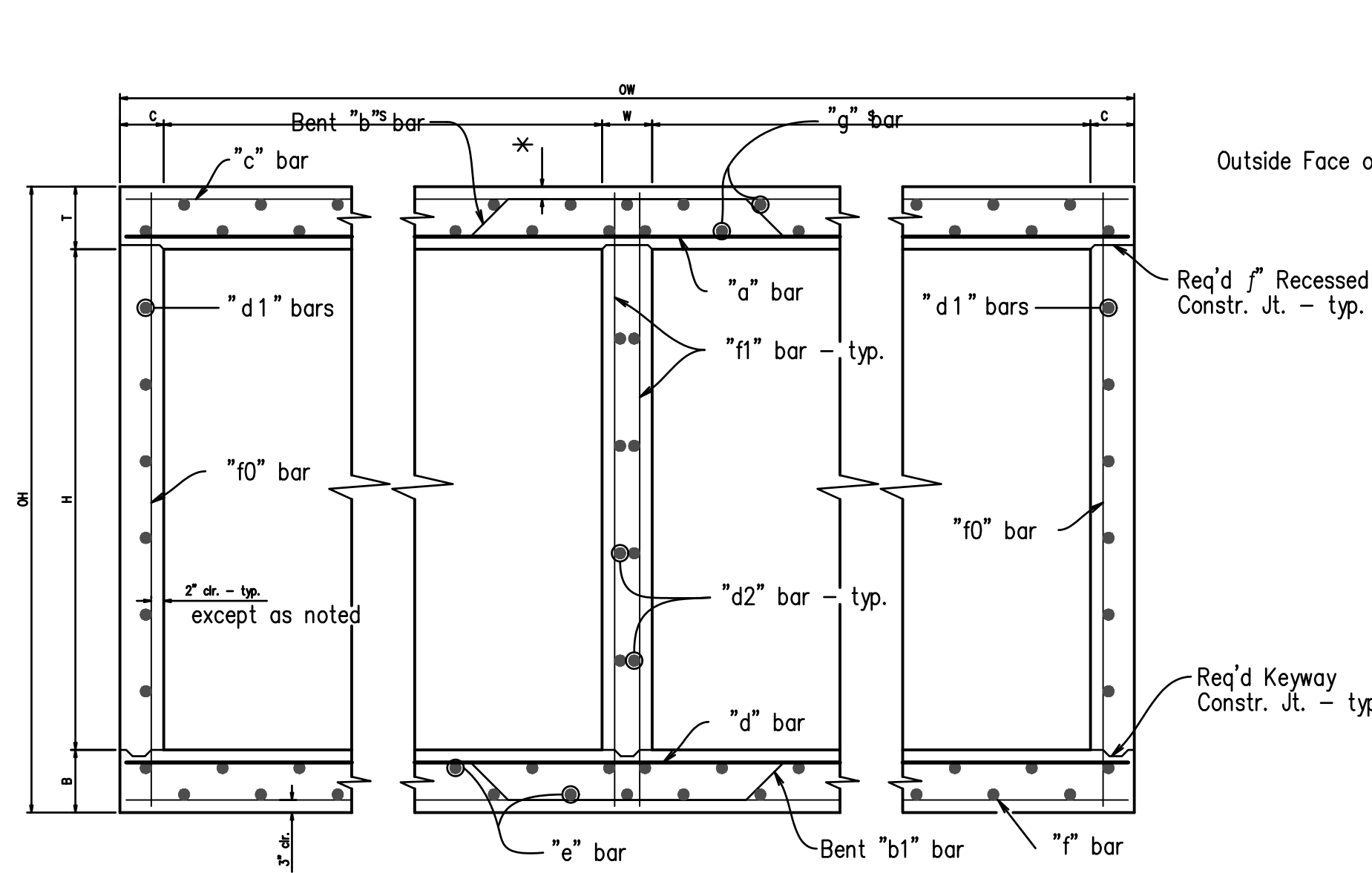
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CHECKED BOL
DATE 12-11-2020
SCALE N.T.S.
PROJECT NO. CLR 6-15-ST-249
SHEET NO. C4.1



REVISIONS	DATE

\* 2" cl. for fill depth (D) greater than 2 ft.  
 2" cl. for fill depth (D) equal to or less than 2 ft.

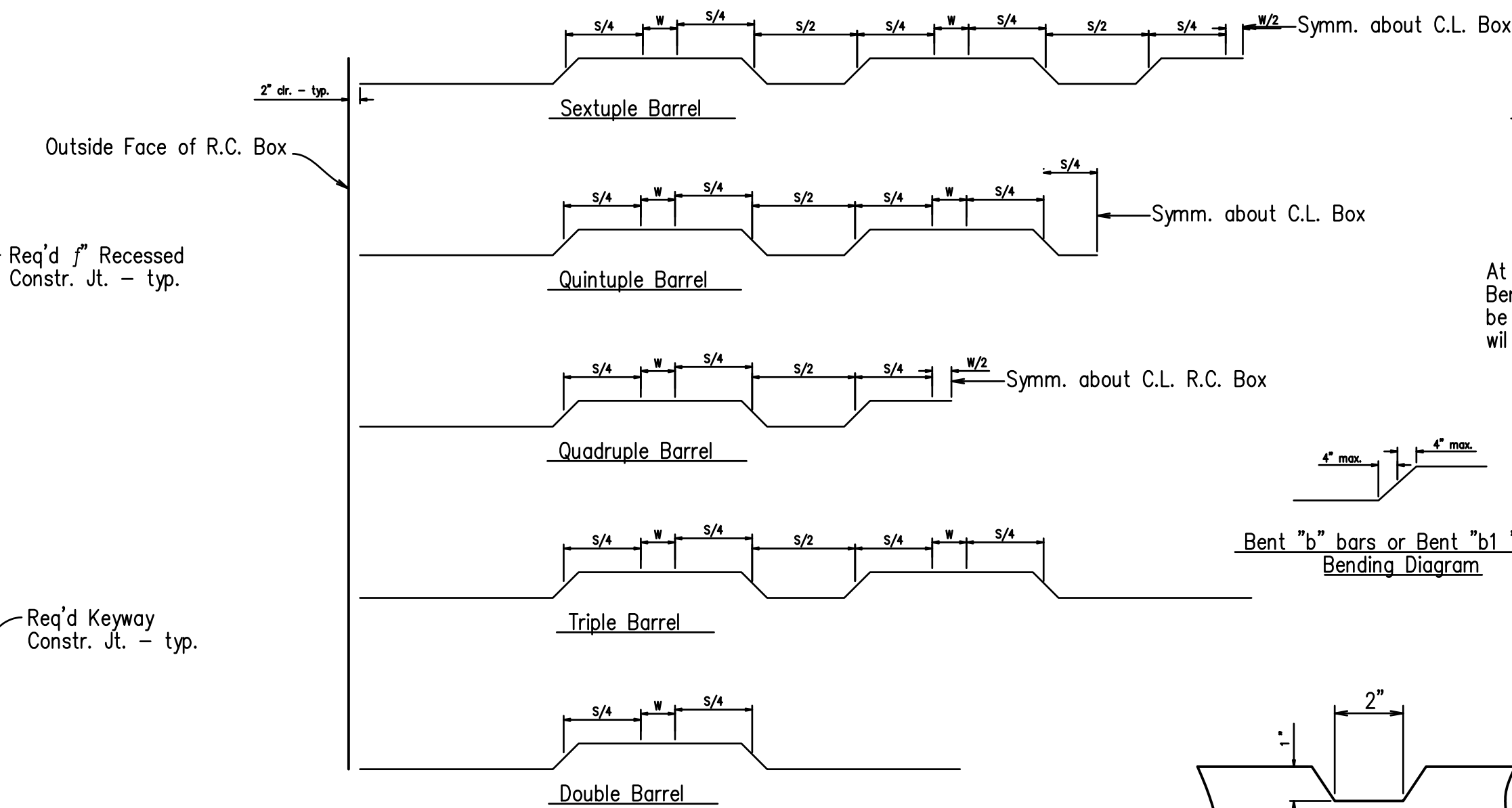
Note: When top slab of culvert serves as finished roadway surface, see General Notes on Sheet 1 of 4.



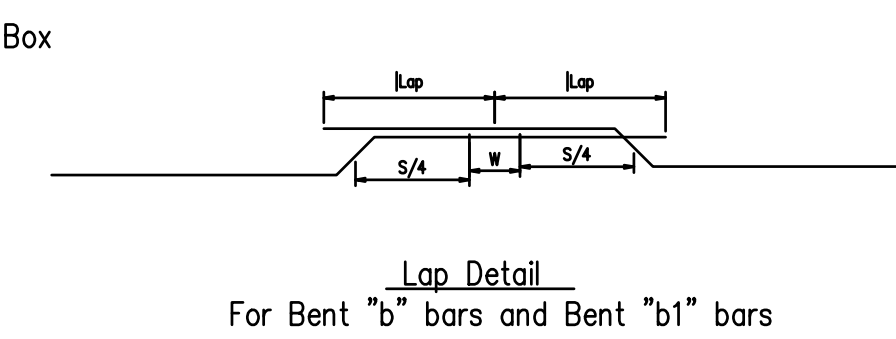
TYPICAL SECTION M-M

Top Slab  
 Straight "c" bars shall alternate with Bent "b" bars in top.  
 Straight "a" bars shall alternate with Bent "b" bars in bottom.

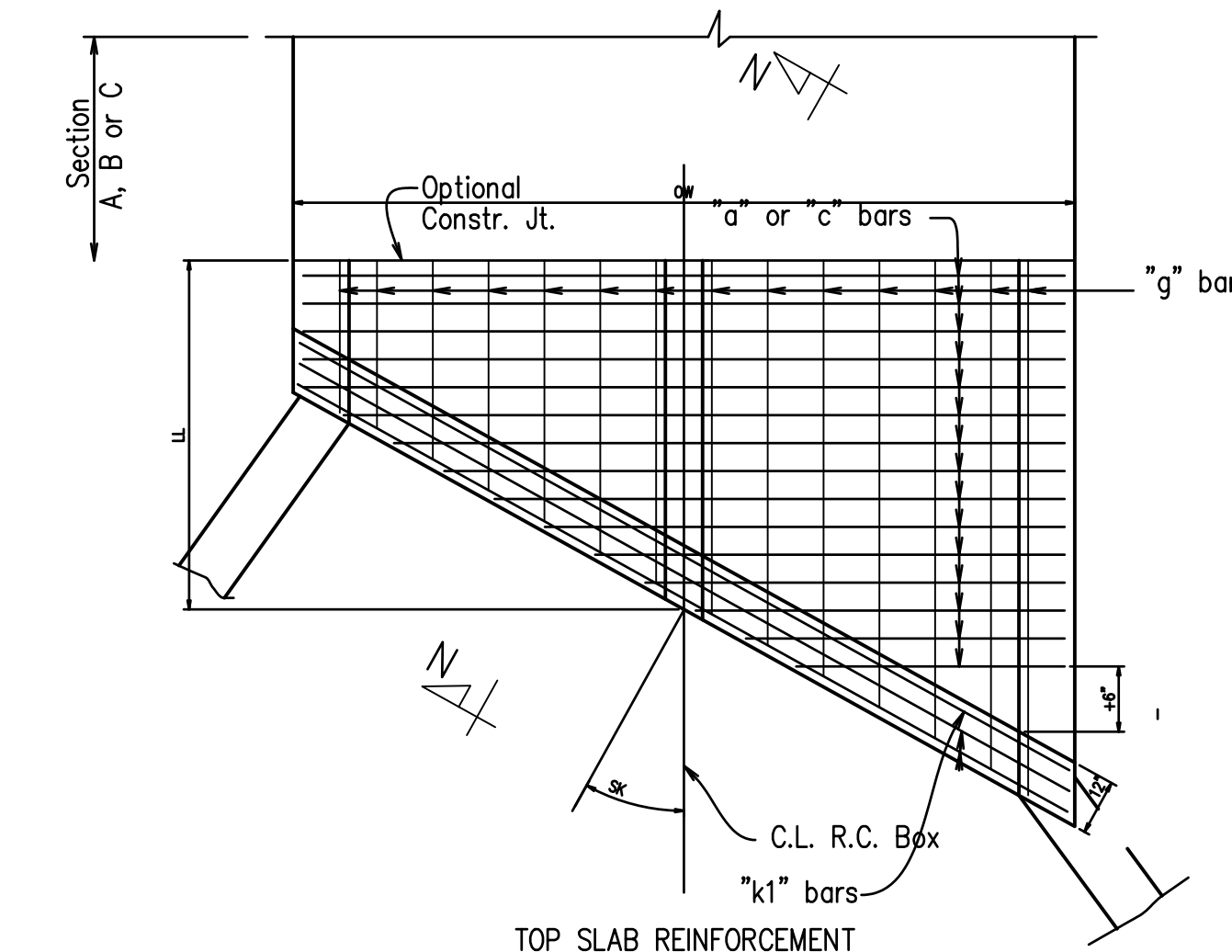
Bottom Slab  
 Straight "d" bars shall alternate with Bent "b1" bars in top.  
 Straight "f" bars shall alternate with Bent "b1" bars in bottom.



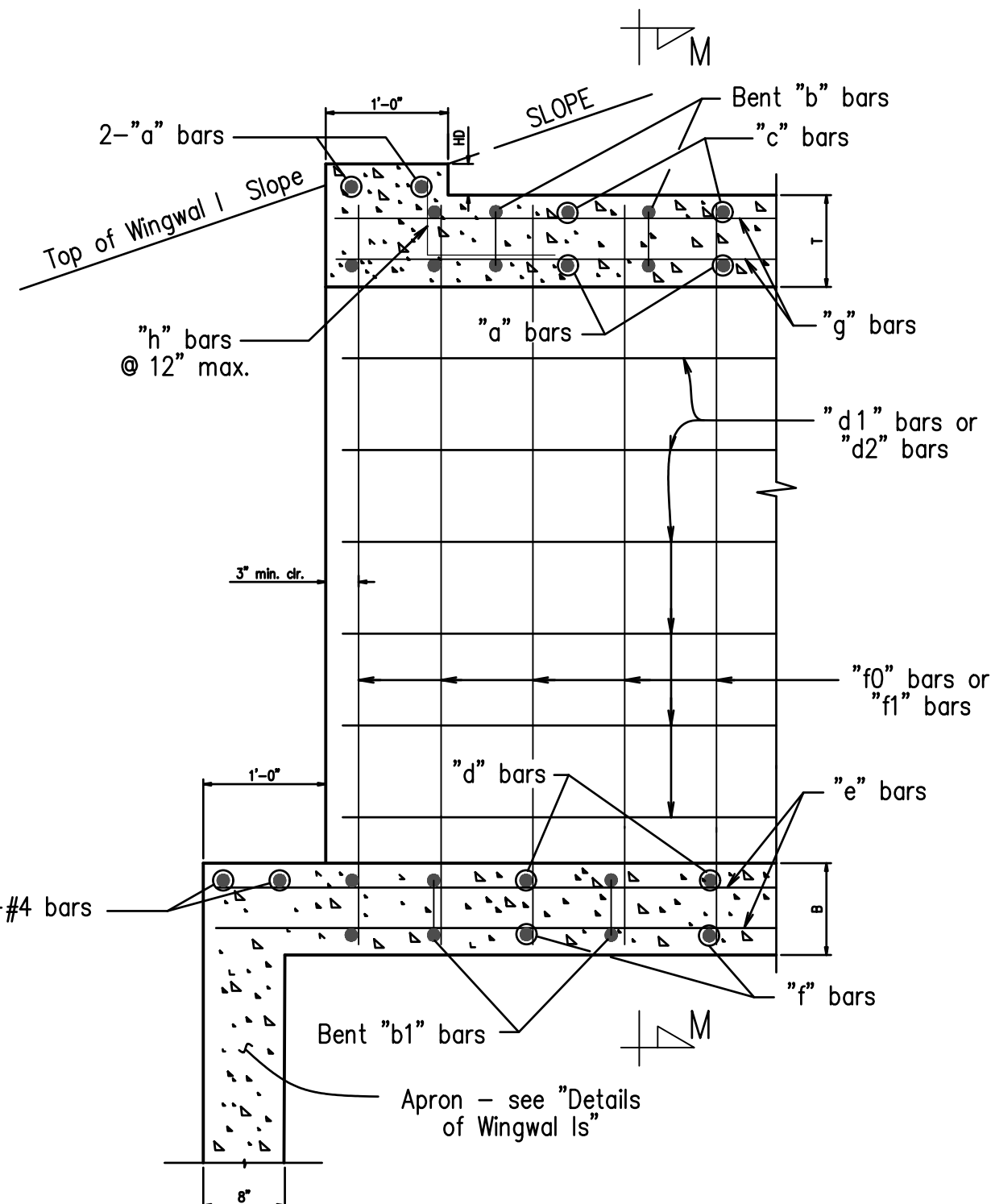
Bent "b" bars or Bent "b1" bars sketch



At the Contractor's option in lieu of providing Bent "b" or Bent "b1" bars, one bar top and bottom of equivalent size may be substituted for each bent bar. Payment for the reinforcing will be based on the weight of the "b" or "b1" bar.

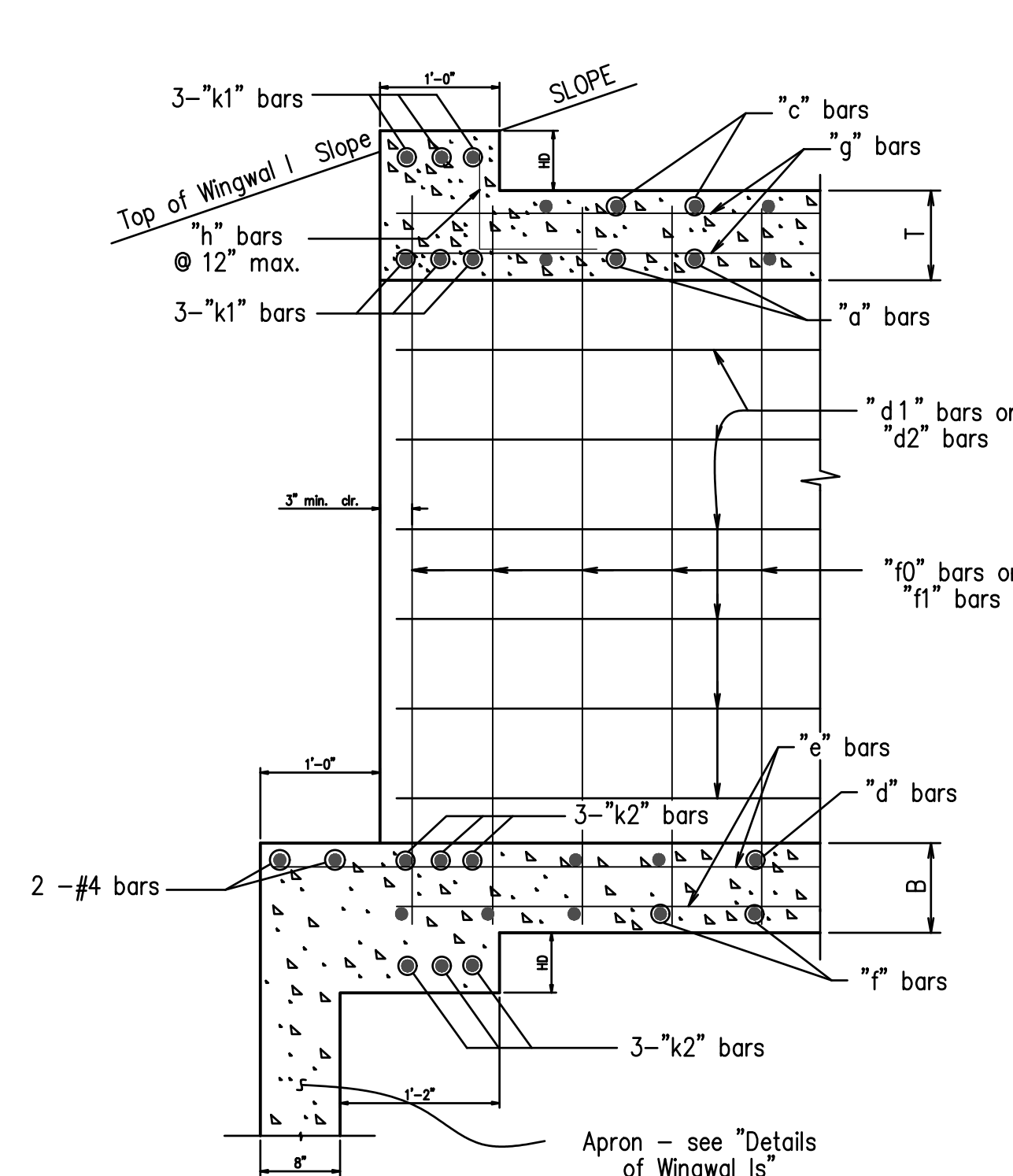


TOP SLAB REINFORCEMENT  
 Straight "c" bars in top.  
 Straight "a" bars in bottom.



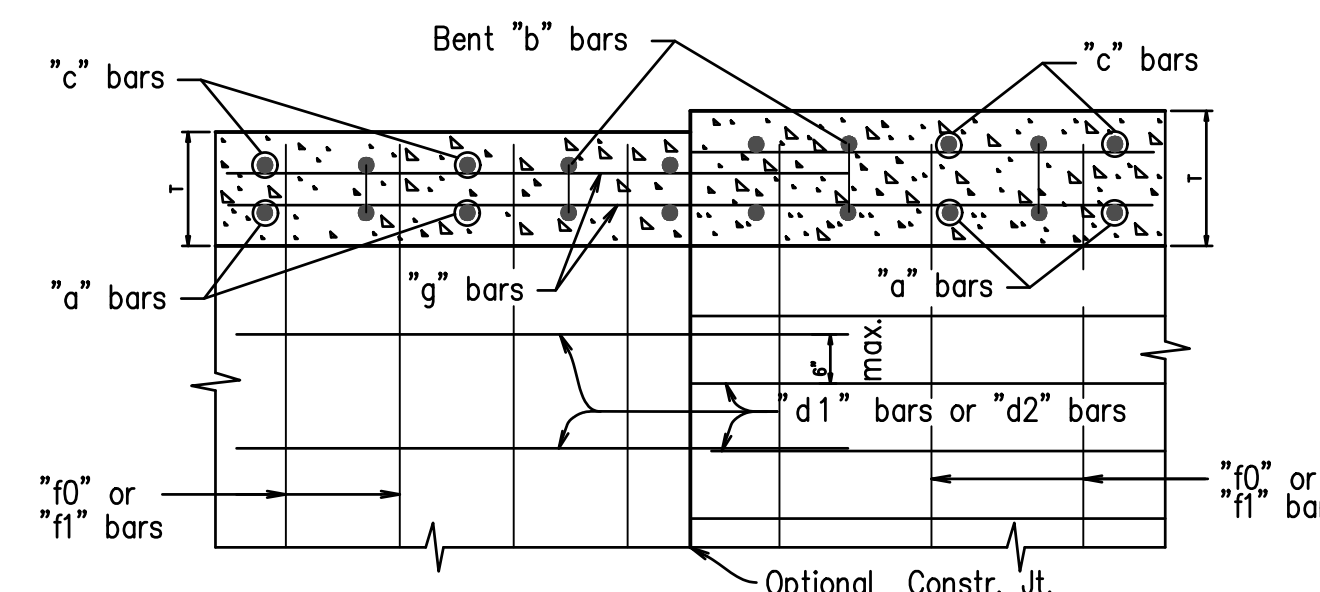
PART LONGITUDINAL SECTION

(Non-Skewed Ends)



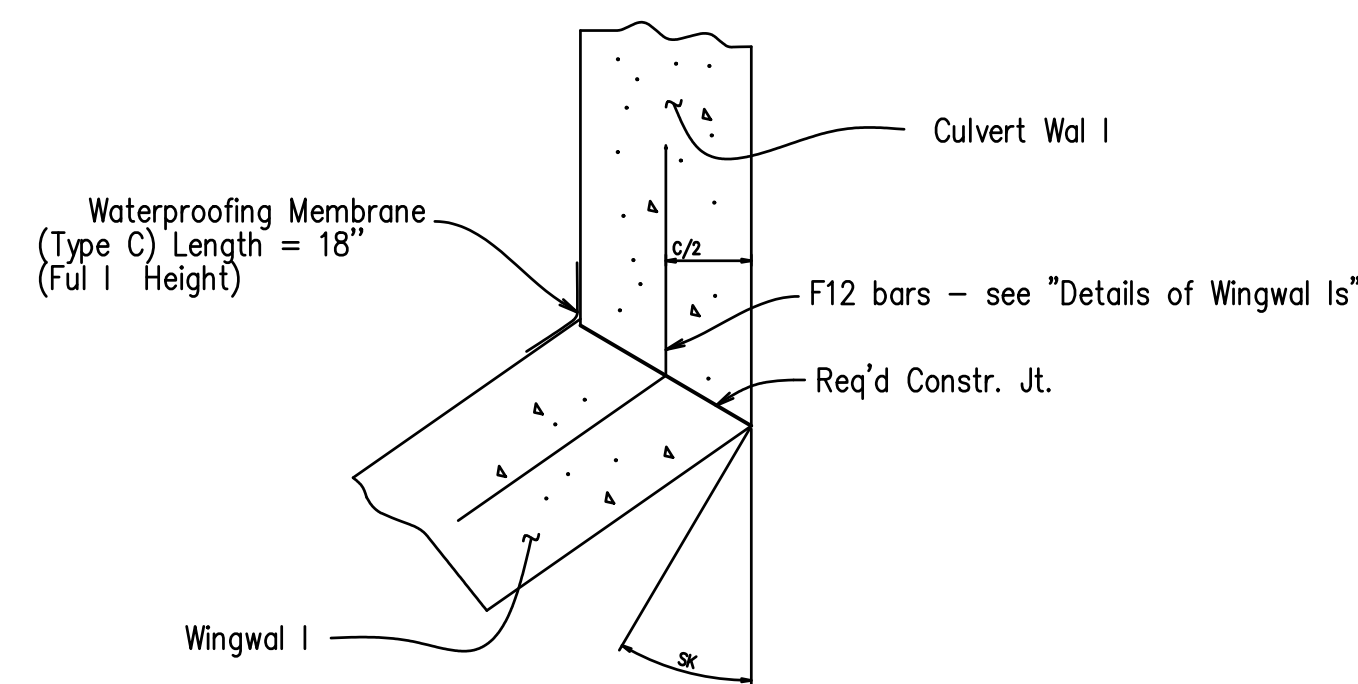
PART LONGITUDINAL SECTION N-N

(Skewed Ends)



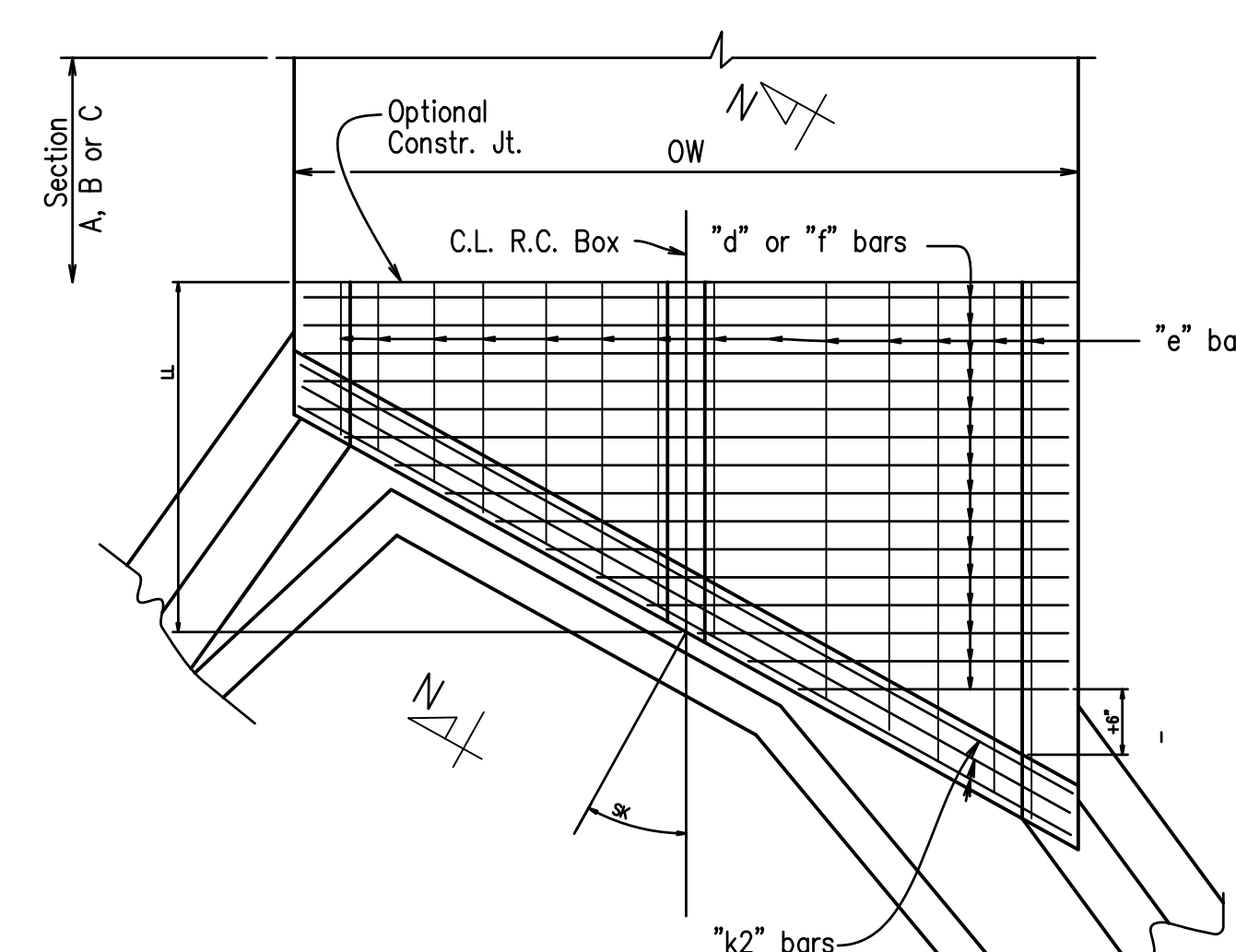
LONGITUDINAL LAP DETAIL AT CHANGE IN SECTIONS

TOP SLAB SHOWN, BOTTOM SLAB SIMILAR



WINGWALL ATTACHMENT

See "Details of Wingwall Is" for additional information and wingwall details.



BOTTOM SLAB REINFORCEMENT  
 Straight "d" bars in top.  
 Straight "f" bars in bottom.

SKewed END SECTION DETAILS

SHEET 3 OF 4  
 GENERAL DETAILS OF R.C. BOX CULVERT

DETAILS OF MULTI-BARREL  
 R.C. BOX CULVERT

SPECIAL DETAILS



CITY OF LITTLE ROCK, ARKANSAS  
 BOWMAN ROAD RECONSTRUCTION  
 SPECIAL DETAILS (3)

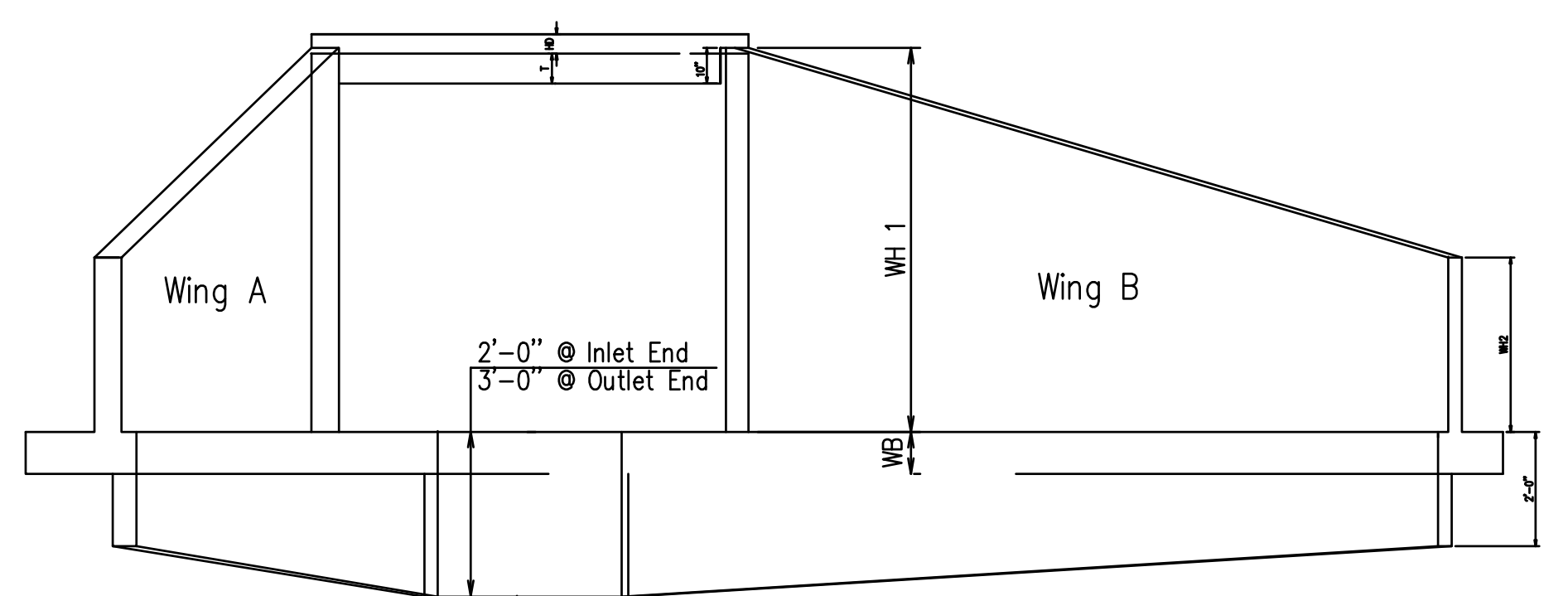
DEPARTMENT OF PUBLIC WORKS  
 CIVIL ENGINEERING  
 701 W. MARKHAM  
 LITTLE ROCK, ARKANSAS 72201



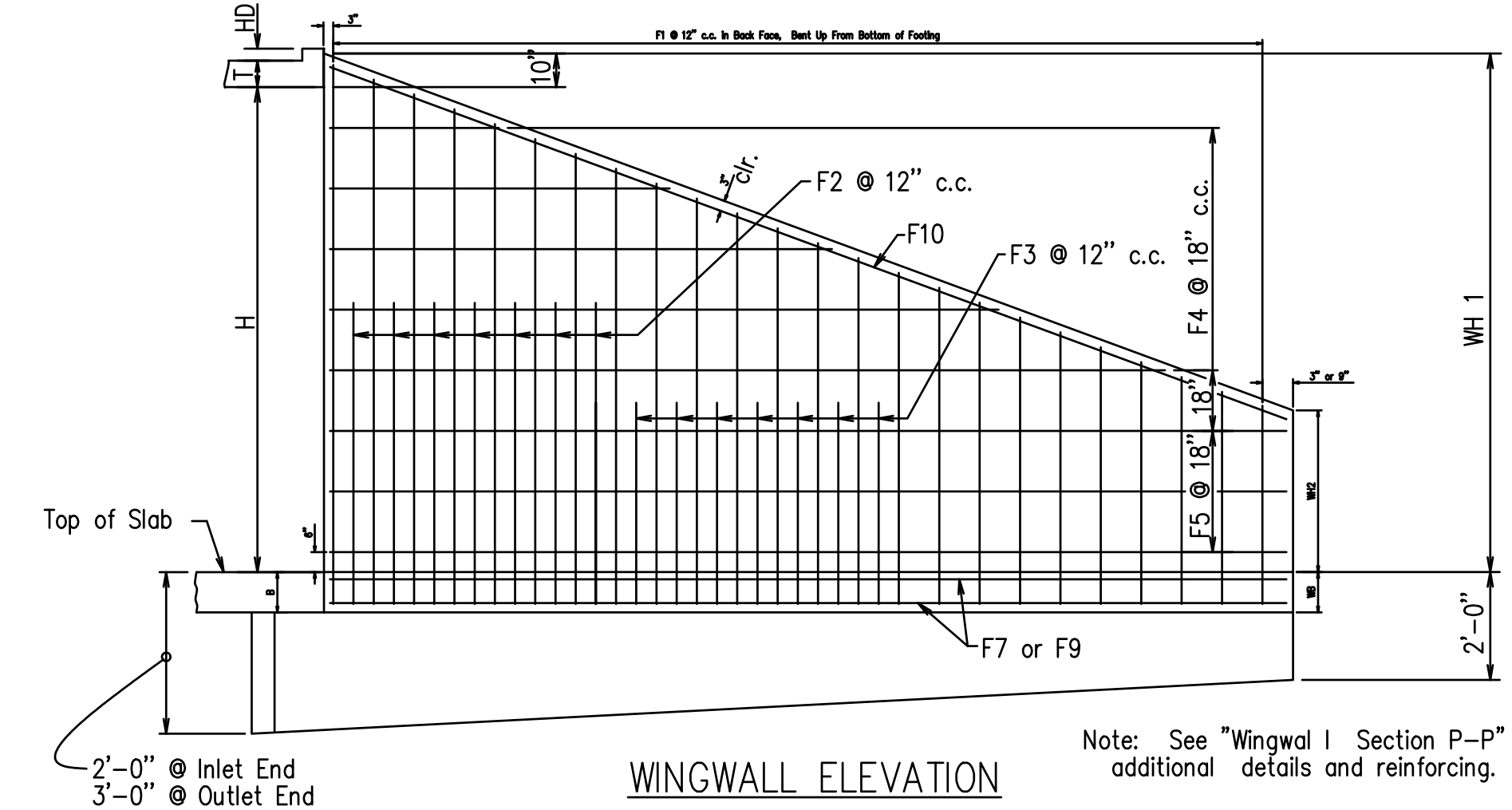
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 SCALE  
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 PROJECT NO.  
 CLR 6-15-ST-249  
 SHEET NO.  
 C4.2



