PROJECT	SHEET NO.	TOTAL SHEETS
2017–042	40	83
8" PAVEMENT LAYOUT	1/23/2018	

SCALE: 1"= 40'

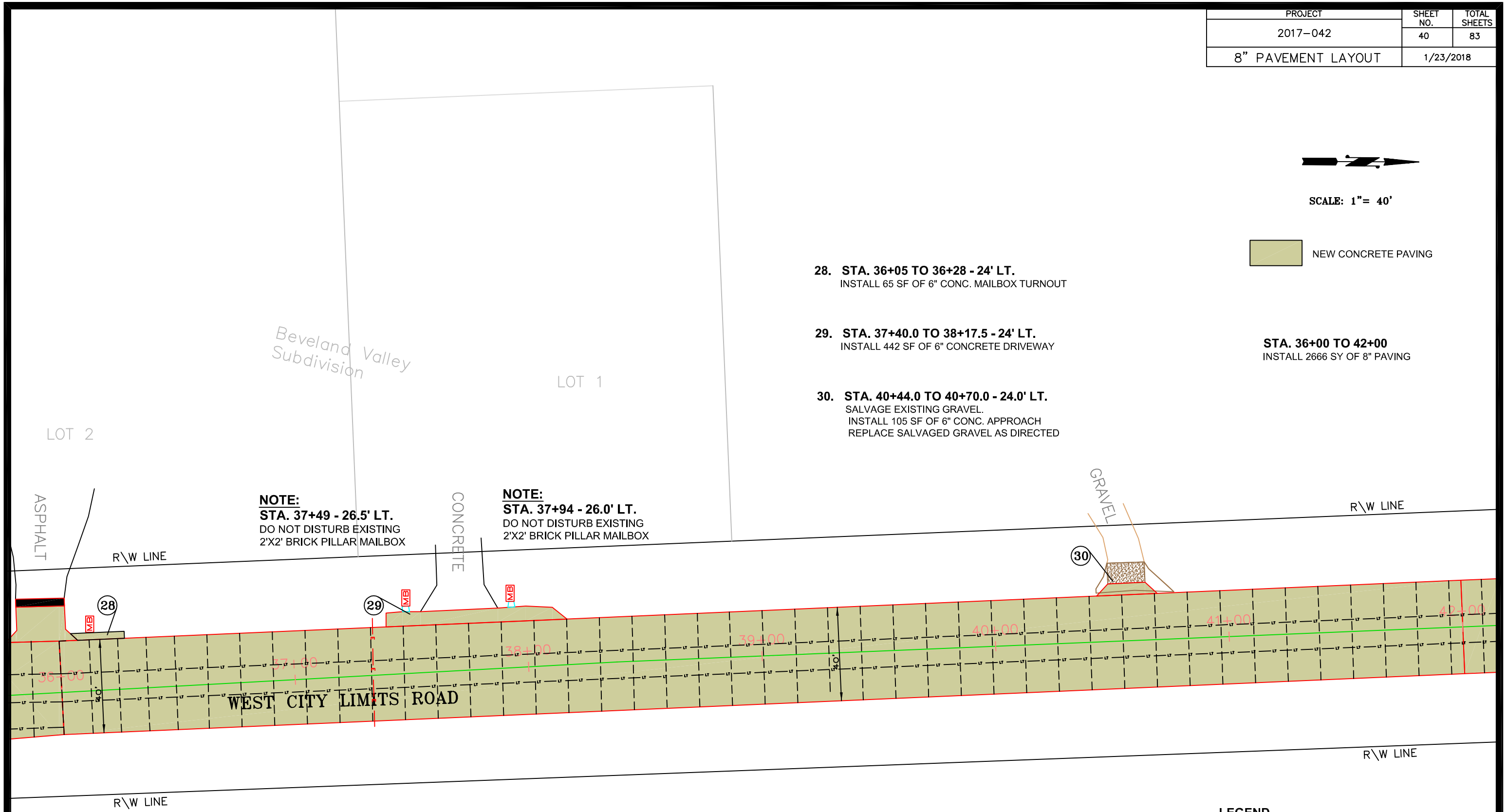
NEW CONCRETE PAVING

28. STA. 36+05 TO 36+28 - 24' LT.
INSTALL 65 SF OF 6" CONC. MAILBOX TURNOUT

29. STA. 37+40.0 TO 38+17.5 - 24' LT.
INSTALL 442 SF OF 6" CONCRETE DRIVEWAY

30. STA. 40+44.0 TO 40+70.0 - 24.0' LT.
SALVAGE EXISTING GRAVEL.
INSTALL 105 SF OF 6" CONC. APPROACH
REPLACE SALVAGED GRAVEL AS DIRECTED

STA. 36+00 TO 42+00
INSTALL 2666 SY OF 8" PAVING



NOTE
TYPICAL JOINT SPACING IS 14' AND 12' LONGITUDINAL AND 14' TRANSVERSE. JOINT LENGTHS WILL NEED TO BE ADJUSTED AT FILLET CORNERS AND AS DIRECTED BY THE ENGINEER.

LEGEND

LT — LT
LONGITUDINAL CONSTRUCTION JOINT WITH TIE BARS
SEE DETAIL SHEET (PLATE #380.10 & 380.11)

L — L
LONGITUDINAL CONSTRUCTION JOINT WITHOUT TIE BARS
SEE DETAIL SHEET (PLATE #380.12)

TRANSVERSE CONTRACTION JOINT
SEE DETAIL (PLATE #380.03)

PROJECT	SHEET NO.	TOTAL SHEETS
2017–042	41	83
8" PAVEMENT LAYOUT	1/23/2018	

SCALE: 1"= 40'

NEW CONCRETE PAVING

LEGEND

LT — LT — LONGITUDINAL CONSTRUCTION JOINT WITH TIE BARS
SEE DETAIL SHEET (PLATE #380.10 & 380.11)

L — L — LONGITUDINAL CONSTRUCTION JOINT WITHOUT TIE BARS
SEE DETAIL SHEET (PLATE #380.12)

TRANSVERSE CONTRACTION JOINT
SEE DETAIL (PLATE #380.03)

NOTE

TYPICAL JOINT SPACING IS 14' AND 12' LONGITUDINAL AND 14' TRANSVERSE. JOINT LENGTHS WILL NEED TO BE ADJUSTED AT FILLET CORNERS AND AS DIRECTED BY THE ENGINEER.

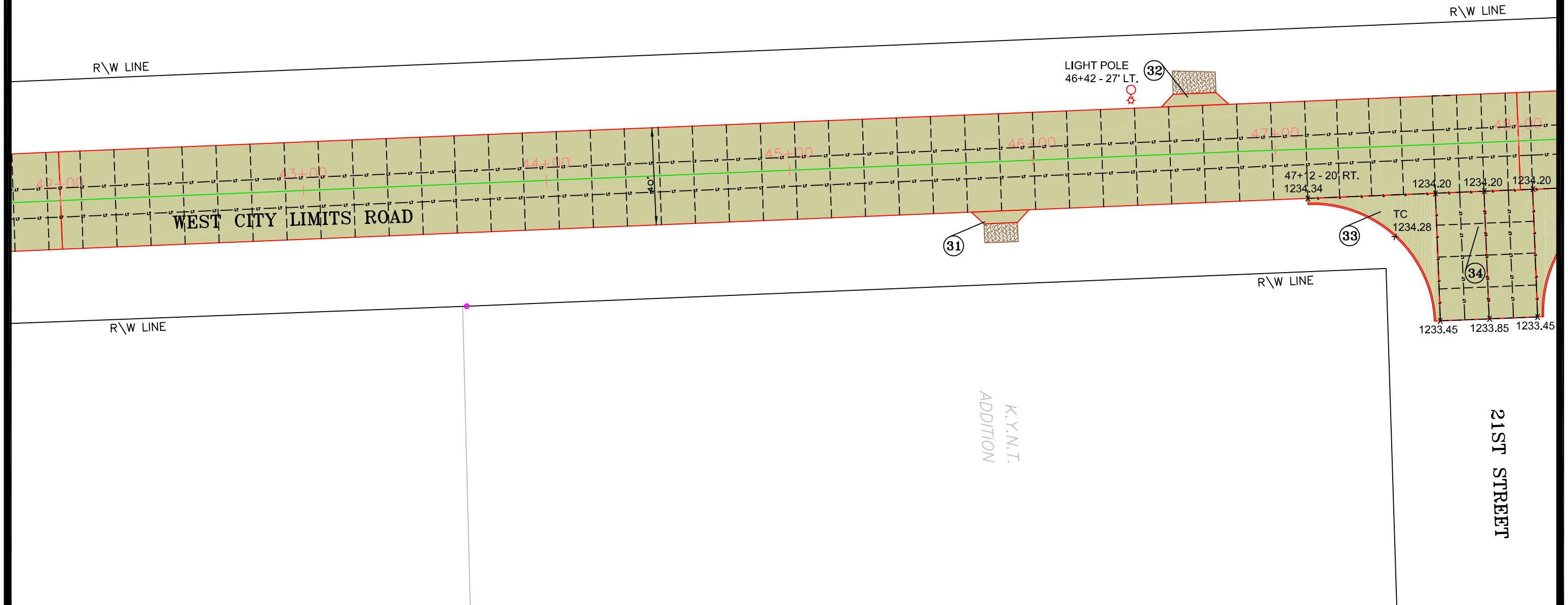
31. STA. 45+74.0 TO 45+97.8 - 20.0' RT.
SALVAGE EXISTING GRAVEL
INSTALL 94 SF OF 6" CONC. APPROACH
REPLACE SALVAGED GRAVEL AS DIRECTED

32. STA. 46+54.0 TO 46+81.6 - 20.0' LT.
SALVAGE EXISTING GRAVEL
INSTALL 113 SF OF 6" CONC. APPROACH
REPLACE SALVAGED GRAVEL AS DIRECTED

33. STA. 47+12.7 - 20.0' RT. TO 47+62.4 - 72.5' RT.
INSTALL 795 SF OF 8" CONC. FILLET (50' BOC RADIUS)

34. STA. 47+65.0 TO 48+05.0 - 20.0' RT. TO 72.5' RT.
INSTALL 233 SY OF 8" CONC. PAVING

STA. 42+00 TO 48+00
INSTALL 2666 SY OF 8" PAVING



PROJECT	SHEET NO.	TOTAL SHEETS
2017–042	42	83
8" PAVEMENT LAYOUT	1/23/2018	

SCALE: 1"= 40'

LEGEND

LT — LT — LONGITUDINAL CONSTRUCTION JOINT WITH TIE BARS
SEE DETAIL SHEET (PLATE #380.10 & 380.11)

L — L — LONGITUDINAL CONSTRUCTION JOINT WITHOUT TIE BARS
SEE DETAIL SHEET (PLATE #380.12)

TRANSVERSE CONTRACTION JOINT
SEE DETAIL (PLATE #380.03)

NEW CONCRETE PAVING

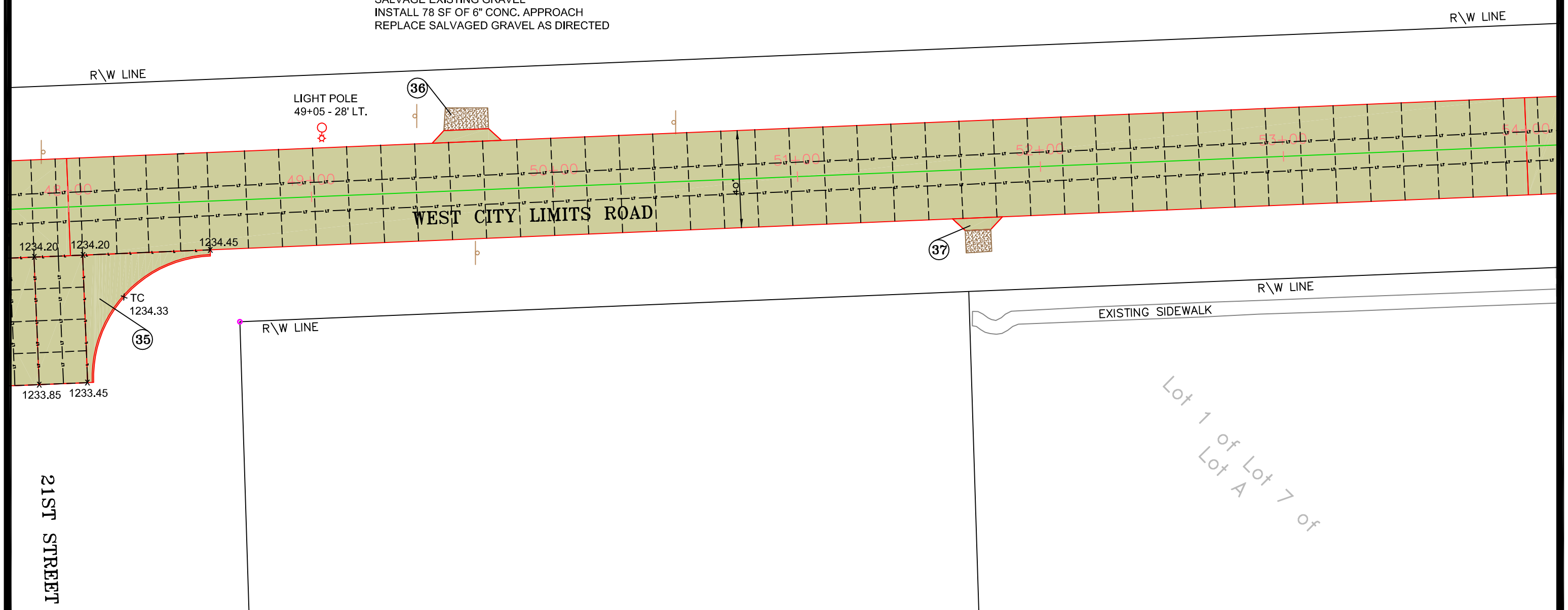
35. STA. 48+05.0 - 72.5.0' RT. TO 48+57.5 - 20.0' RT.
INSTALL 792 SF OF 8" CONC. FILLET (50' BOC RADIUS)

36. STA. 49+50.5 TO 49+79.0 - 20.0' LT.
SALVAGE EXISTING GRAVEL
INSTALL 117 SF OF 6" CONC. APPROACH
REPLACE SALVAGED GRAVEL AS DIRECTED

37. STA. 51+83.5 TO 51+63.0 - 20.0' RT.
SALVAGE EXISTING GRAVEL
INSTALL 78 SF OF 6" CONC. APPROACH
REPLACE SALVAGED GRAVEL AS DIRECTED

NOTE
TYPICAL JOINT SPACING IS 14' AND 12' LONGITUDINAL AND 14' TRANSVERSE. JOINT LENGTHS WILL NEED TO BE ADJUSTED AT FILLET CORNERS AND AS DIRECTED BY THE ENGINEER.

STA. 48+00 TO 54+00
INSTALL 2667 SY OF 8" PAVING



PROJECT	SHEET NO.	TOTAL SHEETS
2017–042	43	83
8" PAVEMENT LAYOUT	1/23/2018	

SCALE: 1"= 40'

NEW CONCRETE PAVING

LEGEND

LT LT — LONGITUDINAL CONSTRUCTION JOINT WITH TIE BARS
SEE DETAIL SHEET (PLATE #380.10 & 380.11)

L L — LONGITUDINAL CONSTRUCTION JOINT WITHOUT TIE BARS
SEE DETAIL SHEET (PLATE #380.12)

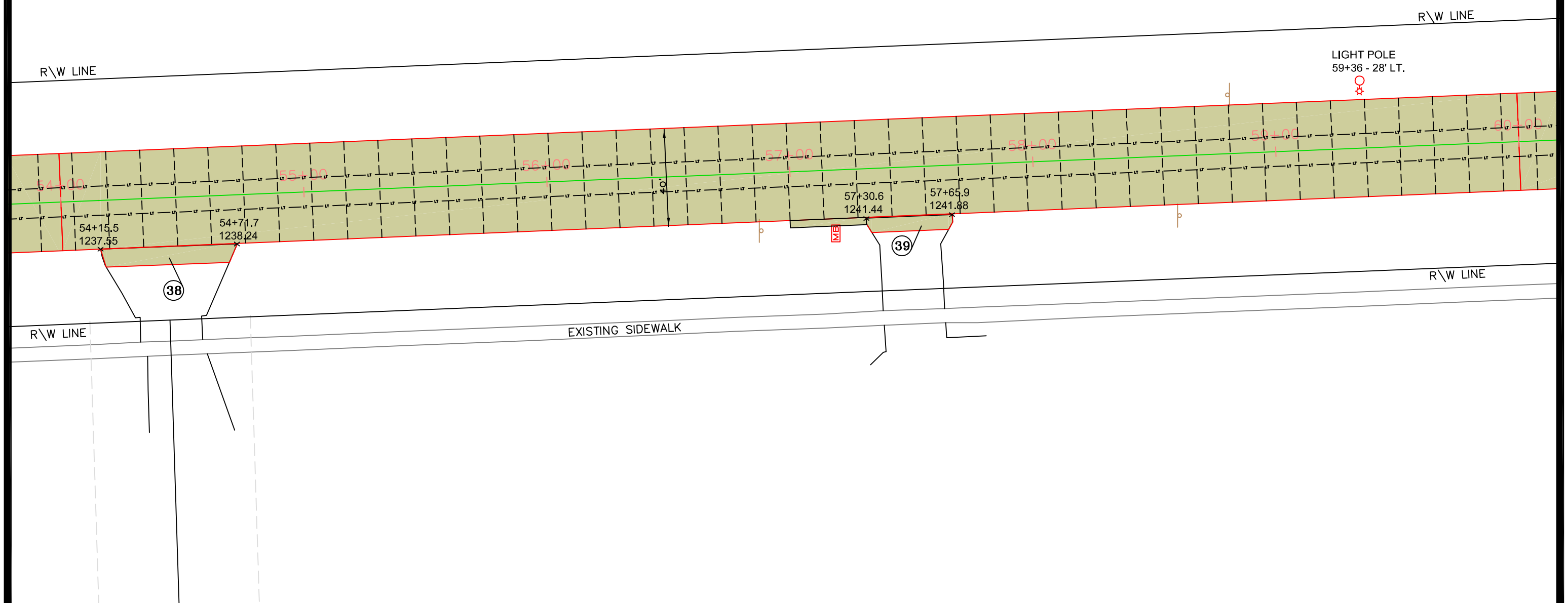
TRANSVERSE CONTRACTION JOINT
SEE DETAIL (PLATE #380.03)

38. STA. 54+15.5 TO 54+71.7 - 20.0' RT.
INSTALL 400 SF OF 8" CONCRETE APPROACH

39. STA. 54+30.6 TO 57+85.9 - 20.0' RT.
INSTALL 215 SF OF 8" CONCRETE APPROACH

STA. 54+00 TO 60+00
INSTALL 2667 SY OF 8" PAVING

NOTE
TYPICAL JOINT SPACING IS 14' AND 12' LONGITUDINAL AND 14' TRANSVERSE. JOINT LENGTHS WILL NEED TO BE ADJUSTED AT FILLET CORNERS AND AS DIRECTED BY THE ENGINEER.



PROJECT	SHEET NO.	TOTAL SHEETS
2017–042	44	83
8" PAVEMENT LAYOUT	1/23/2018	

SCALE: 1"= 40'

NEW CONCRETE PAVING

40. STA. 60+49.0 TO 61+01.5 - 20.0' TO 72.5 RT.
INSTALL 738 SF OF 8" CONCRETE FILLET SECTION (50' BOC RADIUS)

41. STA. 60+91 RT.
INSTALL 72 SF OF 6" CONCRETE SIDEWALK
AND 12 SF OF DETECTABLE WARNING PANEL

42. STA. 61+01.5 TO 61+37.75 - 20.0' TO 72.5' RT.
INSTALL 212 SY OF 8" CONCRETE PAVING

43. STA. 61+37.75TO 61+90.25- 20.0' TO 72.5 RT.
INSTALL 693 SF OF 8" CONC. FILLET SECTION (50' BOC RADIUS)

44. STA. 60+49.25 TO 61+01.75 - 20.0' TO 72.5' LT.
INSTALL 784 SF 8" CONC. FILLET SECTION (50' BOC RADIUS)

45. STA. 61+01.75 TO 61+37.5 - 20.0' TO 72.5' RT.
INSTALL 210 SY OF 8" CONCRETE PAVING

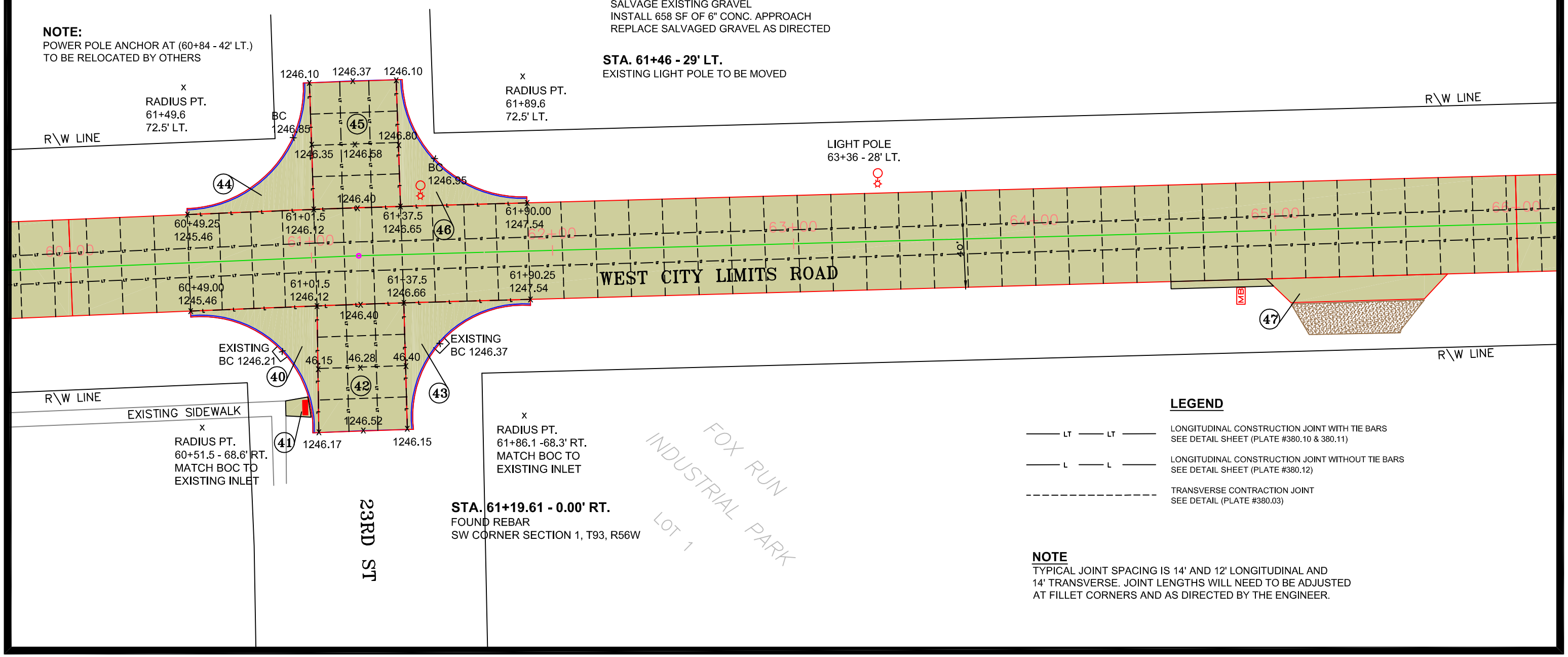
46. STA. 61+01.75 TO 61+37.5 - 20.0' TO 72.5' LT.
INSTALL 784 SF 8" CONC. FILLET SECTION (50' BOC RADIUS)

47. STA. 64+95.4 TO 65+70.8 - 20.0' RT.
SALVAGE EXISTING GRAVEL
INSTALL 658 SF OF 6" CONC. APPROACH
REPLACE SALVAGED GRAVEL AS DIRECTED

STA. 61+46 - 29' LT.
EXISTING LIGHT POLE TO BE MOVED

STA. 60+00 TO 66+00
INSTALL 2667 SY OF 8" PAVING

NOTE:
POWER POLE ANCHOR AT (60+84 - 42' LT.)
TO BE RELOCATED BY OTHERS



STA. 61+19.61 - 0.00' RT.
FOUND REBAR
SW CORNER SECTION 1, T93, R56W

LEGEND

—— LT —— LT ——	LONGITUDINAL CONSTRUCTION JOINT WITH TIE BARS SEE DETAIL SHEET (PLATE #380.10 & 380.11)
—— L —— L ——	LONGITUDINAL CONSTRUCTION JOINT WITHOUT TIE BARS SEE DETAIL SHEET (PLATE #380.12)
- - - - - - - - - -	TRANSVERSE CONTRACTION JOINT SEE DETAIL (PLATE #380.03)

NOTE
TYPICAL JOINT SPACING IS 14' AND 12' LONGITUDINAL AND 14' TRANSVERSE. JOINT LENGTHS WILL NEED TO BE ADJUSTED AT FILLET CORNERS AND AS DIRECTED BY THE ENGINEER.

PROJECT	SHEET NO.	TOTAL SHEETS
2017-042	45	83
8" PAVEMENT LAYOUT	1/23/2018	

SCALE: 1"= 40'

NEW CONCRETE PAVING

LEGEND

LT LT — LONGITUDINAL CONSTRUCTION JOINT WITH TIE BARS
SEE DETAIL SHEET (PLATE #380.10 & 380.11)

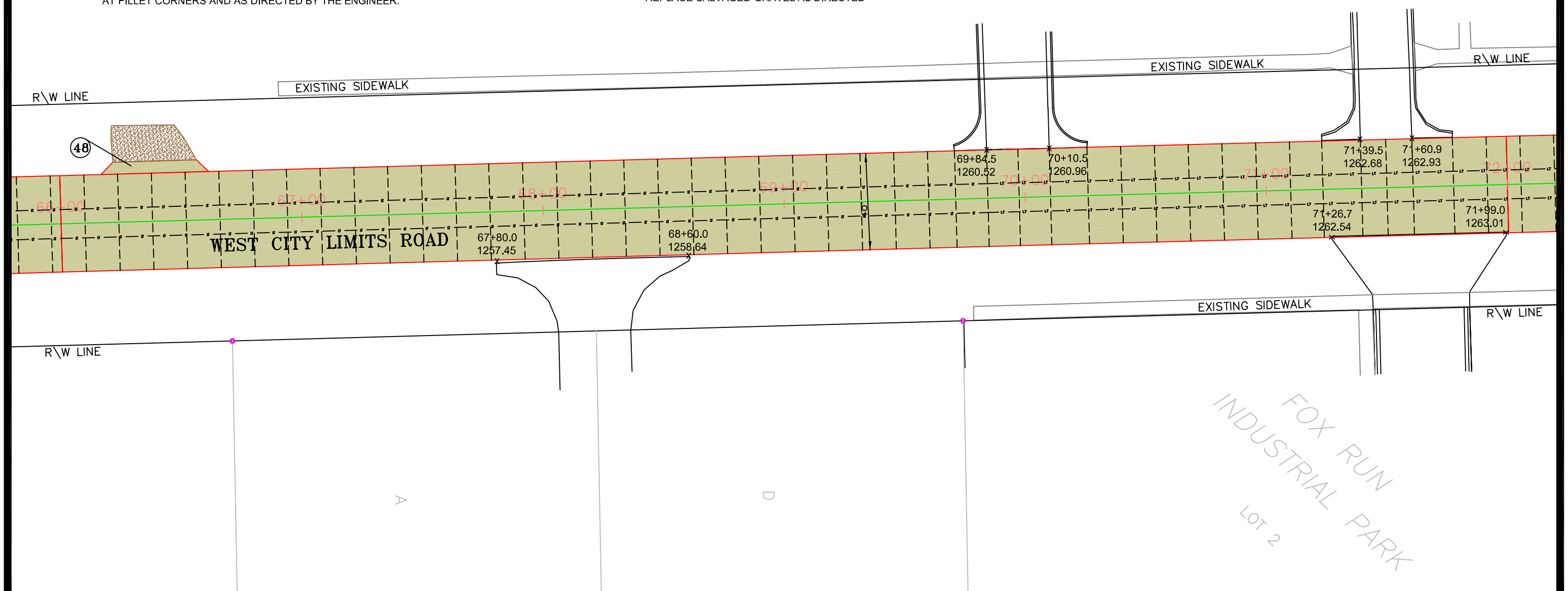
L L — LONGITUDINAL CONSTRUCTION JOINT WITHOUT TIE BARS
SEE DETAIL SHEET (PLATE #380.12)

TRANSVERSE CONTRACTION JOINT
SEE DETAIL (PLATE #380.03)

STA. 66+00 TO 72+00
INSTALL 2667 SY OF 8" PAVING

NOTE
TYPICAL JOINT SPACING IS 14' AND 12' LONGITUDINAL AND 14' TRANSVERSE. JOINT LENGTHS WILL NEED TO BE ADJUSTED AT FILLET CORNERS AND AS DIRECTED BY THE ENGINEER.

48. STA. 66+61.8 TO 66+17.1 - 20.0' LT.
SALVAGE EXISTING GRAVEL
INSTALL 198 SF OF 6" CONC. APPROACH
REPLACE SALVAGED GRAVEL AS DIRECTED



PROJECT	SHEET NO.	TOTAL SHEETS
2017–042	46	83
8" PAVEMENT LAYOUT	1/23/2018	

LEGEND

LT — LT — LONGITUDINAL CONSTRUCTION JOINT WITH TIE BARS
SEE DETAIL SHEET (PLATE #380.10 & 380.11)

L — L — LONGITUDINAL CONSTRUCTION JOINT WITHOUT TIE BARS
SEE DETAIL SHEET (PLATE #380.12)

- - - - - - TRANSVERSE CONTRACTION JOINT
SEE DETAIL (PLATE #380.03)

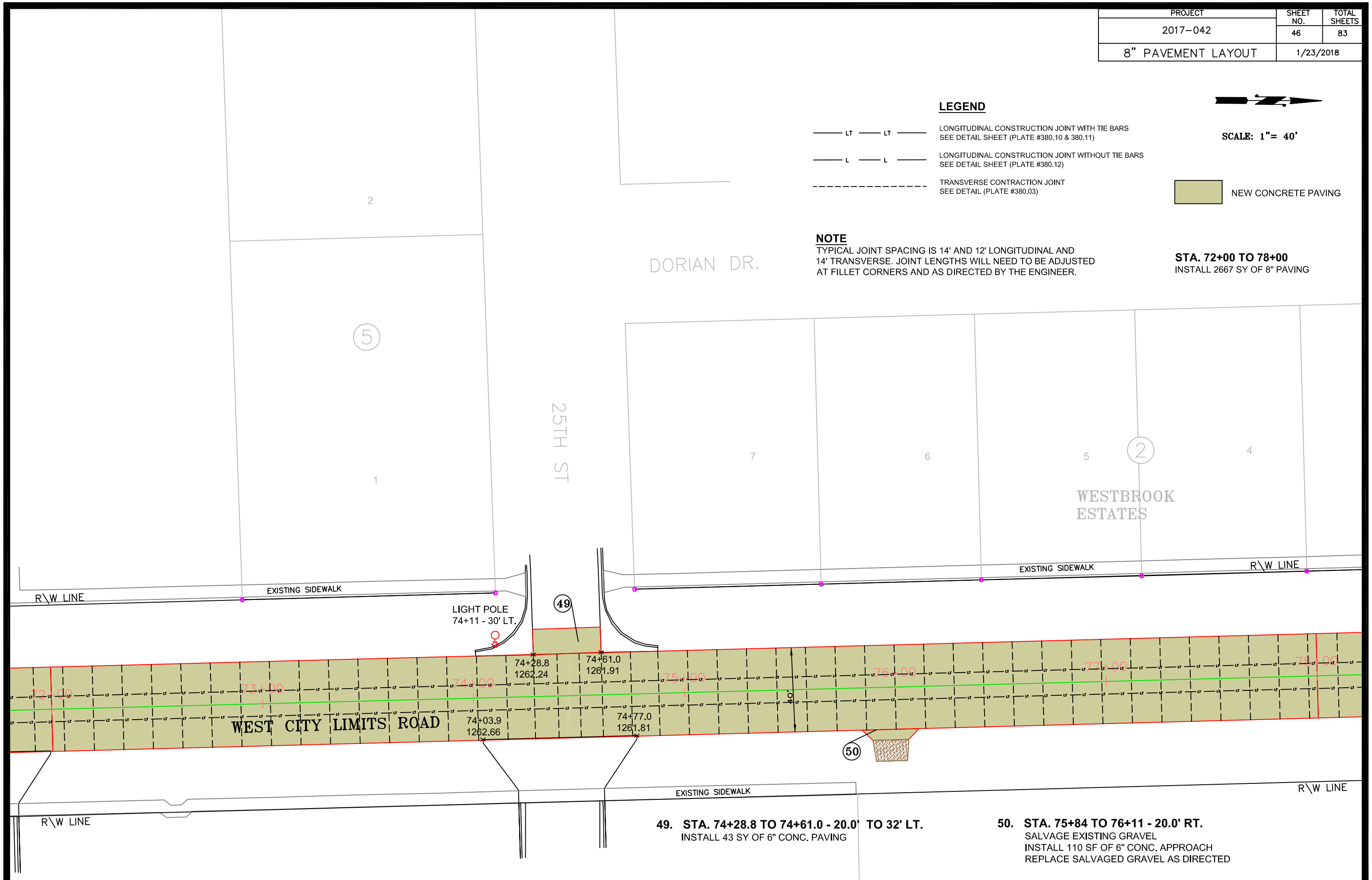
SCALE: 1"= 40'

NEW CONCRETE PAVING

NOTE

TYPICAL JOINT SPACING IS 14' AND 12' LONGITUDINAL AND 14' TRANSVERSE. JOINT LENGTHS WILL NEED TO BE ADJUSTED AT FILLET CORNERS AND AS DIRECTED BY THE ENGINEER.

STA. 72+00 TO 78+00
INSTALL 2667 SY OF 8" PAVING



49. STA. 74+28.8 TO 74+61.0 - 20.0' TO 32' LT.
INSTALL 43 SY OF 6" CONC. PAVING

50. STA. 75+84 TO 76+11 - 20.0' RT.
SALVAGE EXISTING GRAVEL
INSTALL 110 SF OF 6" CONC. APPROACH
REPLACE SALVAGED GRAVEL AS DIRECTED

PROJECT	SHEET NO.	TOTAL SHEETS
2017-042	47	83
8" PAVEMENT LAYOUT	1/23/2018	

SCALE: 1"= 40'

NEW CONCRETE PAVING

STA. 78+00 TO 84+00
INSTALL 2667 SY OF 8" PAVING

51. STA. 80+58.7 TO 81+16.4 - 20.0' RT.
INSTALL 790 SF OF 6" CONC. APPROACH

52. STA. 80+68.6 TO 81+04.7 - 20.0' TO 31' LT.
INSTALL 44 SY OF 6" CONC. PAVING

LEGEND

LT LT	LONGITUDINAL CONSTRUCTION JOINT WITH TIE BARS SEE DETAIL SHEET (PLATE #380.10 & 380.11)
L L	LONGITUDINAL CONSTRUCTION JOINT WITHOUT TIE BARS SEE DETAIL SHEET (PLATE #380.12)
- - - - - -	TRANSVERSE CONTRACTION JOINT SEE DETAIL (PLATE #380.03)

NOTE
TYPICAL JOINT SPACING IS 14' AND 12' LONGITUDINAL AND 14' TRANSVERSE. JOINT LENGTHS WILL NEED TO BE ADJUSTED AT FILLET CORNERS AND AS DIRECTED BY THE ENGINEER.

PROJECT	SHEET NO.	TOTAL SHEETS
2017-042	48	83
8" PAVEMENT LAYOUT	1/23/2018	

SCALE: 1"= 40'

LEGEND

LT — LT — LONGITUDINAL CONSTRUCTION JOINT WITH TIE BARS
SEE DETAIL SHEET (PLATE #380.10 & 380.11)

L — L — LONGITUDINAL CONSTRUCTION JOINT WITHOUT TIE BARS
SEE DETAIL SHEET (PLATE #380.12)

- - - - - - TRANSVERSE CONTRACTION JOINT
SEE DETAIL (PLATE #380.03)

NEW CONCRETE PAVING

NOTE

TYPICAL JOINT SPACING IS 14' AND 12' LONGITUDINAL AND 14' TRANSVERSE. JOINT LENGTHS WILL NEED TO BE ADJUSTED AT FILLET CORNERS AND AS DIRECTED BY THE ENGINEER.

