

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
LIC-16-16.64
CITY OF NEWARK
VILLAGE OF GRANVILLE
LICKING COUNTY

PROJECT DESCRIPTION

INTERSECTION UPGRADE FROM AN AT GRADE CROSSING TO A LIMITED ACCESS INTERCHANGE ON S.R. 16 APPROXIMATELY 0.4 MI EAST OF THE EXISTING CHERRY VALLEY ROAD (C.R. 128) INTERSECTION. THE PROJECT WILL INCLUDE FULL-DEPTH PAVEMENT REHABILITATION ON S.R. 16 AND THE INSTALLATION OF FOUR SIGNALIZED INTERSECTIONS. THE PROJECT WILL REMOVE THE S.R. 16 EB ON-RAMP FROM GRANVILLE ROAD AND BRIDGE NO. LIC-16-1773L.

LIMITED ACCESS

THIS IMPROVEMENT IS ESPECIALLY DESIGNED FOR THROUGH TRAFFIC AND HAS BEEN DECLARED A LIMITED ACCESS HIGHWAY OR FREEWAY BY ACTION OF THE DIRECTOR IN ACCORDANCE WITH THE PROVISIONS OF SECTION 5511.02 OF THE OHIO REVISED CODE.

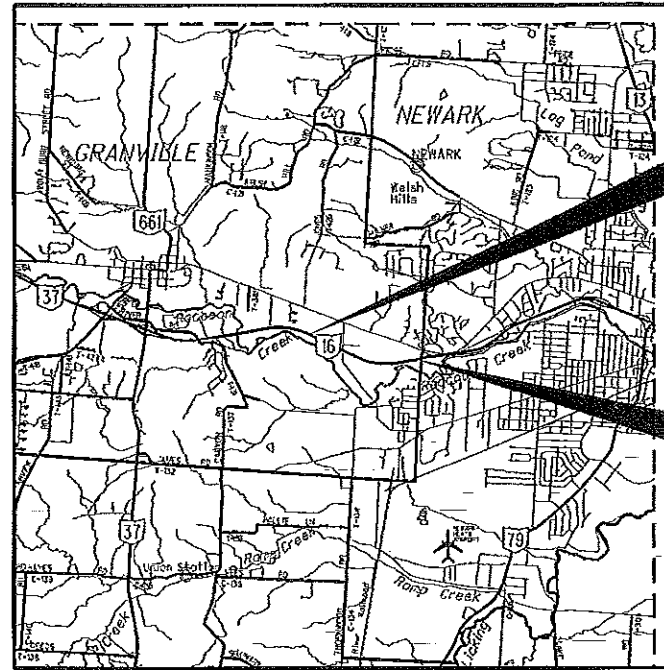
2013 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT THE PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

EARTH DISTURBED AREAS

PROJECT EARTH DISTURBED AREA: 63 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA: 19 ACRES
NOTICE OF INTENT EARTH DISTURBED AREA: 82 ACRES



BEGIN PROJECT
STA. 219+00.00
S.R. 16
S.L.M. 16.64

END PROJECT
STA. 267+48.00
S.R. 16
S.L.M. 17.56

INDEX OF SHEETS:

(SEE SHEET 2)

LIC-16-16.64 (Cherry Val Int.)
150327 PID - 80704
Dist 5 7/2/2015

Contract Proposal Available @ www.contracts.dot.state.oh.us/home

PORTION TO BE IMPROVED
INTERSTATE & DIVIDED HIGHWAY
UNDIVIDED STATE & FEDERAL ROUTES
OTHER ROADS

DESIGN DESIGNATION	S.R. 16	NEW CHERRY VALLEY RD.	NEWARK - GRANVILLE RD.	EXISTING CHERRY VALLEY ROAD
CURRENT ADT (2015)	42,950	18,590	13,250	17,800
DESIGN YEAR ADT (2035)	51,840	20,560	16,810	19,610
DESIGN HOURLY VOLUME (2035)	4,960	1,930	1,700	1,840
DIRECTIONAL DISTRIBUTION	50%	50%	50%	50%
TRUCKS (24 HOUR B&C)	5%	9%	2%	9%
DESIGN SPEED	60	40	40	40
LEGAL SPEED	55	35	35	35
DESIGN FUNCTIONAL CLASSIFICATION:	URBAN FREEWAY & EXPRESSWAY	URBAN COLLECTOR	URBAN COLLECTOR	URBAN COLLECTOR

NHS PROJECT YES
DESIGN EXCEPTIONS - NONE

PLAN PREPARED BY:
OHIO DEPARTMENT OF TRANSPORTATION
DISTRICT 5 PLANNING & ENGINEERING

UNDERGROUND UTILITIES

CONTACT BOTH SERVICES CALL TWO WORKING DAYS BEFORE YOU DIG
CALL 1-800-362-2764 (TOLL FREE)
OHIO UTILITIES PROTECTION SERVICE NON-MEMBERS MUST BE CALLED DIRECTLY
OIL & GAS PRODUCERS PROTECTIVE SERVICE CALL: 1-800-925-0988

ENGINEERS SEAL: ROADWAY
SIGNED: *Heather Ann Gilbert*
DATE: 2-26-2015

ENGINEERS SEAL: STRUCTURE
SIGNED: *Tracy Allen Greenwald*
DATE: 2-26-2015

STANDARD CONSTRUCTION DRAWINGS

STANDARD CONSTRUCTION DRAWINGS												SUPPLEMENTAL SPECIFICATIONS	
BP-2.1	7/19/13	F-1.1	7/19/13	MH-1.2	1/18/13	MT-101.60	7/19/13	TC-7.65	10/18/13	TC-83.10	1/17/14	800	4/17/15
BP-2.2	7/18/08	F-3.3	7/19/13			MT-101.70	1/17/14	TC-12.30	10/18/13	TC-83.20	1/16/15	823	7/18/14
BP-3.1	7/18/14	F-3.4	7/19/13	MGS-1.1	7/19/13	MT-101.90	7/18/14	TC-21.10	10/18/13	TC-85.10	10/18/13	832	1/17/14
BP-4.1	7/19/13			MGS-2.1	7/19/13	MT-102.10	7/18/14	TC-21.20	1/16/15	TC-85.20	1/16/15	836	1/18/13
BP-5.1	7/19/13	HL-10.13	1/16/15	MGS-3.1	7/18/14	MT-103.10	1/16/15	TC-22.10	10/18/13			840	10/17/14
BP-9.1	7/19/13	HL-20.11	1/16/15	MGS-3.2	1/18/13	MT-105.10	7/19/13	TC-22.20	1/17/14	AS-1-81	1/18/13	878	10/18/13
		HL-30.11	1/16/15	MGS-4.2	7/19/13	MT-120.00	7/19/13	TC-41.10	7/19/13	GSD-1-96	7/19/02	902	12/31/12
CB-1.1	1/18/13	HL-30.21	1/17/14	MGS-4.3	1/18/13			TC-41.15	10/18/13	PCB-91	1/18/13		
CB-1.2	1/18/13	HL-30.22	1/17/14	MGS-5.2	7/19/13	RM-1.1	7/18/14	TC-41.20	10/18/13	SICD-1-96	7/18/14		
CB-2.1	1/18/13	HL-30.31	1/17/14	MGS-5.3	7/19/13	RM-3.1	7/19/13	TC-41.30	10/18/13	SBR-1-13	1/17/14		
CB-3.3	1/18/13	HL-30.32	1/17/14			RM-4.2	6/04/14	TC-41.50	10/18/13	VFP-1-90	4/15/11		
		HL-30.41	7/18/14	MT-95.30	7/18/14	RM-4.3	7/18/14	TC-42.10	10/18/13				
DM-1.1	1/18/13	HL-40.10	1/17/14	MT-95.50	7/19/13	RM-4.4	7/18/14	TC-42.20	10/18/13				
DM-1.2	1/18/13	HL-50.21	1/16/15	MT-97.10	7/18/14	RM-4.5	7/18/14	TC-51.11	1/17/14				
DM-4.2	7/20/12	HL-60.11	1/17/14	MT-97.12	7/18/14	RM-4.6	7/19/13	TC-52.10	10/18/13				
DM-4.3	7/19/13	HL-60.12	1/17/14	MT-97.20	1/16/15	RM-5.1	7/18/14	TC-52.20	7/18/14				
DM-4.4	7/20/12	HL-60.31	1/16/15	MT-98.10	7/18/14	RM-5.2	1/17/14	TC-65.10	1/17/14				
				MT-98.11	7/18/14			TC-65.11	7/18/14				
				MT-98.21	7/18/14			TC-71.10	1/17/14				
				MT-99.20	7/19/13			TC-72.20	7/18/14				
				MT-99.30	1/16/15			TC-81.21	1/16/15				

SPECIAL PROVISIONS

APPROVED *Dave Rogg, P.E., P.S.*
DATE 2/27/15 DISTRICT DEPUTY DIRECTOR

APPROVED *Jerry Whaley*
DATE 3-20-15 DIRECTOR, DEPARTMENT OF TRANSPORTATION

FEDERAL PROJECT NO. E060418

PID NO. 80704

CONSTRUCTION PROJECT NO.

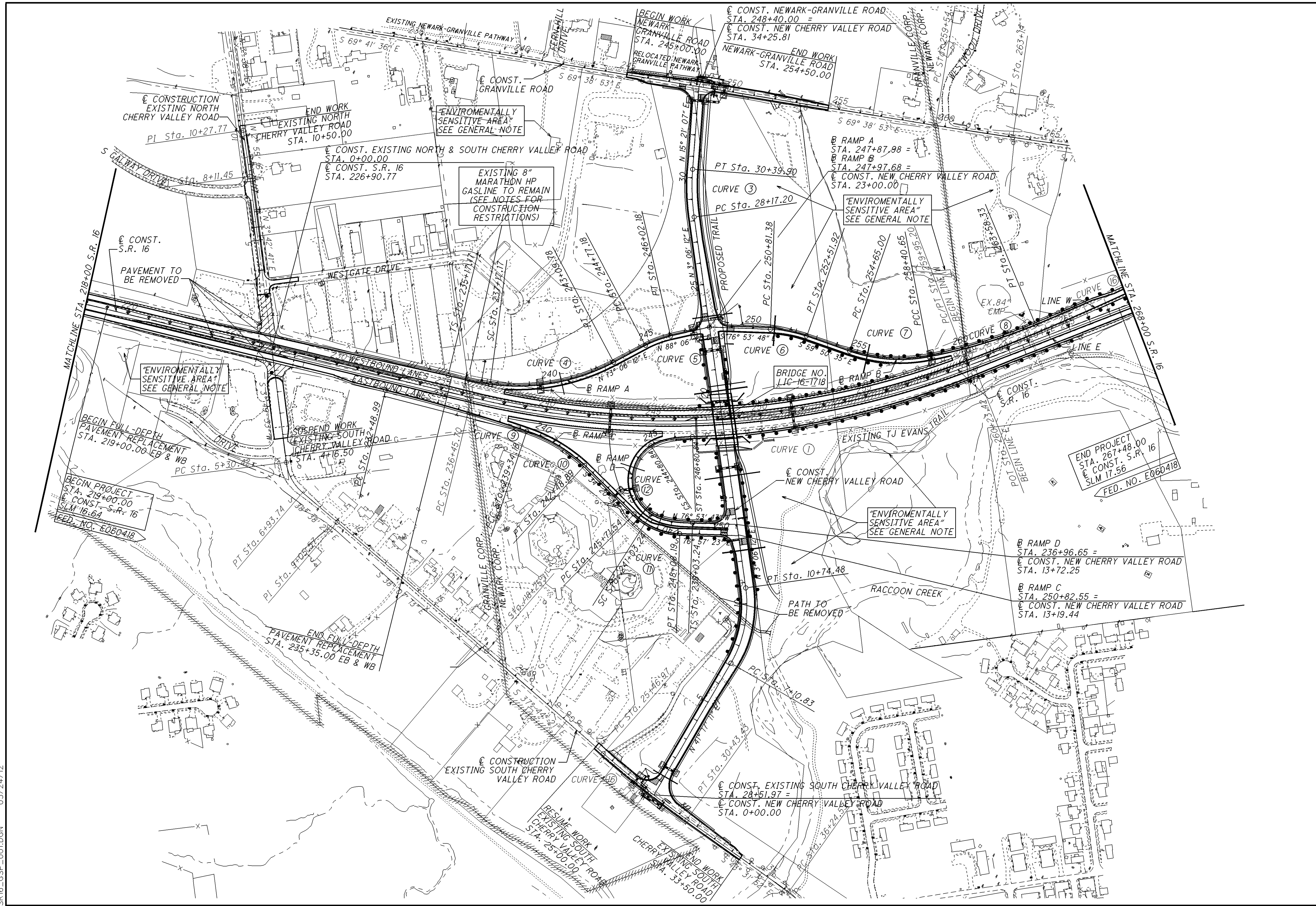
RAILROAD INVOLVEMENT NONE

LIC-16-16.64

1/29

INDEX OF SHEETS:

TITLE SHEET	1
INDEX OF SHEETS	2
SCHEMATIC PLAN	3-6
TYPICAL SECTIONS	7-31
GENERAL NOTES	32-41
MAINTENANCE OF TRAFFIC	42-122, 62A
PROJECT SITE PLAN	123 & 124
GENERAL SUMMARIES	125-134
REMOVAL SUBSUMMARY	135
ROADWAY & BARRIER SUBSUMMARY	136
GUARDRAIL SUBSUMMARY	137
PAVEMENT & SHOULDER CALCULATIONS	138-148
DRIVE CALCULATIONS	149
SUPERELEVATION TABLES	150-154
PLAN AND PROFILE SHEETS - S.R. 16	155-163
CROSS SECTION SHEETS - S.R. 16	164-214
CROSS SECTION SHEETS - LINE E	215-238
CROSS SECTION SHEETS - LINE W	239-267
PLAN AND PROFILE SHEETS - RAMP A	268
CROSS SECTION SHEETS - RAMP A	269-278
PLAN AND PROFILE SHEETS - RAMP B	279-280
CROSS SECTION SHEETS - RAMP B	281-291
PLAN AND PROFILE SHEETS - RAMP C	292-293
CROSS SECTION SHEETS - RAMP C	294-305
PLAN AND PROFILE SHEETS - RAMP D	306
CROSS SECTION SHEETS - RAMP D	307-314
PLAN AND PROFILE SHEETS - NEW CHERRY VALLEY ROAD	315-317
CROSS SECTION SHEETS - NEW CHERRY VALLEY ROAD	318-348
PLAN AND PROFILE SHEETS - EXISTING SOUTH CHERRY VALLEY ROAD	349 & 350
CROSS SECTION SHEETS - EXISTING SOUTH CHERRY VALLEY ROAD	351-361
PLAN AND PROFILE SHEETS - EXISTING NORTH CHERRY VALLEY ROAD	362
CROSS SECTION SHEETS - EXISTING NORTH CHERRY VALLEY ROAD	363-368
PLAN AND PROFILE SHEETS - NEWARK-GRANVILLE ROAD	369
CROSS SECTION SHEETS - NEWARK-GRANVILLE ROAD	370-380
PLAN AND PROFILE SHEETS - BIKE PATHWAY	381 & 382
CROSS SECTION SHEETS - BIKE PATHWAY	383-405
INTERCHANGE GRADING DETAILS	406-408
INTERSECTION DETAILS	409-413
PAVEMENT DETAILS	414-422, 422A, 422B
PAVEMENT JOINT DETAILS	423-439
DRAINAGE DETAILS	440-473
TRAFFIC CONTROL	474-587
TRAFFIC SIGNALS	588-611
LIGHTING	612-632, 617A
STRUCTURE (LIC-16-1718)	633-688
STRUCTURE (LIC-16-1771L)	689-697
FENCE DETAILS	698-711, 710A
RIGHT-OF-WAY	712-729
SOILS/FOUNDATION PLAN SHEETS	1-37, 1A, 5A, 30A, 30B



CALCULATED C.Y. CHECKED J.C.

0 200 400
HORIZONTAL SCALE IN FEET

SCHEMATIC PLAN SHEET
STA. 218+00.00 TO STA. 268+00.00

LIC-16-16.64

CONSTRUCTION
NEWARK -
GRANVILLE ROAD



CALCULATED
C.Y.
CHECKED
J.C.

0 200 400
HORIZONTAL
SCALE IN FEET

SCHEMATIC PLAN SHEET
STA. 268+00.00 TO STA. 31+00.00

LIC-16-16.64



CALCULATED
C.Y.
CHECKED
J.C.

CURVE DATA

LIC-16-16.64

CURVE ①

EX. S.R. 16
P.I. STA. 248+57.26
 $\Delta = 34^\circ 29' 33''$
 $Dc = 1^\circ 28' 05''$
 $R = 3,902.78'$
 $T = 1,211.56'$
 $L = 2,349.50'$
 $E = 183.73'$
 $emax = 0.048$

CURVE ②

PR. CHERRY VALLEY CONNECTOR ROAD
P.I. STA. 8+99.70
 $\Delta = 38^\circ 10' 59''$
 $Dc = 10^\circ 30' 00''$
 $R = 545.67'$
 $T = 188.87'$
 $L = 363.65'$
 $E = 31.76'$
 $emax = 0.036 (40 \text{ mph})$

CURVE ③

PR. CHERRY VALLEY CONNECTOR ROAD
P.I. STA. 29+28.98
 $\Delta = 12^\circ 14' 55''$
 $Dc = 5^\circ 30' 00''$
 $R = 1,041.74'$
 $T = 111.78'$
 $L = 222.28'$
 $E = 5.98'$
 $emax = NC (40 \text{ mph})$

CURVE ④

PR. RAMP A
P.I. STA. 240+23.36
 $\Delta = 35^\circ 33' 23''$
 $Dc = 6^\circ 00' 00''$
 $R = 954.93'$
 $Ls = 200.00'$
 $p = 1.74'$
 $\Delta s = 6^\circ 00' 00''$
 $Ts = 133.41'$
 $T = 306.19'$
 $L = 592.61'$
 $E = 47.89'$
 $emax = 0.055 (45 \text{ mph})$

CURVE ⑤

PR. RAMP A
P.I. STA. 245+40.04
 $\Delta = 15^\circ 00' 00''$
 $Dc = 12^\circ 00' 00''$
 $R = 477.46'$
 $T = 62.86'$
 $L = 125.00'$
 $E = 4.12'$
 $emax = 0.049 (30 \text{ mph})$

CURVE ⑥

PR. RAMP B
P.I. STA. 251+67.28
 $\Delta = 17^\circ 03' 13''$
 $Dc = 10^\circ 00' 00''$
 $R = 572.96'$
 $T = 85.90'$
 $L = 170.54'$
 $E = 6.40'$
 $emax = 0.046 (30 \text{ mph})$

CURVE ⑦

PR. RAMP B
P.I. STA. 256+57.25
 $\Delta = 30^\circ 03' 08''$
 $Dc = 8^\circ 00' 00''$
 $R = 716.20'$
 $T = 192.25'$
 $L = 375.65'$
 $E = 25.36'$
 $emax = 0.060 (45 \text{ mph})$

CURVE ⑧

PR. RAMP B
P.I. STA. 261+00.38
 $\Delta = 11^\circ 38' 52''$
 $Dc = 2^\circ 15' 00''$
 $R = 2,546.48'$
 $T = 259.74'$
 $L = 517.68'$
 $E = 13.21'$
 $emax = 0.033 (45 \text{ mph})$

CURVE ⑨

PR. RAMP C
P.I. STA. 235+91.82
 $\Delta = 5^\circ 08' 21''$
 $Dc = 0^\circ 45' 00''$
 $R = 7,639.00'$
 $T = 342.83'$
 $L = 685.19'$
 $E = 7.69'$
 $emax = 0.016 (45 \text{ mph})$

CURVE ⑩

PR. RAMP C
P.I. STA. 240+93.80
 $\Delta = 23^\circ 36' 11''$
 $Dc = 7^\circ 30' 00''$
 $R = 763.94'$
 $T = 159.62'$
 $L = 314.71'$
 $E = 16.50'$
 $emax = 0.059 (45 \text{ mph})$

CURVE ⑪

PR. RAMP C
P.I. STA. 246+95.64
 $\Delta = 42^\circ 35' 51''$
 $Dc = 18^\circ 00' 00''$
 $R = 318.31'$
 $T = 124.10'$
 $L = 236.65'$
 $E = 23.33'$
 $emax = 0.057 (30 \text{ mph})$

CURVE ⑫

PR. RAMP D
P.I. STA. 243+97.85
 $\Delta = 114^\circ 46' 42''$
 $Dc = 30^\circ 23' 48''$
 $R = 188.49'$
 $Ls = 200.00'$
 $p = 8.75'$
 $\Delta s = 30^\circ 23' 48''$
 $Ts = 135.35'$
 $T = 294.62'$
 $L = 377.60'$
 $E = 161.26'$
 $emax = 0.058 (25 \text{ mph})$

CURVE ⑬

LINE W
P.I. STA. 266+67.30
 $\Delta = 6^\circ 16' 00''$
 $Dc = 0^\circ 28' 00''$
 $R = 12,277.6670'$
 $Ls = 200.00'$
 $p = 0.5818'$
 $\Delta s = 2^\circ 00' 00''$
 $Ts = 66.67'$
 $T = 672.10'$
 $L = 1,342.1905'$
 $E = 18.38'$
 $emax = 0.048$

CURVE ⑭

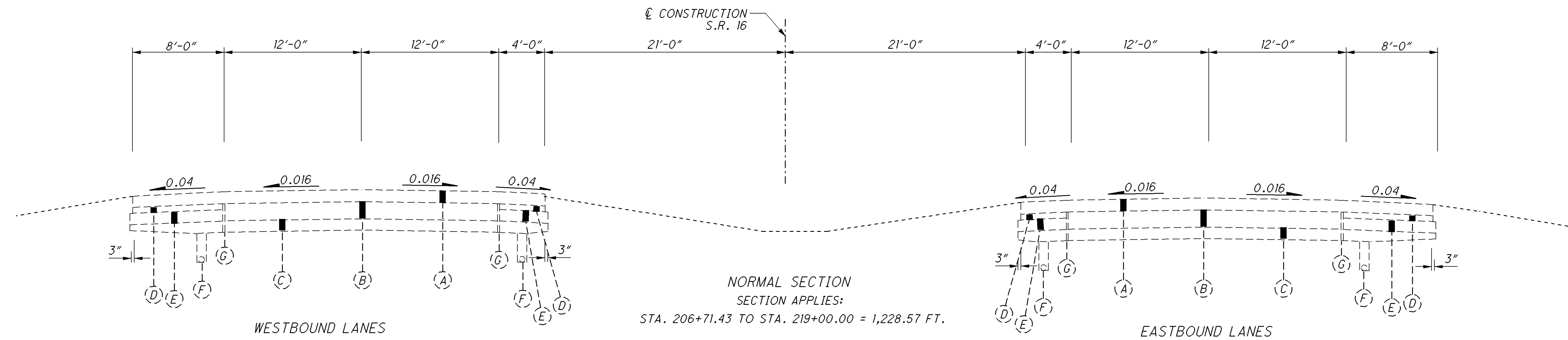
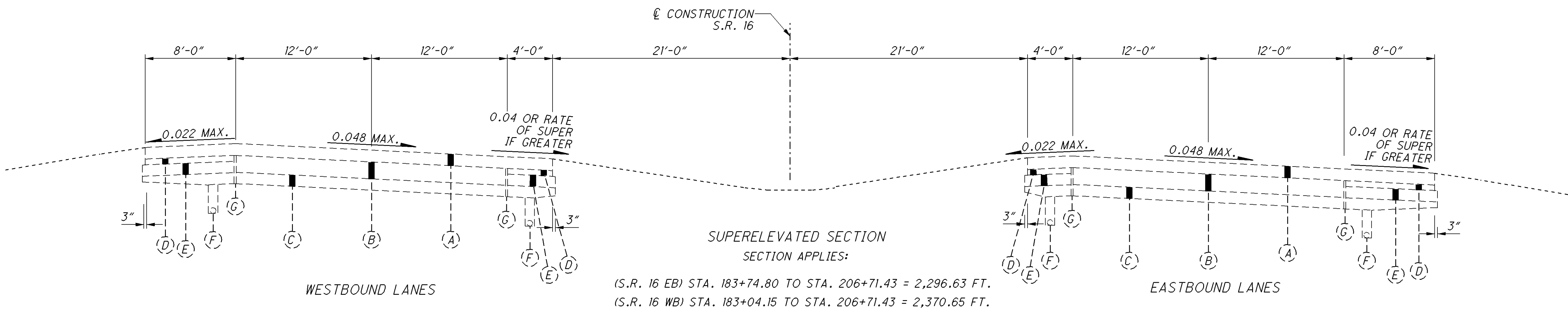
LINE W
P.I. STA. 278+44.67
 $\Delta = 9^\circ 16' 00''$
 $Dc = 2^\circ 00' 00''$
 $R = 2,864.79'$
 $Ls = 200.00'$
 $p = 0.5818'$
 $\Delta s = 2^\circ 00' 00''$
 $Ts = 66.67'$
 $T = 232.1731'$
 $L = 463.3336'$
 $E = 9.3927'$
 $emax = 0.047$

CURVE ⑮

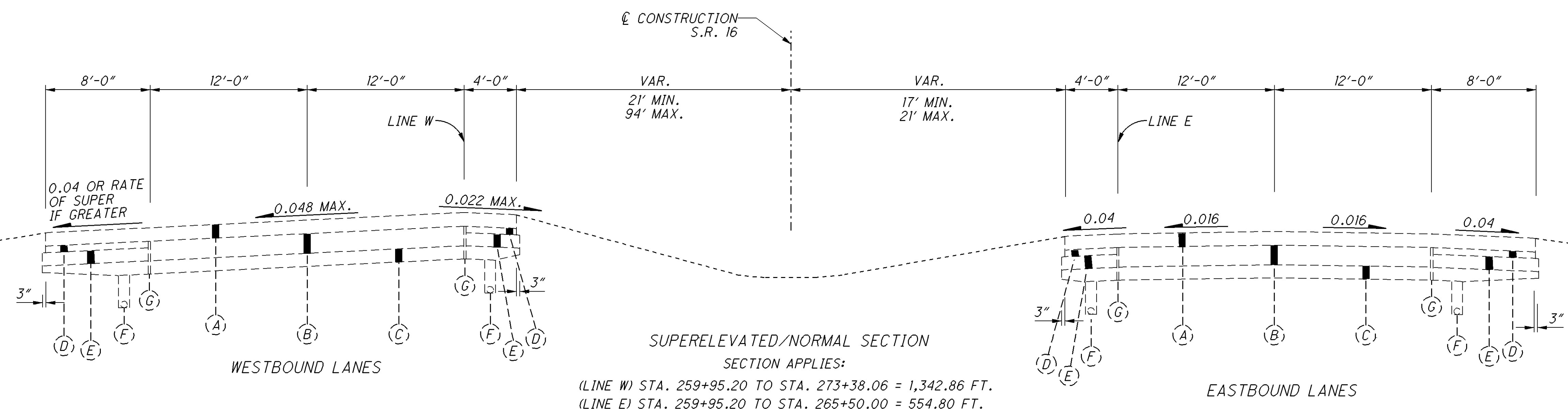
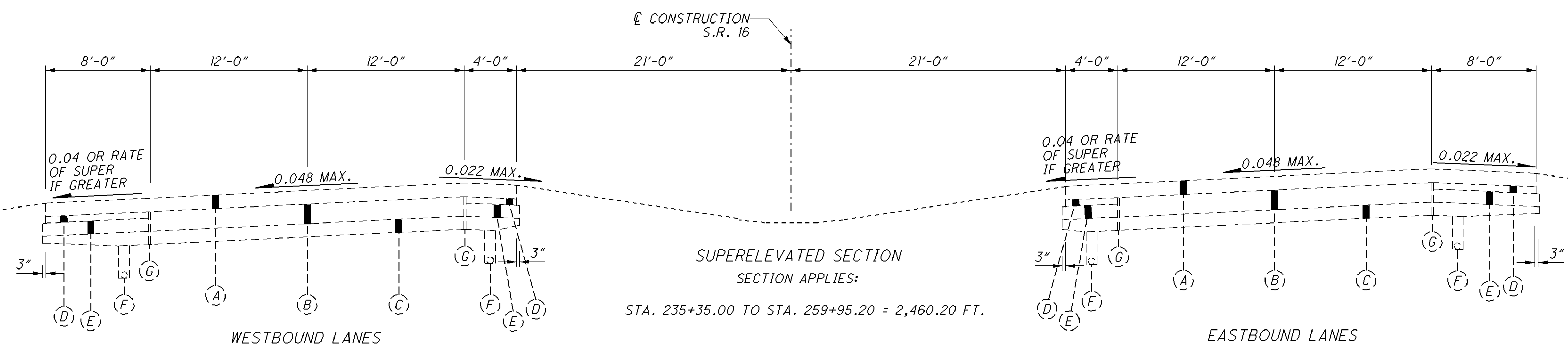
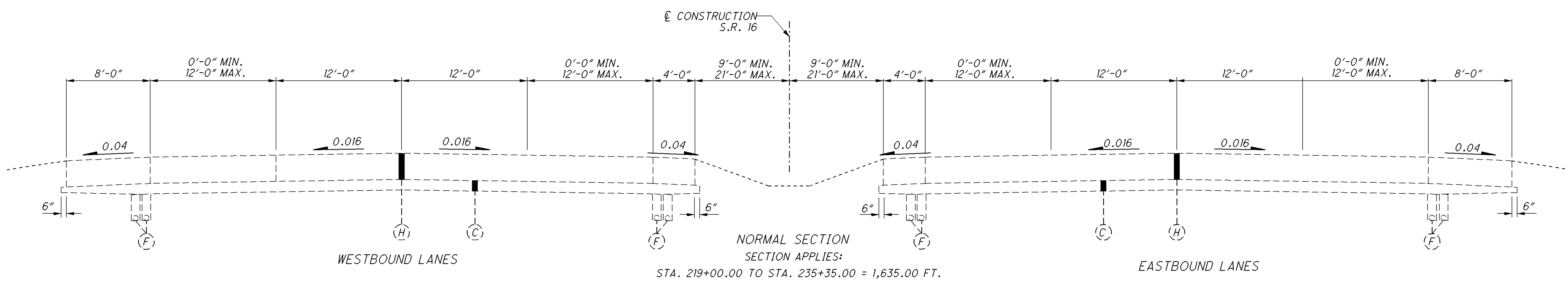
LINE W
P.I. STA. 289+82.63
 $\Delta = 9^\circ 59' 00''$
 $Dc = 2^\circ 30' 00''$
 $R = 2,291.83'$
 $T = 200.1732'$
 $L = 399.3331'$
 $E = 8.7252'$
 $emax = 0.042$

CURVE ⑯

EX. CHERRY VALLEY ROAD
P.I. STA. 27+95.41
 $\Delta = 5^\circ 47' 31''$
 $Dc = 1^\circ 10' 00''$
 $R = 4,911.07'$
 $T = 248.4434'$
 $L = 496.4636'$
 $E = 6.2802'$
 $emax = NC$



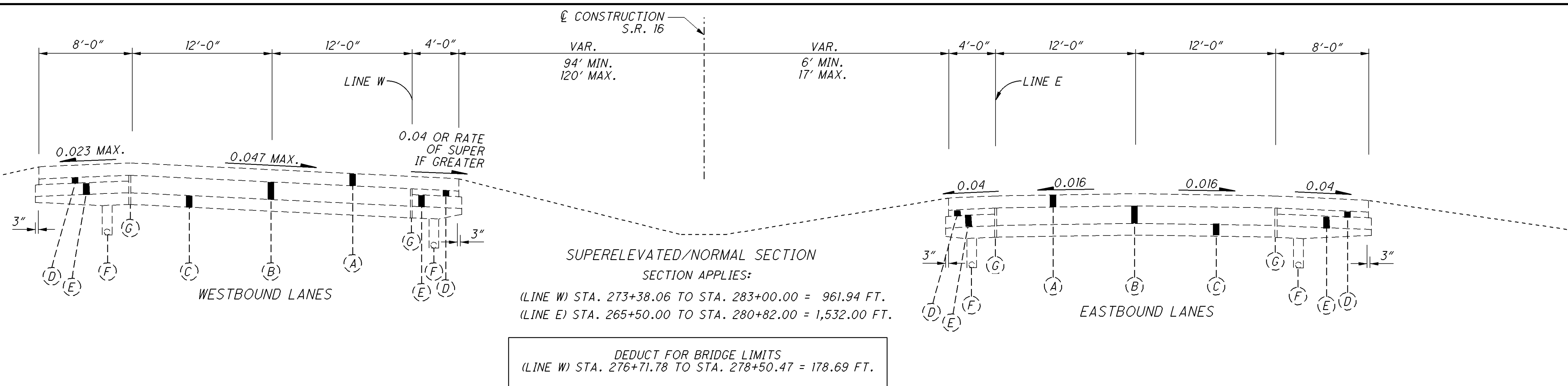
- (A) EXISTING 6-1/4" ASPHALT CONCRETE PAVEMENT
- (B) EXISTING 9" REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT
- (C) EXISTING 6" SUBBASE
- (D) EXISTING 3" ITEM 301
- (E) EXISTING 5" STABILIZED CRUSHED AGGREGATE
- (F) EXISTING 6" UNDERDRAIN
- (G) EXISTING EDGE DRAIN
- (H) EXISTING 15" PLAIN CONCRETE PAVEMENT



- (A) EXISTING 6-1/4" ASPHALT CONCRETE PAVEMENT
- (B) EXISTING 9" REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT
- (C) EXISTING 6" SUBBASE
- (D) EXISTING 3" ITEM 301
- (E) EXISTING 5" STABILIZED CRUSHED AGGREGATE
- (F) EXISTING 6" UNDERDRAIN
- (G) EXISTING EDGE DRAIN
- (H) EXISTING 15" PLAIN CONCRETE PAVEMENT

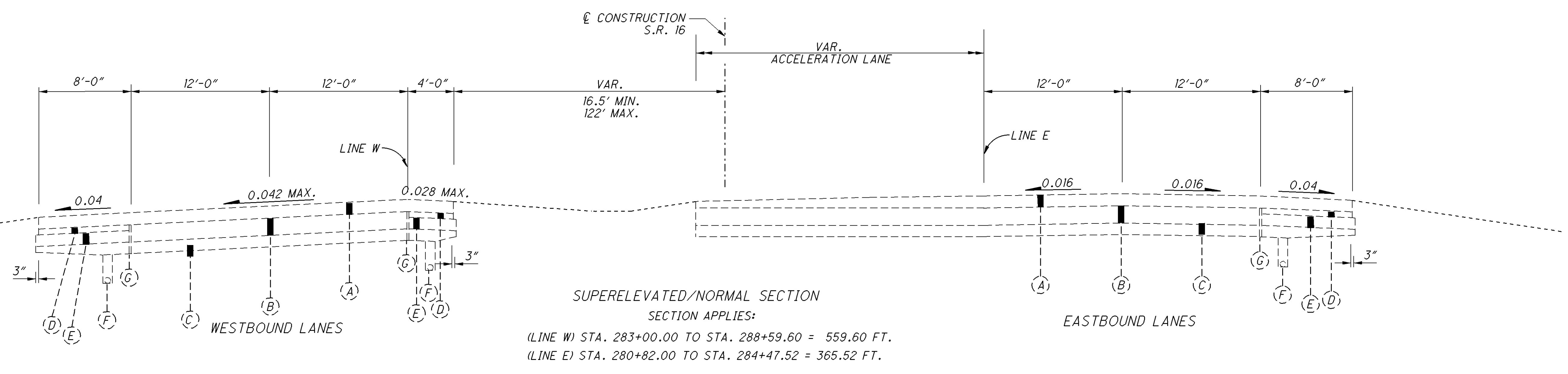
SR16_PTS_001.DGN 5/10/12

SR16_PTS_001.DGN 5/10/12



SUPERELEVATED/NORMAL SECTION
SECTION APPLIES:
(LINE W) STA. 273+38.06 TO STA. 283+00.00 = 961.94 FT.
(LINE E) STA. 265+50.00 TO STA. 280+82.00 = 1,532.00 FT.

DEDUCT FOR BRIDGE LIMITS
(LINE W) STA. 276+71.78 TO STA. 278+50.47 = 178.69 FT.

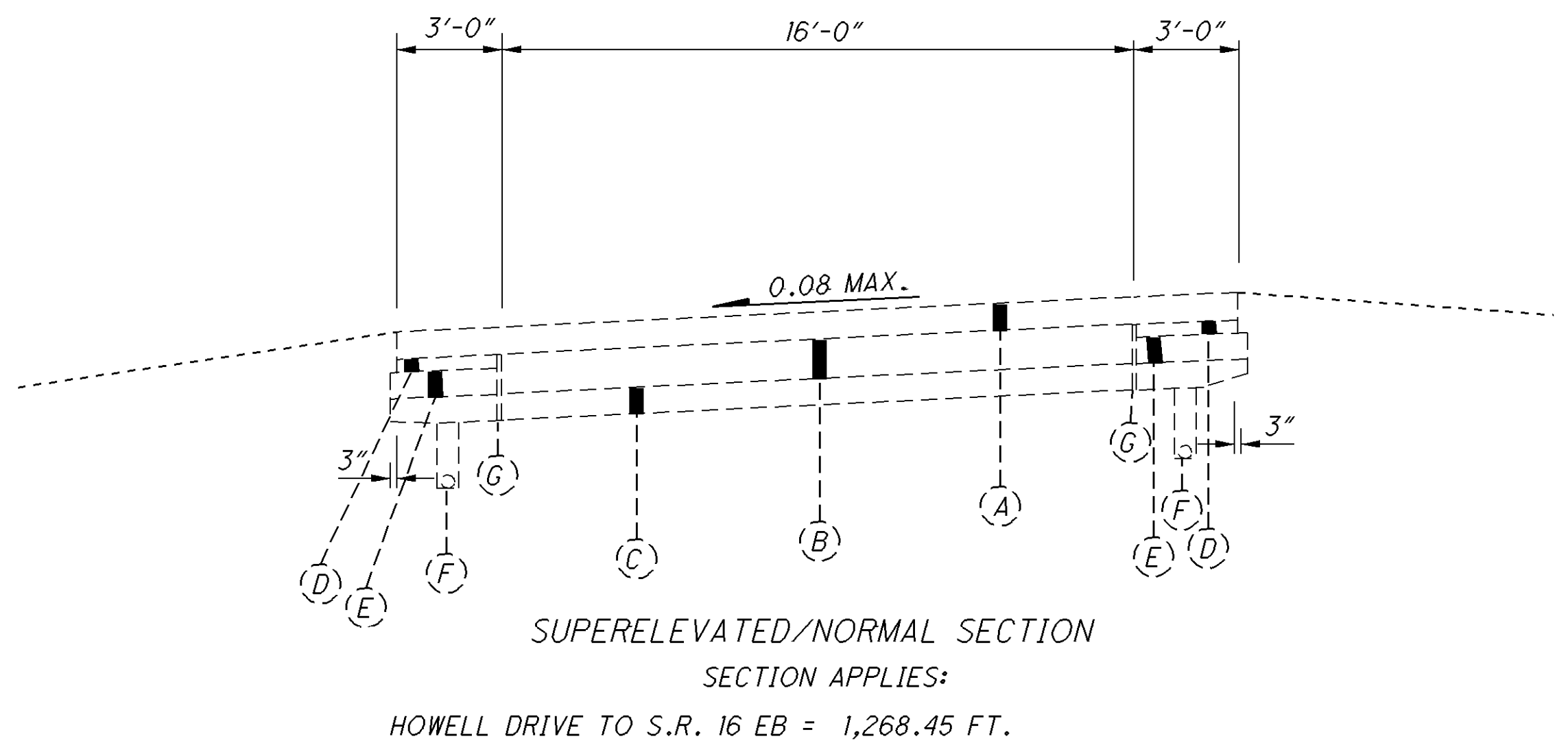


SUPERELEVATED/NORMAL SECTION
SECTION APPLIES:
(LINE W) STA. 283+00.00 TO STA. 288+59.60 = 559.60 FT.
(LINE E) STA. 280+82.00 TO STA. 284+47.52 = 365.52 FT.

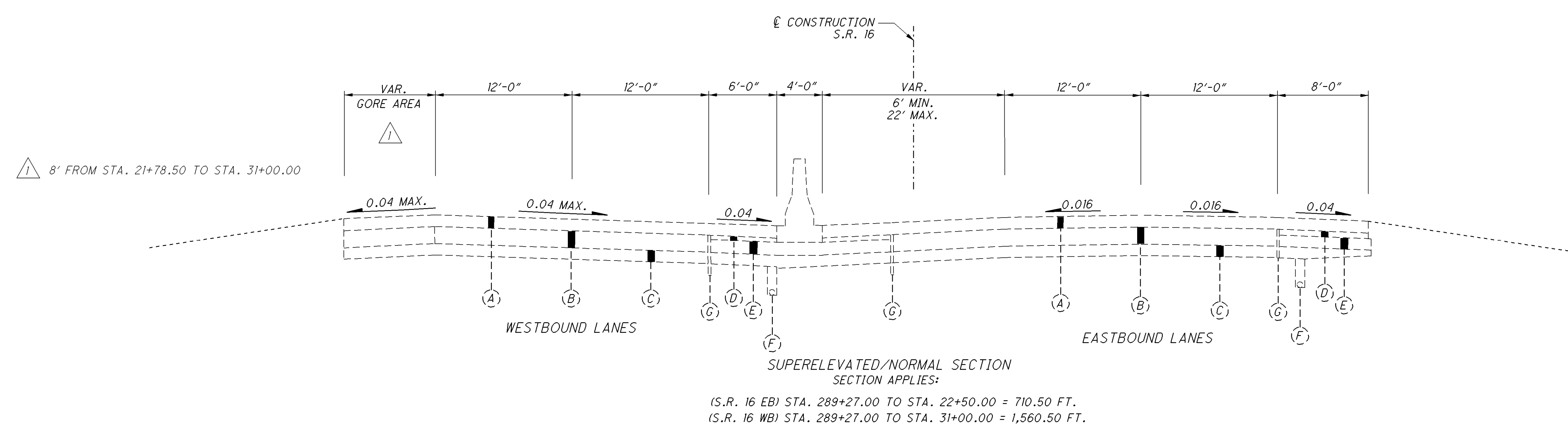
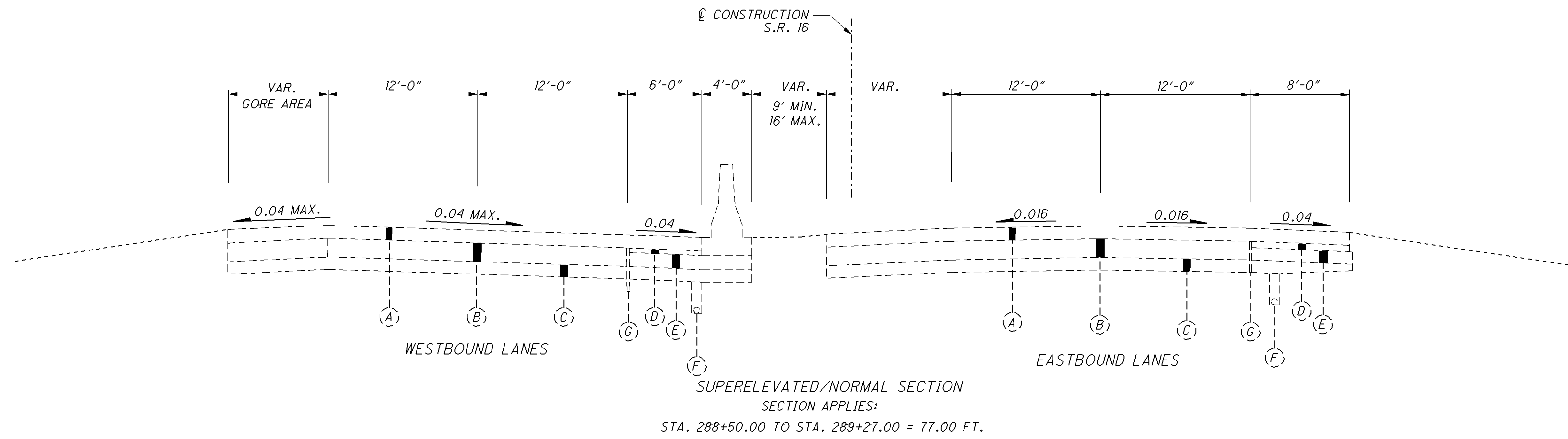
STATION EQUATION
(LINE E) STA. 284+47.52 = (SR 16) STA. 284+47.46
(LINE W) STA. 288+59.60 = (SR 16) STA. 288+50.00

(SR 16) STA. 284+47.46 TO STA. 288+50.00 = 402.54 FT.

S.R. 16 EASTBOUND ON-RAMP FROM GRANVILLE ROAD
(TO BE REMOVED)



- (A) EXISTING 6-1/4" ASPHALT CONCRETE PAVEMENT
- (B) EXISTING 9" REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT
- (C) EXISTING 6" SUBBASE
- (D) EXISTING 3" ITEM 301
- (E) EXISTING 5" STABILIZED CRUSHED AGGREGATE
- (F) EXISTING 6" UNDERDRAIN
- (G) EXISTING EDGE DRAIN
- (H) EXISTING 15" PLAIN CONCRETE PAVEMENT



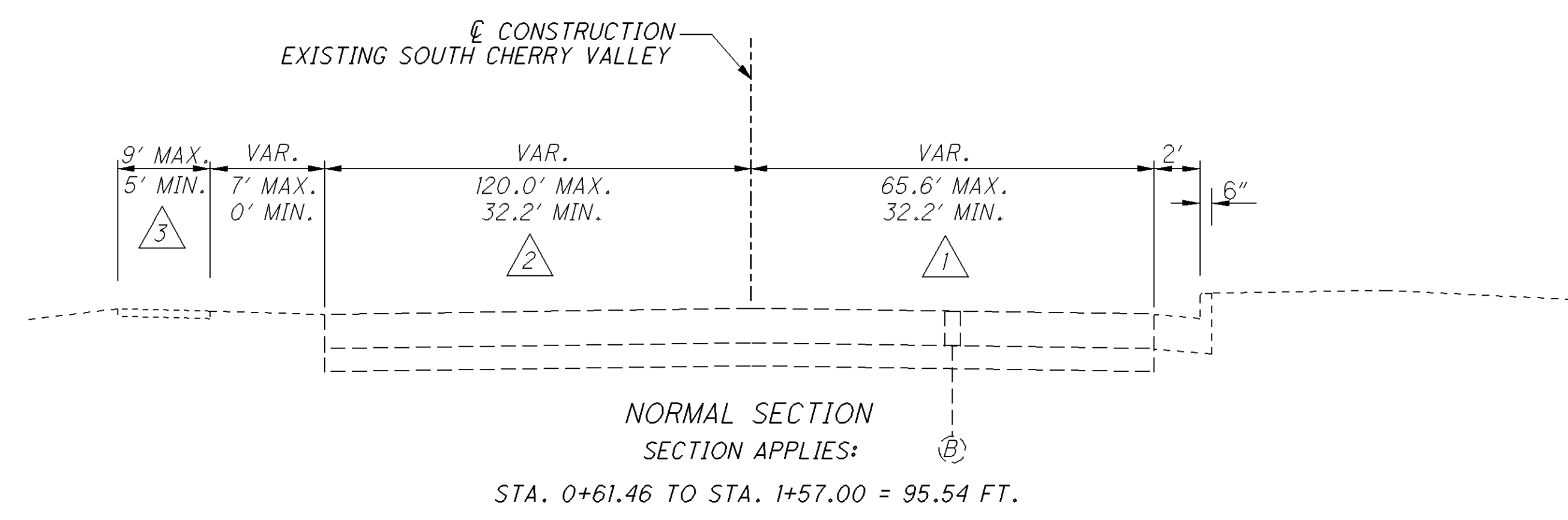
8' FROM STA. 21+78.50 TO STA. 31+00.00

STATION EQUATION
STA. 290+81.90 BK =
STA. 16+94.40 AH

- (A) EXISTING 6-1/4" ASPHALT CONCRETE PAVEMENT
- (B) EXISTING 9" REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT
- (C) EXISTING 6" SUBBASE
- (D) EXISTING 3" ITEM 301
- (E) EXISTING 5" STABILIZED CRUSHED AGGREGATE
- (F) EXISTING 6" UNDERDRAIN
- (G) EXISTING EDGE DRAIN
- (H) EXISTING 15" PLAIN CONCRETE PAVEMENT

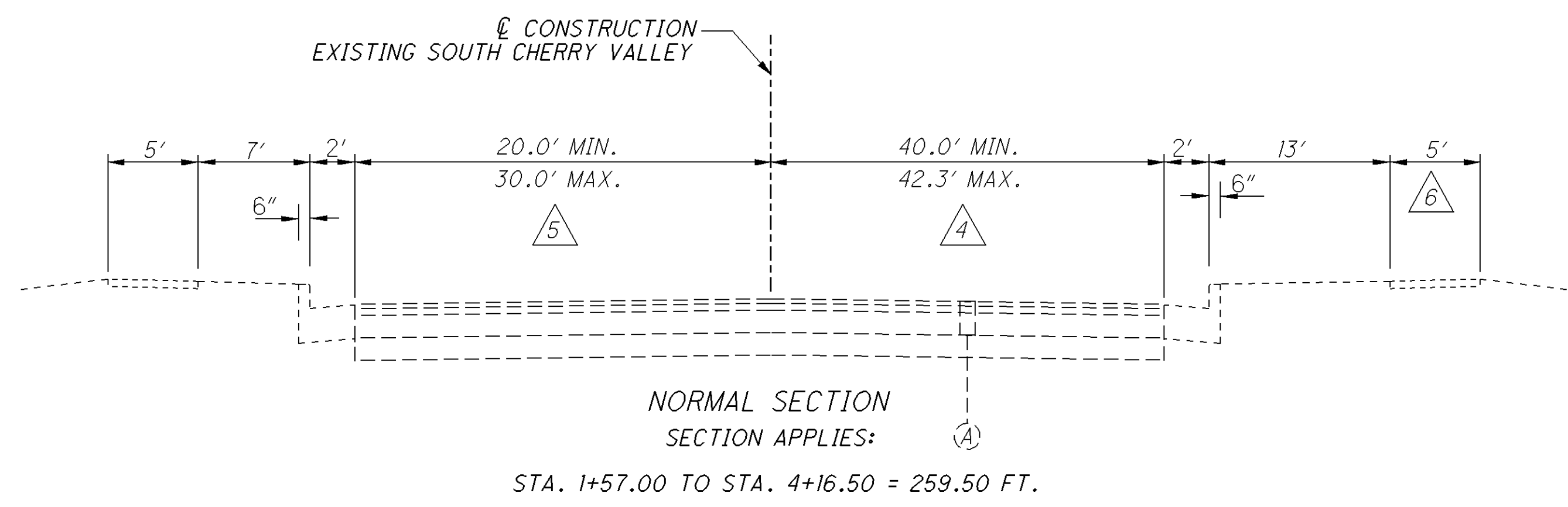
SR16_PTS_001.DGN 05/10/12

△2 32.2' FROM STA. 1+46.80 TO STA. 1+57.00
 △3 9' FROM STA. 1+27.00 TO STA. 1+47.00
 TAPERS FROM 9' @ STA. 1+47.00 TO 5' @ STA. 1+57.00

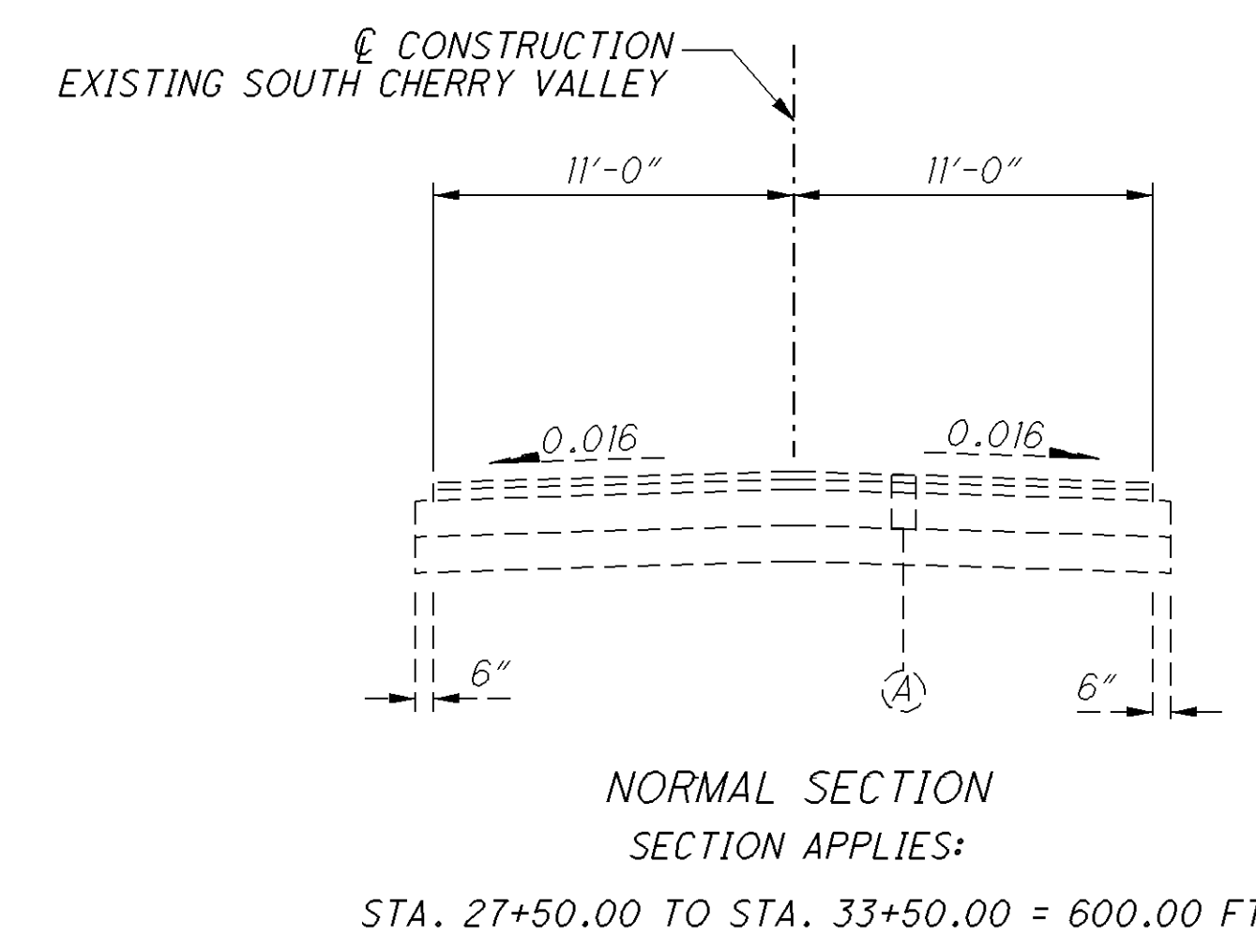
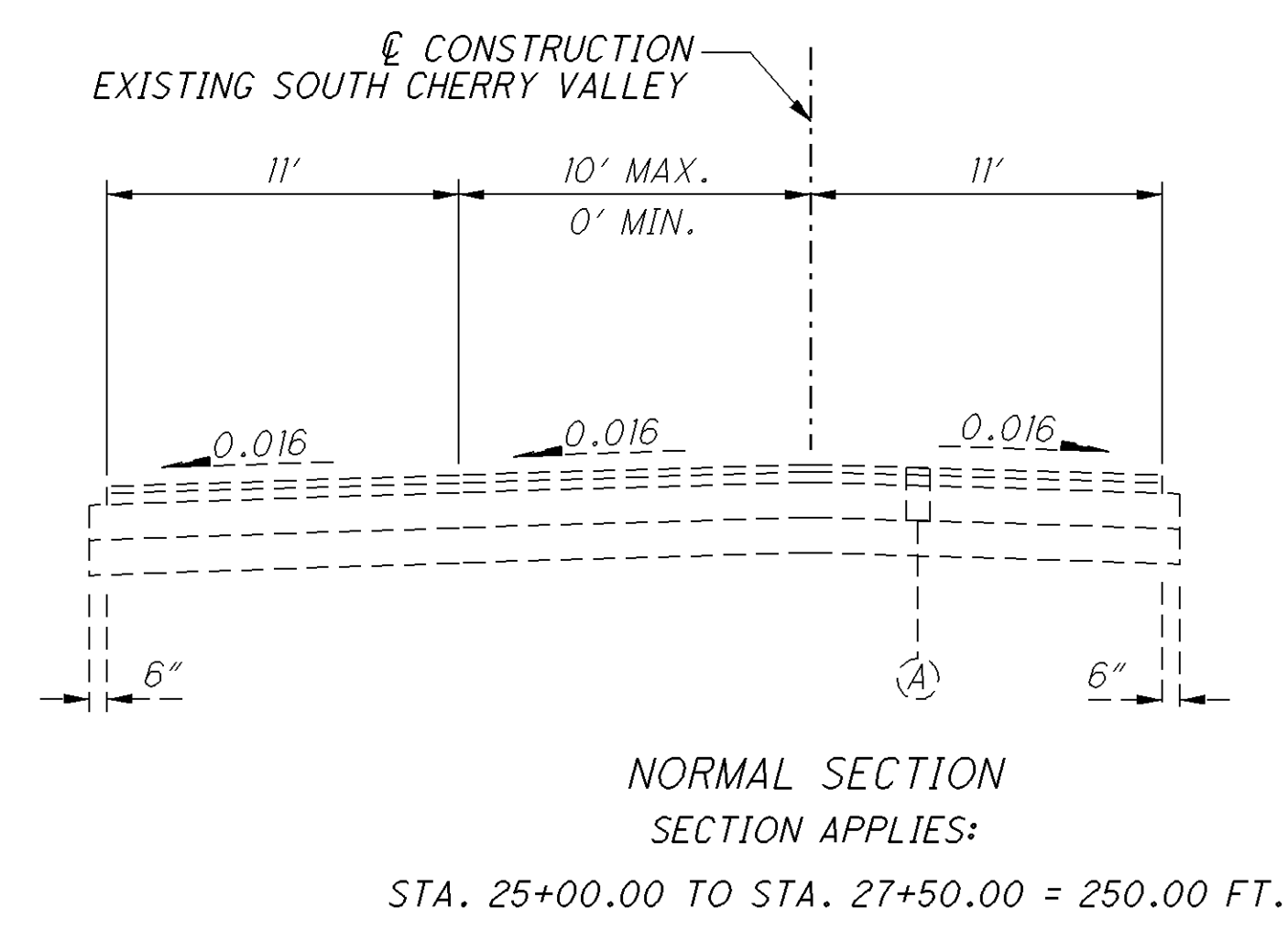


△1 TAPERS FROM 32.2' @ STA. 1+19.00 TO 41.5' @ STA. 1+57.00

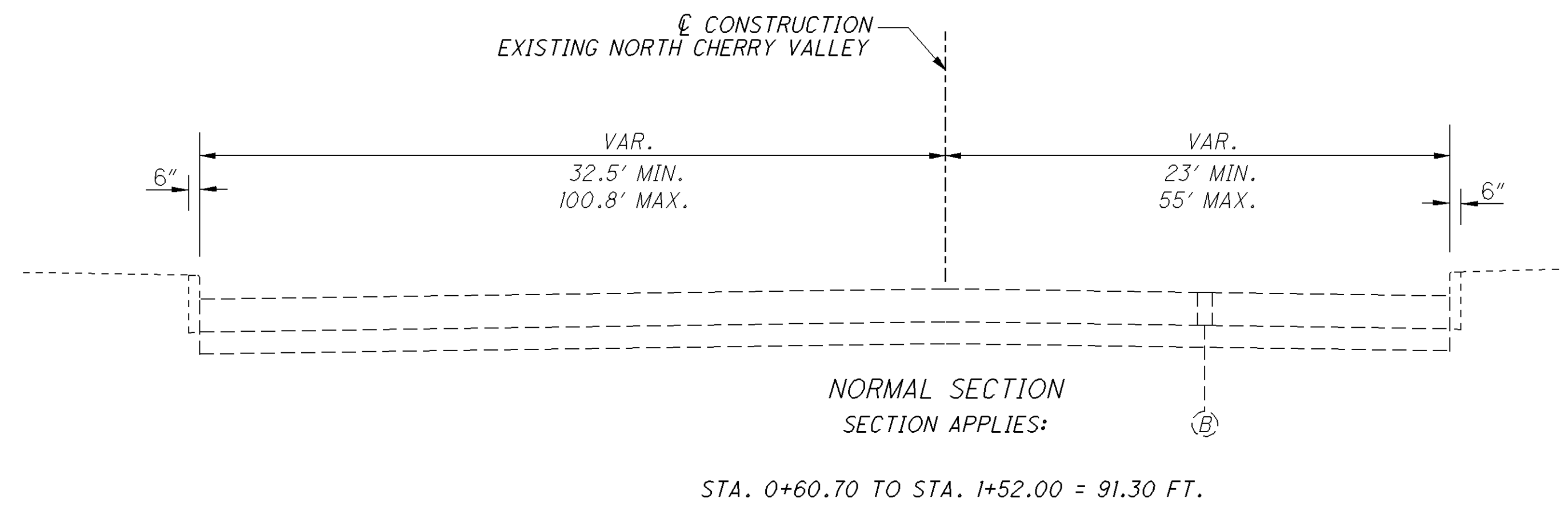
△5 TAPERS FROM 29.7' @ STA. 1+57.00 TO 30.0' @ STA. 3+73.10
 TAPERS FROM 30.0' @ STA. 3+73.10 TO 20.0' @ STA. 4+16.50



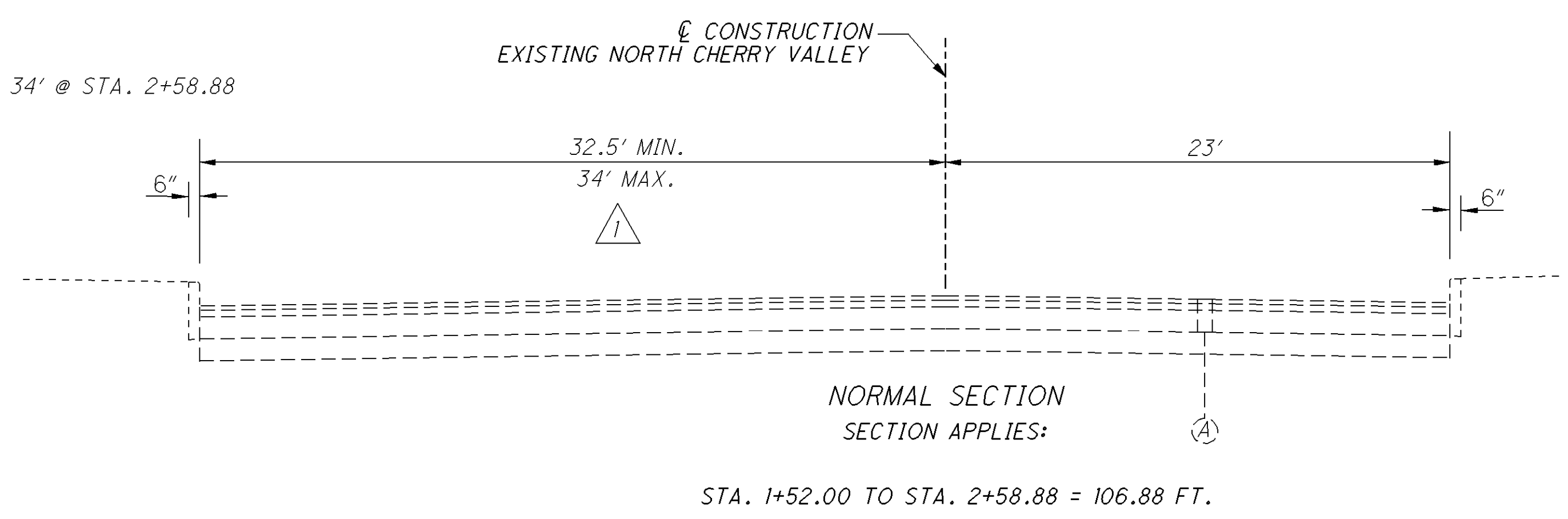
△4 TAPERS FROM 41.5' @ STA. 1+57.00 TO 42.3' @ STA. 1+67.40
 TAPERS FROM 42.3' @ STA. 1+67.40 TO 41.7' @ STA. 3+73.10
 TAPERS FROM 41.7' @ STA. 3+73.10 TO 40.0' @ STA. 4+16.50
 △6 5' FROM STA. 2+66.36 TO STA. 4+16.50



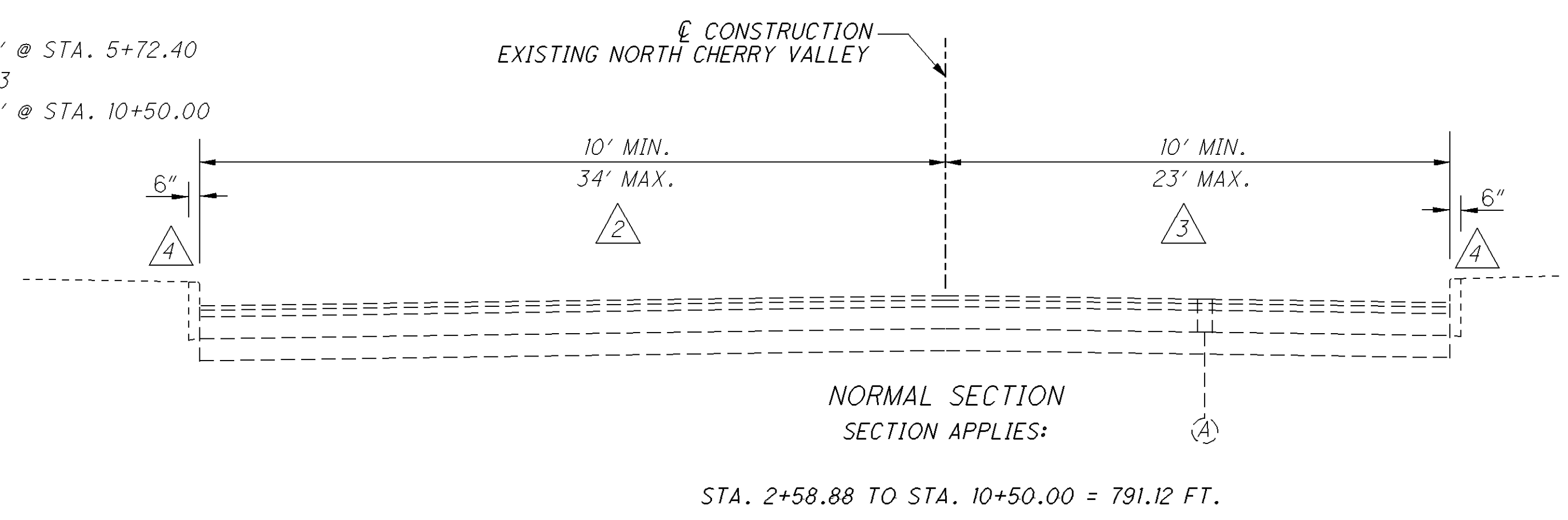
(A) EXISTING 10" ASPHALT
 (B) EXISTING 15" PLAIN CONCRETE PAVEMENT



1 TAPERS FROM 32.5' @ STA. 1+52.00 TO 34' @ STA. 2+58.88



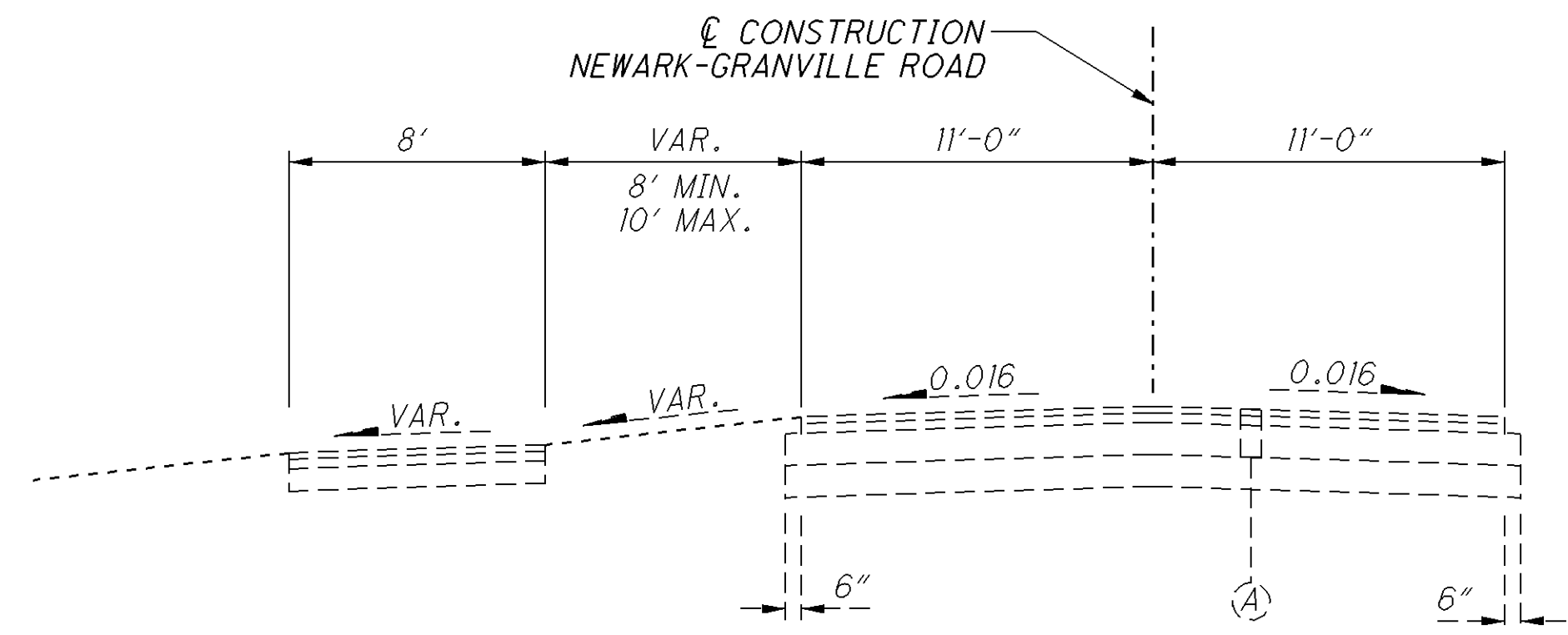
2 TAPERS FROM 34' @ STA. 5+11.35 TO 23' @ STA. 5+72.40
 23' FROM STA. 5+72.40 TO STA. 8+87.13
 TAPERS FROM 23' @ STA. 8+87.13 TO 10' @ STA. 10+50.00



3 TAPERS FROM 23' @ STA. 8+87.13 TO 10' @ STA. 10+50.50

4 CURB ENDS AT STA. 8+25.00

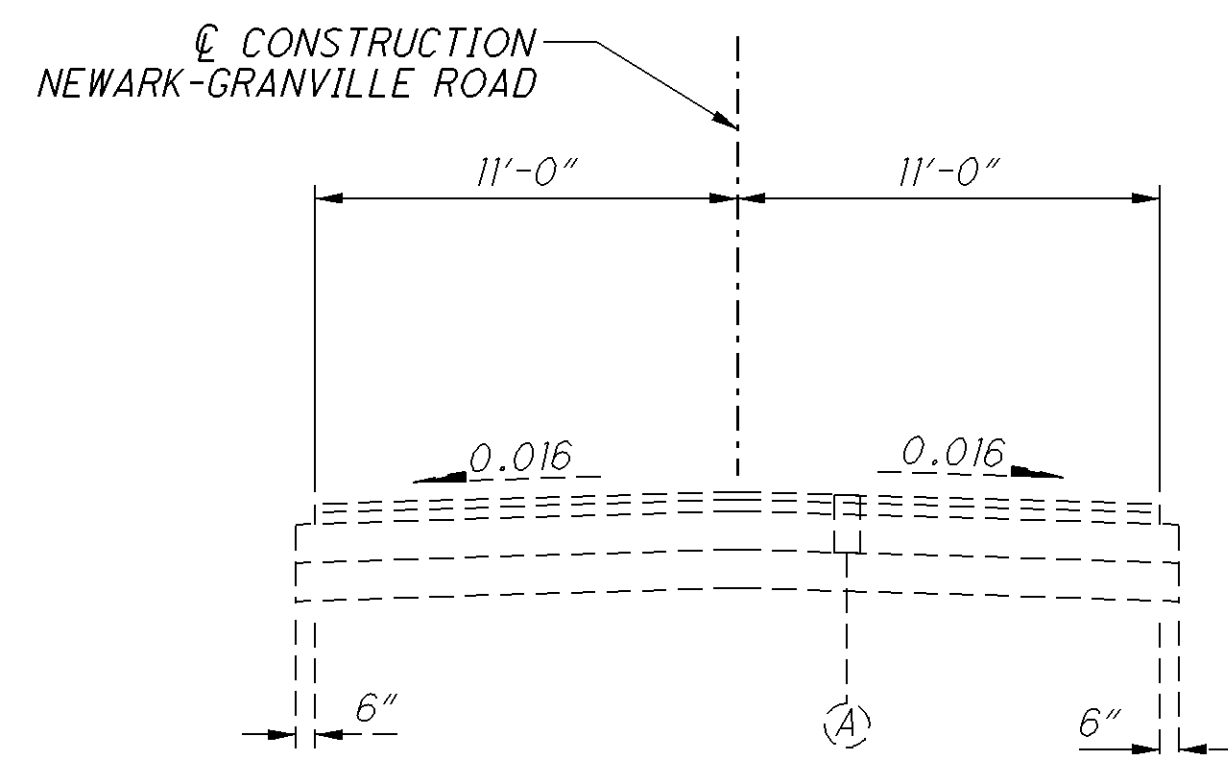
(A) EXISTING 10" ASPHALT
 (B) EXISTING 15" PLAIN CONCRETE PAVEMENT



NORMAL SECTION
SECTION APPLIES:

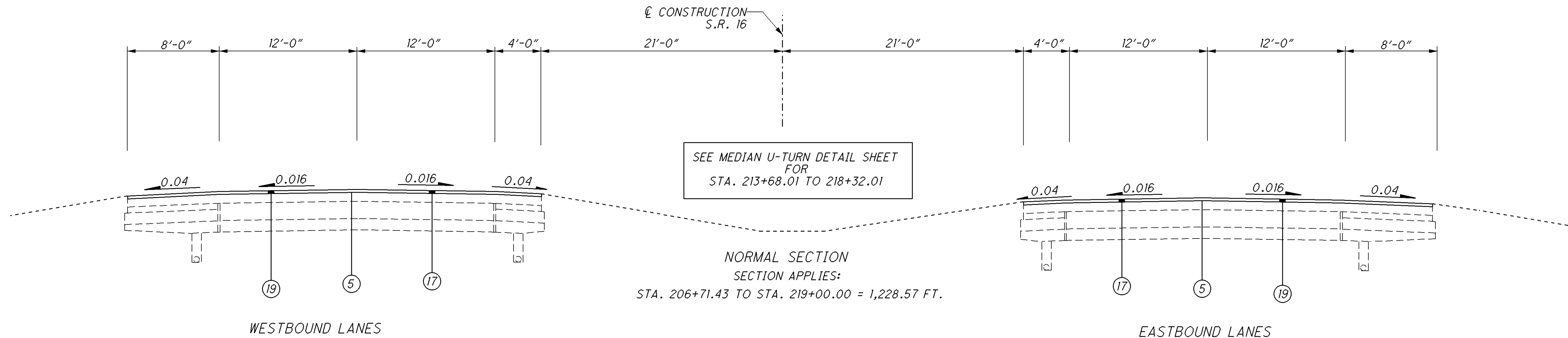
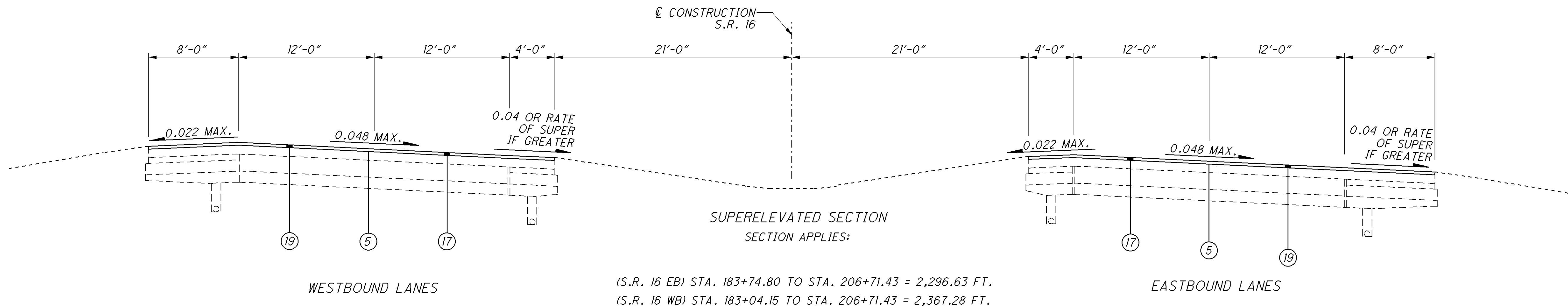
STA. 245+00.00 TO STA. 248+00.00 = 300.00 FT.

(A) EXISTING 16" ASPHALT



NORMAL SECTION
SECTION APPLIES:

STA. 248+00.00 TO STA. 254+50.00 = 650.00 FT.

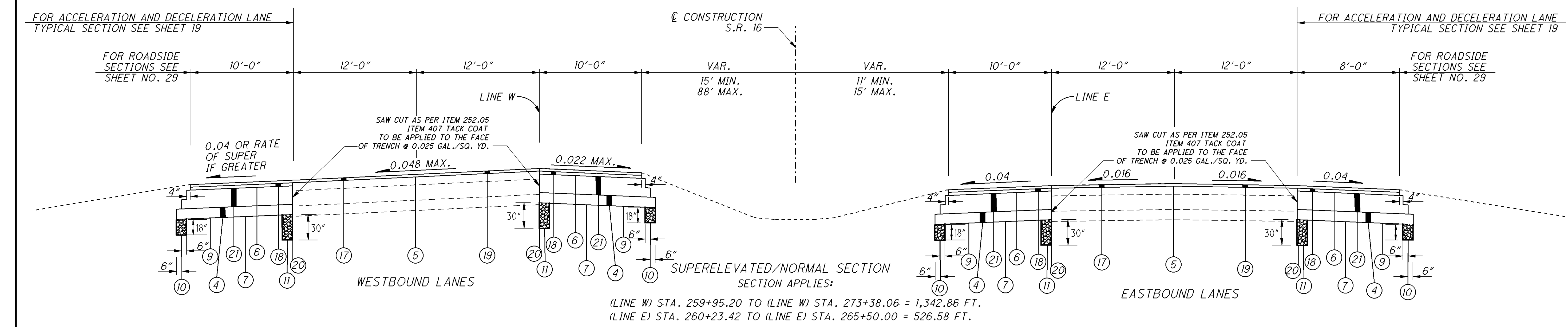
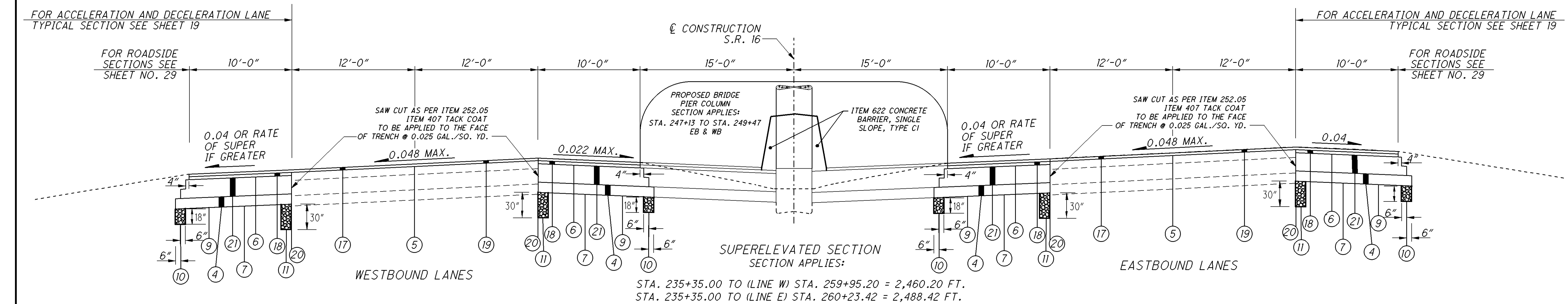
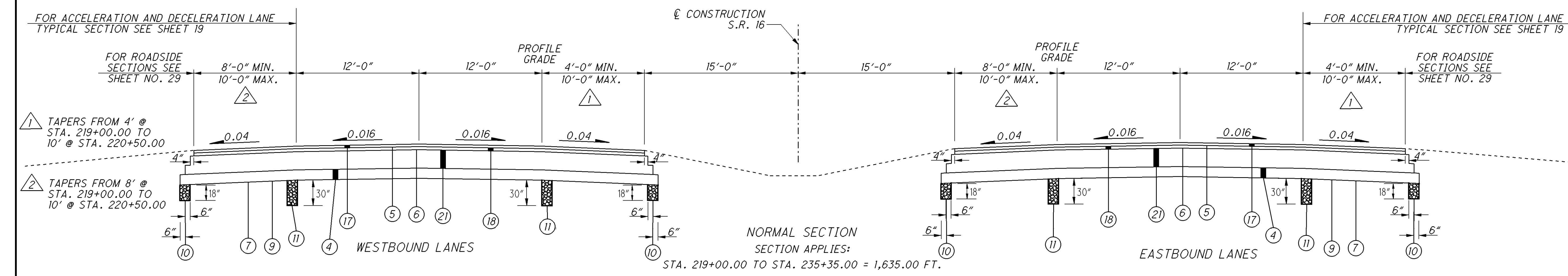


- ① ITEM 441 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (446), PG70-22M
- ② ITEM 441 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (446)
- ③ ITEM 301 6" ASPHALT CONCRETE BASE, PG64-22
- ④ ITEM 304 6" AGGREGATE BASE
- ⑤ ITEM 407 TACK COAT, TRACKLESS TACK, SURFACE COURSE
- ⑥ ITEM 407 TACK COAT, TRACKLESS TACK, INTERMEDIATE COURSE
- ⑦ ITEM 204 PROOF ROLLING

- ⑧ ITEM 204 SUBGRADE COMPACTION
- ⑨ ITEM 206 CEMENT STABILIZED SUBGRADE, 14 INCHES DEEP
- ⑩ ITEM 605 6" BASE PIPE UNDERDRAINS (18" DEPTH)
- ⑪ ITEM 605 6" SHALLOW PIPE UNDERDRAINS (30" DEPTH)
- ⑫ ITEM 606 GUARDRAIL, TYPE 5
- ⑬ ITEM 609 CONCRETE MEDIAN
- ⑭ ITEM 659 SEEDING AND MULCHING, CLASS 2

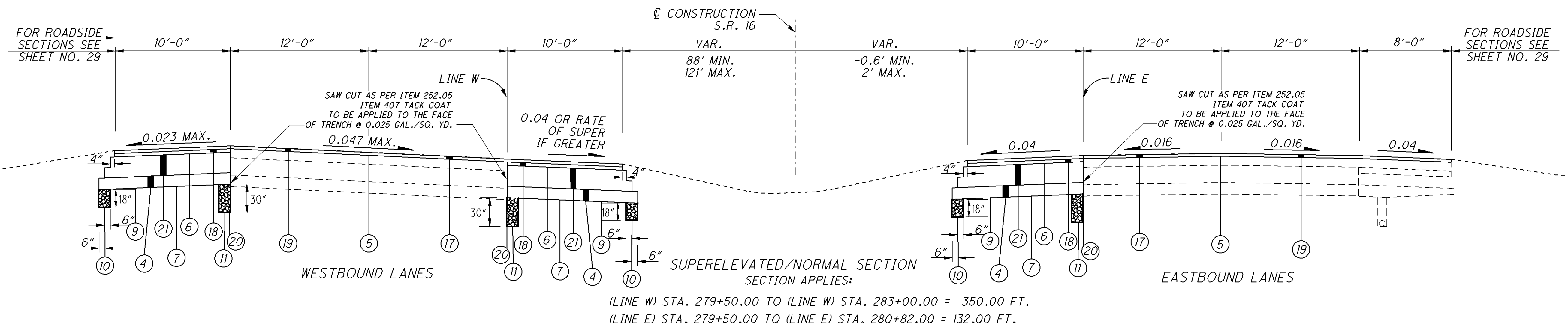
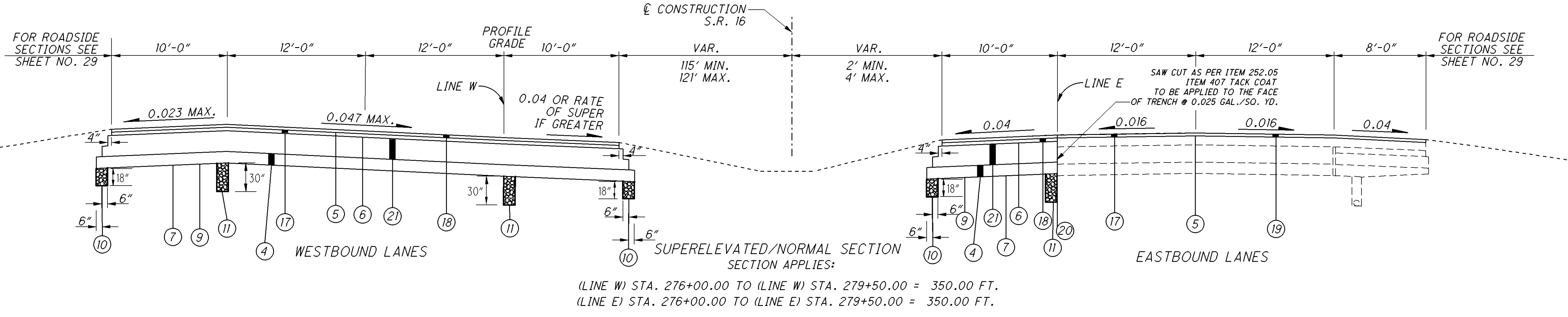
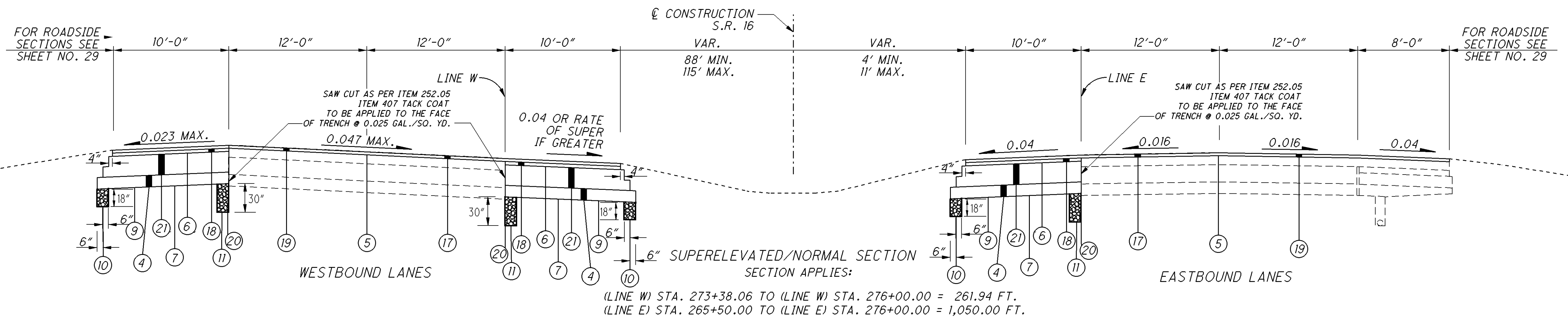
- ⑮ ITEM 452 9" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC1 WITH QC/QA
- ⑯ STANDARD LONGITUDINAL JOINT
- ⑰ ITEM 442 1/2" ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446)
- ⑱ ITEM 442 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (446)
- ⑲ ITEM 254 PAVEMENT PLANING, ASPHALT CONCRETE
- ⑳ FULL DEPTH PAVEMENT SAWING
- ㉑ ITEM 301 9" ASPHALT CONCRETE BASE, PG64-22

SR16_PTS_001.DGN 5/10/12



- ① ITEM 441 1 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (446), PG70-22M
- ② ITEM 441 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (446)
- ③ ITEM 301 6" ASPHALT CONCRETE BASE, PG64-22
- ④ ITEM 304 6" AGGREGATE BASE
- ⑤ ITEM 407 TACK COAT, TRACKLESS TACK, SURFACE COURSE
- ⑥ ITEM 407 TACK COAT, TRACKLESS TACK, INTERMEDIATE COURSE
- ⑦ ITEM 204 PROOF ROLLING
- ⑧ ITEM 204 SUBGRADE COMPACTION
- ⑨ ITEM 206 CEMENT STABILIZED SUBGRADE, 14 INCHES DEEP
- ⑩ ITEM 605 6" BASE PIPE UNDERDRAINS (18" DEPTH)
- ⑪ ITEM 605 6" SHALLOW PIPE UNDERDRAINS (30" DEPTH)
- ⑫ ITEM 606 GUARDRAIL, TYPE 5
- ⑬ ITEM 609 CONCRETE MEDIAN
- ⑭ ITEM 659 SEEDING AND MULCHING, CLASS 2
- ⑮ ITEM 452 9" NON-REINFORCED CONCRETE PAVEMENT, CLASS OC1 WITH QC/OA
- ⑯ STANDARD LONGITUDINAL JOINT
- ⑰ ITEM 442 1 1/2" ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446)
- ⑱ ITEM 442 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (446)
- ⑲ ITEM 254 PAVEMENT PLANING, ASPHALT CONCRETE
- ⑳ FULL DEPTH PAVEMENT SAWING
- ㉑ ITEM 301 9" ASPHALT CONCRETE BASE, PG64-22

SR16_PTS_001.DGN 5/10/12

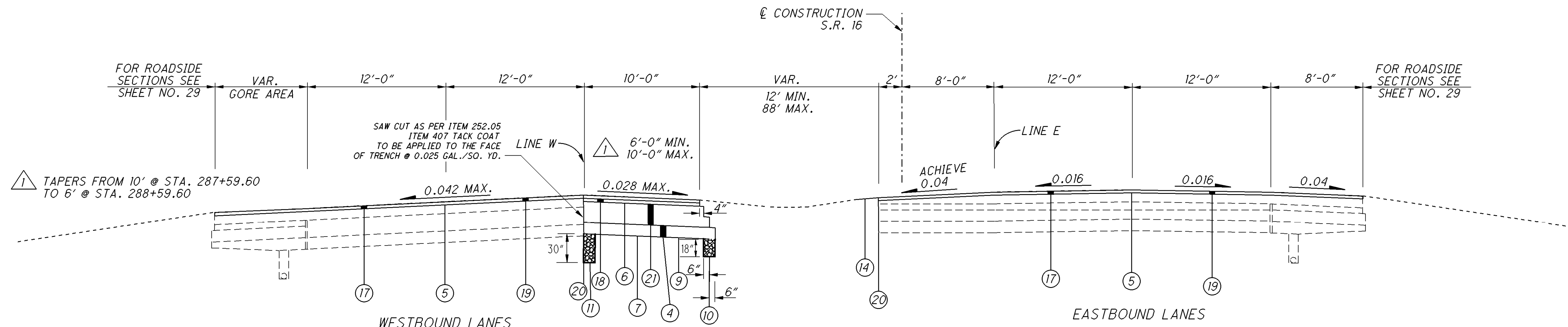


- ① ITEM 441 1 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (446), PG70-22M
- ② ITEM 441 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (446)
- ③ ITEM 301 6" ASPHALT CONCRETE BASE, PG64-22
- ④ ITEM 304 6" AGGREGATE BASE
- ⑤ ITEM 407 TACK COAT, TRACKLESS TACK, SURFACE COURSE
- ⑥ ITEM 407 TACK COAT, TRACKLESS TACK, INTERMEDIATE COURSE
- ⑦ ITEM 204 PROOF ROLLING

- ⑧ ITEM 204 SUBGRADE COMPACTION
- ⑨ ITEM 206 CEMENT STABILIZED SUBGRADE, 14 INCHES DEEP
- ⑩ ITEM 605 6" BASE PIPE UNDERDRAINS (18" DEPTH)
- ⑪ ITEM 605 6" SHALLOW PIPE UNDERDRAINS (30" DEPTH)
- ⑫ ITEM 606 GUARDRAIL, TYPE 5
- ⑬ ITEM 609 CONCRETE MEDIAN
- ⑭ ITEM 659 SEEDING AND MULCHING, CLASS 2

- ⑮ ITEM 452 9" NON-REINFORCED CONCRETE PAVEMENT, CLASS OC1 WITH OC/OA
- ⑯ STANDARD LONGITUDINAL JOINT
- ⑰ ITEM 442 1 1/2" ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446)
- ⑱ ITEM 442 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (446)
- ⑲ ITEM 254 PAVEMENT PLANING, ASPHALT CONCRETE
- ⑳ FULL DEPTH PAVEMENT SAWING
- ㉑ ITEM 301 9" ASPHALT CONCRETE BASE, PG64-22

SR16_PTS_001.DGN 5/10/12

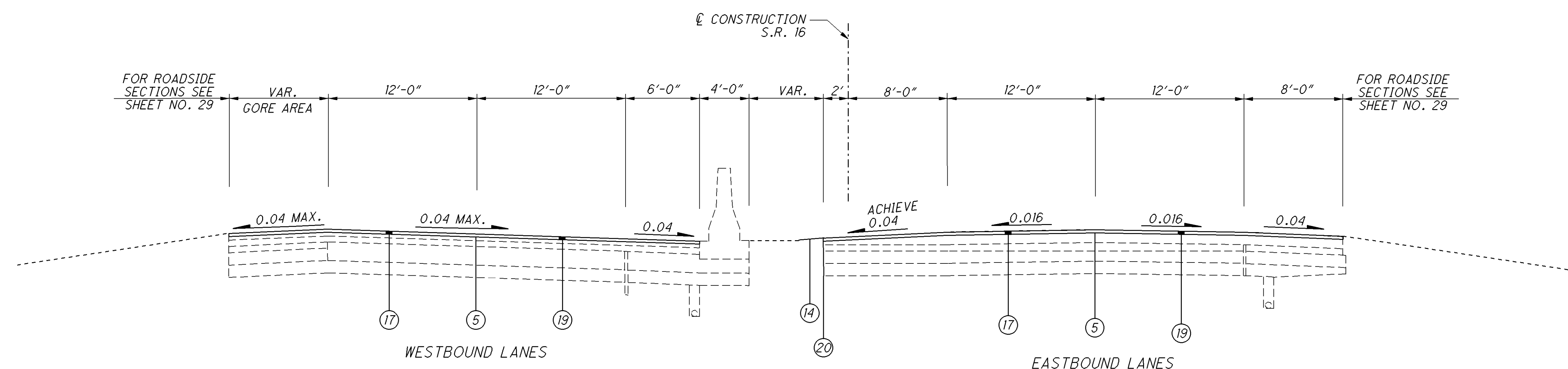


SUPERELEVATED/NORMAL SECTION
SECTION APPLIES:

(LINE W) STA. 283+00.00 TO (LINE W) STA. 288+59.60 = 559.60 FT.
(LINE E) STA. 280+82.00 TO (LINE E) STA. 284+47.52 = 365.52 FT.

STATION EQUATION
(LINE E) STA. 284+47.52 = (SR 16) STA. 284+47.46
(LINE W) STA. 288+59.60 = (SR 16) STA. 288+50.00

(SR 16) STA. 284+47.46 TO STA. 288+50.00 = 402.54 FT.

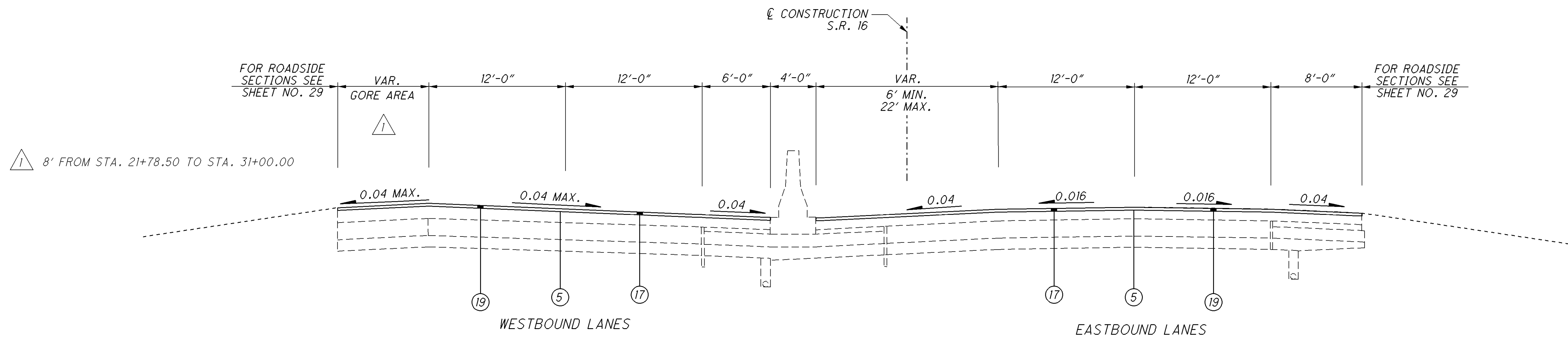


NORMAL SECTION
SECTION APPLIES:

STA. 288+50.00 TO STA. 289+27.00 = 77.00 FT.

- | | | |
|--|---|---|
| ① ITEM 441 1 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (446), PG70-22M | ⑧ ITEM 204 SUBGRADE COMPACTION | ⑮ ITEM 452 9" NON-REINFORCED CONCRETE PAVEMENT, CLASS OC1 WITH OC/OA |
| ② ITEM 441 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (446) | ⑨ ITEM 206 CEMENT STABILIZED SUBGRADE, 14 INCHES DEEP | ⑯ STANDARD LONGITUDINAL JOINT |
| ③ ITEM 301 6" ASPHALT CONCRETE BASE, PG64-22 | ⑩ ITEM 605 6" BASE PIPE UNDERDRAINS (18" DEPTH) | ⑰ ITEM 442 1 1/2" ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446) |
| ④ ITEM 304 6" AGGREGATE BASE | ⑪ ITEM 605 6" SHALLOW PIPE UNDERDRAINS (30" DEPTH) | ⑱ ITEM 442 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (446) |
| ⑤ ITEM 407 TACK COAT, TRACKLESS TACK, SURFACE COURSE | ⑫ ITEM 606 GUARDRAIL, TYPE 5 | ⑲ ITEM 254 PAVEMENT PLANING, ASPHALT CONCRETE |
| ⑥ ITEM 407 TACK COAT, TRACKLESS TACK, INTERMEDIATE COURSE | ⑬ ITEM 609 CONCRETE MEDIAN | ⑳ FULL DEPTH PAVEMENT SAWING |
| ⑦ ITEM 204 PROOF ROLLING | ⑭ ITEM 659 SEEDING AND MULCHING, CLASS 2 | ㉑ ITEM 301 9" ASPHALT CONCRETE BASE, PG64-22 |

SR16_PTS_001.DGN 5/10/12



SUPERELEVATED/NORMAL SECTION
SECTION APPLIES:
(S.R. 16 EB) STA. 289+27.00 TO STA. 22+50.00 = 710.50 FT.
(S.R. 16 WB) STA. 289+27.00 TO STA. 31+00.00 = 1,560.50 FT.

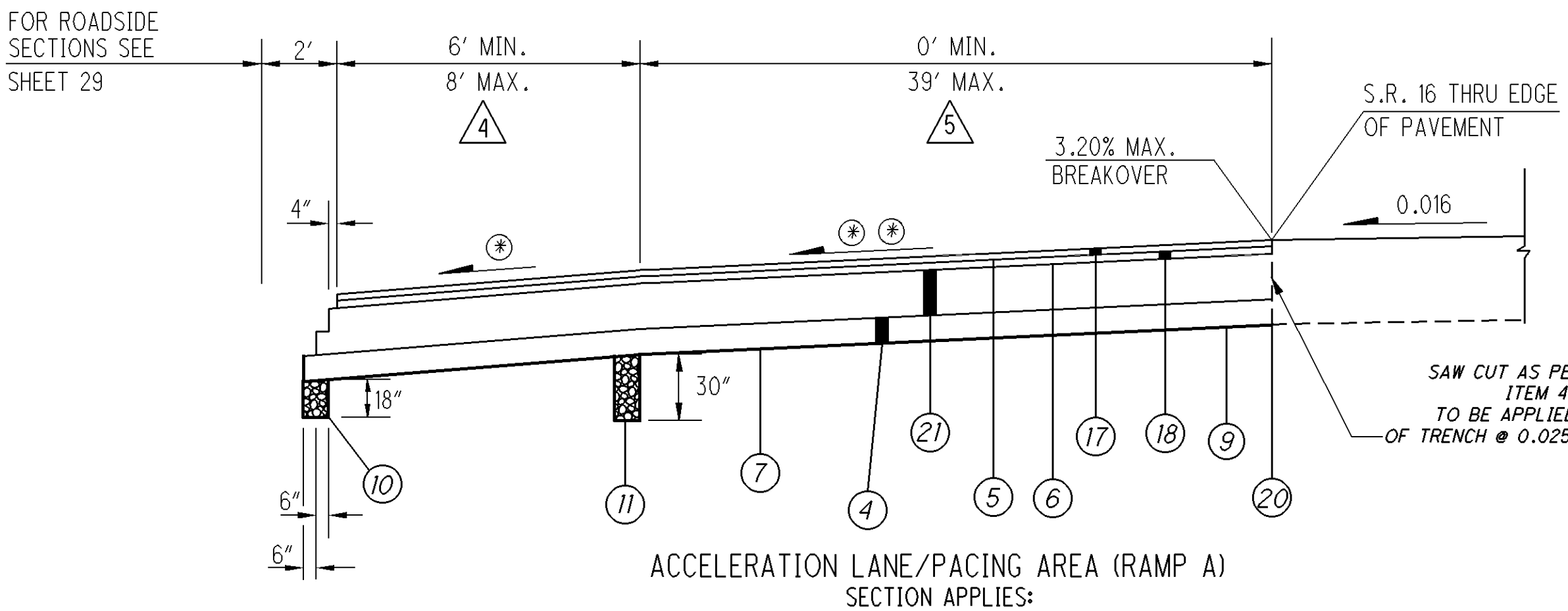
STATION EQUATION
STA. 290+81.90 BK =
STA. 16+94.40 AH

- ① ITEM 441 1 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (446), PG70-22M
- ② ITEM 441 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (446)
- ③ ITEM 301 6" ASPHALT CONCRETE BASE, PG64-22
- ④ ITEM 304 6" AGGREGATE BASE
- ⑤ ITEM 407 TACK COAT, TRACKLESS TACK, SURFACE COURSE
- ⑥ ITEM 407 TACK COAT, TRACKLESS TACK, INTERMEDIATE COURSE
- ⑦ ITEM 204 PROOF ROLLING

- ⑧ ITEM 204 SUBGRADE COMPACTION
- ⑨ ITEM 206 CEMENT STABILIZED SUBGRADE, 14 INCHES DEEP
- ⑩ ITEM 605 6" BASE PIPE UNDERDRAINS (18" DEPTH)
- ⑪ ITEM 605 6" SHALLOW PIPE UNDERDRAINS (30" DEPTH)
- ⑫ ITEM 606 GUARDRAIL, TYPE 5
- ⑬ ITEM 609 CONCRETE MEDIAN
- ⑭ ITEM 659 SEEDING AND MULCHING, CLASS 2

- ⑮ ITEM 452 9" NON-REINFORCED CONCRETE PAVEMENT, CLASS OC1 WITH OC/OA
- ⑯ STANDARD LONGITUDINAL JOINT
- ⑰ ITEM 442 1 1/2" ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446)
- ⑱ ITEM 442 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (446)
- ⑲ ITEM 254 PAVEMENT PLANING, ASPHALT CONCRETE
- ⑳ FULL DEPTH PAVEMENT SAWING
- ㉑ ITEM 301 9" ASPHALT CONCRETE BASE, PG64-22

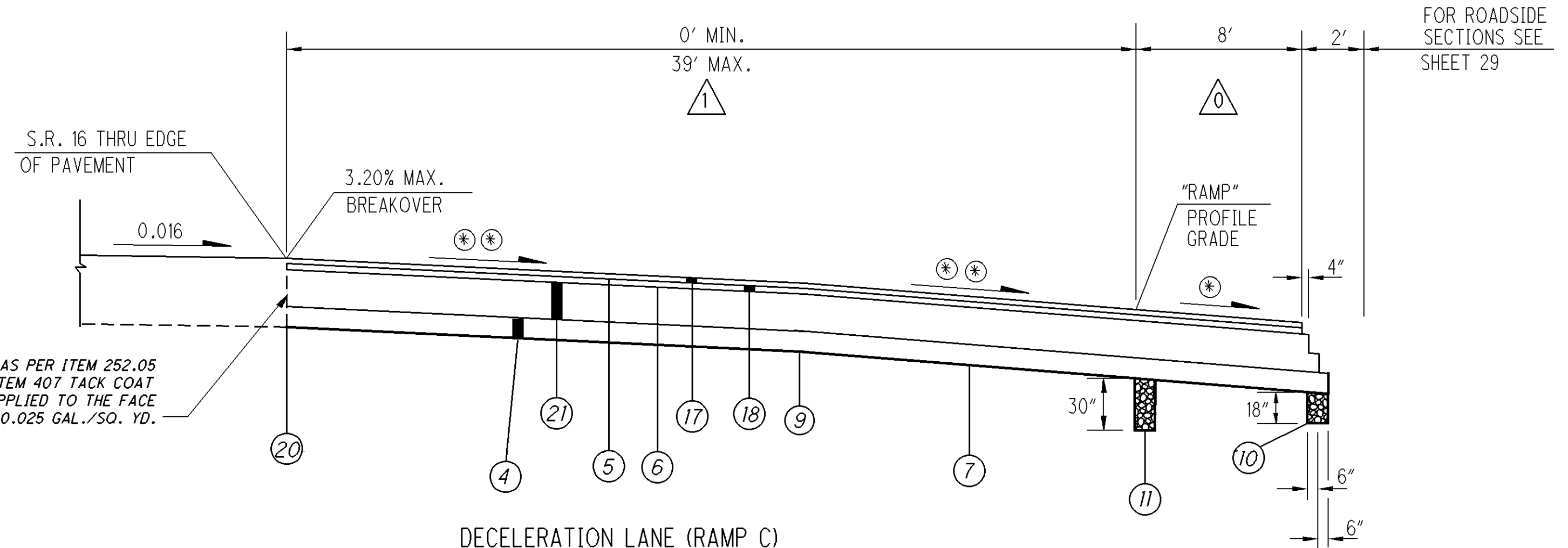
SR16_PTS_001.DGN 5/10/12



ACCELERATION LANE/PACING AREA (RAMP A)
SECTION APPLIES:
STA. 222+68.60 TO STA. 237+92.08 = 1,523.48 FT.
TOTAL 1,523.48 FT.

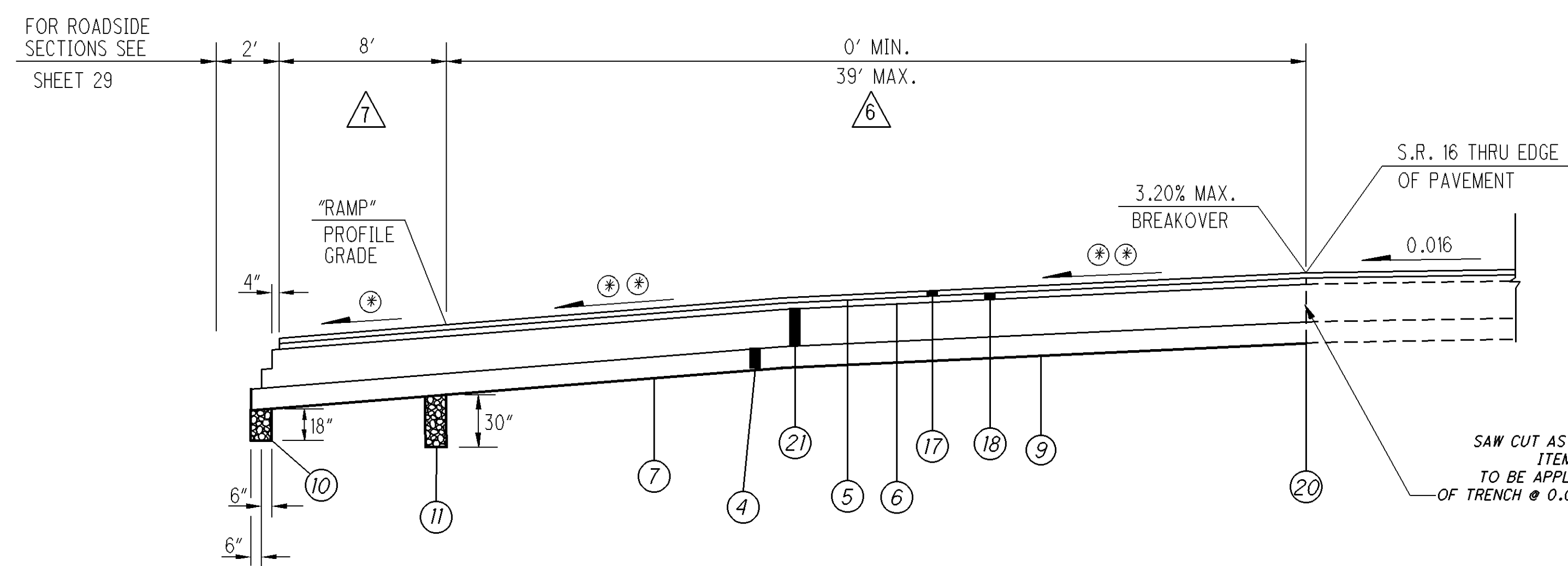
- △ 4 TAPERS FROM 10'-0" @ STA. 222+68.60 TO 8'-0" @ STA. 223+68.60
8'-0" FROM STA. 223+68.60 TO STA. 235+17.17
TAPERS FROM 8'-0" @ STA. 235+17.17 TO 6'-0" @ STA. 235+67.17.
6'-0" FROM STA. 235+67.17 TO STA. 237+92.08
- △ 5 TAPERS FROM 0'-0" @ STA. 222+68.60 TO 39'-0" @ STA. 237+92.08

⊛ - 0.042 OR RATE OF SUPERELEVATION, WHICHEVER IS GREATER.
⊛⊛ - SLOPES VARY, SEE PAVEMENT DETAIL SHEETS



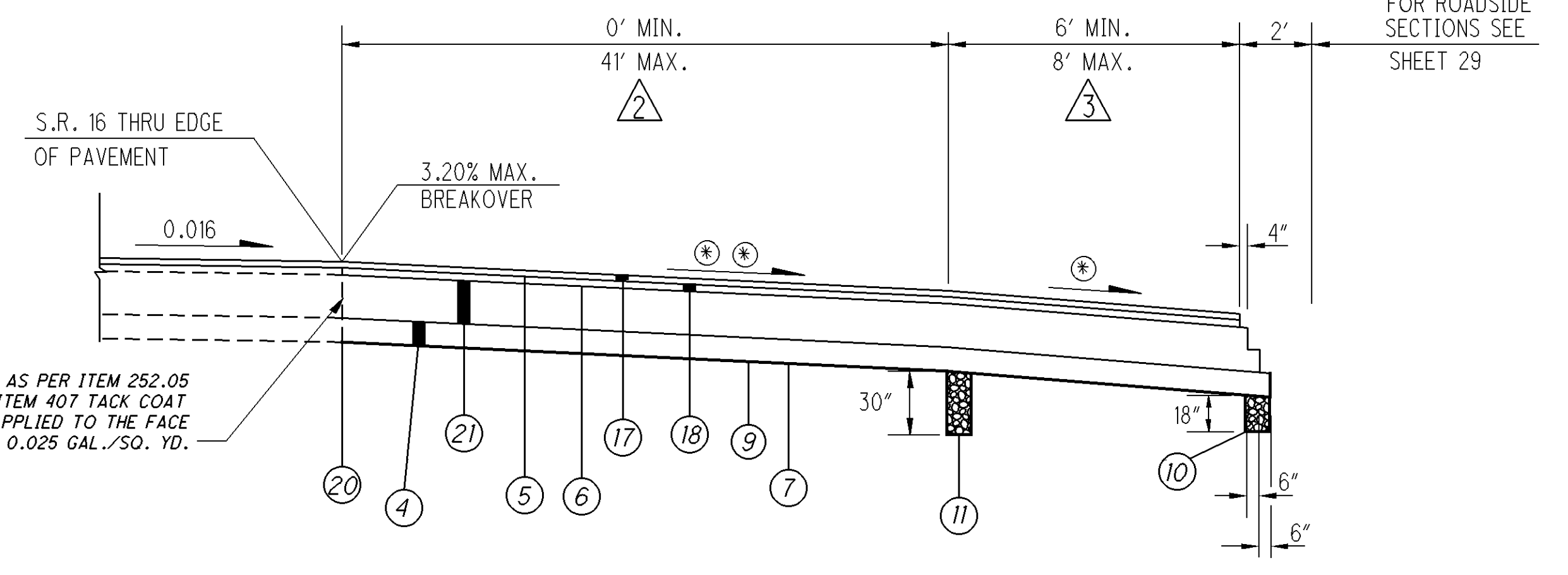
DECELERATION LANE (RAMP C)
SECTION APPLIES:
STA. 230+00.00 TO STA. 238+31.66 = 831.66 FT.
TOTAL 831.66 FT.

- △ 0 TAPERS FROM 10'-0" @ STA. 230+00.00 TO 8'-0" @ STA. 231+00.00
- △ 1 TAPERS FROM 0'-0" @ STA. 230+00.00 TO 12'-0" @ STA. 231+00.00
12'-0" FROM STA. 231+00.00 TO STA. 232+48.99
TAPERS FROM 12' @ STA. 232+48.99 TO 39'-0" @ STA. 238+31.66



DECELERATION LANE (RAMP B)
SECTION APPLIES:
STA. 259+38.37 TO STA. 267+48.07 = 809.70 FT.
TOTAL 809.70 FT.

- △ 6 TAPERS FROM 39'-0" @ STA. 259+38.37 TO 12'-0" @ STA. 263+58.33
12'-0" FROM STA. 263+58.33 TO STA. 266+50.00
TAPERS FROM 12'-0" @ STA. 266+50.00 TO 0'-0" @ STA. 267+50.00
- △ 7 TAPERS FROM 8'-0" @ STA. 266+50.00 TO 10'-0" @ STA. 267+50.00



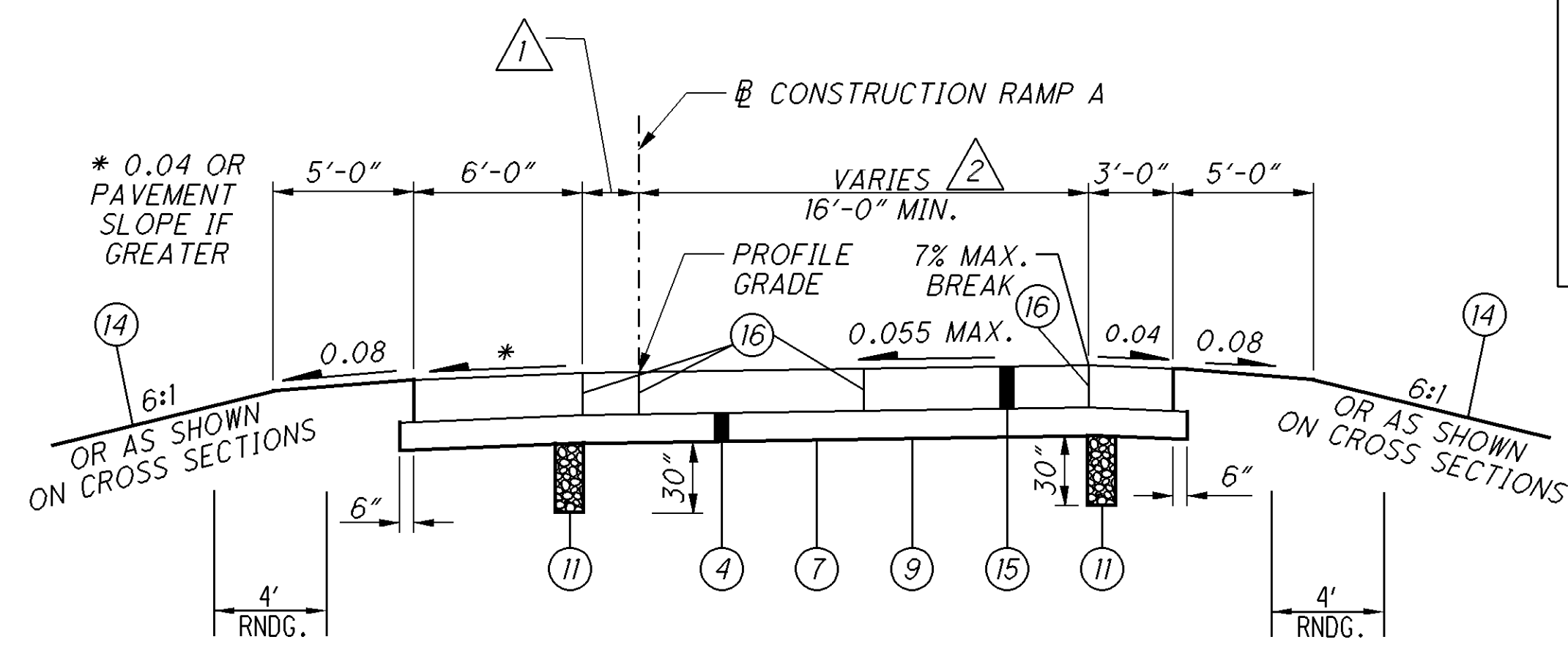
ACCELERATION LANE/PACING AREA (RAMP D)
SECTION APPLIES:
STA. 245+43.34 TO STA. 261+50.00 = 1,606.66 FT.
TOTAL 1,606.66 FT.

- △ 2 TAPERS FROM 41'-0" @ STA. 245+43.34 TO 0'-0" @ STA. 261+50.00
- △ 3 TAPERS FROM 6'-0" @ STA. 246+30.84 TO 8'-0" @ STA. 246+80.84

- ① ITEM 441 1 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (446), PG70-22M
- ② ITEM 441 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (446)
- ③ ITEM 301 6" ASPHALT CONCRETE BASE, PG64-22
- ④ ITEM 304 6" AGGREGATE BASE
- ⑤ ITEM 407 TACK COAT, TRACKLESS TACK, SURFACE COURSE
- ⑥ ITEM 407 TACK COAT, TRACKLESS TACK, INTERMEDIATE COURSE
- ⑦ ITEM 204 PROOF ROLLING

- ⑧ ITEM 204 SUBGRADE COMPACTION
- ⑨ ITEM 206 CEMENT STABILIZED SUBGRADE, 14 INCHES DEEP
- ⑩ ITEM 605 6" BASE PIPE UNDERDRAINS (18" DEPTH)
- ⑪ ITEM 605 6" SHALLOW PIPE UNDERDRAINS (30" DEPTH)
- ⑫ ITEM 606 GUARDRAIL, TYPE 5
- ⑬ ITEM 609 CONCRETE MEDIAN
- ⑭ ITEM 659 SEEDING AND MULCHING, CLASS 2

- ⑮ ITEM 452 9" NON-REINFORCED CONCRETE PAVEMENT, CLASS OC1 WITH QC/OA
- ⑯ STANDARD LONGITUDINAL JOINT
- ⑰ ITEM 442 1 1/2" ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446)
- ⑱ ITEM 442 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (446)
- ⑲ ITEM 254 PAVEMENT PLANING, ASPHALT CONCRETE
- ⑳ FULL DEPTH PAVEMENT SAWING
- ㉑ ITEM 301 9" ASPHALT CONCRETE BASE, PG64-22



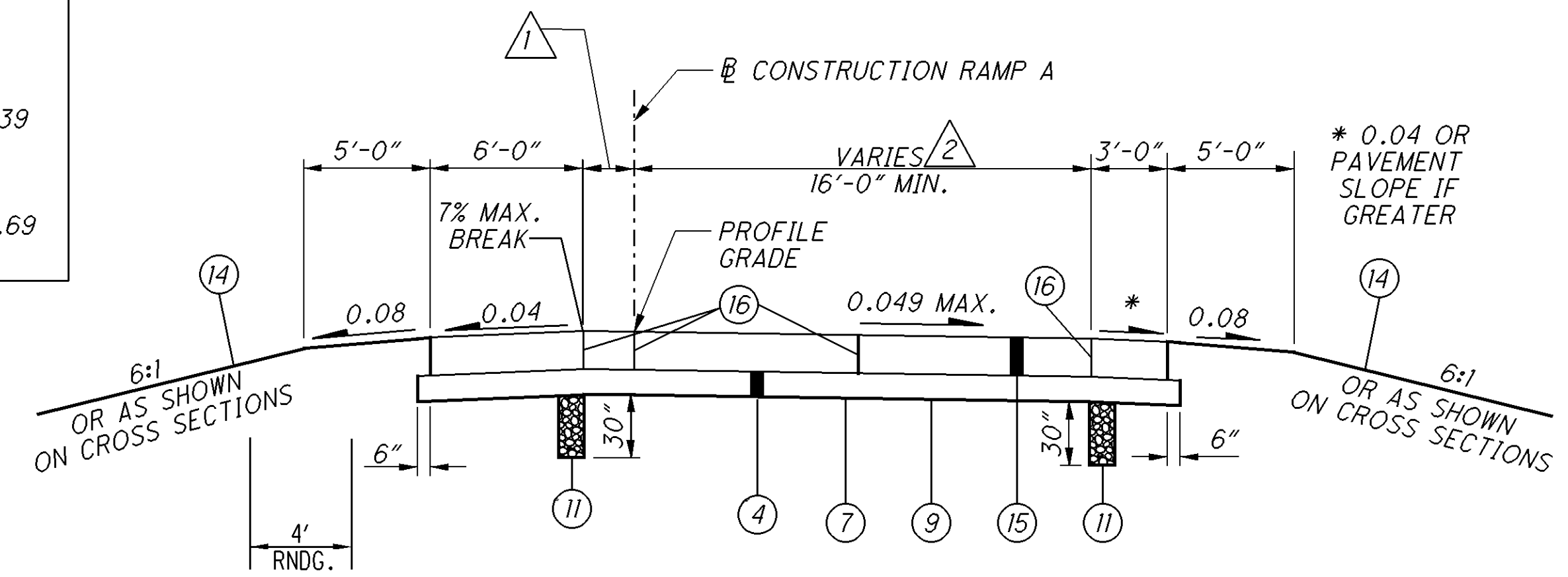
SUPERELEVATED SECTION
SECTION APPLIES:

STA. 237+87.45 TO STA. 243+71.91 = 584.46 FT.
STA. 247+21.40 TO STA. 247+54.39 = 32.99 FT.
TOTAL 617.45 FT.

PAVEMENT WIDTH VARIES
SEE PAVEMENT DETAIL SHEETS

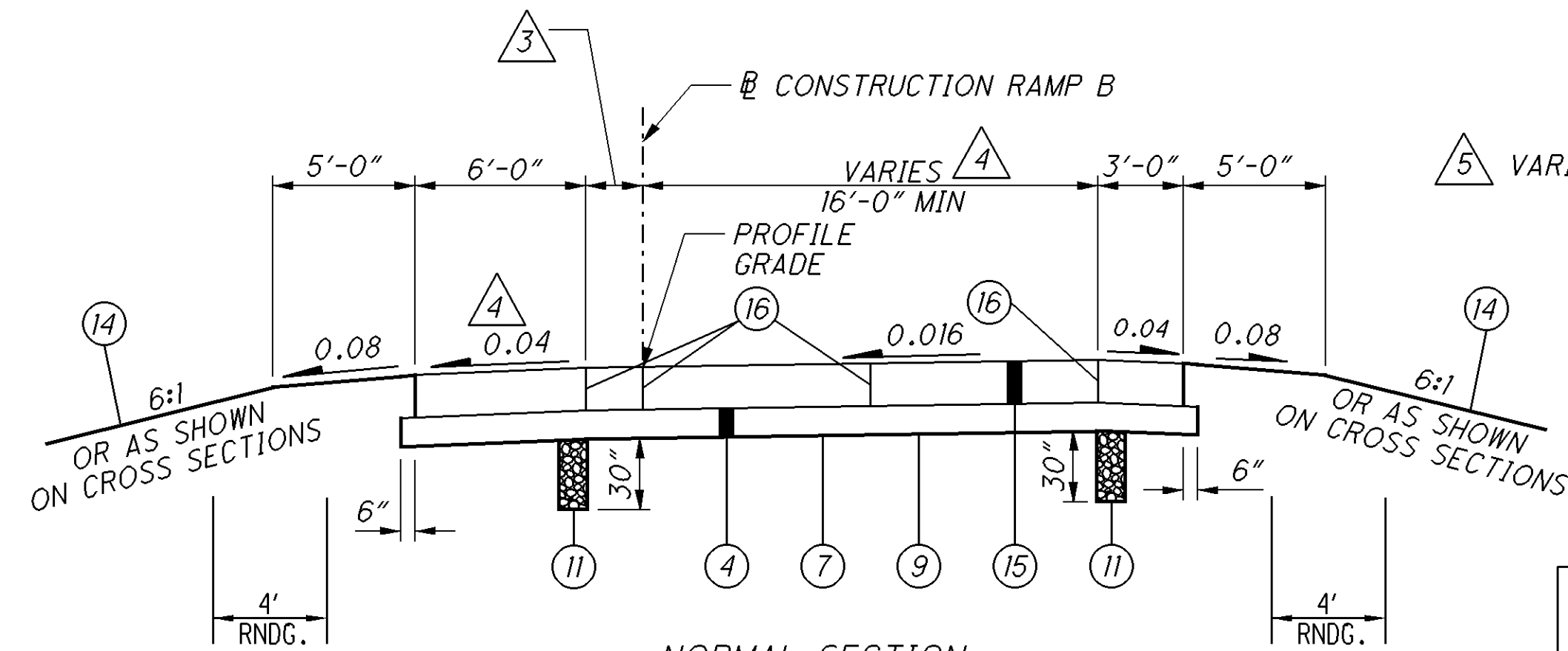
1 RAMP A (LT.)
STA. 246+71.49 TO STA. 247+54.39

2 RAMP A (RT.)
STA. 246+98.85 TO STA. 247+49.69



SUPERELEVATED SECTION
SECTION APPLIES:

STA. 243+71.91 TO STA. 247+21.40 = 349.49 FT.
TOTAL 349.49 FT.



NORMAL SECTION
SECTION APPLIES:

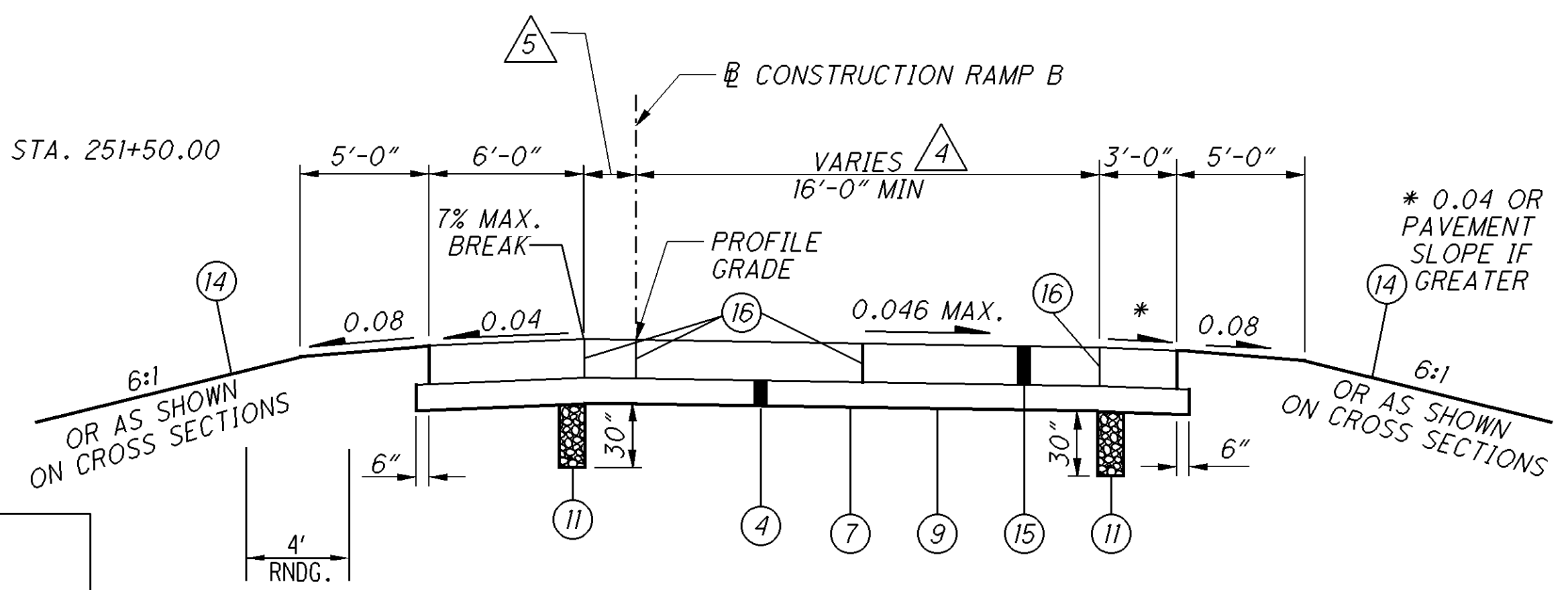
STA. 248+34.24 TO STA. 249+67.02 = 132.78 FT.
STA. 253+66.28 TO STA. 253+93.99 = 27.71 FT.
TOTAL 160.49 FT.

5 VARIES FROM 8' @ STA. 251+00.00 TO 0' @ STA. 251+50.00

PAVEMENT WIDTH VARIES
SEE PAVEMENT DETAIL SHEETS

3 RAMP B (LT.)
STA. 248+34.24 TO STA. 248+82.27

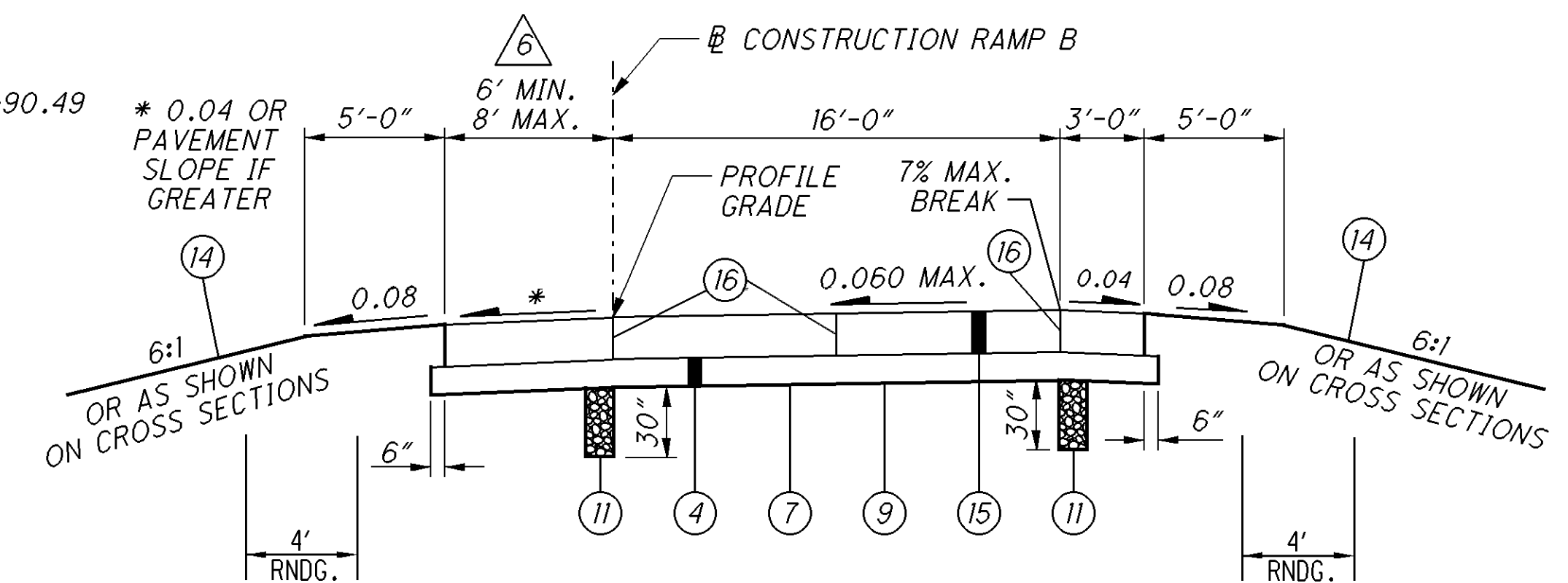
4 RAMP B (RT.)
STA. 248+37.97 TO STA. 248+60.09



SUPERELEVATED SECTION
SECTION APPLIES:

STA. 249+67.02 TO STA. 253+66.28 = 399.26 FT.
TOTAL 399.26 FT.

6 TAPERS FROM 6' @ STA. 258+90.49 TO 8' @ STA. 259+40.49

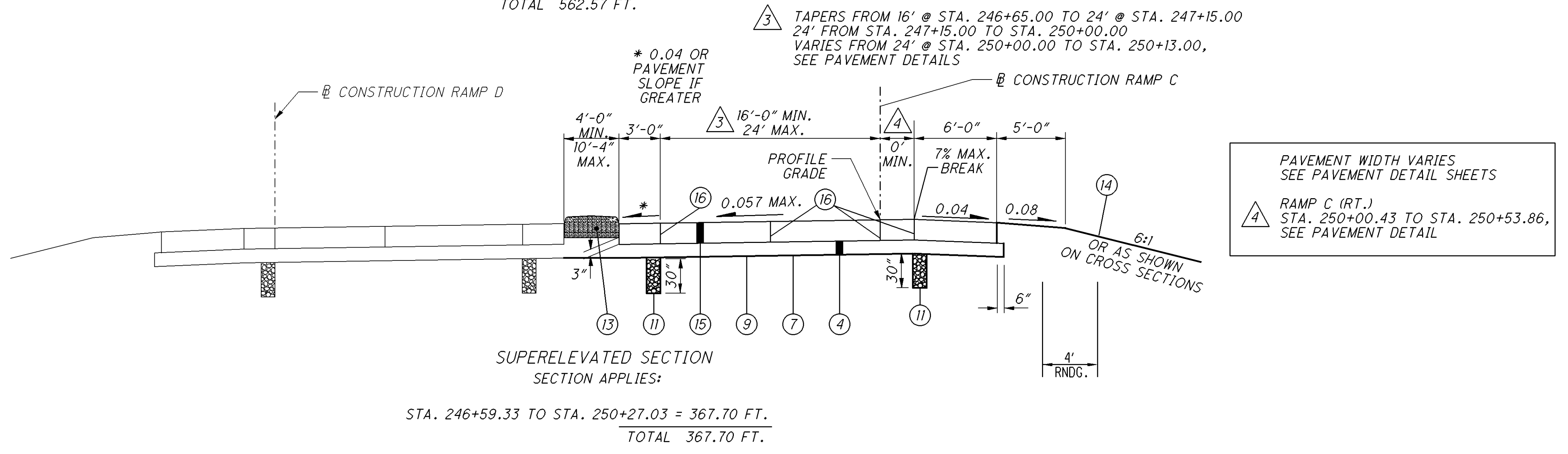
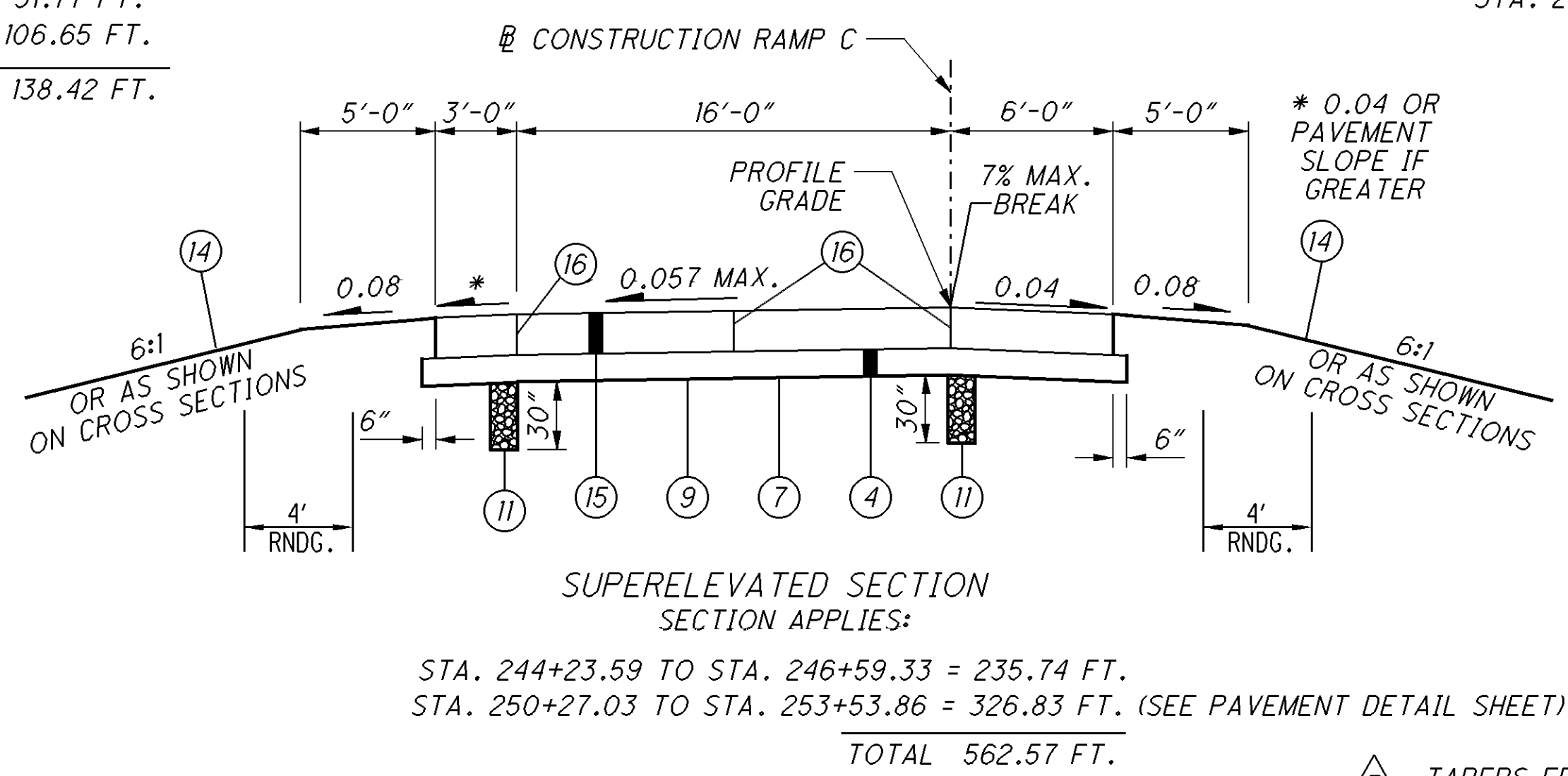
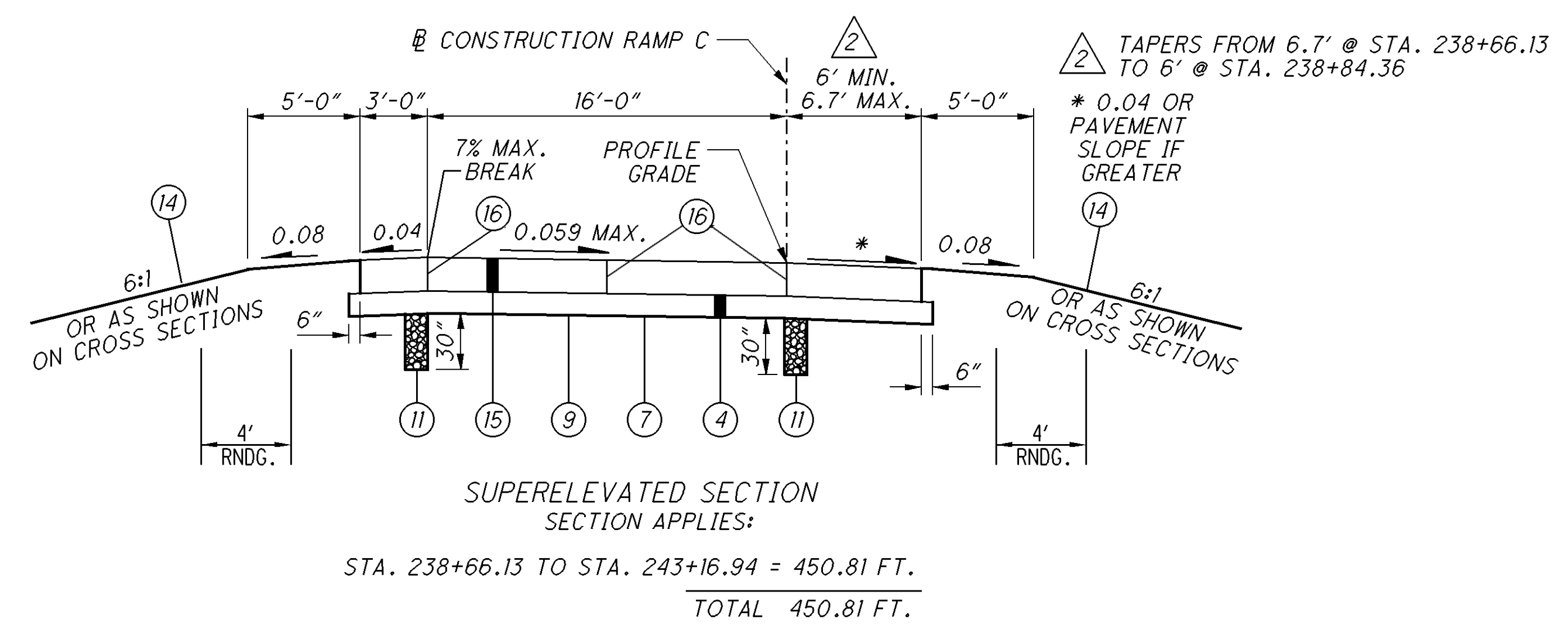
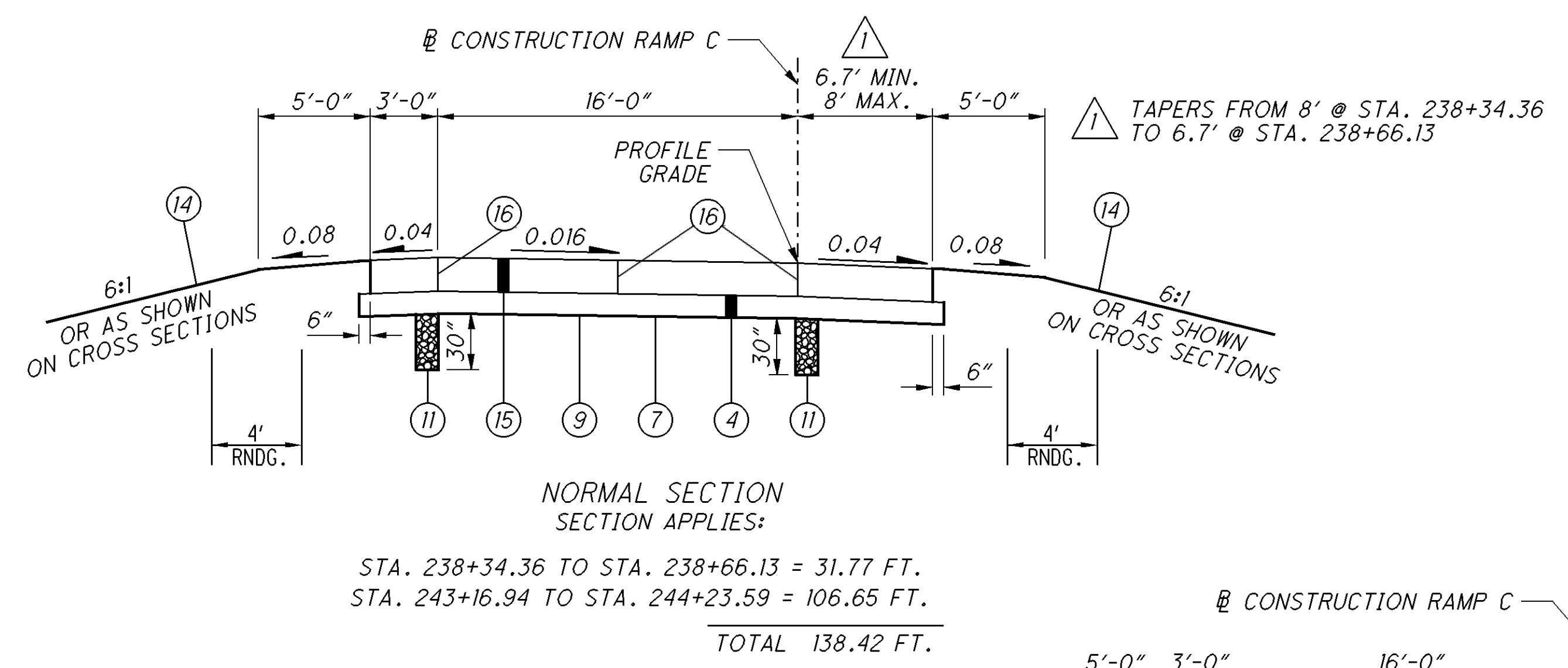


SUPERELEVATED SECTION
SECTION APPLIES:

STA. 253+93.99 TO STA. 259+40.49 = 546.50 FT.
TOTAL 546.50 FT.

- 1 ITEM 441 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (446), PG70-22M
- 2 ITEM 441 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (446)
- 3 ITEM 301 6" ASPHALT CONCRETE BASE, PG64-22
- 4 ITEM 304 6" AGGREGATE BASE
- 5 ITEM 407 TACK COAT, TRACKLESS TACK, SURFACE COURSE
- 6 ITEM 407 TACK COAT, TRACKLESS TACK, INTERMEDIATE COURSE
- 7 ITEM 204 PROOF ROLLING
- 8 ITEM 204 SUBGRADE COMPACTION
- 9 ITEM 206 CEMENT STABILIZED SUBGRADE, 14 INCHES DEEP
- 10 ITEM 605 6" BASE PIPE UNDERDRAINS (18" DEPTH)
- 11 ITEM 605 6" SHALLOW PIPE UNDERDRAINS (30" DEPTH)

- 12 ITEM 606 GUARDRAIL, TYPE 5
- 13 ITEM 609 CONCRETE MEDIAN
- 14 ITEM 659 SEEDING AND MULCHING, CLASS 2
- 15 ITEM 452 9" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC1 WITH QC/OA
- 16 STANDARD LONGITUDINAL JOINT
- 17 ITEM 442 1/2" ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446)
- 18 ITEM 442 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (446)
- 19 ITEM 254 PAVEMENT PLANING, ASPHALT CONCRETE
- 20 FULL DEPTH PAVEMENT SAWING
- 21 ITEM 301 9" ASPHALT CONCRETE BASE, PG64-22



PAVEMENT WIDTH VARIES
SEE PAVEMENT DETAIL SHEETS

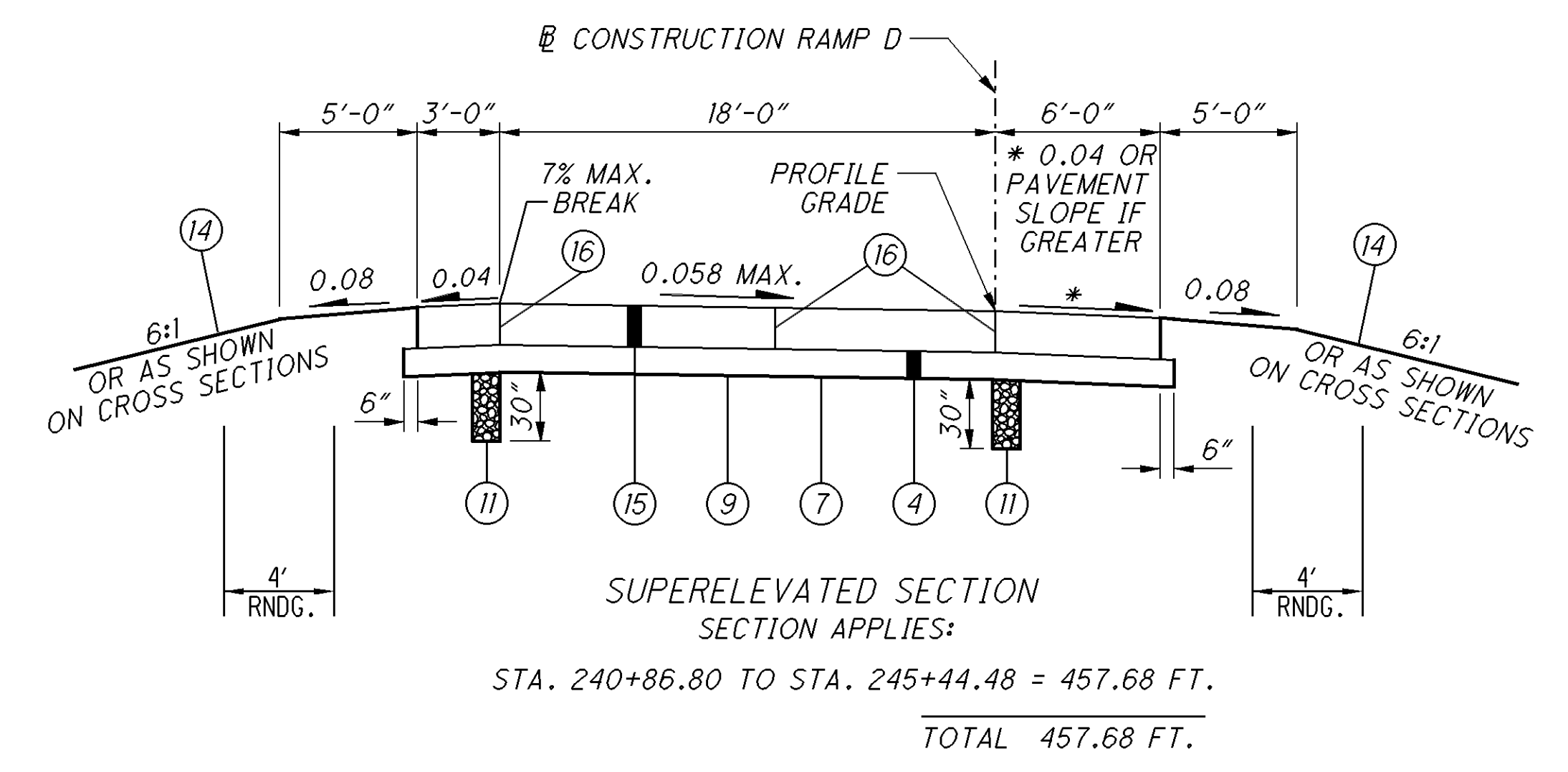
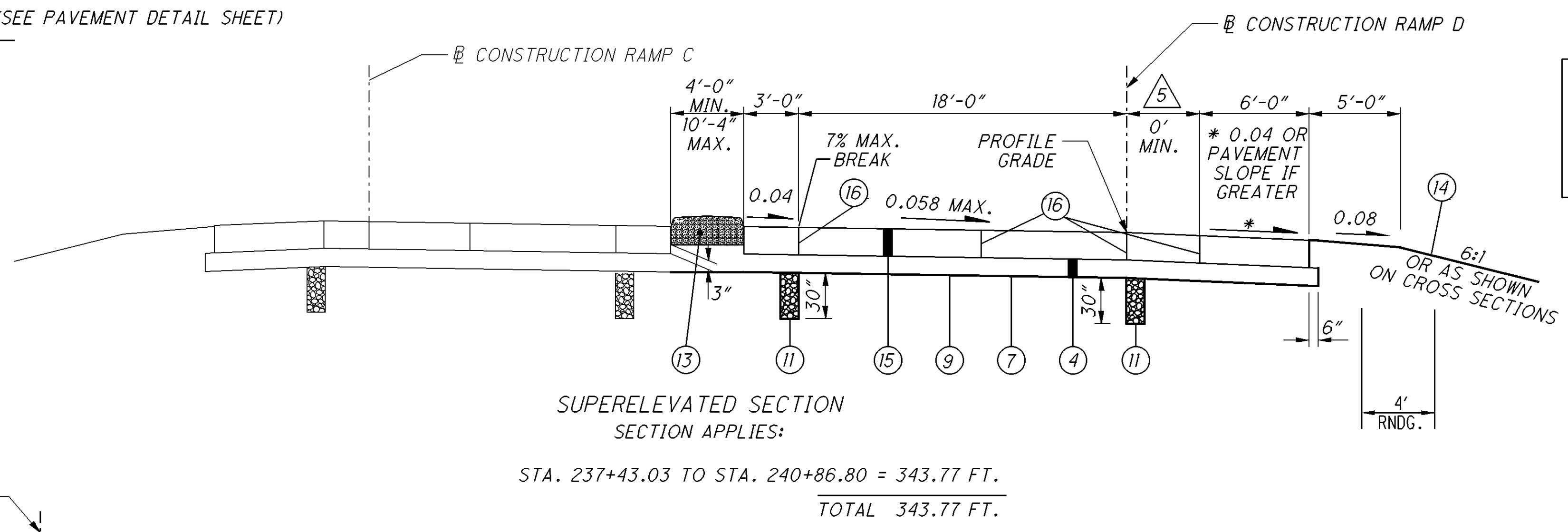
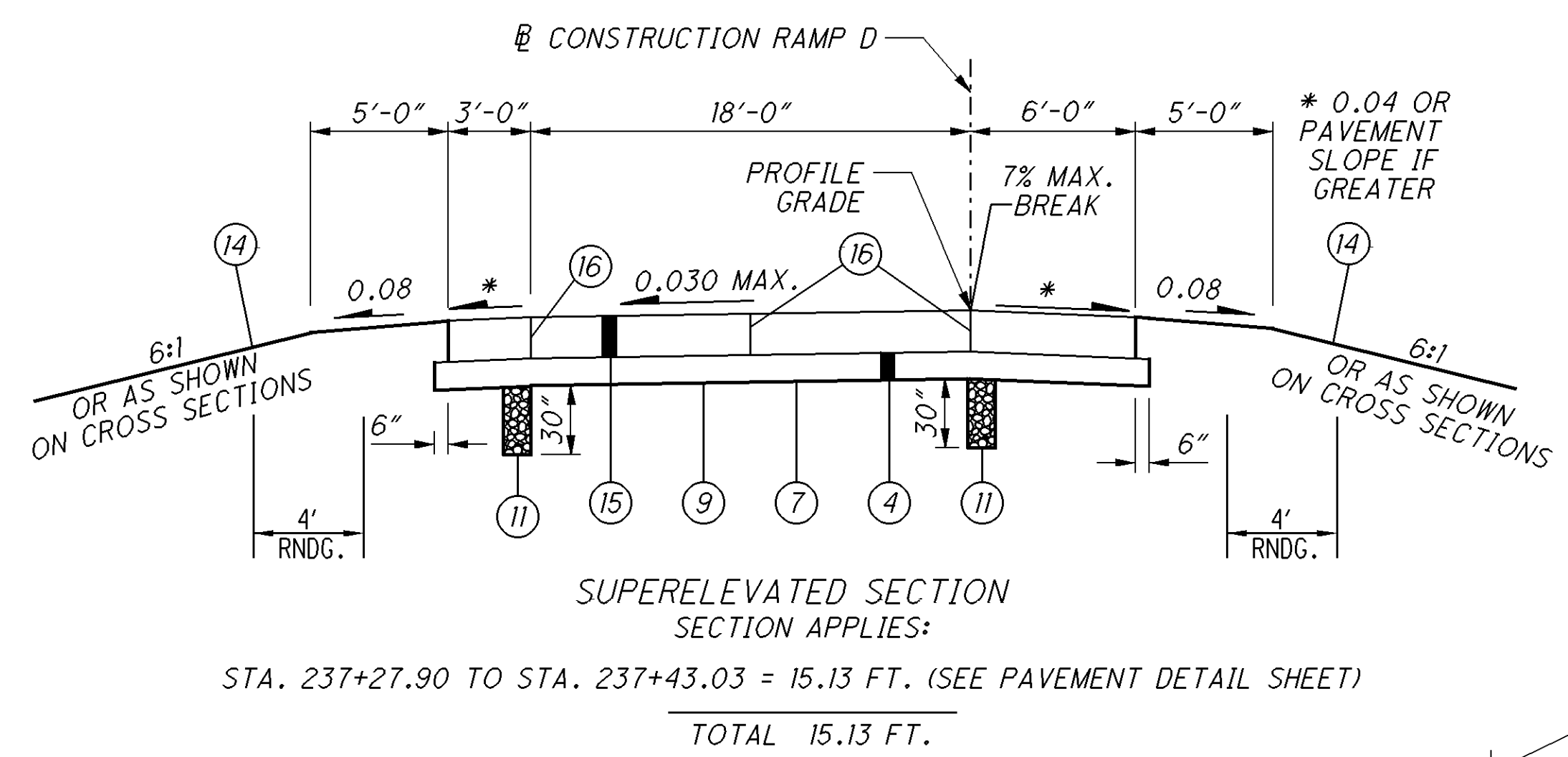
④ RAMP C (RT.)
STA. 250+00.43 TO STA. 250+53.86,
SEE PAVEMENT DETAIL

- ① ITEM 441 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (446), PG70-22M
- ② ITEM 441 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (446)
- ③ ITEM 301 6" ASPHALT CONCRETE BASE, PG64-22
- ④ ITEM 304 6" AGGREGATE BASE
- ⑤ ITEM 407 TACK COAT, TRACKLESS TACK, SURFACE COURSE
- ⑥ ITEM 407 TACK COAT, TRACKLESS TACK, INTERMEDIATE COURSE
- ⑦ ITEM 204 PROOF ROLLING

- ⑧ ITEM 204 SUBGRADE COMPACTION
- ⑨ ITEM 206 CEMENT STABILIZED SUBGRADE, 14 INCHES DEEP
- ⑩ ITEM 605 6" BASE PIPE UNDERDRAINS (18" DEPTH)
- ⑪ ITEM 605 6" SHALLOW PIPE UNDERDRAINS (30" DEPTH)
- ⑫ ITEM 606 GUARDRAIL, TYPE 5
- ⑬ ITEM 609 CONCRETE MEDIAN
- ⑭ ITEM 659 SEEDING AND MULCHING, CLASS 2

- ⑮ ITEM 452 9" NON-REINFORCED CONCRETE PAVEMENT, CLASS OC1 WITH QC/OA
- ⑯ STANDARD LONGITUDINAL JOINT
- ⑰ ITEM 442 1/2" ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446)
- ⑱ ITEM 442 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (446)
- ⑲ ITEM 254 PAVEMENT PLANING, ASPHALT CONCRETE
- ⑳ FULL DEPTH PAVEMENT SAWING
- ㉑ ITEM 301 9" ASPHALT CONCRETE BASE, PG64-22

SR16_PTS_001.DGN 05/10/12

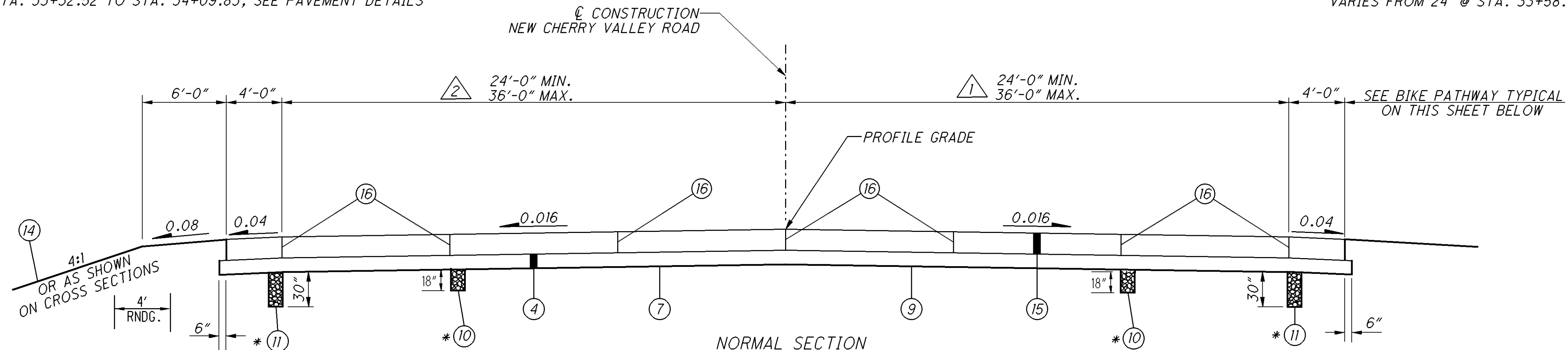


- ① ITEM 441 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (446), PG70-22M
- ② ITEM 441 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (446)
- ③ ITEM 301 6" ASPHALT CONCRETE BASE, PG64-22
- ④ ITEM 304 6" AGGREGATE BASE
- ⑤ ITEM 407 TACK COAT, TRACKLESS TACK, SURFACE COURSE
- ⑥ ITEM 407 TACK COAT, TRACKLESS TACK, INTERMEDIATE COURSE
- ⑦ ITEM 204 PROOF ROLLING
- ⑧ ITEM 204 SUBGRADE COMPACTION
- ⑨ ITEM 206 CEMENT STABILIZED SUBGRADE, 14 INCHES DEEP
- ⑩ ITEM 605 6" BASE PIPE UNDERDRAINS (18" DEPTH)
- ⑪ ITEM 605 6" SHALLOW PIPE UNDERDRAINS (30" DEPTH)
- ⑫ ITEM 606 GUARDRAIL, TYPE 5
- ⑬ ITEM 609 CONCRETE MEDIAN
- ⑭ ITEM 659 SEEDING AND MULCHING, CLASS 2
- ⑮ ITEM 452 9" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC1 WITH QC/OA
- ⑯ STANDARD LONGITUDINAL JOINT
- ⑰ ITEM 442 1/2" ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446)
- ⑱ ITEM 442 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (446)
- ⑲ ITEM 254 PAVEMENT PLANING, ASPHALT CONCRETE
- ⑳ FULL DEPTH PAVEMENT SAWING
- ㉑ ITEM 301 9" ASPHALT CONCRETE BASE, PG64-22

SR16_PTS_001.DGN 05/10/12

VARIES FROM STA. 0+28.08 TO 24' @ STA. 1+05.20, SEE PAVEMENT DETAILS
 24' FROM STA. 1+05.20 TO STA. 5+44.16
 TAPERS FROM 24.34' @ STA. 12+41.15 TO 36' @ STA. 14+88.54
 36' FROM STA. 14+88.54 TO STA. 17+44.19 AND FROM STA. 19+84.03 TO STA. 22+72.17
 TAPERS FROM 36' @ STA. 22+72.17 TO 24' @ STA. 23+90.30
 24' FROM STA. 23+90.30 TO STA. 33+32.52
 VARIES FROM 24' @ STA. 33+32.52 TO STA. 34+09.83, SEE PAVEMENT DETAILS

VARIES FROM STA. 0+28.08 TO 24' @ STA. 1+28.20, SEE PAVEMENT DETAILS
 24' @ STA. 1+28.20 TO STA. 4+80.00
 TAPERS FROM 24' @ STA. 4+80.00 TO 26.41' @ STA. 5+44.16
 36' @ STA. 12+41.15 TO STA. 17+44.19 AND STA. 19+84.03 TO STA. 23+84.53
 TAPERS FROM 36' @ STA. 23+84.53 TO 24' @ STA. 27+05.00
 24' FROM STA. 27+05.00 TO STA. 33+58.10
 VARIES FROM 24' @ STA. 33+58.10 TO STA. 34+09.83, SEE PAVEMENT DETAILS

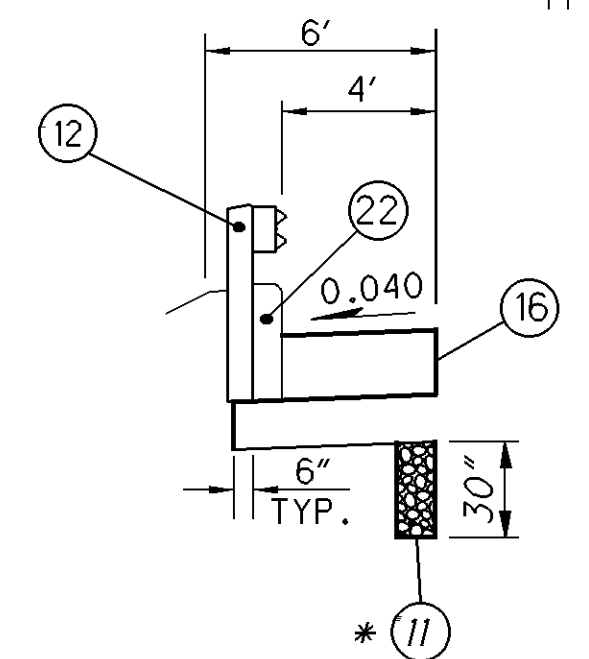


NORMAL SECTION
SECTION APPLIES:

STA. 0+28.08 TO STA. 5+44.16 = 516.08 FT.
 STA. 12+41.15 TO STA. 17+44.19 = 503.04 FT.
 STA. 19+84.03 TO STA. 34+09.83 = 1,425.80 FT.
 TOTAL 2,444.92 FT.

BRIDGE LIMITS
(INCLUDING APPROACH SLABS)

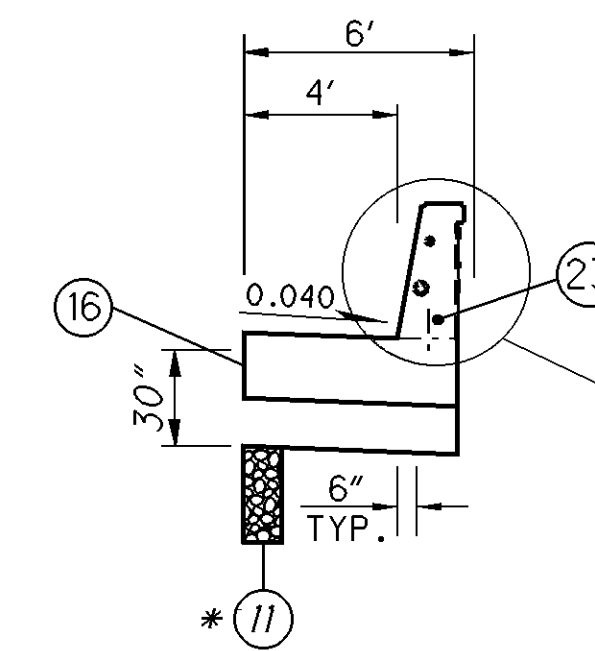
STA. 17+44.19 TO STA. 19+84.03 = 239.84 FT.
 TOTAL 239.84 FT.



CURB SECTION
SECTION APPLIES:

STA. 17+29.00 TO STA. 17+47.00 = 18.00 FT.
 STA. 19+87.00 TO STA. 20+33.00 = 46.00 FT.
 TOTAL 64.00 FT.

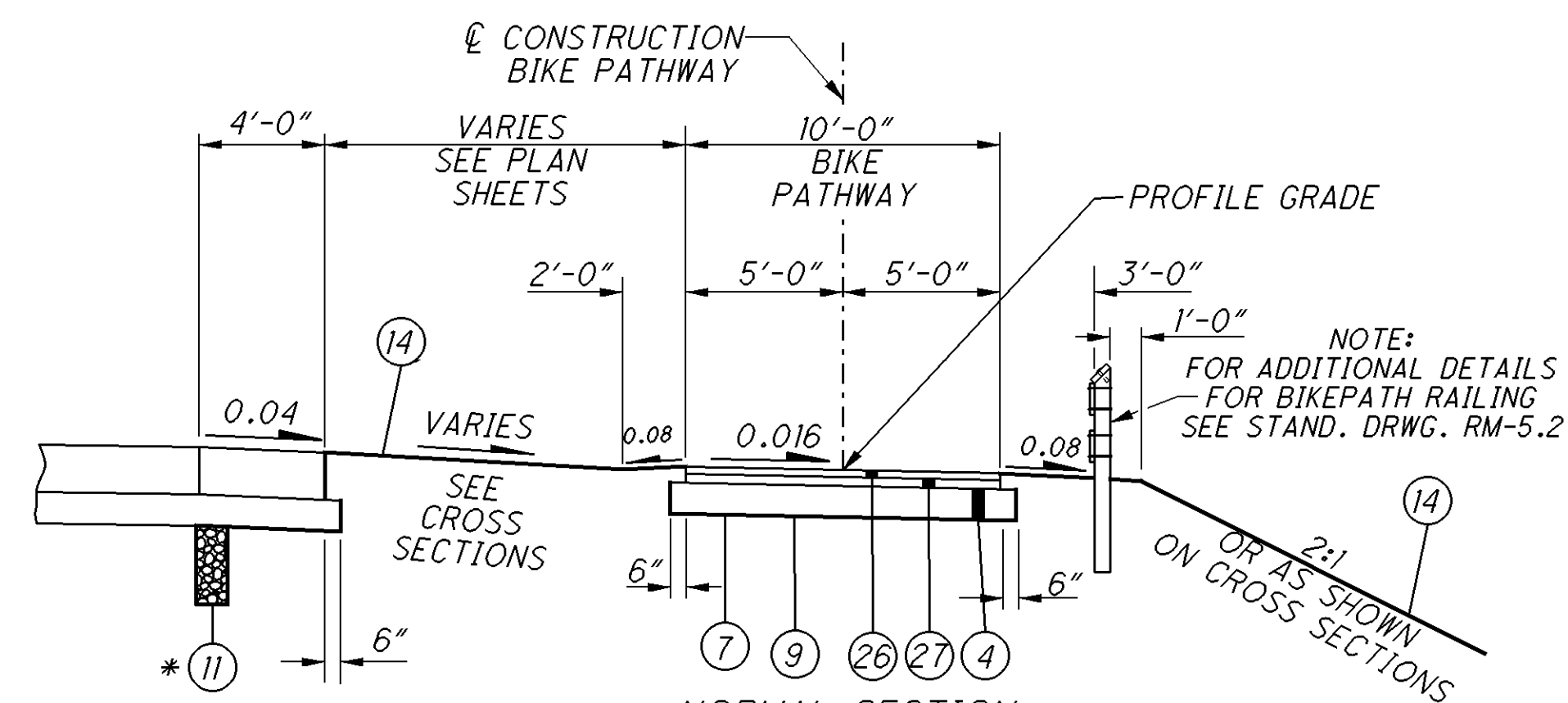
* SEE DRAINAGE DETAIL SHEETS FOR
STATION LIMITS OF UNDERDRAINS



CONCRETE BARRIER, SINGLE SLOPE,
TYPE D, AS PER PLAN
SECTION APPLIES:

STA. 16+45.00 TO STA. 17+47.00 = 102.00 FT.
 STA. 19+87.00 TO STA. 20+60.00 = 73.00 FT.
 TOTAL 175.00 FT.

SEE GENERAL NOTES
FOR CONCRETE BARRIER,
SINGLE SLOPE, TYPE D,
AS PER PLAN DETAIL



NORMAL SECTION
(BIKEPATH RAILING)
SECTION APPLIES:

STA. 0+00.00 TO STA. 1+39.92 = 139.92 FT.
 STA. 0+00.00 TO STA. 6+14.50 = 614.50 FT.
 STA. 8+53.89 TO STA. 22+69.93 = 1,416.04 FT.
 TOTAL 2,170.46 FT.

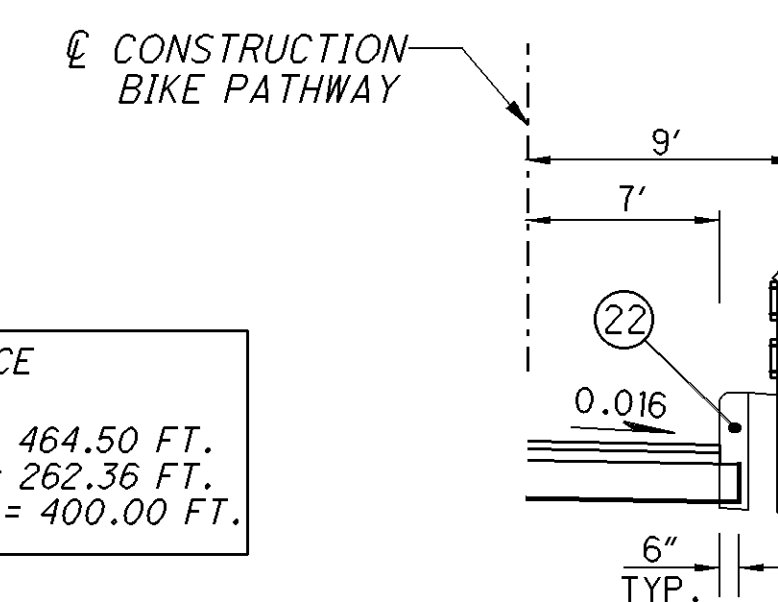
BRIDGE LIMITS
(INCLUDING APPROACH SLABS)

STA. 6+14.50 TO STA. 8+53.89 = 239.39 FT.
 TOTAL 239.39 FT.

STATION EQUATION
(BIKE PATHWAY) STA. 1+39.92 = STA. 0+00.00

NOTE:
FOR ADDITIONAL DETAILS
FOR BIKEPATH RAILING
SEE STAND. DRWG. RM-5.2

FENCE, MISC.: WOOD FENCE
LIMITS
STA. 1+50.00 TO STA. 6+14.50 = 464.50 FT.
 STA. 8+53.89 TO STA. 11+16.25 = 262.36 FT.
 STA. 12+00.00 TO STA. 16+00.00 = 400.00 FT.



CURB SECTION
SECTION APPLIES:

STA. 5+95.00 TO STA. 6+13.50 = 18.50 FT.
 STA. 8+53.50 TO STA. 9+08.50 = 55.00 FT.
 TOTAL 73.50 FT.

NOTE:
FOR ADDITIONAL DETAILS
FOR BIKEPATH RAILING
SEE STAND. DRWG. RM-5.2

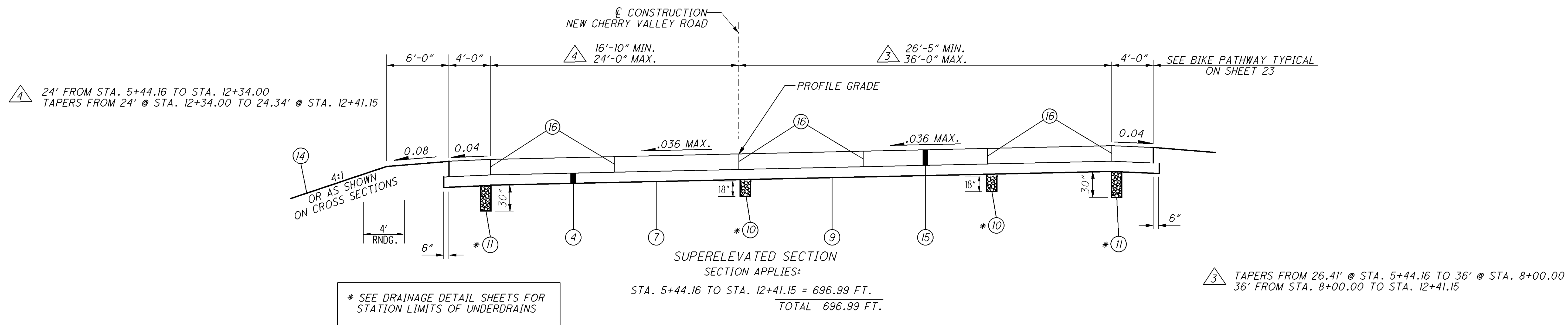
SR16_PTS_001.DGN 05/10/12

- ① ITEM 441 1 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (446), PG70-22M
- ② ITEM 441 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (446)
- ③ ITEM 301 6" ASPHALT CONCRETE BASE, PG64-22
- ④ ITEM 304 6" AGGREGATE BASE
- ⑤ ITEM 407 TACK COAT, TRACKLESS TACK, SURFACE COURSE
- ⑥ ITEM 407 TACK COAT, TRACKLESS TACK, INTERMEDIATE COURSE
- ⑦ ITEM 204 PROOF ROLLING

- ⑧ ITEM 204 SUBGRADE COMPACTION
- ⑨ ITEM 206 CEMENT STABILIZED SUBGRADE, 14 INCHES DEEP
- ⑩ ITEM 605 6" BASE PIPE UNDERDRAINS (18" DEPTH)
- ⑪ ITEM 605 6" SHALLOW PIPE UNDERDRAINS (30" DEPTH)
- ⑫ ITEM 606 GUARDRAIL, TYPE 5
- ⑬ ITEM 609 CONCRETE MEDIAN
- ⑭ ITEM 659 SEEDING AND MULCHING, CLASS 2

- ⑮ ITEM 452 9" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC1 WITH QC/QA
- ⑯ STANDARD LONGITUDINAL JOINT
- ⑰ ITEM 442 1 1/2" ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446)
- ⑱ ITEM 442 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (446)
- ⑲ ITEM 254 PAVEMENT PLANING, ASPHALT CONCRETE
- ⑳ FULL DEPTH PAVEMENT SAWING
- ㉑ ITEM 301 9" ASPHALT CONCRETE BASE, PG64-22

- ㉒ ITEM 609 CURB, TYPE 4-C
- ㉓ ITEM 622 CONCRETE BARRIER, SINGLE SLOPE, TYPE D, AS PER PLAN
- ㉔ ITEM 823 1 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448)
- ㉕ ITEM 823 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448)



- ① ITEM 441 1 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (446), PG70-22M
- ② ITEM 441 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (446)
- ③ ITEM 301 6" ASPHALT CONCRETE BASE, PG64-22
- ④ ITEM 304 6" AGGREGATE BASE
- ⑤ ITEM 407 TACK COAT, TRACKLESS TACK, SURFACE COURSE
- ⑥ ITEM 407 TACK COAT, TRACKLESS TACK, INTERMEDIATE COURSE
- ⑦ ITEM 204 PROOF ROLLING

- ⑧ ITEM 204 SUBGRADE COMPACTION
- ⑨ ITEM 206 CEMENT STABILIZED SUBGRADE, 14 INCHES DEEP
- ⑩ ITEM 605 6" BASE PIPE UNDERDRAINS (18" DEPTH)
- ⑪ ITEM 605 6" SHALLOW PIPE UNDERDRAINS (30" DEPTH)
- ⑫ ITEM 606 GUARDRAIL, TYPE 5
- ⑬ ITEM 609 CONCRETE MEDIAN
- ⑭ ITEM 659 SEEDING AND MULCHING, CLASS 2

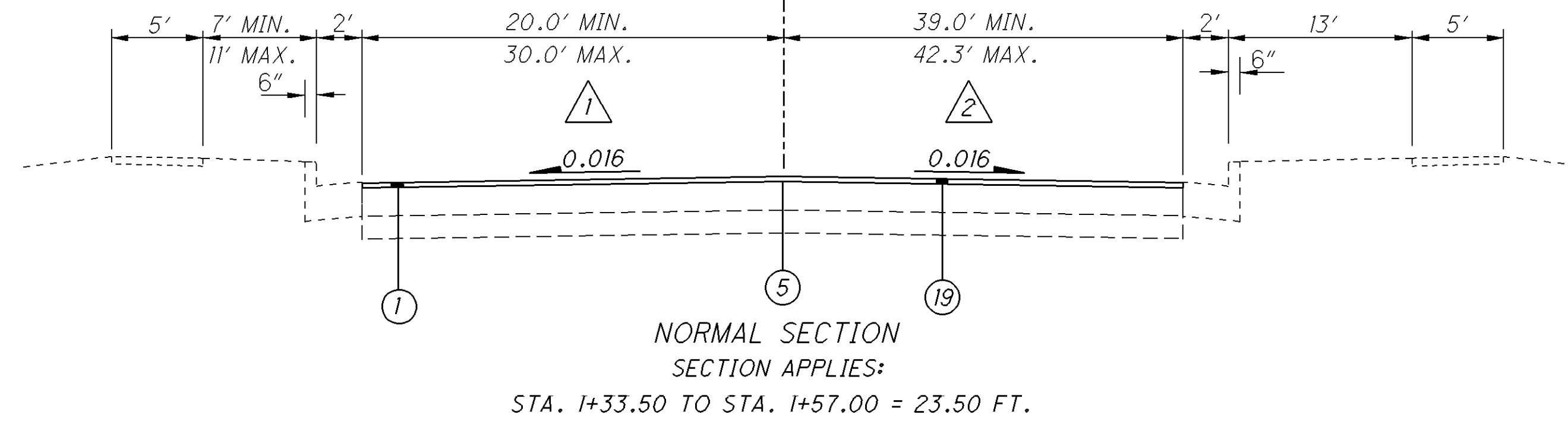
- ⑮ ITEM 452 9" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC1 WITH QC/QA
- ⑯ STANDARD LONGITUDINAL JOINT
- ⑰ ITEM 442 1 1/2" ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446)
- ⑱ ITEM 442 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (446)
- ⑲ ITEM 254 PAVEMENT PLANING, ASPHALT CONCRETE
- ⑳ FULL DEPTH PAVEMENT SAWING
- ㉑ ITEM 301 9" ASPHALT CONCRETE BASE, PG64-22

SR16_PTS_001.DGN 05/10/12

1 VARIES FROM STA. 1+33.50 TO STA. 1+57.00, SEE CUL-DE-SAC PAVEMENT DETAIL SHEET

EXISTING SOUTH CHERRY VALLEY

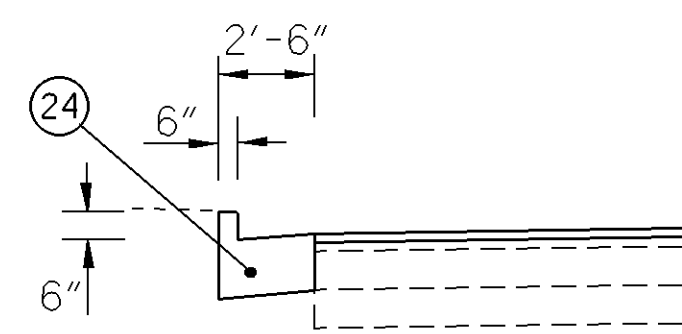
2 VARIES FROM STA. 1+33.50 TO STA. 1+54.00, SEE CUL-DE-SAC PAVEMENT DETAIL SHEET
TAPERS FROM 39.0' @ STA. 1+54.00 TO 39.6' @ STA. 1+57.00



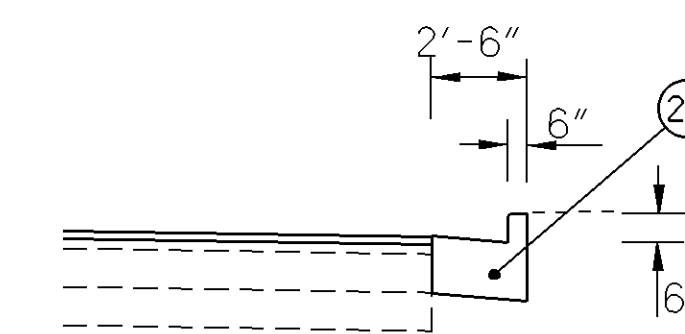
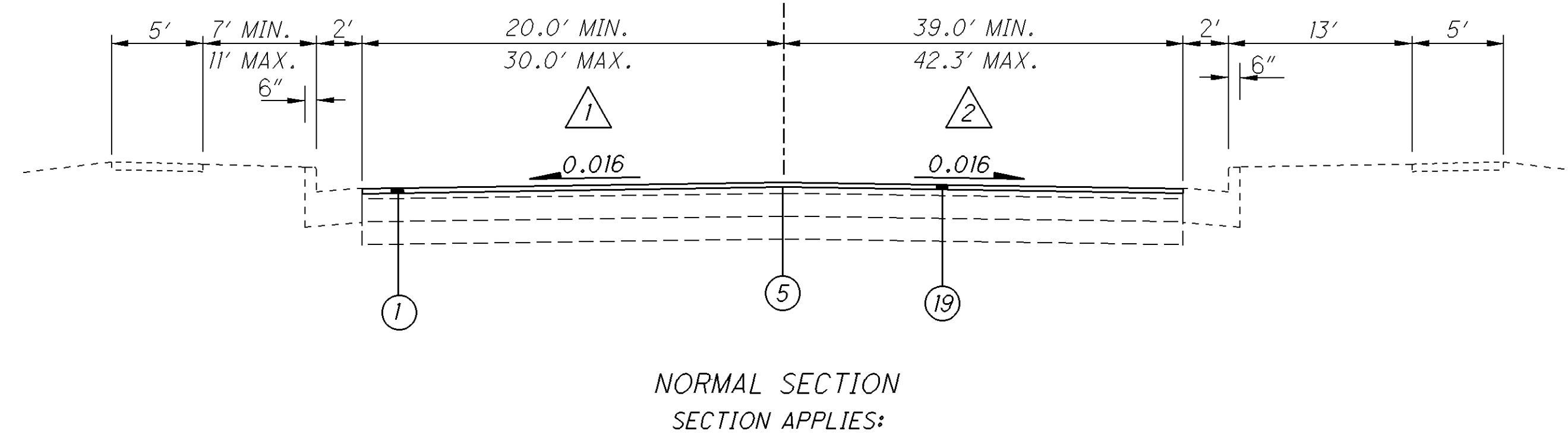
1 TAPERS FROM 29.7' @ STA. 1+57.00 TO 30.0' @ STA. 3+73.10
TAPERS FROM 30.0' @ STA. 3+73.10 TO 20.0' @ STA. 4+16.50

EXISTING SOUTH CHERRY VALLEY

2 TAPERS FROM 39.6' @ STA. 1+57.00 TO 42.3' @ STA. 1+67.40
TAPERS FROM 42.3' @ STA. 1+67.40 TO 41.7' @ STA. 3+73.10
TAPERS FROM 41.7' @ STA. 3+73.10 TO 40.0' @ STA. 4+16.50



CURB SECTION
SECTION APPLIES:
STA. 1+31.00 TO STA. 1+57.00
(ALONG PERIMETER OF CUL-DE-SAC WITH RADIUS 39.5')

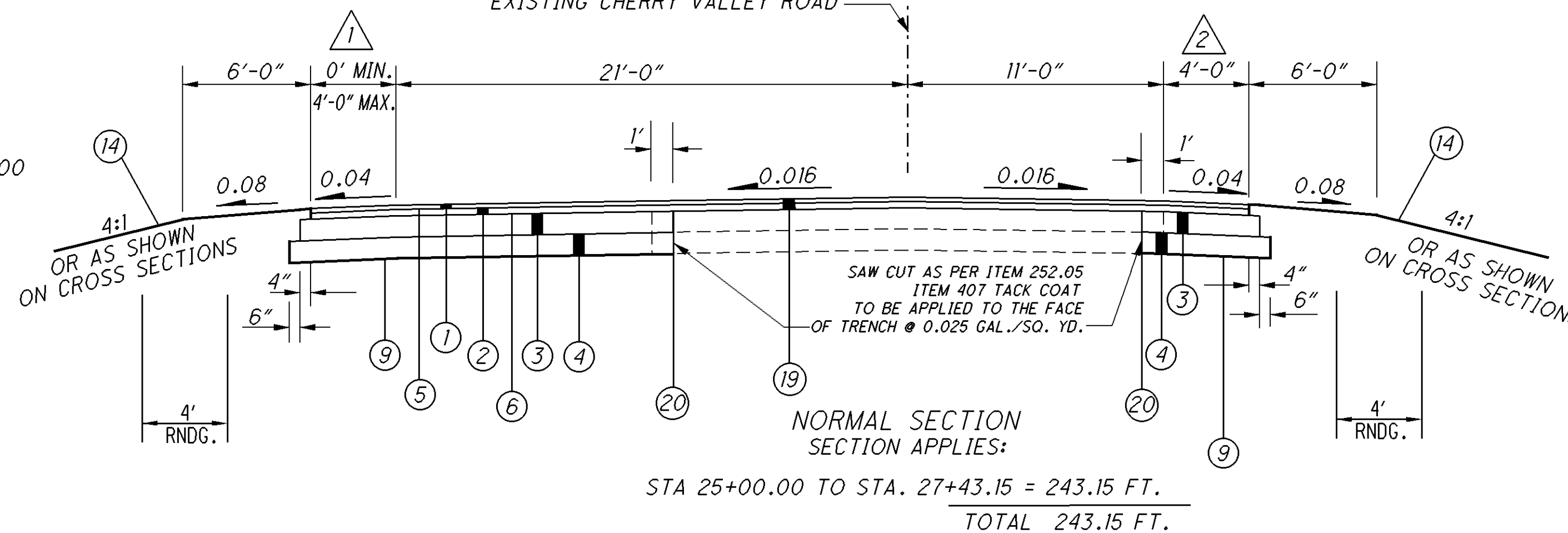


CURB SECTION
SECTION APPLIES:
STA. 1+31.00 TO STA. 1+54.00
(ALONG PERIMETER OF CUL-DE-SAC WITH RADIUS 39.5')

1 0' FROM STA. 25+00.00 TO STA. 26+37.42
4' FROM STA. 26+37.42 TO STA. 27+43.15

2 TAPERS FROM 2' @ STA. 25+00.00 TO 4' @ STA. 25+50.00

EXISTING CHERRY VALLEY ROAD



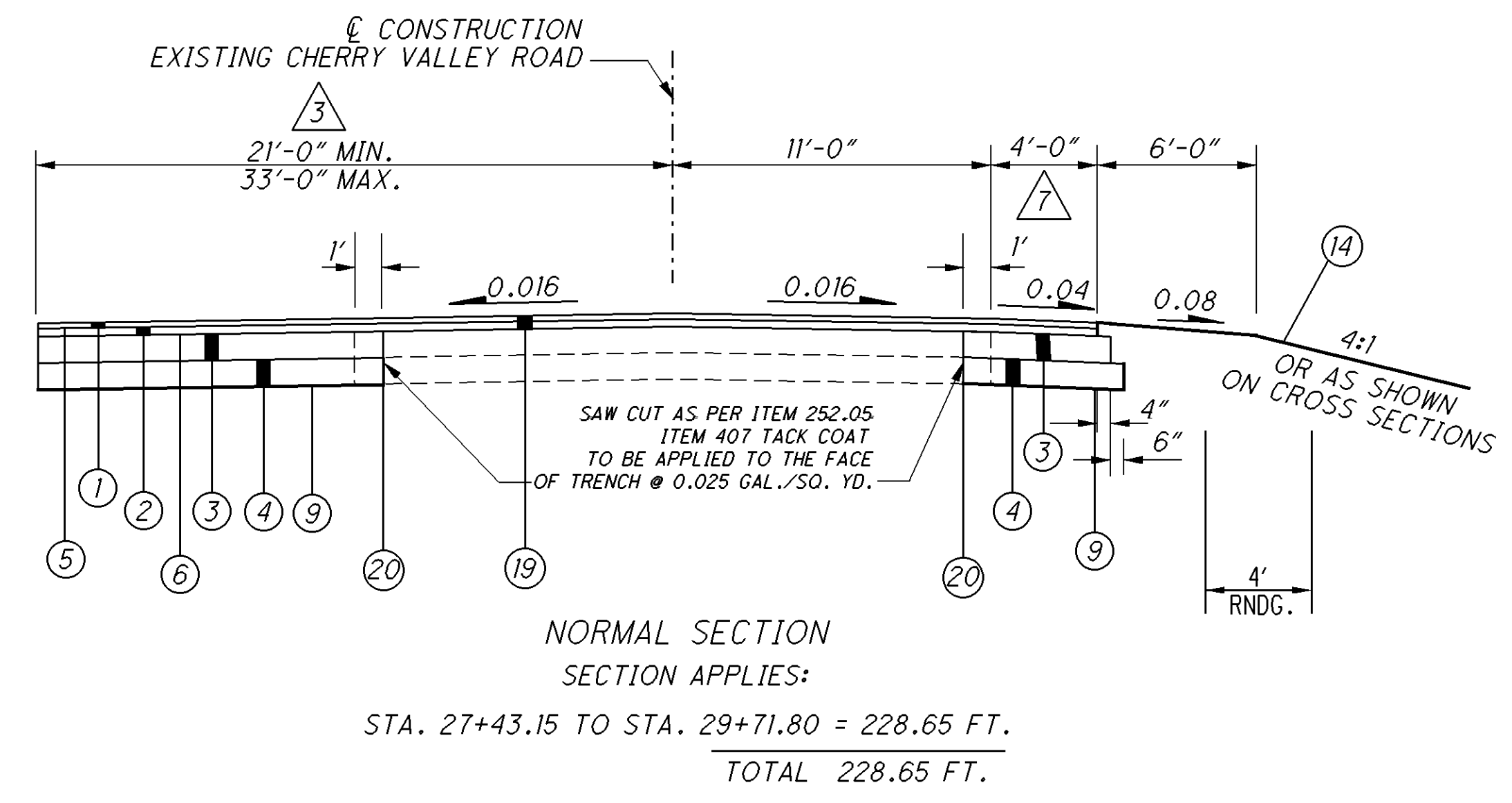
- 1 ITEM 441 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (446), PG70-22M
- 2 ITEM 441 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (446)
- 3 ITEM 301 6" ASPHALT CONCRETE BASE, PG64-22
- 4 ITEM 304 6" AGGREGATE BASE
- 5 ITEM 407 TACK COAT, TRACKLESS TACK, SURFACE COURSE
- 6 ITEM 407 TACK COAT, TRACKLESS TACK, INTERMEDIATE COURSE
- 7 ITEM 204 PROOF ROLLING

- 8 ITEM 204 SUBGRADE COMPACTION
- 9 ITEM 206 CEMENT STABILIZED SUBGRADE, 14 INCHES DEEP
- 10 ITEM 605 6" BASE PIPE UNDERDRAINS (18" DEPTH)
- 11 ITEM 605 6" SHALLOW PIPE UNDERDRAINS (30" DEPTH)
- 12 ITEM 606 GUARDRAIL, TYPE 5
- 13 ITEM 609 CONCRETE MEDIAN
- 14 ITEM 659 SEEDING AND MULCHING, CLASS 2

- 15 ITEM 452 9" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC1 WITH QC/OA
- 16 STANDARD LONGITUDINAL JOINT
- 17 ITEM 442 1/2" ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446)
- 18 ITEM 442 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (446)
- 19 ITEM 254 PAVEMENT PLANING, ASPHALT CONCRETE
- 20 FULL DEPTH PAVEMENT SAWING
- 21 ITEM 301 9" ASPHALT CONCRETE BASE, PG64-22

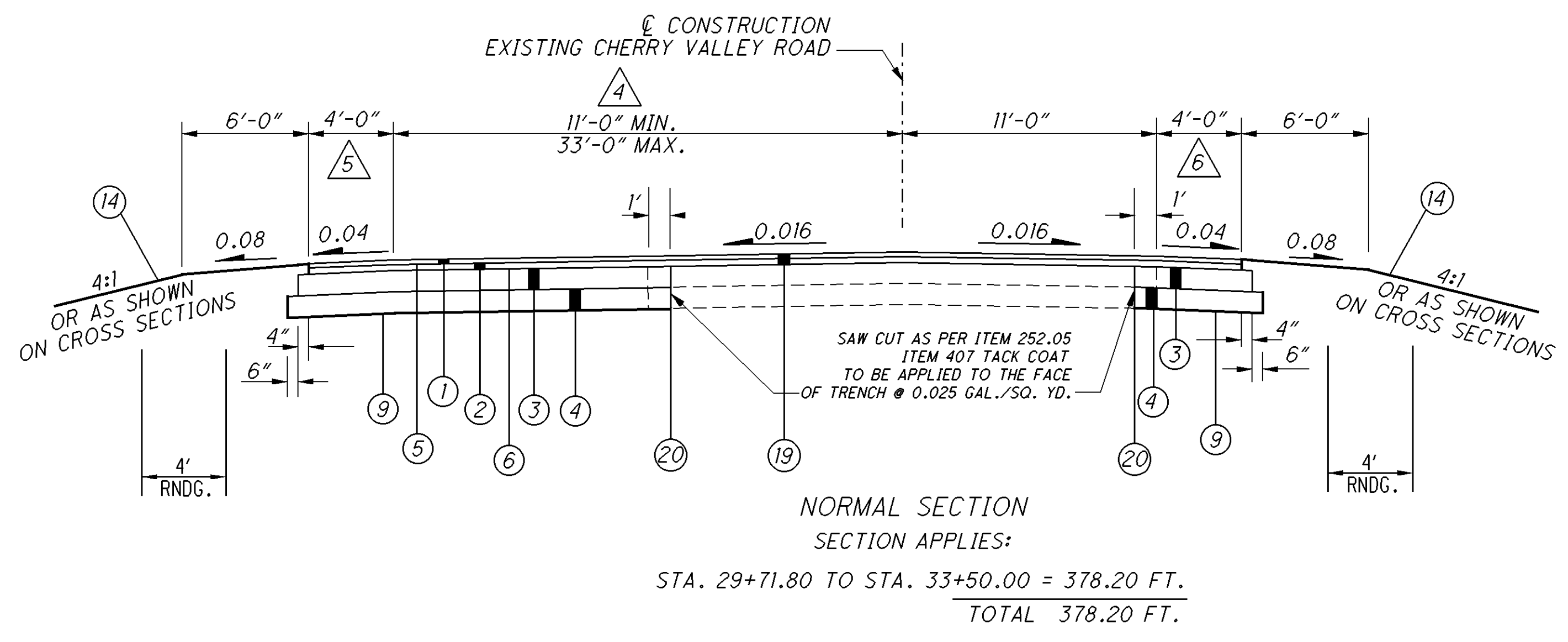
- 24 ITEM 609 COMBINATION CURB AND GUTTER, TYPE 2

③ TAPERS FROM 21' @ STA. 27+43.15 TO 33' @ STA. 29+71.80



④ TAPERS FROM 33' @ STA. 29+71.80 TO 22' @ STA. 32+71.80
22' FROM STA. 32+71.80 TO STA. 33+00.00
TAPERS FROM 22' @ STA. 33+00.00 TO 11' @ STA. 33+50.00

⑤ ⑥ TAPERS FROM 4' @ STA. 33+00.00 TO 2' @ STA. 33+50.00

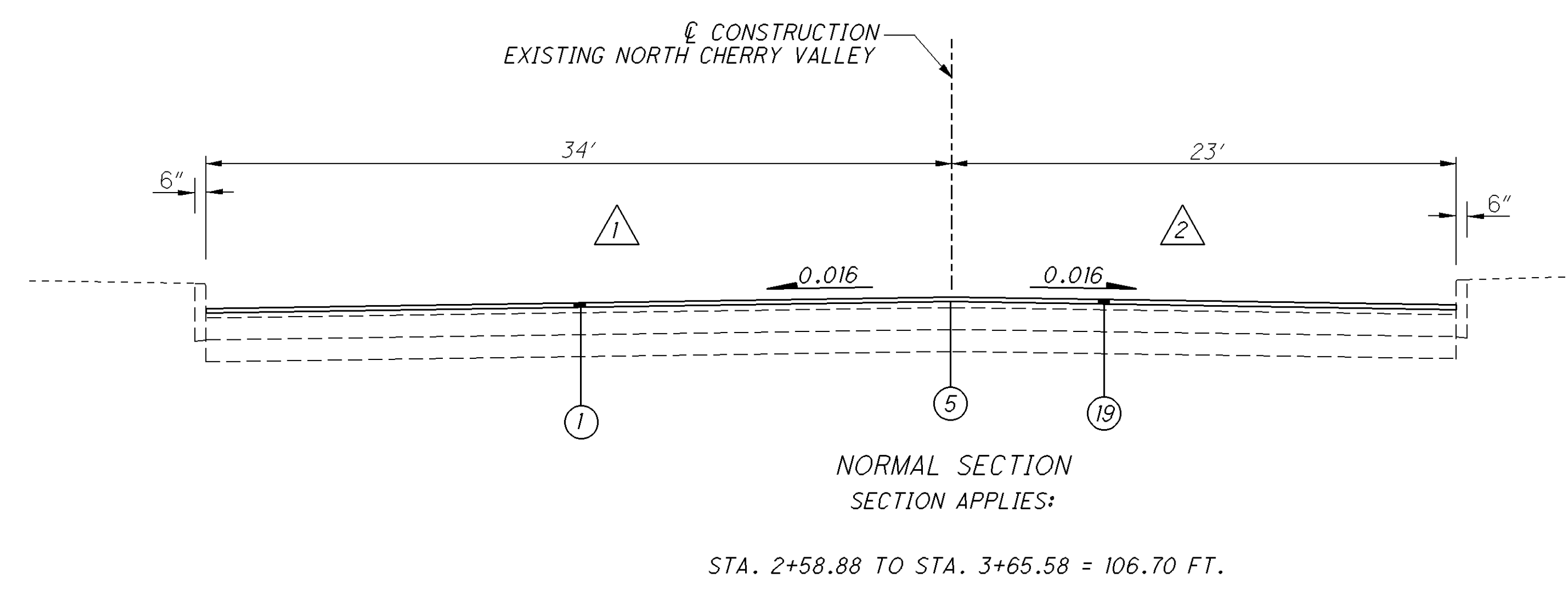


- ① ITEM 441 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (446), PG70-22M
- ② ITEM 441 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (446)
- ③ ITEM 301 6" ASPHALT CONCRETE BASE, PG64-22
- ④ ITEM 304 6" AGGREGATE BASE
- ⑤ ITEM 407 TACK COAT, TRACKLESS TACK, SURFACE COURSE
- ⑥ ITEM 407 TACK COAT, TRACKLESS TACK, INTERMEDIATE COURSE
- ⑦ ITEM 204 PROOF ROLLING

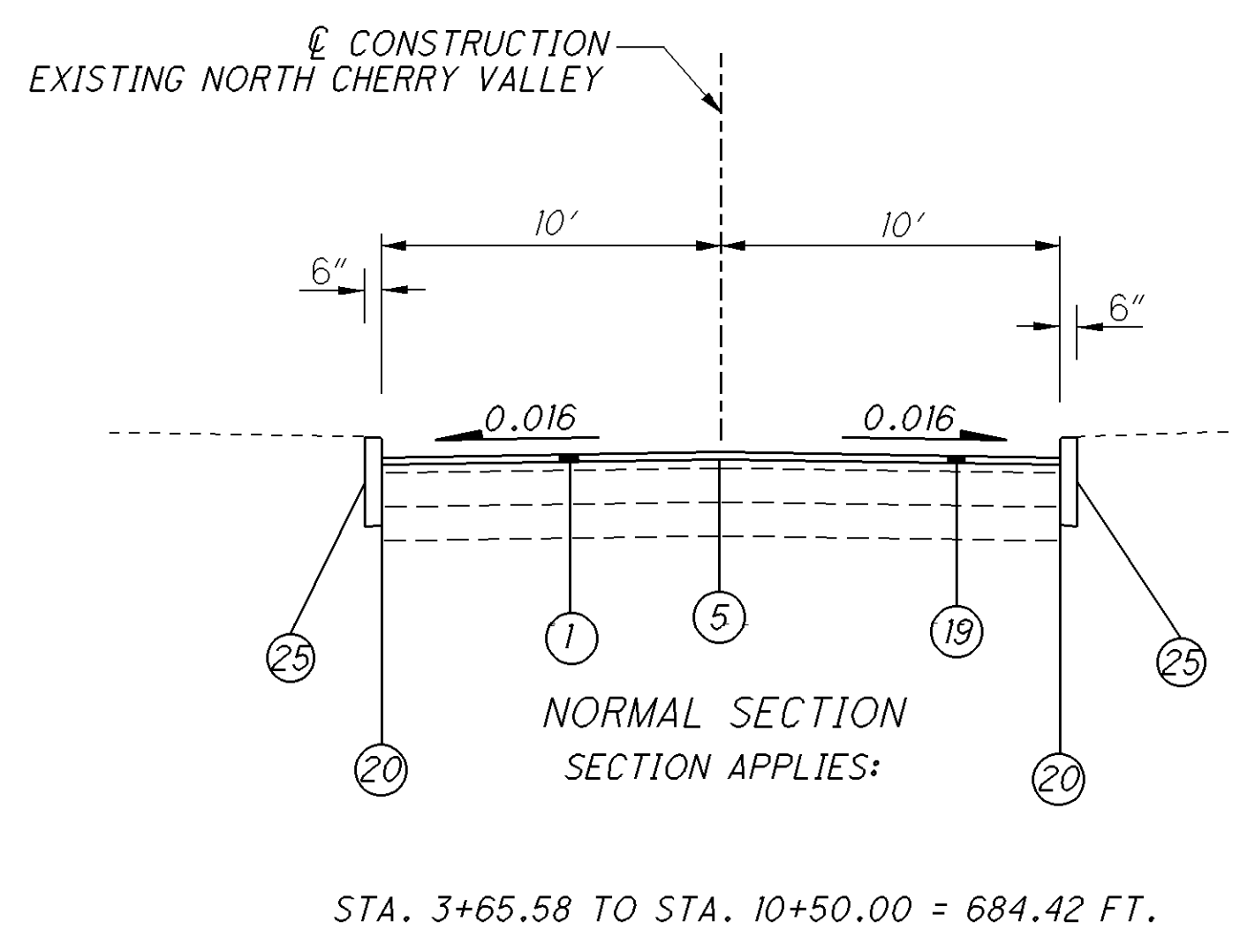
- ⑧ ITEM 204 SUBGRADE COMPACTION
- ⑨ ITEM 206 CEMENT STABILIZED SUBGRADE, 14 INCHES DEEP
- ⑩ ITEM 605 6" BASE PIPE UNDERDRAINS (18" DEPTH)
- ⑪ ITEM 605 6" SHALLOW PIPE UNDERDRAINS (30" DEPTH)
- ⑫ ITEM 606 GUARDRAIL, TYPE 5
- ⑬ ITEM 609 CONCRETE MEDIAN
- ⑭ ITEM 659 SEEDING AND MULCHING, CLASS 2

- ⑮ ITEM 452 9" NON-REINFORCED CONCRETE PAVEMENT, CLASS QCI WITH QC/OA
- ⑯ STANDARD LONGITUDINAL JOINT
- ⑰ ITEM 442 1/2" ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446)
- ⑱ ITEM 442 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (446)
- ⑲ ITEM 254 PAVEMENT PLANING, ASPHALT CONCRETE
- ⑳ FULL DEPTH PAVEMENT SAWING
- ㉑ ITEM 301 9" ASPHALT CONCRETE BASE, PG64-22

SR16_PTS_001.DGN 05/10/12



- ① TAPERS FROM 34' @ STA. 3+32.19 TO 10' @ STA. 3+65.58
- ② TAPERS FROM 23' @ STA. 3+29.48 TO 10' @ STA. 3+57.16



- ① ITEM 441 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (446), PG70-22M
- ② ITEM 441 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (446)
- ③ ITEM 301 6" ASPHALT CONCRETE BASE, PG64-22
- ④ ITEM 304 6" AGGREGATE BASE
- ⑤ ITEM 407 TACK COAT, TRACKLESS TACK, SURFACE COURSE
- ⑥ ITEM 407 TACK COAT, TRACKLESS TACK, INTERMEDIATE COURSE
- ⑦ ITEM 204 PROOF ROLLING

- ⑧ ITEM 204 SUBGRADE COMPACTION
- ⑨ ITEM 206 CEMENT STABILIZED SUBGRADE, 14 INCHES DEEP
- ⑩ ITEM 605 6" BASE PIPE UNDERDRAINS (18" DEPTH)
- ⑪ ITEM 605 6" SHALLOW PIPE UNDERDRAINS (30" DEPTH)
- ⑫ ITEM 606 GUARDRAIL, TYPE 5
- ⑬ ITEM 609 CONCRETE MEDIAN
- ⑭ ITEM 659 SEEDING AND MULCHING, CLASS 2

- ⑮ ITEM 452 9" NON-REINFORCED CONCRETE PAVEMENT, CLASS QCI WITH QC/OA
- ⑯ STANDARD LONGITUDINAL JOINT
- ⑰ ITEM 442 1/2" ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446)
- ⑱ ITEM 442 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (446)
- ⑲ ITEM 254 PAVEMENT PLANING, ASPHALT CONCRETE
- ⑳ FULL DEPTH PAVEMENT SAWING
- ㉑ ITEM 301 9" ASPHALT CONCRETE BASE, PG64-22

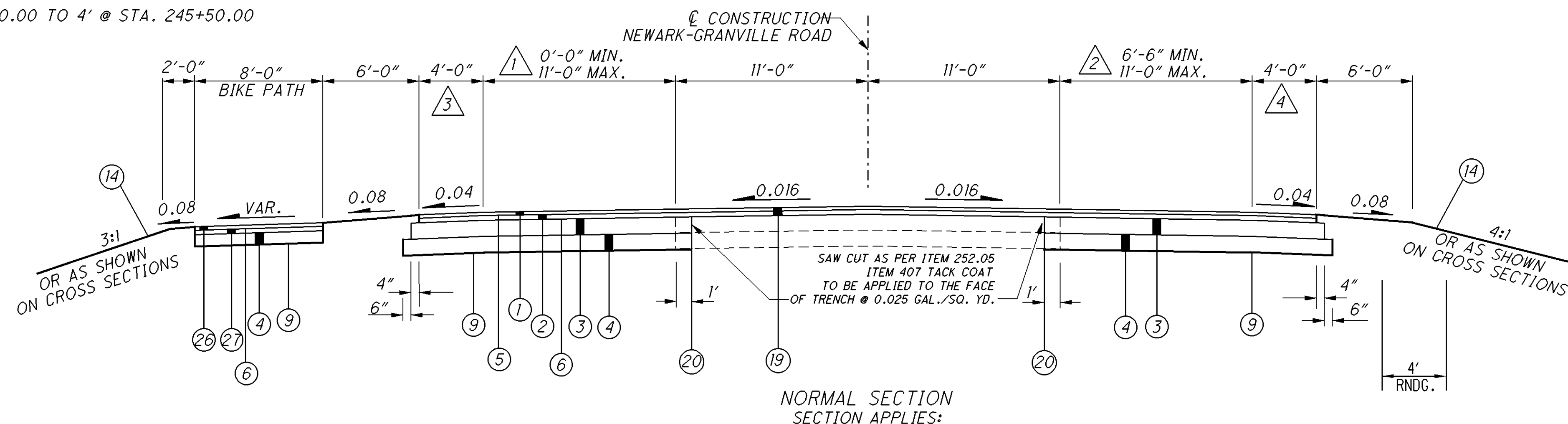
- ㉒ ITEM 609 CURB, TYPE 6

SR16_PTS_001.DGN 05/10/12

① TAPERS FROM 0' @ STA. 245+00.00 TO 11' @ STA. 248+00.00
11' FROM STA. 248+00.0 TO STA. 248+95.00

② TAPERS FROM 0' @ STA. 245+50.00 TO 11' @ STA. 246+00.00
11' FROM STA. 246+00.00 TO STA. 247+44.70
TAPERS FROM 11' @ STA. 247+44.70 TO 6.5' @ STA. 248+95.00

③ ④ TAPERS FROM 2' @ STA. 245+00.00 TO 4' @ STA. 245+50.00



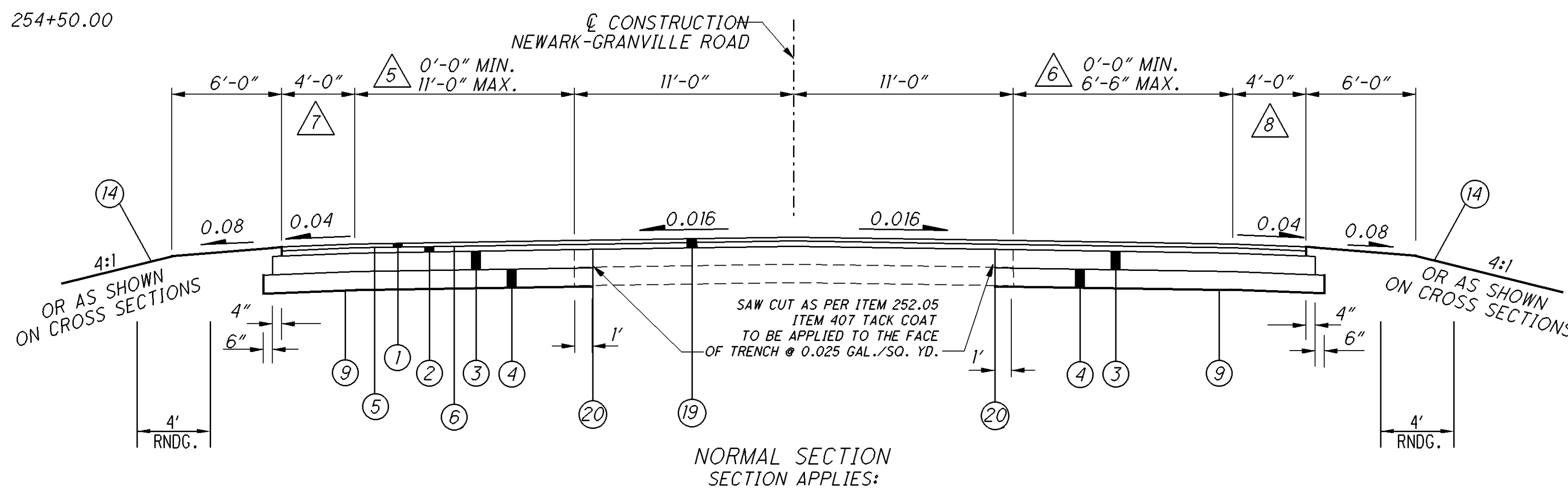
NORMAL SECTION
SECTION APPLIES:

STA 245+00.00 TO STA. 248+95.00 = 395.00 FT.
TOTAL 395.00 FT.

⑤ 11' FROM STA. 248+95.00 TO STA. 251+50.00
TAPERS FROM 11' @ STA. 251+50.00 TO 0' @ STA. 254+50.00

⑥ TAPERS FROM 6'-6" @ STA. 248+95.00 TO 0' @ STA. 249+19.62

⑦ ⑧ TAPERS FROM 2' @ STA. 254+00.00 TO 4' @ STA. 254+50.00



NORMAL SECTION
SECTION APPLIES:

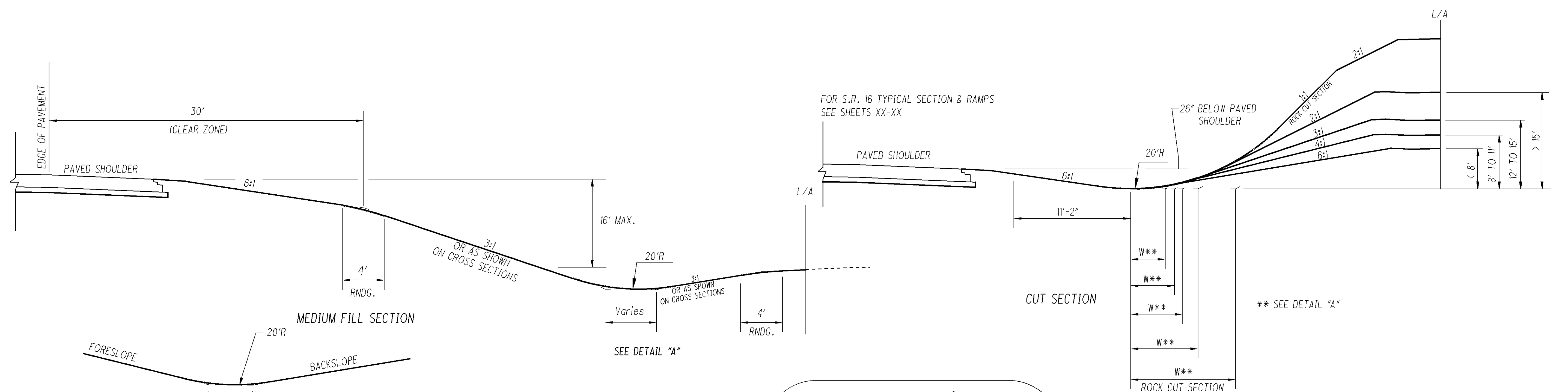
STA 248+95.00 TO STA. 254+50.00 = 555.00 FT.
TOTAL 555.0 FT.

- ① ITEM 441 1 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (446), PG70-22M
- ② ITEM 441 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (446)
- ③ ITEM 301 6" ASPHALT CONCRETE BASE, PG64-22
- ④ ITEM 304 6" AGGREGATE BASE
- ⑤ ITEM 407 TACK COAT, TRACKLESS TACK, SURFACE COURSE
- ⑥ ITEM 407 TACK COAT, TRACKLESS TACK, INTERMEDIATE COURSE
- ⑦ ITEM 204 PROOF ROLLING

- ⑧ ITEM 204 SUBGRADE COMPACTION
- ⑨ ITEM 206 CEMENT STABILIZED SUBGRADE, 14 INCHES DEEP
- ⑩ ITEM 605 6" BASE PIPE UNDERDRAINS (18" DEPTH)
- ⑪ ITEM 605 6" SHALLOW PIPE UNDERDRAINS (30" DEPTH)
- ⑫ ITEM 606 GUARDRAIL, TYPE 5
- ⑬ ITEM 609 CONCRETE MEDIAN
- ⑭ ITEM 659 SEEDING AND MULCHING, CLASS 2

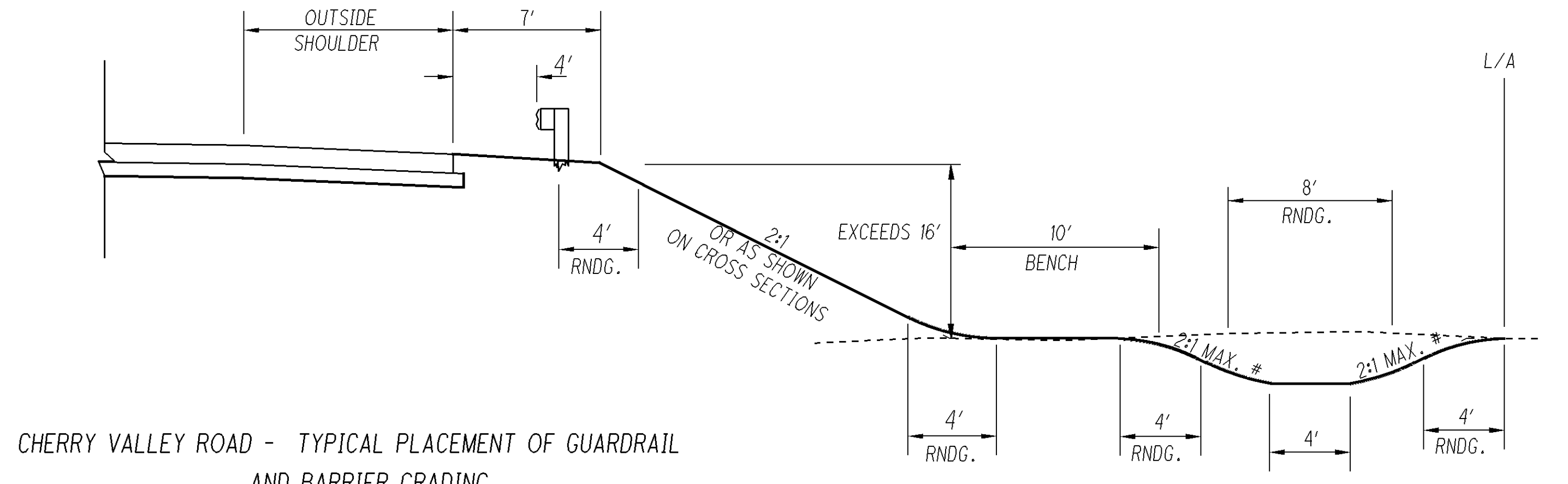
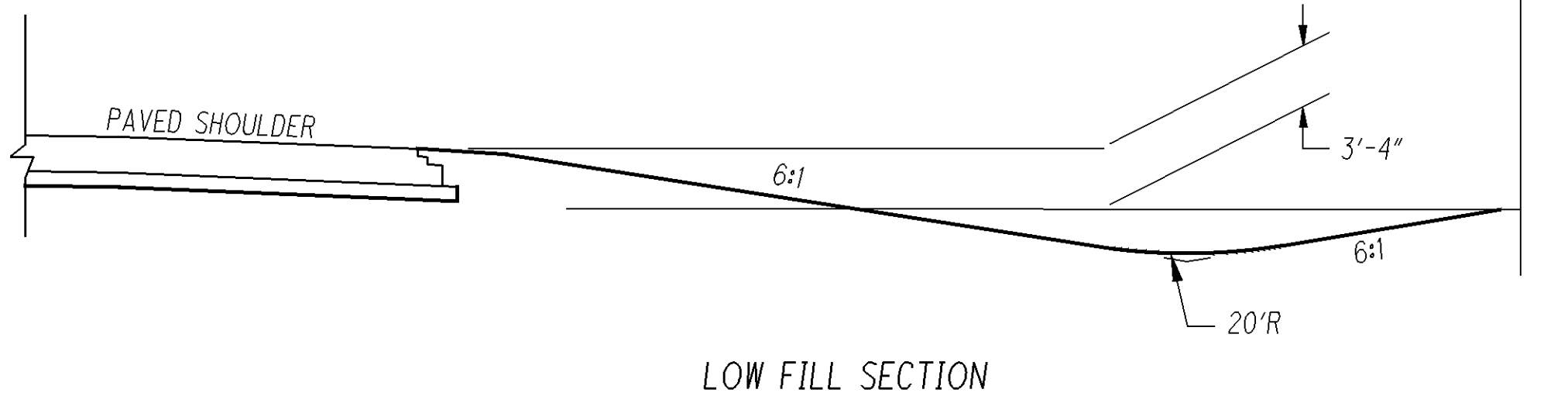
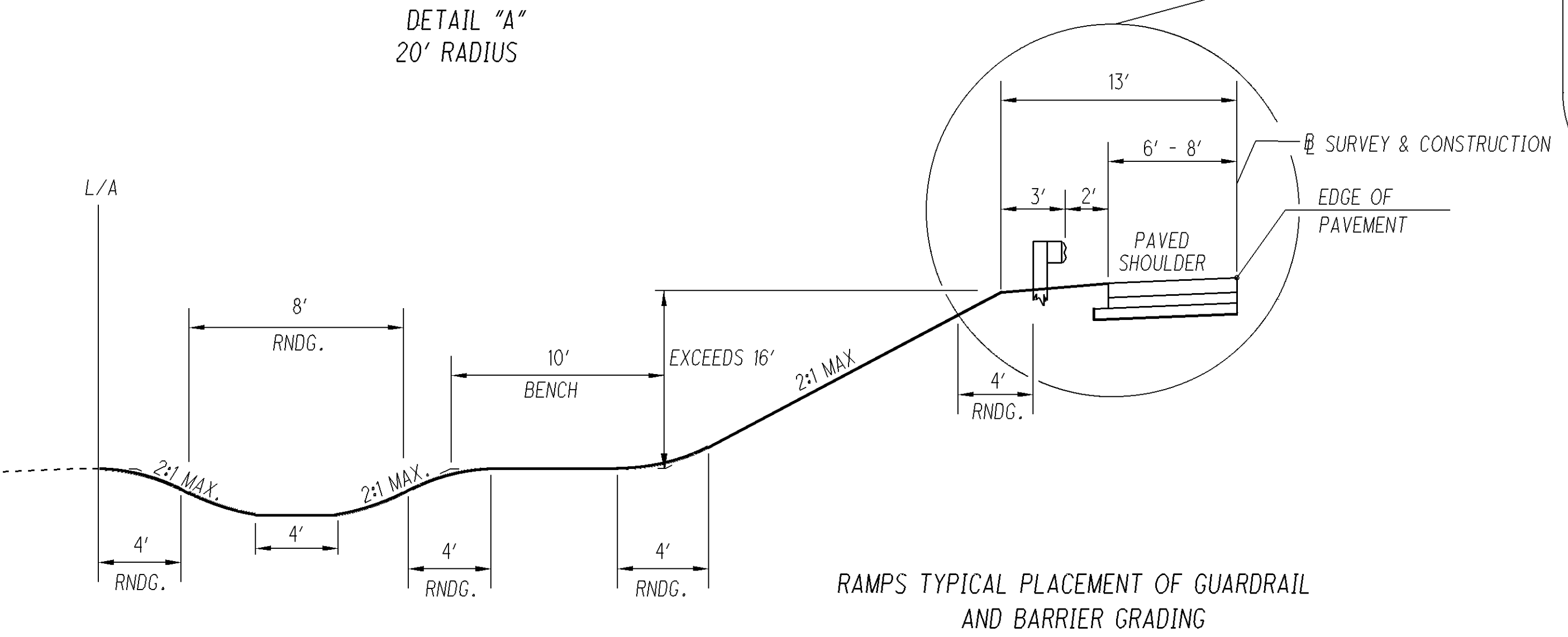
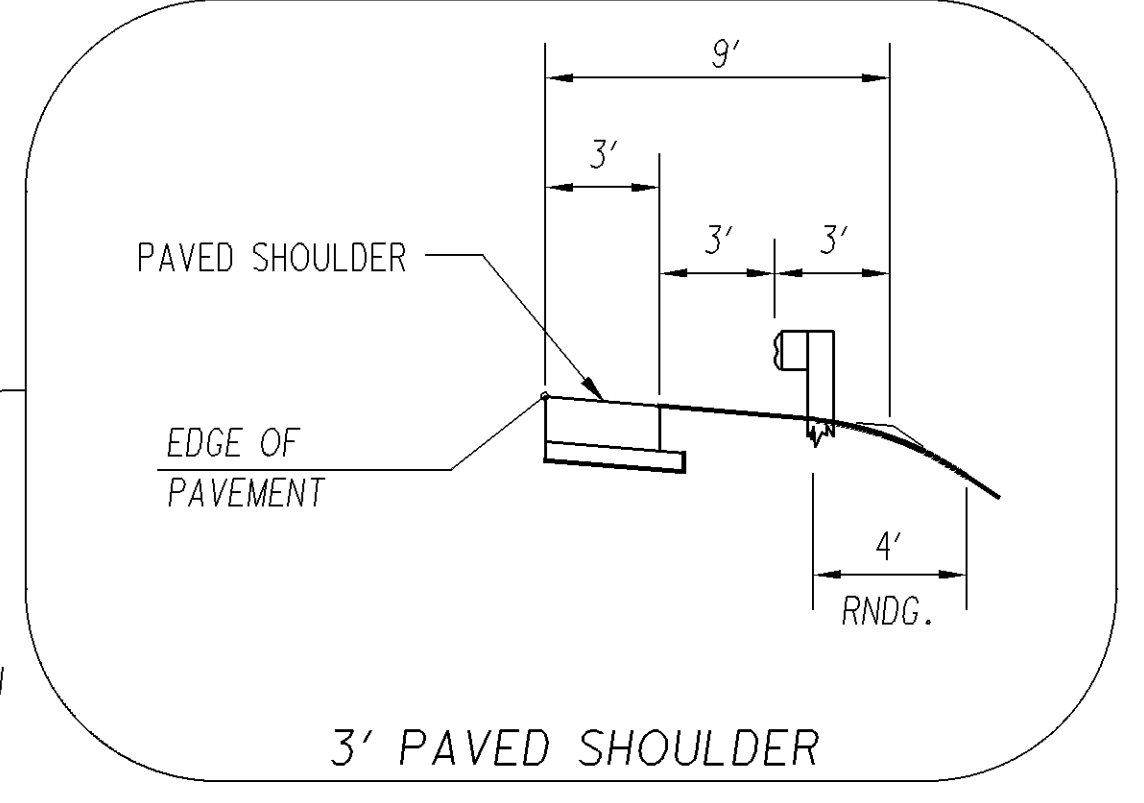
- ⑮ ITEM 452 9" NON-REINFORCED CONCRETE PAVEMENT, CLASS OC1 WITH QC/OA
- ⑯ STANDARD LONGITUDINAL JOINT
- ⑰ ITEM 442 1 1/2" ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446)
- ⑱ ITEM 442 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (446)
- ⑲ ITEM 254 PAVEMENT PLANING, ASPHALT CONCRETE
- ⑳ FULL DEPTH PAVEMENT SAWING
- ㉑ ITEM 301 9" ASPHALT CONCRETE BASE, PG64-22

- ㉒ ITEM 823 1 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448)
- ㉓ ITEM 823 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448)

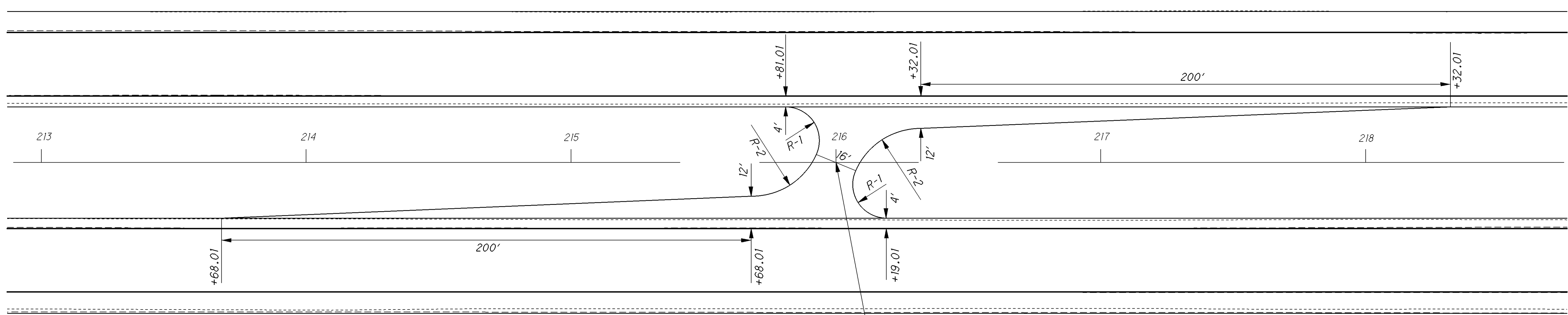


FORESLOPE	BACKSLOPE				
	6:1	4:1	3:1	2:1	1:1
6:1	3'-4"	4'-2"	4'-11"	6'-5"	10'
4:1	4'-2"	5'-0"	5'-9"		
3:1	4'-11"	5'-9"	6'-6"		

DETAIL "A"
20' RADIUS

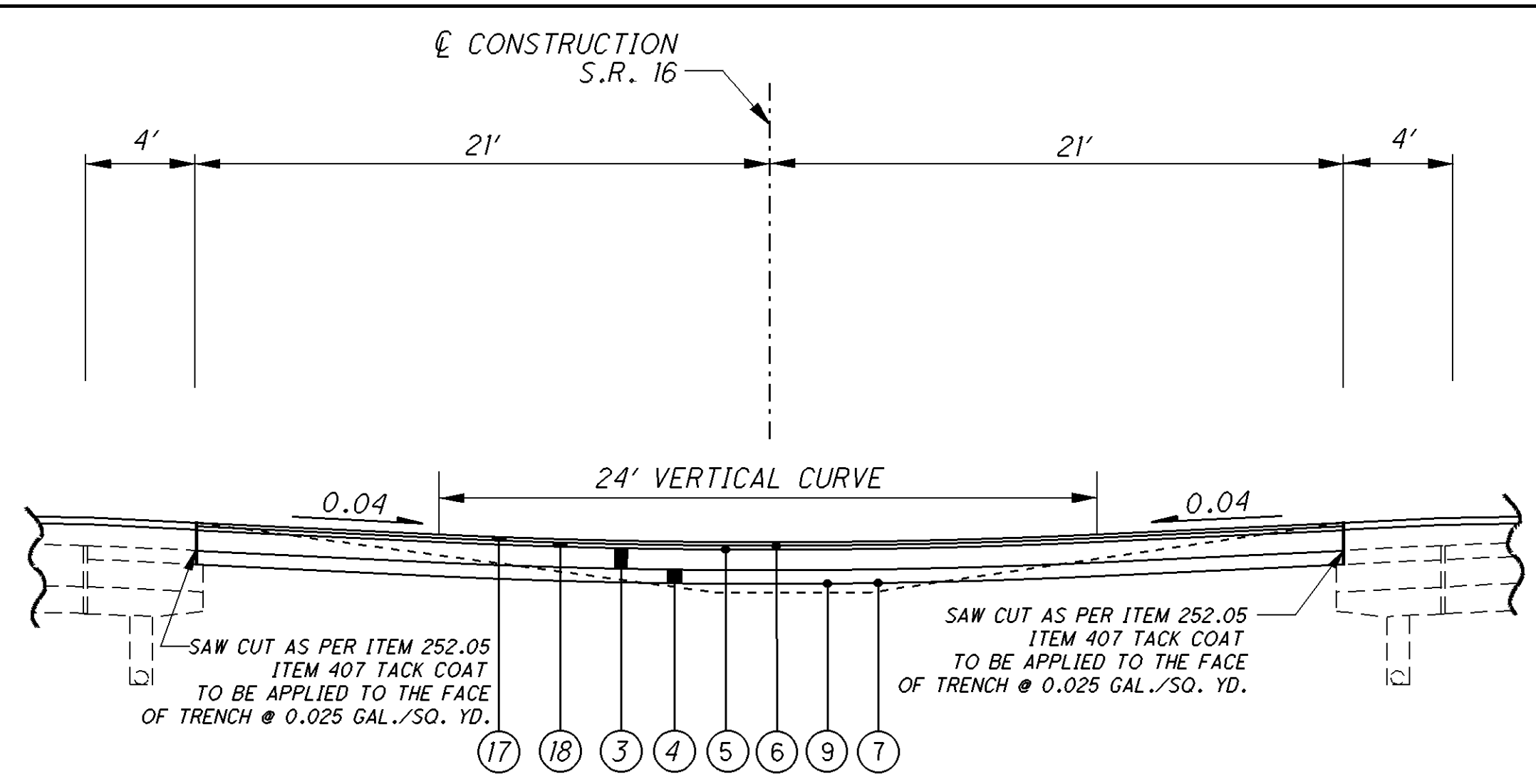


OR AS SHOWN ON THE CROSS SECTIONS.



50' MEDIAN
R-1 12.73'
R-2 26.93'

CONST. S.R. 16
STA. 216+00.00



- | | | |
|--|---|---|
| ① ITEM 441 1 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (446), PG70-22M | ⑧ ITEM 204 SUBGRADE COMPACTION | ⑮ ITEM 452 9" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC1 WITH QC/OA |
| ② ITEM 441 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (446) | ⑨ ITEM 206 CEMENT STABILIZED SUBGRADE, 14 INCHES DEEP | ⑯ STANDARD LONGITUDINAL JOINT |
| ③ ITEM 301 6" ASPHALT CONCRETE BASE, PG64-22 | ⑩ ITEM 605 6" BASE PIPE UNDERDRAINS (18" DEPTH) | ⑰ ITEM 442 1 1/2" ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446) |
| ④ ITEM 304 6" AGGREGATE BASE | ⑪ ITEM 605 6" SHALLOW PIPE UNDERDRAINS (30" DEPTH) | ⑱ ITEM 442 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (446) |
| ⑤ ITEM 407 TACK COAT, TRACKLESS TACK, SURFACE COURSE | ⑫ ITEM 606 GUARDRAIL, TYPE 5 | ⑲ ITEM 254 PAVEMENT PLANING, ASPHALT CONCRETE |
| ⑥ ITEM 407 TACK COAT, TRACKLESS TACK, INTERMEDIATE COURSE | ⑬ ITEM 609 CONCRETE MEDIAN | ⑳ FULL DEPTH PAVEMENT SAWING |
| ⑦ ITEM 204 PROOF ROLLING | ⑭ ITEM 659 SEEDING AND MULCHING, CLASS 2 | ㉑ ITEM 301 9" ASPHALT CONCRETE BASE, PG64-22 |

ROUNDING

THE ROUNDING AT SLOPE BREAKPOINTS SHOWN ON THE TYPICAL SECTIONS APPLY TO ALL CROSS-SECTIONS EVEN THOUGH OTHERWISE SHOWN.

LOCATION OF UTILITIES

NOT ALL UTILITIES ARE SHOWN ON THE CONSTRUCTION PLANS. THE SIZE, DEPTH AND LOCATION OF THE BURIED UTILITIES SHOWN OR NOT, ARE NOT WARRANTED. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE EXACT SIZE, DEPTH AND LOCATION OF ALL BURIED UTILITIES WITHIN THE CONSTRUCTION AREA PRIOR TO EXCAVATING.

UNDERGROUND UTILITIES

THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS AS REQUIRED BY SECTION 153.64 O.R.C.

UTILITIES

LISTED BELOW ARE ALL KNOWN UTILITIES LOCATED WITHIN THE PROJECT CONSTRUCTION LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS:

CITY OF NEWARK DIVISION OF WATER/WASTE WATER
34 SOUTH FIFTH STREET
NEWARK, OHIO 43055
ATTN: ROGER LOOMIS
CELL PHONE NUMBER: 740-670-7945
OFFICE PHONE NUMBER: 740-349-6765
EMERGENCY CONTACT NUMBER AFTER 4:30 ON WEEKDAYS: 740-670-7940

TIME WARNER CABLE
3760 INTERCHANGE DRIVE
COLUMBUS, OHIO 43204
ATTN: RAY MAURER
614-481-5262

AEP DISTRIBUTION
850 TECH CENTER DRIVE
GAHANNA, OHIO 43230
ATTN: PAUL PAXTON
614-883-6831

COLUMBIA GAS OF OHIO
2429 LINDEN AVE.
P.O. BOX 310
ZANESVILLE, OHIO 43702
ATTN: CHRIS DENNIS
740-652-0807

WINDSTREAM
66 NORTH FOURTH STREET
NEWARK, OHIO 43055
ATTN: DAVE HOLTON
740-349-8804

NATIONAL GAS AND OIL CORP.
1500 GRANVILLE ROAD
P.O. BOX 4970
NEWARK, OHIO 43058-4970
ATTN: GREG WILSON
740-348-1254

GRANVILLE WATER TREATMENT PLANT
445 PALMER LANE
GRANVILLE, OHIO 43023
ATTN: LARRY FRUTH
740-587-0165

MARATHON ASHLAND PIPE LINE LLC
539 SOUTH MAIN STREET
FINDLAY, OHIO 45840
ATTN: DAVID WISNER
419-421-2211

EXISTING PLANS

EXISTING PLANS ENTITLED - LIC-16-14.26, LIC-16-17.76, LIC-37-15.61/LIC-16-14.26, LIC-37-15.64/LIC-16-14.10, AND LIC-161-11.13/LIC-16-(14.30-18.510) MAY BE INSPECTED IN THE ODOT DISTRICT 05 OFFICE IN JACKSONTOWN OHIO.

WORK LIMITS

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. THE INSTALLATION AND OPERATION OF ALL TEMPORARY TRAFFIC CONTROL AND TEMPORARY TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS SHALL BE PROVIDED BY THE CONTRACTOR WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

ELEVATION DATUM

CONTROL MONUMENTS FOR LIC-16-16.64
PID 80704

PROJECT CONTROL:
OHIO SOUTH ZONE, GRID COORDINATES
PAF: 1.00007199
NAD83 (95)
VERTICAL DATUM: NAVD 88/GEOID 09

NOTE:
ALL CONTROL POINT COORDINATES IN PROJECT GROUND. TO OBTAIN STATE PLANE GRID COORDINATES DIVIDE EACH NORTHING AND EASTING BY THE PAF

POINT #	NORTHING	EASTING	ELEVATION	STATION	OFFSET
27	STATION AND OFFSET FROM CHAIN: SR16EXCL 748,333.2640 1,974,673.6860 FEATURE: MAG NAIL SET		885.34	236+80.03	54.59' LT.
SV1	STATION AND OFFSET FROM CHAIN: SR16EXCL 748,612.3020 1,973,699.9360 FEATURE: 5/8" REBAR WITH ODOT CAP		889.44	226+78.09	97.33' RT.
SV2	STATION AND OFFSET FROM CHAIN: SR16EXCL 749,405.2550 1,973,828.4700 FEATURE: 5/8" REBAR WITH ODOT CAP		901.89	224+64.54	677.07' LT.
SV5	STATION AND OFFSET FROM CHAIN: SR16EXCL 747,918.3445 1,975,688.4458 FEATURE: 5/8" REBAR WITH ODOT CAP		884.00	247+72.34	63.77' RT.
SV7	STATION AND OFFSET FROM CHAIN: SR16EXCL 746,892.0311 1,975,453.5772 FEATURE: MAG NAIL SET		879.54	247+03.71	1,113.69' RT.
SV8	STATION AND OFFSET FROM CHAIN: SR16EXCL 745,547.0773 1,975,768.1652 FEATURE: 5/8" REBAR WITH ODOT CAP		893.38	250+27.33	2,413.74' RT.
SV9	STATION AND OFFSET FROM CHAIN: SR16EXCL 746,492.9336 1,974,989.9929 FEATURE: 5/8" REBAR WITH ODOT CAP		885.84	244+23.29	1,595.21' RT.
SV11	STATION AND OFFSET FROM CHAIN: SR16EXCL 748,096.5210 1,973,687.8190 FEATURE: 5/8" REBAR WITH ODOT CAP		891.03	228+81.98	571.25' RT.
SV12	STATION AND OFFSET FROM CHAIN: SR16EXCL 750,315.0670 1,973,829.1140 FEATURE: 5/8" REBAR WITH ODOT CAP		903.57	220+86.04	1,504.41' LT.
SV14	STATION AND OFFSET FROM CHAIN: SR16EXCL 749,792.4587 1,975,247.0180 FEATURE: 5/8" REBAR WITH ODOT CAP		900.90	235+92.75	1,620.12' LT.
SV15	STATION AND OFFSET FROM CHAIN: SR16EXCL 749,496.1725 1,975,697.1000 FEATURE: MAG NAIL SET		898.39	244+26.82	1,490.15' LT.
SV16	STATION AND OFFSET FROM CHAIN: SR16EXCL 748,922.1713 1,975,785.4444 FEATURE: 5/8" REBAR WITH ODOT CAP		898.35	247+12.82	943.38' LT.
SV17	STATION AND OFFSET FROM CHAIN: SR16EXCL 748,298.6970 1,975,795.1631 FEATURE: 5/8" REBAR WITH ODOT CAP		885.84	248+29.29	327.43' LT.

NOTIFICATION OF ROAD CLOSURE OR RESTRICTION

IN ORDER FOR ODOT TO PROPERLY PERMIT OVERSIZE LOADS, PREPARE PROPER SIGNING WHEN REQUIRED AND FURTHER TO NOTIFY THE GENERAL MOTORING PUBLIC, THE CONTRACTOR SHALL NOTIFY (IN WRITING) THE DISTRICT 5 CONSTRUCTION ENGINEER WITH COPIES FOR THE DISTRICT 5 ROADWAY SERVICES MANAGER AND PROJECT ENGINEER NOT LESS THAN TWENTY-ONE (21) DAYS BEFORE SUCH CLOSURE OR LANE RESTRICTIONS.

SEND NOTIFICATION TO:
DISTRICT 5 CONSTRUCTION ENGINEER
P.O. BOX 306
JACKSONTOWN, OH. 43030
PHONE: (740) 323-4400

CONSTRUCTION NOTIFICATION

THE CONTRACTOR WILL ADVISE THE PROJECT ENGINEER A MINIMUM OF TWENTY-ONE (21) DAYS PRIOR TO THE FOLLOWING:
THE START OF CONSTRUCTION ACTIVITIES, LANE RESTRICTIONS, LANE CLOSURES, AND OR ROAD CLOSURES. THE PROJECT ENGINEER WILL FORWARD THIS INFORMATION TO THE FOLLOWING:

DISTRICT PUBLIC INFORMATION OFFICER (PIO)
BY FAX: (614) 887-4510 OR
BY EMAIL: D05.PIO@DOT.STATE.OH.US

DISTRICT PERMIT SECTION
BY FAX: (614) 887-4525 OR
BY EMAIL: BRIAN.BOSCH@DOT.STATE.OH.US

CENTRAL OFFICE SPECIAL HAUL PERMITS SECTION
BY FAX: (614) 728-4099 OR
BY EMAIL: HAULING.PERMITS@DOT.STATE.OH.US

THE PIO WILL, IN TURN, NOTIFY THE PUBLIC, THE LOCAL EMERGENCY SERVICES, AFFECTED SCHOOLS AND BUSINESSES, AND ANY OTHER IMPACTED LOCAL PUBLIC AGENCY OF ANY OF THE ABOVE MENTIONED ITEMS, VIA MEDIA SOURCES.

AIRWAY/HIGHWAY CLEARANCE FOR AIRPORTS AND HELIPORTS

THIS PROJECT HAS BEEN IDENTIFIED AS BEING WITHIN THE INFLUENCE AREA OF A PUBLIC USE AIRPORT OR HELIPORT. NO TEMPORARY STRUCTURES OR CONSTRUCTION EQUIPMENT AT MAXIMUM OPERATING HEIGHT SHALL EXCEED A HEIGHT OF 60 FEET. IF ANY TEMPORARY STRUCTURES OR CONSTRUCTION EQUIPMENT WILL EXCEED THIS HEIGHT, FURTHER COORDINATION WITH THE FEDERAL AVIATION ADMINISTRATION (FAA), AND ODOT OFFICE OF AVIATION, WILL BE NECESSARY PRIOR TO ERECTING SUCH TEMPORARY STRUCTURES OR OPERATING SUCH EQUIPMENT ON THE PROJECT. THE CONTRACTOR WILL BE REQUIRED TO SUBMIT FORM 7460-1 TO THE FAA. A COPY OF THE SUBMISSION AND TWO COPIES OF FORM 7460-1 SHALL BE FORWARDED TO THE ODOT OFFICE OF AVIATION. NO TEMPORARY STRUCTURES OR CONSTRUCTION EQUIPMENT SHALL EXCEED THE PERMISSIBLE HEIGHT, UNTIL A COPY OF THE FAA APPROVAL AND ODOT OFFICE OF AVIATION PERMIT HAS BEEN FURNISHED TO THE PROJECT ENGINEER.

EXPRESS PROCESSING CENTER
THE FEDERAL AVIATION ADMINISTRATION
SOUTHWEST REGIONAL OFFICE
AIR TRAFFIC AIRSPACE BRANCH ASW-520
2601 MEACHAN BLVD.
FORT WORTH, TX 76137-4298

OHIO DEPARTMENT OF TRANSPORTATION
OFFICE OF AVIATION
2829 WEST DUBLIN-GRANVILLE ROAD
COLUMBUS, OHIO 43235

SURFACE SMOOTHNESS FOR BRIDGES AND APPROACHES

AFTER THE COMPLETION OF WORK FOR ALL PHASES AND AFTER OPENING ALL LANES TO TRAFFIC, THE CONTRACTOR SHALL PERFORM THE FOLLOWING AS PER PROPOSAL NOTE 555:

1. CLEAN, SWEEP, AND PREPARE THE FINAL DECK AND FINAL ROADWAY SURFACE.
2. MEASURE, GRIND, AND RE-MEASURE THE BRIDGE AND/OR ROADWAY AS NECESSARY.
3. PERFORM RE-GROOVING OF THE BRIDGE DECK AS NECESSARY.

CONTRACTION AND/OR EXPANSION JOINTS

ALTHOUGH SPECIFIC LOCATIONS OF CERTAIN CONTRACTION AND EXPANSION JOINTS HAVE BEEN DETAILED ON THIS PLAN, NO WAIVER OF THE SPECIFICATIONS IS INTENDED. IN ALL CASES, THE PROVISION OF EXPANSION JOINTS AT ALL MAJOR STRUCTURES INCLUDING THE MAXIMUM SPACING BETWEEN CONTRACTION JOINTS IS IN ACCORDANCE WITH STANDARD CONSTRUCTION DRAWING BP-2.2 AND THE SPECIFICATIONS.

BENCHING OF FOUNDATION SLOPES

ALTHOUGH CROSS-SECTIONS INDICATE SPECIFIC DIMENSIONS FOR PROPOSED BENCHING OF THE EMBANKMENT FOUNDATIONS IN CERTAIN AREAS, NO WAIVER OF THE SPECIFICATIONS IS INTENDED. ALL OTHER SLOPED EMBANKMENT AREAS SHALL BE BENCHED AS SET FORTH IN 203.05. NO ADDITIONAL PAYMENT WILL BE MADE FOR BENCHING REQUIRED UNDER THE PROVISIONS OF 203.05.

PART-WIDTH CONSTRUCTION

BECAUSE OF THE NECESSITY TO BUILD THIS PROJECT UNDER TRAFFIC AND TO CONSTRUCT THE FULL PAVEMENT WIDTH IN STAGES, EXERCISE CARE TO PREVENT THE CONSTRUCTION OF A BUTT JOINT IN THE BASE COURSES. LAP LONGITUDINAL JOINTS AS SHOWN ON STANDARD CONSTRUCTION DRAWING BP-3.1.

CALCULATED
CMY
CHECKED
HAG

GENERAL NOTES

LIC-16-16.64

CLEARING AND GRUBBING, AS PER PLAN

ALTHOUGH THERE ARE NO TREES OR STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE LIMITS OF THE PROJECT, A LUMP SUM QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY FOR ITEM 201, CLEARING AND GRUBBING. ALL PROVISIONS AS SET FORTH IN THE SPECIFICATIONS UNDER THIS ITEM SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 201, CLEARING AND GRUBBING, AS PER PLAN.

ALL TREES AND STUMPS SHOULD BE REMOVED FROM THIS PROJECT (PID 80704) BY THE PRECEDING PROJECT (PID 97587). THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL REMAINING TREES, STUMP REMOVAL AND CLEARING AND GRUBBING WITHIN THE RIGHT-OF-WAY LIMITS OF THIS PROJECT (PID 80704) AS PER ITEM 201.

ITEM 201 CLEARING AND GRUBBING, AS PER PLAN LUMP

NOTE: RESTRICTIONS ON TREE CUTTING AND REMOVAL DATES. CLEARING OF ANY TREES THAT HAVE SUITABLE SUMMER BROOD REARING OR ROOSTING HABITAT FOR THE FEDERALLY ENDANGERED INDIANA BAT AND THE POTENTIALLY LISTED NORTHERN LONG EARED BAT SHALL OCCUR BEFORE APRIL 1 OR AFTER OCTOBER 1 WHEN BATS WOULD NOT BE USING SUCH HABITAT.

SEEDING AND MULCHING

THE FOLLOWING QUANTITIES ARE PROVIDED TO PROMOTE GROWTH AND CARE OF PERMANENT SEEDING AREAS AS PER ITEM 659:

SEEDING TOTAL CARRIED FROM SHEET 214.

ITEM 659 SEEDING AND MULCHING, CLASS 2 226,766 SQ YD

ITEM 659 COMMERCIAL FERTILIZER 31.0 TON
1 TON PER 7,410 SQ. YD. OF THE PERMANENT SEEDING AREA
226,766 SQ.YD. ÷ 7,410 = 30.6 TON

ITEM 659 LIME 47.0 ACRES
226,766 SQ.YD. ÷ 4,840 = 46.9 ACRES

ITEM 659 WATER 1225.0 M. GAL.
0.0054 M. GAL PER SQ. YD. OF THE PERMANENT SEEDING AREA
226,766 SQ.YD. × 0.0054 = 1224.5 GAL.

ITEM 659 MOWING 4082 MSF
0.009 MSF PER SQ.YD.
226,766 SQ.YD. × 0.009 = 2041 MSF
2041 MSF × 2 MOWINGS = 4082 MSF

SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL BETWEEN THE RIGHT-OF-WAY LINES, AND WITHIN THE CONSTRUCTION LIMITS. FOR AREAS OUTSIDE THE RIGHT-OF-WAY LINES COVERED BY WORK AGREEMENT OR SLOPE EASEMENT. QUANTITY CALCULATIONS FOR SEEDING AND MULCHING ARE BASED ON THESE LIMITS.

ITEM 659 REPAIR SEEDING AND MULCHING 11338.0 SQ. YD.
5% OF THE PERMANENT SEEDING AREA
.05 × 226,766 SQ.YD. = 11338.3 SQ. YD.

ITEM 659 INTER-SEEDING 11338.0 SQ. YD.
5% OF THE PERMANENT SEEDING AREA
.05 × 226,766 SQ.YD. = 11338.3 SQ. YD.

ITEM 659 COMMERCIAL FERTILIZER 8.0 TON
1 TON PER 29,940 SQ. YD. OF THE PERMANENT SEEDING AREA
226,766 SQ.YD. ÷ 29,940 = 7.6 TON

ITEM 659 WATER 196.0 M. GAL.
0.00216 M. GAL. PER 40% OF THE SEEDING AREA
226,766 SQ.YD. × 0.40 × 0.00216 = 195.9 M. GAL.

QUANTITIES CARRIED TO GENERAL SUMMARY

EXISTING 8" MARATHON HP GASLINE CONSTRUCTION RESTRICTIONS

THE PLANS INDICATE THE LOCATION OF AN EXISTING 8" MARATHON HP GASLINE THAT CROSSES EXISTING S.R. 16 AT APPROXIMATELY STA. 236+50. THE LOCATION AND DEPTH OF THE EXISTING GASLINE WERE DETERMINED BY SUBSURFACE UTILITY EXPLORATION. IN ADDITION, STRESS TESTS WERE PERFORMED BY THE GASLINE OWNER TO DETERMINE ANY ISSUES WITH THE PROPOSED GRADE CUT ABOVE THE GASLINE. THE REQUIRED CONSTRUCTION RESTRICTIONS ARE AS FOLLOWS DUE TO THE RESULTS OF THE TESTING:

THE CROSSING OF THE GASLINE BY LOADED DUMP TRUCKS SHOULD BE ACCEPTABLE PROVIDED THE TRUCKS ARE NOT SINKING INTO THE SUBGRADE.

ANY USE OF A SHEEP FOOT ROLLER SHALL BE RESTRICTED TO 10 FT. EACH SIDE OF THE GASLINE. THERE IS CONCERN OF ROCKS BEING PUSHED INTO THE GASLINE CAUSING DENTING OR SCRATCHING OF THE COATING.

THE USE OF A SMOOTH ROLLER IS ACCEPTABLE BUT THE VIBRATOR SHALL NOT BE USED 10 FT. EACH SIDE OF THE GASLINE.

THE GLOBAL CEMENT STABILIZATION PROPOSED FOR THE PROJECT SHALL BE NON-PERFORMED 50 FT. EACH SIDE OF THE GASLINE.

IN ADDITION, MARATHON PETROLEUM SHALL BE NOTIFIED 5 DAYS PRIOR TO ANY WORK THAT WILL OCCUR WITHIN 50 FT. OF THE GASLINE. CONTACT DAVID WISNER AT MARATHON PIPE LINE LLC. (419-421-2211).

DUST CONTROL

THE CONTRACTOR SHALL FURNISH AND APPLY WATER FOR DUST CONTROL AS DIRECTED BY THE ENGINEER. THE FOLLOWING CONTINGENCY QUANTITIES HAVE BEEN INCLUDED FOR DUST CONTROL PURPOSES:

ITEM 616, WATER 1585 M. GAL
0.004 M. GAL. PER CU. YD. OF THE TOTAL EARTHWORK
332,569 + 63,507 = 396,076 CU. YD. (TOTAL)
396,076 × 0.004 = 1,584.3 M. GAL.

QUANTITY CARRIED TO GENERAL SUMMARY

FOR EXCAVATION AND EMBANKMENT QUANTITIES FROM CROSS-SECTIONS, SEE TABLE BELOW:

EARTHWORK CARRIED FROM SHEET 214

	EXCAVATION	EMBANKMENT
PLAN SPLIT 01/NHS/PV	43,582 CY	165,696 CY
PLAN SPLIT 02/S<2/PV	6,693 CY	134,927 CY
PLAN SPLIT 04/ENH/OT/NEWA	2,588 CY	24,407 CY
TOTALS	52,863 CY	325,030 CY

ITEM 203 EXCAVATION 52,863 CY
ITEM 203 EMBANKMENT 325,030 CY

QUANTITIES CARRIED TO THE GENERAL SUMMARY

ITEM 206 CEMENT STABILIZED SUBGRADE, 14 INCHES DEEP

THE FOLLOWING QUANTITIES HAVE BEEN PROVIDED TO BE USED AS PER ITEM 206 AT THE DIRECTION OF THE PROJECT ENGINEER. THE ENTIRE PROJECT WILL BE CEMENT STABILIZED.

THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY TO PERFORM THE STABILIZATION OF THE SUBGRADE AS PER ITEM 206.

ITEM 206 CEMENT STABILIZED SUBGRADE, 14 INCHES DEEP 93,863 SY
69,719 SY (FROM SHT. 143)
21,533 SY (FROM SHT. 147)
2,611 SY (FROM SHT. 148)
TOTAL = 93,863 SY

CALCULATION:

CEMENT @ 69.3 LBS./S.Y.
93,863 S.Y. × 69.3 LBS. = 6,504,705.9 LBS. ÷ 2000 = 3,253 TON

PROOF ROLLING @ 1 HR/3000 SY
93,863 SY ÷ 3000 SY = 31.3 HR USE 32 HR

ITEM 206 CEMENT 3,253 TON
ITEM 206 CURING COAT 93,863 SQ.YD.
ITEM 206 MIXTURE DESIGN FOR CHEMICALLY STABILIZED SOILS LUMP
ITEM 204 PROOF ROLLING 32 HR

ITEM 204 PROOF ROLLING

THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY TO ADDRESS LOCATIONS REQUIRING PROOF ROLLING THAT ARE NOT BEING CHEMICALLY STABILIZED.

ITEM 204 PROOF ROLLING 1 HOUR

ITEM 203 GRANULAR EMBANKMENT, AS PER PLAN:

FOLLOWING TWO AREAS ARE NOTED FOR SOFT OR WET FOUNDATION. AS SPECIFIED, CMS 203.05 EMBANKMENT CONSTRUCTION METHODS WILL BE USED.

RAMP B : STA: 255 + 00 TO STA: 258 + 50

CHERRY VALLEY RD.: STA: 8 + 50 TO STA. 12 + 50

THE QUANTITY BASED ON TWO 8" LIFTS OVER THE ENTIRE WIDTH OF ROADWAY FOUNDATION IS SET UP TO BE USED AS DIRECTED BY THE ENGINEER.

ITEM 203 GRANULAR EMBANKMENT, AS PER PLAN 4,500 CY

QUANTITY CARRIED TO GENERAL SUMMARY

ITEM 607 FENCE, SNOW

TEMPORARY ORANGE SNOW FENCE PLASTIC/NYLON SHALL BE PLACED ALONG THE LOCATIONS LISTED BELOW AT THE PROPOSED L/A LIMITS INDICATED IN THE PLANS. THIS FENCE IS TO BE PLACED PRIOR TO COMMENCING WORK ON THE PROJECT IN THE AREA OF THE EXISTING CELL TOWER AND THE CHERRY VALLEY LODGE, SO AS TO PREVENT CONSTRUCTION TRAFFIC FROM USING THE EXISTING CELL TOWER DRIVE AND TO PREVENT VISITORS FROM ENTERING THE CONSTRUCTION AREA FROM THE LODGE. THE FENCE WILL BE INSTALLED AND SECURELY FASTENED TO WOOD OR METAL POSTS AT NO MORE THAN 6 FOOT SPACING. THE FENCE SHALL BE NOMINALLY 42" HIGH AND AT THE TOP SHALL NOT SAG BELOW 30". THE FENCE WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INSURE THAT THE FENCE IS IN GOOD CONDITION AND PROPERLY PLACED AND MAINTAINED FOR THE DURATION OF THE PROJECT.

NOTE: AT NO TIME IS THE CONTRACTOR ALLOWED TO USE THE CELL TOWER DRIVE FOR ANY REASON DURING THIS PROJECT.

THE FOLLOWING QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY TO PERFORM THE WORK AS DESCRIBED ABOVE.

RAMP C RT. STA. 244+00.0 TO STA. 250+00.00 = 750 FT.
NEW CHERRY VALLEY ROAD RT. LT. STA. 8+01.1 TO STA. 9+45.8 = 145 FT.
BIKE PATHWAY STA. 0+00 @ EXISTING PATH TIE-IN = 100 FT.

ITEM 607 FENCE, SNOW 995 FT.

FENCE LENGTHS

THE LENGTHS OF FENCE SHOWN IN THE PLANS ARE HORIZONTAL DIMENSIONS. MEASUREMENTS OF THE FINAL QUANTITIES WILL BE IN ACCORDANCE WITH ITEM 607.

REMOVAL MISC.: LANDSCAPING MOUNDS REMOVAL MISC.: ELECTRIC DRIVEWAY LIGHTS

THE ITEMS LISTED ABOVE SHALL BE REMOVED BY THE CONTRACTOR AS PER CMS 202, IF NOT ALREADY DONE SO BEFORE THE COMMENCING OF WORK ON THE PROJECT. ALL ITEMS SHALL BE COMPLETELY REMOVED AND BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF AS PER CMS 202.

ITEM 623 CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF ITEM 623 CONSTRUCTION LAYOUT STAKES AND SURVEYING, THE CONTRACTOR SHALL PROVIDE THE FOLLOWING INFORMATION TO THE DEPARTMENT:

THE CONTRACTOR SHALL PROVIDE AS-BUILT DATA FOR THE SPECIFIED COMPLETED CONSTRUCTION ITEMS IN OHIO STATE PLANE COORDINATES (GRID). THE CONSTRUCTION ITEMS SHALL BE LOCATED AS PER THE SURVEY FEATURE CODE LIST FOUND ON THE OHIO DEPARTMENT OF TRANSPORTATION OFFICE OF CADD & MAPPING SERVICES WEBSITE. A CD CONTAINING A COMMA DELIMITED ASCII FILE AND A SURVEYOR'S CERTIFICATION SHALL BE DELIVERED TO THE PROJECT ENGINEER AFTER ALL INFORMATION HAS BEEN COLLECTED. THE ASCII FILE SHALL INCLUDE A HEADER CONTAINING NAME OF SURVEYOR, DATE(S) OF COLLECTION, HORIZONTAL DATUM (I.E. NAD83 (2011), OHIO STATE PLANE COORDINATE SYSTEM NORTH OR SOUTH), VERTICAL DATUM (I.E. NAVD 88, GEOID12A) AND METHOD OF COLLECTION (I.E. OHIO VRS, GPS RTK, TOTAL STATION, ETC.) AND BE IN A TABLE FORM AS FOLLOWS:
POINT NUMBER, NORTHING, EASTING, ELEVATION, FEATURE CODE, DESCRIPTION

BELOW IS A LIST OF THE ITEMS THE CONTRACTOR IS REQUIRED TO PROVIDE.
RIGHT-OF-WAY FENCE (POINTS AT ALL CHANGES IN DIRECTION)
LIGHT POLES AND LIGHTING PULLBOXES
BARRIER (GUARDRAIL, CONCRETE, OR CABLE)
BMP'S (SEE PROJECT SITE PLAN FOR INFO)
CULVERTS (INLET INVERT, OUTLET INVERT, TYPE, AND SIZE)
STORM SEWER OUTLETS (OUTLET INVERT, TYPE, AND SIZE)
CATCH BASINS, MANHOLES, AND INLETS
UNDERDRAIN OUTLETS
SIGNS (WITH DESCRIPTION)
TRAFFIC SIGNAL POLES, CONTROLLER LOCATION, AND SIGNAL PULLBOXES

THE ABOVE ITEMS SHALL BE COLLECTED USING SURVEY GRADE EQUIPMENT MEETING THE REQUIREMENTS OF SECTION 400 IN THE OHIO DEPARTMENT OF TRANSPORTATION SURVEY & MAPPING SPECIFICATIONS MANUAL.

ALL COST ASSOCIATED WITH OBTAINING THE INFORMATION LISTED ABOVE INCLUDING THE COST OF THE CD SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 623 CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN.

ITEM 203 GRANULAR MATERIAL, TYPE B

THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY TO ADDRESS LOCATIONS REQUIRING ITEM 203 GRANULAR MATERIAL, TYPE B BACKFILL AS DETAILED ON SHEETS 687 AND 688.

ITEM 203 GRANULAR MATERIAL, TYPE B 3700 CY

CALCULATED
CMY
CHECKED
HAG

GENERAL NOTES

LIC-16-16.64

33
729

ITEM SPECIAL - TACK COAT, TRACKLESS TACK, SURFACE COURSE
ITEM SPECIAL - TACK COAT, TRACKLESS TACK, INTERMEDIATE COURSE

DESCRIPTION:
 THIS WORK CONSISTS OF PREPARING AND TREATING A PAVED SURFACE WITH A TRACKLESS TACK ASPHALT EMULSION.

FURNISH MATERIALS ACCORDING TO THE DEPARTMENT'S APPROVED LIST.

MEET ALL REQUIREMENTS OF ITEM 407 TACK COAT IN THE CONSTRUCTION AND MATERIALS SPECIFICATIONS REQUIRED BY THE CONTRACT, EXCEPT AS NOTED BELOW.

MATERIAL:
 MEET ALL PROPERTIES OF THE APPROVED MANUFACTURER'S TRACKLESS TACK SPECIFICATION REQUIREMENTS ON FILE WITH THE LABORATORY AT TIME OF PLACEMENT.

ACCEPTANCE AND SAMPLING OF MATERIALS:
 SUPPLY CERTIFIED TEST DATA TO THE ENGINEER AND TO THE DISTRICT LABORATORY DEMONSTRATING THE TRACKLESS TACK SUPPLIED WAS TESTED FOR AND MEETS ALL MATERIAL PROPERTIES SHOWN ON THE DEPARTMENT'S APPROVED LIST.

DURING CONSTRUCTION, ODOT PERSONNEL WILL SAMPLE FROM THE DISTRIBUTOR AND SUPPLY TO THE DISTRICT TEST LAB A MINIMUM OF ONE QUART OF TRACKLESS TACK FOR EVERY 25,000 GALLONS USED ON THE PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR SUPPLYING THE PROPER PLASTIC QUART SAMPLING CONTAINER. CLEARLY MARK ON THE SAMPLE WITH THE MANUFACTURER'S NAME, PROJECT NUMBER, AND THE WORDS "TRACKLESS TACK".

EQUIPMENT:
 FOLLOW MANUFACTURER'S RECOMMENDATIONS FOR CORRECT DISTRIBUTOR SETTINGS. THOROUGHLY CLEAN ALL EQUIPMENT IF PREVIOUSLY USED MATERIAL CHARGE IS DIFFERENT THAN THE PROPOSED MATERIAL.

APPLICATION OF ASPHALT MATERIAL:
 UNIFORMLY APPLY THE TRACKLESS TACK WITH A DISTRIBUTOR ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS. IF TRACKLESS TACK IS STORED FOR AN EXTENDED PERIOD OF TIME, PRIOR TO APPLICATION, AGITATE OR GENTLY CIRCULATE THE MATERIAL.

ENSURE ALL NOZZLES AND SPRAY PATTERNS ARE IDENTICAL TO ONE ANOTHER ALONG THE DISTRIBUTOR SPRAY BAR. PLACE THE ANGLE OF THE NOZZLE AT A 15 TO 30 DEGREE ANGLE TO THE SPRAY BAR AXIS TO MAXIMIZE OVERLAP OR AS RECOMMENDED BY THE NOZZLE MANUFACTURER. CONTACT THE MANUFACTURER'S REPRESENTATIVE FOR REQUIRED SPRAY NOZZLE SIZE AND DISTRIBUTOR AND NOZZLE SETTINGS.

APPLY AT A RATE OF 0.04 TO 0.1 GALLONS PER SQUARE YARD. DO NOT DILUTE TRACKLESS TACK. RECOMMENDED APPLICATION TEMPERATURE IS 160° F TO 180° F. DO NOT EXCEED 180° F. THE ENGINEER WILL APPROVE THE QUANTITY, RATE OF APPLICATION, TEMPERATURE, DISTRIBUTOR SETTINGS, AND AREAS TO BE TREATED BEFORE APPLICATION OF THE TRACKLESS TACK COAT. THE ENGINEER WILL DETERMINE THE ACTUAL APPLICATION IN GALLONS PER SQUARE YARD BY A CHECK ON THE PROJECT.

PERFORMANCE OF TRACKLESS TACK:
 DETERMINE THE TIME TO SET FOR THE MATERIAL TO BECOME TRACKLESS. THE ENGINEER WILL REPORT ANY ISSUES WITH EXCESSIVE TIME TO SET, OR AFTER SET ISSUES WITH STICKINESS, OR PICKUP OF THE TACK TO THE DISTRICT TESTING ENGINEER AND NEW PRODUCT ENGINEER, BRAD YOUNG 614-351-2882.

IF THE CERTIFIED TEST DATA FAILS TO MEET THE LAB TESTING CRITERIA, OR FIELD SAMPLES FAIL TO MEET THE LAB TEST CRITERIA, OR THE TRACKLESS TACK FAILS TO PERFORM SATISFACTORILY IN THE FIELD, AS NOTED ABOVE, THE CONTRACTOR WILL BE REQUIRED TO REPLACE AND SUPPLY ANOTHER APPROVED TRACKLESS TACK PRODUCT FOR THE REMAINDER OF THE PROJECT AT NO ADDITIONAL COST TO THE DEPARTMENT.

ANY FAILING TRACKLESS TACK PRODUCT WILL BE REMOVED FROM THE DEPARTMENT'S APPROVED LIST.

ITEM 618 RUMBLE STRIPS, (ASPHALT CONCRETE)

THE FOLLOWING QUANTITY IS PROVIDED TO INSTALL RUMBLE STRIPS ON THE INSIDE AND OUTSIDE SHOULDERS OF THE WESTBOUND AND EASTBOUND LANES OF S.R. 16, AS PER STANDARD CONSTRUCTION DRAWING BP-9.1.

ITEM 618 RUMBLE STRIPS, (ASPHALT CONCRETE) 8.9 MILE
 QUANTITY CARRIED TO GENERAL SUMMARY

CALCULATION:

EASTBOUND:	WESTBOUND:
STA. 183+74.80 TO	STA. 183+04.15 TO
STATION EQUATION: STA. 290+81.90 (BK.) STA. 16+94.40 (AH.) TO	STATION EQUATION: STA. 290+81.90 (BK.) STA. 16+94.40 (AH.) TO
STA. 22+50.00 =	STA. 31+00.00 =
TOTAL 11,262.7 FT. x 2	TOTAL 12,183.35 FT. x 2
= 22,525.4 FT. ÷ 5280 = 4.3 MILE	= 24,366.7 FT. ÷ 5280 = 4.6 MILE

ITEM 202 PAVEMENT REMOVED
ITEM 202 PAVEMENT REMOVED, ASPHALT

THE FOLLOWING QUANTITIES HAVE BEEN PROVIDED TO REMOVE THE EXISTING ASPHALT PAVEMENT AND CONCRETE PAVEMENT ON S.R. 16, CHERRY VALLEY ROAD, NEWARK-GRANVILLE ROAD, AND THE S.R.16 EASTBOUND ONRAMP FROM GRANVILLE ROAD AS SHOWN AND DETAILED IN THE PLANS.

THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 202 PAVEMENT REMOVED	17,071 SQ YD
ITEM 202 PAVEMENT REMOVED, ASPHALT	18,111 SQ YD

AREAS CALCULATED BY COMPUTER:

ITEM 202 PAVEMENT REMOVED	17,071 SY
---------------------------	-----------

PLAN SPLIT 01/NHS/PV:
 (INCLUDES S.R. 16 EB & WB FULL-DEPTH CONCRETE SECTION, APPROACH AND CROSSOVER PAVEMENT AT EXISTING CHERRY VALLEY ROAD INTERSECTION)

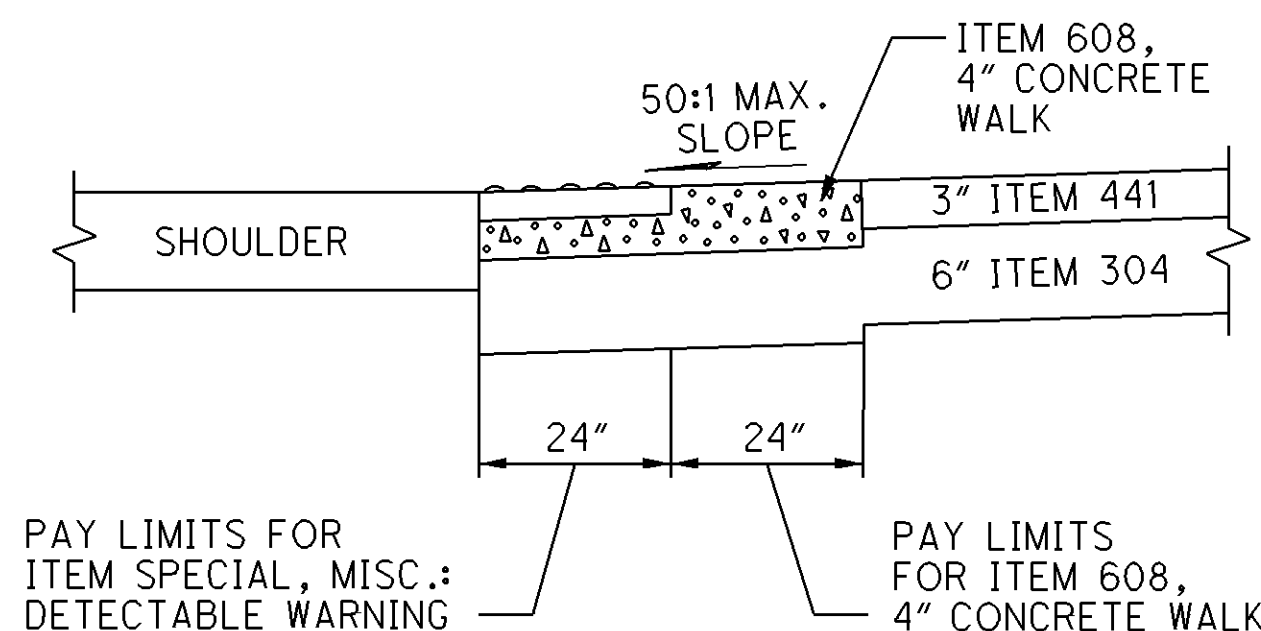
ITEM 202 PAVEMENT REMOVED, ASPHALT	18,111 SY
------------------------------------	-----------

PLAN SPLIT 01/NHS/PV:
 S.R. 16 EB INSIDE & OUTSIDE SHOULDERS 2,021 + 2,680 = 4,701 SY
 S.R. 16 WB INSIDE & OUTSIDE SHOULDERS 2,286 + 4,081 = 6,367 SY
 NEWARK-GRANVILLE ON-RAMP 2,568 SY
 EXISTING BIKE PATH FROM THE CHERRY VALLEY LODGE 984 SY
 EXISTING MEDIAN U-TURN STA. 259+80 299 SY

PLAN SPLIT 02/S<2/PV:
 EXISTING SOUTH CHERRY VALLEY ROAD 189 SY
 EXISTING NORTH CHERRY VALLEY ROAD 2,530 SY
 NEWARK-GRANVILLE ROAD 211 SY
 EXISTING BIKE PATH ALONG NEWARK-GRANVILLE ROAD 262 SY

ITEM SPECIAL, MISC.: DETECTABLE WARNING

DETECTABLE WARNINGS CONSTRUCTED IN THE PROPOSED BIKE PATH FOR AT-GRADE CROSSING LOCATIONS SPECIFIED IN THE PLANS ARE PAID FOR UNDER ITEM SPECIAL, MISC.: DETECTABLE WARNING (SQ. FT.) AND IS FULL COMPENSATION FOR EXCAVATION, BACKFILL, BASE COURSE MATERIAL, REINFORCING STEEL, EXPANSION JOINT MATERIALS, AND ANY INCIDENTALS REQUIRED TO COMPLETE THE INSTALLATION AS SPECIFIED BELOW.



THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR THE INSTALLATION OF ITEM SPECIAL, MISC.: DETECTABLE WARNING.

ITEM SPECIAL	MISC.: DETECTABLE WARNING	80 SF
--------------	---------------------------	-------

ITEM 608 4" CONCRETE WALK

THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR THE INSTALLATION OF ITEM 608 4" CONCRETE WALK.

ITEM 608 4" CONCRETE WALK	80 SF
---------------------------	-------

LOCATION OF GUARDRAIL

THE LOCATION OF GUARDRAIL RUNS, AS SHOWN IN THESE PLANS, ARE SUBJECT TO ADJUSTMENT PRIOR TO FINAL ACCEPTANCE. THE ENGINEER SHALL BE SATISFIED THAT ALL INSTALLATIONS WILL AFFORD MAXIMUM PROTECTION FOR TRAFFIC.

ITEM 606 - ANCHOR ASSEMBLY, MGS TYPE E

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE GUARDRAIL END TERMINALS FOR TYPE MGS GUARDRAIL AS LISTED ON ROADWAY ENGINEERING'S WEB PAGE UNDER ROADSIDE SAFETY DEVICES FOR APPROVED GUARDRAIL END TREATMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

THE FACE OF THE TYPE E IMPACT HEAD SHALL BE COVERED WITH A SHEET OF TYPE G REFLECTIVE SHEETING, PER CMS 730.19.

REFER TO THE MANUFACTURER'S INSTRUCTIONS REGARDING THE INSTALLATION OF, AND THE GRADING AROUND THE FOUNDATION TUBES AND GROUND STRUT. THE TOP OF ANY FOUNDATION TUBE SHOULD BE LESS THAN 4 INCHES ABOVE THE GROUND. THE PLACEMENT OF THE FOUNDATION TUBES SHOULD BE AN APPROPRIATE DEPTH BELOW THE LEVEL LINE IN ORDER TO MAINTAIN THE FINISHED GUARDRAIL HEIGHT OF 31 INCHES FROM THE EDGE OF THE SHOULDER.

ON-SITE GRADING IS REQUIRED IF THE TOP OF THE FOUNDATION TUBES OR TOP OF THE GROUND STRUT DOES PROJECT MORE THAN 4 INCHES ABOVE THE GROUND LINE.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, ANCHOR ASSEMBLY, MGS TYPE E, EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY SYSTEM, INCLUDING ALL RELATED TRANSITIONS, REFLECTIVE SHEETING, HARDWARE, GRADING, EMBANKMENT AND EXCAVATION NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

ITEM 606 - IMPACT ATTENUATOR, TYPE 2, (BIDIRECTIONAL)]

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE TYPE 2 IMPACT ATTENUATORS AS LISTED ON THE OFFICE OF ROADWAY ENGINEERING'S WEB PAGE (REFER TO THE POSTED SHOP DRAWINGS FOR THE MOST CURRENT APPROVED PRODUCT MODELS). WHEN BI-DIRECTIONAL DESIGNS ARE SPECIFIED, THE CONTRACTOR SHALL SUPPLY APPROPRIATE TRANSITIONS. THE FACE OF THE IMPACT HEAD SHALL BE COVERED WITH TYPE G REFLECTIVE SHEETING, PER CMS 730.19.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, IMPACT ATTENUATOR, TYPE 2 [(SPEED (IN MPH), HAZARD WIDTH (IN INCHES)), (BIDIRECTIONAL)], EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL IMPACT ATTENUATOR SYSTEM, INCLUDING ALL RELATED BACKUPS/BACKSTOPS, TRANSITIONS, HARDWARE AND GRADING, NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE

THE EXISTING ASPHALT CONCRETE SHALL BE PLANED OFF AT THE THICKNESS GIVEN BELOW AND AS SHOWN ON THE TYPICAL SECTIONS:

- S.R. 16 - 1/2"
- EXISTING SOUTH CHERRY VALLEY ROAD - 1/4" STA. 1+33.50 TO STA. 4+16.50
- 3" STA. 25+00.00 TO STA. 33+50.00
- EXISTING NORTH CHERRY VALLEY ROAD - 1/4"
- WESTGATE DRIVE - 1/4"
- NEWARK-GRANVILLE ROAD - 3"

P:\LIC\80704\Design\Roadway\Plan_Sheets\General\80704_GGN_001.dgn 23-JUN-2015 2:16PM c:\count

CALCULATED
 CMY
 CHECKED
 HAG

GENERAL NOTES

LIC-16-16.64

UNRECORDED UNTREATED NON-STORMWATER DRAINAGE

FURNISH NO CONTINUANCE FOR ANY UNRECORDED UNTREATED NON-STORMWATER DRAINAGE SUCH AS UNTREATED SEPTIC, UNTREATED WASTEWATER, UNTREATED CURTAIN/GRADIENT DRAINS, AND UNTREATED FOUNDATION FLOOR DRAINS DISTURBED BY THE WORK. PLUG ANY UNRECORDED UNTREATED NON-STORMWATER DRAINAGE WITH CLASS C CONCRETE AT THE RIGHT OF WAY LINE. PAYMENT FOR PLUGGING SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 202 OR 203 ITEM.

UNRECORDED TREATED NON-STORMWATER DRAINAGE

FURNISH A CONTINUANCE FOR ALL UNRECORDED TREATED NON-STORMWATER DRAINAGE, SUCH AS TREATED SEPTIC, TREATED WASTEWATER, TREATED CURTAIN/GRADIENT DRAINS, AND TREATED FOUNDATION FLOOR DRAINS DISTURBED BY THE WORK. FURNISH EITHER AN OPEN CONTINUANCE OR AN UNOBSTRUCTED CONTINUANCE BY CONNECTING A CONDUIT THROUGH THE CURB OR INTO A DRAINAGE STRUCTURE. THE LOCATION, TYPE, SIZE AND GRADE OF THE NEEDED CONDUIT TO REPLACE OR EXTEND AN EXISTING DRAIN WILL BE DETERMINED BY THE ENGINEER. ALL SUCH CONTINUANCE REQUIRES A RIGHT OF WAY USE PERMIT. A CONTINUANCE MAY ALSO REQUIRE A NPDES PERMIT FROM THE OHIO ENVIRONMENTAL PROTECTION AGENCY. REPORT ALL CONTINUANCE TO THE LOCAL HEALTH DEPARTMENT.

WHERE MAKING A CONNECTION INTO A HIGHWAY DRAINAGE CONDUIT, AN INSPECTION WELL SHALL BE PROVIDED IN ACCORDANCE WITH STANDARD CONSTRUCTION DRAWING DM-3.1.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER IN MAKING THE ABOVE CONTINUANCE:

611, 6" CONDUIT, TYPE C 100 FT.

UNRECORDED STORM WATER DRAINAGE

FURNISH A CONTINUANCE FOR ALL UNRECORDED STORM WATER DRAINAGE, SUCH AS ROOF DRAINS, FOOTER DRAINS, OR YARD DRAINS, DISTURBED BY THE WORK. FURNISH EITHER AN OPEN CONTINUANCE OR AN UNOBSTRUCTED CONTINUANCE BY CONNECTING A CONDUIT THROUGH THE CURB OR INTO A DRAINAGE STRUCTURE. THE LOCATION, TYPE, SIZE AND GRADE OF THE NEEDED CONDUIT TO REPLACE OR EXTEND AN EXISTING DRAIN WILL BE DETERMINED BY THE ENGINEER. ALL SUCH CONTINUANCE REQUIRES A RIGHT OF WAY USE PERMIT.

THE FOLLOWING CONDUIT TYPES MAY BE USED: 707.33, 707.41 NON-PERFORATED, 707.42, 707.43, 707.45, 707.46, 707.47, 707.51, 707.52 SDR35.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER FOR THE WORK NOTED ABOVE:

611, 6" CONDUIT, TYPE B, FOR DRAINAGE CONNECTION 100 FT.
611, 6" CONDUIT, TYPE C, FOR DRAINAGE CONNECTION 100 FT.
611, 6" CONDUIT, TYPE E, FOR DRAINAGE CONNECTION 100 FT.
611, 6" CONDUIT, TYPE F, FOR DRAINAGE CONNECTION 100 FT.

UNRECORDED ACTIVE SANITARY SEWER CONNECTIONS

FURNISH A CONTINUANCE FOR ALL UNRECORDED ACTIVE SANITARY SEWER CONNECTIONS SUCH AS SANITARY, WASTEWATER, CURTAIN/GRADIENT DRAINS, AND FOUNDATION FLOOR DRAINS DISTURBED BY THE WORK. FURNISH AN UNOBSTRUCTED CONTINUANCE OF THE UNRECORDED ACTIVE SANITARY SEWER CONNECTIONS TO THE SATISFACTION OF THE ENGINEER. ALL SUCH CONTINUANCE REQUIRES A RIGHT OF WAY USE PERMIT. ALL SANITARY AND SANITARY WASTEWATER CONTINUANCE MAY ALSO REQUIRE A NPDES PERMIT FROM THE OHIO ENVIRONMENTAL PROTECTION AGENCY. REPORT ALL CONTINUANCE TO THE LOCAL HEALTH DEPARTMENT.

THE FOLLOWING CONDUIT TYPES MAY BE USED: 707.42, 707.43, 707.44, 707.45, 707.46, 707.47, 707.51, 707.52 SDR35, 706.01, 706.02, OR 706.08 WITH JOINTS AS PER 706.11 OR 706.12.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER FOR THE WORK NOTED ABOVE:

611, 6" CONDUIT, TYPE B, FOR SANITARY 100 FT.
611, 6" CONDUIT, TYPE C, FOR SANITARY 100 FT.

POST CONSTRUCTION STORM WATER TREATMENT

THIS PLAN UTILIZES STRUCTURAL BEST MANAGEMENT PRACTICES (BMP'S) FOR POST CONSTRUCTION STORM WATER TREATMENT.

REVIEW OF DRAINAGE FACILITIES

BEFORE ANY WORK IS STARTED ON THE PROJECT AND AGAIN BEFORE FINAL ACCEPTANCE BY THE STATE, REPRESENTATIVES OF THE STATE AND THE CONTRACTOR, ALONG WITH LOCAL REPRESENTATIVES, SHALL MAKE AN INSPECTION OF ALL EXISTING SEWERS WHICH ARE TO REMAIN IN SERVICE AND WHICH MAY BE AFFECTED BY THE WORK. THE CONDITION OF THE EXISTING CONDUITS AND THEIR APPURTENANCE SHALL BE DETERMINED FROM FIELD OBSERVATIONS. RECORDS OF THE INSPECTION SHALL BE KEPT IN WRITING BY THE STATE.

ALL NEW CONDUITS, INLETS, CATCH BASINS, AND MANHOLES CONSTRUCTED AS A PART OF THE PROJECT SHALL BE FREE OF ALL FOREIGN MATTER AND IN A CLEAN CONDITION BEFORE THE PROJECT WILL BE ACCEPTED BY THE STATE.

ALL EXISTING SEWERS INSPECTED INITIALLY BY THE ABOVE MENTIONED PARTIES SHALL BE MAINTAINED AND LEFT IN A CONDITION REASONABLY COMPARABLE TO THAT DETERMINED BY THE ORIGINAL INSPECTION. ANY CHANGE IN THE CONDITION RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE CORRECTED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER.

PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 611 CONDUIT ITEMS.

CROSSINGS AND CONNECTIONS TO EXISTING PIPES AND UTILITIES

WHERE PLANS PROVIDE FOR A PROPOSED CONDUIT TO BE CONNECTED TO, OR CROSS OVER OR UNDER AN EXISTING SEWER OR UNDERGROUND UTILITY, THE CONTRACTOR SHALL LOCATE THE EXISTING PIPES OR UTILITIES BOTH AS TO LINE AND GRADE BEFORE STARTING TO LAY THE PROPOSED CONDUIT.

IF IT IS DETERMINED THAT THE ELEVATION OF THE EXISTING CONDUIT, OR EXISTING APPURTENANCE TO BE CONNECTED, DIFFERS FROM THE PLAN CONDUIT SLOPE, THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WILL BE AFFECTED BY THE VARIANCE IN THE EXISTING ELEVATIONS.

IF IT IS DETERMINED THAT THE PROPOSED CONDUIT WILL INTERSECT AN EXISTING SEWER OR UNDERGROUND UTILITY IF CONSTRUCTED AS SHOWN ON THE PLAN, THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WOULD BE AFFECTED BY THE INTERFERENCE WITH AN EXISTING FACILITY.

PAYMENT FOR ALL THE OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 611 CONDUIT ITEM.

FARM DRAINS

ALL FARM DRAINS, WHICH ARE ENCOUNTERED DURING CONSTRUCTION, SHALL BE PROVIDED WITH UNOBSTRUCTED OUTLETS. EXISTING COLLECTORS WHICH ARE LOCATED BELOW THE ROADWAY DITCH ELEVATIONS, AND WHICH CROSS THE ROADWAY, SHALL BE REPLACED WITHIN THE (RIGHT OF WAY) (CONSTRUCTION) LIMITS BY ITEM 611 CONDUIT, TYPE B, ONE COMMERCIAL SIZE LARGER THAN THE EXISTING CONDUIT.

EXISTING COLLECTORS AND ISOLATED FARM DRAINS, WHICH ARE ENCOUNTERED ABOVE THE ELEVATION OF ROADWAY DITCHES, SHALL BE OUTLETTED INTO THE ROADWAY DITCH BY 611 TYPE F CONDUIT. THE OPTIMUM OUTLET ELEVATION SHALL BE ONE FOOT ABOVE THE FLOWLINE ELEVATION OF THE DITCH. LATERAL FIELD TILES WHICH CROSS THE ROADWAY SHALL BE INTERCEPTED BY 611, TYPE E CONDUIT, AND CARRIED IN A LONGITUDINAL DIRECTION TO AN ADEQUATE OUTLET OR ROADWAY CROSSING.

THE LOCATION, TYPE, SIZE AND GRADE OF REPLACEMENTS SHALL BE DETERMINED BY THE ENGINEER AND PAYMENT SHALL BE MADE ON FINAL MEASUREMENTS.

EROSION CONTROL PADS AND ANIMAL GUARDS SHALL BE PROVIDED AT THE OUTLET END OF ALL FARM DRAINS AS PER STANDARD CONSTRUCTION DRAWING DM-1.1, EXCEPT WHEN THEY OUTLET INTO A DRAINAGE STRUCTURE. PAYMENT FOR THE EROSION CONTROL PADS AND ANIMAL GUARDS AND ANY NECESSARY BENDS OR BRANCHES SHALL BE INCLUDED FOR PAYMENT IN THE PERTINENT CONDUIT ITEMS.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR THE WORK NOTED ABOVE:

611 6" CONDUIT, TYPE B 100 FT.
611 6" CONDUIT, TYPE E 100 FT.
611 6" CONDUIT, TYPE F 100 FT.
601 ROCK CHANNEL PROTECTION TYPE C WITH FILTER 5 C.Y.

SPRING DRAINS

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER FOR DRAINING ANY SPRINGS SHOWN IN THE PLAN OR ENCOUNTERED DURING CONSTRUCTION. THE FOLLOWING TYPES OF PIPES MAY BE USED: 707.33, 707.41, 707.42 OR 707.45 PERFORATED PER 707.31.

SPRING DRAINS SHALL BE CONSTRUCTED AS SHOWN ON STANDARD CONSTRUCTION DRAWING DM-1.1 AND PAID FOR AT THE CONTRACT PRICE FOR:

605, 6" UNCLASSIFIED PIPE UNDERDRAIN FOR SPRINGS 200 FT.
605, AGGREGATE DRAIN, FOR SPRINGS 200 FT.

EXISTING UNDERDRAINS

PROVIDE UNOBSTRUCTED OUTLETS FOR ALL EXISTING UNDERDRAINS ENCOUNTERED DURING CONSTRUCTION.

PROVIDE AN OUTLET PER STANDARD CONSTRUCTION DRAWING DM-1.1 FOR ALL UNDERDRAINS THAT OUTLET TO A SLOPE.

UNDERDRAINS THAT CAN BE CONNECTED TO THE NEW OR EXISTING UNDERDRAINS AT THE END OF THE PROJECT LIMITS AS WELL AS ALL NECESSARY BENDS OR BRANCHES REQUIRED FOR CONNECTION ARE INCLUDED IN THE BASIS OF PAYMENT FOR UNCLASSIFIED PIPE UNDERDRAINS.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR THE WORK NOTED ABOVE:

601, TIED CONCRETE BLOCK MAT, TYPE 1 10 SQ.YD.
611, 6" CONDUIT, TYPE F 100 FT.
611, PRECAST REINFORCED CONCRETE OUTLET 4 EACH

CONDUIT END TREATMENT

IMMEDIATELY AFTER PLACEMENT OF ANY CONDUITS, THE CONTRACTOR SHALL CONSTRUCT THE END TREATMENTS REQUIRED BY THE PLANS AT BOTH THE OUTLET AND INLET END.

ITEM 611 - CONDUIT BORED OR JACKED

WHERE IT IS SPECIFIED THAT A CONDUIT BE INSTALLED BY THE METHOD OF BORING OR JACKING, NO TRENCH EXCAVATION SHALL BE CLOSER THAN 30 FEET TO THE EDGE OF PAVEMENT. PROVIDE A 0.50 INCH UNGALVANIZED CASING PIPE CONFORMING TO 748.06 THAT HAS JOINTS WITH A CIRCUMFERENTIAL FULLY PENETRATING B-U4B WELD THAT IS PERFORMED BY AN ODOT APPROVED FIELD WELDER. THE INSTALLED CASING PIPE IS THE STORM WATER CONVEYANCE CARRIER UNLESS OTHERWISE SPECIFIED IN THE PLANS. HYDROSTATIC TESTING IS NOT REQUIRED FOR THE CASING PIPE.

ITEM SPECIAL - FILL AND PLUG EXISTING CONDUIT

THIS ITEM SHALL CONSIST OF THE CONSTRUCTION OF BULKHEADS IN AN EXISTING CONDUIT AND FILLING THE AREA THUS SEALED OFF WITH ITEM 613, SAND OR OTHER MATERIAL APPROVED BY THE ENGINEER.

BULKHEADS SHALL BE LOCATED AT THE LIMITS OF THE AREA TO BE FILLED AS INDICATED ON THE PLANS. THE BULKHEADS SHALL CONSIST OF BRICK OR CONCRETE MASONRY WITH A MINIMUM THICKNESS OF 12 INCHES.

THE FILL MATERIAL SHALL BE PUMPED INTO PLACE, OR PLACED BY OTHER MEANS APPROVED BY THE ENGINEER, SO THAT, AFTER SETTLEMENT, AT LEAST 90 PERCENT OF THE CROSS-SECTIONAL AREA OF THE CONDUIT, FOR ITS ENTIRE LENGTH, SHALL BE FILLED. THE LENGTH OF FILLED AND PLUGGED CONDUIT TO BE PAID FOR SHALL BE THE ACTUAL NUMBER OF FEET (MEASURED ALONG THE CENTERLINE OF EACH CONDUIT FROM OUTER FACE TO OUTER FACE OF BULKHEADS) FILLED AND PLUGGED AS DESCRIBED ABOVE.

THE LOCATION OF THE CONDUIT TO BE FILLED AND PLUGGED IS INSIDE THE S.R. 16 MEDIAN FROM STA. 247+04 TO STA. 249+96 LABELED 6-SS ON THE DRAINAGE PLAN SHEETS. THE EXISTING CONDUIT IS A 60" REINFORCED CONCRETE PIPE. THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR THE WORK NOTED ABOVE:

ITEM SPECIAL FILL AND PLUG EXISTING CONDUIT 292 FT.

CATCH BASINS, INLETS AND MANHOLES, AS PER PLAN

THE CATCH BASINS, INLETS AND MANHOLES SHALL BE PRECAST OR CAST IN PLACE CONCRETE.

CATCH BASIN, NO. 3, AS PER PLAN
CATCH BASIN, NO. 2-2B, AS PER PLAN
CATCH BASIN, NO. 2-3, AS PER PLAN
CATCH BASIN, NO. 2-4, AS PER PLAN
CATCH BASIN, NO. 8, AS PER PLAN
MANHOLE, NO. 3, AS PER PLAN

PAVEMENT RESTORATION FOR PIPE INSTALLATIONS AND/OR REMOVALS

THE FOLLOWING QUANTITY HAS BEEN PROVIDED FOR PAVEMENT RESTORATION FOR THE INSTALLATION AND REMOVAL OF THE STORM SEWER AT STA. 3+71.30 ON EXISTING NORTH CHERRY VALLEY ROAD.

ITEM 301 ASPHALT CONCRETE BASE, PG64-22 3 CU. YDS.

THE ABOVE QUANTITY IS BASED ON A 301 THICKNESS OF 9" INCHES AND A PAVEMENT RESTORATION WIDTH THAT INCLUDES THE TRENCH WIDTH PLUS TWO FEET ON EACH SIDE OF THE TRENCH.

PROVIDE ANY MATERIALS USED OUTSIDE THE LIMITS STATED ABOVE AT NO ADDITIONAL COST.

QUANTITY CARRIED TO GENERAL SUMMARY.

CALCULATED
CMY
CHECKED
HAG

GENERAL NOTES

LIC-16-16.64

35
729

ENVIRONMENTALLY SENSITIVE AREAS

AS A RESULT OF THE NEPA AND SECTION 106 PROCESS SEVERAL AREAS HAVE BEEN IDENTIFIED AS CULTURALLY SENSITIVE AREAS THAT MUST BE AVOIDED. THE AVOIDANCE OF THESE SITES IS IN COMPLIANCE WITH THE SIGNED AGREEMENT WITH THE OHIO HISTORIC PRESERVATION OFFICE (OHPO), AND THE OHIO DEPARTMENT OF TRANSPORTATION (ODOT). ODOT HAS AGREED TO PROTECT THESE CULTURALLY SENSITIVE SITES IN THE PROJECT AREA AND HAS ASSURED THE OHPO THAT THESE LOCATES WILL BE PROTECTED FROM ALL ANCILLARY CONSTRUCTION ACTIVITIES (E.G., BORROW AREA, WASTE AREA, PARKING OF EQUIPMENT AND STORAGE MATERIALS). AS SUCH THE AGREEMENT BETWEEN OHPO AND ODOT WILL TAKE PRECEDENCE OVER ANY AGREEMENT BETWEEN THE CONTRACTOR AND LANDOWNER(S) OF THAT SITE(S). THE CULTURALLY SENSITIVE AREAS TO BE AVOIDED ARE AS FOLLOWS:

2578 NEWARK GRANVILLE RD. - LIC-217-15 SEE SHEET 4
1805 NEWARK GRANVILLE RD. SEE SHEET 4

DUE TO THE PRESENCE OF PUBLIC RECREATIONAL FACILITIES, WETLANDS, FLOODPLAINS AND/OR POTENTIALLY SUITABLE HABITAT FOR ENDANGERED SPECIES, THE ODOT OWNED PROPERTIES BEYOND THE CONSTRUCTION LIMITS TO THE EAST OF THE PROJECT AREA, BOTH NORTH AND SOUTH OF SR16, MAY NOT BE UTILIZED FOR BORROW, WASTE OR STAGING ACTIVITIES. (SEE SHEET 4)

UNEXPECTED ARCHAEOLOGICAL DISCOVERY

IN THE EVENT OF THE INADVERTENT DISCOVERY OF ARCHAEOLOGICAL ITEMS DURING CONSTRUCTION, INCLUDING HUMAN REMAINS, THE PROJECT WILL CEASE IMMEDIATELY IN THE AREA OF THE DISCOVERY, A REASONABLE EFFORT TO PROTECT THE ITEMS WILL BE MADE BY THE CONTRACTOR, AND NOTICE PROVIDED TO THE ODOT DISTRICT 5 ENVIRONMENTAL COORDINATOR, JACKSONTOWN ROAD, PO BOX 306, JACKSONTOWN, OHIO 43030 (740) 323-4400. THIS REQUIREMENT IS IN COMPLIANCE WITH THE PART OF NAGPRA SECTION 3(D) OF 25 USC 3002 (D).

CONSTRUCTION NOISE

ACTIVITIES AND LAND USE ADJACENT TO THIS PROJECT MAY BE AFFECTED BY CONSTRUCTION NOISE. IN ORDER TO MINIMIZE ANY ADVERSE CONSTRUCTION NOISE IMPACTS, DO NOT OPERATE POWER-OPERATED CONSTRUCTION-TYPE DEVICES BETWEEN THE HOURS OF 9:30 PM AND 7 AM. IN ADDITION, DO NOT OPERATE AT ANY TIME ANY DEVICE IN SUCH A MANNER THAT THE NOISE CREATED SUBSTANTIALLY EXCEEDS THE NOISE CUSTOMARILY AND NECESSARILY ATTENDANT TO THE REASONABLE AND EFFICIENT PERFORMANCE OF SUCH EQUIPMENT.

IN ADDITION, LIMIT THE OPERATION OF HEAVY EQUIPMENT AND OTHER NOISY PROCEDURES TO DAYLIGHT HOURS WHENEVER POSSIBLE. MAINTAIN EFFECTIVE MUFFLERS ON EQUIPMENT. LOCATE EQUIPMENT AND VEHICLE STAGING AREAS AS FAR FROM NOISE SENSITIVE AREAS AS POSSIBLE. LIMIT UNNECESSARY IDLING OF EQUIPMENT.

T.J. EVANS FOUNDATION TRAIL AND NEWARK-GRANVILLE PATHWAY

THE T.J. EVANS FOUNDATION TRAIL AND NEWARK GRANVILLE PATHWAY ARE PROTECTED RESOURCES UNDER SECTION 4F OF THE DEPARTMENT OF TRANSPORTATION ACT OF 1966. THEREFORE, NO CONSTRUCTION ACTIVITIES OTHER THAN THE ACTIVITIES INCLUDED IN THE PROJECT PLANS MAY OCCUR ON EITHER TRAILS BEYOND THE CONSTRUCTION LIMITS. FOR EXAMPLE, NO STAGING OF EQUIPMENT ON THE TRAILS AND NO WASTE OR BORROW ON THE TRAILS.

THE CONTRACTOR SHALL CLOSELY COORDINATE THE CONSTRUCTION SCHEDULE WITH THE CITY OF NEWARK AND VILLAGE OF GRANVILLE. ANY NECESSARY TRAIL CLOSURES SHALL BE COORDINATED WITH THE CITY OF NEWARK (T.J. EVANS FOUNDATION TRAIL) AND VILLAGE OF GRANVILLE TRAIL (NEWARK GRANVILLE PATHWAY) AT LEAST 48 HOURS PRIOR TO THE CLOSURE.

THE CONTRACTOR SHALL INSTALL APPROPRIATE CLOSURE SIGNS IN AREAS THAT WILL BE VISIBLE TO USERS OF THE TRAILS AT LEAST 48 HOURS PRIOR TO ANY NECESSARY CLOSURES.

THE LENGTH OF CLOSURE NEEDED TO REALIGN THE NEWARK GRANVILLE PATHWAY SHALL BE MINIMIZED AND MUST BE LESS THAN THE TIME NEEDED TO CONSTRUCT THE CHERRY VALLEY INTERCHANGE PROJECT.

THE CONTRACTOR SHALL OPEN THE PORTION OF THE T.J. EVANS FOUNDATION TRAIL NEEDED FOR TEMPORARY RIGHT OF WAY ONCE THE TRANSITION OF PAVEMENT BETWEEN THE TWO TRAILS IS COMPLETED.

TEMPORARY CONSTRUCTION FENCING SHALL BE INSTALLED AT THE DIRECTION OF THE PROJECT ENGINEER TO PROTECT THE TRAILS AND TRAIL USERS.

WORK IN JURISDICTIONAL WATERS

ALL PROJECTS INVOLVING JURISDICTIONAL WATERS OF THE UNITED STATES (STREAMS, RIVERS, NON-ISOLATED WETLANDS) AND/OR ISOLATED WETLANDS ARE SUBJECT TO REGULATION UNDER SECTIONS 404 AND 401 OF THE CLEAN WATER ACT, AND POSSIBLY OHIO EPA ISOLATED WETLAND LAW. THE OHIO DEPARTMENT OF TRANSPORTATION - OFFICE OF ENVIRONMENTAL SERVICES (OES) AND/OR THE UNITED STATES ARMY CORPS OF ENGINEERS (USACE) HAS DETERMINED THAT THE PROJECT DOES NOT REQUIRE PERMITS AS THE PROJECT DOES NOT IMPACT ANY "WATERS OF THE U.S." BELOW THE ORDINARY HIGH WATER MARK (OHWM). HOWEVER, THIS PERMIT DETERMINATION DID NOT INCLUDE THE USE OF WASTE AND BORROW AREAS, STAGING AREAS, FIELD OFFICES, TEMPORARY CONSTRUCTION ACCESS FILLS WITHIN WATERS OF THE U.S. AND/OR MATERIAL STORAGE SITES THAT MAY BE REQUIRED FOR CONSTRUCTION. INFORMATION REGARDING THE USE THE AFOREMENTIONED ANCILLARY CONSTRUCTION ACTIVITIES MAY NOT HAVE BEEN KNOWN AT THE TIME OF THE PERMIT DETERMINATION. THE CONTRACTOR SHOULD BE AWARE THAT THE USE/INSTALLATION OF SAID ANCILLARY CONSTRUCTION ACTIVITIES BELOW THE ORDINARY HIGH WATER MARK (OHWM), WHICH IS THE USACE'S JURISDICTIONAL LIMITS, WILL REQUIRE PERMITS AND AUTHORIZATION BY THE USACE. SHOULD THE CONTRACTOR DEEM IT NECESSARY TO IMPACT A STREAM BELOW THE OHWM OR A WETLAND THEN THE CONTRACTOR SHALL COORDINATE SUCH ACTIVITIES, INCLUDING THE PERMIT APPLICATION(S), WITH THE APPROPRIATE USACE DISTRICT OFFICE AND ALLOW 60 DAYS MINIMUM FOR PROCESSING WITH THE USACE. THE CONTRACTOR SHALL NOT UTILIZE SAID FILLS BELOW OHWM UNTIL SUCH ACTIVITY IS AUTHORIZED BY THE USACE. SHOULD A PCN BE REQUIRED, THE PCN SHALL INCLUDE PERTINENT INFORMATION (I.E. VOLUME AND SURFACE AREA OF TEMPORARY FILLS) AND DRAWINGS (PLAN AND PROFILE VIEW) OF TEMPORARY FILLS BELOW OHWM. ONLY CLEAN, NON-ERODIBLE MATERIALS SHALL BE USED FOR TEMPORARY CONSTRUCTION ACCESS FILLS. ANY TEMPORARY FILLS BELOW OHWM SHALL BE REMOVED FOLLOWING COMPLETION OF THE AUTHORIZED ACTIVITY AND THE AREA OF STREAM WHERE TEMPORARY FILL WAS LOCATED SHALL BE RESTORED TO ITS PRE-CONSTRUCTION CONDITION. PLEASE NOTE THAT FORDING OF WATERWAYS IS NOT ALLOWED PER ODOT CONSTRUCTION AND MATERIAL SUPPLEMENTAL SPECIFICATION 832.

CALCULATED
CMY
CHECKED
HAG

GENERAL NOTES

LIC-16-16.64

36
729

ITEM SPECIAL - MAILBOX SUPPORT

DESCRIPTION

THIS WORK SHALL CONSIST OF FURNISHING AND ERECTING MAILBOX SUPPORTS AND ANY ASSOCIATED MOUNTING HARDWARE IN ACCORDANCE WITH PLAN DETAILS, AND ATTACHING AN OWNER-SUPPLIED MAILBOX AT LOCATION SPECIFIED IN THE PLAN, OR OTHERWISE ESTABLISHED BY THE ENGINEER. THIS ITEM SHALL INCLUDE THE REMOVAL OF THE EXISTING POSTS AND OTHER MATERIAL NOT CONSIDERED SALVAGEABLE AND DISPOSED OF IN ACCORDANCE WITH 202.02.

MATERIALS

WOOD POSTS SHALL BE NOMINAL 4" x 4" SQUARE OR 4 1/2" DIAMETER ROUND, AND CONFORM TO 710.14. THE WOOD PLATE THAT IS ATTACHED TO THE TOP OF THE POST SHALL BE PRESSURE TREATED WOOD. STEEL POSTS SHALL BE NOMINAL PIPE SIZE 2" I.D., AND CONFORM TO AASHTO M 181. HARDWARE (PLATES, SCREWS, BOLTS, ETC.) SHALL BE COMMERCIAL-GRADE GALVANIZED STEEL.

SETTING POSTS

POSTS SHALL BE SET PER THE FIRST PARAGRAPH OF 606.03 AND SHALL IN NO INSTANCE BE ENCASED IN CONCRETE.

MOUNTING BOXES

SUPPORT HARDWARE SHALL ACCOMMODATE EITHER A SINGLE OR A DOUBLE MAILBOX INSTALLATION, AND NO MORE THAN TWO BOXES MAY BE MOUNTED ON A SINGLE POST. THE MAILBOX SHALL BE SECURELY AND NEATLY ATTACHED BY THE CONTRACTOR TO THE NEW SUPPORT. THE CONTRACTOR SHALL FURNISH ALL NECESSARY ATTACHMENT HARDWARE (NUTS, BOLTS, PLATES, SPACERS AND WASHERS) AS NECESSARY TO ACCOMMODATE THE COMPLETE INSTALLATION.

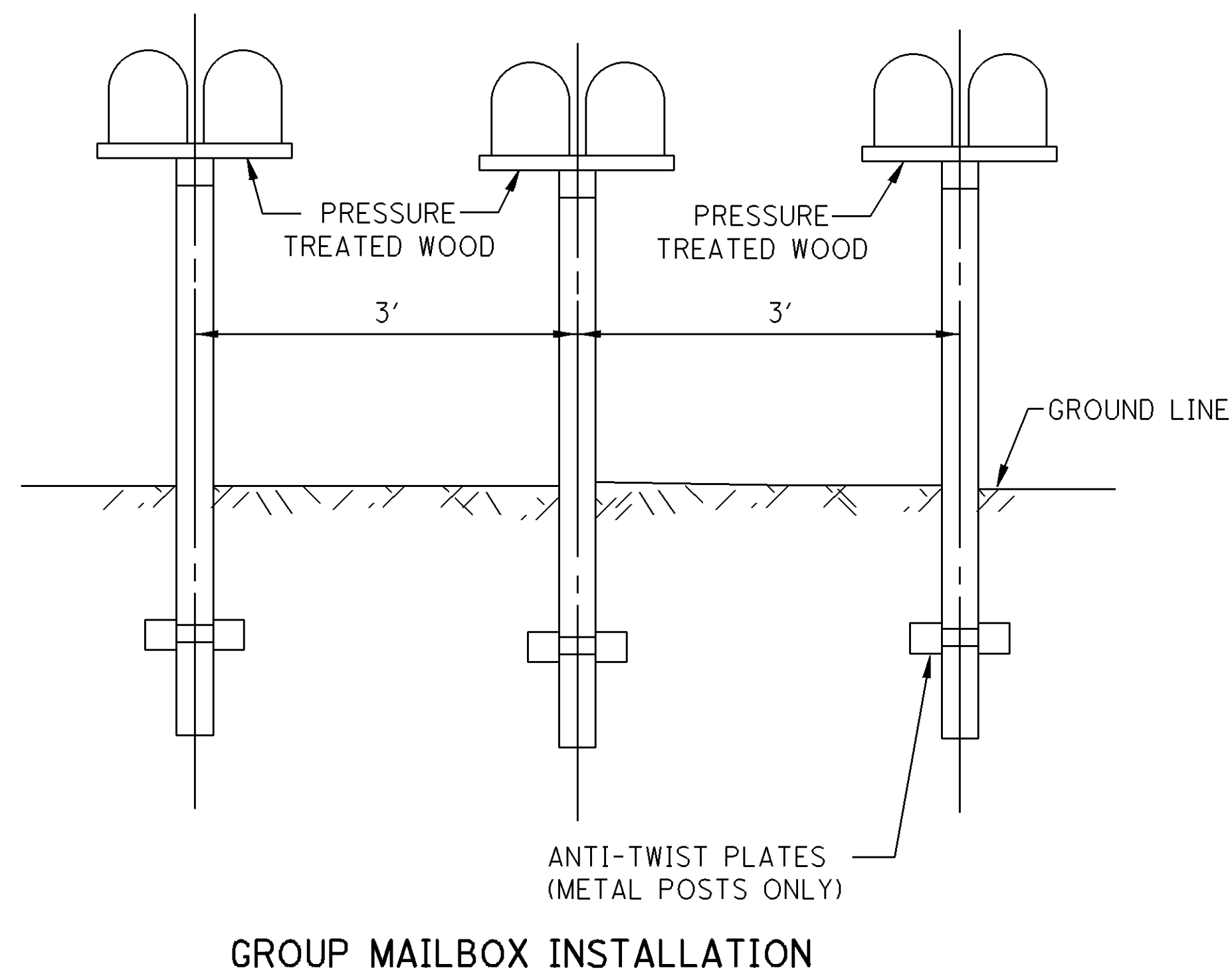
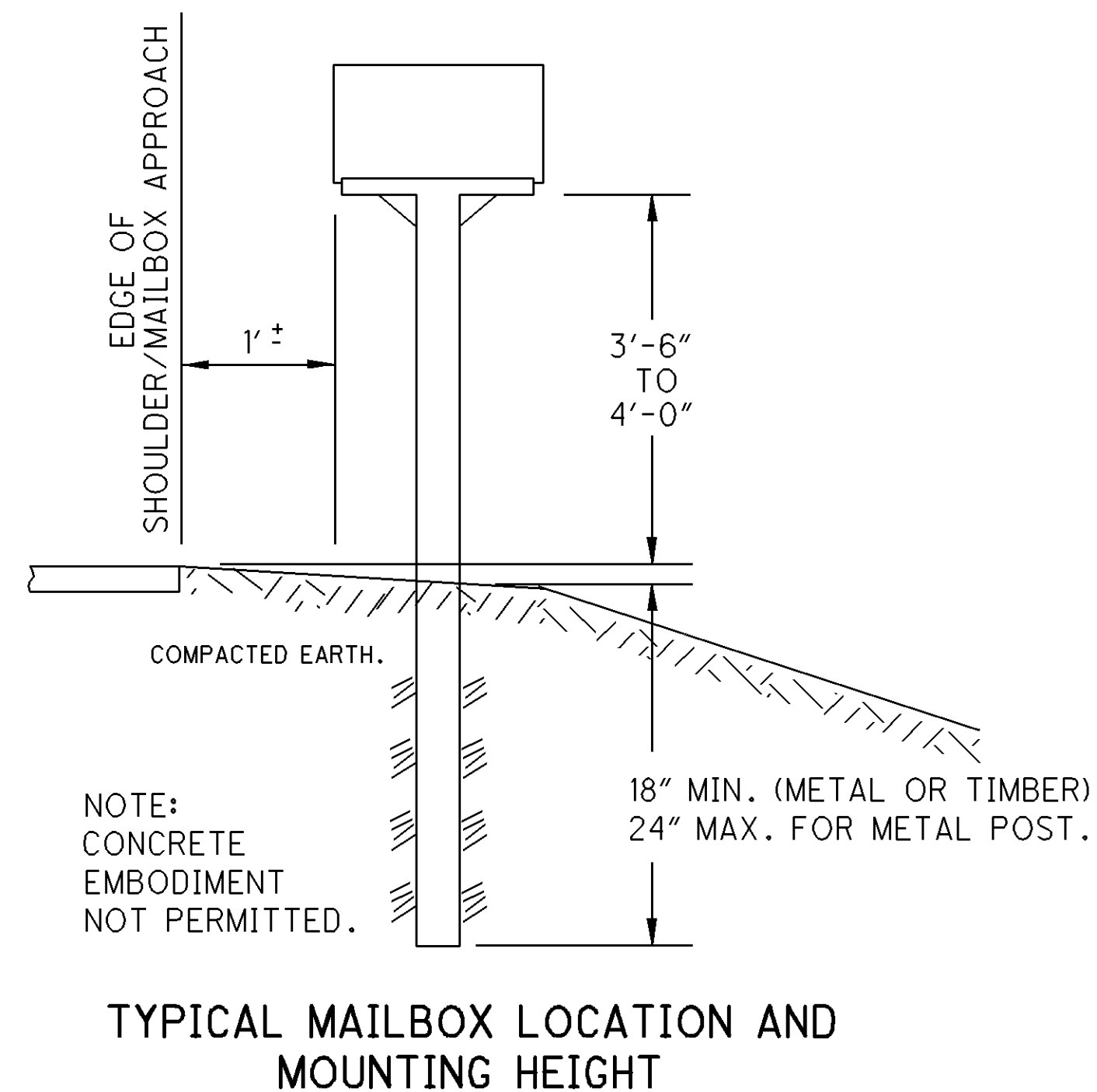
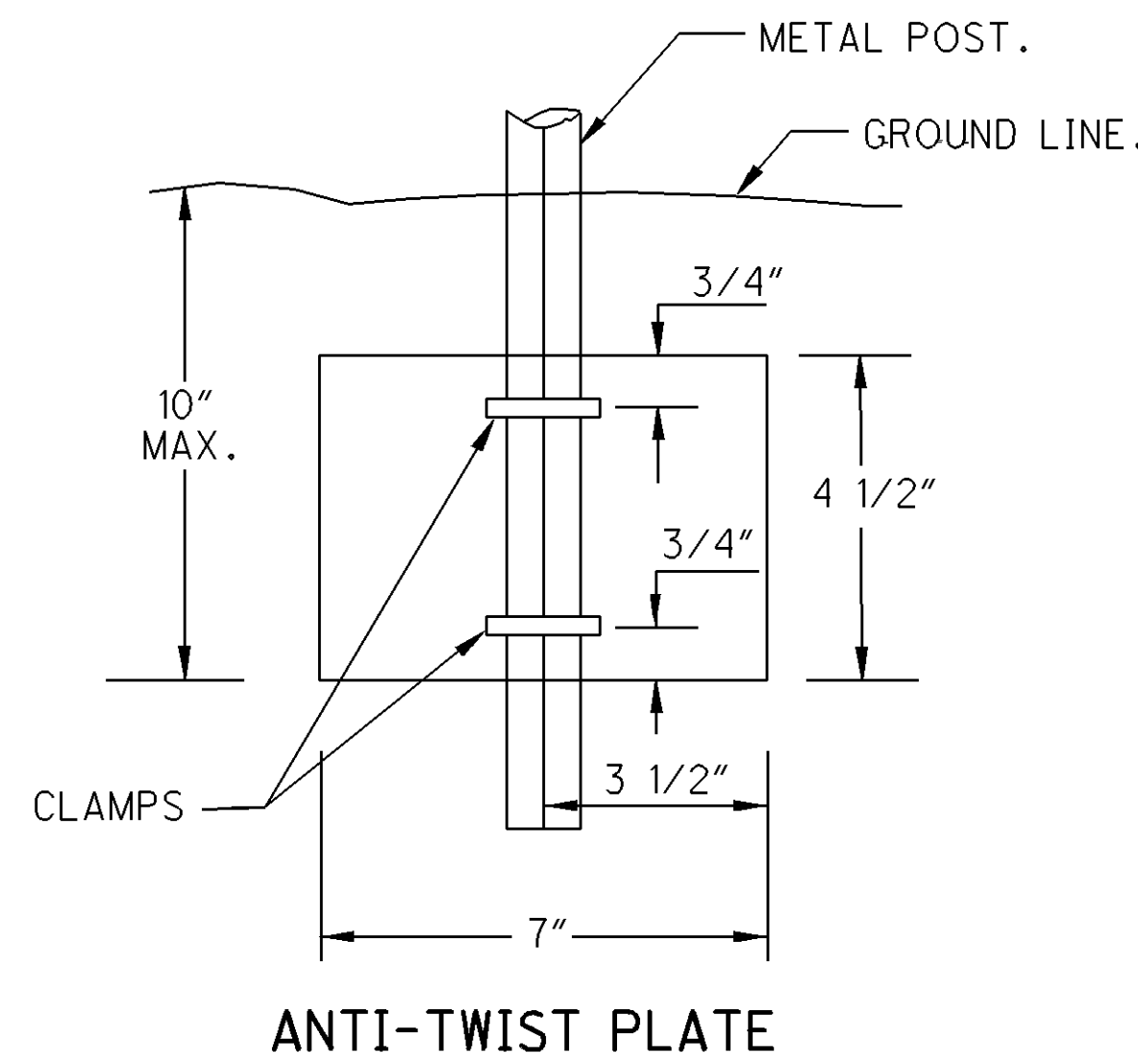
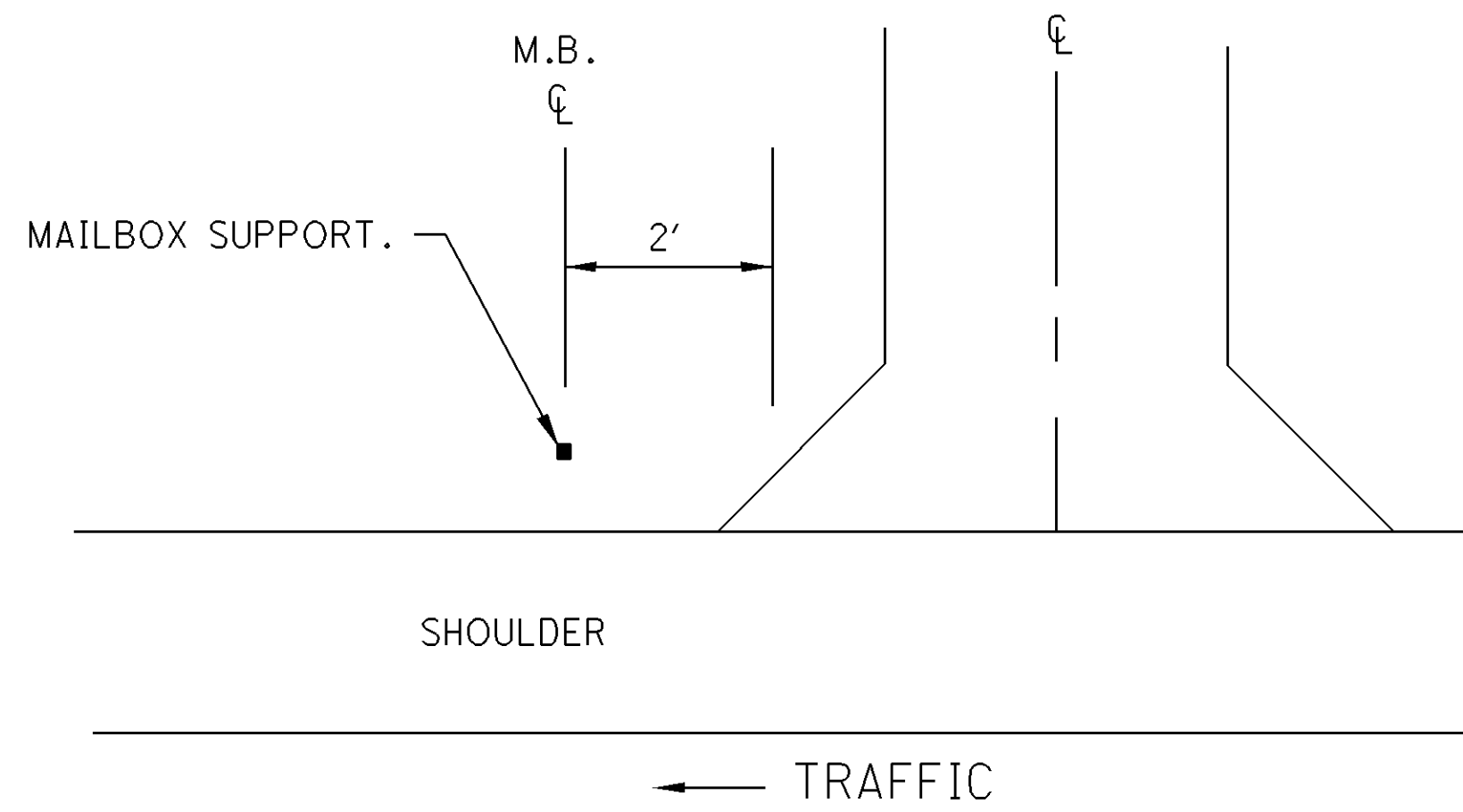
IN THE ABSENCE OF A NEW BOX SUPPLIED BY THE OWNER, THE CONTRACTOR SHALL SALVAGE THE EXISTING BOX AND PLACE IT ON THE NEW SUPPORT. DUE CARE SHALL BE EXERCISED IN SUCH AN OPERATION, AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING OR REPLACING ANY BOX DAMAGED BY IMPROPER HANDLING ON HIS PART, AS JUDGED AND DIRECTED BY THE ENGINEER.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE LOCAL POST MASTER REGARDING THE TIMING OF THE MOVEMENT OF ANY MAILBOX TO A NEW LOCATION.

BASIS OF PAYMENT

PAYMENT UNDER THIS ITEM SHALL BE LIMITED TO FINAL PERMANENT INSTALLATIONS. TEMPORARY INSTALLATIONS SHALL BE IN ACCORDANCE WITH 107.12. HOWEVER, THE SAME MATERIAL AND SIZE LIMITATIONS AS FOR PERMANENT INSTALLATIONS SHALL APPLY. MAILBOX SUPPORTS WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH, FOR THE TYPE SPECIFIED, COMPLETE IN PLACE. PAYMENT WILL BE MADE UNDER:

ITEM SPECIAL MAILBOX SUPPORT SYSTEM, SINGLE 3 EACH



REFERENCE NO.	SHEET NO.	SURVEY AND CONSTRUCTION (STATION)	SIDE	SPECIAL
				MAILBOX SUPPORT SYSTEM, SINGLE
				EACH
		EXISTING NORTH CHERRY VALLEY ROAD		
1-MB	362	STA. 8+74	LT.	1
		NEWARK-GRANVILLE ROAD		
2-MB	369	STA. 246+75	LT.	1
3-MB	369	STA. 252+00	LT.	1
TOTAL CARRIED TO GENERAL SUMMARY				3

P:\LIC\80704\Design\Roadway\Plan_Sheets\General\80704_GGN_001.dgn 28-FEB-2015 6:55AM hgjiber1

GENERAL NOTES

LIC-16-16.64

CALCULATED
CMY
CHECKED
HAG

ITEM SPECIAL - SETTLEMENT PLATFORM

ITEM SPECIAL - SETTLEMENT PLATFORM

DESCRIPTION: THIS ITEM CONSISTS OF FURNISHING, CONSTRUCTING, AND MAINTAINING SETTLEMENT PLATFORMS AND OBTAINING SETTLEMENT READINGS AS REQUIRED BY THE PLANS OR AS DIRECTED BY THE ENGINEER. AT THE OPTION AND EXPENSE OF THE CONTRACTOR, ADDITIONAL SETTLEMENT PLATFORMS MAY BE INSTALLED AT LOCATIONS APPROVED BY THE ENGINEER. SETTLEMENT READINGS SHALL BE TAKEN WEEKLY DURING CONSTRUCTION AND DURING ANY SPECIFIED WAITING PERIOD. THE READINGS SHALL BE PLOTTED ON GRAPH PAPER PRESENTING DEFORMATION (ON THE NEGATIVE Y-AXIS) AND FILL HEIGHT (ON THE POSITIVE Y-AXIS) VERSUS TIME (ON THE X-AXIS). IN ORDER TO CREATE THE GRAPH, USE THE SETTLEMENT PLATFORM SPREADSHEET LOCATED AT

[HTTP://WWW.DOT.STATE.OH.US/DIVISIONS/ENGINEERING/GEOTECHNICAL/GEOTECHNICAL DOCUMENTS/BLANK SETTLEMENT READING PLOTS-ENGLISH.XLS](http://www.dot.state.oh.us/divisions/engineering/geotechnical/geotechnical_documents/blank_settlement_reading_plots-english.xls)

IN THE OGE WEBSITE PUBLICATIONS AND DOCUMENTS SECTION. A COPY OF EACH CUMULATIVE PLOT SHALL BE SENT TO THE OFFICE OF GEOTECHNICAL ENGINEERING, ATTENTION: GEOTECHNICAL DESIGN COORDINATOR, AFTER EACH SETTLEMENT READING IS RECORDED.

MATERIALS: SOUND LUMBER SUCH AS (3/4-INCH) EXTERIOR GRADE PLYWOOD SHALL BE USED FOR THE BASE. THE PIPE SHALL BE (2-1/2-INCH) STANDARD BLACK PIPE WITH THREADED FITTINGS AS SHOWN ON THE PLANS. A STEEL PLATE (36" X 36" X 1/8") MAY BE SUBSTITUTED FOR THE LUMBER FOR THE PLATFORMS, AT THE CONTRACTOR'S OPTION.

CONSTRUCTION METHODS: THE PLATFORM SHALL CONFORM TO THE DETAILS SHOWN ON THE PLANS. THE PLATFORM SHALL BE SET ON A LEVEL SURFACE. THE PIPE SHALL BE FIRMLY SECURED TO THE PLATFORM AND SHALL BE MAINTAINED IN A PLUMB POSITION DURING THE PLACEMENT OF THE EMBANKMENT. THE PIPE SHALL BE MARKED AT INTERVALS TO FACILITATE MEASUREMENT OF THE DEPTH OF FILL. THE CONTRACTOR SHALL STOP WORK IN ANY LOCATION WHERE THE SETTLEMENT PLATFORM HAS BEEN DISTURBED OR DAMAGED. PLATFORMS OR PIPES DAMAGED OR DISPLACED DURING CONSTRUCTION SHALL BE RESTORED TO THEIR PROPER CONDITION AT THE CONTRACTOR'S EXPENSE.

PRIOR TO PAVING, THE TOP OF THE SETTLEMENT PLATFORM PIPE SHALL BE CUT OFF (TWO FEET) BELOW THE FINISHED SURFACE OF THE SUBGRADE OR FINISHED GROUND SURFACE, WHICHEVER IS APPLICABLE.

METHOD OF MEASUREMENT: THE NUMBER OF SETTLEMENT PLATFORMS TO BE PAID FOR SHALL BE THE ACTUAL NUMBER OF SETTLEMENT PLATFORMS COMPLETED, MAINTAINED, AND ACCEPTED BY THE ENGINEER.

BASIS OF PAYMENT: PAYMENT SHALL BE MADE AT THE CONTRACT UNIT PRICE EACH FOR ITEM SPECIAL - SETTLEMENT PLATFORM WHICH IS COMPENSATION FOR CONSTRUCTING MAINTAINING, AND MONITORING THE SETTLEMENT PLATFORMS INCLUDING FURNISHING ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK. PAYMENT SHALL NOT BE MADE FOR SETTLEMENT PLATFORMS WHICH BECOME USELESS DUE TO DAMAGE CAUSED BY THE CONTRACTOR'S OPERATIONS.

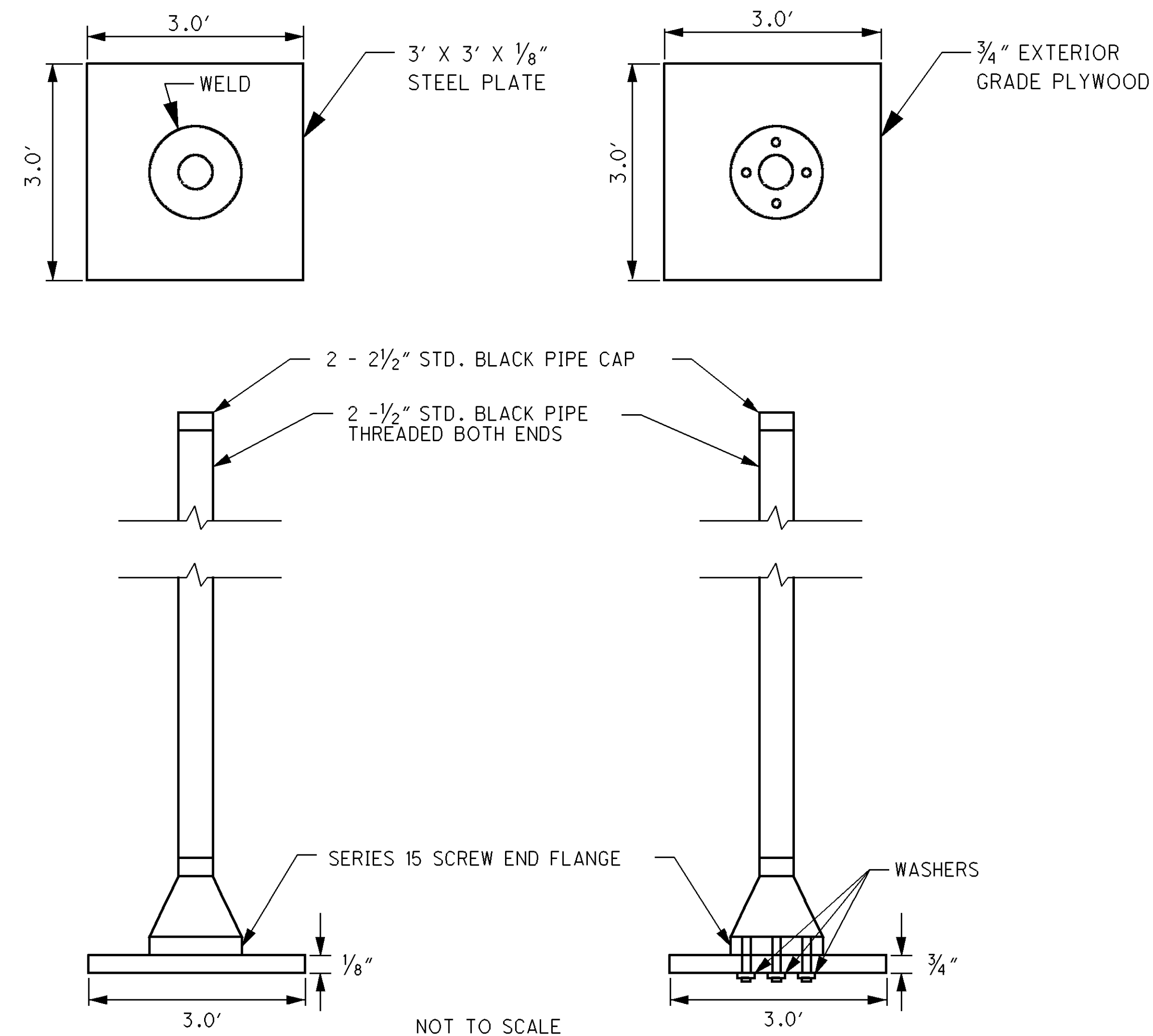
GENERAL NOTES

1. SETTLEMENT PLATFORM SHALL BE PLACED AT THE LOCATIONS INDICATED BELOW, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
2. CONTRACTOR HAS OPTION OF USING EITHER STEEL OR PLYWOOD PLATFORM BASE.
3. CONTRACTOR SHALL FURNISH MATERIALS AND LABOR TO EXTEND PIPE UP THROUGH ENTIRE FILL.
4. SETTLEMENT PLATFORM SHALL BE ANCHORED BY STAKES DRIVEN AT EACH CORNER TO PREVENT OVERTURNING.

LOCATION 1: NEW CHERRY VALLEY ROAD STA. 17+25

LOCATION 2: NEW CHERRY VALLEY ROAD STA. 20+05

THE CONTRACTOR MAY AT HIS OWN EXPENSE INSTALL ADDITIONAL SETTLEMENT PLATFORMS TO PROVIDE DOCUMENTATION OF ANY SETTLEMENT WHICH MAY OCCUR.



THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY TO PERFORM THE WORK AS DESCRIBED ABOVE

ITEM SPECIAL SETTLEMENT PLATFORM 2 EACH

CALCULATED
CMY
CHECKED
HAG

SETTLEMENT PLATFORM NOTES

LIC-16-16.64

38
729

ITEMS:

622- CONCRETE BARRIER, SINGLE SLOPE, TYPE D, AS PER PLAN.

622 - CONCRETE BARRIER END ANCHORAGE, REINFORCED TYPE D, AS PER PLAN

622 - CONCRETE BARRIER END SECTION, TYPE D, AS PER PLAN

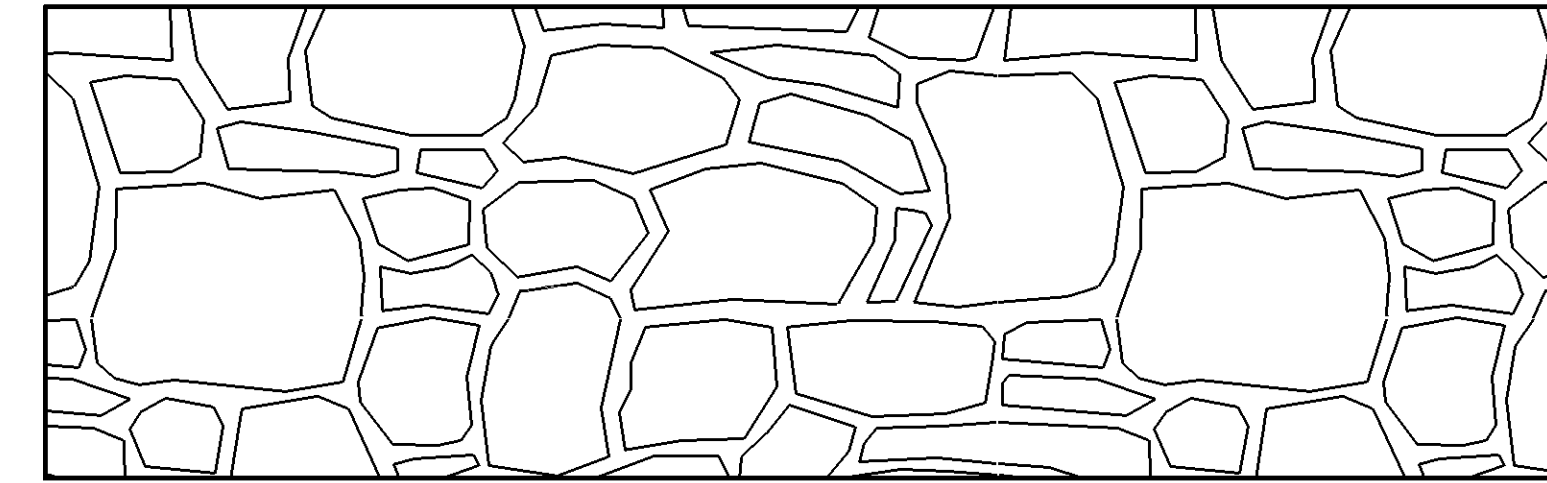
THE SURFACE FINISH SHALL BE ONE OF THE PATTERNS DESCRIBED BELOW IN THE ARCHITECTURAL SURFACE ELEVATION AND TABLE FROM AN APPROVED COMPANY MEETING THE DETAILS SHOWN ON THIS PAGE. ALL AESTHETIC TREATMENT OF THESE SECTIONS OF BARRIER SHALL BE THE SAME AS THE APPROVED TREATMENTS FOR BRIDGE NO. LIC-16-1718 DETAILED IN THIS PLAN.

STAINING OF THE PATTERNED CONCRETE SURFACES SHALL BE DONE PRIOR TO APPLICATION OF ITEM 512 - SEALING OF CONCRETE SURFACES (NON-EPOXY). THE STAIN COLORED CONCRETE, USING LITHOCHROME TINTURA STAIN, SHALL BE COLOR 2626 LIGHT GRAY AS PROVIDED BY L.M. SCOFIELD COMPANY, DOUGLASVILLE, GEORGIA (800) 800-9900 OR APPROVED EQUAL. THE STAIN SHALL BE APPLIED BY AN EVEN AND CONTROLLED METHOD AS RECOMMENDED BY THE MANUFACTURER AND APPROVED BY THE ENGINEER. THE CONTRACTOR WILL NOT ALLOW OVERSPRAY OR RUNS TO RUIN THE APPEARANCE OF THE ADJACENT CONCRETE, WHICH SHALL REMAIN UNSTAINED.

TWO FULL SCALE, DIFFERENTLY PATTERNED, STAINED AND SEALED, PRECONSTRUCTION TEST PANELS SHALL BE PROVIDED FOR APPROVAL BY THE DIRECTOR. IF THE TEST PANELS DO NOT MEET THE APPROVAL OF THE DIRECTOR, THE RESULTS MAY BE GROUNDS TO REJECT THE PROPOSED PANEL SURFACE CHOSEN. THE TEST PANELS WILL BE PROVIDED REPEATEDLY, AS NECESSARY, UNTIL APPROVAL IS GRANTED. FIVE FEET BY FIVE FEET TEST PANELS SHALL BE PROVIDED. THE MOCK-UPS SHALL HAVE THE SAME ARCHITECTURAL RELIEF, THICKNESS, PATTERN, AND COLOR/SEALANT INTENDED TO BE USED ON THE PROJECT. THE PANELS SHALL BE OF THE SAME CEMENT, AGGREGATE SOURCE, AND CONCRETE SEALANT THAT WILL BE USED TO CONSTRUCT THE PROJECT. AFTER APPROVAL THE CONCRETE TEST PANELS SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR.

FOR DETAILS NOT SHOWN, CONSTRUCT THESE ITEMS ACCORDING TO STD. DWG.'S RM-4.5 AND RM-4.6 AND THE C&MS.

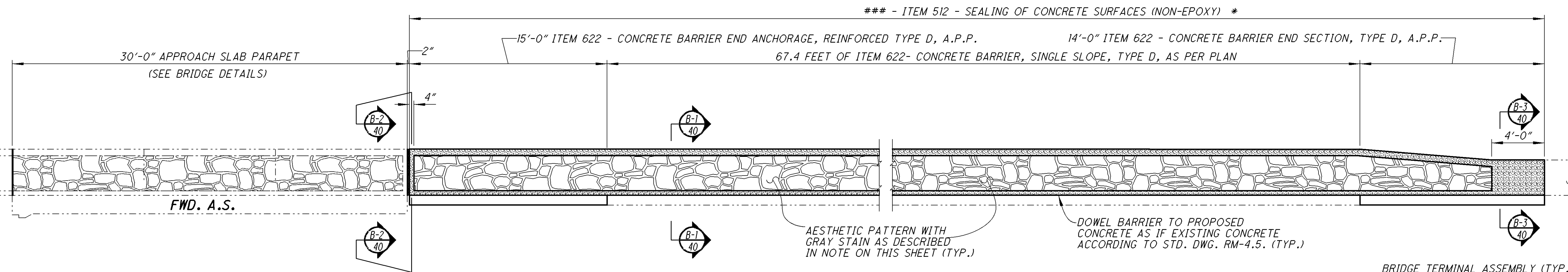
ALL AESTHETIC TREATMENT INCLUDING THE CONCRETE, SURFACE FINISH, TEST PANELS, AND ALL OTHER MATERIALS REQUIRED TO COMPLETE THIS WORK SHALL BE INCLUDED WITH THE ITEMIZED PAYMENT FOR ITEMS 622- CONCRETE BARRIER, SINGLE SLOPE, TYPE D, AS PER PLAN, 622 - CONCRETE BARRIER END ANCHORAGE, REINFORCED TYPE D, AS PER PLAN, & 622 - CONCRETE BARRIER END SECTION, TYPE D, AS PER PLAN.



ARCHITECTURAL SURFACE - ELEVATION

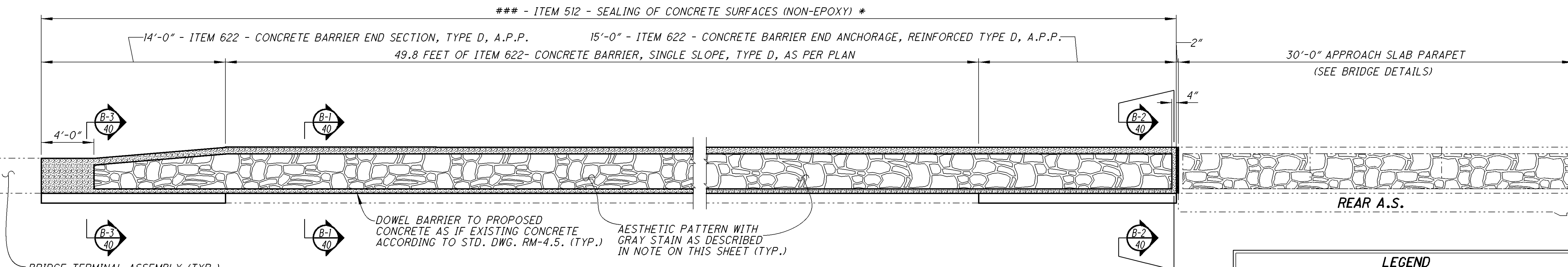
THE FOLLOWING SHALL BE USED:

COMPANY NAME:	PANEL SURFACE TREATMENT:	SPECIFICATIONS:
CUSTOM ROCK INTERNATIONAL	NEW ENGLAND DRYSTACK # 12003	MAX RELIEF 1 3/8" LINER THICKNESS 2 1/4" STONE SIZE 3" TO 24"
SPEC FORMLINERS, INC.	WASHINGTON DRYSTACK # 1581	MAX RELIEF 1 1/2" LINER THICKNESS 2 5/8" STONE SIZE 4" TO 24"
APPROVED EQUAL	APPROVED EQUAL	APPROVED EQUAL



AESTHETIC LAYOUT (PEDESTRIAN PATH FACE)

(ROADWAY BARRIER FORWARD OF BRIDGE)



AESTHETIC LAYOUT (PEDESTRIAN PATH FACE)

(ROADWAY BARRIER REAR OF BRIDGE)

- FLUSH CONCRETE SURFACES (NO STAIN)

NOTE -ALL REINFORCING STEEL SHALL BE PROVIDED ACCORDING TO STD. DWG.'S RM-4.5 AND RM-4.6.

LEGEND

* ITEM 512 - SEALING OF CONCRETE SURFACES (NON-EPOXY) = CLEAR COATING. QUANTITY CARRIED IN BRIDGE SUMMARY UNDER "GENERAL" COLUMN

BPD_001.dgn (SCALE = 4:000)

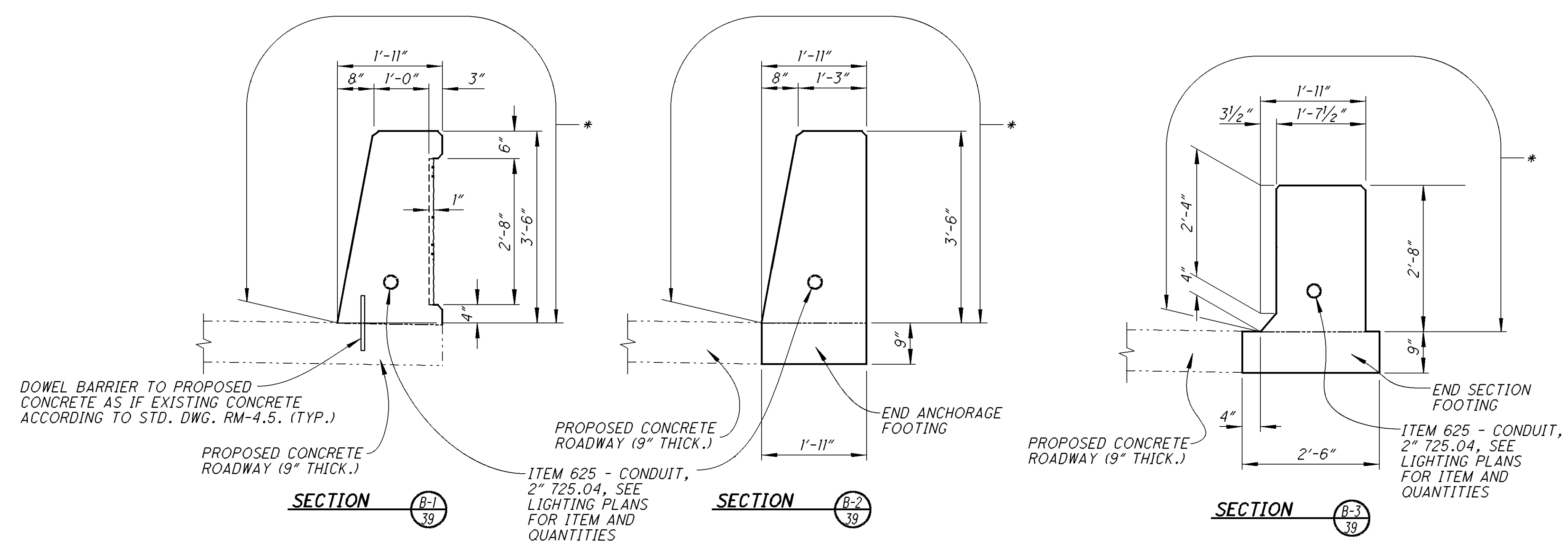
CONCRETE BARRIER, SINGLE SLOPE, TYPE D, AS PER PLAN NOTES

LIC-16-16.64

CALCULATED
JRD
CHECKED
TAG

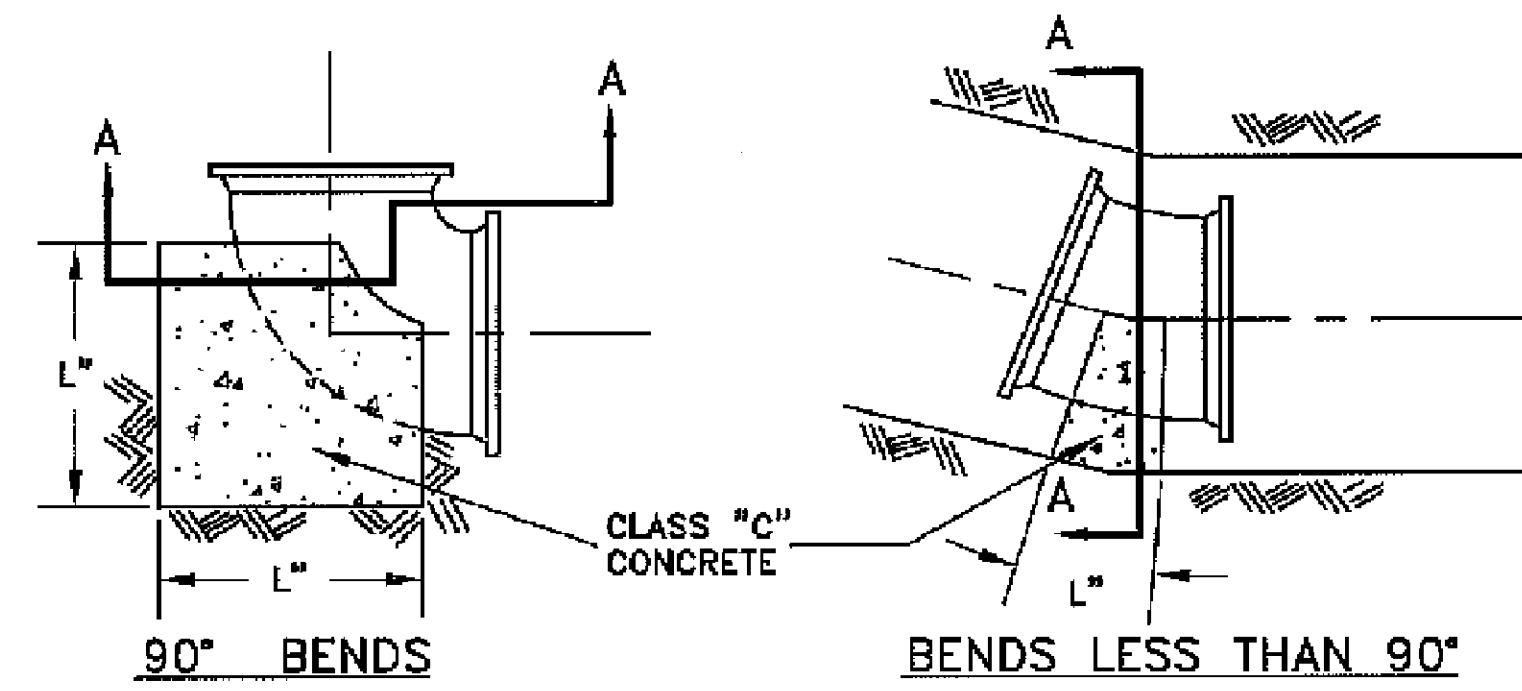
NOTE:
-ALL REINFORCING STEEL SHALL
BE PROVIDED ACCORDING TO STD.
DWG.'S RM-4.5 AND RM-4.6.