REVISIONS	DATE

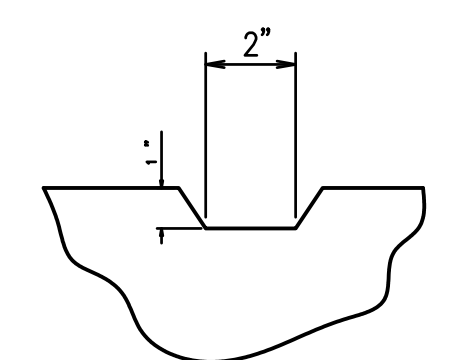


**END ELEVATION**  
Flared Wingwall Is Shown

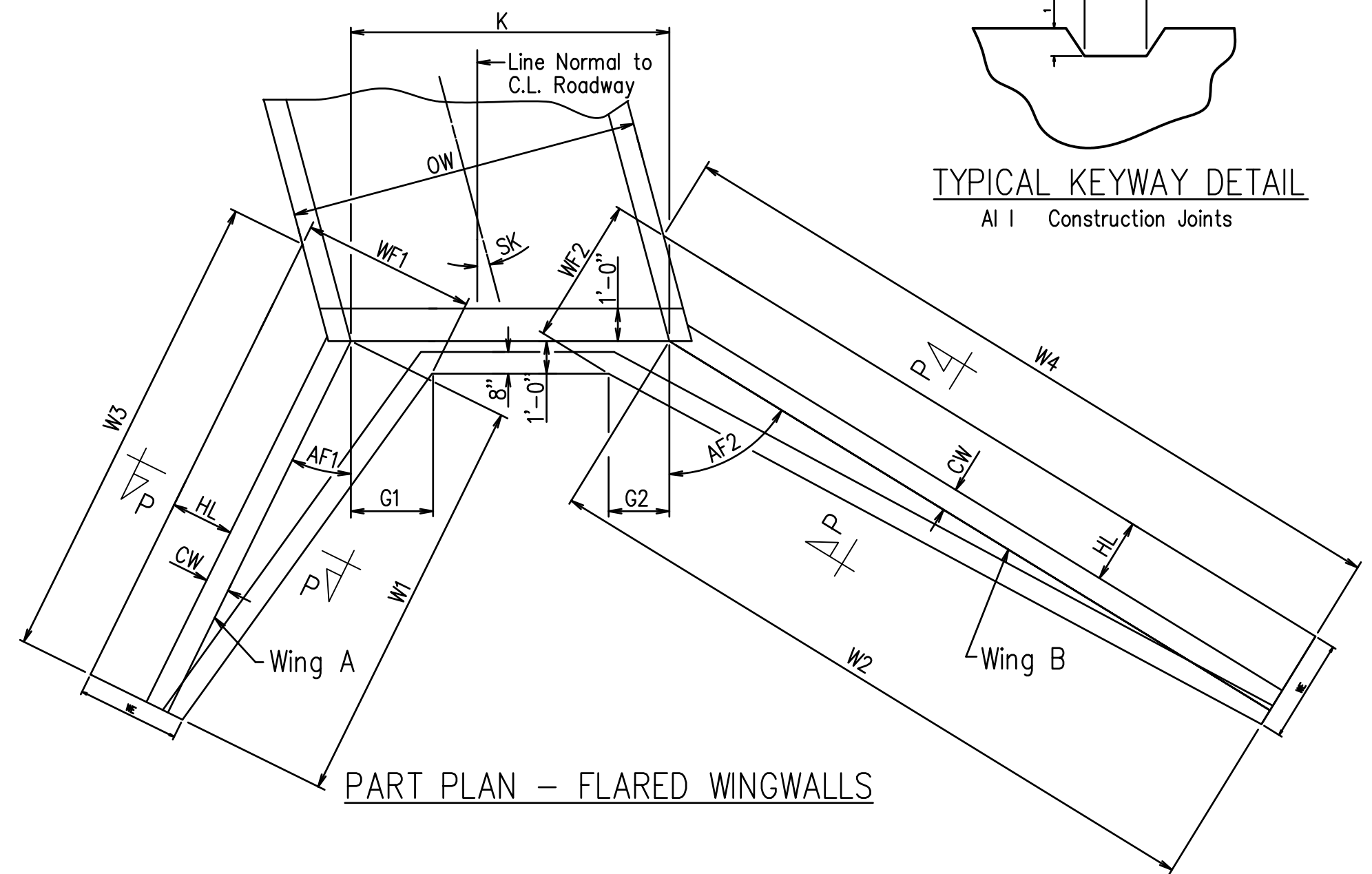


**WINGWALL ELEVATION**  
Showing Back Face Reinforcement

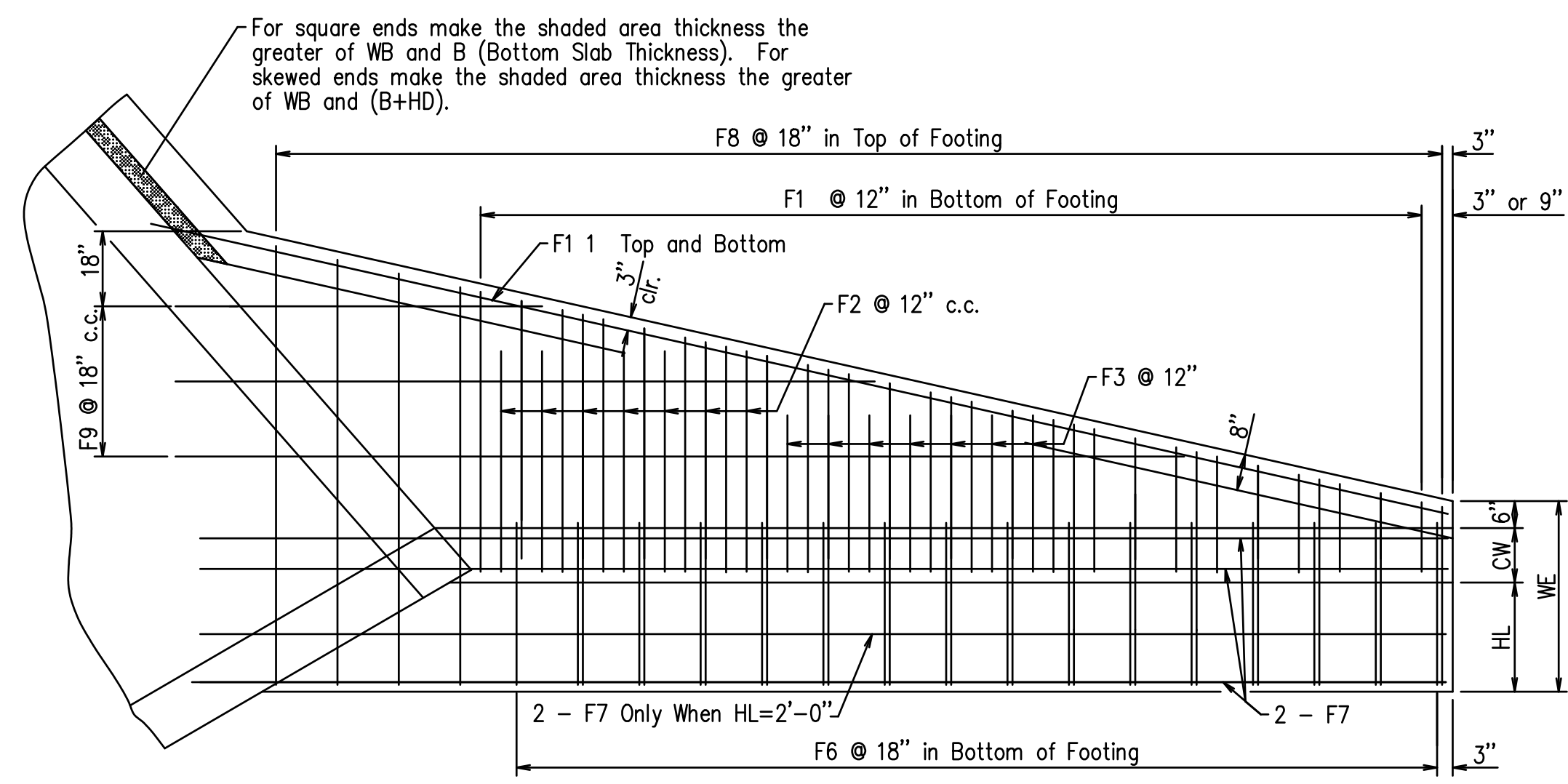
Note: See "Wingwall I Section P-P" for additional details and reinforcing.



**TYPICAL KEYWAY DETAIL**  
At 1' Construction Joints

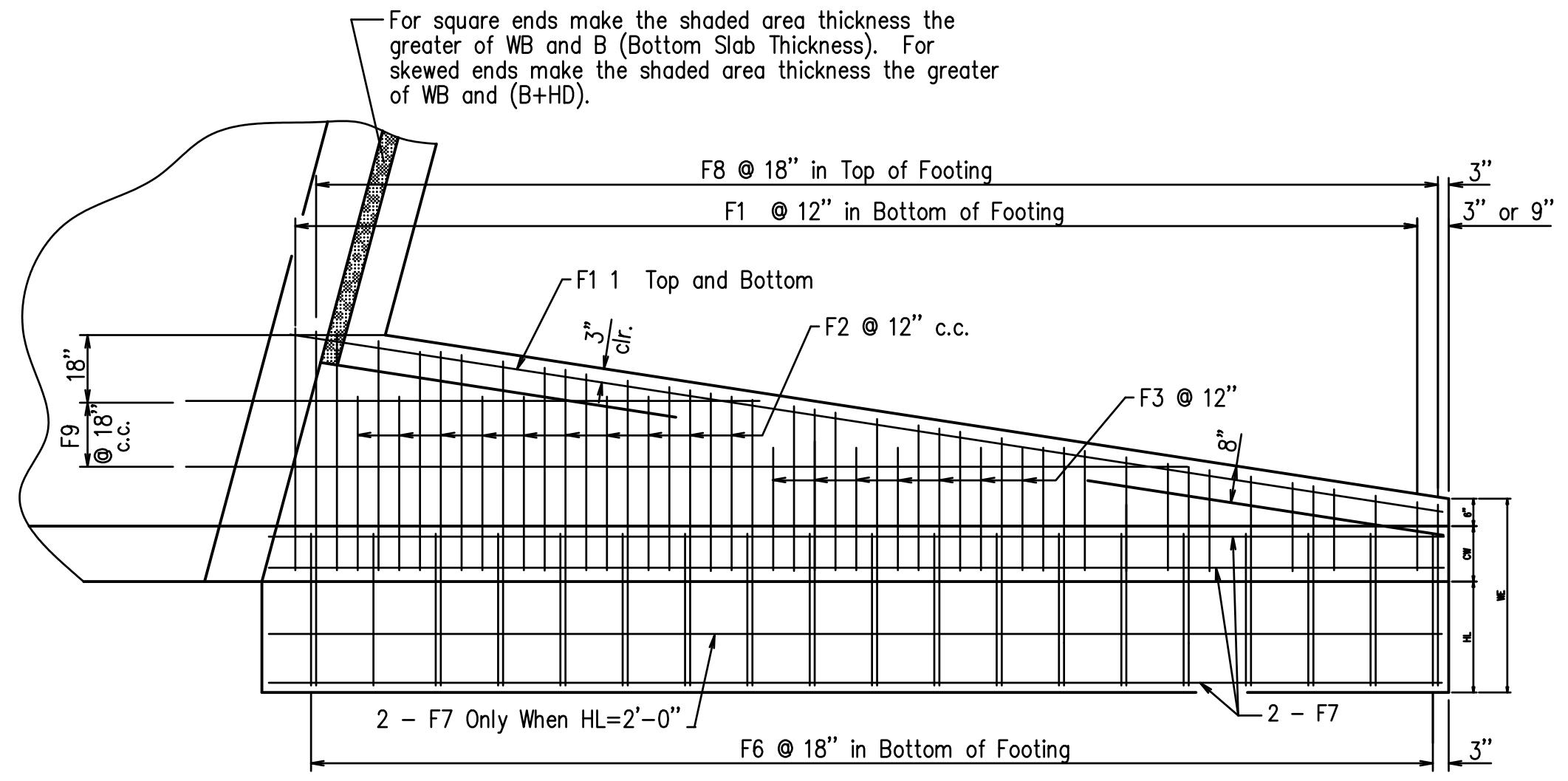


**PART PLAN - FLARED WINGWALLS**



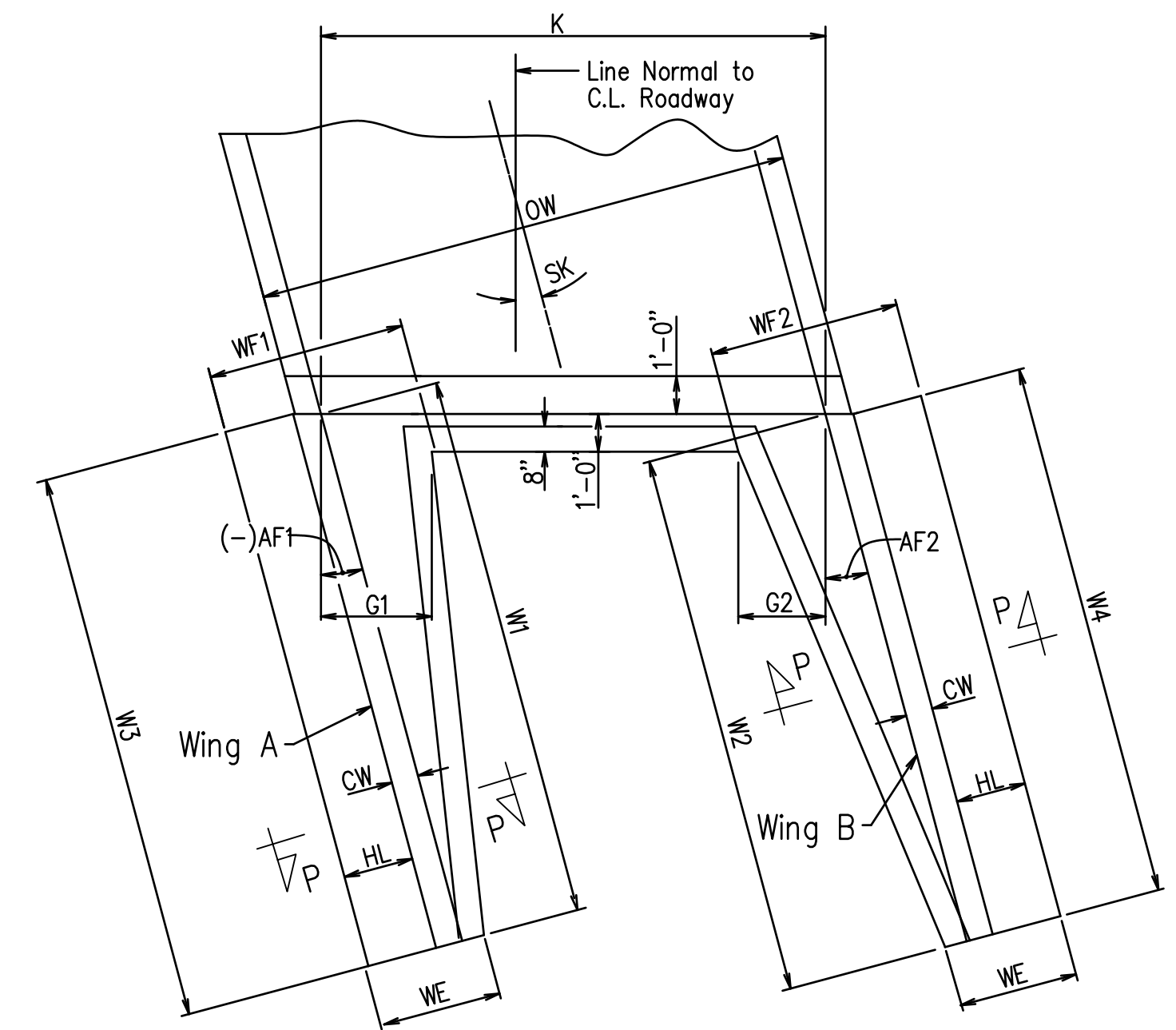
**PLAN - FLARED WINGWALLS**  
Showing Footing Reinforcement

For square ends make the shaded area thickness the greater of WB and B (Bottom Slab Thickness). For skewed ends make the shaded area thickness the greater of WB and (B+HD).

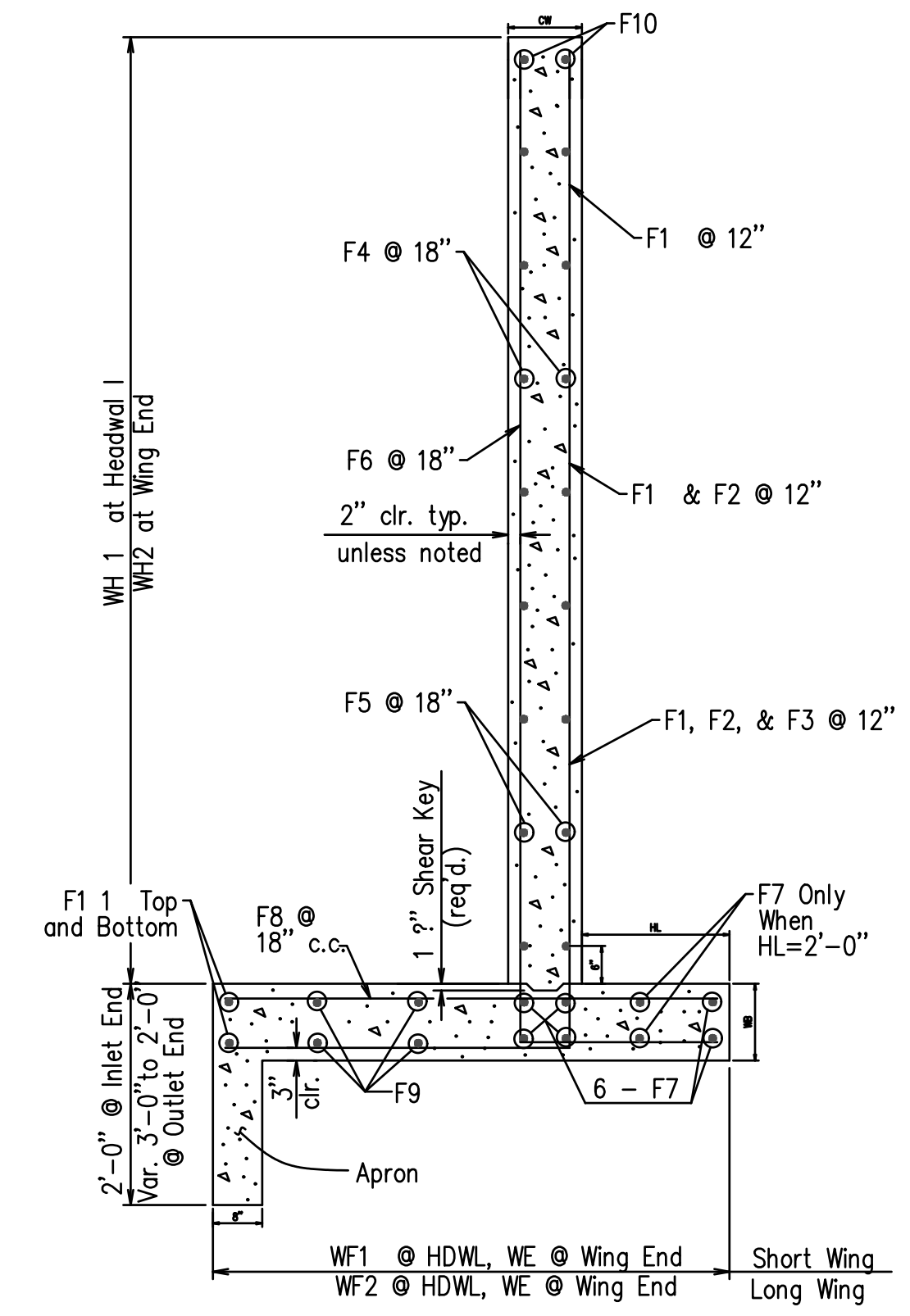


**PLAN - PARALLEL WINGWALLS**  
Showing Footing Reinforcement

For square ends make the shaded area thickness the greater of WB and B (Bottom Slab Thickness). For skewed ends make the shaded area thickness the greater of WB and (B+HD).



**PART PLAN - PARALLEL WINGWALLS**

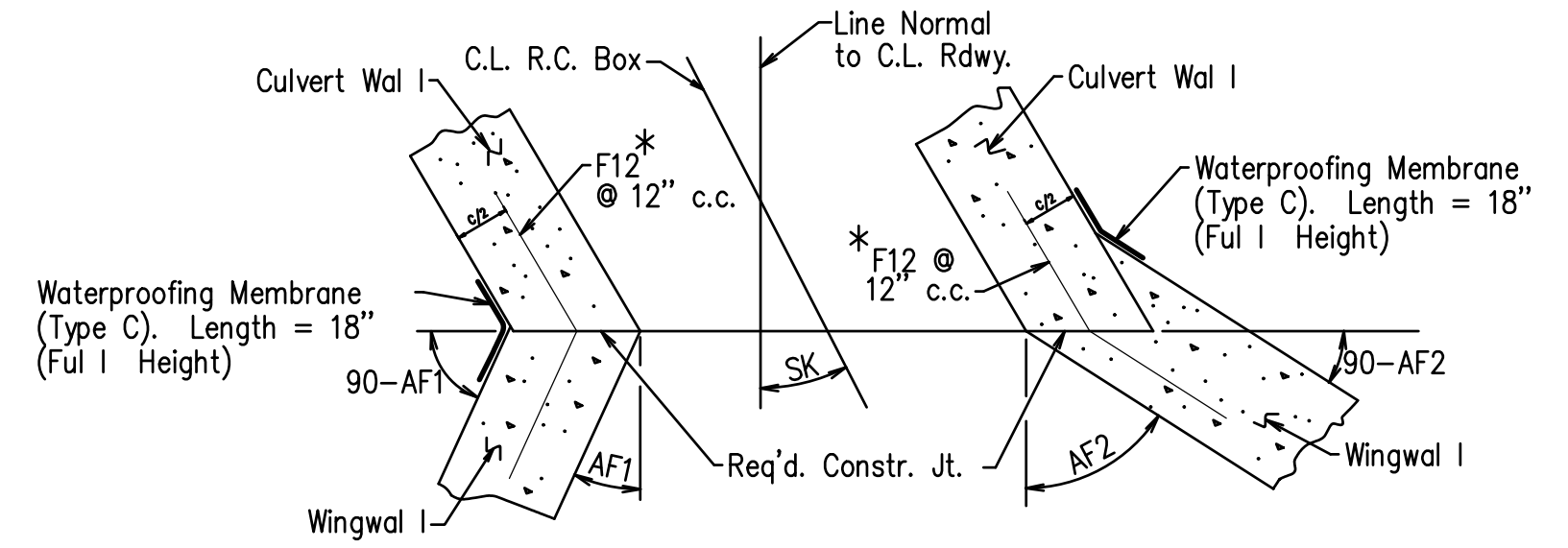


**WINGWALL SECTION P-P**

Short Wing = (AF1+SK)  
Long Wing = (AF2-SK)

**F1, F2, F3, & F6 BARS**      \* **F12 BAR**

\* F12 is a straight bar for parallel wingwall



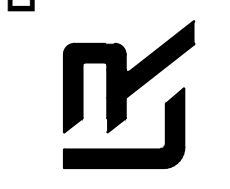
**CONSTRUCTION JOINTS**  
Flared Wingwall Is Shown

SHEET 4 OF 4  
GENERAL DETAILS OF R.C. BOX CULVERT  
DETAILS OF WINGWALLS  
SPECIAL DETAILS

CITY OF LITTLE ROCK, ARKANSAS  
BOWMAN ROAD RECONSTRUCTION

SPECIAL DETAILS (4)

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LITTLE ROCK, ARKANSAS 72201



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<b>CHECKED</b> BOL
<b>DATE</b> 12-11-2020
<b>SCALE</b> N.T.S.
<b>PROJECT NO.</b> CLR 6-15-ST-249
<b>SHEET NO.</b> C4.3







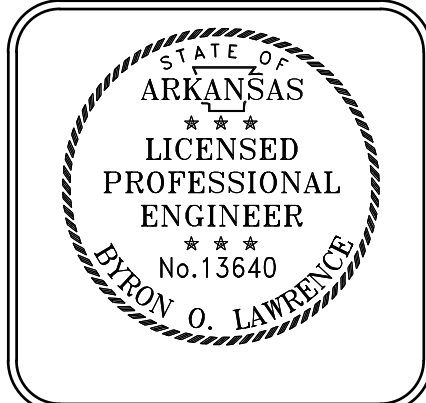




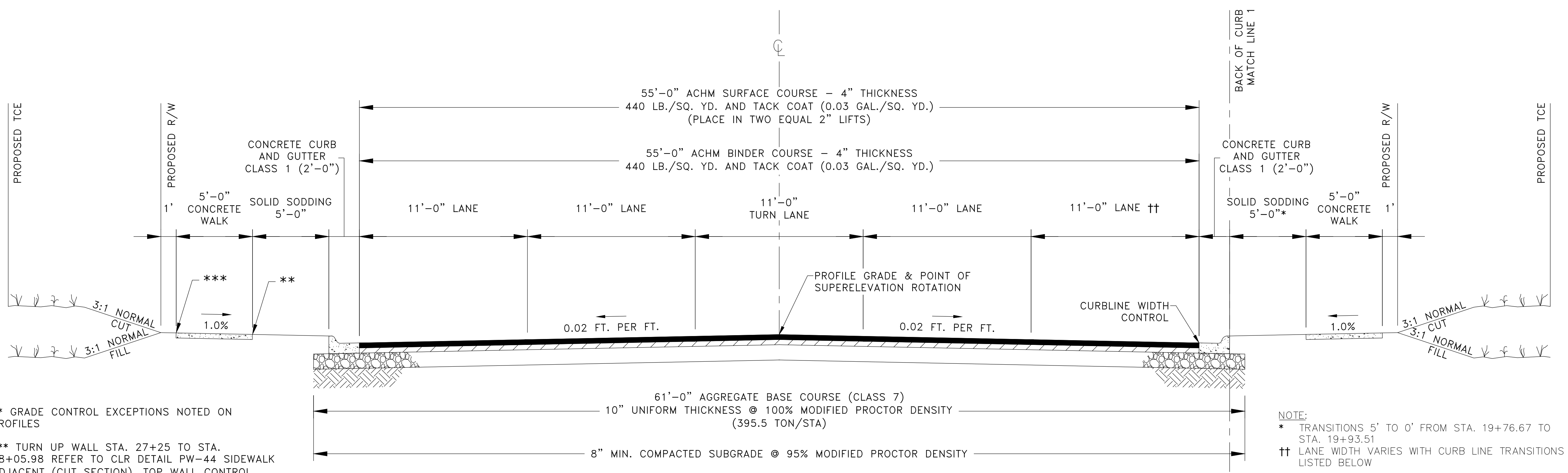
REVISIONS	DATE

CITY OF LITTLE ROCK, ARKANSAS  
 BOWMAN ROAD RECONSTRUCTION  
 TYPICAL SECTIONS (1)

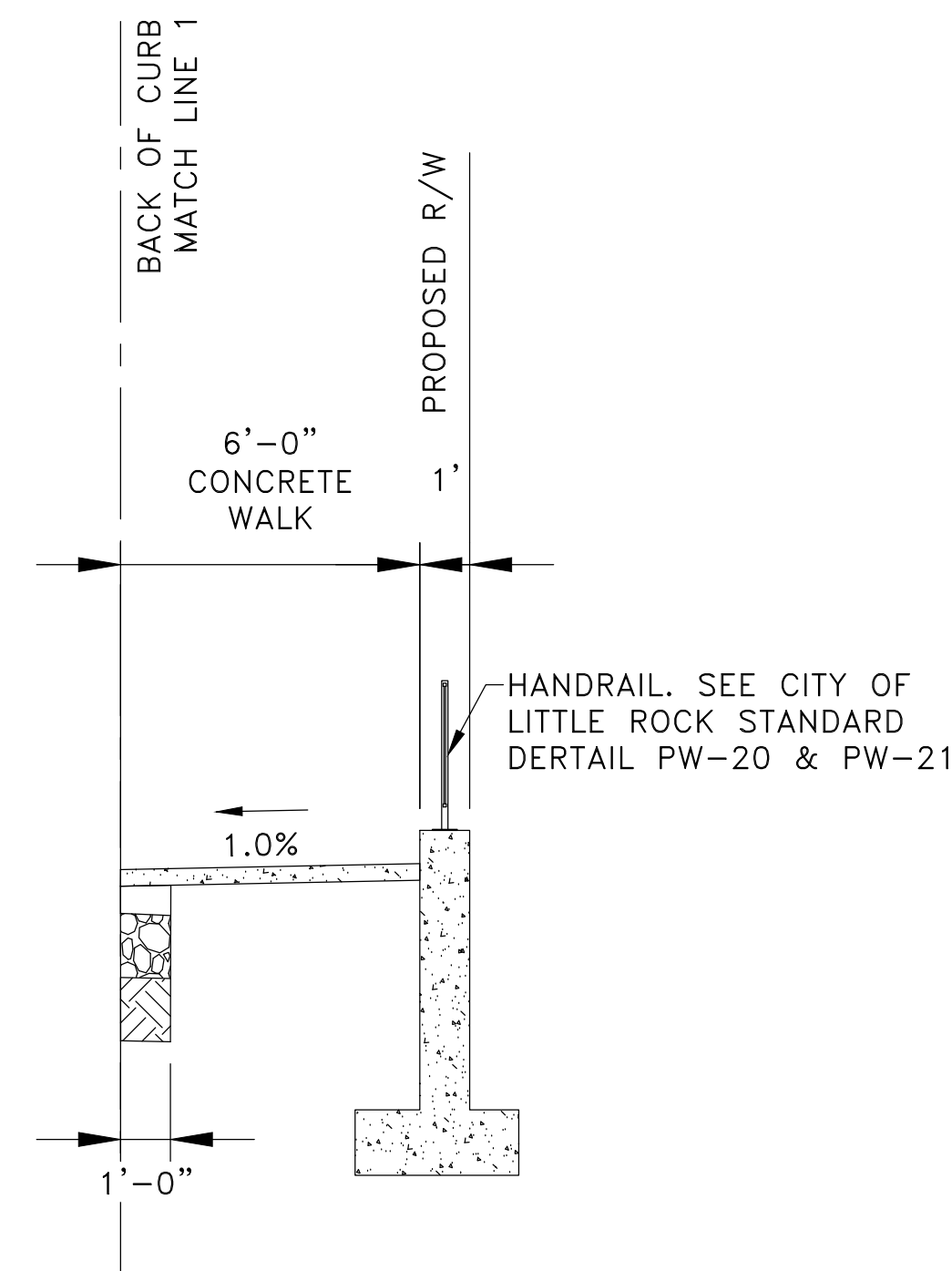
DEPARTMENT OF PUBLIC WORKS  
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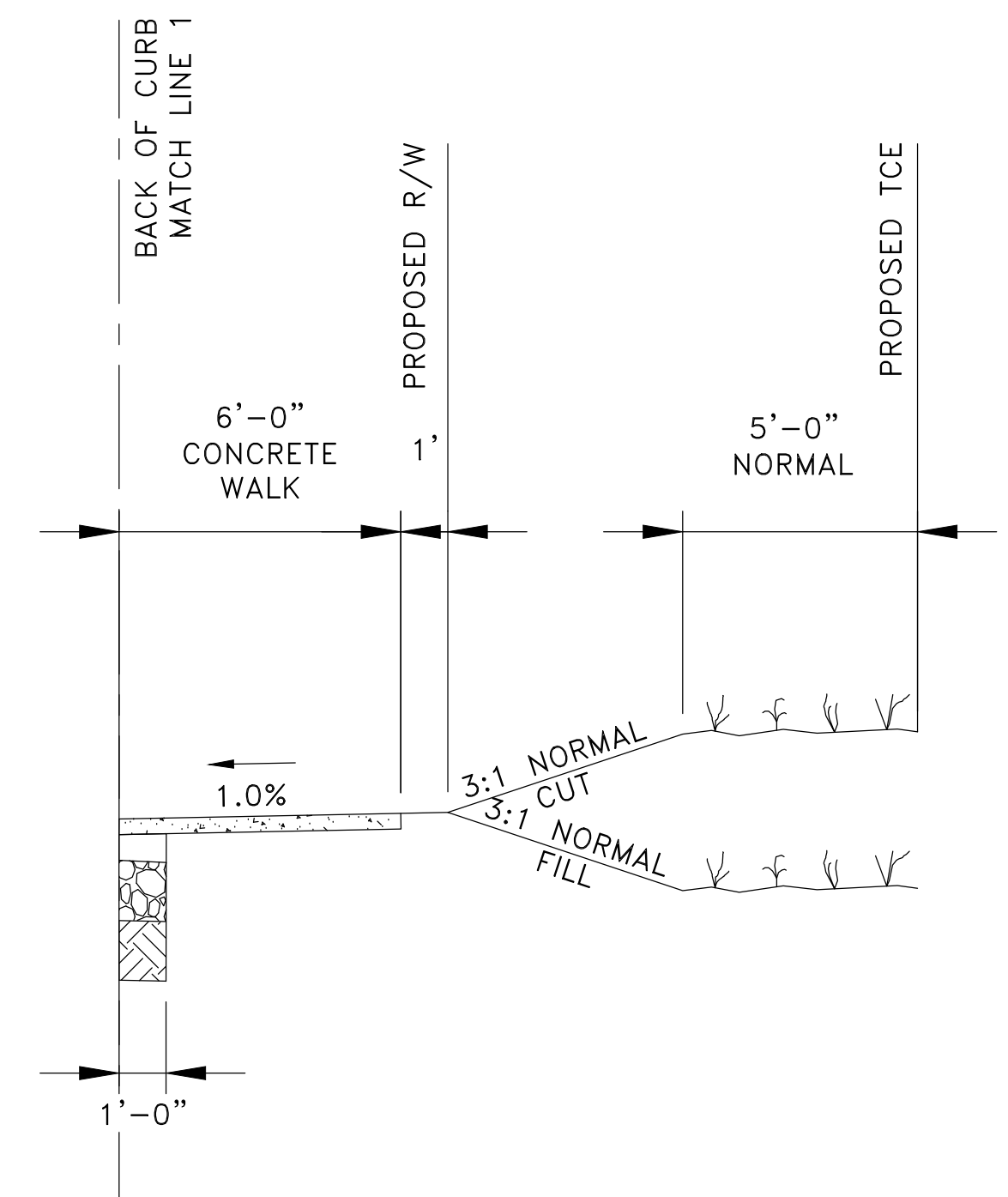
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CHECKED BOL
DATE 12-11-2020
SCALE N.T.S.
PROJECT NO. CLR 6-15-ST-249
SHEET NO. C5.0



**TYPICAL SECTION-BOWMAN ROAD**  
 STA. 15+91.12 TO STA. 19+93.51  
 STA. 19+93.51 TO STA. 21+93.79 LT. OF MATCH LINE 1



**TYPICAL SECTION-BOWMAN ROAD**  
 STA. 21+50.00 TO STA. 21+93.79



**TYPICAL SECTION-BOWMAN ROAD**  
 STA. 19+93.51 TO STA. 21+50.00 RT OF MATCH LINE 1

**CURB LINE WIDTH TRANSITIONS**

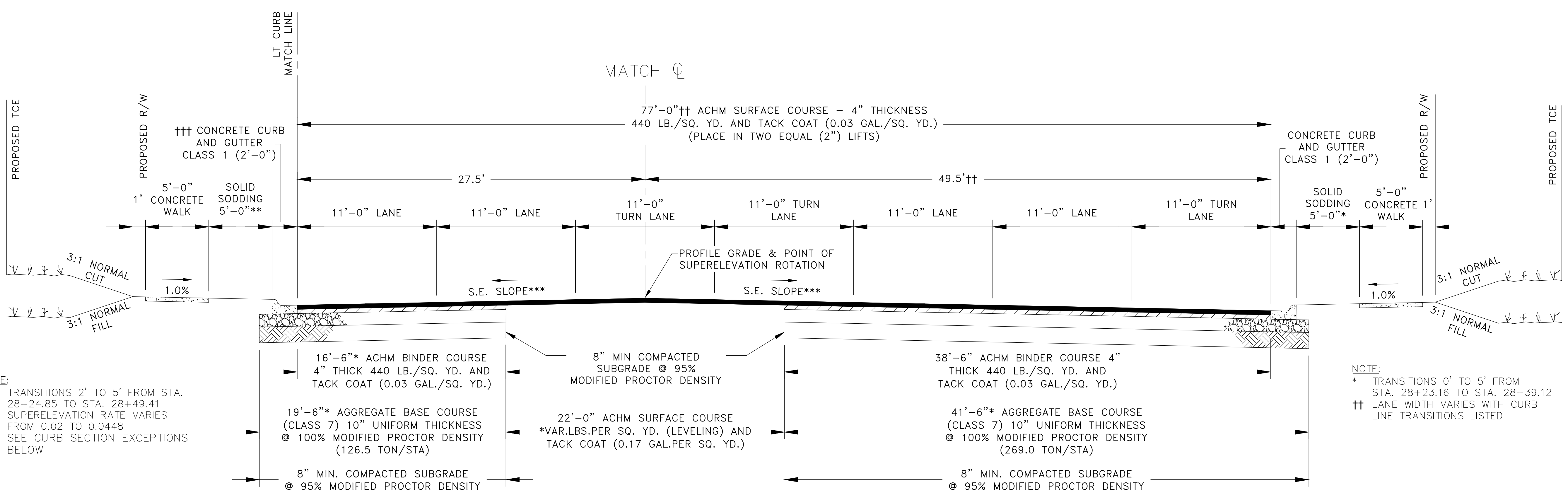
- 27.50' @ STA. 25+68.70 RT.
- 27.63' @ STA. 25+97.82 RT.
- 49.30' @ STA. 28.22.71 RT.
- 49.50' @ STA. 28.56.80 RT.
- 49.50' TO STA. 29+98.54 RT.