53. STA. 87+41.1 TO 87+66.0 - 20.0' LT.
INSTALL 150 SF OF 6" CONC. APPROACH

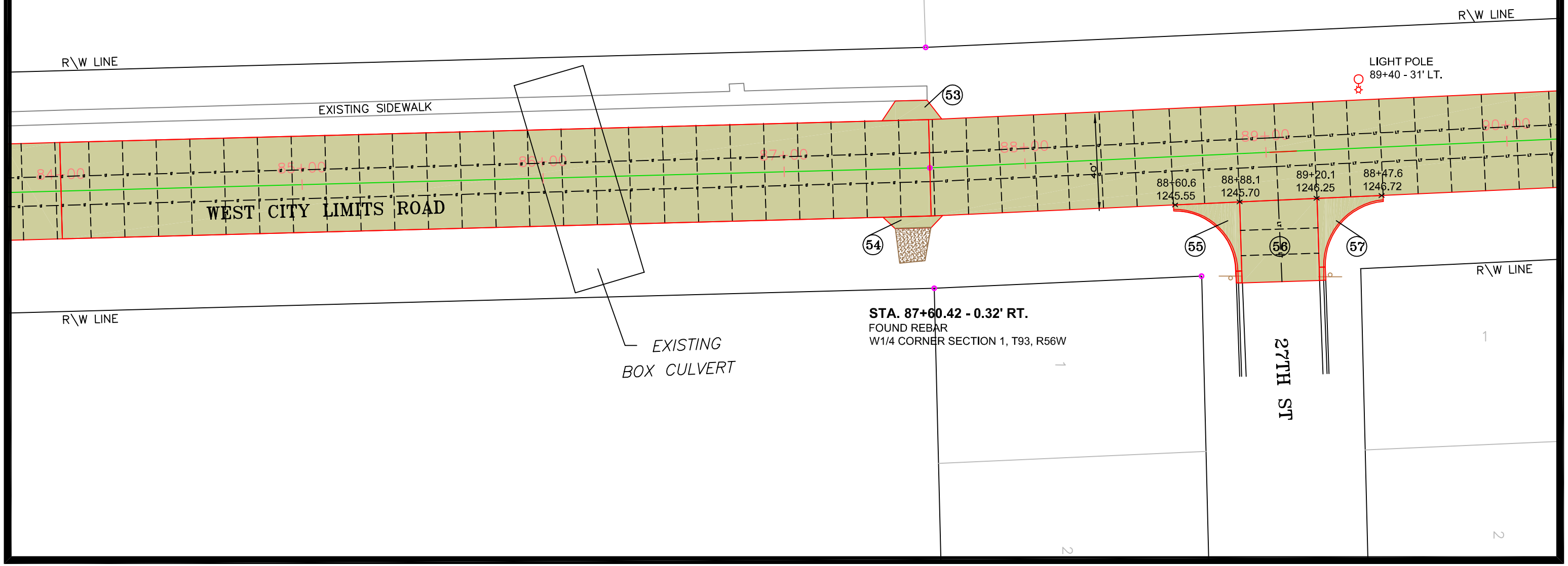
54. STA. 87+40.4 TO 87+65.2 - 20.0' RT.
SALVAGE EXISTING GRAVEL
INSTALL 100 SF OF 6" CONC. APPROACH
REPLACE SALVAGED GRAVEL AS DIRECTED

56. STA. 88+88.5 TO 89+20.2
INSTALL 121 SY OF 6" CONC. PAVING

55. STA. 88+60.5 to 88+88.0 - RT.
INSTALL 272 SF OF 6" CONC. FILLET SECTION

57. STA. 89+20.0 to 89+47.5 - RT.
INSTALL 278 SF OF 6" CONC. FILLET SECTION

STA. 84+00 TO 90+00
INSTALL 2667 SY OF 8" PAVING



PROJECT	SHEET NO.	TOTAL SHEETS
2017–042	49	83
8" PAVEMENT LAYOUT	1/23/2018	

SCALE: 1"= 40'

NEW CONCRETE PAVING

LEGEND

LT LT — LONGITUDINAL CONSTRUCTION JOINT WITH TIE BARS
SEE DETAIL SHEET (PLATE #380.10 & 380.11)

L L — LONGITUDINAL CONSTRUCTION JOINT WITHOUT TIE BARS
SEE DETAIL SHEET (PLATE #380.12)

TRANSVERSE CONTRACTION JOINT
SEE DETAIL (PLATE #380.03)

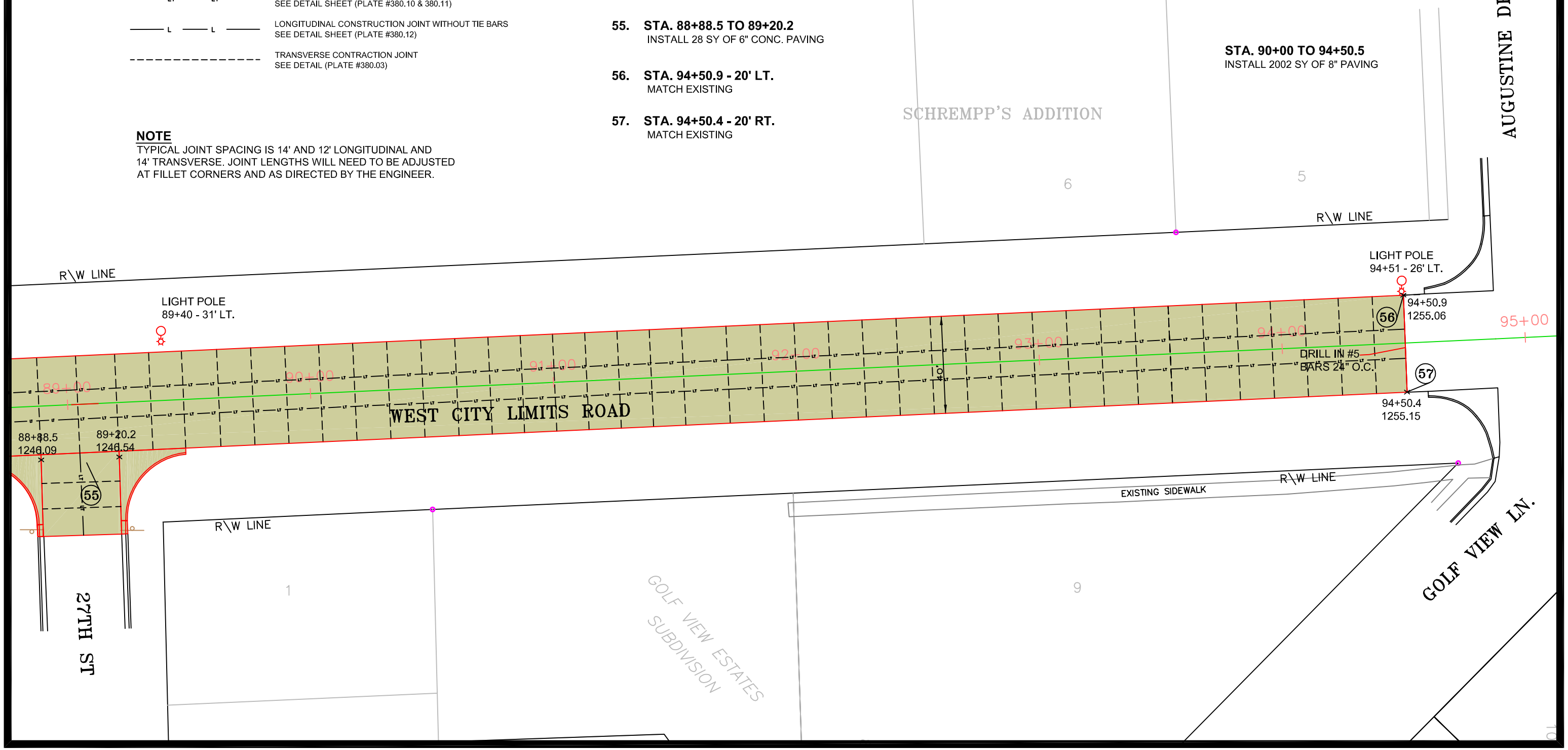
NOTE
TYPICAL JOINT SPACING IS 14' AND 12' LONGITUDINAL AND 14' TRANSVERSE. JOINT LENGTHS WILL NEED TO BE ADJUSTED AT FILLET CORNERS AND AS DIRECTED BY THE ENGINEER.

55. STA. 88+88.5 TO 89+20.2
INSTALL 28 SY OF 6" CONC. PAVING

56. STA. 94+50.9 - 20' LT.
MATCH EXISTING

57. STA. 94+50.4 - 20' RT.
MATCH EXISTING

STA. 90+00 TO 94+50.5
INSTALL 2002 SY OF 8" PAVING



PROJECT	SHEET NO.	TOTAL SHEETS
2017–042	50	83
8" PAVEMENT LAYOUT	1/23/2018	

LEGEND

LT — LT — LONGITUDINAL CONSTRUCTION JOINT WITH TIE BARS
SEE DETAIL SHEET (PLATE #380.10 & 380.11)

L — L — LONGITUDINAL CONSTRUCTION JOINT WITHOUT TIE BARS
SEE DETAIL SHEET (PLATE #380.12)

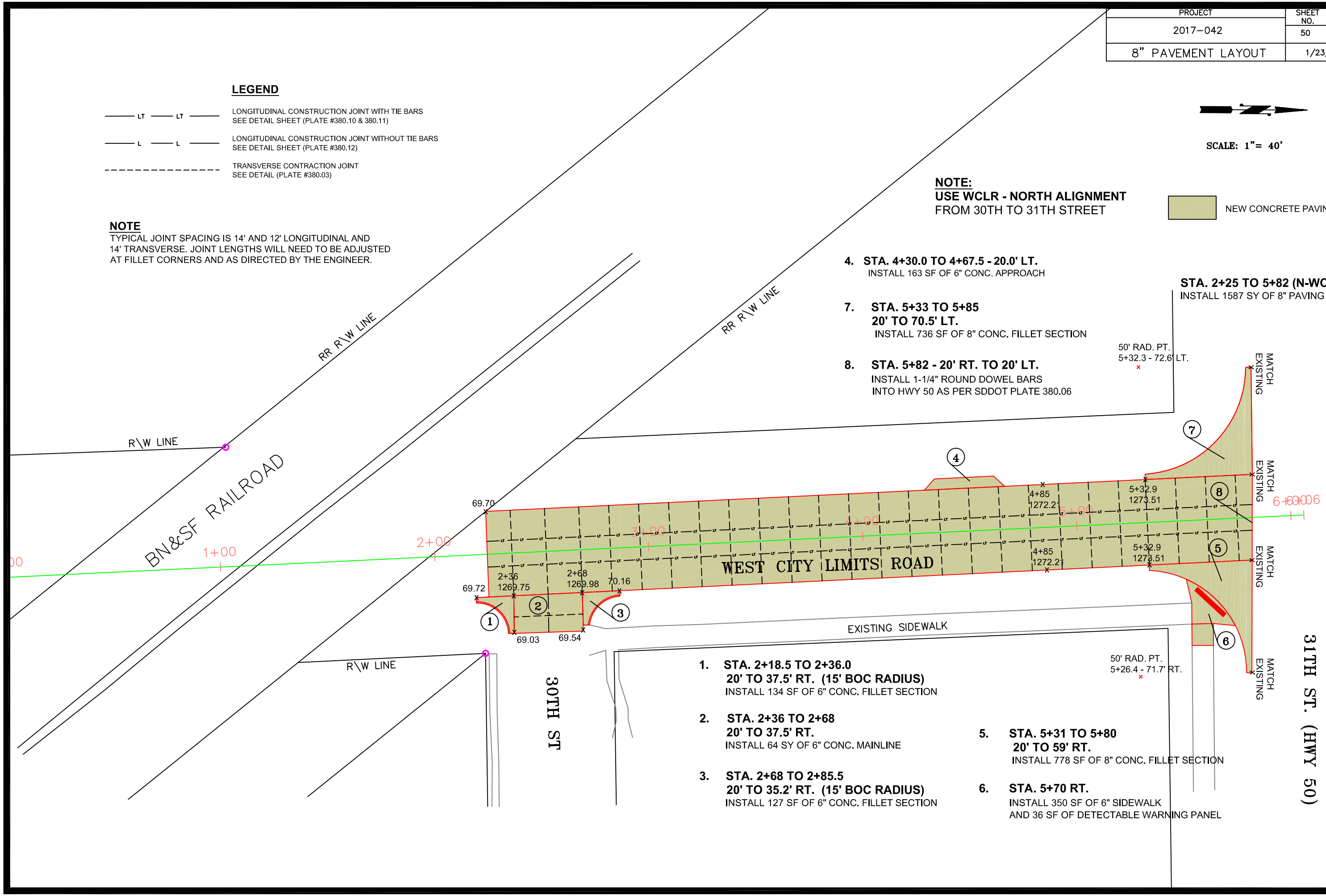
- - - - - - TRANSVERSE CONTRACTION JOINT
SEE DETAIL (PLATE #380.03)

NOTE
TYPICAL JOINT SPACING IS 14' AND 12' LONGITUDINAL AND 14' TRANSVERSE. JOINT LENGTHS WILL NEED TO BE ADJUSTED AT FILLET CORNERS AND AS DIRECTED BY THE ENGINEER.

SCALE: 1"= 40'

NOTE:
USE WCLR - NORTH ALIGNMENT
FROM 30TH TO 31TH STREET

NEW CONCRETE PAVING



STA. 2+25 TO 5+82 (N-WCLR)
INSTALL 1587 SY OF 8" PAVING

4. **STA. 4+30.0 TO 4+67.5 - 20.0' LT.**
INSTALL 163 SF OF 6" CONC. APPROACH

7. **STA. 5+33 TO 5+85**
20' TO 70.5' LT.
INSTALL 736 SF OF 8" CONC. FILLET SECTION

8. **STA. 5+82 - 20' RT. TO 20' LT.**
INSTALL 1-1/4" ROUND DOWEL BARS
INTO HWY 50 AS PER SDDOT PLATE 380.06

1. **STA. 2+18.5 TO 2+36.0**
20' TO 37.5' RT. (15' BOC RADIUS)
INSTALL 134 SF OF 6" CONC. FILLET SECTION

2. **STA. 2+36 TO 2+68**
20' TO 37.5' RT.
INSTALL 64 SY OF 6" CONC. MAINLINE

3. **STA. 2+68 TO 2+85.5**
20' TO 35.2' RT. (15' BOC RADIUS)
INSTALL 127 SF OF 6" CONC. FILLET SECTION

5. **STA. 5+31 TO 5+80**
20' TO 59' RT.
INSTALL 778 SF OF 8" CONC. FILLET SECTION

6. **STA. 5+70 RT.**
INSTALL 350 SF OF 6" SIDEWALK
AND 36 SF OF DETECTABLE WARNING PANEL

PROJECT	SHEET NO.	TOTAL SHEETS
2017–042	51	83
UTILITY LAYOUT	1/19/2018	

1. **STA. 60+39-39' LT. TO 61+50-40' LT.**
   INSTALL 104 L.F. OF 18" RCP @ 1.0% SLOPE
   & 1 SAFETY END SECTION

2. **STA. 61+50-40 LT.**
   INSTALL 2'X3' TYPE B INLET
   TC ELEV = 1246.95
   INV. IN = 1243.40
   INV. OUT = 1243.30

3. **STA. 60+50-40 LT. TO 61+98-40' LT.**
   INSTALL 40 L.F. OF 18" RCP & 1 SAFETY END SECTION

NOTE:
POWER POLE ANCHOR AT (60+84 - 42' LT.)
TO BE RELOCATED BY OTHERS

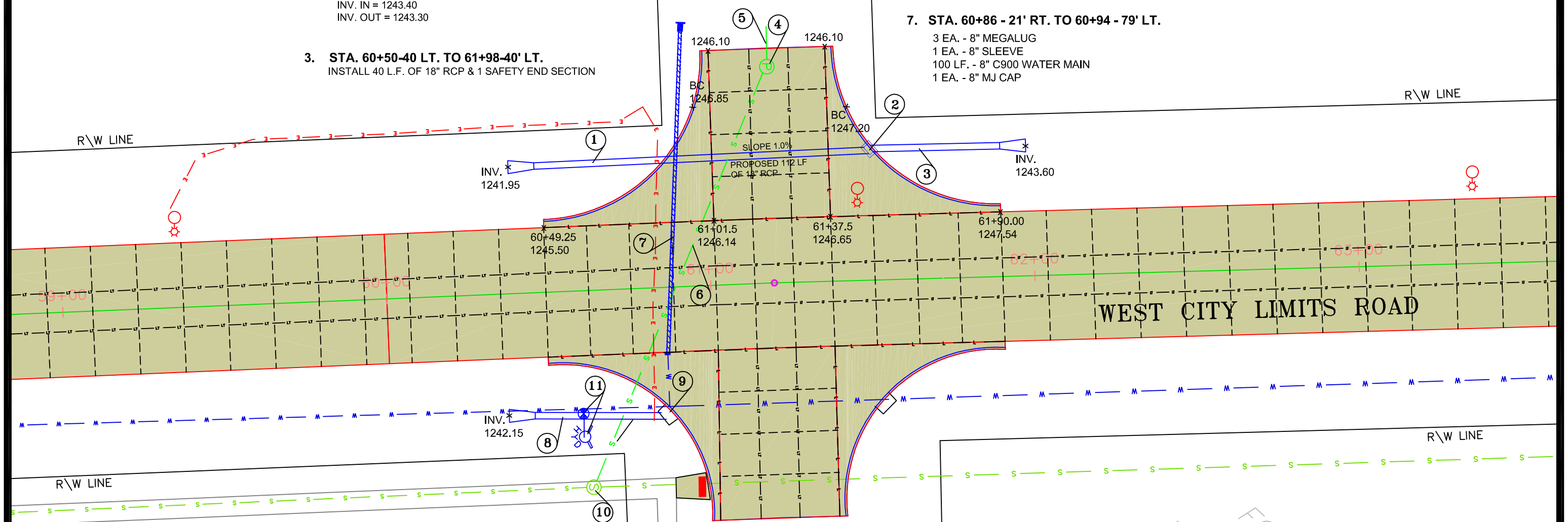
4. **STA. 61+19.5 - 66.9' LT.**
   INSTALL 48" SANITARY SEWER MANHOLE
   RIM ELEVATION = 1246.36
   INVERT ELEVATION = 1231.34

5. **STA. 61+19.5 - 67' LT. TO 77' LT.**
   INSTALL 10 LF OF 8" PVC SEWER MAIN

6. **STA. 60+61.5 - 60.6 RT. TO 61+19.5 - 66.9' LT.**
   INSTALL 140 L.F. OF 8" PVC SEWER MAIN @ 0.34% SLOPE

7. **STA. 60+86 - 21' RT. TO 60+94 - 79' LT.**
   3 EA. - 8" MEGALUG
   1 EA. - 8" SLEEVE
   100 LF. - 8" C900 WATER MAIN
   1 EA. - 8" MJ CAP

SCALE: 1"= 30'



NOTE:
SEE SHEET 55 FOR PROFILE VIEW

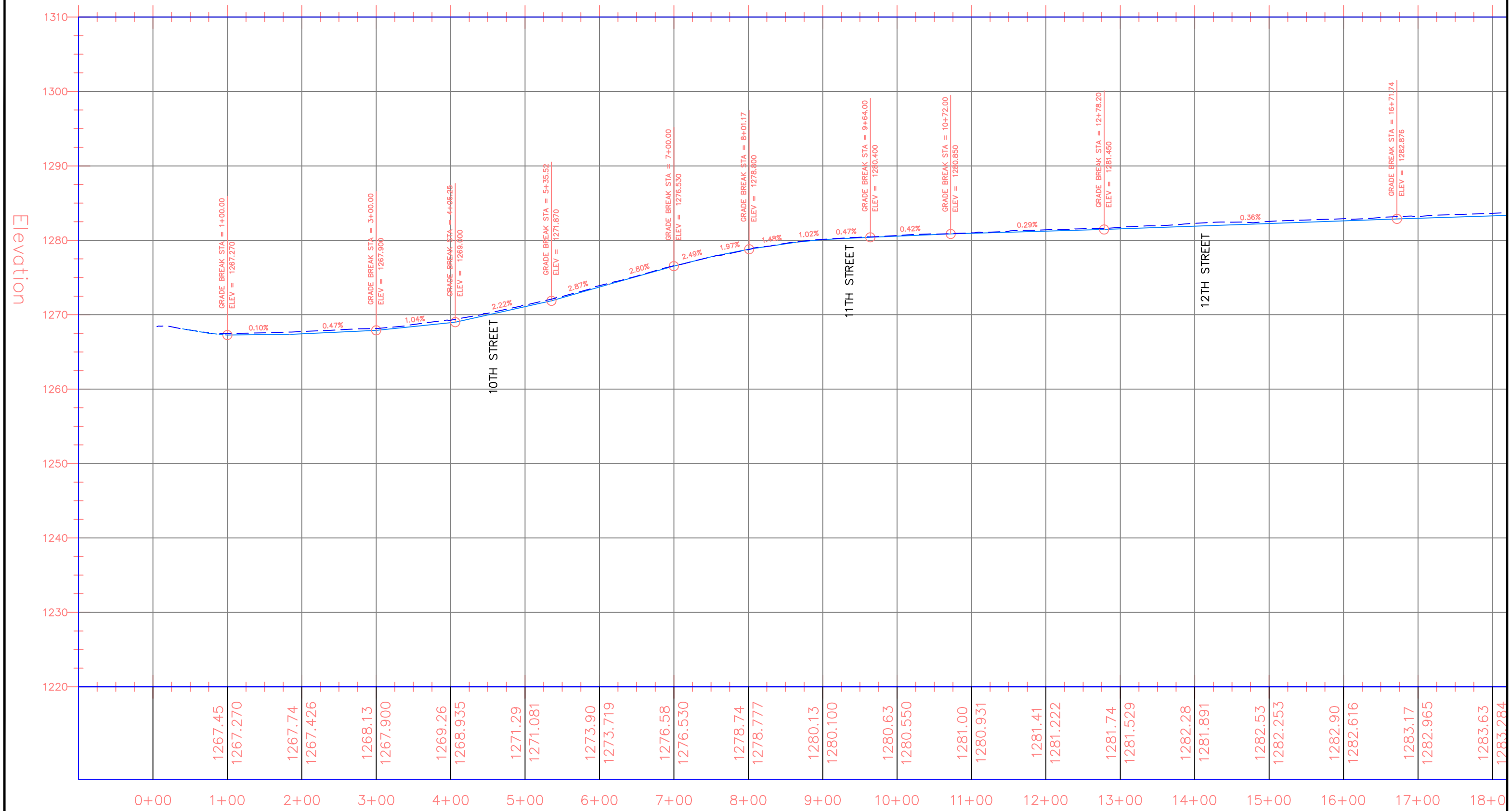
8. **STA. 60+36-38 RT. TO 60+84-40' RT.**
   INSTALL 40 L.F. OF 18" RCP & 1 SAFETY END SECTION

9. **STA. 60+85-39' RT.**
   EXISTING TYPE S INLET
   TC ELEV = 1246.21
   INV. ELEV. = 1242.65
   REMOVE EXISTING RCP (OUT)

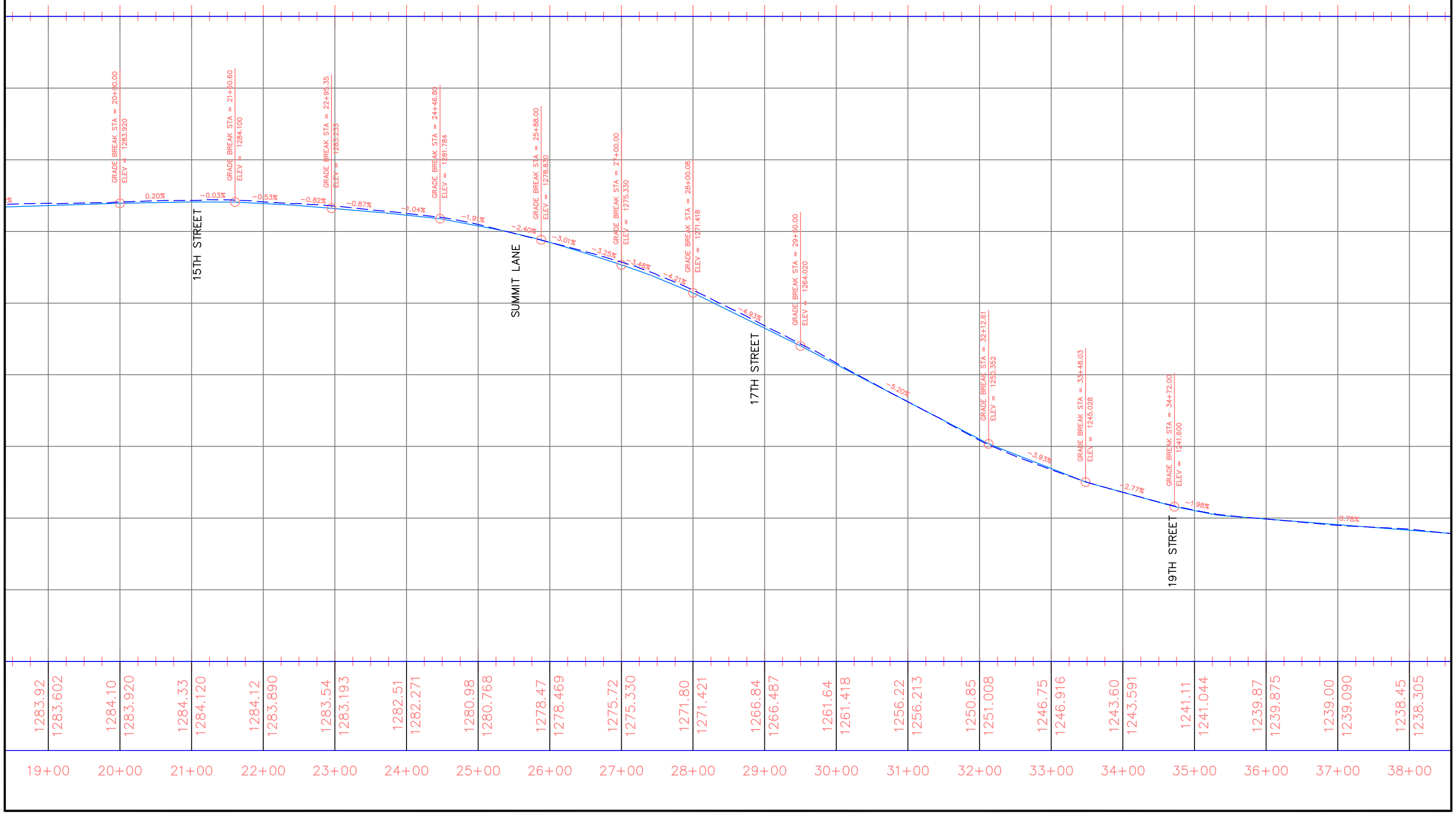
10. **EXISTING SANITARY SEWER MANHOLE**
    STA. 60+61.5-60.6 RT.
    RIM ELEVATION = 1246.36
    INVERT ELEVATION = 1230.86

11. INSTALL 2' RISER SECTION
    TO EXISTING VALVE BOX
    AND 1' SECTION TO HYDRANT

PROJECT	SHEET NO.	TOTAL SHEETS
2017-042	52	83
PROFILE 1	1/19/2018	

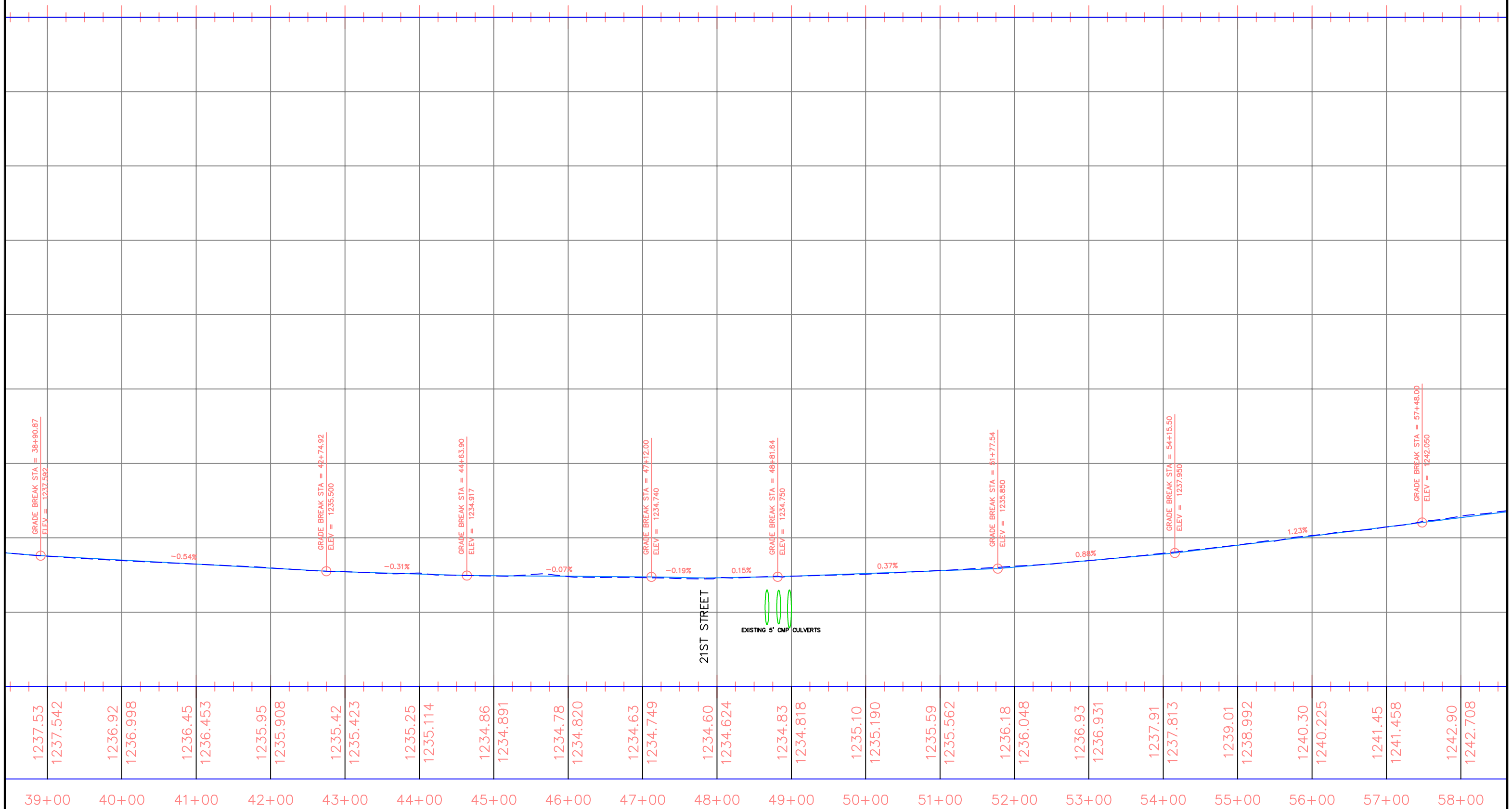


PROJECT	SHEET NO.	TOTAL SHEETS
2017-042	53	83
PROFILE 2	1/19/2018	

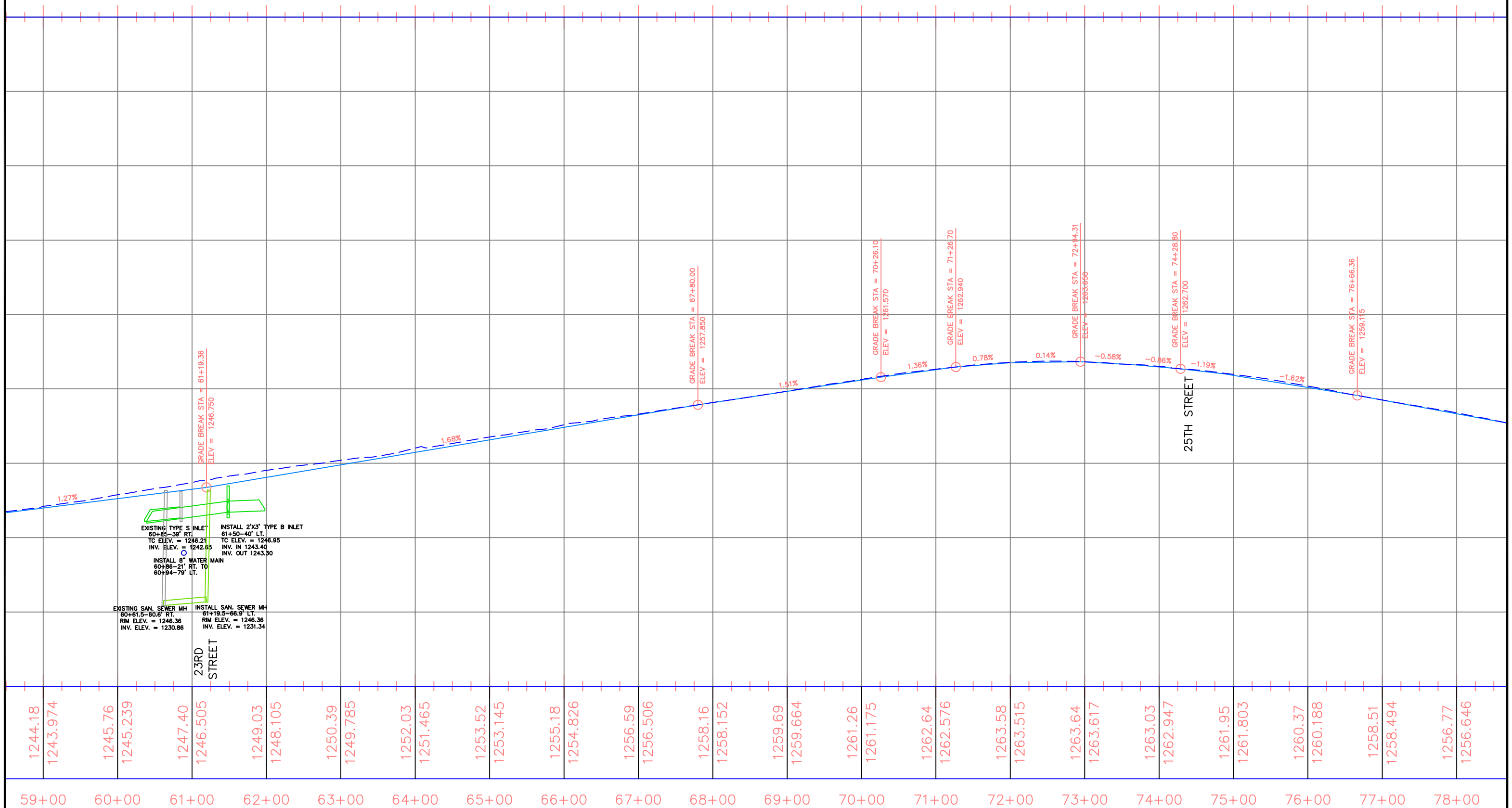


PROJECT	SHEET NO.	TOTAL SHEETS
2017-042	54	83
PROFILE 3	1/19/2018	

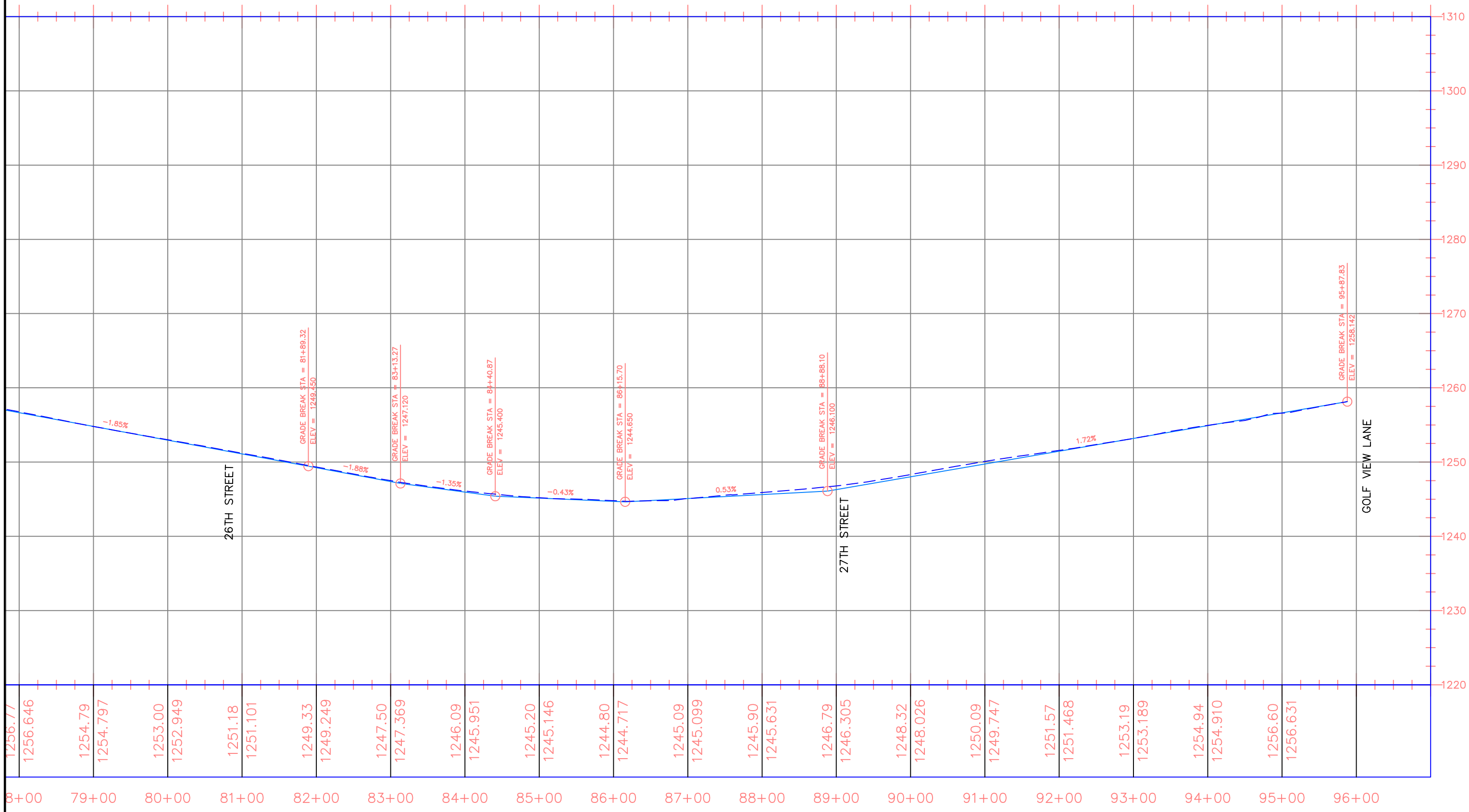
WCLR PROFILE



PROJECT	SHEET NO.	TOTAL SHEETS
2017-042	55	83
PROFILE 4	1/19/2018	

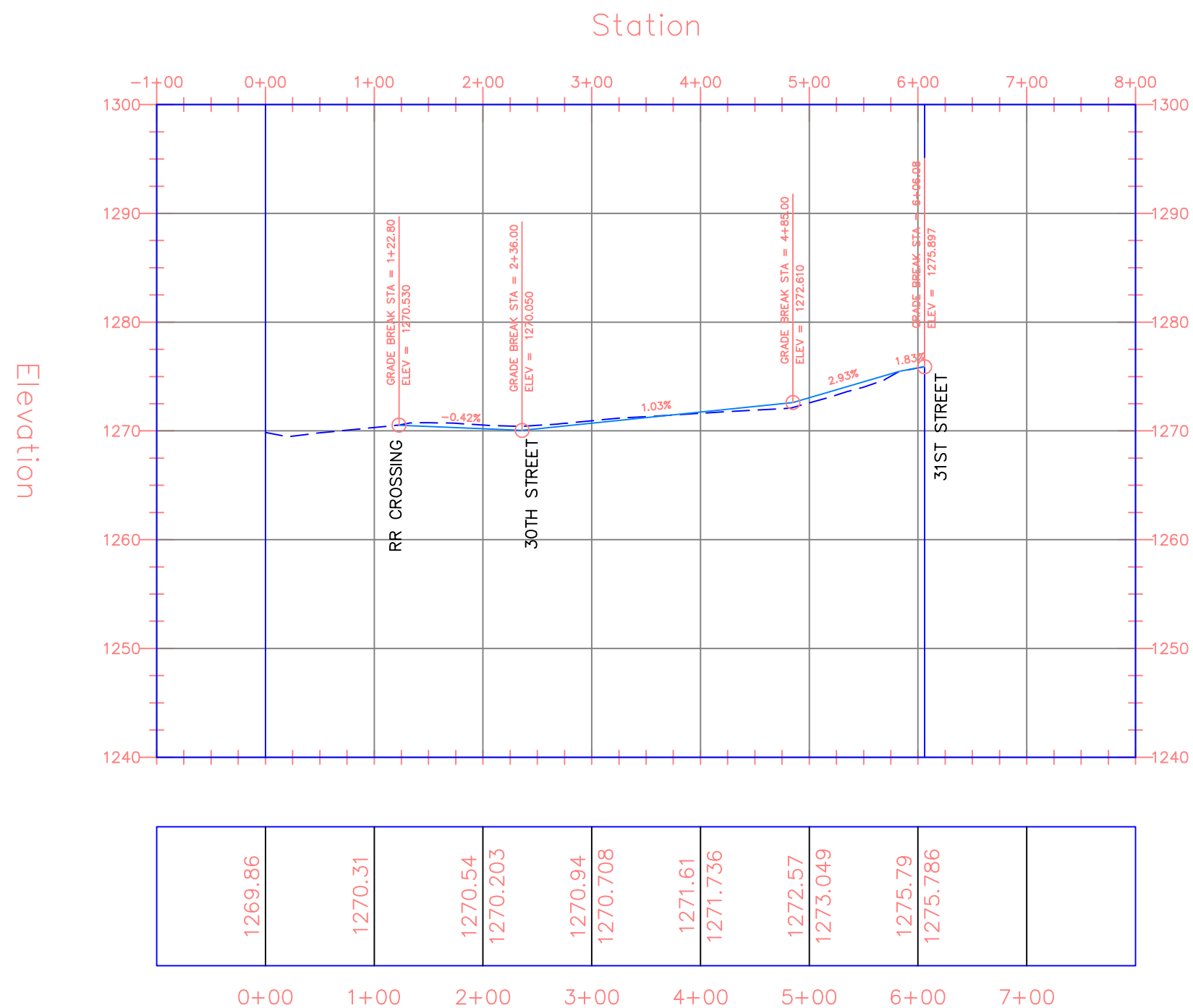


PROJECT	SHEET NO.	TOTAL SHEETS
2017-042	56	83
PROFILE 5	1/19/2018	



PROJECT	SHEET NO.	TOTAL SHEETS
2017-042	57	83
PROFILE 5	1/10/2018	

WCLR PROFILE

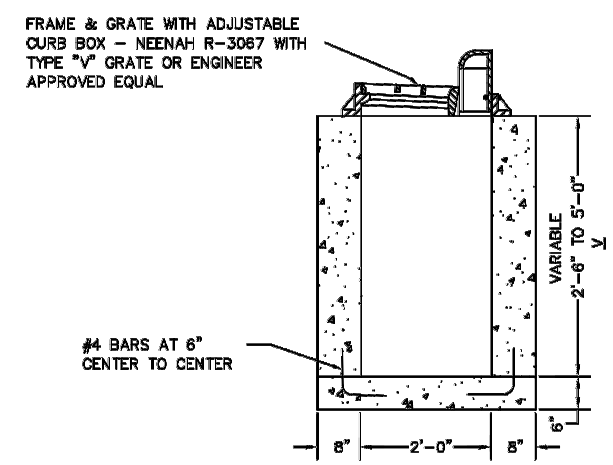


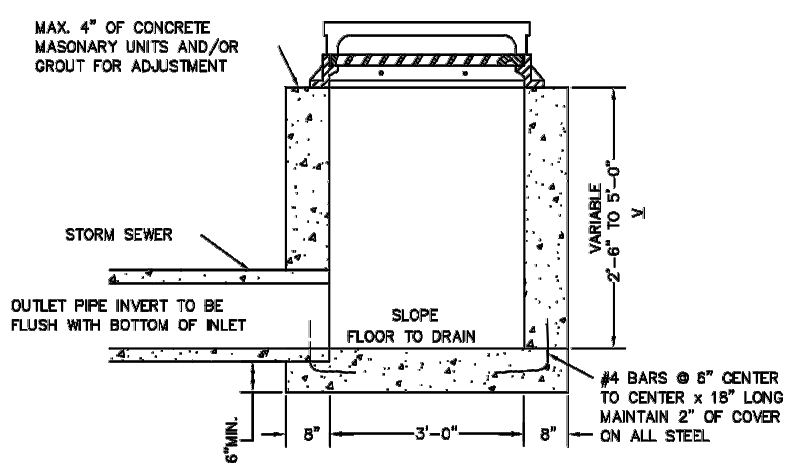
PROJECT	SHEET NO.	TOTAL SHEETS
2017-042	58	83
INLET DETAIL	1/19/2018	

ESTIMATED QUANTITIES

ITEM	UNIT	CONSTANT	VARIABLE
* CLASS M6 CONCRETE	CUYDS	0.27	0.32V
REINFORCEMENT-CONC. MASONRY	LBS	28	---

* CONSTANT SHALL BE REDUCED FOR THE APPROPRIATE PIPE OR COMBINATION OF PIPES, THUS; 12" DIA.=-0.03 C.Y., 15" DIA=-0.04 C.Y., 18" DIA.=-0.05 C.Y., 24" DIA.=-0.09 C.Y.