LEGEND
* ITEM 512 - SEALING OF CONCRETE SURFACES (NON-EPOXY)
= CLEAR COATING.
QUANTITY CARRIED IN BRIDGE SUMMARY FOR BRIDGE NO.
LIC-16-1718 UNDER "GENERAL" COLUMN

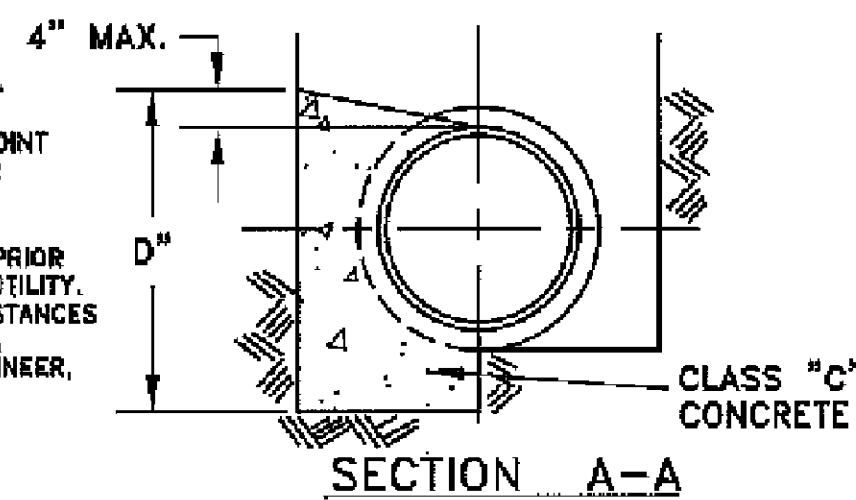


SIZE OF PIPE	DEGREE OF BEND											
	11.25°			22.50°			45°			90° (HORZ. ONLY)		
	L"	D"	Vo.f.	L"	D"	Vo.f.	L"	D"	Vo.f.	L"	D"	Vo.f.
3"	4	3	0.1	6	4	0.2	10	4	0.3	10	4	0.3
4"	5	4	0.2	9	5	0.4	14	5	0.6	14	5	0.6
6"	8	6	0.5	12	7	0.7	20	8	1.4	18	9	1.7
8"	9	8	0.7	16	9	1.4	24	12	2.7	25	11	4.0
12"	14	12	1.8	24	14	3.6	36	18	6.8	32	18	10.7
16"	18	16	3.4	32	18	6.7	36	32	13.4	41	26	25.6

STEEL WILL BE USED AS REQUIRED BY ENGINEER



- NOTES:
1. BACKER DESIGNED FOR 3000 PSF SOIL BEARING.
 2. CONCRETE TO BE PLACED AGAINST UNDISTURBED EARTH.
 3. ALL NEW PIPE 20" & LARGER SHALL BE RESTRAINED JOINT PER COMS ITEM 801 UNLESS OTHERWISE INDICATED PER PLAN OR AS DIRECTED BY THE ENGINEER.
 4. EXISTING WATER LINES 20" AND GREATER MUST HAVE PRIOR APPROVAL FROM DOW TO LOWER UNDER A PROPOSED UTILITY. APPROVAL WILL ONLY BE GIVEN UNDER SPECIAL CIRCUMSTANCES AND CONTINGENT UPON THE CONTRACTOR SUBMITTING A DESIGNED DRAWING, STAMPED BY A PROFESSIONAL ENGINEER, DETAILING HOW THE LOWERED WATER MAIN WILL BE RESTRAINED TO THE EXISTING WATER MAIN.
 5. PROVIDE CLEARANCE FOR REMOVAL OF BOLTS.

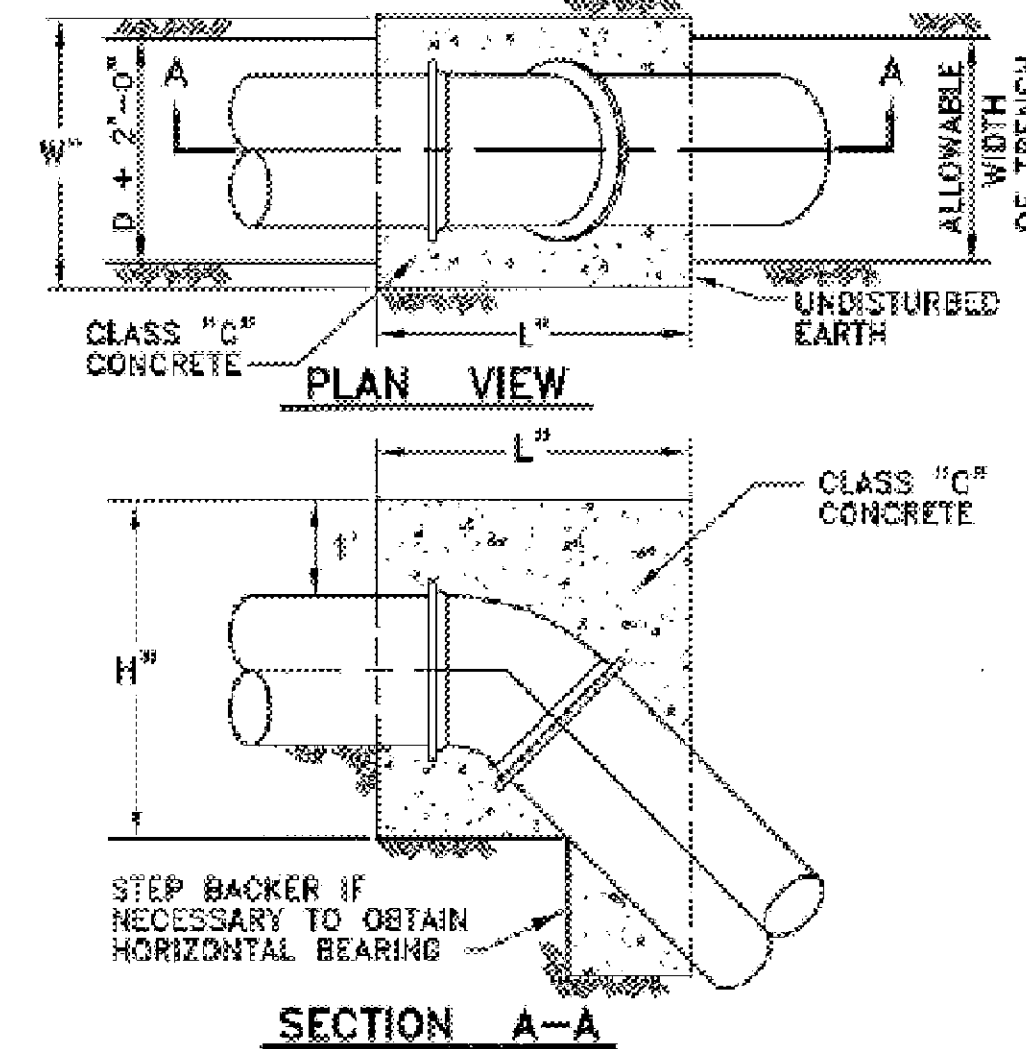


CITY OF COLUMBUS DEPARTMENT OF PUBLIC UTILITIES DIVISION OF WATER	STANDARD DETAIL BACKING FOR BENDS HORIZONTAL AND VERTICAL SAG	L-6311
APPROVED: <i>R.C. Wintersfield</i> ADMINISTRATOR	5-14-13 DATE	

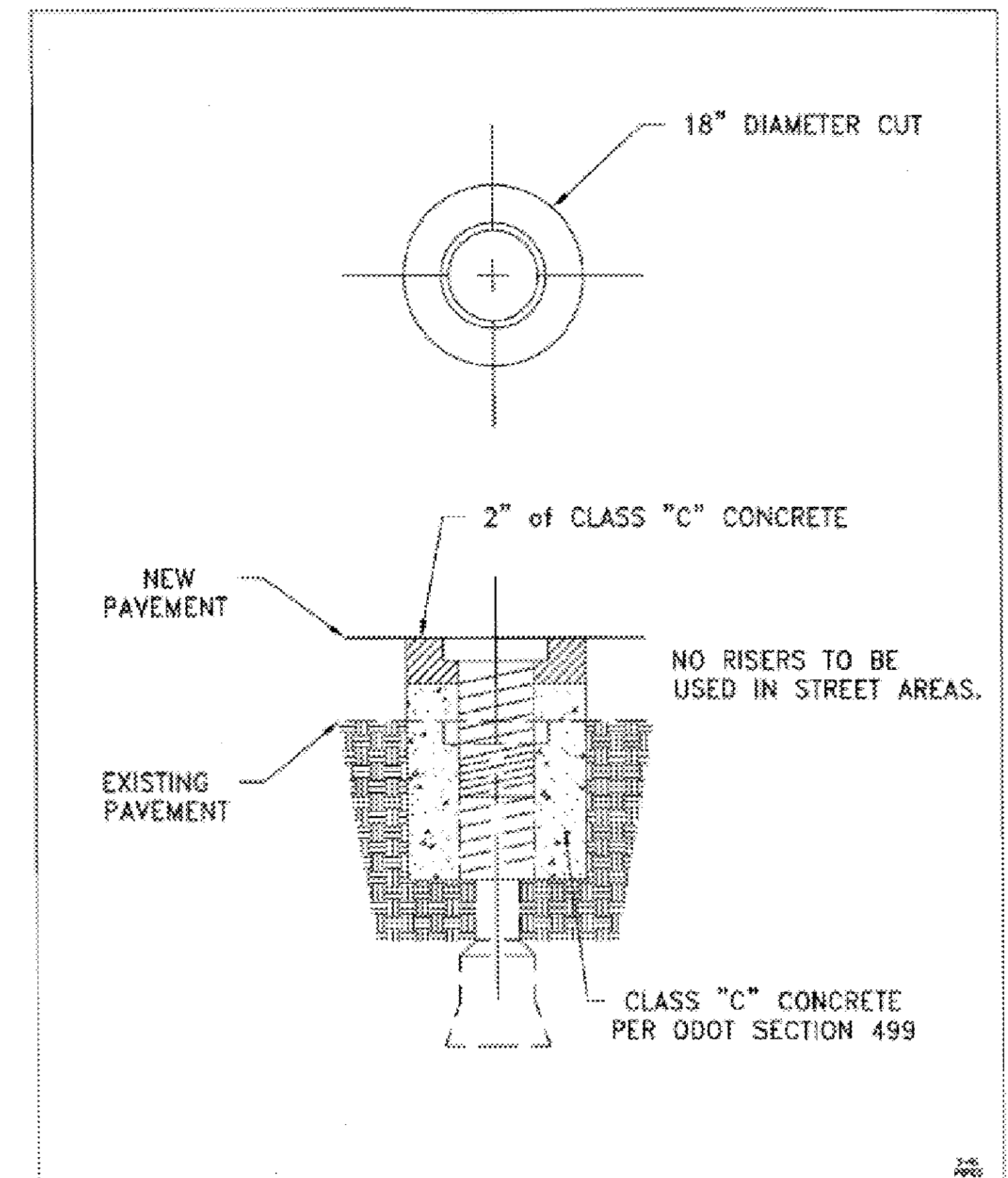
VILLAGE OF GRANVILLE
STANDARD DRAWINGS

PIPE SIZE	11.25°				22.5°				45°			
	L"	W"	H"	Vol.	L"	W"	H"	Vol.	L"	W"	H"	Vol.
3"	12	18	12	1.5	13	25	16	3.0	16	30	19	5.9
4"	12	24	16	2.6	16	30	18	5.0	22	36	24	11.0
6"	12	48	18	6.0	18	48	36	13.4	30	54	24	22.9
8"	12	63	24	10.5	18	57	34	20.2	36	57	33	39.2
12"	20	84	36	22.8	37	62	37	49.0	48	62	51	87.9
16"	31	65	38	44.3	60	65	39	88.1	65	65	65	159.2

- NOTES:
1. VOLUMES GIVEN IN CUBIC FEET.
 2. BACKER TO BE CENTERED HORIZONTALLY ON BEND.
 3. STEEL WILL BE USED AS REQUIRED BY THE ENGINEER.
 4. ALL NEW PIPE 20" & LARGER SHALL BE RESTRAINED JOINT PER COMS ITEM 801 UNLESS OTHERWISE PER PLAN OR AS DIRECTED BY THE ENGINEER.
 5. EXISTING WATER LINES 20" AND GREATER MUST HAVE PRIOR APPROVAL FROM DOW TO LOWER UNDER A PROPOSED UTILITY. APPROVAL WILL ONLY BE GIVEN UNDER SPECIAL CIRCUMSTANCES AND CONTINGENT UPON THE CONTRACTOR SUBMITTING A DESIGNED DRAWING, STAMPED BY A PROFESSIONAL ENGINEER, DETAILING HOW THE LOWERED WATER MAIN WILL BE RESTRAINED TO THE EXISTING WATER MAIN.
 6. WHERE POLYETHYLENE ENCASUREMENT IS REQUIRED, ALL GLANDS & BOLTS SHALL BE WRAPPED PRIOR TO PLACEMENT OF CONCRETE BLOCKING, SEE "L-1069".

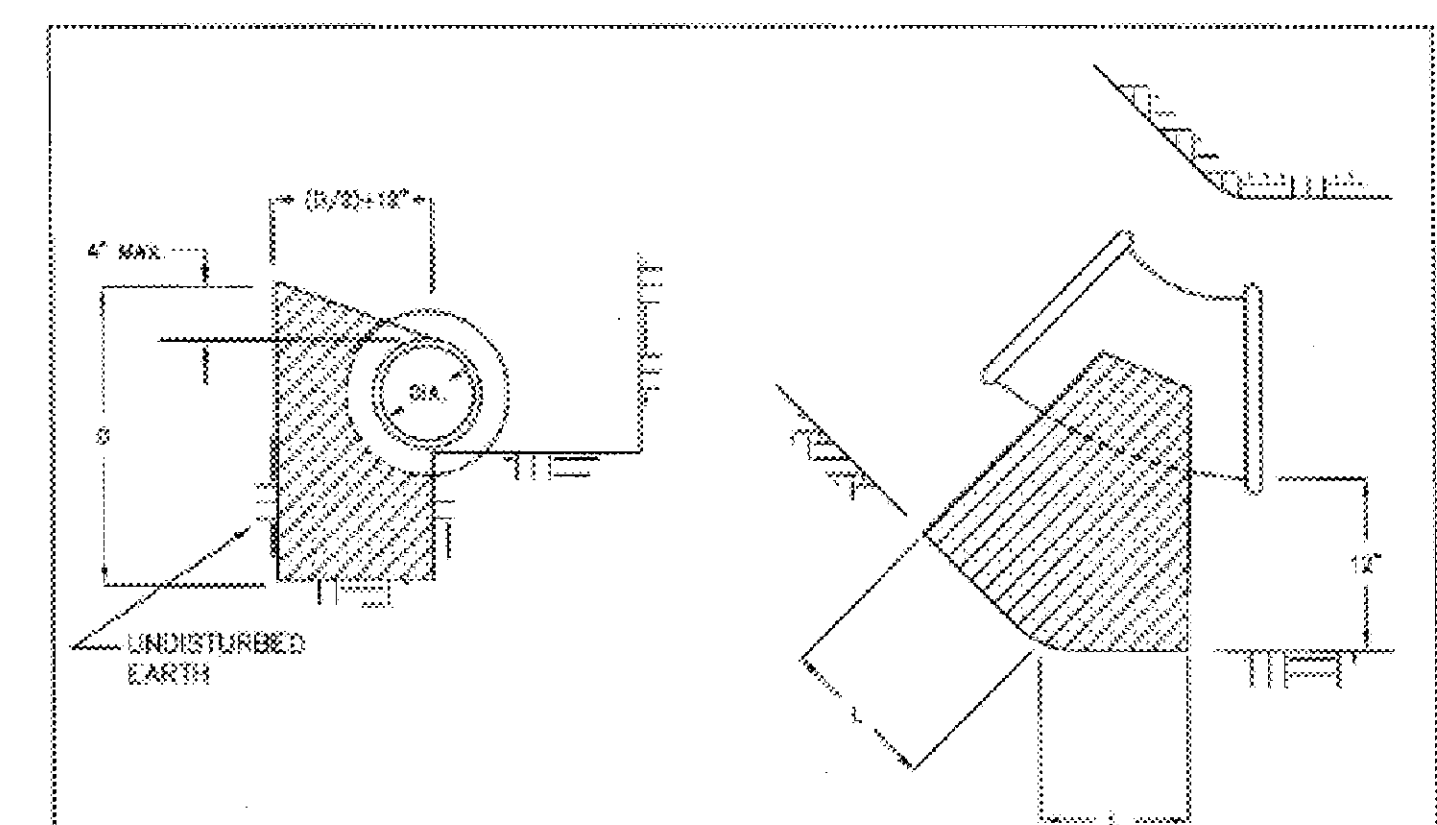


CITY OF COLUMBUS DEPARTMENT OF PUBLIC UTILITIES DIVISION OF WATER	STANDARD DETAIL BACKING FOR VERTICAL BENDS (OVER BENDS ONLY)	L-8310
APPROVED: <i>R.C. Wintersfield</i> ADMINISTRATOR	5-14-13 DATE	



CITY OF NEWARK, OHIO
DIVISION OF ENGINEERING

STANDARD DRAWING 800-7
VALVE BOX GRADE ADJUSTMENT



CLASS "F" CONCRETE PER 499 REQUIRED UNLESS OTHERWISE APPROVED.
NOTE: WRAP PIPE/FITTINGS WITH PLASTIC BEFORE POURING CONCRETE.
NOTE: NO QUICKCRETE - NO MIXING IN THE HOLE.

DIA. OF PIPE	DEGREE OF BEND						
	1 1/4		2 1/2		90		
	L	D	L	D	L	D	
8" OR LESS	5	6	6	8	10	22	8
8"	6	8	8	10	12	26	12
10"	7	10	11	12	17	30	16
12"	7	14	14	14	21	38	20
16"	11	16	17	20	31	52	24

DIMENSIONS ARE IN INCHES

BLOCKING DESIGNED FOR 2500 PSF SOIL BEARING

NOTE: FOR SIZES GREATER THAN 16" CONTACT CITY ENGINEER.

CITY OF NEWARK, OHIO
DIVISION OF ENGINEERING

STANDARD DRAWING 800-3
BLOCKING DETAILS - BENDS

WATERLINE NOTES

CITY OF NEWARK AND VILLAGE OF GRANVILLE

THE CITY OF NEWARK WATER DEPARTMENT AND THE VILLAGE OF GRANVILLE WATER DEPARTMENT SHALL BE CONTACTED AT THE PHONE NUMBERS LISTED BELOW 5 WORKING DAYS BEFORE THE START OF ANY WORK ON THEIR RESPECTIVE WATERLINES.

OPERATION OF IN-SERVICE VALVES SHALL BE BY WATER DEPARTMENT PERSONNEL ONLY. 24 HOURS ADVANCE NOTICE SHALL BE GIVEN PRIOR TO REQUEST FOR SHUT DOWN FOR TIE-INS.

CITY OF NEWARK CONTACT: ROGER LOOMIS
740-670-7945

VILLAGE OF GRANVILLE: JOE TAYLOR
740-587-2304

ITEM 614, MAINTAINING TRAFFIC

TRAFFIC SHALL BE MAINTAINED AS PER THE DETAIL SHEETS AND SPECIFICATIONS AND AS OUTLINED IN THE CONSTRUCTION AND MAINTENANCE OPERATIONS SECTIONS OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS LATEST REVISION. IN ADDITION, THE FOLLOWING REQUIREMENTS SHALL APPLY:

THE CONTRACTOR SHALL SUBMIT, IN WRITING A SCHEDULE OF OPERATIONS TO THE DISTRICT DEPUTY DIRECTOR AND RECEIVE APPROVAL BEFORE WORK IS STARTED ON THE PROJECT.

BEFORE WORK BEGINS, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER THE NAMES AND TELEPHONE NUMBERS OF A PERSON OR PERSONS WHO CAN BE CONTACTED 24 HOURS A DAY BY THE OHIO DEPARTMENT OF TRANSPORTATION AND ALL INTERESTED POLICE AGENCIES. THIS PERSON OR PERSONS SHALL BE RESPONSIBLE FOR REPLACING NECESSARY TRAFFIC CONTROL DEVICES IMMEDIATELY, AS PER 614.03.

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR THE PHYSICAL CONSTRUCTION ONLY. THE INSTALLATION AND OPERATION OF ALL REQUIRED TRAFFIC CONTROL DEVICES SHALL BE PROVIDED BY THE CONTRACTOR WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

DRUMS SHALL BE PROPERLY REFLECTORIZED (HIGH INTENSITY, FLORESCENT SHEETING) PLASTIC DRUMS AND WEIGHTED.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRAFFIC CONTROL INVOLVED IN PLACING AND REMOVING ALL ITEM 622 PORTABLE CONCRETE BARRIER, 32".

THE CONTRACTOR SHALL ARRANGE HIS OPERATIONS SO AS TO PREVENT ANY INTERFERENCE TO THE CONTINUOUS FLOW OF TRAFFIC. ALL VEHICLES, EQUIPMENT, WORKERS AND THEIR ACTIVITIES ARE RESTRICTED AT ALL TIME TO ONE SIDE OF THE PAVEMENT UNLESS OTHERWISE APPROVED BY THE PROJECT ENGINEER.

TEMPORARY FEATHERS USING ITEM 441 WILL BE REQUIRED AT ANY LOCATION DESIGNATED BY THE PROJECT ENGINEER. THEY SHALL BE INSTALLED ACCORDING TO BP-3.1 AND REMOVED WHEN NO LONGER REQUIRED.

THE PLANS INDICATE THE MINIMUM SIGNAGE WHICH MUST BE INSTALLED AND/OR MAINTAINED DURING ALL PHASES OF CONSTRUCTION.

EXISTING SIGNS OR CONTRACTOR SUPPLIED SIGNS SHALL BE USED TO MAINTAIN TRAFFIC DURING CONSTRUCTION.

ANY CONFLICTING SIGNS AND PAVEMENT MARKINGS WHETHER INSIDE OR OUTSIDE THE WORK LIMITS SHALL BE REMOVED OR COVERED AND TEMPORARY SIGNS AND MARKINGS ERECTED AND PLACED WHEN APPLICABLE BY THE CONTRACTOR.

THE ENGINEER SHALL RECORD INSTALLATION AND REMOVAL OF PROPOSED SIGNS, COVERED OR REMOVED AND UNCOVERED OR REERECTED SIGNS IN THE PROJECT DIARY.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH ITEM 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS AS DESCRIBED ABOVE SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

PROTECTION OF TRAFFIC: PRIOR TO DEMOLITION OF ANY PORTIONS OF THE EXISTING SUPERSTRUCTURE, THE CONTRACTOR SHALL SUBMIT PLANS FOR THE PROTECTION OF TRAFFIC (VEHICULAR, PEDESTRIAN, ETC.) AS PER CMS 2013 501.05.B.2.

THE FOLLOWING QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY:

ITEM 614, MAINTAINING TRAFFIC	LUMP
-------------------------------	------

FLOODLIGHTING

FLOODLIGHTING OF THE WORK SITE FOR OPERATIONS CONDUCTED DURING NIGHT TIME PERIODS SHALL BE ACCOMPLISHED SO THAT THE LIGHTS DO NOT CAUSE GLARE TO THE DRIVERS ON THE ROADWAY. TO ENSURE THE ADEQUACY OF THE FLOODLIGHT PLACEMENT, THE CONTRACTOR AND THE ENGINEER SHALL DRIVE THROUGH THE WORK SITE EACH NIGHT WHEN THE LIGHTING IS IN PLACE AND OPERATIVE PRIOR TO COMMENCING ANY WORK. IF GLARE IS DETECTED THE LIGHT PLACEMENT AND SHIELDING SHALL BE ADJUSTED TO THE SATISFACTION OF THE ENGINEER BEFORE WORK PROCEEDS. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614 MAINTAINING TRAFFIC.

CONSTRUCTION NOTIFICATION

THE CONTRACTOR WILL ADVISE THE PROJECT ENGINEER A MINIMUM OF TWENTY-ONE (21) DAYS PRIOR TO THE FOLLOWING: THE START OF CONSTRUCTION ACTIVITIES, LANE RESTRICTIONS, LANE CLOSURES, AND OR ROAD CLOSURES. THE PROJECT ENGINEER WILL FORWARD THIS INFORMATION TO THE FOLLOWING:

DISTRICT PUBLIC INFORMATION OFFICER (PIO)
BY FAX: (614) 887-4510 OR
BY EMAIL: D05.PIO@DOT.STATE.OH.US

DISTRICT PERMIT SECTION
BY FAX: (614) 887-4525 OR
BY EMAIL: BRIAN.BOSCH@DOT.STATE.OH.US

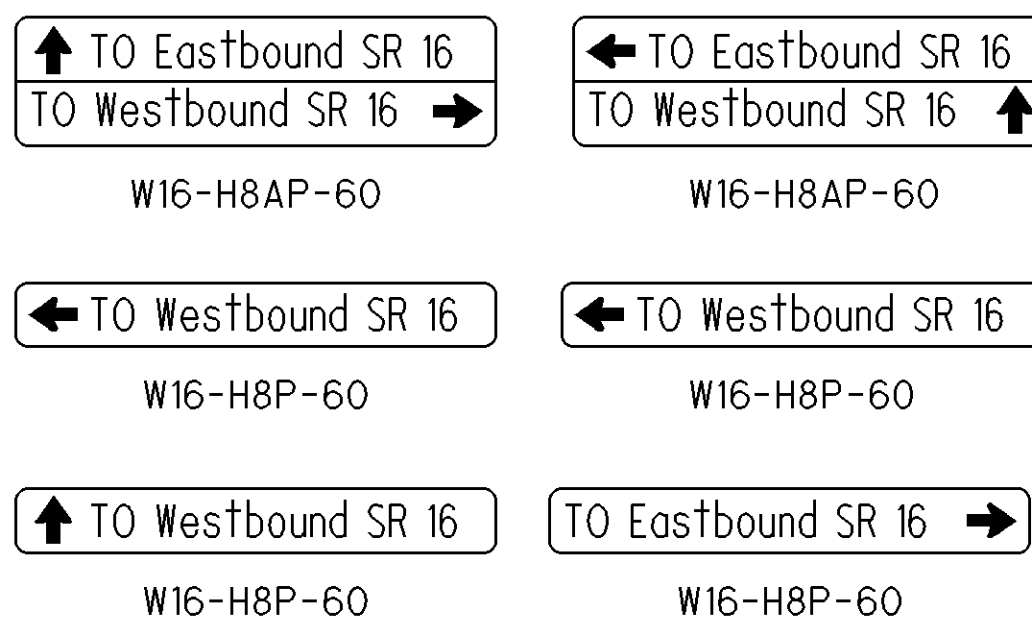
CENTRAL OFFICE SPECIAL HAUL PERMITS SECTION
BY FAX: (614) 728-4099 OR
BY EMAIL: HAULING.PERMITS@DOT.STATE.OH.US

THE PIO WILL, IN TURN, NOTIFY THE PUBLIC, THE LOCAL EMERGENCY SERVICES, AFFECTED SCHOOLS AND BUSINESSES, AND ANY OTHER IMPACTED LOCAL PUBLIC AGENCY OF ANY OF THE ABOVE MENTIONED ITEMS, VIA MEDIA SOURCES.

ADDITIONAL SIGNING

IN ADDITION TO THE SIGNS REQUIRED BY MAINTENANCE OF TRAFFIC STANDARD DRAWINGS AND THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS LATEST REVISION, THE SIGNS SHOWN BELOW SHALL ALSO BE PROVIDED TO MAINTAIN TRAFFIC. INCLUDED WITH EACH SIGN SHALL BE 2 - #2 SIGN POSTS, 16' LONG EACH. THE LOCATION OF EACH SIGN SHALL BE AS DIRECTED BY THE PROJECT ENGINEER. THE SIGNS SHALL BE REMOVED AND DISPOSED OF WHEN NO LONGER NEEDED AS DIRECTED BY THE PROJECT ENGINEER.

PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614 MAINTAINING TRAFFIC.



MAINTAINING EXISTING DRIVES

THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL RESIDENCE AND COMMERCIAL DRIVES TO THE FULLEST EXTENT POSSIBLE. IT IS UNDERSTOOD THAT FOR SHORT PERIODS OF TIME, THE FULL ACCESS TO A DRIVEWAY MAY NOT BE POSSIBLE. THE CONTRACTOR SHALL MAKE ACCOMMODATIONS TO THE RESIDENT/BUSINESS OWNER SO THAT DURING THESE SHORT INTERVALS, THE HOME/BUSINESS OWNER CAN STILL HAVE ACCESS TO PARK NEAR THEIR RESIDENCE/BUSINESS.

PROPERTIES WITH MULTIPLE ACCESS POINTS: WORK AT ONE DRIVE AT A TIME. PROPERTIES WITH A SINGLE ACCESS POINT: MAINTAIN ACCESS TO PROPERTY AT ALL TIMES USING ONE OF THE FOLLOWING METHODS: REPLACE DRIVEWAY USING PART WIDTH CONSTRUCTION, BACKFILL OPEN EXCAVATION WITH ITEM 304 AGGREGATE FOR TEMPORARY ACCESS, OR USE STEEL PLATES TO SPAN OVER OPEN EXCAVATIONS AND OR CONCRETE NOT OUT OF CURE. BEFORE ACCESS TO A DRIVEWAY IS INTERRUPTED, THE CONTRACTOR SHALL GIVE PRIOR NOTICE TO THE OCCUPANT OF THE PROPERTY 72 HOURS BEFORE THE WORK IS STARTED.

THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT U.S. MAIL OR ANY OTHER DELIVERY WITHIN THE PROJECT LIMITS IS NOT DISRUPTED BY CONSTRUCTION OPERATIONS.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER FOR THE MAINTENANCE OF TRAFFIC.

TEMPORARY ACCESS TO DRIVES AND APPROACHES

ITEM 410 TRAFFIC COMPACTED SURFACE, TYPE A OR B	100 CU. YD.
ITEM 410 TRAFFIC COMPACTED SURFACE, TYPE C	100 CU. YD.
ITEM 614 ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	150 CU. YD.

ITEM 615 PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A

ITEM 615 ROADS FOR MAINTAINING TRAFFIC

THE FOLLOWING QUANTITIES HAVE BEEN INCLUDED IN THE PLAN TO CONSTRUCT THE TEMPORARY SHOULDERS ON S.R. 16, AS DETAILED IN THE PLANS. THE REMOVAL OF THE TEMPORARY SHOULDERS AND EMBANKMENT SHALL BE INCLUDED IN THIS ITEM. SHEET PILING FROM STA. 215+25 TO STA. 215+75 SHALL BE INCLUDED IN THIS ITEM. EXISTING UNDERDRAIN OUTLETS THAT WILL BE COVERED BY TEMPORARY EMBANKMENT SHALL BE EXTENDED TO PROVIDE POSITIVE DRAINAGE OF THE EXISTING UNDERDRAINS AND SHALL BE INCLUDED IN THE ITEM. FOR FOR DETAILS OF THE TEMPORARY SHOULDERS SEE MOT PLAN SHEETS AND CROSS SECTIONS.

PAYMENT SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT AND INCIDENTALS NECESSARY TO PERFORM THIS WORK AS PER ITEM 615.

THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 615 PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A	
PHASE 2 - 8,837 SQ.YD.	
PHASE 3 - 2,127 SQ. YD.	
PHASE 4A - 1,142 SQ. YD.	
TOTAL	12,106 SQ.YD.

ITEM 615 PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A	12,106 SQ.YD.
ITEM 615 ROADS FOR MAINTAINING TRAFFIC LUMP	

EARTHWORK FOR MAINTAINING TRAFFIC

THE FOLLOWING QUANTITIES HAVE BEEN INCLUDED IN THE PLAN FOR INFORMATION ONLY:

EXCAVATION FOR MAINTAINING TRAFFIC	4,524 CU. YD.
EMBANKMENT FOR MAINTAINING TRAFFIC	1,397 CU. YD.

P:\LIC\80704\Design\Roadway\Plan_Sheets\MOT\SR16_MNS_001.dgn 15-JUN-2015 2:56PM cyount

CALCULATED
CMY
CHECKED
HAG

MAINTENANCE OF TRAFFIC GENERAL NOTES

LIC-16-16.64

P:\LIC\80704\Design\Roadway\Plan_Sheets\MOT\SR16_MNS_002.dgn 27-FEB-2015 7:11AM cyount

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGNS, AS PER PLAN

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND REMOVE, WHEN NO LONGER NEEDED, A CHANGEABLE MESSAGE SIGN, ON SITE, FOR THE DURATION OF THE PROJECT. THE SIGN SHALL BE OF A TYPE SHOWN ON A LIST OF APPROVED PCMS UNITS MAINTAINED BY THE DIRECTOR (OFFICE OF MATERIALS MANAGEMENT). THIS LIST IS AVAILABLE ON THE ODOT WEB SITE AT [HTTP://WWW.DOT.STATE.OH.US/TEST LAB/APPLISTS/MISC/PCMS.HTM](http://www.dot.state.oh.us/test_lab/applists/misc/pcms.htm). THE LIST CURRENTLY CONTAINS CLASS I, II, AND III UNITS WITH MINIMUM LEGIBILITY DISTANCES OF 1250 FT., 850 FT. AND 650 FT., RESPECTIVELY.

EACH SIGN SHALL BE TRAILER-MOUNTED AND EQUIPPED WITH A FUNCTIONAL DIMMING MECHANISM, TO DIM THE SIGN DURING DARKNESS, AND A TAMPER AND VANDAL PROOF ENCLOSURE. EACH SIGN SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ON-SITE PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT. THE SIGN SHALL ALSO BE CAPABLE OF BEING POWERED BY AN ELECTRICAL SERVICE DROP FROM A LOCAL UTILITY COMPANY. PCMS TRAILERS SHOULD BE DELINEATED ON A PERMANENT BASIS BY AFFIXING RETRO REFLECTIVE MATERIAL, IN A CONTINUOUS LINE ON THE FACE OF THE TRAILER AS SEEN BY ONCOMING ROAD USERS.

THE PROBABLE PCMS LOCATIONS AND WORK LIMITS FOR THOSE WILL BE SHOWN IN THE MAINTENANCE OF TRAFFIC PLAN. PLACEMENT, OPERATION, MAINTENANCE AND ALL ACTIVATION OF THE SIGNS BY THE CONTRACTOR SHALL BE AS DIRECTED BY THE ENGINEER. THE PCMS SHALL BE LOCATED IN A HIGHLY VISIBLE POSITION.

THE CONTRACTOR SHALL, AT THE DIRECTION OF THE ENGINEER, RELOCATE THE PCMS TO IMPROVE VISIBILITY OR ACCOMMODATE CHANGED CONDITIONS. WHEN NOT IN USE, THE PCMS SHALL BE TURNED OFF. ADDITIONALLY, WHEN NOT IN USE FOR EXTENDED PERIODS OF TIME, THE PCMS SHALL BE TURNED, FACING AWAY FROM ALL TRAFFIC, AND SHALL DISPLAY ONE OR MORE HIGH-INTENSITY YELLOW REFLECTIVE SHEETING SURFACES OF 9-INCH BY 15-INCH MINIMUM SIZE FACING TRAFFIC.

(THE CONTRACTOR SHALL IMPLEMENT A SYSTEM WHEREBY CHANGEABLE MESSAGES WILL BE IMPLEMENTED WITHIN 2 HOURS FOLLOWING TELEPHONE NOTIFICATION FROM THE PROJECT ENGINEER TO A DESIGNATED PHONE.)

ALL MESSAGES TO BE DISPLAYED ON THE SIGN WILL BE PROVIDED BY THE ENGINEER. A LIST OF ALL REQUIRED PRE-PROGRAMMED MESSAGES WILL BE GIVEN TO THE CONTRACTOR AT THE PROJECT PRE CONSTRUCTION CONFERENCE. THE SIGN SHALL HAVE THE CAPABILITY TO STORE UP TO 99 MESSAGES. MESSAGE MEMORY OR PRE-PROGRAMMED DISPLAYS SHALL NOT BE LOST AS A RESULT OF POWER FAILURES TO THE ON-BOARD COMPUTER. THE SIGN LEGEND SHALL BE CAPABLE OF BEING CHANGED IN THE FIELD. THREE-LINE PRESENTATION FORMATS WITH UP TO SIX MESSAGE PHASES SHALL BE SUPPORTED. PCMS FORMAT SHALL PERMIT THE COMPLETE MESSAGE FOR EACH PHASE TO BE READ AT LEAST ONCE.

THE PCMS SHALL CONTAIN AN ACCURATE CLOCK AND PROGRAMMING LOGIC WHICH WILL ALLOW THE SIGN TO BE ACTIVATED, DEACTIVATED OR MESSAGES CHANGED AUTOMATICALLY AT DIFFERENT TIMES OF THE DAY FOR DIFFERENT DAYS OF THE WEEK.

THE PCMS UNIT SHALL BE MAINTAINED IN GOOD WORKING ORDER BY THE CONTRACTOR IN ACCORDANCE WITH THE PROVISIONS OF CMS 614.07. THE CONTRACTOR SHALL, PRIOR TO ACTIVATING THE UNIT, MAKE ARRANGEMENTS, WITH AN AUTHORIZED SERVICE AGENT FOR THE PCMS, TO ASSURE PROMPT SERVICE IN THE EVENT OF FAILURE. ANY FAILURE SHALL NOT RESULT IN THE SIGN BEING OUT OF SERVICE FOR MORE THAN 12 HOURS, INCLUDING WEEKENDS. FAILURE TO COMPLY MAY RESULT IN AN ORDER TO STOP WORK AND OPEN ALL TRAFFIC LANES AND/OR IN THE DEPARTMENT TAKING APPROPRIATE ACTION TO SAFELY CONTROL TRAFFIC. THE ENTIRE COST TO CONTROL TRAFFIC, ACCRUED BY THE DEPARTMENT DUE TO THE CONTRACTOR'S NONCOMPLIANCE, WILL BE DEDUCTED FROM MONEYS DUE, OR TO BECOME DUE THE CONTRACTOR ON HIS CONTRACT.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR 24-HOUR-PER-DAY OPERATION AND MAINTENANCE OF THESE SIGNS ON THE PROJECT FOR THE DURATION OF THE PHASES WHEN THE PLAN REQUIRES THEIR USE.

PAYMENT FOR THE ABOVE DESCRIBED ITEM SHALL BE AT THE CONTRACT UNIT PRICE. PAYMENT SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, FUELS, LUBRICATING OILS, SOFTWARE, HARDWARE AND INCIDENTALS TO PERFORM THE ABOVE DESCRIBED WORK.

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN 1,800 DAY

(NOTE: 4 SIGNS WILL BE REQUIRED FOR THIS PROJECT, 4 SIGNS x 15 MONTHS x 30 DAYS/MONTH = 1,800 DAY)

WORKSITE TRAFFIC SUPERVISOR

SUBJECT TO APPROVAL OF THE ENGINEER, THE CONTRACTOR SHALL EMPLOY AND IDENTIFY (SOMEONE OTHER THAN THE SUPERINTENDENT) A CERTIFIED WORKSITE TRAFFIC SUPERVISOR (WTS) BEFORE STARTING WORK IN THE FIELD. THE WTS MAY BE CERTIFIED FROM ONE OF THE FOLLOWING ORGANIZATIONS:

1. AMERICAN TRAFFIC SAFETY SERVICE ASSOCIATION (ATSSA), PHONE NUMBER 1-800-272-8772, CERTIFIED TRAFFIC CONTROL SUPERVISOR (TCS).
2. NATIONAL HIGHWAY INSTITUTE, DESIGN AND OPERATION OF WORK ZONE TRAFFIC CONTROL, PHONE NUMBER 1-703-235-0528.
3. THE OHIO CONTRACTORS ASSOCIATION, TRAFFIC CONTROL SUPERVISOR (OCA/TCS) WORK ZONE CLASS, ONLY IF TAKEN AFTER MAY 5, 2004, PHONE NUMBER 1-614-599-7915.
4. OHIO LABORERS TRAINING, TRAFFIC CONTROL SUPERVISORS CLASS, PHONE NUMBER 1-740-599-7915.

A COPY OF EACH WTSS CERTIFICATION AND 24-HOUR CONTACT INFORMATION SHALL BE PROVIDED TO THE ENGINEER AT THE PRECONSTRUCTION CONFERENCE. IF THE DESIGNATED WTS WILL NOT BE AVAILABLE FULL TIME (24/7) THE CONTRACTOR MAY DESIGNATE AN ALTERNATE WTS TO BE AVAILABLE WHEN THE PRIMARY IS OFF DUTY. EACH WTS SHALL HAVE A CURRENT WTS CERTIFICATION (WITH AN EXPIRATION DATE NO MORE THAN 5 YEARS FROM THE DATE OF ISSUE) FROM ANY OF THE APPROVED ORGANIZATIONS.

THE WTS POSITION HAS THE RESPONSIBILITY OF MONITORING TRAFFIC CONTROL DEFICIENCIES FOR THE ENTIRE WORK ZONE. THE DUTIES OF THE WTS ARE AS FOLLOWS:

1. BE AVAILABLE ON A 24-HOUR PER DAY BASIS, AND BE ABLE TO BE ON SITE FOR ALL EMERGENCY TRAFFIC CONTROL NEEDS WITHIN ONE HOUR OF NOTIFICATION BY POLICE OR PROJECT STAFF AND BE PREPARED TO EFFECT CORRECTIVE MEASURES IMMEDIATELY ON EXISTING WORK ZONE TRAFFIC CONTROL DEVICES.
2. ATTEND PRECONSTRUCTION MEETING AND ALL PROJECT MEETINGS WHERE TRAFFIC CONTROL MANAGEMENT IS DISCUSSED.
3. BE AVAILABLE FOR MEETINGS OR DISCUSSIONS WITH THE ENGINEER UPON REQUEST OR WITHIN 36 HOURS.
4. BE AWARE OF, AND COORDINATE IF NECESSARY, ALL TRAFFIC CONTROL OPERATIONS, INCLUDING THOSE OF SUBCONTRACTORS AND SUPPLIERS.
5. COORDINATE PROJECT ACTIVITIES WITH ALL LAW ENFORCEMENT OFFICERS (LEOS). A WTS SHALL ALSO BE THE MAIN CONTACT PERSON WITH THE LEOS WHILE THEY ARE ON THE PROJECT.
6. COORDINATE MEETINGS WITH ODOT PERSONNEL, LEOS AND OTHER APPLICABLE ENTITIES BEFORE EACH PLAN PHASE SWITCH TO DISCUSS WORK ZONE TRAFFIC CONTROL.
7. ENSURE COMPLIANCE WITH THE CONTRACT DOCUMENTS FOR SIGNS, BARRICADES, TEMPORARY CONCRETE BARRIER, PAVEMENT MARKINGS, PORTABLE MESSAGE SIGNS, AND OTHER TRAFFIC CONTROL DEVICES ON A DAILY BASIS; AND FACILITATE ANY CORRECTIVE ACTION NECESSARY.

8. NOTIFY THE CONTRACTOR OF THE NEED FOR CLEANING AND MAINTENANCE OF ALL TRAFFIC CONTROL DEVICES, INCLUDING THE COVERING AND REMOVAL OF INAPPLICABLE SIGNS.
9. INSPECT, EVALUATE, PROPOSE NECESSARY MODIFICATIONS TO, AND DOCUMENT THE EFFECTIVENESS OF, THE TRAFFIC CONTROL DEVICES AND/OR TRAFFIC OPERATIONS ON A DAILY BASIS (7 DAYS A WEEK). IN ADDITION, A WEEKLY NIGHT INSPECTION OF THE WORK ZONE SETUP FOR DAYTIME WORK OPERATIONS; AND ONE DAYTIME INSPECTION PER WEEK FOR NIGHTTIME PROJECTS. THIS SHALL INCLUDE (BUT NOT BE LIMITED TO) DOCUMENTATION ON THE FOLLOWING PROJECT EVENTS:
 - A. INITIAL TRAFFIC CONTROL SETUP (DAY AND NIGHT REVIEW).
 - B. DAILY TRAFFIC CONTROL SETUP AND REMOVAL.
 - C. WHEN CONSTRUCTION STAGING CAUSES A CHANGE IN THE TRAFFIC CONTROL SETUP.
 - D. CRASH OCCURRENCES WITHIN THE CONSTRUCTION AREA.
 - E. REMOVAL OF TRAFFIC CONTROL DEVICES AT THE END OF A PHASE OR PROJECT.
 - F. ALL OTHER EMERGENCY TRAFFIC CONTROL NEEDS.

10. COMPLETE THE DEPARTMENT APPROVED LONG TERM INSPECTION FORM (CA-D-8) AFTER EACH INSPECTION AS REQUIRED IN # 9 AND SUBMIT IT TO THE ENGINEER THE FOLLOWING WORK DAY. THESE REPORTS SHALL INCLUDE A CHECKLIST OF ALL TRAFFIC CONTROL MAINTENANCE ITEMS TO BE REVIEWED. A COPY OF THE FORM WILL BE PROVIDED AT THE PRE-CONSTRUCTION MEETING. ANY DEFICIENCIES OBSERVED SHALL BE NOTED, ALONG WITH RECOMMENDED CORRECTIVE ACTIONS AND THE DATES BY WHICH SUCH CORRECTIONS WERE, OR WILL BE, COMPLETED. A COPY OF THIS DOCUMENT CAN BE FOUND IN THE DEPARTMENT OF TRANSPORTATION CONSTRUCTION INSPECTION FORMS MANUAL DATED 10/15/06 OR CURRENT REVISION.
11. VERIFY THAT ALL FLAGGING OPERATIONS ARE BEING CONDUCTED PER THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
12. HAVE COPIES OF THE ODOT TEMPORARY TRAFFIC CONTROL MANUAL AND APPLICABLE STANDARDS AND SPECIFICATIONS INCLUDED IN THE CONTRACT DOCUMENTS AVAILABLE AT ALL TIMES ON THE PROJECT.

THE DEPARTMENT WILL NOT PAY THE UNIT PRICE BID FOR THE WTS FOR ANY DAY ON WHICH THE CONTRACTOR FAILS TO PERFORM THE DUTIES SET FORTH ABOVE. SHOULD THE CONTRACTOR'S FAILURE TO PERFORM ANY OF THE DUTIES DESCRIBED ABOVE RESULT IN A MAINTENANCE OF TRAFFIC SAFETY ISSUE, THE DEPARTMENT WILL DEDUCT THE PRORATED DAILY AMOUNT FOR ITEM 614 MAINTENANCE OF TRAFFIC FROM THE CONTRACTOR'S NEXT SCHEDULED ESTIMATE.

IF THREE OR MORE FAILURES TO PERFORM THE DUTIES SET FORTH ABOVE OCCUR, THE WTS SHALL BE IMMEDIATELY REMOVED FROM THE WORK IN ACCORDANCE WITH C&MS 108.05.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN INCLUDED FOR THE WORKSITE TRAFFIC SUPERVISOR:

ITEM 614 WORKSITE TRAFFIC SUPERVISOR 15 MONTH

CALCULATED
CMY
CHECKED
HAG

MAINTENANCE OF TRAFFIC GENERAL NOTES

LIC-16-16.64

DRUMS, CONES, GATES, 42" WEIGHTED CHANNELIZER, AND BARRICADES:

DRUMS SHALL BE IN ACCORDANCE WITH CMS ITEM 614, MT SERIES OF THE STANDARD CONSTRUCTION DRAWINGS, AND OMUTCD. CHANNELIZING DEVICES SHALL BE USED TO DELINEATE THE WORK ZONE FROM TRAVELED LANES ACCORDING TO CURRENT STANDARDS.

USE OF WEIGHTED CHANNELIZERS ON FREEWAYS AND MULTI LANE HIGHWAYS SHALL BE LIMITED TO SHORT-TERM OPERATION, GENERALLY 12 HOURS OR LESS, FOR EITHER DAY OR NIGHT. UPON COMPLETION OF WORK WITHIN THE ABOVE NOTED TIME PERIOD, THE WEIGHTED CHANNELIZERS SHALL BE REMOVED. THE WEIGHTED CHANNELIZERS MAY AGAIN BE PLACED ON THE HIGHWAY WHEN THE WORK IS TO RESUME ON THE FOLLOWING DAY OR NIGHT. ANY LANE CLOSURE USING CHANNELIZATION DEVICES, EXPECTED TO REMAIN FOR MORE THAN 12 HOURS, SHALL REQUIRE THE USE OF DRUMS OR BARRIERS. WHEN USED AT NIGHT, WEIGHTED CHANNELIZERS SHALL ONLY BE PLACED IN THE "TANGENT AREA." THE "TANGENT AREA" IS DEFINED AS THE AREA AFTER THE TRANSITION TAPER WHERE THE WORK TAKES PLACE. DRUMS SHALL BE USED IN THE TRANSITION TAPERS FOR NIGHT OPERATIONS. WEIGHTED CHANNELIZERS SHALL HAVE A MAXIMUM SPACING OF 40 FEET.

THE CONTRACTOR SHALL REPLACE ALL DAMAGED CHANNELIZING DEVICES. ALL DRUMS, CONES, GATES, BARRICADES, AND WEIGHTED CHANNELIZERS SHALL BE IN ACCORDANCE WITH ITEM 614 MAINTAINING TRAFFIC: CONFORMANCE OF WORK ZONE DEVICES TO NCHRP 350. DRUMS, CONES, GATES, BARRICADES, AND WEIGHTED CHANNELIZERS SHALL CONFORM WITH MT-101.60 AND MT-102.20. REPLACEMENT OF CHANNELIZING DEVICES SHALL ALSO BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614 - MAINTAINING TRAFFIC. PAYMENT FOR PROVIDING, ERECTING, MAINTAINING, AND REMOVING DRUMS, CONES, GATES, 42" WEIGHTED CHANNELIZERS AND BARRICADES SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614 - MAINTAINING TRAFFIC.

ADVANCE SIGNING:

ALL ADVANCE WARNING SIGNS FOR ANY CONDITION WHICH RESTRICTS TRAFFIC SHALL BE ERECTED BEFORE ANY SUCH RESTRICTION IS PUT INTO EFFECT. ALL SUCH SIGNS SHALL BE COVERED OR REMOVED FROM THE VIEW OF TRAFFIC WHENEVER THEY ARE NOT APPLICABLE. ADVANCED SIGNING SHALL CONFORM TO MT- SERIES OF STANDARD DRAWINGS. ADDITIONAL SIGNS MAY BE REQUIRED FOR MAJOR CLOSURES AT THE DISCRETION OF THE ENGINEER. THESE SIGNS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614 - MAINTAINING TRAFFIC.

OVERLAYING EXISTING SIGNS:

MAINTENANCE OF TRAFFIC PLANS SHALL INCLUDE OVERLAYING EXISTING ROADWAY SIGNS THAT CONFLICT WITH MAINTENANCE OF TRAFFIC SIGNS IN WORK ZONES. DRAWINGS OF OVERLAYS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL. PAYMENT FOR OVERLAYING EXISTING SIGNS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614 - MAINTAINING TRAFFIC.

SIGNS/SIGN SUPPORTS:

TEMPORARY SIGN INSTALLATIONS SHALL BE IN ACCORDANCE WITH PLAN: CONFORMANCE OF WORK ZONE DEVICES TO NCHRP 350. TEMPORARY SIGN SUPPORTS SHALL BE IN ACCORDANCE WITH STANDARD CONSTRUCTION DRAWING MT-105.10. PAYMENT FOR THE SIGNS/SIGN SUPPORT SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614 - MAINTAINING TRAFFIC.

DRUM REQUIREMENTS

IN ADDITION TO THE REQUIREMENTS OF THE PLANS, SPECIFICATION AND PROPOSAL, DRUMS FURNISHED BY THE CONTRACTOR SHALL BE NEW AND UNUSED AT THE TIME OF ARRIVAL ON THE PROJECT. ANY DRUMS BROUGHT ON THE PROJECT, WHICH HAVE PREVIOUSLY BEEN USED ELSEWHERE, WILL NOT BE ACCEPTED.

PAYMENT FOR DRUMS SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR MAINTAINING TRAFFIC UNLESS SEPARATELY ITEMIZED.

ITEM 614 - REPLACEMENT DRUM:

DRUMS FURNISHED BY THE CONTRACTOR IN ACCORDANCE WITH THE REQUIREMENTS OF THE PLANS, SPECIFICATIONS AND PROPOSAL WHICH BECOME DAMAGED BY TRAFFIC FOR REASONS BEYOND THE CONTROL OF THE CONTRACTOR SHALL BE REPLACED IN KIND WHEN ORDERED BY THE ENGINEER.

PAYMENT FOR THE NEW DRUMS SHALL BE MADE AT THE BID PRICE PER EACH FOR ITEM 614 - REPLACEMENT DRUM AND SHALL INCLUDE THE COST OF REMOVING AND DISPOSING OF THE DAMAGED DRUM AND PROVIDING AND MAINTAINING THE REPLACEMENT DRUM IN ACCORDANCE WITH THE CONTRACT REQUIREMENTS FOR THE ORIGINAL DRUM.

**ITEM 614 REPLACEMENT DRUM 50 EACH
QUANTITY CARRIED TO THE GENERAL SUMMARY**

COVERING OF SIGNS:

WHERE THE PLANS CALL FOR OR AS DIRECTED BY THE PROJECT ENGINEER FOR A PERMANENT SIGN TO BE COVERED, THE CONTRACTOR SHALL DO SO IN SUCH A MANNER AS TO AVOID DAMAGING THE PERMANENT SIGN WHEN THE COVER IS REMOVED. THE COVER SHALL BE TOTALLY OPAQUE. THE USE OF ADHESIVE TAPE APPLIED DIRECTLY TO A SIGN FACE IS STRICTLY PROHIBITED. COST FOR THE WORK AS DESCRIBED ABOVE SHALL BE PAID WITH THE LUMP SUM CONTRACT PRICE FOR ITEM 614 - MAINTAINING TRAFFIC.

ITEM 614, REPLACEMENT SIGN

FLAT SHEET SIGNS FURNISHED BY THE CONTRACTOR IN ACCORDANCE WITH THE REQUIREMENTS OF THE PLANS, SPECIFICATIONS AND PROPOSAL WHICH BECOME DAMAGED BY TRAFFIC FOR REASONS BEYOND THE CONTROL OF THE CONTRACTOR SHALL BE REPLACED IN KIND WHEN ORDERED BY THE ENGINEER. REPLACEMENT SIGNS SHALL BE NEW. OTHER MATERIALS MAY BE IN USED, BUT GOOD, CONDITION SUBJECT TO APPROVAL BY THE ENGINEER.

PAYMENT FOR THE NEW SIGNS SHALL BE MADE AT THE CONTRACT PRICE PER EACH FOR ITEM 614, REPLACEMENT SIGN, AND SHALL INCLUDE THE COST OF REMOVING AND DISPOSING OF DAMAGED SIGNS, HARDWARE AND SUPPORTS, AND PROVIDING THE NECESSARY REPLACEMENT HARDWARE, SUPPORTS, ETC.

**ITEM 614 REPLACEMENT SIGN 10 EACH
QUANTITY CARRIED TO THE GENERAL SUMMARY**

ITEM 614 - LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE

USE OF LAW ENFORCEMENT OFFICERS (LEOS) BY CONTRACTORS OTHER THAN THE USES SPECIFIED IN THIS NOTE WILL NOT GENERALLY BE PERMITTED AT PROJECT COST UNLESS PRIOR APPROVAL HAS BEEN OBTAINED FROM THE ENGINEER. LEOS SHOULD NOT BE USED WHERE THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (OMUTCD) INTENDS THAT FLAGGERS BE USED.

IN ADDITION TO THE REQUIREMENTS OF CMS 614 AND THE OMUTCD, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) SHOULD BE PROVIDED FOR CONTROLLING TRAFFIC FOR THE FOLLOWING TASKS:

FOR LANE CLOSURES: DURING INITIAL SET-UP PERIODS, TEAR DOWN PERIODS, SUBSTANTIAL SHIFTS OF A CLOSURE POINT OR WHEN NEW LANE CLOSURE ARRANGEMENTS ARE INITIATED. IN GENERAL, LEOS SHOULD BE POSITIONED AT THE POINT OF LANE RESTRICTION OR ROAD CLOSURE AND TO MANUALLY CONTROL TRAFFIC MOVEMENTS THROUGH INTERSECTIONS IN WORK ZONES.

DURING THE ENTIRE ADVANCE PREPARATION AND CLOSURE SEQUENCE WHERE COMPLETE BLOCKAGE OF TRAFFIC IS REQUIRED.

DURING A TRAFFIC SIGNAL INSTALLATION OR WHEN TRAFFIC NEEDS TO BE DIRECTED THROUGH AN ENERGIZED TRAFFIC SIGNAL CONTRARY TO THE SIGNAL DISPLAY (E.G., DIRECTING MOTORISTS THROUGH A RED LIGHT).

ROUTINE PATROLLING THROUGH THE WORK ZONE (WITH FLASHING LIGHTS OFF) AS SPECIFIED IN THE PLANS.

LEOS SHOULD NOT FORGO THEIR TRAFFIC CONTROL RESPONSIBILITIES TO APPREHEND MOTORISTS FOR ROUTINE TRAFFIC VIOLATIONS. HOWEVER, IF A MOTORISTS ACTIONS ARE CONSIDERED TO BE RECKLESS, THEN PURSUIT OF THE MOTORIST IS APPROPRIATE.

THE LEOS WORK AT THE DIRECTION OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR SECURING THE SERVICES OF THE LEOS AND COMMUNICATING THE INTENTIONS OF THE PLANS WITH RESPECT TO DUTIES OF THE LEOS. THE ENGINEER SHALL HAVE FINAL CONTROL OVER THE LEOS' DUTIES AND PLACEMENT, AND WILL RESOLVE ANY ISSUES THAT MAY ARISE BETWEEN THE TWO PARTIES. THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH A LIST OF THE APPROPRIATE LAW ENFORCEMENT AGENCY(S), INCLUDING ADDRESS AND TELEPHONE NUMBER.

THE LEO SHOULD REPORT IN TO THE CONTRACTOR PRIOR TO THE START OF THE SHIFT TO RECEIVE INSTRUCTIONS REGARDING SPECIFIC WORK ASSIGNMENTS DURING THE SHIFT. THE LEO IS EXPECTED TO STAY AT THE PROJECT SITE FOR THE ENTIRE DURATION OF THE SHIFT. SHOULD IT BE NECESSARY TO LEAVE THE PROJECT SITE, THE LEO SHOULD NOTIFY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE THE LEO WITH A TWO-WAY COMMUNICATION DEVICE WHICH SHALL BE RETURNED TO THE CONTRACTOR AT THE END OF THE SHIFT.

LAW ENFORCEMENT OFFICERS (WITH PATROL CAR) REQUIRED BY THE TRAFFIC MAINTENANCE TASKS ABOVE SHALL BE PAID FOR ON A UNIT PRICE (HOURLY) BASIS UNDER ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE 200 HOURS

THE HOURS PAID SHALL INCLUDE MINIMUM SHOW-UP TIME REQUIRED BY THE LAW ENFORCEMENT AGENCY INVOLVED.

ANY ADDITIONAL COSTS (ADMINISTRATIVE OR OTHERWISE) INCURRED BY THE CONTRACTOR TO OBTAIN THE SERVICES OF AN LEO ARE INCLUDED WITH THE BID UNIT PRICE FOR ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE.

BARRIER DELINEATION

BARRIER REFLECTORS AND OBJECT MARKERS SHALL BE INSTALLED ON ALL PERMANENT CONCRETE BARRIER LOCATED WITHIN 5 FEET OF THE EDGE OF THE ADJACENT TRAVEL LANE. BARRIER REFLECTOR AND OBJECT MARKER SPACING SHALL BE AS PER MT-101.70.

PAYMENT SHALL BE FULL COMPENSATION FOR ALL MATERIAL, LABOR, INCIDENTALS AND EQUIPMENT NECESSARY FOR FURNISHING, INSTALLING, MAINTAINING AND REMOVING BARRIER REFLECTORS AND OBJECT MARKERS.

ITEM 614, WORK ZONE IMPACT ATTENUATOR FOR 24" WIDE HAZARDS (UNIDIRECTIONAL OR BIDIRECTIONAL)

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING A NON-GATING IMPACT ATTENUATOR. FURNISH AN IMPACT ATTENUATOR FROM THE OFFICE OF ROADWAY ENGINEERING APPROVED LIST FOR WORK ZONE IMPACT ATTENUATORS. THE APPROVED LIST IS AVAILABLE AT THE "ROADWAY STANDARDS: PROPRIETARY ROADSIDE SAFETY DEVICES" WEB PAGE ON THE OFFICE OF ROADWAY ENGINEERING WEBSITE.

INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

THE CONTRACTOR SHALL REPAIR OR REPLACE A DAMAGED UNIT WITHIN 24 HOURS OF A DAMAGING IMPACT.

WHEN BIDIRECTIONAL DESIGNS ARE SPECIFIED, THE CONTRACTOR SHALL SUPPLY APPROPRIATE TRANSITIONS.

WHEN GATING IMPACT ATTENUATORS ARE DESIRED, THE CONTRACTOR SHALL SUBMIT DOCUMENTATION TO THE ENGINEER FOR ACCEPTANCE.

THE COST FOR THE ADDITIONAL BARRIER REQUIRED FOR A GATING IMPACT ATTENUATOR SHALL BE INCLUDED IN THE COST OF THE GATING IMPACT ATTENUATOR.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT AND MAINTAIN A COMPLETE AND FUNCTIONAL IMPACT ATTENUATOR SYSTEM, INCLUDING ALL RELATED BACKUPS, TRANSITIONS, LEVELING PADS, HARDWARE AND GRADING, NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

CALCULATED
CMTY
CHECKED
HAG

MAINTENANCE OF TRAFFIC GENERAL NOTES

LIC-16-16.64

P:\LIC\80704\Design\Roadway\Plan_Sheets\MOT\SR16_MNS_003.dgn 27-FEB-2015 7:11AM cyount

**ITEM 254 PAVEMENT PLANING, ASPHALT CONCRETE &
ITEM 441 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (446), PG70-22M**

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER.

THIS ITEM OF WORK IS TO MILL AND FILL IN THE EXISTING RUMBLE STRIPS ON THE OUTSIDE SHOULDERS OF S.R. 16 FOR PHASE 2 TRAFFIC PATTERN. FOR CALCULATION PURPOSES THE THICKNESS IS 1 1/4" AND 2' WIDE.

ITEM 254 PAVEMENT PLANING, ASPHALT CONCRETE 3124 SQ.YD.
ITEM 441 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (446), PG70-22M 109 C.Y.

CALCULATIONS:

ITEM 441 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (446), PG70-22M

EASTBOUND LANES: OUTSIDE SHOULDER

STA. 192+37.50 TO STA. 219+00.00 = 2662.50 FT. = (2662.50 FT. x 2' x 0.1042 FT.) ÷ 27 = 20.6 CU. YD.
STA. 219+00.00 TO STA. 235+35.00 = 1635.00 FT. (NO EXISTING RUMBLE STRIPS)
STA. 235+35.00 TO STA. 260+23.45 = 2488.45 FT. = (2488.45 FT. x 2' x 0.1042 FT.) ÷ 27 = 19.2 CU. YD.
STA. 260+23.45 (LINE "W") TO STA. 284+47.52 (LINE "W") = 2424.07 FT. = (2424.07 FT. x 2' x 0.1042 FT.) ÷ 27 = 18.7 CU. YD.
STA. 284+47.52 TO STA. 290+81.90BK = 634.38 FT. = (634.38 FT. x 2' x 0.1042 FT.) ÷ 27 = 4.9 CU. YD.
STA. 16+94.40AH TO STA. 17+15.00 = 20.60 FT. = (20.60 FT. x 2' x 0.1042 FT.) ÷ 27 = 0.2 CU. YD.

WESTBOUND LANES: OUTSIDE SHOULDER

STA. 206+57.50 TO STA. 219+00.00 = 1242.50 FT. = (1242.50 FT. x 2' x 0.1042 FT.) ÷ 27 = 9.6 CU. YD.
STA. 219+00.00 TO STA. 235+35.00 = 1635.00 FT. (NO EXISTING RUMBLE STRIPS)
STA. 235+35.00 TO STA. 259+95.20 = 2460.20 FT. = (2460.20 FT. x 2' x 0.1042 FT.) ÷ 27 = 19.0 CU. YD.
STA. 259+95.20 (LINE "W") TO STA. 276+56.15 (LINE "W") = 1660.95 FT. = (1660.95 FT. x 2' x 0.1042 FT.) ÷ 27 = 12.8 CU. YD.
STA. 276+56.15 (LINE "W") TO STA. 278+30.91 (LINE "W") = 174.76 FT. (BR. NO. LIC-16-1773L)
STA. 278+30.91 (LINE "W") TO STA. 282+91.60 (LINE "W") = 460.69 FT. = (460.69 FT. x 2' x 0.1042 FT.) ÷ 27 = 3.6 CU. YD.

TOTAL:

20.6 + 19.2 + 18.7 + 4.9 + 0.2 + 9.6 + 19.0 + 12.8 + 3.6 = 108.6 CU. YD.

ITEM 254 PAVEMENT PLANING, ASPHALT CONCRETE

EASTBOUND LANES: OUTSIDE SHOULDER

STA. 192+37.50 TO STA. 219+00.00 = 2662.50 FT. = (2662.50 FT. x 2') ÷ 9 = 591.7 SQ. YD.
STA. 219+00.00 TO STA. 235+35.00 = 1635.00 FT. (NO EXISTING RUMBLE STRIPS)
STA. 235+35.00 TO STA. 260+23.45 = 2488.45 FT. = (2488.45 FT. x 2') ÷ 9 = 553.0 SQ. YD.
STA. 260+23.45 (LINE "W") TO STA. 284+47.52 (LINE "W") = 2424.07 FT. = (2424.07 FT. x 2') ÷ 9 = 538.7 SQ. YD.
STA. 284+47.52 TO STA. 290+81.90BK = 634.38 FT. = (634.38 FT. x 2') ÷ 9 = 141.0 SQ. YD.
STA. 16+94.40AH TO STA. 17+15.00 = 20.60 FT. = (20.60 FT. x 2') ÷ 9 = 4.6 SQ. YD.

WESTBOUND LANES: OUTSIDE SHOULDER

STA. 206+57.50 TO STA. 219+00.00 = 1242.50 FT. = (1242.50 FT. x 2') ÷ 9 = 276.1 SQ. YD.
STA. 219+00.00 TO STA. 235+35.00 = 1635.00 FT. (NO EXISTING RUMBLE STRIPS)
STA. 235+35.00 TO STA. 259+95.20 = 2460.20 FT. = (2460.20 FT. x 2') ÷ 9 = 546.7 SQ. YD.
STA. 259+95.20 (LINE "W") TO STA. 276+56.15 (LINE "W") = 1660.95 FT. = (1660.95 FT. x 2') ÷ 9 = 369.1 SQ. YD.
STA. 276+56.15 (LINE "W") TO STA. 278+30.91 (LINE "W") = 174.76 FT. (BR. NO. LIC-16-1773L)
STA. 278+30.91 (LINE "W") TO STA. 282+91.60 (LINE "W") = 460.69 FT. = (460.69 FT. x 2') ÷ 9 = 102.4 SQ. YD.

TOTAL:

591.7 + 553.0 + 538.7 + 141.0 + 4.6 + 276.1 + 546.7 + 369.1 + 102.4 = 3123.3 SQ. YD.

**MAINTENANCE OF TRAFFIC SIGNAL/FLASHER INSTALLATION
(S.R. 16 AT CHERRY VALLEY ROAD INTERSECTION
(EXISTING SIGNAL INSTALLATION))**

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING TRAFFIC SIGNAL/FLASHER INSTALLATIONS WITHIN THE PROJECT UNDER THE FOLLOWING CONDITIONS:

- EXISTING SIGNAL/FLASHER INSTALLATIONS WHICH THE PLANS REQUIRE THE CONTRACTOR TO ADJUST, MODIFY, ADD ONTO OR REMOVE, OR WHICH THE CONTRACTOR ACTUALLY ADJUSTS, MODIFIES OR OTHERWISE DISTURBS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ENTIRE INSTALLATION (AT AN INTERSECTION) FROM THE TIME HIS OPERATIONS FIRST DISTURB THE INSTALLATION UNTIL THE INSTALLATION HAS BEEN SUBSEQUENTLY REMOVED OR MODIFIED AND THE WORK ACCEPTED.
- NEW OR REUSED SIGNAL/FLASHER INSTALLATIONS OR DEVICES, INSTALLED BY THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF THESE FROM THE TIME OF INSTALLATION UNTIL THE WORK IS ACCEPTED.
- THE CONTRACTOR SHALL CORRECT AS QUICKLY AS POSSIBLE ALL OUTAGES OR MALFUNCTIONS. HE SHALL PROVIDE THE MAINTAINING AGENCY AND THE ENGINEER SUCH ADDRESSES AND PHONE NUMBERS WHERE HIS MAINTENANCE FORCES CAN BE CONTACTED. THE CONTRACTOR SHALL PROVIDE ONE OR MORE PERSONS TO RECEIVE ALL CALLS AND DISPATCH THE NECESSARY MAINTENANCE FORCES TO CORRECT OUTAGES. SUCH A PERSON OR PERSONS MAY BE USED TO PERFORM OTHER DUTIES AS LONG AS PROMPT ATTENTION IS GIVEN TO THESE CALLS AND A PERSON IS READILY AVAILABLE CONTINUOUSLY 24 HOURS A DAY, 7 DAYS A WEEK. ALL LAMP OUTAGES, CABLE OUTAGES, ELECTRICAL FAILURES, EQUIPMENT MALFUNCTIONS AND MIS-ALIGNED SIGNAL HEADS SHALL BE CORRECTED TO THE SATISFACTION OF THE ENGINEER WITH THE SIGNAL BACK TO SERVICE WITHIN FOUR HOURS AFTER THE CONTRACTOR HAS BEEN NOTIFIED OF THE OUTAGE.

IN THE EVENT NEW SIGNALS ARE DAMAGED PRIOR TO ACCEPTANCE, ALL DAMAGED EQUIPMENT EXCEPT POLES AND CONTROL EQUIPMENT SHALL BE REPLACED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER WITH THE SIGNAL BACK IN SERVICE WITHIN 8 HOURS AFTER THE CONTRACTOR'S NOTIFICATION OF THE OUTAGE. THE CONTRACTOR SHALL ARRANGE FOR FULL TRAFFIC CONTROL UNTIL THE SIGNAL IS BACK IN OPERATION.

IF POLES AND/OR CONTROL EQUIPMENT ARE DAMAGED AND MUST BE REPLACED, THE CONTRACTOR SHALL MAKE TEMPORARY REPAIRS AS NECESSARY TO BRING THE SIGNAL BACK INTO FULL OPERATION WITHIN THE ALLOWED 8-HOUR PERIOD, AND SHALL MAKE PERMANENT REPAIRS OR REPLACEMENT AS SOON THEREAFTER AS POSSIBLE.

NONE OF THE ABOVE SHALL BE CONSTRUED AS COLLECTIVE OR CONSECUTIVE OUTAGE TIME PERIODS AT ANY ONE LOCATION. THAT IS, WHERE MORE THAN ONE OUTAGE OCCURS AT ANY ONE LOCATION THEN THE ALLOTTED TIME LIMIT SHALL BE FOR THE WORST SINGLE OUTAGE.

WHERE OUTAGES ARE THE DIRECT RESULT OF A VEHICLE ACCIDENT, THE RESPONSE OF THE CONTRACTOR SHALL BE AS OUTLINED ABOVE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COLLECTION OF ANY COMPENSATION FOR THIS WORK FROM THOSE PARTIES RESPONSIBLE FOR THE DAMAGE.

WHERE THE CONTRACTOR HAS FAILED TO, OR CANNOT RESPOND TO, AN OUTAGE OR SIGNAL EQUIPMENT MALFUNCTION, AT THESE LOCATIONS WITHIN HIS RESPONSIBILITY, WITHIN PERIODS AS SPECIFIED ABOVE, THE ENGINEER MAY INVOKE THE PROVISIONS OF SECTION 105.15 AND ANY SUBSEQUENT BILLINGS TO THE STATE FOR POLICE SERVICES DEDUCTED FROM MONIES DUE OR TO BECOME DUE THE CONTRACTOR IN ACCORDANCE WITH PROVISIONS OF SECTION 105.15.

THE CONTRACTOR SHALL PROVIDE THE MAINTENANCE SERVICE ENTIRELY WITH HIS FORCES OR HE MAY CHOOSE TO ENTER INTO A COOPERATIVE UNDERSTANDING WITH THE LOCAL MAINTAINING AGENCY TO PROVIDE THE MAINTENANCE. THE CONTRACTOR SHALL INFORM THE ENGINEER, IN WRITING, OF THE MAINTENANCE METHOD SELECTED.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO ANY TRAFFIC SIGNAL COMPONENTS REQUIRED TO BE HANDLED DURING THE RELOCATION OF POLES AND REVISIONS TO THE SIGNAL SYSTEM.

WHEN A TRAFFIC SIGNAL MUST BE TAKEN OUT OF SERVICE BY THE CONTRACTOR, DUE TO CONSTRUCTION PROCEDURES, THIS OUTAGE SHALL NOT EXCEED 2 HOURS AND SHALL NOT INCLUDE THE HOURS OF 6 AM TO 6 PM. ANY SIGNALIZED INTERSECTION, WHERE THE SIGNAL IS OUT OF SERVICE DUE TO CONSTRUCTION PROCEDURES, OR DUE TO AN OUTAGE OR MALFUNCTION OF EQUIPMENT AS DESCRIBED ABOVE, SHALL BE PROTECTED, BY THE CONTRACTOR, BY THE INSTALLATION OF TEMPORARY "STOP" SIGNS, EXCEPT FOR THE FOLLOWING INTERSECTIONS WHICH SHALL BE PROTECTED BY OFF-DUTY POLICE, HIRED BY THE CONTRACTOR.

ANY VEHICULAR TRAFFIC SIGNAL HEAD, EITHER NEW OR EXISTING WHICH WILL BE OUT OF OPERATION SHALL BE COVERED IN THE MANNER DESCRIBED IN 632.25.

THE CONTRACTOR SHALL MAINTAIN COMPLETE RECORDS OF MALFUNCTIONS INCLUDING:

- TIME OF NOTIFICATION OF MALFUNCTION;
- TIME OF WORK CREWS ARRIVAL TO CORRECT THE MALFUNCTION;
- ACTIONS TAKEN TO CORRECT THE MALFUNCTION, INCLUDING A LIST OF PARTS REPAIRED OR REPLACED;
- A DIAGNOSIS OF REASON FOR THE MALFUNCTION AND PROBABILITY OF REOCCURRENCE;
- TIME OF COMPLETION OF THE REPAIR AND SYSTEM RESTORED TO FULL SERVICE.

A COPY OF THESE RECORDS SHALL BE PROVIDED TO THE ENGINEER WITHIN THREE (3) WORKING DAYS FOLLOWING COMPLETION OF EACH REPAIR.

ALL COSTS RESULTING FROM THE ABOVE REQUIREMENTS SHALL BE CONSIDERED TO BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614, MAINTAINING TRAFFIC.

CALCULATED
CMY
CHECKED
HAG

MAINTENANCE OF TRAFFIC GENERAL NOTES

LIC-16-16.64

P:\LIC\80704\Design\Roadway\Plan_Sheets\MOT\SR16_MNS_004.dgn 26-MAR-2015 3:35PM c:\count

SEQUENCE OF OPERATIONS:

GENERAL:

IT IS THE INTENT OF THIS SEQUENCE OF OPERATIONS TO PROVIDE A WORK AREA FOR THE CONTRACTOR WHILE ALSO MAINTAINING TRAFFIC IN A MANNER WHICH IS SAFE FOR THE TRAVELING PUBLIC.

ALTERNATE METHODS:

IF THE CONTRACTOR SO ELECTS, HE MAY SUBMIT ALTERNATE METHODS FOR THE MAINTENANCE OF TRAFFIC, PROVIDED THE INTENT OF THE ABOVE PROVISIONS IS FOLLOWED AND NO ADDITIONAL INCONVENIENCE TO THE TRAVELING PUBLIC RESULTS THEREFROM. NO ALTERNATE PLAN SHALL BE PLACED INTO EFFECT UNTIL APPROVAL HAS BEEN GRANTED, IN WRITING, BY THE DIRECTOR.

**PRE-PHASE 1:
S.R. 16**

THE FOLLOWING ITEMS MUST BE INSTALLED PRIOR TO COMMENCING ANY OTHER WORK:

INSTALL PERMANENT FENCE ALONG NEW CHERRY VALLEY ROAD STA. 29+81.50 TO STA. 33+94.50 (SEE SHEET 317)
 INSTALL PERMANENT FENCE ALONG RAMP C STA. 236+89.50 TO STA. 244+00.00 (SEE SHEETS 292 & 293)
 INSTALL SNOW FENCE ALONG RAMP C STA. 244+00.00 TO STA. 250+00.00 (SEE SHEET 33)
 INSTALL SNOW FENCE ALONG NEW CHERRY VALLEY ROAD STA. 8+01.10 TO STA. 9+45.80 (SEE SHEET 33)
 INSTALL SNOW FENCE ALONG PROPOSED BIKE PATHWAY STA. 0+00.00 @ EXISTING PATH TIE-IN (SEE SHEET 33)

AFTER THE ABOVE WORK HAS BEEN INSTALLED, INSTALL ALL TRAFFIC CONTROL DEVICES AS PER SCD MT-95.30 AND MT-101.90 AND AS DIRECTED BY THE PROJECT ENGINEER TO CLOSE THE INSIDE (PASSING) LANE ON WESTBOUND S.R. 16. TRAFFIC CAN NOT BE TAKEN DOWN TO ONE LANE UNTIL 5:00PM ON A FRIDAY AND BOTH LANES MUST BE OPENED BACK UP 48 HOURS LATER BY 5:00PM ON SUNDAY. BOTH WESTBOUND LANES ON S.R. 16 MUST OPEN TO TRAFFIC PRIOR TO STA. 244+00. INSTALL THE PROPOSED MANHOLE AT STA. 247+00 AND ALL RELATED DRAINAGE WORK NECESSARY TO RECONNECT THE STORM SEWER, AS DETAILED IN THE PLANS.

TRAFFIC WILL BE MAINTAINED AT ALL TIMES TO THE BUSINESSES AND RESIDENCES ON CHERRY VALLEY ROAD AND GRANVILLE ROAD AS DETAILED IN THE PLANS AND AS DIRECTED BY THE PROJECT ENGINEER.

LANE VALUE - S.R. 16

LANE CLOSURES WILL ONLY BE IMPLEMENTED FROM 5:00PM ON FRIDAY TO 12:00AM ON MONDAY.

NO WORK WITHIN ACTIVE TRAVEL LANES OR WHICH WILL SLOW TRAFFIC IS PERMITTED AT ANY OTHER TIMES. WHEN NECESSARY, LANE CLOSURES WILL BE ACCOMPLISHED IN ACCORDANCE WITH THE STANDARD DRAWINGS.

THE CONTRACTOR MAY CLOSE THE INSIDE (PASSING) LANE IN THE WESTBOUND DIRECTION ONLY. SHOULD THE CONTRACTOR CLOSE THE LANES BEFORE THE ALLOWABLE TIME AND/OR FAIL TO RE-OPEN ALL LANES TO TRAFFIC BY THE ALLOWABLE TIME, A DISINCENTIVE AS DESIGNATED IN THE LANE VALUE CONTRACT TABLE AND PROPOSAL NOTE 127 WILL BE ASSESSED.

LANE VALUE CONTRACT TABLE - S.R. 16

DESCRIPTION OF CRITICAL LANE TO BE MAINTAINED	RESTRICTED TIME PERIOD	TIME UNIT	DISINCENTIVE \$ PER TIME UNIT
S.R. 16 WESTBOUND INSIDE (PASSING) LANE	FRIDAY @ 5:00PM TO MONDAY @ 12:00AM	EACH HOUR	\$10,000

ITEM 614, MAINTAINING TRAFFIC (LANES OPEN DURING HOLIDAYS OR SPECIAL EVENTS)

NO WORK SHALL BE PERFORMED AND ALL EXISTING LANES SHALL BE OPEN TO TRAFFIC DURING THE FOLLOWING DESIGNATED HOLIDAYS OR EVENTS:

CHRISTMAS	FOURTH OF JULY
NEW YEARS	LABOR DAY
MEMORIAL DAY	THANKSGIVING
(OTHER HOLIDAY OR EVENT)	

THE PERIOD OF TIME THAT THE LANES ARE TO BE OPEN DEPENDS ON THE DAY OF THE WEEK ON WHICH THE HOLIDAY OR EVENT FALLS. THE FOLLOWING SCHEDULE SHALL BE USED TO DETERMINE THIS PERIOD:

DAY OF HOLIDAY OR EVENT	TIME ALL LANES MUST BE OPEN TO TRAFFIC
SUNDAY	12:00N FRIDAY THROUGH 6:00 AM MONDAY
MONDAY	12:00N FRIDAY THROUGH 6:00 AM TUESDAY
TUESDAY	12:00N MONDAY THROUGH 6:00 AM WEDNESDAY
WEDNESDAY	12:00N TUESDAY THROUGH 6:00 AM THURSDAY
THURSDAY	12:00N WEDNESDAY THROUGH 6:00 AM FRIDAY
THURSDAY (THANKSGIVING ONLY)	6:00 AM WEDNESDAY THROUGH 6:00 AM MONDAY
FRIDAY	12:00N THURSDAY THROUGH 6:00 AM MONDAY
SATURDAY	12:00N FRIDAY THROUGH 6:00 AM MONDAY

**PHASE 1:
S.R. 16, PROPOSED NEW CHERRY VALLEY ROAD, EXISTING NORTH AND SOUTH CHERRY VALLEY ROAD, AND NEWARK-GRANVILLE ROAD**

INSTALL ALL TRAFFIC CONTROL DEVICES NEEDED TO MAINTAIN TRAFFIC ON S.R. 16, EXISTING SOUTH CHERRY VALLEY ROAD, AND NEWARK-GRANVILLE ROAD AS DETAILED IN THE PLANS AND AS DIRECTED BY THE PROJECT ENGINEER. TWO LANES OF TRAFFIC IN EACH DIRECTION ON S.R. 16 SHALL BE MAINTAINED AT ALL TIMES.

CONSTRUCT THE PROPOSED BRIDGE OVER S.R. 16, PROPOSED NEW CHERRY VALLEY ROAD, THE PROPOSED RAMPS, THE PROPOSED NEWARK-GRANVILLE ROAD/NEW CHERRY VALLEY ROAD INTERSECTION, AND THE PROPOSED CHERRY VALLEY ROAD/EXISTING SOUTH CHERRY VALLEY ROAD INTERSECTION AS DETAILED IN THE PLANS AND AS DIRECTED BY THE PROJECT ENGINEER.

TRAFFIC WILL BE MAINTAINED AT ALL TIMES TO THE BUSINESSES AND RESIDENCES ON EXISTING NORTH AND SOUTH CHERRY VALLEY ROAD AND NEWARK-GRANVILLE ROAD.

DURING THE CONSTRUCTION OF BRIDGE NUMBER LIC-16-1718 TRAFFIC ON S.R. 16 WILL BE MAINTAINED, DURING FALSE WORK CONSTRUCTION AND DECK POUR. S.R. 16 TRAFFIC WILL BE STOPPED FOR FIFTEEN (15) MINUTE PERIODS AS PER SHORT-DURATION CLOSURE OF MULTI-LANE DIVIDED HIGHWAY, AS SHOWN ON SHEET 50.

INTERIM COMPLETION REQUIREMENTS:

NOVEMBER 30, 2015 WILL CONSTITUTE AN INTERIM COMPLETION DATE. AT A MINIMUM THE CONTRACTOR WILL HAVE TO COMPLETE ALL EMBANKMENT CONSTRUCTION TO SUBGRADE ON NEW CHERRY VALLEY ROAD FROM STA. 0+00.00 TO STA. 17+34.19 AND FROM STA. 19+94.03 TO STA. 34+25.81. ANY OTHER WORK PERFORMED THAT MAY CAUSE TRAFFIC ON S.R. 16 TO BE RESTRICTED AND/OR SHIFTED WILL NEED TO BE COMPLETED BY NOVEMBER 30, 2015. S.R. 16 MUST BE OPEN TO UNRESTRICTED AND UNSHIFTED TRAFFIC IN BOTH DIRECTIONS IN BOTH TRAVELLING LANES FROM NOVEMBER 30, 2015 THROUGH MARCH 15, 2016.

IF THE CONTRACTOR FAILS TO HAVE THE EMBANKMENT CONSTRUCTED AND/OR S.R. 16 OPEN TO TRAFFIC AS DESCRIBED ABOVE, LIQUIDATED DAMAGES AS PER CMS 108.07 WILL BE ASSESSED TO THE CONTRACTOR.

**PHASE 2:
S.R. 16, EXISTING NORTH AND SOUTH CHERRY VALLEY ROAD, AND NEWARK-GRANVILLE ROAD**

INSTALL ALL TRAFFIC CONTROL DEVICES NEEDED TO MAINTAIN TRAFFIC ON S.R. 16, EXISTING NORTH AND SOUTH CHERRY VALLEY ROAD, AND NEWARK-GRANVILLE ROAD AS DETAILED IN THE PLANS AND AS DIRECTED BY THE PROJECT ENGINEER. TWO LANES OF TRAFFIC IN EACH DIRECTION ON S.R. 16 SHALL BE MAINTAINED AT ALL TIMES.

PRIOR TO ANY TRAFFIC BEING SHIFTED, THE EXISTING OUTSIDE RUMBLE STRIPS ON S.R. 16 SHALL BE MILLED AND FILLED. THE CONTRACTOR SHALL CONSTRUCT THE PROPOSED INSIDE SHOULDER AND THE TEMPORARY PAVEMENT ON S.R. 16 AS DETAILED IN THE PLANS AND AS DIRECTED BY THE PROJECT ENGINEER.

DRIVE ACCESS WILL BE MAINTAINED AT ALL TIME DURING CONSTRUCTION.

CALCULATED
CMY
CHECKED
HAG

SEQUENCE OF OPERATIONS

LIC-16-16.64

P:\LIC\80704\Design\Roadway\Plan_Sheets\MOT\SR16_MNS_005.dgn 08-JUN-2015 8:44AM c:\yount

SEQUENCE OF OPERATIONS CONTINUED:

**PHASE 3:
S.R. 16, EXISTING NORTH AND SOUTH CHERRY VALLEY ROAD, AND NEWARK-GRANVILLE ROAD**

INSTALL ALL TRAFFIC CONTROL DEVICES NEEDED TO MAINTAIN TRAFFIC ON S.R. 16, EXISTING NORTH AND SOUTH CHERRY VALLEY ROAD, AND NEWARK-GRANVILLE ROAD AS DETAILED IN THE PLANS AND AS DIRECTED BY THE PROJECT ENGINEER. TWO LANES OF TRAFFIC IN EACH DIRECTION ON S.R. 16 SHALL BE MAINTAINED AT ALL TIMES.

THE CONTRACTOR SHALL CONSTRUCT THE PROPOSED OUTSIDE SHOULDER AND THE TEMPORARY PAVEMENT ON S.R. 16 AS DETAILED IN THE PLANS AND AS DIRECTED BY THE PROJECT ENGINEER.

DRIVE ACCESS WILL BE MAINTAINED AT ALL TIME DURING CONSTRUCTION.

**PHASE 4A:
S.R. 16, PROPOSED NEW CHERRY VALLEY ROAD, EXISTING NORTH AND SOUTH CHERRY VALLEY ROAD, AND NEWARK-GRANVILLE ROAD**

INSTALL ALL TRAFFIC CONTROL DEVICES NEEDED TO MAINTAIN TRAFFIC ON S.R. 16, EXISTING NORTH AND SOUTH CHERRY VALLEY ROAD, PROPOSED NEW CHERRY VALLEY ROAD, AND NEWARK-GRANVILLE ROAD AS DETAILED IN THE PLANS AND AS DIRECTED BY THE PROJECT ENGINEER. TWO LANES OF TRAFFIC IN EACH DIRECTION ON S.R. 16 SHALL BE MAINTAINED AT ALL TIMES.

THE CONTRACTOR SHALL REMOVE THE EXISTING CONCRETE PAVEMENT ON THE OUTSIDE (DRIVING) LANES ON S.R. 16. IN THE WESTBOUND DIRECTION REMOVE FROM STA. 226+50 TO STA. 235+35 AND IN THE EASTBOUND DIRECTION REMOVE FROM STA. 230+00 TO 235+35. CONSTRUCT THE PROPOSED PAVEMENT AS DETAILED IN THE PLANS AND AS DIRECTED BY THE PROJECT ENGINEER. MAINTAIN THE RIGHT TURN FROM EXISTING NORTH CHERRY VALLEY ROAD TO WESTBOUND S.R. 16 AND THE RIGHT TURN FROM EASTBOUND S.R. 16 TO EXISTING SOUTH CHERRY VALLEY ROAD. RAMP'S B & D SHALL BE OPEN TO TRAFFIC AND PROPOSED NEW CHERRY VALLEY ROAD WILL BE OPEN TO TRAFFIC EXCEPT FOR RAMP'S A & C. ALL TRAFFIC CONTROL DEVICES SHALL BE INSTALLED PRIOR TO THIS PHASE AND BE OPERATIONAL. CLOSE THE EXISTING S.R. 16 ON-RAMP FROM NEWARK-GRANVILLE ROAD AS DETAILED IN THE PLANS AND BEGIN PHASE 1 OF THE BRIDGE REMOVAL. SEE SHEETS 689-697 FOR DETAILS ON REMOVAL. CONSTRUCT THE PROPOSED INSIDE SHOULDER AND THE TEMPORARY PAVEMENT ON S.R. 16 AS DETAILED IN THE PLANS AND AS DIRECTED BY THE PROJECT ENGINEER.

DRIVE ACCESS WILL BE MAINTAINED AT ALL TIME DURING CONSTRUCTION.

**PHASE 4B:
S.R. 16, PROPOSED NEW CHERRY VALLEY ROAD, EXISTING NORTH AND SOUTH CHERRY VALLEY ROAD, AND NEWARK-GRANVILLE ROAD**

INSTALL ALL TRAFFIC CONTROL DEVICES NEEDED TO MAINTAIN TRAFFIC ON S.R. 16, EXISTING NORTH AND SOUTH CHERRY VALLEY ROAD, PROPOSED NEW CHERRY VALLEY ROAD, AND NEWARK-GRANVILLE ROAD AS DETAILED IN THE PLANS AND AS DIRECTED BY THE PROJECT ENGINEER. TWO LANES OF TRAFFIC IN EACH DIRECTION ON S.R. 16 SHALL BE MAINTAINED AT ALL TIMES.

THE CONTRACTOR SHALL REMOVE THE EXISTING CONCRETE PAVEMENT ON THE OUTSIDE (DRIVING) LANES ON S.R. 16. IN THE WESTBOUND DIRECTION REMOVE FROM STA. 219+00 TO STA. 226+50 AND IN THE EASTBOUND DIRECTION REMOVE FROM STA. 219+00 TO 230+00. CONSTRUCT THE PROPOSED PAVEMENT AS DETAILED IN THE PLANS AND AS DIRECTED BY THE PROJECT ENGINEER. CLOSE THE EXISTING INTERSECTION AT S.R. 16 AND EXISTING NORTH AND SOUTH CHERRY VALLEY ROAD AS DETAILED IN THE PLANS. THE PROPOSED INTERCHANGE AND NEW CHERRY VALLEY ROAD SHALL BE FULLY OPERATIONAL AND OPEN TO TRAFFIC AT THIS PHASE. ALL TRAFFIC CONTROL DEVICES SHALL BE INSTALLED PRIOR TO THIS PHASE AND BE OPERATIONAL. CLOSE THE EXISTING S.R. 16 ON-RAMP FROM NEWARK-GRANVILLE ROAD AS DETAILED IN THE PLANS AND BEGIN PHASE 1 OF THE BRIDGE REMOVAL. SEE SHEETS 689-697 FOR DETAILS ON REMOVAL. CONSTRUCT THE PROPOSED INSIDE SHOULDER AND THE TEMPORARY PAVEMENT ON S.R. 16 AS DETAILED IN THE PLANS AND AS DIRECTED BY THE PROJECT ENGINEER.

DRIVE ACCESS WILL BE MAINTAINED AT ALL TIME DURING CONSTRUCTION.

**PHASE 5:
S.R. 16, PROPOSED NEW CHERRY VALLEY ROAD, EXISTING NORTH AND SOUTH CHERRY VALLEY ROAD, AND NEWARK-GRANVILLE ROAD**

INSTALL ALL TRAFFIC CONTROL DEVICES NEEDED TO MAINTAIN TRAFFIC ON S.R. 16, EXISTING NORTH AND SOUTH CHERRY VALLEY ROAD, PROPOSED NEW CHERRY VALLEY ROAD, AND NEWARK-GRANVILLE ROAD AS DETAILED IN THE PLANS AND AS DIRECTED BY THE PROJECT ENGINEER. TWO LANES OF TRAFFIC IN EACH DIRECTION ON S.R. 16 SHALL BE MAINTAINED AT ALL TIMES.

THE CONTRACTOR SHALL REMOVE THE EXISTING CONCRETE PAVEMENT ON THE INSIDE (PASSING) LANES ON S.R. 16. FROM STA. 219+00 TO STA. 235+35. CONSTRUCT THE PROPOSED PAVEMENT AS DETAILED IN THE PLANS AND AS DIRECTED BY THE PROJECT ENGINEER. THE PROPOSED INTERCHANGE AND NEW CHERRY VALLEY ROAD SHALL BE FULLY OPERATIONAL AND OPEN TO TRAFFIC AT THIS PHASE. ALL TRAFFIC CONTROL DEVICES SHALL BE INSTALLED PRIOR TO THIS PHASE AND BE OPERATIONAL. BEGIN PHASE 2 OF THE BRIDGE REMOVAL. SEE SHEETS 689-697 FOR DETAILS ON REMOVAL. CONSTRUCT THE PROPOSED OUTSIDE SHOULDER FROM STA. 268+70 TO STA. 283+00 ON LINE "W" AS DETAILED IN THE PLANS AND AS DIRECTED BY THE PROJECT ENGINEER.

DRIVE ACCESS WILL BE MAINTAINED AT ALL TIME DURING CONSTRUCTION.

**PHASE 6:
S.R. 16**

INSTALL ALL TRAFFIC CONTROL DEVICES NEEDED TO MAINTAIN TRAFFIC ON S.R. 16 EASTBOUND AND WESTBOUND TO PERFORM THE REMOVAL OF THE TEMPORARY PAVEMENT AND THE FINAL PAVEMENT PLANING AND RESURFACING OPERATIONS. THE TEMPORARY PAVEMENT MUST BE REMOVED PRIOR TO THE COMMENCEMENT OF THE S.R. 16 RESURFACING. DURING THE REMOVAL OF THE TEMPORARY PAVEMENT 2 LANES OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED ON S.R. 16. THE S.R. 16 RESURFACING OPERATIONS WILL BE PERFORMED AS PER THE LANE VALUE CONTRACT TABLE AND AS DIRECTED BY THE PROJECT ENGINEER.

FINAL PAVING WILL BE PERFORMED UNDER TRAFFIC AS PER MT-95.30

LANE VALUE - S.R. 16

LANE CLOSURES WILL ONLY BE IMPLEMENTED AT THE TIMES LISTED ON THE OHIO DEPARTMENT OF TRANSPORTATION'S WEB SITE, "PERMITTED LANE CLOSURE TIMES" SECTION, LOCATED AT THE ADDRESS SHOWN BELOW:

<http://plcm.dot.state.oh.us/>

THE PERMITTED CLOSURE TIMES LISTED ON THE WEBSITE, 14 CALENDAR DAYS PRIOR TO THE BID LETTING DATE, WILL BE IN EFFECT FOR THIS PROJECT. NO WORK WITHIN ACTIVE TRAVEL LANES OR WHICH WILL SLOW TRAFFIC IS PERMITTED AT ANY OTHER TIMES. WHEN NECESSARY, LANE CLOSURES WILL BE ACCOMPLISHED IN ACCORDANCE WITH THE STANDARD DRAWINGS.

THE CONTRACTOR MAY CLOSE ONE LANE IN BOTH NORTHBOUND AND SOUTHBOUND DIRECTIONS. THE TRAFFIC CLOSURES WILL BE BETWEEN THE HOURS INDICATED ON THE O.D.O.T. WEB SITE, SHOULD THE CONTRACTOR CLOSE THE LANES BEFORE THE ALLOWABLE TIME AND/OR FAIL TO RE-OPEN ALL LANES TO TRAFFIC, BY THE ALLOWABLE TIME A DISINCENTIVE AS DESIGNATED IN THE LANE VALUE CONTRACT TABLE AND PROPOSAL NOTE 127 WILL BE ASSESSED.

LANE VALUE CONTRACT TABLE - S.R. 16

DESCRIPTION OF CRITICAL LANE TO BE MAINTAINED	RESTRICTED TIME PERIOD	TIME UNIT	DISINCENTIVE \$ PER TIME UNIT
S.R. 16	O.D.O.T. WEB SITE: PERMITTED LANE CLOSURE TIMES	EACH HOUR	\$10,000

SURFACE SMOOTHNESS FOR BRIDGES AND APPROACHES

AFTER THE COMPLETION OF WORK FOR ALL PHASES AND AFTER OPENING ALL LANES TO TRAFFIC, THE CONTRACTOR SHALL PERFORM THE FOLLOWING AS PER PROPOSAL NOTE 555:

1. CLEAN, SWEEP, AND PREPARE THE FINAL DECK AND FINAL ROADWAY SURFACE.
2. MEASURE, GRIND, AND RE-MEASURE THE BRIDGE AND/OR ROADWAY AS NECESSARY.
3. PERFORM RE-GROOVING OF THE BRIDGE DECK AS NECESSARY.

CALCULATED
CMY
CHECKED
HAG

SEQUENCE OF OPERATIONS

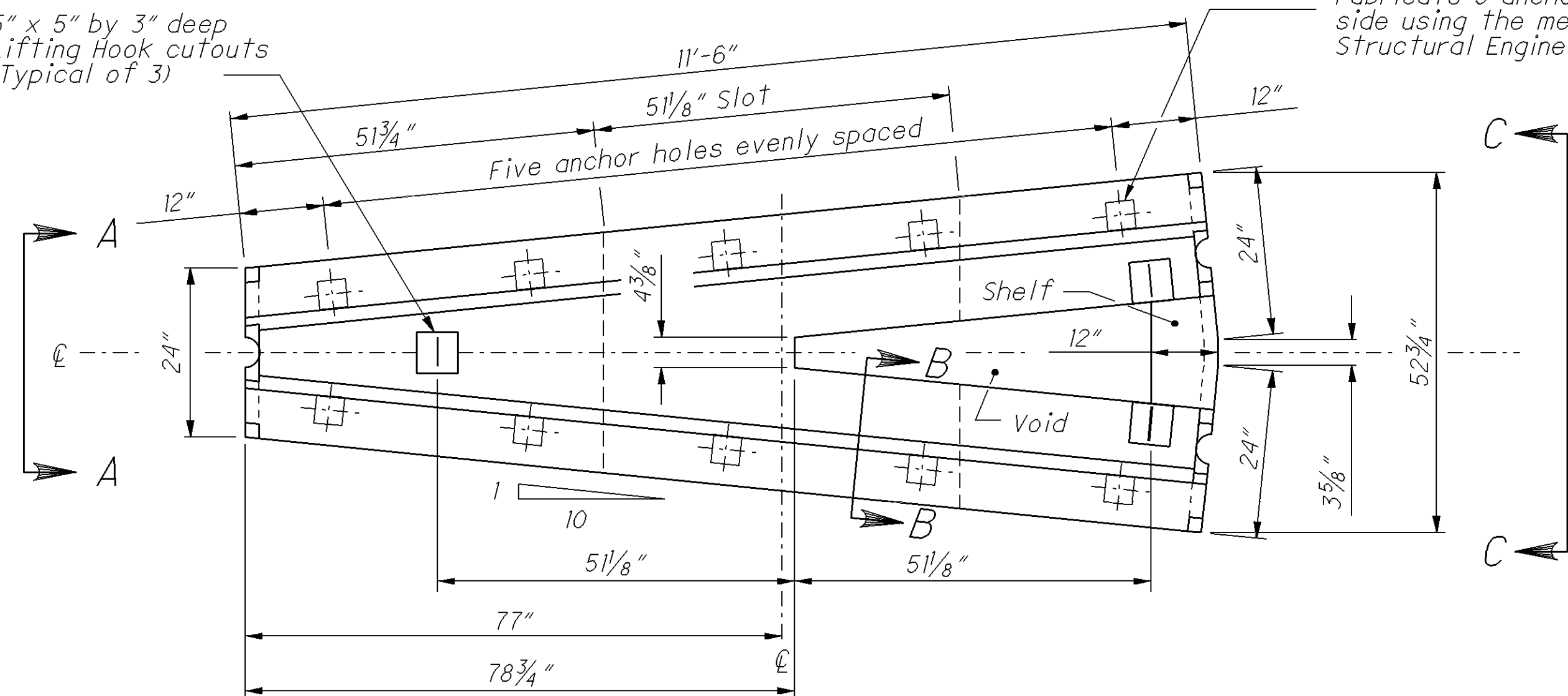
LIC-16-16.64

47
729

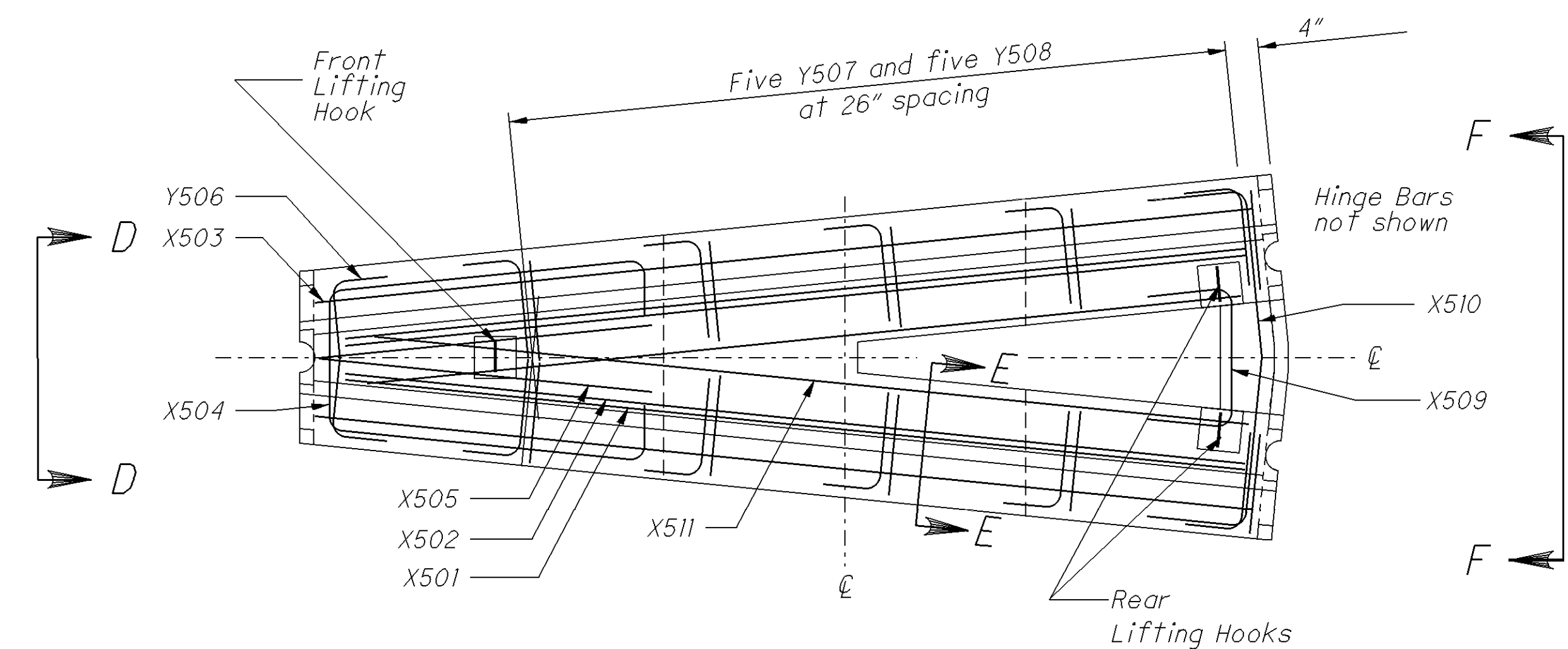
P:\LIC\80704\Design\Roadway\Plan_Sheets\MOT\SR16_MNS_006.dgn 10-JUN-2015 8:44 AM cyount

5" x 5" by 3" deep
Lifting Hook cutouts
(Typical of 3)

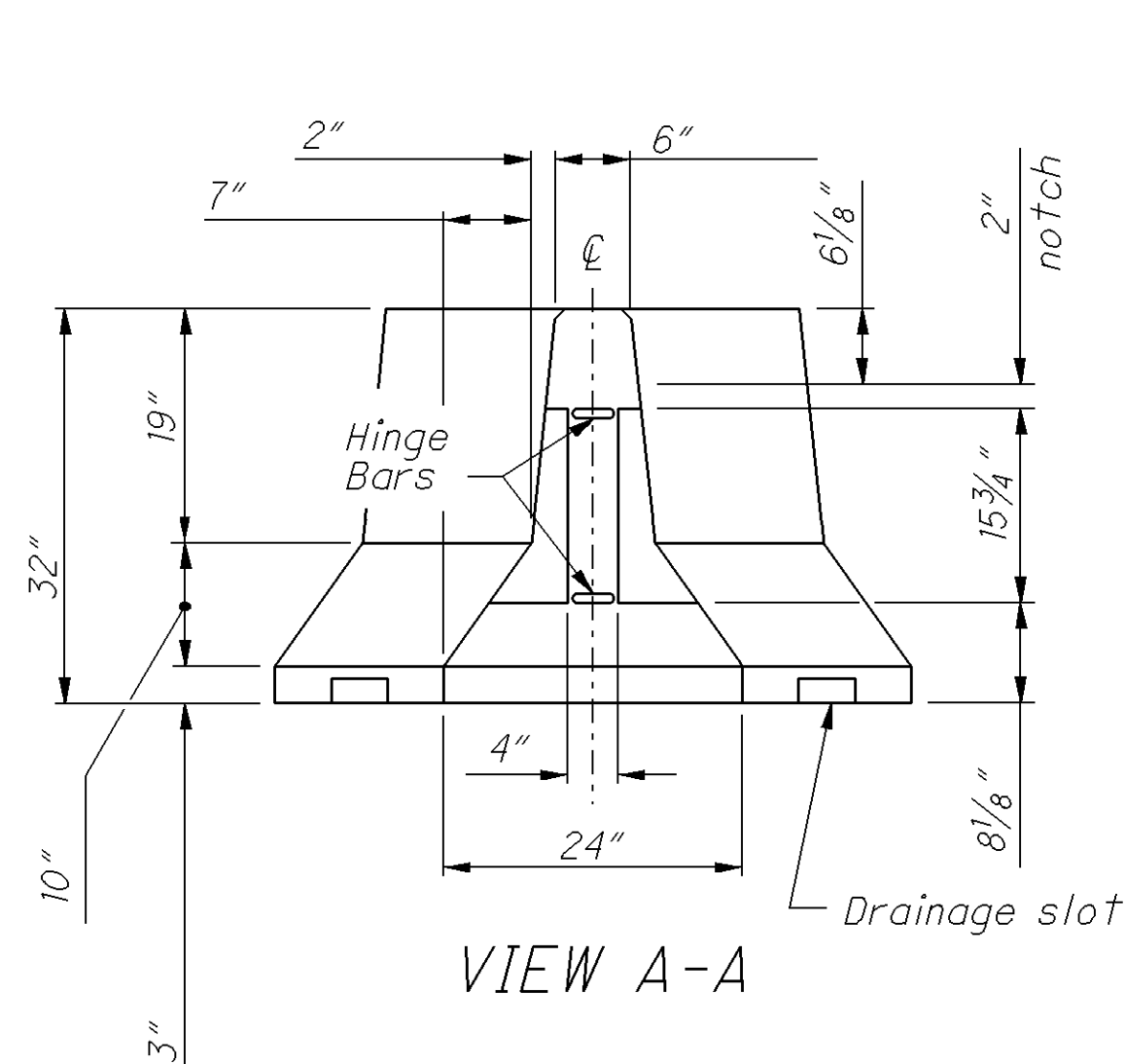
Fabricate 5 anchor holes on each
side using the method shown on
Structural Engineering's SCD PCB-91



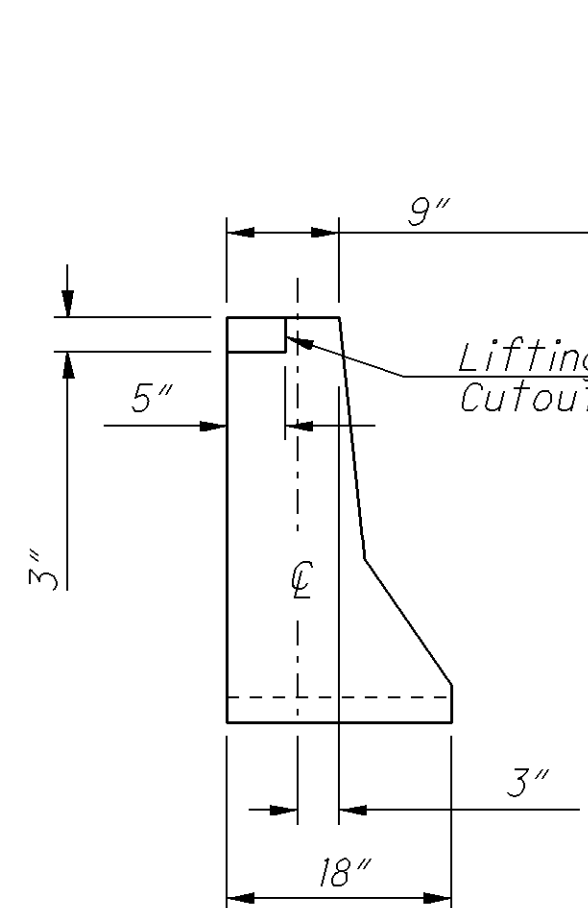
PLAN



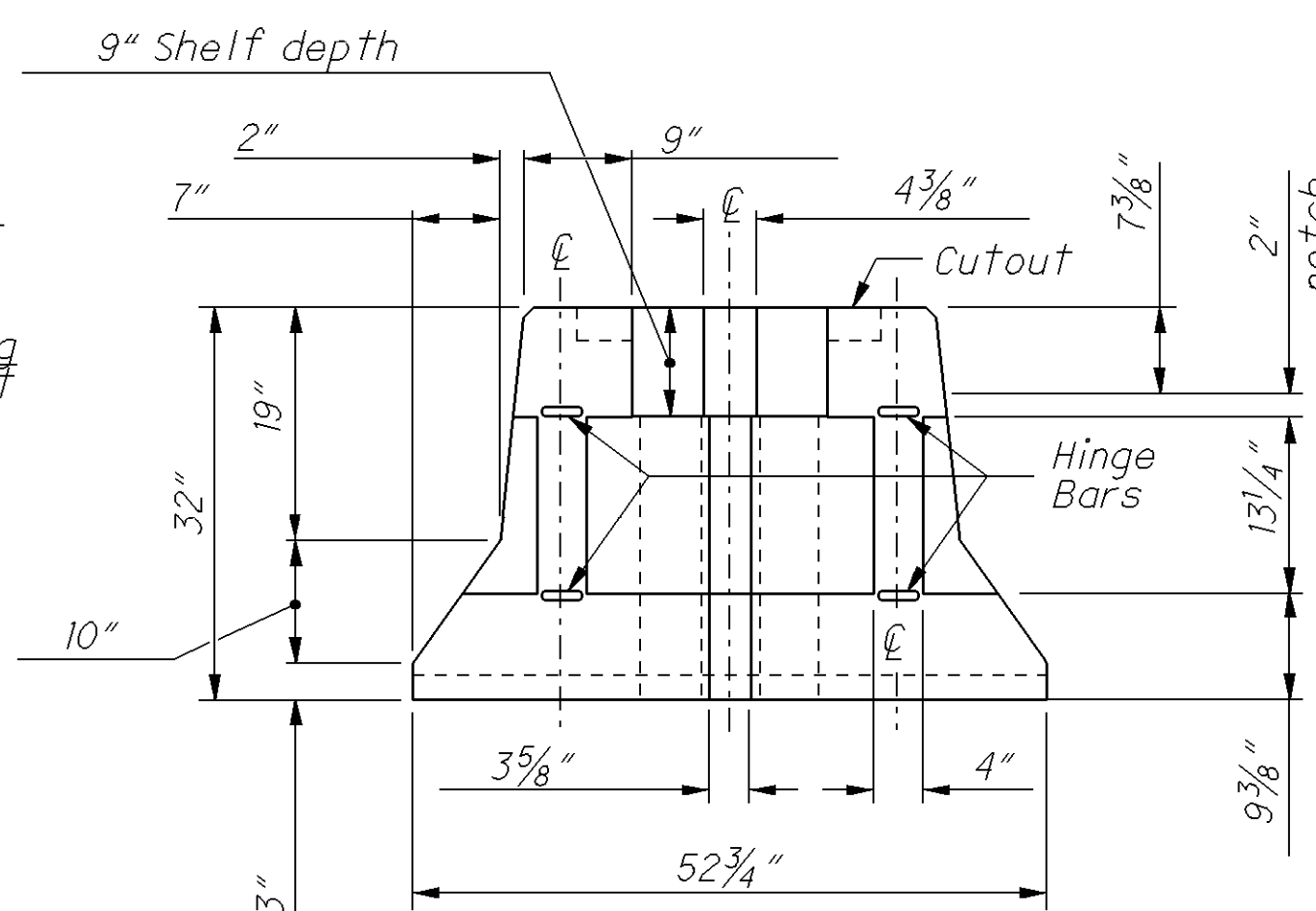
REINFORCING PLAN VIEW



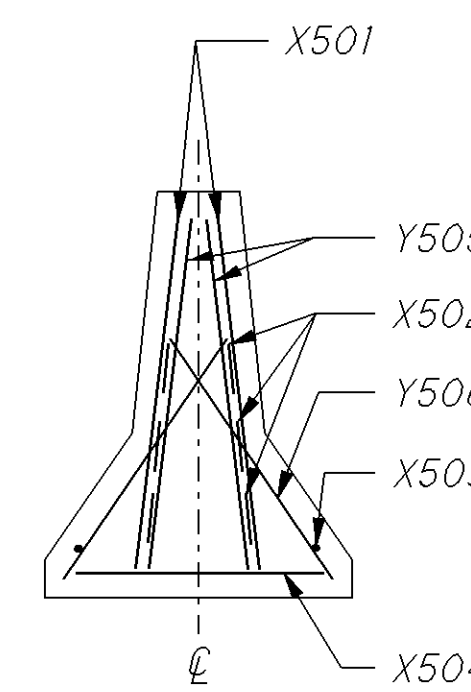
VIEW A-A



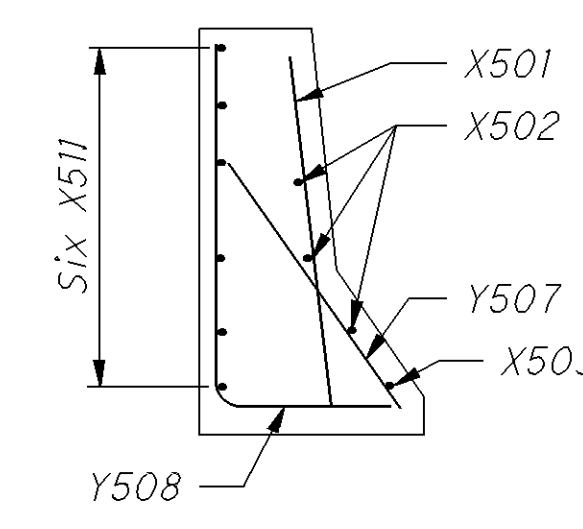
SECTION B-B



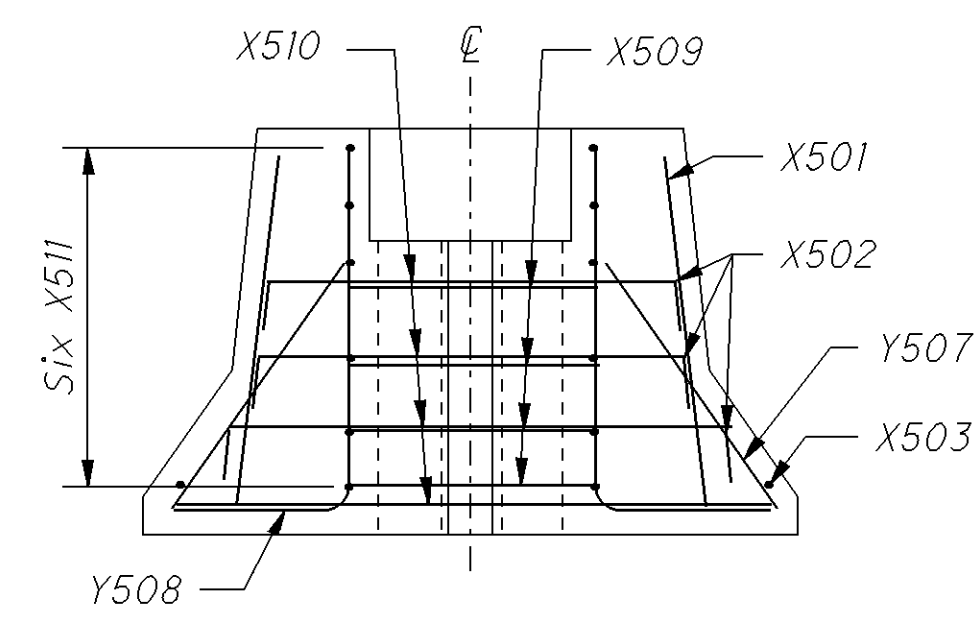
VIEW C-C



VIEW D-D



SECTION E-E



VIEW F-F

REINFORCING DETAILS

NOTES

GENERAL: This barrier segment is used to split one run of portable concrete barrier into dual runs. Attach directly to ODOT's 32" PCB; however, other approved barrier shapes may be connected to this segment by the use of an appropriate transition unit. Attach at least one standard PCB segment in between this "Y" and an Impact Attenuator. Its field application is shown in MOT plans and on MT standard drawings. Do not use this barrier in an unanchored configuration next to bridge deck edges or similar dropoffs, anchor according to method shown on PCBDD or other approved method.

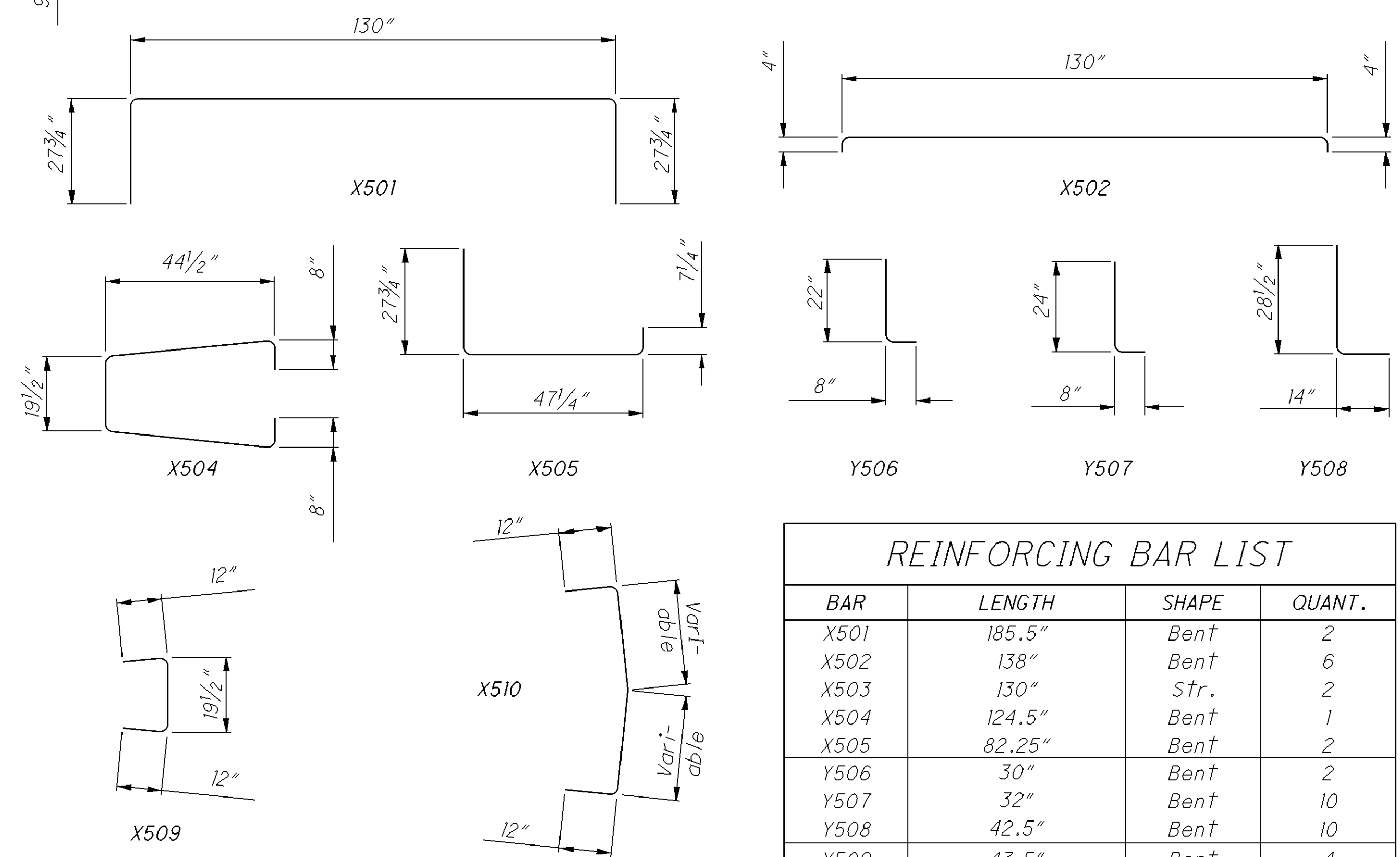
BARRIER DETAILS: Use SCD RM-4.2 for details not shown here, including the geometry of this pin and loop segment matches in every way the design of the end connections shown on the HINGED CONNECTION and JOINT CONNECTION Details (the alternate J-J Hooks connection design is permitted). Additionally, barrier edges may be radiused or chamfered as per the LEGEND Note, barrier is to be permanently marked as mentioned in the MARKINGS Note, and delineate as per the REFLECTORIZATON Note.

MATERIAL SPECIFICATIONS: The minimum design strength of the concrete is 4,000 psi and meets the requirements of CMS 499. For reinforcing steel, use ASTM A615 Grade 60 black steel and provide 2" min. rebar cover. Material specifications for the Hinge and Reinforcing Bars, as well as the Connecting Hardware may be found on SCD RM-4.2. For additional material specifications not shown here, see SCD RM-4.2 and CMS 622.

HANDLING: The fabricator is responsible for the design of a lifting system for handling segments. As a minimum, use three lifting points at the locations suggested in the Plan views, and design with a lifting factor of safety of 4. Any protrusions from the lifting hook design is not to affect the crash worthiness of the barrier. The calculations shall be signed, sealed and dated by a Registered Engineer and include these calculations with the Manufacturing Drawings required by Supplement 1073.12. Refer to Part 5 of the PCI Handbook. Approximate segment weight is 8,500 lbs [3850 kg].

PAYMENT: Payment will be made under Item 622 - Portable Barrier, "Y" Connector, Each, and will include all forms, materials and labor to cast this segment.

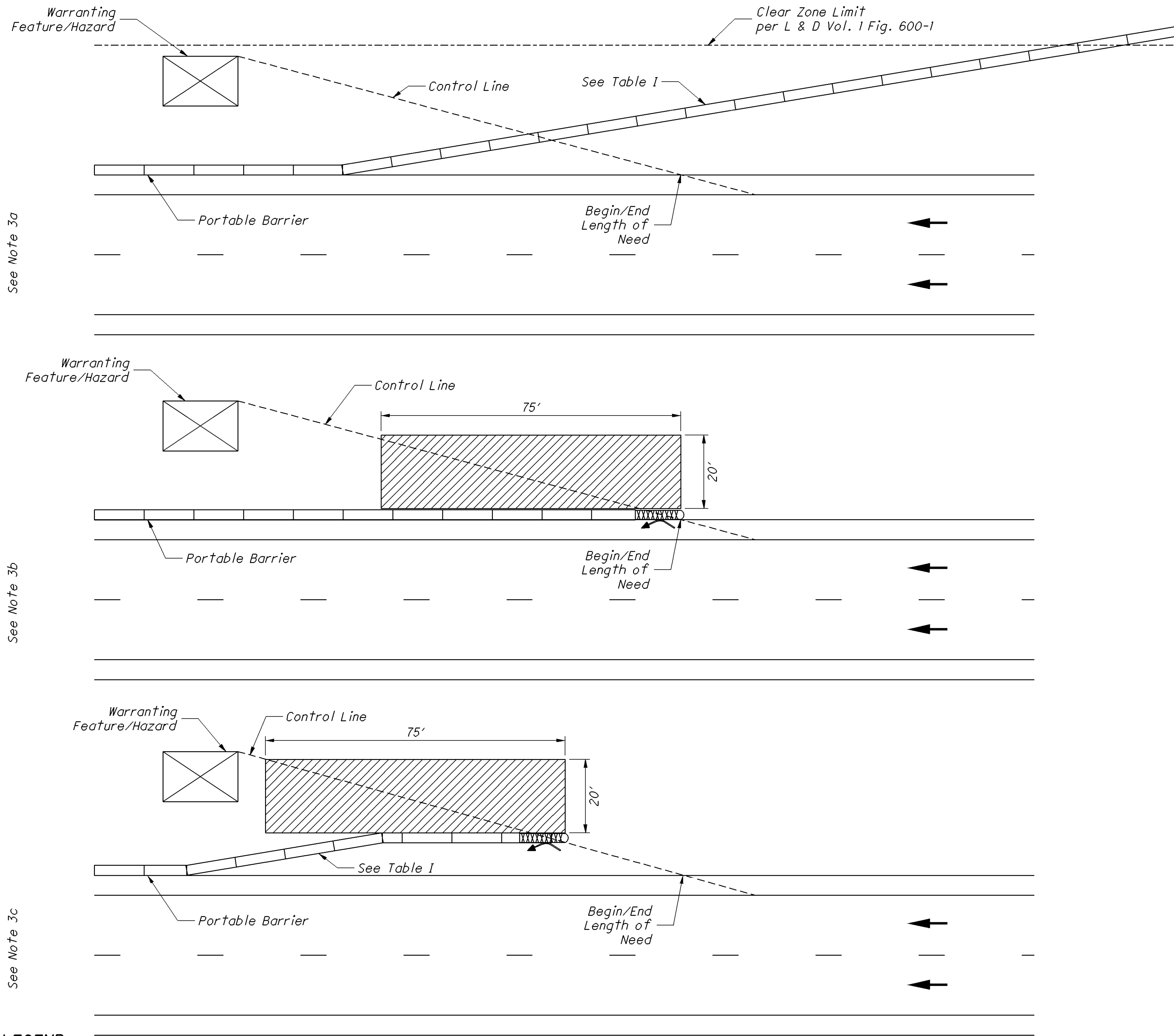
ALTERNATE METHOD: Contractors may choose to use a wide Impact Attenuator in lieu of the concrete "Y" alternate. The chosen unit will be a Type 2 or 3 Impact Attenuator matching the product previously called for on the project plans at the expected installation location.



BENDING DIAGRAMS

REINFORCING BAR LIST			
BAR	LENGTH	SHAPE	QUANT.
X501	185.5"	Bent	2
X502	138"	Bent	6
X503	130"	Str.	2
X504	124.5"	Bent	1
X505	82.25"	Bent	2
Y506	30"	Bent	2
Y507	32"	Bent	10
Y508	42.5"	Bent	10
X509	43.5"	Bent	4
X510	Varies	Bent	4
X511	124"	Str.	12

P:\LIC\80704\Design\Roadway\Plan_Sheets\MOT\SR16_MNS_008.dgn 27-FEB-2015 7:11AM c:\count



See Note 3a

See Note 3b

See Note 3c

LEGEND

RECOVERY AREA	
PORTABLE BARRIER	
NON-GATING IMPACT ATTENUATOR	
DIRECTION OF TRAVEL	

NOTES:

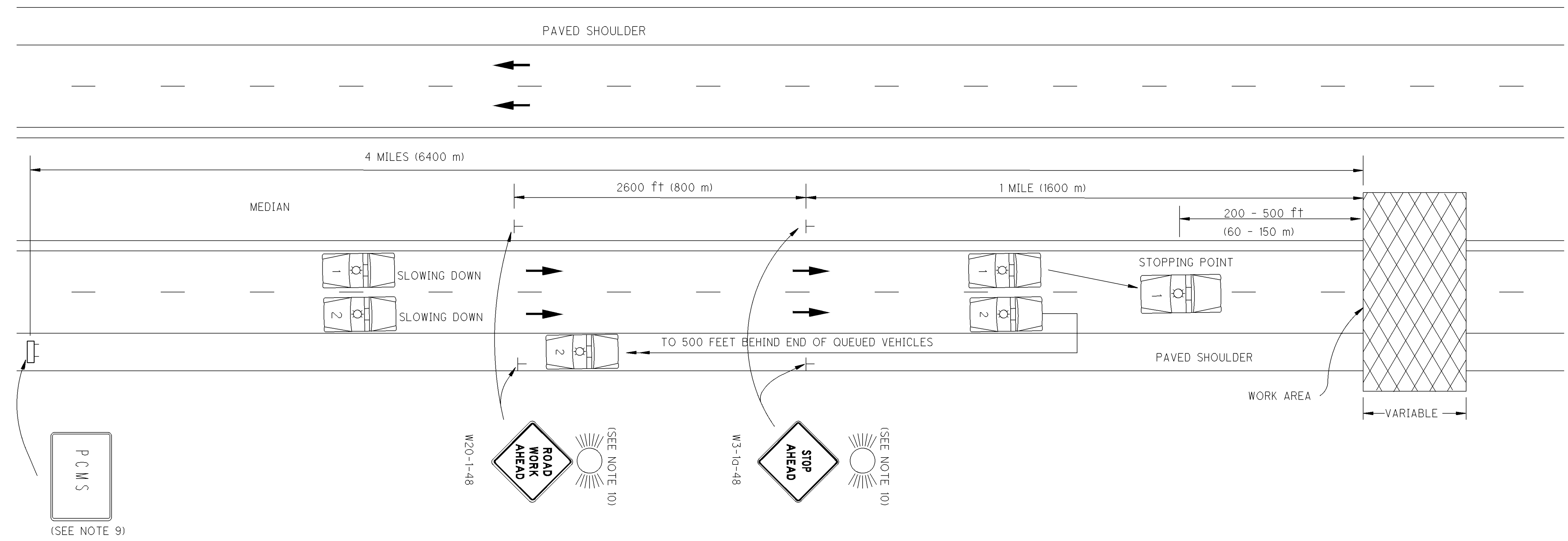
- Attenuators shall be installed per the manufacturer's specifications.
- Recovery area shall have slopes 3:1 or flatter and be free of workers, hazards, equipment, drop-offs, and material storage.
- The Contractor shall select one of the three acceptable options for terminating portable barrier:
 - Terminate flared section of portable barrier outside clear zone with tapered end only where cross slopes are 10:1 or flatter.
 - Terminate portable barrier with an impact attenuator. A non-gating attenuator may be included in the length of need measurement.
 - Flare a section of portable barrier to the length of need control line and terminate with an impact attenuator. A non-gating impact attenuator may be included in the flared section of portable barrier.
- The Contractor shall submit documentation to the Engineer, 2 weeks prior to implementation, for acceptance when:
 - Deviating from the three acceptable options for terminating portable barrier.
Documentation shall explain any deviations and verify that the recovery area fulfills the manufacturer's specifications and Note 2.
 - Using a gating impact attenuator in lieu of a non-gating impact attenuator.
The gating impact attenuator length shall not be included as part of the length of need or recovery area requirements. Additional portable barrier will need to be added. The additional cost for the additional barrier required for a gating impact attenuator shall be included in the cost of the gating impact attenuator.
Documentation shall verify that the extended recovery area fulfills the manufacturer's specifications and Note 2.
- Gating impact attenuators shall not be used in gore locations or within the clear zone between bi-directional traffic.

TABLE 1

SPEED LIMIT (MPH)	PB FLARE RATE MINIMUM
25	8:1
30	8:1
35	9:1
40	10:1
45	12:1
50	14:1
55	16:1
60	18:1
65	19:1
70	20:1

THIS DRAWING REPLACES PIS 2010175 DATED 7-20-2012.

OFFICE OF ROADWAY ENGINEERING
DESIGNED REVIEWED
REVISION DATE 7-19-2013
CHECKED
PIS NUMBER 2010175
PLAN INSERT SHEET IMPACT ATTENUATOR PLACEMENT
LIC-16-16.64
1 / 1
49 729



1. This type of highway closure shall be used for all construction, maintenance and utility operations when the duration of closure will not exceed 15 minutes.
2. A minimum of two Law Enforcement Officers (LEO) with patrol cars per direction shall be provided to block traffic and pace motorists to a stop. The number of patrol cars shall equal the number of lanes closed on the highway.
3. Patrol cars, with lights flashing, should enter the stream of traffic at approximately 3 miles before the point of closure. At approximately 2 miles before the point of closure, they should begin the gradual slow down. Traffic shall be brought to a complete stop a safe distance, between 200 and 500 feet (60 and 150 m), from the work area. This slowing operation shall take no more than 10 minutes. After traffic has been stopped, one patrol car shall travel along the roadway shoulder 500 feet (150 m) behind the end of the queued vehicles.
4. The Contractor shall not begin work until traffic has been brought to a complete stop.
5. All entrance ramps located between the stopped traffic and the work area shall be closed.
6. After the highway has been closed and reopened via this procedure, both of the following requirements shall have been met before implementation of another short duration closure, except with the approval of the Engineer:
 - A. A minimum period of 15 minutes shall have elapsed
 - B. The queued traffic shall have dissipated
7. The time frame for stopping traffic shall be specified.
8. The public shall be given advance notice of the upcoming closure by providing Portable Changeable Message signs at the site in advance of the scheduled closing. Closure information should also be provided to the Engineer.
9. An ODOT approved Portable Changeable Message Sign, Class 1, shall be provided during operation. The message sign shall be placed at approximately 4 miles (6400 meters) in advance of the closure or as directed by the Engineer. The message sign shall read "ROAD CLOSED AHEAD" (2 sec.), "PREPARE TO STOP" (2 sec.)
10. The Contractor shall erect and maintain 48 inch "ROAD WORK AHEAD" and "STOP AHEAD" signs on each side of the highway. Each sign shall be equipped with one Type A flashing warning light and one flare. There shall be one flare at each sign on both sides of the roadway. The flare shall be replaced if it burns out.

P:\LIC\80704\Design\Roadway\Plan_Sheets\MOT\SR16\MSS_001.dgn 04-JUN-2015 7:32AM c:\pant

REF NO.	SHEET NO.	STATION TO STATION	614											621	622				
			WORK ZONE IMPACT ATTENUATOR, 24" (UNIDIRECTIONAL)	WORK ZONE RAISED PAVEMENT MARKER (1-WAY WHITE)	WORK ZONE RAISED PAVEMENT MARKER (1-WAY YELLOW)	BARRIER REFLECTOR, TYPE B (1-WAY WHITE)	BARRIER REFLECTOR, TYPE B (1-WAY YELLOW)	OBJECT MARKER, ONE WAY	WORK ZONE LANE LINE, CLASS I, 642 PAINT	WORK ZONE EDGE LINE, CLASS I, 642 PAINT (WHITE)	WORK ZONE EDGE LINE, CLASS I, 642 PAINT (YELLOW)	WORK ZONE CHANNELIZING LINE, CLASS I, 642 PAINT	WORK ZONE DOTTED LINE, CLASS I, 642 PAINT	WORK ZONE STOP LINE, CLASS I, 642 PAINT	WORK ZONE ARROW, CLASS I, 642 PAINT	WORK ZONE WORD ON PAVEMENT, 72", CLASS I, 642 PAINT	RAISED PAVEMENT MARKER REMOVED	PORTABLE BARRIER, 32"	PORTABLE BARRIER, "Y" CONNECTOR
			EACH	EACH	EACH	EACH	EACH	EACH	MILE	MILE	MILE	FT	FT	FT	EACH	EACH	EACH	FT	EACH
PHASE 1																			
S.R. 16																			
PB-1		STA. 236+40.00 TO STA. 247+50.00	1			24													1110
PB-2		STA. 237+00.00 TO STA. 240+10.00	1			8													310
PB-3		STA. 246+00.00 TO STA. 250+50.00	1				10												450
PB-4		STA. 246+50.00 TO STA. 251+00.00	1				10												450
PB-5		STA. 247+00.00 TO STA. 249+50.00	1			6													250
*PB-1		STA. 236+40.00 TO STA. 247+50.00	1			24													1110
*PB-2		STA. 237+00.00 TO STA. 240+10.00	1			8													310
* QUANTITIES PROVIDED TWICE TO REINSTALL PORTABLE BARRIER AFTER WINTER																			
PHASE 2																			
S.R. 16																			
CHL-1		STA. 189+37.50 TO STA. 198+40.00		45								902.5							45
YEL-1		STA. 192+37.50 TO STA. 226+42.00			45					0.64									45
WEL-1		STA. 192+37.50 TO STA. 226+42.00		45					0.64										45
PB-6		STA. 197+65.00 TO STA. 226+40.00	1				59	59											2870
WLL-1		STA. 198+40.00 TO STA. 226+42.00		24					0.53										24
CHL-2		STA. 203+57.50 TO STA. 211+50.00		40								792.5							40
WEL-2		STA. 206+57.50 TO STA. 225+90.00		40						0.37									40
YEL-2		STA. 206+57.50 TO STA. 225+90.00			40					0.37									40
PB-7		STA. 209+65.00 TO STA. 226+25.00	1				35	35											1660
WLL-2		STA. 211+50.00 TO STA. 225+90.00		12					0.27										12
CHL-3		STA. 221+00.00 TO STA. 226+42.00		27								542							27
CHL-4		STA. 221+50.00 TO STA. 226+42.00		25								492							25
WZA-1		STA. 223+68.00													1				
WZA-2		STA. 223+68.00													1				
WZA-3		STA. 225+00.00													1				
WZA-4		STA. 225+00.00													1				
WZW-1		STA. 225+66.00															1		
WZW-2		STA. 225+66.00															1		
WZA-5		STA. 226+32.00													1				
WZA-6		STA. 226+32.00													1				
WSL-1		STA. 226+42.00															44		
WSL-2		STA. 227+40.00															44		
WEL-3		STA. 227+40.00 TO STA. 284+36.00 (LINE "W")		12						1.07									12
CHL-5		STA. 227+40.00 TO STA. 228+25.00		5								85							5
WLL-3		STA. 227+40.00 TO STA. 282+00.00 (LINE "W")		46					1.03										46
CHL-6		STA. 227+40.00 TO STA. 232+15.00		24								475							24
YEL-3		STA. 227+40.00 TO STA. 288+02.50 (LINE "W")			46						1.14								46
PB-8		STA. 227+40.00 TO STA. 279+70.00 (LINE "W")	1				106	106											5220
PB-9		STA. 227+47.00 TO STA. 281+00.00 (LINE "E")	1				109	109											5370
WZA-7		STA. 227+50.00													1				
WZA-8		STA. 227+50.00													1				
WZW-3		STA. 227+83.50																1	
WZW-4		STA. 228+16.00																1	
WZA-9		STA. 228+17.00													1				
WDL-1		STA. 0+80.00 (EX. CHERRY VALLEY RD) TO STA. 228+00.00											205						
WZA-10		STA. 228+82.00													1				
WZA-11		STA. 230+14.00													1				
YEL-4		STA. 228+00.00 TO STA. 282+07.00 (LINE "E")									1.03								
WLL-4		STA. 228+00.00 TO STA. 285+00.00		48					1.08										48
WEL-4		STA. 1+57.00 (EX. CHERRY VALLEY RD) TO STA. 17+15.00		46						1.22									46
YEL-5		STA. 282+00.00 (LINE "E") TO STA. 17+15.00			45						0.17								45
WDL-2		STA. 282+07.00 (LINE "E") TO STA. 285+00.00											293						
CHL-7		STA. 285+00.00 TO STA. 20+15.00		46								902							46
WLL-5		STA. 284+36.00 (LINE "W") TO STA. 288+02.50 (LINE "W")		19					0.07										19
WEL-5		NOT USED																	
CHL-8		STA. 282+00.00 (LINE "W") TO STA. 17+05.00		46								902							46
WEL-6		NOT USED																	
SUB-TOTALS CARRIED TO SHEET 55			11	550	176	70	329	399	2.98	3.30	3.35	5,093	498	88	11	4	726	19,110	

MAINTENANCE OF TRAFFIC SUBSUMMARY

LIC-16-16.64

CALCULATED
CMY
CHECKED
HAG

P:\LIC\80704\Design\Roadway\Plan_Sheets\MOT\SR16_MSS_002.dgn 27-FEB-2015 7:11AM cyount

REF SHEET NO.	STATION TO STATION	614													621	622		
		WORK ZONE IMPACT ATTENUATOR, 24" (UNIDIRECTIONAL)	WORK ZONE RAISED PAVEMENT MARKER (1-WAY WHITE)	WORK ZONE RAISED PAVEMENT MARKER (1-WAY YELLOW)	BARRIER REFLECTOR, TYPE B (1-WAY WHITE)	BARRIER REFLECTOR, TYPE B (1-WAY YELLOW)	OBJECT MARKER, ONE WAY	WORK ZONE LANE LINE, CLASS I, 642 PAINT	WORK ZONE EDGE LINE, CLASS I, 642 PAINT (WHITE)	WORK ZONE EDGE LINE, CLASS I, 642 PAINT (YELLOW)	WORK ZONE CHANNELIZING LINE, CLASS I, 642 PAINT	WORK ZONE DOTTED LINE, CLASS I, 642 PAINT	WORK ZONE STOP LINE, CLASS I, 642 PAINT	WORK ZONE ARROW, CLASS I, 642 PAINT	WORK ZONE WORD ON PAVEMENT, 72", CLASS I, 642 PAINT	RAISED PAVEMENT MARKER REMOVED	PORTABLE BARRIER, 32"	PORTABLE BARRIER, "Y" CONNECTOR
		EACH	EACH	EACH	EACH	EACH	MILE	MILE	MILE	FT	FT	FT	EACH	EACH	EACH	FT	EACH	
PHASE 3																		
<i>S.R. 16</i>																		
WLL-6	STA. 189+37.50 TO STA. 194+12.50		4				0.09											4
YEL-6	STA. 192+37.50 TO STA. 226+42.00			51					0.64									51
WEL-7	STA. 192+37.50 TO STA. 226+42.00		51					0.64										51
CHL-9	STA. 194+12.50 TO STA. 204+25.00		51							1012.5								51
WLL-7	STA. 203+57.50 TO STA. 206+42.50		3				0.05											3
WLL-8	STA. 204+25.00 TO STA. 226+42.00		19				0.42											19
PB-10	STA. 206+50.00 TO STA. 220+90.00	1			30													1440
CHL-10	STA. 206+42.50 TO STA. 216+55.00		51							1005								51
WEL-8	STA. 206+57.50 TO STA. 1+22.00 (EX. NORTH CHERRY VALLEY)		51					0.38										51
YEL-7	STA. 206+57.50 TO STA. 226+25.00			51					0.37									51
PB-11	STA. 213+58.00 TO STA. 225+80.00	1			26													1220
WLL-9	STA. 216+55.00 TO STA. 226+25.00		8				0.18											8
CHL-11	STA. 222+10.00 TO STA. 226+42.00		22							432								22
CHL-12	STA. 222+10.00 TO STA. 226+42.00		22							432								22
WZA-12	STA. 223+68.00												1					
WZA-13	STA. 223+68.00												1					
WZA-14	STA. 225+00.00												1					
WZA-15	STA. 225+00.00												1					
WZW-5	STA. 225+66.00													1				
WZW-6	STA. 225+66.00													1				
WZA-16	SA. 226+32.00												1					
WZA-17	SA. 226+32.00												1					
WSL-3	STA. 226+42.00											44						
WSL-4	STA. 227+40.00											44						
WEL-9	STA. 227+40.00 TO STA. 276+50.00 LINE W		47				0.93											47
CHL-13	STA. 227+40.00 TO STA. 227+90.00		3							50								3
WLL-10	STA. 227+40.00 TO STA. 270+12.50 LINE W		36				0.81											36
CHL-14	STA. 227+40.00 TO STA. 232+40.00		25							500								25
YEL-8	STA. 227+40.00 TO STA. 276+50.00 LINE W			47					0.93									47
YEL-9	STA. 227+50.00 TO STA. 269+72.50 LINE E			51					0.80									51
WLL-11	STA. 227+50.00 TO STA. 262+60.00 LINE E		30				0.67											30
WEL-10	STA. 1+57.00 (EX. SOUTH CHERRY VALLEY RD.) TO STA. 269+72.50 LINE E		51					0.81										51
WZA-18	STA. 227+50.00												1					
WZA-19	STA. 227+50.00												1					
WZW-7	STA. 227+83.50													1				
WZW-8	STA. 228+16.00													1				
WZA-20	STA. 228+82.00												1					
WZA-21	STA. 230+14.00												1					
PB-12	STA. 228+50.00 TO STA. 269+30.00 LINE W	1			82													4050
PB-13	STA. 228+80.00 TO STA. 265+60.00 LINE E	1			75													3700
CHL-15	STA. 262+60.00 LINE E TO STA. 272+72.50 LINE E		51							1013								51
PB-14	STA. 269+70.00 LINE W TO STA. 276+90.00 LINE W				15													720
CHL-16	STA. 270+12.50 LINE W TO STA. 279+50.00 LINE W		47							940								47
SUB-TOTALS CARRIED TO SHEET 55		4	572	200	228		228	2.22	2.76	2.74	5,385		88	10	4	772	11,130	

MAINTENANCE OF TRAFFIC SUBSUMMARY

CALCULATED
CMY
CHECKED
HAG

LIC-16-16.64

P:\LIC\80704\Design\Roadway\Plan_Sheets\MOT\SR16_MSS_003.dgn 27-FEB-2015 7:11AM cyount

REF NO.	SHEET NO.	STATION TO STATION	614													621	622		
			WORK ZONE IMPACT ATTENUATOR, 24" (UNIDIRECTIONAL)	WORK ZONE RAISED PAVEMENT MARKER (1-WAY WHITE)	WORK ZONE RAISED PAVEMENT MARKER (1-WAY YELLOW)	BARRIER REFLECTOR, TYPE B (1-WAY WHITE)	BARRIER REFLECTOR, TYPE B (1-WAY YELLOW)	OBJECT MARKER, ONE WAY	WORK ZONE LANE LINE, CLASS I, 642 PAINT	WORK ZONE EDGE LINE, CLASS I, 642 PAINT (WHITE)	WORK ZONE EDGE LINE, CLASS I, 642 PAINT (YELLOW)	WORK ZONE CHANNELIZING LINE, CLASS I, 642 PAINT	WORK ZONE DOTTED LINE, CLASS I, 642 PAINT	WORK ZONE STOP LINE, CLASS I, 642 PAINT	WORK ZONE ARROW, CLASS I, 642 PAINT	WORK ZONE WORD ON PAVEMENT, 72", CLASS I, 642 PAINT	RAISED PAVEMENT MARKER REMOVED	PORTABLE BARRIER, 32"	PORTABLE BARRIER, "Y" CONNECTOR
PHASE 4A			EACH	EACH	EACH	EACH	EACH	EACH	MILE	MILE	MILE	FT	FT	FT	EACH	EACH	EACH	FT	EACH
		S.R. 16																	
CHL-17		STA. 197+80.00 TO STA. 214+25.00		83								1645					83		
PB-15		STA. 200+70.00 TO STA. 255+94.00	2				111	111										5520	
YEL-10		STA. 200+80.00 TO STA. 269+72.50 LINE E			83/83					1.31							166		
WEL-11		STA. 200+80.00 TO STA. 226+47.00		83					0.49								83		
CHL-18		STA. 207+10.00 TO STA. 221+90.00		74							1480						74		
WEL-12		STA. 210+10.00 TO STA. 1+10.00 (EX. N. CHERRY VALLEY RD.)		74					0.31								74		
YEL-11		STA. 210+10.00 TO STA. 26+72.50			74/54					1.71							128		
WLL-12		STA. 214+25.00 TO STA. 232+45.00		15					0.34								15		
WDL-3		STA. 220+00.00 TO STA. 224+50.00										450							
WLL-13		STA. 221+90.00 TO STA. 19+00.00		59					1.34								59		
CHL-19		STA. 223+20.00 TO STA. 1+58.00 (EX. S. CHERRY VALLEY RD.)									484								
WEL-13		STA. 223+20.00 TO STA. 249+50.00		83					0.50								83		
CHL-20		STA. 224+50.00 TO STA. 1+10.00 (EX. N. CHERRY VALLEY RD.)		11							221						11		
WEL-14		STA. 224+50.00 TO STA. 259+38.00							0.66										
PB-16		STA. 225+50.00 TO STA. 240+30.00	1			31		31										1480	
PB-17		STA. 227+40.00 TO STA. 238+30.00	1			23		23										1090	
CHL-21		STA. 232+45.00 TO STA. 248+95.00		83							1660						83		
CHL-22		STA. 245+43.34 TO STA. 249+50.00									414								
WEL-15		STA. 245+46.67 TO STA. 269+72.50 LINE E							0.46										
WLL-14		STA. 248+95.00 TO STA. 269+72.50 LINE E		18					0.40								18		
WLL-15		STA. 249+50.00 TO STA. 252+50.00		3					0.06								3		
CHL-23		STA. 259+38.37 TO STA. 262+00.00 LINE W									261								
CHL-24		STA. 259+38.37 TO STA. 262+00.00 LINE W									262								
WEL-16		STA. 259+40.34 TO STA. 283+79.00 LINE W							0.46										
WDL-4		STA. 262+00.00 LINE W TO STA. 267+50.00 LINE W										550							
PB-18		STA. 276+00.00 LINE W TO STA. 289+90.00 LINE W				29		29										* 1150	
WEL-17		STA. 284+08.00 LINE W TO STA. 19+50.00							0.18										
WLL-16		STA. 283+79.00 LINE W TO STA. 20+22.00		9					0.20								9		
WEL-18		STA. 20+22.00 TO STA. 26+72.50		32					0.12								32		
CHL-25		STA. 19+00.00 TO STA. 29+72.50		54							1073						54		
* DOES NOT INCLUDE 240' OF BRIDGE MOUNTED PORTABLE BARRIER CARRIED FROM SHEET 689																			
SUB-TOTALS CARRIED TO SHEET 55			4	681	294	54	140	194	2.34	3.18	3.02	7,500	1,000				975	9,240	

MAINTENANCE OF TRAFFIC SUBSUMMARY

LIC-16-16.64

CALCULATED
CMY
CHECKED
HAG

REF SHEET NO.	STATION TO STATION	614																	621	622	
		WORK ZONE IMPACT ATTENUATOR, 24" (UNIDIRECTIONAL)	WORK ZONE RAISED PAVEMENT MARKER (1-WAY WHITE)	WORK ZONE RAISED PAVEMENT MARKER (1-WAY YELLOW)	BARRIER REFLECTOR, TYPE B (1-WAY WHITE)	BARRIER REFLECTOR, TYPE B (1-WAY YELLOW)	OBJECT MARKER, ONE WAY	WORK ZONE LANE LINE, CLASS I, 642 PAINT	WORK ZONE EDGE LINE, CLASS I, 642 PAINT (WHITE)	WORK ZONE EDGE LINE, CLASS I, 642 PAINT (YELLOW)	WORK ZONE CHANNELIZING LINE, CLASS I, 642 PAINT	WORK ZONE DOTTED LINE, CLASS I, 642 PAINT	WORK ZONE STOP LINE, CLASS I, 642 PAINT	WORK ZONE ARROW, CLASS I, 642 PAINT	WORK ZONE WORD ON PAVEMENT, 72", CLASS I, 642 PAINT	RAISED PAVEMENT MARKER REMOVED	PORTABLE BARRIER, 32"	PORTABLE BARRIER, "Y" CONNECTOR			
		EACH	EACH	EACH	EACH	EACH	MILE	MILE	MILE	FT	FT	FT	EACH	EACH	EACH	FT	EACH				
	PHASE 4B S.R. 16																				
PB-19	STA. 216+50.00 TO STA. 230+10.00	1			29	29											1360				
PB-20	STA. 218+90.00 TO STA. 233+17.00	1			30	30											1430				
WEL-19	STA. 219+00.00 TO STA. 238+34.36 (RAMP C)							0.37													
WEL-20	STA. 220+00.00 TO STA. 237+87.45 (RAMP A)							0.34													
WDL-5	STA. 226+50.00 TO STA. 233+21.00										671										
WDL-6	STA. 230+10.00 TO STA. 233+47.00										337										
WEL-21	STA. 233+21.00 TO STA. 237+87.45 (RAMP A)							0.09													
WEL-22	STA. 233+47.00 TO STA. 238+34.36 (RAMP C)							0.09													
SUB-TOTALS CARRIED TO SHEET 55		2			59	59		0.89			1,008						2,790				

P:\LIC\80704\Design\Roadway\Plan_Sheets\MOT\SR16\MSS_005.dgn 04-JUN-2015 7:36AM ccount

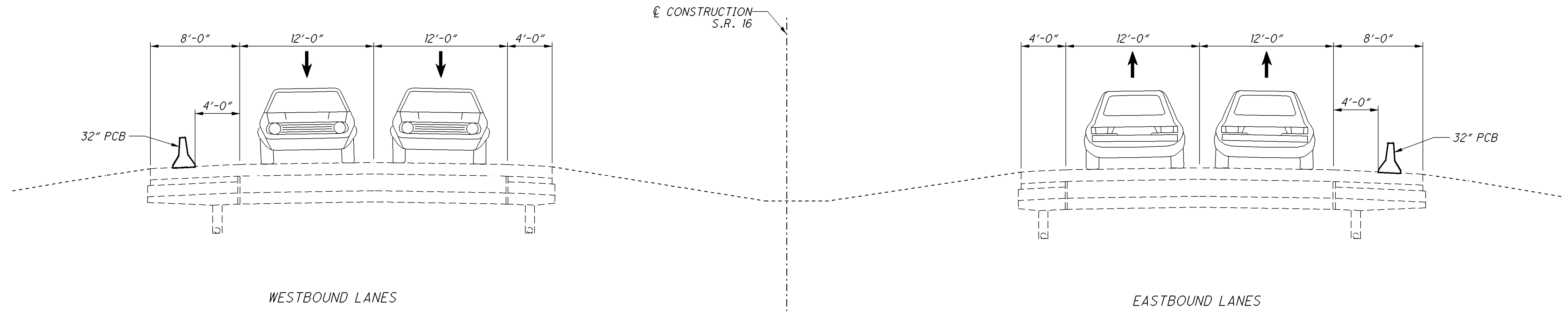
REF NO.	SHEET NO.	STATION TO STATION	614													621	622		
			WORK ZONE IMPACT ATTENUATOR, 24" (UNIDIRECTIONAL)	WORK ZONE RAISED PAVEMENT MARKER (1-WAY WHITE)	WORK ZONE RAISED PAVEMENT MARKER (1-WAY YELLOW)	BARRIER REFLECTOR, TYPE B (1-WAY WHITE)	BARRIER REFLECTOR, TYPE B (1-WAY YELLOW)	OBJECT MARKER, ONE WAY	WORK ZONE LANE LINE, CLASS I, 642 PAINT	WORK ZONE EDGE LINE, CLASS I, 642 PAINT (WHITE)	WORK ZONE EDGE LINE, CLASS I, 642 PAINT (YELLOW)	WORK ZONE CHANNELIZING LINE, CLASS I, 642 PAINT	WORK ZONE DOTTED LINE, CLASS I, 642 PAINT	WORK ZONE STOP LINE, CLASS I, 642 PAINT	WORK ZONE ARROW, CLASS I, 642 PAINT	WORK ZONE WORD ON PAVEMENT, 72", CLASS I, 642 PAINT	RAISED PAVEMENT MARKER REMOVED	PORTABLE BARRIER, 32"	PORTABLE BARRIER, "Y" CONNECTOR
PHASE 5			EACH	EACH	EACH	EACH	EACH	EACH	MILE	MILE	MILE	FT	FT	FT	EACH	EACH	EACH	FT	EACH
		S.R. 16																	
WLL-17		STA. 197+80.00 TO STA. 201+10.00		3					0.06								3		
YEL-12		STA. 200+80.00 TO STA. 245+95.00			34/34						0.86						68		
WEL-23		STA. 200+80.00 TO STA. 238+34.36 (RAMP C)		34					0.71								34		
CHL-26		STA. 201+10.00 TO STA. 214+25.00		34								1315					34		
WLL-18		STA. 207+10.00 TO STA. 208+20.00		2					0.02								2		
CHL-27		STA. 208+20.00 TO STA. 221+90.00		36								1370					36		
WEL-24		STA. 210+10.00 TO STA. 237+87.45 (RAMP A)		36					0.53								36		
YEL-13		STA. 210+10.00 TO STA. 254+30.00			36/36						0.84						72		
WLL-19		STA. 214+25.00 TO STA. 232+45.00		17					0.34								17		
PB-21		STA. 216+74.00 TO STA. 235+45.00	1				38	38										1870	
PB-22		STA. 218+90.00 TO STA. 237+45.00	1				38	38										1860	
WLL-20		STA. 221+90.00 TO STA. 239+75.00		17					0.34								17		
WDL-7		STA. 229+76.00 TO STA. 237+08.00											732						
CHL-28		STA. 232+45.00 TO STA. 245+60.00		34								1315					34		
WDL-8		STA. 232+49.00 TO STA. 236+88.00											439						
CHL-29		STA. 236+88.00 TO STA. 238+32.00										146							
CHL-30		STA. 236+88.00 TO STA. 238+34.36 (RAMP C)										147							
CHL-31		STA. 237+08.00 TO STA. 237+87.45 (RAMP A)										84							
CHL-32		STA. 237+08.00 TO STA. 237+92.00										83							
WEL-25		STA. 237+92.00 TO STA. 254+30.00		36					0.31								36		
WEL-26		STA. 238+32.00 TO STA. 245+43.00		19					0.14								19		
CHL-33		STA. 239+75.00 TO STA. 253+45.00		36								1370					36		
CHL-34		STA. 245+43.00 TO STA. 249+50.00										412							
WLL-21		STA. 245+60.00 TO STA. 248+95.00		4					0.06								4		
WLL-22		STA. 253+45.00 TO STA. 254+30.00		2					0.02								2		
WEL-27		STA. 266+60.00 TO STA. 288+00.00							0.41										
WLL-23		STA. 266+60.00 TO STA. 19+00.00		22					0.50								22		
YEL-14		STA. 266+60.00 TO STA. 23+80.00			39						0.59						39		
PB-23		STA. 268+60.00 TO STA. 284+28.50 (LINE W)	1			36		36										*1470	1
CHL-35		STA. 282+02.00 (LINE W) TO STA. 288+00.00										599							
WEL-28		STA. 282+75.00 TO STA. 19+50.00							0.20										
WLL-24		STA. 288+00.00 (LINE W) TO STA. 18+22.00		4					0.08								4		
WEL-29		STA. 18+22.00 TO STA. 20+22.00							0.04										
WEL-30		STA. 18+22.00 TO STA. 23+80.00		39					0.11								39		
CHL-36		STA. 19+00.00 TO STA. 26+80.00		39								780					39		
* DOES NOT INCLUDE 240' OF BRIDGE MOUNTED PORTABLE BARRIER, AS PER PLAN CARRIED FROM SHEET 689																			
SUB-TOTALS THIS SHEET			3	414	179	36	76	112	1.42	2.45	2.29	7,621	1,171				593	5,200	1
SUB-TOTALS CARRIED FROM SHEET 51			11	550	176	70	329	399	2.98	3.30	3.35	5,093	498	88	11	4	726	19,110	
SUB-TOTALS CARRIED FROM SHEET 52			4	572	200	228	228	228	2.22	2.76	2.74	5,385		88	10	4	772	11,130	
SUB-TOTALS CARRIED FROM SHEET 53			4	681	294	54	140	194	2.34	3.18	3.02	7,500	1,000				975	9,240	
SUB-TOTALS CARRIED FROM SHEET 54			2			59	59		0.89			1,008						2,790	
TOTALS CARRIED TO GENERAL SUMMARY			24	3,066		992		992	8.96	23.98		25,599	3,677	176	21	8	3,066	47,470	1

MAINTENANCE OF TRAFFIC SUBSUMMARY

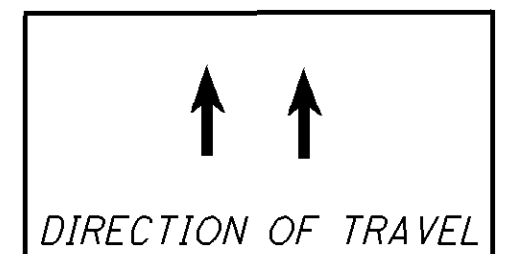
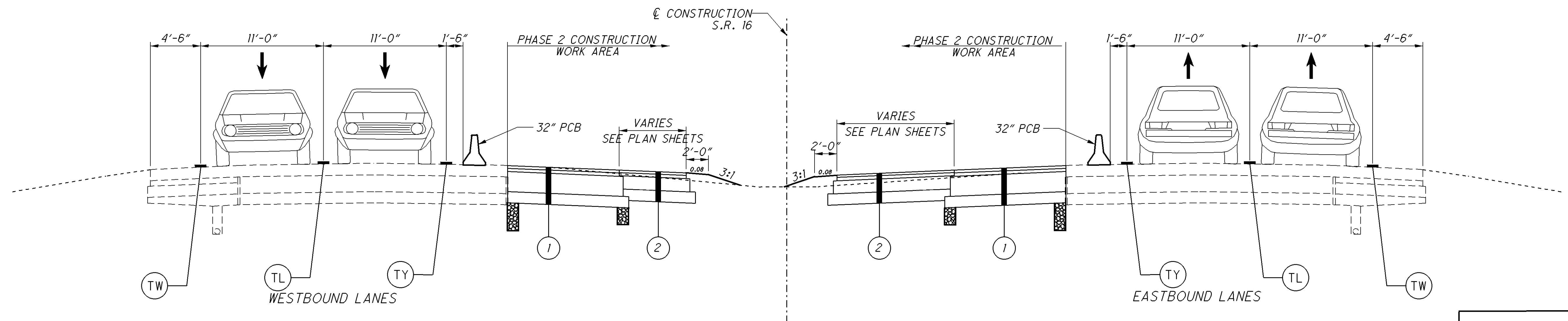
CALCULATED
CMY
CHECKED
HAG

LIC-16-16.64

PHASE 1



PHASE 2

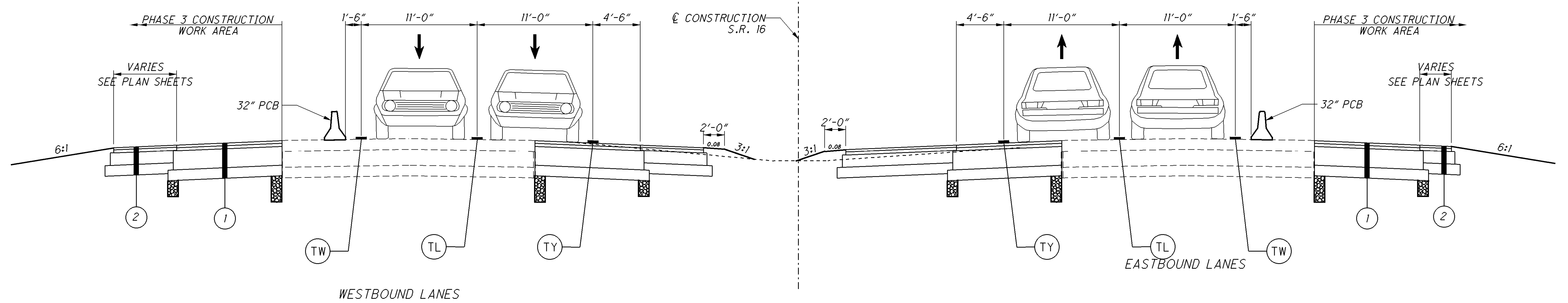


- ① SEE TYPICALS FOR PERMANENT PAVEMENT BUILDUP
- ② TEMPORARY PAVEMENT BUILDUP AS PER CMS 615
 - 1/4" TYPE 1 SURFACE COURSE
 - 1 3/4" TYPE 2 INTERMEDIATE COURSE
 - 7" ITEM 302 COURSE
 - 6" ITEM 304 COURSE

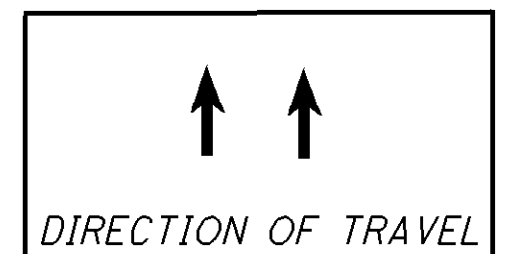
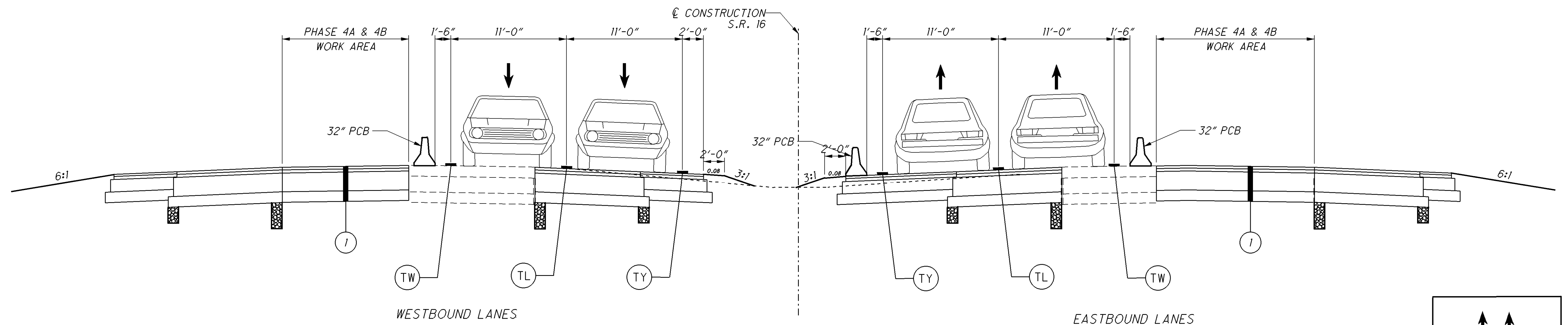
- ⓉⓌ - ITEM 614 WORK ZONE EDGE LINE, CLASS 1, 642 PAINT, (WHITE)
- ⓉⓎ - ITEM 614 WORK ZONE EDGE LINE CLASS 1, 642 PAINT, (YELLOW)
- ⓉⓁ - ITEM 614 WORK ZONE LANE LINE, CLASS 1, 642 PAINT

P:\LIC\80704\Design\Roadway\Plan_Sheets\MOT\SR16_MTS_001.dgn 28-FEB-2015 7:59AM c:\count

PHASE 3



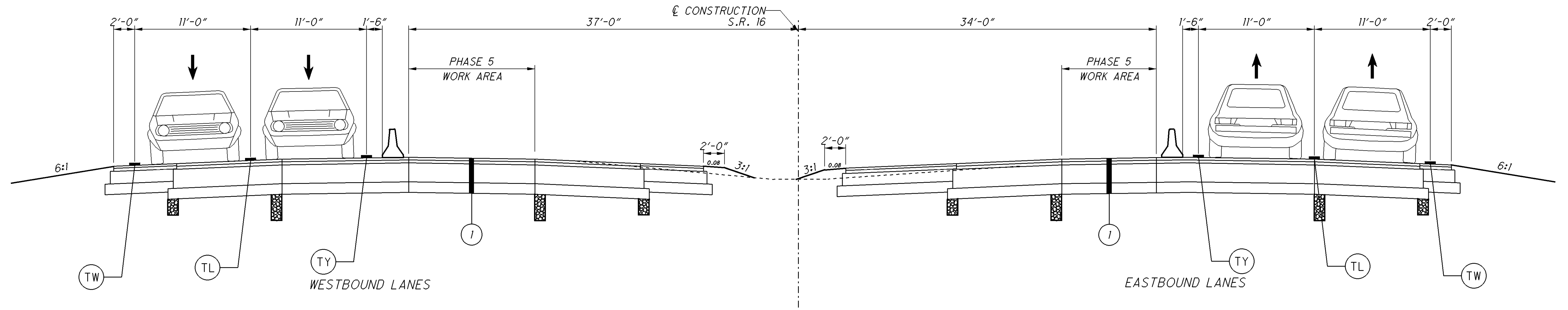
PHASE 4A & 4B



- ① SEE TYPICALS FOR PERMANENT PAVEMENT BUILDUP
- ② TEMPORARY PAVEMENT BUILDUP AS PER CMS 615
 - 1 1/4" TYPE 1 SURFACE COURSE
 - 1 3/4" TYPE 2 INTERMEDIATE COURSE
 - 7" ITEM 302 COURSE
 - 6" ITEM 304 COURSE

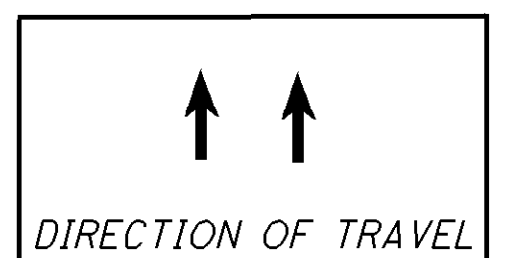
- ⓉW - ITEM 614 WORK ZONE EDGE LINE, CLASS 1, 642 PAINT, (WHITE)
- ⓉY - ITEM 614 WORK ZONE EDGE LINE CLASS 1, 642 PAINT, (YELLOW)
- ⓉL - ITEM 614 WORK ZONE LANE LINE, CLASS 1, 642 PAINT

PHASE 5



① SEE TYPICALS FOR PERMANENT PAVEMENT BUILDUP

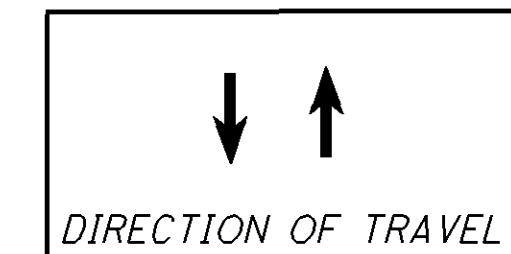
② TEMPORARY PAVEMENT BUILDUP AS PER CMS 615
 1 1/4" TYPE 1 SURFACE COURSE
 1 3/4" TYPE 2 INTERMEDIATE COURSE
 7" ITEM 302 COURSE
 6" ITEM 304 COURSE



- ⊙ TW - ITEM 614 WORK ZONE EDGE LINE, CLASS 1, 642 PAINT, (WHITE)
- ⊙ TY - ITEM 614 WORK ZONE EDGE LINE CLASS 1, 642 PAINT, (YELLOW)
- ⊙ TL - ITEM 614 WORK ZONE LANE LINE, CLASS 1, 642 PAINT

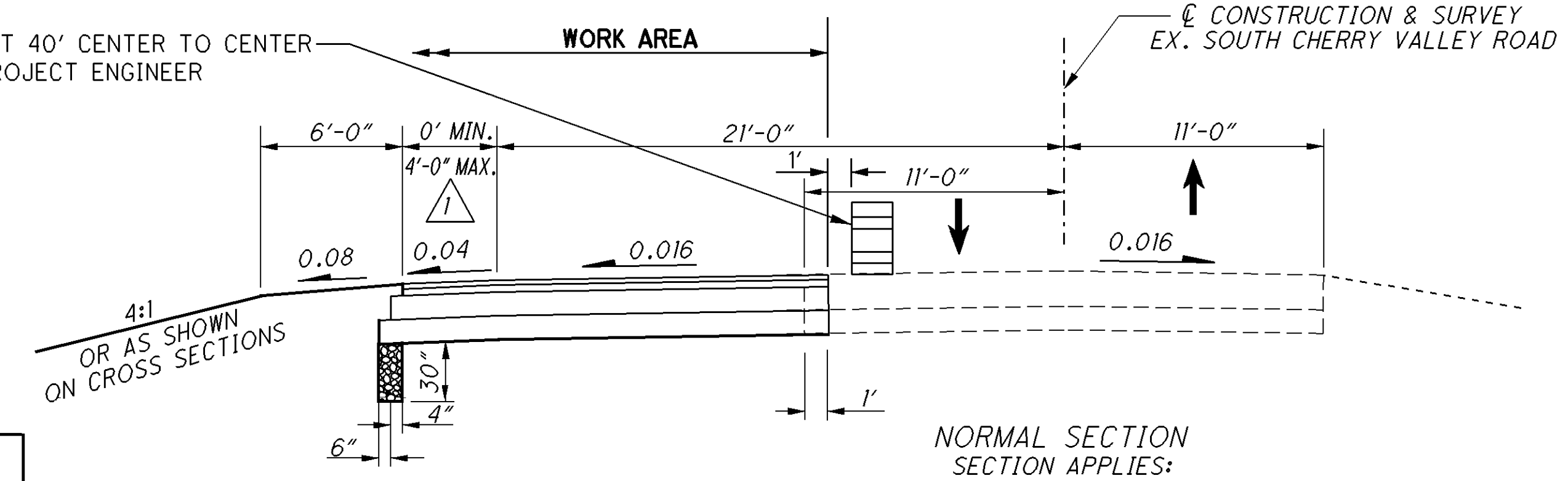
PROPOSED TYPICAL SECTIONS - S.R. 16
(MAINTENANCE OF TRAFFIC - PHASE 5)

LIC-16-16.64



NOTE:
DRUMS TO BE SPACED AT 40' CENTER TO CENTER
AS DIRECTED BY THE PROJECT ENGINEER

- 1 0' FROM STA. 25+00.00 TO STA. 26+37.15
4' FROM STA. 26+37.15 TO STA. 27+42.96
- 2 TAPERS FROM 2' @ STA. 25+00.00 TO 4' @ STA. 25+50.00



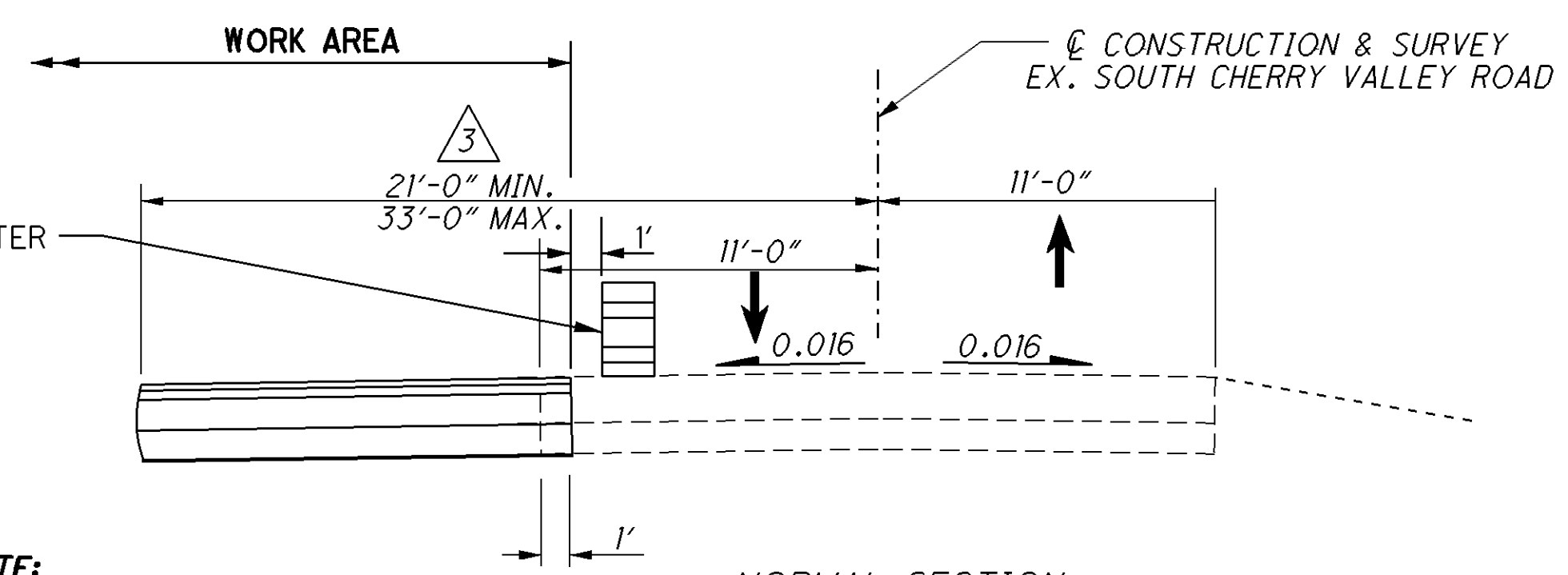
NOTE:
ALL CONSTRUCTION ACTIVITIES THAT WILL
DISRUPT THE NORMAL TRAFFIC PATTERN WILL
BE LIMITED TO ONE SIDE OF THE PAVEMENT AT ALL TIMES.

NOTE:
PAVEMENT WIDENING WILL BE CONSTRUCTED AS PER
MT-101.90.

NORMAL SECTION
SECTION APPLIES:
STA 25+00.00 TO STA. 27+43.15 = 243.15 FT.
TOTAL 243.15 FT.

NOTE:
DRUMS TO BE SPACED AT 40' CENTER TO CENTER
AS DIRECTED BY THE PROJECT ENGINEER

- 3 TAPERS FROM 21' @ STA. 27+43.15 TO 33' @ STA. 29+71.80

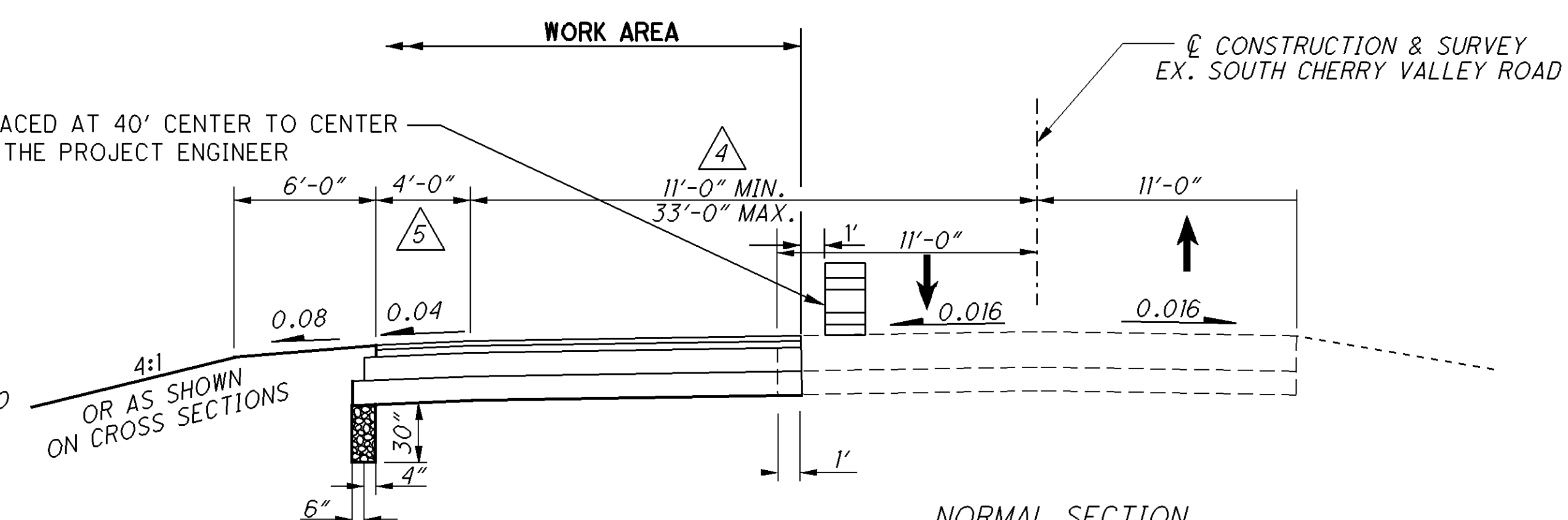


NOTE:
PAVEMENT WIDENING WILL BE CONSTRUCTED AS PER
MT-101.90.

NORMAL SECTION
SECTION APPLIES:
STA. 27+43.15 TO STA. 29+71.80 = 228.65 FT.
TOTAL 228.65 FT.

NOTE:
DRUMS TO BE SPACED AT 40' CENTER TO CENTER
AS DIRECTED BY THE PROJECT ENGINEER

- 4 TAPERS FROM 33' @ STA. 29+71.80 TO 22' @ STA. 33+00.00
TAPERS FROM 22' @ STA. 33+00.00 TO 11' @ STA. 33+50.00
- 5 TAPERS FROM 4' @ STA. 33+00.00 TO 2' @ STA. 33+50.00



NOTE:
PAVEMENT WIDENING WILL BE CONSTRUCTED AS PER
MT-101.90.

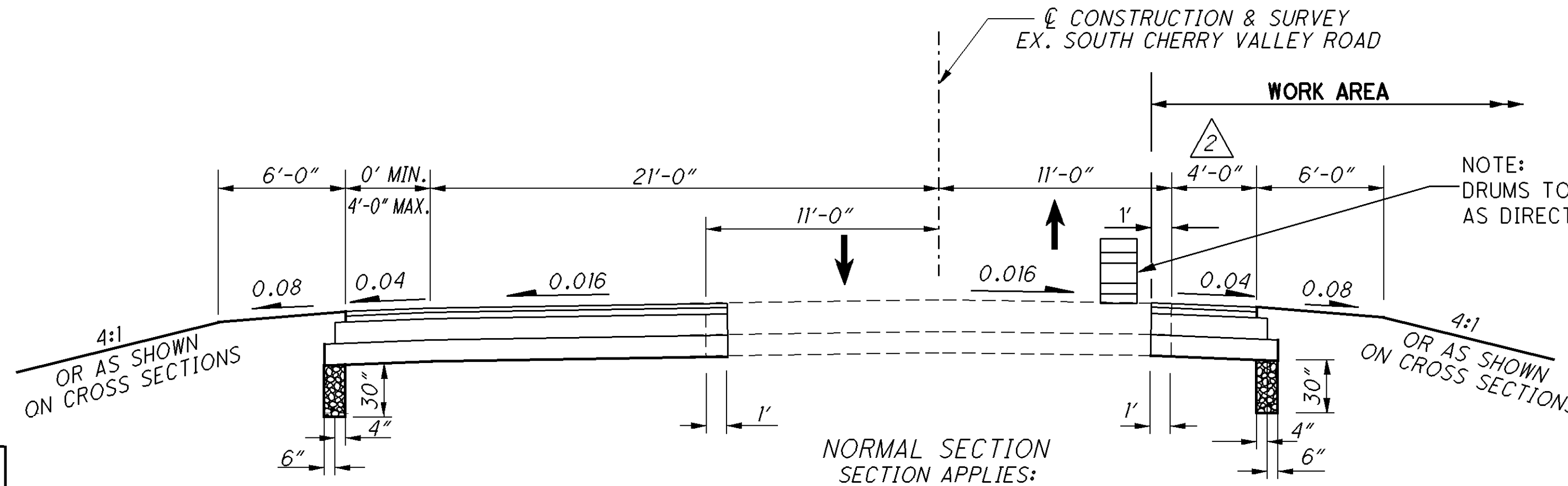
NORMAL SECTION
SECTION APPLIES:
STA. 29+71.80 TO STA. 33+50.00 = 378.20 FT.
TOTAL 378.20 FT.

P:\LIC\80704\Design\Roadway\Plan_Sheets\MOT\SR16_MTS_004.dgn 08-JUN-2015 9:06AM cyount

P:\LIC\80704\Design\Roadway\Plan_Sheets\MOT\SR16_MTS_005.dgn 08-JUN-2015 9:14 AM c:\count

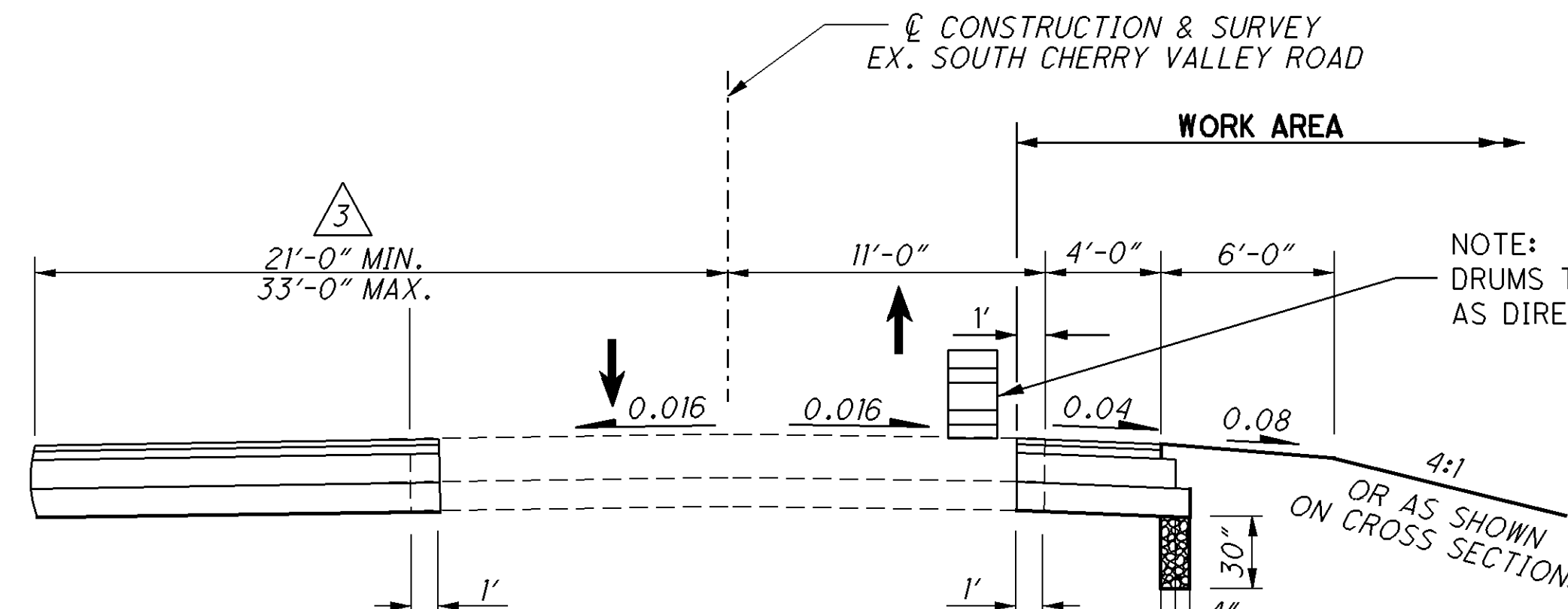
2 TAPERS FROM 2' @ STA. 25+00.00 TO 4' @ STA. 25+50.00

NOTE:
ALL CONSTRUCTION ACTIVITIES THAT WILL DISRUPT THE NORMAL TRAFFIC PATTERN WILL BE LIMITED TO ONE SIDE OF THE PAVEMENT AT ALL TIMES.



NOTE:
PAVEMENT WIDENING WILL BE CONSTRUCTED AS PER MT-101.90.

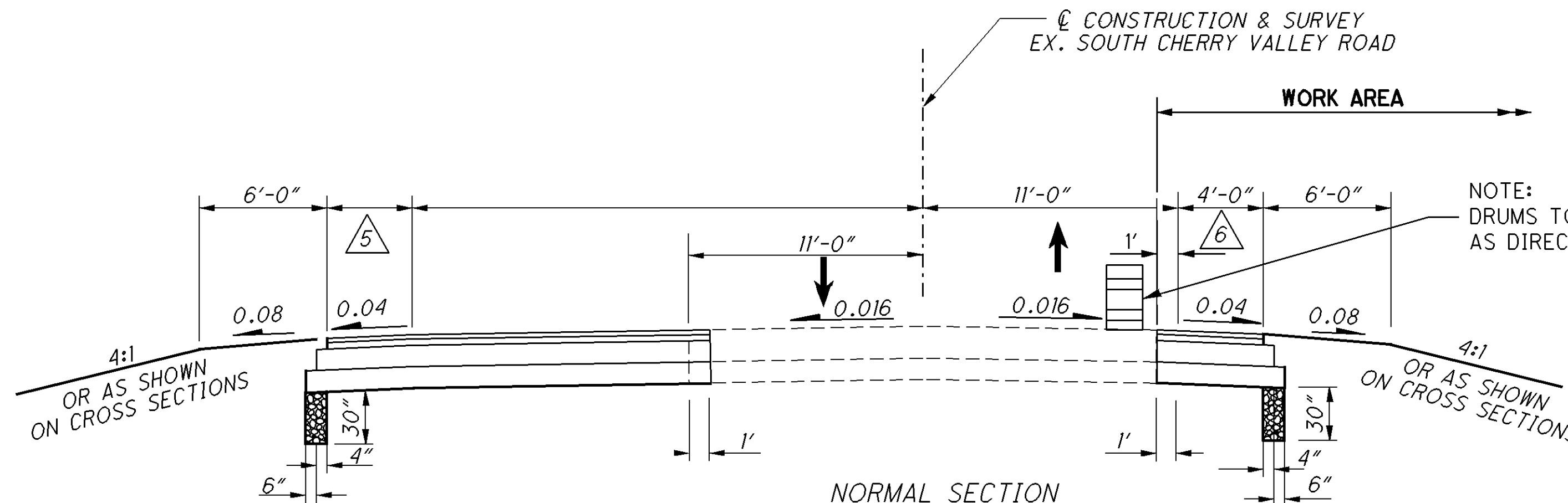
STA 25+00.00 TO STA. 27+43.15 = 243.15 FT.
TOTAL 243.15 FT.



NOTE:
PAVEMENT WIDENING WILL BE CONSTRUCTED AS PER MT-101.90.

STA. 27+43.15 TO STA. 29+71.80 = 228.65 FT.
TOTAL 228.65 FT.

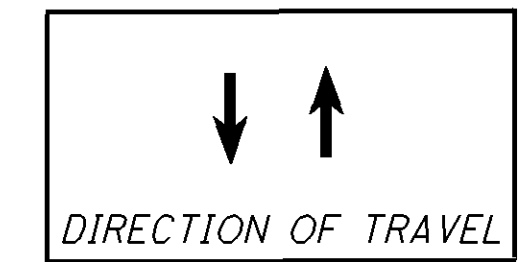
6 TAPERS FROM 4' @ STA. 33+00.00 TO 2' @ STA. 33+50.00



NOTE:
PAVEMENT WIDENING WILL BE CONSTRUCTED AS PER MT-101.90.

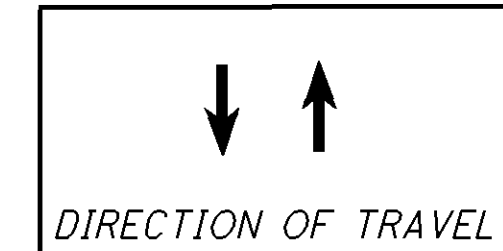
STA. 29+71.80 TO STA. 33+50.00 = 378.20 FT.
TOTAL 378.20 FT.

NOTE:
ALL WORK ON EXISTING SOUTH CHERRY VALLEY ROAD FROM STA. 25+00.00 TO STA. 33+50.00 SHALL BE COMPLETED BY THE END OF PHASE I.



PROPOSED TYPICAL SECTIONS EXISTING SOUTH CHERRY VALLEY ROAD (MAINTENANCE OF TRAFFIC - PHASE 1)

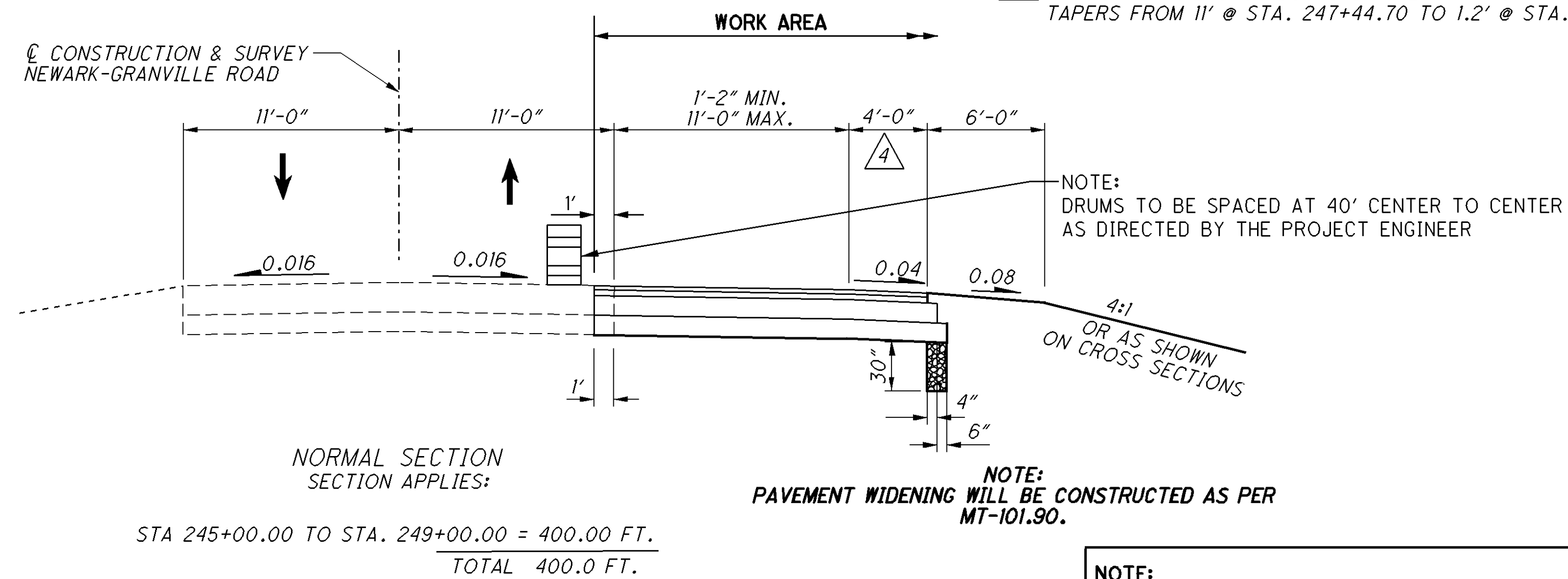
LIC-16-16.64



1 TAPERS FROM 0' @ STA. 245+00.00 TO 11' @ STA. 248+00.00
11' FROM STA. 248+00.0 TO STA. 249+00.00

3 4 TAPERS FROM 2' @ STA. 245+00.00 TO 4' @ STA. 245+50.00

2 TAPERS FROM 0' @ STA. 245+50.00 TO 11' @ STA. 246+00.00
11' FROM STA. 246+00.00 TO STA. 247+44.70
TAPERS FROM 11' @ STA. 247+44.70 TO 1.2' @ STA. 249+00.00



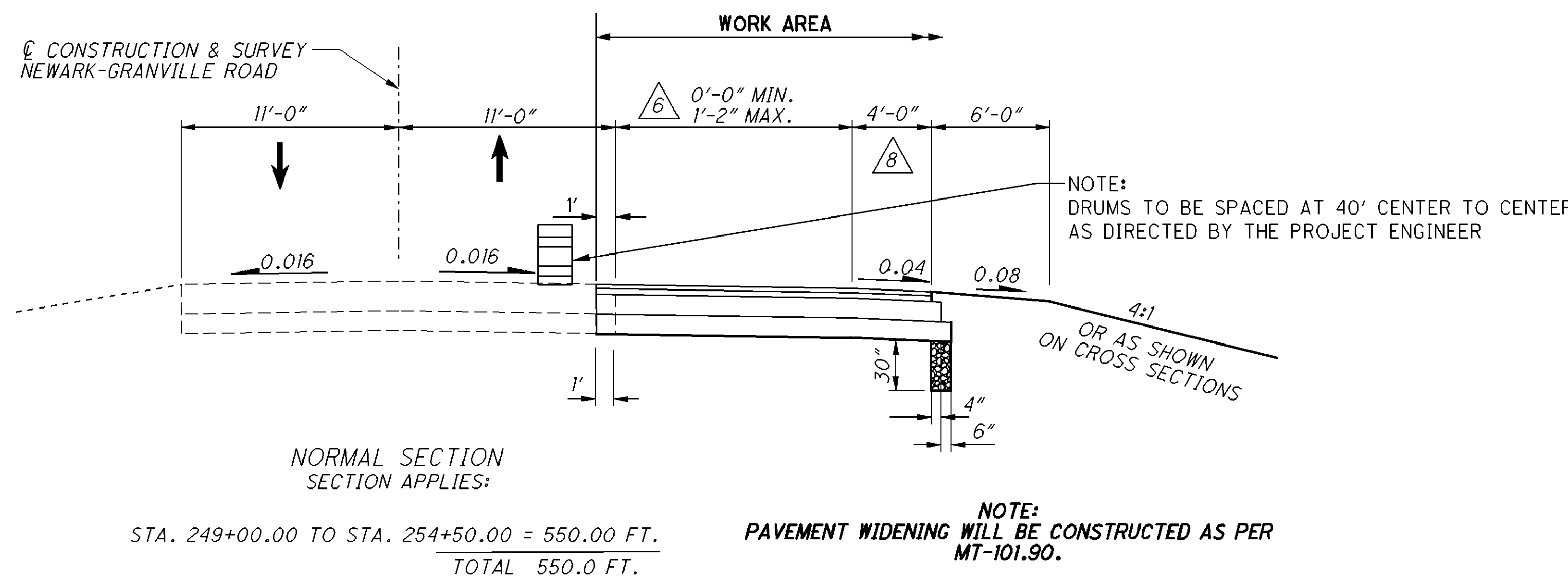
NOTE:
PAVEMENT WIDENING WILL BE CONSTRUCTED AS PER
MT-101.90.

NOTE:
ALL CONSTRUCTION ACTIVITIES THAT WILL
DISRUPT THE NORMAL TRAFFIC PATTERN WILL
BE LIMITED TO ONE SIDE OF THE PAVEMENT AT ALL TIMES.

5 11' FROM STA. 249+00.00 TO STA. 251+00.00
TAPERS FROM 11' @ STA. 251+00.00 TO 0' @ STA. 251+50.00

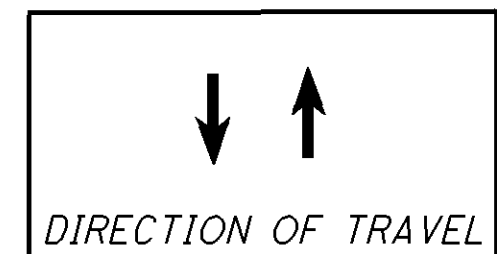
7 8 TAPERS FROM 2' @ STA. 254+00.00 TO 4' @ STA. 254+50.00

6 TAPERS FROM 1.2' @ STA. 249+00.00 TO 0' @ STA. 249+19.62



NOTE:
PAVEMENT WIDENING WILL BE CONSTRUCTED AS PER
MT-101.90.

NOTE:
DRUMS TO BE SPACED AT 40' CENTER TO CENTER
AS DIRECTED BY THE PROJECT ENGINEER

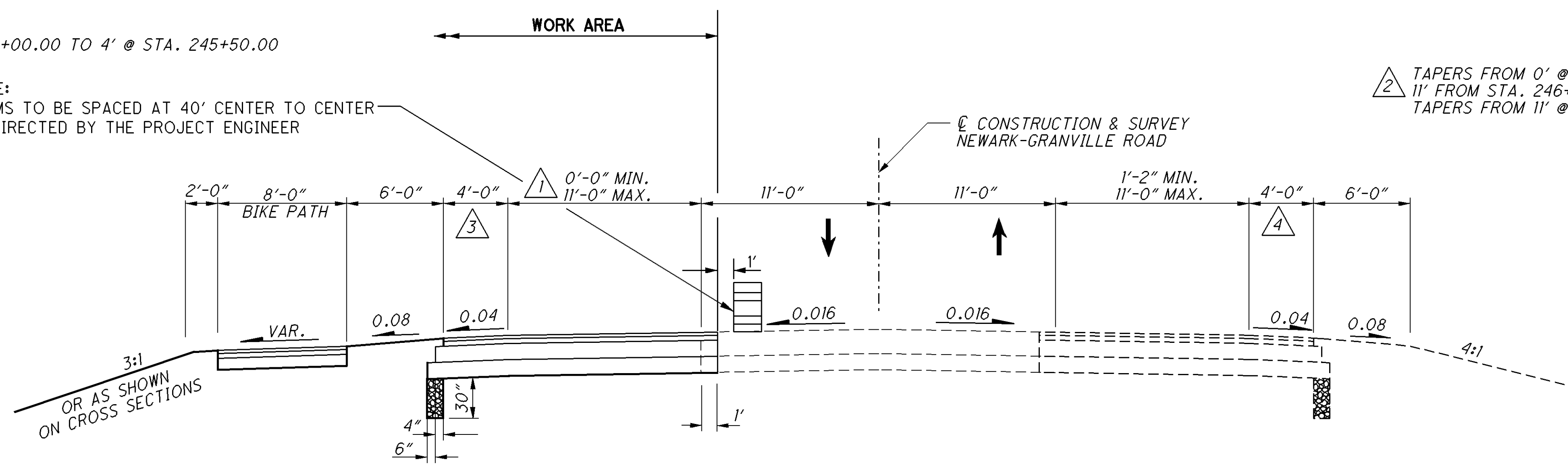


△ 1 TAPERS FROM 0' @ STA. 245+00.00 TO 11' @ STA. 248+00.00
11' FROM STA. 248+00.0 TO STA. 249+00.00

△ 3 △ 4 TAPERS FROM 2' @ STA. 245+00.00 TO 4' @ STA. 245+50.00

NOTE:
DRUMS TO BE SPACED AT 40' CENTER TO CENTER
AS DIRECTED BY THE PROJECT ENGINEER

△ 2 TAPERS FROM 0' @ STA. 245+50.00 TO 11' @ STA. 246+00.00
11' FROM STA. 246+00.00 TO STA. 247+44.70
TAPERS FROM 11' @ STA. 247+44.70 TO 1.2' @ STA. 249+00.00



NOTE:
PAVEMENT WIDENING WILL BE CONSTRUCTED AS PER
MT-101.90.

NORMAL SECTION
SECTION APPLIES:

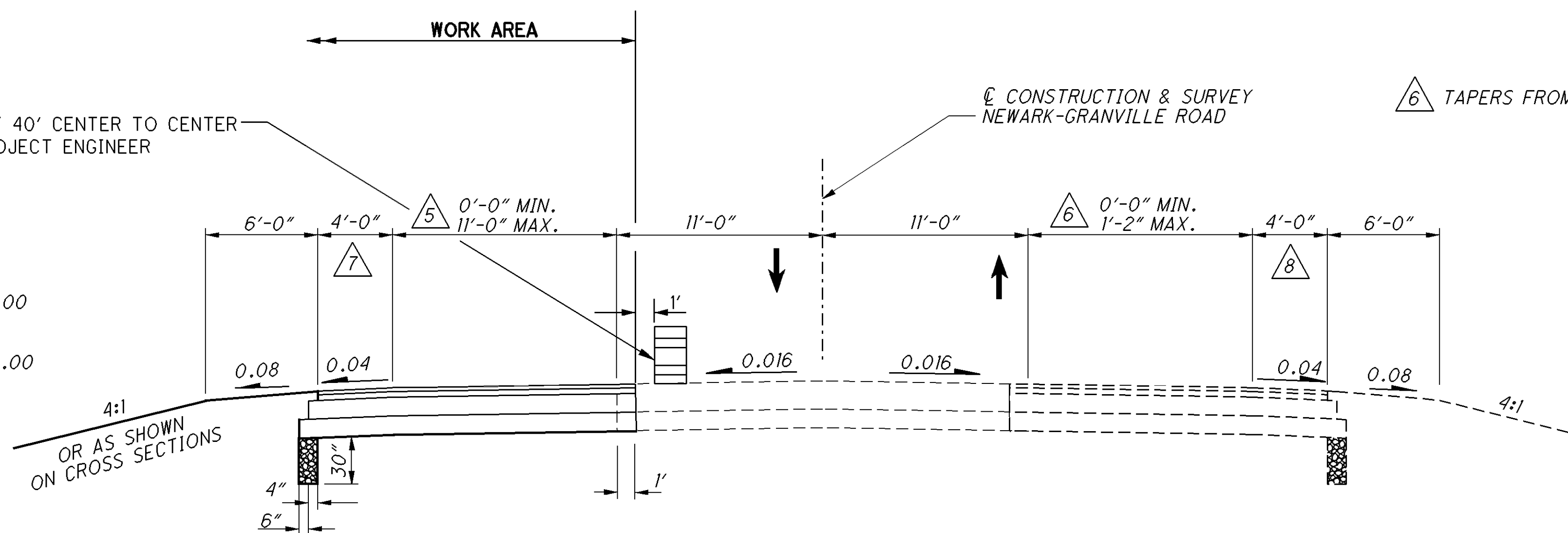
STA 245+00.00 TO STA. 249+00.00 = 400.00 FT.
TOTAL 400.0 FT.

NOTE:
ALL CONSTRUCTION ACTIVITIES THAT WILL
DISRUPT THE NORMAL TRAFFIC PATTERN WILL
BE LIMITED TO ONE SIDE OF THE PAVEMENT AT ALL TIMES.

NOTE:
DRUMS TO BE SPACED AT 40' CENTER TO CENTER
AS DIRECTED BY THE PROJECT ENGINEER

△ 5 11' FROM STA. 249+00.00 TO STA. 251+00.00
TAPERS FROM 11' @ STA. 251+00.00 TO 0' @ STA. 251+50.00

△ 7 △ 8 TAPERS FROM 2' @ STA. 254+00.00 TO 4' @ STA. 254+50.00



NOTE:
PAVEMENT WIDENING WILL BE CONSTRUCTED AS PER
MT-101.90.

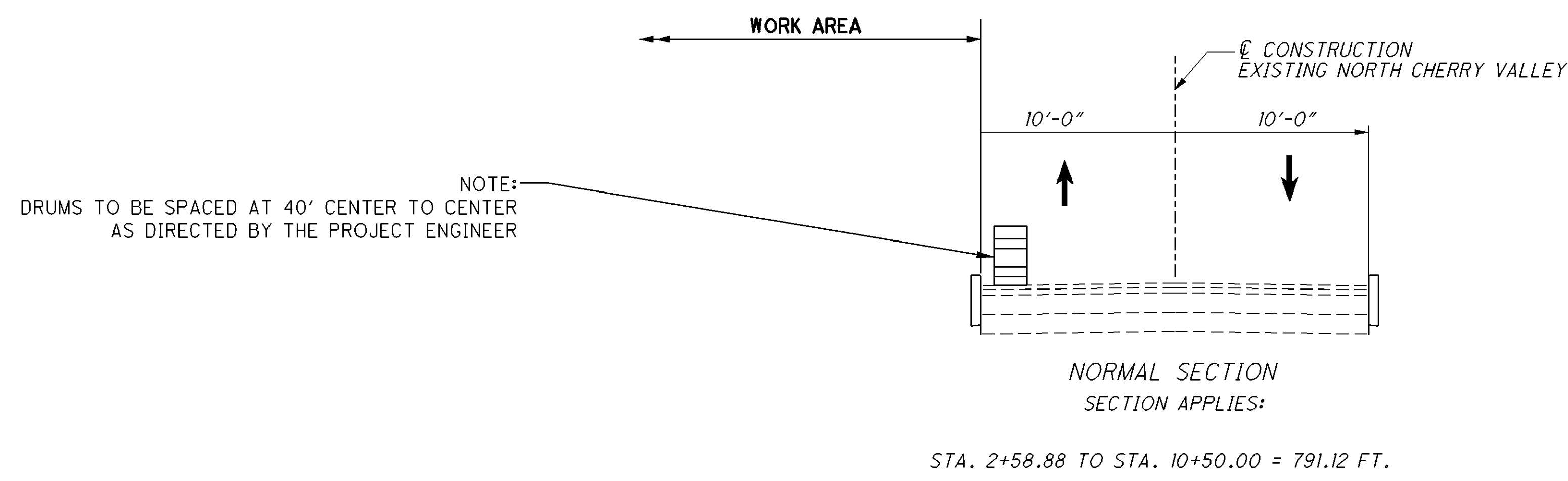
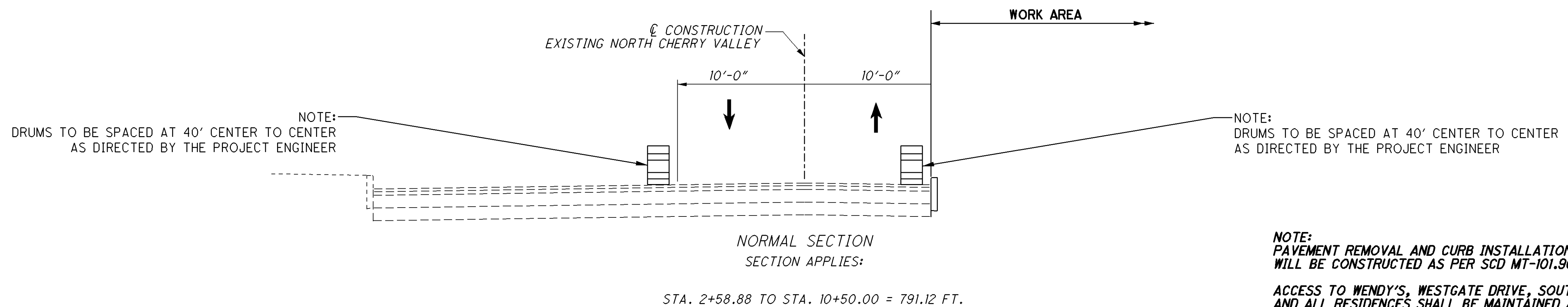
NORMAL SECTION
SECTION APPLIES:

STA 249+00.00 TO STA. 254+50.00 = 550.00 FT.
TOTAL 550.0 FT.

△ 6 TAPERS FROM 1.2' @ STA. 249+00.00 TO 0' @ STA. 249+19.62

NOTE:
ALL WORK ON EXISTING NEWARK-GRANVILLE ROAD FROM STA. 245+00.00 TO STA. 254+50.00
SHALL BE COMPLETED BY THE END OF PHASE I.

P:\LIC\80704\Design\Roadway\Plan_Sheets\MOT\SR16_MTS_008.dgn 08-JUN-2015 9:55AM cypoint



NOTE: ALL WORK ON EXISTING NORTH CHERRY VALLEY ROAD FROM STA. 2+58.88 TO STA. 10+50.00 SHALL BE COMPLETED BY THE END OF PHASE 4B.

PROPOSED TYPICAL SECTION EX. NORTH CHERRY VALLEY ROAD (MAINTENANCE OF TRAFFIC - PHASE 4B)

LIC-16-16.64

62A
729

MAINTAINING EXISTING DRIVES

THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL RESIDENCE AND COMMERCIAL DRIVES TO THE FULLEST EXTENT POSSIBLE. IT IS UNDERSTOOD THAT FOR SHORT PERIODS OF TIME, THE FULL ACCESS TO A DRIVEWAY MAY NOT BE POSSIBLE. THE CONTRACTOR SHALL MAKE ACCOMMODATIONS TO THE RESIDENT/BUSINESS OWNER SO THAT DURING THESE SHORT INTERVALS, THE HOME/BUSINESS OWNER CAN STILL HAVE ACCESS TO PARK NEAR THEIR RESIDENCE/BUSINESS.

PROPERTIES WITH MULTIPLE ACCESS POINTS: WORK AT ONE DRIVE AT A TIME.
 PROPERTIES WITH A SINGLE ACCESS POINT: MAINTAIN ACCESS TO PROPERTY AT ALL TIMES USING ONE OF THE FOLLOWING METHODS:
 REPLACE DRIVEWAY USING PART WIDTH CONSTRUCTION, BACKFILL OPEN EXCAVATION WITH ITEM 304 AGGREGATE FOR TEMPORARY ACCESS, OR USE STEEL PLATES TO SPAN OVER OPEN EXCAVATIONS AND OR CONCRETE NOT OUT OF CURE.
 BEFORE ACCESS TO A DRIVEWAY IS INTERRUPTED, THE CONTRACTOR SHALL GIVE PRIOR NOTICE TO THE OCCUPANT OF THE PROPERTY 72 HOURS BEFORE THE WORK IS STARTED.

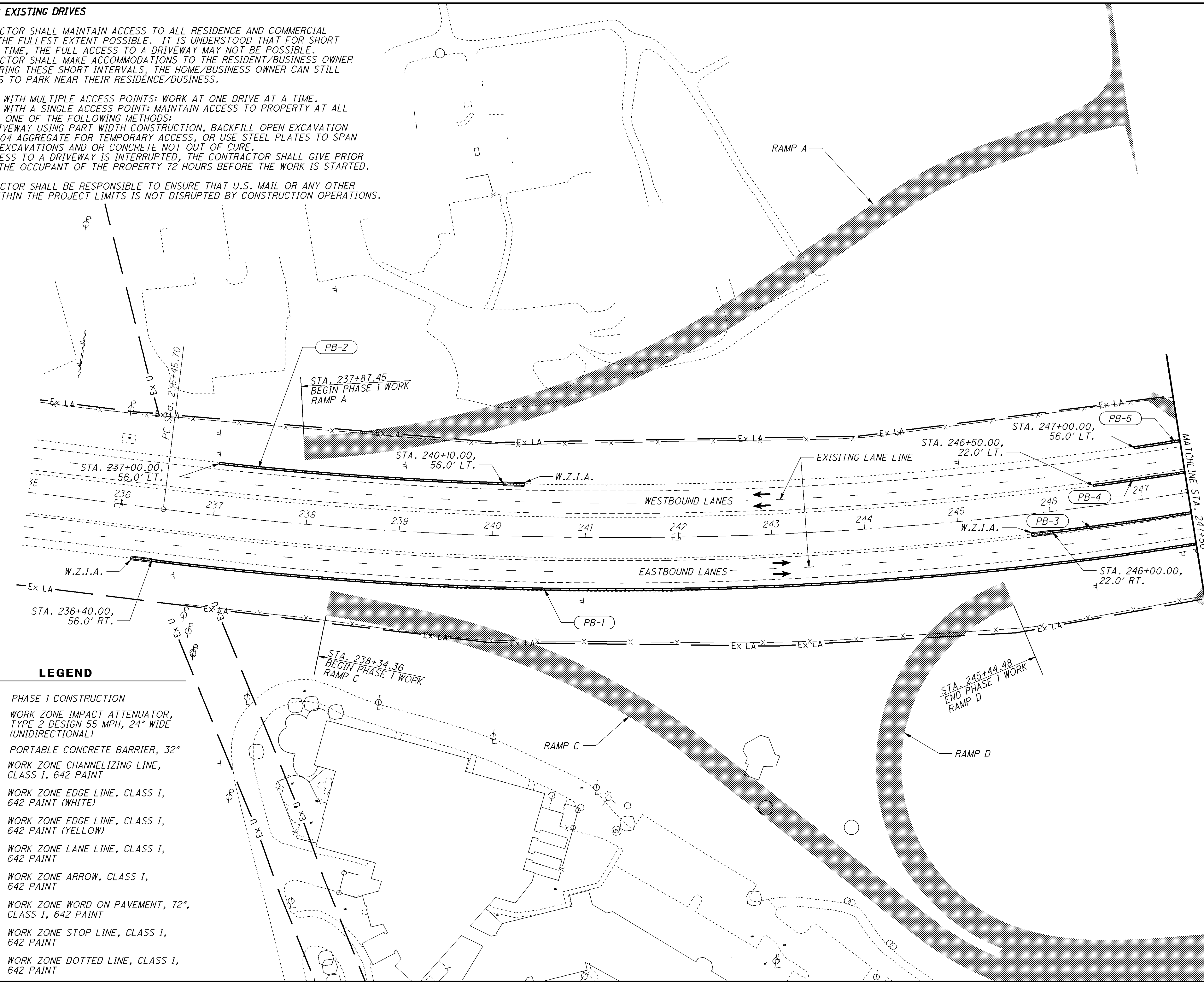
THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT U.S. MAIL OR ANY OTHER DELIVERY WITHIN THE PROJECT LIMITS IS NOT DISRUPTED BY CONSTRUCTION OPERATIONS.

CALCULATED CMY
 CHECKED HAG

0 25 50 100
 HORIZONTAL SCALE IN FEET

MAINTENANCE OF TRAFFIC - PHASE 1
S.R. 16 STA. 235+00 TO STA. 247+50

LIC-16-16.64




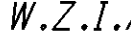
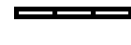








LEGEND


- PHASE I CONSTRUCTION
- W.Z.I.A. WORK ZONE IMPACT ATTENUATOR, TYPE 2 DESIGN 55 MPH, 24" WIDE (UNIDIRECTIONAL)
- PORTABLE CONCRETE BARRIER, 32"
- WORK ZONE CHANNELIZING LINE, CLASS I, 642 PAINT
- WORK ZONE EDGE LINE, CLASS I, 642 PAINT (WHITE)
- WORK ZONE EDGE LINE, CLASS I, 642 PAINT (YELLOW)
- WORK ZONE LANE LINE, CLASS I, 642 PAINT
- WORK ZONE ARROW, CLASS I, 642 PAINT
- WORK ZONE WORD ON PAVEMENT, 72", CLASS I, 642 PAINT
- WORK ZONE STOP LINE, CLASS I, 642 PAINT
- WORK ZONE DOTTED LINE, CLASS I, 642 PAINT

P:\LIC\80704\Design\Roadway\Plan_Sheets\MOT\SR16\MOT_101.dgn 23-MAR-2015 8:51AM c:\count

P:\LIC\80704\Design\Roadway\Plan_Sheets\MOT\SR16_MOT_102.dgn 23-MAR-2015 9:44 AM cypunt

LEGEND

-  PHASE 1 CONSTRUCTION
-  W.Z.I.A. WORK ZONE IMPACT ATTENUATOR, TYPE 2 DESIGN 55 MPH, 24" WIDE (UNIDIRECTIONAL)
-  PORTABLE CONCRETE BARRIER, 32"
-  CHL WORK ZONE CHANNELIZING LINE, CLASS I, 642 PAINT
-  WEL WORK ZONE EDGE LINE, CLASS I, 642 PAINT (WHITE)
-  YEL WORK ZONE EDGE LINE, CLASS I, 642 PAINT (YELLOW)
-  WLL WORK ZONE LANE LINE, CLASS I, 642 PAINT
-  WZA WORK ZONE ARROW, CLASS I, 642 PAINT
-  WZW WORK ZONE WORD ON PAVEMENT, 72", CLASS I, 642 PAINT
-  WSL WORK ZONE STOP LINE, CLASS I, 642 PAINT
-  WDL WORK ZONE DOTTED LINE, CLASS I, 642 PAINT

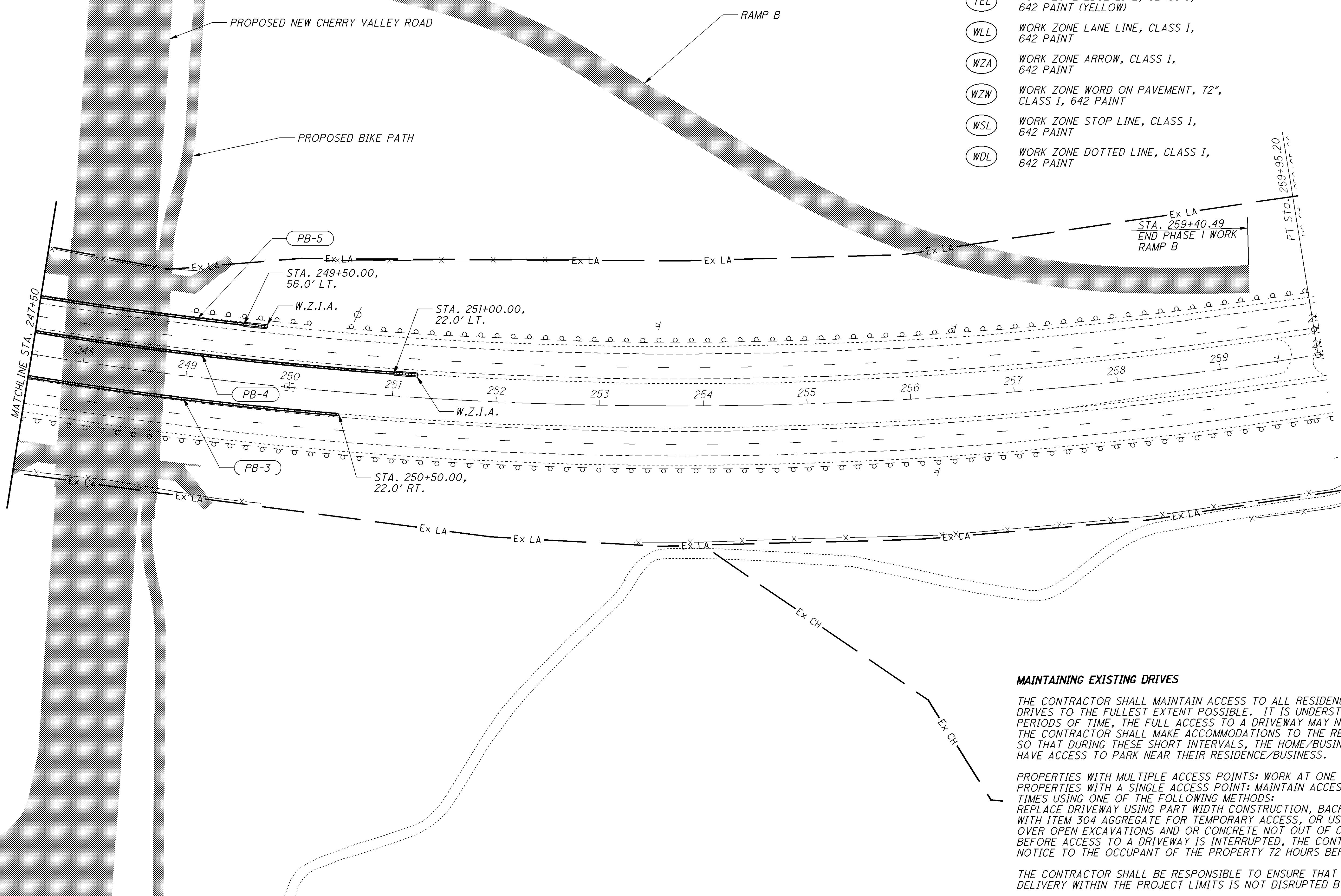


0 25 50 100
HORIZONTAL SCALE IN FEET

CALCULATED CMY
CHECKED HAG

MAINTENANCE OF TRAFFIC - PHASE 1
S.R. 16 STA. 247+50 TO STA. 260+00

LIC-16-16.64




MAINTAINING EXISTING DRIVES

THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL RESIDENCE AND COMMERCIAL DRIVES TO THE FULLEST EXTENT POSSIBLE. IT IS UNDERSTOOD THAT FOR SHORT PERIODS OF TIME, THE FULL ACCESS TO A DRIVEWAY MAY NOT BE POSSIBLE. THE CONTRACTOR SHALL MAKE ACCOMMODATIONS TO THE RESIDENT/BUSINESS OWNER SO THAT DURING THESE SHORT INTERVALS, THE HOME/BUSINESS OWNER CAN STILL HAVE ACCESS TO PARK NEAR THEIR RESIDENCE/BUSINESS.

PROPERTIES WITH MULTIPLE ACCESS POINTS: WORK AT ONE DRIVE AT A TIME.
 PROPERTIES WITH A SINGLE ACCESS POINT: MAINTAIN ACCESS TO PROPERTY AT ALL TIMES USING ONE OF THE FOLLOWING METHODS:
 REPLACE DRIVEWAY USING PART WIDTH CONSTRUCTION, BACKFILL OPEN EXCAVATION WITH ITEM 304 AGGREGATE FOR TEMPORARY ACCESS, OR USE STEEL PLATES TO SPAN OVER OPEN EXCAVATIONS AND OR CONCRETE NOT OUT OF CURE.
 BEFORE ACCESS TO A DRIVEWAY IS INTERRUPTED, THE CONTRACTOR SHALL GIVE PRIOR NOTICE TO THE OCCUPANT OF THE PROPERTY 72 HOURS BEFORE THE WORK IS STARTED.

THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT U.S. MAIL OR ANY OTHER DELIVERY WITHIN THE PROJECT LIMITS IS NOT DISRUPTED BY CONSTRUCTION OPERATIONS.

P:\LIC\80704\Design\Roadway\Plan_Sheets\MOT\SR16_MOT_103.dgn 23-MAR-2015 9:47AM cypoint





 HORIZONTAL SCALE IN FEET

MAINTENANCE OF TRAFFIC - PHASE 1
CHERRY VALLEY ROAD STA. 0+00 TO STA 12+00

LIC-16-16.64

MAINTAINING EXISTING DRIVES

THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL RESIDENCE AND COMMERCIAL DRIVES TO THE FULLEST EXTENT POSSIBLE. IT IS UNDERSTOOD THAT FOR SHORT PERIODS OF TIME, THE FULL ACCESS TO A DRIVEWAY MAY NOT BE POSSIBLE. THE CONTRACTOR SHALL MAKE ACCOMMODATIONS TO THE RESIDENT/BUSINESS OWNER SO THAT DURING THESE SHORT INTERVALS, THE HOME/BUSINESS OWNER CAN STILL HAVE ACCESS TO PARK NEAR THEIR RESIDENCE/BUSINESS.

PROPERTIES WITH MULTIPLE ACCESS POINTS: WORK AT ONE DRIVE AT A TIME. PROPERTIES WITH A SINGLE ACCESS POINT: MAINTAIN ACCESS TO PROPERTY AT ALL TIMES USING ONE OF THE FOLLOWING METHODS: REPLACE DRIVEWAY USING PART WIDTH CONSTRUCTION, BACKFILL OPEN EXCAVATION WITH ITEM 304 AGGREGATE FOR TEMPORARY ACCESS, OR USE STEEL PLATES TO SPAN OVER OPEN EXCAVATIONS AND OR CONCRETE NOT OUT OF CURE. BEFORE ACCESS TO A DRIVEWAY IS INTERRUPTED, THE CONTRACTOR SHALL GIVE PRIOR NOTICE TO THE OCCUPANT OF THE PROPERTY 72 HOURS BEFORE THE WORK IS STARTED.

THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT U.S. MAIL OR ANY OTHER DELIVERY WITHIN THE PROJECT LIMITS IS NOT DISRUPTED BY CONSTRUCTION OPERATIONS.

EXISTING SOUTH CHERRY VALLEY ROAD

COMMERCIAL DRIVE (TYP.)


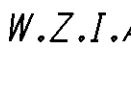





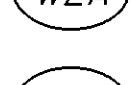



PROPOSED NEW CHERRY VALLEY ROAD

PROPOSED BIKE PATH

MATCHLINE STA. 12+00

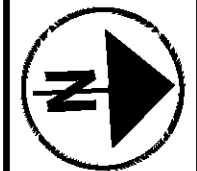
NOTE:
PAVEMENT WIDENING ON EXISTING SOUTH CHERRY VALLEY ROAD WILL BE CONSTRUCTED AS PER SCD MT-101.90.

LEGEND

-  PHASE 1 CONSTRUCTION
-  W.Z.I.A. WORK ZONE IMPACT ATTENUATOR, TYPE 2 DESIGN 55 MPH, 24" WIDE (UNIDIRECTIONAL)
-  PORTABLE CONCRETE BARRIER, 32"
-  CHL WORK ZONE CHANNELIZING LINE, CLASS I, 642 PAINT
-  WEL WORK ZONE EDGE LINE, CLASS I, 642 PAINT (WHITE)
-  YEL WORK ZONE EDGE LINE, CLASS I, 642 PAINT (YELLOW)
-  WLL WORK ZONE LANE LINE, CLASS I, 642 PAINT
-  WZA WORK ZONE ARROW, CLASS I, 642 PAINT
-  WZW WORK ZONE WORD ON PAVEMENT, 72", CLASS I, 642 PAINT
-  WSL WORK ZONE STOP LINE, CLASS I, 642 PAINT
-  WDL WORK ZONE DOTTED LINE, CLASS I, 642 PAINT

NOTES

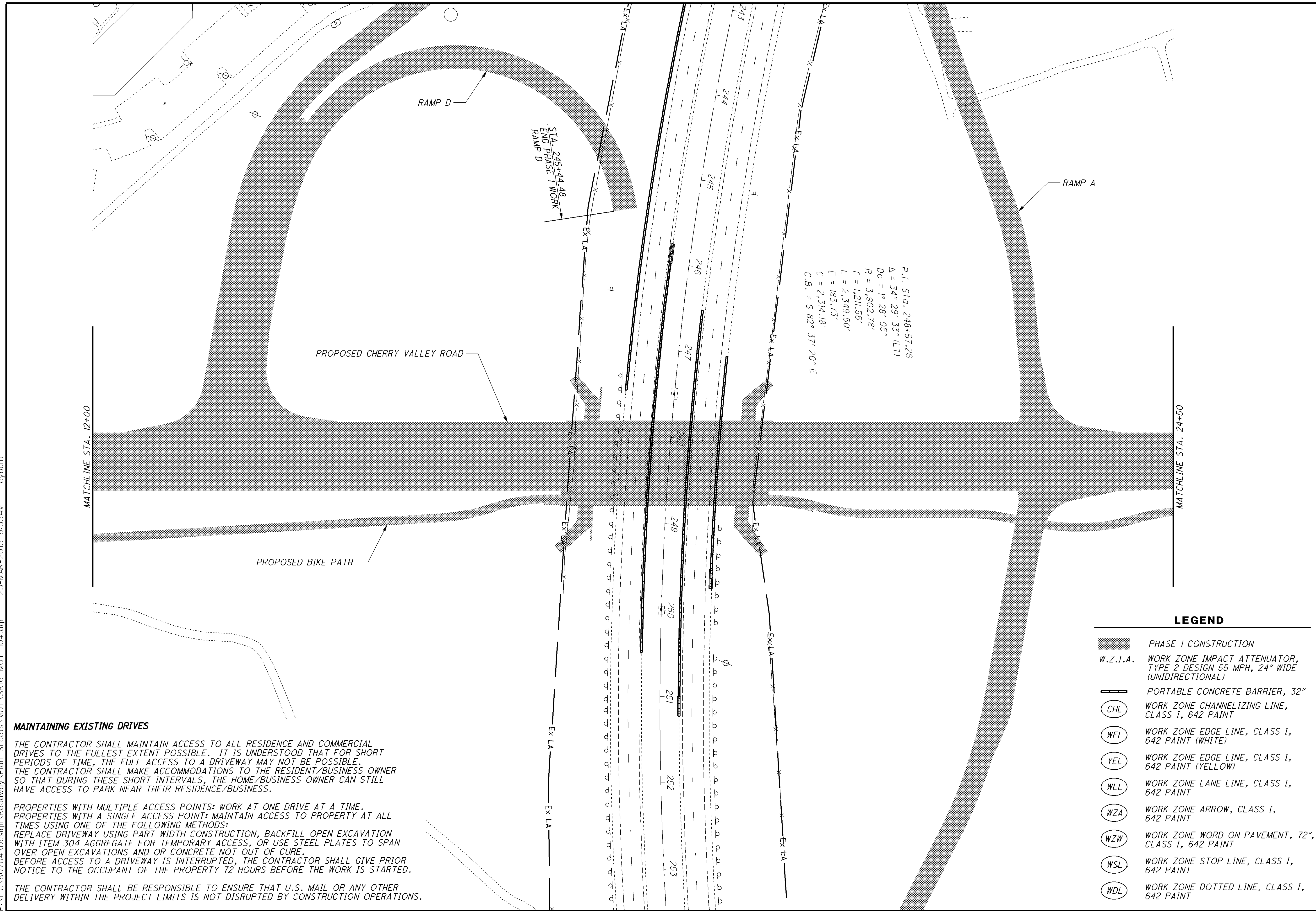
SEE MT-102.10 FOR LANE SHIFT DETAILS
ACCESS TO ALL DRIVES SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION



CALCULATED
CMY
CHECKED
HAG

MAINTENANCE OF TRAFFIC - PHASE 1
CHERRY VALLEY ROAD STA. 12+00 TO STA. 24+50

LIC-16-16.64



P.I. Sta. 248+57.26
Δ = 34° 29' 33" (LT)
DC = 1° 28' 05"
R = 3,902.78'
T = 1,211.56'
L = 2,349.50'
E = 183.73'
C = 2,314.18'
C.B. = S 82° 37' 20" E

STA. 245+44.48
END PHASE 1 WORK
RAMP D

LEGEND

- PHASE 1 CONSTRUCTION
- W.Z.I.A. WORK ZONE IMPACT ATTENUATOR, TYPE 2 DESIGN 55 MPH, 24" WIDE (UNIDIRECTIONAL)
- PORTABLE CONCRETE BARRIER, 32"
- CHL WORK ZONE CHANNELIZING LINE, CLASS 1, 642 PAINT
- WEL WORK ZONE EDGE LINE, CLASS 1, 642 PAINT (WHITE)
- YEL WORK ZONE EDGE LINE, CLASS 1, 642 PAINT (YELLOW)
- WLL WORK ZONE LANE LINE, CLASS 1, 642 PAINT
- WZA WORK ZONE ARROW, CLASS 1, 642 PAINT
- WZW WORK ZONE WORD ON PAVEMENT, 72", CLASS 1, 642 PAINT
- WSL WORK ZONE STOP LINE, CLASS 1, 642 PAINT
- WDL WORK ZONE DOTTED LINE, CLASS 1, 642 PAINT

MAINTAINING EXISTING DRIVES

THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL RESIDENCE AND COMMERCIAL DRIVES TO THE FULLEST EXTENT POSSIBLE. IT IS UNDERSTOOD THAT FOR SHORT PERIODS OF TIME, THE FULL ACCESS TO A DRIVEWAY MAY NOT BE POSSIBLE. THE CONTRACTOR SHALL MAKE ACCOMMODATIONS TO THE RESIDENT/BUSINESS OWNER SO THAT DURING THESE SHORT INTERVALS, THE HOME/BUSINESS OWNER CAN STILL HAVE ACCESS TO PARK NEAR THEIR RESIDENCE/BUSINESS.

PROPERTIES WITH MULTIPLE ACCESS POINTS: WORK AT ONE DRIVE AT A TIME.
PROPERTIES WITH A SINGLE ACCESS POINT: MAINTAIN ACCESS TO PROPERTY AT ALL TIMES USING ONE OF THE FOLLOWING METHODS:
REPLACE DRIVEWAY USING PART WIDTH CONSTRUCTION, BACKFILL OPEN EXCAVATION WITH ITEM 304 AGGREGATE FOR TEMPORARY ACCESS, OR USE STEEL PLATES TO SPAN OVER OPEN EXCAVATIONS AND OR CONCRETE NOT OUT OF CURE.
BEFORE ACCESS TO A DRIVEWAY IS INTERRUPTED, THE CONTRACTOR SHALL GIVE PRIOR NOTICE TO THE OCCUPANT OF THE PROPERTY 72 HOURS BEFORE THE WORK IS STARTED.

THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT U.S. MAIL OR ANY OTHER DELIVERY WITHIN THE PROJECT LIMITS IS NOT DISRUPTED BY CONSTRUCTION OPERATIONS.

P:\LIC\80704\Design\Roadway\Plan_Sheets\MOT\SR16_MOT_104.dgn 23-MAR-2015 9:53AM cypoint

MAINTAINING EXISTING DRIVES

THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL RESIDENCE AND COMMERCIAL DRIVES TO THE FULLEST EXTENT POSSIBLE. IT IS UNDERSTOOD THAT FOR SHORT PERIODS OF TIME, THE FULL ACCESS TO A DRIVEWAY MAY NOT BE POSSIBLE. THE CONTRACTOR SHALL MAKE ACCOMMODATIONS TO THE RESIDENT/BUSINESS OWNER SO THAT DURING THESE SHORT INTERVALS, THE HOME/BUSINESS OWNER CAN STILL HAVE ACCESS TO PARK NEAR THEIR RESIDENCE/BUSINESS.

PROPERTIES WITH MULTIPLE ACCESS POINTS: WORK AT ONE DRIVE AT A TIME.
 PROPERTIES WITH A SINGLE ACCESS POINT: MAINTAIN ACCESS TO PROPERTY AT ALL TIMES USING ONE OF THE FOLLOWING METHODS:
 REPLACE DRIVEWAY USING PART WIDTH CONSTRUCTION, BACKFILL OPEN EXCAVATION WITH ITEM 304 AGGREGATE FOR TEMPORARY ACCESS, OR USE STEEL PLATES TO SPAN OVER OPEN EXCAVATIONS AND OR CONCRETE NOT OUT OF CURE.
 BEFORE ACCESS TO A DRIVEWAY IS INTERRUPTED, THE CONTRACTOR SHALL GIVE PRIOR NOTICE TO THE OCCUPANT OF THE PROPERTY 72 HOURS BEFORE THE WORK IS STARTED.

THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT U.S. MAIL OR ANY OTHER DELIVERY WITHIN THE PROJECT LIMITS IS NOT DISRUPTED BY CONSTRUCTION OPERATIONS.

NOTE:
 PAVEMENT WIDENING WILL BE CONSTRUCTED AS PER MT-101.90.

PROPOSED CHERRY VALLEY ROAD

PROPOSED BIKE PATH

EXISTING NEWARK-GRANVILLE ROAD

DRUMS @ 40' SPACING

MAINTAIN TWO WAY TRAFFIC
 (WITH FLAGGERS IF NECESSARY)
 AT ALL TIMES DURING CONSTRUCTION
 OF EXISTING NEWARK-GRANVILLE ROAD

NOTES

SEE MT-102.10 FOR LANE SHIFT DETAILS

ACCESS TO ALL DRIVES SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION

LEGEND	
	PHASE 1 CONSTRUCTION
	W.Z.I.A. WORK ZONE IMPACT ATTENUATOR, TYPE 2 DESIGN 55 MPH, 24" WIDE (UNIDIRECTIONAL)
	PORTABLE CONCRETE BARRIER, 32"
	WORK ZONE CHANNELIZING LINE, CLASS 1, 642 PAINT
	WORK ZONE EDGE LINE, CLASS 1, 642 PAINT (WHITE)
	WORK ZONE EDGE LINE, CLASS 1, 642 PAINT (YELLOW)
	WORK ZONE LANE LINE, CLASS 1, 642 PAINT
	WORK ZONE ARROW, CLASS 1, 642 PAINT
	WORK ZONE WORD ON PAVEMENT, 72", CLASS 1, 642 PAINT
	WORK ZONE STOP LINE, CLASS 1, 642 PAINT
	WORK ZONE DOTTED LINE, CLASS 1, 642 PAINT



CALCULATED CMY
 CHECKED HAG

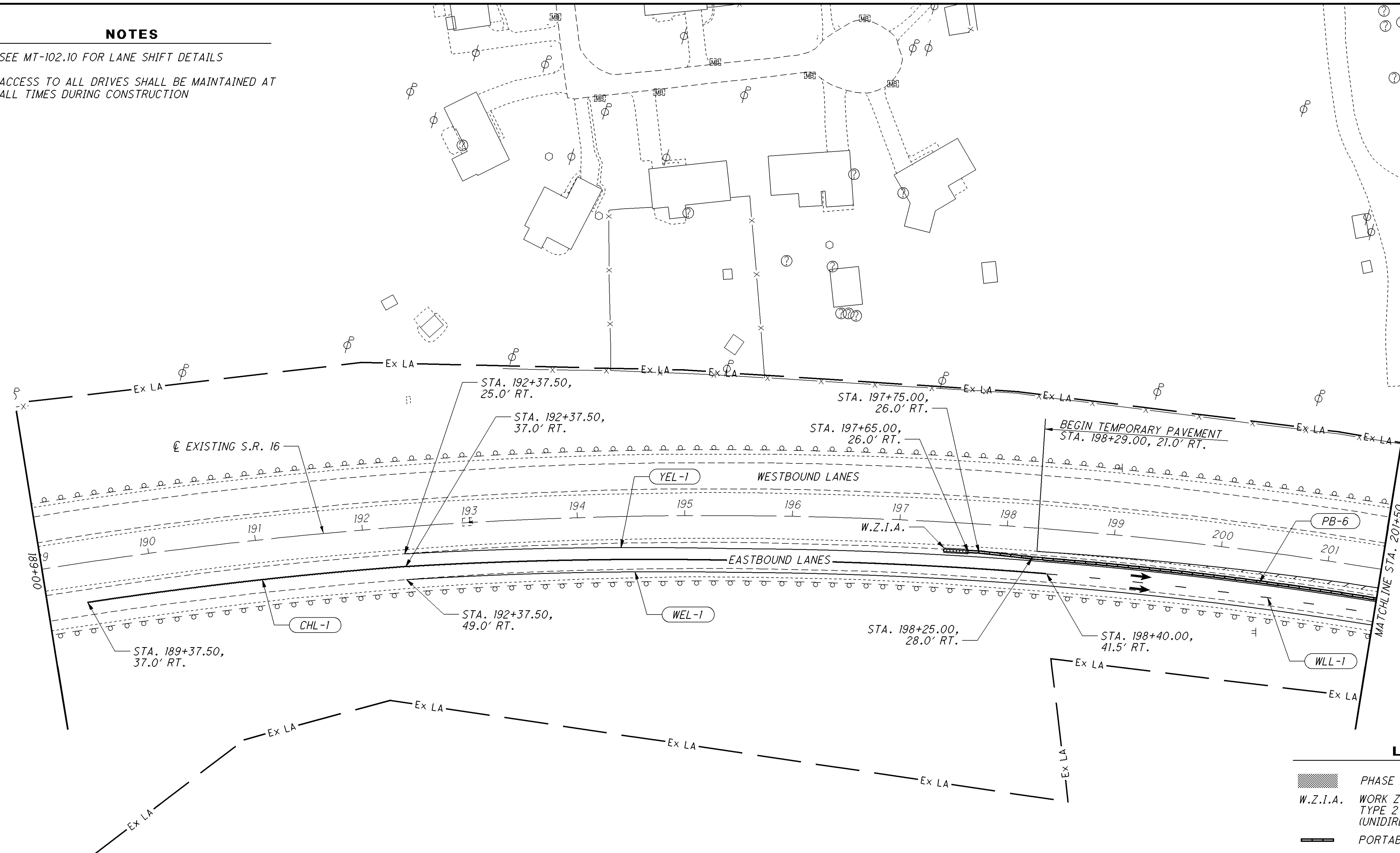
MAINTENANCE OF TRAFFIC - PHASE 1
CHERRY VALLEY ROAD STA. 24+50 TO STA. 34+26

LIC-16-16.64


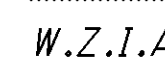


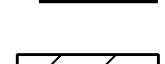
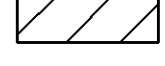






P:\LIC\80704\Design\Roadway\Plan_Sheets\MOT\SR16_MOT_105.dgn 08-JUN-2015 10:02AM ccount

NOTES

SEE MT-102.10 FOR LANE SHIFT DETAILS
 ACCESS TO ALL DRIVES SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION



LEGEND

-  PHASE 2 CONSTRUCTION
-  W.Z.I.A. WORK ZONE IMPACT ATTENUATOR, TYPE 2 DESIGN 55 MPH, 24" WIDE (UNIDIRECTIONAL)
-  PORTABLE CONCRETE BARRIER, 32"
-  TEMPORARY PAVEMENT
-  CHL WORK ZONE CHANNELIZING LINE, CLASS I, 642 PAINT
-  WEL WORK ZONE EDGE LINE, CLASS I, 642 PAINT (WHITE)
-  YEL WORK ZONE EDGE LINE, CLASS I, 642 PAINT (YELLOW)
-  WLL WORK ZONE LANE LINE, CLASS I, 642 PAINT
-  WZA WORK ZONE ARROW, CLASS I, 642 PAINT
-  WZW WORK ZONE WORD ON PAVEMENT, 72", CLASS I, 642 PAINT
-  WSL WORK ZONE STOP LINE, CLASS I, 642 PAINT
-  WDL WORK ZONE DOTTED LINE, CLASS I, 642 PAINT

CALCULATED CMY
 CHECKED HAG

0 25 50 100
 HORIZONTAL SCALE IN FEET

**MAINTENANCE OF TRAFFIC - PHASE 2
 S.R. 16 STA. 189+00 TO STA. 201+50**

LIC-16-16.64

P:\LIC\80704\Design\Roadway\Plan_Sheets\MOT\SR16_MOT_201.dgn 23-MAR-2015 2:07PM cypunt

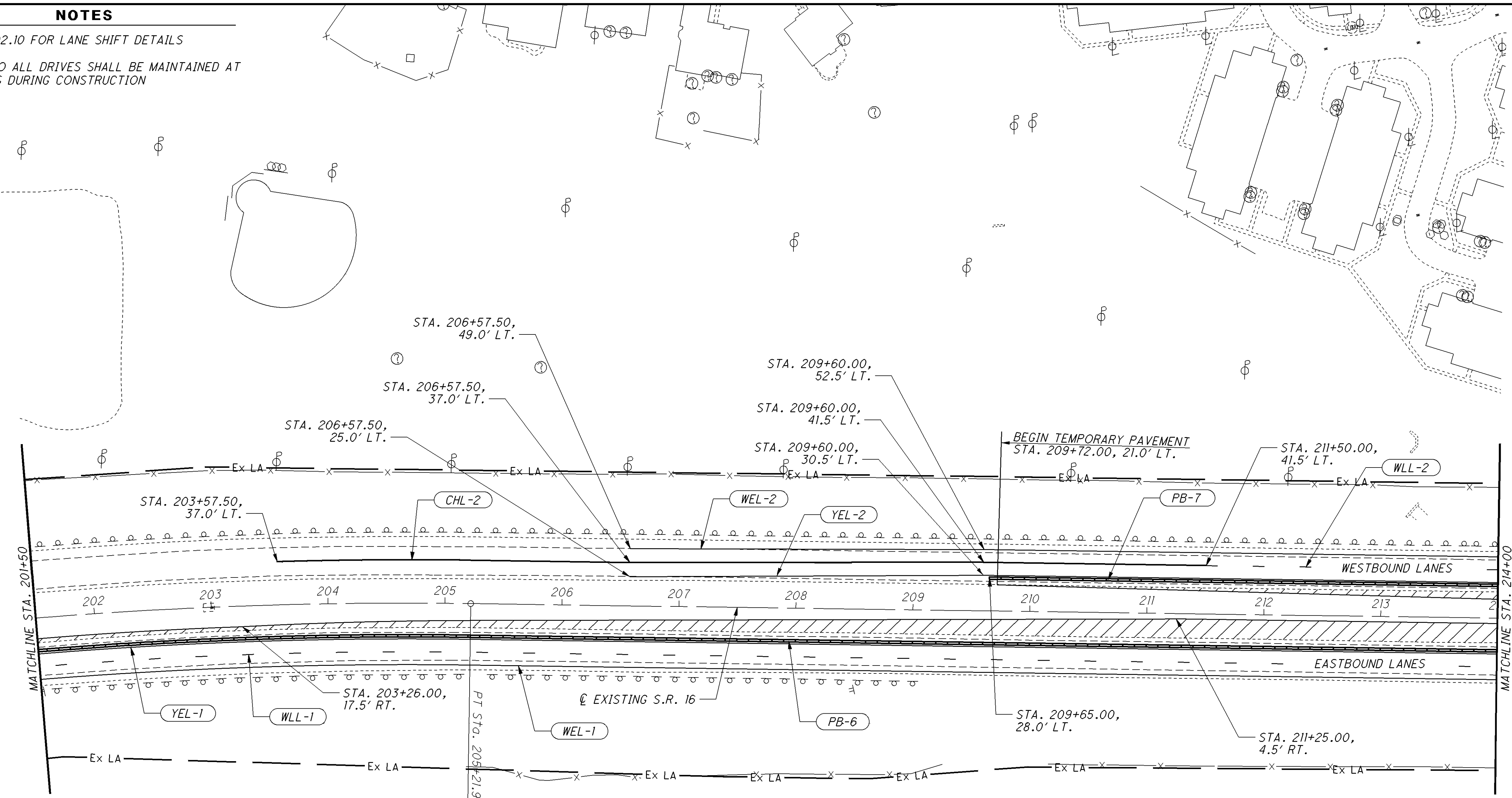
NOTES

SEE MT-102.10 FOR LANE SHIFT DETAILS
 ACCESS TO ALL DRIVES SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION

CALCULATED CMY
 CHECKED HAG

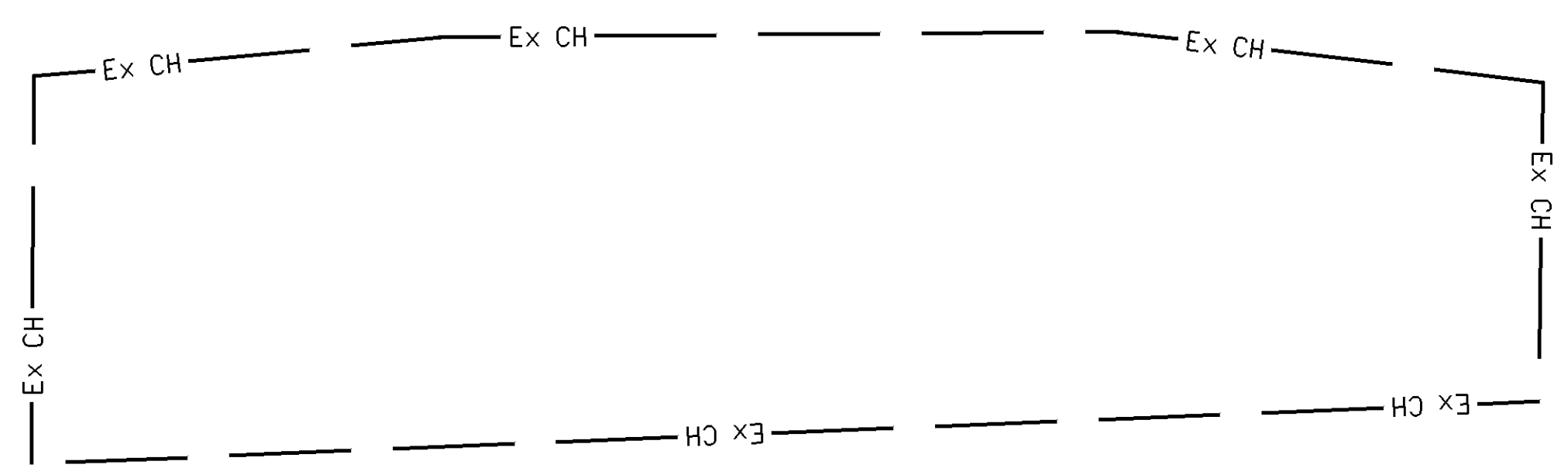
**MAINTENANCE OF TRAFFIC - PHASE 2
 S.R. 16 STA. 201+50 TO STA. 214+00**

LIC-16-16.64



LEGEND

- PHASE 2 CONSTRUCTION
- W.Z.I.A. WORK ZONE IMPACT ATTENUATOR, TYPE 2 DESIGN 55 MPH, 24" WIDE (UNIDIRECTIONAL)
- PORTABLE CONCRETE BARRIER, 32"
- TEMPORARY PAVEMENT
- CHL WORK ZONE CHANNELIZING LINE, CLASS I, 642 PAINT
- WEL WORK ZONE EDGE LINE, CLASS I, 642 PAINT (WHITE)
- YEL WORK ZONE EDGE LINE, CLASS I, 642 PAINT (YELLOW)
- WLL WORK ZONE LANE LINE, CLASS I, 642 PAINT
- WZA WORK ZONE ARROW, CLASS I, 642 PAINT
- WZW WORK ZONE WORD ON PAVEMENT, 72", CLASS I, 642 PAINT
- WSL WORK ZONE STOP LINE, CLASS I, 642 PAINT
- WDL WORK ZONE DOTTED LINE, CLASS I, 642 PAINT



P:\LIC\80704\Design\Roadway\Plan_Sheets\MOT\SR16_MOT_202.dgn 23-MAR-2015 2:08PM ccount

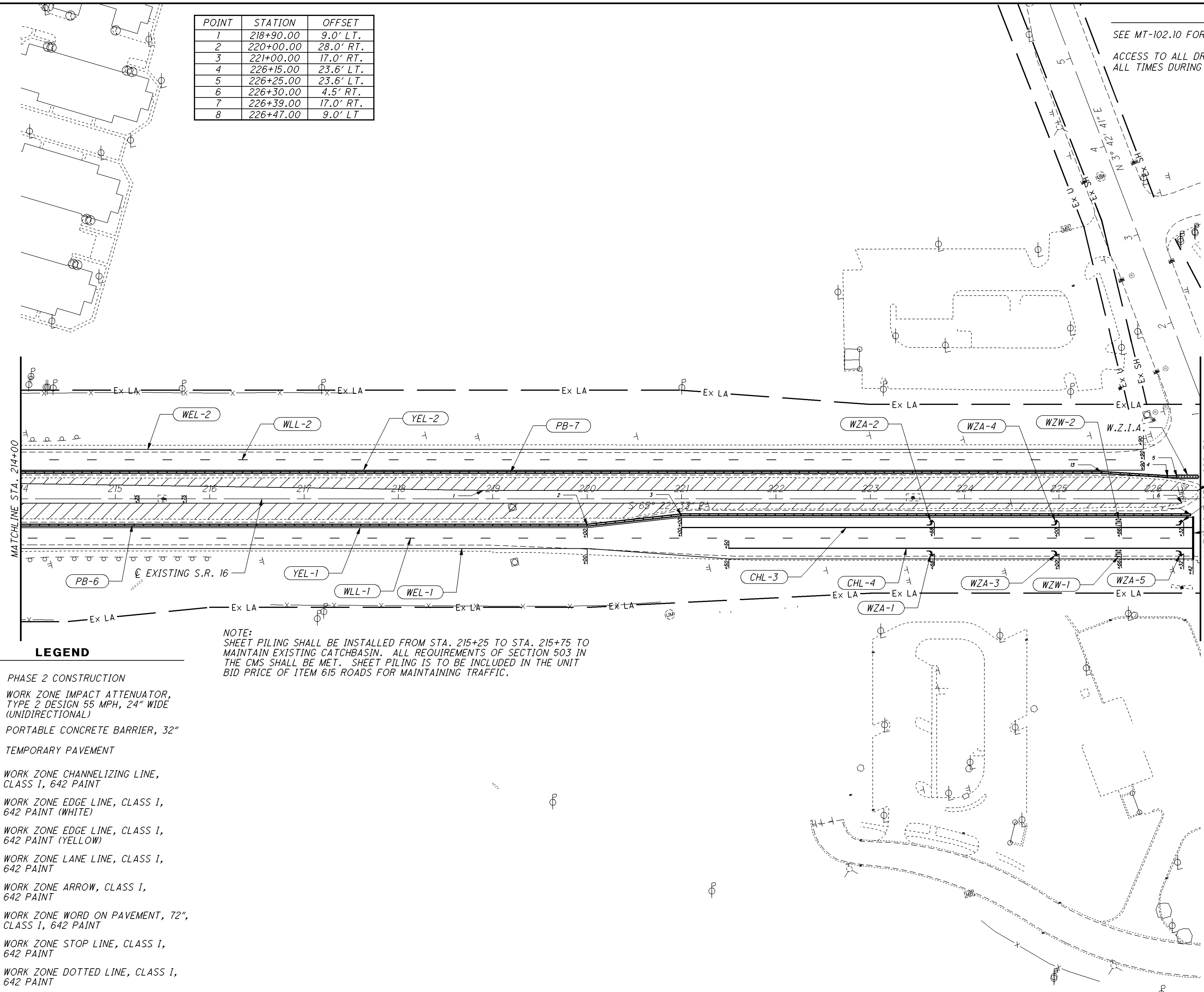
POINT	STATION	OFFSET
1	218+90.00	9.0' LT.
2	220+00.00	28.0' RT.
3	221+00.00	17.0' RT.
4	226+15.00	23.6' LT.
5	226+25.00	23.6' LT.
6	226+30.00	4.5' RT.
7	226+39.00	17.0' RT.
8	226+47.00	9.0' LT.

NOTES

SEE MT-102.10 FOR LANE SHIFT DETAILS
 ACCESS TO ALL DRIVES SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION

CALCULATED
 CMY
 CHECKED
 HAG

0 25 50 100
 HORIZONTAL
 SCALE IN FEET



MATCHLINE STA. 214+00

MATCHLINE STA. 226+50

LEGEND

- PHASE 2 CONSTRUCTION
- W.Z.I.A. WORK ZONE IMPACT ATTENUATOR, TYPE 2 DESIGN 55 MPH, 24" WIDE (UNIDIRECTIONAL)
- PORTABLE CONCRETE BARRIER, 32"
- TEMPORARY PAVEMENT
- CHL WORK ZONE CHANNELIZING LINE, CLASS I, 642 PAINT
- WEL WORK ZONE EDGE LINE, CLASS I, 642 PAINT (WHITE)
- YEL WORK ZONE EDGE LINE, CLASS I, 642 PAINT (YELLOW)
- WLL WORK ZONE LANE LINE, CLASS I, 642 PAINT
- WZA WORK ZONE ARROW, CLASS I, 642 PAINT
- WZW WORK ZONE WORD ON PAVEMENT, 72", CLASS I, 642 PAINT
- WSL WORK ZONE STOP LINE, CLASS I, 642 PAINT
- WDL WORK ZONE DOTTED LINE, CLASS I, 642 PAINT

NOTE:
 SHEET PILING SHALL BE INSTALLED FROM STA. 215+25 TO STA. 215+75 TO MAINTAIN EXISTING CATCHBASIN. ALL REQUIREMENTS OF SECTION 503 IN THE CMS SHALL BE MET. SHEET PILING IS TO BE INCLUDED IN THE UNIT BID PRICE OF ITEM 615 ROADS FOR MAINTAINING TRAFFIC.



MAINTENANCE OF TRAFFIC - PHASE 2
S.R. 16 STA. 214+00 TO STA. 226+50

LIC-16-16.64

NOTES

SEE MT-102.10 FOR LANE SHIFT DETAILS
 ACCESS TO ALL DRIVES SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION

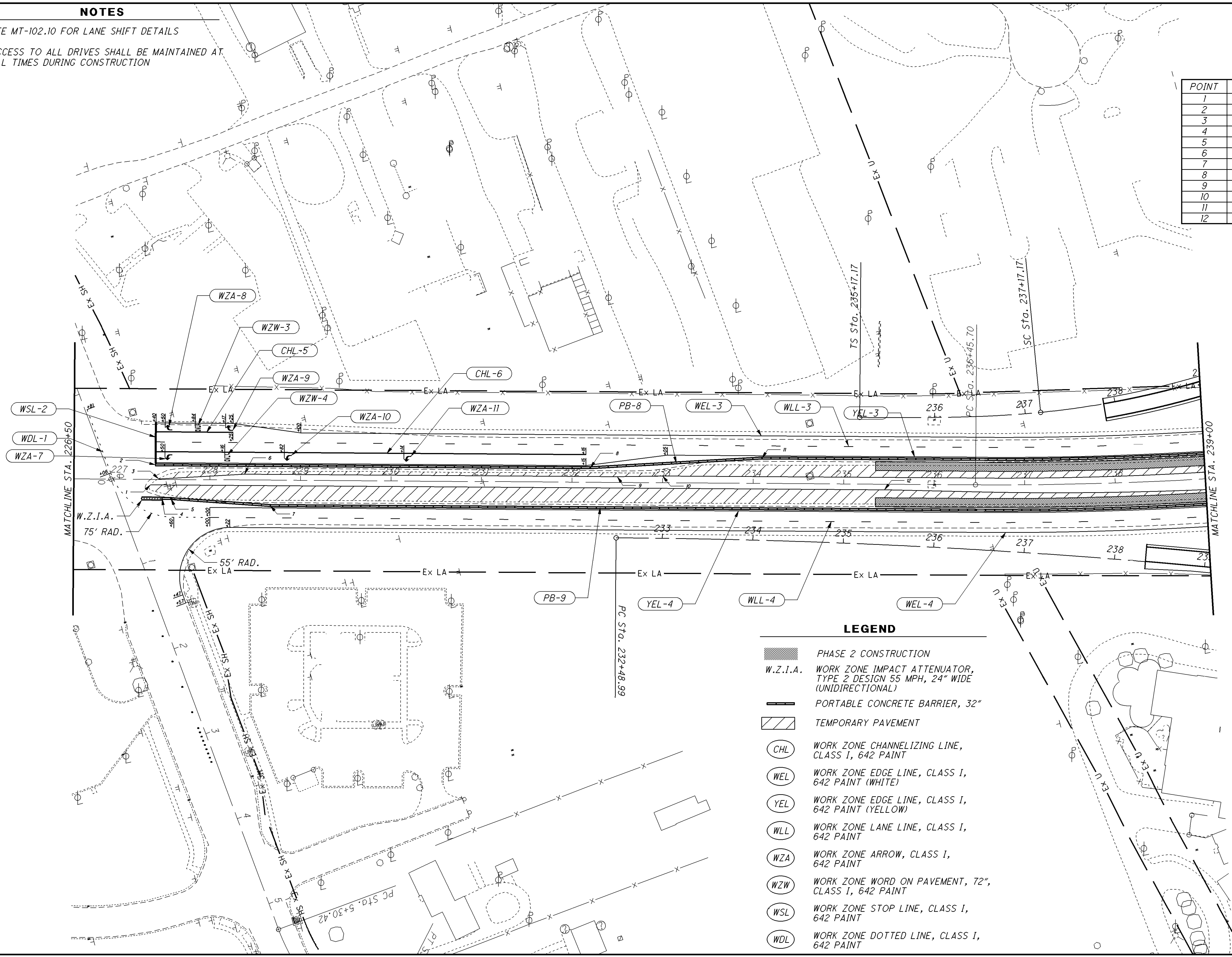
POINT	STATION	OFFSET
1	227+34.00	6.0' RT.
2	227+40.00	16.0' LT.
3	227+43.00	0.6' LT.
4	227+47.00	21.0' RT.
5	227+57.00	21.0' RT.
6	228+38.00	6.5' LT.
7	228+67.00	28.0' RT.
8	232+20.00	16.0' LT.
9	232+50.00	6.5' LT.
10	233+00.00	7.5' LT.
11	234+10.00	28.0' LT.
12	235+45.00	6.0' RT.



 HORIZONTAL SCALE IN FEET
 CALCULATED CMY
 CHECKED HAG


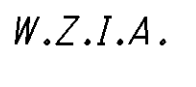


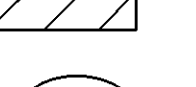







MAINTENANCE OF TRAFFIC - PHASE 2
S.R. 16 STA. 226+50 TO STA. 239+00

LIC-16-16.64

P:\LIC\80704\Design\Roadway\Plan_Sheets\MOT\SR16_MOT_204.dgn 24-MAR-2015 8:23AM c:\count



LEGEND

-  PHASE 2 CONSTRUCTION
-  W.Z.I.A. WORK ZONE IMPACT ATTENUATOR, TYPE 2 DESIGN 55 MPH, 24" WIDE (UNIDIRECTIONAL)
-  PORTABLE CONCRETE BARRIER, 32"
-  TEMPORARY PAVEMENT
-  CHL WORK ZONE CHANNELIZING LINE, CLASS I, 642 PAINT
-  WEL WORK ZONE EDGE LINE, CLASS I, 642 PAINT (WHITE)
-  YEL WORK ZONE EDGE LINE, CLASS I, 642 PAINT (YELLOW)
-  WLL WORK ZONE LANE LINE, CLASS I, 642 PAINT
-  WZA WORK ZONE ARROW, CLASS I, 642 PAINT
-  WZW WORK ZONE WORD ON PAVEMENT, 72", CLASS I, 642 PAINT
-  WSL WORK ZONE STOP LINE, CLASS I, 642 PAINT
-  WDL WORK ZONE DOTTED LINE, CLASS I, 642 PAINT

POINT	STATION	OFFSET
1	241+01.00	15.0' RT.
2	245+50.00	7.5' LT.
3	250+21.00	15.0' LT.

NOTES

SEE MT-102.10 FOR LANE SHIFT DETAILS
 ACCESS TO ALL DRIVES SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION

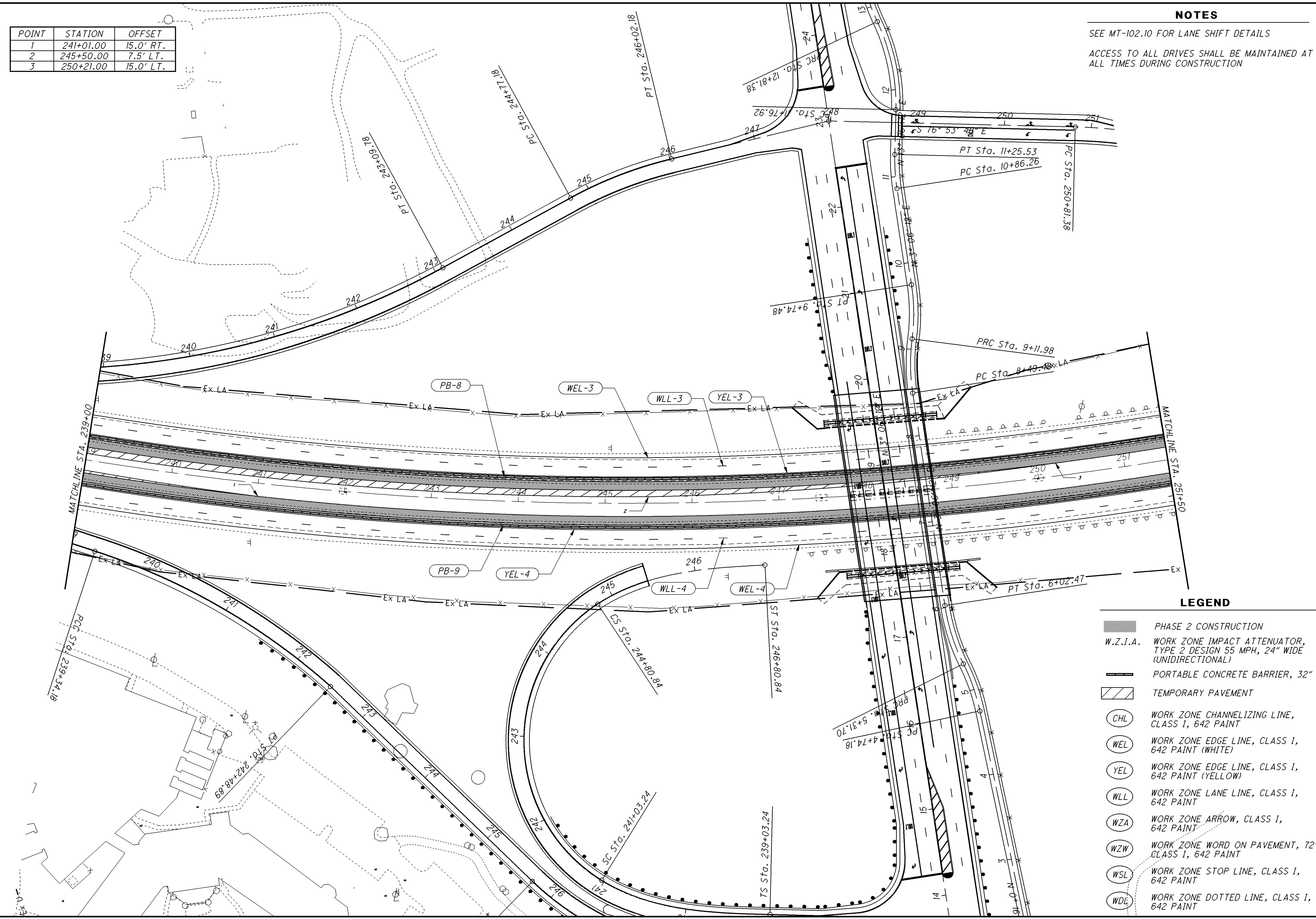


CALCULATED CMY
 CHECKED HAG

**MAINTENANCE OF TRAFFIC - PHASE 2
 S.R. 16 STA. 239+00 TO STA. 251+50**

LIC-16-16.64

72
 729



LEGEND

- PHASE 2 CONSTRUCTION
- W.Z.I.A. WORK ZONE IMPACT ATTENUATOR, TYPE 2 DESIGN 55 MPH, 24" WIDE (UNIDIRECTIONAL)
- PORTABLE CONCRETE BARRIER, 32"
- TEMPORARY PAVEMENT
- WORK ZONE CHANNELIZING LINE, CLASS I, 642 PAINT
- WORK ZONE EDGE LINE, CLASS I, 642 PAINT (WHITE)
- WORK ZONE EDGE LINE, CLASS I, 642 PAINT (YELLOW)
- WORK ZONE LANE LINE, CLASS I, 642 PAINT
- WORK ZONE ARROW, CLASS I, 642 PAINT
- WORK ZONE WORD ON PAVEMENT, 72", CLASS I, 642 PAINT
- WORK ZONE STOP LINE, CLASS I, 642 PAINT
- WORK ZONE DOTTED LINE, CLASS I, 642 PAINT

P:\LIC\80704\Design\Roadway\Plan_Sheets\MOT_SRR16_MOT_205.dgn 24-MAR-2015 9:06AM c:\count

NOTES

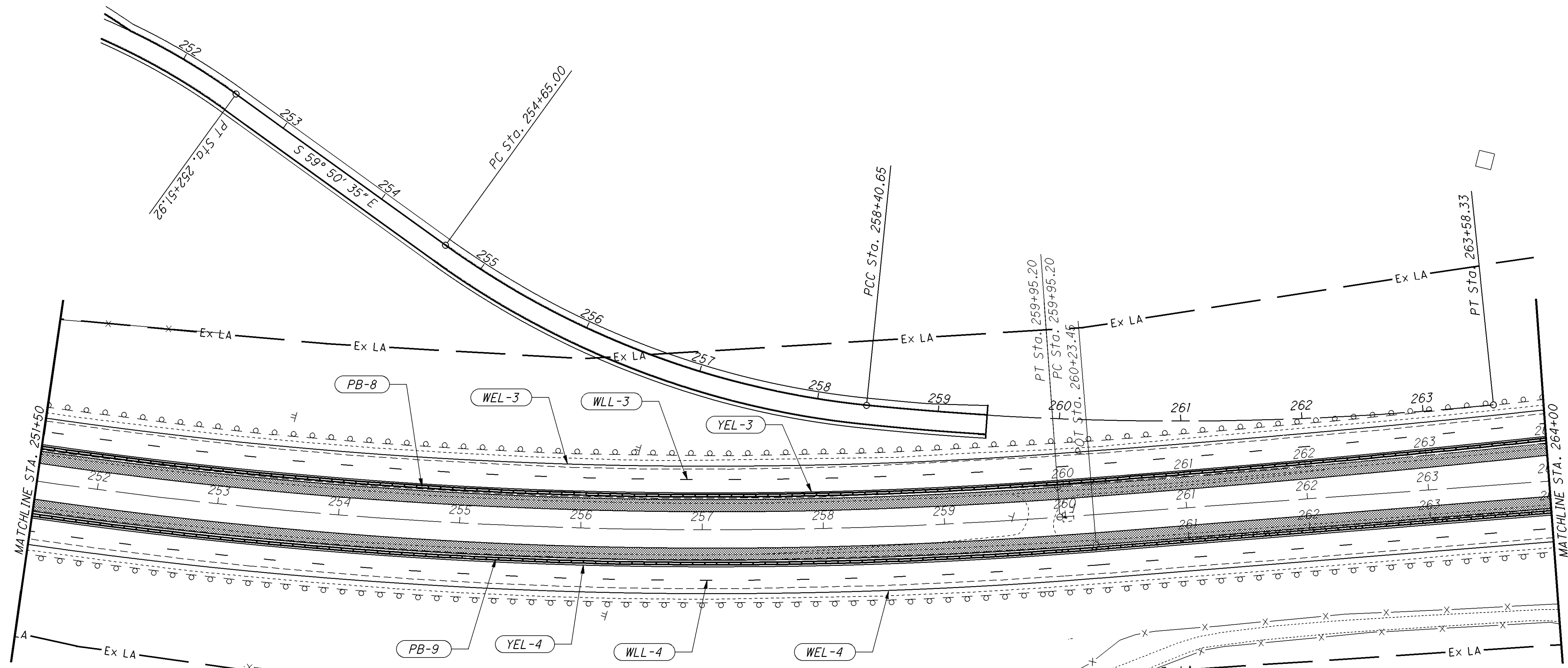
SEE MT-102.10 FOR LANE SHIFT DETAILS

ACCESS TO ALL DRIVES SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION

CALCULATED
CMY
CHECKED
HAG

MAINTENANCE OF TRAFFIC - PHASE 2
S.R. 16 STA. 251+50 TO STA. 264+00

LIC-16-16.64



LEGEND

- PHASE 2 CONSTRUCTION
- W.Z.I.A. WORK ZONE IMPACT ATTENUATOR, TYPE 2 DESIGN 55 MPH, 24" WIDE (UNIDIRECTIONAL)
- PORTABLE CONCRETE BARRIER, 32"
- TEMPORARY PAVEMENT
- WORK ZONE CHANNELIZING LINE, CLASS I, 642 PAINT
- WORK ZONE EDGE LINE, CLASS I, 642 PAINT (WHITE)
- WORK ZONE EDGE LINE, CLASS I, 642 PAINT (YELLOW)
- WORK ZONE LANE LINE, CLASS I, 642 PAINT
- WORK ZONE ARROW, CLASS I, 642 PAINT
- WORK ZONE WORD ON PAVEMENT, 72", CLASS I, 642 PAINT
- WORK ZONE STOP LINE, CLASS I, 642 PAINT
- WORK ZONE DOTTED LINE, CLASS I, 642 PAINT

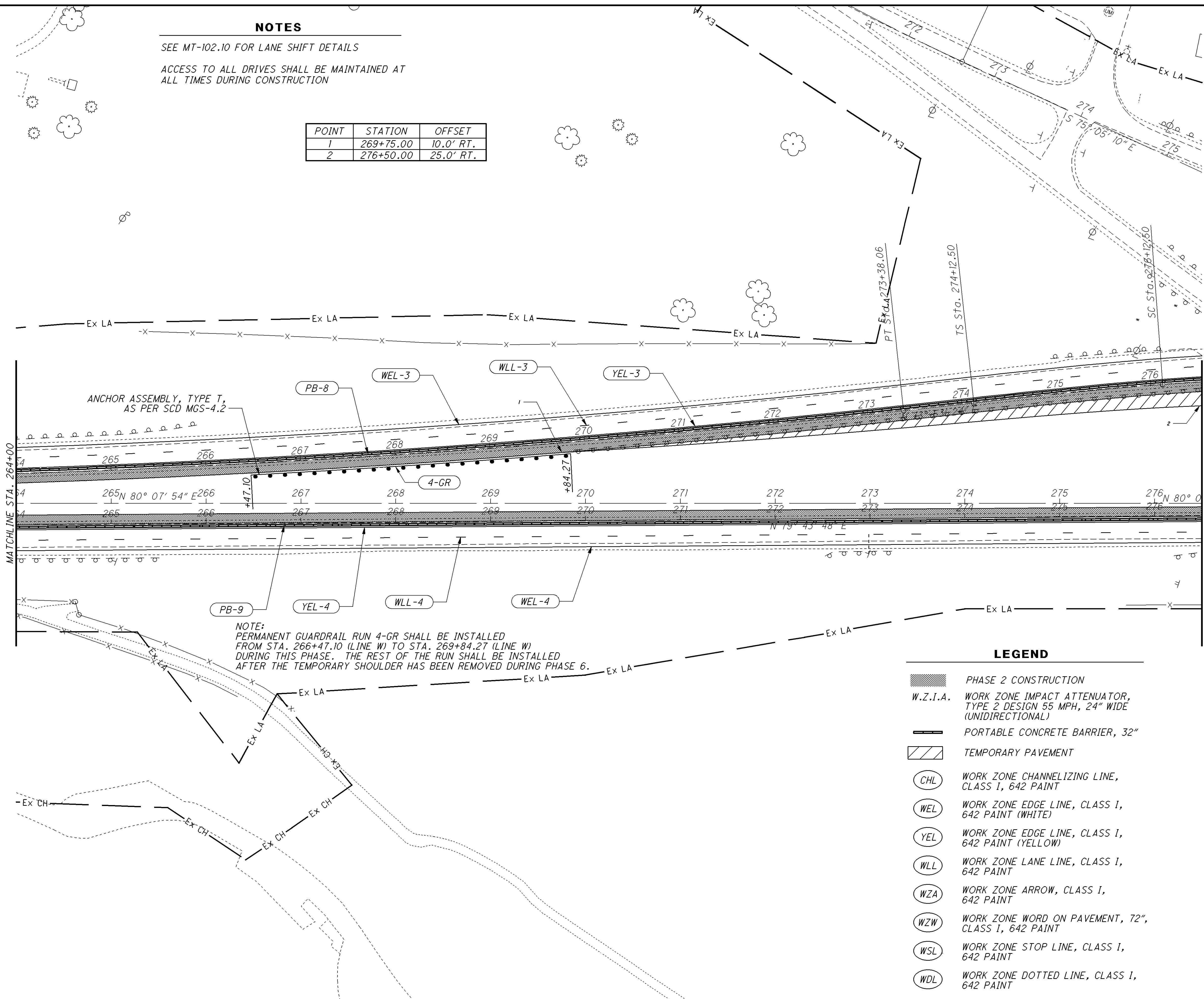
P:\LIC\80704\Design\Roadway\Plan_Sheets\MOT_SR16\MOT_206.dgn 09-JUN-2015 3:33PM c.yount

NOTES

SEE MT-102.10 FOR LANE SHIFT DETAILS

ACCESS TO ALL DRIVES SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION

POINT	STATION	OFFSET
1	269+75.00	10.0' RT.
2	276+50.00	25.0' RT.



LEGEND

- PHASE 2 CONSTRUCTION
- W.Z.I.A. WORK ZONE IMPACT ATTENUATOR, TYPE 2 DESIGN 55 MPH, 24" WIDE (UNIDIRECTIONAL)
- PORTABLE CONCRETE BARRIER, 32"
- TEMPORARY PAVEMENT
- (CHL) WORK ZONE CHANNELIZING LINE, CLASS I, 642 PAINT
- (WEL) WORK ZONE EDGE LINE, CLASS I, 642 PAINT (WHITE)
- (YEL) WORK ZONE EDGE LINE, CLASS I, 642 PAINT (YELLOW)
- (WLL) WORK ZONE LANE LINE, CLASS I, 642 PAINT
- (WZA) WORK ZONE ARROW, CLASS I, 642 PAINT
- (WZW) WORK ZONE WORD ON PAVEMENT, 72", CLASS I, 642 PAINT
- (WSL) WORK ZONE STOP LINE, CLASS I, 642 PAINT
- (WDL) WORK ZONE DOTTED LINE, CLASS I, 642 PAINT

0 25 50 100

 HORIZONTAL

 SCALE IN FEET

MAINTENANCE OF TRAFFIC - PHASE 2
S.R. 16 STA. 264+00 TO STA. 276+50

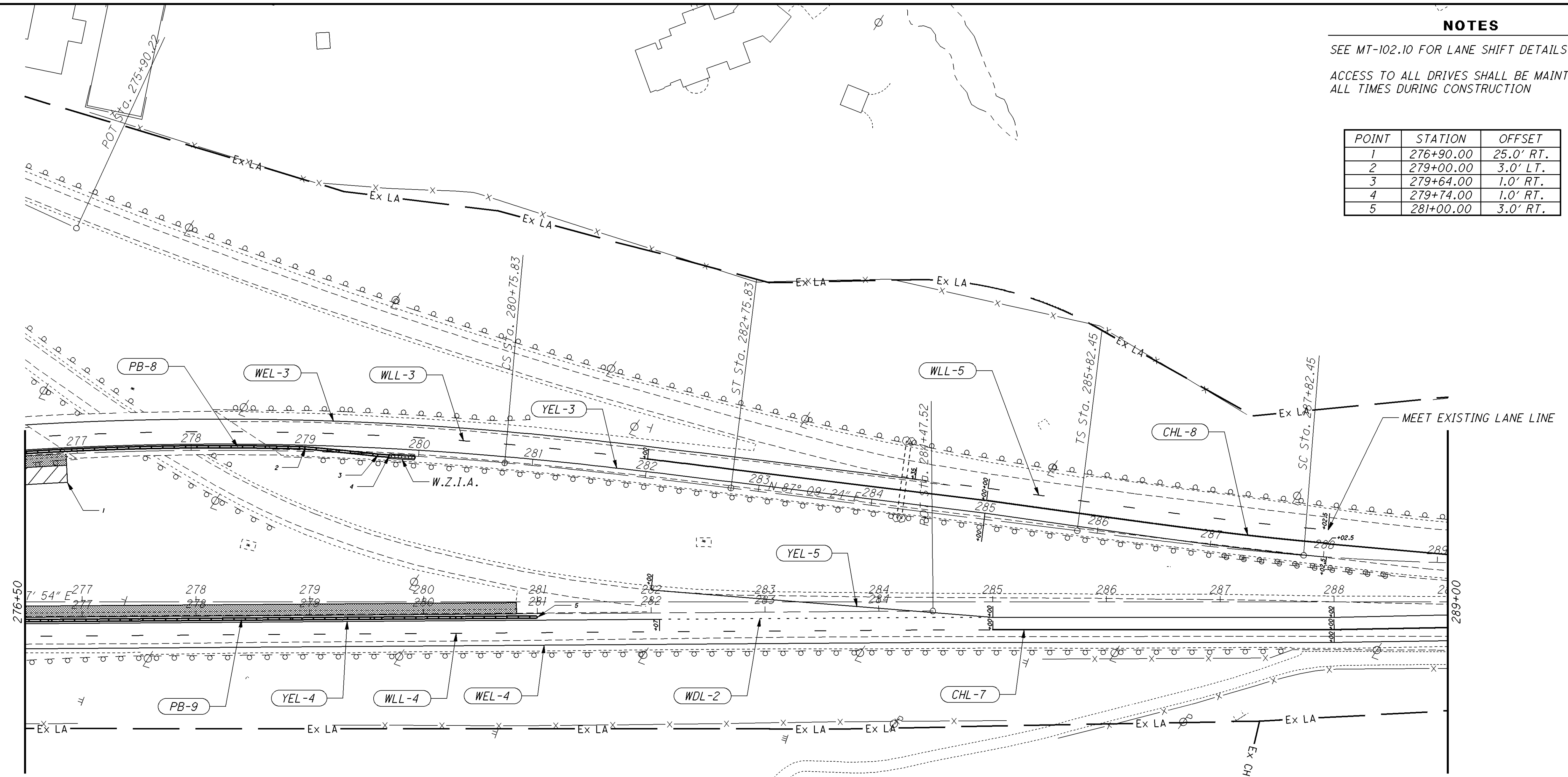
LIC-16-16.64

P:\LIC\80704\Design\Roadway\Plan_Sheets\MOT\SR16\MOT_208.dgn 24-MAR-2015 10:33AM c:\count

NOTES

SEE MT-102.10 FOR LANE SHIFT DETAILS
 ACCESS TO ALL DRIVES SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION

POINT	STATION	OFFSET
1	276+90.00	25.0' RT.
2	279+00.00	3.0' LT.
3	279+64.00	1.0' RT.
4	279+74.00	1.0' RT.
5	281+00.00	3.0' RT.



LEGEND

- PHASE 2 CONSTRUCTION
- W.Z.I.A. WORK ZONE IMPACT ATTENUATOR, TYPE 2 DESIGN 55 MPH, 24" WIDE (UNIDIRECTIONAL)
- PORTABLE CONCRETE BARRIER, 32"
- TEMPORARY PAVEMENT
- CHL WORK ZONE CHANNELIZING LINE, CLASS I, 642 PAINT
- WEL WORK ZONE EDGE LINE, CLASS I, 642 PAINT (WHITE)
- YEL WORK ZONE EDGE LINE, CLASS I, 642 PAINT (YELLOW)
- WLL WORK ZONE LANE LINE, CLASS I, 642 PAINT
- WZA WORK ZONE ARROW, CLASS I, 642 PAINT
- WZW WORK ZONE WORD ON PAVEMENT, 72", CLASS I, 642 PAINT
- WSL WORK ZONE STOP LINE, CLASS I, 642 PAINT
- WDL WORK ZONE DOTTED LINE, CLASS I, 642 PAINT

MAINTENANCE OF TRAFFIC - PHASE 2
S.R. 16 STA. 276+50 TO STA. 289+00

LIC-16-16.64

75
729



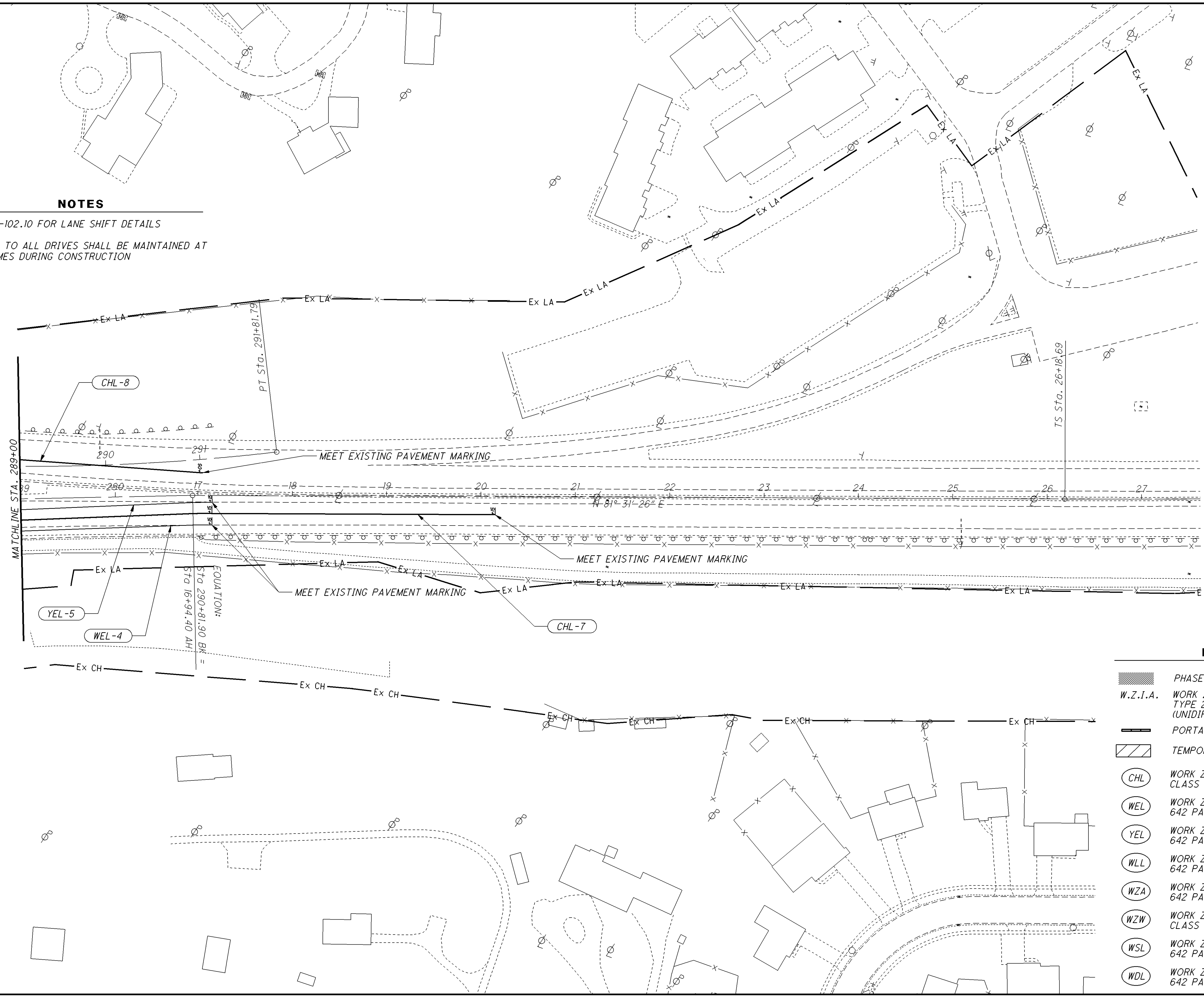
CALCULATED
CMY
CHECKED
HAG

MAINTENANCE OF TRAFFIC - PHASE 2
S.R. 16 STA. 289+00 TO STA. 27+62

LIC-16-16.64

NOTES

SEE MT-102.10 FOR LANE SHIFT DETAILS
ACCESS TO ALL DRIVES SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION



LEGEND

- PHASE 2 CONSTRUCTION
- W.Z.I.A. WORK ZONE IMPACT ATTENUATOR, TYPE 2 DESIGN 55 MPH, 24" WIDE (UNIDIRECTIONAL)
- PORTABLE CONCRETE BARRIER, 32"
- TEMPORARY PAVEMENT
- CHL WORK ZONE CHANNELIZING LINE, CLASS I, 642 PAINT
- WEL WORK ZONE EDGE LINE, CLASS I, 642 PAINT (WHITE)
- YEL WORK ZONE EDGE LINE, CLASS I, 642 PAINT (YELLOW)
- WLL WORK ZONE LANE LINE, CLASS I, 642 PAINT
- WZA WORK ZONE ARROW, CLASS I, 642 PAINT
- WZW WORK ZONE WORD ON PAVEMENT, 72", CLASS I, 642 PAINT
- WSL WORK ZONE STOP LINE, CLASS I, 642 PAINT
- WDL WORK ZONE DOTTED LINE, CLASS I, 642 PAINT

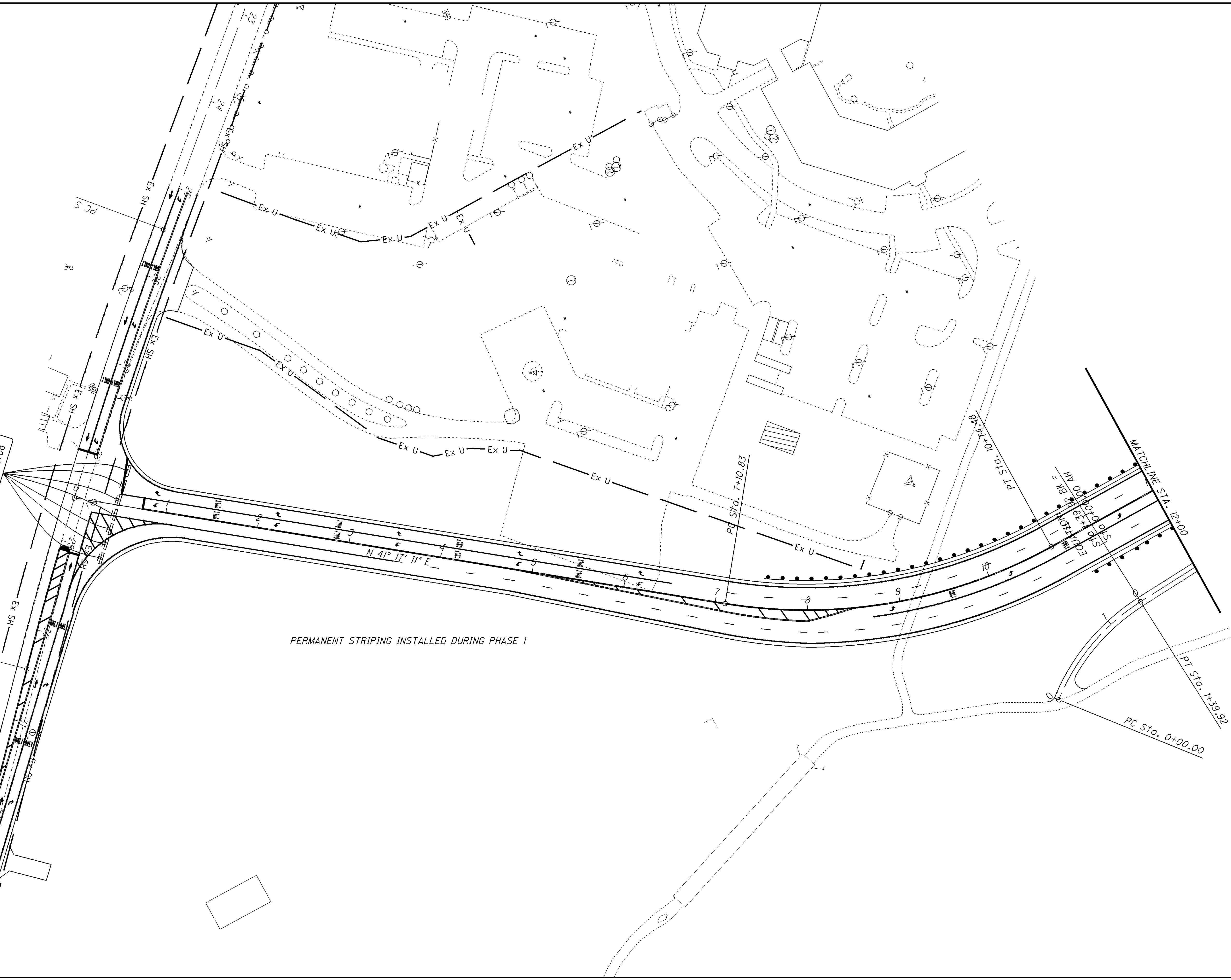
P:\LIC\80704\Design\Roadway\Plan_Sheets\MOT\SR16_MOT_209.dgn 24-MAR-2015 10:52AM c:\count

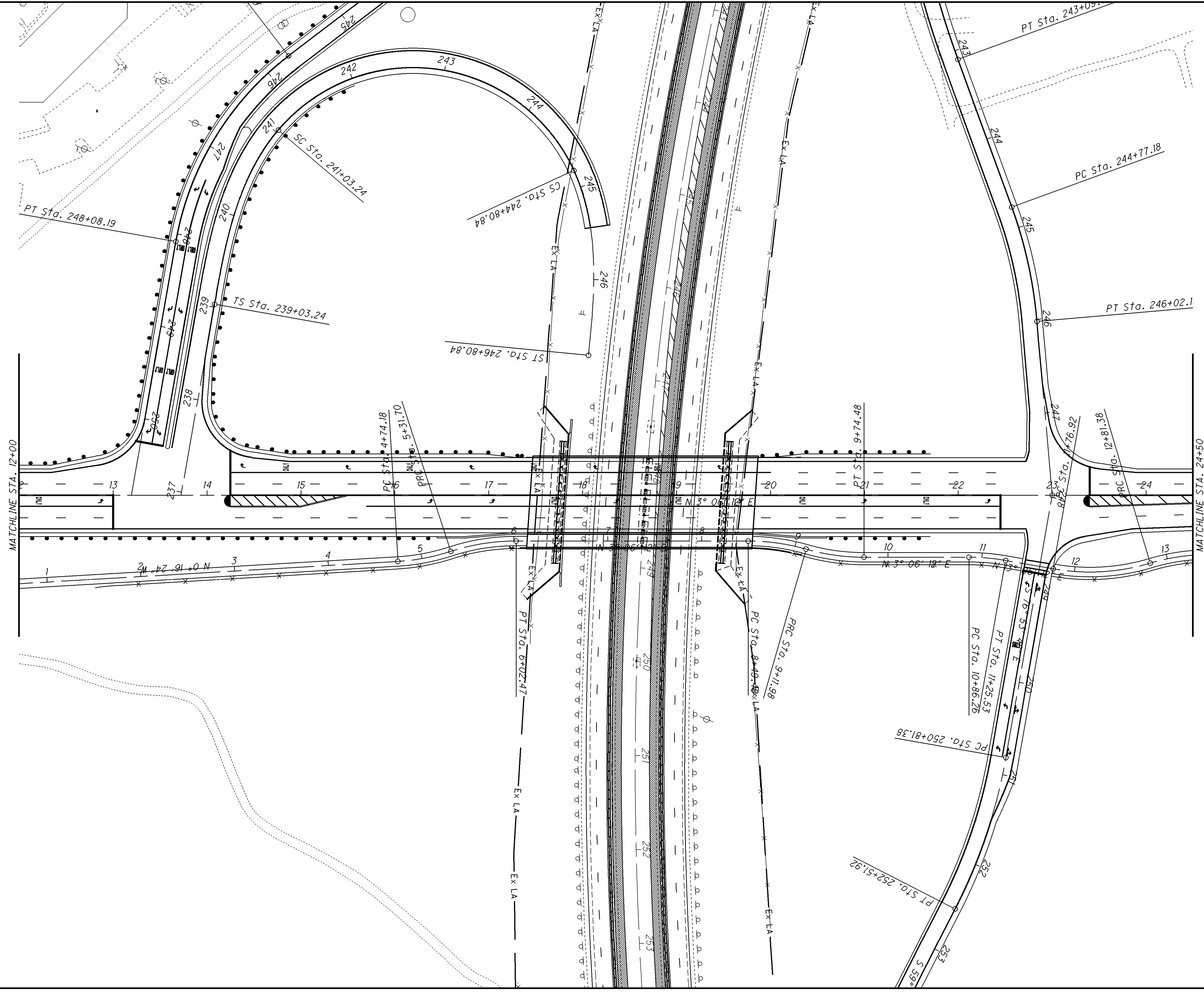
SHEET NOT USED



RD-3-66
MOUNT. C. TYPE III
BARRICADE

ROAD CLOSED
LOCAL TRAFFIC ONLY



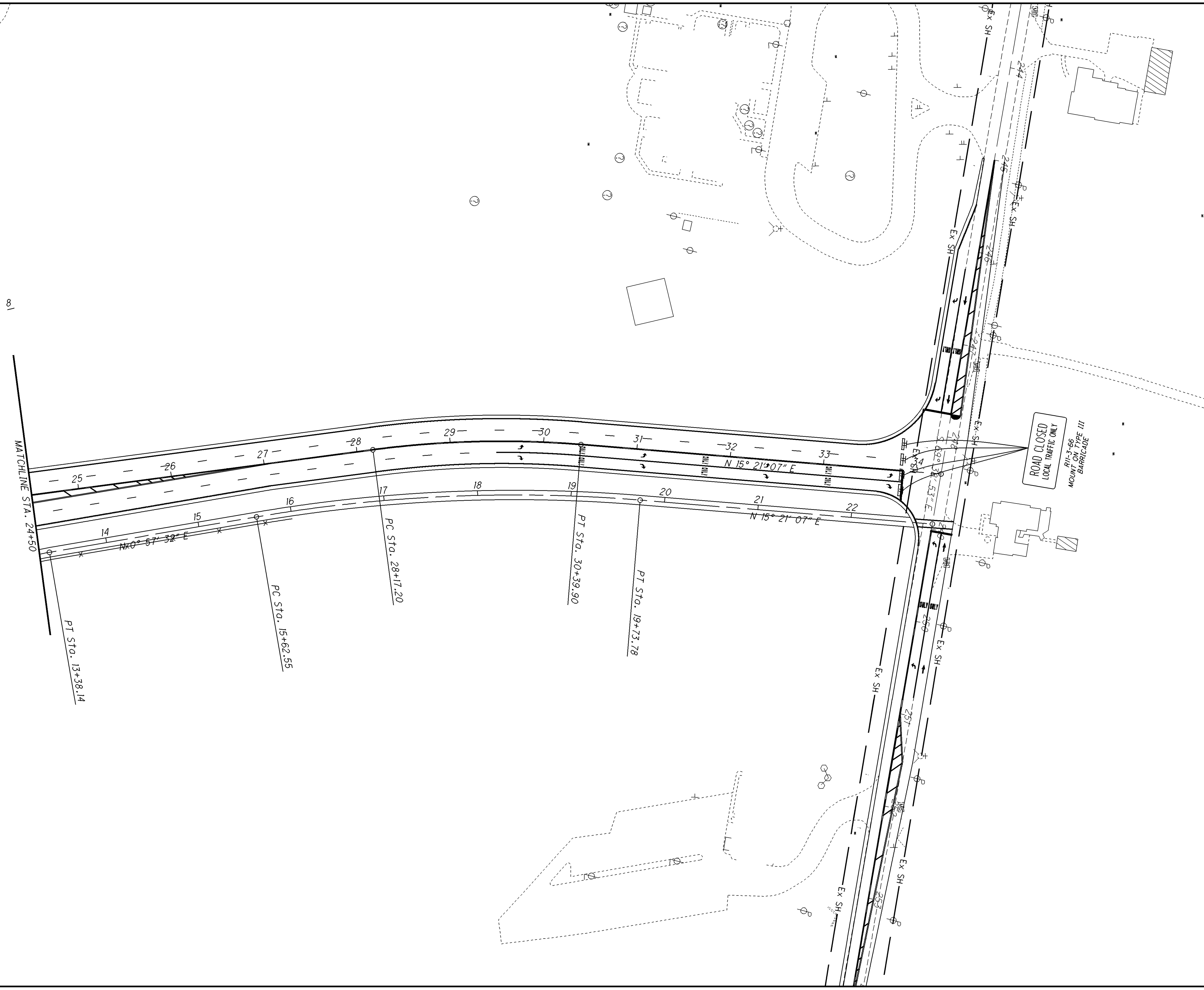


CALCULATED
CMY
CHECKED
HAG

0 25 50 100
HORIZONTAL
SCALE IN FEET

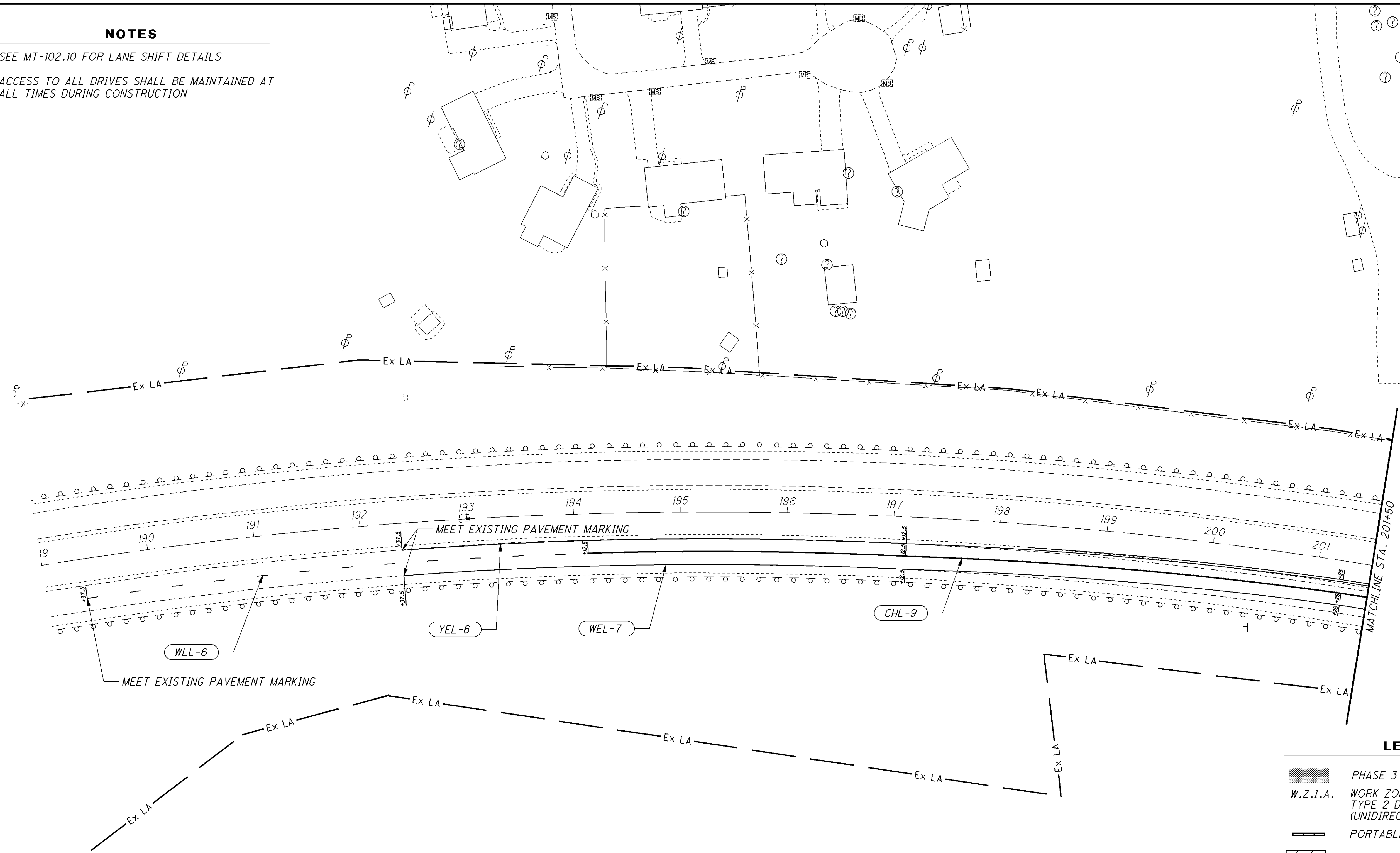
N

MAINTENANCE OF TRAFFIC - PHASE 2
PR. CHERRY VALLEY RD. STA. 12+00 TO STA. 24+50



NOTES

SEE MT-102.10 FOR LANE SHIFT DETAILS
 ACCESS TO ALL DRIVES SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION



LEGEND

- PHASE 3 CONSTRUCTION
- W.Z.I.A. WORK ZONE IMPACT ATTENUATOR, TYPE 2 DESIGN 55 MPH, 24" WIDE (UNIDIRECTIONAL)
- PORTABLE CONCRETE BARRIER, 32"
- TEMPORARY PAVEMENT
- CHL WORK ZONE CHANNELIZING LINE, CLASS I, 642 PAINT
- WEL WORK ZONE EDGE LINE, CLASS I, 642 PAINT (WHITE)
- YEL WORK ZONE EDGE LINE, CLASS I, 642 PAINT (YELLOW)
- WLL WORK ZONE LANE LINE, CLASS I, 642 PAINT
- WZA WORK ZONE ARROW, CLASS I, 642 PAINT
- WZW WORK ZONE WORD ON PAVEMENT, 72", CLASS I, 642 PAINT
- WSL WORK ZONE STOP LINE, CLASS I, 642 PAINT
- WDL WORK ZONE DOTTED LINE, CLASS I, 642 PAINT

CALCULATED CMY
 CHECKED HAG

0 25 50 100
 HORIZONTAL SCALE IN FEET

**MAINTENANCE OF TRAFFIC - PHASE 3
 S.R. 16 STA. 189+00 TO STA. 201+50**

LIC-16-16.64

P:\LIC\80704\Design\Roadway\Plan_Sheets\MOT_SRT16_MOT_301.dgn 24-MAR-2015 12:18PM ccount

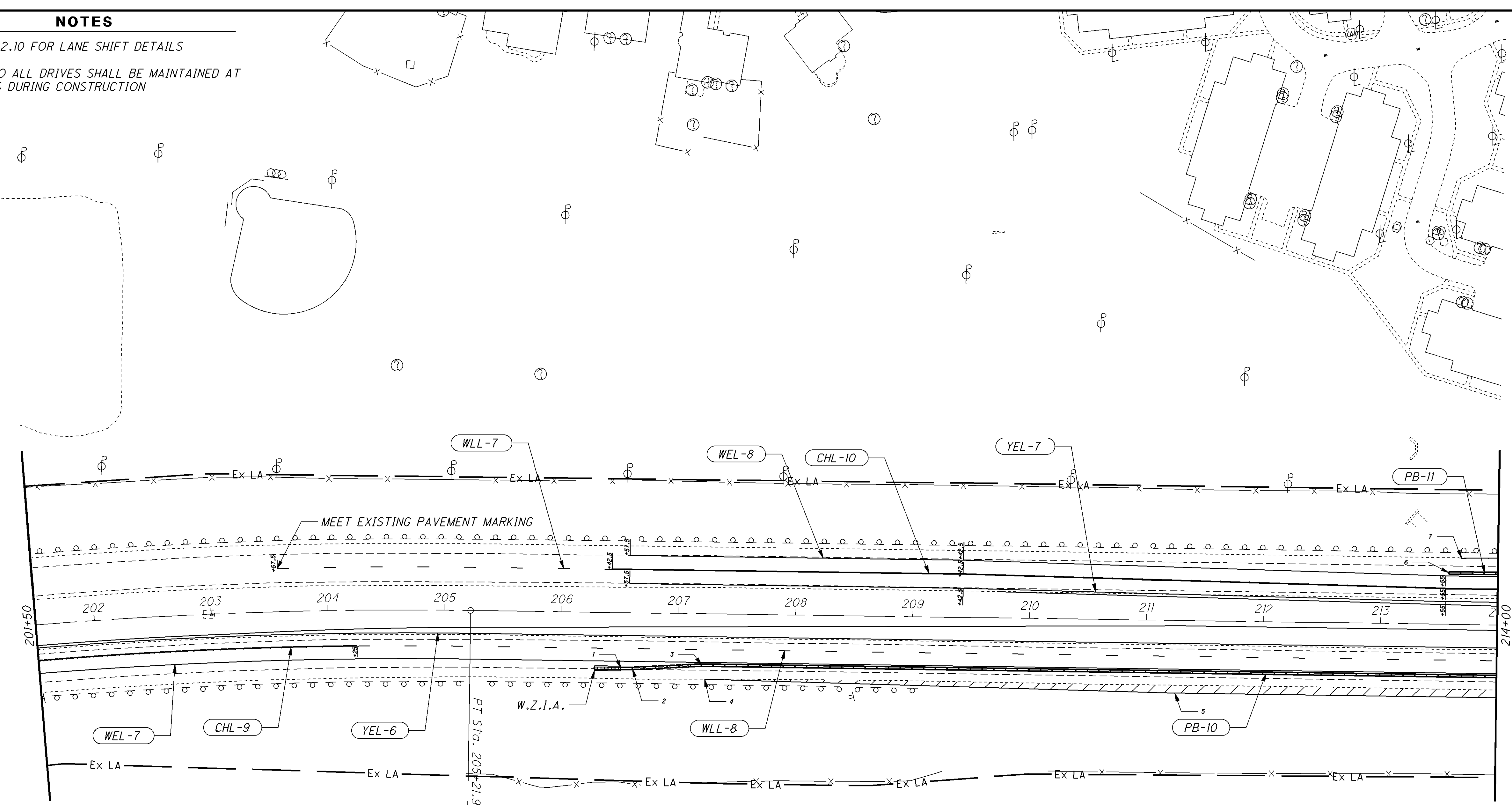
NOTES

SEE MT-102.10 FOR LANE SHIFT DETAILS
 ACCESS TO ALL DRIVES SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION

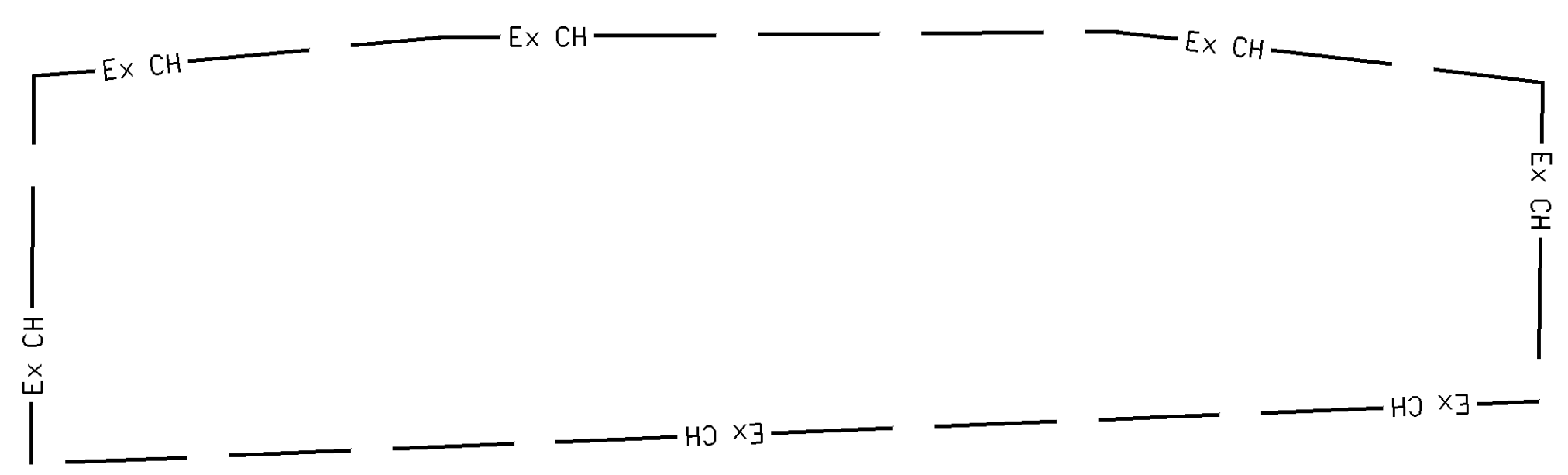
CALCULATED
 CMY
 CHECKED
 HAG

**MAINTENANCE OF TRAFFIC - PHASE 3
 S.R. 16 STA. 201+50 TO STA. 214+00**

LIC-16-16.64



POINT	STATION	OFFSET
1	206+50.00	48.0' RT.
2	206+60.00	48.0' RT.
3	207+20.00	44.0' RT.
4	207+23.00	55.8' RT.
5	211+25.00	62.0' RT.
6	213+58.00	44.0' LT.
7	213+68.00	56.7' LT.



LEGEND

- PHASE 3 CONSTRUCTION
- W.Z.I.A. WORK ZONE IMPACT ATTENUATOR, TYPE 2 DESIGN 55 MPH, 24" WIDE (UNIDIRECTIONAL)
- PORTABLE CONCRETE BARRIER, 32"
- TEMPORARY PAVEMENT
- CHL WORK ZONE CHANNELIZING LINE, CLASS I, 642 PAINT
- WEL WORK ZONE EDGE LINE, CLASS I, 642 PAINT (WHITE)
- YEL WORK ZONE EDGE LINE, CLASS I, 642 PAINT (YELLOW)
- WLL WORK ZONE LANE LINE, CLASS I, 642 PAINT
- WZA WORK ZONE ARROW, CLASS I, 642 PAINT
- WZW WORK ZONE WORD ON PAVEMENT, 72", CLASS I, 642 PAINT
- WSL WORK ZONE STOP LINE, CLASS I, 642 PAINT
- WDL WORK ZONE DOTTED LINE, CLASS I, 642 PAINT

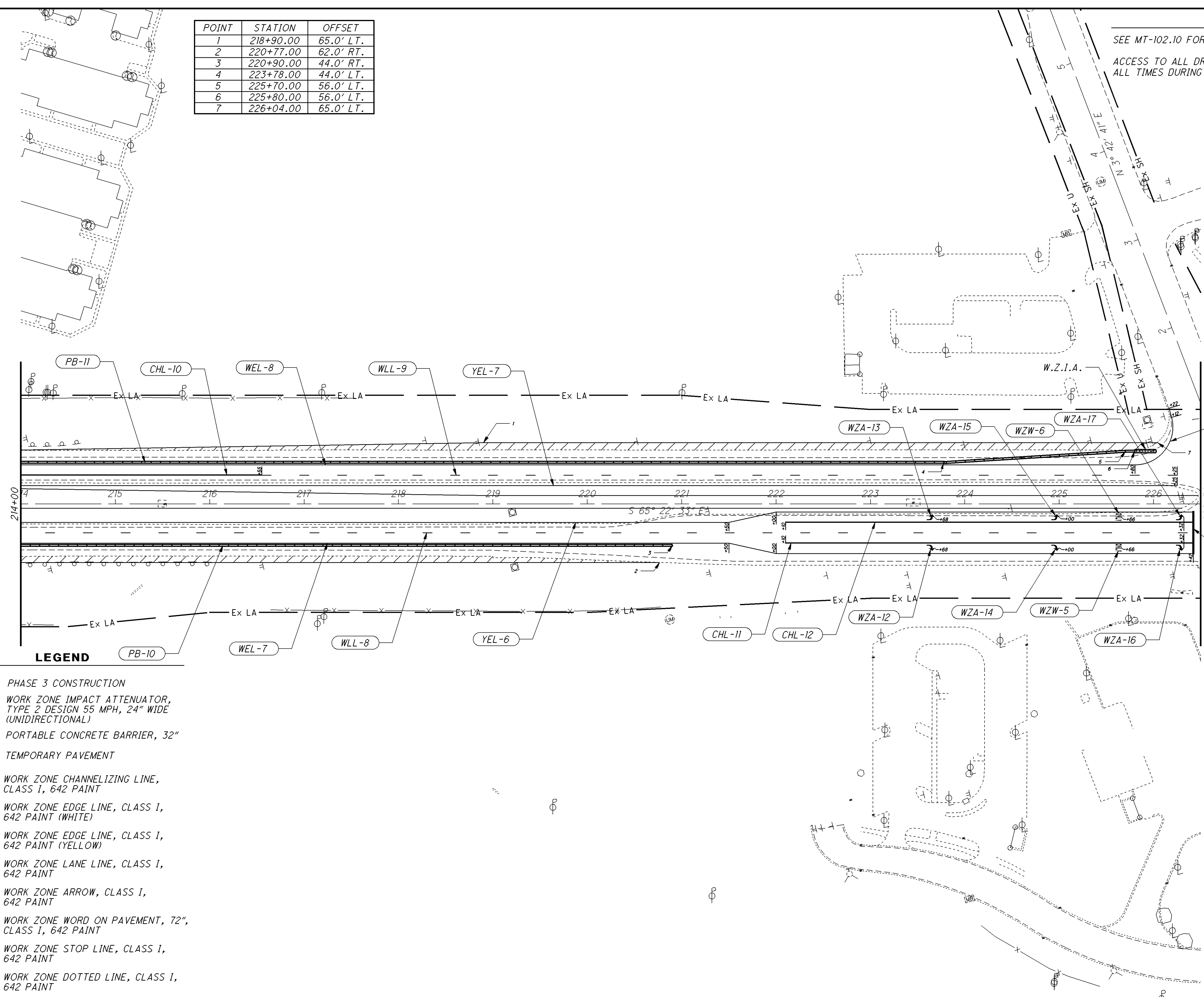
P:\LIC\80704\Design\Roadway\Plan_Sheets\MOT\SR16\MOT_302.dgn 24-MAR-2015 12:57PM c.yount

POINT	STATION	OFFSET
1	218+90.00	65.0' LT.
2	220+77.00	62.0' RT.
3	220+90.00	44.0' RT.
4	223+78.00	44.0' LT.
5	225+70.00	56.0' LT.
6	225+80.00	56.0' LT.
7	226+04.00	65.0' LT.


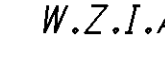

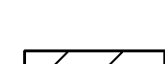
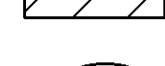







NOTES

SEE MT-102.10 FOR LANE SHIFT DETAILS
 ACCESS TO ALL DRIVES SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION


 0 25 50 100
 HORIZONTAL SCALE IN FEET
 CALCULATED CMY
 CHECKED HAG



LEGEND

-  PHASE 3 CONSTRUCTION
-  W.Z.I.A. WORK ZONE IMPACT ATTENUATOR, TYPE 2 DESIGN 55 MPH, 24" WIDE (UNIDIRECTIONAL)
-  PORTABLE CONCRETE BARRIER, 32"
-  TEMPORARY PAVEMENT
-  (CHL) WORK ZONE CHANNELIZING LINE, CLASS I, 642 PAINT
-  (WEL) WORK ZONE EDGE LINE, CLASS I, 642 PAINT (WHITE)
-  (YEL) WORK ZONE EDGE LINE, CLASS I, 642 PAINT (YELLOW)
-  (WLL) WORK ZONE LANE LINE, CLASS I, 642 PAINT
-  (WZA) WORK ZONE ARROW, CLASS I, 642 PAINT
-  (WZW) WORK ZONE WORD ON PAVEMENT, 72", CLASS I, 642 PAINT
-  (WSL) WORK ZONE STOP LINE, CLASS I, 642 PAINT
-  (WDL) WORK ZONE DOTTED LINE, CLASS I, 642 PAINT

MAINTENANCE OF TRAFFIC - PHASE 3
S.R. 16 STA. 214+00 TO STA. 226+50

LIC-16-16.64

P:\LIC\80704\Design\Roadway\Plan_Sheets\MOT_SRT16_MOT_303.dgn 24-MAR-2015 2:28PM c:\yout

NOTES

SEE MT-102.10 FOR LANE SHIFT DETAILS
 ACCESS TO ALL DRIVES SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION

POINT	STATION	OFFSET
1	227+24.00	65.0' LT.
2	228+50.00	44.0' LT.
3	228+80.00	51.0' RT.
4	228+90.00	51.0' RT.
5	229+00.00	65.0' LT.
6	230+00.00	44.0' RT.

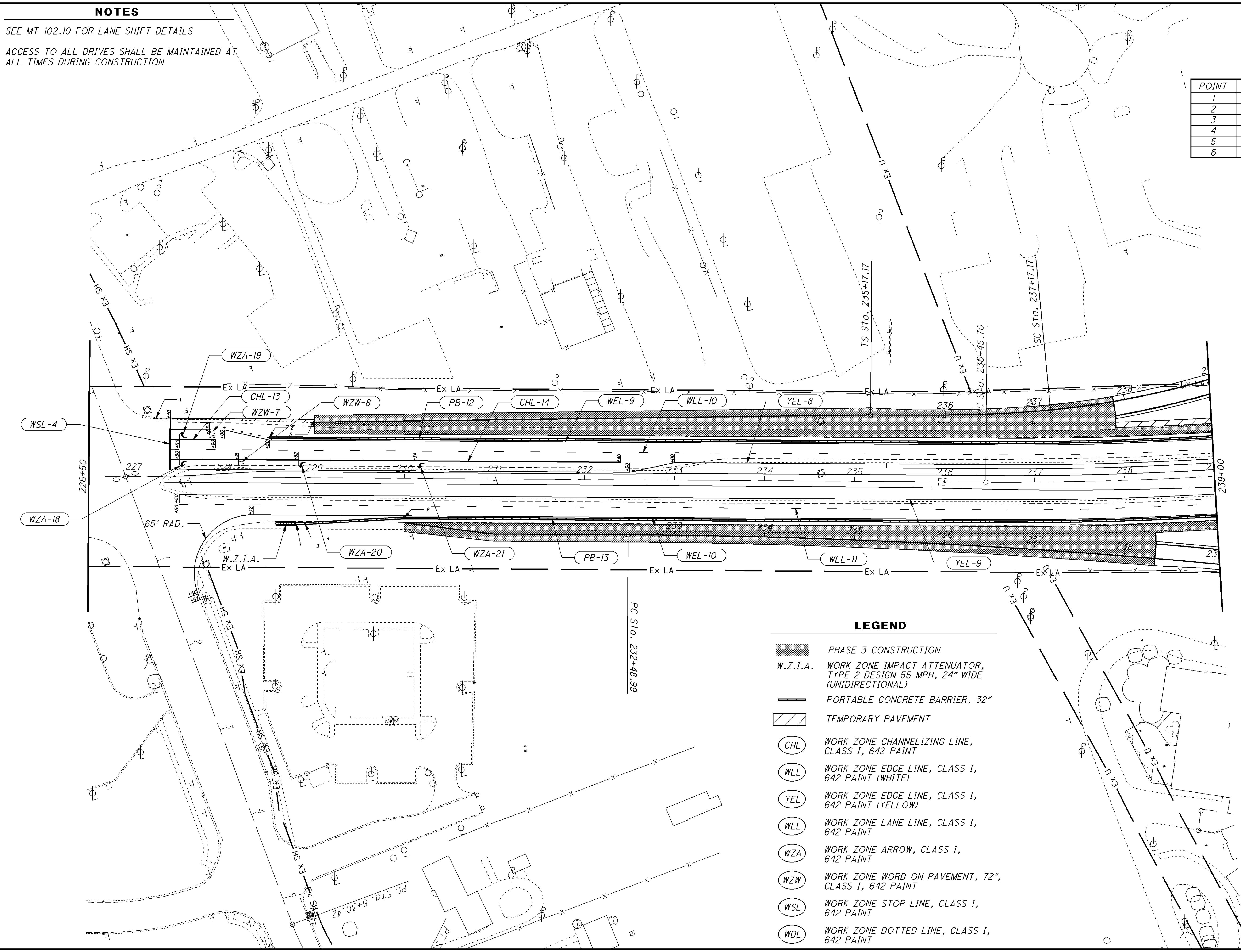
CALCULATED CMY
 CHECKED HAG

0 25 50 100
 HORIZONTAL SCALE IN FEET

MAINTENANCE OF TRAFFIC - PHASE 3
S.R. 16 STA. 226+50 TO STA. 239+00

LIC-16-16.64

P:\LIC\80704\Design\Roadway\Plan_Sheets\MOT_SR16_MOT_304.dgn 24-MAR-2015 3:10PM c:\count



LEGEND

- PHASE 3 CONSTRUCTION
- W.Z.I.A. WORK ZONE IMPACT ATTENUATOR, TYPE 2 DESIGN 55 MPH, 24" WIDE (UNIDIRECTIONAL)
- PORTABLE CONCRETE BARRIER, 32"
- TEMPORARY PAVEMENT
- CHL WORK ZONE CHANNELIZING LINE, CLASS I, 642 PAINT
- WEL WORK ZONE EDGE LINE, CLASS I, 642 PAINT (WHITE)
- YEL WORK ZONE EDGE LINE, CLASS I, 642 PAINT (YELLOW)
- WLL WORK ZONE LANE LINE, CLASS I, 642 PAINT
- WZA WORK ZONE ARROW, CLASS I, 642 PAINT
- WZW WORK ZONE WORD ON PAVEMENT, 72", CLASS I, 642 PAINT
- WSL WORK ZONE STOP LINE, CLASS I, 642 PAINT
- WDL WORK ZONE DOTTED LINE, CLASS I, 642 PAINT

POINT	STATION	OFFSET
1	242+75.00	65.0' LT.
2	246+52.00	59.0' LT.

NOTES

SEE MT-102.10 FOR LANE SHIFT DETAILS
 ACCESS TO ALL DRIVES SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION



CALCULATED CMY
 CHECKED HAG

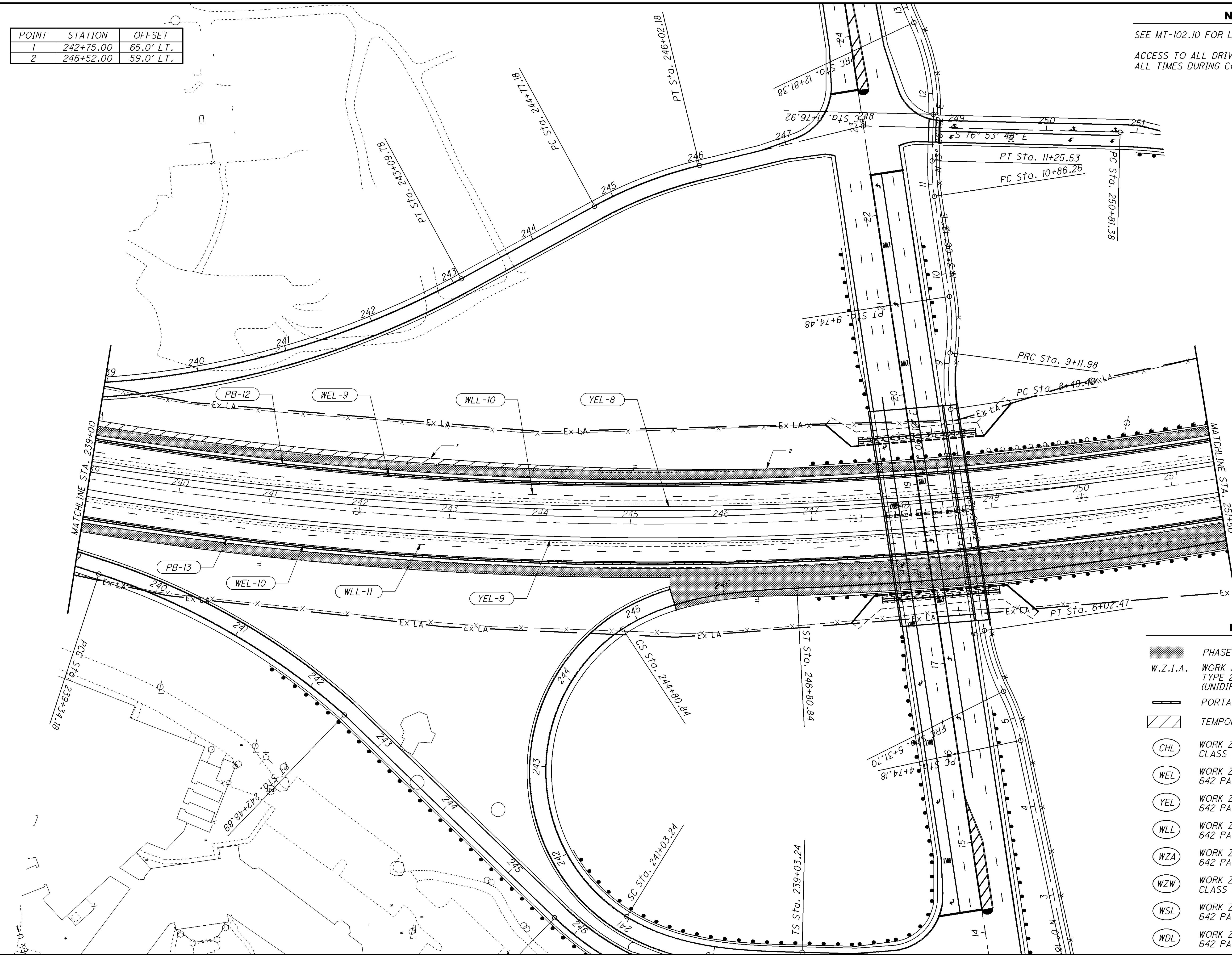
**MAINTENANCE OF TRAFFIC - PHASE 3
 S.R. 16 STA. 239+00 TO STA. 251+50**

LIC-16-16.64

85
 729

LEGEND

- PHASE 3 CONSTRUCTION
- W.Z.I.A. WORK ZONE IMPACT ATTENUATOR, TYPE 2 DESIGN 55 MPH, 24" WIDE (UNIDIRECTIONAL)
- PORTABLE CONCRETE BARRIER, 32"
- TEMPORARY PAVEMENT
- WORK ZONE CHANNELIZING LINE, CLASS I, 642 PAINT
- WORK ZONE EDGE LINE, CLASS I, 642 PAINT (WHITE)
- WORK ZONE EDGE LINE, CLASS I, 642 PAINT (YELLOW)
- WORK ZONE LANE LINE, CLASS I, 642 PAINT
- WORK ZONE ARROW, CLASS I, 642 PAINT
- WORK ZONE WORD ON PAVEMENT, 72", CLASS I, 642 PAINT
- WORK ZONE STOP LINE, CLASS I, 642 PAINT
- WORK ZONE DOTTED LINE, CLASS I, 642 PAINT

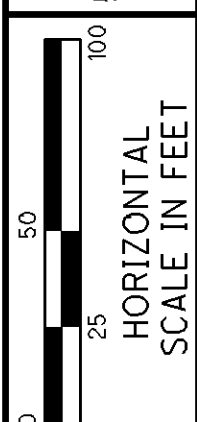
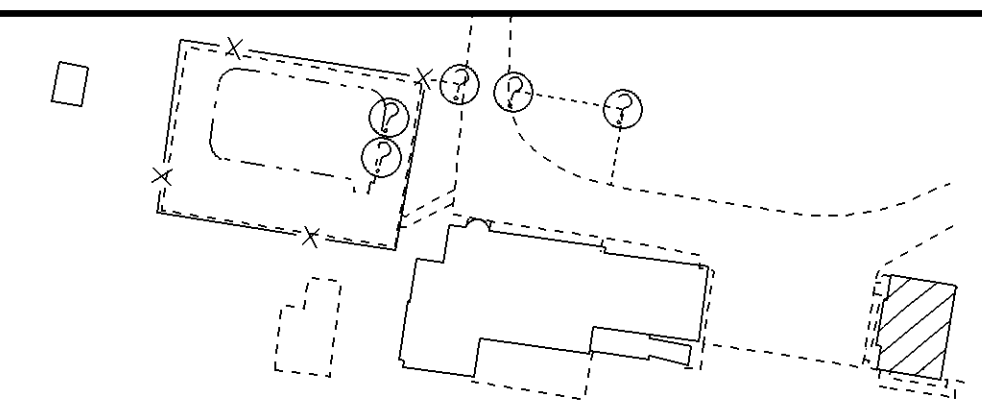


P:\LIC\80704\Design\Roadway\Plan_Sheets\MOT_SRT16_MOT_305.dgn 24-MAR-2015 3:16PM cyount

NOTES

SEE MT-102.10 FOR LANE SHIFT DETAILS

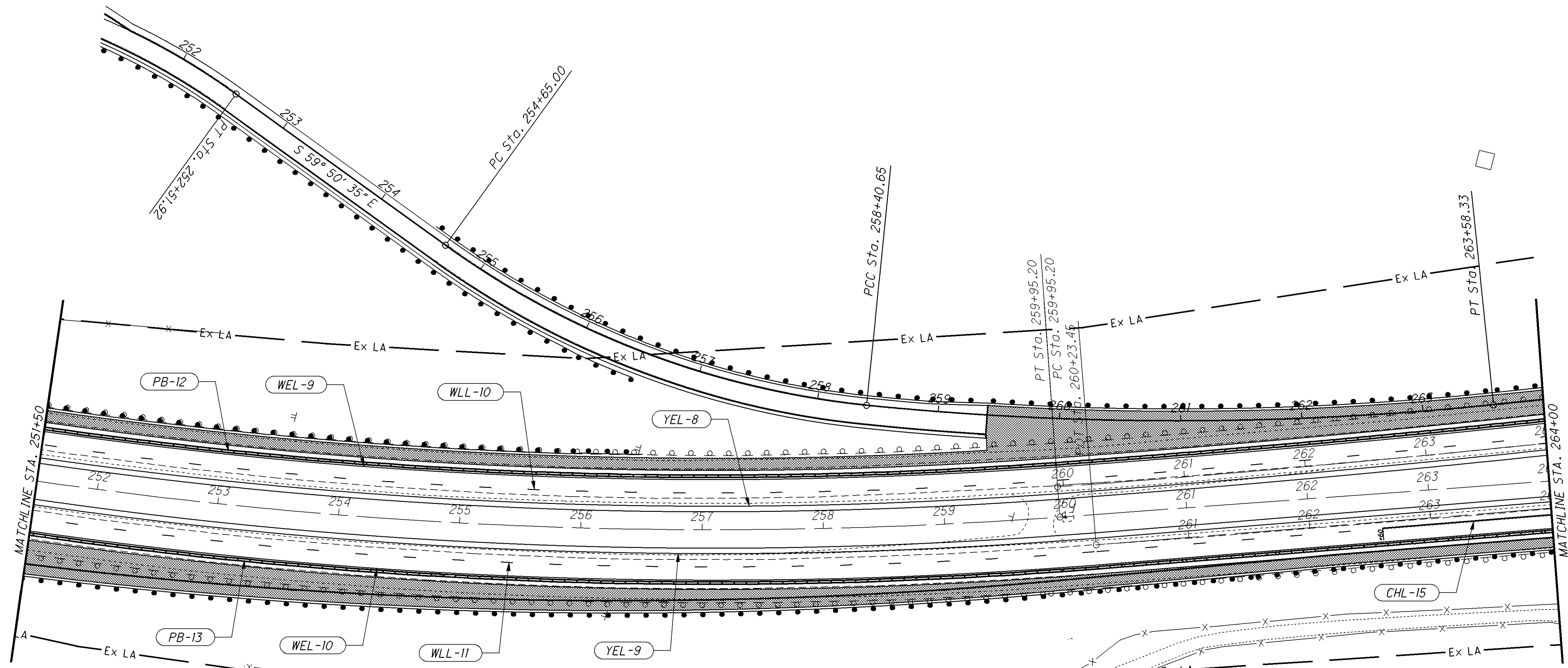
ACCESS TO ALL DRIVES SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION



CALCULATED
CMY
CHECKED
HAG

**MAINTENANCE OF TRAFFIC - PHASE 3
S.R. 16 STA. 251+50 TO STA. 264+00**

LIC-16-16.64



LEGEND

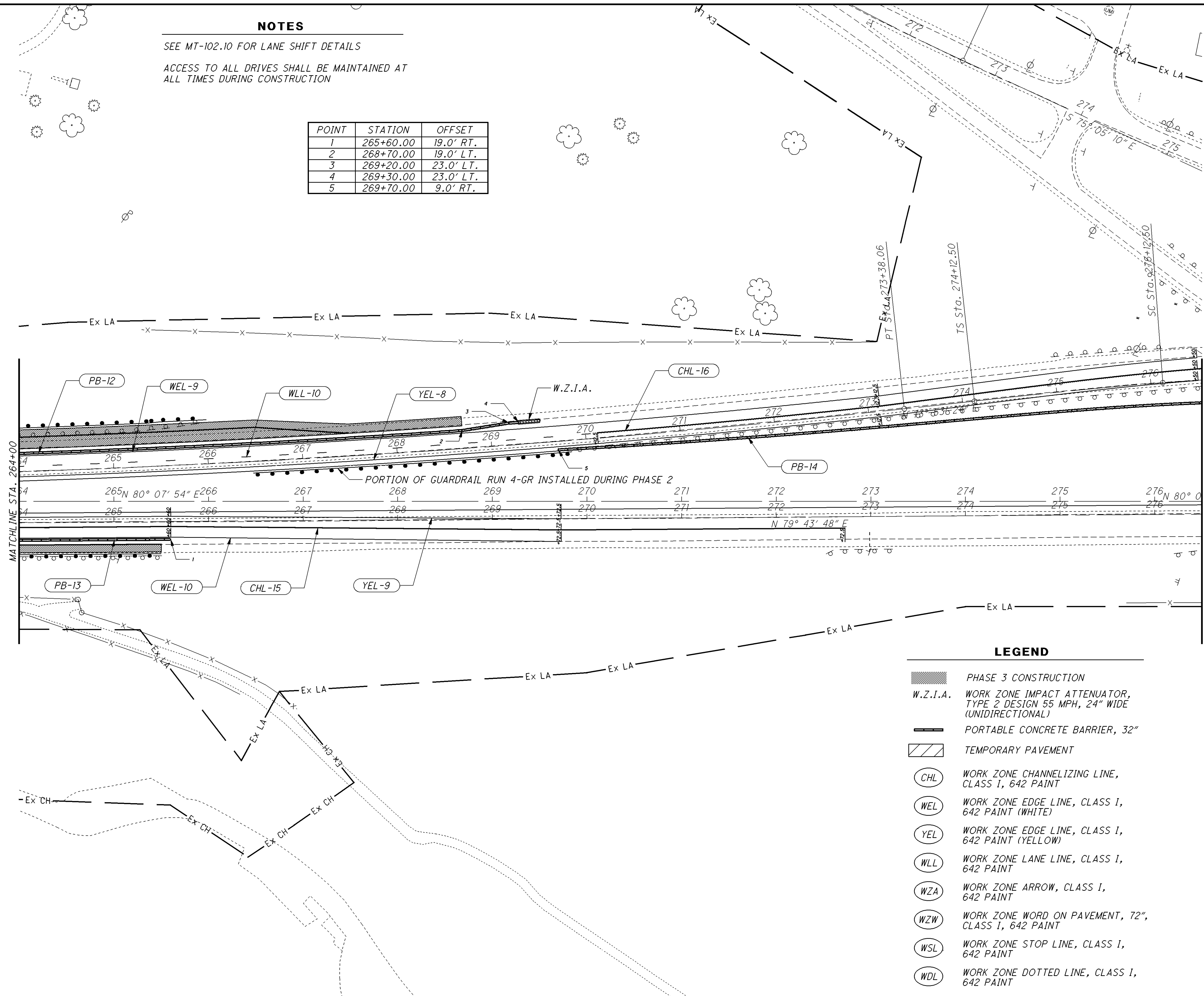
- PHASE 3 CONSTRUCTION
- W.Z.I.A. WORK ZONE IMPACT ATTENUATOR, TYPE 2 DESIGN 55 MPH, 24" WIDE (UNIDIRECTIONAL)
- PORTABLE CONCRETE BARRIER, 32"
- TEMPORARY PAVEMENT
- (CHL) WORK ZONE CHANNELIZING LINE, CLASS I, 642 PAINT
- (WEL) WORK ZONE EDGE LINE, CLASS I, 642 PAINT (WHITE)
- (YEL) WORK ZONE EDGE LINE, CLASS I, 642 PAINT (YELLOW)
- (WLL) WORK ZONE LANE LINE, CLASS I, 642 PAINT
- (WZA) WORK ZONE ARROW, CLASS I, 642 PAINT
- (WZW) WORK ZONE WORD ON PAVEMENT, 72", CLASS I, 642 PAINT
- (WSL) WORK ZONE STOP LINE, CLASS I, 642 PAINT
- (WDL) WORK ZONE DOTTED LINE, CLASS I, 642 PAINT

P:\LIC\80704\Design\Roadway\Plan_Sheets\MOT_SR16\MOT_306.dgn 10-JUN-2015 8:56AM c.yount

NOTES

SEE MT-102.10 FOR LANE SHIFT DETAILS
 ACCESS TO ALL DRIVES SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION

POINT	STATION	OFFSET
1	265+60.00	19.0' RT.
2	268+70.00	19.0' LT.
3	269+20.00	23.0' LT.
4	269+30.00	23.0' LT.
5	269+70.00	9.0' RT.



LEGEND

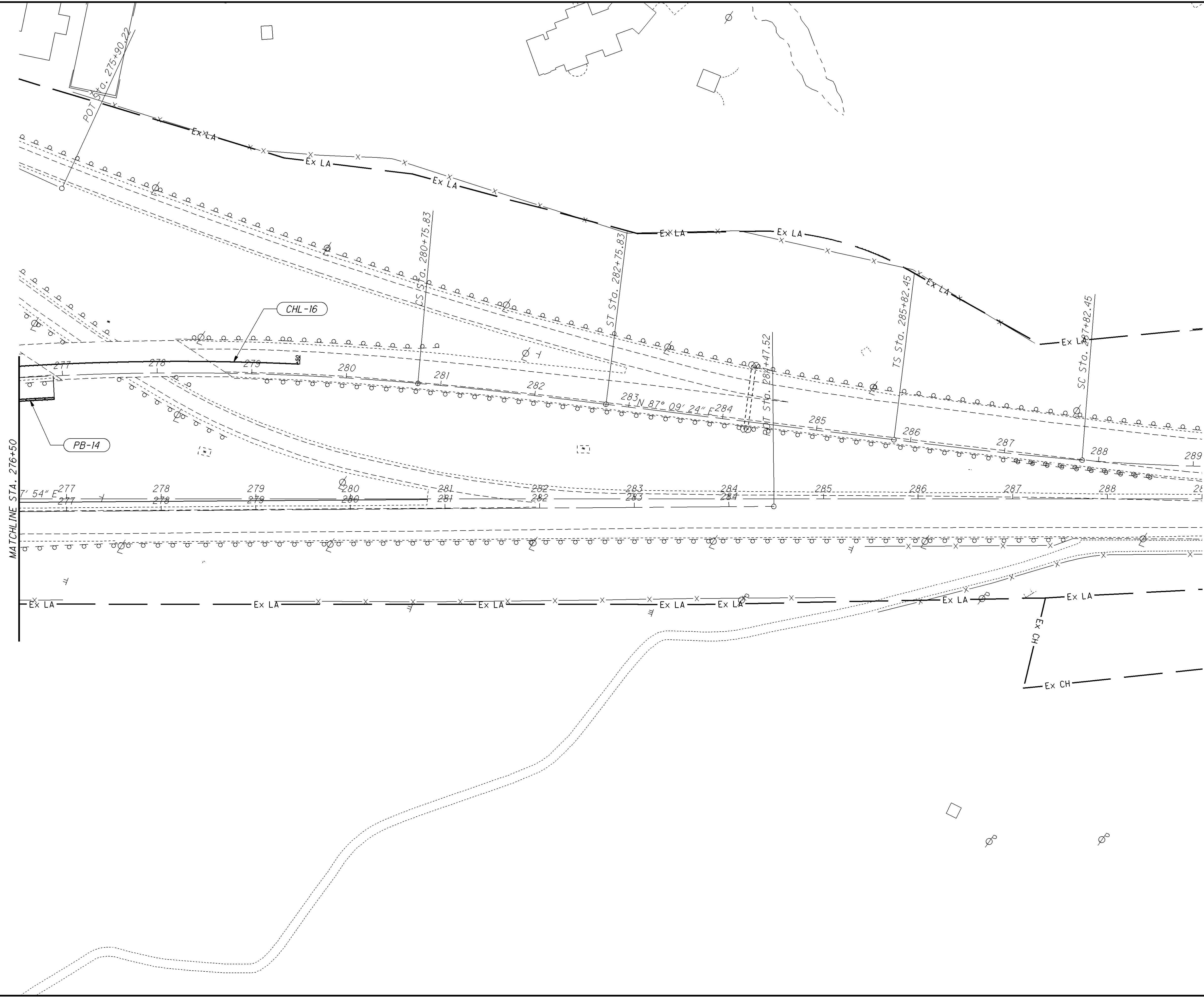
- PHASE 3 CONSTRUCTION
- W.Z.I.A. WORK ZONE IMPACT ATTENUATOR, TYPE 2 DESIGN 55 MPH, 24" WIDE (UNIDIRECTIONAL)
- PORTABLE CONCRETE BARRIER, 32"
- TEMPORARY PAVEMENT
- CHL WORK ZONE CHANNELIZING LINE, CLASS I, 642 PAINT
- WEL WORK ZONE EDGE LINE, CLASS I, 642 PAINT (WHITE)
- YEL WORK ZONE EDGE LINE, CLASS I, 642 PAINT (YELLOW)
- WLL WORK ZONE LANE LINE, CLASS I, 642 PAINT
- WZA WORK ZONE ARROW, CLASS I, 642 PAINT
- WZW WORK ZONE WORD ON PAVEMENT, 72", CLASS I, 642 PAINT
- WSL WORK ZONE STOP LINE, CLASS I, 642 PAINT
- WDL WORK ZONE DOTTED LINE, CLASS I, 642 PAINT

CALCULATED CMY
 CHECKED HAG

MAINTENANCE OF TRAFFIC - PHASE 3
S.R. 16 STA. 264+00 TO STA. 276+50

LIC-16-16.64

P:\LIC\80704\Design\Roadway\Plan_Sheets\MOT\SR16_MOT_307.dgn 10-JUN-2015 8:58AM c:\count



CALCULATED	CMY
CHECKED	HAG

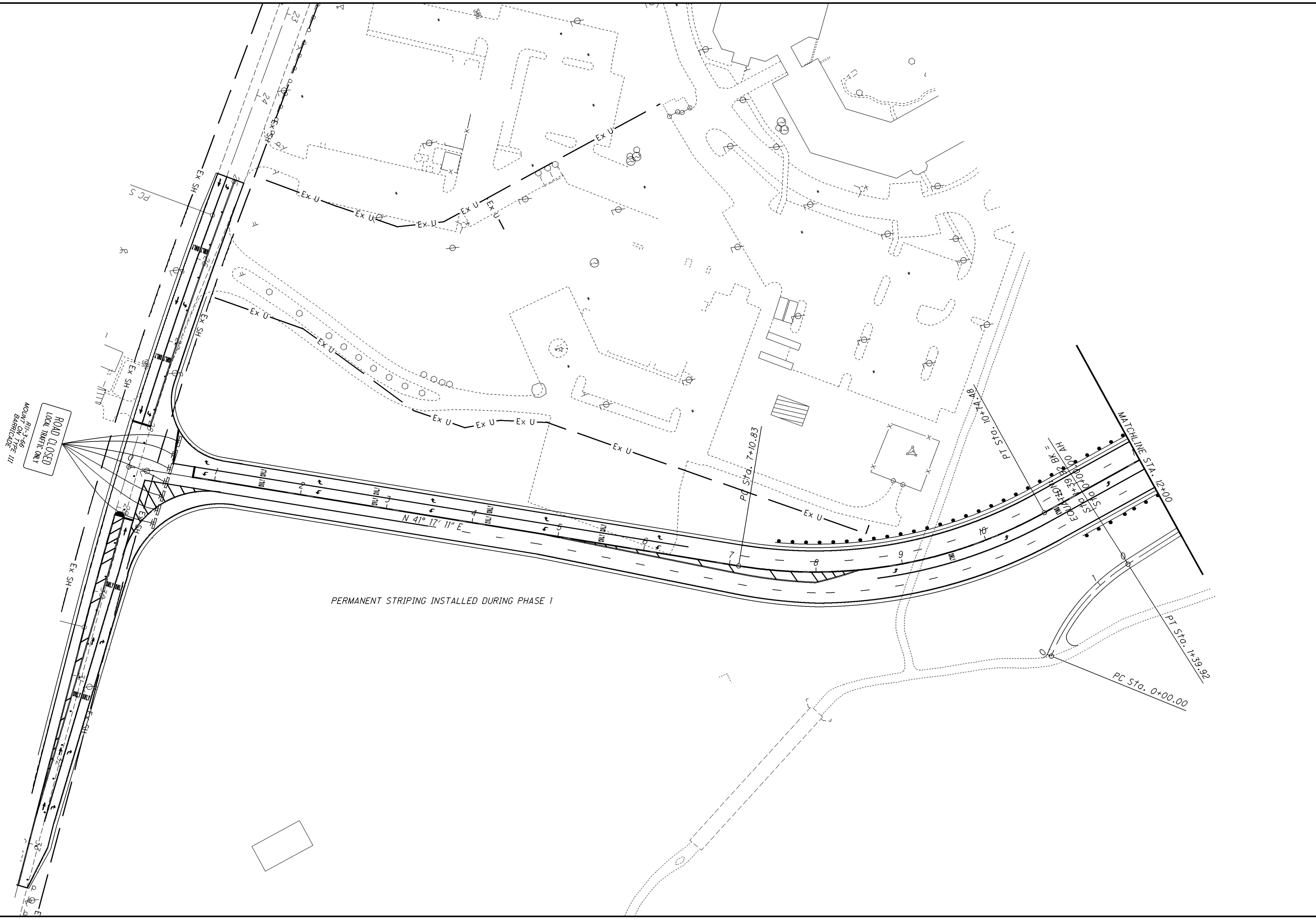
0 25 50 100
HORIZONTAL SCALE IN FEET

MAINTENANCE OF TRAFFIC - PHASE 3
S.R. 16 STA. 276+50 TO STA. 289+00

LIC-16-16.64

PI-3-66
MOUNT. Q. TYPE III
BARRICADE

ROAD CLOSED
LOCAL TRAFFIC ONLY



PERMANENT STRIPING INSTALLED DURING PHASE 1

N 41° 17' 11" E

Pt Sta. 7+10.83

Pt Sta. 10+14.48

PC Sta. 0+00.00

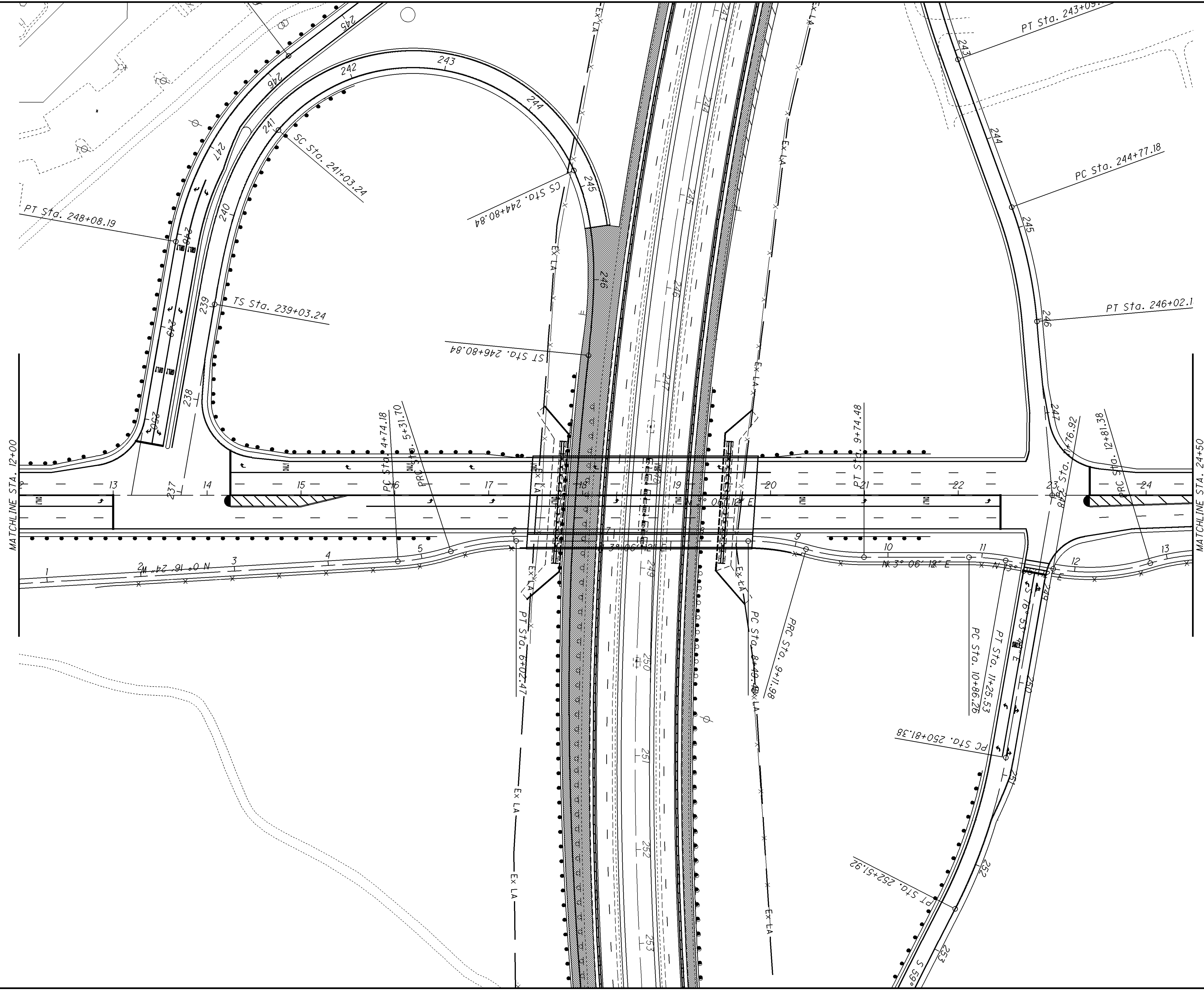
PT Sta. 1+39.92

MATCHLINE STA. 12+00

CALCULATED CMY	CHECKED HAG		

MAINTENANCE OF TRAFFIC - PHASE 3
PR. NEW CHERRY VALLEY RD STA. 0+00 TO STA. 12+00

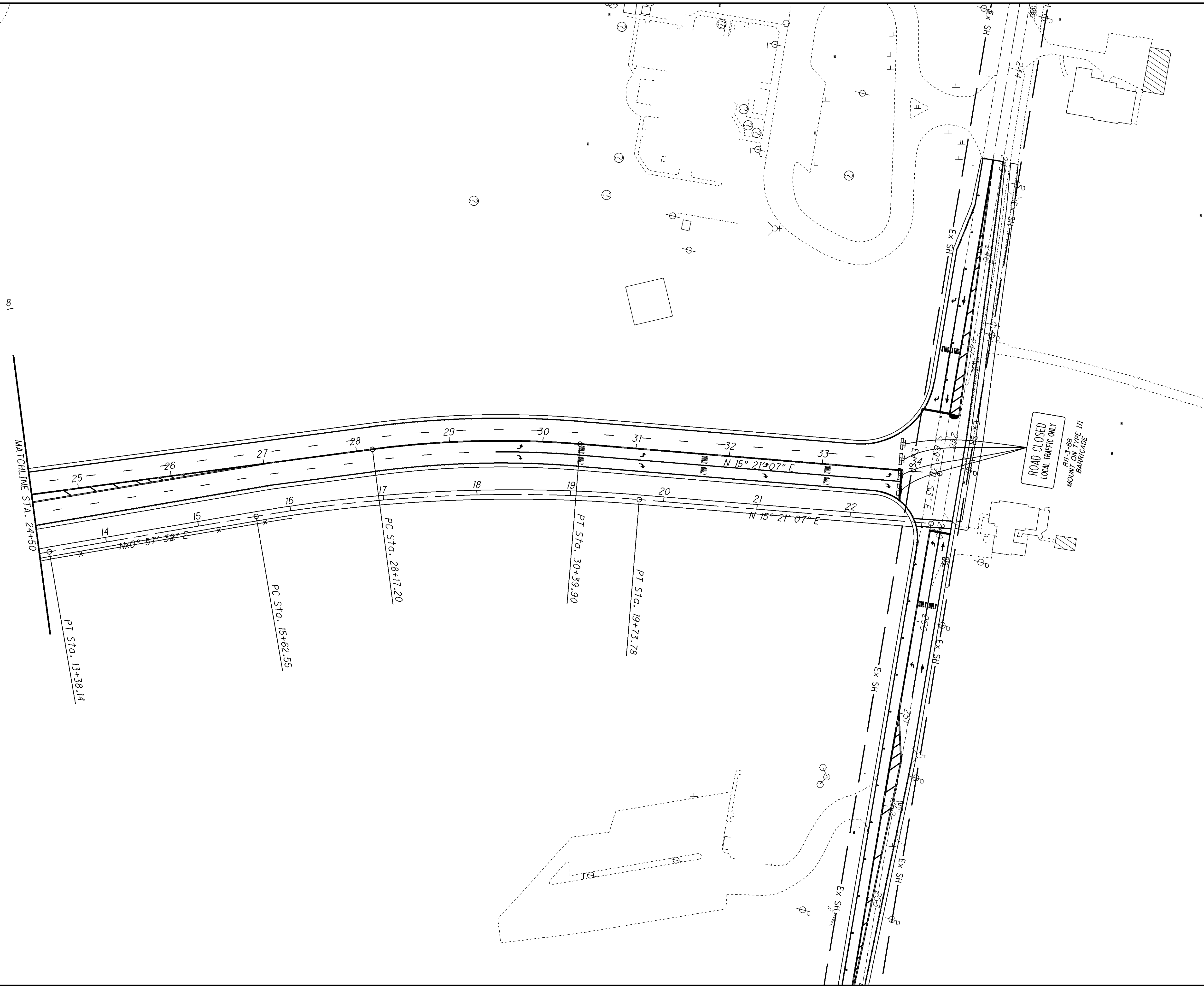
LIC-16-16.64



CALCULATED	CMY
CHECKED	HAG

0 25 50 100
HORIZONTAL SCALE IN FEET

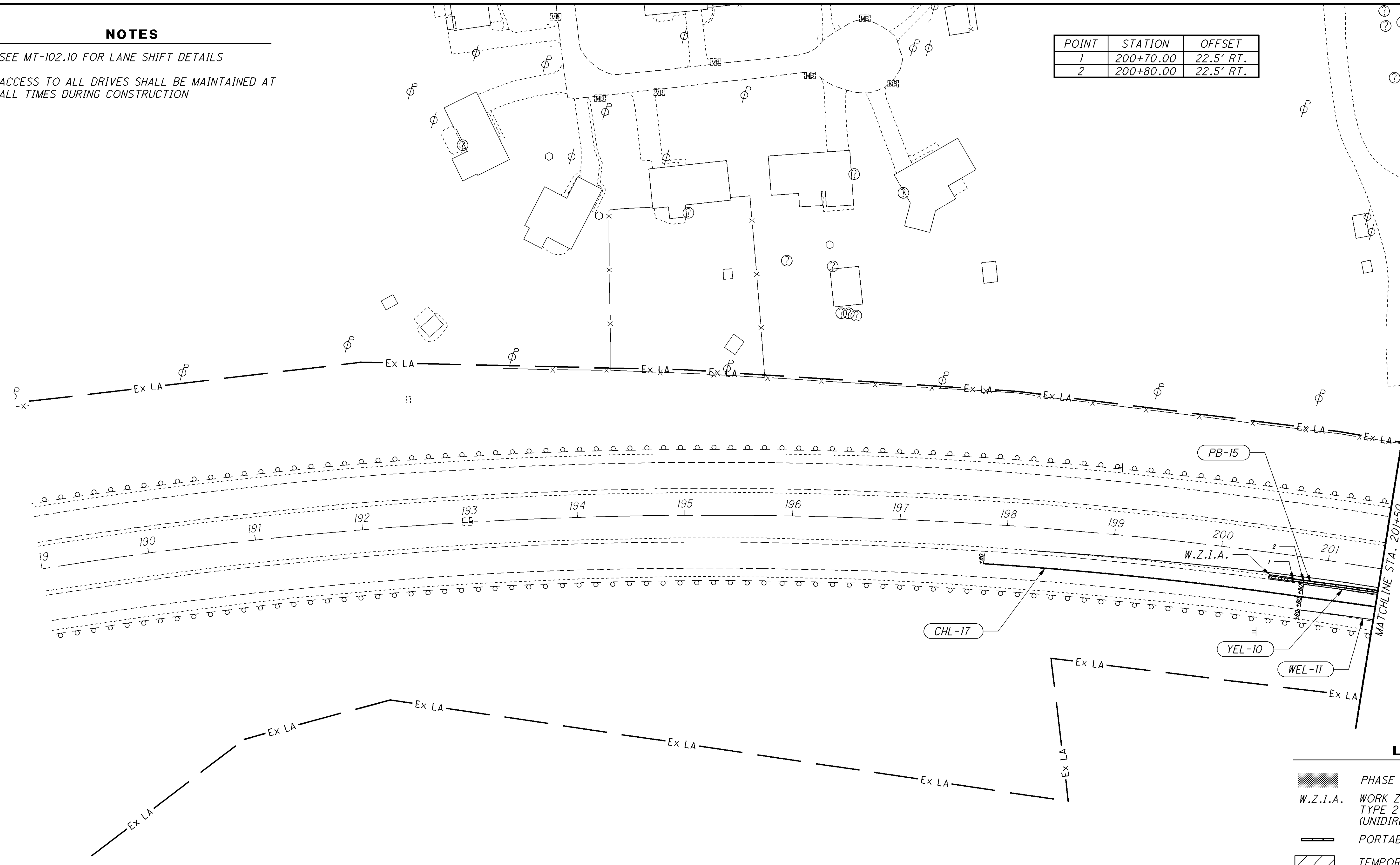
MAINTENANCE OF TRAFFIC - PHASE 3
PR. NEW CHERRY VALLEY RD. STA. 12+00 TO STA. 24+50



NOTES

SEE MT-102.10 FOR LANE SHIFT DETAILS
 ACCESS TO ALL DRIVES SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION

POINT	STATION	OFFSET
1	200+70.00	22.5' RT.
2	200+80.00	22.5' RT.