REVISIONS	DATE

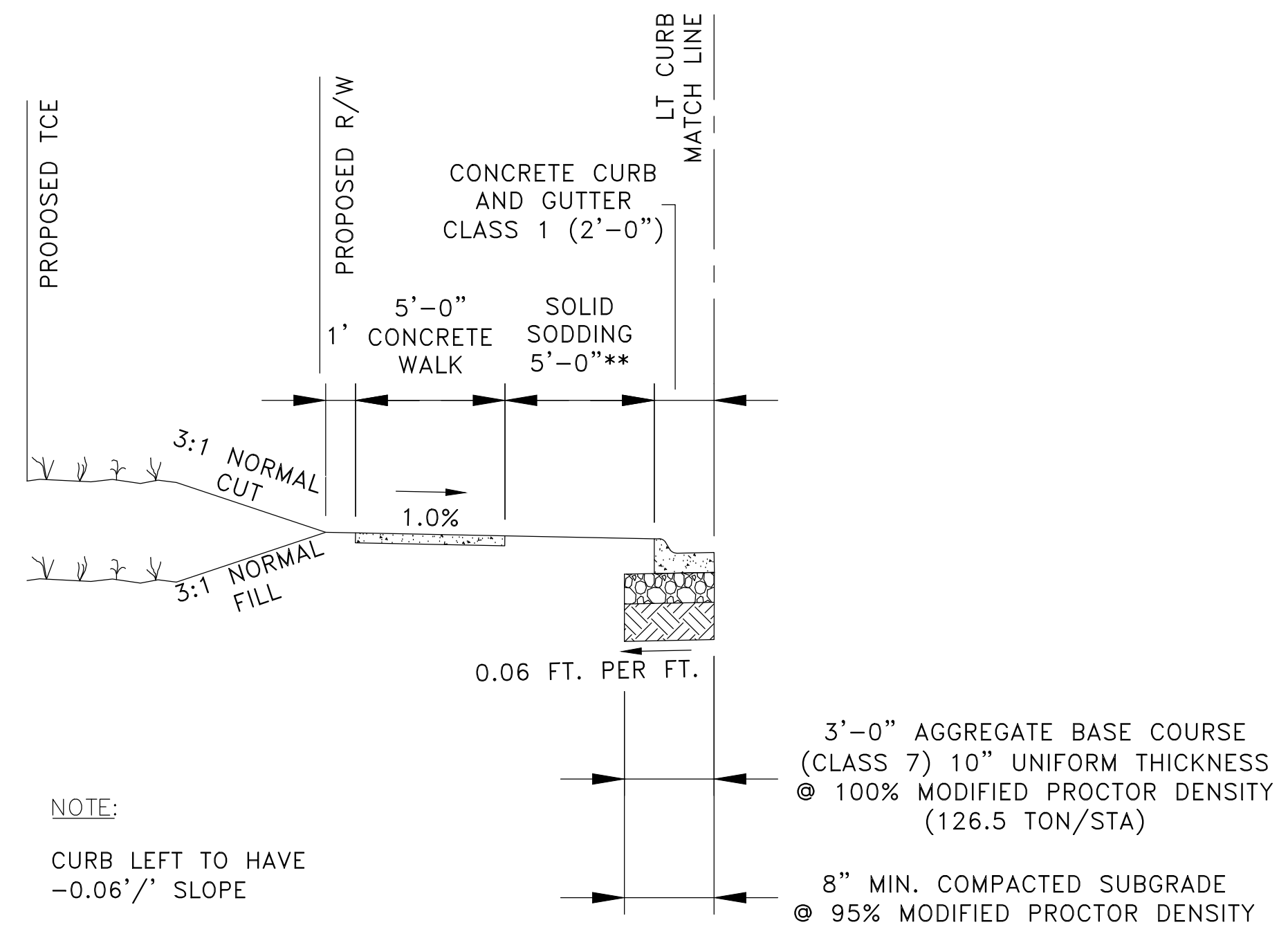


**NOTE:**  
 \*\* TRANSITIONS 2' TO 5' FROM STA. 28+24.85 TO STA. 28+49.41  
 \*\*\* SUPERELEVATION RATE VARIES FROM 0.02 TO 0.0448  
 ††† SEE CURB SECTION EXCEPTIONS BELOW

**NOTE:**  
 \* TRANSITIONS 0' TO 5' FROM STA. 28+23.16 TO STA. 28+39.12  
 †† LANE WIDTH VARIES WITH CURB LINE TRANSITIONS LISTED

## TYPICAL SECTION - BOWMAN ROAD

STA. 27+75.26 TO 29+98.54



**NOTE:**  
 CURB LEFT TO HAVE -0.06'/ SLOPE

CITY OF LITTLE ROCK, ARKANSAS  
 BOWMAN ROAD RECONSTRUCTION  
 TYPICAL SECTIONS (3)

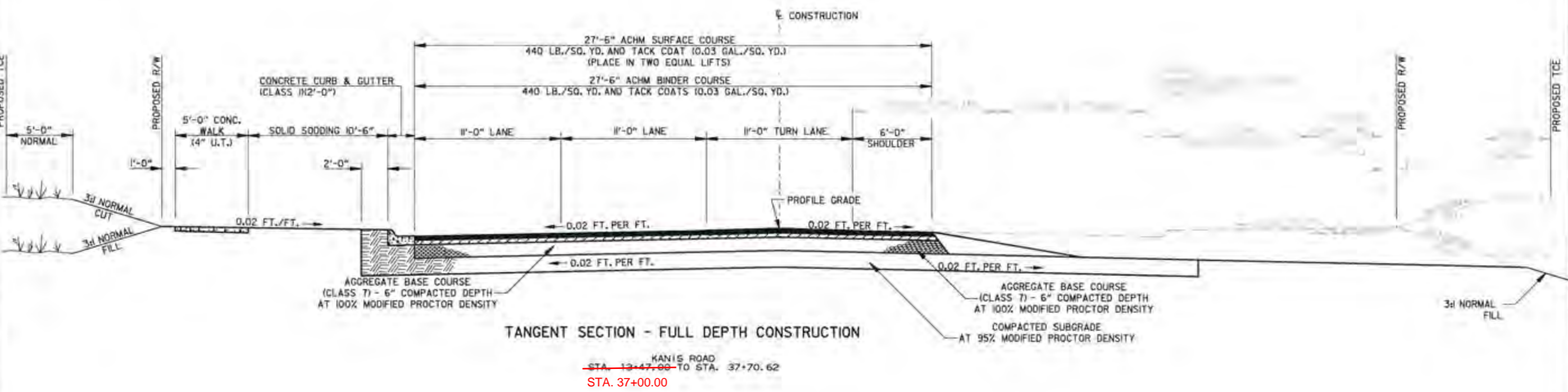
DEPARTMENT OF PUBLIC WORKS  
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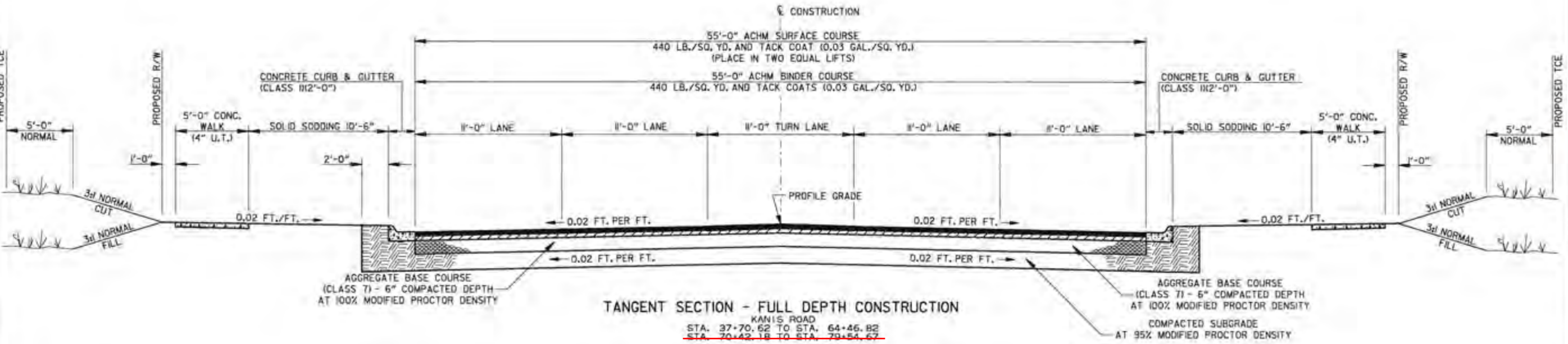
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KLL  
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N.T.S.  
**PROJECT NO.**  
CLR 6-15-ST-249  
**SHEET NO.**  
C5.2



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NOTE:  
 1) REFER TO PW-24, PW-28, PW-41, & PW-42 OF THE STANDARD DETAILS FOR ADDITIONAL INFORMATION.  
 2) REFER TO PLAN SHEETS AND CROSS SECTION FOR DEVIATIONS.





CITY OF LITTLE ROCK, ARKANSAS  
**KANIS ROAD**  
 TYPICAL SECTION SHEET 4

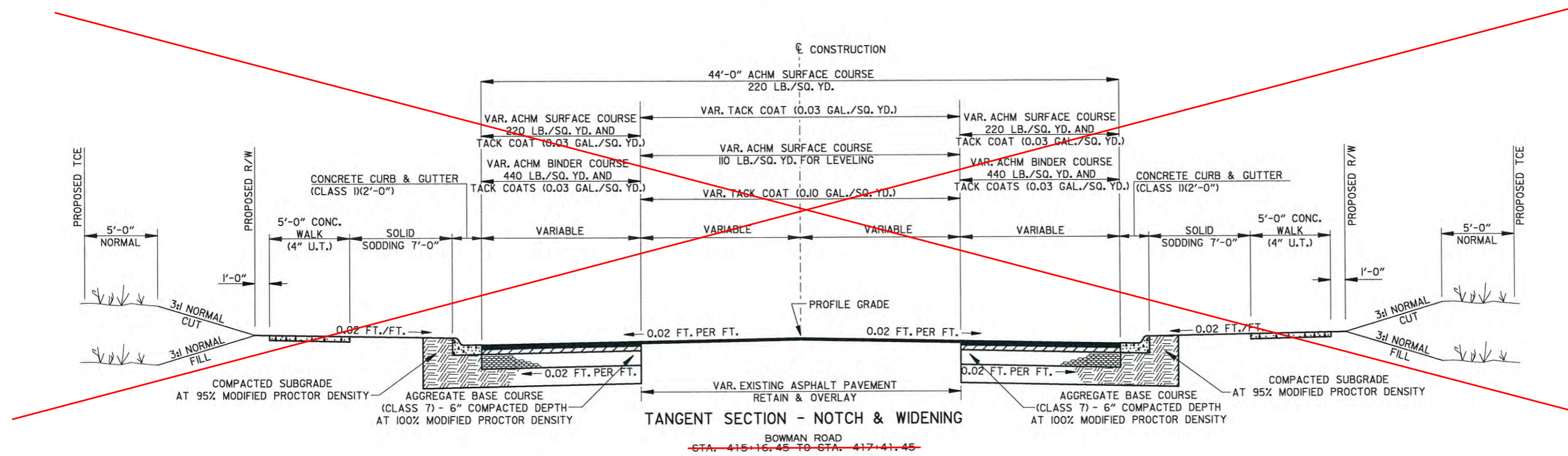


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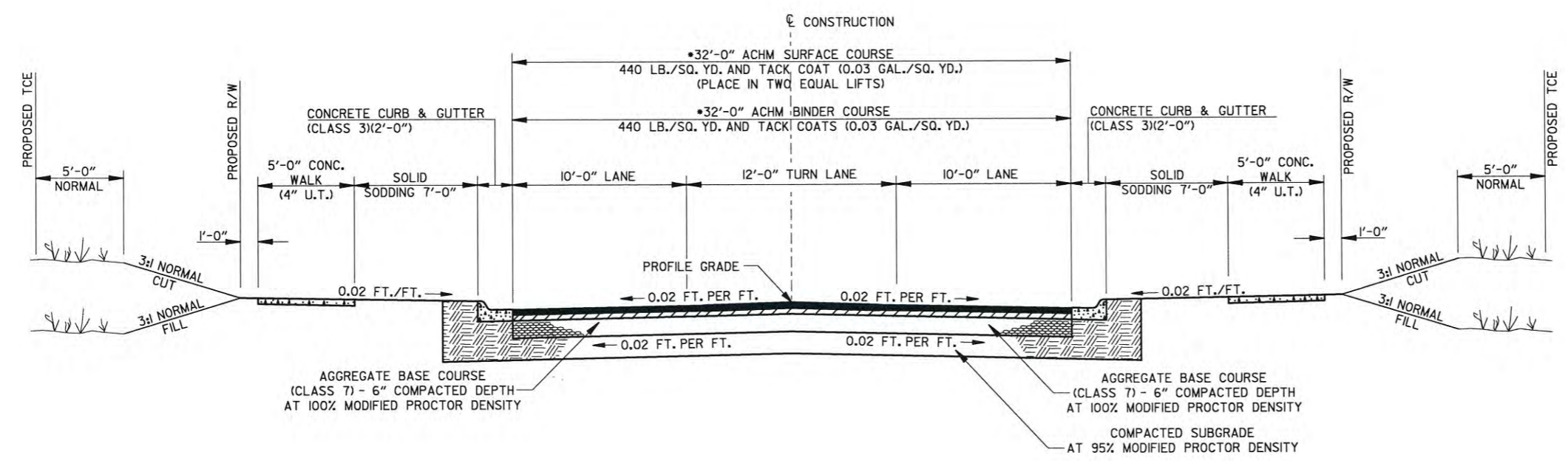
1-5-16

DRAWN BY  
 RFR  
 DESIGNED  
 RFR  
 CHECKED  
 KGT  
 DATE  
 12 / 18 / 15  
 SCALE  
 1" = 8'  
 PROJECT NO.  
 13-B-5D-6A  
 SHEET NO.  
**C5.4**



NOTE:  
 1) REFER TO PW-24, PW-28, PW-41, & PW-42 OF THE STANDARD DETAILS FOR ADDITIONAL INFORMATION.  
 2) REFER TO PLAN SHEETS AND CROSS SECTION FOR DEVIATIONS.

\*CENTER VIEW DRIVE - VARIABLE  
 \*EMBASSY SUITES DRIVE - VARIABLE



TANGENT SECTION COLLECTOR - FULL DEPTH CONSTRUCTION

- \* POINT WEST DRIVE  
~~STA. 209+14.00 TO STA. 209+54.66~~
- CHERRY BROOK ROAD  
 STA. 309+20.00 TO STA. 309+70.05
- AUTUMN ROAD  
~~STA. 510+27.51 TO STA. 510+90.00~~
- \* CENTER VIEW DRIVE  
~~STA. 606+40.00 TO STA. 609+02.30~~
- \* EMBASSY SUITES DRIVE  
~~STA. 610+82.45 TO STA. 612+11.82~~

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 ...Refs\Kanis-Typical Section.dgn  
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 1/4/2016



S BOWMAN ROAD  
 P.I.=14+08.60  
 D.O.C.=4'00'00"  
 DELTA=11'18'27"  
 T=141.81  
 R=1432.40  
 L=282.69  
 P.C.=12+66.80  
 P.T.=15+49.49

N: 147968.541  
 E: 1190008.51  
 SUPER ELEVATION  
 STA: 14+00.00  
 L: -2.00%  
 R: -2.00%

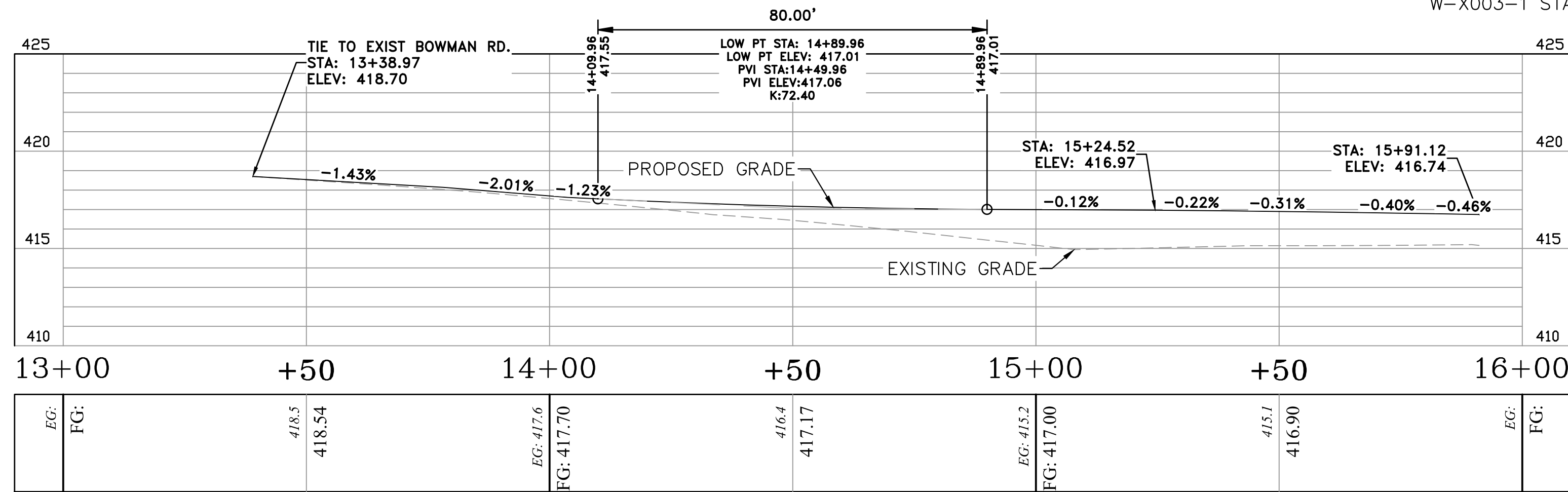
S BOWMAN TEMP TIE  
 STA: 13+38.97  
 N: 147928.28  
 E: 1190083.18

S BOWMAN TEMP TIE  
 P.I.=14+76.83  
 D.O.C.=10'45'00"  
 DELTA=24'58'32"  
 T=118.04  
 R=532.99  
 L=232.33  
 P.C.=13+58.79  
 P.T.=15+91.12

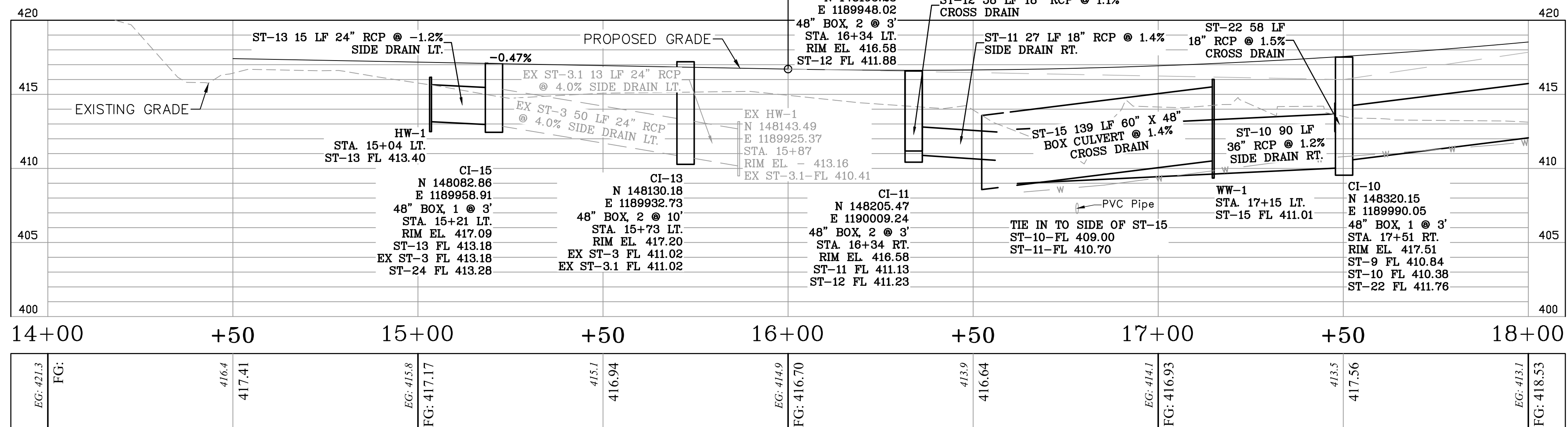
INSTALL 5'X4' RC BOX CULVERT WITH 3:1 WINGS  
 SEE ARDOT RC BOX CULVERT R-100X-0 AND  
 W-X003-1 STANDARD DRAWINGS

REPLACE EXISTING PIPE  
 WITH 24" CULVERT, ST-25.  
 GRADE TO DRAIN TO ST-15

INSTALL 5'X3' RC BOX  
 CULVERT WITH 3:1 WINGS  
 SEE ARDOT RC BOX CULVERT  
 R-100X-0 AND W-X003-1  
 STANDARD DRAWINGS



S BOWMAN TEMP TIE

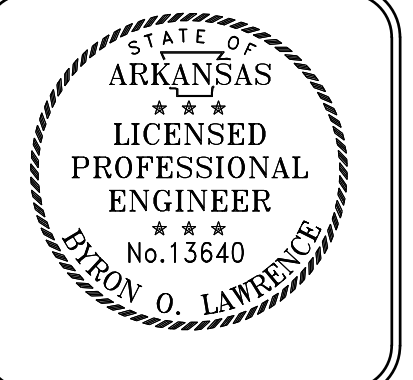


S BOWMAN ROAD

REVISIONS	DATE

CITY OF LITTLE ROCK, ARKANSAS  
 BOWMAN ROAD RECONSTRUCTION  
 PLAN AND PROFILE SHEET (0)

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 701 W. MARKHAM  
 LITTLE ROCK, ARKANSAS 72201



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 KLL  
 DESIGNED  
 COF  
 CHECKED  
 BOL  
 DATE  
 12-11-2020  
 SCALE  
 H: 1"=20'  
 V: 1"=5'  
 PROJECT NO.  
 CLR 6-15-ST-249  
 SHEET NO.  
 C6.0

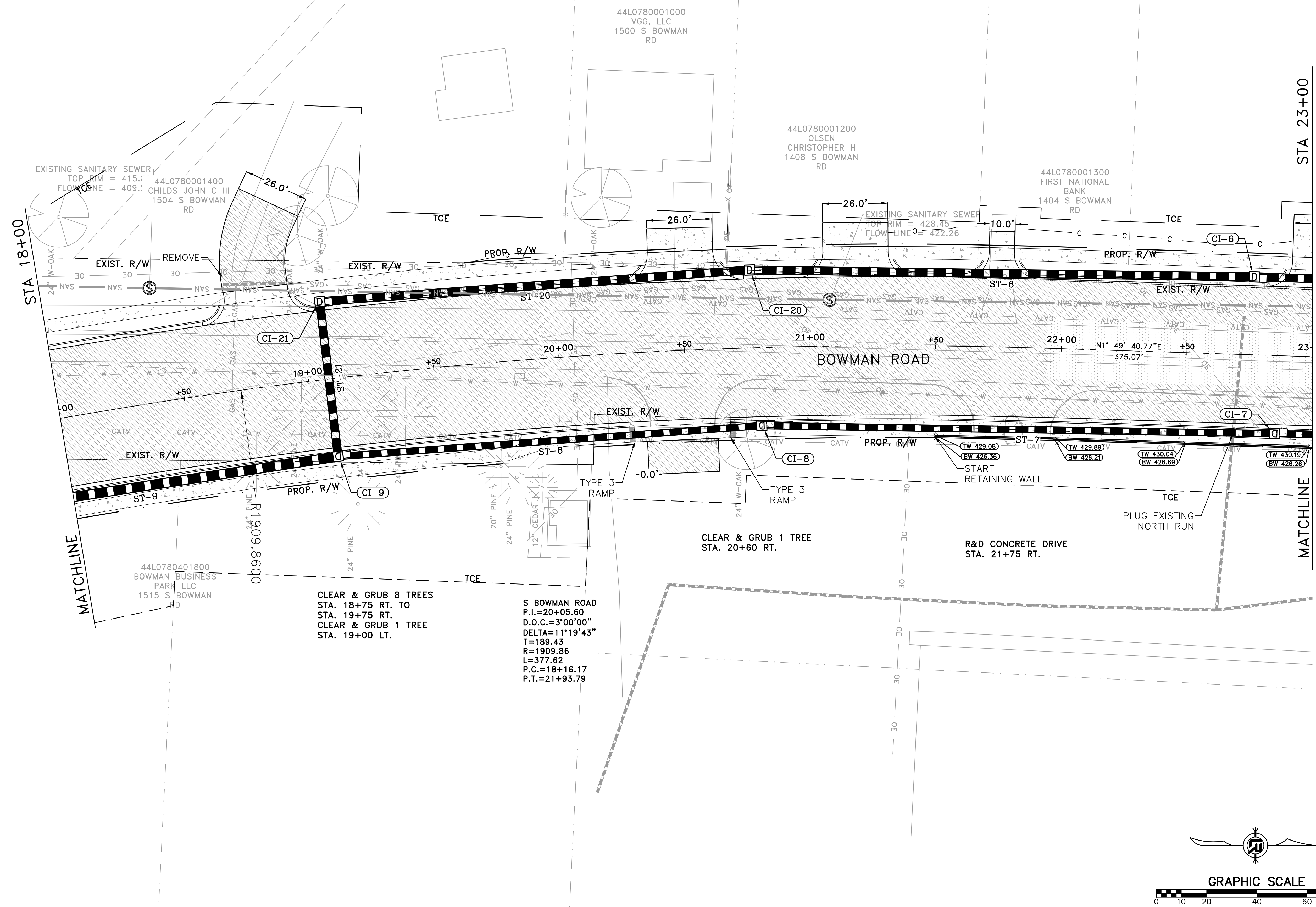
REVISIONS	DATE

CITY OF LITTLE ROCK, ARKANSAS  
 BOWMAN ROAD RECONSTRUCTION  
 PLAN AND PROFILE SHEET (1)

DEPARTMENT OF PUBLIC WORKS  
 CIVIL ENGINEERING  
 701 W. MARKHAM  
 LITTLE ROCK, ARKANSAS 72201



DRAWN BY  
 KLL  
 DESIGNED  
 COF  
 CHECKED  
 BOL  
 DATE  
 12-11-2020  
 SCALE  
 H: 1"=20'  
 V: 1"=5'  
 PROJECT NO.  
 CLR 6-15-ST-249  
 SHEET NO.  
 C6.1





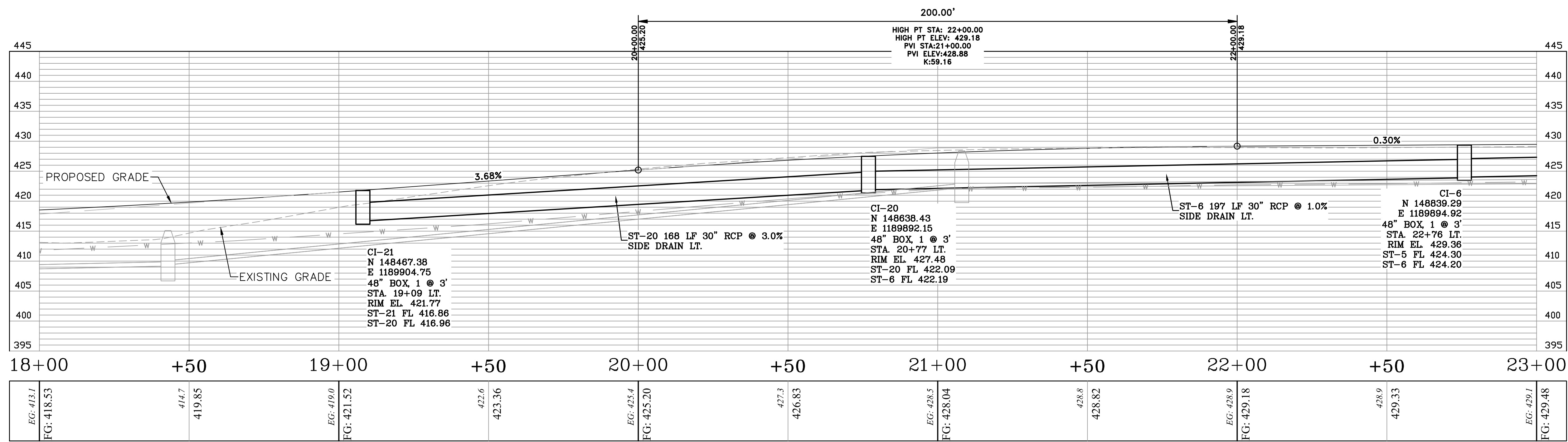
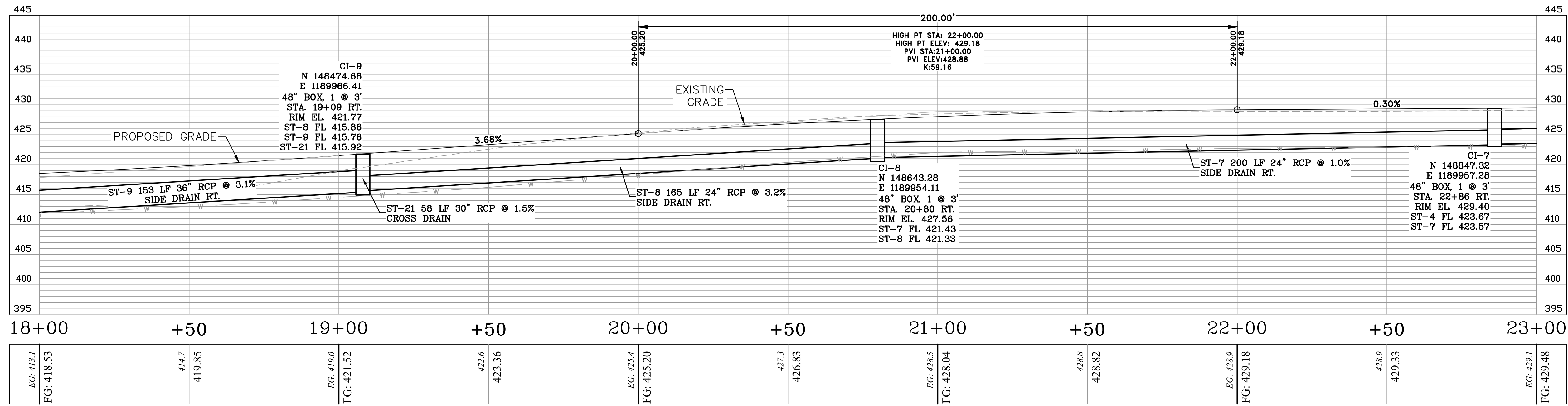
REVISIONS	DATE

CITY OF LITTLE ROCK, ARKANSAS  
 BOWMAN ROAD RECONSTRUCTION  
 PLAN AND PROFILE SHEET (2)

DEPARTMENT OF PUBLIC WORKS  
 CIVIL ENGINEERING  
 701 W. MARKHAM  
 LITTLE ROCK, ARKANSAS 72201



DRAWN BY  
 KLL  
 DESIGNED  
 COF  
 CHECKED  
 BOL  
 DATE  
 12-11-2020  
 SCALE  
 H: 1"=20'  
 V: 1"=5'  
 PROJECT NO.  
 CLR 6-15-ST-249  
 SHEET NO.  
 C6.2