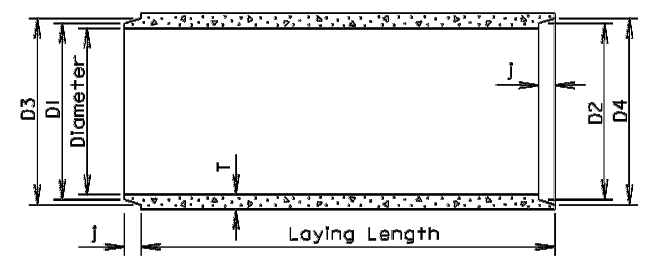


REVISED: DECEMBER 1995

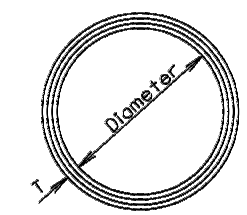
SPECIFICATION REFERENCE NO. 460	CITY OF SIOUX FALLS ENGINEERING DIVISION STANDARD STORM SEWER INLET TYPE BI	PLATE NUMBER 460.07

TOLERANCES IN DIMENSIONS

Diameter: ±1.5% for 24" Dia. or less and ±1% or 3/8" whichever is more for 27" Dia. or greater.
Diameters at Joints: ±3/16" for 30" Dia. or less and ±1/4" for 36" or greater.
Length of joint (J): ±1/4".
Wall thickness (T): not less than design T by more than 5% or 3/16", whichever is greater.
Laying length: shall not underrun by more than 1/2".



LONGITUDINAL SECTION



END VIEW

GENERAL NOTES:

Construction of R.C.P. shall conform to the requirements of Section 990 of the Standard Specifications for Roads and Bridges.

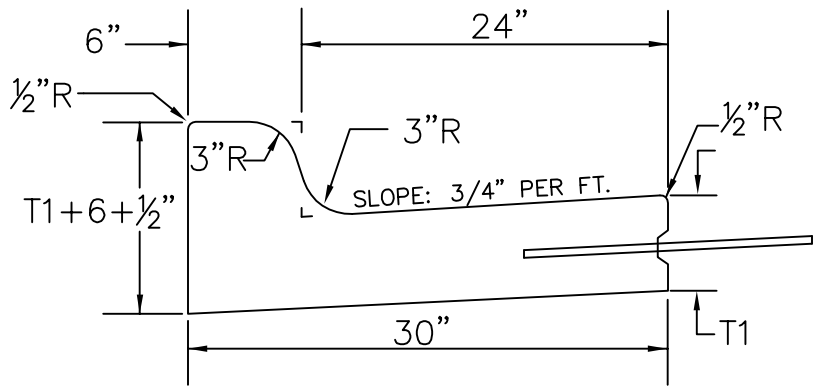
Not more than 2 four foot sections shall be permitted near the ends of any culvert. Four foot lengths shall be used only to secure the required length of culvert.

Diam. (In.)	Approx. Wt./Ft. (lb.)	T (In.)	J (In.)	D1 (In.)	D2 (In.)	D3 (In.)	D4 (In.)
12	92	2	1 3/4	13 1/4	13 5/8	13 7/8	14 1/4
15	127	2 1/4	2	16 1/2	16 7/8	17 1/4	17 5/8
18	168	2 1/2	2 1/4	19 5/8	20	20 3/8	20 3/4
21	214	2 3/4	2 1/2	22 7/8	23 1/4	23 3/4	24 1/8
24	265	3	2 3/4	26	26 3/8	27	27 3/8
27	322	3 1/4	3	29 1/4	29 5/8	30 1/4	30 5/8
30	384	3 1/2	3 1/4	32 3/8	32 3/4	33 1/2	33 1/8
36	524	4	3 3/4	38 3/4	39 1/4	40	40 1/2
42	685	4 1/2	4	45 1/8	45 5/8	46 1/2	47
48	867	5	4 1/2	51 1/2	52	53	53 1/2
54	1070	5 1/2	4 1/2	57 7/8	58 3/8	59 3/8	59 7/8
60	1296	6	5	64 1/4	64 3/4	66	66 1/2
66	1542	6 1/2	5 1/2	70 5/8	71 1/8	72 1/2	73
72	1810	7	6	77	77 1/2	79	79 1/2
78	2098	7 1/2	6 1/2	83 3/8	83 7/8	85 5/8	86 1/8
84	2410	8	7	89 3/4	90 1/4	92 1/8	92 5/8
90	2740	8 1/2	7	95 3/4	96 1/4	98 1/8	98 5/8
96	2950	9	7	102 1/8	102 5/8	104 1/2	105
102	3075	9 1/2	7 1/2	109	109 1/2	111 1/2	112
108	3870	10	7 1/2	115 1/2	116	118	118 1/2

March 31, 2000

Published Date: 1st Qtr. 2012	SDDOT	REINFORCED CONCRETE PIPE	PLATE NUMBER 450.01
			Sheet 1 of 1

PROJECT	SHEET NO.	TOTAL SHEETS
2017-042	59	83
LONGITUDINAL JOINT DETAIL	1/19/2018	



30" CONCRETE CURB AND GUTTER

N.T.S

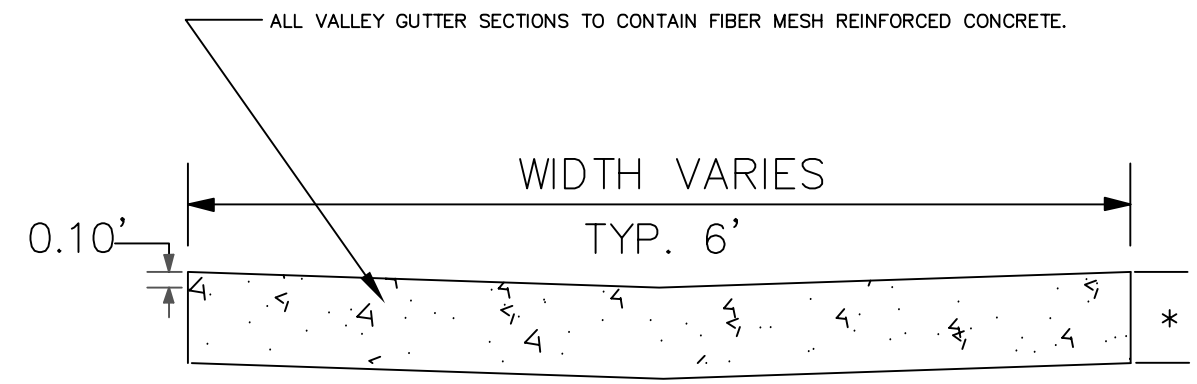
1/2" Preformed Expansion Joint Fillers shall be placed, Tranversely in the Curb & Gutter, as follows:

(1) At each junction of a Radius return Curb & Gutter and the Curb & Gutter which is parallel to the project centerline.
(2) At each junction with existing Concrete Curb or Concrete Curb & Gutter
(3) At each junction with existing sidewalk, to the depth of the sidewalk.
(4) At a maximum of 195 L.F. appart, measured along the face of the Curb & Gutter.

1/2" Preformed Expansion Joint Filler shall be placed, Longitudinally, along the backface of the Curb, to the depth of the sidewalk, where such backface of Curb is adjacent to an existing Concrete Sidewalk.

Weakened Plane Joints shall be constructed at Approx. 10' intervals. The joints shall be constructed to a minimum depth of one inch by scoring with a tool which coincide with pavement joints leave the corners rounded and insure a free movement of the Concrete at the joint.

TYPE	T1 INCHES	CU. YD PER LIN. FT.
B66	6"	0.055
B67	7"	0.063
B68	8"	0.071
B68.5	8.5"	0.074
B69	9"	0.078
B69.5	9.5"	0.082
B610	10"	0.086
B610.5	10.5"	0.090
B611	11"	0.094
B611.5	11.5"	0.098
B612	12.0"	0.102



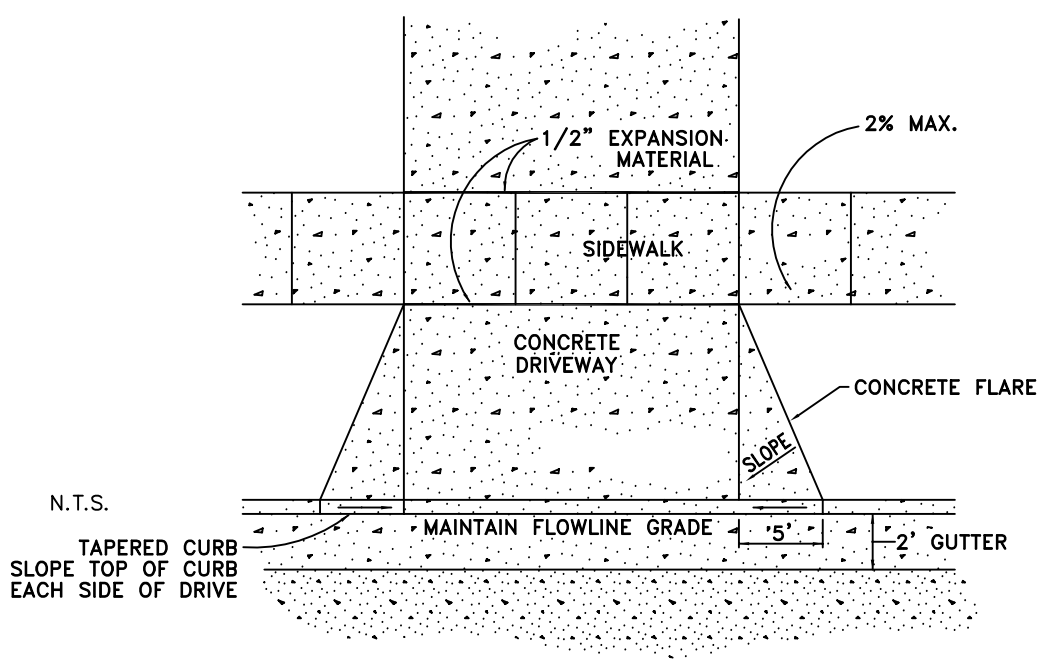
TYPICAL VALLEY GUTTER DETAIL

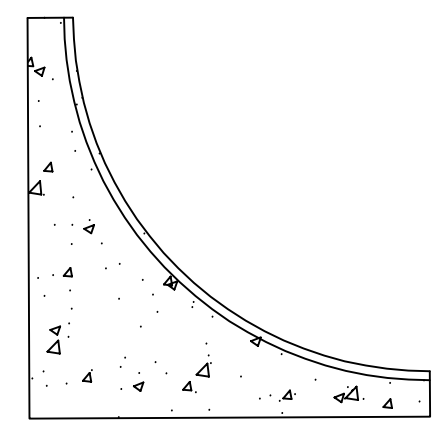
N.T.S.

* ALL VALLEY GUTTER SECTIONS TO A MINIMUM OF 6" OR THE SAME THICKNESS AS THE ADJOINING CONCRETE PAVING.

DETAIL FOR CONCRETE FLARES AND TAPERED CURB AT DRIVEWAYS

N.T.S.





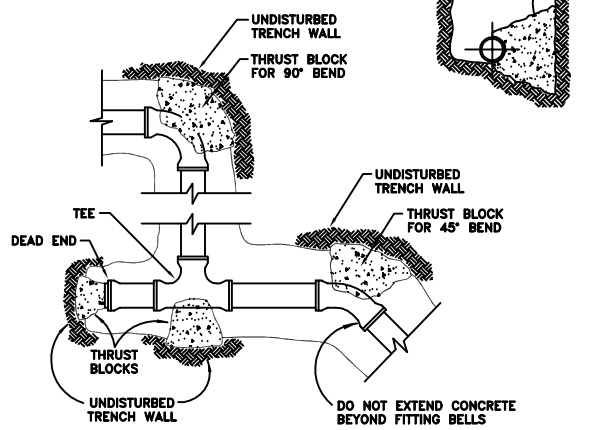
TYPICAL FILLET SECTION

N.T.S.

All Fillet sections to contain fiber mesh reinforced concrete.

PROJECT	SHEET NO.	TOTAL SHEETS
2017-042	60	83
Trench & Water Main	1/19/2018	

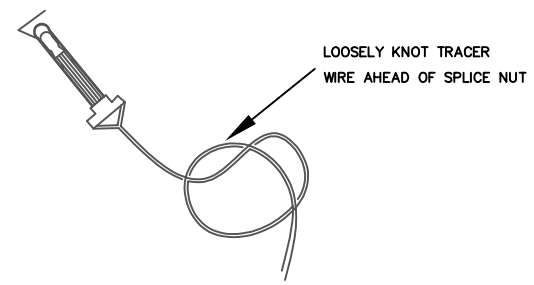
NOTE:
THRUST BLOCKS ARE REQUIRED AT ALL ABRUPT CHANGES IN DIRECTION, TEES, BENDS, DEAD ENDS AND HYDRANTS. ALL BLOCKS ARE TO BE POURED AND AGAINST SOLID UNDISTURBED TRENCH WALL, UNLESS OTHERWISE NOTED BY THE ENGINEER. BREAK BOND BETWEEN POURED CONCRETE THRUST BLOCKS AND PIPE FITTINGS WITH TAR PAPER ETC. LENGTH OF BEARING SURFACE SHALL BE BETWEEN 1 AND 2 TIMES THE HEIGHT OF BEARING SURFACE.



SDF

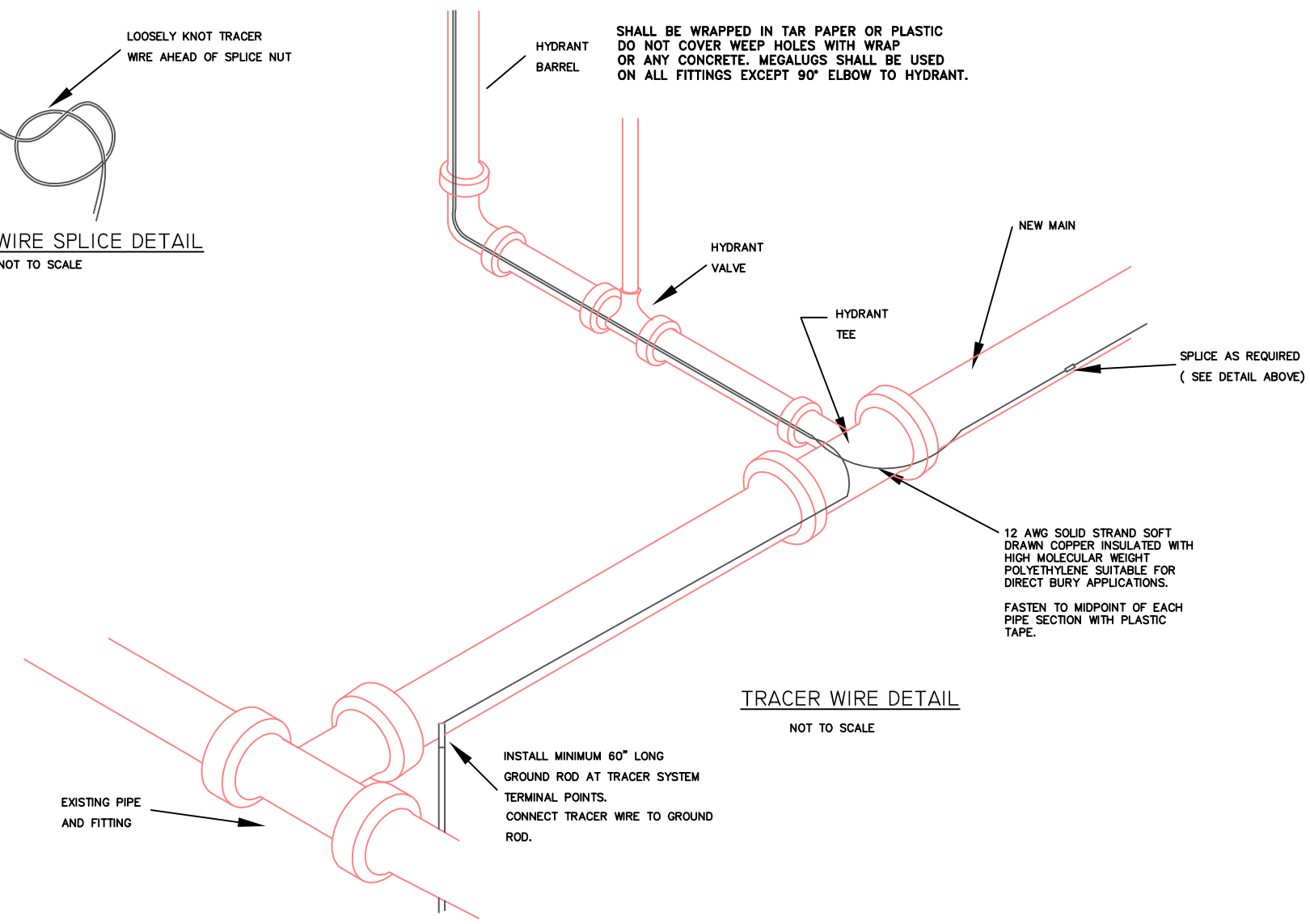
SCHEDULE OF BRACING REQUIRED
FOR C.I.P. FITTINGS – BEARING AREA – SQ. FT.

PIPE SIZE	DEAD END OR TEE	90° BEND	45° BEND	22 1/2° BEND	11 1/4° BEND
12"	11 1/2	16	9	4 1/2	2 1/2
10"	8	11	6	3	1 1/2
8"	5	7	4	2	1
6"	3	4	2	1	1/2
4"	1 1/2	1 1/2	1	1/2	–



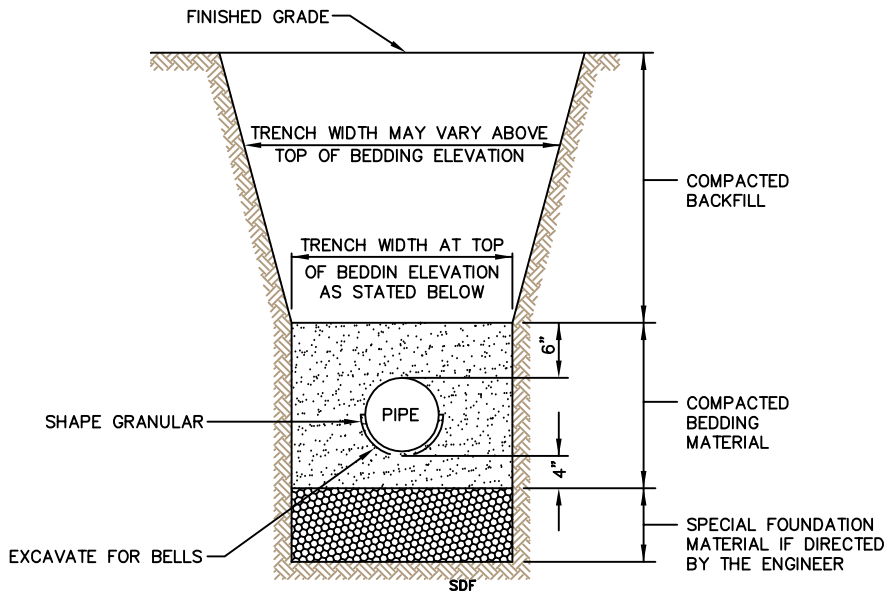
TRACER WIRE SPLICE DETAIL

NOT TO SCALE



TRACER WIRE DETAIL

NOT TO SCALE



SDF

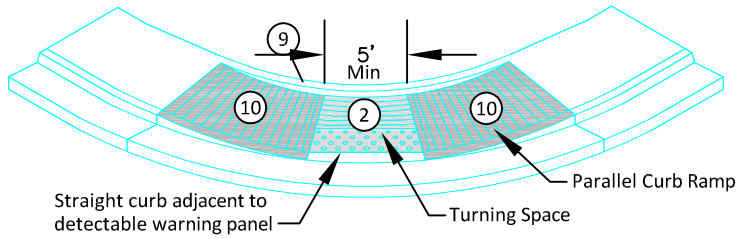
WHERE TRENCH WALLS BELOW THE TOP OF THE BEDDING MATERIAL ARE VERTICAL AND FREE-STANDING, MINIMUM TRENCH WIDTHS ARE AS FOLLOWS:

PIPE SIZE	MINIMUM TRENCH WIDTH
8"	24"
10"	26"
12"	28"
15"	32"
18"	36"
21"	40"
24"	43"

DETAIL OF BEDDING & BACKFILL

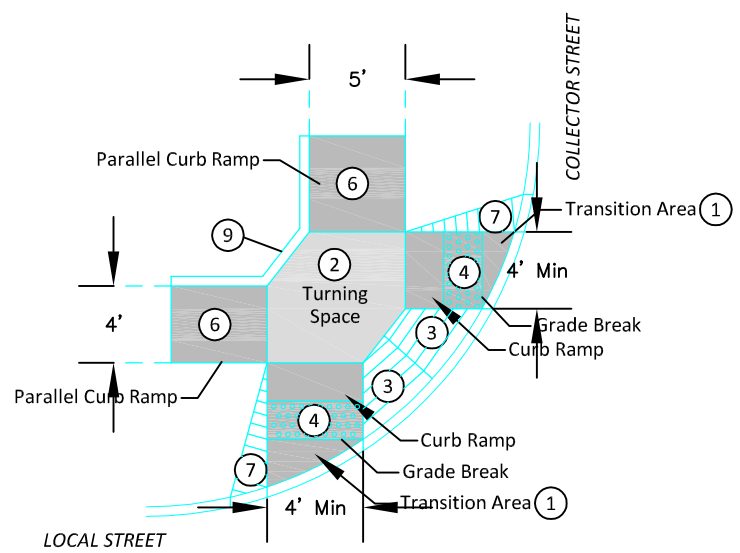
PROJECT	SHEET NO.	TOTAL SHEETS
2017–042	61	83
SIDEWALK DETAIL	1/19/2018	

PARALLEL CURB RAMP EXAMPLE

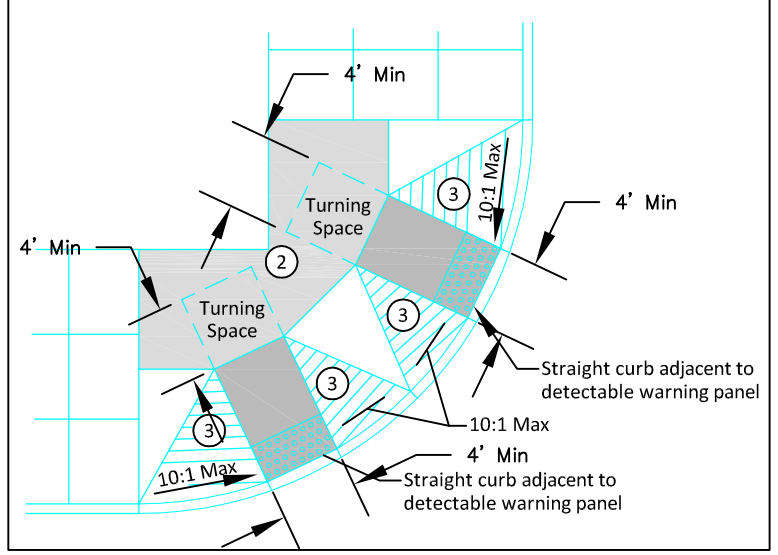


DIRECTIONAL SIDEWALK RAMP EXAMPLE

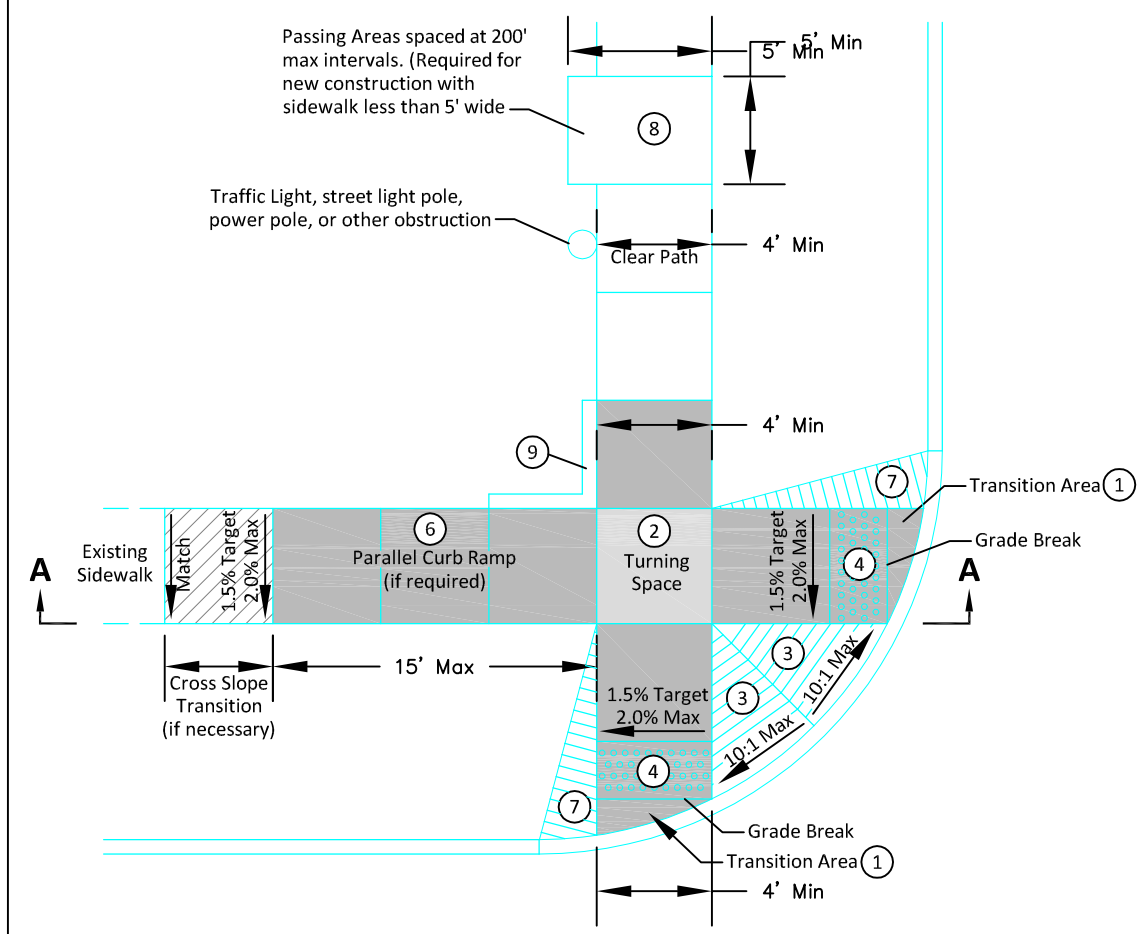
(Typical of a local/collector intersection with a 20' radius)



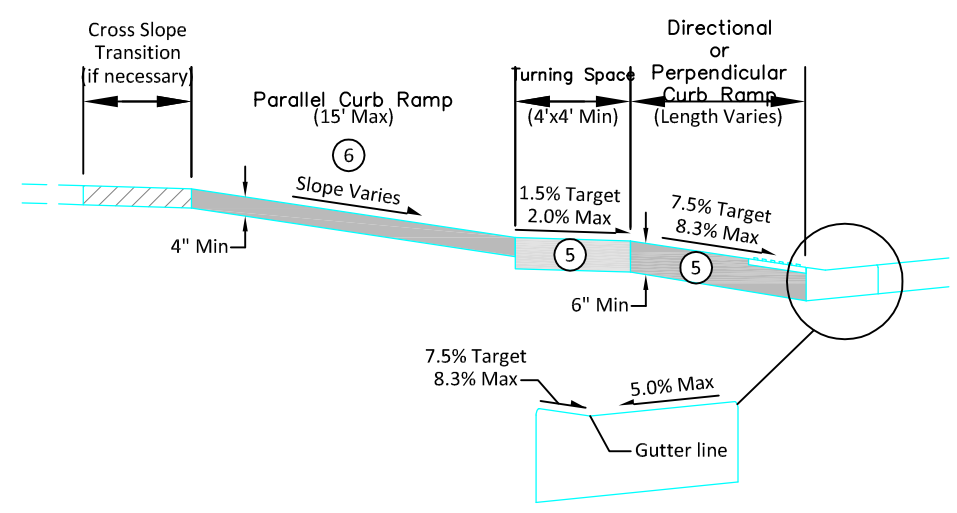
PERPENDICULAR CURB RAMP EXAMPLE



DIRECTIONAL SIDEWALK RAMP EXAMPLE



SECTION A-A



NOTES:

1. Transition from the the 2% maximum cross slope on the ramp and the pedestrian street crossing grade in this area. The maximum cross slope on the pedestrian street crossing (including the fillet or curb and gutter) is 2% on stop or yield controlled legs and 5% on uncontrolled or signalized legs.
2. Minimum 4 feet by 4 feet. Target cross slope of 1.5% with a maximum cross slope of 2.0% in any direction. Where the turning space is confined at the back of sidewalk (example: 6" curb or building), the turning space shall be 4 foot by 5 foot minimum. The 5 foot dimension shall be in the direction of the ramp run. The grade change between the turning space and the curb ramp must be perpendicular to the direction of travel.
3. Areas where the pedestrian circulation path crosses a curb ramp are considered flare sides. The maximum slope of the flare sides is 10%. Full curb height may not be able to be reestablished on flare slopes but as much curb height as possible should be reestablished.
4. Provide a minimum 2 foot width of detectable warning surfaces in the direction of pedestrian travel across the full width of the curb ramp or turning space, exclusive of curbs or flares. Orient domes in the direction of pedestrian travel unless otherwise stated in plans.
5. The concrete in the turning space, curb ramp, and flare slope areas shall be a minimum thickness of 6 inches.
6. If normal sidewalk elevation cannot be achieved with the perpendicular ramp between the street and turning space due to limited ramp length, provide a parallel ramp to make up the elevation difference between the turning space and the standard sidewalk. This parallel ramp shall not exceed 8.3% slope. However, the length of the ramp is not required to exceed 15 feet, regardless of slope. The minimum sidewalk thickness for the parallel ramp in this area is 4 inches.
7. Install a 2 foot taper when additional sidewalk will not be located adjacent to the curb ramp.
8. To accommodate the passing area requirement, sidewalks must be a minimum of 5 foot wide through the driveway approach. See plate 651.01 for additional information.
9. Depending on the conditions, a curb up to 6 inches high may need to be installed on the back of the turning space or adjoining sidewalk.
10. The slope of curb ramp and adjacent curb is designed at 7.5% or less but shall not be steeper than 8.3% unless otherwise specified in the plans. The curb ramp is not required to exceed 15 feet, regardless of slope. The cross slope target is 1.5% with a maximum cross slope of 2.0%.

GENERAL NOTES:

The turning space, curb ramp, and detectable warning panel area will be paid for at the contact unit price for the corresponding concrete sidewalk bid item.

The detectable warning panel shall be measured and paid for to the nearest square foot. Payment shall include all costs for materials, labor, and equipment necessary for the installation of the detectable warning panels.

Revised: December 2016

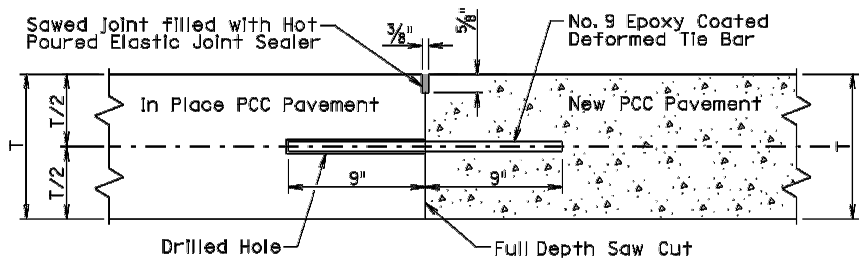
CITY OF SIOUX FALLS
ENGINEERING DIVISION

ACCESSIBLE CURB RAMPS

SPECIFICATION REFERENCE	PLATE NUMBER
NO. 650	651.02

PROJECT	SHEET NO.	TOTAL SHEETS
2017-042	62	83
TRANSVERSE JOINT DETAIL	1/19/2018	

TRANSVERSE CONSTRUCTION JOINT WITH TIE BARS



T = In Place PCC Pavement and New PCC Pavement Thickness

GENERAL NOTES:

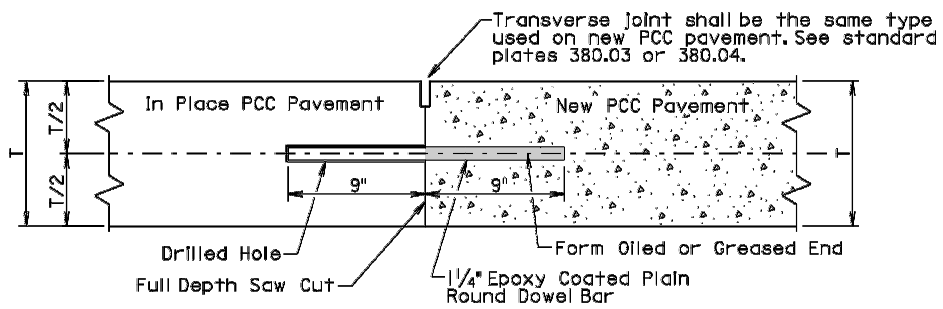
This detail shall be used when the transverse joint is less than 15 feet from the existing transverse contraction joint.

The tie bars shall be embedded a minimum depth of 9 inches into the in place PCC pavement and anchored with an epoxy resin adhesive.

No. 9 epoxy coated deformed tie bars shall be spaced 18 inches center to center and shall be a minimum of 3 inches and a maximum of 9 inches from the pavement edges.

The term "In Place PCC Pavement" in the above drawing indicates that the in place PCC pavement was placed on a previous project.

TRANSVERSE CONSTRUCTION JOINT WITH DOWEL BARS



T = In Place PCC Pavement and New PCC Pavement Thickness

GENERAL NOTES:

This detail shall be used when the transverse joint is 15 feet or greater from the existing transverse contraction joint.

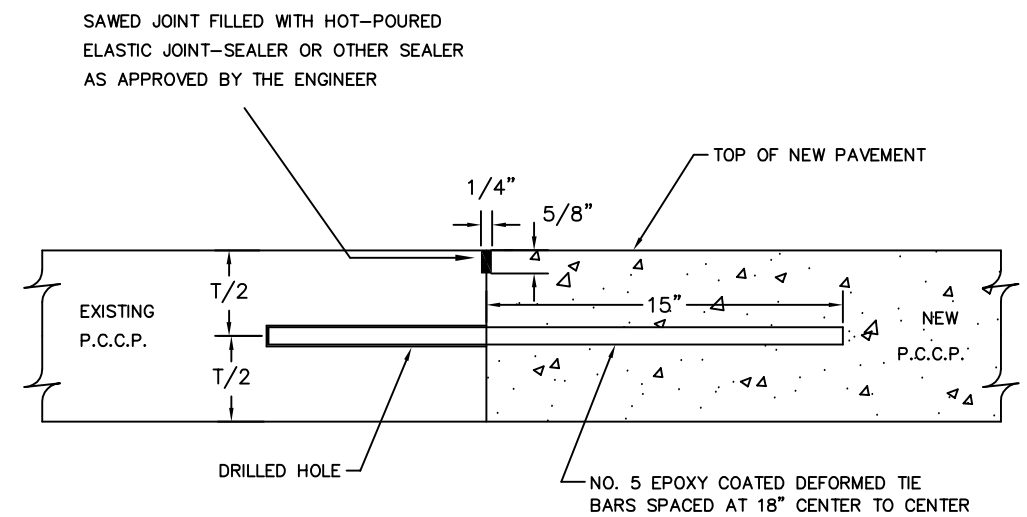
The plain round dowel bars shall be embedded a minimum depth of 9 inches into the in place PCC pavement and anchored with an epoxy resin adhesive.

The 1¼" epoxy coated plain round dowel bars shall be spaced 12 inches center to center and shall be a minimum of 3 inches and a maximum of 6 inches from the pavement edges.

The term "In Place PCC Pavement" in the above drawing indicates that the in place PCC pavement was placed on a previous project or current project.

September 6, 2006

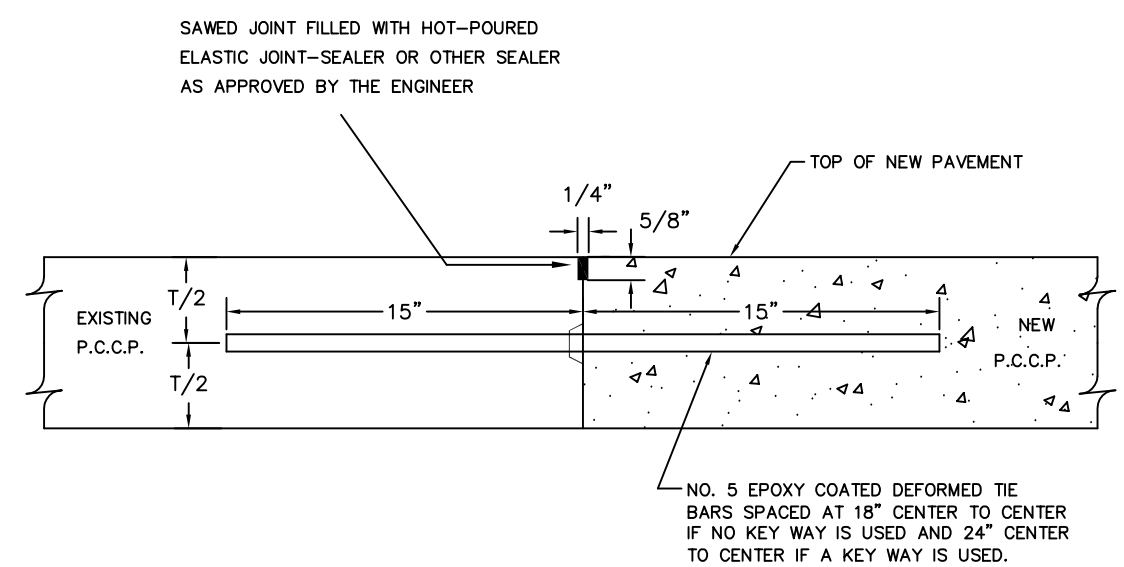
Published Date: 4th Qtr. 2007	SDDOT	*PCC PAVEMENT TRANSVERSE CONSTRUCTION JOINTS WITH TIE BARS OR DOWEL BARS*	*PLATE NUMBER* 380.06
			Sheet 1 of 1



T = PAVEMENT THICKNESS

GENERAL NOTES

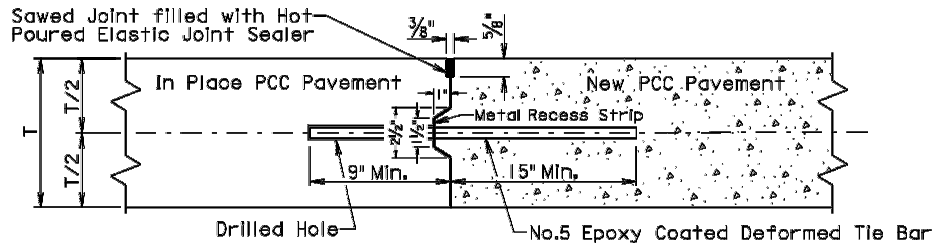
THE TIE BAR IS TO BE EMBEDDED A MINIMUM DEPTH OF 9 INCHES INTO THE EXISTING PAVEMENT BY UTILIZING AN EPOXY RESIN ADHESIVE.