LEGEND

- PHASE 4A CONSTRUCTION
- W.Z.I.A. WORK ZONE IMPACT ATTENUATOR, TYPE 2 DESIGN 55 MPH, 24" WIDE (UNIDIRECTIONAL)
- PORTABLE CONCRETE BARRIER, 32"
- TEMPORARY PAVEMENT
- WORK ZONE CHANNELIZING LINE, CLASS I, 642 PAINT
- WORK ZONE EDGE LINE, CLASS I, 642 PAINT (WHITE)
- WORK ZONE EDGE LINE, CLASS I, 642 PAINT (YELLOW)
- WORK ZONE LANE LINE, CLASS I, 642 PAINT
- WORK ZONE ARROW, CLASS I, 642 PAINT
- WORK ZONE WORD ON PAVEMENT, 72", CLASS I, 642 PAINT
- WORK ZONE STOP LINE, CLASS I, 642 PAINT
- WORK ZONE DOTTED LINE, CLASS I, 642 PAINT

CALCULATED
 CMY
 CHECKED
 HAG

MAINTENANCE OF TRAFFIC - PHASE 4A
S.R. 16 STA. 189+00 TO STA. 201+50

LIC-16-16.64

P:\LIC\80704\Design\Roadway\Plan_Sheets\MOT_SR16_MOT_401.dgn 24-MAR-2015 4:50PM cyount

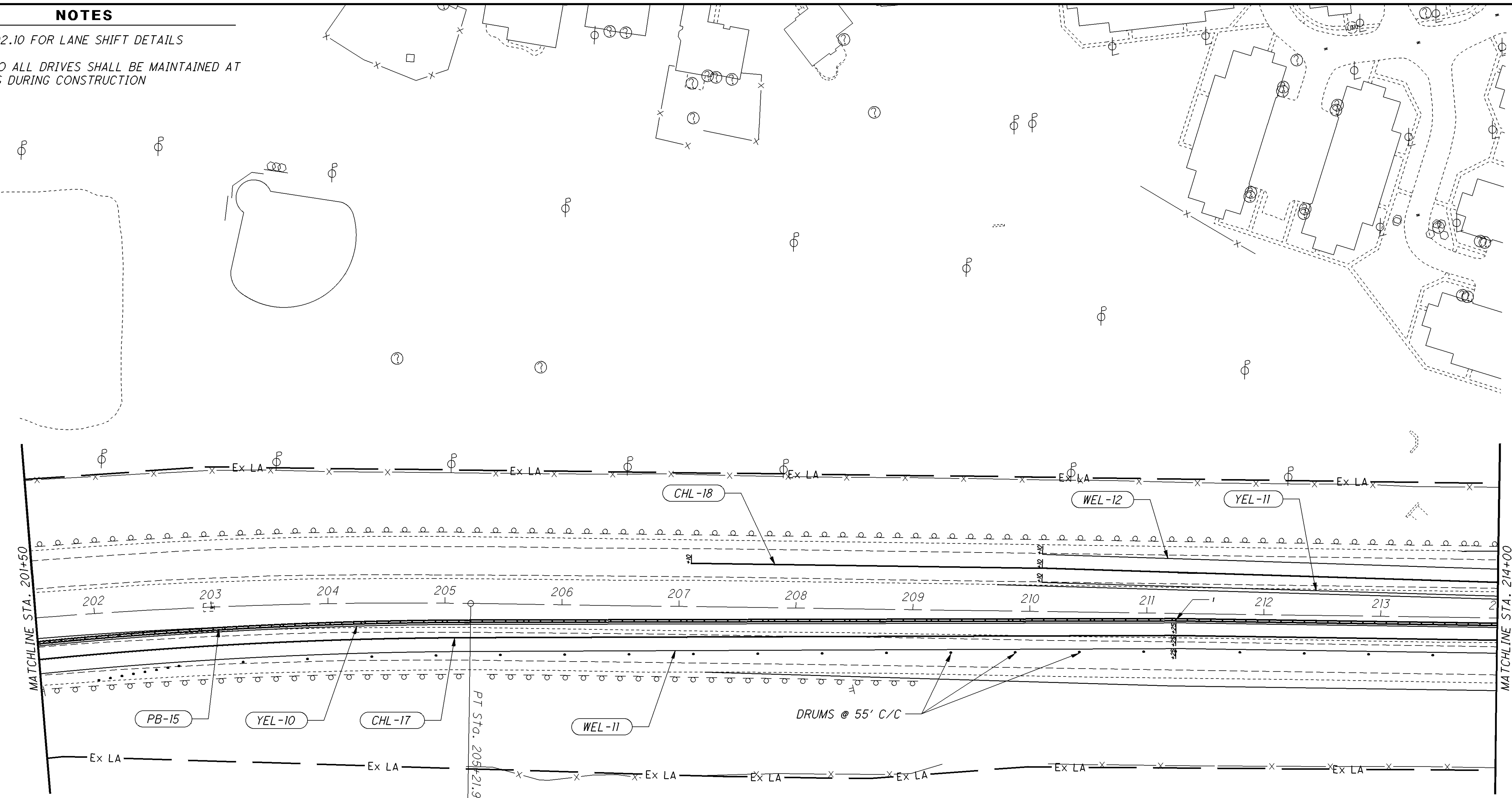
NOTES

SEE MT-102.10 FOR LANE SHIFT DETAILS
 ACCESS TO ALL DRIVES SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION

CALCULATED
 CMY
 CHECKED
 HAG

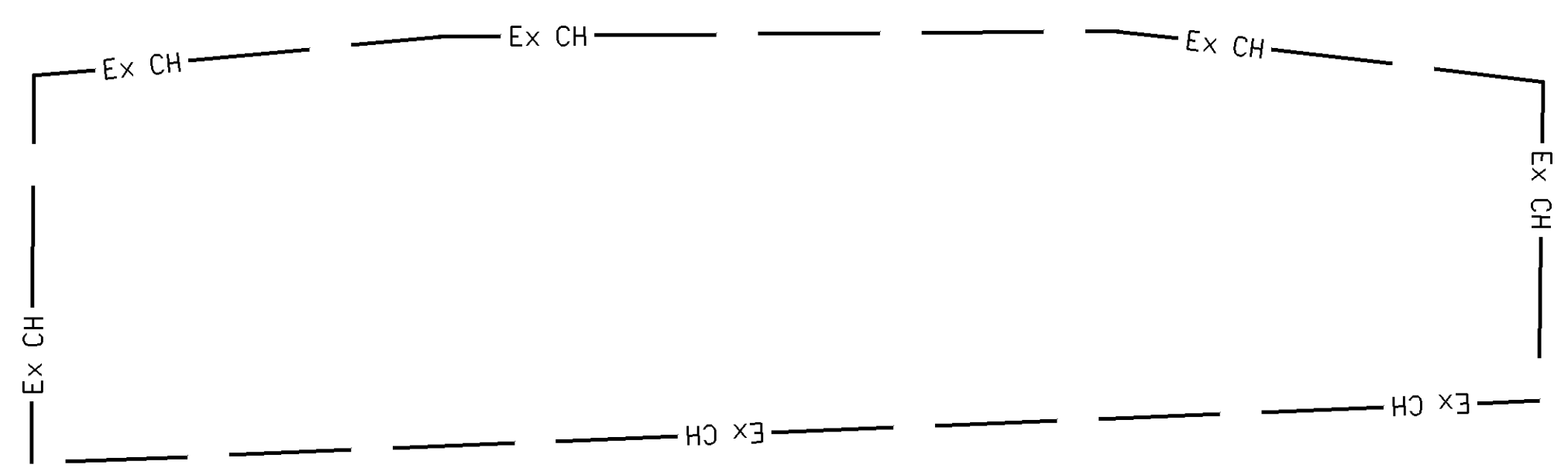
**MAINTENANCE OF TRAFFIC - PHASE 4A
 S.R. 16 STA. 201+50 TO STA. 214+00**

LIC-16-16.64



P:\LIC\80704\Design\Roadway\Plan_Sheets\MOT\SR16\MOT_402.dgn 25-MAR-2015 7:23AM cyount

POINT	STATION	OFFSET
1	211+25.00	5.5' RT.



LEGEND

- PHASE 4A CONSTRUCTION
- W.Z.I.A. WORK ZONE IMPACT ATTENUATOR, TYPE 2 DESIGN 55 MPH, 24" WIDE (UNIDIRECTIONAL)
- PORTABLE CONCRETE BARRIER, 32"
- TEMPORARY PAVEMENT
- CHL WORK ZONE CHANNELIZING LINE, CLASS I, 642 PAINT
- WEL WORK ZONE EDGE LINE, CLASS I, 642 PAINT (WHITE)
- YEL WORK ZONE EDGE LINE, CLASS I, 642 PAINT (YELLOW)
- WLL WORK ZONE LANE LINE, CLASS I, 642 PAINT
- WZA WORK ZONE ARROW, CLASS I, 642 PAINT
- WZW WORK ZONE WORD ON PAVEMENT, 72", CLASS I, 642 PAINT
- WSL WORK ZONE STOP LINE, CLASS I, 642 PAINT
- WDL WORK ZONE DOTTED LINE, CLASS I, 642 PAINT

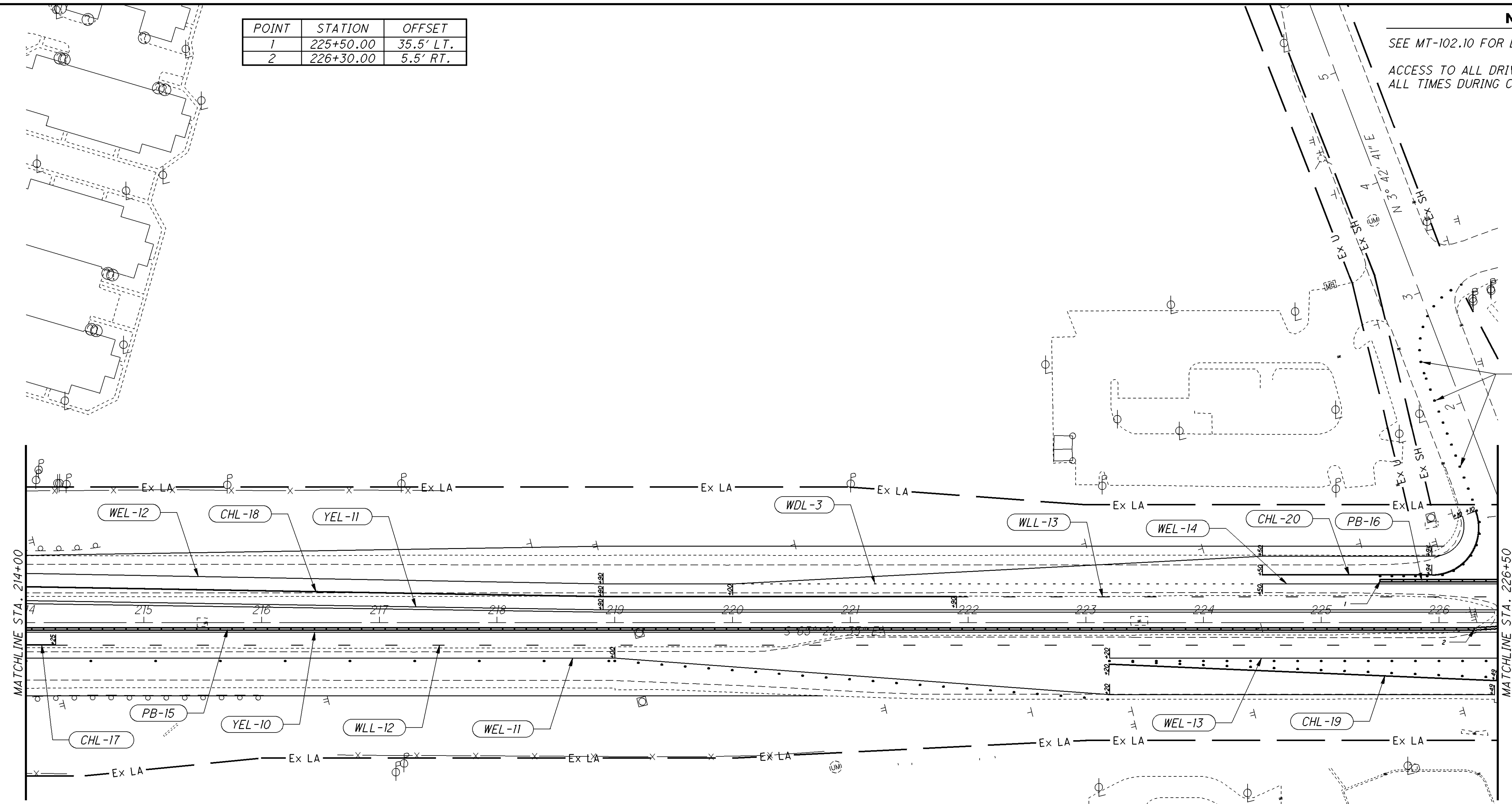
POINT	STATION	OFFSET
1	225+50.00	35.5' LT.
2	226+30.00	5.5' RT.

NOTES

SEE MT-102.10 FOR LANE SHIFT DETAILS
 ACCESS TO ALL DRIVES SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION

CALCULATED
 CMY
 CHECKED
 HAG

0 25 50 100
 HORIZONTAL
 SCALE IN FEET



LEGEND

- PHASE 4A CONSTRUCTION
- W.Z.I.A. WORK ZONE IMPACT ATTENUATOR, TYPE 2 DESIGN 55 MPH, 24" WIDE (UNIDIRECTIONAL)
- PORTABLE CONCRETE BARRIER, 32"
- TEMPORARY PAVEMENT
- WORK ZONE CHANNELIZING LINE, CLASS I, 642 PAINT
- WORK ZONE EDGE LINE, CLASS I, 642 PAINT (WHITE)
- WORK ZONE EDGE LINE, CLASS I, 642 PAINT (YELLOW)
- WORK ZONE LANE LINE, CLASS I, 642 PAINT
- WORK ZONE ARROW, CLASS I, 642 PAINT
- WORK ZONE WORD ON PAVEMENT, 72", CLASS I, 642 PAINT
- WORK ZONE STOP LINE, CLASS I, 642 PAINT
- WORK ZONE DOTTED LINE, CLASS I, 642 PAINT

MAINTENANCE OF TRAFFIC - PHASE 4A
S.R. 16 STA. 214+00 TO STA. 226+50

LIC-16-16.64

P:\LIC\80704\Design\Roadway\Plan_Sheets\MOT_SRT16_MOT_403.dgn 25-MAR-2015 8:59AM cyount

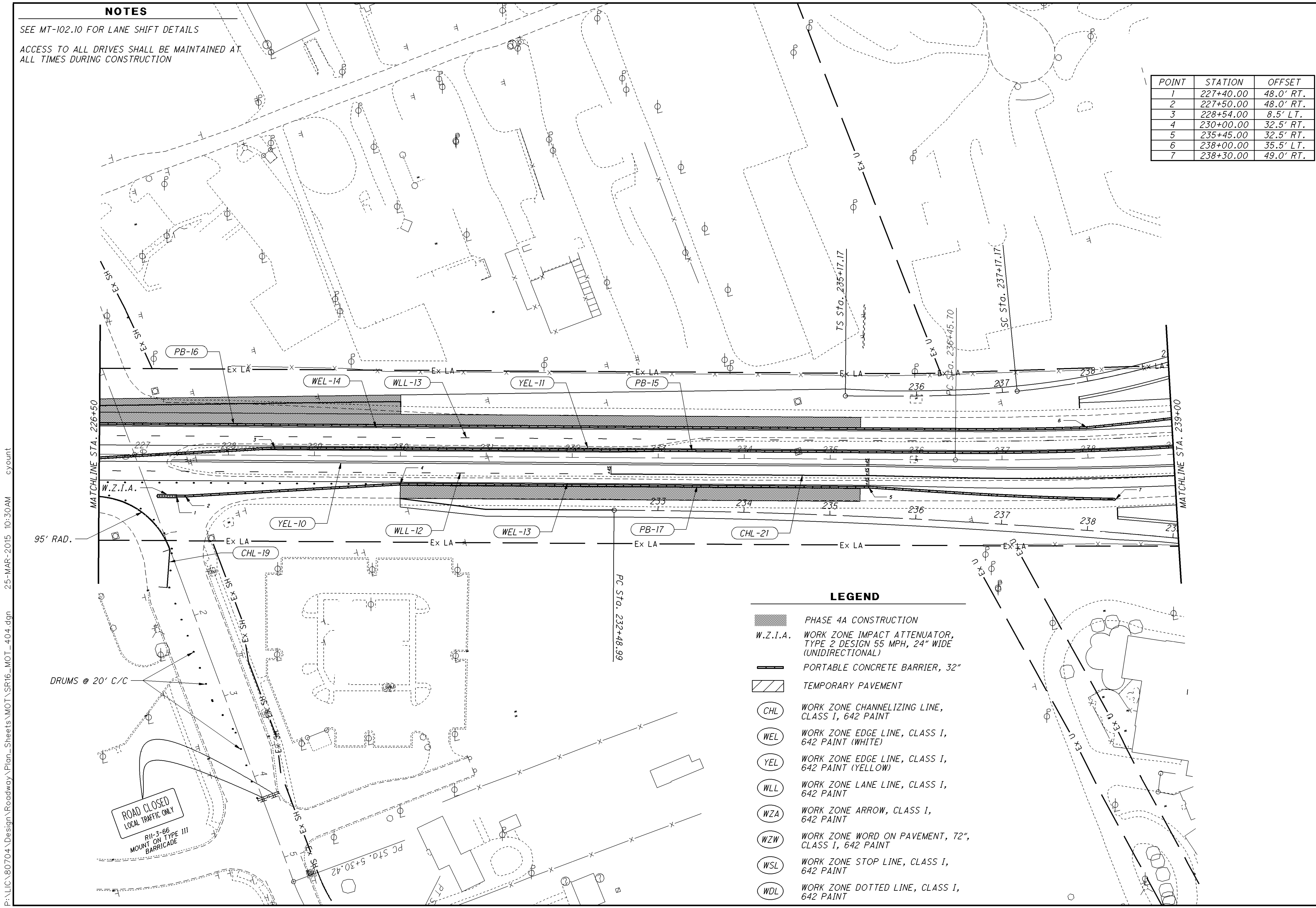
NOTES

SEE MT-102.10 FOR LANE SHIFT DETAILS
 ACCESS TO ALL DRIVES SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION

POINT	STATION	OFFSET
1	227+40.00	48.0' RT.
2	227+50.00	48.0' RT.
3	228+54.00	8.5' LT.
4	230+00.00	32.5' RT.
5	235+45.00	32.5' RT.
6	238+00.00	35.5' LT.
7	238+30.00	49.0' RT.

CALCULATED CMY
 CHECKED HAG

0 25 50 100
 HORIZONTAL SCALE IN FEET



LEGEND

- PHASE 4A CONSTRUCTION
- W.Z.I.A. WORK ZONE IMPACT ATTENUATOR, TYPE 2 DESIGN 55 MPH, 24" WIDE (UNIDIRECTIONAL)
- PORTABLE CONCRETE BARRIER, 32"
- TEMPORARY PAVEMENT
- CHL WORK ZONE CHANNELIZING LINE, CLASS I, 642 PAINT
- WEL WORK ZONE EDGE LINE, CLASS I, 642 PAINT (WHITE)
- YEL WORK ZONE EDGE LINE, CLASS I, 642 PAINT (YELLOW)
- WLL WORK ZONE LANE LINE, CLASS I, 642 PAINT
- WZA WORK ZONE ARROW, CLASS I, 642 PAINT
- WZW WORK ZONE WORD ON PAVEMENT, 72", CLASS I, 642 PAINT
- WSL WORK ZONE STOP LINE, CLASS I, 642 PAINT
- WDL WORK ZONE DOTTED LINE, CLASS I, 642 PAINT

MAINTENANCE OF TRAFFIC - PHASE 4A
S.R. 16 STA. 226+50 TO STA. 239+00

LIC-16-16.64

95
 729

P:\LIC\80704\Design\Roadway\Plan_Sheets\MOT\SR16_MOT_404.dgn 25-MAR-2015 10:30AM c:\count

POINT	STATION	OFFSET
1	240+20.00	49.0' LT.
2	240+30.00	49.0' LT.
3	245+50.00	8.5' LT.

NOTES

SEE MT-102.10 FOR LANE SHIFT DETAILS
 ACCESS TO ALL DRIVES SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION

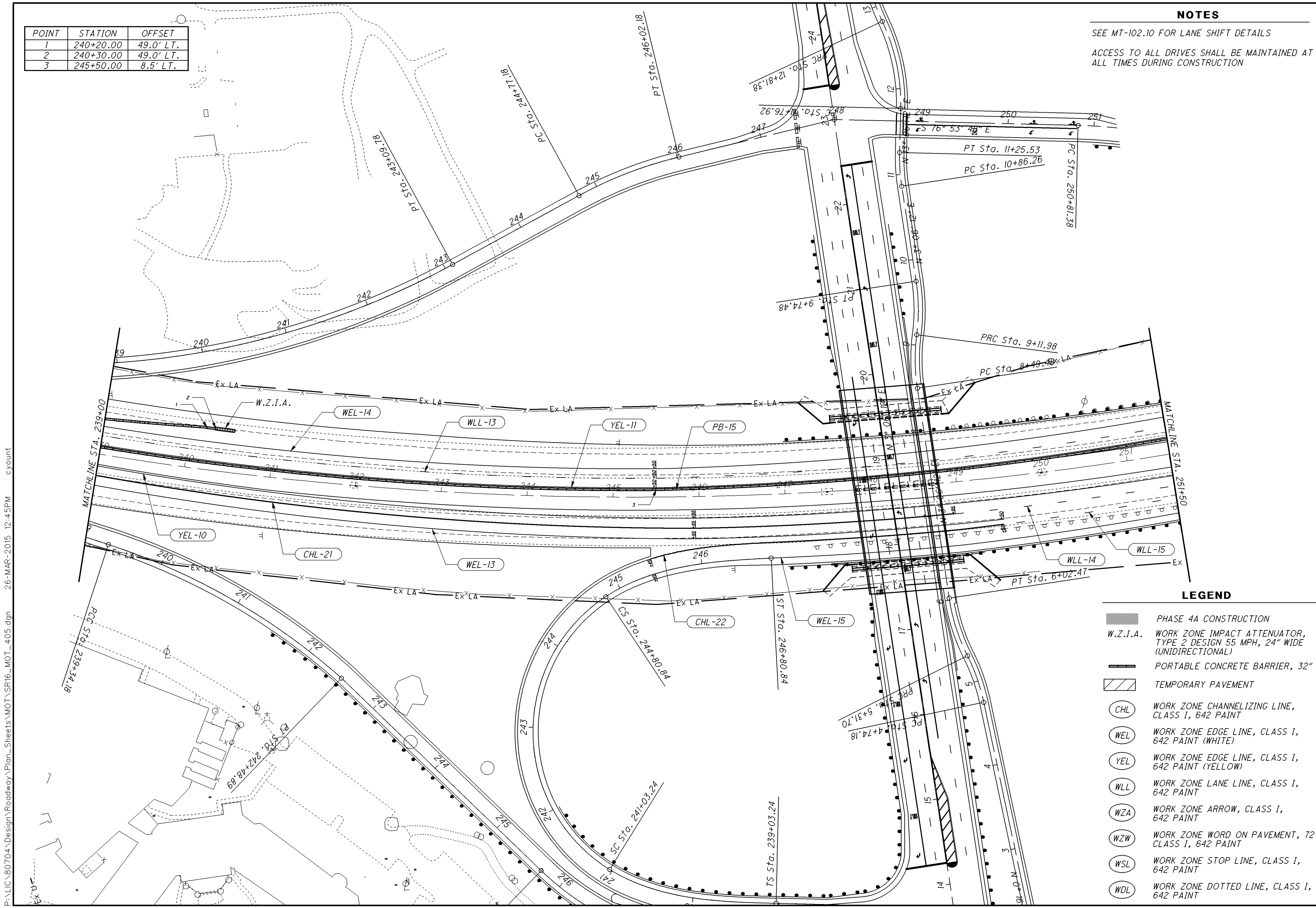
CALCULATED CMY CHECKED HAG

HORIZONTAL SCALE IN FEET

MAINTENANCE OF TRAFFIC - PHASE 4A
S.R. 16 STA. 239+00 TO STA. 251+50

LIC-16-16.64

96
729



LEGEND

- PHASE 4A CONSTRUCTION
- W.Z.I.A. WORK ZONE IMPACT ATTENUATOR, TYPE 2 DESIGN 55 MPH, 24" WIDE (UNIDIRECTIONAL)
- PORTABLE CONCRETE BARRIER, 32"
- TEMPORARY PAVEMENT
- WORK ZONE CHANNELIZING LINE, CLASS I, 642 PAINT
- WORK ZONE EDGE LINE, CLASS I, 642 PAINT (WHITE)
- WORK ZONE EDGE LINE, CLASS I, 642 PAINT (YELLOW)
- WORK ZONE LANE LINE, CLASS I, 642 PAINT
- WORK ZONE ARROW, CLASS I, 642 PAINT
- WORK ZONE WORD ON PAVEMENT, 72", CLASS I, 642 PAINT
- WORK ZONE STOP LINE, CLASS I, 642 PAINT
- WORK ZONE DOTTED LINE, CLASS I, 642 PAINT

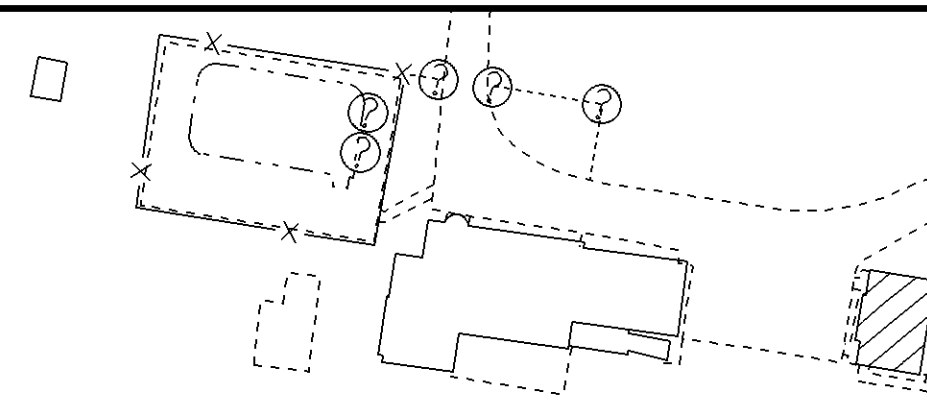
P:\LIC\80704\Design\Roadway\Plan_Sheets\MOT_SR16_MOT_405.dgn 26-MAR-2015 12:45PM c.yount


NOTES


SEE MT-102.10 FOR LANE SHIFT DETAILS

ACCESS TO ALL DRIVES SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION

POINT	STATION	OFFSET
1	254+30.00	22.5' LT.
2	254+80.00	22.5' LT.
3	255+84.00	16.0' LT.
4	255+94.00	16.0' LT.

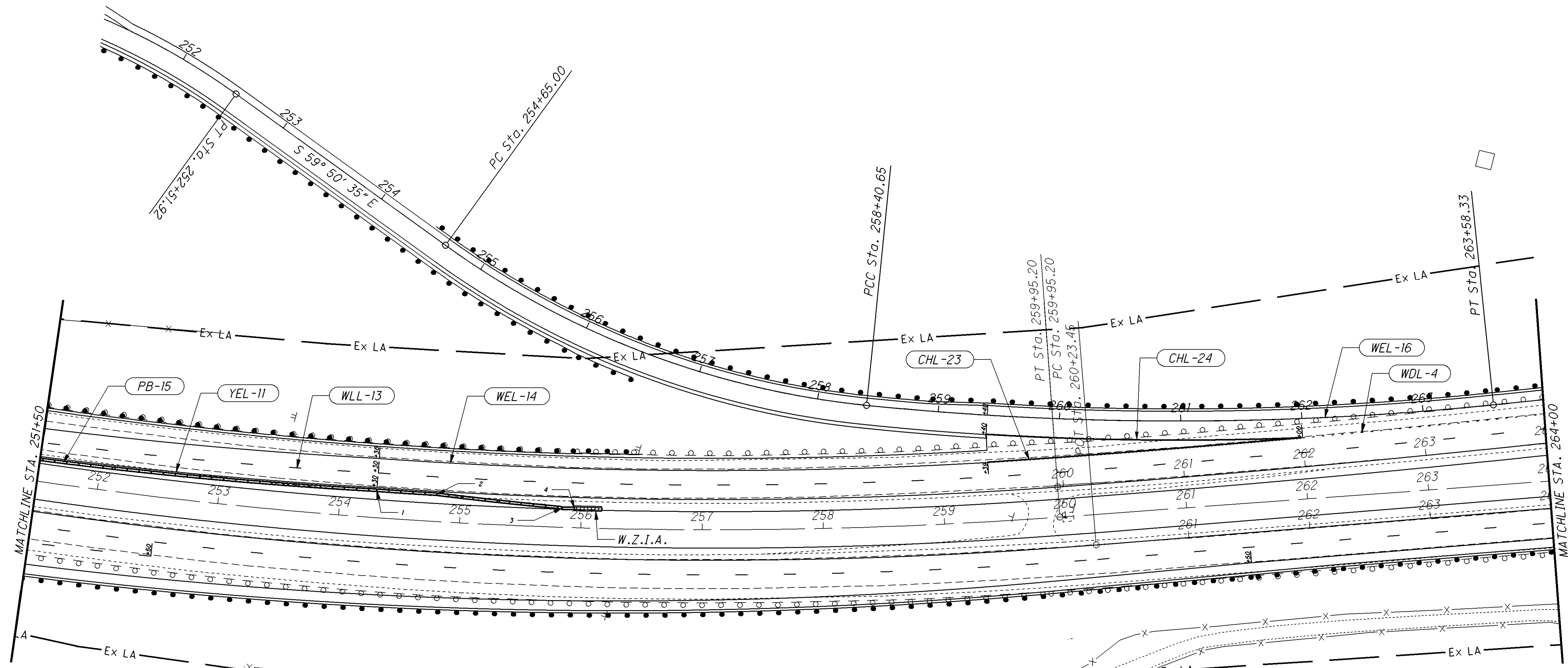





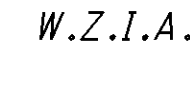

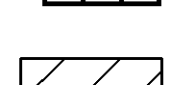










 HORIZONTAL SCALE IN FEET

CALCULATED CMY
 CHECKED HAG



LEGEND

-  PHASE 4A CONSTRUCTION
-  W.Z.I.A. WORK ZONE IMPACT ATTENUATOR, TYPE 2 DESIGN 55 MPH, 24" WIDE (UNIDIRECTIONAL)
-  PORTABLE CONCRETE BARRIER, 32"
-  TEMPORARY PAVEMENT
-  (CHL) WORK ZONE CHANNELIZING LINE, CLASS I, 642 PAINT
-  (WEL) WORK ZONE EDGE LINE, CLASS I, 642 PAINT (WHITE)
-  (YEL) WORK ZONE EDGE LINE, CLASS I, 642 PAINT (YELLOW)
-  (WLL) WORK ZONE LANE LINE, CLASS I, 642 PAINT
-  (WZA) WORK ZONE ARROW, CLASS I, 642 PAINT
-  (WZW) WORK ZONE WORD ON PAVEMENT, 72", CLASS I, 642 PAINT
-  (WSL) WORK ZONE STOP LINE, CLASS I, 642 PAINT
-  (WDL) WORK ZONE DOTTED LINE, CLASS I, 642 PAINT

MAINTENANCE OF TRAFFIC - PHASE 4A
S.R. 16 STA. 251+50 TO STA. 264+00

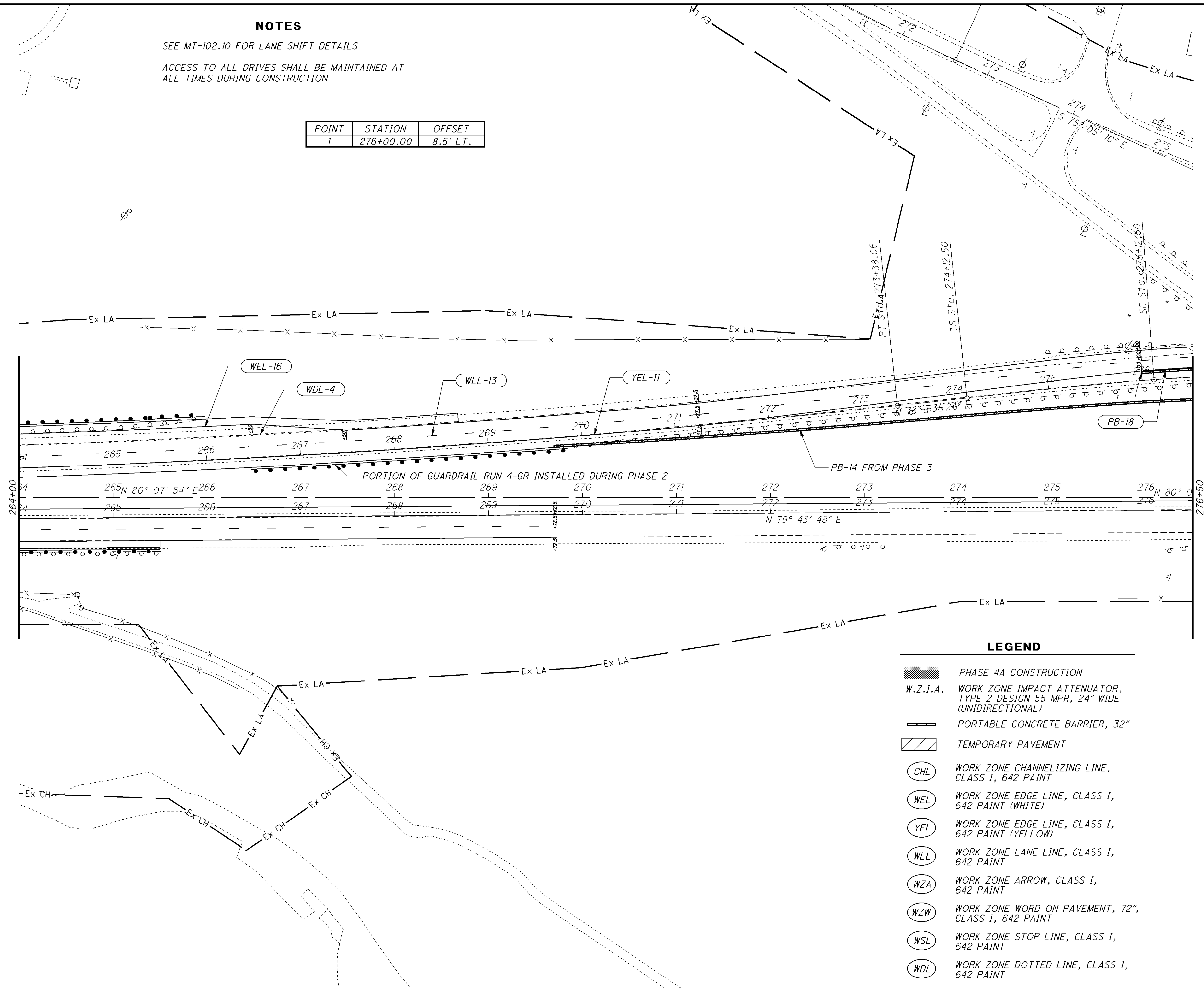
LIC-16-16.64

P:\LIC\80704\Design\Roadway\Plan_Sheets\MOT_SR16\MOT_406.dgn 10-JUN-2015 9:00AM c.yount

NOTES

SEE MT-102.10 FOR LANE SHIFT DETAILS
 ACCESS TO ALL DRIVES SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION

POINT	STATION	OFFSET
1	276+00.00	8.5' LT.



LEGEND

- PHASE 4A CONSTRUCTION
- W.Z.I.A. WORK ZONE IMPACT ATTENUATOR, TYPE 2 DESIGN 55 MPH, 24" WIDE (UNIDIRECTIONAL)
- PORTABLE CONCRETE BARRIER, 32"
- TEMPORARY PAVEMENT
- (CHL) WORK ZONE CHANNELIZING LINE, CLASS I, 642 PAINT
- (WEL) WORK ZONE EDGE LINE, CLASS I, 642 PAINT (WHITE)
- (YEL) WORK ZONE EDGE LINE, CLASS I, 642 PAINT (YELLOW)
- (WLL) WORK ZONE LANE LINE, CLASS I, 642 PAINT
- (WZA) WORK ZONE ARROW, CLASS I, 642 PAINT
- (WZW) WORK ZONE WORD ON PAVEMENT, 72", CLASS I, 642 PAINT
- (WSL) WORK ZONE STOP LINE, CLASS I, 642 PAINT
- (WDL) WORK ZONE DOTTED LINE, CLASS I, 642 PAINT

CALCULATED CMY CHECKED HAG
 0 25 50 100
 HORIZONTAL SCALE IN FEET

MAINTENANCE OF TRAFFIC - PHASE 4A
S.R. 16 STA. 264+00 TO STA. 276+50

LIC-16-16.64

P:\LIC\80704\Design\Roadway\Plan_Sheets\MOT\SR16\MOT_407.dgn 10-JUN-2015 9:02AM c:\count

P:\LIC\80704\Design\Roadway\Plan_Sheets\MOT\SR16_MOT_408.dgn 26-MAR-2015 8:16AM c:\count

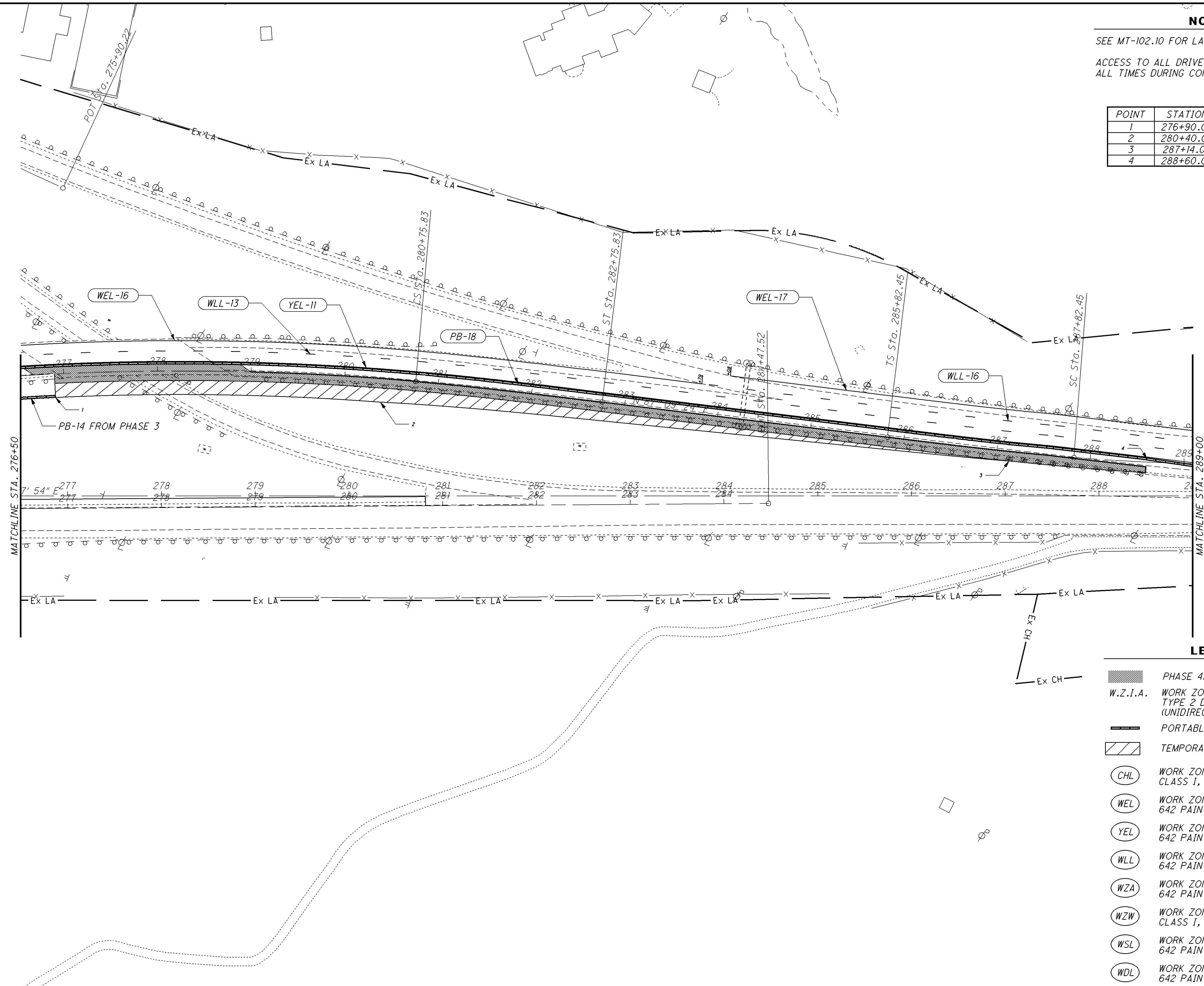
NOTES

SEE MT-102.10 FOR LANE SHIFT DETAILS
 ACCESS TO ALL DRIVES SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION

POINT	STATION	OFFSET
1	276+90.00	25.0' RT.
2	280+40.00	25.0' RT.
3	287+14.00	10.0' RT.
4	288+60.00	3.5' LT.

CALCULATED CMY
 CHECKED HAG

HORIZONTAL SCALE IN FEET



LEGEND

- PHASE 4A CONSTRUCTION
- W.Z.I.A. WORK ZONE IMPACT ATTENUATOR, TYPE 2 DESIGN 55 MPH, 24" WIDE (UNIDIRECTIONAL)
- PORTABLE CONCRETE BARRIER, 32"
- TEMPORARY PAVEMENT
- WORK ZONE CHANNELIZING LINE, CLASS I, 642 PAINT
- WORK ZONE EDGE LINE, CLASS I, 642 PAINT (WHITE)
- WORK ZONE EDGE LINE, CLASS I, 642 PAINT (YELLOW)
- WORK ZONE LANE LINE, CLASS I, 642 PAINT
- WORK ZONE ARROW, CLASS I, 642 PAINT
- WORK ZONE WORD ON PAVEMENT, 72", CLASS I, 642 PAINT
- WORK ZONE STOP LINE, CLASS I, 642 PAINT
- WORK ZONE DOTTED LINE, CLASS I, 642 PAINT

MAINTENANCE OF TRAFFIC - PHASE 4A
S.R. 16 STA. 276+50 TO STA. 289+00

LIC-16-16.64



CALCULATED
CMY
CHECKED
HAG

MAINTENANCE OF TRAFFIC - PHASE 4A
S.R. 16 STA. 289+00 TO STA. 27+62

LIC-16-16.64

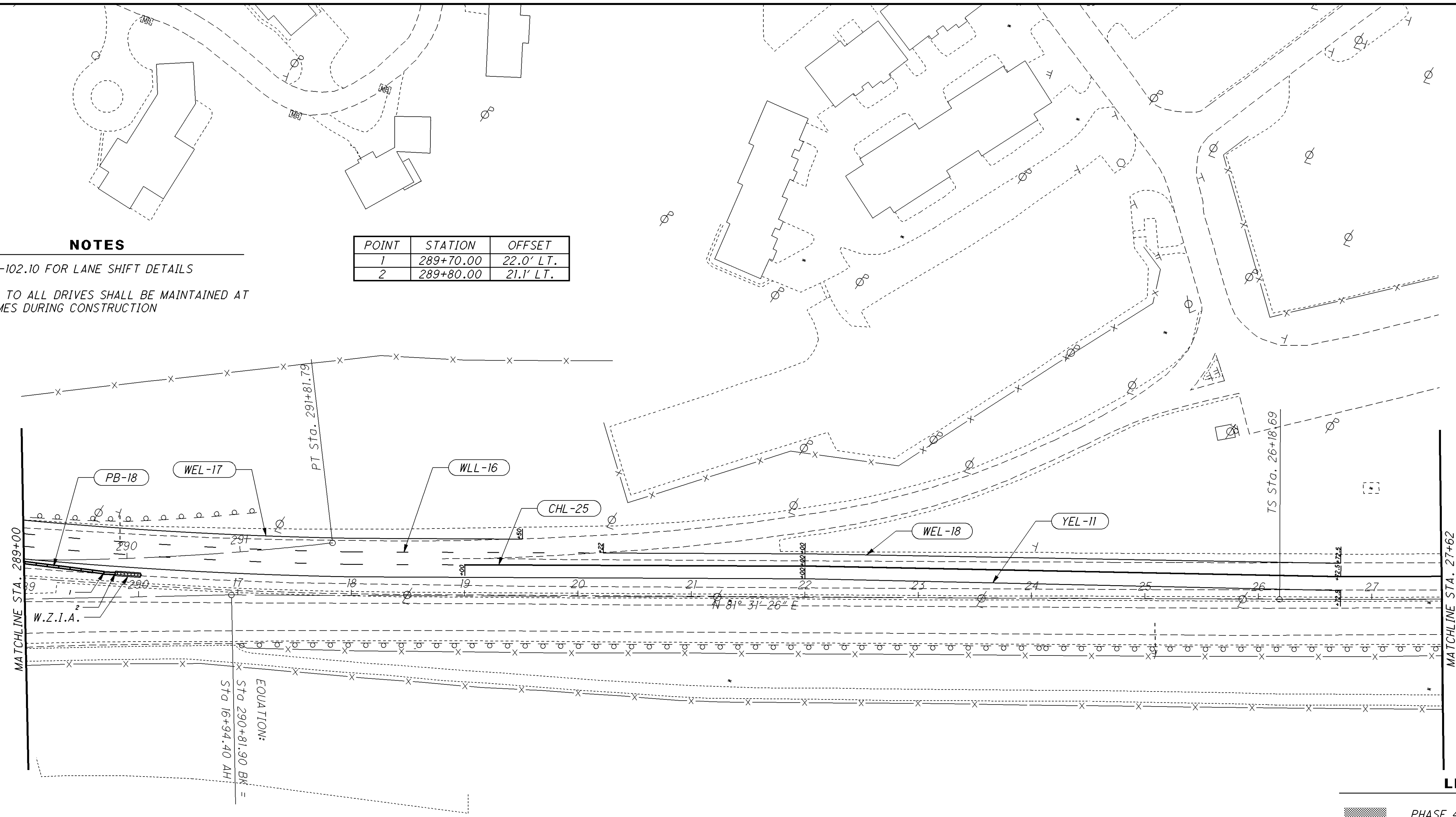
100
729

NOTES

SEE MT-102.10 FOR LANE SHIFT DETAILS

ACCESS TO ALL DRIVES SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION

POINT	STATION	OFFSET
1	289+70.00	22.0' LT.
2	289+80.00	21.1' LT.



LEGEND

- PHASE 4A CONSTRUCTION
- W.Z.I.A. WORK ZONE IMPACT ATTENUATOR, TYPE 2 DESIGN 55 MPH, 24" WIDE (UNIDIRECTIONAL)
- PORTABLE CONCRETE BARRIER, 32"
- TEMPORARY PAVEMENT
- CHL WORK ZONE CHANNELIZING LINE, CLASS I, 642 PAINT
- WEL WORK ZONE EDGE LINE, CLASS I, 642 PAINT (WHITE)
- YEL WORK ZONE EDGE LINE, CLASS I, 642 PAINT (YELLOW)
- WLL WORK ZONE LANE LINE, CLASS I, 642 PAINT
- WZA WORK ZONE ARROW, CLASS I, 642 PAINT
- WZW WORK ZONE WORD ON PAVEMENT, 72", CLASS I, 642 PAINT
- WSL WORK ZONE STOP LINE, CLASS I, 642 PAINT
- WDL WORK ZONE DOTTED LINE, CLASS I, 642 PAINT

P:\LIC\80704\Design\Roadway\Plan_Sheets\MOT_SR16_MOT_409.dgn 26-MAR-2015 8:42AM ccount

NOTES

SEE MT-102.10 FOR LANE SHIFT DETAILS

ACCESS TO ALL DRIVES SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION

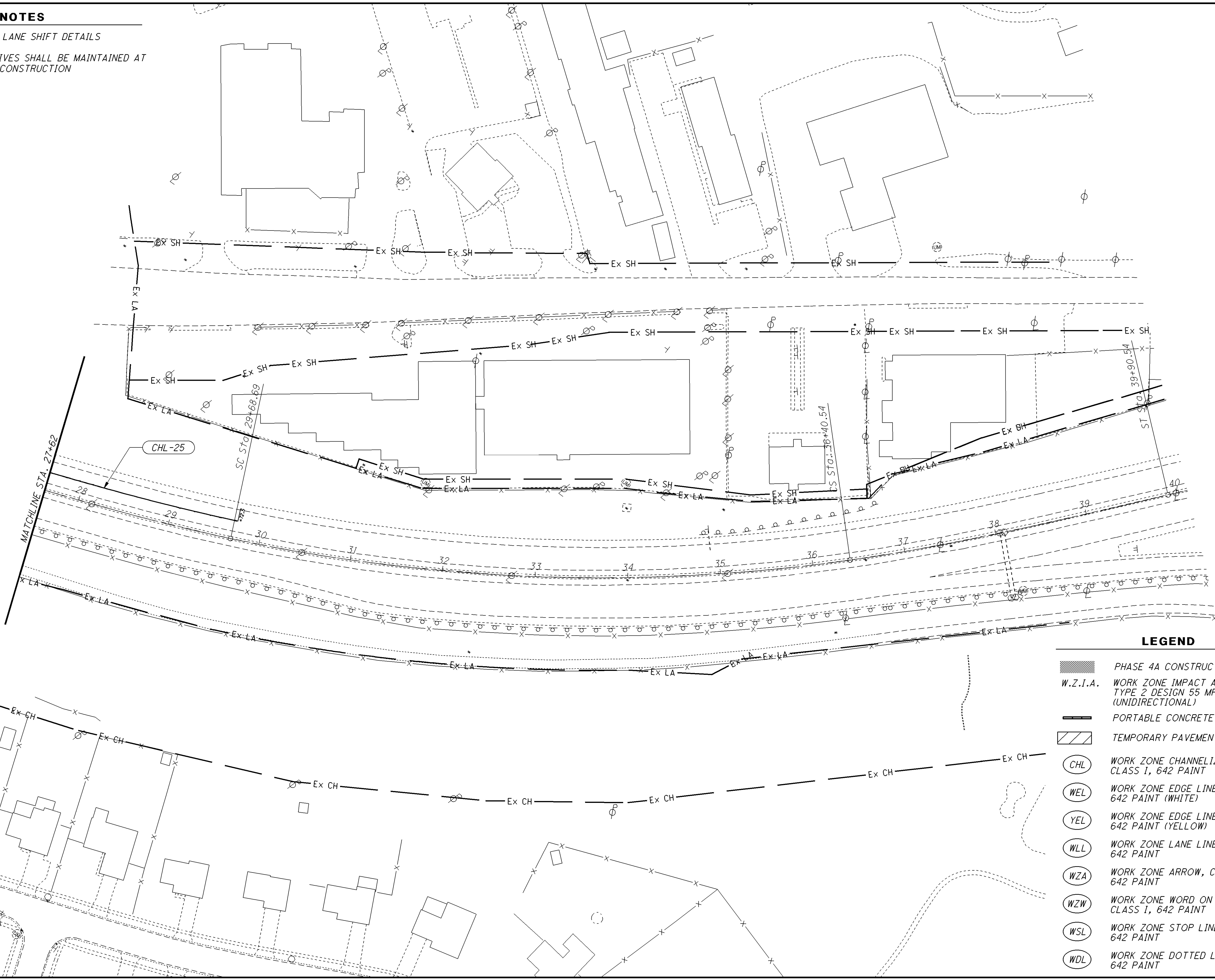


CALCULATED
CMY
CHECKED
HAG


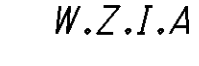

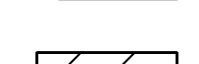
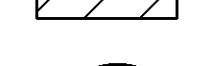



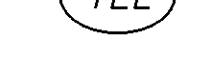



**MAINTENANCE OF TRAFFIC - PHASE 4A
S.R. 16 STA. 27+62 TO STA. 40+12**

LIC-16-16.64

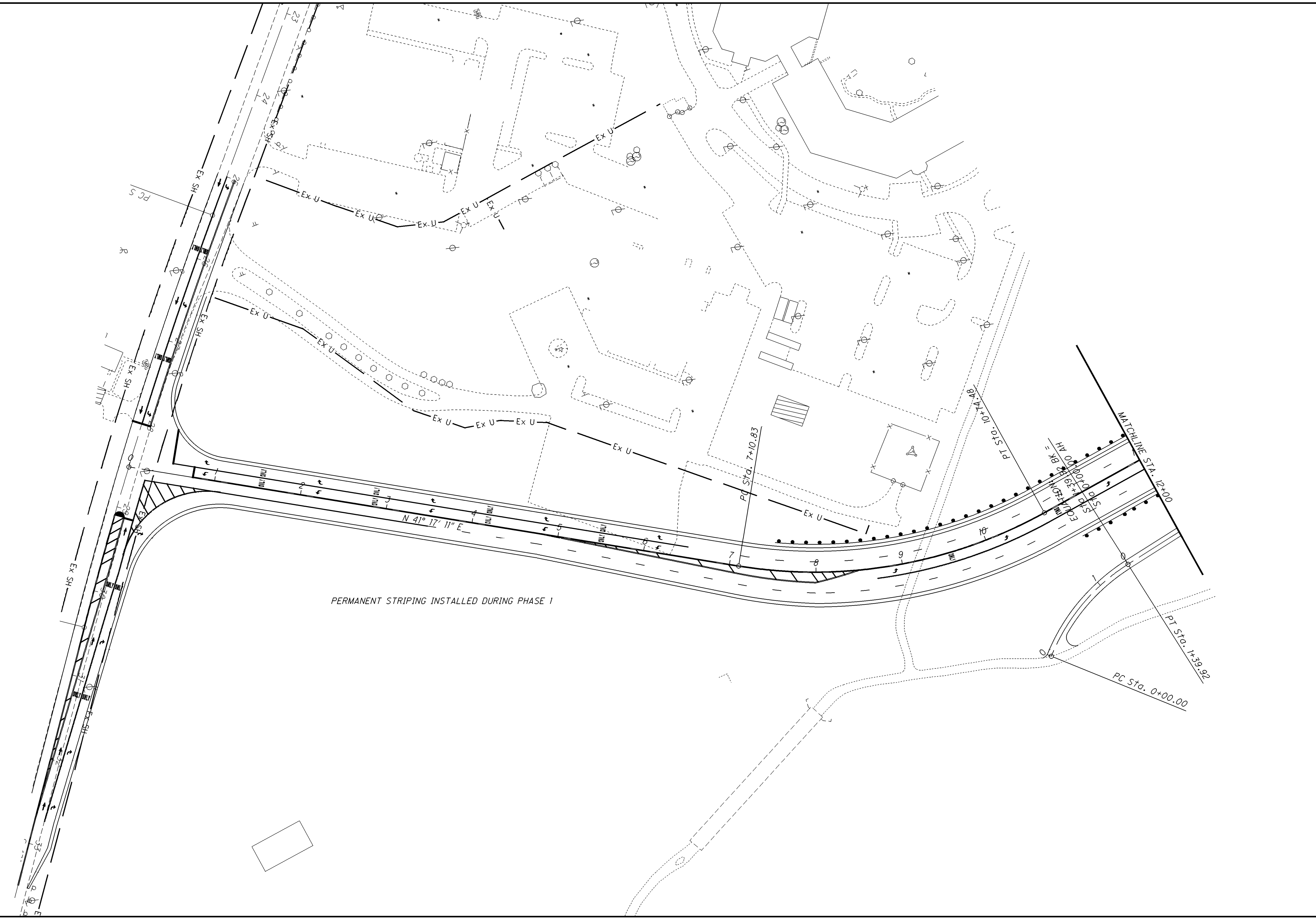
101
729



LEGEND

-  PHASE 4A CONSTRUCTION
-  W.Z.I.A. WORK ZONE IMPACT ATTENUATOR, TYPE 2 DESIGN 55 MPH, 24" WIDE (UNIDIRECTIONAL)
-  PORTABLE CONCRETE BARRIER, 32"
-  TEMPORARY PAVEMENT
-  (CHL) WORK ZONE CHANNELIZING LINE, CLASS I, 642 PAINT
-  (WEL) WORK ZONE EDGE LINE, CLASS I, 642 PAINT (WHITE)
-  (YEL) WORK ZONE EDGE LINE, CLASS I, 642 PAINT (YELLOW)
-  (WLL) WORK ZONE LANE LINE, CLASS I, 642 PAINT
-  (WZA) WORK ZONE ARROW, CLASS I, 642 PAINT
-  (WZW) WORK ZONE WORD ON PAVEMENT, 72", CLASS I, 642 PAINT
-  (WSL) WORK ZONE STOP LINE, CLASS I, 642 PAINT
-  (WDL) WORK ZONE DOTTED LINE, CLASS I, 642 PAINT

P:\LIC\80704\Design\Roadway\Plan_Sheets\MOT\SR16_MOT_410.dgn 26-MAR-2015 8:44AM cyount

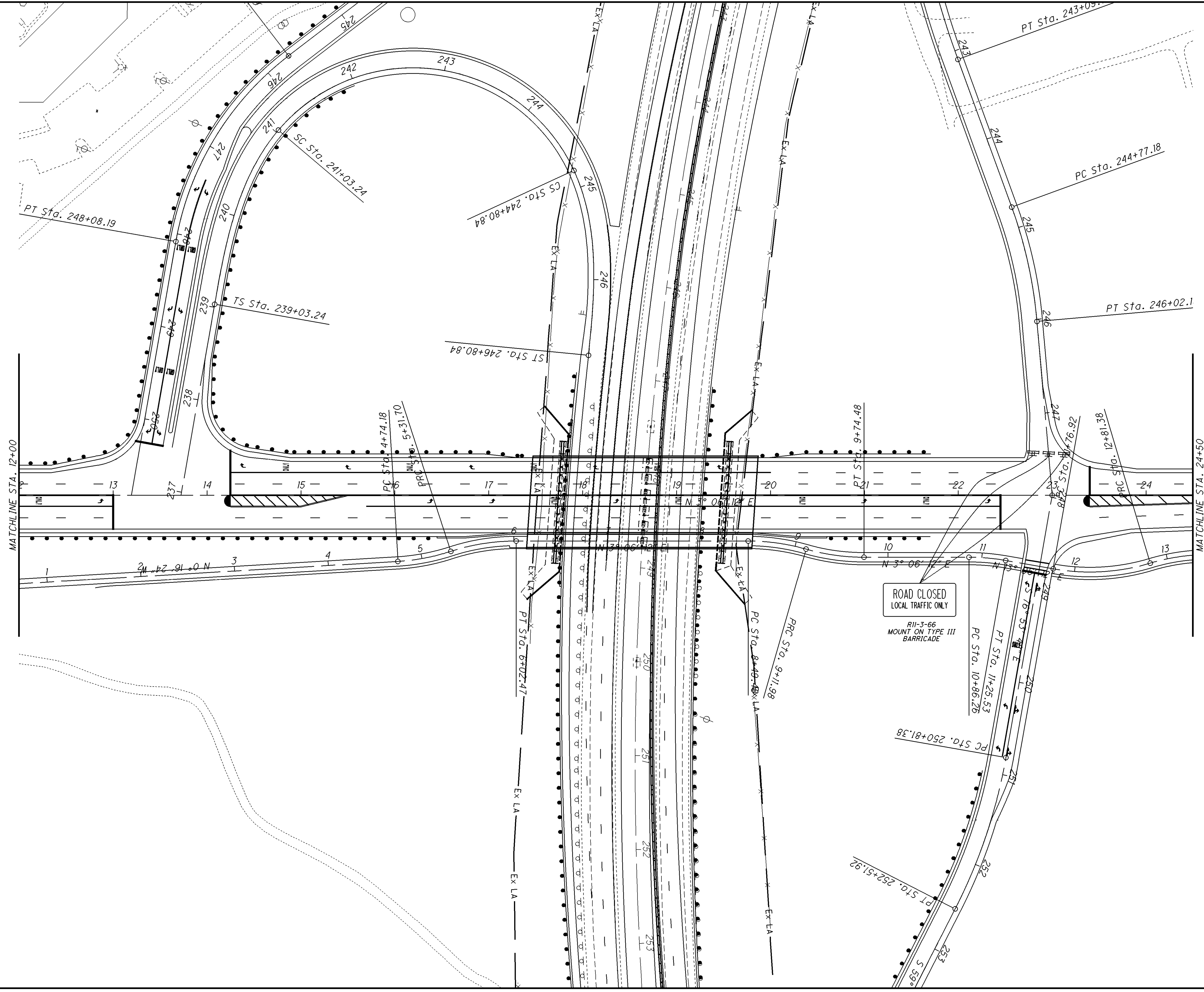


CALCULATED	CMY
CHECKED	HAG

MAINTENANCE OF TRAFFIC - PHASE 4A
PR. CHERRY VALLEY RD. STA. 0+00 TO STA. 12+00

LIC-16-16.64
102
729





CALCULATED
CMY
CHECKED
HAG

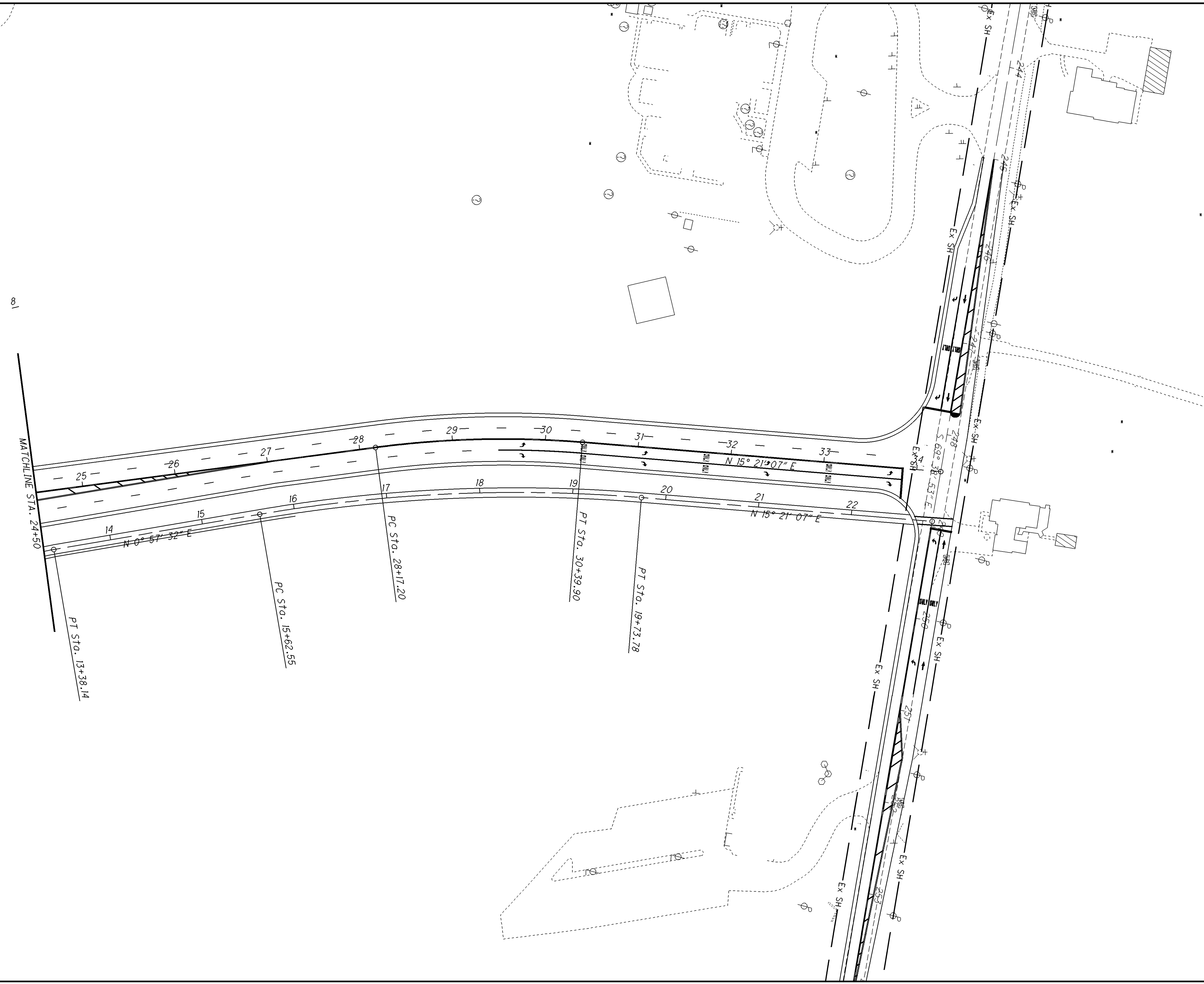
0 25 50 100
HORIZONTAL
SCALE IN FEET

N

MAINTENANCE OF TRAFFIC - PHASE 4A
PR. CHERRY VALLEY RD. STA. 12+00 TO STA. 24+50

LIC-16-16.64

103
729

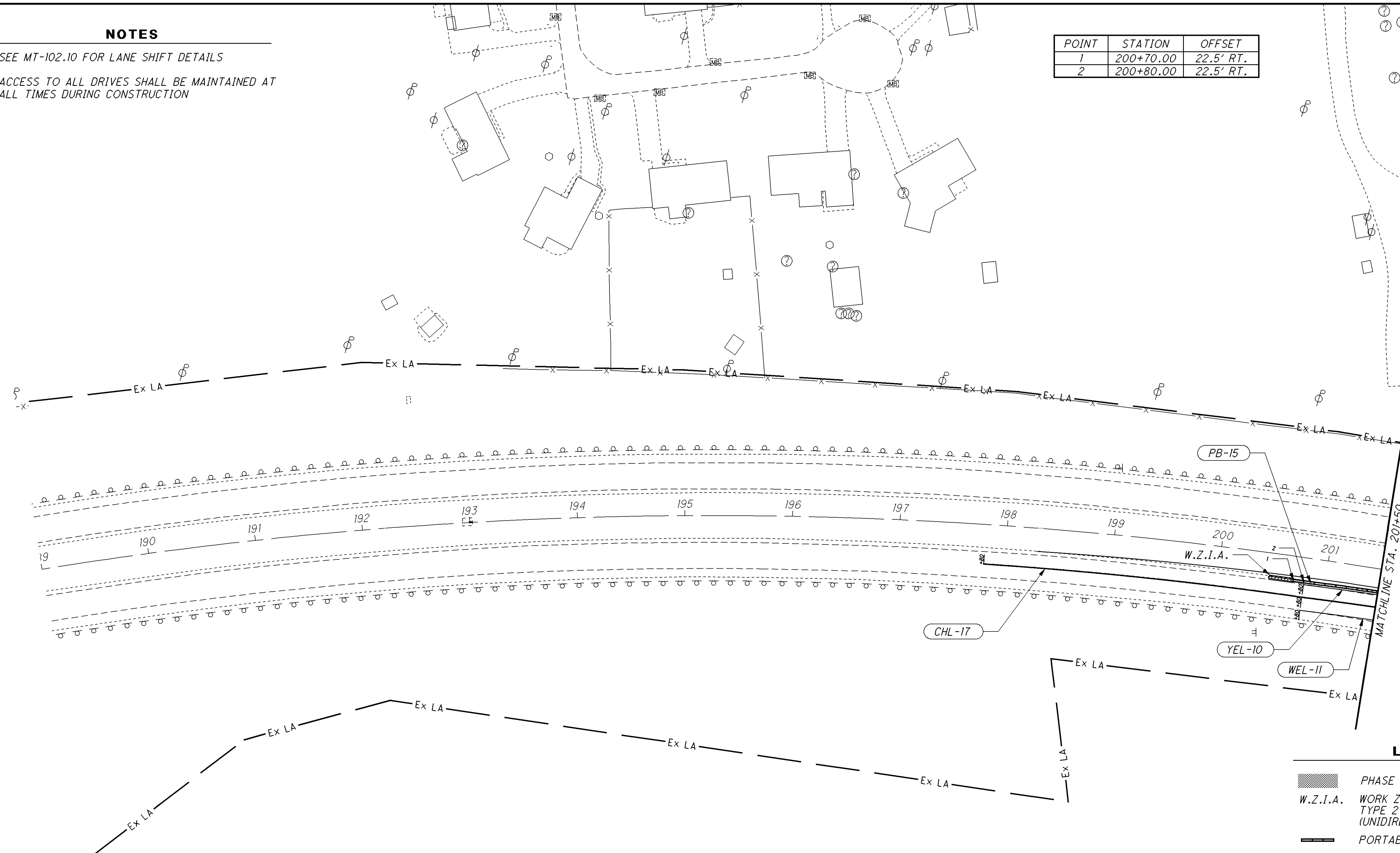


NOTES


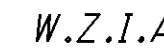


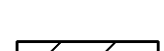
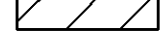






SEE MT-102.10 FOR LANE SHIFT DETAILS

ACCESS TO ALL DRIVES SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION

POINT	STATION	OFFSET
1	200+70.00	22.5' RT.
2	200+80.00	22.5' RT.



LEGEND

-  PHASE 4B CONSTRUCTION
-  W.Z.I.A. WORK ZONE IMPACT ATTENUATOR, TYPE 2 DESIGN 55 MPH, 24" WIDE (UNIDIRECTIONAL)
-  PORTABLE CONCRETE BARRIER, 32"
-  TEMPORARY PAVEMENT
-  CHL WORK ZONE CHANNELIZING LINE, CLASS I, 642 PAINT
-  WEL WORK ZONE EDGE LINE, CLASS I, 642 PAINT (WHITE)
-  YEL WORK ZONE EDGE LINE, CLASS I, 642 PAINT (YELLOW)
-  WLL WORK ZONE LANE LINE, CLASS I, 642 PAINT
-  WZA WORK ZONE ARROW, CLASS I, 642 PAINT
-  WZW WORK ZONE WORD ON PAVEMENT, 72", CLASS I, 642 PAINT
-  WSL WORK ZONE STOP LINE, CLASS I, 642 PAINT
-  WDL WORK ZONE DOTTED LINE, CLASS I, 642 PAINT

CALCULATED
CMY
CHECKED
HAG

MAINTENANCE OF TRAFFIC - PHASE 4B
S.R. 16 STA. 189+00 TO STA. 201+50

LIC-16-16.64

105
729

P:\LIC\80704\Design\Roadway\Plan_Sheets\MOT\SR16_MOT_414.dgn 26-MAR-2015 9:00AM ccount

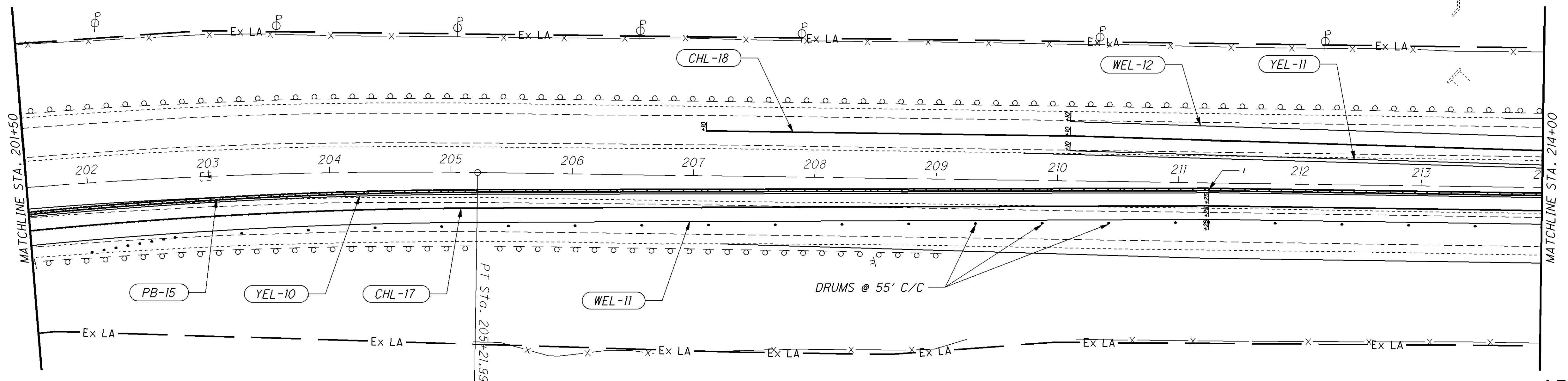
NOTES

SEE MT-102.10 FOR LANE SHIFT DETAILS
 ACCESS TO ALL DRIVES SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION

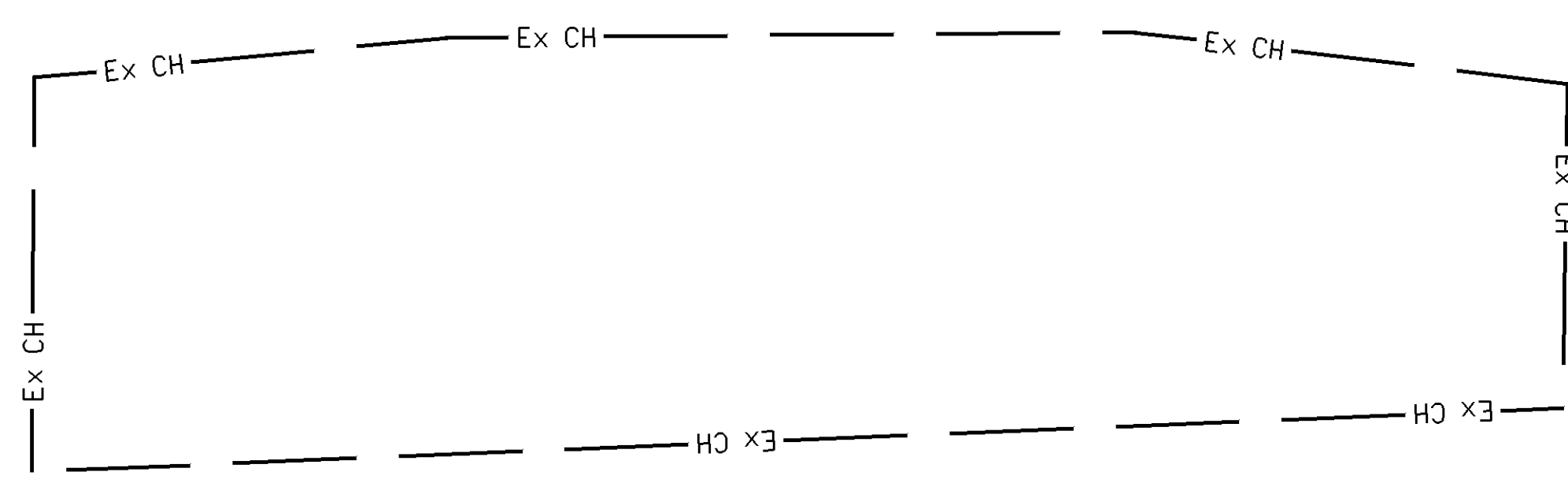
CALCULATED
 CMY
 CHECKED
 HAG

**MAINTENANCE OF TRAFFIC - PHASE 4B
 S.R. 16 STA. 201+50 TO STA. 214+00**

LIC-16-16.64



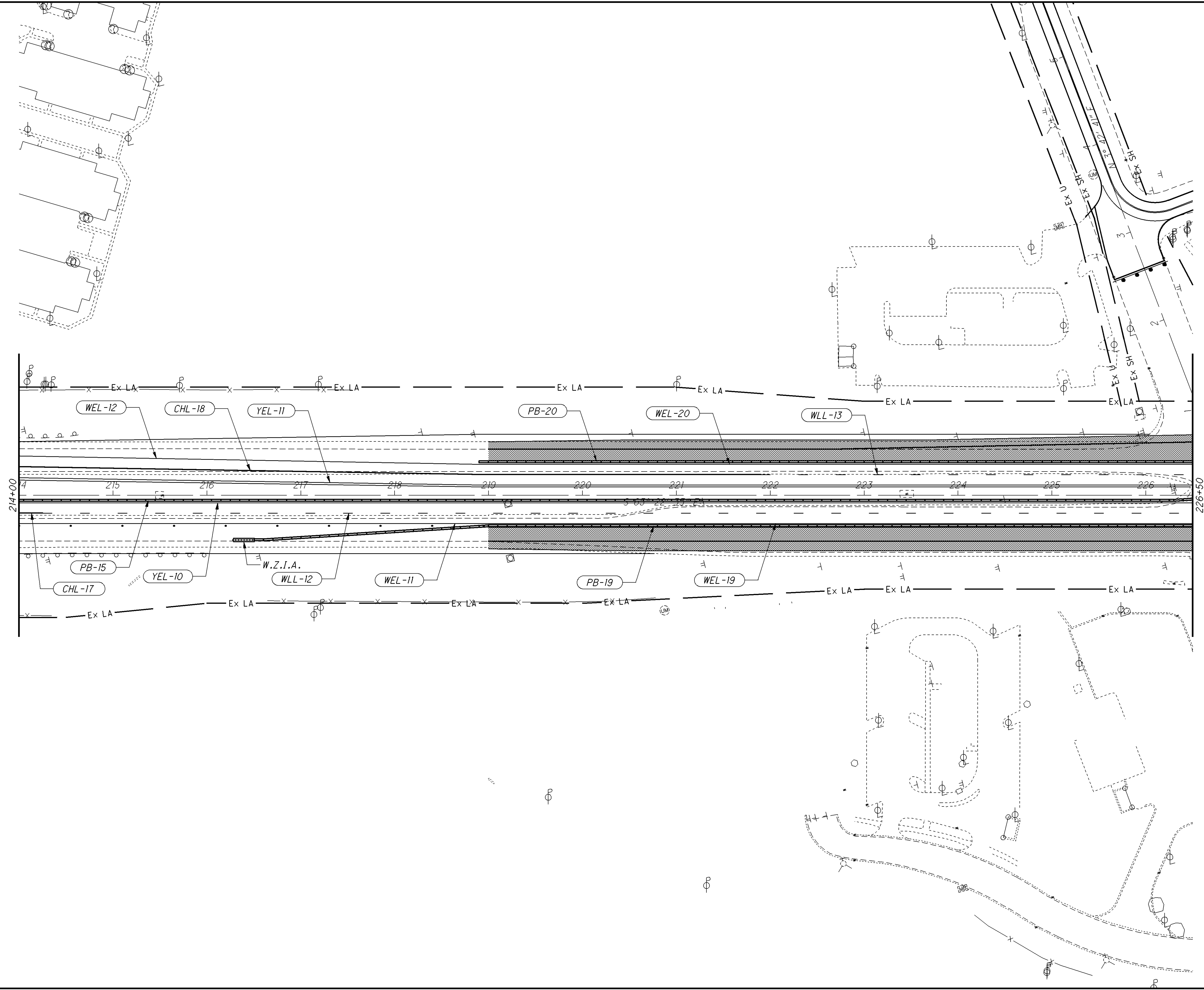
POINT	STATION	OFFSET
1	211+25.00	5.5' RT.



LEGEND

- PHASE 4B CONSTRUCTION
- W.Z.I.A. WORK ZONE IMPACT ATTENUATOR, TYPE 2 DESIGN 55 MPH, 24" WIDE (UNIDIRECTIONAL)
- PORTABLE CONCRETE BARRIER, 32"
- TEMPORARY PAVEMENT
- CHL WORK ZONE CHANNELIZING LINE, CLASS I, 642 PAINT
- WEL WORK ZONE EDGE LINE, CLASS I, 642 PAINT (WHITE)
- YEL WORK ZONE EDGE LINE, CLASS I, 642 PAINT (YELLOW)
- WLL WORK ZONE LANE LINE, CLASS I, 642 PAINT
- WZA WORK ZONE ARROW, CLASS I, 642 PAINT
- WZW WORK ZONE WORD ON PAVEMENT, 72", CLASS I, 642 PAINT
- WSL WORK ZONE STOP LINE, CLASS I, 642 PAINT
- WDL WORK ZONE DOTTED LINE, CLASS I, 642 PAINT

P:\LIC\80704\Design\Roadway\Plan_Sheets\MOT\SR16_MOT_415.dgn 26-MAR-2015 9:04AM ccount



CALCULATED
CMY
CHECKED
HAG

0 25 50 100
HORIZONTAL
SCALE IN FEET

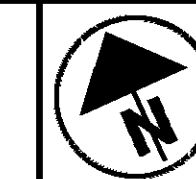
MAINTENANCE OF TRAFFIC - PHASE 4B
S.R. 16 STA. 214+00 TO STA. 226+50

LIC-16-16.64

NOTES

SEE MT-102.10 FOR LANE SHIFT DETAILS
 ACCESS TO ALL DRIVES SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION

POINT	STATION	OFFSET
1	230+10.00	32.5' RT.
2	233+07.00	76.5' LT.
3	233+17.00	76.5' LT.



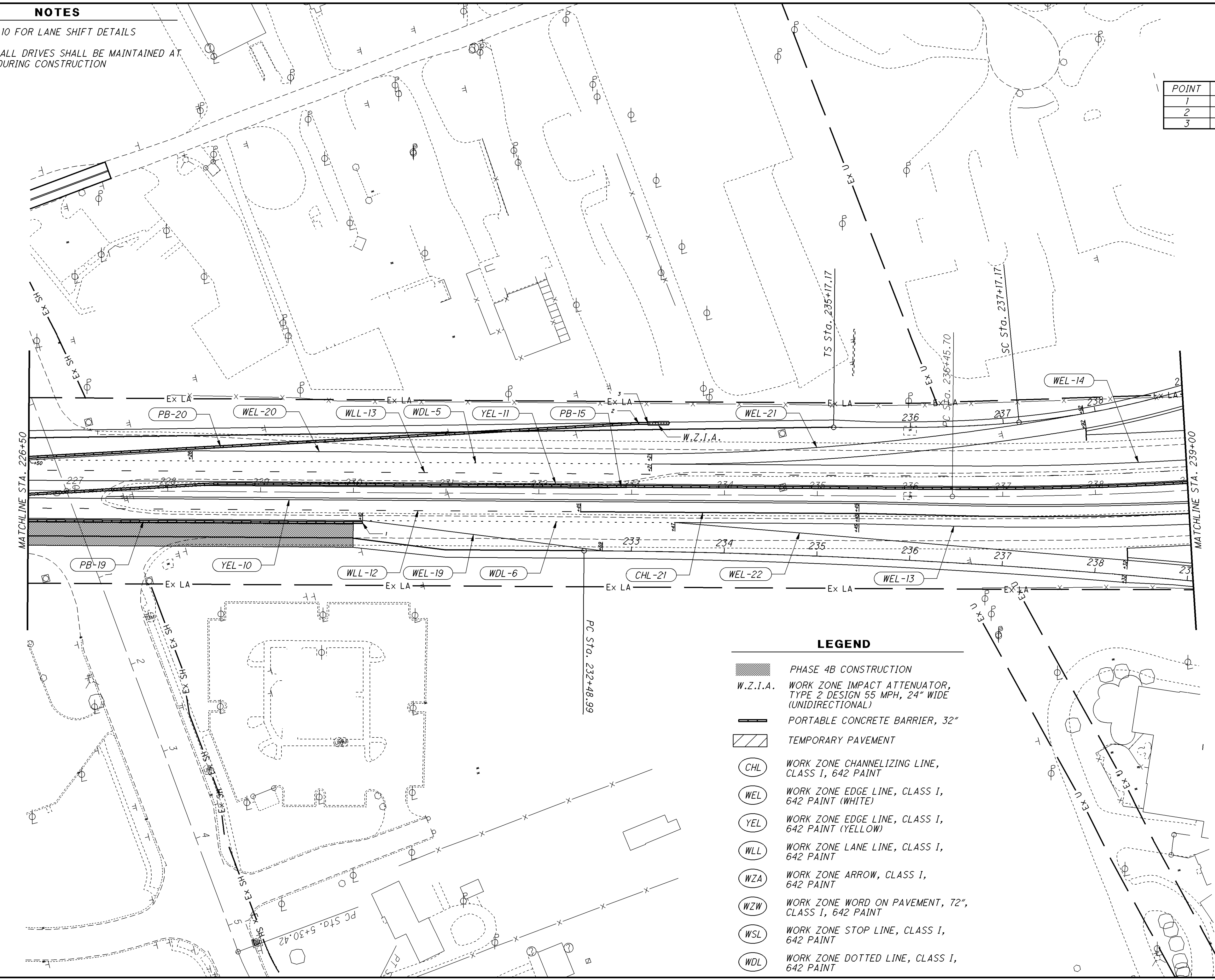
0 50 100
 HORIZONTAL SCALE IN FEET

CALCULATED CMY
 CHECKED HAG


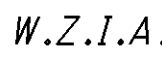


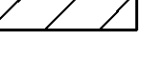







**MAINTENANCE OF TRAFFIC - PHASE 4B
 S.R. 16 STA. 226+50 TO STA. 239+00**

LIC-16-16.64

108
 729



LEGEND

-  PHASE 4B CONSTRUCTION
-  W.Z.I.A. WORK ZONE IMPACT ATTENUATOR, TYPE 2 DESIGN 55 MPH, 24" WIDE (UNIDIRECTIONAL)
-  PORTABLE CONCRETE BARRIER, 32"
-  TEMPORARY PAVEMENT
-  (CHL) WORK ZONE CHANNELIZING LINE, CLASS I, 642 PAINT
-  (WEL) WORK ZONE EDGE LINE, CLASS I, 642 PAINT (WHITE)
-  (YEL) WORK ZONE EDGE LINE, CLASS I, 642 PAINT (YELLOW)
-  (WLL) WORK ZONE LANE LINE, CLASS I, 642 PAINT
-  (WZA) WORK ZONE ARROW, CLASS I, 642 PAINT
-  (WZW) WORK ZONE WORD ON PAVEMENT, 72", CLASS I, 642 PAINT
-  (WSL) WORK ZONE STOP LINE, CLASS I, 642 PAINT
-  (WDL) WORK ZONE DOTTED LINE, CLASS I, 642 PAINT

P:\LIC\80704\Design\Roadway\Plan_Sheets\MOT_SRT16_MOT_417.dgn 26-MAR-2015 10:43 AM cyount

P:\LIC\80704\Design\Roadway\Plan_Sheets\MOT\SR16_MOT_41B.dgn 26-MAR-2015 10:48AM cyount

NOTES

SEE MT-102.10 FOR LANE SHIFT DETAILS
ACCESS TO ALL DRIVES SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION

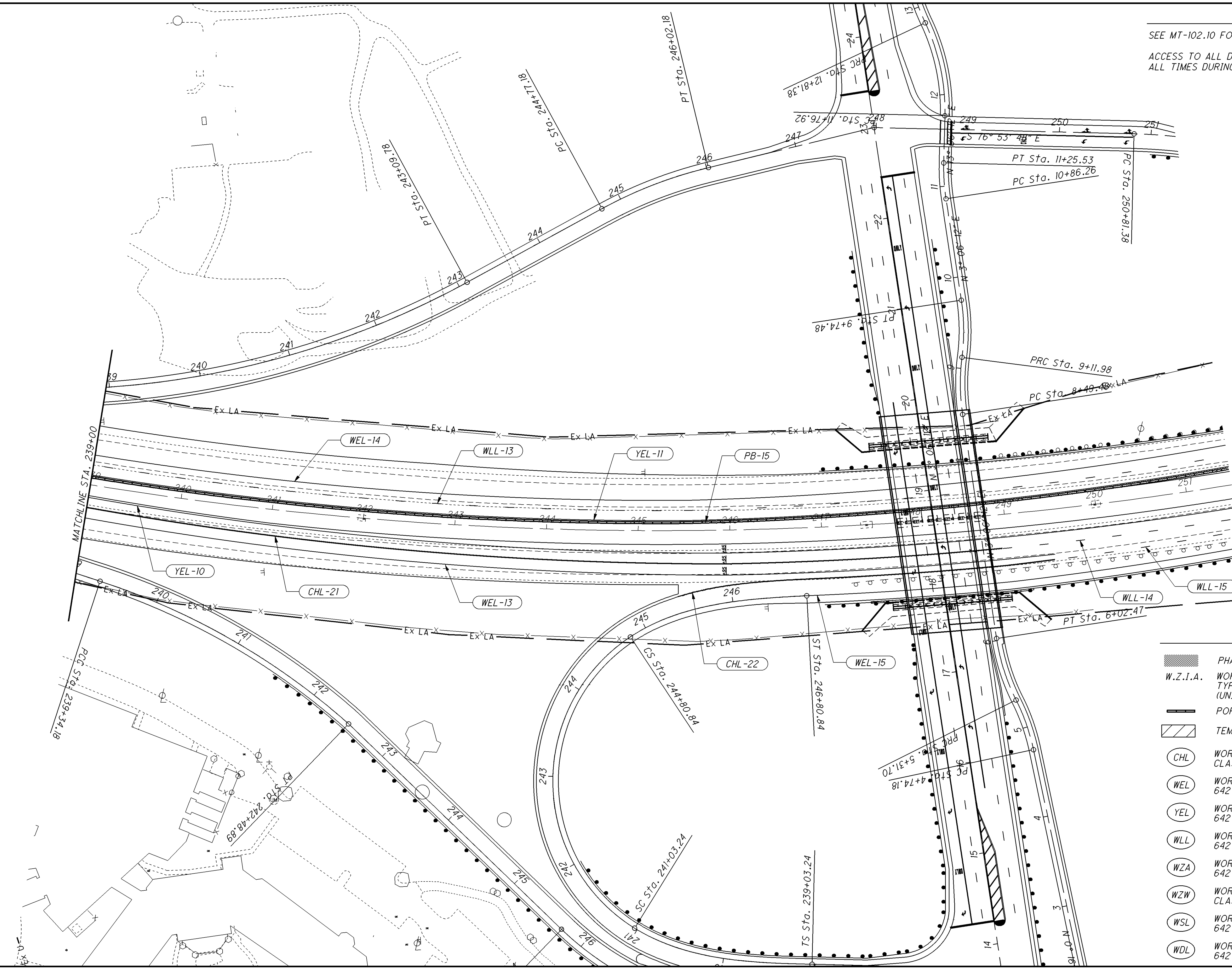


CALCULATED CMY
CHECKED HAG

**MAINTENANCE OF TRAFFIC - PHASE 4B
S.R. 16 STA. 239+00 TO STA. 251+50**

LIC-16-16.64

109
729

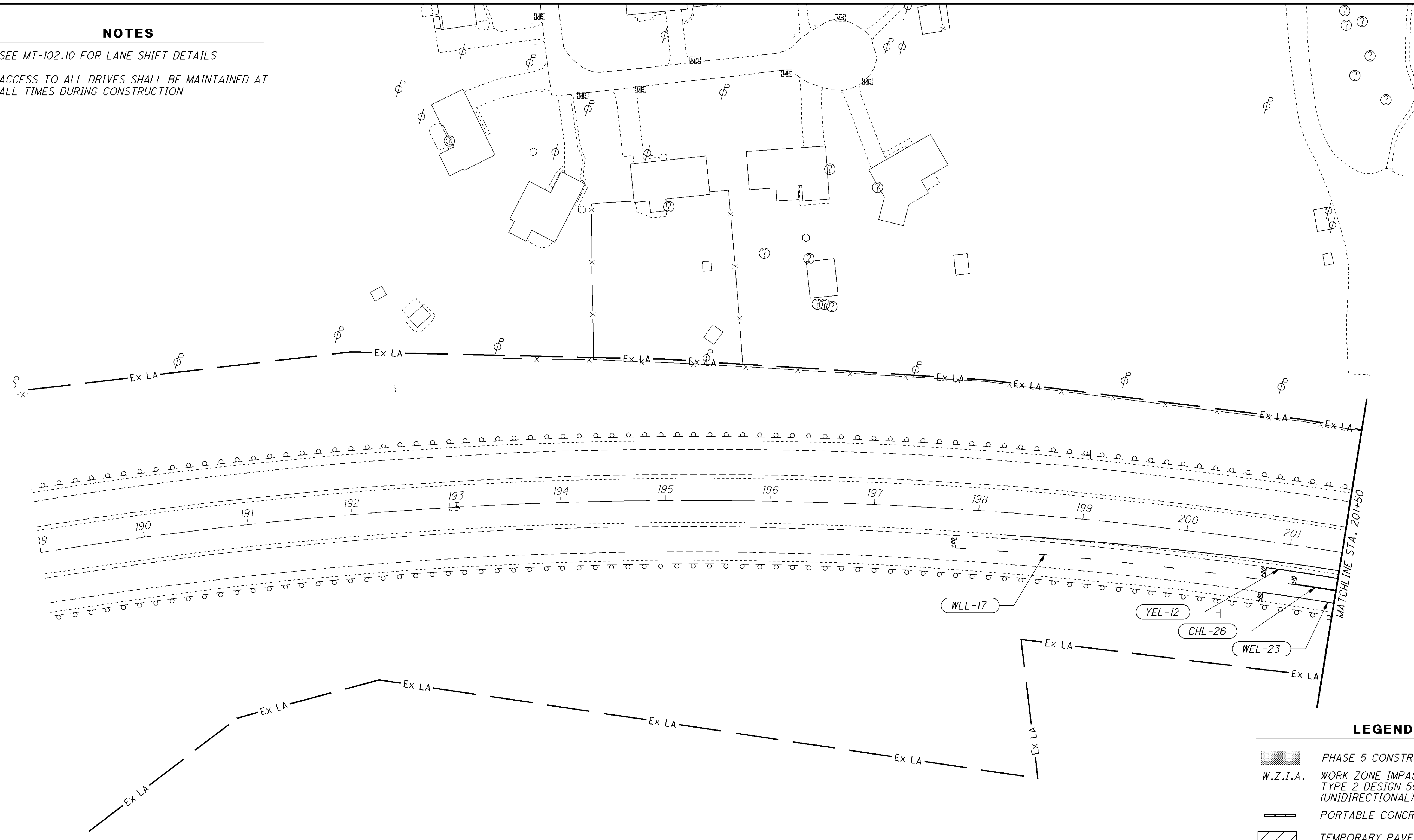


LEGEND


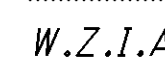


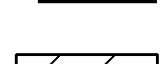
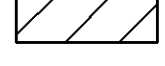






- PHASE 4B CONSTRUCTION
- W.Z.I.A. WORK ZONE IMPACT ATTENUATOR, TYPE 2 DESIGN 55 MPH, 24" WIDE (UNIDIRECTIONAL)
- PORTABLE CONCRETE BARRIER, 32"
- TEMPORARY PAVEMENT
- CHL WORK ZONE CHANNELIZING LINE, CLASS I, 642 PAINT
- WEL WORK ZONE EDGE LINE, CLASS I, 642 PAINT (WHITE)
- YEL WORK ZONE EDGE LINE, CLASS I, 642 PAINT (YELLOW)
- WLL WORK ZONE LANE LINE, CLASS I, 642 PAINT
- WZA WORK ZONE ARROW, CLASS I, 642 PAINT
- WZW WORK ZONE WORD ON PAVEMENT, 72", CLASS I, 642 PAINT
- WSL WORK ZONE STOP LINE, CLASS I, 642 PAINT
- WDL WORK ZONE DOTTED LINE, CLASS I, 642 PAINT

NOTES

SEE MT-102.10 FOR LANE SHIFT DETAILS
 ACCESS TO ALL DRIVES SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION



LEGEND

-  PHASE 5 CONSTRUCTION
-  W.Z.I.A. WORK ZONE IMPACT ATTENUATOR, TYPE 2 DESIGN 55 MPH, 24" WIDE (UNIDIRECTIONAL)
-  PORTABLE CONCRETE BARRIER, 32"
-  TEMPORARY PAVEMENT
-  CHL WORK ZONE CHANNELIZING LINE, CLASS I, 642 PAINT
-  WEL WORK ZONE EDGE LINE, CLASS I, 642 PAINT (WHITE)
-  YEL WORK ZONE EDGE LINE, CLASS I, 642 PAINT (YELLOW)
-  WLL WORK ZONE LANE LINE, CLASS I, 642 PAINT
-  WZA WORK ZONE ARROW, CLASS I, 642 PAINT
-  WZW WORK ZONE WORD ON PAVEMENT, 72", CLASS I, 642 PAINT
-  WSL WORK ZONE STOP LINE, CLASS I, 642 PAINT
-  WDL WORK ZONE DOTTED LINE, CLASS I, 642 PAINT

CALCULATED CMY
 CHECKED HAG

0 25 50 100
 HORIZONTAL SCALE IN FEET

MAINTENANCE OF TRAFFIC - PHASE 5
S.R. 16 STA. 189+00 TO STA. 201+50

LIC-16-16.64

P:\LIC\80704\Design\Roadway\Plan_Sheets\MOT\SR16\MOT_501.dgn 26-MAR-2015 11:00AM ccount

NOTES

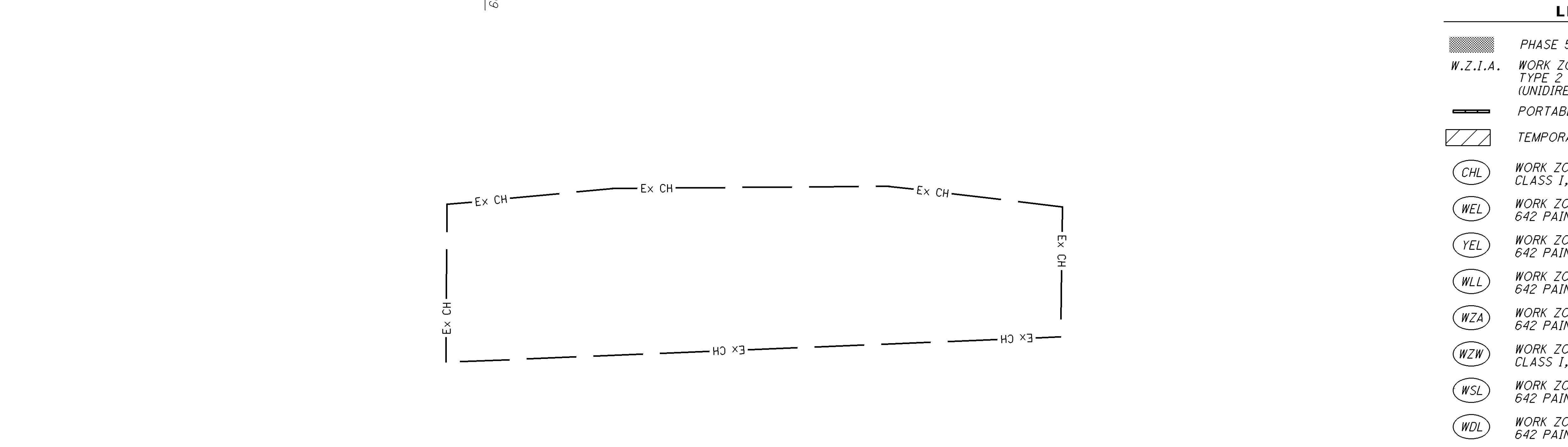
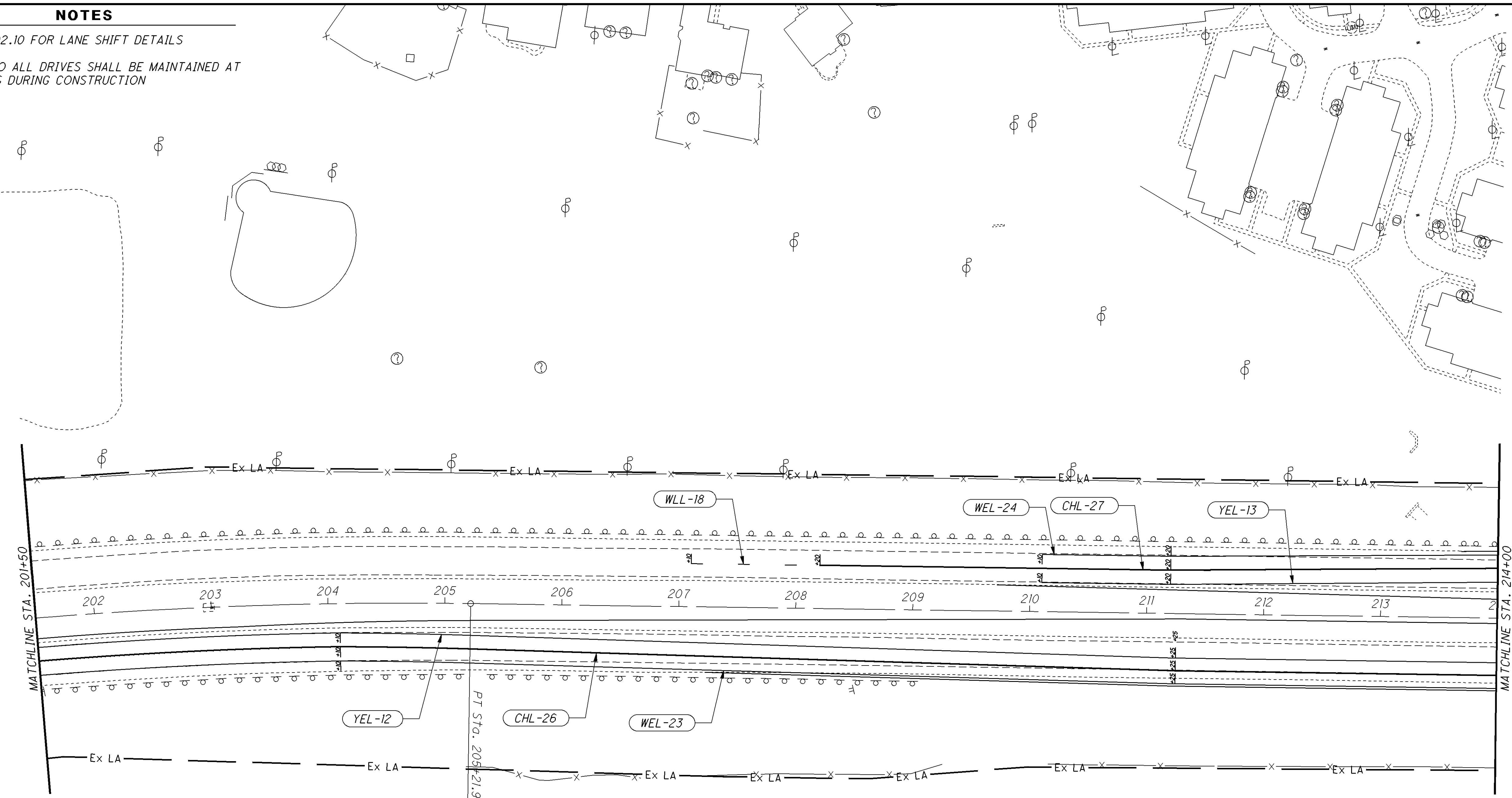
SEE MT-102.10 FOR LANE SHIFT DETAILS
 ACCESS TO ALL DRIVES SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION

CALCULATED
 CMY
 CHECKED
 HAG

0 25 50 100
 HORIZONTAL
 SCALE IN FEET

**MAINTENANCE OF TRAFFIC - PHASE 5
 S.R. 16 STA. 201+50 TO STA. 214+00**

LIC-16-16.64



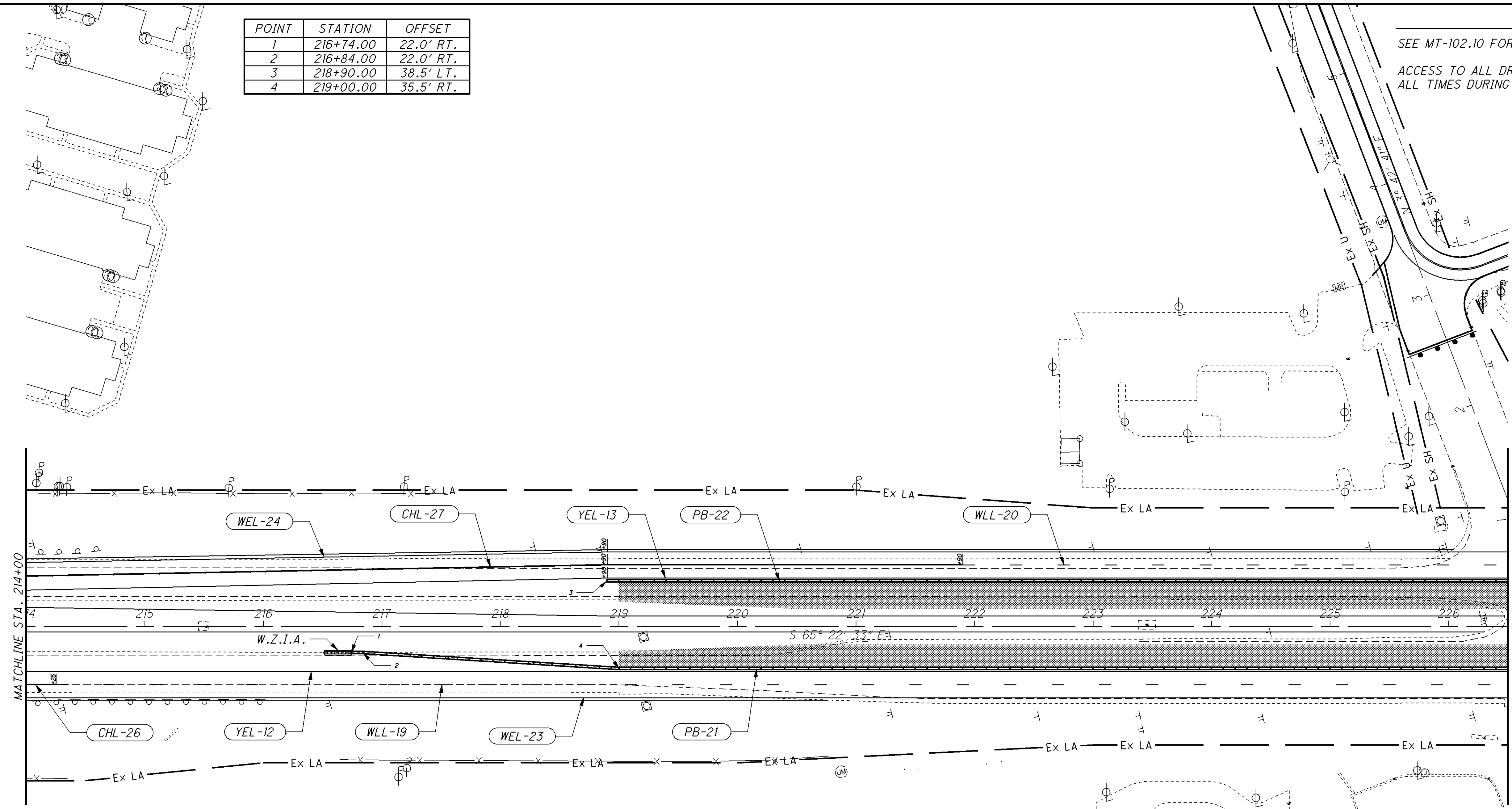
P:\LIC\80704\Design\Roadway\Plan_Sheets\MOT\SR16_MOT_502.dgn 26-MAR-2015 11:10AM ccount

POINT	STATION	OFFSET
1	216+74.00	22.0' RT.
2	216+84.00	22.0' RT.
3	218+90.00	38.5' LT.
4	219+00.00	35.5' RT.


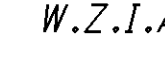

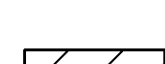
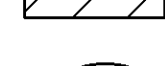



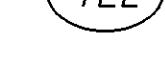

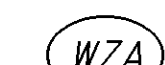

NOTES

SEE MT-102.10 FOR LANE SHIFT DETAILS
 ACCESS TO ALL DRIVES SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION


 0 25 50 100
 HORIZONTAL SCALE IN FEET
 CALCULATED CMY
 CHECKED HAG



LEGEND

-  PHASE 5 CONSTRUCTION
-  W.Z.I.A. WORK ZONE IMPACT ATTENUATOR, TYPE 2 DESIGN 55 MPH, 24" WIDE (UNIDIRECTIONAL)
-  PORTABLE CONCRETE BARRIER, 32"
-  TEMPORARY PAVEMENT
-  CHL WORK ZONE CHANNELIZING LINE, CLASS I, 642 PAINT
-  WEL WORK ZONE EDGE LINE, CLASS I, 642 PAINT (WHITE)
-  YEL WORK ZONE EDGE LINE, CLASS I, 642 PAINT (YELLOW)
-  WLL WORK ZONE LANE LINE, CLASS I, 642 PAINT
-  WZA WORK ZONE ARROW, CLASS I, 642 PAINT
-  WZW WORK ZONE WORD ON PAVEMENT, 72", CLASS I, 642 PAINT
-  WSL WORK ZONE STOP LINE, CLASS I, 642 PAINT
-  WDL WORK ZONE DOTTED LINE, CLASS I, 642 PAINT

MAINTENANCE OF TRAFFIC - PHASE 5
S.R. 16 STA. 214+00 TO STA. 226+50

LIC-16-16.64

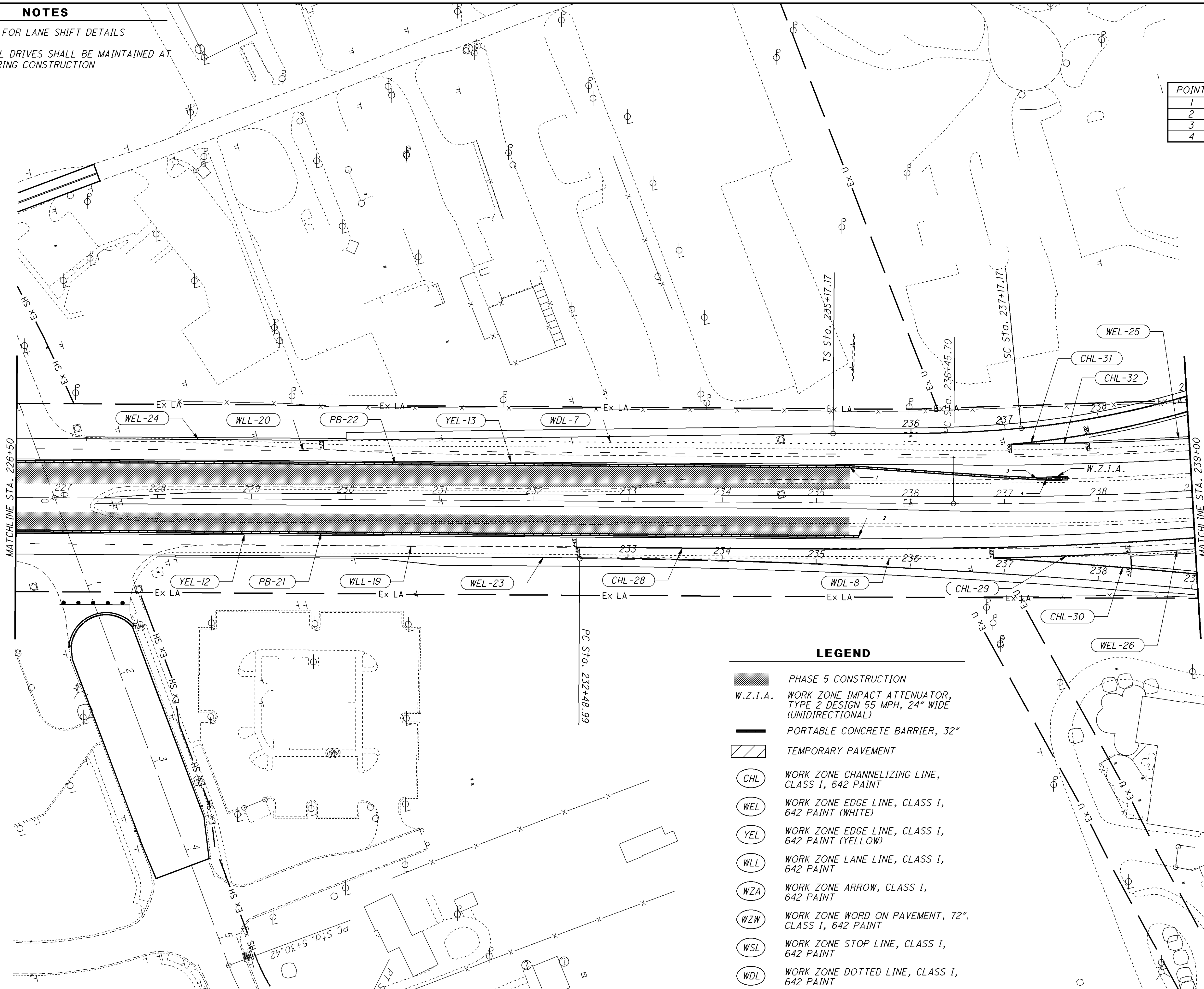
NOTES

SEE MT-102.10 FOR LANE SHIFT DETAILS
 ACCESS TO ALL DRIVES SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION

POINT	STATION	OFFSET
1	235+35.00	38.5' LT.
2	235+45.00	35.5' RT.
3	237+35.00	26.0' LT.
4	237+45.00	26.0' LT.

CALCULATED CMY
 CHECKED HAG

HORIZONTAL SCALE IN FEET



LEGEND

- PHASE 5 CONSTRUCTION
- W.Z.I.A. WORK ZONE IMPACT ATTENUATOR, TYPE 2 DESIGN 55 MPH, 24" WIDE (UNIDIRECTIONAL)
- PORTABLE CONCRETE BARRIER, 32"
- TEMPORARY PAVEMENT
- CHL WORK ZONE CHANNELIZING LINE, CLASS I, 642 PAINT
- WEL WORK ZONE EDGE LINE, CLASS I, 642 PAINT (WHITE)
- YEL WORK ZONE EDGE LINE, CLASS I, 642 PAINT (YELLOW)
- WLL WORK ZONE LANE LINE, CLASS I, 642 PAINT
- WZA WORK ZONE ARROW, CLASS I, 642 PAINT
- WZW WORK ZONE WORD ON PAVEMENT, 72", CLASS I, 642 PAINT
- WSL WORK ZONE STOP LINE, CLASS I, 642 PAINT
- WDL WORK ZONE DOTTED LINE, CLASS I, 642 PAINT

P:\LIC\80704\Design\Roadway\Plan_Sheets\MOT\SR16_MOT_504.dgn 26-MAR-2015 12:43PM c.young

MAINTENANCE OF TRAFFIC - PHASE 5
S.R. 16 STA. 226+50 TO STA. 239+00

P:\LIC\80704\Design\Roadway\Plan_Sheets\MOT\SR16_MOT_505.dgn 26-MAR-2015 1:12PM c:\count

NOTES

SEE MT-102.10 FOR LANE SHIFT DETAILS
ACCESS TO ALL DRIVES SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION




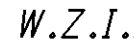


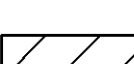







CALCULATED CMY
CHECKED HAG

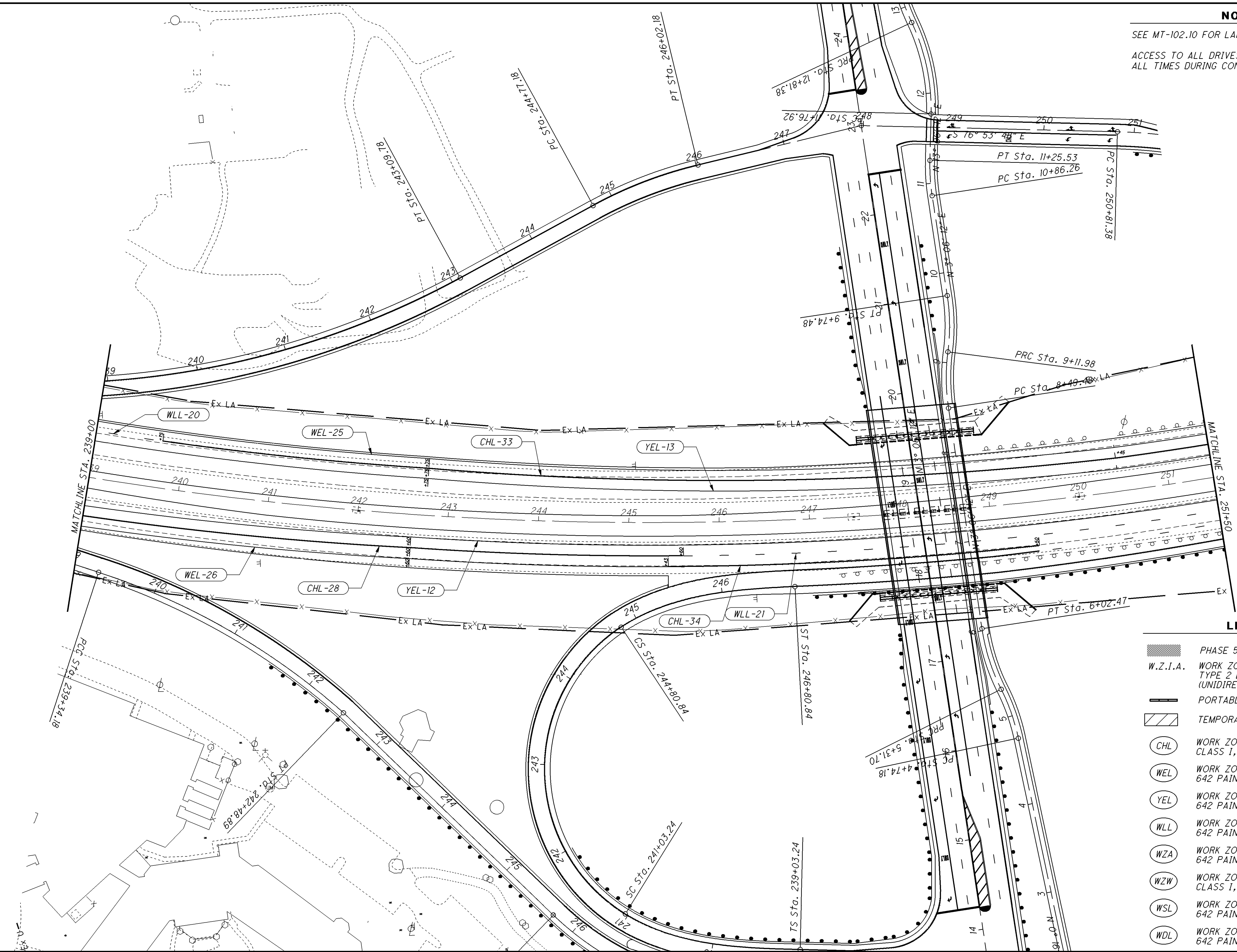
**MAINTENANCE OF TRAFFIC - PHASE 5
S.R. 16 STA. 239+00 TO STA. 251+50**

LIC-16-16.64

114
729

LEGEND

-  PHASE 5 CONSTRUCTION
-  W.Z.I.A. WORK ZONE IMPACT ATTENUATOR, TYPE 2 DESIGN 55 MPH, 24" WIDE (UNIDIRECTIONAL)
-  PORTABLE CONCRETE BARRIER, 32"
-  TEMPORARY PAVEMENT
-  CHL WORK ZONE CHANNELIZING LINE, CLASS I, 642 PAINT
-  WEL WORK ZONE EDGE LINE, CLASS I, 642 PAINT (WHITE)
-  YEL WORK ZONE EDGE LINE, CLASS I, 642 PAINT (YELLOW)
-  WLL WORK ZONE LANE LINE, CLASS I, 642 PAINT
-  WZA WORK ZONE ARROW, CLASS I, 642 PAINT
-  WZW WORK ZONE WORD ON PAVEMENT, 72", CLASS I, 642 PAINT
-  WSL WORK ZONE STOP LINE, CLASS I, 642 PAINT
-  WDL WORK ZONE DOTTED LINE, CLASS I, 642 PAINT



NOTES

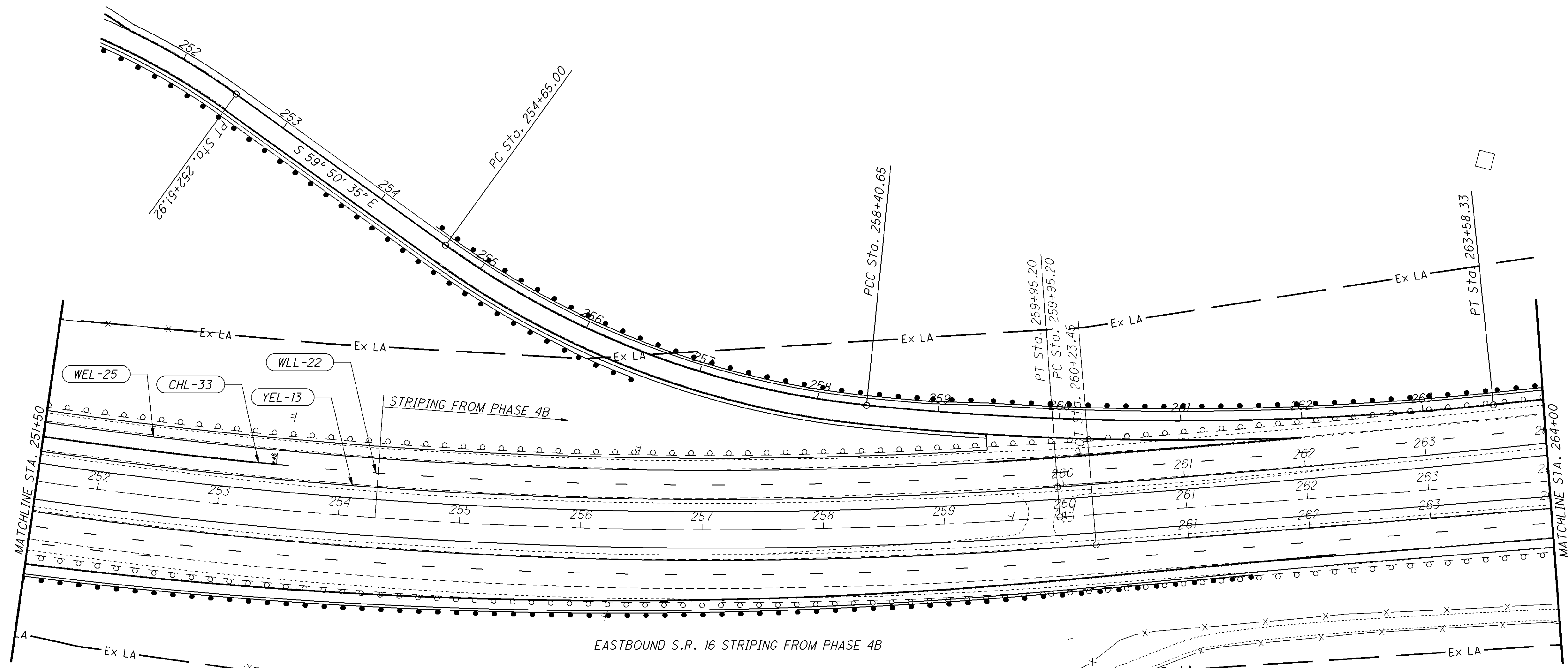
SEE MT-102.10 FOR LANE SHIFT DETAILS

ACCESS TO ALL DRIVES SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION

CALCULATED
CMY
CHECKED
HAG

MAINTENANCE OF TRAFFIC - PHASE 5
S.R. 16 STA. 251+50 TO STA. 264+00

LIC-16-16.64



LEGEND

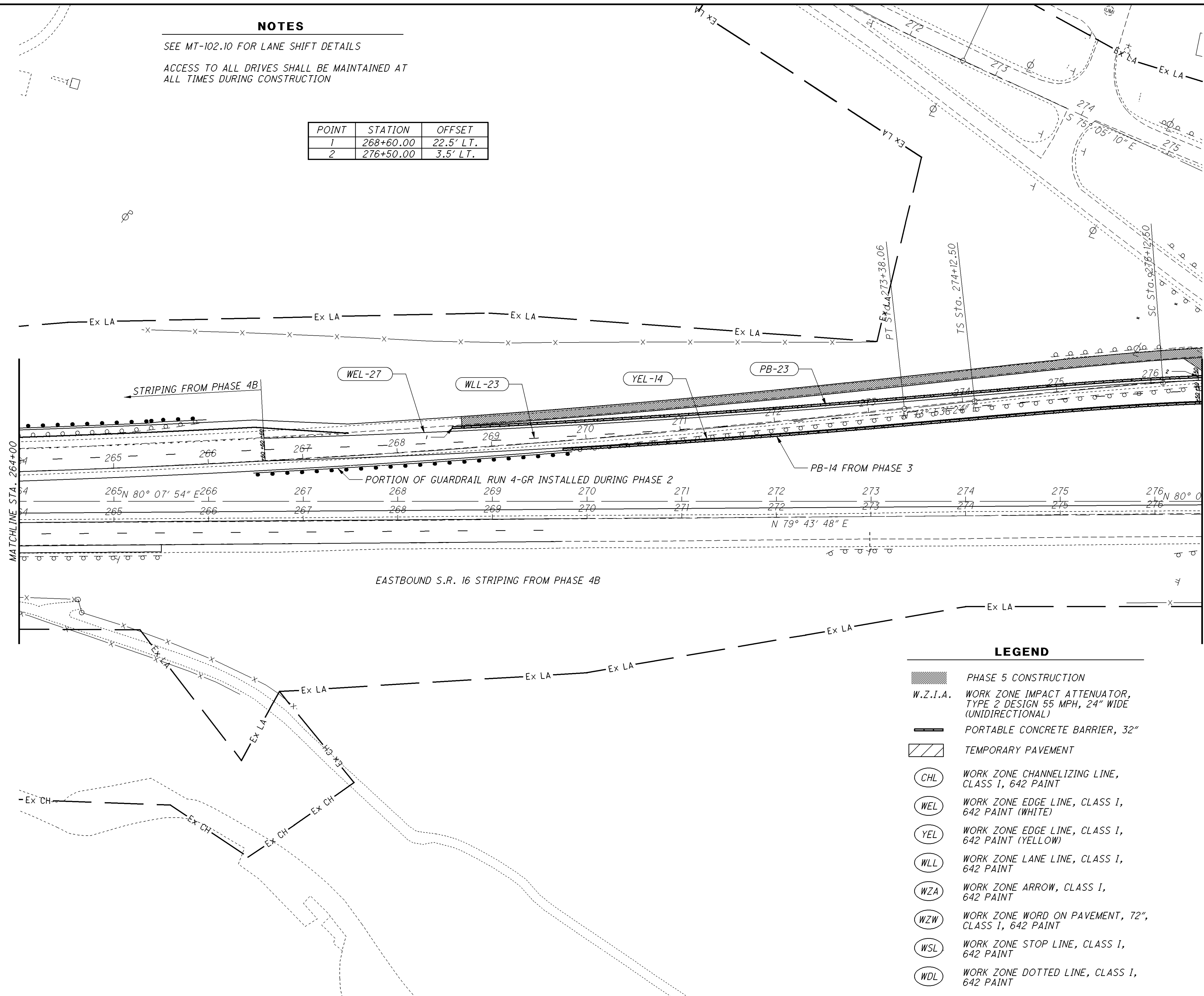
- PHASE 5 CONSTRUCTION
- W.Z.I.A. WORK ZONE IMPACT ATTENUATOR, TYPE 2 DESIGN 55 MPH, 24" WIDE (UNIDIRECTIONAL)
- PORTABLE CONCRETE BARRIER, 32"
- TEMPORARY PAVEMENT
- WORK ZONE CHANNELIZING LINE, CLASS I, 642 PAINT
- WORK ZONE EDGE LINE, CLASS I, 642 PAINT (WHITE)
- WORK ZONE EDGE LINE, CLASS I, 642 PAINT (YELLOW)
- WORK ZONE LANE LINE, CLASS I, 642 PAINT
- WORK ZONE ARROW, CLASS I, 642 PAINT
- WORK ZONE WORD ON PAVEMENT, 72", CLASS I, 642 PAINT
- WORK ZONE STOP LINE, CLASS I, 642 PAINT
- WORK ZONE DOTTED LINE, CLASS I, 642 PAINT

P:\LIC\80704\Design\Roadway\Plan_Sheets\MOT_SSR16_MOT_506.dgn 10-JUN-2015 9:04 AM c.yount

NOTES

SEE MT-102.10 FOR LANE SHIFT DETAILS
 ACCESS TO ALL DRIVES SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION

POINT	STATION	OFFSET
1	268+60.00	22.5' LT.
2	276+50.00	3.5' LT.



LEGEND

- PHASE 5 CONSTRUCTION
- W.Z.I.A. WORK ZONE IMPACT ATTENUATOR, TYPE 2 DESIGN 55 MPH, 24" WIDE (UNIDIRECTIONAL)
- PORTABLE CONCRETE BARRIER, 32"
- TEMPORARY PAVEMENT
- CHL WORK ZONE CHANNELIZING LINE, CLASS I, 642 PAINT
- WEL WORK ZONE EDGE LINE, CLASS I, 642 PAINT (WHITE)
- YEL WORK ZONE EDGE LINE, CLASS I, 642 PAINT (YELLOW)
- WLL WORK ZONE LANE LINE, CLASS I, 642 PAINT
- WZA WORK ZONE ARROW, CLASS I, 642 PAINT
- WZW WORK ZONE WORD ON PAVEMENT, 72", CLASS I, 642 PAINT
- WSL WORK ZONE STOP LINE, CLASS I, 642 PAINT
- WDL WORK ZONE DOTTED LINE, CLASS I, 642 PAINT

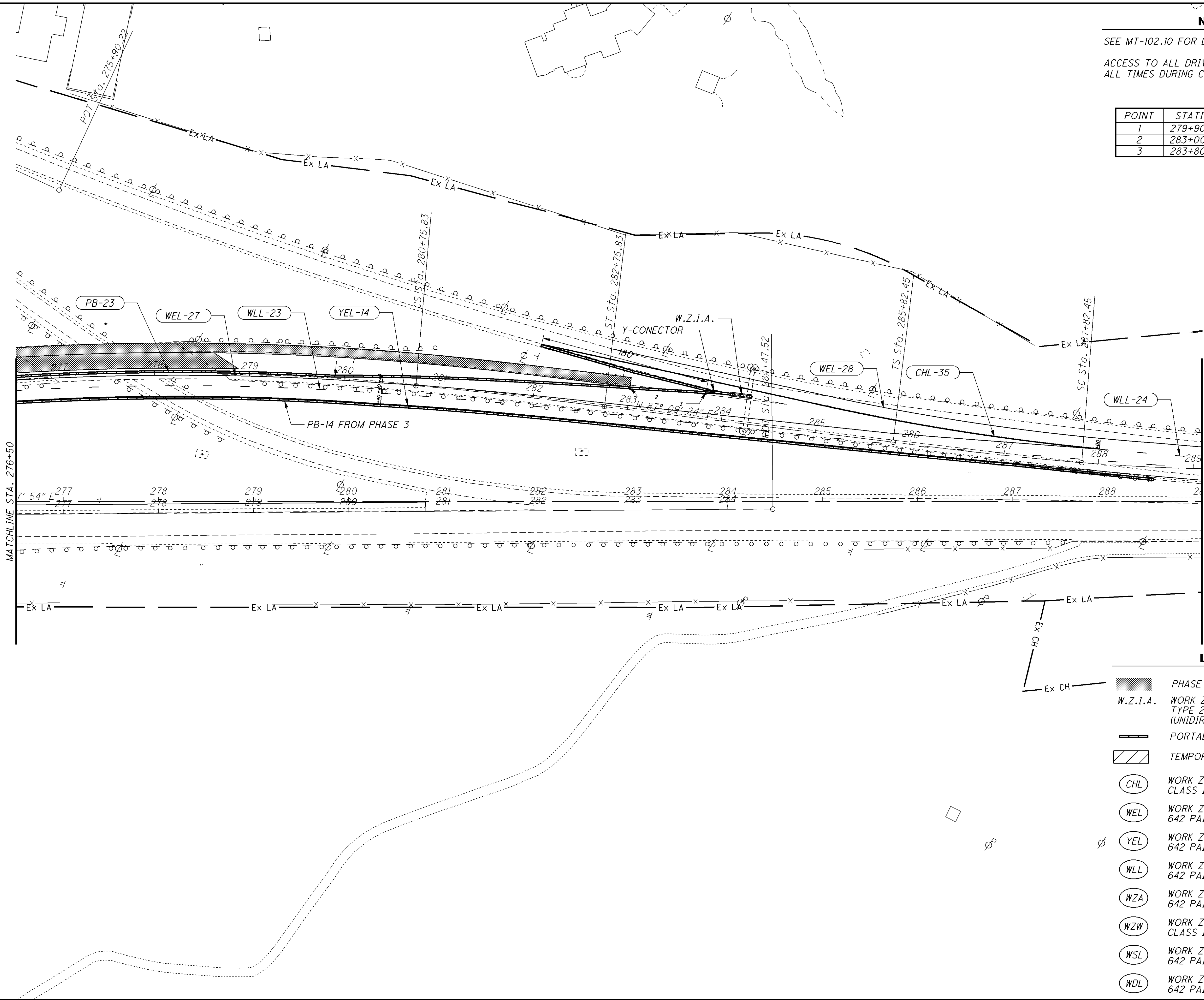
CALCULATED CMY
 CHECKED HAG

**MAINTENANCE OF TRAFFIC - PHASE 5
 S.R. 16 STA. 264+00 TO STA. 276+50**

LIC-16-16.64

P:\LIC\80704\Design\Roadway\Plan_Sheets\MOT\SR16_MOT_507.dgn 10-JUN-2015 9:05AM c:\count

P:\LIC\80704\Design\Roadway\Plan_Sheets\MOT\SR16_MOT_508.dgn 26-MAR-2015 2:18PM c:\count



NOTES

SEE MT-102.10 FOR LANE SHIFT DETAILS
 ACCESS TO ALL DRIVES SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION

POINT	STATION	OFFSET
1	279+90.00	3.5' LT.
2	283+00.00	23.0' LT.
3	283+80.00	28.0' LT.

CALCULATED CMY
 CHECKED HAG

0 50 100
 HORIZONTAL SCALE IN FEET

**MAINTENANCE OF TRAFFIC - PHASE 5
 S.R. 16 STA. 276+50 TO STA. 289+00**

LIC-16-16.64

LEGEND

- PHASE 5 CONSTRUCTION
- W.Z.I.A. WORK ZONE IMPACT ATTENUATOR, TYPE 2 DESIGN 55 MPH, 24" WIDE (UNIDIRECTIONAL)
- PORTABLE CONCRETE BARRIER, 32"
- TEMPORARY PAVEMENT
- CHL WORK ZONE CHANNELIZING LINE, CLASS I, 642 PAINT
- WEL WORK ZONE EDGE LINE, CLASS I, 642 PAINT (WHITE)
- YEL WORK ZONE EDGE LINE, CLASS I, 642 PAINT (YELLOW)
- WLL WORK ZONE LANE LINE, CLASS I, 642 PAINT
- WZA WORK ZONE ARROW, CLASS I, 642 PAINT
- WZW WORK ZONE WORD ON PAVEMENT, 72", CLASS I, 642 PAINT
- WSL WORK ZONE STOP LINE, CLASS I, 642 PAINT
- WDL WORK ZONE DOTTED LINE, CLASS I, 642 PAINT



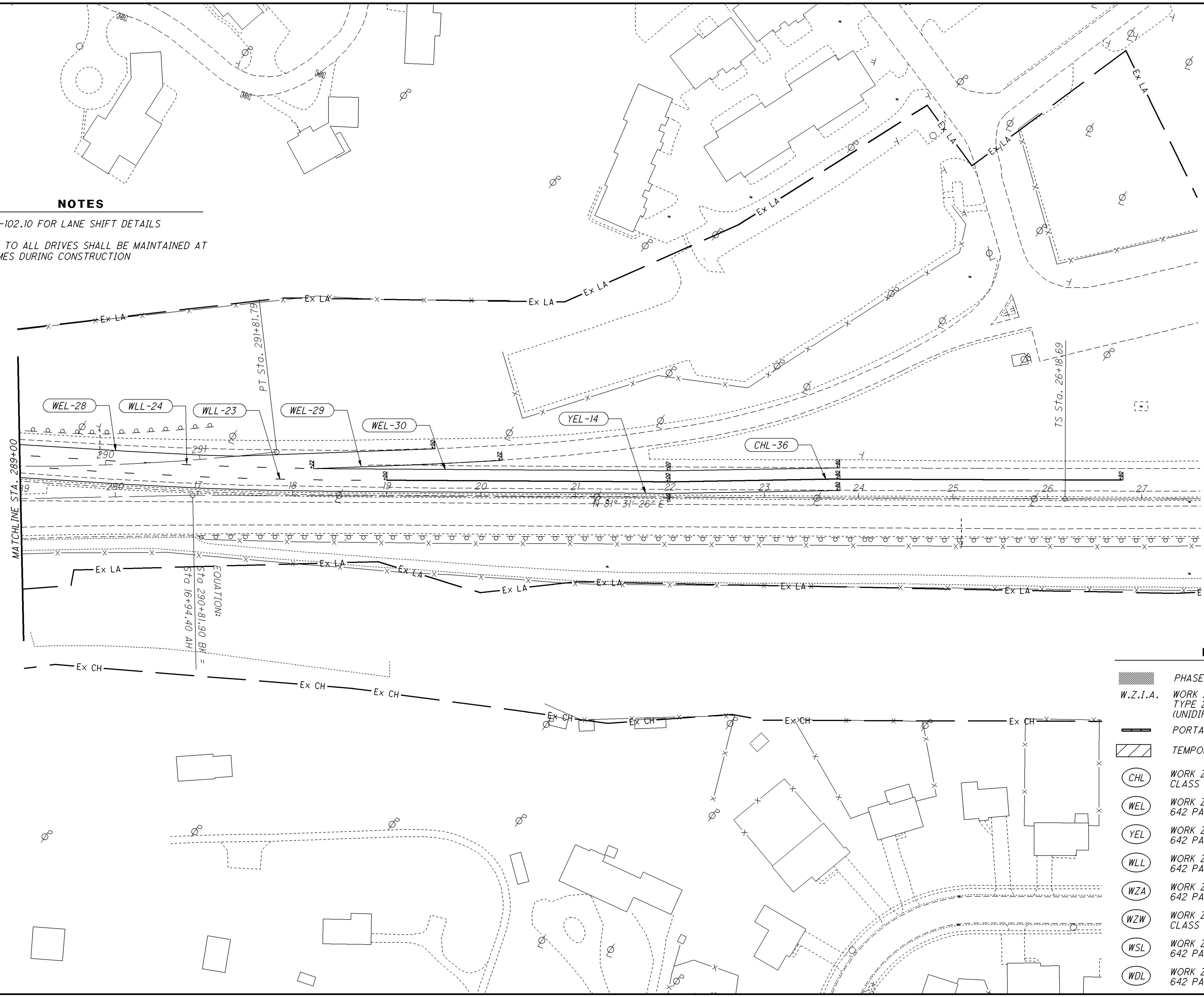
CALCULATED CMY
CHECKED HAG

MAINTENANCE OF TRAFFIC - PHASE 5
S.R. 16 STA. 289+00 TO STA. 27+62

LIC-16-16.64

NOTES

SEE MT-102.10 FOR LANE SHIFT DETAILS
ACCESS TO ALL DRIVES SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION

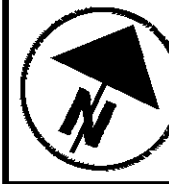


LEGEND

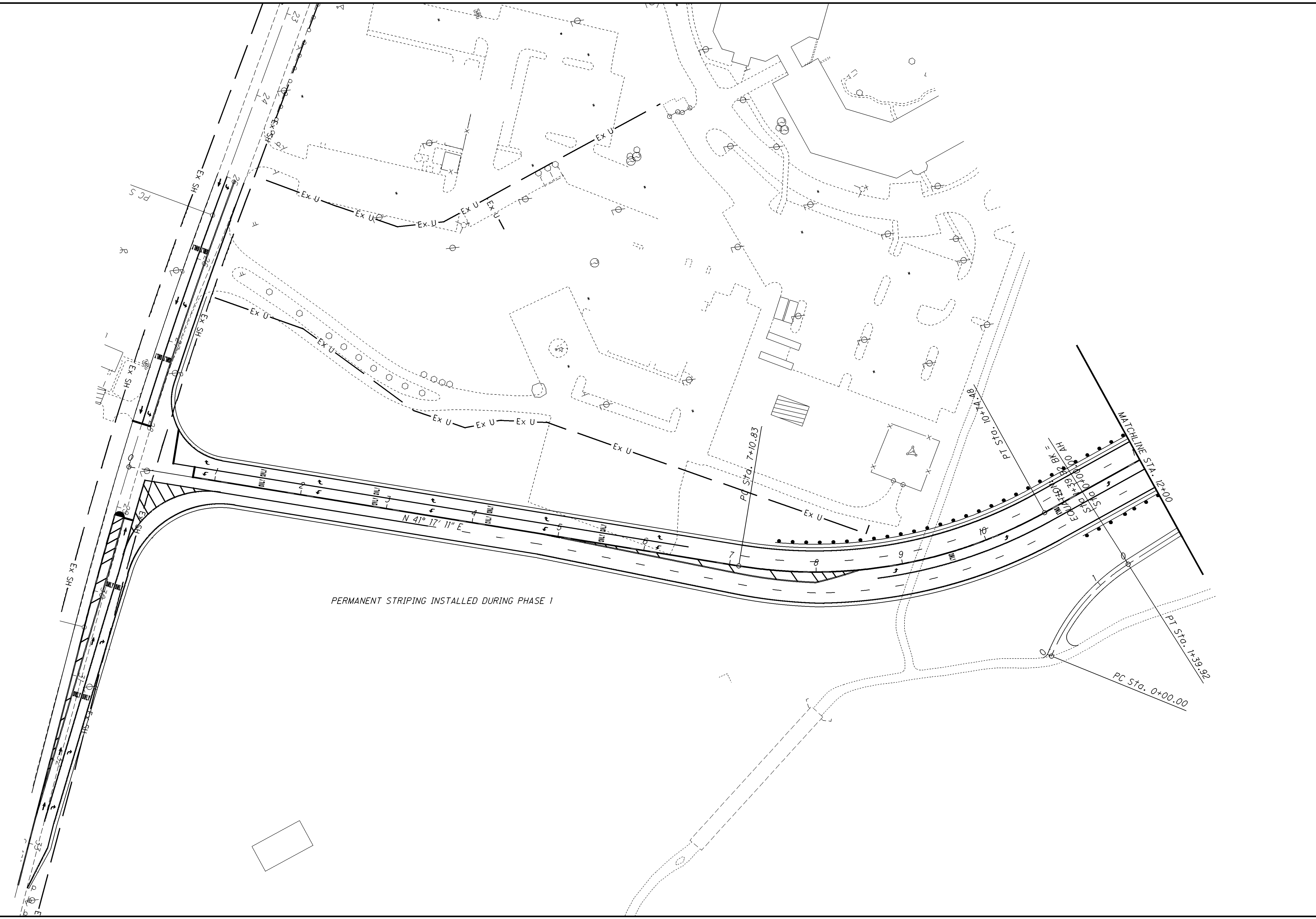
- PHASE 5 CONSTRUCTION
- W.Z.I.A. WORK ZONE IMPACT ATTENUATOR, TYPE 2 DESIGN 55 MPH, 24" WIDE (UNIDIRECTIONAL)
- PORTABLE CONCRETE BARRIER, 32"
- TEMPORARY PAVEMENT
- CHL WORK ZONE CHANNELIZING LINE, CLASS I, 642 PAINT
- WEL WORK ZONE EDGE LINE, CLASS I, 642 PAINT (WHITE)
- YEL WORK ZONE EDGE LINE, CLASS I, 642 PAINT (YELLOW)
- WLL WORK ZONE LANE LINE, CLASS I, 642 PAINT
- WZA WORK ZONE ARROW, CLASS I, 642 PAINT
- WZW WORK ZONE WORD ON PAVEMENT, 72", CLASS I, 642 PAINT
- WSL WORK ZONE STOP LINE, CLASS I, 642 PAINT
- WDL WORK ZONE DOTTED LINE, CLASS I, 642 PAINT

P:\LIC\80704\Design\Roadway\Plan_Sheets\MOT\SR16\MOT_509.dgn 26-MAR-2015 3:07PM ccount

SHEET NOT USED



P:\LIC\80704\Design\Roadway\Plan_Sheets\MOT\SR16_MOT_511.dgn 26-MAR-2015 3:08PM c:\count



PERMANENT STRIPING INSTALLED DURING PHASE 1

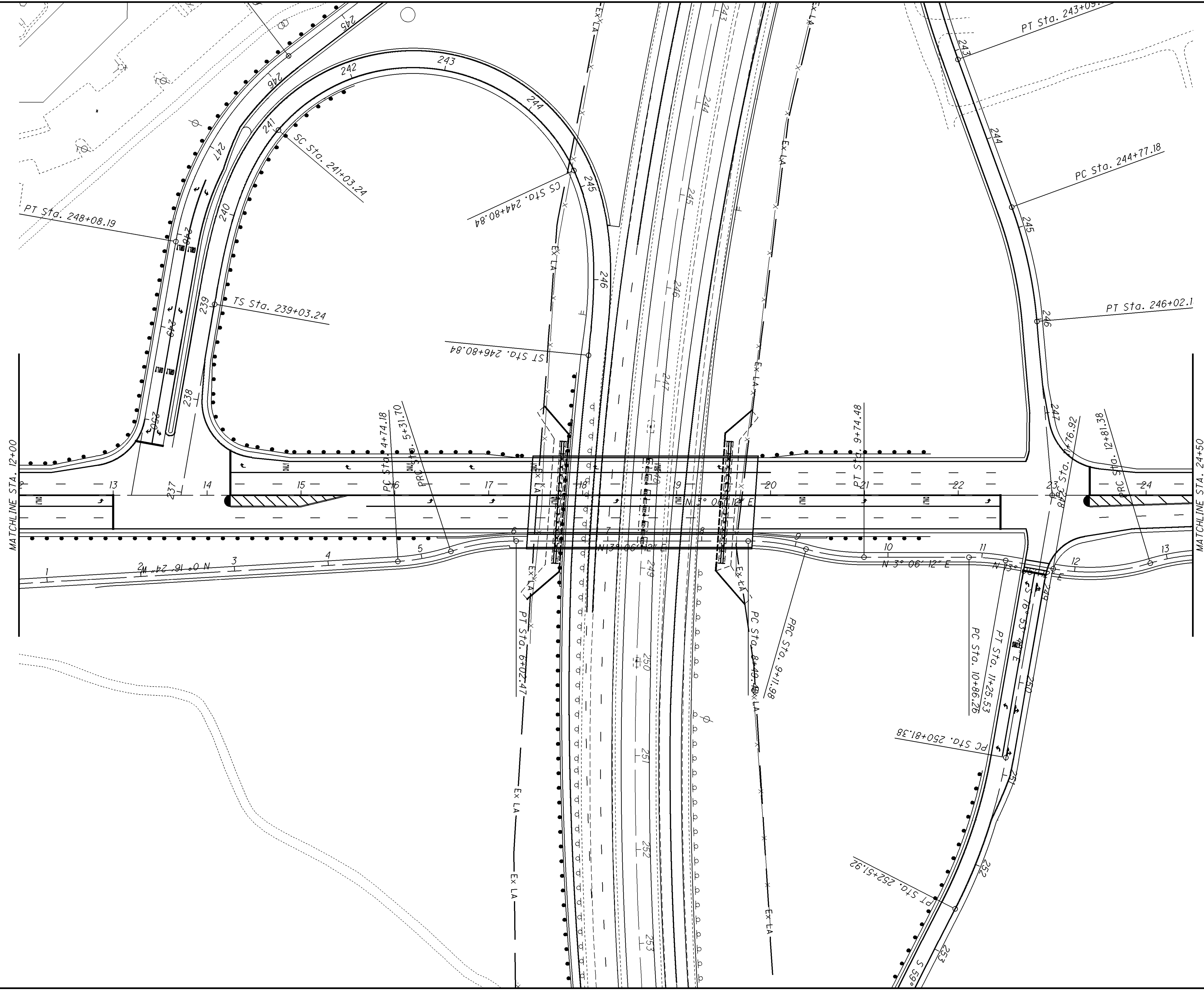
CALCULATED	CMY
CHECKED	HAG

0 25 50 100
HORIZONTAL
SCALE IN FEET

MAINTENANCE OF TRAFFIC - PHASE 5
PR. CHERRY VALLEY RD. STA. 0+00 TO STA. 12+00

LIC-16-16.64

120
729

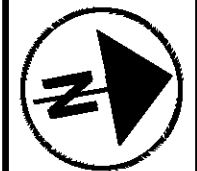
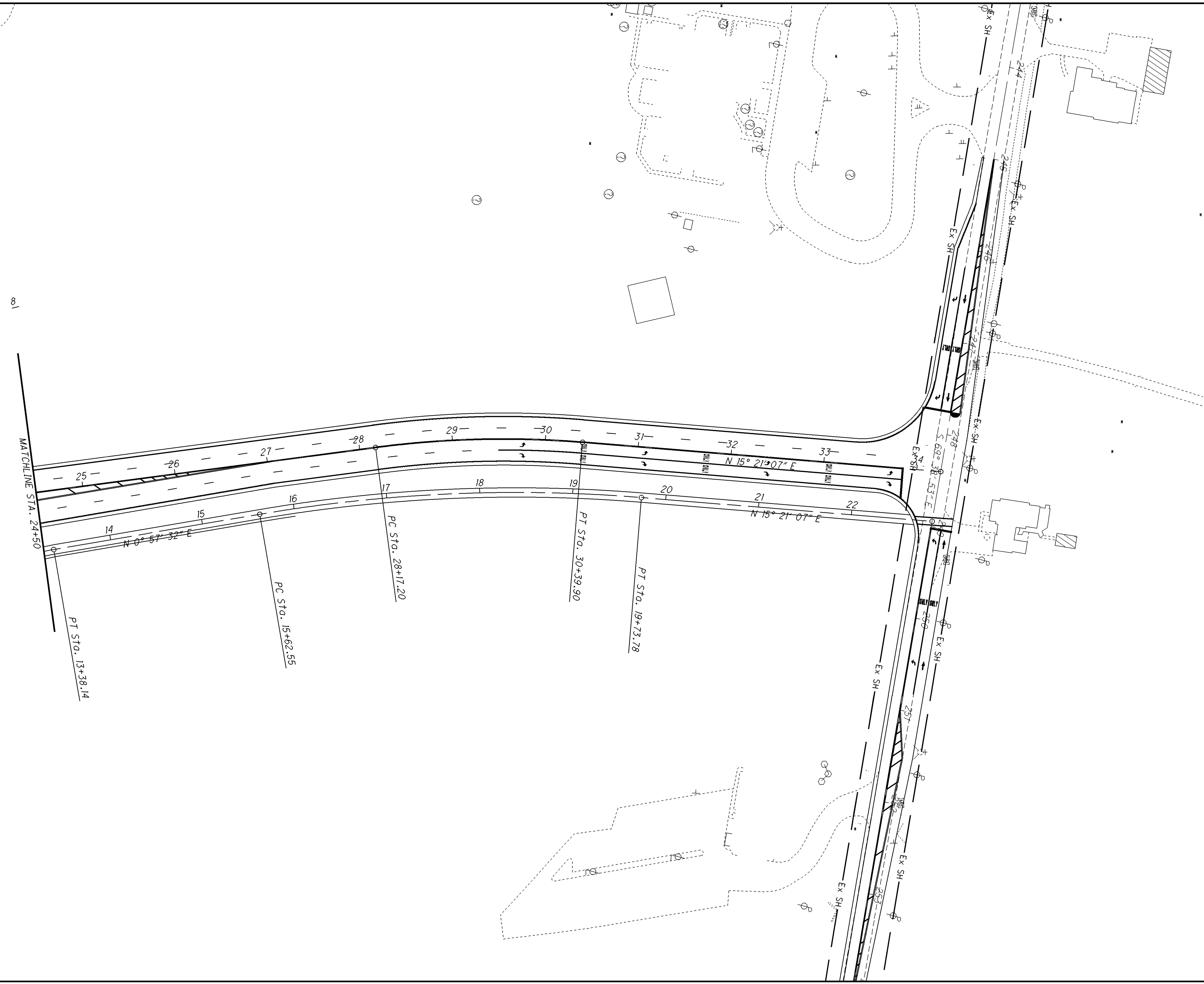


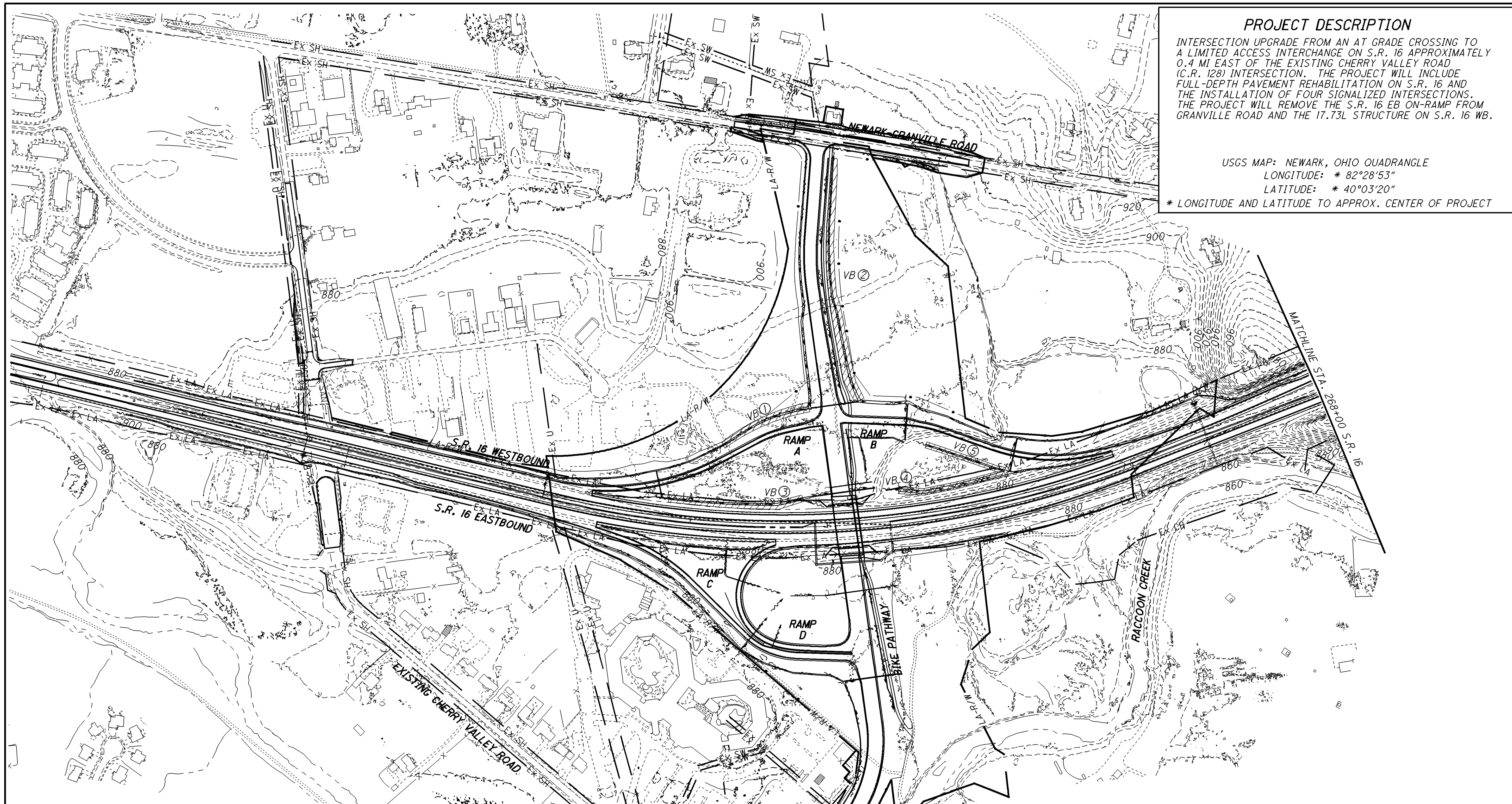
CALCULATED
CMY
CHECKED
HAG

0 25 50 100
HORIZONTAL
SCALE IN FEET

N

MAINTENANCE OF TRAFFIC - PHASE 5
PR. CHERRY VALLEY RD. STA. 12+00 TO STA. 24+50





PROJECT DESCRIPTION

INTERSECTION UPGRADE FROM AN AT GRADE CROSSING TO A LIMITED ACCESS INTERCHANGE ON S.R. 16 APPROXIMATELY 0.4 MI EAST OF THE EXISTING CHERRY VALLEY ROAD (C.R. 128) INTERSECTION. THE PROJECT WILL INCLUDE FULL-DEPTH PAVEMENT REHABILITATION ON S.R. 16 AND THE INSTALLATION OF FOUR SIGNALIZED INTERSECTIONS. THE PROJECT WILL REMOVE THE S.R. 16 EB ON-RAMP FROM GRANVILLE ROAD AND THE 17.73L STRUCTURE ON S.R. 16 WB.

USGS MAP: NEWARK, OHIO QUADRANGLE
 LONGITUDE: * 82°28'53"
 LATITUDE: * 40°03'20"
 * LONGITUDE AND LATITUDE TO APPROX. CENTER OF PROJECT



PROJECT SITE PLAN

PROJECT DATA	
TOTAL AREA (RIGHT-OF-WAY) 106 ac	RUNOFF COEFFICIENT FOR PRE-CONSTRUCTION SITE 0.60
PROJECT EARTH DISTURBED AREA 63 ac	RUNOFF COEFFICIENT FOR POST-CONSTRUCTION SITE 0.67
ESTIMATED CONTRACTOR EARTH DISTURBED AREA 19 ac	POST CONSTRUCTION BMP: VEGETATED BIOFILTERS WERE PROVIDED TO MEET NPDES POST-CONSTRUCTION REQUIREMENTS. SEE CROSS SECTION SHEETS FOR LOCATIONS.
NOTICE OF INTENT EARTH DISTURBED AREA 82 ac	
IMPERVIOUS (PAVED) AREA FOR PRE-CONSTRUCTION AREA 16 ac	IMMEDIATE RECEIVING WATERS . . . RACCOON CREEK
IMPERVIOUS (PAVED) AREA FOR POST-CONSTRUCTION AREA 27 ac	SUBSEQUENT RECEIVING WATERS . . . SOUTH FORK LICKING RIVER

BMP TYPE	LATITUDE/LONGITUDE		EDA TREATMENT CREDIT (ACRES)
	BEGIN	END	
VEGETATED BIOFILTER ①	40.0547083/82.4756091	40.0549355/82.4743078	2
VEGETATED BIOFILTER ②	40.0575634/82.4732661	40.0549027/82.4735756	3
VEGETATED BIOFILTER ③	40.0542479/82.4765159	40.0536979/82.4746347	5
VEGETATED BIOFILTER ④	40.0538536/82.4732758	40.0538085/82.4717345	4
VEGETATED BIOFILTER ⑤	40.0542834/82.4727677	40.0538455/82.4717315	1
		TREATMENT PROVIDED	15
		TREATMENT REQUIRED*	15

* CALCULATED PER L&D VOL., SEC. III.5.7

SR16_GSP_001.DGN 02/15/15

LIC-16-16.64



CALCULATED HG CHECKED

0 200 400 HORIZONTAL SCALE IN FEET

PROJECT SITE PLAN

LIC-16-16.64

P:\LIC\80704\Design\Roadway\Plan_Sheets\General\80704_GGS_001.dgn 23-JUN-2015 2:29PM cyount

SHEET NUMBER										PARTICIPATION				ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
33	34	37	38	135	136	137	711	713		01/NHS/ PV	02/S<2/P V	03/NHS/ BR	04/ENH/O TNEWA						
										ROADWAY									
LUMP										LUMP				201	11001	LS	CLEARING AND GRUBBING, AS PER PLAN	33	
				369							369			202	30000	369	SF	WALK REMOVED	
				79							79			202	30700	79	FT	CONCRETE BARRIER REMOVED	
				1350							1350			202	32000	1350	FT	CURB REMOVED	
				118							118			202	32500	118	FT	CURB AND GUTTER REMOVED	
				6143							6143			202	38000	6143	FT	GUARDRAIL REMOVED	
				5							5			202	53100	5	EACH	MAILBOX REMOVED	
				1							1			202	62700	1	EACH	SEPTIC TANK REMOVED	
							3685				3685			202	75000	3685	FT	FENCE REMOVED	
				LUMP						LUMP				202	98000	LS	REMOVAL MISC.:LANDSCAPING MOUNDS	33	
				LUMP						LUMP				202	98000	LS	REMOVAL MISC.:ELECTRIC DRIVEWAY LIGHTS	33	
52863				65						43582	6758		2588	203	10000	52928	CY	EXCAVATION	
325030										165696	134927		24407	203	20000	325030	CY	EMBANKMENT	
4500										1700	2800			203	35001	4500	CY	GRANULAR EMBANKMENT, AS PER PLAN	33
3700											3700			203	35110	3700	CY	GRANULAR MATERIAL, TYPE B	
			2							2				SPECIAL	20365000	2	EACH	SETTLEMENT PLATFORM	38
33										24	8		1	204	45000	33	HOUR	PROOF ROLLING	
3253										2416	746		91	206	10500	3253	TON	CEMENT	
93863										69719	21533		2611	206	11000	93863	SY	CURING COAT	
93863										69719	21533		2611	206	15020	93863	SY	CEMENT STABILIZED SUBGRADE, 14 INCHES DEEP	
LUMP										LUMP	LUMP		LUMP	206	30000	LS	MIXTURE DESIGN FOR CHEMICALLY STABILIZED SOILS		
											11076			606	15050	11076	FT	GUARDRAIL, TYPE MGS	
											7			606	26150	7	EACH	ANCHOR ASSEMBLY, MGS TYPE E	34
											8		1	606	26550	8	EACH	ANCHOR ASSEMBLY, MGS TYPE T	
											2			606	35002	2	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1	
											2			606	35102	2	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 2	
					2						2			606	60028	2	EACH	IMPACT ATTENUATOR, TYPE 2 (BIDIRECTIONAL)60 MPH, 24" WIDE	34
							12649			7962	4687			607	23000	12649	FT	FENCE, TYPE CLT	
995										750	145		100	607	30000	995	FT	FENCE, SNOW	23
							1128						1128	607	98000	1128	FT	FENCE, MISC.:WOOD FENCE	23
	80												80	608	10000	80	SF	4" CONCRETE WALK	
					204					204				622	10140	204	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE C1	
					147					147				622	10160	147	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE D	
					118					118				622	10161	118	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE D, AS PER PLAN	39-40
					2					2				622	24860	2	EACH	CONCRETE BARRIER END SECTION, TYPE C1	
					2					2				622	25000	2	EACH	CONCRETE BARRIER END SECTION, TYPE D	
										2				622	25001	2	EACH	CONCRETE BARRIER END SECTION, TYPE D, AS PER PLAN	39-40
										2				622	25051	2	EACH	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE D, AS PER PLAN	39-40
								13		13				623	40500	13	EACH	REFERENCE MONUMENT	
								1		1				623	40520	1	EACH	RIGHT-OF-WAY MONUMENT	
								4		4				625	32000	4	EACH	GROUND ROD	
		3									3			SPECIAL	69050100	3	EACH	MAILBOX SUPPORT SYSTEM, SINGLE	37
					9								9	SPECIAL	69050600	9	EACH	BOLLARD	381-382
	80												80	SPECIAL	69098200	80	SF	MISC.:DETECTABLE WARNING	34
										LUMP	LUMP		LUMP	878	25000	LS	INSPECTION AND COMPACTION TESTING OF UNBOUND MATERIALS		

CALCULATED C.Y. CHECKED H.G. GENERAL SUMMARY LIC-16-16.64 125 729

P:\LIC\80704\Design\Roadway\Plan_Sheets\General\80704_GGS_001.dgn 25-JUN-2015 1:43PM c:\count

SHEET NUMBER									PARTICIPATION				ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
33	35		470		472	473			01/NHS/PV	02/S<2/PV	03/NHS/BR	04/ENH/O T/NEWA						
						3.4			1.7	1.7			601	11000	3.4	SY	EROSION CONTROL RIPRAP USING 6" REINFORCED CONCRETE SLAB	
	10								10				601	21050	10	SY	TIED CONCRETE BLOCK MAT, TYPE 1	
						1.4				1.4			601	32000	1.4	CY	ROCK CHANNEL PROTECTION, TYPE A WITH FILTER	
			14.5			222.4			236.9				601	32100	236.9	CY	ROCK CHANNEL PROTECTION, TYPE B WITH FILTER	
	5		9.3			9.4			23.7				601	32200	23.7	CY	ROCK CHANNEL PROTECTION, TYPE C WITH FILTER	
						696			696				653	10000	696	CY	TOPSOIL FURNISHED AND PLACED	
226766									169979	45960		10827	659	00510	226766	SY	SEEDING AND MULCHING, CLASS 2	
						1044			1044				659	00540	1044	SY	SEEDING AND MULCHING, CLASS 3C	
11338									8498	2298		542	659	14000	11338	SY	REPAIR SEEDING AND MULCHING	
11338									8498	2298		542	659	15000	11338	SY	INTER-SEEDING	
39									29.3	7.7		2	659	20000	39	TON	COMMERCIAL FERTILIZER	
47									35.5	9.5		2	659	31000	47	ACRE	LIME	
1421									1009	341		71	659	35000	1421	MGAL	WATER	
4082									3061.5	816.5		204	659	40000	4082	MSF	MOWING	
						1276			1276				670	00700	1276	SY	DITCH EROSION PROTECTION	
						618			334	284			670	00720	618	SY	DITCH EROSION PROTECTION MAT, TYPE B	
						1044			1044				671	15000	1044	SY	EROSION CONTROL MAT, TYPE A	
									LS				832	15000	LS		STORM WATER POLLUTION PREVENTION PLAN	
									730000				832	30000	730000	EACH	EROSION CONTROL	
						197			197				836	10000	197	SY	SEEDING AND EROSION CONTROL WITH TURF REINFORCING MAT, TYPE 1	
						182			57	125			836	10020	182	SY	SEEDING AND EROSION CONTROL WITH TURF REINFORCING MAT, TYPE 2	

CALCULATED	J.H.
CHECKED	T.G.
GENERAL SUMMARY	
LIC-16-16.64	
126 729	

P:\LIC\80704\Design\Roadway\Plan_Sheets\General\80704_GGS_001.dgn 23-JUN-2015 1:58PM c:\count

SHEET NUMBER										PARTICIPATION				ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
34	136	143	147	148	149	35				01/NHS/PV	02/S<2/PV	03/NHS/BR	04/ENH/O TNEWA						
PAVEMENT																			
17071					157					17071	157			202	23000	17228	SY	PAVEMENT REMOVED	
18111					444					14919	3636			202	23010	18555	SY	PAVEMENT REMOVED, ASPHALT	
					510						510			204	10000	510	SY	SUBGRADE COMPACTION	
		27451	5969							27451	5969			252	01500	33420	FT	FULL DEPTH PAVEMENT SAWING	
		71964	9118		192					71964	9310			254	01000	81274	SY	PAVEMENT PLANING, ASPHALT CONCRETE	
		11569	680			3				11569	683			301	46000	12252	CY	ASPHALT CONCRETE BASE, PG64-22	
					50						50			301	48000	50	CY	ASPHALT CONCRETE BASE, PG64-22 (DRIVEWAYS)	
		11501	3461	438	5					11501	3466		438	304	20000	15405	CY	AGGREGATE BASE	
		80	19		24					80	43			407	10000	123	GAL	TACK COAT	
		2243	432	120						2243	432	120	SPECIAL	40720000	2795		GAL	TACK COAT, TRACKLESS TACK, INTERMEDIATE COURSE	
		8762	1017	179						8762	1017	179	SPECIAL	40720100	9958		GAL	TACK COAT, TRACKLESS TACK, SURFACE COURSE	
			372								372			441	10100	372	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (446), PG70-22M	
			404								404			441	10200	404	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (446)	
					21						21			441	50400	21	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), (DRIVEWAYS)	
		4868								4868				442	10000	4868	CY	ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446)	
		2181								2181				442	10100	2181	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A (446)	
					23						23			452	12010	23	SY	8" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC1	
		19898	16239							19898	16239			452	13020	36137	SY	9" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC1 WITH QC/QA	
	95										95			609	12000	95	FT	COMBINATION CURB AND GUTTER, TYPE 2	
	113.5									52	61.5			609	24510	113.5	FT	CURB, TYPE 4-C	
	1456										1456			609	26000	1456	FT	CURB, TYPE 6	
	194									194				609	72000	194	SY	CONCRETE MEDIAN	
8.9										8.9				618	40600	8.9	MILE	RUMBLE STRIPS, (ASPHALT CONCRETE)	
			12	83							12	83	823	10000	95		CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448)	
			17	116							17	116	823	20000	133		CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448)	

CALCULATED C.Y. CHECKED H.G.	GENERAL SUMMARY	LIC-16-16.64	128 729
---------------------------------------	-----------------	--------------	------------

SHEET NUMBER									PARTICIPATION				ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
612	616	617	617A	622	01/NHS/PV	02/S<2/PV	03/NHS/BR	04/ENH/OT/NEW										
LIGHTING																		
	600					300			300	611	00400	600	FT	4" CONDUIT, TYPE E	612			
		99	69	51		99			120	625	00450	219	EACH	CONNECTION, FUSED PULL APART				
		45	33	30		45			63	625	00480	108	EACH	CONNECTION, UNFUSED PERMANENT				
			23	16					39	625	10481	39	EACH	LIGHT POLE, DECORATIVE, AS PER PLAN (GROUND MOUNTED)	613			
				1					1	625	10481	1	EACH	LIGHT POLE, DECORATIVE, AS PER PLAN (BRIDGE MOUNTED)	613			
		32							32	625	10495	32	EACH	LIGHT POLE, LOW MAST, AS PER PLAN (GROUND MOUNTED)	614			
				1					1	625	10615	1	EACH	LIGHT POLE ANCHOR BOLTS ON STRUCTURE, AS PER PLAN	613			
			23	16					39	625	14000	39	EACH	LIGHT POLE FOUNDATION, 24" X 6' DEEP				
		32				32				625	14200	32	EACH	LIGHT POLE FOUNDATION, 24" X 10' DEEP				
		1916	2040	2764		1916			4804	625	23300	6720	FT	NO. 2 AWG 5000 VOLT DISTRIBUTION CABLE				
		1760	437	323		1760			760	625	23400	2520	FT	NO. 10 AWG POLE AND BRACKET CABLE				
		9275	4350	2840		9275			7190	625	24400	16465	FT	DUCT CABLE, MISC.: 1-1/2" DUCT CABLE WITH FOUR NO. 2 AWG 5000 VOLT CABLES	612			
		158	541	640		158			1181	625	25500	1339	FT	CONDUIT, 3", 725.04				
		321	99	51		321			150	625	25902	471	FT	CONDUIT, JACKED OR DRILLED, 725.04, 3"				
			23	17					40	625	27551	40	EACH	LUMINAIRE, DECORATIVE, AS PER PLAN (96W, LED, 240V, TYPE III)	613			
		9233	4791	3205		9233			7996	625	29002	17229	FT	TRENCH, 24" DEEP				
		1				1				625	29930	1	EACH	MEDIAN JUNCTION BOX				
		13	10	9		13			19	625	30700	32	EACH	PULL BOX, 725.08, 18"				
		33	23	17		33			40	625	32000	73	EACH	GROUND ROD				
		1				1				625	33000	1	EACH	STRUCTURE GROUNDING SYSTEM				
		2	1	1		2			2	625	34001	4	EACH	POWER SERVICE, AS PER PLAN	612			
		1				1				625	37101	1	EACH	SERVICE TO UNDERPASS LIGHTING, AS PER PLAN	615			
						7				625	75401	7	EACH	LIGHT POLE REMOVED, AS PER PLAN	612			
						7				625	75500	7	EACH	LIGHT POLE FOUNDATION REMOVED				
			1						1	625	75511	1	EACH	POWER SERVICE REMOVED, AS PER PLAN	612			
						1075				625	75551	1075	FT	DISTRIBUTION CABLE REMOVED, AS PER PLAN	612			
						1				625	75801	1	EACH	DISCONNECT CIRCUIT, AS PER PLAN	612			
LIGHTING ALTERNATES																		
		32				32				625	26271	32	EACH	LUMINAIRE, LOW MAST, AS PER PLAN (400W, HPS, 480V, TYPE V)	614			
		32				32				625	26271	32	EACH	LUMINAIRE, LOW MAST, AS PER PLAN (376W, LED, 480V, TYPE V) (HOLOPHANE) (ALTERNATE)	614			
		8				8				625	27501	8	EACH	LUMINAIRE, UNDERPASS, AS PER PLAN (50W, HPS, 480V, TYPE IV)	615			
		8				8				625	27501	8	EACH	LUMINAIRE, UNDERPASS, AS PER PLAN (39W, LED, 480V, TYPE III) (HOLOPHANE) (ALTERNATE)	615			

CALCULATED J.L. CHECKED H.G.	GENERAL SUMMARY	LIC-16-16.64	129 729
---------------------------------------	-----------------	--------------	------------

P:\LIC\80704\Design\Roadway\Plan_Sheets\General\80704_GGS_001.dgn 24-JUN-2015 11:40AM jutz1

SHEET NUMBER								PARTICIPATION				ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.	CALCULATED C.Y.	CHECKED H.G.
136	137	479	513	526	547			01/NHS/ PV	02/S<2/P V	03/NHS/ BR	04/ENH/O TNEWA								
TRAFFIC CONTROL																			
			438					438				621	00100	438	EACH	RPM			
			372					372				621	54000	372	EACH	RAISED PAVEMENT MARKER REMOVED			
					7			5	2			625	32000	7	EACH	GROUND ROD			
15	158							159	14			626	00100	173	EACH	BARRIER REFLECTOR			
					99			16	70		13	630	02100	99	FT	GROUND MOUNTED SUPPORT, NO. 2 POST			
					1070			528	542			630	03100	1070	FT	GROUND MOUNTED SUPPORT, NO. 3 POST			
					222.5			206	16.5			630	04100	222.5	FT	GROUND MOUNTED SUPPORT, NO. 4 POST			
					73				73			630	06500	73	FT	GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W6X9			
					59.83			59.83				630	07000	59.83	FT	GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W8X18			
					384.58			224.33	160.25			630	07600	384.58	FT	GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W10X12			
					238			238				630	08000	238	FT	GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W12X30			
					3			3				630	08200	3	EACH	GROUND MOUNTED SUPPORT, PIPE			
					18			9	9			630	08600	18	EACH	SIGN POST REFLECTOR			
					31			19	12			630	09000	31	EACH	BREAKAWAY STRUCTURAL BEAM CONNECTION			
					3			3				630	09050	3	EACH	TRIANGULAR SLIP BASE CONNECTION			
					1			1				630	21000	1	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-12.30, DESIGN 10			
					3			2	1			630	45500	3	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-7.65, DESIGN 8			
					1			1				630	75000	1	EACH	SIGN ATTACHMENT ASSEMBLY			
					576.71			293.5	280.96		2.25	630	80100	576.71	SF	SIGN, FLAT SHEET			
					1491			1209	282			630	80200	1491	SF	SIGN, GROUND MOUNTED EXTRUSHEET			
					616.5			497.5	119			630	80224	616.5	SF	SIGN, OVERHEAD EXTRUSHEET			
					33			21	12			630	84500	33	EACH	GROUND MOUNTED STRUCTURAL BEAM SUPPORT FOUNDATION			
					13			9	4			630	84510	13	EACH	RIGID OVERHEAD SIGN SUPPORT FOUNDATION			
					3			3				630	84600	3	EACH	GROUND MOUNTED PIPE SUPPORT FOUNDATION			
					102			66	36			630	84900	102	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL			
					26			19	7			630	85100	26	EACH	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION			
					4			4				630	85400	4	EACH	REMOVAL OF GROUND MOUNTED MAJOR SIGN AND DISPOSAL			
					125			87	38			630	86002	125	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL			
					8			8				630	86103	8	EACH	REMOVAL OF GROUND MOUNTED STRUCTURAL BEAM SUPPORT AND DISPOSAL, AS PER PLAN	474		
					1			1				630	86272	1	EACH	REMOVAL OF GROUND MOUNTED PIPE SUPPORT AND DISPOSAL			
					2			2				630	87100	2	EACH	REMOVAL OF OVERHEAD MOUNTED SIGN AND REERECTION			
					1			1				630	87400	1	EACH	REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL			
					2			2				630	87500	2	EACH	REMOVAL OF POLE MOUNTED SIGN AND DISPOSAL			
					1			1				630	89803	1	EACH	REMOVAL OF OVERHEAD SIGN SUPPORT AND DISPOSAL, TYPE TC-7.65 AS PER PLAN	474		
					94			94				644	00500	94	FT	STOP LINE			
					97			97				644	00800	97	FT	CROSSWALK LINE			
					414			414				644	00700	414	FT	TRANSVERSE/DIAGONAL LINE			
					103			103				644	00900	103	SF	ISLAND MARKING			
					22			22				644	01300	22	EACH	LANE ARROW			
					12			12				644	01400	12	EACH	WORD ON PAVEMENT, 72"			
					1.25			0.34	0.91			646	10000	1.25	MILE	EDGE LINE, 4"			
					1.56			1.56				646	10010	1.56	MILE	EDGE LINE, 6"			
					0.99			0.37	0.62			646	10100	0.99	MILE	LANE LINE, 4"			
					0.75			0.18	0.57			646	10200	0.75	MILE	CENTER LINE			
					3197			1250	1947			646	10300	3197	FT	CHANNELIZING LINE, 8"			
					1908			1908				646	10310	1908	FT	CHANNELIZING LINE, 12"			
					286			137	149			646	10400	286	FT	STOP LINE			
					69			69				646	10500	69	FT	CROSSWALK LINE			
					500			133	367			646	10600	500	FT	TRANSVERSE/DIAGONAL LINE			
					134			67	67			646	10800	134	SF	ISLAND MARKING			
					45			23	22			646	20300	45	EACH	LANE ARROW			
					30			13	17			646	20400	30	EACH	WORD ON PAVEMENT, 72"			

GENERAL SUMMARY

LIC-16-16.64

P:\LIC\80704\Design\Roadway\Plan_Sheets\General\80704_GGS_001.dgn 28-FEB-2015 10:14 AM hgilbert1

SHEET NUMBER										PARTICIPATION				ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.		
136	137	479	513	526	547					01/NHS/ PV	02/S<2/P V	03/NHS/ BR	04/ENH/ OT/NEW								
		0.69									0.69				648	00100	0.69	MILE	EDGE LINE, 4"		
		9.09									9.09				648	00104	9.09	MILE	EDGE LINE, 6"		
		4.72									4.72				648	00204	4.72	MILE	LANE LINE, 6"		
		0.68									0.68				648	00300	0.68	MILE	CENTER LINE		
		1093									1093				648	00400	1093	FT	CHANNELIZING LINE, 8"		
		2350									2350				648	00404	2350	FT	CHANNELIZING LINE, 12"		
		1049									1049				648	01510	1049	FT	DOTTED LINE, 6"		

CALCULATED	C.Y.	CHECKED	H.G.
GENERAL SUMMARY			
LIC-16-16.64			
(131 / 729)			

SHEET NUMBER								PARTICIPATION				ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
588	595	596	597	598				01/NHS/PV	02/S<2/PV	03/NHS/BR	04/ENH/OT/NEW						
TRAFFIC SIGNALS																	
300								150	150			611	00400	300	FT	4" CONDUIT, TYPE E	588
		101	379	155	52			534	144		9	625	25402	687	FT	CONDUIT, 2", 725.05	
		83	100	262	63			265	146		97	625	25500	508	FT	CONDUIT, 3", 725.04	
		10	10	24	19			34	29			625	25502	63	FT	CONDUIT, 3", 725.05	
		66			56				122			625	25902	122	FT	CONDUIT, JACKED OR DRILLED, 725.04 , 3"	
		194	489	429	134			821	319		106	625	29002	1246	FT	TRENCH, 24" DEEP	
		3	3	2	2			5	5			625	30700	10	EACH	PULL BOX, 725.08, 18"	
		1	1	1	1			2	2			625	30706	4	EACH	PULL BOX, 725.08, 24"	
		4	4	4	3			8	7			625	32000	15	EACH	GROUND ROD	
		1			2				3			630	75000	3	EACH	SIGN ATTACHMENT ASSEMBLY	
		9			16.8				25.8			630	80100	25.8	SF	SIGN, FLAT SHEET	
		4	3	5	4			8	8			632	04911	16	EACH	VEHICULAR SIGNAL HEAD, (LED) BLACK, 3-SECTION, 12" LENS, 1-WAY, WITH BACKPLATE, AS PER PLAN	589
		2	3	1	2			4	4			632	04921	8	EACH	VEHICULAR SIGNAL HEAD, (LED) BLACK, 5-SECTION, 12" LENS, 1-WAY, WITH BACKPLATE, AS PER PLAN	589
		6	6	6	6			12	12			632	25000	24	EACH	COVERING OF VEHICULAR SIGNAL HEAD	
				2	2						4	632	25010	4	EACH	COVERING OF PEDESTRIAN SIGNAL HEAD	
				228	161						389	632	40200	389	FT	SIGNAL CABLE, 2 CONDUCTOR, NO. 14 AWG	
		643	652	860	747			1272	1217		413	632	40700	2902	FT	SIGNAL CABLE, 7 CONDUCTOR, NO. 14 AWG	
		3	3	3	2			6	5			632	64010	11	EACH	SIGNAL SUPPORT FOUNDATION	
				2	2						4	632	64020	4	EACH	PEDESTAL FOUNDATION	
		45	288	145	40			433	85			632	67300	518	FT	POWER CABLE, 3 CONDUCTOR, NO. 8 AWG	
		1	1	1	1			2	2			632	70001	4	EACH	POWER SERVICE, AS PER PLAN	589
					1				1			632	75073	1	EACH	SIGNAL SUPPORT, TYPE TC-81.21 DESIGN 11 POLE, WITH MAST ARMS TC-81.21 DESIGN 4 AND DESIGN 2, AS PER PLAN	588
			1					1				632	80103	1	EACH	SIGNAL SUPPORT, TYPE TC-81.21, DESIGN 1, AS PER PLAN	588
				1	1			1	1			632	80203	2	EACH	SIGNAL SUPPORT, TYPE TC-81.21, DESIGN 2, AS PER PLAN	588
		2							2			632	80403	2	EACH	SIGNAL SUPPORT, TYPE TC-81.21, DESIGN 4, AS PER PLAN	588
		1	1					1	1			632	80503	2	EACH	SIGNAL SUPPORT, TYPE TC-81.21, DESIGN 11, AS PER PLAN	588
			1	2				3				632	80621	3	EACH	SIGNAL SUPPORT, TYPE TC-81.21, DESIGN 13, AS PER PLAN	588
				2	2						4	632	89905	4	EACH	PEDESTAL, 10', TRANSFORMER BASE, AS PER PLAN	588
1								1				632	90101	1	EACH	REMOVAL OF TRAFFIC SIGNAL INSTALLATION, AS PER PLAN	588
		1	1	1	1			2	2			633	01581	4	EACH	CONTROLLER UNIT, TYPE TS2/A2, WITH CABINET, TYPE TS1, AS PER PLAN	590
		1	1	1	1			2	2			633	67000	4	EACH	CABINET RISER	
		1	1	1	1			2	2			633	67101	4	EACH	CABINET FOUNDATION, AS PER PLAN	592
		1	1	1	1			2	2			633	67201	4	EACH	CONTROLLER WORK PAD, AS PER PLAN	592
		1	1	1	1			2	2			815	30001	4	EACH	SPREAD SPECTRUM RADIO, AS PER PLAN	590
TRAFFIC SIGNAL ALTERNATES																	
				2	2						4	632	20731	4	EACH	PEDESTRIAN SIGNAL HEAD (LED) , (COUNTDOWN), TYPE D2, AS PER PLAN	589
				2	2						4	632	20731	4	EACH	PEDESTRIAN SIGNAL HEAD (LED) , (COUNTDOWN), TYPE D2, AS PER PLAN (GENERAL ELECTRIC) (ALTERNATE)	589
				2	2						4	632	26001	4	EACH	PEDESTRIAN PUSHBUTTON, AS PER PLAN	590
				2	2						4	632	26001	4	EACH	PEDESTRIAN PUSHBUTTON, AS PER PLAN (POLARA) (ALTERNATE)	590
		1	1	1	1			2	2			633	75001	4	EACH	UNINTERRUPTIBLE POWER SUPPLY (UPS), 1000 WATT, AS PER PLAN	590
		1	1	1	1			2	2			633	75001	4	EACH	UNINTERRUPTIBLE POWER SUPPLY (UPS), 1000 WATT, AS PER PLAN (ALPHA) (ALTERNATE)	590
		1	1	1	1			2	2			816	30001	4	EACH	VIDEO DETECTION SYSTEM, AS PER PLAN	590
		1	1	1	1			2	2			816	30001	4	EACH	VIDEO DETECTION SYSTEM, AS PER PLAN (ITERIS) (ALTERNATE)	590

P:\LIC\80704\Design\Roadway\Plan_Sheets\General\80704_GGS_001.dgn 28-FEB-2015 11:42AM jutz1

GENERAL SUMMARY
LIC-16-16.64

P:\LIC\80704\Design\Roadway\Plan_Sheets\General\80704_GGS_001.dgn 04-JUN-2015 7:40AM cyount

SHEET NUMBER										PARTICIPATION				ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
33	42	43	44	45	55	689				01/NHS/PV	02/S<2/PV	03/NHS/BR	04/ENH/O/TNEWA						
MAINTENANCE OF TRAFFIC																			
				3124						3124				254	01000	3124	SY	PAVEMENT PLANING, ASPHALT CONCRETE	
	100									100				410	12000	100	CY	TRAFFIC COMPACTED SURFACE, TYPE A OR B	
	100									100				410	13000	100	CY	TRAFFIC COMPACTED SURFACE, TYPE C	
				109						109				441	10100	109	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (446), PG70-22M	
			200							200				614	11110	200	HR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	
		15								15				614	11500	15	MNTH	WORKSITE TRAFFIC SUPERVISOR	
					24					24				614	12346	24	EACH	WORK ZONE IMPACT ATTENUATOR (UNIDIRECTIONAL)(24" WIDE)	
				10						10				614	12500	10	EACH	REPLACEMENT SIGN	
				50						50				614	12600	50	EACH	REPLACEMENT DRUM	
					3066					3066				614	12800	3066	EACH	WORK ZONE RAISED PAVEMENT MARKER	
	150									150				614	13000	150	CY	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	
					992					992				614	13300	992	EACH	BARRIER REFLECTOR, TYPE B	
					992					992				614	13350	992	EACH	OBJECT MARKER, ONE WAY	
		1800								1800				614	18401	1800	DAY	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	
					8.96					8.96				614	20100	8.96	MILE	WORK ZONE LANE LINE, CLASS I, 642 PAINT	
					23.98					23.98				614	22100	23.98	MILE	WORK ZONE EDGE LINE, CLASS I, 642 PAINT	
					25599					25599				614	23200	25599	FT	WORK ZONE CHANNELIZING LINE, CLASS I, 642 PAINT	
					3677					3677				614	24200	3677	FT	WORK ZONE DOTTED LINE, CLASS I, 642 PAINT	
					176					176				614	26200	176	FT	WORK ZONE STOP LINE, CLASS I, 642 PAINT	
					21					21				614	30200	21	EACH	WORK ZONE ARROW, CLASS I, 642 PAINT	
					8					8				614	31200	8	EACH	WORK ZONE WORD ON PAVEMENT, 72", CLASS I, 642 PAINT	
	LUMP									LUMP				615	10000	LS		ROADS FOR MAINTAINING TRAFFIC	
	12106									12106				615	20000	12106	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A	
														616	10000	1585	MGAL	WATER	
1585					3066					3066				621	54000	3066	EACH	RAISED PAVEMENT MARKER REMOVED	
					47470					47470				622	41000	47470	FT	PORTABLE BARRIER, 32"	
						240				240				622	41020	240	FT	PORTABLE BARRIER, 32", BRIDGE MOUNTED	
						240				240				622	41021	240	FT	PORTABLE BARRIER, 32", BRIDGE MOUNTED, AS PER PLAN	
					1					1				622	41050	1	EACH	PORTABLE BARRIER, "Y" CONNECTOR	
INCIDENTALS																			
										LUMP				SPECIAL	10899000	LS		CPM PROGRESS SCHEDULE	
	LUMP									LUMP				614	11000	LS		MAINTAINING TRAFFIC	
										15				619	16020	15	MNTH	FIELD OFFICE, TYPE C	
LUMP										LUMP				623	10001	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN	
										LUMP				624	10000	LS		MOBILIZATION	

CALCULATED CMY CHECKED HAG	GENERAL SUMMARY	LIC-16-16.64	134 729
-------------------------------------	-----------------	--------------	------------

80704-GSS-012.DGN 02/06/15

REF NO.	SHEET NO.	STATION TO STATION	202										203				
			WALK REMOVED	CONCRETE BARRIER REMOVED	CURB REMOVED	CURB AND GUTTER REMOVED	GUARDRAIL REMOVED	MAILBOX REMOVED	SEPTIC TANK REMOVED	REMOVAL MISC.: LANDSCAPING MOUNDS	REMOVAL MISC.: ELECTRIC DRIVEWAY LIGHTS	EXCAVATION					
			SF	FT	FT	FT	FT	EACH	EACH	LUMP	LUMP	CU. YD.					
		S.R. 16															
1-R	158-160	247+30 TO 265+50 RT.					1,820										
2-R	159-160	248+98 TO 265+92 LT.					1,694										
3-R	160-161	269+84 TO 276+96 MED.		15			697										
4-R	161	274+90 TO 276+40 LT.		24			126										
5-R	161-162	278+77 TO 288+50 MED.		25			948										
6-R	161	278+15 TO 280+94 LT.		15			264										
7-R	161	EB ON-RAMP FROM NEWARK-GRANVILLE ROAD RT.					328										
8-R	161	EB ON-RAMP FROM NEWARK-GRANVILLE ROAD LT.					266										
9-R		NOT USED															
		RAMP A															
10-R	268	240+00 TO 243+00								LUMP							
		EXISTING SOUTH CHERRY VALLEY ROAD															
14-R	349	1+15 TO 1+57 LT. (INFO ONLY: 12'X7' AVG + 25'X9' AVG)	309														
15-R	349	0+48 TO 1+50 RT.				118											
16-R	350	27+35 RT. (INFO ONLY: 24'X2.5' AVG)	60														
1-MR	350	27+35 RT.					1										
		EXISTING NORTH CHERRY VALLEY ROAD															
17-R	362	0+85 TO 2+59 LT.			192												
18-R	362	0+48 TO 2+59 RT.			223												
19-R	362	3+32 TO 7+27 LT.			400												
20-R	362	3+29 TO 6+36 RT.			312												
21-R	362	7+74 TO 8+25 LT.			51												
22-R	362	6+54 TO 7+89 RT.			135												
23-R	362	8+04 TO 8+21 RT.			12												
2-MR	362	8+74 LT.					1										
		NEWARK - GRANVILLE ROAD															
24-R	369	251+87 & 252+25 RT.									LUMP						
25-R	369	250+58 RT.							1								
3-MR	369	247+21 LT.					1										
4-MR	369	249+32 LT.					1										
5-MR	369	251+98 LT.					1										
		SUB-TOTALS FROM SHEET 149 (DRIVE CALCULATIONS)			25										65		
		SUB-TOTALS															
		01/NHS/PV	369	79	1,350	118	6,143	5	1	1				1	65		
		02/S<2/PV															
		TOTALS CARRIED TO GENERAL SUMMARY	369	79	1,350	118	6,143	5	1	LUMP				LUMP	65		

CALCULATED H.G. CHECKED
REMOVAL SUBSUMMARY
LIC-16-16.64
 135
 729

80704_GSS_014.DGN 02/09/15

REF SHEET NO.	STATION TO STATION	606			622					626		609			690	
		IMPACT ATTENUATOR, TYPE 2 (BIDIRECTIONAL) 60 MPH, 24" WIDE EACH	CONCRETE BARRIER, SINGLE SLOPE, TYPE C1 FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE D FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE D AS PER PLAN FT	CONCRETE BARRIER, END SECTION, TYPE C1 EACH	CONCRETE BARRIER, END SECTION, TYPE D EACH	CONCRETE BARRIER, END SECTION, TYPE D, AS PER PLAN EACH	CONCRETE BARRIER, END ANCHORAGE REINFORCED, TYPE D, AS PER PLAN EACH	BARRIER REFLECTOR TYPE B EACH	BARRIER REFLECTOR TYPE B2 EACH	COMBINATION CURB AND GUTTER, TYPE 2 FT	CURB, TYPE 4-C FT	CURB, TYPE 6 FT	CONCRETE MEDIAN SY	SPECIAL - BOLLARD EACH
158-159	S.R. 16 EASTBOUND RT. 247+49.21 TO 249+47.05			146.28					2							
158-159	S.R. 16 MEDIAN 247+13.10 TO 249+47.05	2	203.95							8						
316	NEW CHERRY VALLEY ROAD 16+45.00 TO 20+60.00 (SEE SHEETS 39-40 FOR DETAILS)						117.2		2	2					4	
293 & 306	RAMP C / RAMP D MEDIAN 246+65.00 TO 247+15.00 (AVG WIDTH 7.3')															41.6
293 & 306	247+15.00 TO 248+55.00 (AVG WIDTH 4.9')															73.0
293 & 306	248+55.00 TO 250+27.03 (WIDTH 4')															79.4
316	NEW CHERRY VALLEY ROAD 17+29.00 TO 17+47.00 LT.												12			
316	19+87.00 TO 20+33.00 RT.												40			
349	EXISTING SOUTH CHERRY VALLEY ROAD RADIUS - 1+31.00 TO 1+57.00													95		
362	EXISTING NORTH CHERRY VALLEY ROAD RADIUS - 3+31.77 TO 3+65.42 LT.															47.6
362	3+65.42 TO 6+92.91 LT.															327.5
362	RADIUS - 6+92.91 TO 7+27.11 LT.															41.5
362	RADIUS - 7+74.24 TO 8+09.61 LT.															42.6
362	RADIUS - 8+09.61 TO 10+50.00 LT.															240.4
362	RADIUS - 3+17.16 TO 3+57.16 RT.															62.8
362	3+57.16 TO 10+50.00 RT.															692.8
381	BIKE PATHWAY 5+95.00 TO 6+13.50 RT.															12.5
381	8+53.50 TO 9+08.50 RT.															49
1-B	381															3
2-B	382															3
3-B	382															3
SUB-TOTALS		2	204	147	118	2	2	2	2	11	4	95	52	1,456	194	
																9
TOTALS CARRIED TO GENERAL SUMMARY		2	204	147	118	2	2	2	2	15	4	95	113.5	1,456	194	9

ROADWAY & BARRIER SUBSUMMARY

LIC-16-16.64

CALCULATED
H.C.
CHECKED

P:\LIC\80704\Design\Roadway\Plan_Sheets\General\80704_GSS_001.dgn 30-MAR-2015 8:07AM c:\yount

Location (Station to Station) Station Equation: Sta. 290+81.90 (Back) = Sta. 16+94.40 (Ahead)	Side	Length	Pavement Width	Pavement Area	206	252	254	301		304	407			441		442		452	823	
					CEMENT STABILIZED SUBGRADE, 14 INCHES DEEP	FULL DEPTH PAVEMENT SAWING	PAVEMENT PLANING, ASPHALT CONCRETE	6.00"	9.00"	6.00"	TACK COAT (@ 0.025 GAL./SQ. YD.) (VERTICAL FACE)	SPECIAL - TACK COAT, TRACKLESS TACK, INTERMEDIATE COURSE (@ 0.050 GAL./SQ. YD.)	SPECIAL - TACK COAT, TRACKLESS TACK, SURFACE COURSE (@ 0.075 GAL./SQ. YD.)	1.25"	1.75"	1.50"	1.75"	9" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC1 WITH QC/QA	1.25"	1.75"
								ASPHALT CONCRETE BASE, PG64-22	ASPHALT CONCRETE BASE, PG64-22	AGGREGATE BASE				ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (446), PG70-22M	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (446)	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (4446)	ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (446)		ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448)	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448)
Lt/Rt	Lin. Ft	Ft	Sq. Yd.	SY	FT	SY	CY	CY	CY	GAL	GAL	GAL	CY	CY	CY	CY	SY	CY	CY	
PLAN SPLIT CODE 01/NHS/PV																				
S.R. 16 WESTBOUND LANES																				
183+04.15 to 219+00.00		3,595.85	24.0	9,589.0			9,589.0					719.2			399.6					
219+00.00 to 235+35.00		1,635.00	24.0	4,360.0	4,360.00	48.00		1,090.0	726.7	0.2	218.0	327.0			181.7	212.0				
235+35.00 to 259+95.20		2,460.20	24.0	6,560.6			6,560.6					492.1			273.4					
BEGIN LINE "W" @ 259+95.20																				
259+95.20 to 276+00.00		1,604.80	24.0	4,279.5			4,279.5					321.0			178.4					
276+00.00 to 279+50.00		350.00	24.0	933.4	933.40			233.4	155.6		46.7	70.1			38.9	45.4				
279+50.00 to 283+00.00		350.00	24.0	933.4			933.4					70.1			38.9					
283+00.00 to 288+59.60		559.60	VARIABLES	2,538.5			2,538.5					190.4			105.8					
END LINE "W" @ 288+59.60																				
288+50.00 to 290+81.90		231.90	VARIABLES	938.6			938.6					70.4			39.2					
16+94.40 to 21+78.74		484.34	VARIABLES	2,348.5			2,348.5					176.2			97.9					
21+78.74 to 31+00.00		921.26	24.0	2,456.7			2,456.7					184.3			102.4					
S.R. 16 EASTBOUND LANES																				
183+74.80 to 219+00.00		3,525.20	24.0	9,400.6			9,400.6					705.1			391.7					
219+00.00 to 235+35.00		1,635.00	24.0	4,360.0	4,360.00	48.00		1,090.0	726.7	0.2	218.0	327.0			181.7	212.0				
235+35.00 to 260+23.42		2,488.42	24.0	6,635.8			6,635.8					497.7			276.5					
BEGIN LINE "E" @ 260+23.42																				
260+23.42 to 284+47.52		2,424.10	24.0	6,464.3			6,464.3					484.9			269.4					
END LINE "E" @ 284+47.52																				
284+47.46 to 290+81.90		634.44	24.0	1,691.9			1,691.9					126.9			70.5					
16+94.40 to 22+50.00		555.60	24.0	1,481.6			1,481.6					111.2			61.8					
PAVED MEDIAN																				
247+13.00 to 249+47.00	MEDIAN	234.00	30.0	780.0	780.00			195.0	130.0		39.0	58.5			32.5	38.0				
MEDIAN U-TURN OPENING																				
216+00.00	MEDIAN			304.2	304.20			50.7	50.7		15.3	22.9			12.7	14.8				
Sub-Totals Carried to Sheet 143					10,737.60	96.00	55,319.00	50.70	2,608.40	1,789.70	0.40	537.00	4,955.00			2,753.00	522.20			

CALCULATED: CMY
 CHECKED: HAG
PAVEMENT CALCULATIONS
S.R. 16 MAINLINE
LIC-16-16.64
 138
 729

P:\LIC\80704\Design\Roadway\Plan_Sheets\General\80704_GSS_002.dgn 30-MAR-2015 8:07AM ccount

Location (Station to Station) Station Equation: Sta. 290+81.90 (Back) = Sta. 16+94.40 (Ahead)	Side	Length	Pavement Width	Pavement Area	206	252	254	301		304	407			441		442		452	823	
					CEMENT STABILIZED SUBGRADE, 14 INCHES DEEP	FULL DEPTH PAVEMENT SAWING	PAVEMENT PLANING, ASPHALT CONCRETE	6.00"	9.00"	6.00"	TACK COAT (@ 0.025 GAL./SQ. YD.) (VERTICAL FACE)	SPECIAL - TACK COAT, TRACKLESS TACK, INTERMEDIATE COURSE (@ 0.050 GAL./SQ. YD.)	SPECIAL - TACK COAT, TRACKLESS TACK, SURFACE COURSE (@ 0.075 GAL./SQ. YD.)	1.25"	1.75"	1.50"	1.75"	9.00"	1.25"	1.75"
					SY	FT	SY	CY	CY	CY	GAL	GAL	GAL	CY	CY	CY	CY	SY	CY	CY
PLAN SPLIT CODE 01/NHS/PV																				
S.R. 16 WESTBOUND SHOULDERS																				
183+04.15 to 219+00.00	LT.	3,595.85	8.0	3,196.4			3,196.4						239.8				133.2			
219+00.00 to 220+50.00	LT.	150.00	9.00 (AVG.)	150.0	172.2	150.00			40.0	28.8	0.5	7.5	11.3				6.3	7.3		
220+50.00 to 222+68.60	LT.	218.60	10.0	242.9	275.2	218.60			64.3	45.9	0.7	12.2	18.3				10.2	11.9		
222+68.60 to 237+92.08	LT.	1,523.48	ACCELERATION LANE																	
237+92.08 to 259+38.37	LT.	2,146.29	10.0	2,384.8	2,702.0	2,146.29			631.0	450.5	6.1	119.3	178.9				99.4	116.0		
259+38.37 to 259+95.20	LT.	56.83	DECELERATION LANE																	
BEGIN LINE "W" @ 259+95.20	LT.																			
259+95.20 to 267+50.00	LT.	754.80	DECELERATION LANE																	
267+50.00 to 283+00.00	LT.	1,550.00	10.0	1,722.3	1,951.3	1,550.00			455.7	325.4	4.4	86.2	129.2				71.8	83.8		
283+00.00 to 288+59.60	LT.	559.60	6.0	373.1			373.1						28.0				15.6			
END LINE "W" @ 288+59.60																				
288+50.00 to 290+81.90	LT.	231.90	6.0	154.7			154.7						11.7				6.5			
16+94.40 to 21+78.74	LT.	484.34	6.0	322.9			322.9						24.3				13.5			
21+78.74 to 31+00.00	LT.	921.26	8.0	818.9			818.9						61.5				34.2			
183+04.15 to 219+00.00	RT.	3,595.85	4.0	1,598.2			1,598.2						119.9				66.6			
219+00.00 to 220+50.00	RT.	150.00	7.00 (AVG.)	116.7	138.9	150.00			31.6	23.2	0.5	5.9	8.8				4.9	5.7		
220+50.00 to 259+95.20	RT.	3,945.20	10.0	4,383.6	4,966.6	3,945.20			1,159.9	828.1	11.2	219.2	328.8				182.7	213.1		
BEGIN LINE "W" @ 259+95.20																				
259+95.20 to 287+59.60	RT.	2,764.40	10.0	3,071.6	3,480.1	2,764.40			812.7	580.2	7.9	153.6	230.4				128.0	149.4		
287+59.60 to 288+59.60	RT.	100.00	8.00 (AVG.)	88.9	103.7	100.00			23.9	17.3	0.3	4.5	6.7				3.8	4.4		
END LINE "W" @ 288+59.60																				
288+50.00 to 290+81.90	RT.	231.90	6.0	154.7			154.7						11.7				6.5			
16+94.40 to 31+00.00	RT.	1,405.60	6.0	937.1			937.1						70.3				39.1			
Sub-Totals Carried to Sheet 143					13,790.00	11,024.49	7,556.00		3,219.10	2,299.40	31.60	608.40	1,479.60				822.30	591.60		

CALCULATED: CMY
 CHECKED: HAG
LIC-16-16.64
PAVEMENT CALCULATIONS
S.R. 16 WESTBOUND SHOULDERS

P:\LIC\80704\Design\Roadway\Plan_Sheets\General\80704_GSS_003.dgn 30-MAR-2015 8:07AM c:\count

Location (Station to Station) Station Equation: Sta. 290+81.90 (Back) = Sta. 16+94.40 (Ahead)	Side	Length	Pavement Width	Pavement Area	206	252	254	301		304	407			441		442		452	823	
					CEMENT STABILIZED SUBGRADE, 14 INCHES DEEP	FULL DEPTH PAVEMENT SAWING	PAVEMENT PLANING, ASPHALT CONCRETE	6.00"	9.00"	6.00"	TACK COAT (@ 0.025 GAL./SQ. YD.) (VERTICAL FACE)	SPECIAL - TACK COAT, TRACKLESS TACK, INTERMEDIATE COURSE (@ 0.050 GAL./SQ. YD.)	SPECIAL - TACK COAT, TRACKLESS TACK, SURFACE COURSE (@ 0.075 GAL./SQ. YD.)	1.25"	1.75"	1.50"	1.75"	9.00"	1.25"	1.75"
					ASPHALT CONCRETE BASE, PG64-22	ASPHALT CONCRETE BASE, PG64-22	AGGREGATE BASE	GAL	GAL	GAL	CY	CY	CY	CY	CY	CY	CY	SY	CY	CY
PLAN SPLIT CODE 01/NHS/PV																				
S.R. 16 EASTBOUND SHOULDERS																				
183+74.80 to 219+00.00	LT.	3,525.20	4.0	1,566.8			1,566.8						117.6			65.3				
219+00.00 to 220+50.00	LT.	150.00	7.00 (AVG.)	116.7	138.9	150.00			31.6	23.2	0.5	5.9	8.8			4.9	5.7			
220+50.00 to 260+23.42	LT.	3,973.42	10.0	4,415.0	5,002.1	3,973.42			1,168.2	834.0	11.3	220.8	331.2			184.0	214.7			
BEGIN LINE "E" @ 260+23.42																				
260+23.42 to 280+82.00	LT.	2,058.58	10.0	2,287.4	2,591.6	2,058.58			605.2	432.1	5.9	114.4	171.6			95.4	111.2			
280+82.00 to 284+47.52	LT.	365.52	10.0	406.2			406.2						30.5			17.0				
END LINE "E" @ 284+47.52																				
284+47.46 to 289+27.00	LT.	479.54	10.0	532.9			532.9						40.0			22.3				
289+27.00 to 290+81.90	LT.	154.90	VARIES	272.8			272.8						20.5			11.4				
16+94.40 to 22+50.00	LT.	555.60	VARIES	431.8			431.8						32.4			18.0				
183+74.80 to 219+00.00	RT.	3,525.20	8.0	3,133.6			3,133.6						235.1			130.6				
219+00.00 to 220+50.00	RT.	150.00	9.00 (AVG.)	150.0	172.2	150.00			40.0	28.8	0.5	7.5	11.3			6.3	7.3			
220+50.00 to 230+00.00	RT.	950.00	10.0	1,055.6	1,196.0	950.00			279.3	199.4	2.7	52.8	79.2			44.0	51.4			
230+00.00 to 238+31.66	RT.	831.66	DECELERATION LANE																	
238+31.66 to 245+43.34	RT.	711.68	10.0	790.8	896.0	711.68			209.3	149.4	2.1	39.6	59.4			33.0	38.5			
245+43.34 to 260+23.42	RT.	1,480.08	ACCELERATION LANE																	
BEGIN LINE "E" @ 260+23.42																				
260+23.42 to 262+20.61	RT.	197.19	ACCELERATION LANE																	
262+20.61 to 265+50.00	RT.	329.39	8.0	292.8	341.5	329.39			78.6	57.0	1.0	14.7	22.0			12.2	14.3			
265+50.00 to 284+47.52	RT.	1,897.52	8.0	1,686.7			1,686.7						126.6			70.3				
END LINE "E" @ 284+47.52																				
284+47.46 to 290+81.90	RT.	634.44	8.0	564.0			564.0						42.3			23.5				
16+94.40 to 22+50.00	RT.	555.60	8.0	493.9			493.9						37.1			20.6				
Sub-Totals Carried to Sheet 143					10,338.30	8,323.07	9,088.70		2,412.20	1,723.90	24.00	455.70	1,365.60			758.80	443.10			

CALCULATED CMY	CHECKED HAG
PAVEMENT CALCULATIONS S.R. 16 EASTBOUND SHOULDERS	
LIC-16-16.64	
140 729	

P:\LIC\80704\Design\Roadway\Plan_Sheets\General\80704_GSS_004.dgn 30-MAR-2015 8:07AM c:\count

Location (Station to Station)	Side	Length	Pavement Width	Pavement Area	206	252	254	301		304	407			441		442		452	823	
					CEMENT STABILIZED SUBGRADE, 14 INCHES DEEP	FULL DEPTH PAVEMENT SAWING	PAVEMENT PLANING, ASPHALT CONCRETE	6.00"	9.00"	6.00"	TACK COAT (@ 0.025 GAL./SQ. YD)(VERTICAL FACE)	SPECIAL - TACK COAT, TRACKLESS TACK, INTERMEDIATE COURSE (@ 0.050 GAL./SQ. YD.)	SPECIAL - TACK COAT, TRACKLESS TACK, SURFACE COURSE (@ 0.075 GAL./SQ. YD.)	1.25"	1.75"	1.50"	1.75"	9" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC1 WITH QC/QA	1.25"	1.75"
								ASPHALT CONCRETE BASE, PG64-22	ASPHALT CONCRETE BASE, PG64-22	AGGREGATE BASE				ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (446), PG70-22M	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (446)	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (4446)	ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (446)		ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448)	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448)
LT./RT.	Lin. Ft.	Ft.	Sq. Yd.	SY	FT	SY	CY	CY	CY	GAL	GAL	GAL	CY	CY	CY	CY	SY	CY	CY	
PLAN SPLIT CODE 01/NHS/PV																				
WESTBOUND ACCELERATION LANE																				
222+68.60 to 235+17.17		1,248.57	12.36 (AVG.)	1,714.8	1,714.80	1,248.57		428.7	285.8	3.6	85.8	128.7			71.5	83.4				
235+17.17 to 237+92.08		274.91	VARIES	861.8	861.80	274.91		215.5	143.7	0.8	43.1	64.7			36.0	41.9				
SHOULDER																				
222+68.60 to 223+68.60		LT.	100.00	9.00 (AVG.)	100.0	114.8	100.00													
223+68.60 to 235+17.17		LT.	1,148.57	8.0	1,021.0	1,190.7	1,148.57													
235+17.17 to 235+67.16		LT.	49.99	7.00 (AVG.)	38.9	46.3	49.99													
235+67.16 to 237+92.08		LT.	224.92	6.0	150.0	183.2	224.92													
WESTBOUND DECELERATION LANE																				
259+38.37 to 263+58.33			419.96	VARIES	980.6	980.60	419.96								40.9	47.7				
263+58.33 to 266+48.07			289.74	12.0	386.4	386.40	289.74								16.1	18.8				
266+48.07 to 267+48.07			100.00	6.00 (AVG.)	66.7	66.70	100.00								2.8	3.3				
SHOULDER																				
259+38.37 to 266+48.07		LT.	709.70	8.0	630.9	735.8	709.70													
266+48.07 to 267+48.07		LT.	100.00	9.00 (AVG.)	100.0	114.8	100.00													
EASTBOUND DECELERATION LANE																				
230+00.00 to 231+00.00			100.00	6.00 (AVG.)	66.7	66.70	100.00													
231+00.00 to 232+48.99			148.99	12.0	198.7	198.70	148.99													
232+48.99 to 238+31.66			582.67	VARIES	1,299.3	1,299.30	582.67													
SHOULDER																				
230+00.00 to 231+00.00		RT.	100.00	9.00 (AVG.)	100.0	114.8	100.00													
231+00.00 to 238+31.66		RT.	731.66	8.0	650.4	758.5	731.66													
EASTBOUND ACCELERATION LANE																				
245+43.34 to 246+80.84			137.50	VARIES	456.9	456.90	137.50													
246+80.84 to 249+00.00			219.16	25.0	608.8	608.80	219.16													
249+00.00 to 262+20.77			1,320.77	12.50 (AVG.)	1,834.5	1,834.50	1,320.77													
SHOULDER																				
245+43.34 to 246+30.84		RT.	87.50	6.0	58.4	71.3	87.50													
246+30.84 to 246+80.84		RT.	50.00	7.00 (AVG.)	38.9	46.3	50.00													
246+80.84 to 247+49.21		RT.	68.37	8.0	60.8	70.9	68.37													
247+49.21 to 249+23.49		RT.	174.28	11.7	226.0	226.0	174.28													
249+23.49 to 262+20.77		RT.	1,297.28	8.0	1,153.2	1,344.9	1,297.28													
Sub-Totals Carried to Sheet 143					13,493.50	8,007.11		3,277.80	2,250.50	23.50	641.30	961.40			533.20	623.30				

CALCULATED	CHECKED
CMY	HAG
PAVEMENT CALCULATIONS ACCELERATION & DECELERATION LANES	
LIC-16-16.64	
141	729

P:\LIC\80704\Design\Roadway\Plan_Sheets\General\80704_GSS_005.dgn 10-JUN-2015 6:53AM cyount

Location (Station to Station)	Side	Length	Pavement Width	Pavement Area	206	252	254	301		304	407			441		442		452	823	
					CEMENT STABILIZED SUBGRADE, 14 INCHES DEEP	FULL DEPTH PAVEMENT SAWING	PAVEMENT PLANING, ASPHALT CONCRETE	6.00"	9.00"	6.00"	TACK COAT (@ 0.025 GAL./SQ. YD)(VERTICAL FACE)	SPECIAL - TACK COAT, TRACKLESS TACK, INTERMEDIATE COURSE (@ 0.050 GAL./SQ. YD.)	SPECIAL - TACK COAT, TRACKLESS TACK, SURFACE COURSE (@ 0.075 GAL./SQ. YD.)	1.25"	1.75"	1.50"	1.75"	9" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC1 WITH QC/QA	1.25"	1.75"
								ASPHALT CONCRETE BASE, PG64-22	ASPHALT CONCRETE BASE, PG64-22	AGGREGATE BASE				ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (446), PG70-22M	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (446)	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (4446)	ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (446)		ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448)	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448)
LT./RT.	Lin. Ft.	Ft.	Sq. Yd.	SY	FT	SY	CY	CY	CY	GAL	GAL	GAL	CY	CY	CY	CY	SY	CY	CY	
PLAN SPLIT CODE 01/NHS/PV																				
RAMP A																				
237+87.45 to 246+71.49		884.04	16.0	1,571.7	1,571.70					262.0								1,571.7		
246+71.49 to 246+98.85		27.36	17.37 (AVG.)	52.9	52.90					8.9								52.9		
246+98.85 to 247+54.39		55.54	VARIES	189.7	189.70					31.7								189.7		
SHOULDER																				
237+87.45 to 23+50.30 (New Cherry)		LT.	1,001.29	6.0	667.6	834.41				120.6								667.6		
237+87.45 to 247+49.69		RT.	962.24	3.0	320.8	481.12				62.4								320.8		
RAMP B																				
248+36.97 to 248+82.27			45.30	VARIES	168.9	168.90				28.2								168.9		
248+82.27 to 251+00.00			217.73	24.0	580.7	580.70				96.8								580.7		
251+00.00 to 251+50.00			50.00	20.00 (AVG.)	111.2	111.20				18.6								111.2		
251+50.00 to 259+40.49			790.49	16.0	1,405.4	1,405.40				234.3								1,405.4		
SHOULDER																				
23+34.53 (New Cherry) to 258+90.49		LT.	1,070.10	6.0	713.4	891.75				128.9								713.4		
258+90.49 to 259+40.49		LT.	50.00	7.00 (AVG.)	38.9	47.22				7.0								38.9		
248+37.97 to 259+40.49		RT.	1,102.52	3.0	367.6	551.26				71.5								367.6		
RAMP C																				
238+34.36 to 246+65.00			830.64	16.0	1,476.7	1,476.70				246.2								1,476.7		
246+50.00 to 247+15.00			65.00	20.00 (AVG.)	144.5	144.50				24.1								144.5		
247+15.00 to 250+00.00			285.00	24.0	760.0	760.00				126.7								760.0		
250+00.00 to 250+48.02			48.02	VARIES	168.5	168.50				28.1								168.5		
SHOULDER																				
238+34.36 to 250+24.99		LT.	1,190.63	3.0	396.9	396.90				66.2								396.9		
238+34.36 to 238+84.36		RT.	50.00	7.00 (AVG.)	38.9	47.22				7.0								38.9		
238+84.36 to 12+84.00 (New Cherry)		RT.	1,189.96	6.0	793.4	991.63				143.3								793.4		
RAMP D																				
237+33.82 to 238+03.15			69.33	VARIES	307.9	307.90				51.4								307.9		
238+03.15 to 238+43.15			40.00	20.00 (AVG.)	88.9	88.90				14.9								88.9		
238+43.15 to 245+44.48			701.33	18.0	1,402.7	1,402.70				233.8								1,402.7		
SHOULDER																				
237+45.07 to 245+44.48		LT.	799.41	3.0	266.5	266.50				44.5								266.5		
14+48.54 (New Cherry) to 245+44.48		RT.	834.09	6.0	556.1	695.08				100.4								556.1		
Sub-Totals Carried to Sheet 143					13,632.79					2,157.50								12,589.80		

CALCULATED	CHECKED
CMY	HAG
PAVEMENT CALCULATIONS RAMPS	
LIC-16-16.64	
142	729

P:\LIC\80704\Design\Roadway\Plan_Sheets\General\80704_GSS_006.dgn 10-JUN-2015 6:57AM c:\count

Location (Station to Station)	Side	Length	Pavement Width	Pavement Area	206	252	254	301		304	407			441		442		452	823					
					CEMENT STABILIZED SUBGRADE, 14 INCHES DEEP	FULL DEPTH PAVEMENT SAWING	PAVEMENT PLANING, ASPHALT CONCRETE	6.00"	9.00"	6.00"	TACK COAT (@ 0.025 GAL./SQ. YD.)(VERTICAL FACE)	SPECIAL - TACK COAT, TRACKLESS TACK, INTERMEDIATE COURSE (@ 0.050 GAL./SQ. YD.)	SPECIAL - TACK COAT, TRACKLESS TACK, SURFACE COURSE (@ 0.075 GAL./SQ. YD.)	1.25"	1.75"	1.50"	1.75"	9.00"	1.25"	1.75"				
								ASPHALT CONCRETE BASE, PG64-22	ASPHALT CONCRETE BASE, PG64-22	AGGREGATE BASE				ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (446), PG70-22M	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (446)	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446)	ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (446)	9" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC1 WITH QC/QA	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448)	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448)				
LT./RT.	Lin. Ft.	Ft.	Sq. Yd.	SY	FT	SY	CY	CY	CY	GAL	GAL	GAL	CY	CY	CY	CY	SY	CY	CY					
PLAN SPLIT CODE 01/NHS/PV																								
NEW CHERRY VALLEY ROAD																								
12+84.00 to 14+48.54		164.54	72.00 (AVG.)	1,316.4	1,316.40					219.4								1,316.4						
14+48.54 to 14+88.54		40.00	74.00 (AVG.)	328.9	328.90					54.9								328.9						
14+88.54 to 17+44.19		255.65	72.0	2,045.2	2,045.20					340.9								2,045.2						
17+44.19 to 19+84.03		BR. NO. LIC-16-1718																						
19+84.03 to 22+72.17		288.14	72.0	2,305.2	2,305.20					384.2								2,305.2						
22+72.17 to 23+50.30		78.13	VARIES	629.9	629.90					105.0								629.9						
SHOULDER																								
12+84.00 to 14+48.54		LT.	RAMP C & RAMP D INTERSECTION																					
14+48.54 to 14+88.54		LT.	40.00	5.00 (AVG.)	22.3	28.89				4.1								22.3						
14+88.54 to 17+44.19		LT.	255.65	4.0	113.7	156.23				21.4								113.7						
17+44.19 to 19+84.03		BR. NO. LIC-16-1718																						
19+84.03 to 22+72.17		LT.	288.14	4.0	128.1	176.09				24.1								128.1						
22+72.17 to 23+50.30		LT.	RAMP A INTERSECTION																					
12+84.00 to 16+45.00		RT.	361.00	4.0	160.5	220.61				30.1								160.5						
16+45.00 to 16+59.00		RT.	14.00	7.67	12.0	14.26				2.2								12.0						
16+59.00 to 16+75.00		RT.	16.00	10.17	18.1	20.74				3.2								18.1						
16+75.00 to 17+26.36		RT.	51.36	8.12 (AVG.)	46.4	54.90				8.2								46.4						
17+26.36 to 17+44.19		RT.	17.83	4.0	8.0	10.90				1.5								8.0						
17+44.19 to 19+84.03		BR. NO. LIC-16-1718																						
19+84.03 to 19+96.18		RT.	12.15	4.65 (AVG.)	6.3	8.30				1.2								6.3						
19+96.18 to 20+29.96		RT.	33.78	8.73 (AVG.)	32.8	38.40				5.8								32.8						
20+29.96 to 20+46.00		RT.	16.04	10.08	18.0	20.64				3.2								18.0						
20+46.00 to 20+60.00		RT.	14.00	7.67	12.0	14.26				2.2								12.0						
20+60.00 to 22+72.17		RT.	212.17	4.0	94.3	129.66				17.7								94.3						
22+72.17 to 23+34.53		RT.	RAMP B INTERSECTION																					
23+34.53 to 23+50.30		RT.	15.77	5.67 (AVG.)	10.0	12.56				1.9								10.0						
AREA UNDER RAISED MEDIAN BETWEEN RAMP C AND RAMP D (BASED ON RAMP C STATIONING)																								
246+59.33 to 246+65.00			5.67	VARIES	4.4	4.40				1.1														
246+65.00 to 247+15.00			50.00	7.25 (AVG.)	40.3	40.30				10.1														
247+15.00 to 248+55.00			140.00	VARIES	73.0	73.00				18.3														
248+55.00 to 250+25.00			170.00	4.0	75.6	75.60				18.9														
250+25.00 to 250+27.03			2.03	VARIES	0.7	0.70				0.2														
					* QUANTITY CARRIED TO SHEET 33																			
Sub-Totals This Sheet										7,726.05											1,279.80			
Sub-Totals Carried From Sheet 138										10,737.60	96.00	55,319.00	50.70	2,608.40	1,789.70	0.40	537.00	4,955.00			2,753.00	522.20	0.00	
Sub-Totals Carried From Sheet 139										13,790.00	11,024.49	7,556.00	0.00	3,219.10	2,299.40	31.60	608.40	1,479.60			822.30	591.60	0.00	
Sub-Totals Carried From Sheet 140										10,338.30	8,323.07	9,088.70	0.00	2,412.20	1,723.90	24.00	455.70	1,365.60			758.80	443.10	0.00	
Sub-Totals Carried From Sheet 141										13,493.50	8,007.11	0.00	0.00	3,277.80	2,250.50	23.50	641.30	961.40			533.20	623.30	0.00	
Sub-Totals Carried From Sheet 142										13,632.79	0.00	0.00	0.00	2,157.50	0.00	0.00	0.00			0.00	0.00	12,589.80		
Totals (Carried to the General Summary)										*69719	27,451	71,964	11,569	11,501	80	2,243	8,762			4,868	2,181	19,898		

CALCULATED CMY CHECKED HAG

**PAVEMENT CALCULATIONS
NEW CHERRY VALLEY ROAD**

LIC-16-16.64

143
729

P:\LIC\80704\Design\Roadway\Plan_Sheets\General\80704_GSS_007.dgn 30-MAR-2015 8:07AM c:\pcount

Location (Station to Station)	Side	Length	Pavement Width	Pavement Area	206	252	254	301		304	407			441		442		452	823	
					CEMENT STABILIZED SUBGRADE, 14 INCHES DEEP	FULL DEPTH PAVEMENT SAWING	PAVEMENT PLANING, ASPHALT CONCRETE	6.00"	9.00"	6.00"	TACK COAT (@ 0.025 GAL./SQ. YD.) (VERTICAL FACE)	SPECIAL - TACK COAT, TRACKLESS TACK, INTERMEDIATE COURSE (@ 0.050 GAL./SQ. YD.)	SPECIAL - TACK COAT, TRACKLESS TACK, SURFACE COURSE (@ 0.075 GAL./SQ. YD.)	1.25"	1.75"	1.50"	1.75"	9" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC1 WITH QC/QA	1.25"	1.75"
								ASPHALT CONCRETE BASE, PG64-22	ASPHALT CONCRETE BASE, PG64-22	AGGREGATE BASE				ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (446), PG70-22M	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (446)	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (4446)	ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (446)		ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448)	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448)
LT./RT.	Lin. Ft.	Ft.	Sq. Yd.	SY	FT	SY	CY	CY	CY	GAL	GAL	GAL	CY	CY	CY	CY	SY	CY	CY	
PLAN SPLIT CODE 02/S<2/PV																				
NEW CHERRY VALLEY ROAD																				
		0+28.08 to 1+28.20	100.12	VARIES	912.2	912.20			152.1									912.2		
		1+28.20 to 4+80.00	351.80	48.0	1,876.3	1,876.30			312.8									1,876.3		
		4+80.00 to 8+00.00	320.00	54.00 (AVG.)	1,920.0	1,920.00			320.0									1,920.0		
		8+00.00 to 12+34.00	434.00	60.0	2,893.4	2,893.40			482.3									2,893.4		
		12+34.00 to 12+84.00	50.00	64.00 (AVG.)	355.6	355.60			59.3									355.6		
		12+84.00 to 23+50.30	SEE PLAN SPLIT 01/NHS/PV																	
		23+50.30 to 23+84.53	34.23	65.03 (AVG.)	247.4	247.40			41.3									247.4		
		23+84.53 to 23+90.30	5.77	60.18 (AVG.)	38.6	38.60			6.5									38.6		
		23+90.30 to 27+05.00	314.70	53.89 (AVG.)	1,884.4	1,884.40			314.1									1,884.4		
		27+05.00 to 33+32.52	627.52	48.0	3,346.8	3,346.80			557.8									3,346.8		
		33+32.52 to 34+09.83	77.31	VARIES	614.3	614.30			102.4									614.3		
SHOULDER																				
		27+43.15 (EX. SOUTH CHERRY) to 12+34.00	LT.	1,249.37	4.0	555.3	763.50		104.2									555.3		
		12+34.00 to 12+84.00	LT.	50.00	5.00 (AVG.)	27.8	36.11		5.1									27.8		
		12+84.00 to 23+50.30	SEE PLAN SPLIT 01/NHS/PV																	
		23+50.30 to 23+90.30	LT.	40.00	5.00 (AVG.)	22.3	28.89		4.1									22.3		
		23+90.30 to 247+44.53 (EX. GRANVILLE RD)	LT.	1,060.90	4.0	471.6	648.33		88.5									471.6		
		29+71.80 (EX. SOUTH CHERRY) to 12+84.00	RT.	1,317.03	4.0	585.4	804.85		109.8									585.4		
		12+84.00 to 23+50.30	SEE PLAN SPLIT 01/NHS/PV																	
		23+50.30 to 23+84.53	RT.	34.23	4.67 (AVG.)	17.8	23.47		3.3									17.8		
		23+84.53 to 249+19.62 (EX. GRANVILLE RD)	RT.	1,056.47	4.0	469.6	645.62		88.1									469.6		
Sub-Totals Carried to Sheet 147					17,039.77				2,751.70									16,238.80		

CALCULATED CMY CHECKED HAG	PAVEMENT CALCULATIONS NEW CHERRY VALLEY ROAD	LIC-16-16.64	144 729
-------------------------------------	---	---------------------	------------

P:\LIC\80704\Design\Roadway\Plan_Sheets\General\80704_GSS_008.dgn 23-JUN-2015 1:52PM cyount

Location (Station to Station)	Side	Length	Pavement Width	Pavement Area	206	252	254	301		304	407			441		442		452	823		
					CEMENT STABILIZED SUBGRADE, 14 INCHES DEEP	FULL DEPTH PAVEMENT SAWING	PAVEMENT PLANING, ASPHALT CONCRETE	6.00"	9.00"	6.00"	TACK COAT (@ 0.025 GAL./SQ. YD.)(VERTICAL FACE)	SPECIAL - TACK COAT, TRACKLESS TACK, INTERMEDIATE COURSE (@ 0.050 GAL./SQ. YD.)	SPECIAL - TACK COAT, TRACKLESS TACK, SURFACE COURSE (@ 0.075 GAL./SQ. YD.)	1.25"	1.75"	1.50"	1.75"	9.00"	1.25"	1.75"	
								ASPHALT CONCRETE BASE, PG64-22	ASPHALT CONCRETE BASE, PG64-22	AGGREGATE BASE				ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (446), PG70-22M	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (446)	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (4446)	ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (446)	9" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC1 WITH QC/QA	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448)	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448)	
LT./RT.	Lin. Ft.	Ft.	Sq. Yd.	SY	FT	SY	CY	CY	CY	GAL	GAL	GAL	CY	CY	CY	CY	SY	CY	CY		
PLAN SPLIT CODE 02/S<2/PV																					
EX. SOUTH CHERRY VALLEY ROAD																					
RESURFACING																					
		1+54.22 to 1+67.42	13.20	VARIABLE	102.3																
		1+67.42 to 3+73.10	205.68	72.3	1,652.3								7.7	3.6							
		3+73.10 to 4+16.50	43.40	66.15 (AVG.)	319.0								124.0	57.4							
		4+16.50 to 25+00.00	NO WORK REQUIRED																		
		25+00.00 to 25+71.00	71.00	29.38 (AVG.)	231.8								11.6	17.4	8.1	11.3					
		25+71.00 to 26+80.00	109.00	25.50 (AVG.)	308.9								15.5	23.2	10.8	15.1					
		26+80.00 to 27+20.00	40.00	21.38 (AVG.)	95.0								4.8	7.2	3.3	4.7					
		27+20.00 to 28+00.00	80.00	20.25 (AVG.)	180.0								9.0	13.5	6.3	8.8					
		28+00.00 to 30+00.00	200.00	20.63 (AVG.)	458.4								23.0	34.4	16.0	22.3					
		30+00.00 to 33+50.00	350.00	20.63 (AVG.)	802.1								40.2	60.2	27.9	39.0					
FULL DEPTH PAVEMENT WIDENING																					
		1+33.50 to 1+54.22	20.72	VARIABLE	113.5	113.5			0.8	0.8			5.7	8.6	4.0	5.6					
	LT.	25+00.00 to 25+71.00	71.00	1.63 (AVG.)	12.9	19.4	71.00		2.6	3.3	0.3	0.7	1.0	0.5	0.7						
	LT.	25+71.00 to 26+37.42	66.42	4.23 (AVG.)	31.3	37.4	66.42		5.7	6.3	0.2	1.6	2.4	1.1	1.6						
	LT.	26+37.42 to 26+80.00	42.58	7.48 (AVG.)	35.4	35.4	42.58		5.9	5.9	0.2	1.8	2.7	1.3	1.8						
	LT.	26+80.00 to 27+20.00	40.00	9.63 (AVG.)	42.8	42.8	40.00		7.2	7.2	0.2	2.2	3.3	1.5	2.1						
	LT.	27+20.00 to 27+43.15	23.15	10.57 (AVG.)	27.2	27.2	23.15		4.6	4.6	0.1	1.4	2.1	1.0	1.4						
	LT.	27+43.15 to 28+00.00	56.85	12.61 (AVG.)	81.0	81.0	56.85		13.5	13.5	0.2	4.1	6.1	2.9	4.0						
	LT.	28+00.00 to 29+71.80	171.80	18.45 (AVG.)	352.2	352.2	171.80		58.7	58.7	0.5	17.7	26.5	12.3	17.2						
	LT.	29+71.80 to 30+00.00	28.20	21.32 (AVG.)	66.9	66.9	28.20		11.2	11.2	0.1	3.4	5.1	2.4	3.3						
	LT.	30+00.00 to 32+71.80	271.80	16.22 (AVG.)	489.9	489.9	271.80		81.7	81.7	0.8	24.5	36.8	17.1	23.9						
	LT.	32+71.80 to 33+00.00	28.20	11.77 (AVG.)	36.9	36.9	28.20		6.2	6.2	0.1	1.9	2.8	1.3	1.8						
	LT.	33+00.00 to 33+50.00	50.00	6.41 (AVG.)	35.7	35.7	50.00		6.0	6.0	0.2	1.8	2.7	1.3	1.8						
SHOULDER																					
	LT.	26+37.42 to 27+43.15	105.73	4.0	47.0	62.7	105.73		8.5	9.5	0.3	2.4	3.6	1.7	2.3						
	LT.	27+43.15 to 29+71.80	NEW CHERRY VALLEY RD INTERSECTION																		
	LT.	29+71.80 to 33+00.00	328.20	4.0	145.9	194.4	328.20		26.4	29.4	1.0	7.3	11.0	5.1	7.1						
	LT.	33+00.00 to 33+50.00	50.00	3.00 (AVG.)	16.7	24.1	50.00		3.1	3.6	0.2	0.9	1.3	0.6	0.9						
	RT.	25+00.00 to 25+50.00	50.00	4.00 (AVG.)	22.3	29.7	50.00		4.1	4.5	0.2	1.2	1.7	0.8	1.1						
	RT.	25+50.00 to 33+00.00	750.00	5.0	416.7	527.5	750.00		74.1	81.1	2.2	20.9	31.3	14.5	20.3						
	RT.	33+00.00 to 33+50.00	50.00	4.00 (AVG.)	22.3	29.7	50.00		4.1	4.5	0.2	1.2	1.7	0.8	1.1						
Sub-Totals Carried to Sheet 147					2,206.40	2,183.93	4,149.80	324.40		338.00	7.00	204.80	462.30	214.70	199.20						

CALCULATED: CMY
 CHECKED: HAG
LIC-16-16.64
PAVEMENT CALCULATIONS
EX. SOUTH CHERRY VALLEY ROAD

P:\LIC\80704\Design\Roadway\Plan_Sheets\General\80704_GSS_009.dgn 30-MAR-2015 8:07AM c:\count

Location (Station to Station)	Side	Length	Pavement Width	Pavement Area	206	252	254	301		304	407			441		442		452	823	
					CEMENT STABILIZED SUBGRADE, 14 INCHES DEEP	FULL DEPTH PAVEMENT SAWING	PAVEMENT PLANING, ASPHALT CONCRETE	6.00"	9.00"	6.00"	TACK COAT (@ 0.025 GAL./SQ. YD.) (VERTICAL FACE)	SPECIAL - TACK COAT, TRACKLESS TACK, INTERMEDIATE COURSE (@ 0.050 GAL./SQ. YD.)	SPECIAL - TACK COAT, TRACKLESS TACK, SURFACE COURSE (@ 0.075 GAL./SQ. YD.)	1.25"	1.75"	1.50"	1.75"	9.00"	1.25"	1.75"
					ASPHALT CONCRETE BASE, PG64-22	ASPHALT CONCRETE BASE, PG64-22	AGGREGATE BASE	GAL	GAL	GAL	CY	CY	CY	CY	CY	CY	CY	SY	CY	CY
LT./RT.	Lin. Ft.	Ft.	Sq. Yd.	SY	FT	SY	CY	CY	CY	GAL	GAL	GAL	CY	CY	CY	CY	SY	CY	CY	
PLAN SPLIT CODE 02/S<2/PV																				
EXISTING NEWARK-GRANVILLE ROAD																				
RESURFACING																				
245+00.00 to 254+50.00		950.00	20.0	2,111.2		1,900.0	2,111.2				5.4	105.6	158.4	73.4	102.7					
FULL DEPTH PAVEMENT WIDENING																				
245+00.00 to 248+00.00	LT.	300.00	6.50 (AVG.)	216.7	244.5			36.2		36.2		10.9	16.3	7.6	10.6					
248+00.00 to 251+50.00	LT.	350.00	12.0	466.7	499.1			77.8		77.8		23.4	35.1	16.3	22.7					
251+50.00 to 254+50.00	LT.	300.00	6.50 (AVG.)	216.7	244.5			36.2		36.2		10.9	16.3	7.6	10.6					
245+00.00 to 245+50.00	RT.	50.00	1.0	5.6	10.2			1.0		1.0		0.3	0.5	0.2	0.3					
245+50.00 to 246+00.00	RT.	50.00	6.50 (AVG.)	36.2	40.8			6.1		6.1		1.9	2.8	1.3	1.8					
246+00.00 to 247+44.53	RT.	144.53	12.0	192.8	206.1			32.2		32.2		9.7	14.5	6.7	9.4					
247+44.53 to 249+19.62	RT.	175.09	6.50 (AVG.)	126.5	142.7			21.1		21.1		6.4	9.5	4.4	6.2					
249+19.62 to 254+50.00	RT.	530.38	1.0	59.0	108.1			9.9		9.9		3.0	4.5	2.1	2.9					
SHOULDER																				
245+00.00 to 245+50.00	LT.	50.00	3.00 (AVG.)	16.7	21.3			3.1		3.6		0.9	1.3	0.6	0.9					
245+50.00 to 254+00.00	LT.	850.00	4.0	377.8	456.5			68.3		76.1		18.9	28.4	13.2	18.4					
254+00.00 to 254+50.00	LT.	50.00	3.00 (AVG.)	16.7	21.3			3.1		3.6		0.9	1.3	0.6	0.9					
245+00.00 to 245+50.00	RT.	50.00	3.00 (AVG.)	16.7	21.3			3.1		3.6		0.9	1.3	0.6	0.9					
245+50.00 to 247+44.53	RT.	194.53	4.0	86.5	104.5			15.7		17.5		4.4	6.5	3.1	4.3					
247+44.53 to 249+19.62	RT.	NEW CHERRY VALLEY RD INTERSECTION																		
249+19.62 to 254+00.00	RT.	480.38	4.0	213.6	258.0			38.6		43.0		10.7	16.1	7.5	10.4					
254+00.00 to 254+50.00	RT.	50.00	3.00 (AVG.)	16.7	21.3			3.1		3.6		0.9	1.3	0.6	0.9					
EXISTING NEWARK-GRANVILLE ROAD @ HOWELL DRIVE																				
273+66.22 to 274+10.40			VARIES	318.9		121.5	318.9				0.4		24.0	11.1						
PROPOSED BIKE PATH																				
245+00.00 to 246+91.90		191.90	8.0	170.6	181.3					32.0		8.6	12.8						6.0	8.3
246+91.90 to 247+05.90		DRIVE 6-D																		
247+05.90 to 248+87.00		181.10	8.0	161.0	171.1					30.2		8.1	12.1						5.6	7.9
248+87.00 to 248+95.00		8.00	10.0	8.9	9.4					1.7		0.5	0.7						0.4	0.5
Sub-Totals Carried to Sheet 147					2,762.00	2,021.50	2,430.10	355.50		435.40	5.80	226.90	363.70	156.90	203.90				12.00	16.70

CALCULATED CMY
 CHECKED HAG
PAVEMENT CALCULATIONS
EX. NEWARK-GRANVILLE ROAD
LIC-16-16.64
 146
 729

P:\LIC\80704\Design\Roadway\Plan_Sheets\General\80704_GSS_010.dgn 23-JUN-2015 1:54PM c:\count

Location (Station to Station)	Side	Length	Pavement Width	Pavement Area	206	252	254	301		304	407			441		442		452	823	
					CEMENT STABILIZED SUBGRADE, 14 INCHES DEEP	FULL DEPTH PAVEMENT SAWING	PAVEMENT PLANING, ASPHALT CONCRETE	6.00"	9.00"	6.00"	TACK COAT (@ 0.025 GAL./SQ. YD.)\VERTICAL FACE)	SPECIAL - TACK COAT, TRACKLESS TACK, INTERMEDIATE COURSE (@ 0.050 GAL./SQ. YD.)	SPECIAL - TACK COAT, TRACKLESS TACK, SURFACE COURSE (@ 0.075 GAL./SQ. YD.)	1.25"	1.75"	1.50"	1.75"	9.00"	1.25"	1.75"
					ASPHALT CONCRETE BASE, PG64-22	ASPHALT CONCRETE BASE, PG64-22	AGGREGATE BASE	CY	CY	CY	GAL	GAL	GAL	CY	CY	CY	CY	SY	CY	CY
LT./RT.	Lin. Ft.	Ft.	Sq. Yd.	SY	FT	SY	CY	CY	CY	GAL	GAL	GAL	CY	CY	CY	CY	SY	CY	CY	
PLAN SPLIT CODE 02/S<2/PV																				
EX. NORTH CHERRY VALLEY ROAD																				
RESURFACING																				
2+58.88 to 3+65.42		106.54	VARIABLE	515.3		75.7	515.3				0.3		38.7	17.9						
3+65.42 to 6+92.91		327.49	20.0	727.8		655.0	727.8				1.9		54.6	25.3						
6+92.91 to 7+27.11		34.20	VARIABLE	98.4		75.7	98.4				0.3		7.4	3.5						
7+27.11 to 7+74.24		47.13	40.0	209.5		94.3	209.5				0.3		15.8	7.3						
7+74.24 to 8+09.61		35.37	VARIABLE	100.9		78.0	100.9				0.3		7.6	3.6						
8+09.61 to 10+50.00		240.39	20.0	534.2		480.8	534.2				1.4		40.1	18.6						
WESTGATE DRIVE RESURFACING																				
			VARIABLE	113.2		78.0	113.2				0.3		8.5	4.0						
		113.00	19.0	238.6		226.0	238.6				0.7		17.9	8.3						
* QUANTITY CARRIED TO SHEET 33																				
Sub-Totals This Sheet						1,763.4	2,537.9				5.5		190.6	0.0						
Sub-Totals Carried From Sheet 144					17,039.8	0.0	0.0	0.0		2,751.7	0.0	0.0	0.0	0.0	0.0			16,238.8		
Sub-Totals Carried From Sheet 145					2,206.40	2,183.93	4,149.80	324.40		338.00	7.00	204.80	462.30	214.70	199.20			0.00		
Sub-Totals Carried From Sheet 146					2,762.00	2,021.50	2,430.10	355.50		435.40	5.80	226.90	363.70	156.90	203.90			0.00	12.00	16.70
Totals (Carried to the General Summary)					*21533	5,969	9,118	680		3,461	19	432	1,017	372	404			16,239	12	17

CALCULATED	CHECKED
CMY	HAG
LIC-16-16.64	
PAVEMENT CALCULATIONS	
EX. NORTH CHERRY VALLEY ROAD	
(147 / 729)	

P:\LIC\80704\Design\Roadway\Plan_Sheets\General\80704_GSS_011.dgn 30-MAR-2015 8:07AM cyount

Location (Station to Station) Station Equation: Sta. 1+39.92 (Back) = Sta. 0+00.00 (Ahead)	Side	Length	Pavement Width	Pavement Area	206	304	407		608	690	823	
					CEMENT STABILIZED SUBGRADE, 14 INCHES DEEP	6.00"	SPECIAL - TACK COAT, TRACKLESS TACK, INTERMEDIATE COURSE (@ 0.050 GAL./SQ. YD.)	SPECIAL - TACK COAT, TRACKLESS TACK, SURFACE COURSE (@ 0.075 GAL./SQ. YD.)	4" CONCRETE WALK	SPECIAL MISC.: DETECTABLE WARNING	1.25"	1.75"
											SY	CY
LT/RT.	Lin. Ft.	Ft.	Sq. Yd.	SY	CY	GAL	GAL	SF	SF	CY	CY	
PLAN SPLIT CODE 04/ENH/OT/NEWA												
PROPOSED BIKE PATH												
0+00.00 to 0+33.19		33.19	VARIES	56.6	60.29	10.1	2.9	4.3			2.0	2.8
0+33.19 to 1+39.92		106.73	10.0	118.6	130.5	21.8	6.0	8.9			4.2	5.8
0+00.00 to 6+14.05		614.05	10.0	682.3	750.6	125.1	34.2	51.2			23.7	33.2
6+14.05 to 8+53.89		PROPOSED BRIDGE										
8+53.89 to 11+39.26		285.37	10.0	317.1	348.8	58.2	15.9	23.8			11.1	15.5
11+39.26 to 11+41.26		2.00	10.0	2.3		0.5			20.0			
11+41.26 to 11+43.26		2.00	10.0	2.3					20.0			
11+43.26 to 11+76.92		RAMP B										
11+76.92 to 11+78.92		2.00	10.0	2.3					20.0			
11+78.92 to 11+80.92		2.00	10.0	2.3		0.5			20.0			
11+80.92 to 22+61.52		1,080.60	10.0	1,200.7	1,320.8	220.2	60.1	90.1			41.7	58.4
22+61.52 to 22+63.52		2.00	10.0	2.3		0.5			20.0			
22+63.52 to 22+65.52		2.00	10.0	2.3					20.0			
NEWARK-GRANVILLE ROAD												
		2.00	10.0	2.3					20.0			
		2.00	10.0	2.3		0.5			20.0			
Sub-Totals This Sheet					2,611.0	437.4	119.1	178.3	80.0	80.0	82.7	115.7
* QUANTITY CARRIED TO SHEET 33												
** QUANTITY CARRIED TO SHEET 34												
Totals (Carried to the General Summary)					*2611	438	120	179	**80	**80	83	116

DRIVES.PCS 5/4/06

MARK	SEE SHEET	SURVEY AND CONSTRUCTION	SIDE	DESCRIPTION	EXISTING SURFACE	AREA CALCULATED BY COMPUTER SQ. YD.	202			203	204	254	301		304	407	441	452	611
							PAVEMENT REMOVED SQ. YD.	PAVEMENT REMOVED, ASPHALT SQ. YD.	CURB REMOVED FT.	EXCAVATION CU. YD.	SUBGRADE COMPACTION SQ. YD.	PAVEMENT PLANING, ASPHALT CONCRETE SQ. YD.	3 1/2" ASPHALT CONCRETE BASE, PG64-22 (DRIVEWAYS) CU. YD.	5" ASPHALT CONCRETE BASE, PG64-22 (DRIVEWAYS) CU. YD.	6" AGGREGATE BASE CU. YD.	TACK COAT (0.04 GALS./SQ. YD.) SQ. YD.	1 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE I, (448), (DRIVEWAYS) CU. YD.	8" NON-REINFORCED CONCRETE PAVEMENT, CLASS OC1 SQ. YD.	12" CONDUIT, TYPE D FEET
EXISTING SOUTH CHERRY VALLEY ROAD																			
1-D	350	STA. 32+50.0	LT.	FIELD DRIVE	NEW DRIVE	27.0									4.5				
2-D	350	STA. 26+00.0	LT.	COMM. DRIVE	ASPHALT	192.0					192.0					7.7	6.7		
EXISTING NORTH CHERRY VALLEY ROAD																			
3-D	362	STA. 6+45.2	RT.	RES. DRIVE	CONCRETE/ASPHALT	35.0		9.0	5.9	35.0		3.4			1.4	1.2			
4-D	362	STA. 8+00.0	RT.	RES. DRIVE	CONCRETE/ASPHALT	46.0		11.0	7.7	46.0		4.5			1.8	1.6			
5-D	362	STA. 8+67.4	RT.	RES. DRIVE	CONCRETE/ASPHALT	32.0		13.5	5.4	32.0		3.2			1.3	1.2			
NEWARK - GRANVILLE ROAD																			
6-D	369	STA. 246+98.9	LT.	RES. DRIVE	AGGREGATE	64.0	52.6		10.7	64.0		6.3			2.6	2.3			21.0
7-D	369	STA. 251+85.0	RT.	COMM. DRIVE	CONCRETE	115.2	104.0	25.0	17.4	104.0							23.0		42.0
1-DR	369	249+05	LT.	RES. DRIVE	ASPHALT	216.0		216.0											
NEW CHERRY VALLEY ROAD																			
8-D	315	STA. 8+50.0	LT.	COMM. DRIVE	ASPHALT	229.0		194.0	17.6	229.0			31.8		9.2	8.0			
							156.6	443.5	25.0 *	64.7 *	510.0	192.0	17.4	31.8	4.5	24.0	21.0	23.0	63.0

(* TOTALS CARRIED TO SHEET 135) TOTALS (CARRIED TO GENERAL SUMMARY)

02/S<2/PV

DRIVE CALCULATIONS

LIC-16-16.64

149
729

RAMP A

BASELINE SURVEY & CONSTRUCTION	LEFT EDGE OF SHOULDER	LEFT SHOULDER WIDTH	LEFT SHOULDER SLOPE	PROFILE GRADE	PAVEMENT SLOPE	PAVEMENT WIDTH	RIGHT EDGE OF PAVEMENT	RIGHT SHOULDER SLOPE	RIGHT SHOULDER WIDTH	RIGHT EDGE OF SHOULDER	COMMENTS
SEE RAMP A PAVEMENT DETAIL SHEET											
238+00.00	883.93	6.0	-0.055	884.26	0.055	16.0	885.14	-0.015	3.0	885.10	
238+25.00	884.15	6.0	-0.055	884.48	0.055	16.0	885.36	-0.015	3.0	885.32	
238+50.00	884.44	6.0	-0.055	884.77	0.055	16.0	885.65	-0.015	3.0	885.61	
238+75.00	884.80	6.0	-0.055	885.13	0.055	16.0	886.01	-0.015	3.0	885.97	
239+00.00	885.20	6.0	-0.055	885.53	0.055	16.0	886.41	-0.015	3.0	886.37	
239+25.00	885.60	6.0	-0.055	885.93	0.055	16.0	886.81	-0.015	3.0	886.77	
239+50.00	885.99	6.0	-0.055	886.32	0.055	16.0	887.20	-0.015	3.0	887.16	
239+75.00	886.39	6.0	-0.055	886.72	0.055	16.0	887.60	-0.015	3.0	887.56	
240+00.00	886.78	6.0	-0.055	887.11	0.055	16.0	887.99	-0.015	3.0	887.95	
240+25.00	887.18	6.0	-0.055	887.51	0.055	16.0	888.39	-0.015	3.0	888.35	
240+50.00	887.58	6.0	-0.055	887.91	0.055	16.0	888.79	-0.015	3.0	888.75	
240+75.00	887.97	6.0	-0.055	888.30	0.055	16.0	889.18	-0.015	3.0	889.14	
241+00.00	888.37	6.0	-0.055	888.70	0.055	16.0	889.58	-0.015	3.0	889.54	
241+25.00	888.76	6.0	-0.055	889.09	0.055	16.0	889.97	-0.015	3.0	889.93	
241+50.00	889.16	6.0	-0.055	889.49	0.055	16.0	890.37	-0.015	3.0	890.33	
241+75.00	889.56	6.0	-0.055	889.89	0.055	16.0	890.77	-0.015	3.0	890.73	
242+00.00	889.95	6.0	-0.055	890.28	0.055	16.0	891.16	-0.015	3.0	891.12	
242+25.00	890.35	6.0	-0.055	890.68	0.055	16.0	891.56	-0.015	3.0	891.52	
242+50.00	890.74	6.0	-0.055	891.07	0.055	16.0	891.95	-0.015	3.0	891.91	
242+56.53	890.85	6.0	-0.055	891.18	0.055	16.0	892.06	-0.015	3.0	892.02	FULL SUPERELEVATION
242+75.00	891.18	6.0	-0.049	891.47	0.049	16.0	892.25	-0.021	3.0	892.19	
243+00.00	891.63	6.0	-0.040	891.87	0.040	16.0	892.51	-0.030	3.0	892.43	
243+09.78	891.78	6.0	-0.040	892.02	0.037	16.0	892.61	-0.033	3.0	892.51	PT
243+25.00	892.02	6.0	-0.040	892.26	0.032	16.0	892.77	-0.038	3.0	892.66	
243+50.00	892.42	6.0	-0.040	892.66	0.023	16.0	893.03	-0.040	3.0	892.91	
243+71.91	892.77	6.0	-0.040	893.01	0.016	16.0	893.27	-0.040	3.0	893.15	END TRANSITION/BEGIN TRANSITION
243+75.00	892.81	6.0	-0.040	893.05	0.015	16.0	893.29	-0.040	3.0	893.17	
244+00.00	893.21	6.0	-0.040	893.45	0.004	16.0	893.52	-0.040	3.0	893.40	
244+25.00	893.61	6.0	-0.040	893.85	-0.006	16.0	893.76	-0.040	3.0	893.64	
244+50.00	894.00	6.0	-0.040	894.24	-0.016	16.0	893.98	-0.040	3.0	893.86	
244+75.00	894.40	6.0	-0.040	894.64	-0.026	16.0	894.22	-0.040	3.0	894.10	
244+77.18	894.43	6.0	-0.040	894.67	-0.027	16.0	894.23	-0.040	3.0	894.11	PC
245+00.00	894.84	6.0	-0.033	895.04	-0.037	16.0	894.45	-0.040	3.0	894.33	
245+25.00	895.29	6.0	-0.023	895.43	-0.047	16.0	894.68	-0.047	3.0	894.54	
245+30.06	895.38	6.0	-0.021	895.51	-0.049	16.0	894.73	-0.049	3.0	894.58	FULL SUPERELEVATION
245+50.00	895.70	6.0	-0.021	895.83	-0.049	16.0	895.05	-0.049	3.0	894.90	
245+63.25	895.90	6.0	-0.021	896.02	-0.049	16.0	895.24	-0.049	3.0	895.09	FULL SUPERELEVATION
245+75.00	896.02	6.0	-0.026	896.18	-0.044	16.0	895.47	0.044	3.0	895.61	
246+00.00	896.22	6.0	-0.036	896.44	-0.034	16.0	895.90	-0.040	3.0	895.78	
246+02.18	896.24	6.0	-0.037	896.46	-0.033	16.0	895.93	-0.040	3.0	895.81	PT
246+25.00	896.37	6.0	-0.040	896.61	-0.024	16.0	896.23	-0.040	3.0	896.11	
246+50.00	896.46	6.0	-0.040	896.70	-0.013	16.0	896.49	-0.040	3.0	896.37	
SEE RAMP A INTERSECTION DETAIL SHEET											

RAMP_A_GST_001.DGN 02/18/15

CALCULATED C.Y. CHECKED	RAMP A SUPERELEVATION TABLE	LIC-16-16.64	150 729
-------------------------------	-----------------------------	--------------	------------

RAMP D

BASELINE SURVEY & CONSTRUCTION	LEFT EDGE OF SHOULDER	LEFT SHOULDER WIDTH	LEFT SHOULDER SLOPE	LEFT EDGE OF PAVEMENT	PAVEMENT WIDTH	PAVEMENT SLOPE	PROFILE GRADE	RIGHT SHOULDER SLOPE	RIGHT SHOULDER WIDTH	RIGHT EDGE OF SHOULDER	COMMENTS
SEE RAMP D INTERSECTION DETAIL SHEET											
238+50.00	1091.36	3.0	9.278	1063.53	18.0	9.278	896.53	-9.278	6.0	840.86	
238+75.00	1090.92	3.0	9.287	1063.06	18.0	9.287	895.89	-9.287	6.0	840.17	
239+00.00	1090.49	3.0	9.297	1062.60	18.0	9.297	895.25	-9.297	6.0	839.47	
239+03.24	1090.44	3.0	9.298	1062.54	18.0	9.298	895.17	-9.298	6.0	839.38	T.S.
239+25.00	894.95	3.0	0.016	894.90	18.0	0.016	894.61	-0.040	6.0	894.37	
239+50.00	894.32	3.0	0.016	894.27	18.0	0.016	893.98	-0.040	6.0	893.74	
239+75.00	893.69	3.0	0.016	893.64	18.0	0.016	893.35	-0.040	6.0	893.11	
239+95.27	893.21	3.0	0.016	893.16	18.0	0.016	892.87	-0.040	6.0	892.63	BEGIN TRANSITION
240+00.00	893.13	3.0	0.018	893.08	18.0	0.018	892.76	-0.040	6.0	892.52	
240+25.00	892.77	3.0	0.028	892.69	18.0	0.028	892.19	-0.040	6.0	891.95	
240+50.00	892.43	3.0	0.037	892.32	18.0	0.037	891.65	-0.040	6.0	891.41	
240+75.00	891.91	3.0	-0.023	891.98	18.0	0.047	891.13	-0.047	6.0	890.85	
241+00.00	891.59	3.0	-0.013	891.63	18.0	0.057	890.61	-0.057	6.0	890.27	
241+03.24	891.55	3.0	-0.012	891.58	18.0	0.058	890.54	-0.058	6.0	890.19	S.C./FULL SUPERELEVATION
241+25.00	891.09	3.0	-0.012	891.12	18.0	0.058	890.08	-0.058	6.0	889.73	
241+50.00	890.57	3.0	-0.012	890.60	18.0	0.058	889.56	-0.058	6.0	889.21	
241+75.00	890.05	3.0	-0.012	890.08	18.0	0.058	889.04	-0.058	6.0	888.69	
242+00.00	889.52	3.0	-0.012	889.55	18.0	0.058	888.51	-0.058	6.0	888.16	
242+25.00	889.00	3.0	-0.012	889.03	18.0	0.058	887.99	-0.058	6.0	887.64	
242+50.00	888.48	3.0	-0.012	888.51	18.0	0.058	887.47	-0.058	6.0	887.12	
242+75.00	887.95	3.0	-0.012	887.98	18.0	0.058	886.94	-0.058	6.0	886.59	
243+00.00	887.46	3.0	-0.012	887.49	18.0	0.058	886.45	-0.058	6.0	886.10	
243+25.00	887.02	3.0	-0.012	887.05	18.0	0.058	886.01	-0.058	6.0	885.66	
243+50.00	886.64	3.0	-0.012	886.67	18.0	0.058	885.63	-0.058	6.0	885.28	
243+75.00	886.32	3.0	-0.012	886.35	18.0	0.058	885.31	-0.058	6.0	884.96	
244+00.00	886.05	3.0	-0.012	886.08	18.0	0.058	885.04	-0.058	6.0	884.69	
244+25.00	885.85	3.0	-0.012	885.88	18.0	0.058	884.84	-0.058	6.0	884.49	
244+50.00	885.69	3.0	-0.012	885.72	18.0	0.058	884.68	-0.058	6.0	884.33	
244+75.00	885.60	3.0	-0.012	885.63	18.0	0.058	884.59	-0.058	6.0	884.24	
244+80.84	885.59	3.0	-0.012	885.62	18.0	0.058	884.58	-0.058	6.0	884.23	C.S./FULL SUPERELEVATION
245+00.00	885.38	3.0	-0.019	885.44	18.0	0.051	884.53	-0.051	6.0	884.23	
245+25.00	885.11	3.0	-0.029	885.19	18.0	0.041	884.46	-0.041	6.0	884.22	
SEE RAMP D PAVEMENT DETAIL SHEET											

CALCULATED
C.Y.
CHECKED

RAMP D SUPERELEVATION TABLE

LIC-16-16.64

CHERRY VALLEY ROAD

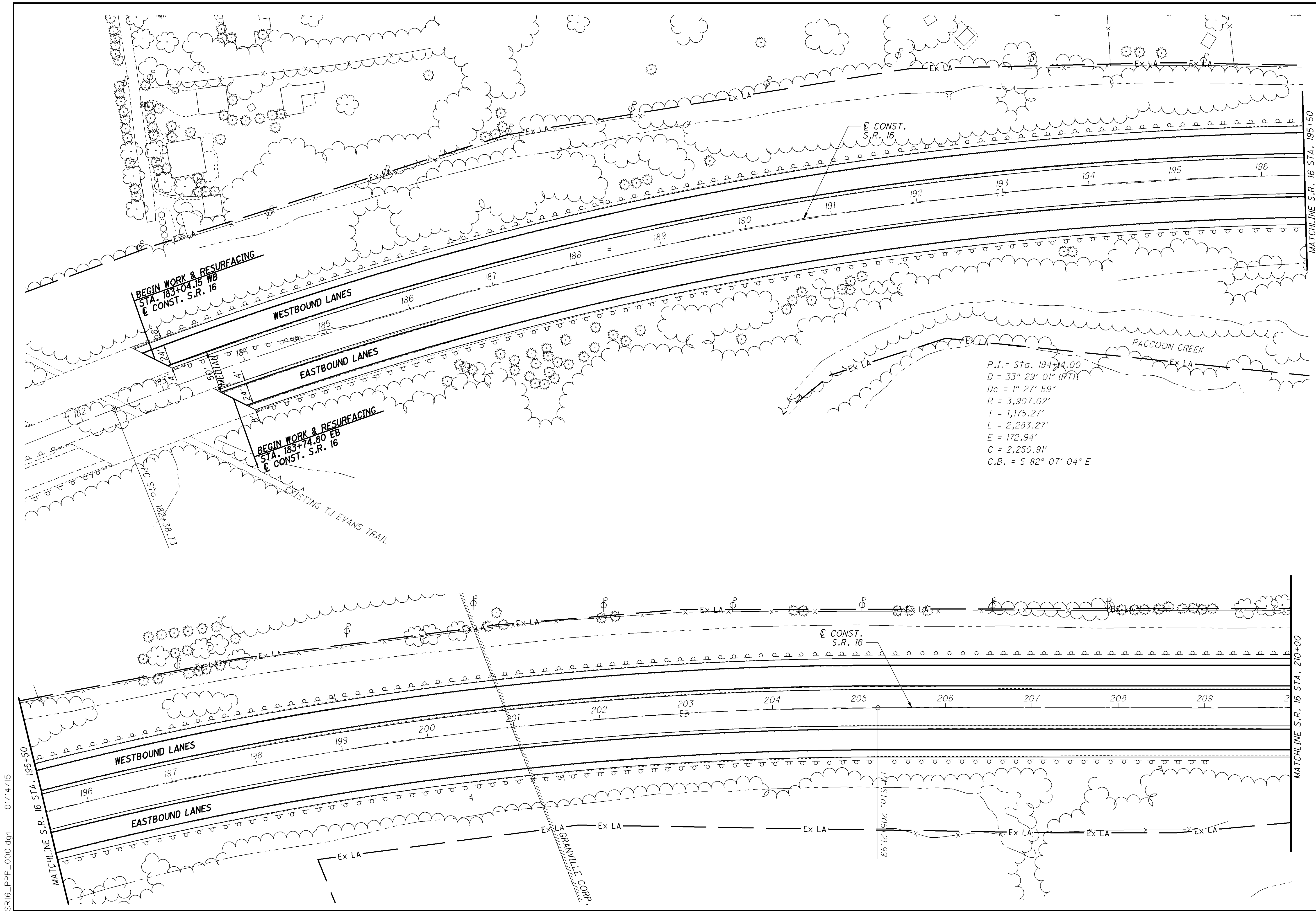
Left Edge of Shoulder	Shoulder Width	Shoulder Slope	Left Edge of Pavement	Pavement Width	Pavement Slope	Baseline Survey & Construction	Profile Grade	Pavement Slope	Pavement Width	Right Edge of Pavement	Shoulder Slope	Shoulder Width	Right Edge of Shoulder	Comments
884.76	4.00	-0.040	884.92	16.84	-0.016	5+44.16	885.19	-0.016	26.41	884.77	-0.040	4.00	884.61	BEGIN TRANSITION
884.74	4.00	-0.040	884.90	17.06	-0.016	5+50.00	885.17	-0.015	26.62	884.78	-0.040	4.00	884.62	
884.61	4.00	-0.040	884.77	18.00	-0.016	5+75.00	885.06	-0.009	27.56	884.82	-0.040	4.00	884.66	
884.50	4.00	-0.040	884.66	18.94	-0.016	6+00.00	884.96	-0.003	28.50	884.89	-0.040	4.00	884.73	
884.44	4.00	-0.040	884.60	19.34	-0.016	6+10.83	884.91	0.000	28.91	884.91	-0.040	4.00	884.75	
884.37	4.00	-0.040	884.53	19.88	-0.016	6+25.00	884.85	0.003	29.44	884.95	-0.040	4.00	884.79	
884.26	4.00	-0.040	884.42	20.81	-0.016	6+50.00	884.75	0.009	30.37	885.04	-0.040	4.00	884.88	
884.13	4.00	-0.040	884.29	21.75	-0.016	6+75.00	884.64	0.015	31.31	885.12	-0.040	4.00	884.96	
884.12	4.00	-0.040	884.28	21.84	-0.016	6+77.50	884.63	0.016	31.41	885.13	-0.040	4.00	884.97	
883.90	4.00	-0.040	884.06	22.69	-0.021	7+00.00	884.55	0.021	32.25	885.24	-0.040	4.00	885.08	
883.83	4.00	-0.040	883.99	23.09	-0.024	7+10.83	884.54	0.024	32.66	885.32	-0.040	4.00	885.16	PC
883.72	4.00	-0.040	883.88	23.62	-0.027	7+25.00	884.53	0.027	33.19	885.44	-0.040	4.00	885.28	
883.61	4.00	-0.040	883.77	24.00	-0.033	7+50.00	884.57	0.033	34.12	885.71	-0.037	4.00	885.56	
883.59	4.00	-0.040	883.75	24.00	-0.036	7+60.83	884.61	0.036	34.53	885.85	-0.034	4.00	885.72	FULL SUPERELEVATION
883.65	4.00	-0.040	883.81	24.00	-0.036	7+75.00	884.67	0.036	35.06	885.93	-0.034	4.00	885.80	
883.82	4.00	-0.040	883.98	24.00	-0.036	8+00.00	884.84	0.036	36.00	886.14	-0.034	4.00	886.00	
884.04	4.00	-0.040	884.20	24.00	-0.036	8+25.00	885.06	0.036	36.00	886.36	-0.034	4.00	886.22	
884.33	4.00	-0.040	884.49	24.00	-0.036	8+50.00	885.35	0.036	36.00	886.65	-0.034	4.00	886.51	
884.69	4.00	-0.040	884.85	24.00	-0.036	8+75.00	885.71	0.036	36.00	887.01	-0.034	4.00	886.87	
885.10	4.00	-0.040	885.26	24.00	-0.036	9+00.00	886.12	0.036	36.00	887.42	-0.034	4.00	887.28	
885.58	4.00	-0.040	885.74	24.00	-0.036	9+25.00	886.60	0.036	36.00	887.90	-0.034	4.00	887.76	
886.13	4.00	-0.040	886.29	24.00	-0.036	9+50.00	887.15	0.036	36.00	888.45	-0.034	4.00	888.31	
886.73	4.00	-0.040	886.89	24.00	-0.036	9+75.00	887.75	0.036	36.00	889.05	-0.034	4.00	888.91	
887.40	4.00	-0.040	887.56	24.00	-0.036	10+00.00	888.42	0.036	36.00	889.72	-0.034	4.00	889.58	
888.11	4.00	-0.040	888.27	24.00	-0.036	10+24.48	889.13	0.036	36.00	890.43	-0.034	4.00	890.29	FULL SUPERELEVATION
888.13	4.00	-0.040	888.29	24.00	-0.036	10+25.00	889.15	0.036	36.00	890.44	-0.034	4.00	890.31	
889.02	4.00	-0.040	889.18	24.00	-0.030	10+50.00	889.90	0.030	36.00	890.98	-0.040	4.00	890.82	
889.89	4.00	-0.040	890.05	24.00	-0.024	10+74.48	890.63	0.024	36.00	891.49	-0.040	4.00	891.33	PT
889.92	4.00	-0.040	890.08	24.00	-0.024	10+75.00	890.65	0.024	36.00	891.51	-0.040	4.00	891.35	
890.81	4.00	-0.040	890.97	24.00	-0.018	11+00.00	891.40	0.018	36.00	892.04	-0.040	4.00	891.88	
891.09	4.00	-0.040	891.25	24.00	-0.016	11+07.81	891.63	0.016	36.00	892.21	-0.040	4.00	892.05	
891.61	4.00	-0.040	891.77	24.00	-0.016	11+25.00	892.15	0.012	36.00	892.58	-0.040	4.00	892.42	
892.36	4.00	-0.040	892.52	24.00	-0.016	11+50.00	892.90	0.006	36.00	893.11	-0.040	4.00	892.95	
893.09	4.00	-0.040	893.25	24.00	-0.016	11+74.48	893.63	0.000	36.00	893.63	-0.040	4.00	893.47	
893.11	4.00	-0.040	893.27	24.00	-0.016	11+75.00	893.65	0.000	36.00	893.65	-0.040	4.00	893.49	
893.86	4.00	-0.040	894.02	24.00	-0.016	12+00.00	894.40	-0.006	36.00	894.18	-0.040	4.00	894.02	
858.61	4.00	-0.040	858.77	24.00	-0.016	12+25.00	859.15	-0.012	36.00	858.71	-0.040	4.00	858.55	
895.08	4.00	-0.040	895.24	24.48	-0.016	12+41.15	895.63	-0.016	36.00	895.05	-0.040	4.00	894.89	END TRANSITION

CALCULATED
C.Y.
CHECKED

NEW CHERRY VALLEY ROAD SUPERELEVATION TABLE

LIC-16-16.64

CHERRY_GTS_001.DGN 02/18/15



P.I. = Sta. 194+4.00
 D = 33° 29' 01" (RT)
 Dc = 1° 27' 59"
 R = 3,907.02'
 T = 1,175.27'
 L = 2,283.27'
 E = 172.94'
 C = 2,250.91'
 C.B. = S 82° 07' 04" E

CALCULATED
 C.V.
 CHECKED

0 50 100
 HORIZONTAL
 SCALE IN FEET

S.R. 16 PLAN AND PROFILE
STA. 183+04.15 TO STA. 210+00

LIC-16-16.64

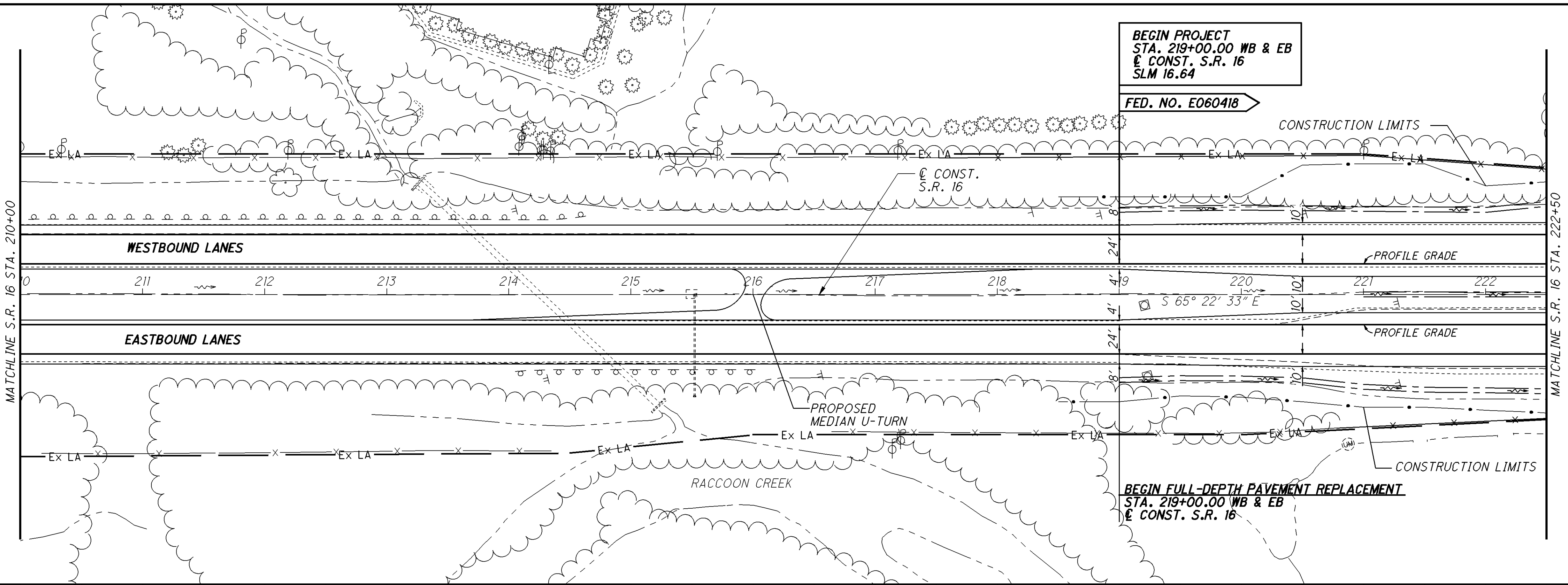
155
 729



CALCULATED
C.Y.
CHECKED

**S.R. 16 PLAN AND PROFILE
STA. 210+00 TO STA. 222+50**

LIC-16-16.64



BEGIN PROJECT
STA. 219+00.00 WB & EB
CONST. S.R. 16
SLM 16.64

FED. NO. E060418

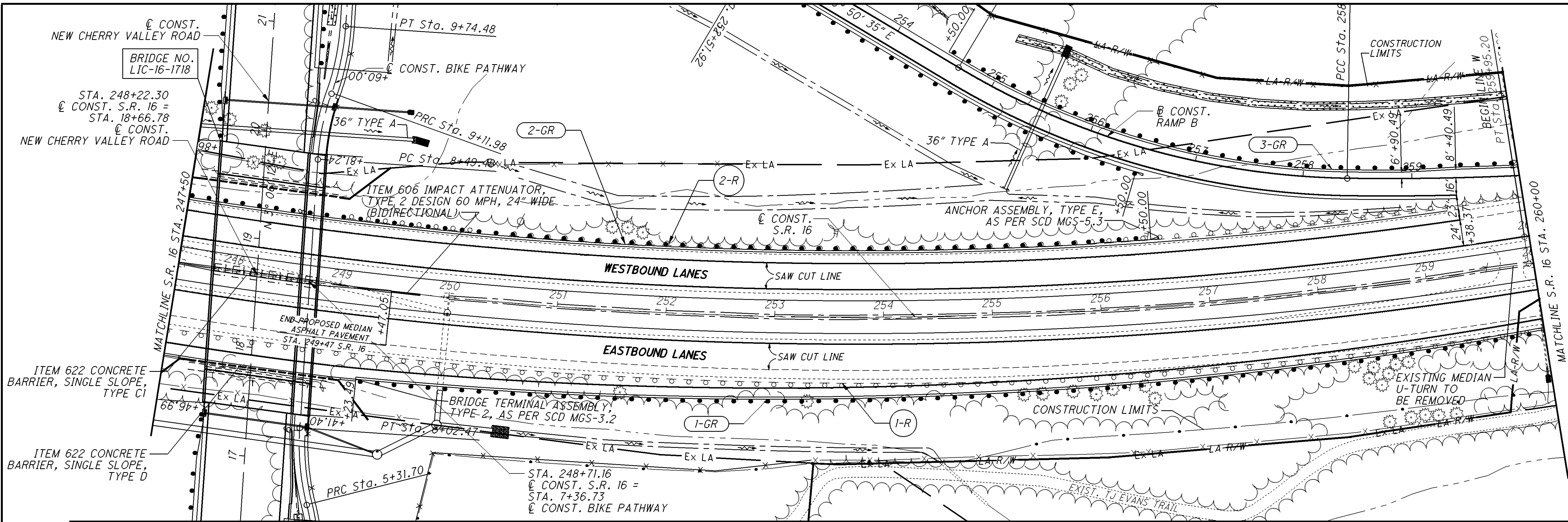
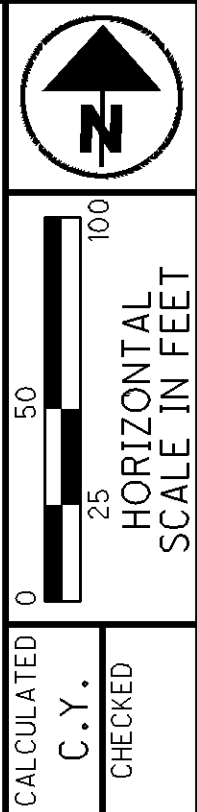
BEGIN FULL-DEPTH PAVEMENT REPLACEMENT
STA. 219+00.00 WB & EB
CONST. S.R. 16

WESTBOUND PROFILE

Prop. Profile Grade																		892.14	892.05	891.97	891.88	891.79	891.70	891.62	891.53	891.44	891.36	891.27	891.18	891.09	891.01	890.92	Prop. Profile Grade			
910																																				910
900																																				900
890																																				890
880																																				880
Ex. Profile Grade																																				Ex. Profile Grade
870																																				870
	210+00	211+00	212+00	213+00	214+00	215+00	216+00	217+00	218+00	219+00	220+00	221+00	222+00																							

EASTBOUND PROFILE

Prop. Profile Grade																																					Prop. Profile Grade
910																																					910
900																																					900
890																																					890
880																																					880
Ex. Profile Grade																																					Ex. Profile Grade
870																																					870
	210+00	211+00	212+00	213+00	214+00	215+00	216+00	217+00	218+00	219+00	220+00	221+00	222+00																								



Prop. Profile Grade	248+00	249+00	250+00	251+00	252+00	253+00	254+00	255+00	256+00	257+00	258+00	259+00	260+00	Prop. Profile Grade													
900														900													
890														890													
880														880													
870														870													
Ex. Profile Grade	883.37	883.34	883.26	883.50	883.79	883.95	884.12	884.61	884.96	885.41	885.76	886.29	886.99	887.67	888.38	889.10	889.88	890.57	891.32	892.06	892.73	893.32	894.03	894.78	895.36	895.89	Ex. Profile Grade

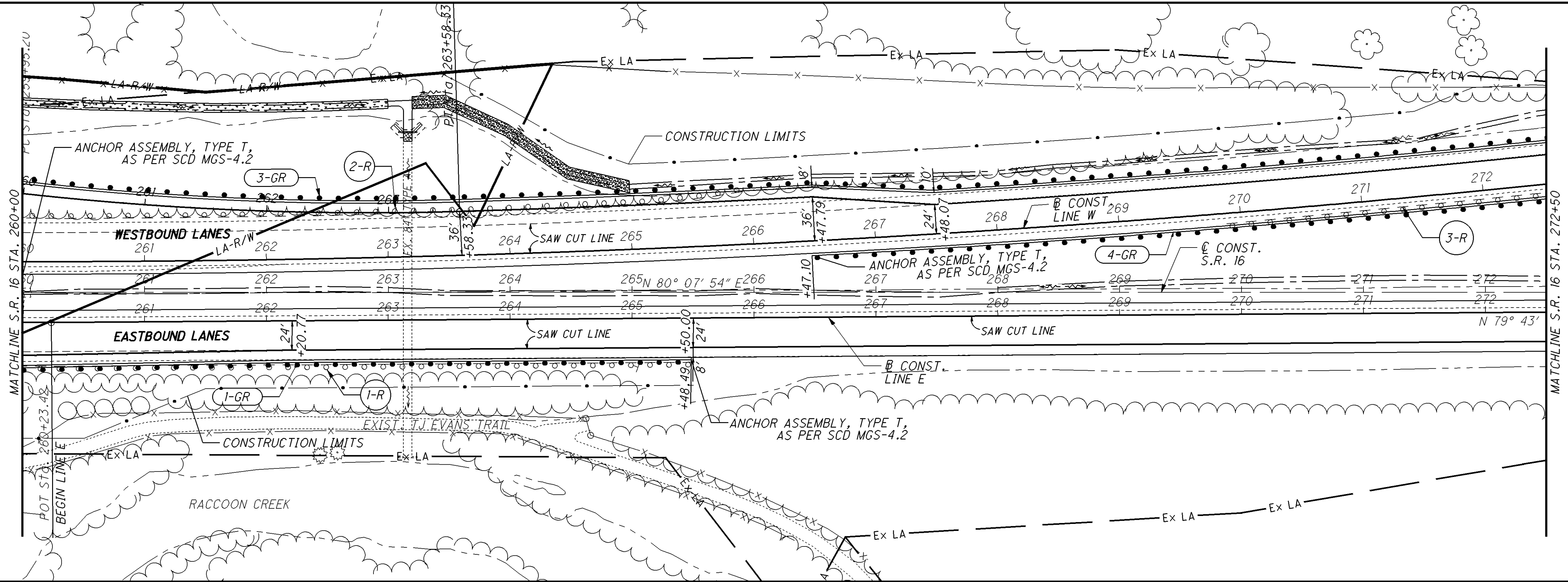
Prop. Profile Grade	248+00	249+00	250+00	251+00	252+00	253+00	254+00	255+00	256+00	257+00	258+00	259+00	260+00	Prop. Profile Grade													
900														900													
890														890													
880														880													
870														870													
Ex. Profile Grade	883.37	883.24	883.14	883.34	883.49	883.73	884.24	884.58	885.00	885.39	885.86	886.48	887.08	887.82	888.50	889.20	889.87	890.62	891.38	892.11	892.76	893.48	894.36	895.07	895.68	896.22	Ex. Profile Grade

SR16_PPP_004.dgn 06/13/12

S.R. 16 PLAN AND PROFILE
STA. 247+50 TO STA. 260+00

LIC-16-16.64

SR16_PPP_005.dgn 06/13/12



0 50 100
HORIZONTAL
SCALE IN FEET

CALCULATED
C.Y.
CHECKED

S.R. 16 PLAN AND PROFILE
STA. 260+00 TO STA. 272+50

LIC-16-16.64

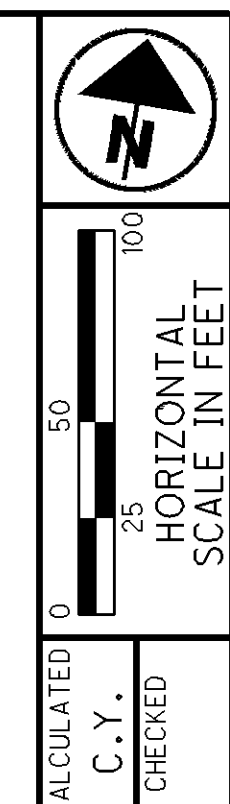
160
729

Prop. Profile Grade															Prop. Profile Grade												
	260+00	261+00	262+00	263+00	264+00	265+00	266+00	267+00	268+00	269+00	270+00	271+00	272+00														
920																	920										
910																	910										
900																	900										
890																	890										
Ex. Profile Grade	889.89	896.75	897.50	898.25	898.98	899.67	900.39	901.09	901.71	902.45	903.48	904.28	904.98	905.69	906.38	907.00	907.58	908.12	908.68	908.99	909.28	909.42	909.45	909.52	909.50	909.34	Ex. Profile Grade
	260+00	261+00	262+00	263+00	264+00	265+00	266+00	267+00	268+00	269+00	270+00	271+00	272+00														

Prop. Profile Grade															Prop. Profile Grade													
	260+00	261+00	262+00	263+00	264+00	265+00	266+00	267+00	268+00	269+00	270+00	271+00	272+00															
920																												920
910																												910
900																												900
890																												890
Ex. Profile Grade	889.22	897.01	897.59	898.22	898.84	899.37	899.88	900.25	900.46	900.68	900.99	901.70	901.87	901.98	901.96	901.88	901.76	901.52	901.27	900.82	900.40	899.92	899.40	898.83	898.12	897.39	Ex. Profile Grade	
	260+00	261+00	262+00	263+00	264+00	265+00	266+00	267+00	268+00	269+00	270+00	271+00	272+00															

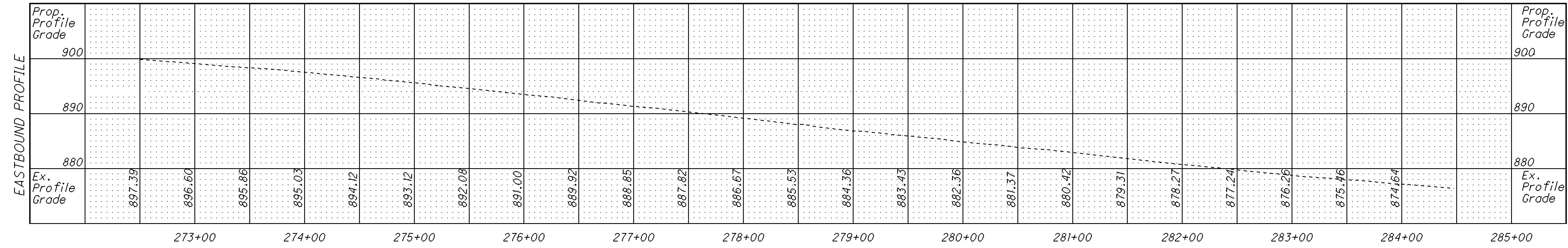
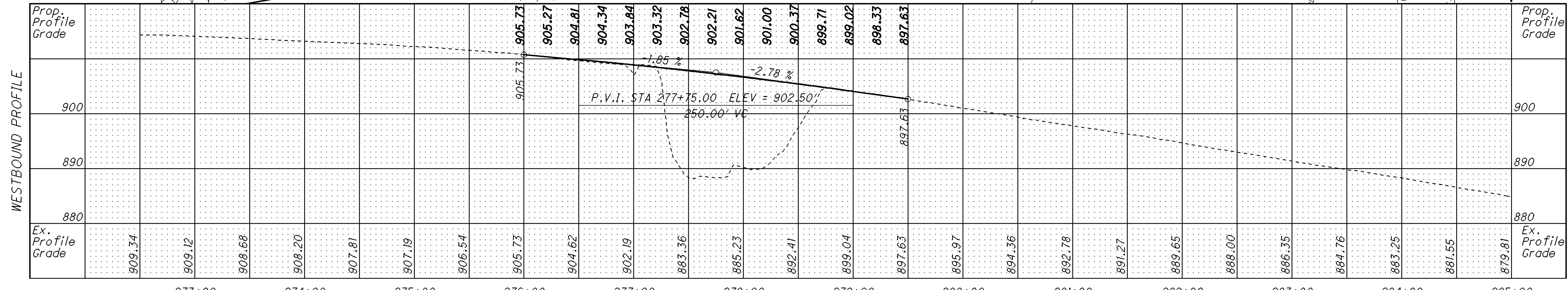
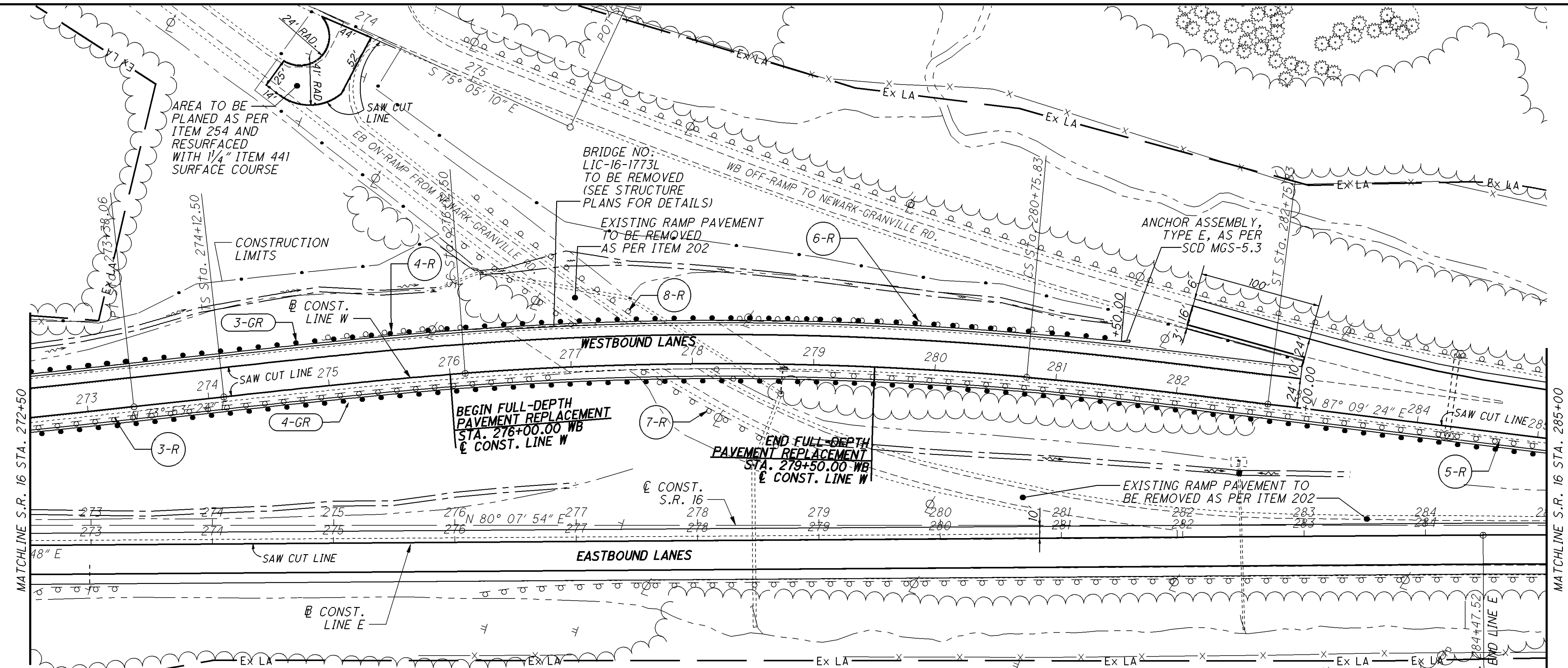
WESTBOUND PROFILE

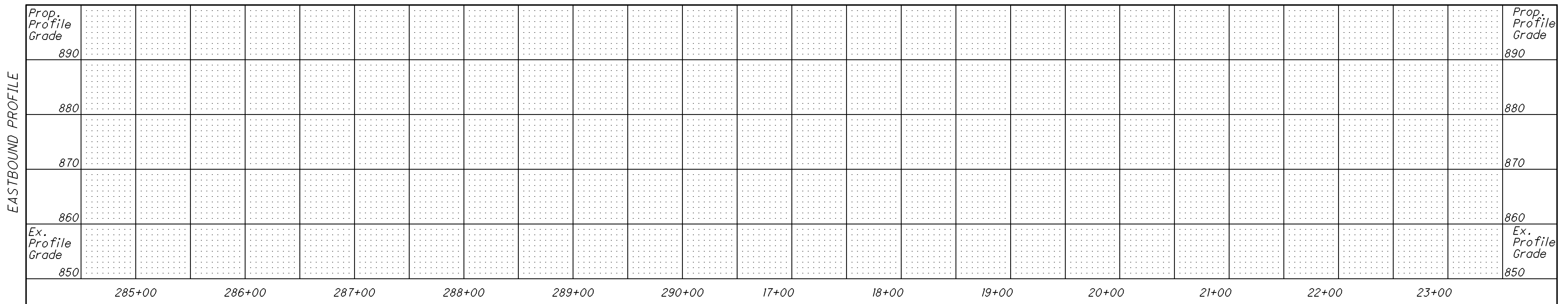
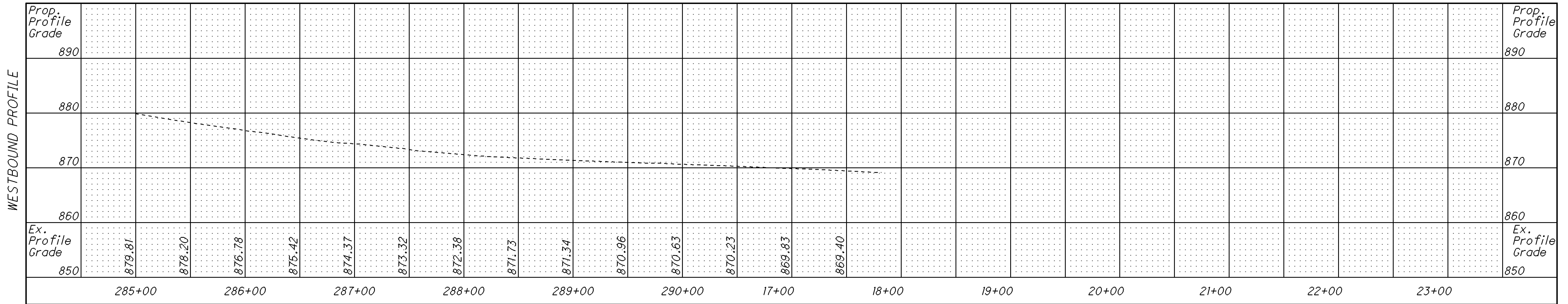
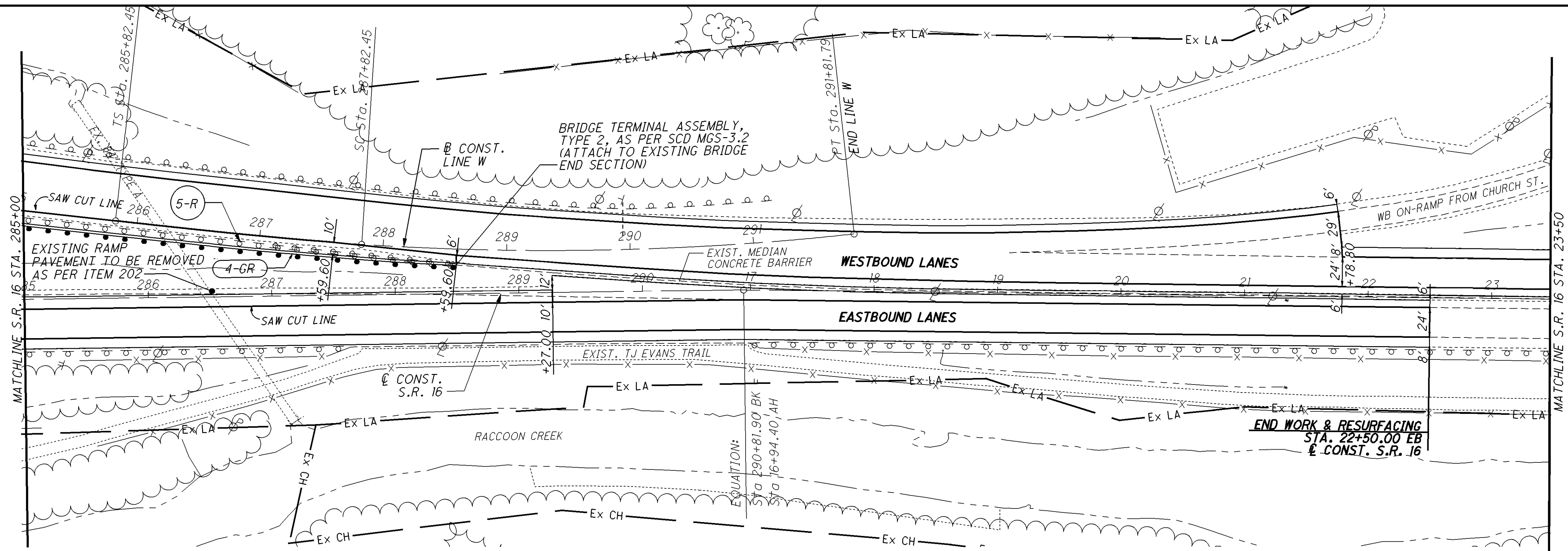
EASTBOUND PROFILE



S.R. 16 PLAN AND PROFILE
STA. 272+50 TO STA. 285+00

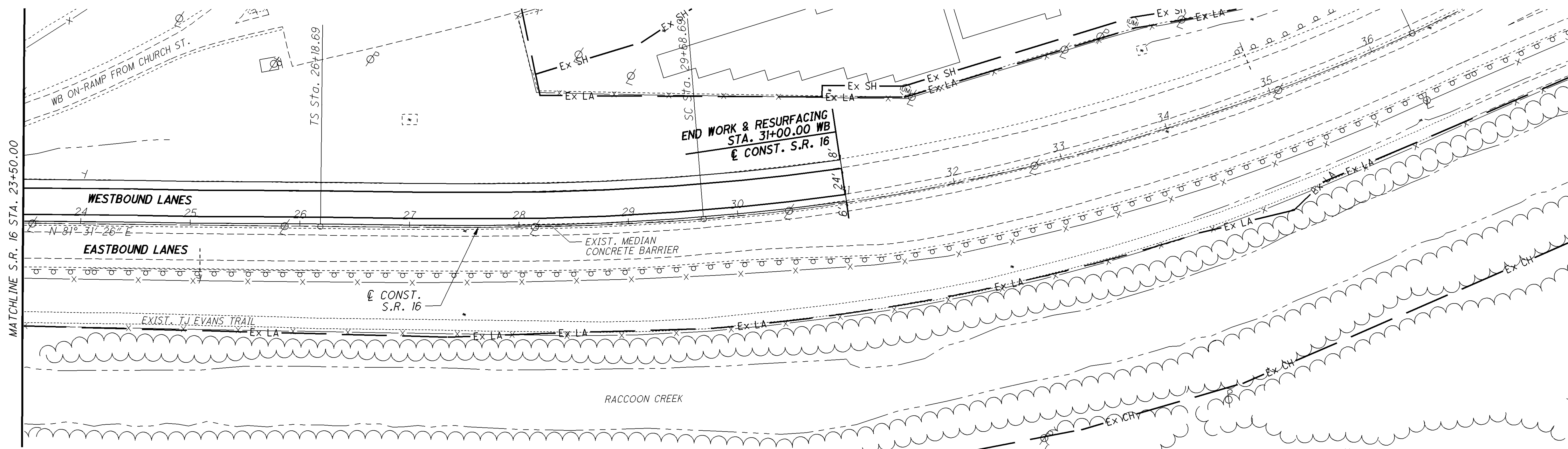
LIC-16-16.64





S.R. 16 PLAN AND PROFILE
 STA. 285+00 TO STA. 23+50

LIC-16-16.64

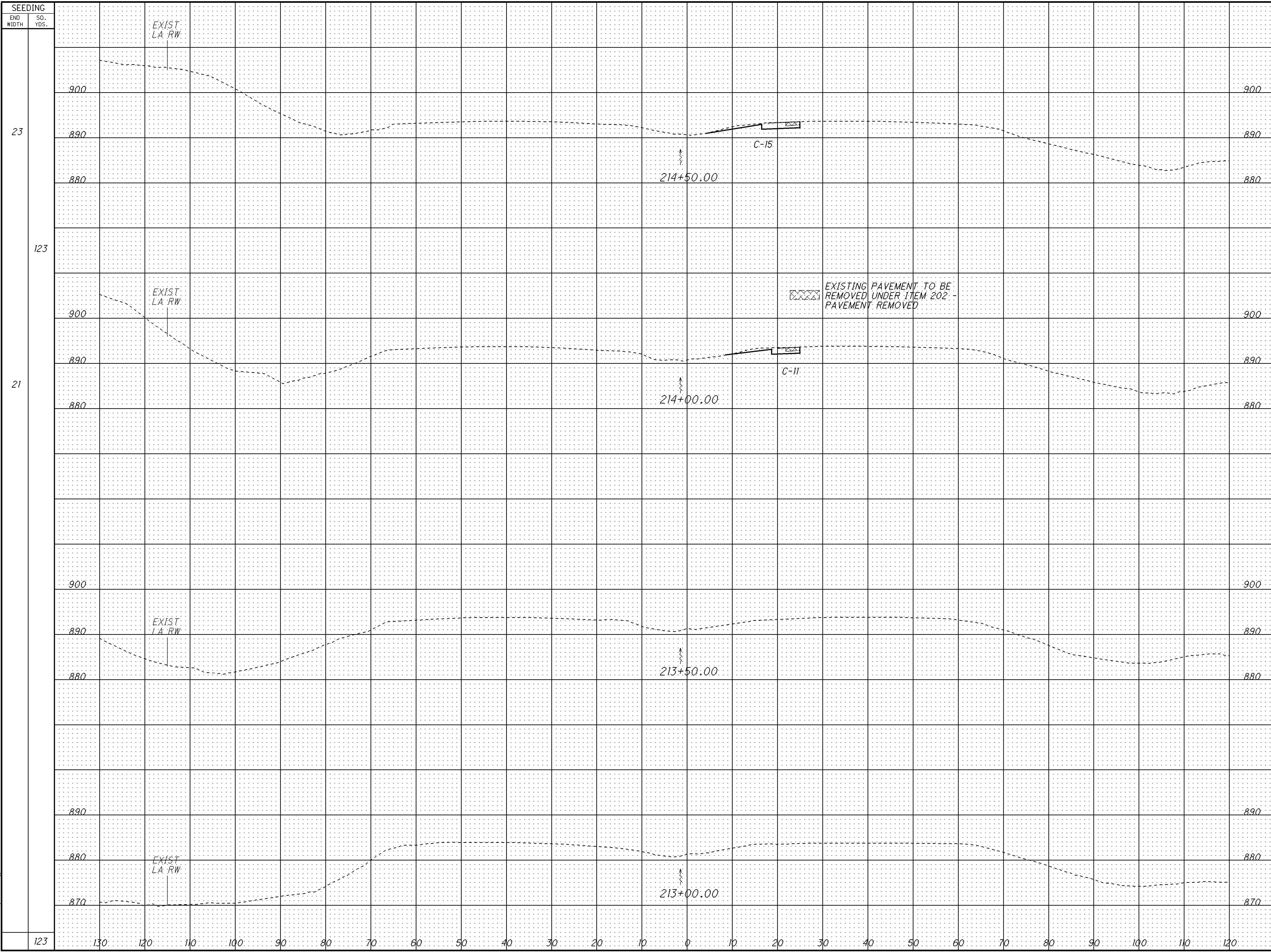


CALCULATED
C.V.
CHECKED

0 50 100
HORIZONTAL
SCALE IN FEET

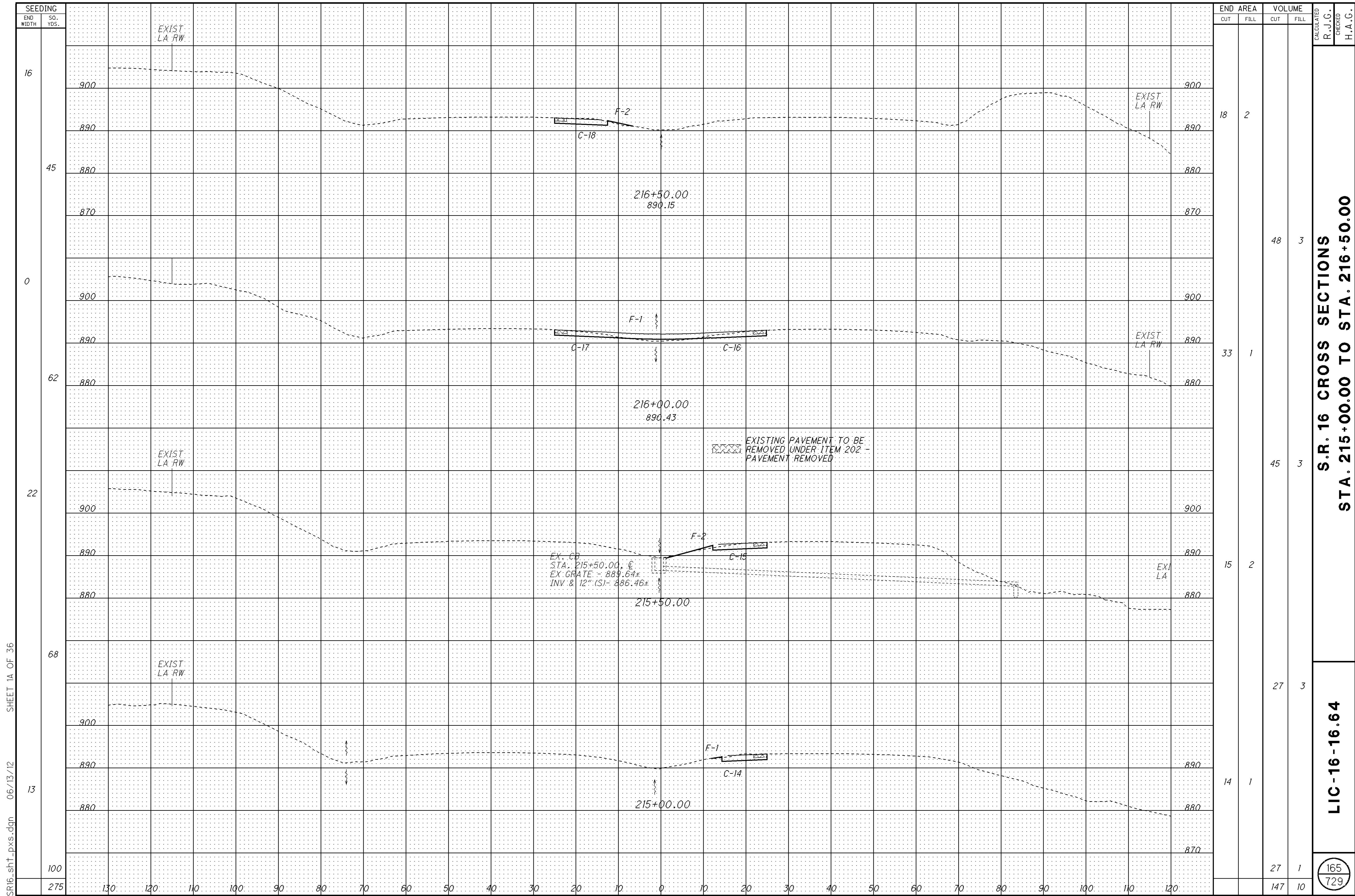
**S.R. 16 PLAN AND PROFILE
STA. 23+50.00 TO STA. 31+00.00**

LIC-16-16.64



SEEDING		END AREA		VOLUME	
END WIDTH	SO. YDS.	CUT	FILL	CUT	FILL
23		15	0		
123				24	0
21		11	0		
123				24	0

CALCULATED: R.J.G.
 CHECKED: H.A.G.
S.R. 16 CROSS SECTIONS
STA. 213+00.00 TO STA. 214+50.00
LIC-16-16.64
 164
 729



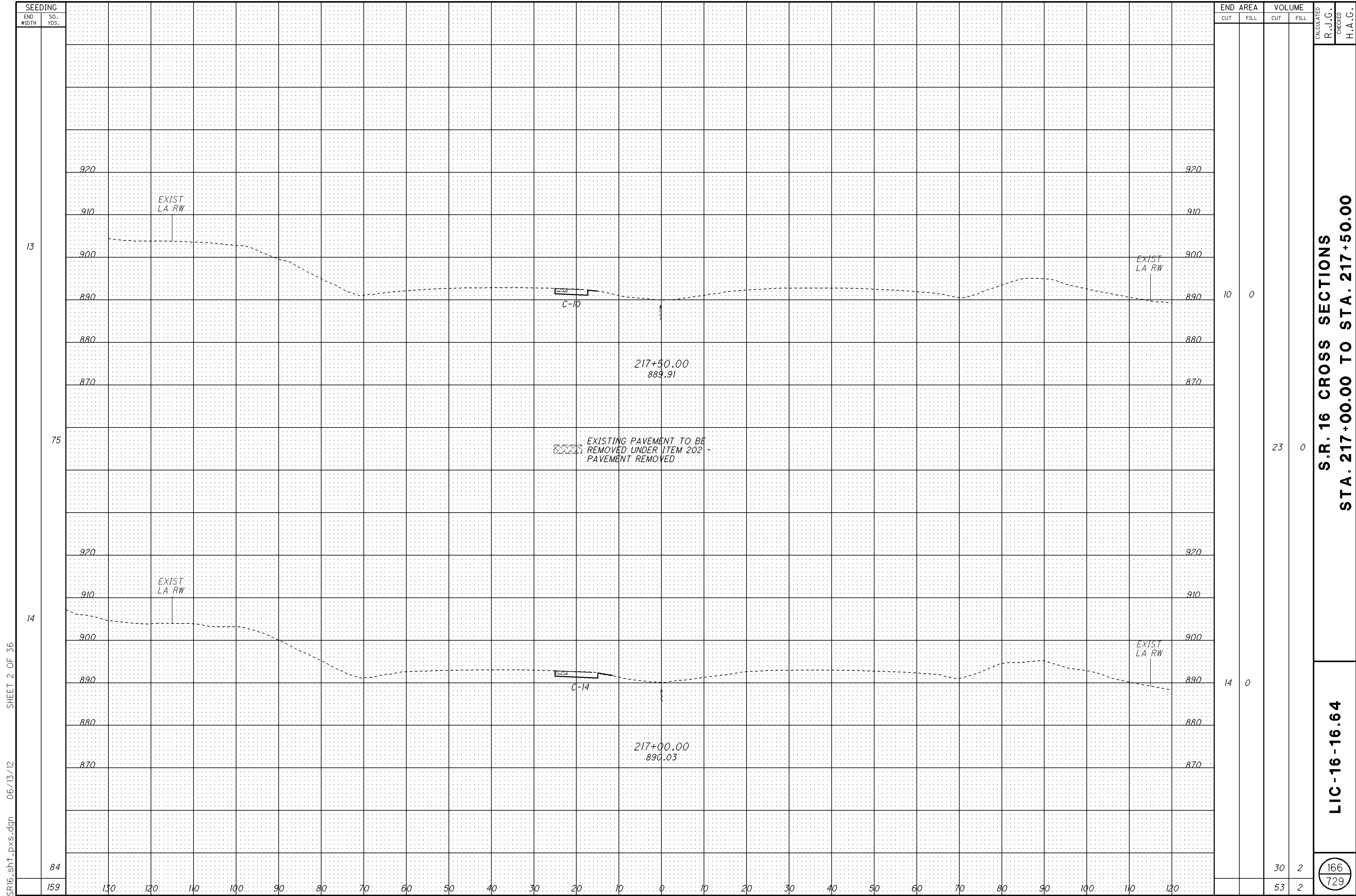
SR16_sht1_pxs.dgn 06/13/12 SHEET 1A OF 36

**S.R. 16 CROSS SECTIONS
STA. 215+00.00 TO STA. 216+50.00**

LIC-16-16.64

CALCULATED
R.J.G.
CHECKED
H.A.G.

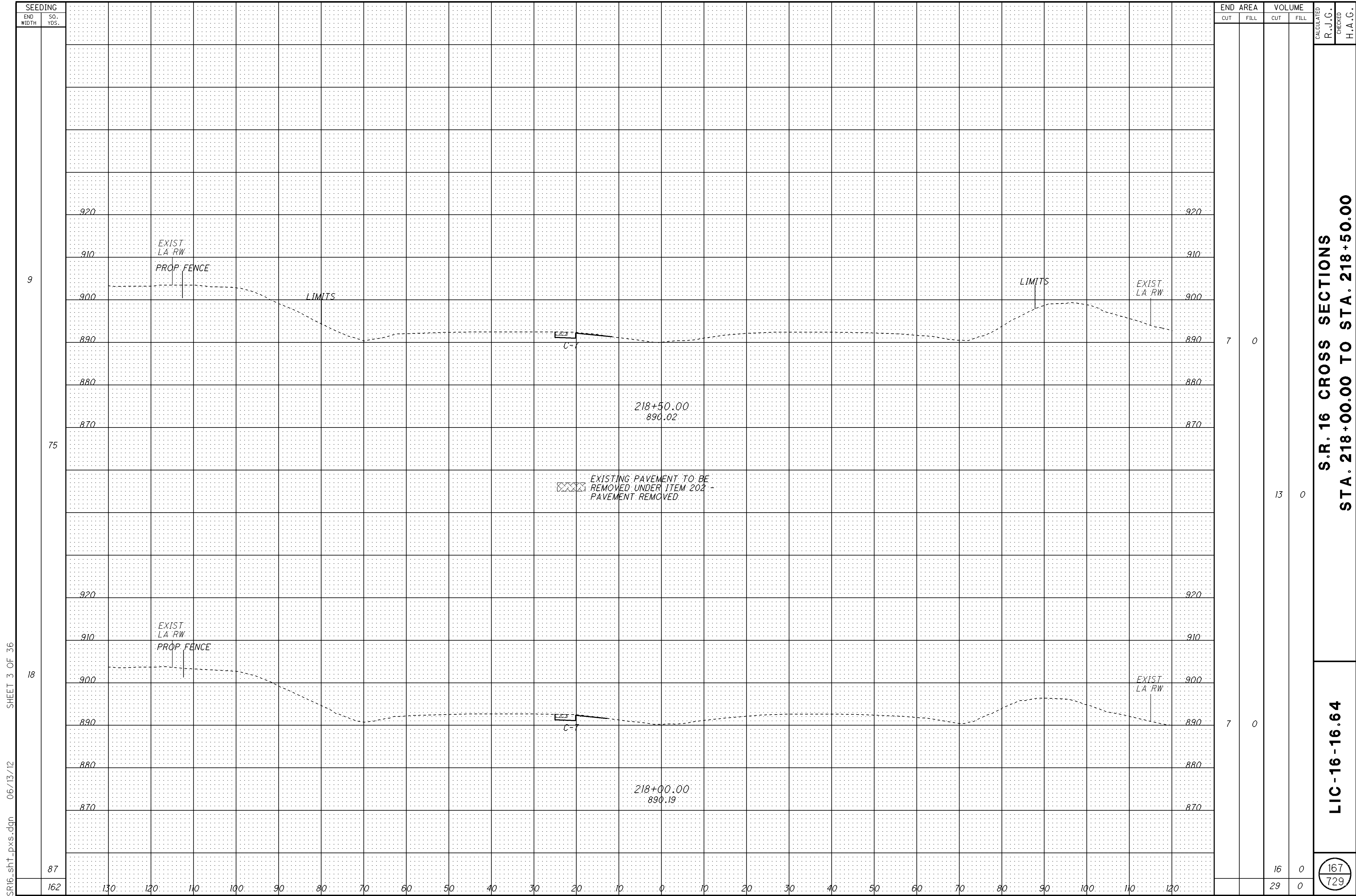
165
729



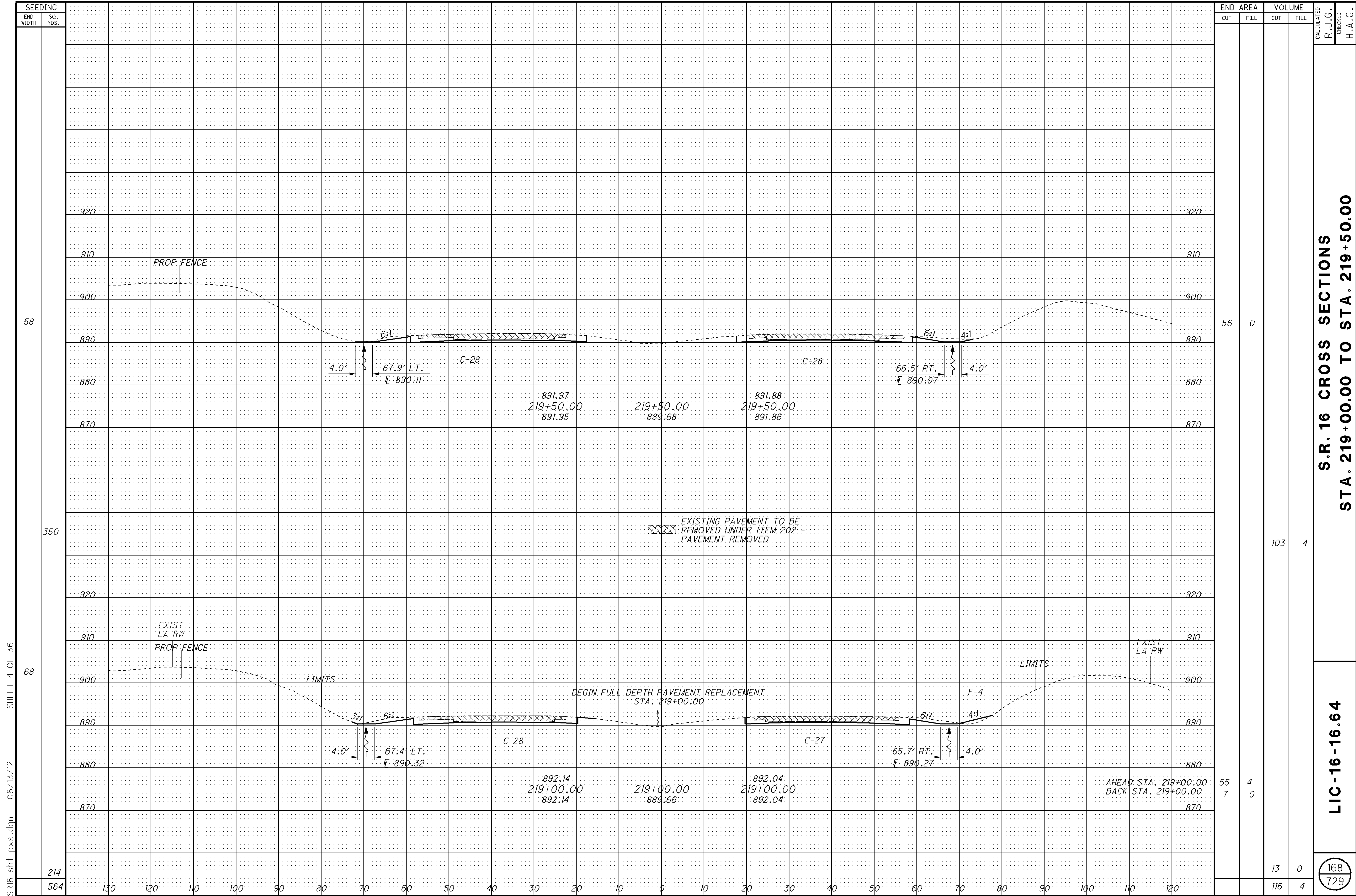
SEEDING	
END WIDTH	SO. YDS.
13	75
14	84
159	84

END AREA		VOLUME	
CUT	FILL	CUT	FILL
10	0	23	0
14	0	30	2
		53	2

CALCULATED R.J.G.
 CHECKED H.A.G.
S.R. 16 CROSS SECTIONS
STA. 217+00.00 TO STA. 217+50.00
LIC-16-16.64



SR16_sht1_pxs.dgn 06/13/12 SHEET 3 OF 36



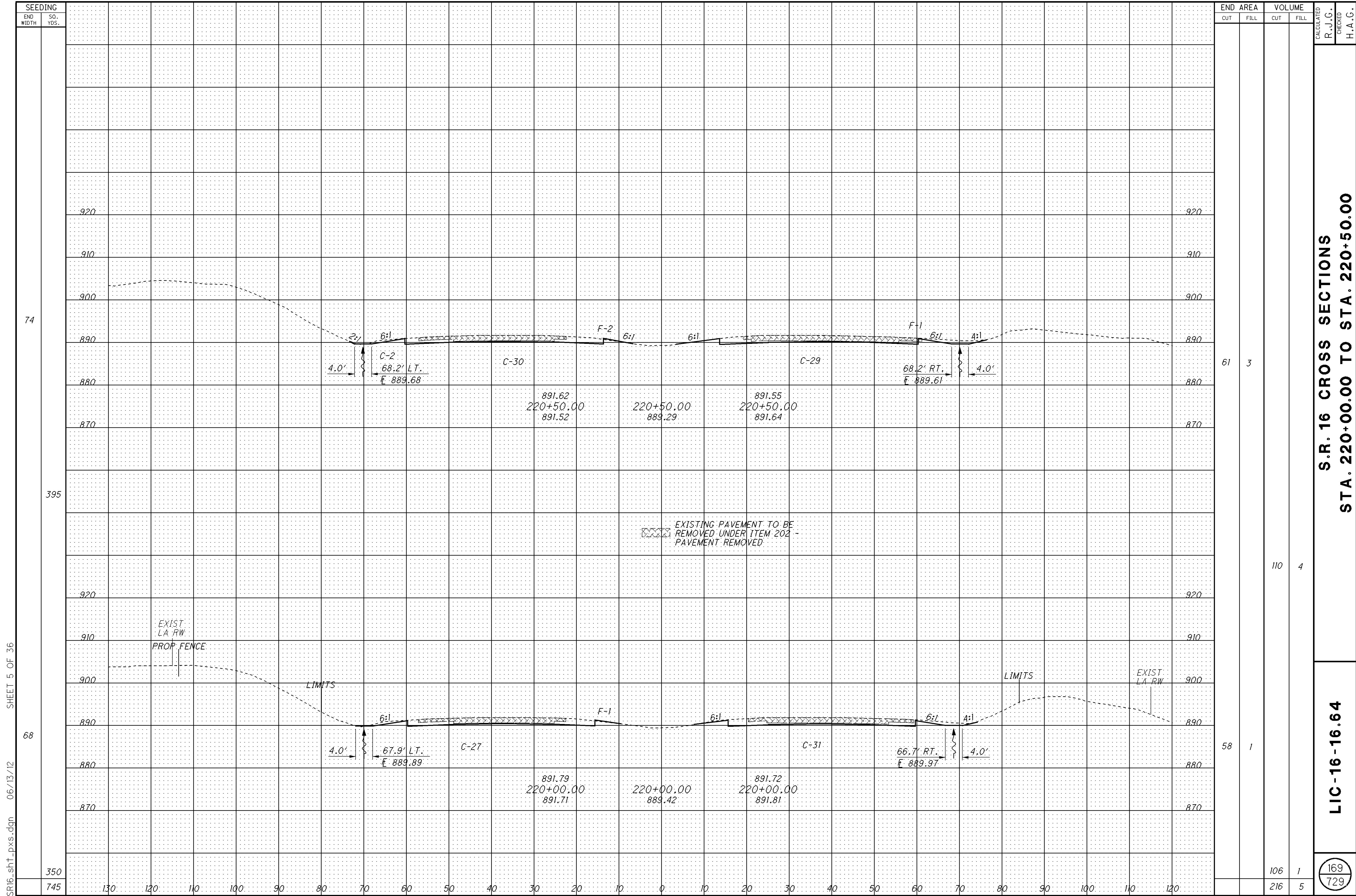
SR16_sht1_pxs.dgn 06/13/12 SHEET 4 OF 36

**S.R. 16 CROSS SECTIONS
STA. 219+00.00 TO STA. 219+50.00**

LIC-16-16.64

CALCULATED
R.J.G.
CHECKED
H.A.G.

168
729



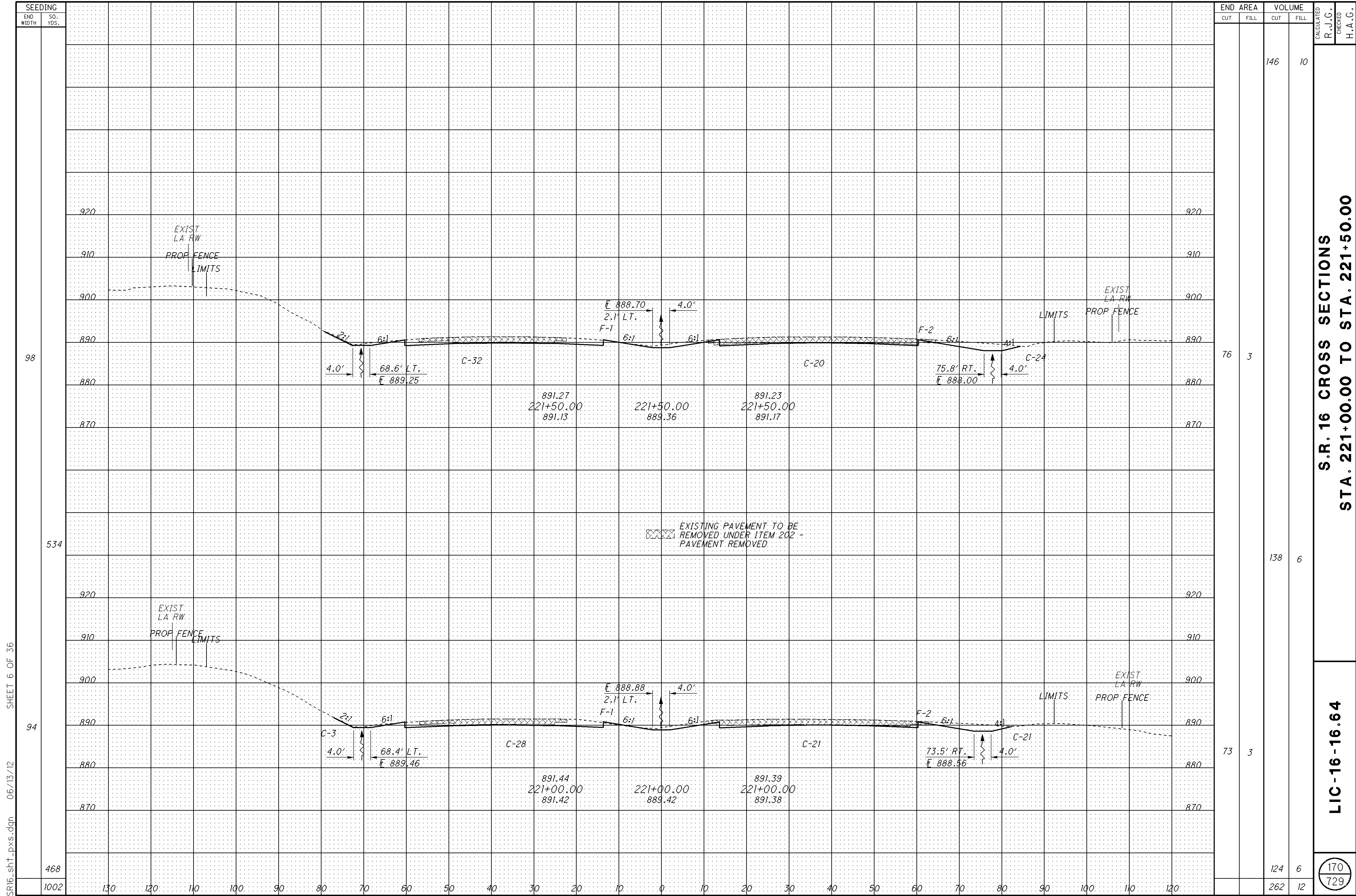
SR16_sht1_pxs.dgn 06/13/12 SHEET 5 OF 36

**S.R. 16 CROSS SECTIONS
STA. 220+00.00 TO STA. 220+50.00**

LIC-16-16.64

CALCULATED
R.J.G.
CHECKED
H.A.G.

169
729



SEEDING	
END WIDTH	SO. YDS.
98	98
534	534
94	94
468	468
1002	1002

END AREA		VOLUME	
CUT	FILL	CUT	FILL
		146	10
76	3	138	6
73	3	124	6
		262	12

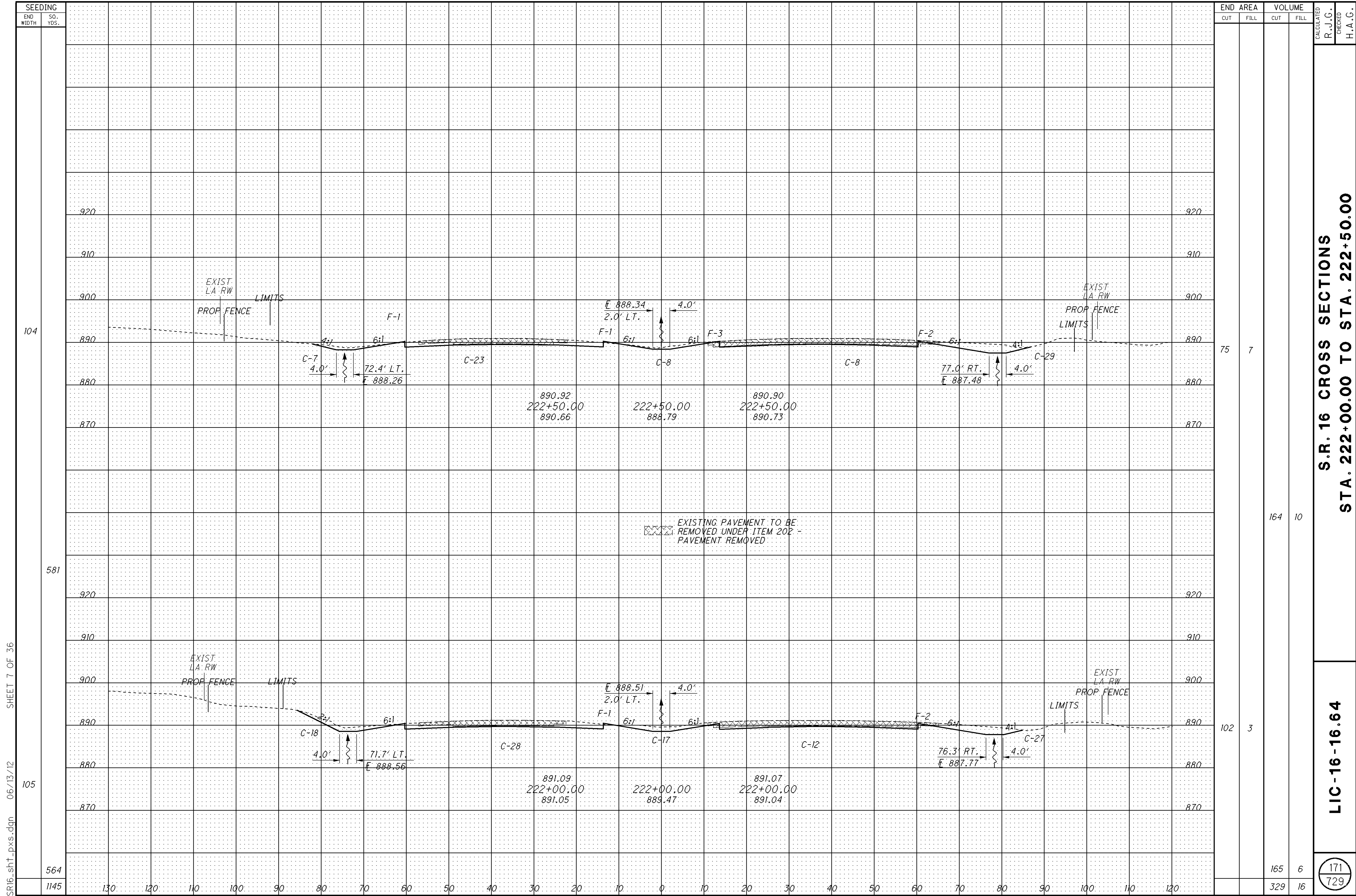
CALCULATED R.J.G.
 CHECKED H.A.G.

S.R. 16 CROSS SECTIONS
STA. 221+00.00 TO STA. 221+50.00

LIC-16-16.64

170
 729

SR16_sht1_pxs.dgn 06/13/12 SHEET 6 OF 36

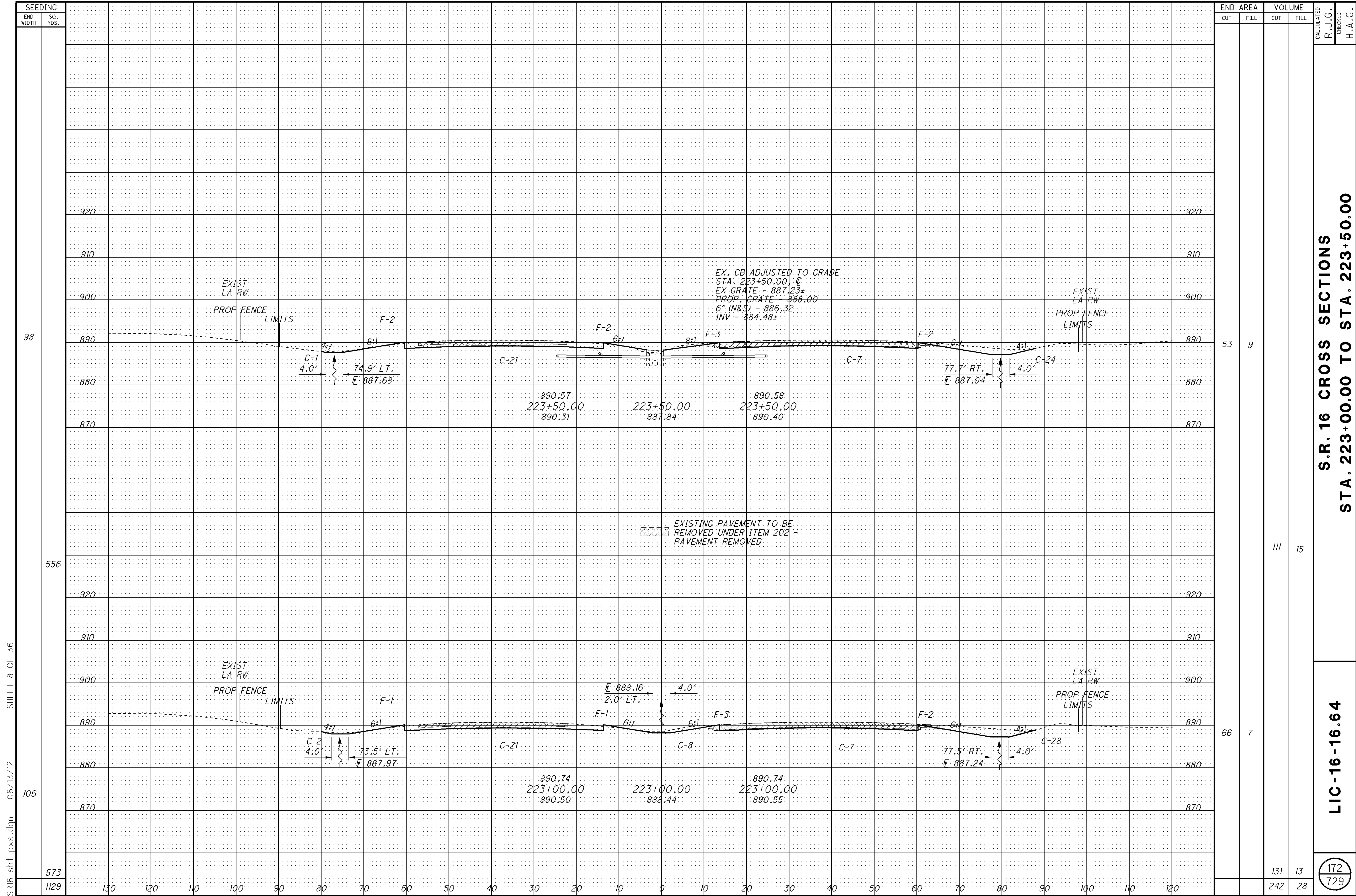


SEEDING	
END WIDTH	SO. YDS.
104	104
581	581
105	105
564	564
1145	1145

END AREA		VOLUME	
CUT	FILL	CUT	FILL
75	7	164	10
102	3	165	6
		329	16

CALCULATED R.J.G.
 CHECKED H.A.G.
S.R. 16 CROSS SECTIONS
STA. 222+00.00 TO STA. 222+50.00
LIC-16-16.64
 171
 729

SR16_sht1_pxs.dgn 06/13/12 SHEET 7 OF 36

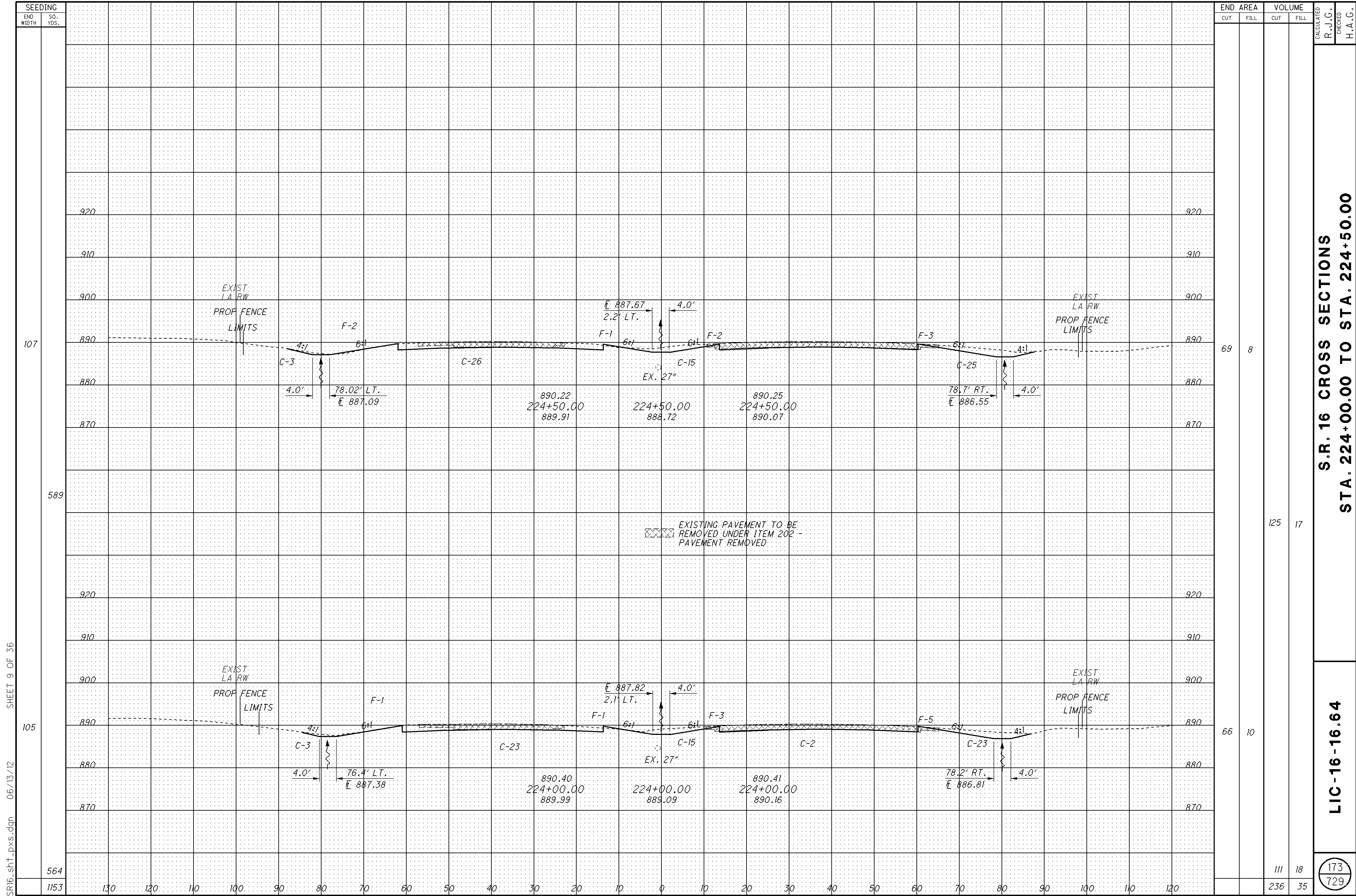


SR16_sht1_pxs.dgn 06/13/12 SHEET 8 OF 36

S.R. 16 CROSS SECTIONS
STA. 223+00.00 TO STA. 223+50.00

LIC-16-16.64

CALCULATED
R.J.G.
CHECKED
H.A.G.



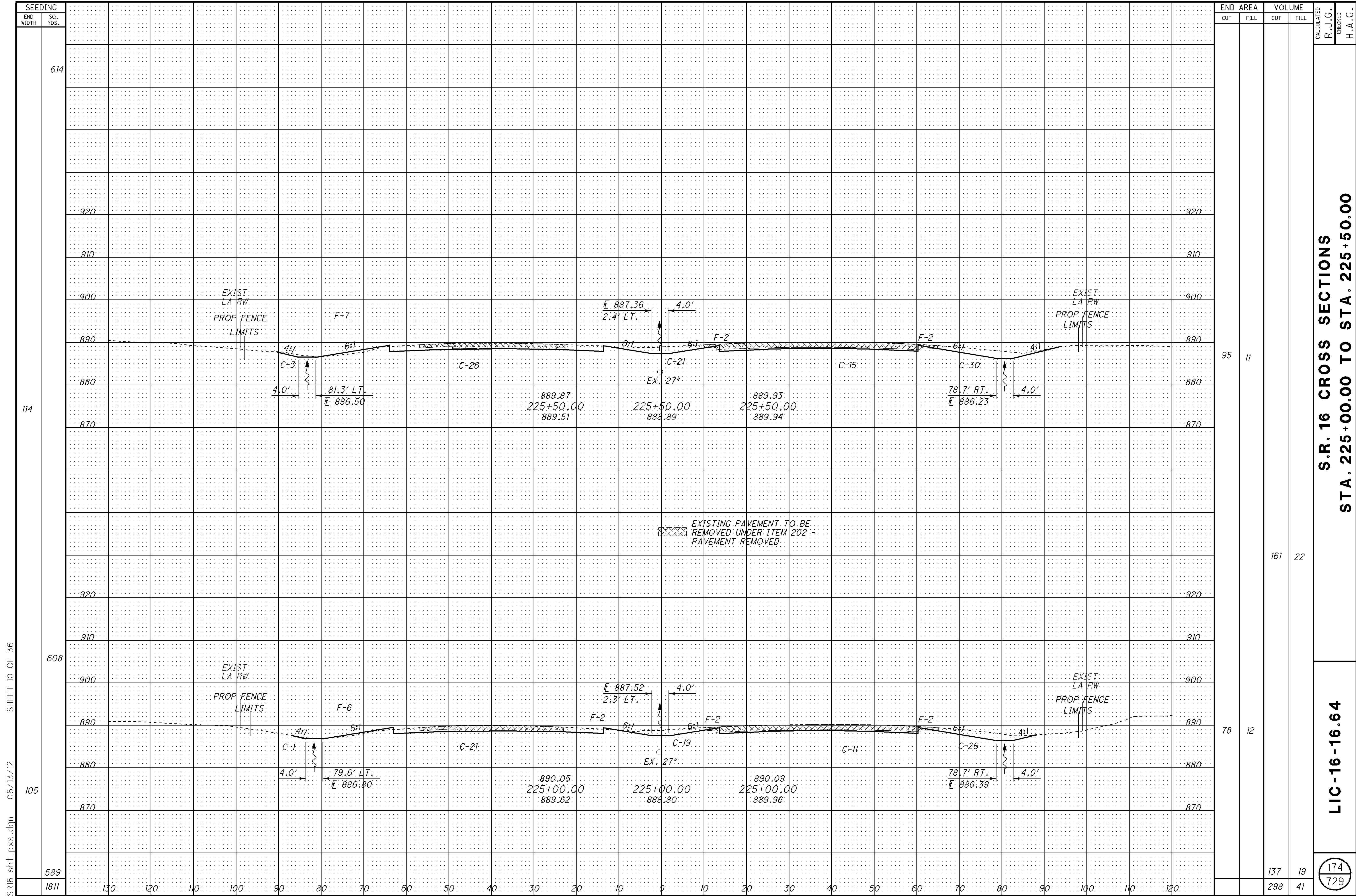
SR16_sht1_pxs.dgn 06/13/12 SHEET 9 OF 36

**S.R. 16 CROSS SECTIONS
STA. 224+00.00 TO STA. 224+50.00**

LIC-16-16.64

CALCULATED
R.J.G.
CHECKED
H.A.G.