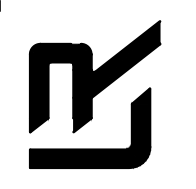




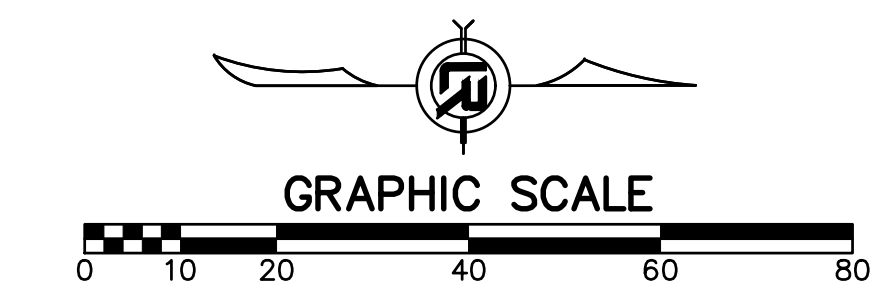
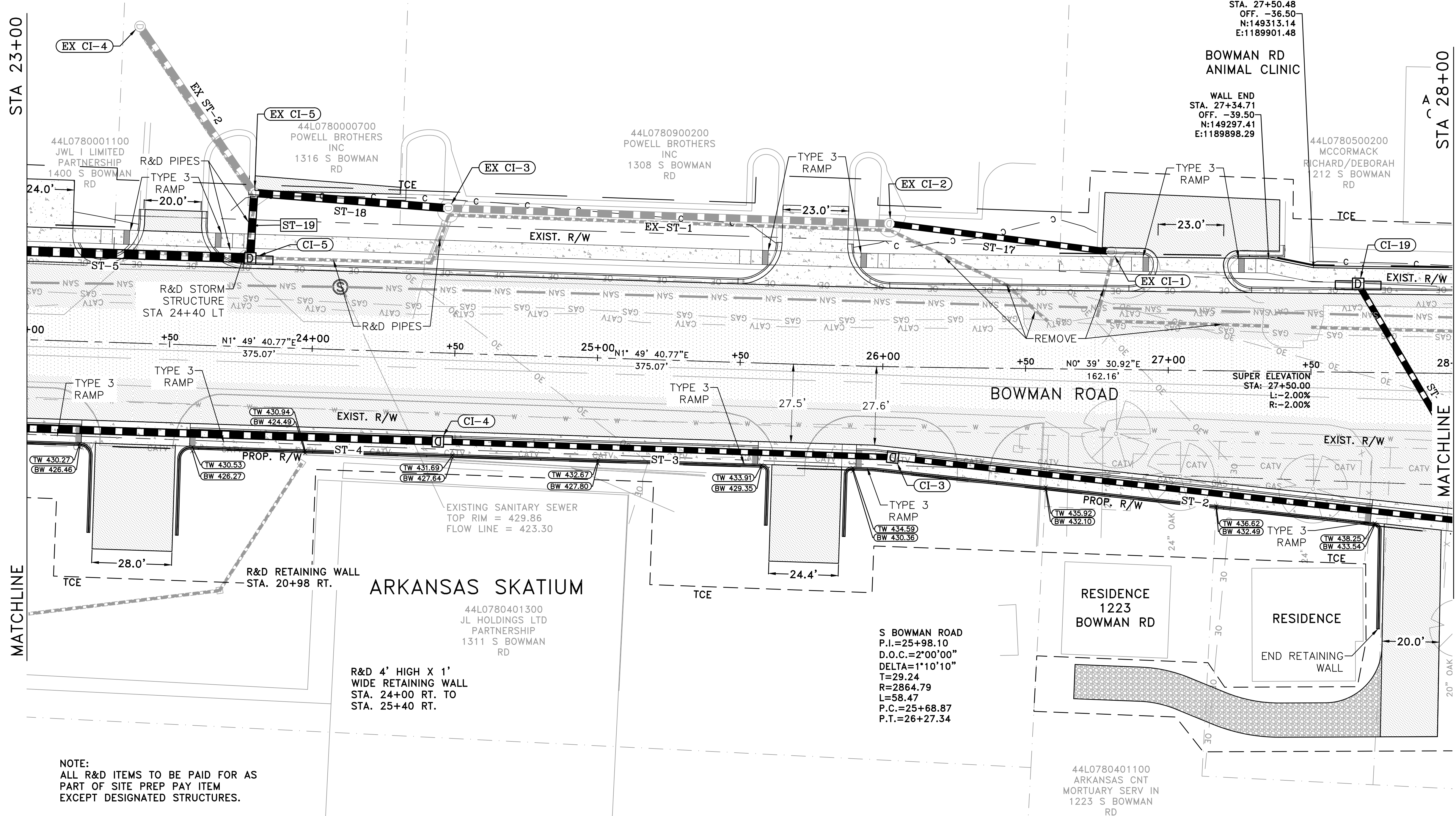
REVISIONS	DATE

CITY OF LITTLE ROCK, ARKANSAS  
 BOWMAN ROAD RECONSTRUCTION  
 PLAN AND PROFILE SHEET (3)

DEPARTMENT OF PUBLIC WORKS  
 CIVIL ENGINEERING  
 701 W. MARKHAM  
 LITTLE ROCK, ARKANSAS 72201



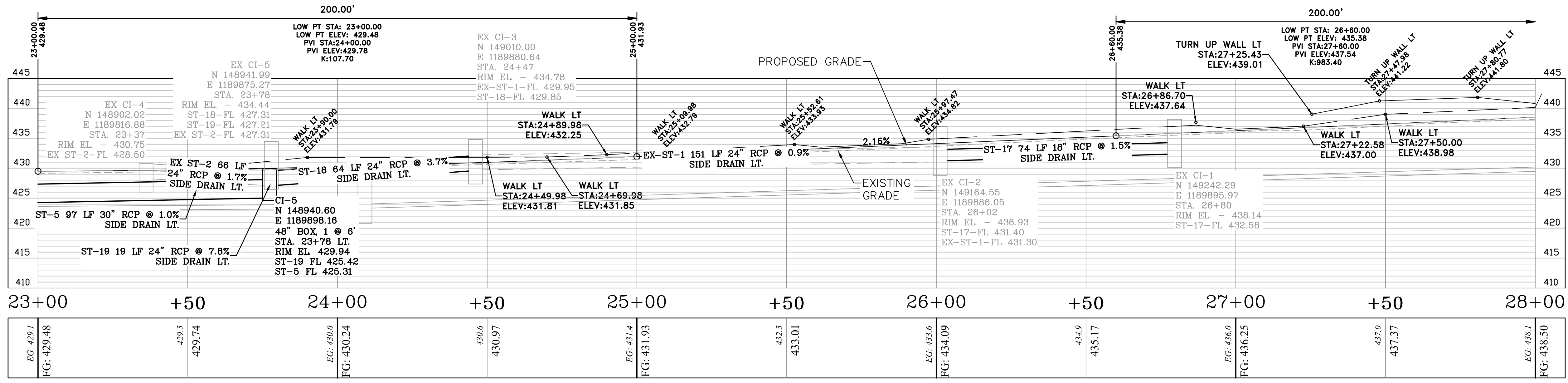
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 COF  
 CHECKED  
 BOL  
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 12-11-2020  
 SCALE  
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 V: 1"=5'  
 PROJECT NO.  
 CLR 6-15-ST-249  
 SHEET NO.  
 C6.3





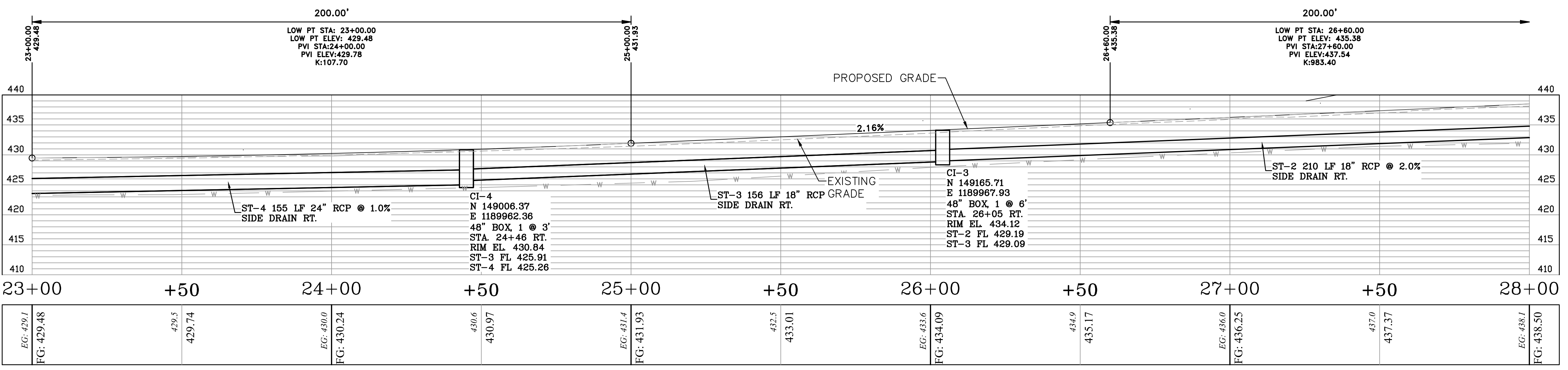
REVISIONS	DATE

CITY OF LITTLE ROCK, ARKANSAS  
 BOWMAN ROAD RECONSTRUCTION  
 PLAN AND PROFILE SHEET (4)



S BOWMAN ROAD LT

STA. 27+50.00 - BEGIN SUPERELEVATION  
 STA. 29+00.00 - REVERSE CROWN RT.  
 STA. 30+00.00 - MAX SUPERELEVATION RT. (0.0448'/')



S BOWMAN ROAD RT

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 CIVIL ENGINEERING  
 701 W. MARKHAM  
 LITTLE ROCK, ARKANSAS 72201



DRAWN BY  
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 DESIGNED  
 COF  
 CHECKED  
 BOL  
 DATE  
 12-11-2020  
 SCALE  
 H: 1"=20'  
 V: 1"=5'  
 PROJECT NO.  
 CLR 6-15-ST-249  
 SHEET NO.  
 C6.4

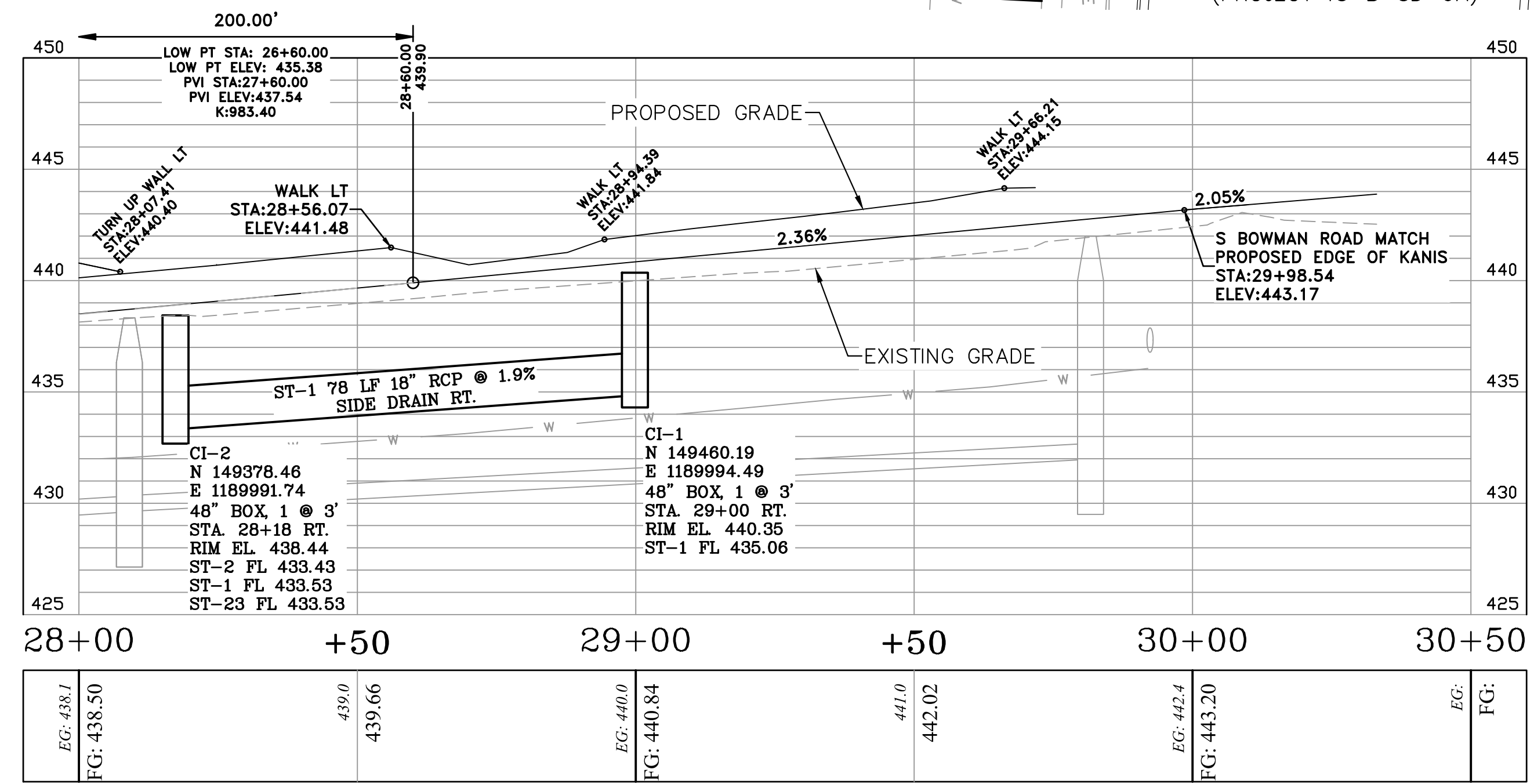
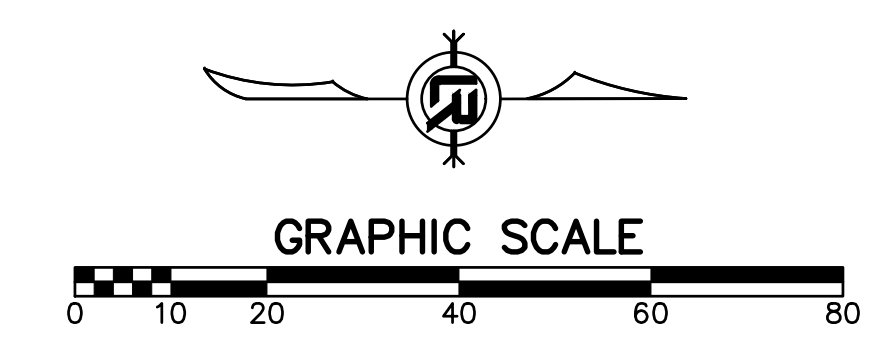
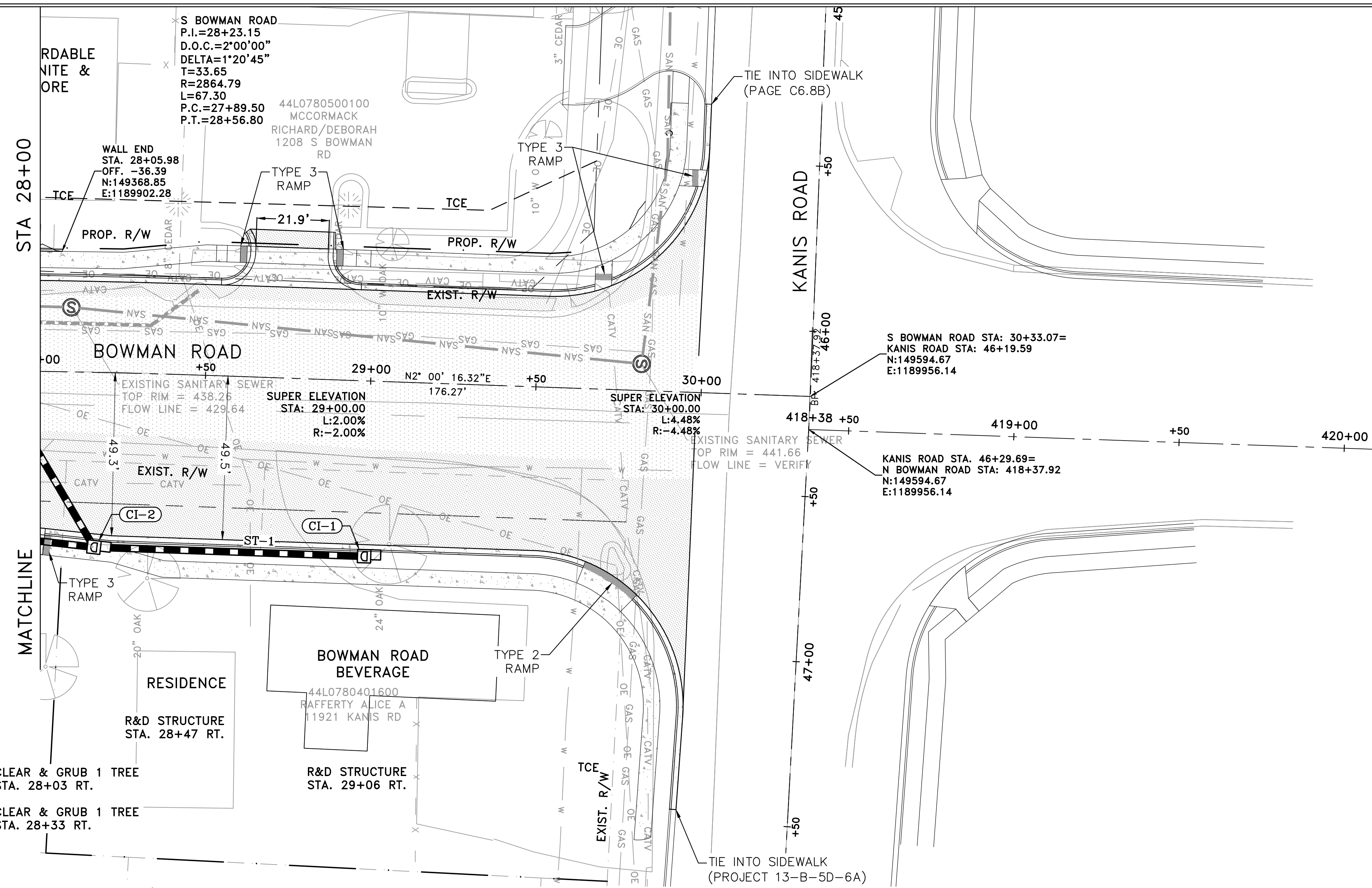
REVISIONS	DATE

CITY OF LITTLE ROCK, ARKANSAS  
 BOWMAN ROAD RECONSTRUCTION  
 PLAN AND PROFILE SHEET (5)

DEPARTMENT OF PUBLIC WORKS  
 CIVIL ENGINEERING  
 701 W. MARKHAM  
 LITTLE ROCK, ARKANSAS 72201



DRAWN BY  
 KLL  
 DESIGNED  
 COF  
 CHECKED  
 BOL  
 DATE  
 12-11-2020  
 SCALE  
 H: 1"=20'  
 V: 1"=5'  
 PROJECT NO.  
 CLR 6-15-ST-249  
 SHEET NO.  
 C6.5



S BOWMAN ROAD



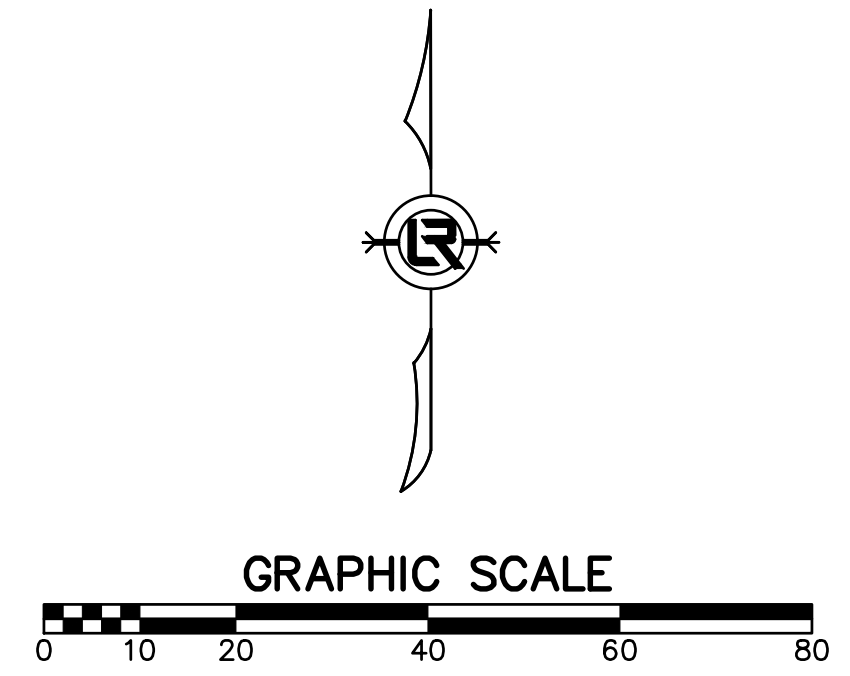
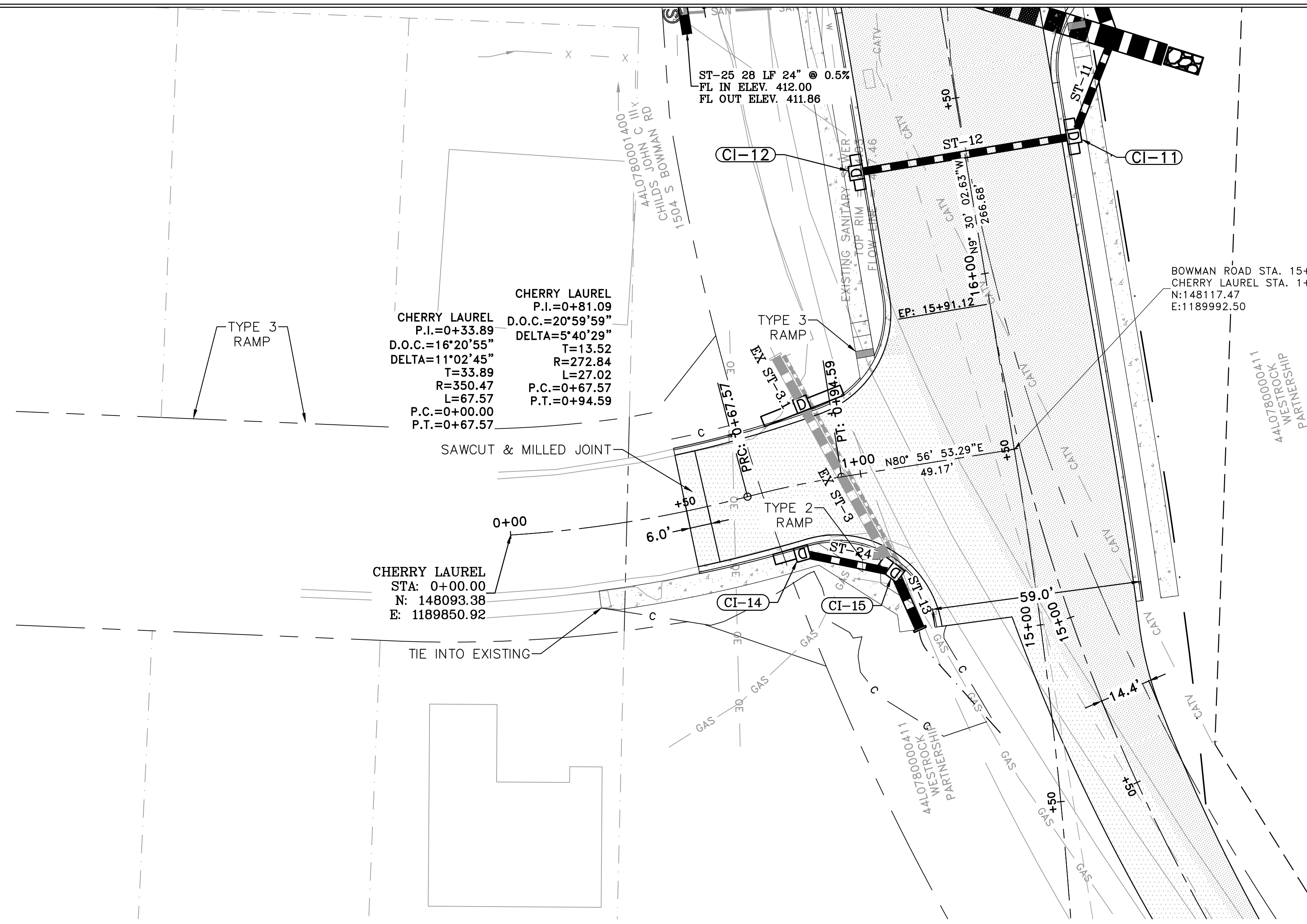
REVISIONS	DATE

CITY OF LITTLE ROCK, ARKANSAS  
 BOWMAN ROAD RECONSTRUCTION  
 PLAN AND PROFILE SHEET (6)

DEPARTMENT OF PUBLIC WORKS  
 CIVIL ENGINEERING  
 701 W. MARKHAM  
 LITTLE ROCK, ARKANSAS 72201



DRAWN BY  
 KLL  
 DESIGNED  
 COF  
 CHECKED  
 BOL  
 DATE  
 12-11-2020  
 SCALE  
 H: 1"=20'  
 V: 1"=5'  
 PROJECT NO.  
 CLR 6-15-ST-249  
 SHEET NO.  
 C6.6

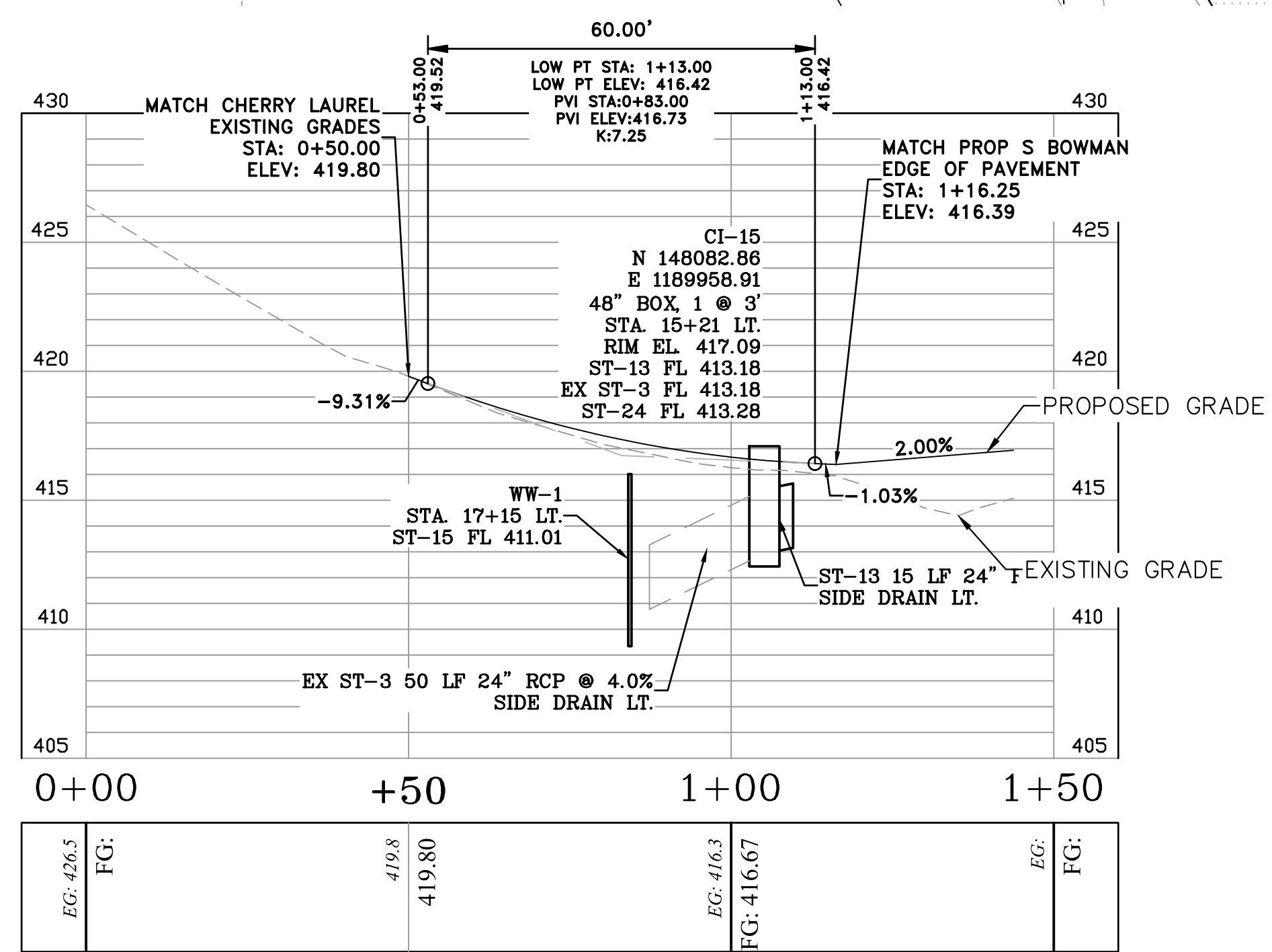


CHERRY LAUREL  
 P.I.=0+81.09  
 D.O.C.=20°59'59"  
 DELTA=5°40'29"  
 T=13.52  
 R=272.84  
 L=27.02  
 P.C.=0+67.57  
 P.T.=0+94.59

CHERRY LAUREL  
 STA: 0+00.00  
 N: 148093.38  
 E: 1189850.92

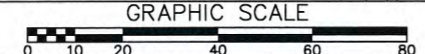
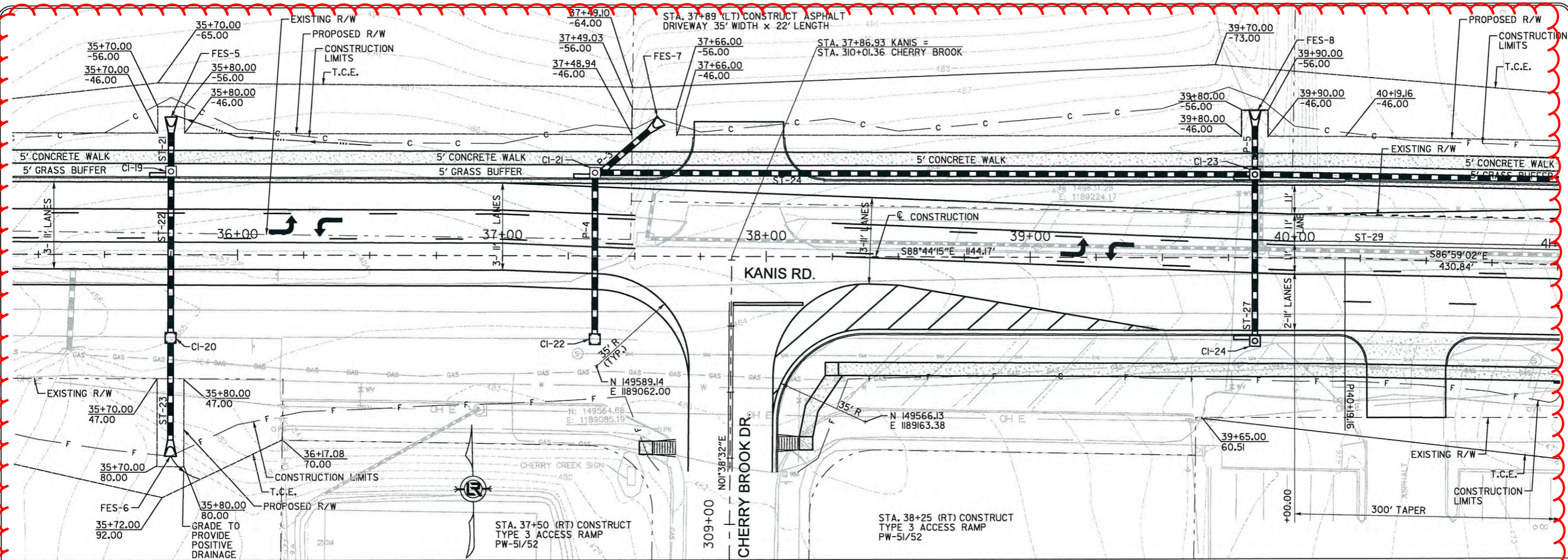
BOWMAN ROAD STA. 15+49.90=  
 CHERRY LAUREL STA. 1+43.75  
 N:148117.47  
 E:1189992.50

S BOWMAN TEMP TIE  
 P.I.=14+76.83  
 D.O.C.=10°45'00"  
 DELTA=24°58'32"  
 T=118.04  
 R=532.99  
 L=232.33  
 P.C.=13+58.79  
 P.T.=15+91.12

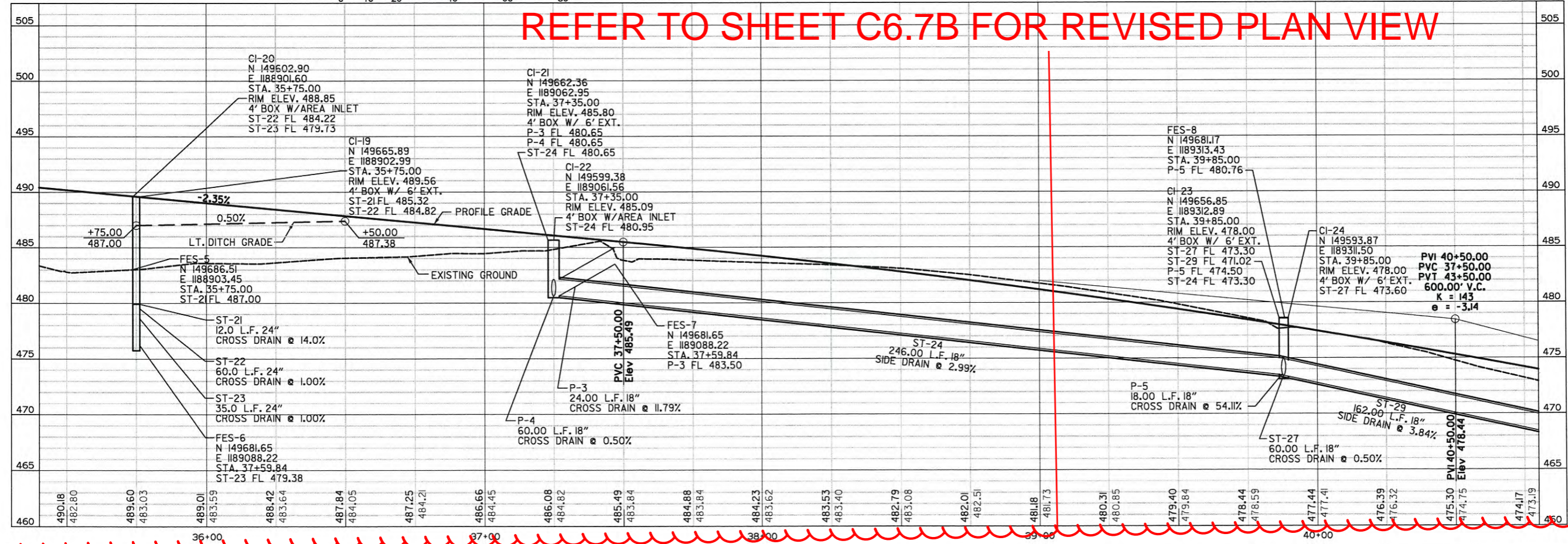


CHERRY LAUREL






REFER TO SHEET C6.7B FOR REVISED PLAN VIEW



REVISIONS	DATE

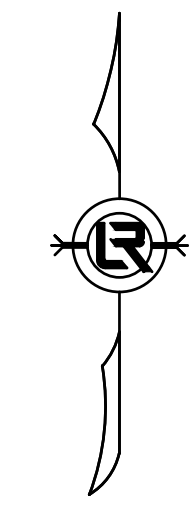
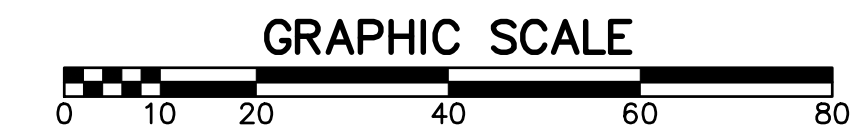
CITY OF LITTLE ROCK, ARKANSAS  
KANIS ROAD  
PLAN & PROFILE  
KANIS ROAD SHEET 6