T = PAVEMENT THICKNESS

PCC PAVEMENT TRANSVERSE JOINTS WITH TIE BARS

LONGITUDINAL CONSTRUCTION JOINT WITH TIE BARS
(DRILLED IN BARS)



T = Pavement Thickness

GENERAL NOTES:

The tie bars shall be embedded a minimum depth of 9 inches into the in place PCC pavement and anchored with an epoxy resin adhesive.

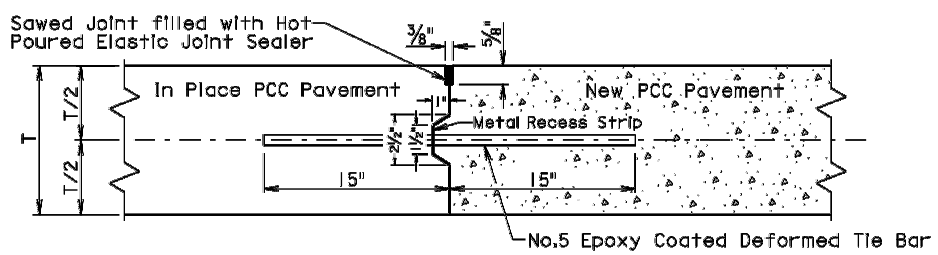
No.5 epoxy coated deformed tie bars shall be spaced 48" center to center for a female keyway or 30" center to center for a vertical face and male keyway. The keyway shown above is a female keyway.

The tie bars shall be placed a minimum of 15 inches from existing transverse contraction joints.

The keyway is optional and is not required. When concrete pavement is formed and a keyway is provided, a metal recess strip shall be used. When concrete pavement is slip formed, a metal recess strip is not required.

The term "In Place PCC Pavement" in the above drawing indicates that the in place PCC pavement was placed on a previous project or current project.

LONGITUDINAL CONSTRUCTION JOINT WITH TIE BARS
(INSERTED OR FORMED IN BARS)



T = Pavement Thickness

GENERAL NOTES:

No.5 epoxy coated deformed tie bars shall be spaced 48" center to center for a female keyway or 30" center to center for a vertical face and male keyway. The keyway shown above is a female keyway.

The tie bars shall be placed a minimum of 15 inches from existing transverse contraction joints.

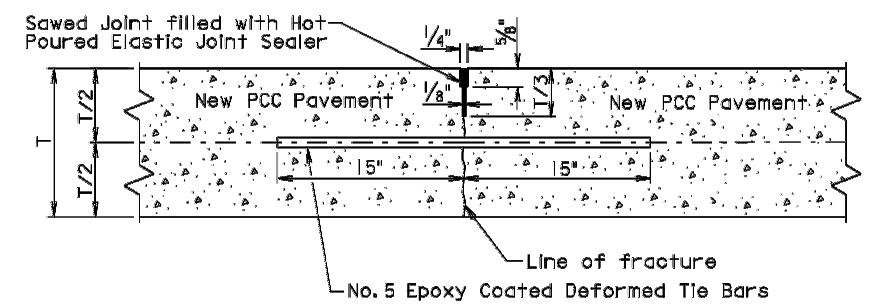
The keyway is optional and is not required. When concrete pavement is formed and a keyway is provided, a metal recess strip shall be used. When concrete pavement is slip formed, a metal recess strip is not required.

The term "In Place PCC Pavement" in the above drawing indicates that the in place PCC pavement was placed on the current project.

September 14, 2001

Published Date: 4th Qtr. 2007	SDDOT	PCC PAVEMENT LONGITUDINAL JOINTS WITH TIE BARS	PLATE NUMBER 380.10
			Sheet 1 of 2

SAWED LONGITUDINAL JOINT WITH TIE BARS
(POURED MONOLITHICALLY)



T = Pavement Thickness

GENERAL NOTES:

No. 5 epoxy coated deformed tie bars shall be spaced 48 inches center to center.

The tie bars shall be placed a minimum of 15 inches from the existing transverse contraction joints.

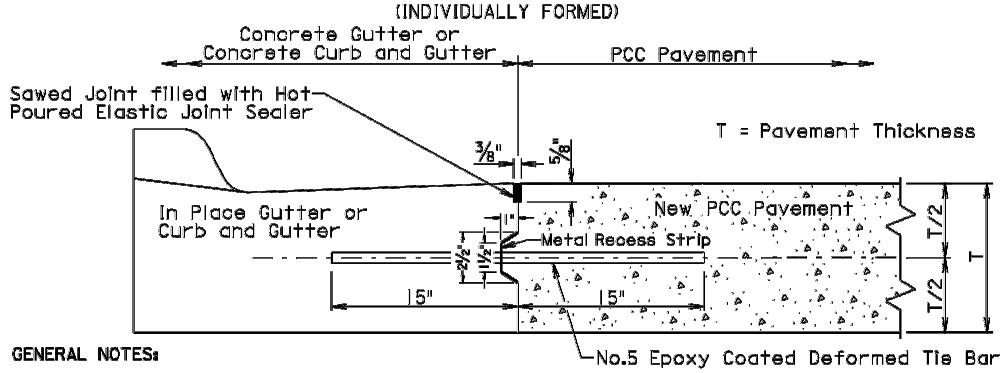
The first saw cut to control cracking shall be a minimum of 1/3 the thickness of the pavement. Additional sawing for widening the saw cut to provide the width for the installation of the hot poured elastic joint sealer will be necessary.

September 14, 2001

Published Date: 4th Qtr. 2007	SDDOT	PCC PAVEMENT LONGITUDINAL JOINTS WITH TIE BARS	PLATE NUMBER 380.10
			Sheet 2 of 2

LONGITUDINAL CONSTRUCTION JOINT WITH TIE BARS

(INDIVIDUALLY FORMED)



GENERAL NOTES:

No.5 epoxy coated deformed tie bars shall be spaced 48" center to center. The keyway shown above is a female keyway.

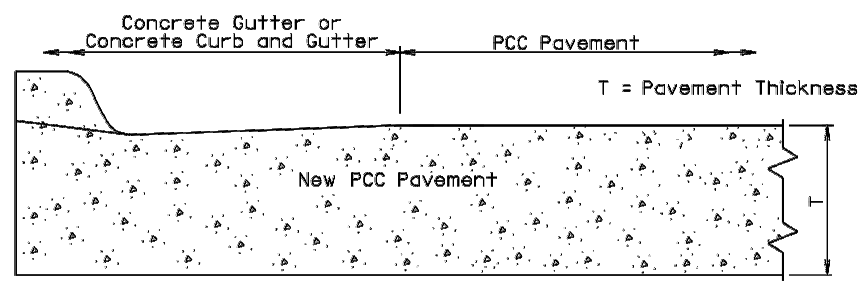
The tie bars shall be placed a minimum of 15 inches from existing transverse contraction joints.

The keyway is optional and is not required. When concrete pavement is formed and a keyway is provided, a metal recess strip shall be used. When concrete pavement is slip formed, a metal recess strip is not required.

The transverse contraction joints in the concrete gutter or concrete curb and gutter shall be placed at each mainline PCC pavement transverse contraction joint. The transverse contraction joints in the concrete gutter or the concrete curb and gutter shall be 1½" deep if formed in fresh concrete using a suitable grooving tool. If a saw is used to cut the transverse contraction joints, then the depth of the joint shall be at least ¼ the thickness of the concrete gutter or concrete curb and gutter.

The term "In Place Gutter or Curb and Gutter" in the above drawing indicates that the in place concrete gutter and concrete curb and gutter was placed on the current project.

POURED MONOLITHICALLY



GENERAL NOTES:

The mainline curb and gutter may be placed monolithically with the PCC pavement. If this method of construction is used, the tie bars and the sawed joint between the curb and gutter and the PCC pavement shall be eliminated.

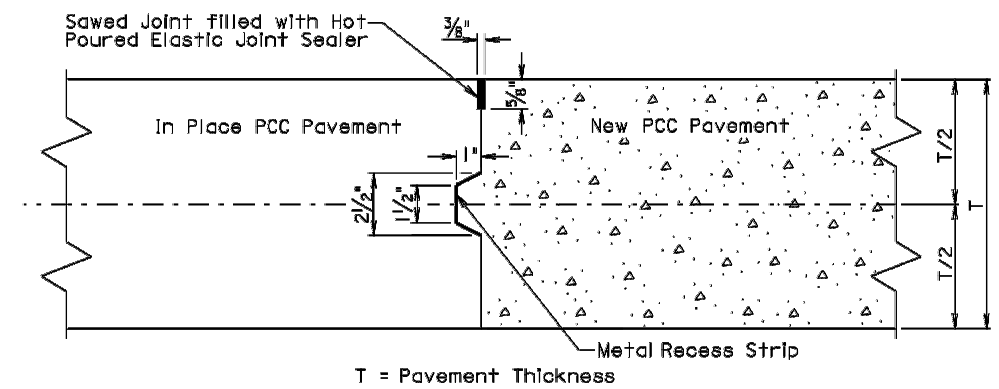
The gutter or curb and gutter shall be sawed transversely at each mainline transverse contraction joint. The transverse contraction joints in the gutter or curb and gutter shall be sawed and sealed same as the transverse contraction joints in the PCC pavement.

The slope of the gutter shall be the slope designated for the type of gutter or curb and gutter to be constructed. The bottom slope of the gutter or curb and gutter shall be constructed at the same slope as the mainline concrete pavement.

September 14, 2005

Published Date: 4th Qtr. 2007	SDDOT	PCC PAVEMENT LONGITUDINAL CONSTRUCTION JOINTS WITH CONCRETE GUTTER OR CONCRETE CURB AND GUTTER	PLATE NUMBER 380.11 Sheet 1 of 1

LONGITUDINAL CONSTRUCTION JOINT WITHOUT TIE BARS

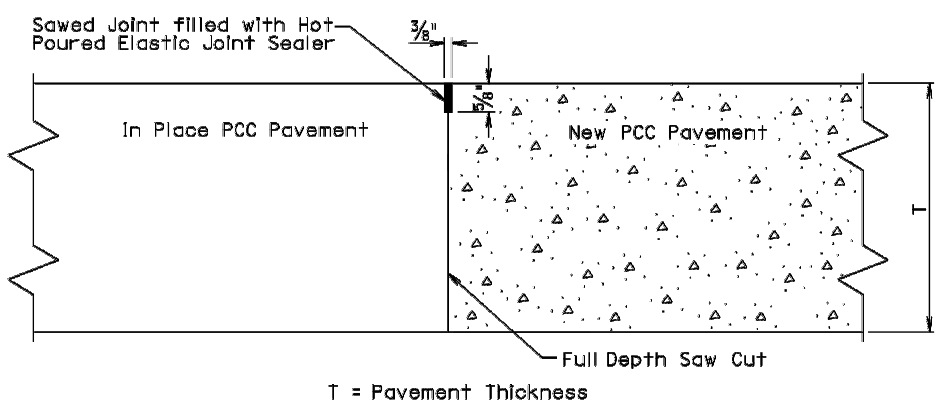


GENERAL NOTES:

When concrete pavement is formed and a keyway is provided, a metal recess strip shall be used. When concrete pavement is slip formed, a metal recess strip is not required.

The term "In Place PCC Pavement" in the above drawing indicates that the in place PCC pavement was placed on the current project.

LONGITUDINAL CONSTRUCTION JOINT WITHOUT TIE BARS

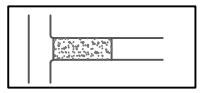


GENERAL NOTE:

The term "In Place PCC Pavement" in the above drawing indicates that the in place PCC pavement was placed on a previous project.

September 14, 2001

Published Date: 4th Qtr. 2007	SDDOT	PCC PAVEMENT LONGITUDINAL JOINTS WITHOUT TIE BARS	PLATE NUMBER 380.12 Sheet 1 of 2



VTC

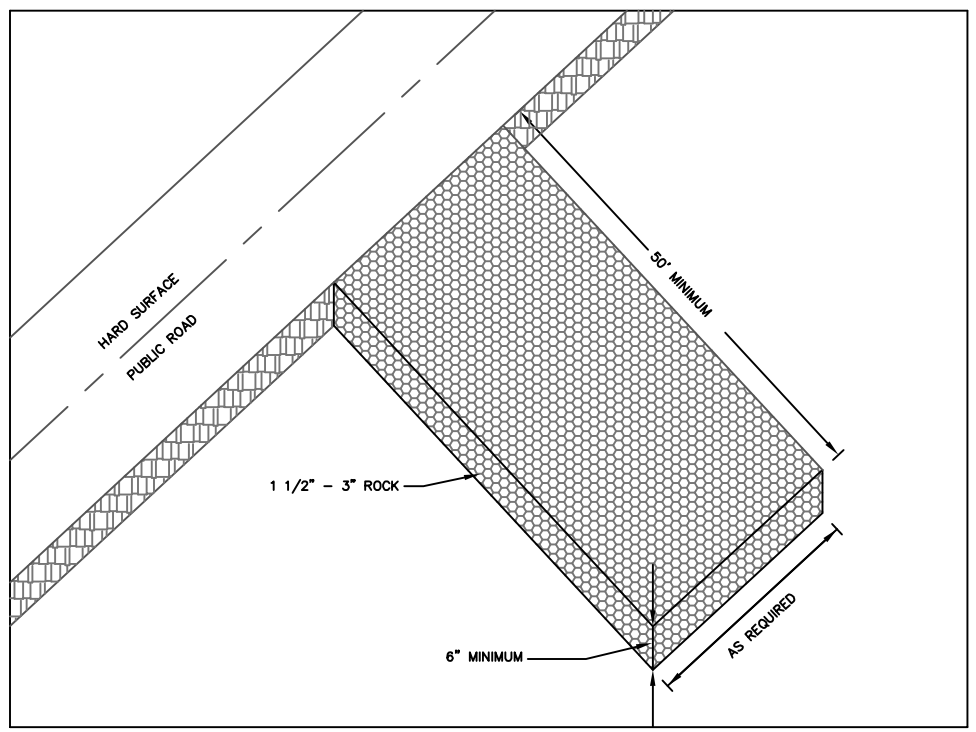
VEHICLE TRACKING CONTROL

DEFINITION:

A STONE STABILIZED PAD LOCATED AT POINTS OF VEHICULAR INGRESS AND EGRESS ON A CONSTRUCTION SITE.

PURPOSES:

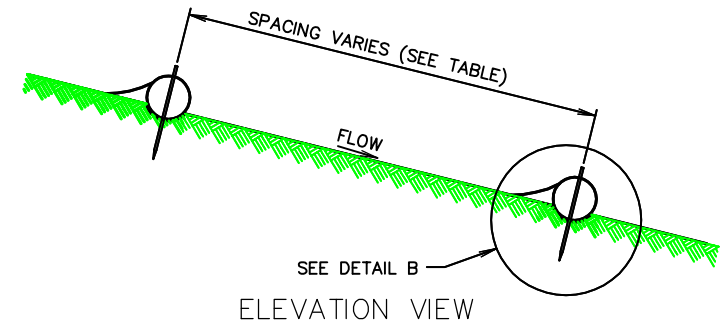
TO REDUCE THE AMOUNT OF MUD TRANSPORTED ONTO PUBLIC ROADS BY MOTOR VEHICLES OR RUNOFF.



REVISED: MAY 2003

SPECIFICATION REFERENCE NO. 734	CITY OF SIOUX FALLS ENGINEERING DIVISION TEMPORARY VEHICLE TRACKING CONTROL	PLATE NUMBER 734.02

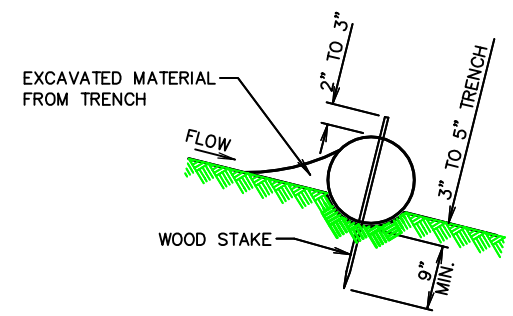
SEDIMENT CONTROL WATTLE



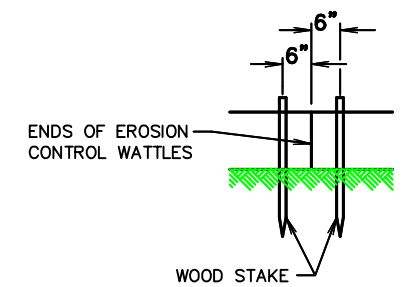
ELEVATION VIEW
CUT OR FILL SLOPE INSTALLATION

CUT OR FILL SLOPE INSTALLATION	
SLOPE	SPACING (FT)
1:1	10
2:1	20
3:1	30
4:1	40

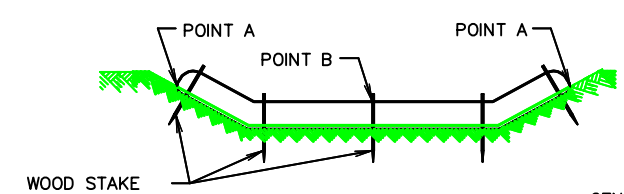
NOTE: IF ONLY ONE WATTLE IS REQUIRED, THE SLOPE SHALL NOT EXCEED 20:1.



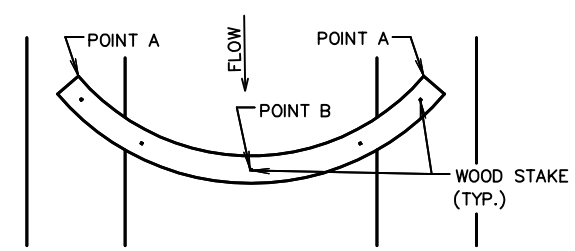
DETAIL B
(TYPICAL OF ALL INSTALLATIONS)



DETAIL C



SECTION A-A



PLAN VIEW
DITCH INSTALLATION

DITCH INSTALLATION	
GRADE	SPACING (FT)
2%	150
3%	100
4%	75
5%	50

GENERAL NOTES:

AT CUT OR FILL SLOPE INSTALLATIONS, WATTLES SHALL BE INSTALLED ALONG THE CONTOUR AND PERPENDICULAR TO THE WATER FLOW.

AT DITCH INSTALLATIONS, POINT "A" MUST BE HIGHER THAN POINT "B" TO ENSURE THAT WATER FLOWS OVER THE WATTLE AND NOT AROUND THE ENDS.

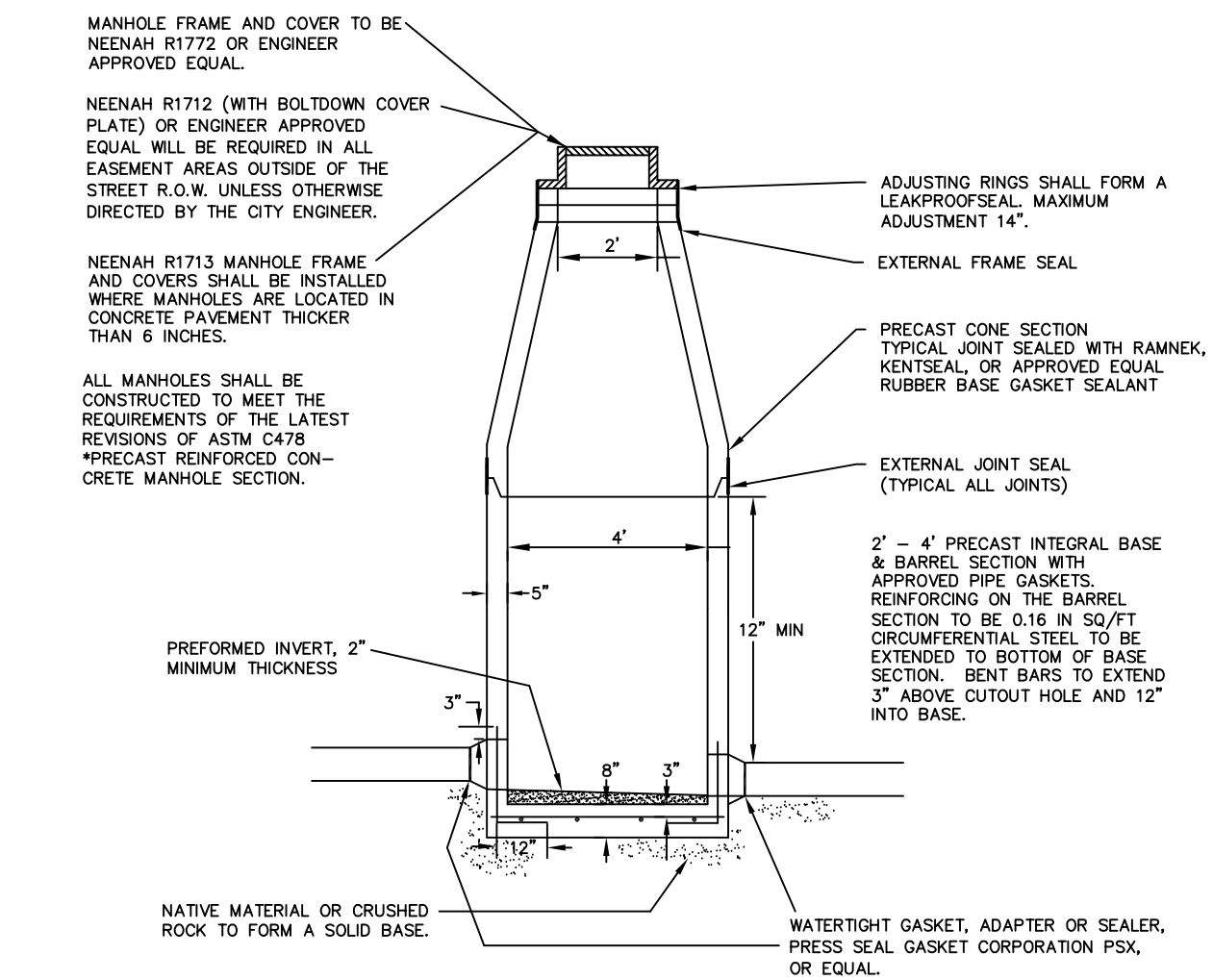
THE CONTRACTOR SHALL DIG A 3" TO 5" TRENCH, INSTALL THE WATTLE TIGHTLY IN THE TRENCH SO THAT DAYLIGHT CAN NOT BE SEEN UNDER THE WATTLE, AND THEN COMPACT THE SOIL EXCAVATED FROM THE TRENCH AGAINST THE WATTLE ON THE UPHILL SIDE. SEE DETAIL B.

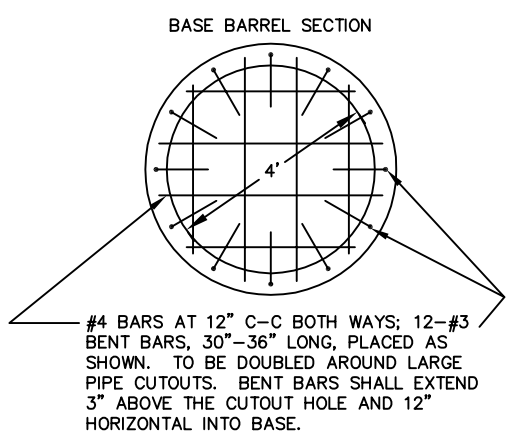
THE STAKES SHALL BE 1"X2" OR 2"X2" WOOD STAKES, HOWEVER, OTHER TYPES OF STAKES SUCH AS REBAR MAY BE USED ONLY IF APPROVED BY THE ENGINEER. THE STAKES SHALL BE PLACED 6" FROM THE ENDS OF THE WATTLES AND THE SPACING OF THE STAKES ALONG THE WATTLES SHALL BE 3' TO 4'.

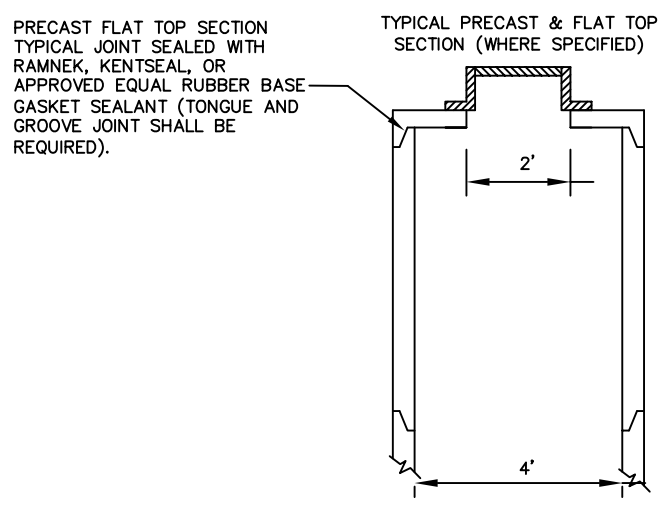
WHERE INSTALLING RUNNING LENGTHS OF WATTLES, THE CONTRACTOR SHALL BUTT THE SECOND WATTLE TIGHTLY AGAINST THE FIRST AND SHALL NOT OVERLAP THE ENDS. SEE DETAIL C.

ISSUED: OCTOBER 2005

SPECIFICATION REFERENCE NO. 734	CITY OF SIOUX FALLS ENGINEERING DIVISION SEDIMENT CONTROL WATTLE	PLATE NUMBER 734.29

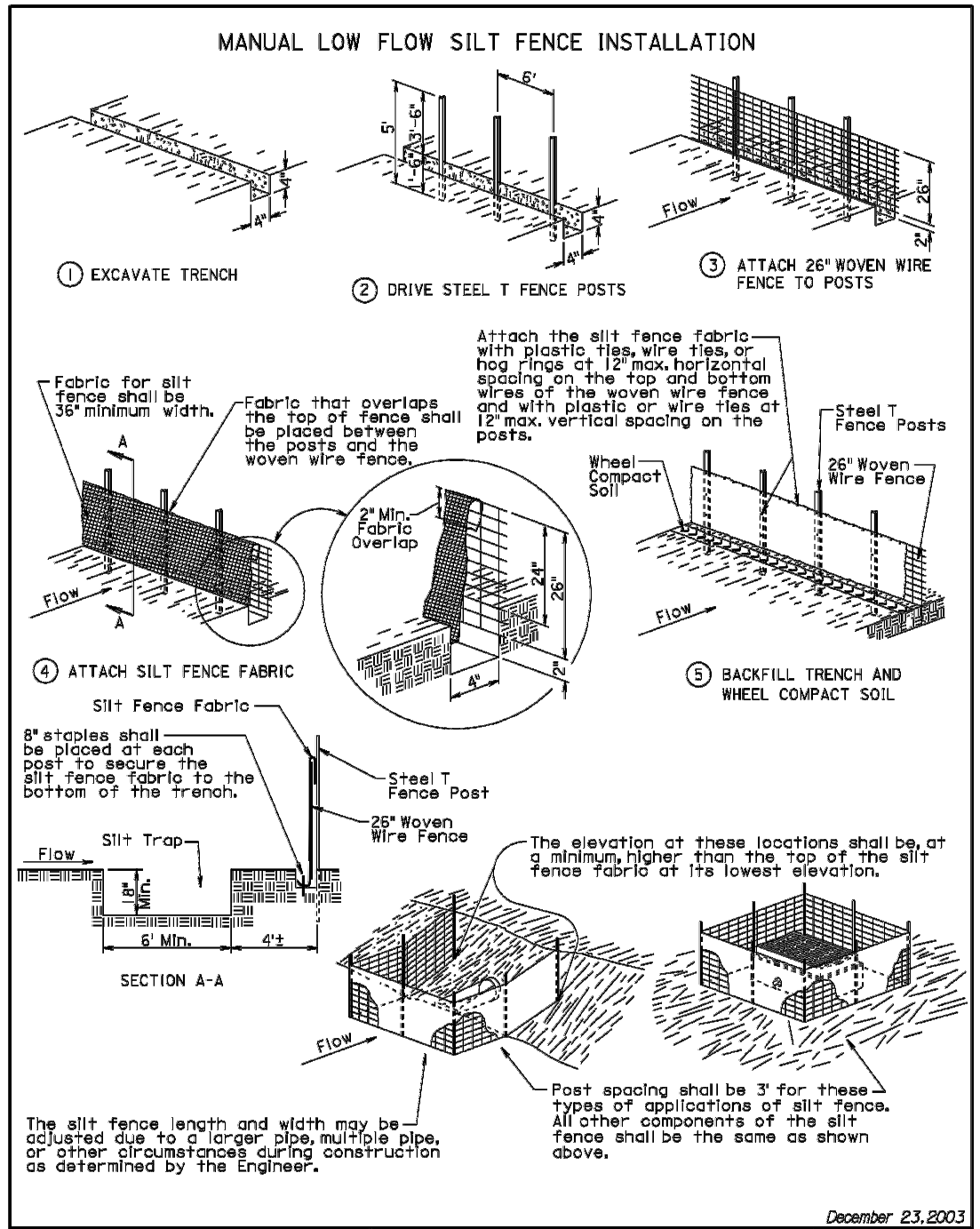






REVISED: DECEMBER 2015

SPECIFICATION REFERENCE NO. 950	CITY OF SIOUX FALLS ENGINEERING DIVISION SANITARY SEWER MANHOLE	PLATE NUMBER 950.03



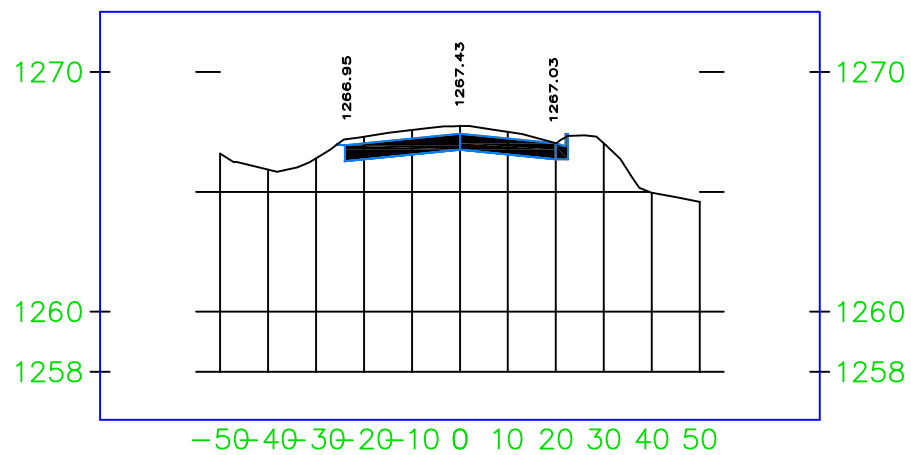
December 23, 2003

Published Date: 4th Qtr. 2007	SDDOT	LOW FLOW SILT FENCE AND SILT TRAP	PLATE NUMBER 734.04 Sheet 1 of 2

PROJECT	SHEET NO.	TOTAL SHEETS
2017-042	67	83
X-SECTIONS	1/19/2018	

WCLR X-SECTIONS

2+00.00



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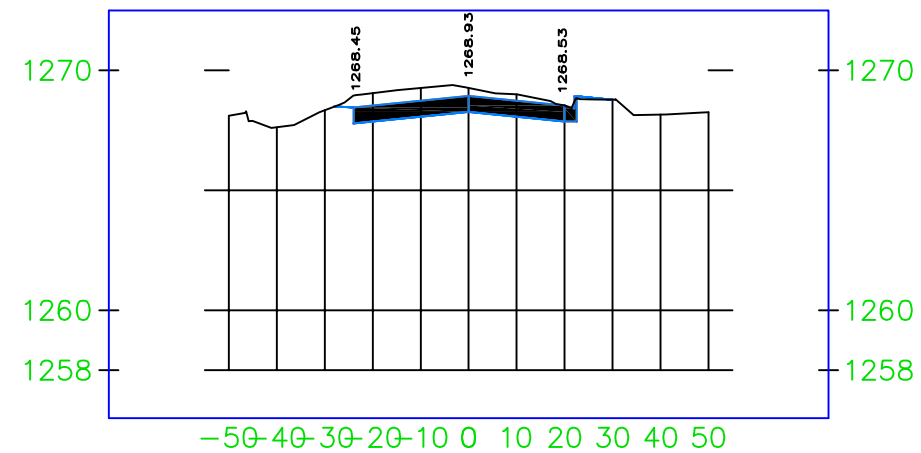

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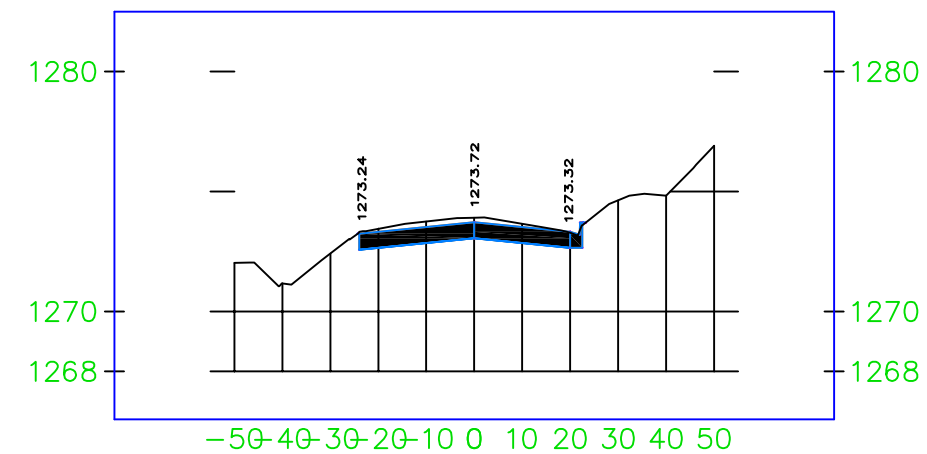

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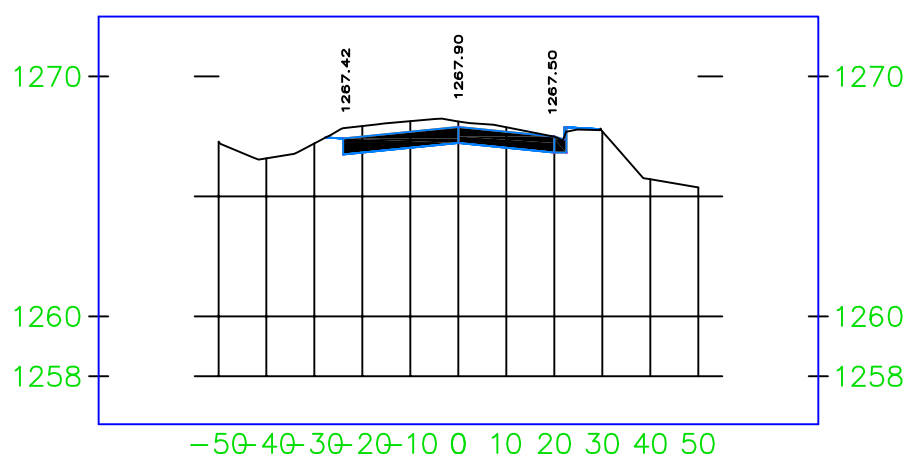

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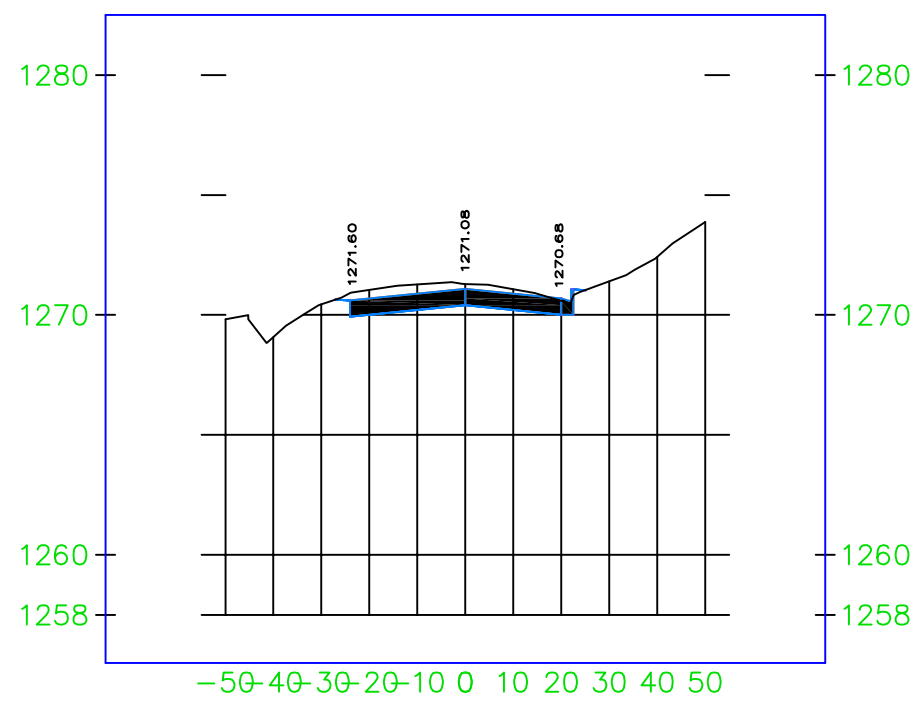

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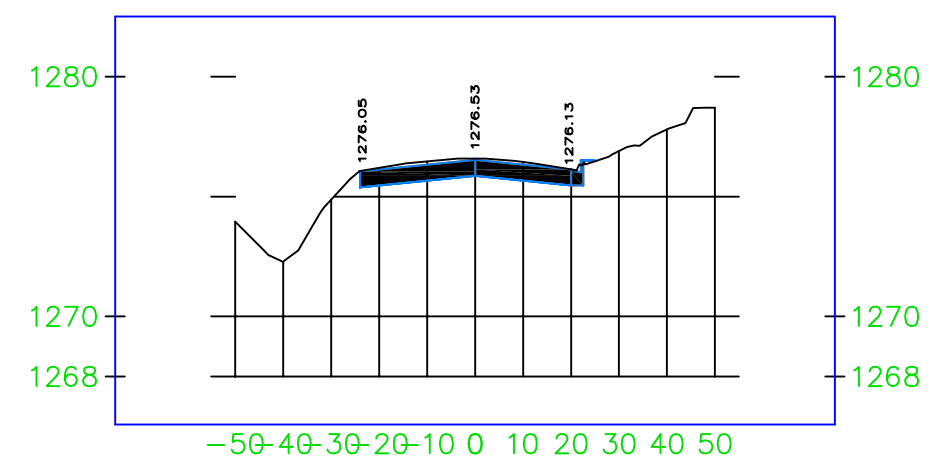
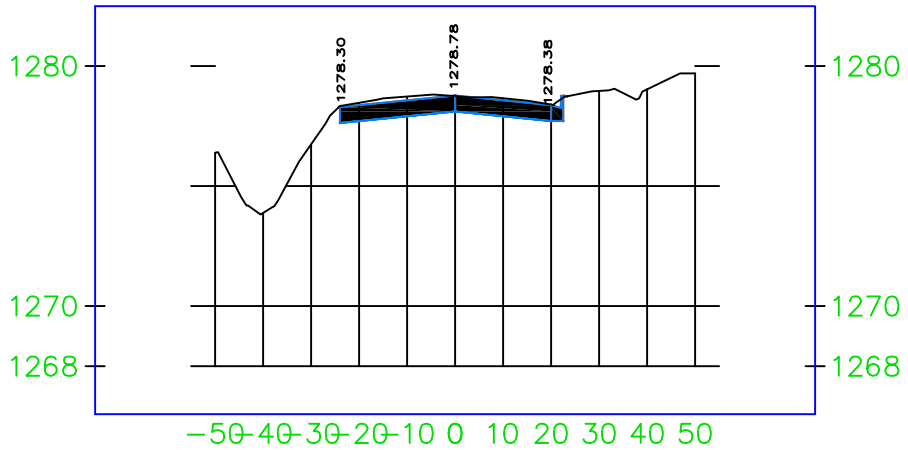