173
729



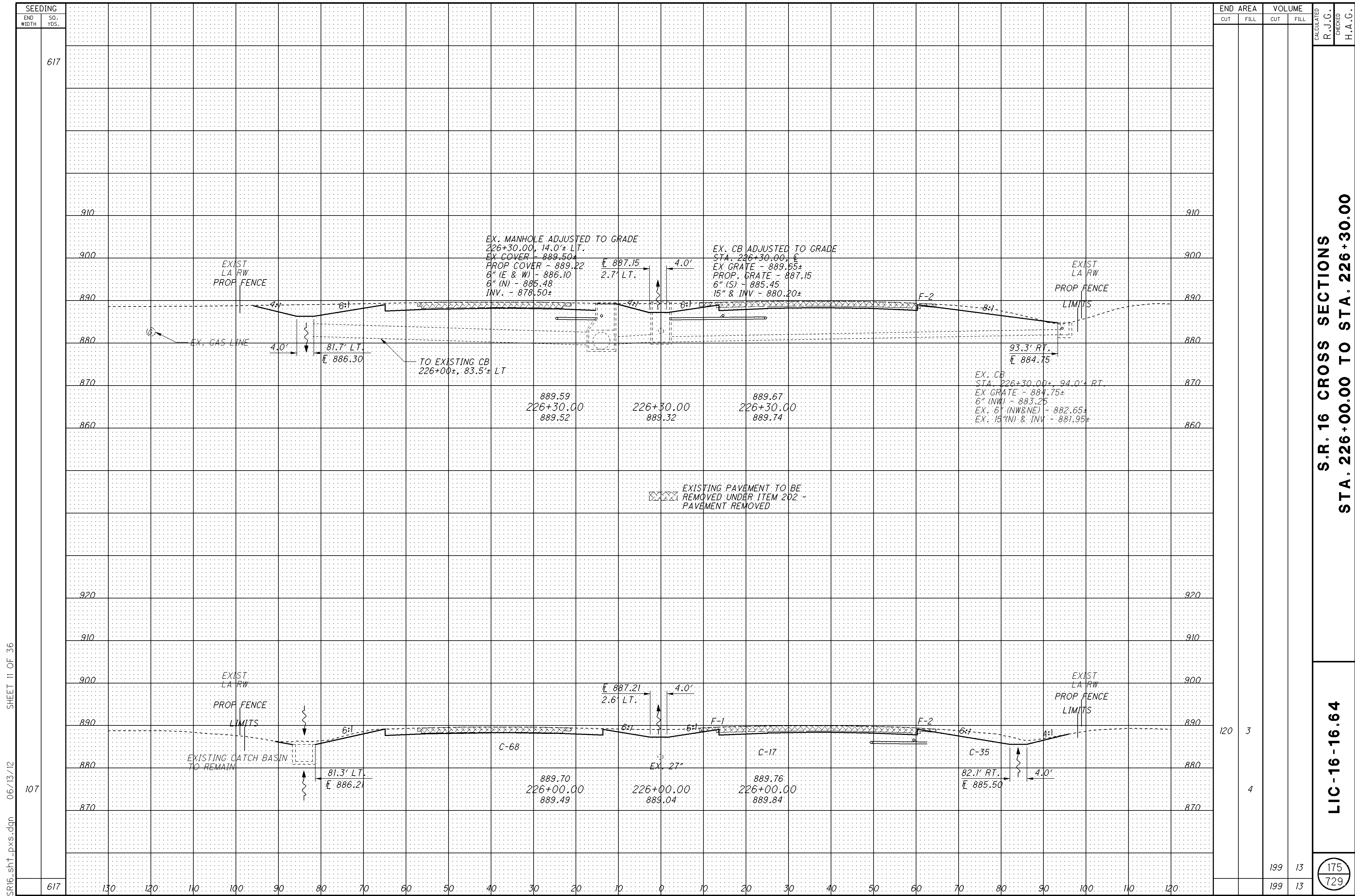
SEEDING	
END WIDTH	SO. YDS.
614	
114	
608	
105	
589	
1811	

END AREA		VOLUME	
CUT	FILL	CUT	FILL
95	11	161	22
78	12	137	19
		298	41

CALCULATED R.J.G.
 CHECKED H.A.G.
S.R. 16 CROSS SECTIONS
STA. 225+00.00 TO STA. 225+50.00
LIC-16-16.64

SR16_sht1_pxs.dgn 06/13/12 SHEET 10 OF 36

174
 729



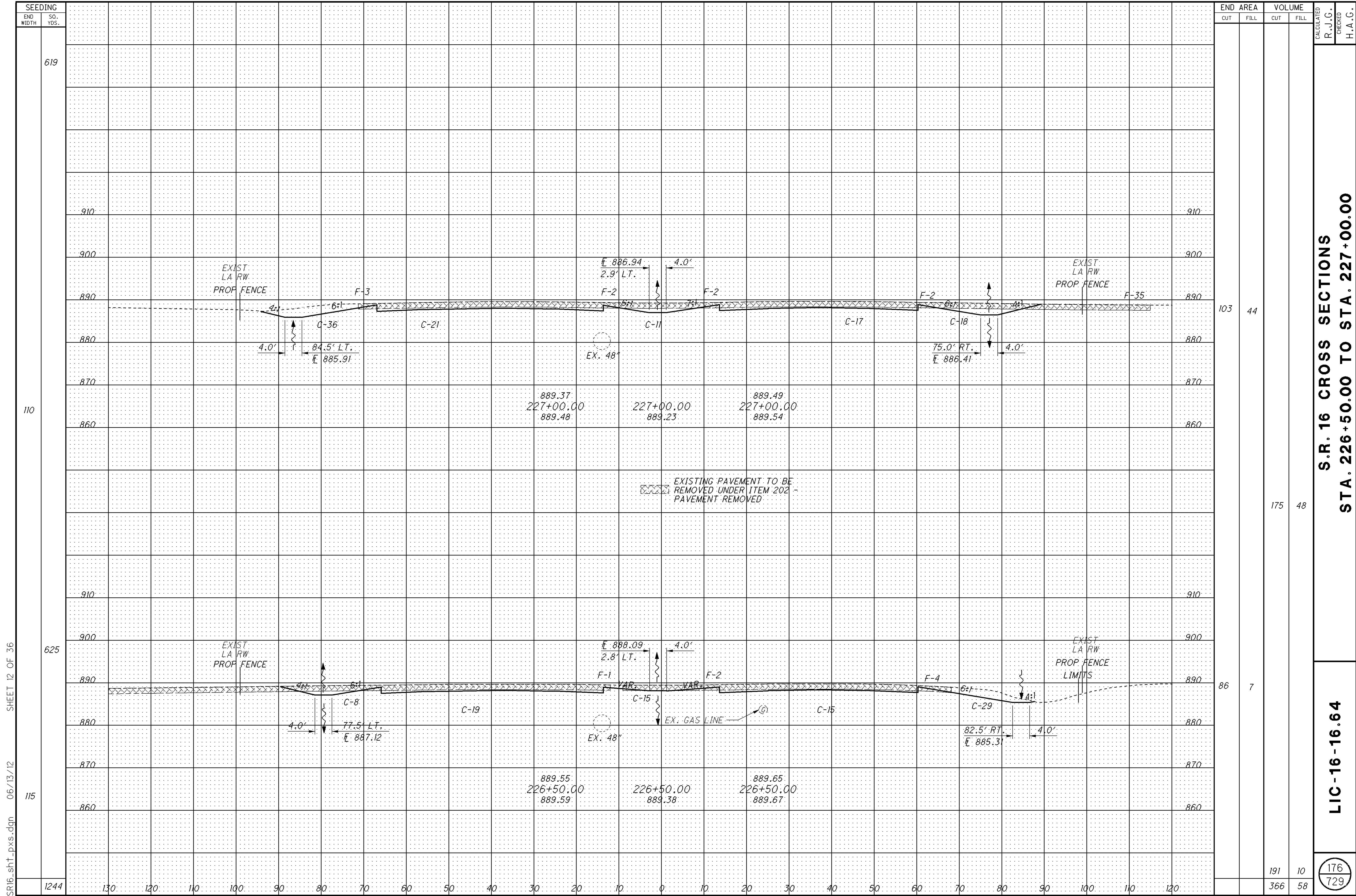
SR16_sht1_dxs.dgn 06/13/12 SHEET 11 OF 36

**S.R. 16 CROSS SECTIONS
 STA. 226+00.00 TO STA. 226+30.00**

LIC-16-16.64

CALCULATED
 R.J.G.
 CHECKED
 H.A.G.

175
 729

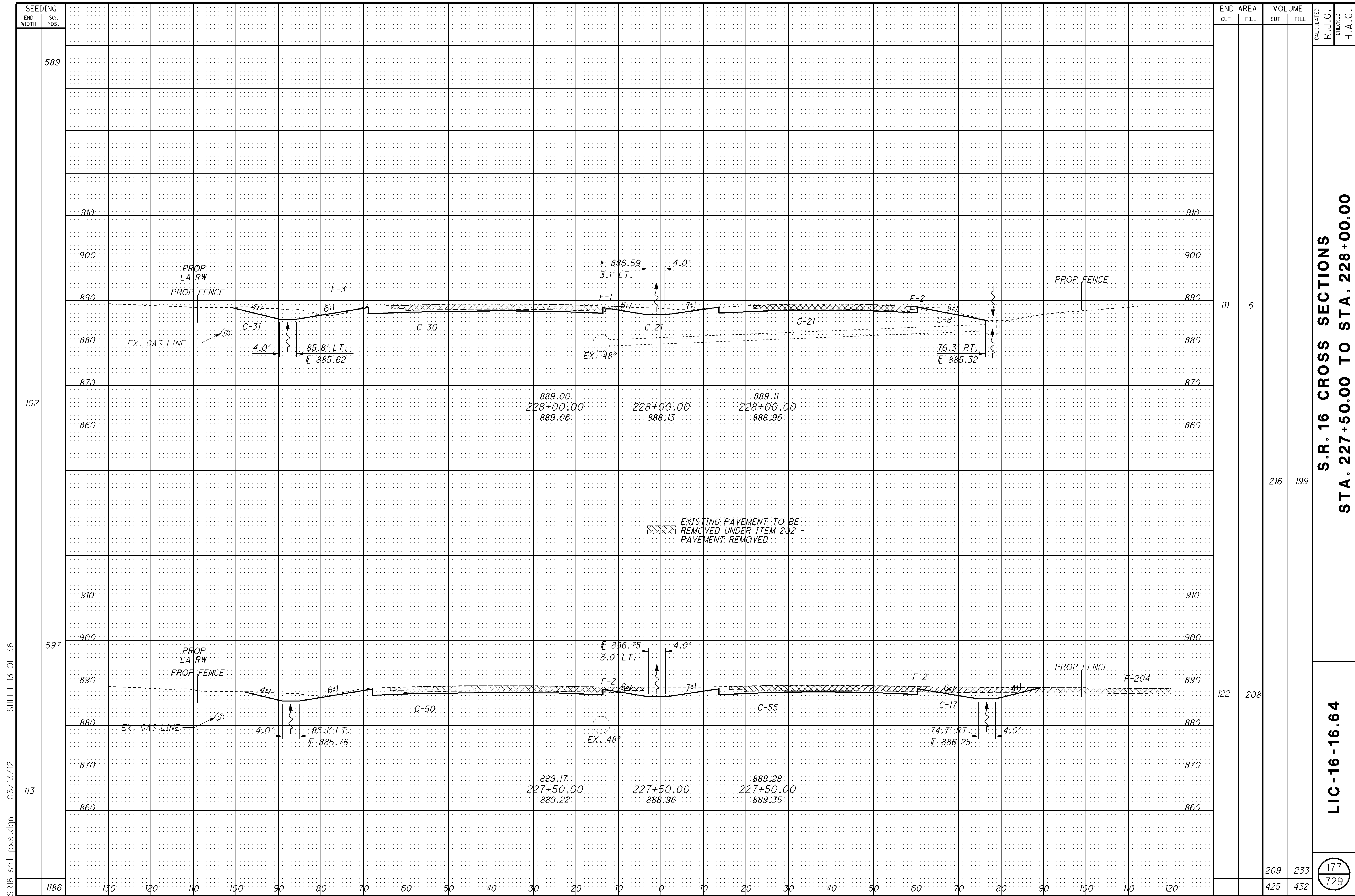


SEEDING	
END WIDTH	SO. YDS.
619	
110	
625	
115	
1244	

END AREA		VOLUME	
CUT	FILL	CUT	FILL
103	44	175	48
86	7	191	10
		366	58

CALCULATED: R.J.G.
 CHECKED: H.A.G.
S.R. 16 CROSS SECTIONS
STA. 226+50.00 TO STA. 227+00.00
LIC-16-16.64
 176
 729

SR16_sht1_pxs.dgn 06/13/12 SHEET 12 OF 36



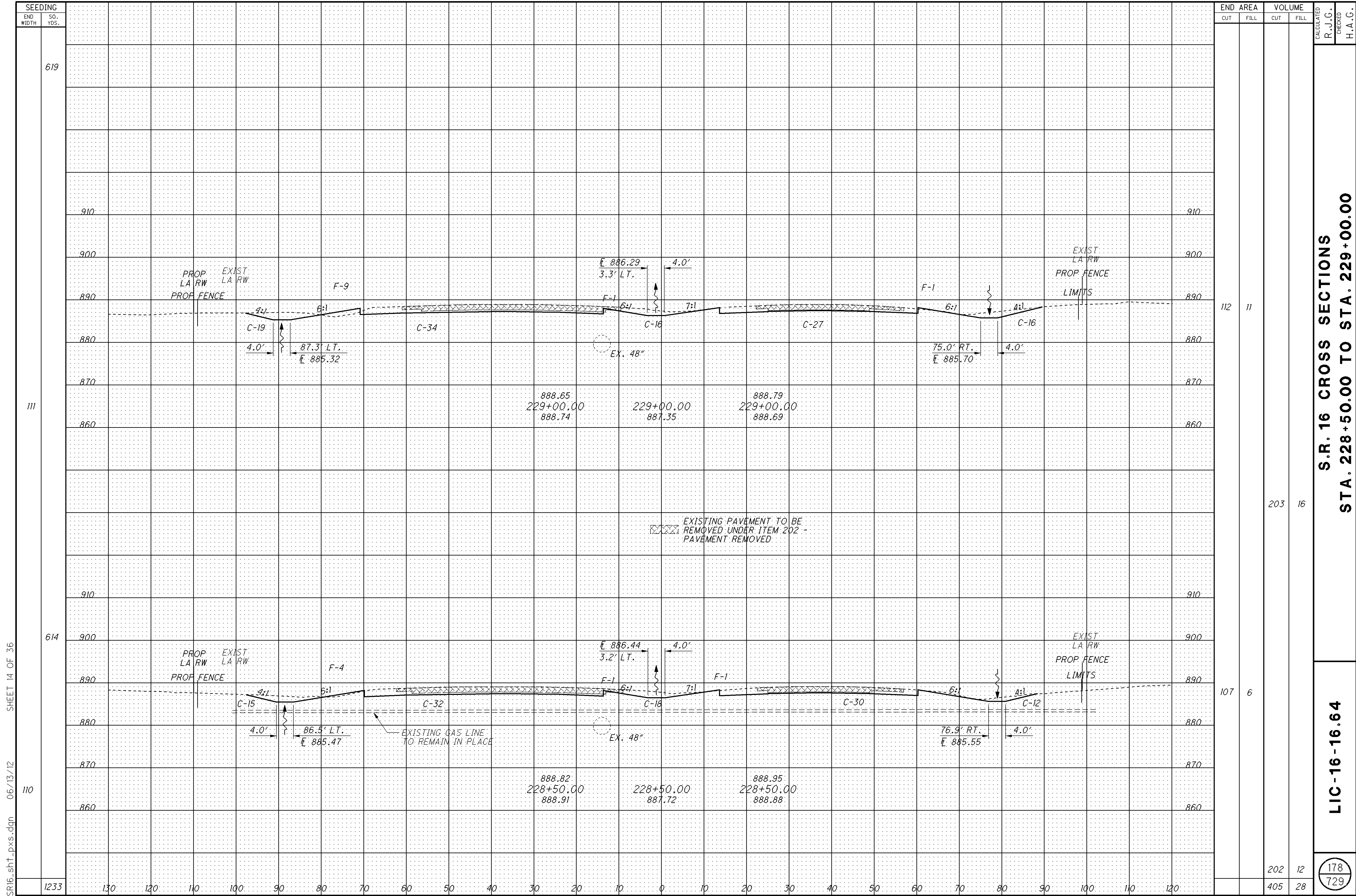
SEEDING	
END WIDTH	SO. YDS.
589	
102	
597	
113	
1186	

END AREA		VOLUME	
CUT	FILL	CUT	FILL
111	6	216	199
122	208	209	233
		425	432

CALCULATED R.J.G.
 CHECKED H.A.G.
S.R. 16 CROSS SECTIONS
STA. 227+50.00 TO STA. 228+00.00
LIC-16-16.64

177
729

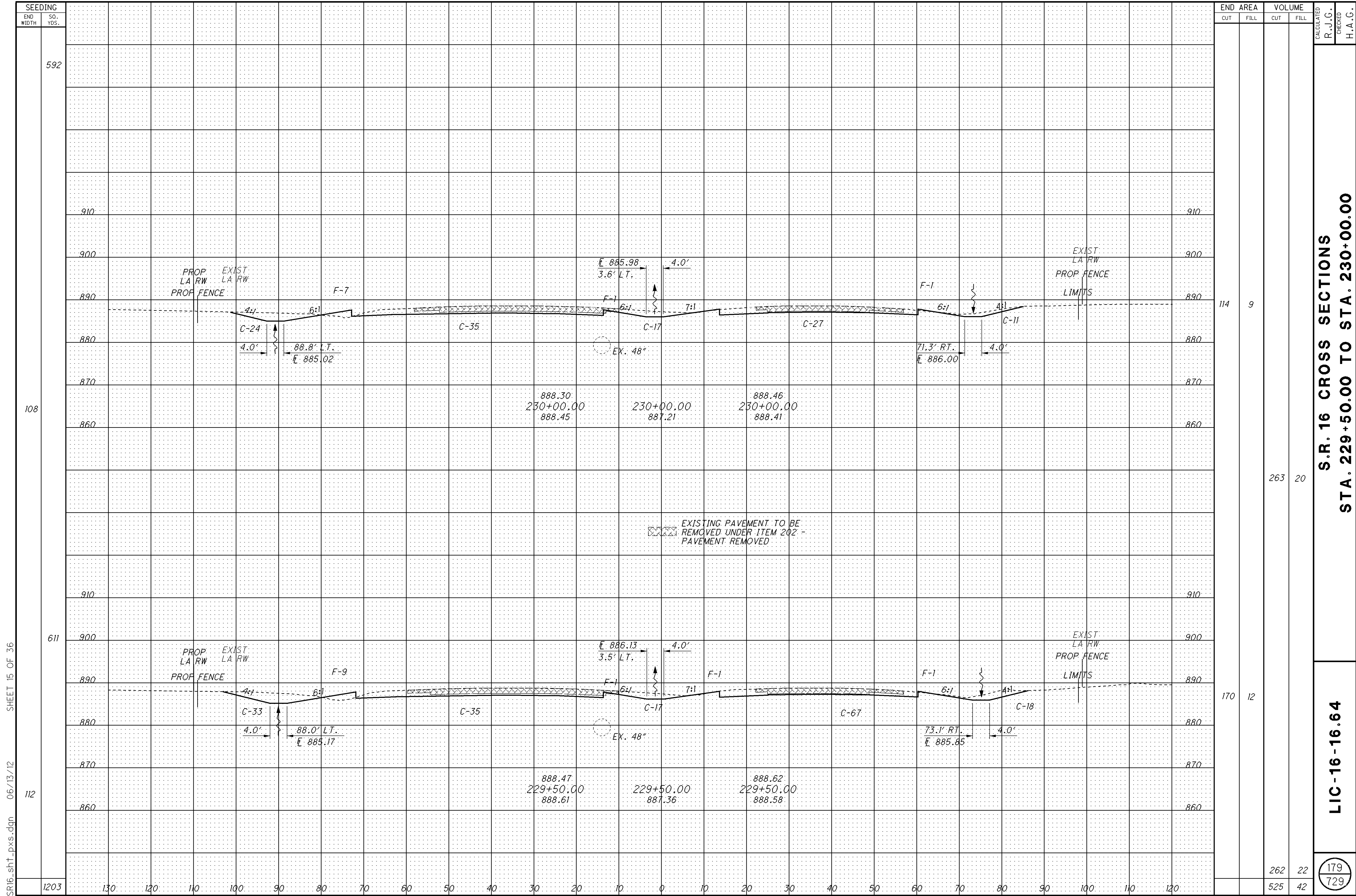
SR16_sht1_pxs.dgn 06/13/12 SHEET 13 OF 36



SEEDING	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
619	112	11	203	16
614	107	6	202	12
1233	130	120	110	100
	90	80	70	60
	50	40	30	20
	10	0	10	20
	30	40	50	60
	70	80	90	100
	110	120		
	405	28		

CALCULATED R.J.G.
 CHECKED H.A.G.
S.R. 16 CROSS SECTIONS
STA. 228+50.00 TO STA. 229+00.00
LIC-16-16.64
 178
 729

SR16_sht1_dxs.dgn 06/13/12 SHEET 14 OF 36

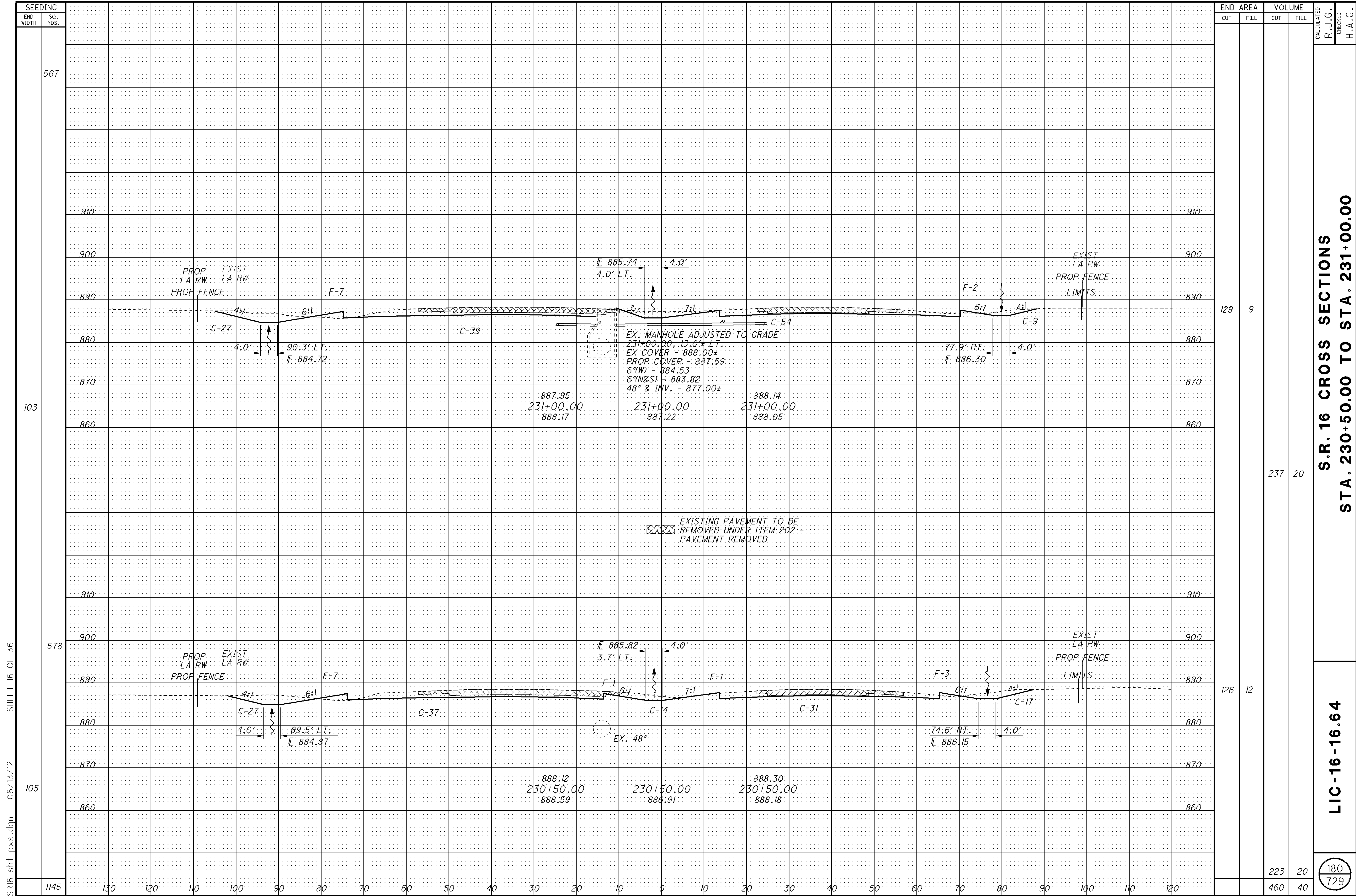


SR16_sht1_pxs.dgn 06/13/12 SHEET 15 OF 36

**S.R. 16 CROSS SECTIONS
STA. 229+50.00 TO STA. 230+00.00**

LIC-16-16.64

CALCULATED R.J.G.
CHECKED H.A.G.

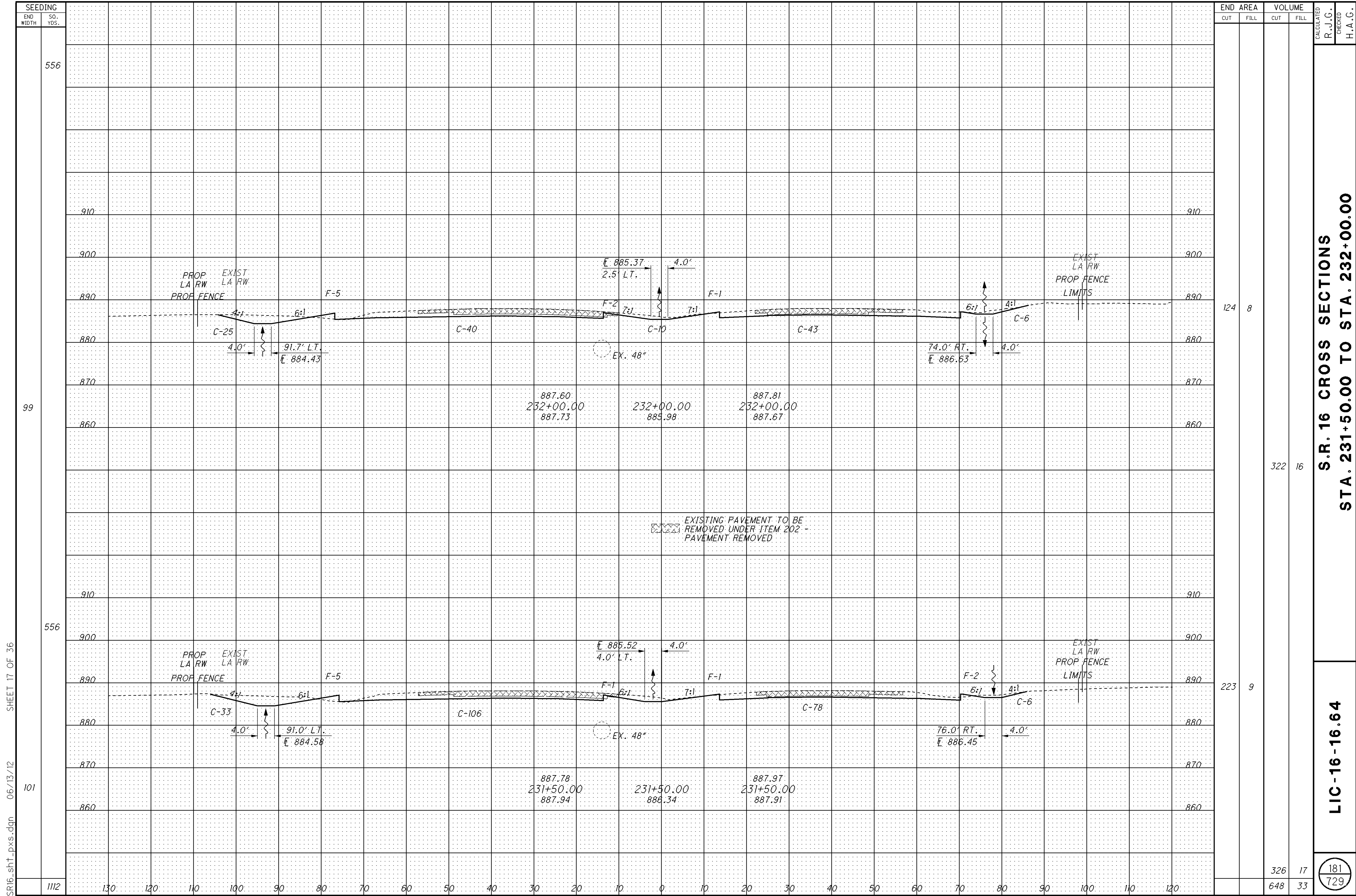


SEEDING	
END WIDTH	SO. YDS.
567	
103	
578	
105	
1145	

END AREA		VOLUME	
CUT	FILL	CUT	FILL
129	9	237	20
126	12	223	20
		460	40

CALCULATED R.J.G.
 CHECKED H.A.G.
S.R. 16 CROSS SECTIONS
STA. 230+50.00 TO STA. 231+00.00
LIC-16-16.64
 180
 729

SR16_sht1_pxs.dgn 06/13/12 SHEET 16 OF 36



SEEDING	
END WIDTH	SO. YDS.
556	
99	
101	
1112	

END AREA		VOLUME	
CUT	FILL	CUT	FILL
124	8	322	16
223	9	326	17
		648	33

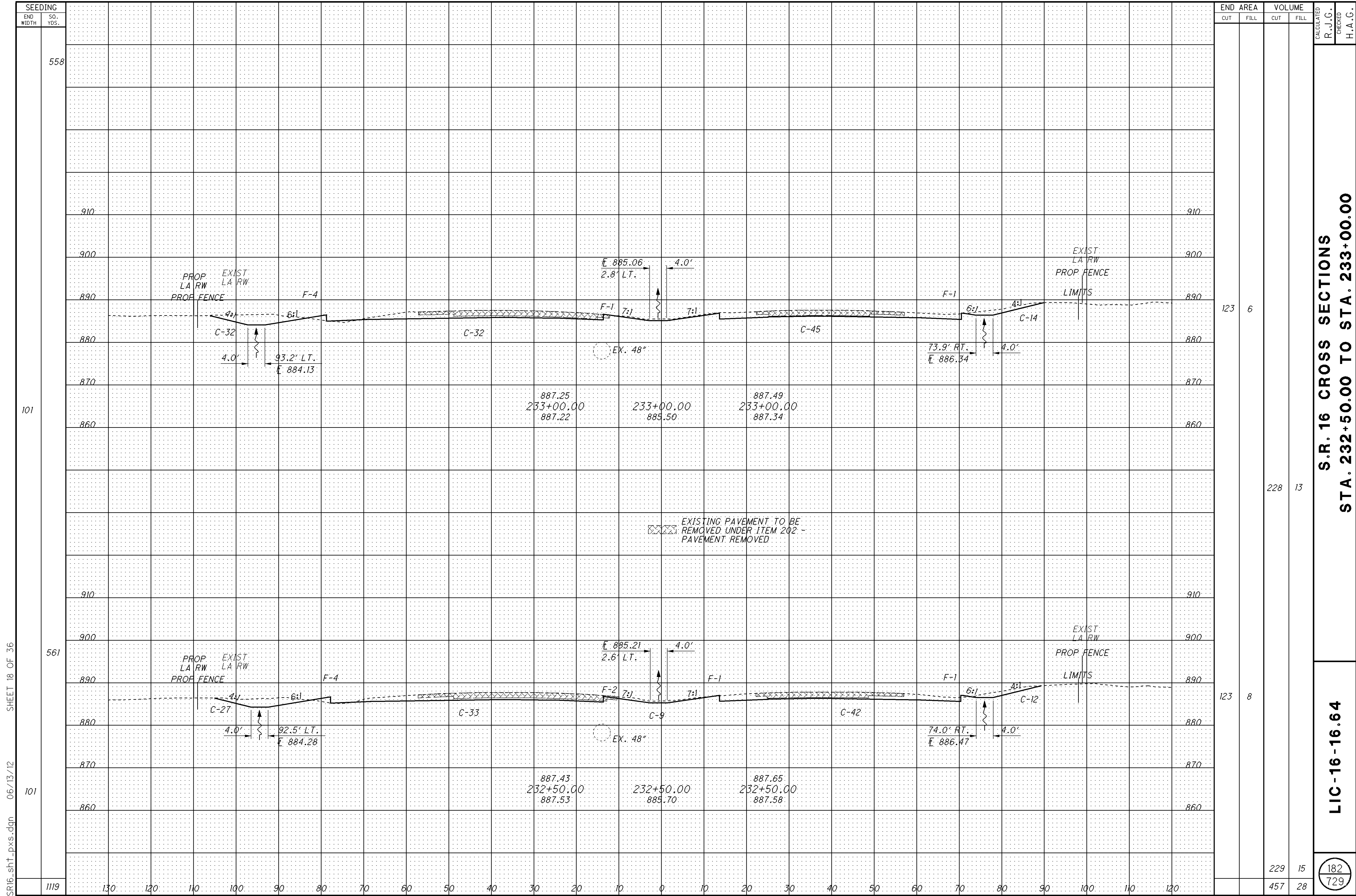
CALCULATED R.J.G.
 CHECKED H.A.G.

S.R. 16 CROSS SECTIONS
STA. 231+50.00 TO STA. 232+00.00

LIC-16-16.64

181
 729

SR16_sht1_pxs.dgn 06/13/12 SHEET 17 OF 36



SR16_sht1_pxs.dgn 06/13/12 SHEET 18 OF 36

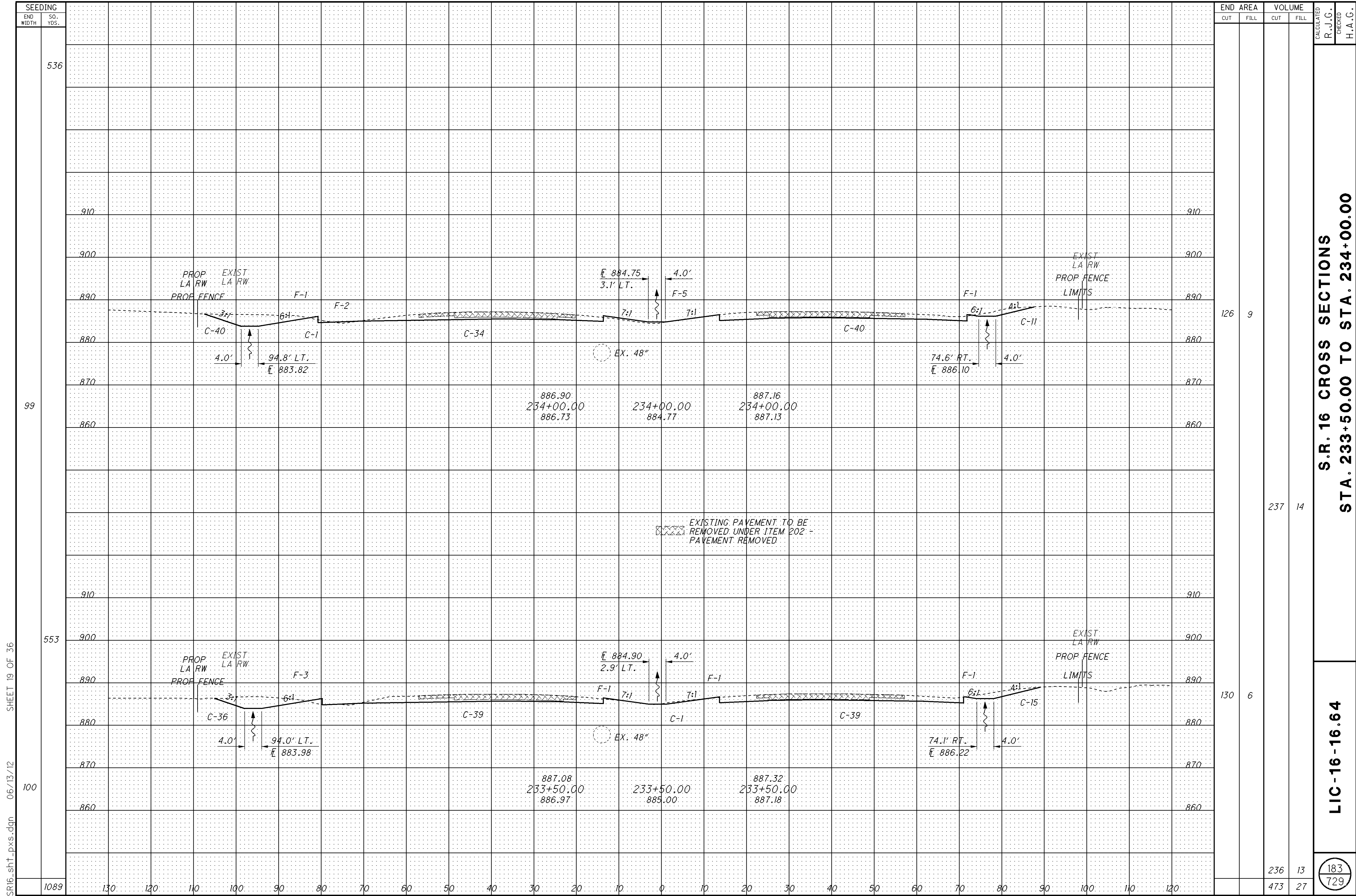
SEEDING	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
558	123	6	123	6
101	228	13	228	13
561	123	8	123	8
101	229	15	229	15
1119	457	28	457	28

CALCULATED R.J.G.
 CHECKED H.A.G.

S.R. 16 CROSS SECTIONS
STA. 232+50.00 TO STA. 233+00.00

LIC-16-16.64

182
 729



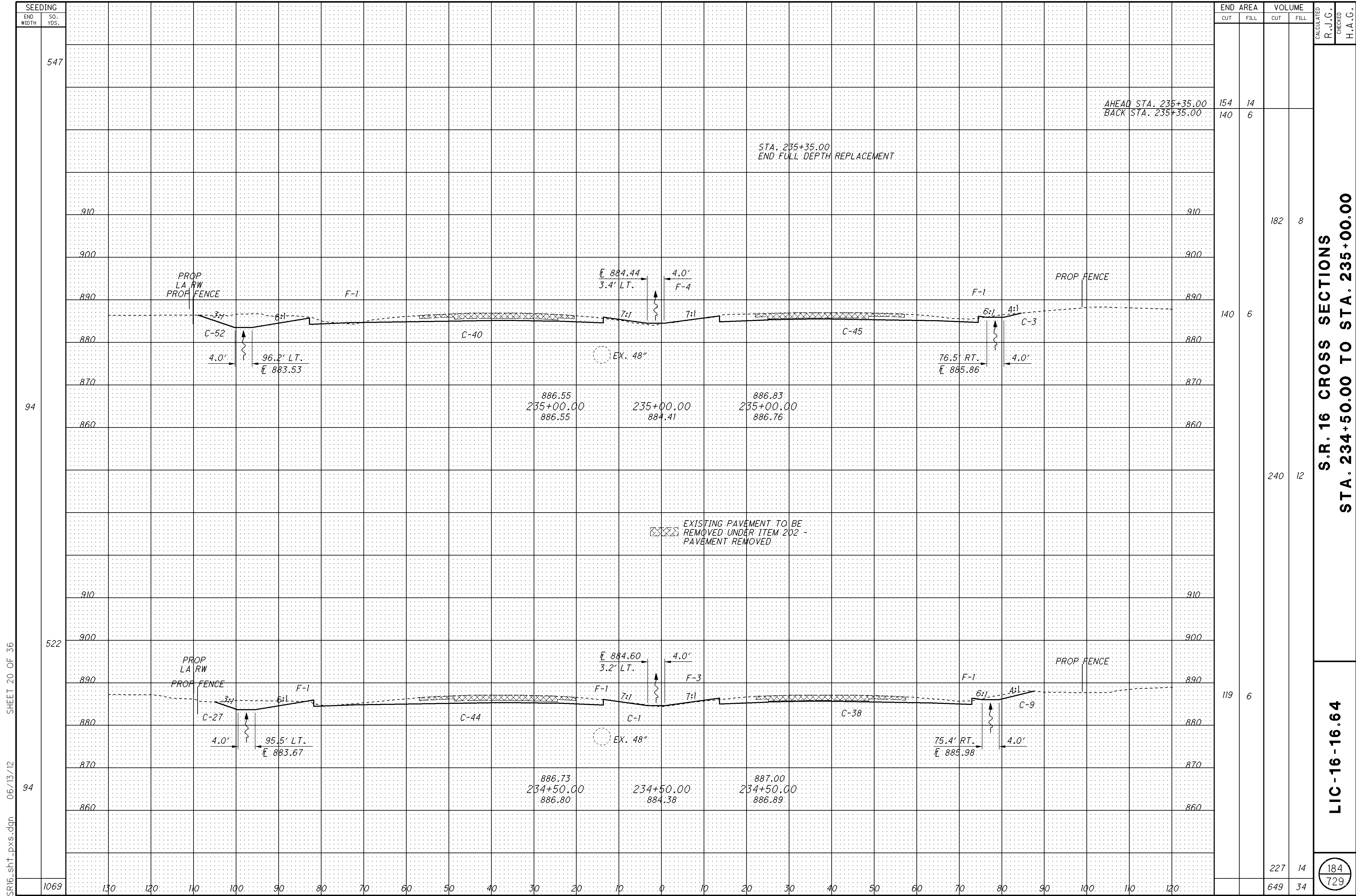
SR16_sht1_pxs.dgn 06/13/12 SHEET 19 OF 36

S.R. 16 CROSS SECTIONS
STA. 233+50.00 TO STA. 234+00.00

CALCULATED: R.J.G.
 CHECKED: H.A.G.

LIC-16-16.64

183
729

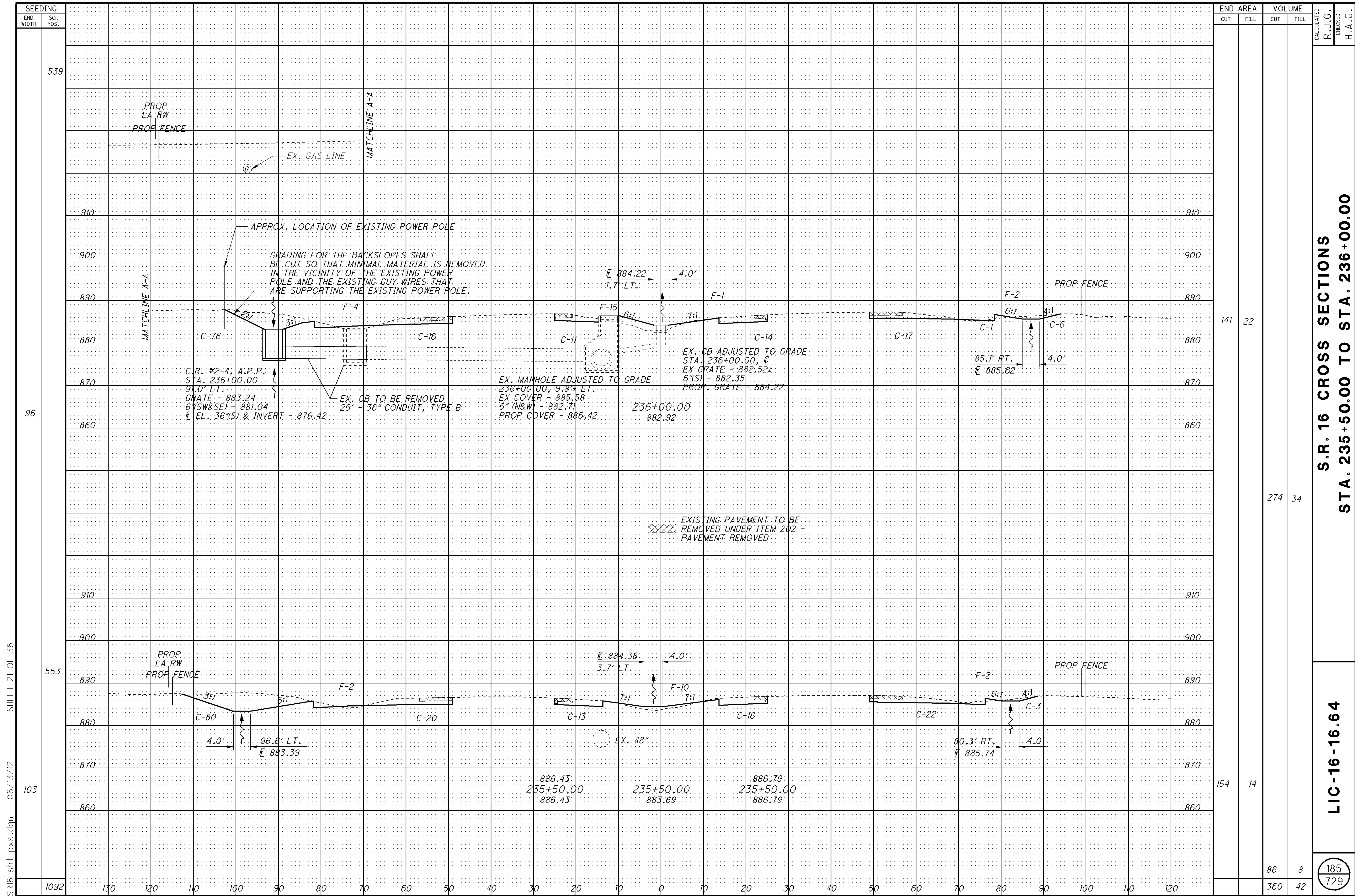


SR16_sht1_pxs.dgn 06/13/12 SHEET 20 OF 36

**S.R. 16 CROSS SECTIONS
STA. 234+50.00 TO STA. 235+00.00**

LIC-16-16.64

CALCULATED
R.J.G.
CHECKED
H.A.G.

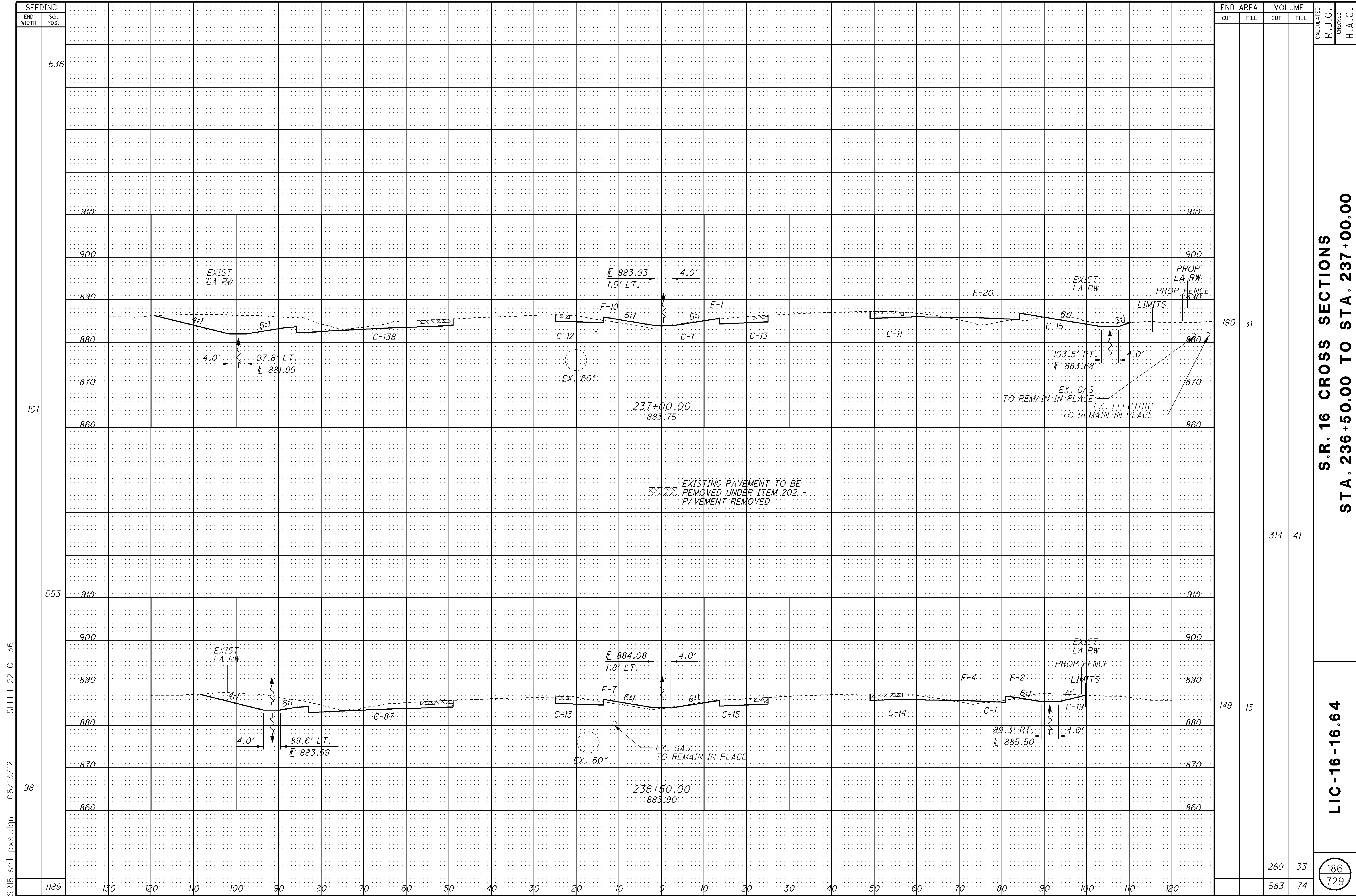


SEEDING	
END WIDTH	SO. YDS.
539	
96	
553	
103	
1092	

END AREA		VOLUME	
CUT	FILL	CUT	FILL
141	22	274	34
154	14	86	8
360	42	185	729

CALCULATED R.J.G.
 CHECKED H.A.G.
S.R. 16 CROSS SECTIONS
STA. 235+50.00 TO STA. 236+00.00
LIC-16-16.64

SR16_sht1_pxs.dgn 06/13/12 SHEET 21 OF 36

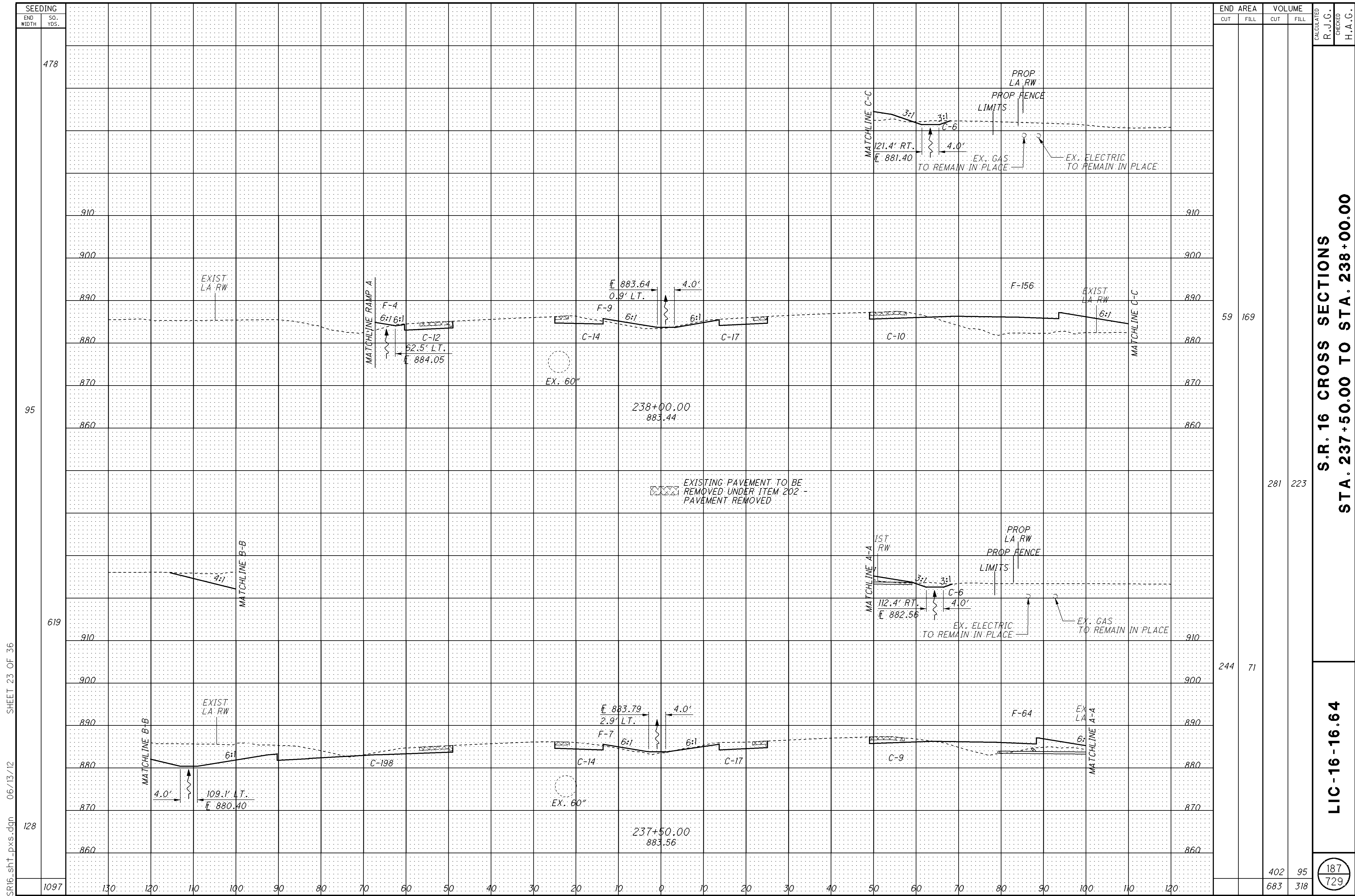


SR16_sht1_pxs.dgn 06/13/12 SHEET 22 OF 36

**S.R. 16 CROSS SECTIONS
STA. 236+50.00 TO STA. 237+00.00**

LIC-16-16.64

CALCULATED
R.J.G.
CHECKED
H.A.G.

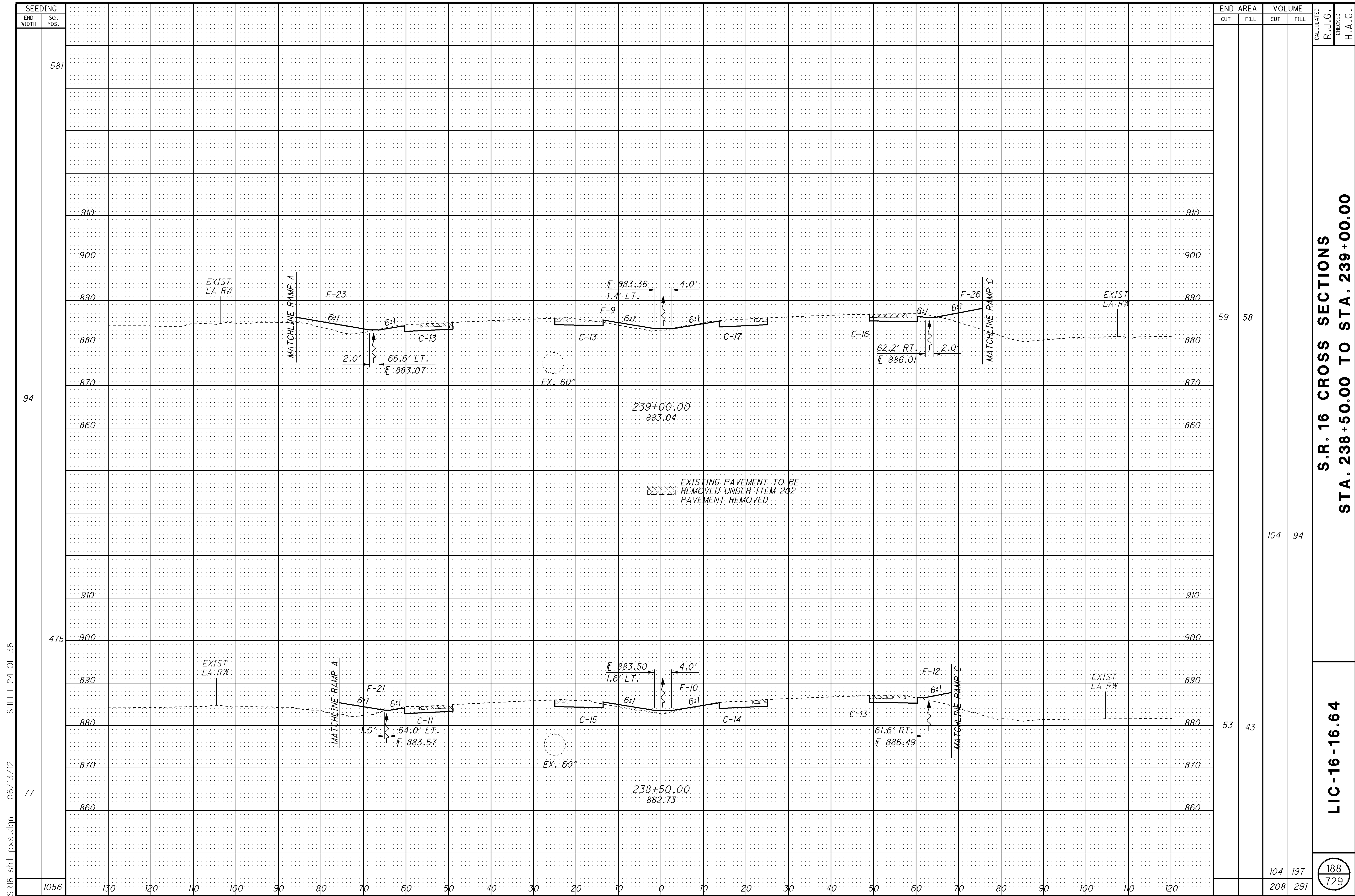


SEEDING	
END WIDTH	SO. YDS.
1097	478
130	910
120	900
110	890
100	880
90	870
80	860
70	850
60	840
50	830
40	820
30	810
20	800
10	790
0	780
10	770
20	760
30	750
40	740
50	730
60	720
70	710
80	700
90	690
100	680
110	670
120	660
130	650

END AREA		VOLUME	
CUT	FILL	CUT	FILL
59	169	281	223
244	71	402	95
683	318	187	729

CALCULATED R.J.G.
 CHECKED H.A.G.
S.R. 16 CROSS SECTIONS
STA. 237+50.00 TO STA. 238+00.00
LIC-16-16.64

SR16_sht1_pxs.dgn 06/13/12 SHEET 23 OF 36



SR16_sht1_pxs.dgn 06/13/12 SHEET 24 OF 36

94

77

581

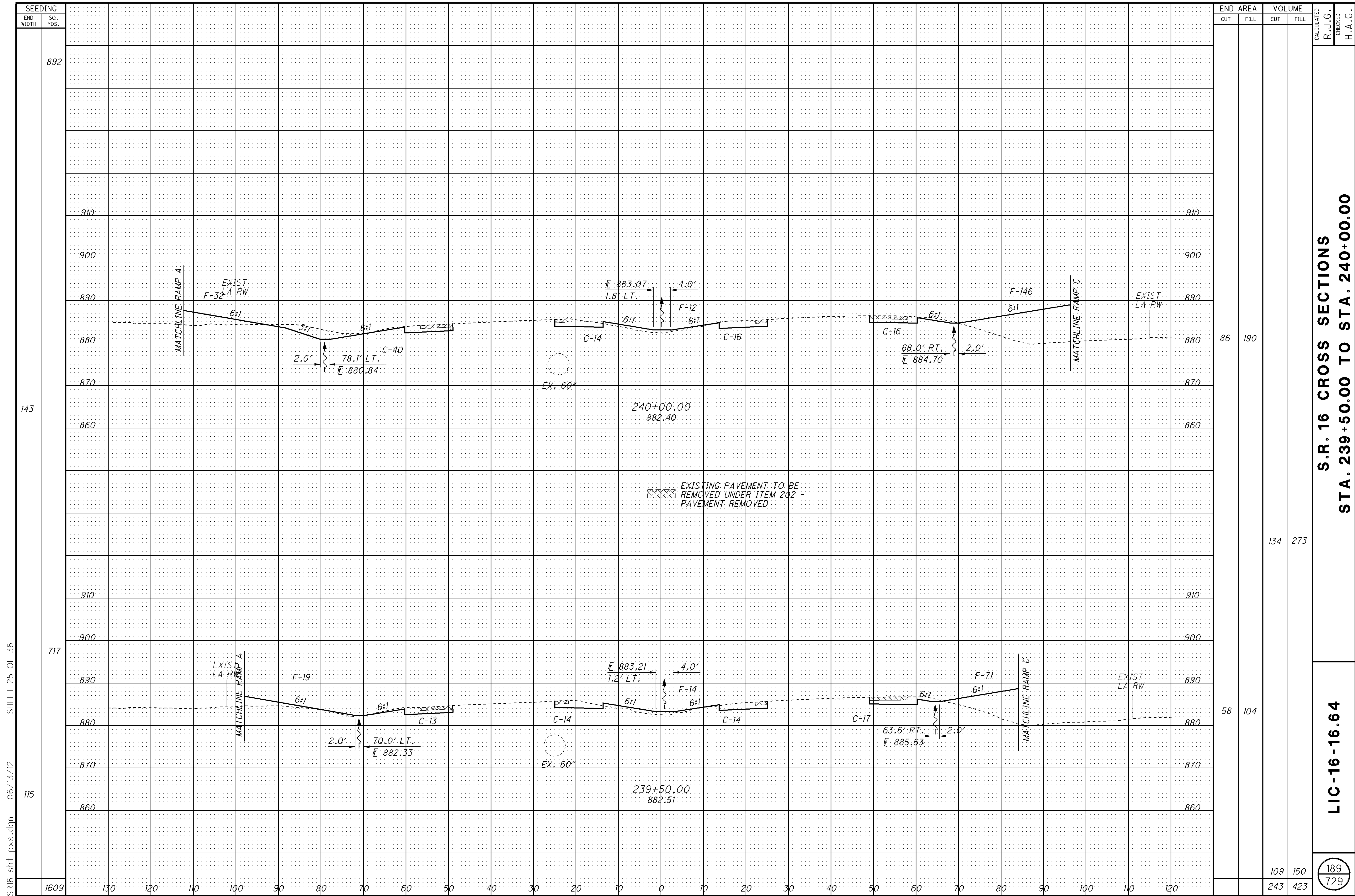
475

S.R. 16 CROSS SECTIONS
STA. 238+50.00 TO STA. 239+00.00

LIC-16-16.64

CALCULATED
R.J.G.
CHECKED
H.A.G.

188
729



SEEDING	
END WIDTH	SO. YDS.
1609	892
130	910
120	900
110	890
100	880
90	870
80	860
70	890
60	880
50	870
40	860
30	910
20	900
10	890
0	880
10	870
20	860
30	910
40	900
50	890
60	880
70	870
80	860
90	910
100	900
110	890
120	880

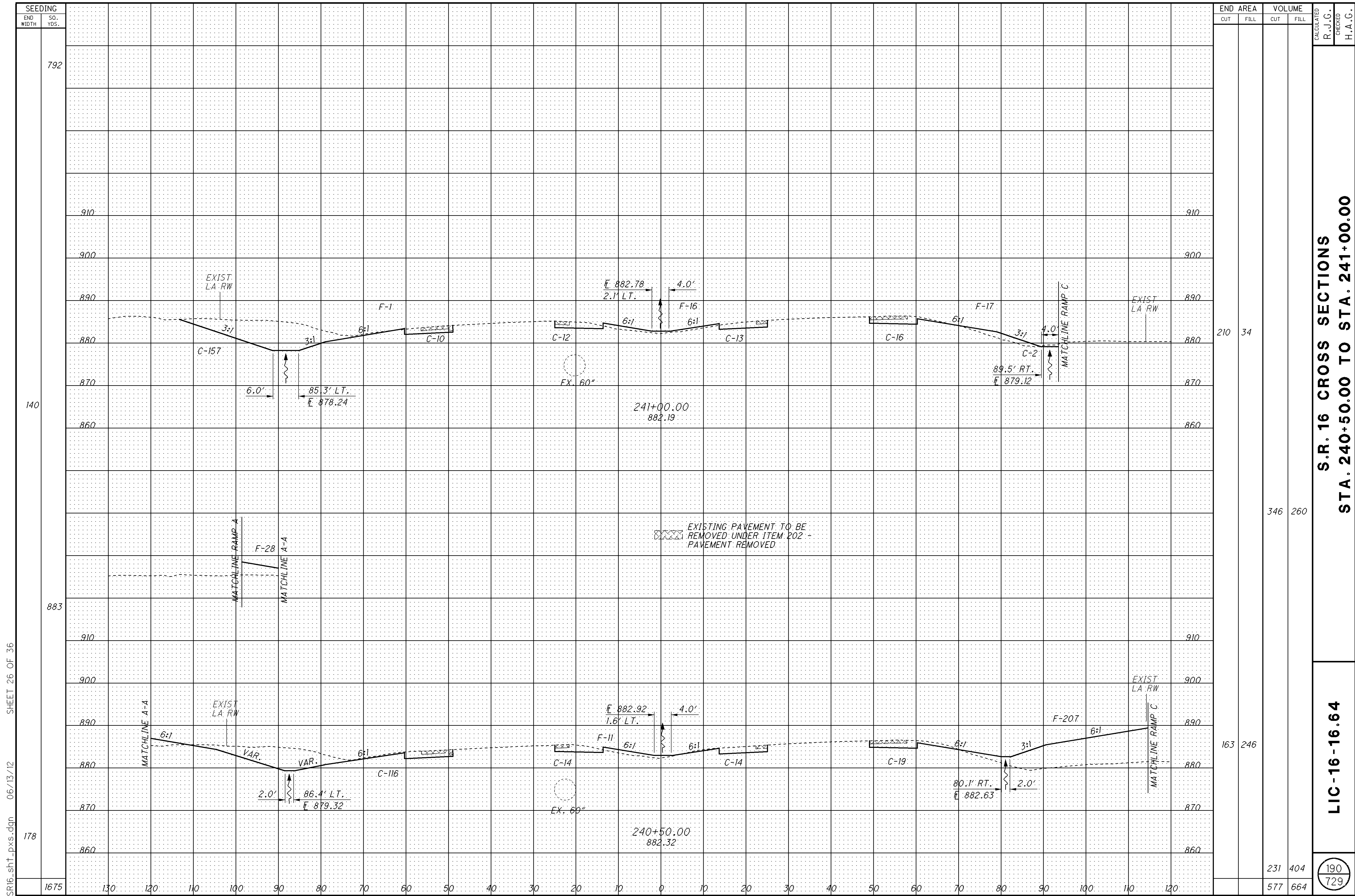
END AREA		VOLUME	
CUT	FILL	CUT	FILL
86	190	134	273
58	104	109	150
243	423	189	729

CALCULATED R.J.G.
 CHECKED H.A.G.

S.R. 16 CROSS SECTIONS
STA. 239+50.00 TO STA. 240+00.00

LIC-16-16.64

SR16_sht1_pxs.dgn 06/13/12 SHEET 25 OF 36



SEEDING	
END WIDTH	SO. YDS.
1675	792
130	910
120	900
110	890
100	880
90	870
80	860
70	850
60	840
50	830
40	820
30	810
20	800
10	790
0	780
10	770
20	760
30	750
40	740
50	730
60	720
70	710
80	700
90	690
100	680
110	670
120	660
130	650

END AREA		VOLUME	
CUT	FILL	CUT	FILL
210	34	346	260
163	246	231	404
		577	664

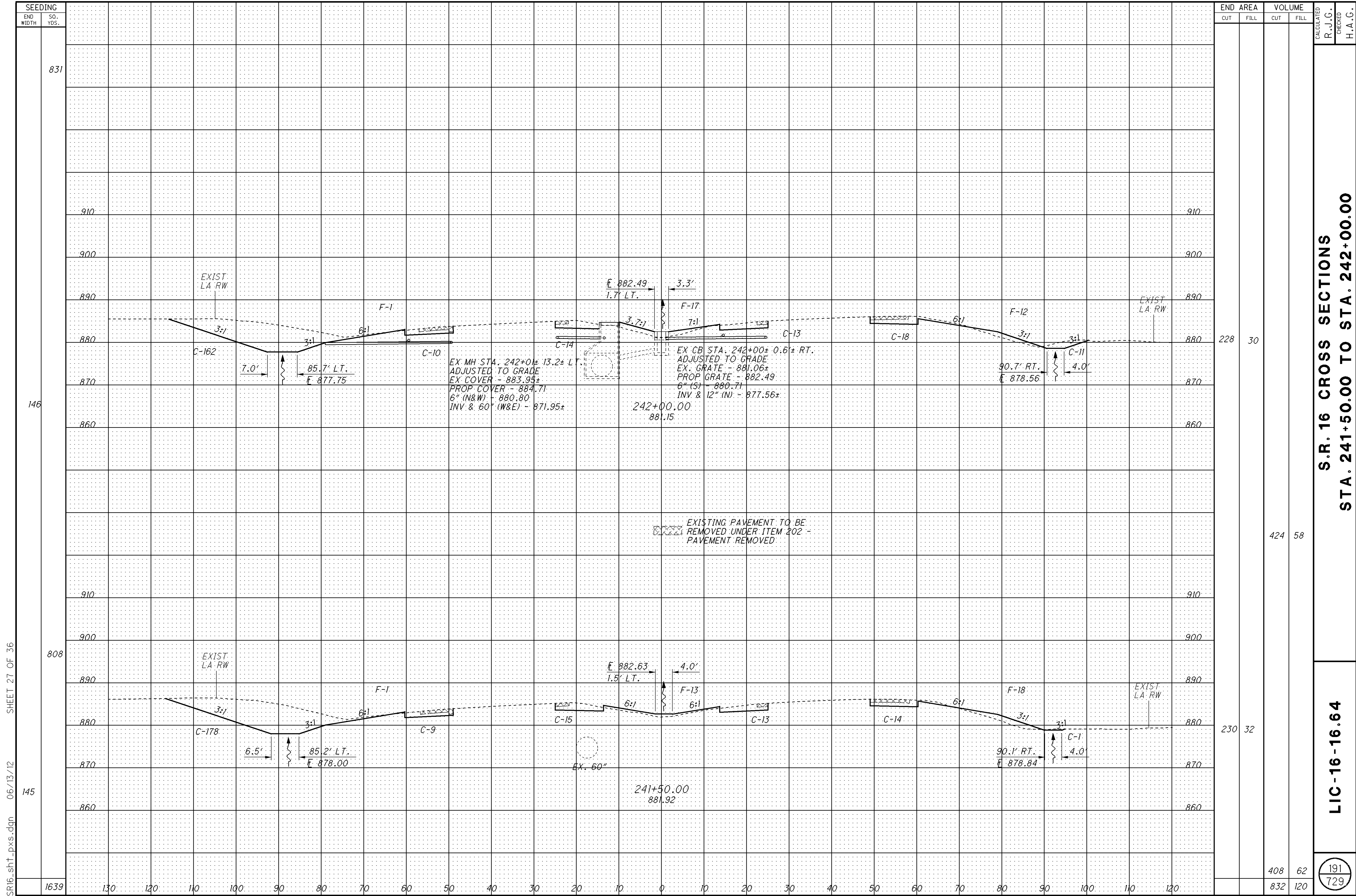
CALCULATED R.J.G.
 CHECKED H.A.G.

S.R. 16 CROSS SECTIONS
STA. 240+50.00 TO STA. 241+00.00

LIC-16-16.64

190
 729

SR16_sht1_pxs.dgn 06/13/12 SHEET 26 OF 36



SEEDING	
END WIDTH	SO. YDS.
1639	831
130	910
120	900
110	890
100	880
90	870
80	860
70	910
60	900
50	890
40	880
30	870
20	860
10	910
0	900
10	890
20	880
30	870
40	860
50	910
60	900
70	890
80	880
90	870
100	860
110	910
120	900

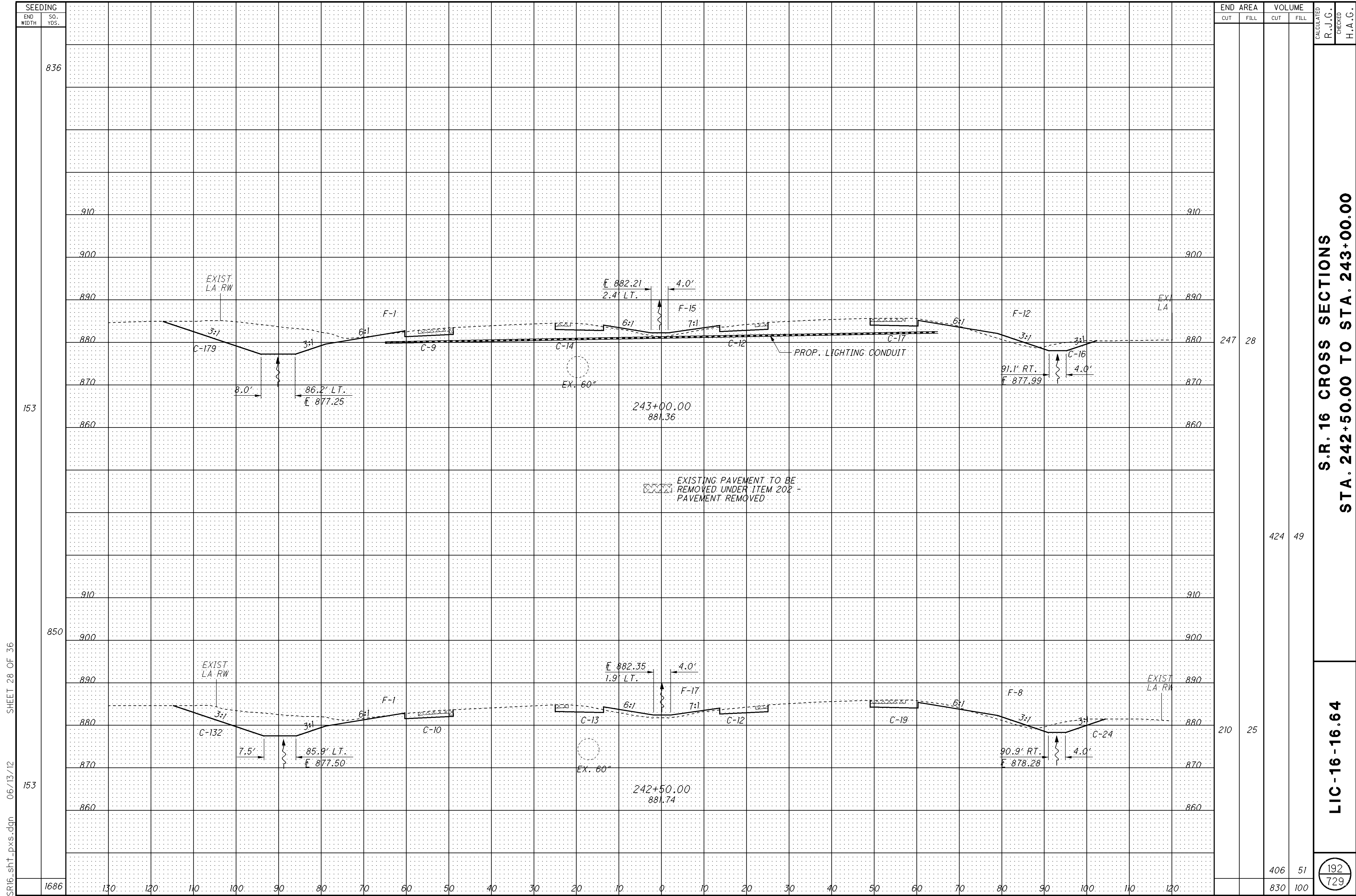
END AREA		VOLUME	
CUT	FILL	CUT	FILL
228	30	424	58
230	32	408	62
832	120	191	729

S.R. 16 CROSS SECTIONS
STA. 241+50.00 TO STA. 242+00.00

LIC-16-16.64

CALCULATED
 R.J.G.
 CHECKED
 H.A.G.

SR16_sht1_pxs.dgn 06/13/12 SHEET 27 OF 36

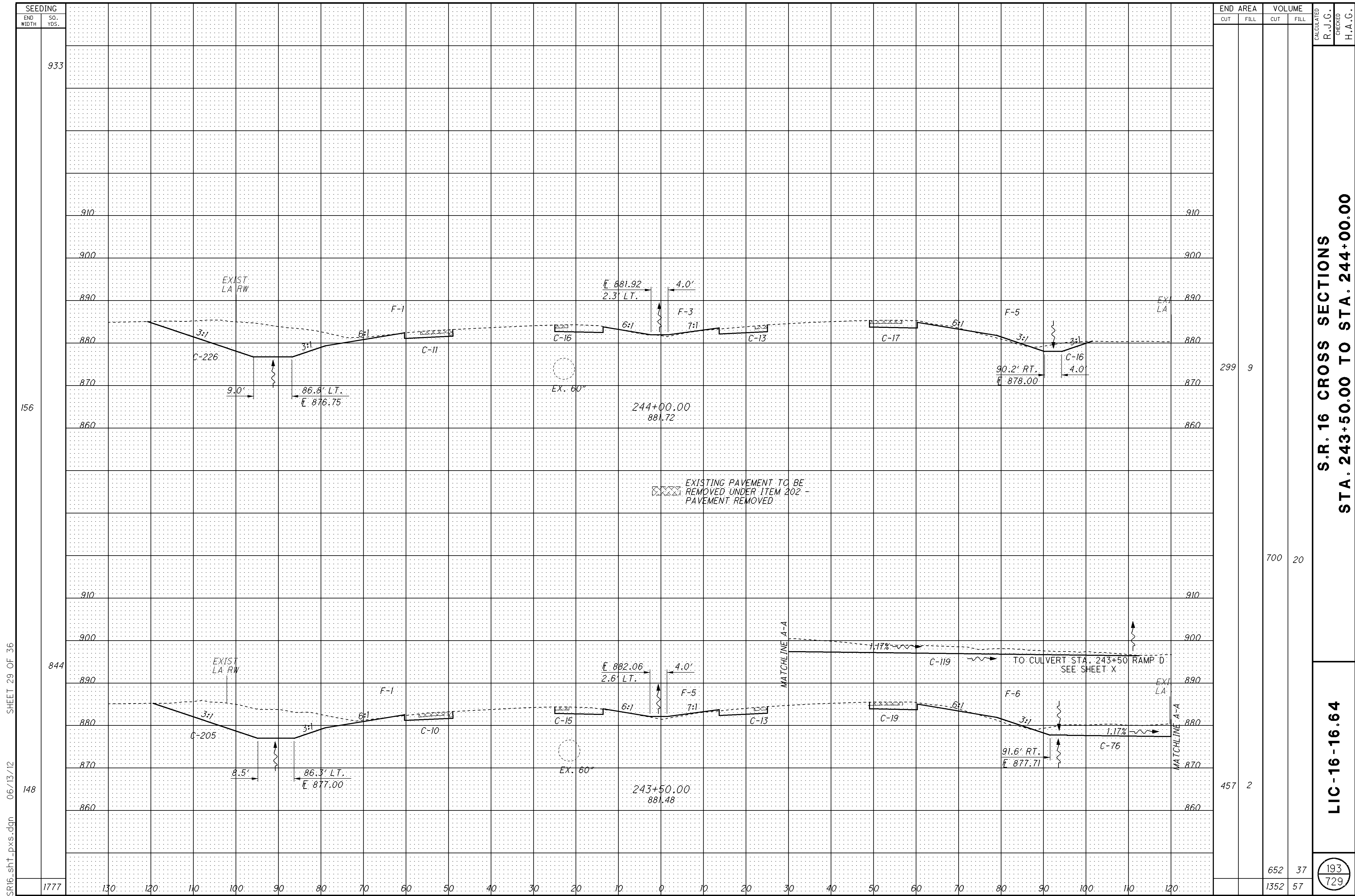


SEEDING	
END WIDTH	SO. YDS.
1686	836
130	910
120	900
110	890
100	880
90	870
80	860
70	910
60	900
50	890
40	880
30	870
20	860
10	910
0	900
10	890
20	880
30	870
40	860
50	910
60	900
70	890
80	880
90	870
100	860
110	910
120	900

END AREA		VOLUME	
CUT	FILL	CUT	FILL
247	28	424	49
210	25	406	51
		830	100

CALCULATED R.J.G.
 CHECKED H.A.G.
S.R. 16 CROSS SECTIONS
STA. 242+50.00 TO STA. 243+00.00
LIC-16-16.64
 192
 729

SR16_sht1_pxs.dgn 06/13/12 SHEET 28 OF 36



SEEDING	
END WIDTH	SO. YDS.
1777	933
156	
844	
148	
1777	

END AREA		VOLUME	
CUT	FILL	CUT	FILL
299	9		
700	20		
457	2		
652	37		
1352	57		

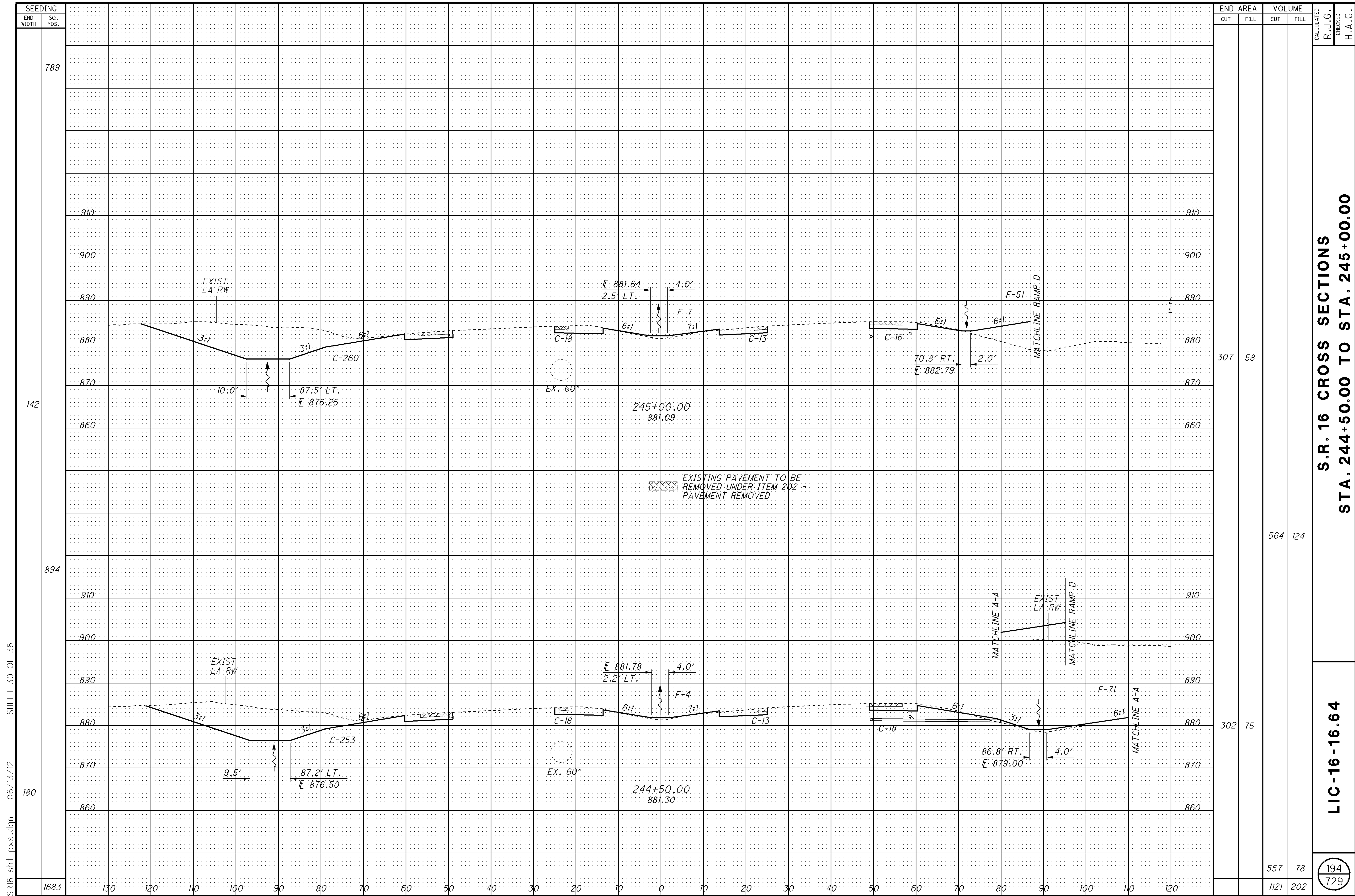
CALCULATED R.J.G.
 CHECKED H.A.G.

S.R. 16 CROSS SECTIONS
STA. 243+50.00 TO STA. 244+00.00

LIC-16-16.64

193
 729

SR16_sht1_pxs.dgn 06/13/12 SHEET 29 OF 36



SR16_sht1_pxs.dgn 06/13/12 SHEET 30 OF 36

SEEDING	
END WIDTH	SO. YDS.
1683	789
130	910
120	900
110	890
100	880
90	870
80	860
70	
60	
50	
40	
30	
20	
10	
0	
10	
20	
30	
40	
50	
60	
70	
80	
90	
100	
110	
120	

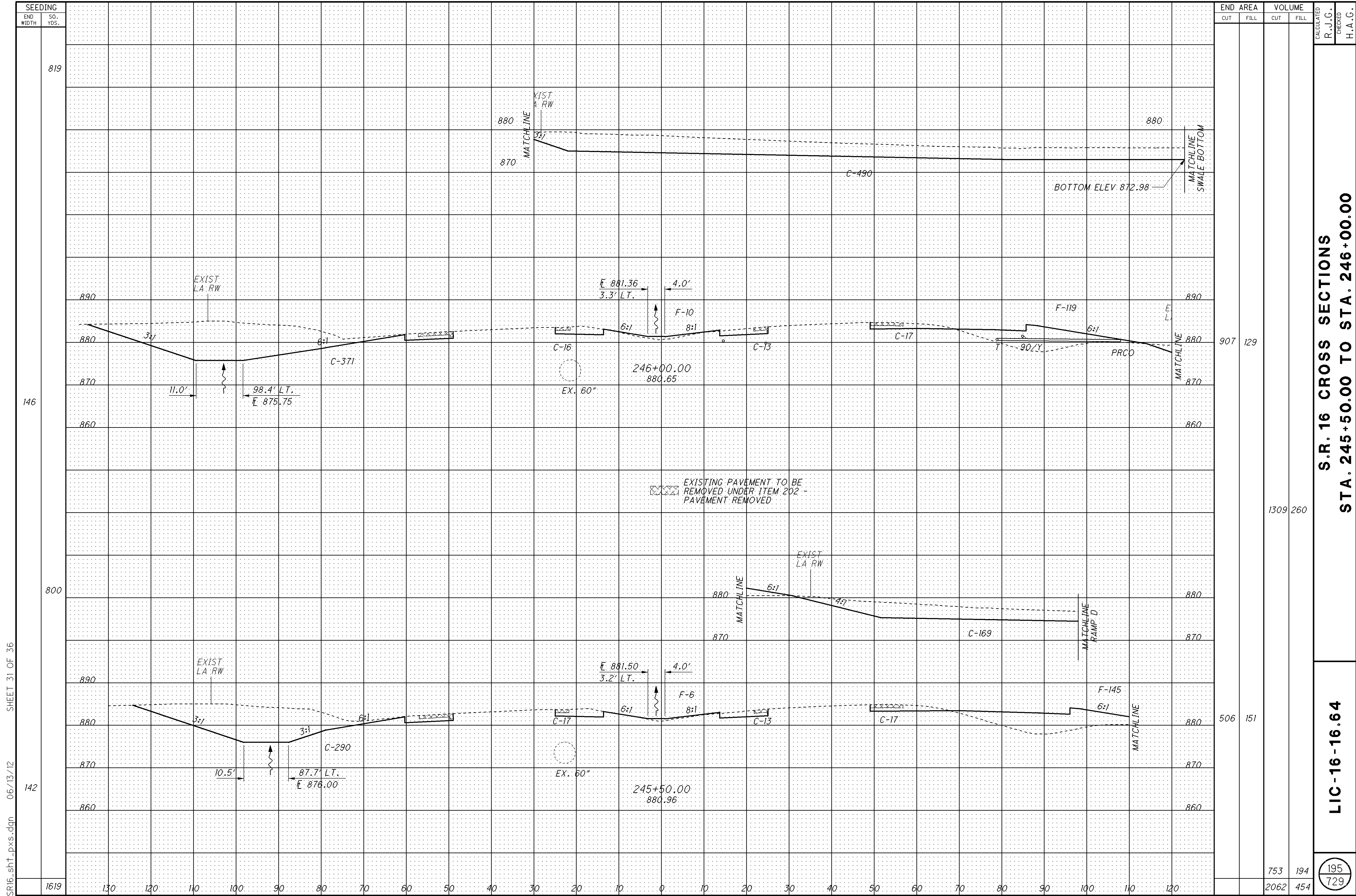
END AREA		VOLUME	
CUT	FILL	CUT	FILL
307	58	564	124
302	75	557	78
		1121	202

CALCULATED R.J.G.
 CHECKED H.A.G.

**S.R. 16 CROSS SECTIONS
 STA. 244+50.00 TO STA. 245+00.00**

LIC-16-16.64

194
 729



SEEDING	
END WIDTH	SO. YDS.
1619	819
146	146
800	800
142	142
1619	1619

END AREA		VOLUME	
CUT	FILL	CUT	FILL
907	129	1309	260
506	151	753	194
		2062	454

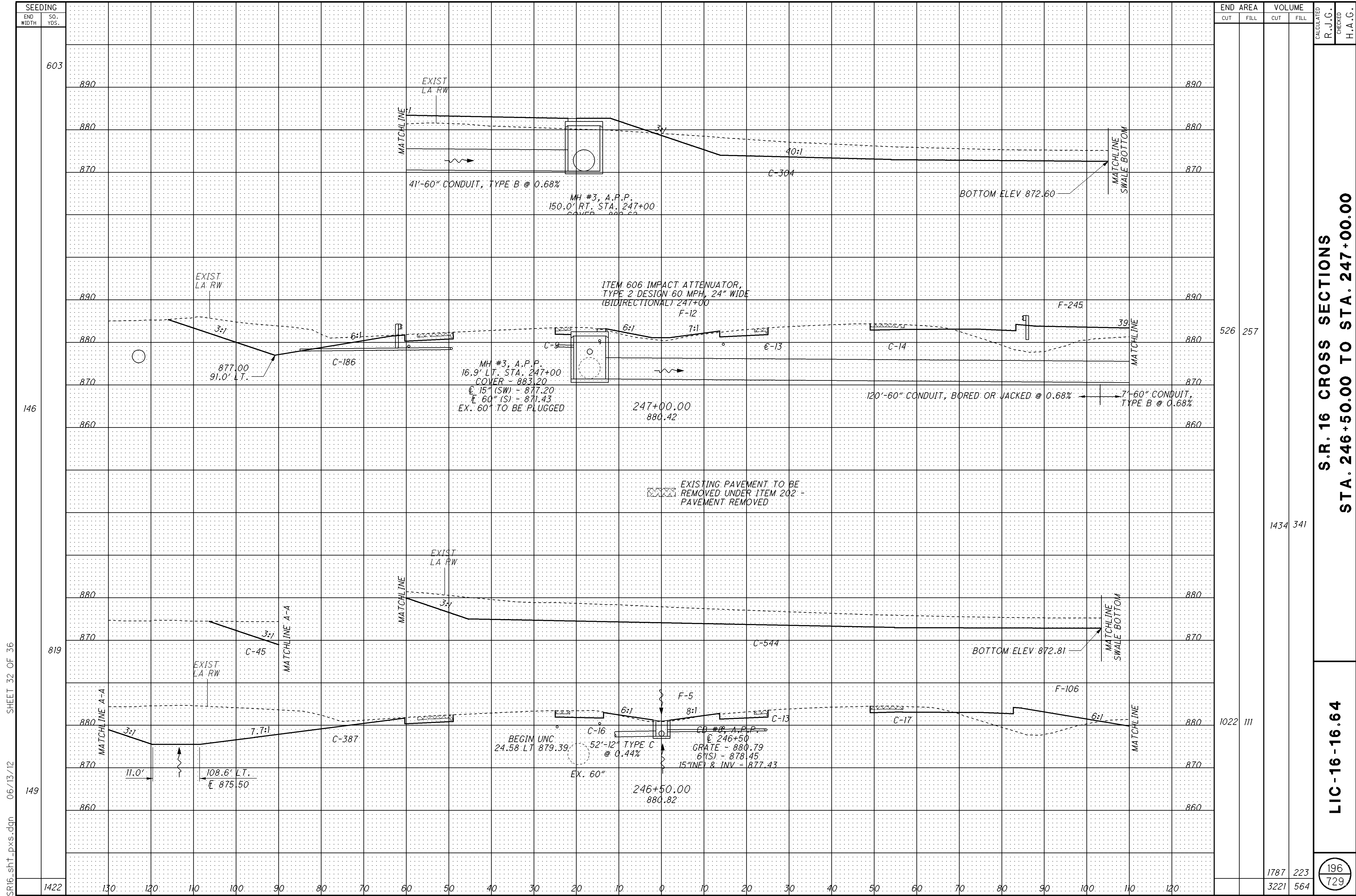
CALCULATED R.J.G.
 CHECKED H.A.G.

S.R. 16 CROSS SECTIONS
STA. 245+50.00 TO STA. 246+00.00

LIC-16-16.64

195
 729

SR16_sht1_pxs.dgn 06/13/12 SHEET 31 OF 36

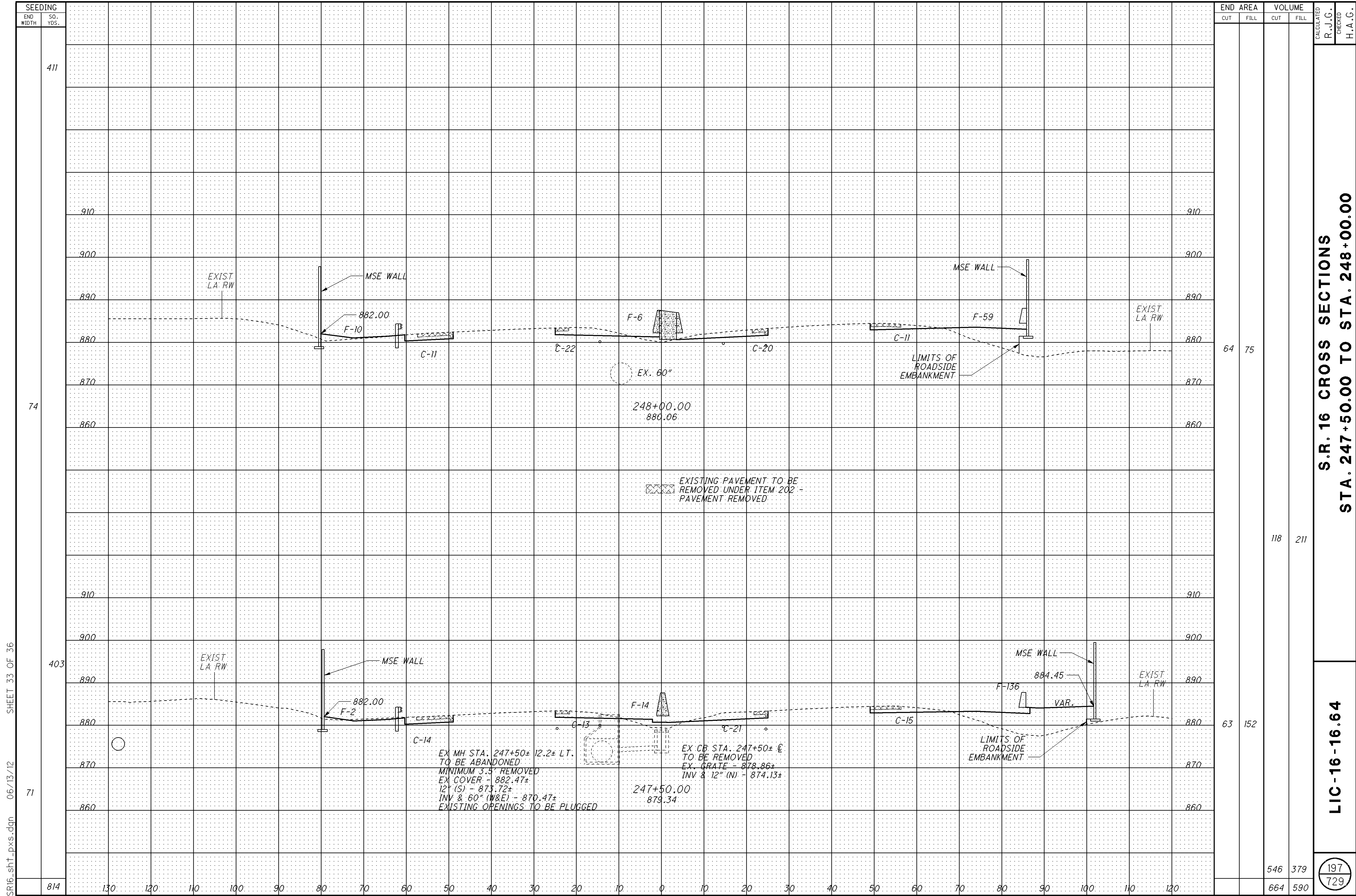


SEEDING	
END WIDTH	SO. YDS.
1422	603
130	146
120	819
110	149
100	
90	
80	
70	
60	
50	
40	
30	
20	
10	
0	
10	
20	
30	
40	
50	
60	
70	
80	
90	
100	
110	
120	
130	

END AREA		VOLUME	
CUT	FILL	CUT	FILL
526	257	1434	341
1022	111	1787	223
3221	564	196	729

CALCULATED R.J.G.
 CHECKED H.A.G.
S.R. 16 CROSS SECTIONS
STA. 246+50.00 TO STA. 247+00.00
LIC-16-16.64

SR16_sht1_dxs.dgn 06/13/12 SHEET 32 OF 36



SR16_sht1_pxs.dgn 06/13/12 SHEET 33 OF 36

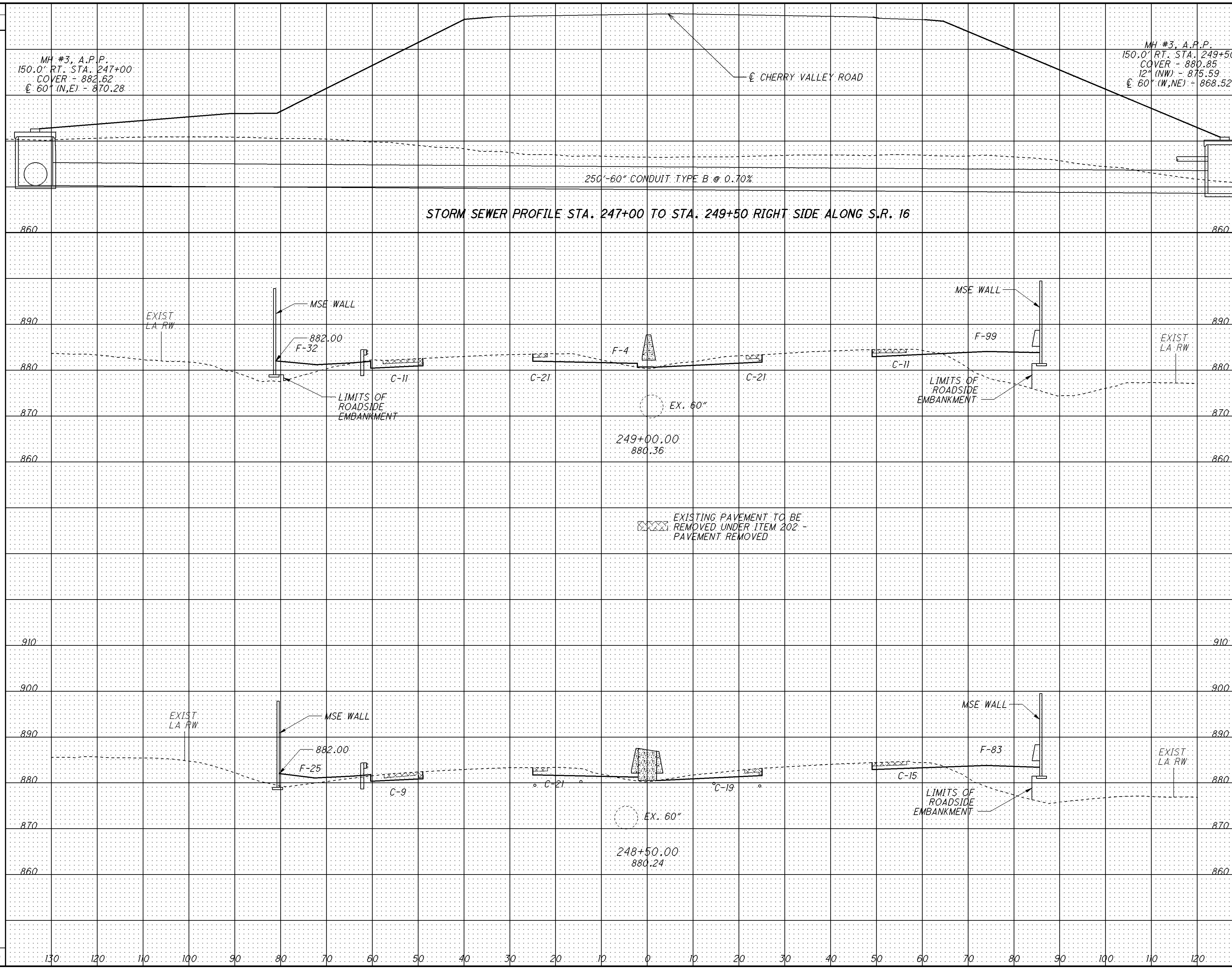
S.R. 16 CROSS SECTIONS
STA. 247+50.00 TO STA. 248+00.00

LIC-16-16.64

CALCULATED
 R.J.G.
 CHECKED
 H.A.G.

546 379
 664 590
 197
 729

SEEDING
 END WIDTH SQ. YDS.
 719
 74
 411
 74
 1130



END AREA		VOLUME	
CUT	FILL	CUT	FILL
64	135	119	225
64	108	119	170
		238	395

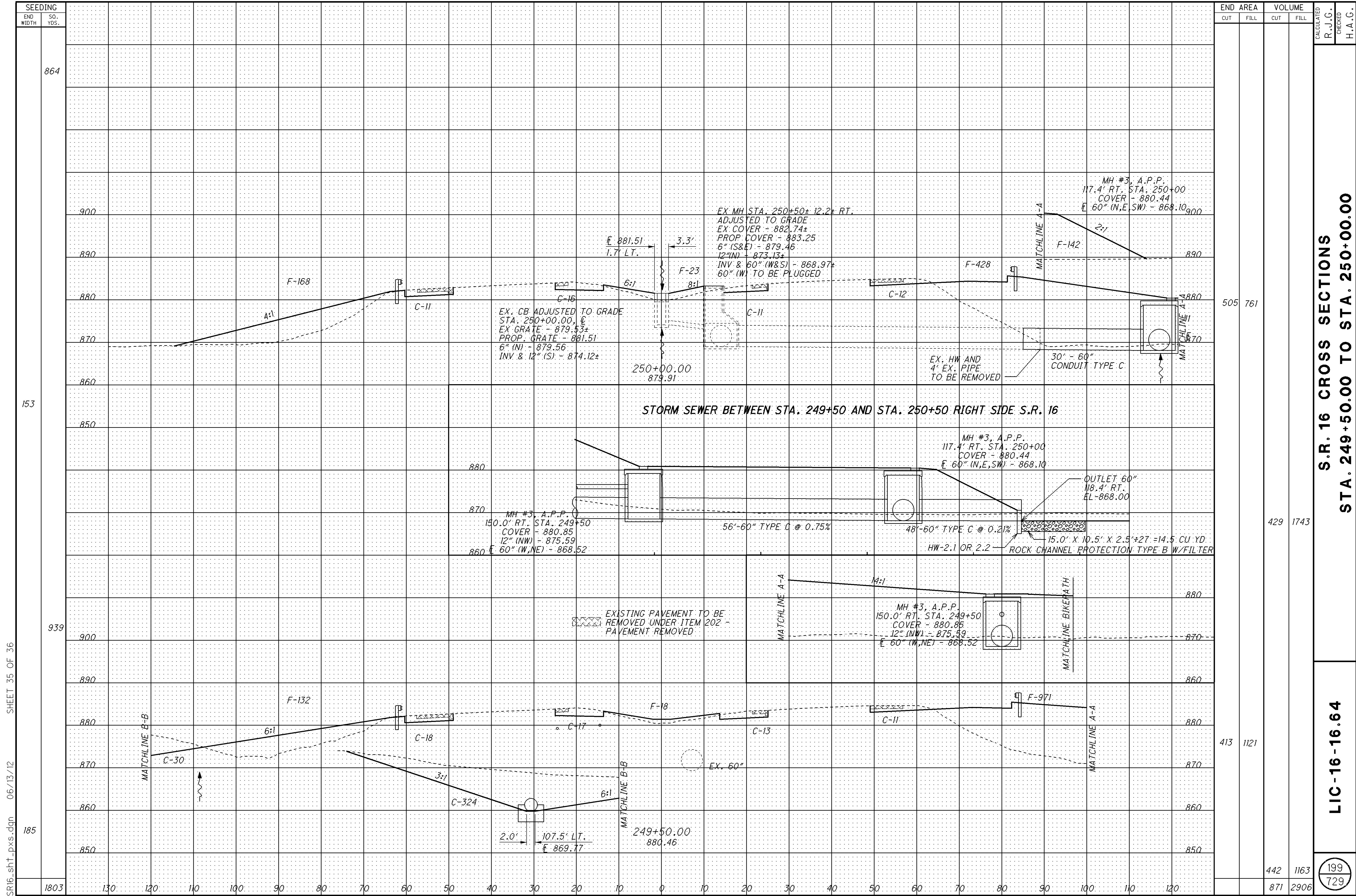
CALCULATED R.J.G.
 CHECKED H.A.G.

S.R. 16 CROSS SECTIONS
 STA. 248+50.00 TO STA. 249+00.00

LIC-16-16.64

198
729

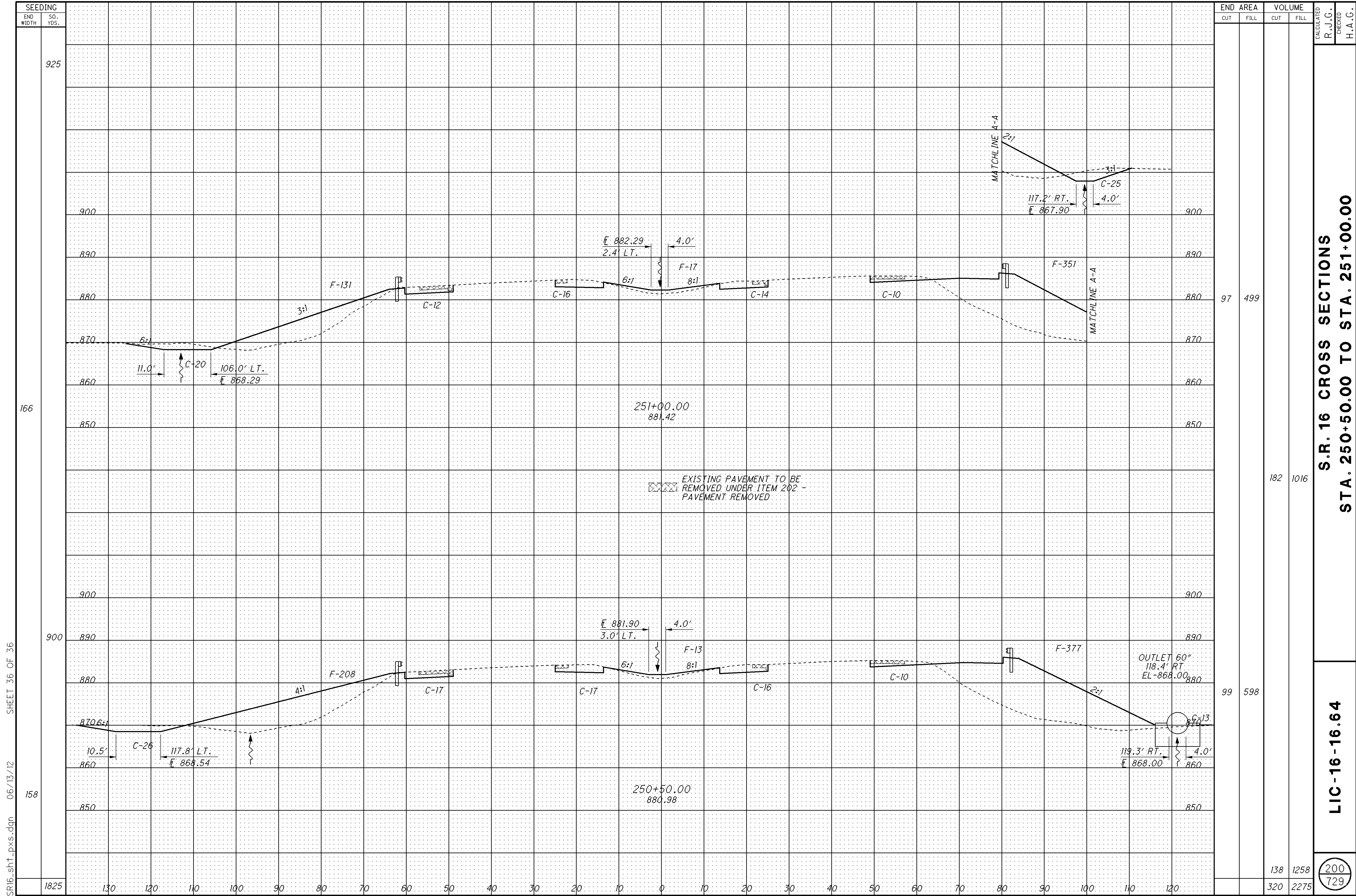
SR16_sht1_pxs.dgn 06/13/12 SHEET 34 OF 36



SR16_sht1_dxs.dgn 06/13/12 SHEET 35 OF 36

SEEDING	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
864				
153	505	761	429	1743
939	413	1121		
185	442	1163		
1803	871	2906		

S.R. 16 CROSS SECTIONS
STA. 249+50.00 TO STA. 250+00.00
 CALCULATED R.J.G.
 CHECKED H.A.G.
 199
 729



SEEDING		END AREA		VOLUME		CALCULATED R.J.G.	CHECKED H.A.G.
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL		

925							
900							
890							
880							
870							
860							
850							
900							
890							
880							
870							
860							
850							
1825	130	120	110	100	90	80	70
	60	50	40	30	20	10	0
	10	20	30	40	50	60	70
	80	90	100	110	120		

SR16_sht1_pxs.dgn 06/13/12 SHEET 36 OF 36
 166
 158

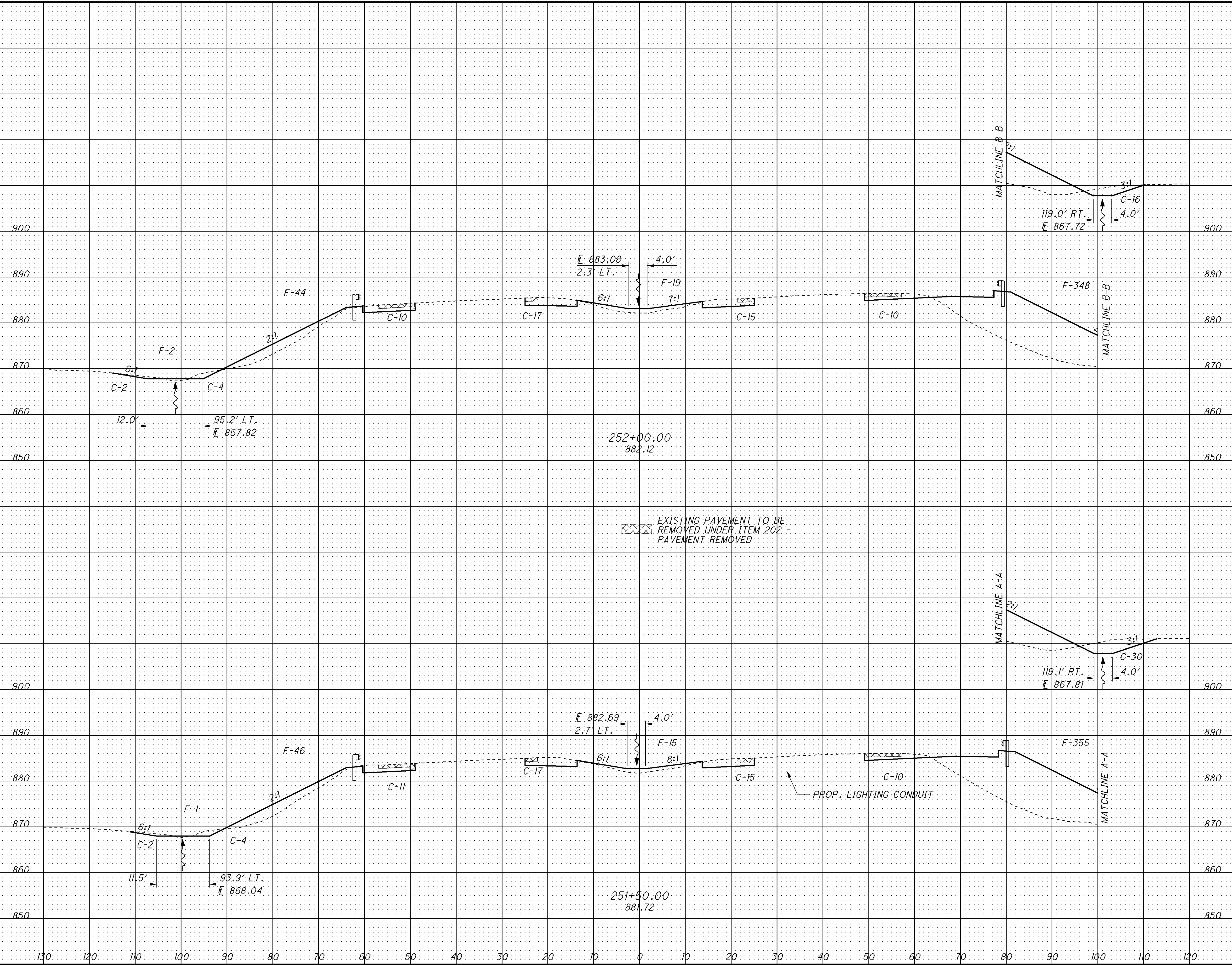
S.R. 16 CROSS SECTIONS
STA. 250+50.00 TO STA. 251+00.00

LIC-16-16.64

200
 729

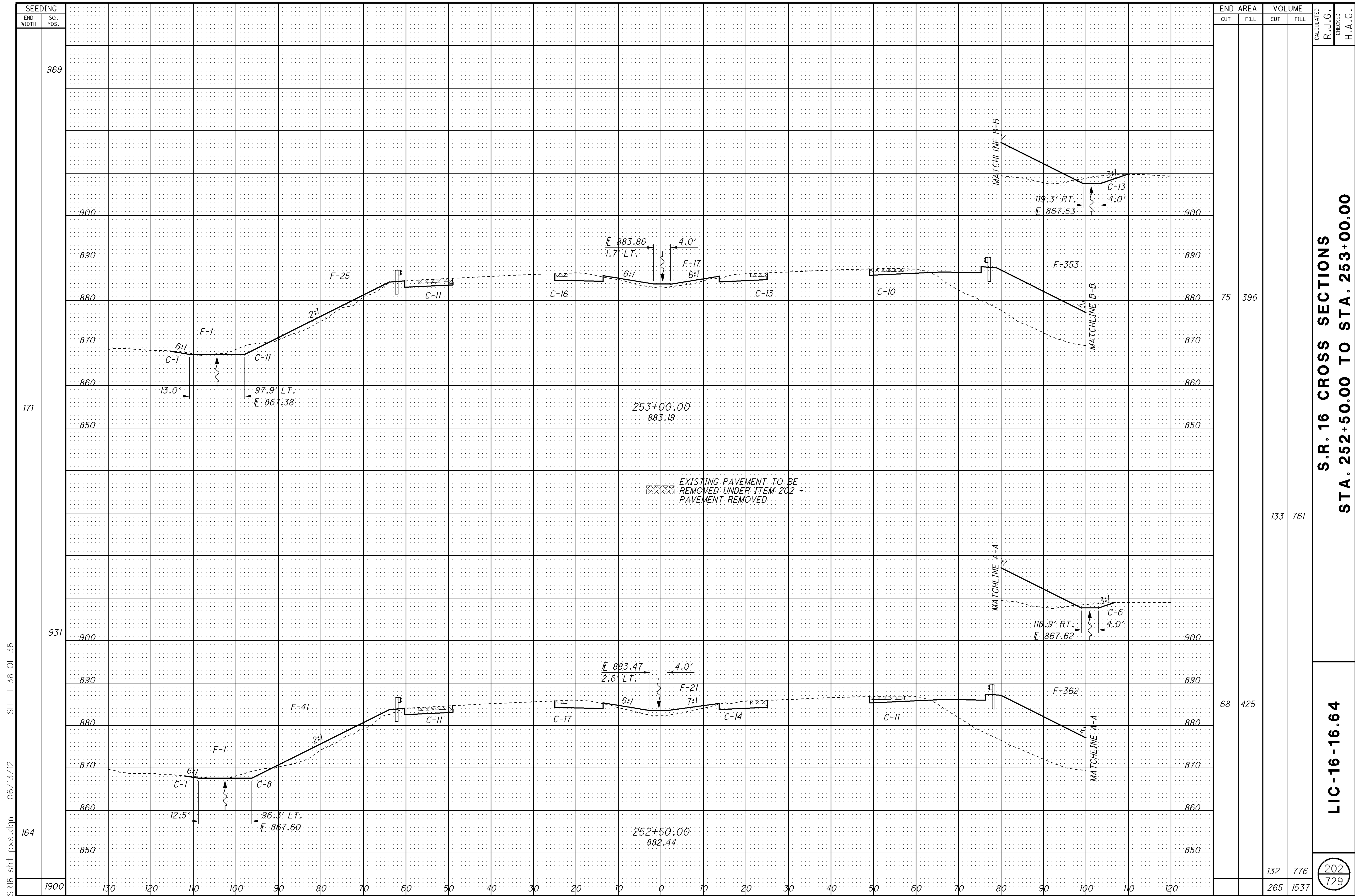
97	499	182	1016
99	598	138	1258
		320	2275

SEEDING
END WIDTH SQ. YDS.
925
169
933
167
1858



END AREA		VOLUME	
CUT	FILL	CUT	FILL
73	413	173	849
151	769	324	1618

CALCULATED R.J.G.
CHECKED H.A.G.
S.R. 16 CROSS SECTIONS
STA. 251+50.00 TO STA. 252+00.00
LIC-16-16.64
201
729

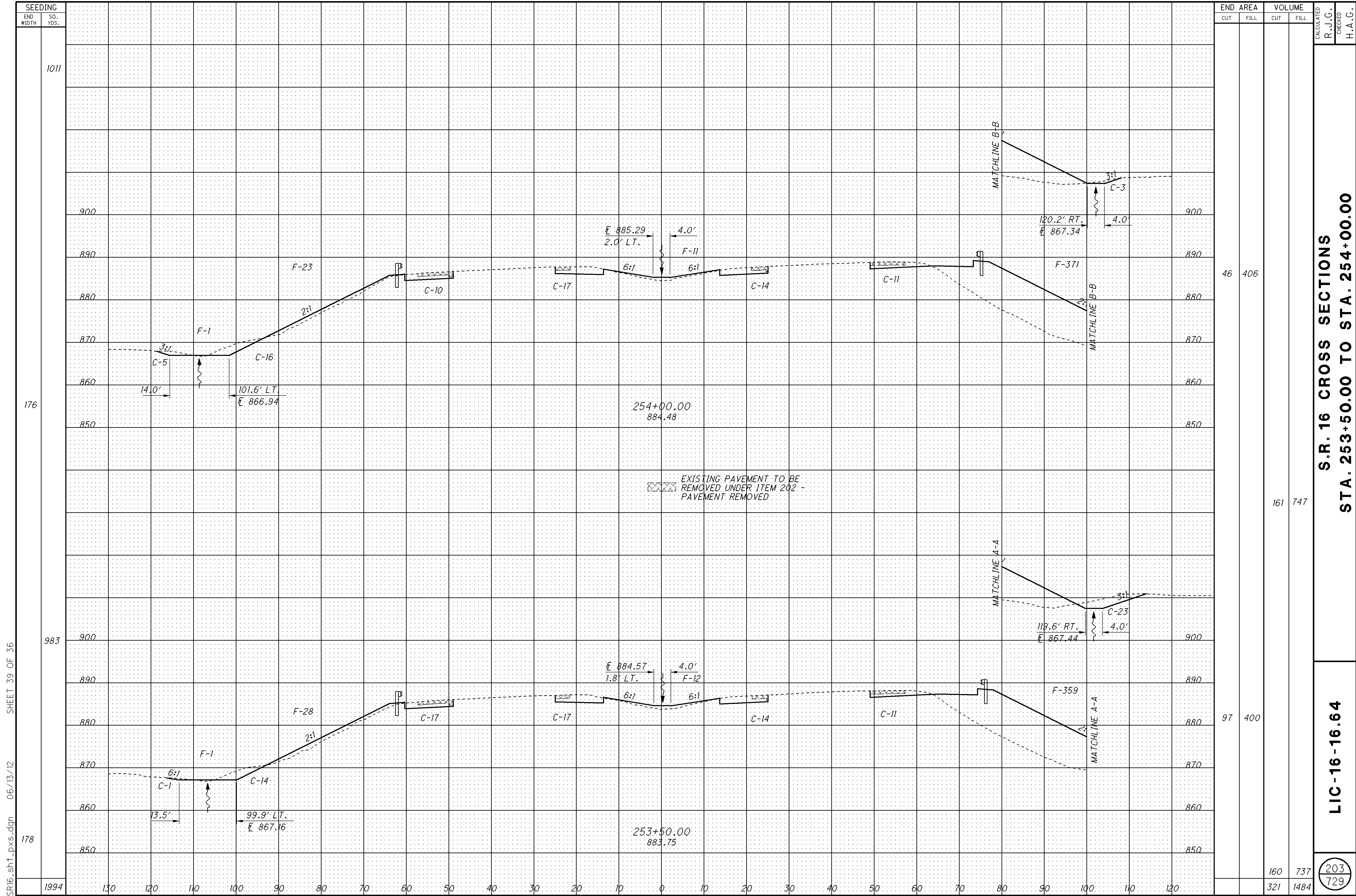


SEEDING	
END WIDTH	SO. YDS.
1900	969
130	900
120	890
110	880
100	870
90	860
80	850
70	
60	
50	
40	
30	
20	
10	
0	
10	
20	
30	
40	
50	
60	
70	
80	
90	
100	
110	
120	

END AREA		VOLUME	
CUT	FILL	CUT	FILL
75	396	132	776
133	761	265	1537

CALCULATED R.J.G.
 CHECKED H.A.G.
S.R. 16 CROSS SECTIONS
STA. 252+50.00 TO STA. 253+00.00
LIC-16-16.64
 202
 729

SR16_sht1_pxs.dgn 06/13/12 SHEET 38 OF 36
 171
 164



SR16_sht1_pxs.dgn 06/13/12 SHEET 39 OF 36

SEEDING	
END WIDTH	SO. YDS.
176	1011
178	

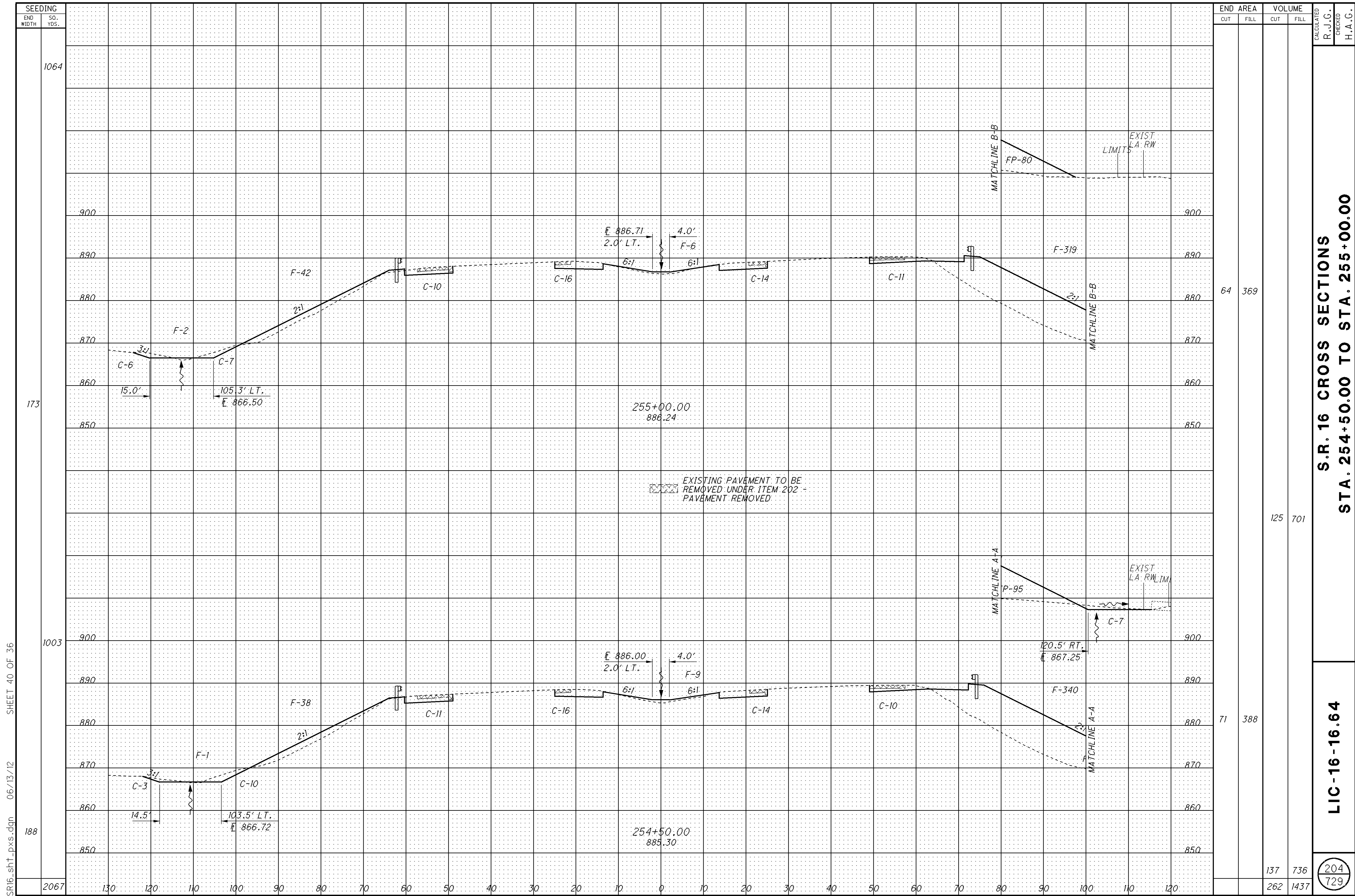
END AREA		VOLUME	
CUT	FILL	CUT	FILL
46	406	161	747
97	400	160	737
321	1484	729	1484

CALCULATED R.J.G.
 CHECKED H.A.G.

S.R. 16 CROSS SECTIONS
STA. 253+50.00 TO STA. 254+00.00

LIC-16-16.64

203
 729



SR16_sht1_pxs.dgn 06/13/12 SHEET 40 OF 36

SEEDING	
END WIDTH	SO. YDS.
130	1064
120	
110	
100	
90	
80	
70	
60	
50	
40	
30	
20	
10	
0	
10	
20	
30	
40	
50	
60	
70	
80	
90	
100	
110	
120	

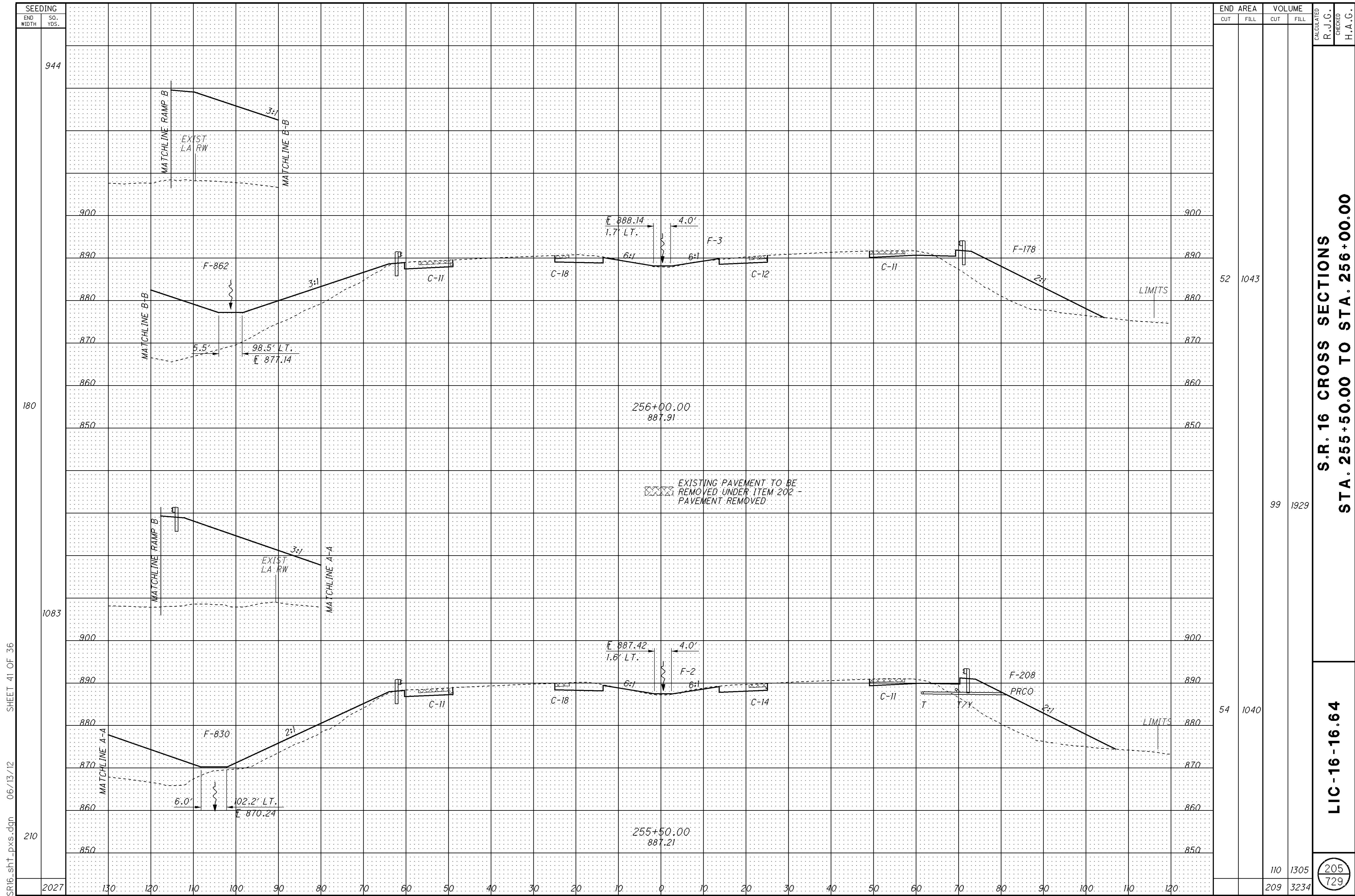
END AREA		VOLUME	
CUT	FILL	CUT	FILL
64	369	125	701
71	388	137	736
262	1437	729	1437

CALCULATED R.J.G.
 CHECKED H.A.G.

S.R. 16 CROSS SECTIONS
STA. 254+50.00 TO STA. 255+00.00

LIC-16-16.64

204
 729



SEEDING	
END WIDTH	SO. YDS.
944	
180	
1083	
210	
2027	

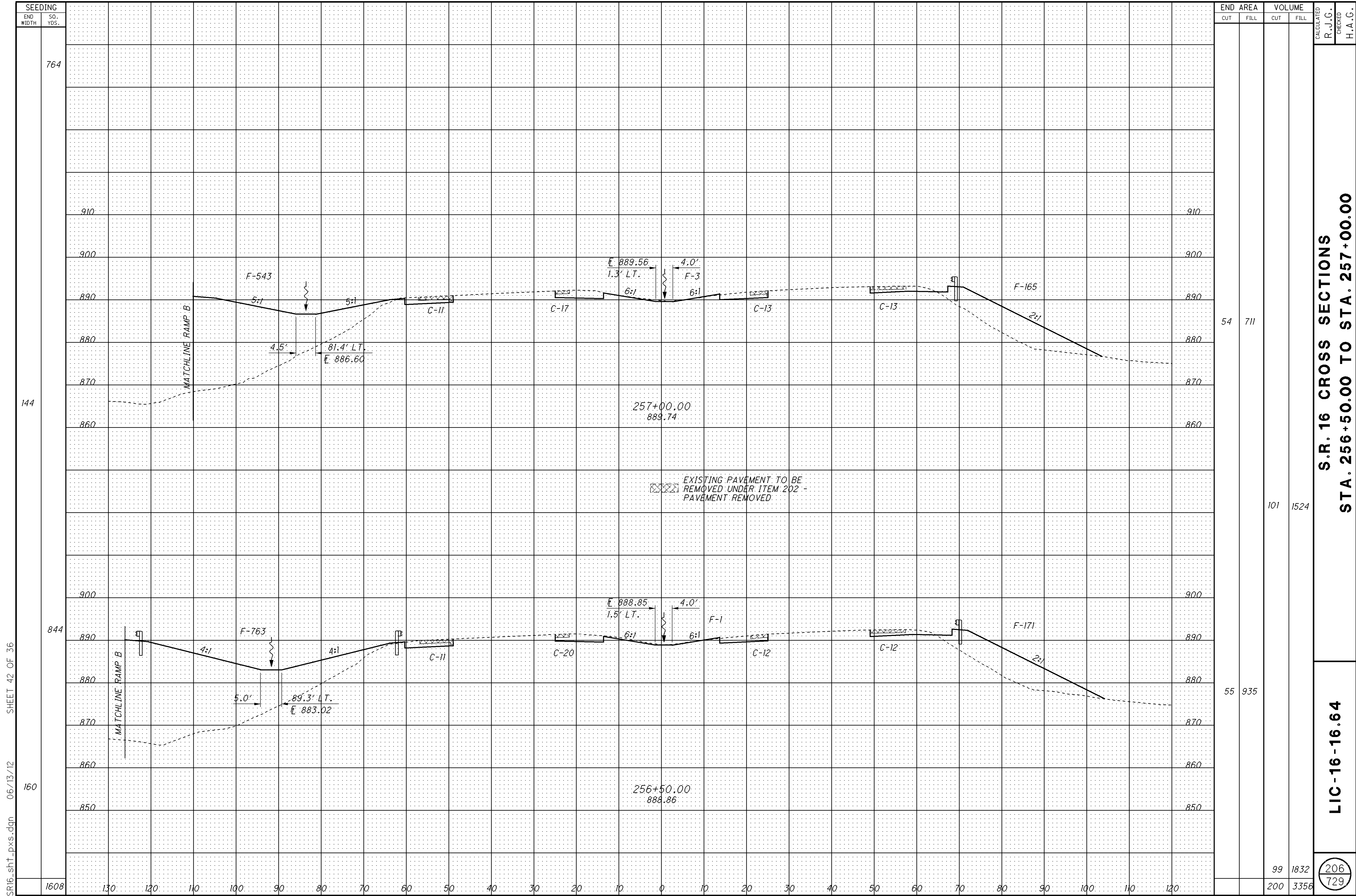
END AREA		VOLUME	
CUT	FILL	CUT	FILL
52	1043	99	1929
54	1040	110	1305
209	3234	205	729

CALCULATED R.J.G.
 CHECKED H.A.G.

S.R. 16 CROSS SECTIONS
STA. 255+50.00 TO STA. 256+00.00

LIC-16-16.64

SR16_sht1_pxs.dgn 06/13/12 SHEET 41 OF 36



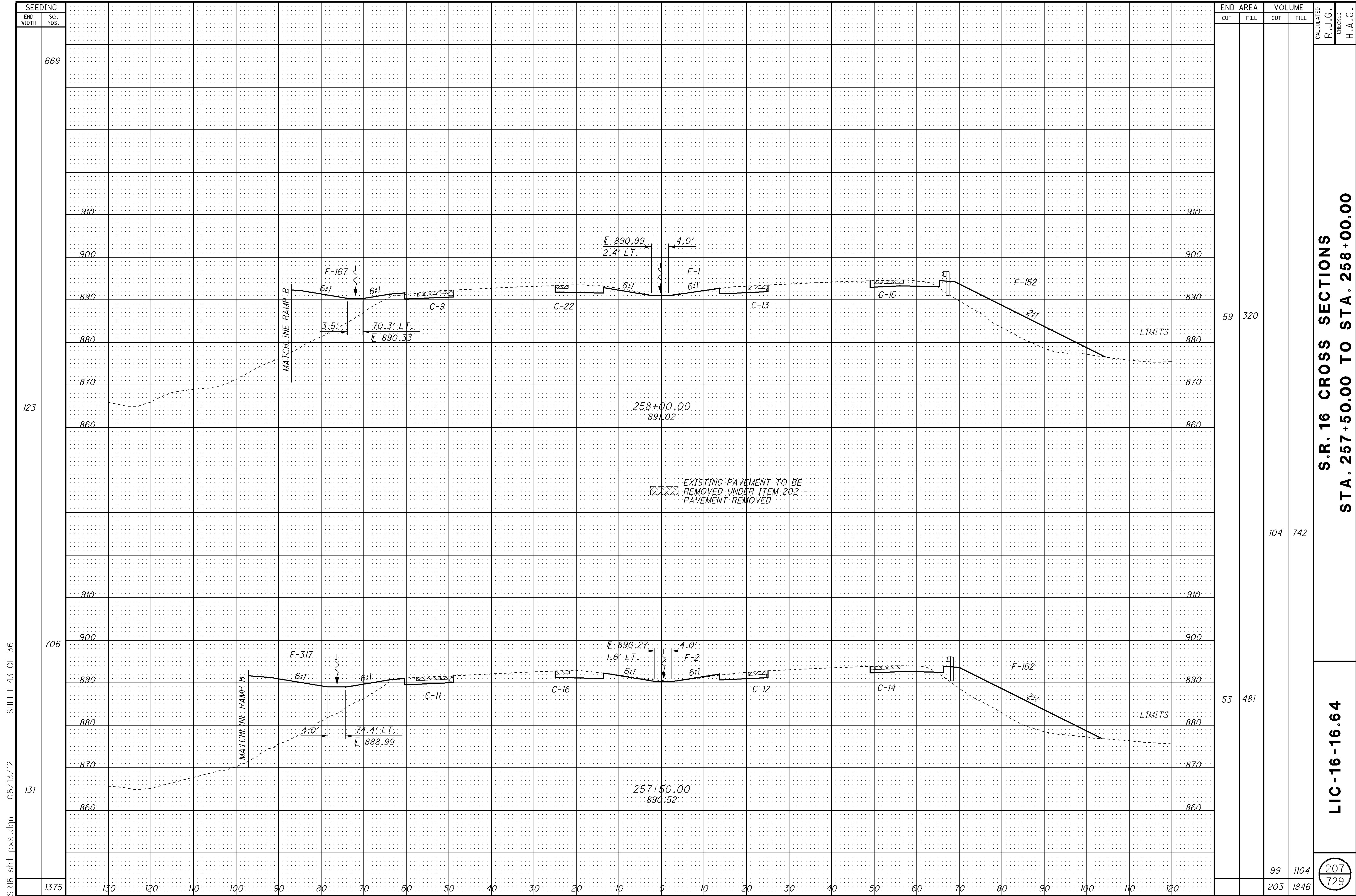
SEEDING
 END WIDTH SQ. YDS.
 764
 144
 844
 160
 1608

END AREA		VOLUME		CALCULATED R. J. G.	CHECKED H. A. G.
CUT	FILL	CUT	FILL		
54	711	101	1524		
55	935				
99	1832	200	3356	206	729

S.R. 16 CROSS SECTIONS
STA. 256+50.00 TO STA. 257+00.00

LIC-16-16.64

SR16_sht1_pxs.dgn 06/13/12 SHEET 42 OF 36



SEEDING	
END WIDTH	SO. YDS.
669	
123	
706	
131	
1375	

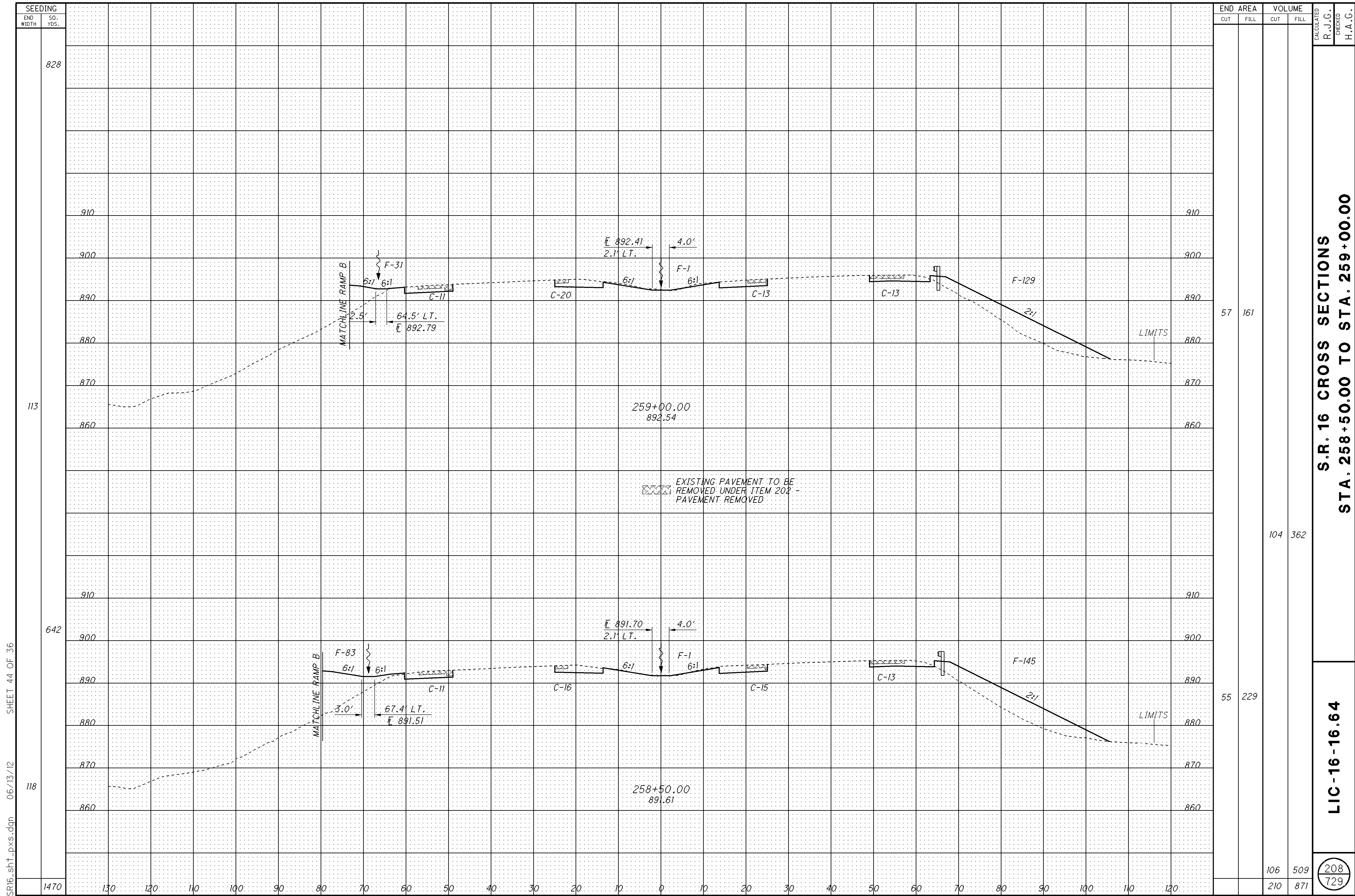
END AREA		VOLUME	
CUT	FILL	CUT	FILL
59	320	104	742
53	481	99	1104
		203	1846

CALCULATED R.J.G.
 CHECKED H.A.G.

S.R. 16 CROSS SECTIONS
STA. 257+50.00 TO STA. 258+00.00

LIC-16-16.64

207
 729



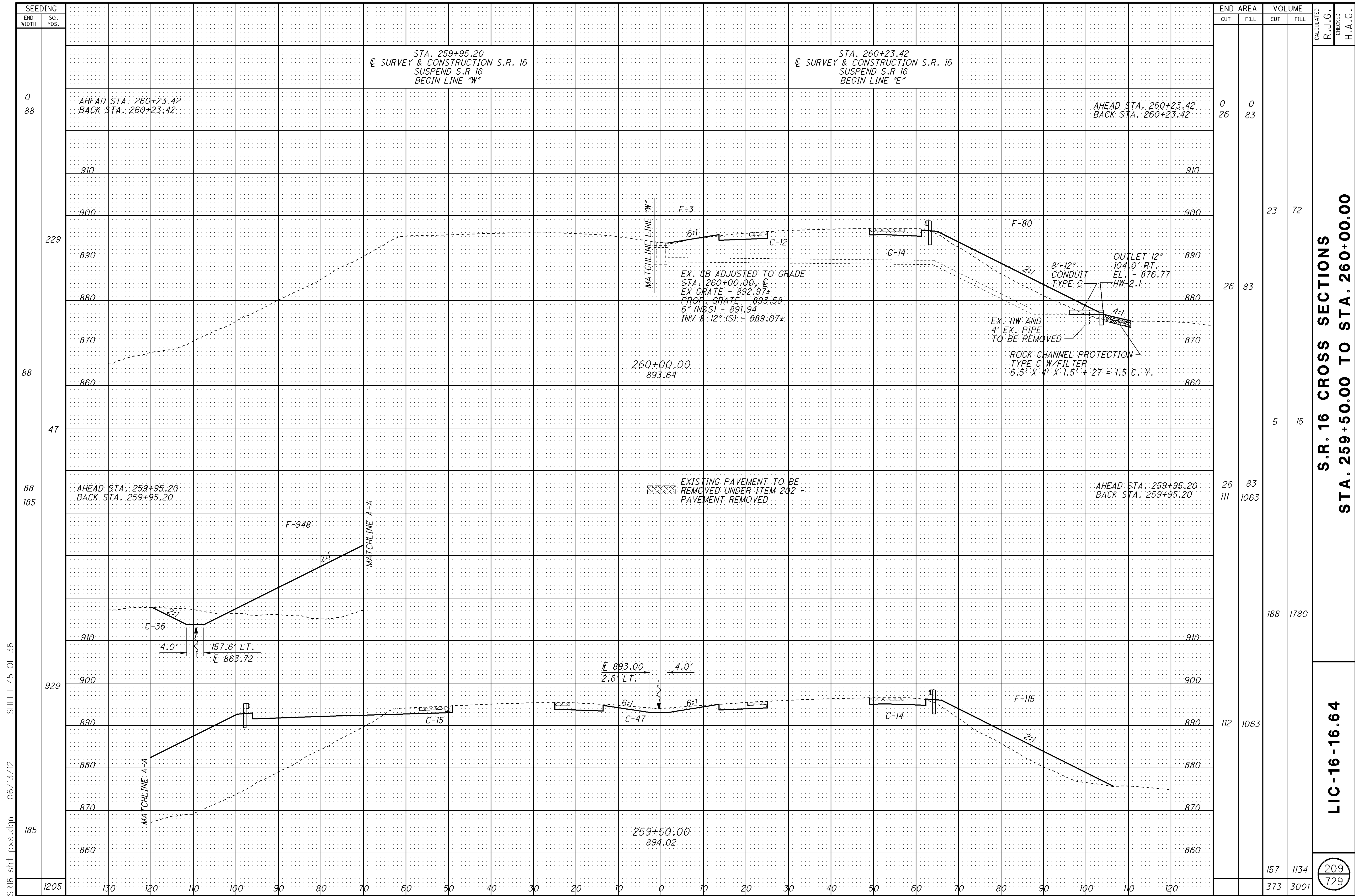
SR16_sht1_pxs.dgn 06/13/12 SHEET 44 OF 36

SEEDING	
END WIDTH	SO. YDS.
1470	828
130	910
120	900
110	890
100	880
90	870
80	860
70	
60	
50	
40	
30	
20	
10	
0	
10	
20	
30	
40	
50	
60	
70	
80	
90	
100	
110	
120	

END AREA		VOLUME	
CUT	FILL	CUT	FILL
57	161	104	362
55	229	106	509
		210	871

CALCULATED R.J.G.
 CHECKED H.A.G.
S.R. 16 CROSS SECTIONS
STA. 258+50.00 TO STA. 259+00.00
LIC-16-16.64

208
729

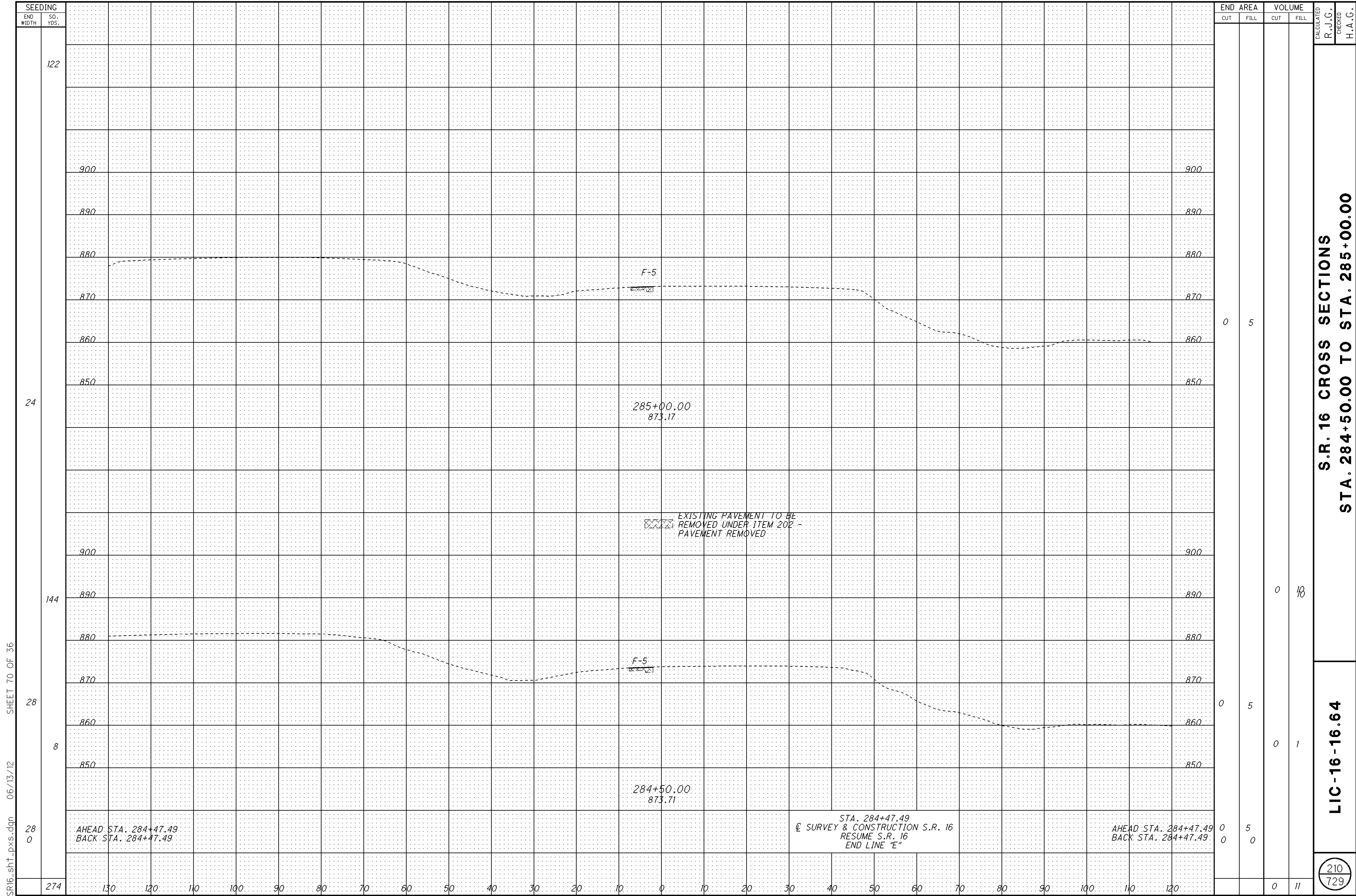


SEEDING	
END WIDTH	SO. YDS.
0	88
88	88
88	47
88	185
929	185
1205	

END AREA		VOLUME	
CUT	FILL	CUT	FILL
0	0	0	83
26	83	23	72
26	83	5	15
26	83	111	1063
112	1063	188	1780
112	1063	157	1134
373	3001	209	729

CALCULATED R.J.G.
 CHECKED H.A.G.
S.R. 16 CROSS SECTIONS
STA. 259+50.00 TO STA. 260+00.00
LIC-16-16.64

SR16_sht1_dxs.dgn 06/13/12 SHEET 45 OF 36



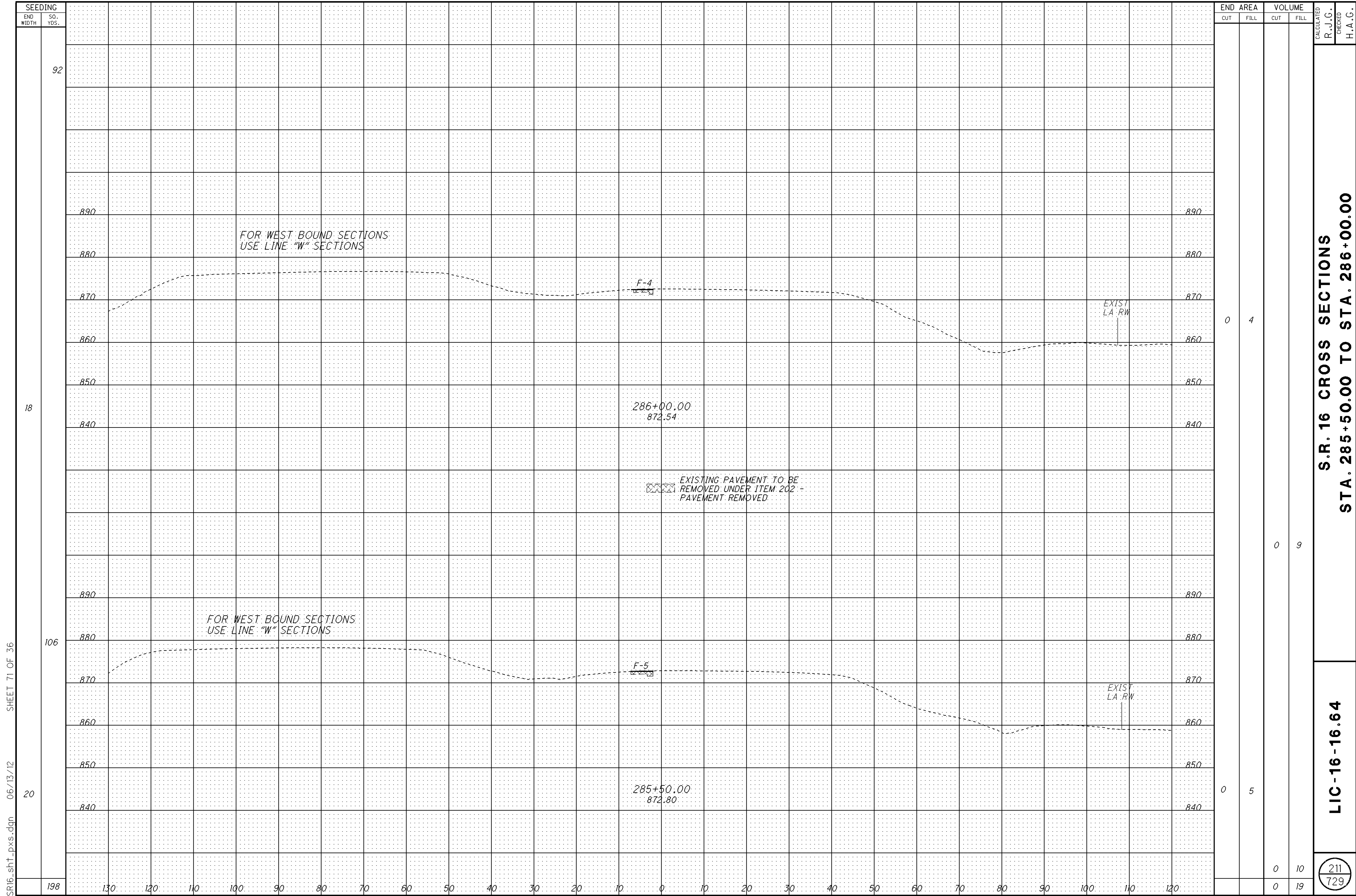
SR16_sht1_pxs.dgn 06/13/12 SHEET 70 OF 36

**S.R. 16 CROSS SECTIONS
STA. 284+50.00 TO STA. 285+00.00**

LIC-16-16.64

CALCULATED
R.J.G.
CHECKED
H.A.G.

210
729

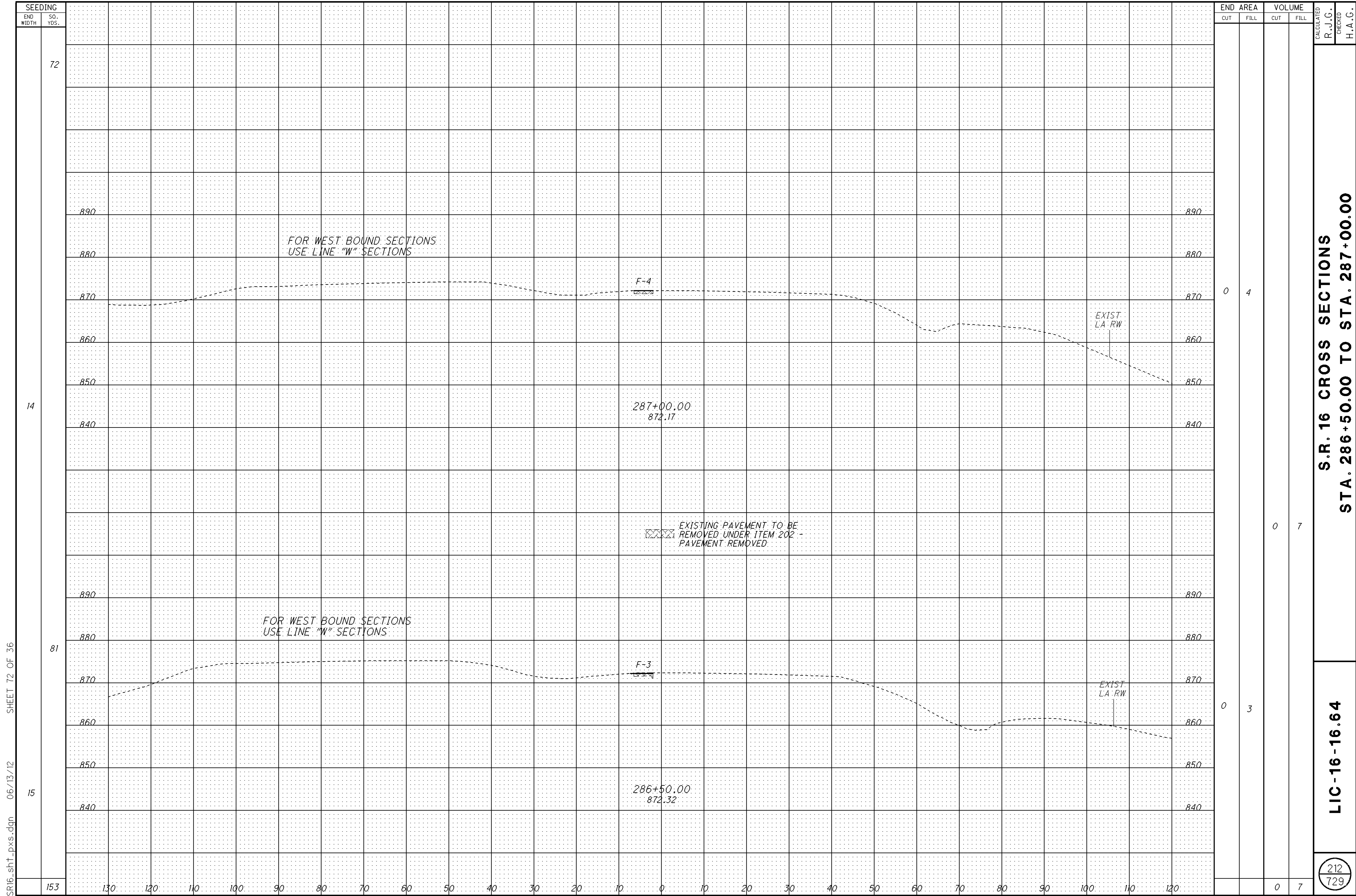


SR16_sht1_pxs.dgn 06/13/12 SHEET 71 OF 36

**S.R. 16 CROSS SECTIONS
STA. 285+50.00 TO STA. 286+00.00**

LIC-16-16.64

211
729



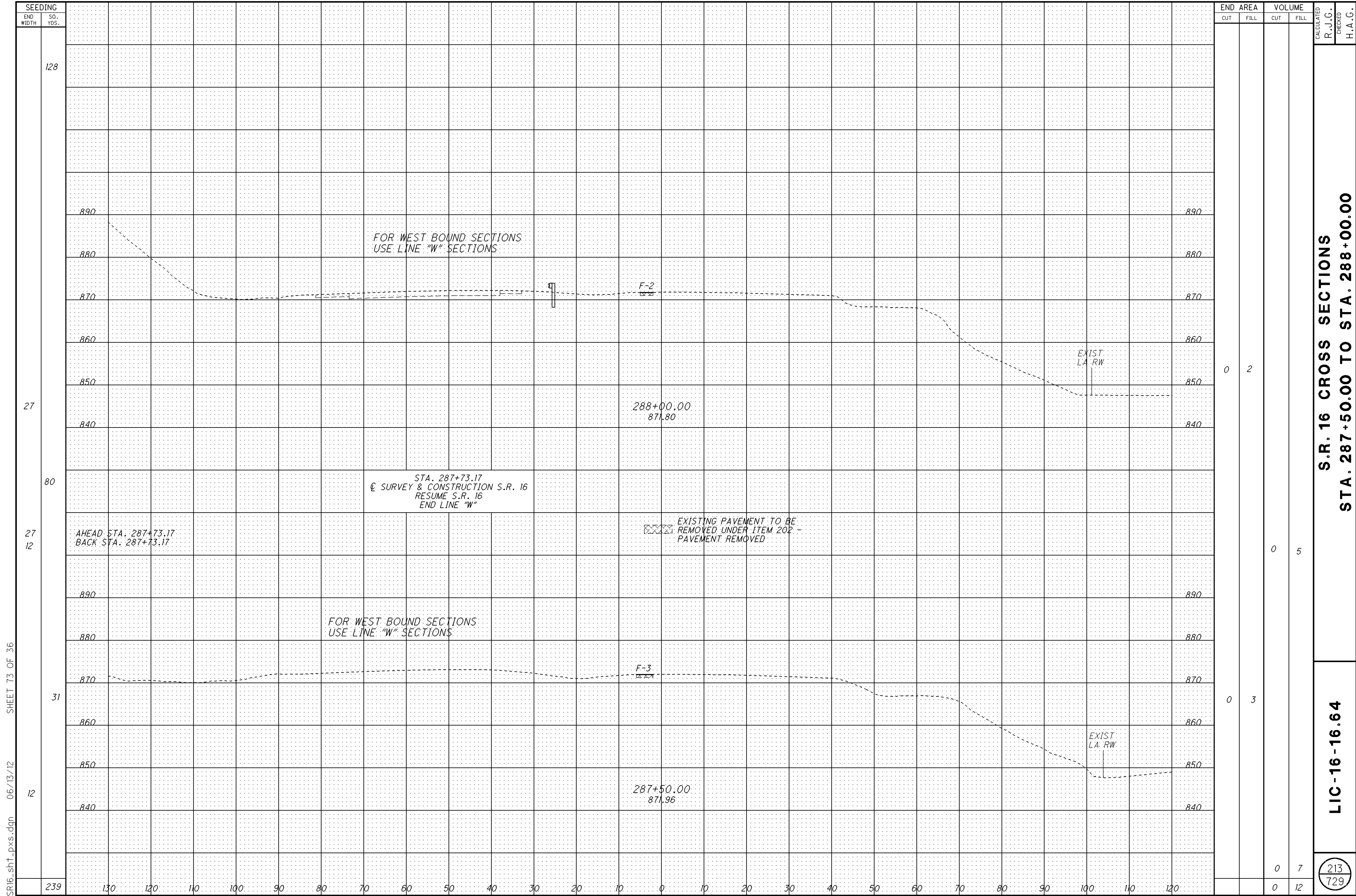
SR16_sht1_pxs.dgn 06/13/12 SHEET 72 OF 36

S.R. 16 CROSS SECTIONS
STA. 286+50.00 TO STA. 287+00.00

LIC-16-16.64

212
729

CALCULATED
R.J.G.
CHECKED
H.A.G.



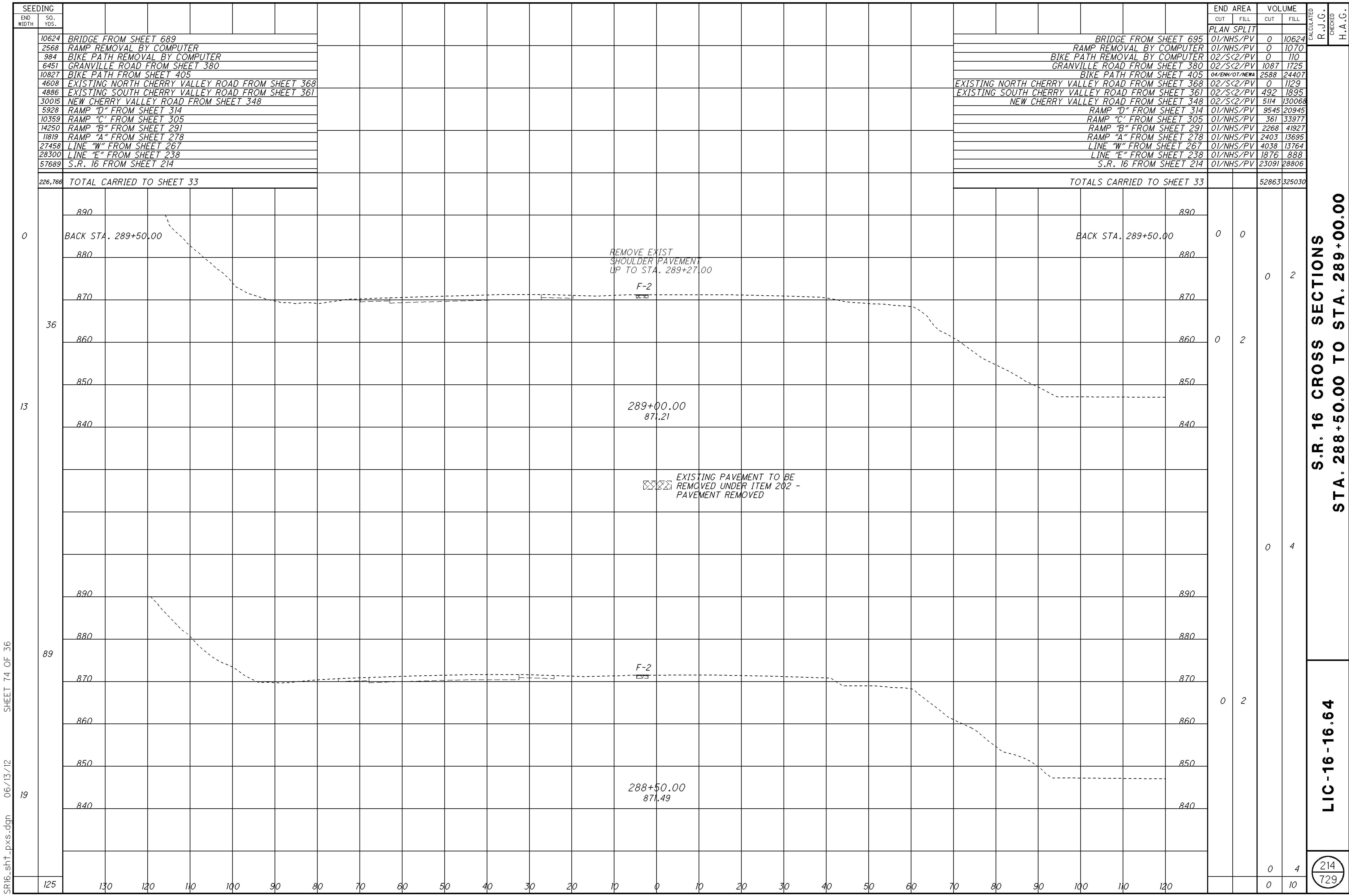
SR16_sht1_pxs.dgn 06/13/12 SHEET 73 OF 36

**S.R. 16 CROSS SECTIONS
STA. 287+50.00 TO STA. 288+00.00**

LIC-16-16.64

CALCULATED
R.J.G.
CHECKED
H.A.G.

213
729



SEEDING	
END WIDTH	SO. YDS.
10624	BRIDGE FROM SHEET 689
2568	RAMP REMOVAL BY COMPUTER
984	BIKE PATH REMOVAL BY COMPUTER
6451	GRANVILLE ROAD FROM SHEET 380
10827	BIKE PATH FROM SHEET 405
4608	EXISTING NORTH CHERRY VALLEY ROAD FROM SHEET 368
4886	EXISTING SOUTH CHERRY VALLEY ROAD FROM SHEET 361
30015	NEW CHERRY VALLEY ROAD FROM SHEET 348
5928	RAMP "D" FROM SHEET 314
10359	RAMP "C" FROM SHEET 305
14250	RAMP "B" FROM SHEET 291
11819	RAMP "A" FROM SHEET 278
27458	LINE "W" FROM SHEET 267
28300	LINE "E" FROM SHEET 238
57689	S.R. 16 FROM SHEET 214
226,766	TOTAL CARRIED TO SHEET 33

END AREA		VOLUME	
CUT	FILL	CUT	FILL
PLAN SPLIT			
01/NHS/PV	0	10624	0
01/NHS/PV	0	1070	0
02/S<2/PV	0	110	0
02/S<2/PV	1087	1725	0
04/ENH/01/NEVA	2588	24407	0
02/S<2/PV	0	1129	0
02/S<2/PV	492	1895	0
02/S<2/PV	5114	130068	0
01/NHS/PV	9545	20945	0
01/NHS/PV	361	33977	0
01/NHS/PV	2268	41927	0
01/NHS/PV	2403	13695	0
01/NHS/PV	4038	13764	0
01/NHS/PV	1876	888	0
01/NHS/PV	23091	28806	0
TOTALS CARRIED TO SHEET 33		52863	325030

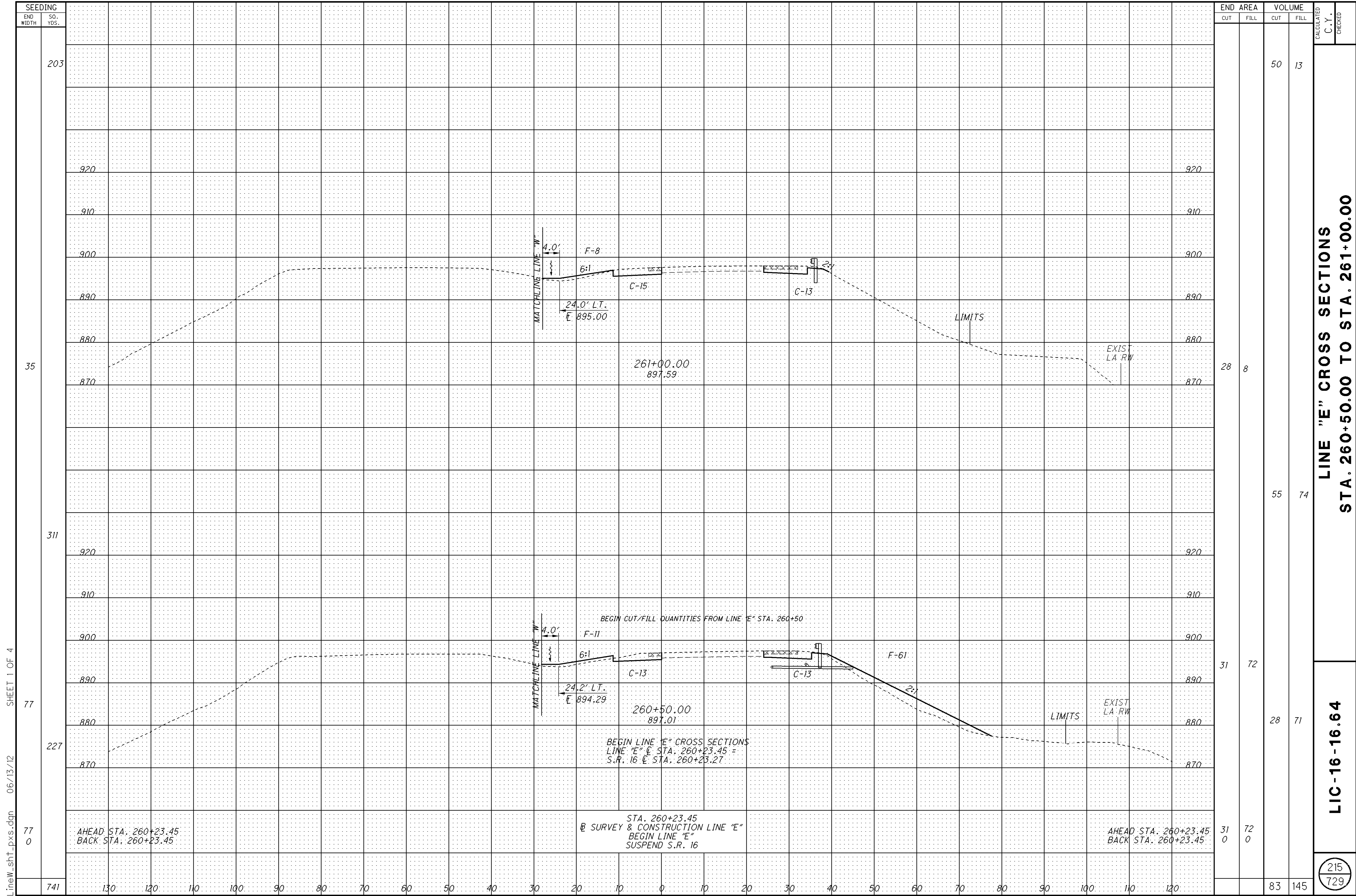
S.R. 16 CROSS SECTIONS
STA. 288+50.00 TO STA. 289+00.00

LIC-16-16.64

CALCULATED R.J.G.
 CHECKED H.A.G.

SR16_sht1_pxs.dgn 06/13/12 SHEET 74 OF 36

214
 729

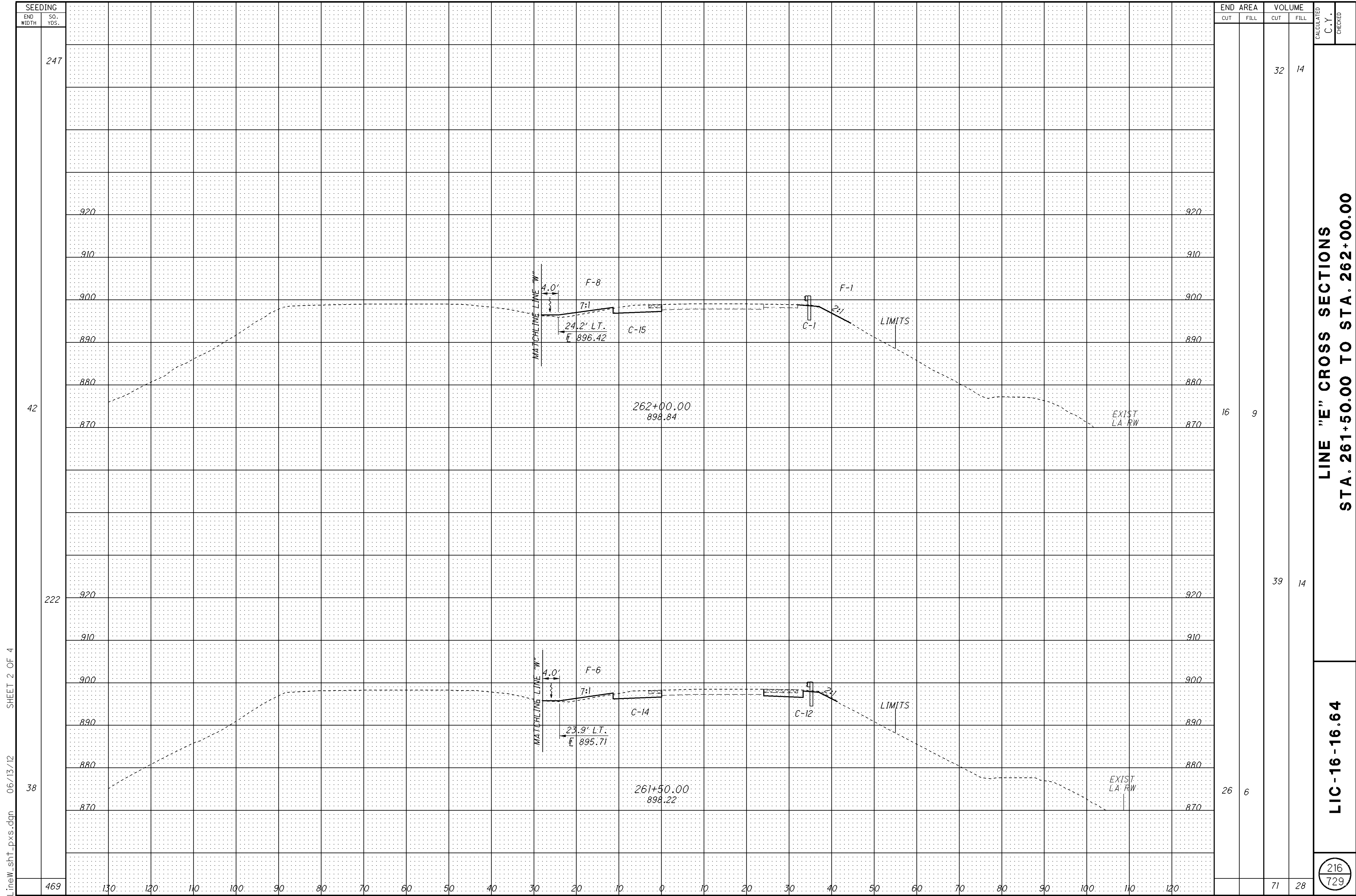


LINE "E" CROSS SECTIONS
STA. 260+50.00 TO STA. 261+00.00

LIC-16-16.64

215
729

LineW_sht_pxs.dgn 06/13/12 SHEET 1 OF 4



SEEDING	
END WIDTH	SO. YDS.
42	247
38	222
469	

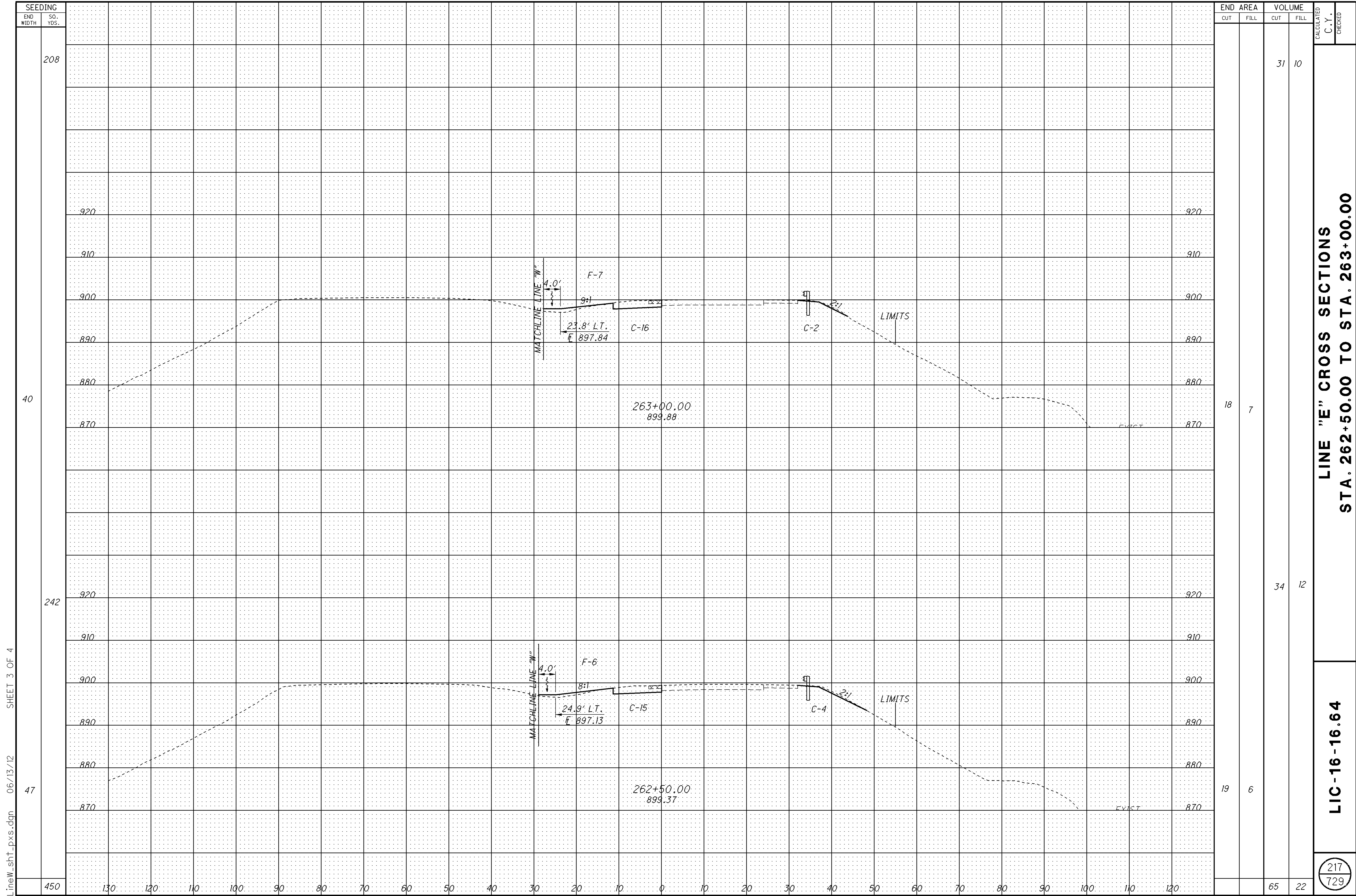
END AREA		VOLUME	
CUT	FILL	CUT	FILL
16	9	32	14
26	6	39	14
71	28		

LINE "E" CROSS SECTIONS
STA. 261+50.00 TO STA. 262+00.00

LIC-16-16.64

CALCULATED C.Y. CHECKED

LineW_sht_pxs.dgn 06/13/12 SHEET 2 OF 4



SEEDING	
END WIDTH	SO. YDS.
208	
40	
242	
47	
450	

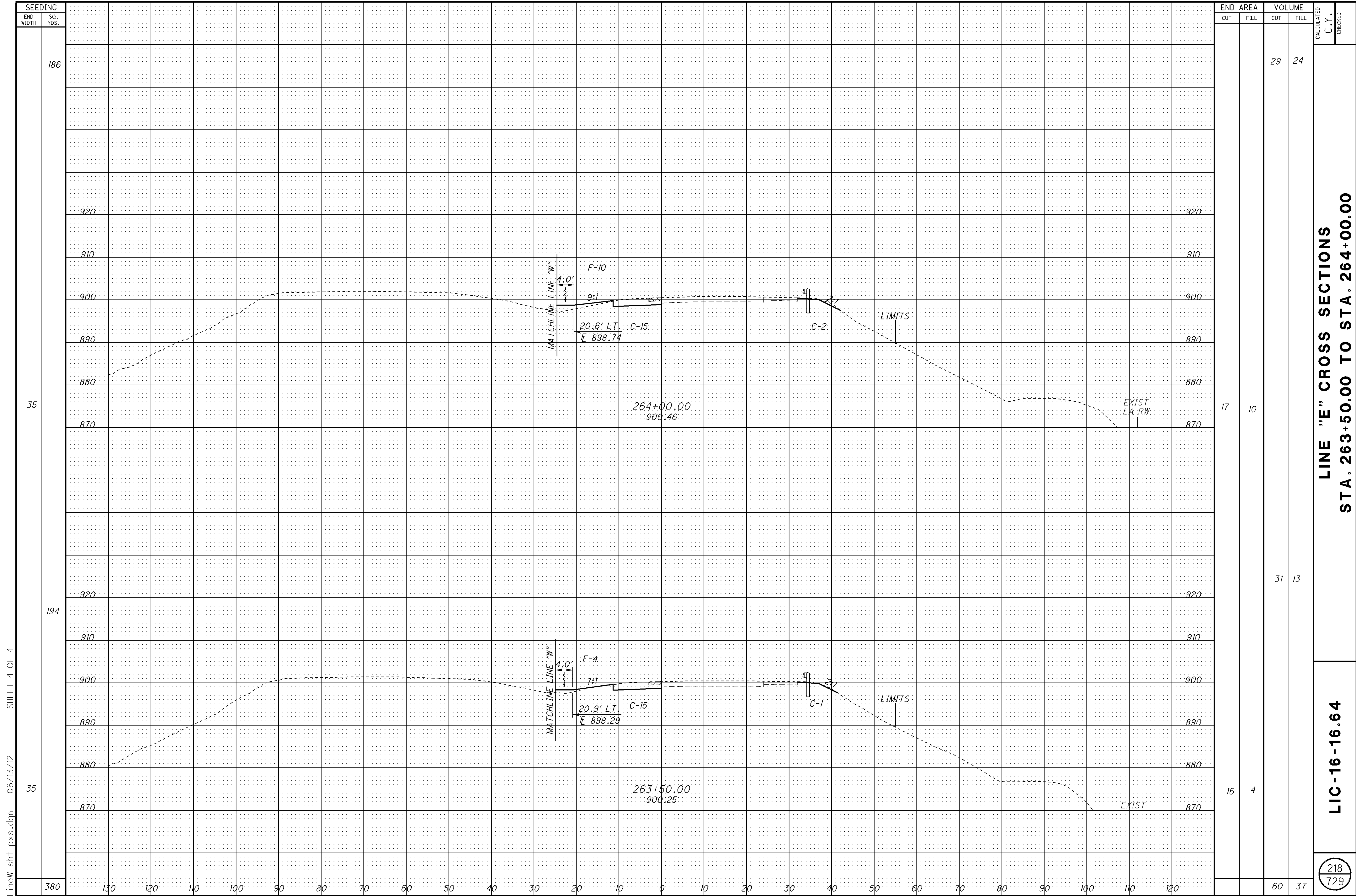
END AREA		VOLUME	
CUT	FILL	CUT	FILL
18	7	31	10
19	6	34	12
65	22		

CALCULATED
 C.Y.
 CHECKED

LINE "E" CROSS SECTIONS
STA. 262+50.00 TO STA. 263+00.00

LIC-16-16.64

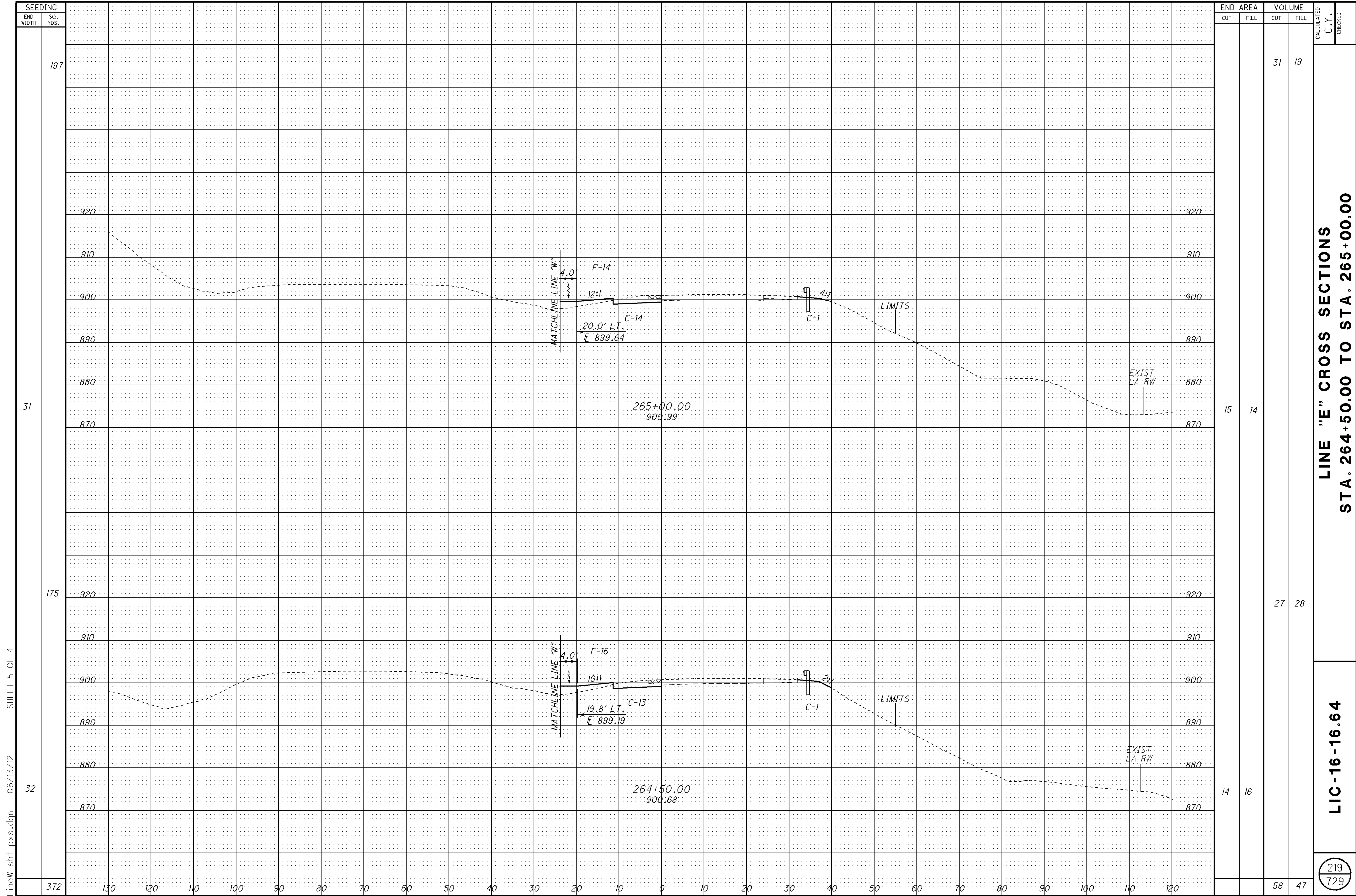
217
 729



SEEDING	
END WIDTH	SO. YDS.
186	
35	
194	
35	
380	

END AREA		VOLUME	
CUT	FILL	CUT	FILL
		29	24
17	10	31	13
16	4	60	37

CALCULATED C.Y. CHECKED
LINE "E" CROSS SECTIONS
STA. 263+50.00 TO STA. 264+00.00
LIC-16-16.64



SEEDING	
END WIDTH	SO. YDS.
197	
31	
175	
32	
372	

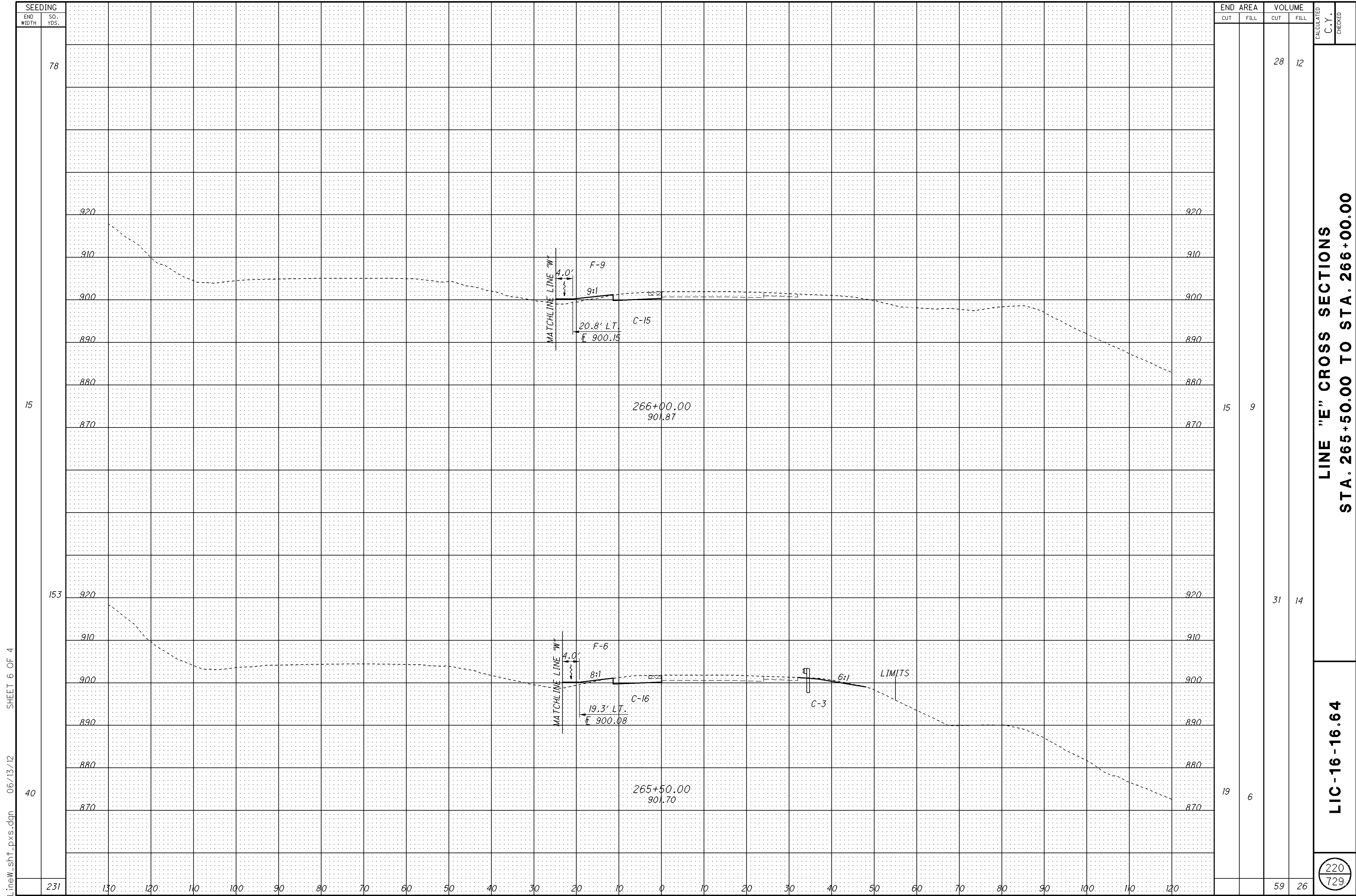
END AREA		VOLUME	
CUT	FILL	CUT	FILL
15	14	31	19
27	28		
14	16		
58	47		

CALCULATED
 C.Y.
 CHECKED

LINE "E" CROSS SECTIONS
STA. 264+50.00 TO STA. 265+00.00

LIC-16-16.64

219
 729

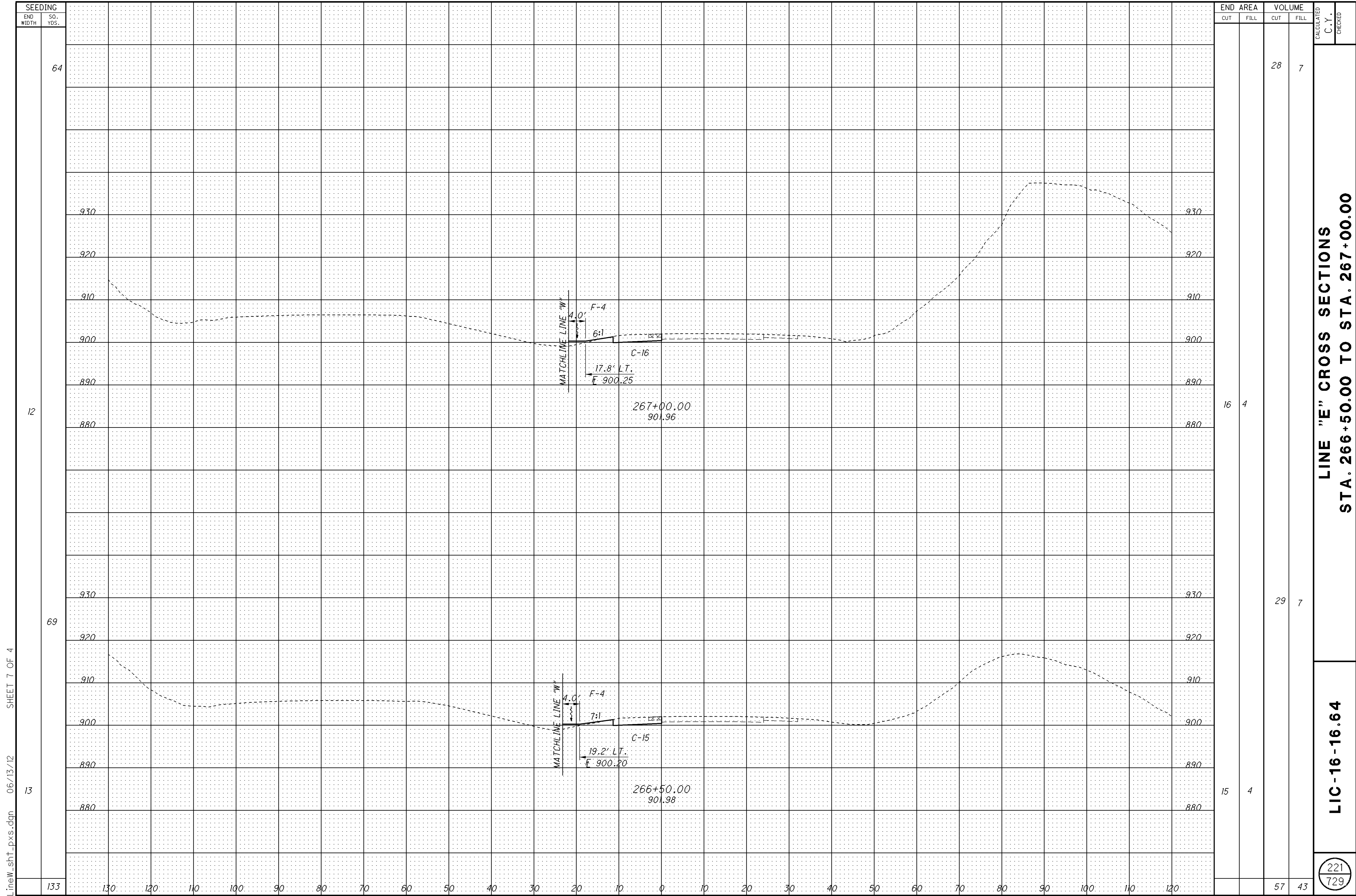


Line_w_sht_pxs.dgn 06/13/12 SHEET 6 OF 4

LINE "E" CROSS SECTIONS
STA. 265+50.00 TO STA. 266+00.00

LIC-16-16.64

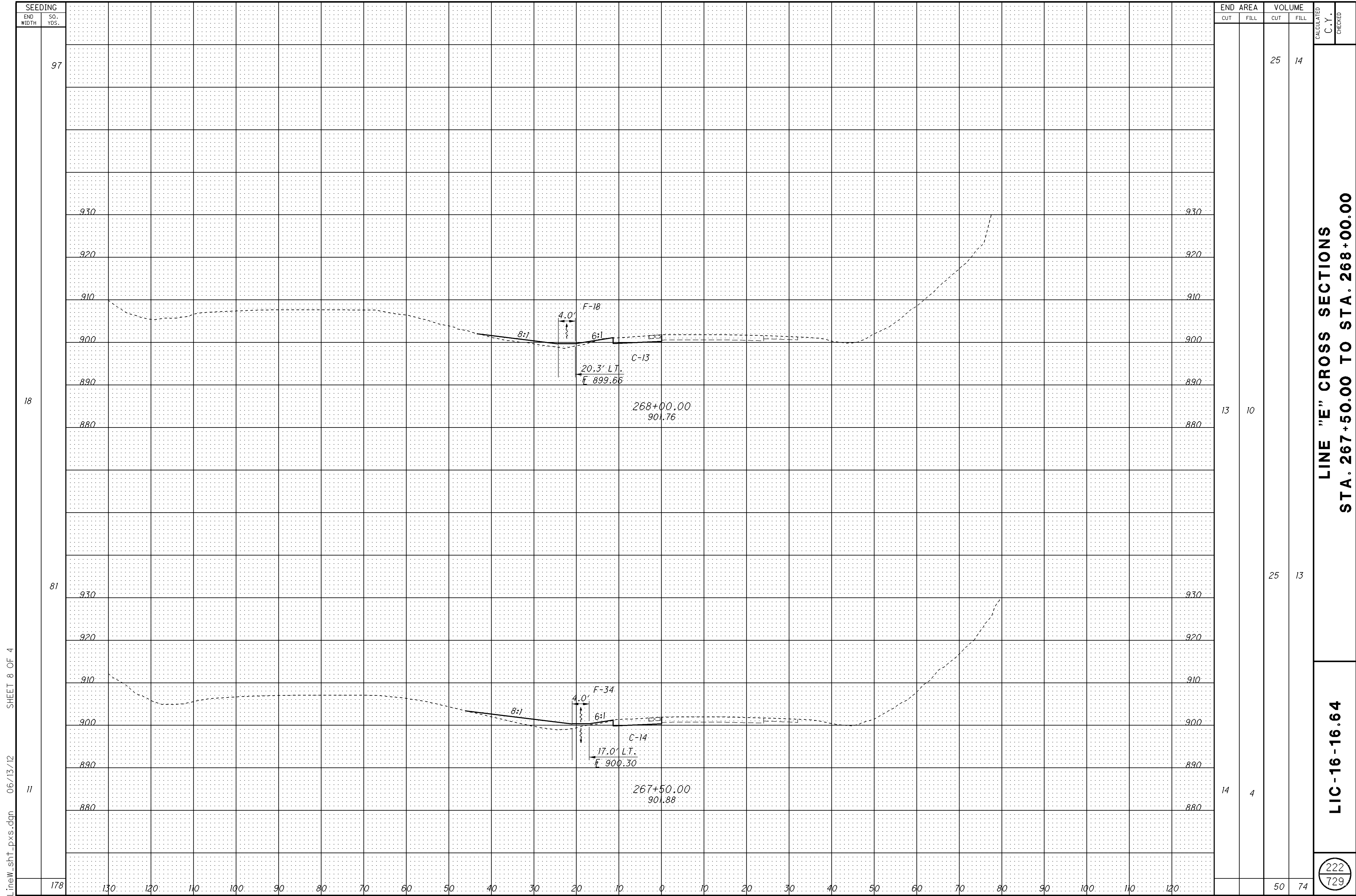
220
729



SEEDING	
END WIDTH	SO. YDS.
64	
12	
69	
13	
133	

END AREA		VOLUME	
CUT	FILL	CUT	FILL
		28	7
16	4		
		29	7
15	4		
		57	43

LINE "E" CROSS SECTIONS
STA. 266+50.00 TO STA. 267+00.00
 CALCULATED C.Y. CHECKED
LIC-16-16.64
 221
 729



SEEDING

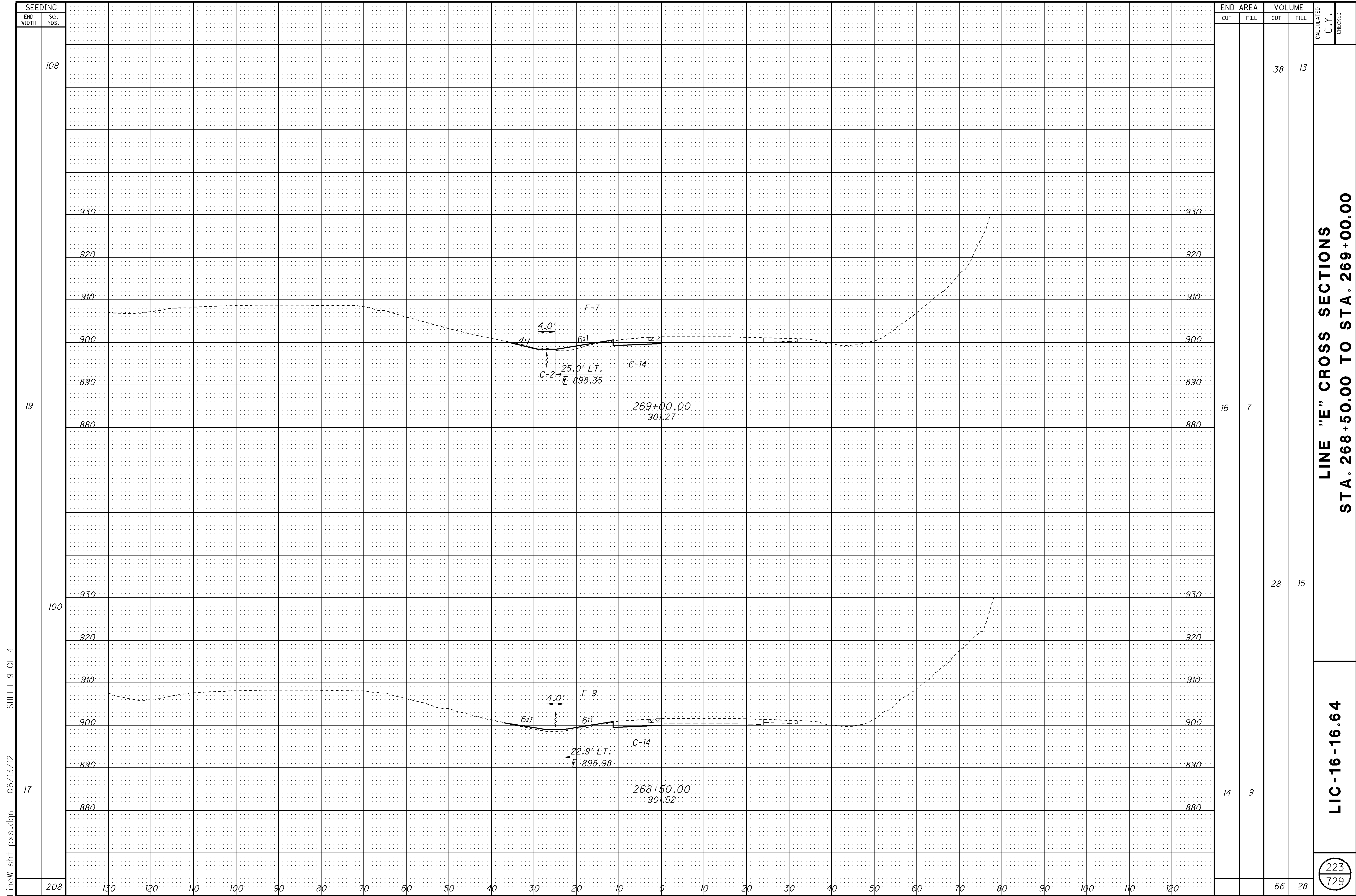
END WIDTH	SO. YDS.
97	
930	
920	
910	
900	
890	
880	
81	
930	
920	
910	
900	
890	
880	
11	
178	

END AREA		VOLUME		CALCULATED C.Y.	CHECKED
CUT	FILL	CUT	FILL		
		25	14		
13	10	25	13		
14	4	50	74		

LINE "E" CROSS SECTIONS
 STA. 267+50.00 TO STA. 268+00.00

LIC-16-16.64

222
729



SEEDING	
END WIDTH	SO. YDS.
108	
19	
100	
17	
208	

END AREA		VOLUME	
CUT	FILL	CUT	FILL
		38	13
16	7		
		28	15
14	9		
		66	28

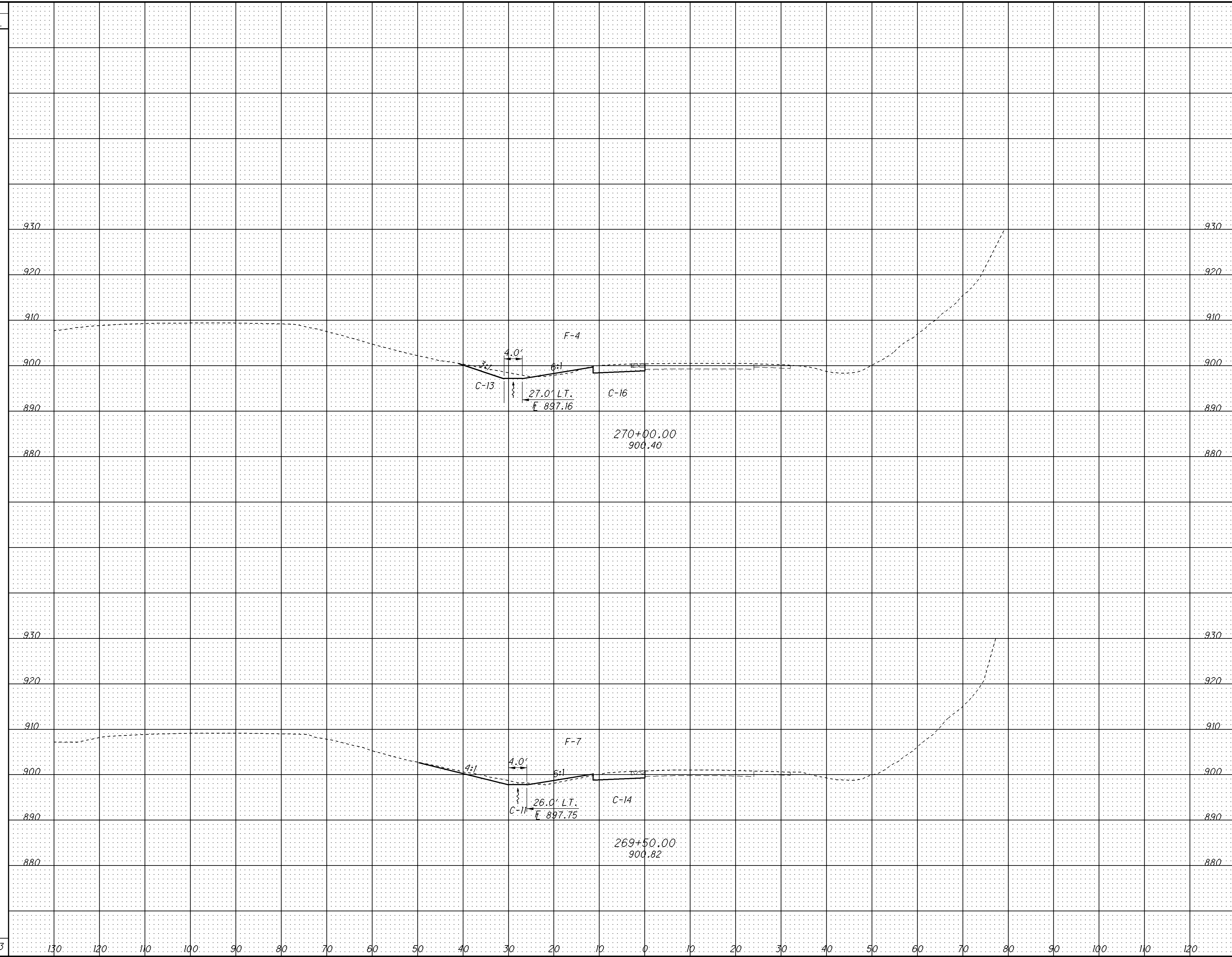
LINE "E" CROSS SECTIONS
STA. 268+50.00 TO STA. 269+00.00

LIC-16-16.64

CALCULATED C.Y. CHECKED

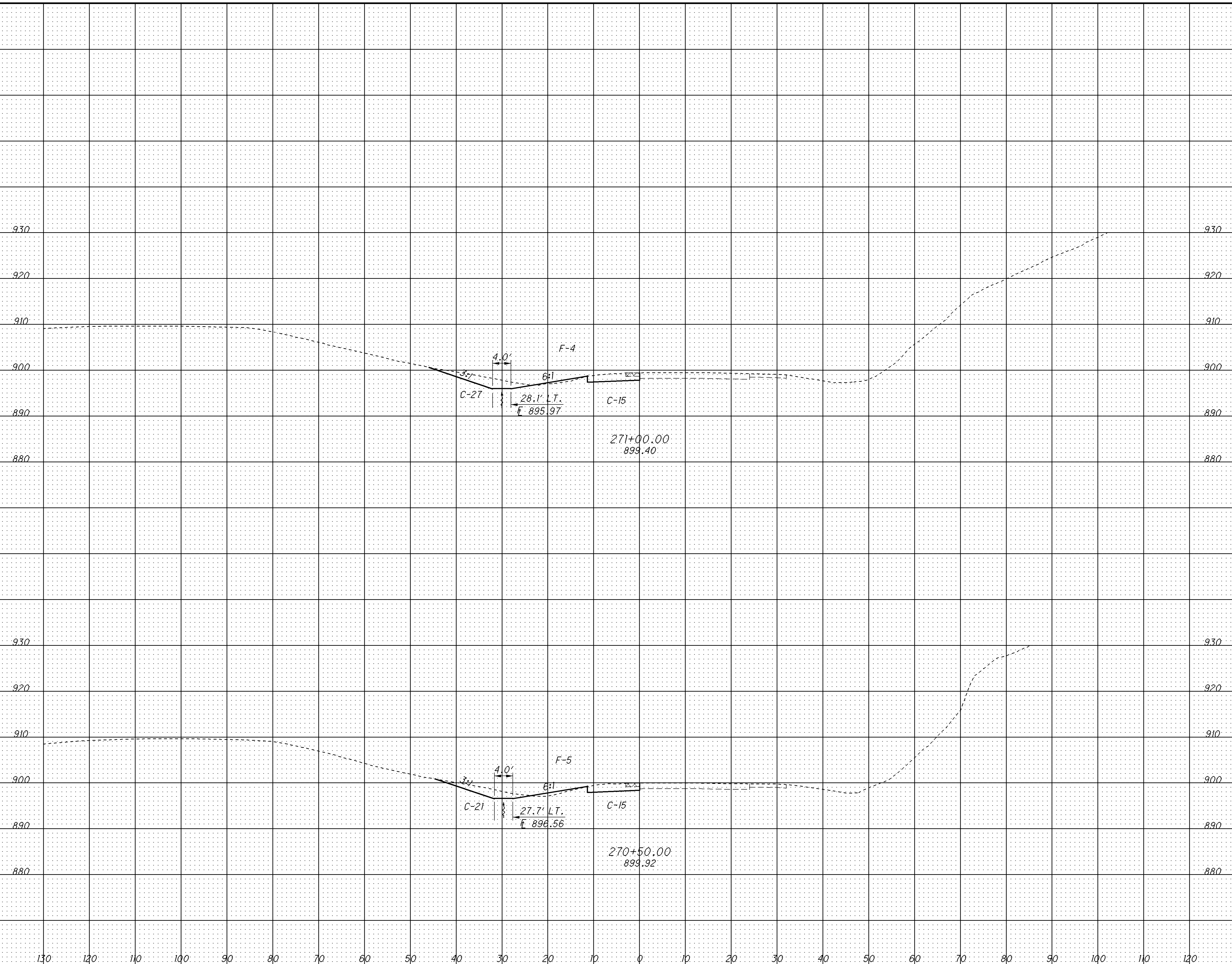
Linew_sht_pxs.dgn 06/13/12 SHEET 9 OF 4

SEEDING
 END WIDTH SQ. YDS.
 119
 21
 114
 20
 233

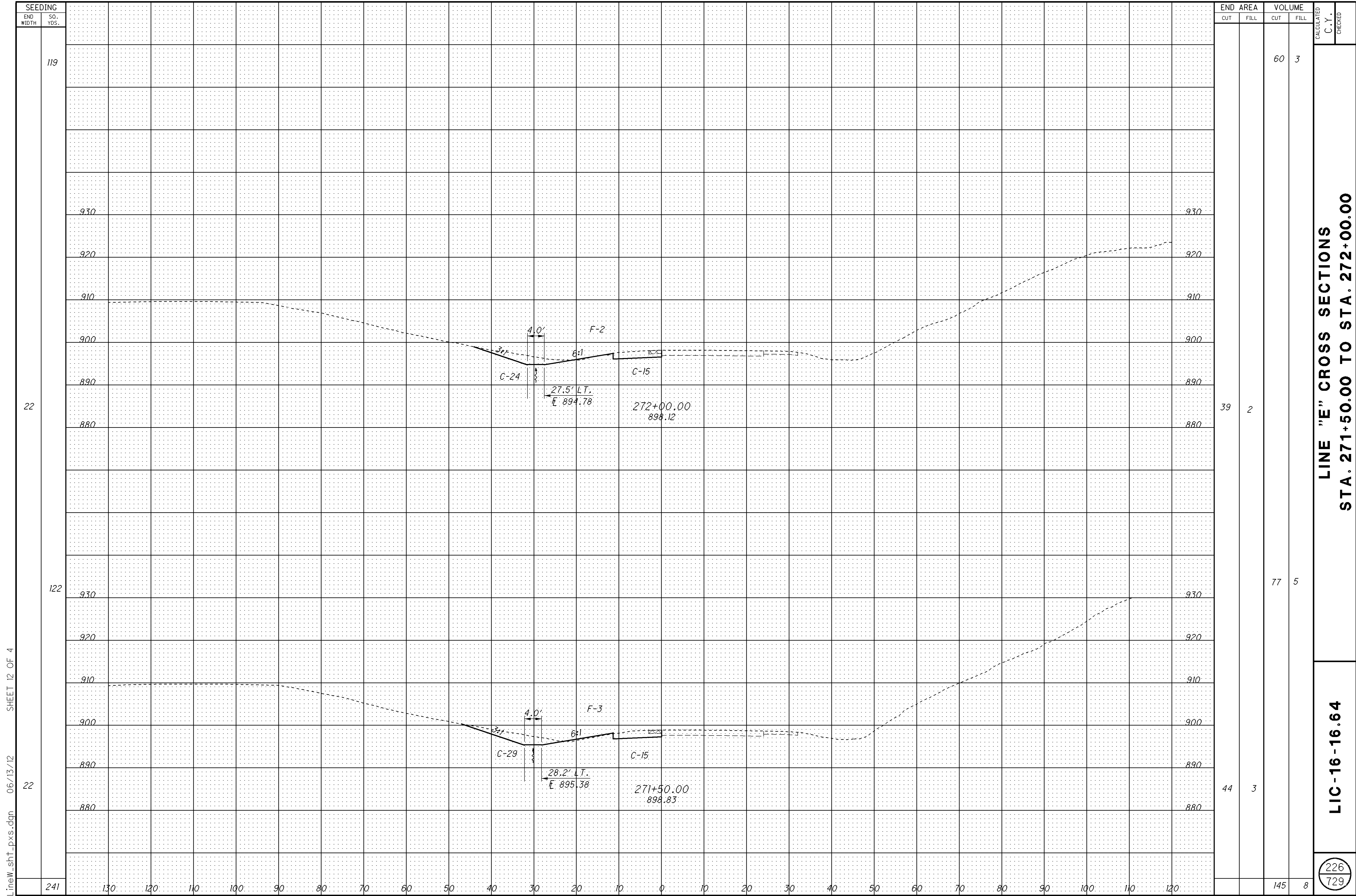


END AREA	VOLUME	
	CUT	FILL
	61	8
	29	4
	50	10
	25	7
	111	18

CALCULATED C.Y. CHECKED
LINE "E" CROSS SECTIONS
STA. 269+50.00 TO STA. 270+00.00
 LIC-16-16.64
 224
 729



END AREA		VOLUME	
CUT	FILL	CUT	FILL
		80	6
42	4		
		73	8
36	5		
153	14		



SEEDING

END WIDTH	SO. YDS.
119	
122	
22	
22	
241	

END AREA
CUT FILL

VOLUME
CUT FILL

CALCULATED
C.Y.
CHECKED

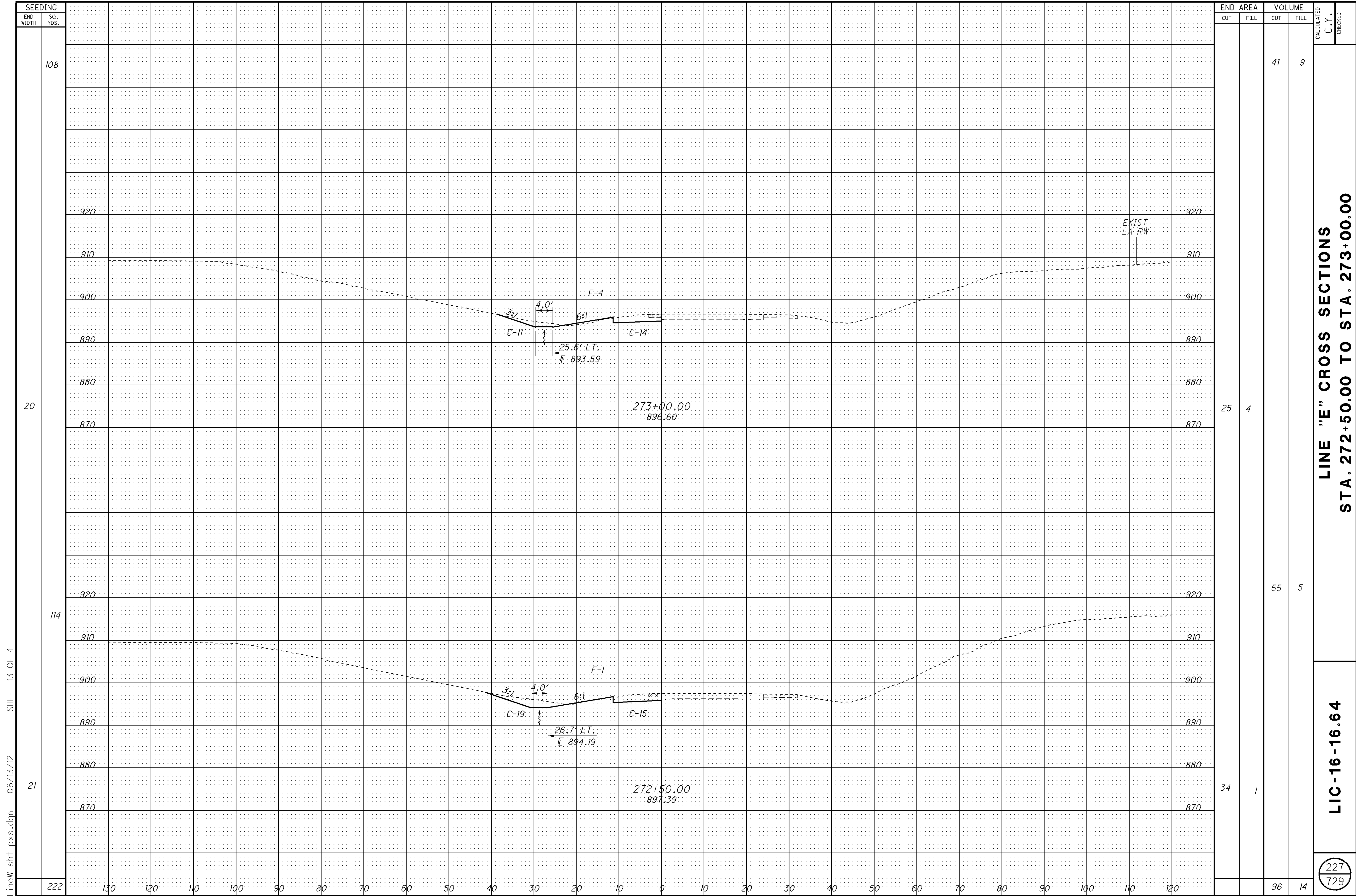
39	2	77	5	145	8
60	3				

LINE "E" CROSS SECTIONS
STA. 271+50.00 TO STA. 272+00.00

LIC-16-16.64

226
729

Line_w_sht_pxs.dgn 06/13/12 SHEET 12 OF 4



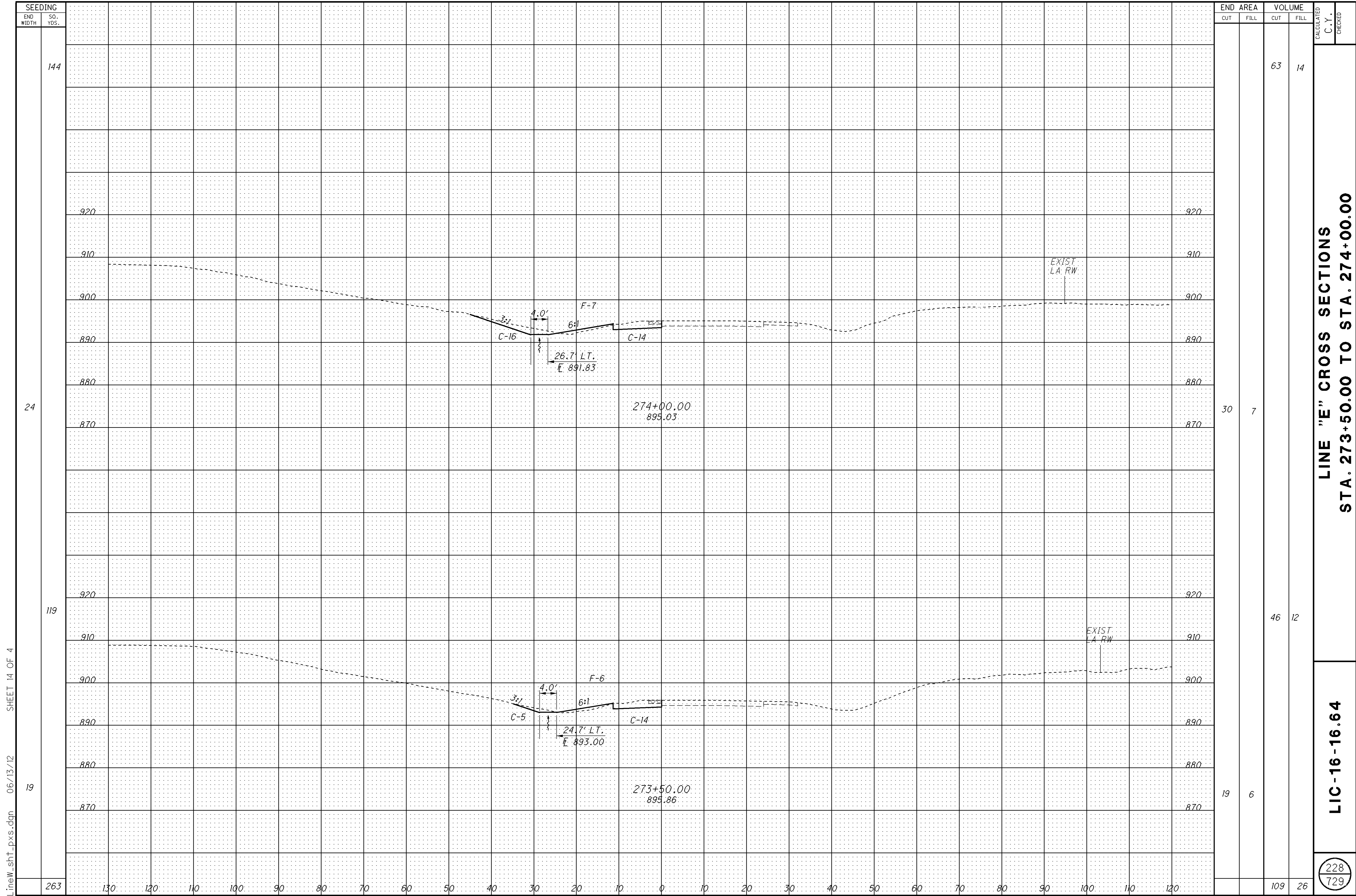
SEEDING	
END WIDTH	SO. YDS.
108	
20	
114	
21	
222	

END AREA		VOLUME	
CUT	FILL	CUT	FILL
		41	9
25	4		
		55	5
34	1		
		96	14

LINE "E" CROSS SECTIONS
STA. 272+50.00 TO STA. 273+00.00

LIC-16-16.64

CALCULATED C.Y. CHECKED



Line_w_sht_pxs.dgn 06/13/12 SHEET 14 OF 4

24

19

144

119

263

920

910

900

890

880

870

920

910

900

890

880

870

130

120

110

100

90

80

70

60

50

40

30

20

10

0

10

20

30

40

50

60

70

80

90

100

110

120

274+00.00
895.03

273+50.00
895.86

C-16

4.0'

6:1

26.7' LT.
E 891.83

4.0'

6:1

24.7' LT.
E 893.00

EXIST
LA: RW

EXIST
LA: RW

30

7

46

12

19

6

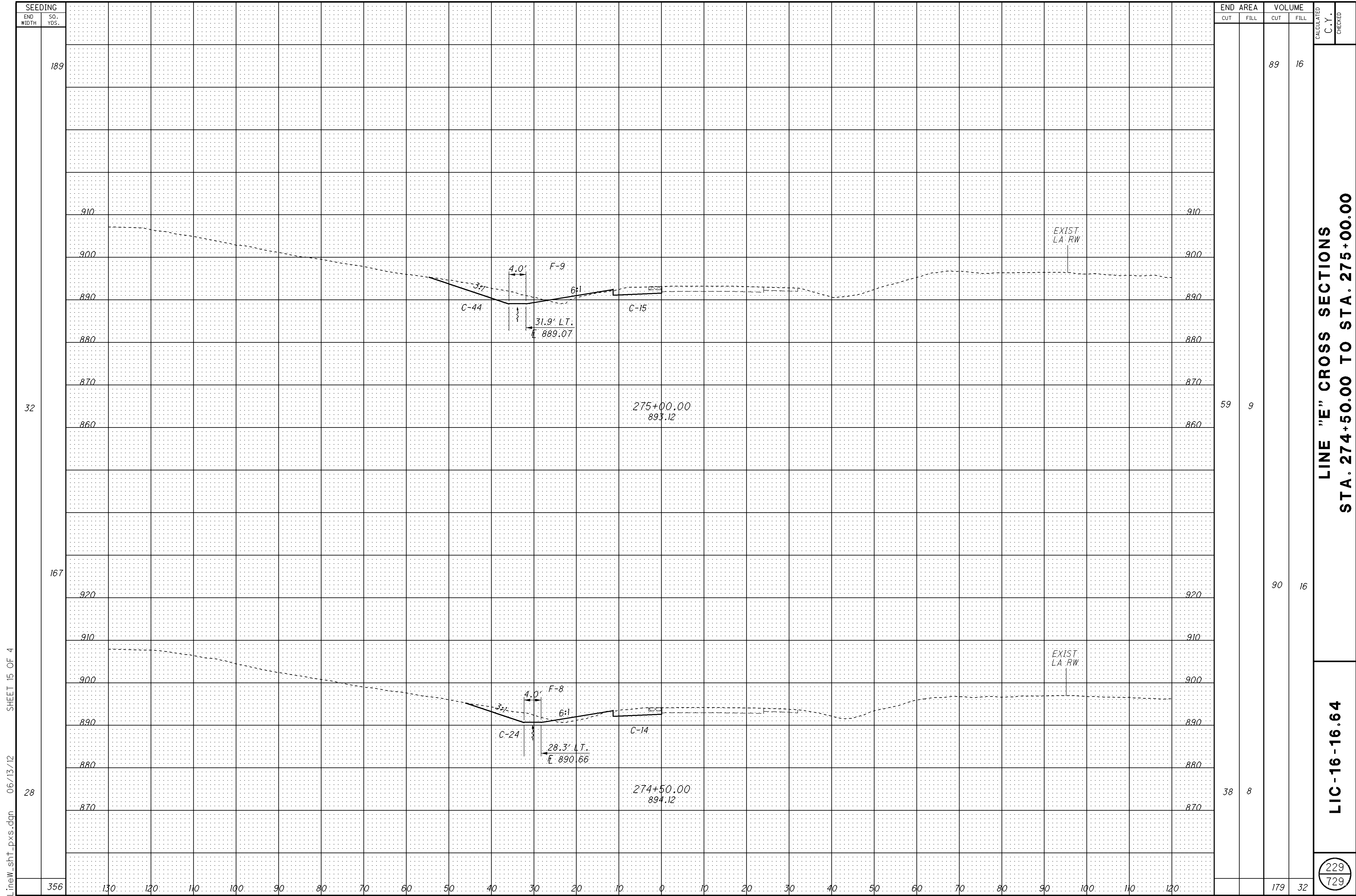
109

26

LINE "E" CROSS SECTIONS
STA. 273+50.00 TO STA. 274+00.00

LIC-16-16.64

228
729

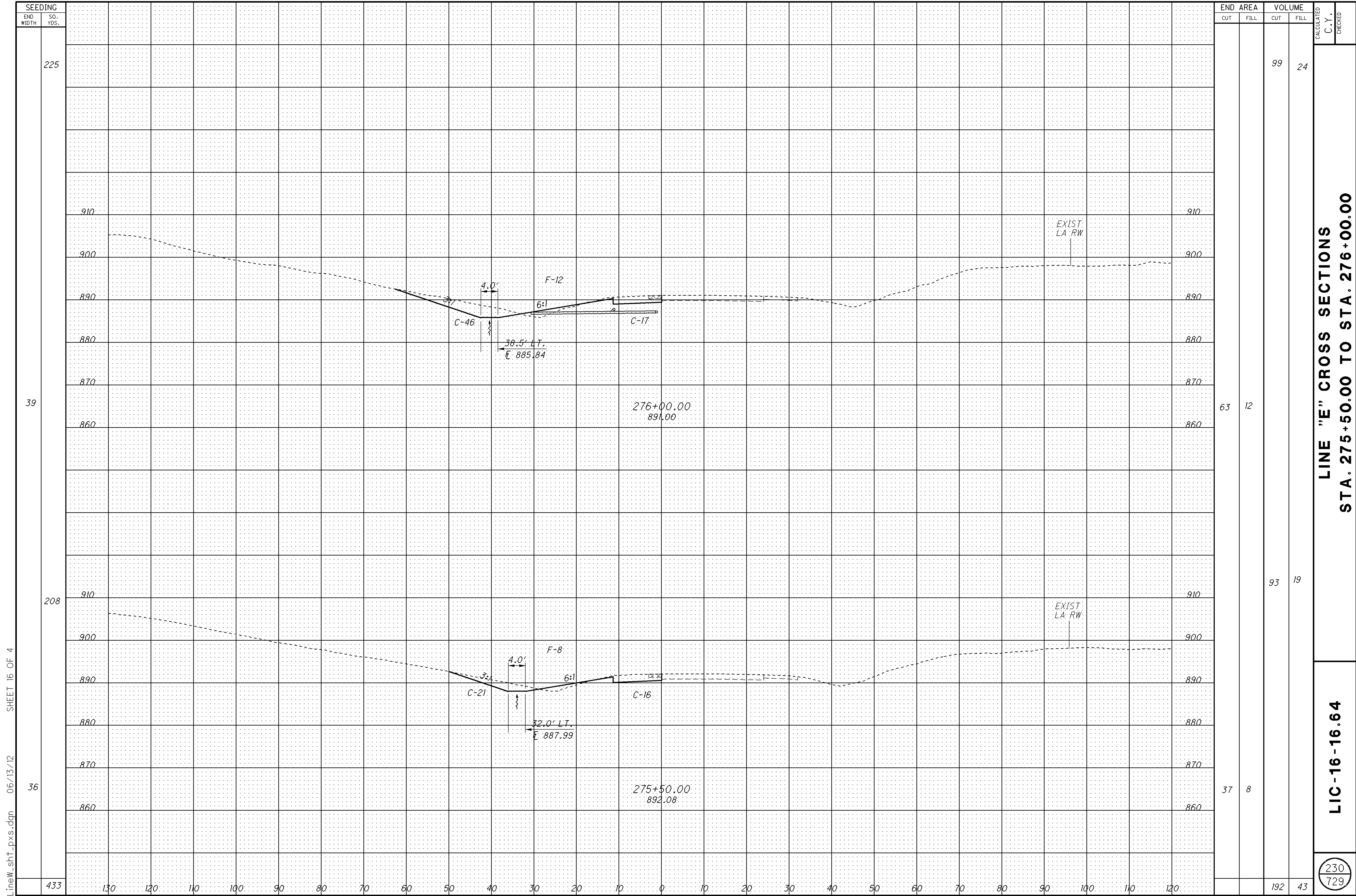


Line_w_sht_pxs.dgn 06/13/12 SHEET 15 OF 4

**LINE "E" CROSS SECTIONS
STA. 274+50.00 TO STA. 275+00.00**

LIC-16-16.64

229
729



SEEDING

END WIDTH	SO. YDS.
225	
39	
208	
36	
433	

END AREA

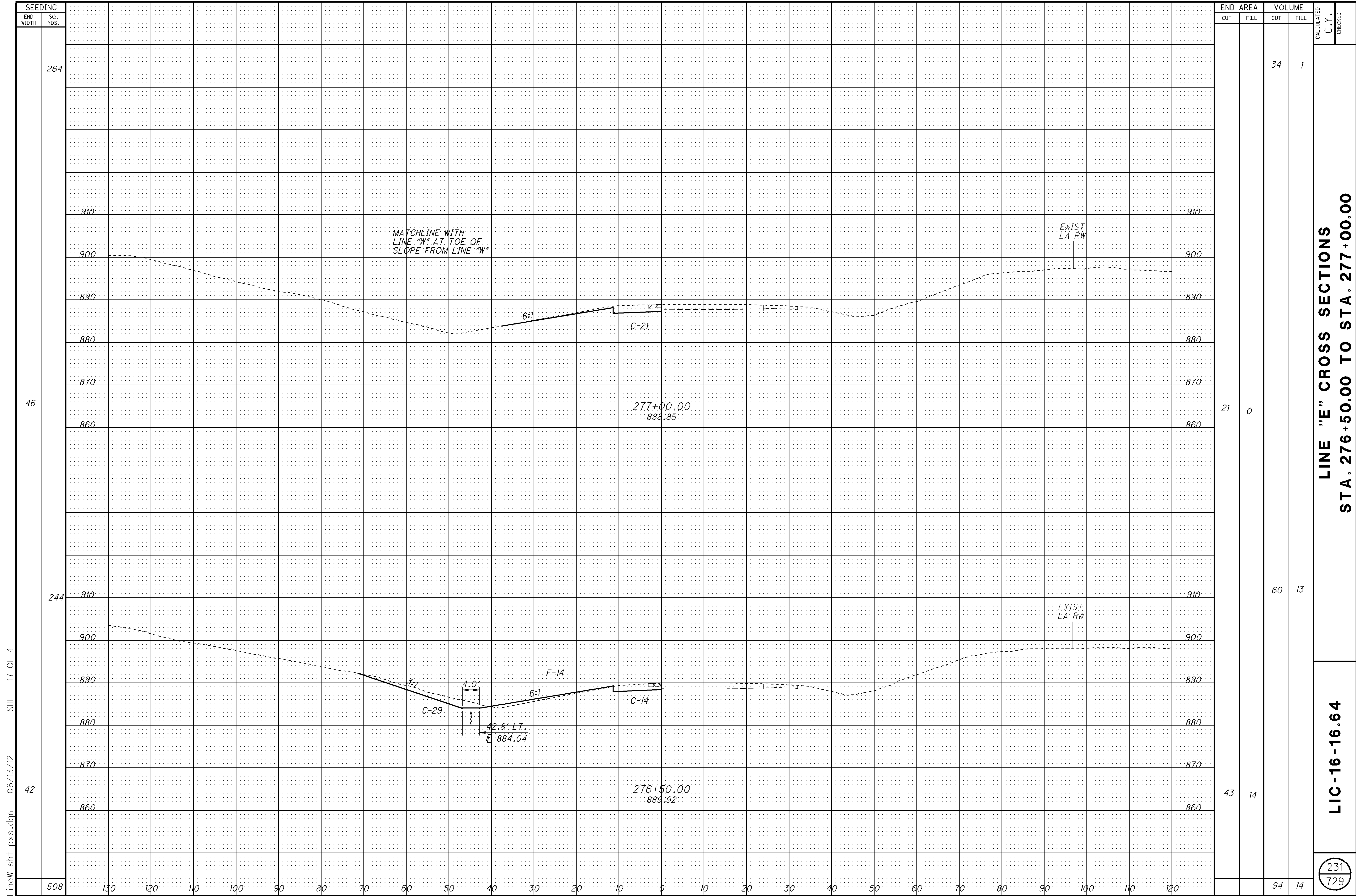
END AREA		VOLUME	
CUT	FILL	CUT	FILL
		99	24
63	12	93	19
37	8	192	43

LINE "E" CROSS SECTIONS
 STA. 275+50.00 TO STA. 276+00.00

LIC-16-16.64

230
729

Line_w_sht_pxs.dgn 06/13/12 SHEET 16 OF 4



SEEDING	
END WIDTH	SO. YDS.
264	
46	
244	
42	
508	

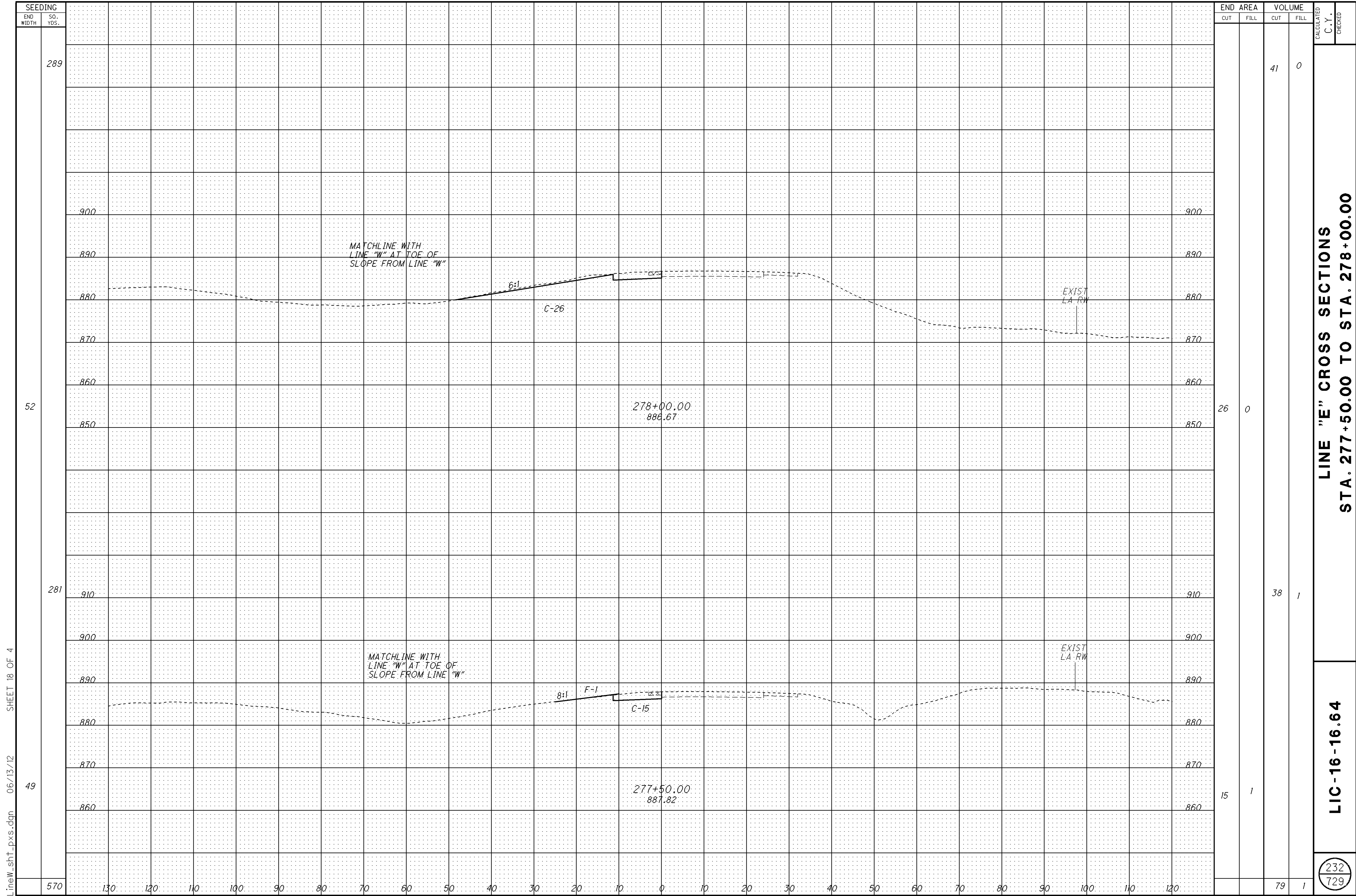
END AREA		VOLUME	
CUT	FILL	CUT	FILL
		34	1
21	0	60	13
43	14	94	14

LINE "E" CROSS SECTIONS
STA. 276+50.00 TO STA. 277+00.00

LIC-16-16.64

CALCULATED
 C.Y.
 CHECKED

Line_w_sht_pxs.dgn 06/13/12 SHEET 17 OF 4



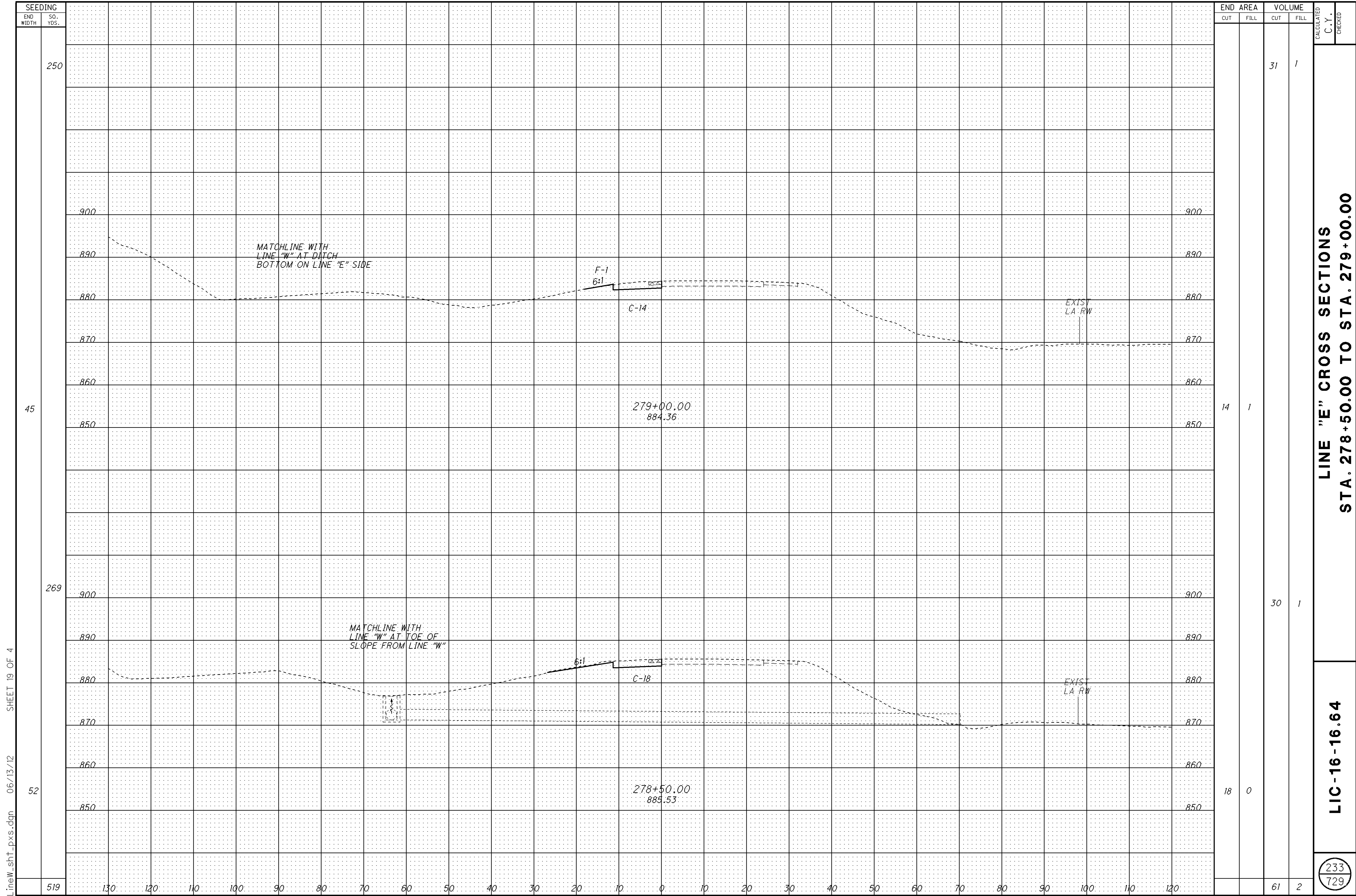
SEEDING	
END WIDTH	SO. YDS.
289	
52	
281	
49	
570	

END AREA		VOLUME	
CUT	FILL	CUT	FILL
		41	0
		26	0
		38	1
		15	1
		79	1

LINE "E" CROSS SECTIONS
 STA. 277+50.00 TO STA. 278+00.00

LIC-16-16.64

232
729

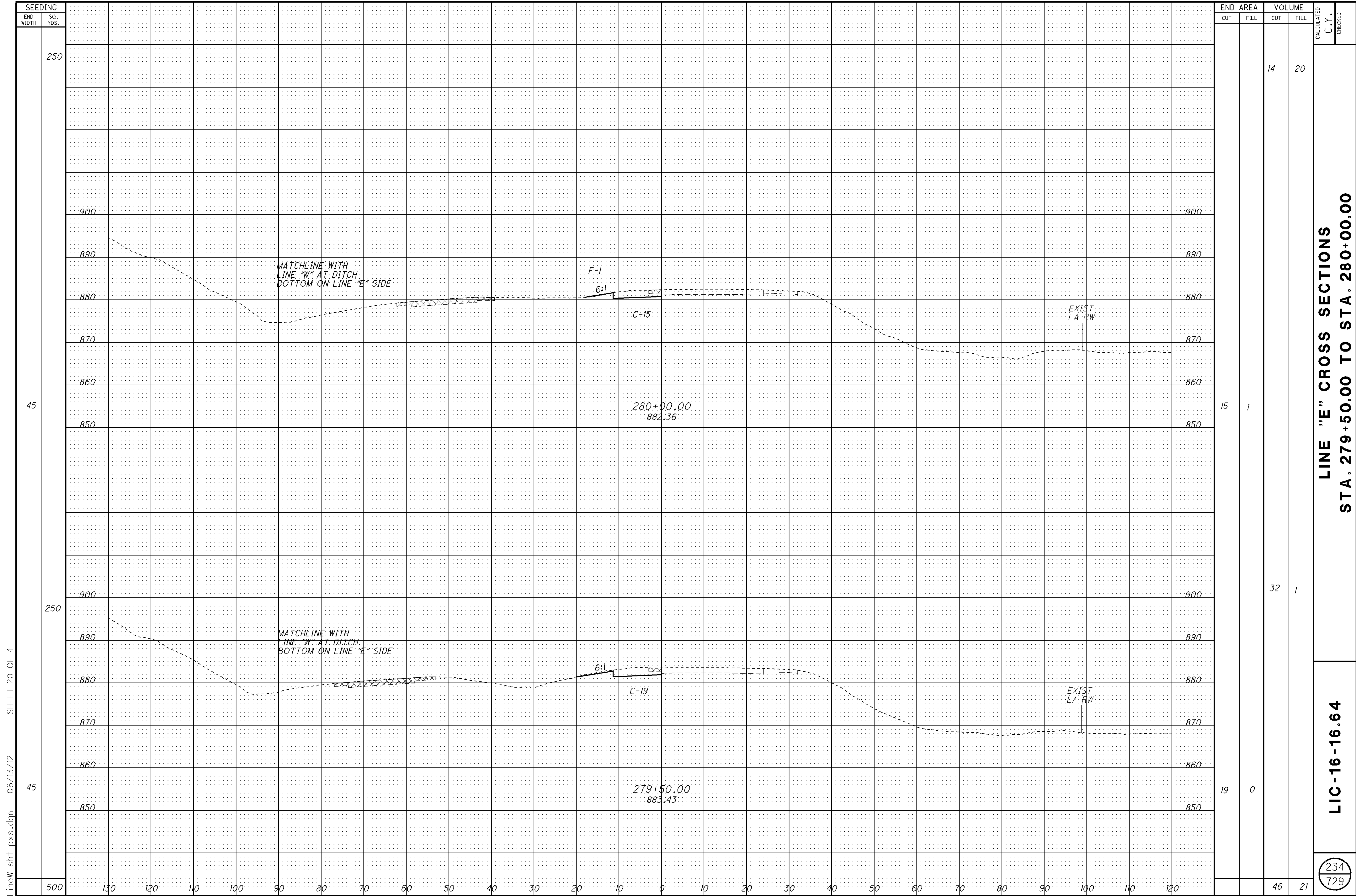


Line_w_sht_pxs.dgn 06/13/12 SHEET 19 OF 4

**LINE "E" CROSS SECTIONS
STA. 278+50.00 TO STA. 279+00.00**

LIC-16-16.64

233
729



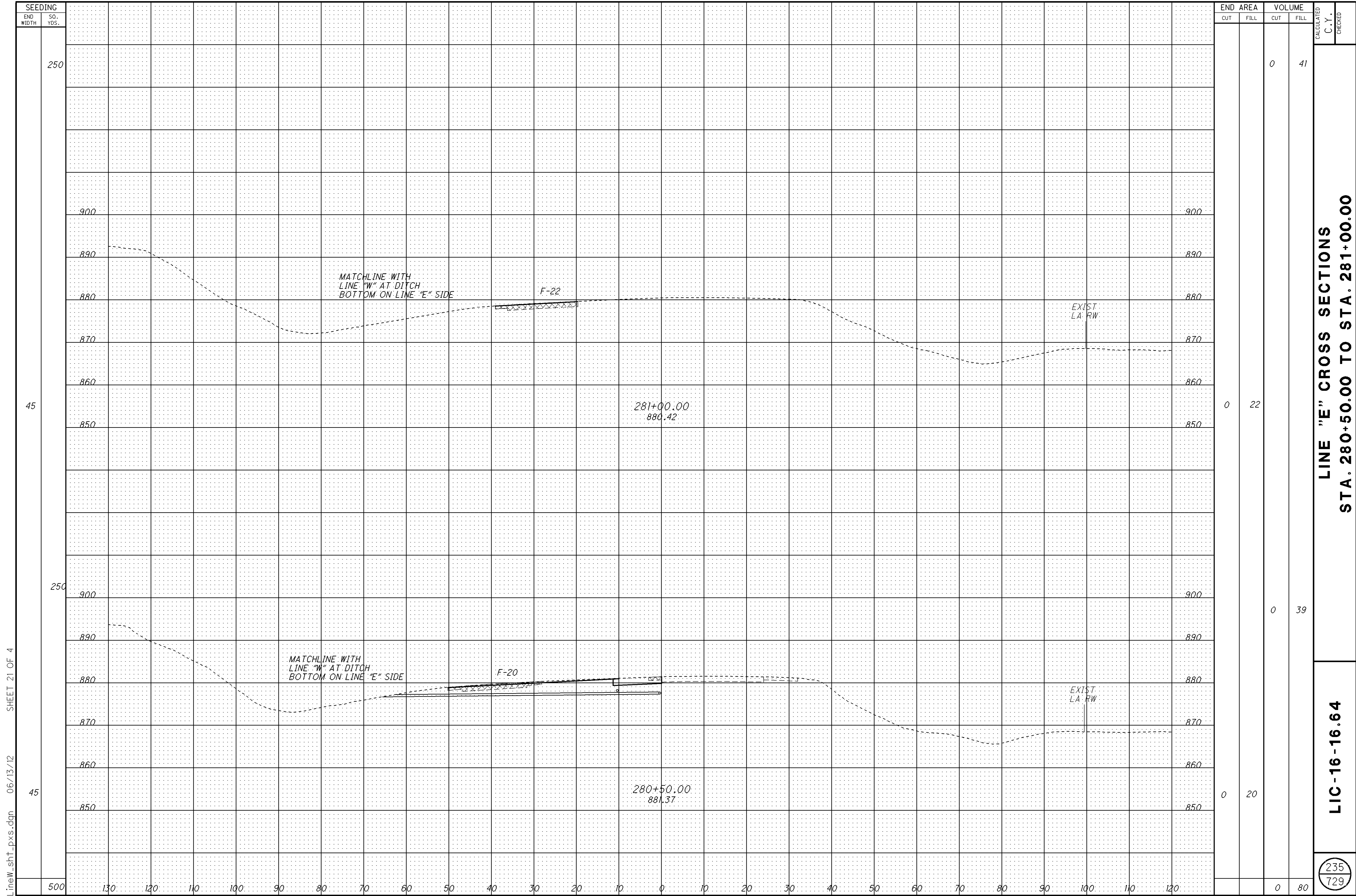
LineW_sht_pxs.dgn 06/13/12 SHEET 20 OF 4

**LINE "E" CROSS SECTIONS
STA. 279+50.00 TO STA. 280+00.00**

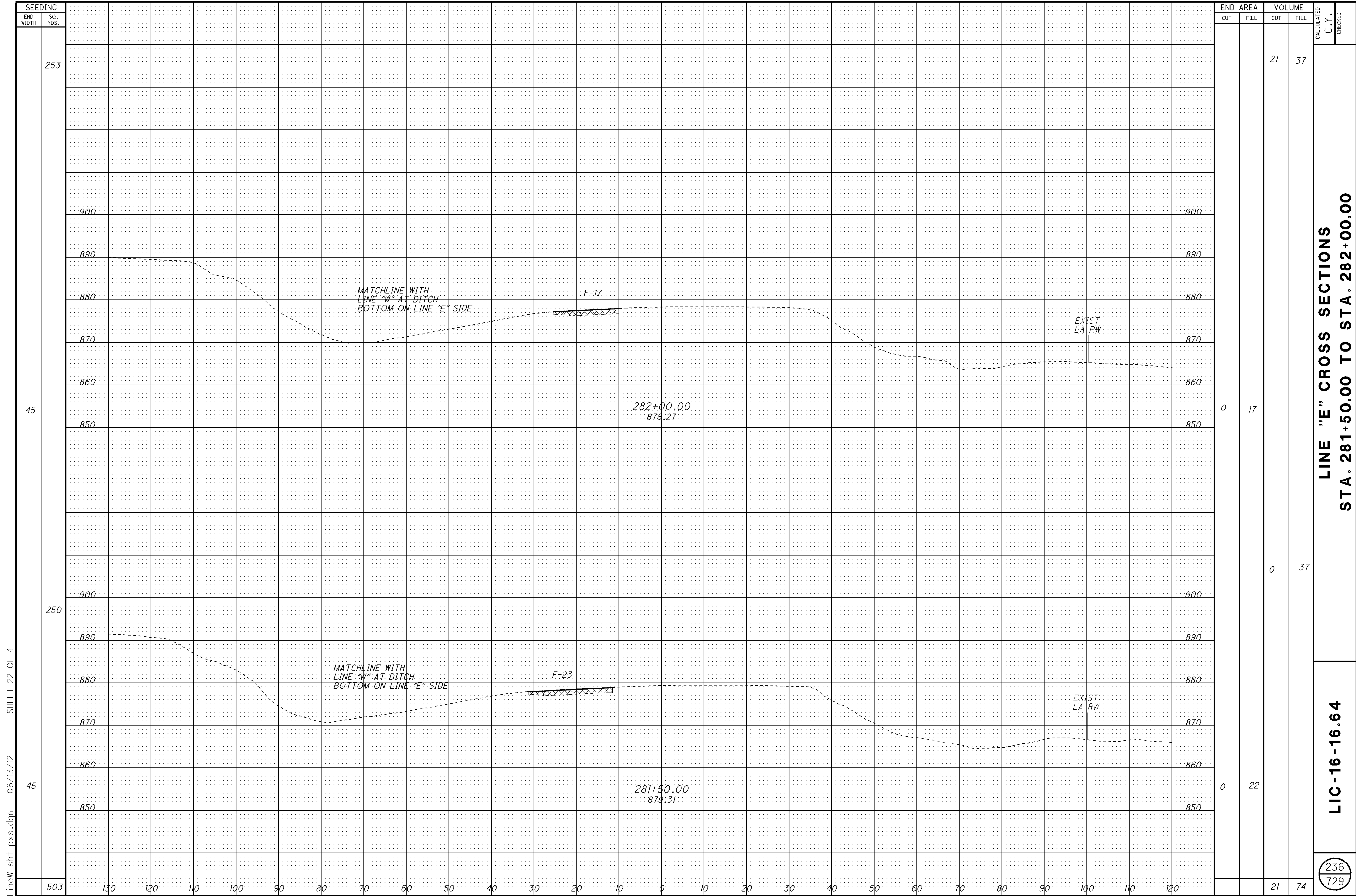
LIC-16-16.64

234
729

CALCULATED
C.Y.
CHECKED



Line_w_sht_pxs.dgn 06/13/12 SHEET 21 OF 4

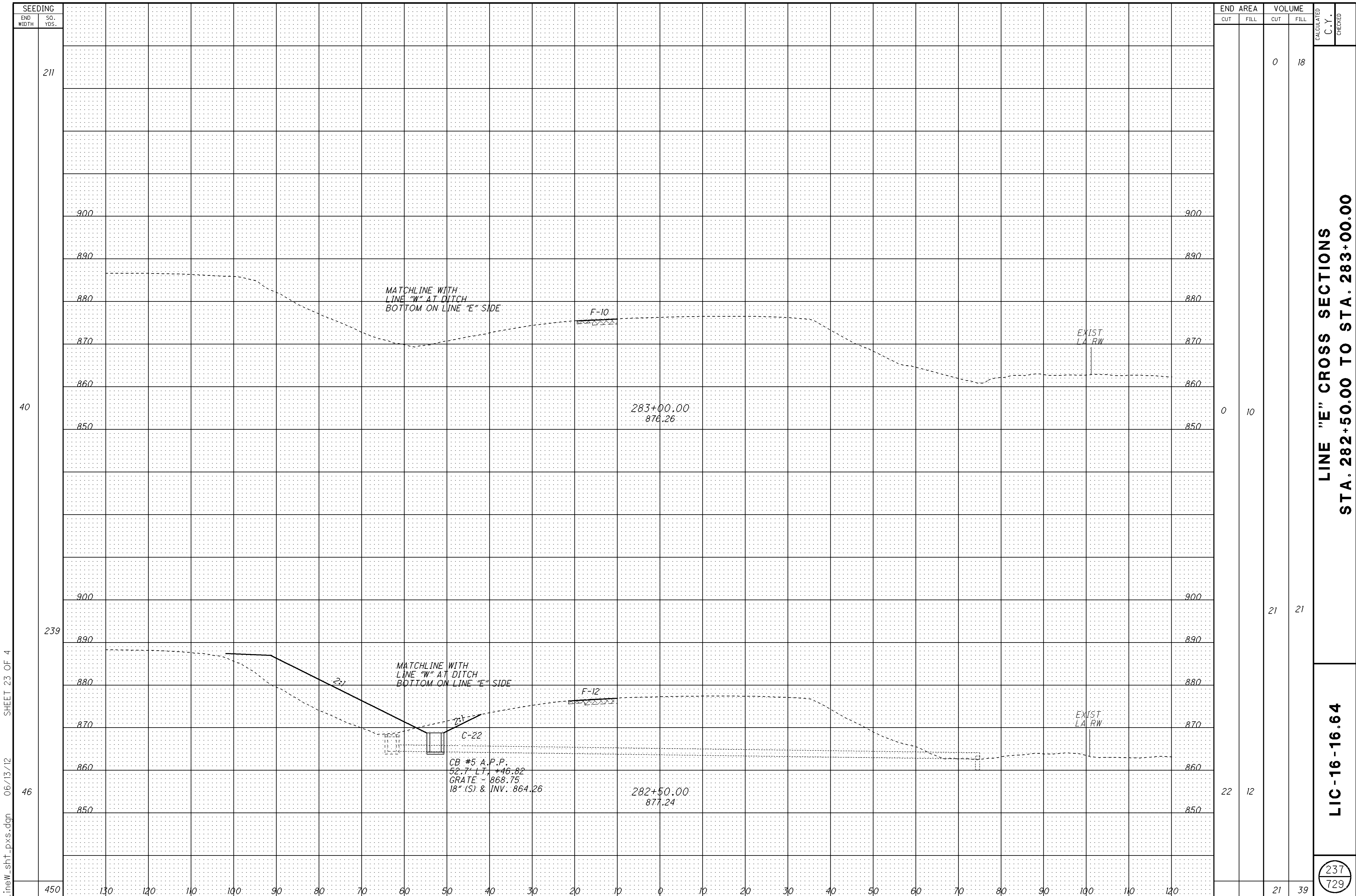


LineW_sht_pxs.dgn 06/13/12 SHEET 22 OF 4

**LINE "E" CROSS SECTIONS
STA. 281+50.00 TO STA. 282+00.00**

LIC-16-16.64

236
729



Line_w_sht_pxs.dgn 06/13/12 SHEET 23 OF 4

40

46

211

239

450

900

890

880

870

860

850

900

890

880

870

860

850

130

120

110

100

90

80

70

60

50

40

30

20

10

0

10

20

30

40

50

60

70

80

90

100

110

120

0

10

21

21

22

12

21

39

MATCHLINE WITH
LINE "W" AT DITCH
BOTTOM ON LINE "E" SIDE

F-10

EXIST
L.A. RW

283+00.00
876.26

MATCHLINE WITH
LINE "W" AT DITCH
BOTTOM ON LINE "E" SIDE

F-12

EXIST
L.A. RW

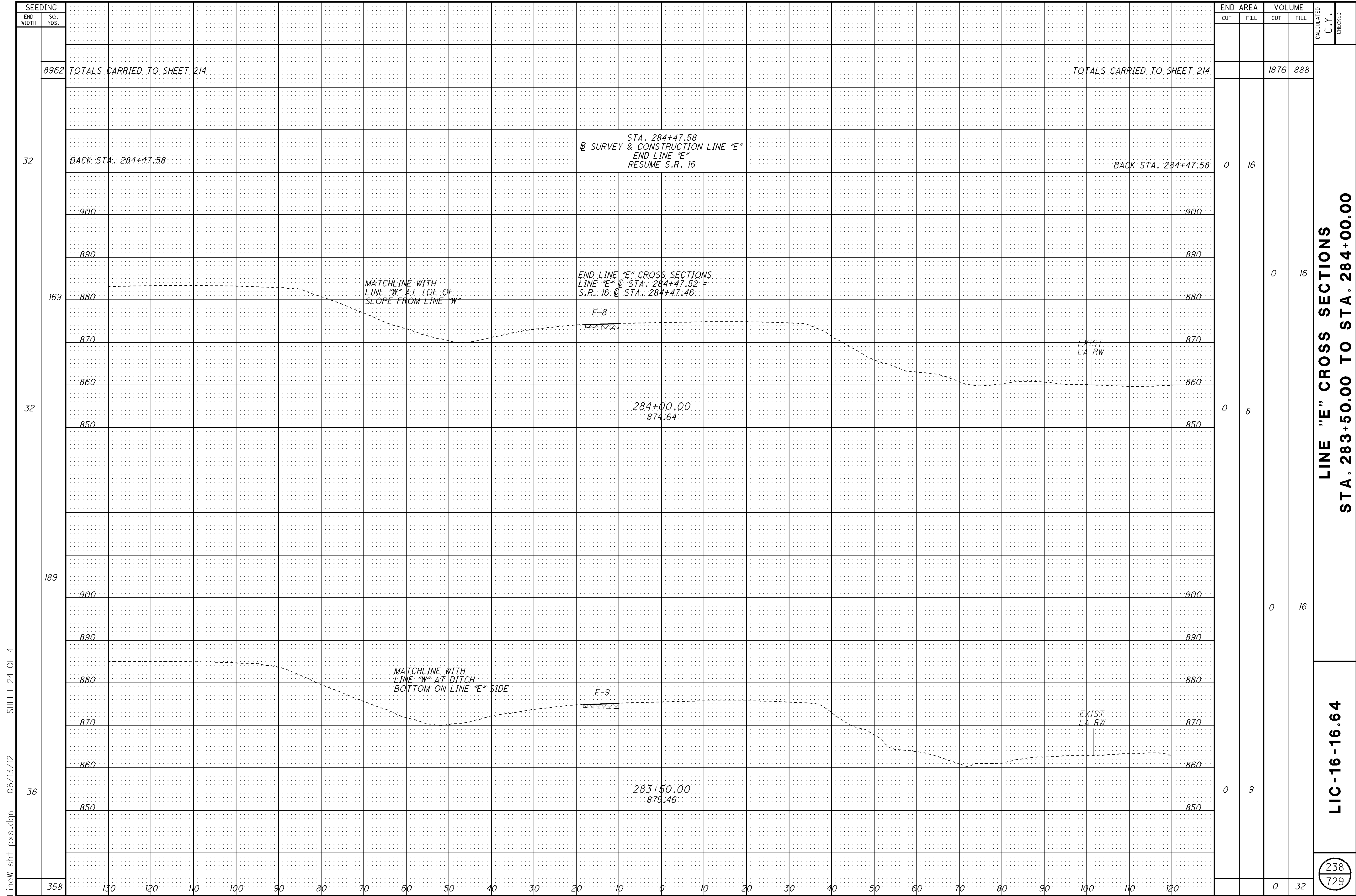
C-22

CB #5 A.P.P.
52.7' LT. +46.82
GRATE - 868.75
18" (S) & INV. 864.26

282+50.00
877.24

2:1

2:1



Line_w_sht_pxs.dgn 06/13/12 SHEET 24 OF 4

32

32

189

36

358

TOTALS CARRIED TO SHEET 214

TOTALS CARRIED TO SHEET 214

BACK STA. 284+47.58

BACK STA. 284+47.58

900

900

890

890

880

880

870

870

860

860

850

850

284+00.00
874.64

900

900

890

890

880

880

870

870

860

860

850

850

283+50.00
875.46

MATCHLINE WITH
LINE "W" AT TOE OF
SLOPE FROM LINE "W"

END LINE "E" CROSS SECTIONS
LINE "E" @ STA. 284+47.52 =
S.R. 16 @ STA. 284+47.46

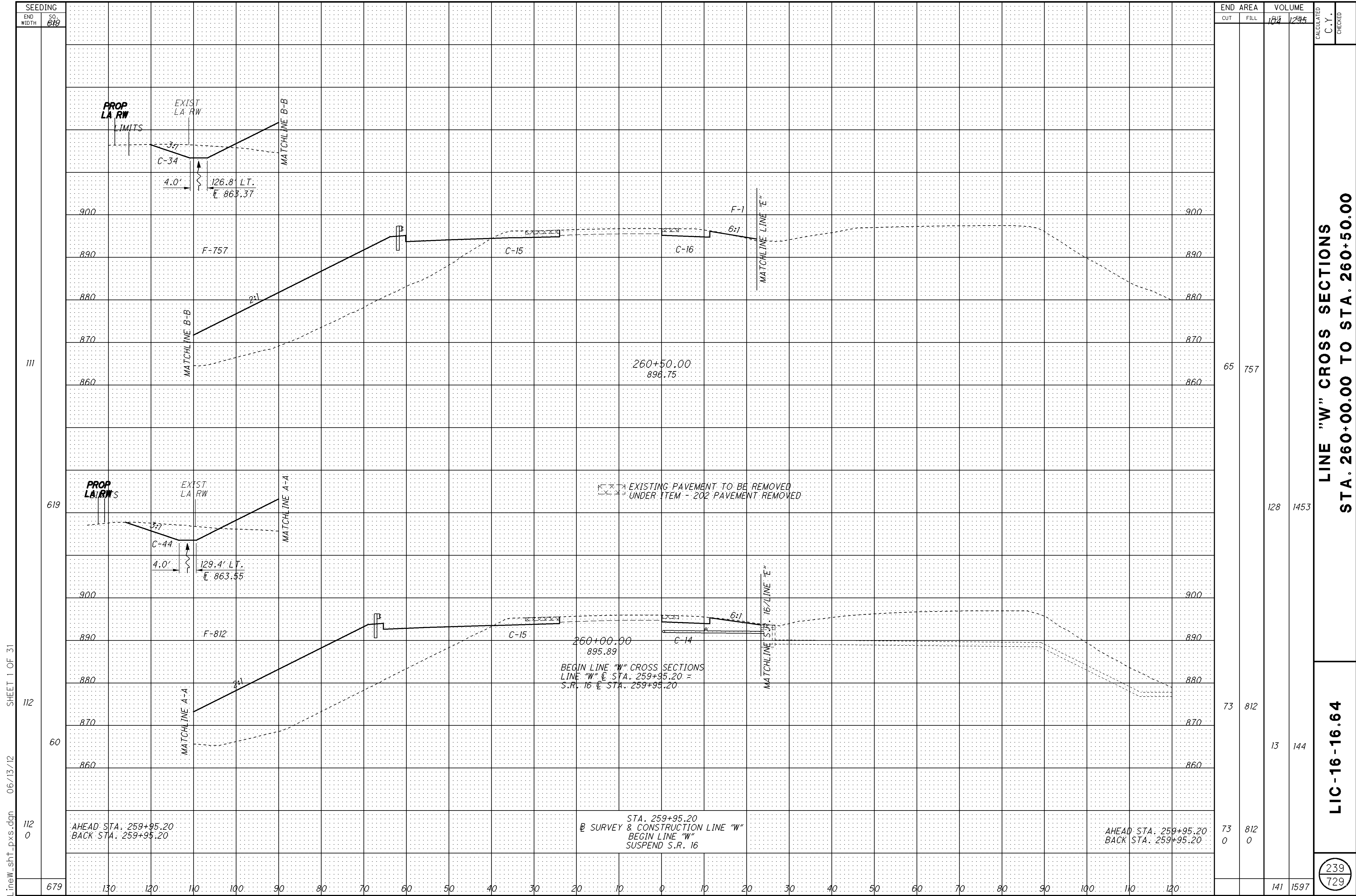
F-8

EXIST
LA RW

MATCHLINE WITH
LINE "W" AT DITCH
BOTTOM ON LINE "E" SIDE

F-9

EXIST
LA RW

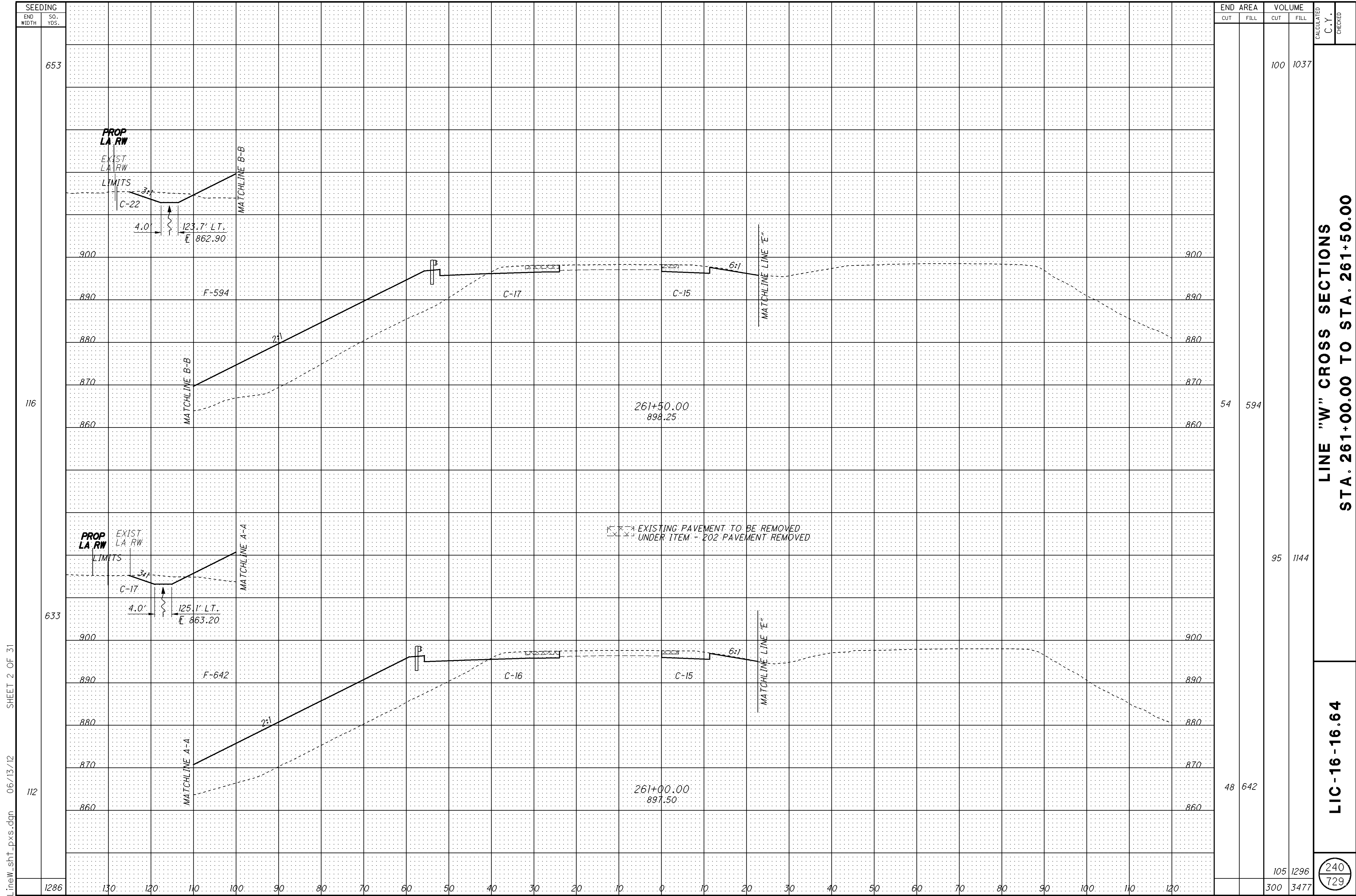


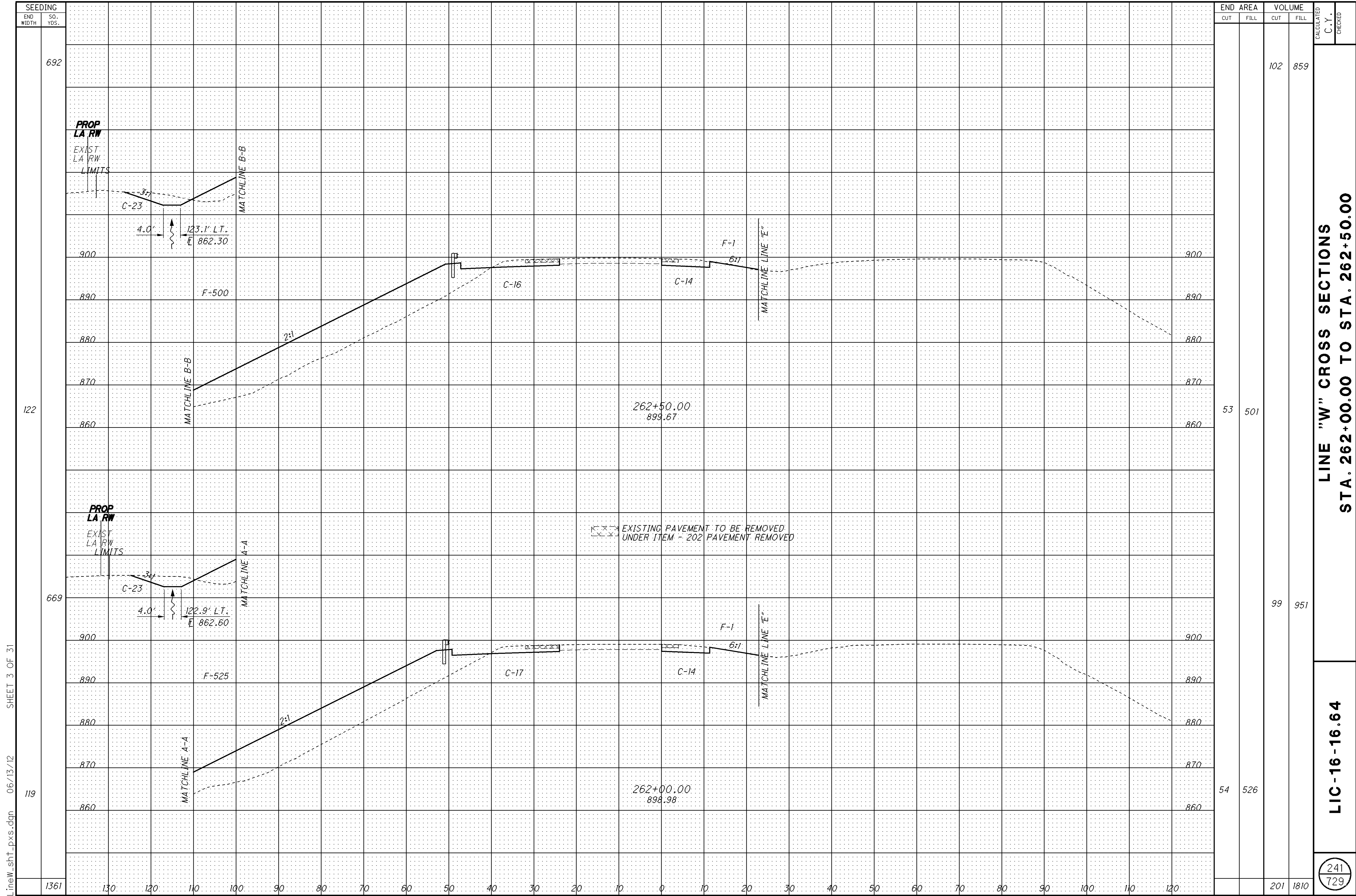
Line_w_sht_pxs.dgn 06/13/12 SHEET 1 OF 31

**LINE "W" CROSS SECTIONS
STA. 260+00.00 TO STA. 260+50.00**

LIC-16-16.64

239
729



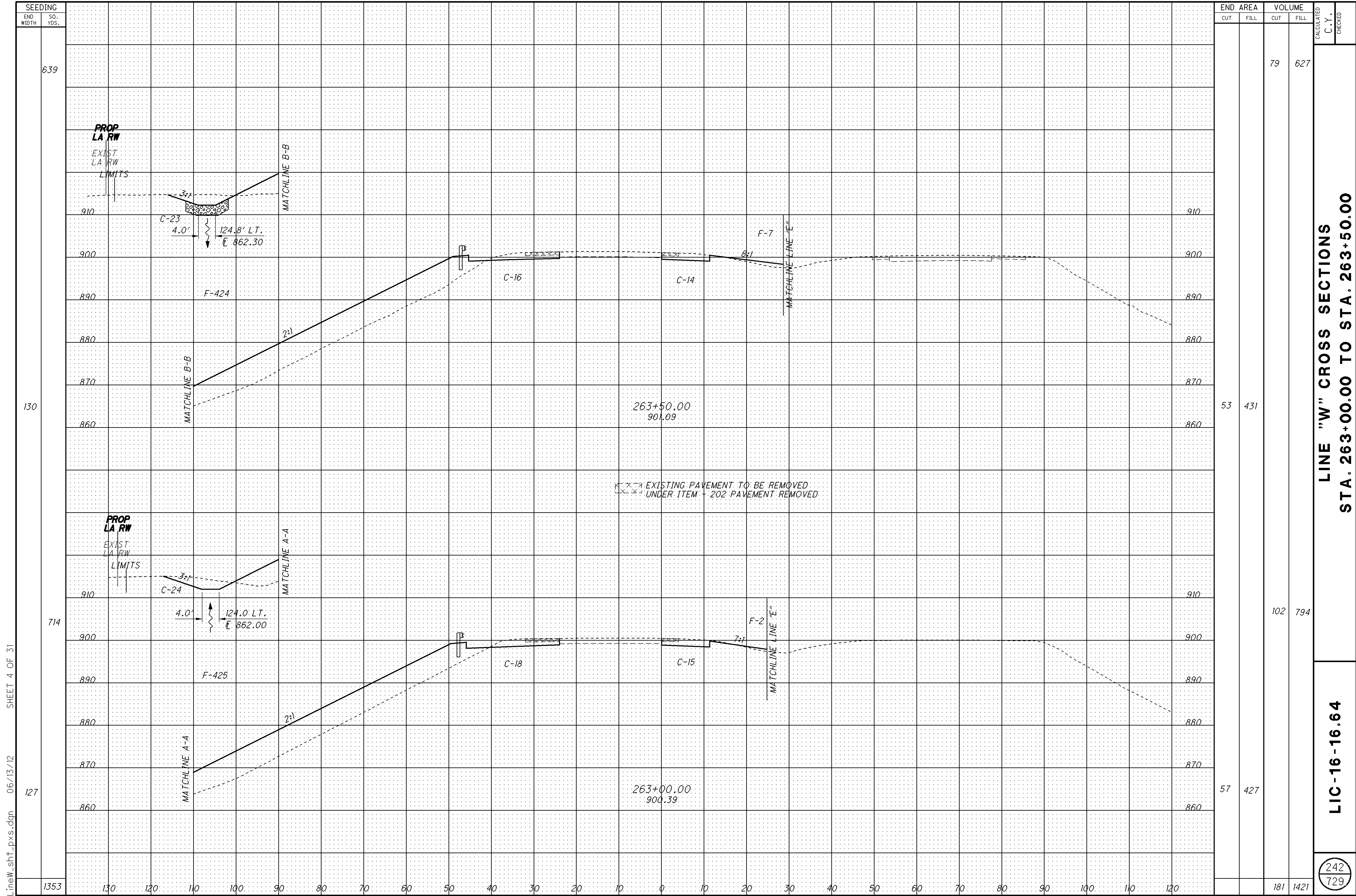


LineW_sht_pxs.dgn 06/13/12 SHEET 3 OF 31

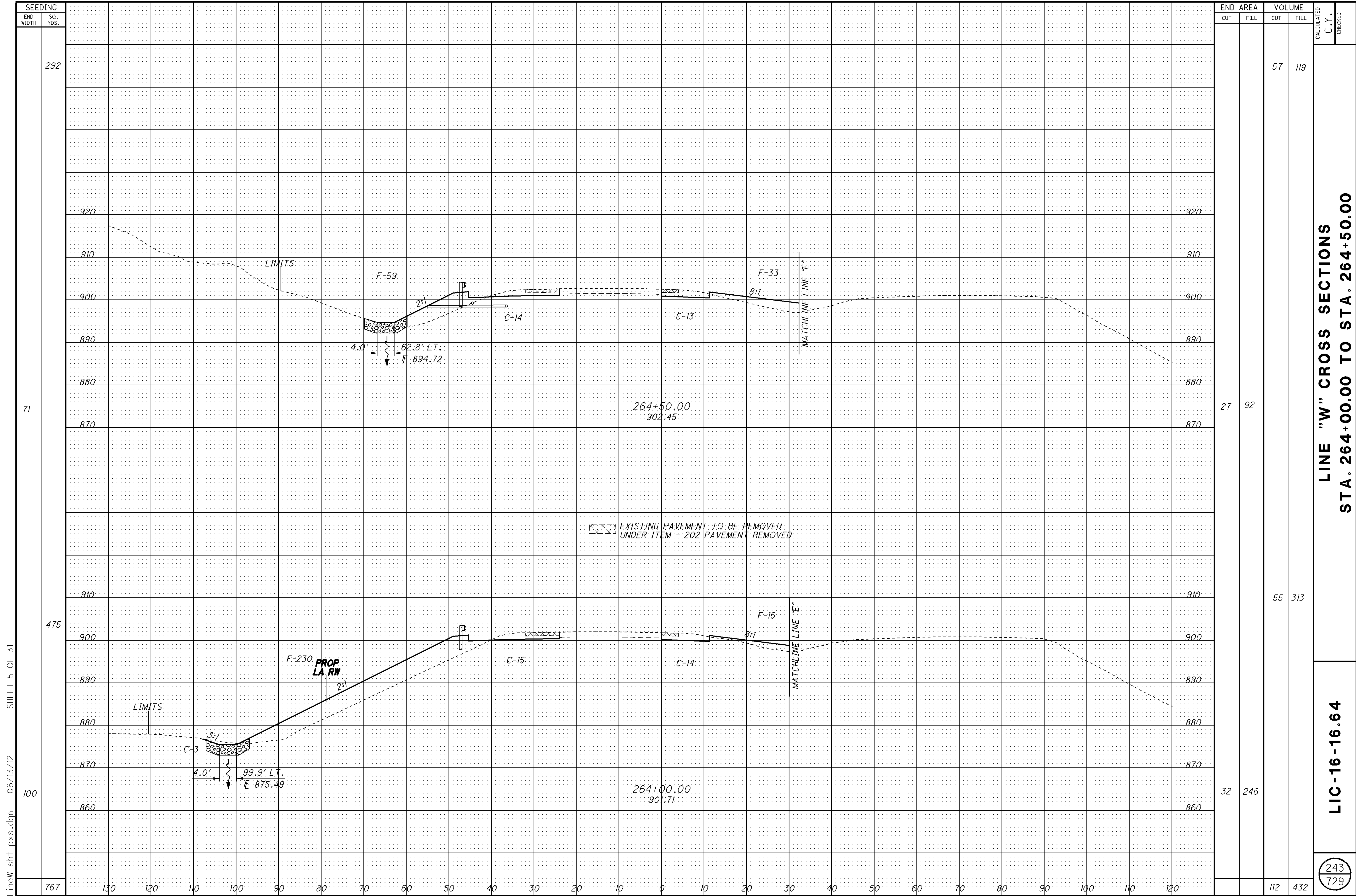
**LINE "W" CROSS SECTIONS
STA. 262+00.00 TO STA. 262+50.00**

LIC-16-16.64

241
729



Line_w_sht_pxs.dgn 06/13/12 SHEET 4 OF 31



SEEDING	
END WIDTH	SO. YDS.
71	292

END AREA		VOLUME	
CUT	FILL	CUT	FILL
27	92	57	119

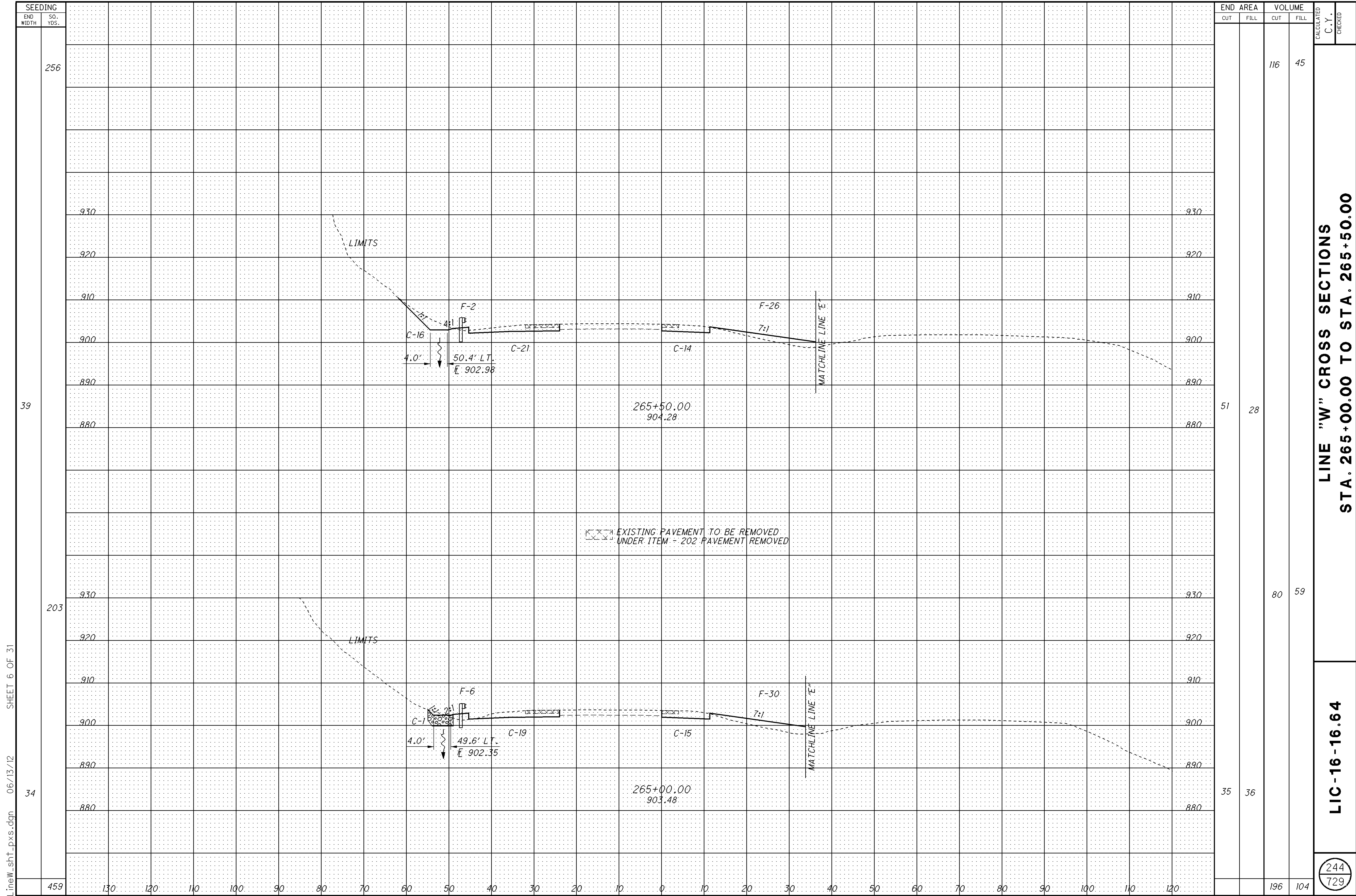
LINE "W" CROSS SECTIONS
STA. 264+00.00 TO STA. 264+50.00

LIC-16-16.64

243
729

LineW_sht_pxs.dgn 06/13/12 SHEET 5 OF 31

32	246	55	313
112	432		



SEEDING	
END WIDTH	SO. YDS.
256	
39	
203	
34	
459	

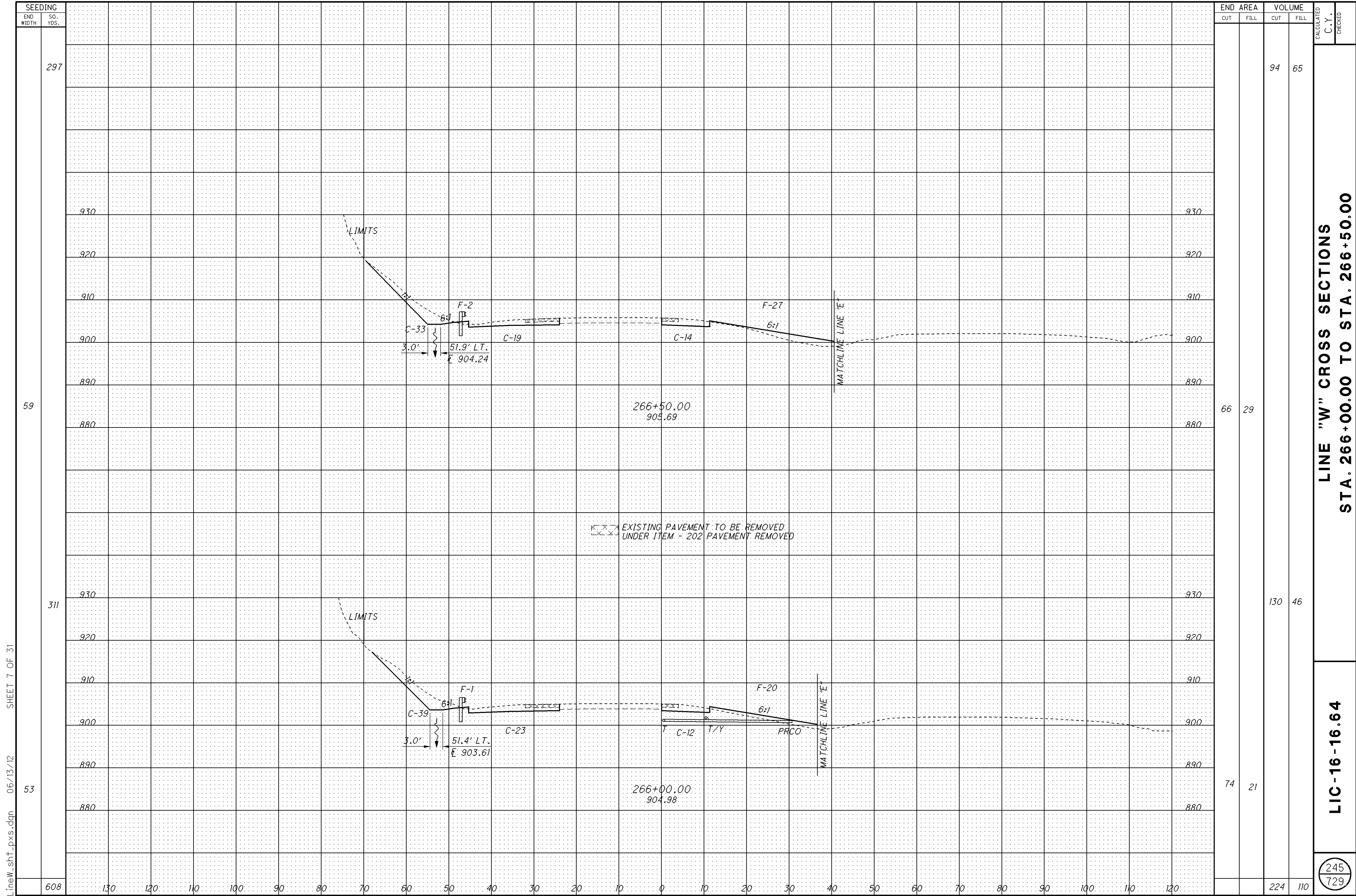
END AREA		VOLUME	
CUT	FILL	CUT	FILL
51	28	116	45
80	59		
35	36		
196	104		

LINE "W" CROSS SECTIONS
STA. 265+00.00 TO STA. 265+50.00

LIC-16-16.64

CALCULATED C.Y. CHECKED
 244
 729

Licw_sht_pxs.dgn 06/13/12 SHEET 6 OF 31



SEEDING	
END WIDTH	SO. YDS.
297	
59	
311	
53	
608	

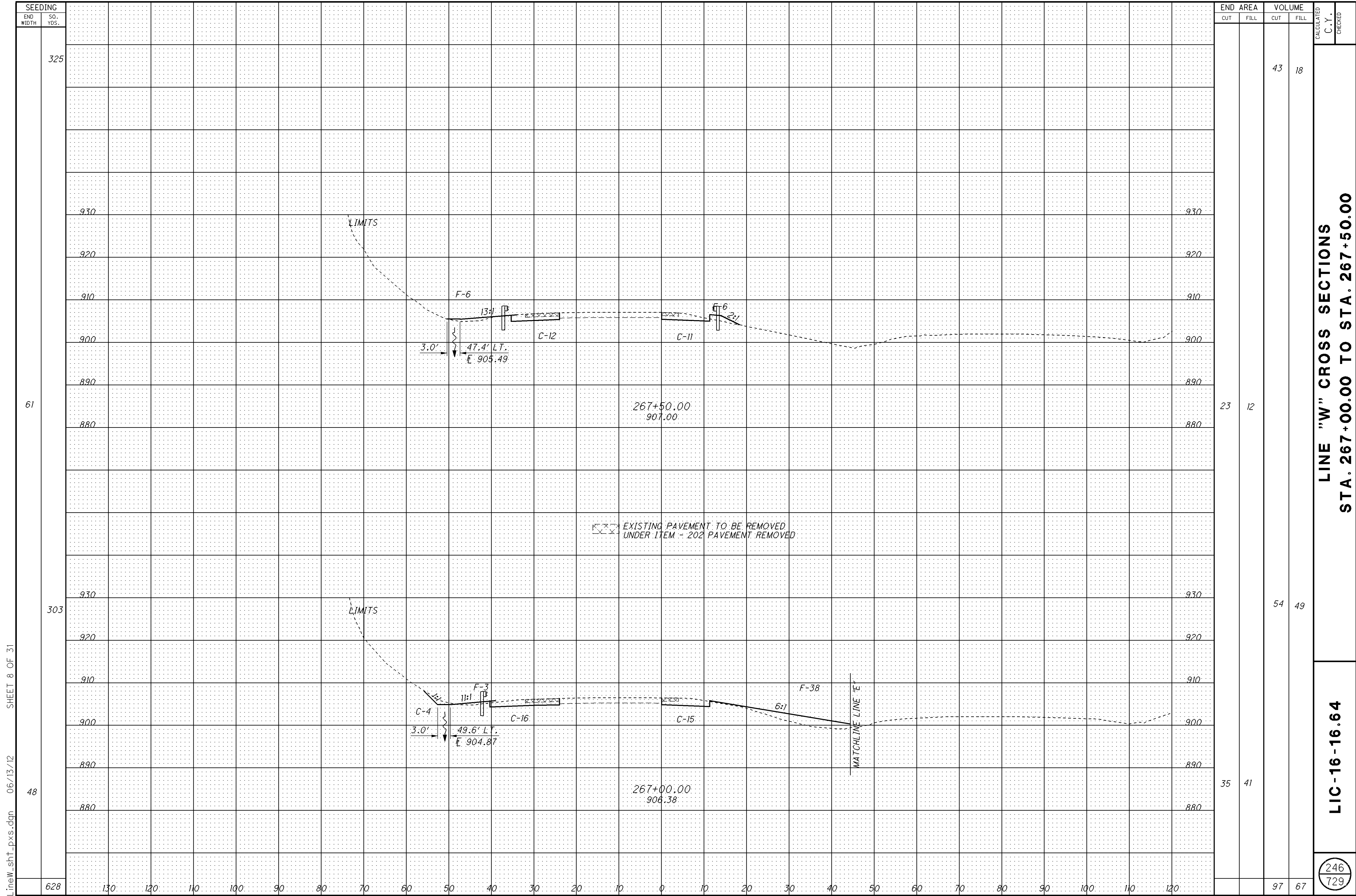
END AREA		VOLUME	
CUT	FILL	CUT	FILL
94	65		
66	29		
130	46		
74	21		
224	110		

LINE "W" CROSS SECTIONS
STA. 266+00.00 TO STA. 266+50.00

LIC-16-16.64

CALCULATED
 C.Y.
 CHECKED

LineW_sht_pxs.dgn 06/13/12 SHEET 7 OF 31



SEEDING	
END WIDTH	SO. YDS.
325	
61	
303	
48	
628	

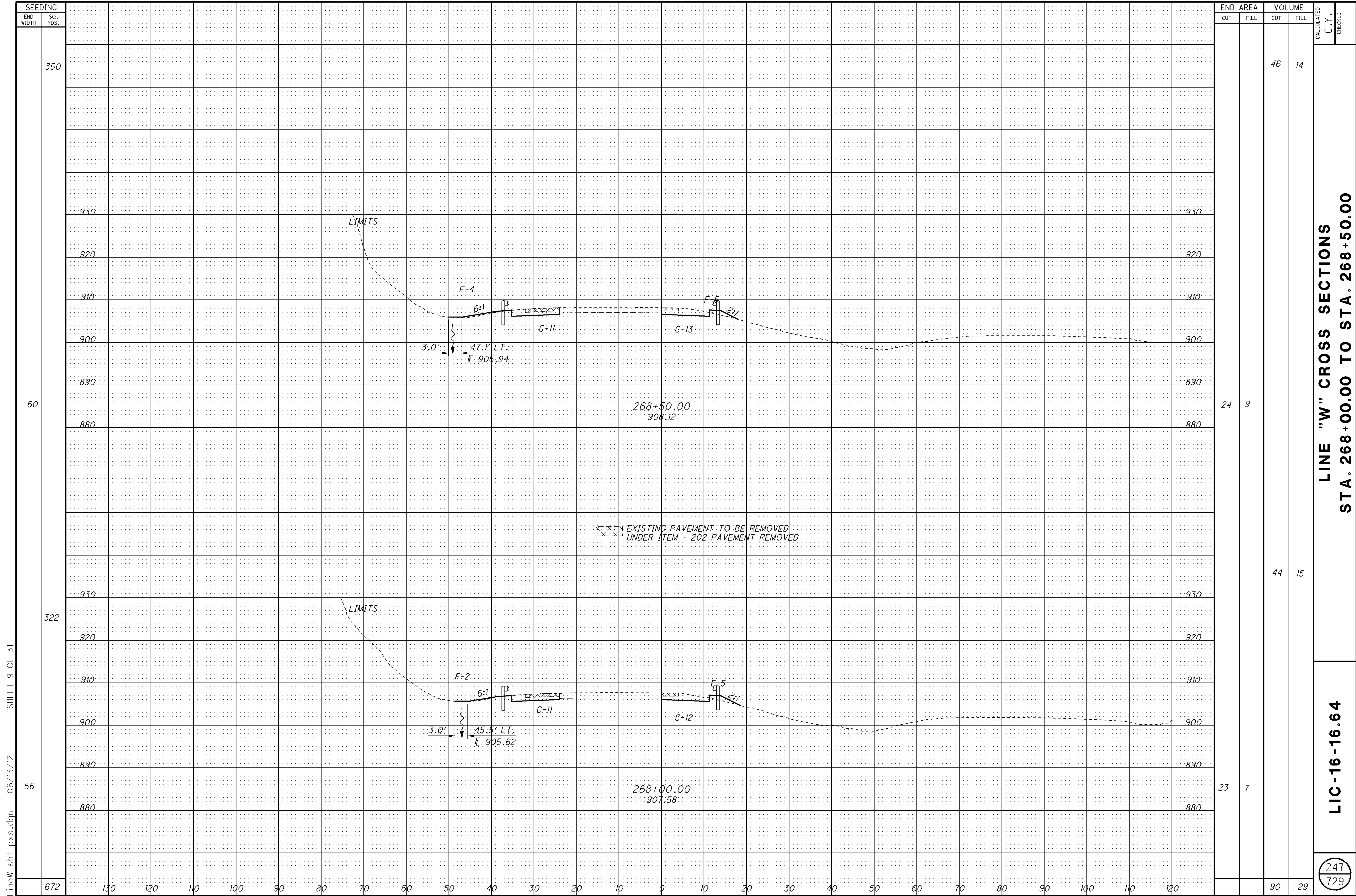
END AREA		VOLUME	
CUT	FILL	CUT	FILL
		43	18
23	12		
		54	49
35	41		
		97	67

LINE "W" CROSS SECTIONS
STA. 267+00.00 TO STA. 267+50.00

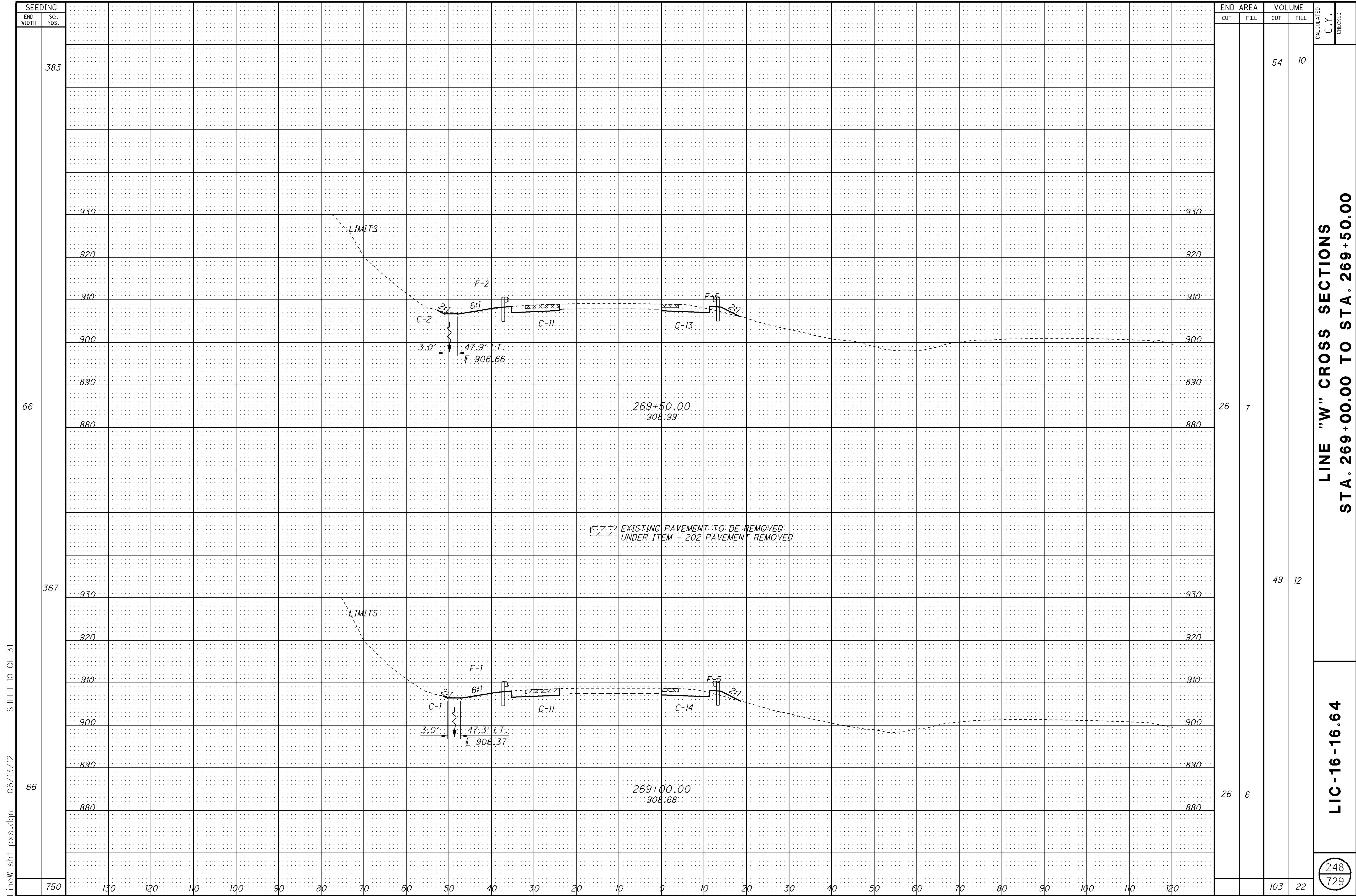
LIC-16-16.64

CALCULATED
 C.Y.
 CHECKED

Line_w_sht_pxs.dgn 06/13/12 SHEET 8 OF 31



Line_w_sht_pxs.dgn 06/13/12 SHEET 9 OF 31



SEEDING	
END WIDTH	SO. YDS.
750	383
130	
120	
110	
100	
90	
80	
70	
60	
50	
40	
30	
20	
10	
0	
10	
20	
30	
40	
50	
60	
70	
80	
90	
100	
110	
120	

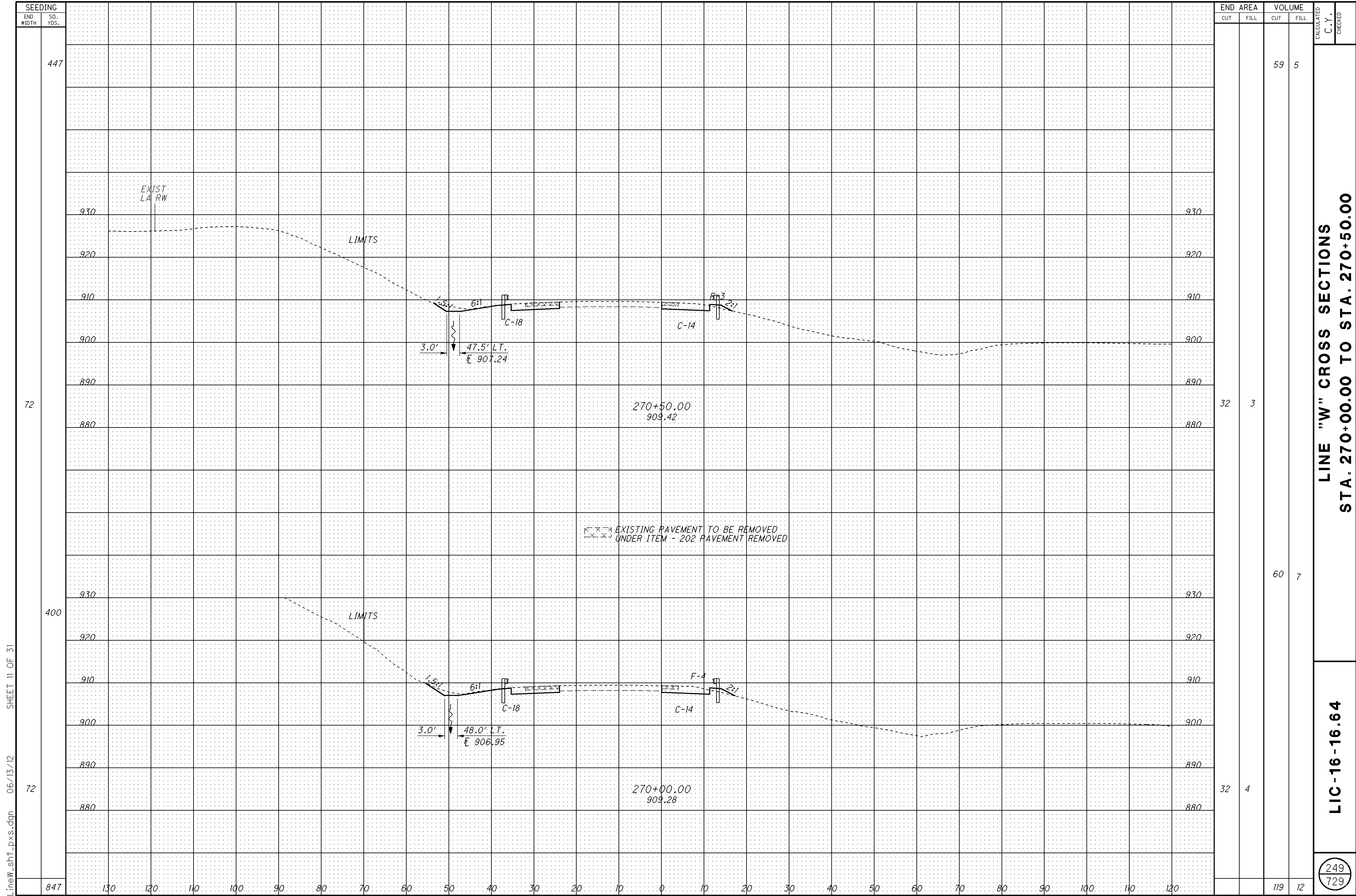
END AREA		VOLUME	
CUT	FILL	CUT	FILL
26	7	54	10
26	6	49	12
103	22		

LINE "W" CROSS SECTIONS
 STA. 269+00.00 TO STA. 269+50.00

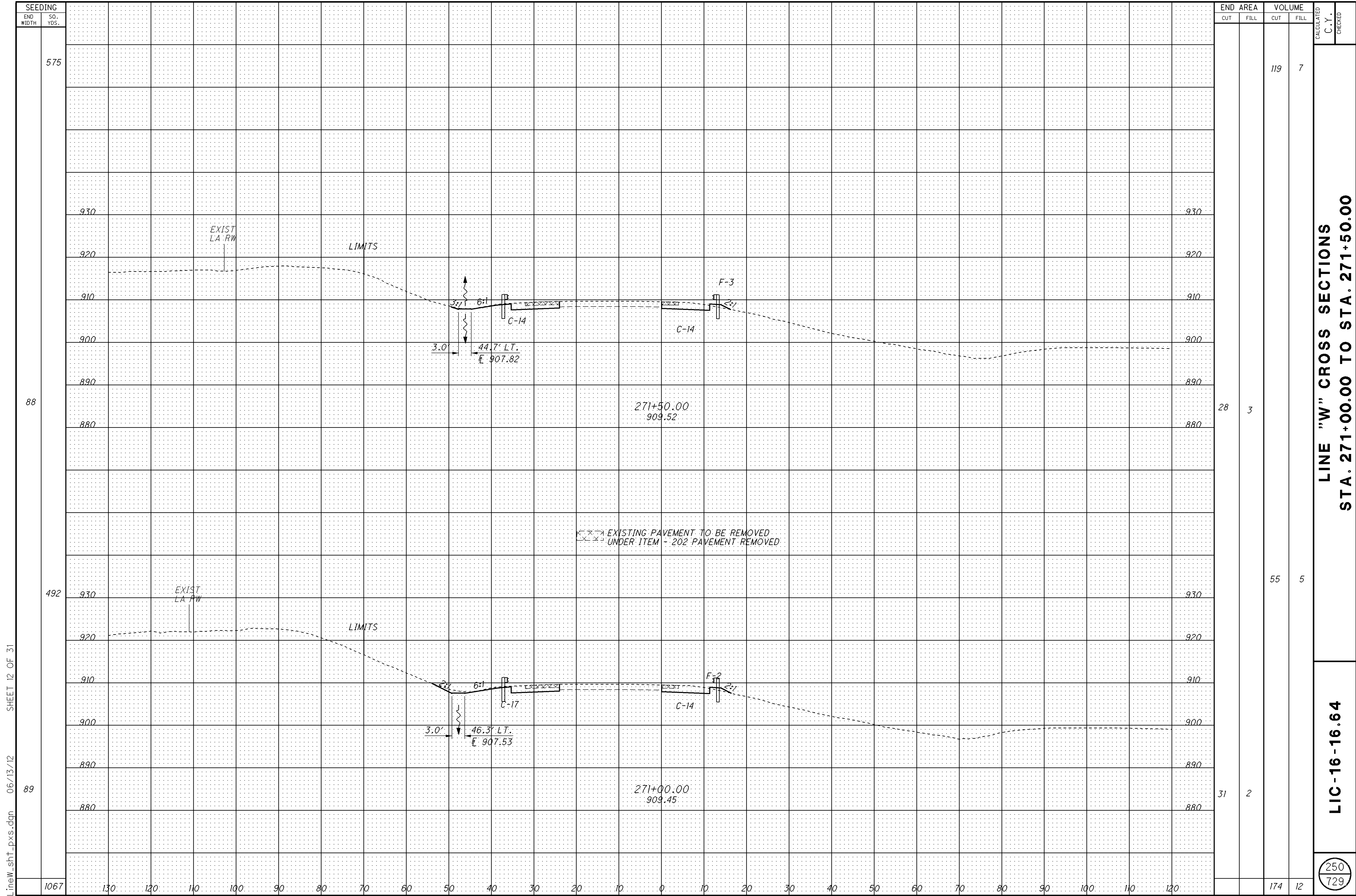
LIC-16-16.64

248
729

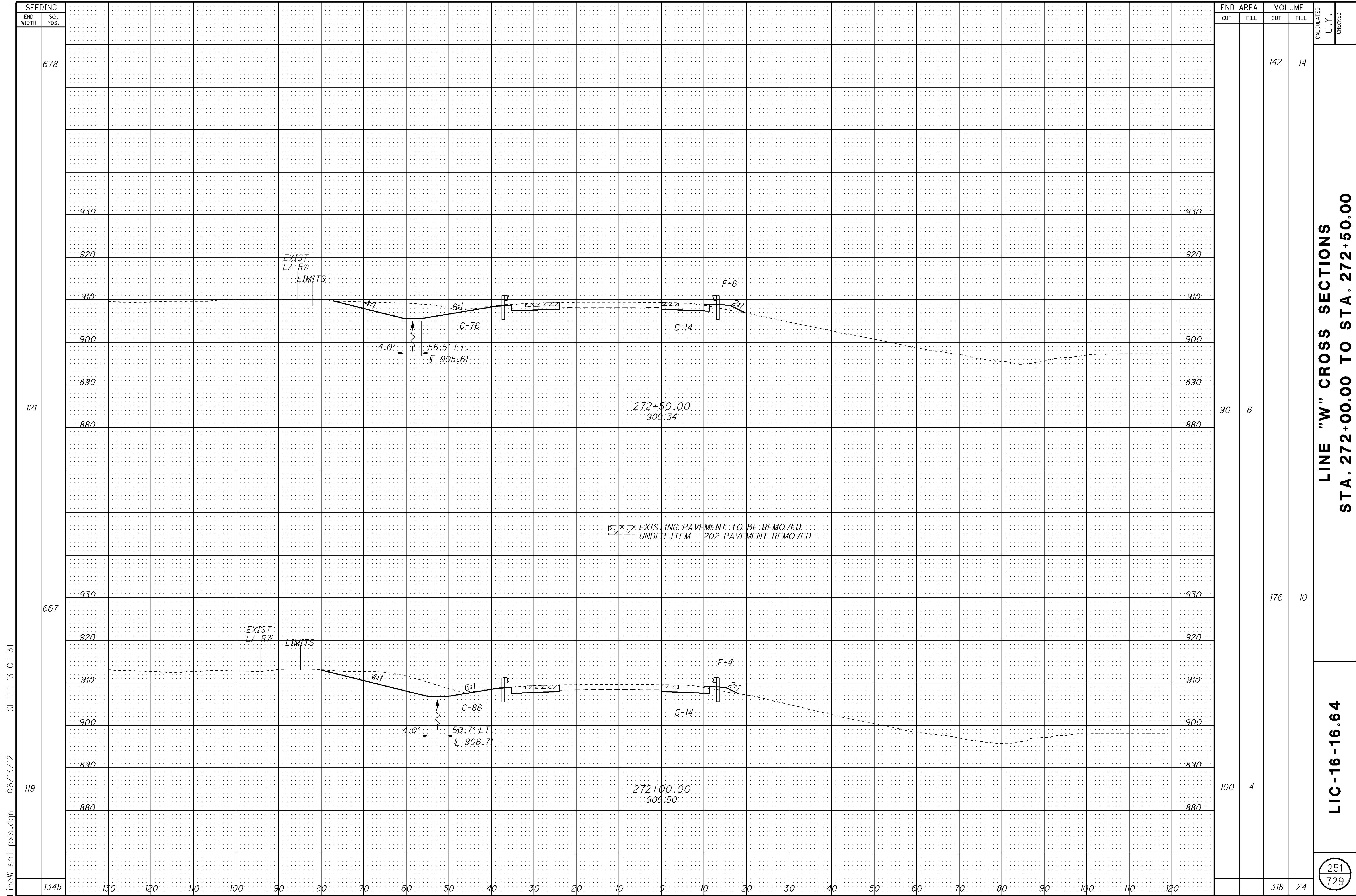
Line_w_sht_pxs.dgn 06/13/12 SHEET 10 OF 31



Line_w_sht_pxs.dgn 06/13/12 SHEET 11 OF 31



Line_w_sht_pxs.dgn 06/13/12 SHEET 12 OF 31

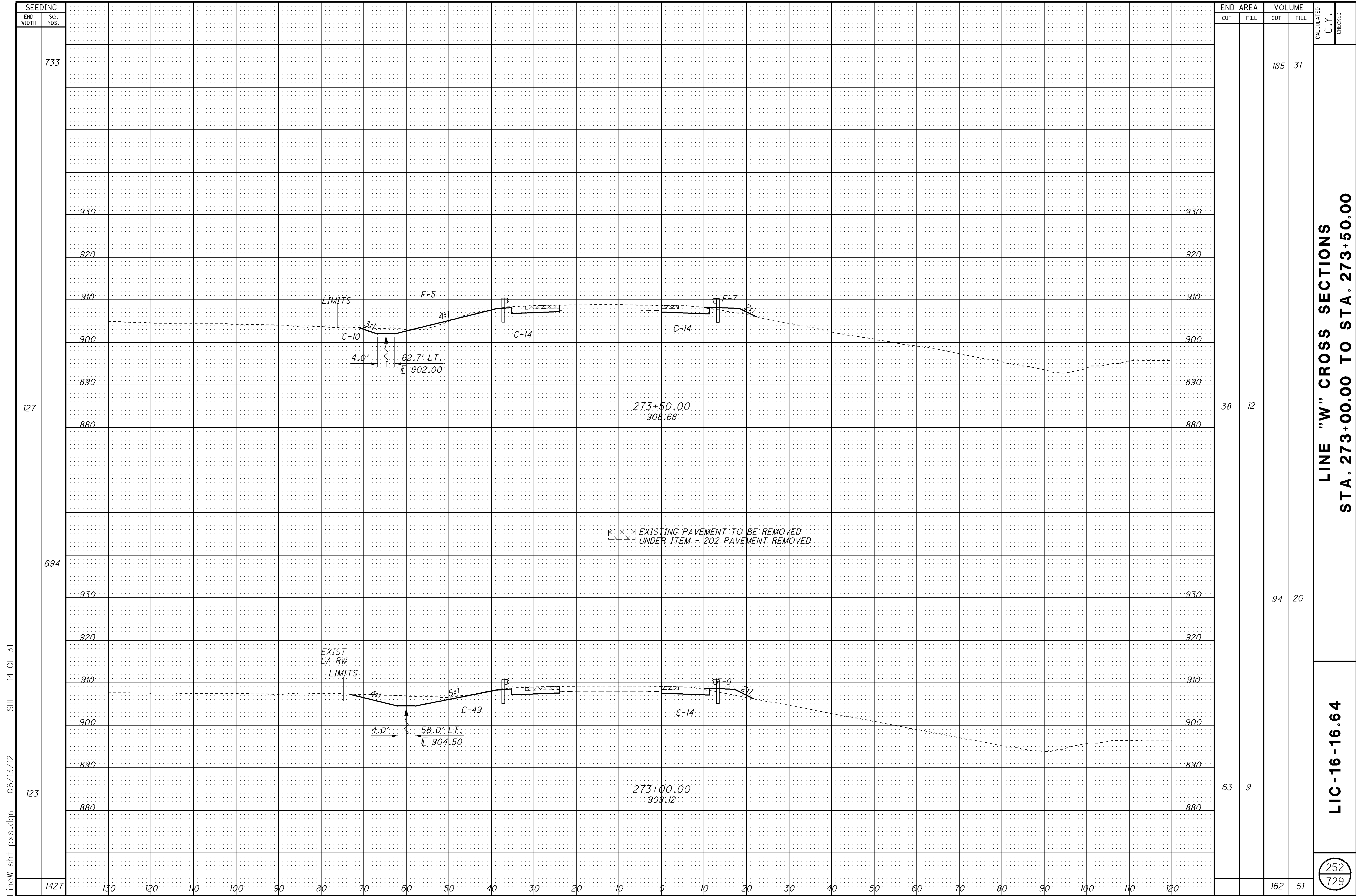


Line_w_sht_pxs.dgn 06/13/12 SHEET 13 OF 31

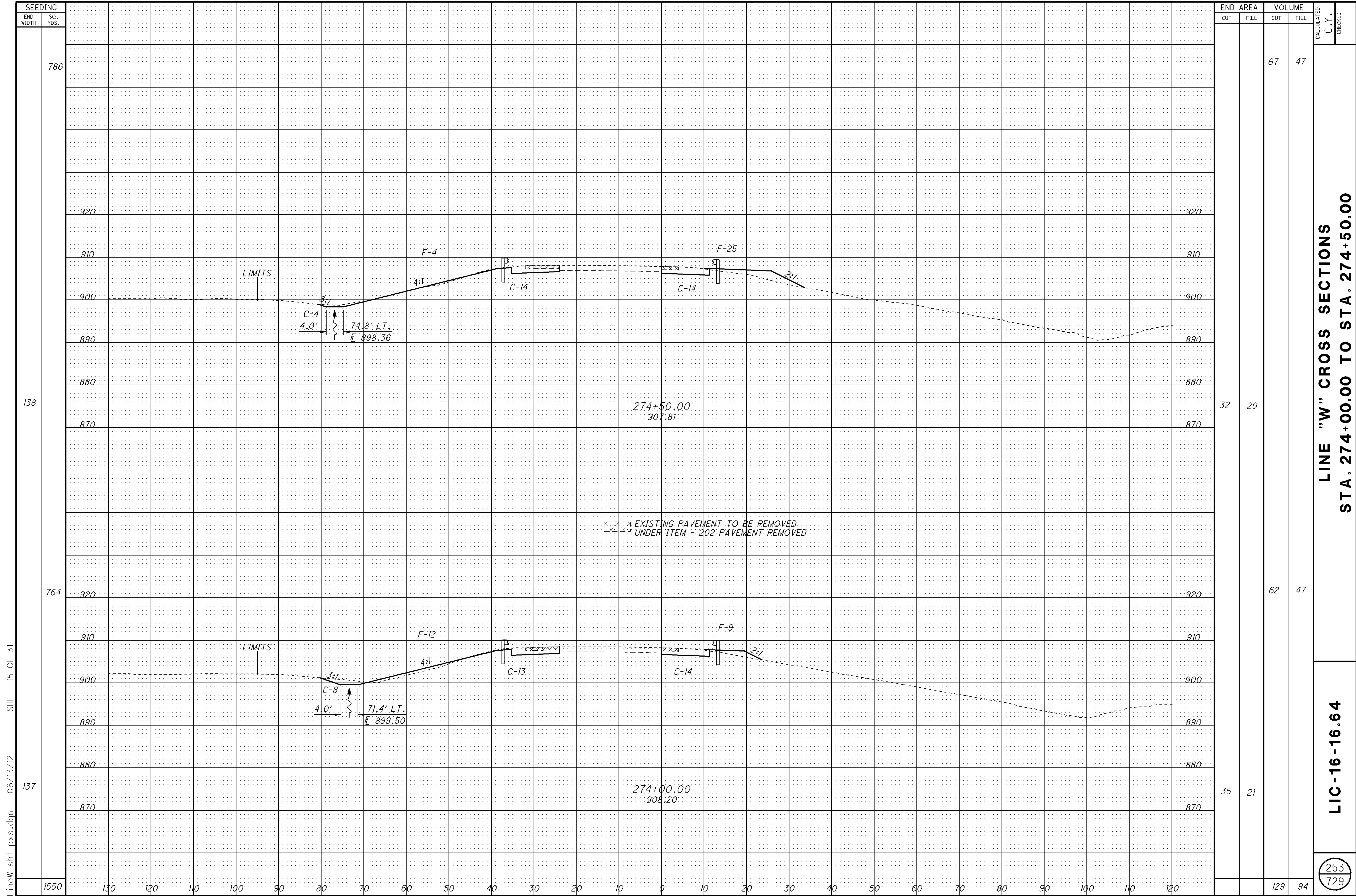
LINE "W" CROSS SECTIONS
 STA. 272+00.00 TO STA. 272+50.00

LIC-16-16.64

251
729



Line_w_sht_pxs.dgn 06/13/12 SHEET 14 OF 31

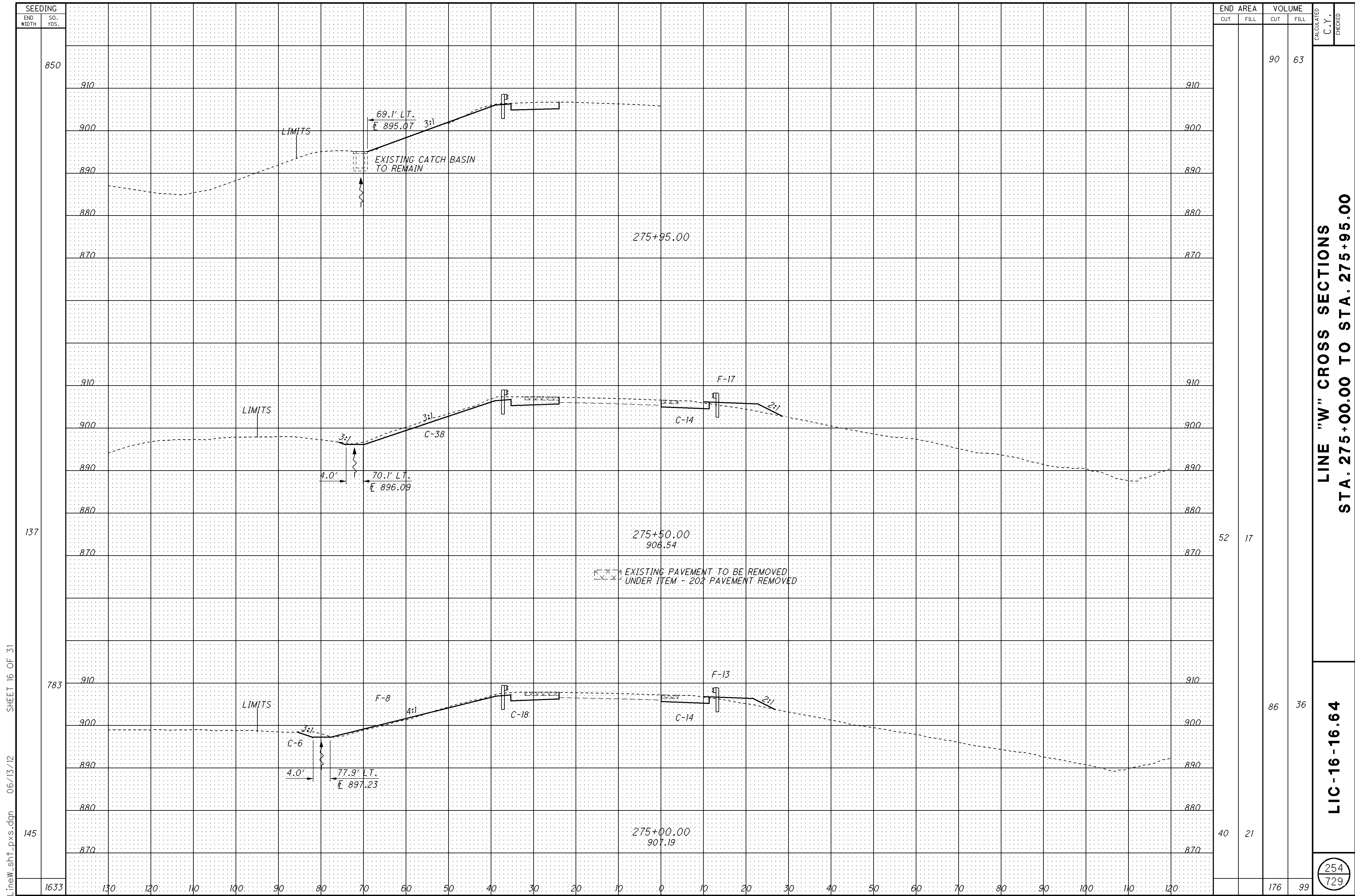


SEEDING	
END WIDTH	SO. YDS.
786	
138	
764	
137	
1550	

END AREA		VOLUME	
CUT	FILL	CUT	FILL
		67	47
32	29		
		62	47
35	21		
		129	94

CALCULATED C.Y. CHECKED
LINE "W" CROSS SECTIONS
STA. 274+00.00 TO STA. 274+50.00
LIC-16-16.64
 253
 729

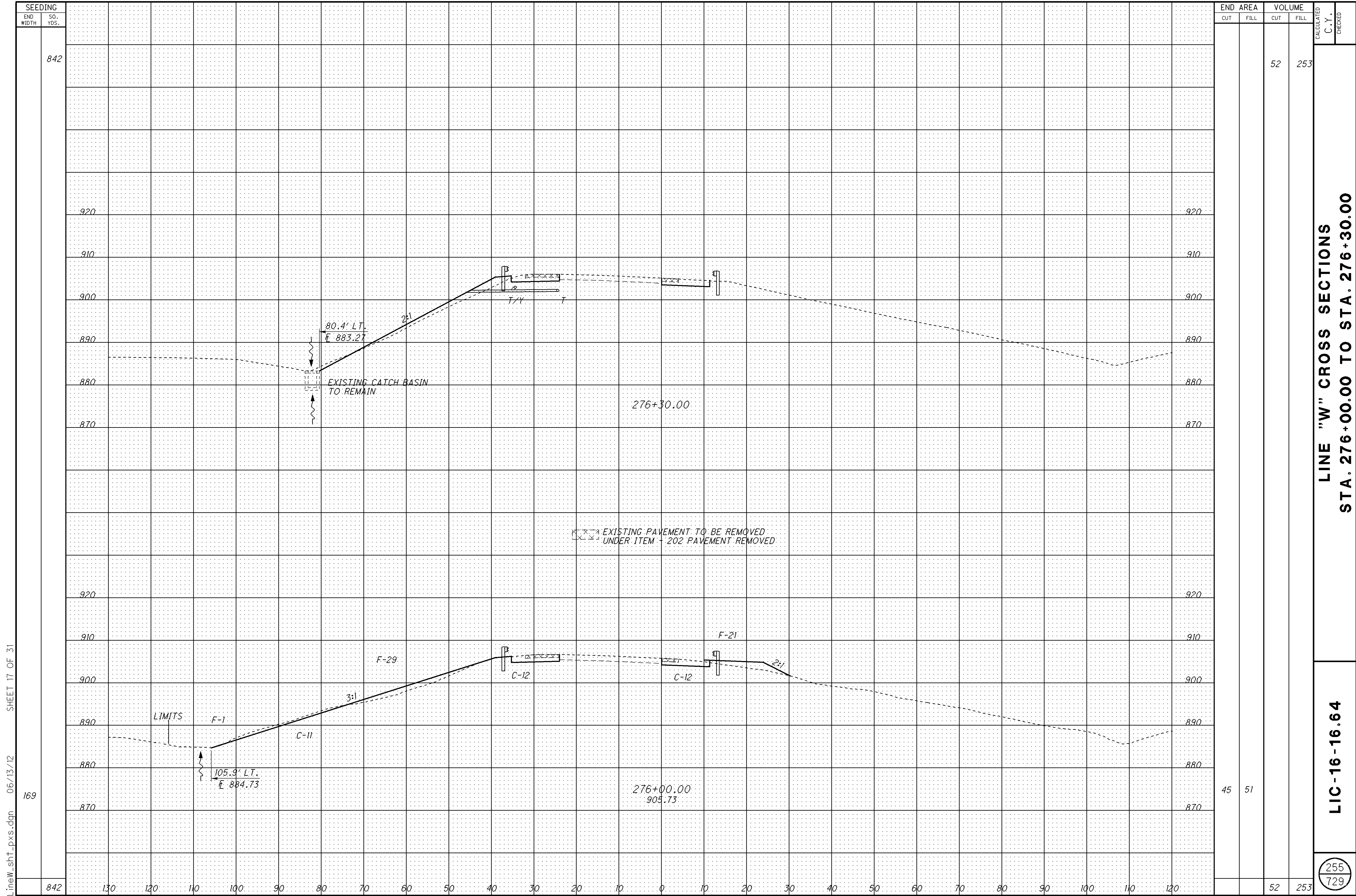
Line_w_sht_pxs.dgn 06/13/12 SHEET 15 OF 31



Line_w_sht_pxs.dgn 06/13/12 SHEET 16 OF 31

LINE "W" CROSS SECTIONS
STA. 275+00.00 TO STA. 275+95.00

LIC-16-16.64

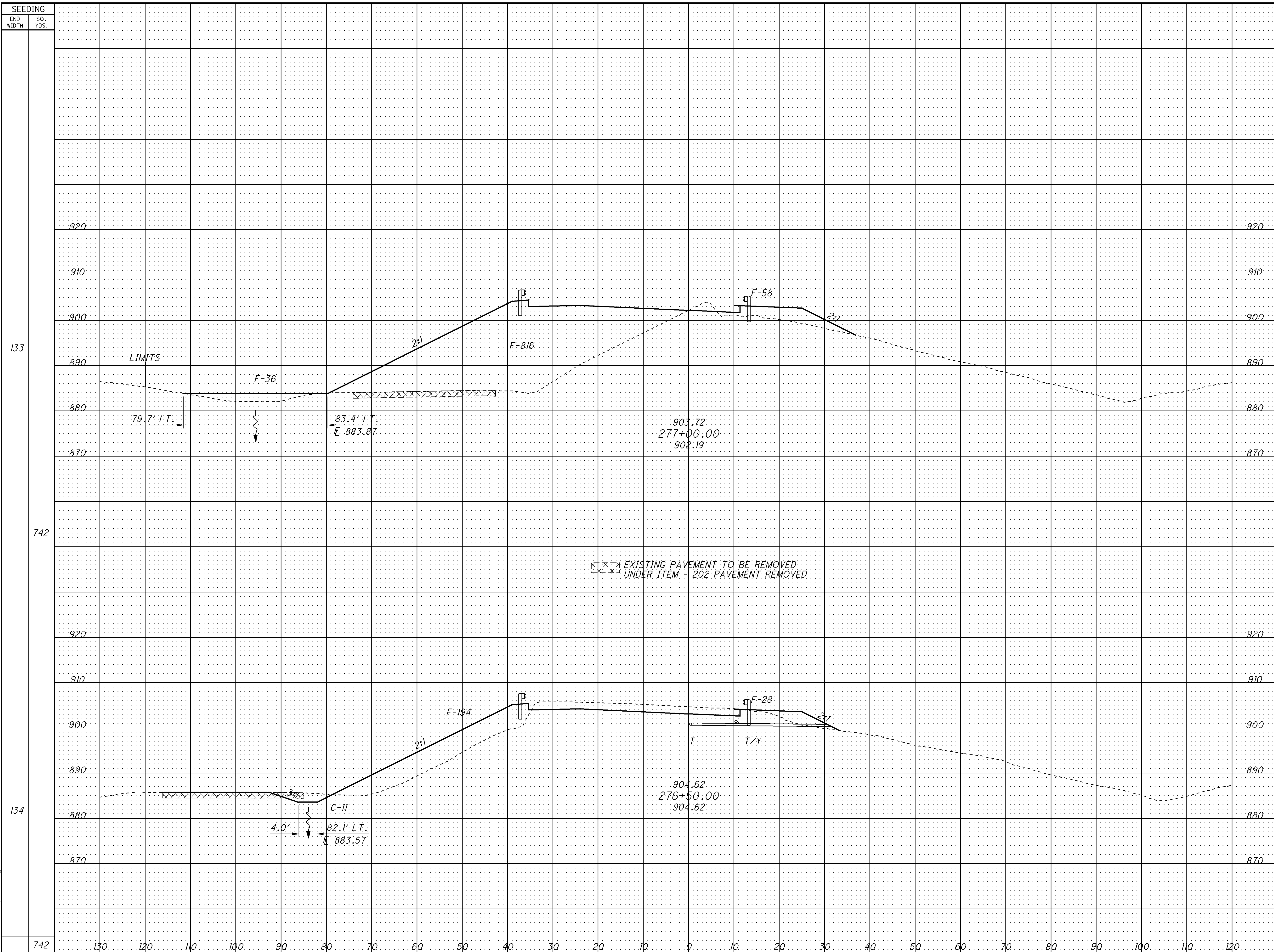


Line_w_sht_pxs.dgn 06/13/12 SHEET 17 OF 31

**LINE "W" CROSS SECTIONS
STA. 276+00.00 TO STA. 276+30.00**

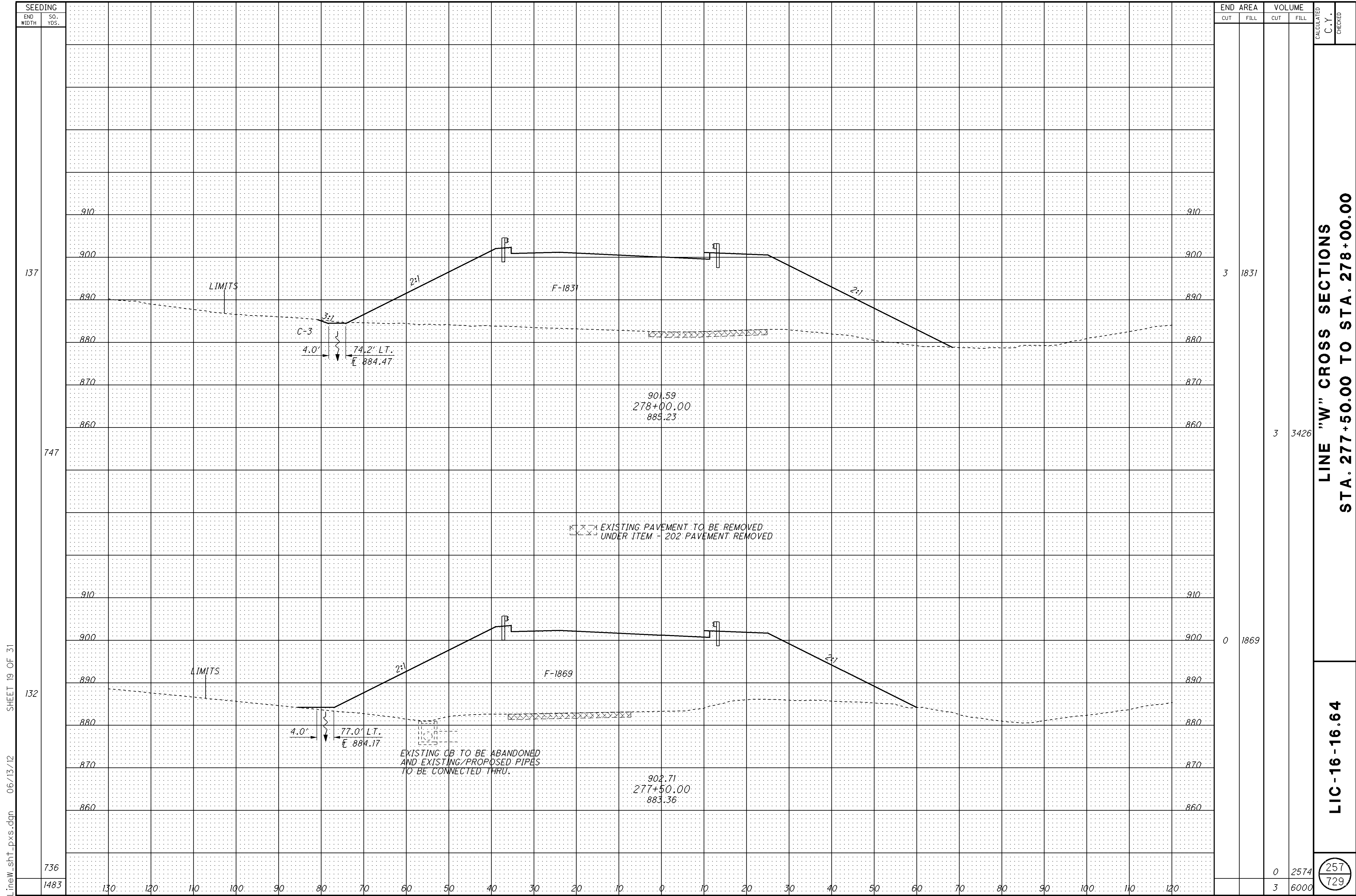
LIC-16-16.64

255
729



SEEDING		END AREA		VOLUME	
END WIDTH	SO. YDS.	CUT	FILL	CUT	FILL
742	133	0	910	11	1049
130	742	11	222	11	1049

CALCULATED C.Y. CHECKED
LINE "W" CROSS SECTIONS
STA. 276+50.00 TO STA. 277+00.00
LIC-16-16.64
 256
 729



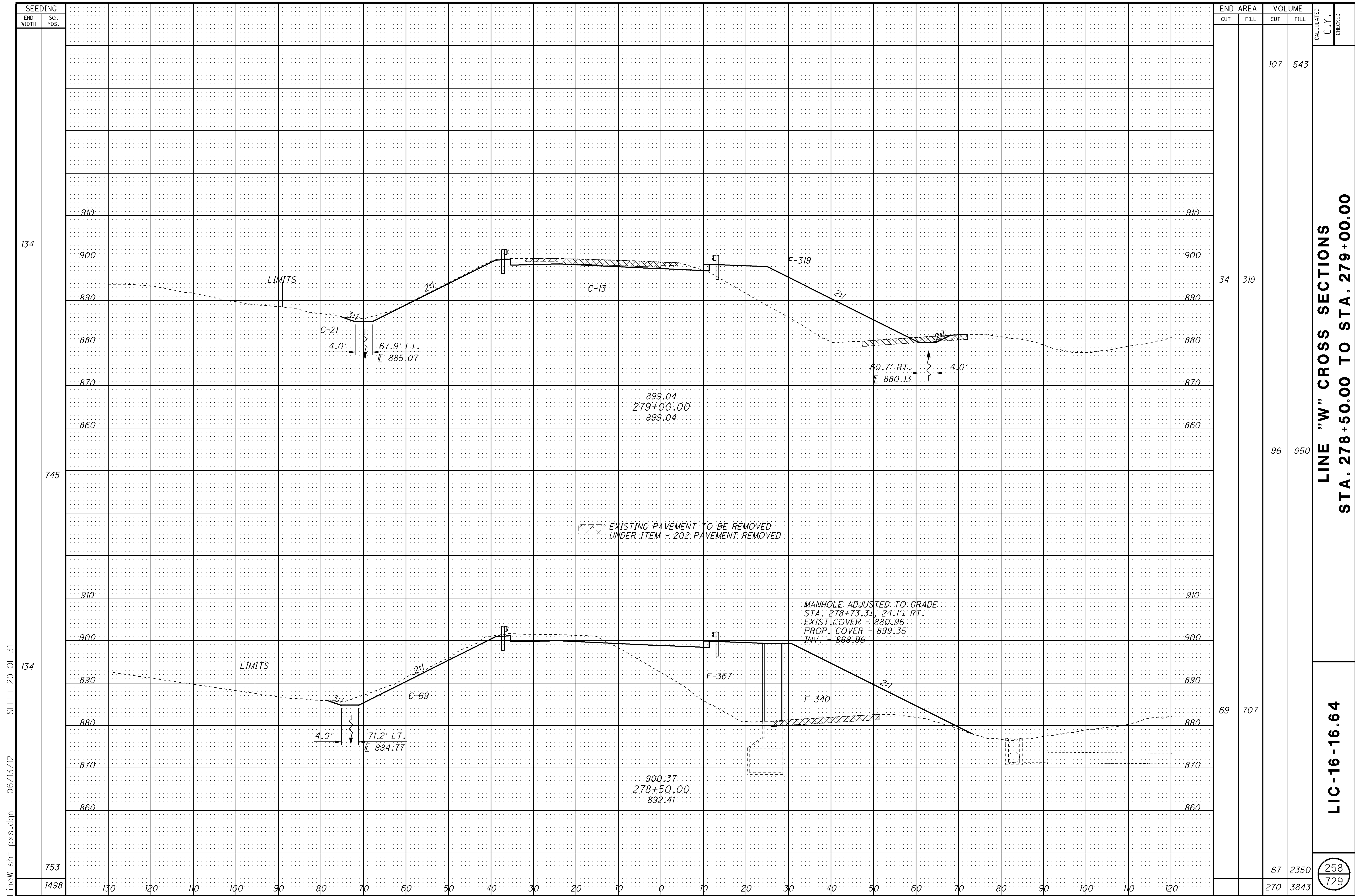
SEEDING	
END WIDTH	SO. YDS.
137	747
132	736
1483	

END AREA		VOLUME	
CUT	FILL	CUT	FILL
3	1831	3	3426
0	1869	0	2574
3	6000	3	6000

CALCULATED C.Y. CHECKED
LINE "W" CROSS SECTIONS
STA. 277+50.00 TO STA. 278+00.00
LIC-16-16.64

Line_w_sht_pxs.dgn 06/13/12 SHEET 19 OF 31

257
 729



SEEDING

END WIDTH	SO. YDS.
134	
745	
134	
753	
1498	

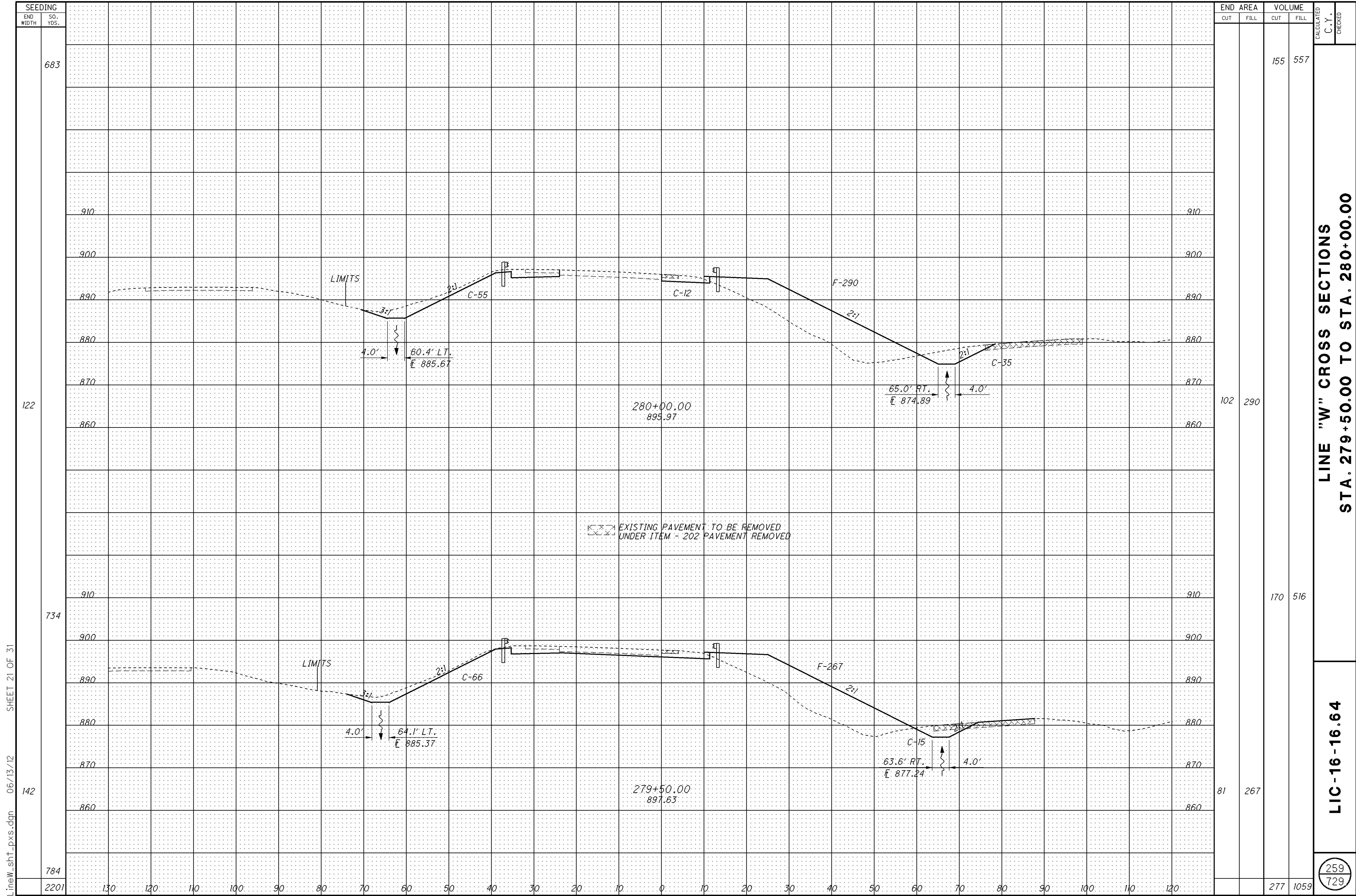
END AREA		VOLUME		CALCULATED C.Y.	CHECKED
CUT	FILL	CUT	FILL		
		107	543		
34	319				
		96	950		
69	707				
		67	2350		
		270	3843		