  
 DEPARTMENT OF PUBLIC WORKS  
 CIVIL ENGINEERING  
 701 W. MARKHAM  
 LITTLE ROCK, ARKANSAS 72201

STATE OF ARKANSAS  
 REGISTERED PROFESSIONAL ENGINEER  
 No. 11427  
 EVIN G. TOBIAS

DRAWN BY	RFR
DESIGNED	RFR
CHECKED	KGT
DATE	2/24/17
SCALE	1" = 40'
PROJECT NO.	13-B-5D-6A
SHEET NO.	C6.7A





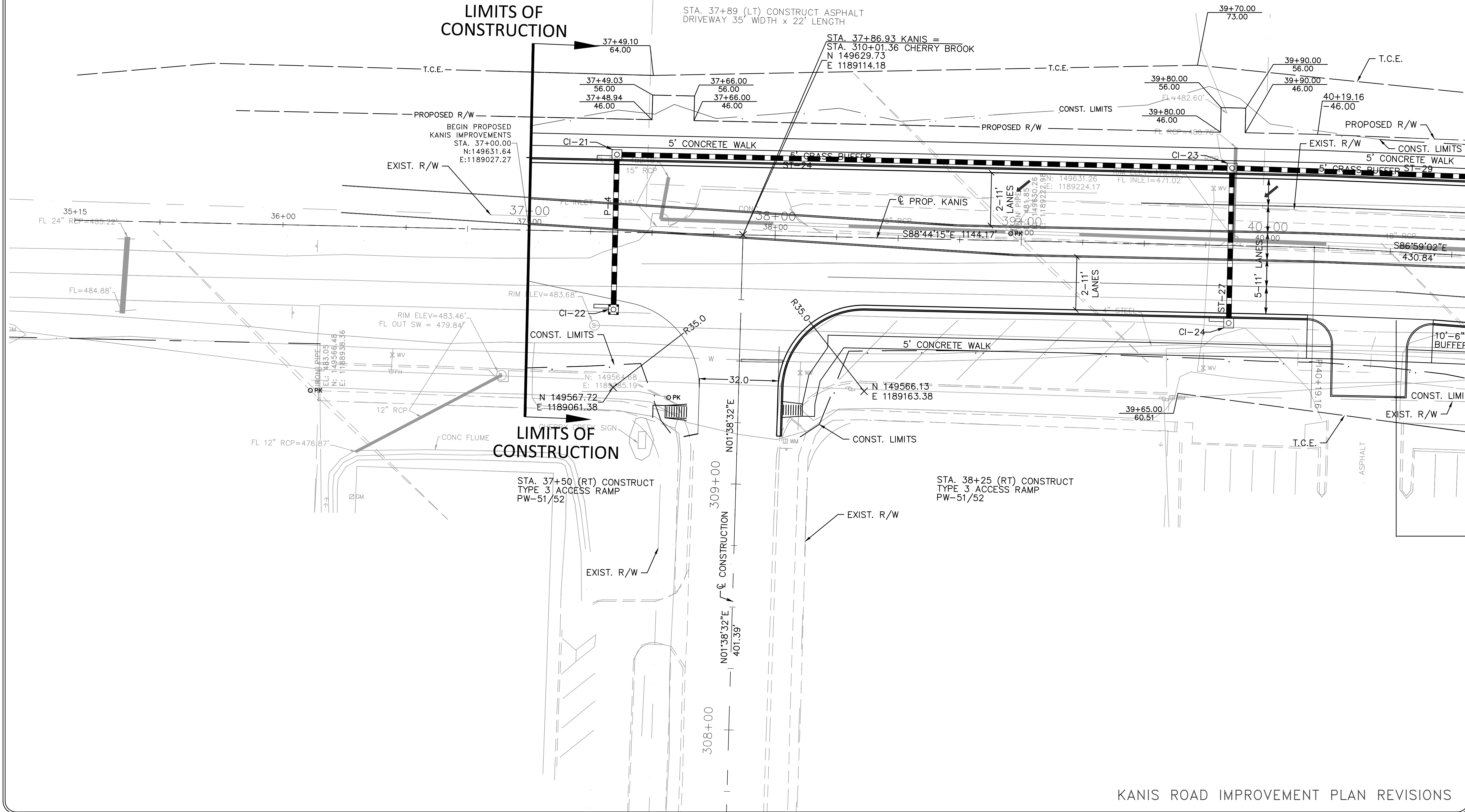
REVISIONS	DATE

CITY OF LITTLE ROCK, ARKANSAS  
 BOWMAN ROAD RECONSTRUCTION  
 PLAN SHEET

DEPARTMENT OF PUBLIC WORKS  
 CIVIL ENGINEERING  
 701 W. MARKHAM  
 LITTLE ROCK, ARKANSAS 72201

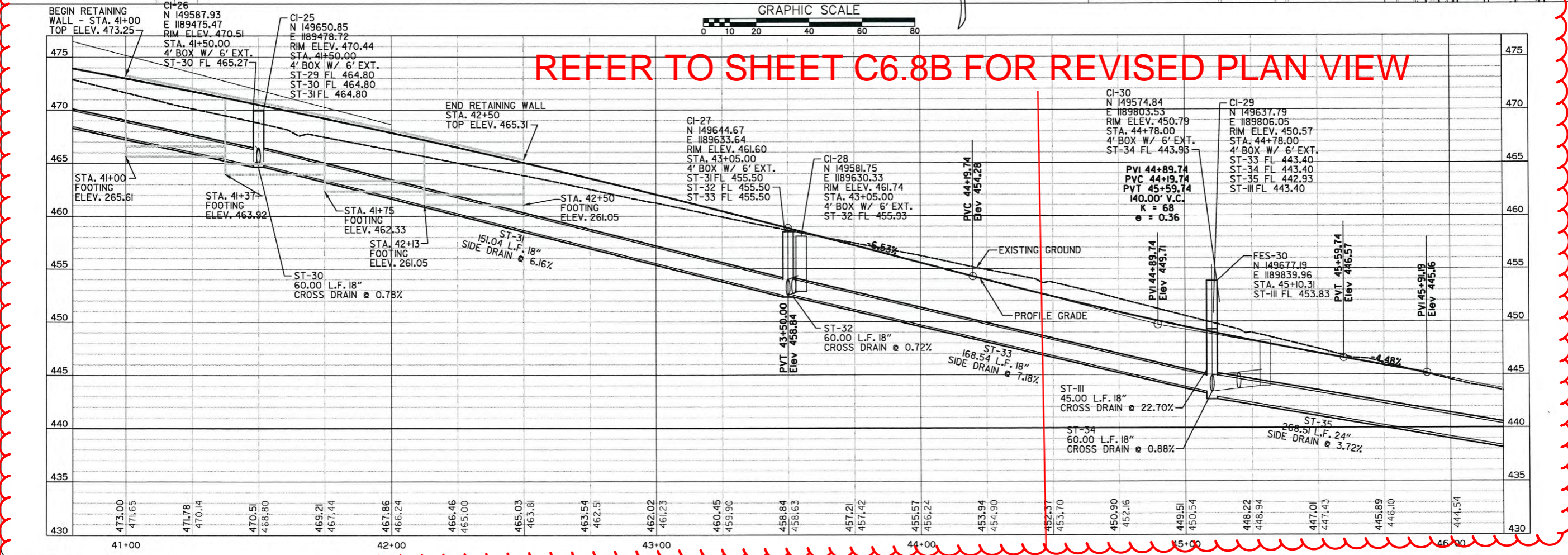
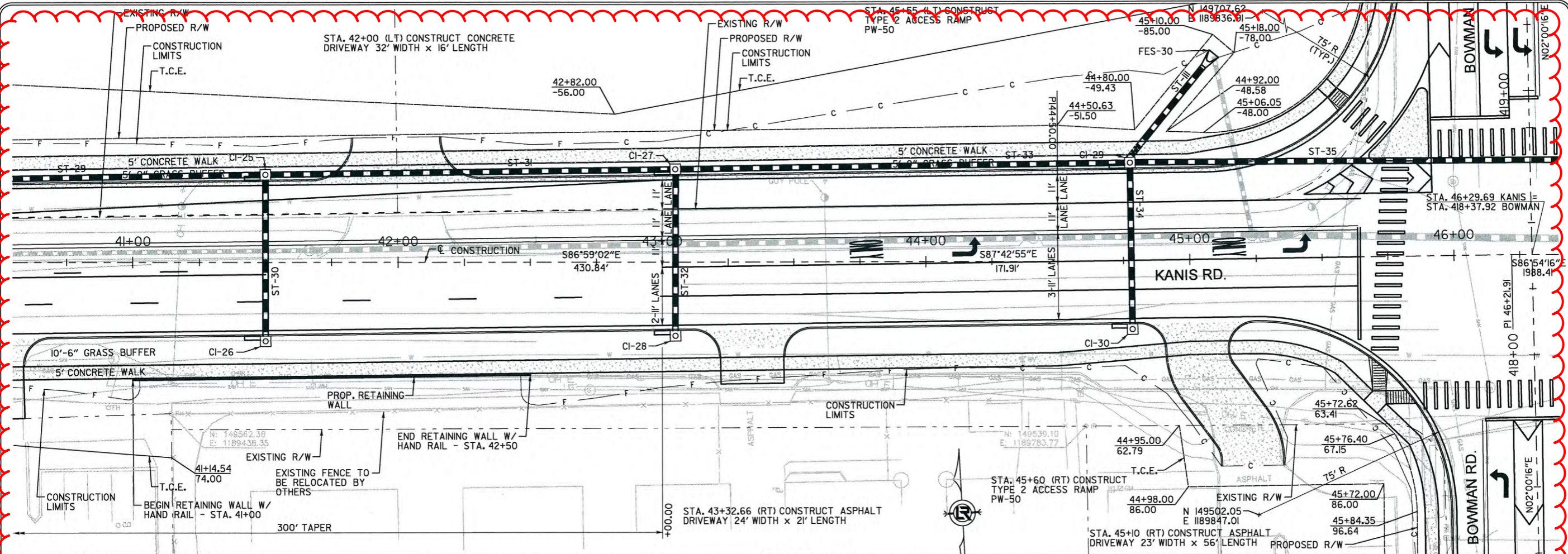


DRAWN BY KLL
DESIGNED COF
CHECKED BOL
DATE 12-11-2020
SCALE H: 1"=20' V: 1"=5'
PROJECT NO. CLR 6-15-ST-249
SHEET NO. C6.7B



KANIS ROAD IMPROVEMENT PLAN REVISIONS






REFER TO SHEET C6.8B FOR REVISED PLAN VIEW

REVISIONS	DATE

CITY OF LITTLE ROCK, ARKANSAS  
KANIS ROAD  
PLAN & PROFILE  
KANIS ROAD SHEET 7

  
 DEPARTMENT OF PUBLIC WORKS  
 CIVIL ENGINEERING  
 701 W. MARKHAM  
 LITTLE ROCK, ARKANSAS 72201

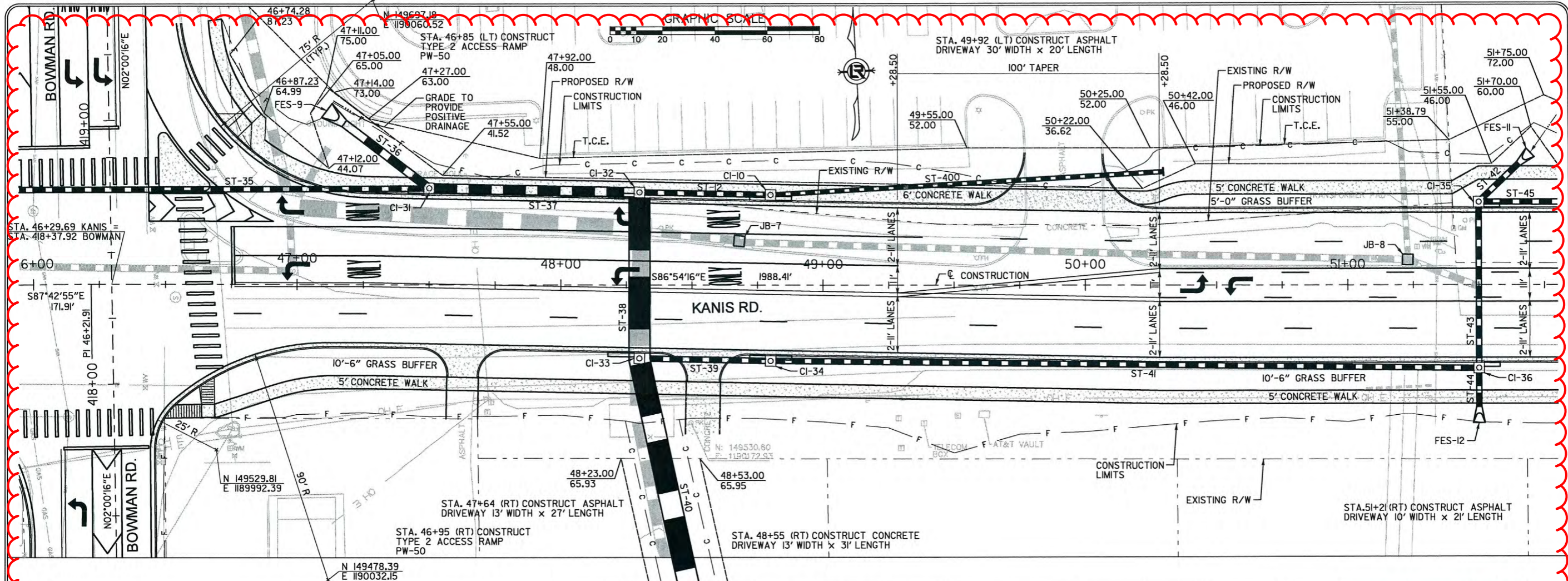
STATE OF ARKANSAS  
 REGISTERED PROFESSIONAL ENGINEER  
 No. 11427  
 ERVIN G. TOBLESKY

DRAWN BY	RFR
DESIGNED	RFR
CHECKED	KGT
DATE	2 / 24 / 17
SCALE	1" = 40'
PROJECT NO.	13-B-5D-6A
SHEET NO.	C6.8A

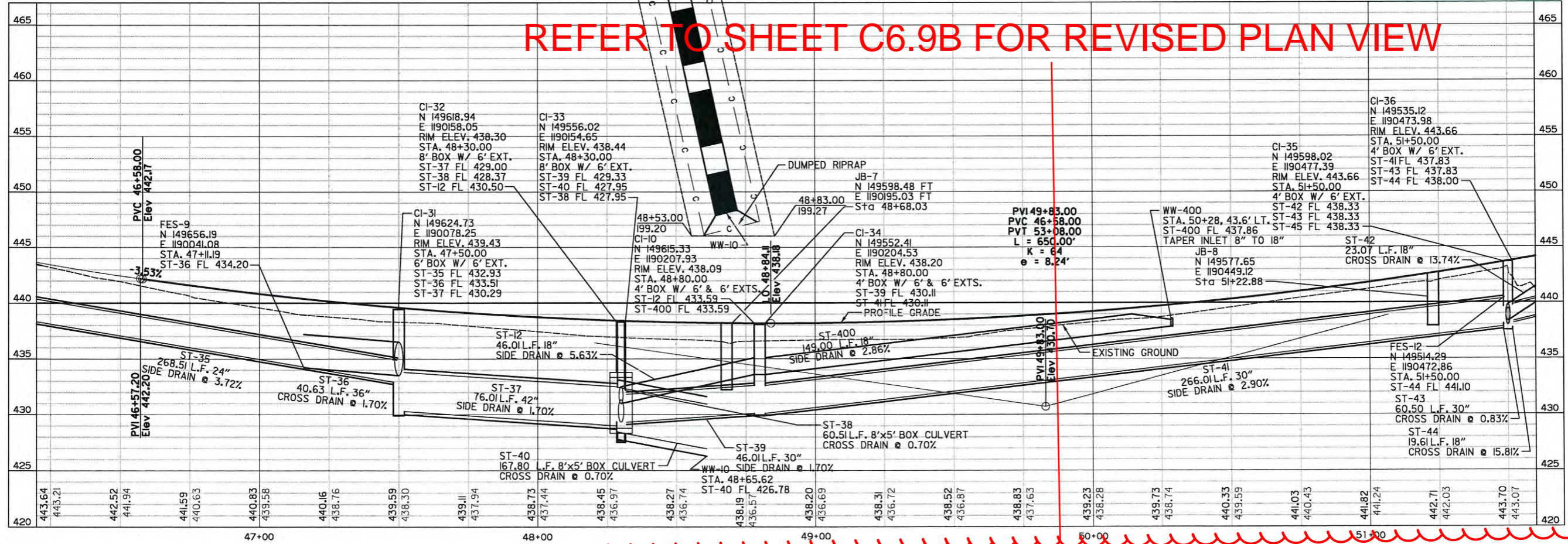









REFER TO SHEET C6.9B FOR REVISED PLAN VIEW



REVISIONS	DATE

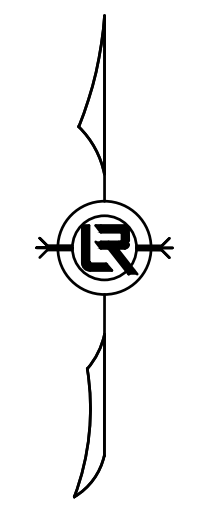
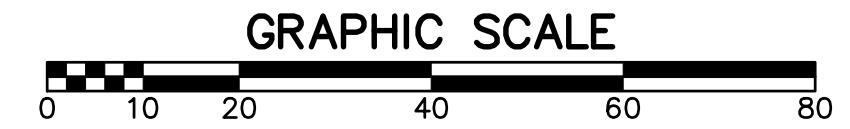
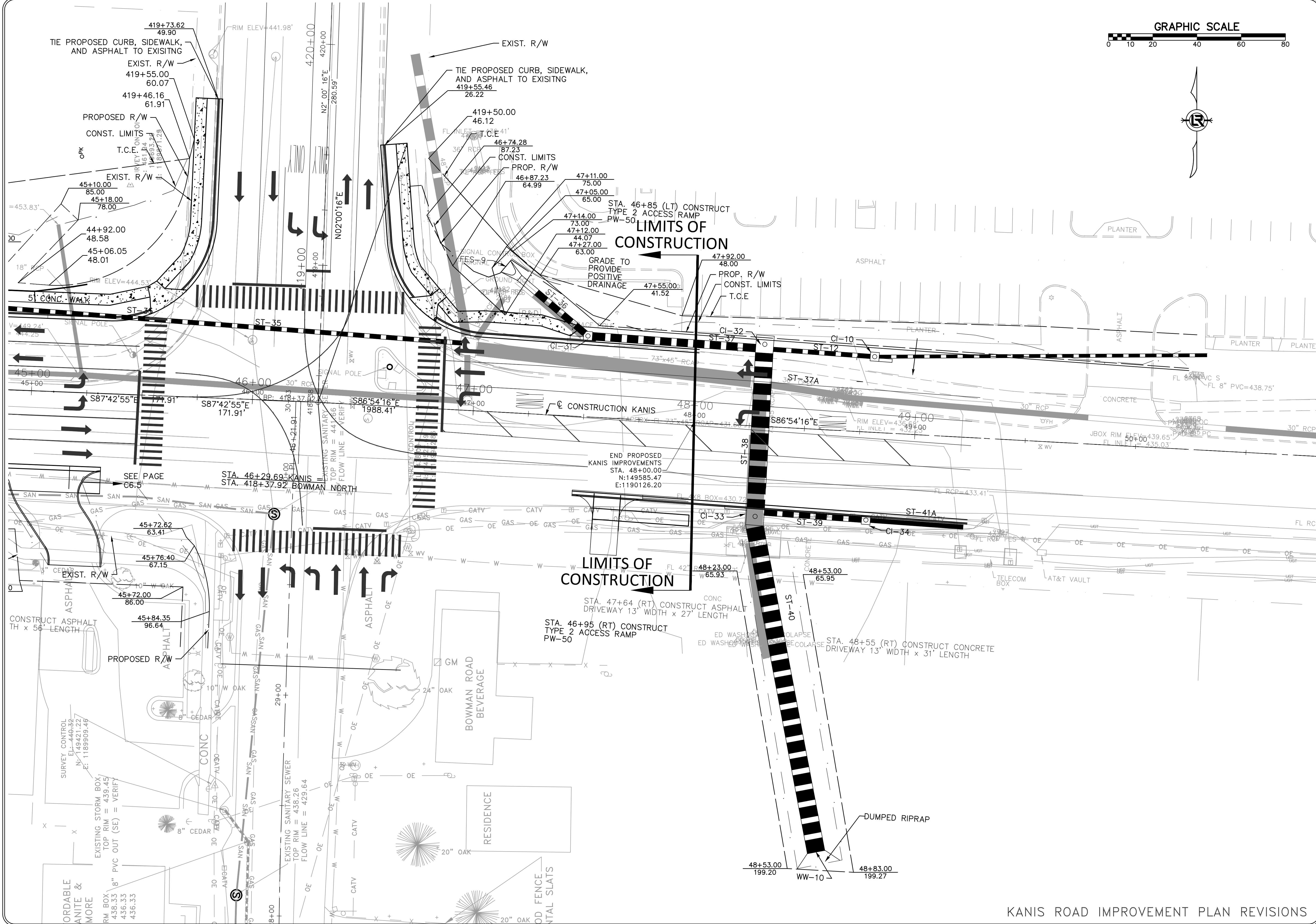
CITY OF LITTLE ROCK, ARKANSAS  
KANIS ROAD  
PLAN & PROFILE  
KANIS ROAD SHEET 8

  
 DEPARTMENT OF PUBLIC WORKS  
 CIVIL ENGINEERING  
 701 W. MARKHAM  
 LITTLE ROCK, ARKANSAS 72201

STATE OF ARKANSAS  
 REGISTERED PROFESSIONAL ENGINEER  
 No. 11427  
 KEVIN G. TOBIAS

DRAWN BY	RFR
DESIGNED	RFR
CHECKED	KGT
DATE	2 / 24 / 17
SCALE	1" = 40'
PROJECT NO.	13-B-5D-6A
SHEET NO.	C6.9A





REVISIONS	DATE

CITY OF LITTLE ROCK, ARKANSAS  
BOWMAN ROAD RECONSTRUCTION  
PLAN SHEET

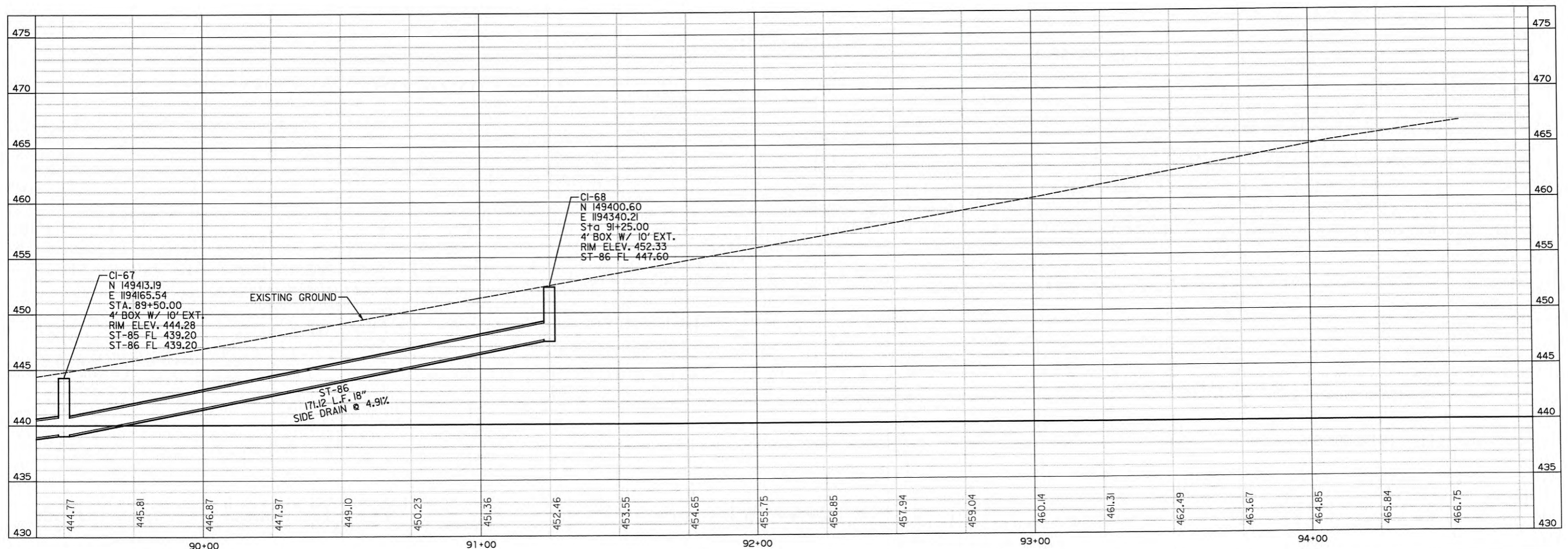
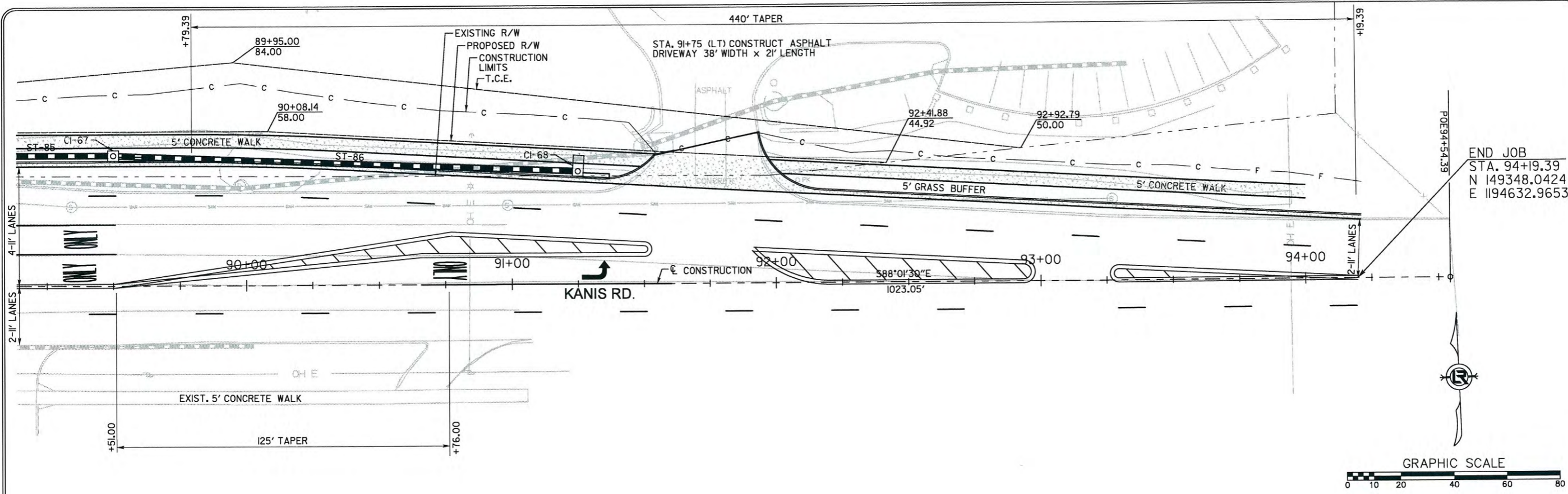
DEPARTMENT OF PUBLIC WORKS  
CIVIL ENGINEERING  
701 W. MARKHAM  
LITTLE ROCK, ARKANSAS 72201



**DRAWN BY**  
KLL  
**DESIGNED**  
COF  
**CHECKED**  
BOL  
**DATE**  
12-11-2020  
**SCALE**  
H: 1"=20'  
V: 1"=5'  
**PROJECT NO.**  
CLR 6-15-ST-249  
**SHEET NO.**  
C6.9B