PROJECT	SHEET NO.	TOTAL SHEETS
2017-042	68	83
X-SECTIONS	1/19/2018	

8+00.00



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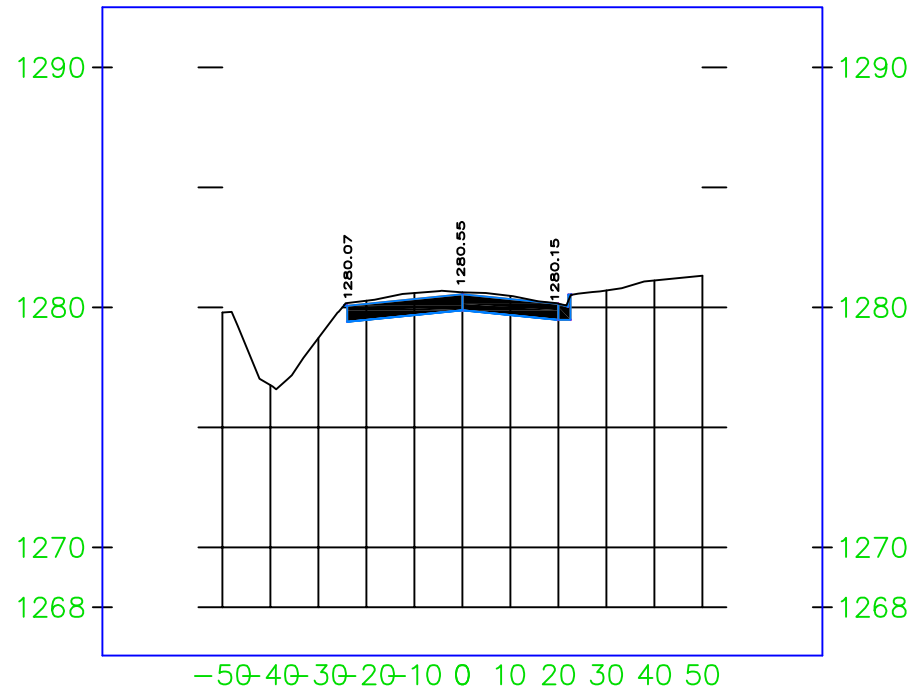

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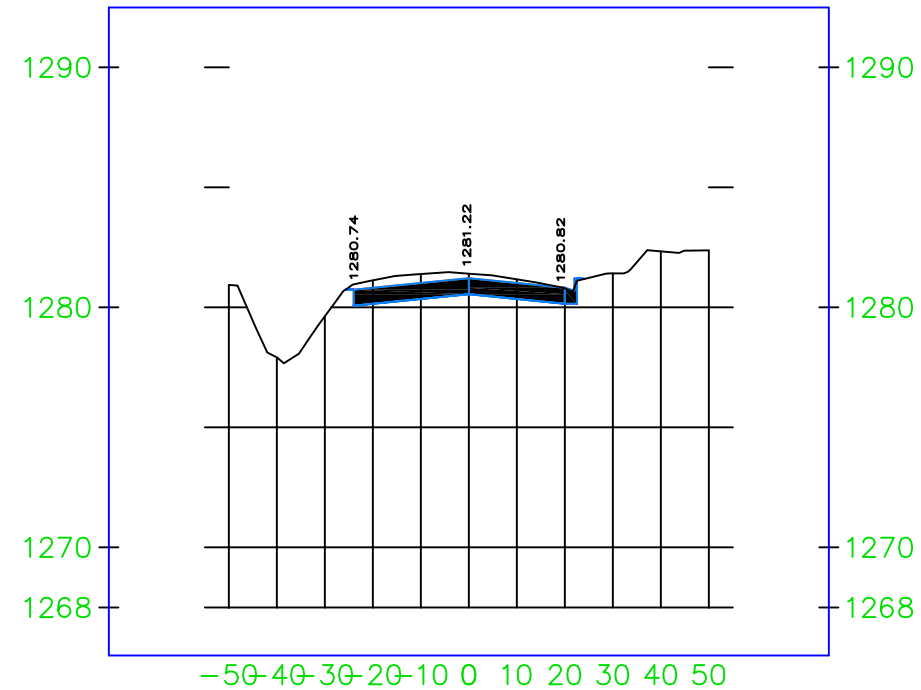

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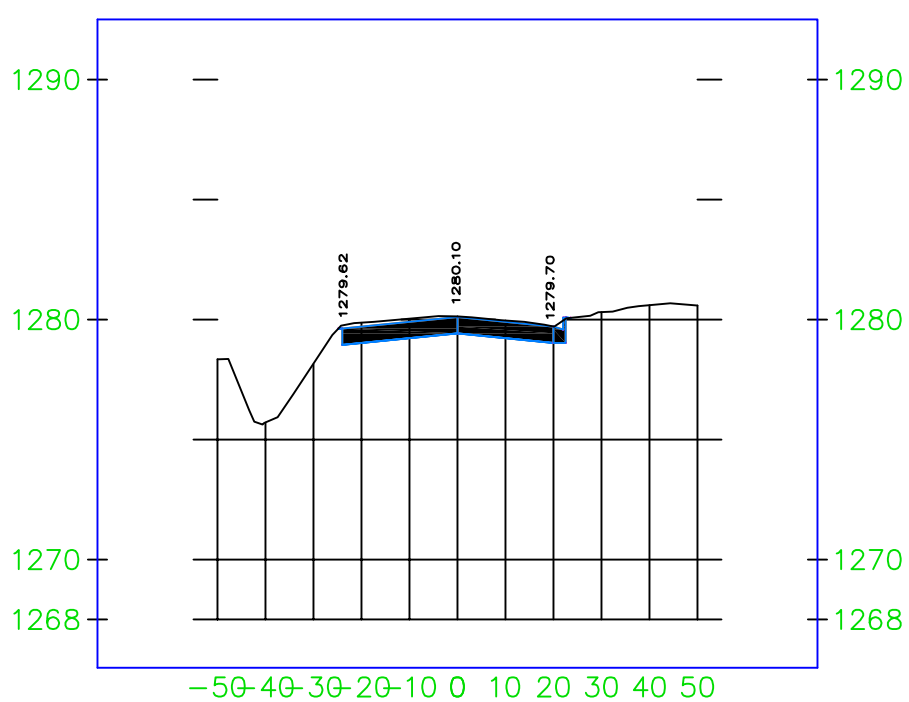

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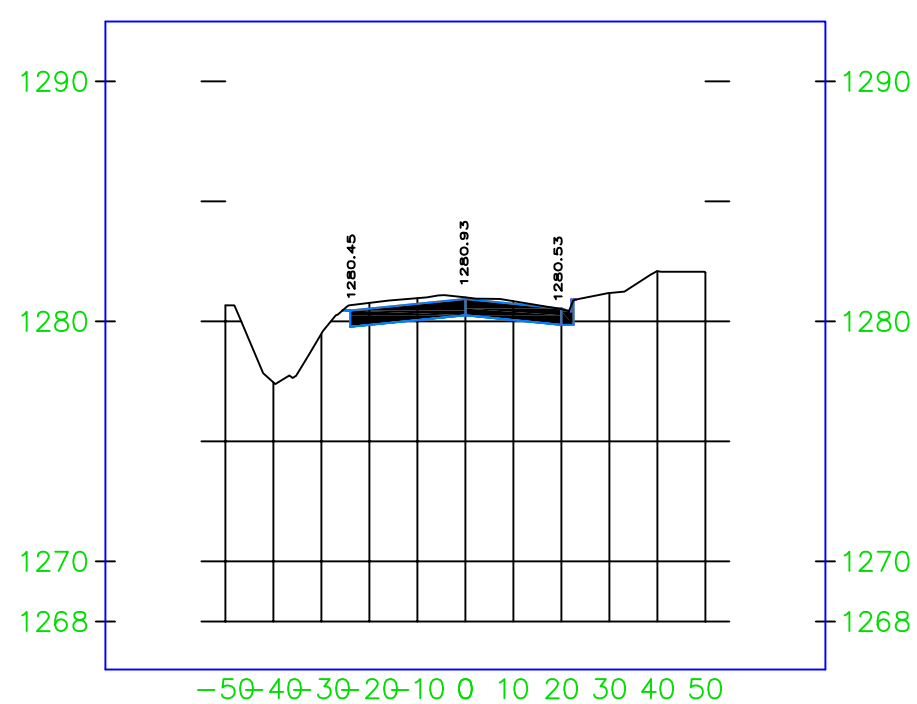

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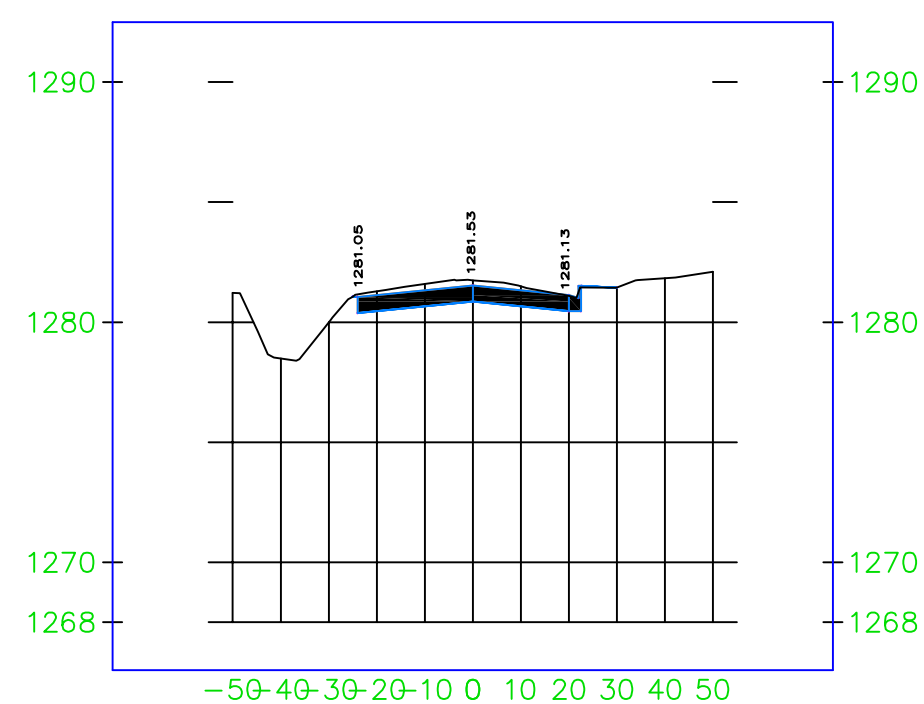
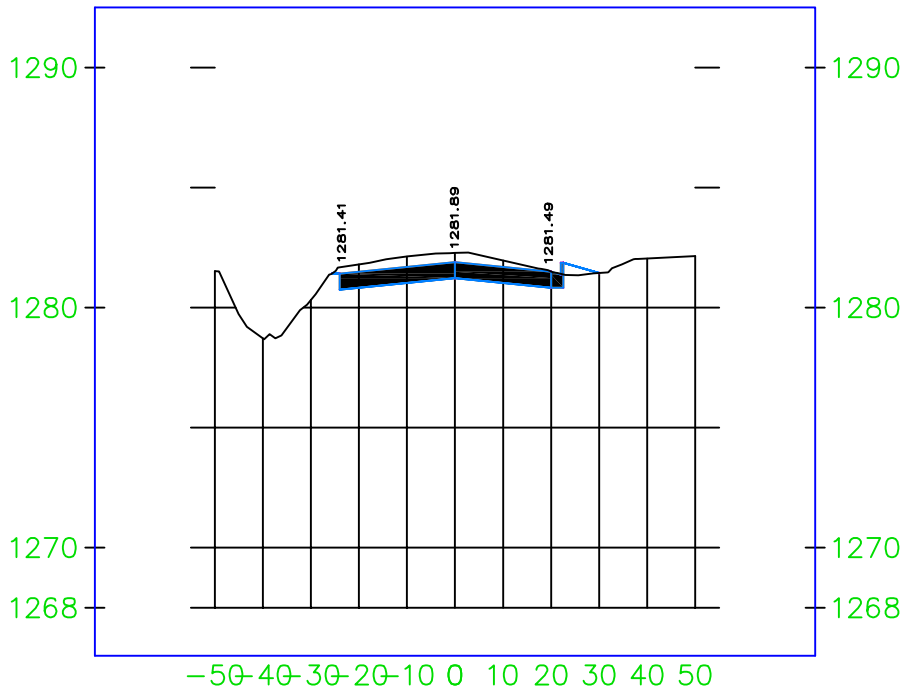


PROJECT	SHEET NO.	TOTAL SHEETS
2017-042	69	83
X-SECTIONS	1/19/2018	

14+00.00



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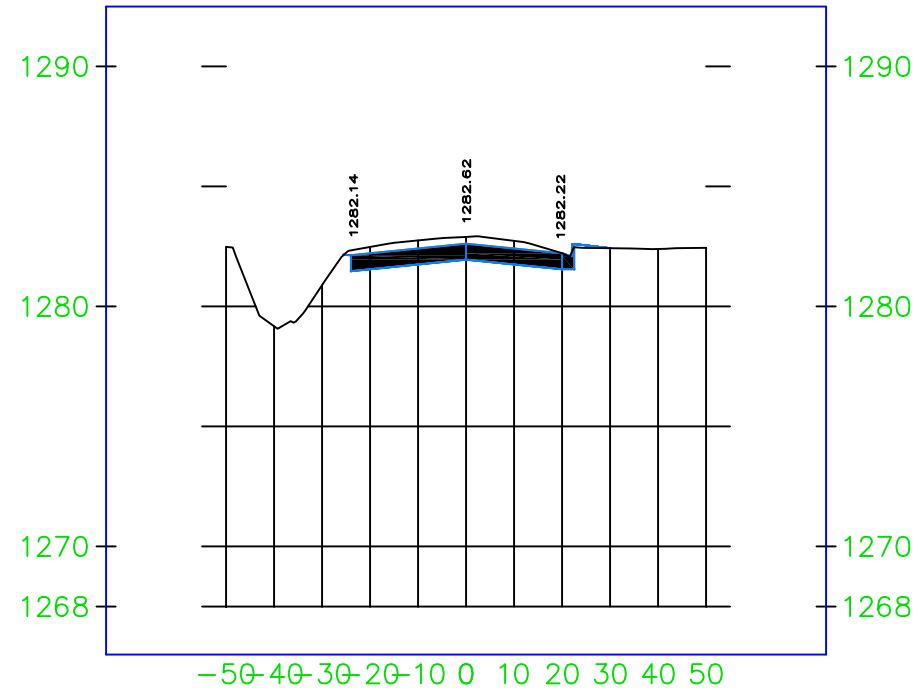

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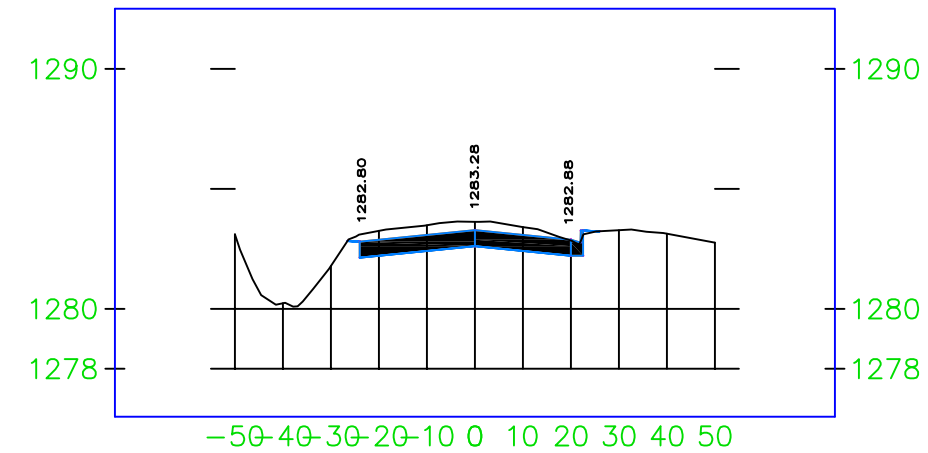

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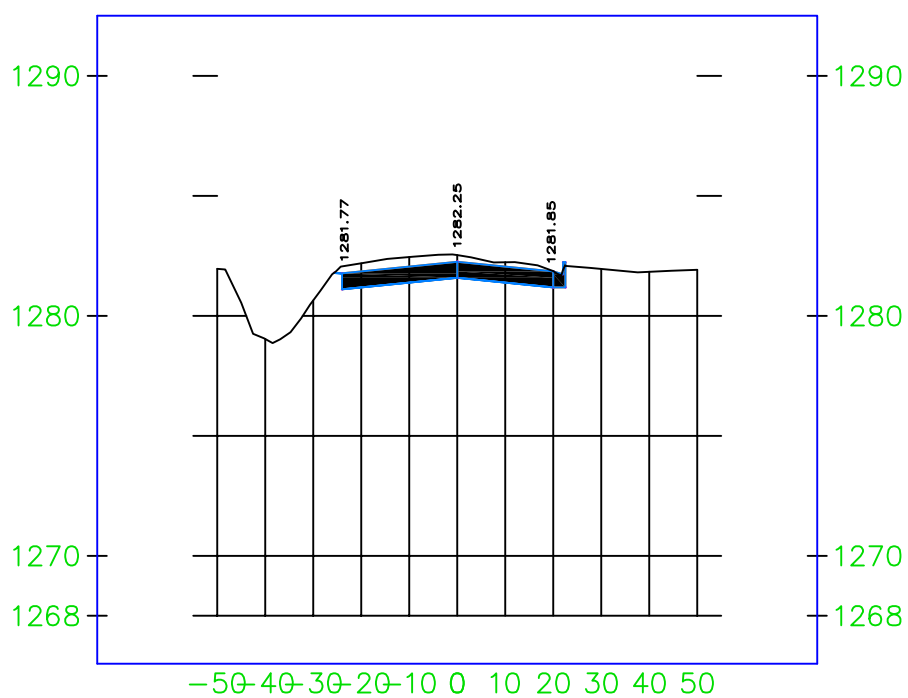

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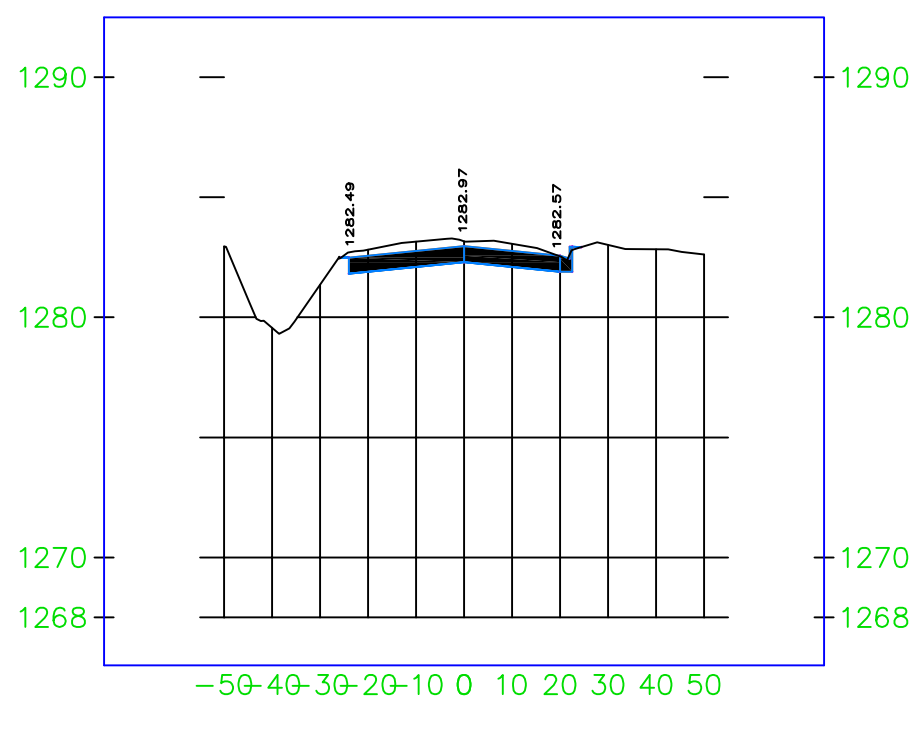

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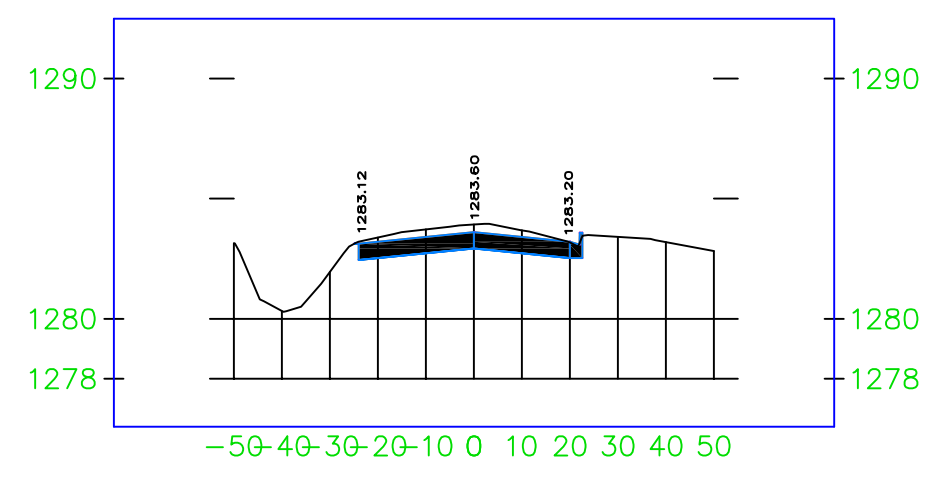
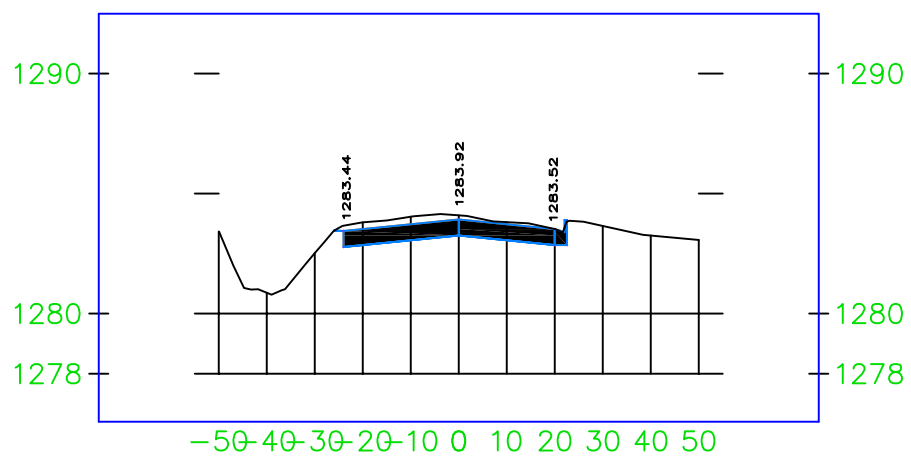


PROJECT	SHEET NO.	TOTAL SHEETS
2017-042	70	83
X-SECTIONS	1/19/2018	

20+00.00



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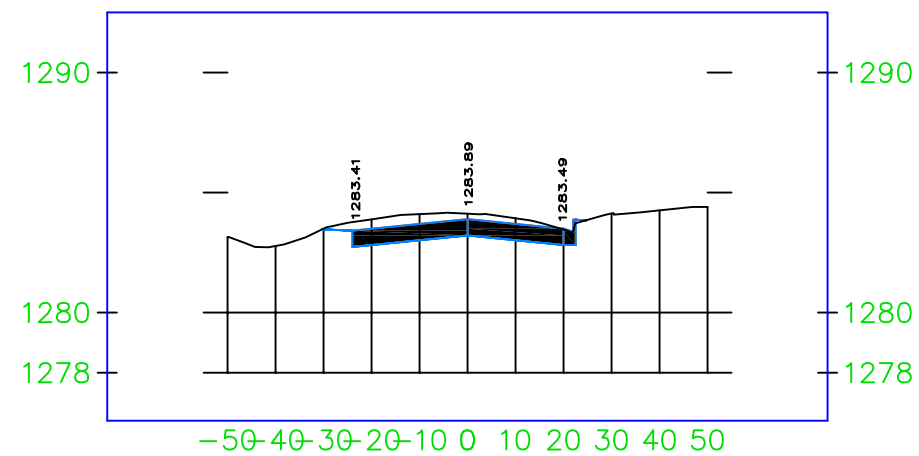

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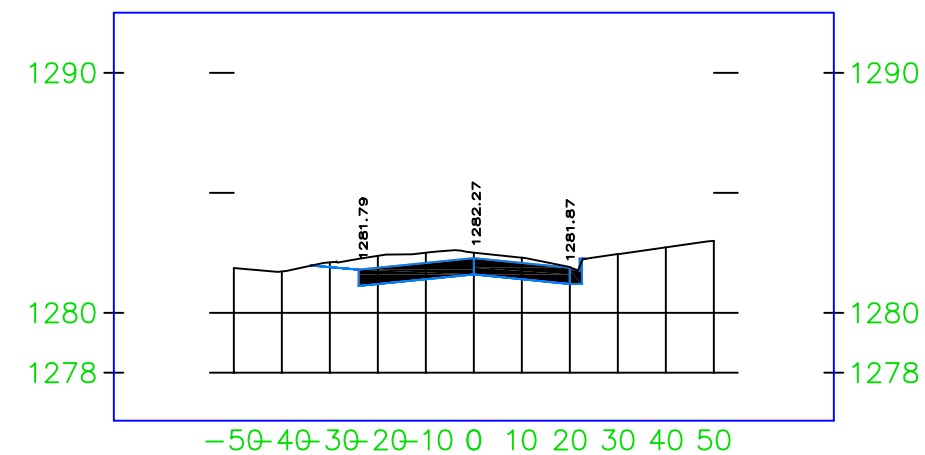

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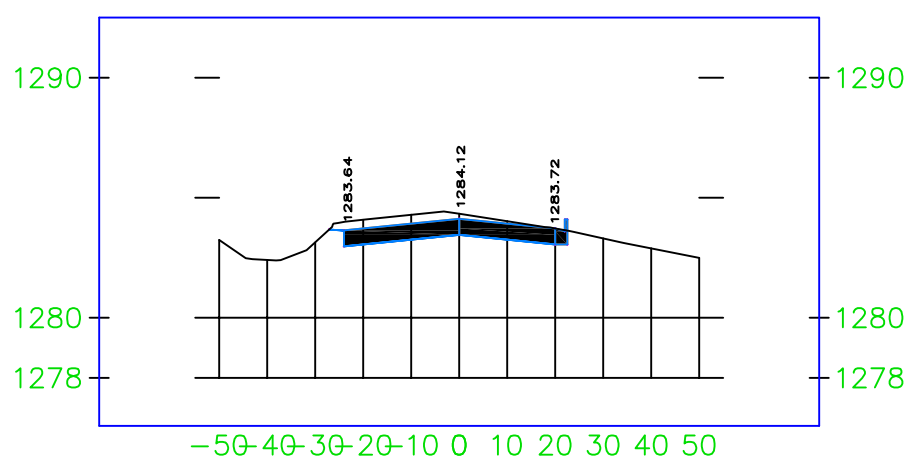

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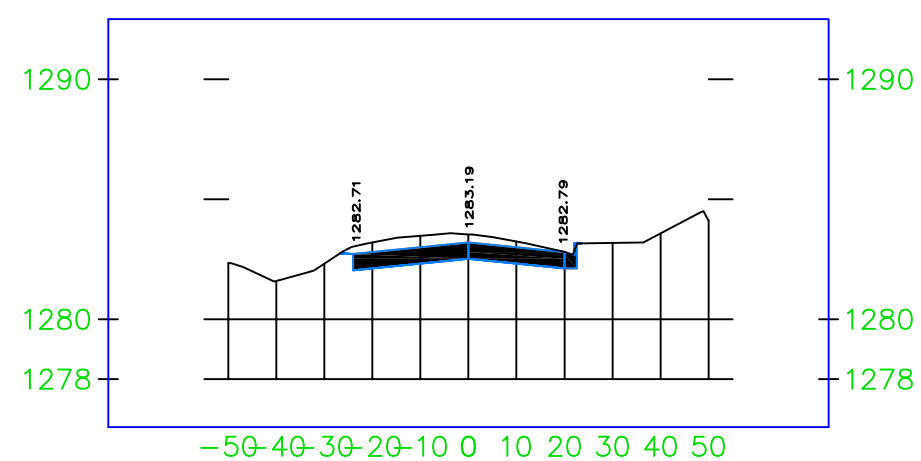

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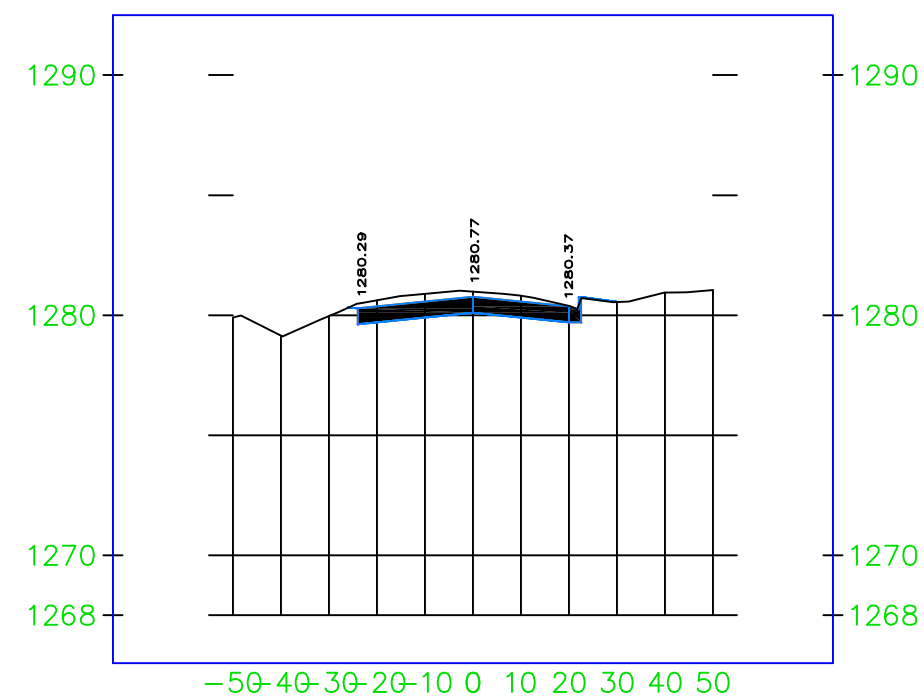

PROJECT	SHEET NO.	TOTAL SHEETS
2017-042	71	83
X-SECTIONS	1/19/2018	

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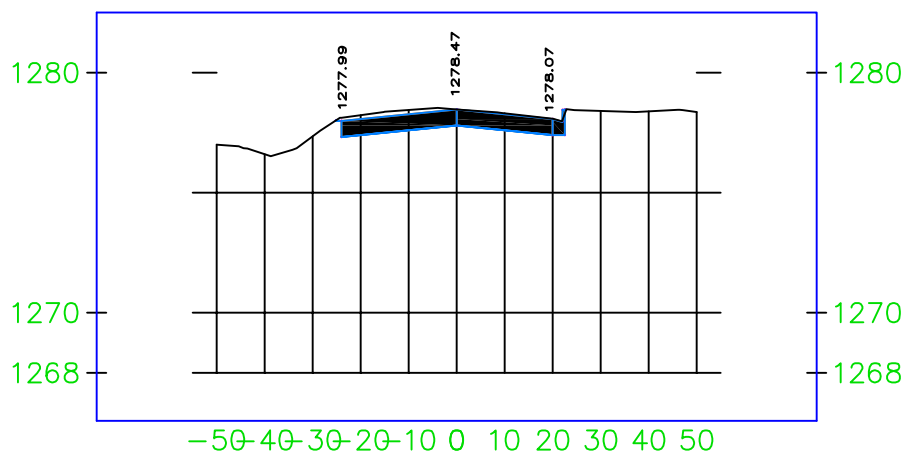

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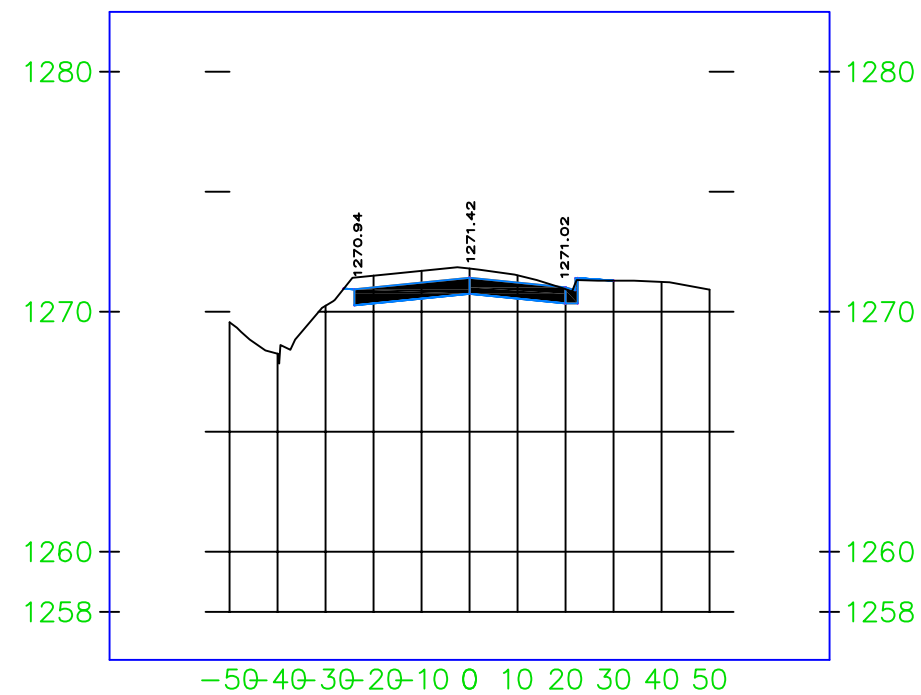

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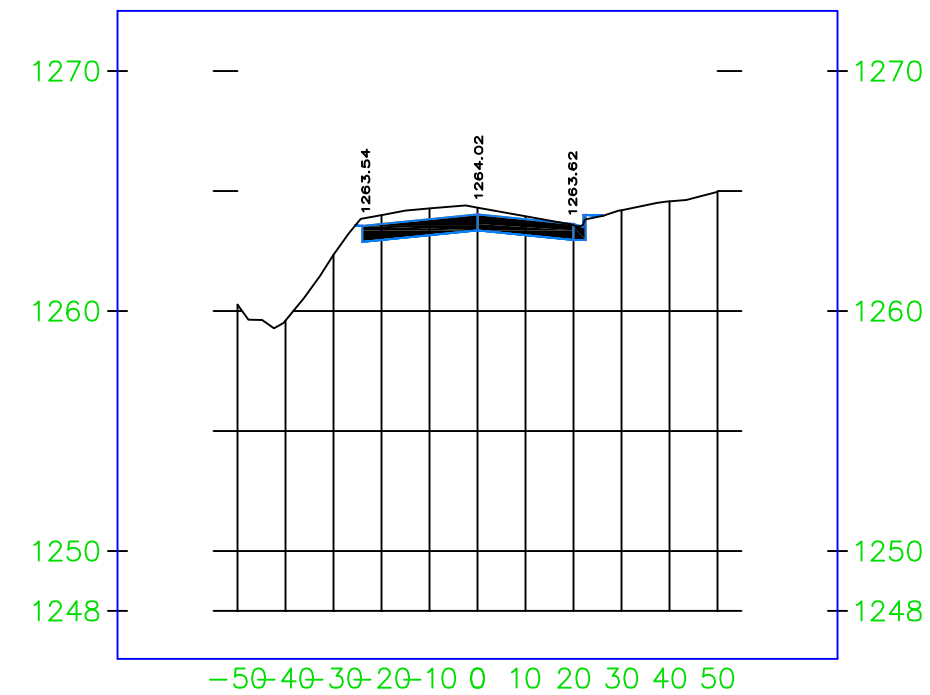

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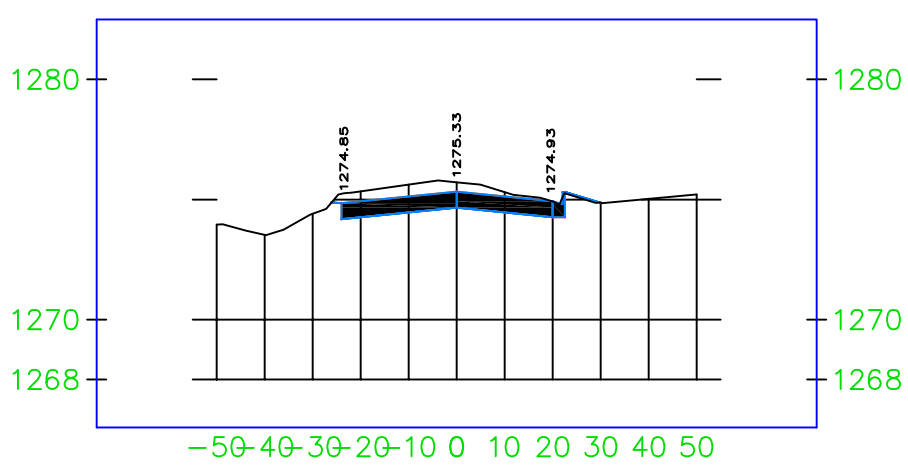

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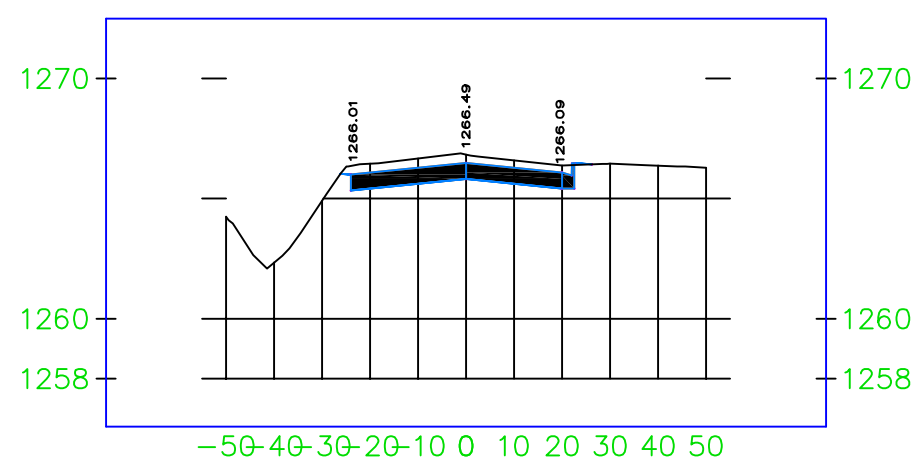