LINE "W" CROSS SECTIONS
 STA. 278+50.00 TO STA. 279+00.00

LIC-16-16.64

258
729

Line_w_sht_pxs.dgn 06/13/12 SHEET 20 OF 31

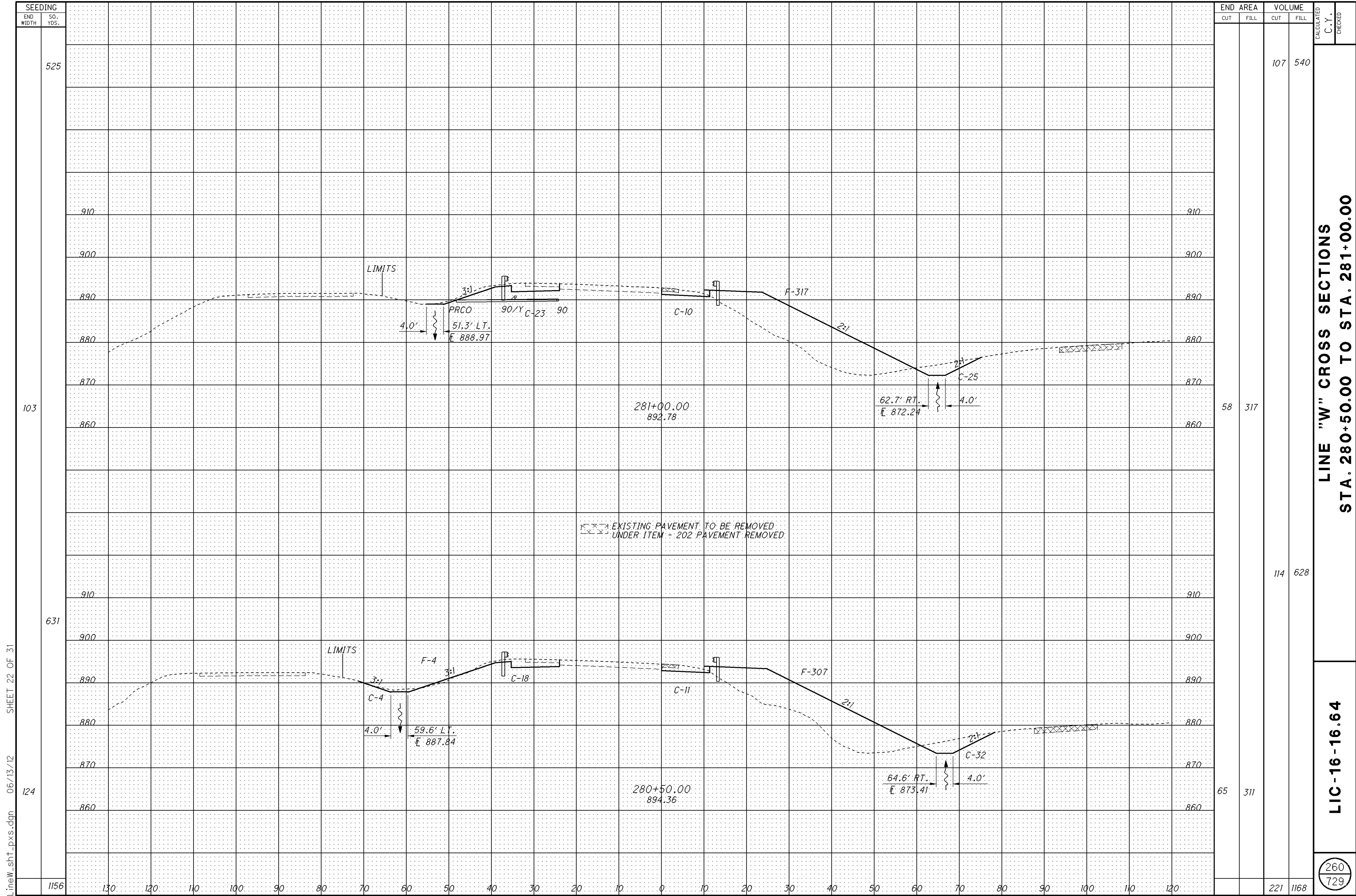


Line_w_sht_pxs.dgn 06/13/12 SHEET 21 OF 31

**LINE "W" CROSS SECTIONS
STA. 279+50.00 TO STA. 280+00.00**

LIC-16-16.64

259
729



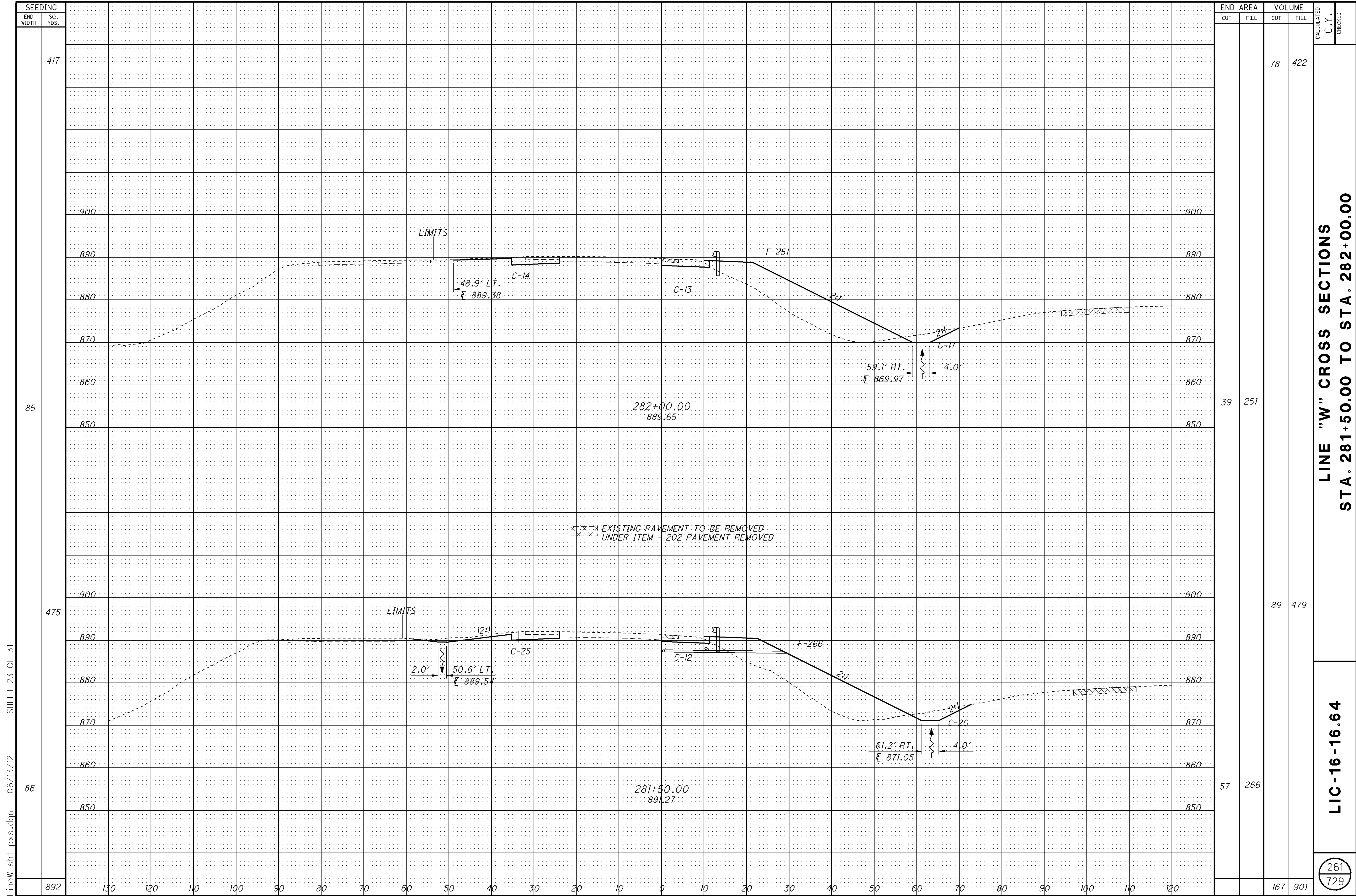
SEEDING	
END WIDTH	SO. YDS.
525	
103	
631	
124	
1156	

END AREA		VOLUME		CALCULATED C.Y.	CHECKED
CUT	FILL	CUT	FILL		
		107	540		
58	317				
		114	628		
65	311				
		221	1168		

LINE "W" CROSS SECTIONS
 STA. 280+50.00 TO STA. 281+00.00

LIC-16-16.64

260
729



Line_w_sht_pxs.dgn 06/13/12 SHEET 23 OF 31

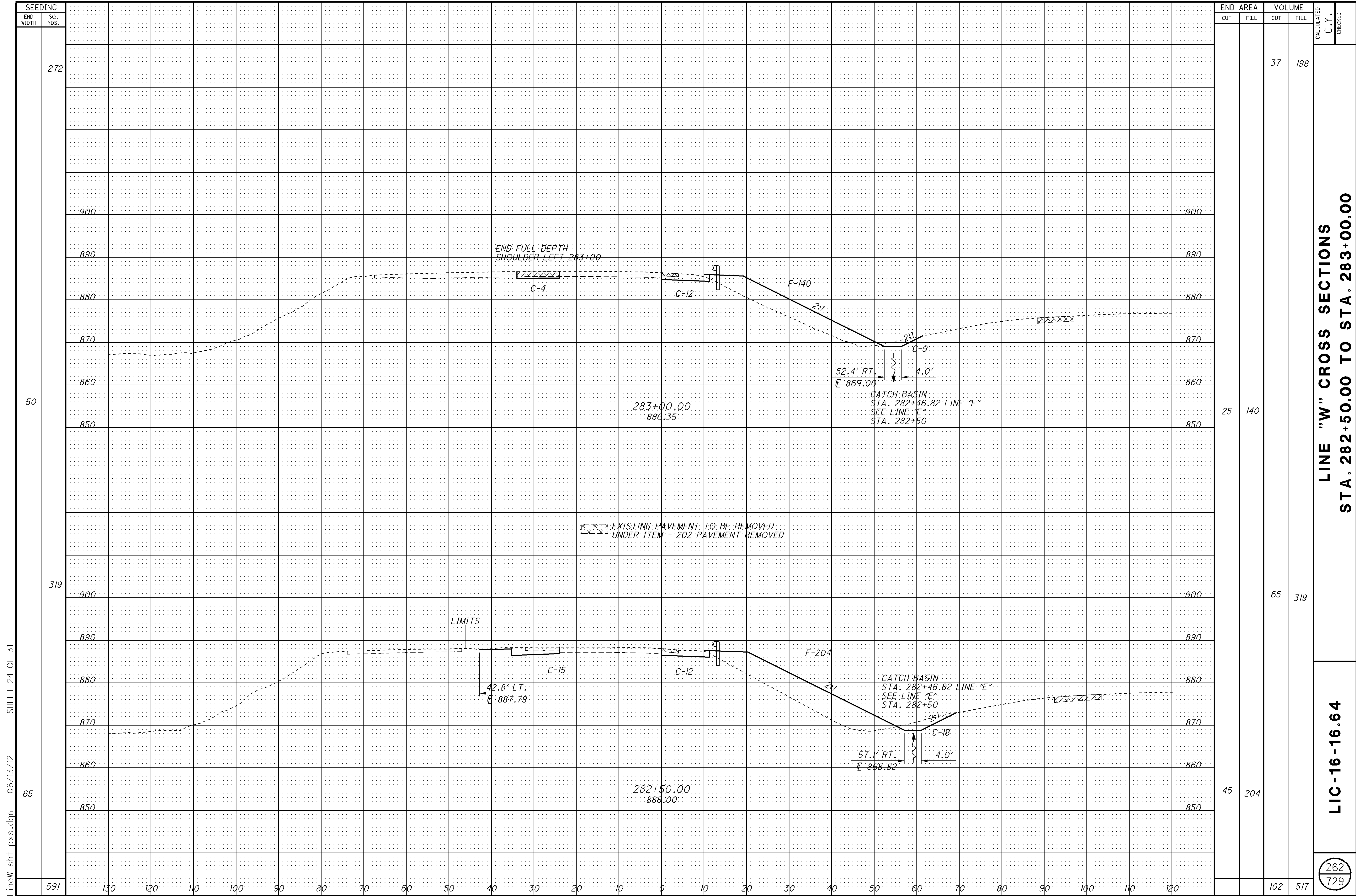
SEEDING	
END WIDTH	SO. YDS.
892	417
880	900
870	890
860	880
850	870
840	860
830	850
820	840
810	830
800	820
790	810
780	800
770	790
760	780
750	770
740	760
730	750
720	740
710	730
700	720
690	710
680	700
670	690
660	680
650	670
640	660
630	650
620	640
610	630
600	620
590	610
580	590
570	580
560	570
550	560
540	550
530	540
520	530
510	520
500	510
490	500
480	490
470	480
460	470
450	460
440	450
430	440
420	430
410	420
400	410
390	400
380	390
370	380
360	370
350	360
340	350
330	340
320	330
310	320
300	310
290	300
280	290
270	280
260	270
250	260
240	250
230	240
220	230
210	220
200	210
190	200
180	190
170	180
160	170
150	160
140	150
130	140

END AREA		VOLUME		CALCULATED C.Y.	CHECKED
CUT	FILL	CUT	FILL		
39	251	78	422		
57	266	89	479		
167	901				

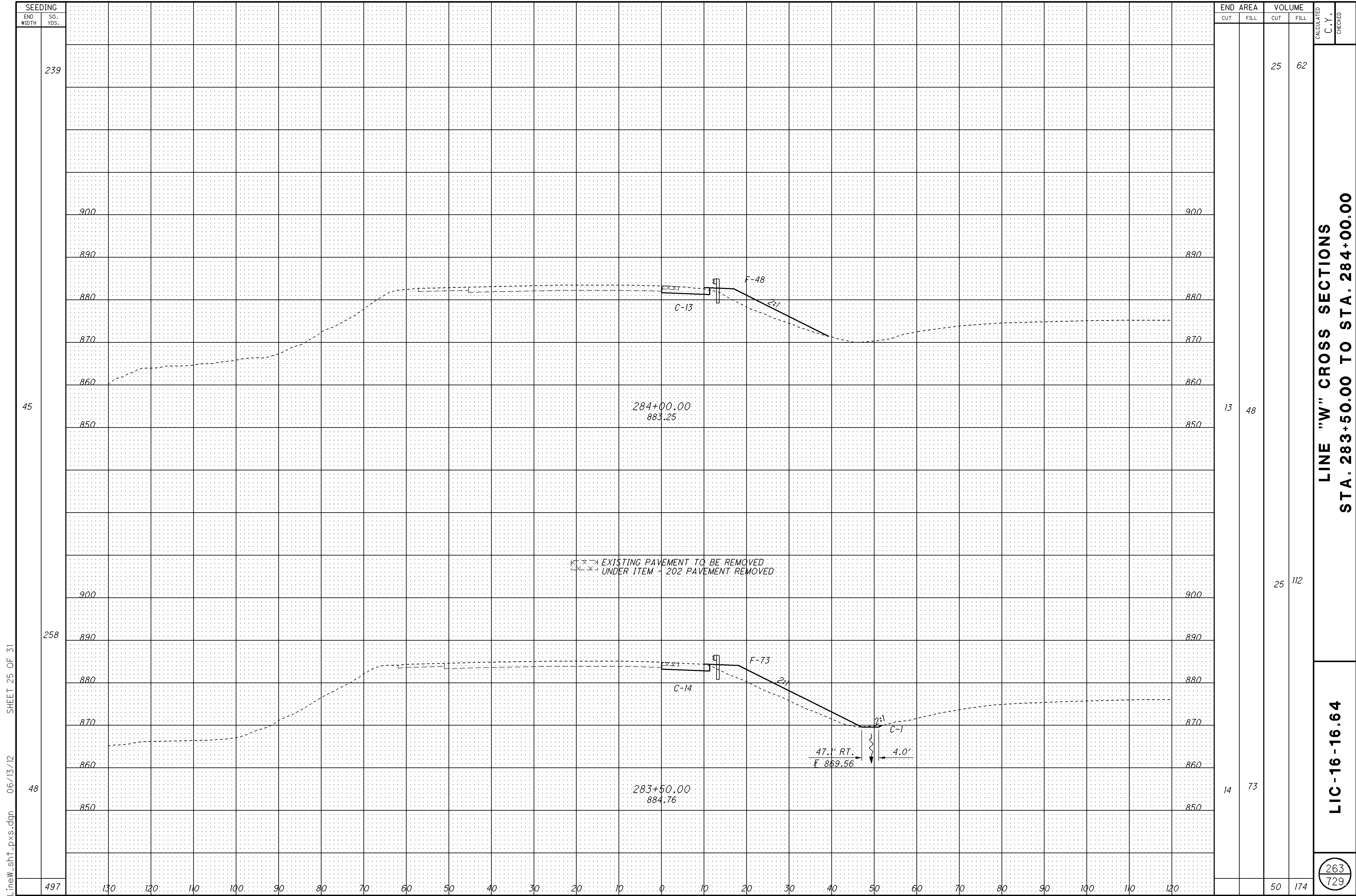
LINE "W" CROSS SECTIONS
STA. 281+50.00 TO STA. 282+00.00

LIC-16-16.64

261
729



Line_w_sht_pxs.dgn 06/13/12 SHEET 24 OF 31

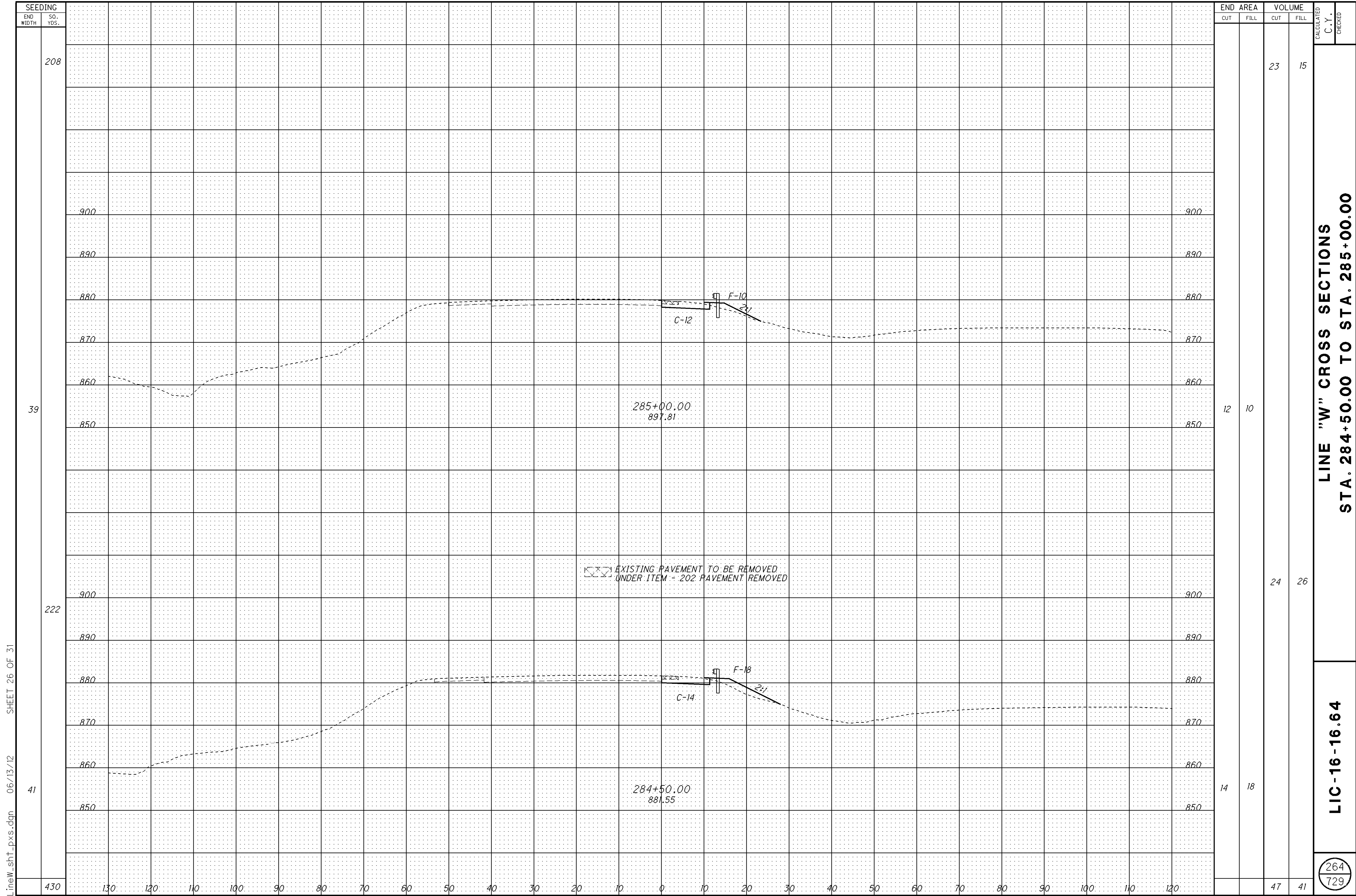


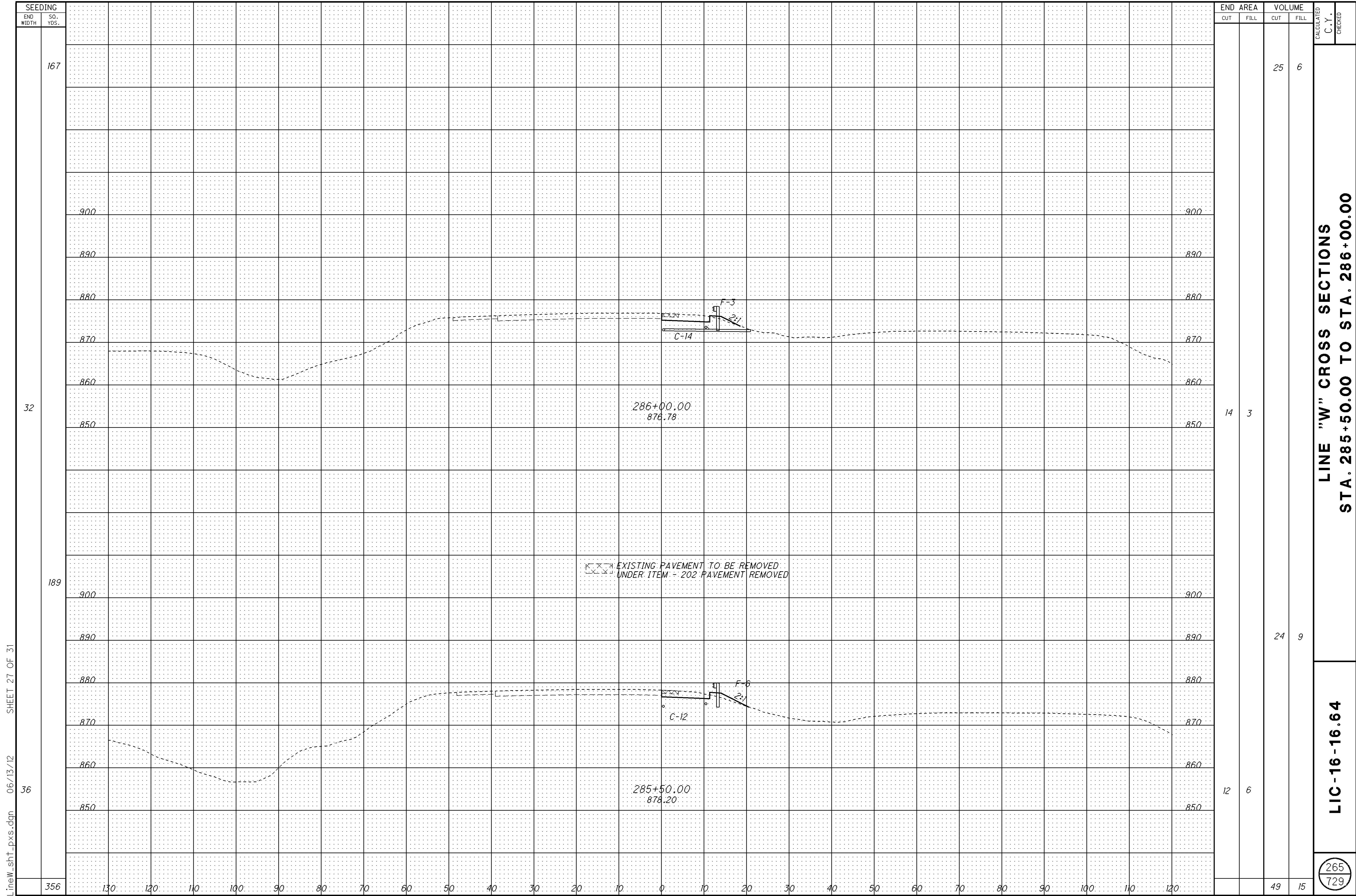
LINE "W" CROSS SECTIONS
STA. 283+50.00 TO STA. 284+00.00

LIC-16-16.64

263
729

Line_w_sht_pxs.dgn 06/13/12 SHEET 25 OF 31

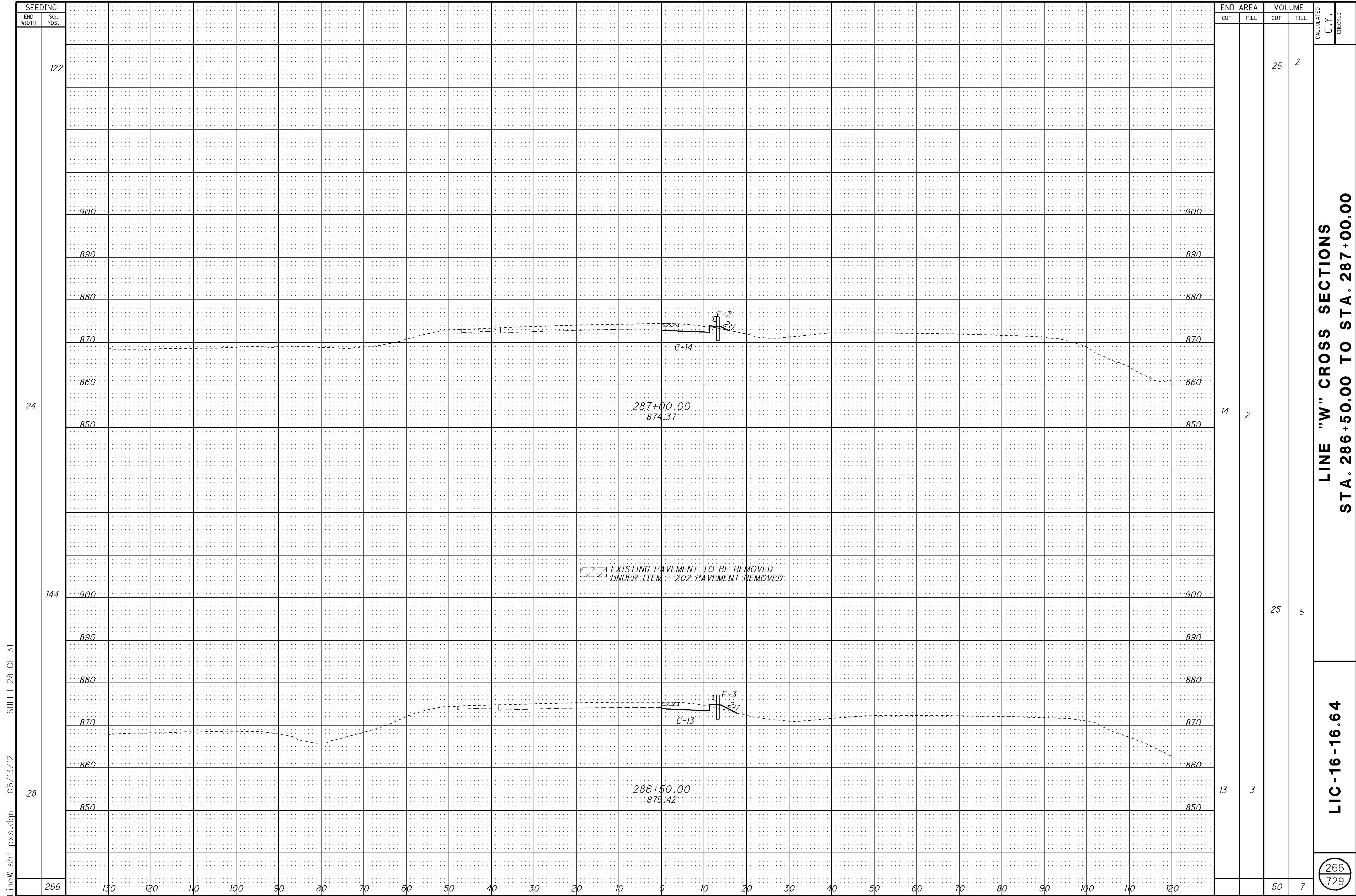




LINE "W" CROSS SECTIONS
STA. 285+50.00 TO STA. 286+00.00

LIC-16-16.64

265
729



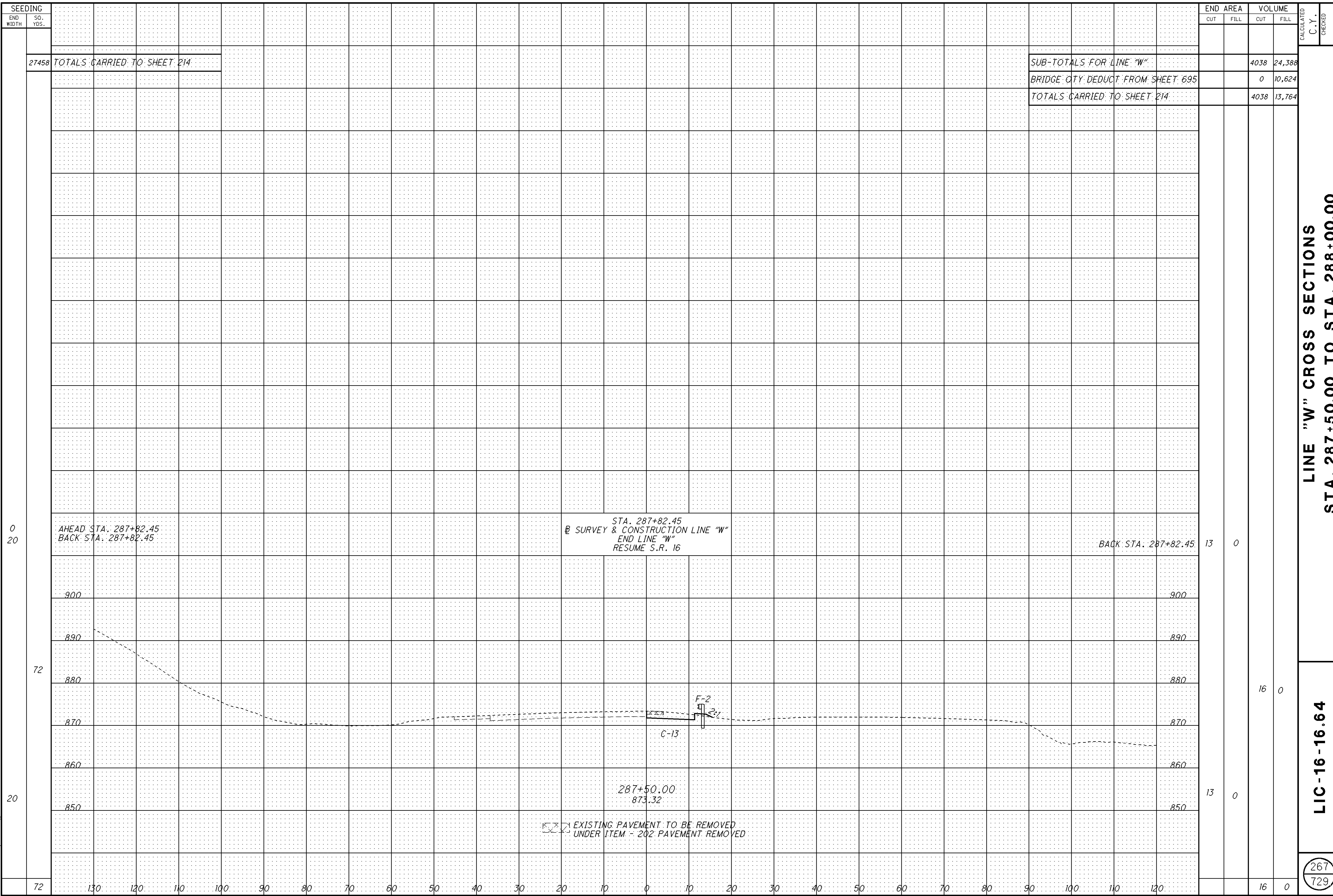
Line_w_sht_pxs.dgn 06/13/12 SHEET 28 OF 31

**LINE "W" CROSS SECTIONS
STA. 286+50.00 TO STA. 287+00.00**

LIC-16-16.64

266
729

CALCULATED
C.Y.
CHECKED

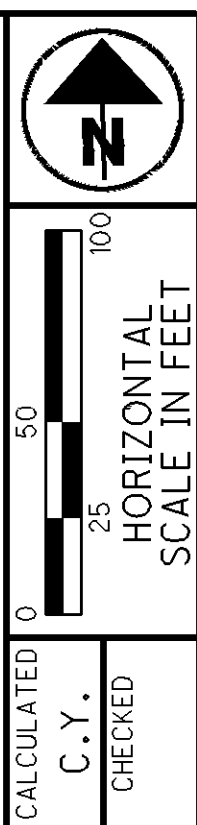
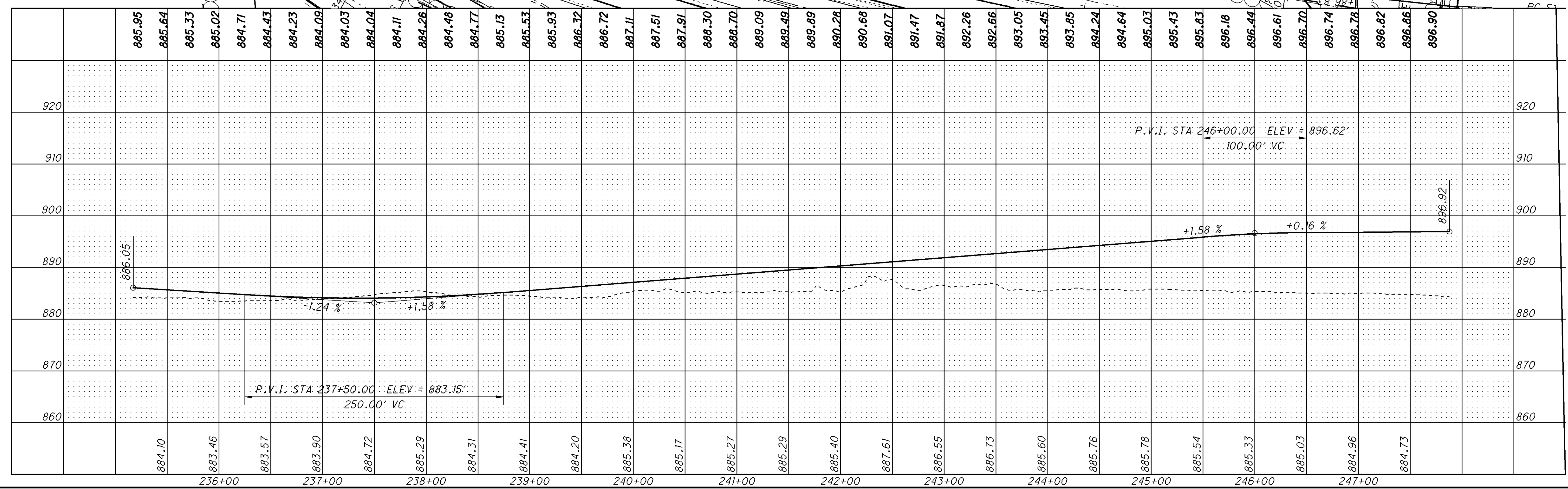
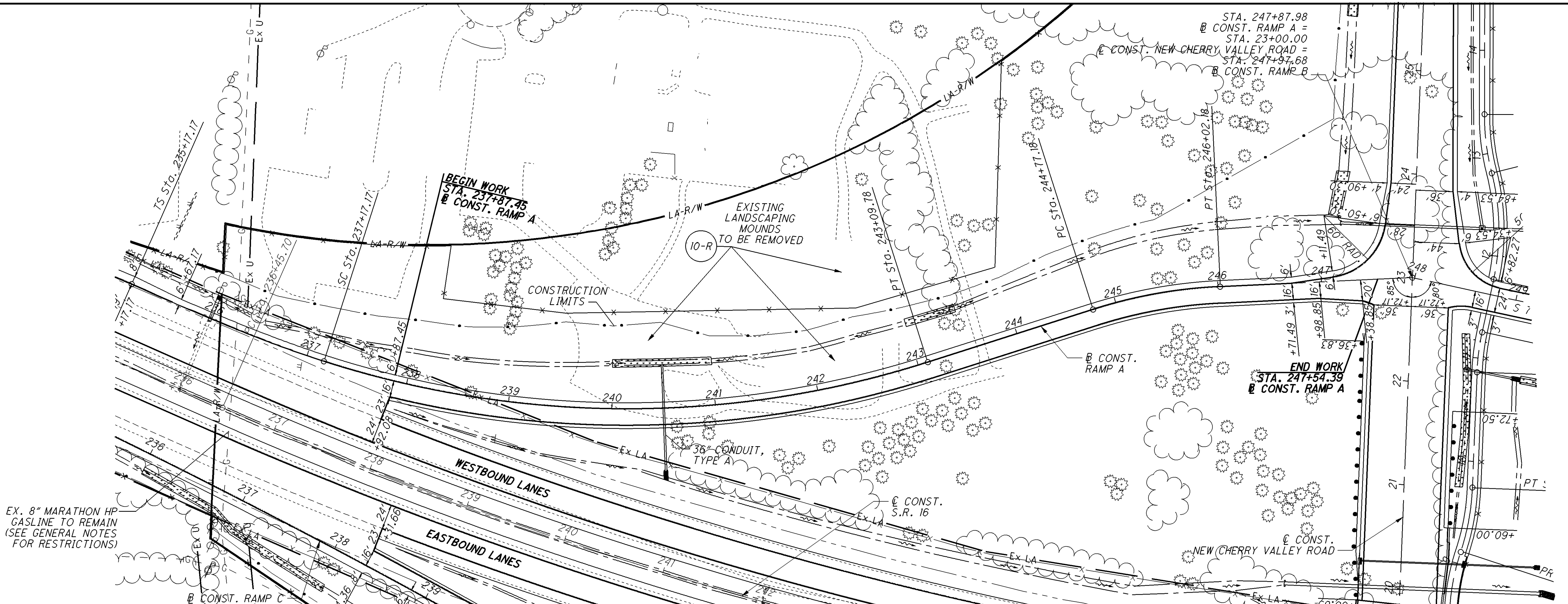


SEEDING
END WIDTH SO. YDS.
27458 TOTALS CARRIED TO SHEET 214
0 20
72
20
72
130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120

END AREA		VOLUME	
CUT	FILL	CUT	FILL
		4038	24,388
		0	10,624
		4038	13,764
13	0	16	0
13	0	16	0
16	0	16	0

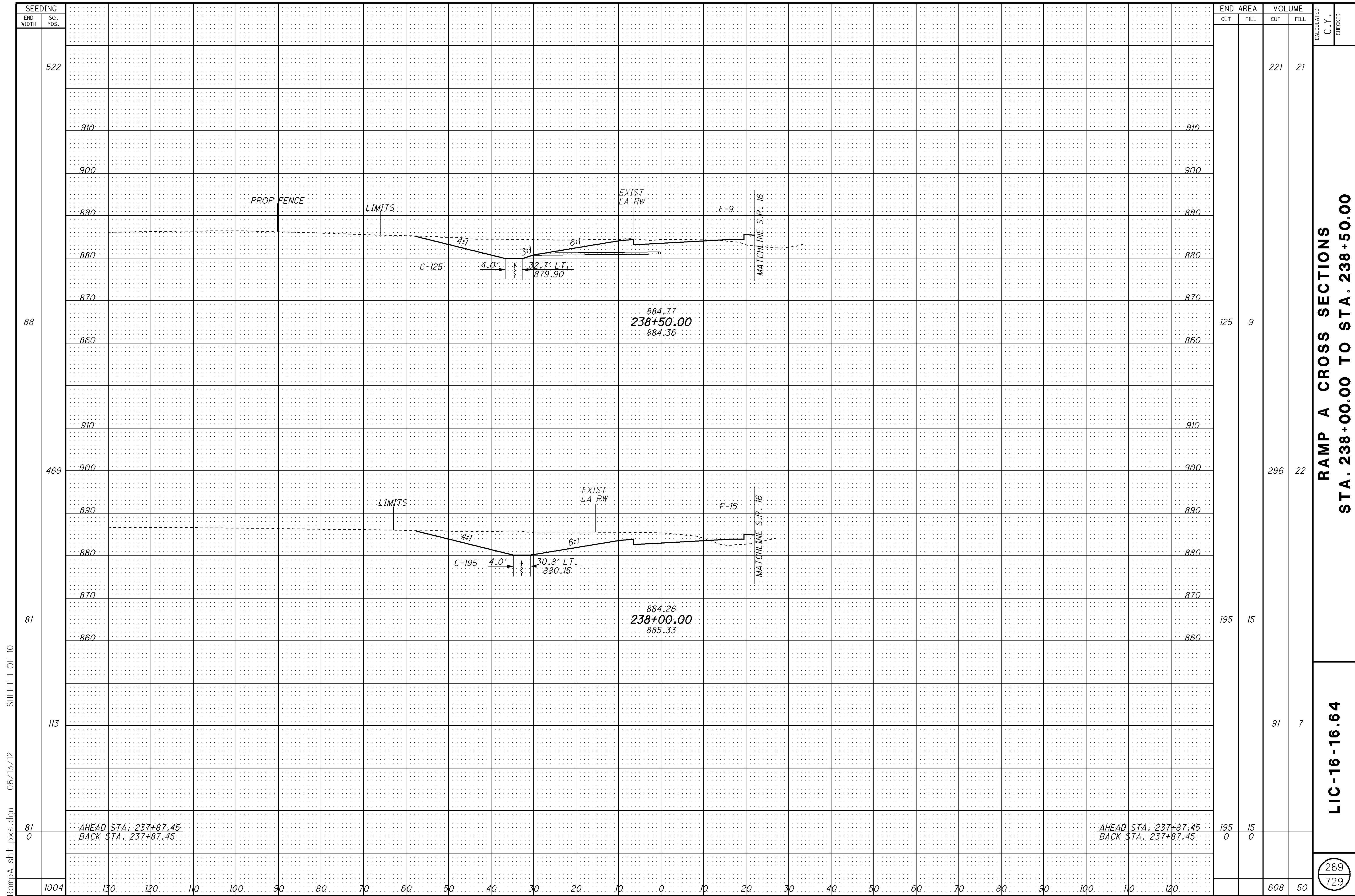
CALCULATED C.Y. CHECKED
LINE "W" CROSS SECTIONS
STA. 287+50.00 TO STA. 288+00.00
LIC-16-16.64
267
729

Line_w_sht_pxs.dgn 06/13/12 SHEET 29 OF 31



RAMP A PLAN AND PROFILE
STA. 237+87.45 TO STA. 247+54.39

LIC-16-16.64



SEEDING	
END WIDTH	SO. YDS.
522	
88	
469	
81	
113	
81	
0	
1004	

END AREA		VOLUME	
CUT	FILL	CUT	FILL
		221	21
125	9		
296	22		
195	15		
91	7		
195	15		
0	0		
608	50		

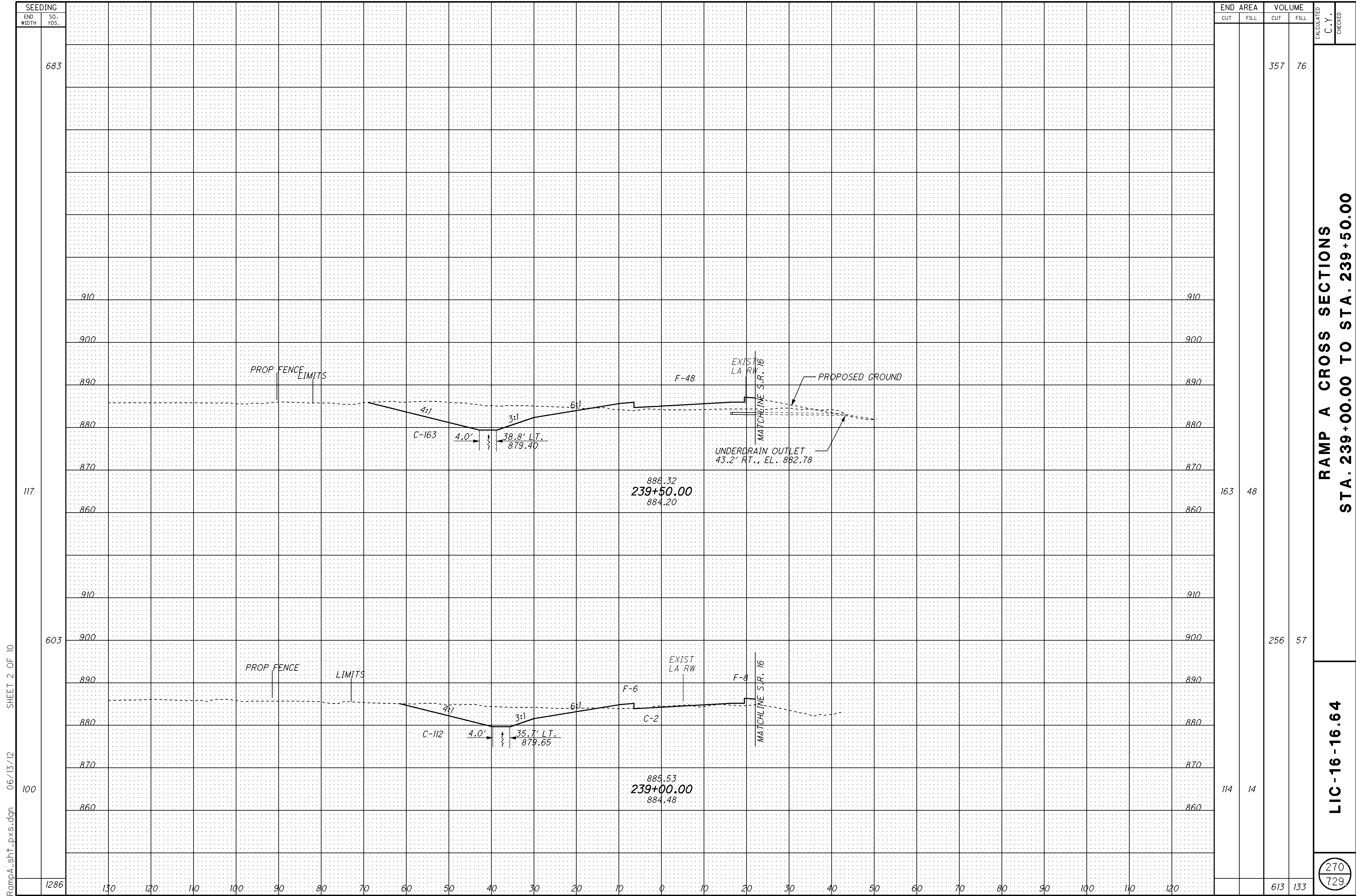
RAMP A CROSS SECTIONS
STA. 238+00.00 TO STA. 238+50.00

LIC-16-16.64

CALCULATED C.Y. CHECKED

RampA_sht1_pxs.dgn 06/13/12 SHEET 1 OF 10

269
729



SEEDING	
END WIDTH	SO. YDS.
1286	683
100	117
603	603
100	100

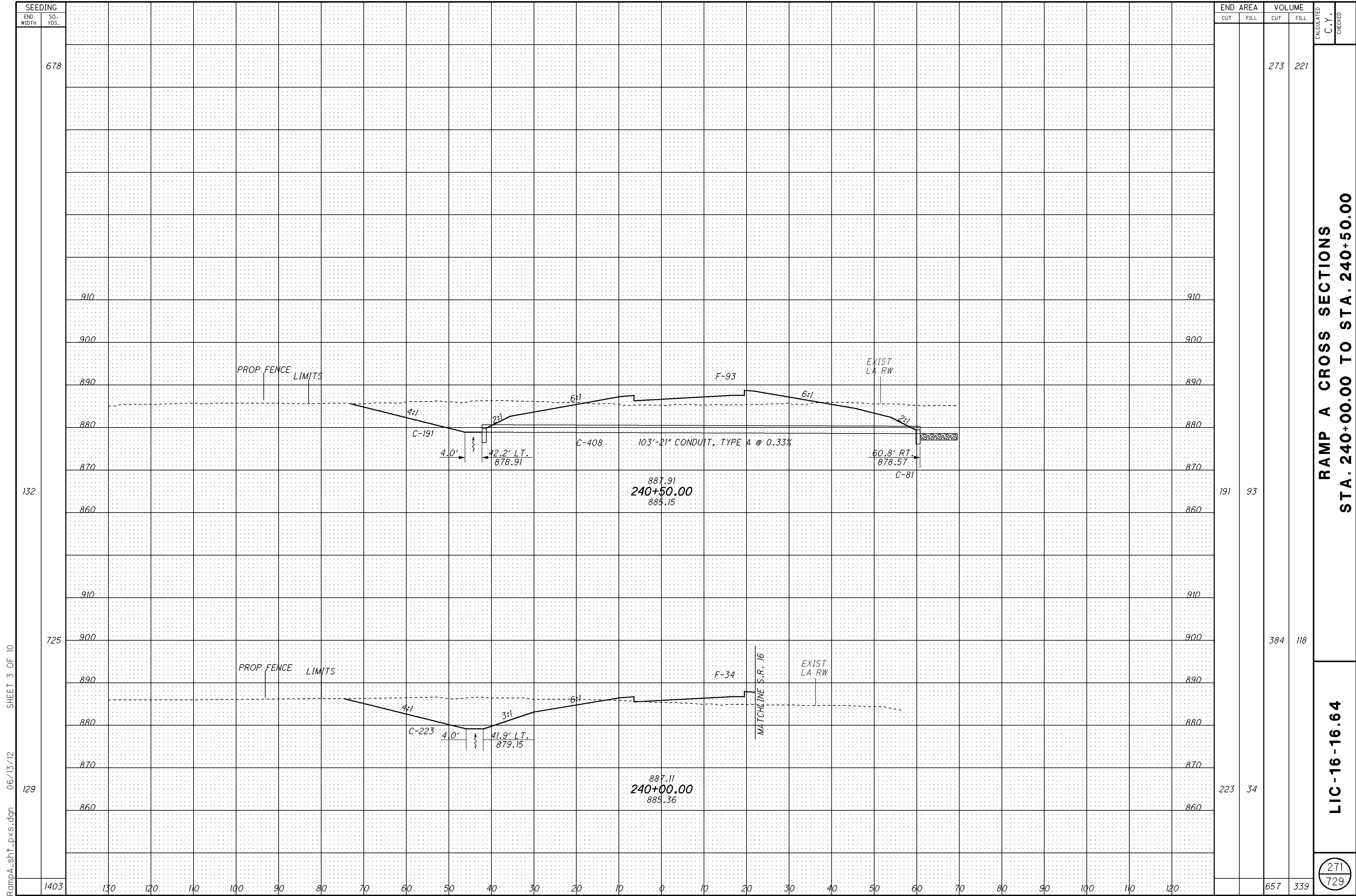
END AREA		VOLUME	
CUT	FILL	CUT	FILL
163	48	357	76
114	14	256	57
613	133		

RAMP A CROSS SECTIONS
STA. 239+00.00 TO STA. 239+50.00

LIC-16-16.64

CALCULATED C.Y.
 CHECKED

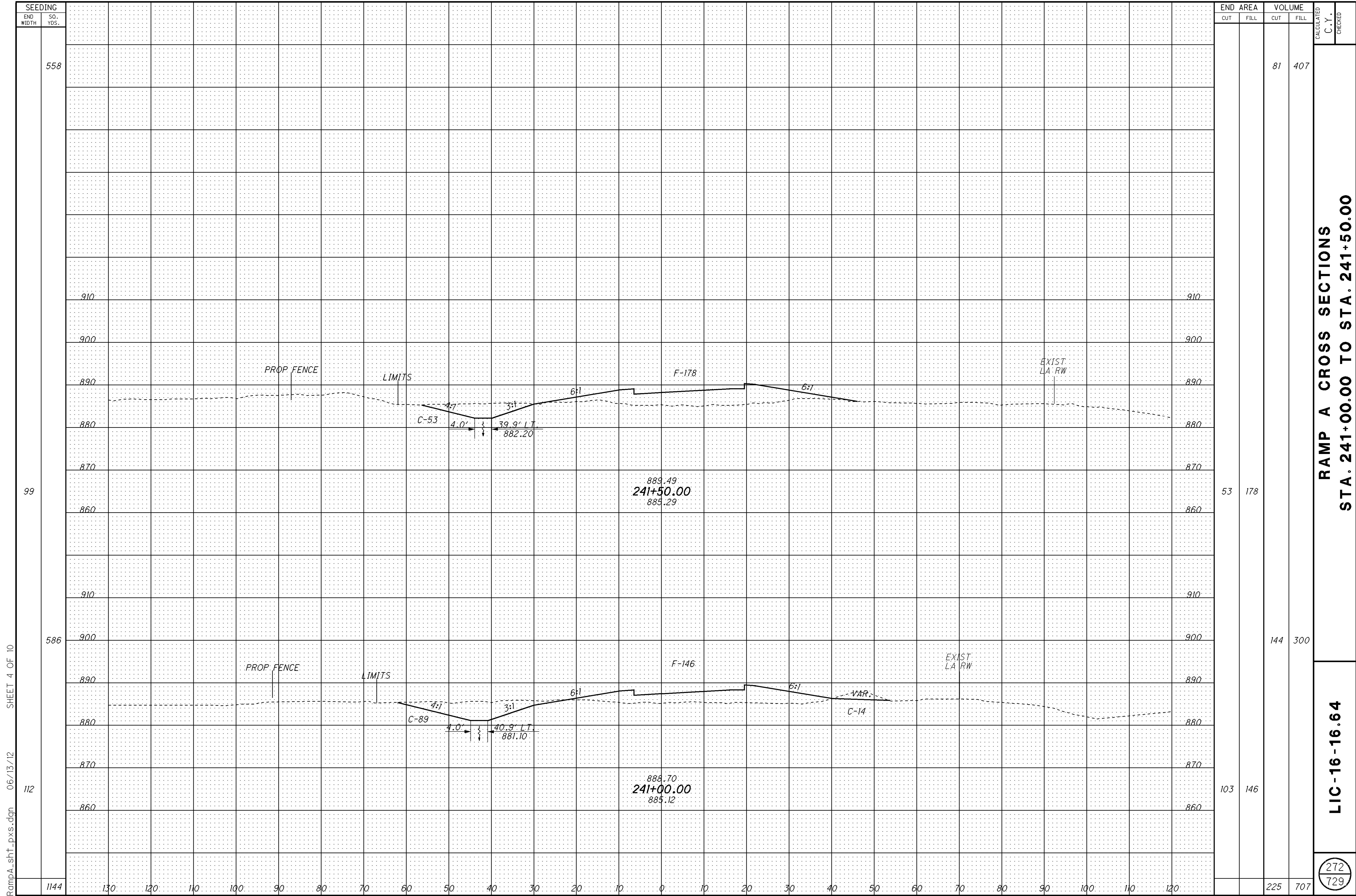
RampA_sh1_pxs.dgn 06/13/12 SHEET 2 OF 10



SEEDING	
END WIDTH	SO. YDS.
678	
132	
725	
129	
1403	

END AREA		VOLUME	
CUT	FILL	CUT	FILL
		273	221
191	93	384	118
223	34	657	339

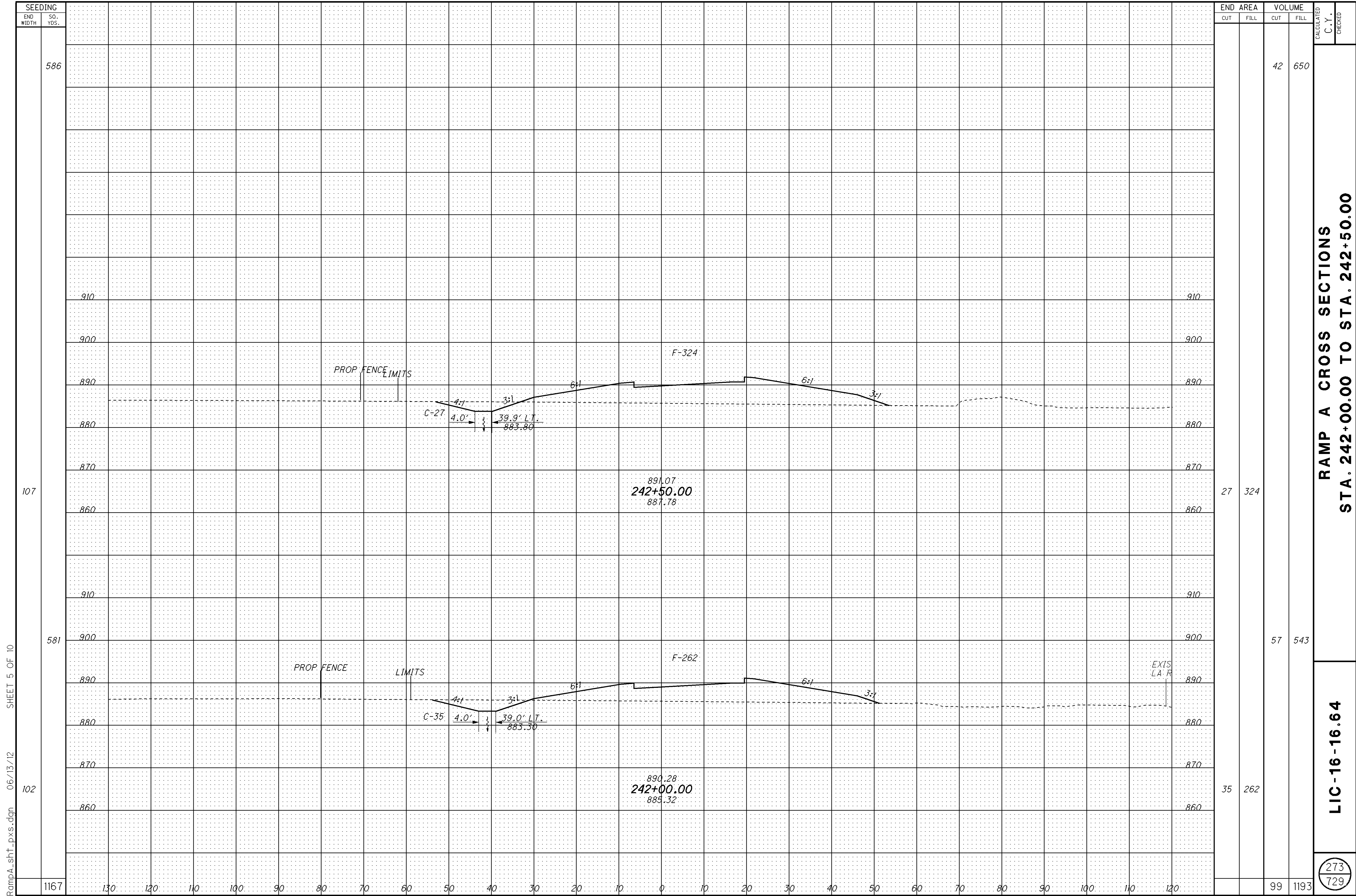
CALCULATED C.Y. CHECKED
RAMP A CROSS SECTIONS
STA. 240+00.00 TO STA. 240+50.00
LIC-16-16.64
 271
 729



SEEDING	
END WIDTH	SO. YDS.
558	
99	
586	
112	
1144	

END AREA		VOLUME	
CUT	FILL	CUT	FILL
		81	407
53	178		
144	300		
103	146		
225	707		

CALCULATED C.Y. CHECKED
RAMP A CROSS SECTIONS
STA. 241+00.00 TO STA. 241+50.00
LIC-16-16.64
 272
 729

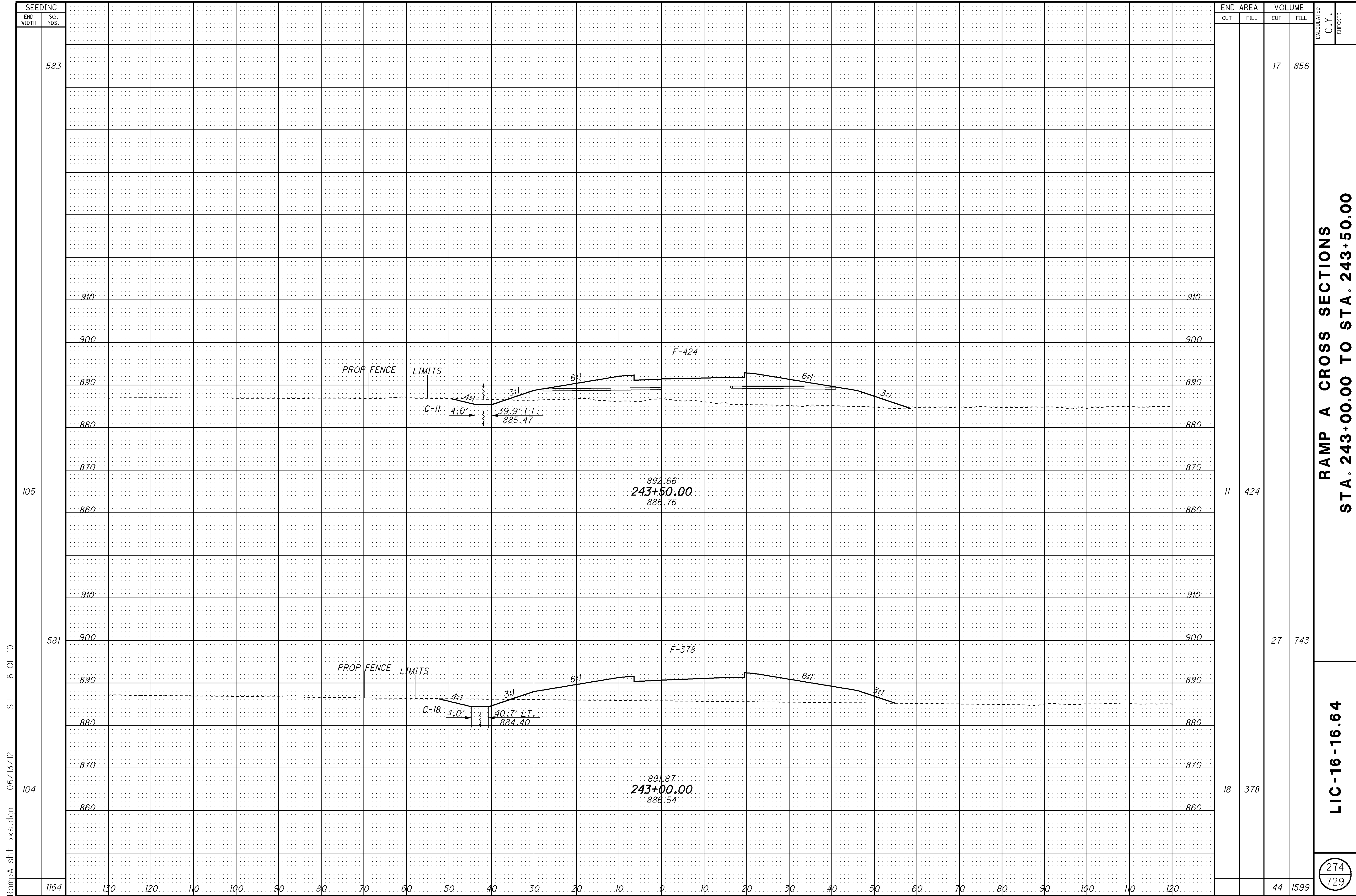


RampA_shT_pxs.dgn 06/13/12 SHEET 5 OF 10

**RAMP A CROSS SECTIONS
STA. 242+00.00 TO STA. 242+50.00**

LIC-16-16.64

273
729



SEEDING

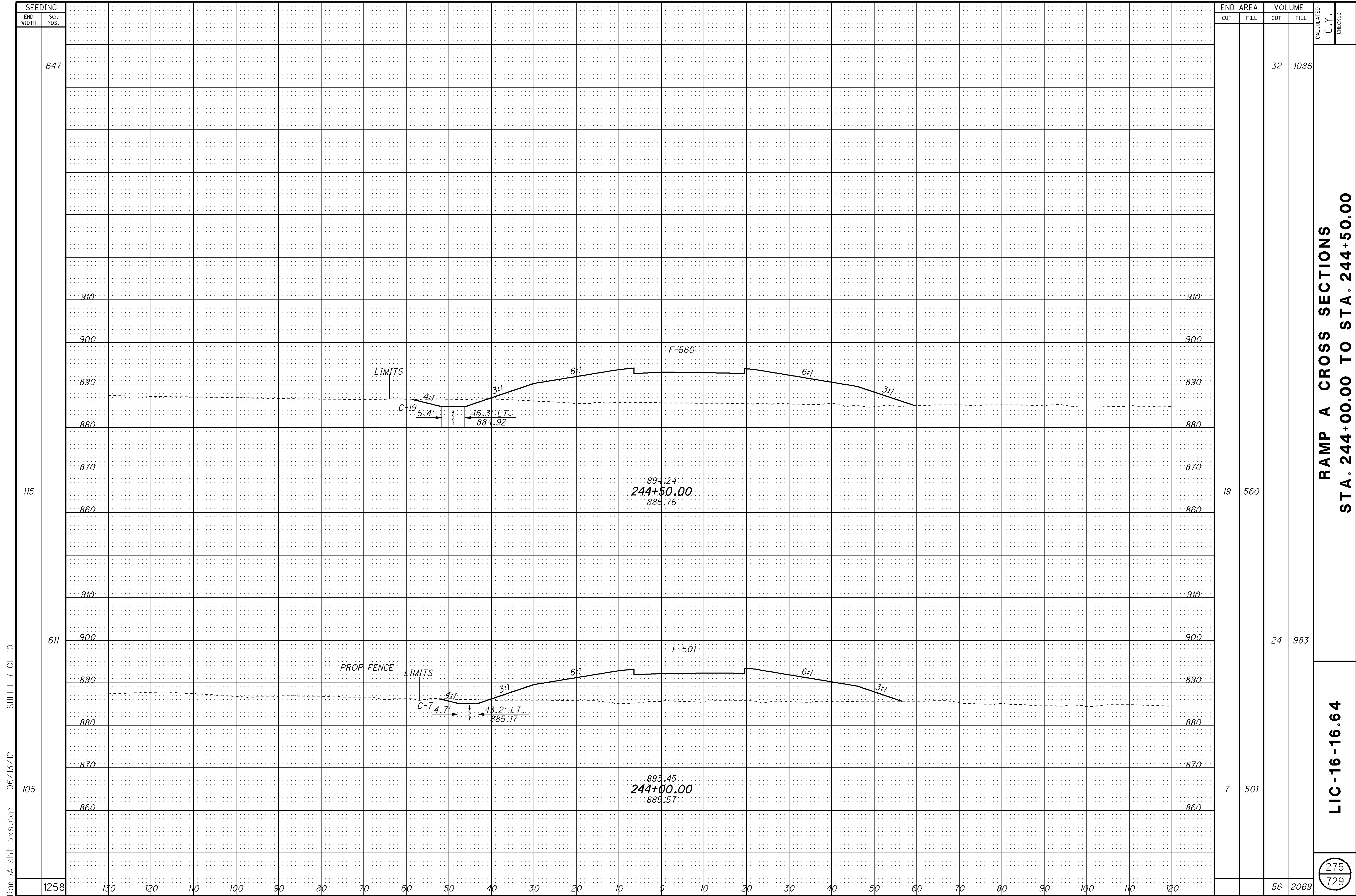
END WIDTH	SO. YDS.
1164	583
130	910
120	900
110	890
100	880
90	870
80	860
70	910
60	900
50	890
40	880
30	870
20	900
10	890
0	880
10	870
20	900
30	890
40	880
50	870
60	900
70	890
80	880
90	870
100	900
110	890
120	880

END AREA		VOLUME		CALCULATED C.Y.	CHECKED
CUT	FILL	CUT	FILL		
17	856	11	424	27	743
44	1599	18	378		

RAMP A CROSS SECTIONS
 STA. 243+00.00 TO STA. 243+50.00

LIC-16-16.64

274
729



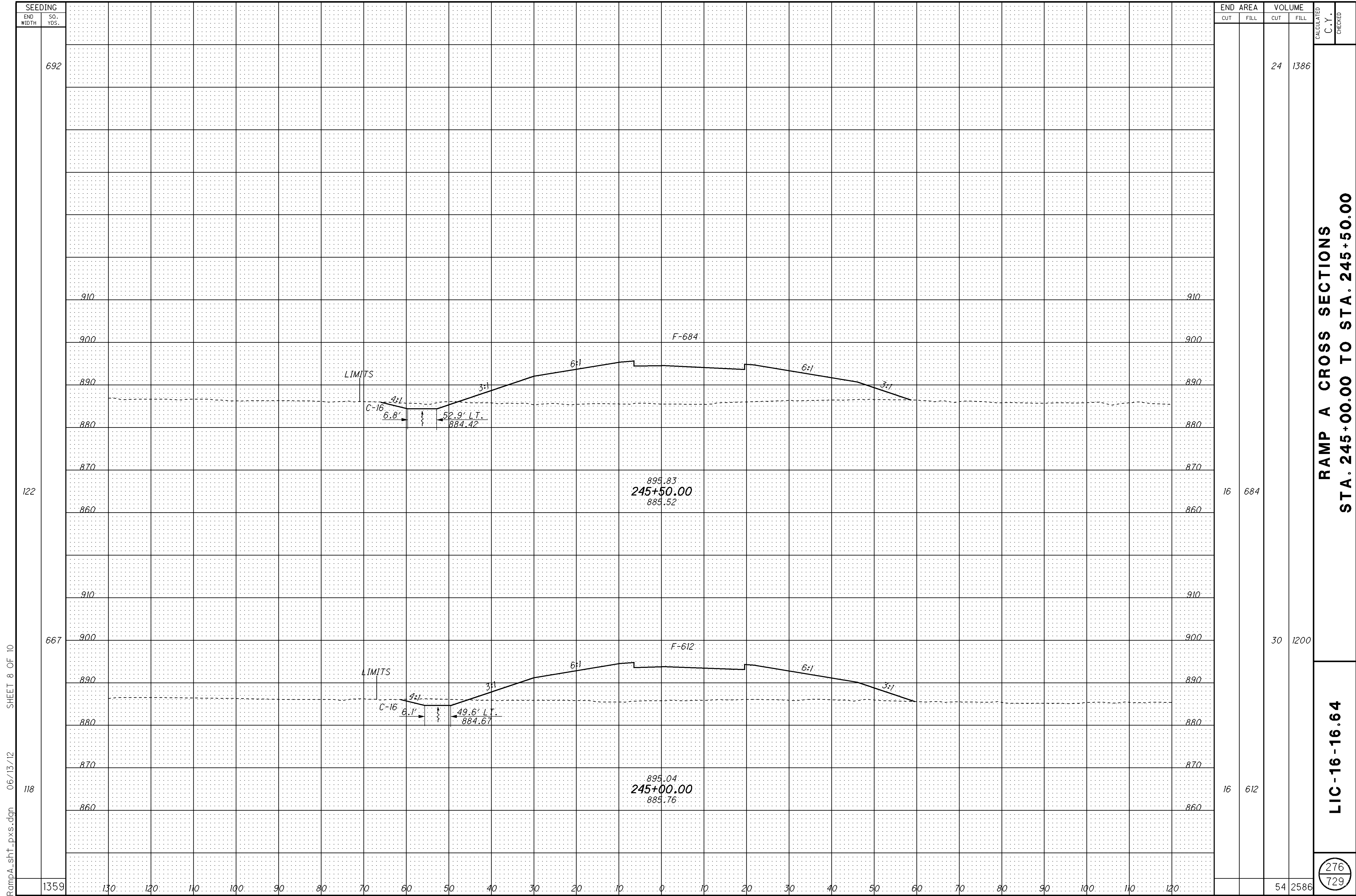
SEEDING	
END WIDTH	SO. YDS.
647	
115	
611	
105	
1258	

END AREA		VOLUME	
CUT	FILL	CUT	FILL
		32	1086
19	560	24	983
7	501	56	2069

RAMP A CROSS SECTIONS
STA. 244+00.00 TO STA. 244+50.00

LIC-16-16.64

CALCULATED C.Y. CHECKED

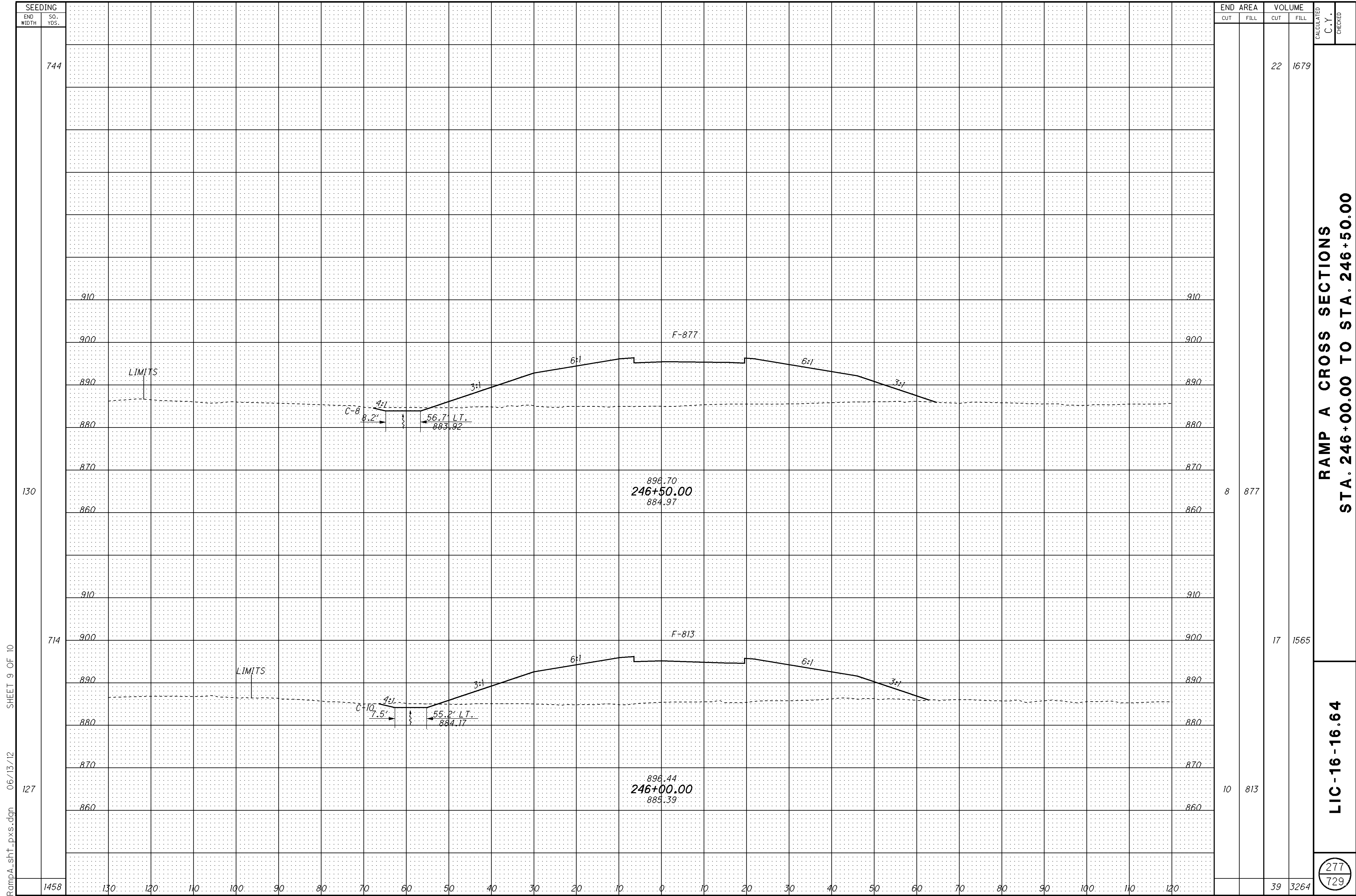


RampA_sh1_pxs.dgn 06/13/12 SHEET 8 OF 10

**RAMP A CROSS SECTIONS
STA. 245+00.00 TO STA. 245+50.00**

LIC-16-16.64

276
729

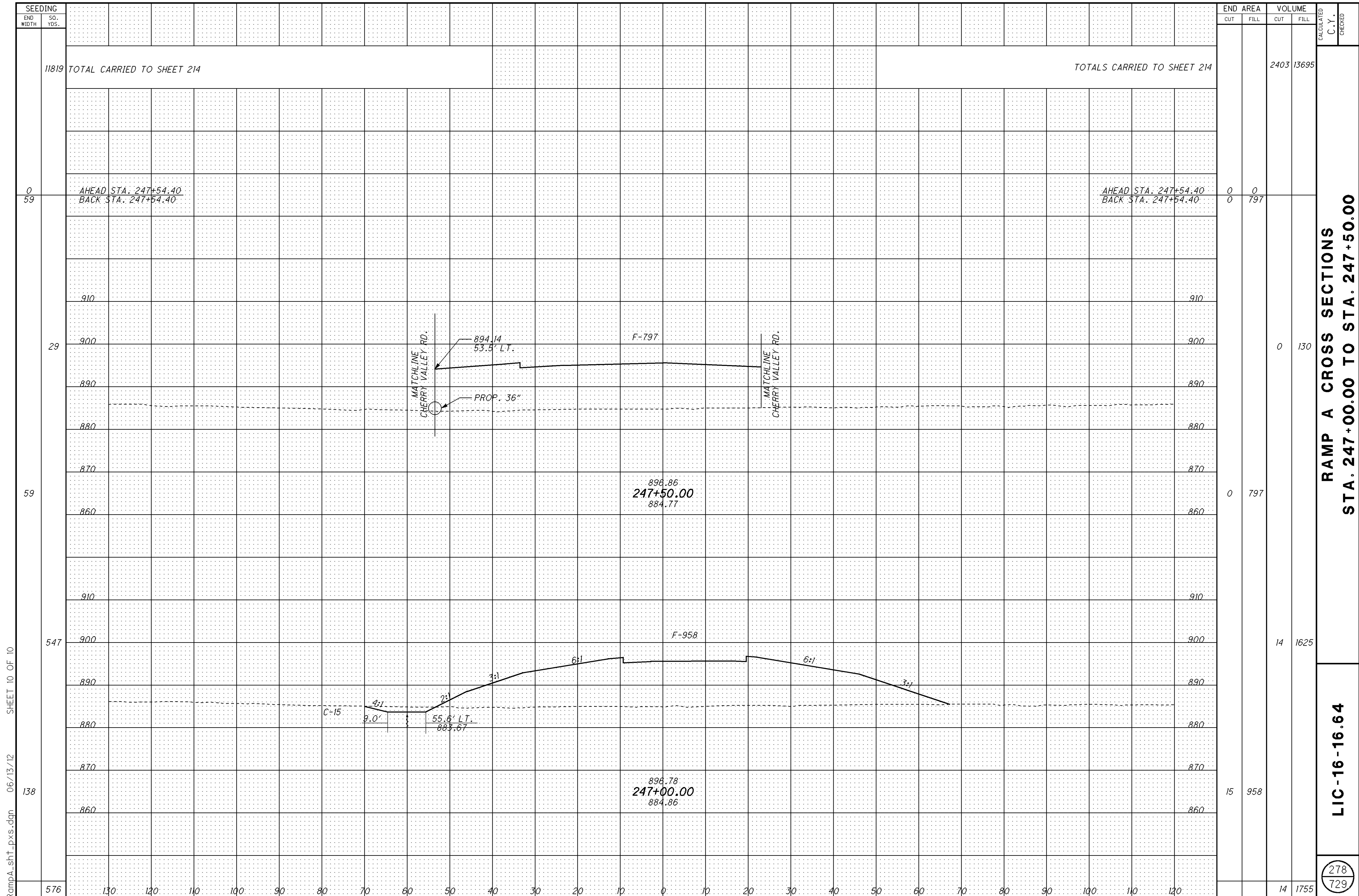


RampA_sh1_pxs.dgn 06/13/12 SHEET 9 OF 10

**RAMP A CROSS SECTIONS
 STA. 246+00.00 TO STA. 246+50.00**

LIC-16-16.64

277
729



RampA_shT_pxs.dgn 06/13/12 SHEET 10 OF 10

**RAMP A CROSS SECTIONS
STA. 247+00.00 TO STA. 247+50.00**

LIC-16-16.64

278
729



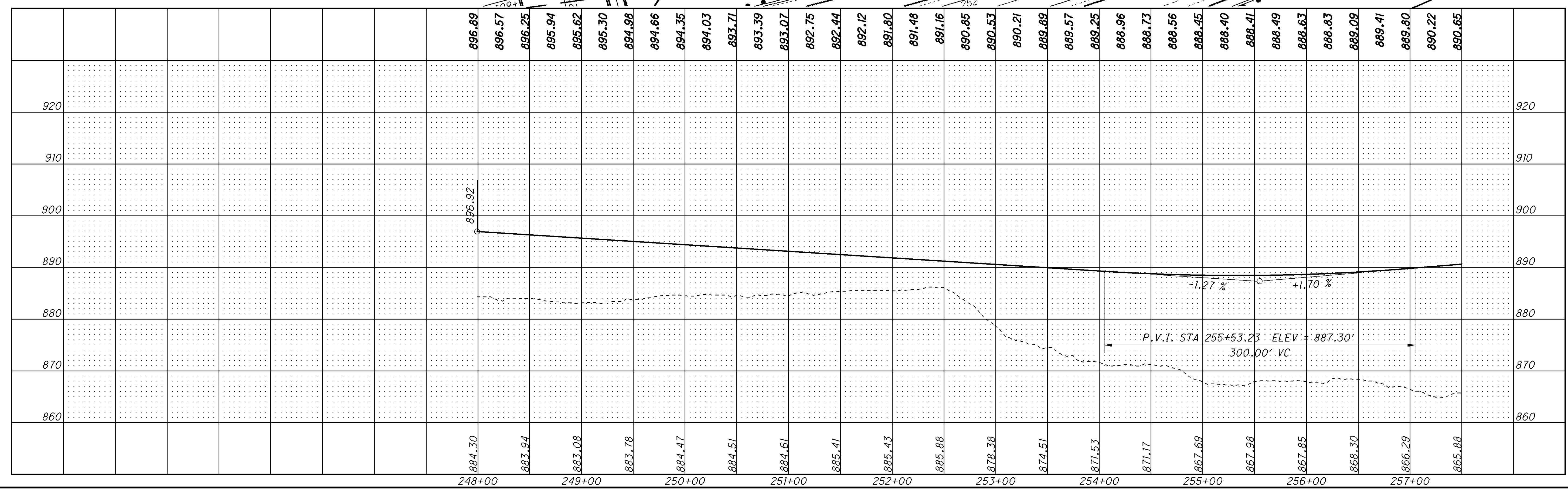
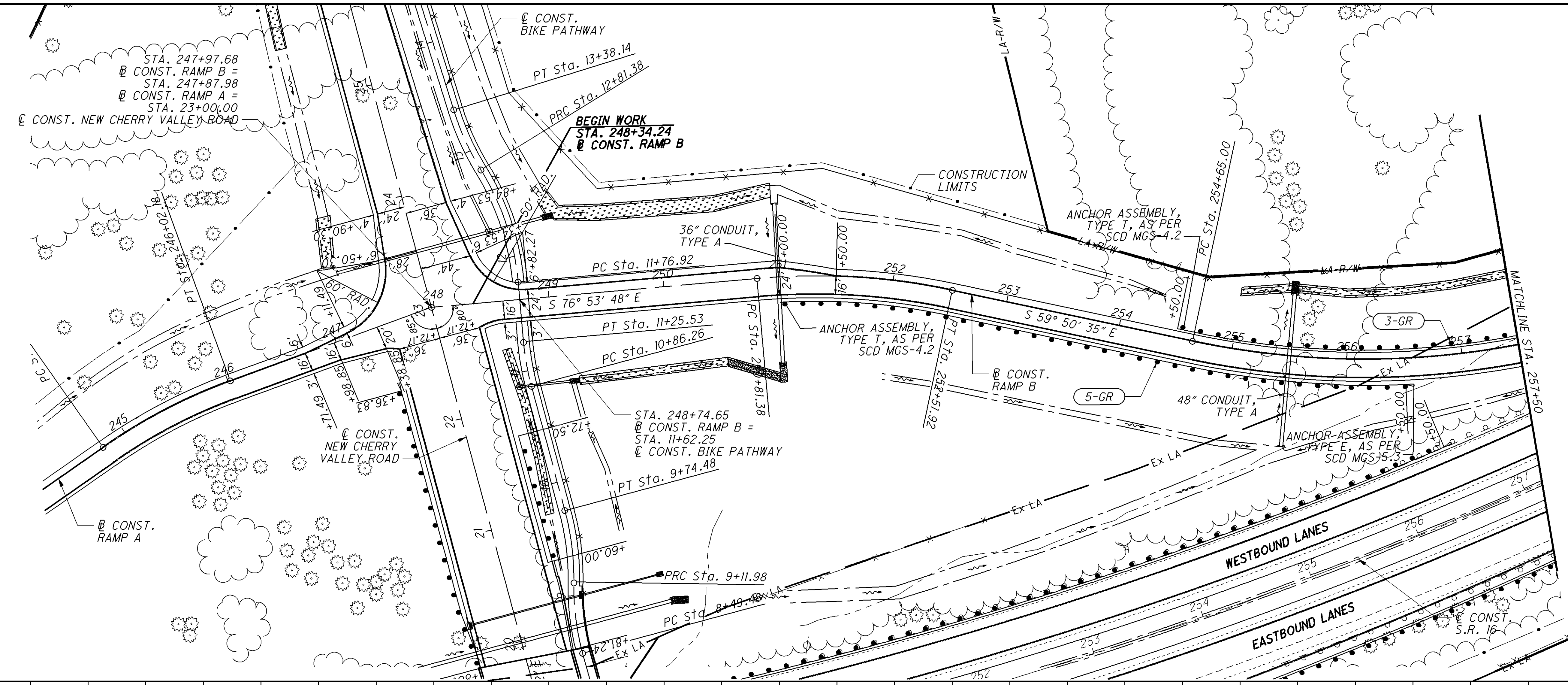
0 50 100
 HORIZONTAL SCALE IN FEET

CALCULATED C.V. CHECKED

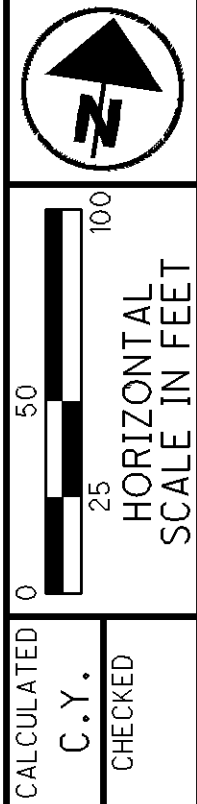
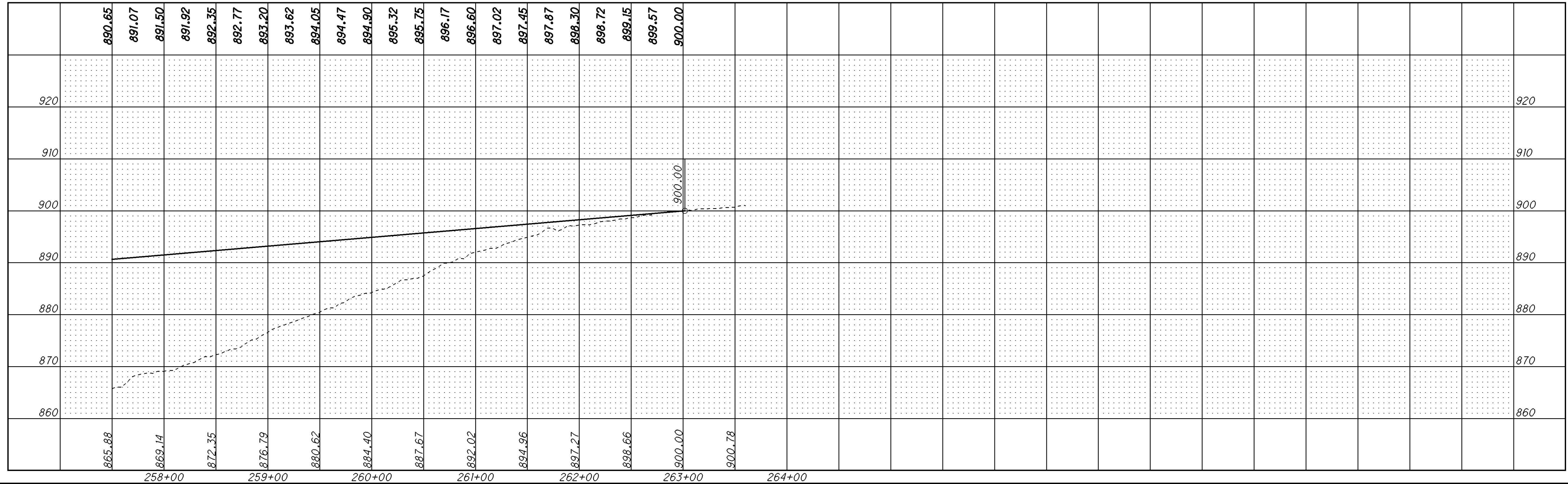
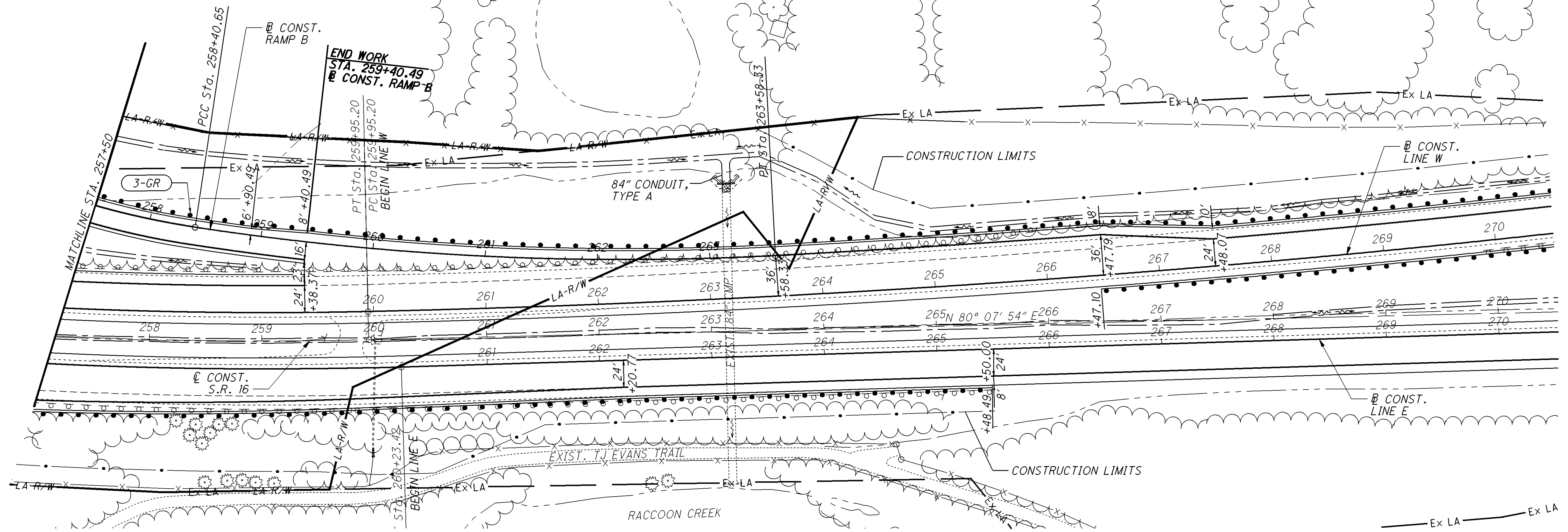
RAMP B PLAN AND PROFILE
STA. 248+34.24 TO STA. 257+50.00

LIC-16-16.64

279
 729

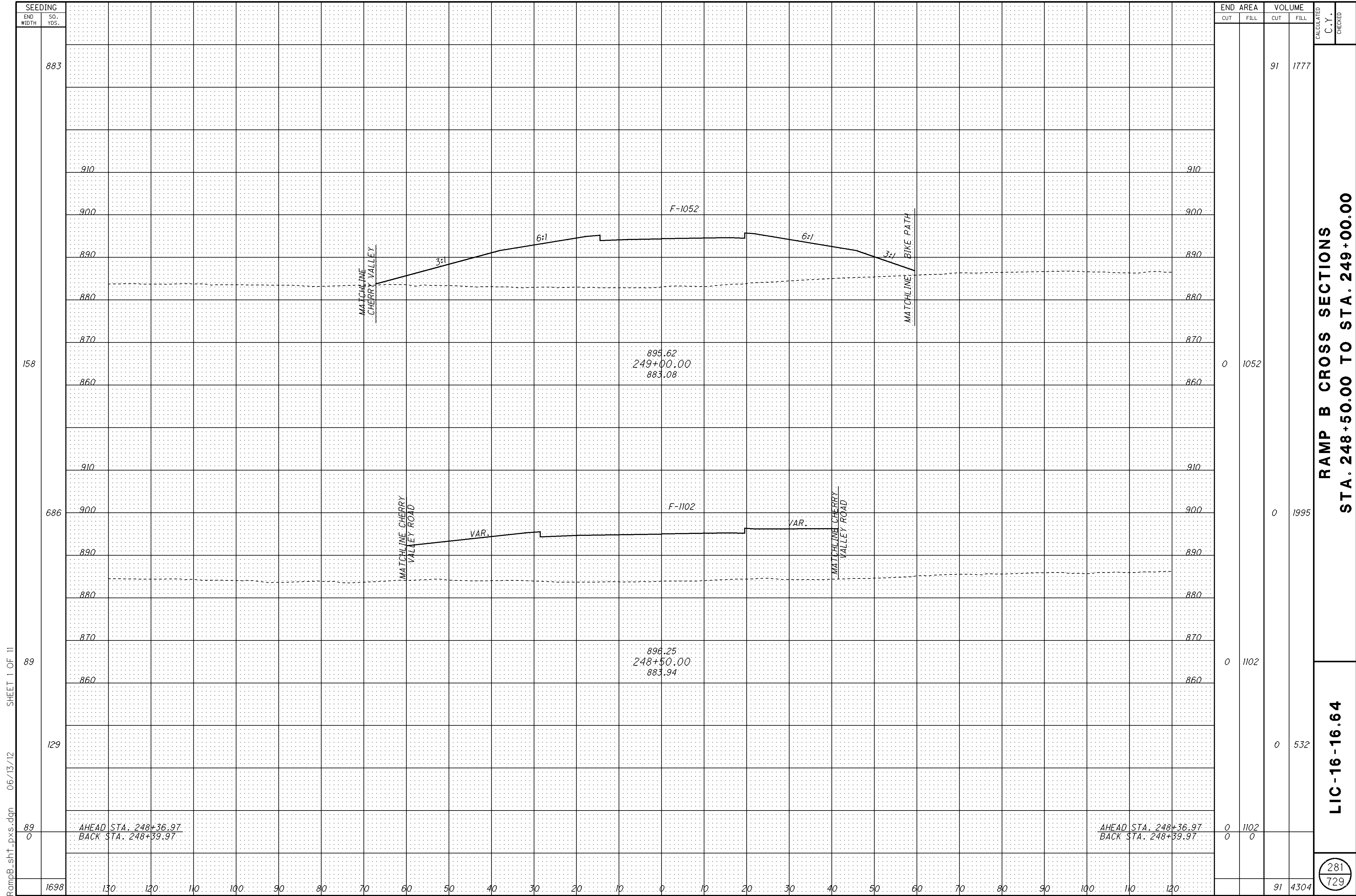


80704_RAMPB_PPP_001.DGN 05/03/12



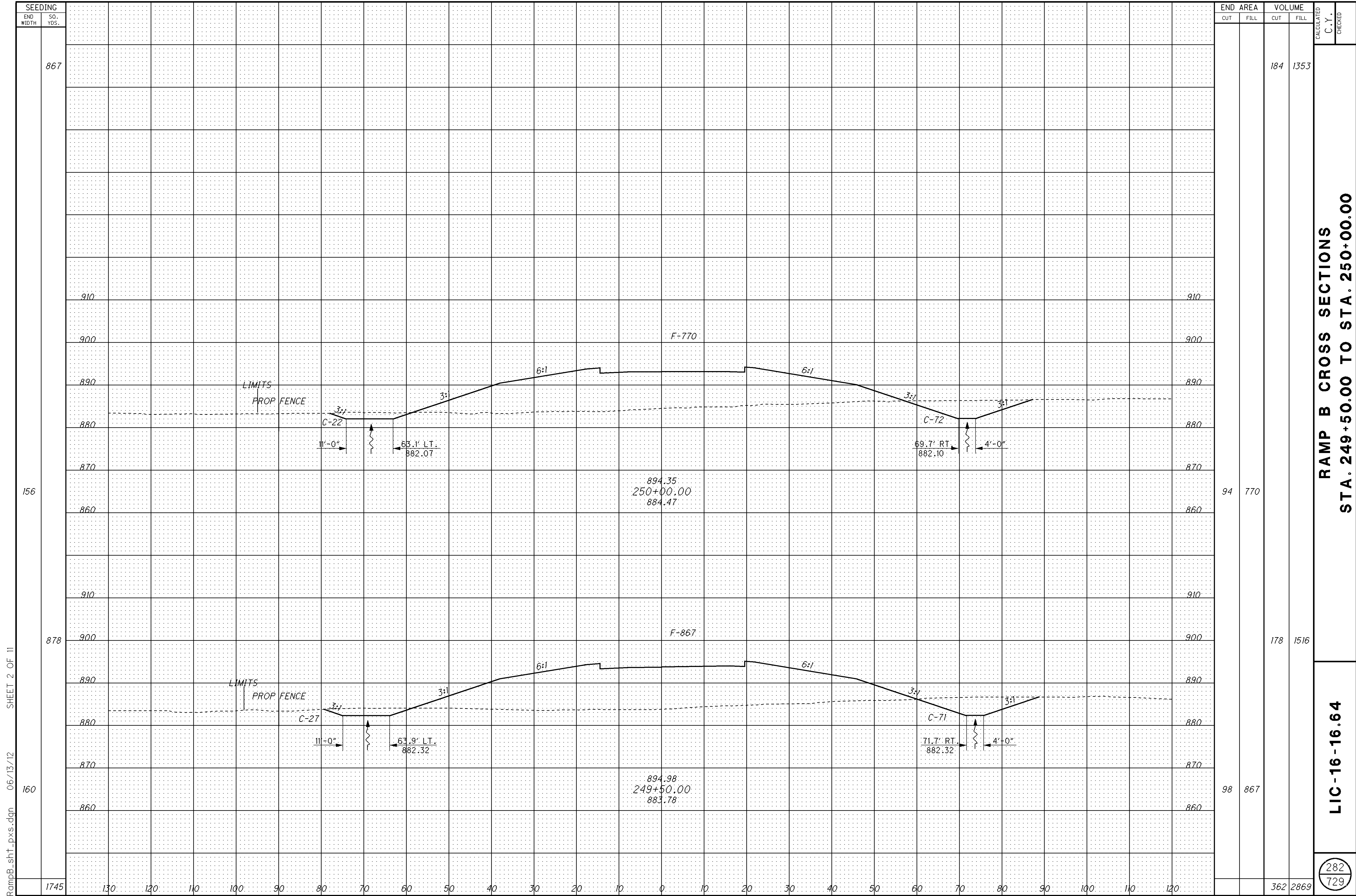
RAMP B PLAN AND PROFILE
STA. 257+50.00 TO STA. 259+40.49

LIC-16-16.64



**RAMP B CROSS SECTIONS
STA. 248+50.00 TO STA. 249+00.00**

LIC-16-16.64



SEEDING	
END WIDTH	SO. YDS.
867	
156	
878	
160	
1745	

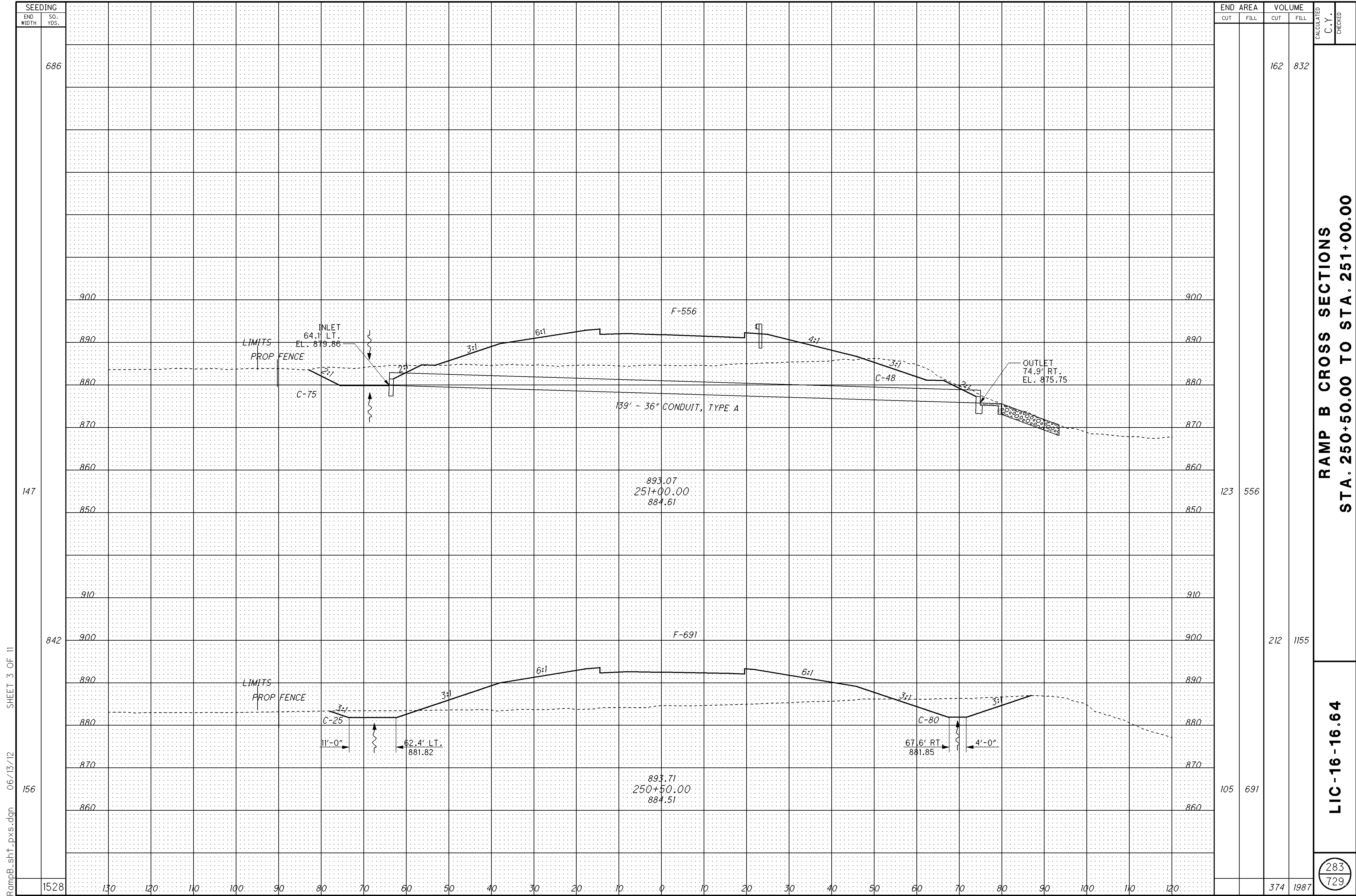
END AREA		VOLUME	
CUT	FILL	CUT	FILL
94	770	184	1353
98	867	178	1516
362	2869		

RAMP B CROSS SECTIONS
STA. 249+50.00 TO STA. 250+00.00

LIC-16-16.64

CALCULATED
 C.Y.
 CHECKED

RampB_sh1_pxs.dgn 06/13/12 SHEET 2 OF 11



SEEDING	
END WIDTH	SO. YDS.
686	
147	
842	
156	
1528	

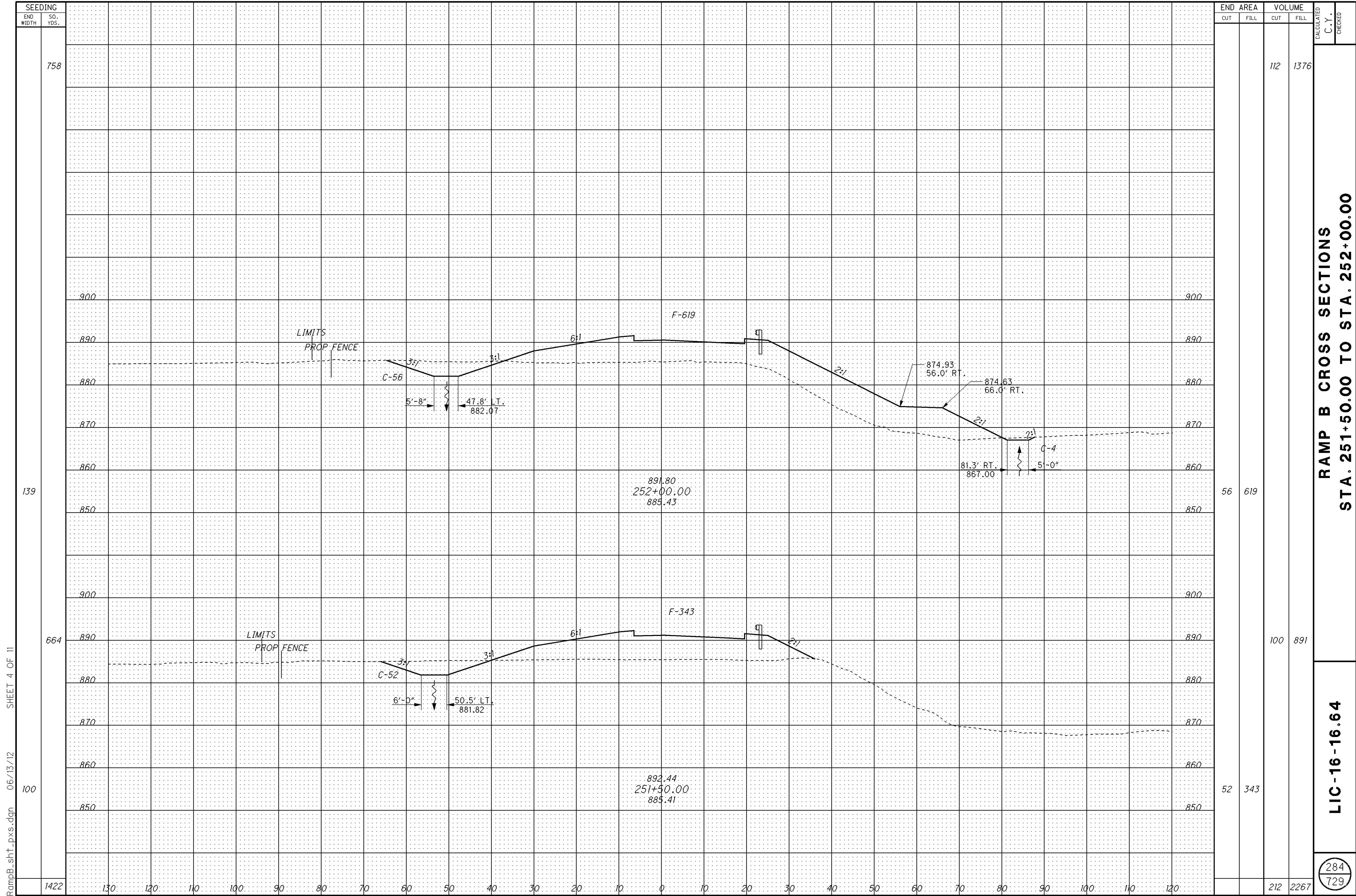
END AREA		VOLUME	
CUT	FILL	CUT	FILL
		162	832
123	556		
212	1155		
105	691		
		374	1987

RAMP B CROSS SECTIONS
STA. 250+50.00 TO STA. 251+00.00

LIC-16-16.64

CALCULATED
 C.Y.
 CHECKED

RampB_sh1_pxs.dgn 06/13/12 SHEET 3 OF 11



SEEDING	
END WIDTH	SO. YDS.
758	
139	
664	
100	
1422	

END AREA		VOLUME	
CUT	FILL	CUT	FILL
		112	1376
56	619	100	891
52	343	212	2267

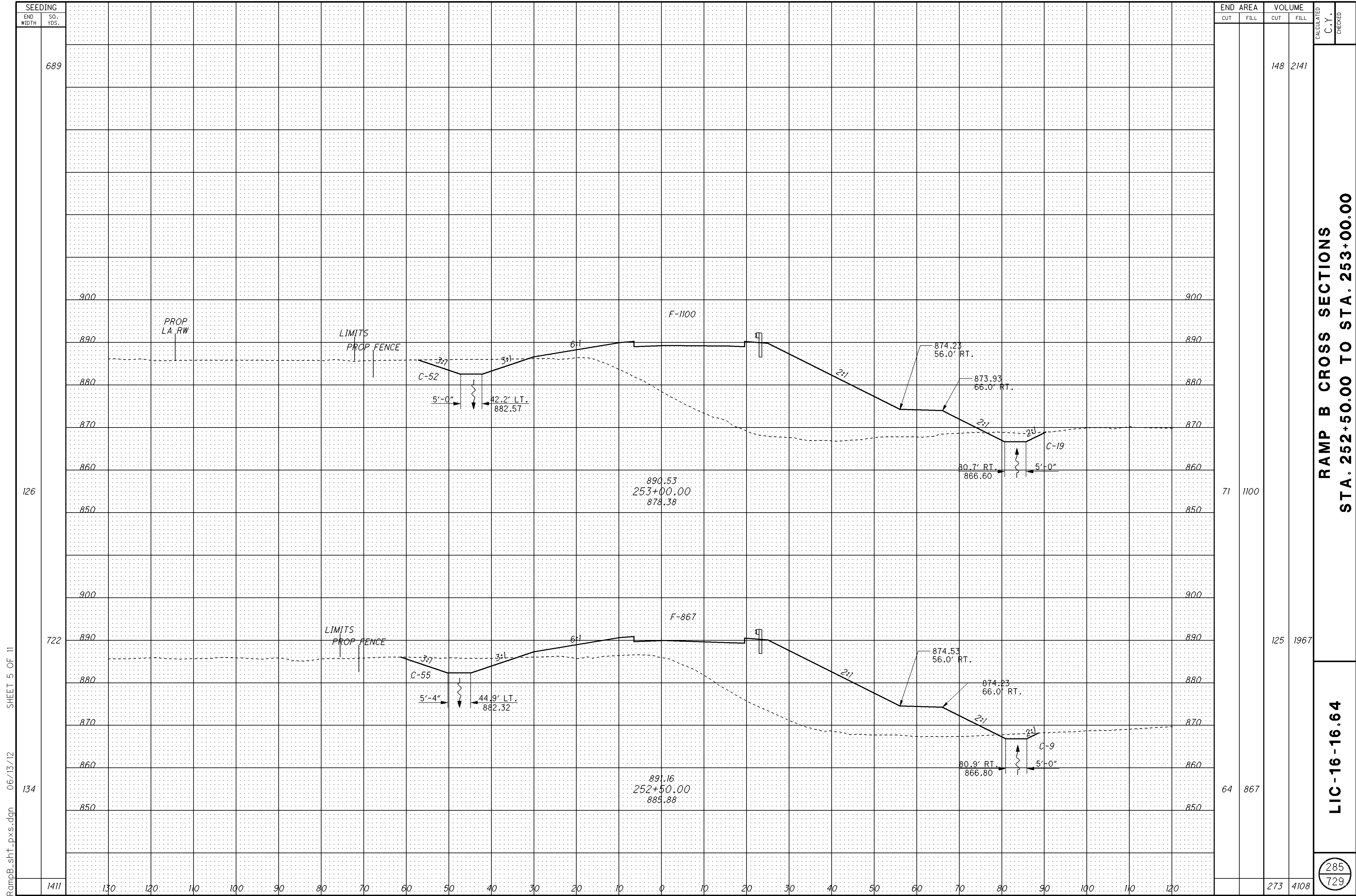
RAMP B CROSS SECTIONS
STA. 251+50.00 TO STA. 252+00.00

LIC-16-16.64

CALCULATED C.Y. CHECKED

RampB_sh1_pxs.dgn 06/13/12 SHEET 4 OF 11

284
729



SEEDING	
END WIDTH	SO. YDS.
689	
126	
722	
134	
1411	

END AREA		VOLUME	
CUT	FILL	CUT	FILL
71	1100	148	2141
64	867	273	4108

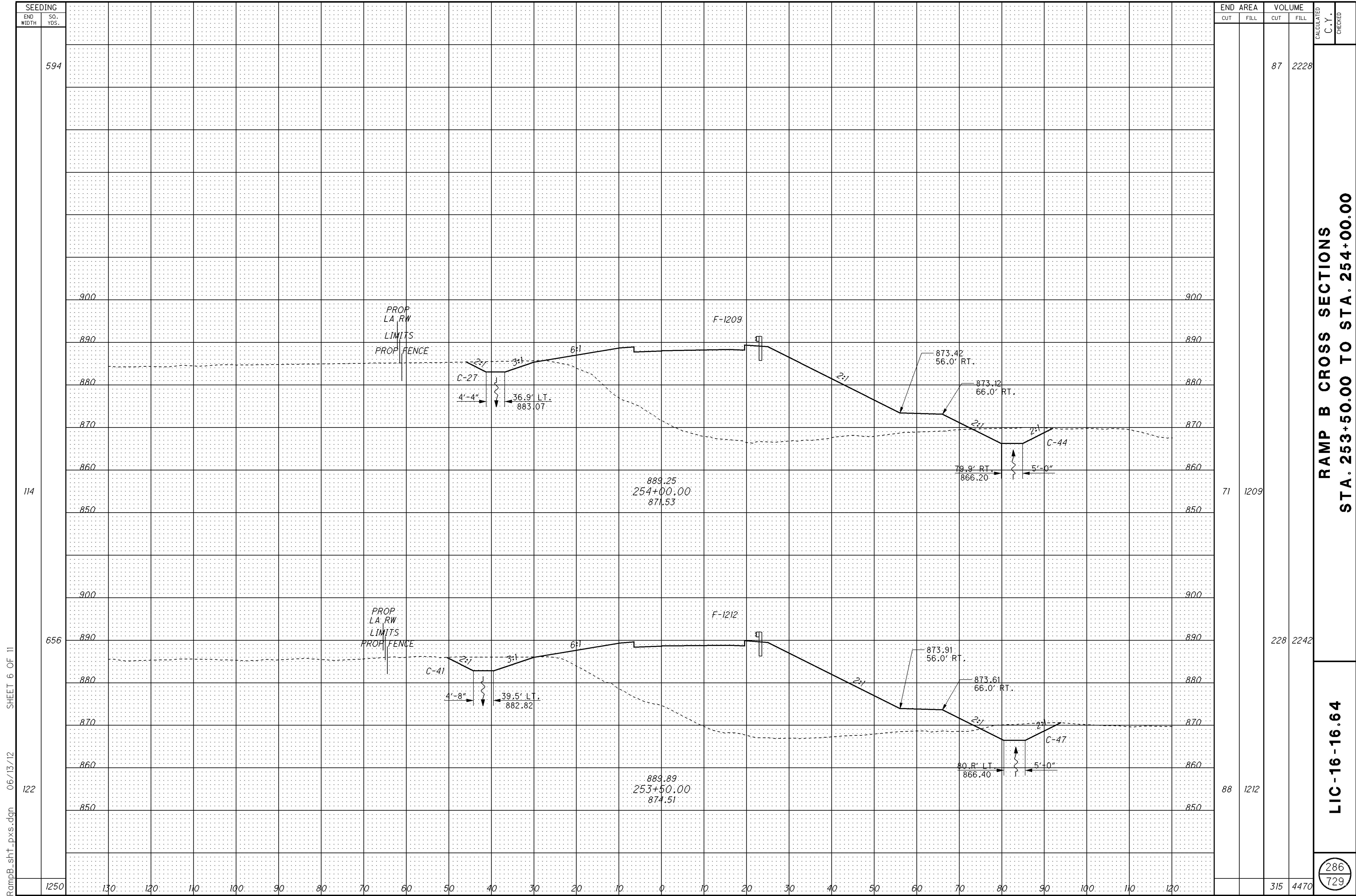
RAMP B CROSS SECTIONS
STA. 252+50.00 TO STA. 253+00.00

LIC-16-16.64

CALCULATED C.Y. CHECKED

RampB_sh1_pxs.dgn 06/13/12 SHEET 5 OF 11

285
729

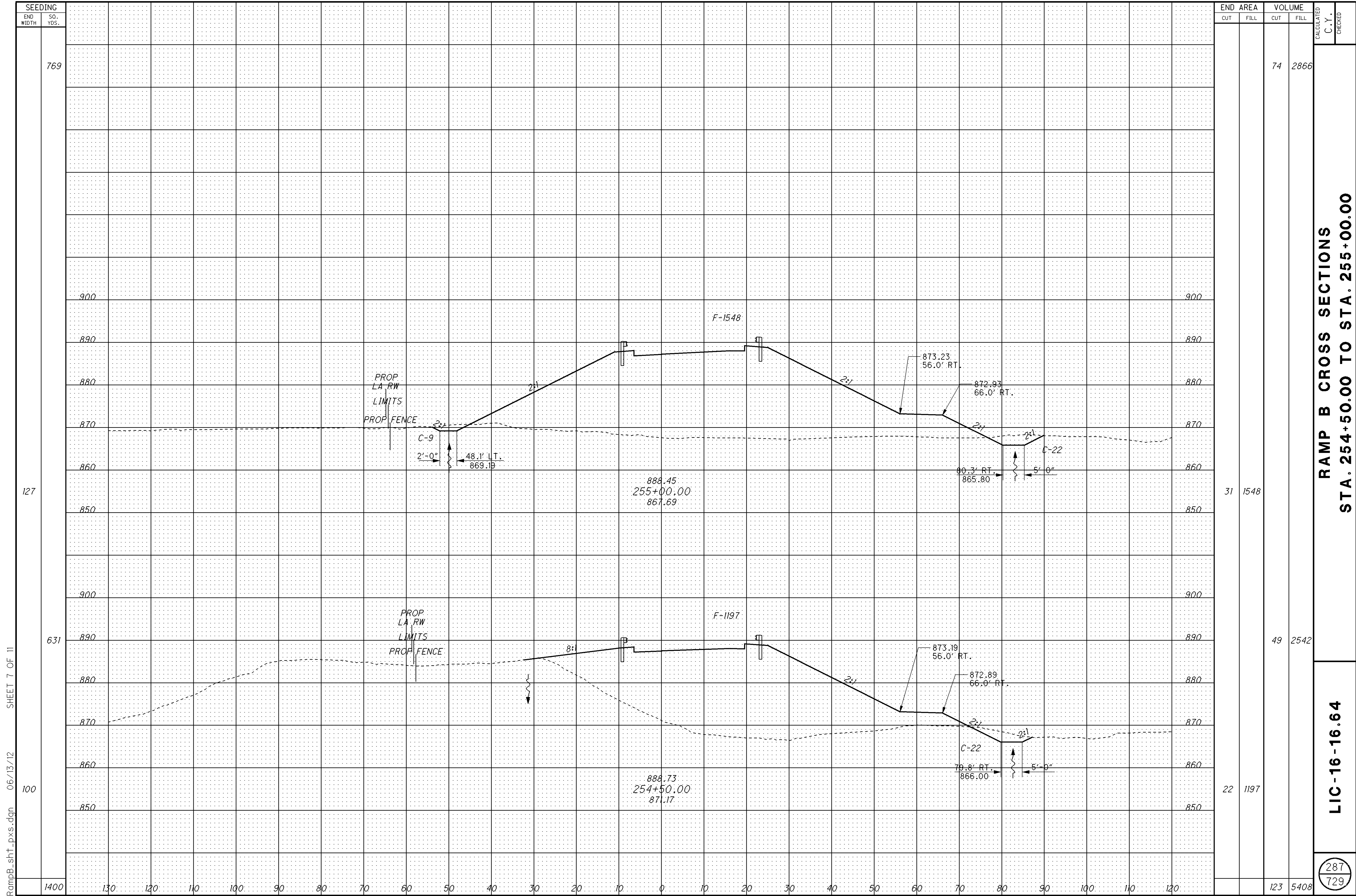


RampB_sh1_pxs.dgn 06/13/12 SHEET 6 OF 11

**RAMP B CROSS SECTIONS
STA. 253+50.00 TO STA. 254+00.00**

LIC-16-16.64

286
729

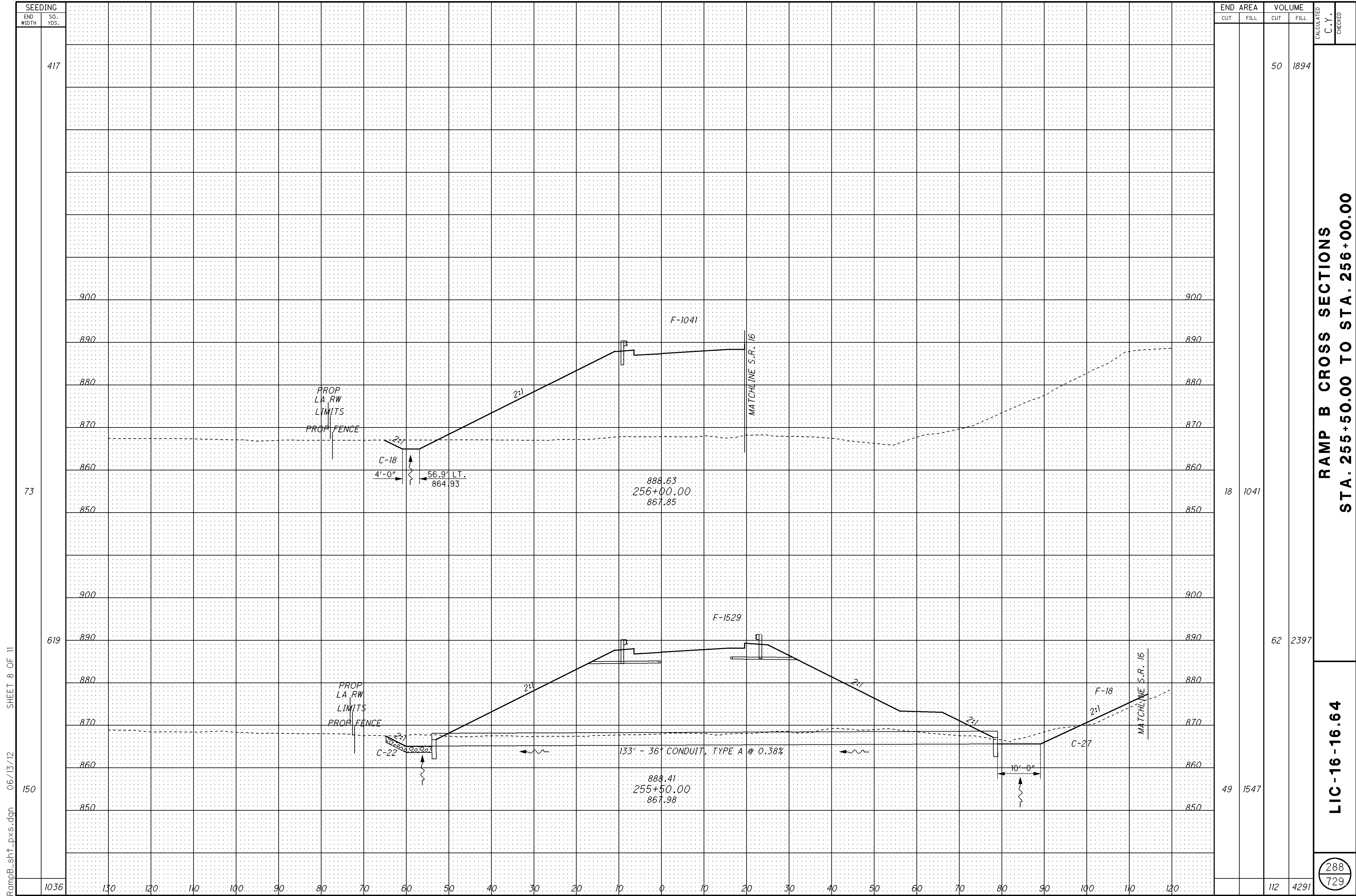


SEEDING
 END WIDTH SQ. YDS.
 769
 900
 890
 880
 870
 860
 850
 900
 890
 880
 870
 860
 850
 900
 890
 880
 870
 860
 850
 1400 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120

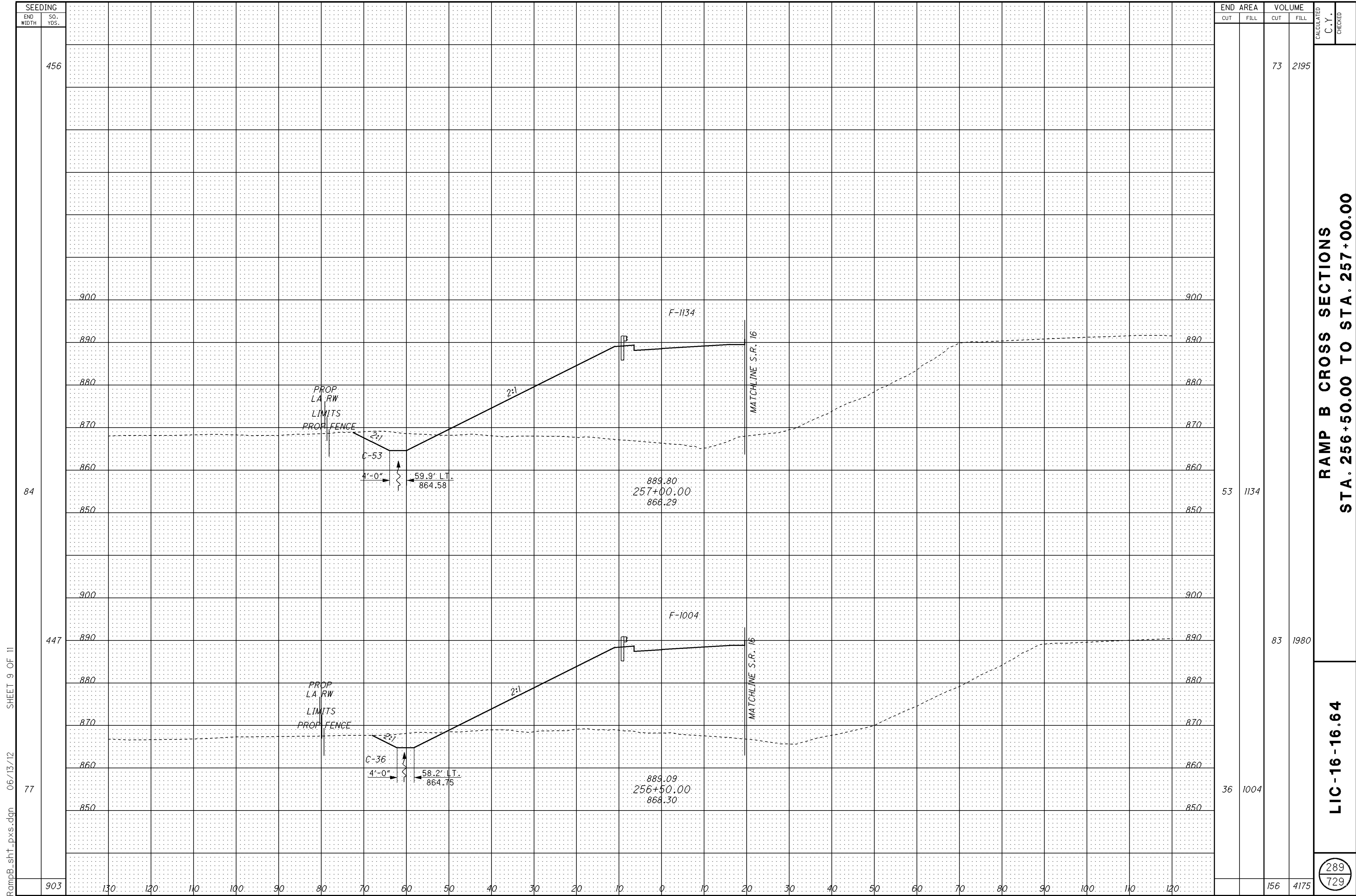
END AREA		VOLUME		CALCULATED C.Y.	CHECKED
CUT	FILL	CUT	FILL		
				74	2866
31	1548	49	2542		
22	1197	123	5408		

**RAMP B CROSS SECTIONS
 STA. 254+50.00 TO STA. 255+00.00**

LIC-16-16.64



RampB_sh1_pxs.dgn 06/13/12 SHEET 8 OF 11

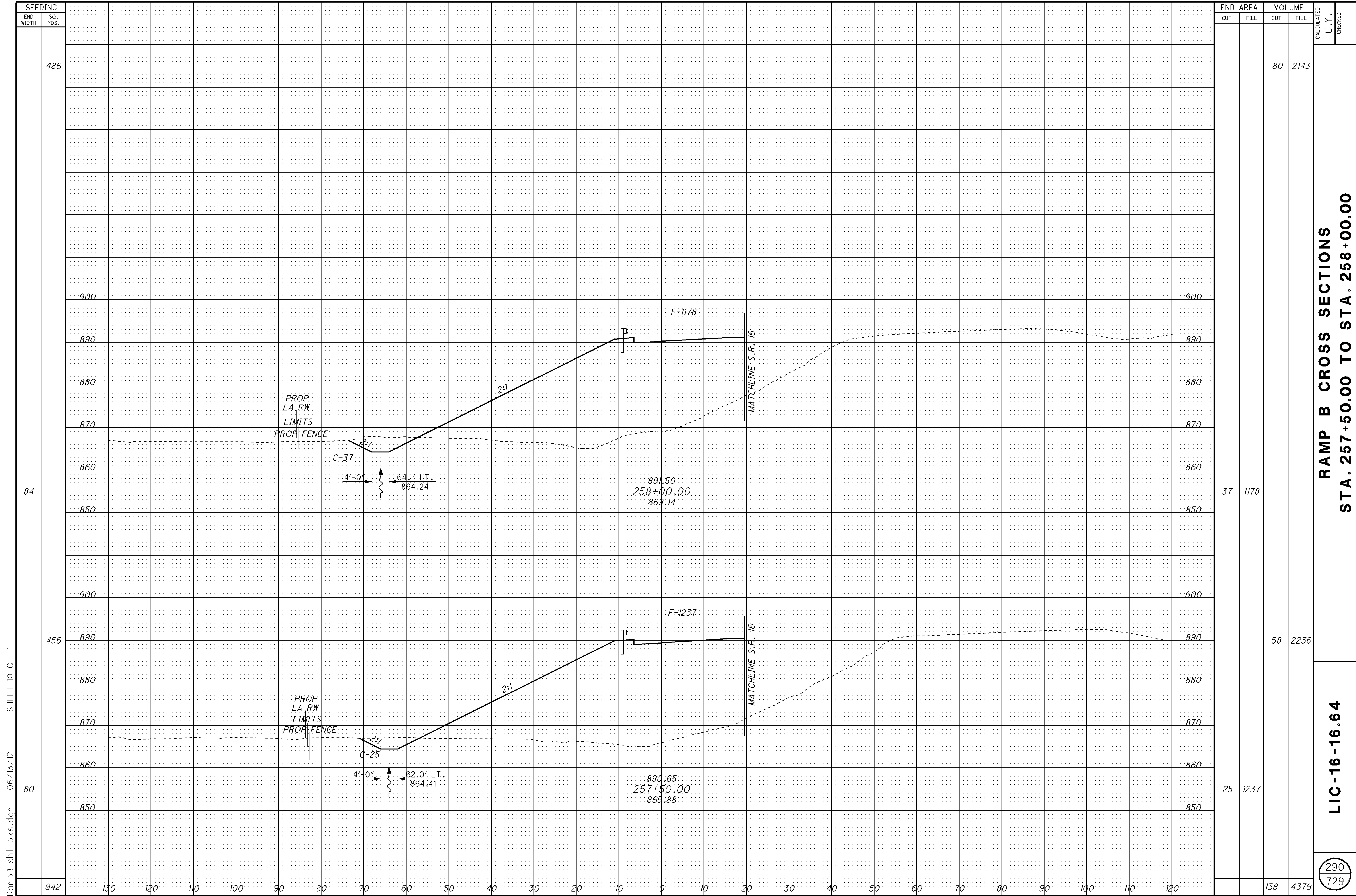


RampB_sh1_pxs.dgn 06/13/12 SHEET 9 OF 11

**RAMP B CROSS SECTIONS
STA. 256+50.00 TO STA. 257+00.00**

LIC-16-16.64

289
729

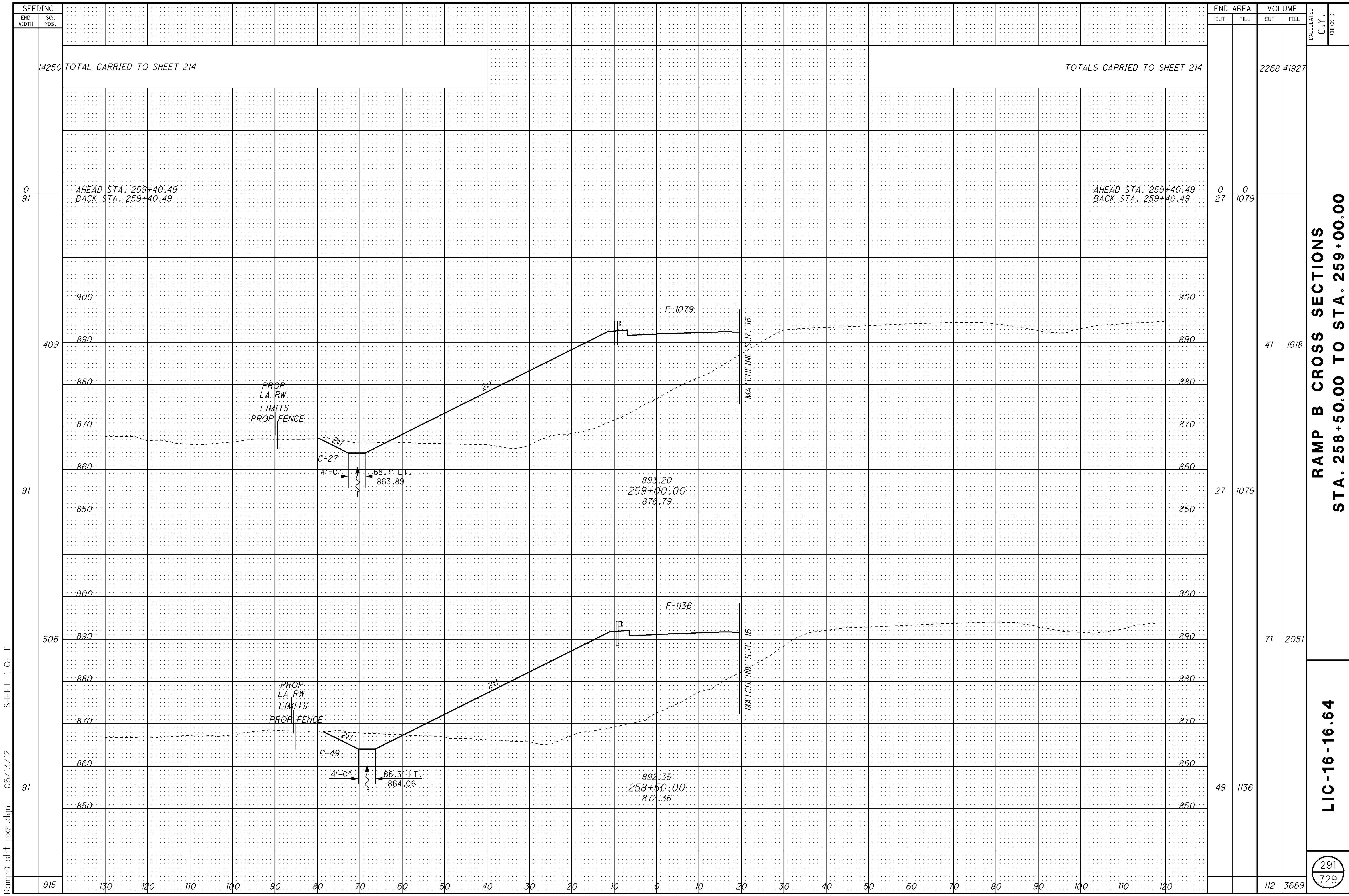


RampB_sh1_pxs.dgn 06/13/12 SHEET 10 OF 11

**RAMP B CROSS SECTIONS
STA. 257+50.00 TO STA. 258+00.00**

LIC-16-16.64

290
729



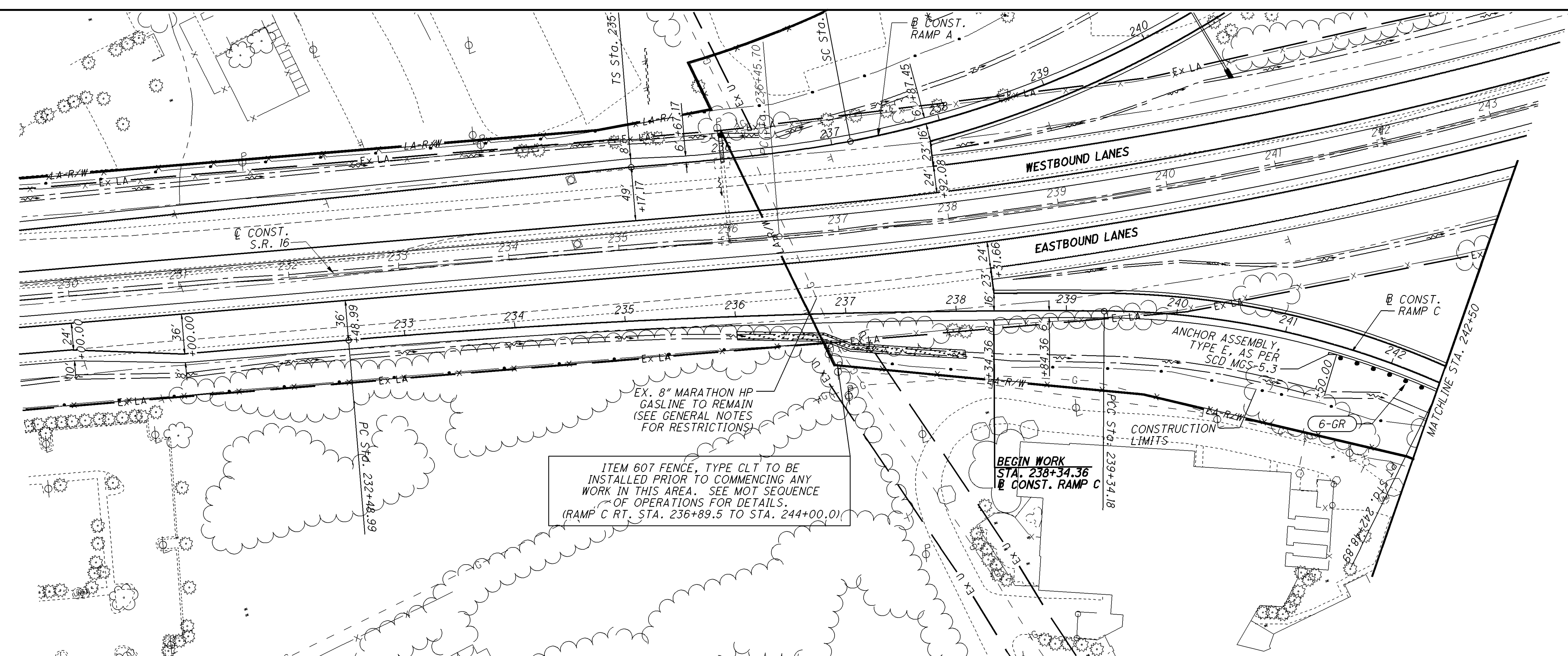
SEEDING	
END WIDTH	SO. YDS.
0	
91	
409	
91	
506	
91	
915	

END AREA		VOLUME	
CUT	FILL	CUT	FILL
		2268	41927
0	0		
27	1079		
		41	1618
		71	2051
		49	1136
		112	3669

RAMP B CROSS SECTIONS
STA. 258+50.00 TO STA. 259+00.00

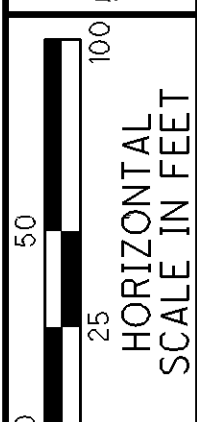
LIC-16-16.64

CALCULATED
 C.Y.
 CHECKED



ITEM 607 FENCE, TYPE CLT TO BE INSTALLED PRIOR TO COMMENCING ANY WORK IN THIS AREA. SEE MOT SEQUENCE OF OPERATIONS FOR DETAILS. (RAMP C RT. STA. 236+89.5 TO STA. 244+00.0)

887.24	886.86	886.76	886.45	886.20	886.00	885.96	885.61	885.14	884.22	883.44	882.28	881.29	881.29	880.96	881.16	881.16	880.82	879.97	879.35	878.78																	
					886.62	886.72	886.81	886.91	887.00	887.10	887.20	887.29	887.39	887.48	887.58	887.68	887.77	887.87	887.97	888.06	888.16	888.25	888.35	888.45	888.54	888.64	888.73	888.83	888.93	889.02	889.12	889.21	889.31	889.42	889.55		
235+00	236+00	237+00	238+00	239+00	240+00	241+00	242+50																														

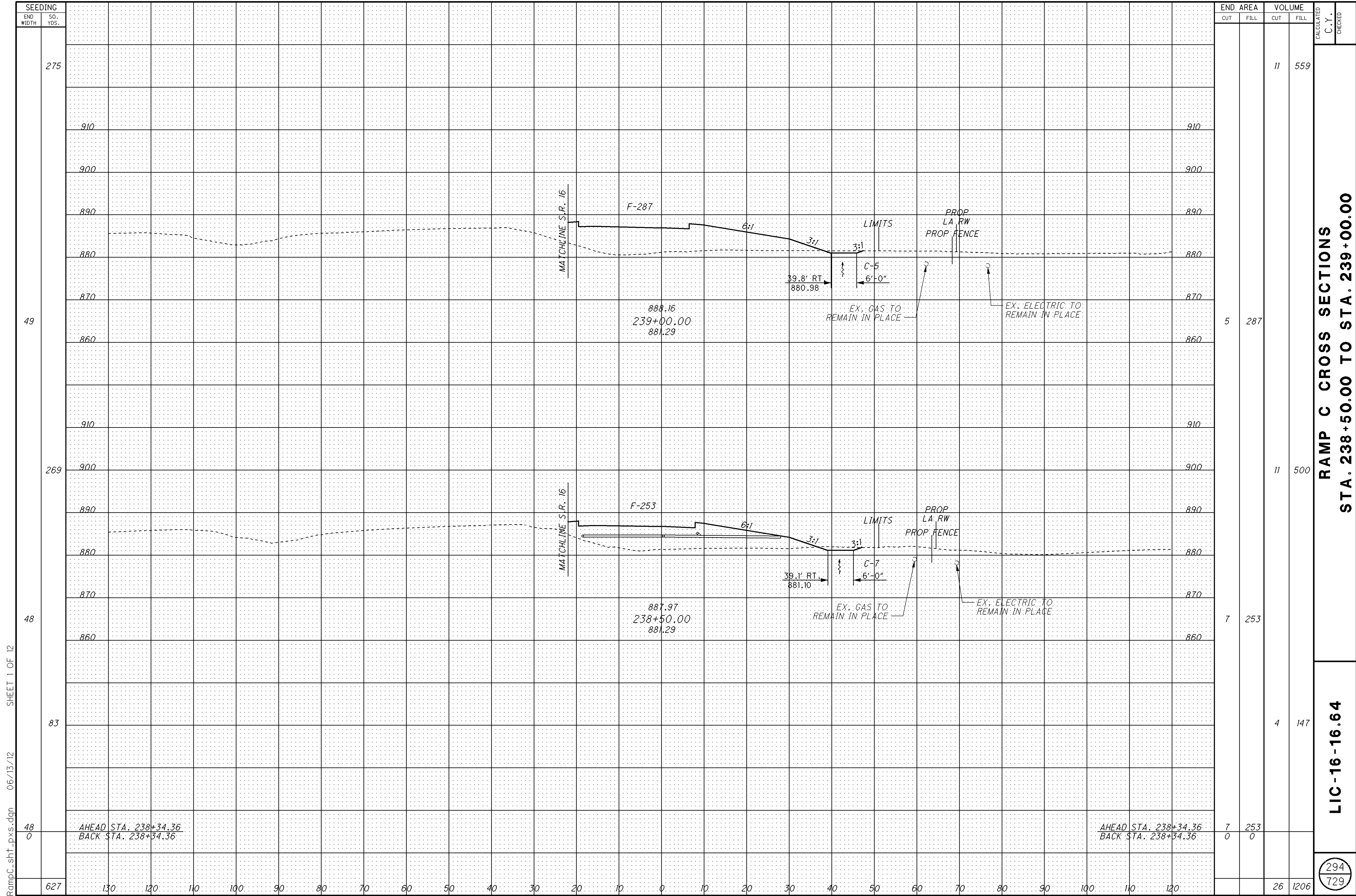


CALCULATED
C.Y.
CHECKED

RAMP C PLAN AND PROFILE
STA. 238+34.36 TO STA. 242+50.00

LIC-16-16.64

292
729



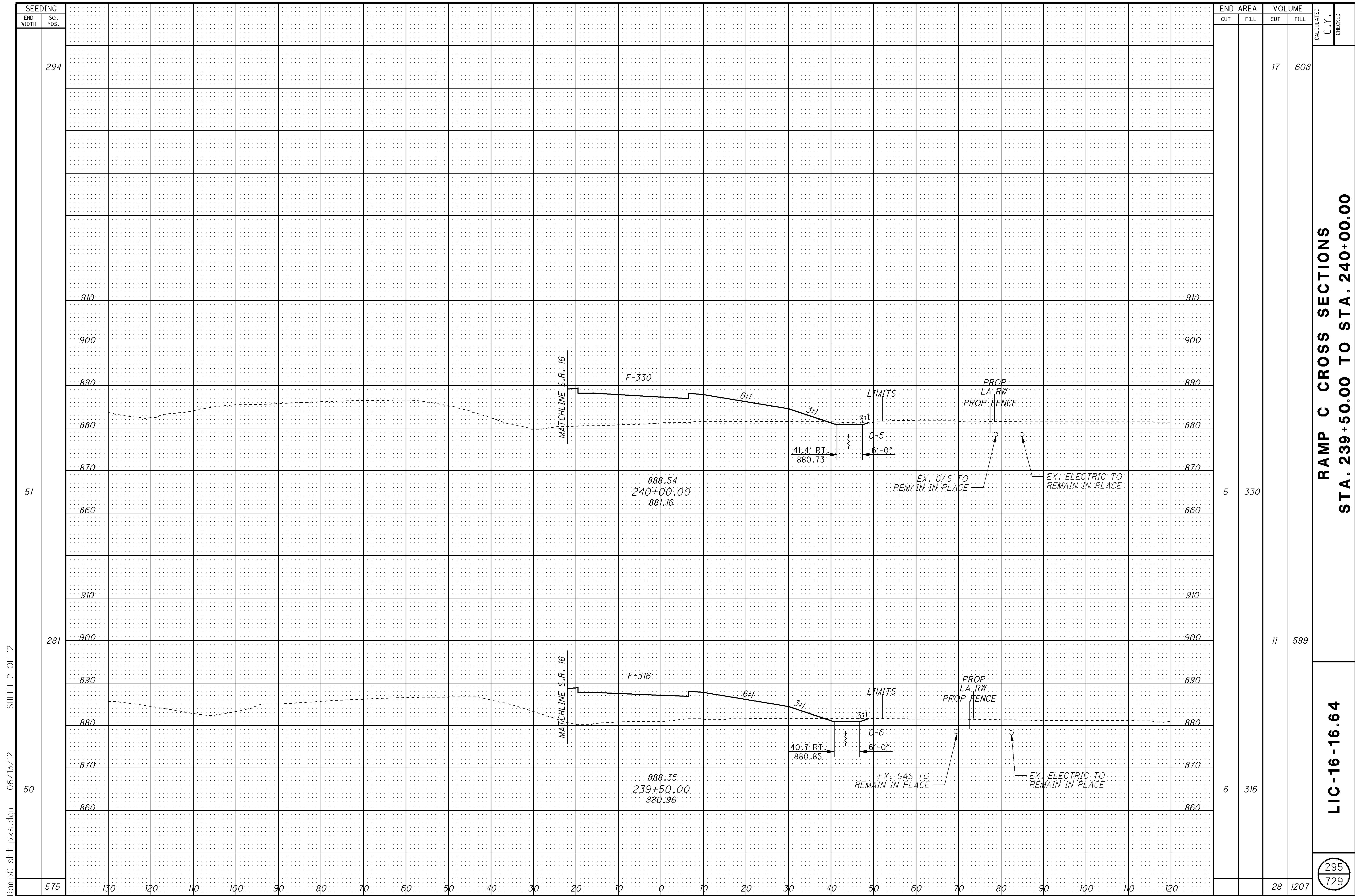
RampC_sht1_pxs.dgn 06/13/12 SHEET 1 OF 12

**RAMP C CROSS SECTIONS
STA. 238+50.00 TO STA. 239+00.00**

LIC-16-16.64

CALCULATED
C.Y.
CHECKED

294
729



SEEDING	
END WIDTH	SO. YDS.
294	
51	
281	
50	
575	

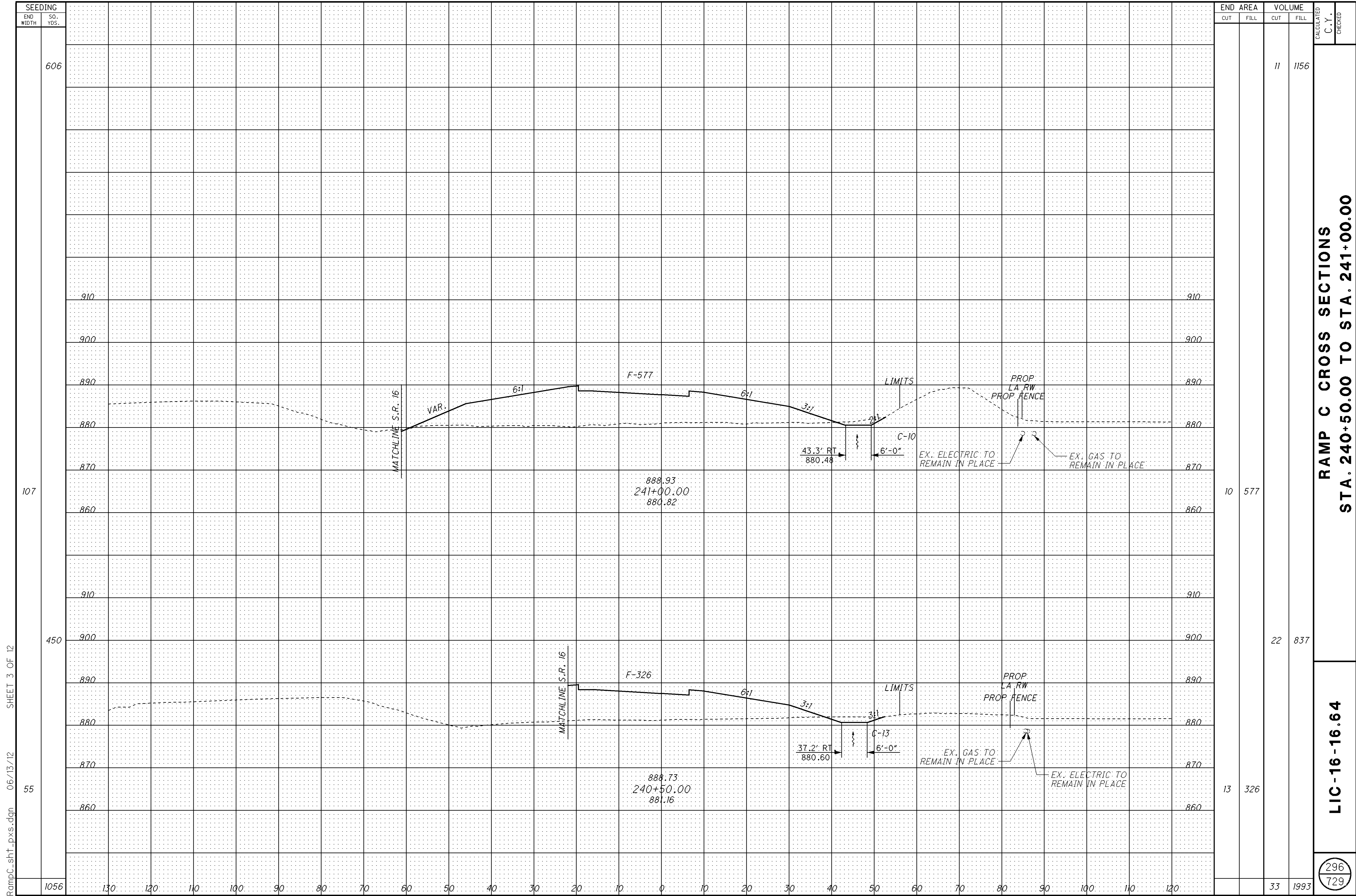
END AREA		VOLUME	
CUT	FILL	CUT	FILL
		17	608
5	330	11	599
6	316	28	1207

RAMP C CROSS SECTIONS
STA. 239+50.00 TO STA. 240+00.00

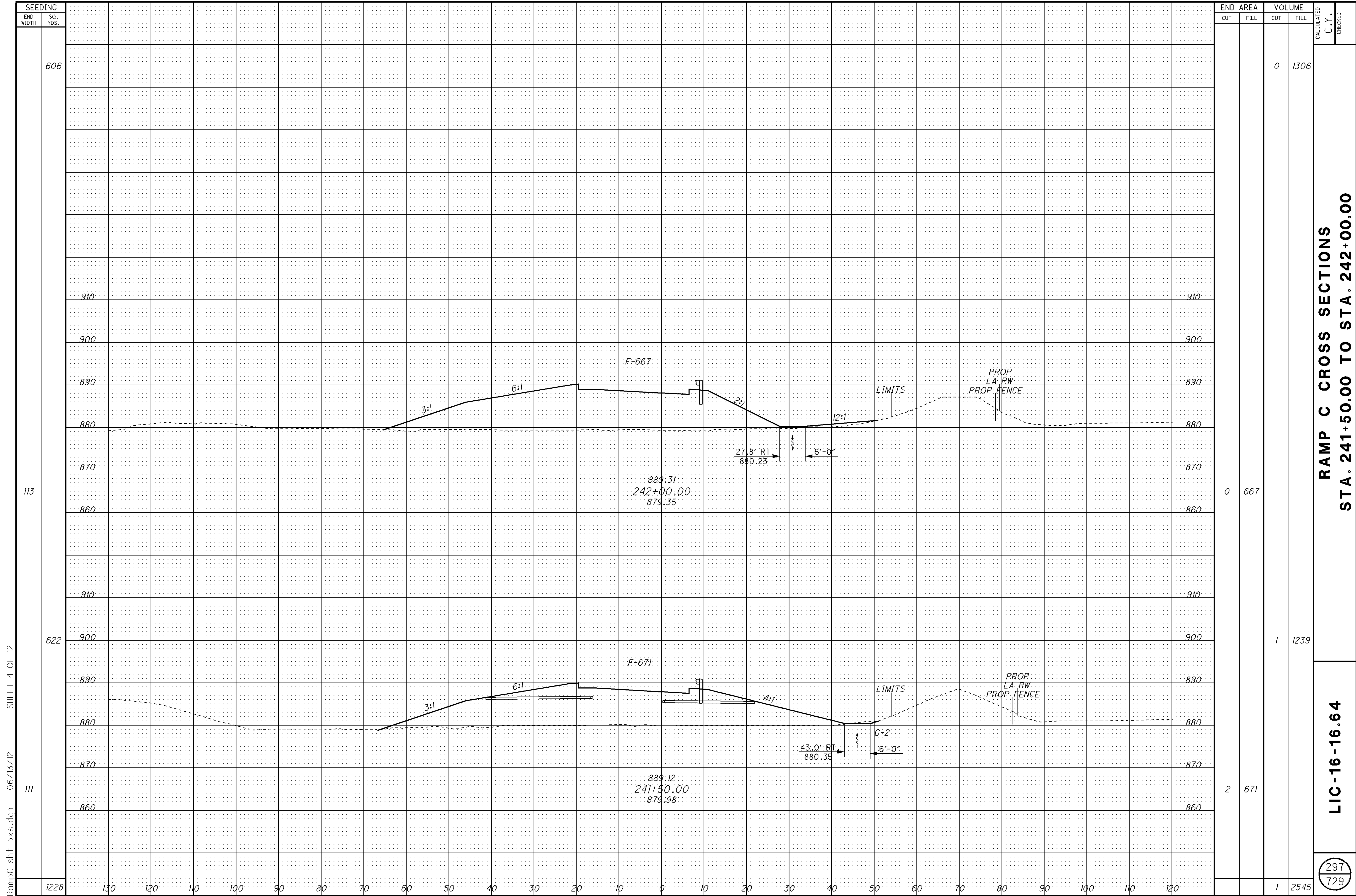
LIC-16-16.64

CALCULATED C.Y. CHECKED

RampC_sht1_pxs.dgn 06/13/12 SHEET 2 OF 12



RampC_sht1_pxs.dgn 06/13/12 SHEET 3 OF 12

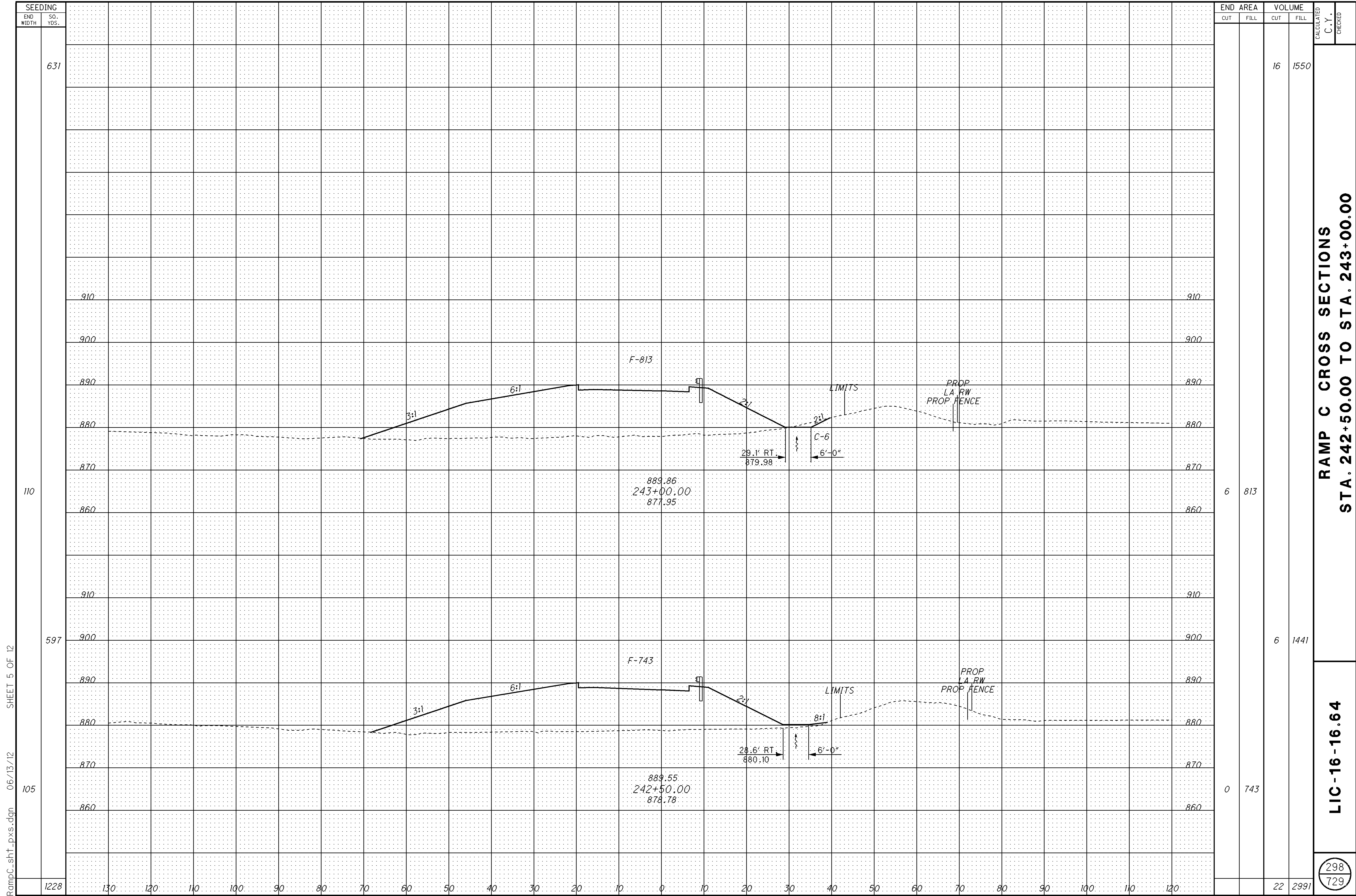


RampC_sht1_pxs.dgn 06/13/12 SHEET 4 OF 12

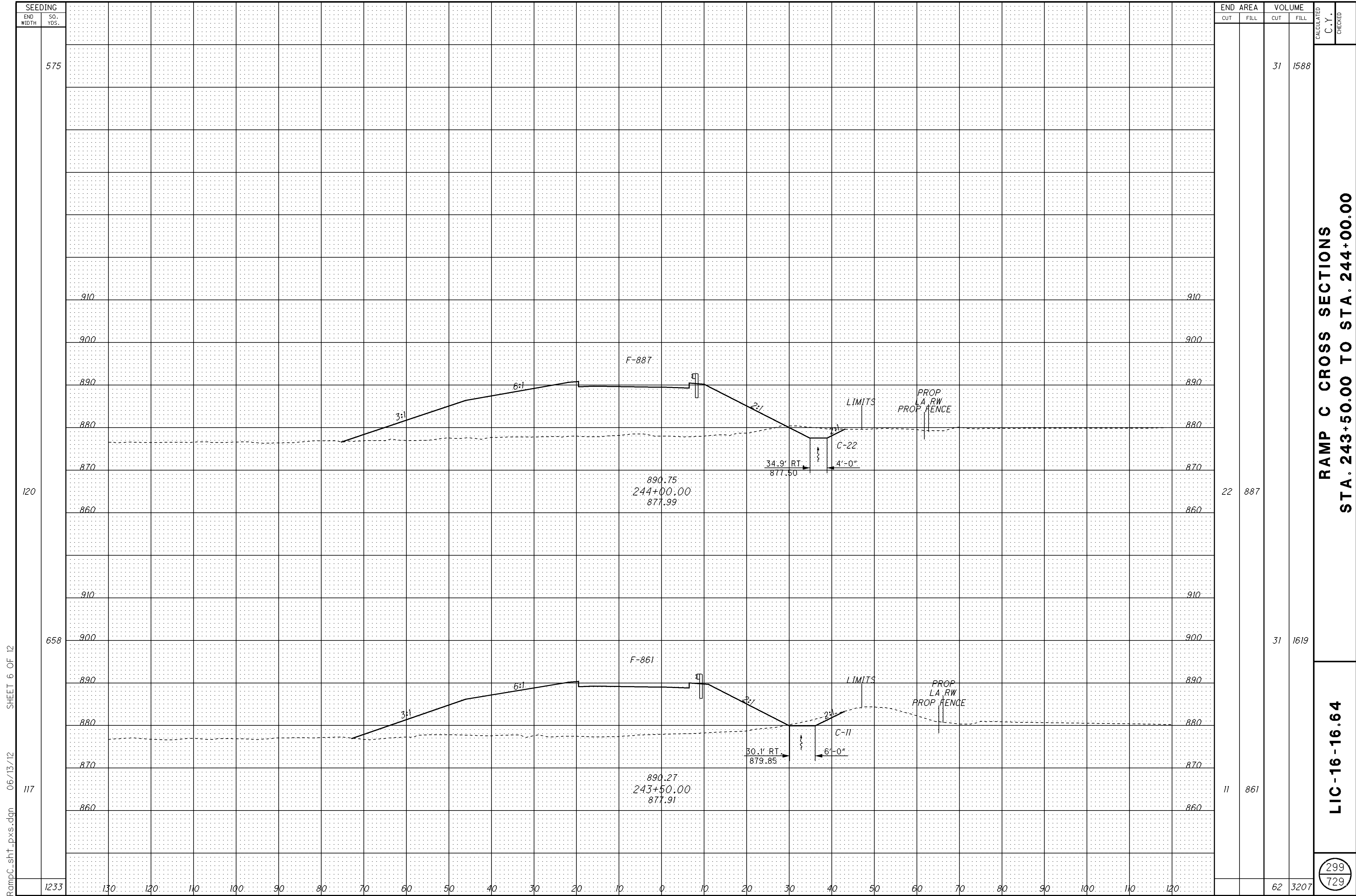
**RAMP C CROSS SECTIONS
STA. 241+50.00 TO STA. 242+00.00**

LIC-16-16.64

297
729



RampC_sht1_pxs.dgn 06/13/12 SHEET 5 OF 12

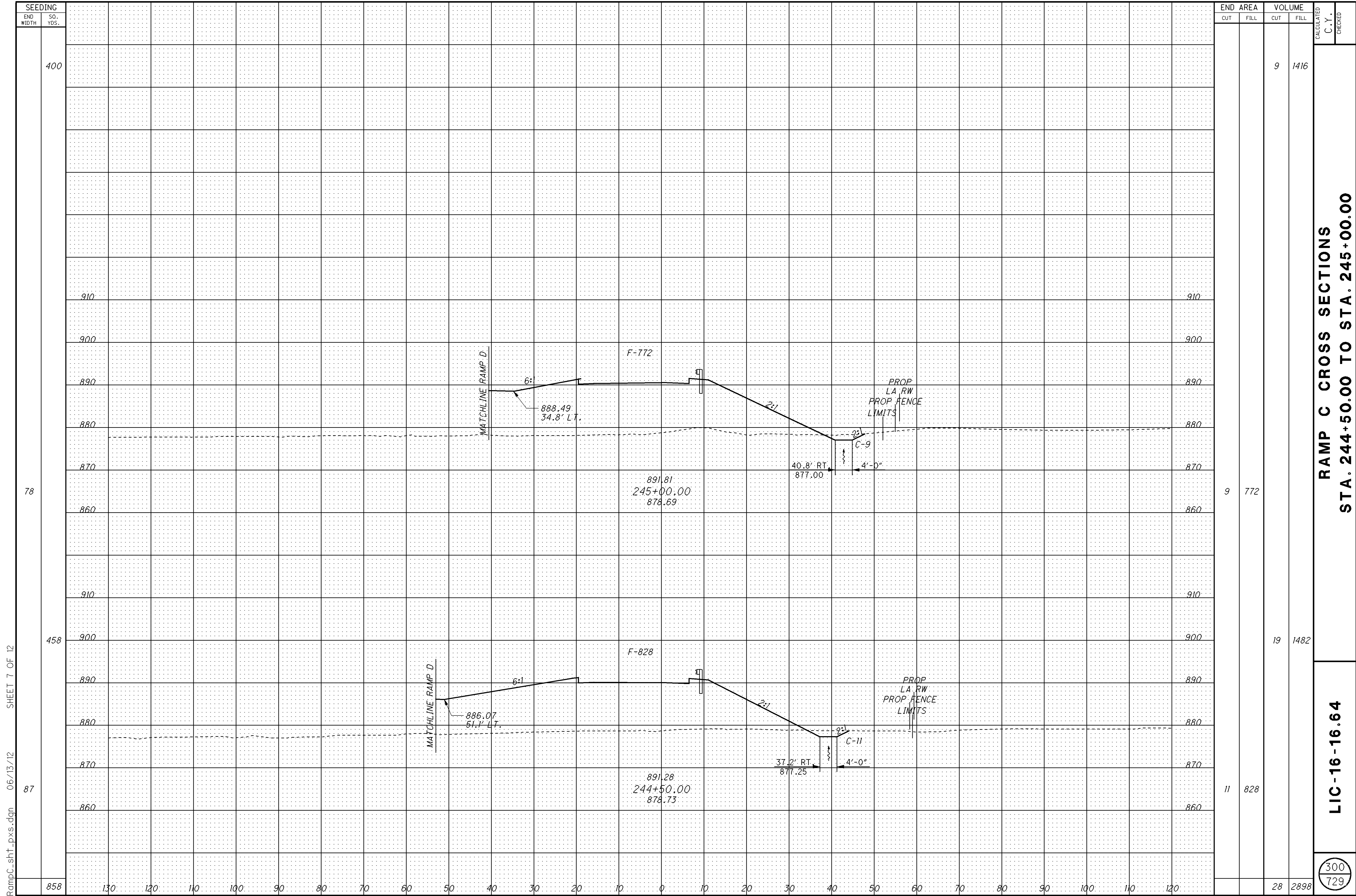


RampC_shT_pxs.dgn 06/13/12 SHEET 6 OF 12

**RAMP C CROSS SECTIONS
STA. 243+50.00 TO STA. 244+00.00**

LIC-16-16.64

299
729



SEEDING	
END WIDTH	SO. YDS.
400	
78	
458	
87	
858	

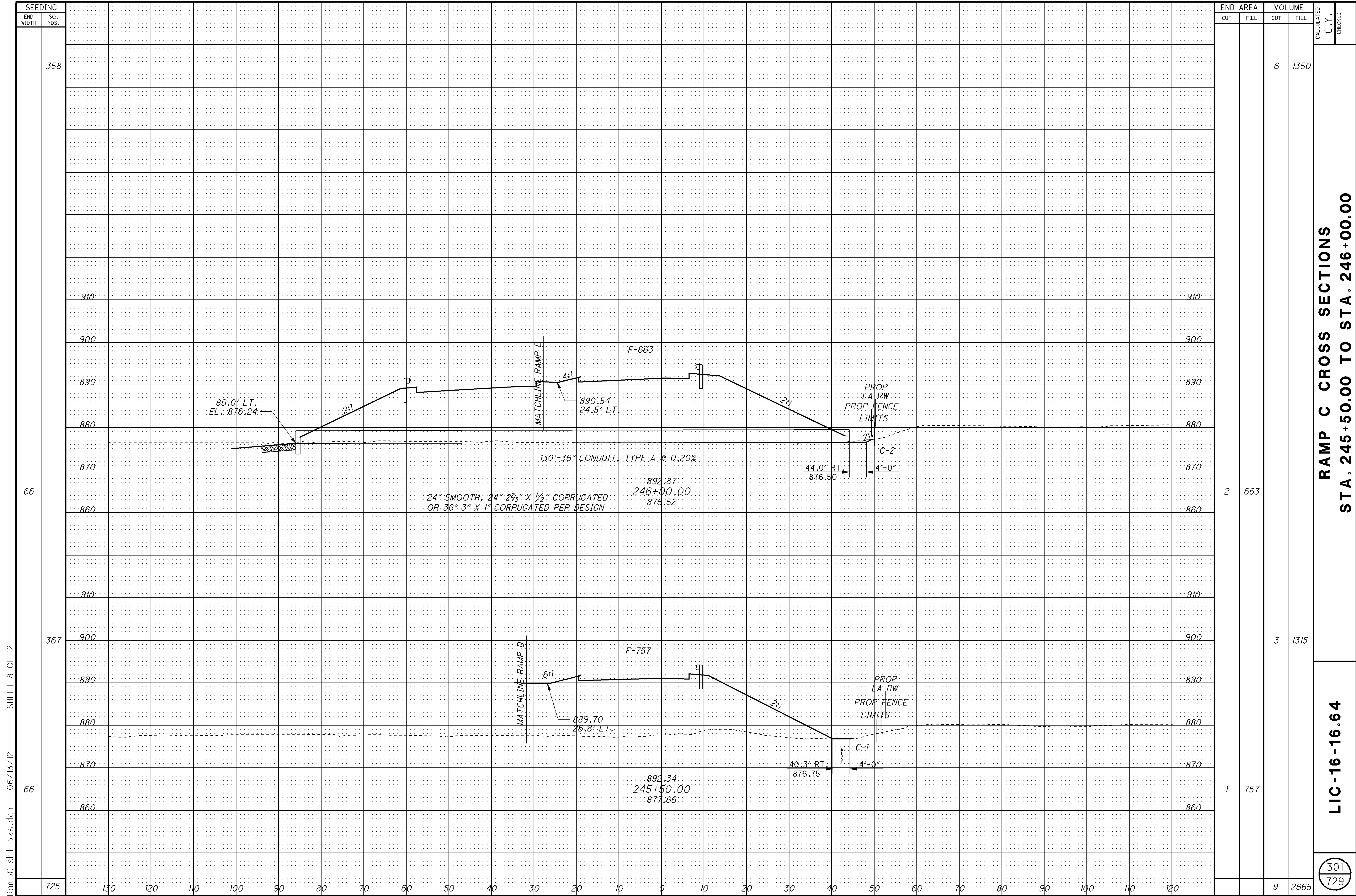
END AREA		VOLUME	
CUT	FILL	CUT	FILL
9		9	1416
9	772	19	1482
11	828	28	2898

RAMP C CROSS SECTIONS
STA. 244+50.00 TO STA. 245+00.00

LIC-16-16.64

CALCULATED C.Y. CHECKED

RampC_shT_pxs.dgn 06/13/12 SHEET 7 OF 12

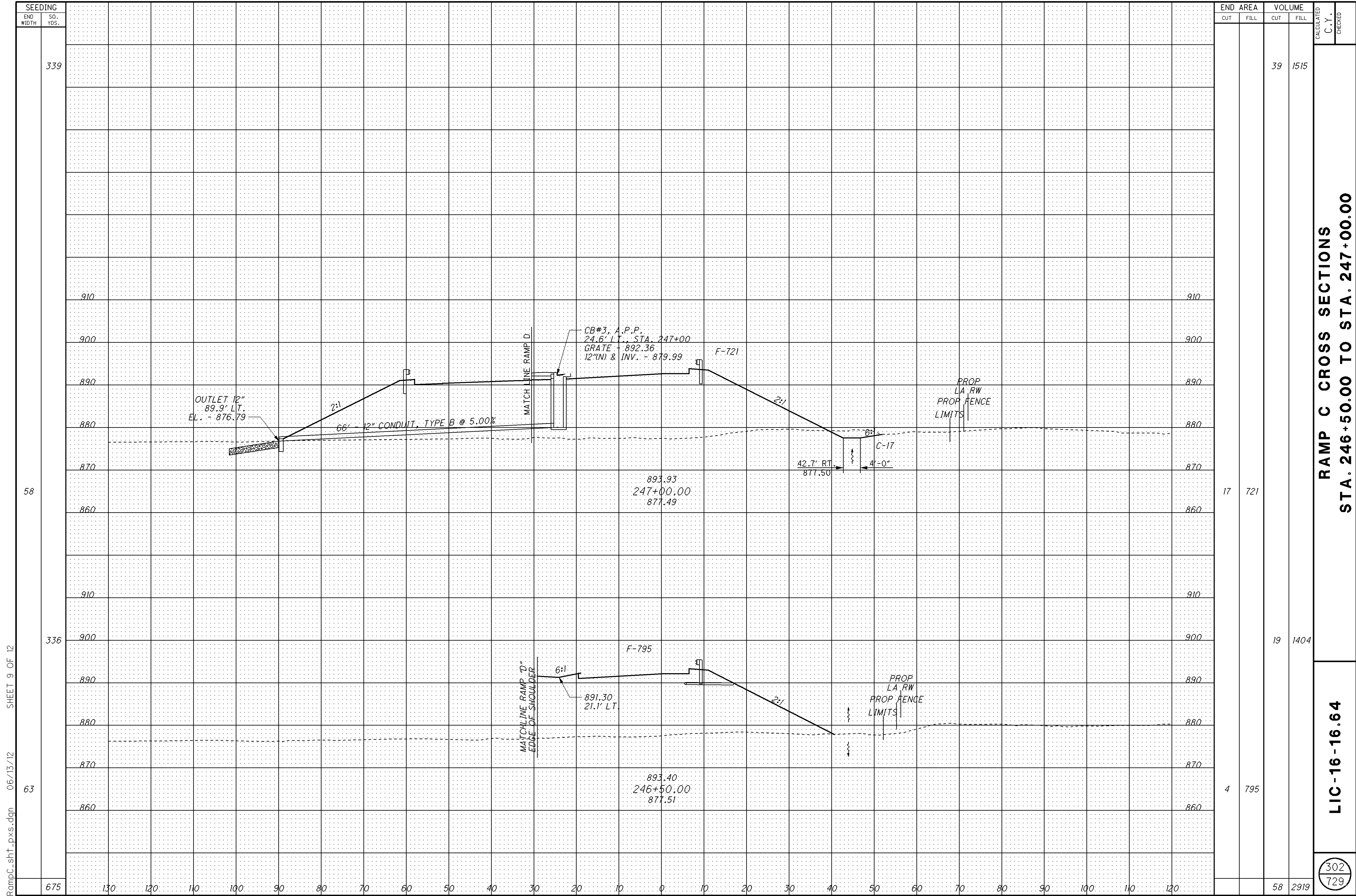


SEEDING														END AREA		VOLUME		CALCULATED C.Y.	
END WIDTH	SO. YDS.													CUT	FILL	CUT	FILL	C.Y.	CHECKED
358																6	1350		
66														2	663				
367																3	1315		
66														1	757				
725														9	2665				

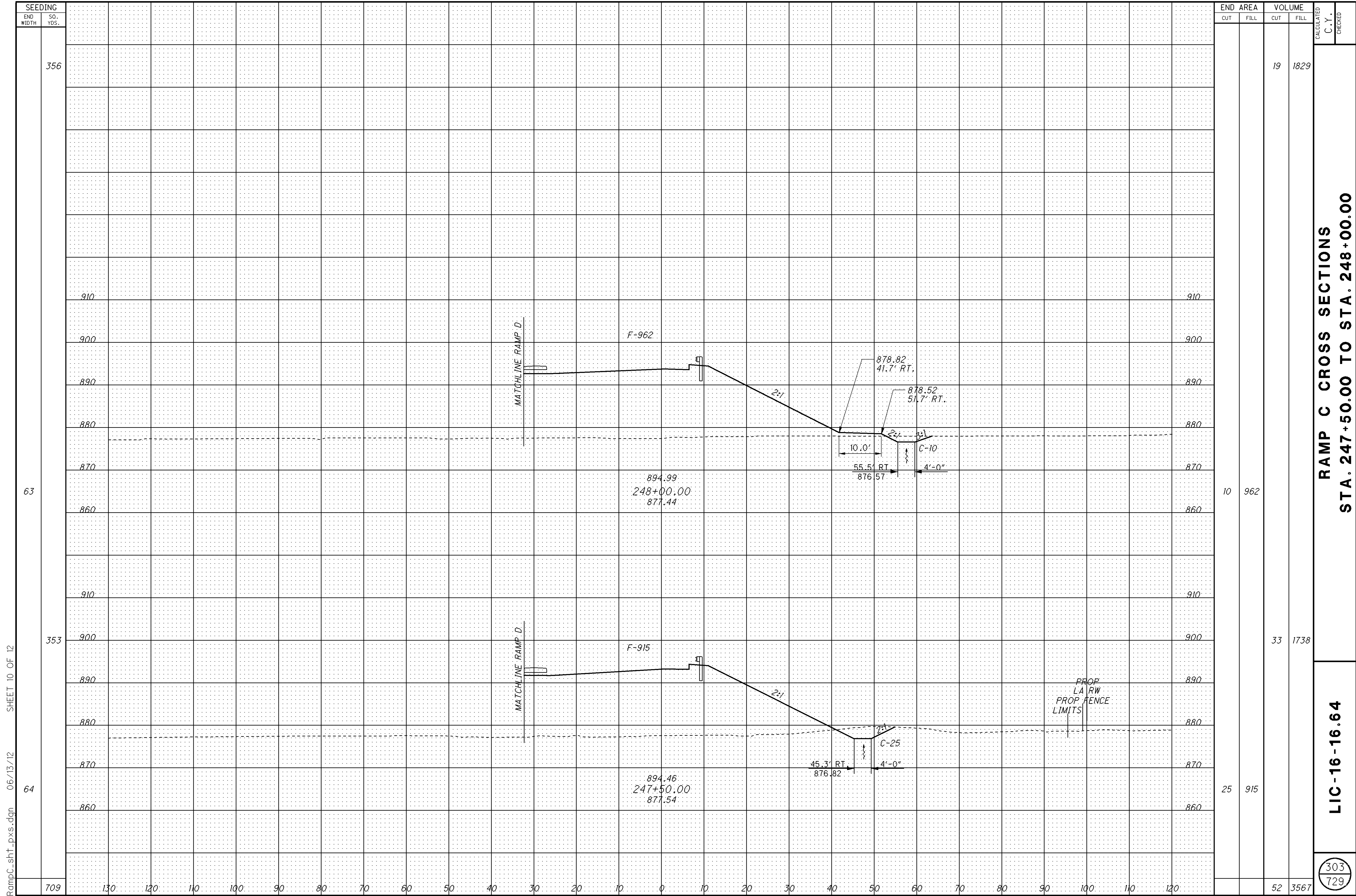
RAMP C CROSS SECTIONS
STA. 245+50.00 TO STA. 246+00.00

LIC-16-16.64

301
 729



RampC_sh1_pxs.dgn 06/13/12 SHEET 9 OF 12



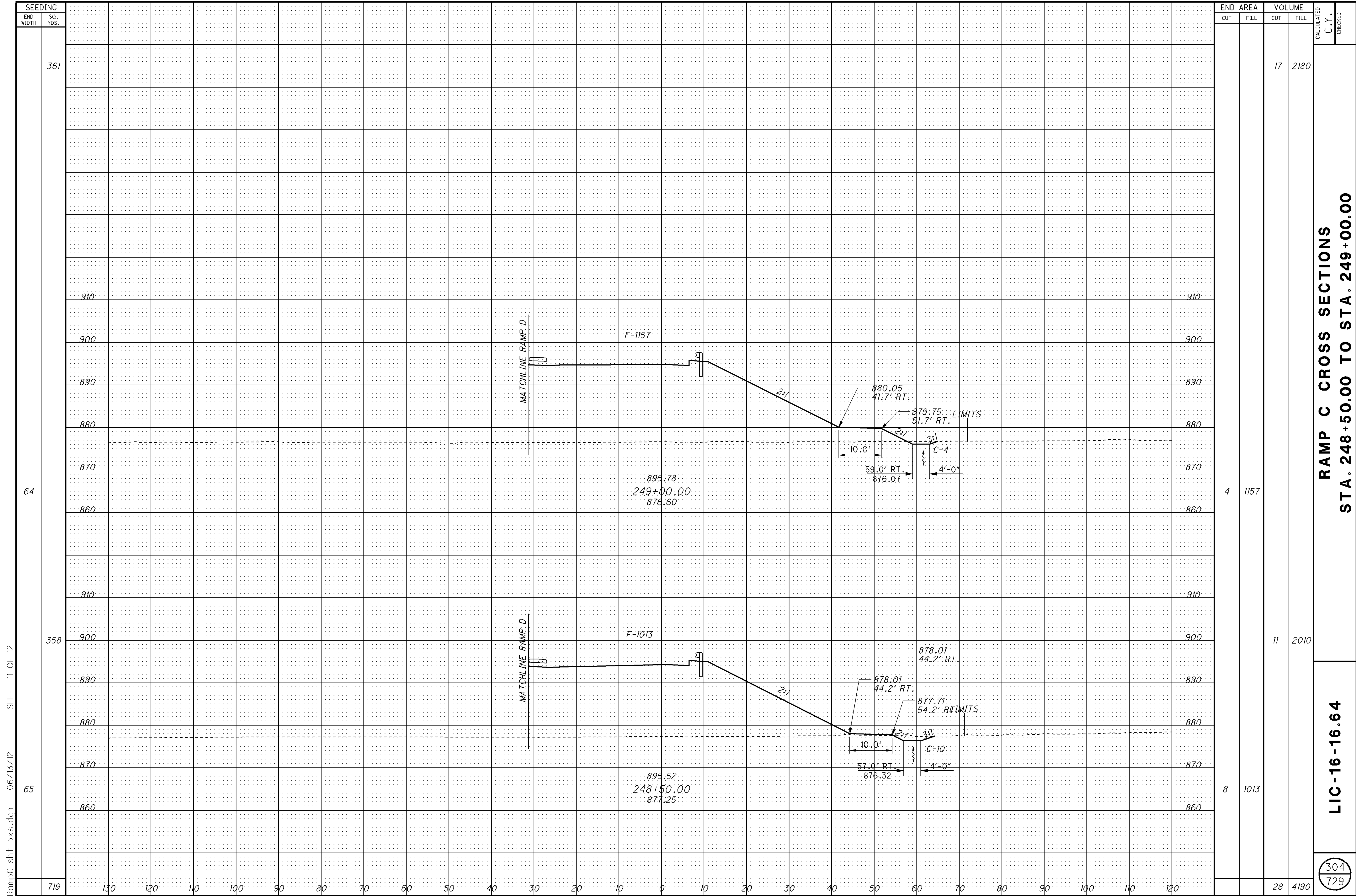
SEEDING	
END WIDTH	SO. YDS.
356	
63	
353	
64	
709	

END AREA		VOLUME	
CUT	FILL	CUT	FILL
		19	1829
10	962	33	1738
25	915	52	3567

RAMP C CROSS SECTIONS
STA. 247+50.00 TO STA. 248+00.00

LIC-16-16.64

CALCULATED C.Y. CHECKED



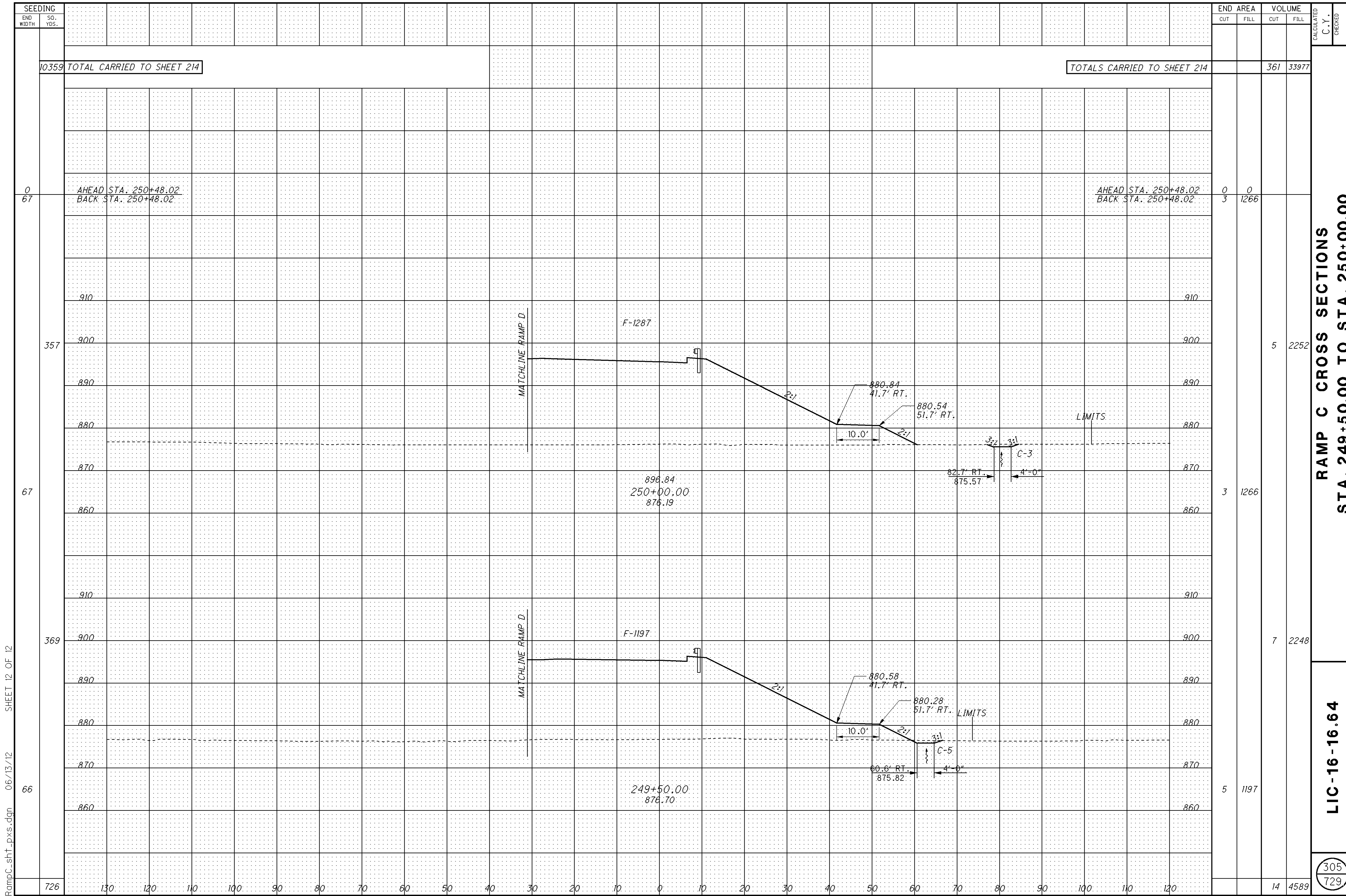
SEEDING	
END WIDTH	SO. YDS.
361	
64	
358	
65	
719	

END AREA		VOLUME	
CUT	FILL	CUT	FILL
		17	2180
4	1157	11	2010
8	1013	28	4190

RAMP C CROSS SECTIONS
STA. 248+50.00 TO STA. 249+00.00

LIC-16-16.64

CALCULATED
 C.Y.
 CHECKED

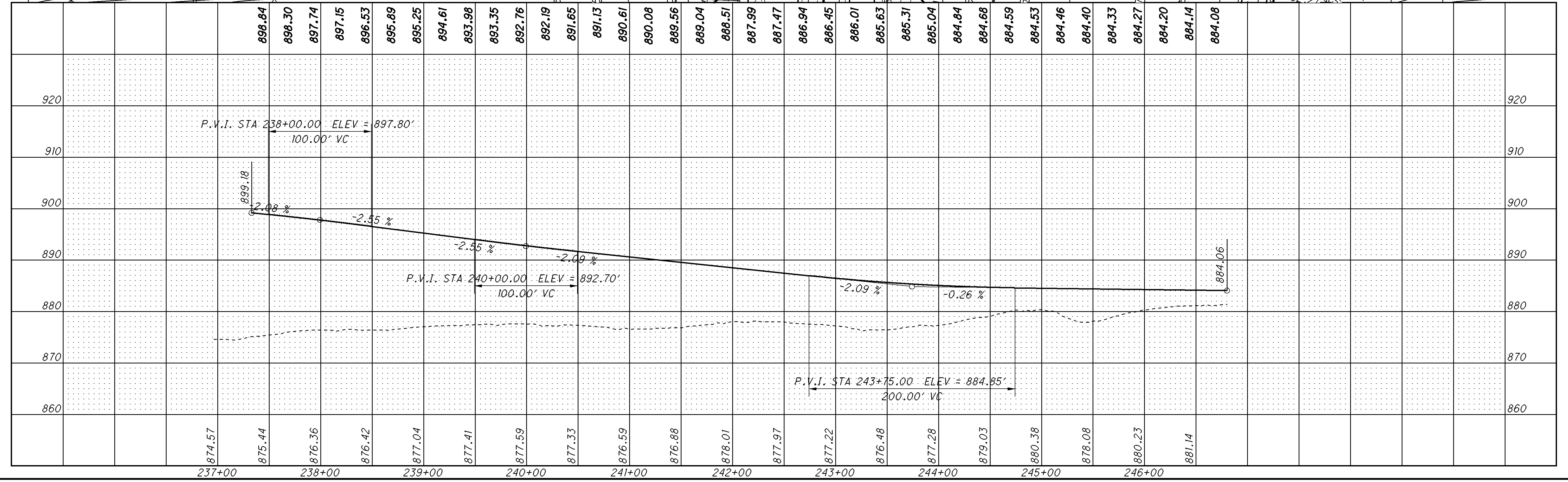
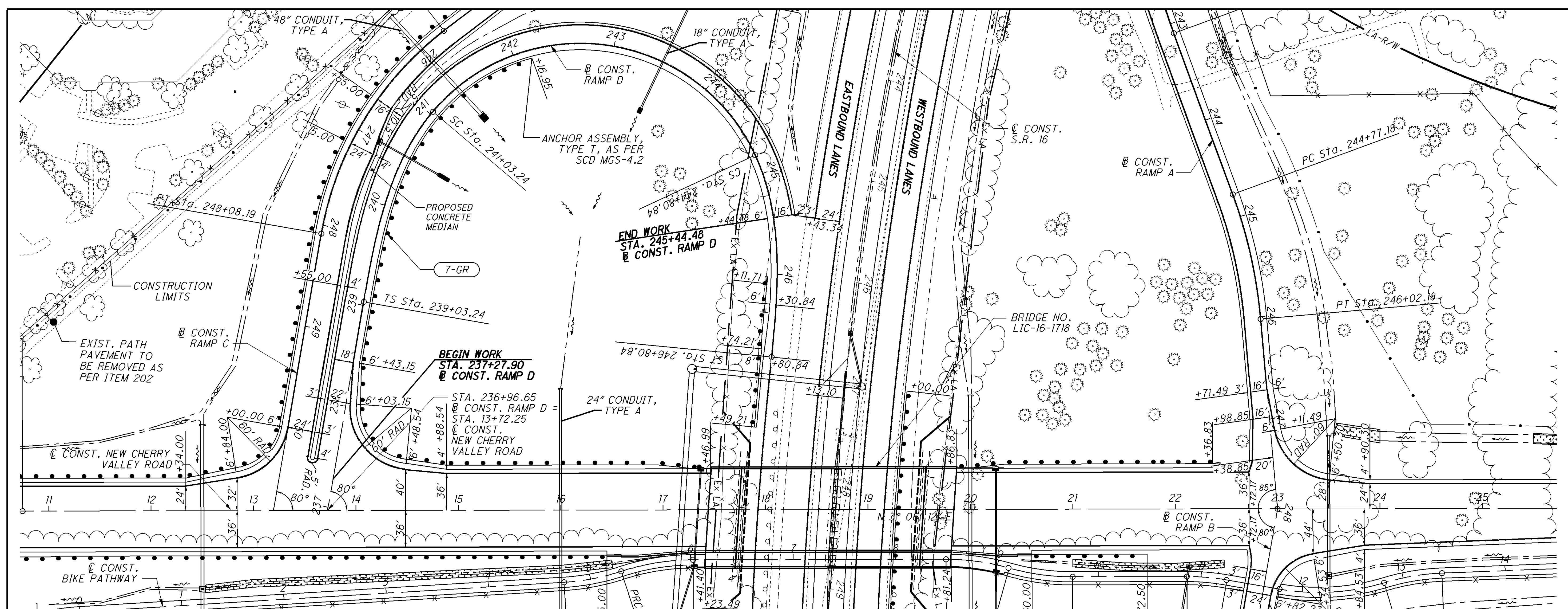


RAMP C CROSS SECTIONS
STA. 249+50.00 TO STA. 250+00.00

LIC-16-16.64

305
729

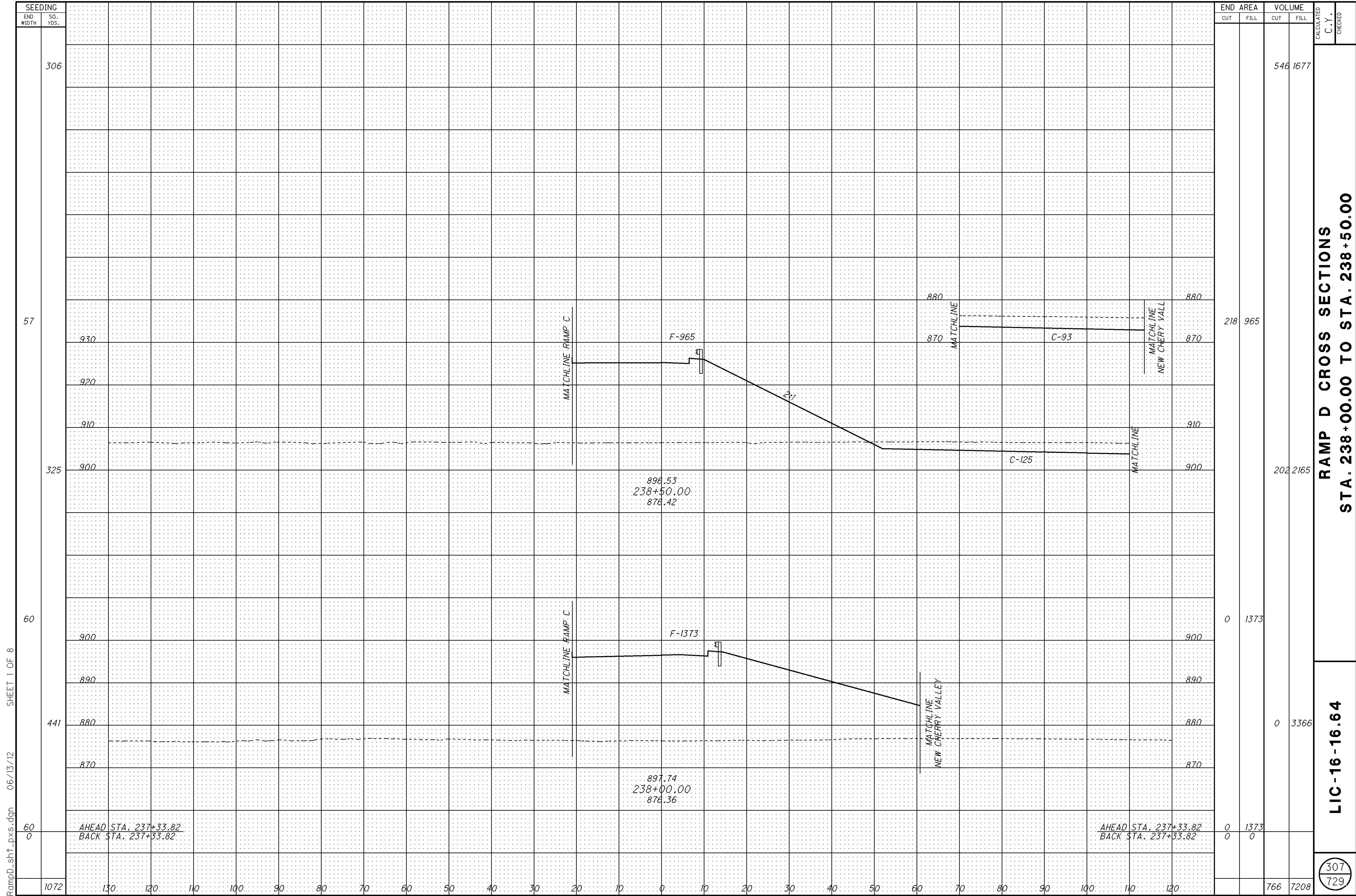
80704_RAMPD_PPP_001.DGN 05/03/12



CALCULATED
 C.V.
 CHECKED
RAMP D PLAN AND PROFILE
STA. 237+27.90 TO STA. 245+44.48

LIC-16-16.64

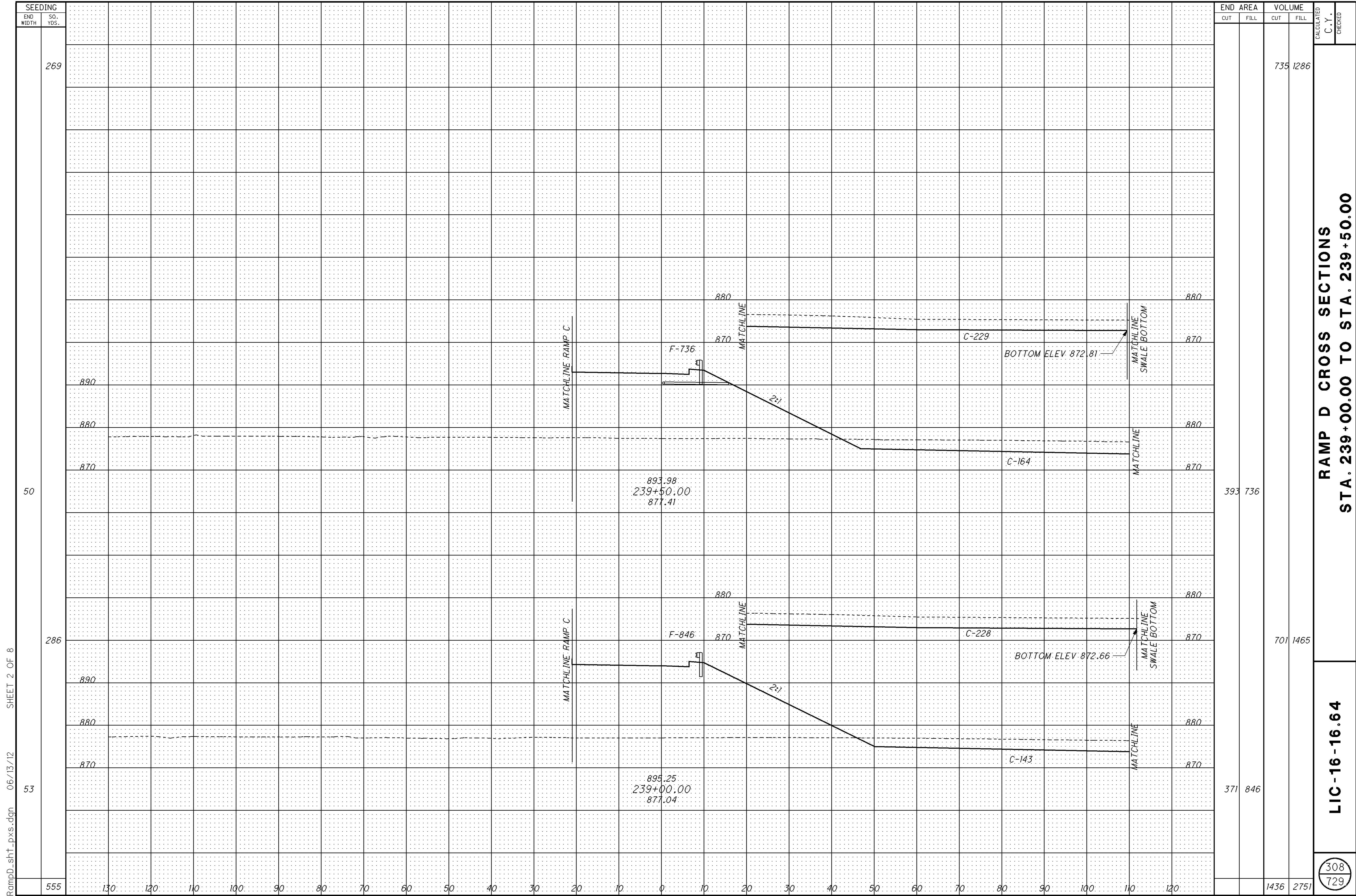
306
729



RampD_sht1_pxs.dgn 06/13/12 SHEET 1 OF 8

LIC-16-16.64

307
729

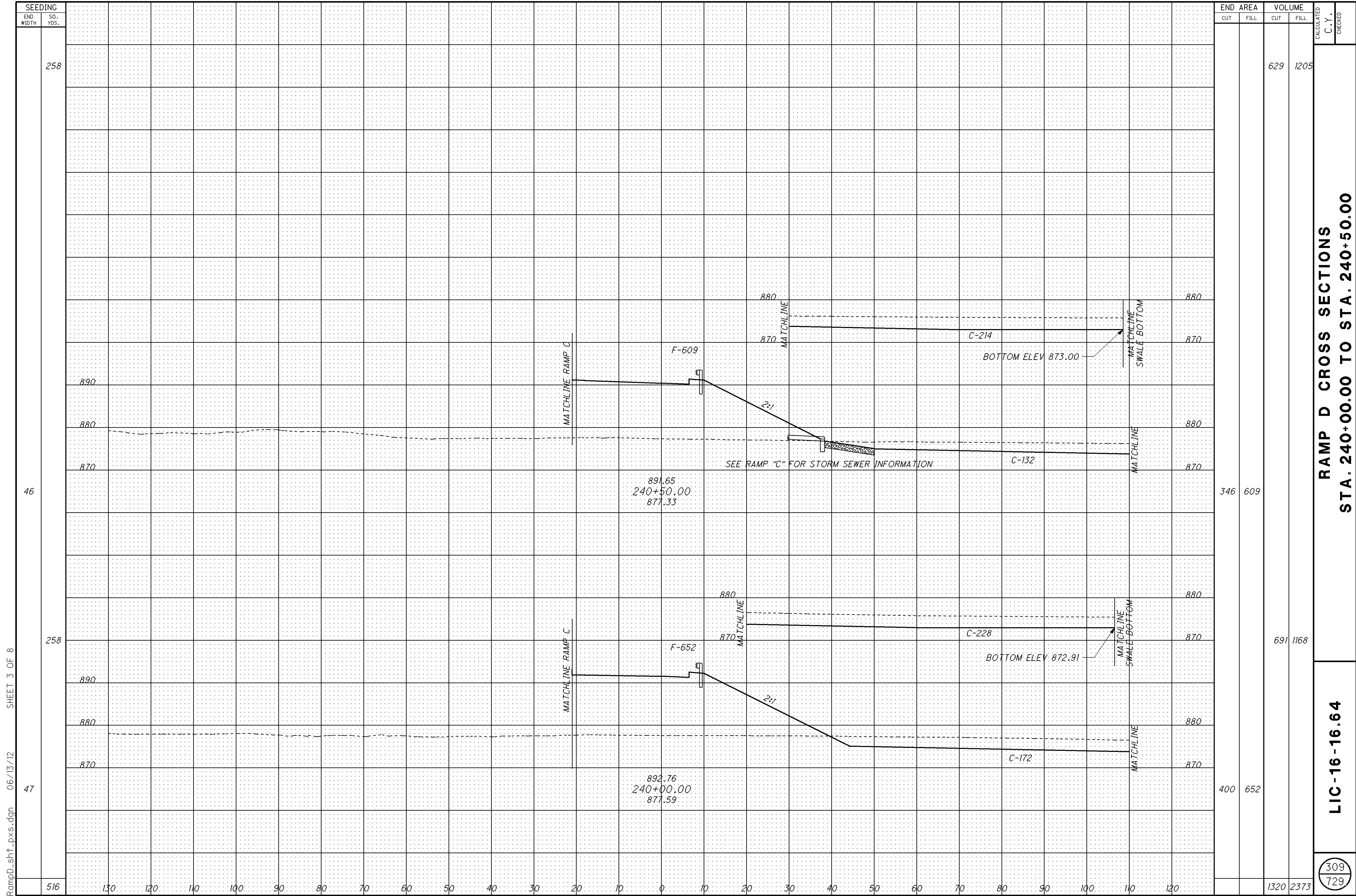


RampD_sh1_pxs.dgn 06/13/12 SHEET 2 OF 8

**RAMP D CROSS SECTIONS
STA. 239+00.00 TO STA. 239+50.00**

LIC-16-16.64

308
729



SEEDING	
END WIDTH	SO. YDS.
258	
46	
258	
516	

END AREA		VOLUME	
CUT	FILL	CUT	FILL
		629	1205
346	609	691	1168
400	652	1320	2373

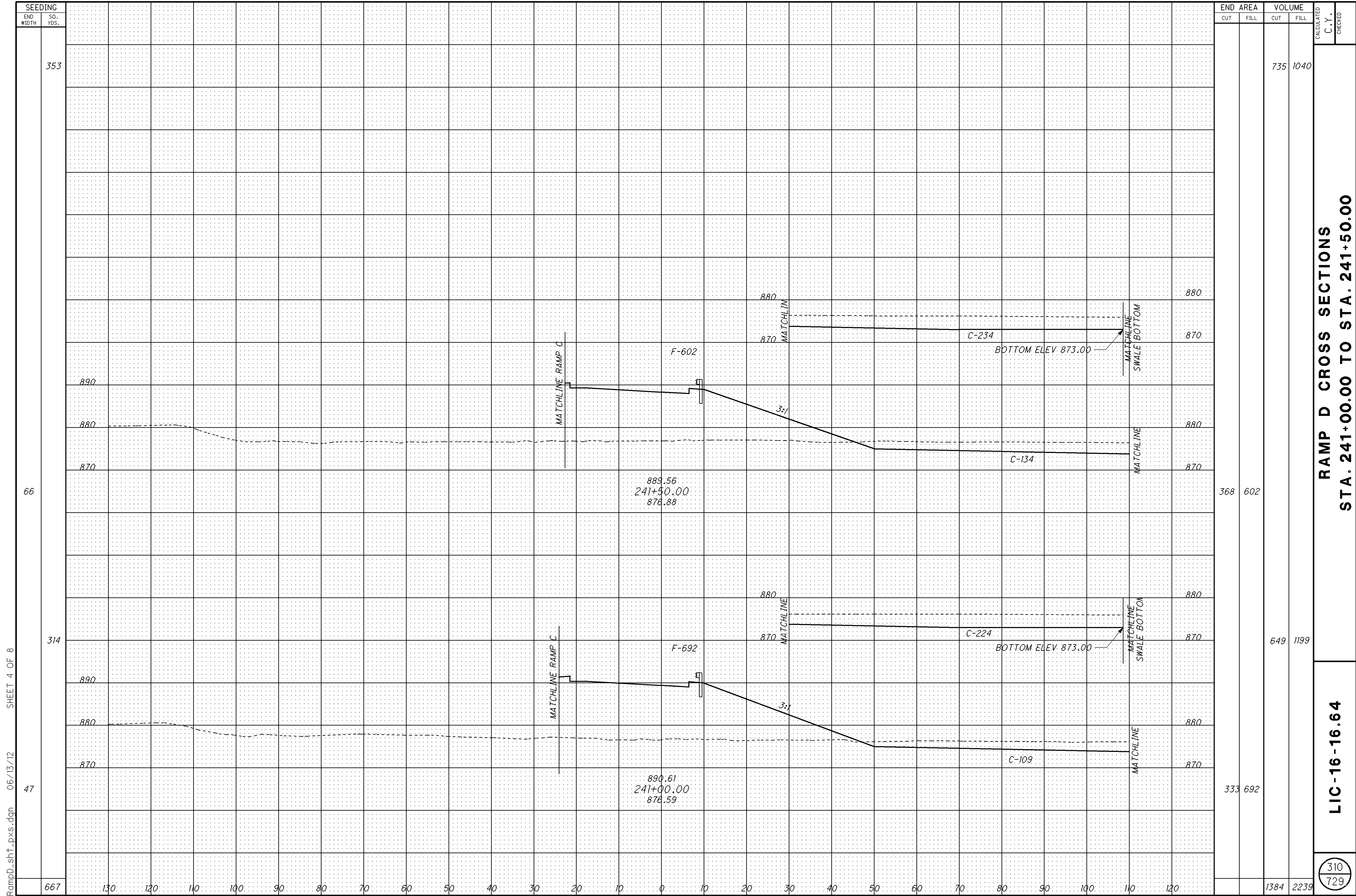
RAMP D CROSS SECTIONS
STA. 240+00.00 TO STA. 240+50.00

LIC-16-16.64

CALCULATED C.Y. CHECKED

RampD_sh1_pxs.dgn 06/13/12 SHEET 3 OF 8

309
729

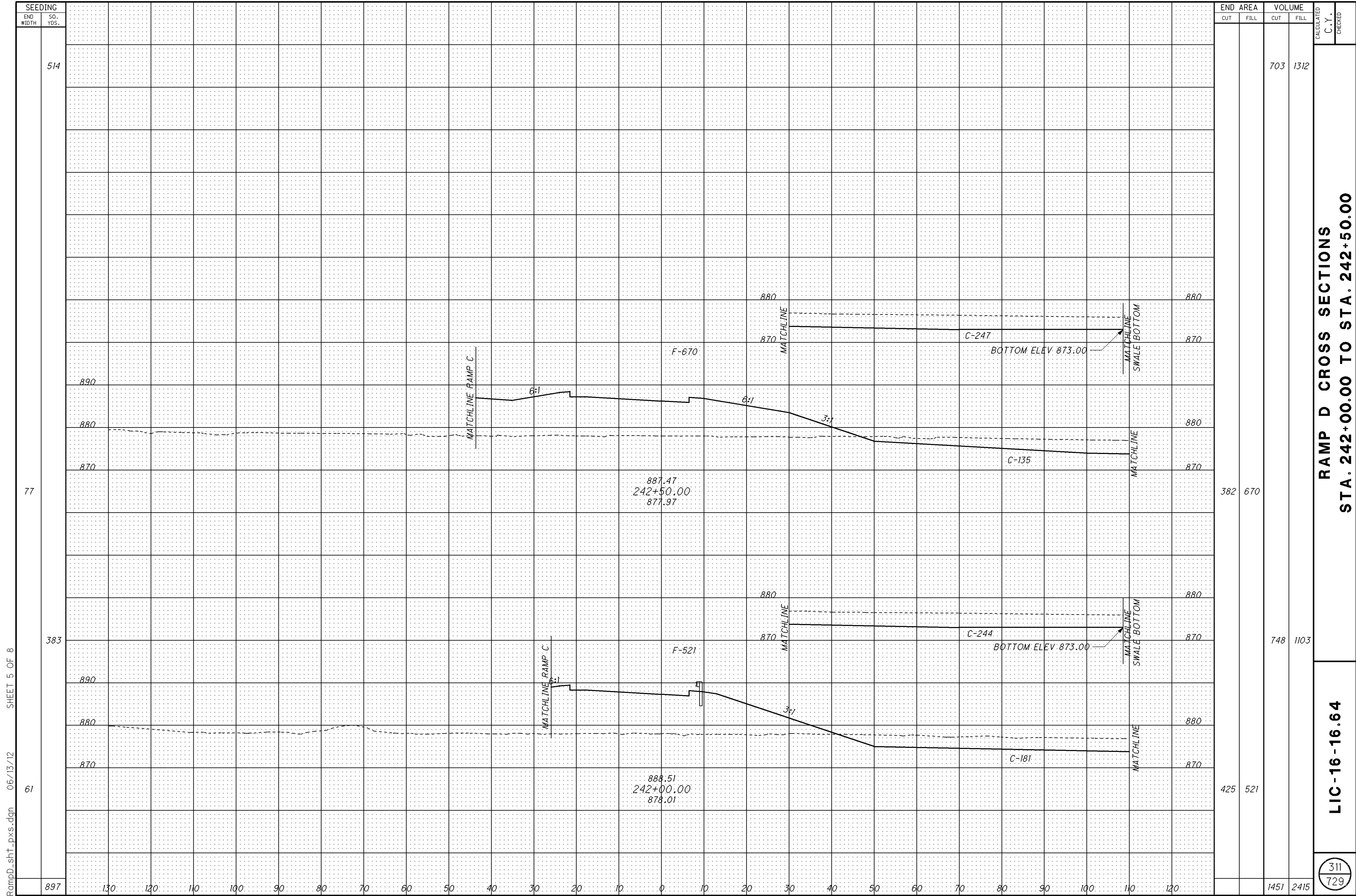


RampD_sh1_pxs.dgn 06/13/12 SHEET 4 OF 8

**RAMP D CROSS SECTIONS
STA. 241+00.00 TO STA. 241+50.00**

LIC-16-16.64

310
729

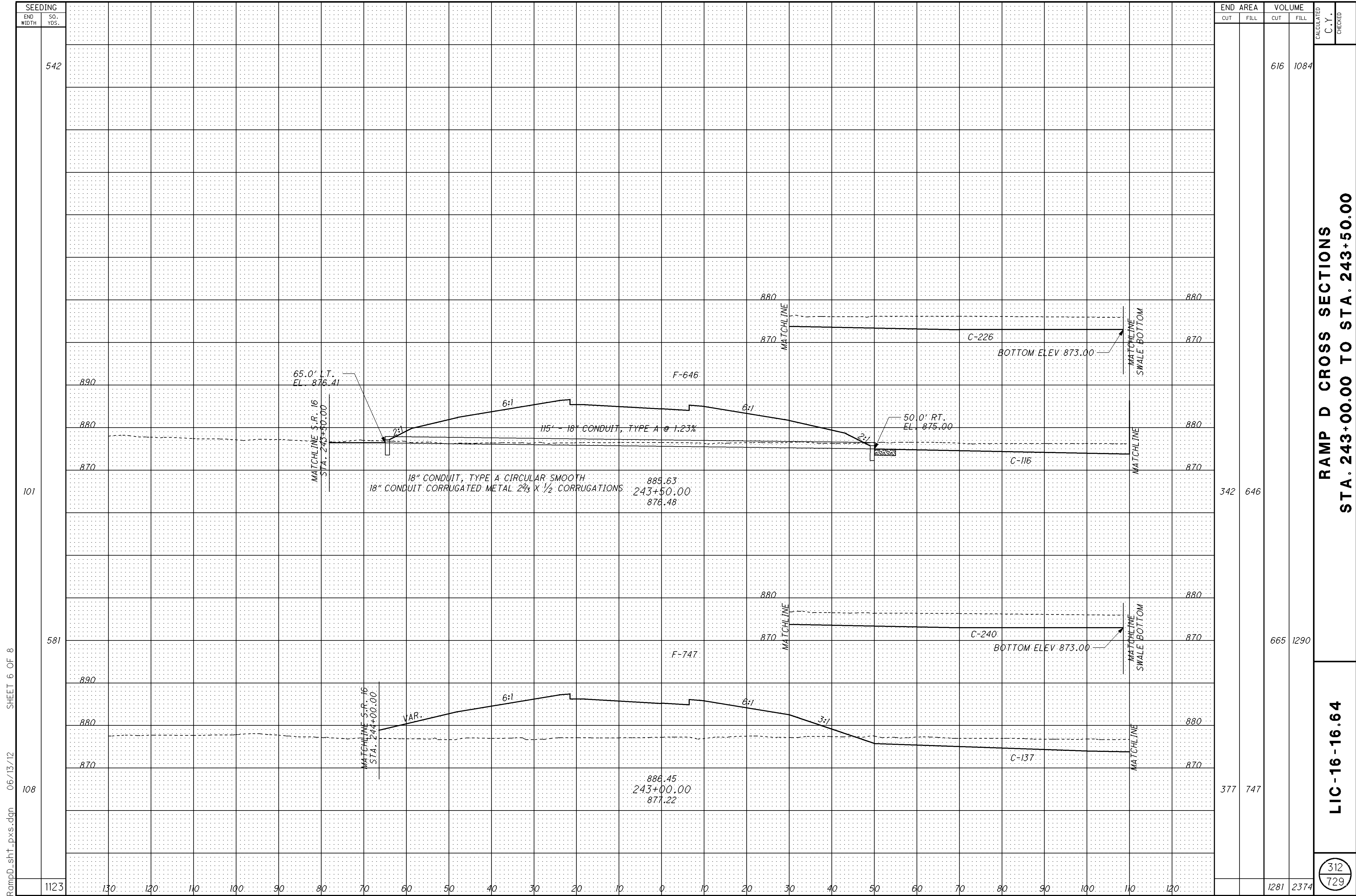


RampD_sh1_pxs.dgn 06/13/12 SHEET 5 OF 8

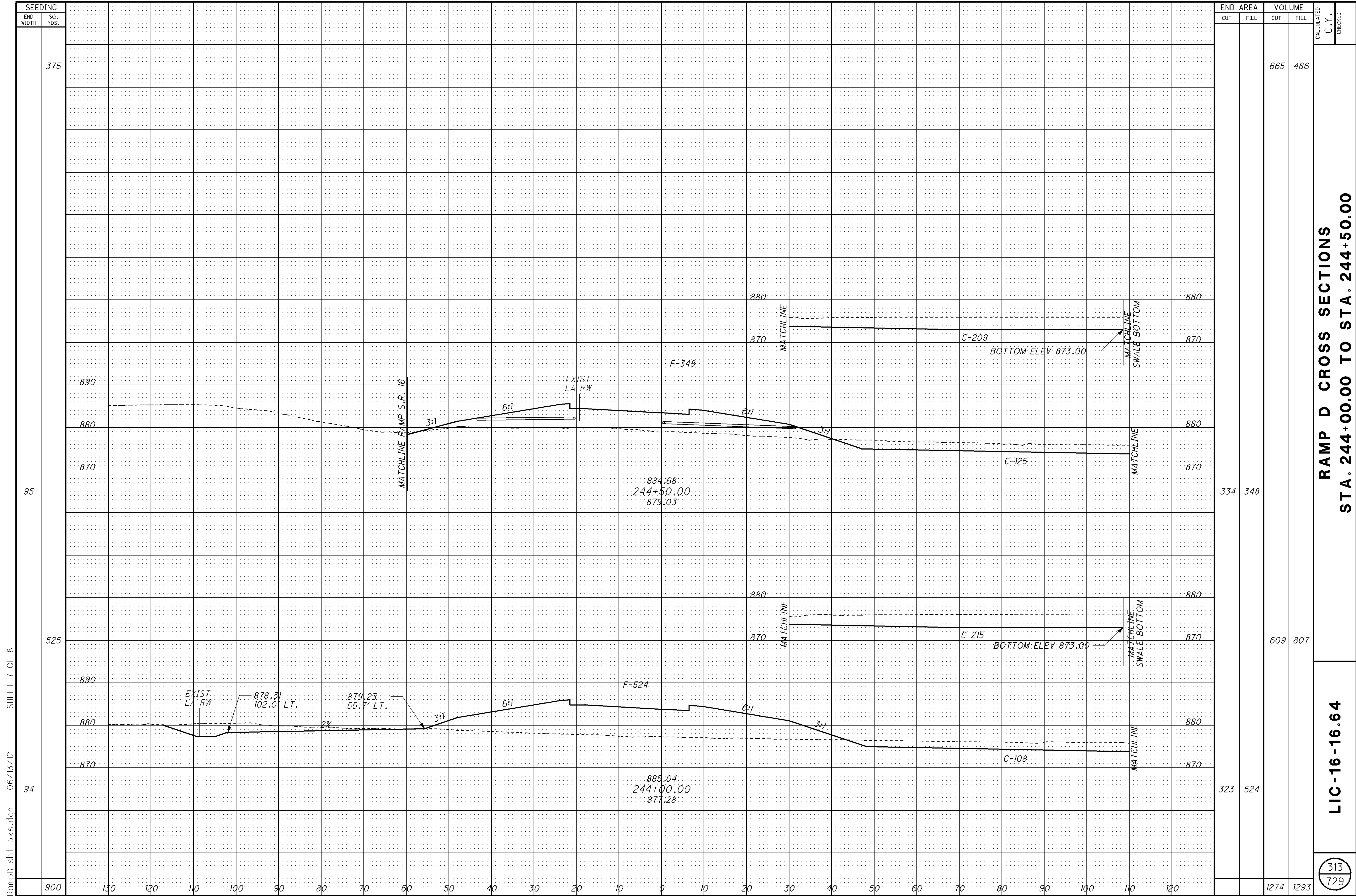
**RAMP D CROSS SECTIONS
STA. 242+00.00 TO STA. 242+50.00**

LIC-16-16.64

311
729



RampD_sh1_pxs.dgn 06/13/12 SHEET 6 OF 8

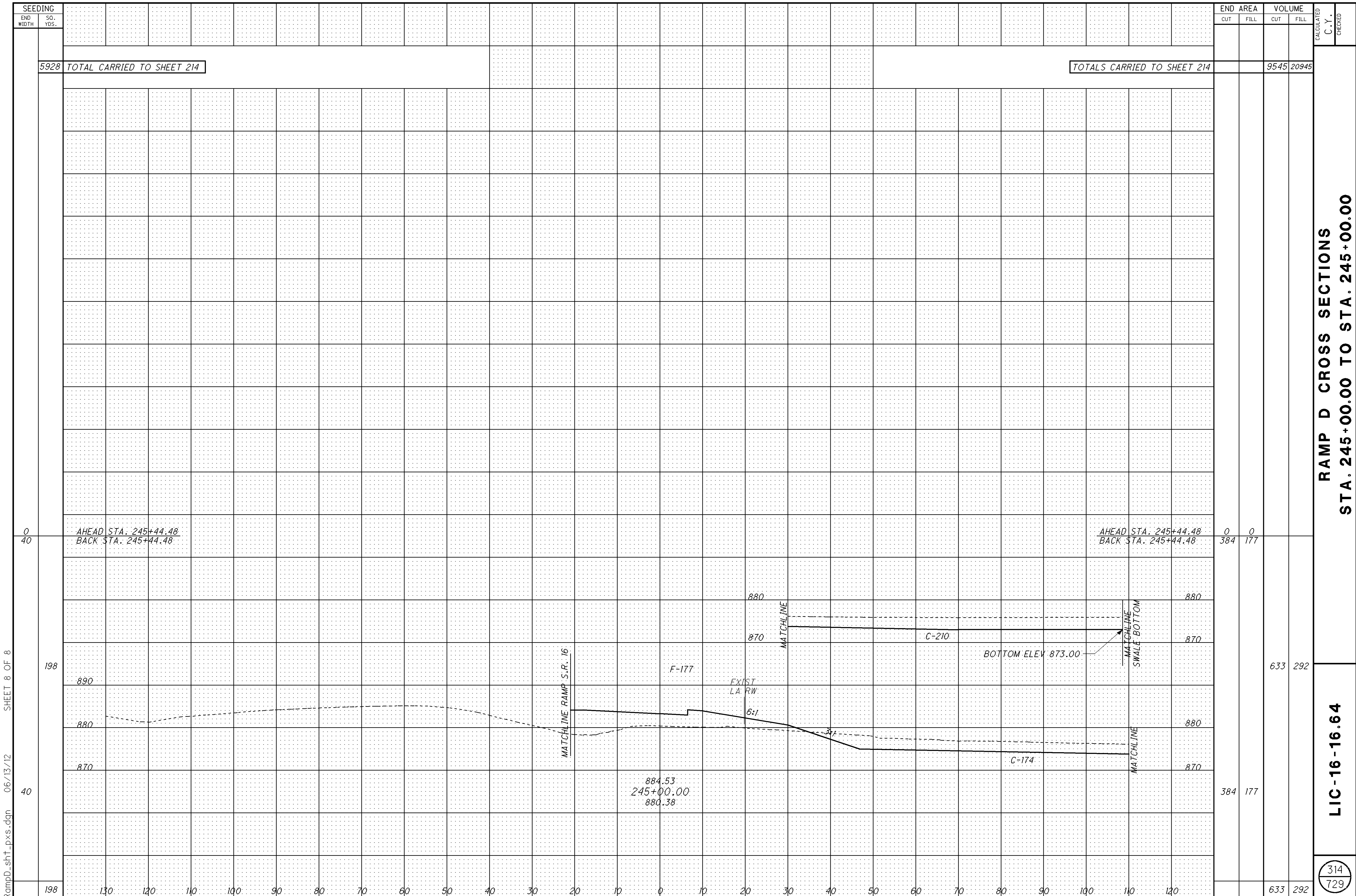


RampD_sh1_pxs.dgn 06/13/12 SHEET 7 OF 8

**RAMP D CROSS SECTIONS
STA. 244+00.00 TO STA. 244+50.00**

LIC-16-16.64

313
729



SEEDING	
END WIDTH	SO. YDS.
0	40
40	198
40	198

5928 TOTAL CARRIED TO SHEET 214															TOTALS CARRIED TO SHEET 214														
AHEAD STA. 245+44.48 BACK STA. 245+44.48															AHEAD STA. 245+44.48 BACK STA. 245+44.48														
890															880														
880															870														
870															870														
884.53 245+00.00 880.38															880														
870															870														
870															870														

END AREA		VOLUME	
CUT	FILL	CUT	FILL
0	0	384	177
633	292	633	292
384	177	633	292

RAMP D CROSS SECTIONS
STA. 245+00.00 TO STA. 245+00.00

LIC-16-16.64

CALCULATED C.Y. CHECKED

RampD_shT_pxs.dgn 06/13/12 SHEET 8 OF 8

80704_NEWCHRY_PPP_001.DGN 05/03/12

STA. 0+00.00
@ CONST. NEW CHERRY VALLEY ROAD =
STA. 28+51.97
@ CONST. EXISTING SOUTH
CHERRY VALLEY ROAD

BEGIN WORK
STA. 0+28.08
@ CONST. NEW CHERRY
VALLEY ROAD

@ CONST.
EXISTING SOUTH
CHERRY VALLEY ROAD

DRIVE ACCESS TO
CELL TOWER TO
BE MAINTAINED AT
ALL TIMES

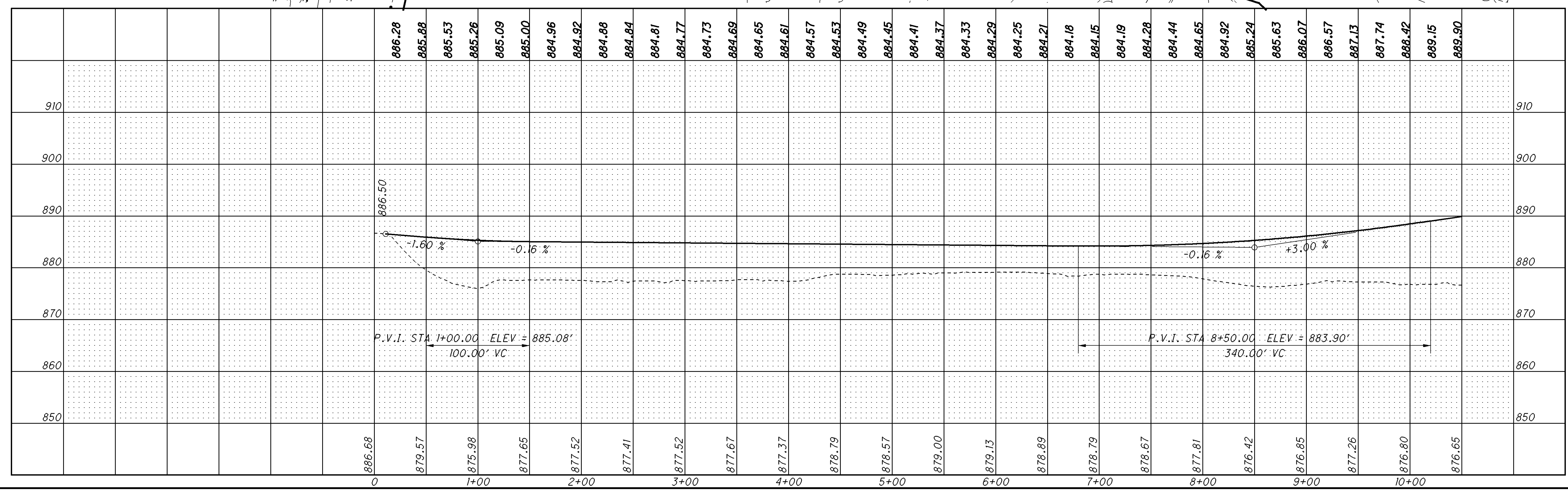
SNOW FENCE TO BE INSTALLED
PRIOR TO COMMENCING WORK.
SEE MOT SEQUENCE OF OPERATIONS
AND GENERAL NOTES FOR DETAILS
AND QUANTITY.
(NEW CHERRY VALLEY ROAD LT.
STA. 8+01.1 TO STA. 9+45.8)

DRIVE ACCESS TO
CELL TOWER TO
BE MAINTAINED AT
ALL TIMES

EXIST. PATH
PAVEMENT TO
BE REMOVED
AS PER ITEM 202

ANCHOR ASSEMBLY,
TYPE E, AS PER
SCD MGS-5.3

ANCHOR ASSEMBLY,
TYPE T, AS PER
SCD MGS-4.2



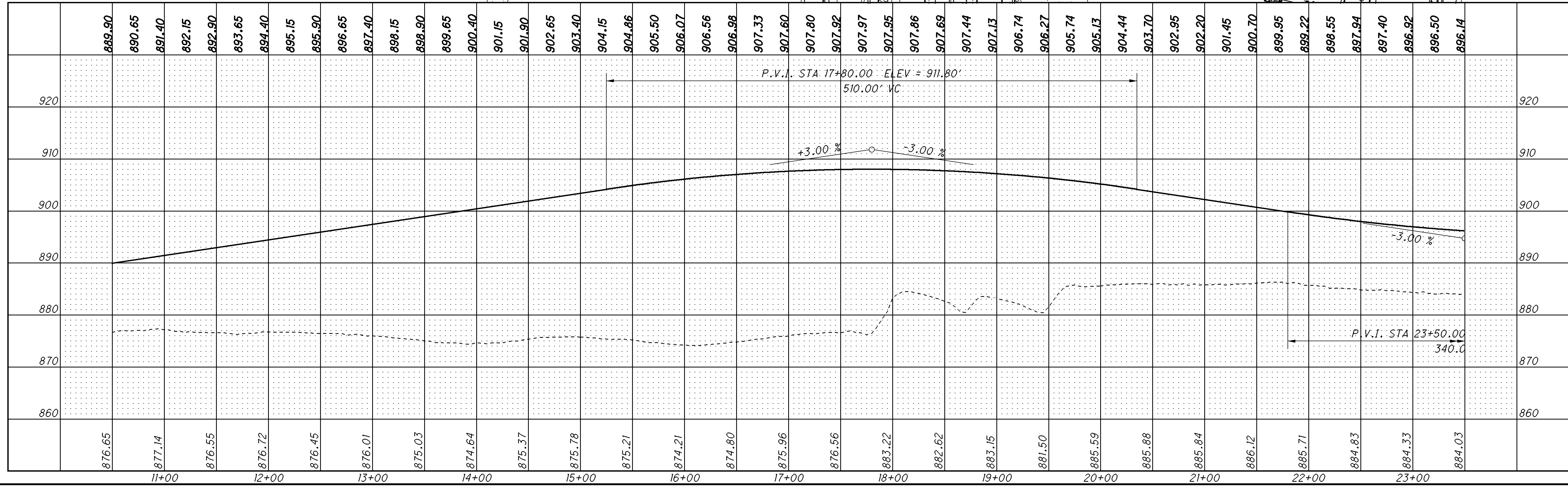
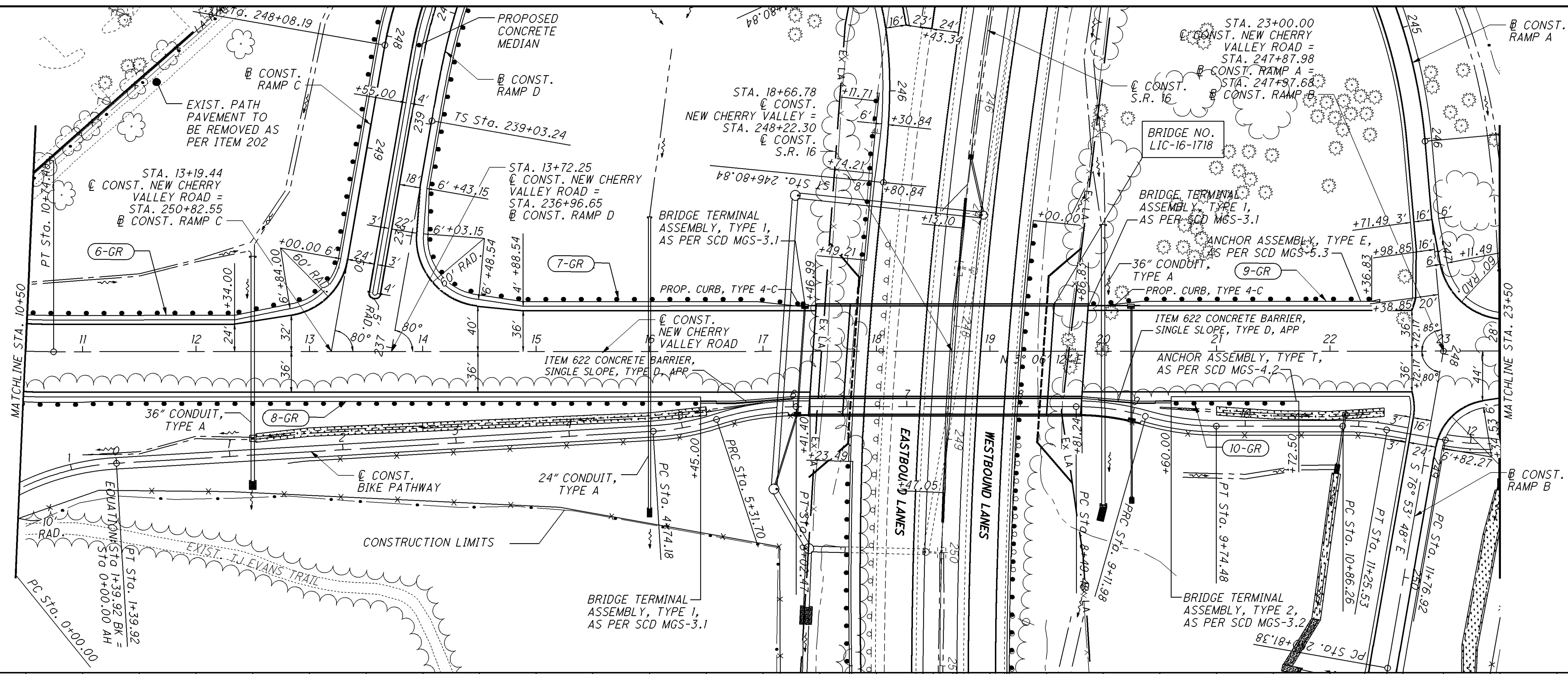
NEW CHERRY VALLEY RD. PLAN AND PROFILE
STA. 0+28.08 TO STA. 10+50.00

LIC-16-16.64

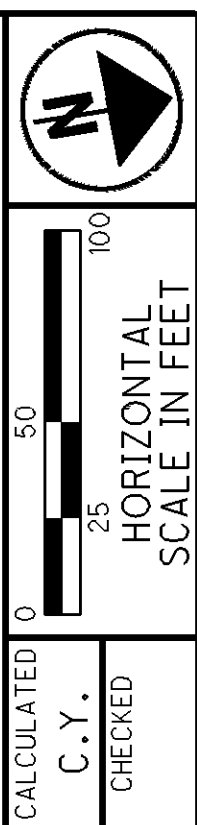
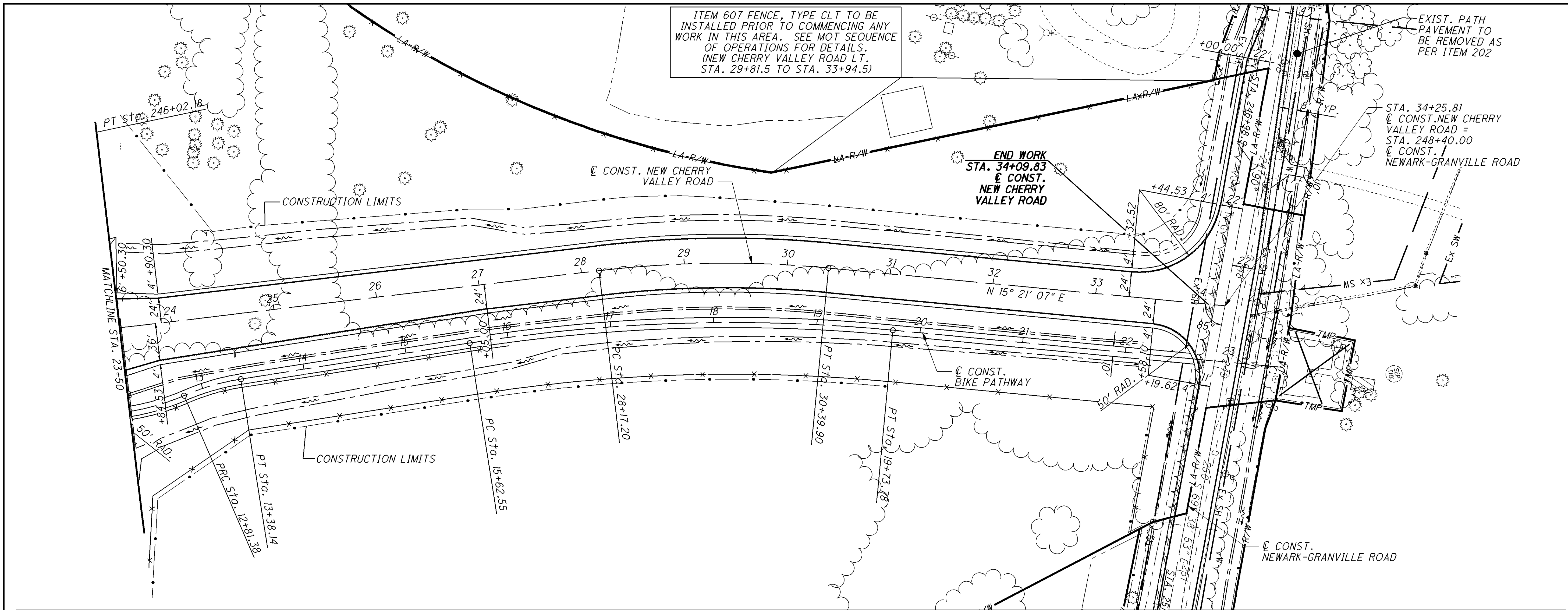
315
729

CALCULATED: []
 C.V.: []
 CHECKED: []

0 25 50 75 100
 HORIZONTAL
 SCALE IN FEET



**NEW CHERRY VALLEY RD PLAN AND PROFILE
STA. 10+50.00 TO STA. 23+50.00**

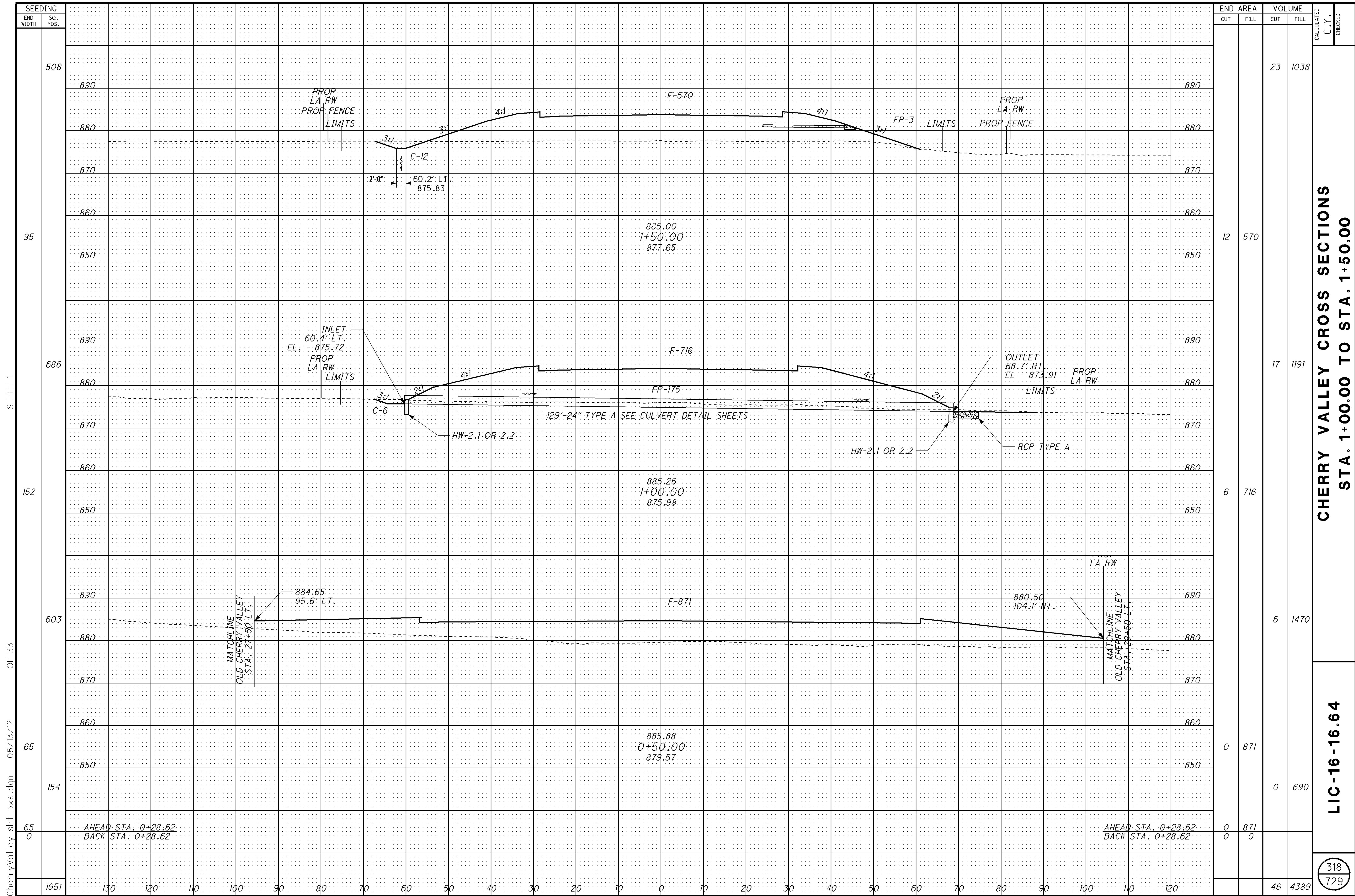


NEW CHERRY VALLEY RD PLAN AND PROFILE
STA. 23+50.00 TO STA. 34+25.81

Station	Elevation
884.03	896.14
884.81	895.84
885.43	895.61
885.24	895.43
885.71	895.32
886.63	895.28
886.91	895.29
887.82	895.37
889.22	895.46
890.10	895.56
891.00	895.65
891.90	895.75
892.80	895.84
893.70	895.94
894.60	896.03
895.50	896.13
896.40	896.22
897.30	896.32
898.20	896.41
899.10	896.51
900.00	896.60
900.90	896.70
901.80	896.79
902.70	896.89
903.60	896.98
904.50	897.08
905.40	897.17
906.30	897.27
907.20	897.36
908.10	897.46
909.00	897.55
909.90	897.65
910.80	897.74
911.70	897.84
912.60	897.93
913.50	898.03
914.40	898.12
915.30	898.22
916.20	898.31
917.10	898.41
918.00	898.50
918.90	898.58
919.80	898.62
920.70	898.66

P.V.I. STA 33+65.00 ELEV = 898.56'
 20.00' VC

+0.38% +0.16%



SEEDING	
END WIDTH	SO. YDS.
508	
95	
686	
152	
603	
65	
154	
65	
0	
1951	

END AREA		VOLUME	
CUT	FILL	CUT	FILL
		23	1038
12	570	17	1191
6	716	6	1470
0	871	0	690
0	871	0	0
46	4389		

**CHERRY VALLEY CROSS SECTIONS
STA. 1+00.00 TO STA. 1+50.00**

LIC-16-16.64

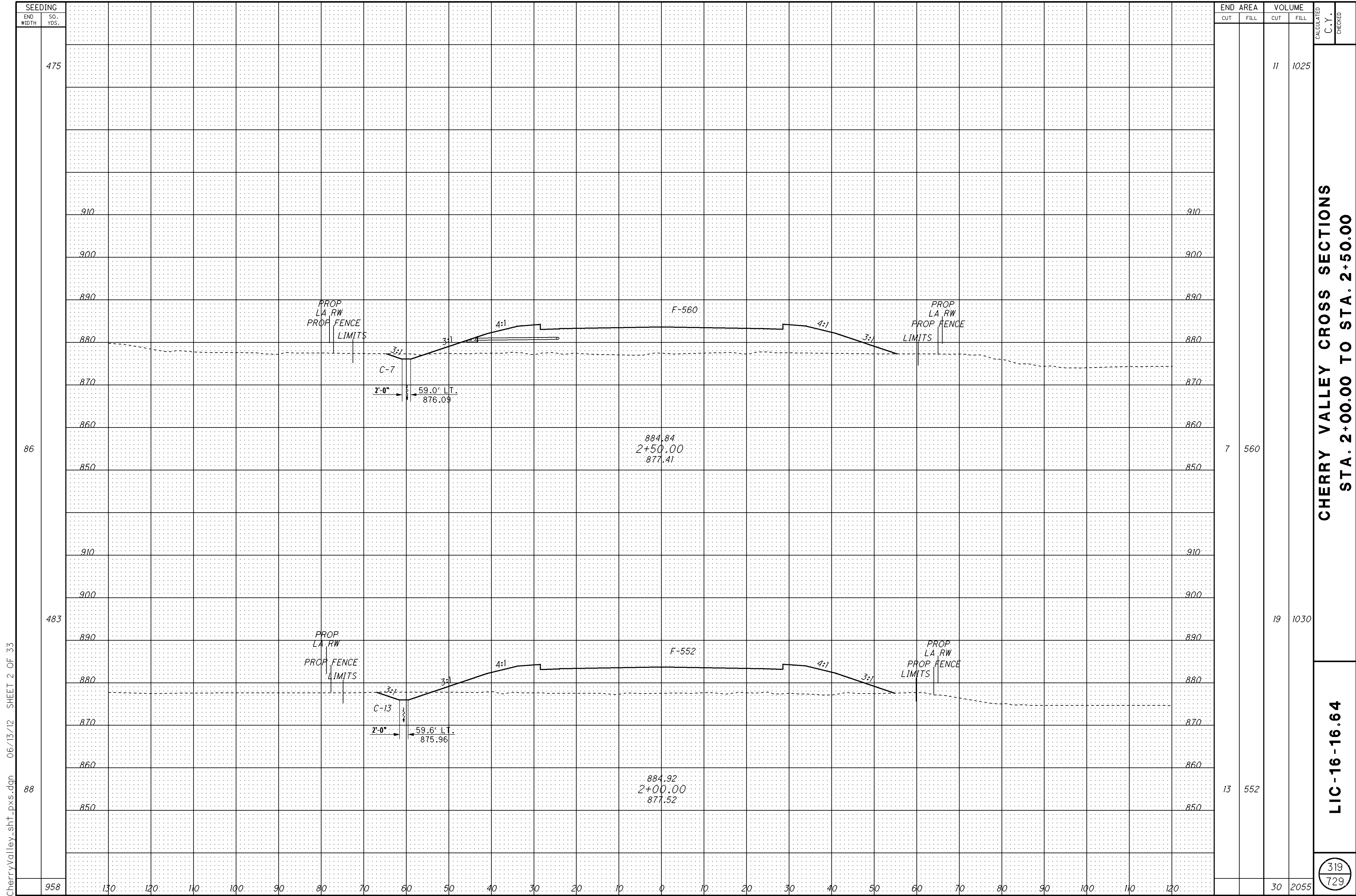
318
729

SHEET 1

OF 33

06/13/12

CherryValley_sht_1.pxs.dgn

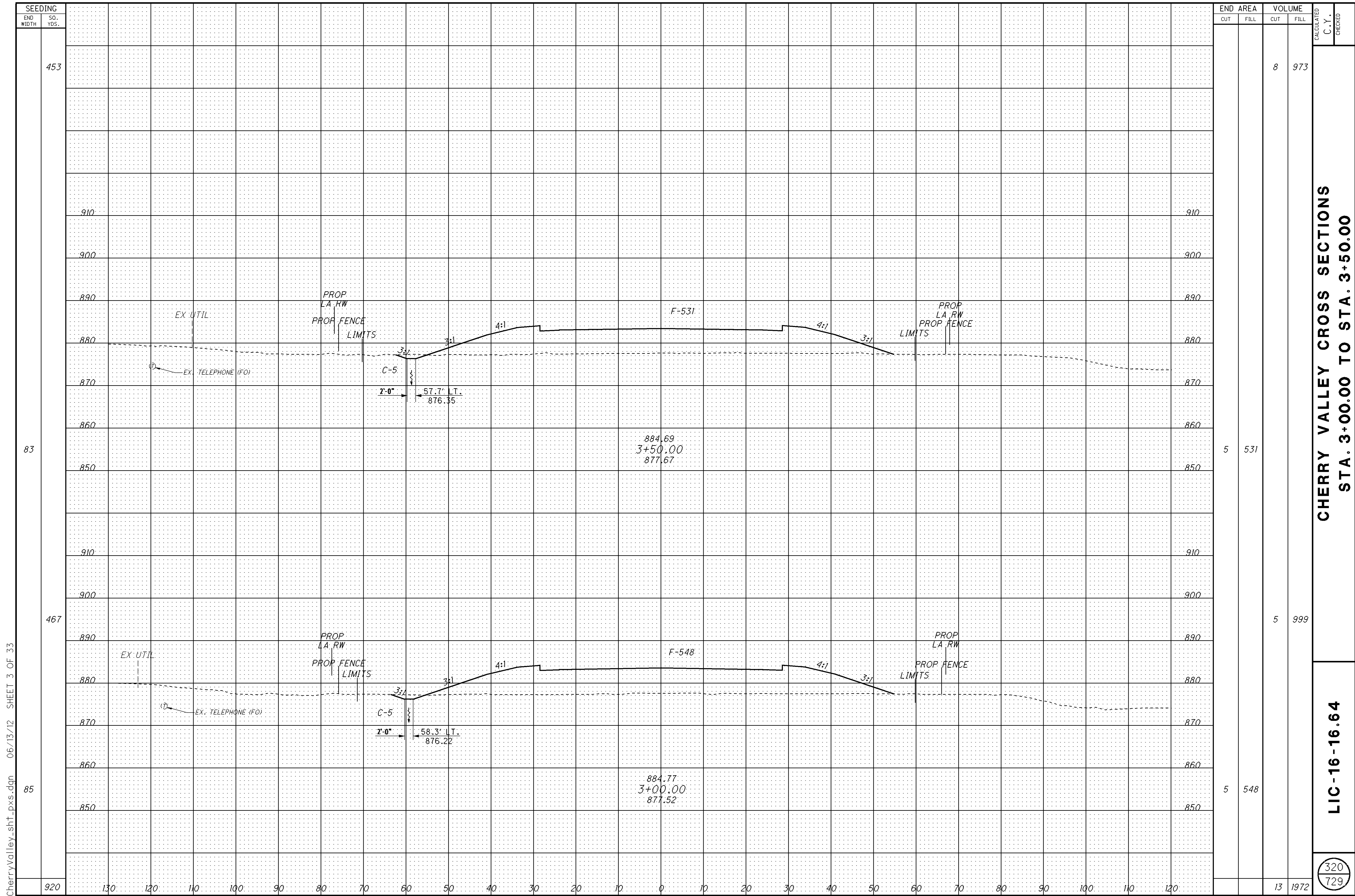


CherryValley_sht_pxs.dgn 06/13/12 SHEET 2 OF 33

**CHERRY VALLEY CROSS SECTIONS
STA. 2+00.00 TO STA. 2+50.00**

LIC-16-16.64

319
729



CherryValley_sht_pxs.dgn 06/13/12 SHEET 3 OF 33

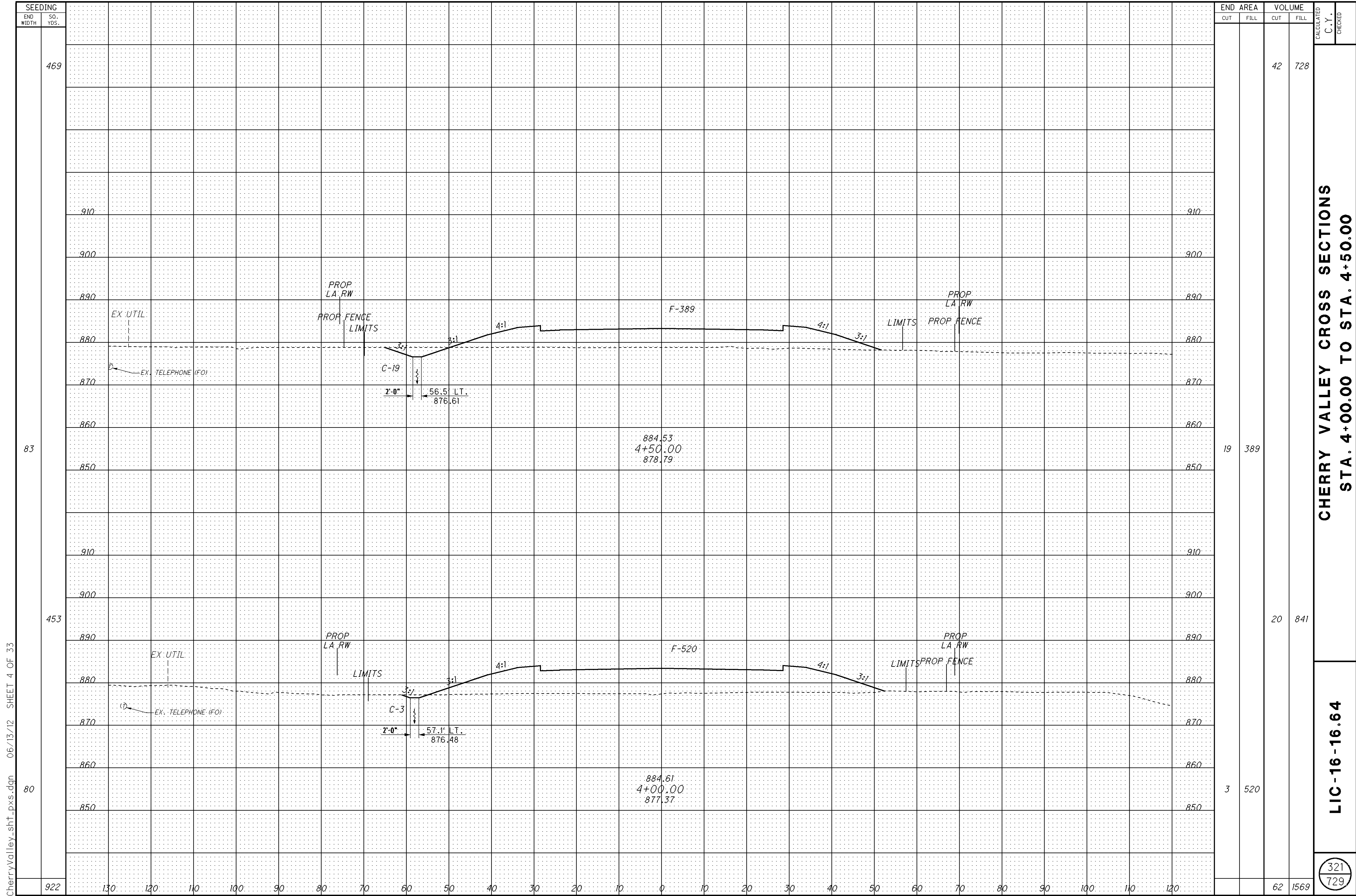
SEEDING		END AREA		VOLUME	
END WIDTH	SO. YDS.	CUT	FILL	CUT	FILL
453				8	973
910					
900					
890					
880					
870					
860					
850					
910					
900					
890					
880					
870					
860					
850					
920				13	1972

**CHERRY VALLEY CROSS SECTIONS
STA. 3+00.00 TO STA. 3+50.00**

LIC-16-16.64

CALCULATED
C.Y.
CHECKED

320
729



CherryValley_sht_pxs.dgn 06/13/12 SHEET 4 OF 33

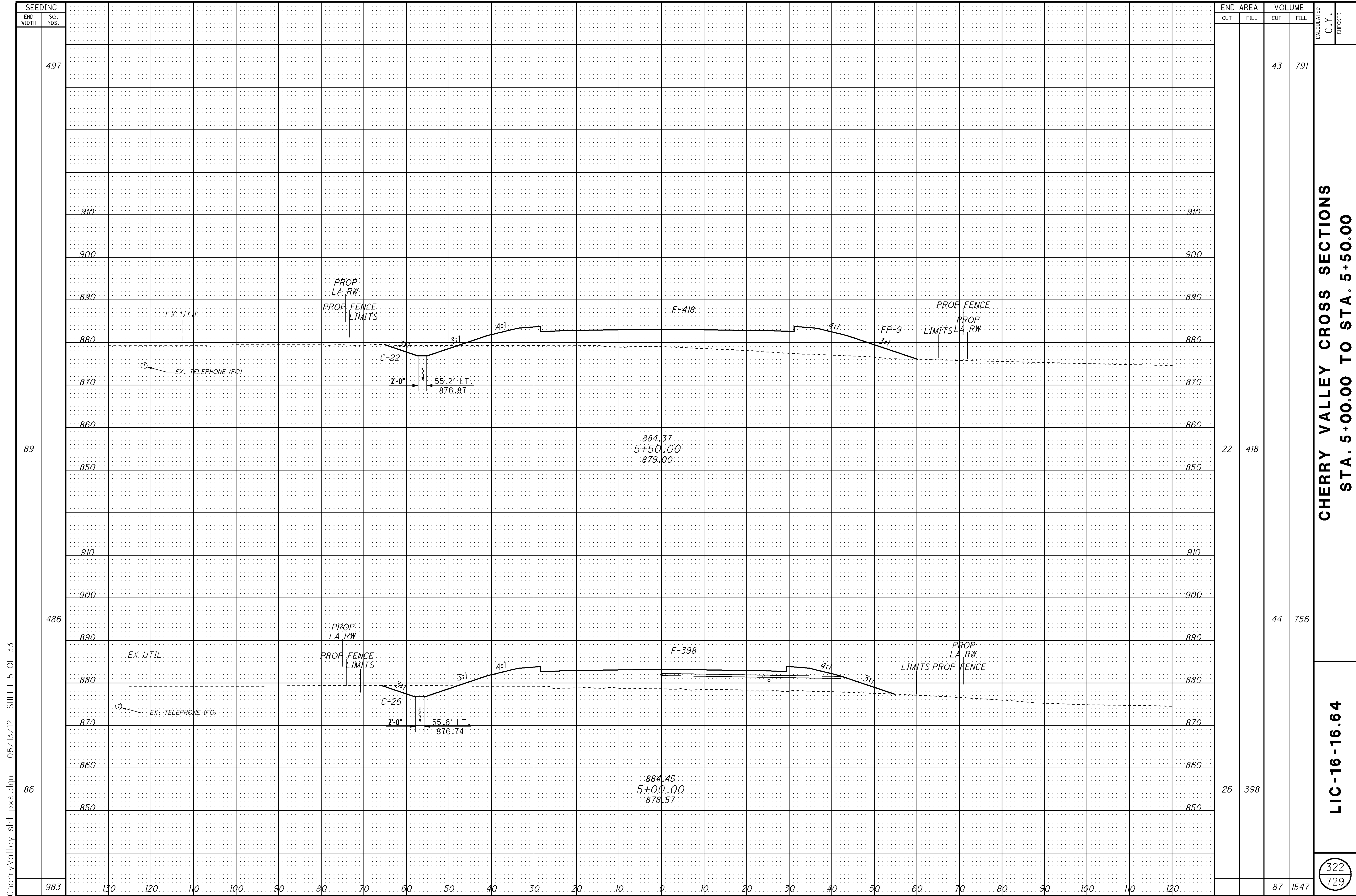
SEEDING	
END WIDTH	SO. YDS.
469	
83	
453	
80	
922	

END AREA		VOLUME		CALCULATED C.Y.	CHECKED
CUT	FILL	CUT	FILL		
		42	728		
19	389				
20	841				
3	520				
62	1569				

CHERRY VALLEY CROSS SECTIONS
STA. 4+00.00 TO STA. 4+50.00

LIC-16-16.64

321
729



CherryValley_sht_pxs.dgn 06/13/12 SHEET 5 OF 33

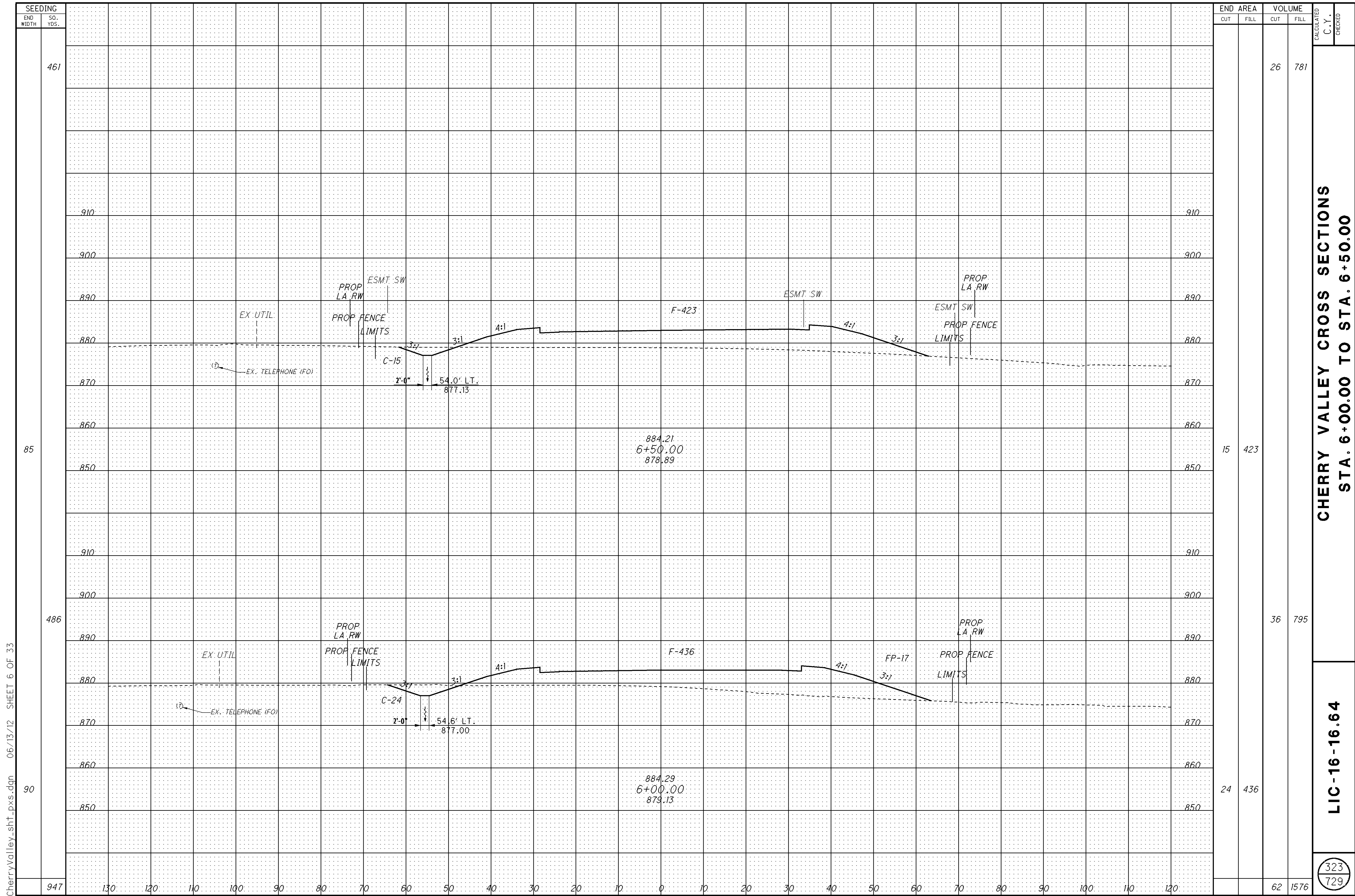
SEEDING	END WIDTH	SQ. YDS.																								
			CUT	FILL																						
497																										
89			22	418																						
86			26	398																						
983	130	120	110	100	90	80	70	60	50	40	30	20	10	0	10	20	30	40	50	60	70	80	90	100	110	120

END AREA		VOLUME		CALCULATED C.Y.	CHECKED
CUT	FILL	CUT	FILL		
				43	791
				44	756
				26	398
		87	1547		

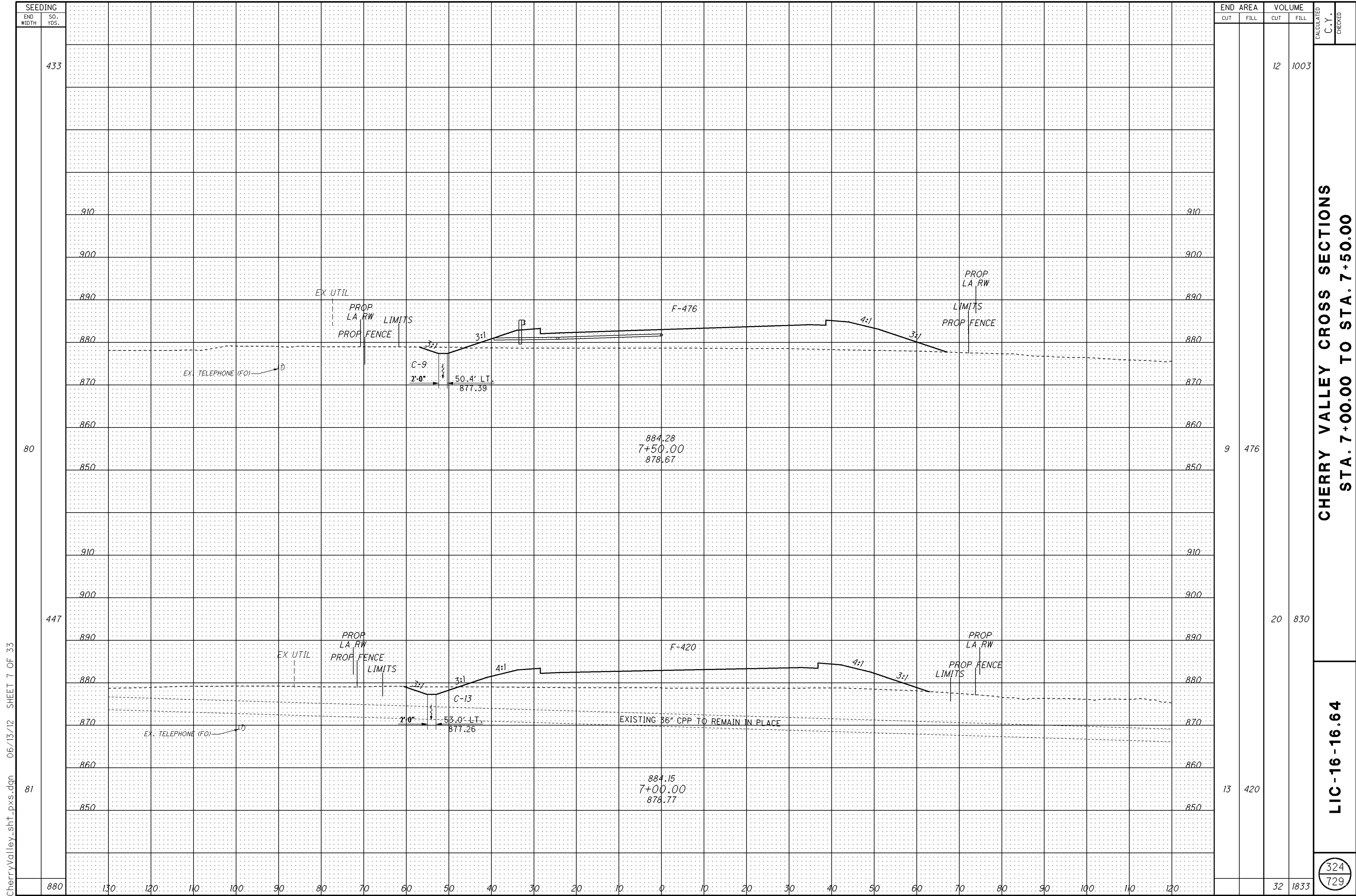
**CHERRY VALLEY CROSS SECTIONS
STA. 5+00.00 TO STA. 5+50.00**

LIC-16-16.64

322
729



CherryValley_sht_pxs.dgn 06/13/12 SHEET 6 OF 33



SEEDING	
END WIDTH	SO. YDS.
433	
80	
447	
81	
880	

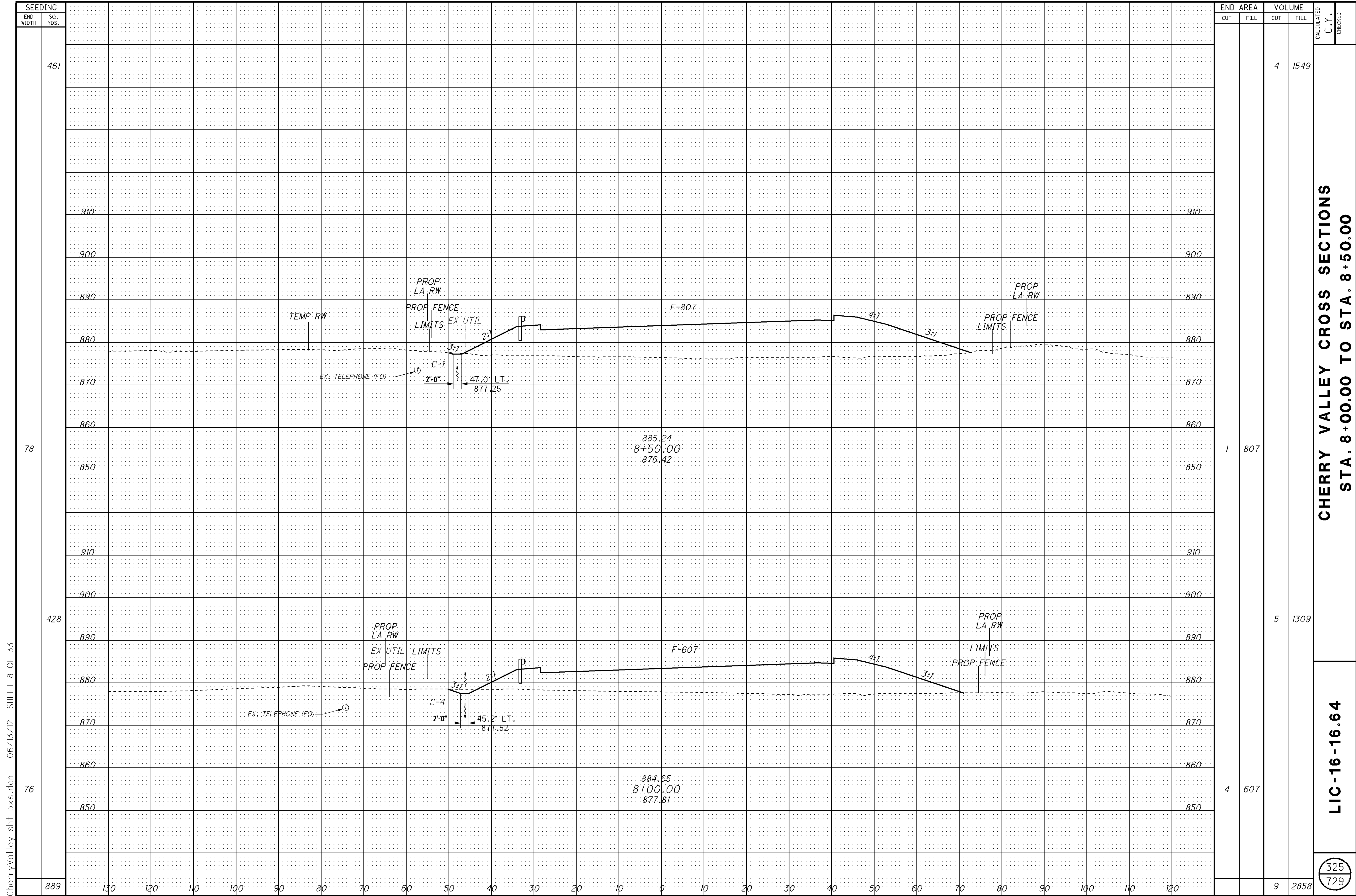
END AREA		VOLUME	
CUT	FILL	CUT	FILL
		12	1003
9	476		
20	830		
13	420		
32	1833		

CHERRY VALLEY CROSS SECTIONS
STA. 7+00.00 TO STA. 7+50.00

LIC-16-16.64

CALCULATED C.Y. CHECKED

CherryValley_sht_pxs.dgn 06/13/12 SHEET 7 OF 33

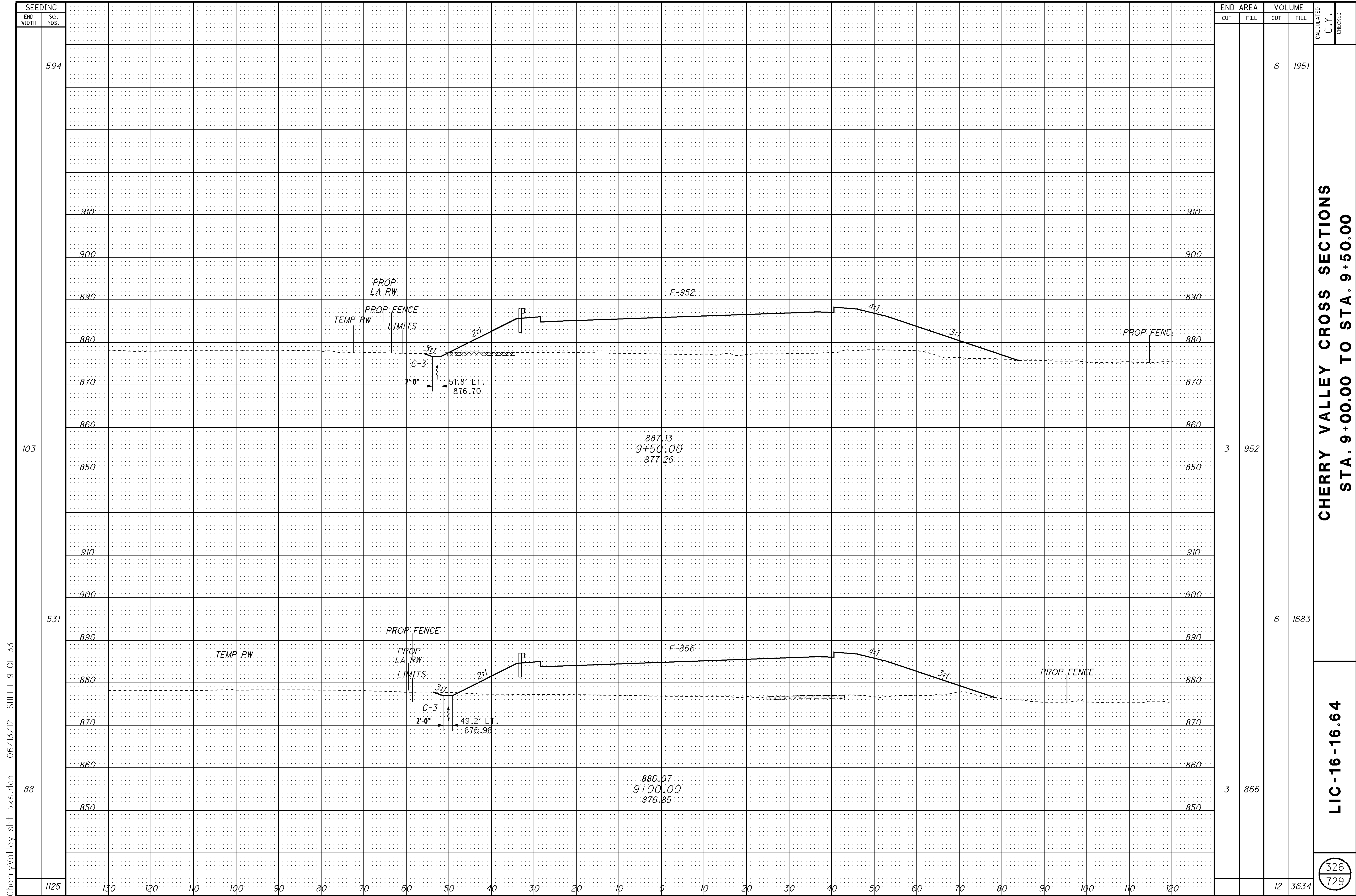


CherryValley_sht_pxs.dgn 06/13/12 SHEET 8 OF 33

**CHERRY VALLEY CROSS SECTIONS
STA. 8+00.00 TO STA. 8+50.00**

LIC-16-16.64

325
729

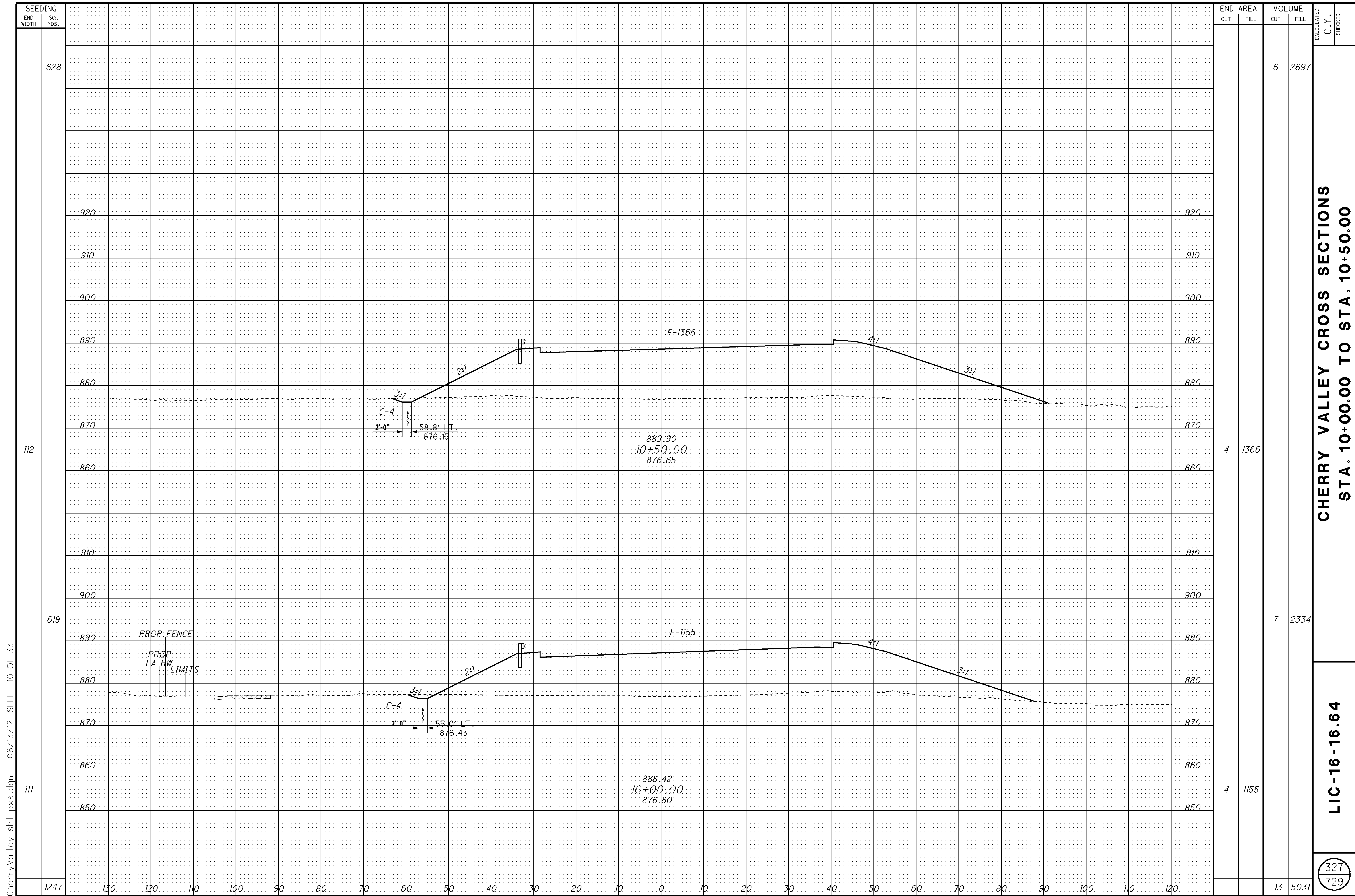


CherryValley_sht_pxs.dgn 06/13/12 SHEET 9 OF 33

**CHERRY VALLEY CROSS SECTIONS
STA. 9+00.00 TO STA. 9+50.00**

LIC-16-16.64

326
729



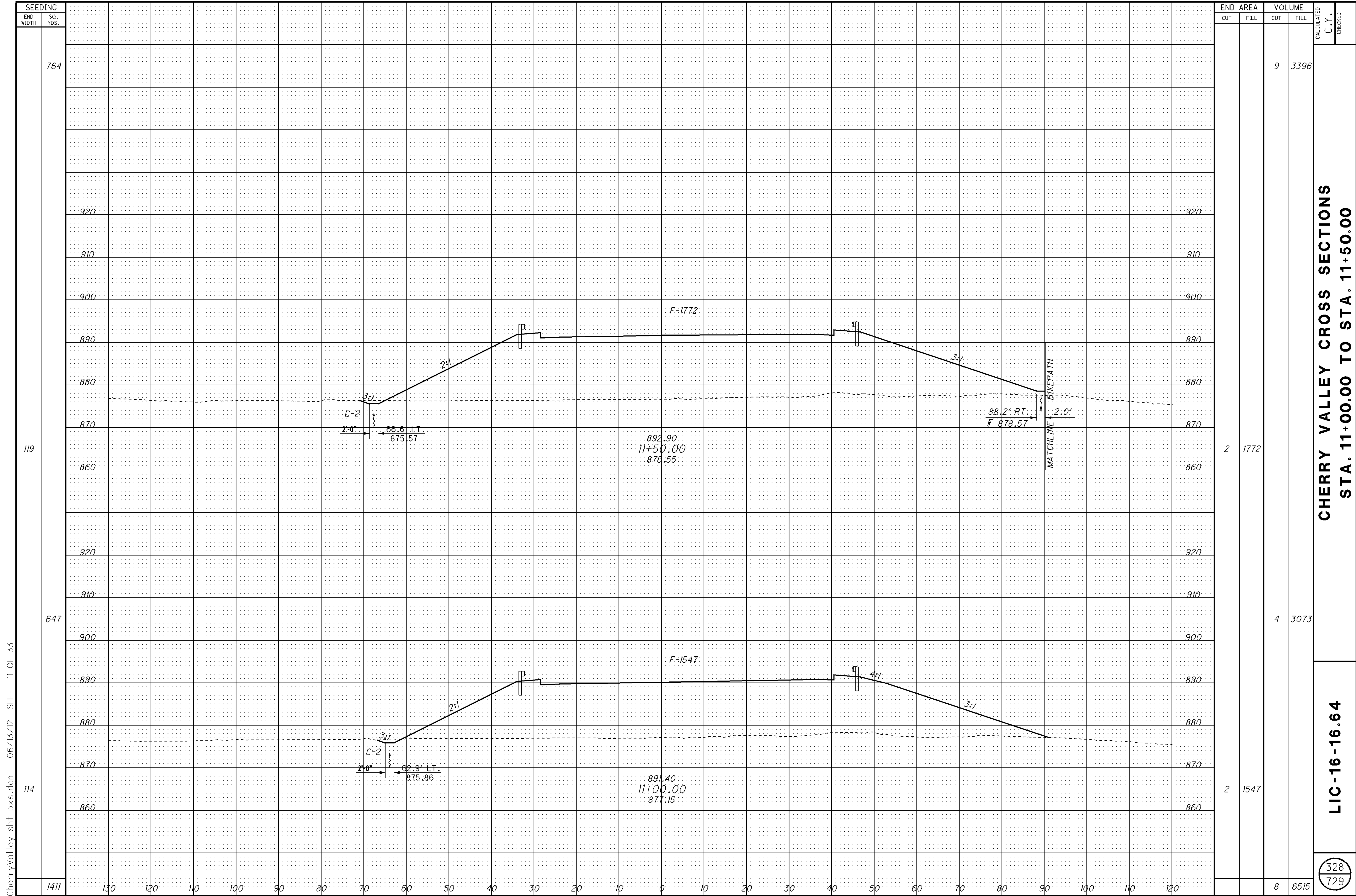
SEEDING	
END WIDTH	SO. YDS.
628	
112	
619	
111	
1247	

END AREA		VOLUME		CALCULATED C.Y.	CHECKED
CUT	FILL	CUT	FILL		
		6	2697		
4	1366	7	2334		
4	1155				
		13	5031		

**CHERRY VALLEY CROSS SECTIONS
STA. 10+00.00 TO STA. 10+50.00**

LIC-16-16.64

327
729



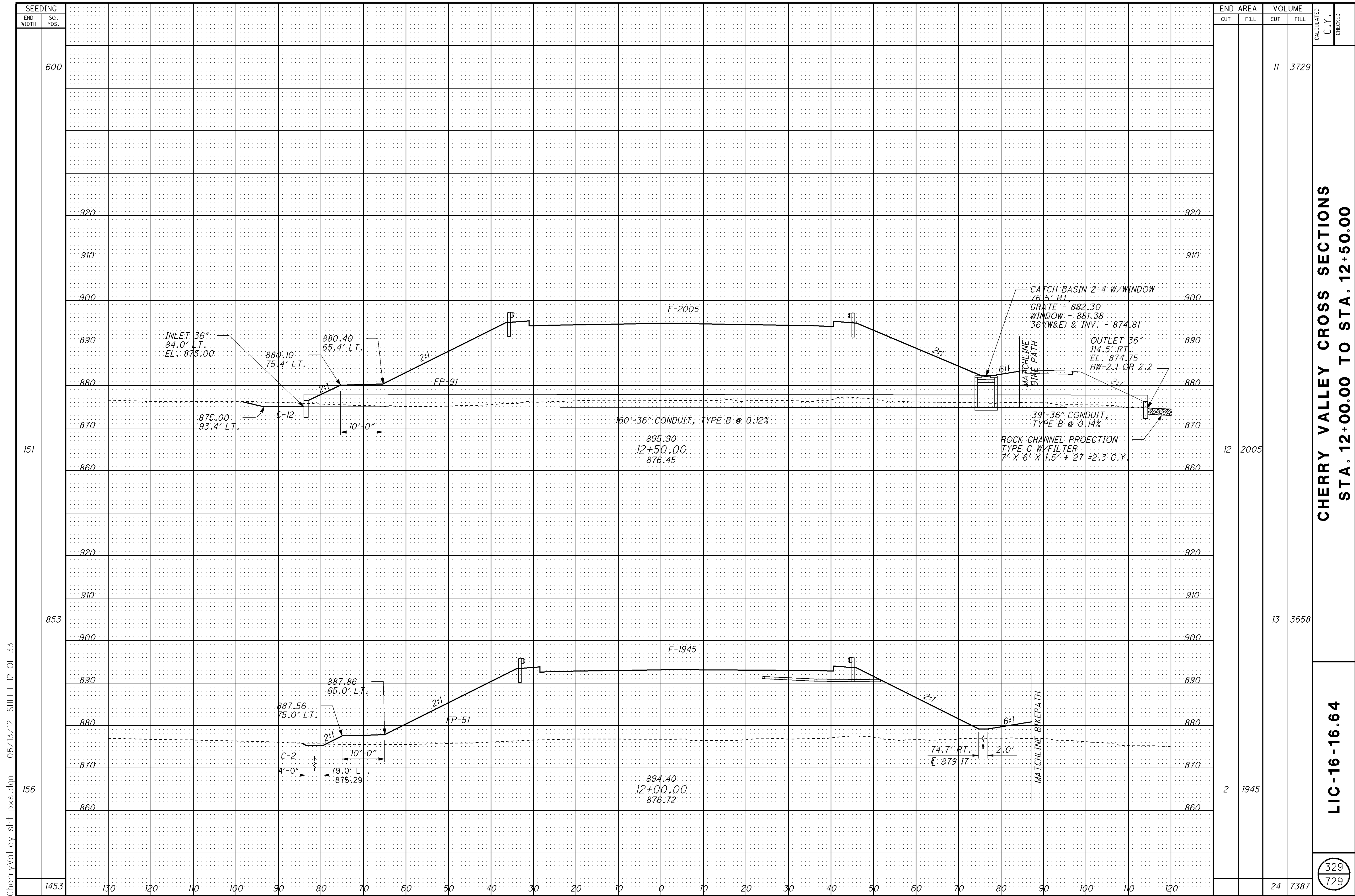
SEEDING	
END WIDTH	SO. YDS.
764	
920	
910	
900	
890	
880	
870	
860	
920	
910	
900	
890	
880	
870	
860	
1411	

END AREA		VOLUME	
CUT	FILL	CUT	FILL
		9	3396
2	1772	4	3073
2	1547	8	6515

CHERRY VALLEY CROSS SECTIONS
 STA. 11+00.00 TO STA. 11+50.00

LIC-16-16.64

328
729

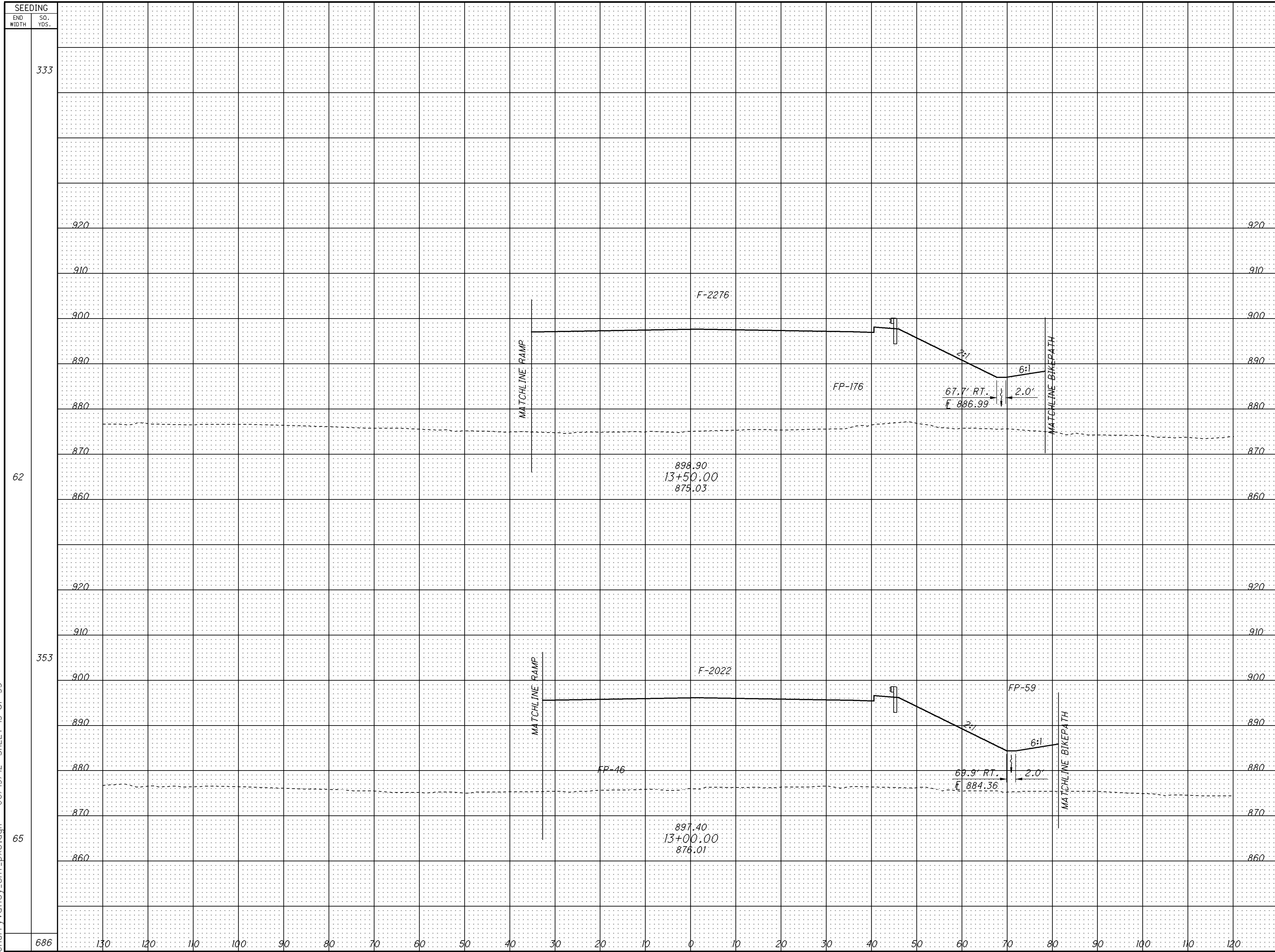


CherryValley_sht_pxs.dgn 06/13/12 SHEET 12 OF 33

**CHERRY VALLEY CROSS SECTIONS
STA. 12+00.00 TO STA. 12+50.00**

LIC-16-16.64

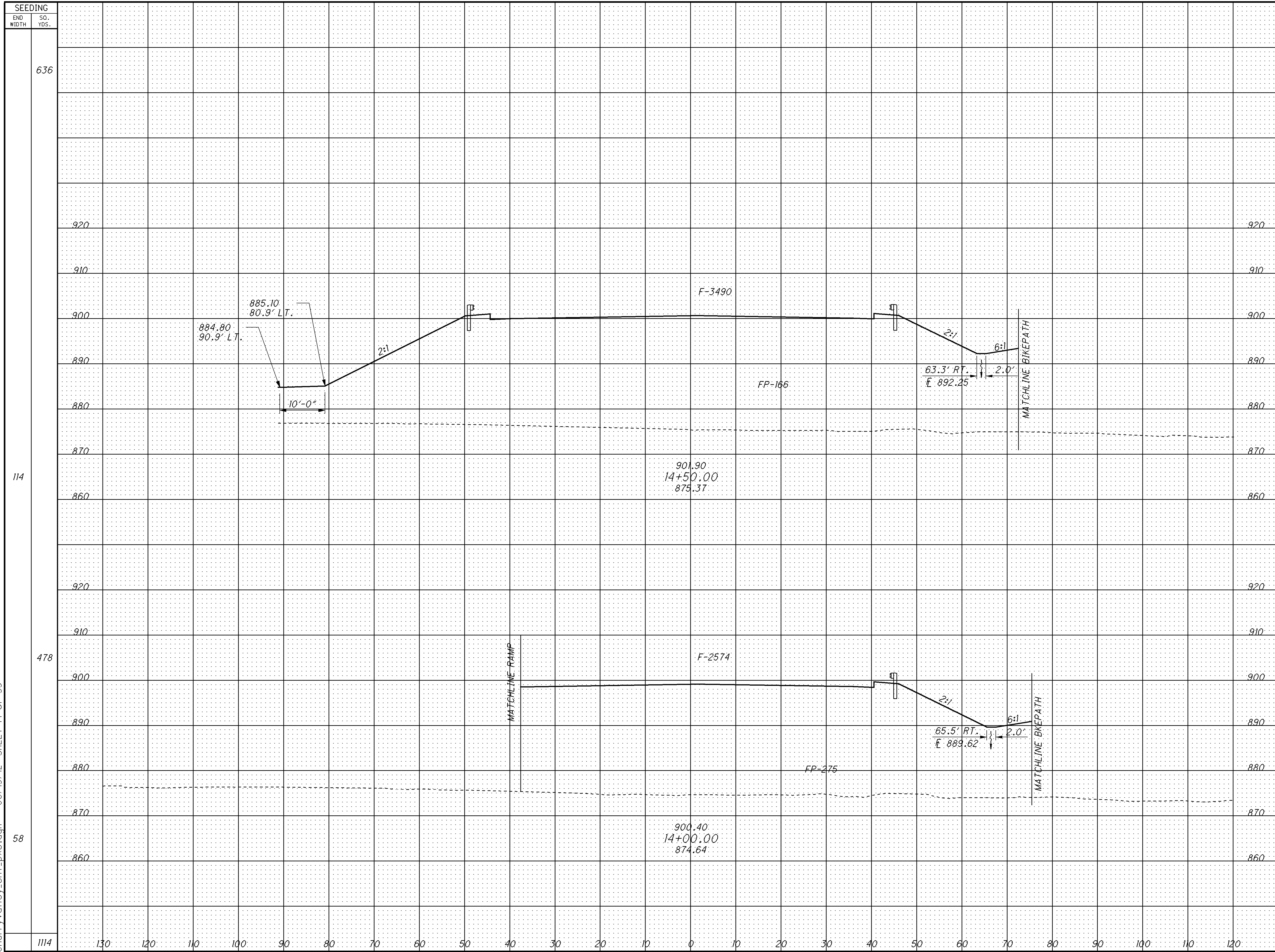
329
729



SEEDING		END AREA		VOLUME		CALCULATED C.Y.	CHECKED
END WIDTH	SO. YDS.	CUT	FILL	CUT	FILL		
333				0		4436	
62				0	2276		
353				0		3980	
65				0	2022		
686				0	8416		

**CHERRY VALLEY CROSS SECTIONS
STA. 13+00.00 TO STA. 13+50.00**

LIC-16-16.64



SEEDING	END WIDTH	SQ. YDS.		
			CUT	FILL
636				
114			0	3490
478			0	5615
58			0	2574
1114			54	12203

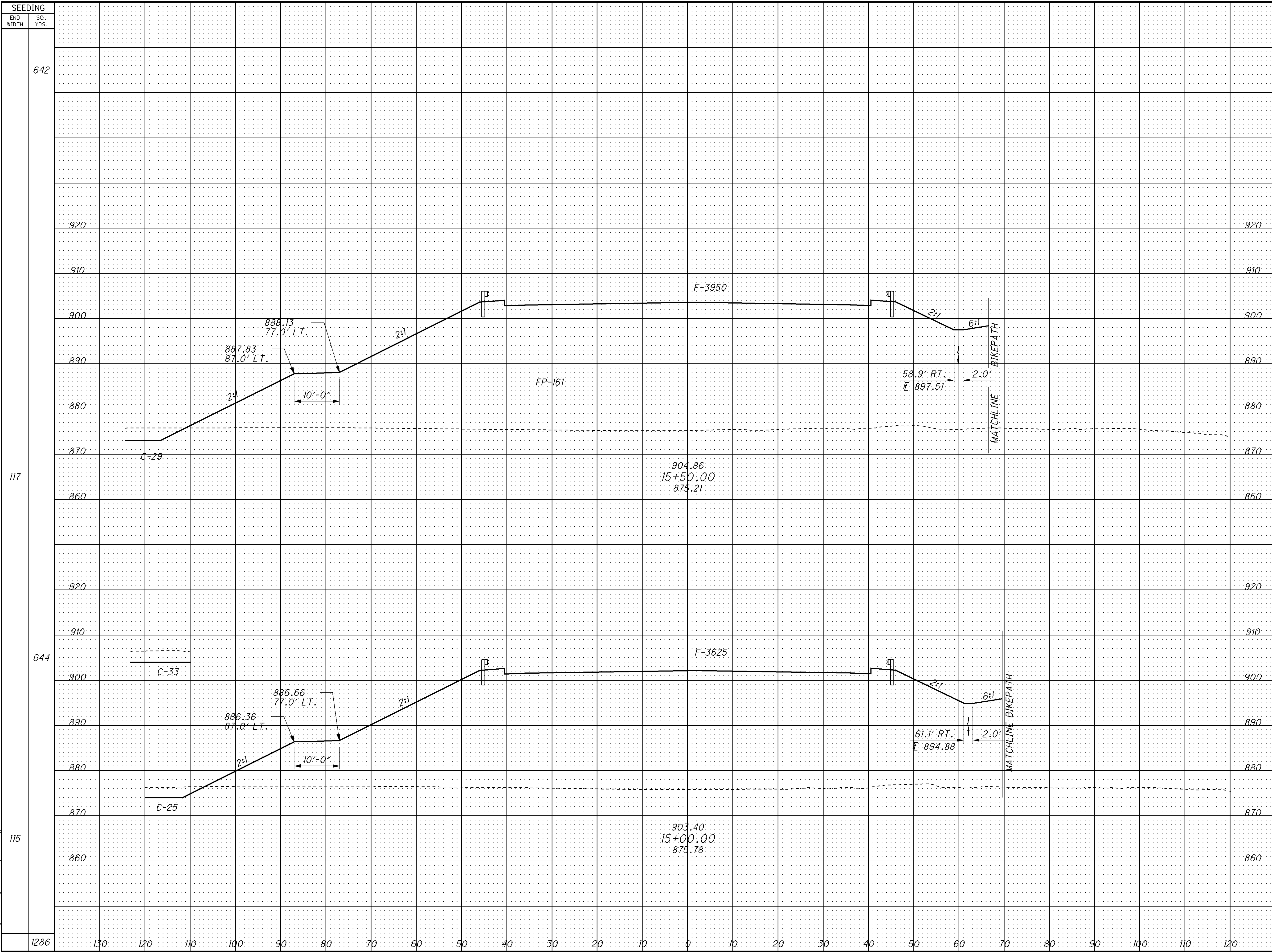
END AREA		VOLUME	
CUT	FILL	CUT	FILL
		54	6588

CALCULATED	CHECKED
C.Y.	C.Y.