KANIS ROAD IMPROVEMENT PLAN REVISIONS





REVISIONS	DATE

CITY OF LITTLE ROCK, ARKANSAS

KANIS ROAD

PLAN & PROFILE

KANIS ROAD SHEET 16

DEPARTMENT OF PUBLIC WORKS

CIVIL ENGINEERING

701 W. MARKHAM

LITTLE ROCK, ARKANSAS 72201

STATE OF ARKANSAS

REGISTERED PROFESSIONAL ENGINEER

No. 11427

KEVIN G. TOLLESKY

3-15-17

DRAWN BY  
RFR

DESIGNED  
RFR

CHECKED  
KGT

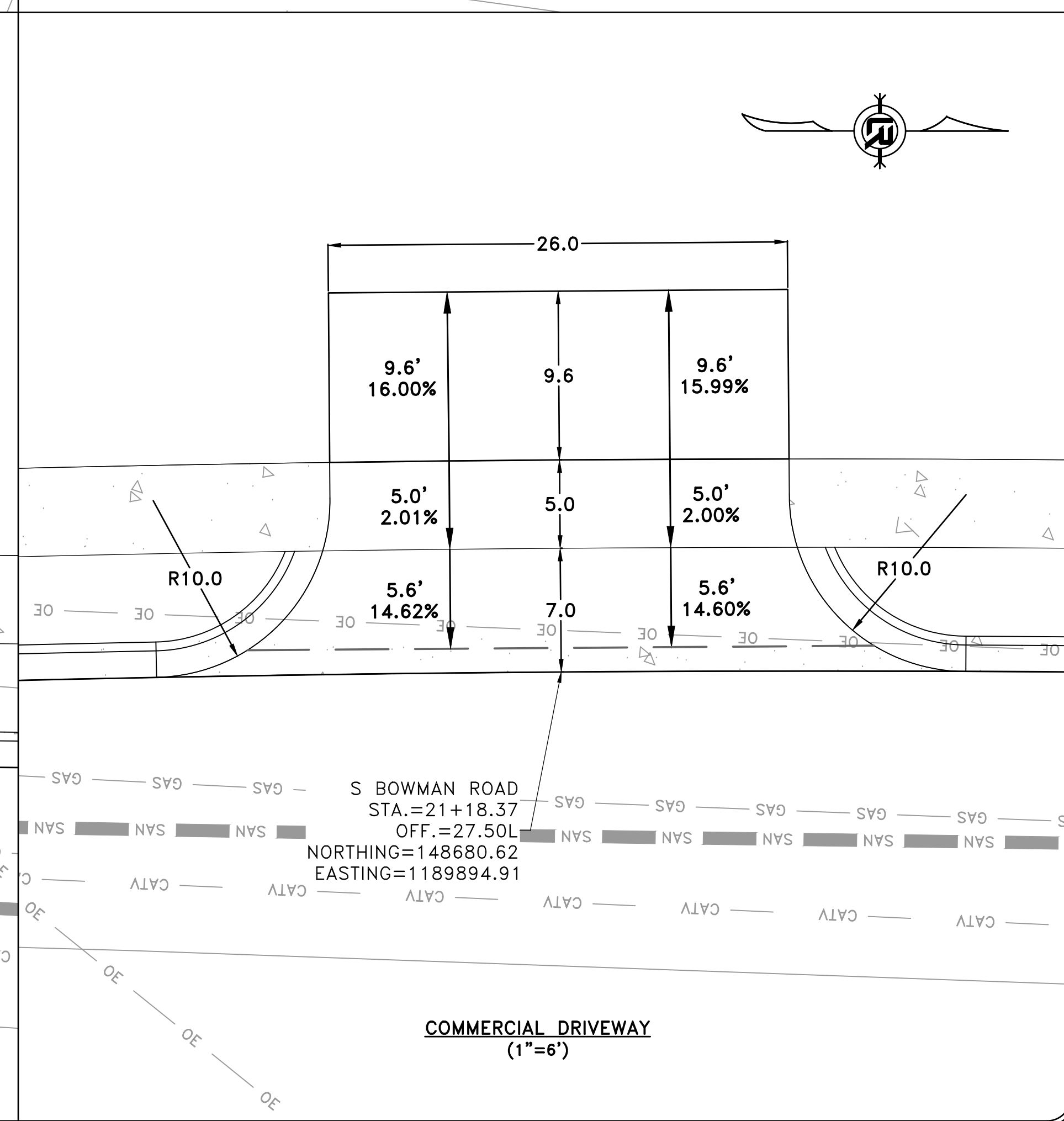
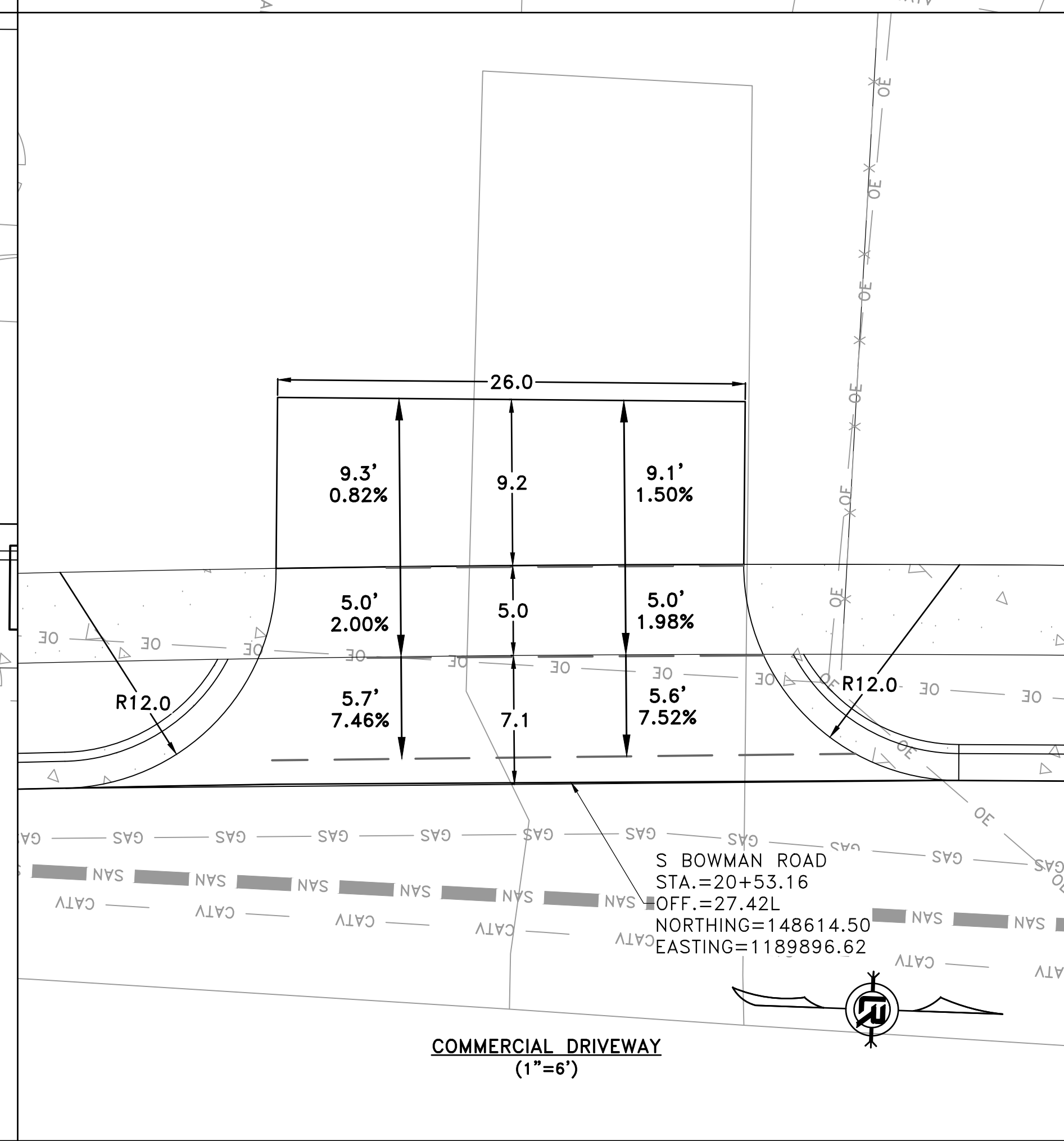
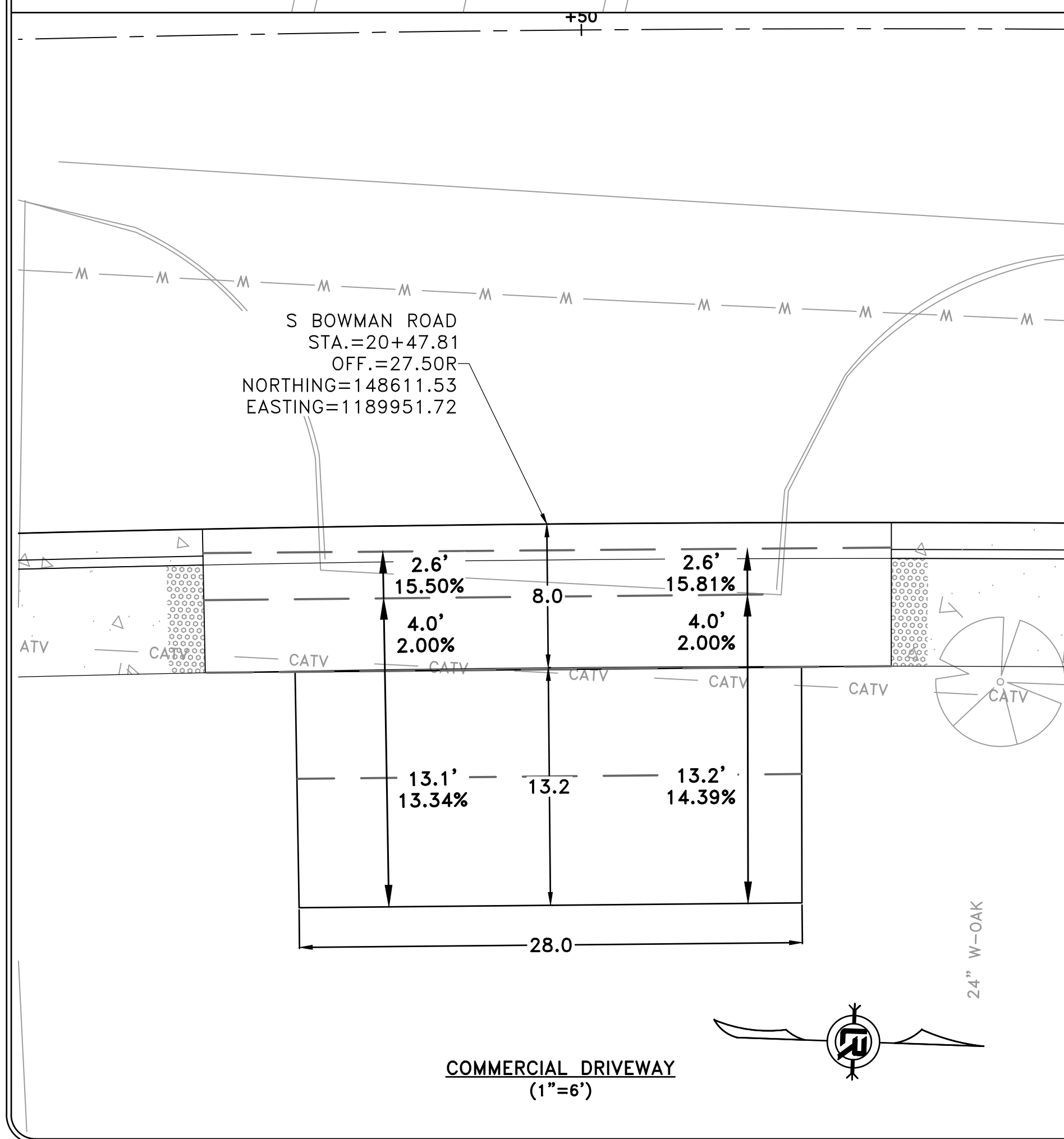
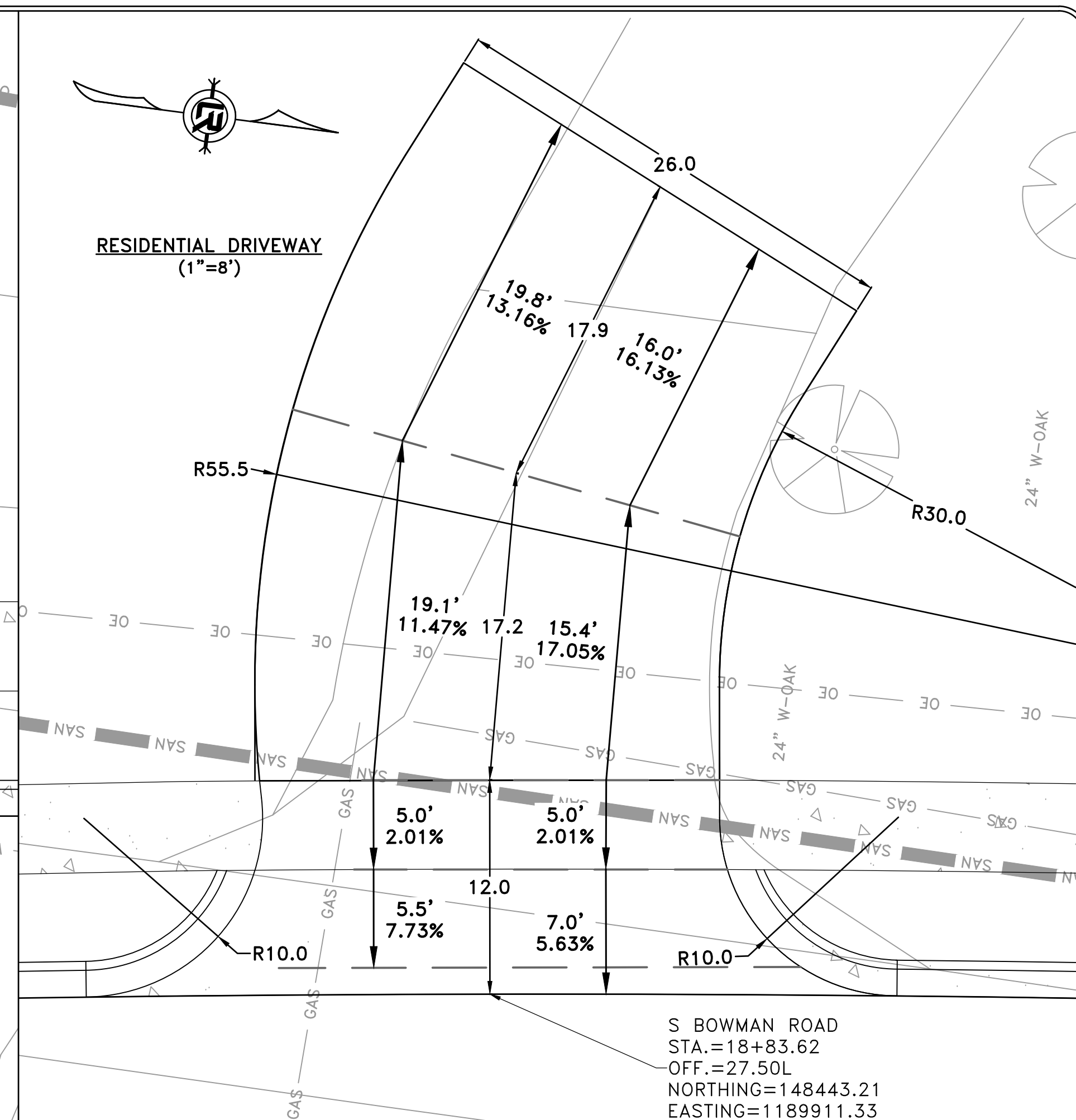
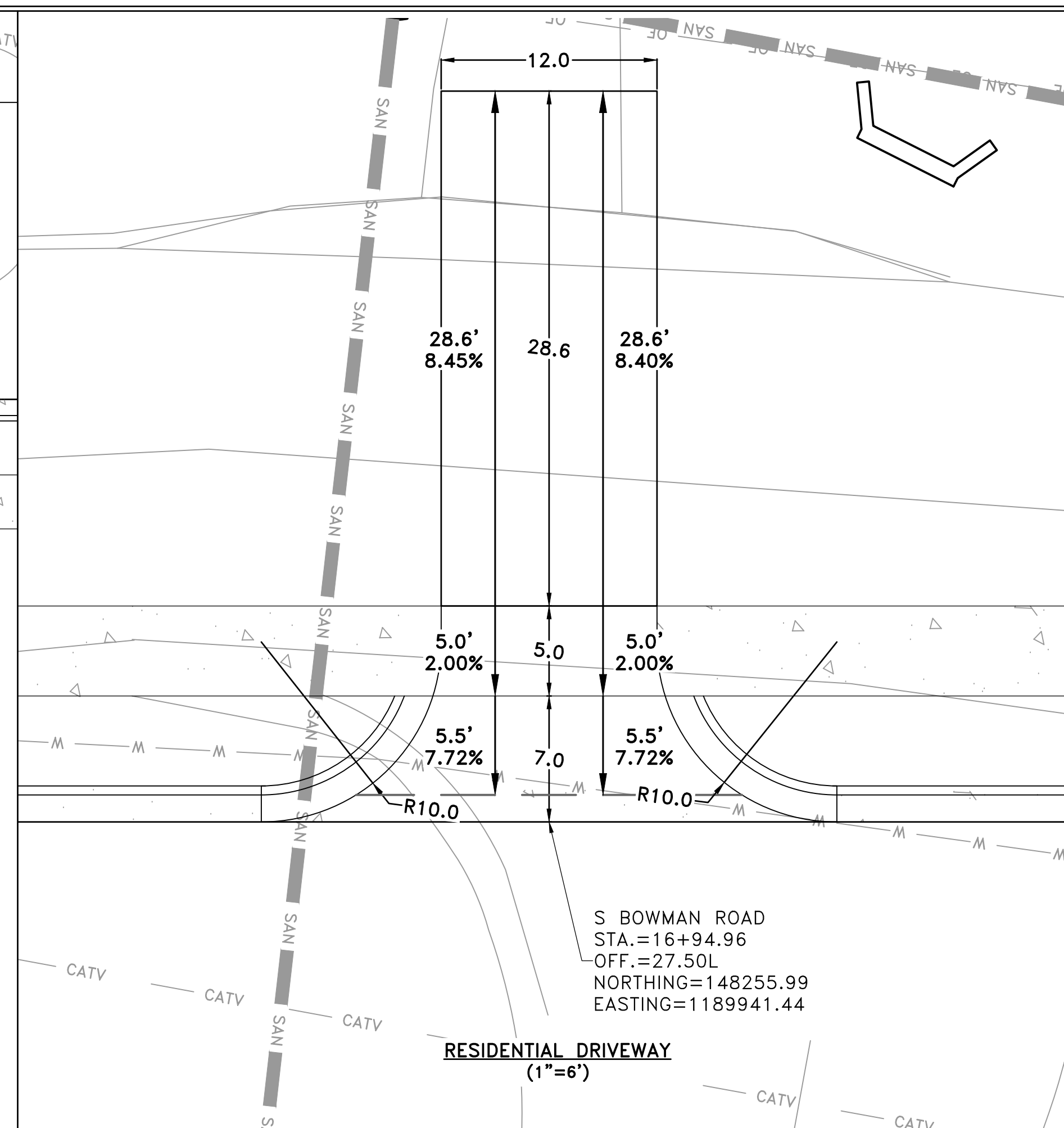
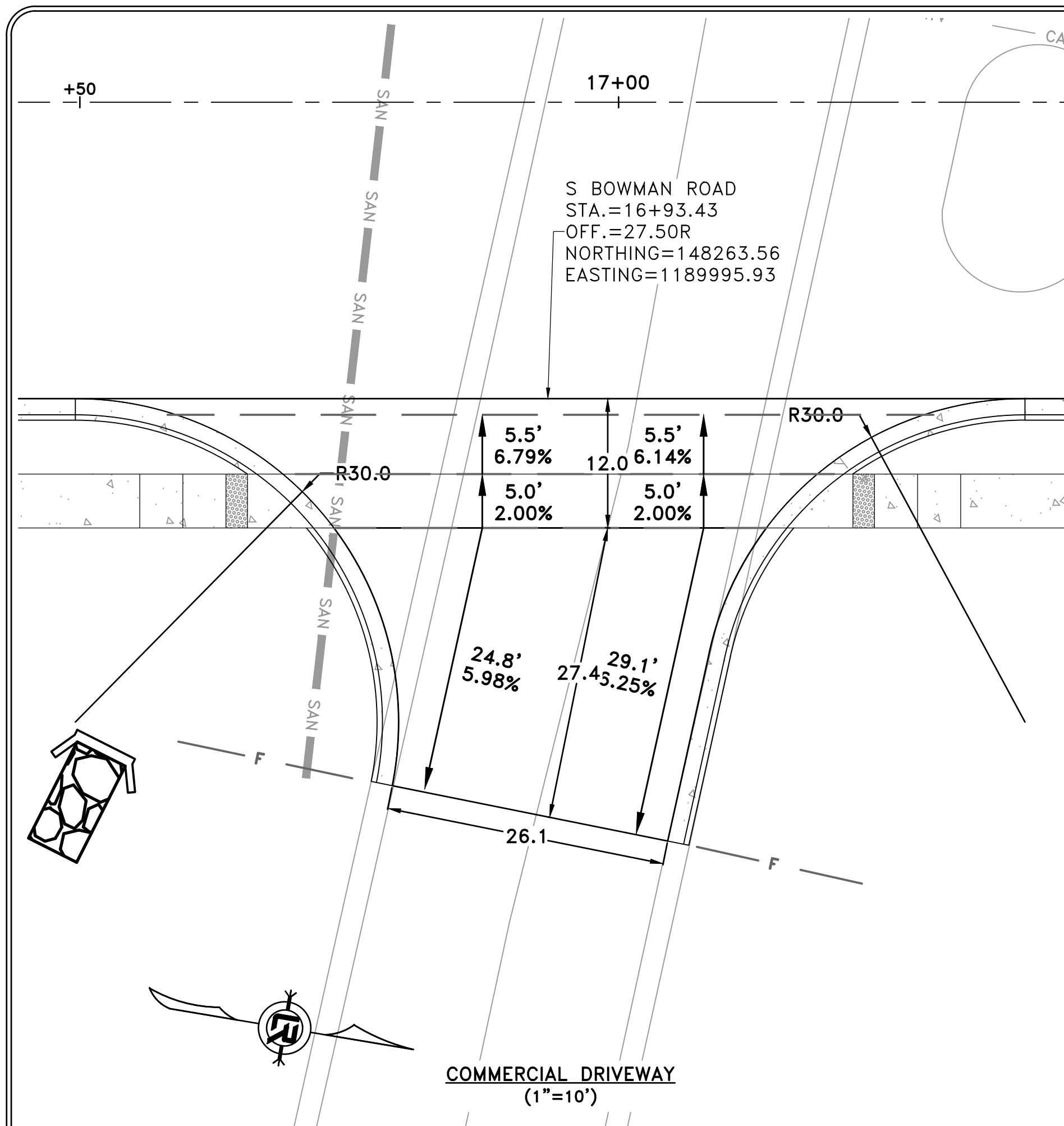
DATE  
2/24/17

SCALE  
1" = 40'

PROJECT NO.  
13-B-5D-6A

SHEET NO.  
C6.10





REVISIONS	DATE

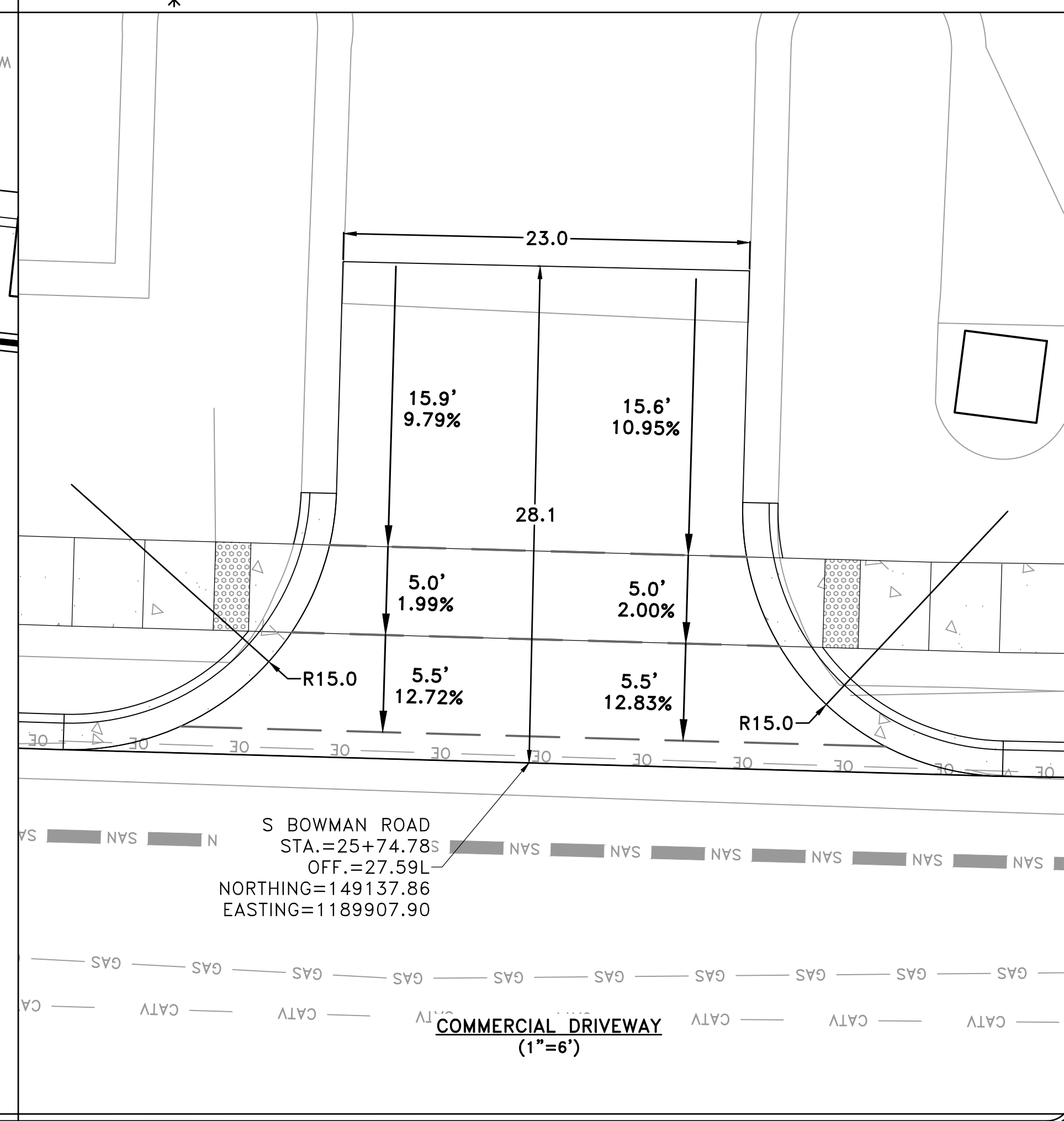
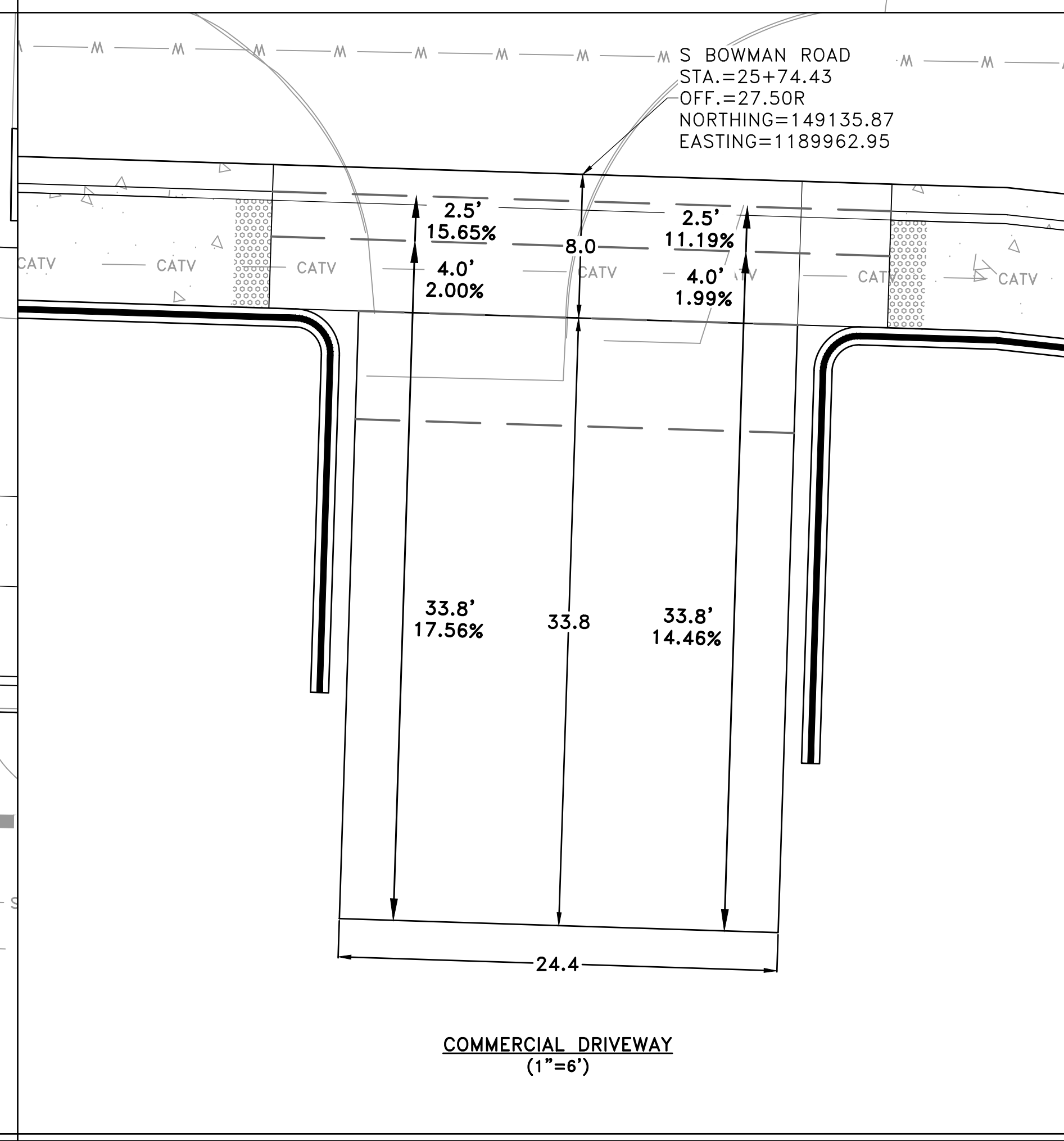
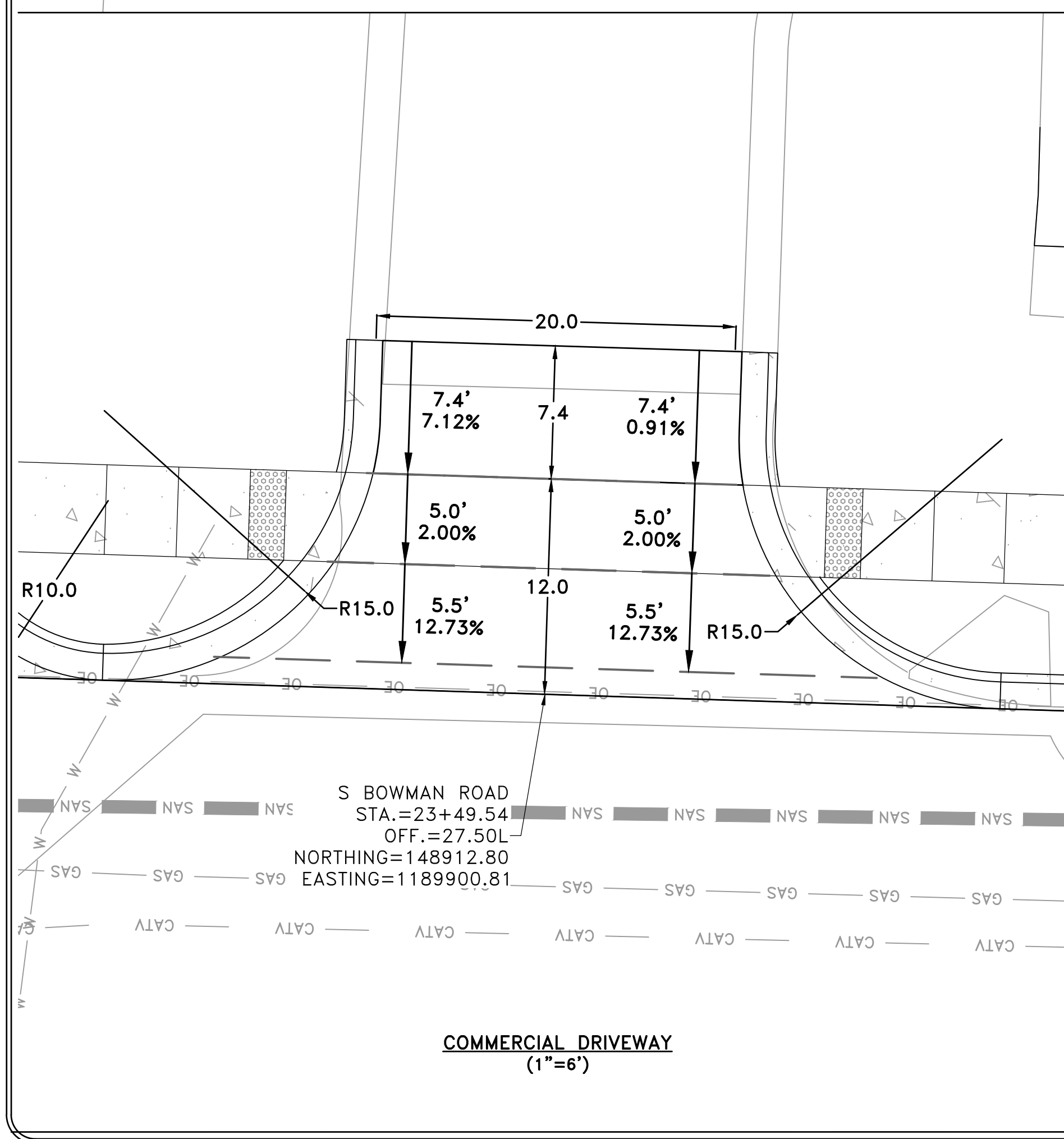
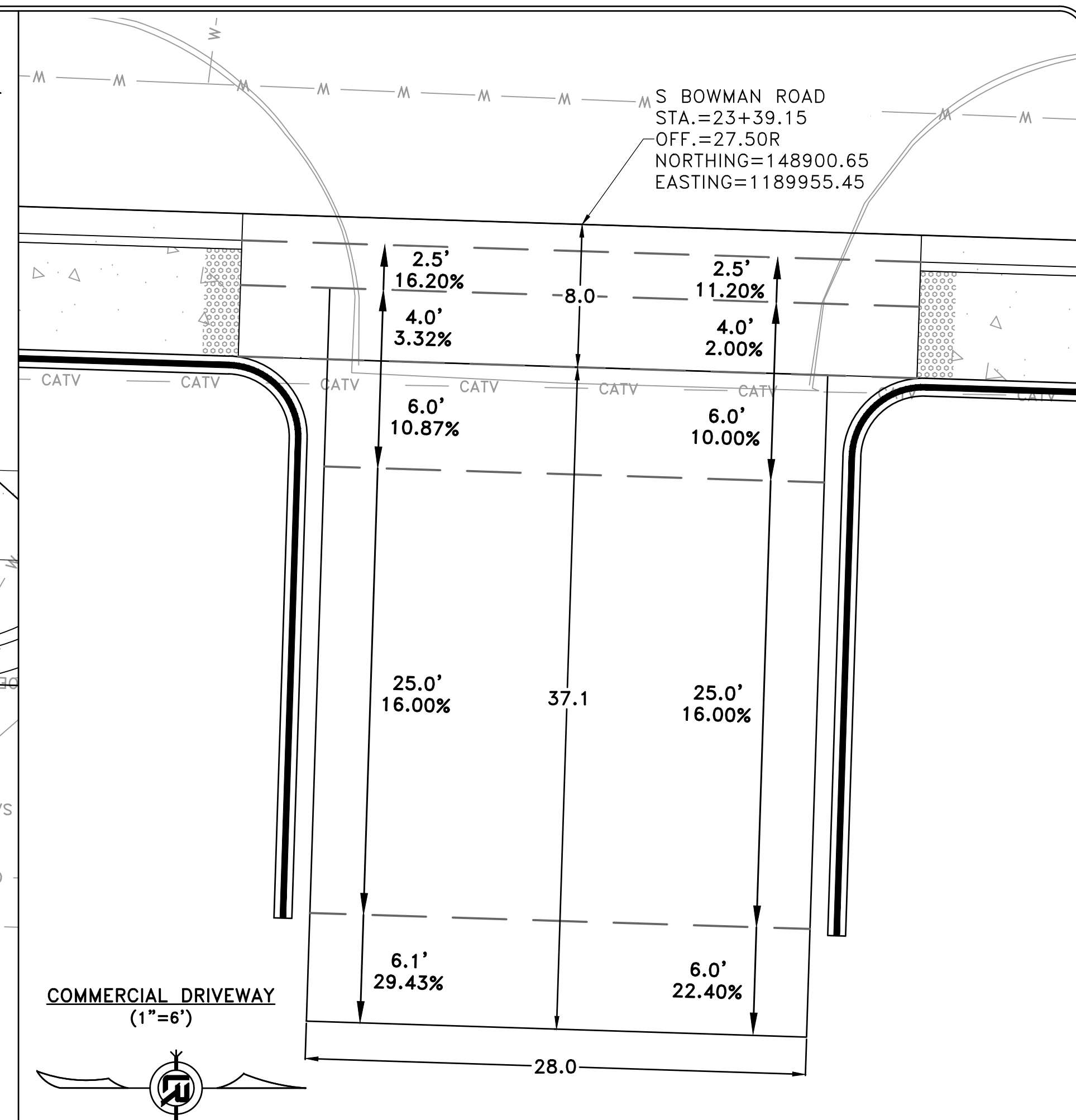
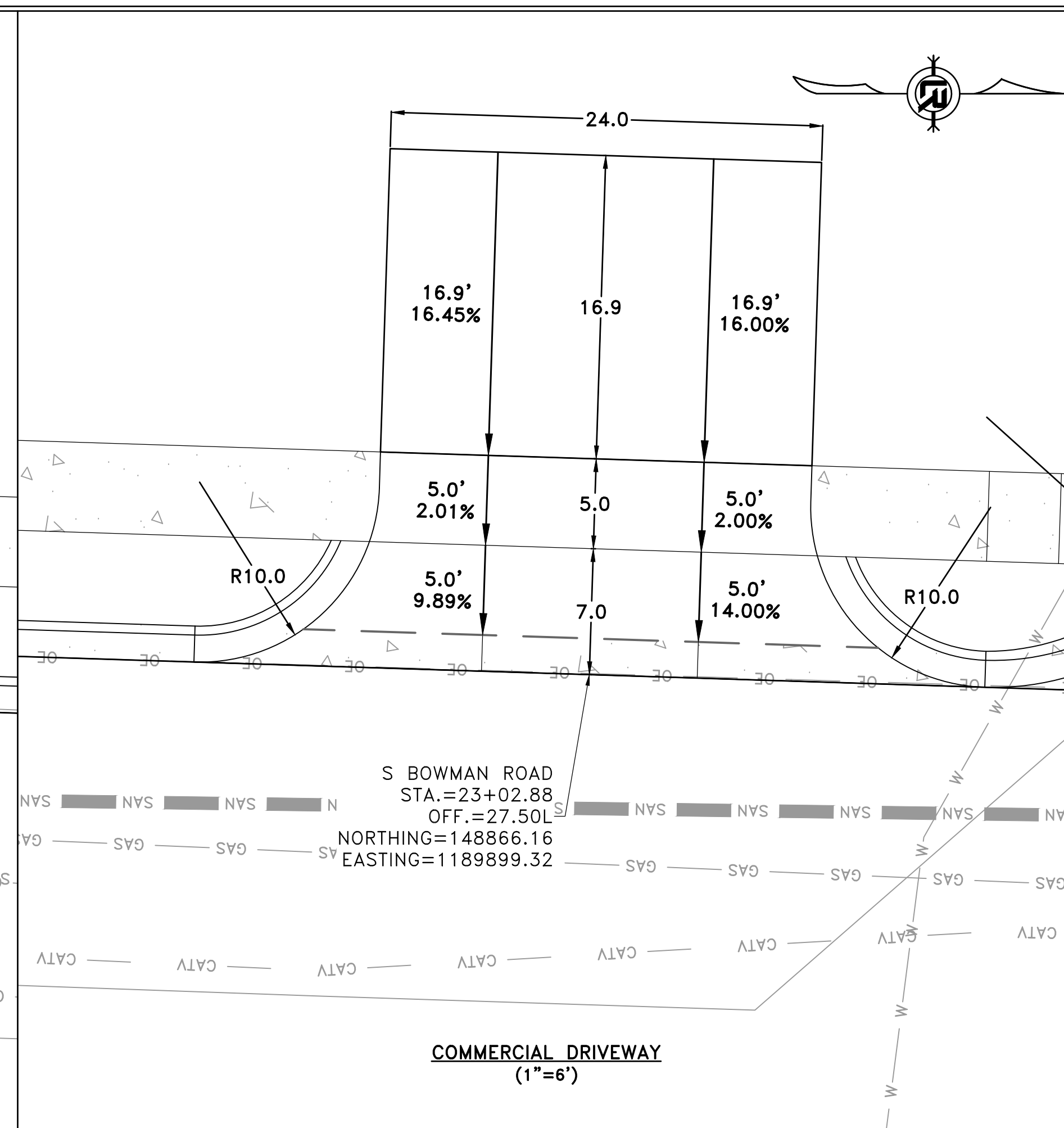
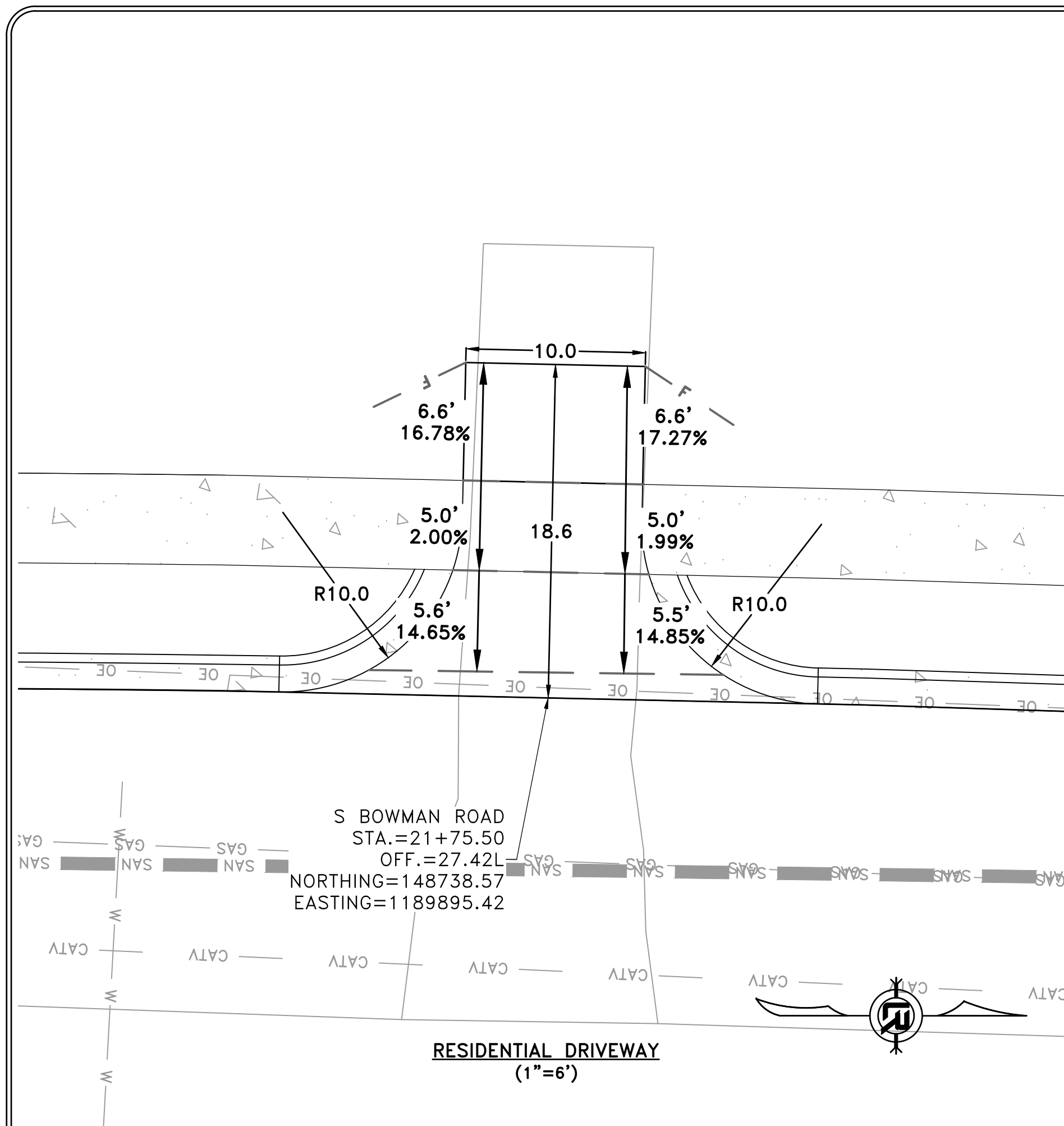
CITY OF LITTLE ROCK, ARKANSAS  
BOWMAN ROAD RECONSTRUCTION  
DRIVEWAY PLAN (1)