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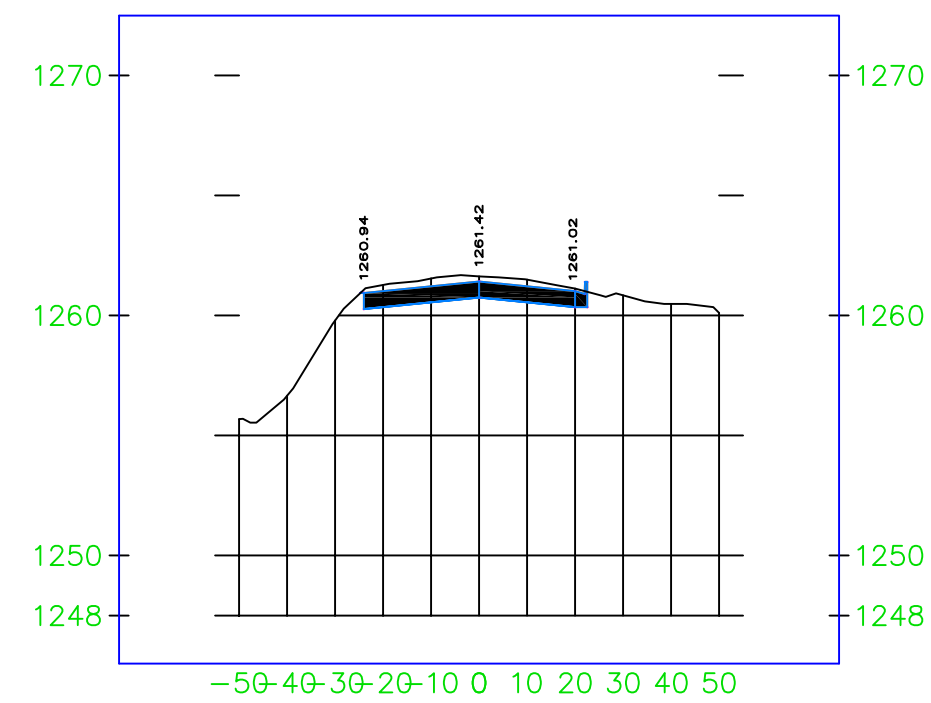

PROJECT	SHEET NO.	TOTAL SHEETS
2017-042	72	83
X-SECTIONS	1/19/2018	

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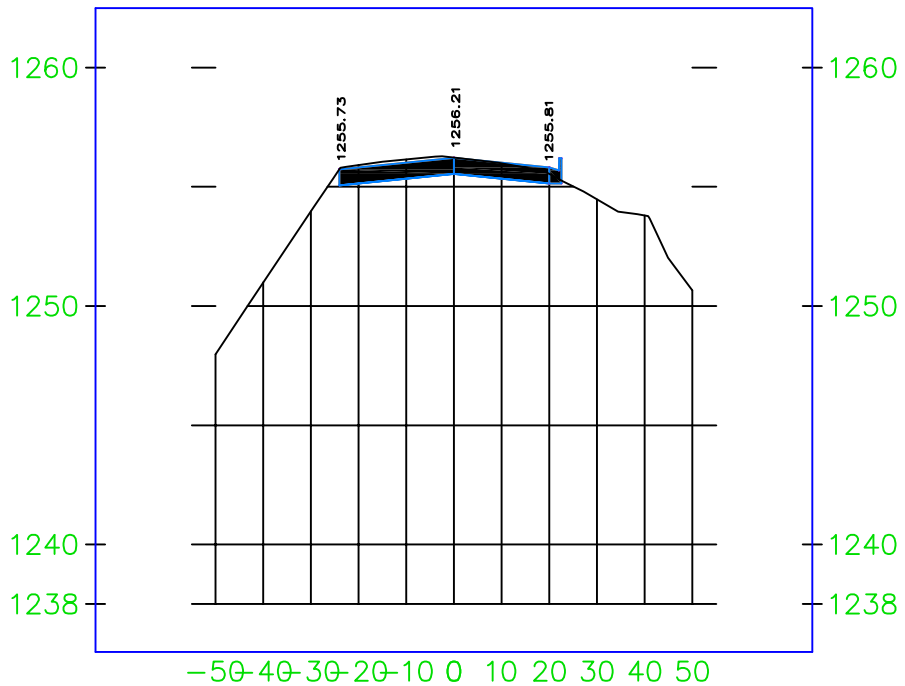

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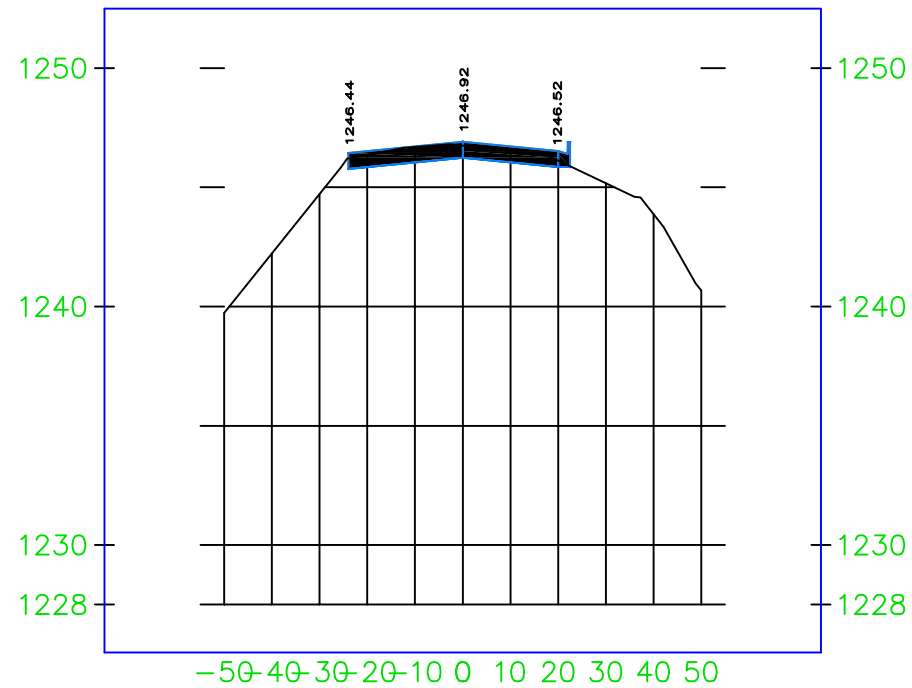

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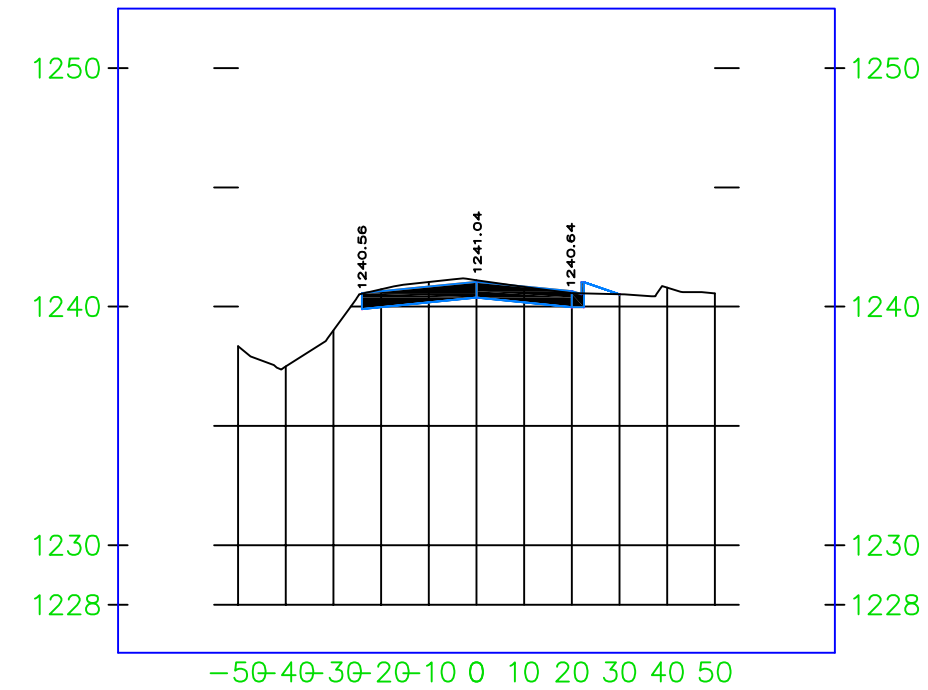

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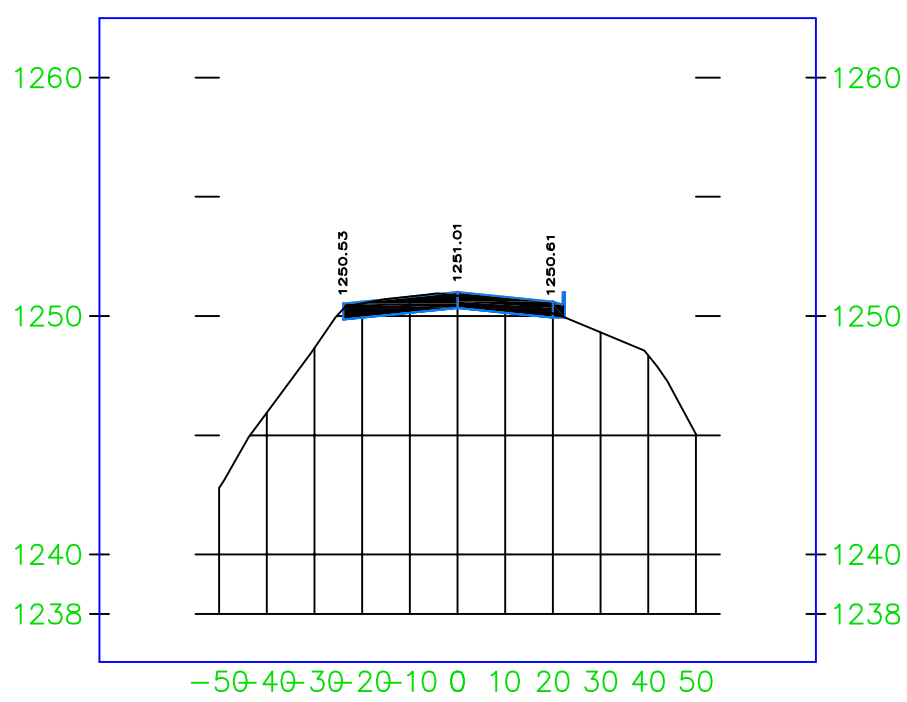

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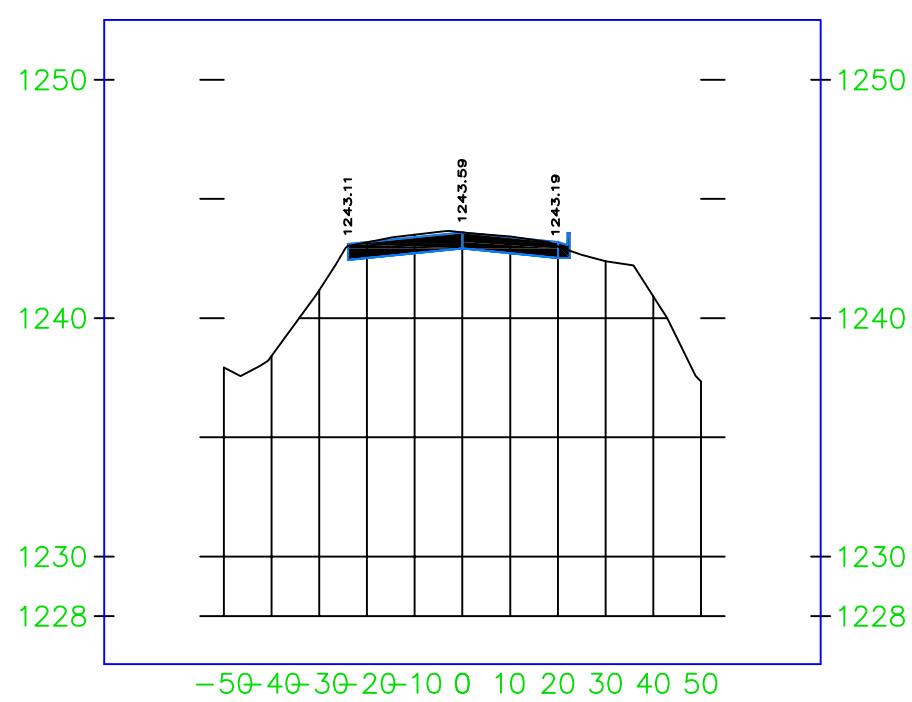

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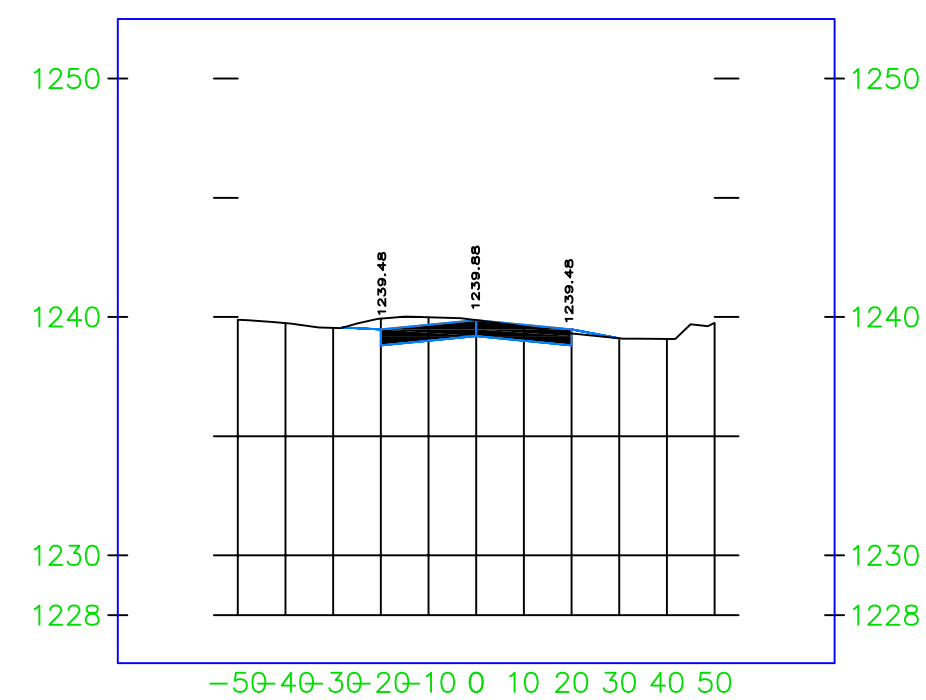
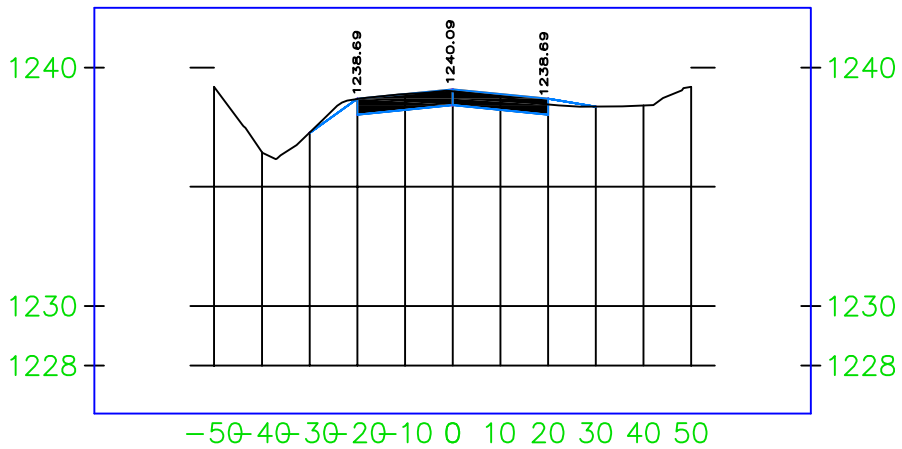


PROJECT	SHEET NO.	TOTAL SHEETS
2017-042	73	83
X-SECTIONS	1/19/2018	

37+00.00



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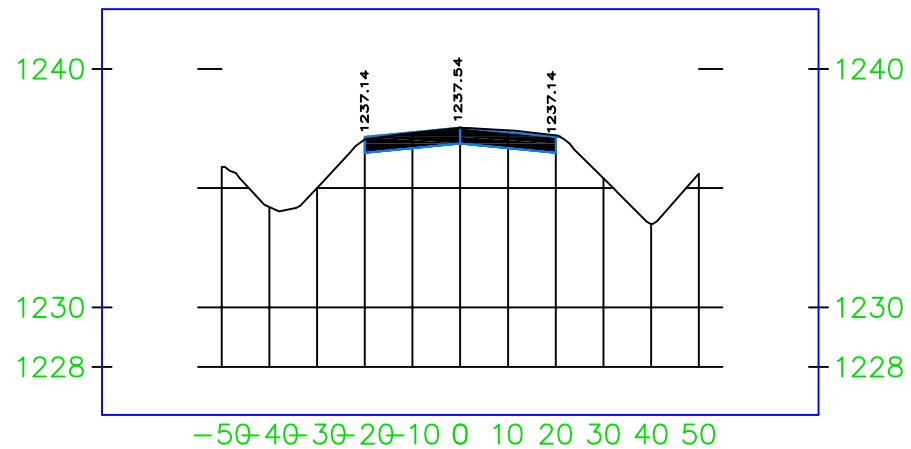
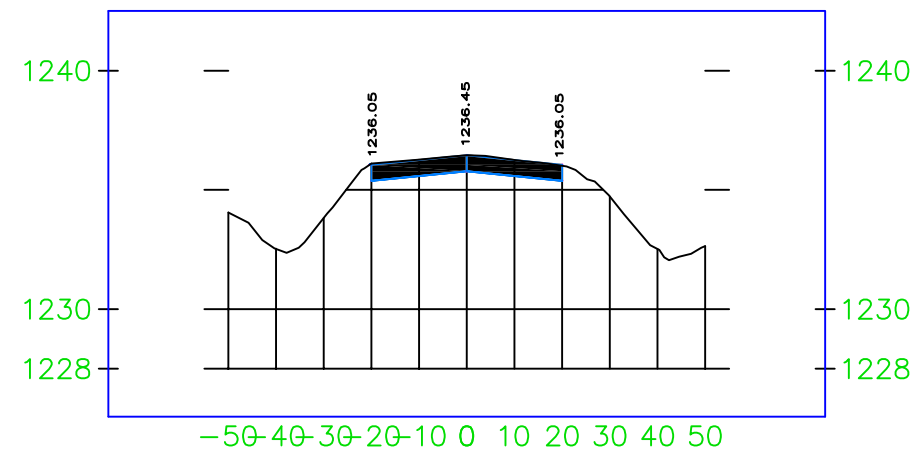
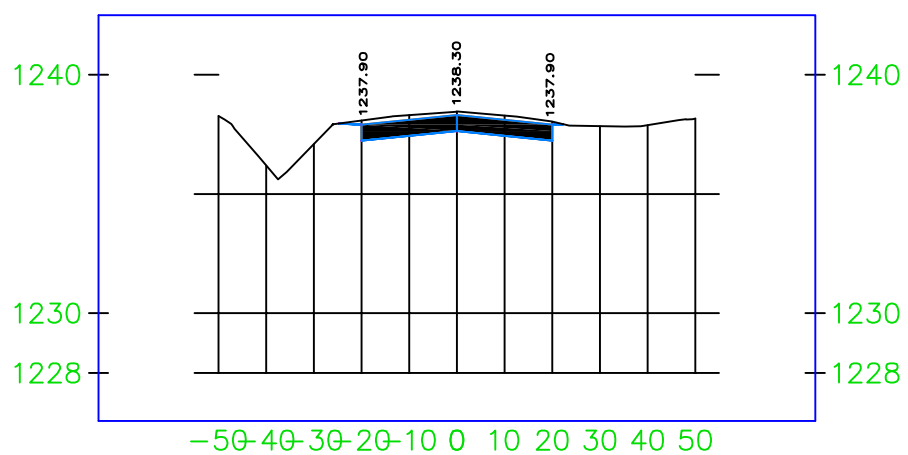