**CHERRY VALLEY CROSS SECTIONS
STA. 14+00.00 TO STA. 14+50.00**

LIC-16-16.64

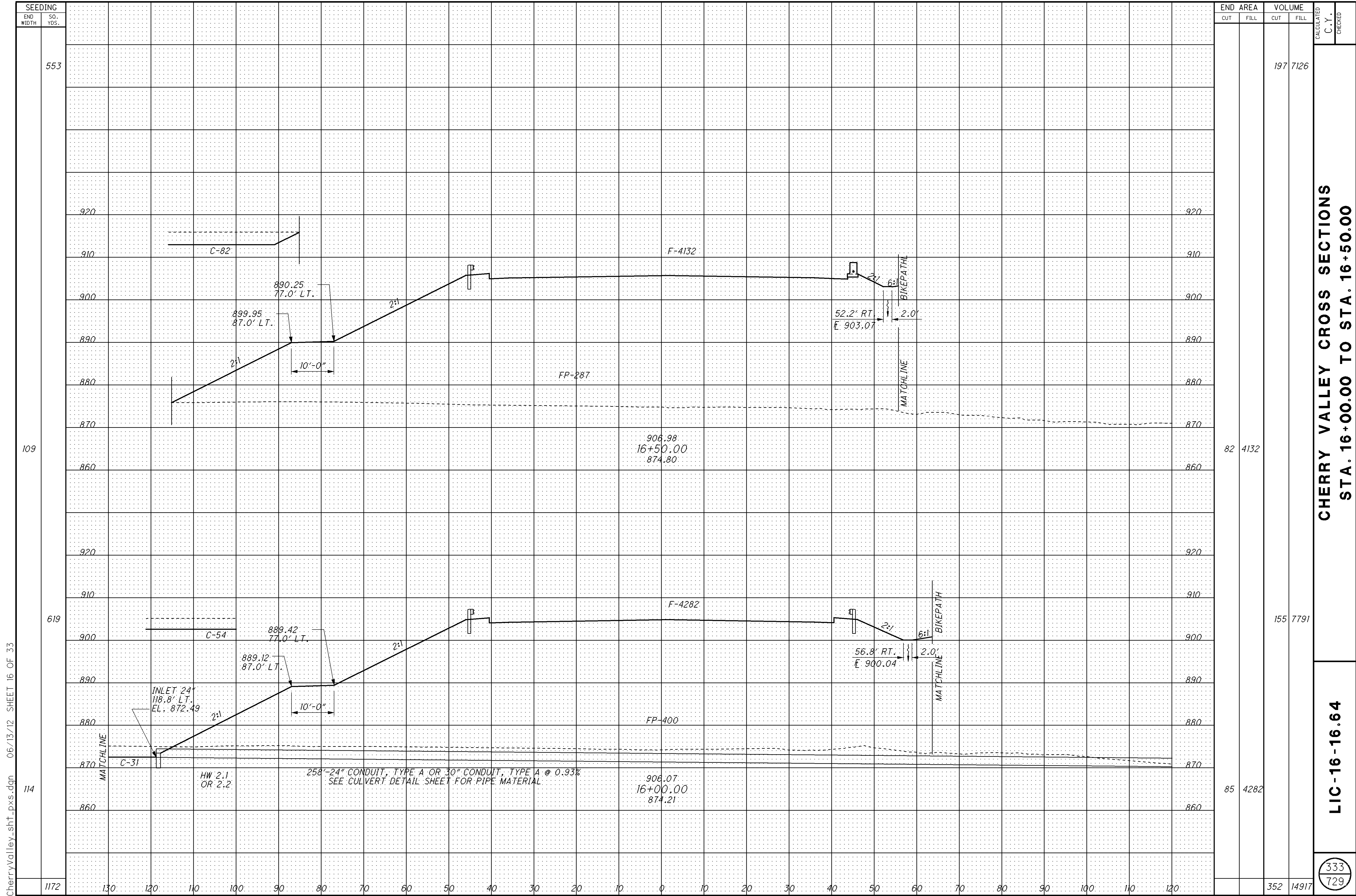
331
729

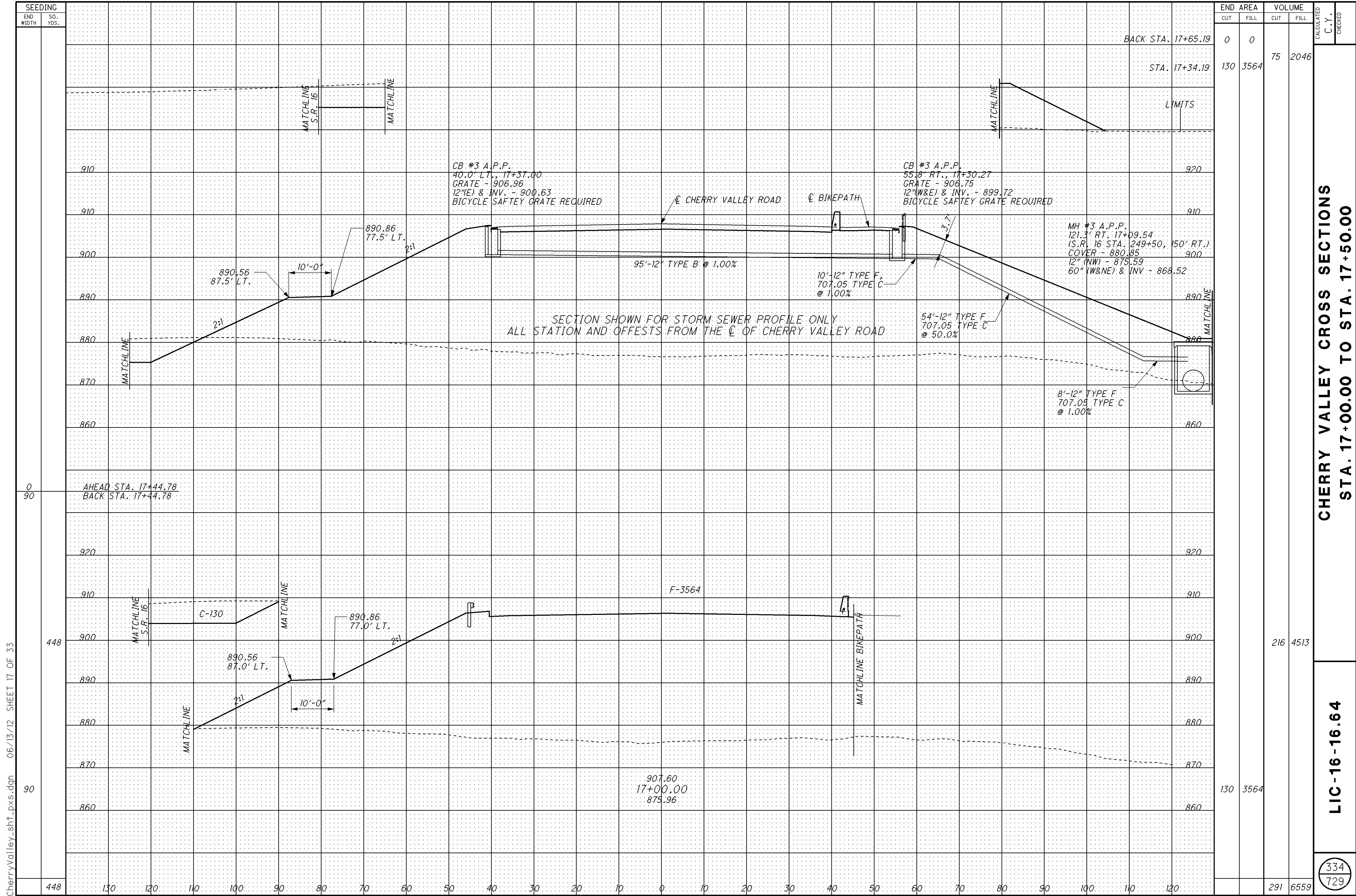


END AREA	VOLUME		CALCULATED C.Y.	CHECKED			
	CUT	FILL			CUT	FILL	
29	3950	81	7014	106	7623		
58	3625	187	14637				

**CHERRY VALLEY CROSS SECTIONS
STA. 15+00.00 TO STA. 15+50.00**

LIC-16-16.64



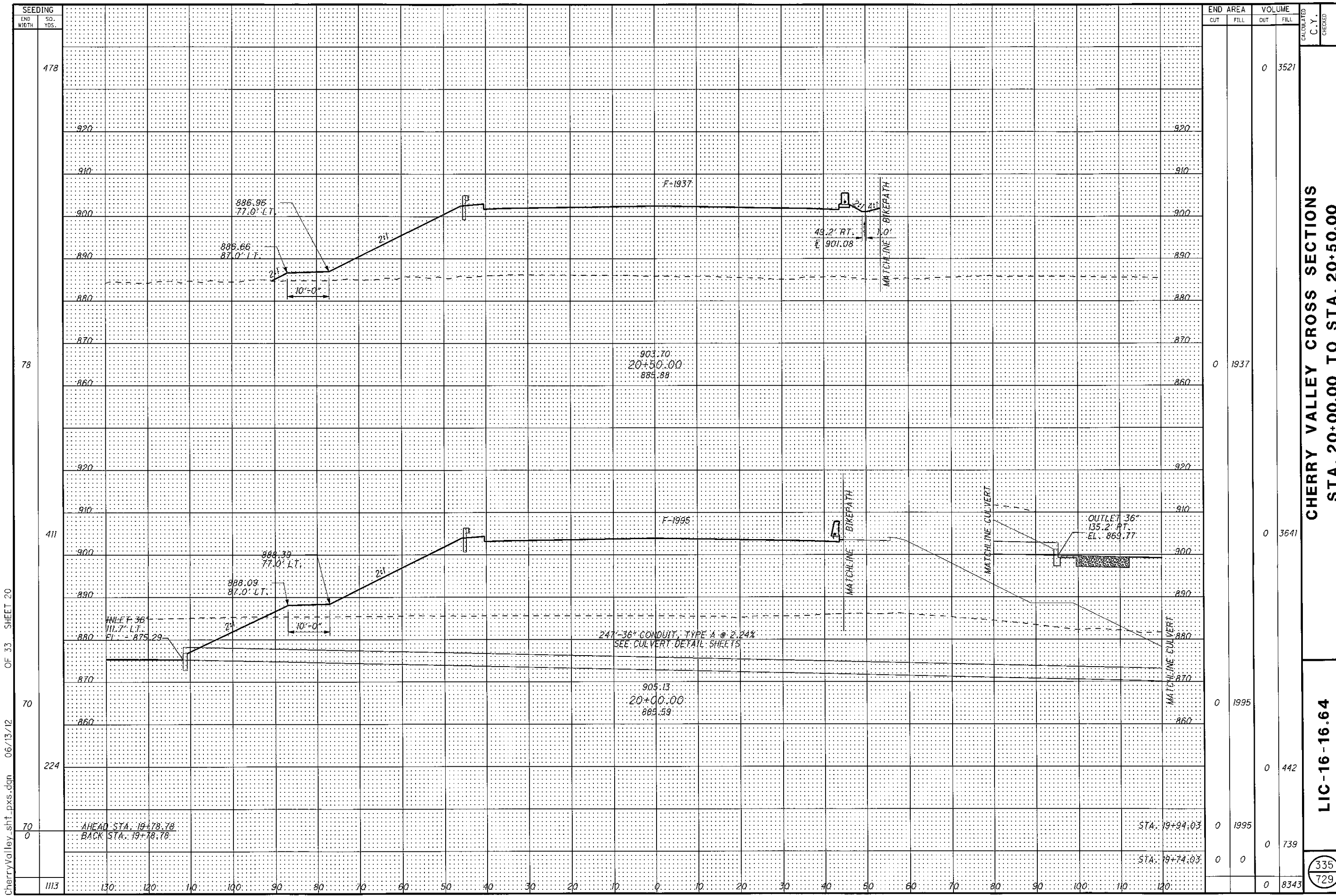


CherryValley_sht_pxs.dgn 06/13/12 SHEET 17 OF 33

**CHERRY VALLEY CROSS SECTIONS
STA. 17+00.00 TO STA. 17+50.00**

LIC-16-16.64

334
729



SEEDING
 END WIDTH SO. YDS.
 478
 78
 411
 70
 224
 70
 0
 1113

END AREA		VOLUME		CALCULATED C.Y.	CHECKED
CUT	FILL	CUT	FILL		
0	1937	0	3521		
0	1995	0	3641		
0	1995	0	442		
0	1995	0	739		
0	0	0	8343		

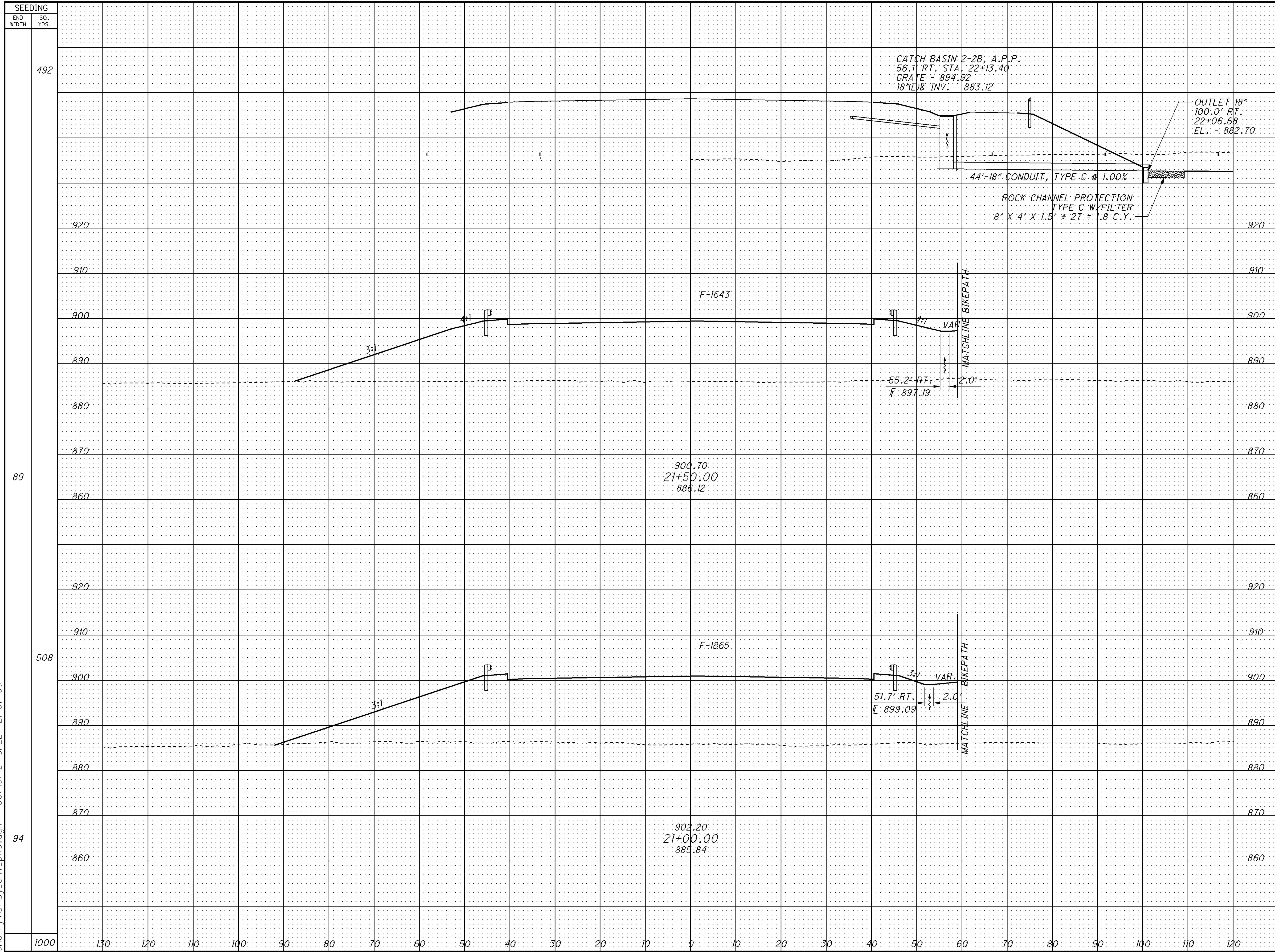
CHERRY VALLEY CROSS SECTIONS
 STA. 20+00.00 TO STA. 20+50.00

LIC-16-16.64

335
 729

CherryValley_shtF_dxs.dgn 06/13/12 OF 33 SHEET 20

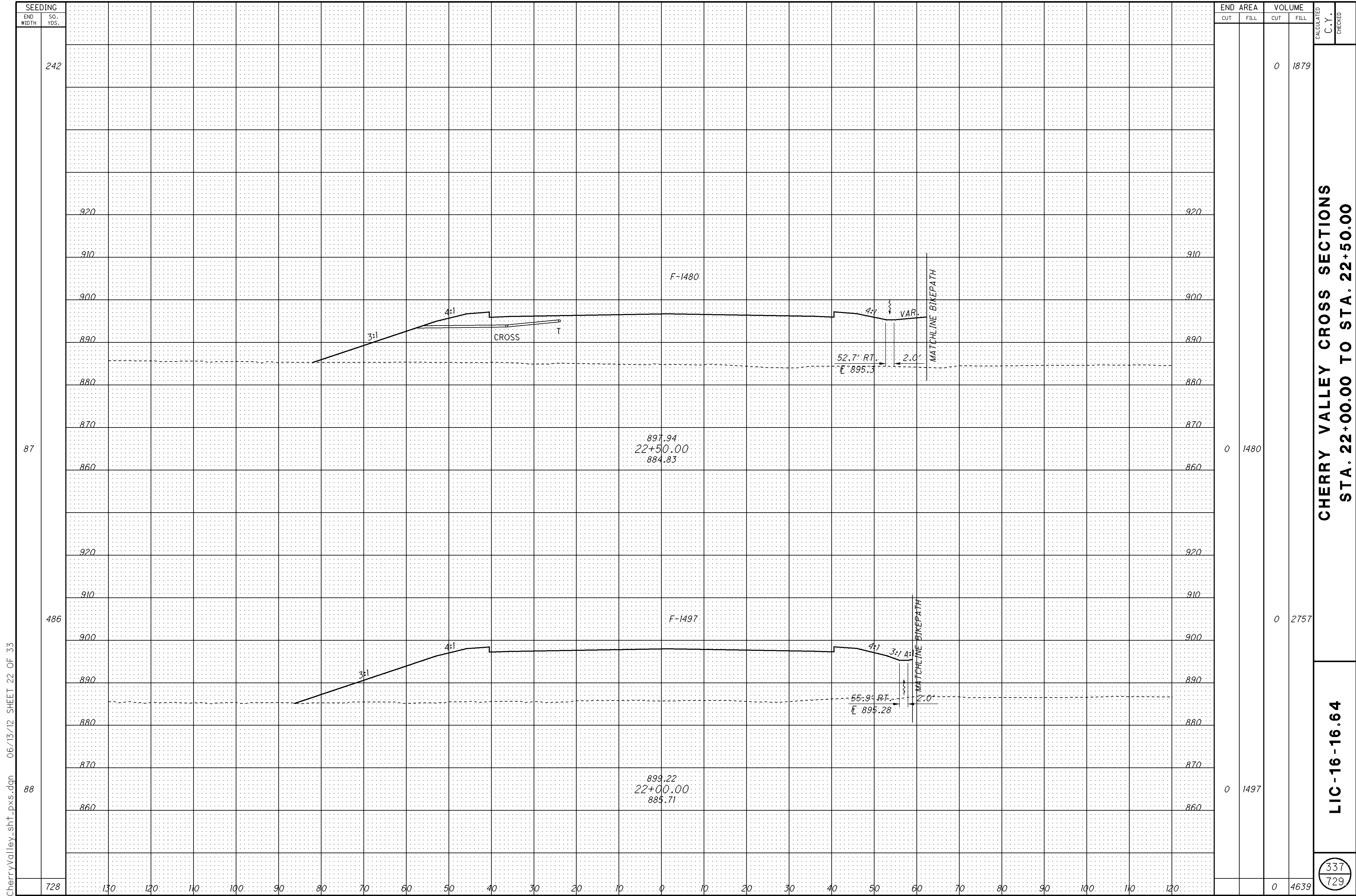
130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120



SEEDING		END AREA		VOLUME		CALCULATED C.Y.	CHECKED
END WIDTH	SO. YDS.	CUT	FILL	CUT	FILL		
492				0		2907	
89				0	1643		
508				0		3248	
94				0	1865		
1000				0	6155		

**CHERRY VALLEY CROSS SECTIONS
 STA. 21+00.00 TO STA. 21+50.00**

LIC-16-16.64



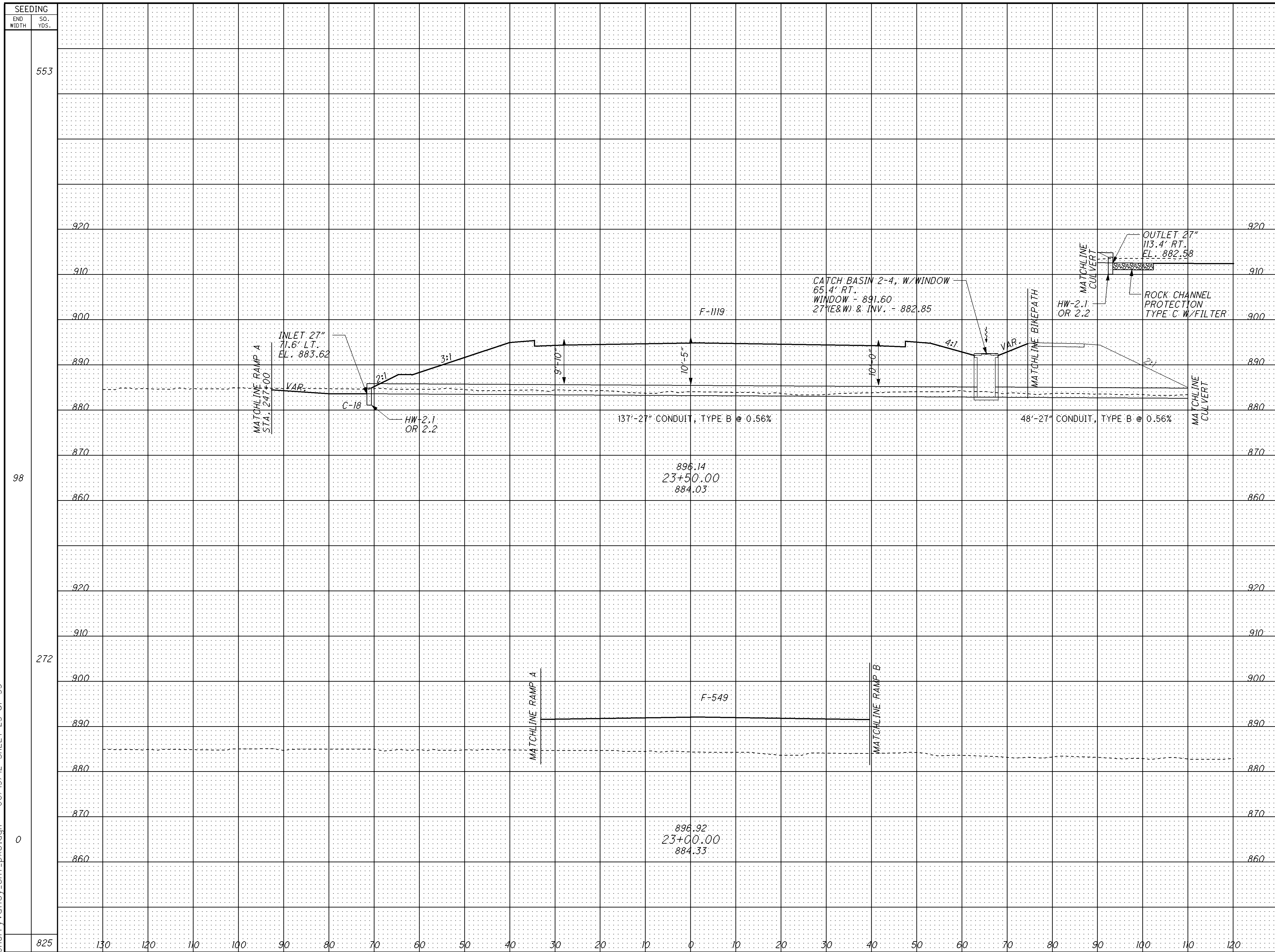
SEEDING	
END WIDTH	SO. YDS.
242	
87	
88	
728	

END AREA		VOLUME	
CUT	FILL	CUT	FILL
0	1480	0	1480
0	1497	0	1497
0	4639	0	4639

CHERRY VALLEY CROSS SECTIONS
 STA. 22+00.00 TO STA. 22+50.00

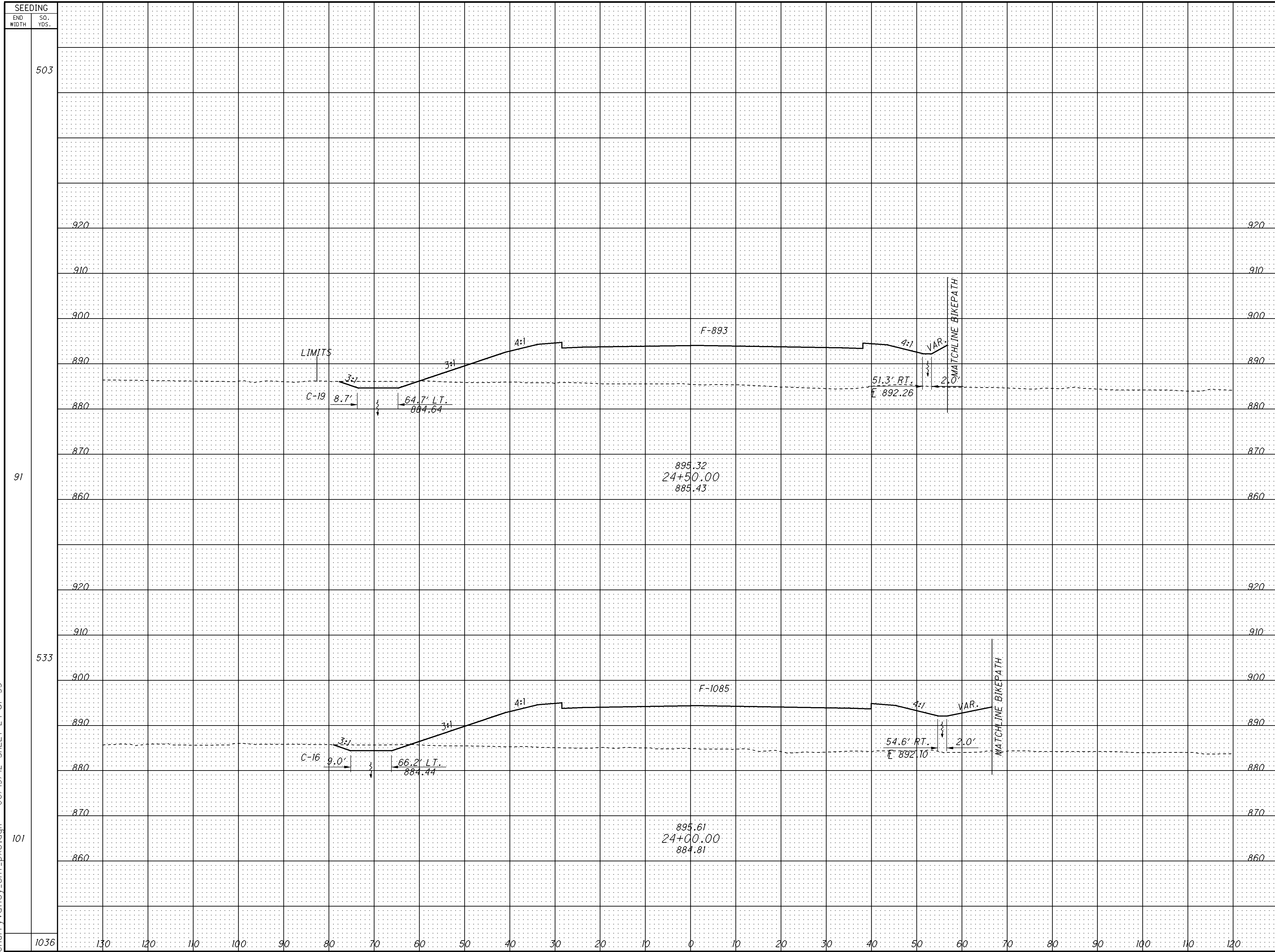
LIC-16-16.64

CALCULATED C.Y. CHECKED
 337
 729



END AREA	VOLUME	
	CUT	FILL
0	549	0
18	1119	0
32	2041	0
42	3789	0

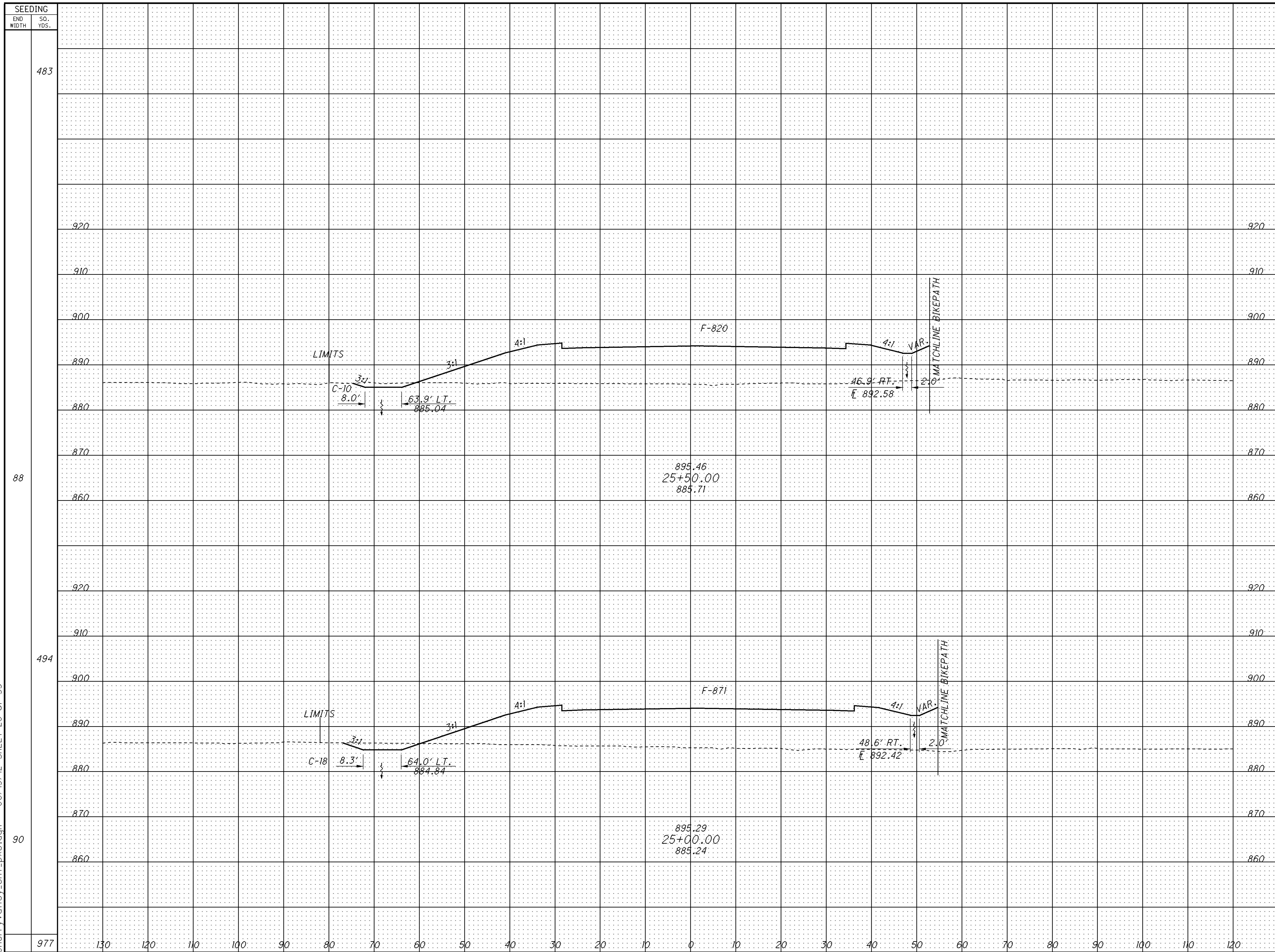
CALCULATED C.Y. CHECKED
LIC-16-16.64
CHERRY VALLEY CROSS SECTIONS
STA. 23+00.00 TO STA. 23+50.00



END AREA	VOLUME		CALCULATED C.Y.	CHECKED
	CUT	FILL		
19	893	32	1831	
503	34	1633		
16	1085	66	3464	

**CHERRY VALLEY CROSS SECTIONS
STA. 24+00.00 TO STA. 24+50.00**

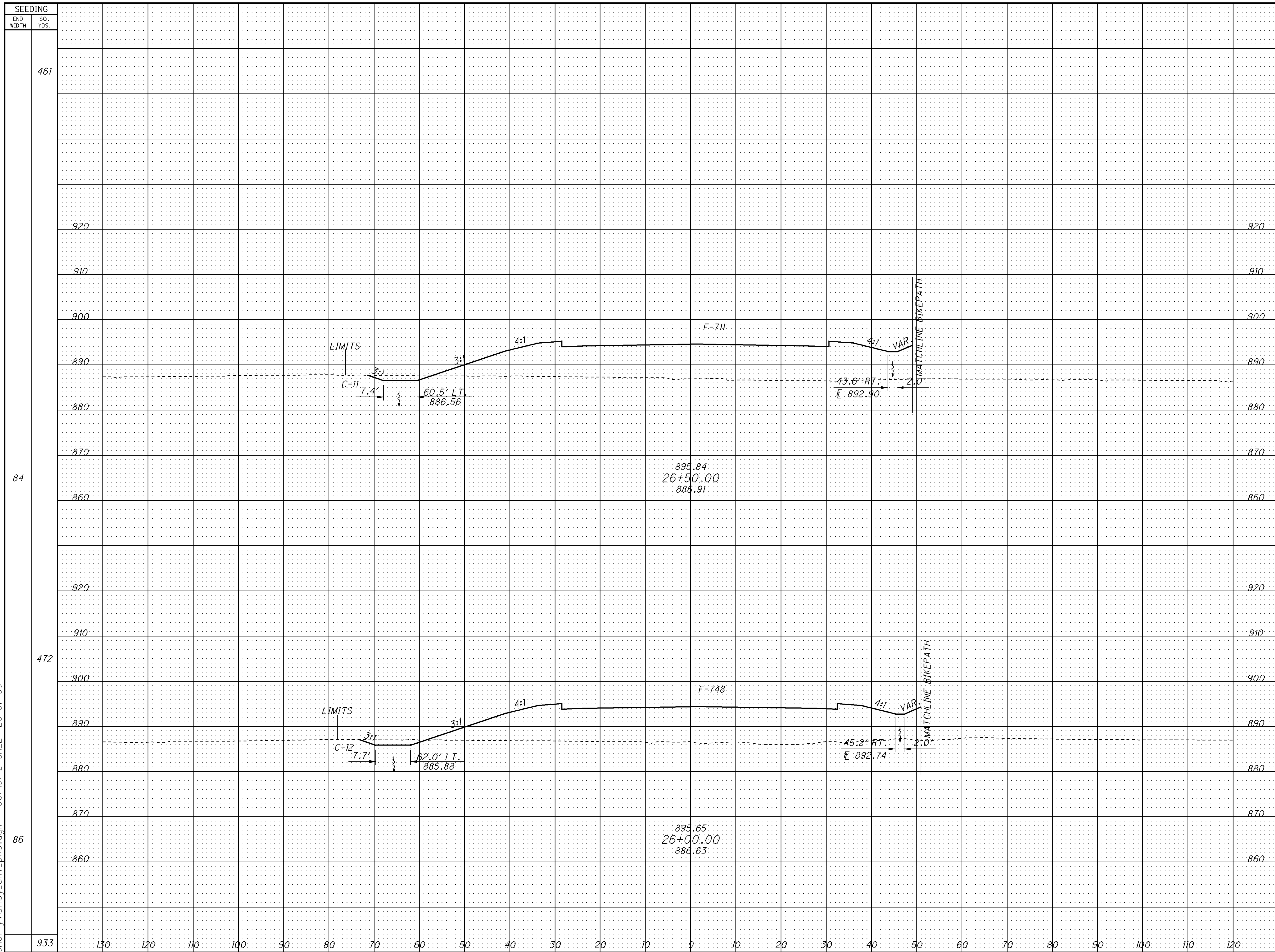
LIC-16-16.64



SEEDING		END AREA		VOLUME		CALCULATED C.Y.	CHECKED
END WIDTH	SO. YDS.	CUT	FILL	CUT	FILL		
483				21	1452		
88		10	820	26	1566		
494		18	871	47	3018		
90							
977		130	120	110	100	90	80
		70	60	50	40	30	20
		10	0	10	20	30	40
		50	60	70	80	90	100
		110	120				

**CHERRY VALLEY CROSS SECTIONS
STA. 25+00.00 TO STA. 25+50.00**

LIC-16-16.64



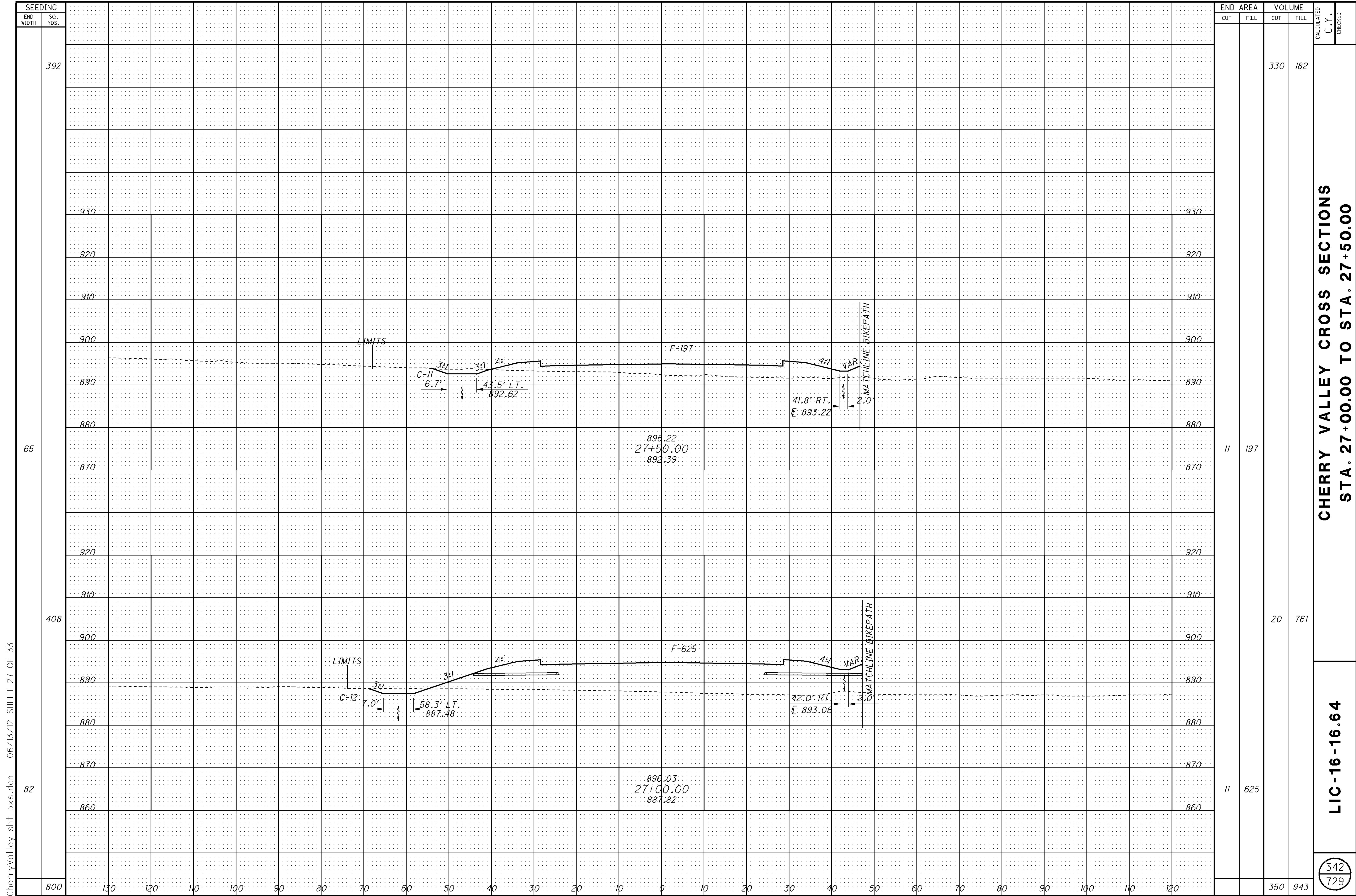
END AREA	VOLUME	
	CUT	FILL
11	711	21
12	748	41
20	1237	2588

CHERRY VALLEY CROSS SECTIONS
STA. 26+00.00 TO STA. 26+50.00

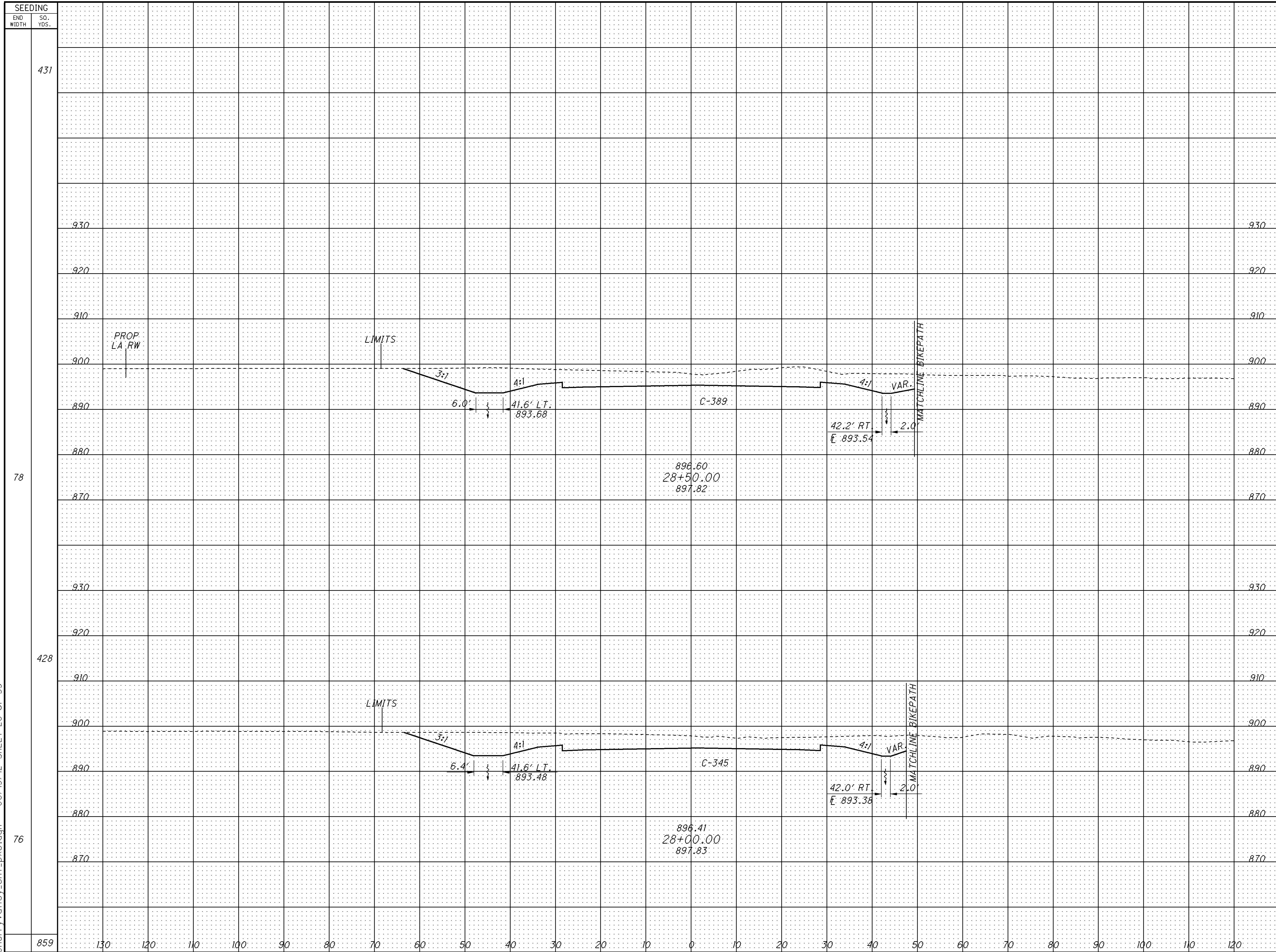
CALCULATED C.Y. CHECKED

LIC-16-16.64

341
729



CherryValley_sht_pxs.dgn 06/13/12 SHEET 27 OF 33

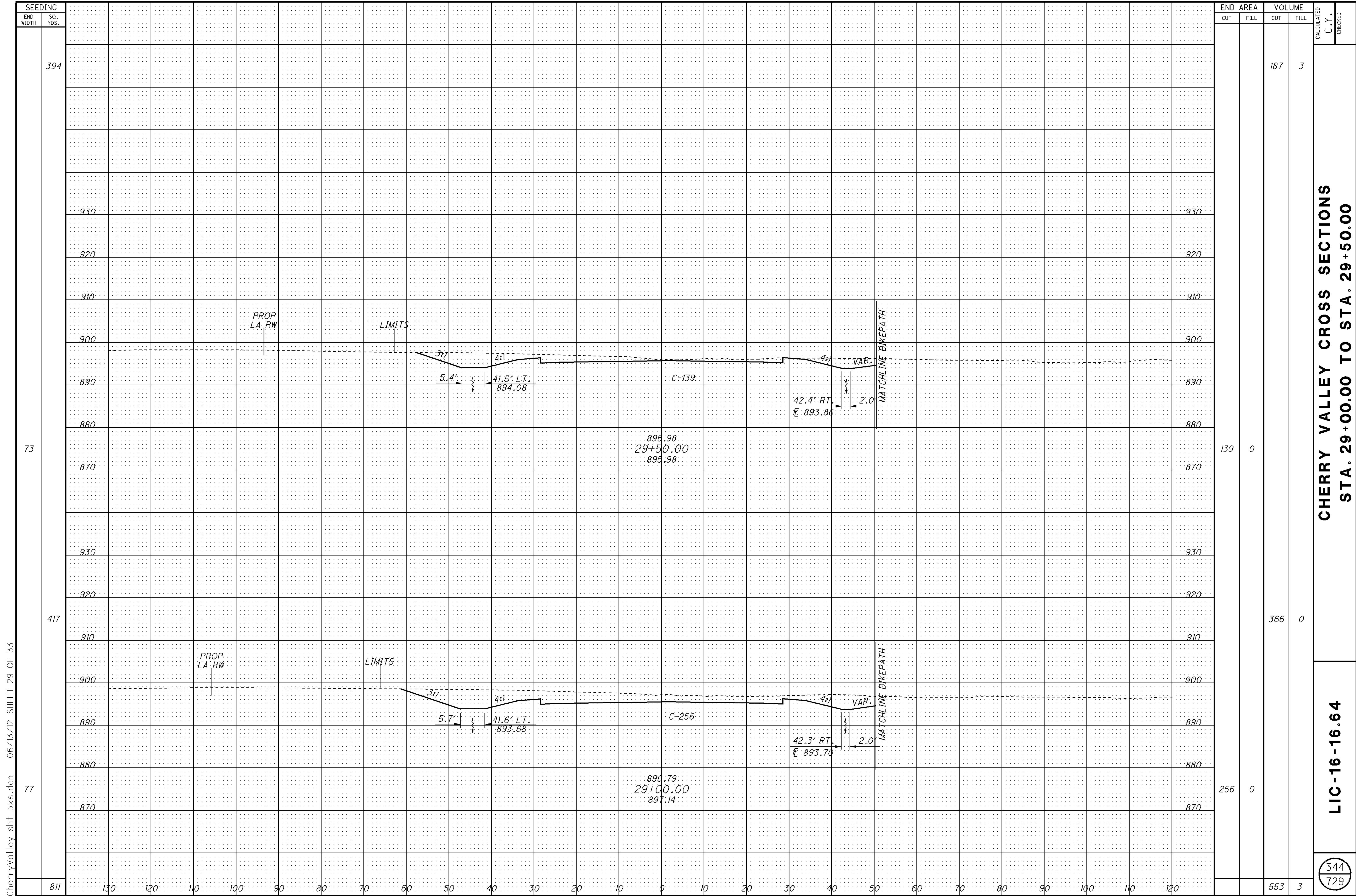


SEEDING	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
431			597	0
78	389	0		
428			680	0
76	345	0		
859			1277	0

CHERRY VALLEY CROSS SECTIONS
STA. 28+00.00 TO STA. 28+50.00

LIC-16-16.64

CALCULATED C.Y. CHECKED



SEEDING	
END WIDTH	SO. YDS.
394	
73	
417	
77	
811	

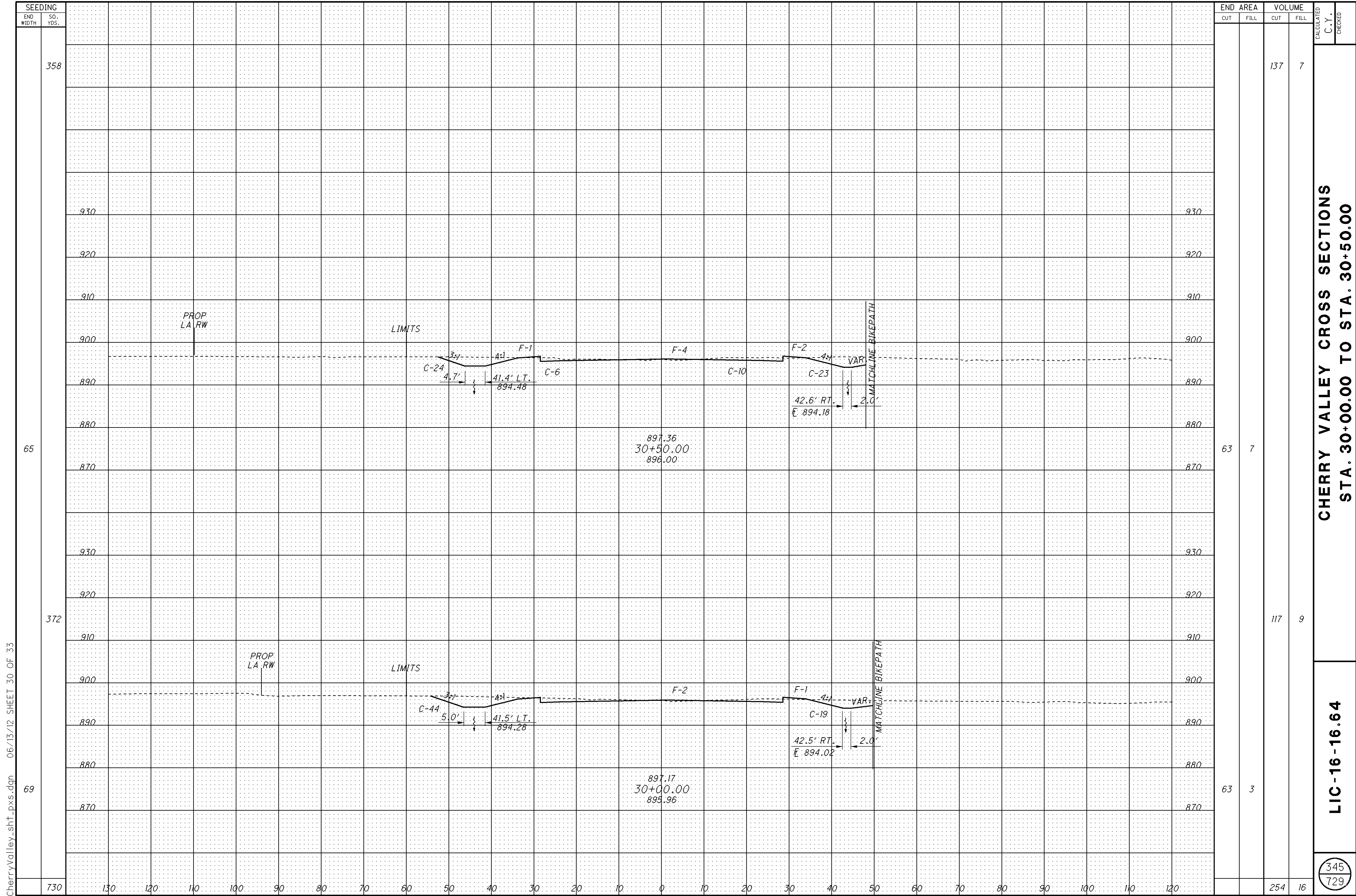
END AREA		VOLUME	
CUT	FILL	CUT	FILL
		187	3
		139	0
		366	0
		256	0
		553	3

CALCULATED C.Y.
 CHECKED

CHERRY VALLEY CROSS SECTIONS
STA. 29+00.00 TO STA. 29+50.00

LIC-16-16.64

344
 729

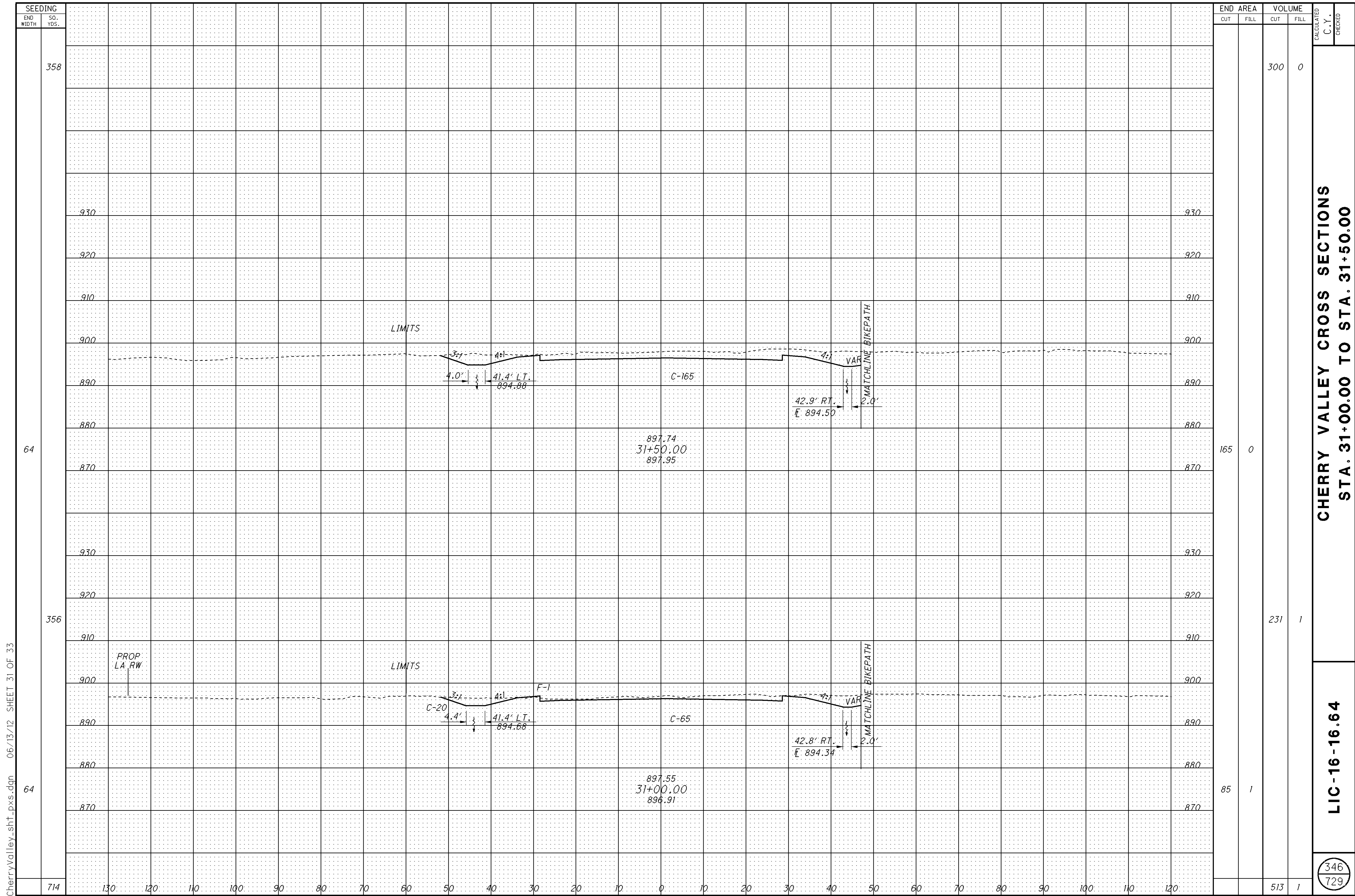


CherryValley_sht_pxs.dgn 06/13/12 SHEET 30 OF 33

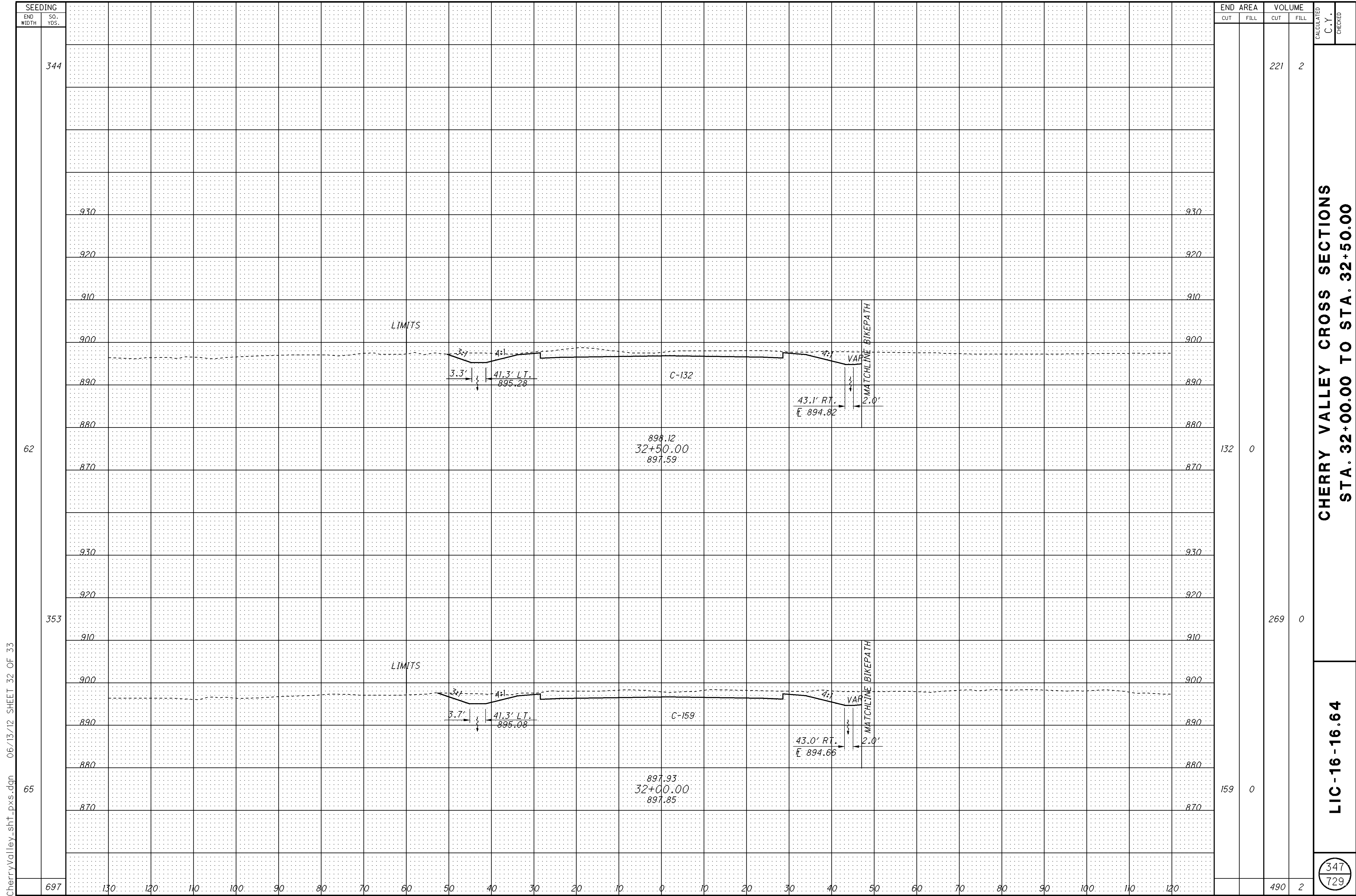
**CHERRY VALLEY CROSS SECTIONS
STA. 30+00.00 TO STA. 30+50.00**

LIC-16-16.64

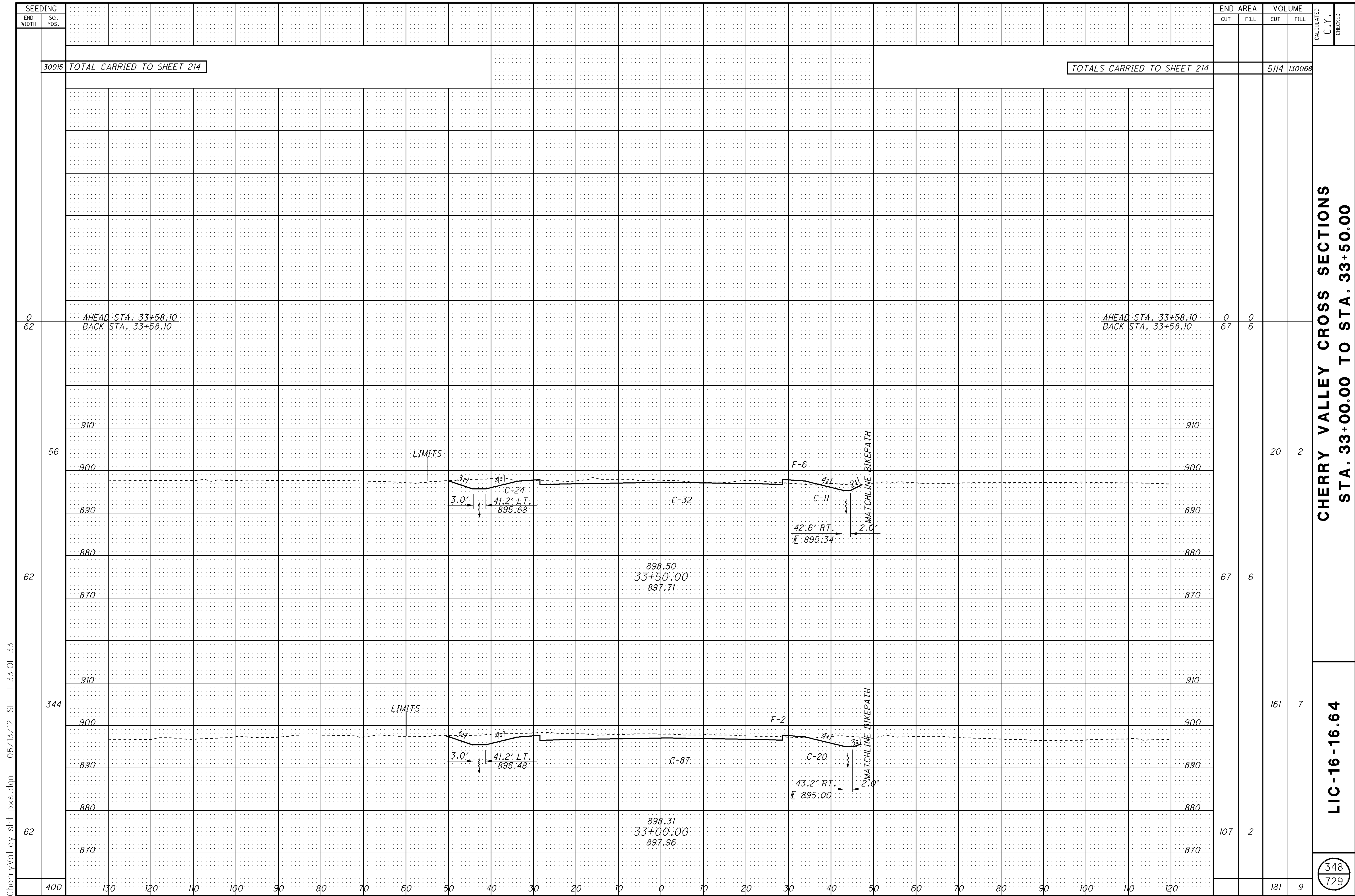
345
729



CherryValley_sht_pxs.dgn 06/13/12 SHEET 31 OF 33



CherryValley_sht_pxs.dgn 06/13/12 SHEET 32 OF 33



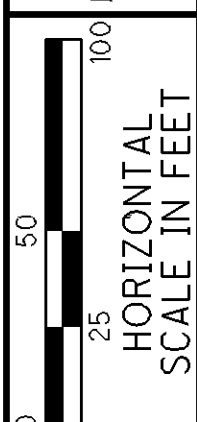
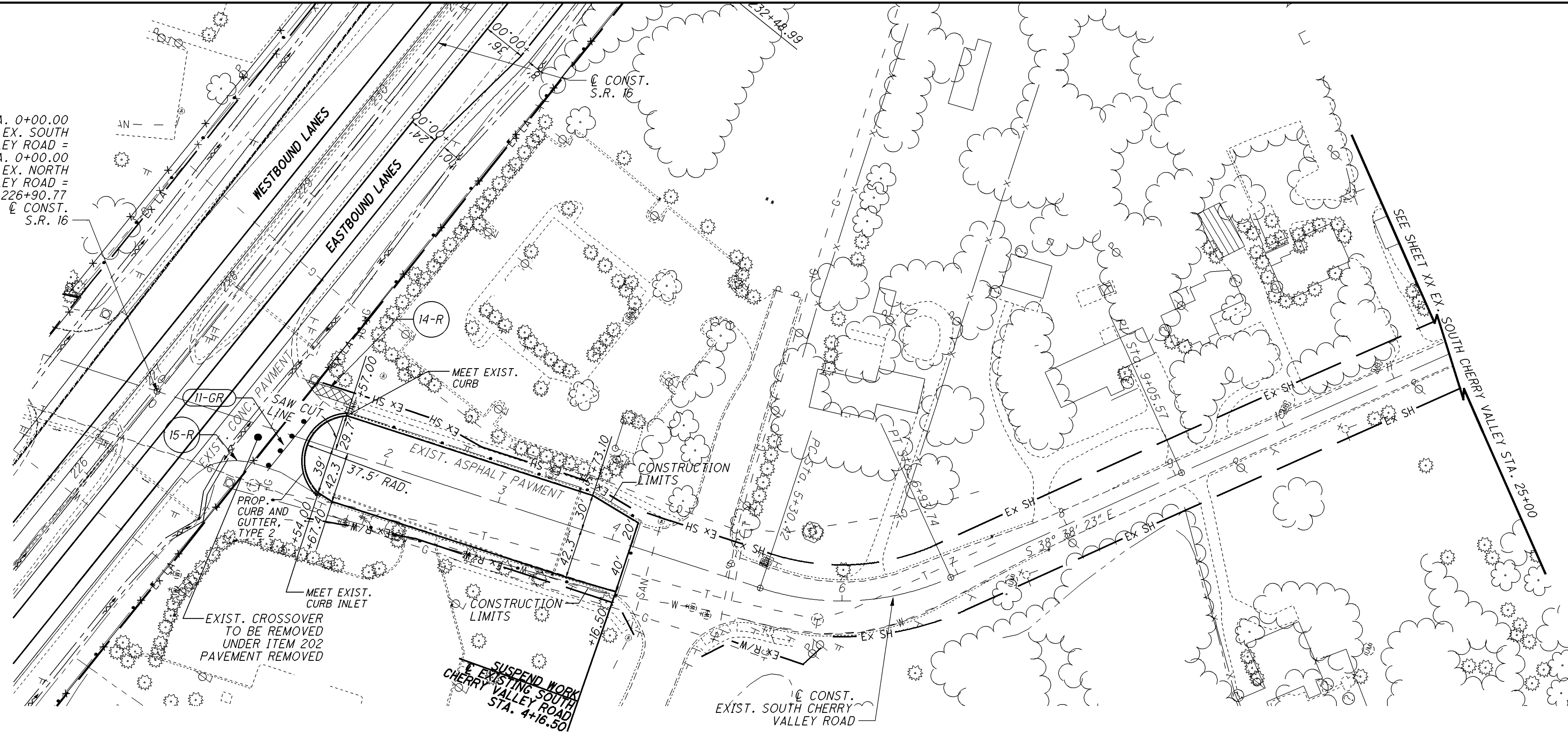
CherryValley_sht_pxs.dgn 06/13/12 SHEET 33 OF 33

CHERRY VALLEY CROSS SECTIONS
STA. 33+00.00 TO STA. 33+50.00

LIC-16-16.64

348
729

STA. 0+00.00
@ CONST. EX. SOUTH
CHERRY VALLEY ROAD =
STA. 0+00.00
@ CONST. EX. NORTH
CHERRY VALLEY ROAD =
STA. 226+90.77
@ CONST.
S.R. 16

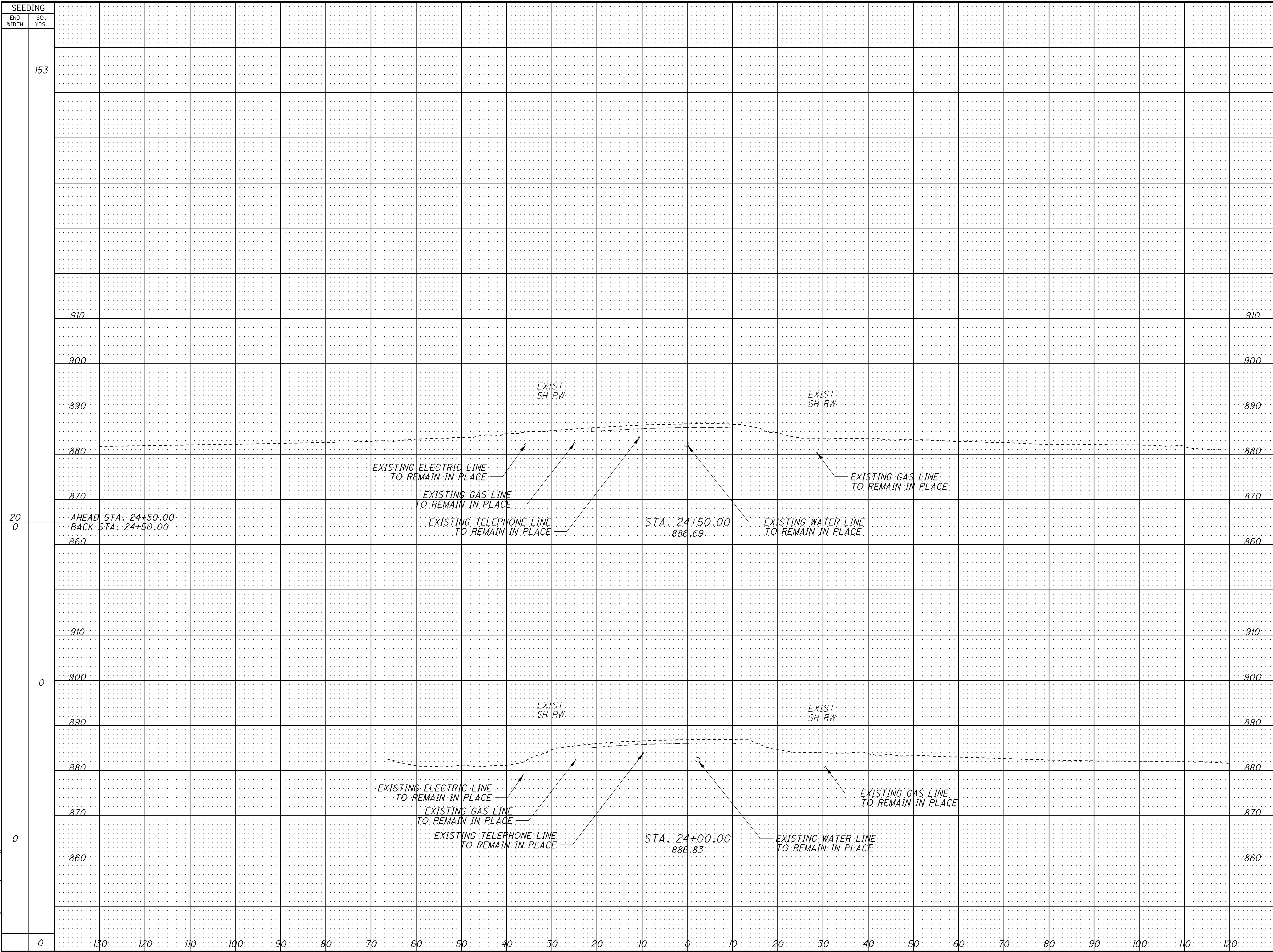


CALCULATED	C.Y.
	CHECKED

**EXISTING SOUTH CHERRY VALLEY PLAN & PROFILE
STA. 0+00 TO STA. 4+16.50**

LIC-16-16.64

oldSchry_sht1_pxs.dgn 06/13/12 SHEET 1 OF 11



153

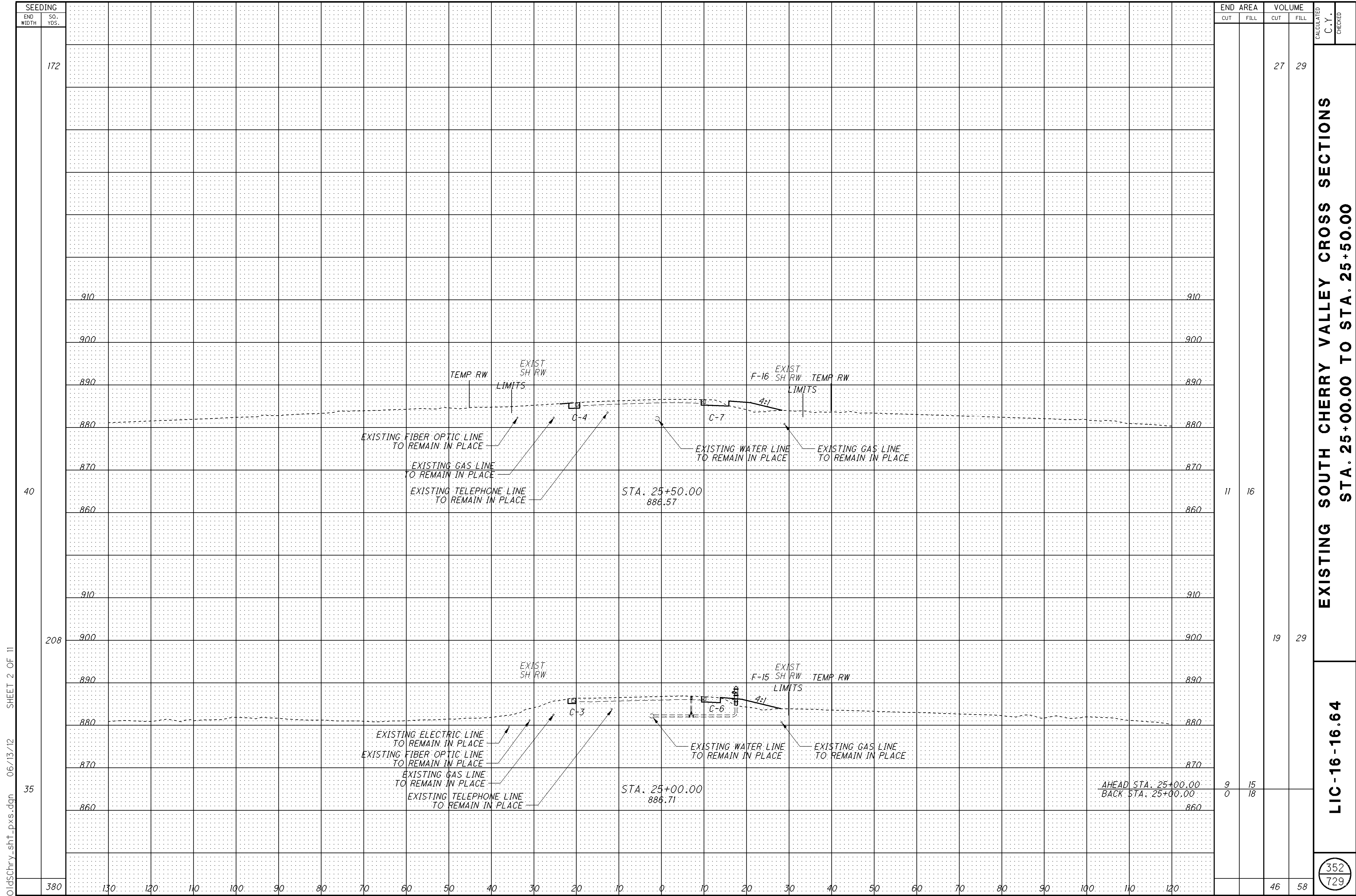
20
0

0

0

SEEDING		END AREA		VOLUME	
END WIDTH	SO. YDS.	CUT	FILL	CUT	FILL
				0	17
				0	0
				0	0
				0	17

CALCULATED C.Y. CHECKED
EXISTING SOUTH CHERRY VALLEY CROSS SECTIONS
STA. 24+00.00 TO STA. 24+50.00
LIC-16-16.64
 351
 729



SEEDING	
END WIDTH	SO. YDS.
172	
40	
208	
35	
380	

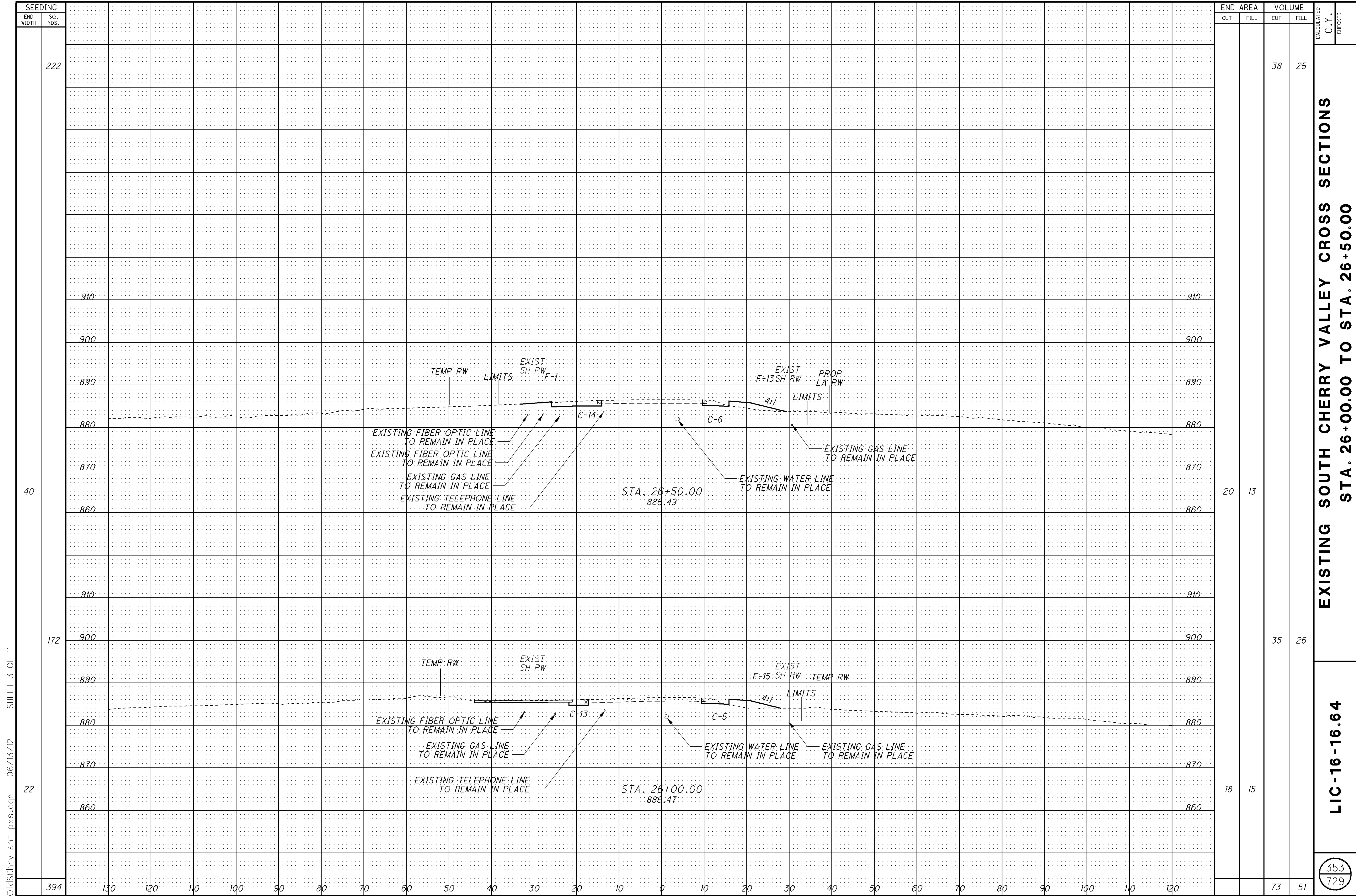
END AREA		VOLUME	
CUT	FILL	CUT	FILL
		27	29
11	16		
19	29		
9	15		
0	18		
46	58		

EXISTING SOUTH CHERRY VALLEY CROSS SECTIONS
STA. 25+00.00 TO STA. 25+50.00

LIC-16-16.64

CALCULATED C.Y. CHECKED
 352
 729

oldchry_sht1_pxs.dgn 06/13/12 SHEET 2 OF 11



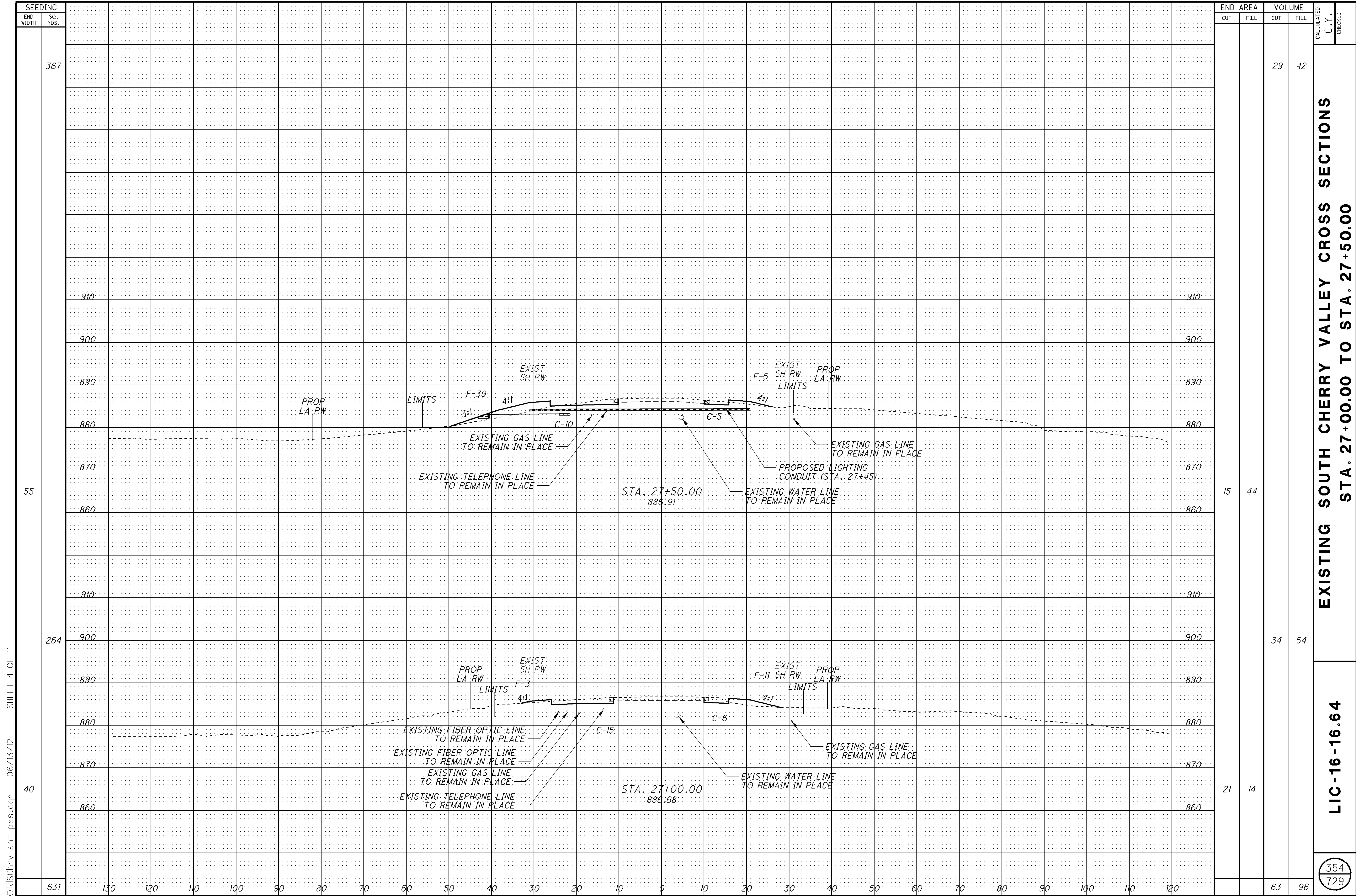
SEEDING	
END WIDTH	SO. YDS.
222	
40	
172	
22	
394	

END AREA		VOLUME		CALCULATED C.Y.	CHECKED
CUT	FILL	CUT	FILL		
		38	25		
20	13				
		35	26		
18	15				
		73	51		

EXISTING SOUTH CHERRY VALLEY CROSS SECTIONS
STA. 26+00.00 TO STA. 26+50.00

LIC-16-16.64

353
 729



SEEDING	
END WIDTH	SO. YDS.
367	
55	
264	
40	
631	

END AREA		VOLUME	
CUT	FILL	CUT	FILL
		29	42
15	44		
34	54		
21	14		
63	96		

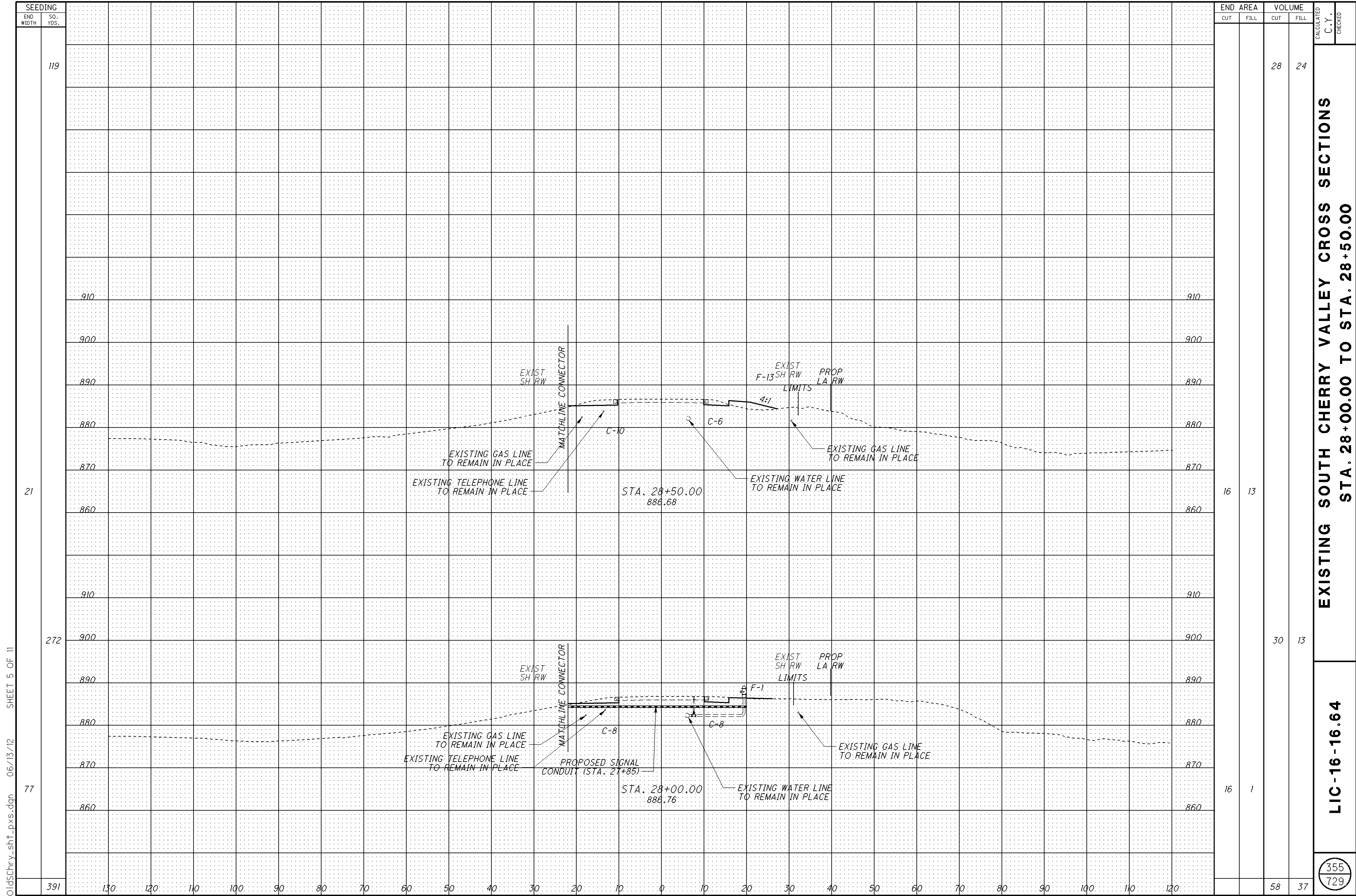
EXISTING SOUTH CHERRY VALLEY CROSS SECTIONS
 STA. 27+00.00 TO STA. 27+50.00

LIC-16-16.64

CALCULATED C.Y.
 CHECKED

oldschry_sht1_pxs.dgn 06/13/12 SHEET 4 OF 11

354
 729



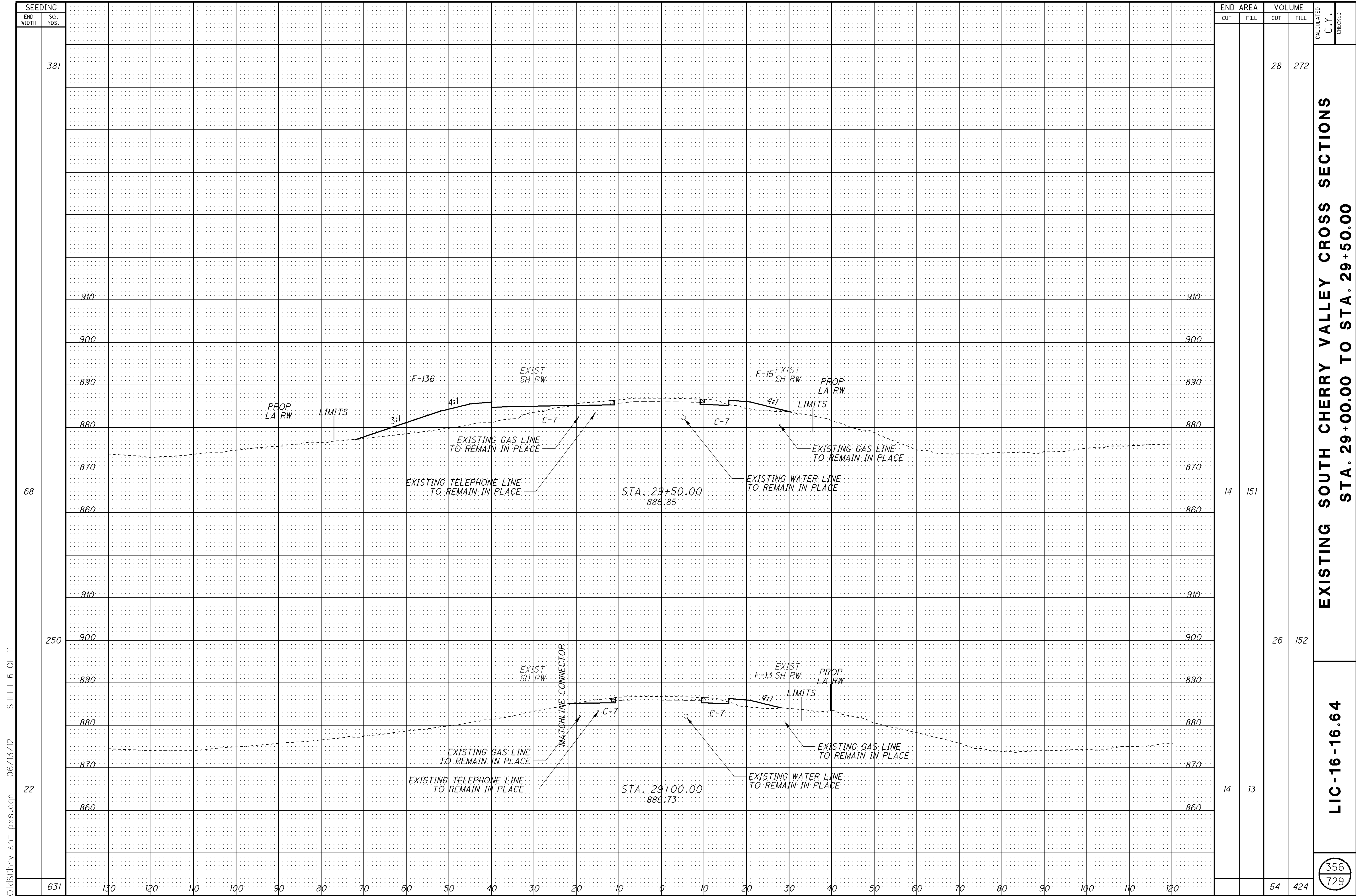
oldchry_sht1_pxs.dgn 06/13/12 SHEET 5 OF 11

**EXISTING SOUTH CHERRY VALLEY CROSS SECTIONS
STA. 28+00.00 TO STA. 28+50.00**

LIC-16-16.64

CALCULATED
C.Y.
CHECKED

355
729



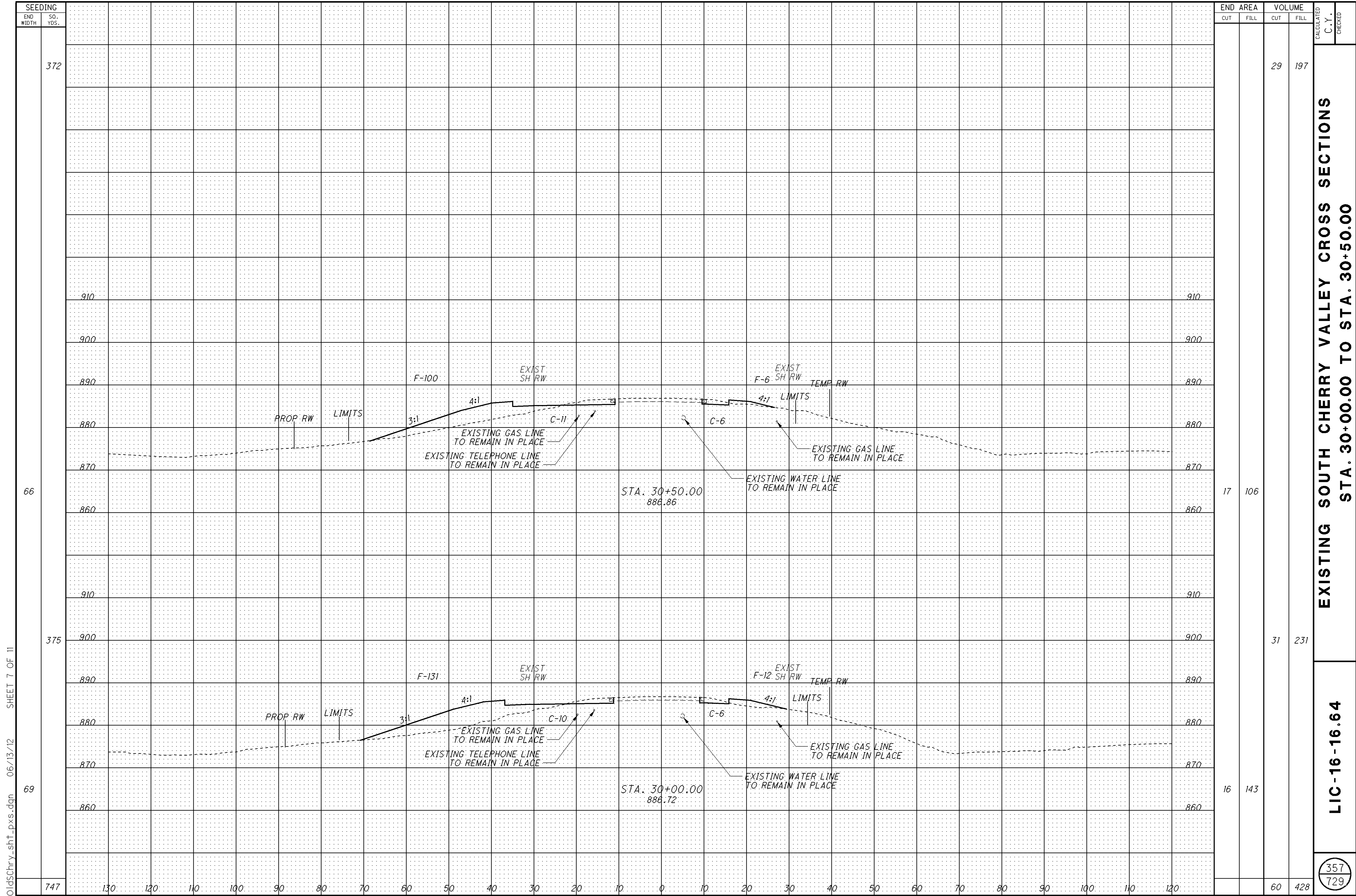
SEEDING	
END WIDTH	SO. YDS.
381	
68	
250	
22	
631	

END AREA		VOLUME	
CUT	FILL	CUT	FILL
		28	272
14	151		
		26	152
14	13		
54	424		

EXISTING SOUTH CHERRY VALLEY CROSS SECTIONS
STA. 29+00.00 TO STA. 29+50.00

LIC-16-16.64

CALCULATED C.Y. CHECKED
 356
 729

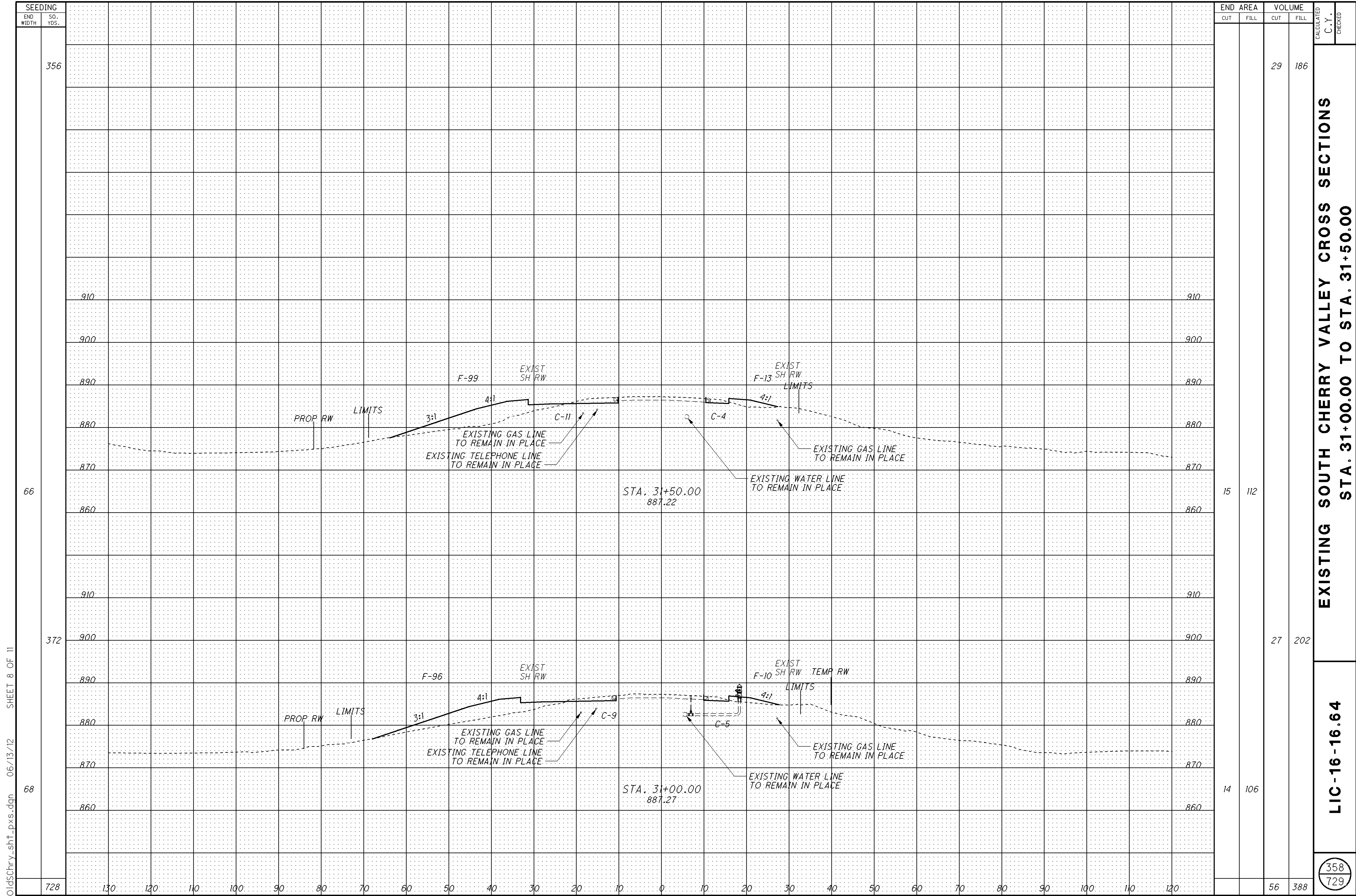


oldSchry_sht1_pxs.dgn 06/13/12 SHEET 7 OF 11

EXISTING SOUTH CHERRY VALLEY CROSS SECTIONS
STA. 30+00.00 TO STA. 30+50.00

LIC-16-16.64

357
729

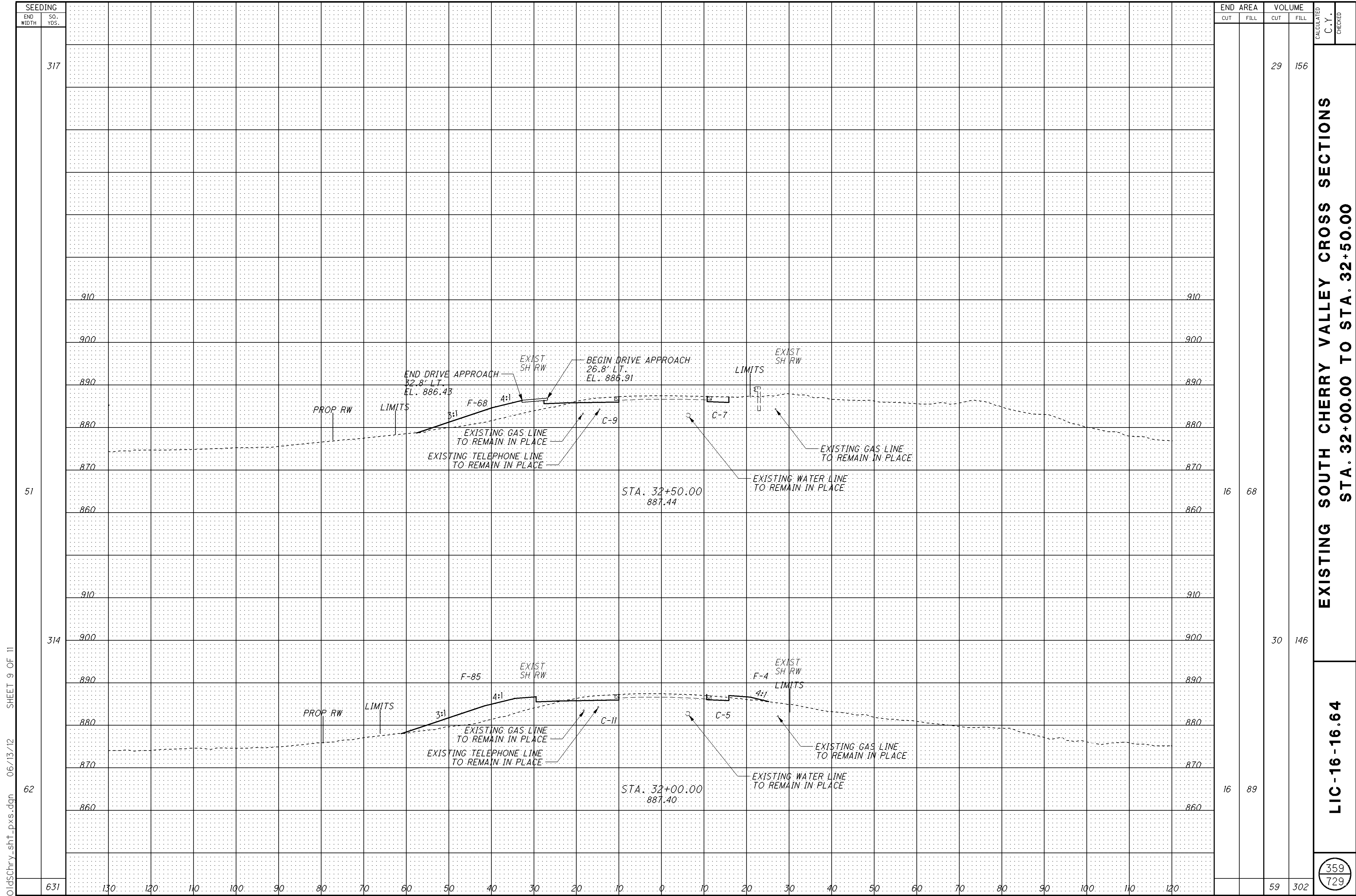


oldchry_sht1_pxs.dgn 06/13/12 SHEET 8 OF 11

EXISTING SOUTH CHERRY VALLEY CROSS SECTIONS
STA. 31+00.00 TO STA. 31+50.00

LIC-16-16.64

358
729

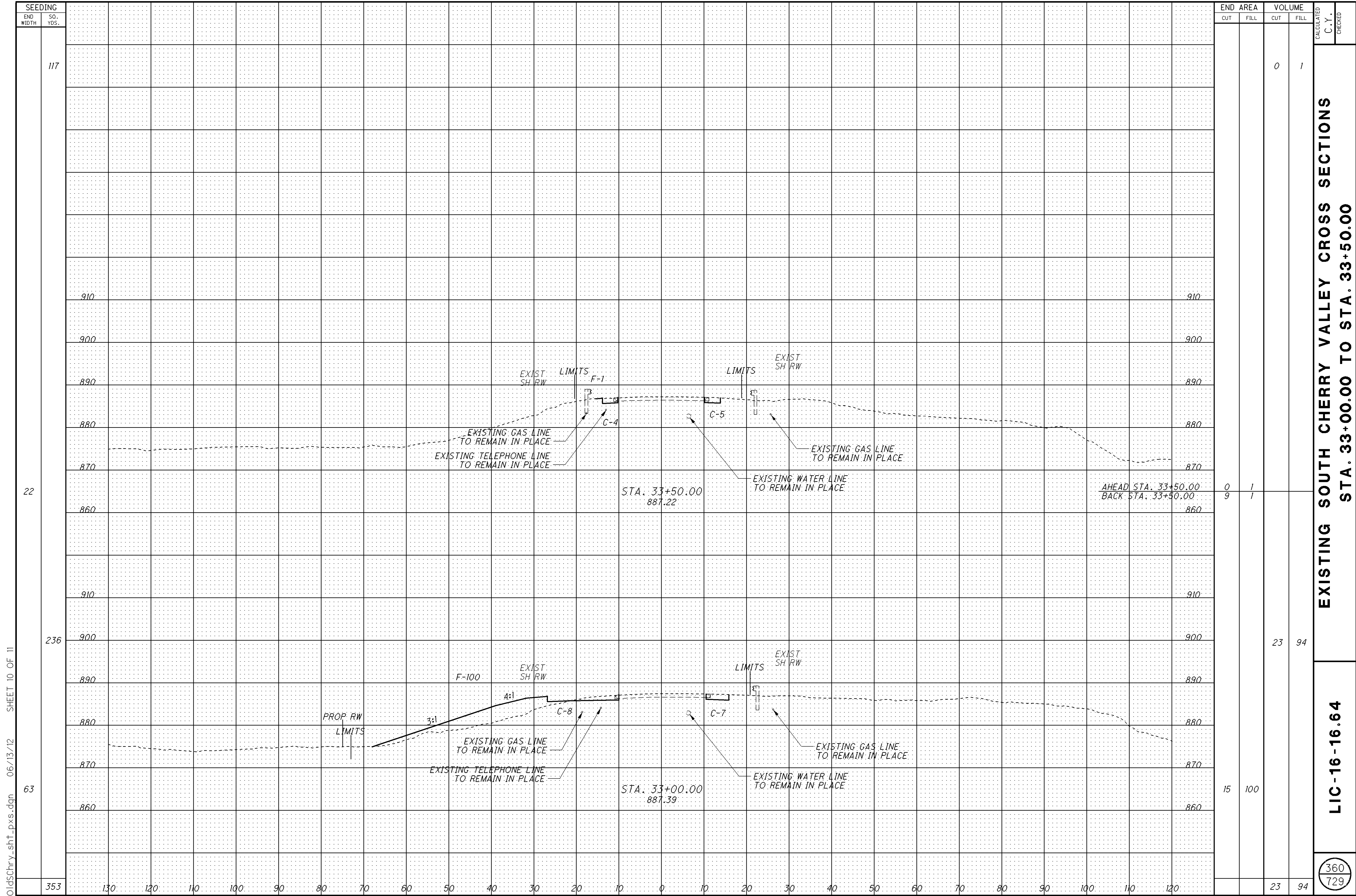


oldchry_sht1_pxs.dgn 06/13/12 SHEET 9 OF 11

**EXISTING SOUTH CHERRY VALLEY CROSS SECTIONS
STA. 32+00.00 TO STA. 32+50.00**

LIC-16-16.64

359
729



SEEDING	
END WIDTH	SO. YDS.
117	
22	
236	
63	
353	

END AREA		VOLUME	
CUT	FILL	CUT	FILL
0	1	0	1
9	1	23	94
15	100	23	94

EXISTING SOUTH CHERRY VALLEY CROSS SECTIONS
 STA. 33+00.00 TO STA. 33+50.00

LIC-16-16.64

360
729

oldchry_sht1_pxs.dgn 06/13/12 SHEET 10 OF 11

SEEDING
END WIDTH SQ. YDS.

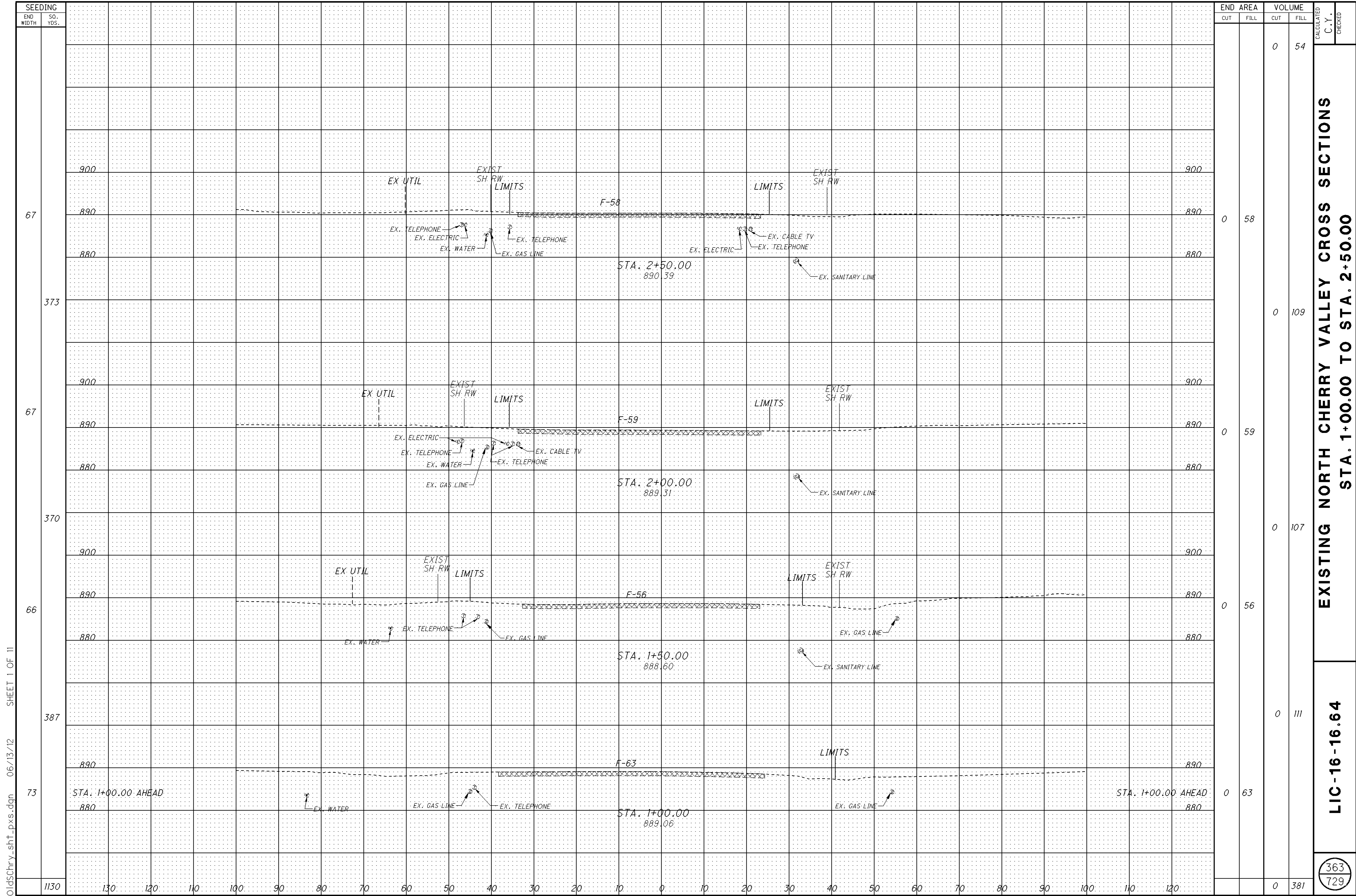
4886 TOTAL CARRIED TO SHEET 214

TOTALS CARRIED TO SHEET 214

END AREA		VOLUME	
CUT	FILL	CUT	FILL
		492	1895
0	0	0	0

EXISTING SOUTH CHERRY VALLEY CROSS SECTIONS
STA. 34+00.00 TO STA. 34+00.00

LIC-16-16.64



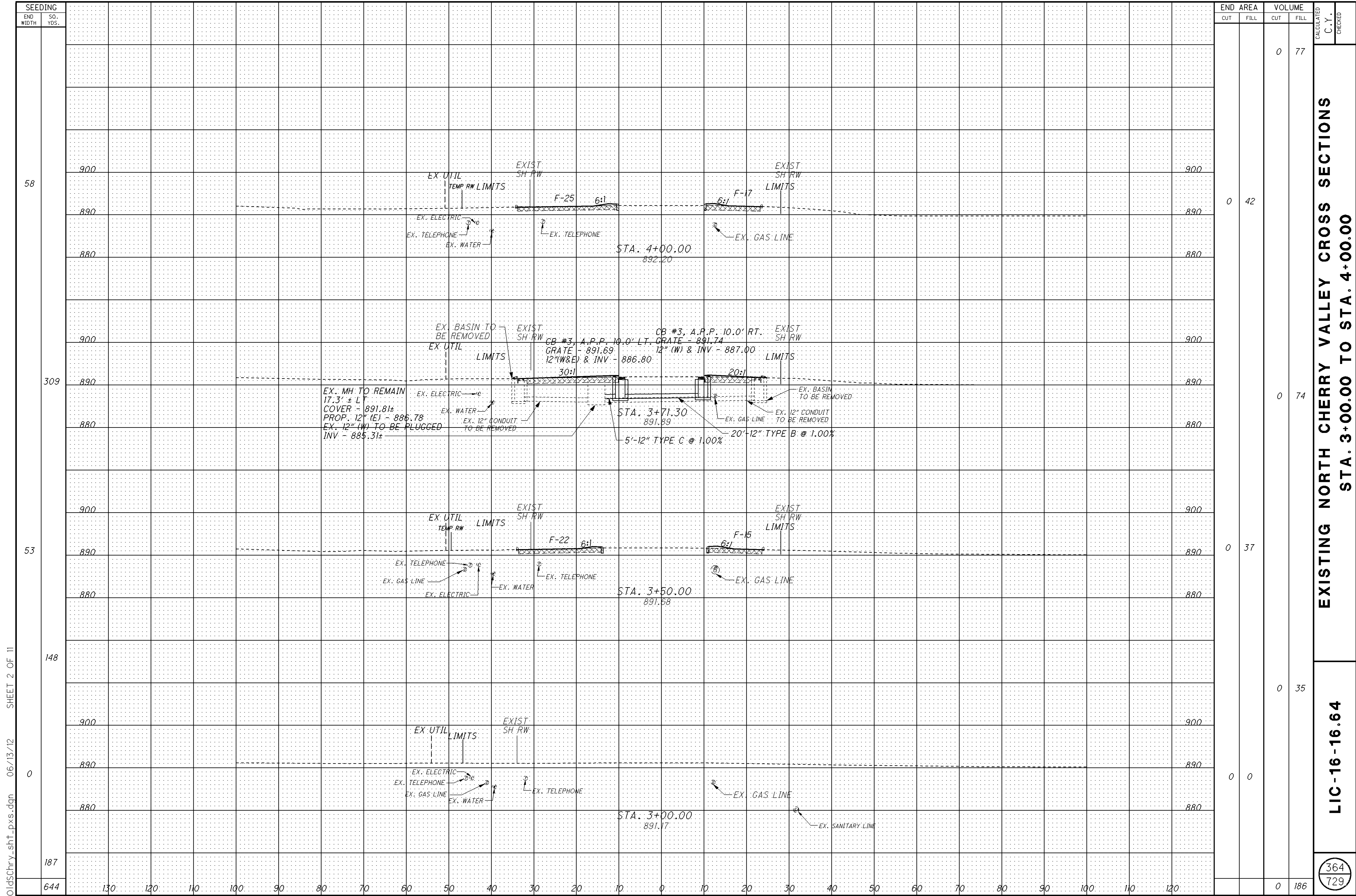
oldchry_sht1_pxs.dgn 06/13/12 SHEET 1 OF 11

SEEDING														END AREA		VOLUME		CALCULATED C.Y.	CHECKED
END WIDTH	SO. YDS.													CUT	FILL	CUT	FILL		
																0	54		
67														0	58				
373														0	109				
67														0	59				
370														0	107				
66														0	56				
387														0	111				
73														0	63				
1130														0	381				

**EXISTING NORTH CHERRY VALLEY CROSS SECTIONS
STA. 1+00.00 TO STA. 2+50.00**

LIC-16-16.64

363
729



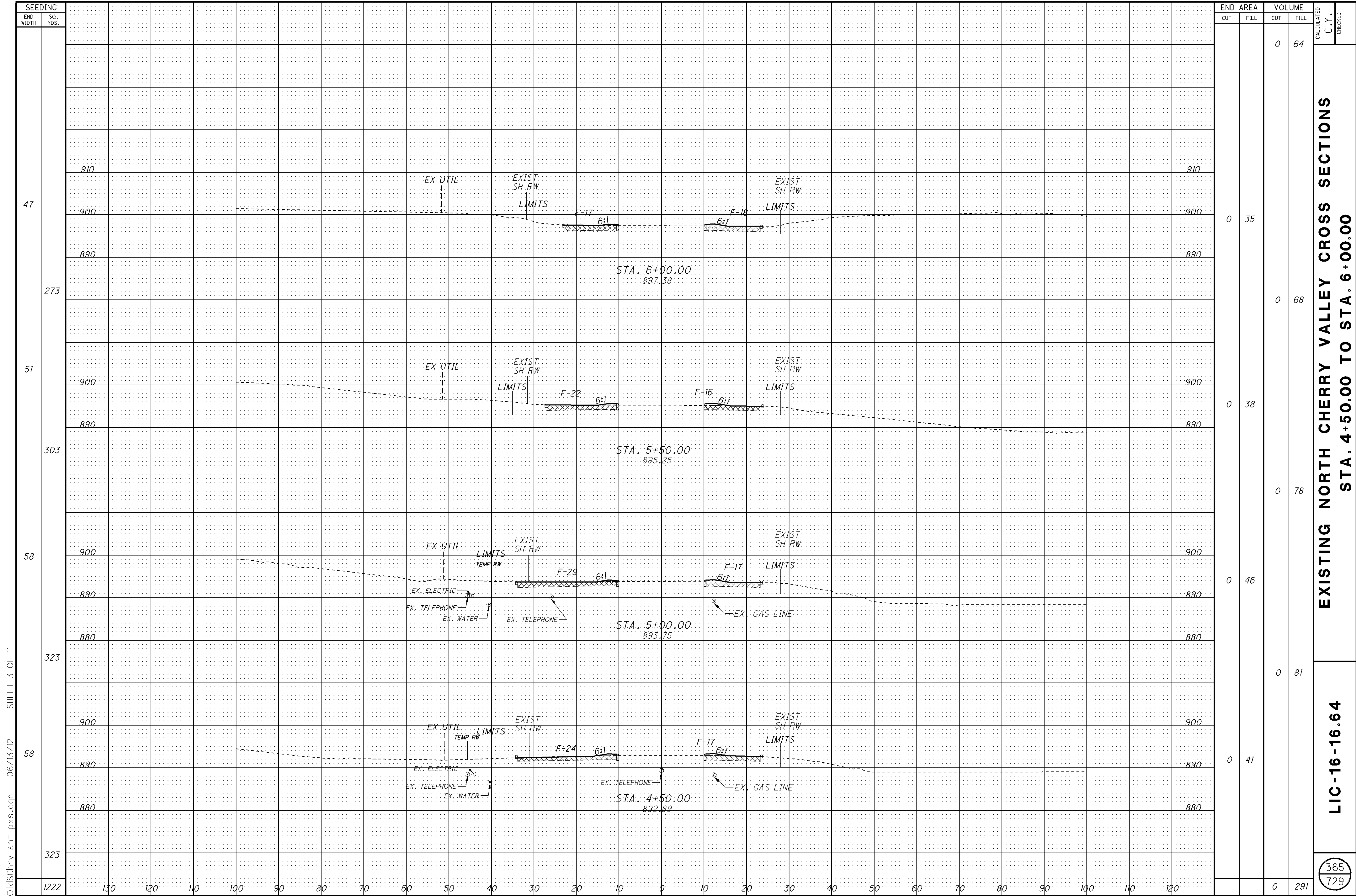
SEEDING	
END WIDTH	SQ. YDS.
58	
309	
53	
148	
0	
187	
644	

END AREA		VOLUME		CALCULATED C.Y.	CHECKED
CUT	FILL	CUT	FILL		
0		0		77	
0		42			
0		74			
0		37			
0		35			
0		0			
0		186			

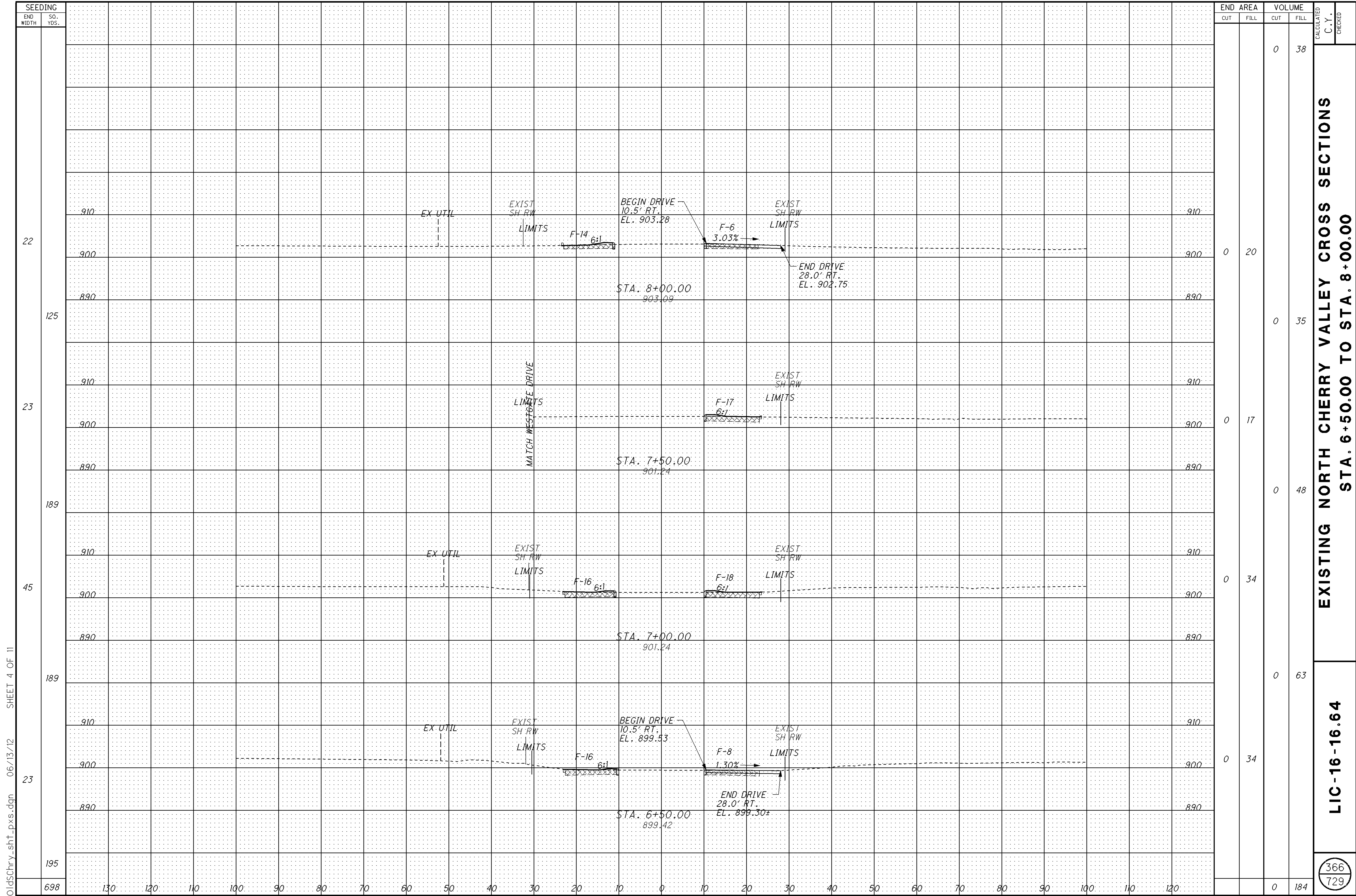
EXISTING NORTH CHERRY VALLEY CROSS SECTIONS
STA. 3+00.00 TO STA. 4+00.00

LIC-16-16.64

364
 729



oldchry_sht1_pxs.dgn 06/13/12 SHEET 3 OF 11



oldSchry_sht1_pxs.dgn 06/13/12 SHEET 4 OF 11

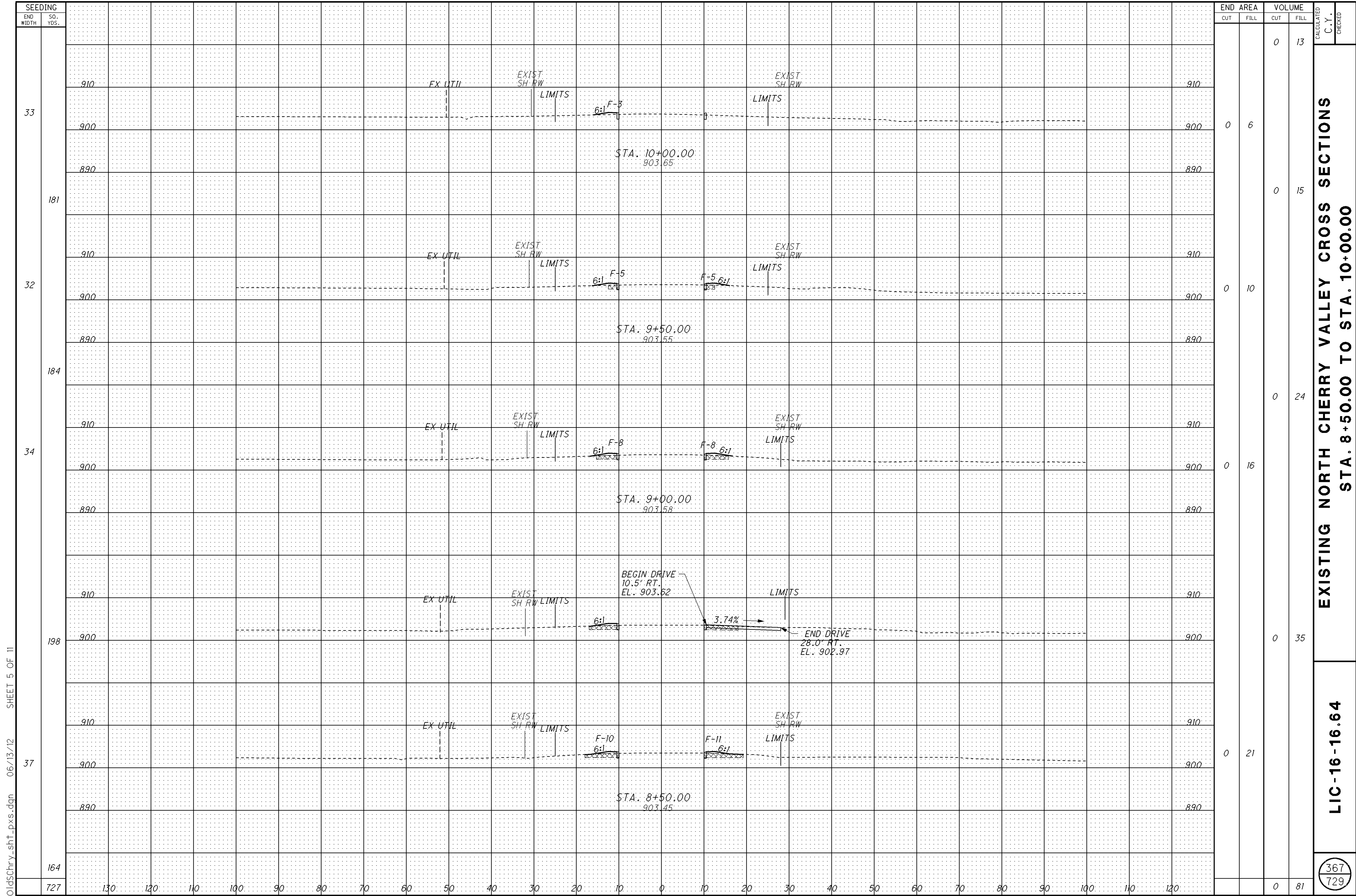
**EXISTING NORTH CHERRY VALLEY CROSS SECTIONS
STA. 6+50.00 TO STA. 8+00.00**

LIC-16-16.64

366
729

CALCULATED	CHECKED
C.Y.	C.Y.

END AREA	VOLUME	CUT		FILL	
		CUT	FILL	CUT	FILL
0	38				
0	20				
0	35				
0	17				
0	48				
0	34				
0	63				
0	34				
0	184				

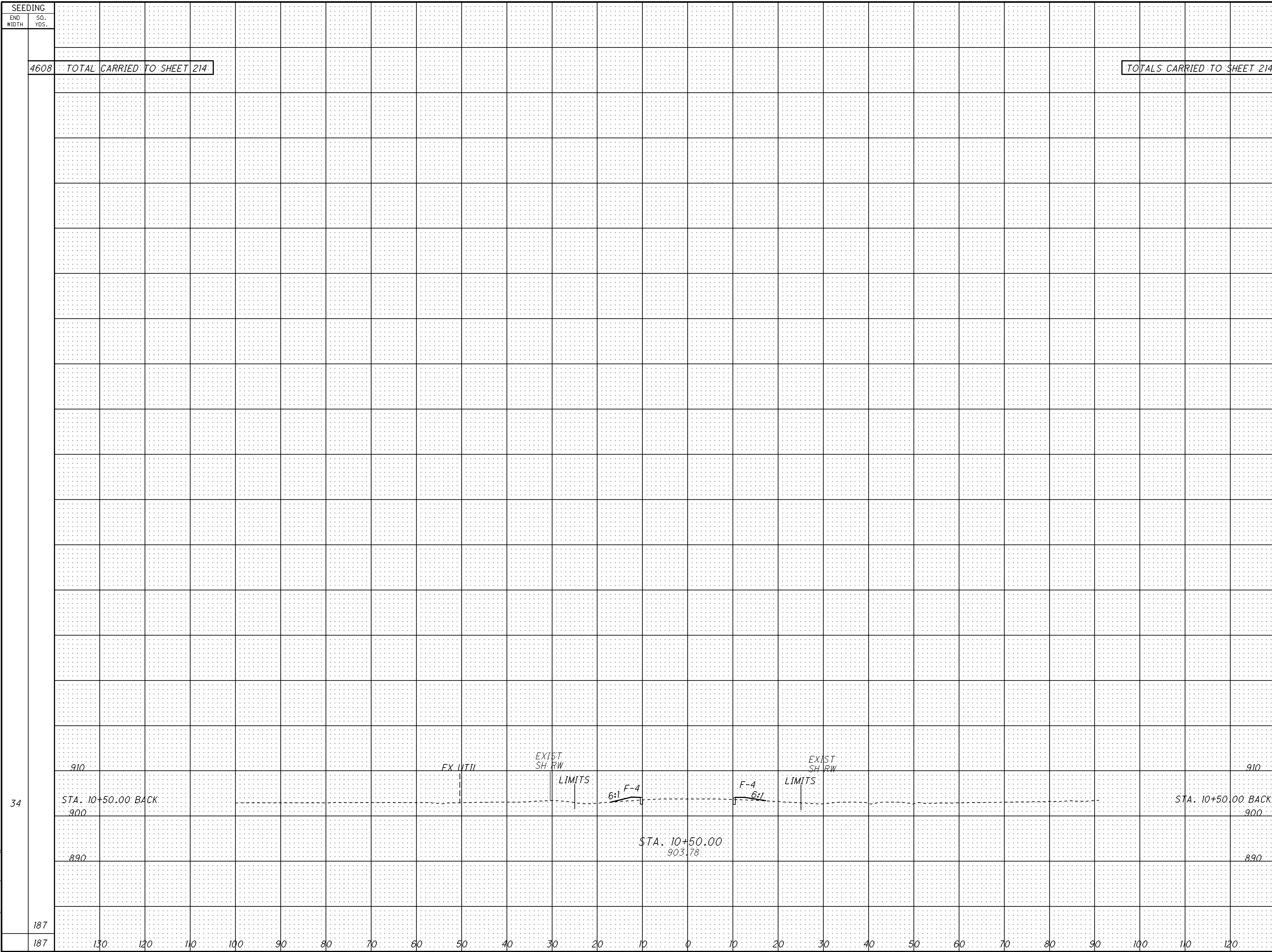


oldchry_sht1_pxs.dgn 06/13/12 SHEET 5 OF 11

**EXISTING NORTH CHERRY VALLEY CROSS SECTIONS
STA. 8+50.00 TO STA. 10+00.00**

LIC-16-16.64

367
729



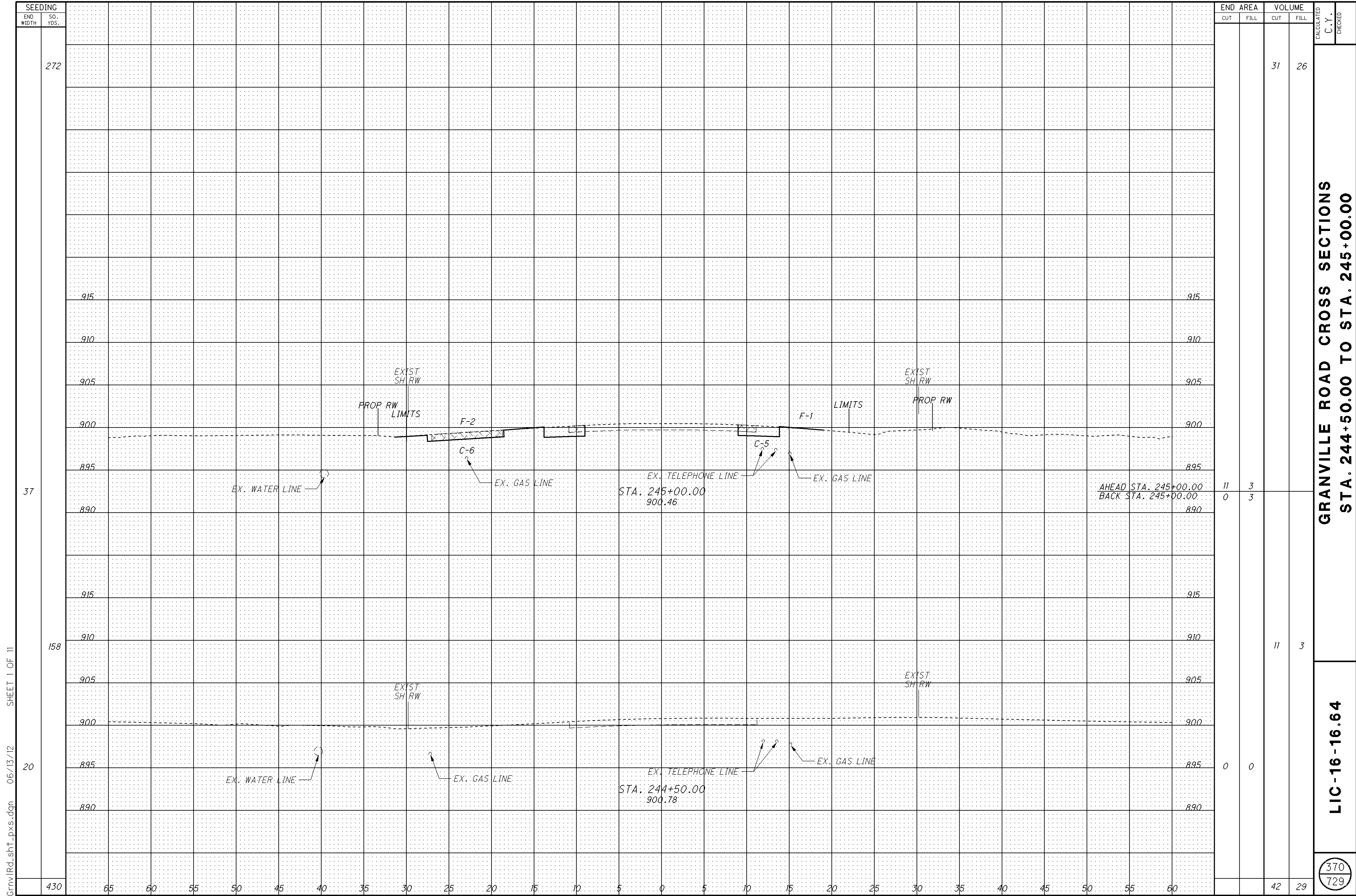
SEEDING	
END WIDTH	SO. YDS.
4608	TOTAL CARRIED TO SHEET 214

END AREA		VOLUME	
CUT	FILL	CUT	FILL
		0	1129

CALCULATED C.Y.	CHECKED
-----------------	---------

**EXISTING NORTH CHERRY VALLEY CROSS SECTIONS
STA. 10+50.00 TO STA. 10+50.00**

LIC-16-16.64

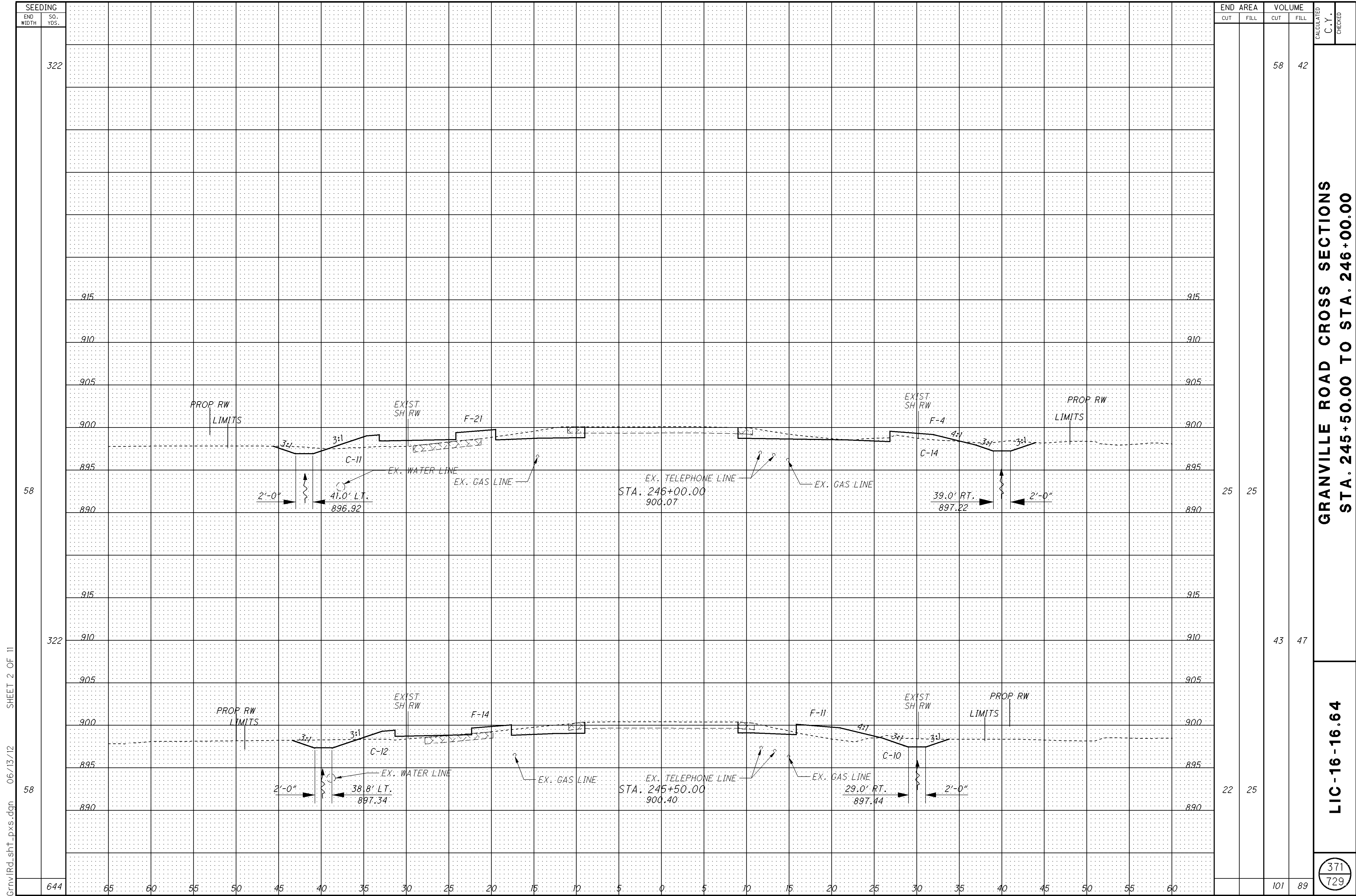


g:\nv\rd_sht_pxs.dgn 06/13/12 SHEET 1 OF 11

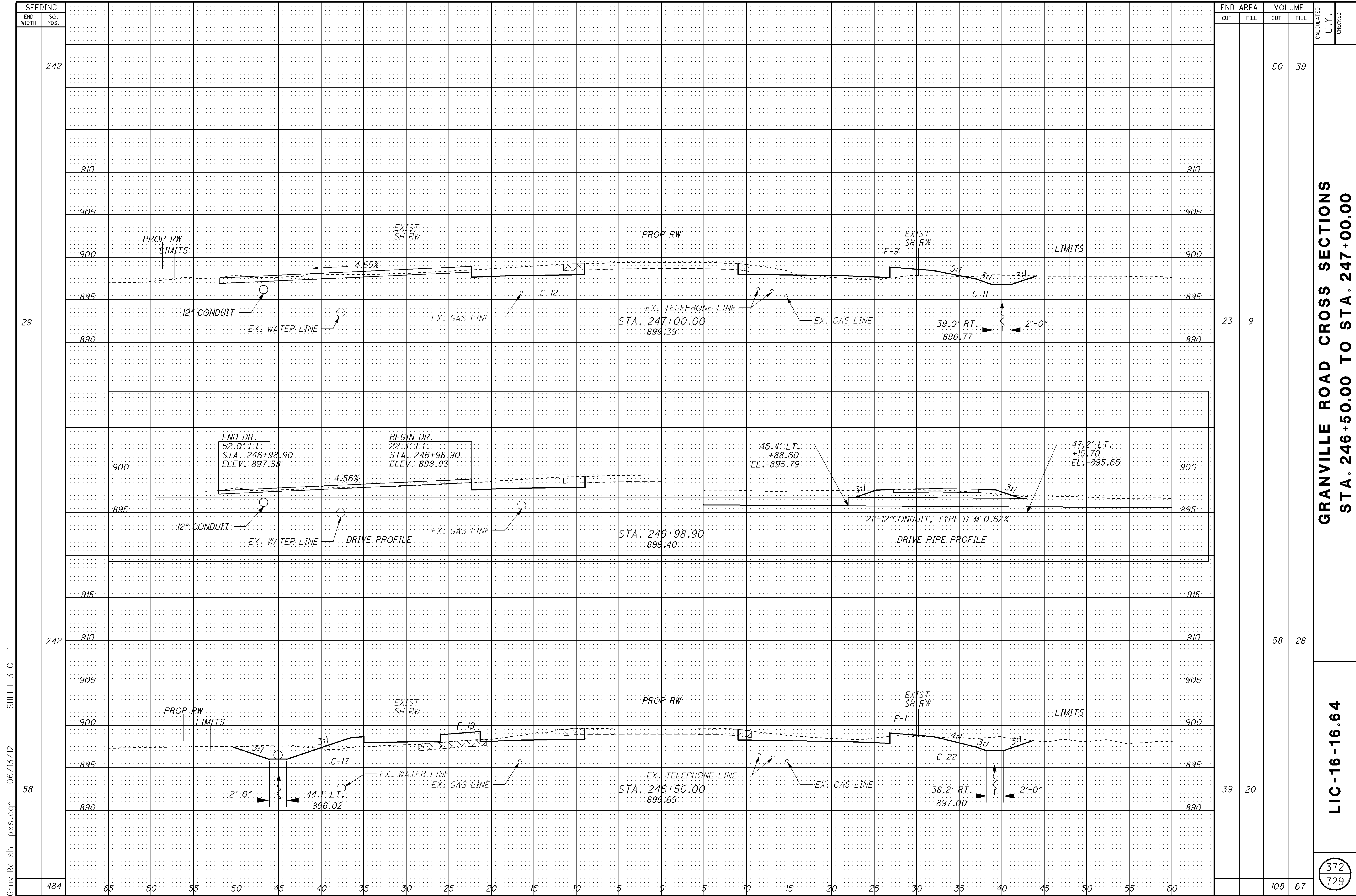
**GRANVILLE ROAD CROSS SECTIONS
 STA. 244+50.00 TO STA. 245+00.00**

LIC-16-16.64

370
729



c:\pvt\rd_sht_pxs.dgn 06/13/12 SHEET 2 OF 11



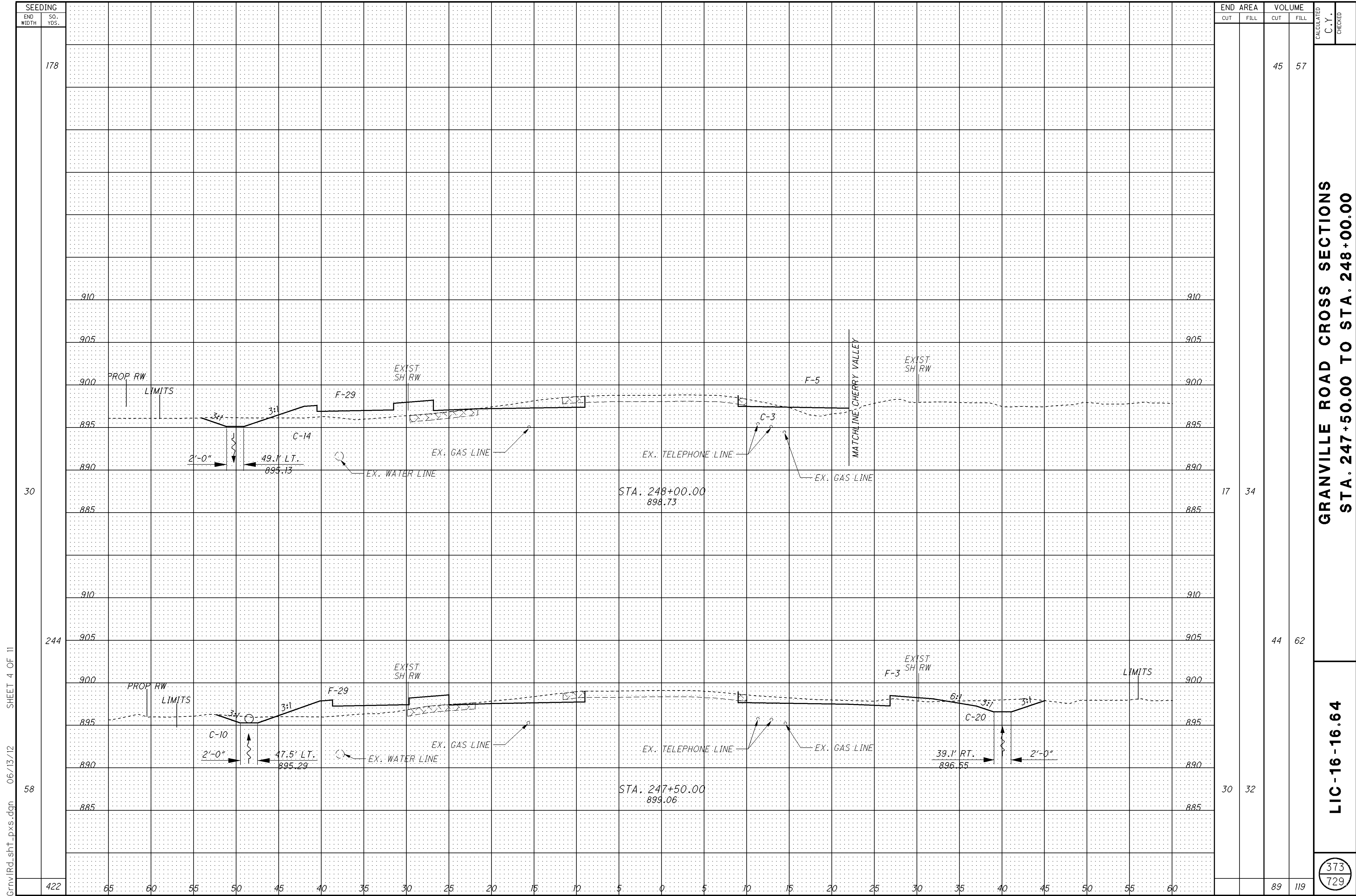
g:\m\rd_sht_pxs.dgn 06/13/12 SHEET 3 OF 11

SEEDING		END AREA		VOLUME		CALCULATED C.Y.	CHECKED
END WIDTH	SO. YDS.	CUT	FILL	CUT	FILL		
242				50	39		
29				23	9		
58				39	20		
484				108	67		

GRANVILLE ROAD CROSS SECTIONS
STA. 246+50.00 TO STA. 247+00.00

LIC-16-16.64

372
729



c:\nvlrd_sht_pxs.dgn 06/13/12 SHEET 4 OF 11

SEEDING	
END WIDTH	SO. YDS.
178	
30	
244	
58	
422	

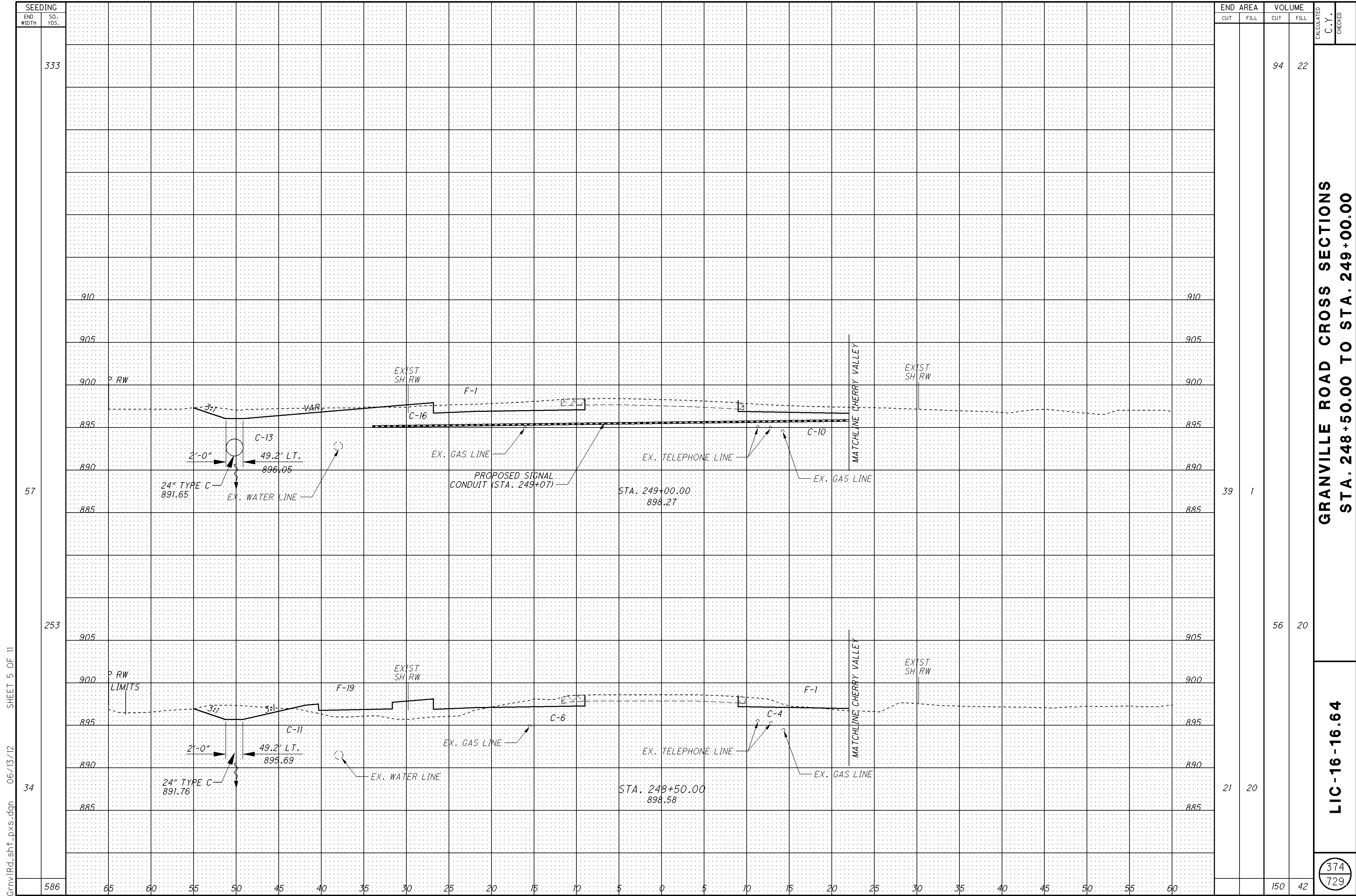
END AREA		VOLUME	
CUT	FILL	CUT	FILL
17	34	45	57
44	62		
30	32		
89	119		

**GRANVILLE ROAD CROSS SECTIONS
STA. 247+50.00 TO STA. 248+00.00**

LIC-16-16.64

CALCULATED
C.Y.
CHECKED

373
729



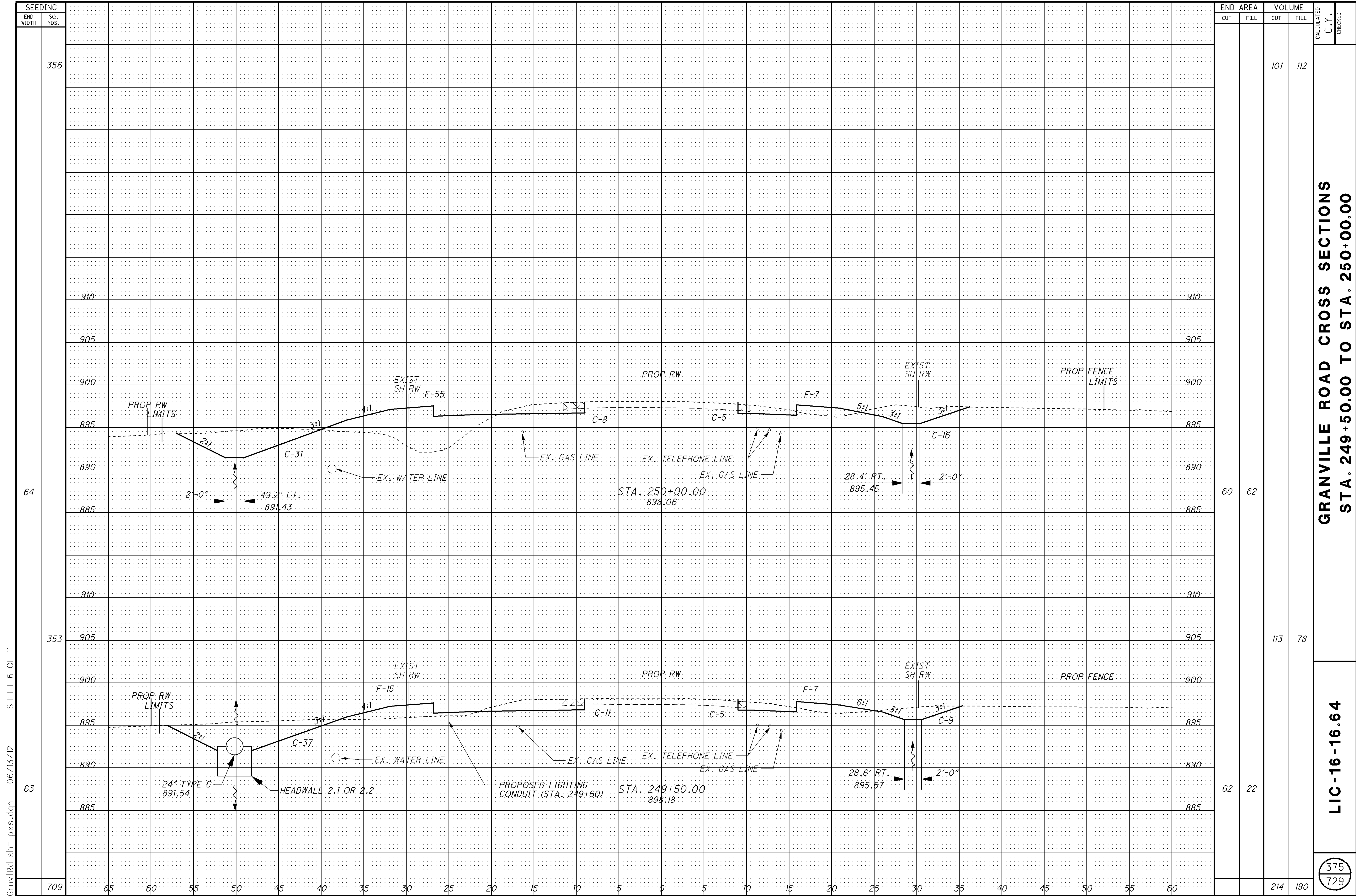
SEEDING	
END WIDTH	SO. YDS.
333	
57	
253	
34	
586	

END AREA		VOLUME	
CUT	FILL	CUT	FILL
		94	22
39	1	56	20
21	20	150	42

GRANVILLE ROAD CROSS SECTIONS
STA. 248+50.00 TO STA. 249+00.00

LIC-16-16.64

CALCULATED C.Y. CHECKED
 374
 729



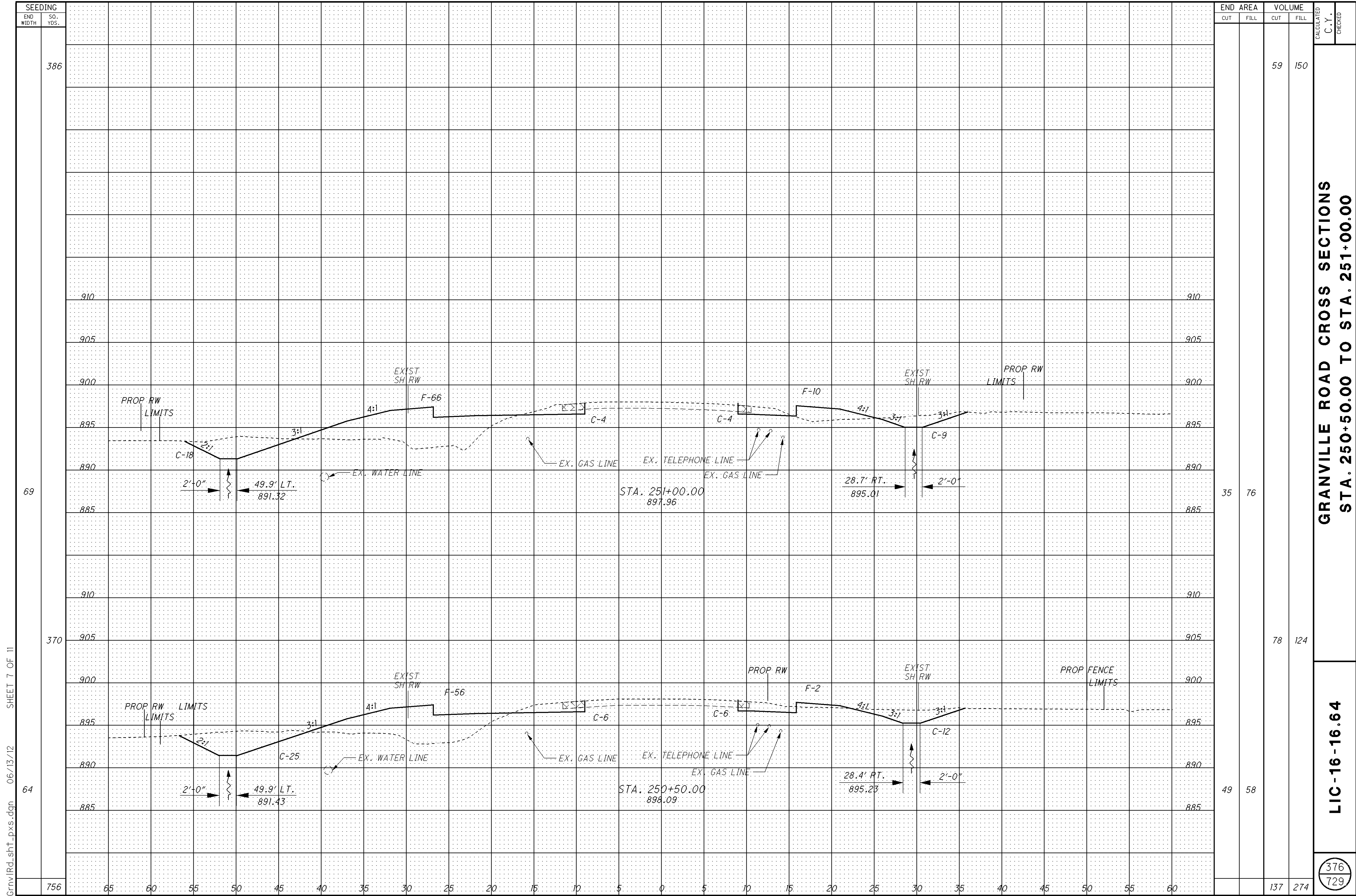
c:\nv\rd_sht_pxs.dgn 06/13/12 SHEET 6 OF 11

SEEDING	
END WIDTH	SO. YDS.
356	
64	
353	
63	
709	

END AREA		VOLUME	
CUT	FILL	CUT	FILL
		101	112
60	62	113	78
62	22		
		214	190

GRANVILLE ROAD CROSS SECTIONS
STA. 249+50.00 TO STA. 250+00.00
LIC-16-16.64
 CALCULATED C.Y. CHECKED

375
 729



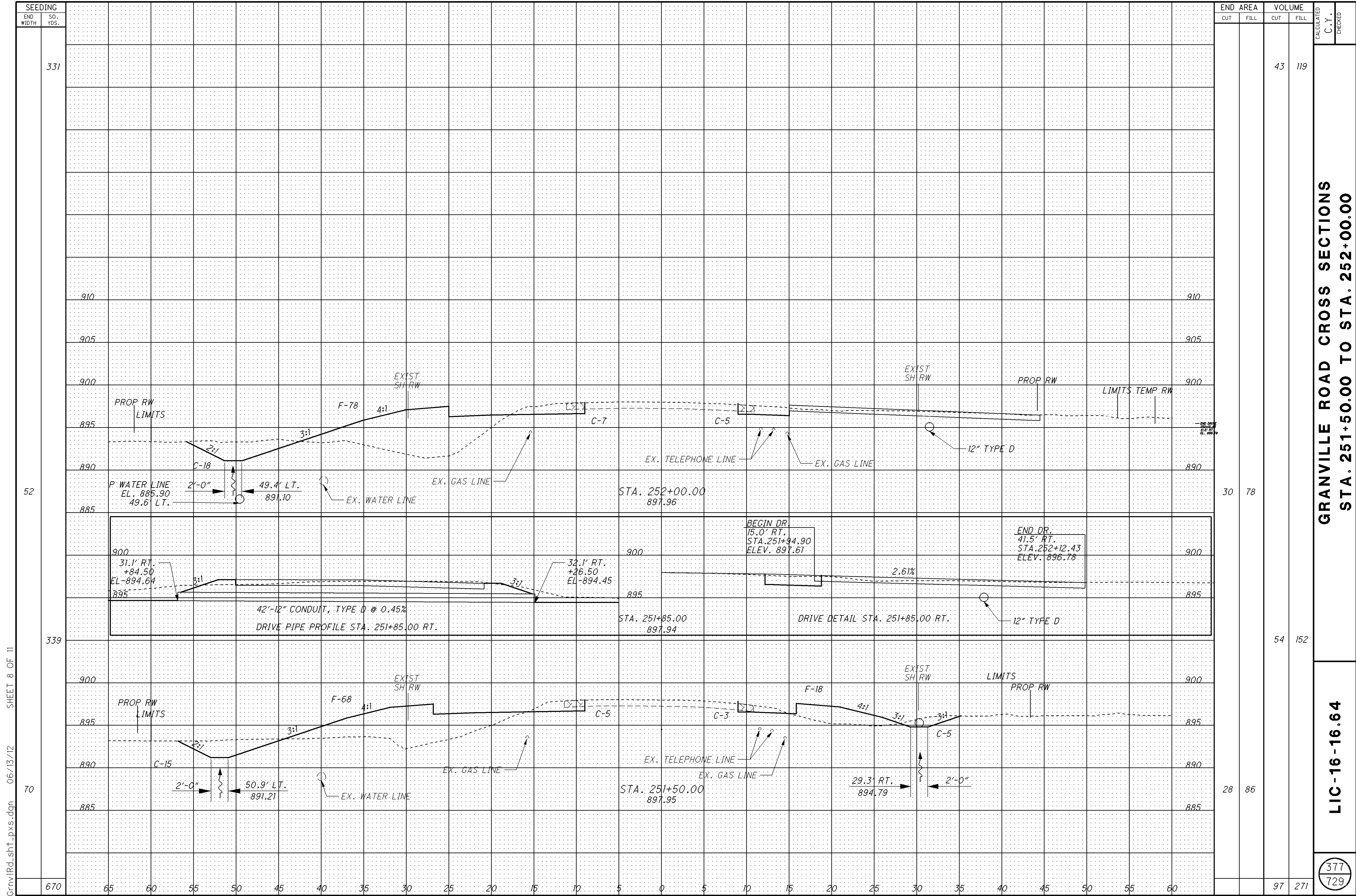
c:\nvlrd_sht_pxs.dgn 06/13/12 SHEET 7 OF 11

SEEDING														END AREA		VOLUME		CALCULATED C.Y.	
END WIDTH	SO. YDS.													CUT	FILL	CUT	FILL	CHECKED	CHECKED
386																59	150		
910																			
905																			
900																			
895																			
890																			
885																			
910																			
905																			
900																			
895																			
890																			
885																			
910																			
905																			
900																			
895																			
890																			
885																			
756																137	274		

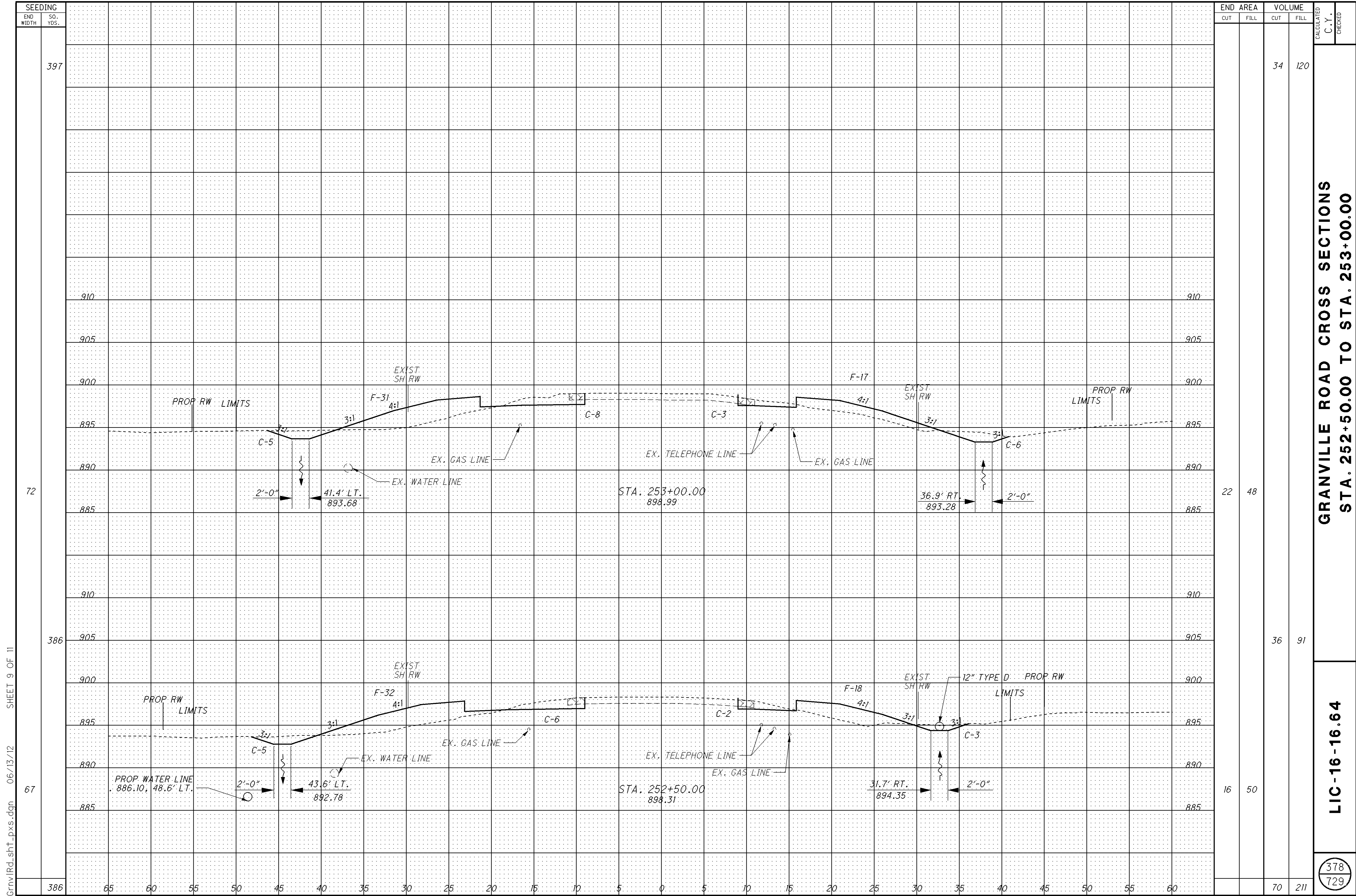
**GRANVILLE ROAD CROSS SECTIONS
 STA. 250+50.00 TO STA. 251+00.00**

LIC-16-16.64

376
729



g:\m\rd_sht_pxs.dgn 06/13/12 SHEET 8 OF 11



c:\pvt\rd_sht_pxs.dgn 06/13/12 SHEET 9 OF 11

SEEDING	
END WIDTH	SO. YDS.
397	
72	
386	
67	
386	

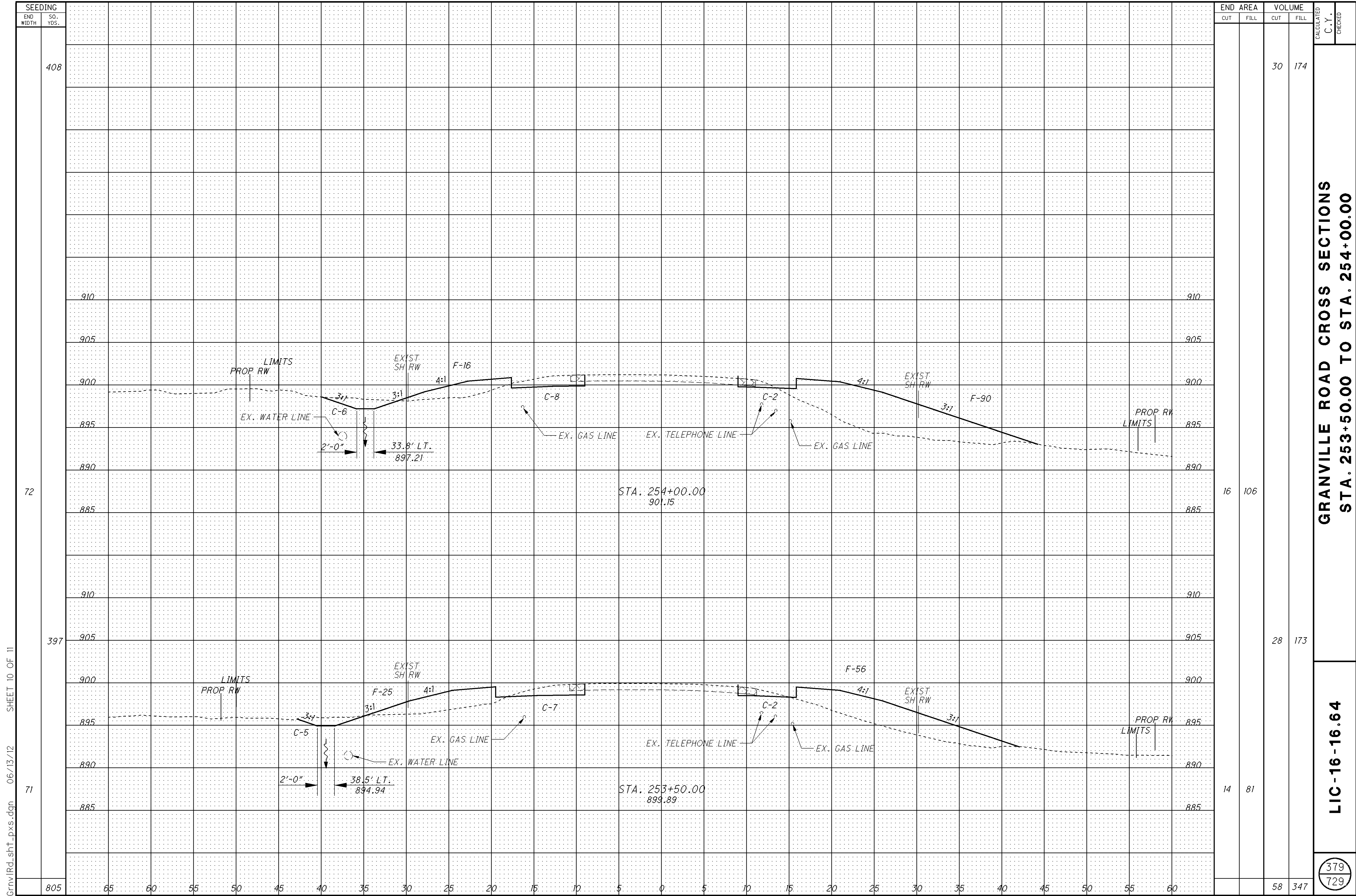
END AREA		VOLUME	
CUT	FILL	CUT	FILL
		34	120
		22	48
		36	91
		16	50
		70	211

GRANVILLE ROAD CROSS SECTIONS
STA. 252+50.00 TO STA. 253+00.00

LIC-16-16.64

CALCULATED C.Y. CHECKED

378
729

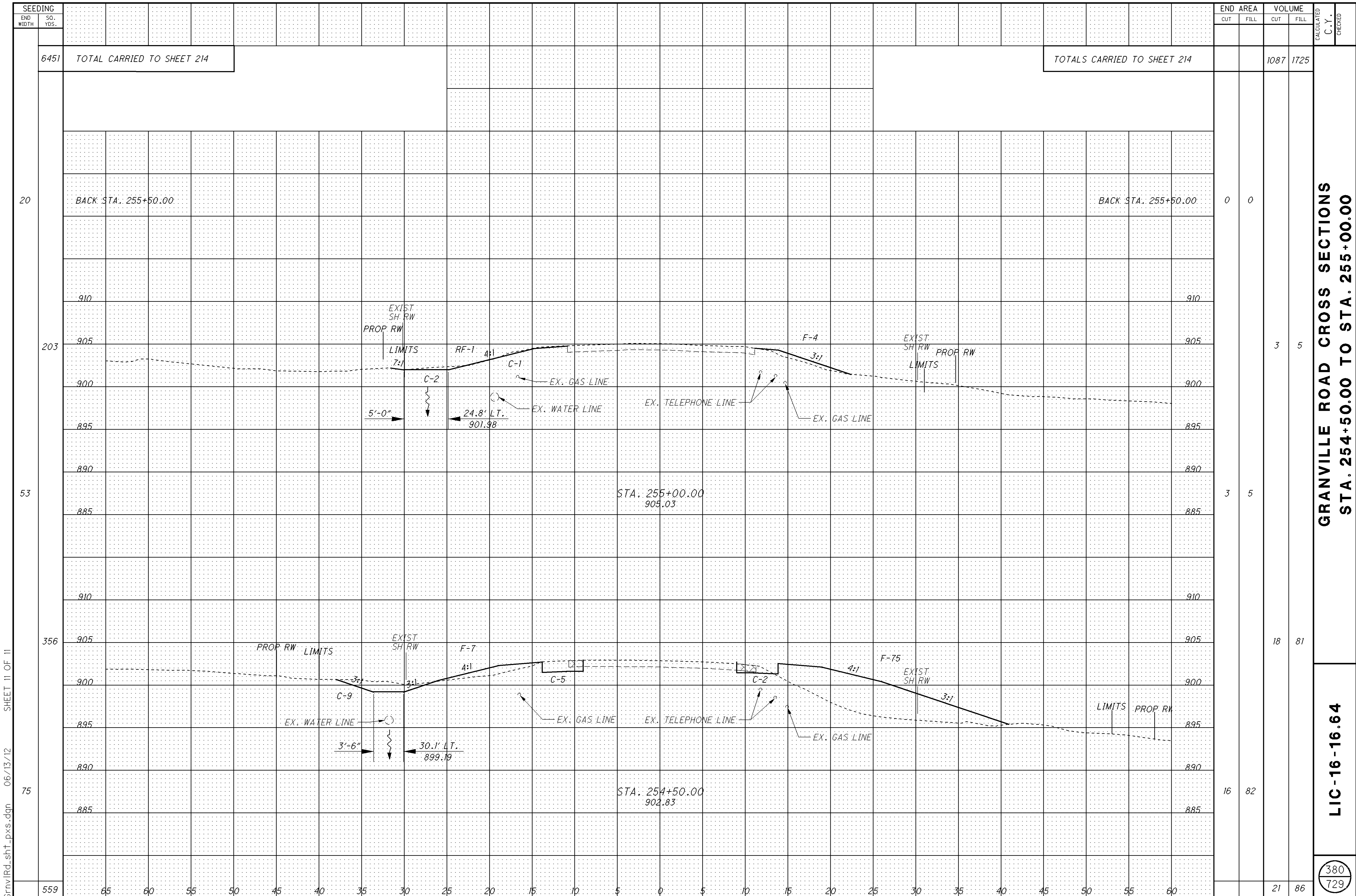


c:\nvl\rd_sht_pxs.dgn 06/13/12 SHEET 10 OF 11

GRANVILLE ROAD CROSS SECTIONS
STA. 253+50.00 TO STA. 254+00.00

LIC-16-16.64

379
729



SEEDING	
END WIDTH	SO. YDS.
6451	TOTAL CARRIED TO SHEET 214
20	BACK STA. 255+50.00
203	BACK STA. 255+50.00
53	STA. 255+00.00 905.03
356	STA. 254+50.00 902.83
75	STA. 254+50.00 902.83
559	

END AREA		VOLUME		CALCULATED C.Y.	CHECKED
CUT	FILL	CUT	FILL		
				1087	1725
0	0			3	5
3	5			3	5
18	81			18	81
16	82			16	82
		21	86		

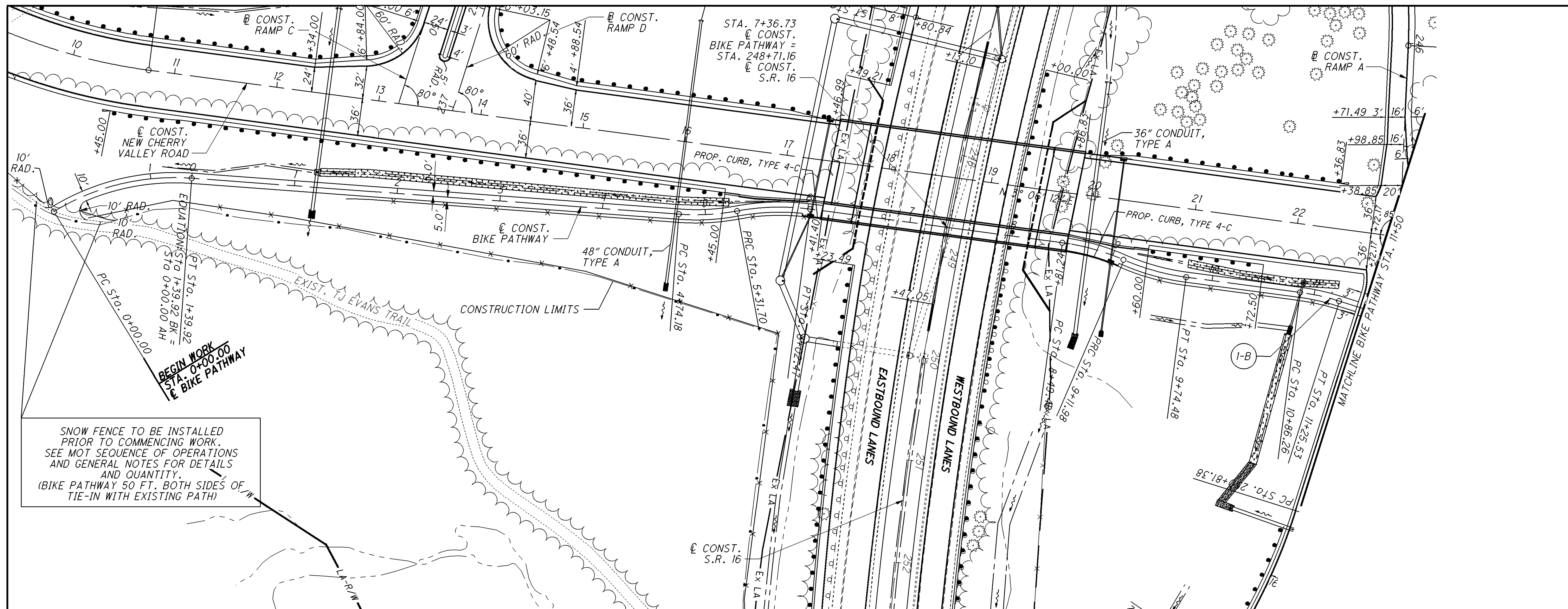
GRANVILLE ROAD CROSS SECTIONS
STA. 254+50.00 TO STA. 255+00.00

LIC-16-16.64

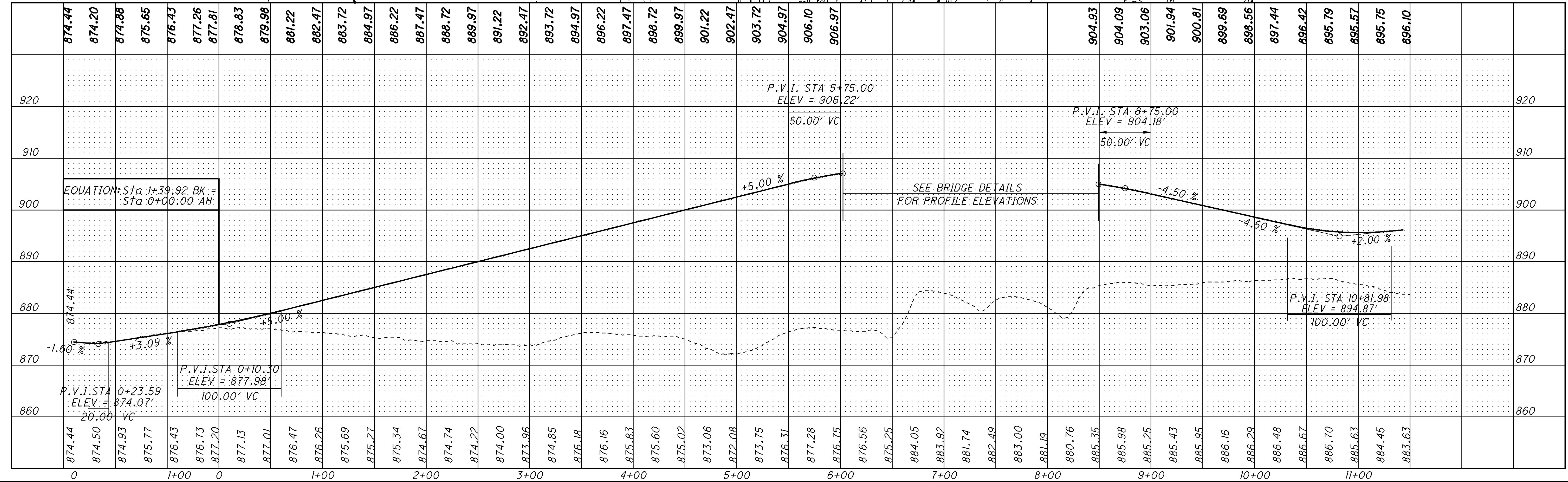
380
729

gmv1rd_sht_pxs.dgn 06/13/12 SHEET 11 OF 11

BikePath_PPP_001.dgn 06/13/12

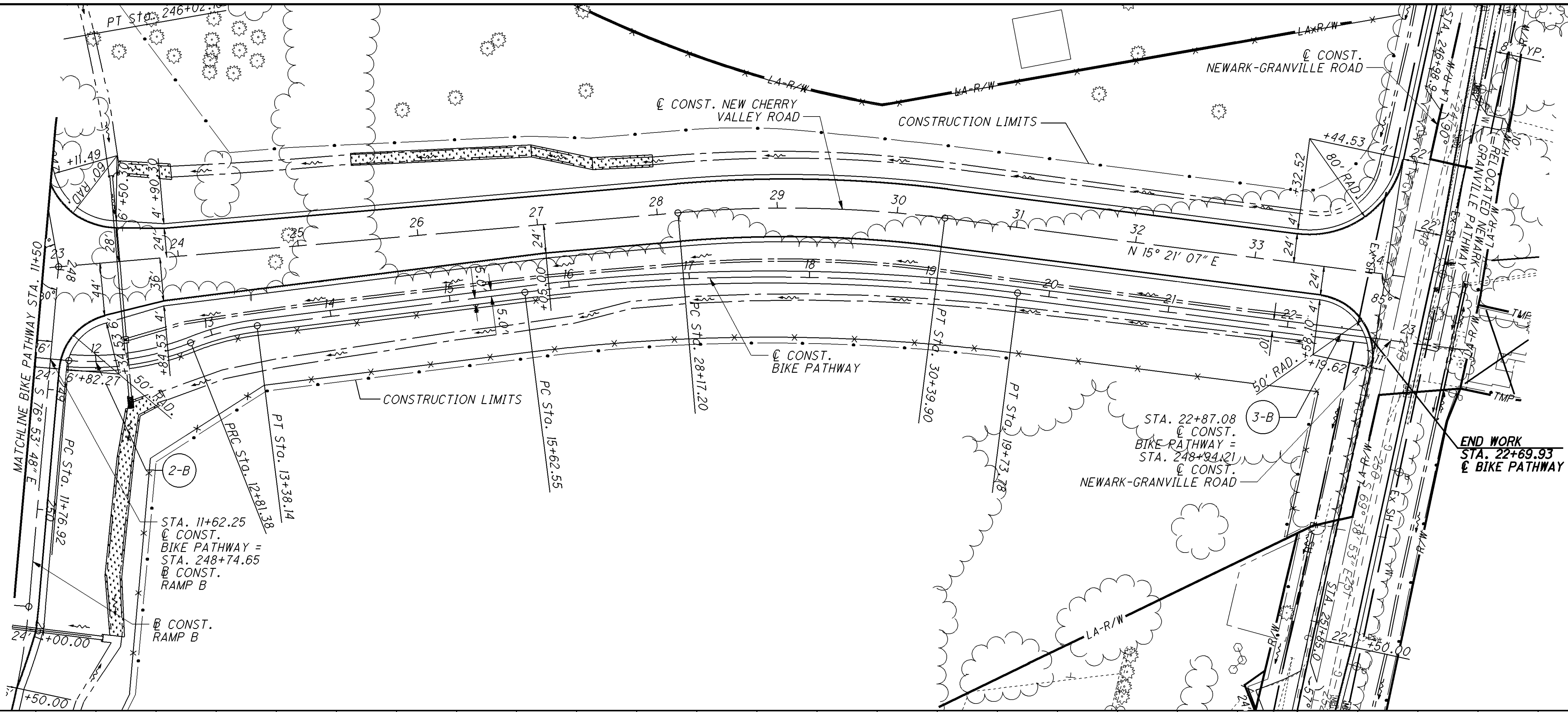


SNOW FENCE TO BE INSTALLED PRIOR TO COMMENCING WORK. SEE MOT SEQUENCE OF OPERATIONS AND GENERAL NOTES FOR DETAILS AND QUANTITY. (BIKE PATHWAY 50 FT. BOTH SIDES OF TIE-IN WITH EXISTING PATH)



BIKE PATHWAY PLAN AND PROFILE
STA. 0+00 TO STA. 11+50

LIC-16-16.64



Station	Elevation
12+00	883.63
12+05	883.03
12+10	883.58
12+15	883.63
12+20	883.46
12+25	884.20
12+30	884.54
12+35	884.73
12+40	884.75
12+45	884.77
12+50	885.23
12+55	886.45
13+00	887.30
13+05	887.23
13+10	886.88
13+15	886.89
13+20	886.93
13+25	887.13
13+30	888.20
13+35	890.85
13+40	895.10
13+45	897.39
13+50	897.91
13+55	897.51
14+00	896.98
14+05	896.60
14+10	896.35
14+15	896.01
14+20	895.83
14+25	895.75
14+30	896.03
14+35	896.19
14+40	896.60
14+45	897.54
14+50	897.76
14+55	898.06
15+00	898.20
15+05	897.69
15+10	897.59
15+15	897.39
15+20	897.48
15+25	896.80
15+30	896.71
15+35	896.88
15+40	896.89
15+45	897.74
15+50	
16+00	
16+05	
16+10	
16+15	
16+20	
16+25	
16+30	
16+35	
16+40	
16+45	
16+50	
17+00	
17+05	
17+10	
17+15	
17+20	
17+25	
17+30	
17+35	
17+40	
17+45	
17+50	
18+00	
18+05	
18+10	
18+15	
18+20	
18+25	
18+30	
18+35	
18+40	
18+45	
18+50	
19+00	
19+05	
19+10	
19+15	
19+20	
19+25	
19+30	
19+35	
19+40	
19+45	
19+50	
20+00	
20+05	
20+10	
20+15	
20+20	
20+25	
20+30	
20+35	
20+40	
20+45	
20+50	
21+00	
21+05	
21+10	
21+15	
21+20	
21+25	
21+30	
21+35	
21+40	
21+45	
21+50	
22+00	
22+05	
22+10	
22+15	
22+20	
22+25	
22+30	
22+35	
22+40	
22+45	
22+50	
23+00	
23+05	
23+10	
23+15	
23+20	
23+25	
23+30	
23+35	
23+40	
23+45	
23+50	

BIKEPATH PLAN AND PROFILE

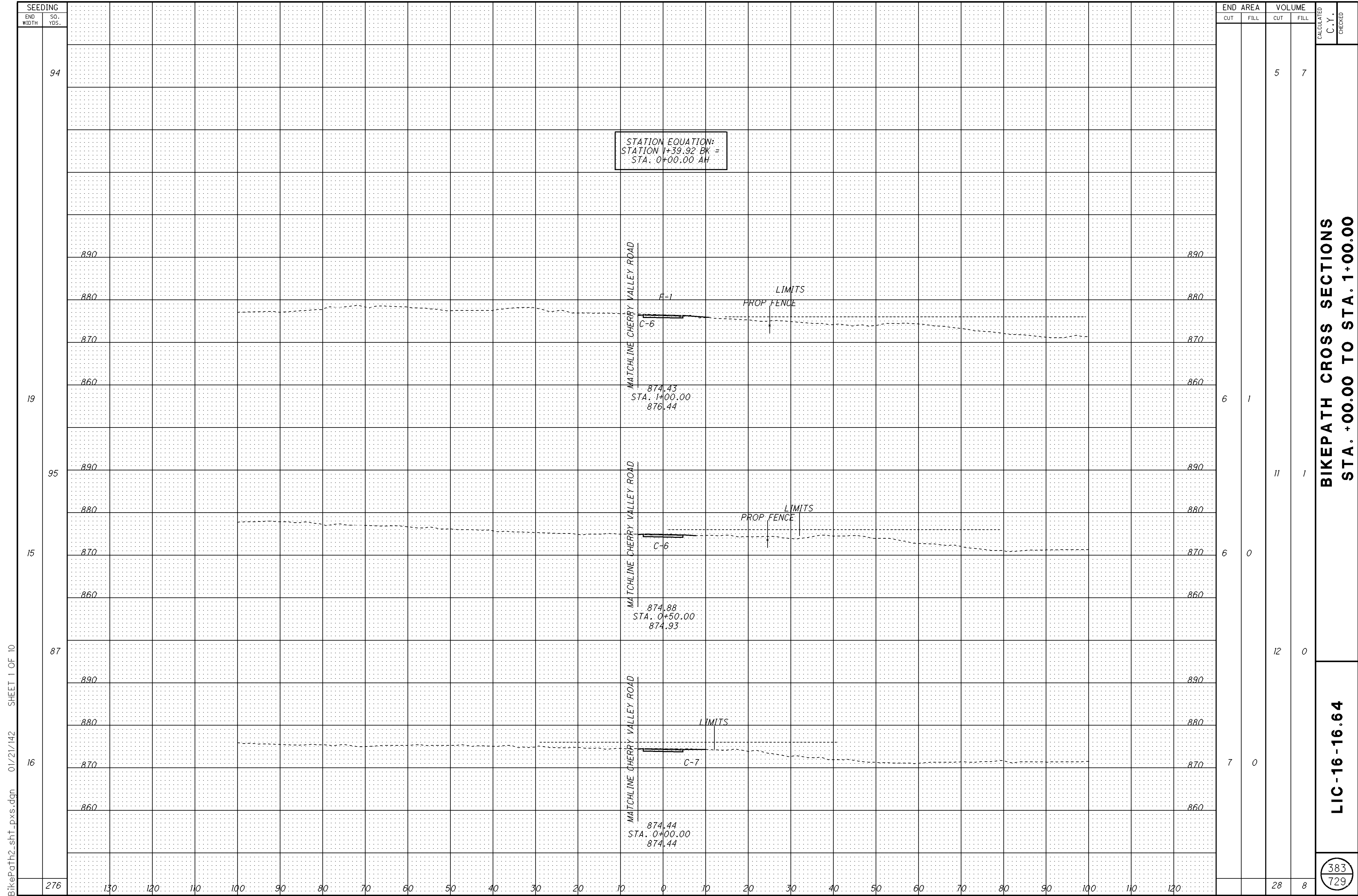
STA. 11+50 TO STA. 23+27.24

LIC-16-16.64

382
729

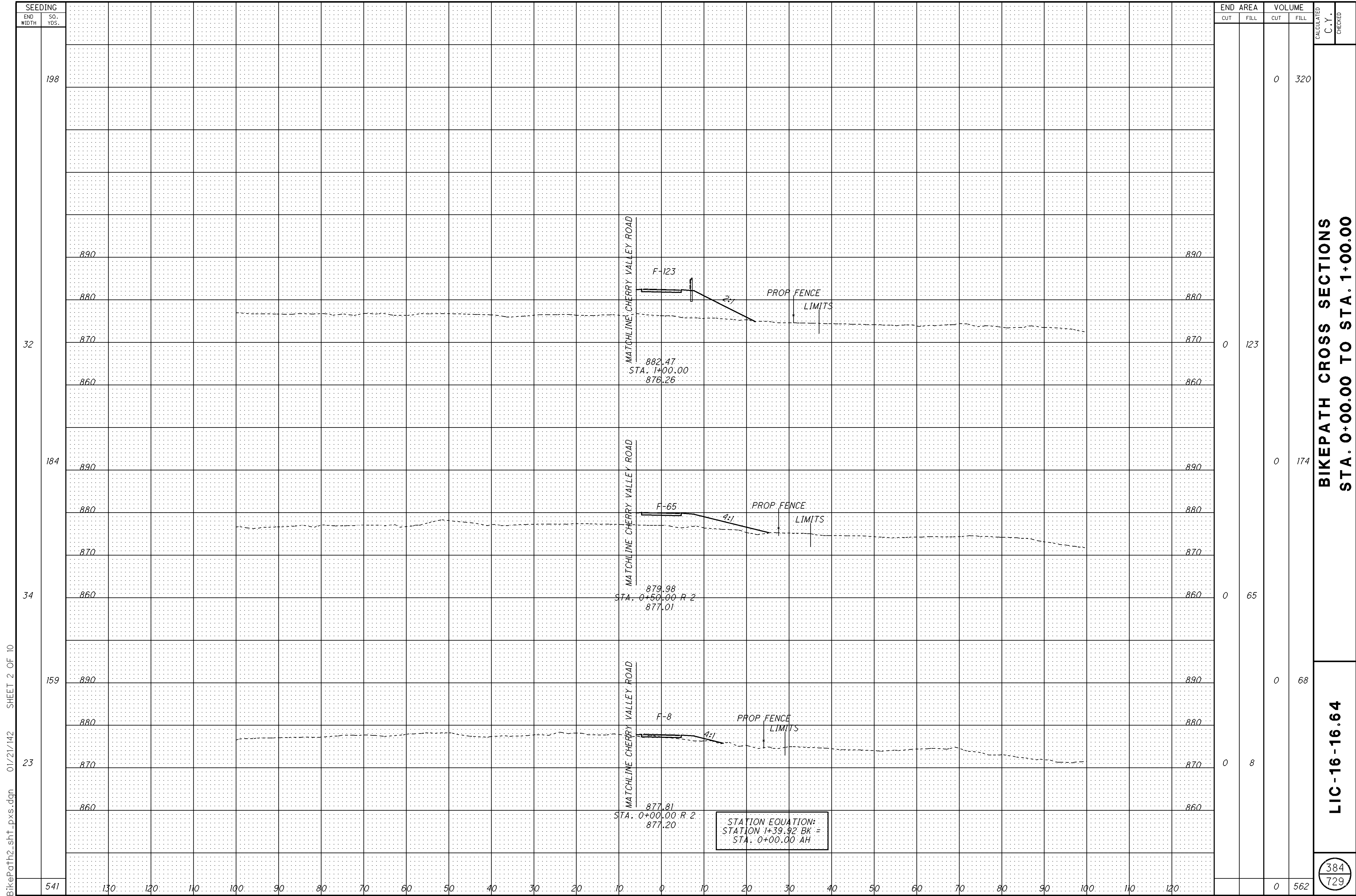
CALCULATED 0
C.V. 25
CHECKED 100

HORIZONTAL SCALE IN FEET



**BIKEPATH CROSS SECTIONS
 STA. +00.00 TO STA. 1+00.00**

LIC-16-16.64



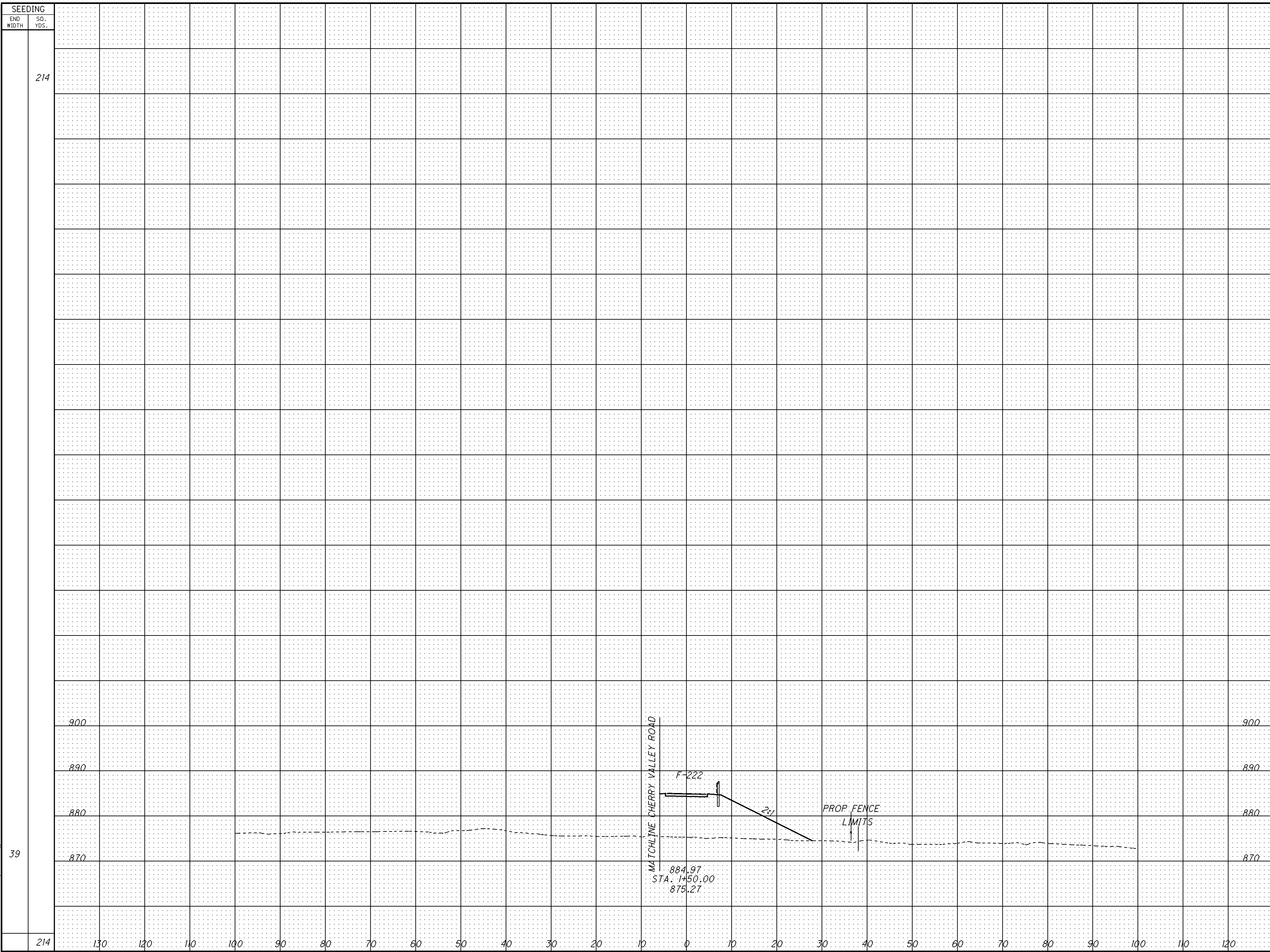
SEEDING														END AREA		VOLUME		CALCULATED	
END WIDTH	SO. YDS.													CUT	FILL	CUT	FILL	C.Y.	CHECKED

198																0	320																
32																0	123																
184																0	174																
34																0	65																
159																0	68																
23																0	8																
541		130	120	110	100	90	80	70	60	50	40	30	20	10	0	10	20	30	40	50	60	70	80	90	100	110	120			0	562		

BIKEPATH CROSS SECTIONS
STA. 0+00.00 TO STA. 1+00.00

LIC-16-16.64

384
729

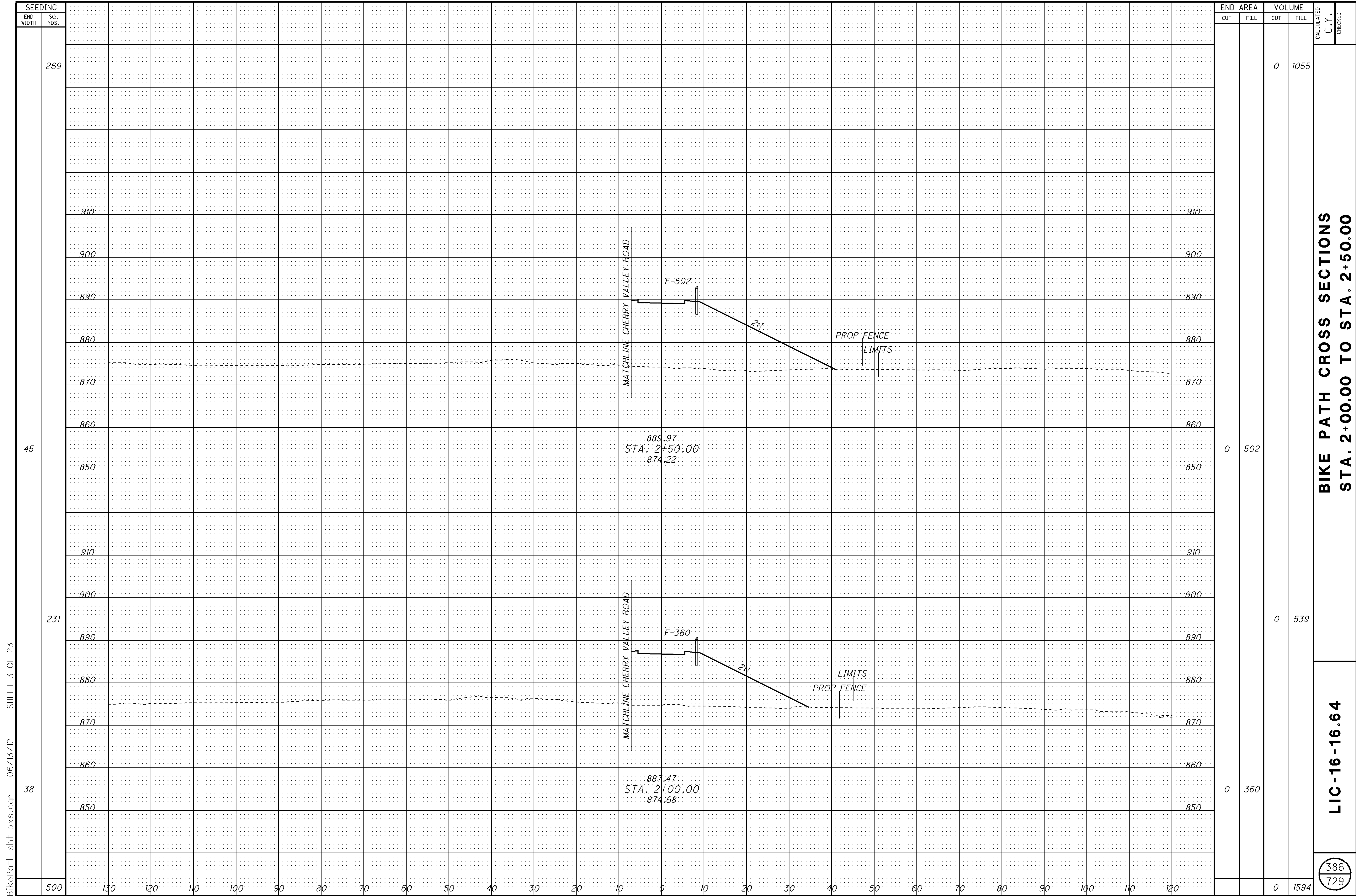


SEEDING		END AREA		VOLUME		CALCULATED C.Y.	CHECKED
END WIDTH	SO. YDS.	CUT	FILL	CUT	FILL		
214				0	222	0	539
39							
214				0		0	539

**BIKEPATH CROSS SECTIONS
STA. 1+50.00 TO STA. 1+50.00**

LIC-16-16.64

385
729

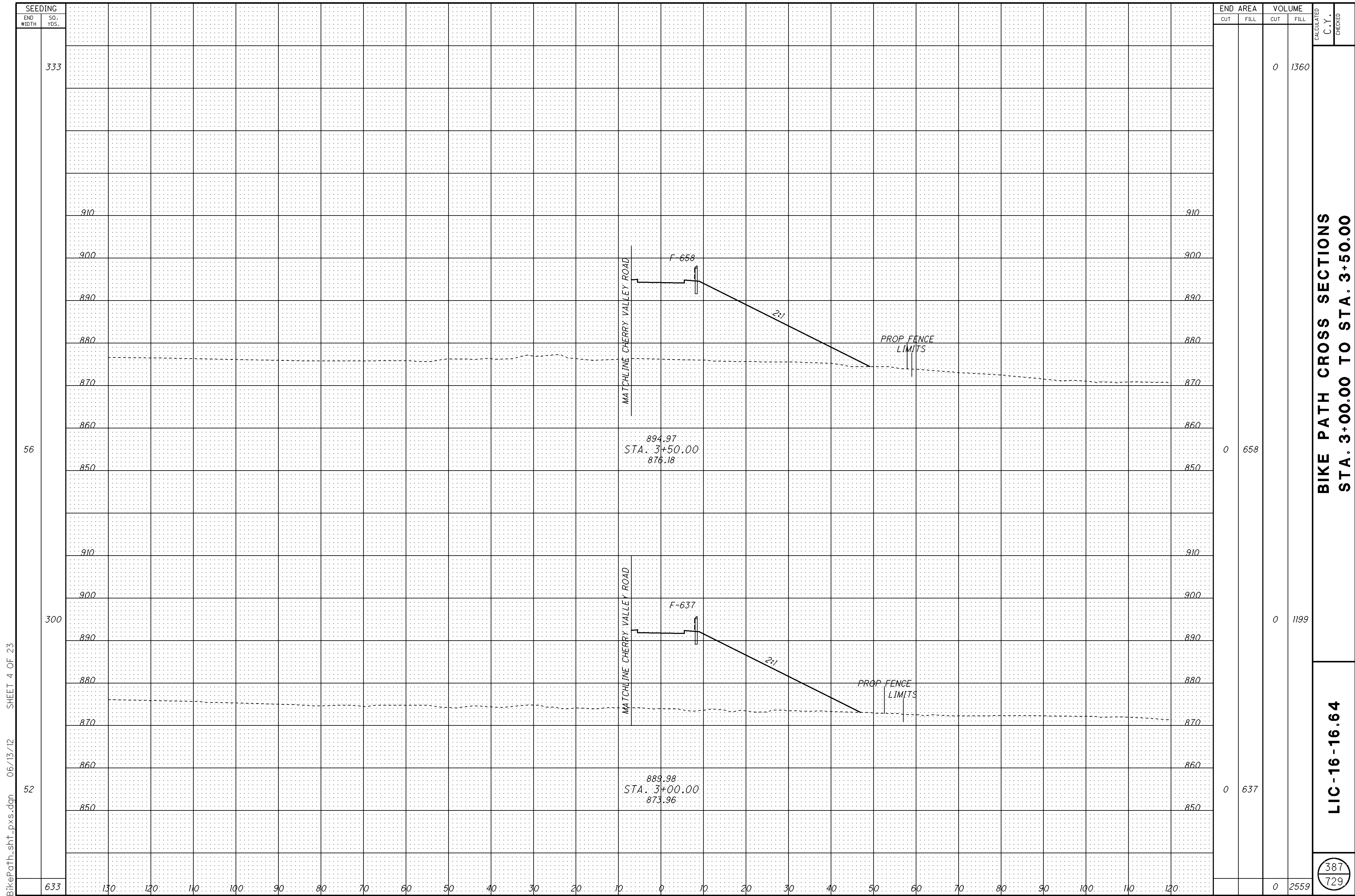


BikePath_sht_pxs.dgn 06/13/12 SHEET 3 OF 23

**BIKE PATH CROSS SECTIONS
STA. 2+00.00 TO STA. 2+50.00**

LIC-16-16.64

386
729



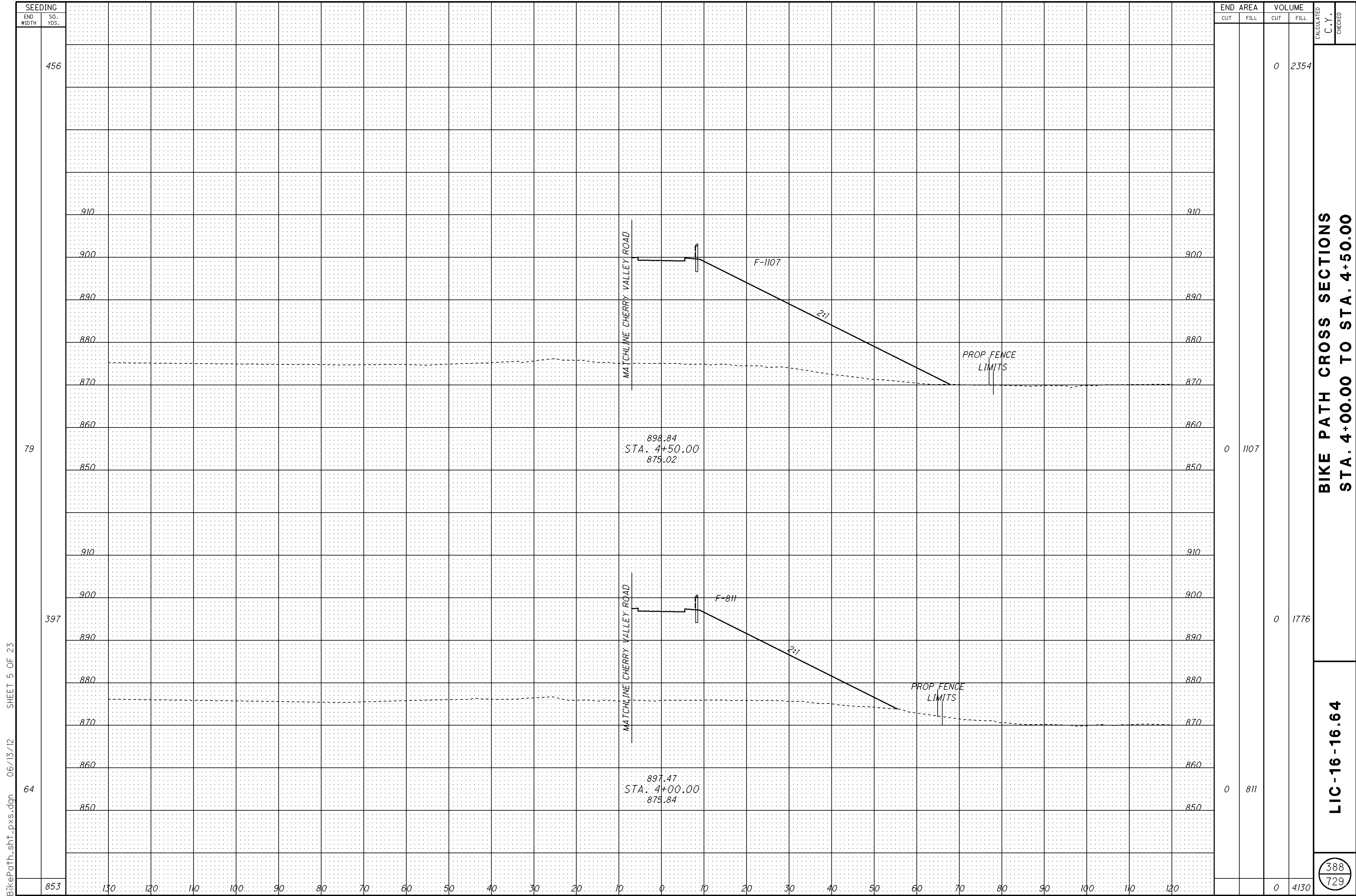
SEEDING	
END WIDTH	SO. YDS.
333	
56	
300	
52	
633	

END AREA		VOLUME	
CUT	FILL	CUT	FILL
0	658	0	1360
0	637	0	1199
0	637	0	2559

BIKE PATH CROSS SECTIONS
 STA. 3+00.00 TO STA. 3+50.00

LIC-16-16.64

387
729



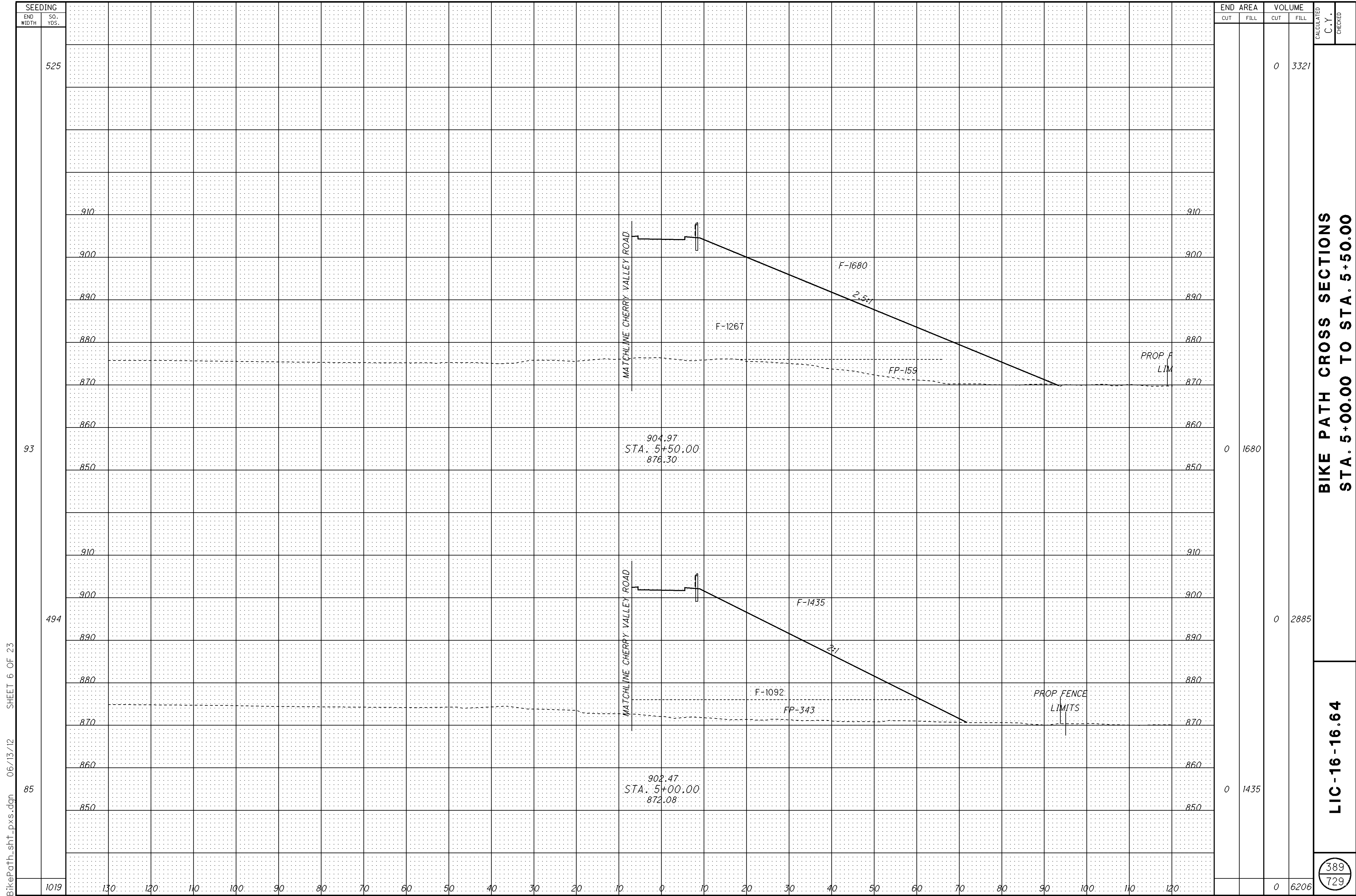
SEEDING	
END WIDTH	SO. YDS.
456	
79	
397	
64	
853	

END AREA		VOLUME	
CUT	FILL	CUT	FILL
0	1107	0	2354
0	1776	0	4130
0	811	0	4130

**BIKE PATH CROSS SECTIONS
STA. 4+00.00 TO STA. 4+50.00**

LIC-16-16.64

388
729



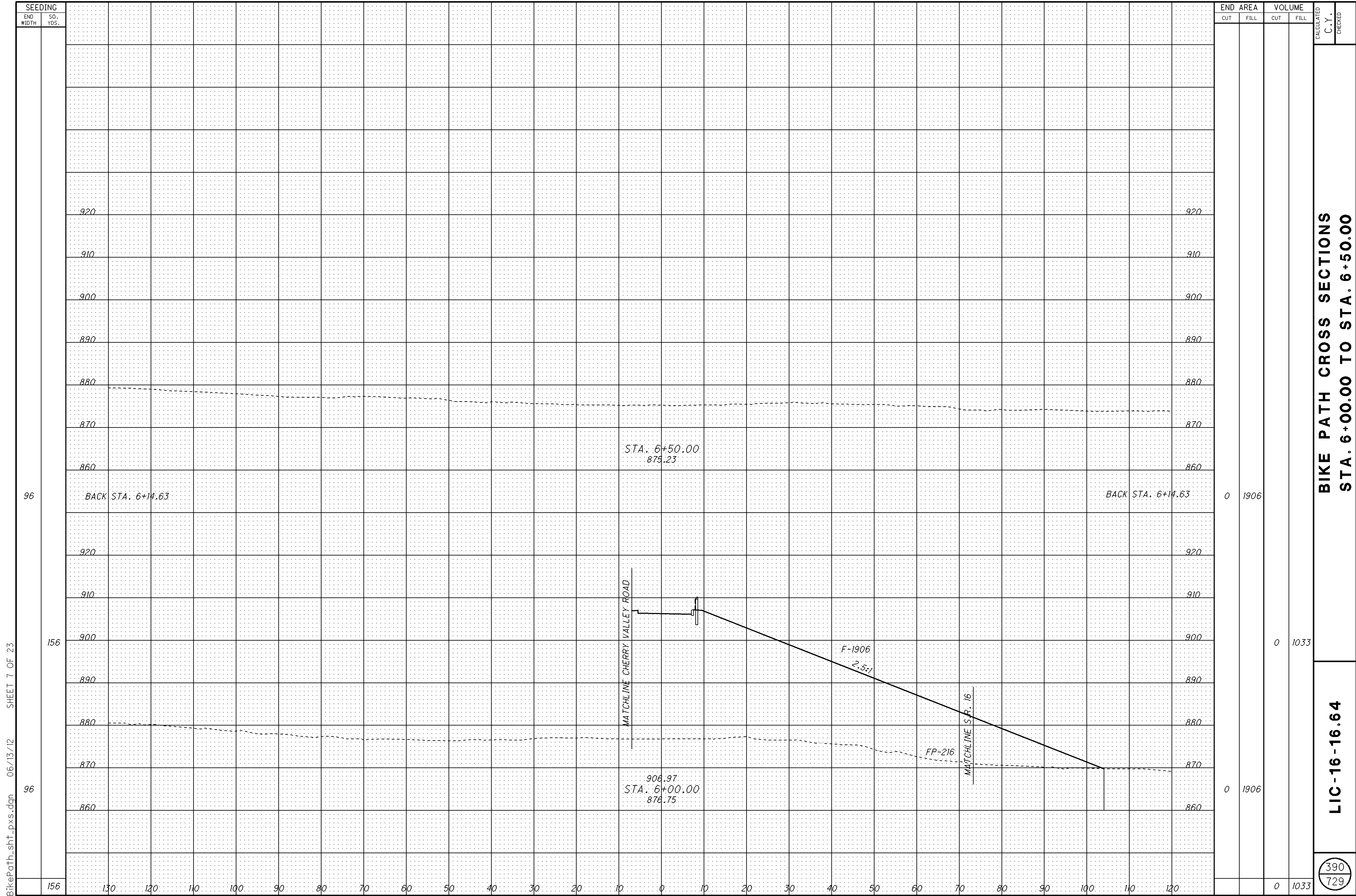
SEEDING	
END WIDTH	SO. YDS.
525	
93	
494	
85	
1019	

END AREA		VOLUME		CALCULATED C.Y.	CHECKED
CUT	FILL	CUT	FILL		
0	1680	0	3321		
0	2885	0	2885		
0	1435	0	1435		
0	6206	0	6206		

**BIKE PATH CROSS SECTIONS
STA. 5+00.00 TO STA. 5+50.00**

LIC-16-16.64

389
729



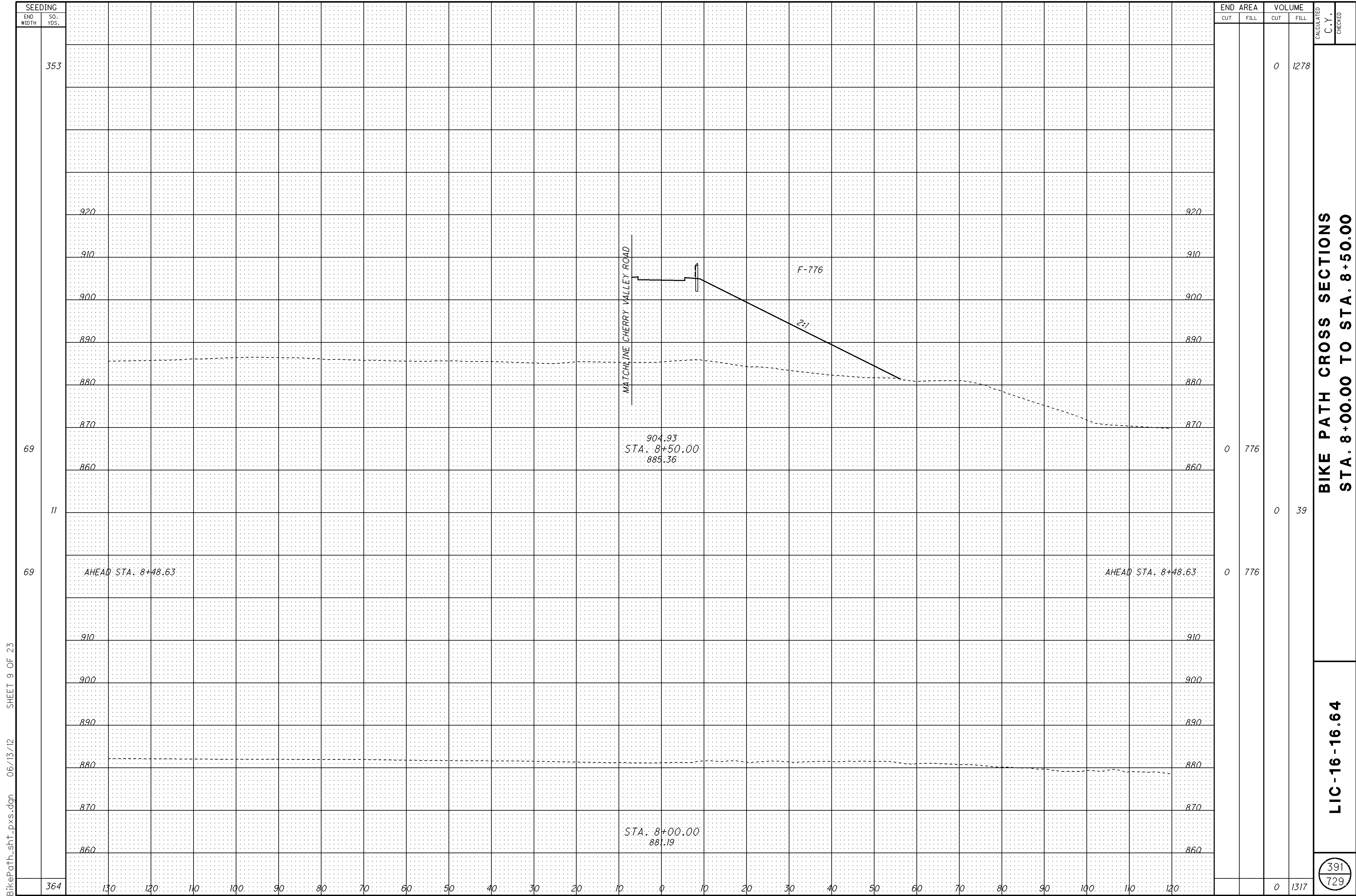
BikePath_sht_pxs.dgn 06/13/12 SHEET 7 OF 23

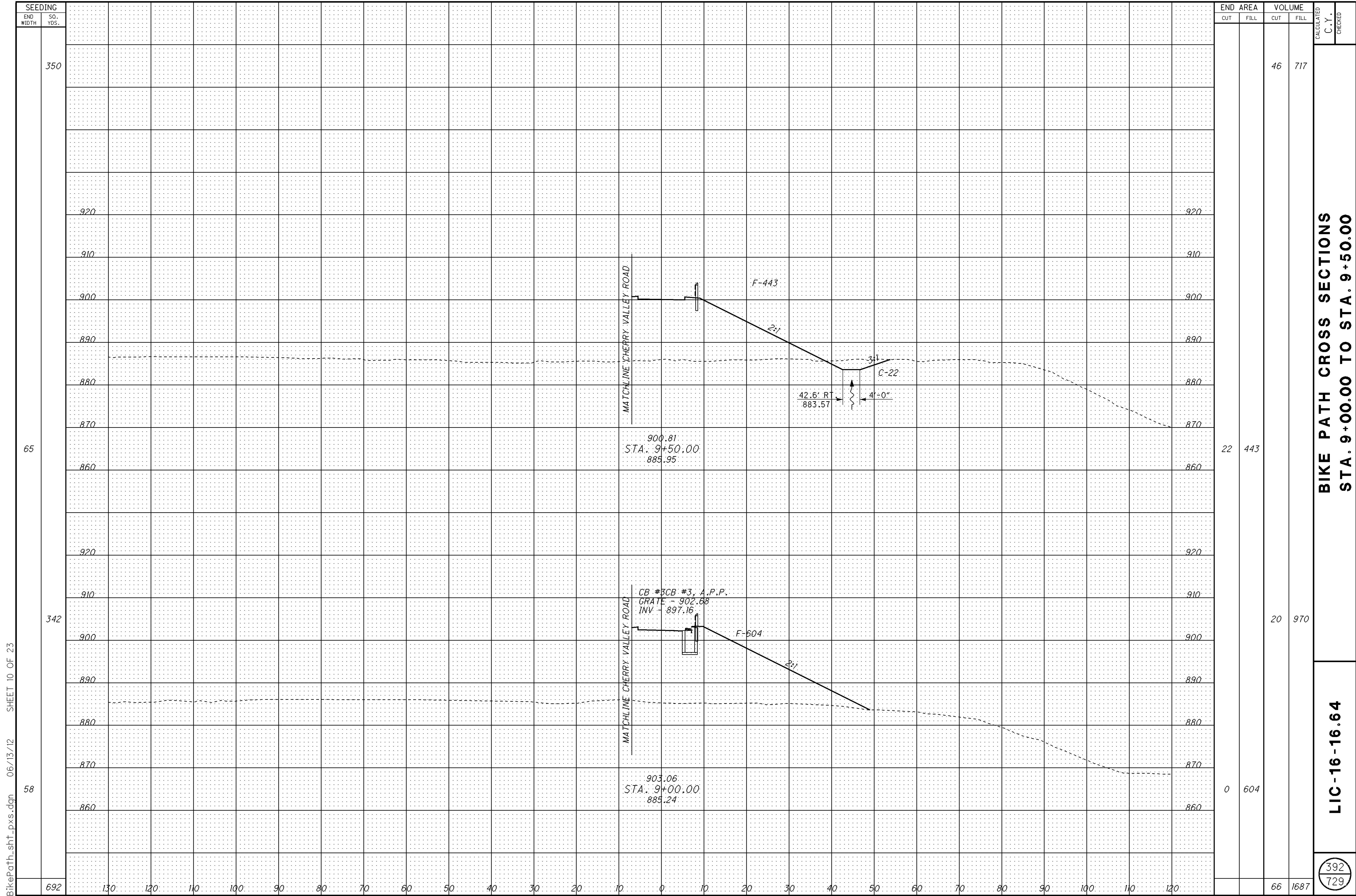
**BIKE PATH CROSS SECTIONS
STA. 6+00.00 TO STA. 6+50.00**

LIC-16-16.64

390
729

CALCULATED
C.Y.
CHECKED





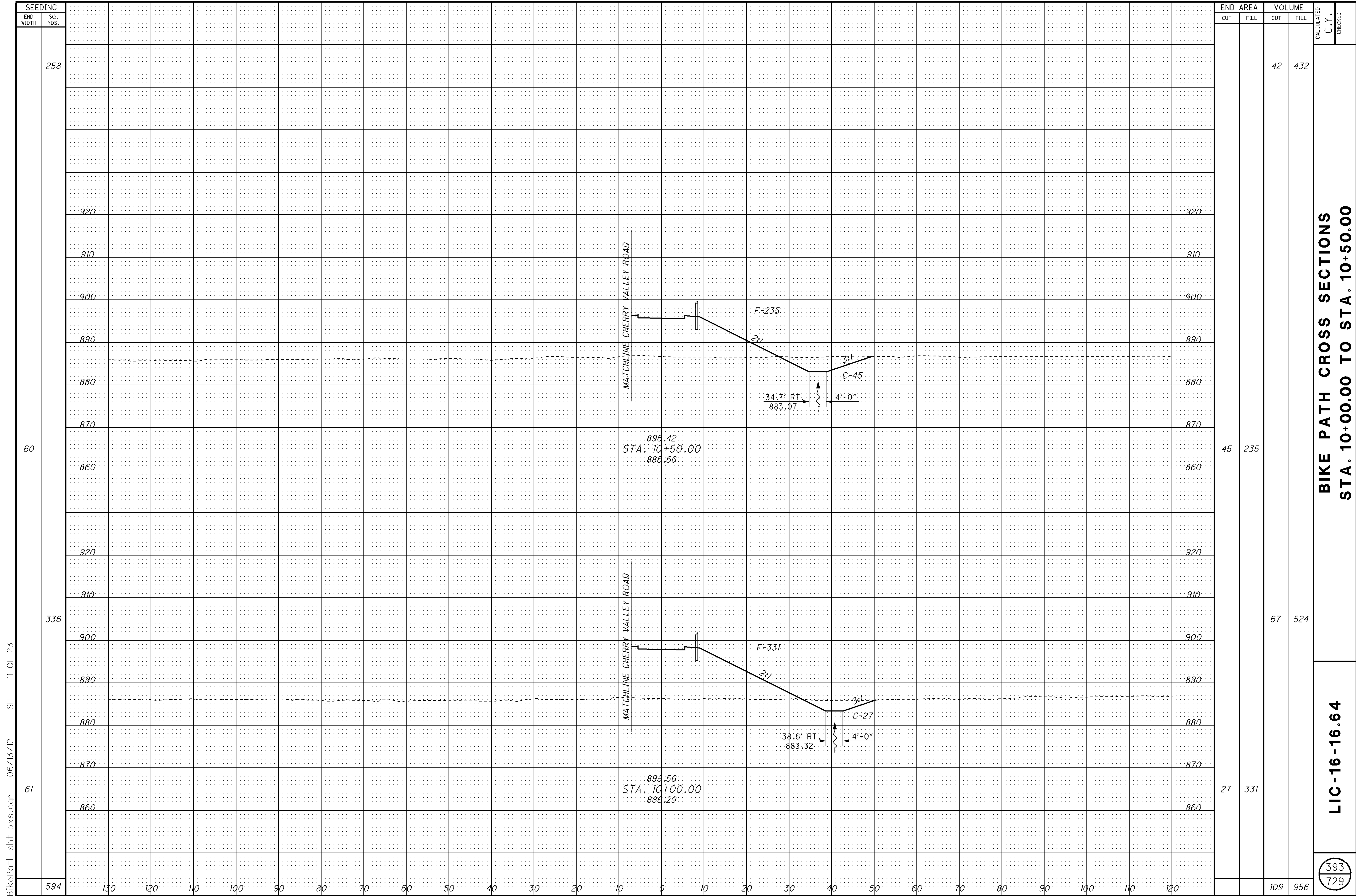
SEEDING	
END WIDTH	SO. YDS.
350	
65	
342	
58	
692	

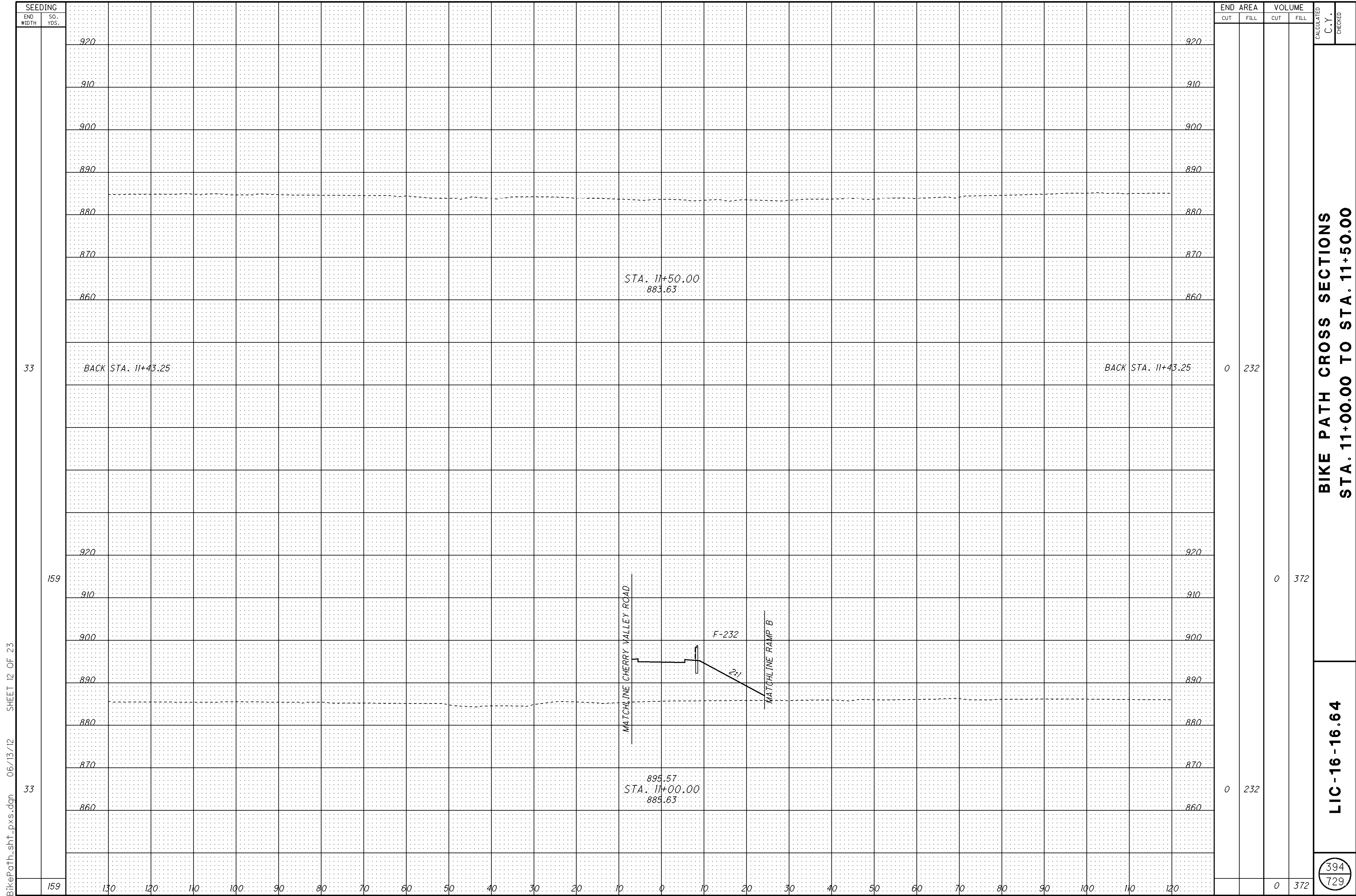
END AREA		VOLUME	
CUT	FILL	CUT	FILL
		46	717
22	443		
20	970		
0	604		
66	1687		

BIKE PATH CROSS SECTIONS
 STA. 9+00.00 TO STA. 9+50.00

LIC-16-16.64

392
729



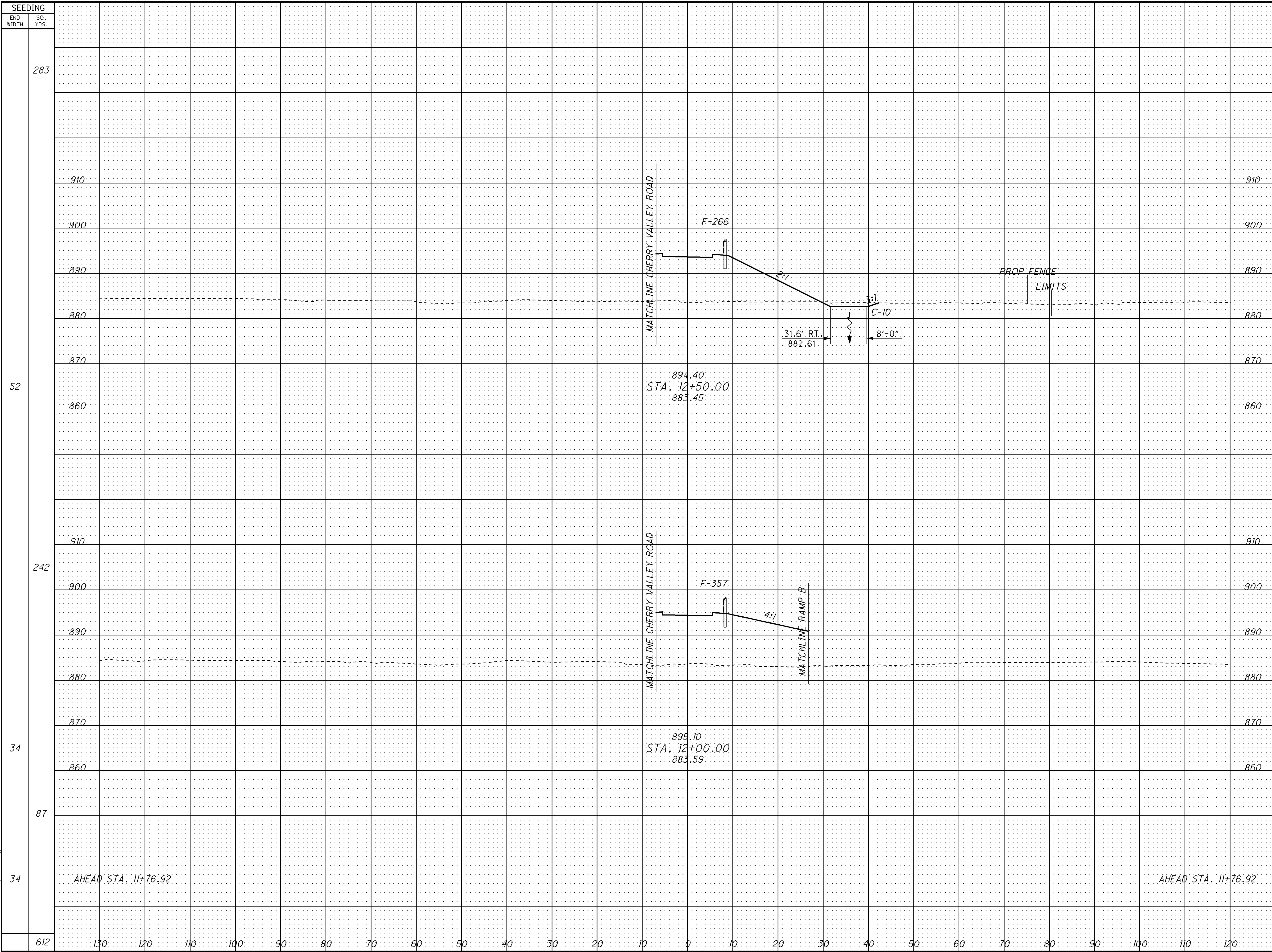


BikePath_sht_pxs.dgn 06/13/12 SHEET 12 OF 23

**BIKE PATH CROSS SECTIONS
STA. 11+00.00 TO STA. 11+50.00**

LIC-16-16.64

394
729

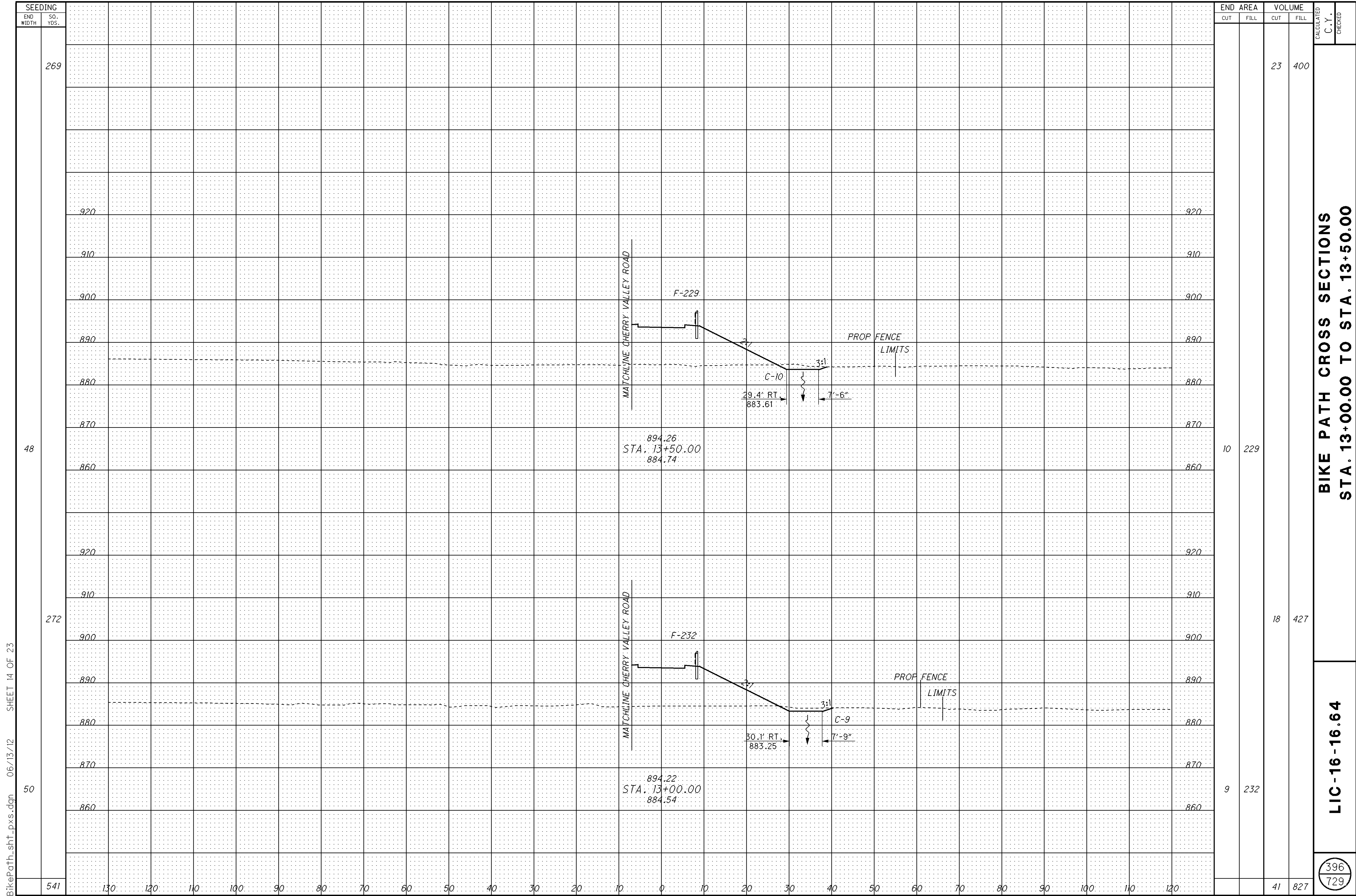


SEEDING		END AREA		VOLUME		CALCULATED C.Y.	CHECKED
END WIDTH	SO. YDS.	CUT	FILL	CUT	FILL		
283				18	461		
52		10	266				
242				9	577		
34		0	357				
87				0	305		
34		0	357				
612				18	1333		

**BIKE PATH CROSS SECTIONS
STA. 12+00.00 TO STA. 12+50.00**

LIC-16-16.64

395
729



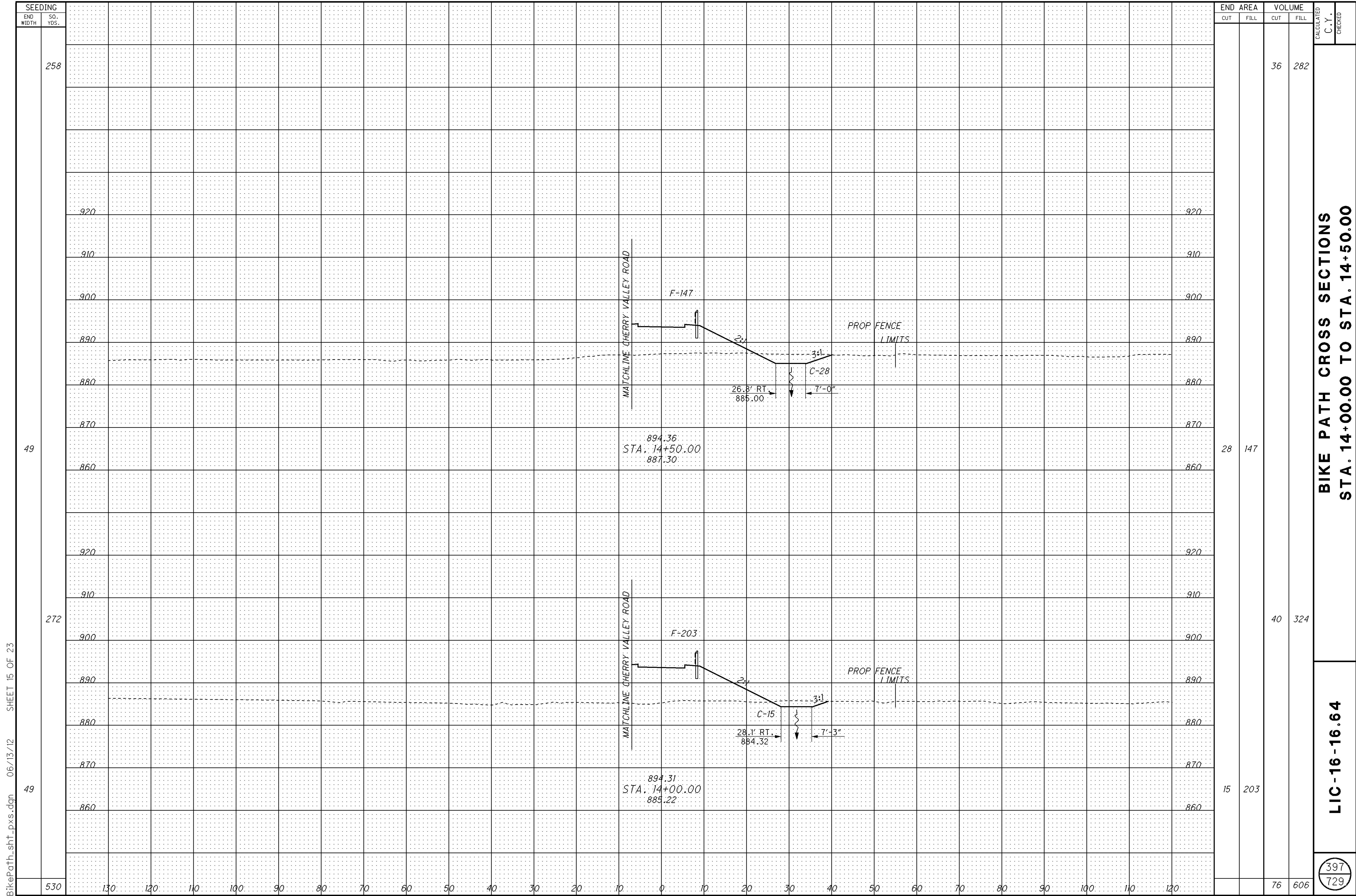
SEEDING	
END WIDTH	SO. YDS.
269	
48	
272	
50	
541	

END AREA		VOLUME	
CUT	FILL	CUT	FILL
		23	400
10	229	18	427
9	232	41	827

BIKE PATH CROSS SECTIONS
 STA. 13+00.00 TO STA. 13+50.00

LIC-16-16.64

CALCULATED
 C.Y.
 CHECKED



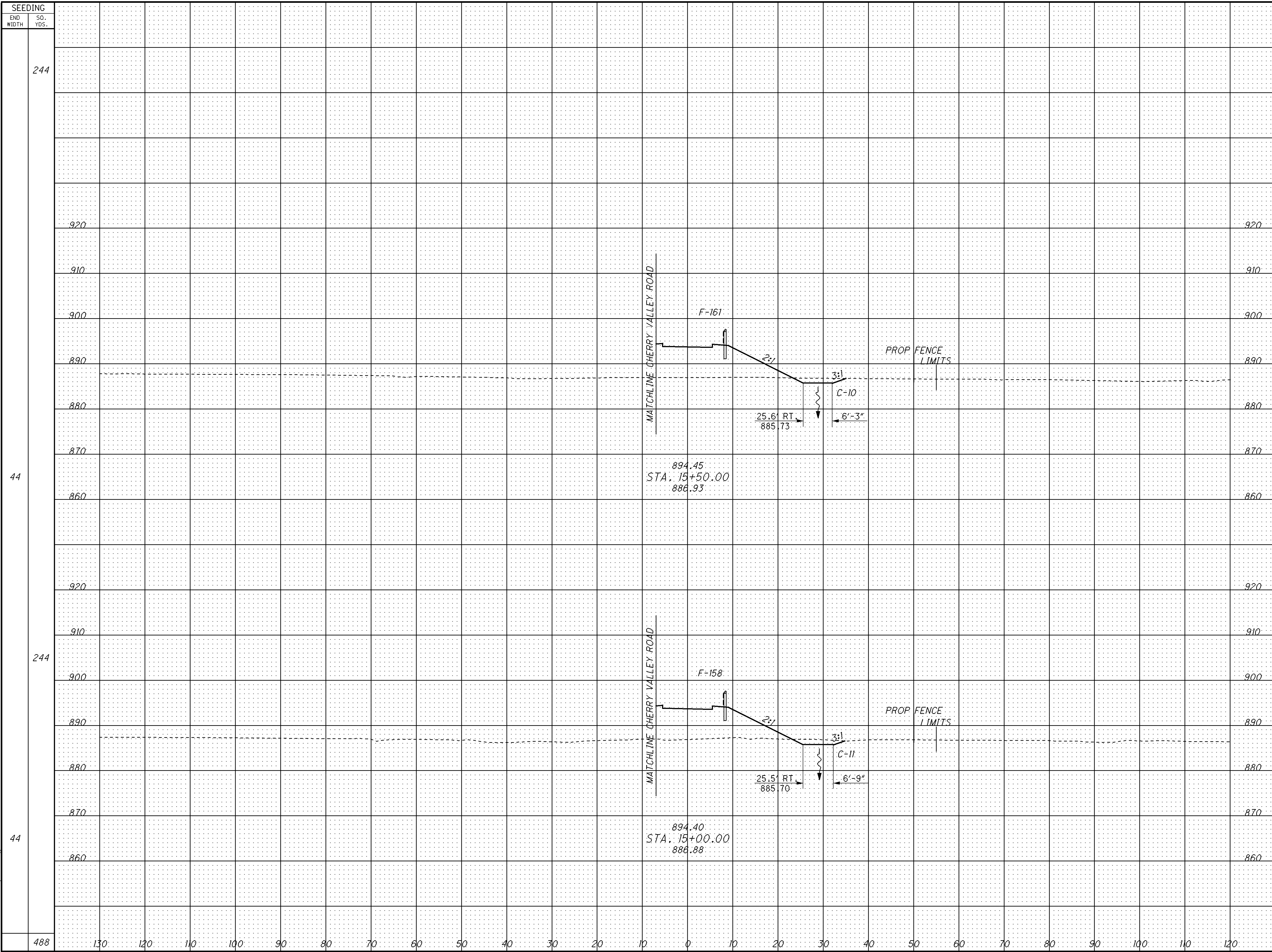
SEEDING	
END WIDTH	SO. YDS.
258	
49	
272	
49	
530	

END AREA		VOLUME	
CUT	FILL	CUT	FILL
		36	282
28	147	40	324
15	203	76	606

BIKE PATH CROSS SECTIONS
 STA. 14+00.00 TO STA. 14+50.00

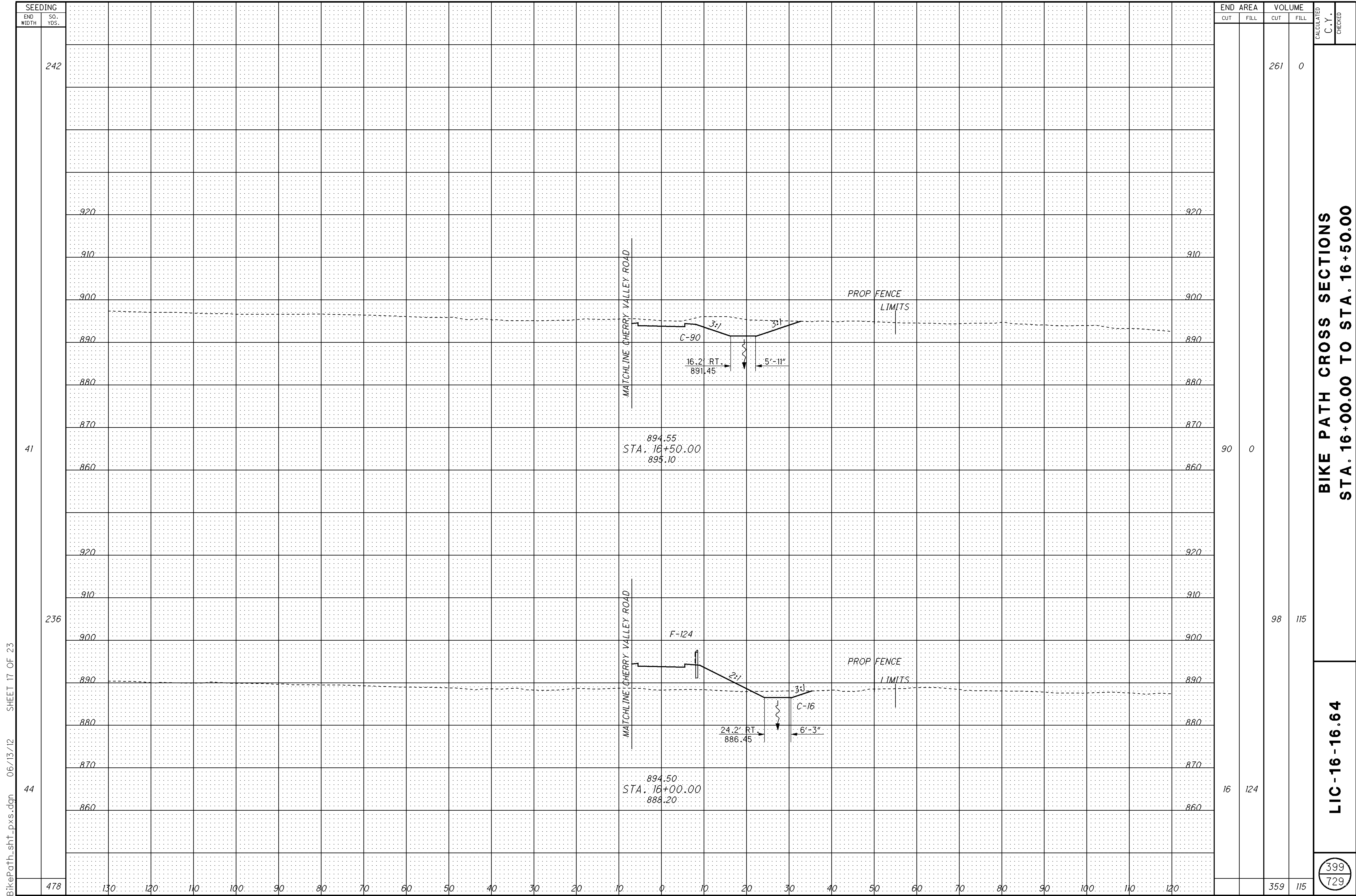
LIC-16-16.64

397
729



END AREA	VOLUME	CUT		FILL	
		CUT	FILL	CUT	FILL
24	264				
10	161				
19	295				
11	158				
43	559				

CALCULATED C.Y. CHECKED
BIKE PATH CROSS SECTIONS
STA. 15+00.00 TO STA. 15+50.00
LIC-16-16.64
 398
 729



BikePath_sht_pxs.dgn 06/13/12 SHEET 17 OF 23

41

236

44

242

478

130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120

MATCHLINE CHERRY VALLEY ROAD

MATCHLINE CHERRY VALLEY ROAD

894.55
STA. 16+50.00
895.10

894.50
STA. 16+00.00
888.20

C-90
16.2 RT.
891.45

24.2' RT.
888.45

F-124

C-16

PROP FENCE
LIMITS

PROP FENCE
LIMITS

3:1

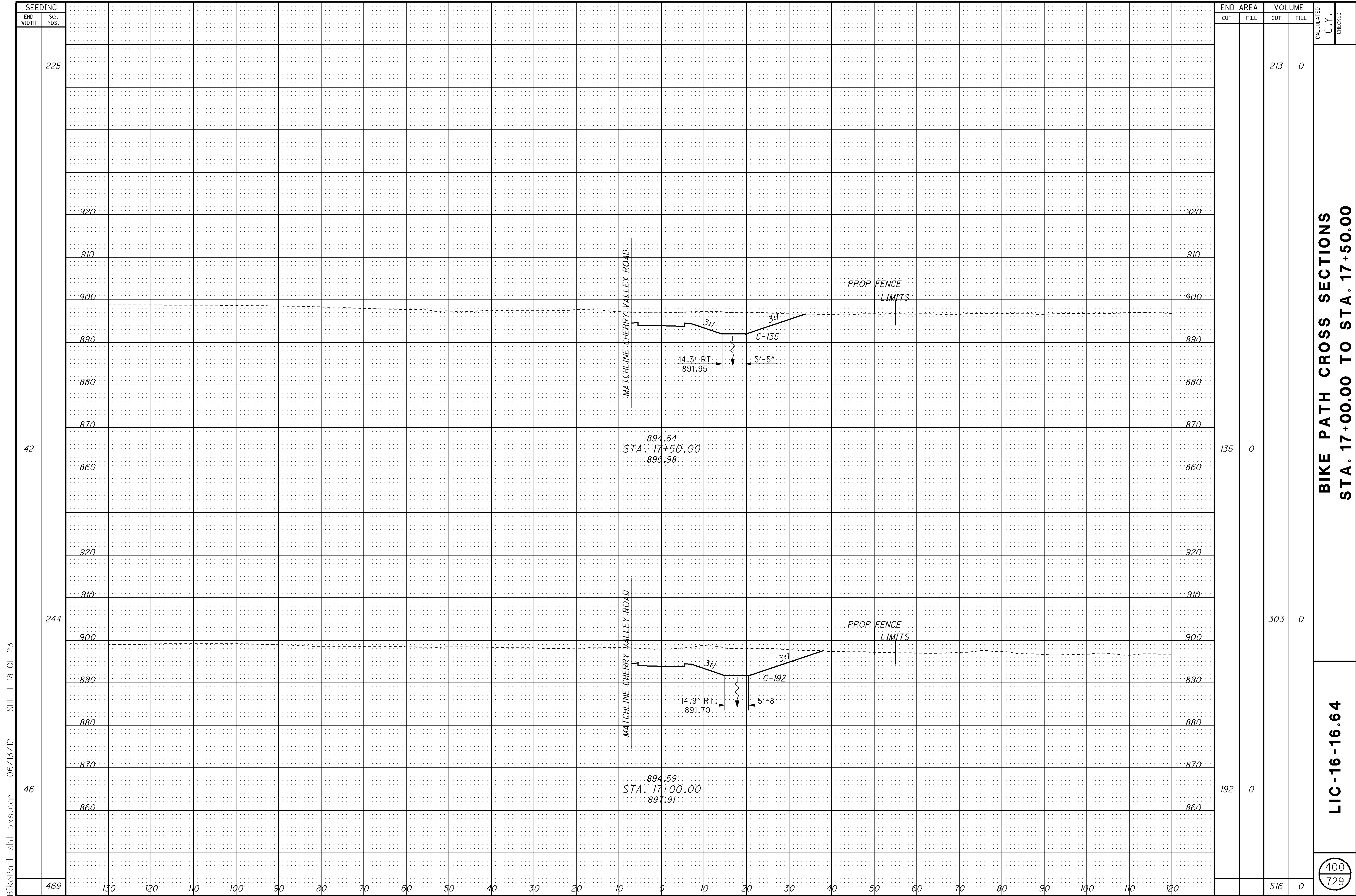
3:1

2:1

3:1

6'-3"

5'-11"



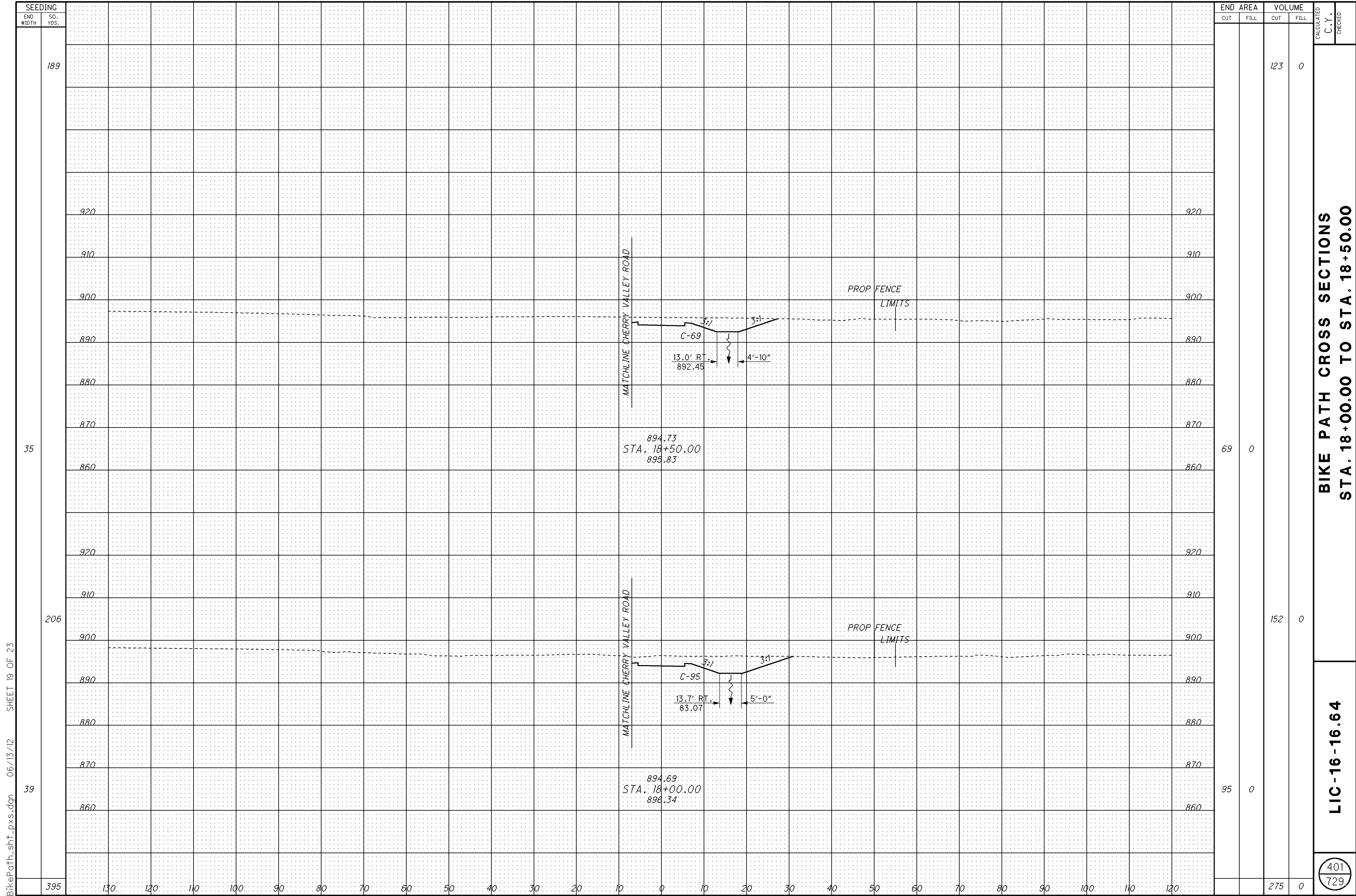
SEEDING	
END WIDTH	SO. YDS.
225	
42	
244	
46	
469	

END AREA		VOLUME		CALCULATED C.Y.	CHECKED
CUT	FILL	CUT	FILL		
		213	0		
135	0	303	0		
192	0	516	0		

**BIKE PATH CROSS SECTIONS
STA. 17+00.00 TO STA. 17+50.00**

LIC-16-16.64

400
729



SEEDING	
END WIDTH	SO. YDS.

189	
-----	--

END AREA		VOLUME	
CUT	FILL	CUT	FILL

123	0		
-----	---	--	--

CALCULATED C.Y.	CHECKED
-----------------	---------

**BIKE PATH CROSS SECTIONS
STA. 18+00.00 TO STA. 18+50.00**

LIC-16-16.64

401
729

35

206

39

395 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120

69

0

152

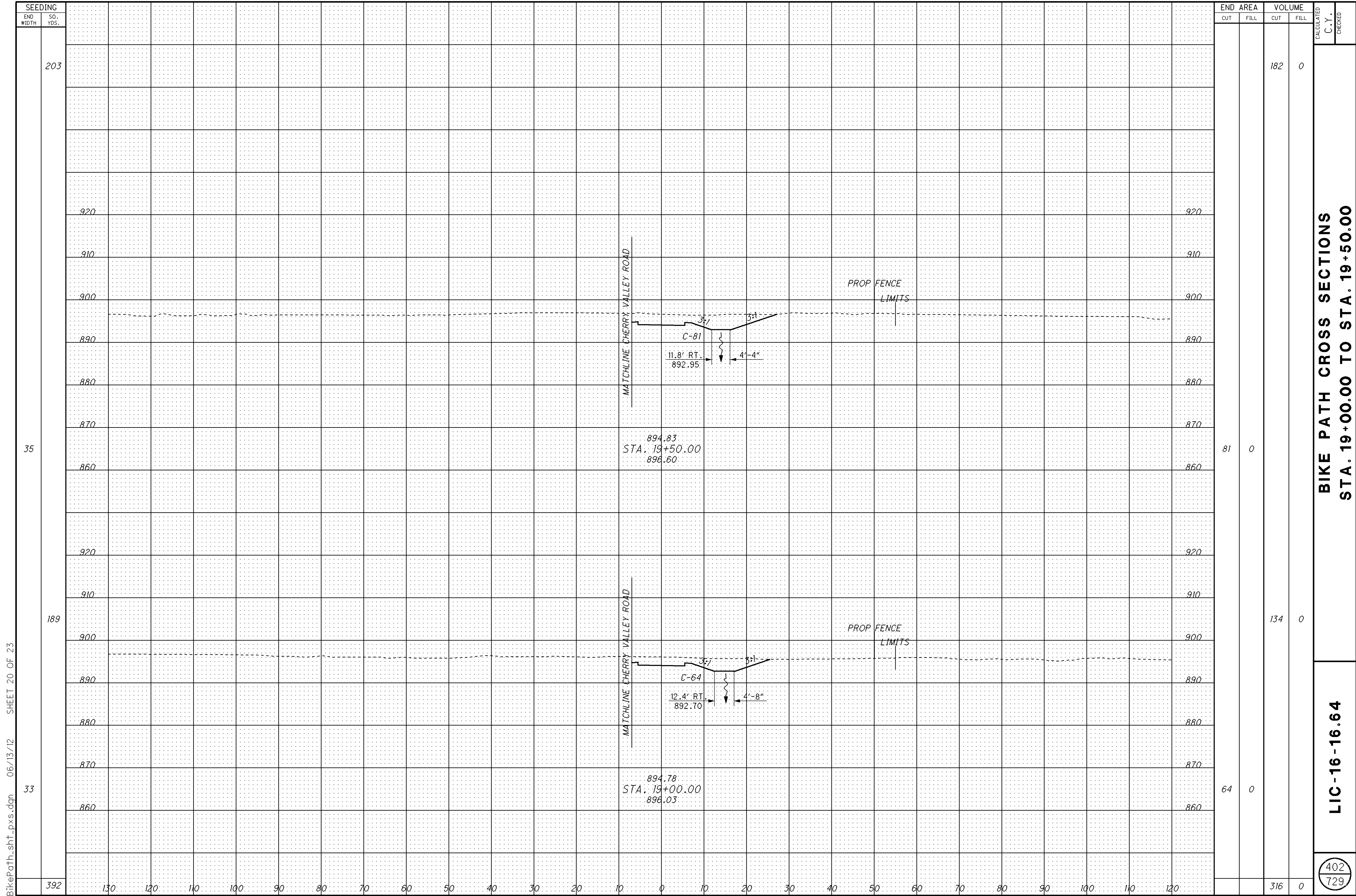
0

95

0

275

0



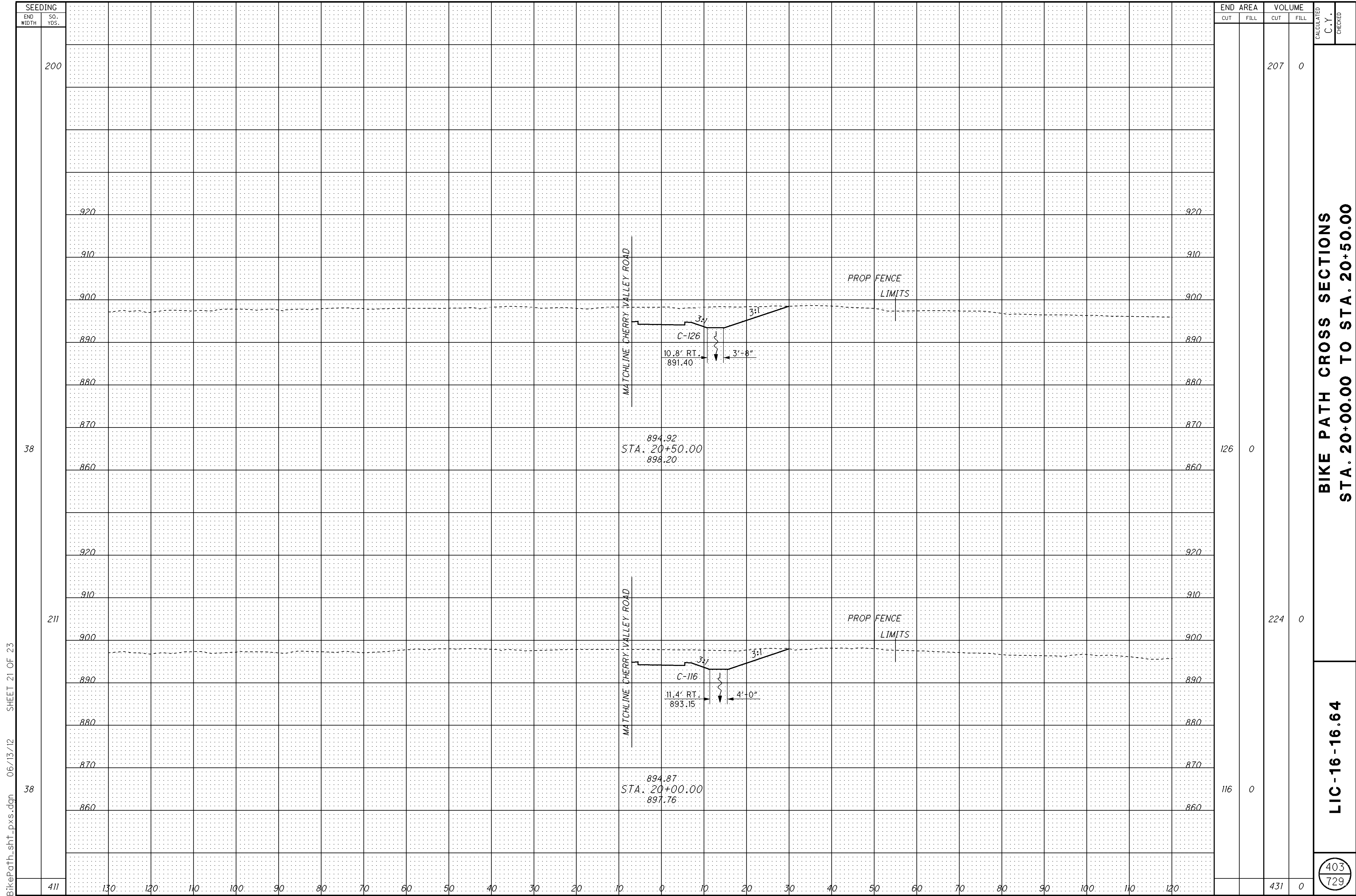
SEEDING	
END WIDTH	SO. YDS.
203	
35	
189	
33	
392	

END AREA		VOLUME	
CUT	FILL	CUT	FILL
		182	0
81	0		
		134	0
64	0		
		316	0

**BIKE PATH CROSS SECTIONS
STA. 19+00.00 TO STA. 19+50.00**

LIC-16-16.64

402
729



BikePath_sht_pxs.dgn 06/13/12 SHEET 21 OF 23

SEEDING	
END WIDTH	SO. YDS.
200	
38	
211	
38	
411	

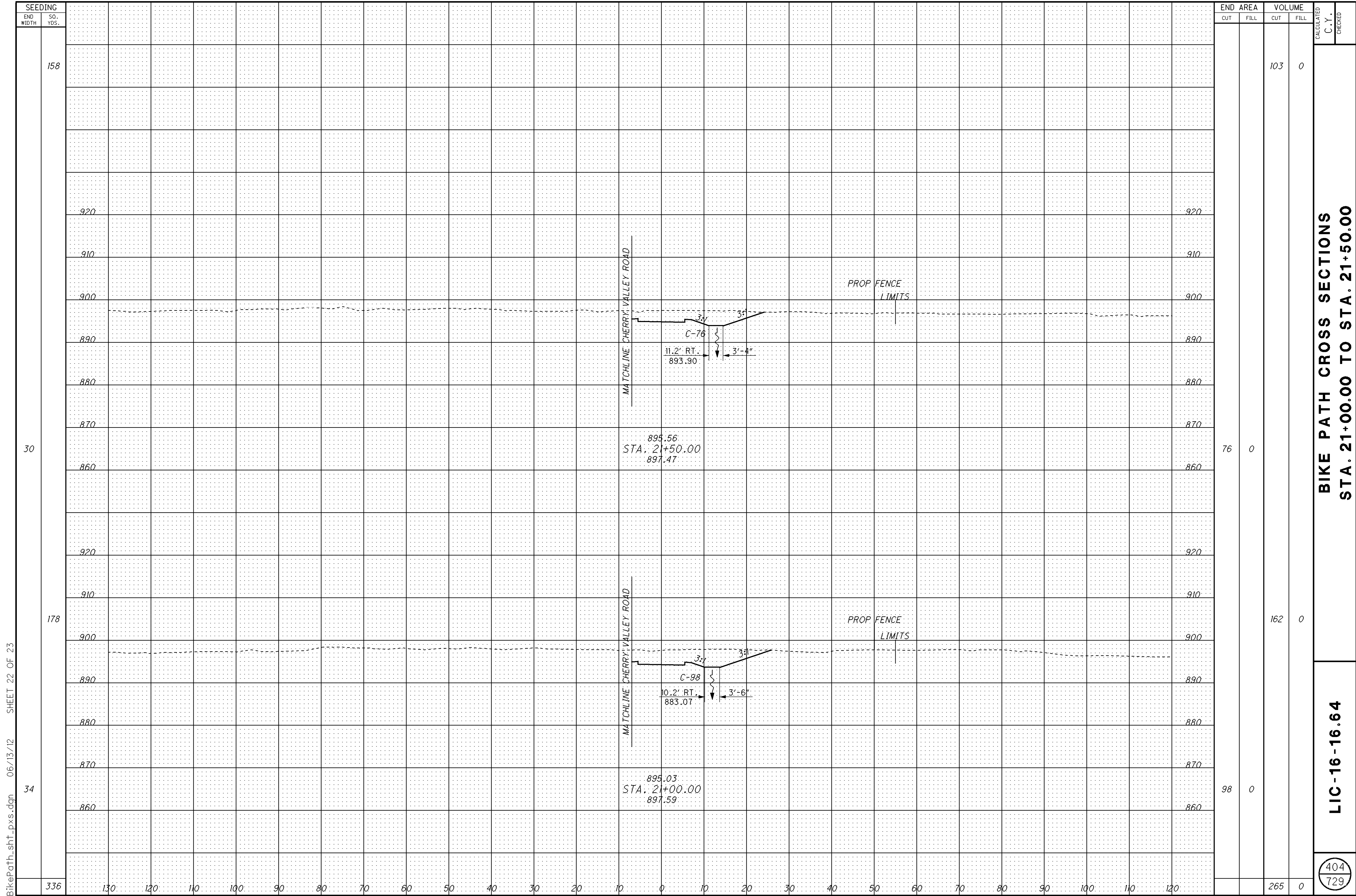
END AREA		VOLUME	
CUT	FILL	CUT	FILL
		207	0
126	0	224	0
116	0	431	0

BIKE PATH CROSS SECTIONS
STA. 20+00.00 TO STA. 20+50.00

LIC-16-16.64

403
729

CALCULATED
C.Y.
CHECKED



SEEDING

END WIDTH	SO. YDS.
158	
30	
178	
34	
336	

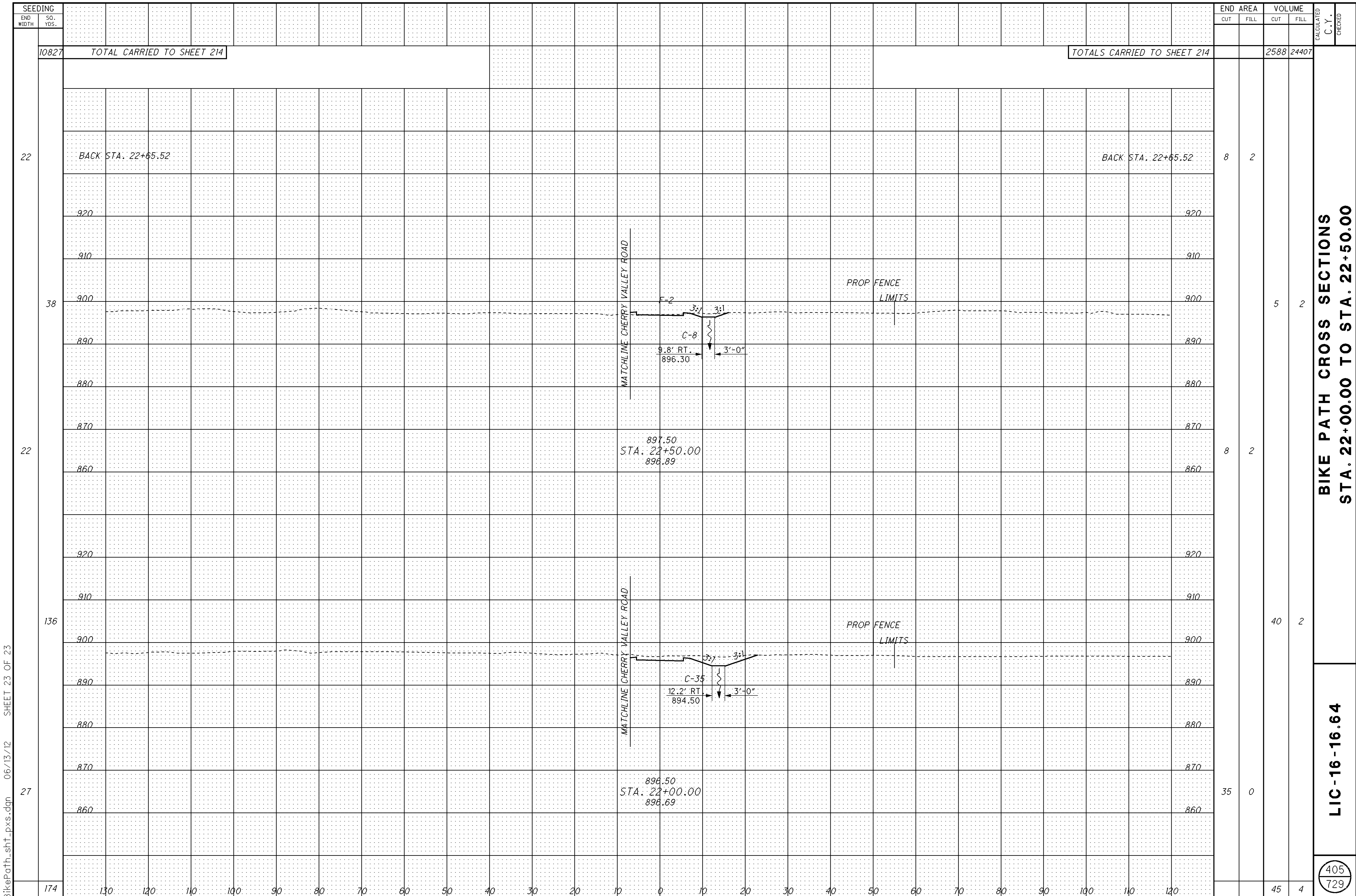
END AREA

CUT	FILL	VOLUME	CUT	FILL
		103	0	
		76	0	
		162	0	
		98	0	
		265	0	

BIKE PATH CROSS SECTIONS
STA. 21+00.00 TO STA. 21+50.00

LIC-16-16.64

404
729



SEEDING
END WIDTH SO. YDS.

END AREA VOLUME
CUT FILL CUT FILL
CALCULATED C.Y. CHECKED

10827 TOTAL CARRIED TO SHEET 214

TOTALS CARRIED TO SHEET 214 2588 24407

22

BACK STA. 22+65.52

BACK STA. 22+65.52

8 2

38

PROP FENCE LIMITS

5 2

22

897.50
STA. 22+50.00
896.89

8 2

136

PROP FENCE LIMITS

40 2

27

896.50
STA. 22+00.00
896.69

35 0

174

130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120

45 4

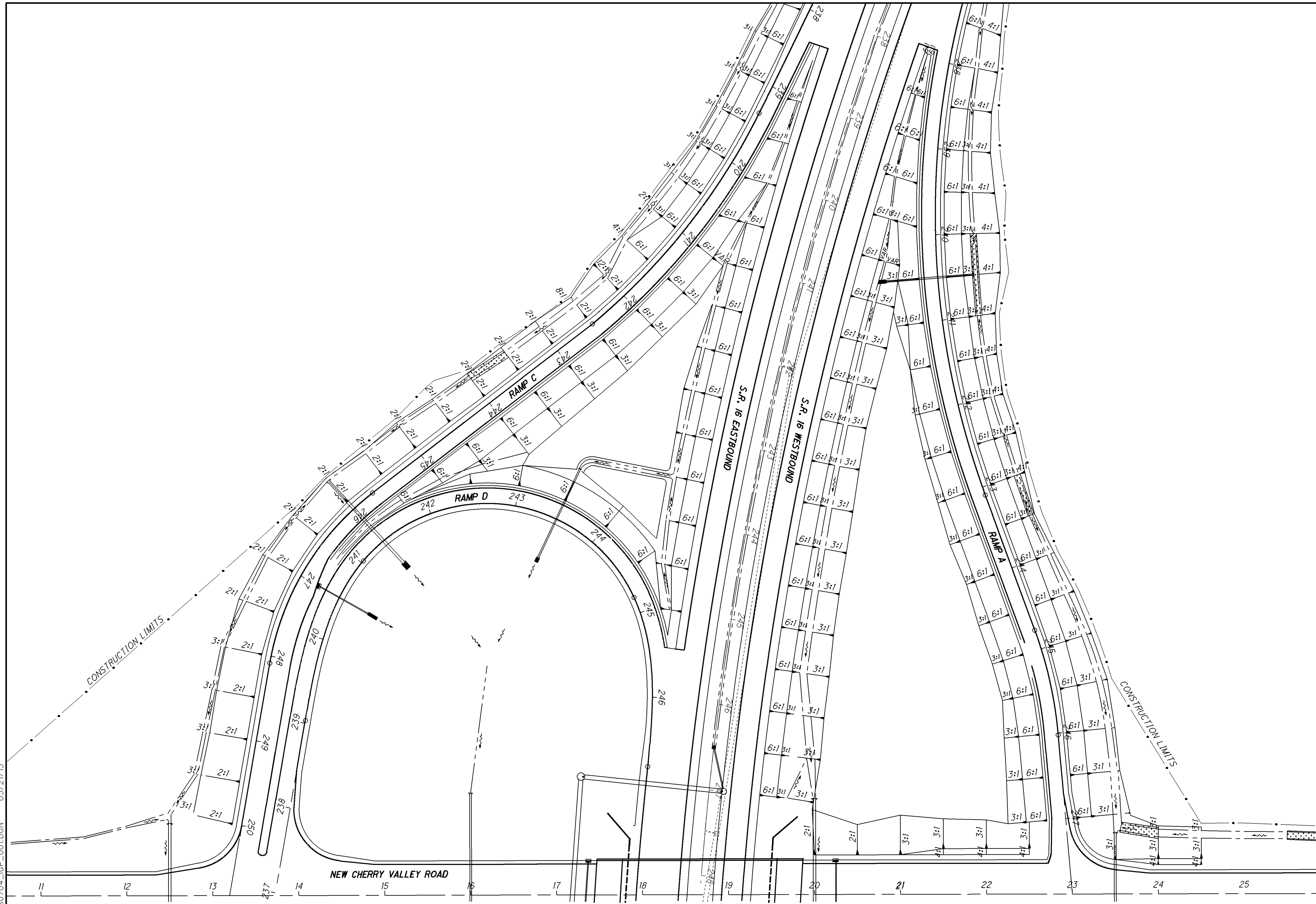
BIKE PATH CROSS SECTIONS
STA. 22+00.00 TO STA. 22+50.00

LIC-16-16.64


405
729

BikePath_sht_pxs.dgn 06/13/12 SHEET 23 OF 23

80704_IGP_001.DGN 03/21/13



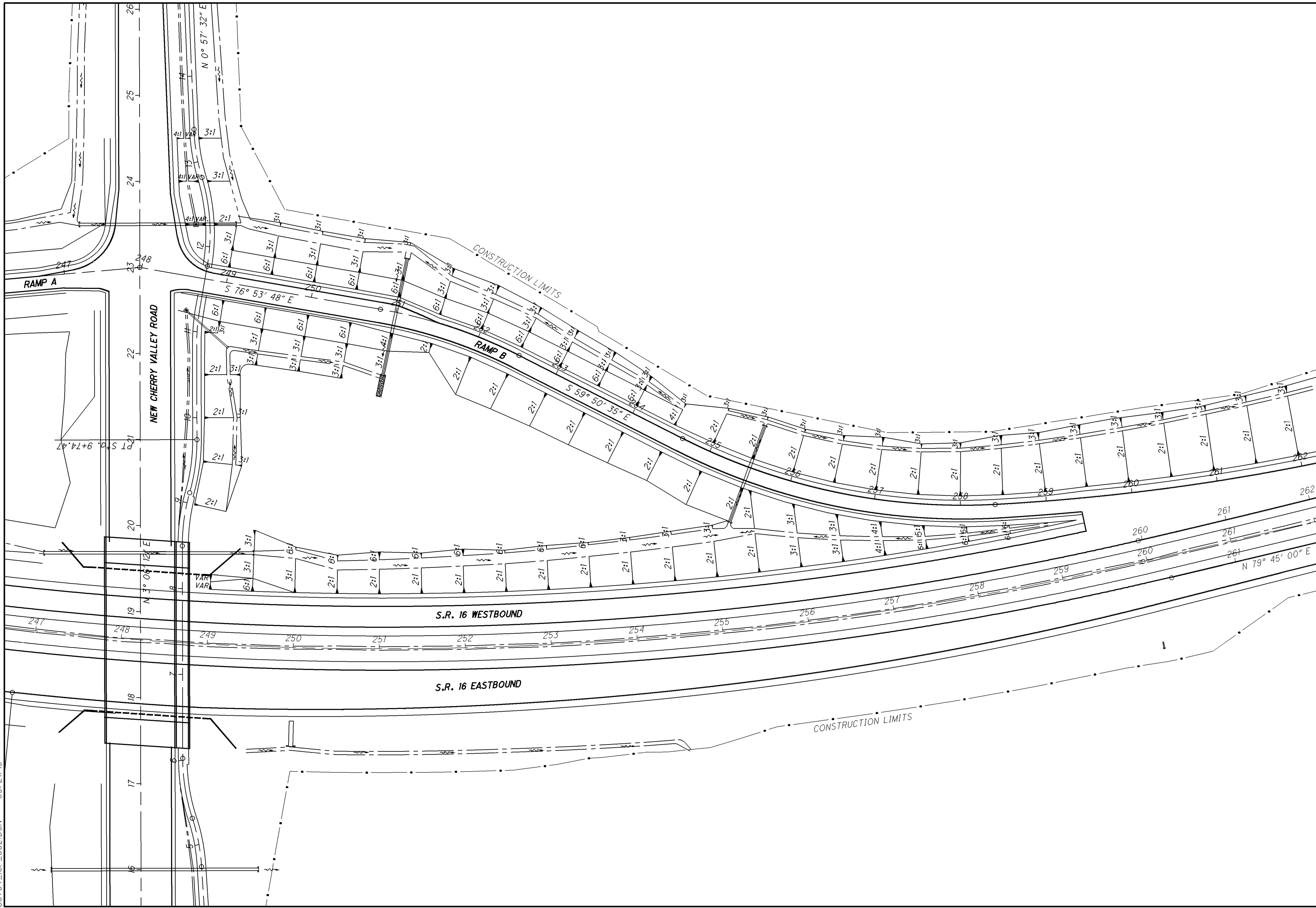




 HORIZONTAL SCALE IN FEET

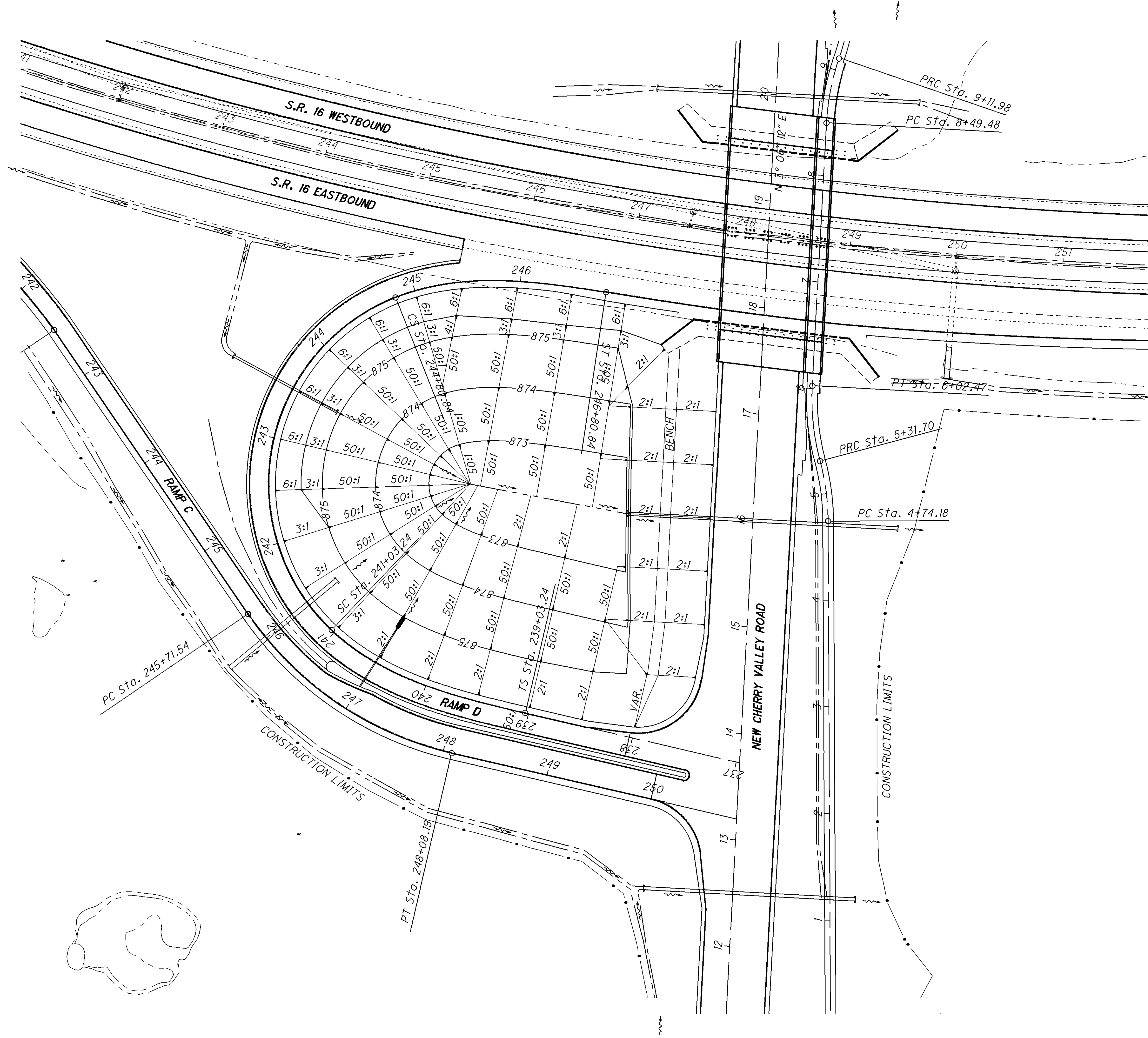
INTERCHANGE GRADING PLAN S.R. 16,
 RAMP A AND RAMP C

LIC-16-16.64



CHECKED

**INTERCHANGE GRADING PLAN S.R.16,
NEW CHERRY VALLEY ROAD AND RAMP B**



HORIZONTAL
SCALE IN FEET

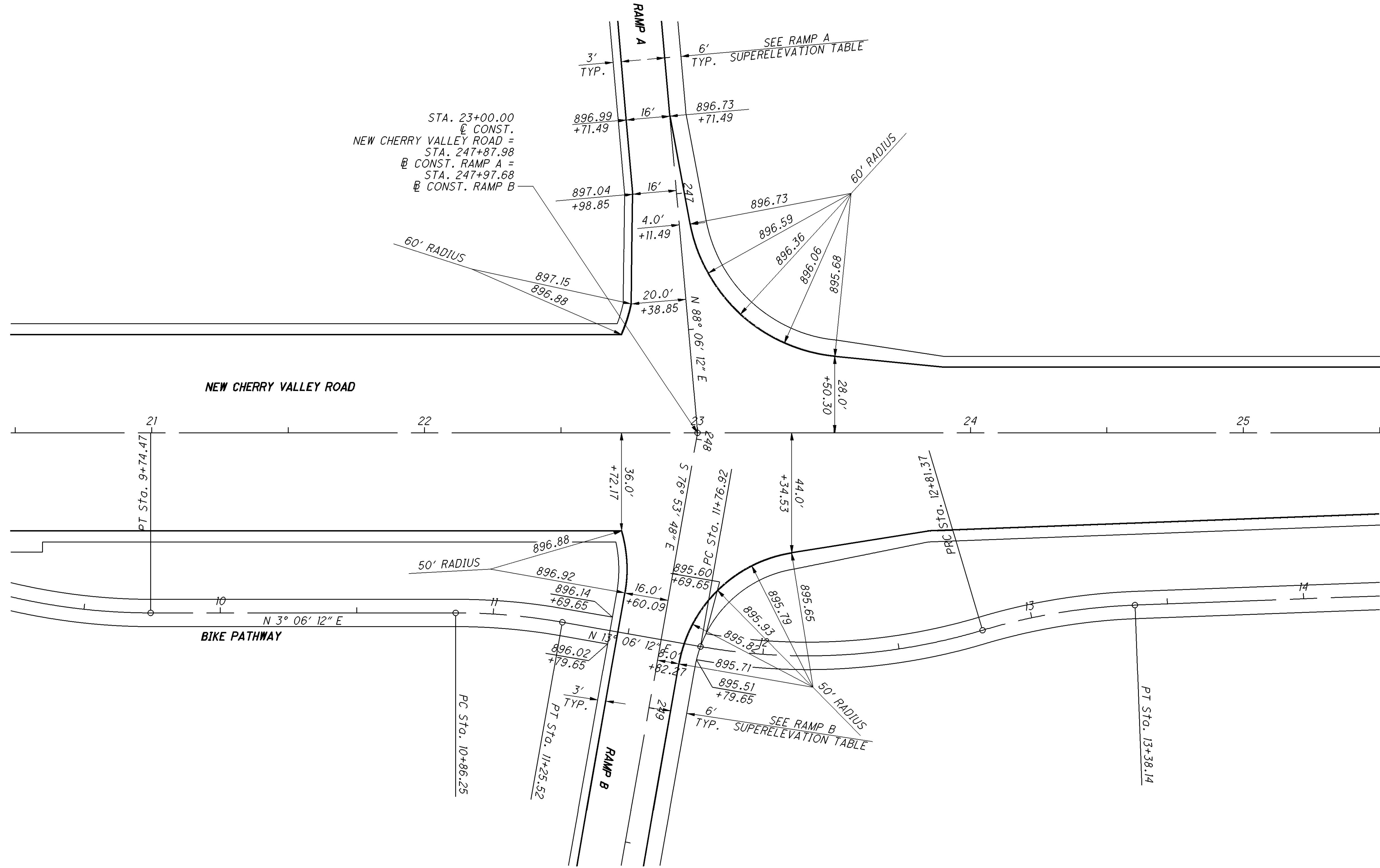
CALCULATED

CHECKED

**INTERCHANGE GRADING PLAN RAMP D
AND NEW CHERRY VALLEY ROAD**

LIC-16-16.64

408
729

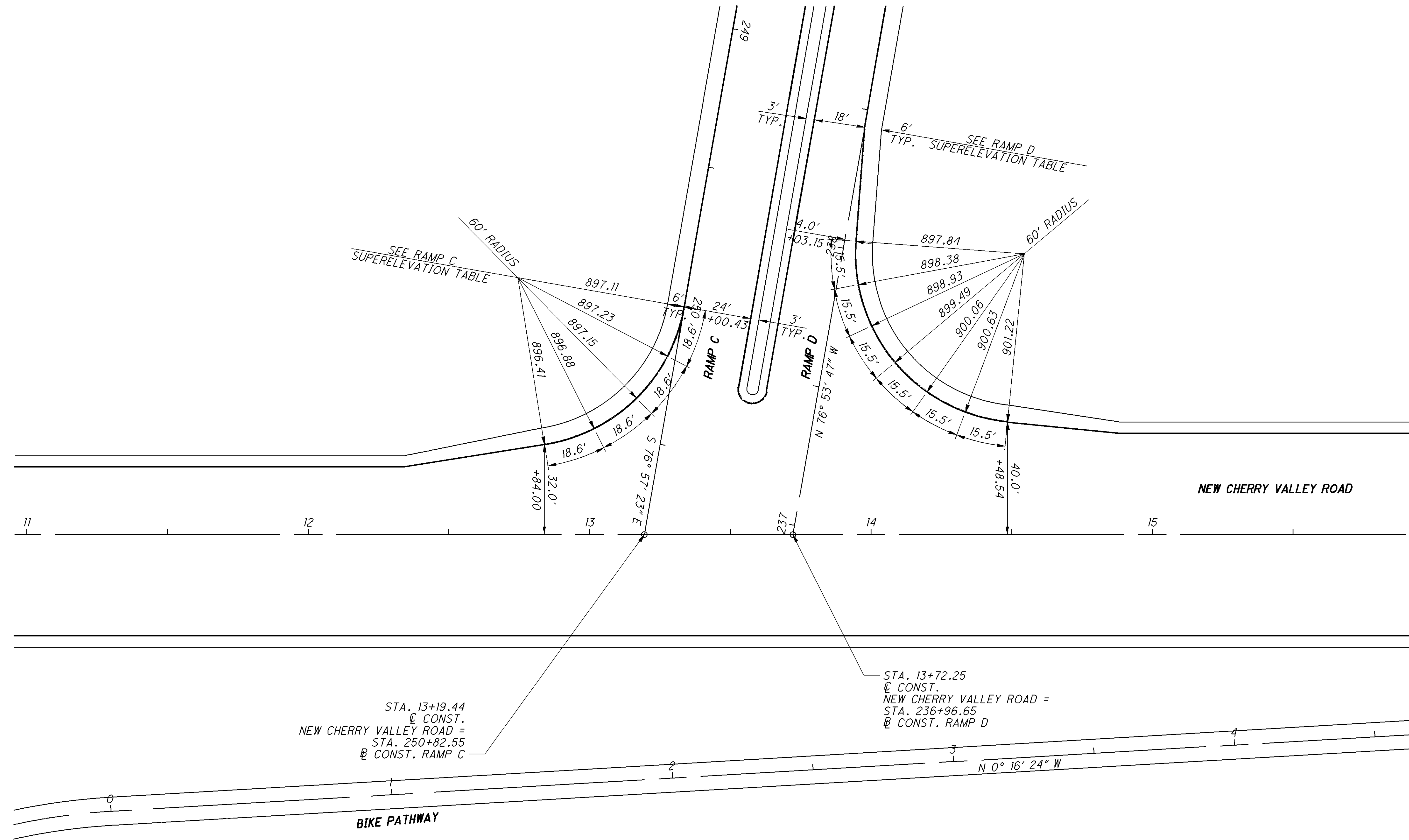


CALCULATED
 C.Y.
 CHECKED
 H.G.

0 10 20 40
 HORIZONTAL
 SCALE IN FEET

INTERSECTION DETAIL SHEET RAMPS A & B

LIC-16-16.64

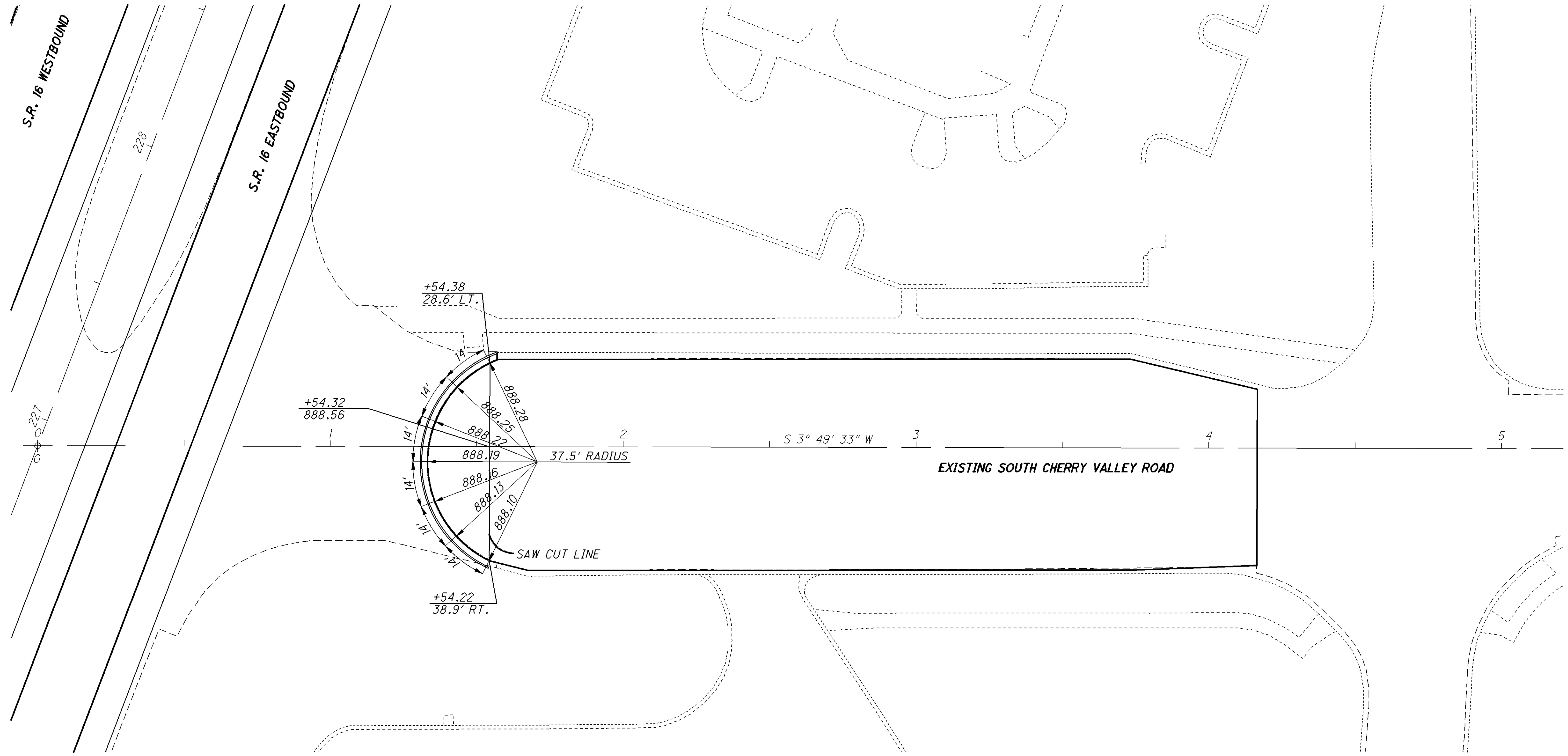


CALCULATED
C.Y.
CHECKED
H.G.

0 10 20 40
HORIZONTAL
SCALE IN FEET

INTERSECTION DETAIL SHEET RAMPS C & D

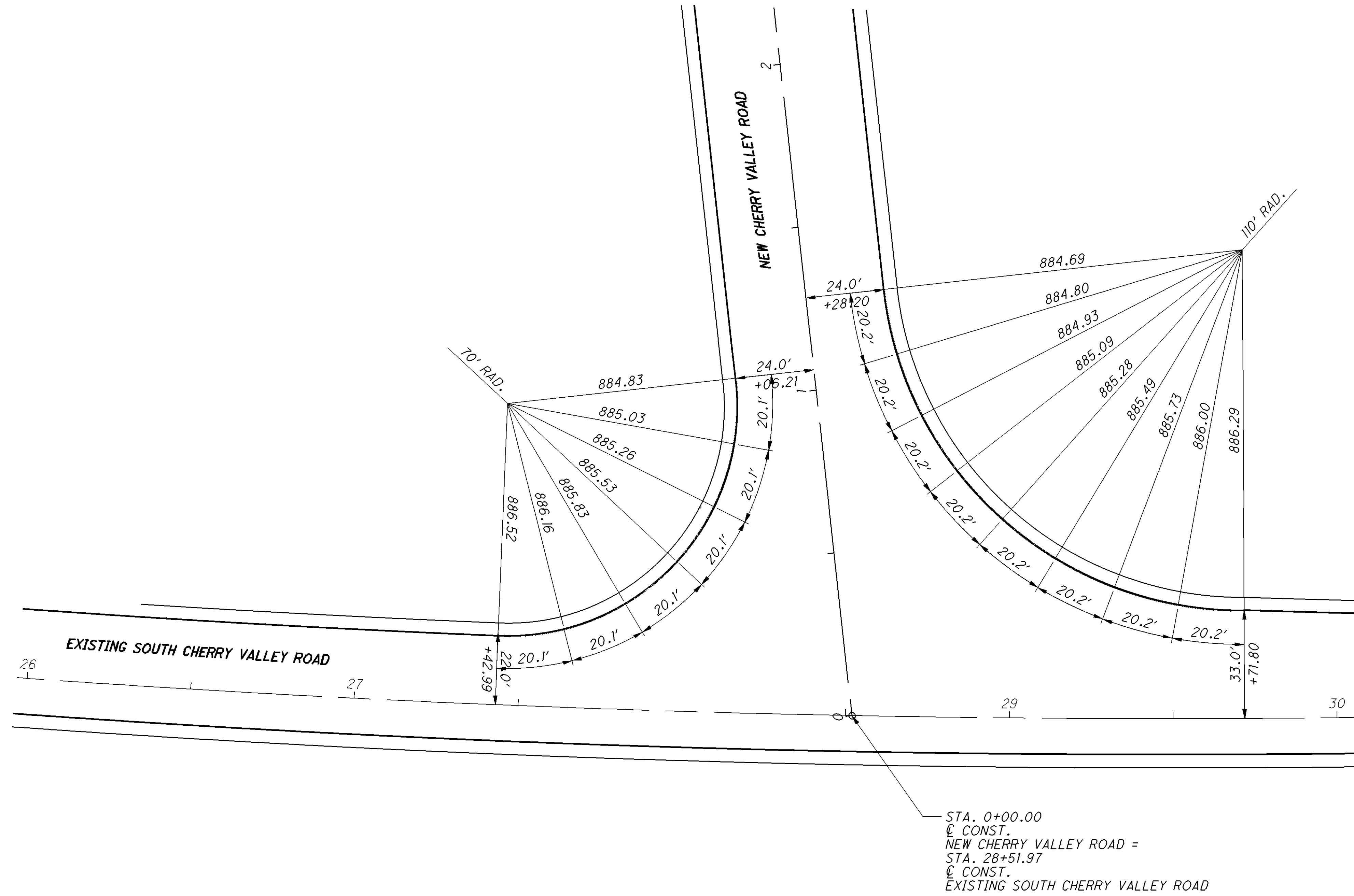
LIC-16-16.64



CALCULATED	
CHECKED	

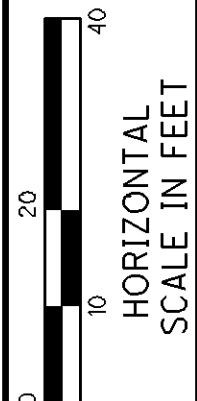
INTERSECTION DETAIL - EXISTING SOUTH CHERRY VALLEY ROAD CUL-DE-SAC STA. 1+31.00 TO STA. 18+00.00

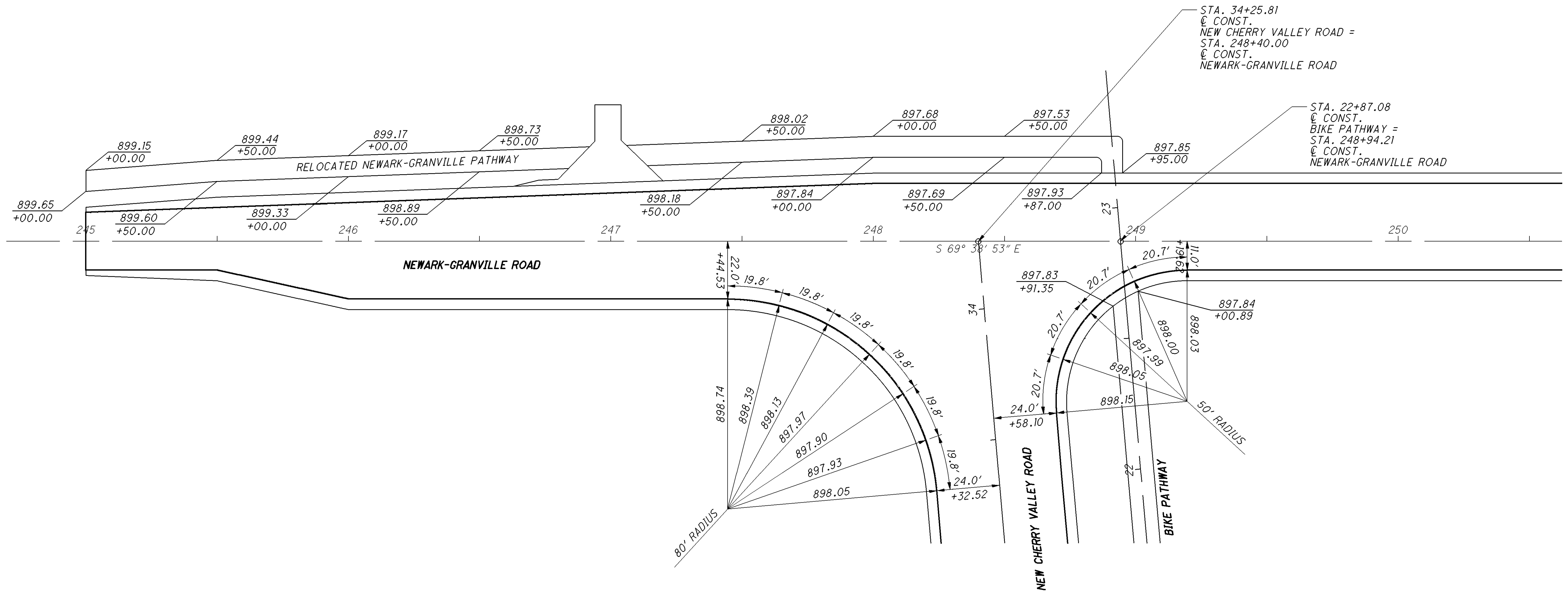
LIC-16-16.64



CALCULATED
C.Y.
CHECKED
XX

INTERSECTION DETAIL SHEET EXISTING SOUTH CHERRY VALLEY & NEW CHERRY VALLEY ROAD





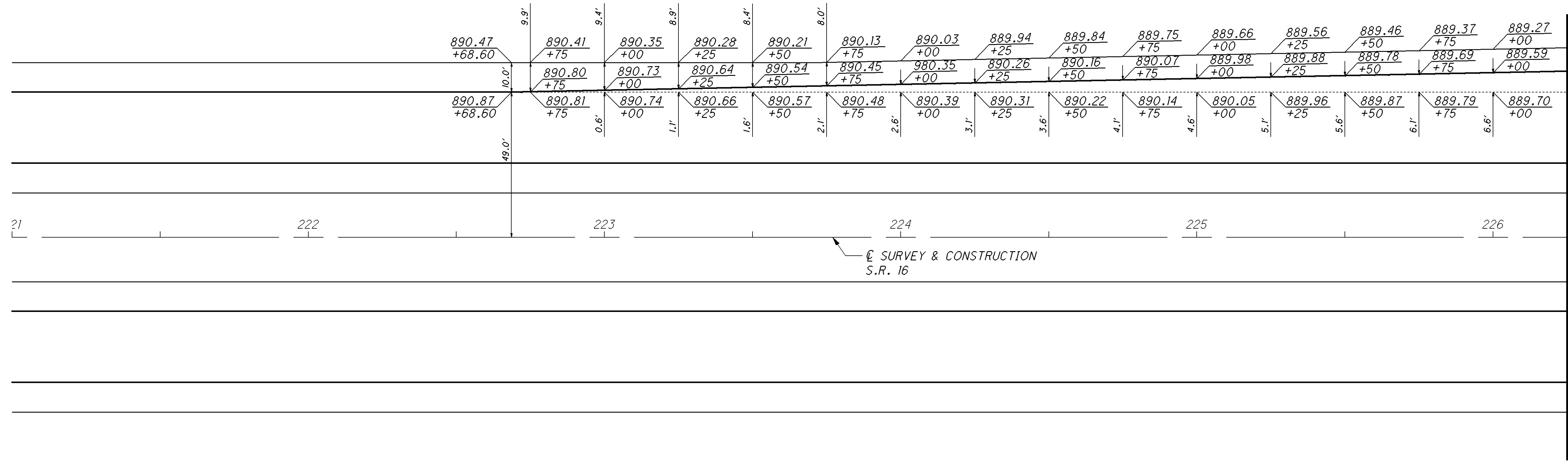
STA. 34+25.81
 @ CONST.
 NEW CHERRY VALLEY ROAD =
 STA. 248+40.00
 @ CONST.
 NEWARK-GRANVILLE ROAD

STA. 22+87.08
 @ CONST.
 BIKE PATHWAY =
 STA. 248+94.21
 @ CONST.
 NEWARK-GRANVILLE ROAD

CALCULATED	C.Y.
CHECKED	H.G.

0 10 20 40
 HORIZONTAL
 SCALE IN FEET

INTERSECTION DETAIL SHEET NEWARK-GRANVILLE ROAD & NEW CHERRY VALLEY ROAD



CL SURVEY & CONSTRUCTION
S.R. 16

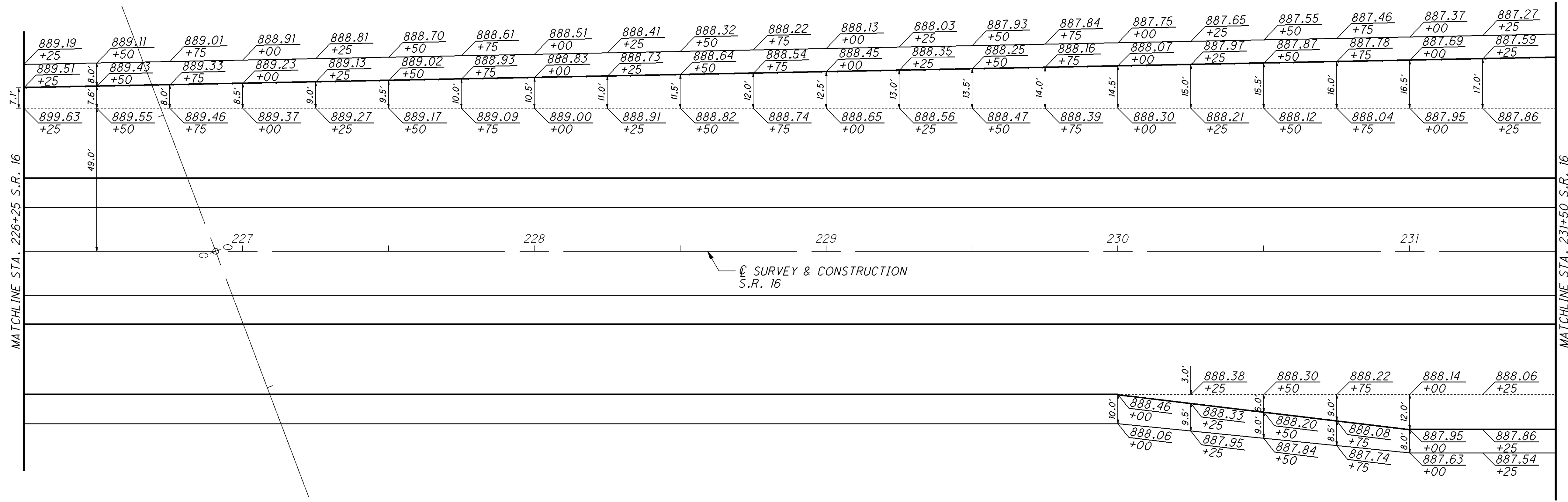
MATCHLINE STA. 226+25 S.R. 16

CALCULATED
BRH
CHECKED

HORIZONTAL
SCALE IN FEET

**PAVEMENT DETAIL SHEET
S.R. 16 AND RAMP A**

LIC-16-16.64



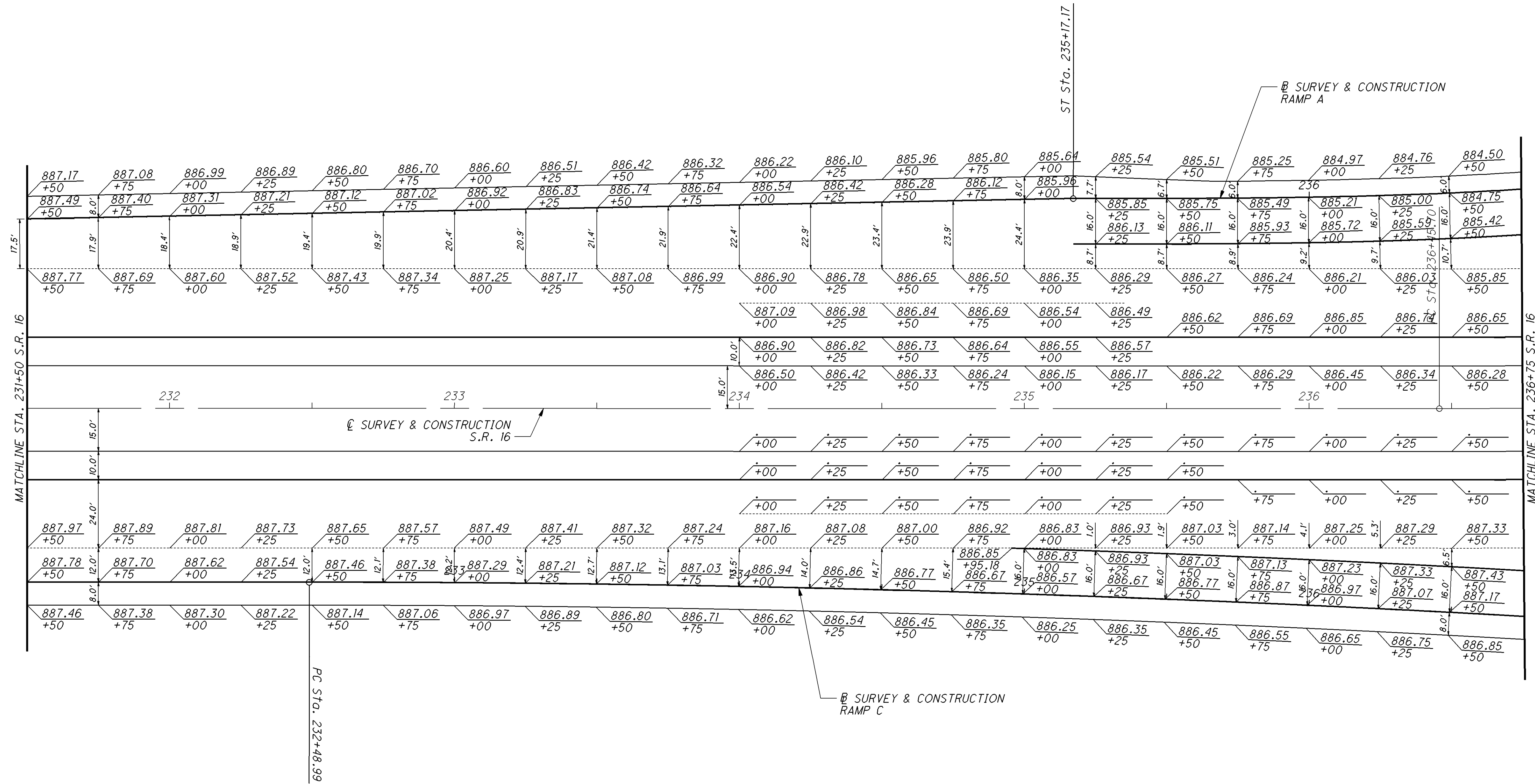
CALCULATED
BRH
CHECKED

HORIZONTAL SCALE IN FEET

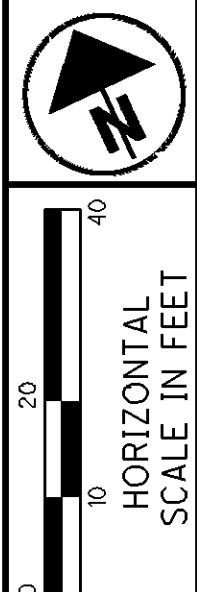
PAVEMENT DETAIL SHEET
S.R. 16, RAMP A, & RAMP C

LIC-16-16.64

NOTE: STATIONING BASED OFF RAMP A BASELINE AFTER STA. 235+17.17
& RAMP C BASELINE AFTER STA. 232+48.99



CALCULATED
BRH
CHECKED



PAVEMENT DETAIL SHEET
S.R. 16, RAMP A, & RAMP C

LIC-16-16.64



CALCULATED
BRH
CHECKED

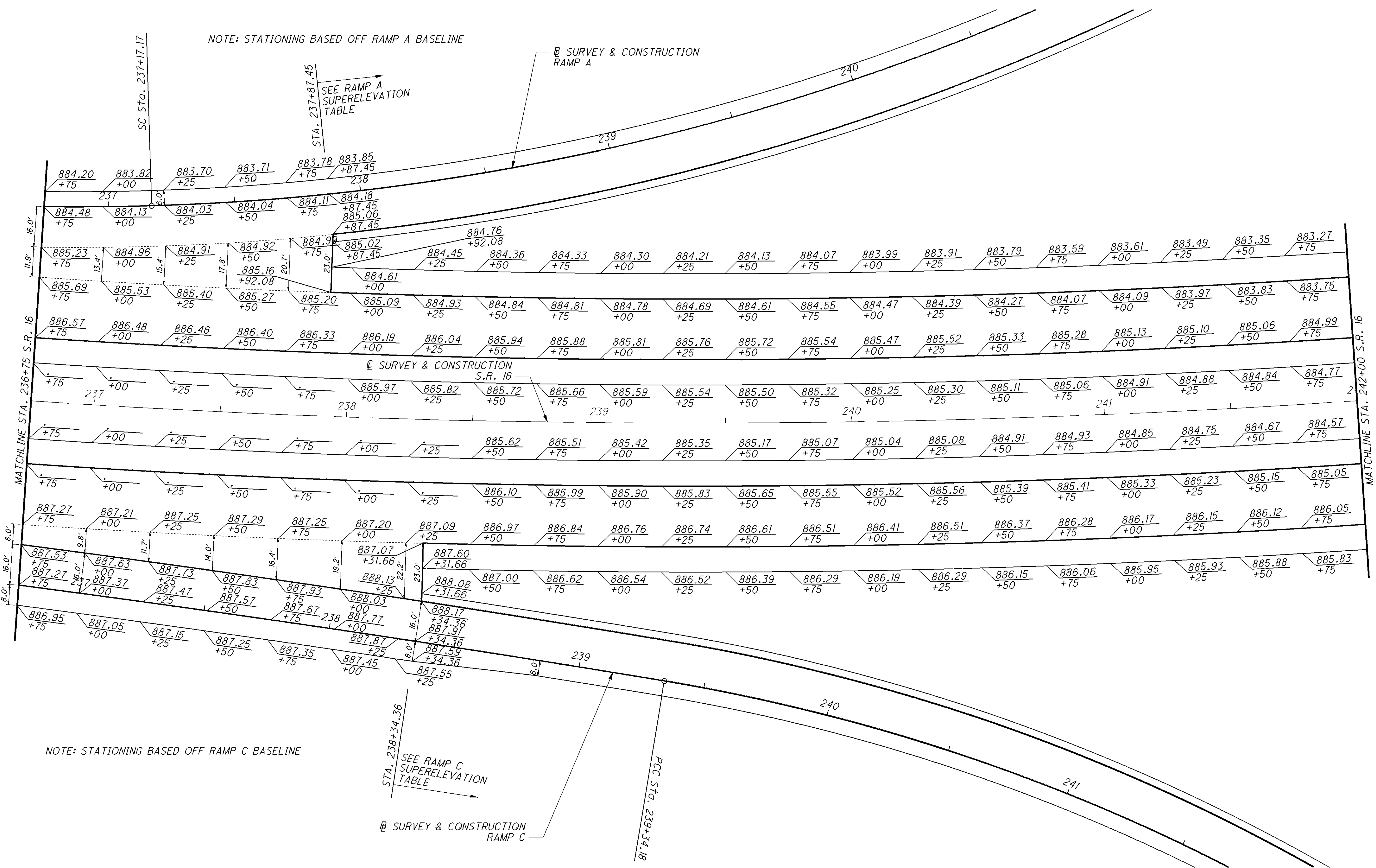
PAVEMENT DETAIL SHEET
S.R. 16, RAMP A, & RAMP C

LIC-16-16.64

NOTE: STATIONING BASED OFF RAMP A BASELINE

SEE RAMP A SUPERELEVATION TABLE
STA. 237+87.45

B SURVEY & CONSTRUCTION
RAMP A

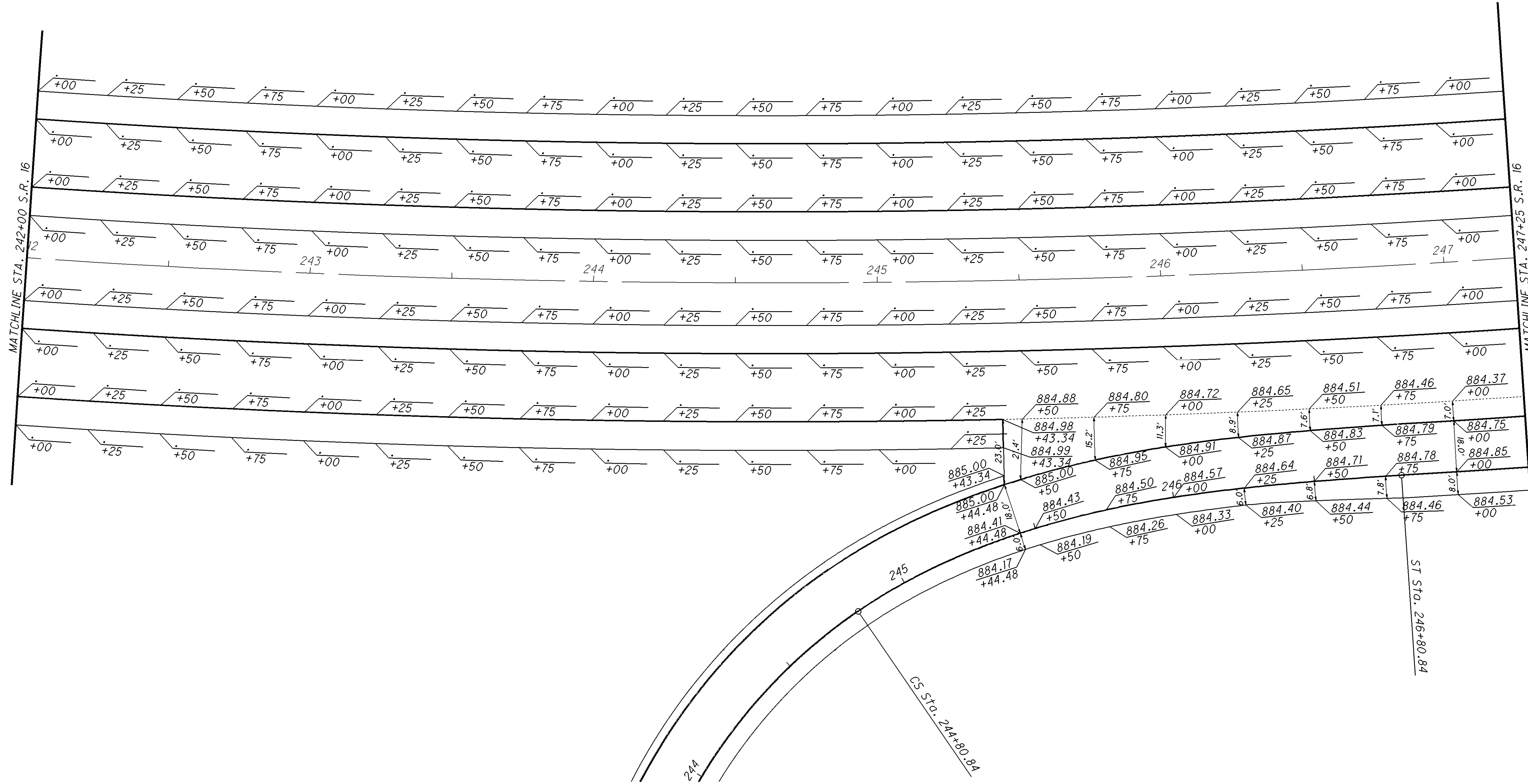


NOTE: STATIONING BASED OFF RAMP C BASELINE

SEE RAMP C SUPERELEVATION TABLE
STA. 238+34.36

B SURVEY & CONSTRUCTION
RAMP C

PCC STA. 239+34.18

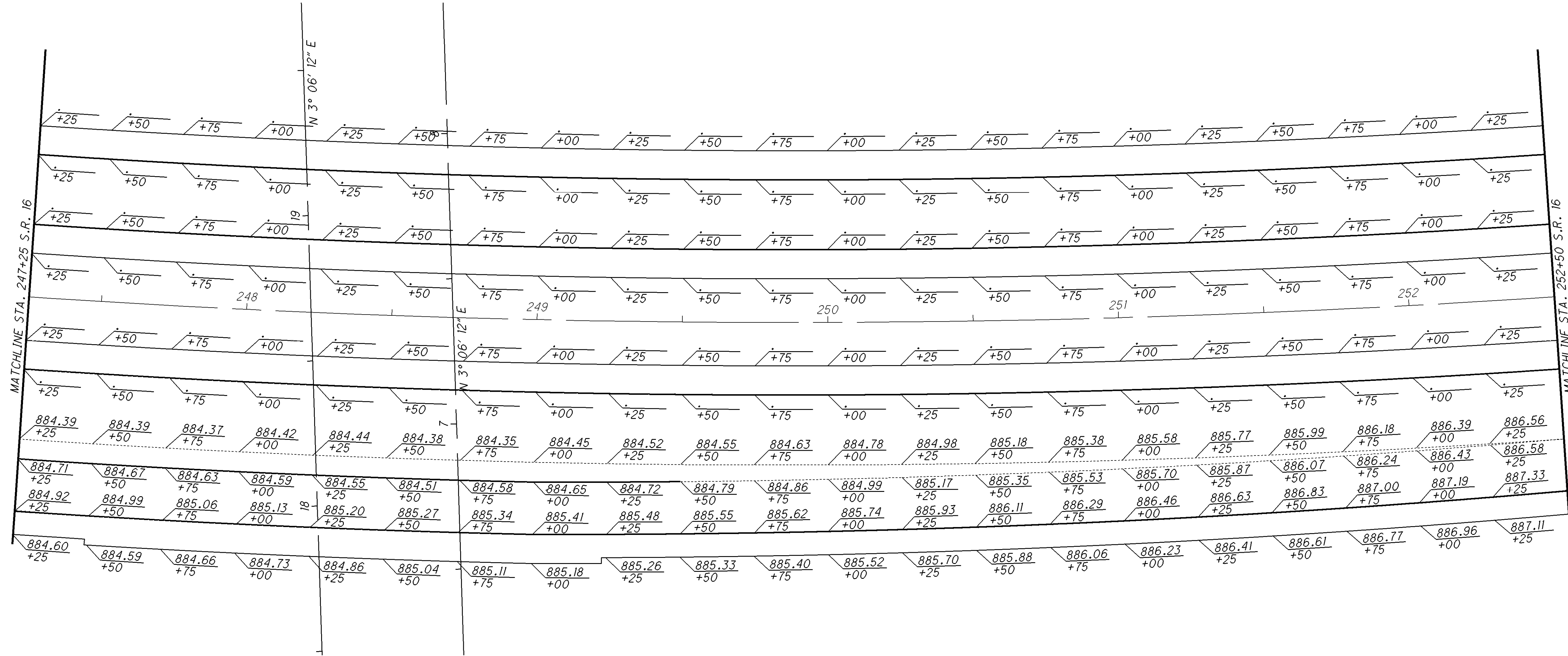


CALCULATED
BRH
CHECKED

0 10 20 40
HORIZONTAL
SCALE IN FEET

PAVEMENT DETAIL SHEET
S.R. 16 AND RAMP D

LIC-16-16.64

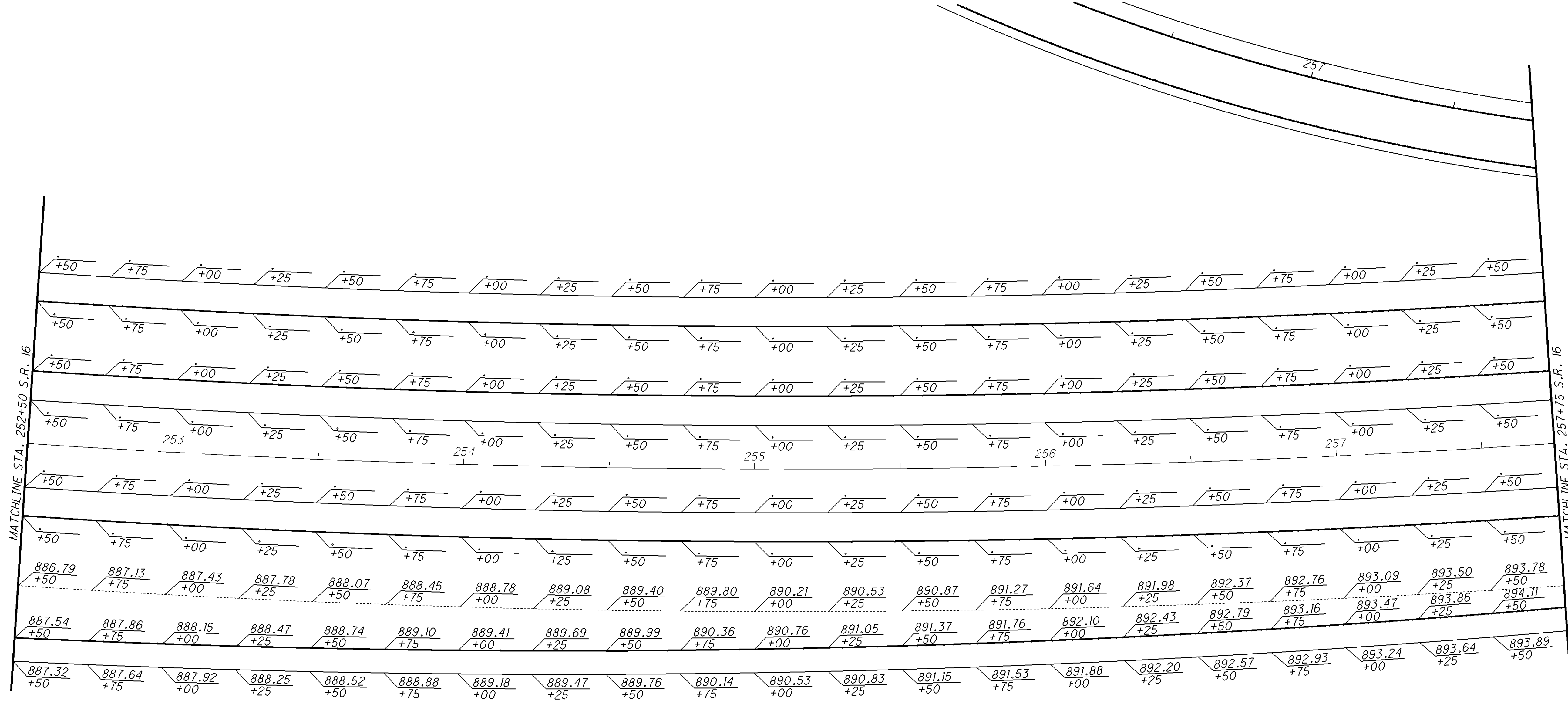


CALCULATED
BRH
CHECKED

HORIZONTAL SCALE IN FEET

PAVEMENT DETAIL SHEET
S.R. 16 AND RAMP D

LIC-16-16.64

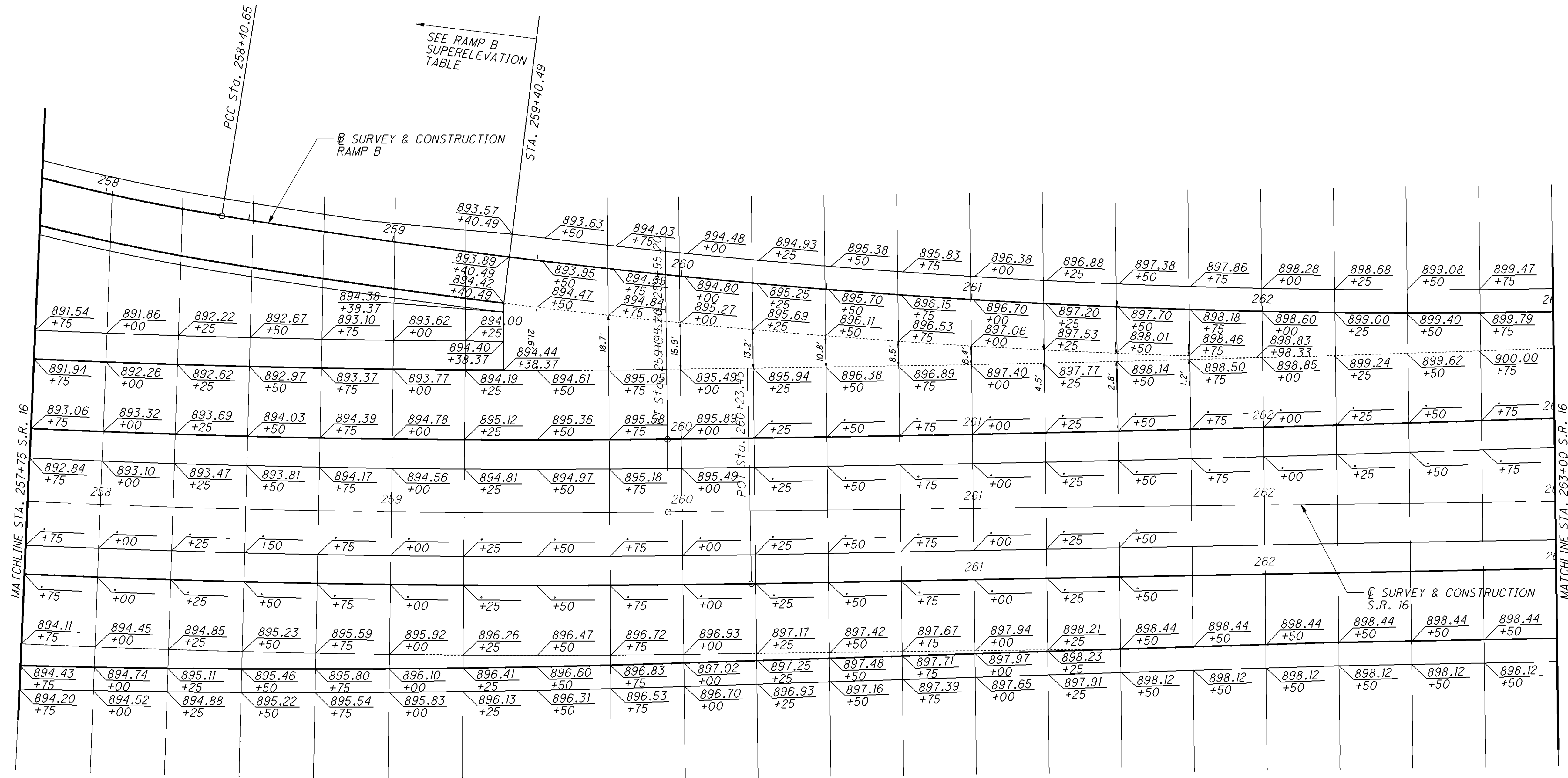


CALCULATED
C.Y.
CHECKED
XX

HORIZONTAL
SCALE IN FEET

PAVEMENT DETAIL SHEET
S.R. 16 AND RAMP D

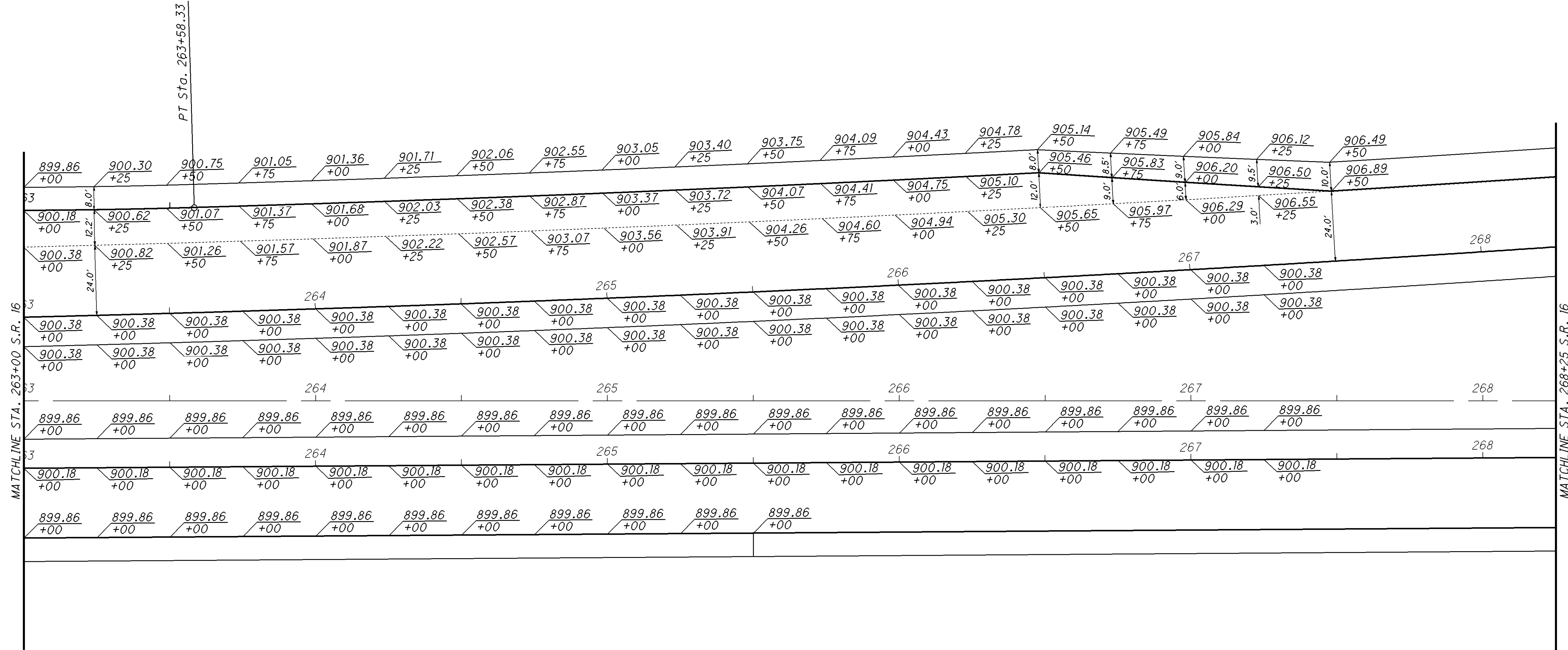
LIC-16-16.64



CALCULATED
 BRH
 CHECKED

PAVEMENT DETAIL SHEET
 S.R. 16, RAMP B AND RAMP D

LIC-16-16.64



CALCULATED
BRH
CHECKED

PAVEMENT DETAIL SHEET
S.R. 16 AND RAMP B

LIC-16-16.64

422
729

LINE "E"			
INSIDE EDGE OF SHOULDER ELEVATION	INSIDE SHOULDER SLOPE	STATION	INSIDE EDGE OF PAVEMENT ELEVATION
901.43	0.04	267+50.00	901.83
901.46	0.04	267+75.00	901.86
901.34	0.04	268+00.00	901.74
901.25	0.04	268+25.00	901.65
901.11	0.04	268+50.00	901.51
900.96	0.04	268+75.00	901.36
900.85	0.04	269+00.00	901.25
900.66	0.04	269+25.00	901.06
900.38	0.04	269+50.00	900.78
900.10	0.04	269+75.00	900.50
900.00	0.04	270+00.00	900.40
899.78	0.04	270+25.00	900.18
899.51	0.04	270+50.00	899.91
899.29	0.04	270+75.00	899.69
898.99	0.04	271+00.00	899.39
898.69	0.04	271+25.00	899.09
898.44	0.04	271+50.00	898.84
898.10	0.04	271+75.00	898.50
897.72	0.04	272+00.00	898.12
897.36	0.04	272+25.00	897.76
896.98	0.04	272+50.00	897.38
896.59	0.04	272+75.00	896.99
896.18	0.04	273+00.00	896.58
895.77	0.04	273+25.00	896.17
895.46	0.04	273+50.00	895.86
895.11	0.04	273+75.00	895.51
894.61	0.04	274+00.00	895.01
894.16	0.04	274+25.00	894.56
893.71	0.04	274+50.00	894.11
893.20	0.04	274+75.00	893.60
892.70	0.04	275+00.00	893.10
892.12	0.04	275+25.00	892.52
891.79	0.04	275+50.00	892.19
891.10	0.04	275+75.00	891.50

LINE "E"			
INSIDE EDGE OF SHOULDER ELEVATION	INSIDE SHOULDER SLOPE	STATION	INSIDE EDGE OF PAVEMENT ELEVATION
890.68	0.04	276+00.00	891.08
890.11	0.04	276+25.00	890.51
889.65	0.04	276+50.00	890.05
888.94	0.04	276+75.00	889.34
888.44	0.04	277+00.00	888.84
887.96	0.04	277+25.00	888.36
887.40	0.04	277+50.00	887.80
886.82	0.04	277+75.00	887.22
886.19	0.04	278+00.00	886.59
885.80	0.04	278+25.00	886.20
885.05	0.04	278+50.00	885.45
884.43	0.04	278+75.00	884.83
883.84	0.04	279+00.00	884.24
883.69	0.04	279+25.00	884.09
883.01	0.04	279+50.00	883.41
882.44	0.04	279+75.00	882.84
881.85	0.04	280+00.00	882.25
881.43	0.04	280+25.00	881.83
880.90	0.04	280+50.00	881.30
880.45	0.04	280+75.00	880.85
879.99	0.04	281+00.00	880.39
879.39	0.04	281+25.00	879.79
878.86	0.04	281+50.00	879.26
878.29	0.04	281+75.00	878.69
877.84	0.04	282+00.00	878.24
877.32	0.04	282+25.00	877.72
876.81	0.04	282+50.00	877.21
876.36	0.04	282+75.00	876.76
875.81	0.04	283+00.00	876.21
875.40	0.04	283+25.00	875.80
875.02	0.04	283+50.00	875.42
874.66	0.04	283+75.00	875.06
874.22	0.04	284+00.00	874.62
873.80	0.04	284+25.00	874.20

S.R. 16 (EASTBOUND LANES)			
INSIDE EDGE OF SHOULDER ELEVATION	INSIDE SHOULDER SLOPE	STATION	INSIDE EDGE OF PAVEMENT ELEVATION
873.41	0.04	284+50.00	873.81
873.09	0.04	284+75.00	873.49
872.81	0.04	285+00.00	873.21
872.60	0.04	285+25.00	873.00
872.38	0.04	285+50.00	872.78
872.24	0.04	285+75.00	872.64
872.10	0.04	286+00.00	872.50
871.94	0.04	286+25.00	872.34
871.86	0.04	286+50.00	872.26
871.77	0.04	286+75.00	872.17
871.70	0.04	287+00.00	872.10
871.61	0.04	287+25.00	872.01
871.52	0.04	287+50.00	871.92
871.45	0.04	287+75.00	871.85
871.37	0.04	288+00.00	871.77
871.24	0.04	288+25.00	871.64
871.10	0.04	288+50.00	871.50
870.96	0.04	288+75.00	871.36
870.83	0.04	289+00.00	871.23
870.74	0.04	289+25.00	871.14

CALCULATED
BRH
CHECKED

LINE "E" & S.R. 16 PAVEMENT DETAILS

LIC-16-16.64

422A
729

LINE "W"						
OUTSIDE SHOULDER ELEVATION	OUTSIDE SHOULDER SLOPE	OUTSIDE EDGE OF PAVEMENT ELEVATION	INSIDE EDGE OF PAVEMENT ELEVATION	STATION	INSIDE SHOULDER SLOPE	INSIDE SHOULDER ELEVATION
906.49	0.04	906.89	907.00	267+50.00	0.04	906.60
906.79	0.04	907.19	907.34	267+75.00	0.04	906.94
907.12	0.04	907.52	907.58	268+00.00	0.04	907.18
907.41	0.04	907.81	907.82	268+25.00	0.04	907.42
907.71	0.04	908.11	908.12	268+50.00	0.04	907.72
907.96	0.04	908.36	908.42	268+75.00	0.04	908.02
908.16	0.04	908.56	908.68	269+00.00	0.04	908.28
908.41	0.04	908.81	908.85	269+25.00	0.04	908.45
908.56	0.04	908.96	908.98	269+50.00	0.04	908.58
908.73	0.04	909.13	909.12	269+75.00	0.04	908.72
908.86	0.04	909.26	909.28	270+00.00	0.04	908.88
908.97	0.04	909.37	909.34	270+25.00	0.04	908.94
909.06	0.04	909.46	909.42	270+50.00	0.04	909.02
909.11	0.04	909.51	909.43	270+75.00	0.04	909.03
909.16	0.04	909.56	909.45	271+00.00	0.04	909.05
909.18	0.04	909.58	909.53	271+25.00	0.04	909.13
909.19	0.04	909.59	909.52	271+50.00	0.04	909.12
909.15	0.04	909.55	909.55	271+75.00	0.04	909.15
909.07	0.04	909.47	909.50	272+00.00	0.04	909.10
909.01	0.04	909.41	909.41	272+25.00	0.04	909.01
908.94	0.04	909.34	909.34	272+50.00	0.04	908.94
908.84	0.04	909.24	909.28	272+75.00	0.04	908.88
908.71	0.04	909.11	909.12	273+00.00	0.04	908.72
908.54	0.04	908.94	908.86	273+25.00	0.04	908.46
908.35	0.04	908.75	908.68	273+50.00	0.04	908.28
908.16	0.04	908.56	908.43	273+75.00	0.04	908.03
908.01	0.04	908.41	908.20	274+00.00	0.04	907.80
907.85	0.04	908.25	907.98	274+25.00	0.04	907.58
907.73	0.04	908.13	907.81	274+50.00	0.04	907.41
907.56	0.04	907.96	907.55	274+75.00	0.04	907.15
907.36	0.04	907.76	907.19	275+00.00	0.04	906.79
907.16	0.04	907.56	906.92	275+25.00	0.04	906.52
906.85	0.04	907.25	906.54	275+50.00	0.04	906.14
906.64	0.0375	907.01	906.15	275+75.00	0.04	905.75
906.31	0.0308	906.62	905.74	276+00.00	0.0433	905.30
905.83	0.0267	906.09	905.21	276+25.00	0.047	904.74
905.41	0.023	905.64	904.62	276+50.00	0.047	904.15
905.01	0.023	905.24	904.17	276+75.00	0.047	903.70
904.61	0.023	904.84	903.72	277+00.00	0.047	903.25
904.11	0.023	904.34	903.22	277+25.00	0.047	902.75
903.61	0.023	903.84	902.71	277+50.00	0.047	902.24
903.05	0.023	903.28	902.15	277+75.00	0.047	901.68
902.49	0.023	902.72	901.59	278+00.00	0.047	901.12

LINE "W"						
OUTSIDE SHOULDER ELEVATION	OUTSIDE SHOULDER SLOPE	OUTSIDE EDGE OF PAVEMENT ELEVATION	INSIDE EDGE OF PAVEMENT ELEVATION	STATION	INSIDE SHOULDER SLOPE	INSIDE SHOULDER ELEVATION
901.80	0.023	902.03	900.98	278+25.00	0.047	900.51
901.11	0.023	901.34	900.37	278+50.00	0.047	899.90
900.29	0.023	900.52	899.69	278+75.00	0.047	899.22
899.61	0.023	899.84	899.04	279+00.00	0.047	898.57
898.99	0.023	899.22	898.38	279+25.00	0.047	897.91
898.32	0.023	898.55	897.63	279+50.00	0.047	897.16
897.60	0.023	897.83	896.83	279+75.00	0.047	896.36
896.79	0.023	897.02	895.96	280+00.00	0.047	895.49
895.99	0.023	896.22	895.21	280+25.00	0.047	894.74
895.13	0.023	895.36	894.36	280+50.00	0.047	893.89
894.34	0.024	894.58	893.51	280+75.00	0.0458	893.05
893.47	0.0275	893.75	892.77	281+00.00	0.0425	892.35
892.53	0.0333	892.86	892.02	281+25.00	0.04	891.62
891.61	0.0375	891.98	891.27	281+50.00	0.04	890.87
890.66	0.04	891.06	890.51	281+75.00	0.04	890.11
889.79	0.04	890.19	889.65	282+00.00	0.04	889.25
888.90	0.04	889.30	888.78	282+25.00	0.04	888.38
887.99	0.04	888.39	887.99	282+50.00	0.04	887.59
887.07	0.04	887.47	887.15	282+75.00	0.04	886.75
			886.35	283+00.00	0.04	885.95
			885.52	283+25.00	0.04	885.12
			884.75	283+50.00	0.04	884.35
			884.06	283+75.00	0.04	883.66
			883.25	284+00.00	0.04	882.85
			882.37	284+25.00	0.04	881.97
			881.55	284+50.00	0.04	881.15
			880.71	284+75.00	0.04	880.31
			879.81	285+00.00	0.04	879.41
			879.03	285+25.00	0.04	878.63
			878.21	285+50.00	0.04	877.81
			877.50	285+75.00	0.04	877.10
			876.77	286+00.00	0.04	876.37
			876.15	286+25.00	0.04	875.75
			875.42	286+50.00	0.04	875.02
			874.74	286+75.00	0.04	874.34
			874.37	287+00.00	0.04	873.97
			873.85	287+25.00	0.04	873.45
			873.34	287+50.00	0.04	872.94
			872.79	287+75.00	0.04	872.39
			872.38	288+00.00	0.04	871.98
			872.00	288+25.00	0.04	871.60
			871.73	288+50.00	0.04	871.33
			871.51	288+75.00	0.04	871.11

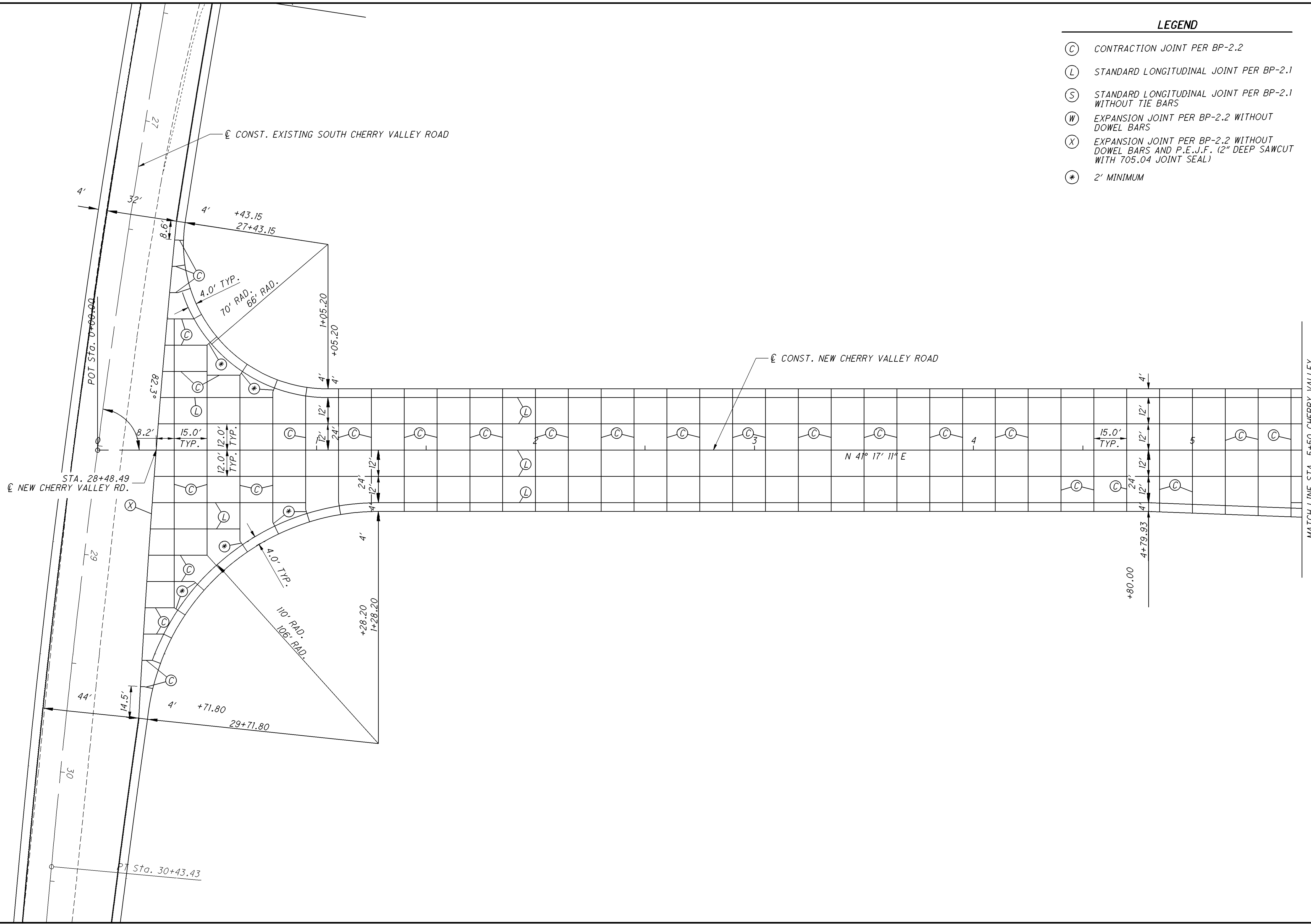
CALCULATED
BRH
CHECKED

LINE "W" PAVEMENT DETAILS

LIC-16-16.64

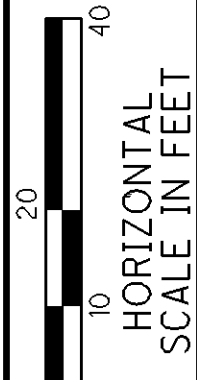
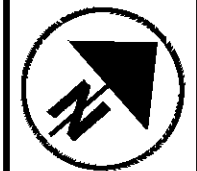
422B
729

P:\LIC\80704\Design\Roadway\Plan_Sheets\Joint_Detail_Sheets\80704_JDS_New_Cherry_Valley.dgn Model: Cherry_Valley_0+00 - 5+50



LEGEND

- (C) CONTRACTION JOINT PER BP-2.2
- (L) STANDARD LONGITUDINAL JOINT PER BP-2.1
- (S) STANDARD LONGITUDINAL JOINT PER BP-2.1 WITHOUT TIE BARS
- (W) EXPANSION JOINT PER BP-2.2 WITHOUT DOWEL BARS
- (X) EXPANSION JOINT PER BP-2.2 WITHOUT DOWEL BARS AND P.E.J.F. (2" DEEP SAWCUT WITH 705.04 JOINT SEAL)
- (*) 2' MINIMUM



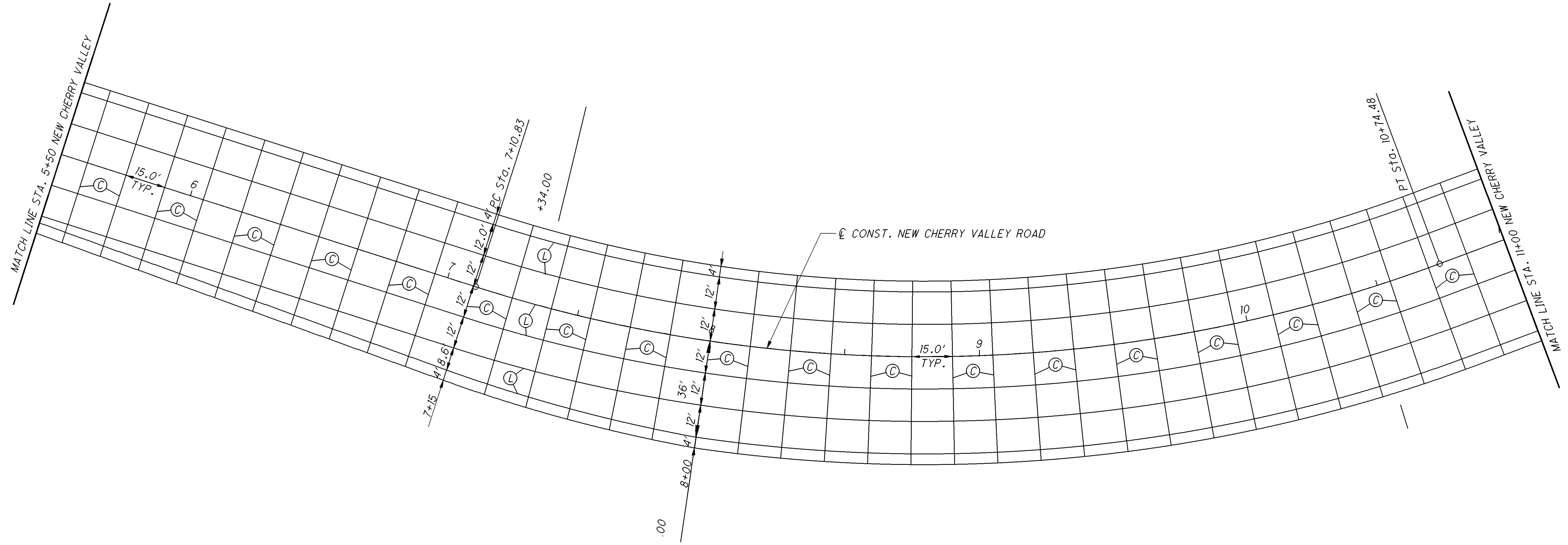
CALCULATED	JPH
CHECKED	

NEW CHERRY VALLEY JOINT DETAIL SHEET
STA. 0+00 TO STA. 5+00

MATCH LINE STA. 5+50 CHERRY VALLEY

LIC-16-16.64

423
729



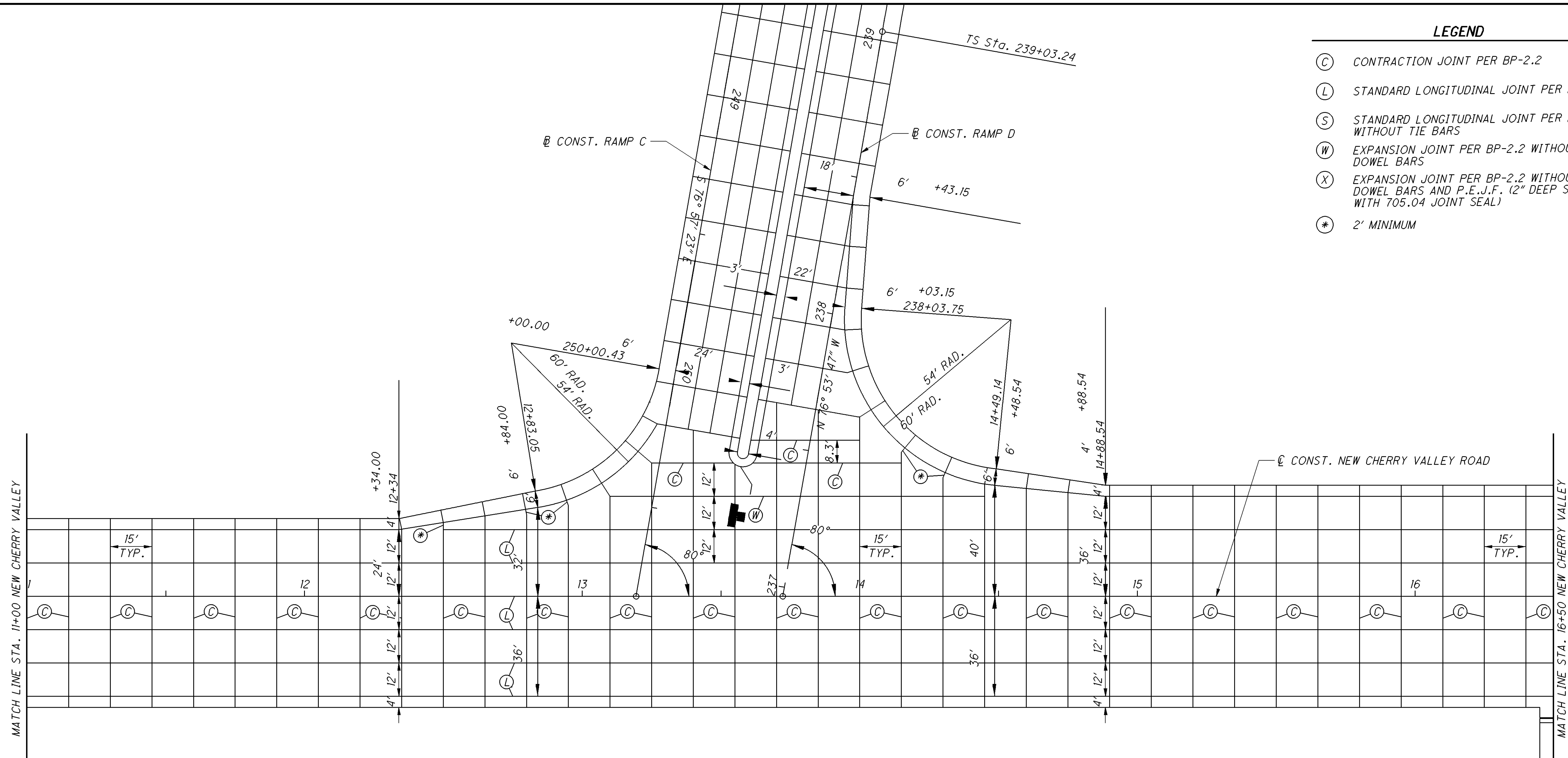
LEGEND

- (C) CONTRACTION JOINT PER BP-2.2
- (L) STANDARD LONGITUDINAL JOINT PER BP-2.1
- (S) STANDARD LONGITUDINAL JOINT PER BP-2.1 WITHOUT TIE BARS
- (W) EXPANSION JOINT PER BP-2.2 WITHOUT DOWEL BARS
- (X) EXPANSION JOINT PER BP-2.2 WITHOUT DOWEL BARS AND P.E.J.F. (2" DEEP SAWCUT WITH 705.04 JOINT SEAL)
- (*) 2' MINIMUM

CALCULATED
JPH
CHECKED

NEW CHERRY VALLEY JOINT DETAIL SHEET
STA. 5+00 TO STA. 11+00

LIC-16-16.64



LEGEND

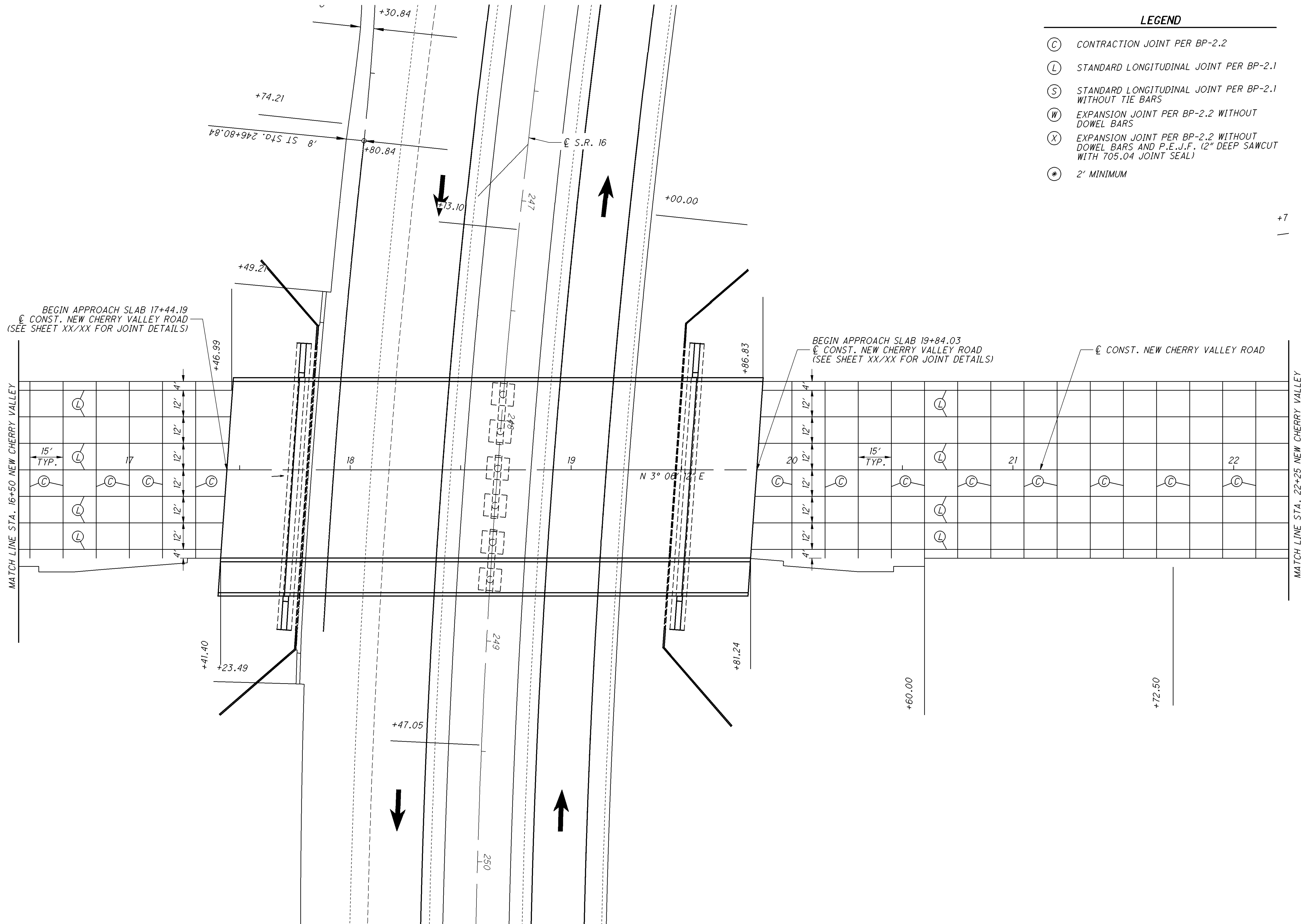
- (C) CONTRACTION JOINT PER BP-2.2
- (L) STANDARD LONGITUDINAL JOINT PER BP-2.1
- (S) STANDARD LONGITUDINAL JOINT PER BP-2.1 WITHOUT TIE BARS
- (W) EXPANSION JOINT PER BP-2.2 WITHOUT DOWEL BARS
- (X) EXPANSION JOINT PER BP-2.2 WITHOUT DOWEL BARS AND P.E.J.F. (2" DEEP SAWCUT WITH 705.04 JOINT SEAL)
- (*) 2' MINIMUM

CALCULATED JPH CHECKED

0 20 40
HORIZONTAL SCALE IN FEET

NEW CHERRY VALLEY JOINT DETAIL SHEET
STA. 11+00 TO STA. 16+50

LIC-16-16.64



LEGEND

- (C) CONTRACTION JOINT PER BP-2.2
- (L) STANDARD LONGITUDINAL JOINT PER BP-2.1
- (S) STANDARD LONGITUDINAL JOINT PER BP-2.1 WITHOUT TIE BARS
- (W) EXPANSION JOINT PER BP-2.2 WITHOUT DOWEL BARS
- (X) EXPANSION JOINT PER BP-2.2 WITHOUT DOWEL BARS AND P.E.J.F. (2" DEEP SAWCUT WITH 705.04 JOINT SEAL)
- (*) 2' MINIMUM

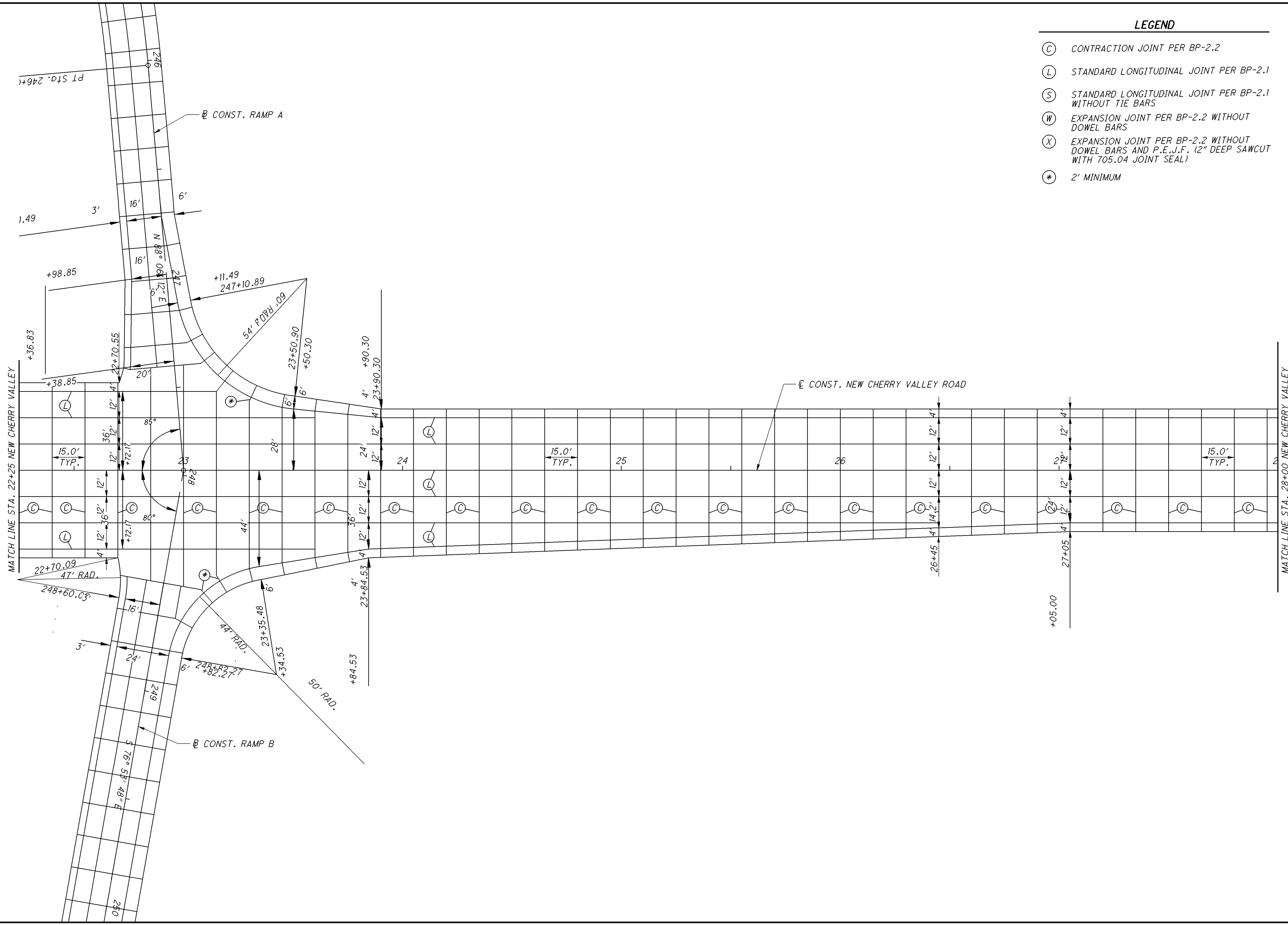




 HORIZONTAL SCALE IN FEET

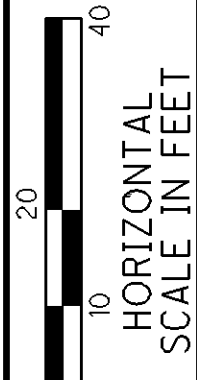
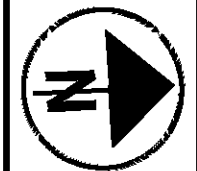
NEW CHERRY VALLEY JOINT DETAIL SHEET
STA. 16+50 TO STA. 22+25

LIC-16-16.64



LEGEND

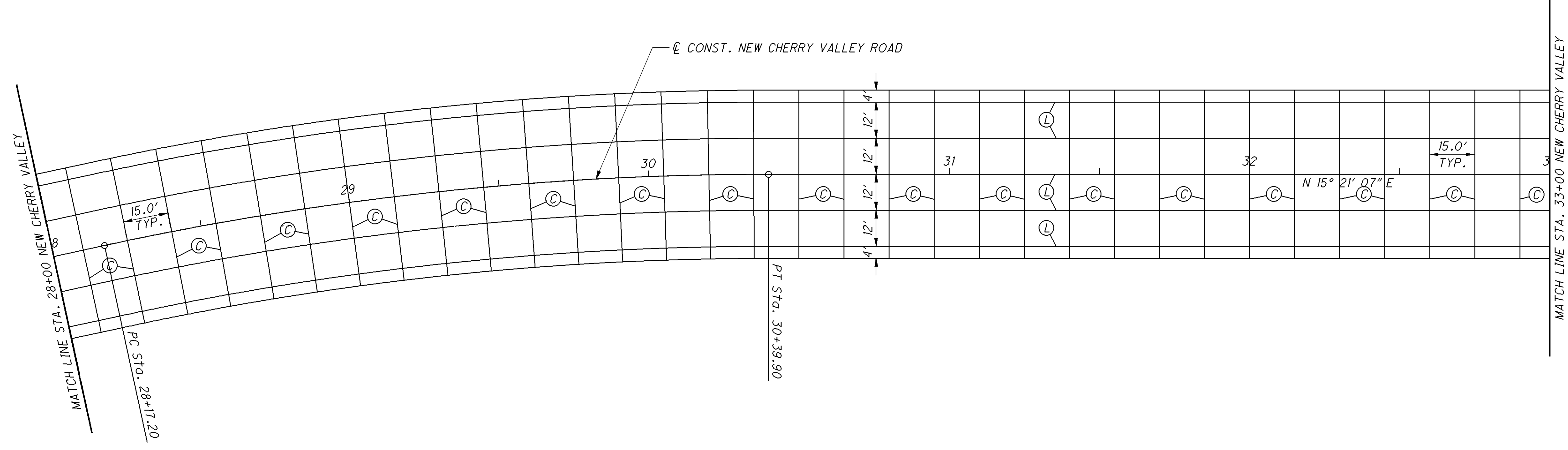
- (C) CONTRACTION JOINT PER BP-2.2
- (L) STANDARD LONGITUDINAL JOINT PER BP-2.1
- (S) STANDARD LONGITUDINAL JOINT PER BP-2.1 WITHOUT TIE BARS
- (W) EXPANSION JOINT PER BP-2.2 WITHOUT DOWEL BARS
- (X) EXPANSION JOINT PER BP-2.2 WITHOUT DOWEL BARS AND P.E.J.F. (2" DEEP SAWCUT WITH 705.04 JOINT SEAL)
- (*) 2' MINIMUM



CALCULATED	JPH
CHECKED	

NEW CHERRY VALLEY JOINT DETAIL SHEET
STA. 22+25 TO STA. 28+00

LIC-16-16.64



LEGEND

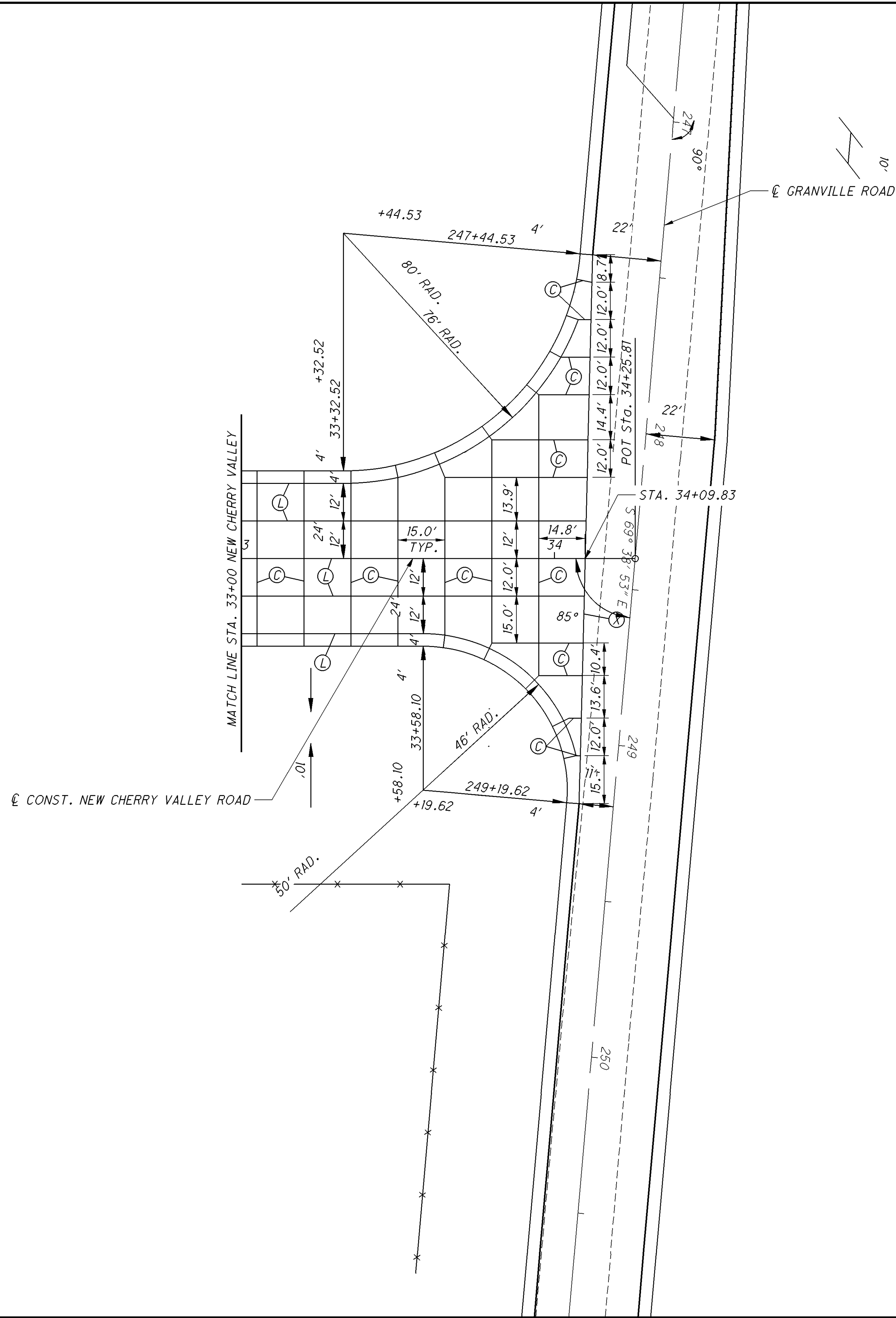
- (C) CONTRACTION JOINT PER BP-2.2
- (L) STANDARD LONGITUDINAL JOINT PER BP-2.1
- (S) STANDARD LONGITUDINAL JOINT PER BP-2.1 WITHOUT TIE BARS
- (W) EXPANSION JOINT PER BP-2.2 WITHOUT DOWEL BARS
- (X) EXPANSION JOINT PER BP-2.2 WITHOUT DOWEL BARS AND P.E.J.F. (2" DEEP SAWCUT WITH 705.04 JOINT SEAL)
- (*) 2' MINIMUM

CALCULATED JPH CHECKED

0 10 20 30 40
HORIZONTAL SCALE IN FEET

NEW CHERRY VALLEY JOINT DETAIL SHEET
STA. 28+00 TO STA. 33+00

LIC-16-16.64



LEGEND

- (C) CONTRACTION JOINT PER BP-2.2
- (L) STANDARD LONGITUDINAL JOINT PER BP-2.1
- (S) STANDARD LONGITUDINAL JOINT PER BP-2.1 WITHOUT TIE BARS
- (W) EXPANSION JOINT PER BP-2.2 WITHOUT DOWEL BARS
- (X) EXPANSION JOINT PER BP-2.2 WITHOUT DOWEL BARS AND P.E.J.F. (2" DEEP SAWCUT WITH 705.04 JOINT SEAL)
- (*) 2' MINIMUM

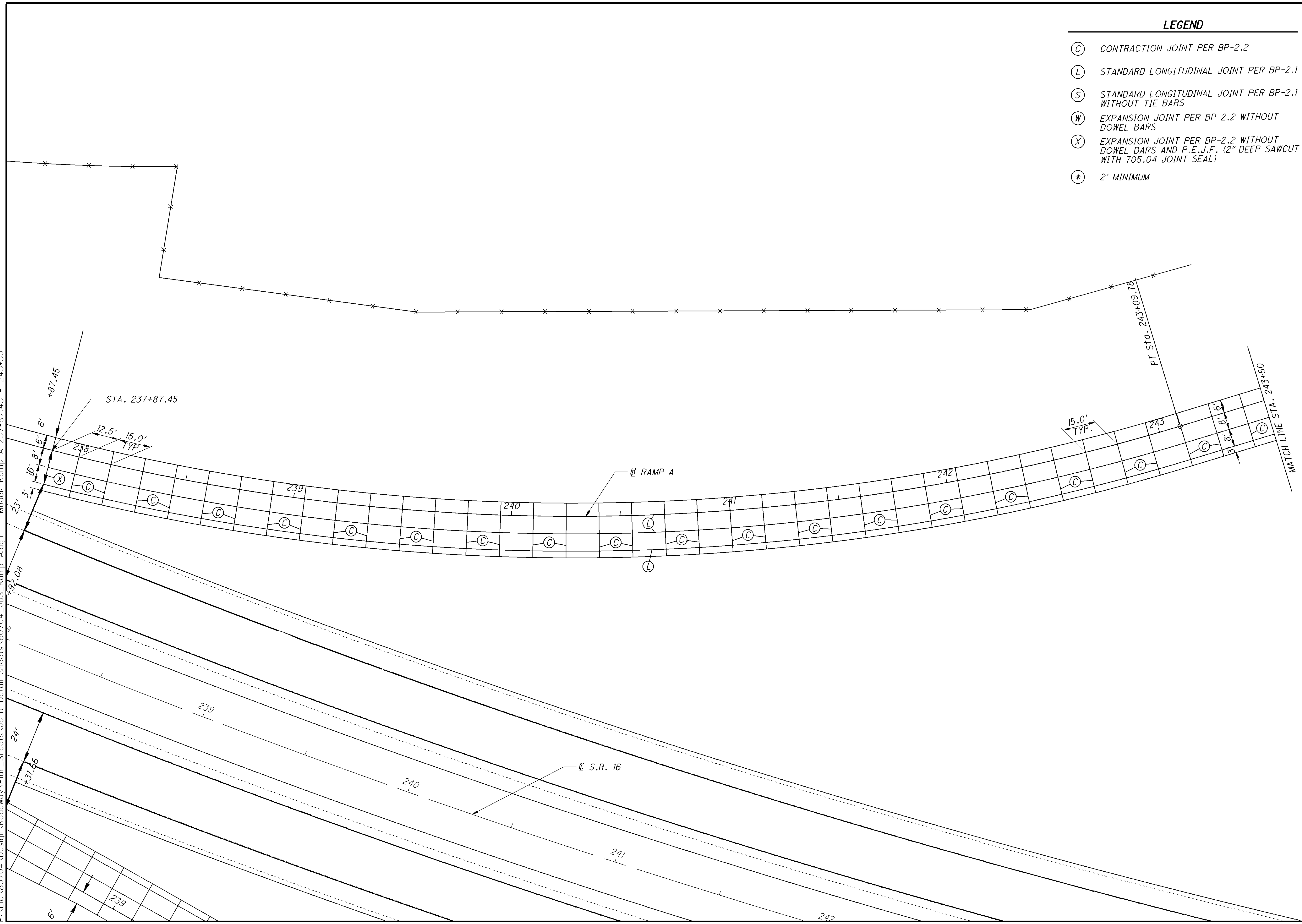
CALCULATED JPH CHECKED

0 20 40
HORIZONTAL SCALE IN FEET

NEW CHERRY VALLEY JOINT DETAIL SHEET
STA. 33+00 TO STA. 34+25.81

LIC-16-16.64

P:\LIC\80704\Design\Roadway\Plan_Sheets\Joint_Detail_Sheets\80704_JDS_Ramp_A.dgn Model: Ramp A 237+87.45 - 243+50



LEGEND

- (C) CONTRACTION JOINT PER BP-2.2
- (L) STANDARD LONGITUDINAL JOINT PER BP-2.1
- (S) STANDARD LONGITUDINAL JOINT PER BP-2.1 WITHOUT TIE BARS
- (W) EXPANSION JOINT PER BP-2.2 WITHOUT DOWEL BARS
- (X) EXPANSION JOINT PER BP-2.2 WITHOUT DOWEL BARS AND P.E.J.F. (2" DEEP SAWCUT WITH 705.04 JOINT SEAL)
- (*) 2' MINIMUM

CALCULATED
JPH
CHECKED

0 20 40
HORIZONTAL
SCALE IN FEET

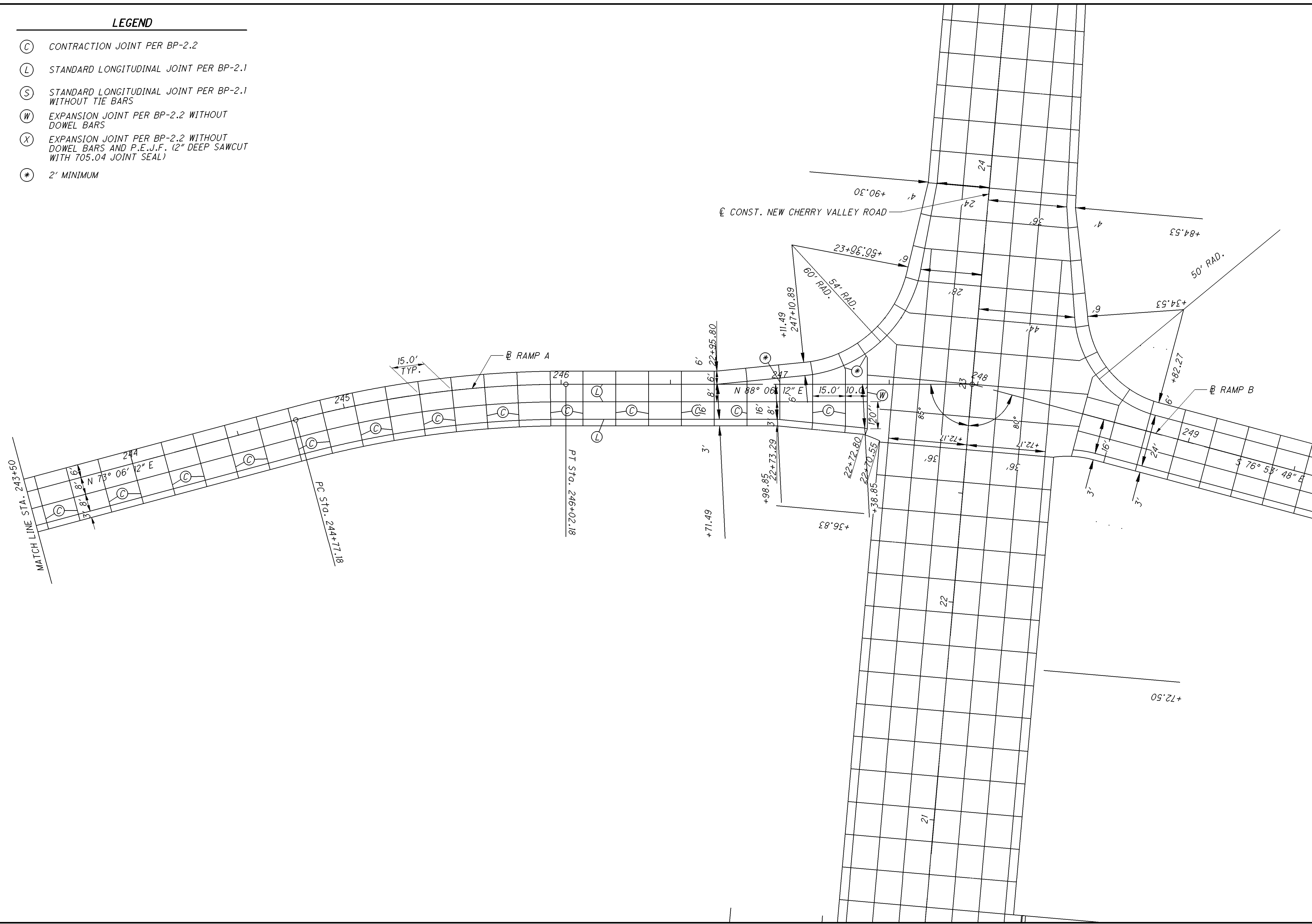
**RAMP A JOINT DETAIL SHEET
STA. 237+87.45 TO STA. 243+50**

LIC-16-16.64

430
729

LEGEND

- (C) CONTRACTION JOINT PER BP-2.2
- (L) STANDARD LONGITUDINAL JOINT PER BP-2.1
- (S) STANDARD LONGITUDINAL JOINT PER BP-2.1 WITHOUT TIE BARS
- (W) EXPANSION JOINT PER BP-2.2 WITHOUT DOWEL BARS
- (X) EXPANSION JOINT PER BP-2.2 WITHOUT DOWEL BARS AND P.E.J.F. (2" DEEP SAWCUT WITH 705.04 JOINT SEAL)
- (*) 2' MINIMUM