DEPARTMENT OF PUBLIC WORKS  
CIVIL ENGINEERING  
701 W. MARKHAM  
LITTLE ROCK, ARKANSAS 72201



DRAWN BY  
KLL  
DESIGNED  
COF  
CHECKED  
BOL  
DATE  
12-11-2020  
SCALE  
AS NOTED  
PROJECT NO.  
CLR 6-15-ST-249  
SHEET NO.  
C7.0





REVISIONS	DATE

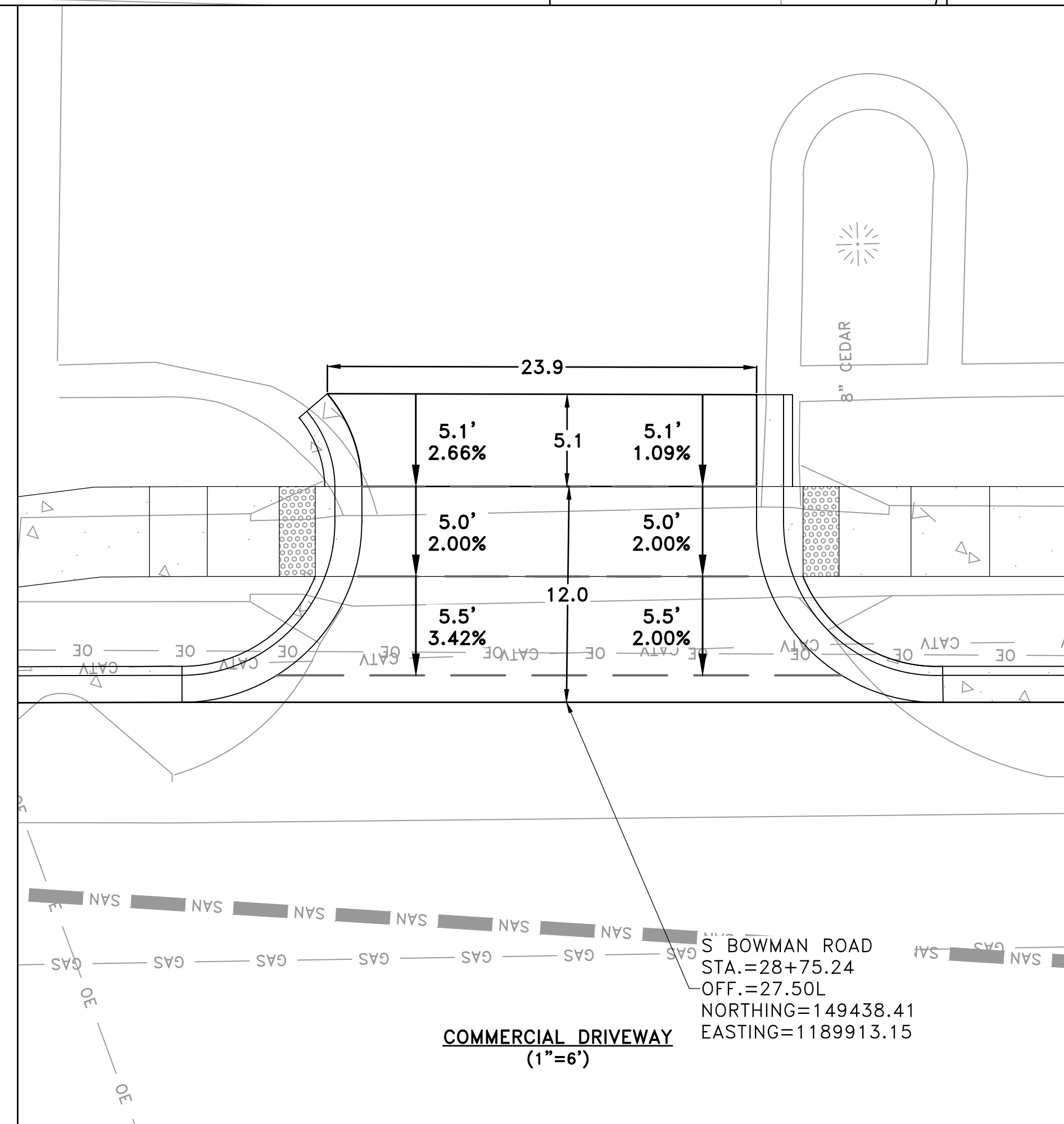
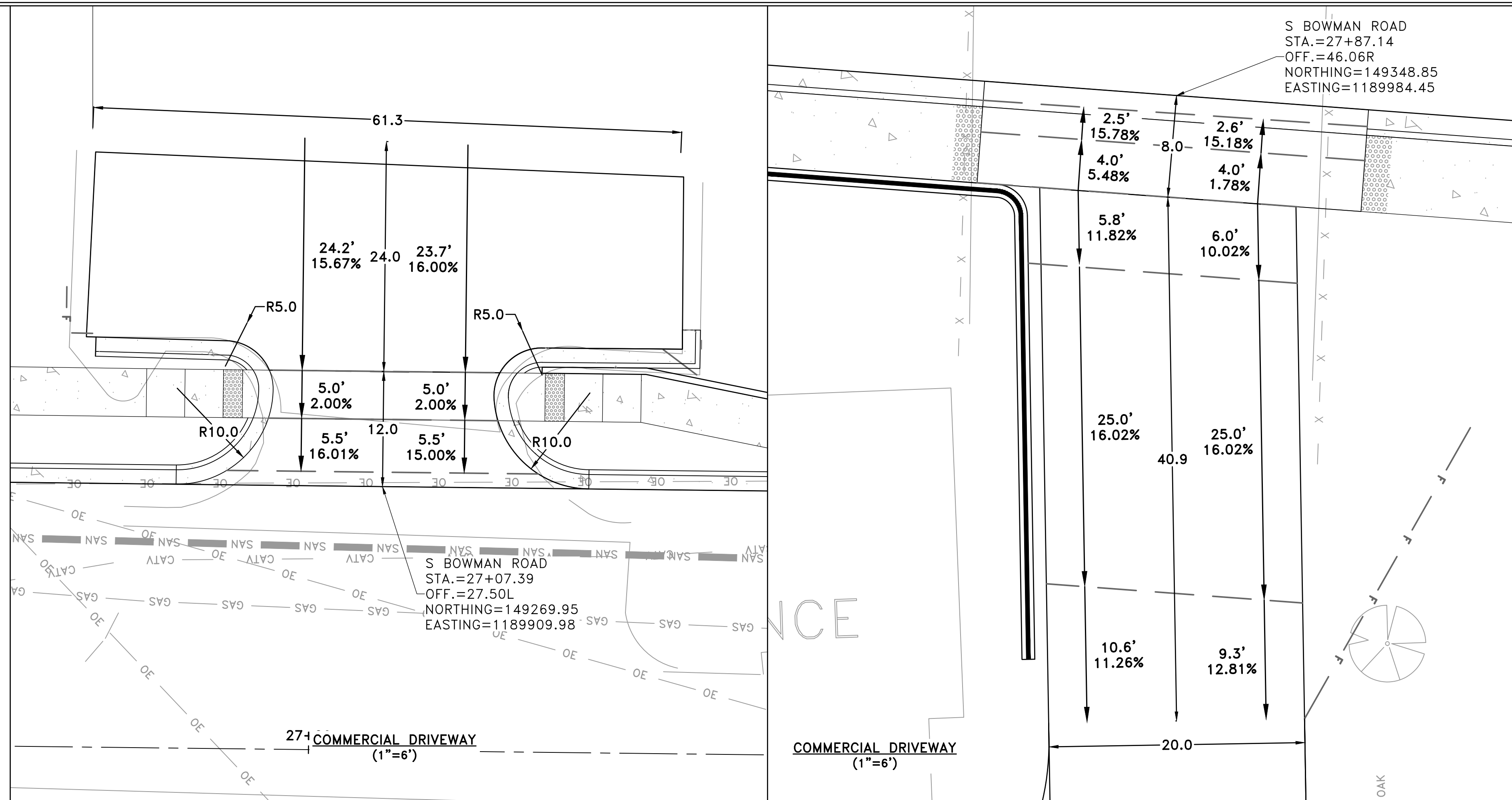
CITY OF LITTLE ROCK, ARKANSAS  
BOWMAN ROAD RECONSTRUCTION  
DRIVEWAY PLAN (2)

DEPARTMENT OF PUBLIC WORKS  
CIVIL ENGINEERING  
701 W. MARKHAM  
LITTLE ROCK, ARKANSAS 72201



DRAWN BY  
KLL  
DESIGNED  
COF  
CHECKED  
BOL  
DATE  
12-11-2020  
SCALE  
AS NOTED  
PROJECT NO.  
CLR 6-15-ST-249  
SHEET NO.  
C7.1





S BOWMAN ROAD  
STA. = 27+87.14  
OFF. = 46.06R  
NORTHING = 149348.85  
EASTING = 1189984.45

REVISIONS	DATE

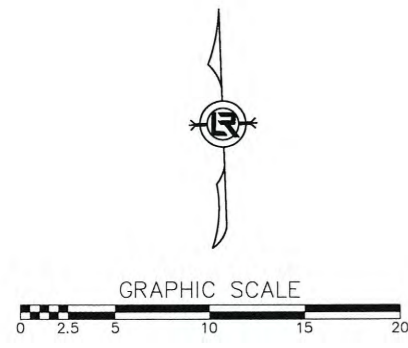
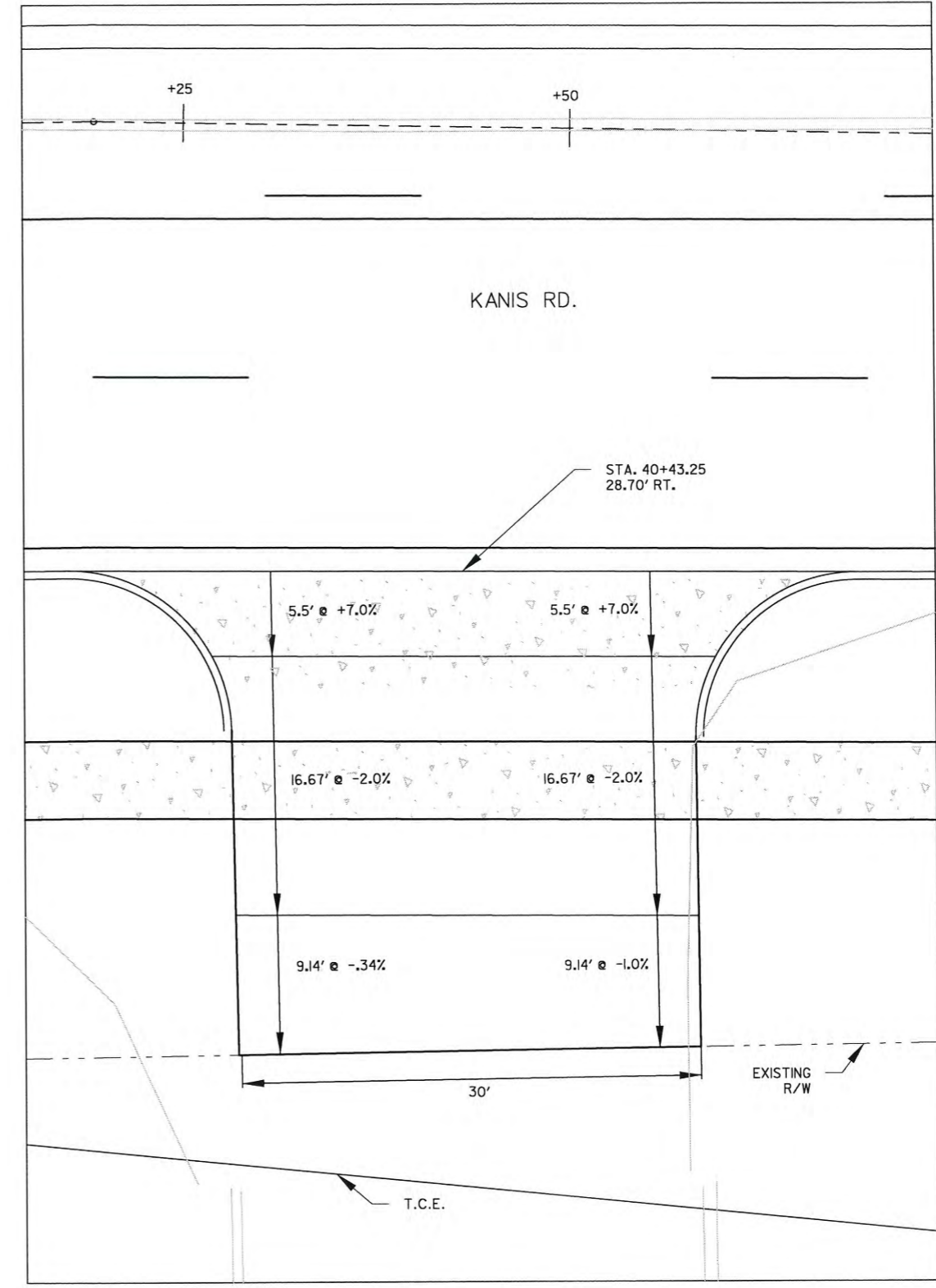
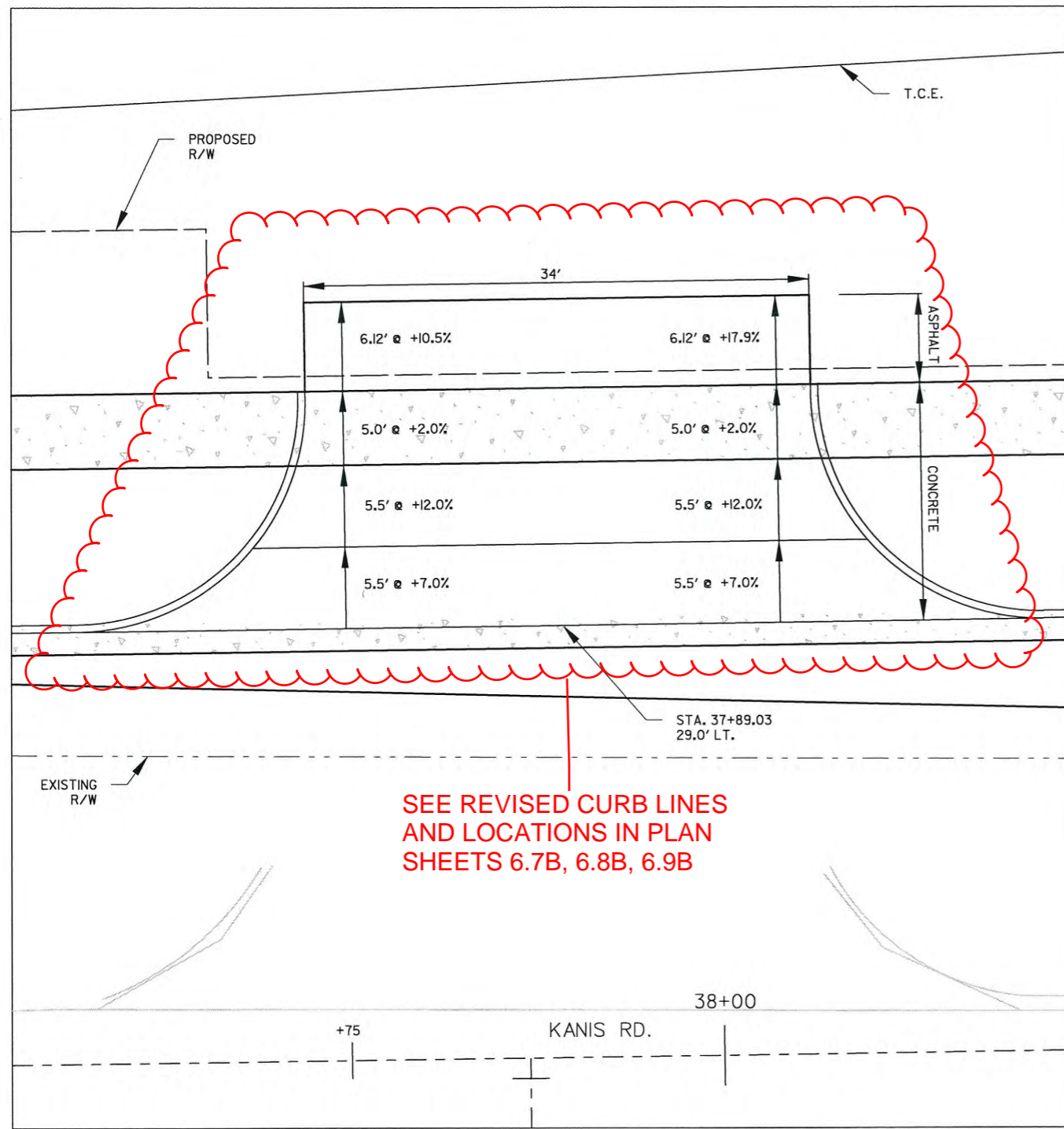
CITY OF LITTLE ROCK, ARKANSAS  
BOWMAN ROAD RECONSTRUCTION  
DRIVEWAY PLAN (3)

DEPARTMENT OF PUBLIC WORKS  
CIVIL ENGINEERING  
701 W. MARKHAM  
LITTLE ROCK, ARKANSAS 72201



DRAWN BY  
KLL  
DESIGNED  
COF  
CHECKED  
BOL  
DATE  
12-11-2020  
SCALE  
AS NOTED  
PROJECT NO.  
CLR 6-15-ST-249  
SHEET NO.  
C7.2





REVISIONS	DATE

CITY OF LITTLE ROCK, ARKANSAS  
 KANIS ROAD  
 KANIS RD.  
 DRIVEWAY DETAIL SHEET 5

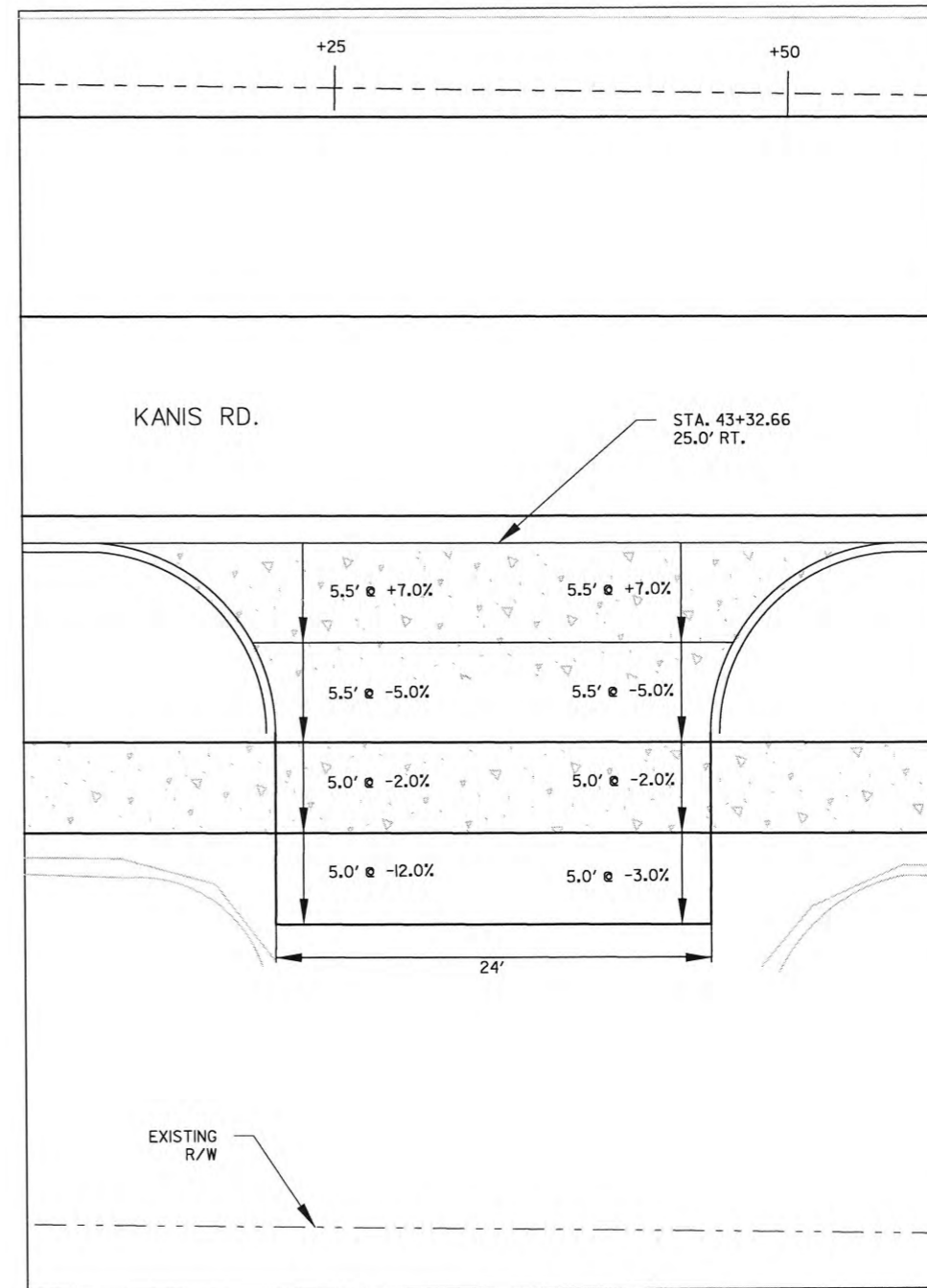
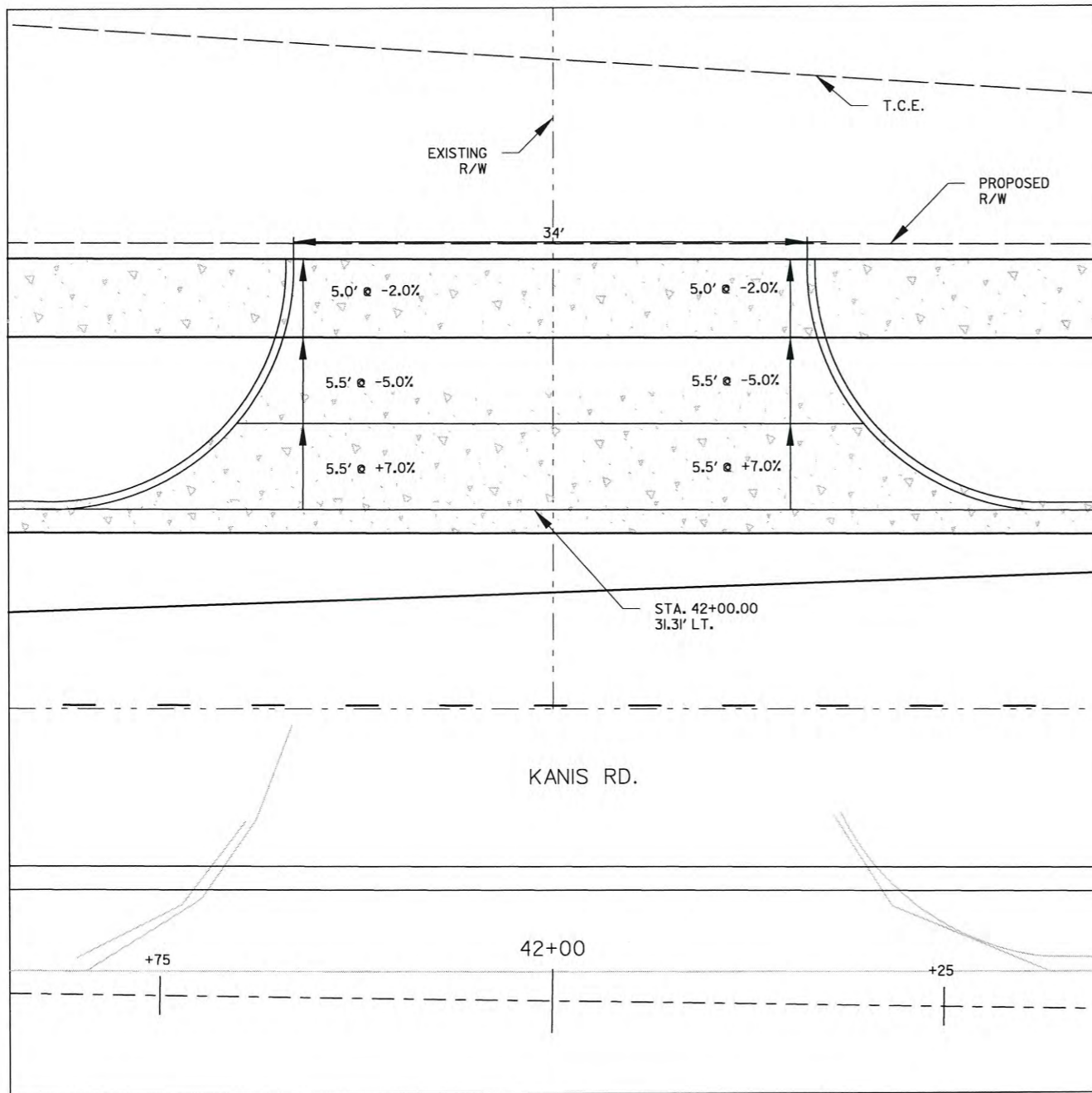
DEPARTMENT OF PUBLIC WORKS  
 CIVIL ENGINEERING  
 701 W. MARKHAM  
 LITTLE ROCK, ARKANSAS 72201

STATE OF ARKANSAS  
 REGISTERED PROFESSIONAL ENGINEER  
 No. 11427  
 KEVIN G. TOBIASKY

1-5-16

DRAWN BY  
 JAB  
 DESIGNED  
 RFR  
 CHECKED  
 KGT  
 DATE  
 5/21/15  
 SCALE  
 1" = 10'  
 PROJECT NO.  
 13-B-5D-6A  
 SHEET NO.  
 C7.3





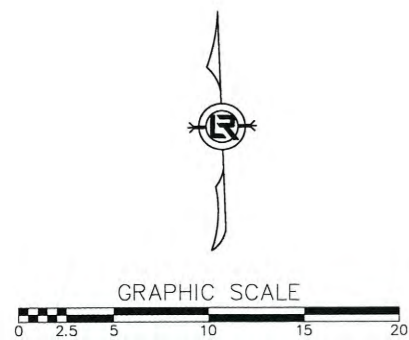
REVISIONS	DATE

CITY OF LITTLE ROCK, ARKANSAS  
 KANIS ROAD  
 KANIS RD.  
 DRIVEWAY DETAIL SHEET 6

DEPARTMENT OF PUBLIC WORKS  
 CIVIL ENGINEERING  
 701 W. MARKHAM  
 LITTLE ROCK, ARKANSAS 72201

STATE OF ARKANSAS  
 REGISTERED PROFESSIONAL ENGINEER  
 No. 11427  
 KEVIN G. TOBLESKY

DRAWN BY	JAB
DESIGNED	RFR
CHECKED	KGT
DATE	5/21/15
SCALE	1" = 10'
PROJECT NO.	13-B-5D-6A
SHEET NO.	C7.4





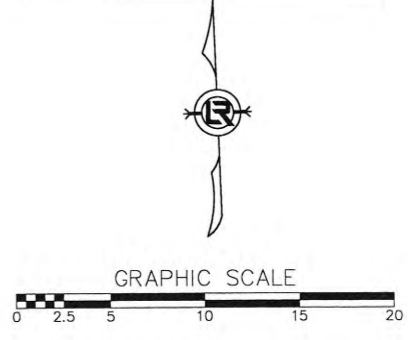
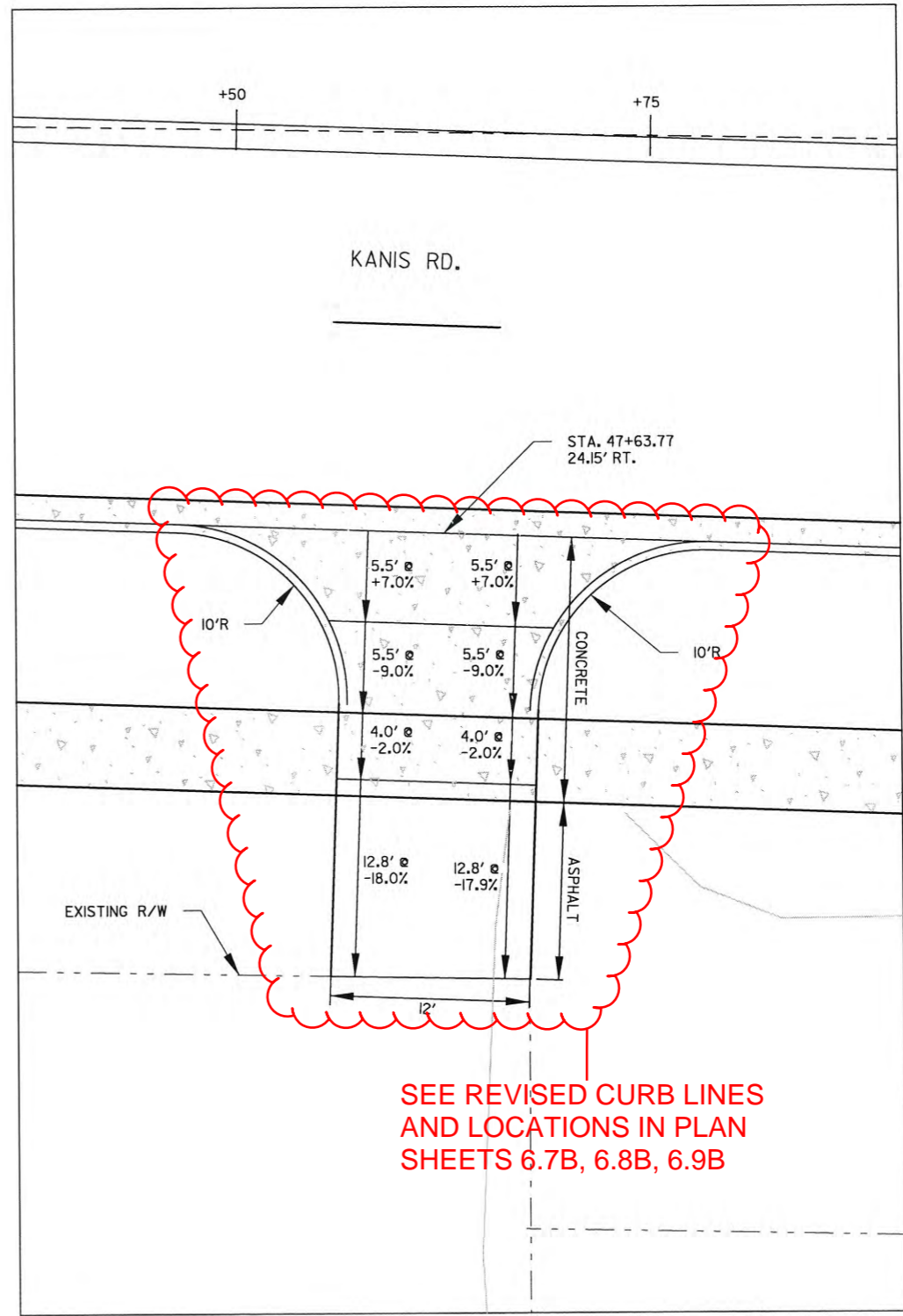
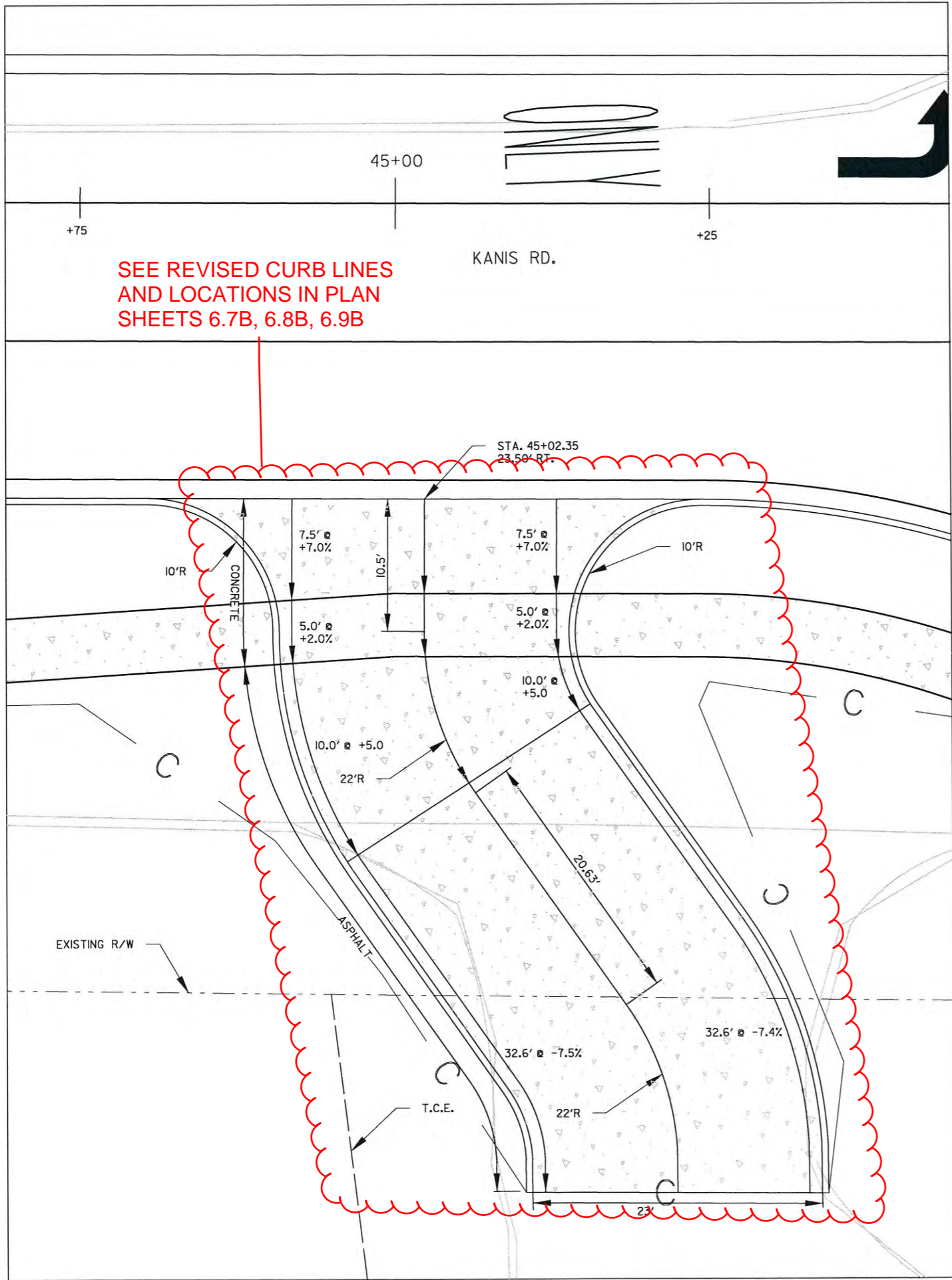
REVISIONS	DATE

CITY OF LITTLE ROCK, ARKANSAS  
 KANIS ROAD  
 KANIS RD.  
 DRIVEWAY DETAIL SHEET 7

DEPARTMENT OF PUBLIC WORKS  
 CIVIL ENGINEERING  
 701 W. MARKHAM  
 LITTLE ROCK, ARKANSAS 72201

STATE OF ARKANSAS  
 REGISTERED PROFESSIONAL ENGINEER  
 No. 11427  
 KEVIN G. TOBIAS

1-5-16  
 DRAWN BY  
 JAB  
 DESIGNED  
 RFR  
 CHECKED  
 KGT  
 DATE  
 5 / 21 / 15  
 SCALE  
 1" = 10'  
 PROJECT NO.  
 13-B-5D-6A  
 SHEET NO.  
**C7.5**