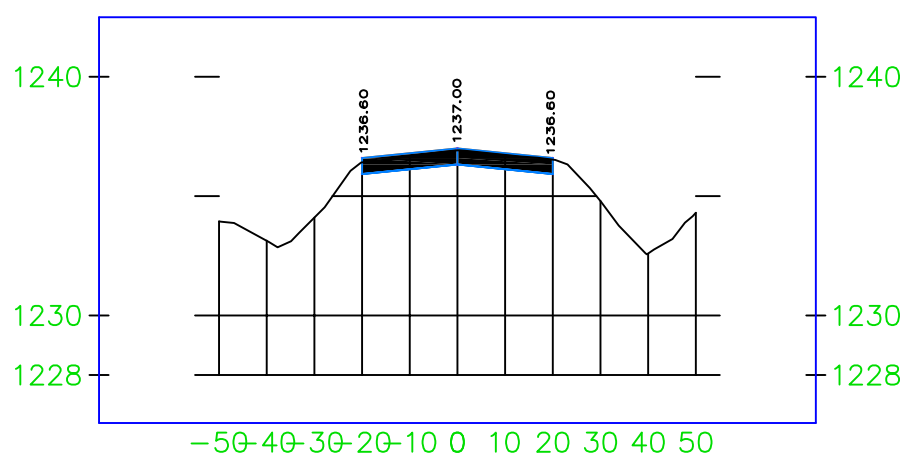
41+00.00



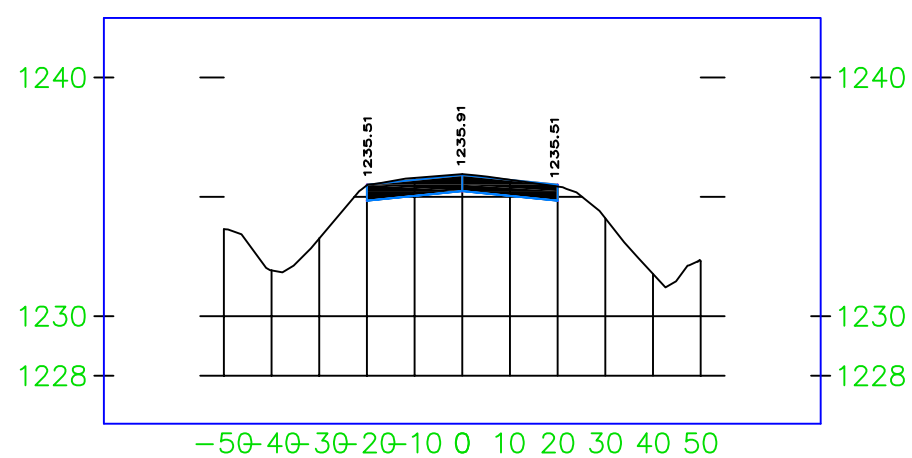
38+00.00



40+00.00

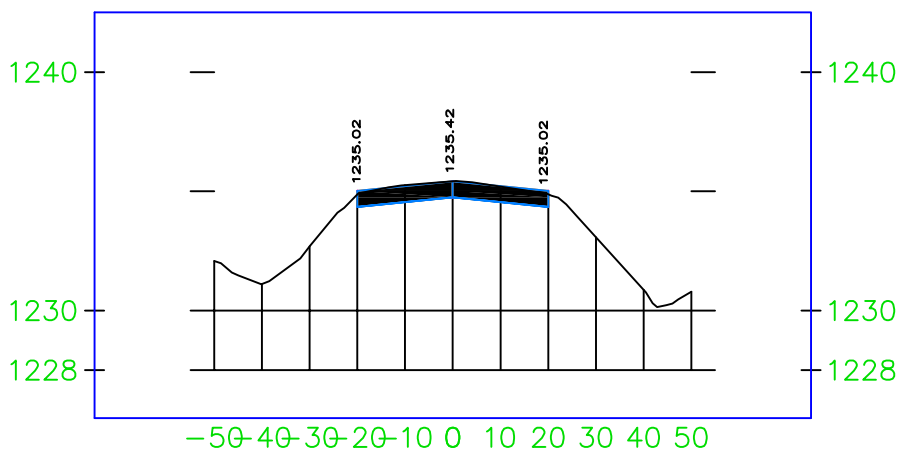


42+00.00

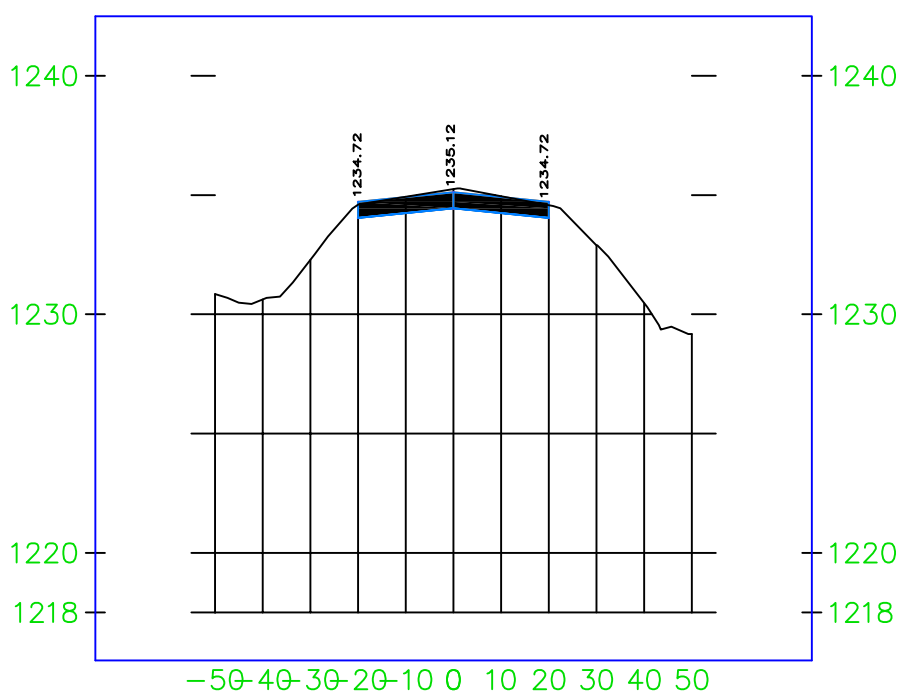


PROJECT	SHEET NO.	TOTAL SHEETS
2017-042	74	83
X-SECTIONS	1/19/2018	

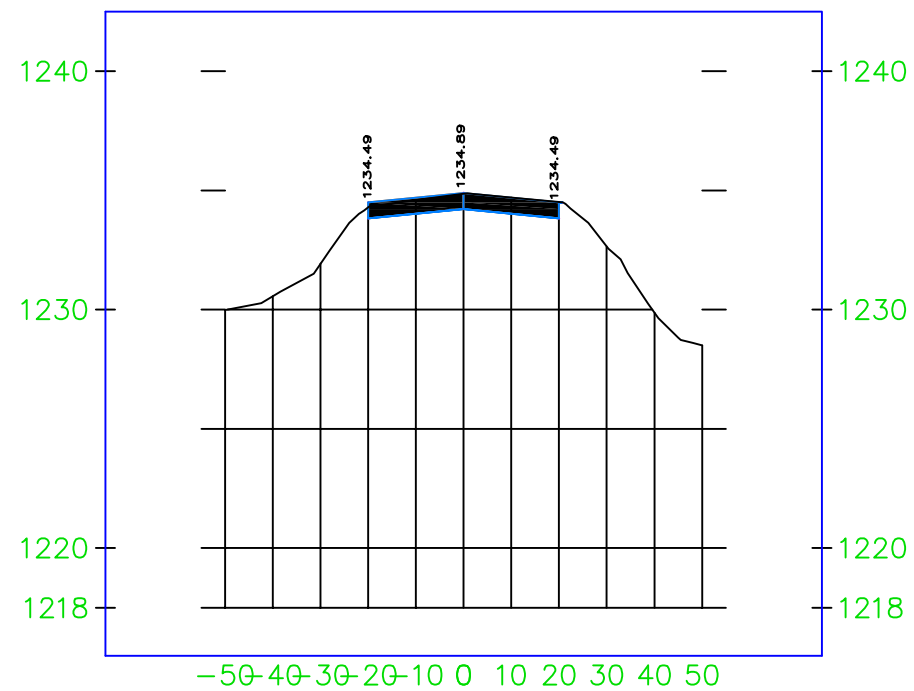
43+00.00



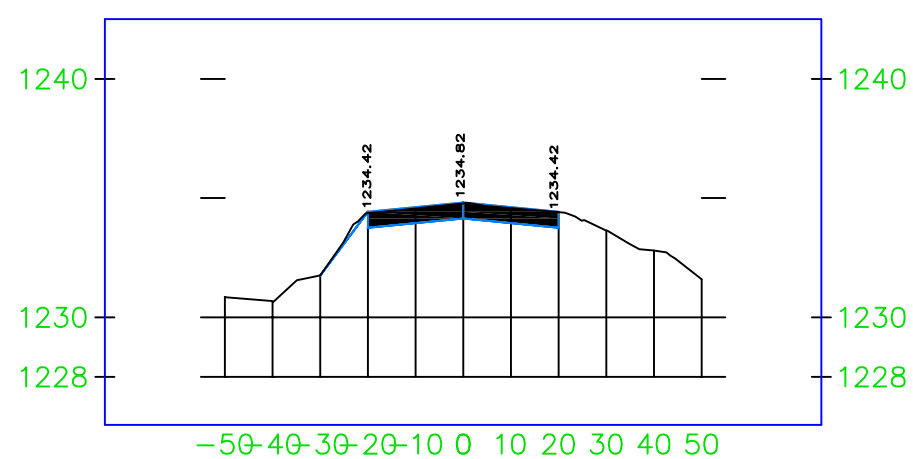
44+00.00



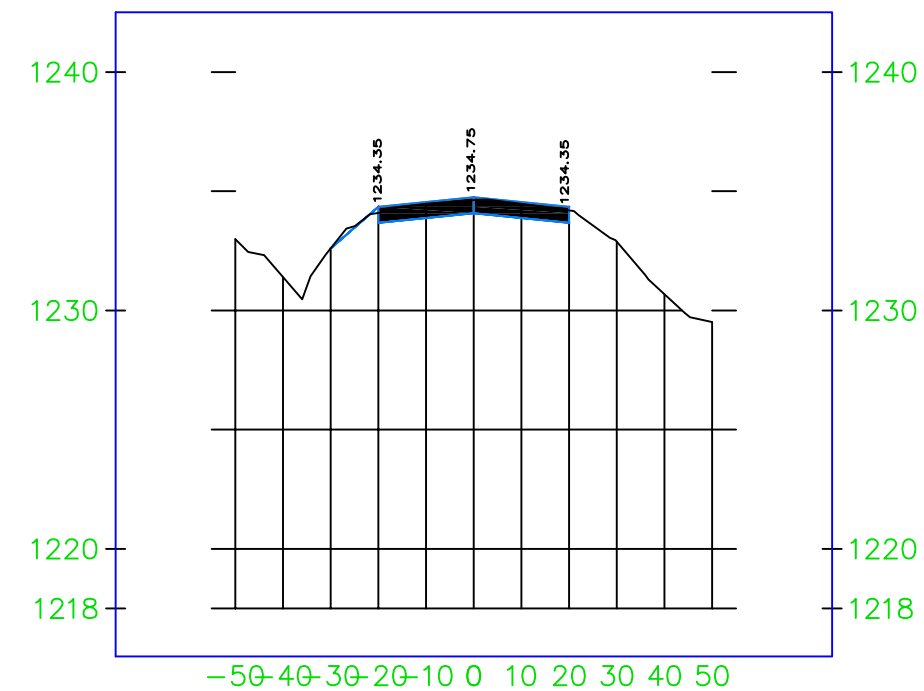
45+00.00



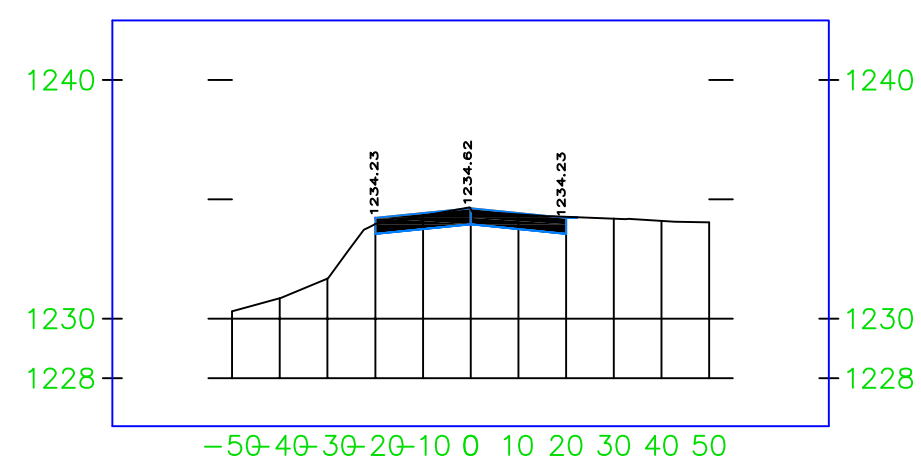
46+00.00



47+00.00

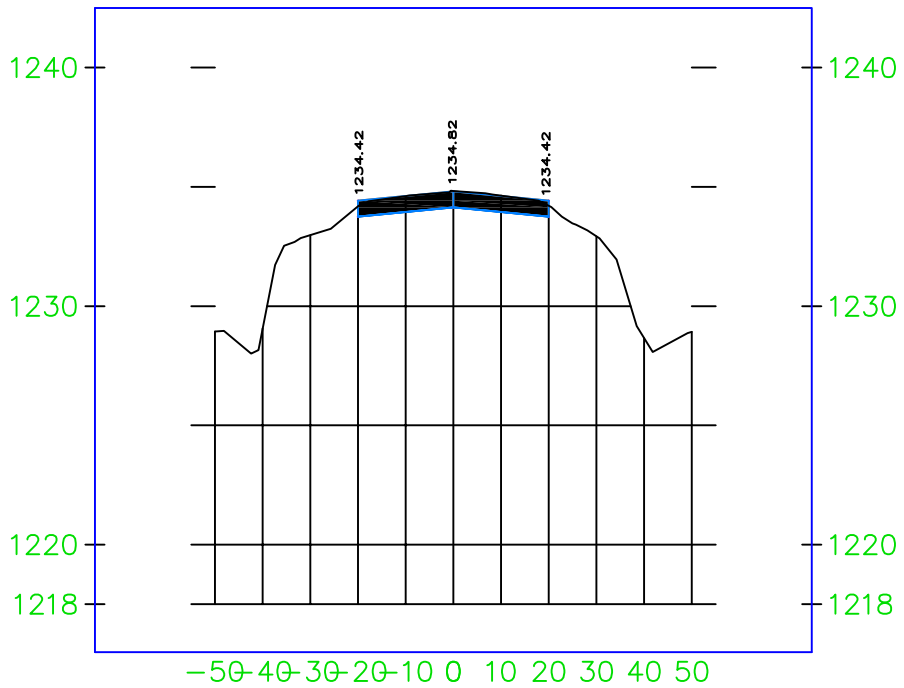


48+00.00

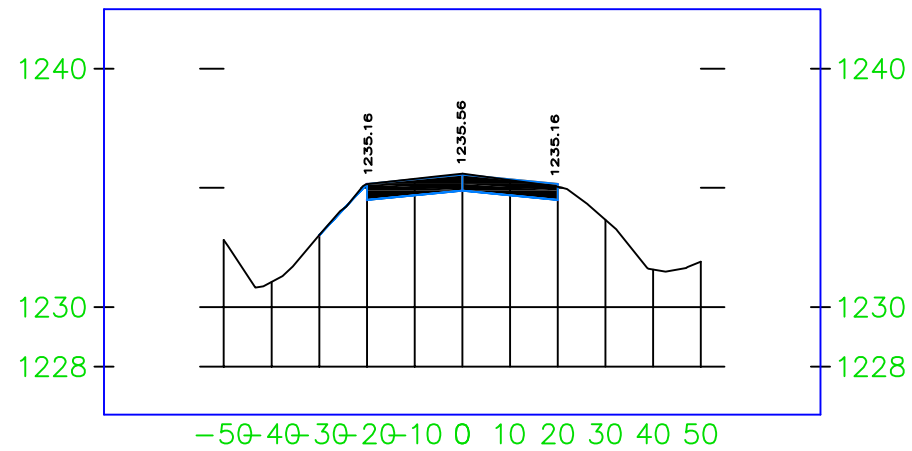


PROJECT	SHEET NO.	TOTAL SHEETS
2017-042	75	83
X-SECTIONS	1/19/2018	

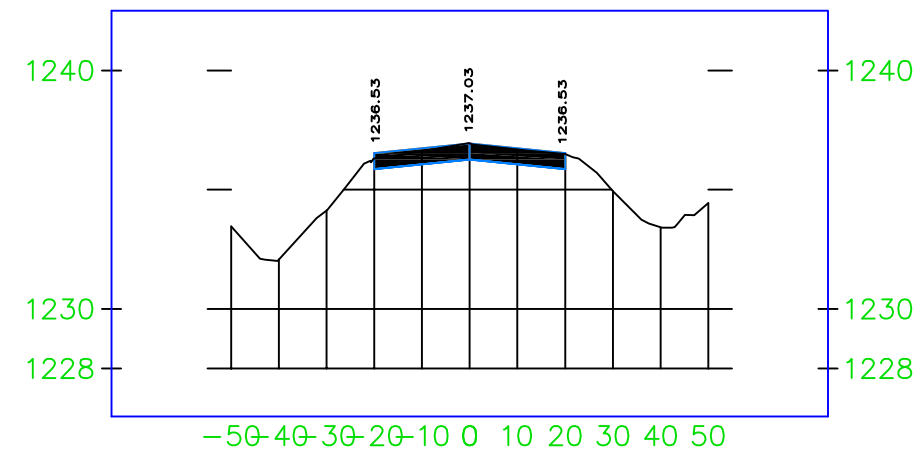
49+00.00



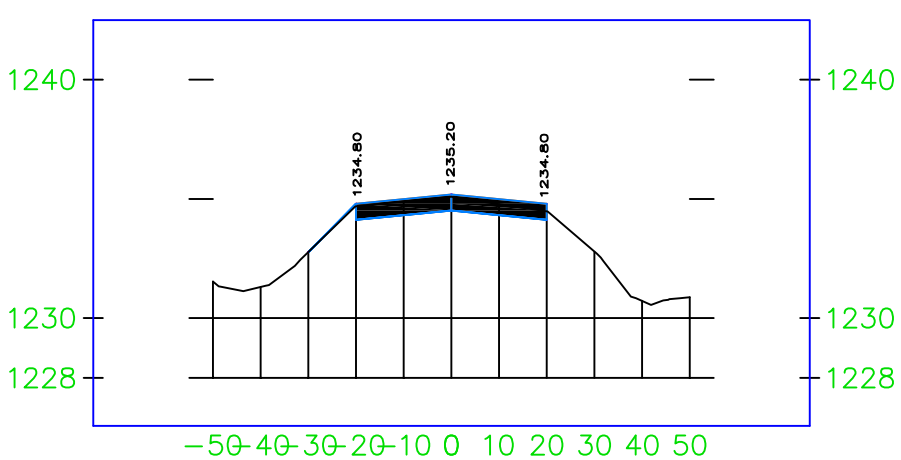
51+00.00



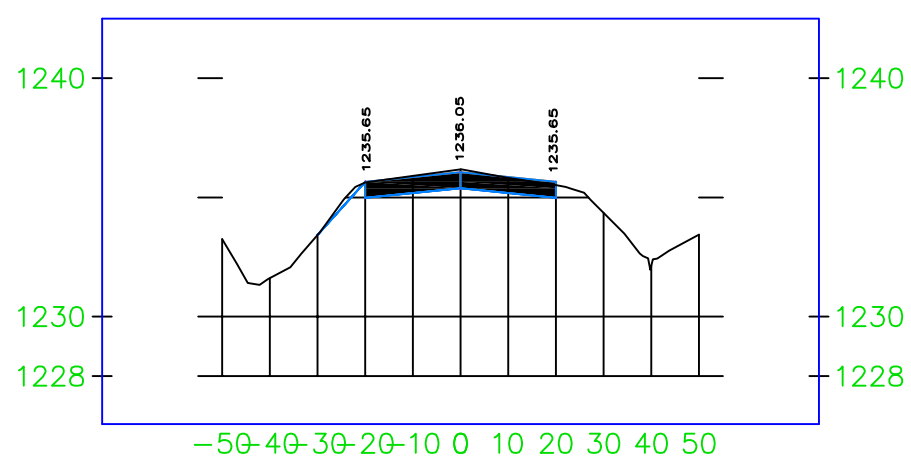
53+00.00



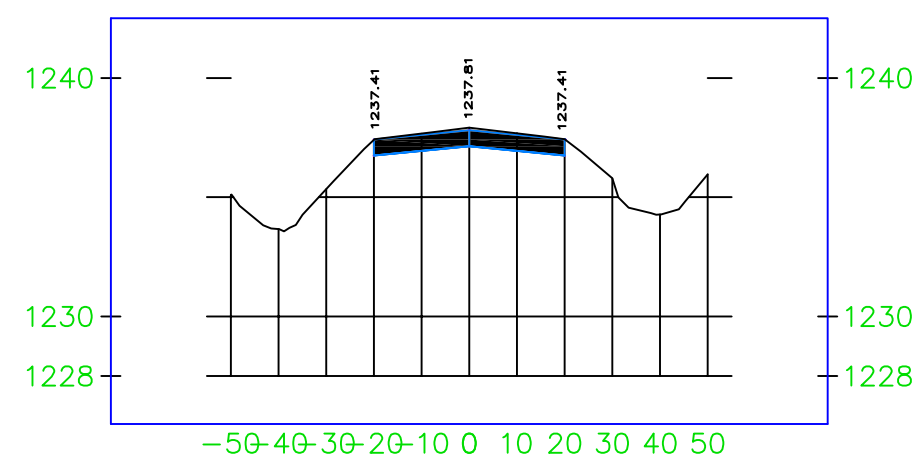
50+00.00



52+00.00

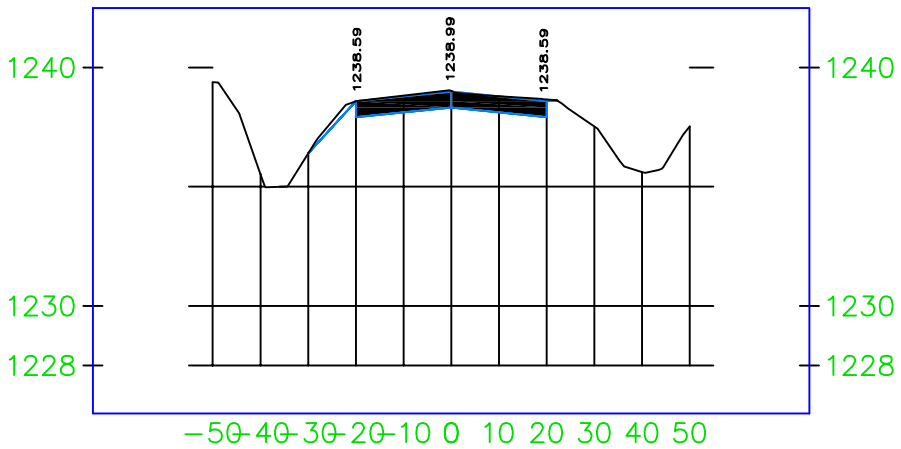


54+00.00

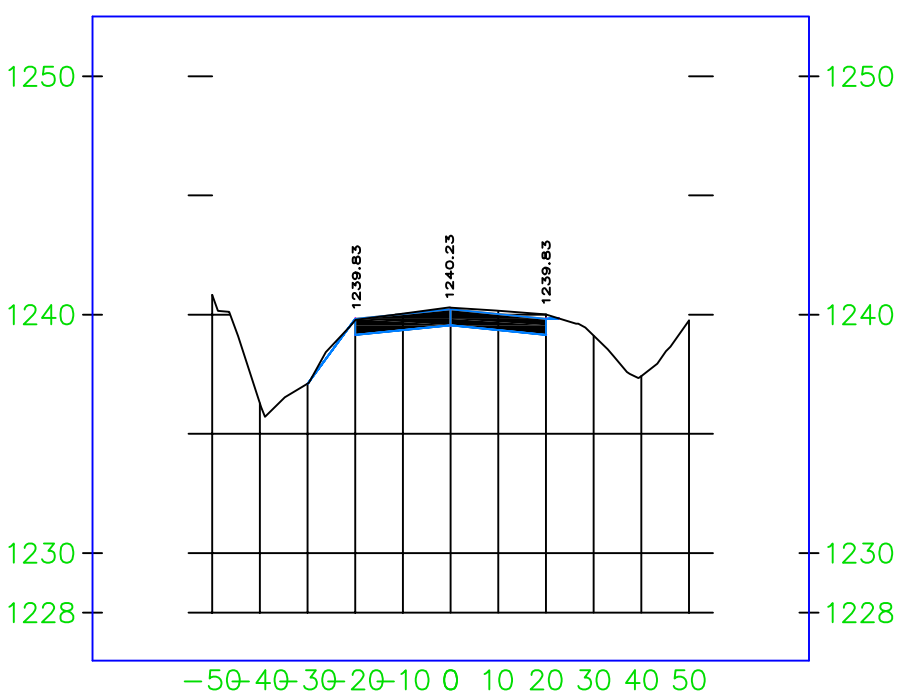


PROJECT	SHEET NO.	TOTAL SHEETS
2017-042	76	83
X-SECTIONS	1/19/2018	

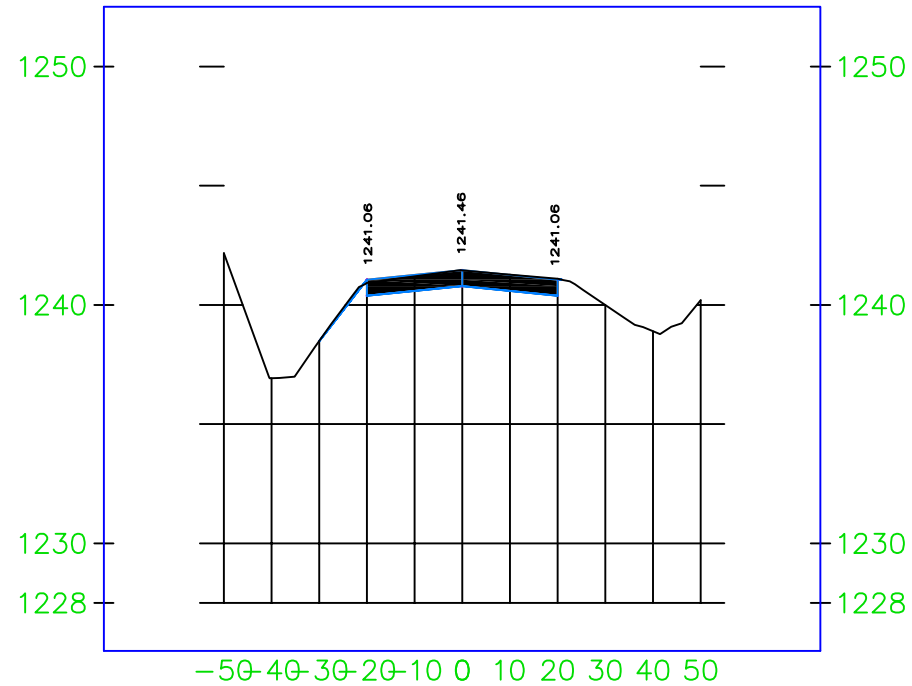
55+00.00



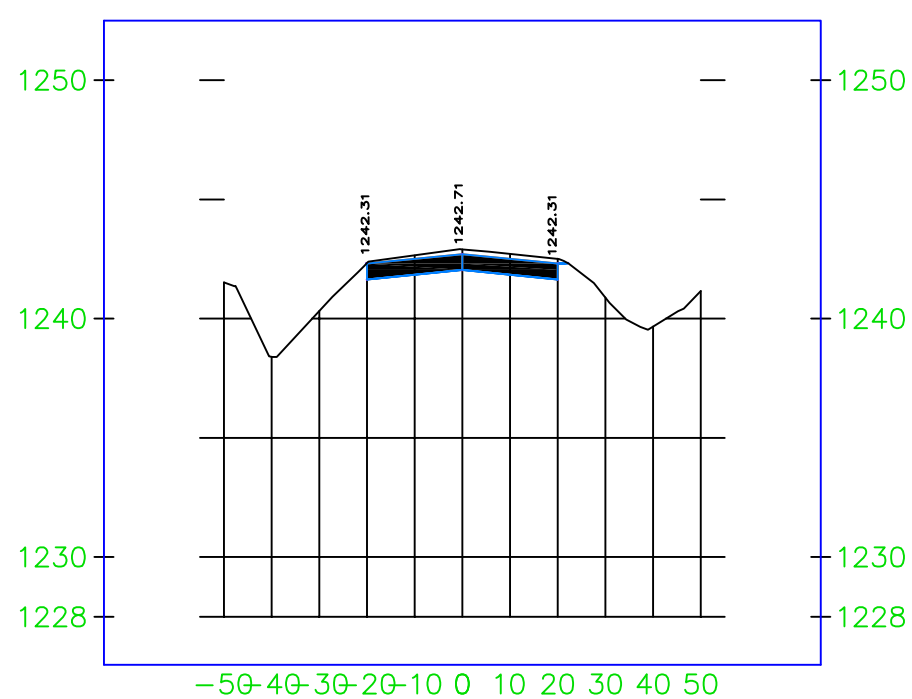
56+00.00



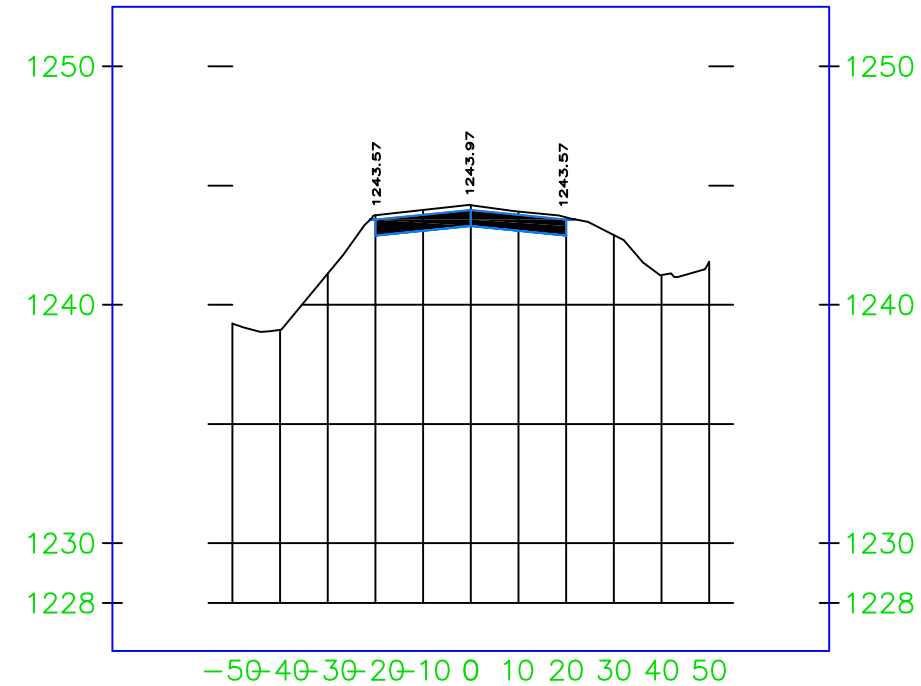
57+00.00



58+00.00



59+00.00



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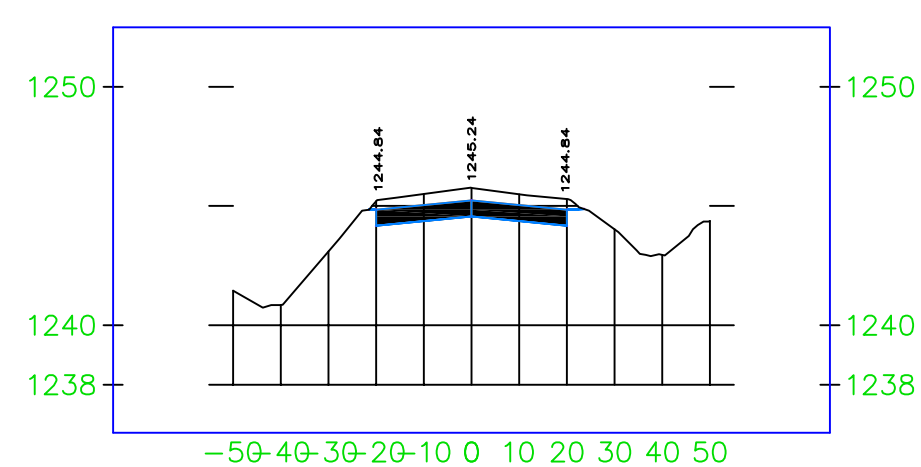
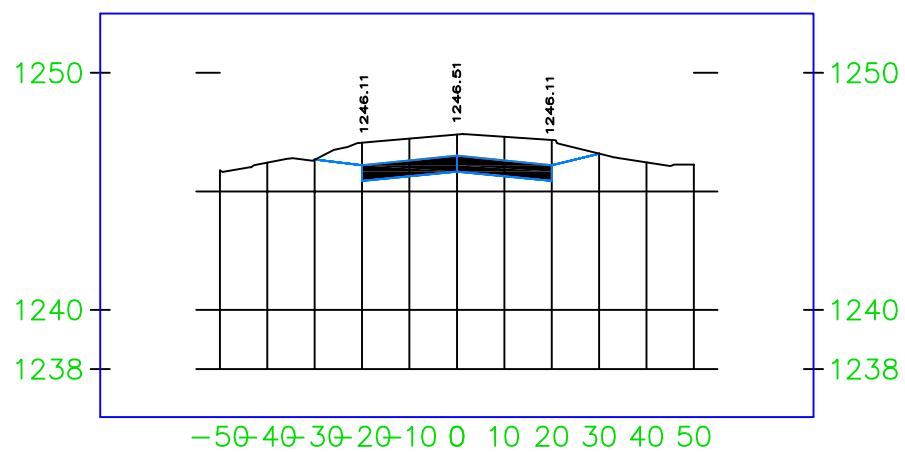


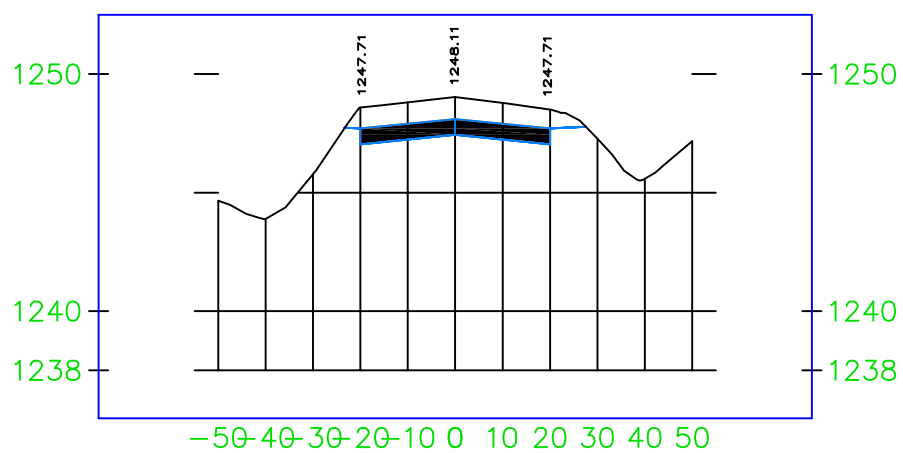
PROJECT	SHEET NO.	TOTAL SHEETS
2017-042	77	83
X-SECTIONS	1/19/2018	

WCLR X-SECTIONS

61+00.00



62+00.00



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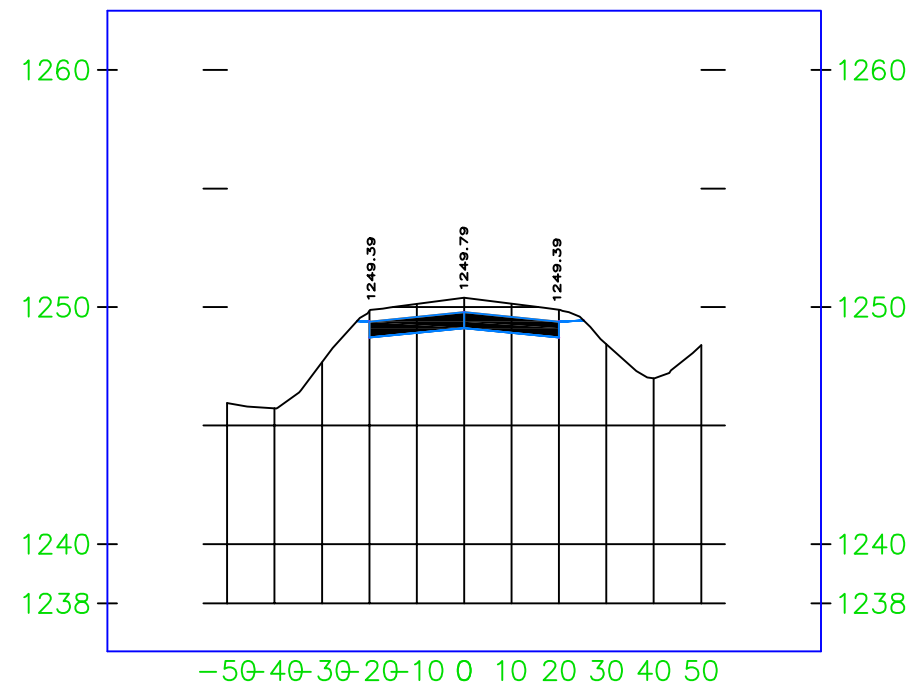

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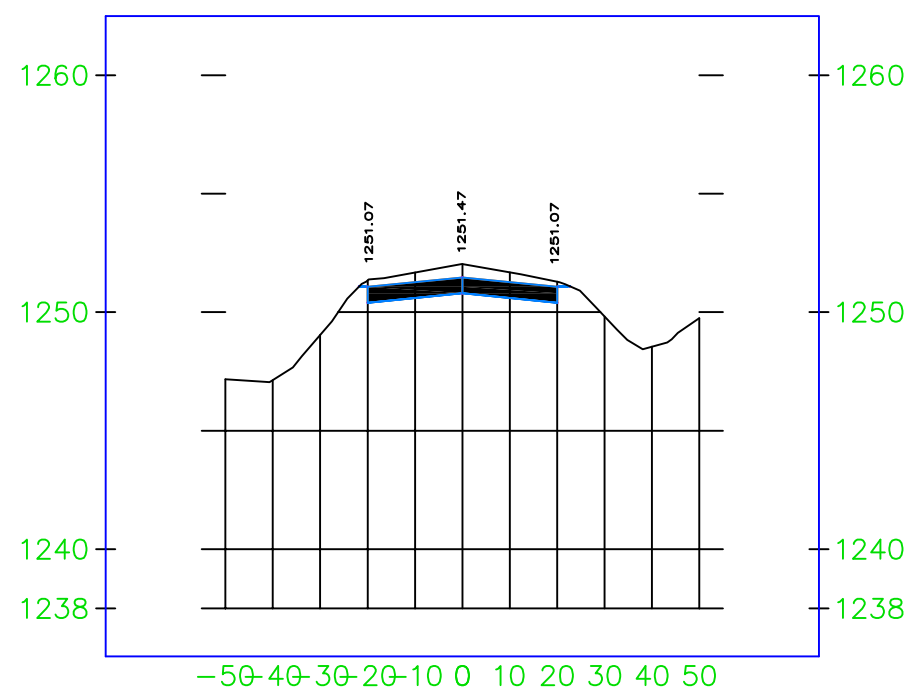
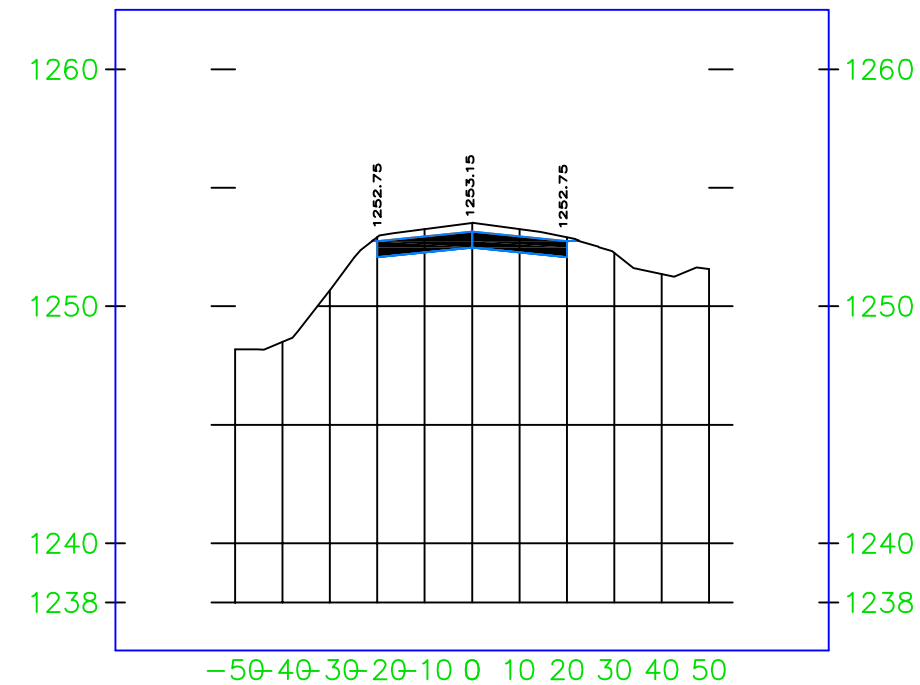
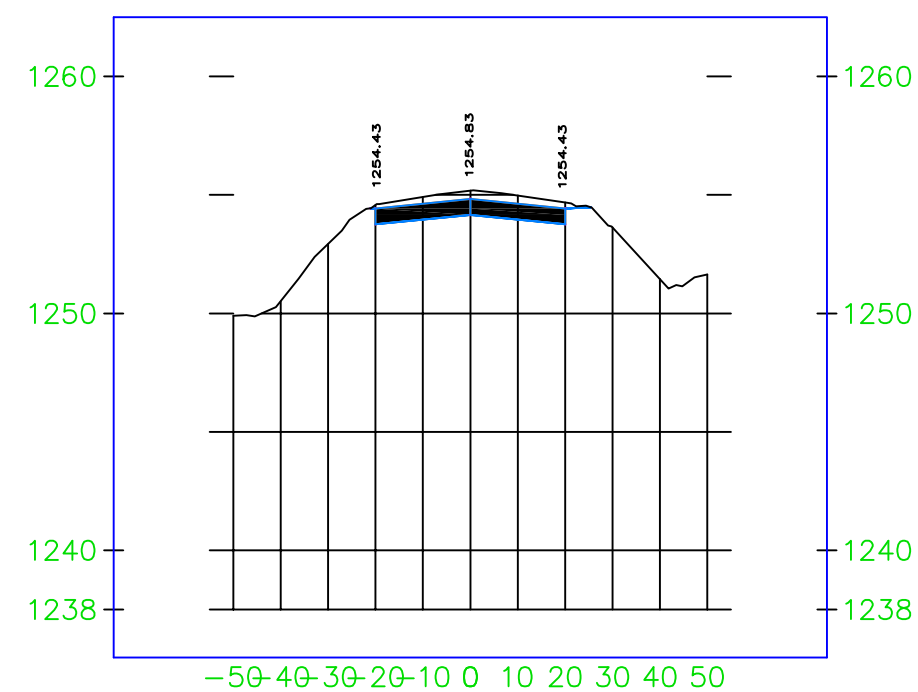


65+00.00



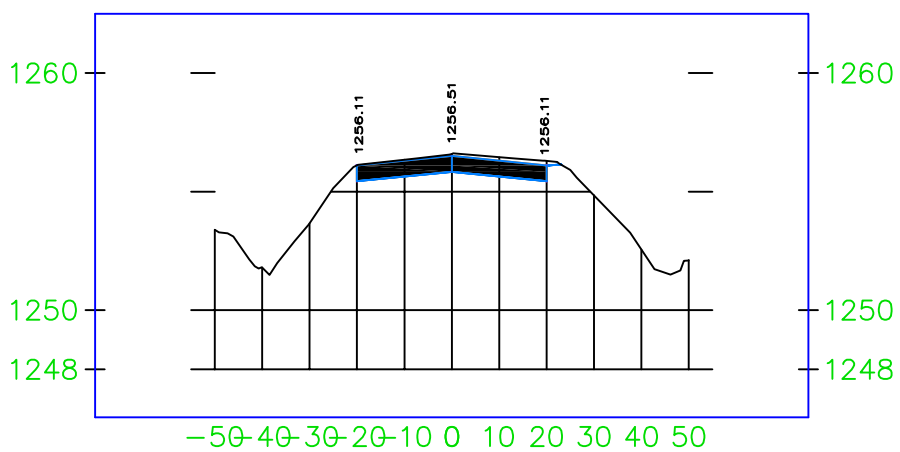
66+00.00



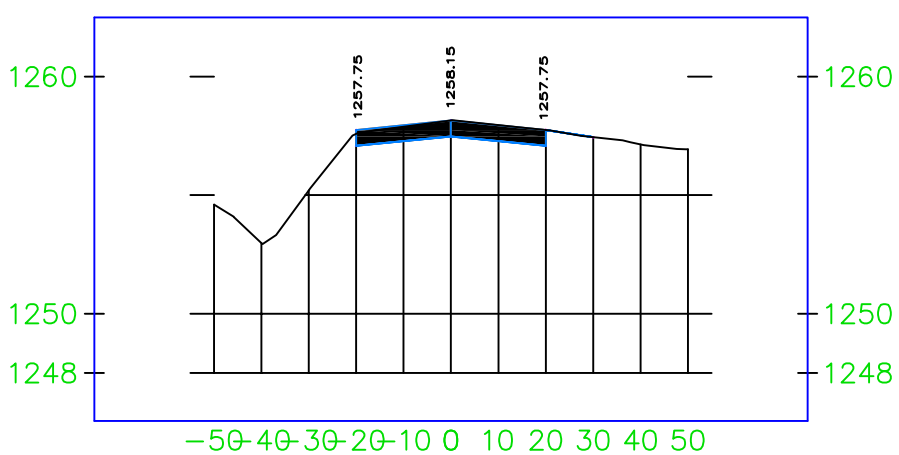
PROJECT	SHEET NO.	TOTAL SHEETS
2017-042	78	83
X-SECTIONS	1/19/2018	

WCLR X-SECTIONS

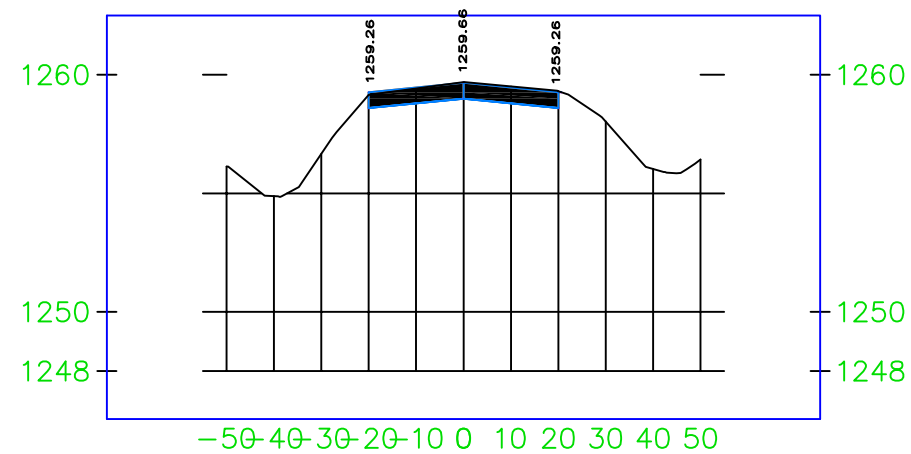
67+00.00



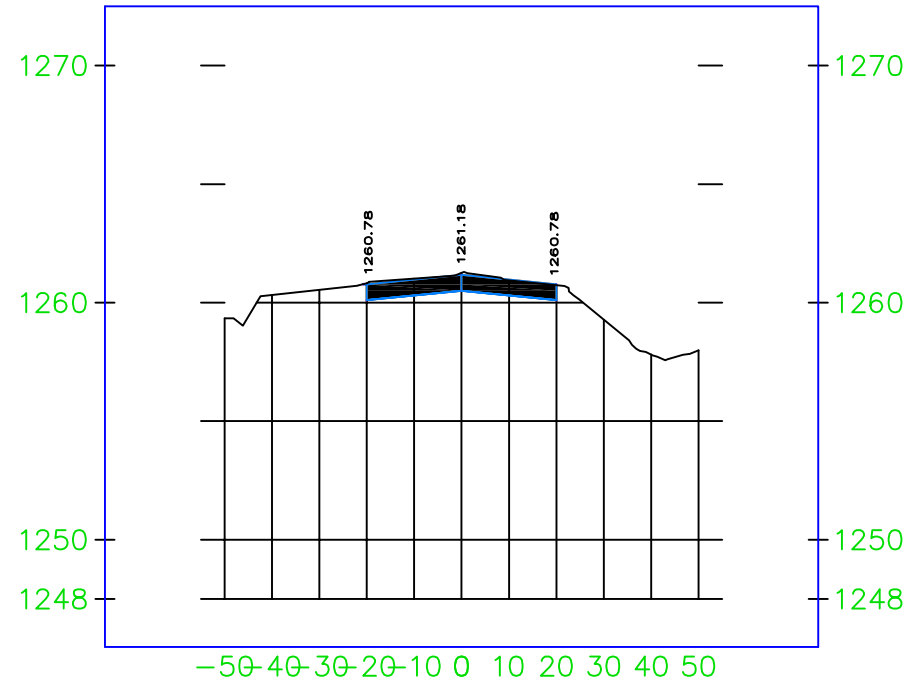
68+00.00



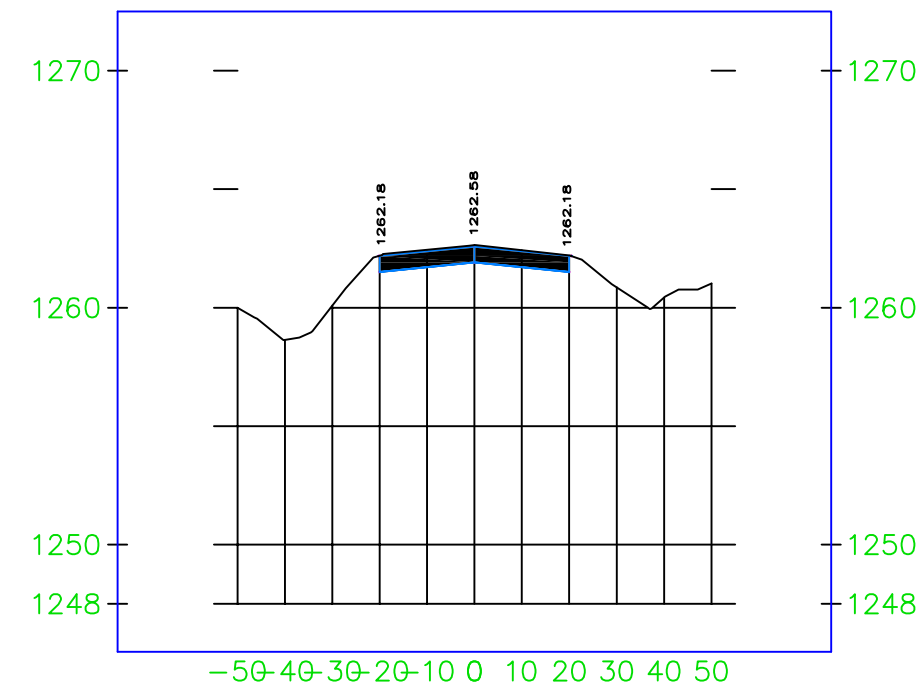
69+00.00



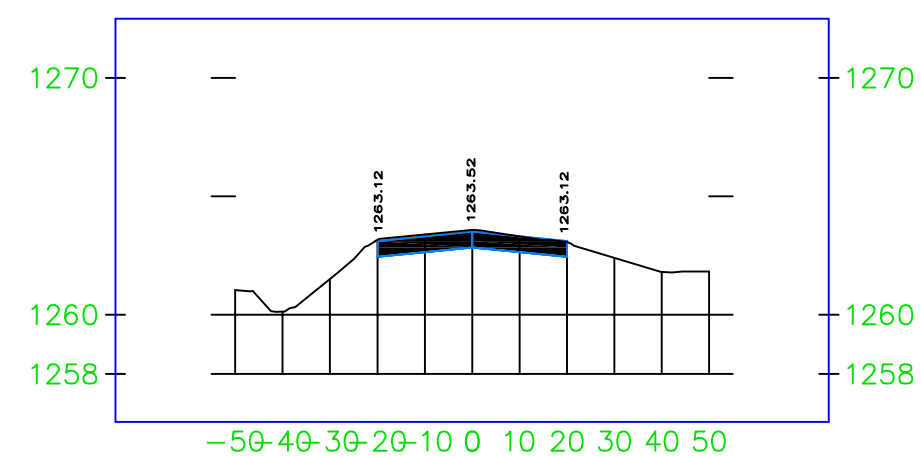
70+00.00



71+00.00



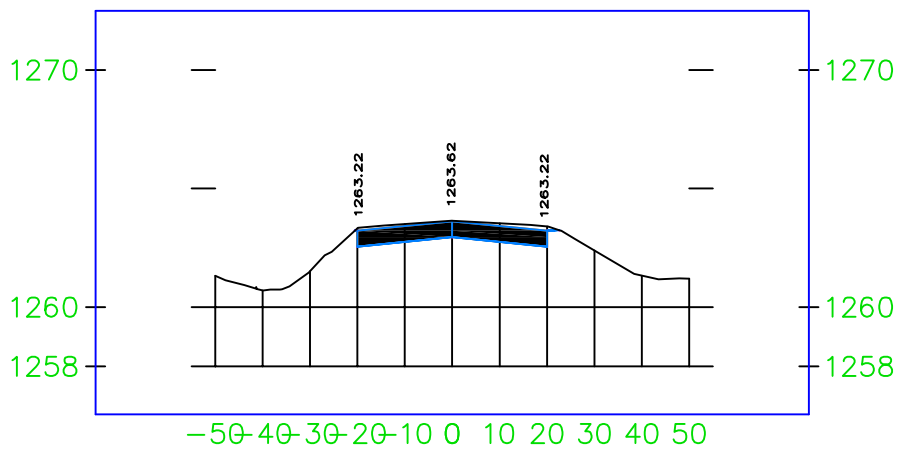
72+00.00



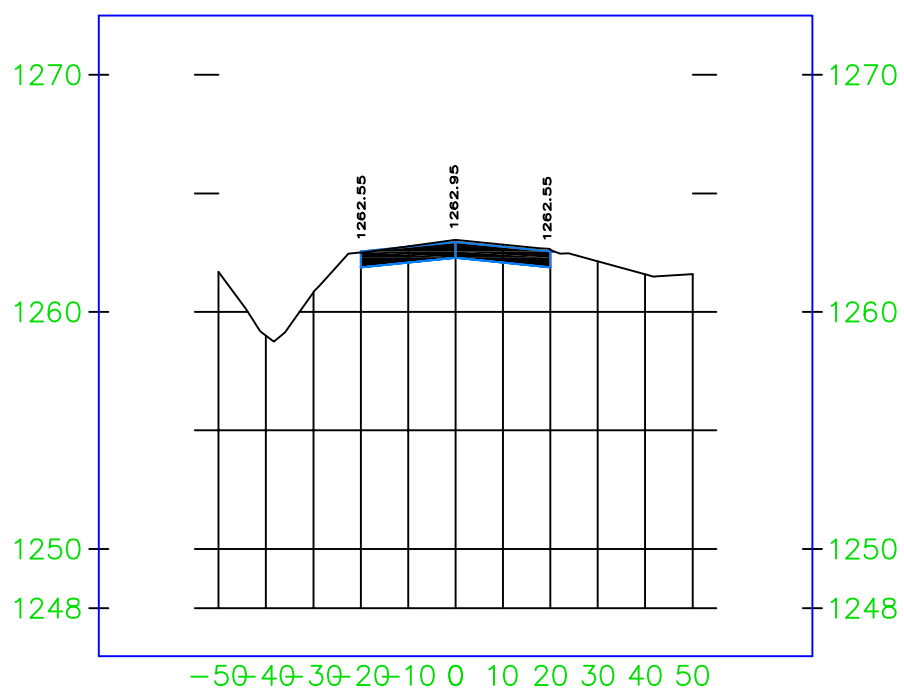
PROJECT	SHEET NO.	TOTAL SHEETS
2017-042	79	83
X-SECTIONS	1/23/2018	