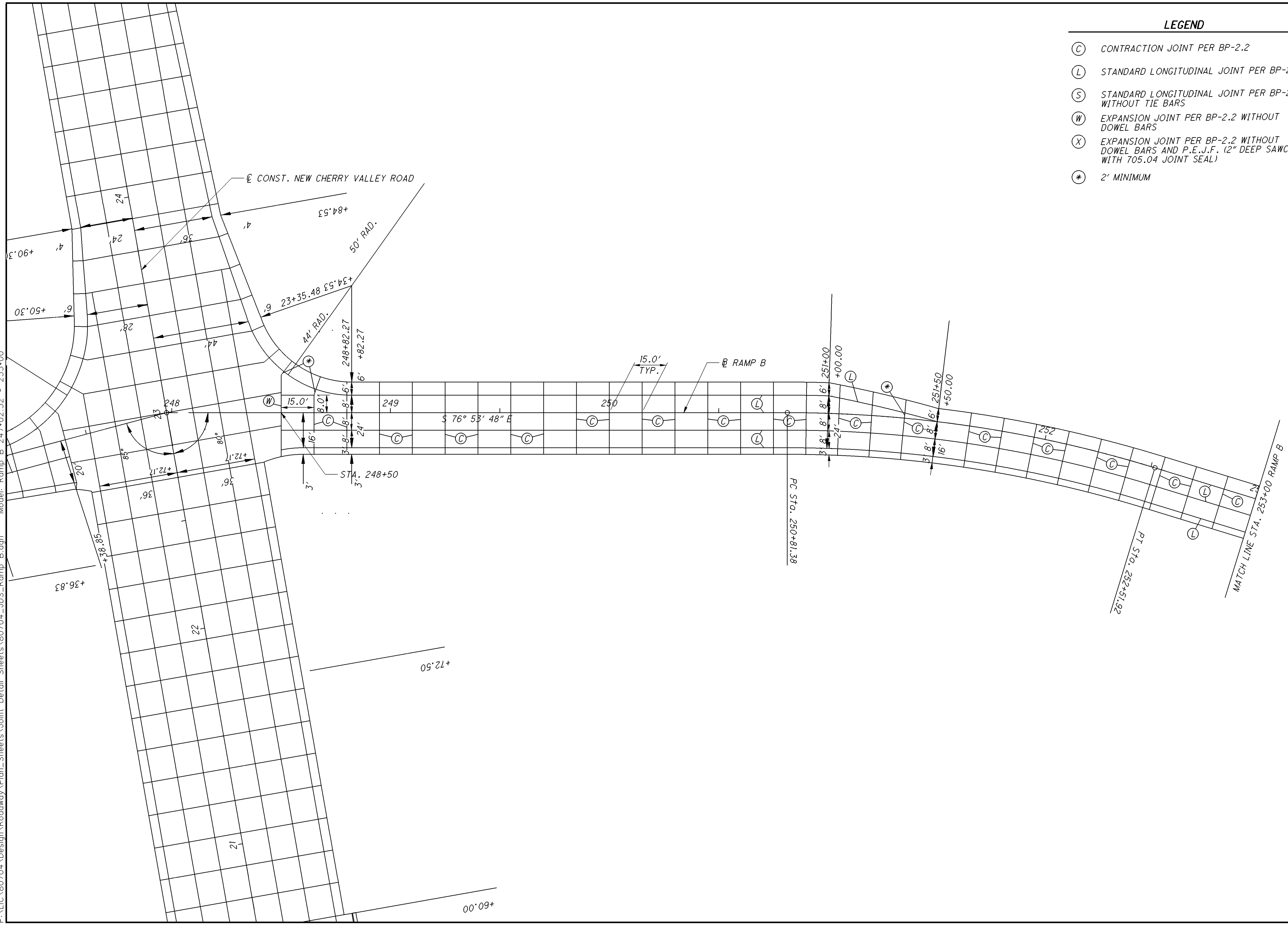


CALCULATED
JPH
CHECKED

**RAMP A JOINT DETAIL SHEET
STA. 243+50 TO STA. 247+87.98**

LIC-16-16.64

P:\LIC\80704\Design\Roadway\Plan_Sheets\Joint_Detail_Sheets\80704_JDS_Ramp_B.dgn Model: Ramp_B.247+02.32 - 253+00



LEGEND

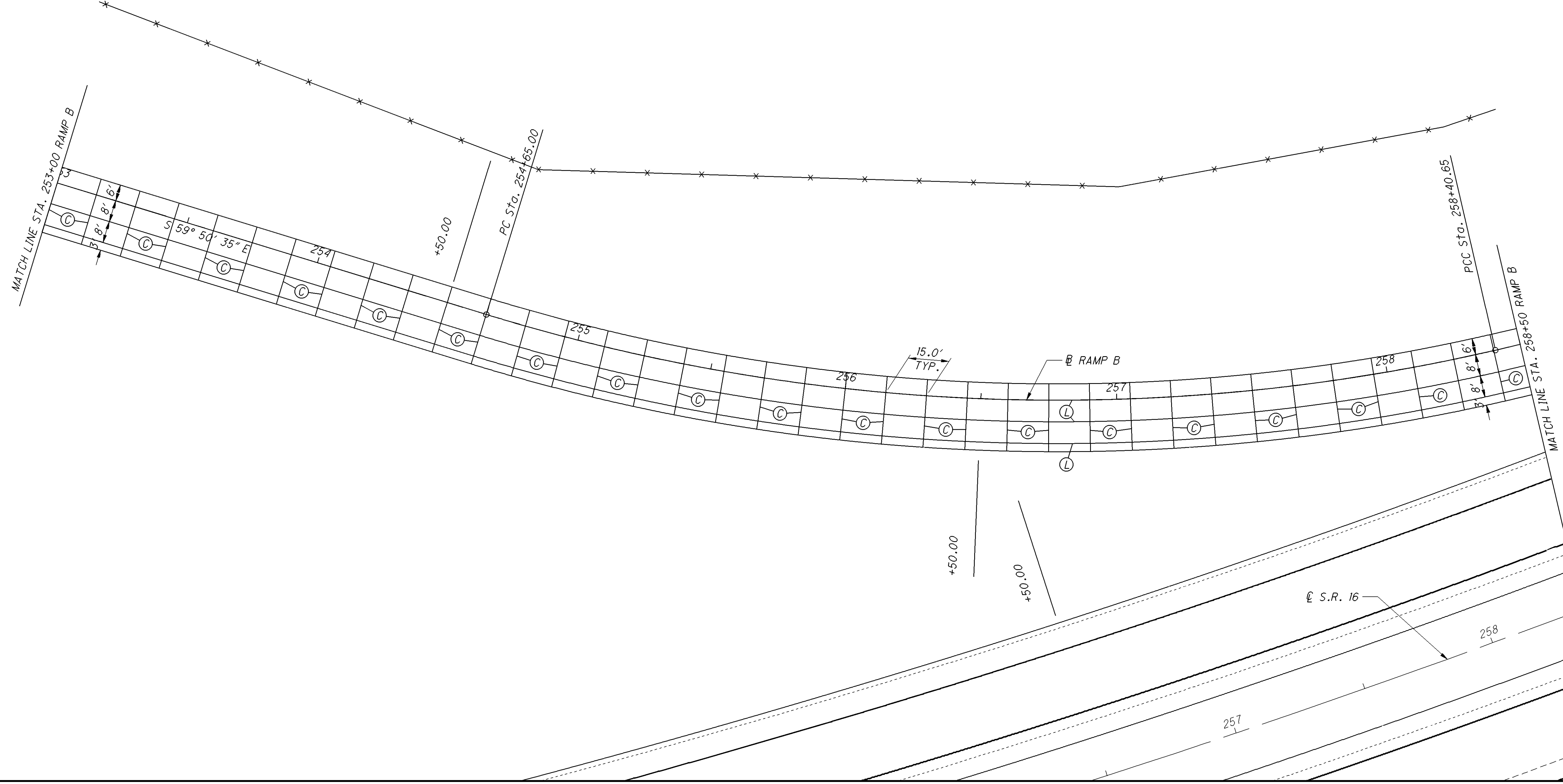
- (C) CONTRACTION JOINT PER BP-2.2
- (L) STANDARD LONGITUDINAL JOINT PER BP-2.1
- (S) STANDARD LONGITUDINAL JOINT PER BP-2.1 WITHOUT TIE BARS
- (W) EXPANSION JOINT PER BP-2.2 WITHOUT DOWEL BARS
- (X) EXPANSION JOINT PER BP-2.2 WITHOUT DOWEL BARS AND P.E.J.F. (2" DEEP SAWCUT WITH 705.04 JOINT SEAL)
- (*) 2' MINIMUM

CALCULATED JPH CHECKED

0 20 40
10
HORIZONTAL SCALE IN FEET

RAMP B JOINT DETAIL SHEET
STA. 247+02.32 TO STA. 253+00

LIC-16-16.64

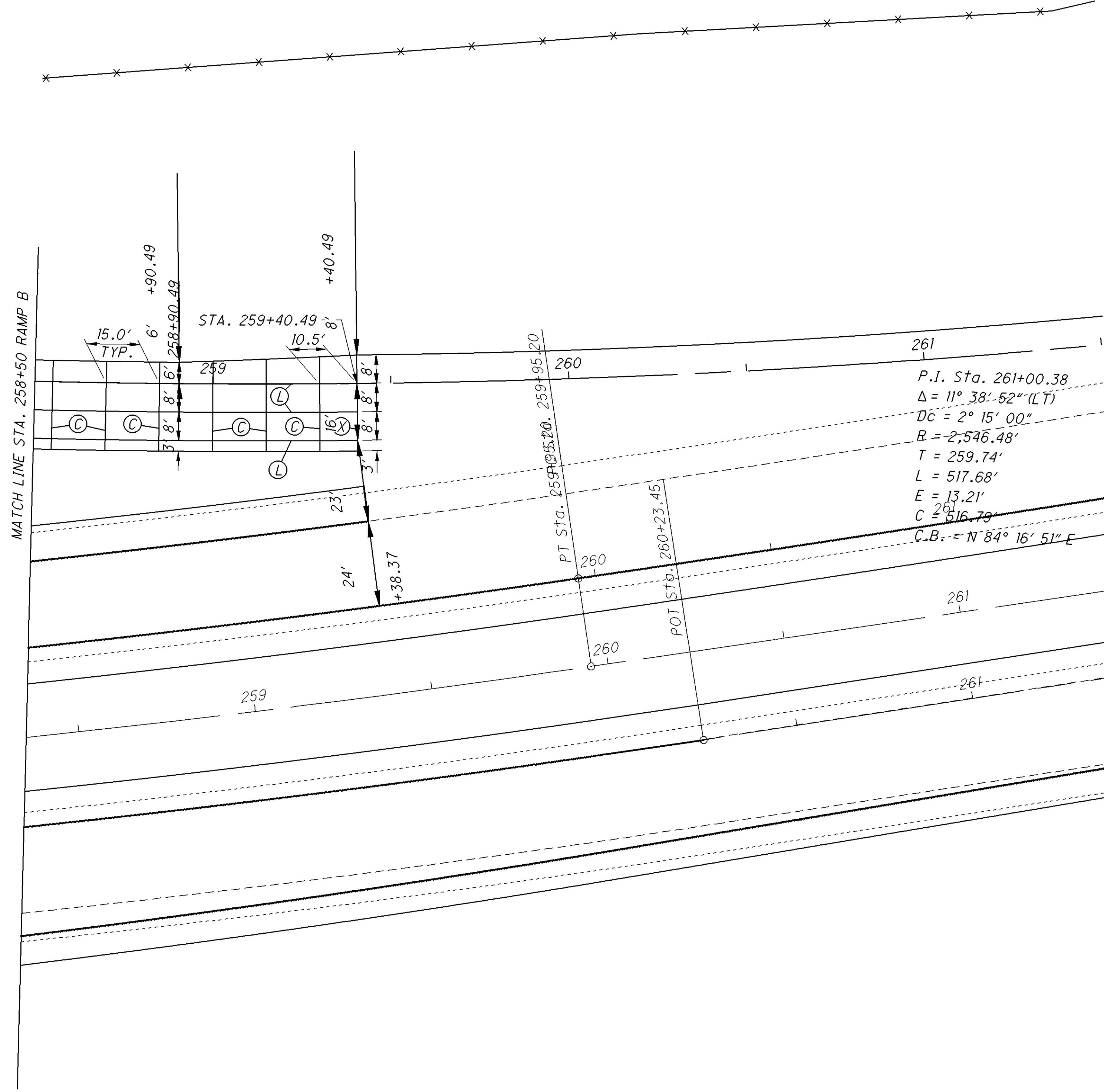


CALCULATED
JPH
CHECKED

0 20 40
HORIZONTAL
SCALE IN FEET

RAMP B JOINT DETAIL SHEET
STA. 253+00 TO STA. 258+50

LIC-16-16.64



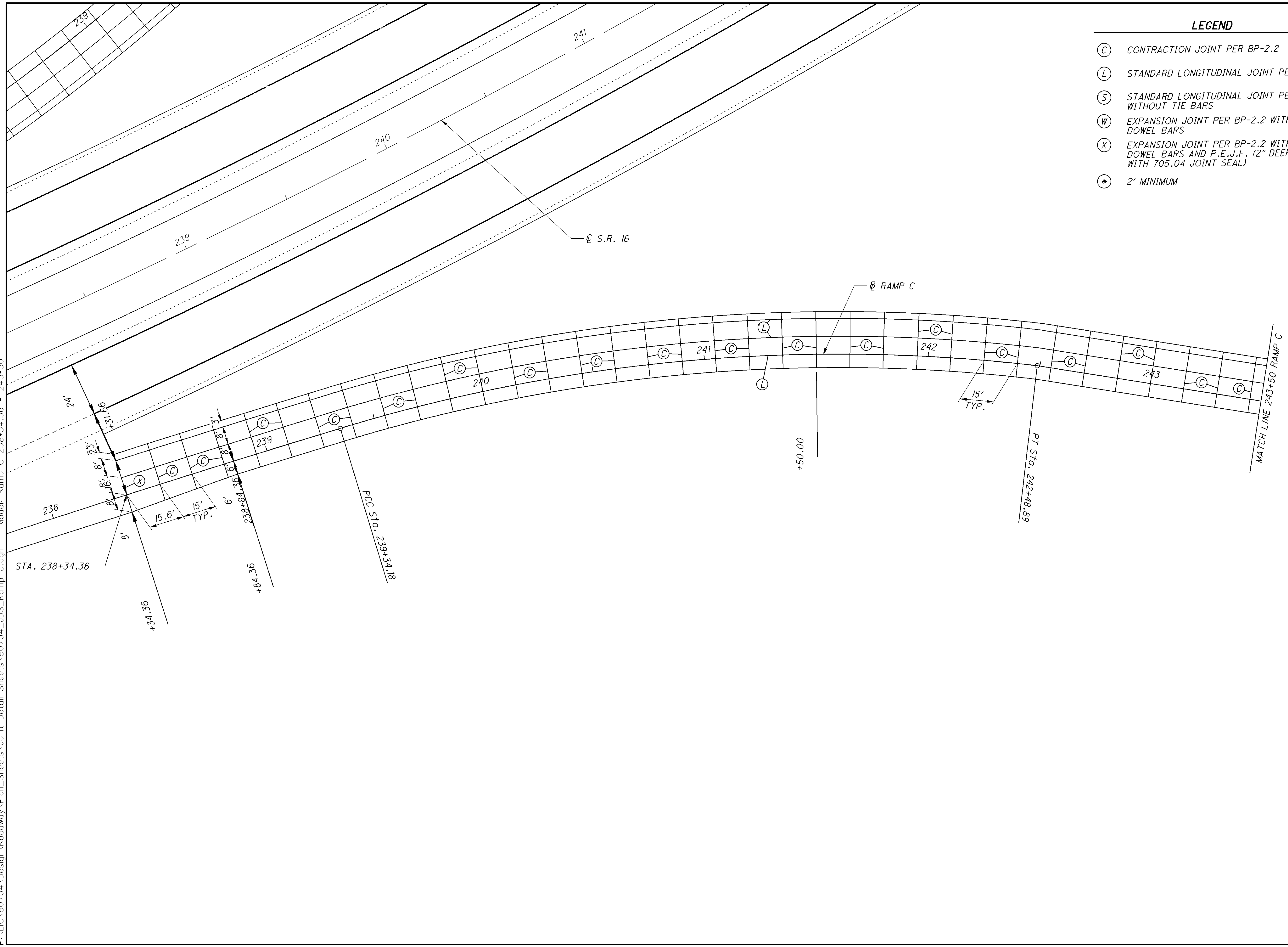
CALCULATED
JPH
CHECKED

0 20 40
HORIZONTAL
SCALE IN FEET

RAMP B JOINT DETAIL SHEET
STA. 258+50 TO 259+40.49

LIC-16-16.64

P:\LIC\80704\Design\Roadway\Plan_Sheets\Joint_Detail_Sheets\80704_JDS_Ramp_C.dgn Model: Ramp_C_238+34.36 - 243+50



LEGEND

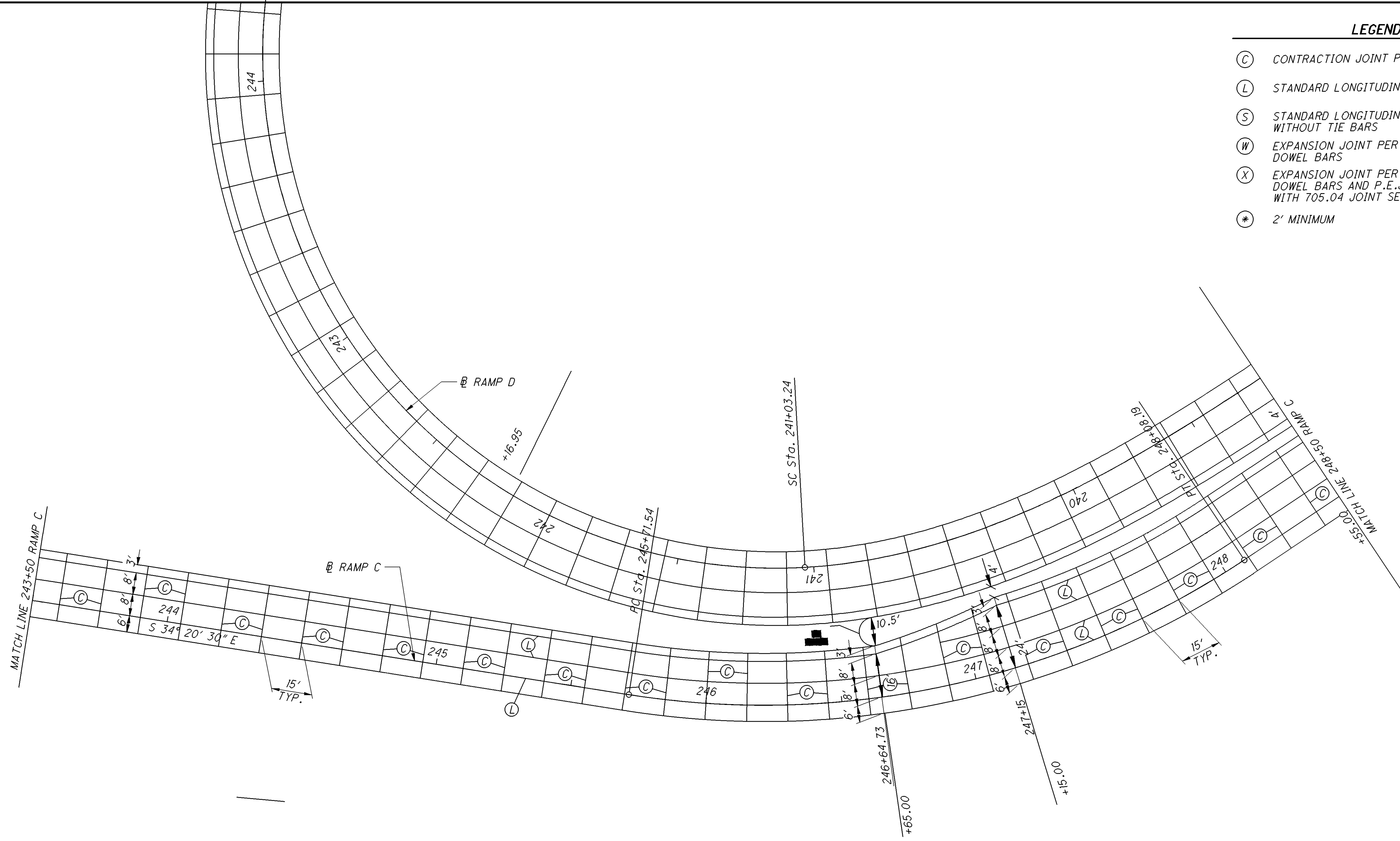
- (C) CONTRACTION JOINT PER BP-2.2
- (L) STANDARD LONGITUDINAL JOINT PER BP-2.1
- (S) STANDARD LONGITUDINAL JOINT PER BP-2.1 WITHOUT TIE BARS
- (W) EXPANSION JOINT PER BP-2.2 WITHOUT DOWEL BARS
- (X) EXPANSION JOINT PER BP-2.2 WITHOUT DOWEL BARS AND P.E.J.F. (2" DEEP SAWCUT WITH 705.04 JOINT SEAL)
- (*) 2' MINIMUM

CALCULATED JPH CHECKED

0 20 40
HORIZONTAL SCALE IN FEET

RAMP C JOINT DETAIL SHEET
STA. 238+34.36 TO STA. 243+50

LIC-16-16.64



LEGEND

- (C) CONTRACTION JOINT PER BP-2.2
- (L) STANDARD LONGITUDINAL JOINT PER BP-2.1
- (S) STANDARD LONGITUDINAL JOINT PER BP-2.1 WITHOUT TIE BARS
- (W) EXPANSION JOINT PER BP-2.2 WITHOUT DOWEL BARS
- (X) EXPANSION JOINT PER BP-2.2 WITHOUT DOWEL BARS AND P.E.J.F. (2" DEEP SAWCUT WITH 705.04 JOINT SEAL)
- (*) 2' MINIMUM

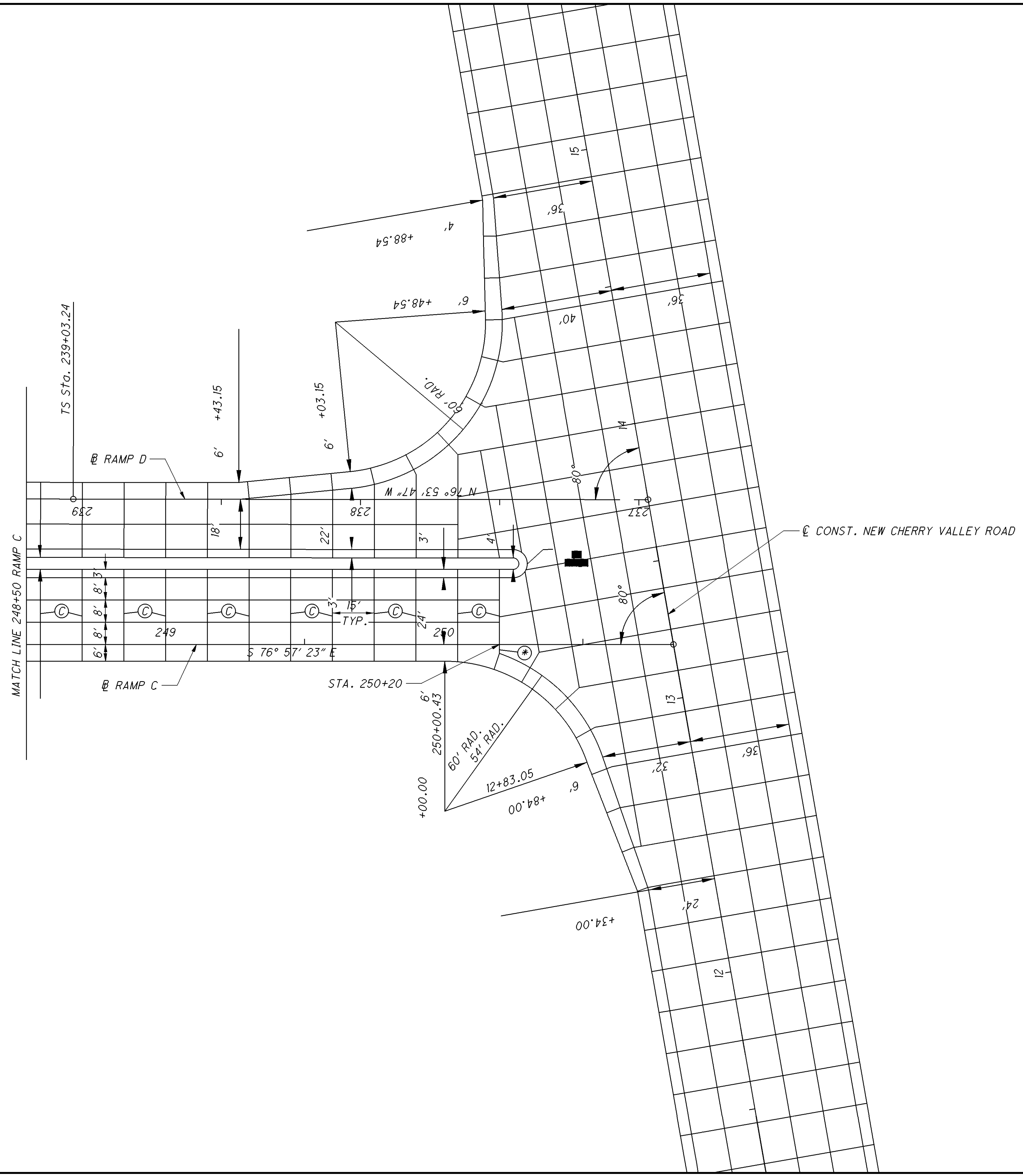
CALCULATED
JPH
CHECKED

0 20 40
HORIZONTAL
SCALE IN FEET

**RAMP C JOINT DETAIL SHEET
STA. 243+50 TO STA. 248+50**

LIC-16-16.64

436
729



LEGEND

- (C) CONTRACTION JOINT PER BP-2.2
- (L) STANDARD LONGITUDINAL JOINT PER BP-2.1
- (S) STANDARD LONGITUDINAL JOINT PER BP-2.1 WITHOUT TIE BARS
- (W) EXPANSION JOINT PER BP-2.2 WITHOUT DOWEL BARS
- (X) EXPANSION JOINT PER BP-2.2 WITHOUT DOWEL BARS AND P.E.J.F. (2" DEEP SAWCUT WITH 705.04 JOINT SEAL)
- (*) 2' MINIMUM

CALCULATED JPH CHECKED

0 20 40
HORIZONTAL SCALE IN FEET

**RAMP C JOINT DETAIL SHEET
STA. 248+50 TO STA. 250+82.55**

LIC-16-16.64



10
HORIZONTAL
SCALE IN FEET

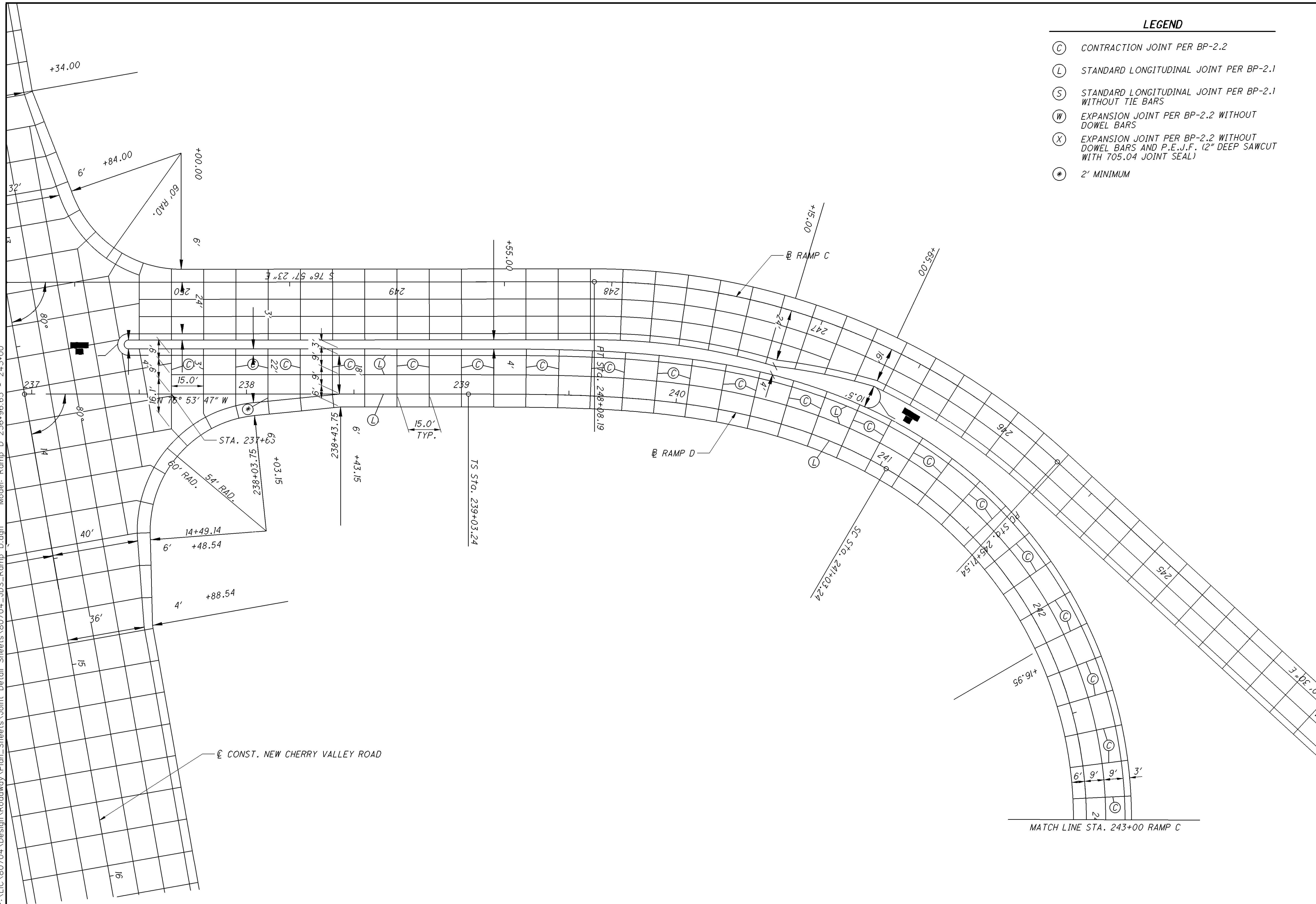
CALCULATED
JPH
CHECKED

RAMP D JOINT DETAIL SHEET
STA. 236+96.65 TO STA. 243+00

LIC-16-16.64

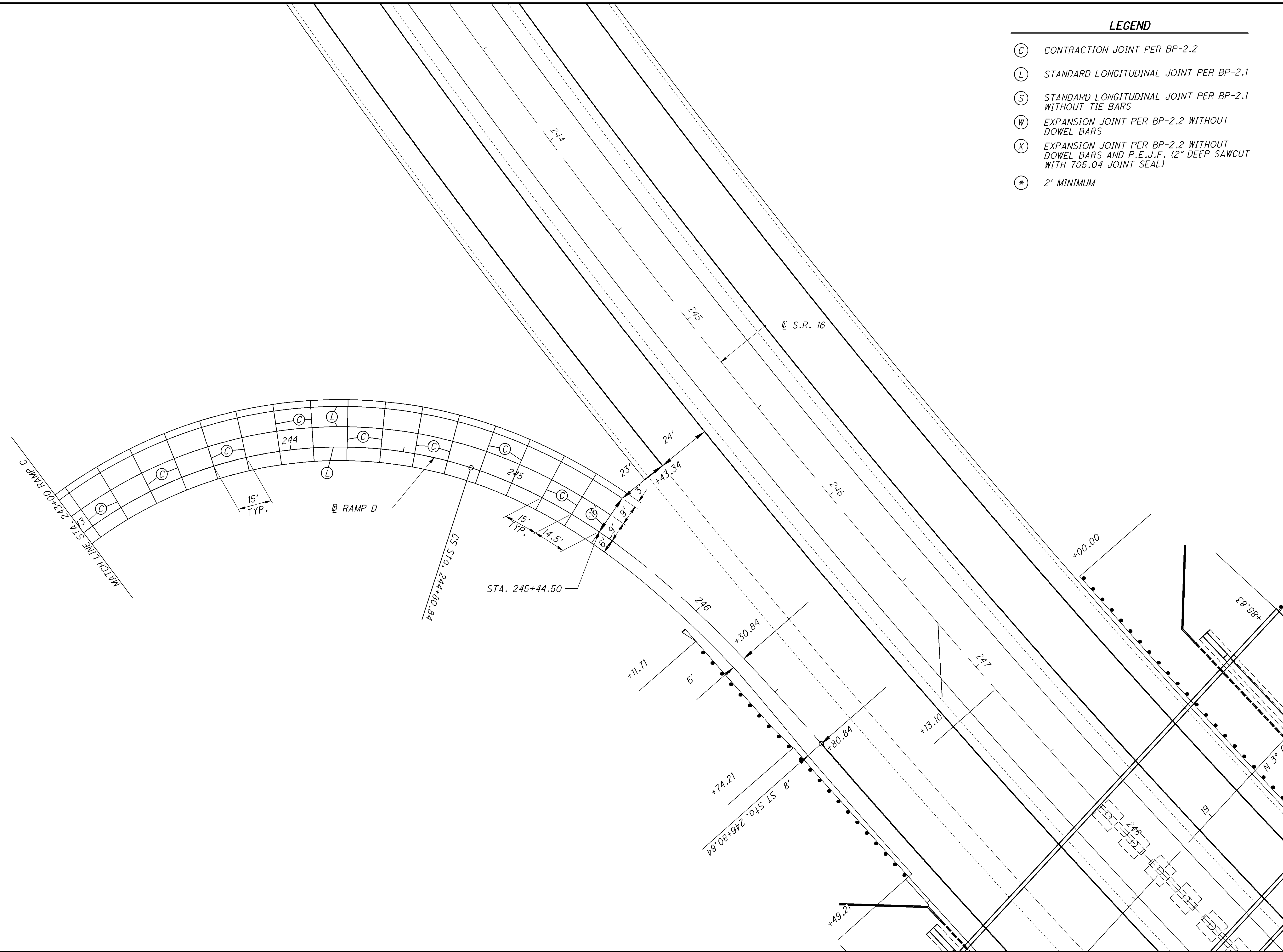
LEGEND

- (C) CONTRACTION JOINT PER BP-2.2
- (L) STANDARD LONGITUDINAL JOINT PER BP-2.1
- (S) STANDARD LONGITUDINAL JOINT PER BP-2.1 WITHOUT TIE BARS
- (W) EXPANSION JOINT PER BP-2.2 WITHOUT DOWEL BARS
- (X) EXPANSION JOINT PER BP-2.2 WITHOUT DOWEL BARS AND P.E.J.F. (2" DEEP SAWCUT WITH 705.04 JOINT SEAL)
- (*) 2' MINIMUM



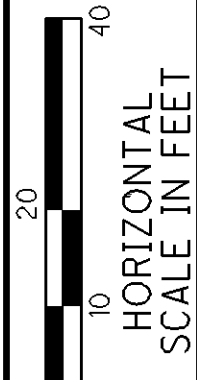
P:\LIC\80704\Design\Roadway\Plan_Sheets\Joint_Detail_Sheets\80704_IDS_Ramp_D.dgn
 Model: Ramp D. 236+96.65 - 243+00

P:\LIC\80704\Design\Roadway\Plan_Sheets\Joint_Detail_Sheets\80704_JDS_Ramp_C.dgn Model: Ramp_C_243+00 - 245+44.48



LEGEND

- (C) CONTRACTION JOINT PER BP-2.2
- (L) STANDARD LONGITUDINAL JOINT PER BP-2.1
- (S) STANDARD LONGITUDINAL JOINT PER BP-2.1 WITHOUT TIE BARS
- (W) EXPANSION JOINT PER BP-2.2 WITHOUT DOWEL BARS
- (X) EXPANSION JOINT PER BP-2.2 WITHOUT DOWEL BARS AND P.E.J.F. (2" DEEP SAWCUT WITH 705.04 JOINT SEAL)
- (*) 2' MINIMUM

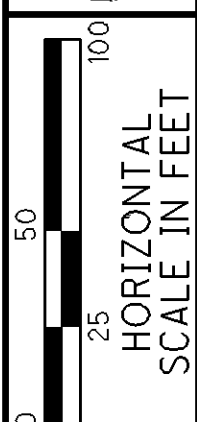


CALCULATED	JPH
CHECKED	

RAMP D JOINT DETAIL SHEET
STA. 243+00 TO STA. 245+44.48

LIC-16-16.64

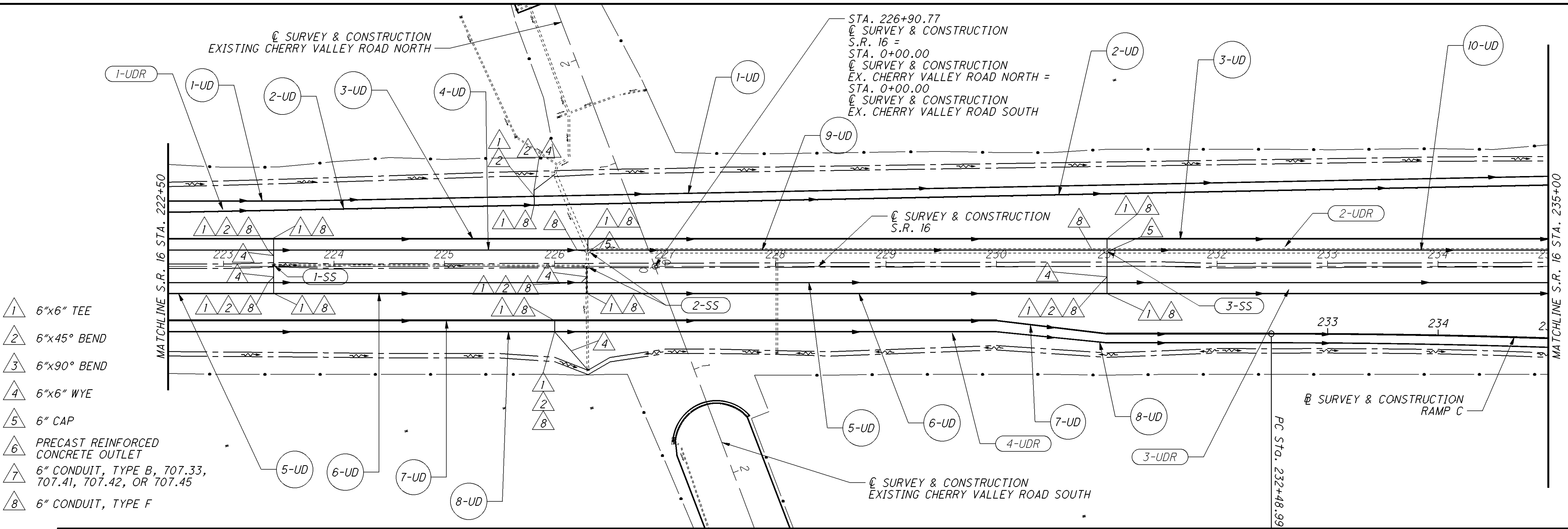
439
729



CALCULATED
C.Y.
CHECKED

S.R. 16 DRAINAGE PLAN AND PROFILE
STA. 222+50 TO STA. 235+00

LIC-16-16.64



- 1 6"x6" TEE
- 2 6"x45° BEND
- 3 6"x90° BEND
- 4 6"x6" WYE
- 5 6" CAP
- 6 PRECAST REINFORCED CONCRETE OUTLET
- 7 6" CONDUIT, TYPE B, 707.33, 707.41, 707.42, OR 707.45
- 8 6" CONDUIT, TYPE F

WESTBOUND PROFILE

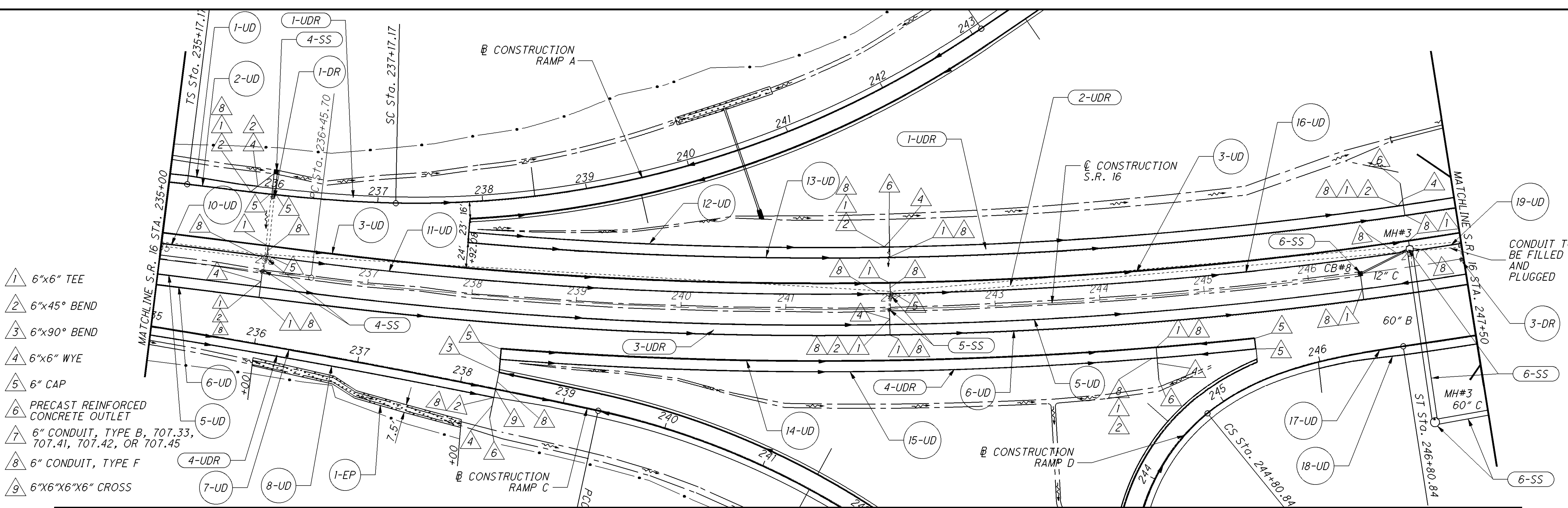
Prop. Profile Grade																	Prop. Profile Grade
900																	900
890																	890
880																	880
870																	870
Ex. Profile Grade																	Ex. Profile Grade
860																	860
	223+00	224+00	225+00	226+00	227+00	228+00	229+00	230+00	231+00	232+00	233+00	234+00	235+00				

Notes: EX. MH ADJUSTED TO GRADE STA. 226+30.00, 14.0'± LT. EX. COVER - 889.50± PROP. COVER - 889.22
 EX. CB ADJUSTED TO GRADE STA. 223+50.00, 0 EX. GRATE - 887.23± PROP. GRATE - 888.00 6"(N&S) - 886.32 15" & INV. - 884.48±
 EX. MH ADJUSTED TO GRADE STA. 231+00.00, 13.0'± LT. EX. COVER - 888.00± PROP. COVER - 887.59 6"(N) - 884.53 6"(N&S) - 883.82 48" & INV. - 877.00±

EASTBOUND PROFILE

Prop. Profile Grade																	Prop. Profile Grade
900																	900
890																	890
880																	880
870																	870
Ex. Profile Grade																	Ex. Profile Grade
860																	860
	223+00	224+00	225+00	226+00	227+00	228+00	229+00	230+00	231+00	232+00	233+00	234+00	235+00				

Note: -0.33%



- △ 1 6"x6" TEE
- △ 2 6"x45° BEND
- △ 3 6"x90° BEND
- △ 4 6"x6" WYE
- △ 5 6" CAP
- △ 6 PRECAST REINFORCED CONCRETE OUTLET
- △ 7 6" CONDUIT, TYPE B, 707.33, 707.41, 707.42, OR 707.45
- △ 8 6" CONDUIT, TYPE F
- △ 9 6"x6"x6" CROSS

Prop. Profile Grade	WESTBOUND PROFILE														Prop. Profile Grade												
	235+00	236+00	237+00	238+00	239+00	240+00	241+00	242+00	243+00	244+00	245+00	246+00	247+00														
900	886.55	886.46												883.37													
890		886.43												883.37													
880	C.B. #2-4, A.P.P. STA. 236+00.00 96.0' LT. GRATE - 883.30 6"(SW&SE) - 881.04 E. EL. 36"(S) & INVERT - 876.42 EXISTING CB TO BE REMOVED 72.0' ± LT.													883.37													
870														883.37													
860	886.55	886.43	886.85	886.65	886.48	886.14	886.22	885.96	885.84	885.73	885.49	885.37	885.14	885.11	884.93	884.76	884.52	884.35	884.25	884.13	883.94	883.68	883.54	883.42	883.42	883.37	883.37

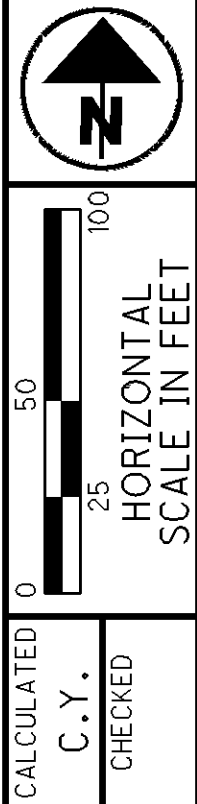
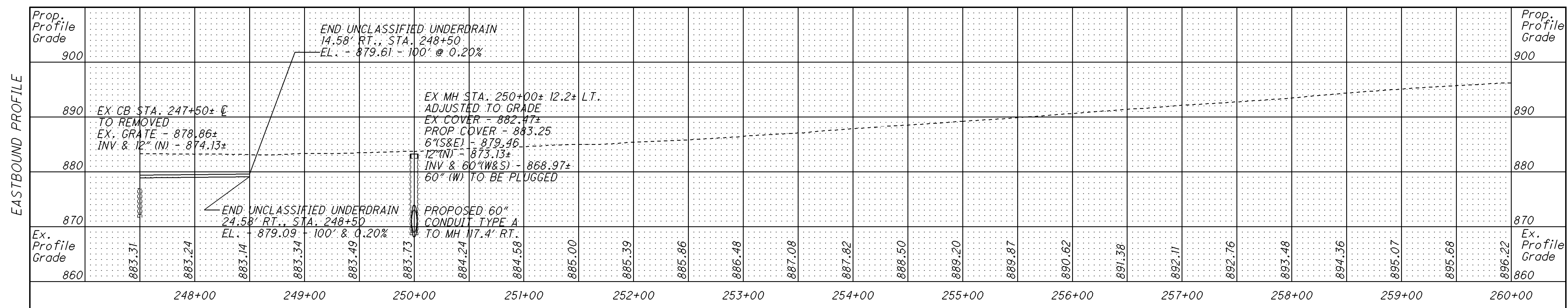
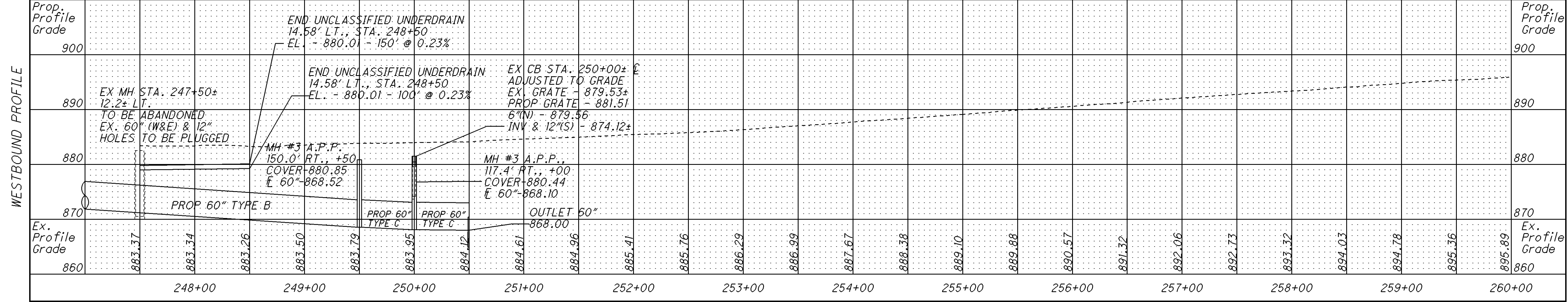
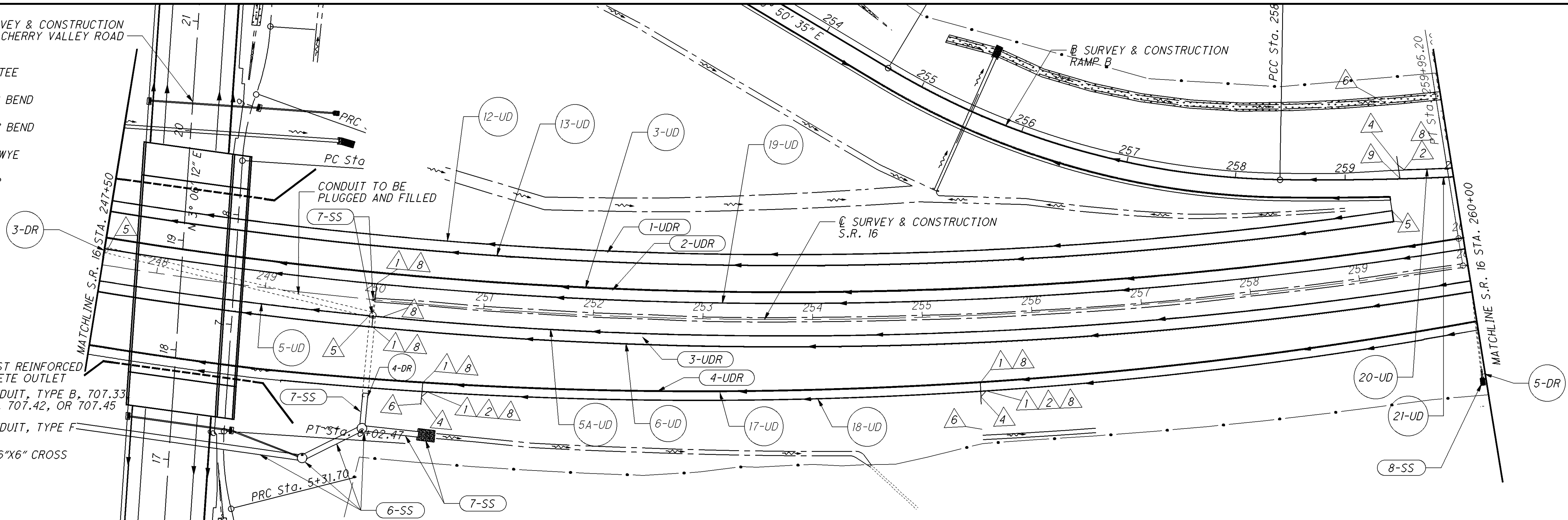
Prop. Profile Grade	EASTBOUND PROFILE														Prop. Profile Grade												
	235+00	236+00	237+00	238+00	239+00	240+00	241+00	242+00	243+00	244+00	245+00	246+00	247+00														
900	886.83	886.75												883.31													
890		886.72												883.31													
880		-0.33%												883.31													
870														883.31													
860	886.76	886.79	886.63	886.52	886.37	886.33	886.21	886.09	885.89	885.64	885.51	885.39	885.32	885.14	884.99	884.73	884.64	884.43	884.24	884.11	883.97	883.78	883.64	883.52	883.38	883.31	883.31

SR16_DFP_003.dgn 03/14/13

© SURVEY & CONSTRUCTION
PROPOSED CHERRY VALLEY ROAD

- 1 6"x6" TEE
- 2 6"x45° BEND
- 3 6"x90° BEND
- 4 6"x6" WYE
- 5 6" CAP

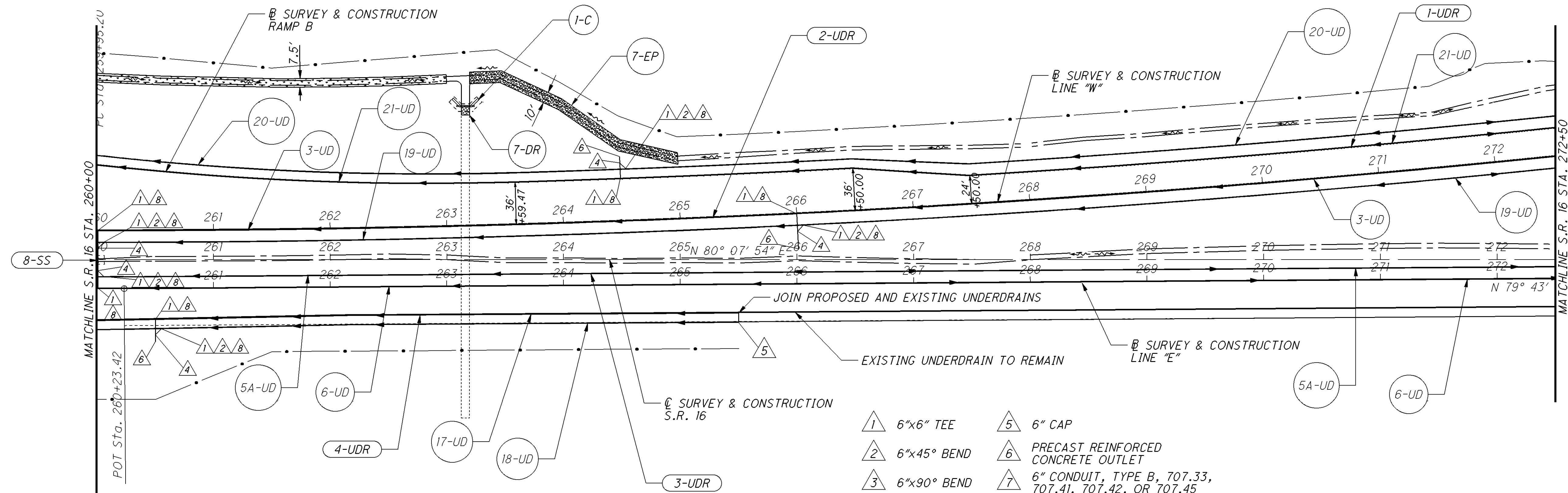
- 6 PRECAST REINFORCED CONCRETE OUTLET
- 7 6" CONDUIT, TYPE B, 707.33, 707.41, 707.42, OR 707.45
- 8 6" CONDUIT, TYPE F
- 9 6"x6"x6"x6" CROSS



CALCULATED C.V. CHECKED
S.R. 16 DRAINAGE PLAN AND PROFILE
STA. 247+50 TO STA. 260+00

LIC-16-16.64

443
 729

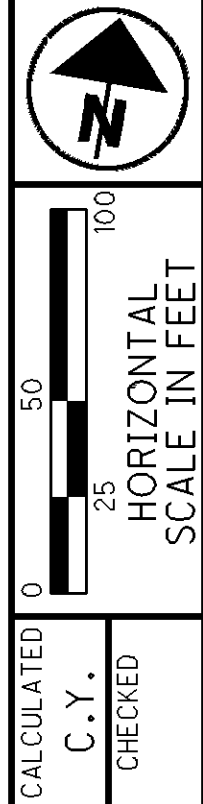


WESTBOUND PROFILE

Prop. Profile Grade	260+00	261+00	262+00	263+00	264+00	265+00	266+00	267+00	268+00	269+00	270+00	271+00	272+00	Prop. Profile Grade													
920														920													
910														910													
900														900													
890														890													
Ex. Profile Grade	885.89	886.75	887.50	888.25	888.98	889.67	900.39	901.09	901.71	902.45	903.48	904.28	904.98	905.69	906.38	907.00	907.58	908.12	908.68	908.99	909.28	909.42	909.45	909.52	909.50	909.34	Ex. Profile Grade
880														880													

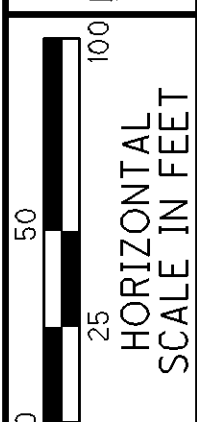
EASTBOUND PROFILE

Prop. Profile Grade	260+00	261+00	262+00	263+00	264+00	265+00	266+00	267+00	268+00	269+00	270+00	271+00	272+00	Prop. Profile Grade													
920														920													
910														910													
900														900													
890														890													
Ex. Profile Grade	886.22	887.01	887.59	888.22	888.84	889.37	889.88	900.25	900.46	900.68	900.99	901.70	901.87	901.98	901.96	901.88	901.76	901.52	901.27	900.82	900.40	899.92	899.40	898.83	898.12	897.39	Ex. Profile Grade
880														880													



S.R. 16 DRAINAGE PLAN AND PROFILE
STA. 260+00 TO STA. 272+50

LIC-16-16.64

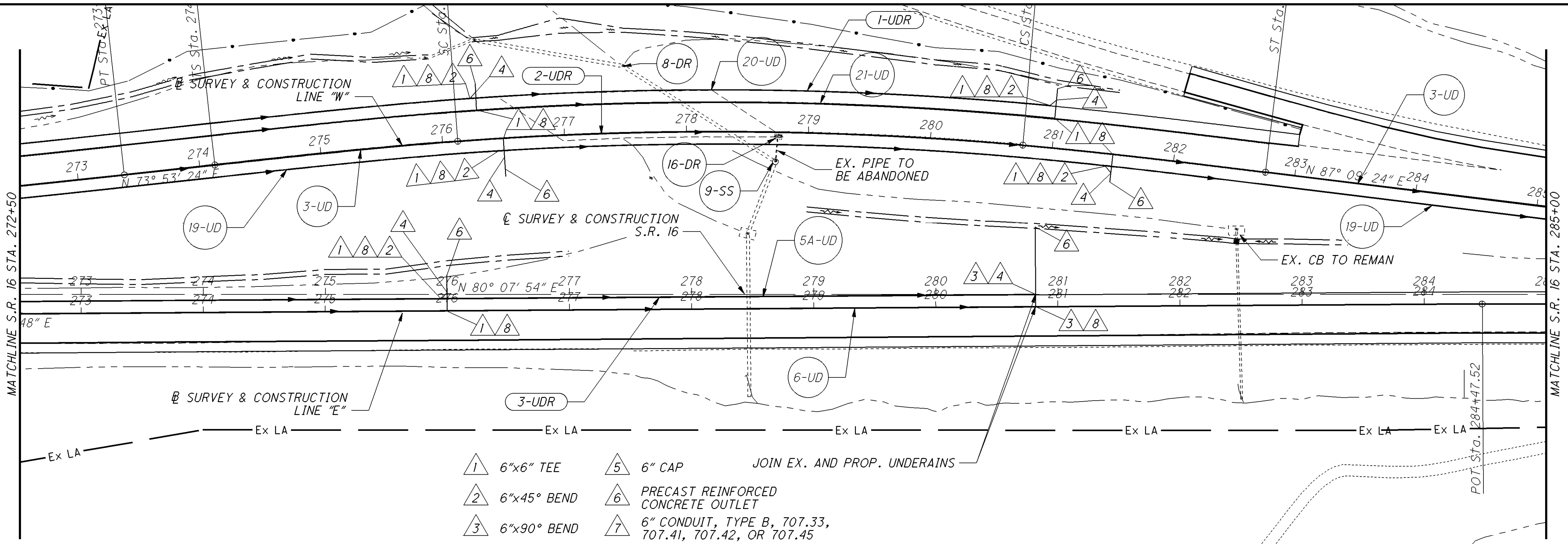


CALCULATED
C.Y.
CHECKED

S.R. 16 DRAINAGE PLAN AND PROFILE STA. 272+50 TO STA. 285+00

LIC-16-16.64

445
729



WESTBOUND PROFILE

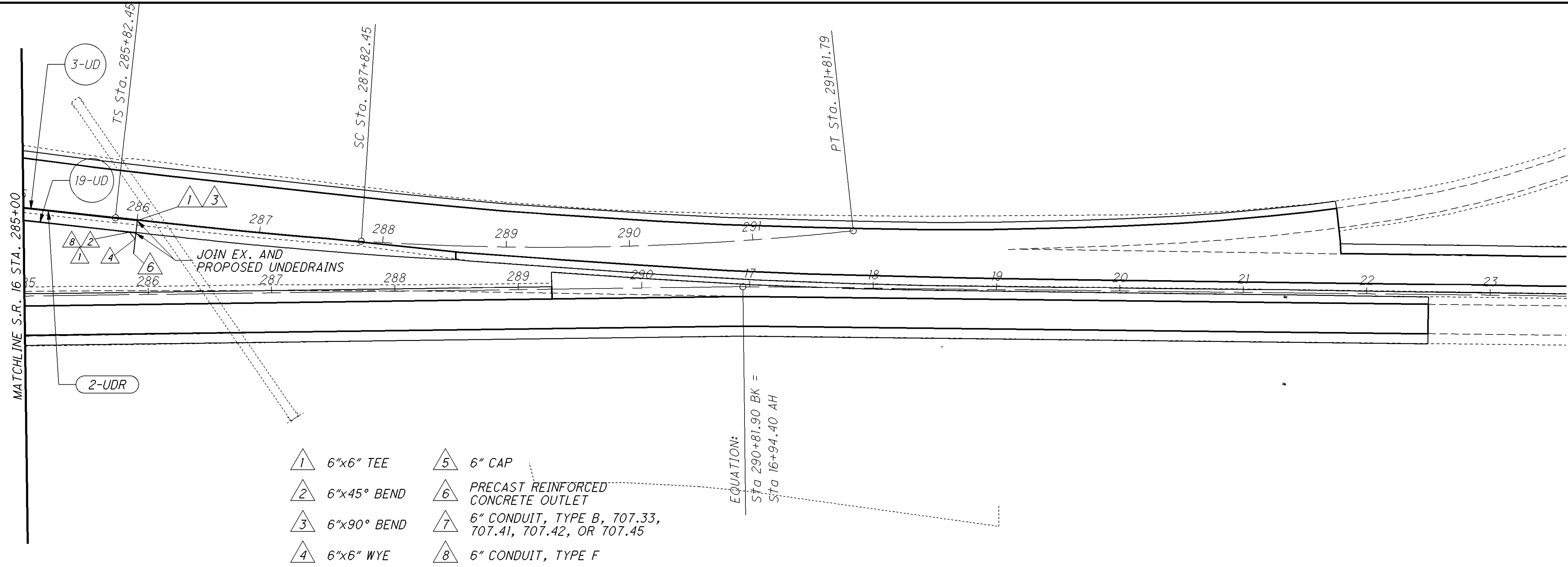
Sta.	273+00	274+00	275+00	276+00	277+00	278+00	279+00	280+00	281+00	282+00	283+00	284+00	285+00													
Prop. Profile Grade				905.73	905.27	904.81	904.34	903.84	903.32	902.78	902.21	901.62	901.00	900.37	899.71	899.02	898.33	897.63								
900																										
890																										
880																										
Ex. Profile Grade	909.34	909.12	908.68	908.20	907.81	907.19	906.54	905.73	904.62	902.19	883.36	885.23	892.41	899.04	897.63	895.97	894.36	892.78	891.27	889.65	888.00	886.35	884.76	883.25	881.55	879.81

Grades: -1.85%, -2.78%
P.V.I. STA 277+75.00 ELEV = 902.50'
250.00' VC

EASTBOUND PROFILE

Sta.	273+00	274+00	275+00	276+00	277+00	278+00	279+00	280+00	281+00	282+00	283+00	284+00	285+00												
Prop. Profile Grade																									
900																									
890																									
880																									
Ex. Profile Grade	897.39	896.60	895.86	895.03	894.12	893.12	892.08	891.00	889.92	888.85	887.82	886.67	885.53	884.36	883.43	882.36	881.37	880.42	879.31	878.27	877.24	876.26	875.46	874.64	

SR16_DPP_006.dgn 03/14/13



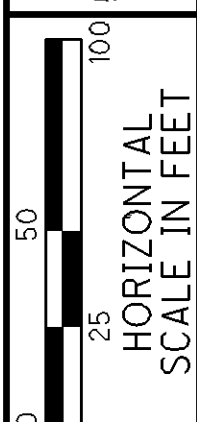
- 1 6"x6" TEE
- 2 6"x45° BEND
- 3 6"x90° BEND
- 4 6"x6" WYE
- 5 6" CAP
- 6 PRECAST REINFORCED CONCRETE OUTLET
- 7 6" CONDUIT, TYPE B, 707.33, 707.41, 707.42, OR 707.45
- 8 6" CONDUIT, TYPE F

BOUND PROFILE

Prop. Profile Grade	285+00	286+00	287+00	288+00	289+00	290+00	17+00	18+00	19+00	20+00	21+00	22+00	23+00	Prop. Profile Grade
890														890
880														880
870														870
860														860
Ex. Profile Grade														Ex. Profile Grade
850														850

BOUND PROFILE

Prop. Profile Grade	285+00	286+00	287+00	288+00	289+00	290+00	17+00	18+00	19+00	20+00	21+00	22+00	23+00	Prop. Profile Grade
890														890
880														880
870														870
860														860
Ex. Profile Grade														Ex. Profile Grade
850														850



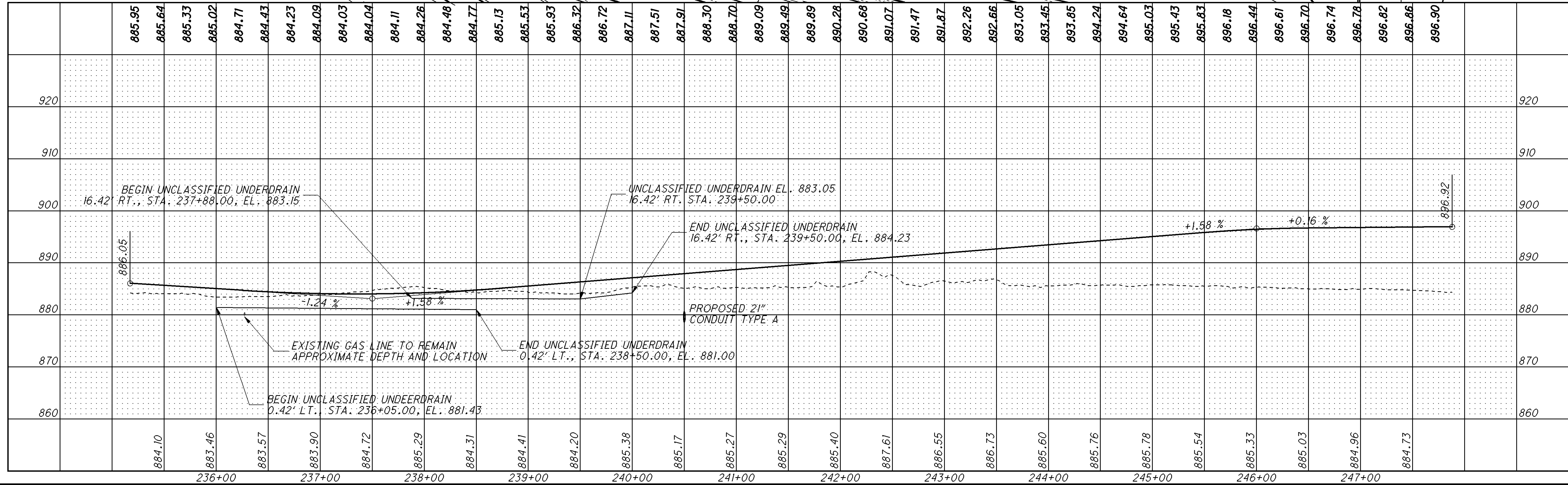
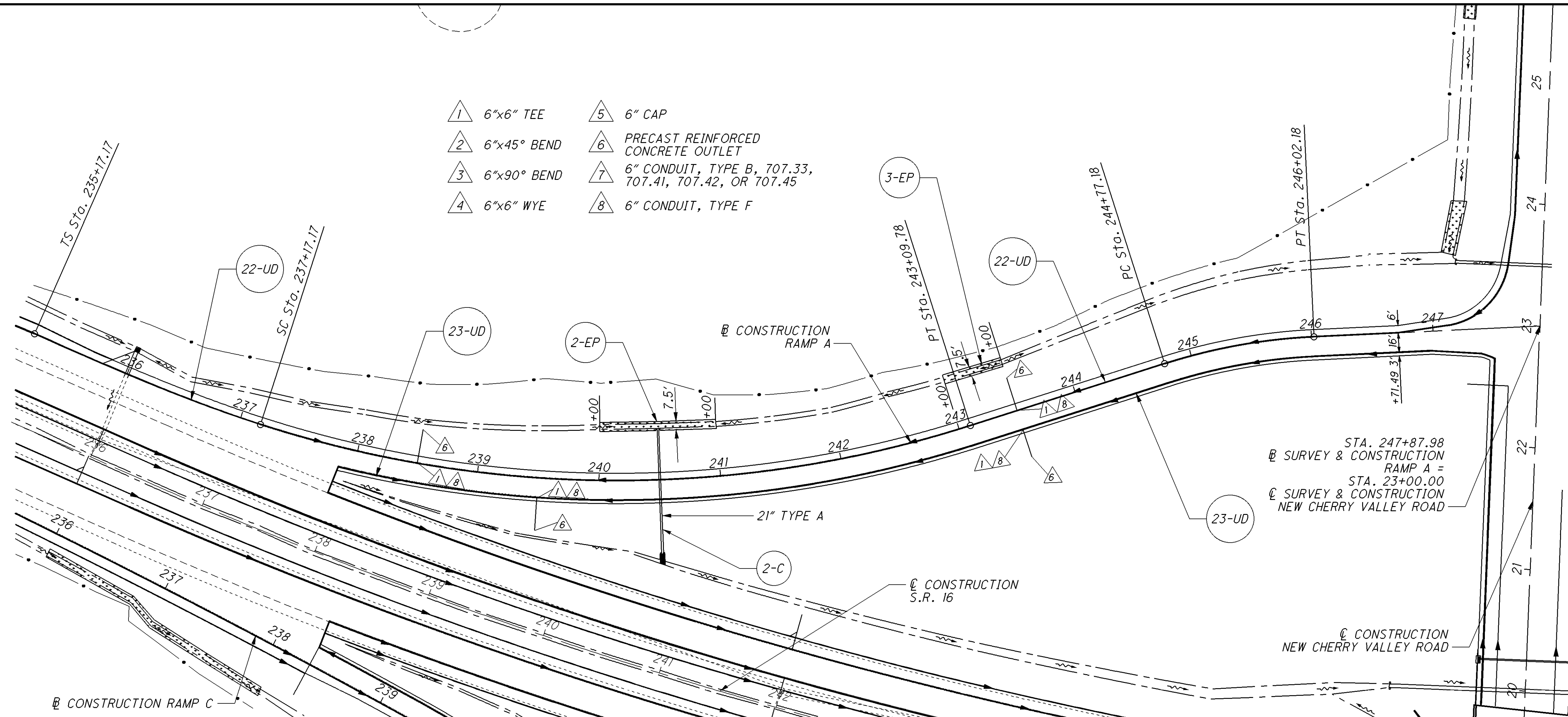
CALCULATED
C.V.
CHECKED

S.R. 16 DRAINAGE PLAN AND PROFILE
STA. 285+00 TO STA. 23+62

LIC-16-16.64

446
729

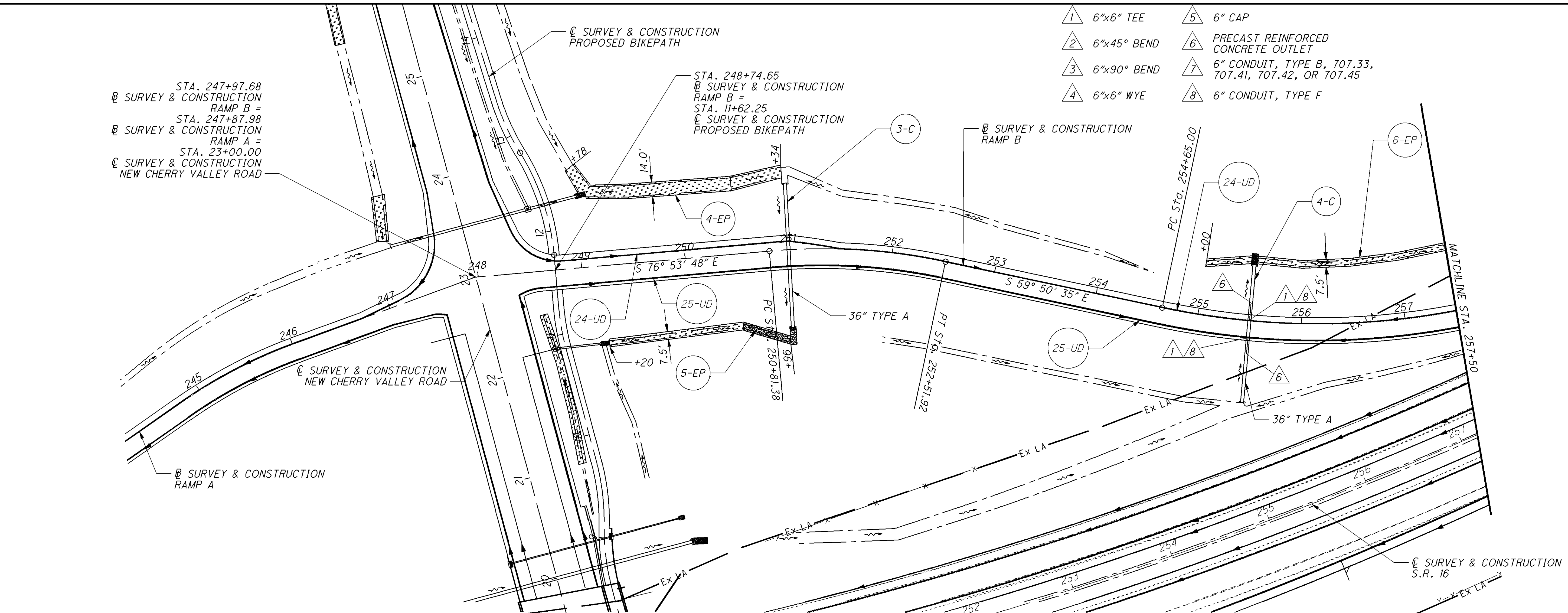
80704_RAMPA_DPP_001.DGN 03/16/13



- 1 6"x6" TEE
- 2 6"x45° BEND
- 3 6"x90° BEND
- 4 6"x6" WYE
- 5 6" CAP
- 6 PRECAST REINFORCED CONCRETE OUTLET
- 7 6" CONDUIT, TYPE B, 707.33, 707.41, 707.42, OR 707.45
- 8 6" CONDUIT, TYPE F



RAMP A DRAINAGE PLAN AND PROFILE
STA. 237+87.45 TO STA. 247+54.39



- △ 1 6"x6" TEE
- △ 2 6"x45° BEND
- △ 3 6"x90° BEND
- △ 4 6"x6" WYE
- △ 5 6" CAP
- △ 6 PRECAST REINFORCED CONCRETE OUTLET
- △ 7 6" CONDUIT, TYPE B, 707.33, 707.41, 707.42, OR 707.45
- △ 8 6" CONDUIT, TYPE F

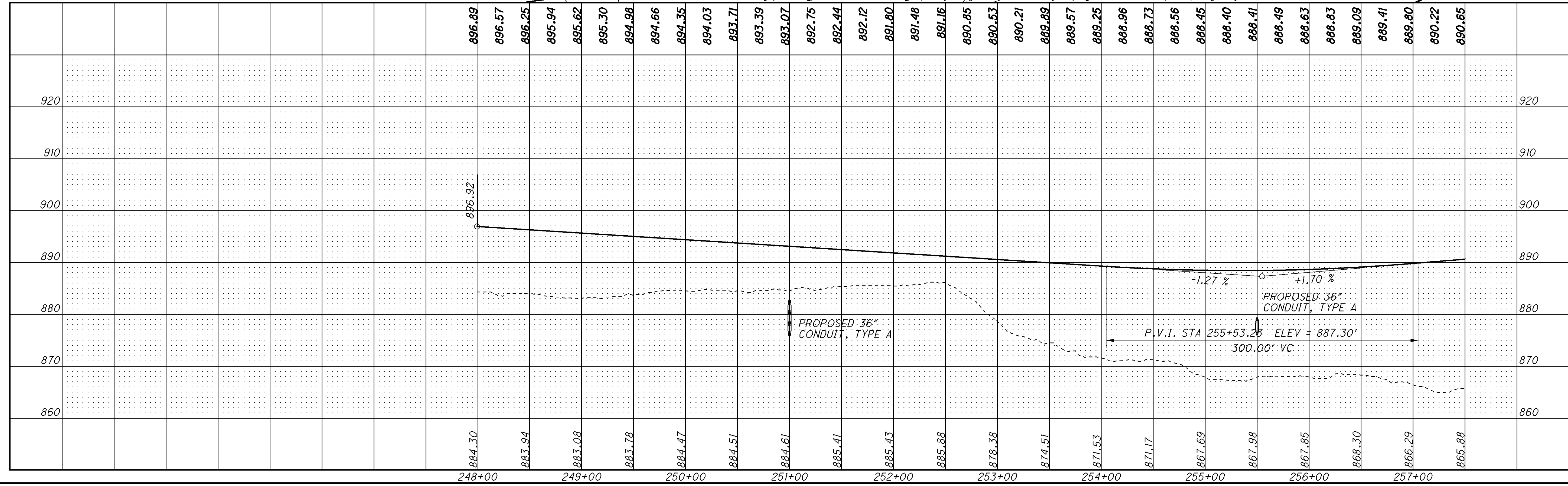
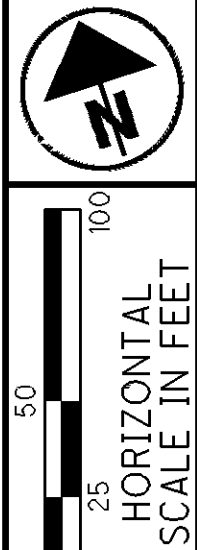
STA. 247+97.68
 ⊠ SURVEY & CONSTRUCTION RAMP B =
 STA. 247+87.98
 ⊠ SURVEY & CONSTRUCTION RAMP A =
 STA. 23+00.00
 ⊠ SURVEY & CONSTRUCTION NEW CHERRY VALLEY ROAD

STA. 248+74.65
 ⊠ SURVEY & CONSTRUCTION RAMP B =
 STA. 11+62.25
 ⊠ SURVEY & CONSTRUCTION PROPOSED BIKEPATH

⊠ SURVEY & CONSTRUCTION RAMP A

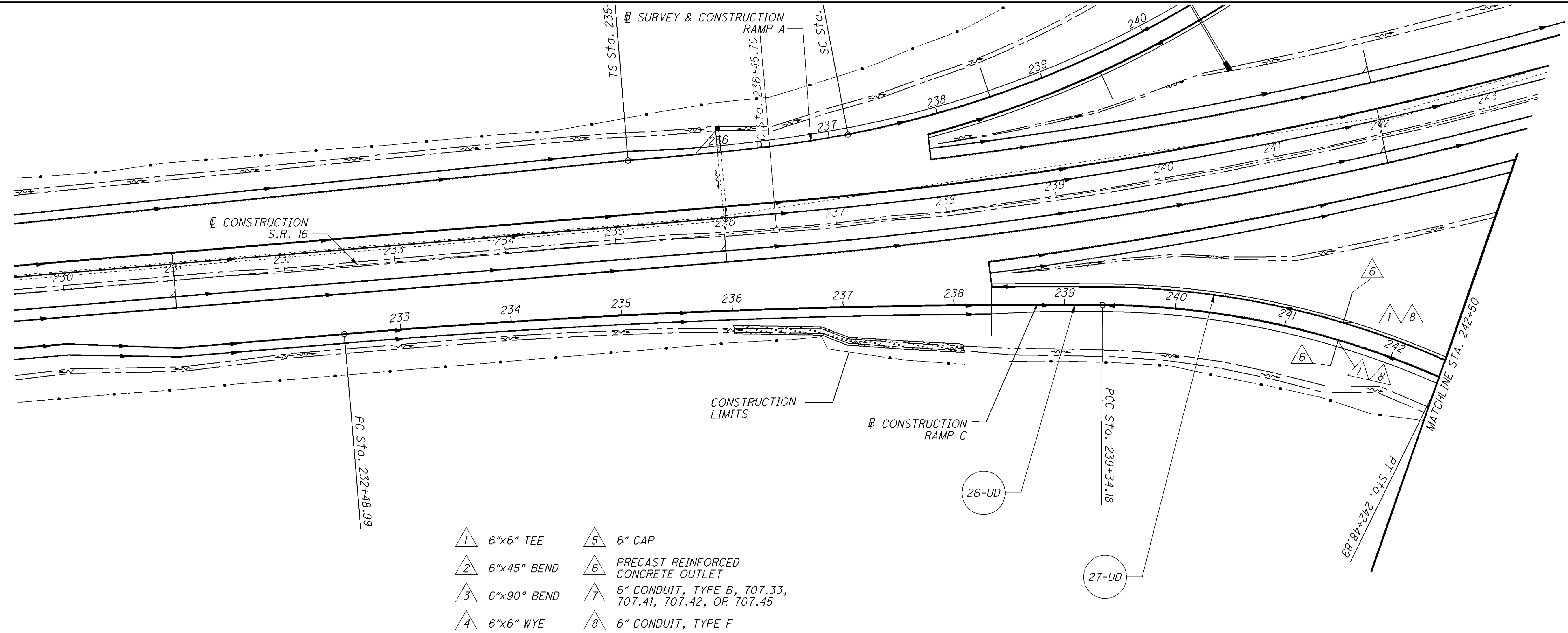
⊠ SURVEY & CONSTRUCTION RAMP B

⊠ SURVEY & CONSTRUCTION S.R. 16



RAMP B DRAINAGE PLAN AND PROFILE
STA. 248+34.24 TO STA. 257+50.00

LIC-16-16.64

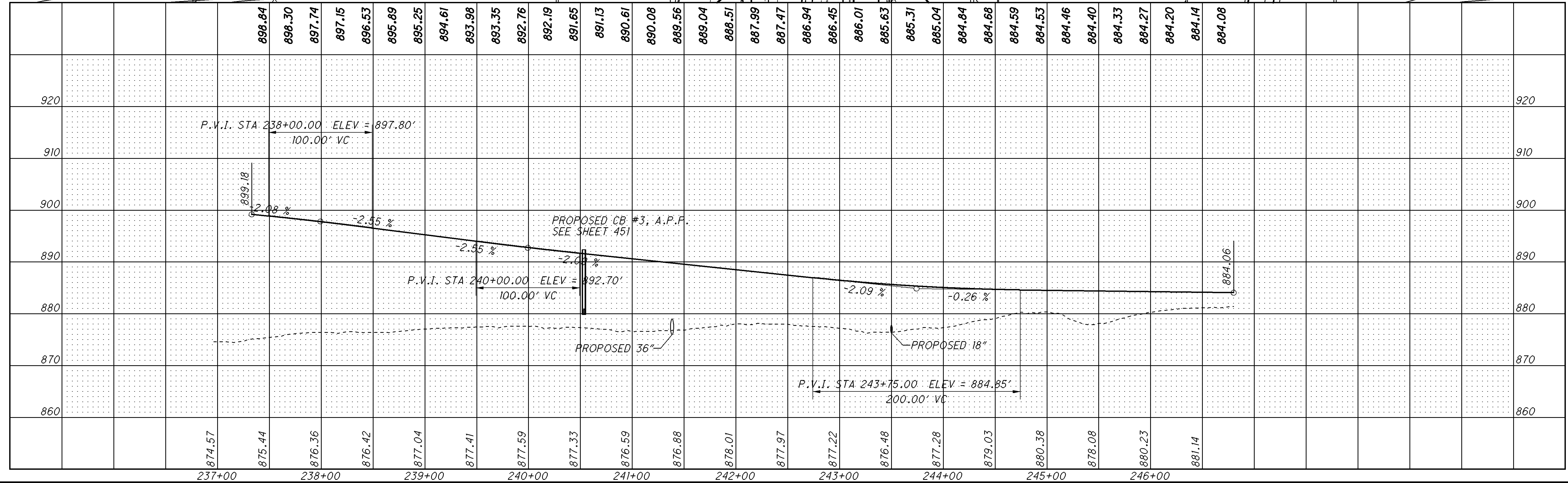
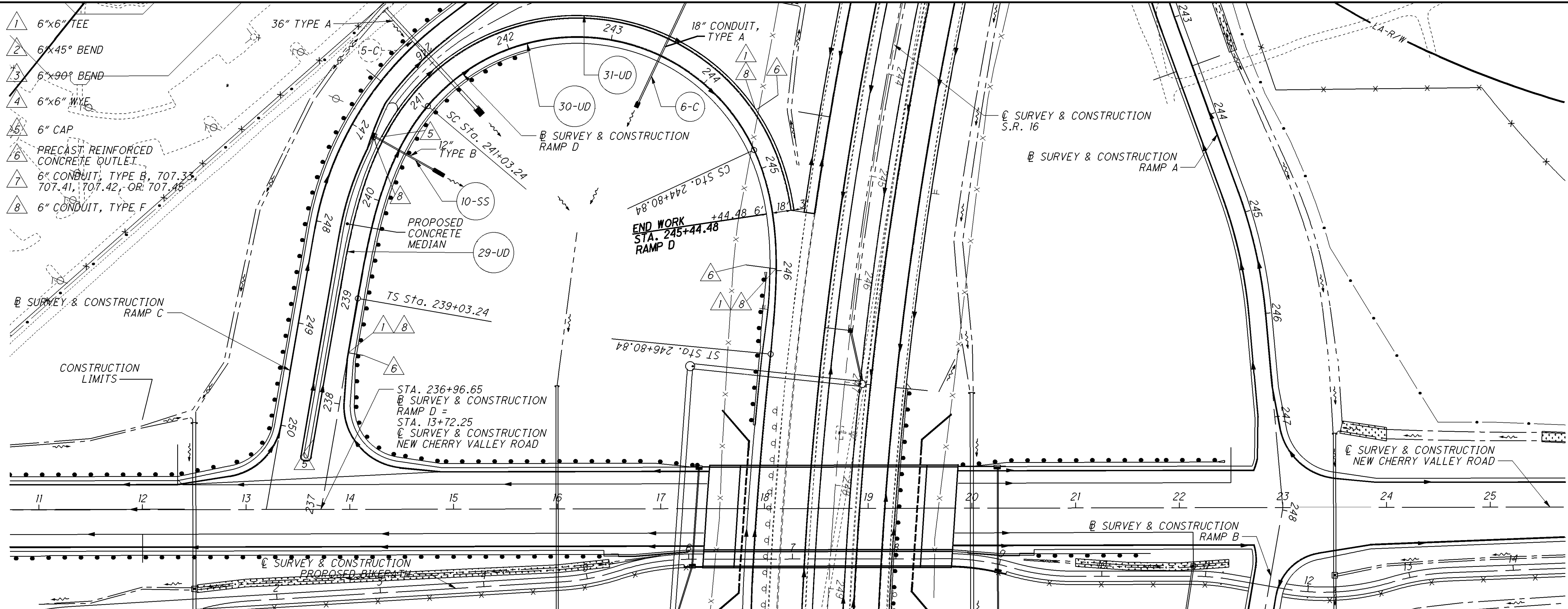


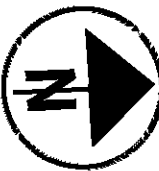

- 1 6"x6" TEE 5 6" CAP
- 2 6"x45° BEND 6 PRECAST REINFORCED CONCRETE OUTLET
- 3 6"x90° BEND 7 6" CONDUIT, TYPE B, 707.33, 707.41, 707.42, OR 707.45
- 4 6"x6" WYE 8 6" CONDUIT, TYPE F

											886.62	886.72	886.81	886.91	887.00	887.10	887.20	887.29	887.39	887.48	887.58	887.68	887.77	887.87	887.97	888.06	888.16	888.25	888.35	888.45	888.54	888.64	888.73	888.83	888.93	889.02	889.12	889.21	889.31	889.42	889.55			
910																																												910
900																																												900
890											886.62																																890	
880																																											880	
870																																											870	
860																																											860	
850																																											850	
	887.24	886.86	886.76	886.45	886.20	886.00	885.96	885.61	885.14	884.22	883.44	882.28	881.29	881.29	880.96	881.16	881.16	880.82	879.97	879.35	878.78																							
						235+00	236+00	237+00	238+00	239+00	240+00	241+00	242+00																															

RAMP C DRAINAGE PLAN AND PROFILE
 STA. 238+34.36 TO STA. 242+50.00

LIC-16-16.64





 CALCULATED: _____
 C.V.: _____
 CHECKED: _____

RAMP D DRAINAGE PLAN AND PROFILE
 STA. 237+27.90 TO STA. 245+44.48

LIC-16-16.64
 452
 729

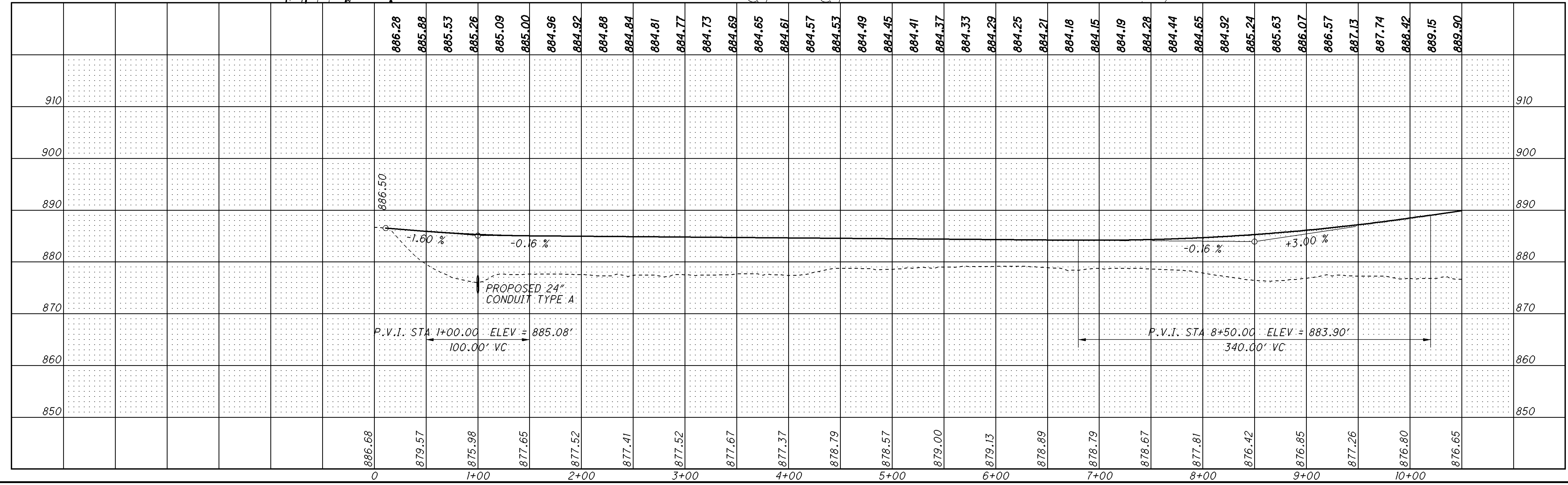
80704_RAMPD_DPP_001.DGN 03/16/13

1-WW FIRE HYDRANT ADJUSTED TO GRADE STA. 28+94± 17.5' ± RT.

STA. 0+00.00
 CONSTRUCTION NEW CHERRY VALLEY ROAD = STA. 28+51.97
 CONSTRUCTION EXISTING SOUTH CHERRY VALLEY ROAD

PT STA. 30+43.43
 CONSTRUCTION EXISTING SOUTH CHERRY VALLEY ROAD

- 1 6"x6" TEE
- 2 6"x45° BEND
- 3 6"x90° BEND
- 4 6"x6" WYE
- 5 6" CAP
- 6 PRECAST REINFORCED CONCRETE OUTLET
- 7 6" CONDUIT, TYPE B, 707.33, 707.41, 707.42, OR 707.45
- 8 6" CONDUIT, TYPE F
- 9 6"x6"x6"x6" CROSS



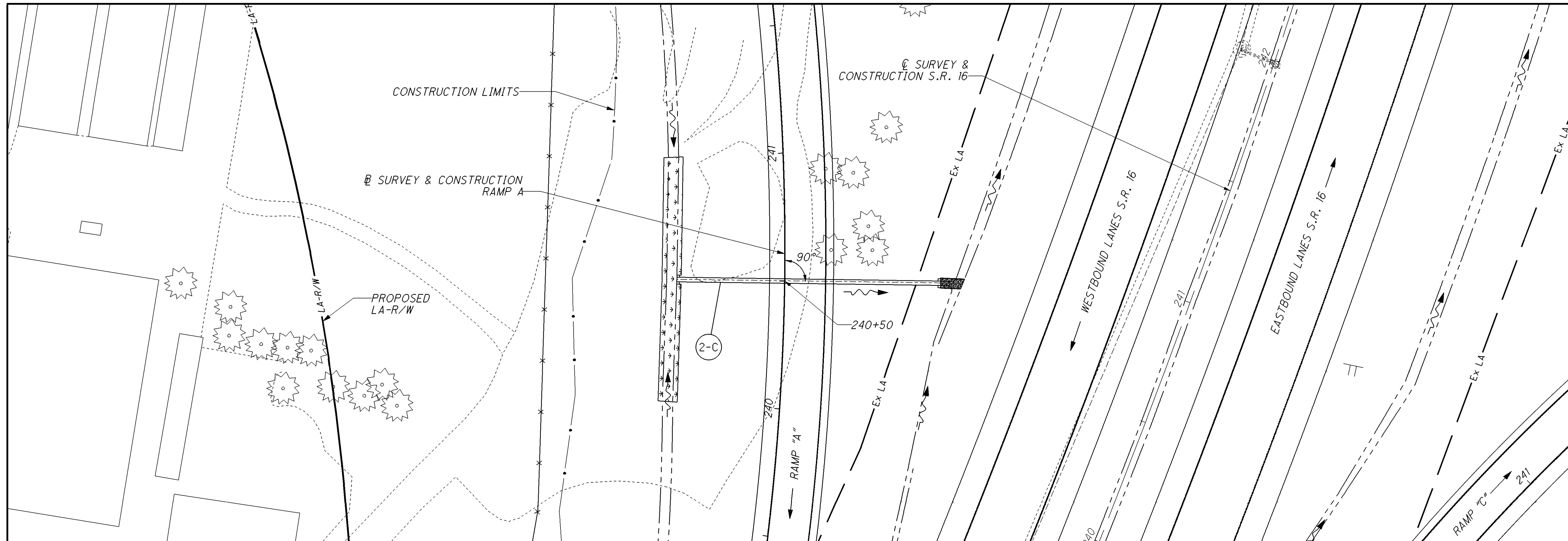
CALCULATED C.V. CHECKED

NEW CHERRY VALLEY RD. DRAINAGE PLAN AND PROFILE
STA. 0+28.08 TO STA. 10+50.00

LIC-16-16.64

453
729

P:\lic\80704\design\roadway\plan_sheets\drainage\culverts\rampa_sta240+50.00.dgn



CALCULATED

CHECKED

HORIZONTAL SCALE IN FEET

0

10

20

30

40

50

60

70

80

90

100

110

120

130

140

150

160

170

180

190

200

210

220

230

240

250

260

270

280

290

300

310

320

330

340

350

360

370

380

390

400

410

420

430

440

450

460

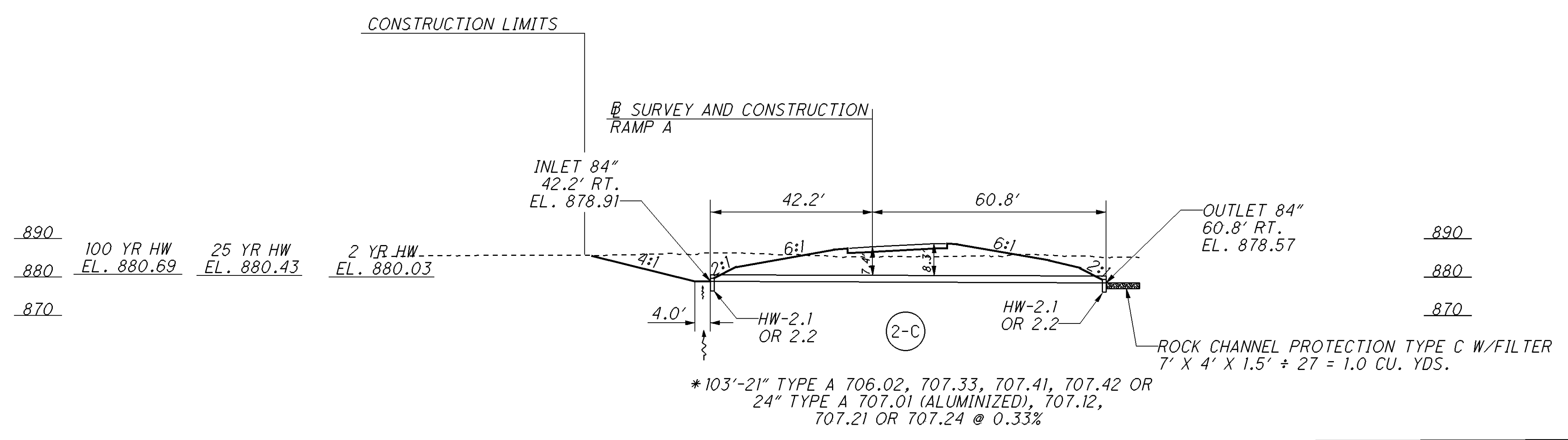
470

480

490

500

CULVERT DETAIL SHEET RAMP "A" STA. 240+50.00



HYDRAULIC DATA

DRAINAGE AREA = 2.4 ACRES

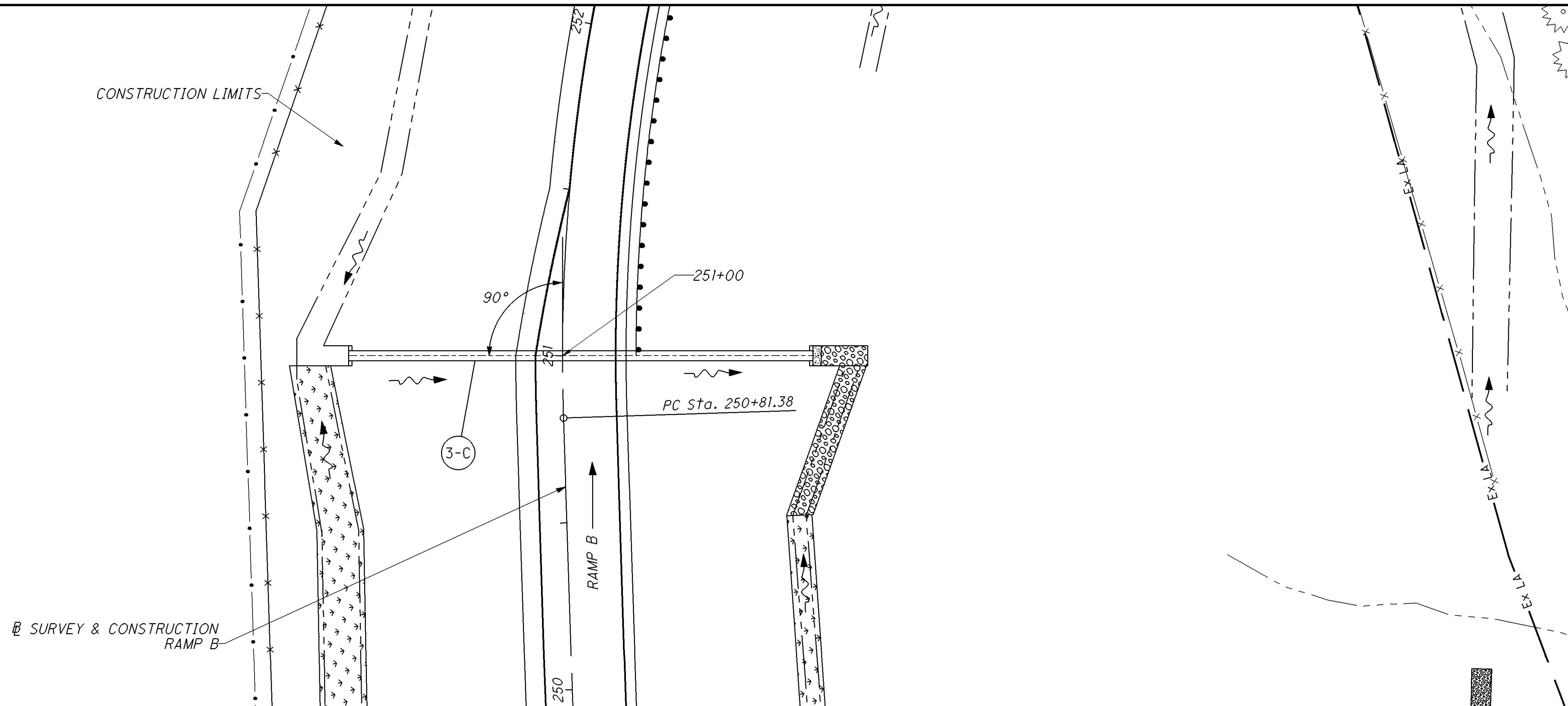
YEAR	Q (CFS)	V (FPS)
25	5.90	4.77
100	7.54	5.20

QUANTITIES

ITEM 602 CONCRETE MASONRY	0.66 CU. YDS.
ITEM 611 21" CONDUIT, TYPE A*	103.0 FT.
ITEM 601 ROCK CHANNEL PROTECTION TYPE C WITH FILTER	1.0 CU. YDS.

QUANTITIES CARRIED TO SUB-SUMMARIES

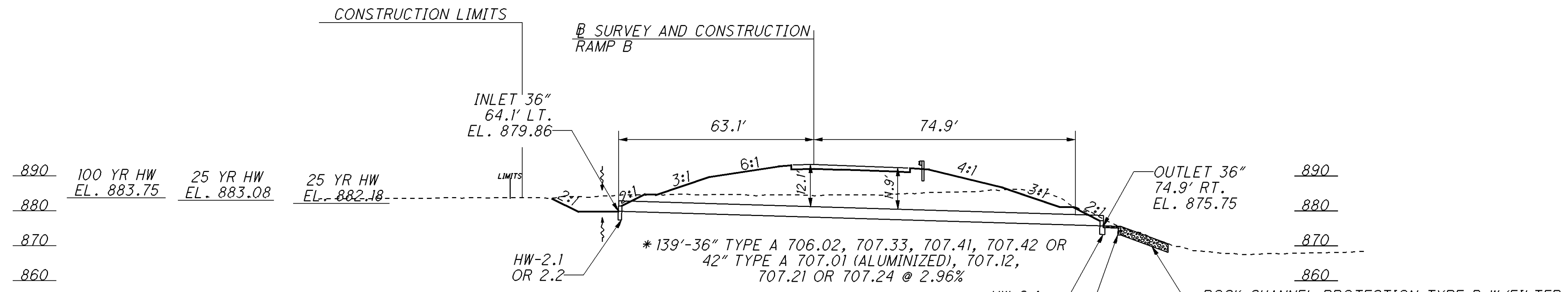
P:\lic\80704\design\roadway\plan_sheets\drainage\culverts\ramb_sta251+00.00.dgn



CALCULATED
CHECKED

HORIZONTAL SCALE IN FEET

CULVERT DETAIL SHEET RAMP "B" STA. 251+00.00



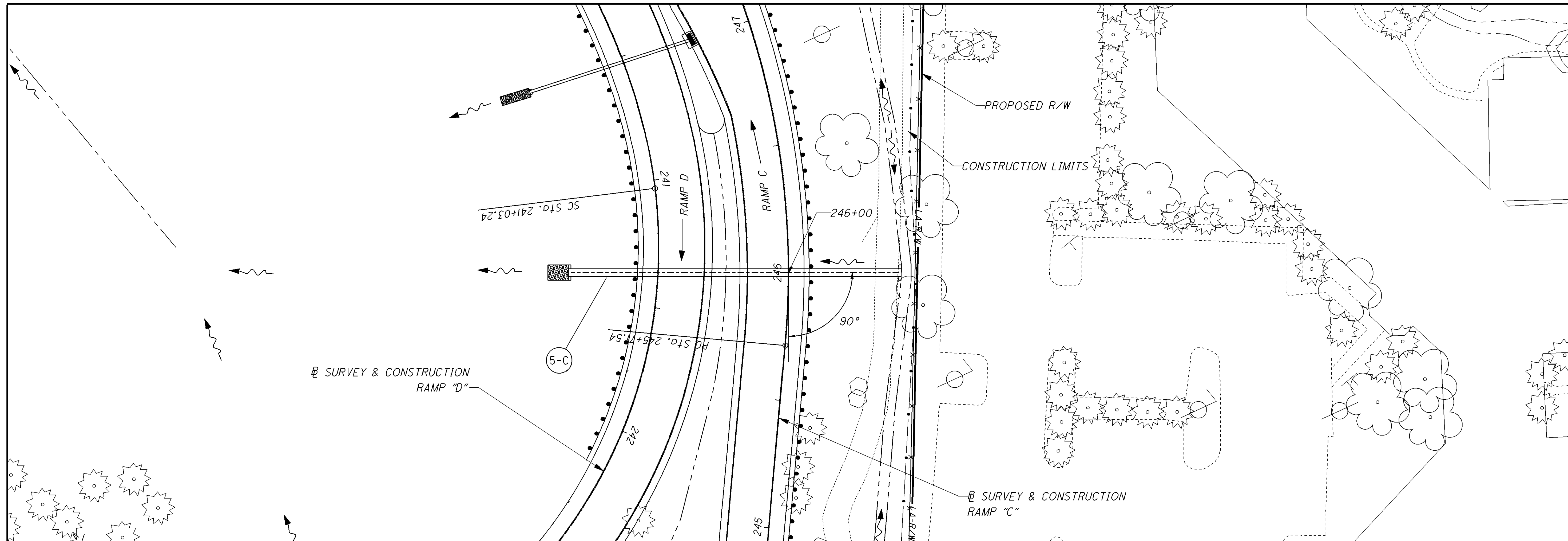
890	100 YR HW	25 YR HW	25 YR HW
880	EL. 883.75	EL. 883.08	EL. 882.18
870			
860			

HYDRAULIC DATA		
DRAINAGE AREA = 10.0 ACRES		
YEAR	Q (CFS)	V (FPS)
25	45.11	16.18
100	57.00	17.21

QUANTITIES	
ITEM 602 CONCRETE MASONRY	1.74 CU. YDS.
ITEM 611 36" CONDUIT, TYPE A *	139.0 FT.
ITEM 601 ROCK CHANNEL PROTECTION TYPE B W/FILTER	7.7 CU. YDS.
RIP RAP USING 6" REINFORCED CONCRETE SLAB	1.7 SQ. YDS.
QUANTITIES CARRIED TO SUB-SUMMARIES	

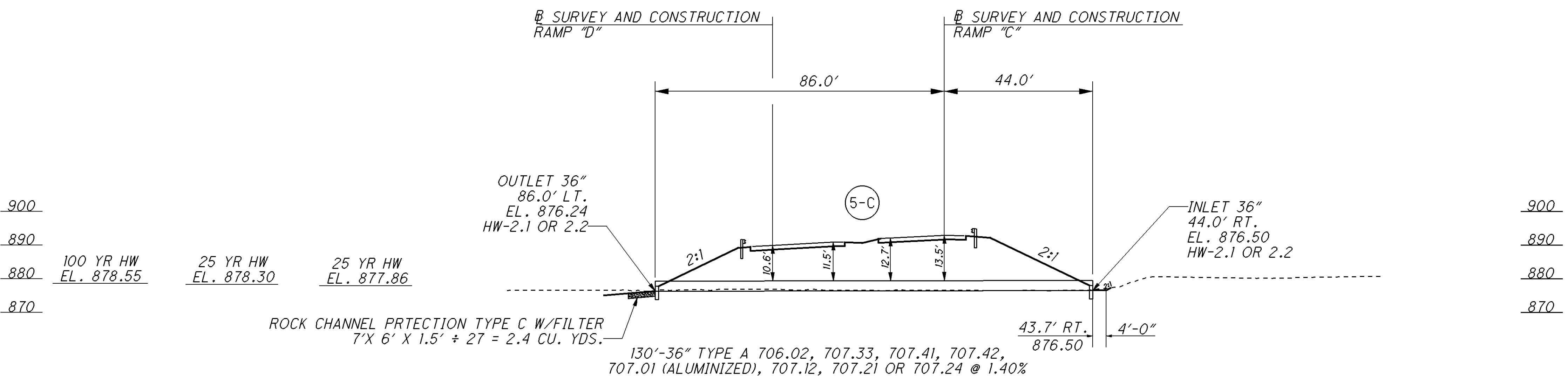
LIC-16-16.64

P:\lic\80704\design\roadway\plan_sheets\drainage\culverts_details\rampc_sta246+00.dgn



CALCULATED
CHECKED

**CULVERT DETAIL SHEET RAMP "C" STA. 246+00.00
RAMP "D" STA. 241+36.24**



HYDRAULIC DATA		
DRAINAGE AREA = 2.8 ACRES		
YEAR	Q (CFS)	V (FPS)
25	10.70	4.94
100	13.50	5.30

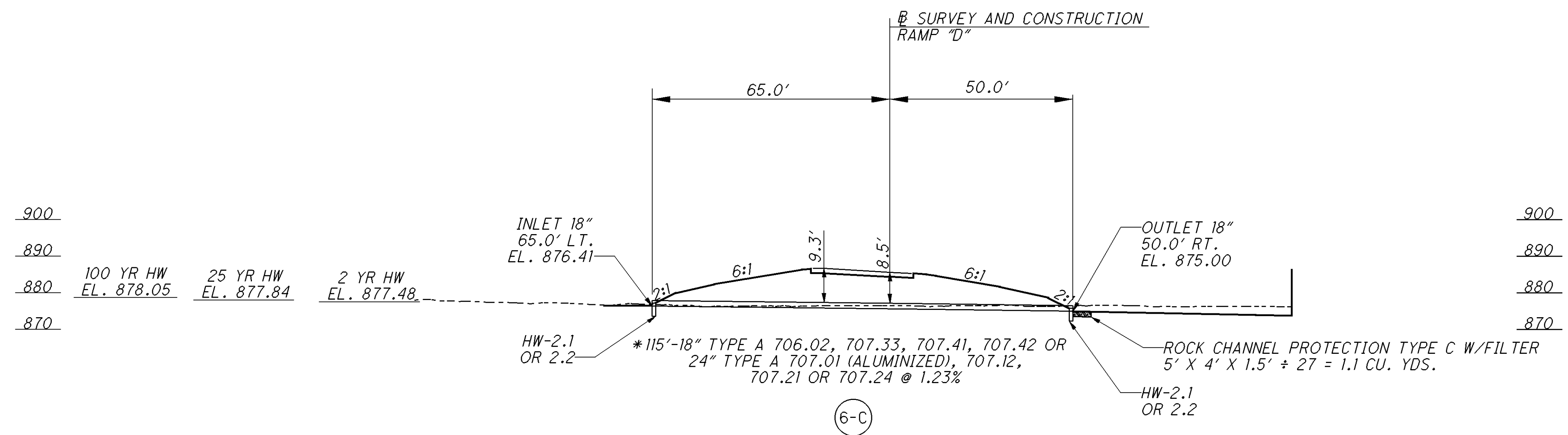
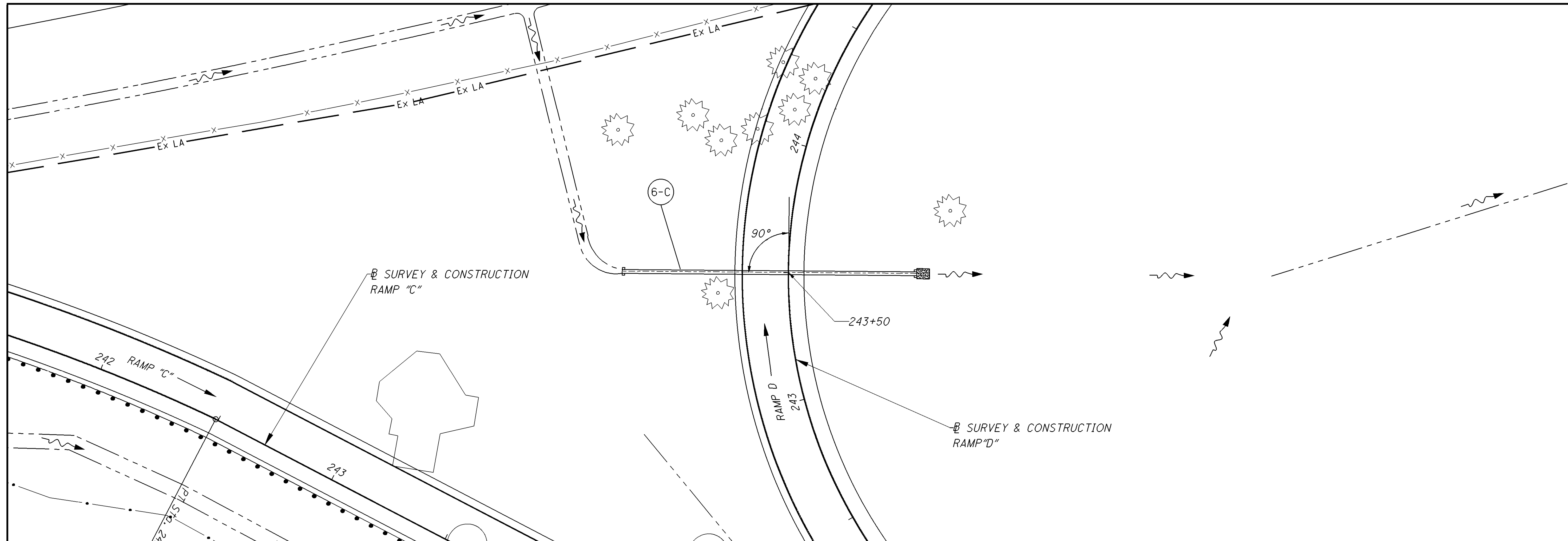
ROCK CHANNEL PROTECTION TYPE C W/FILTER
7'X 6' X 1.5' ± 27 = 2.4 CU. YDS.

130'-36" TYPE A 706.02, 707.33, 707.41, 707.42,
707.01 (ALUMINIZED), 707.12, 707.21 OR 707.24 @ 1.40%

QUANTITIES	
ITEM 602 CONCRETE MASONRY	1.52 CU. YDS.
ITEM 611 36" CONDUIT, TYPE A*	130.0 FT.
ITEM 601 ROCK CHANNEL PROTECTION TYPE C, W/FILTER	2.4 CU. YDS.
QUANTITIES CARRIED TO SUB-SUMMARIES	

LIC-16-16.64

P:\lic\80704\design\roadway\plan_sheets\drainage\culverts\details\crampd_sta243+50.dgn



900			
890			
880	100 YR HW EL. 878.05	25 YR HW EL. 877.84	2 YR HW EL. 877.48
870			

HYDRAULIC DATA		
DRAINAGE AREA = 2.1 ACRES		
YEAR	Q (CFS)	V (FPS)
25	5.00	7.02
100	6.34	7.45

QUANTITIES	
ITEM 602 CONCRETE MASONRY	0.66 CU. YDS.
ITEM 611 18" CONDUIT, TYPE A*	115.0 FT.
ITEM 601 ROCK CHANNEL PROTECTION TYPE C W/FILTER	1.1 CU. YDS.
QUANTITIES CARRIED TO SUB-SUMMARIES	



CALCULATED
CHECKED

CULVERT DETAIL SHEET RAMP "D" STA. 243+50.00

LIC-16-16.64

463
729



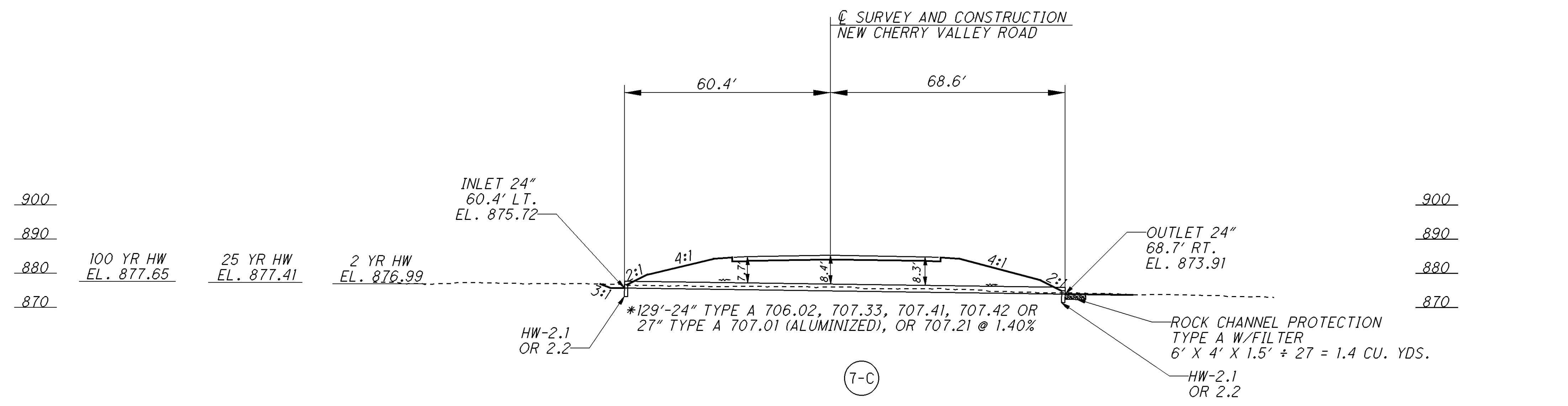
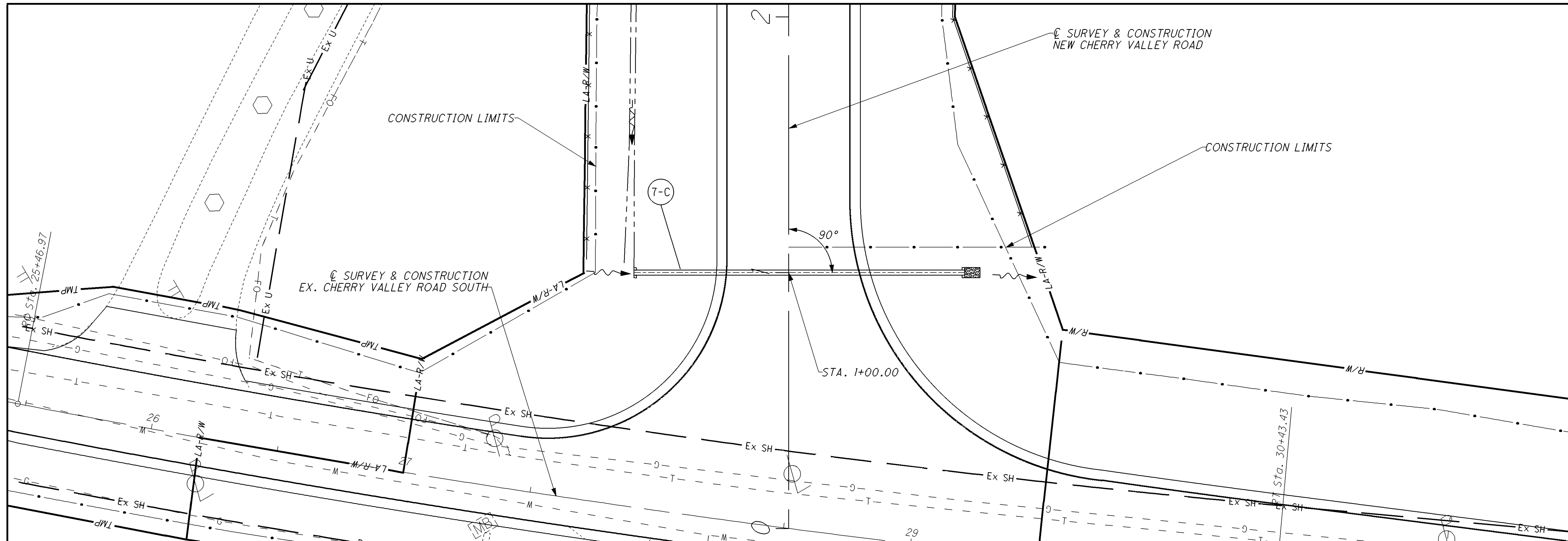
HORIZONTAL SCALE IN FEET

CALCULATED
CHECKED

CULVERT DETAIL SHEET
NEW CHERRY VALLEY ROAD STA. 1+00.00

LIC-16-16.64

464
729



900
890
880
870

100 YR HW
EL. 877.65

25 YR HW
EL. 877.41

2 YR HW
EL. 876.99

INLET 24"
60.4' LT.
EL. 875.72

HW-2.1
OR 2.2

☉ SURVEY AND CONSTRUCTION
NEW CHERRY VALLEY ROAD

OUTLET 24"
68.7' RT.
EL. 873.91

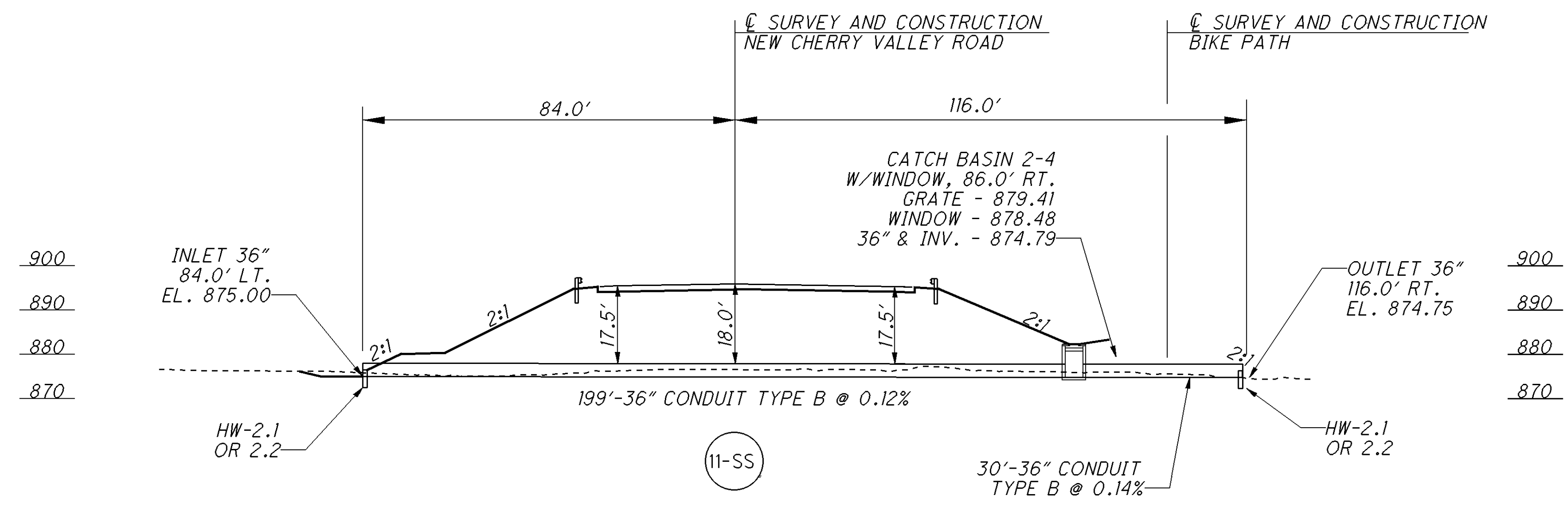
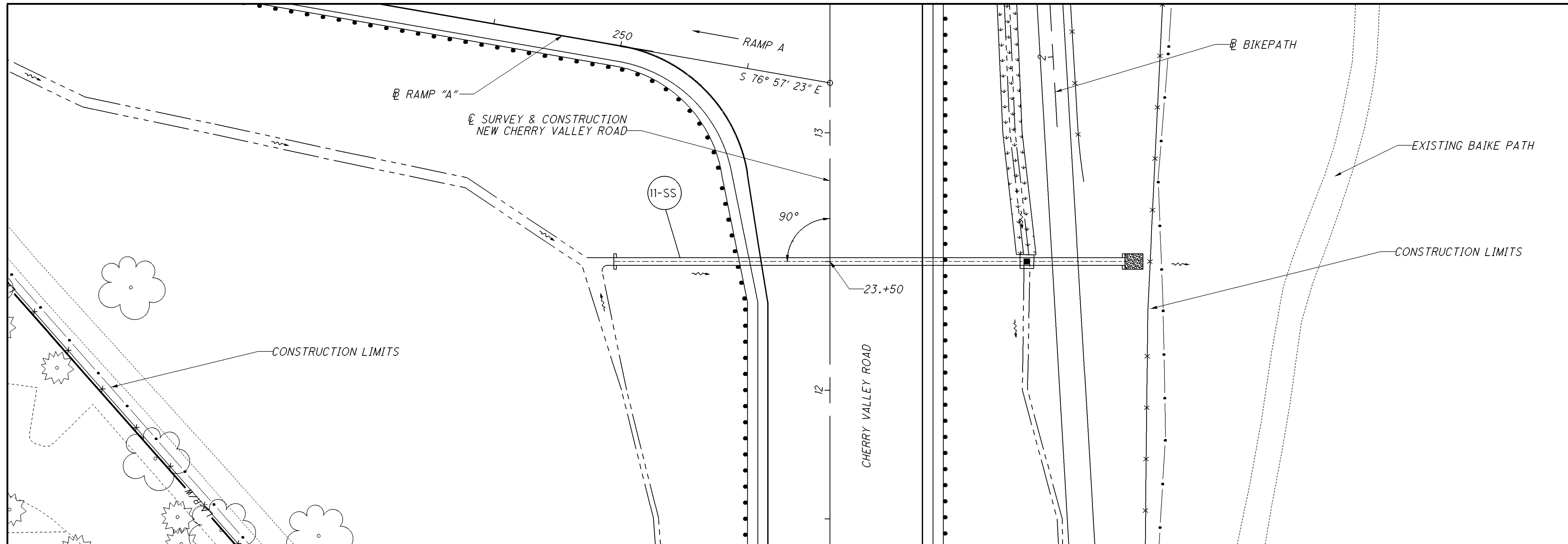
ROCK CHANNEL PROTECTION
TYPE A W/FILTER
6' X 4' X 1.5' ± 27 = 1.4 CU. YDS.

HW-2.1
OR 2.2

HYDRAULIC DATA		
DRAINAGE AREA = 2.6 ACRES		
YEAR	Q (CFS)	V (FPS)
25	8.39	8.01
100	10.72	8.55

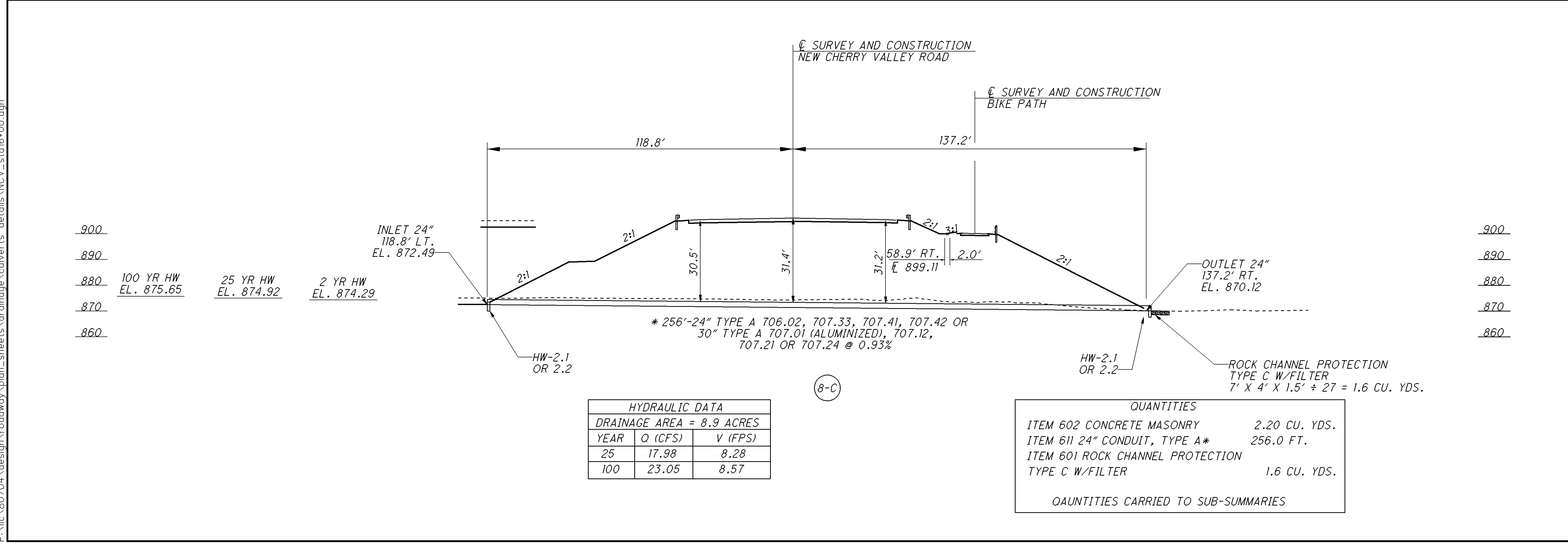
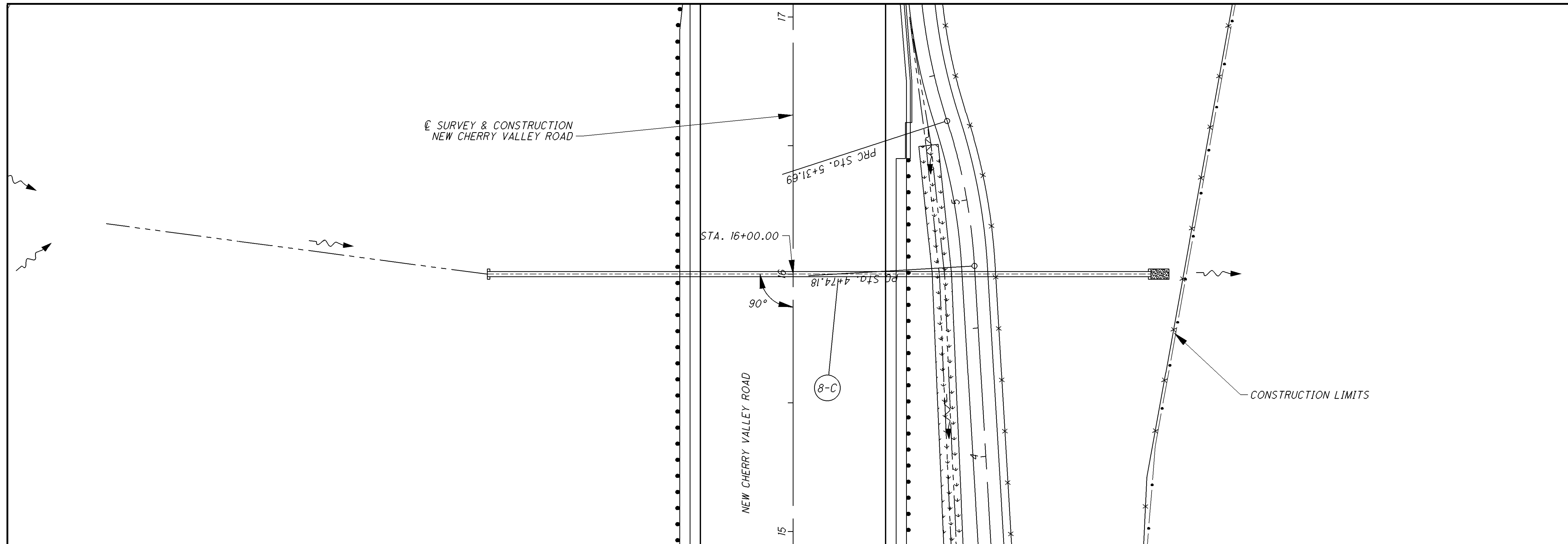
QUANTITIES	
ITEM 602 CONCRETE MASONRY	0.92 CU. YDS.
ITEM 611 24" CONDUIT, TYPE A*	129.0 FT.
ITEM 601 ROCK CHANNEL PROTECTION TYPE A W/FILTER	1.4 CU. YDS.
QUANTITIES CARRIED TO SUB-SUMMARIES	

P:\lic\80704\design\roadway\plan_sheets\drainage\culverts\details\NCV_sta1+00.dgn



QUANTITIES	
ITEM 602 CONCRETE MASONRY	1.38 CU. YDS.
ITEM 611 36\" CONDUIT, TYPE B	199.0 FT.
QUANTITIES CARRIED TO SUB-SUMMARIES	

P:\lic\80704\design\roadway\plan_sheets\drainage\culverts_details\NCV_sta12+50.dgn



P:\lic\80704\design\roadway\plan_sheets\drainage\culverts_details\NCV_sta16+00.dgn



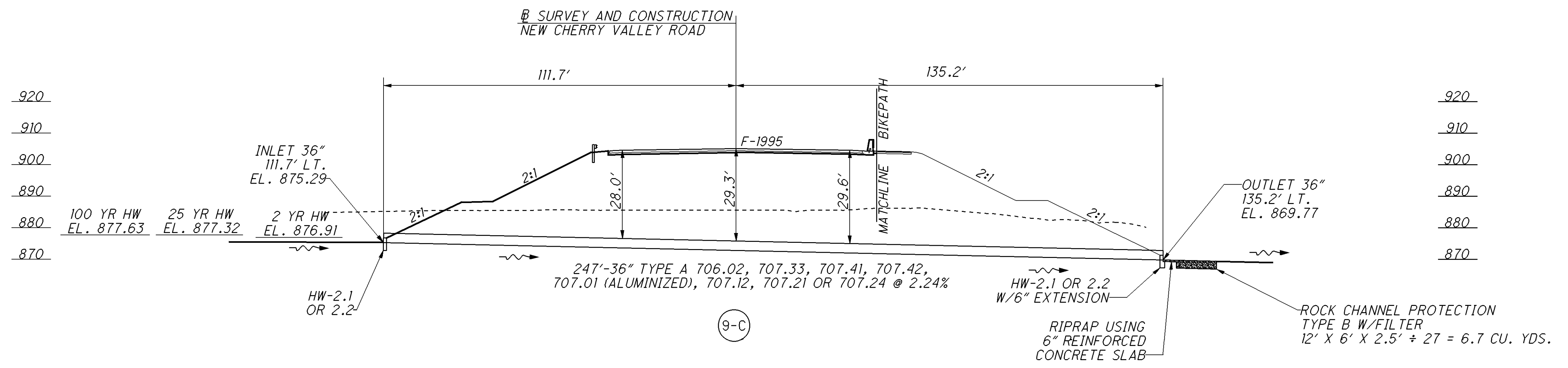
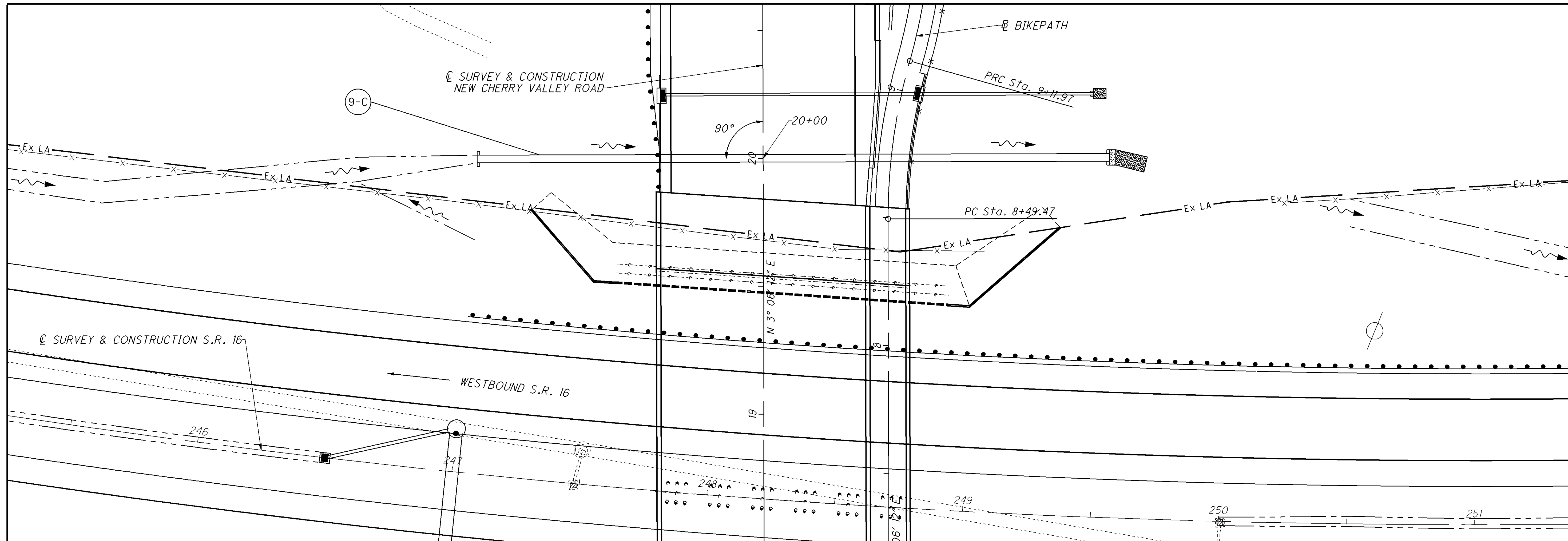
HORIZONTAL SCALE IN FEET

CALCULATED
CHECKED

CULVERT DETAIL SHEET
NEW CHERRY VALLEY ROAD STA. 20+00.00

LIC-16-16.64

467
729



HYDRAULIC DATA
DRAINAGE AREA = 7.3 ACRES

YEAR	Q (CFS)	V (FPS)
25	30.39	13.11
100	35.59	13.70

QUANTITIES

ITEM 602 CONCRETE MASONRY	1.52 CU. YDS.
ITEM 611 36" CONDUIT, TYPE A	247.0 FT.
ITEM 601 ROCK CHANNEL PROTECTION TYPE B W/FILTER	6.7 CU. YDS.
ITEM 601 RIP RAP USING 6" REINFORCED CONCRETE SLAB	1.7 SQ. YDS.

QUANTITIES CARRIED TO SUB-SUMMARIES

P:\lic\80704\design\roadway\plan_sheets\drainage\culverts\details\NCV_STA_20+00.dgn



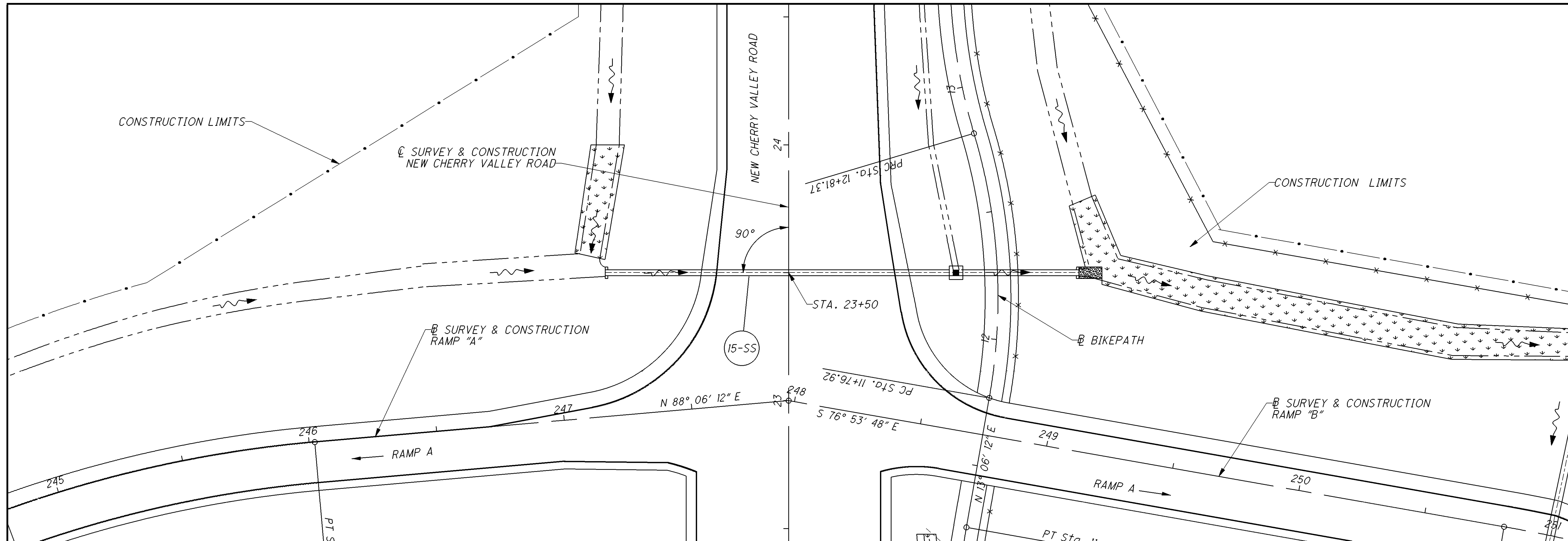
HORIZONTAL SCALE IN FEET

CALCULATED
CHECKED

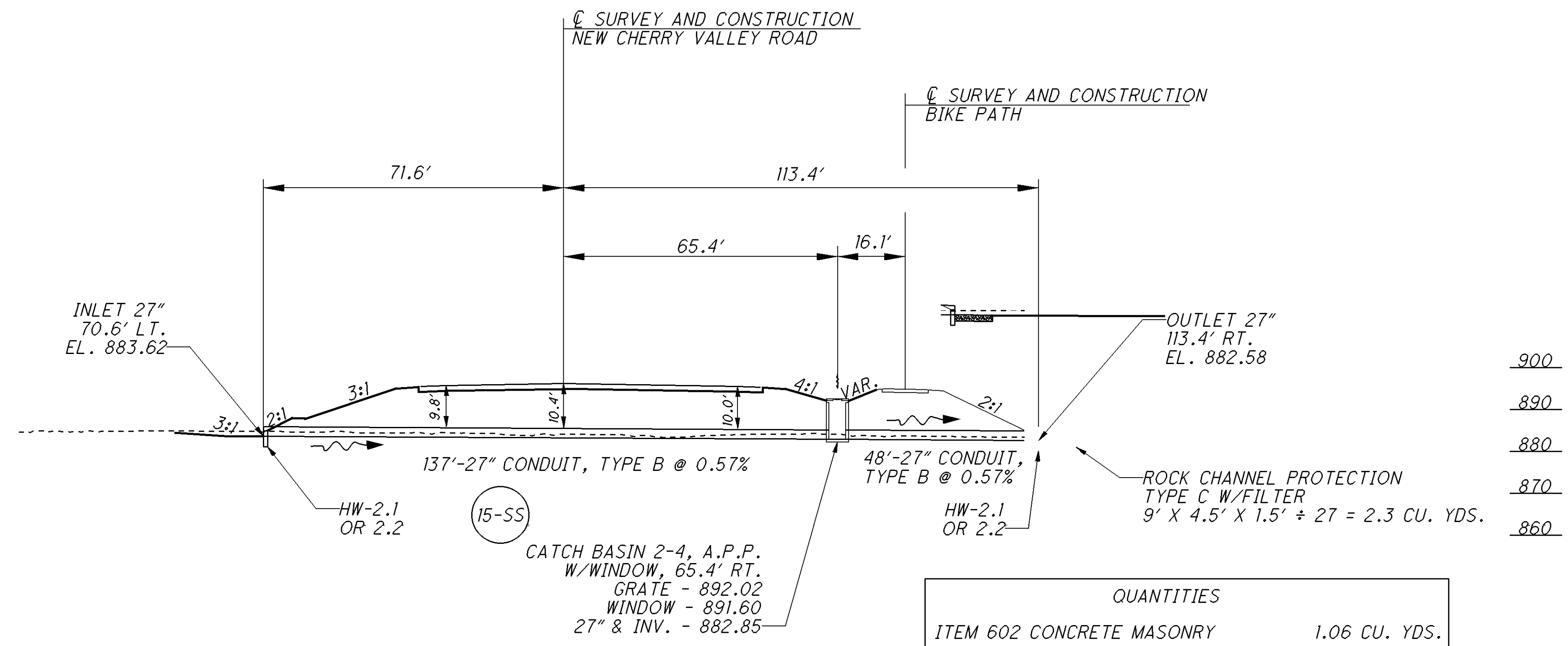
CULVERT DETAIL SHEET
NEW CHERRY VALLEY ROAD STA. 23+50.00

LIC-16-16.64

468
729



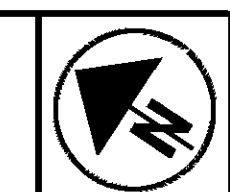
900
890
880
870
860



QUANTITIES	
ITEM 602 CONCRETE MASONRY	1.06 CU. YDS.
ITEM 611 27" CONDUIT, TYPE B	185.0 FT.
ITEM 601 ROCK CHANNEL PROTECTION TYPE C W/FILTER	2.3 CU. YDS.

QUANTITIES CARRIED TO SUB-SUMMARIES

P:\lic\80704\design\roadway\plan_sheets\drainage\culverts_details\NCV_sta23+50.dgn



HORIZONTAL SCALE IN FEET

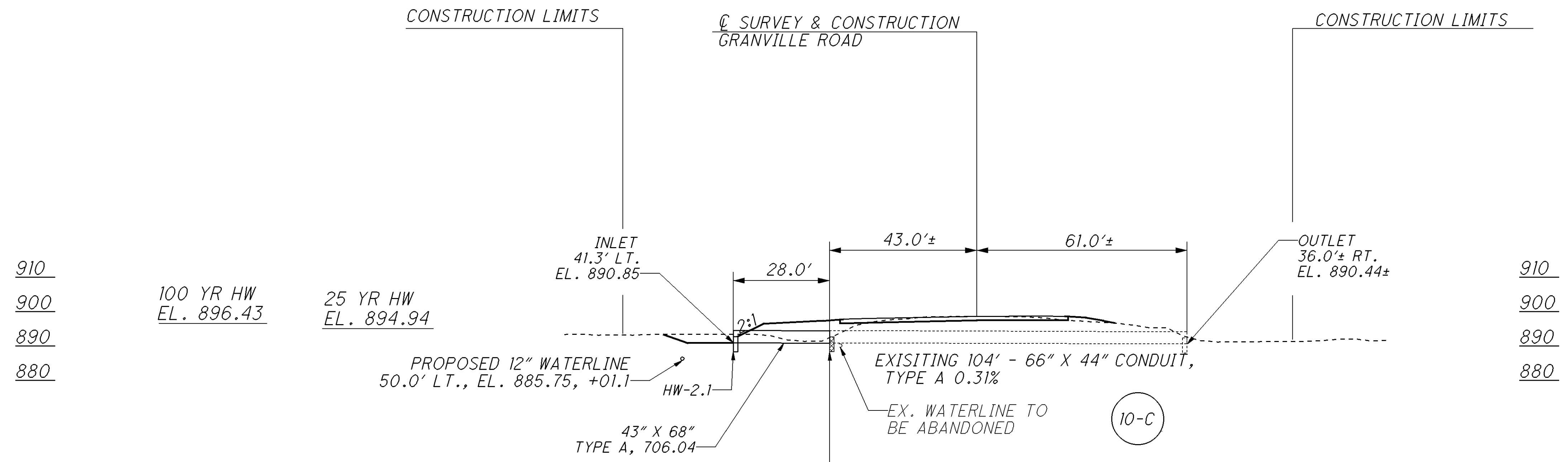
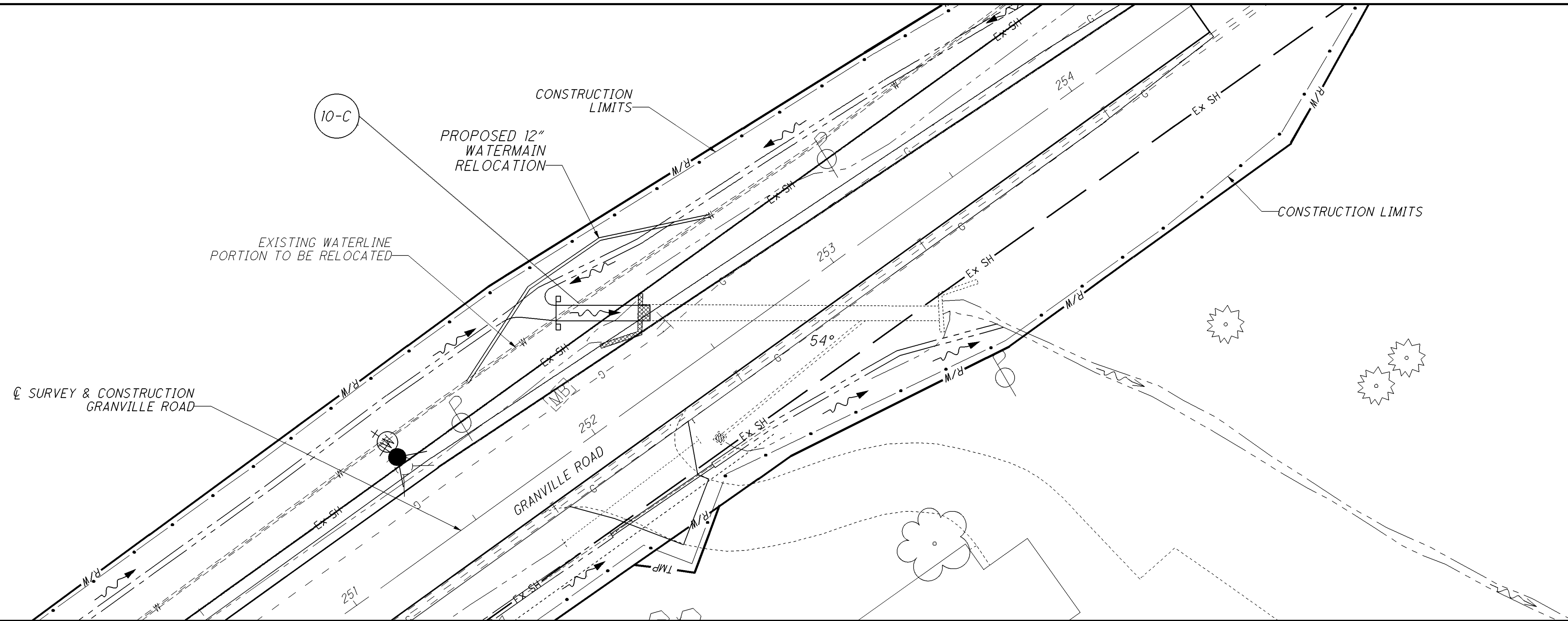
CALCULATED
CHECKED

CULVERT DETAIL GRANVILLE ROAD STA. 252+70.72

LIC-16-16.64

469
729

P:\LIC\80704\DESIGN\ROADWAY\PLAN_SHEETS\DRAINAGE\CULVERT_DETAILS\GRV RD_ST A25270.72.DGN 2-27-13



HYDRAULIC DATA		
DRAINAGE AREA = 300 ACRES		
YEAR	Q (CFS)	V (FPS)
25	114	8.91
100	165	10.03

QUANTITIES	
ITEM 202 HEADWALL REMOVED	1 EA.
ITEM 602 CONCRETE MASONRY	1.01 CU.YDS.
ITEM 611 43" X 68" CONDUIT, TYPE A, 706.04	28 FT.
QUANTITIES CARRIED TO SUB-SUMMARIES	

PLAN SHEET SUBDRAINAGE 80704 UNDERDRAIN SUBSUM.DGN 12/16/14

MARK	SEE SHEET	STATION TO STATION SURVEY AND CONSTRUCTION	SIDE	DEPTH	605			611			BENDS AND BRANCHES INFORMATION ONLY							
					6" BASE PIPE UNDERDRAINS	6" UNCLASSIFIED PIPE UNDERDRAINS	6" SHALLOW PIPE UNDERDRAINS	6" CONDUIT, TYPE B 707.33, 707.42 OR 707.45	6" CONDUIT, TYPE F	PRECAST REINFORCED CONCRETE OUTLET	6" X 6" TEE	6" X 6" WYE	6" X 6" CROSS	6" X 45° BEND	6" X 90° BEND	6" CAP		
																	FOOT	FOOT
S.R. 16																		
1-UD	440-442	219+00 - 235+84	LT	18"	1684							1	2		3		1	
2-UD	440-446	219+00 - 235+98	LT	30"			1698		69	4		2			1		2	
3-UD	440-442	219+00 - 285+92	LT	30"		200	6492		206			10	1		1		1	
4-UD	440-441	220+50 - 226+28	LT	18"	578				10				1				1	
5-UD	440-443	220+50 - 249+97	RT	18"	2697	250			42				6				2	
5A-UD	440-445	250+00 - 280+82	RT	18"	2932	150			45	3			4		1			
6-UD	440-445	219+00 - 280+82	RT	30"		250	5932		339			12	11			1	1	
7-UD	440-442	219+00 - 238+28	RT	30"			1928		56	1		1		1			1	
8-UD	440-442	219+00 - 238+28	RT	18"	1928							2	1		1		1	
9-UD	441	226+00 - 231+00	LT	18"	500				10								1	
10-UD	441-442	231+00 - 236+00	LT	18"	500				10								1	
11-UD	442	236+00 - 242+00	LT	18"	600				10								1	
12-UD	442-443	237+92 - 259+39	LT	18"	2147				14				2				2	
13-UD	442-443	237+92 - 259+39	LT	30"			2147		31	2		2	2				2	
14-UD	442	238+31 - 245+44	RT	30"			713					1					2	
15-UD	442	238+31 - 245+44	RT	18"	713				31	1		1	1				2	
16-UD	442	242+00 - 246+95	LT	18"	548				10			1					1	
17-UD	442-444	246+00 - 265+50	RT	30"			1950		137	4		4					1	
18-UD	442-444	246+00 - 265+50	RT	18"	1950							4				1	1	
19-UD	442-446	247+09 - 286+00	LT	18"	3700	150			53			1	3		1			
20-UD	443-445	259+50 - 280+98	LT	18"	2148				28				2		2			
21-UD	443-445	259+50 - 280+98	LT	30"			2148		170	2		2	2	1		2		
RAMP A																		
22-UD	447	236+02 - 23+50 (CHERRY VALLEY RD)	LT	30"		248	722		56	2		2						
23-UD	447	237+87 - 22+50 (CHERRY VALLEY RD)	RT.	30"		217	968		48	2		2					1	
TOTALS CARRIED TO SHEET 472						22,625	1465	24,698		1375	21		48	38	2	10	4	25

UNDERDRAIN QUANTITIES

LIC-16-16.64

PLAN SHEETS DRAINAGE 80704 UNDERDRAIN SUBSUM.DGN 12/16/14

MARK	SEE SHEET	STATION TO STATION SURVEY AND CONSTRUCTION	SIDE	DEPTH	605			611			BENDS AND BRANCHES FOR INFORMATION ONLY												
					6" BASE PIPE UNDERDRAINS	6" UNCLASSIFIED PIPE UNDERDRAINS	6" SHALLOW PIPE UNDERDRAINS	6" CONDUIT, TYPE B 707.33, 707.42 OR 707.45	6" CONDUIT, TYPE F	PRECAST REINFORCED CONCRETE OUTLETS	6" X 6" TEE	6" X 6" WYE	6" X 6" CROSS	6" X 45° BEND	6" X 90° BEND	6" CAP							
RAMP B					FOOT	FOOT	FOOT	FOOT	FOOT	EACH													
24-UD	448-449	23+35 (CHERRY VALLEY RD) - 259+50	LT	30"			1130		28	1					1								
25-UD	448-449	22+50 (CHERRY VALLEY RD) - 259+40	RT	30"			1108		48	1					1								
RAMP C																							
26-UD	450-451	238+34 - 246+97	LT	30"			865	28	73	1					1			1	1				
27-UD	450-451	238+34 - 250+57	RT	30"			1242		39	2					2								
28-UD	451	247+00 - 257+08	LT	30"			300												1				
RAMP D																							
29-UD	452	237+62 - 240+44	LT	30"			287		12									1	1				
30-UD	452	237+50 - 245+98	RT	30"			887		15	1					1								
31-UD	452	240+56 - 245+45	LT	30"			573		26	1					1				2				
CHERRY VALLEY ROAD																							
32-UD	453-454	0+35 - 12+84	LT	30"			1278		94	4					2	1	1		1				
33-UD	453-454	1+50 - 17+41	RT	30"			1616		53	3							2		1	1			
34-UD	453-454	7+50 - 12+41	LT	18"	491			24												1			
35-UD	453-454	5+00 - 17+41	RT	18"	1260			26												1	1		
36-UD	454	14+48 - 17+46	LT	30"			298														1		
37-UD	454	12+39 - 17+45	LT	18"	506				7									1			1		
38-UD	454	19+88 - 22+50	LT	30"			285										1				1		
39-UD	454	19+87 - 22+50	LT	18"	264				34	1											1	1	
40-UD	454	19+83 - 22+14	RT	18"	267				29													1	1
41-UD	454	19+82 - 22+14	RT	30"			290										1						1
42-UD	455	23+50 - 33+32	LT	30"			988		22	1					1								1
43-UD	455	23+35 - 33+50	RT	30"			1019		44	1					1								1
TOTALS THIS SHEET							2788		78	524	17				11	1	5	2	6	16			
TOTALS FROM SHEET 471							22625	1465		1375	21				48	38	2	10	4	25			
TOTALS (CARRIED TO GENERAL SUMMARY)							25413	1465		36864	78	1899	38		59	39	7	12	10	41			

UNDERDRAIN QUANTITIES

LIC-16-16.64

472
729

**REMOVAL OF GROUND MOUNTED STRUCTURAL BEAM
SUPPORT AND DISPOSAL, AS PER PLAN**

ALL OF THE REQUIREMENTS OF CMS 630.12 SHALL BE MET EXCEPT THAT THE ENTIRE SUPPORT FOUNDATION SHALL BE REMOVED. BACKFILL THE RESULTANT HOLE AND COMPACT THE SOIL AND RESTORE THE DISTURBED AREA.

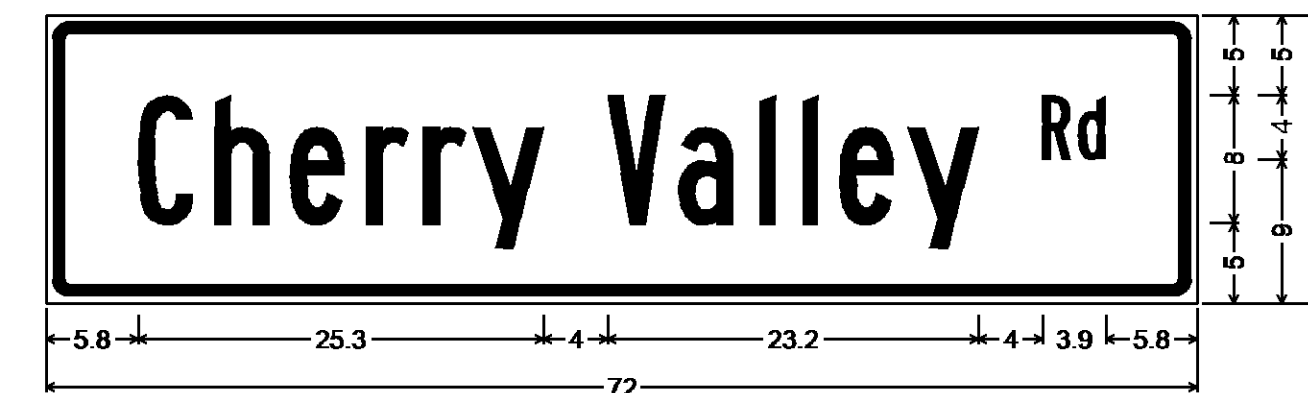
PAYMENT SHALL BE MADE AT THE UNIT PRICE BID UNDER CMS ITEM 630 REMOVAL OF GROUND MOUNTED STRUCTURAL BEAM SUPPORT AND DISPOSAL, AS PER PLAN FOR EACH FOUNDATION REMOVED. ALL LABOR, MATERIALS, BACKFILL, AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER SHALL BE INCLUDED IN THE UNIT BID PRICE.

**REMOVAL OF OVERHEAD SIGN SUPPORT AND DISPOSAL,
TYPE TC-7.65, AS PER PLAN**

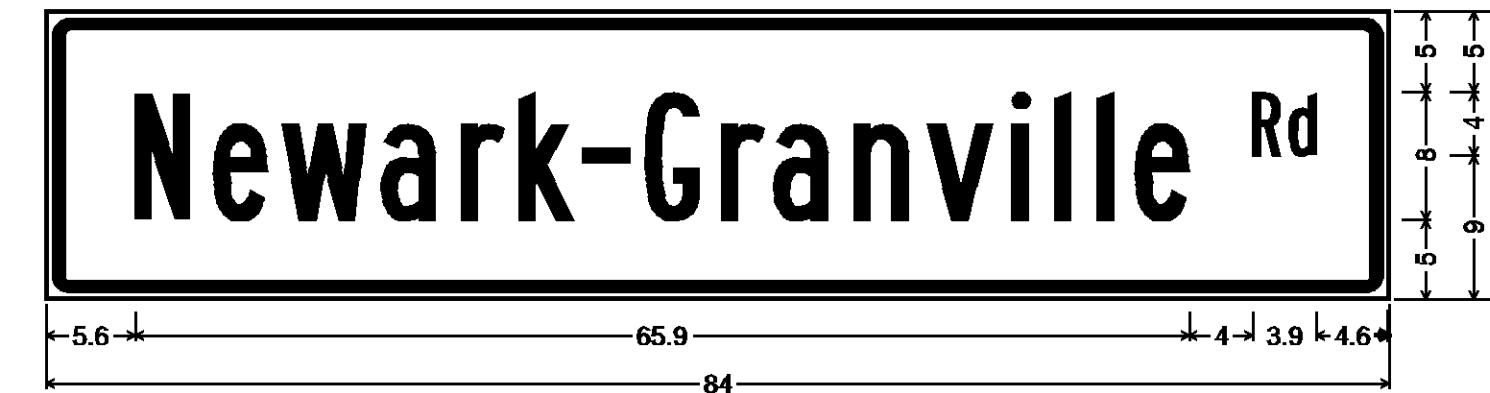
ALL OF THE REQUIREMENTS OF CMS 630.12 SHALL BE MET EXCEPT THAT THE ENTIRE SUPPORT FOUNDATION SHALL BE REMOVED. BACKFILL THE RESULTANT HOLE AND COMPACT THE SOIL AND RESTORE THE DISTURBED AREA.

PAYMENT SHALL BE MADE AT THE UNIT PRICE BID UNDER CMS ITEM 630 REMOVAL OF OVERHEAD SIGN SUPPORT AND DISPOSAL, TYPE TC-7.65, AS PER PLAN FOR EACH FOUNDATION REMOVED. ALL LABOR, MATERIALS, BACKFILL, AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER SHALL BE INCLUDED IN THE UNIT BID PRICE.

PROPOSED STREET NAME SIGN DETAILS



1.5" Radius, 0.8" Border, 0.4" Indent, White on Green;
[Cherry] B 75% spacing; [Valley] B 75% spacing; [Rd] B 75% spacing;
Note - All dimensions in inches



1.5" Radius, 0.8" Border, 0.4" Indent, White on Green;
[Newark-Granville] B 75% spacing; [Rd] B 75% spacing;
Note - All dimension in inches

NOTE: FOR PLACEMENT DETAILS SEE TRAFFIC SIGNAL SHEETS

P:\LIC\80704\Design\Roadway\Plan_Sheets\Signs\Proposed_Signs\80704_TCN_001.dgn 28-FEB-2015 7:42AM bharlow

P:\LIC\80704\Design\Roadway\Plan_Sheets\Traffic_Control\Pavement_Markings\80704_TSS_005.dgn 28-FEB-2015 7:42AM bharlow

SHEET NO.	REFERENCE NO.	LOCATION	STATION		646															LANE ARROW	WORD ON PAVEMENT, 72"
					EDGE LINE, 4" (WHITE)	EDGE LINE, 4" (YELLOW)	EDGE LINE, 6" (WHITE)	EDGE LINE, 6" (YELLOW)	LANE LINE, 4"	CENTER LINE (DOUBLE SOLID)	CHANNELIZING LINE, 8"	CHANNELIZING LINE, 12"	STOP LINE	CROSSWALK LINE	TRANSVERSE/DIAGONAL LINE (WHITE)	TRANSVERSE/DIAGONAL LINE (YELLOW)	ISLAND MARKING				
			FROM	TO	MILE	MILE	MILE	MILE	MILE	MILE	FT	FT	FT	FT	FT	FT	SF	EACH	EACH		
505	AR-39	NEW CHERRY VALLEY RD.	29+79.00															1	1		
505	WD-25	NEW CHERRY VALLEY RD.	30+45.00																1		
505	WD-26	NEW CHERRY VALLEY RD.	30+45.00															1	1		
505	AR-40	NEW CHERRY VALLEY RD.	31+11.00															1			
505	AR-41	NEW CHERRY VALLEY RD.	31+11.00															1			
505	WD-27	NEW CHERRY VALLEY RD.	31+77.00																1		
505	WD-28	NEW CHERRY VALLEY RD.	31+77.00																1		
505	AR-42	NEW CHERRY VALLEY RD.	32+43.00															1			
505	AR-43	NEW CHERRY VALLEY RD.	32+43.00															1			
505	WD-29	NEW CHERRY VALLEY RD.	33+09.00																1		
505	WD-30	NEW CHERRY VALLEY RD.	33+09.00																1		
505	AR-44	NEW CHERRY VALLEY RD.	33+75.00															1			
505	AR-45	NEW CHERRY VALLEY RD.	33+75.00															1			
505	SL-9	NEW CHERRY VALLEY RD.	33+85.00											32							
TOTALS CARRIED TO SHEET 479																32				7	6

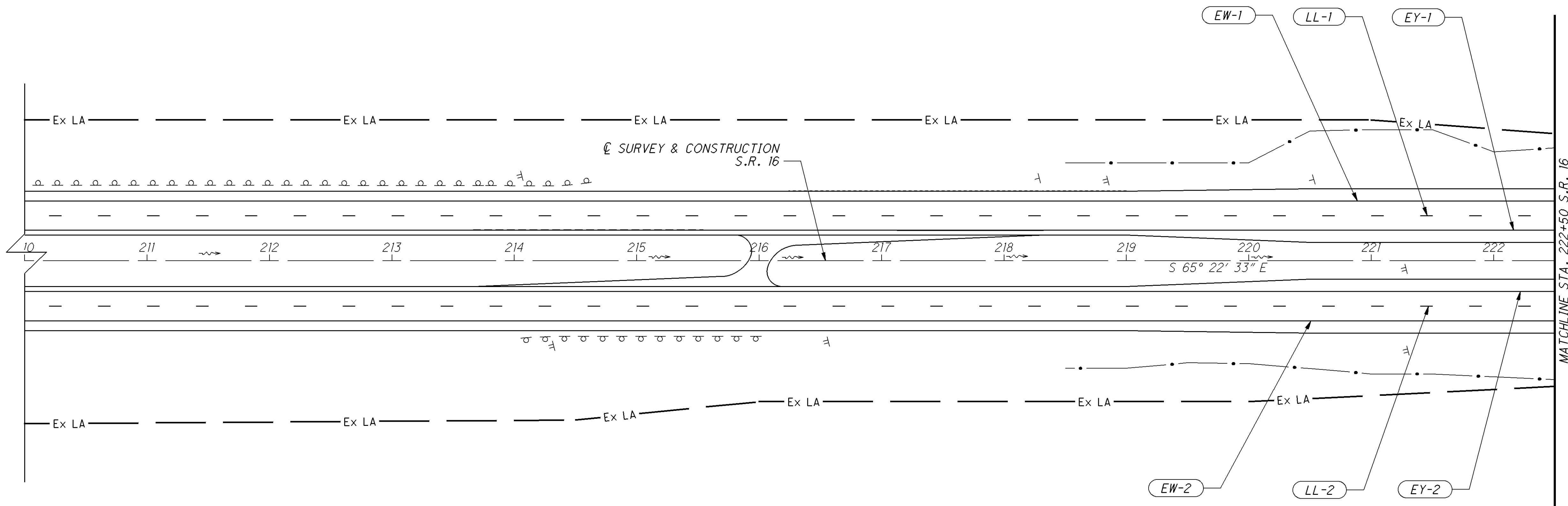
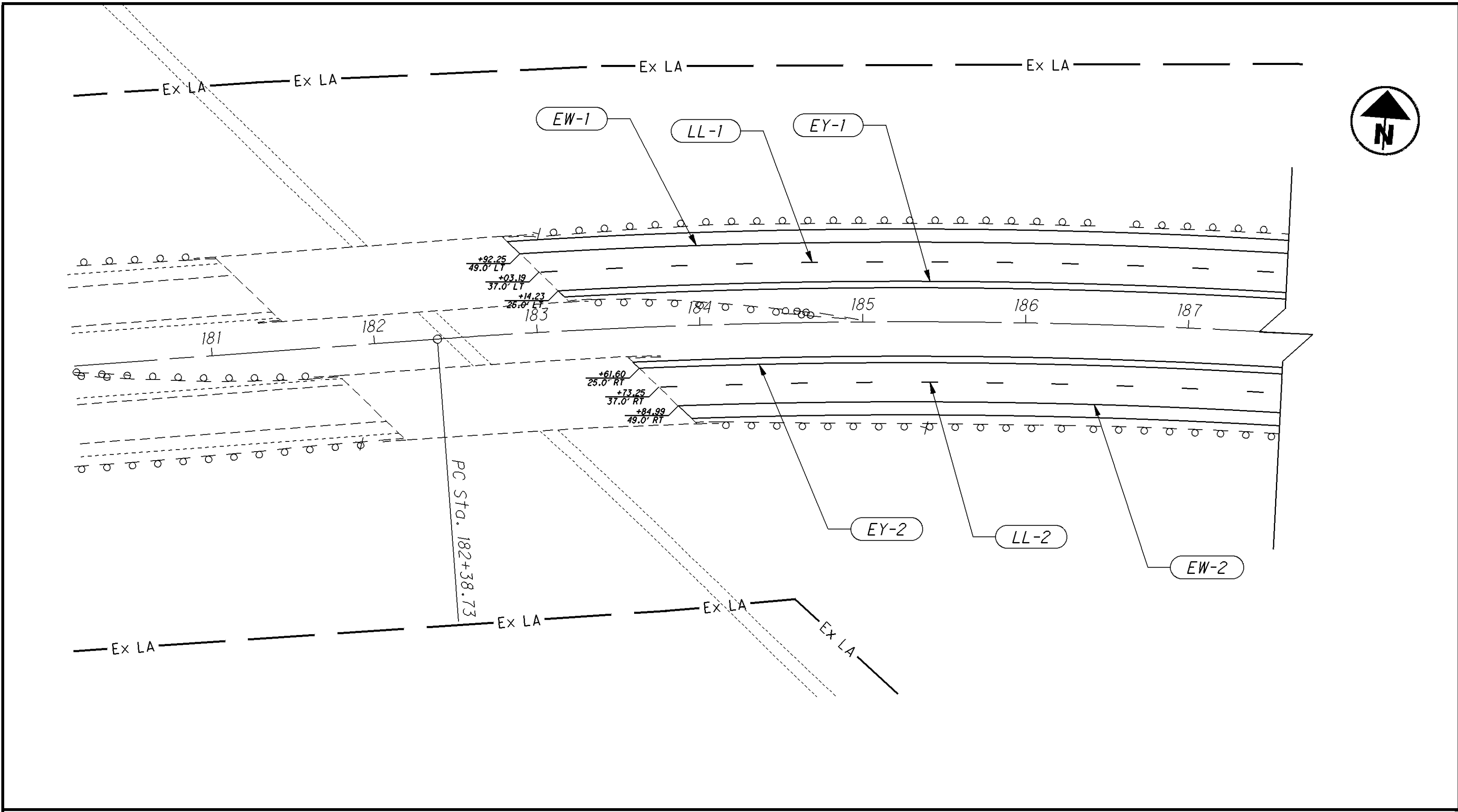
LOCATION	644						646											648							
	STOP LINE	CROSSWALK LINE	TRANSVERSE/DIAGONAL LINE	ISLAND MARKING	LANE ARROW	WORD ON PAVEMENT, 72"	EDGE LINE, 4"	EDGE LINE, 6"	LANE LINE, 4"	CENTER LINE (DOUBLE SOLID)	CHANNELIZING LINE, 8"	CHANNELIZING LINE, 12"	STOP LINE	CROSSWALK LINE	TRANSVERSE/DIAGONAL LINE	ISLAND MARKING	LANE ARROW	WORD ON PAVEMENT, 72"	EDGE LINE, 4"	EDGE LINE, 6"	LANE LINE, 6"	CENTER LINE (DOUBLE SOLID)	CHANNELIZING LINE, 8"	CHANNELIZING LINE, 12"	DOTTED LINE, 6"
	FT	FT	FT	SF	EACH	EACH	MILE	MILE	MILE	MILE	FT	FT	FT	FT	FT	SF	EACH	EACH	MILE	MILE	MILE	MILE	FT	FT	FT
TOTALS FROM SHEET 475																									
TOTALS FROM SHEET 477							0.34	1.56	0.32	0.18	1250	1908	101	69	133	67	20	11		9.09	4.72			2350	1049
TOTALS FROM SHEET 478									0.05				36				3	2							
TOTAL (PLAN SPLIT 01/NHS/PV)* (* FOR INFORMATION PURPOSES ONLY)							0.34	1.56	0.37	0.18	1250	1908	137	69	133	67	23	13		9.09	4.72			2350	1049
TOTALS FROM SHEET 475	32		137	56	11	8													0.30			0.25	760		
TOTALS FROM SHEET 476	62	97	277	47	11	4													0.39			0.43	333		
TOTALS FROM SHEET 478							0.91		0.62	0.57	1947		117		367	67	15	11							
TOTALS FROM SHEET 479												32					7	6							
TOTAL (PLAN SPLIT 02/SK2/PV)* (* FOR INFORMATION PURPOSES ONLY)	94	97	414	103	22	12	0.91		0.62	0.57	1947		149		367	67	22	17	0.69			0.68	1093		
TOTALS CARRIED TO GENERAL SUMMARY	94	97	414	103	22	12	1.25	1.56	0.99	0.75	3197	1908	286	69	500	134	45	30	0.69	9.09	4.72	0.68	1093	2350	1049

PAVEMENT MARKING SUBSUMMARY

LIC-16-16.64

CALCULATED
BRH
CHECKED

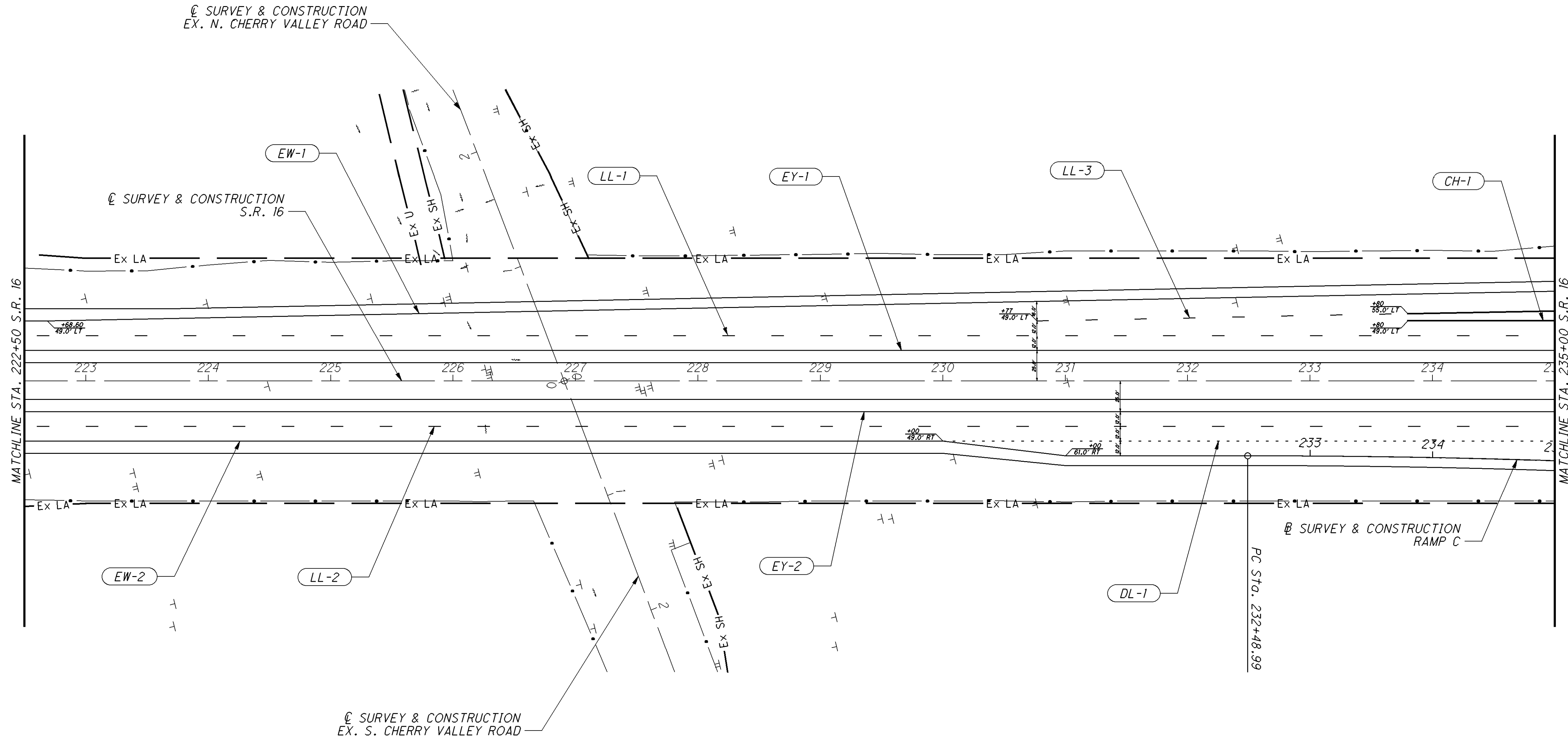
479
729



CALCULATED
BRH
CHECKED

PAVEMENT MARKINGS - S.R. 16
STA. 181+00.00 TO STA. 222+50

LIC-16-16.64

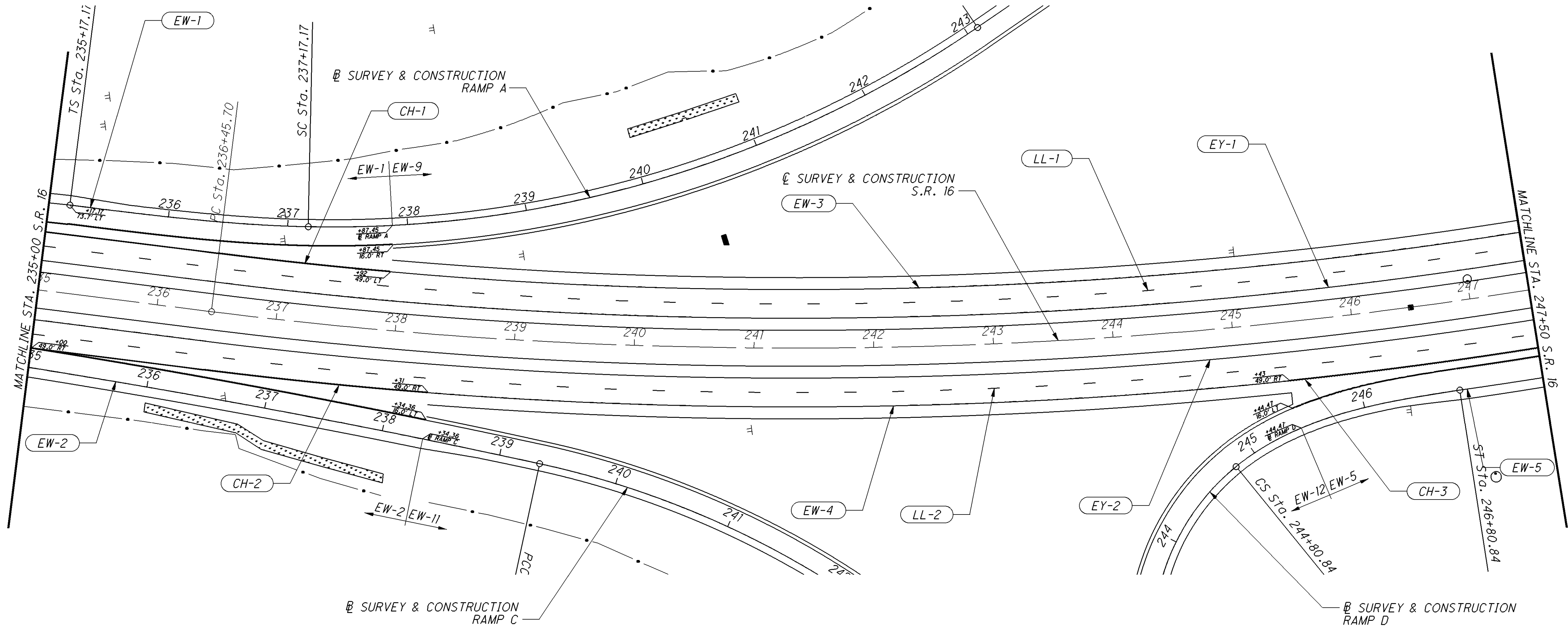


CALCULATED
BRH
CHECKED

0 50 100
HORIZONTAL
SCALE IN FEET

**PAVEMENT MARKINGS - S.R. 16
STA. 222+50 TO STA. 235+00**

LIC-16-16.64

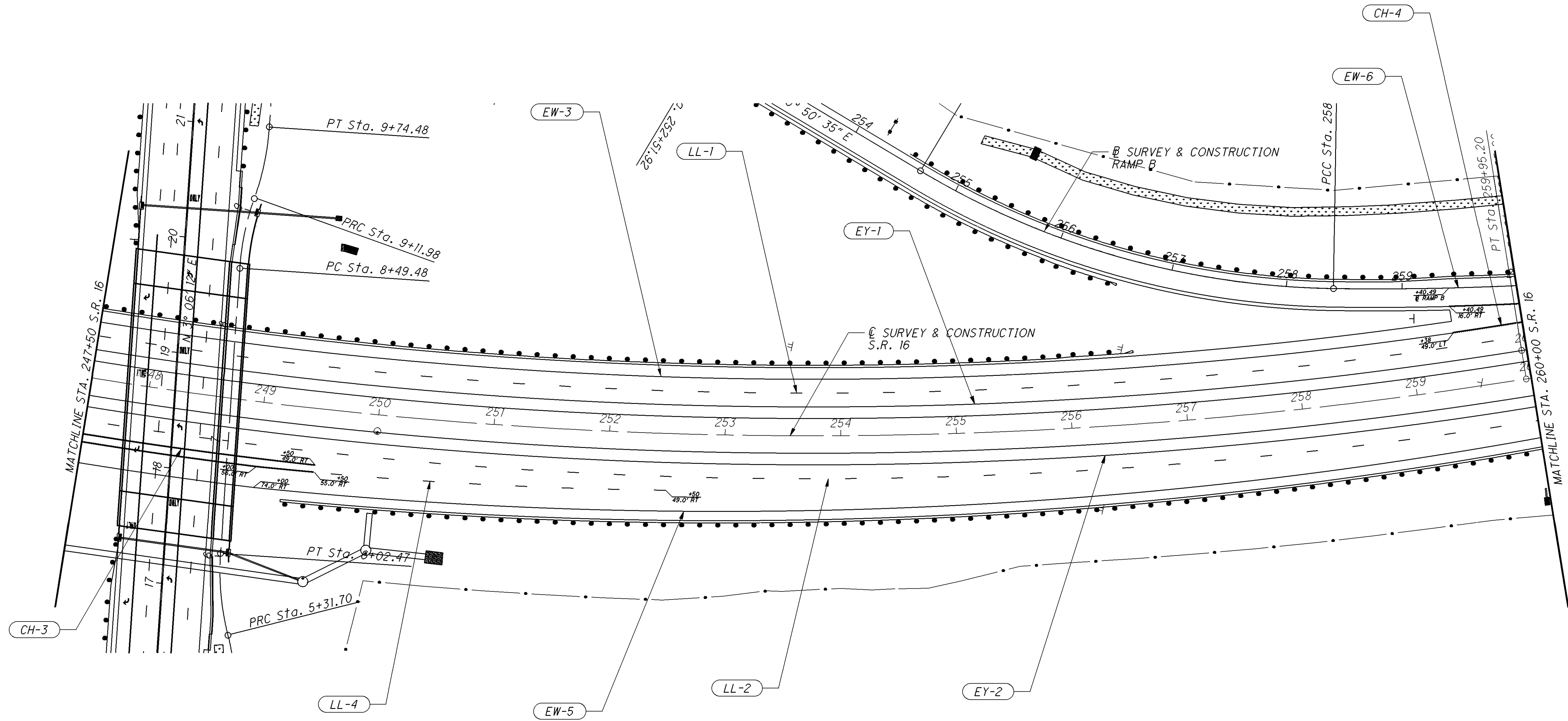


CALCULATED
BRH
CHECKED

0 50 100
HORIZONTAL
SCALE IN FEET

PAVEMENT MARKINGS - S.R. 16
STA. 235+00 TO STA. 274+50

LIC-16-16.64

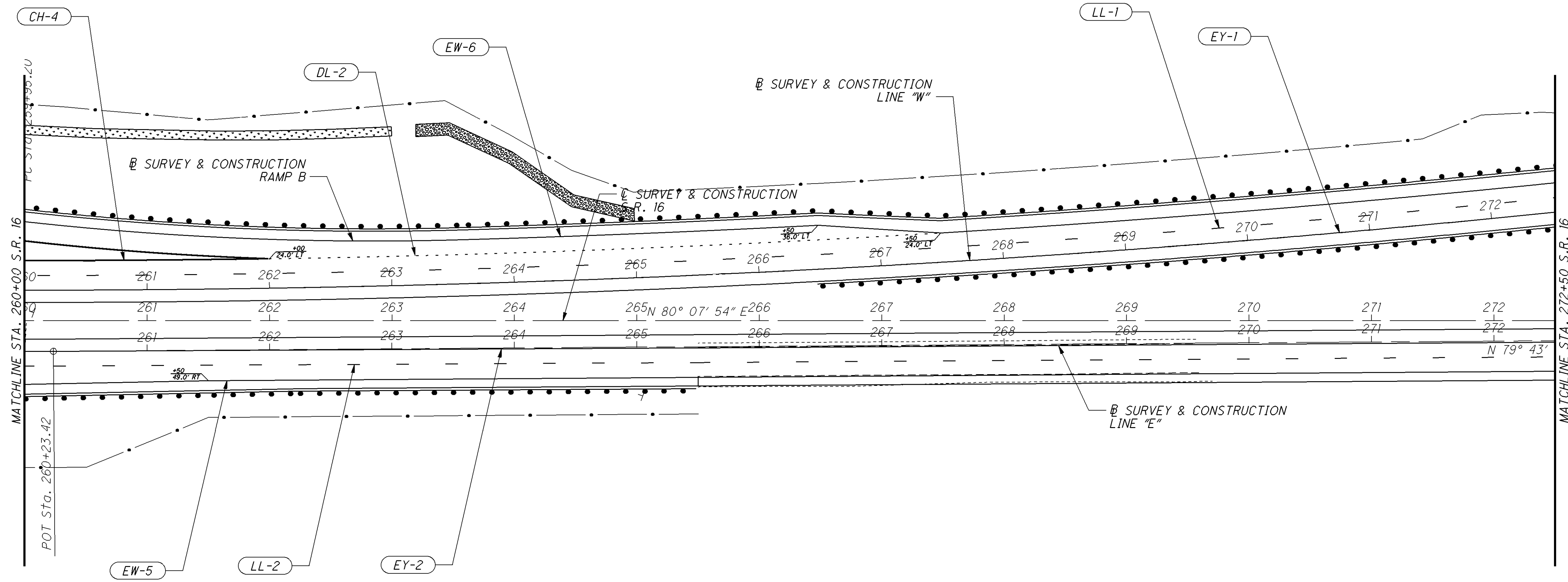


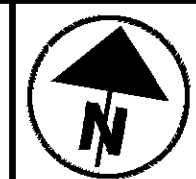
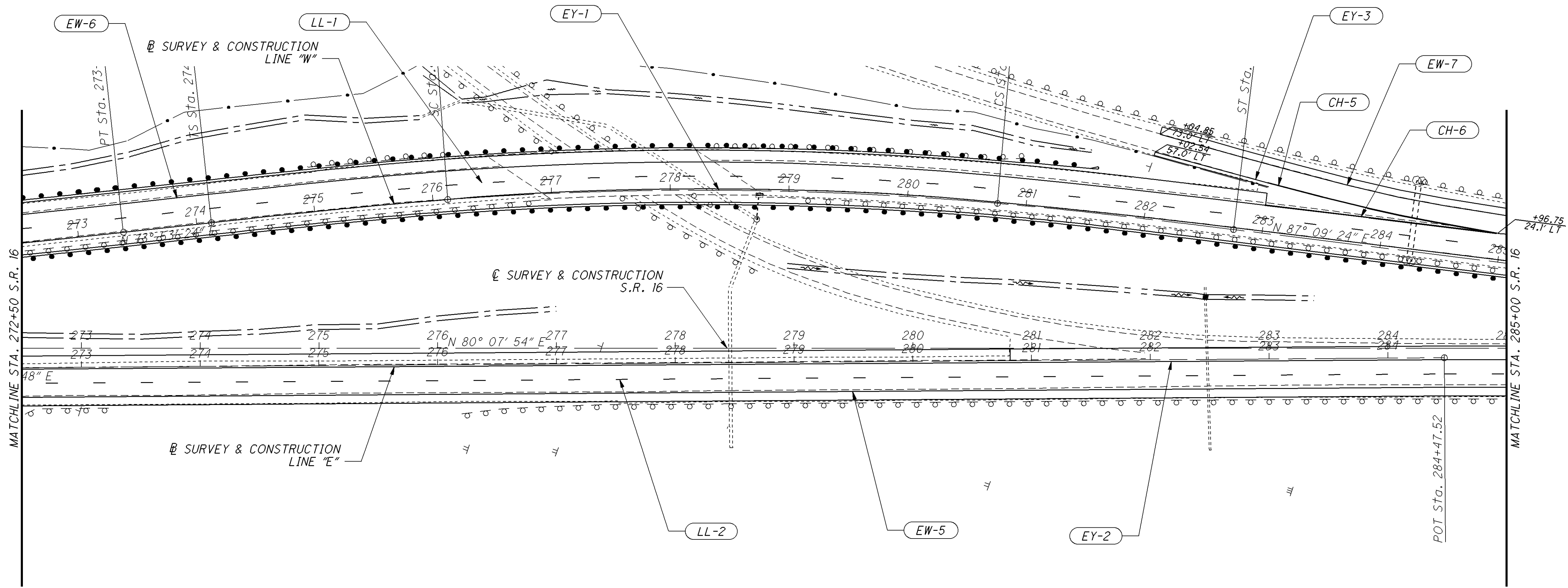
CALCULATED
BRH
CHECKED

0 50 100
HORIZONTAL
SCALE IN FEET

**PAVEMENT MARKINGS - S.R. 16
STA. 247+50 TO STA. 260+00**

LIC-16-16.64

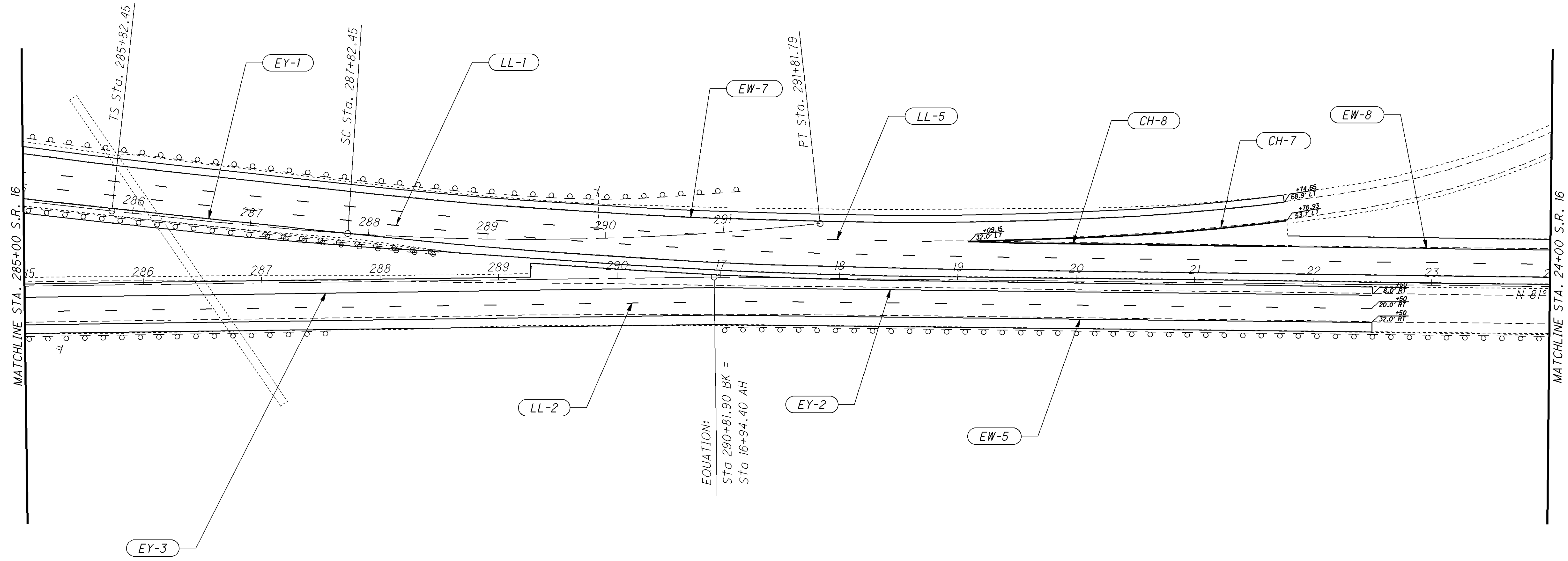




CALCULATED
BRH
CHECKED

**PAVEMENT MARKINGS - S.R. 16
STA. 272+50 TO STA. 285+00**

LIC-16-16.64

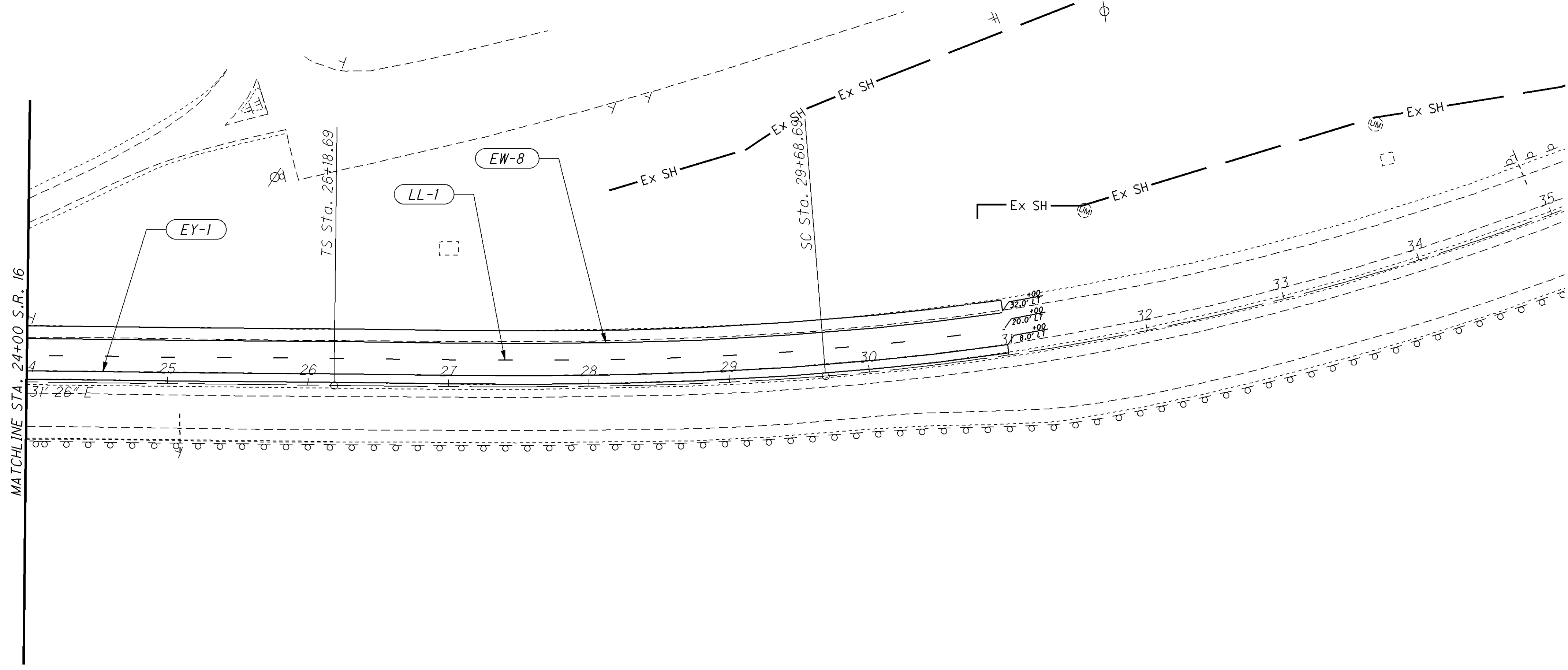


CALCULATED
BRH
CHECKED

0 50 100
HORIZONTAL
SCALE IN FEET

**PAVEMENT MARKINGS - S.R. 16
STA. 285+00 TO STA. 24+00**

LIC-16-16.64

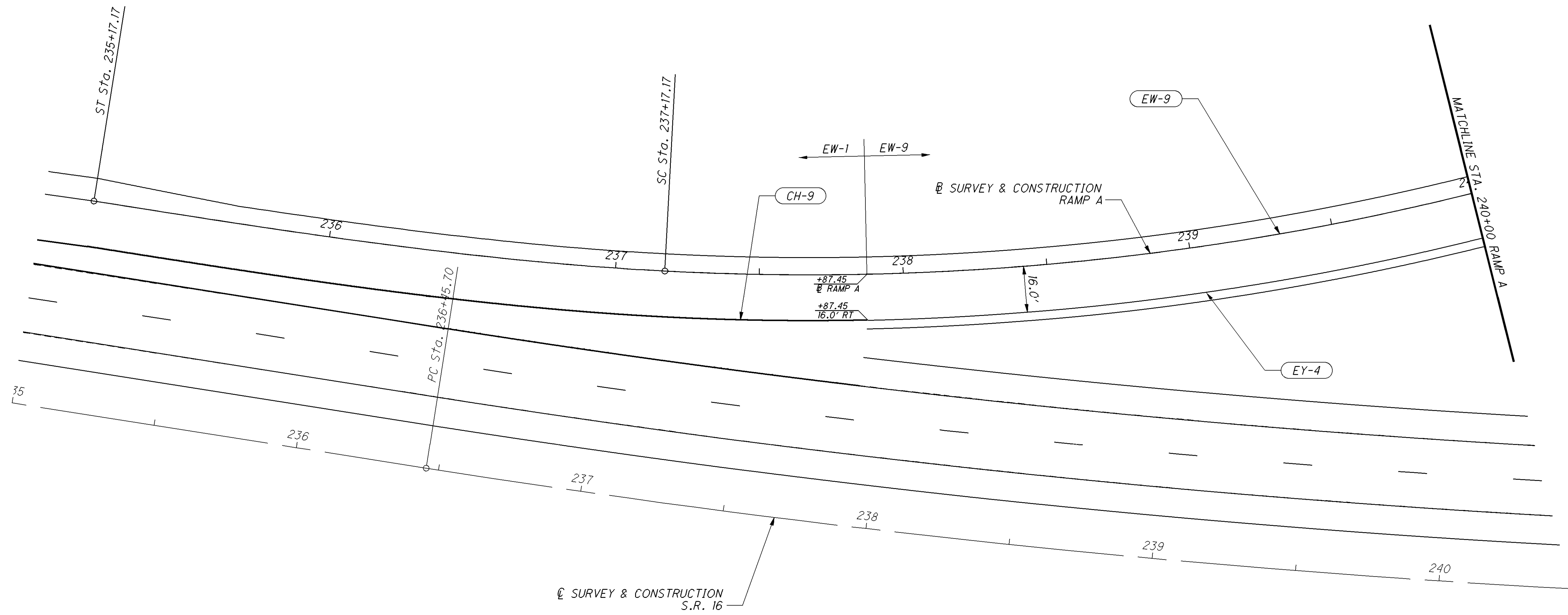


CALCULATED
BRH
CHECKED

0 50 100
HORIZONTAL
SCALE IN FEET

PAVEMENT MARKINGS - S.R. 16
STA. 24+00 TO STA. 35+10

LIC-16-16.64

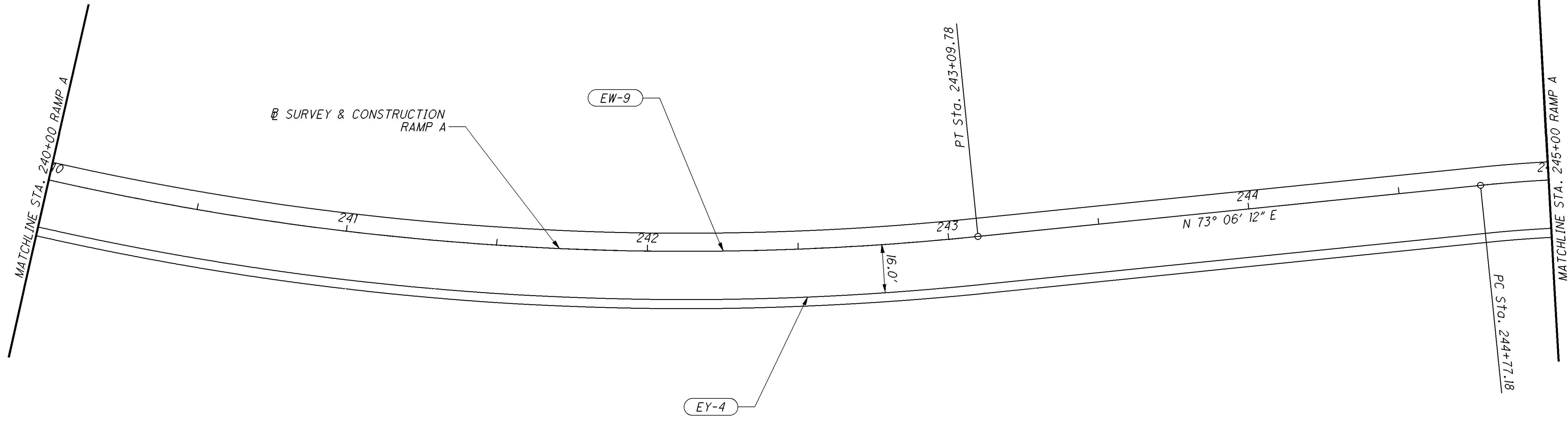


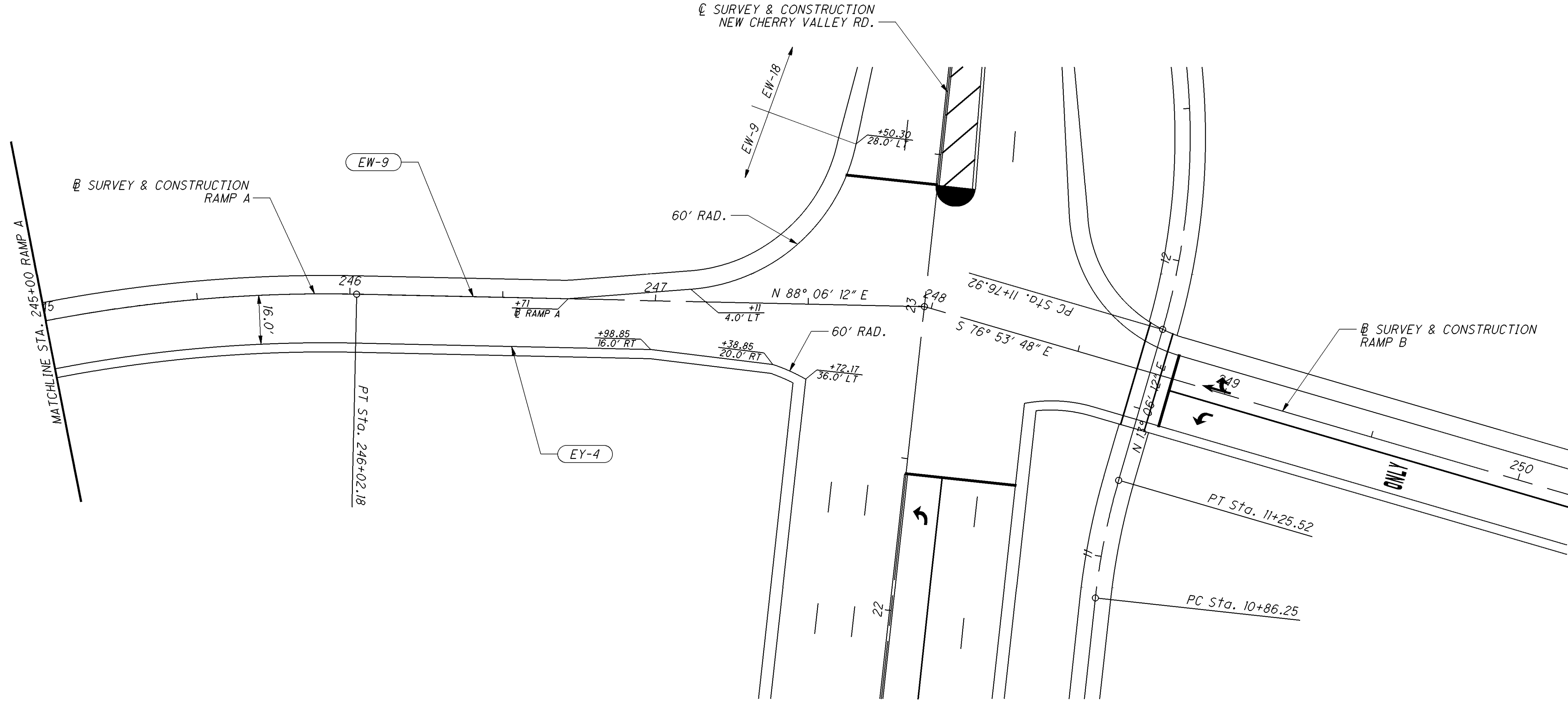
CALCULATED
BRH
CHECKED

0 10 20 40
HORIZONTAL
SCALE IN FEET

PAVEMENT MARKINGS - RAMP A
STA. 235+17.17 TO STA. 240+00

LIC-16-16.64

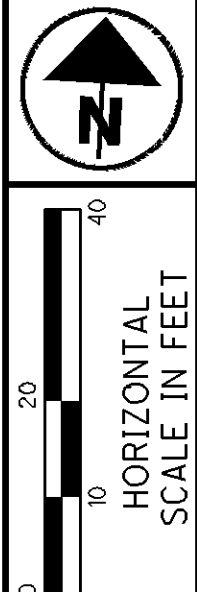


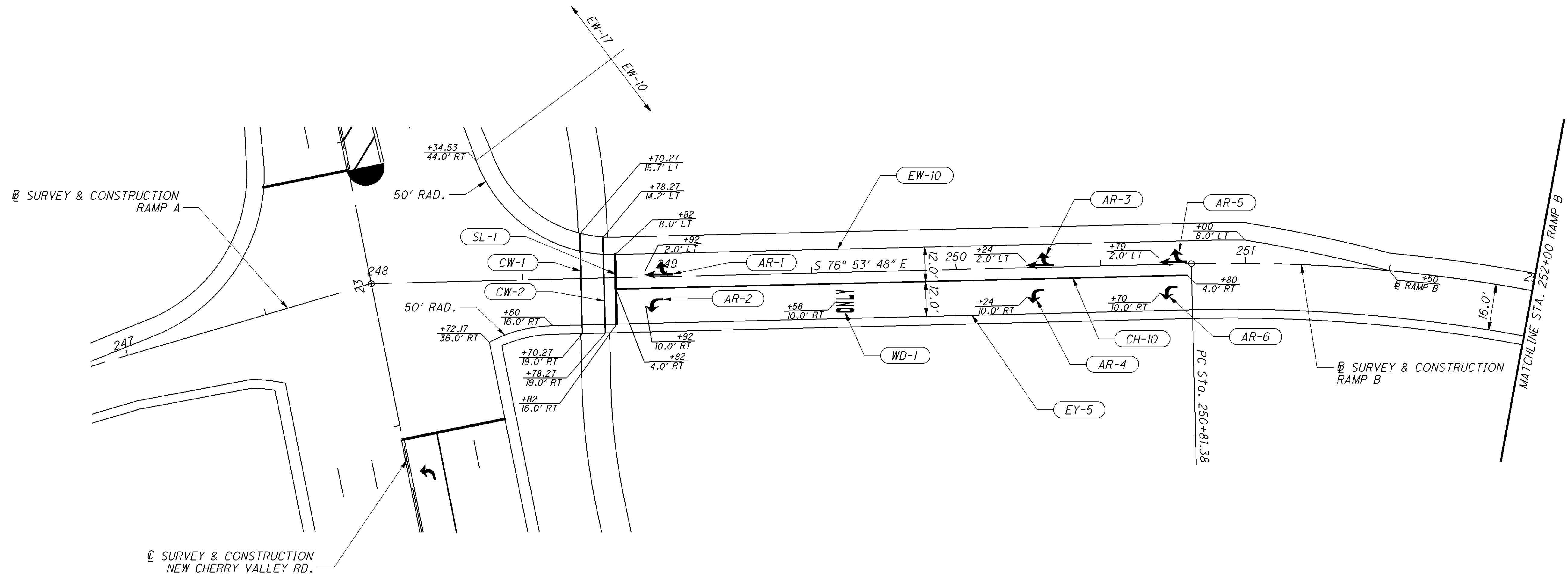


CALCULATED	BRH
	CHECKED

PAVEMENT MARKINGS - RAMP A
STA. 245+00 TO STA. 247+87.98

LIC-16-16.64



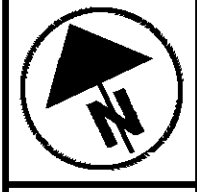
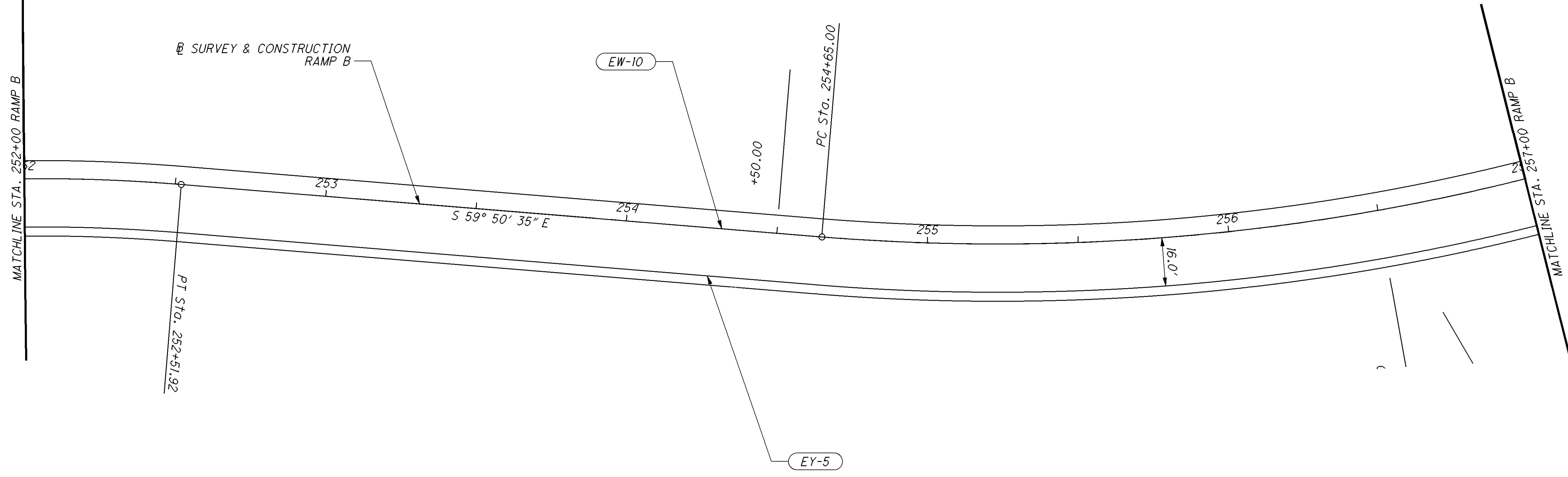


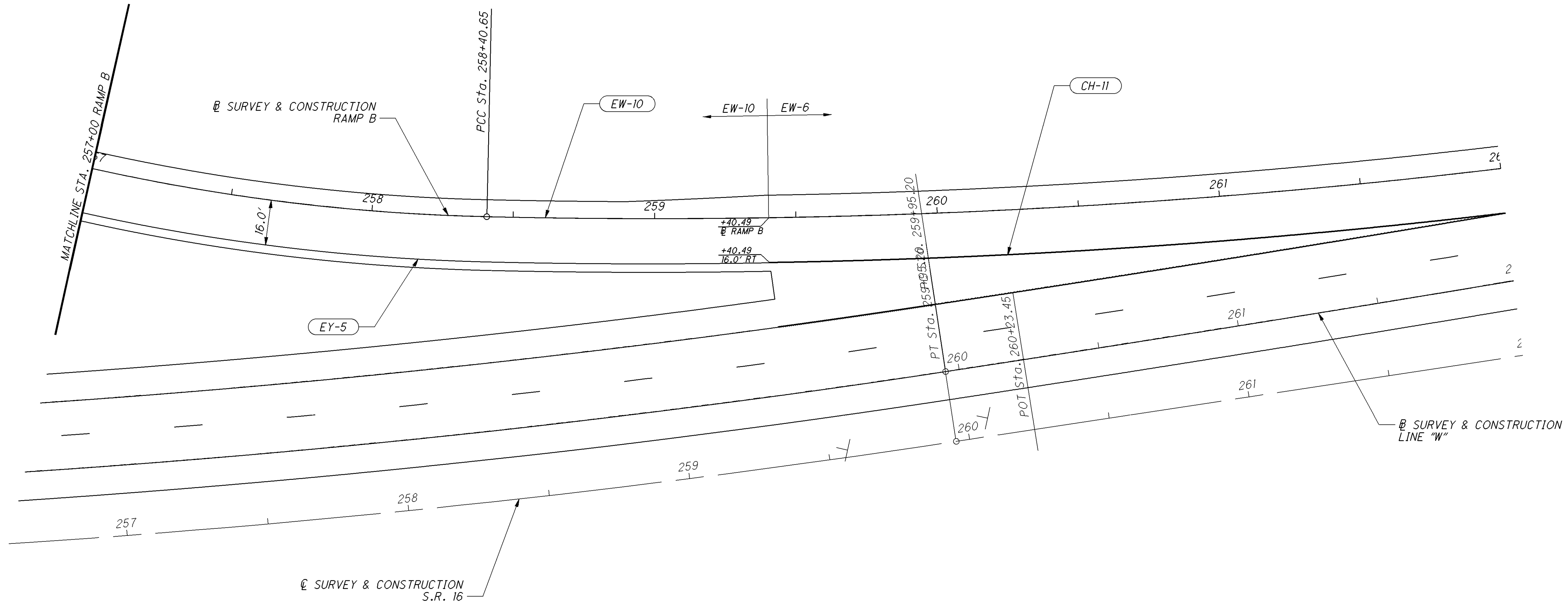
CALCULATED
BRH
CHECKED

HORIZONTAL SCALE IN FEET

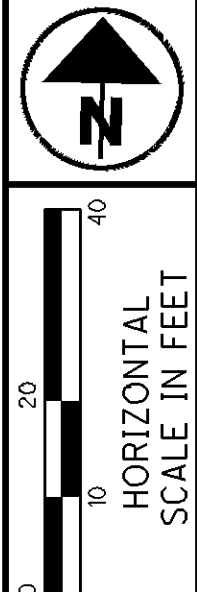
PAVEMENT MARKINGS - RAMP B
STA. 247+97.68 TO STA. 252+00

LIC-16-16.64



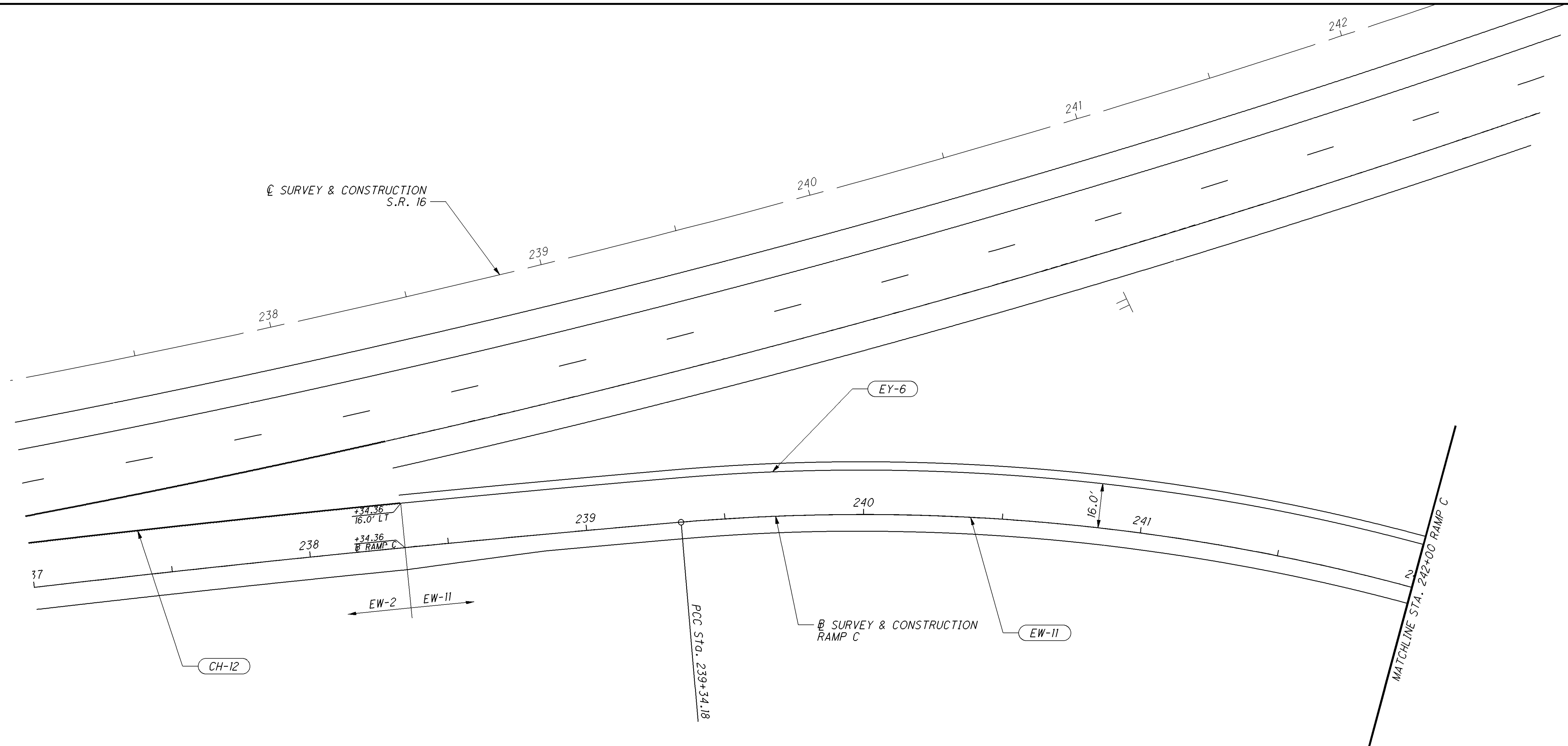


CALCULATED
BRH
CHECKED



PAVEMENT MARKINGS - RAMP B
STA. 257+00 TO STA. 262+00

LIC-16-16.64

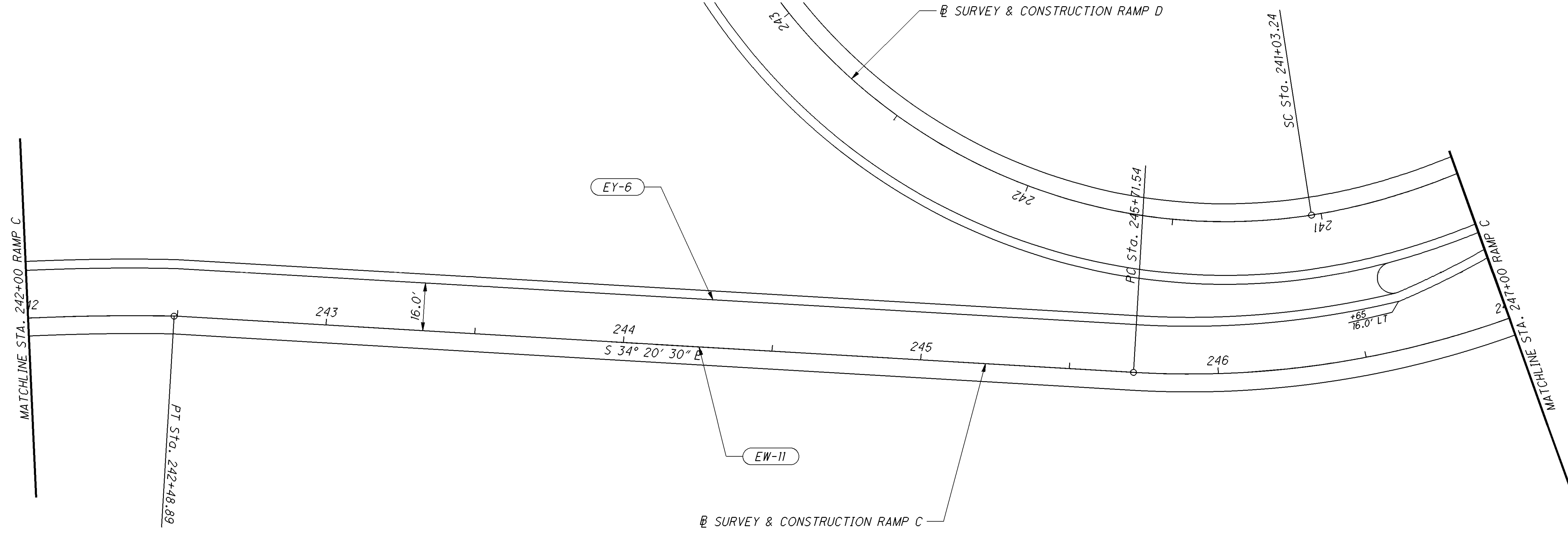


CALCULATED
BRH
CHECKED

0 10 20 40
HORIZONTAL
SCALE IN FEET

PAVEMENT MARKINGS - RAMP C
STA. 237+00 TO STA. 242+00

LIC-16-16.64

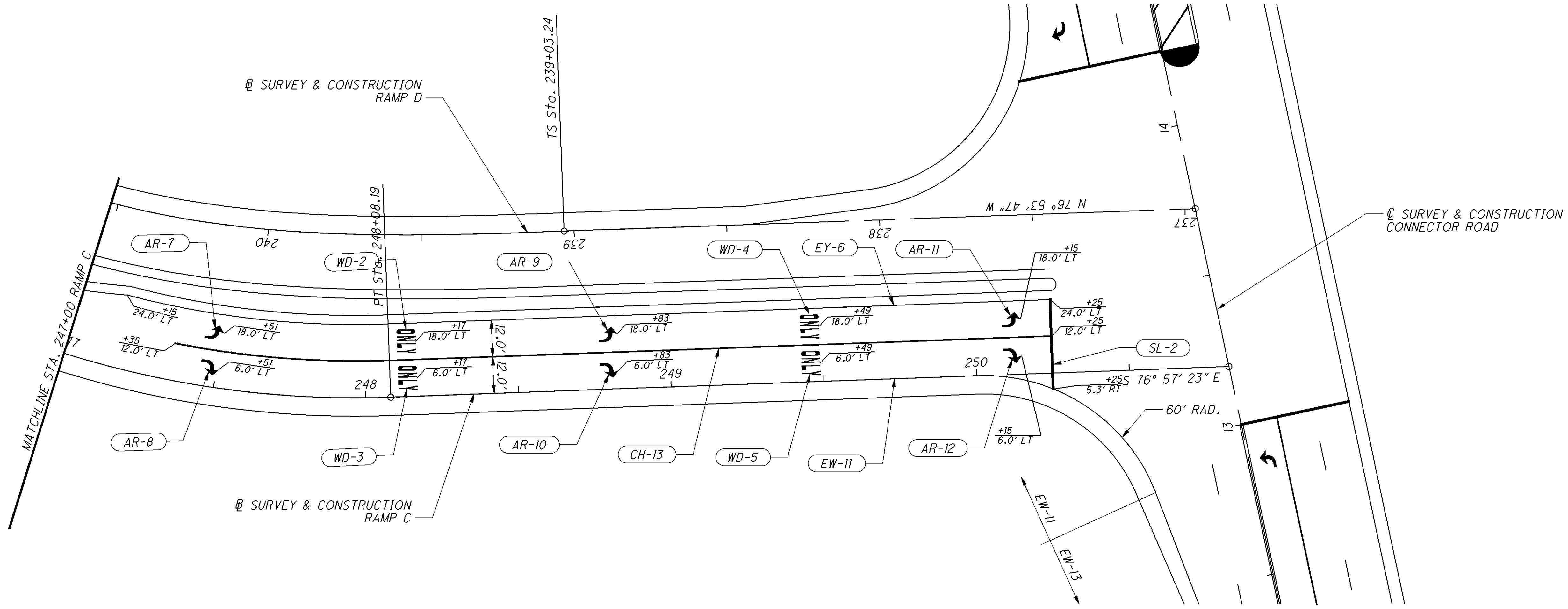


CALCULATED
BRH
CHECKED

0 10 20 40
HORIZONTAL
SCALE IN FEET

PAVEMENT MARKINGS - RAMP C
STA. 242+00 TO STA. 247+00

LIC-16-16.64

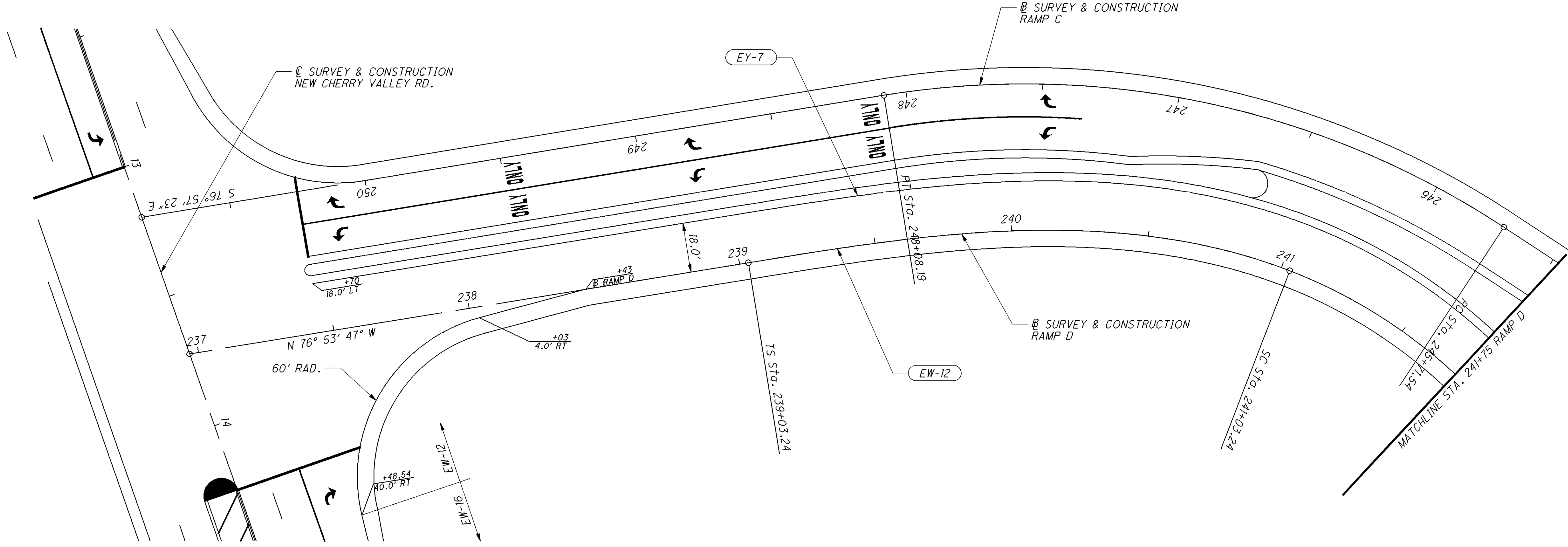


CALCULATED
BRH
CHECKED

0 10 20 30 40
HORIZONTAL
SCALE IN FEET

PAVEMENT MARKINGS - RAMP C
STA. 247+00 TO STA. 250+82.55

LIC-16-16.64

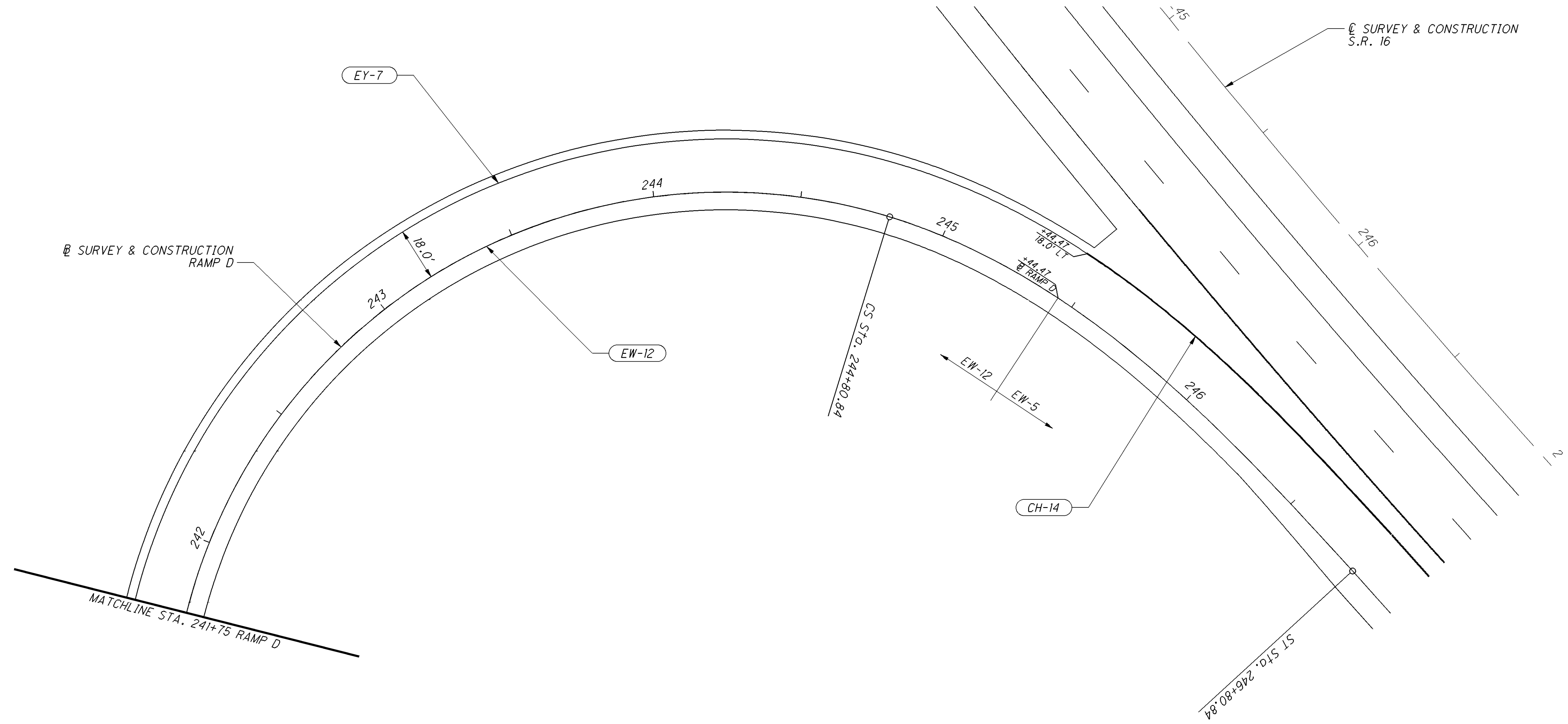


CALCULATED	BRH	CHECKED

0 10 20 40
 HORIZONTAL
 SCALE IN FEET

PAVEMENT MARKINGS - RAMP D
STA. 236+97 TO STA. 241+75

LIC-16-16.64

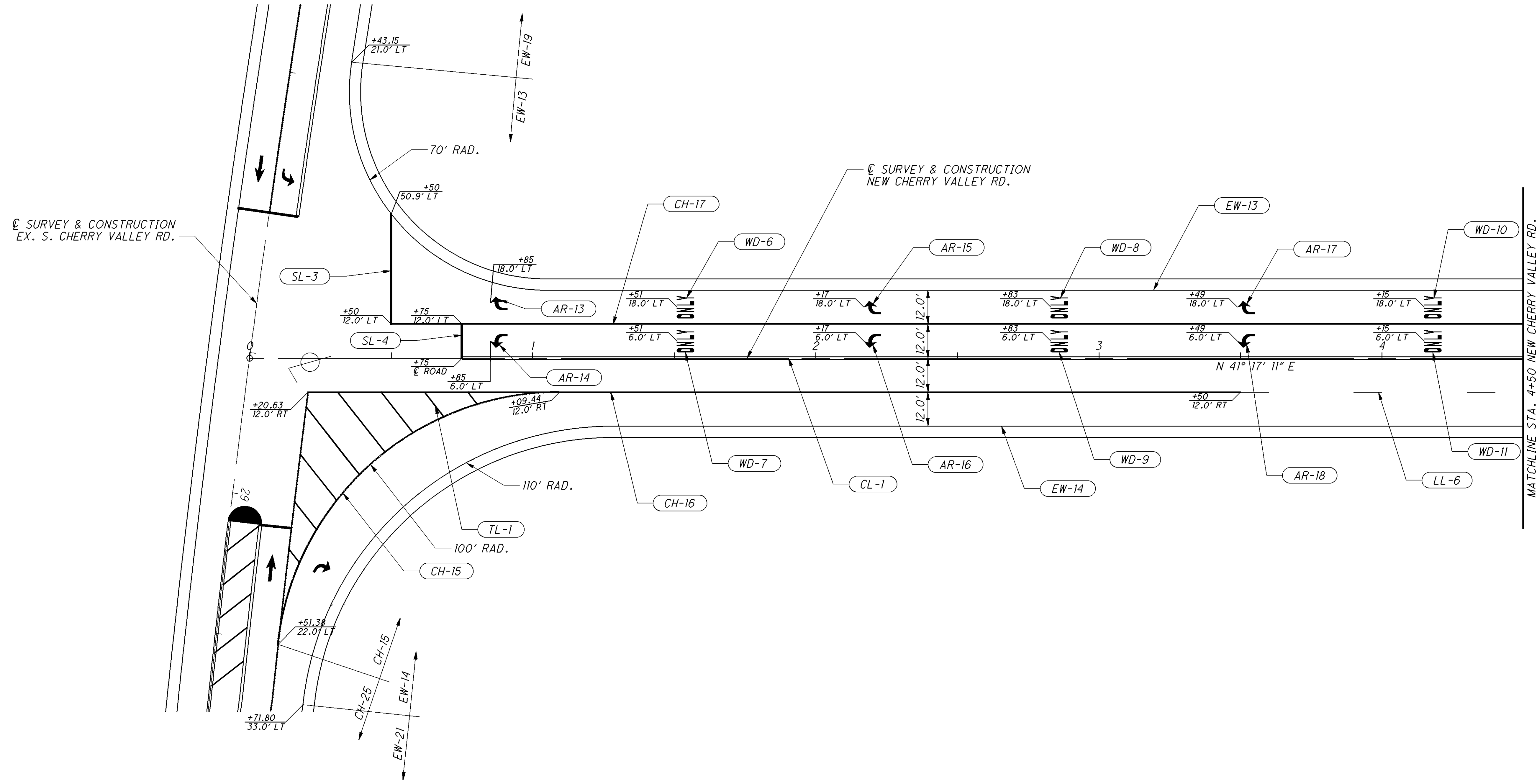


CALCULATED	BRH	CHECKED

0 10 20 40
HORIZONTAL
SCALE IN FEET

PAVEMENT MARKINGS - RAMP D
STA. 241+75 TO STA. 246+80.84

LIC-16-16.64



☉ SURVEY & CONSTRUCTION
EX. S. CHERRY VALLEY RD.

☉ SURVEY & CONSTRUCTION
NEW CHERRY VALLEY RD.

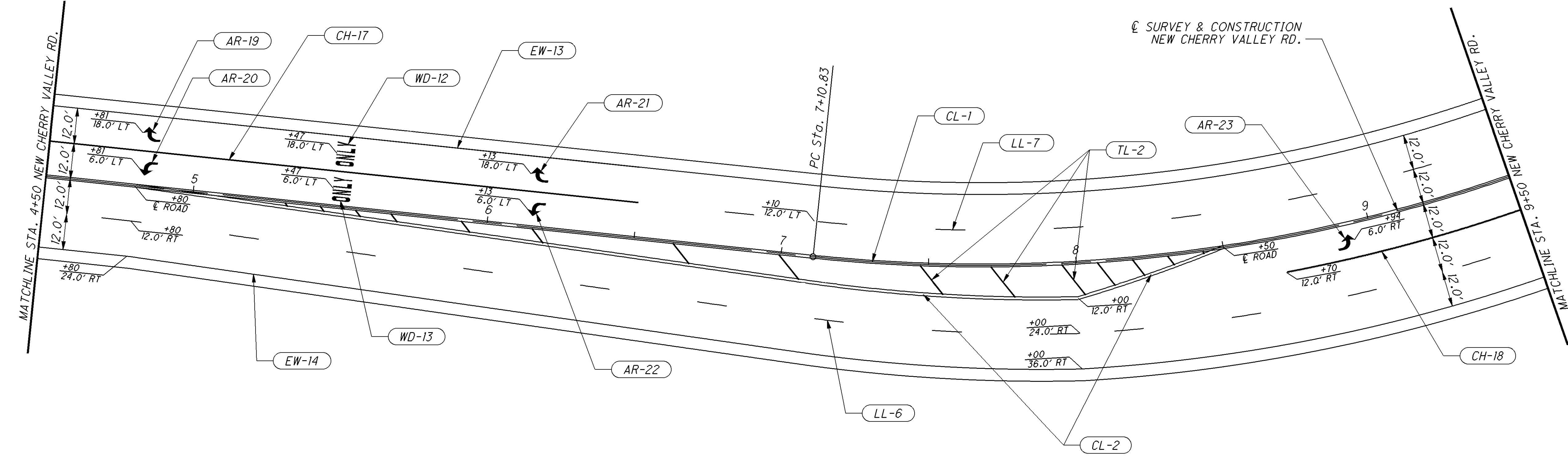
MATCHLINE STA. 4+50 NEW CHERRY VALLEY RD.

**PAVEMENT MARKINGS - NEW CHERRY VALLEY RD.
STA. 0+00 TO STA. 4+50**

LIC-16-16.64

CALCULATED	BRH
	CHECKED

0 10 20 40
HORIZONTAL
SCALE IN FEET



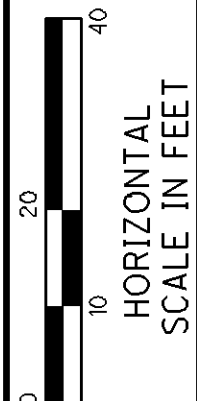
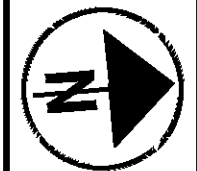
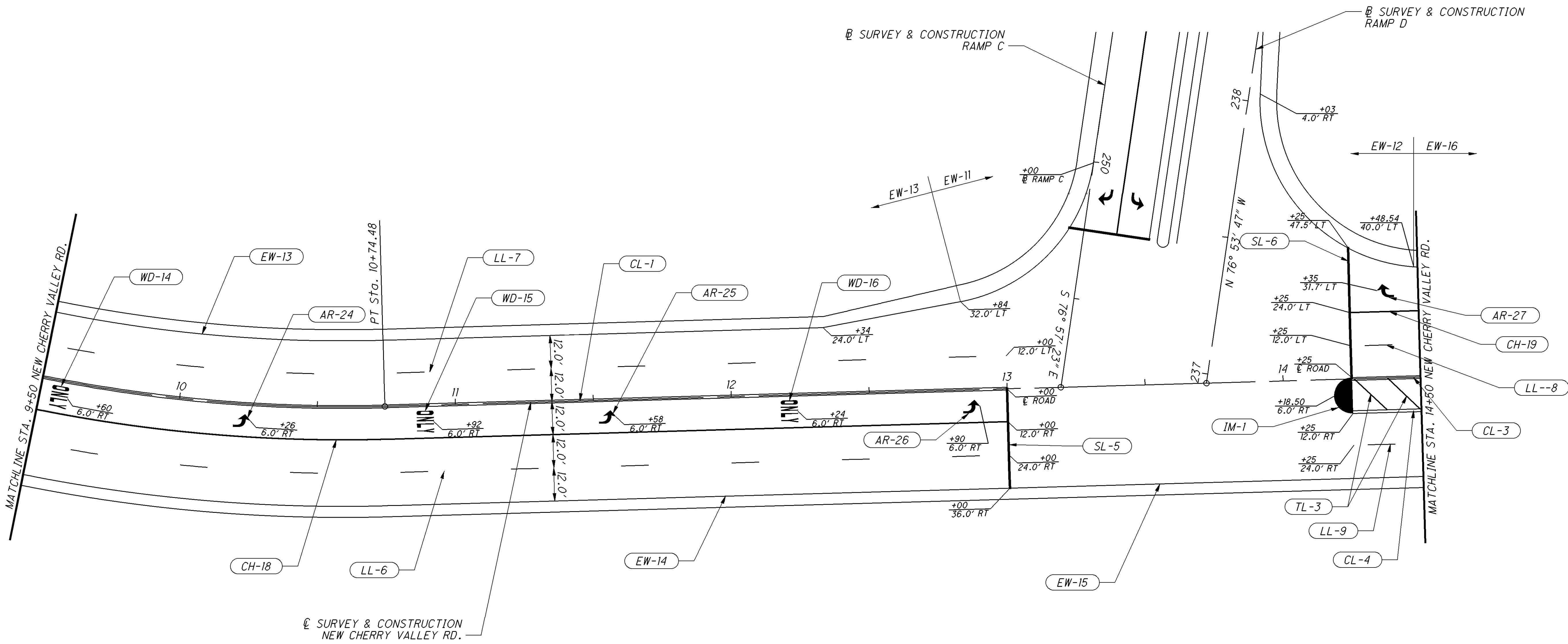
CALCULATED
BRH
CHECKED

0 10 20 40
HORIZONTAL
SCALE IN FEET

**PAVEMENT MARKINGS - NEW CHERRY VALLEY RD.
STA. 4+50 TO STA. 9+50**

LIC-16-16.64

500
729

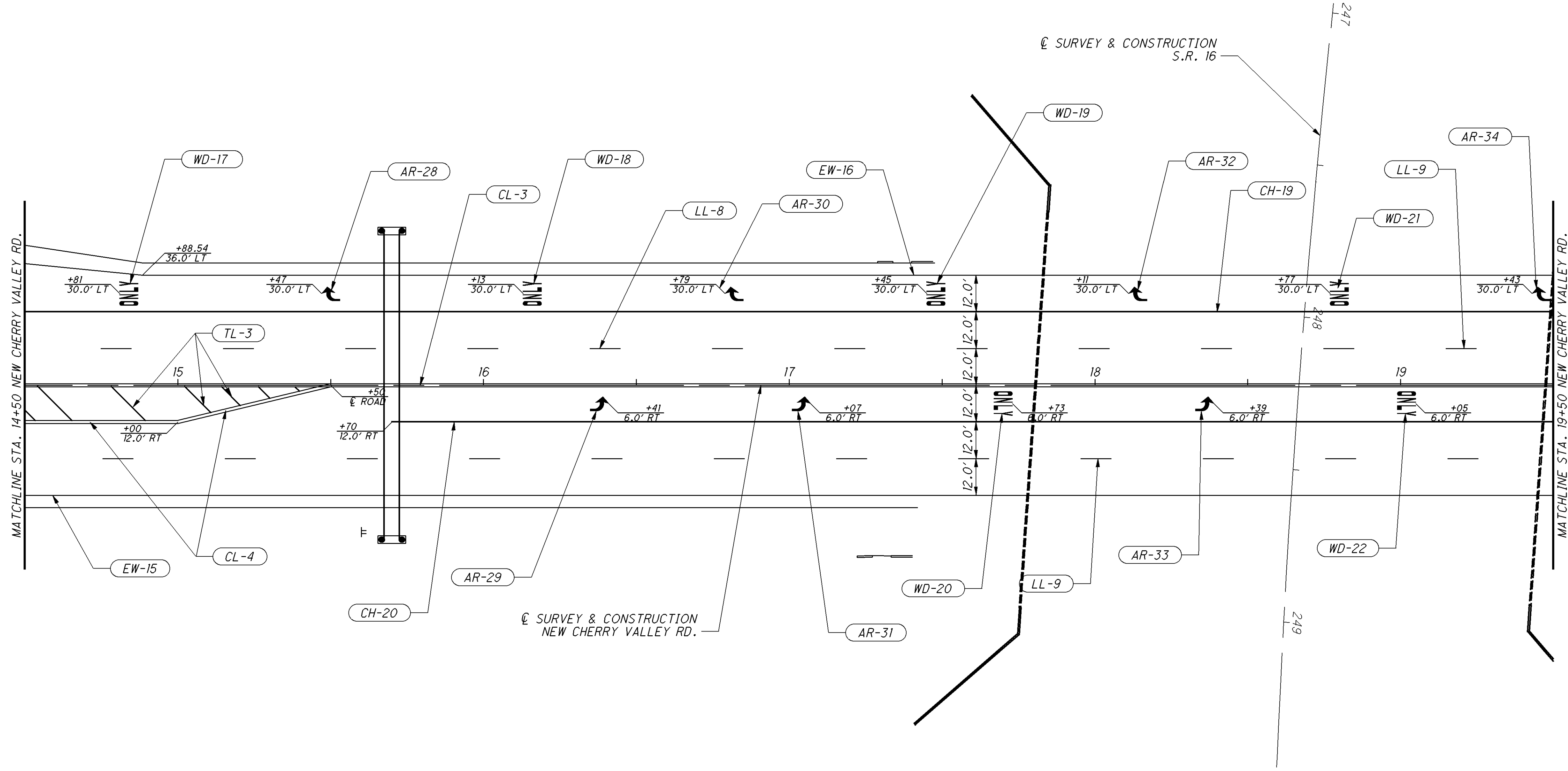


CALCULATED
BRH
CHECKED

**PAVEMENT MARKINGS - NEW CHERRY VALLEY RD.
STA. 9+50 TO STA. 14+50**

LIC-16-16.64

501
729

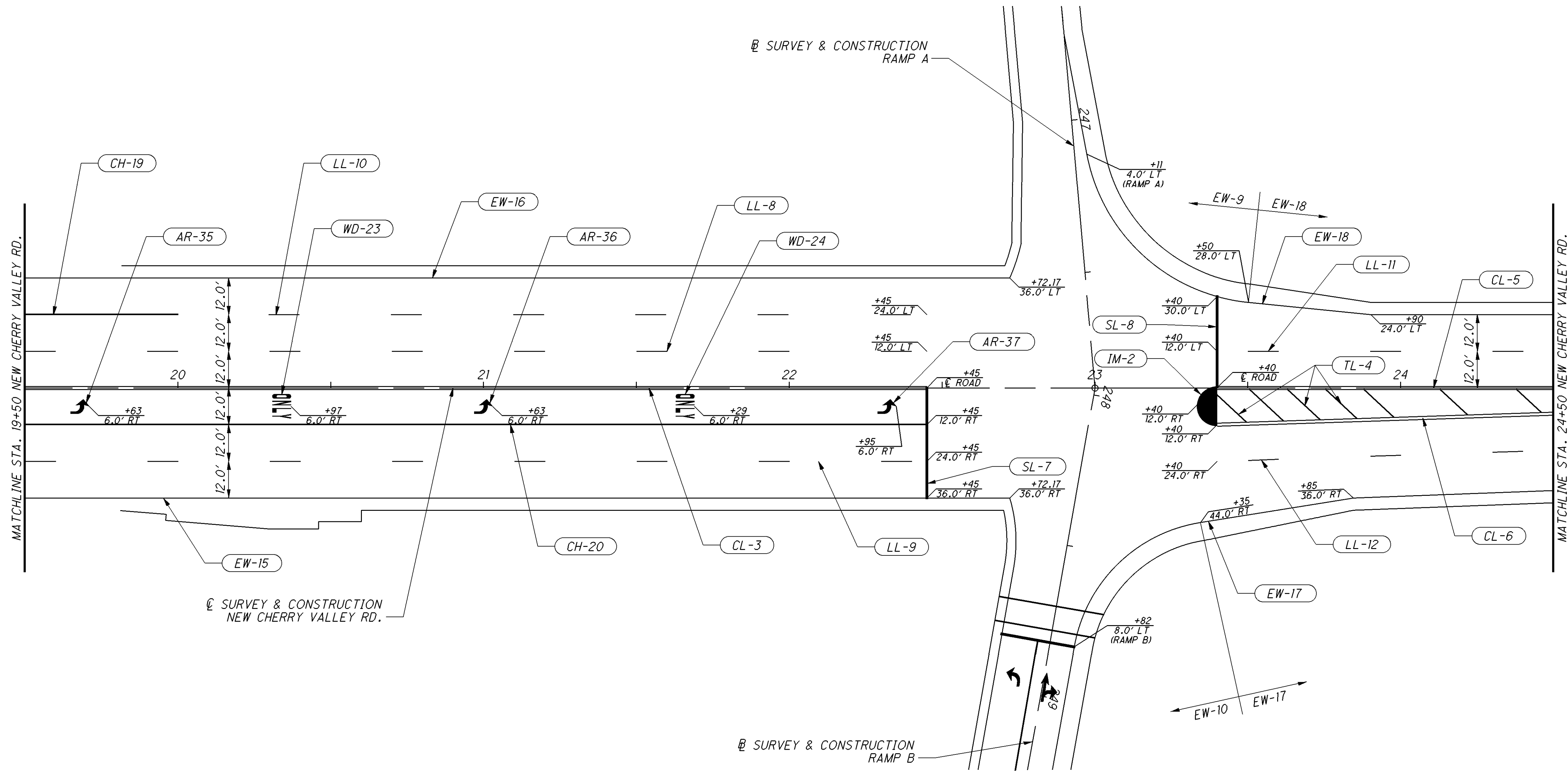


CALCULATED
BRH
CHECKED

0 10 20 40
HORIZONTAL
SCALE IN FEET

PAVEMENT MARKINGS - NEW CHERRY VALLEY RD.
STA. 14+50 TO STA. 19+50

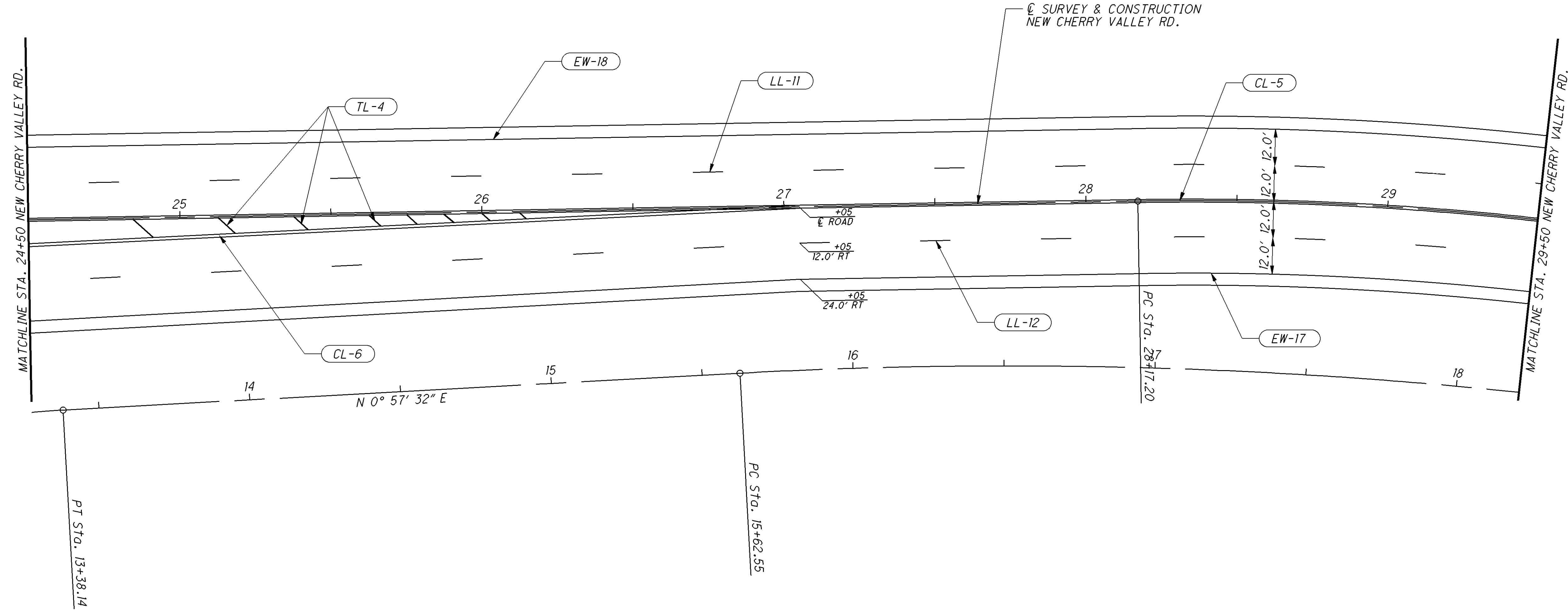
LIC-16-16.64



CALCULATED
BRH
CHECKED

0 10 20 40
HORIZONTAL
SCALE IN FEET

PAVEMENT MARKINGS - NEW CHERRY VALLEY RD.
STA. 19+50 TO STA. 24+50



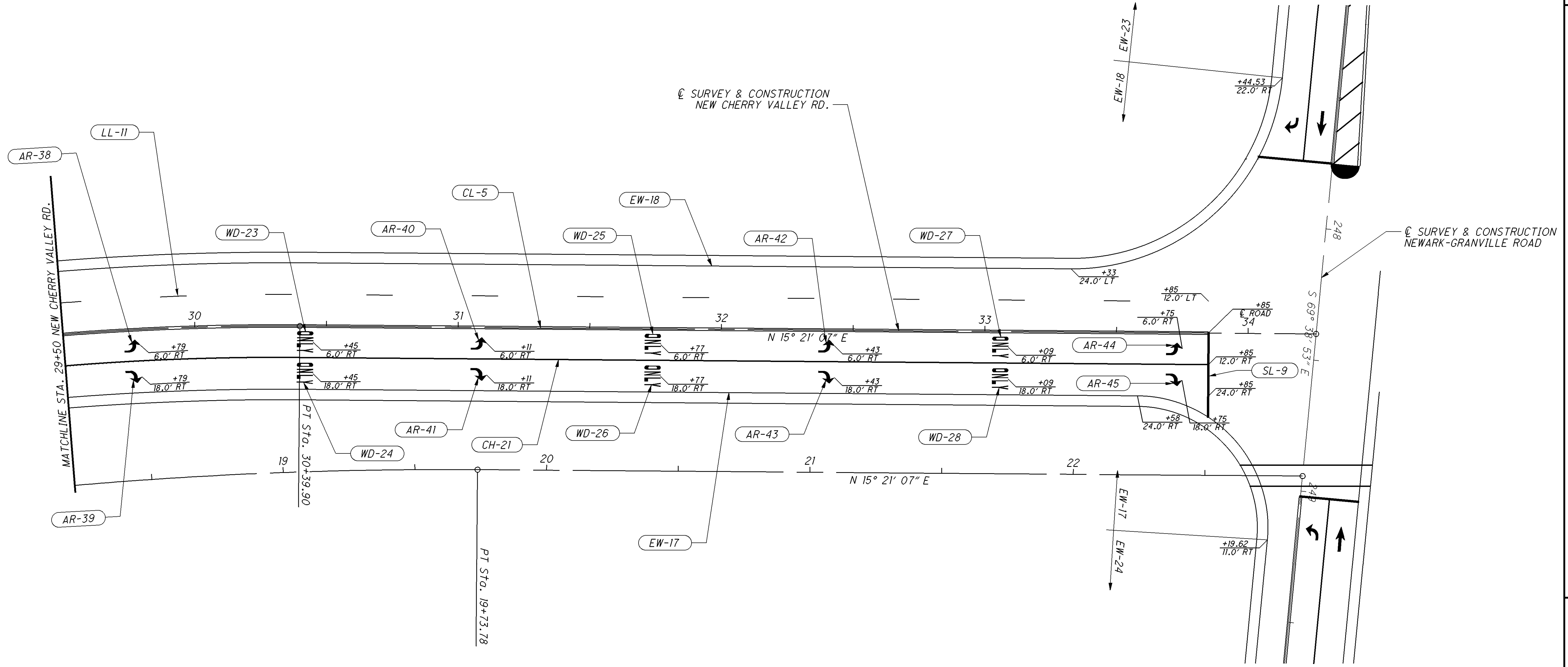
CALCULATED
BRH
CHECKED

0 10 20 40
HORIZONTAL
SCALE IN FEET

N

**PAVEMENT MARKINGS - NEW CHERRY VALLEY RD.
STA. 24+50 TO STA. 29+50**

LIC-16-16.64



CALCULATED
BRH
CHECKED

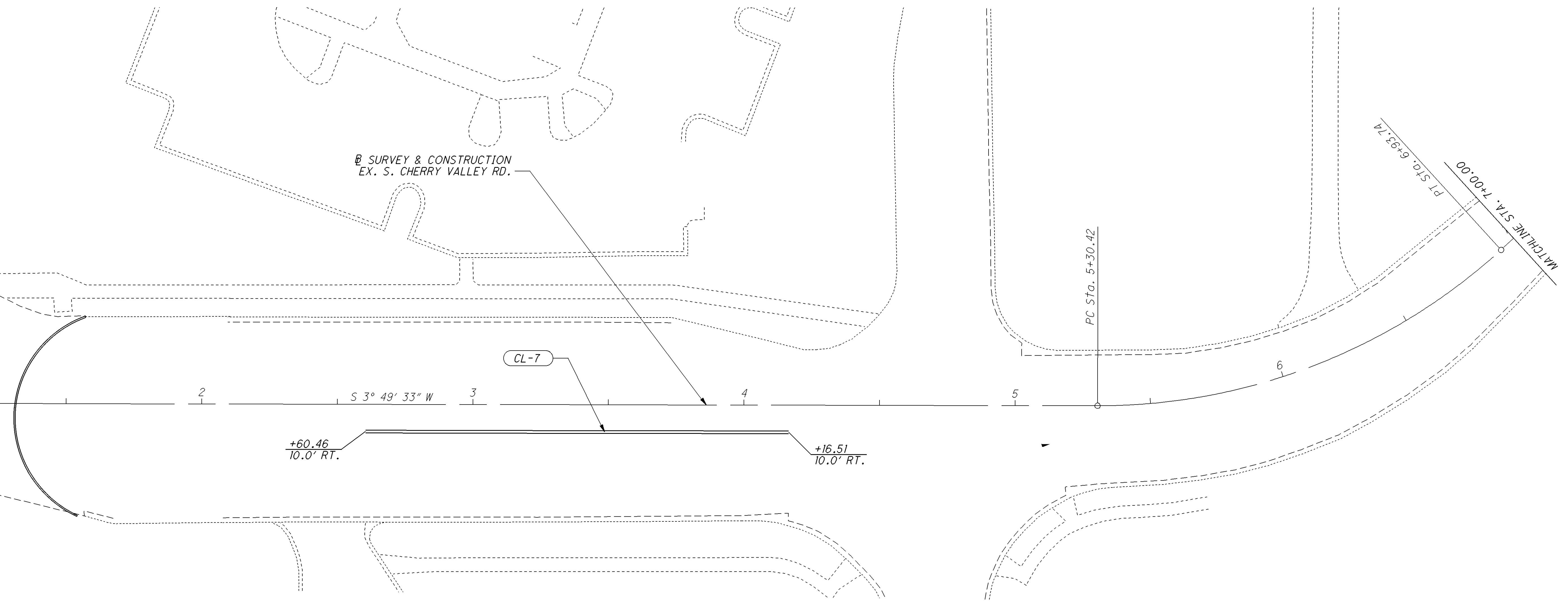
0 10 20 40
HORIZONTAL
SCALE IN FEET

**PAVEMENT MARKINGS - NEW CHERRY VALLEY RD.
STA. 29+50 TO STA. 34+26**

LIC-16-16.64

505
729

P:\LIC\80704\Design\Roadway\Plan_Sheets\Traffic Control\Pavement_Markings\ExChryS_TRF_001.dgn 28-FEB-2015 7:43AM bharlow



CALCULATED
BRH
CHECKED

0 10 20 40
HORIZONTAL
SCALE IN FEET

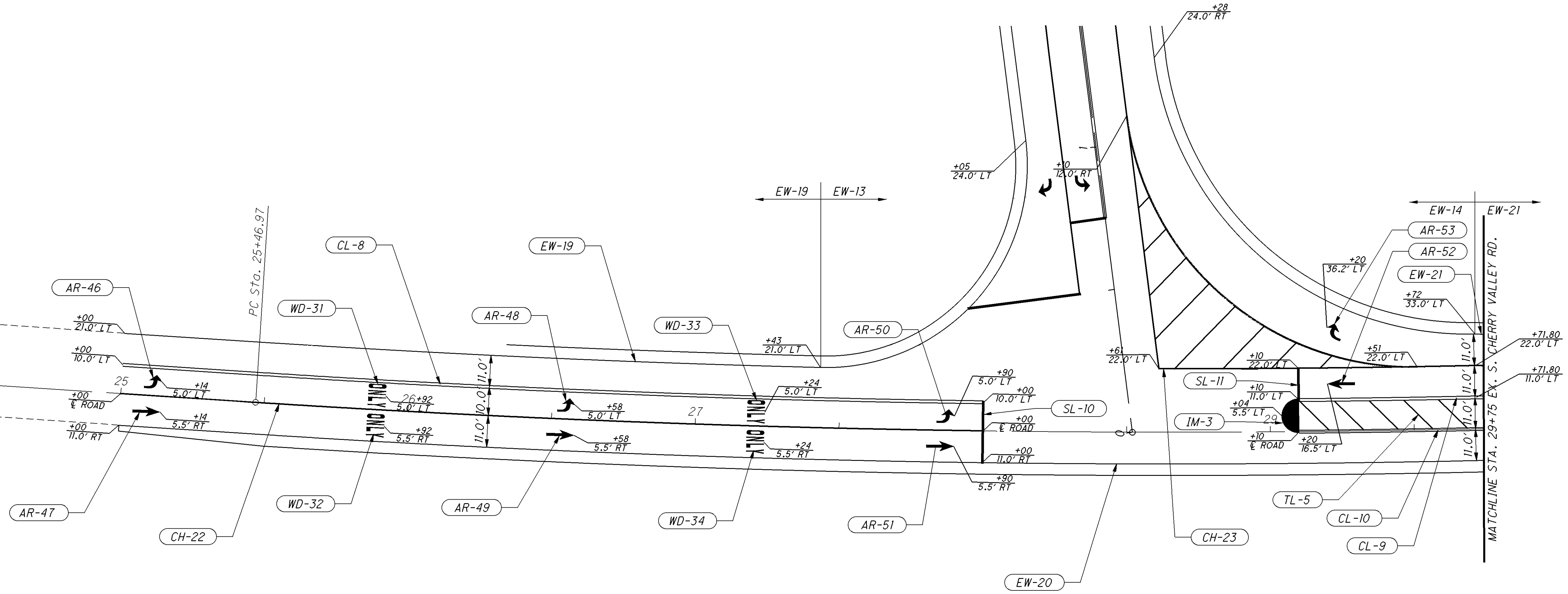
N

**PAVEMENT MARKINGS - EX. S. CHERRY VALLEY RD.
STA. 1+31.00 TO STA. 18+00.00**

LIC-16-16.64

506
729

P:\LIC\80704\Design\Roadway\Plan_Sheets\Traffic_Control\Pavement_Markings\ExChryS_TRF_006.dgn 28-FEB-2015 7:43AM bharlow

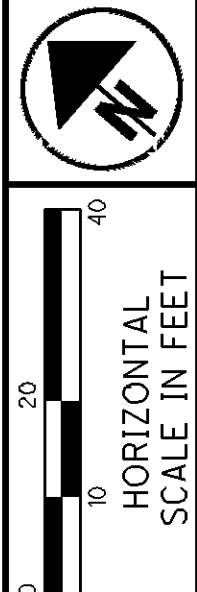


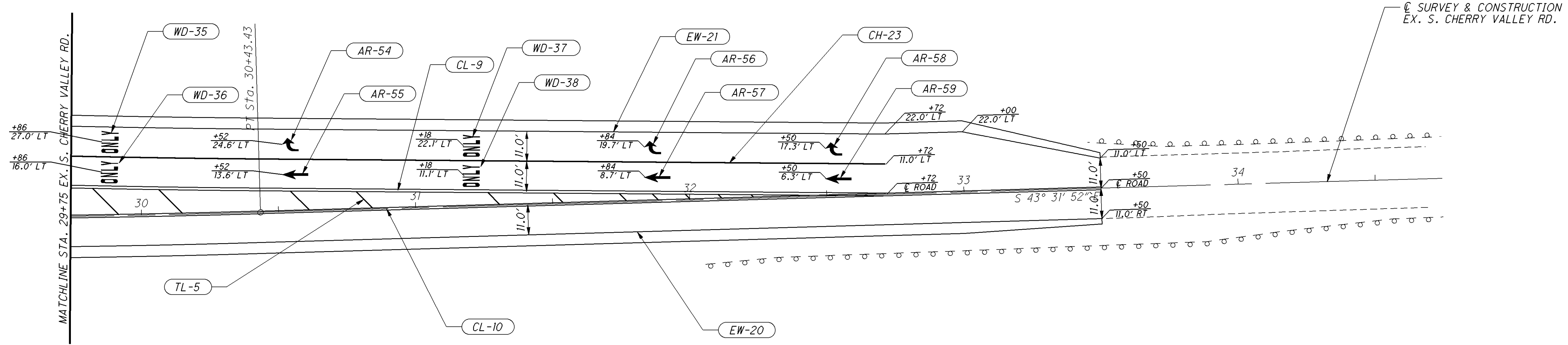
CALCULATED
BRH
CHECKED

**PAVEMENT MARKINGS - EX. S. CHERRY VALLEY RD.
STA. 24+75 TO STA. 29+75**

LIC-16-16.64

507
729





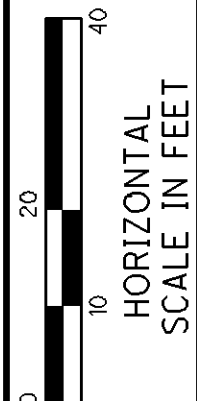
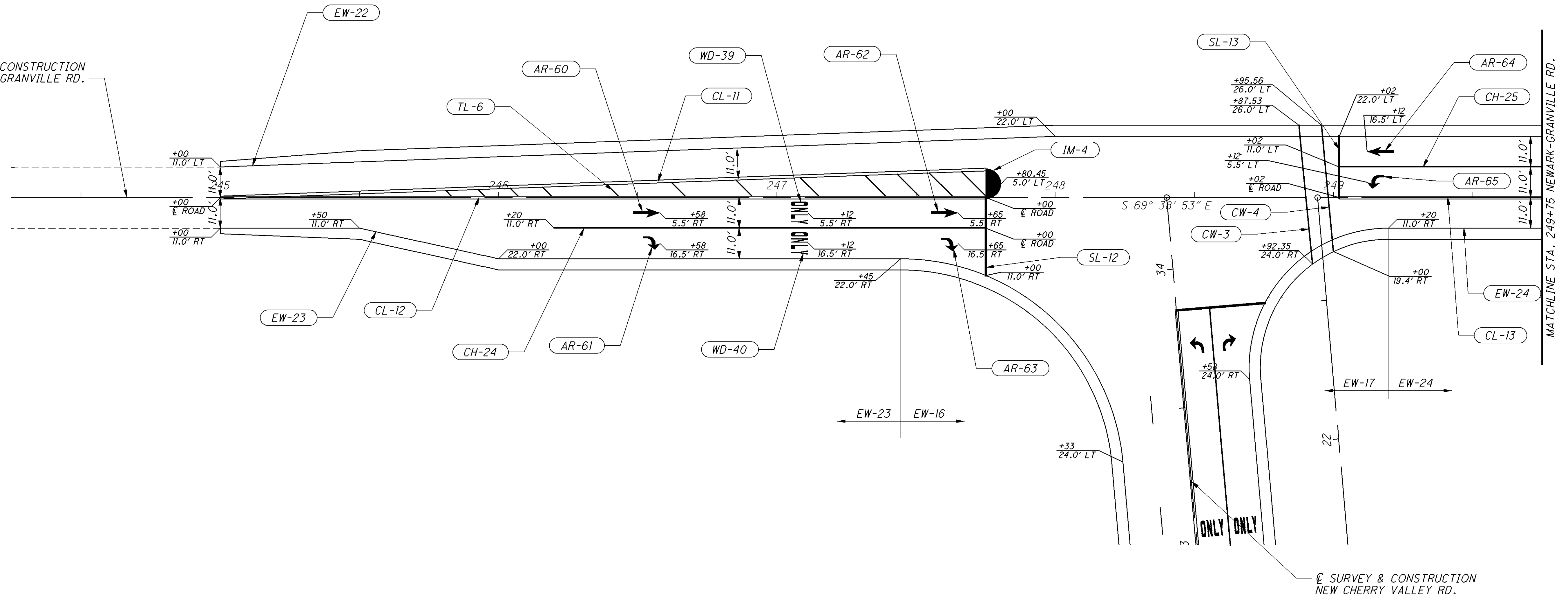
CALCULATED
BRH
CHECKED

0 10 20 40
HORIZONTAL
SCALE IN FEET

**PAVEMENT MARKINGS - EX. S. CHERRY VALLEY RD.
STA. 29+75 TO STA. 34+75**

LIC-16-16.64

☒ SURVEY & CONSTRUCTION
NEWARK-GRANVILLE RD.

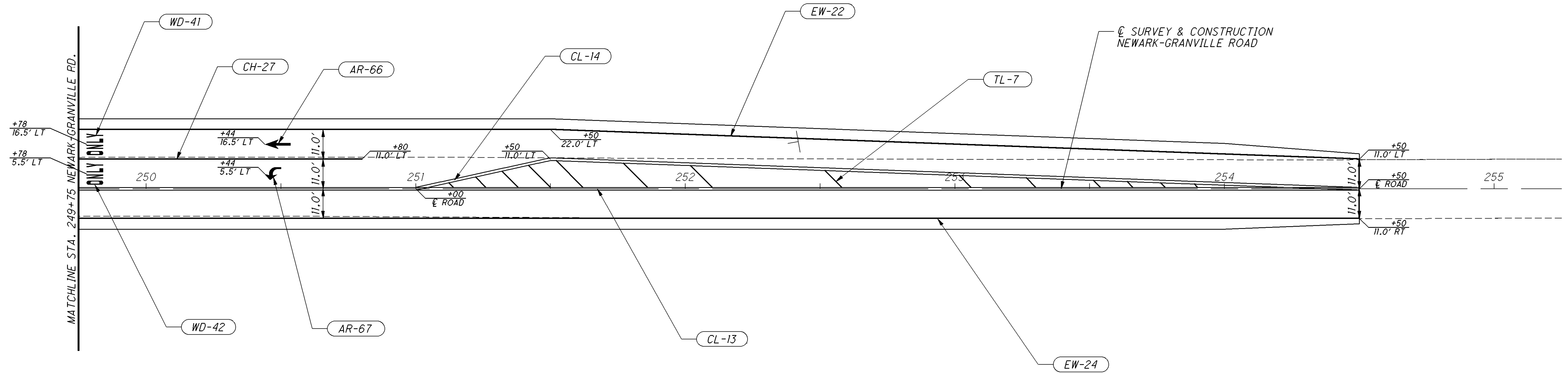


CALCULATED
BRH
CHECKED

**PAVEMENT MARKINGS - NEWARK-GRANVILLE RD.
STA. 244+25 TO STA. 249+75**

LIC-16-16.64

P:\LIC\80704\Design\Roadway\Plan_Sheets\Traffic_Control\Pavement_Markings\GrnvL_TRF_002.dgn 28-FEB-2015 7:43AM bharlow

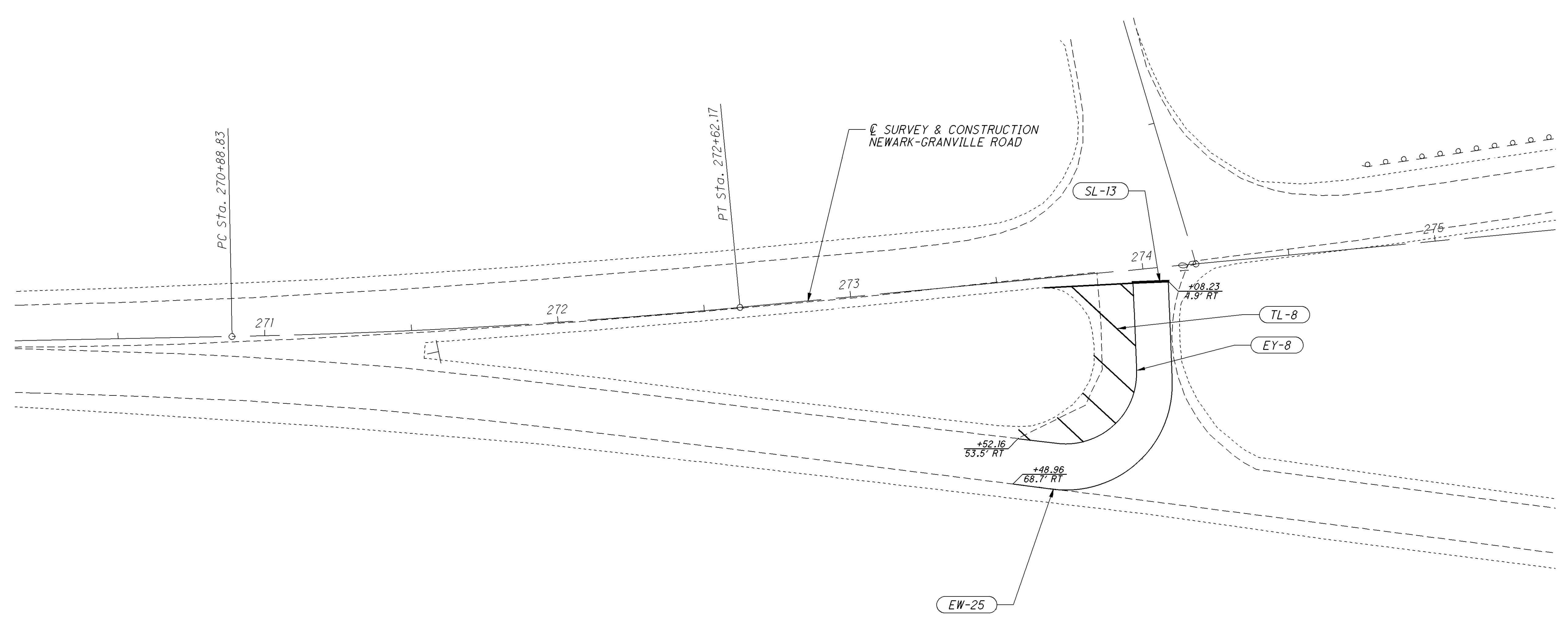


CALCULATED	BRH
CHECKED	

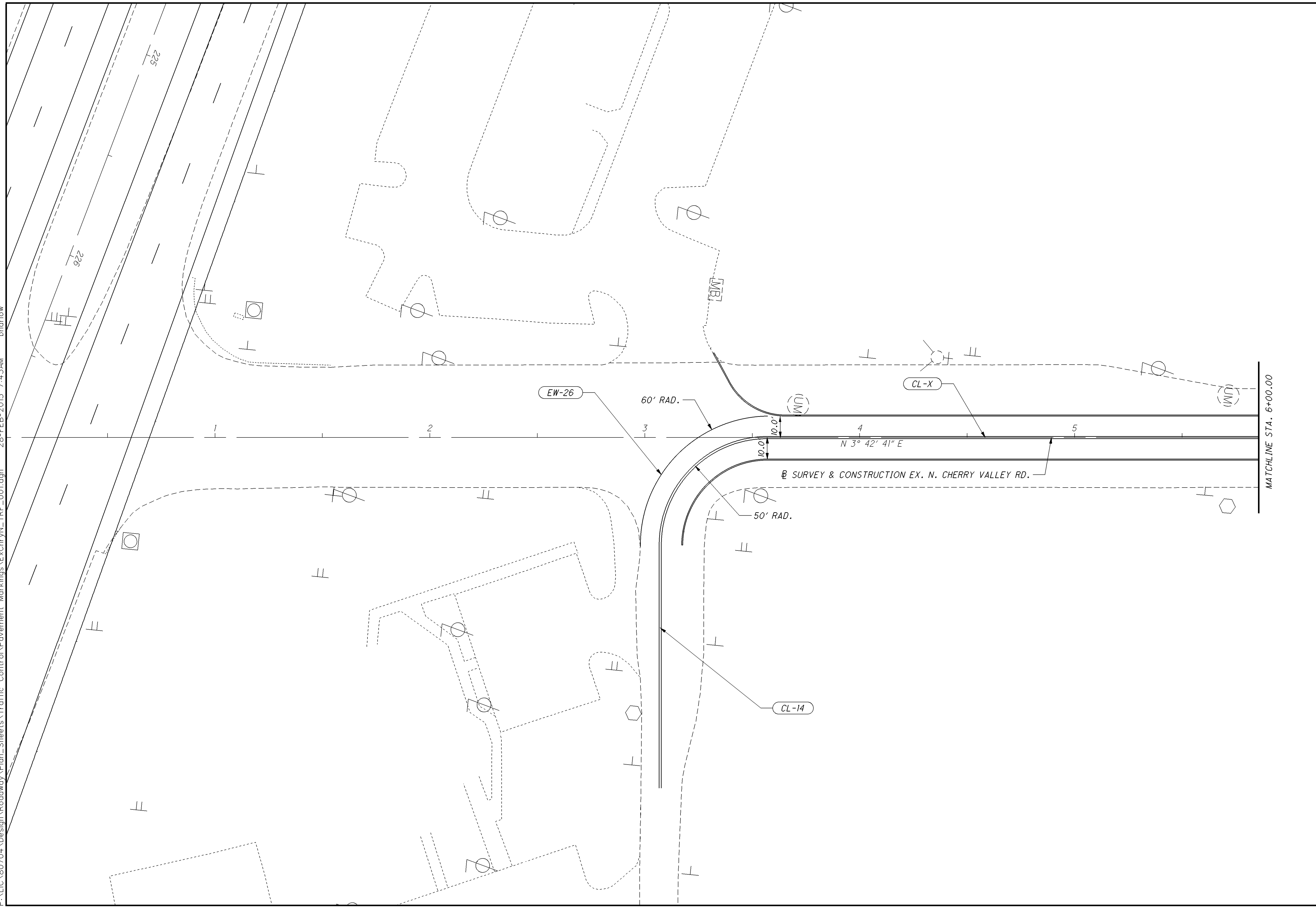
PAVEMENT MARKINGS - NEWARK-GRANVILLE RD.
STA. 249+75 TO STA. 255+25

LIC-16-16.64

510
729



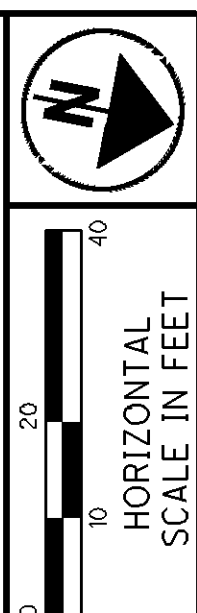
P:\LIC\80704\Design\Roadway\Plan_Sheets\Traffic_Control\Pavement_Markings\ExChryN\TRF_001.dgn 28-FEB-2015 7:43AM bharlow

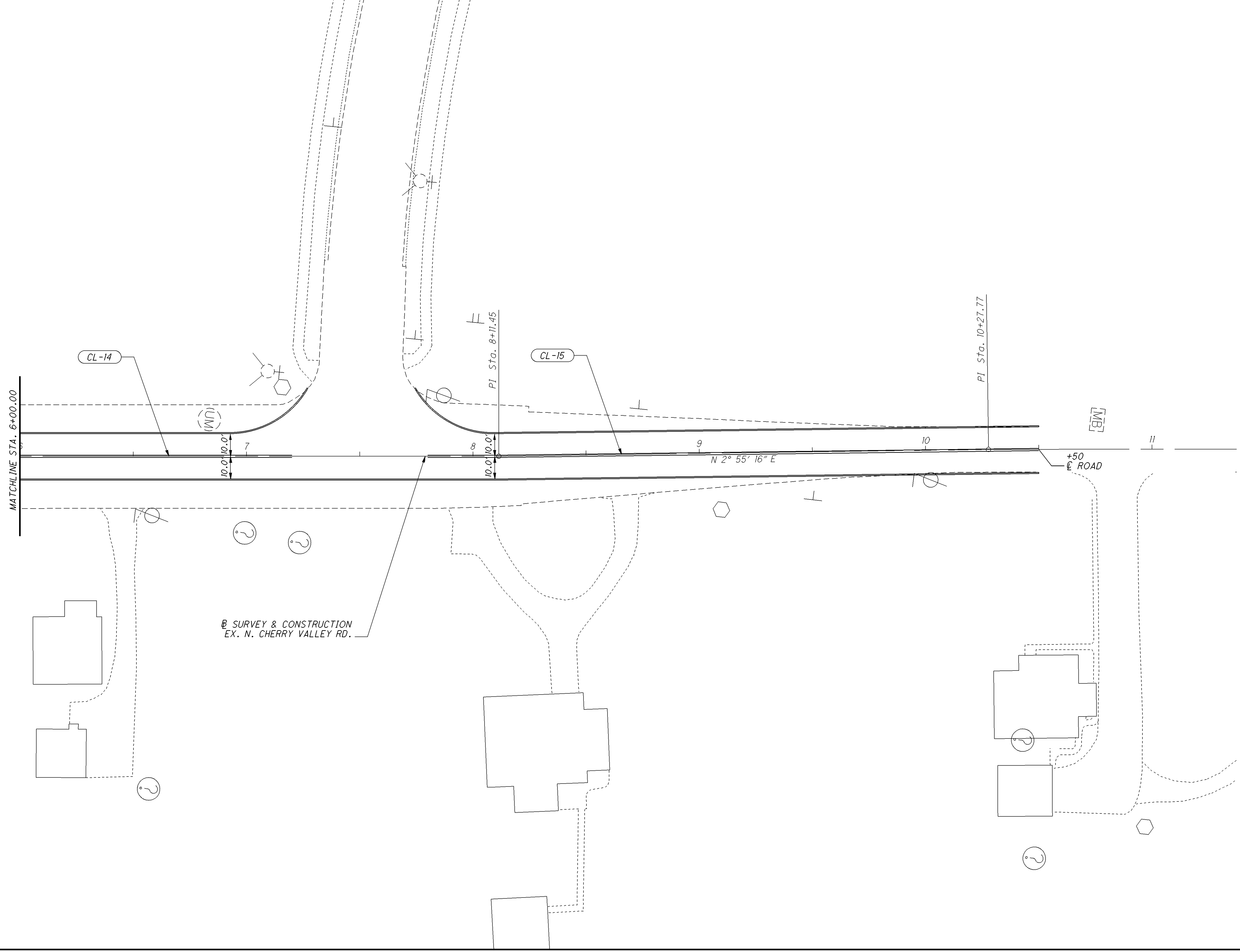


CALCULATED	BRH	CHECKED
------------	-----	---------

**PAVEMENT MARKINGS - EX. N. CHERRY VALLEY RD.
STA. 0+00.00 TO STA. 6+00.00**

LIC-16-16.64	511 729
--------------	------------





P:\LIC\80704\Design\Roadway\Plan_Sheets\Traffic_Control\RPMs\80704_RSS_001.dgn 28-FEB-2015 7:44AM bharlow

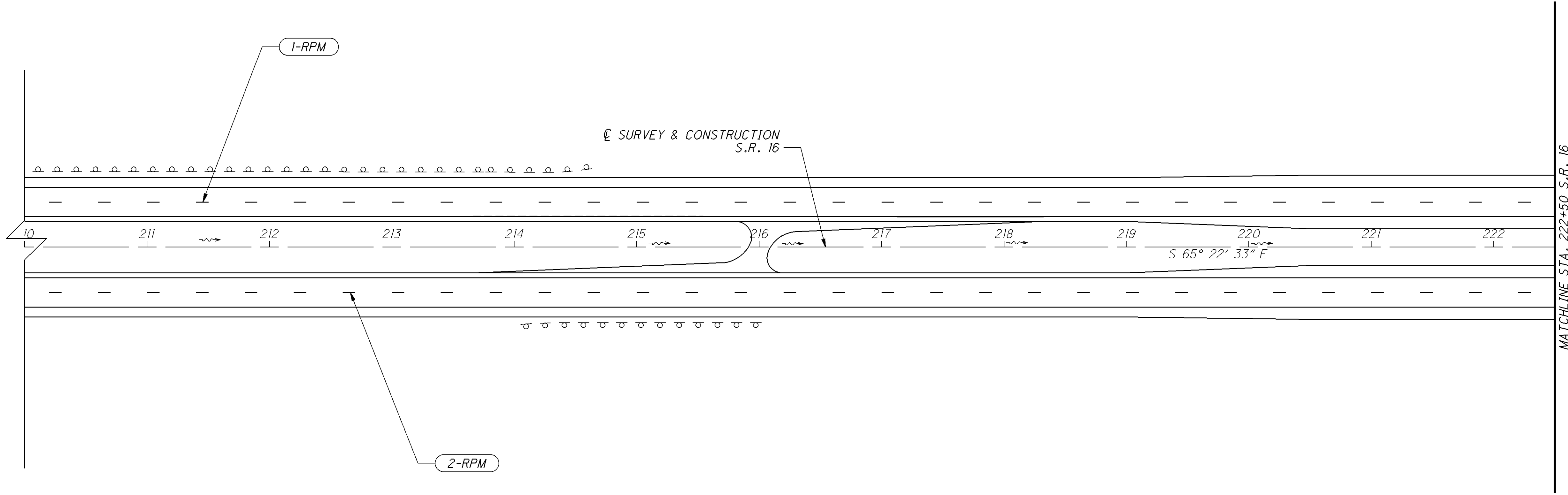
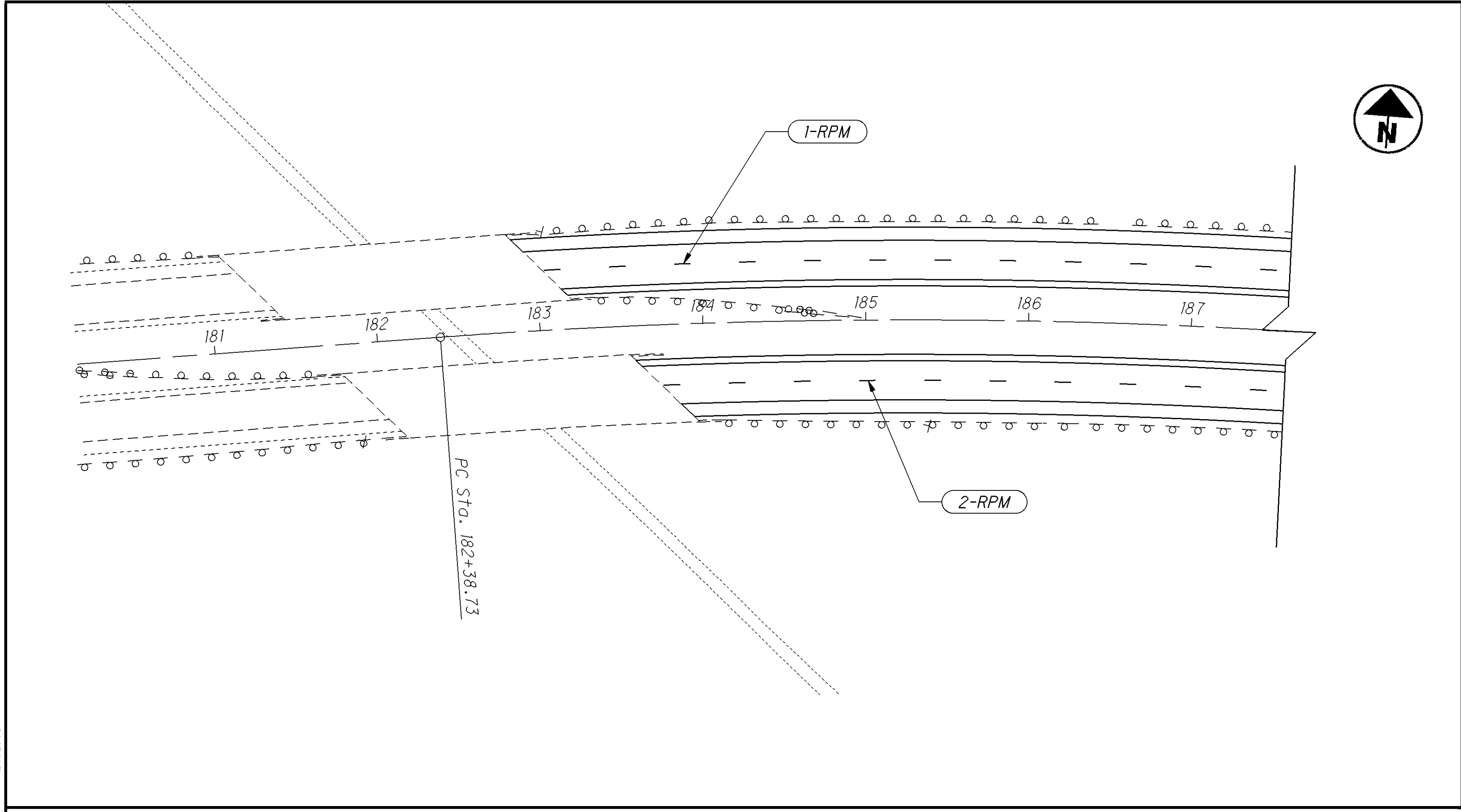
SHEET NO.	REFERENCE NO.	LOCATION	STATION		621					
			FROM	TO	RPM 2-WAY WHITE/RED EACH	RPM 2-WAY YELLOW/RED EACH	RPM SPACING CENTER/CENTER FT	RAISED PAVEMENT MARKER REMOVED EACH		
514-521	1-RPM	S.R. 16 WESTBOUND LANE LINE (LL-1)	183+03.19	31+00	152		80			
514-520	2-RPM	S.R. 16 EASTBOUND LANE LINE (LL-2)	183+73.25	22+50	141		80			
515	3-RPM	S.R. 16 WESTBOUND LANE LINE (LL-3)	230+77	233+80	4		80			
515-516	4-RPM	RAMP A CHANNELIZING LINE (CH-5)	233+80.00	237+87.45	11		40			
516	5-RPM	S.R. 16 CHANNELIZING LINE (CH-2)	235+00	238+31	9		40			
516	6-RPM	RAMP C CHANNELIZING LINE (CH-11)	235+00	238+34.36	9		40			
516	7-RPM	RAMP A YELLOW EDGE LINE (EY-4)	237+87.45	22+72.17 (NEW CHERRY V.)		13	80			
516	8-RPM	RAMP C YELLOW EDGE LINE (EY-6)	238+34.36	250+25		15	80			
516	9-RPM	RAMP D YELLOW EDGE LINE (EY-7)	237+45.07	245+44.47		11	80			
516-517	10-RPM	RAMP D CHANNELIZING LINE (CH-12)	245+44.47	249+50	11		40			
517	11-RPM	RAMP B YELLOW EDGE LINE (EY-5)	22+72.17 (NEW CHERRY V.)	259+40.49		14	80			
517	12-RPM	S.R. 16 EASTBOUND LANE LINE (LL-4)	249+50	252+50	4		80			
518	13-RPM	RAMP B CHANNELIZING LINE (CH-10)	259+38	262+00	7		40			
518	14-RPM	S.R. 16 CHANNELIZING LINE (CH-4)	259+40.49	262+00	7		40			
519	15-RPM	EX. GRANVILLE RD. EXIT RAMP YELLOW EDGE LINE (EY-3)	282+02.54 (LINE "W")	283+00 (LINE "W")		3	80			
519	16-RPM	EX. GRANVILLE RD. EXIT RAMP CHANNELIZING LINE (CH-5)	283+00 (LINE "W")	284+96.75 (LINE "W")	5		40			
519	17-RPM	EX. GRANVILLE RD. EXIT RAMP CHANNELIZING LINE (CH-6)	283+00 (LINE "W")	284+96.75 (LINE "W")	5		40			
519-520	18-RPM	LINE "W" LANE LINE (LL-5)	284+96.75	19+09.15 (S.R. 16)	10		80			
520	19-RPM	EX. GRANVILLE RD. ENTRANCE RAMP CHANNELIZING LINE (CH-7)	19+09.15 (S.R. 16)	21+76.93 (S.R. 16)	7		40			
								372		
SUB-TOTALS					382	56		372		
TOTALS CARRIED TO GENERAL SUMMARY					438			372		

CALCULATED
BRH
CHECKED

RAISED PAVEMENT MARKER SUBSUMMARY

LIC-16-16.64

513
729

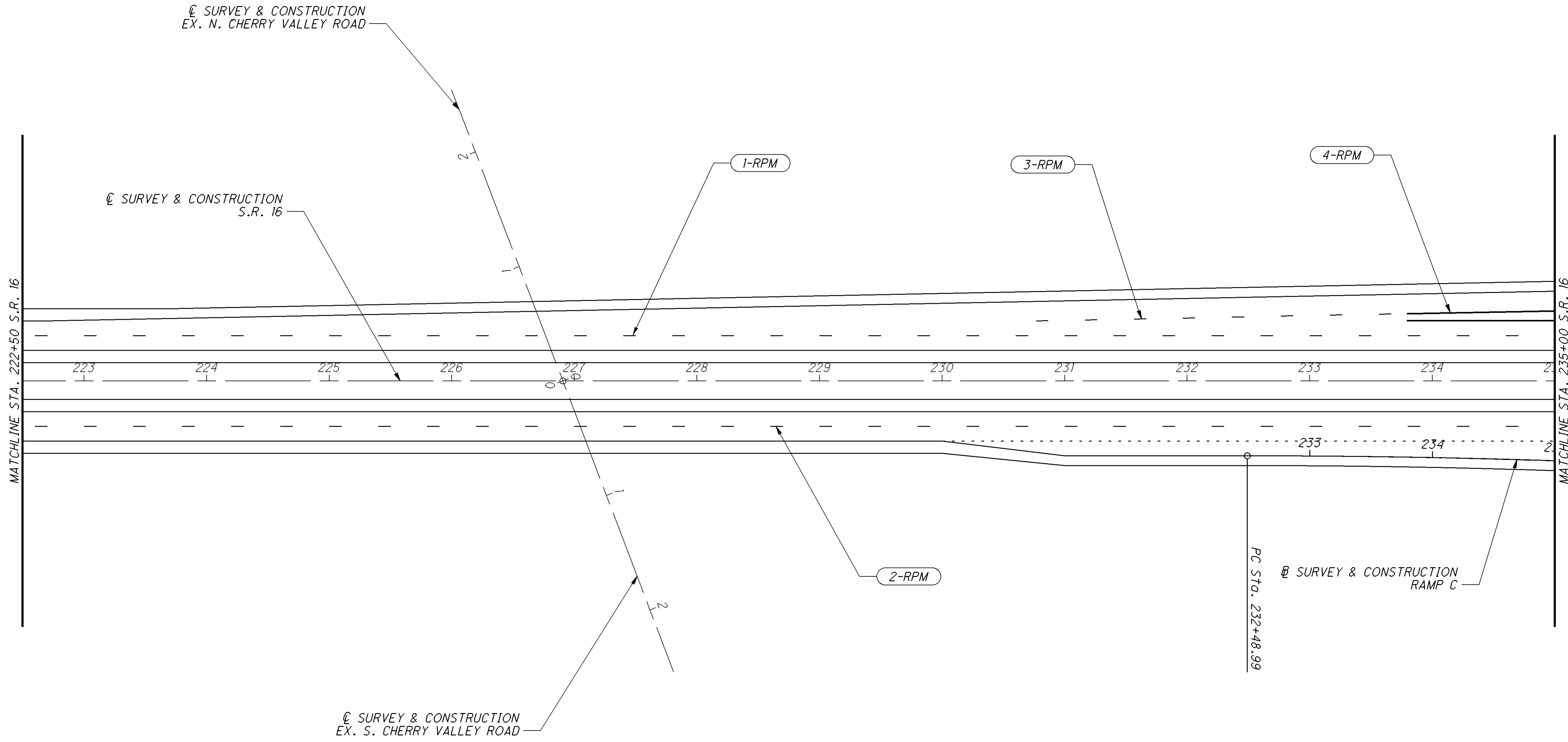


CALCULATED
BRH
CHECKED

0 50 100
25
HORIZONTAL
SCALE IN FEET

**S.R. 16 PROPOSED RPM'S
STA. 180+15.00 TO STA. 222+50**

LIC-16-16.64

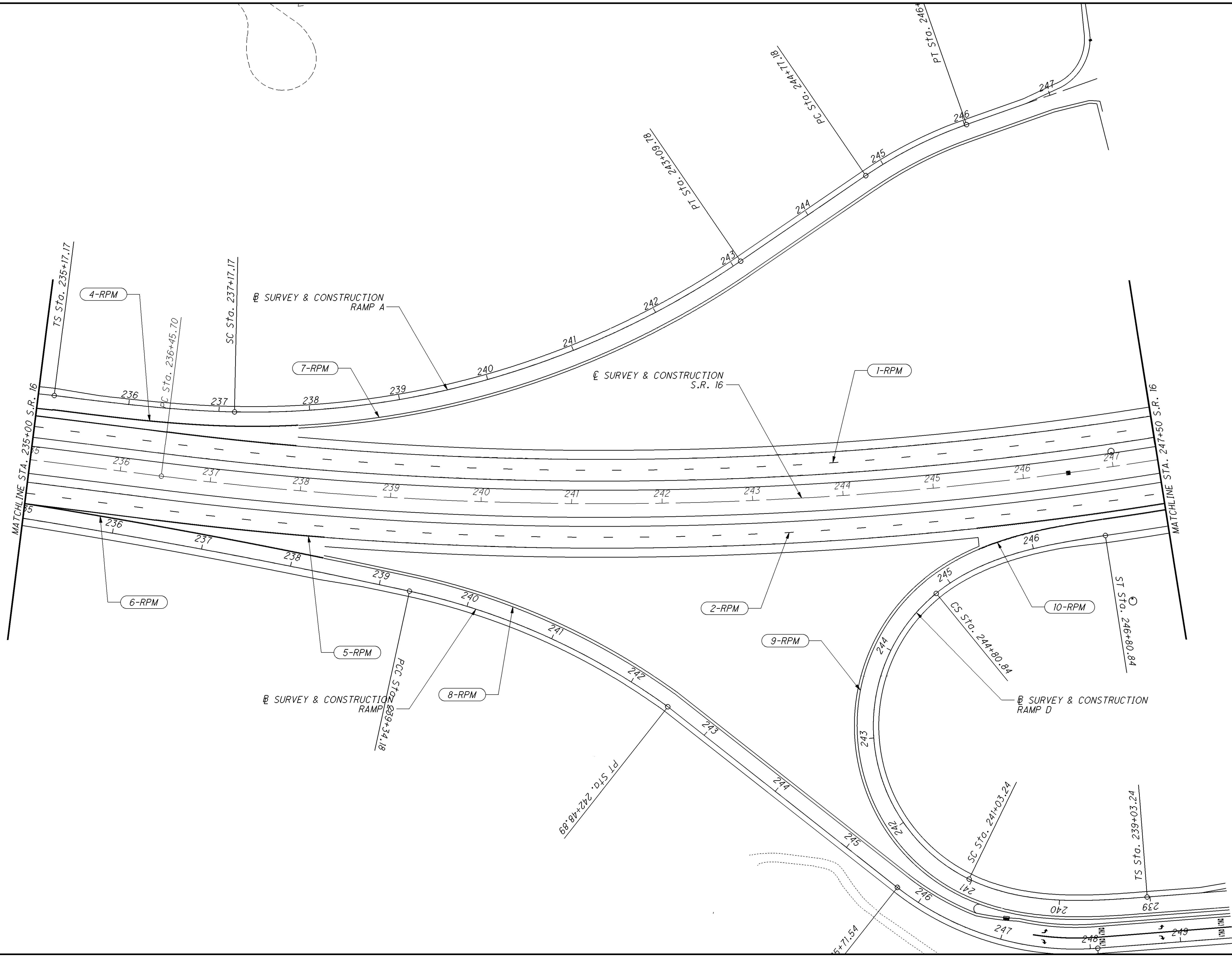


CALCULATED
 BRH
 CHECKED

0 50 100
 HORIZONTAL
 SCALE IN FEET

S.R. 16 PROPOSED RPM'S
STA. 222+50 TO STA. 235+00

LIC-16-16.64

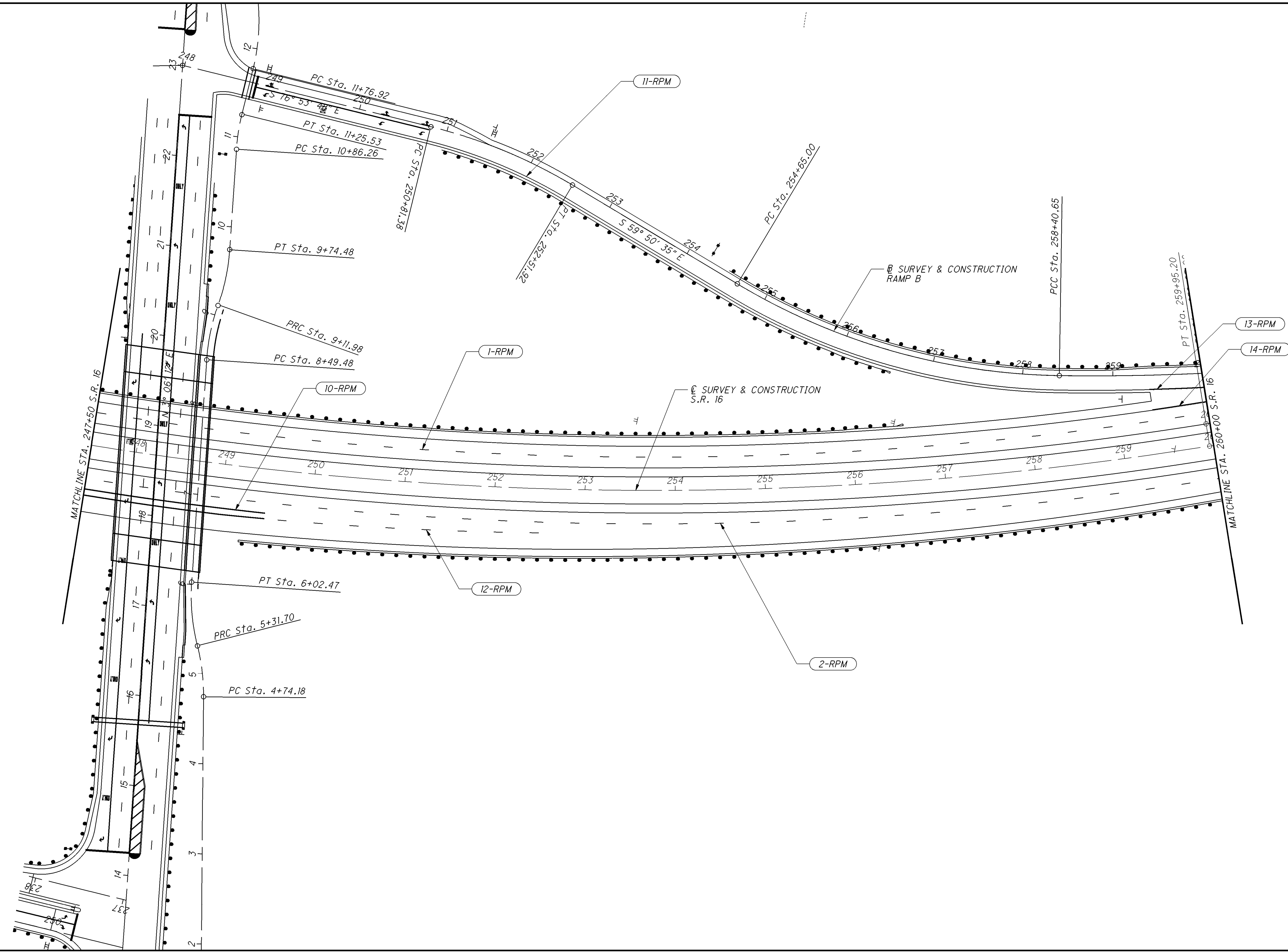


CALCULATED
BRH
CHECKED

0 50 100
HORIZONTAL
SCALE IN FEET

**S.R. 16 PROPOSED RPM'S
STA. 235+00 TO STA. 247+50**

LIC-16-16.64

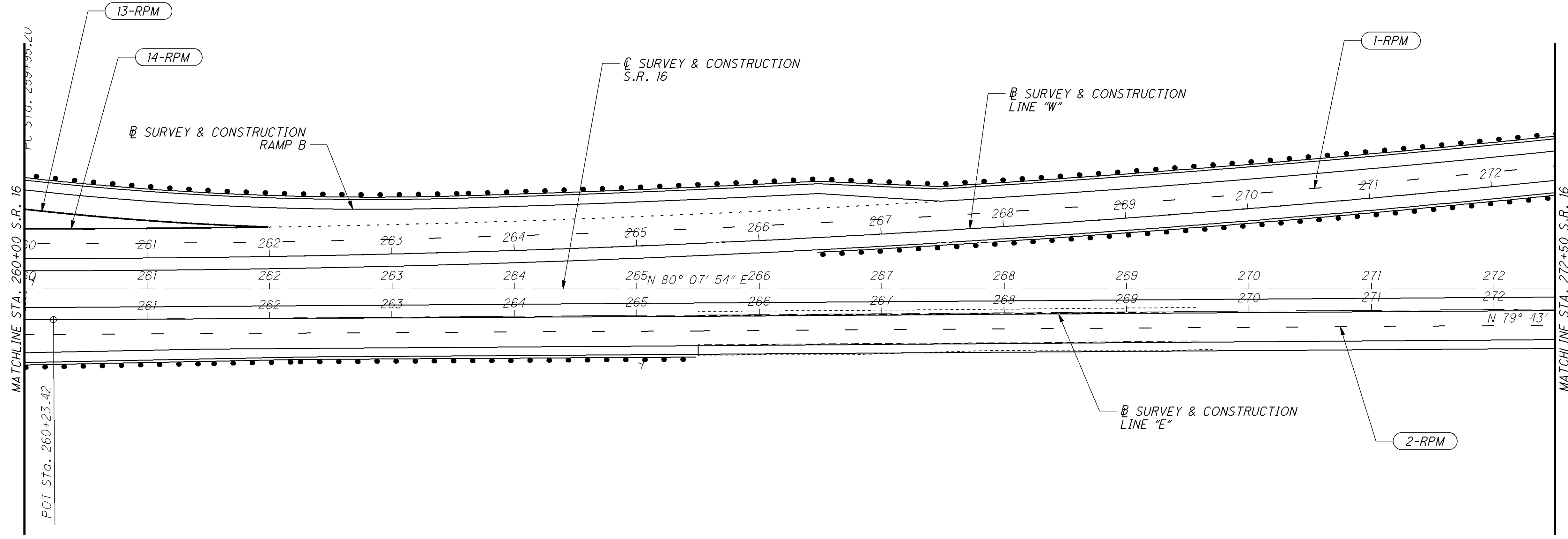


CALCULATED
BRH
CHECKED

0 50 100
HORIZONTAL
SCALE IN FEET

**S.R. 16 PROPOSED RPM'S
STA. 247+50 TO STA. 260+00**

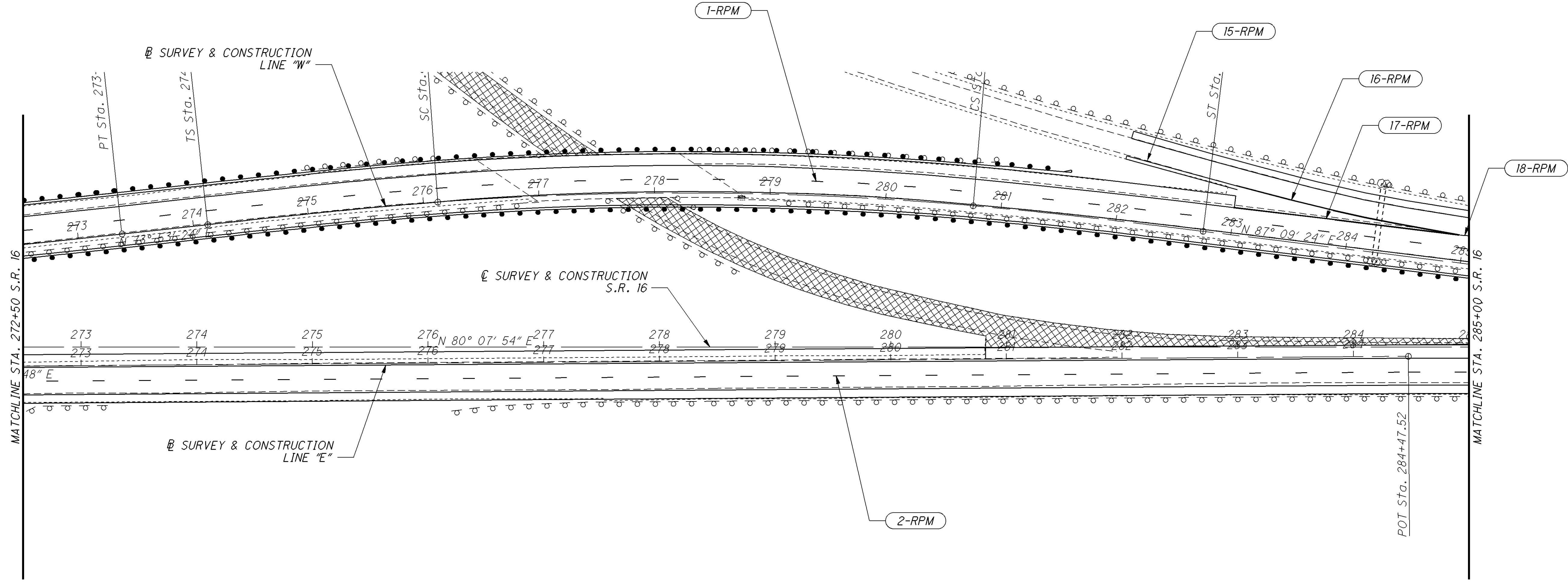
LIC-16-16.64



**S.R. 16 PROPOSED RPM'S
STA. 260+00 TO STA. 272+50**

LIC-16-16.64

518
729

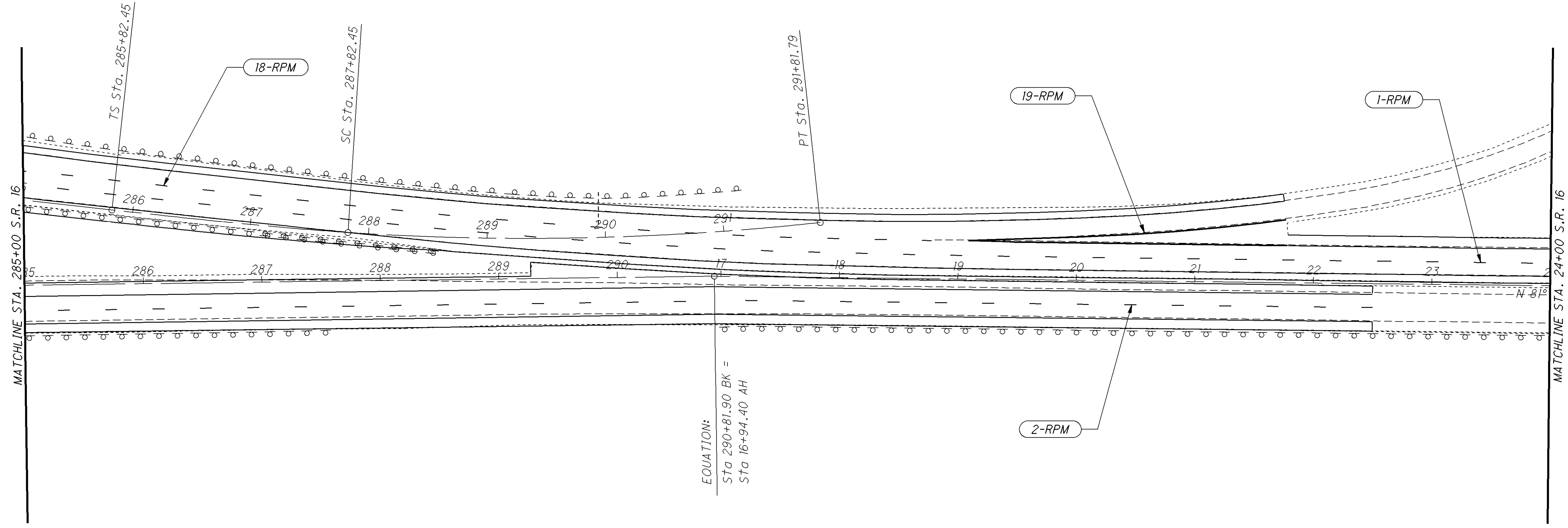


CALCULATED
BRH
CHECKED

0 50 100
HORIZONTAL
SCALE IN FEET

**S.R. 16 PROPOSED RPM'S
STA. 272+50 TO STA. 285+00**

LIC-16-16.64



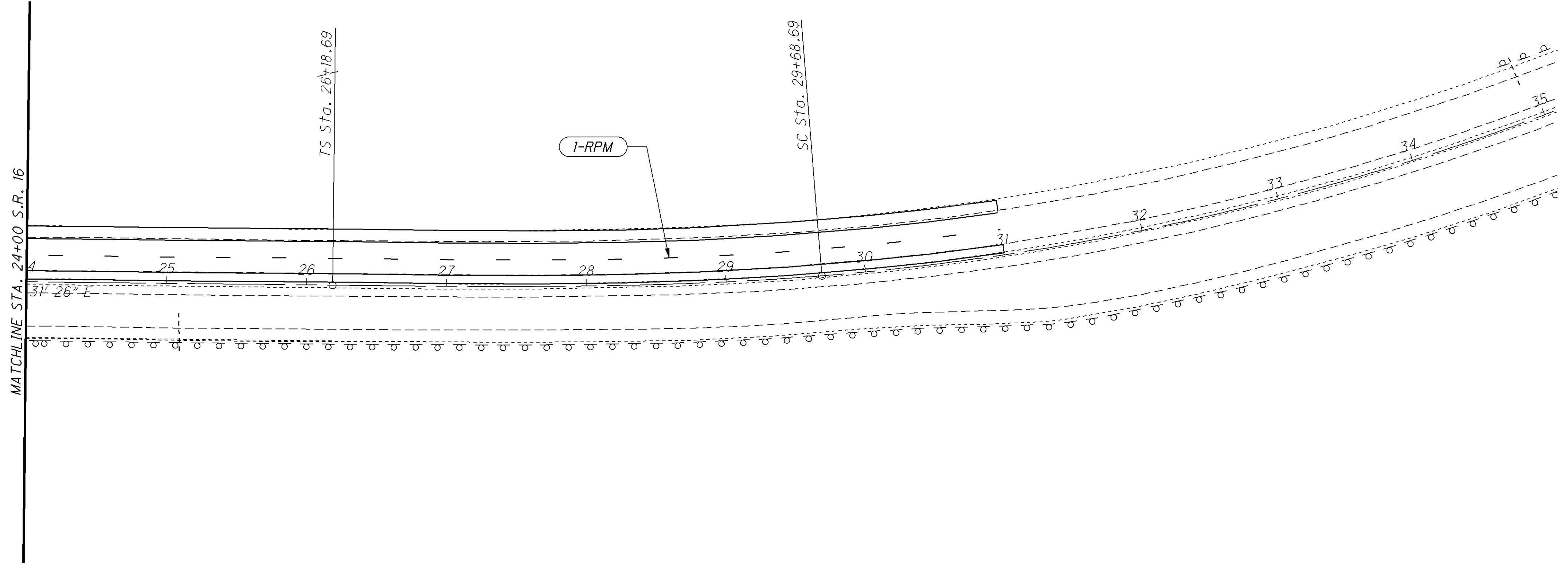
EQUATION:
 Sta 290+81.90 BK =
 Sta 16+94.40 AH

CALCULATED
 BRH
 CHECKED

0 50 100
 HORIZONTAL
 SCALE IN FEET

**S.R. 16 PROPOSED RPM'S
 STA. 285+00 TO STA. 24+00**

LIC-16-16.64



P:\LIC\80704\Design\Roadway\Plan_Sheets\Signs\Existing_Signs\80704_ESS_001.dgn 28-FEB-2015 8:34AM bharlow

SHEET NO.	REFERENCE NO.	LOCATION	STATION	SIDE	COMMENTS	630																
						REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION	REMOVAL OF GROUND MOUNTED MAJOR SIGN AND DISPOSAL	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	REMOVAL OF GROUND MOUNTED STRUCTURAL BEAM SUPPORT AND DISPOSAL, AS PER PLAN	REMOVAL OF GROUND MOUNTED PIPE SUPPORT AND DISPOSAL	REMOVAL OF OVERHEAD MOUNTED SIGN AND REERECTION	REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL	REMOVAL OF POLE MOUNTED SIGN AND DISPOSAL	REMOVAL OF OVERHEAD SIGN SUPPORT AND DISPOSAL, TYPE TC-7.65, AS PER PLAN							
						EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH							
527	ES-1	S.R. 16	174+90	MEDIAN		1			2													
527	ES-2	S.R. 16	174+90	MEDIAN		1																
527	ES-3	S.R. 16	174+90	RT		1			2													
527	ES-4	S.R. 16	174+90	RT		1																
527	ES-5	S.R. 16	179+64	MEDIAN	REMAIN IN PLACE																	
527	ES-6	S.R. 16	179+64	MEDIAN	REMAIN IN PLACE																	
527	ES-7	S.R. 16	179+94	MEDIAN	REMAIN IN PLACE																	
527	ES-8	S.R. 16	179+94	MEDIAN	REMAIN IN PLACE																	
527	ES-9	S.R. 16	181+60	MEDIAN	REMAIN IN PLACE																	
527	ES-10	S.R. 16	181+88	RT	REMAIN IN PLACE																	
527	ES-11	S.R. 16	183+05	LT	REMAIN IN PLACE																	
527	ES-12	S.R. 16	183+35	MEDIAN	REMAIN IN PLACE																	
527	ES-13	S.R. 16	185+39	LT	REMAIN IN PLACE																	
527	ES-14	S.R. 16	185+39	LT	REMAIN IN PLACE																	
527	ES-15	S.R. 16	185+39	RT	REMAIN IN PLACE																	
527	ES-16	S.R. 16	185+45	RT		1			2													
527	ES-17	S.R. 16	185+46	MEDIAN		1			2													
527	ES-18	S.R. 16	188+42	MEDIAN	REMAIN IN PLACE																	
527	ES-19	S.R. 16	188+45	LT	REMAIN IN PLACE																	
528	ES-20	S.R. 16	200+42	RT				1		2												
528	ES-21	S.R. 16	201+52	RT	REMAIN IN PLACE																	
528	ES-22	S.R. 16	201+52	RT	REMAIN IN PLACE																	
528	ES-23	S.R. 16	201+52	RT	REMAIN IN PLACE																	
529	ES-24	S.R. 16	208+50	RT		1			2													
529	ES-25	S.R. 16	214+06	LT	REMAIN IN PLACE																	
529	ES-26	S.R. 16	214+32	RT		1			2													
530	ES-27	S.R. 16	218+29	LT		1			1													
530	ES-28	S.R. 16	218+85	LT	REMAIN IN PLACE																	
530	ES-29	S.R. 16	219+21	MEDIAN		1																
530	ES-30	S.R. 16	219+23	RT		1																
530	ES-31	S.R. 16	220+53	LT		1			1													
530	ES-32	S.R. 16	221+29	MEDIAN		1			2													
530	ES-33	S.R. 16	221+30	RT		1			2													
530	ES-34	S.R. 16	222+54	RT		1			1													
530	ES-35	S.R. 16	223+00	LT		1			1													
530	ES-36	S.R. 16	223+40	RT		1			1													
530	ES-37	S.R. 16	223+42	RT				1		2												
530	ES-38	S.R. 16	224+00	LT				1		2												
530	ES-39	S.R. 16	224+00	LT				1														
530	ES-40	S.R. 16	224+43	RT		1			2													
530	ES-41	S.R. 16	224+43	RT		1																
530	ES-42	S.R. 16	224+50	MEDIAN		1			1													
530	ES-43	S.R. 16	225+33	LT		1			1													
530	ES-44	S.R. 16	225+93	LT		1			1													
530	ES-45	S.R. 16	225+93	LT		1																
530	ES-46	S.R. 16	225+93	LT		1																
530	ES-47	S.R. 16	225+98	LT		1			2													
530	ES-48	S.R. 16	226+21	RT		1			2													
530	ES-49	S.R. 16	226+27	MEDIAN		1			1													
530	ES-50	S.R. 16	226+27	MEDIAN		1																
530	ES-51	S.R. 16	226+27	MEDIAN		1																
530	ES-52	S.R. 16	226+31	MEDIAN		1			1													
530	ES-53	S.R. 16	226+31	MEDIAN		1			2													
531	ES-54	S.R. 16	227+53	MEDIAN		1			2													
531	ES-55	S.R. 16	227+57	MEDIAN		1			1													
531	ES-56	S.R. 16	227+57	MEDIAN		1			2													
531	ES-57	S.R. 16	227+59	LT		1			2													
531	ES-58	S.R. 16	227+62	MEDIAN		1			2													
531	ES-59	S.R. 16	227+62	MEDIAN		1																
531	ES-60	S.R. 16	227+62	MEDIAN		1																
TOTALS CARRIED TO SHEET 526						38	2	2	45	4												

CALCULATED
 BRH
 CHECKED
EXISTING SIGNING SUBSUMMARY
LIC-16-16.64
 522
 729

P:\LIC\80704\Design\Roadway\Plan_Sheets\Signs\Existing_Signs\80704_ESS_002.dgn 28-FEB-2015 8:34AM bharlow

SHEET NO.	REFERENCE NO.	LOCATION	STATION	SIDE	COMMENTS	630															
						REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION	REMOVAL OF GROUND MOUNTED MAJOR SIGN AND DISPOSAL	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	REMOVAL OF GROUND MOUNTED STRUCTURAL BEAM SUPPORT AND DISPOSAL, AS PER PLAN	REMOVAL OF GROUND MOUNTED PIPE SUPPORT AND DISPOSAL	REMOVAL OF OVERHEAD MOUNTED SIGN AND REERECTION	REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL	REMOVAL OF POLE MOUNTED SIGN AND DISPOSAL	REMOVAL OF OVERHEAD SIGN SUPPORT AND DISPOSAL, TYPE TC-7.65, AS PER PLAN						
						EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH						
531	ES-61	S.R. 16	228+13	RT		1			2												
531	ES-62	S.R. 16	228+21	RT		1			2												
531	ES-63	S.R. 16	228+21	RT		1															
531	ES-64	S.R. 16	228+21	RT		1															
531	ES-65	S.R. 16	229+05	LT		1			1												
531	ES-66	S.R. 16	229+07	MEDIAN		1			1												
531	ES-67	S.R. 16	230+10	RT			1		2												
531	ES-68	S.R. 16	230+10	RT			1														
531	ES-69	S.R. 16	231+02	MEDIAN		1			2												
531	ES-70	S.R. 16	231+02	LT		1			2												
531	ES-71	S.R. 16	232+40	LT			1		1												
531	ES-72	S.R. 16	232+40	RT			1		1												
531	ES-73	S.R. 16	234+63	LT		1															
531	ES-74	S.R. 16	234+63	LT		1															
531	ES-75	S.R. 16	236+66	RT			1		2												
531	ES-76	S.R. 16	236+66	RT			1														
531	ES-77	S.R. 16	237+00	RT		1			2												
531	ES-78	S.R. 16	237+00	RT		1															
531	ES-79	S.R. 16	237+00	RT			1														
531	ES-80	S.R. 16	237+00	RT		1															
531	ES-81	S.R. 16	237+00	RT			1														
531	ES-82	S.R. 16	237+00	RT				1		2											
531	ES-83	S.R. 16	240+00	RT			1		2												
532	ES-84	S.R. 16	241+00	RT			1		2												
532	ES-85	S.R. 16	243+22	RT			1		2												
532	ES-86	S.R. 16	243+22	RT			1														
532	ES-87	S.R. 16	243+22	RT			1														
532	ES-88	S.R. 16	245+07	LT		1			2												
533	ES-89	S.R. 16	253+57	LT				1		2											
533	ES-90	S.R. 16	256+48	LT			1		2												
533	ES-91	S.R. 16	259+57	MEDIAN		1			1												
533	ES-92	S.R. 16	259+57	MEDIAN		1															
533	ES-93	S.R. 16	259+68	LT		1			2												
533	ES-94	S.R. 16	260+07	MEDIAN		1			1												
533	ES-95	S.R. 16	260+07	MEDIAN		1															
534	ES-96	S.R. 16	265+05	RT			1		2												
534	ES-97	S.R. 16	272+99	RT	REMAIN IN PLACE																
534	ES-98	S.R. 16	276+01	LT		1			1												
534	ES-99	S.R. 16	276+01	LT		1															
534	ES-100	S.R. 16	276+01	LT		1															
535	ES-101	S.R. 16	277+38	RT		1			2												
535	ES-102	S.R. 16	277+38	RT		1															
535	ES-103	S.R. 16	277+76	LT		1			1												
535	ES-104	S.R. 16	278+16	RT																1	
535	ES-105	S.R. 16	278+16	RT																1	
535	ES-106	S.R. 16	278+62	LT		1			1												
535	ES-107	S.R. 16	279+77	LT			1		1												
535	ES-108	S.R. 16	279+77	LT			1														
535	ES-109	S.R. 16	280+67	RT		1			2												
535	ES-110	S.R. 16	282+00	LT		1					1										
535	ES-111	S.R. 16	284+18	LT																1	
535	ES-112	S.R. 16	284+23	LT																1	
535	ES-113	S.R. 16	284+23	LT																	
536	ES-114	S.R. 16	285+30	RT	REMAIN IN PLACE																
536	ES-115	S.R. 16	289+85	LT	REMAIN IN PLACE																
536	ES-116	S.R. 16	289+85	LT	REMAIN IN PLACE																
536	ES-117	S.R. 16	17+10	LT	REMAIN IN PLACE																
536	ES-118	S.R. 16	17+30	RT	REMAIN IN PLACE																
536	ES-119	S.R. 16	24+04	LT	REMAIN IN PLACE																
536	ES-120	S.R. 16	25+10	RT	REMAIN IN PLACE																
TOTALS CARRIED TO SHEET 526						28	17	2	42	4	1	2	1	2	1						

CALCULATED BY BRH CHECKED BY
EXISTING SIGNING SUBSUMMARY
LIC-16-16.64
 523
 729

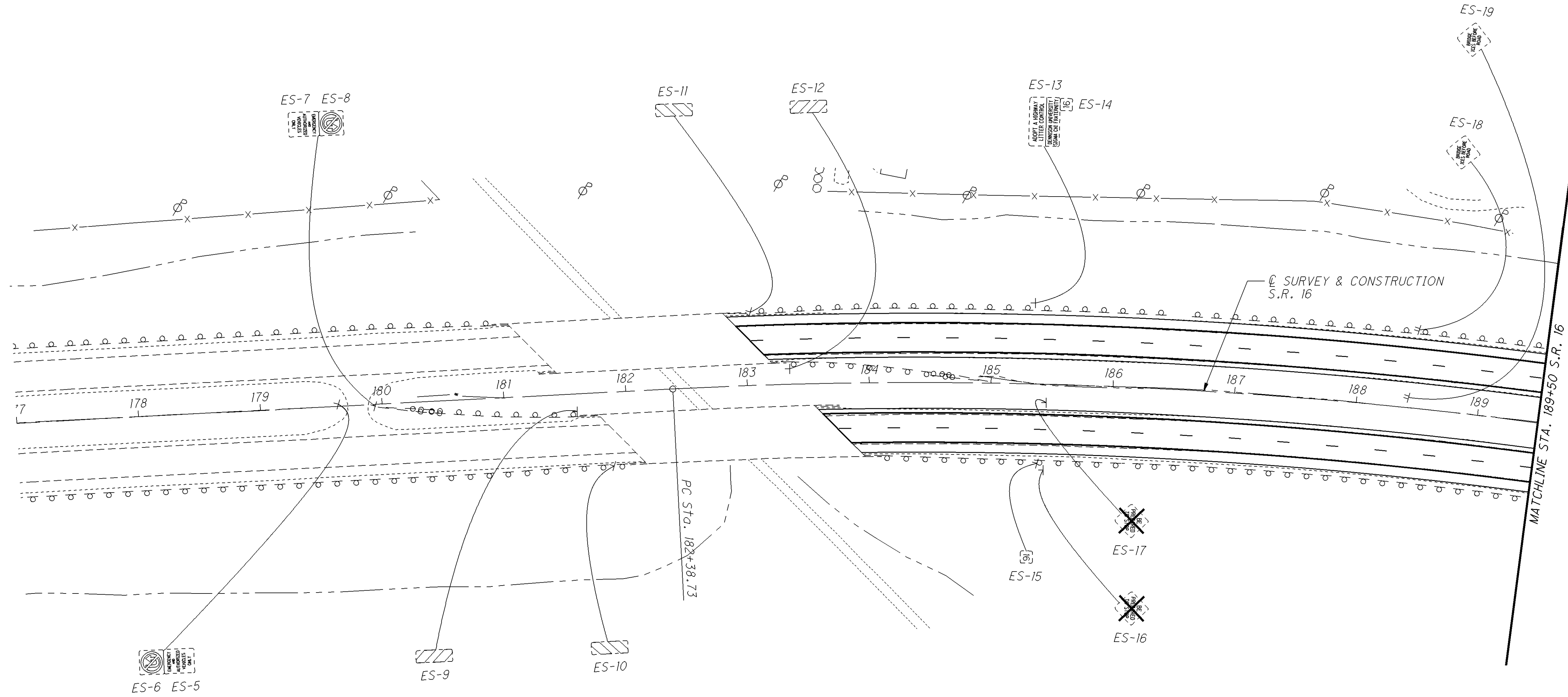
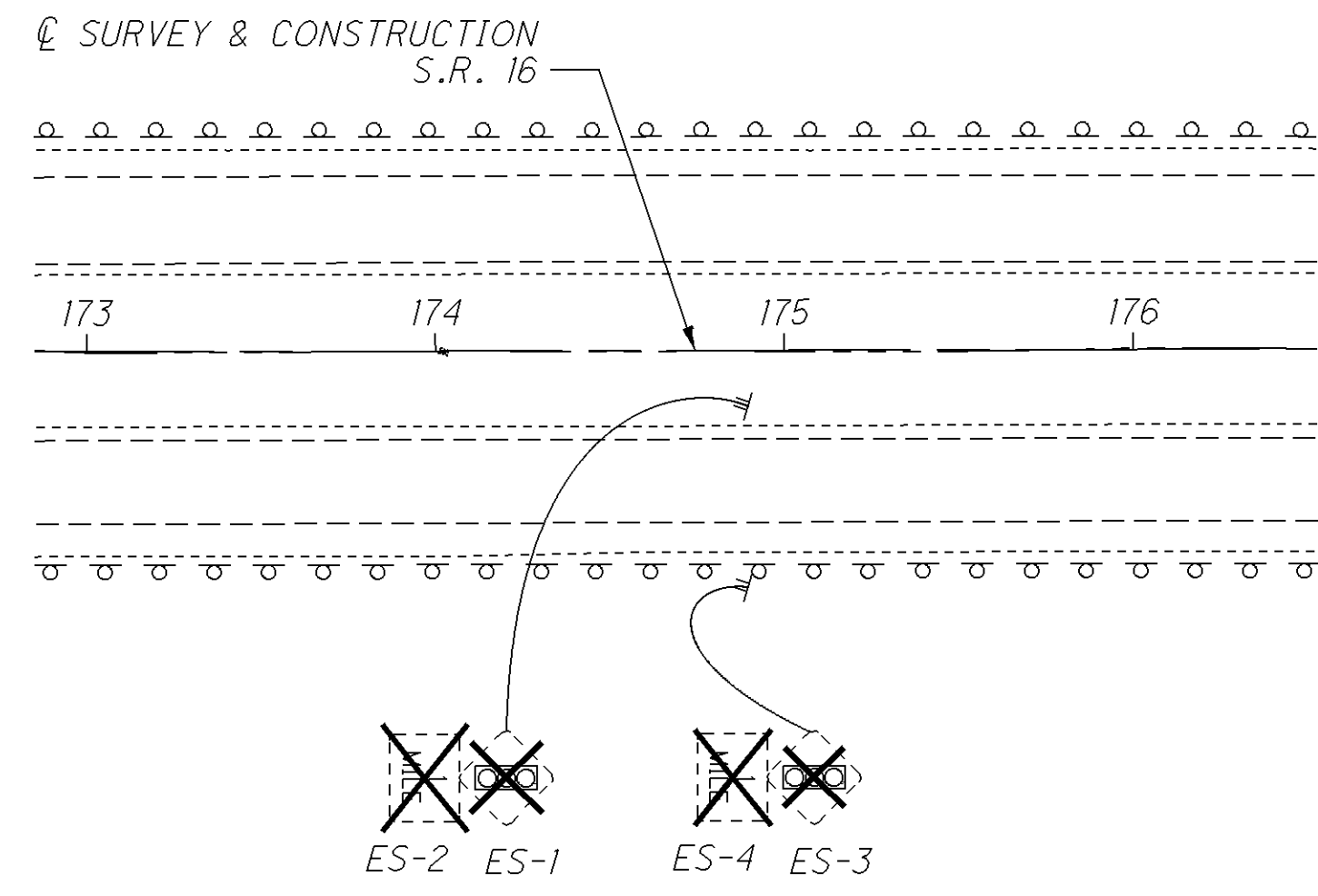
SHEET NO.	REFERENCE NO.	LOCATION	STATION	SIDE	COMMENTS	630											CALCULATED BRH CHECKED						
						REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION	REMOVAL OF GROUND MOUNTED MAJOR SIGN AND DISPOSAL	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	REMOVAL OF GROUND MOUNTED STRUCTURAL BEAM SUPPORT AND DISPOSAL, AS PER PLAN	REMOVAL OF GROUND MOUNTED PIPE SUPPORT AND DISPOSAL	REMOVAL OF OVERHEAD MOUNTED SIGN AND REERECTION	REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL	REMOVAL OF POLE MOUNTED SIGN AND DISPOSAL	REMOVAL OF OVERHEAD SIGN SUPPORT AND DISPOSAL, TYPE TC-7.65, AS PER PLAN								
542	ES-241	EX. S. CHERRY VALLEY RD.	8+54	LT		1			1														
542	ES-242	EX. S. CHERRY VALLEY RD.	9+35	LT	REMAIN IN PLACE																		
542	ES-243	EX. S. CHERRY VALLEY RD.	9+35	LT	REMAIN IN PLACE																		
542	ES-244	EX. S. CHERRY VALLEY RD.	9+85	RT	REMAIN IN PLACE																		
542	ES-245	EX. S. CHERRY VALLEY RD.	10+46	LT		1			1														
542	ES-246	EX. S. CHERRY VALLEY RD.	10+46	LT		1																	
542	ES-247	EX. S. CHERRY VALLEY RD.	10+46	LT	REMAIN IN PLACE																		
543	ES-248	EX. S. CHERRY VALLEY RD.	18+65	LT	REMAIN IN PLACE																		
543	ES-249	EX. S. CHERRY VALLEY RD.	18+65	LT	REMAIN IN PLACE																		
543	ES-250	EX. S. CHERRY VALLEY RD.	19+22	LT	REMAIN IN PLACE																		
543	ES-251	EX. S. CHERRY VALLEY RD.	20+38	RT	REMAIN IN PLACE																		
543	ES-252	EX. S. CHERRY VALLEY RD.	20+38	RT	REMAIN IN PLACE																		
544	ES-253	EX. S. CHERRY VALLEY RD.	31+89	RT		1			1														
544	ES-254	EX. S. CHERRY VALLEY RD.	31+89	RT		1																	
544	ES-255	EX. S. CHERRY VALLEY RD.	34+67	LT	REMAIN IN PLACE																		
544	ES-256	EX. S. CHERRY VALLEY RD.	34+67	RT	REMAIN IN PLACE																		
544	ES-257	EX. S. CHERRY VALLEY RD.	36+01	RT	REMAIN IN PLACE																		
544	ES-258	EX. S. CHERRY VALLEY RD.	36+01	LT	REMAIN IN PLACE																		
544	ES-259	EX. S. CHERRY VALLEY RD.	36+10	LT	REMAIN IN PLACE																		
544	ES-260	EX. S. CHERRY VALLEY RD.	36+27	LT	REMAIN IN PLACE																		
544	ES-261	EX. S. CHERRY VALLEY RD.	36+62	RT	REMAIN IN PLACE																		
544	ES-262	EX. S. CHERRY VALLEY RD.	37+51	RT	REMAIN IN PLACE																		
544	ES-263	EX. S. CHERRY VALLEY RD.	37+88	RT	REMAIN IN PLACE																		
TOTALS CARRIED TO SHEET 526						5			3														
TOTALS FROM SHEET 522						38	2	2	45	4													
TOTALS FROM SHEET 523						28	17	2	42	4	1	2	1	2	1								
TOTAL (PLAN SPLIT 01/NHS/PV) (FOR INFORMATION PURPOSES ONLY)						66	19	4	87	8	1	2	1	2	1								
TOTALS FROM SHEET 524						12	7		14														
TOTALS FROM SHEET 525						19			21														
TOTALS FROM SHEET 526						5			3														
TOTAL (PLAN SPLIT 02/S<2/PV) (FOR INFORMATION PURPOSES ONLY)						36	7		38														
TOTALS CARRIED TO GENERAL SUMMARY						102	26	4	125	8	1	2	1	2	1								

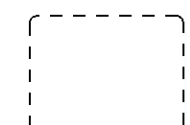


EXISTING SIGNING SUBSUMMARY

LIC-16-16.64

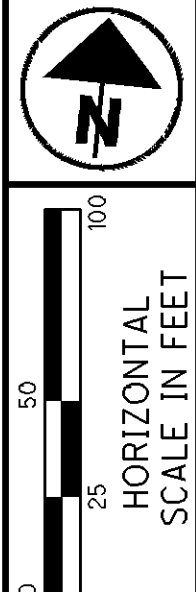
526
729

P:\LIC\80704\Design\Roadway\Plan_Sheets\Signs\Existing_Signs\80704_ESS_005.dgn 28-FEB-2015 8:34AM bharlow



-  - EXISTING SIGN TO REMAIN IN PLACE
-  - EXISTING SIGN TO BE REMOVED
-  - EXISTING SIGN TO BE REERECTED


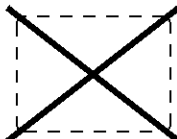
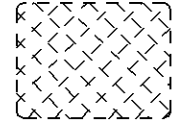
CALCULATED
BRH
CHECKED

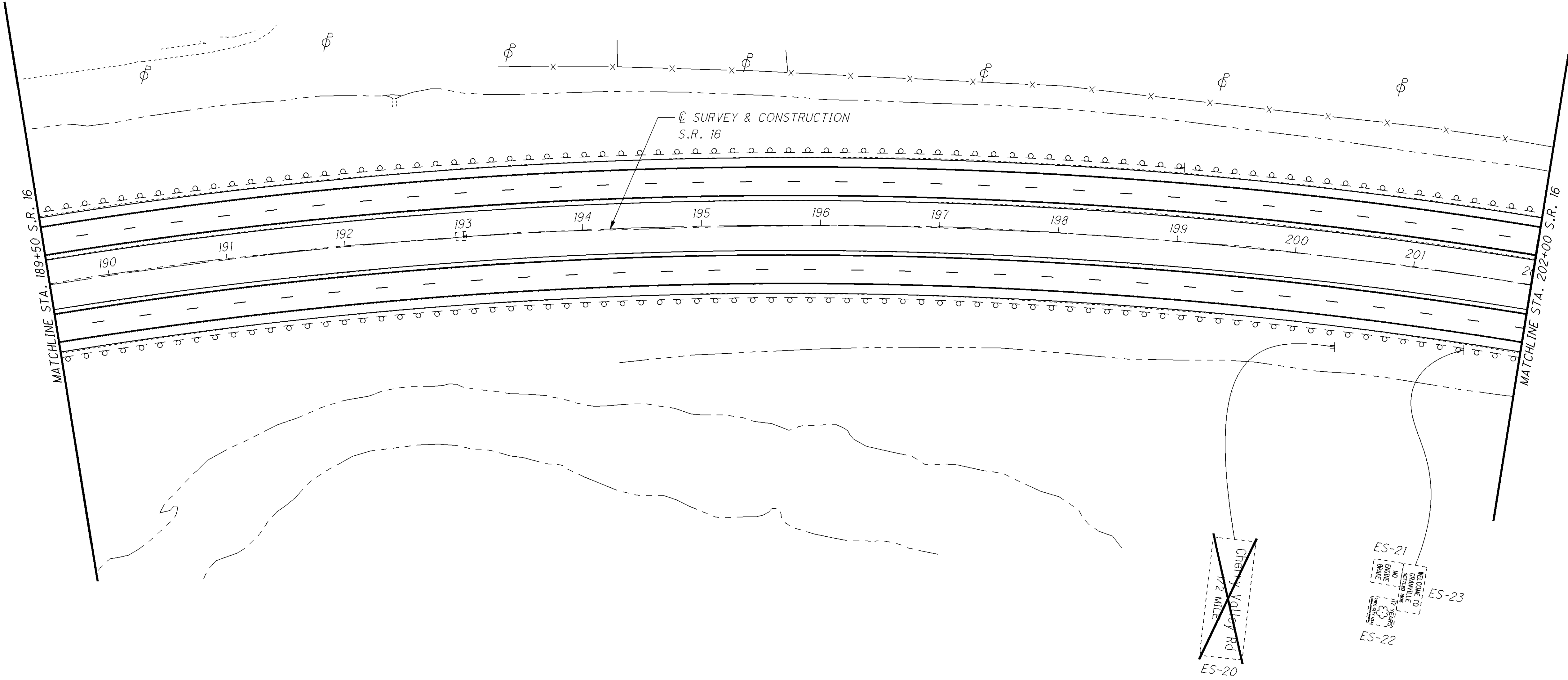


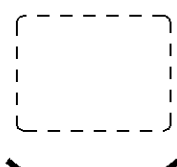
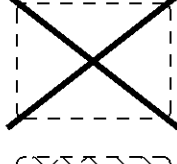
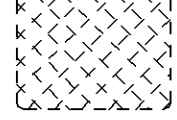
0 25 50 100
HORIZONTAL
SCALE IN FEET

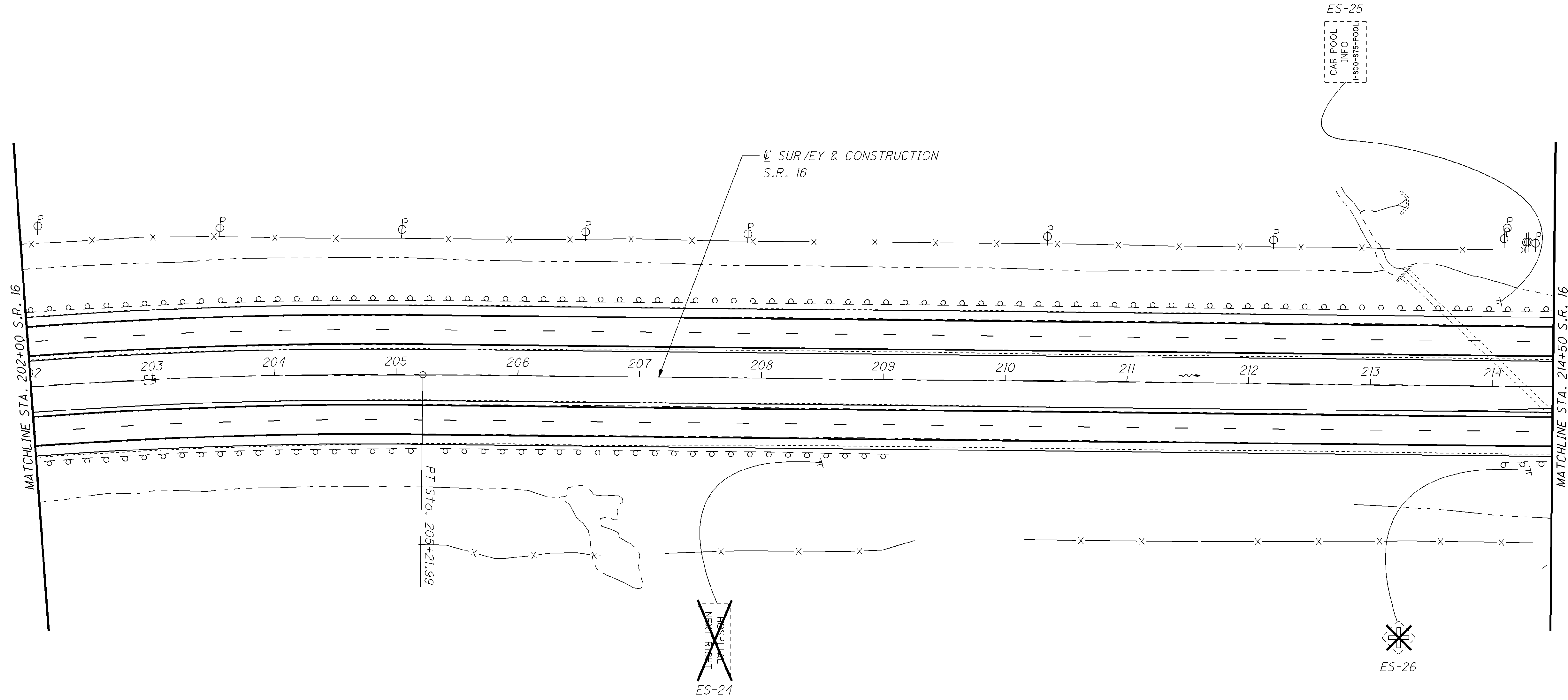
**EXISTING SIGNS - S.R. 16
STA. 177+00 TO STA. 189+50**

LIC-16-16.64

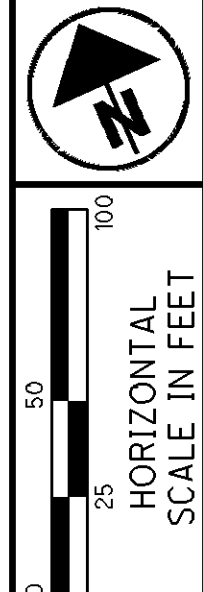
-  - EXISTING SIGN TO REMAIN IN PLACE
-  - EXISTING SIGN TO BE REMOVED
-  - EXISTING SIGN TO BE REERECTED



-  - EXISTING SIGN TO REMAIN IN PLACE
-  - EXISTING SIGN TO BE REMOVED
-  - EXISTING SIGN TO BE REERECTED




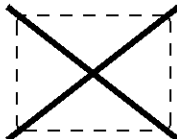
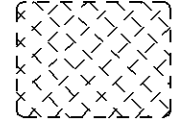
CALCULATED
BRH
CHECKED

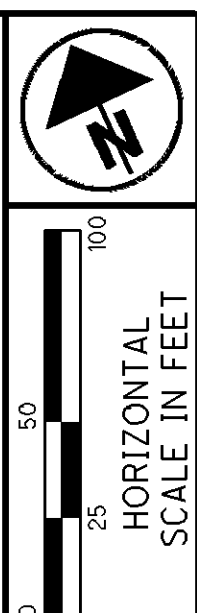
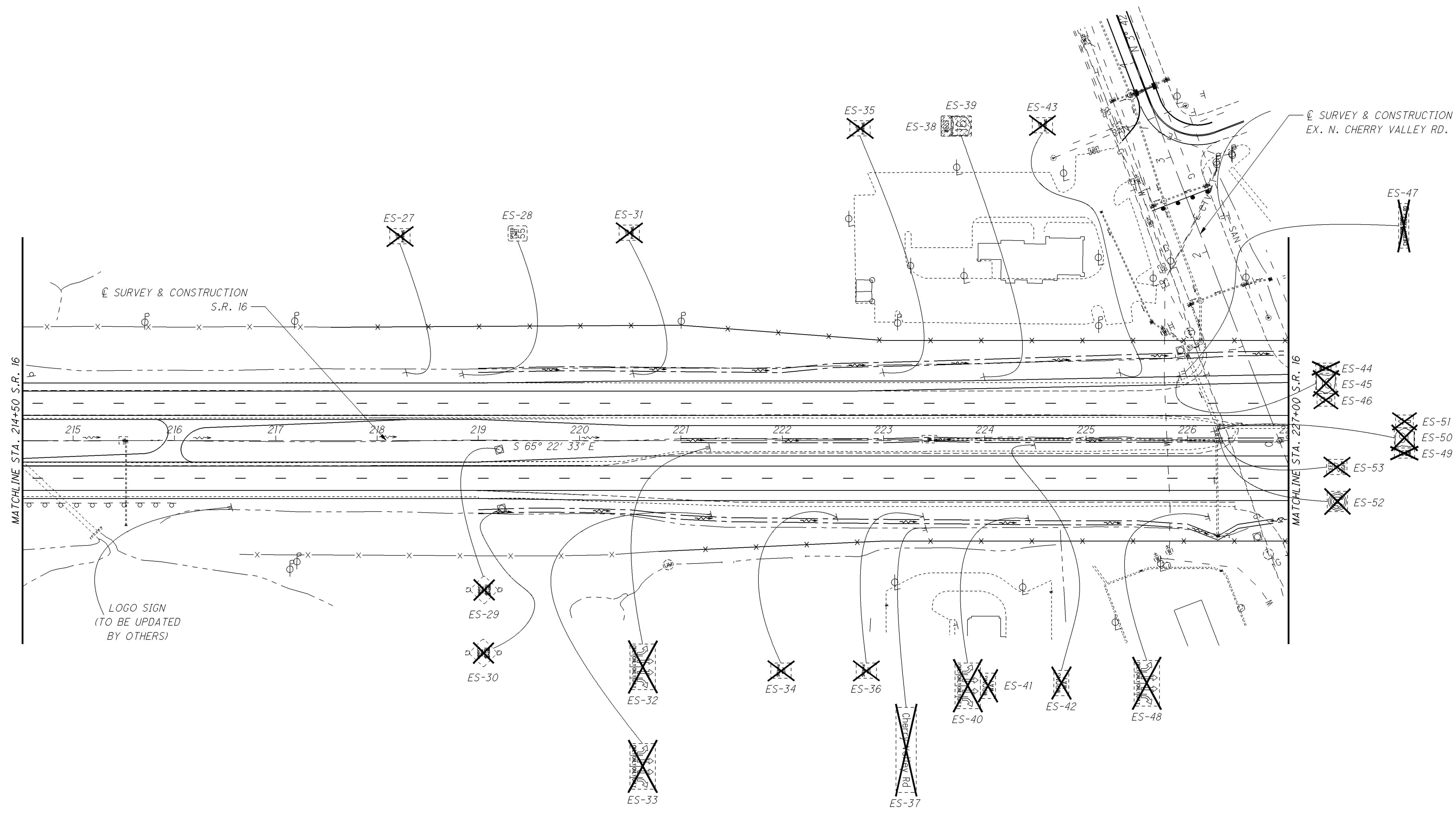


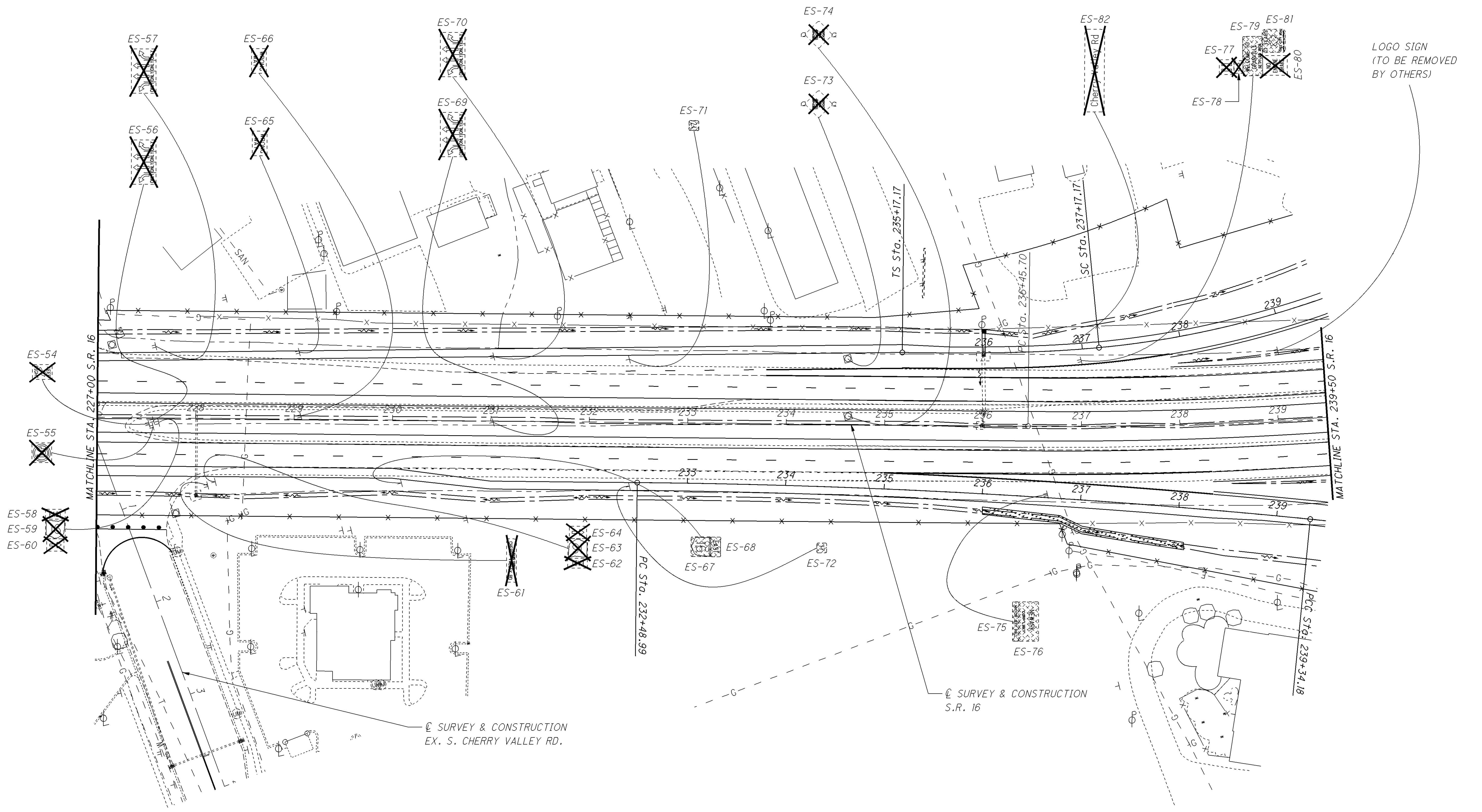
0 25 50 100
HORIZONTAL
SCALE IN FEET

**EXISTING SIGNS - S.R. 16
STA. 202+00 TO STA. 214+50**

LIC-16-16.64

-  - EXISTING SIGN TO REMAIN IN PLACE
-  - EXISTING SIGN TO BE REMOVED
-  - EXISTING SIGN TO BE REERECTED



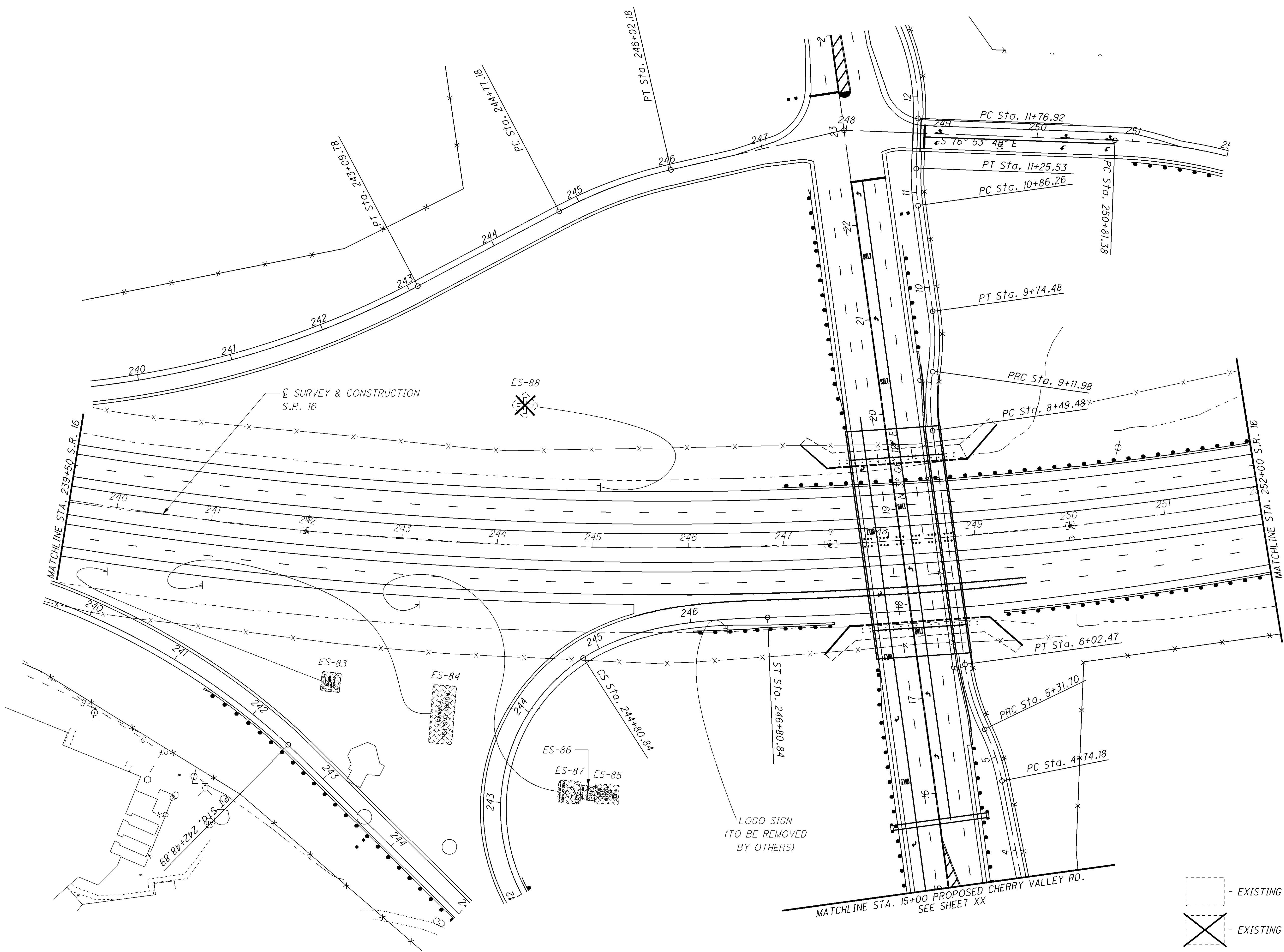


LOGO SIGN
(TO BE REMOVED
BY OTHERS)

☒ SURVEY & CONSTRUCTION
EX. S. CHERRY VALLEY RD.