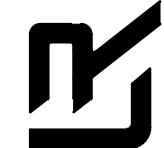




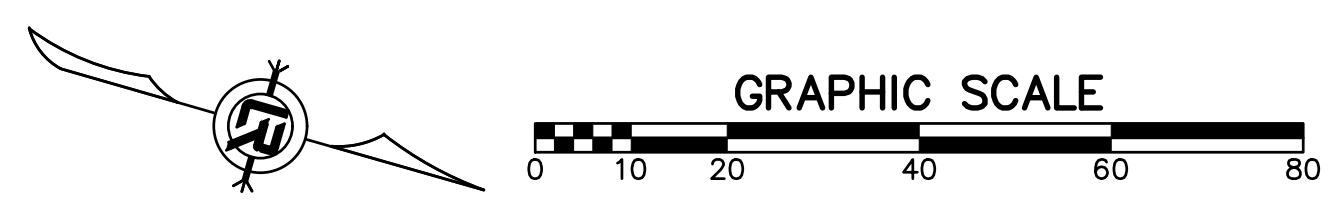
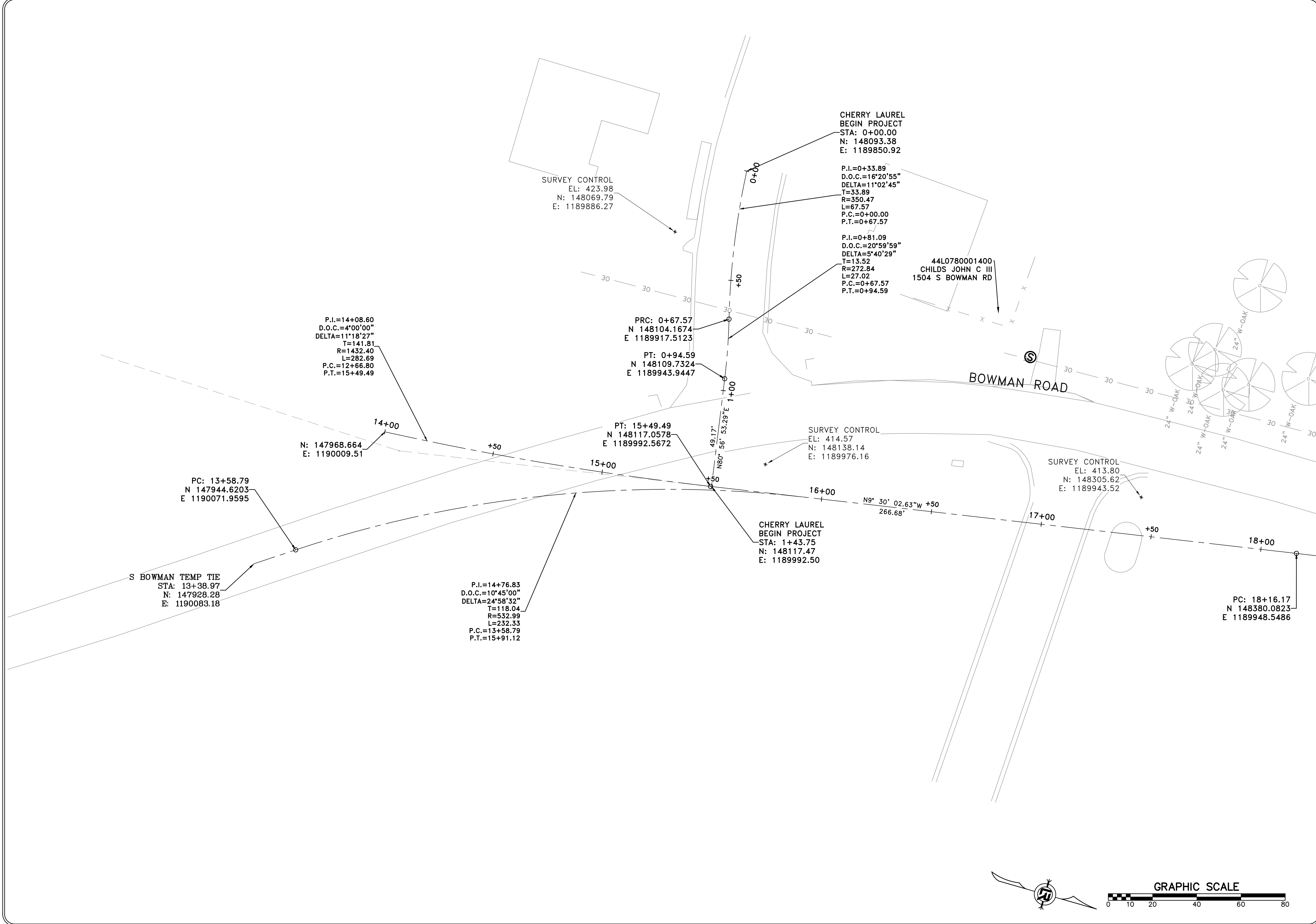
REVISIONS	DATE

CITY OF LITTLE ROCK, ARKANSAS  
 BOWMAN ROAD RECONSTRUCTION  
 SURVEY CONTROL (1)

DEPARTMENT OF PUBLIC WORKS  
 CIVIL ENGINEERING  
 701 W. MARKHAM  
 LITTLE ROCK, ARKANSAS 72201



DRAWN BY  
 KLL  
 DESIGNED  
 COF  
 CHECKED  
 BOL  
 DATE  
 12-11-2020  
 SCALE  
 1" = 20'  
 PROJECT NO.  
 CLR 6-15-ST-249  
 SHEET NO.  
 C8.0

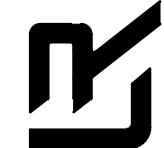




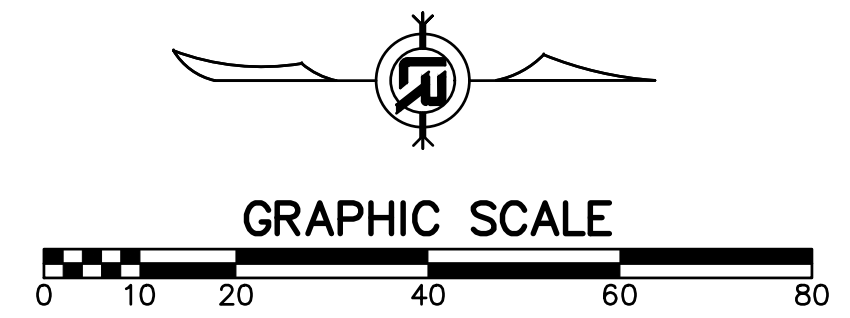
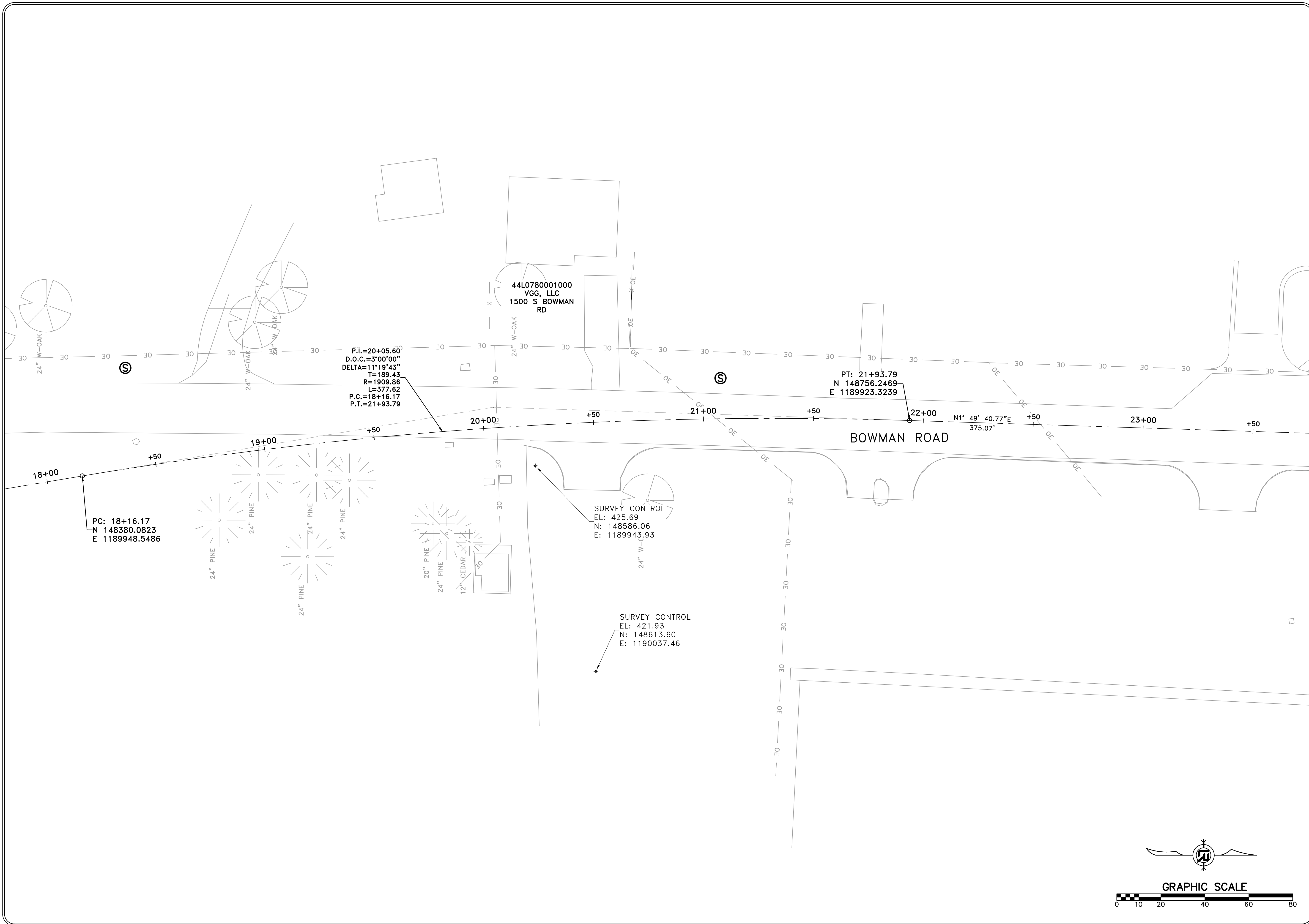
REVISIONS	DATE

CITY OF LITTLE ROCK, ARKANSAS  
 BOWMAN ROAD RECONSTRUCTION  
 SURVEY CONTROL (2)

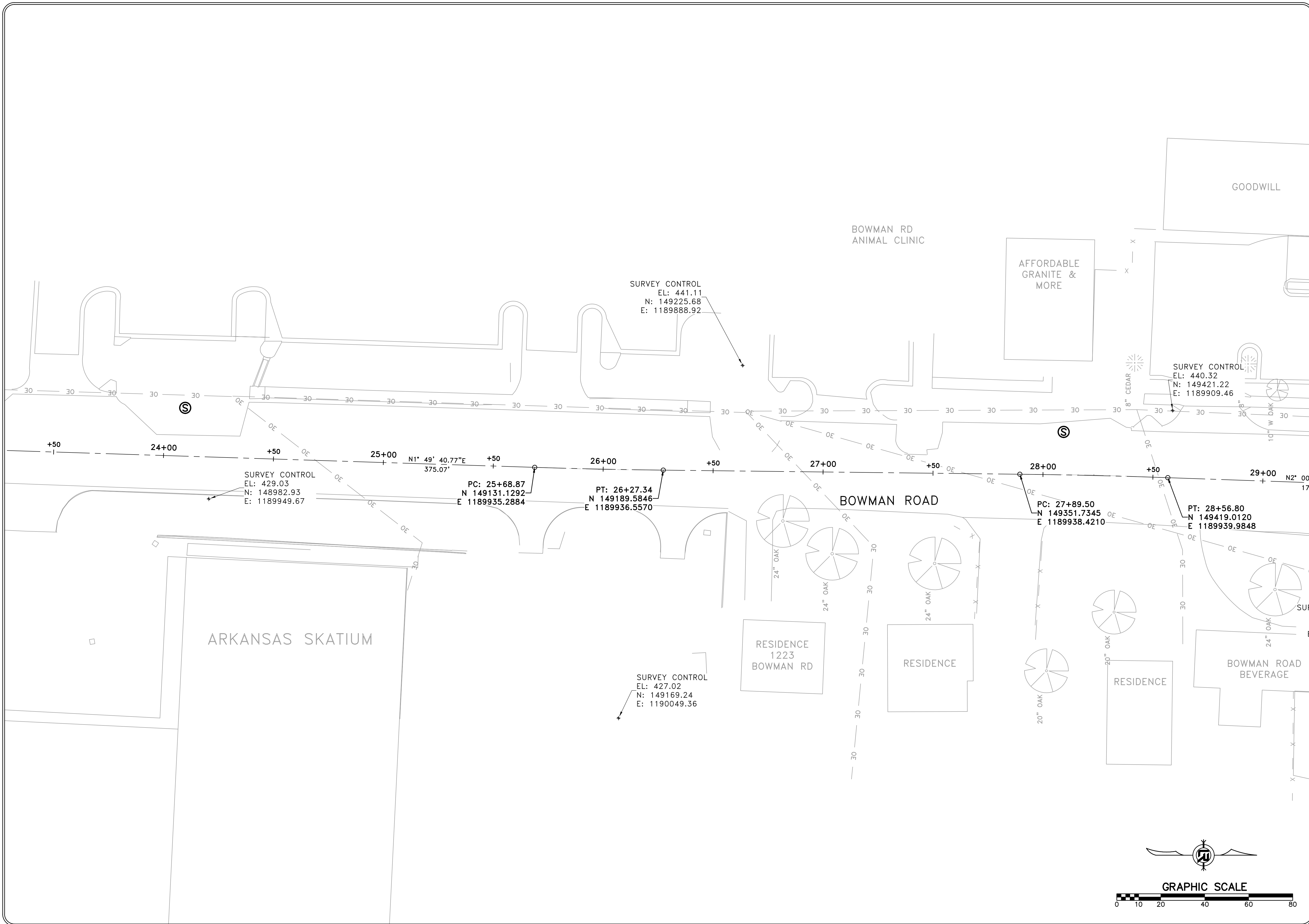
DEPARTMENT OF PUBLIC WORKS  
 CIVIL ENGINEERING  
 701 W. MARKHAM  
 LITTLE ROCK, ARKANSAS 72201



DRAWN BY  
 KLL  
 DESIGNED  
 COF  
 CHECKED  
 BOL  
 DATE  
 12-11-2020  
 SCALE  
 1" = 20'  
 PROJECT NO.  
 CLR 6-15-ST-249  
 SHEET NO.  
 C8.1







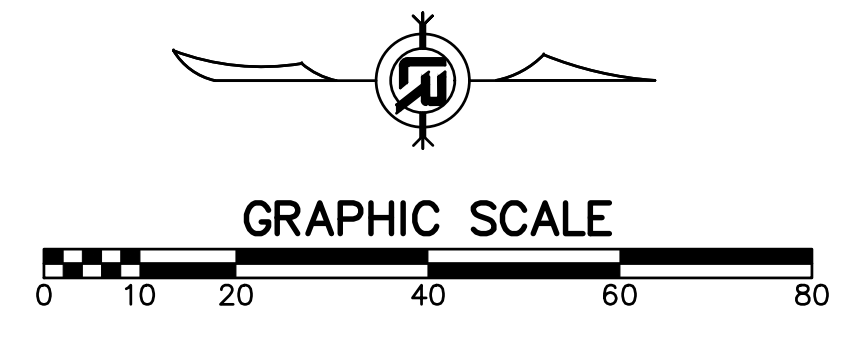
REVISIONS	DATE

**CITY OF LITTLE ROCK, ARKANSAS**  
**BOWMAN ROAD RECONSTRUCTION**  
**SURVEY CONTROL (3)**

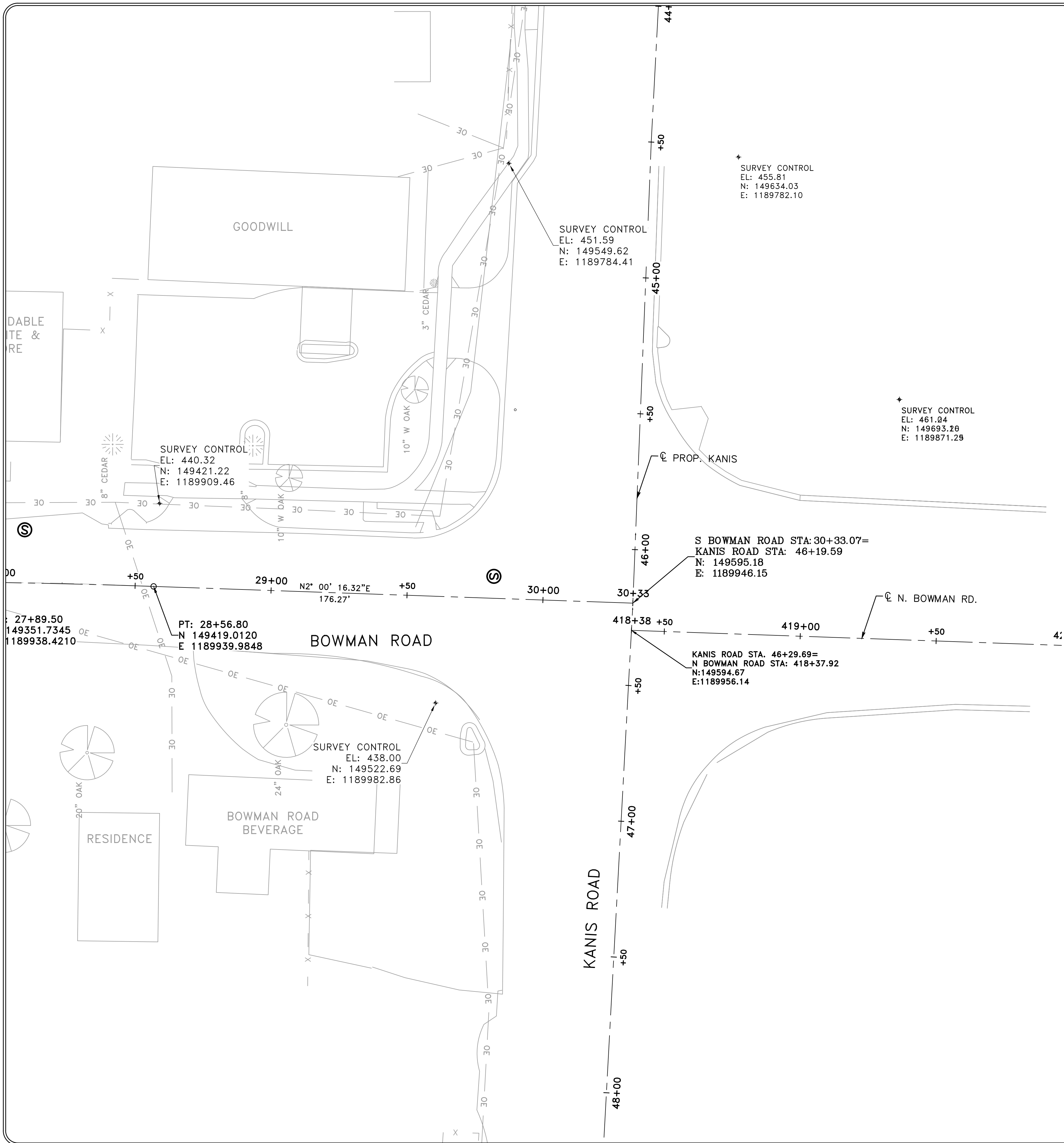
**DEPARTMENT OF PUBLIC WORKS**  
**CIVIL ENGINEERING**  
 701 W. MARKHAM  
 LITTLE ROCK, ARKANSAS 72201



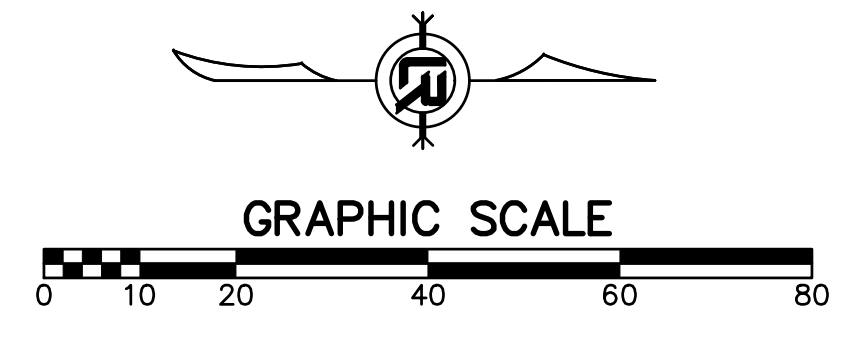
**DRAWN BY**  
 KLL  
**DESIGNED**  
 COF  
**CHECKED**  
 BOL  
**DATE**  
 12-11-2020  
**SCALE**  
 1" = 20'  
**PROJECT NO.**  
 CLR 6-15-ST-249  
**SHEET NO.**  
**C8.2**







Point Table				
Point #	Raw Description	Elevation	Northing	Easting
1	CTL PAGIS_2054-0012	446.790	148939.6800	1188922.1300
13	CTL PAGIS-2055	365.470	145757.9900	1189797.9500
15	CTL ARDOT_600041A	413.078	150728.9570	1194218.8290
16	CTL ARDOT_600041	441.919	154577.6250	1194952.9630
17	CTL PAGIS_2055-0034	458.600	149562.3800	1189438.3500
21	CTL PK	437.999	149522.6880	1189982.8620
22	CTL PK	429.031	148982.9310	1189949.6670
25	CTL 80D	418.216	147659.8950	1190220.6120
26	CTL 80D	411.596	147380.5940	1190100.8460
27	CTL 80D	417.588	147113.9050	1189832.0120
28	CTL PK	422.905	146696.2120	1189825.3370
30	CTL 80D SPIKE	455.807	149634.0340	1189782.1050
31	CTL 80D SPIKE	463.849	149634.7670	1189593.6410
32	CTL 60D	440.323	149421.2160	1189909.4620
33	CTL 60D	441.113	149225.6810	1189888.9210
34	CTL GPS_34	427.024	149169.2430	1190049.3560
35	CTL PK IN SHINER	421.934	148613.5950	1190037.4580
36	CTL PK IN SHINER	457.925	148093.1530	1189523.7390
5560	CTL	413.796	148305.6210	1189943.5160
5704	CTL	423.984	148069.7900	1189886.2690
536870913	CTL PAGIS_2054-0012	446.790	148939.6800	1188922.1300
536870914	CTL ARDOT_Z320	453.396	149003.5320	1193883.5440
536870915	CTL ARDOT_A321-2007	407.251	150859.4640	1194293.5810
536870916	CTL ARDOT_600041A	405.658	150728.9610	1194218.7260
536870917	CTL ARDOT_600041	441.771	154577.6480	1194952.8880
536870918	CTL PAGIS_2055-0034	468.196	149561.3280	1189437.1400
536870919	CTL PAGIS_2055	365.100	145756.7200	1189796.6130
536870920	CTL ARDOT_Z-320	453.520	149003.6570	1193883.5370
536870921	CTL 80D	461.041	149693.1970	1189871.2520
536870922	CTL OPUS FAST	461.236	149693.1550	1189871.2910
536870923	CTL PAGIS_2054-0011	472.900	148279.1100	1188904.4100
536870924	CTL PAGIS	573.958	184705.9800	1236355.2680
536870925	CTL PAGIS-2055	365.470	145757.9900	1189797.9500
536870926	CTL PAGIS_2055-0033	451.590	149549.6200	1189784.4100
536870927	CTL ARDOT_600041A	413.078	150728.9570	1194218.8290
536870928	CTL ARDOT_600041	441.919	154577.6250	1194952.9630
536870929	CTL PAGIS_2055-0034	458.600	149562.3800	1189438.3500
536870930	CTL PAGIS_2055	365.099	145756.7250	1189796.6380
536870933	CTL PK	425.686	148586.0590	1189943.9270
536870934	CTL 80D	414.566	148138.1390	1189976.1560
536870935	CTL 80D	418.216	147659.8950	1190220.6120
536870936	CTL 80D	411.596	147380.5940	1190100.8460
536870937	CTL 80D	417.588	147113.9050	1189832.0120
536870938	CTL PK	422.905	146696.2120	1189825.3370



REVISIONS	DATE

CITY OF LITTLE ROCK, ARKANSAS  
BOWMAN ROAD RECONSTRUCTION  
SURVEY CONTROL (4)

DEPARTMENT OF PUBLIC WORKS  
CIVIL ENGINEERING  
701 W. MARKHAM  
LITTLE ROCK, ARKANSAS 72201




DRAWN BY  
KLL  
DESIGNED  
COF  
CHECKED  
BOL  
DATE  
12-11-2020  
SCALE  
1" = 20'  
PROJECT NO.  
CLR 6-15-ST-249  
SHEET NO.  
C8.3

REVISIONS	DATE

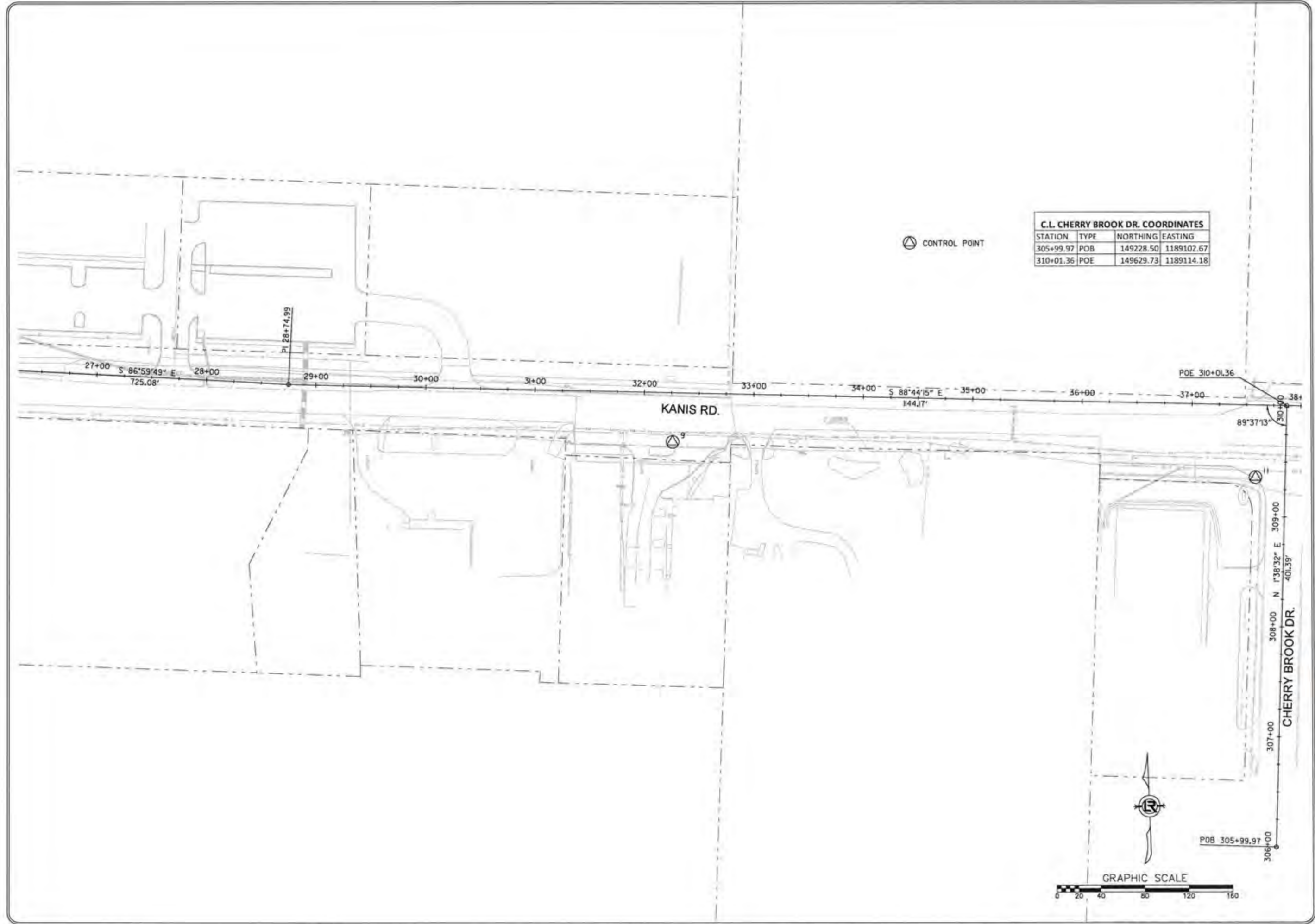
CITY OF LITTLE ROCK, ARKANSAS  
**KANIS ROAD**  
 FIELD TIES / LAYOUT SHEET 3

DEPARTMENT OF PUBLIC WORKS  
 CIVIL ENGINEERING  
 701 W. MARKHAM  
 LITTLE ROCK, ARKANSAS 72201



STATE OF ARKANSAS  
 REGISTERED PROFESSIONAL ENGINEER  
 No. 11427  
 KEVIN G. TOBLEBEE

3-15-17  
 DRAWN BY  
 RFR  
 DESIGNED  
 RFR  
 CHECKED  
 KGT  
 DATE  
 02 / 24 / 17  
 SCALE  
 1" = 80'  
 PROJECT NO.  
 13-B-5D-6A  
 SHEET NO.  
**C8.4**





REVISIONS	DATE

CITY OF LITTLE ROCK, ARKANSAS  
**KANIS ROAD**  
 FIELD TIES / LAYOUT SHEET 4

DEPARTMENT OF PUBLIC WORKS  
 CIVIL ENGINEERING  
 701 W. MARKHAM  
 LITTLE ROCK, ARKANSAS 72201



3-15-17  
 DRAWN BY  
 RFR  
 DESIGNED  
 RFR  
 CHECKED  
 KGT  
 DATE  
 02 / 24 / 17  
 SCALE  
 1" = 80'  
 PROJECT NO.  
 13-B-5D-6A  
 SHEET NO.  
**C8.5**

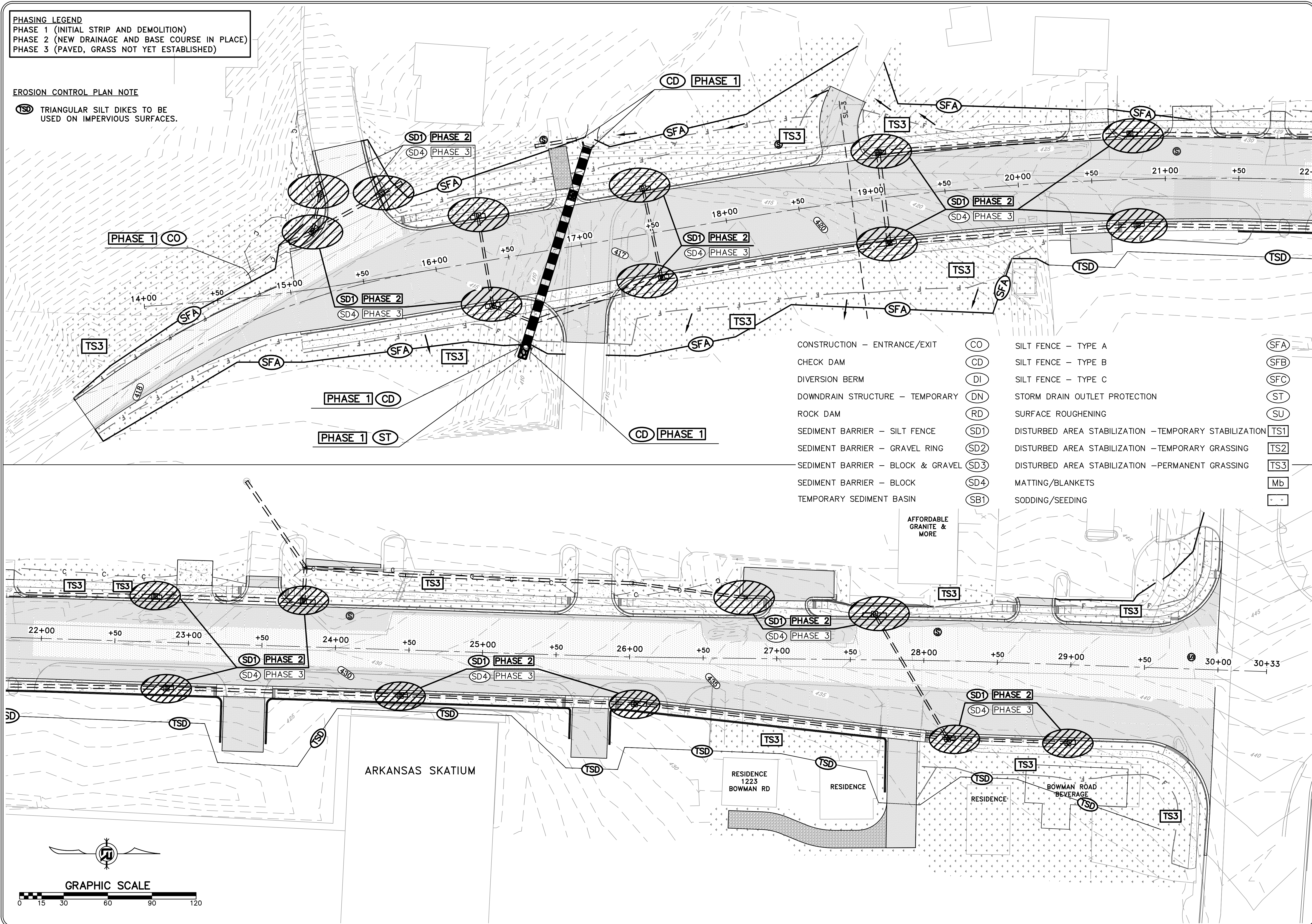




**PHASING LEGEND**  
 PHASE 1 (INITIAL STRIP AND DEMOLITION)  
 PHASE 2 (NEW DRAINAGE AND BASE COURSE IN PLACE)  
 PHASE 3 (PAVED, GRASS NOT YET ESTABLISHED)

**EROSION CONTROL PLAN NOTE**

**(TSD)** TRIANGULAR SILT DIKES TO BE USED ON IMPERVIOUS SURFACES.



- |                                   |       |  |       |
|-----------------------------------|-------|--|-------|
| CONSTRUCTION - ENTRANCE/EXIT      | (CO)  | SILT FENCE - TYPE A                                    | (SFA) |
| CHECK DAM                         | (CD)  | SILT FENCE - TYPE B                                    | (SFB) |
| DIVERSION BERM                    | (DI)  | SILT FENCE - TYPE C                                    | (SFC) |
| DOWNDRAIN STRUCTURE - TEMPORARY   | (DN)  | STORM DRAIN OUTLET PROTECTION                          | (ST)  |
| ROCK DAM                          | (RD)  | SURFACE ROUGHENING                                     | (SU)  |
| SEDIMENT BARRIER - SILT FENCE     | (SD1) | DISTURBED AREA STABILIZATION - TEMPORARY STABILIZATION | (TS1) |
| SEDIMENT BARRIER - GRAVEL RING    | (SD2) | DISTURBED AREA STABILIZATION - TEMPORARY GRASSING      | (TS2) |
| SEDIMENT BARRIER - BLOCK & GRAVEL | (SD3) | DISTURBED AREA STABILIZATION - PERMANENT GRASSING      | (TS3) |
| SEDIMENT BARRIER - BLOCK          | (SD4) | MATTING/BANKETS  | (Mb)  |
| TEMPORARY SEDIMENT BASIN          | (SB1) | SODDING/SEEDING  | (S)   |

REVISIONS	DATE

CITY OF LITTLE ROCK, ARKANSAS  
 BOWMAN ROAD RECONSTRUCTION  
 EROSION CONTROL PLAN

DEPARTMENT OF PUBLIC WORKS  
 CIVIL ENGINEERING  
 701 W. MARKHAM  
 LITTLE ROCK, ARKANSAS 72201



DRAWN BY  
 KLL  
 DESIGNED  
 COF  
 CHECKED  
 BOL  
 DATE  
 12-11-2020  
 SCALE  
 1"=30'  
 PROJECT NO.  
 CLR 6-15-ST-249  
 SHEET NO.  
**C10.0**