WCLR X-SECTIONS

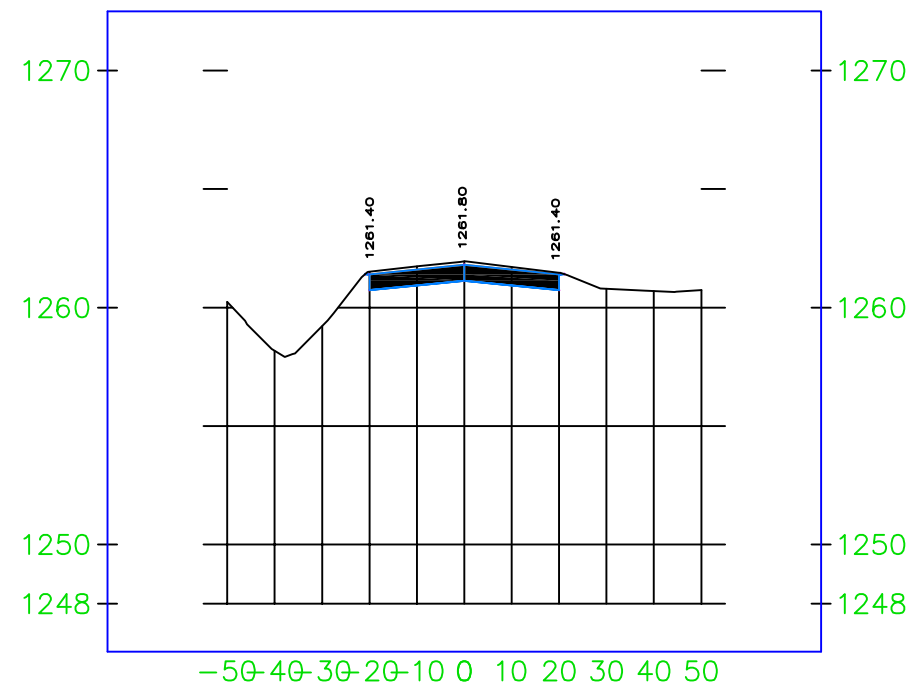
73+00.00



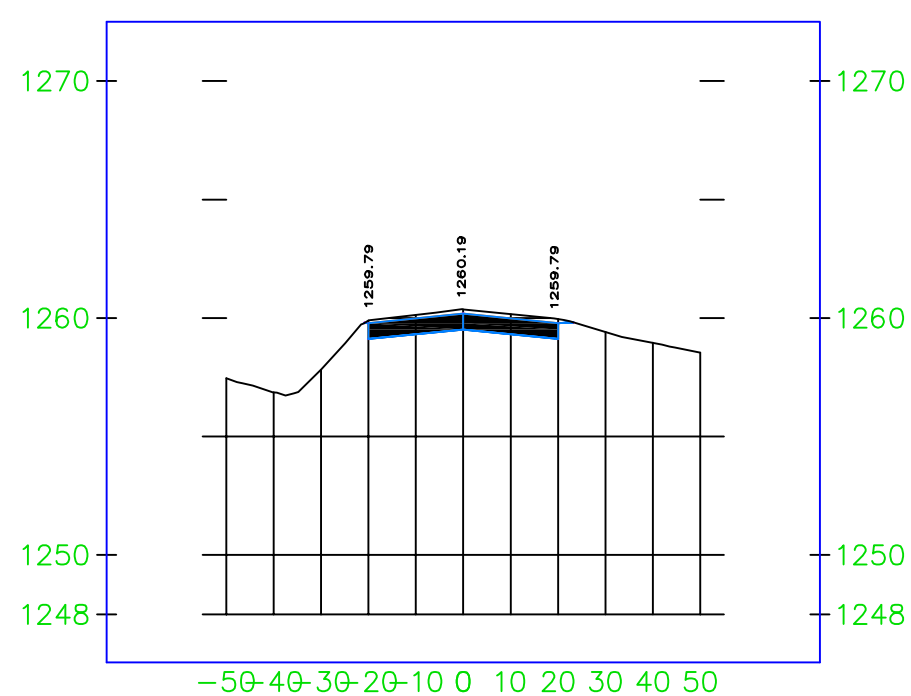
74+00.00



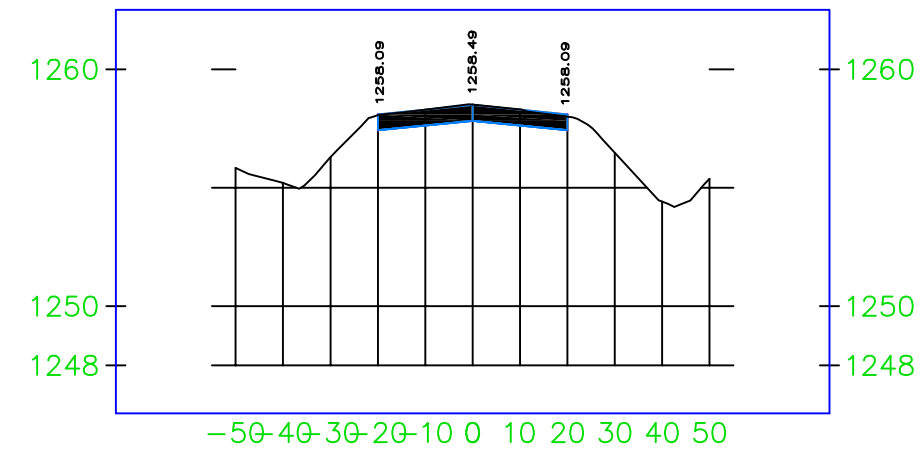
75+00.00



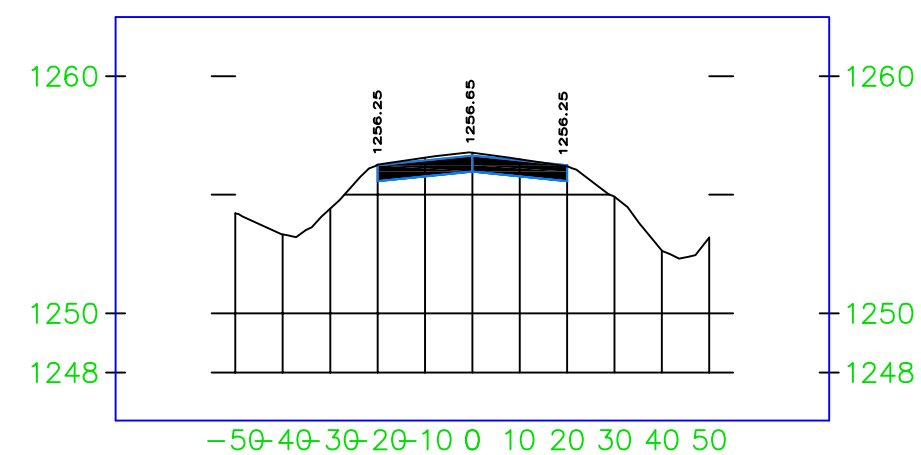
76+00.00



77+00.00



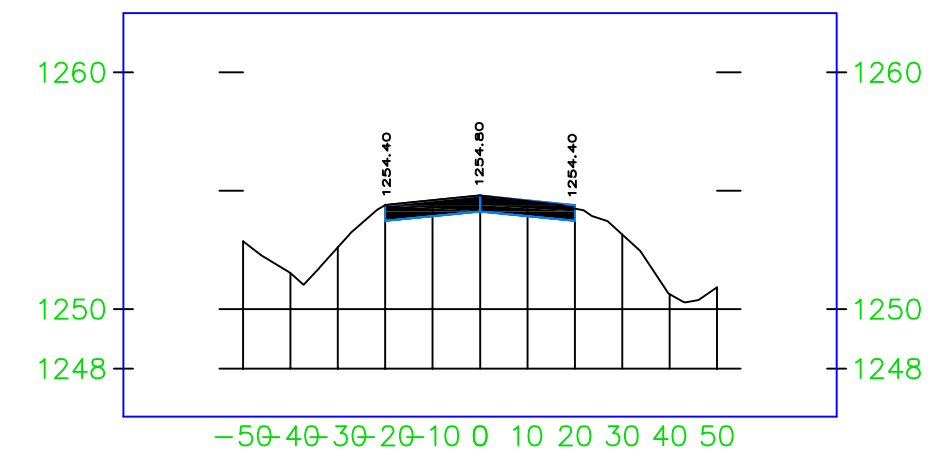
78+00.00



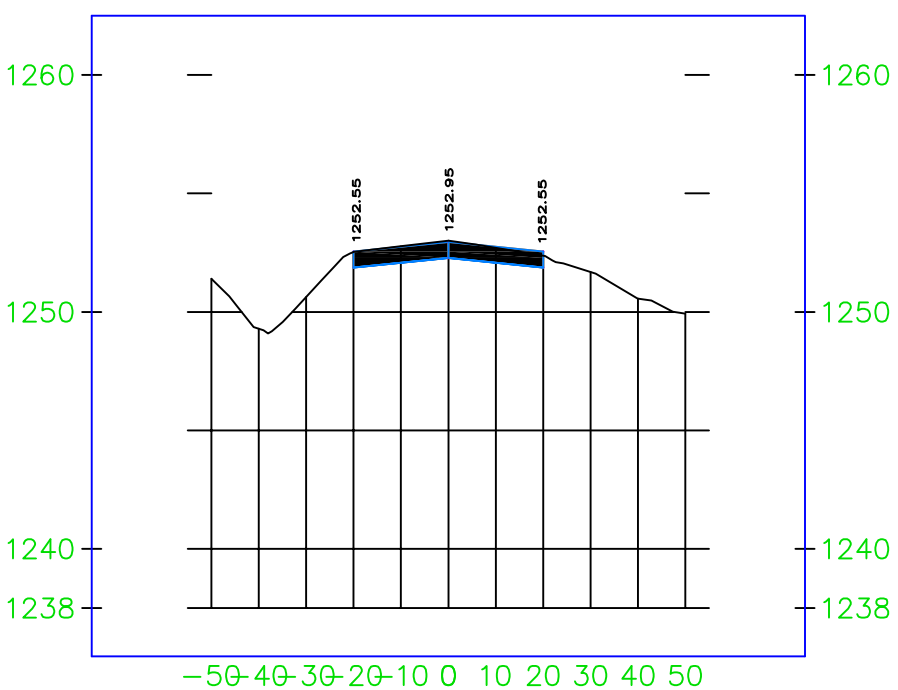
PROJECT	SHEET NO.	TOTAL SHEETS
2017-042	80	83
X-SECTIONS	1/19/2018	

WCLR X-SECTIONS

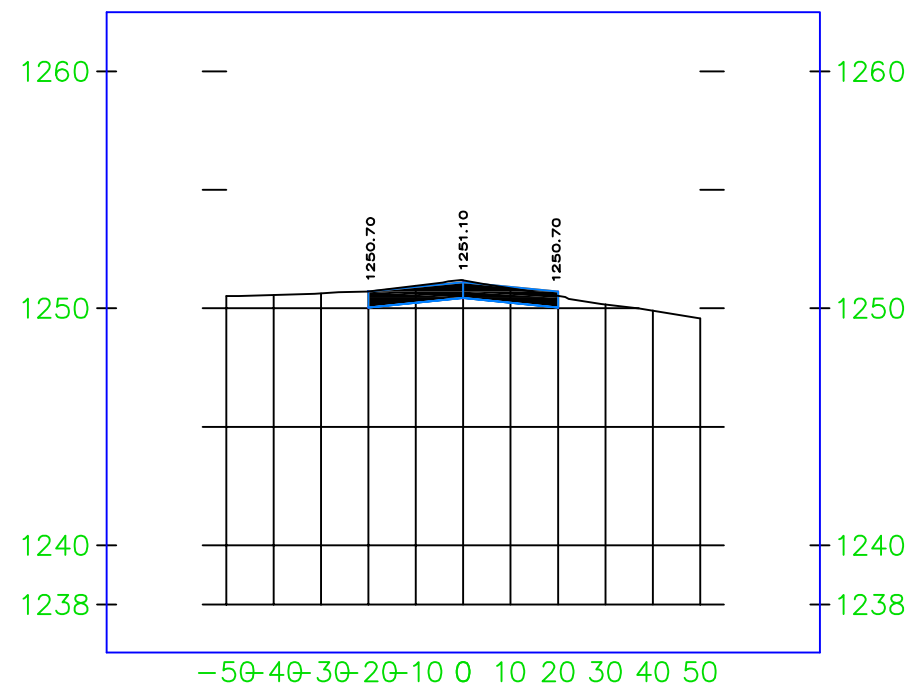
79+00.00



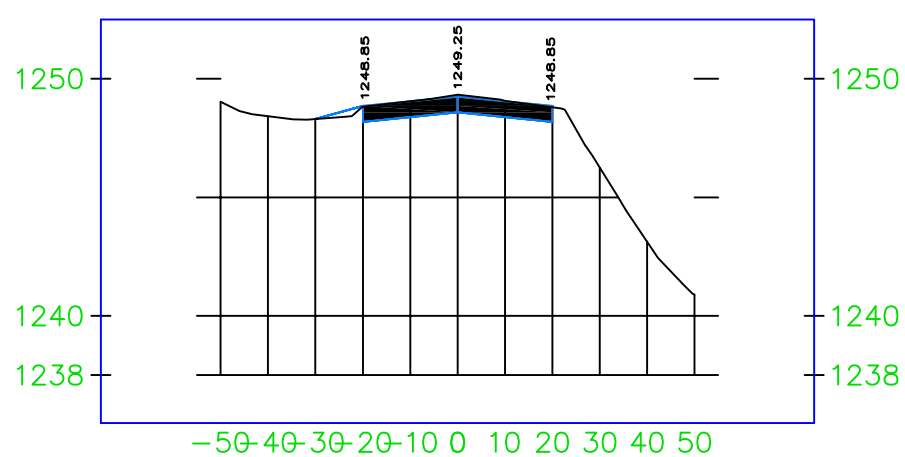
80+00.00



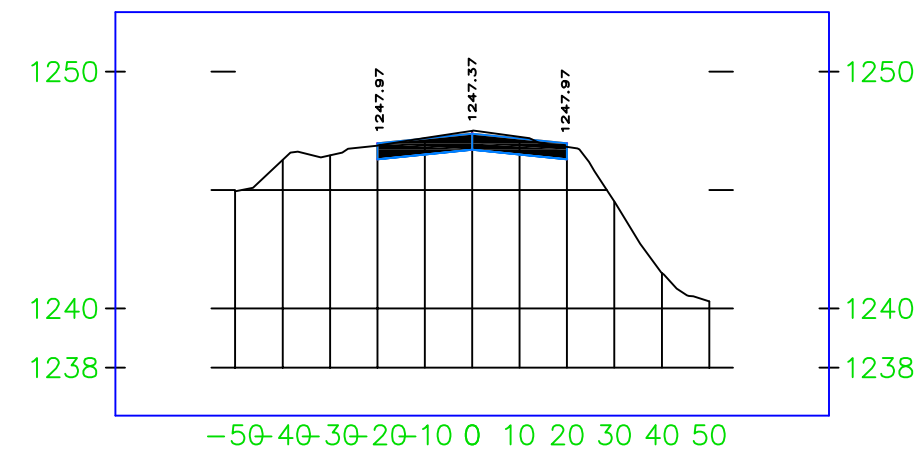
81+00.00



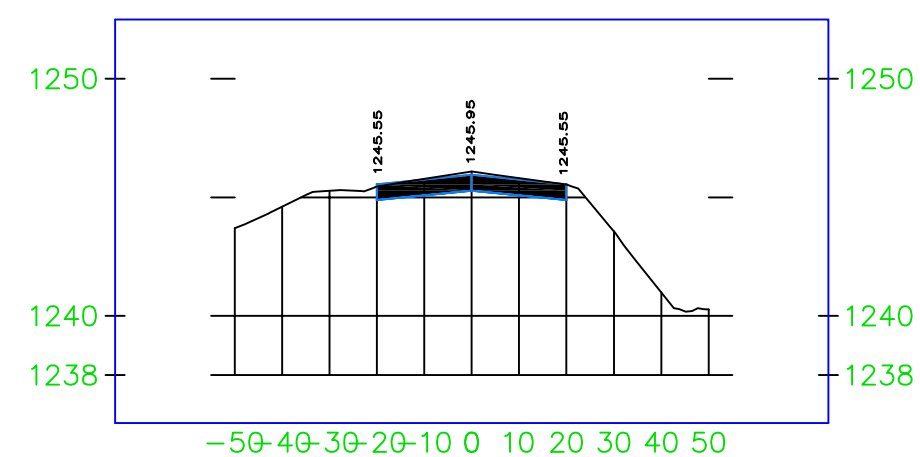
82+00.00



83+00.00



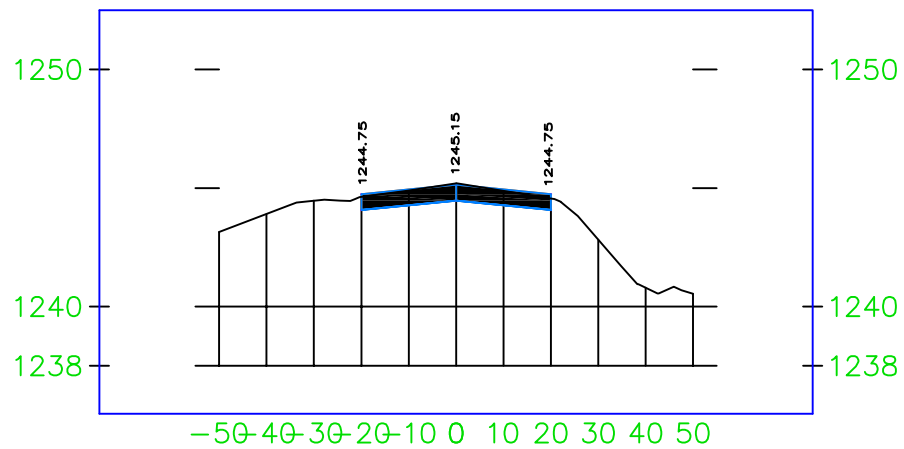
84+00.00



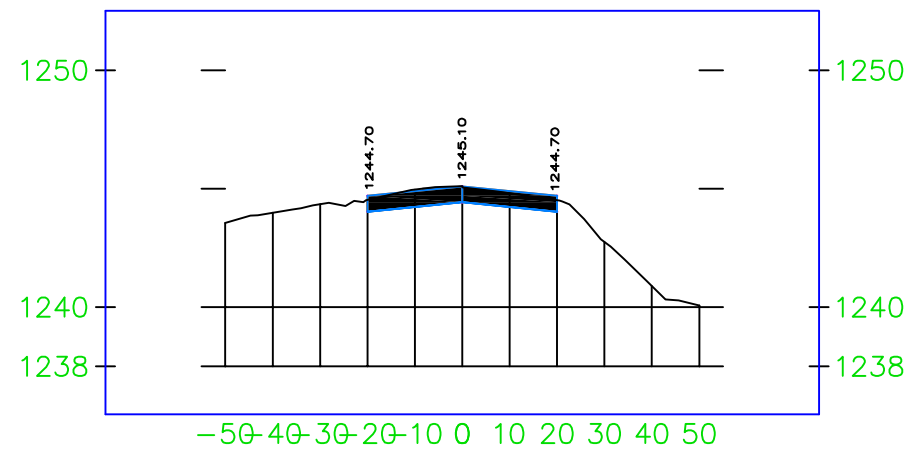
PROJECT	SHEET NO.	TOTAL SHEETS
2017-042	81	83
X-SECTIONS	1/19/2018	

WCLR X-SECTIONS

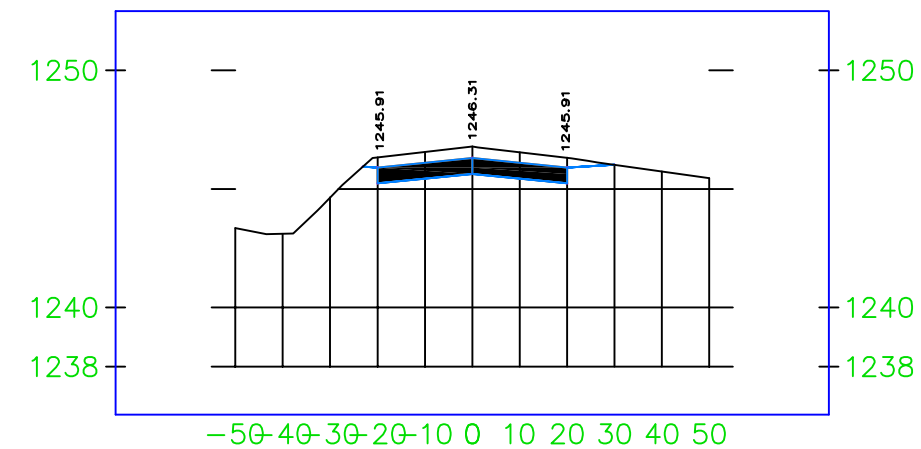
85+00.00



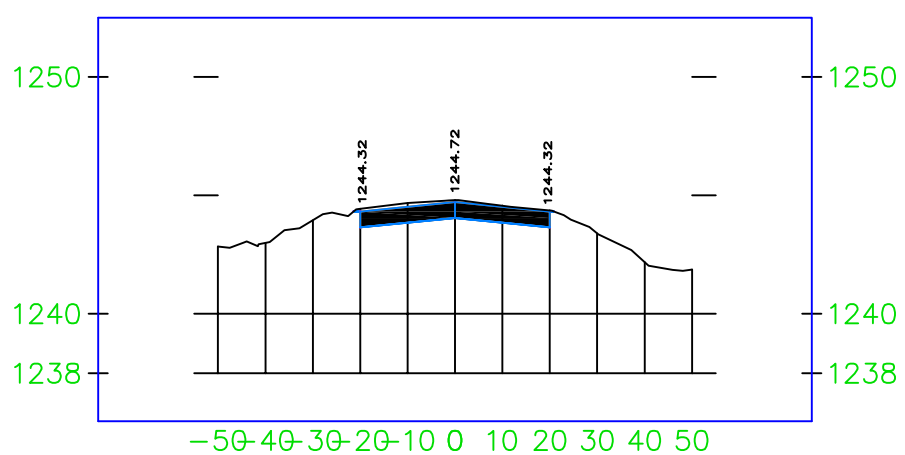
87+00.00



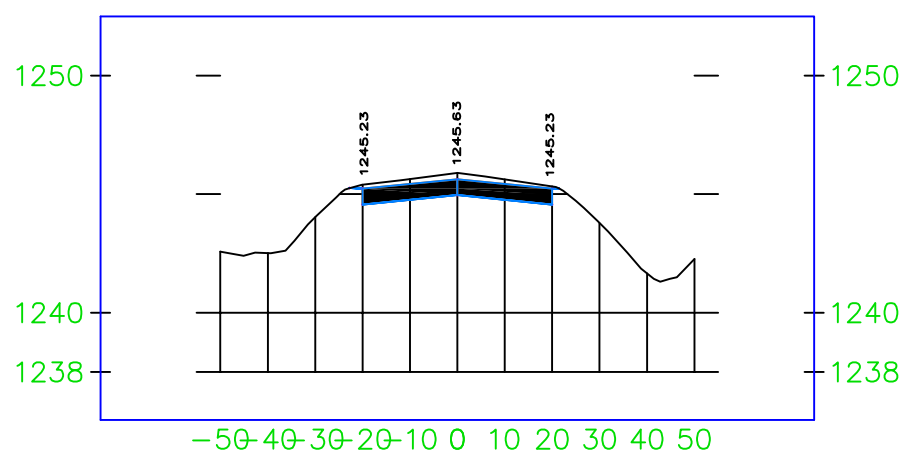
89+00.00



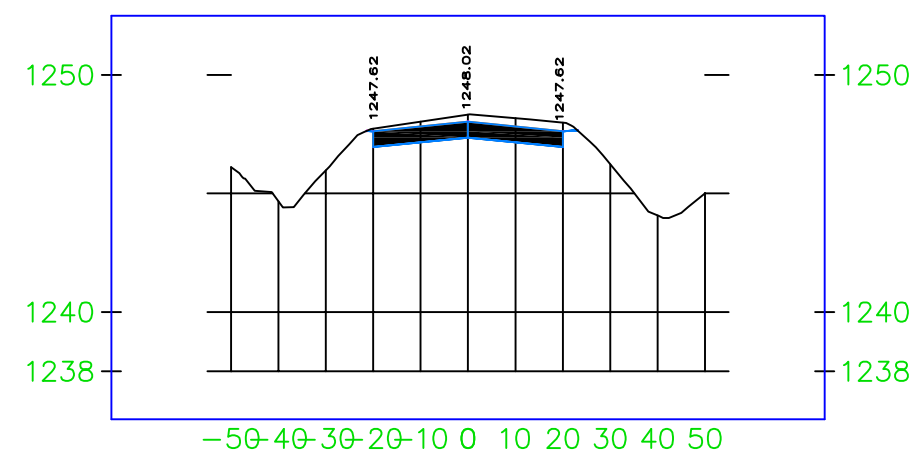
86+00.00



88+00.00



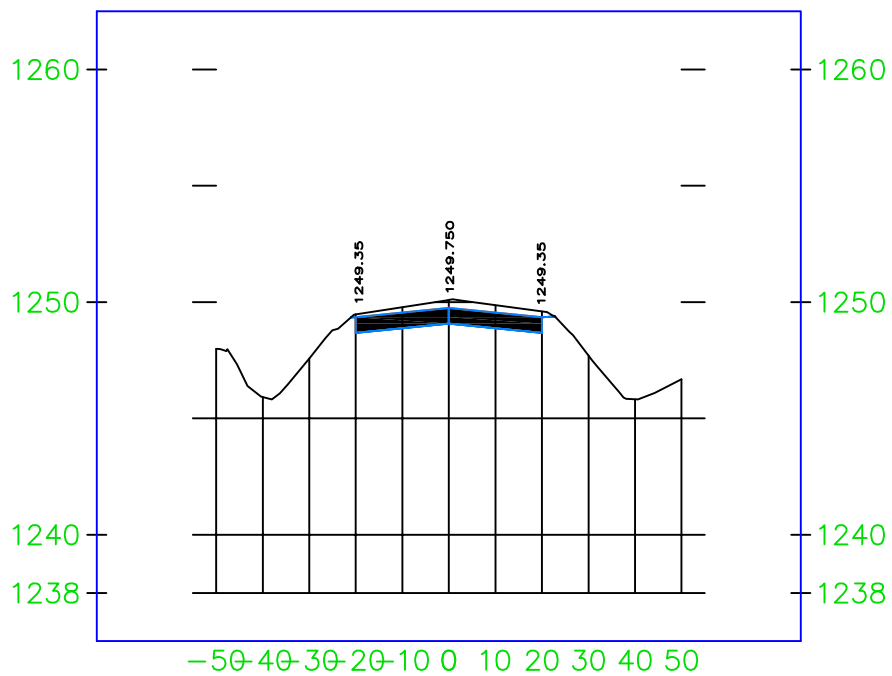
90+00.00



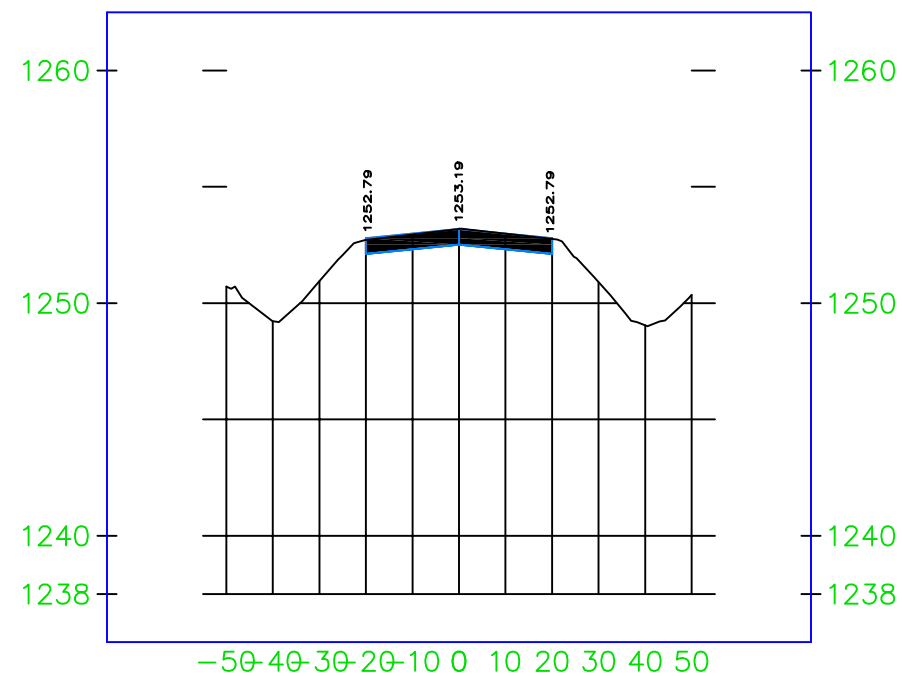
PROJECT	SHEET NO.	TOTAL SHEETS
2017-042	82	83
X-SECTIONS	1/19/2018	

WCLR X-SECTIONS

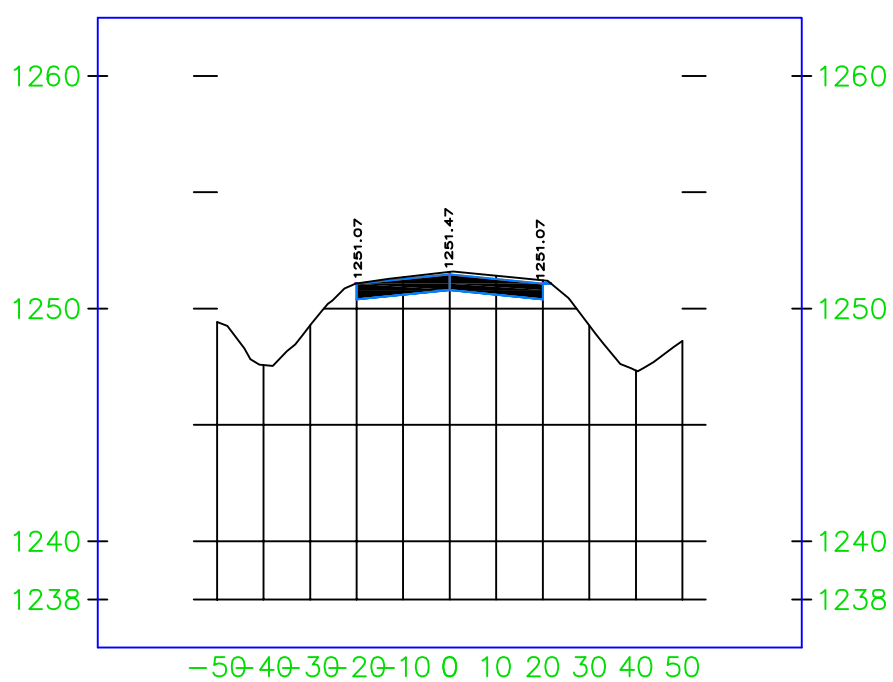
91+00.00



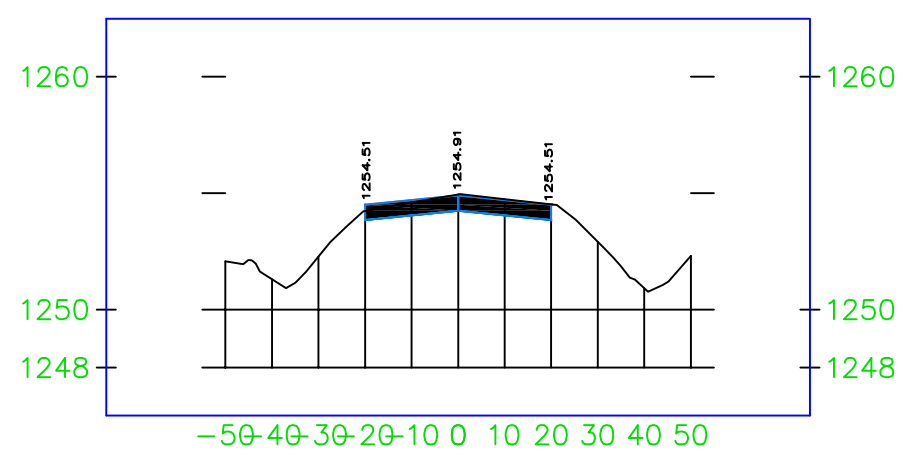
93+00.00



92+00.00



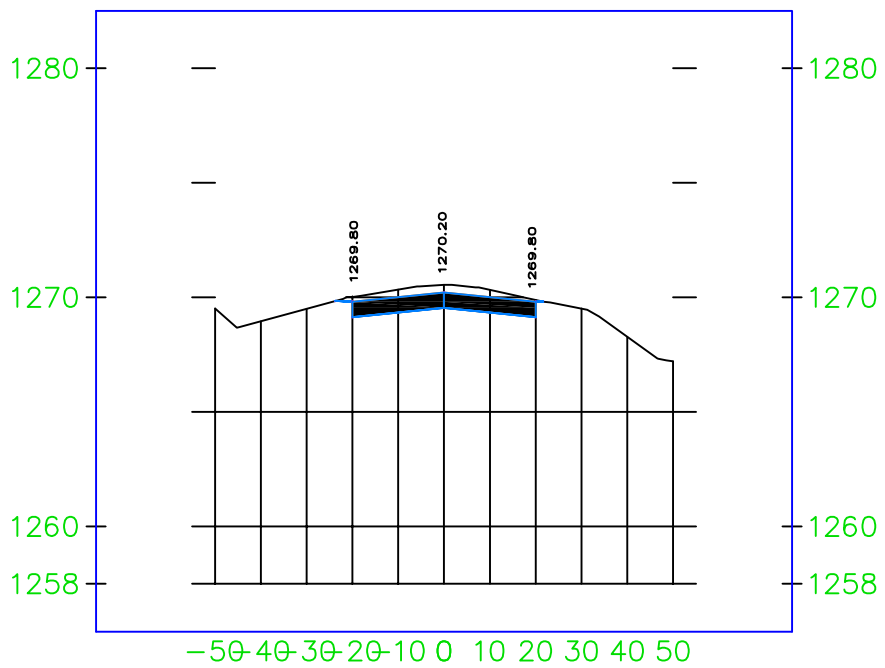
94+00.00



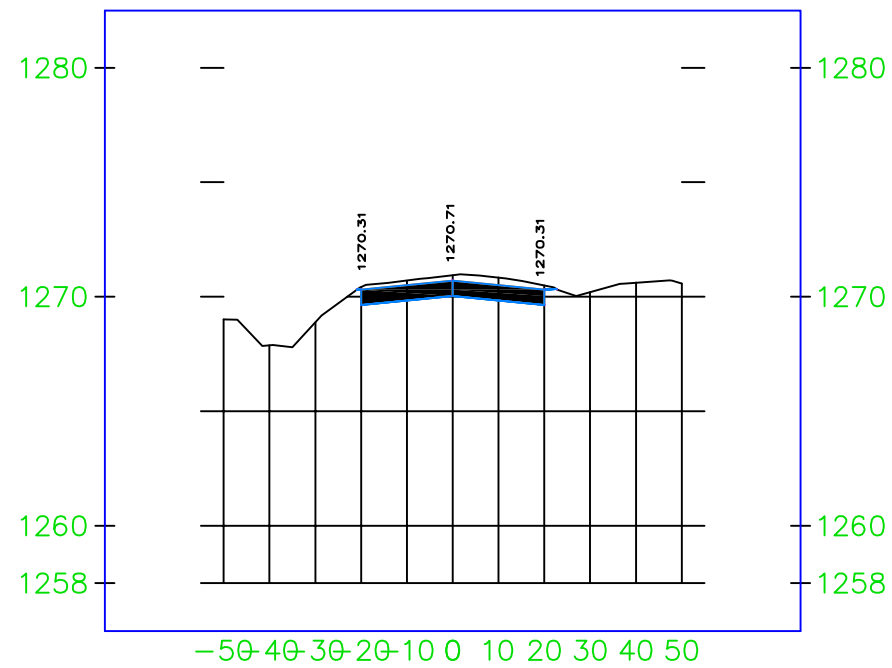
PROJECT	SHEET NO.	TOTAL SHEETS
2017-042	83	83
X-SECTIONS	1/19/2018	

N-WCLR X-SECTIONS (30TH TO 31ST)

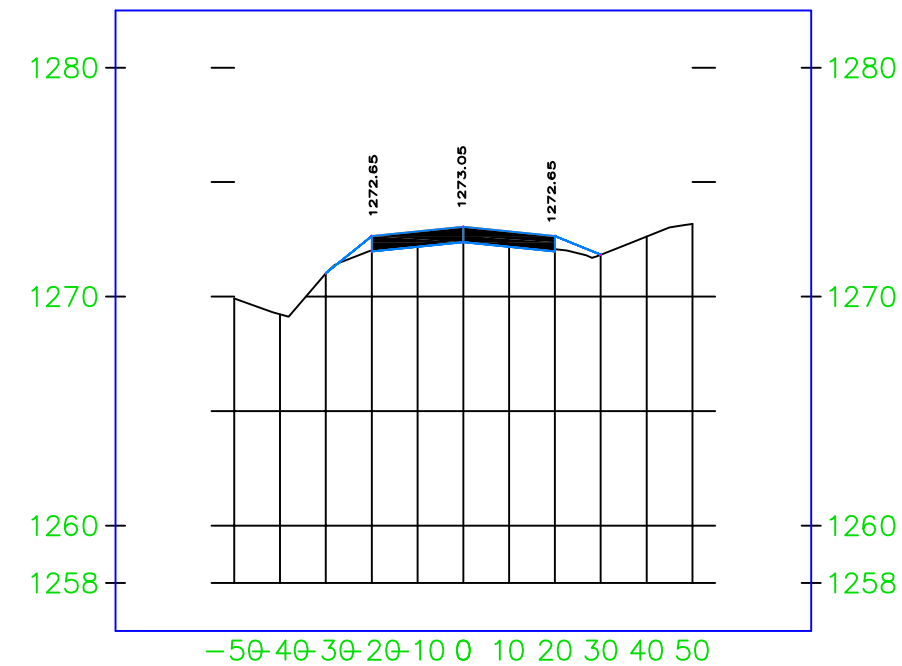
2+00.00



3+00.00



5+00.00



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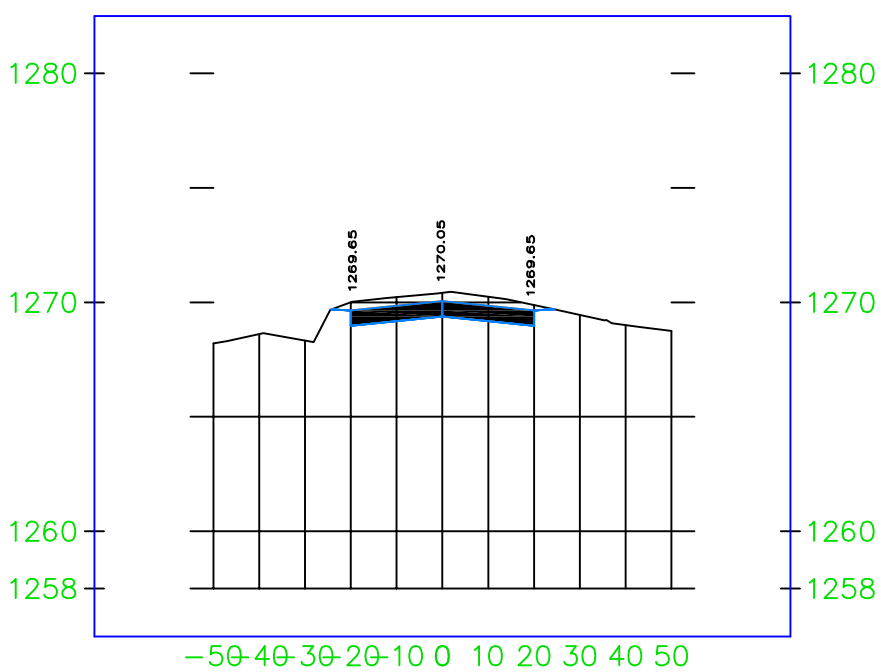
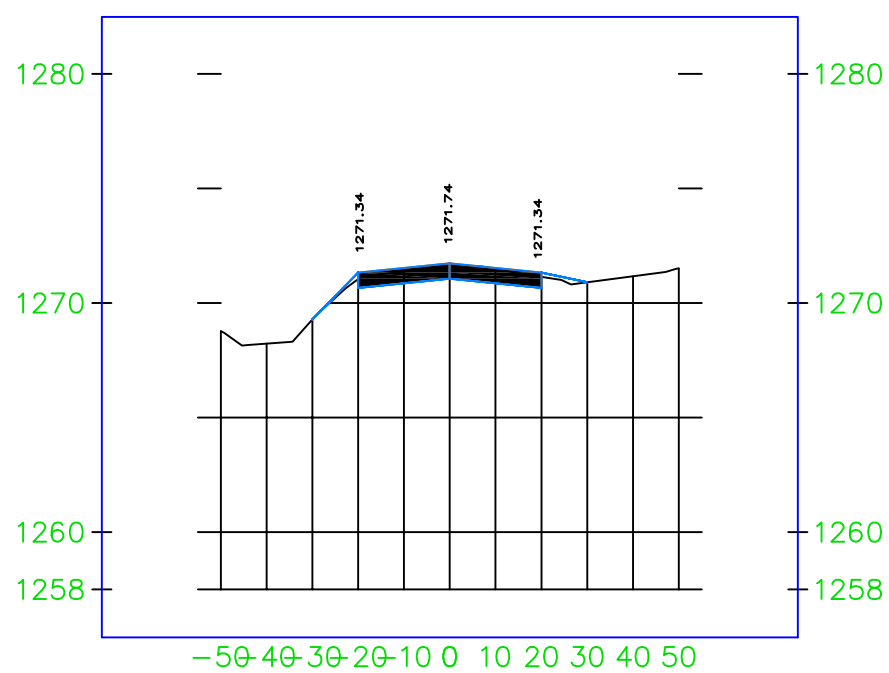
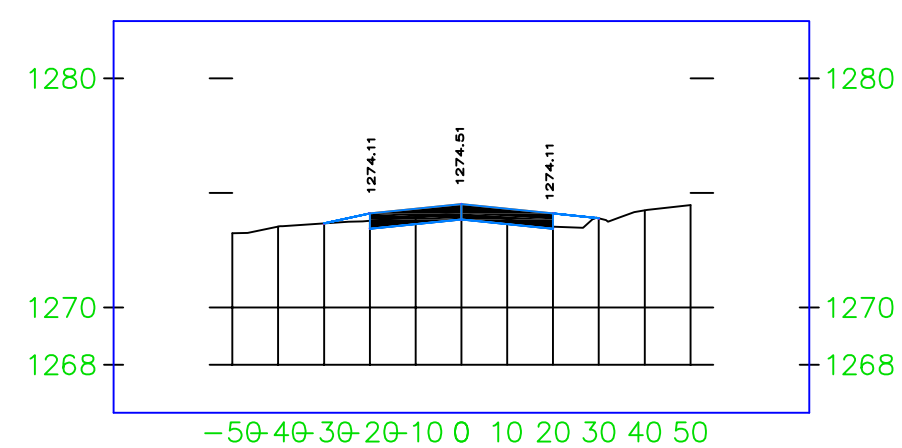


4+00.00



5+50.00