☒ SURVEY & CONSTRUCTION
S.R. 16

- ☒ - EXISTING SIGN TO REMAIN IN PLACE
- ✕ - EXISTING SIGN TO BE REMOVED
- ▨ - EXISTING SIGN TO BE REERECTED






CALCULATED
BRH
CHECKED


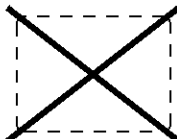
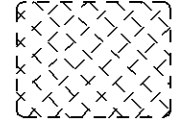
0 25 50 100
HORIZONTAL
SCALE IN FEET

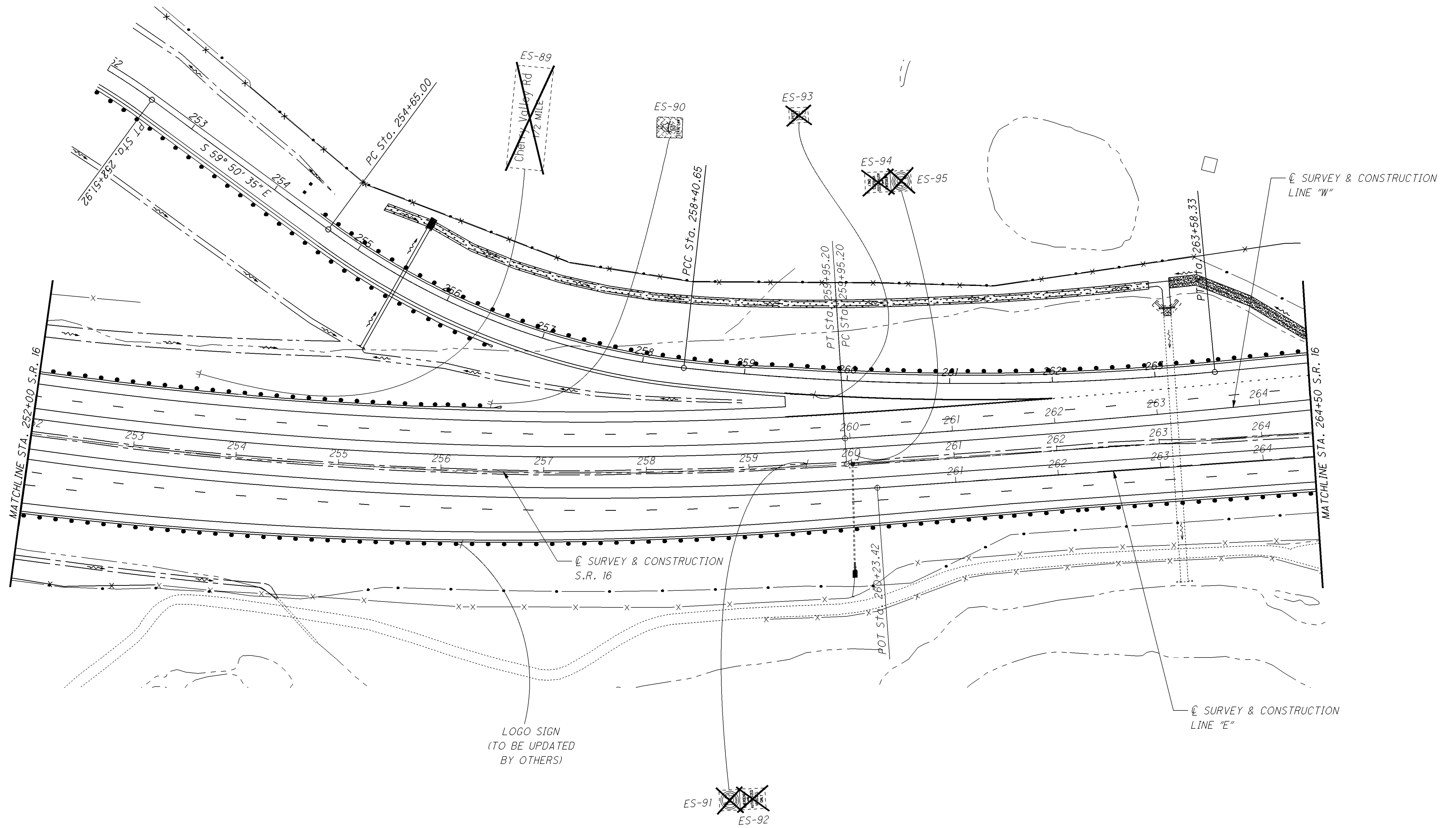
532
729

EXISTING SIGNS - S.R. 16
STA. 239+50 TO STA. 252+00



LIC-16-16.64

-  - EXISTING SIGN TO REMAIN IN PLACE
-  - EXISTING SIGN TO BE REMOVED
-  - EXISTING SIGN TO BE REERECTED

-  - EXISTING SIGN TO REMAIN IN PLACE
-  - EXISTING SIGN TO BE REMOVED
-  - EXISTING SIGN TO BE REERECTED



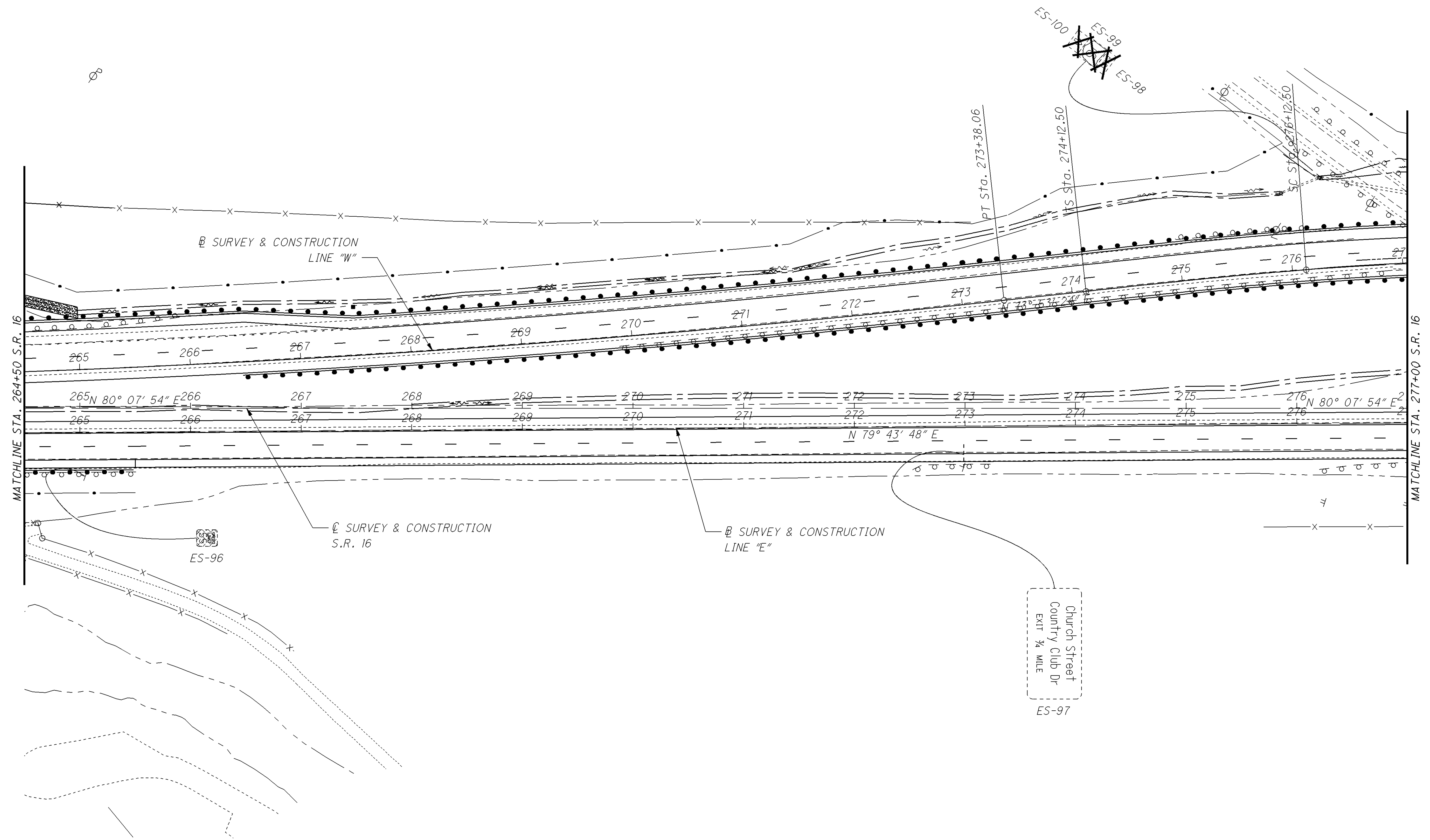
CALCULATED
BRH
CHECKED







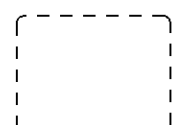
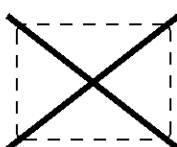
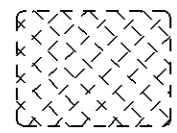
HORIZONTAL
SCALE IN FEET

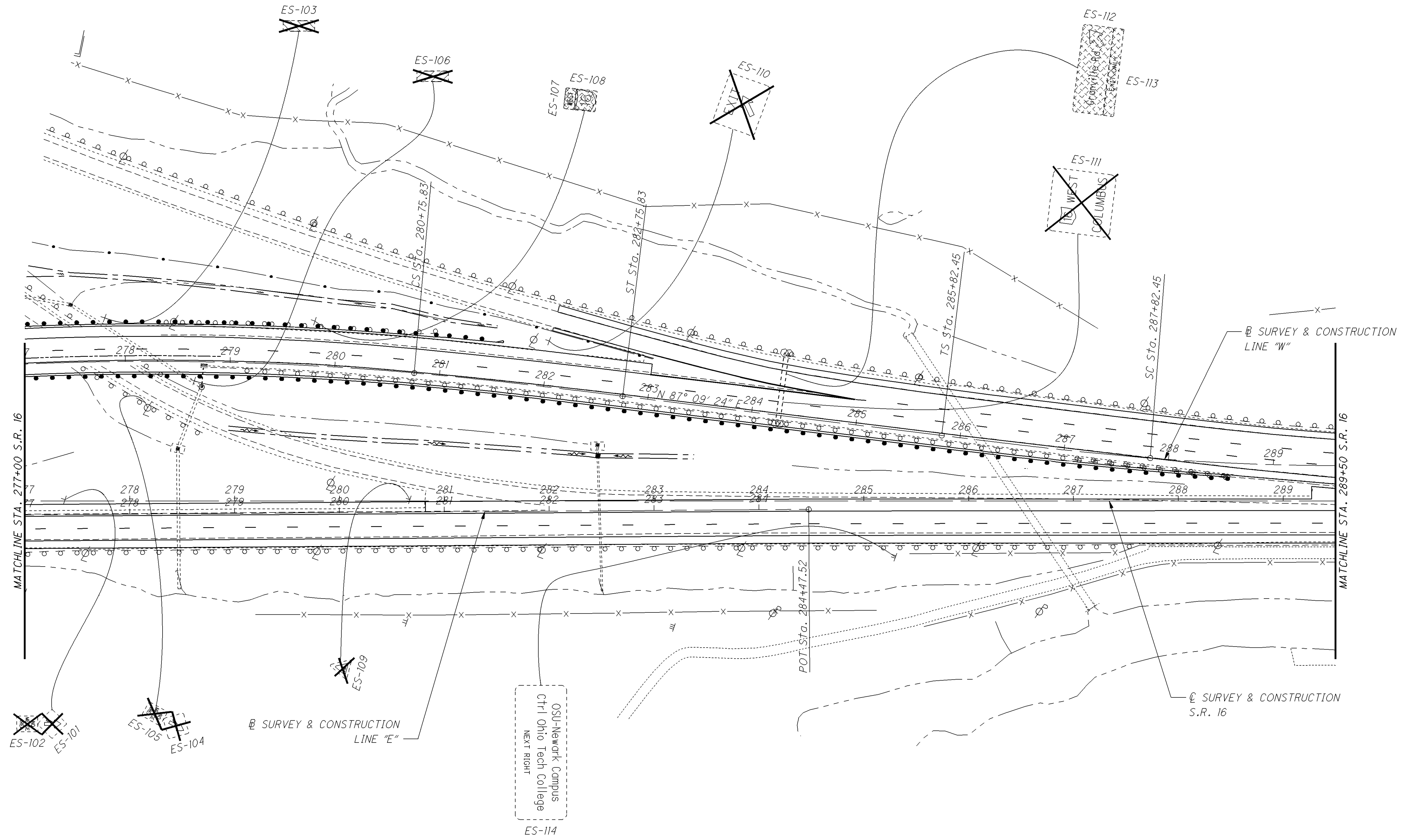
EXISTING SIGNS - S.R. 16
STA. 252+00 TO STA. 264+00

LIC-16-16.64




-  - EXISTING SIGN TO REMAIN IN PLACE
-  - EXISTING SIGN TO BE REMOVED
-  - EXISTING SIGN TO BE REERECTED

-  - EXISTING SIGN TO REMAIN IN PLACE
-  - EXISTING SIGN TO BE REMOVED
-  - EXISTING SIGN TO BE REERECTED




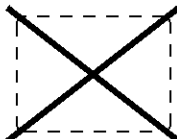
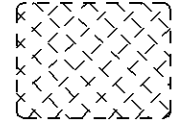
CALCULATED
BRH
CHECKED

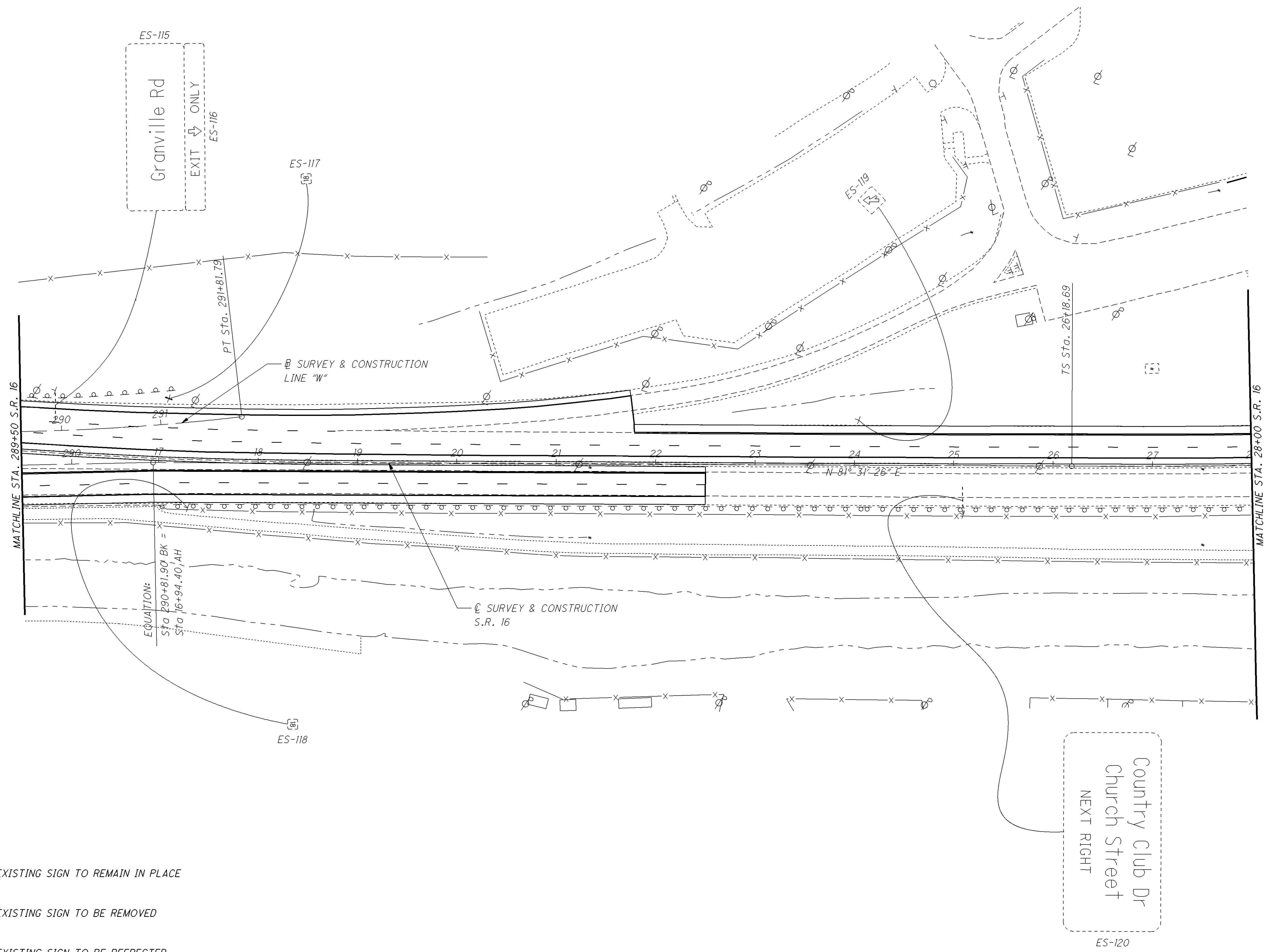
0 25 50 100
HORIZONTAL
SCALE IN FEET





**EXISTING SIGNS - S.R. 16
STA. 277+00 TO STA. 289+50**

LIC-16-16.64

-  - EXISTING SIGN TO REMAIN IN PLACE
-  - EXISTING SIGN TO BE REMOVED
-  - EXISTING SIGN TO BE REERECTED



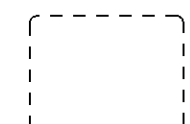


CALCULATED
BRH
CHECKED

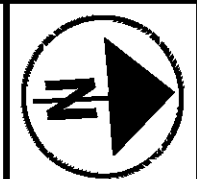
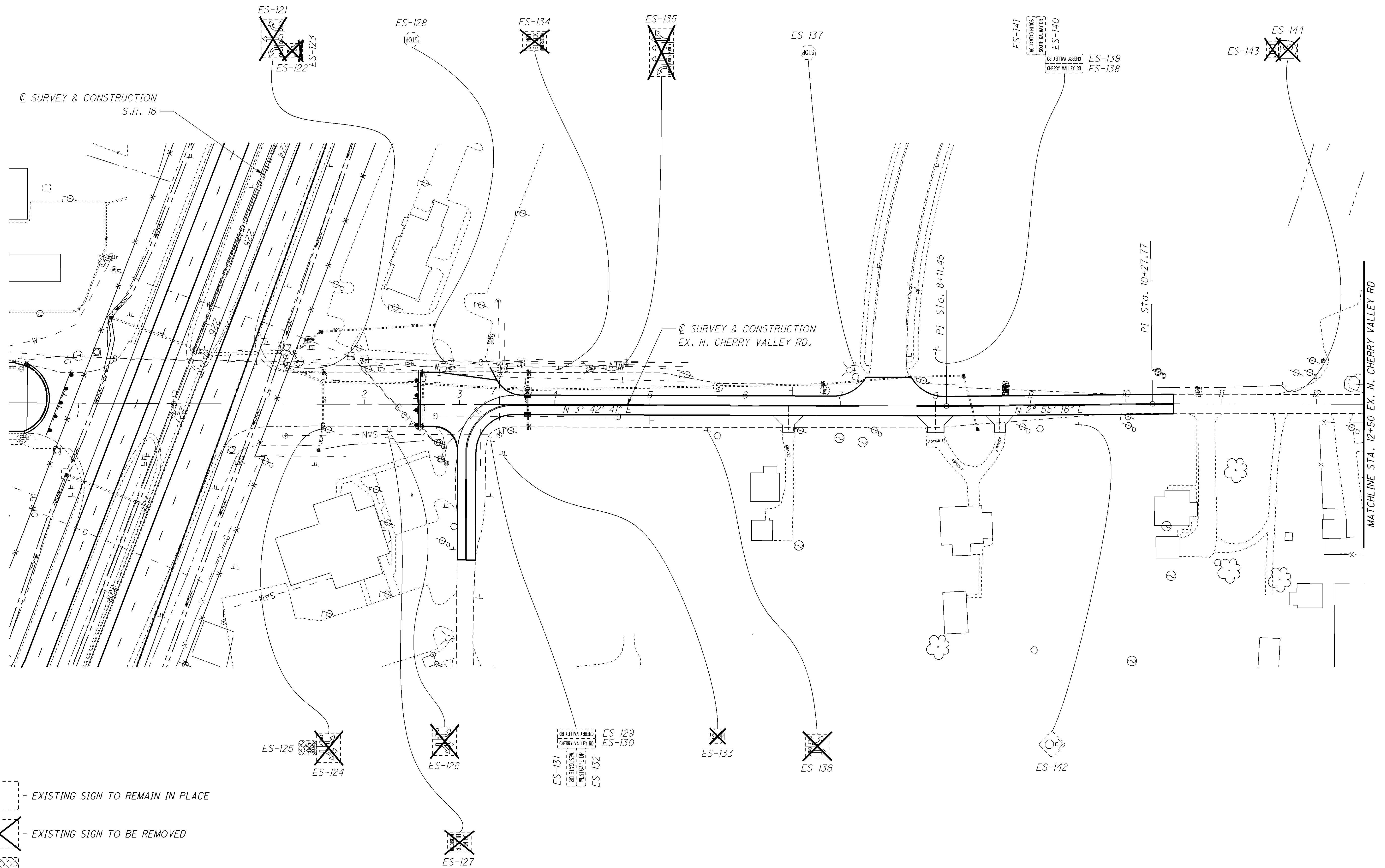



HORIZONTAL
SCALE IN FEET

**EXISTING SIGNS - S.R. 16
STA. 289+50 TO STA. 288+00**

LIC-16-16.64


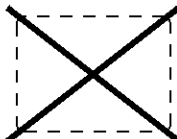
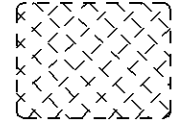
-  - EXISTING SIGN TO REMAIN IN PLACE
-  - EXISTING SIGN TO BE REMOVED
-  - EXISTING SIGN TO BE REERECTED

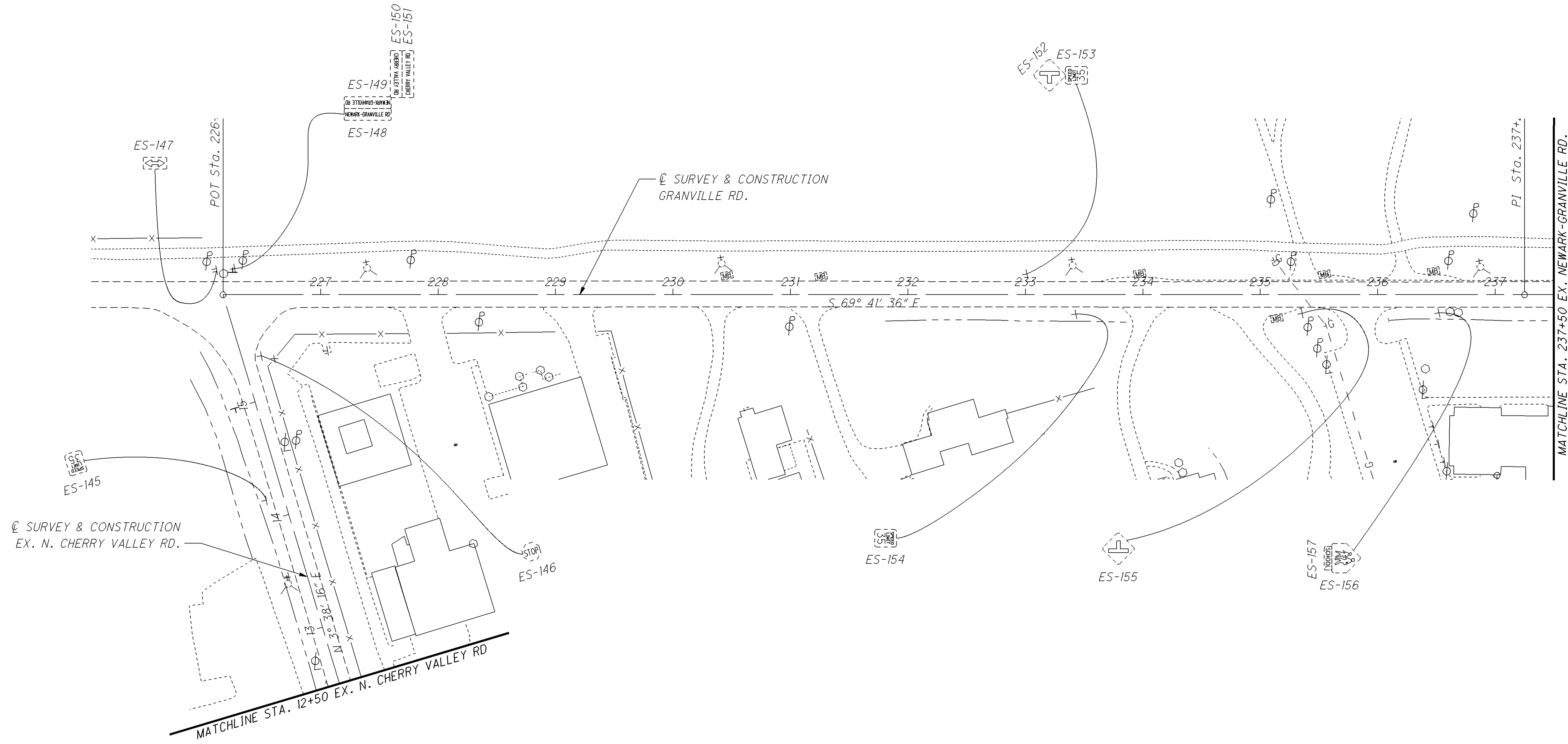


CALCULATED	BRH
CHECKED	



**EXISTING SIGNS - EX. N. CHERRY VALLEY RD.
STA. 0+00 TO STA. 12+50**

LIC-16-16.64

-  - EXISTING SIGN TO REMAIN IN PLACE
-  - EXISTING SIGN TO BE REMOVED
-  - EXISTING SIGN TO BE REERECTED


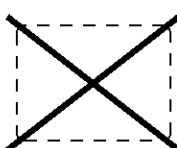
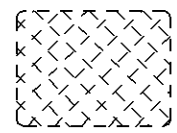


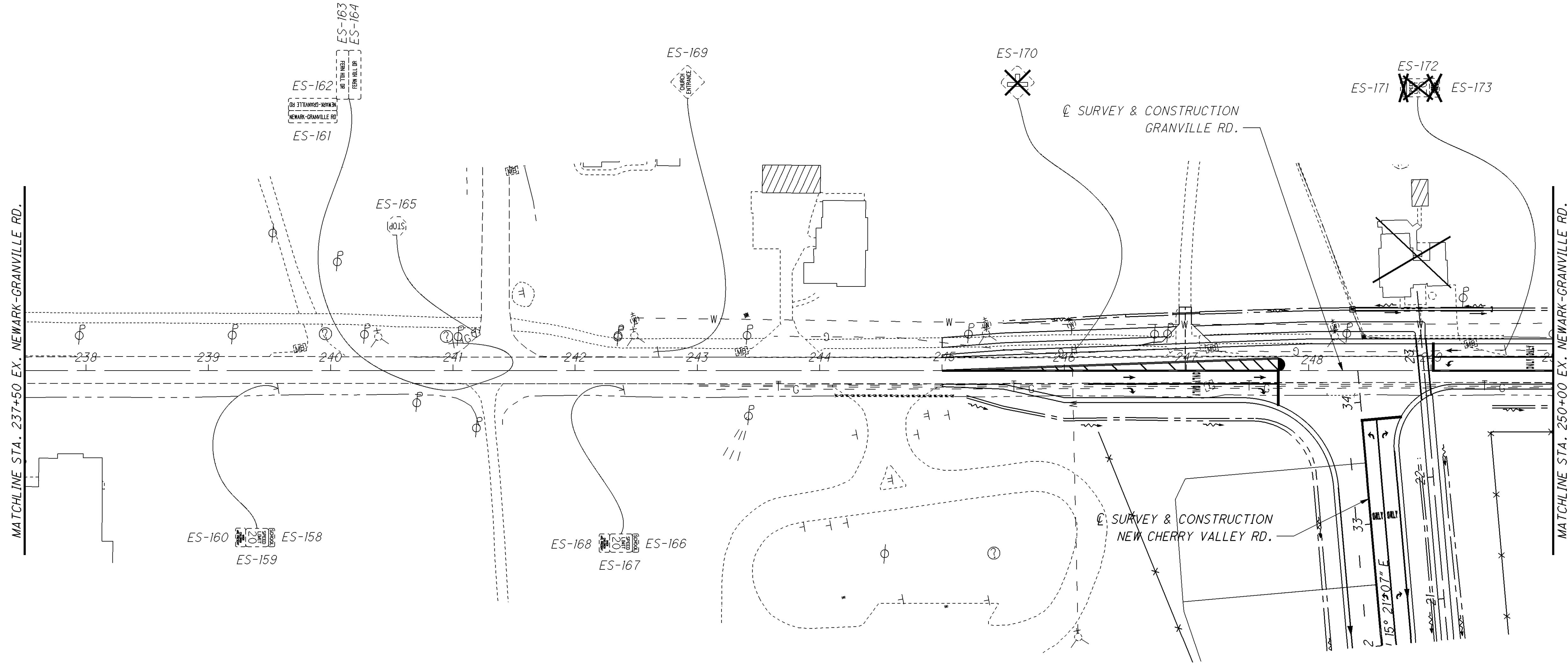
CALCULATED
BRH
CHECKED

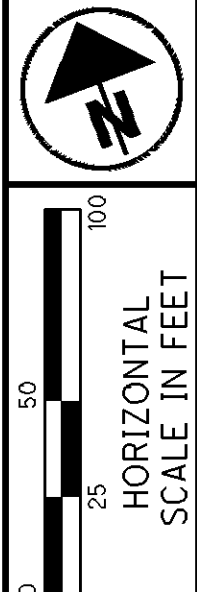
HORIZONTAL
SCALE IN FEET

**EXISTING SIGNS - EX. NEWARK-GRANVILLE RD.
STA. 226+17 TO STA. 237+50**

-  - EXISTING SIGN TO REMAIN IN PLACE
-  - EXISTING SIGN TO BE REMOVED
-  - EXISTING SIGN TO BE REERECTED


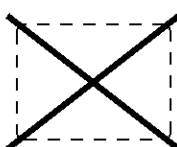
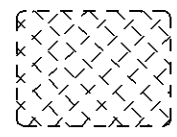


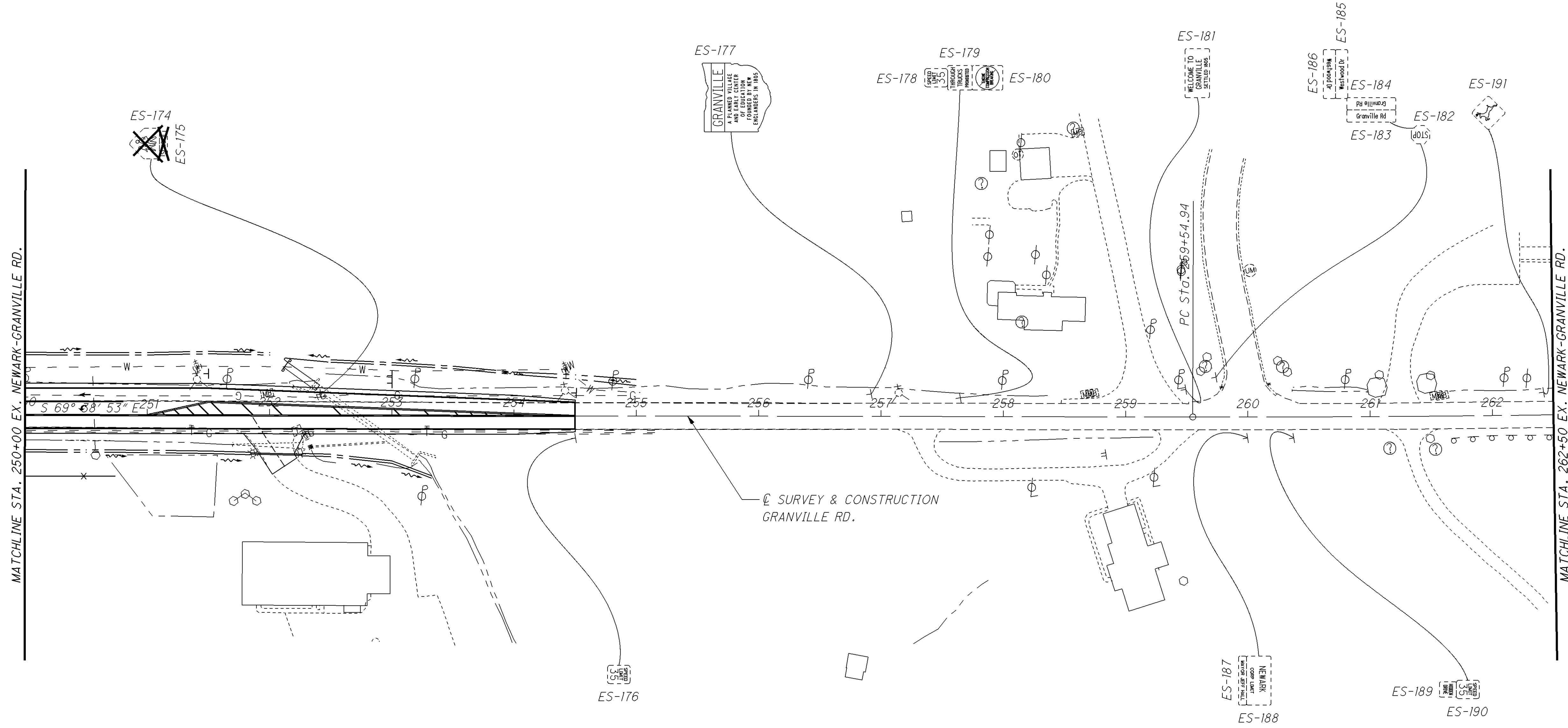
CALCULATED
BRH
CHECKED



HORIZONTAL
SCALE IN FEET

**EXISTING SIGNS - EX. NEWARK-GRANVILLE RD.
STA. 237+50 TO STA. 250+00**

-  - EXISTING SIGN TO REMAIN IN PLACE
-  - EXISTING SIGN TO BE REMOVED
-  - EXISTING SIGN TO BE REERECTED

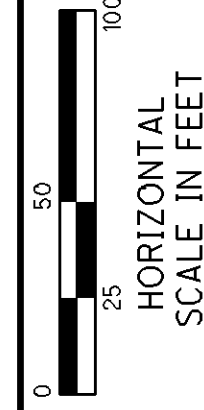



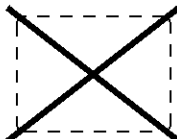

**EXISTING SIGNS - EX. NEWARK-GRANVILLE RD.
STA. 250+00 TO STA. 262+50**

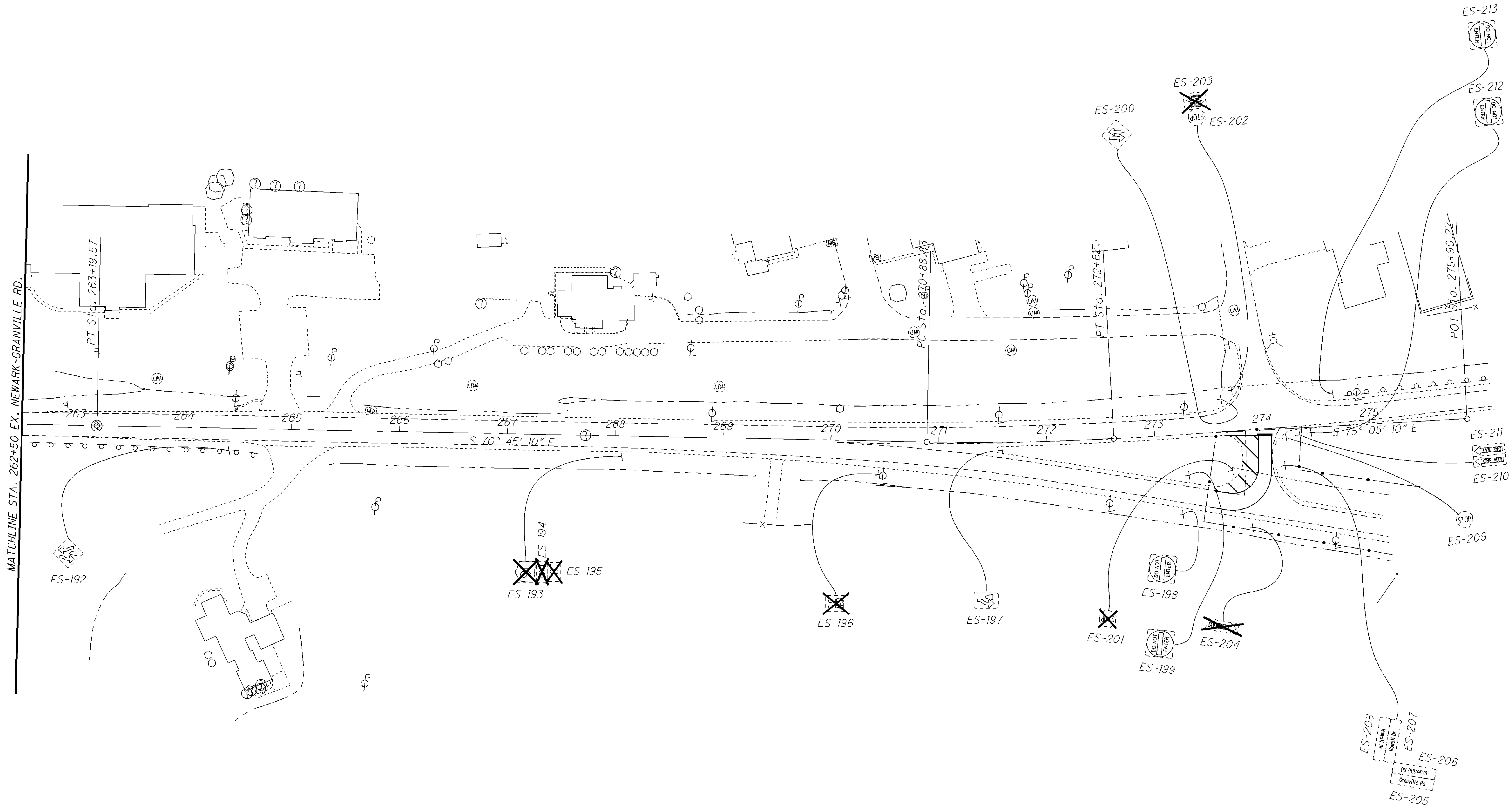
LIC-16-16.64

540
729

CALCULATED
BRH
CHECKED



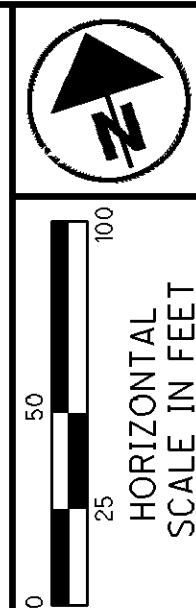
-  - EXISTING SIGN TO REMAIN IN PLACE
-  - EXISTING SIGN TO BE REMOVED
-  - EXISTING SIGN TO BE REERECTED






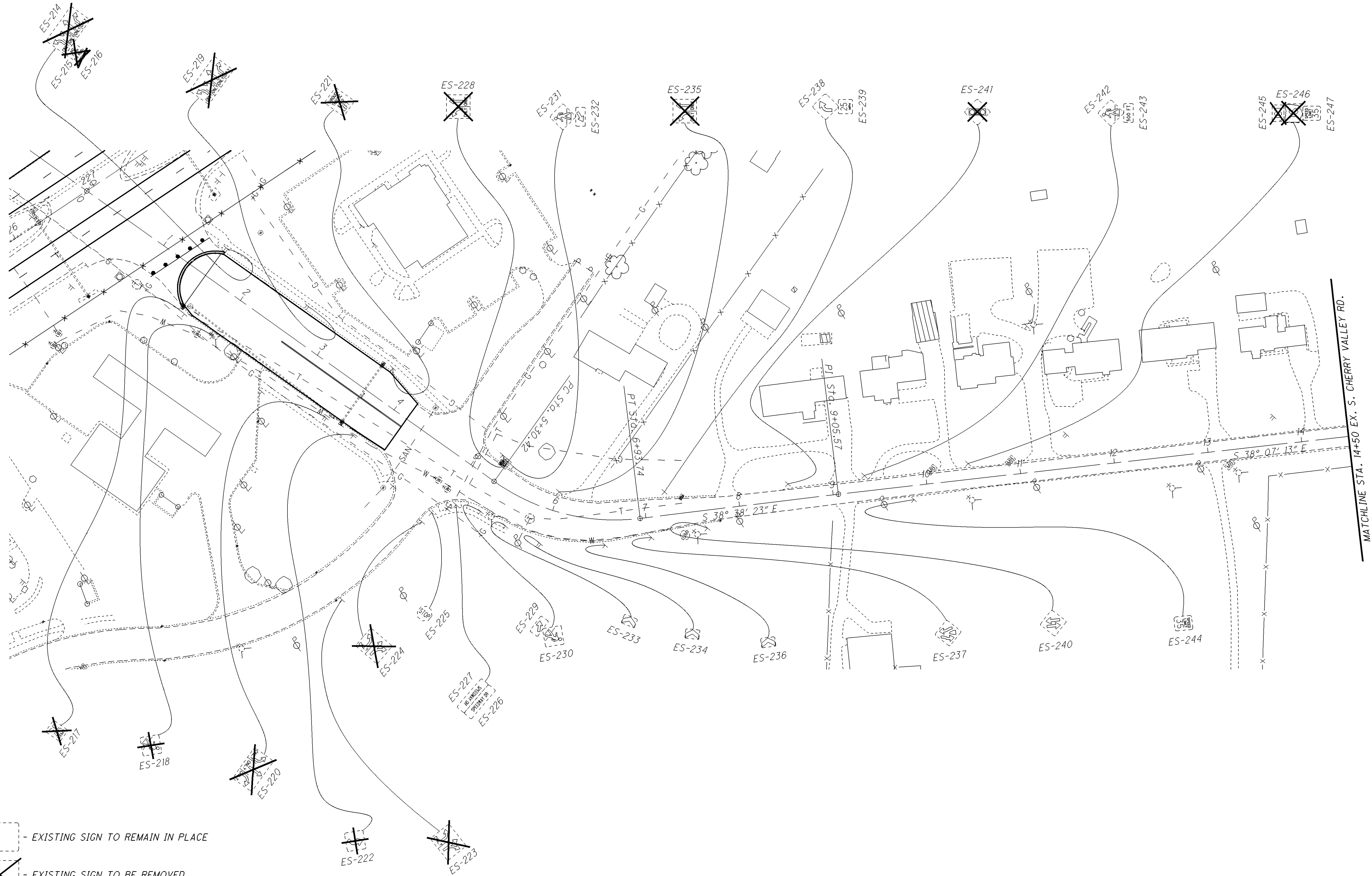
CALCULATED
BRH
CHECKED

**EXISTING SIGNS - EX. NEWARK-GRANVILLE RD.
STA. 262+50 TO STA. 275+90**

LIC-16-16.64



-  - EXISTING SIGN TO REMAIN IN PLACE
-  - EXISTING SIGN TO BE REMOVED
-  - EXISTING SIGN TO BE REERECTED



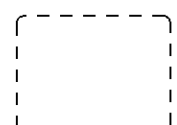
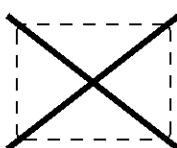
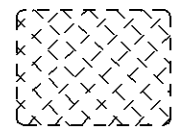
CALCULATED
BRH
CHECKED

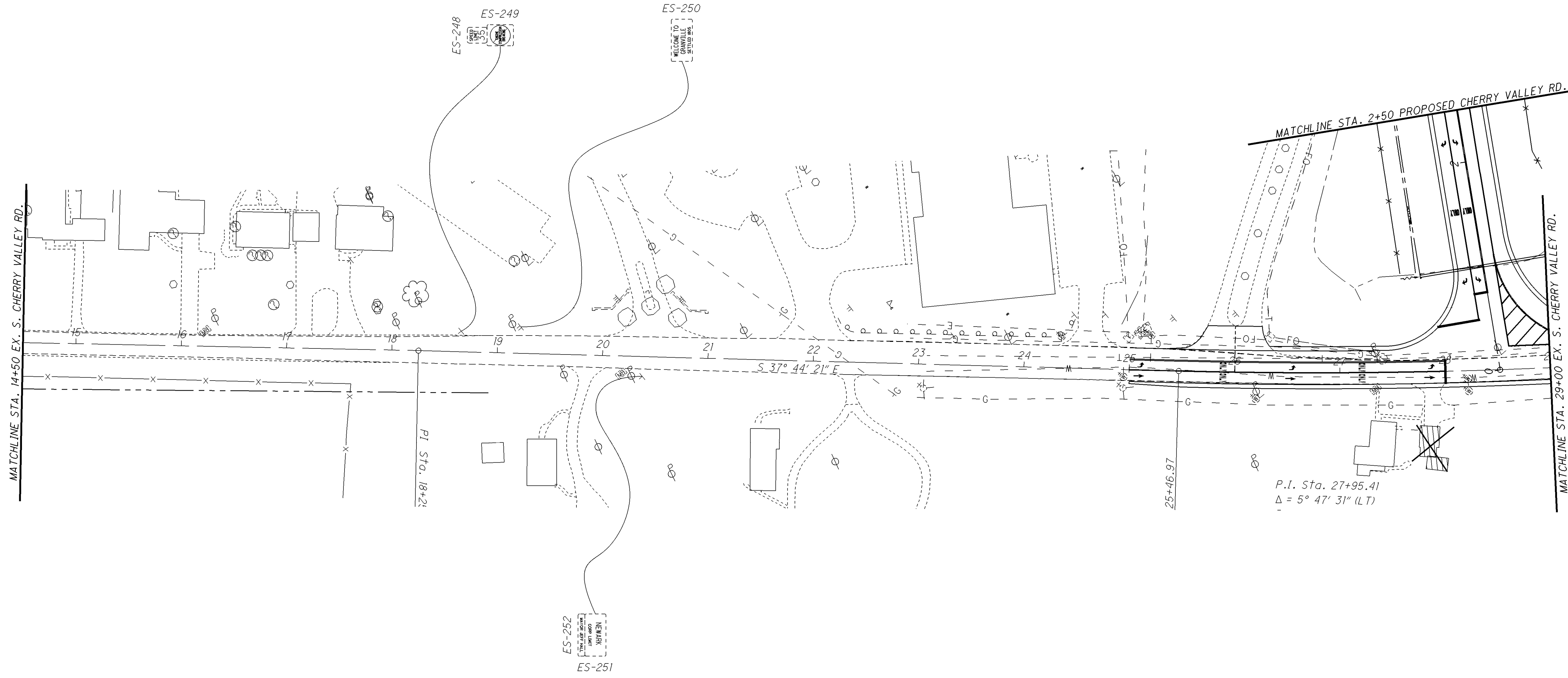



HORIZONTAL
SCALE IN FEET

**EXISTING SIGNS - EX. S. CHERRY VALLED RD.
STA. 0+00 TO STA. 14+50**

LIC-16-16.64

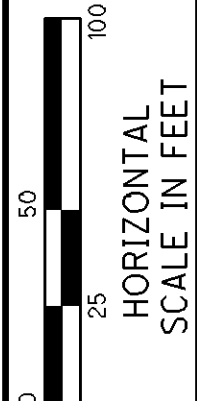
-  - EXISTING SIGN TO REMAIN IN PLACE
-  - EXISTING SIGN TO BE REMOVED
-  - EXISTING SIGN TO BE REERECTED


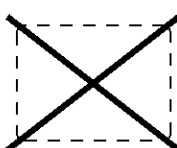
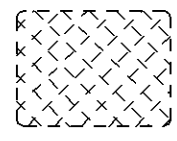


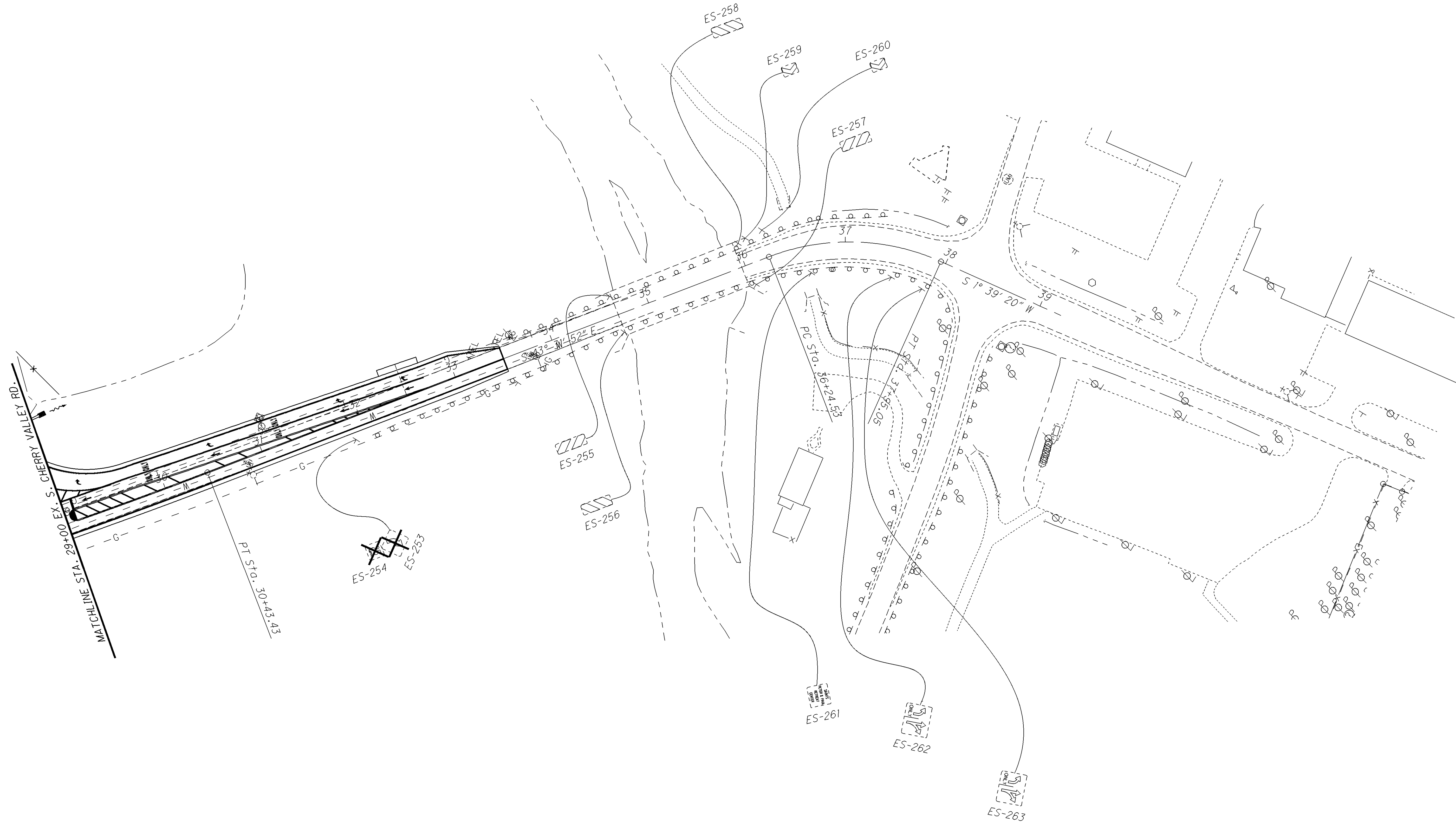
**EXISTING SIGNS - EX. S. CHERRY VALLEY RD.
STA. 14+50 TO STA. 29+00**

LIC-16-16.64


CALCULATED
BRH
CHECKED



-  - EXISTING SIGN TO REMAIN IN PLACE
-  - EXISTING SIGN TO BE REMOVED
-  - EXISTING SIGN TO BE REERECTED



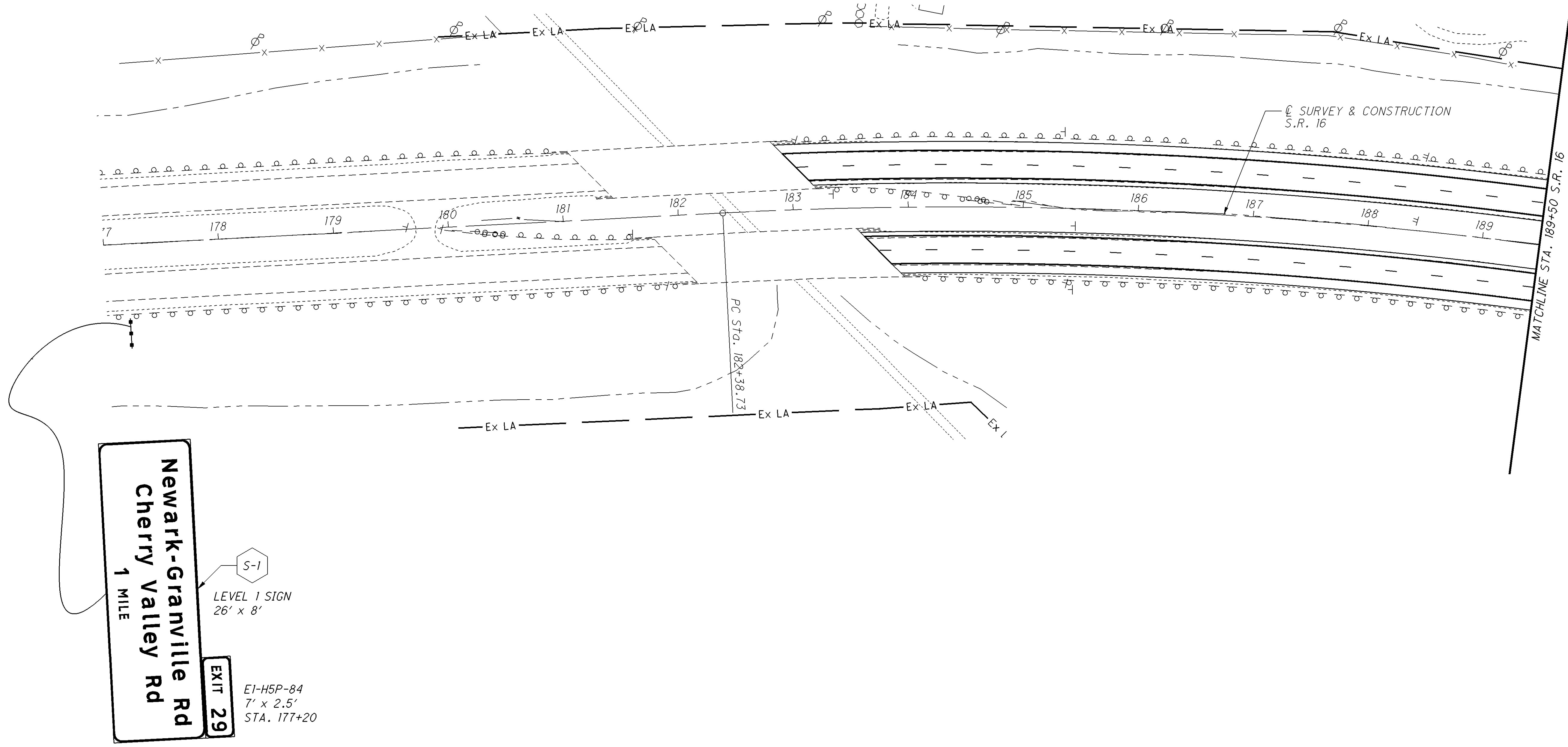
CALCULATED
BRH
CHECKED




HORIZONTAL
SCALE IN FEET

**EXISTING SIGNS - EX. S. CHERRY VALLEY RD.
STA. 29+00 TO STA. 39+22**

LIC-16-16.64

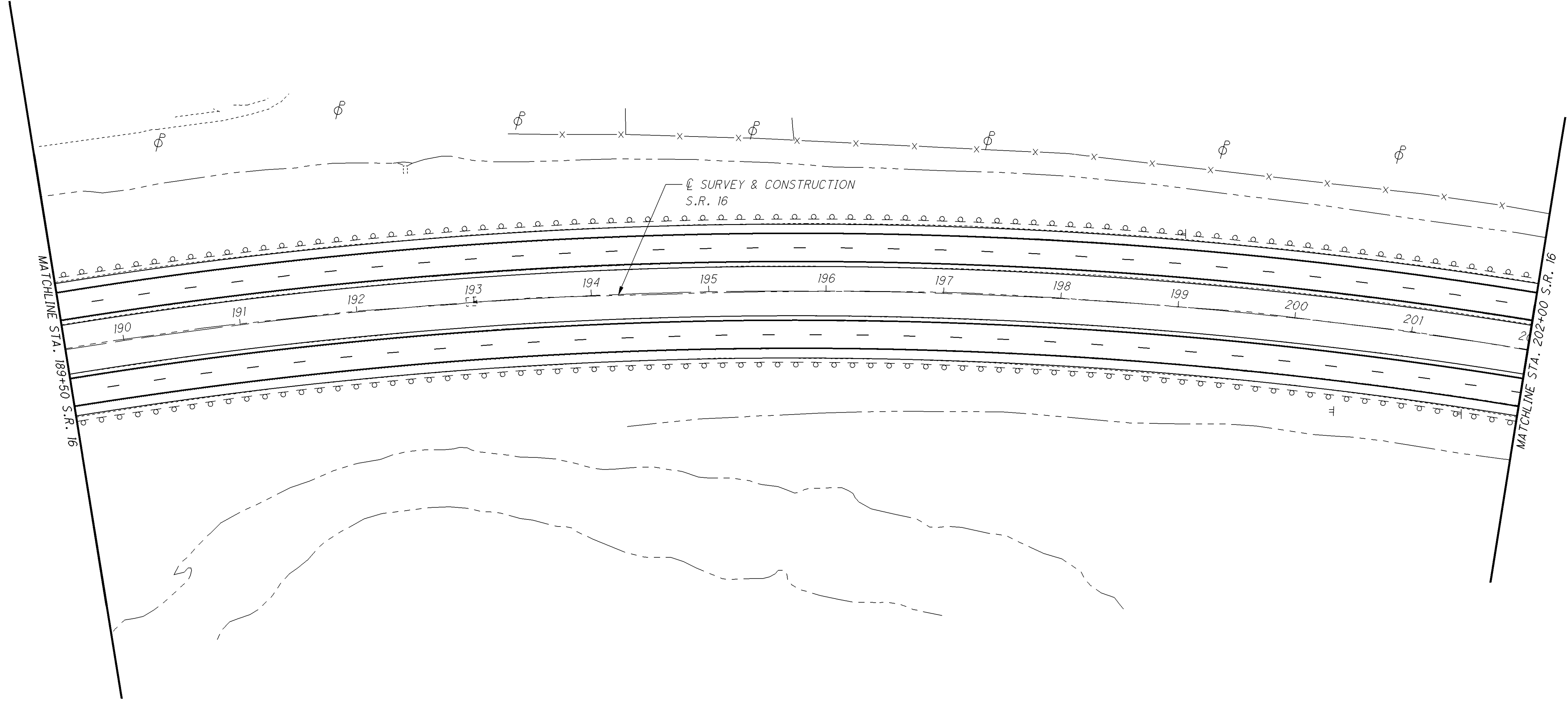


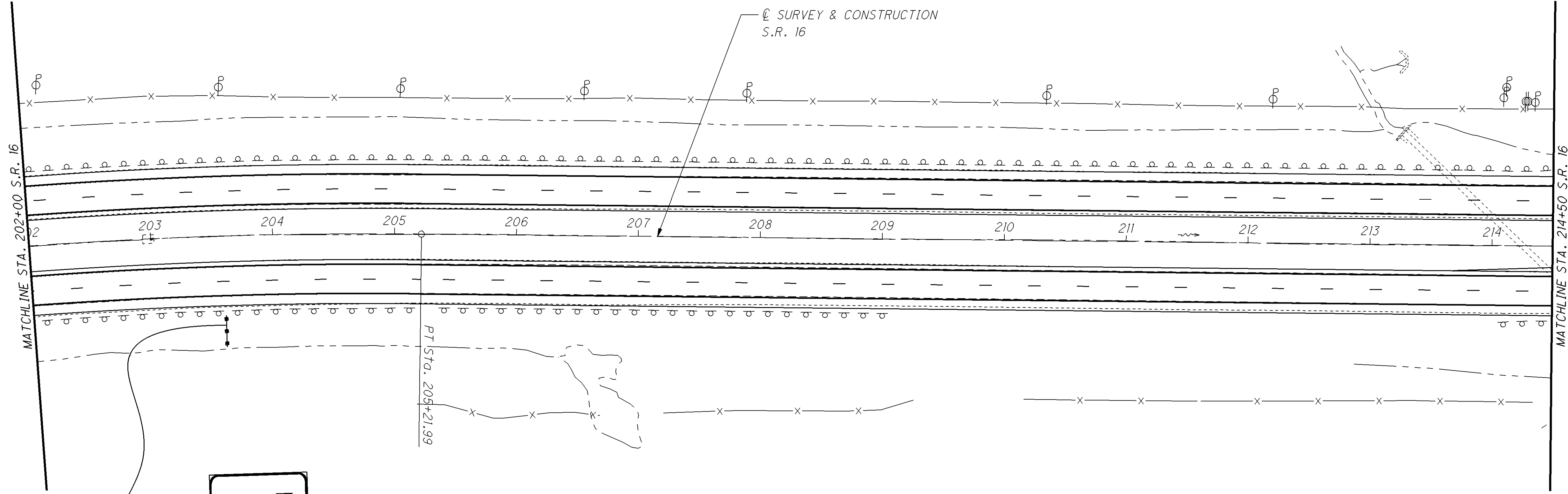
CALCULATED
BRH
CHECKED

PROPOSED SIGNS - S.R. 16
STA. 177+00 TO STA. 189+50

LIC-16-16.64

548
729





Newark-Granville Rd
Cherry Valley Rd
 1/2 MILE

S-2
 LEVEL 1 SIGN
 26' x 8'

EXIT 29

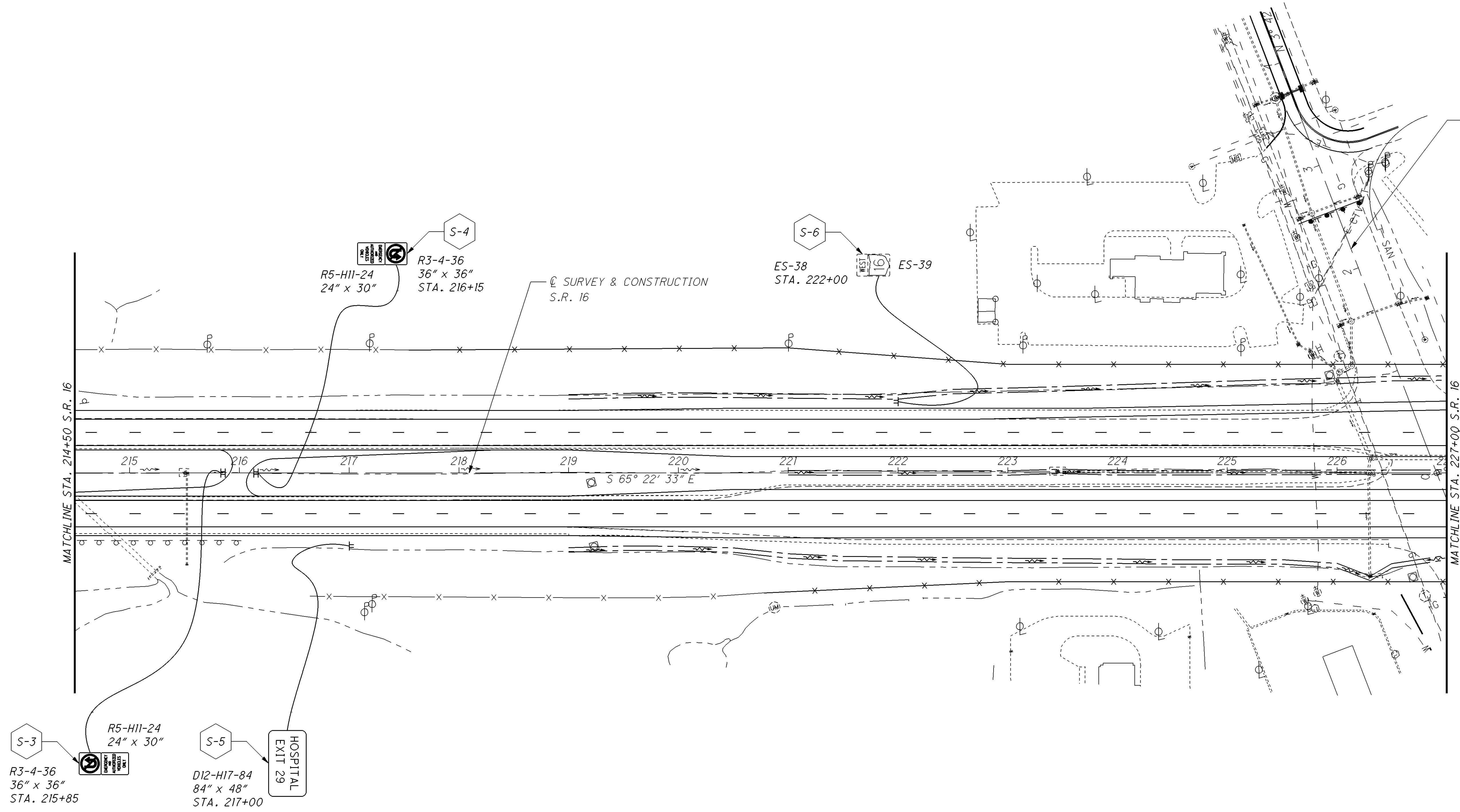
E1-H5P-84
 7' x 2.5'
 STA. 203+60

CALCULATED	BRH
	CHECKED

PROPOSED SIGNS - S.R. 16
STA. 202+00 TO STA. 214+50

LIC-16-16.64

550
729



CL SURVEY & CONSTRUCTION
EX. N. CHERRY VALLEY RD.

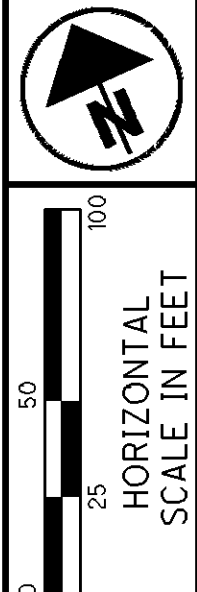
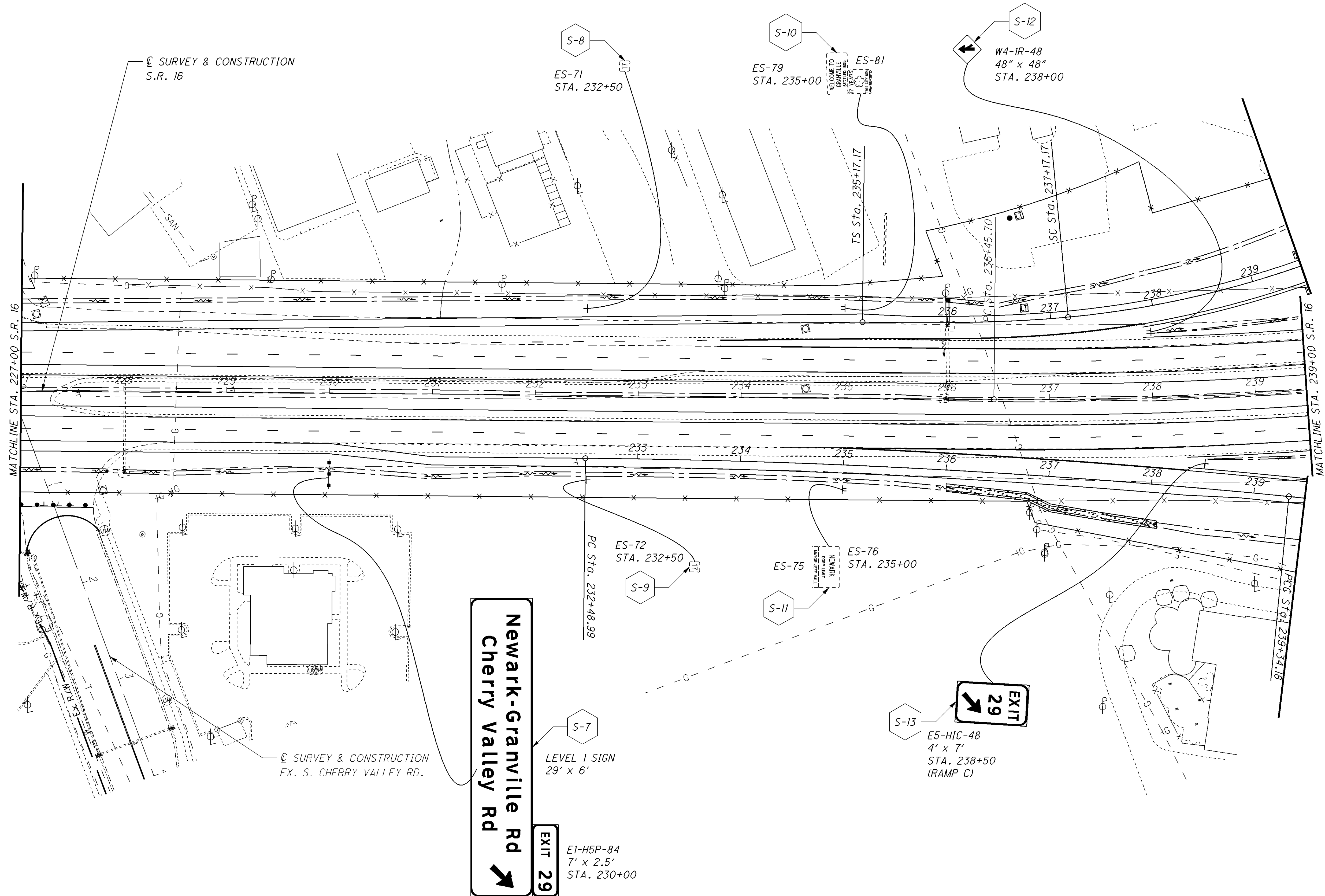
CALCULATED
BRH
CHECKED

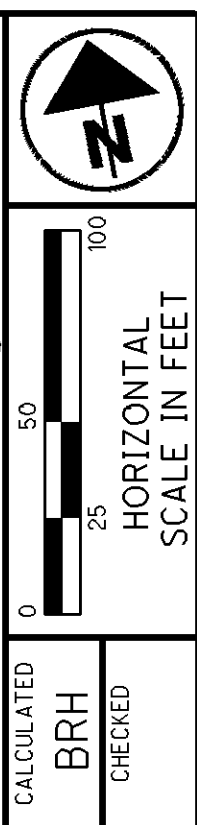
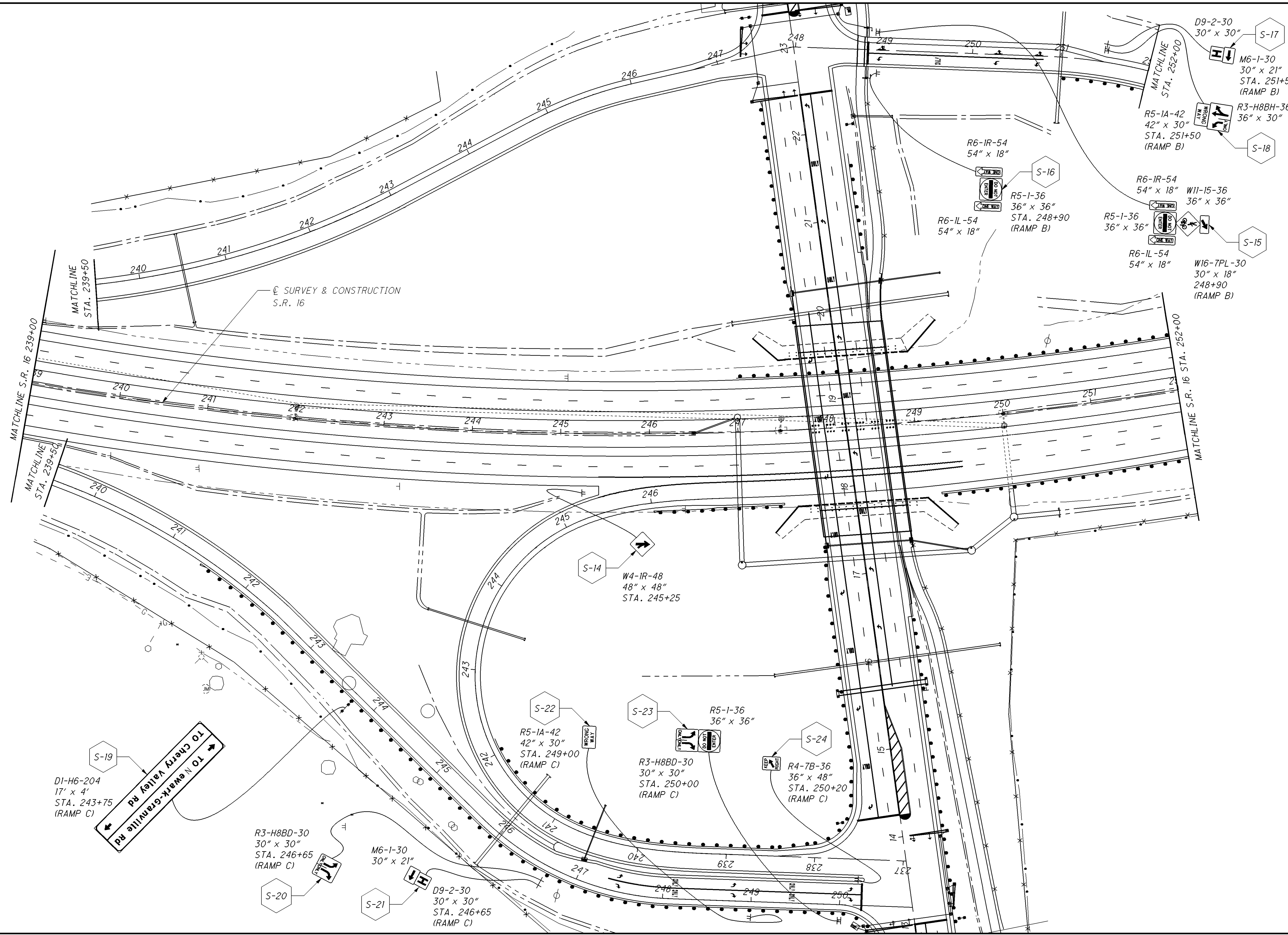
0 50 100
HORIZONTAL
SCALE IN FEET

PROPOSED SIGNS - S.R. 16
STA. 214+50 TO STA. 227+00

LIC-16-16.64

551
729



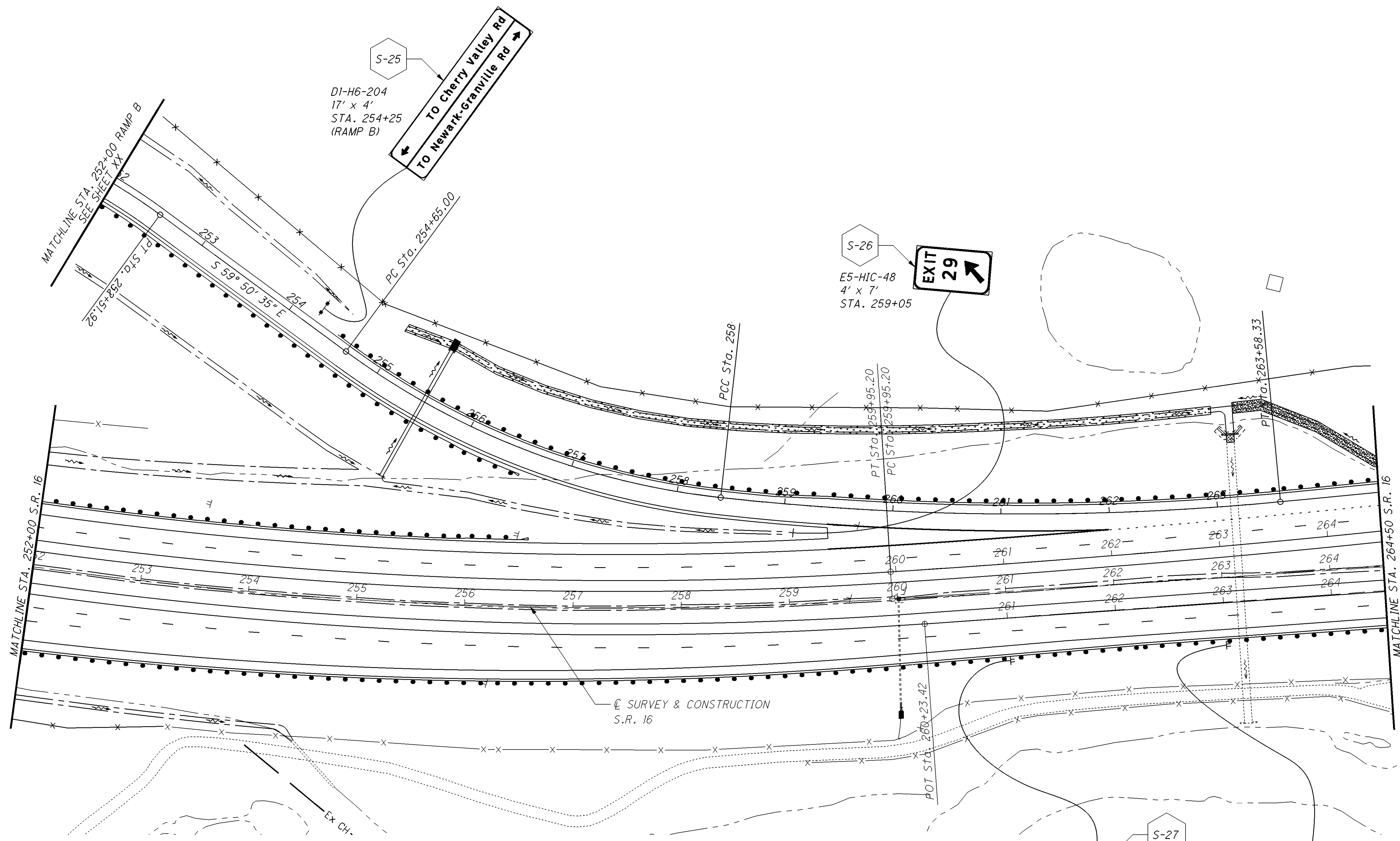


CALCULATED BRH CHECKED

**PROPOSED SIGNS - S.R. 16
STA. 239+50 TO STA. 252+00**

LIC-16-16.64

P:\LIC\80704\Design\Roadway\Plan_Sheets\Proposed_Signs\80704_PSL_007.dgn 28-FEB-2015 8:42AM bharlow



S-25
 DI-H6-204
 17' x 4'
 STA. 254+25
 (RAMP B)

S-26
 E5-HIC-48
 4' x 7'
 STA. 259+05

ES-67
 S-27
 ES-68
 STA. 261+00
 (LINE 'E')

S-28
 ES-96
 STA. 263+00
 (LINE 'E')

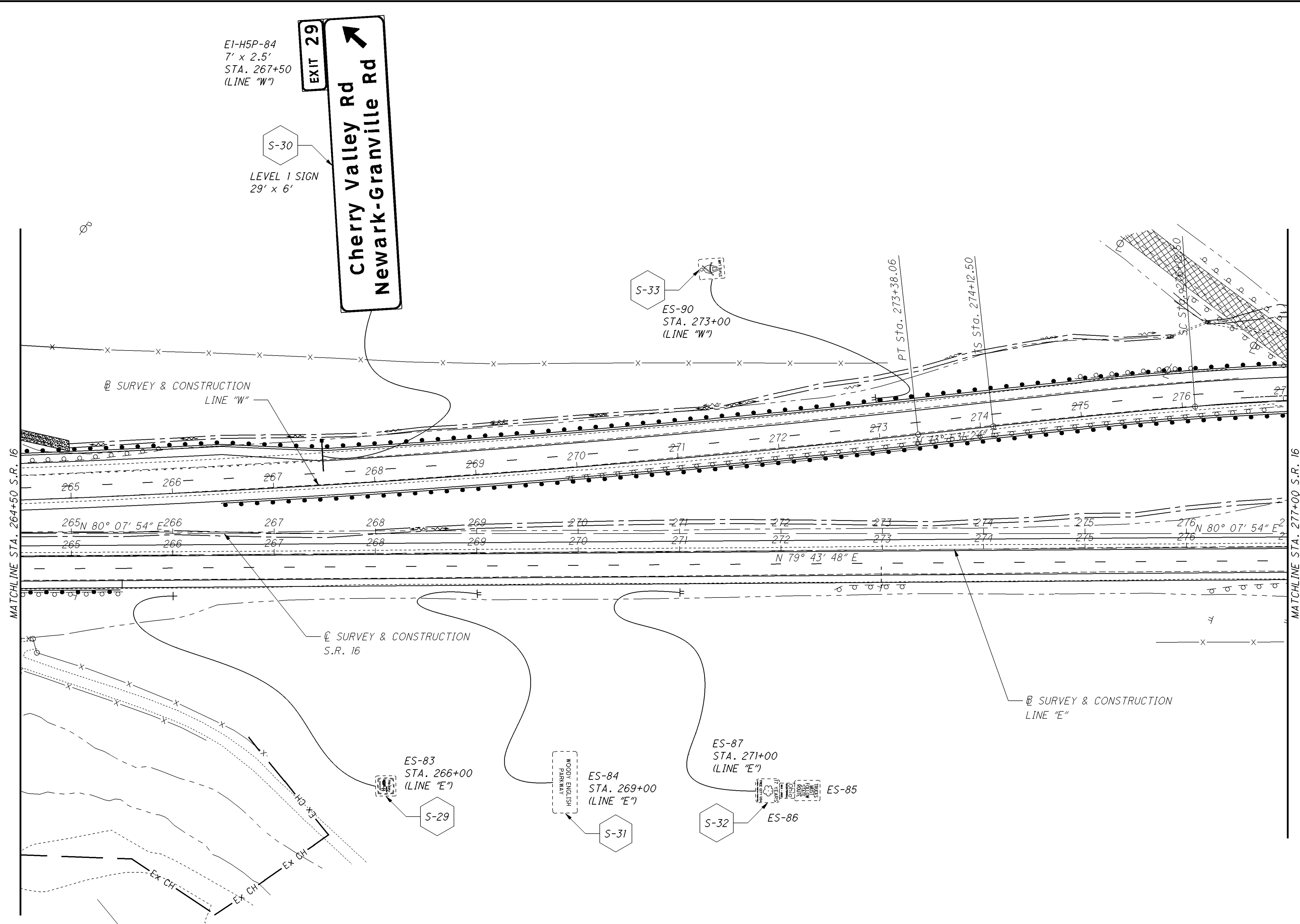
CALCULATED
 BRH
 CHECKED

HORIZONTAL
 SCALE IN FEET

PROPOSED SIGNS - S.R. 16
STA. 252+00 TO STA. 264+00

LIC-16-16.64

554
 729

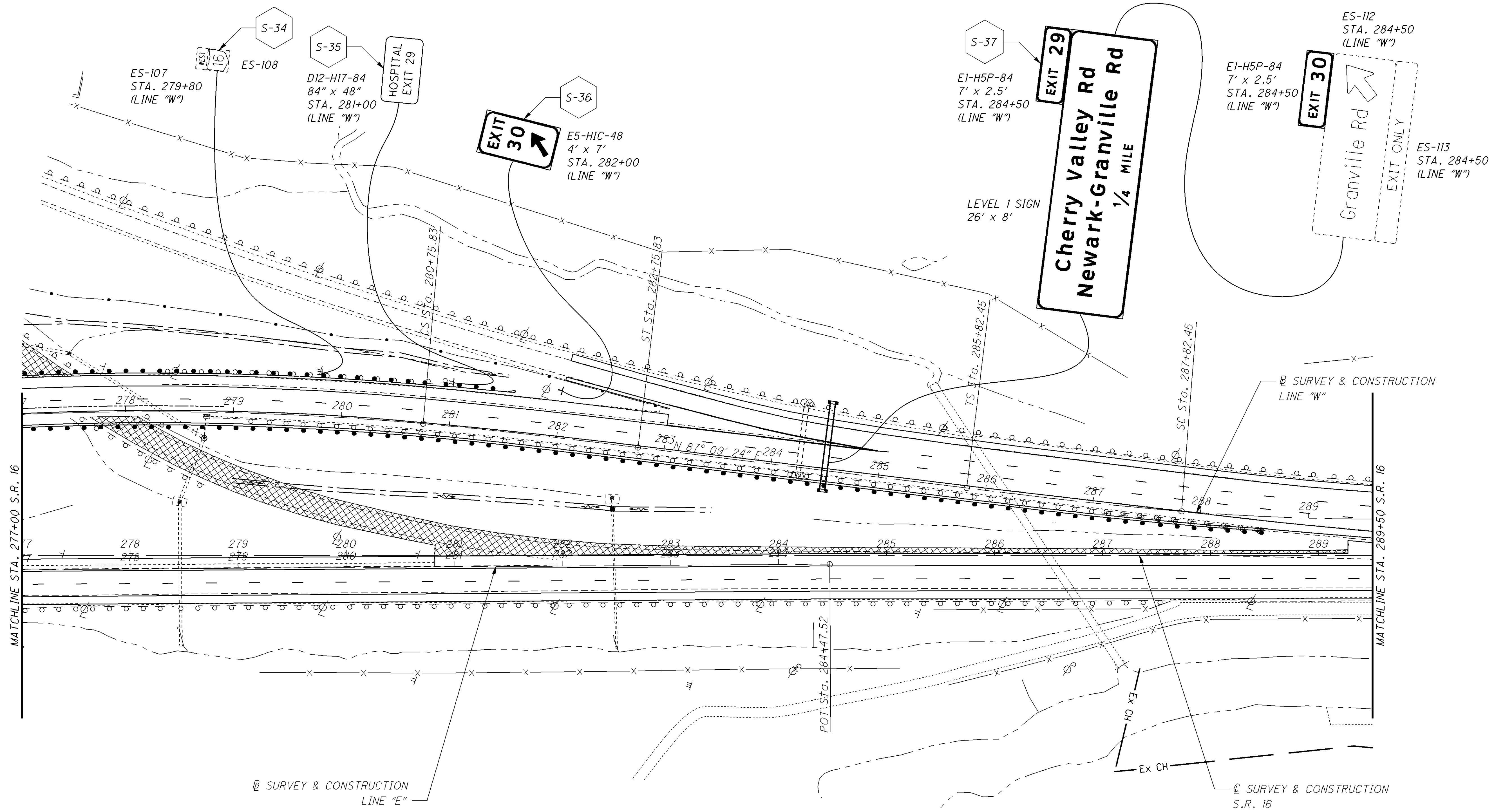


CALCULATED
 BRH
 CHECKED

0 50 100
 HORIZONTAL
 SCALE IN FEET

PROPOSED SIGNS - S.R. 16
STA. 264+50 TO STA. 277+00

LIC-16-16.64



CALCULATED
BRH
CHECKED

0 50 100
HORIZONTAL
SCALE IN FEET

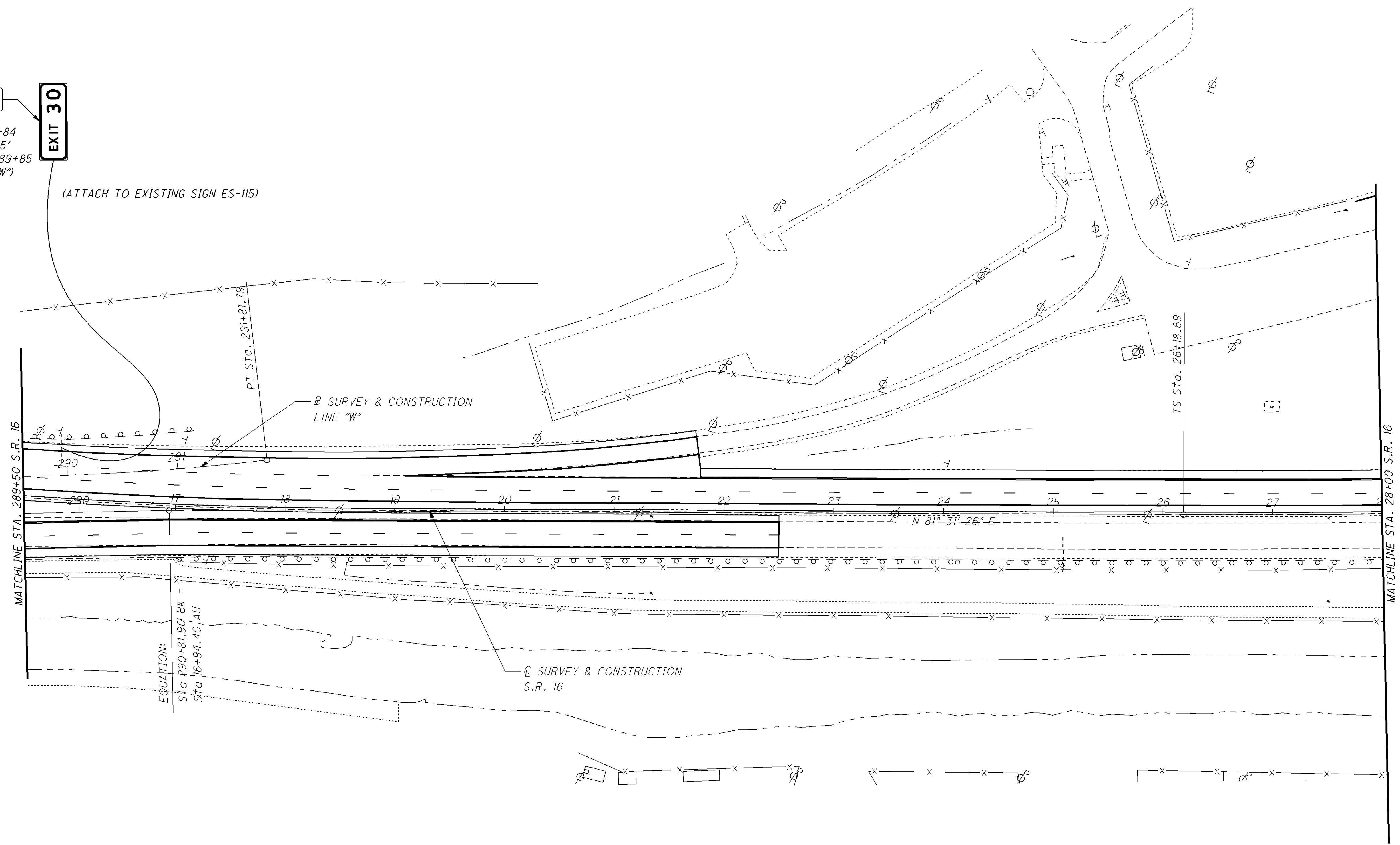
**PROPOSED SIGNS - S.R. 16
STA. 277+00 TO STA. 289+50**

LIC-16-16.64

S-38
E1-H5P-84
7' x 2.5'
STA. 289+85
(LINE "W")

EXIT 30

(ATTACH TO EXISTING SIGN ES-115)



EQUATION:
Sta 290+81.90 BK =
Sta 16+94.40 AH

B SURVEY & CONSTRUCTION
LINE "W"

C SURVEY & CONSTRUCTION
S.R. 16

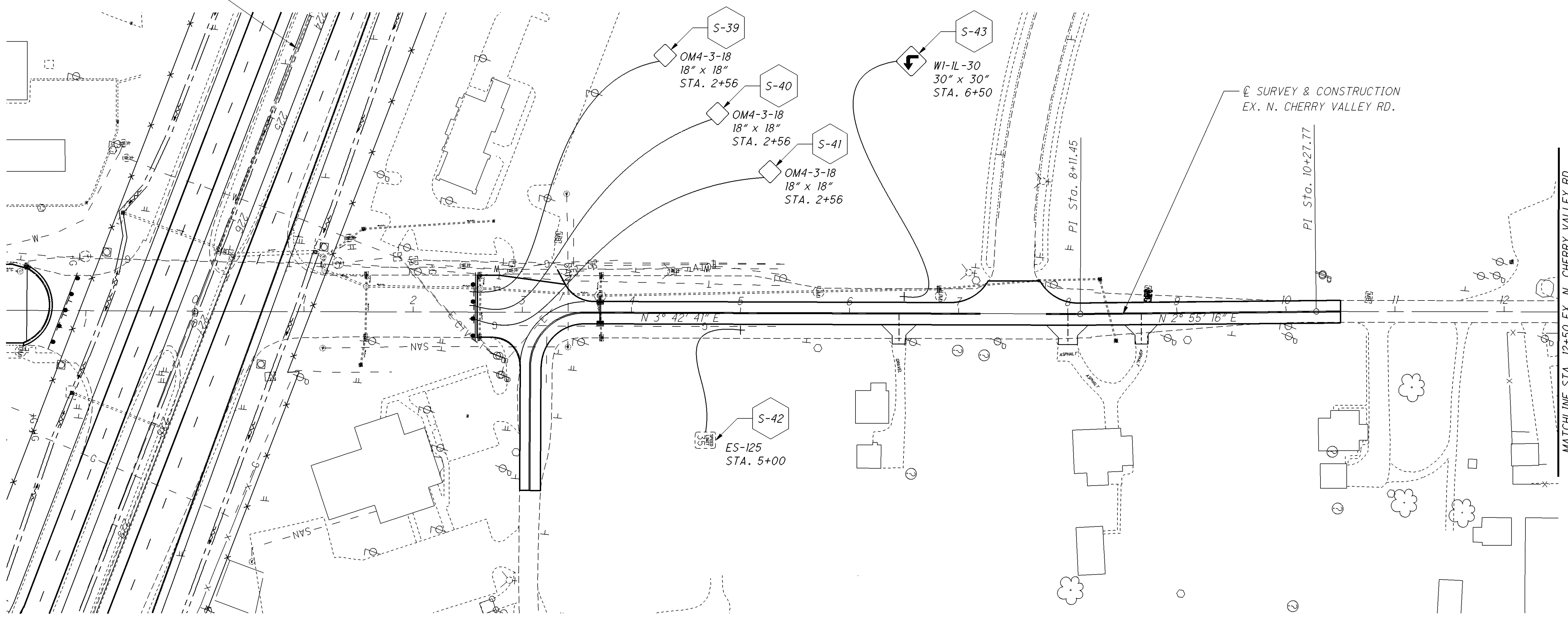
CALCULATED
BRH
CHECKED

PROPOSED SIGNS - S.R. 16
STA. 289+50 TO STA. 28+00

LIC-16-16.64

557
729

© SURVEY & CONSTRUCTION
S.R. 16



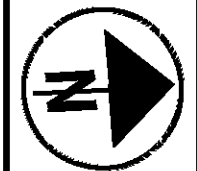
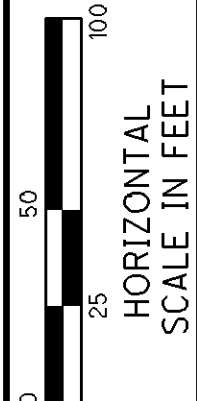
© SURVEY & CONSTRUCTION
EX. N. CHERRY VALLEY RD.

MATCHLINE STA. 12+50 EX. N. CHERRY VALLEY RD

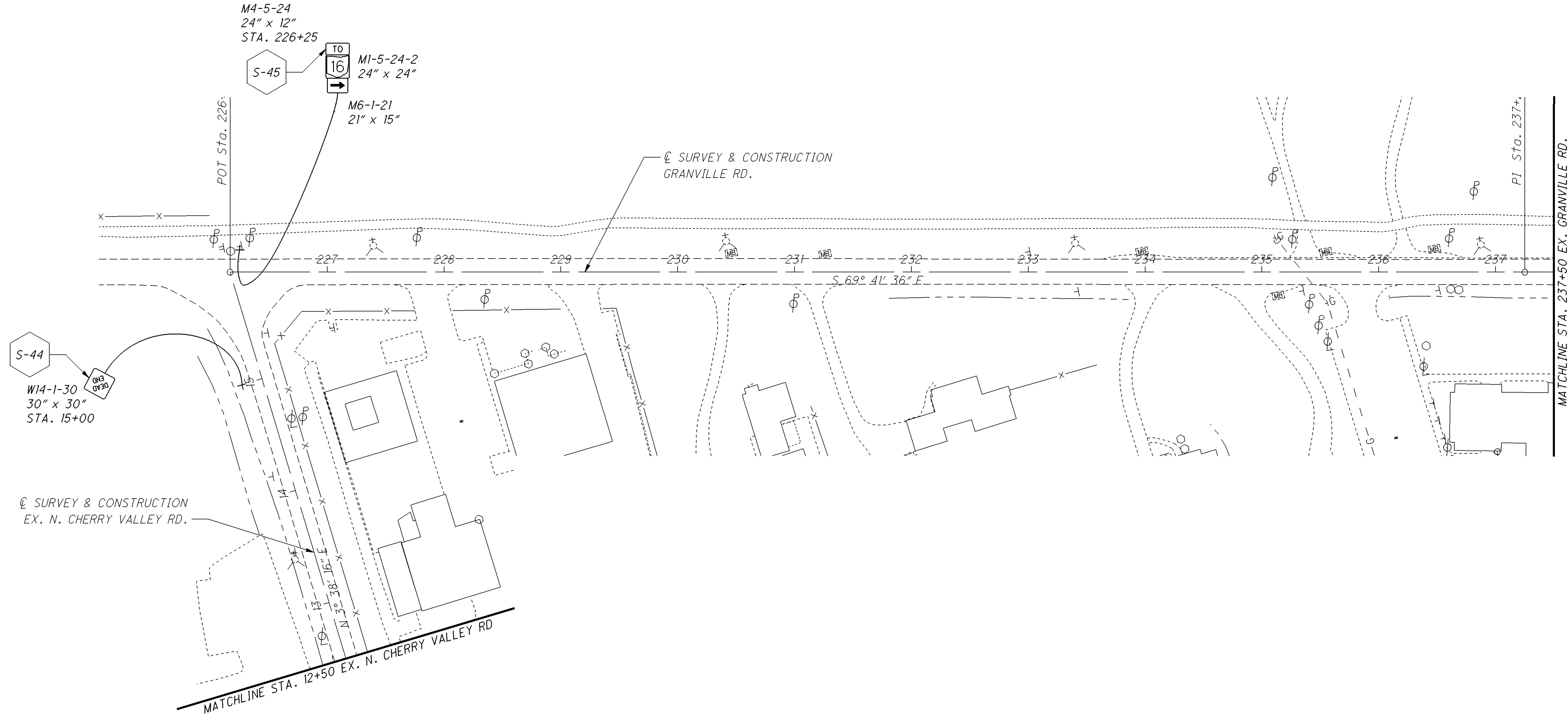
LIC-16-16.64

PROPOSED SIGNS - EX. N. CHERRY VALLEY RD.
STA. 0+00.00 TO STA. 12+50.00

CALCULATED
BRH
CHECKED



558
729

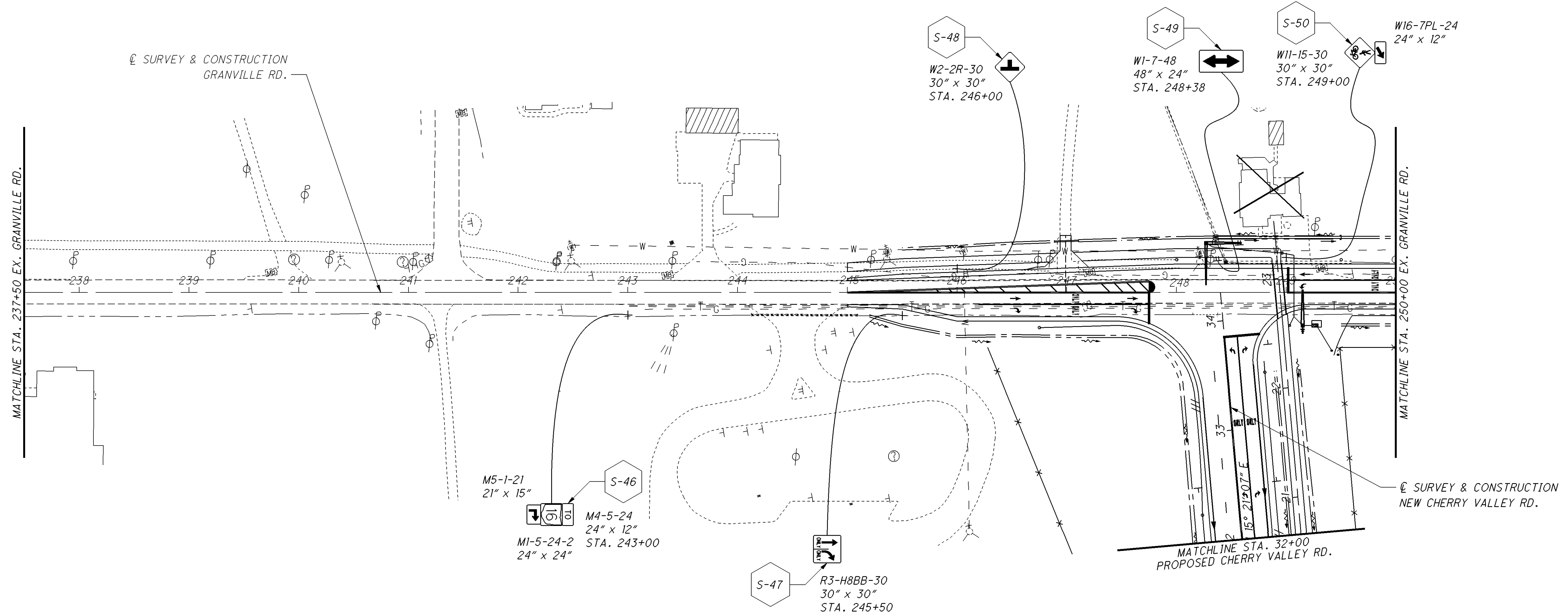


CALCULATED
BRH
CHECKED

0 25 50 100
HORIZONTAL
SCALE IN FEET

**PROPOSED SIGNS - EX. GRANVILLE RD.
STA. 226+17 TO STA. 237+50**

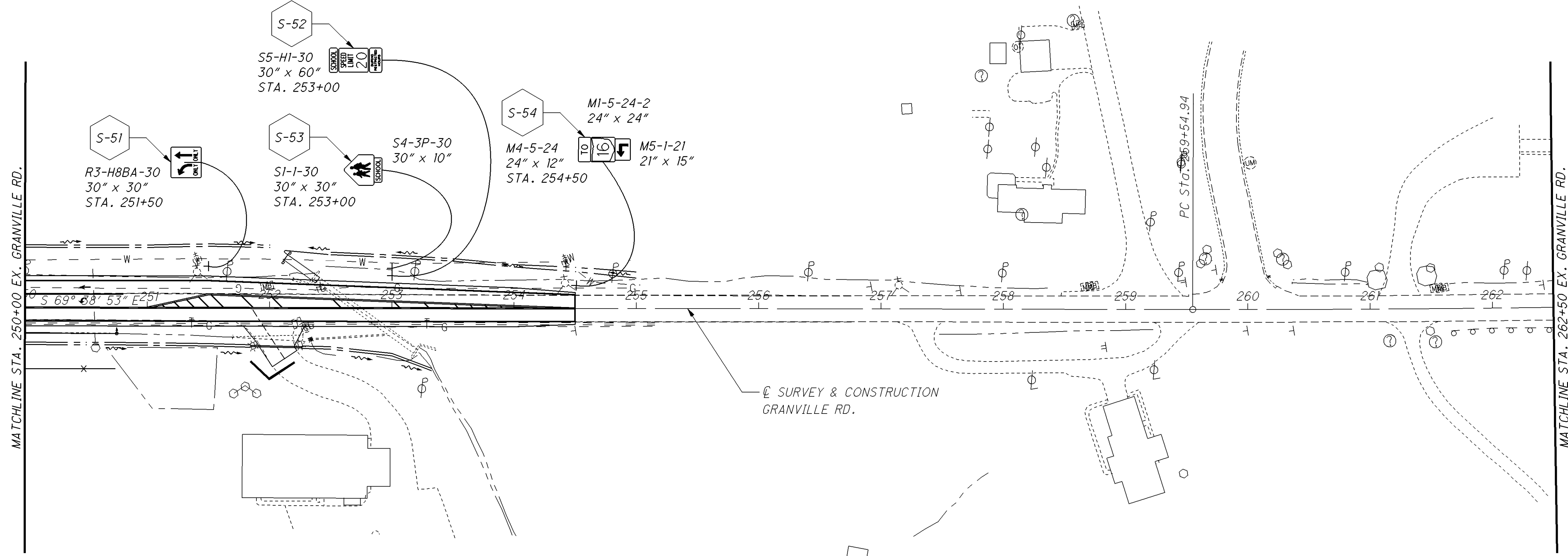
LIC-16-16.64



CALCULATED
BRH
CHECKED

0 25 50 100
HORIZONTAL
SCALE IN FEET

**PROPOSED SIGNS - EX. GRANVILLE RD.
STA. 237+50 TO STA. 250+00**

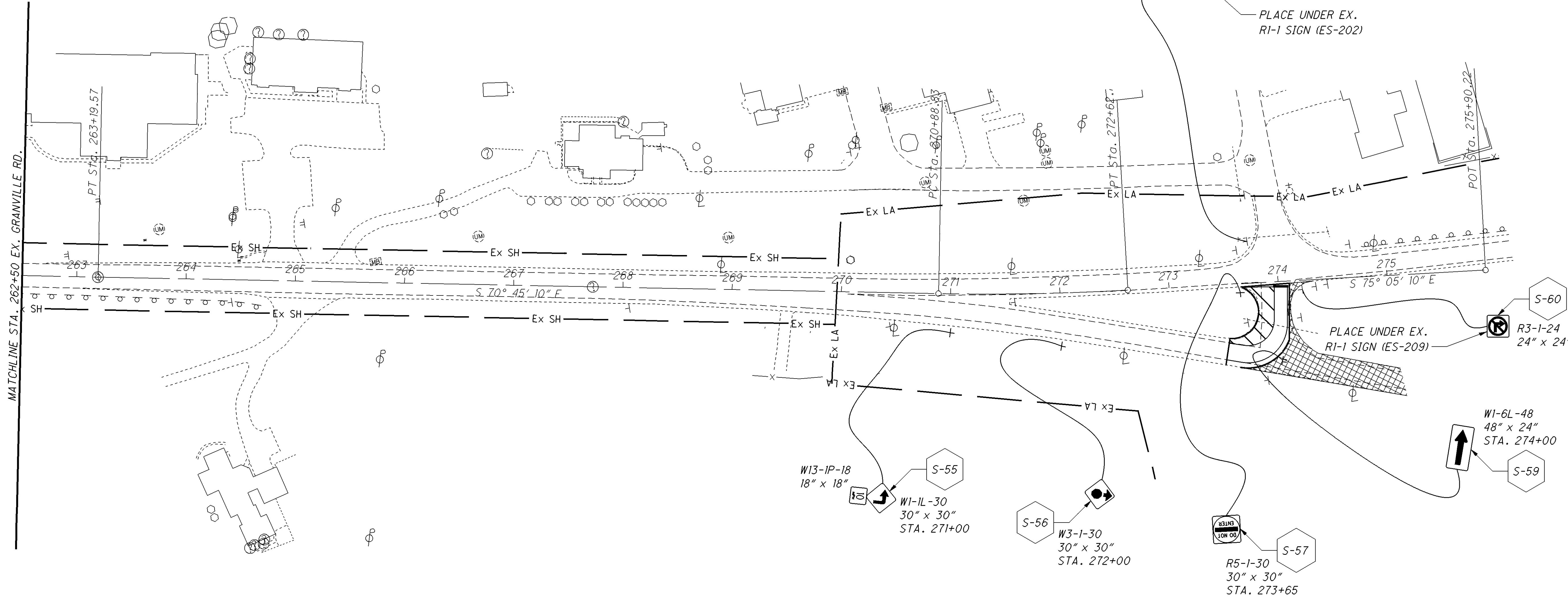


CALCULATED
 BRH
 CHECKED

0 50 100
 HORIZONTAL
 SCALE IN FEET

PROPOSED SIGNS - EX. GRANVILLE RD.
STA. 250+00 TO STA. 262+50

LIC-16-16.64

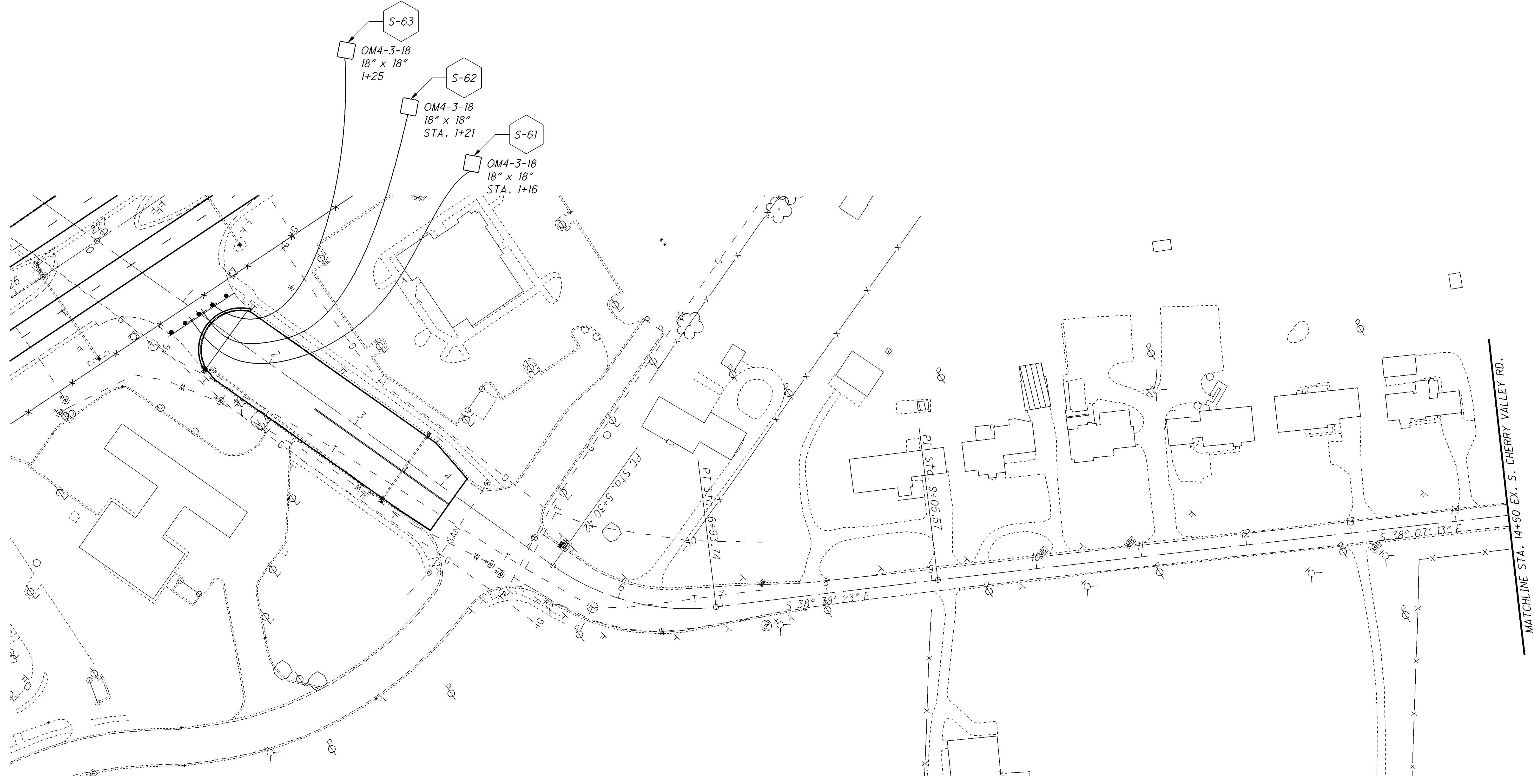


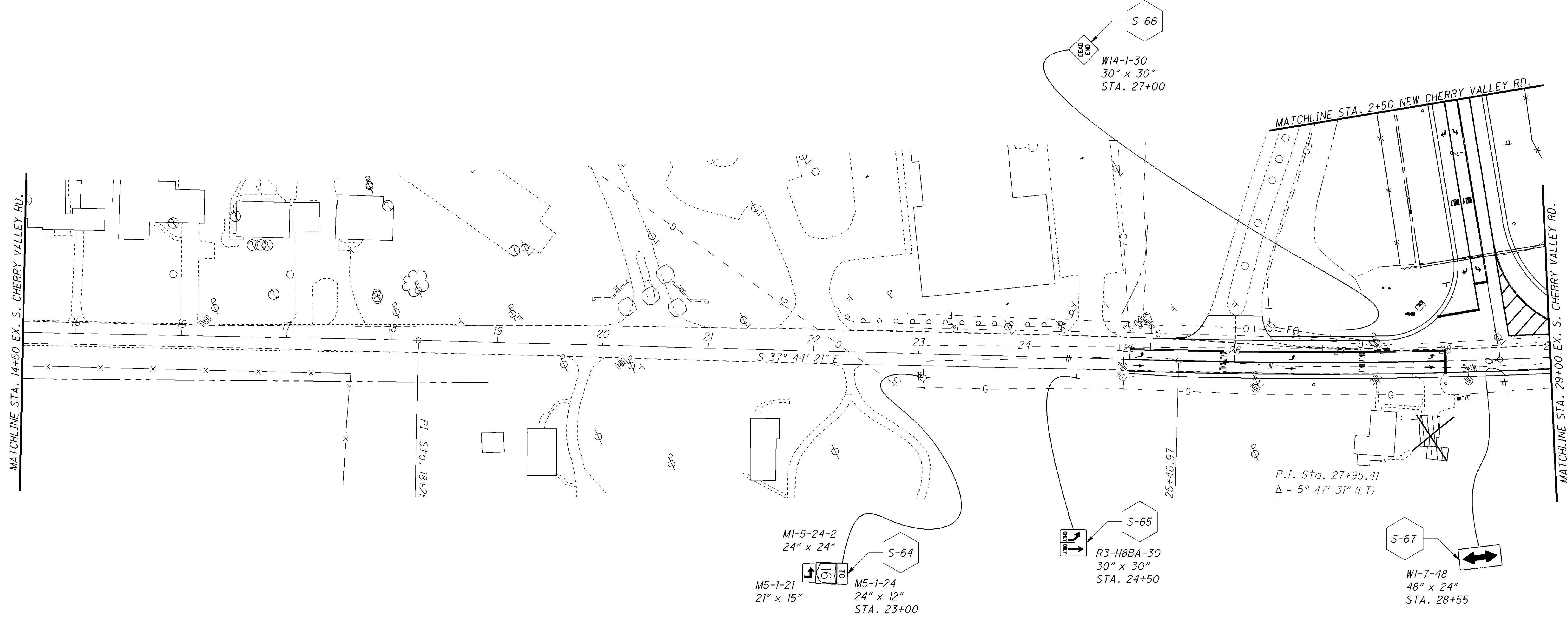
CALCULATED
BRH
CHECKED

0 50 100
HORIZONTAL
SCALE IN FEET

**PROPOSED SIGNS - EX. GRANVILLE RD.
STA. 262+50 TO STA. 275+90**

LIC-16-16.64



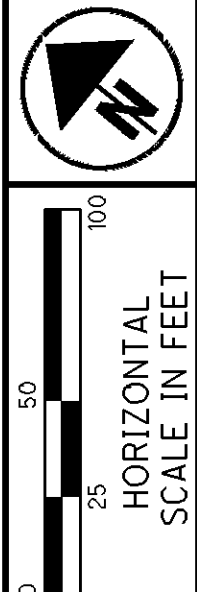


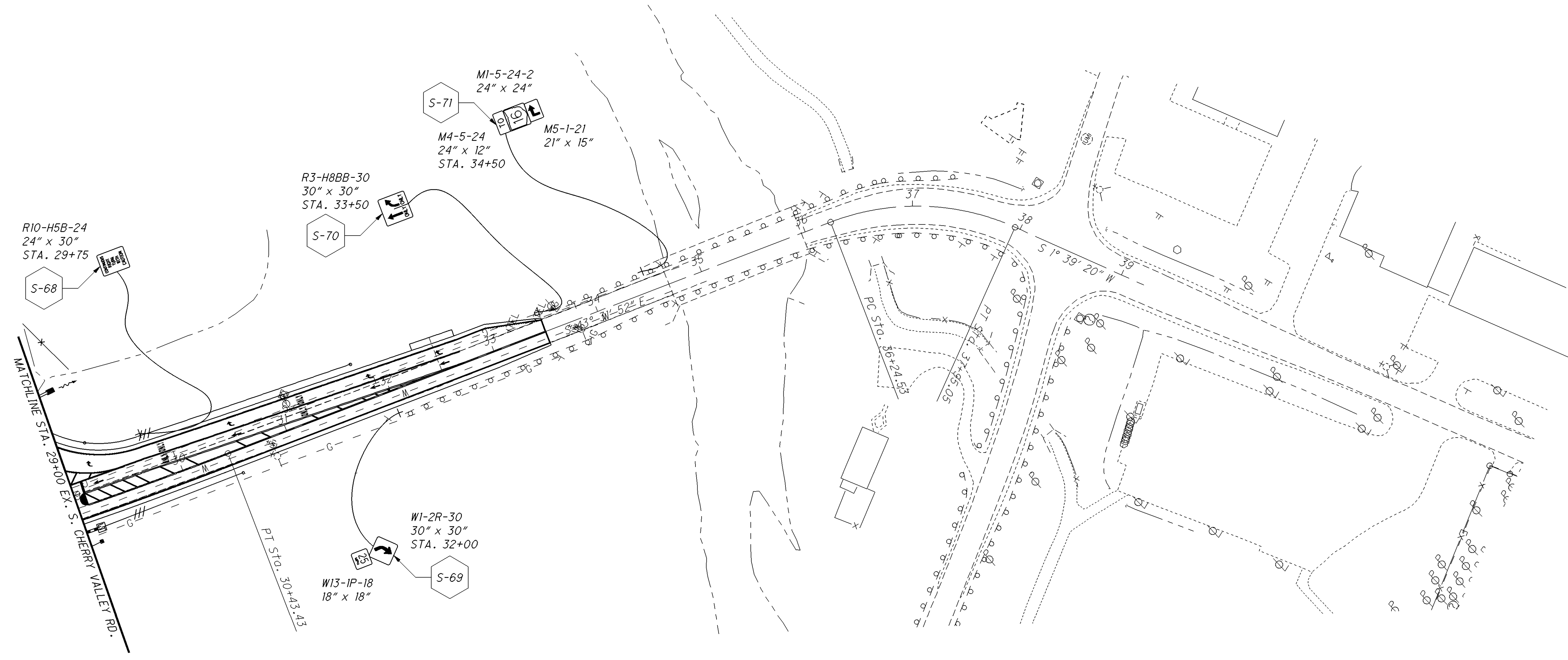
CALCULATED
BRH
CHECKED

**PROPOSED SIGNS - EX. S. CHERRY VALLEY RD.
STA. 14+50 TO STA. 29+00**

LIC-16-16.64

564
729

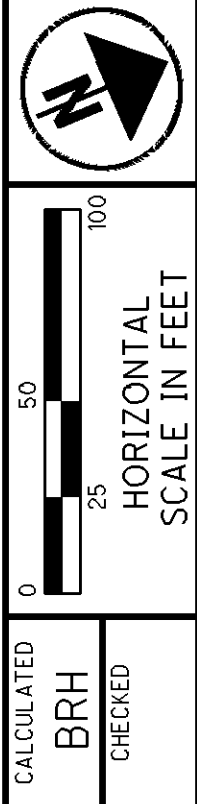
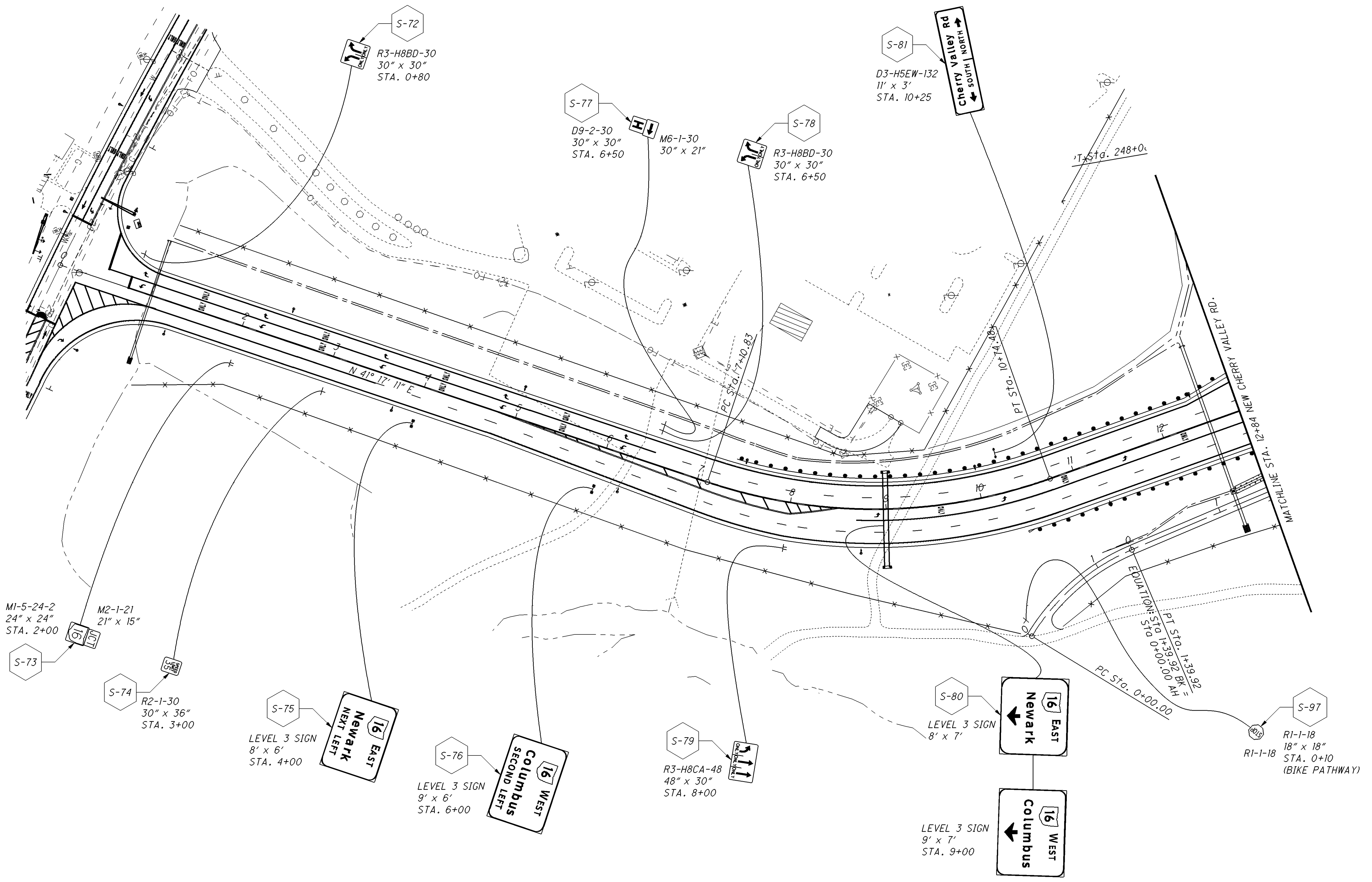




CALCULATED	BRH
CHECKED	

**PROPOSED SIGNS - EX. S. CHERRY VALLEY RD.
STA. 29+00 TO STA. 39+22**

LIC-16-16.64

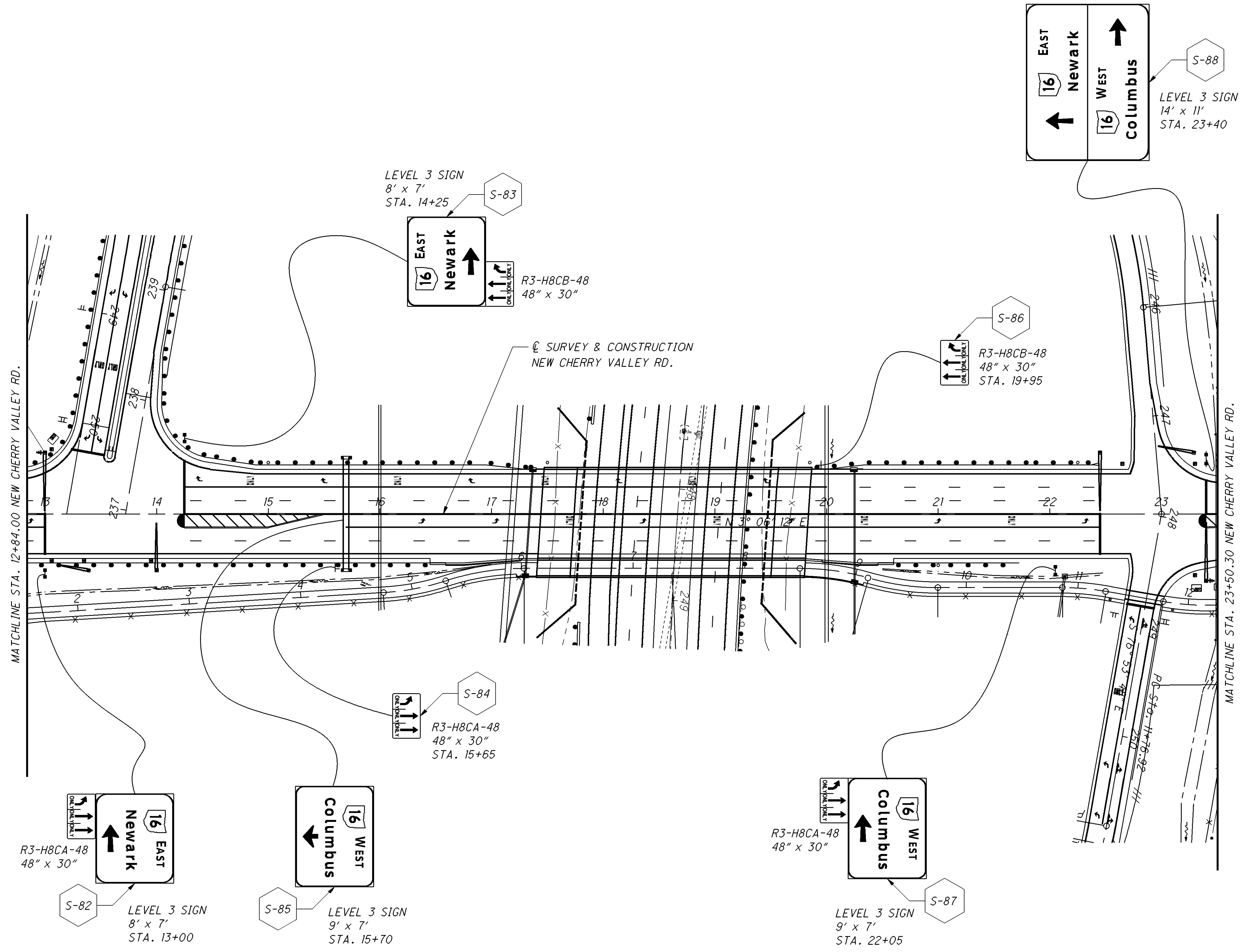


CALCULATED
BRH
CHECKED

**PROPOSED SIGNS - NEW CHERRY VALLEY RD.
STA. 0+00 TO STA. 12+84**

LIC-16-16.64

566
729

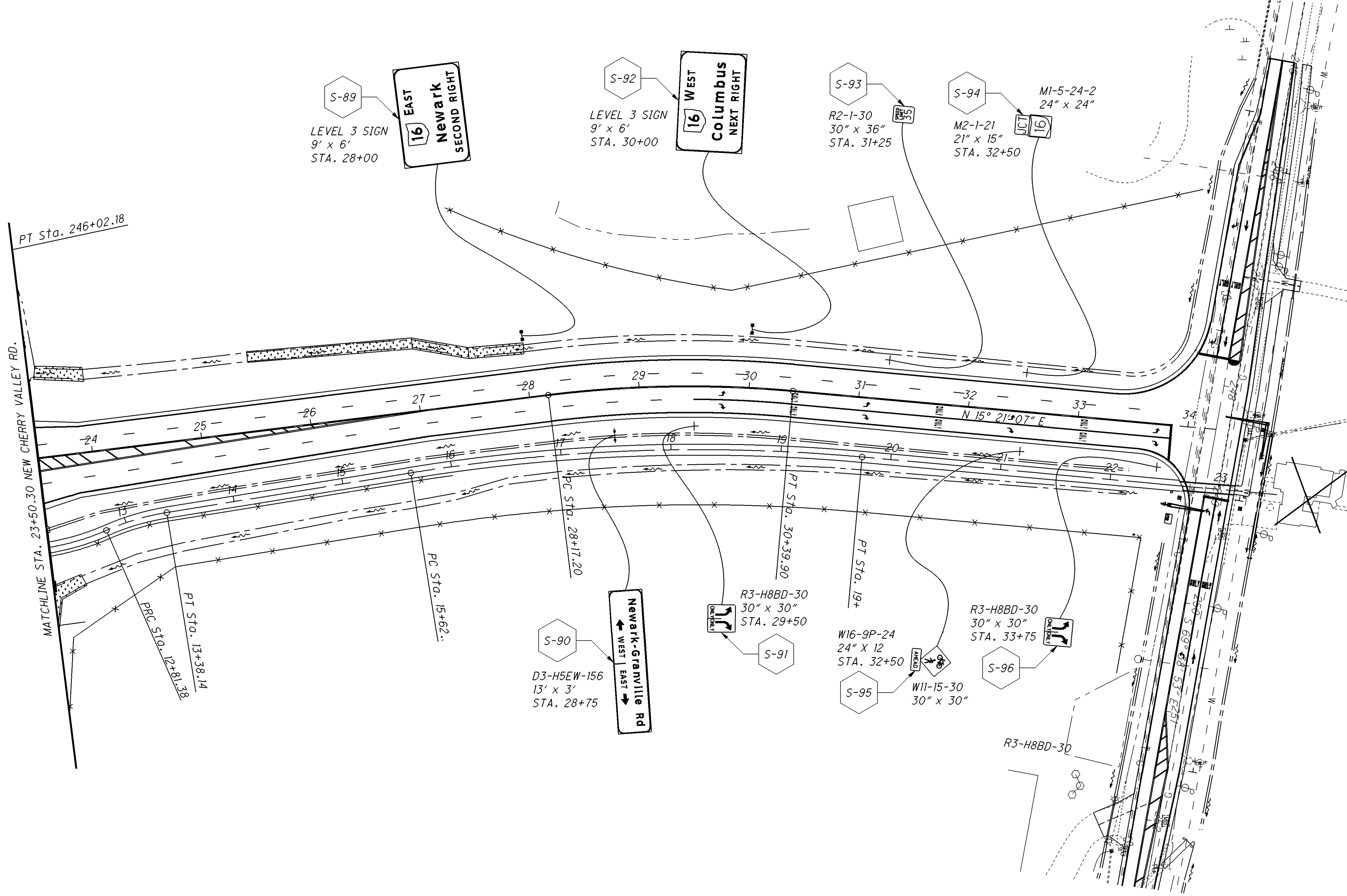


CALCULATED
BRH
CHECKED

0 25 50 100
HORIZONTAL
SCALE IN FEET

N

**PROPOSED SIGNS - NEW CHERRY VALLEY RD.
STA. 12+84.00 TO STA. 23+50.30**



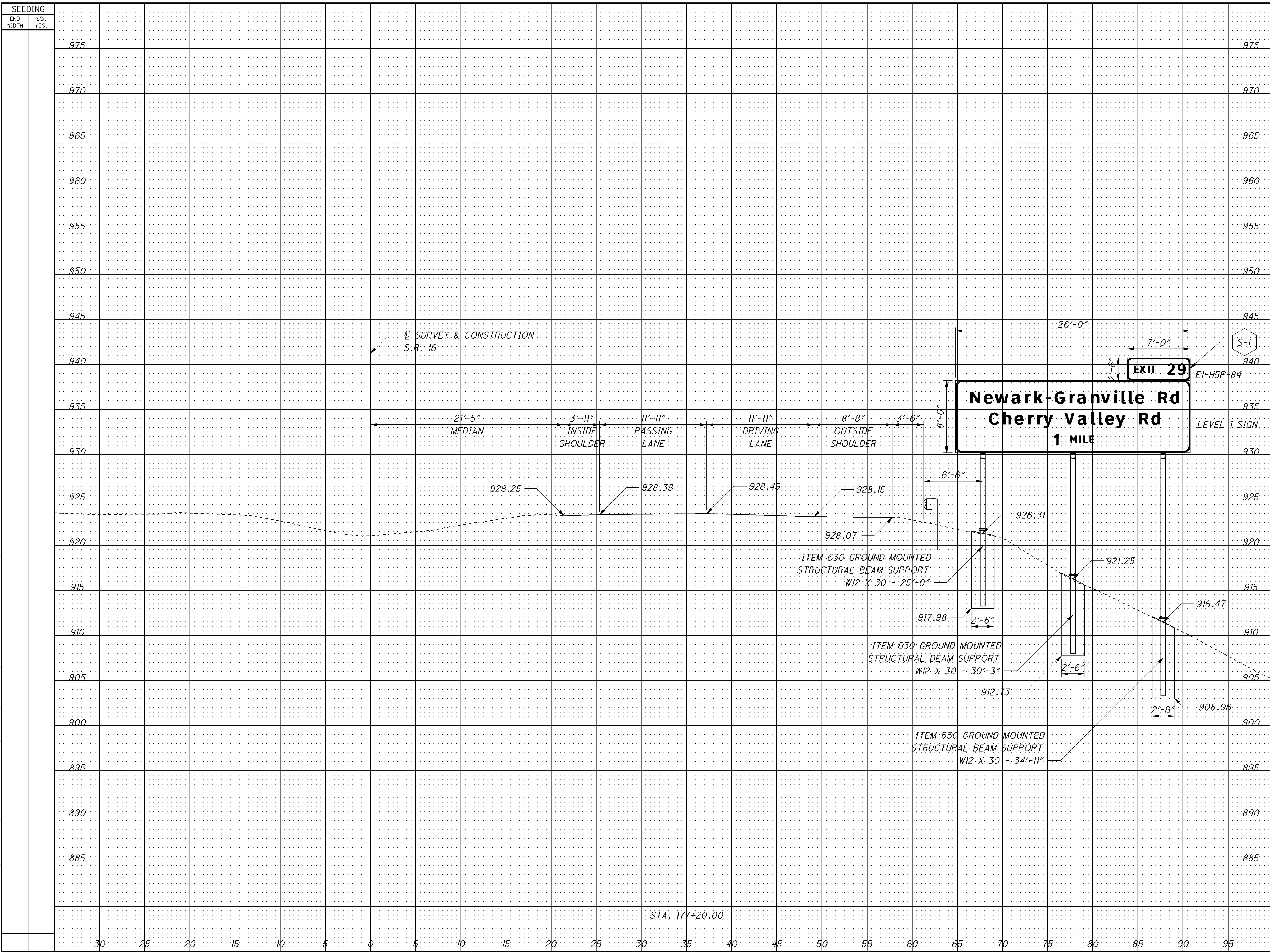
CALCULATED
BRH
CHECKED

0 25 50 100
HORIZONTAL
SCALE IN FEET

N

PROPOSED SIGNS - NEW CHERRY VALLEY RD.
STA. 24+00 TO STA. 32+00

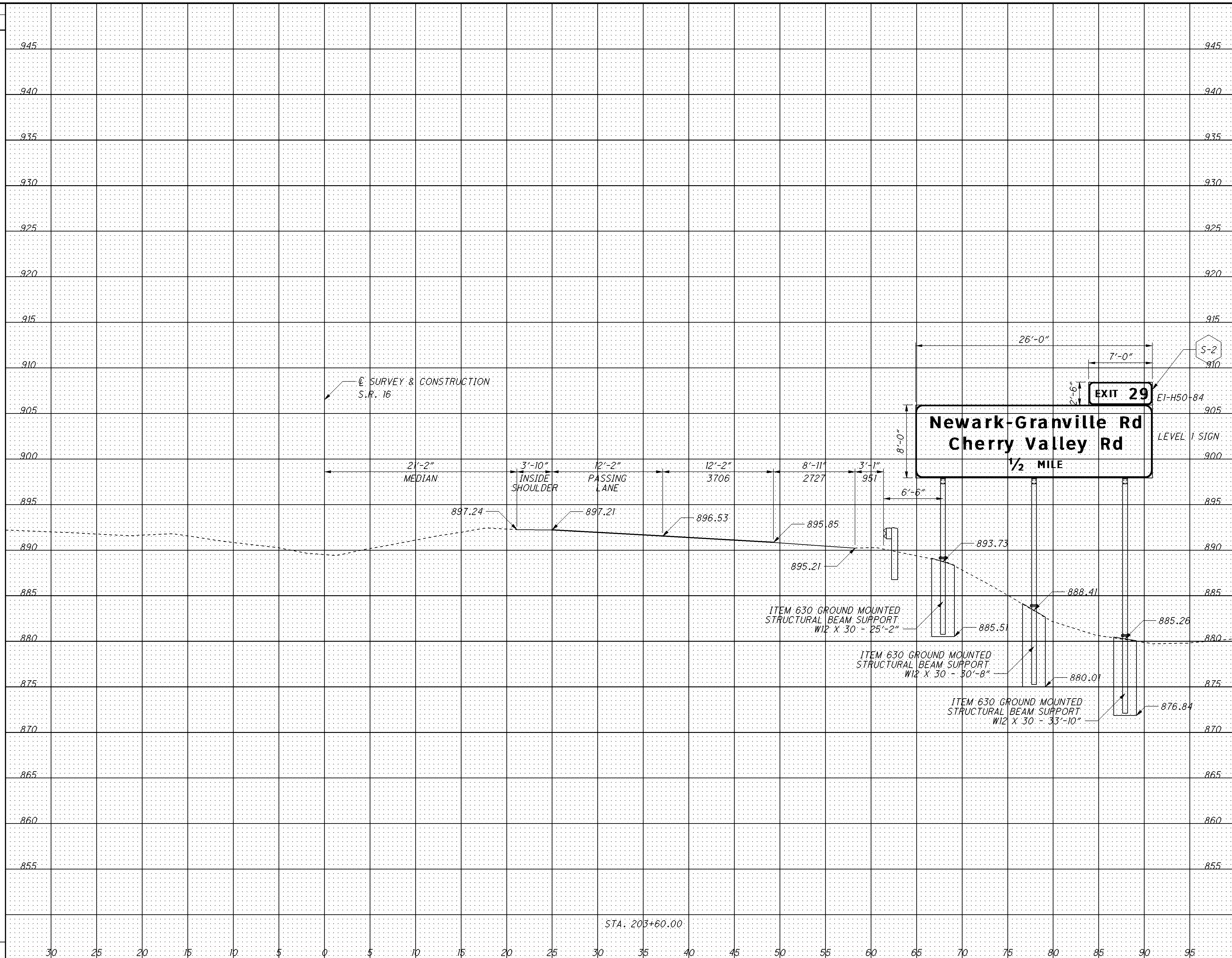
P:\LIC\80704\Design\Roadway\Plan_Sheets\Signs\Proposed_Signs\80704_PXS_SIGNS.dgn 28-FEB-2015 8:42AM bharlow SHEET 1 OF 19 5-Scale



END	AREA		VOLUME	
	CUT	FILL	CUT	FILL

CALCULATED
 BRH
 CHECKED
 PROPOSED SIGNS S-1
 S.R. 16 STA. 177+20.00
 LIC-16-16.64
 569
 729

SEEDING	
END WIDTH	SO. YDS.
30	945
25	940
20	935
15	930
10	925
5	920
0	915
5	910
10	905
15	900
20	895
25	890
30	885
35	880
40	875
45	870
50	865
55	860
60	855



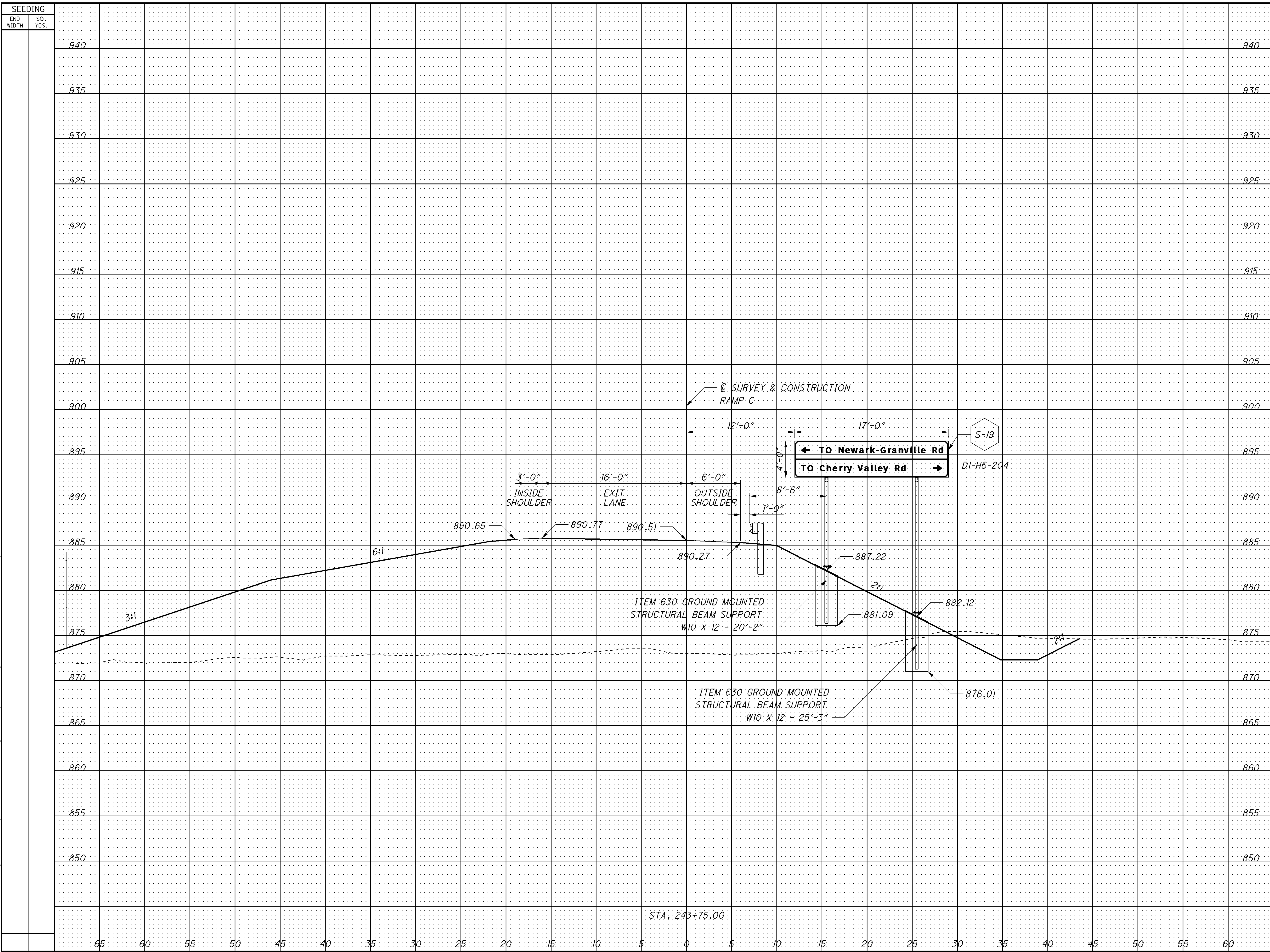
END	AREA		VOLUME		CALCULATED	BRH	CHECKED
	CUT	FILL	CUT	FILL			

PROPOSED SIGNS S-2
S.R. 16 STA. 203+60.00

LIC-16-16.64

570
729

P:\LIC\80704\Design\Roadway\Plan_Sheets\Signs\Proposed_Signs\80704_PXS_SIGNS.dgn 28-FEB-2015 8:42AM bharlow SHEET 4 OF 19 5-Scale



SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
940					
935					
930					
925					
920					
915					
910					
905					
900					
895					
890					
885					
880					
875					
870					
865					
860					
855					
850					

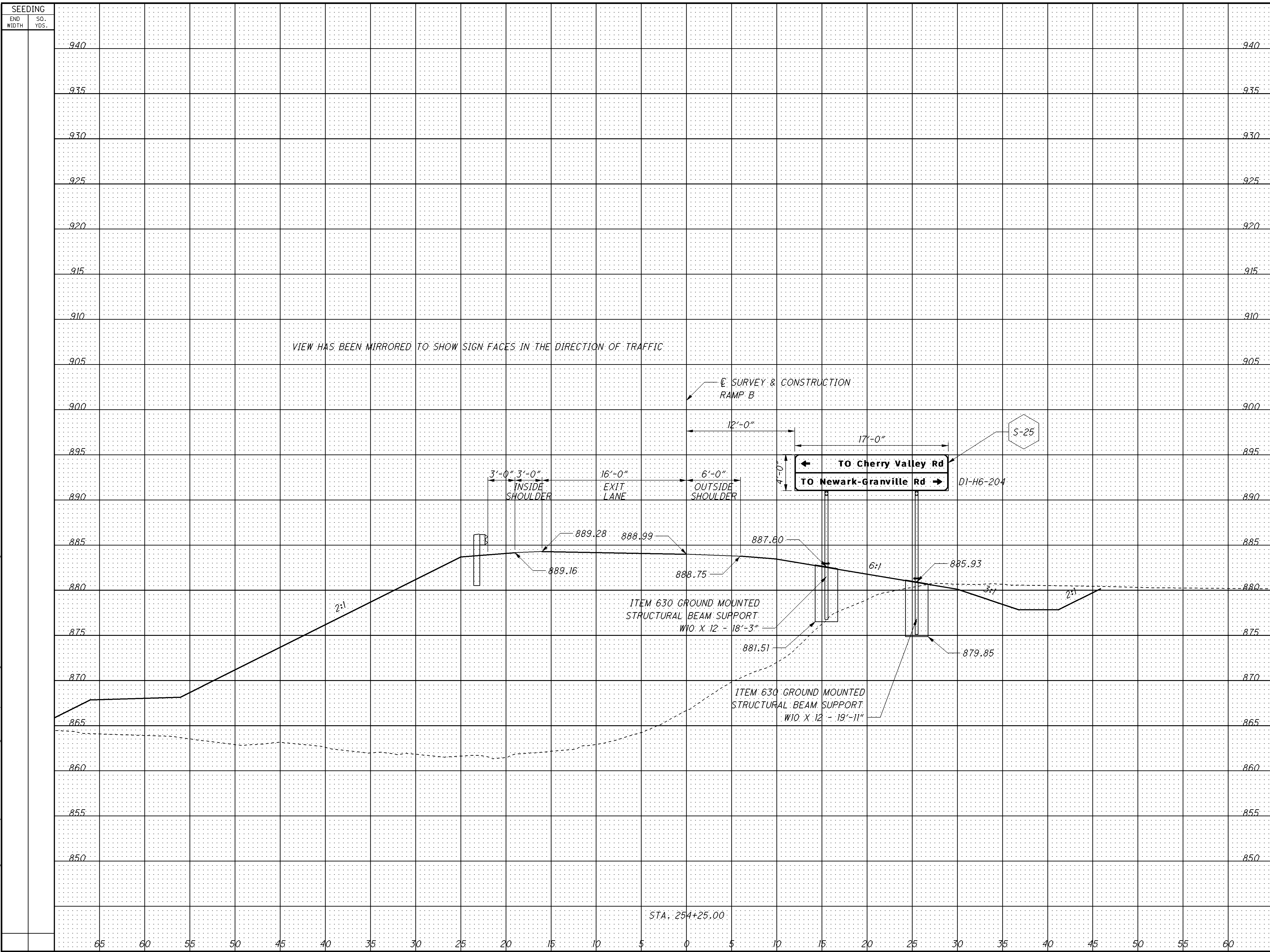
CALCULATED BRH CHECKED

PROPOSED SIGN S-19
RAMP C STA. 243+75.00

LIC-16-16.64

572
729

P:\LIC\80704\Design\Roadway\Plan_Sheets\Signs\Proposed_Signs\80704_PXS_SIGNS.dgn 28-FEB-2015 8:42AM bharlow SHEET 5 OF 19 5-Scale



SEEDING		END AREA		VOLUME	
END WIDTH	SO. YDS.	CUT	FILL	CUT	FILL
940					
935					
930					
925					
920					
915					
910					
905					
900					
895					
890					
885					
880					
875					
870					
865					
860					
855					
850					

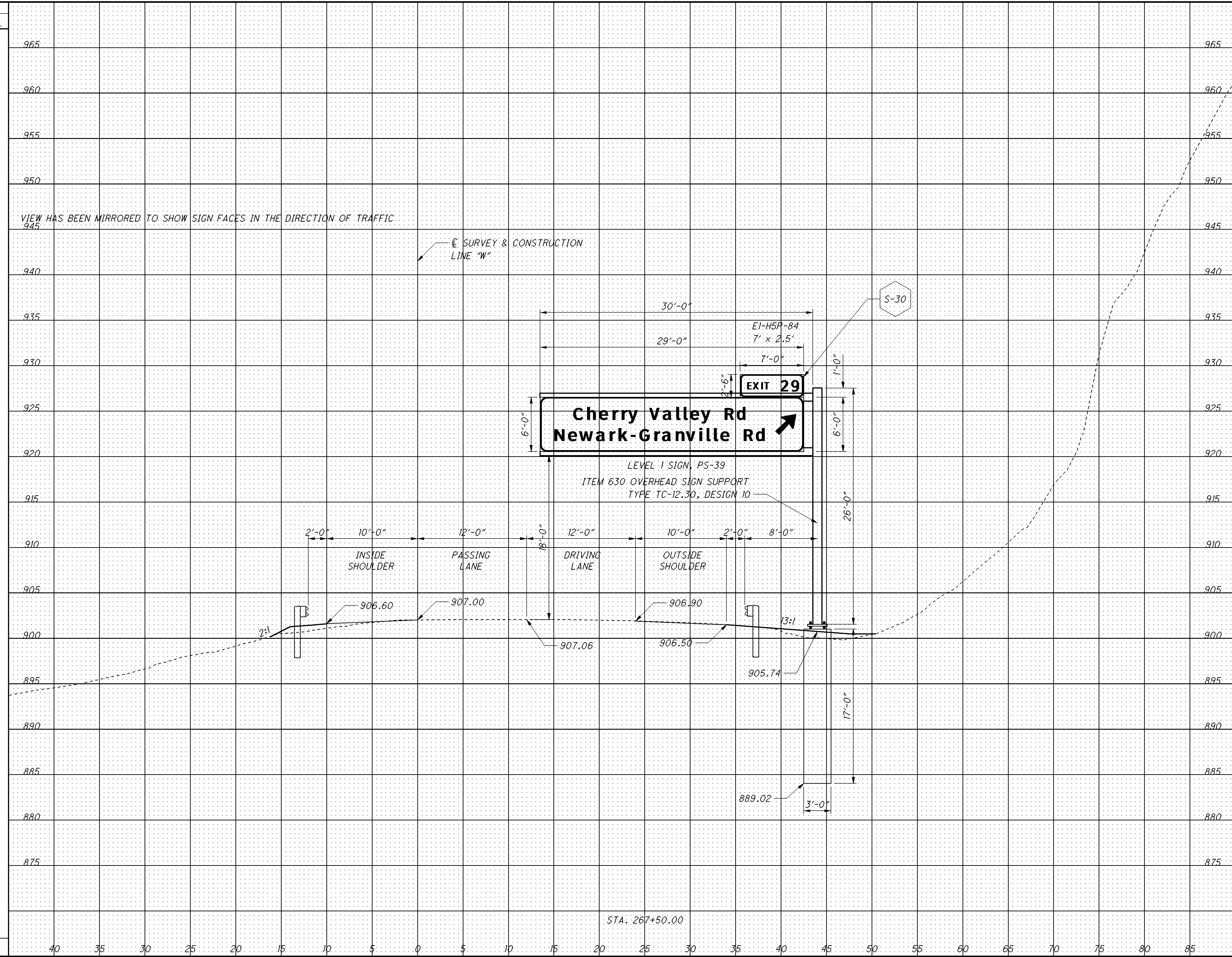
CALCULATED BRH CHECKED

PROPOSED SIGN S-25
RAMP B STA. 254+00.00

LIC-16-16.64

573
729

SEEDING	
END WIDTH	SO. YDS.

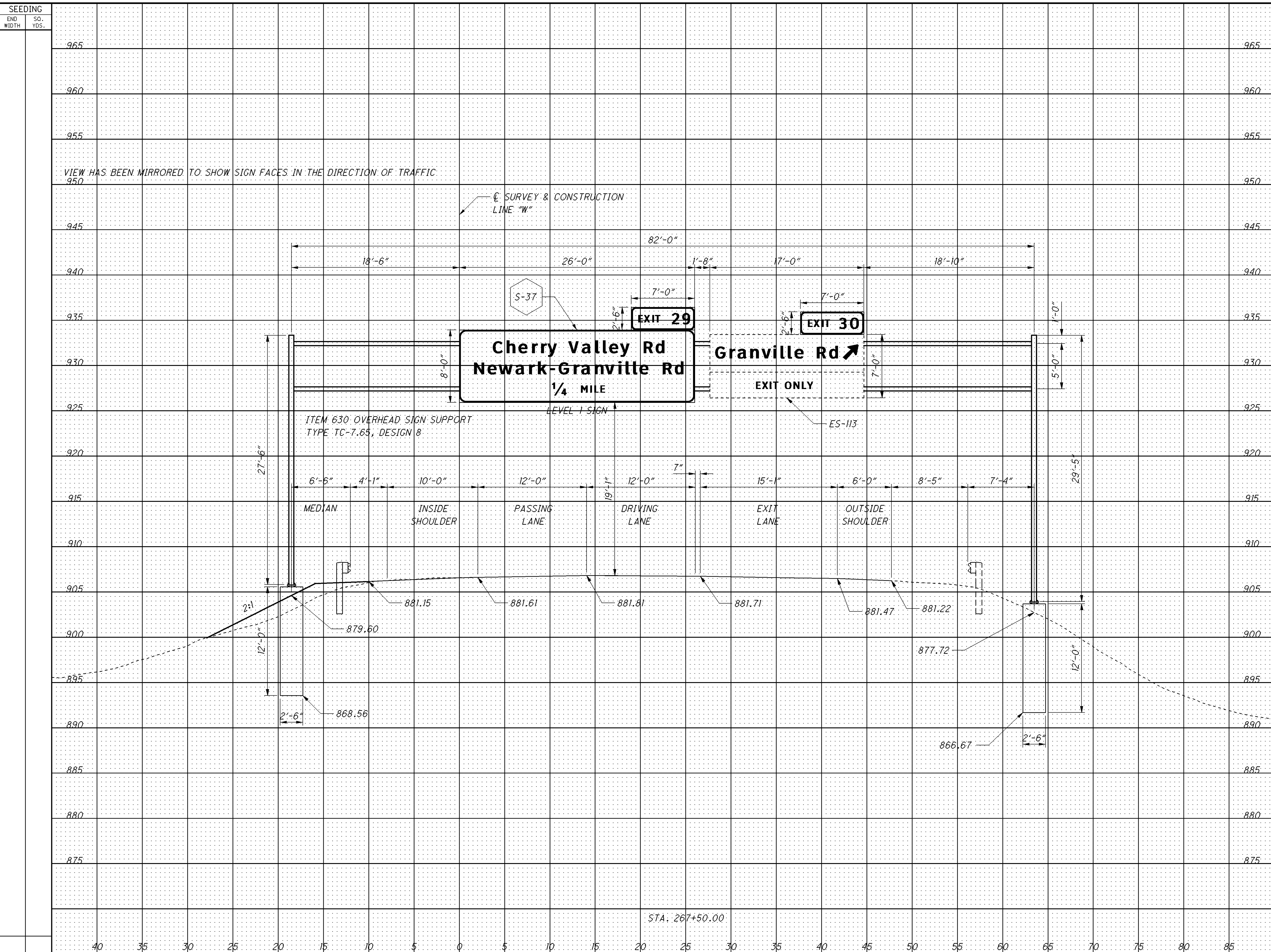


END STA	AREA		VOLUME	
	CUT	FILL	CUT	FILL
965				
960				
955				
950				
945				
940				
935				
930				
925				
920				
915				
910				
905				
900				
895				
890				
885				
880				
875				

PROPOSED SIGNS S-30
LINE "W" STA. 267+50.00

LIC-16-16.64

CALCULATED	BRH	CHECKED
574	729	



END STA.	AREA		VOLUME	
	CUT	FILL	CUT	FILL
965				
960				
955				
950				
945				
940				
935				
930				
925				
920				
915				
910				
905				
900				
895				
890				
885				
880				
875				

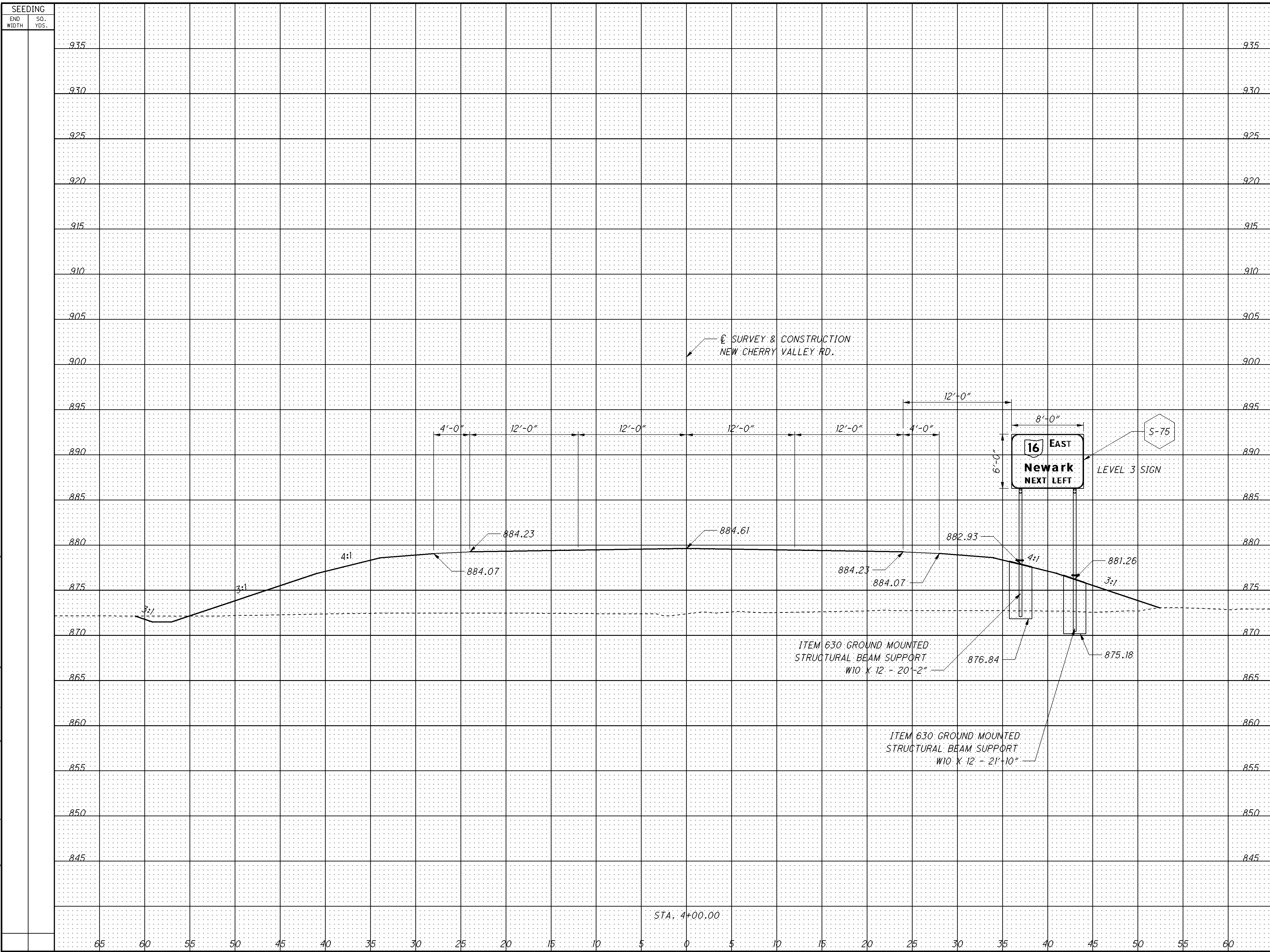
CALCULATED
BRH
CHECKED

PROPOSED SIGNS S-37
LINE "W" STA. 267+50.00

LIC-16-16.64

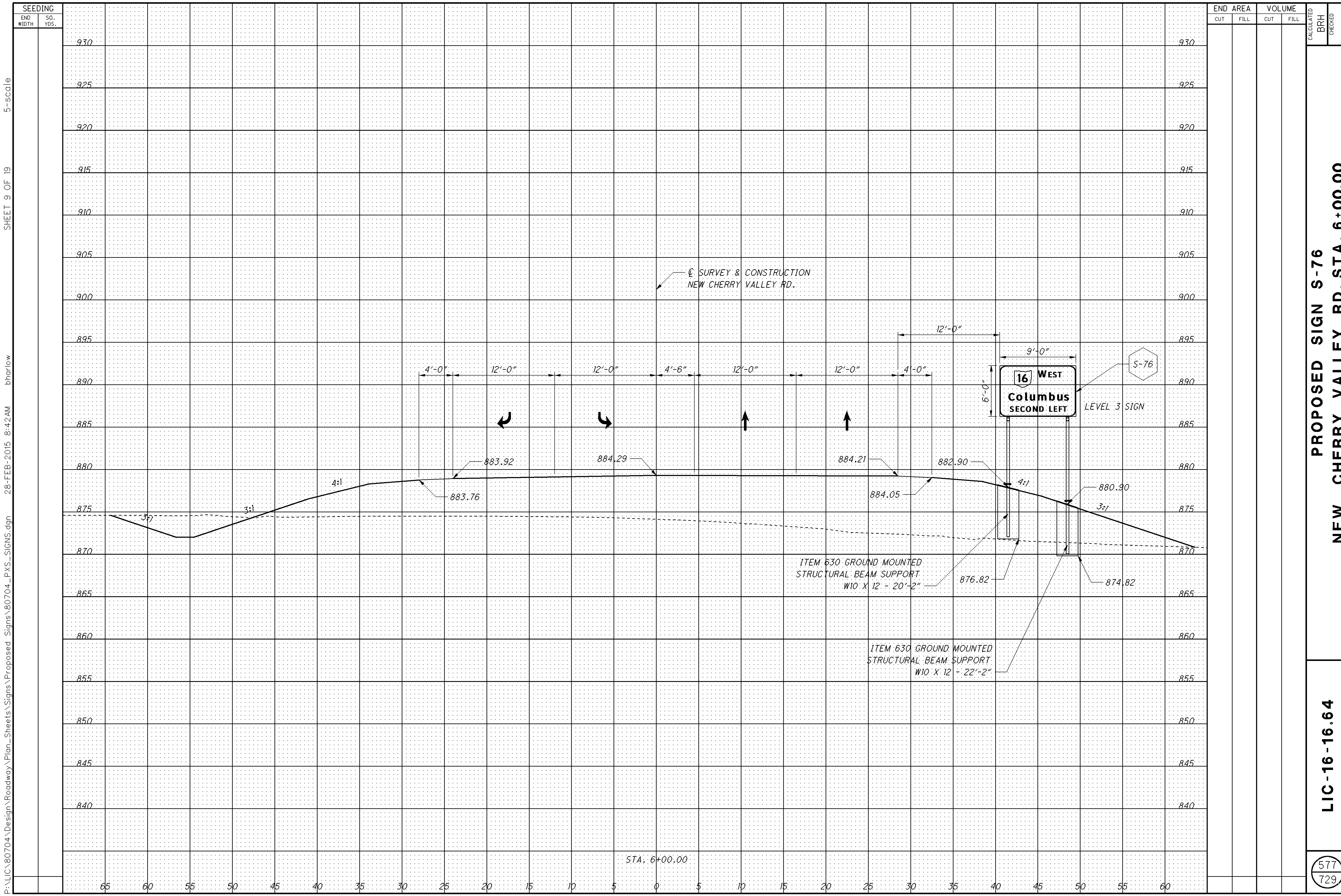
575
729

P:\LIC\80704\Design\Roadway\Plan_Sheets\Signs\Proposed_Signs\80704_PXS_SIGNS.dgn 28-FEB-2015 8:42AM bharlow SHEET 8 OF 19 5-Scale



SEEDING		END AREA		VOLUME	
END WIDTH	SO. YDS.	CUT	FILL	CUT	FILL
935					
930					
925					
920					
915					
910					
905					
900					
895					
890					
885					
880					
875					
870					
865					
860					
855					
850					
845					

CALCULATED BRH CHECKED
PROPOSED SIGN S-75
NEW CHERRY VALLEY RD. STA. 4+00.00
LIC-16-16.64
 576
 729



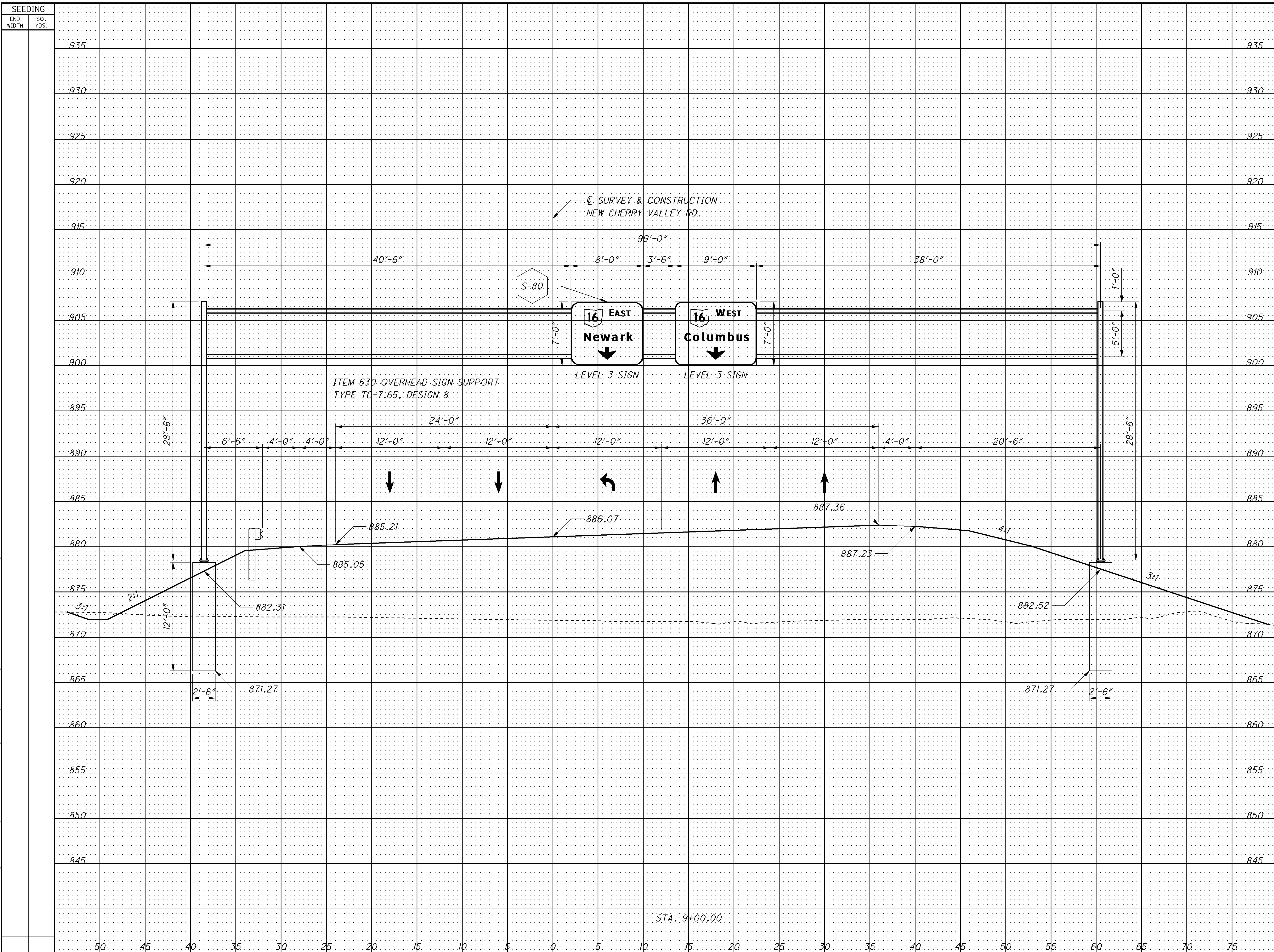
P:\LIC\80704\Design\Roadway\Plan_Sheets\Signs\Proposed_Signs\80704_PXS_SIGNS.dgn 28-FEB-2015 8:42AM bharlow SHEET 9 OF 19 5-Scale

SEEDING		END AREA	VOLUME		CALCULATED BRH	CHECKED
END WIDTH	SO. YDS.		CUT	FILL		
	930					
	925					
	920					
	915					
	910					
	905					
	900					
	895					
	890					
	885					
	880					
	875					
	870					
	865					
	860					
	855					
	850					
	845					
	840					

PROPOSED SIGN S-76
NEW CHERRY VALLEY RD. STA. 6+00.00

LIC-16-16.64

577
729



END AREA	VOLUME				
		CUT	FILL	CUT	FILL

CALCULATED BRH CHECKED

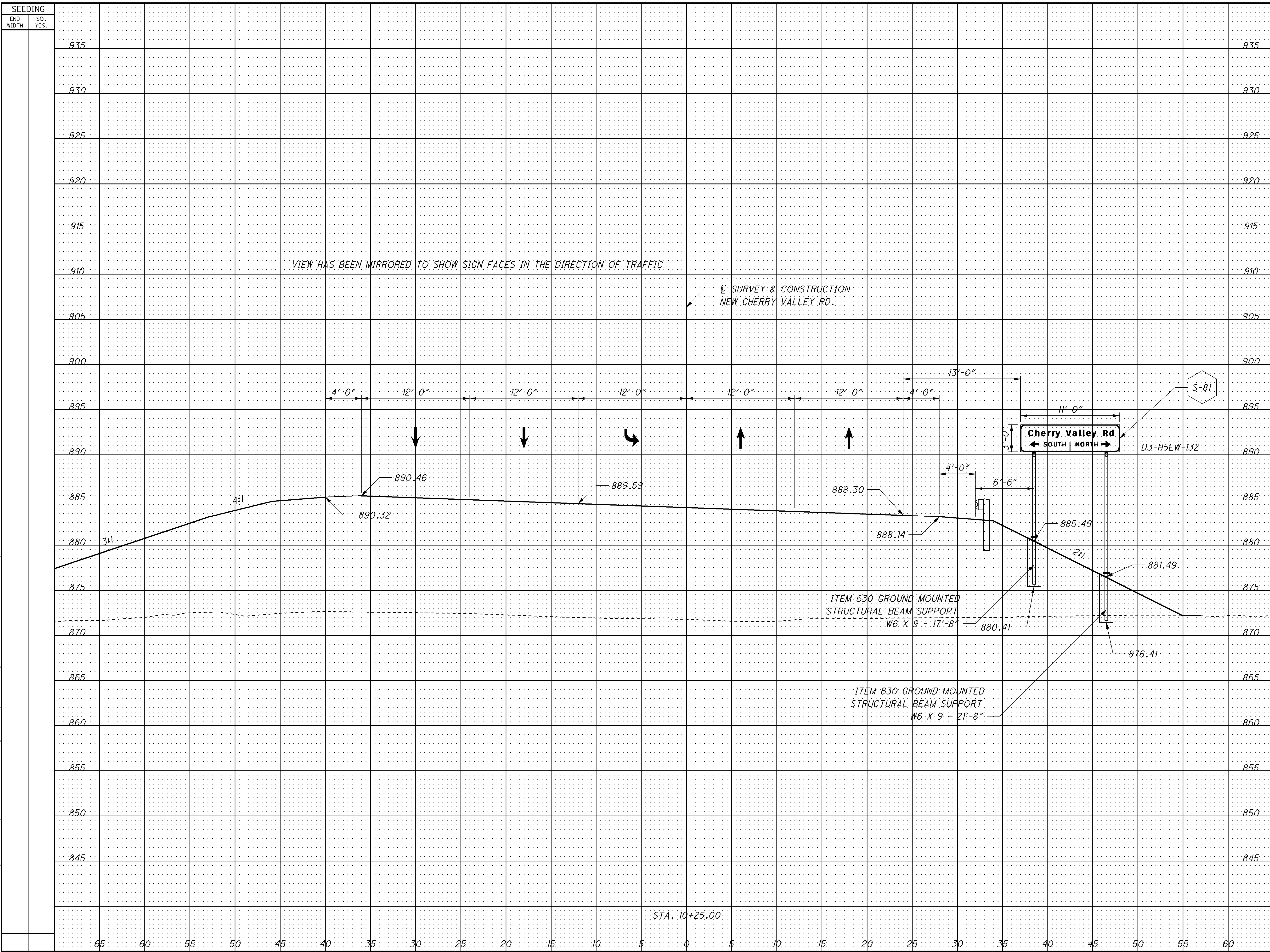
PROPOSED SIGNS S-80

NEW CHERRY VALLEY RD. STA. 9+00.00

LIC-16-16.64

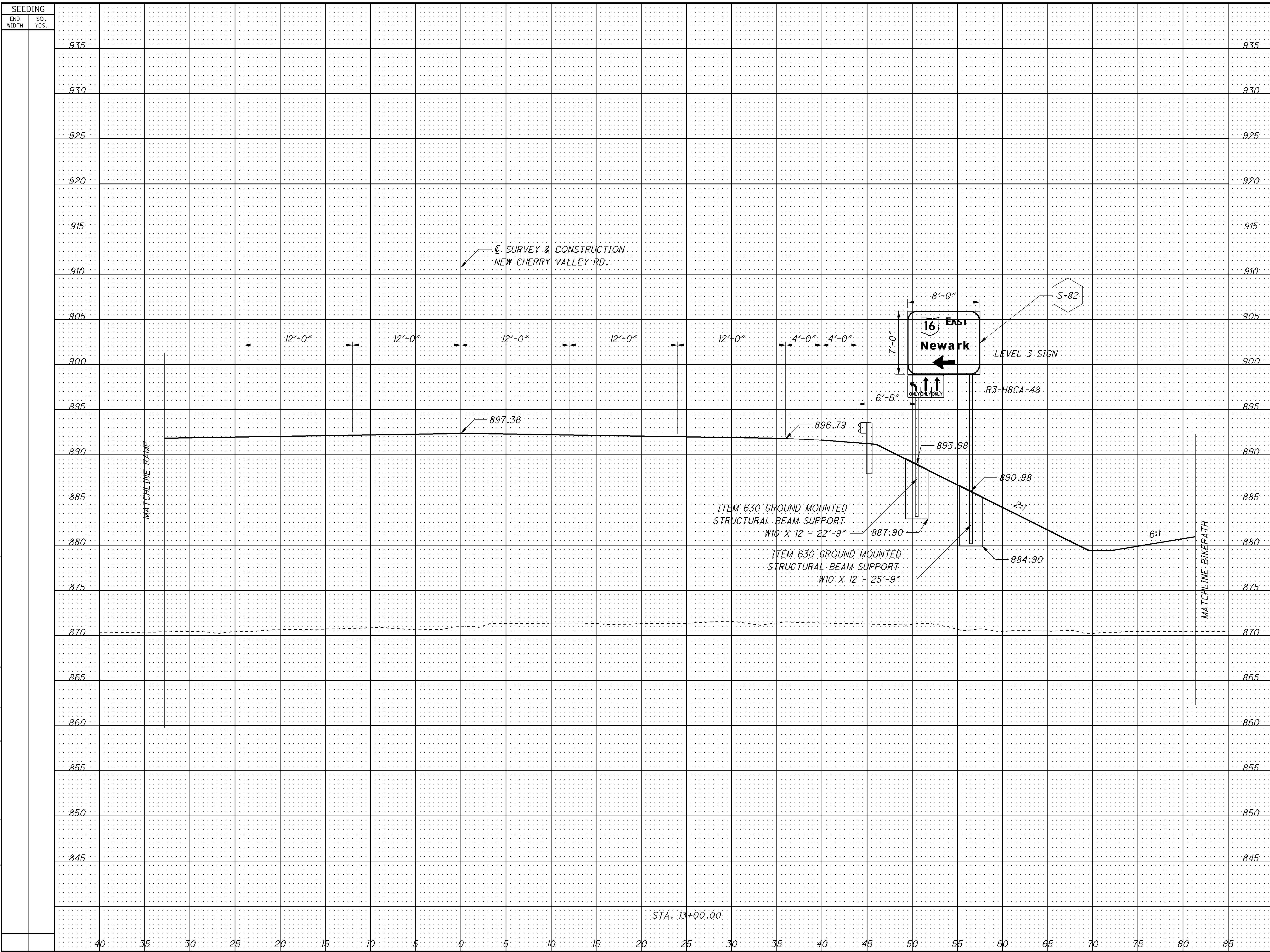
578
729

P:\LIC\80704\Design\Roadway\Plan_Sheets\Signs\Proposed_Signs\80704_PXS_SIGNS.dgn 28-FEB-2015 8:42AM bharlow SHEET 11 OF 19 5-Scale



SEEDING		END AREA		VOLUME	
END WIDTH	SO. YDS.	CUT	FILL	CUT	FILL
935					
930					
925					
920					
915					
910					
905					
900					
895					
890					
885					
880					
875					
870					
865					
860					
855					
850					
845					

CALCULATED BRH CHECKED
PROPOSED SIGN S-81
NEW CHERRY VALLEY RD. STA. 10+25.00
LIC-16-16.64
 579
 729

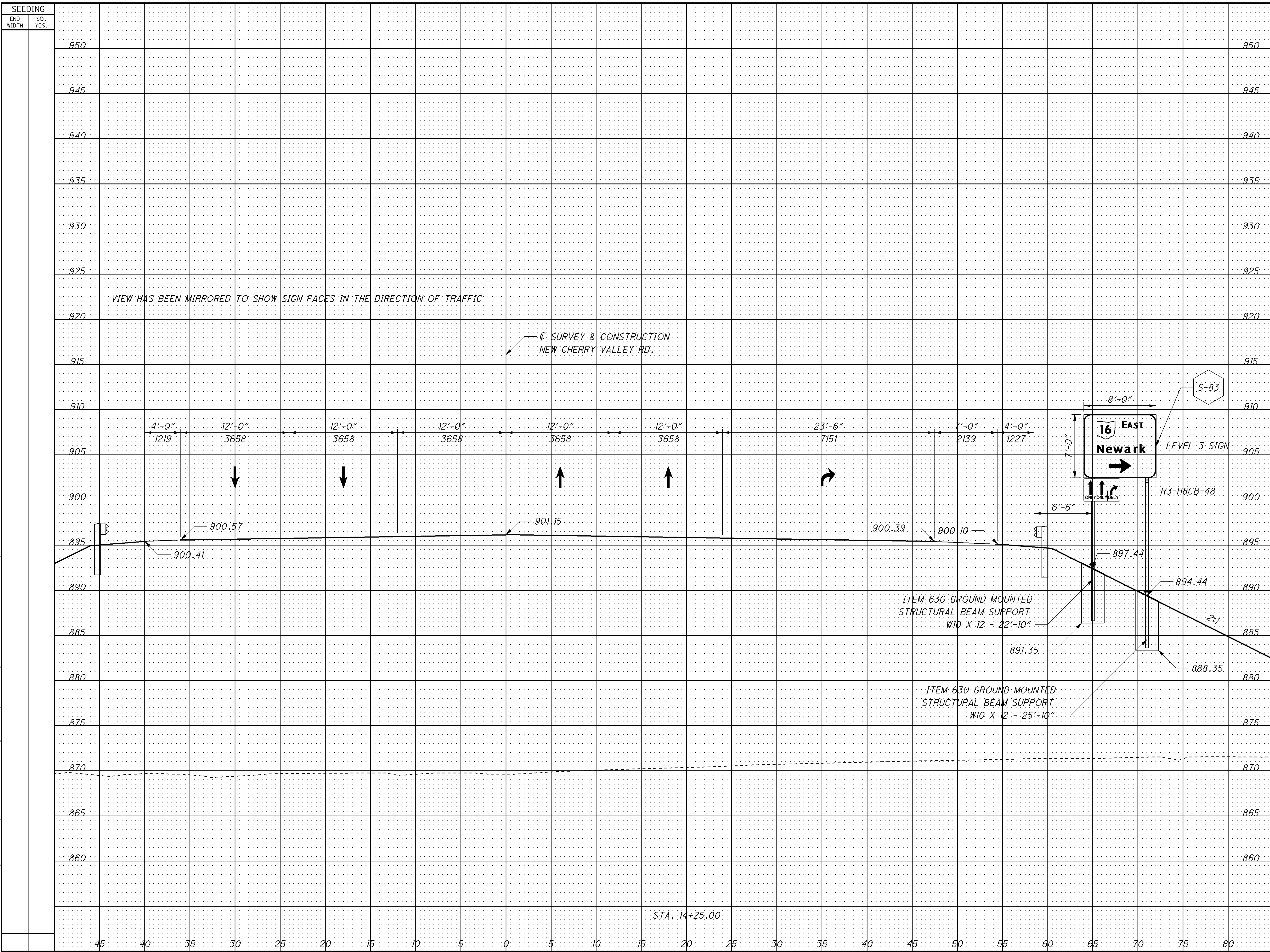


END	AREA		VOLUME	
	CUT	FILL	CUT	FILL
935				
930				
925				
920				
915				
910				
905				
900				
895				
890				
885				
880				
875				
870				
865				
860				
855				
850				
845				

PROPOSED SIGNS S-82
NEW CHERRY VALLEY RD. STA. 13+00.00

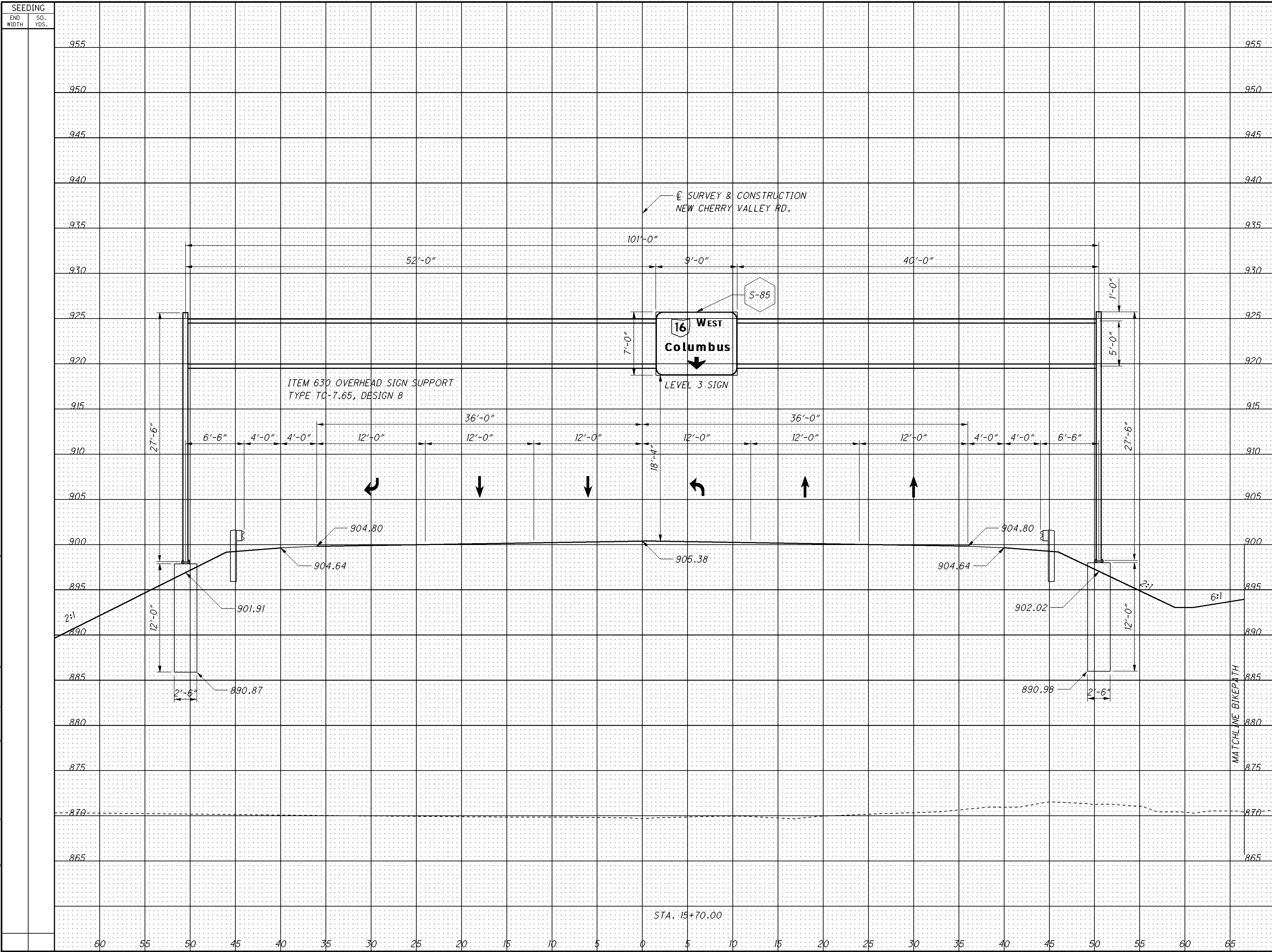
LIC-16-16.64

CALCULATED
 BRH
 CHECKED



SEEDING		END AREA		VOLUME	
END WIDTH	SO. YDS.	CUT	FILL	CUT	FILL
950					
945					
940					
935					
930					
925					
920					
915					
910					
905					
900					
895					
890					
885					
880					
875					
870					
865					
860					

CALCULATED BRH CHECKED
PROPOSED SIGNS S-83
NEW CHERRY VALLEY RD. STA. 14+25.00
LIC-16-16.64
 581
 729



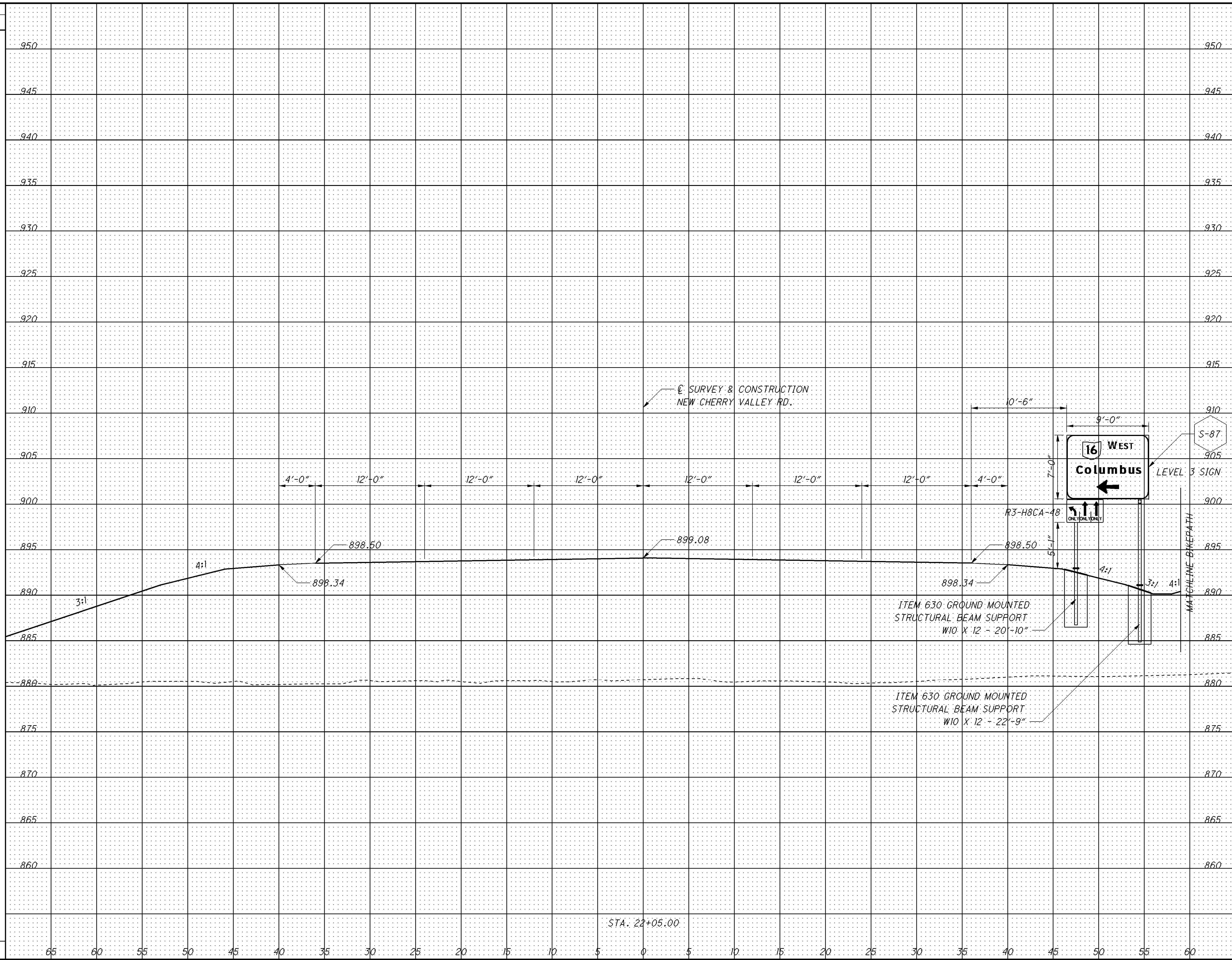
END	AREA		VOLUME	
	CUT	FILL	CUT	FILL
955				
950				
945				
940				
935				
930				
925				
920				
915				
910				
905				
900				
895				
890				
885				
880				
875				
870				
865				

CALCULATED
 BRH
 CHECKED

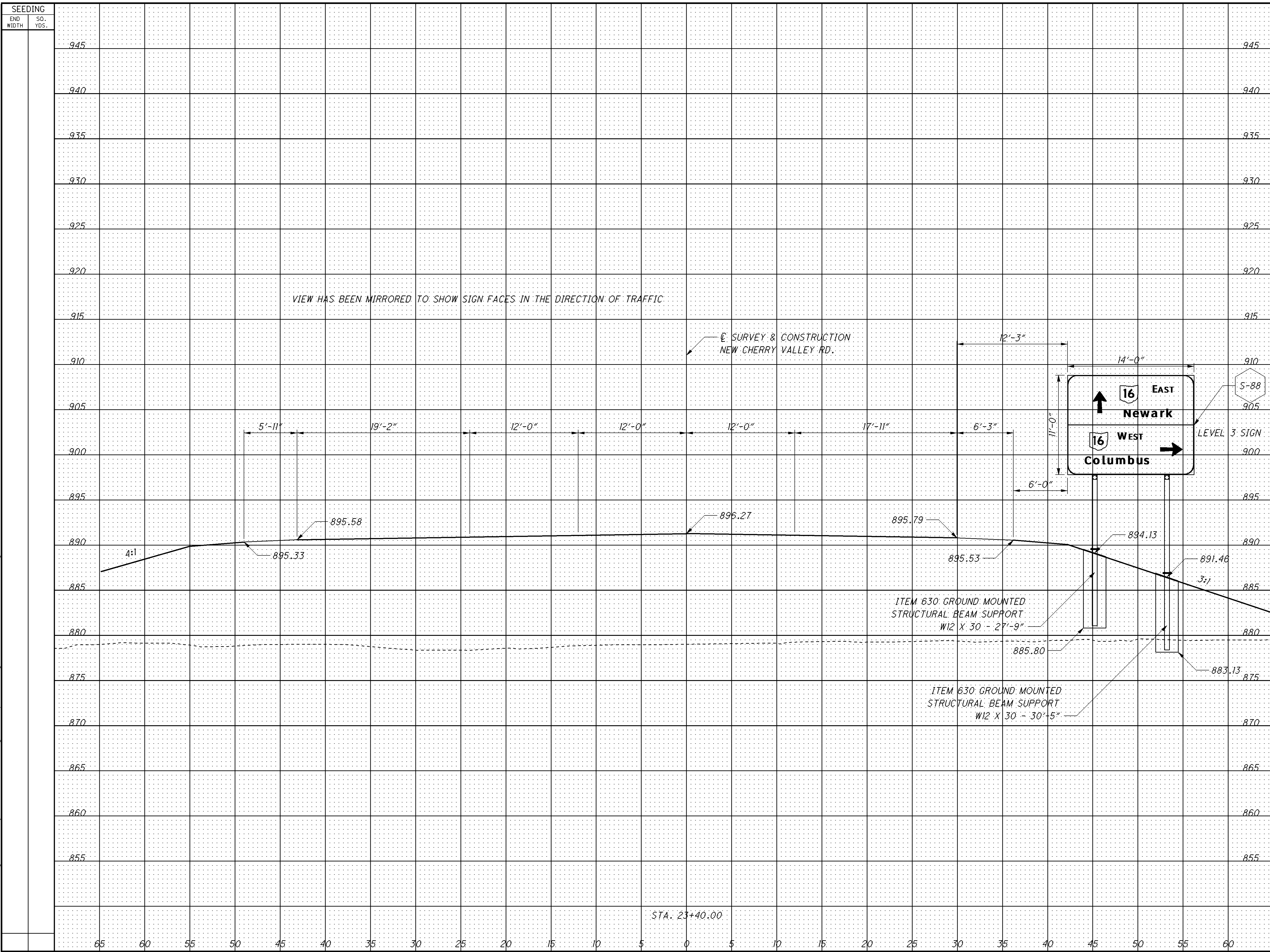
PROPOSED SIGN S-85
NEW CHERRY VALLEY RD. STA. 15+70.00

LIC-16-16.64

582
 729



SEEDING		END AREA		VOLUME	
END WIDTH	SO. YDS.	CUT	FILL	CUT	FILL
950					
945					
940					
935					
930					
925					
920					
915					
910					
905					
900					
895					
890					
885					
880					
875					
870					
865					
860					



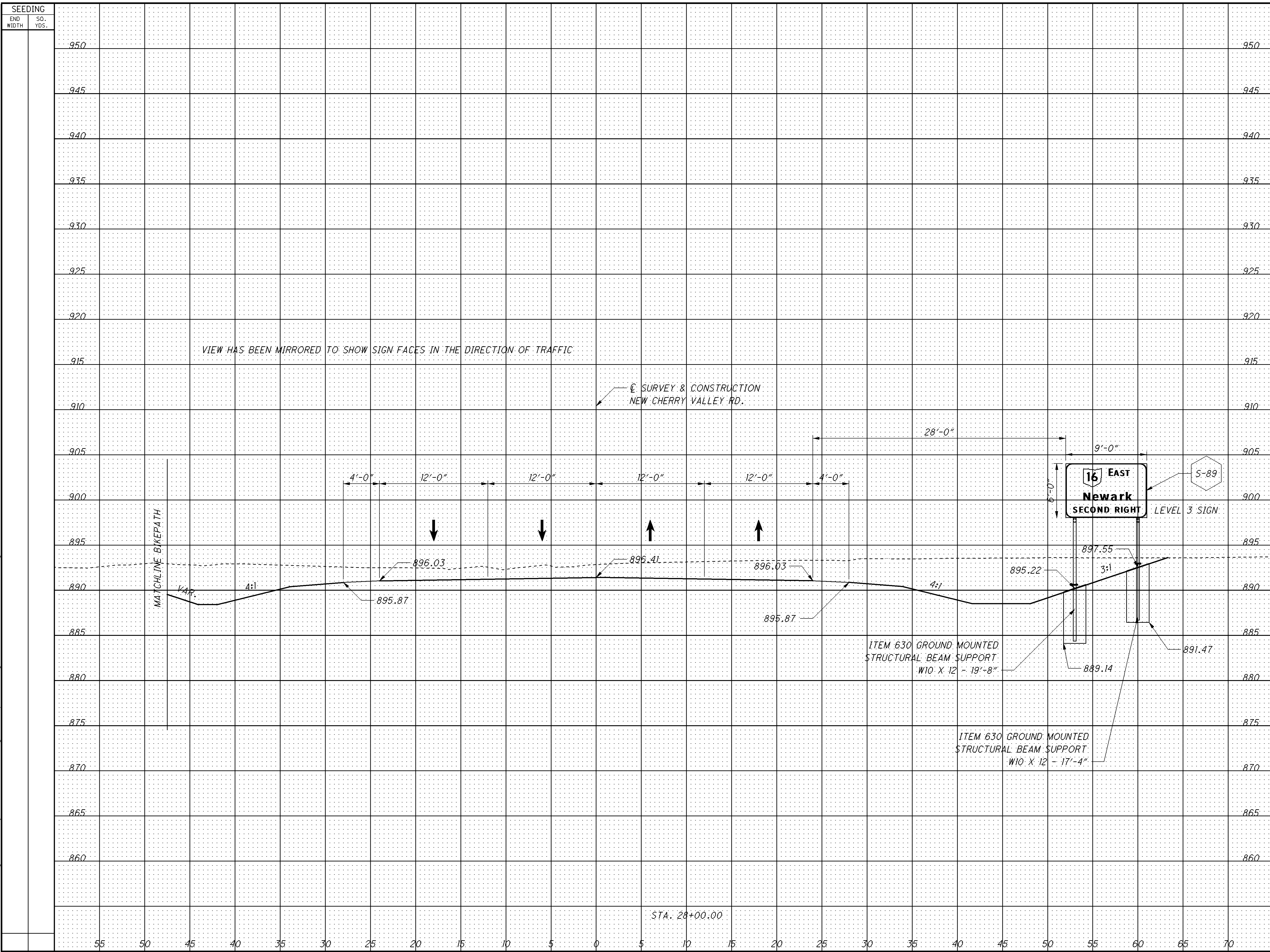
SEEDING		END AREA		VOLUME	
END WIDTH	SO. YDS.	CUT	FILL	CUT	FILL
945					
940					
935					
930					
925					
920					
915					
910					
905					
900					
895					
890					
885					
880					
875					
870					
865					
860					
855					

CALCULATED
BRH
CHECKED

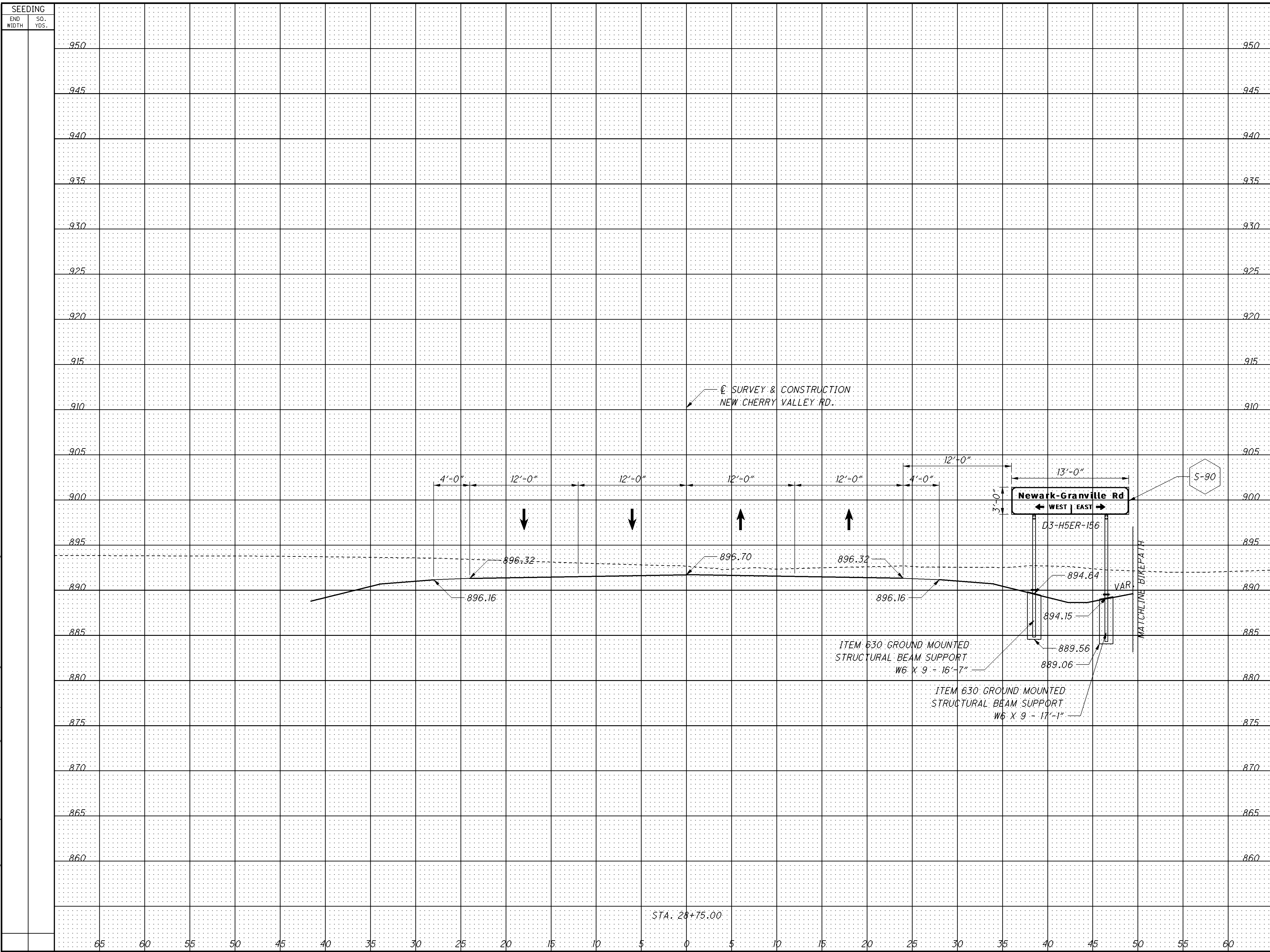
**PROPOSED SIGN S-88
NEW CHERRY VALLEY RD. STA. 23+40.00**

LIC-16-16.64

584
729

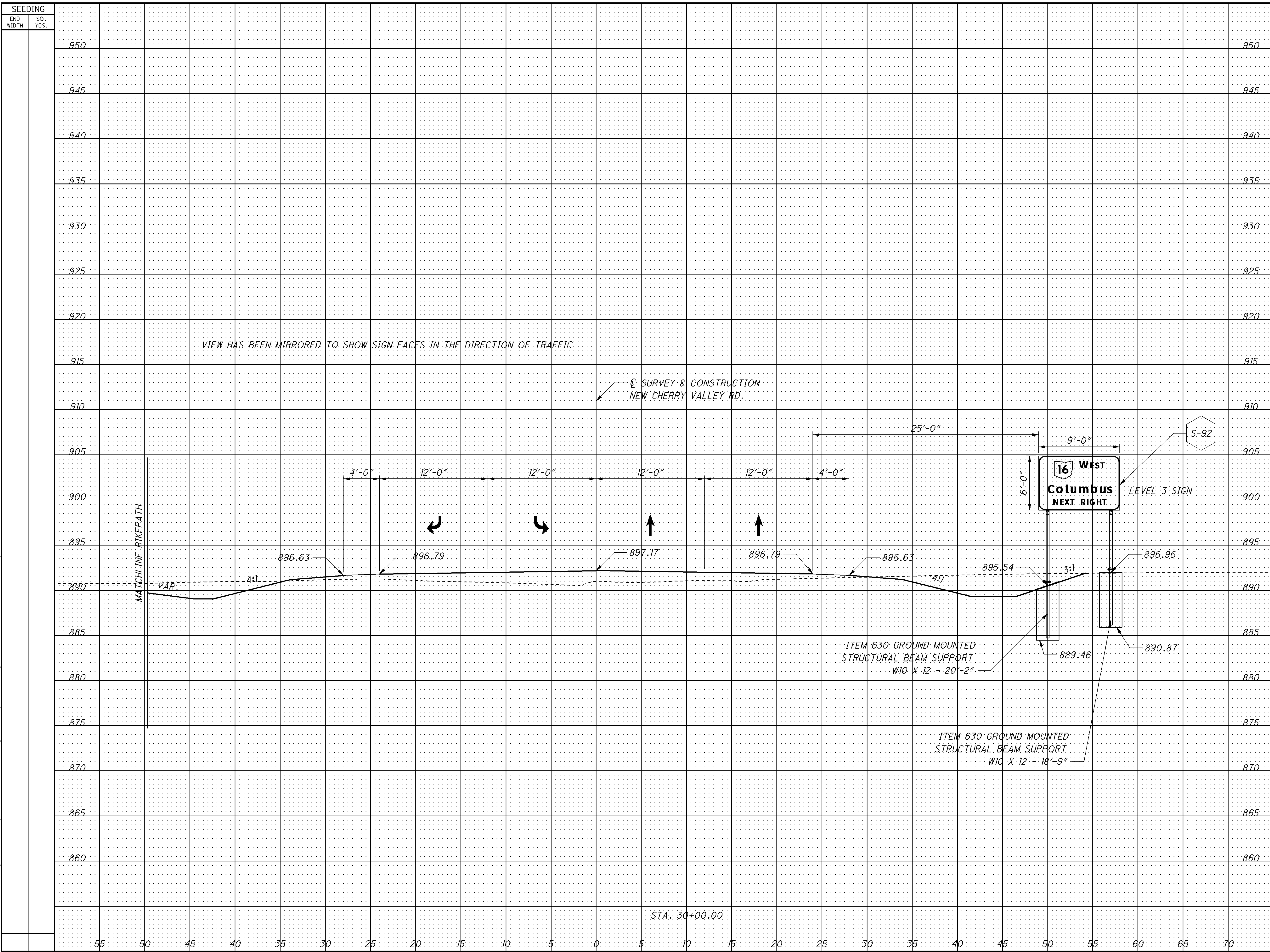


END	AREA		VOLUME	
	CUT	FILL	CUT	FILL
950				
945				
940				
935				
930				
925				
920				
915				
910				
905				
900				
895				
890				
885				
880				
875				
870				
865				
860				



SEEDING		END AREA		VOLUME	
END WIDTH	SO. YDS.	CUT	FILL	CUT	FILL
	950				
	945				
	940				
	935				
	930				
	925				
	920				
	915				
	910				
	905				
	900				
	895				
	890				
	885				
	880				
	875				
	870				
	865				
	860				

CALCULATED BRH CHECKED
PROPOSED SIGN S-90
NEW CHERRY VALLEY RD. STA. 28+75.00
LIC-16-16.64
 586
 729



END	AREA		VOLUME	
	CUT	FILL	CUT	FILL
950				
945				
940				
935				
930				
925				
920				
915				
910				
905				
900				
895				
890				
885				
880				
875				
870				
865				
860				

CALCULATED
 BRH
 CHECKED
 PROPOSED SIGN S-92
 NEW CHERRY VALLEY RD. STA. 30+00.00
 LIC-16-16.64
 587
 729

GENERAL

THE CONTRACTOR SHALL FURNISH AND INSTALL TRAFFIC CONTROL EQUIPMENT AND MATERIALS IN CONFORMANCE TO THESE PLANS AND SPECIFICATIONS, THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS (CMS), SUPPLEMENTAL SPECIFICATIONS (SS), STANDARD CONSTRUCTION DRAWINGS (SCD) AND PLAN INSERT SHEETS (PIS).

BEFORE ANY EQUIPMENT IS ORDERED OR INSTALLATION HAS BEGUN, THREE SETS OF A COMPLETE SCHEDULE OF EQUIPMENT INCLUDING CATALOG CUTS, DIAGRAMS, DRAWINGS, BROCHURES OR OTHER DESCRIPTIVE DATA SHALL BE SUBMITTED TO THE ENGINEER. ONE COPY WILL BE RETURNED MARKED "APPROVED" IF FOUND SATISFACTORY. WORK MAY BEGIN WHEN THE APPROVED COPY IS RECEIVED BY THE CONTRACTOR.

ANY EQUIPMENT OR MATERIAL NOT SPECIFICALLY CALLED FOR IN THESE SPECIFICATIONS BUT NECESSARY TO PROVIDE A COMPLETE AND SUCCESSFULLY OPERATING SYSTEM SHALL BE FURNISHED AS INCIDENTAL TO THE CONTRACT. PAYMENT FOR SUCH ITEMS WILL BE MADE UNDER THE APPROPRIATE RELATED ITEM AT THE CONTRACT BID PRICE, COMPLETE AND IN PLACE.

ALL NECESSARY SIGNS AND PAVEMENT MARKINGS SHALL BE IN PLACE BEFORE ANY SIGNAL MAY BE PLACED IN OPERATION UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

GUARANTEE

THE CONTRACTOR SHALL GUARANTEE THAT THE TRAFFIC CONTROL SYSTEM INSTALLED AS PART OF THIS CONTRACT SHALL OPERATE SATISFACTORILY FOR A PERIOD OF **180 DAYS** FOLLOWING COMPLETION OF THE TEN DAY PERFORMANCE TEST. IN THE EVENT OF UNSATISFACTORY OPERATION THE CONTRACTOR SHALL CORRECT FAULTY INSTALLATIONS, MAKE REPAIRS AND REPLACE DEFECTIVE PARTS WITH NEW PARTS OF EQUAL OR BETTER QUALITY. EQUIPMENT, MATERIAL, AND LABOR COSTS INCURRED IN CORRECTING AN UNSATISFACTORY OPERATION SHALL BE BORNE BY THE CONTRACTOR.

THE GUARANTEE SHALL COVER THE FOLLOWING ITEMS OF THE TRAFFIC CONTROL SYSTEM: CONTROLLERS, DETECTION CAMERAS, SPREAD SPECTRUM RADIO AND ALL ASSOCIATED EQUIPMENT.

CUSTOMARY MANUFACTURER'S GUARANTEES FOR THE FOREGOING ITEMS SHALL BE TURNED OVER TO THE STATE OR THE MAINTAINING AGENCY FOLLOWING ACCEPTANCE OF THE EQUIPMENT.

THE COST OF GUARANTEEING THE TRAFFIC CONTROL SYSTEM SHALL BE INCIDENTAL TO AND INCLUDED IN THE UNIT PRICE BID OF THE VARIOUS ITEMS MAKING UP THE SYSTEM.

UNDERDRAINS FOR PULL BOXES

SEE **SCD HL-30.11** FOR DETAILS OF DRAINING PULL BOXES. UNDERDRAINS FOR PULL BOXES SHALL BE USED WHERE FEASIBLE, AS DIRECTED BY THE ENGINEER. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY:

ITEM 611, 4" CONDUIT, TYPE E = 300 FT

STEEL PAINTING REQUIREMENTS

IN ADDITION TO THE REQUIREMENTS OF **CMS 514 & 708**, ALL ITEMS BEING PAINTED SHALL USE FEDERAL COLOR **FS 27038 (SEMI GLOSS BLACK)** AND SHALL BE PAINTED IN A CONTROLLED ENVIRONMENT PRIOR TO SHIPPING TO THE FIELD. THE PAINTING SHALL BE A FIVE-PART PROCESS CONSISTING OF A TWO PART SURFACE PREPARATION FOLLOWED BY A THREE-COAT PAINT SYSTEM. NEW, UN-WEATHERED GALVANIZED STEEL SHALL BE PREPARED FOR COATING BY A SOLVENT CLEANING FOLLOWED BY A BRUSH-OFF BLAST CLEANING. THE THREE-COAT PAINT SYSTEM SHALL CONSIST OF AN ORGANIC ZINC PRIME COAT, AN EPOXY INTERMEDIATE COAT, AND A URETHANE FINISH COAT.

ITEM 632, REMOVAL OF TRAFFIC SIGNAL INSTALLATION, AS PER PLAN

THE EXISTING TRAFFIC SIGNAL AT S.R. 16 AND CHERRY VALLEY RD. SHALL BE REMOVED IN ACCORDANCE WITH **CMS 632.26** AND INCLUDE REMOVAL OF ALL "PREPARE TO STOP WHEN FLASHING" (PTSWF) SIGN EQUIPMENT (**SIGNS ITEMIZED SEPARATELY**) AND REMOVAL OF ALL PULL BOXES, DETECTOR LOOPS, CONDUIT, AND CABLES ASSOCIATED WITH THE EXISTING TRAFFIC SIGNAL AND PTSWF SIGNS.

THE CONTRACTOR SHALL SALVAGE THE PTSWF POLES, BASES, AND FLASHERS AND CONTACT THE CITY OF NEWARK AT THE ADDRESS BELOW FOR PICKUP OF ITEMS. ALL OTHER MATERIALS REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR FOR PROPER DISPOSAL OFF THE PROJECT SITE.

CITY OF NEWARK

B.J. VARNER
TRAFFIC OPERATIONS MANAGER
(740) 670-7739
1195 E. MAIN ST.
NEWARK, OH 43055

VILLAGE OF GRANVILLE

JOSEPH TAYLOR
UTILITIES DIRECTOR
(740) 587-2304
141 EAST BROADWAY
GRANVILLE, OH 43023

POWER TO THE EXISTING SIGNAL IS BACK FED FROM A GENERATOR BEHIND WENDY'S RESTAURANT. THE CONTRACTOR SHALL CONTACT THE VILLAGE OF GRANVILLE AT THE ADDRESS ABOVE TO DISCONNECT POWER TO THE GENERATOR PRIOR TO REMOVAL OF THE SIGNAL. THE POWER CABLES THAT RUN FROM THE GENERATOR TO THE EXISTING SIGNAL SHALL BE CUT OFF AT GROUND LEVEL WITH THE REST BEING ABANDONED IN GROUND.

PAYMENT SHALL BE MADE AT THE UNIT PRICE BID AND INCLUDE ALL LABOR, EQUIPMENT, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS STATED ABOVE. THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 632, REMOVAL OF TRAFFIC SIGNAL INSTALLATION, AS PER PLAN = 1 EACH

ITEM 632, PEDESTAL, 10', TRANSFORMER BASE, AS PER PLAN

THIS ITEM INCLUDES FURNISHING AND INSTALLING AN ALUMINUM PEDESTAL AND TRANSFORMER BASE PER **CMS 732.15** AND **SCD TC-83.20**. THE ALUMINUM PEDESTAL AND TRANSFORMER BASE SHALL BE **POWDER COATED SEMI GLOSS BLACK** TO MATCH SIGNAL SUPPORTS.

PAYMENT SHALL BE MADE AT THE UNIT PRICE BID AND INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO ERECT THE PEDESTAL.

ITEM 632, SIGNAL SUPPORT, TYPE TC-81.21, BY DESIGN, WITH MAST ARMS, BY DESIGN, AS PER PLAN

IN ADDITION TO **CMS 632.15 & 732.11**, THIS ITEM INCLUDES THE PAINTING OF THE SIGNAL SUPPORT AND MAST ARM(S) PER THE STEEL PAINTING REQUIREMENTS NOTE ON THIS SHEET.

THE SIGNAL SUPPORT DESIGNER SHALL PROVIDE DRAWINGS FOR ALL SIGNAL SUPPORTS IN THESE PLANS, WITH STRUCTURAL ASPECTS OF THE DESIGN AND MATERIALS IN COMPLIANCE WITH THE 2001 AASHTO STANDARD SPECIFICATIONS, WITH 2006 INTERIM REVISIONS. THE SIGNAL SUPPORT SHALL BE ASTM A595 GRADE A WITH A MINIMUM YIELD STRENGTH OF 50 KSI. THE FOLLOWING DESIGN PARAMETERS SHALL BE USED:

1. BASIC WIND SPEED = 90 MPH
2. DESIGN LIFE = 25 YEARS
3. FATIGUE CATEGORY = III
4. GALLOPING: NO
5. TRUCK INDUCED GUST: NO

SUBMIT, TO THE ENGINEER PRIOR TO INCORPORATION: TWO COPIES OF THE SIGNAL SUPPORT DRAWINGS AND SHOP DRAWINGS, WHICH IDENTIFY AND DESCRIBE EACH MANUFACTURED SIGNAL SUPPORT AND SIGNAL SUPPORT WHICH IS BEING INCORPORATED INTO THE CONSTRUCTION. THE SIGNAL SUPPORT DRAWINGS AND SHOP DRAWINGS SHALL EACH BE REVIEWED, SEALED, SIGNED, AND DATED BY TWO OHIO REGISTERED PROFESSIONAL ENGINEERS.

PAYMENT SHALL BE MADE AT THE UNIT PRICE BID AND INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO ERECT THE PAINTED SIGNAL SUPPORT.

SIGNAL SUPPORT TABLE (FOR INFORMATION ONLY)				
INTERSECTION	POLE #	TC-81.21 DESIGN #	POLE HIGHT (FT)	ARM LENGTH (FT)
EX. SOUTH CHERRY VALLEY RD. / NEW CHERRY VALLEY RD.	1	4	25.5	38
	2	4	24.5	38
	3	11	21	42
NEW CHERRY VALLEY RD./ RAMP C	1	13	24	52
	2	11	24.5	42
	3	1	23	25
NEW CHERRY VALLEY RD./ RAMP B	1	13	24	52
	2	2	23	32
	3	13	24	52
NEWARK-GRANVILLE RD. / NEW CHERRY VALLEY RD.	1A	11	23	38
	1B			32
	2	2	22	32

SIGNAL SUPPORT FOUNDATION ELEVATIONS

ELEVATIONS SHOWN IN THE PLANS FOR SIGNAL SUPPORT FOUNDATIONS ARE FOR COMPUTATIONAL PURPOSES ONLY. THE ACTUAL ELEVATION OF THE FOUNDATION SHALL BE IN ACCORDANCE WITH **SCD TC-21.20** PROVIDED THE EXISTING SLOPE IS LESS THAN 6:1.

AT LOCATIONS WHERE THE EXISTING SLOPE IS 6:1 OR GREATER, THE BURIED DEPTH OF FOUNDATION, AS SHOWN IN **SCD TC-21.20** SHALL APPLY TO THE LOW SIDE OF THE SLOPE. THE TOP OF THE FOUNDATION SHALL BE SET 2 INCHES ABOVE THE EXISTING SURFACE ON THE HIGH SIDE OF THE SLOPE. THE ADDITIONAL DEPTH OF FOUNDATION NECESSARY TO MEET THESE REQUIREMENTS SHALL BE ADDED TO THE FORMED TOP.

ITEM 632, POWER SERVICE, AS PER PLAN

THE POWER SUPPLYING AGENCY FOR THIS PROJECT IS:

AMERICAN ELECTRIC POWER
SOLUTION CENTER
PHONE: 1-800-672-2231

A POLE MOUNTED POWER SERVICE SHALL BE INSTALLED AS SPECIFIED IN **CMS 632.24, 732.20, AND SCD TC-83.10** AT EACH LOCATION SHOWN IN THE PLANS. THE CONTRACTOR SHALL SUPPLY POWER AS SPECIFIED BELOW.

1. THE CONTRACTOR SHALL SUPPLY **120 VOLT, SINGLE PHASE, 3-WIRE** POWER SERVICE FOR EACH TRAFFIC SIGNAL SHOWN IN PLANS.
2. THE CONTRACTOR SHALL SUPPLY A **30 AMP WATERPROOF DISCONNECT SWITCH** FOR EACH TRAFFIC SIGNAL LOCATION SHOWN IN PLANS (**RAMP B AND RAMP C INTERSECTIONS HAVE TWO DISCONNECT SWITCHES**).

THE CONTRACTOR WILL BE RESPONSIBLE FOR CONTACTING THE POWER COMPANY FOR THE ELECTRICAL SERVICE CONNECTION. **A MINIMUM OF THREE (3) MONTHS NOTICE SHALL BE GIVEN TO THE POWER COMPANY FOR NEW INSTALLATIONS.** THE CONTRACTOR WILL BE RESPONSIBLE FOR REQUESTING AND SCHEDULING ANY INSPECTIONS THE POWER COMPANY MAY REQUIRE FOR THE POWER SERVICE HOOK UP. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR SPLICE SERVICE CABLE INTO THE POWER COMPANY'S CIRCUITS. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ANY NECESSARY PERMITS AND THE PAYING OF ALL FEES ASSOCIATED WITH THE SERVICE. THE CONTRACTOR SHALL PAY ALL POWER CHARGES UNTIL THE SIGNAL SERVICE IS ACCEPTED BY THE MAINTAINING AGENCY.

POWER CABLE AND CONDUIT QUANTITIES FOR UNDERGROUND SERVICE HAVE BEEN ITEMIZED SEPARATELY IN THE PLANS FOR CONNECTION BETWEEN POLE MOUNTED DISCONNECT SWITCH AND THE CONTROLLER CABINET. IF THE PROPOSED POWER SERVICE LOCATION SHOWN IN PLANS IS NOT FEASIBLE THEN THE CONTRACTOR SHALL MOVE THE POWER SERVICE LOCATION AT APPROVAL OF THE ENGINEER. ITEMIZED QUANTITIES SHALL BE ADJUSTED.

THE CONTRACTOR WILL BE RESPONSIBLE FOR SUPPLYING OR REQUESTING FROM POWER COMPANY A WOOD POLE (CONFORMING TO **CMS 632.17 & 732.13**) BE INSTALLED AT EACH LOCATION SHOWN IN THE PLANS FOR OVERHEAD POWER SERVICE CONNECTION AND MOUNTING OF THE METER BASE AND DISCONNECT SWITCH ENCLOSURE. UNDERGROUND SERVICE WILL RUN FROM THE POLE MOUNTED METER BASE AND DISCONNECT SWITCH ENCLOSURE TO EITHER THE SIGNAL POLE MOUNTED DISCONNECT SWITCH ENCLOSURE OR TO THE UPS CABINET WITH CONDUIT AND CABLE ITEMIZED SEPARATELY AS STATED ABOVE.

DISCONNECT SWITCH ENCLOSURES SHALL BE PER **CMS 732.21** AND INCLUDE A PADLOCK EQUAL TO MASTER NO. 4BKA OR WILSON BOHANNON 660, WITH LOCK BODY OF BRONZE OR BRASS AND KEYING SHALL BE TO THE CITY OF NEWARK MASTER. EACH ENCLOSURE SHALL HAVE A SAFETY SWITCH DISCONNECT.

PAYMENT SHALL BE MADE AT THE UNIT PRICE BID FOR EACH POWER SERVICE, COMPLETE IN PLACE, INCLUDING WEATHER-HEAD, CONDUIT RISER, FITTINGS, CLAMPS, DISCONNECT SWITCH WITH ENCLOSURE, METER BASE, GROUND RODS, PADLOCK AND KEY, AND ALL OTHER INCIDENTALS (UNLESS ITEMIZED SEPARATELY) NECESSARY FOR COMPLETE SERVICE, ALL CONNECTIONS TESTED AND ACCEPTED.

ITEM 632, VEHICULAR SIGNAL HEAD, (LED) BLACK, BY SECTION, 12" LENS, 1-WAY, WITH BACKPLATE, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF **CMS 632 & 732**, THE FOLLOWING SHALL APPLY:

1. SIGNAL HEADS AND VISORS SHALL BE CONSTRUCTED OF BLACK POLYCARBONATE PLASTIC WITH VISORS AS SPECIFIED AND MEET ITE SPECIFICATIONS.
2. PROPER EXTERIOR COLORS SHALL BE OBTAINED BY USE OF COLORED PLASTIC MATERIAL RATHER THAN PAINTING.
3. ALL UPPER SIGNAL SUPPORT HARDWARE AND PIPING UP TO AND INCLUDING THE WIRE INLET FITTING SHALL BE FERROUS METAL.
4. THE ENTRANCE FITTING SHALL BE OF THE TRI-STUD DESIGN WITH SERRATED RINGS IN ORDER TO ACHIEVE POSITIVE LOCKING.
5. ALL SIGNAL HEADS SHALL BE RIGIDLY MOUNTED TO THE MAST ARM WITH THE YELLOW LENS LOCATED IN FRONT OF THE MAST ARM.
6. ALUMINUM BACKPLATES SHALL BE IN ACCORDANCE WITH **CMS 732.22** AND INCLUDE A FLUORESCENT YELLOW REFLECTIVE BORDER.
7. THE LIGHT EMITTING DIODE (LED) SIGNAL LAMP UNITS SHALL MEET THE REQUIREMENTS OF **CMS 732.04-C**. THE CONTRACTOR SHALL PROVIDE ODOT, IN WRITING, WITH THE LED MANUFACTURER NAME, SERIAL NUMBER, PART NUMBER, DESCRIPTION OF LAMP, AND DATE OF MANUFACTURE FOR ALL LED UNITS THAT ARE TO BE USED IN THE SIGNAL HEAD PRIOR TO INSTALLATION, FOR ACCEPTANCE AND WARRANTY PURPOSES.
8. SIGNAL HEADS SHALL HAVE A MINIMUM WALL THICKNESS OF 0.117 INCHES.
9. SIGNAL HEADS SHALL INCLUDE CUTAWAY TYPE VISORS UNLESS OTHERWISE SPECIFIED IN THE PLANS.
10. APPLY A BEAD OF SILICONE TO THE SIGNAL HEAD, WASHER, AND ENTRANCE ADAPTER SERRATIONS TO PREVENT WATER INTRUSION. ALSO, FILL THE SPACE BETWEEN CONCENTRIC SERRATION RINGS ON THE TOP OF THE SIGNAL HEAD TO COMPLETELY EXCLUDE WATER FROM THE SPACE BETWEEN THE CONCENTRIC RINGS.
11. BALANCE ADJUSTERS SHALL NOT BE USED ON ONE-WAY HEADS OR TETHERED HEADS.

PAYMENT SHALL BE MADE AT THE UNIT PRICE BID FOR EACH COMPLETE SIGNAL HEAD, FURNISHED AND INSTALLED, INCLUDING ALL LABOR, EQUIPMENT, MATERIALS, AND NEW ATTACHMENT HARDWARE.

ITEM 632, PEDESTRIAN SIGNAL HEAD (LED), (COUNTDOWN), TYPE D2, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF **CMS 632 & 732**, THE FOLLOWING SHALL APPLY:

1. SIGNAL HEADS AND VISORS SHALL BE CONSTRUCTED OF BLACK POLYCARBONATE PLASTIC AND MEET ITE SPECIFICATIONS.
2. PROPER EXTERIOR COLORS SHALL BE OBTAINED BY USE OF COLORED PLASTIC MATERIAL RATHER THAN PAINTING.
3. PIPE, SPACERS AND FITTINGS CONSTRUCTED OF POLYCARBONATE PLASTIC MAY BE USED IN LIEU OF GALVANIZED STEEL OR ALUMINUM.
4. THE PEDESTRIAN SIGNAL HEAD SHALL BE OF THE LED COUNTDOWN TYPE.
5. NEW ATTACHMENT HARDWARE AND FITTINGS SHALL BE USED
6. THE LIGHT EMITTING DIODE (LED) SIGNAL LAMP UNITS SHALL MEET THE REQUIREMENTS OF **CMS 732.04-C**. THE CONTRACTOR SHALL PROVIDE ODOT, IN WRITING, WITH THE LED MANUFACTURER NAME, SERIAL NUMBER, PART NUMBER, DESCRIPTION OF LAMP, AND DATE OF MANUFACTURE FOR ALL LED UNITS THAT ARE TO BE USED IN THE SIGNAL HEAD PRIOR TO INSTALLATION, FOR ACCEPTANCE AND WARRANTY PURPOSES.
7. THE PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED ON PEDESTAL A MINIMUM OF 8' FROM BIKE PATH SURFACE. SEE PLANS FOR DETAILS.

PAYMENT SHALL BE MADE AT THE UNIT PRICE BID FOR EACH COMPLETE SIGNAL HEAD, FURNISHED AND INSTALLED, INCLUDING ALL LABOR, EQUIPMENT, MATERIALS, AND NEW ATTACHMENT HARDWARE.

ITEM 632, PEDESTRIAN SIGNAL HEAD (LED), (COUNTDOWN), TYPE D2, AS PER PLAN (GENERAL ELECTRIC) (ALTERNATE)

THE PEDESTRIAN SIGNAL HEADS SHALL BE **GENERAL ELECTRIC, 16" LED, D2 WITH FULL HAND/MAN OVERLAY AND COUNTDOWN (PART# PS7CFF127A)** AND SHALL ADHERE TO THE STANDARD BID REQUIREMENTS STATED ABOVE.

CALCULATED
J.L.
CHECKED
H.G.

TRAFFIC SIGNAL NOTES

LIC-16-16.64

589
729

P:\LIC\80704\Design\Roadway\Plan_Sheets\Traffic_Signals\80704_TSN_002.dgn 12-MAR-2015 11:38AM jutz1

ITEM 632, PEDESTRIAN PUSHBUTTON, AS PER PLAN

THE PEDESTRIAN PUSHBUTTONS SHALL ADHERE TO THE REQUIREMENTS OF **CMS 632.09 & 732.06**. THE PUSHBUTTON SHALL FACE THE BIKE PATH AND BE MOUNTED ON PEDESTAL NO HIGHER THAN 4' FROM BIKE PATH SURFACE. SEE PLANS FOR DETAILS.

PUSHBUTTONS SHALL INCLUDE THE COST TO PROVIDE PEDESTRIAN CROSSING SIGNS PER **CMS 632.29**. PEDESTRIAN CROSSING SIGNS SHALL BE OMUTCD **R10-3E** SIGNS AND HAVE NOMINAL DIMENSIONS OF 9" X 15". PEDESTRIAN CROSSING SIGNS SHALL BE CAST ALUMINUM AND SHALL BE INTEGRAL TO THE PUSHBUTTON. SIGNS SHALL BE BOLTED 6" ABOVE PUSHBUTTON (WITH STAINLESS STEEL HARDWARE) ON THE POLES, NO BANDING WILL ACCEPTED. THE CONTRACTOR SHALL FIELD DRILL AND TAP INTO THE PEDESTALS IN TWO PLACES TO ACCOMMODATE THE INSTALLATION OF THE SIGNS.

ALL COSTS INCLUDING TOOLS, MATERIALS, AND LABOR TO PROVIDE AND INSTALL A PEDESTRIAN PUSHBUTTON WITH INTEGRAL SIGN IN ACCORDANCE WITH THIS NOTE AND THE PLAN DETAILS SHALL BE INCLUDED IN THE BID ITEM PRICE.

ITEM 632, PEDESTRIAN PUSHBUTTON, AS PER PLAN (POLARA) (ALTERNATE)

THE PEDESTRIAN PUSHBUTTON SHALL BE A **POLARA BULLDOG (PART# BDL3-Y) WITH FRAME (PART# PB5X7-Y)** AND SHALL ADHERE TO THE STANDARD BID REQUIREMENTS STATED ABOVE.

ITEM 633, UNINTERRUPTIBLE POWER SUPPLY (UPS), 1000 WATT, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF **CMS 633.18 & 733.09**, THE UPS CABINET SHALL BE SIDE MOUNTED TO THE TRAFFIC SIGNAL CABINET AND INCLUDE A CABINET RISER (8" MINIMUM) WITH ANCHOR BOLTS FOR GROUND MOUNTING. SEE **PIS 208320** FOR DETAILS.

THE UPS CABINET SHALL INCLUDE A GENERATOR POWER PANEL WITH A HEAVY DUTY POWER RELAY VERSUS THE LINE VOLTAGE GENERATOR SWITCH. SEE **PIS 203012** FOR DETAILS. THE GENERATOR INLET SHALL BE A RECESSED PANEL WITH A DOOR THAT IS FLUSH WITH THE EXTERNAL SIDE OF THE UPS CABINET. IT SHALL INCLUDE A RECESSED PLUG, AUTOMATIC TRANSFER SWITCH AND A DOOR THAT SECURELY CLOSES OVER THE POWER CORD.

PAYMENT SHALL BE MADE AT THE UNIT PRICE BID FOR EACH UPS INSTALLED AT THE INTERSECTION, COMPLETE IN PLACE, INCLUDING WIRE FOR ALARM OUTPUT TO CONTROLLER AND ALL OTHER INCIDENTALS NECESSARY FOR A FULLY OPERATIONAL UPS, ALL CONNECTIONS TESTED AND ACCEPTED.

ITEM 633, UNINTERRUPTIBLE POWER SUPPLY (UPS), 1000 WATT, AS PER PLAN (ALPHA) (ALTERNATE)

THE UNINTERRUPTIBLE POWER SUPPLY (UPS) SHALL BE AN **ALPHA FXM1100 120V WITH ETHERNET (PART# 017-230-23)**. THE UPS CABINET SHALL BE AN **ALPHA S6 (PART# 026-053-42)** AND HOUSE FOUR (4) **ALPHACELL 220GXL, 12V, 109AH GEL TOP TERMINAL (PART# 181-231-10)** BATTERIES. THE UPS AND CABINET SHALL ADHERE TO THE STANDARD BID REQUIREMENTS STATED ABOVE.

ITEM 633, CONTROLLER UNIT, TYPE TS2/A2, WITH CABINET, TYPE TS1, AS PER PLAN

THE CONTROLLER UNIT SHALL BE THE **LATEST SIEMENS M50 SERIES MODEL** AND SHALL INCORPORATE OR BE FURNISHED WITH ALL THE DESIGN FEATURES, AUXILIARY EQUIPMENT, SOFTWARE, ACCESSORIES, AND PREWIRED CABINET FEATURES AS REQUIRED IN **CMS 633 & 733**.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOADING SOFTWARE ONTO CONTROLLER AND PROGRAMMING TIMING AND COORDINATION AS SHOWN IN PLANS AT APPROVAL OF **NICK SHULTZ, CITY OF NEWARK TRAFFIC ENGINEER AT 740.670.7730**.

PAYMENT SHALL BE MADE AT THE UNIT PRICE BID FOR EACH CONTROLLER CABINET INSTALLED AT THE INTERSECTION, COMPLETE IN PLACE, INCLUDING ALL LABOR, EQUIPMENT, MATERIAL, CABINET & MOUNTING HARDWARE, SOFTWARE, PROGRAMMING, AND ALL OTHER INCIDENTALS NECESSARY FOR A FULLY OPERATIONAL CONTROLLER CABINET, ALL CONNECTIONS TESTED AND ACCEPTED.

ITEM 815, SPREAD SPECTRUM RADIO, AS PER PLAN

THIS ITEM SHALL CONSISTS OF FURNISHING AND INSTALLING OF A COMPLETE AND OPERATIONAL **GENERAL ELECTRIC MDS INET-II** ETHERNET RADIO IN CONFORMANCE WITH **SS 815 & SS 906** AND ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR, BUT NOT LIMITED TOO, SUPPLYING AND INSTALLING THE RADIO UNIT, MANUFACTURER RECOMMENDED COAXIAL CABLE FROM THE ANTENNA TO A TERMINATION POINT IN THE TRAFFIC CONTROL CABINET, YAGI / OMNI-DIRECTIONAL ANTENNA, PHASERS, GROUND STRAPS, TERMINATION CONNECTORS, AND ALL OTHER COMPONENTS NECESSARY TO INSTALL A ETHERNET RADIO COMPLETE IN PLACE THAT IS FULLY FUNCTIONAL WITH THE TRAFFIC SIGNAL INSTALLATION.

THE RECOMMENDED LOCATION FOR THE OMNI-DIRECTIONAL ANTENNA IS AT THE INTERSECTION OF **RAMP C / NEW CHERRY VALLEY RD.**. THE CONTRACTOR SHALL VERIFY ALL ANTENNA LOCATIONS IN THE PLANS WITH THE MANUFACTURER'S REPRESENTATIVE.

PAYMENT WILL BE MADE AT THE UNIT PRICE BID FOR EACH RADIO INSTALLED AT THE INTERSECTION, COMPLETE IN PLACE, INCLUDING ALL MATERIALS STATED ABOVE, LABOR, EQUIPMENT, AND ALL OTHER INCIDENTALS NECESSARY FOR A FULLY OPERATIONAL ETHERNET RADIO, ALL CONNECTIONS TESTED AND ACCEPTED.

ITEM 816, VIDEO DETECTION SYSTEM, AS PER PLAN

THIS ITEM CONSISTS OF FURNISHING AND INSTALLING A COMPLETE AND OPERATIONAL VIDEO DETECTION CAMERA SYSTEM IN CONFORMANCE WITH **SS 816 & SS 907** AND ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR, BUT NOT LIMITED TOO, SUPPLYING AND INSTALLING THREE (3) VIDEO DETECTION CAMERAS (120 VAC) WITH 74" MAST ARM CAMERA BRACKET MOUNT (**PAINTED BLACK TO MATCH SIGNAL SUPPORT**), MANUFACTURER RECOMMENDED COAXIAL CABLE FROM EACH VIDEO CAMERA TO A TERMINATION POINT IN THE TRAFFIC SIGNAL CABINET, CABINET MOUNTING HARDWARE, PC SOFTWARE, PORTABLE BATTERY OPERATED COLOR LCD MONITOR (5" MINIMUM SCREEN), AND ALL OTHER COMPONENTS NECESSARY TO INSTALL A VIDEO DETECTION CAMERA SYSTEM COMPLETE IN PLACE THAT IS FULLY FUNCTIONAL WITH THE TRAFFIC SIGNAL INSTALLATION.

THE VIDEO DETECTION CABINET HARDWARE SHALL BE CAPABLE OF RUNNING ALL THE DESIGNATED CAMERAS SHOWN IN THE PLANS AT THE INTERSECTION. THE CAMERAS SHALL BE CONFIGURED TO PERFORM VEHICLE DETECTION AND OR TRAFFIC COUNTS AS SPECIFIED. A BATTERY OPERATED COLOR VIDEO VIEWING EYEPIECE SHALL BE PROVIDED TO VIEW AND CONFIGURE THE VIDEO DETECTION CAMERAS.

TEN (10) BUSINESS DAYS PRIOR TO INSTALLATION OF THE VIDEO DETECTION SYSTEM, THE CONTRACTOR SHALL CONTACT **NICK SHULTZ, CITY OF NEWARK TRAFFIC ENGINEER AT 740.670.7730** SO A CITY OF NEWARK REPRESENTATIVE CAN BE PRESENT FOR THE CONFIGURATION OF THE VIDEO DETECTION CAMERA SYSTEM.

PAYMENT WILL BE MADE AT THE UNIT PRICE BID FOR EACH DETECTION SYSTEM INSTALLED AT THE INTERSECTION, COMPLETE IN PLACE, INCLUDING ALL MATERIALS STATED ABOVE, LABOR, EQUIPMENT, AND ALL OTHER INCIDENTALS NECESSARY FOR A FULLY OPERATIONAL VIDEO DETECTION SYSTEM, ALL CONNECTIONS TESTED AND ACCEPTED.

ITEM 816, VIDEO DETECTION SYSTEM, AS PER PLAN (ITERIS) (ALTERNATE)

THIS ITEM CONSISTS OF FURNISHING AND INSTALLING A COMPLETE AND OPERATIONAL **ITERIS VANTAGE** VIDEO DETECTION CAMERA SYSTEM AND SHALL ADHERE TO THE STANDARD BID REQUIREMENTS STATED ABOVE.

GROUNDING AND BONDING

IN ADDITION TO THE REQUIREMENTS OF **CMS 625 & 725**, THE FOLLOWING SHALL APPLY:

- 1) ALL METALLIC PARTS CONTAINING ELECTRICAL CONDUCTORS SHALL BE PERMANENTLY JOINED TO FORM AN EFFECTIVE GROUND FAULT CURRENT PATH BACK TO THE GROUNDED CONDUCTOR IN THE POWER SERVICE DISCONNECT SWITCH.
 - A. PROVIDE AN EQUIPMENT GROUNDING CONDUCTOR IN METALLIC CONDUITS (725.04) IN ADDITION TO THE CONDUCTORS SPECIFIED AND BOND THE CONDUIT TO THIS GROUNDING CONDUCTOR.
 - B. WHEN AN EQUIPMENT GROUNDING CONDUCTOR IS REQUIRED IN PLASTIC CONDUIT (725.05), THE INSTALLATION SHALL INCLUDE A SEPARATE EQUIPMENT GROUNDING CONDUCTOR IN ADDITION TO THE CONDUCTORS SPECIFIED.
 - C. METALLIC CONDUIT CARRYING THE LOOP WIRES FROM IN THE PAVEMENT TO THE PULL BOX SPLICE LOCATION WILL ONLY BE BONDED AT THE PULL BOX END, AND WILL NOT CONTAIN AN EQUIPMENT GROUNDING CONDUCTOR.
 - D. IF MULTIPLE CONDUIT RUNS BEGIN AND END AT THE SAME POINTS, ONLY ONE EQUIPMENT GROUNDING CONDUCTOR IS REQUIRED.
 - E. IF AN EQUIPMENT GROUNDING CONDUCTOR IS NEEDED IN CONDUIT BETWEEN SIGNALIZED INTERSECTIONS FOR UNDERGROUND INTERCONNECT CABLE, THE GROUNDING SYSTEM FOR EACH SIGNALIZED INTERSECTION WILL BE SEPARATED ABOUT MIDWAY BETWEEN THE INTERSECTIONS.
 - F. THE MESSENGER WIRE AT SIGNALIZED INTERSECTIONS WILL BE USED AS THE CONDUCTIVE PATH FROM CORNER TO CORNER IF CONDUIT IS NOT PROVIDED UNDER THE ROADWAY. WHEN CONDUIT CONNECTS THE CORNERS OF AN INTERSECTION, AN EQUIPMENT GROUNDING CONDUCTOR SHALL BE USED IN THE CONDUIT.

- 2) CONDUITS.
 - A. THE 725.04 CONDUIT SHALL HAVE GROUNDING BUSHINGS INSTALLED AT ALL TERMINATION POINTS. THE BUSHING MATERIAL SHALL BE COMPATIBLE WITH GALVANIZED STEEL CONDUIT AND THE GROUNDING LUG MATERIAL SHALL BE COMPATIBLE FOR USE WITH COPPER WIRE. THREADED OR COMPRESSION TYPE BUSHINGS MAY BE USED.
 - B. THE 725.05 CONDUIT SHALL HAVE THE INSIDE AND OUTSIDE DIAMETERS OF THE CONDUIT DEBURRED AT ALL TERMINATION POINTS.
 - C. BOTH ENDS OF METALLIC CONDUIT SHALL BE BONDED TO THE EQUIPMENT GROUNDING CONDUCTOR.
 - D. METALLIC CONDUIT MAY BE BONDED TO METALLIC BOXES THROUGH THE USE OF CONDUIT FITTINGS UL APPROVED FOR THIS TYPE OF CONNECTION, WITH THE BOX BONDED TO THE EQUIPMENT GROUNDING CONDUCTOR.

- 3) WIRE FOR GROUNDING AND BONDING.
 - A. USE INSULATED, COPPER WIRE FOR THE EQUIPMENT GROUNDING CONDUCTOR. BONDING JUMPERS IN BOXES AND ENCLOSURES MAY BE BARE OR INSULATED COPPER WIRE. WIRE SIZE SHALL BE AS FOLLOWS:
 - I) USE 4 AWG BETWEEN THE POWER SERVICE AND SUPPORTS, POLES, PEDESTALS, CONTROLLER OR FLASHER CABINETS.
 - II) USE A MINIMUM 8 AWG BETWEEN LOOP DETECTOR PULL BOXES AND THE FIRST CONDUIT THAT REQUIRES A LARGER SIZE AS SPECIFIED IN 3.A.I ABOVE.
 - III) USE A MINIMUM 8 AWG BETWEEN THE "PREPARE TO STOP WHEN FLASHING" INSTALLATION (INCLUDING SUPPORT) AND THE FIRST CONDUIT THAT REQUIRES A LARGER SIZE AS SPECIFIED IN 3.A.I ABOVE.
 - IV) THE INSULATION SHALL BE GREEN OR GREEN WITH YELLOW STRIPE(S). FOR 4 AWG OR LARGER, INSULATION MAY ALSO BE BLACK WITH GREEN TAPE/LABELS INSTALLED AT ALL ACCESS POINTS.
 - B. IN A HIGHWAY LIGHTING SYSTEM, THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE THE SAME WIRE SIZE AS THE DUCT CABLE OR DISTRIBUTION CABLE CIRCUIT CONDUCTORS, WITH THE MINIMUM CONDUCTOR SIZE OF 4 AWG. BONDING JUMPERS WILL BE MINIMUM SIZE 4 AWG.

- 4) GROUND ROD.
 - A. A 3/4 INCH SCHEDULE 40 PVC CONDUIT WILL BE USED IN FOUNDATIONS AND CONCRETE WALLS FOR THE GROUNDING CONDUCTOR (GROUND WIRE) RACEWAY TO THE GROUND ROD. SHOULD METALLIC CONDUIT BE USED, BOTH ENDS OF THE CONDUIT SHALL BE BONDED TO THE GROUNDING CONDUCTOR.
 - B. THE TYPICAL GROUNDING CONDUCTOR (GROUND WIRE) SHALL BE 4 AWG INSULATED, COPPER.
- 5) THE GREEN CONDUCTOR IN SIGNAL CABLES (CONDUCTOR #4) SHALL NOT BE USED TO SUPPLY POWER TO A SIGNAL INDICATION. IT WILL BE CONNECTED TO THE SIGNAL BODY AS AN EQUIPMENT GROUND IN ALUMINUM HEADS AND IT WILL BE UNUSED IN PLASTIC HEADS. UNUSED CONDUCTORS SHALL BE GROUNDED IN THE CABINET. TYPICAL USE OF CONDUCTORS IS AS FOLLOWS:

COND. NO.	COLOR	VEHICLE SIGNAL	PEDESTRIAN SIGNAL
1	BLACK	GREEN BALL	#1 WALK
2	WHITE	AC NEUTRAL	AC NEUTRAL
3	RED	RED BALL	#1 DW/FDW
4	GREEN	EQUIPMENT GROUND	EQUIPMENT GROUND
5	ORANGE	YELLOW BALL	#2 DW/FDW
6	BLUE	GREEN ARROW	# 2 WALK
7	WHITE/BLACK STRIPE	YELLOW ARROW	NOT USED

- 6) POWER SERVICE AND DISCONNECT SWITCH.
 - A. AT THE POWER SERVICE LOCATION, THE GROUNDING CONDUCTOR (GROUND WIRE) FROM THE DISCONNECT SWITCH NEUTRAL (AC-) BAR TO THE GROUND ROD SHALL BE A CONTINUOUS, UNSPLICED CONDUCTOR. IF SPLICED, IT SHALL BE AN EXOTHERMIC WELD BUTT SPLICE.
 - B. THE SERVICE NEUTRAL (AC-) SHALL ONLY BE CONNECTED TO GROUND AT THE PRIMARY POWER SERVICE DISCONNECT SWITCH.
 - I) NEMA CONTROLLER CABINETS: IF A POWER SERVICE DISCONNECT SWITCH IS LOCATED BEFORE THE CONTROLLER CABINET, THE NEUTRAL (AC-) AND THE GROUNDING BARS IN THE CONTROLLER CABINET SHALL NOT BE CONNECTED TOGETHER AS SHOWN IN NEMA TS-2, FIGURE 5-4.
 - II) IF SECONDARY DISCONNECT SWITCHES ARE CONNECTED AFTER THE PRIMARY DISCONNECT SWITCH, THE NEUTRAL (AC-) SHALL ONLY BE GROUNDED AT THE PRIMARY SWITCH. EQUIPMENT GROUNDING CONDUCTORS SHALL BE BROUGHT TO THE PRIMARY SWITCH, BUT SHALL BE GROUNDED AT BOTH SECONDARY AND PRIMARY SWITCHES.
- 7) PAYMENT

ALL MATERIALS AND WORK REQUIRED TO COMPLETE THE EFFECTIVE GROUND FAULT CURRENT PATH SYSTEM ARE INCIDENTAL TO THE CONDUCTORS INSTALLED BY CONTRACT.

P:\LIC\80704\Design\Roadway\Plan_Sheets\Traffic_Signals\80704_TSN_004.dgn 28-FEB-2015 1:15PM jutz1

CALCULATED
J.L.L.
CHECKED
H.G.

TRAFFIC SIGNAL NOTES

LIC-16-16.64

ITEM 633, CONTROLLER WORK PAD, AS PER PLAN

THIS ITEM SHALL INCLUDE THE ADDITIONAL EXCAVATION, EMBANKMENT, AND CONCRETE NECESSARY TO EXTEND THE CONTROLLER WORK PAD TO THE DIMENSIONS SHOWN BELOW AND PROVIDE A LEVEL WORK PAD.

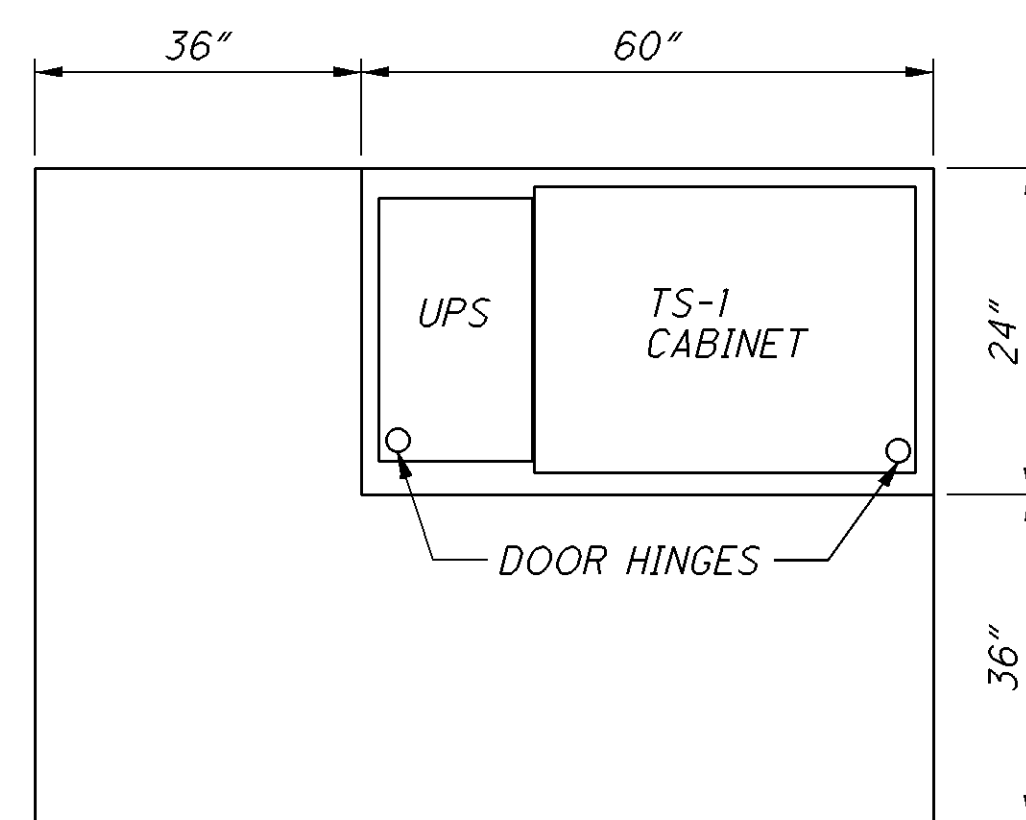
THE CONTROLLER WORK PAD SHALL BE IN ACCORDANCE WITH CMS 633.11, TC-83.20, PIS 208320, AND THE DETAILS ON THIS SHEET.

THE CONTRACTOR SHALL CONSTRUCT THE WORK PAD AS FOLLOWS:

- EXCAVATE A MINIMUM OF 9" BELOW GRADE
- PLACE AND COMPACT 6" OF MATERIAL CONFORMING TO CMS 304.02
- INSTALL A CAST-IN-PLACE WORK PAD THAT IS A MINIMUM OF 4" THICK

PAYMENT SHALL BE MADE AT THE UNIT PRICE BID AND INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO CONSTRUCT THE CONCRETE WORK PAD.

CONTROLLER WORK PAD DETAIL



PLAN VIEW

SEPERATE BID ITEMS

- 633 CABINET RISER
- 633 CONTROLLER WORK PAD, AS PER PLAN
- 633 CABINET FOUNDATION, AS PER PLAN
- 633 UNINTERRUPTIBLE POWER SUPPLY (UPS), 1000 WATT
- 633 CONTROLLER UNIT, TYPE TS2/A2, WITH CABINET, TYPE TS1

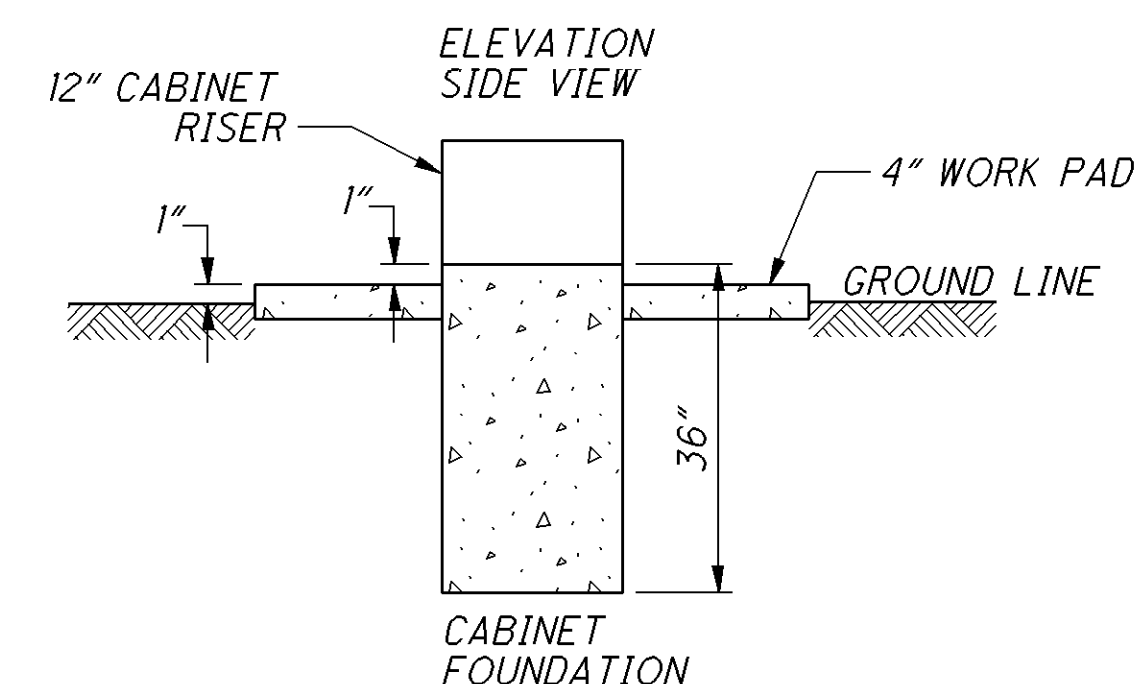
ITEM 633, CABINET FOUNDATION, AS PER PLAN

THIS ITEM SHALL INCLUDE THE ADDITIONAL EXCAVATION AND CONCRETE NECESSARY TO EXTEND THE CONTROLLER CABINET FOUNDATION IN ORDER TO SUPPORT THE UNINTERRUPTIBLE POWER SUPPLY (UPS) CABINET.

THE CONTROLLER AND UPS CABINET FOUNDATION SHALL BE IN ACCORDANCE WITH CMS 633.10, TC-83.20, PIS 208320, AND THE DETAILS SHOWN BELOW. SEE PIS 208320 FOR CONCRETE FOUNDATION QUANTITY.

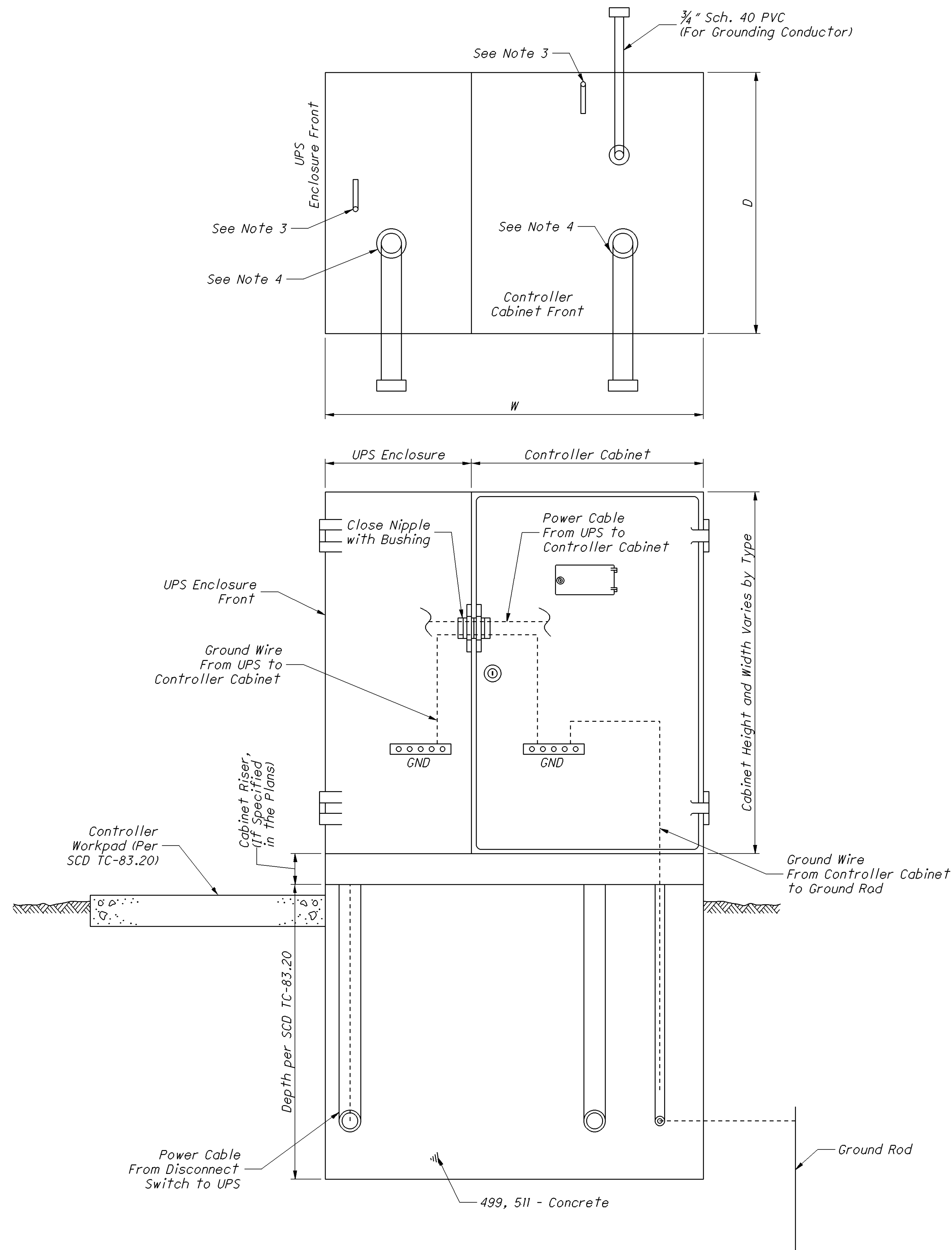
PAYMENT SHALL BE MADE AT THE UNIT PRICE BID AND INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO CONSTRUCT THE FOUNDATION, INCLUDING CONDUIT ELLS AND ANCHOR BOLTS, RESTORATION OF DISTURBED AREA AND DISPOSAL OF SURPLUS MATERIAL AS PER CMS 104.04.

CABINET FOUNDATION DETAIL



NOTES

- 1) THE SIZE OF THE UPS FOUNDATION MAY VARY BASED ON THE CABINET SIZE PROVIDED.
- 2) UPS FOUNDATION ELEVATION SHOULD MATCH CABINET FOUNDATION ELEVATION.
- 3) THE UPS CABINET SHALL BE MOUNTED FLUSH UP AGAINST THE SIGNAL CABINET AND SEALED.
- 4) CONDUIT AND WIRING FROM THE SIGNAL CABINET TO THE UPS SHALL BE INSTALLED THROUGH THE CABINET RISER.
- 5) 1/2" P.E.J.F SHALL BE INSTALLED BETWEEN CABINET/ UPS FOUNDATION AND WORK PAD PER CMS 705.03



NOTES:

1. The Uninterruptible Power Supply (UPS) enclosure shall be mounted flush up against the traffic signal cabinet and sealed with silicone. The Contractor shall be responsible for providing the necessary power cable between the UPS unit and signal cabinet.
2. The UPS should be placed on the opposite side of the pull box on a 332/336 cabinet (per Standard Construction Drawing (SCD) TC-83.20). The UPS placement for a NEMA cabinet varies, placement should provide adequate access with respect to slope, guardrail spacing, etc.
3. The size, number, and location of anchor bolts shall be in accordance with the manufacturer's recommendations.
4. The size, number, and orientation of conduit ells shall be as shown in the plan, except that a 3/4" schedule 40 PVC shall be installed in each foundation.
5. 1/2" preformed joint filler as per CMS 705.03 shall be used between foundations and adjacent paved areas.
6. See SCD TC-83.20 for further details.

TYPE	W (IN.)	D (IN.)	FOUNDATION CONCRETE (CU. YD.)
TS-1	60	24	1.23
TS-2	70	36	2.16
2070/170	50	36	1.54

THIS DRAWING REPLACES PIS 208320 DATED 04-20-2012.

MATERIAL SPECIFICATIONS FOR BBS GENERATOR POWER PANEL EQUIPMENT

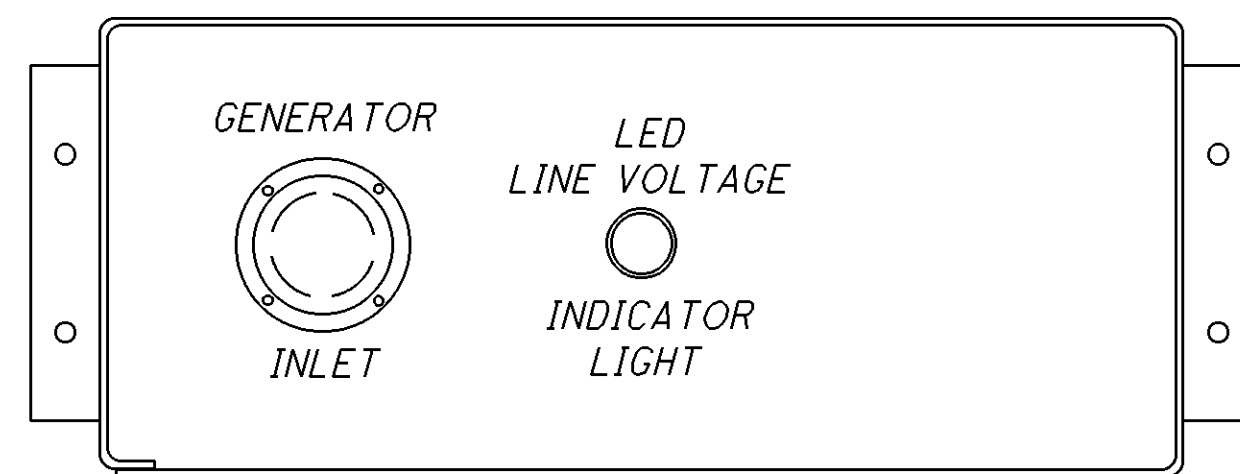
GENERATOR INLET - The inlet shall be 30 amp, 125/250V, locking, four (4) wire grounding and meet the NEMA configuration number L14-30-P 30A 125/250V specification. The inlet shall be a Hubbell catalog #2715.

LINE VOLTAGE GENERATOR SWITCH - The switch shall be 30 amp, 125/250V AC, two (2) pole, three (3) position (On, Off, On). The switch shall be a Hubbell catalog #1388.

LINE VOLTAGE INDICATOR LIGHT - The indicator light shall be 125V AC light emitting diode with a red lens.

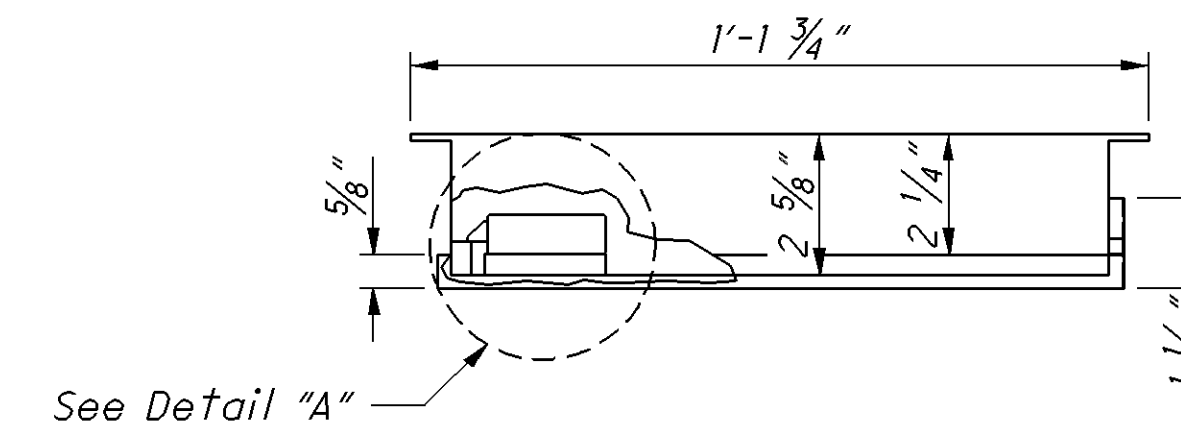
LINE VOLTAGE CIRCUIT BREAKER - The circuit breaker shall be single pole single throw and a minimum of 30 amps. The amperage shall be increased to accommodate greater loads, if necessary. The gauge of the power cable shall be of proper size per N.E.C.

EXTERNAL LINE VOLTAGE INDICATOR LIGHT - The indicator light shall be a 1" waterproof NEMA 4X or IP66 LED lamp with a green lens.

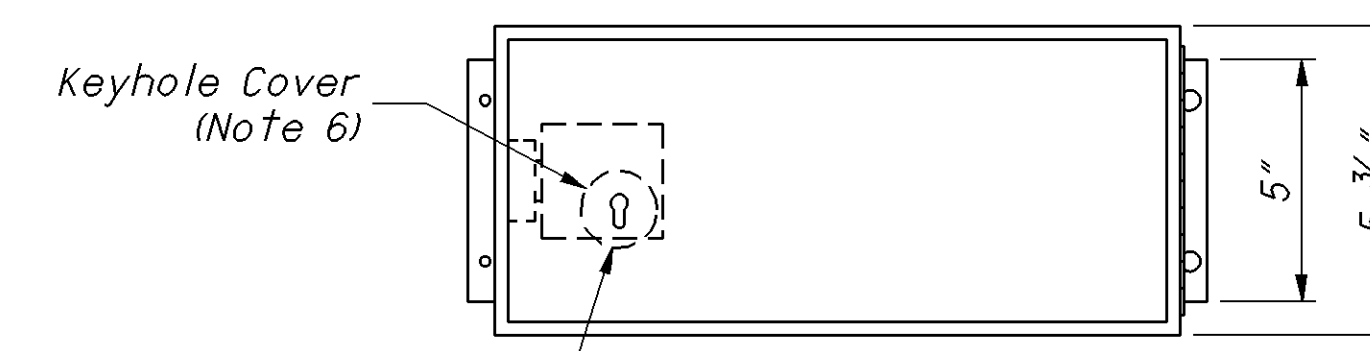


FRONT VIEW OF GENERATOR POWER PANEL

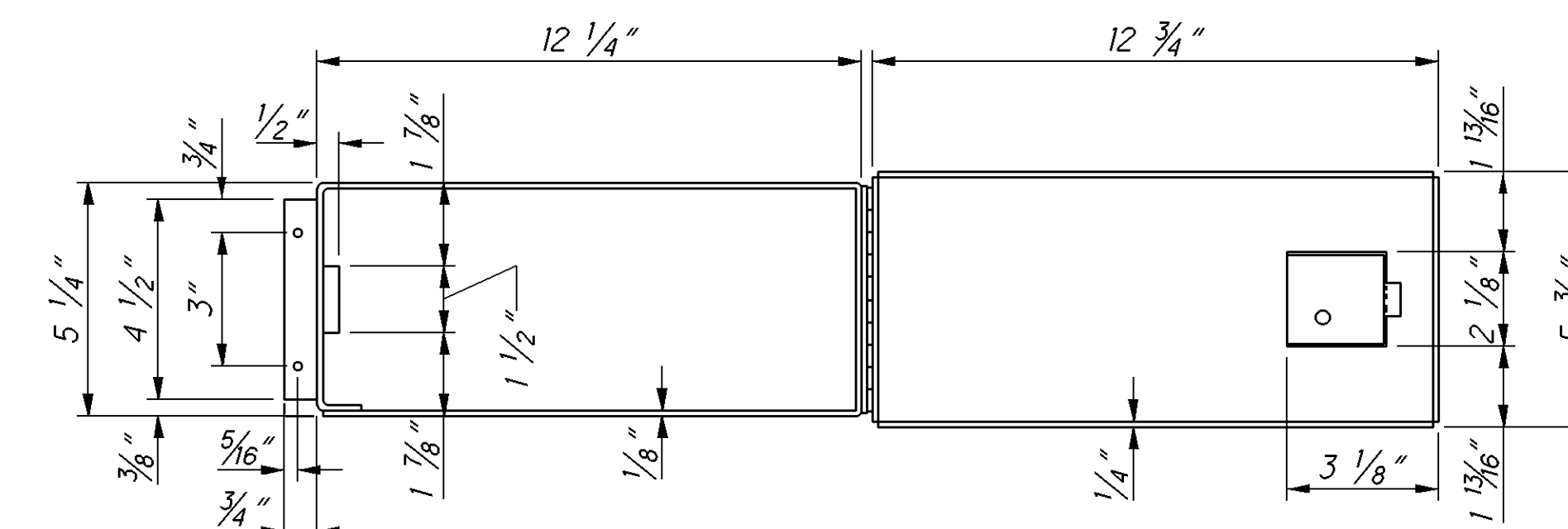
GENERATOR POWER PANEL ENCLOSURE



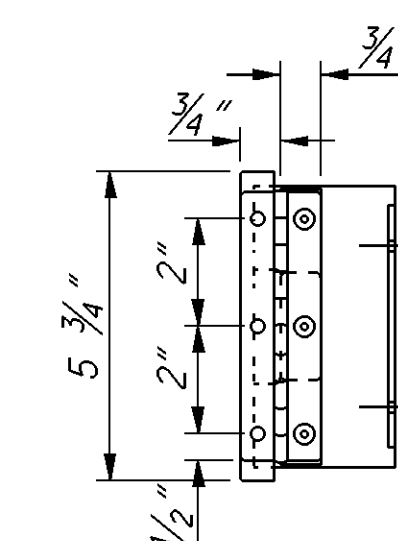
TOP VIEW



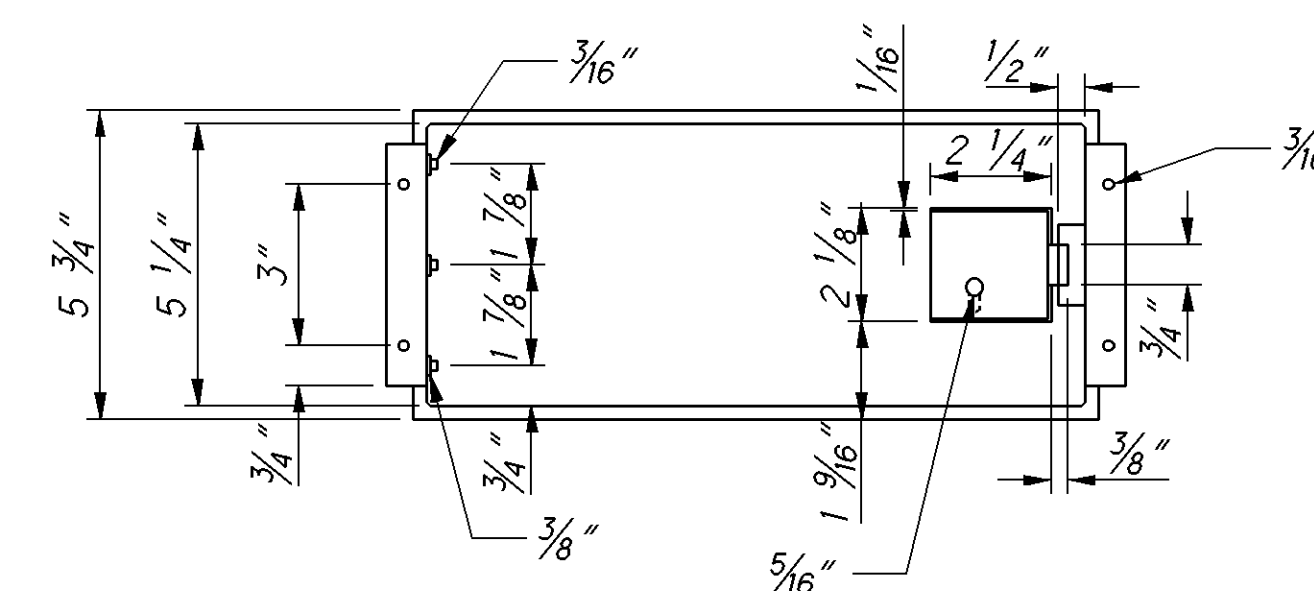
FRONT VIEW CLOSED DOOR



FRONT VIEW OPEN DOOR



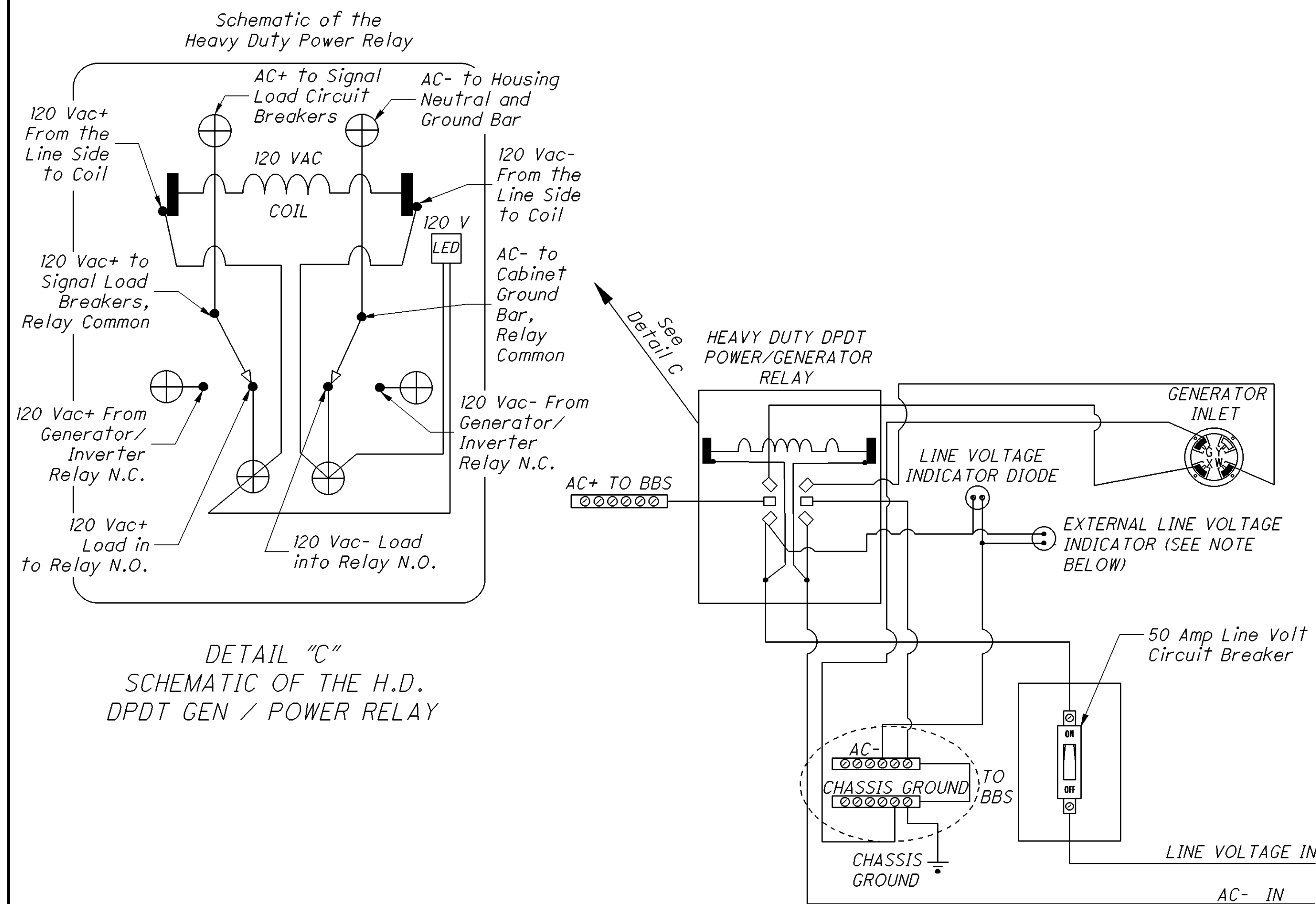
RIGHT SIDE VIEW CLOSED DOOR



BACK VIEW CLOSED DOOR

NOTES:

- The enclosure shall be constructed of 1/8" thick aluminum.
- The lock shall be the standard police door type, keyed with the standard flasher door skeleton key.
- The door shall be sealed with a foam rubber gasket to prevent moisture from entering the enclosure.
- The enclosure shall be mounted onto the outside of the controller cabinet with non-accessible bolts and sealed with a high quality silicon caulk at all surfaces touching the cabinet.
- The hinge shall be of stainless steel or equivalent corrosive-resistant material.
- Keyhole shall be covered with a movable circular aluminum or brass cover with top pivot pin.



ELECTRICAL HOOKUP DETAIL FOR THE BBS GENERATOR POWER PANEL

NOTE: EXTERNAL LINE VOLTAGE INDICATOR LIGHT required when called for in the plans.
EXTERNAL LINE VOLTAGE INDICATOR LIGHT shall be located on the enclosure exterior for visibility from the adjacent roadway when all cabinet, and generator panel doors are closed.

SHEET NO.	LOCATION	625						630				632						CALCULATED J.L.	CHECKED H.G.	
		CONDUIT, 2", 725.05 FT	CONDUIT, 3", 725.04 FT	CONDUIT, 3", 725.05 FT	CONDUIT, 3", JACKED OR DRILLED, 725.04 FT	TRENCH, 24" DEEP FT	PULL BOX, 725.08, 18" EACH	PULL BOX, 725.08, 24" EACH	SIGN ATTACHMENT ASSEMBLY EACH	SIGN, FLAT SHEET SQ FT	VEHICULAR SIGNAL HEAD, (LED) BLACK, 3-SECTION, 12" LENS, 1-WAY, WITH BACKPLATE, AS PER PLAN EACH	VEHICULAR SIGNAL HEAD, (LED) BLACK, 5-SECTION, 12" LENS, 1-WAY, WITH BACKPLATE, AS PER PLAN EACH	PEDESTRIAN SIGNAL HEAD (LED), (COUNTDOWN), TYPE D2, AS PER PLAN EACH	COVERING OF VEHICULAR SIGNAL HEAD EACH	COVERING OF PEDESTRIAN SIGNAL HEAD EACH	SIGNAL CABLE, 2 CONDUCTOR, NO. 14 AWG FT	SIGNAL CABLE, 7 CONDUCTOR, NO. 14 AWG FT			POWER CABLE, 3 CONDUCTOR, NO. 8 AWG FT
599	PULL BOX PB-1																			
	PULL BOX PB-2, PB-3 ,PB-4						3	1												
	SIGNAL A, B, D, E										4			4						
	SIGNAL C, F										2			2						
	SIGN SI							1	9											
	P-2 TO PB-2	8				8														
	PB-2 TO PB-3		83			83														
	P-3 TO PB-3	8				8														
	PB-3 TO PB-4	40				40														
	PB-4 TO PB-1				66															
	P-1 TO PB-1	15				15														
	PB-1 TO C-1			10		10														
	PS-1 TO C-1	30				30														
	A, B TO C-1																	113		
C, D TO C-1																	309			
E, F TO C-1																	221			
PS-1 TO C-1																45				
TOTALS CARRIED TO GENERAL SUMMARY		101	83	10	66	194	3	1	1	9	4	2		6			643	45		
SHEET NO.	LOCATION	625							632						633				815	816
		GROUND ROD EACH	PEDESTRIAN PUSHBUTTON, AS PER PLAN EACH	SIGNAL SUPPORT FOUNDATION EACH	PEDESTAL FOUNDATION EACH	POWER SERVICE, AS PER PLAN EACH	SIGNAL SUPPORT, TYPE TC-81.21 DESIGN II POLE, WITH MAST ARMS TC-81.21 DESIGN 4 AND DESIGN 2, AS PER PLAN EACH	SIGNAL SUPPORT, TYPE TC-81.21, DESIGN I, AS PER PLAN EACH	SIGNAL SUPPORT, TYPE TC-81.21, DESIGN 2, AS PER PLAN EACH	SIGNAL SUPPORT, TYPE TC-81.21, DESIGN 4, AS PER PLAN EACH	SIGNAL SUPPORT, TYPE TC-81.21, DESIGN II, AS PER PLAN EACH	SIGNAL SUPPORT, TYPE TC-81.21, DESIGN III, AS PER PLAN EACH	PEDESTAL, 10', TRANSFORMER BASE, AS PER PLAN EACH	CONTROLLER UNIT, TYPE TS2/A2, WITH CABINET, TYPE TS1, AS PER PLAN EACH	CABINET RISER EACH	CABINET FOUNDATION, AS PER PLAN EACH	CONTROLLER WORK PAD, AS PER PLAN EACH	UNINTERRUPTIBLE POWER SUPPLY (UPS), 1000 WATT, AS PER PLAN EACH	SPREAD SPECTRUM RADIO, AS PER PLAN EACH	VIDEO DETECTION SYSTEM, AS PER PLAN EACH
599	CONTROLLER CABINET C-1	1												1	1	1	1	1		
	POWER SERVICE PS-1					1														
	SIGNAL SUPPORT P-1	1		1					1										1	
	SIGNAL SUPPORT P-2	1		1					1											
	SIGNAL SUPPORT P-3	1		1						1										
	VIDEO DETECTION VD-1, VD-2, VD-3																			1
TOTALS CARRIED TO GENERAL SUMMARY		4		3		1			2	1				1	1	1	1	1	1	1

SHEET NO.	LOCATION	625						630				632						CALCULATED J.L.	CHECKED H.G.				
		CONDUIT, 2", 725.05 FT	CONDUIT, 3", 725.04 FT	CONDUIT, 3", 725.05 FT	CONDUIT, 3", JACKED OR DRILLED, 725.04 FT	TRENCH, 24" DEEP FT	PULL BOX, 725.08, 18" EACH	PULL BOX, 725.08, 24" EACH	SIGN ATTACHMENT ASSEMBLY EACH	SIGN, FLAT SHEET SQ FT	VEHICULAR SIGNAL HEAD, (LED) BLACK, 3-SECTION, 12" LENS, 1-WAY, WITH BACKPLATE, AS PER PLAN EACH	VEHICULAR SIGNAL HEAD, (LED) BLACK, 5-SECTION, 12" LENS, 1-WAY, WITH BACKPLATE, AS PER PLAN EACH	PEDESTRIAN SIGNAL HEAD (LED) ; (COUNTDOWN), TYPE D2, AS PER PLAN EACH	COVERING OF VEHICULAR SIGNAL HEAD EACH	COVERING OF PEDESTRIAN SIGNAL HEAD EACH	SIGNAL CABLE, 2 CONDUCTOR, NO. 14 AWG FT	SIGNAL CABLE, 7 CONDUCTOR, NO. 14 AWG FT			POWER CABLE, 3 CONDUCTOR, NO. 8 AWG FT			
602	PULL BOX PB-1																						
	PULL BOX PB-2, PB-3, PB-4							3	1														
	SIGNAL A, D, E												3										
	SIGNAL B, C, F												3										
	P-2 TO PB-2	10				10																	
	PB-2 TO PB-3	60				60																	
	P-3 TO PB-3	10				10																	
	PB-3 TO PB-4	29				29																	
	PB-4 TO PB-1		100			100																	
	P-1 TO PB-1	7				7																	
	PB-1 TO C-1			10		10																	
	PS-1 TO P-1	250				250																	
	P-1 TO C-1	13				13																	
	A, B TO C-1																		117				
	C, D TO C-1																		314				
E, F TO C-1																		221					
PS-1 TO C-1																			288				
TOTALS CARRIED TO GENERAL SUMMARY		379	100	10		489	3	1				3	3		6			652	288				
SHEET NO.	LOCATION	625						632						633						815	816		
		GROUND ROD EACH	PEDESTRIAN PUSHBUTTON, AS PER PLAN EACH	SIGNAL SUPPORT FOUNDATION EACH	PEDESTAL FOUNDATION EACH	POWER SERVICE, AS PER PLAN EACH	SIGNAL SUPPORT, TYPE TC-81.21 DESIGN 11 POLE, WITH MAST ARMS TC-81.21 DESIGN 4 AND DESIGN 2, AS PER PLAN EACH	SIGNAL SUPPORT, TYPE TC-81.21, DESIGN 1, AS PER PLAN EACH	SIGNAL SUPPORT, TYPE TC-81.21, DESIGN 2, AS PER PLAN EACH	SIGNAL SUPPORT, TYPE TC-81.21, DESIGN 4, AS PER PLAN EACH	SIGNAL SUPPORT, TYPE TC-81.21, DESIGN 11, AS PER PLAN EACH	SIGNAL SUPPORT, TYPE TC-81.21, DESIGN 13, AS PER PLAN EACH	PEDESTAL, 10', TRANSFORMER BASE, AS PER PLAN EACH	CONTROLLER UNIT, TYPE TS2/A2, WITH CABINET, TYPE TS1, AS PER PLAN EACH	CABINET RISER EACH	CABINET FOUNDATION, AS PER PLAN EACH	CONTROLLER WORK PAD, AS PER PLAN EACH	UNINTERRUPTIBLE POWER SUPPLY (UPS), 1000 WATT, AS PER PLAN EACH	SPREAD SPECTRUM RADIO, AS PER PLAN EACH			VIDEO DETECTION SYSTEM, AS PER PLAN EACH	
602	CONTROLLER CABINET C-1	1												1	1	1	1	1					
	POWER SERVICE PS-1					1																	
	SIGNAL SUPPORT P-1	1		1																			
	SIGNAL SUPPORT P-2	1		1							1		1							1			
	SIGNAL SUPPORT P-3	1		1					1														
	VIDEO DETECTION VD-1, VD-2, VD-3																				1		
TOTALS CARRIED TO GENERAL SUMMARY		4		3		1		1				1	1		1	1	1	1	1	1	1		

TRAFFIC SIGNAL SUBSUMMARY
NEW CHERRY VALLEY RD./ RAMP C

LIC-16-16.64

P:\LIC\80704\Design\Roadway\Plan_Sheets\Traffic_Signals\RAMPB_TSS_001.dgn 28-FEB-2015 1:15PM jlutzi

SHEET NO.	LOCATION	625						630				632											
		CONDUIT, 2", 725.05 FT	CONDUIT, 3", 725.04 FT	CONDUIT, 3", 725.05 FT	CONDUIT, 3", JACKED OR DRILLED, 725.04 FT	TRENCH, 24" DEEP FT	PULL BOX, 725.08, 18" EACH	PULL BOX, 725.08, 24" EACH	SIGN ATTACHMENT ASSEMBLY EACH	SIGN, FLAT SHEET SQ FT	VEHICULAR SIGNAL HEAD, (LED) BLACK, 3-SECTION, 12" LENS, 1-WAY, WITH BACKPLATE, AS PER PLAN EACH	VEHICULAR SIGNAL HEAD, (LED) BLACK, 5-SECTION, 12" LENS, 1-WAY, WITH BACKPLATE, AS PER PLAN EACH	PEDESTRIAN SIGNAL HEAD (LED), (COUNTDOWN), TYPE D2, AS PER PLAN EACH	COVERING OF VEHICULAR SIGNAL HEAD EACH	COVERING OF PEDESTRIAN SIGNAL HEAD EACH	SIGNAL CABLE, 2 CONDUCTOR, NO. 14 AWG FT	SIGNAL CABLE, 7 CONDUCTOR, NO. 14 AWG FT	POWER CABLE, 3 CONDUCTOR, NO. 8 AWG FT					
605	PULL BOX PB-1, PB-2						2																
	PULL BOX PB-3							1															
	SIGNAL A, B, C, D, F									5			5										
	SIGNAL E										1		1										
	PEDESTRIAN G, H											2		2									
	P-1 TO PB-1	23				23																	
	PB-1 TO PB-2		65			65																	
	P-2 TO PB-2	10				10																	
	PB-2 TO PB-3		100			100																	
	PED-2 TO PED-1		57			57																	
	PED-1 TO PB-1		40			40																	
	PB-1 TO P-1			12		12																	
	PS-1 TO P-1	12		12		12																	
	P-1 TO C-1	110				110																	
	A, B TO C-1																	310					
	C, D TO C-1																	206					
E, F TO C-1																	104						
G TO C-1															145		151						
H TO C-1															83		89						
PS-1 TO C-1																		145					
TOTALS CARRIED TO GENERAL SUMMARY		155	262	24		429	2	1		5	1	2	6	2	228	860	145						
SHEET NO.	LOCATION	625						632						633						815		816	
		GROUND ROD EACH	PEDESTRIAN PUSHBUTTON, AS PER PLAN EACH	SIGNAL SUPPORT FOUNDATION EACH	PEDESTAL FOUNDATION EACH	POWER SERVICE, AS PER PLAN EACH	SIGNAL SUPPORT, TYPE TC-81.21 DESIGN 11 POLE, WITH MAST ARMS TC-81.21 DESIGN 4 AND DESIGN 2, AS PER PLAN EACH	SIGNAL SUPPORT, TYPE TC-81.21, DESIGN 1, AS PER PLAN EACH	SIGNAL SUPPORT, TYPE TC-81.21, DESIGN 2, AS PER PLAN EACH	SIGNAL SUPPORT, TYPE TC-81.21, DESIGN 4, AS PER PLAN EACH	SIGNAL SUPPORT, TYPE TC-81.21, DESIGN 11, AS PER PLAN EACH	SIGNAL SUPPORT, TYPE TC-81.21, DESIGN 13, AS PER PLAN EACH	PEDESTAL, 10', TRANSFORMER BASE, AS PER PLAN EACH	CONTROLLER UNIT, TYPE TS2/A2, WITH CABINET, TYPE TS1, AS PER PLAN EACH	CABINET RISER EACH	CABINET FOUNDATION, AS PER PLAN EACH	CONTROLLER WORK PAD, AS PER PLAN EACH	UNINTERRUPTIBLE POWER SUPPLY (UPS), 1000 WATT, AS PER PLAN EACH	SPREAD SPECTRUM RADIO, AS PER PLAN EACH	VIDEO DETECTION SYSTEM, AS PER PLAN EACH			
605	CONTROLLER CABINET C-1	1											1	1	1	1	1						
	PEDESTAL PED-1, PED-2		2		2						2												
	POWER SERVICE PS-1					1																	
	SIGNAL SUPPORT P-1	1		1					1														
	SIGNAL SUPPORT P-2	1		1					1														
	SIGNAL SUPPORT P-3	1		1							1												
VIDEO DETECTION VD-1, VD-2, VD-3																	1		1				
TOTALS CARRIED TO GENERAL SUMMARY		4	2	3	2	1			1		2	2	1	1	1	1	1	1	1				

TRAFFIC SIGNAL SUBSUMMARY
NEW CHERRY VALLEY RD./ RAMP B

LIC-16-16.64

CALCULATED	J.L.
CHECKED	H.G.

597
729

SHEET NO.	LOCATION	625						630				632						CALCULATED J.L.	CHECKED H.G.		
		CONDUIT, 2", 725.05 FT	CONDUIT, 3", 725.04 FT	CONDUIT, 3", 725.05 FT	CONDUIT, 3", JACKED OR DRILLED, 725.04 FT	TRENCH, 24" DEEP FT	PULL BOX, 725.08, 18" EACH	PULL BOX, 725.08, 24" EACH	SIGN ATTACHMENT ASSEMBLY EACH	SIGN, FLAT SHEET SQ FT	VEHICULAR SIGNAL HEAD, (LED) BLACK, 3-SECTION, 12" LENS, 1-WAY, WITH BACKPLATE, AS PER PLAN EACH	VEHICULAR SIGNAL HEAD, (LED) BLACK, 5-SECTION, 12" LENS, 1-WAY, WITH BACKPLATE, AS PER PLAN EACH	PEDESTRIAN SIGNAL HEAD (LED) ; (COUNTDOWN), TYPE D2, AS PER PLAN EACH	COVERING OF VEHICULAR SIGNAL HEAD EACH	COVERING OF PEDESTRIAN SIGNAL HEAD EACH	SIGNAL CABLE, 2 CONDUCTOR, NO. 14 AWG FT	SIGNAL CABLE, 7 CONDUCTOR, NO. 14 AWG FT			POWER CABLE, 3 CONDUCTOR, NO. 8 AWG FT	
608	PULL BOX PB-1, PB-2						2														
	PULL BOX PB-3							1													
	SIGNAL A, F												2			2					
	SIGNAL B, C, D, E									4			4								
	SIGN S1								1	10.5											
	SIGN S2								1	6.3											
	PEDESTRIAN G, H												2		2						
	P-1 TO PB-1	7				7															
	PB-1 TO PED-1		63			63															
	PED-1 TO PB-2	11				11															
	PB-2 TO PB-3				56																
	PED-2 TO PB-3	9				9															
	PB-3 TO P-2			11		11															
	P-2 TO C-1			8		8															
PS-1 TO C-1	25				25																
A, B TO C-1																		250			
C, D TO C-1																		243			
E, F TO C-1																		81			
G TO C-1															112			118			
H TO C-1														49				55			
PS-1 TO C-1																		40			
TOTALS CARRIED TO GENERAL SUMMARY		52	63	19	56	134	2	1	2	16.8	4	2	2	6	2	161	747	40			
SHEET NO.	LOCATION	625						632						633						815	816
		GROUND ROD EACH	PEDESTRIAN PUSHBUTTON, AS PER PLAN EACH	SIGNAL SUPPORT FOUNDATION EACH	PEDESTAL FOUNDATION EACH	POWER SERVICE, AS PER PLAN EACH	SIGNAL SUPPORT, TYPE TC-81.21 DESIGN 11 POLE, WITH MAST ARMS TC-81.21 DESIGN 4 AND DESIGN 2, AS PER PLAN EACH	SIGNAL SUPPORT, TYPE TC-81.21, DESIGN 1, AS PER PLAN EACH	SIGNAL SUPPORT, TYPE TC-81.21, DESIGN 2, AS PER PLAN EACH	SIGNAL SUPPORT, TYPE TC-81.21, DESIGN 4, AS PER PLAN EACH	SIGNAL SUPPORT, TYPE TC-81.21, DESIGN 11, AS PER PLAN EACH	SIGNAL SUPPORT, TYPE TC-81.21, DESIGN 13, AS PER PLAN EACH	PEDESTAL, 10', TRANSFORMER BASE, AS PER PLAN EACH	CONTROLLER UNIT, TYPE TS2/A2, WITH CABINET, TYPE TS1, AS PER PLAN EACH	CABINET RISER EACH	CABINET FOUNDATION, AS PER PLAN EACH	CONTROLLER WORK PAD, AS PER PLAN EACH	UNINTERRUPTIBLE POWER SUPPLY (UPS), 1000 WATT, AS PER PLAN EACH	SPREAD SPECTRUM RADIO, AS PER PLAN EACH	VIDEO DETECTION SYSTEM, AS PER PLAN EACH	
608	CONTROLLER CABINET C-1	1													1	1	1	1	1		
	PEDESTAL PED-1, PED-2		2		2							2									
	POWER SERVICE PS-1					1															
	SIGNAL SUPPORT P-1	1		1			1														
	SIGNAL SUPPORT P-2	1		1					1												
	VIDEO DETECTION VD-1, VD-2, VD-3																		1	1	
TOTALS CARRIED TO GENERAL SUMMARY	3	2	2	2	1	1		1				2	1	1	1	1	1	1	1		

TRAFFIC SIGNAL SUBSUMMARY
NEWARK-GRANVILLE RD./NEW CHERRY VALLEY RD.

LIC-16-16.64

LEGEND

- 5 SECTION SIGNAL HEAD, 1-WAY, W/ BACKPLATE
- 3 SECTION SIGNAL HEAD, 1-WAY, W/ BACKPLATE
- VIDEO DETECTION CAMERA
- VIDEO DETECTION ZONE
- SPREAD SPECTRUM RADIO

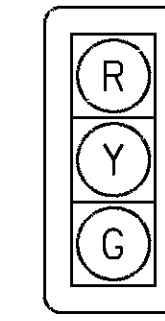
SEE SHEET 595 FOR TRAFFIC SIGNAL QUANTITIES

SIGN LEGEND

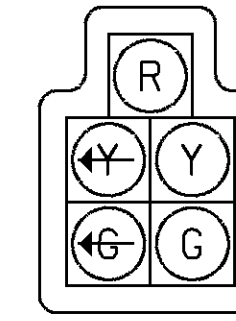
Cherry Valley Rd

SEE SHEET 474
(18" X 72")
SIGN
SI

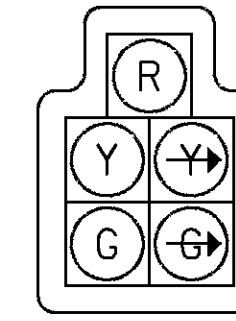
SIGNAL INDICATIONS



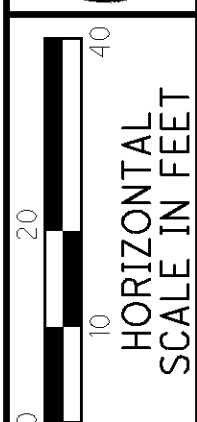
SIGNAL
A, B, D, E



SIGNAL
C



SIGNAL
F

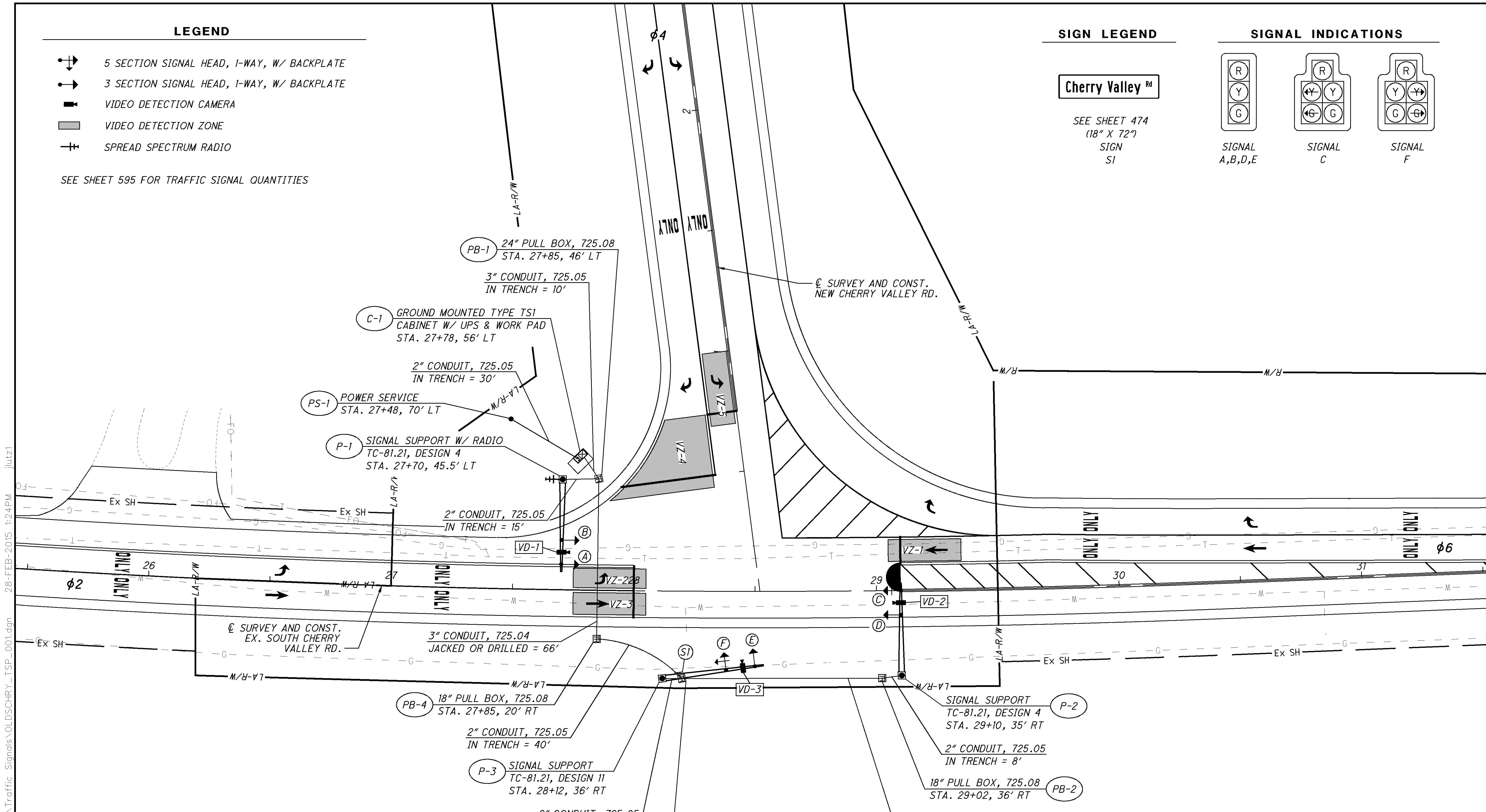


CALCULATED
J.L.
CHECKED
H.G.

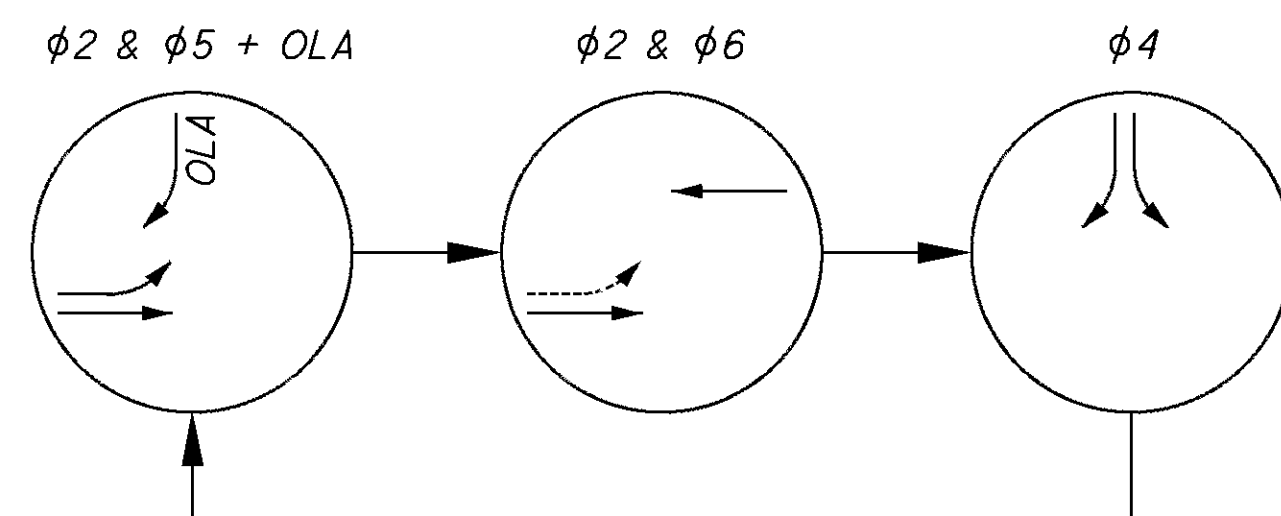
TRAFFIC SIGNAL PLAN SHEET
EX. SOUTH CHERRY VALLEY RD./NEW CHERRY VALLEY RD.

LIC-16-16.64

599
729



SIGNAL PHASING DIAGRAM

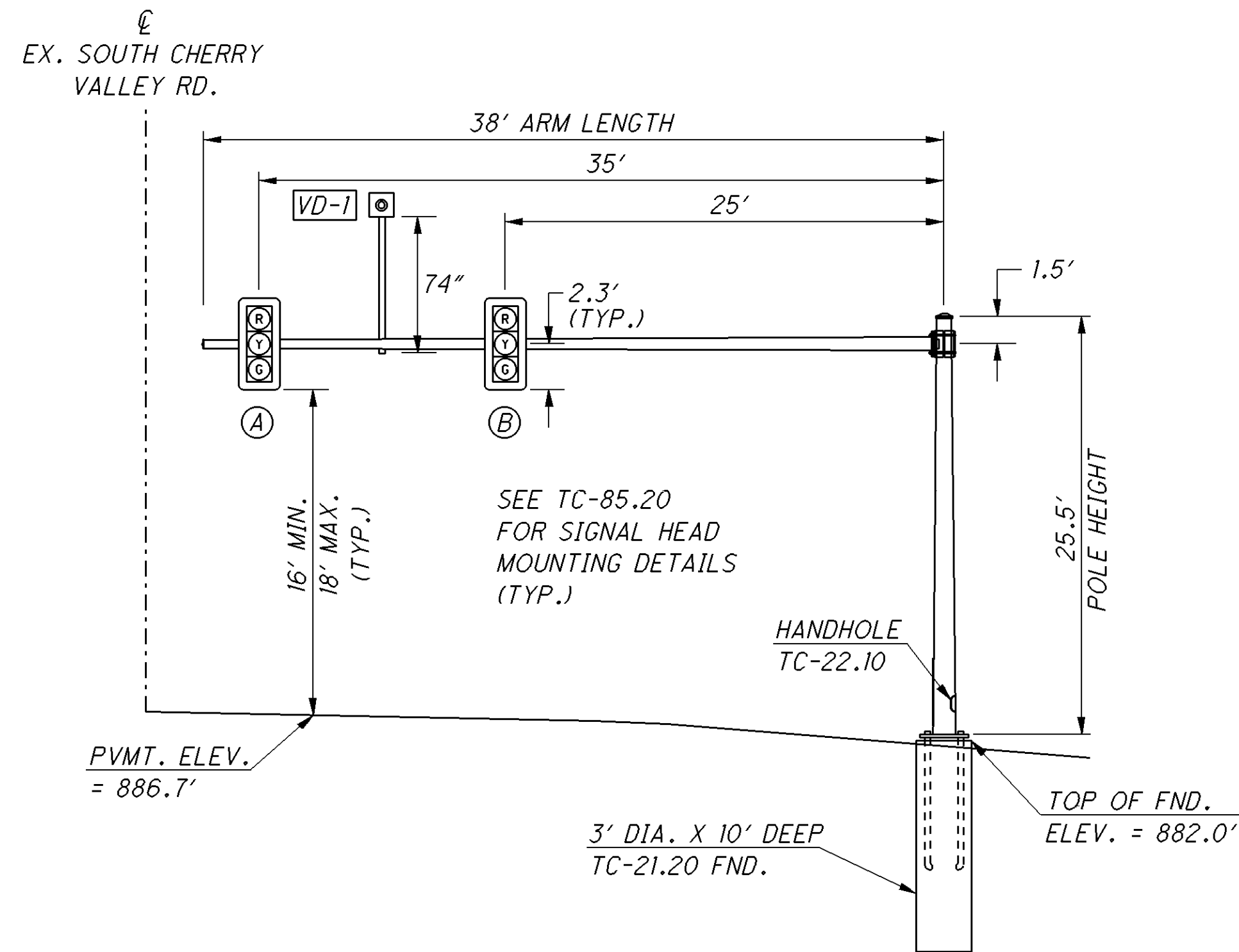


VIDEO DETECTION CHART				
VIDEO DETECTION NO.	VIDEO DETECTION ZONE	PULSE OR PRESENCE	DELAY (SEC) CONTROLLER	ASSOCIATED CONTROLLER PHASE
VD-1	VZ-1	PRES		6
	VZ-2	PRES		5
VD-2	VZ-3	PRES		2
	VZ-4	PRES	8	4
VD-3	VZ-5	PRES		4

ALL CAMERAS SHALL HAVE 2 SEC. DELAY

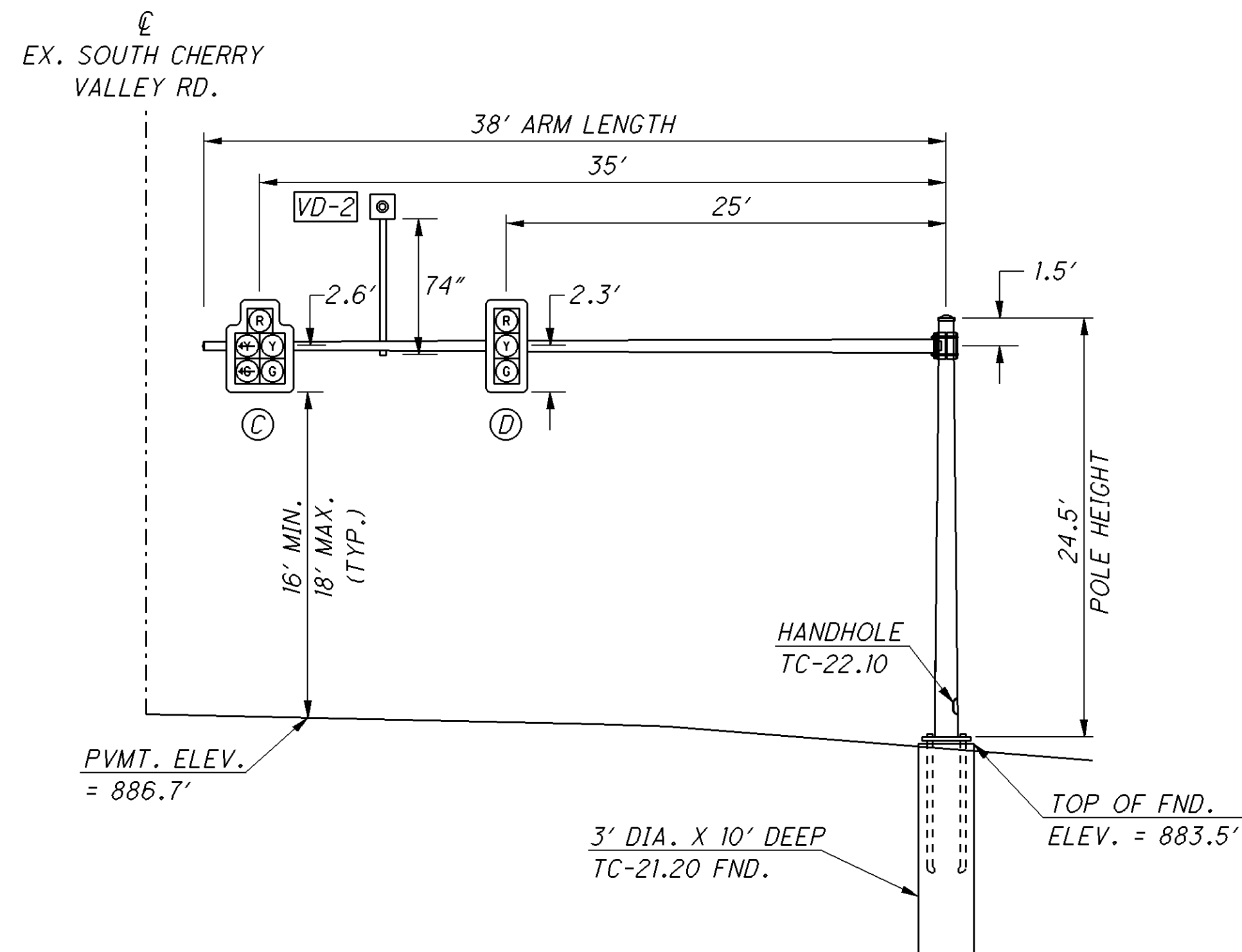
P:\LIC\80704\Design\Roadway\Plan_Sheets\Traffic_Signals\OLD\CHRY_TSP_001.dgn 28-FEB-2015 1:24PM jutzl

P:\LIC\80704\Design\Roadway\Plan_Sheets\Traffic_Signals\OLDSCERRY_TSD_001.dgn 02-MAR-2015 11:58AM jlutzi



SIGNAL SUPPORT P-1

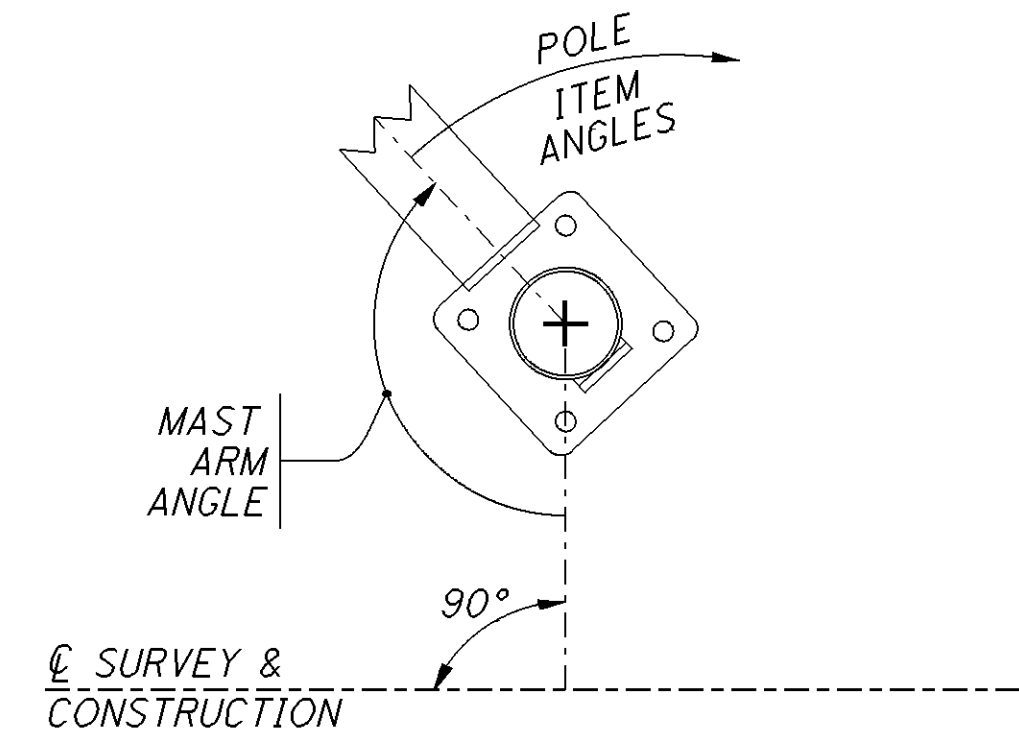
TC-81.21 DESIGN 4
 STA. 27+70, 45.5' LT
 EX. SOUTH CHERRY VALLEY RD.
 LOOKING WEST



SIGNAL SUPPORT P-2

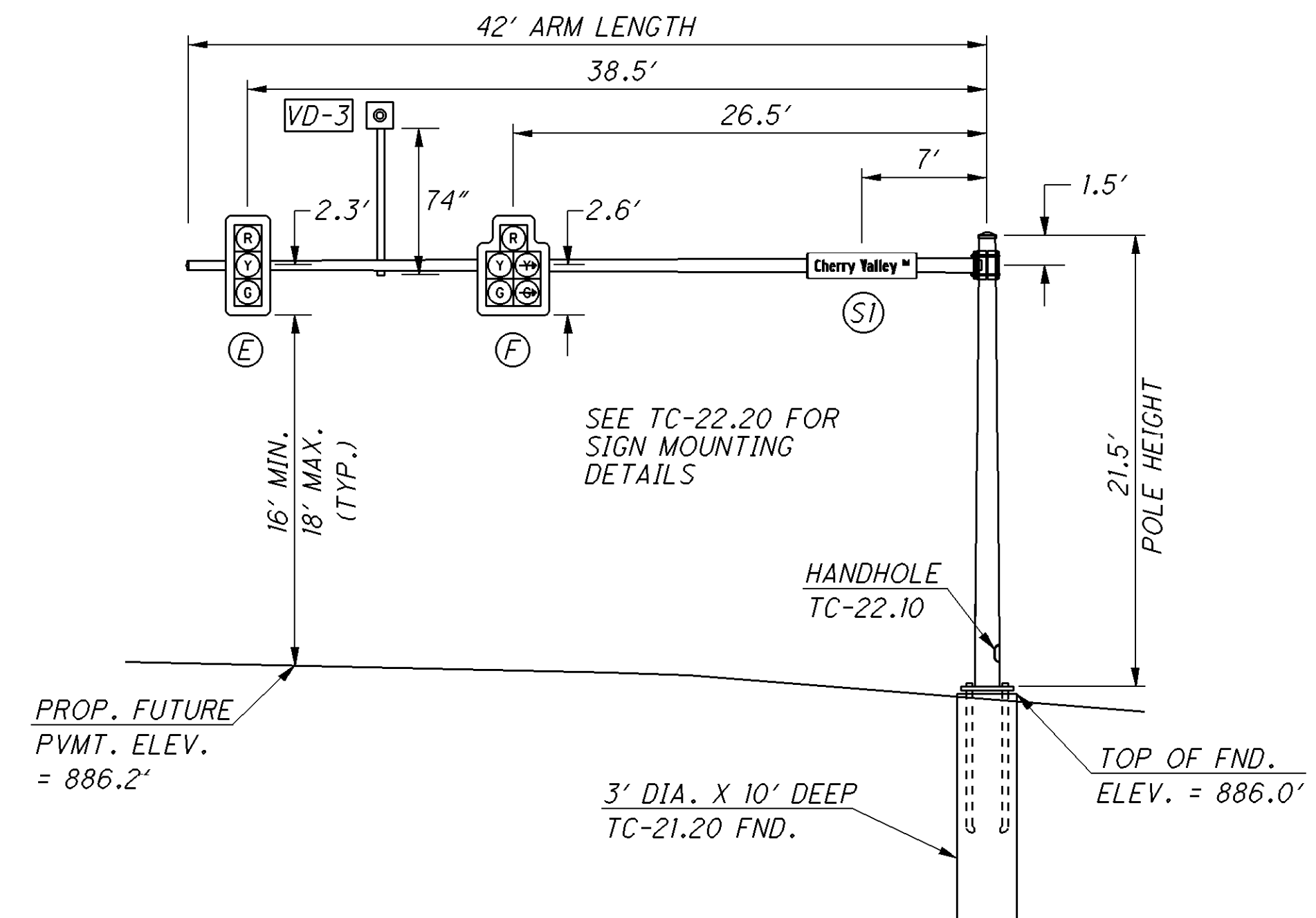
TC-81.21 DESIGN 4
 STA. 29+10, 35' RT
 EX. SOUTH CHERRY VALLEY RD.
 LOOKING EAST

SIGNAL SUPPORT ORIENTATION



SUPPORT NO./ MAST ARM	MAST ARM ANGLE	ANGLE FROM MAST ARM	
		DISCONNECT	HANDHOLE
DEGREES			
P-1	0	-	180
P-2	0	-	180
P-3	82	-	180

- NOTES
 1. ALL ANGLES MEASURED CLOCKWISE FROM EX. SOUTH CHERRY VALLEY RD.
 2. BASE PLATE IS ORIENTED SQUARE TO MAST ARM



SIGNAL SUPPORT P-3

TC-81.21 DESIGN 11
 STA. 28+12, 36' RT
 EX. SOUTH CHERRY VALLEY RD.
 LOOKING SOUTH

CALCULATED
 J.L.L.
 CHECKED
 H.G.

P:\LIC\80704\Design\Roadway\Plan_Sheets\Traffic_Signals\OLDSCHRY_TSD_002.dgn 02-MAR-2015 12:12PM jutz1

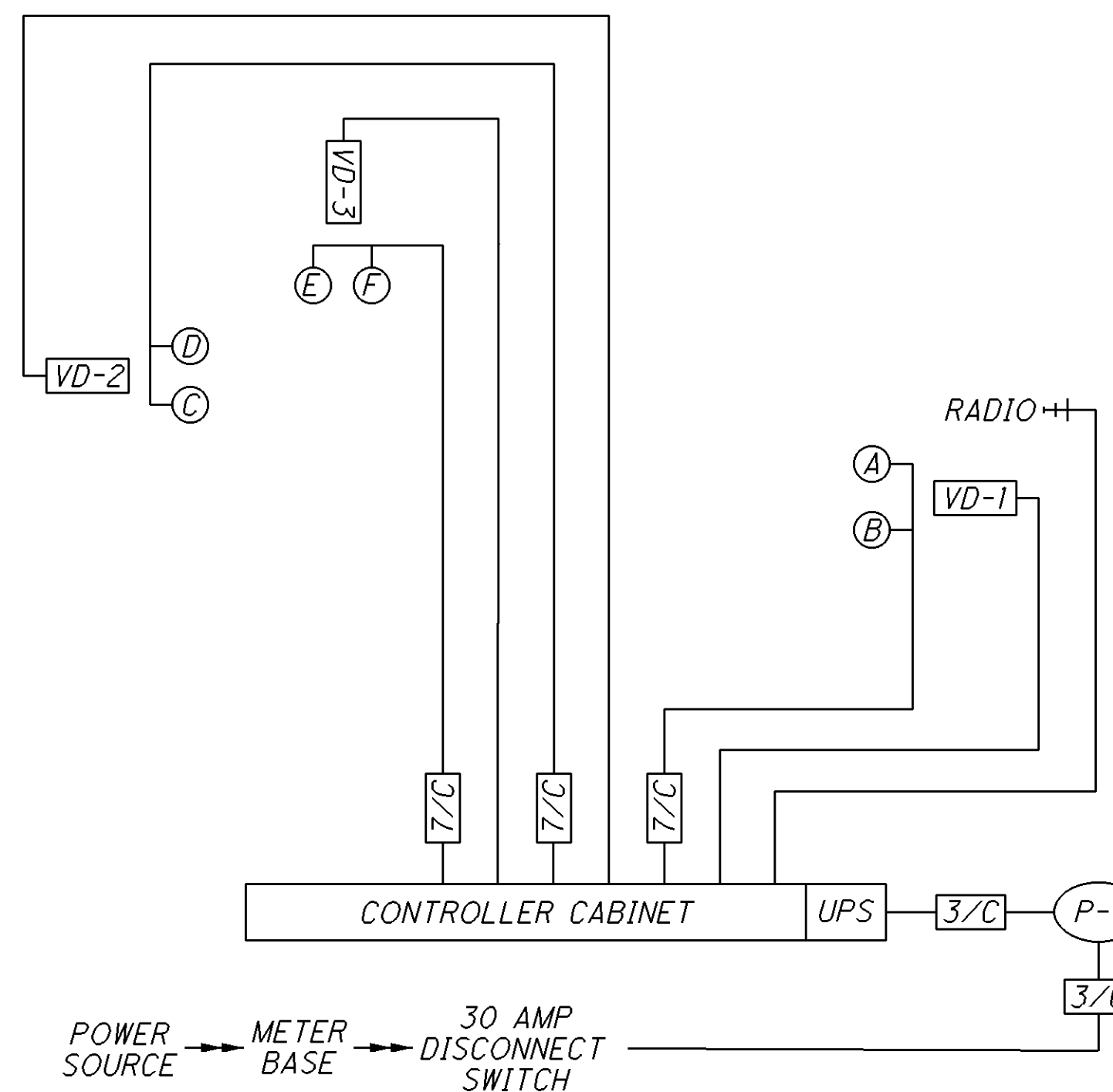
TRAFFIC SIGNAL TIMING CHART									
INTERSECTION: EX. SOUTH CHERRY VALLEY RD./ NEW CHERRY VALLEY RD.									
MAINTAINING AGENCY: CITY OF NEWARK									
START UP		DUAL ENTRY: YES		PHASES: 2 & 6, 4					
		REST IN RED:		RING 1		RING 2			
START IN: ALL RED				OVERLAP		A	B	C	D
TIME FOR FLASH OR ALL RED: 5 SEC.				PHASES		5			
FIRST PHASE(S): 2 & 6									
COLOR DISPLAYED: GREEN									
INTERVAL OR FEATURE		CONTROLLER MOVEMENT NO.							
INTERSECTION MOVEMENT (PHASE)		1	2	3	4	5	6	7	8
DIRECTION			EB		SB	EB LT	WB		
MINIMUM GREEN (INITIAL) (SEC.)			10		20	7	10		
ADDED INITIAL *(SEC./ACTUATION)									
MAXIMUM INITIAL (SEC.)									
PASSAGE TIME (PRESET GAP) (SEC.)			3		3	3	3		
TIME BEFORE REDUCTION *(SEC.)									
MINIMUM GAP *(SEC.)									
TIME TO REDUCE *(SEC.)									
MAXIMUM GREEN I (SEC.)			40		60	20	40		
MAXIMUM GREEN II (SEC.)									
YELLOW CHANGE (SEC.)			4		4	4	4		
ALL RED CLEARANCE (SEC.)			2		2	2	2		
WALK (SEC.)									
PEDESTRIAN CLEARANCE (SEC.)									
RECALL	MAXIMUM (ON/OFF)								
	MINIMUM (ON/OFF)				X				
	PEDESTRIAN (ON/OFF)								
MEMORY (ON/OFF)									

*VOLUME DENSITY CONTROLS
SEE SHEET 611 FOR COORDINATION PLANS

FIELD WIRING HOOKUP CHART							
SIGNAL HEAD	INDICATION	FIELD TERMINAL	FLASH	SIGNAL HEAD	INDICATION	FIELD TERMINAL	FLASH
A (WB)	R	φ 6 R	R	E (SB LT)	R	φ 4 R	R
	Y	φ 6 Y			Y	φ 4 Y	
	G	φ 6 G			G	φ 4 G	
B (WB)	R	φ 6 R	R	F (SB RT)	R	φ 4 R	R
	Y	φ 6 Y			Y	φ 4 Y	
	G	φ 6 G			G	φ 4 G	
C (EB LT)	R	φ 2 R	R	OLA	---	LS 9/φ 5 Y	OUT
	Y	φ 2 Y			---	LS 9/φ 5 G	
	G	φ 2 G			---	LS 9/φ 5 Y	
	<--Y-->	φ 5 Y			---	LS 9/φ 5 G	
	<--G-->	φ 5 G					
D (EB)	R	φ 2 R	R				
	Y	φ 2 Y					
	G	φ 2 G					

LS = LOAD SWITCH

WIRING DIAGRAM



NOTE: POWER CABLE SHALL BE #8 AWG WITH ALL SIGNAL CABLE BEING #14 AWG

CALCULATED
J.L.L.
CHECKED
H.G.

TRAFFIC SIGNAL DETAIL SHEET
EX. SOUTH CHERRY VALLEY RD./ NEW CHERRY VALLEY RD.

LIC-16-16.64

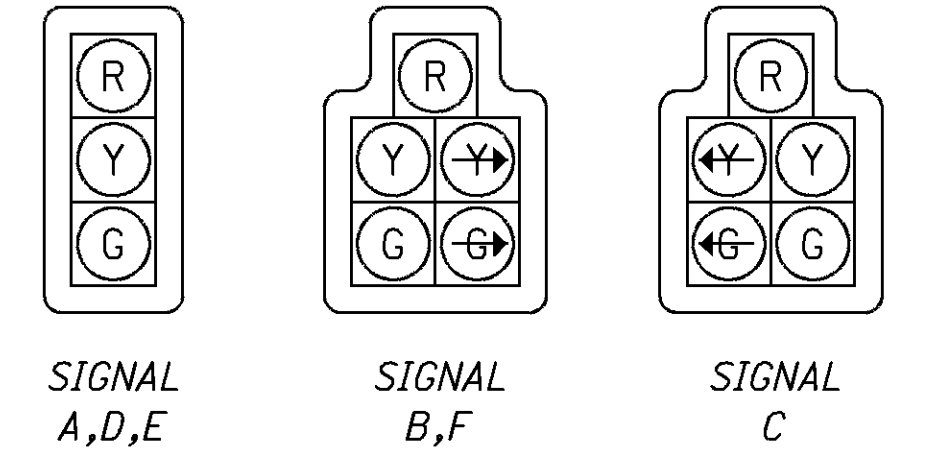
601
729

LEGEND

- 5 SECTION SIGNAL HEAD, 1-WAY, W/ BACKPLATE
- 3 SECTION SIGNAL HEAD, 1-WAY, W/ BACKPLATE
- VIDEO DETECTION CAMERA
- VIDEO DETECTION ZONE
- SPREAD SPECTRUM RADIO

SEE SHEET 596 FOR TRAFFIC SIGNAL QUANTITIES

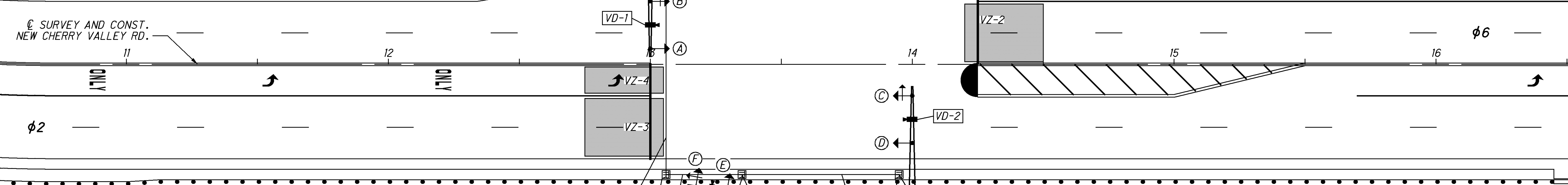
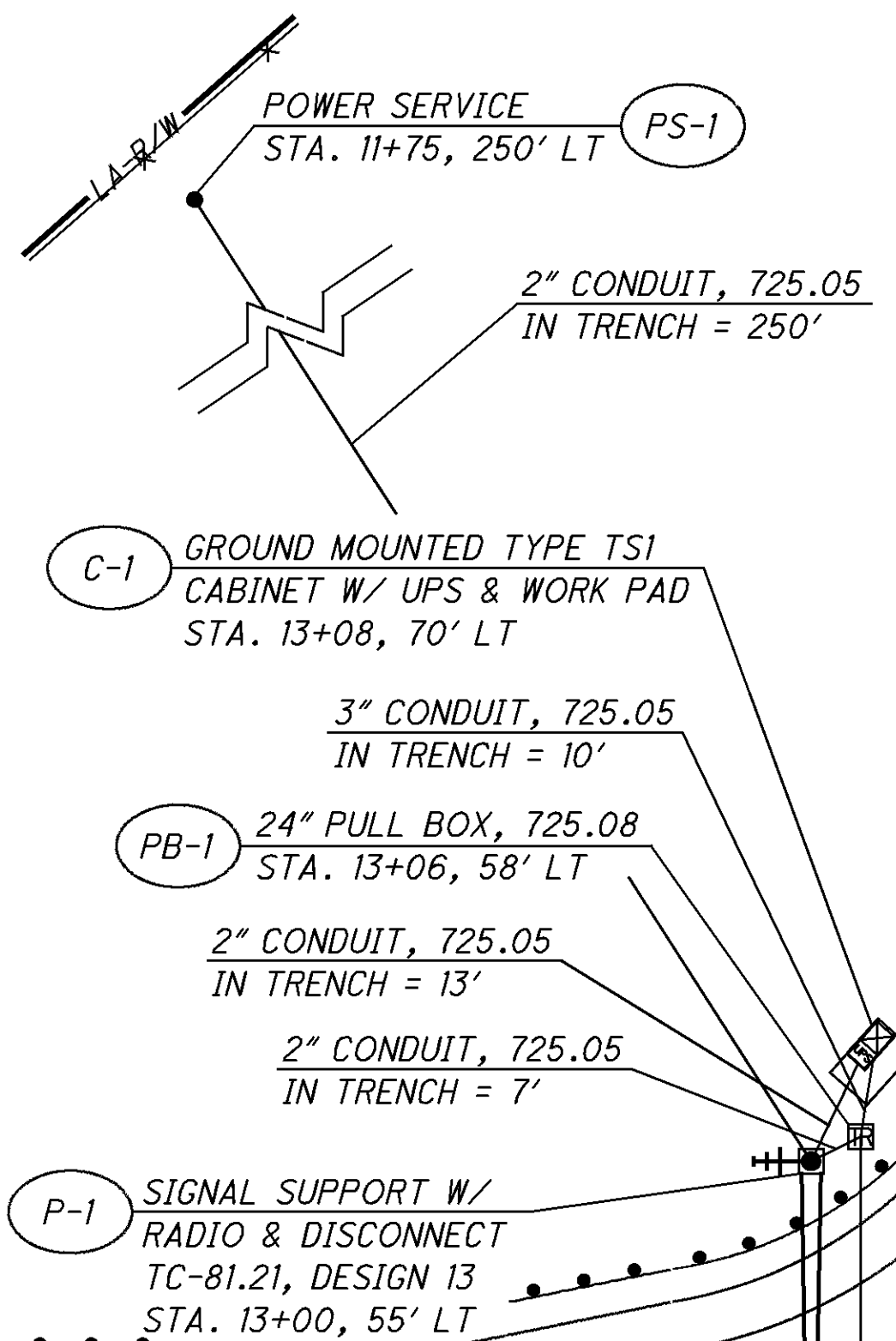
SIGNAL INDICATIONS



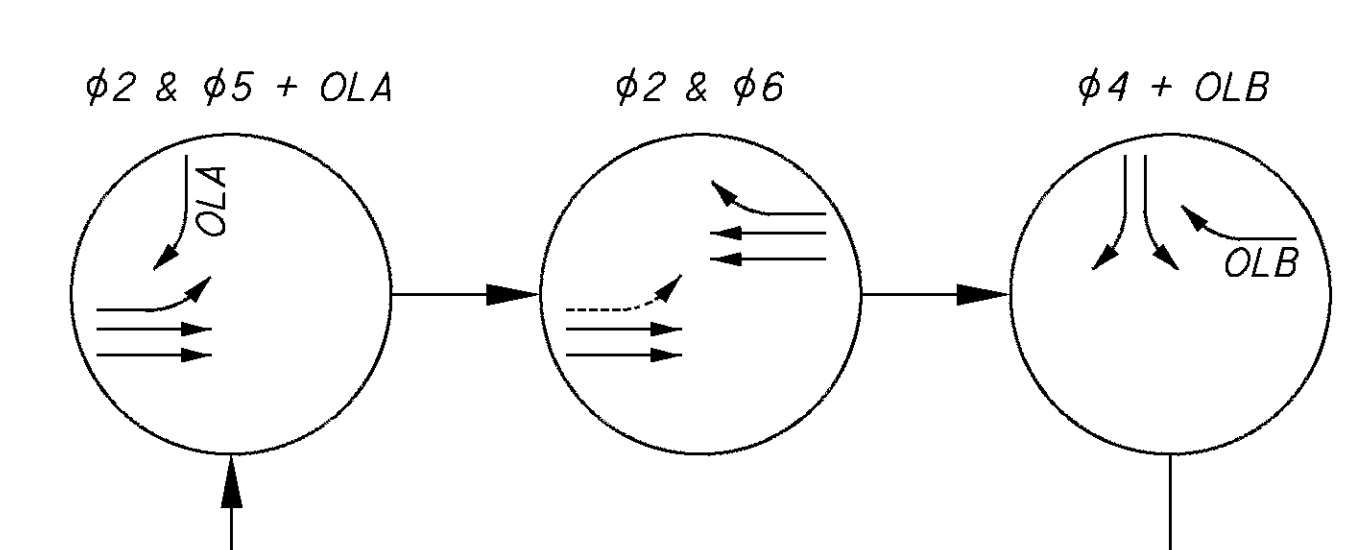
TRAFFIC SIGNAL PLAN SHEET
NEW CHERRY VALLEY RD./ RAMP C

LIC-16-16.64

602
729



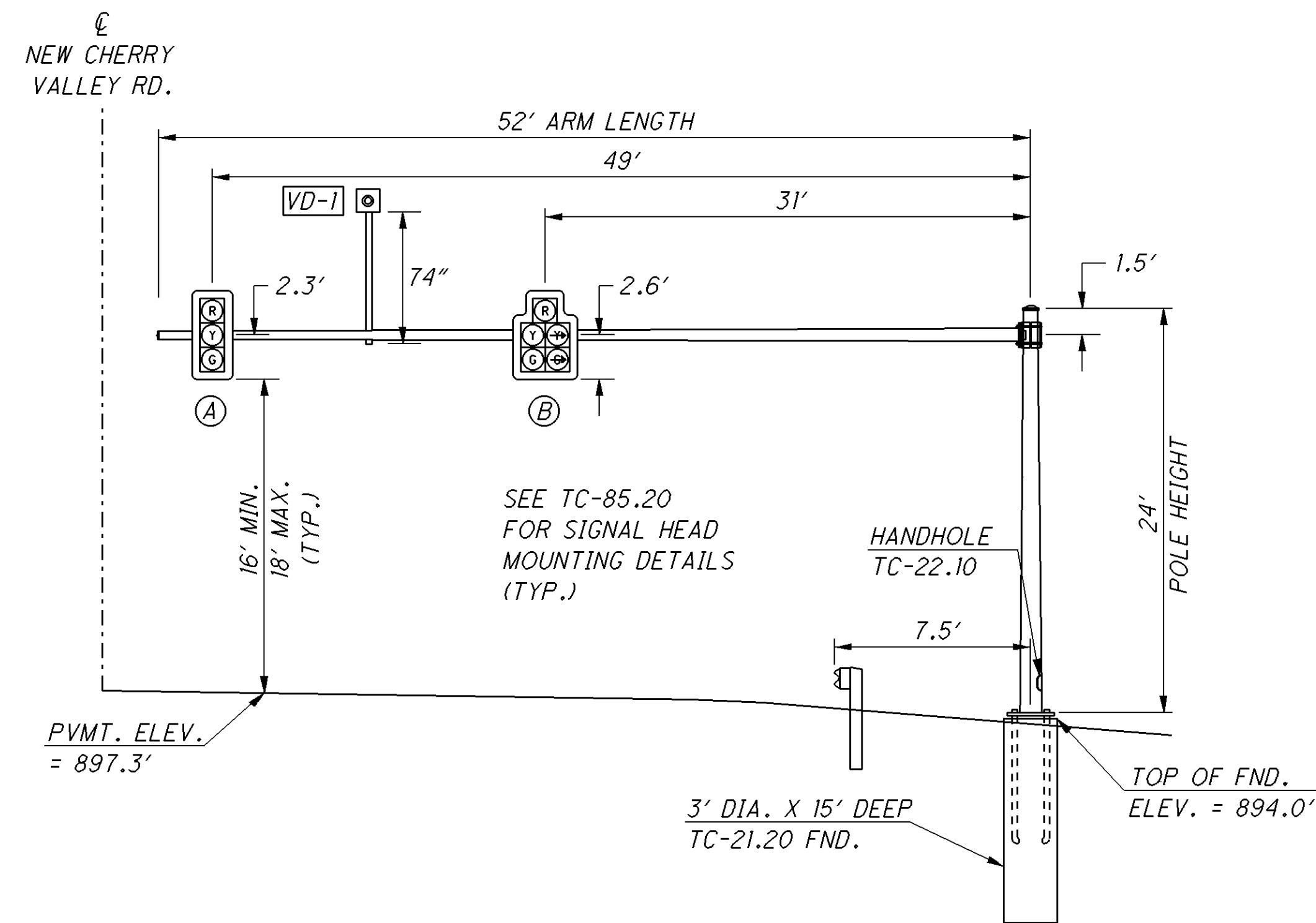
SIGNAL PHASING DIAGRAM



VIDEO DETECTION CHART				
VIDEO DETECTION NO.	VIDEO DETECTION ZONE	PULSE OR PRESENCE	DELAY (SEC) CONTROLLER	ASSOCIATED CONTROLLER PHASE
VD-1	VZ-1	PRES	8	6
	VZ-2	PRES		6
VD-2	VZ-3	PRES		2
	VZ-4	PRES		5
VD-3	VZ-5	PRES	8	4
	VZ-6	PRES		4

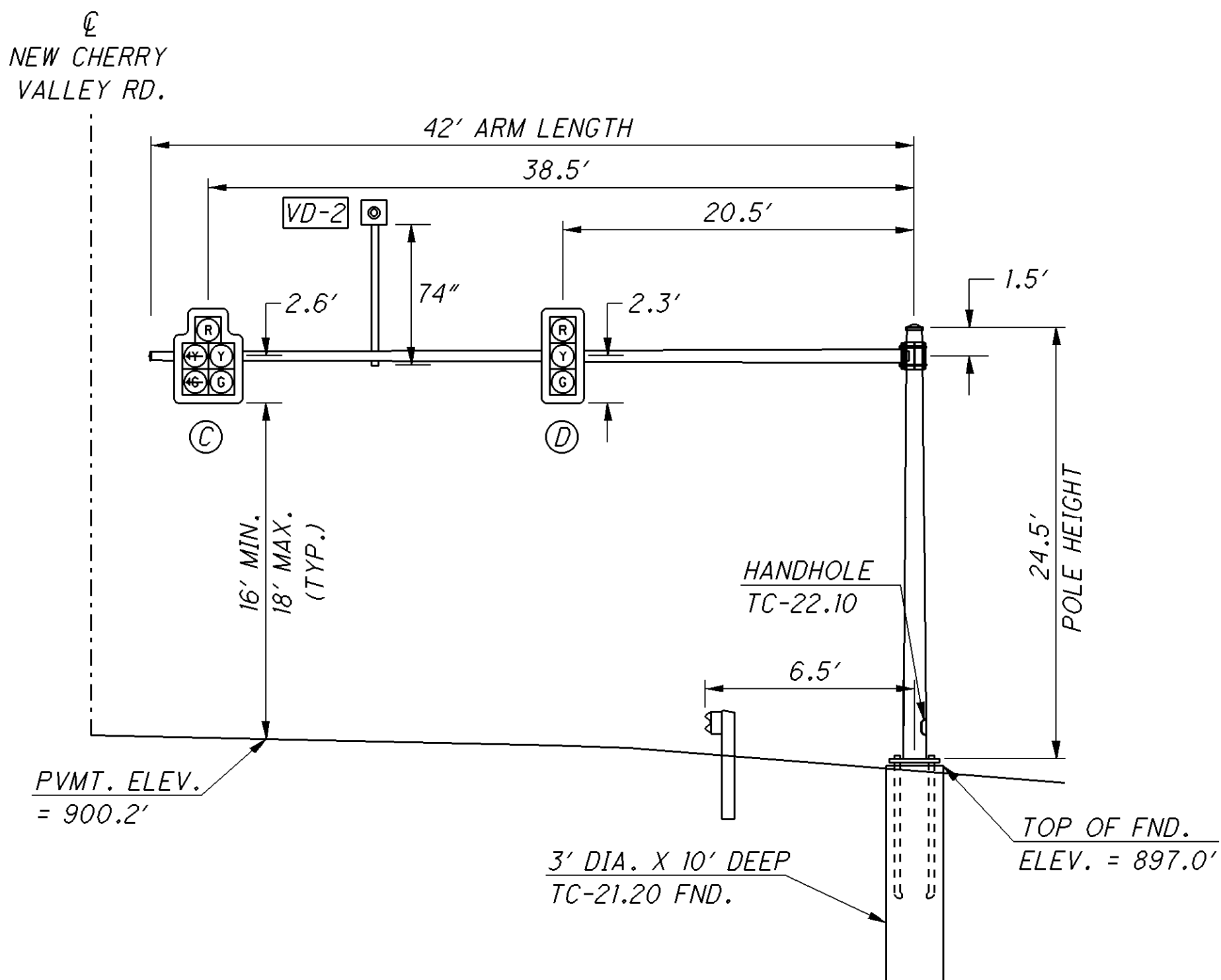
ALL CAMERAS SHALL HAVE 2 SEC. DELAY

P:\LIC\80704\Design\Roadway\Plan_Sheets\Traffic_Signals\RAMPC_TSP_001.dgn 28-FEB-2015 1:24PM jutz1



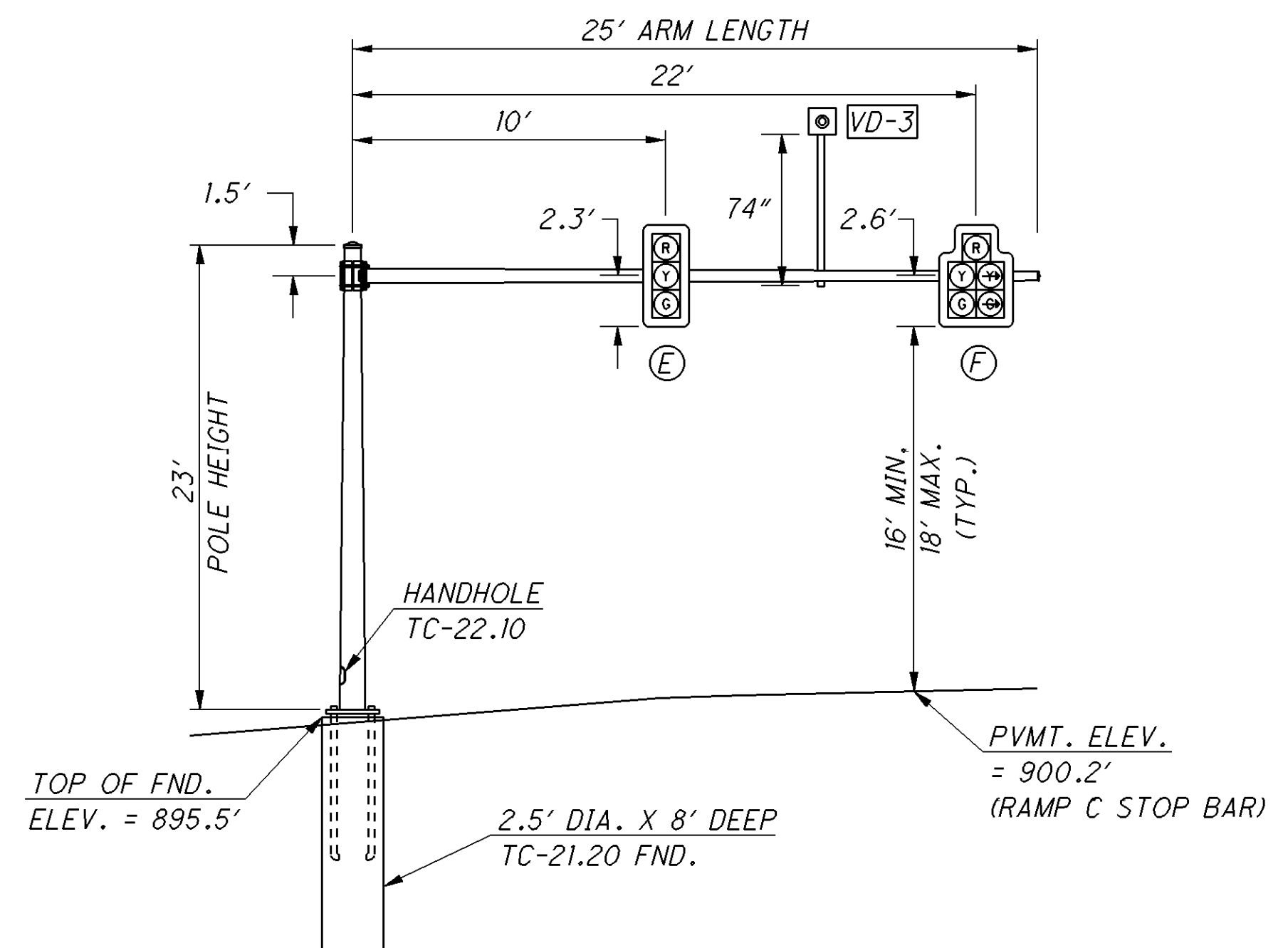
SIGNAL SUPPORT P-1

TC-81.21 DESIGN 13
 STA. 13+00, 55' LT
 NEW CHERRY VALLEY RD.
 LOOKING SOUTH



SIGNAL SUPPORT P-2

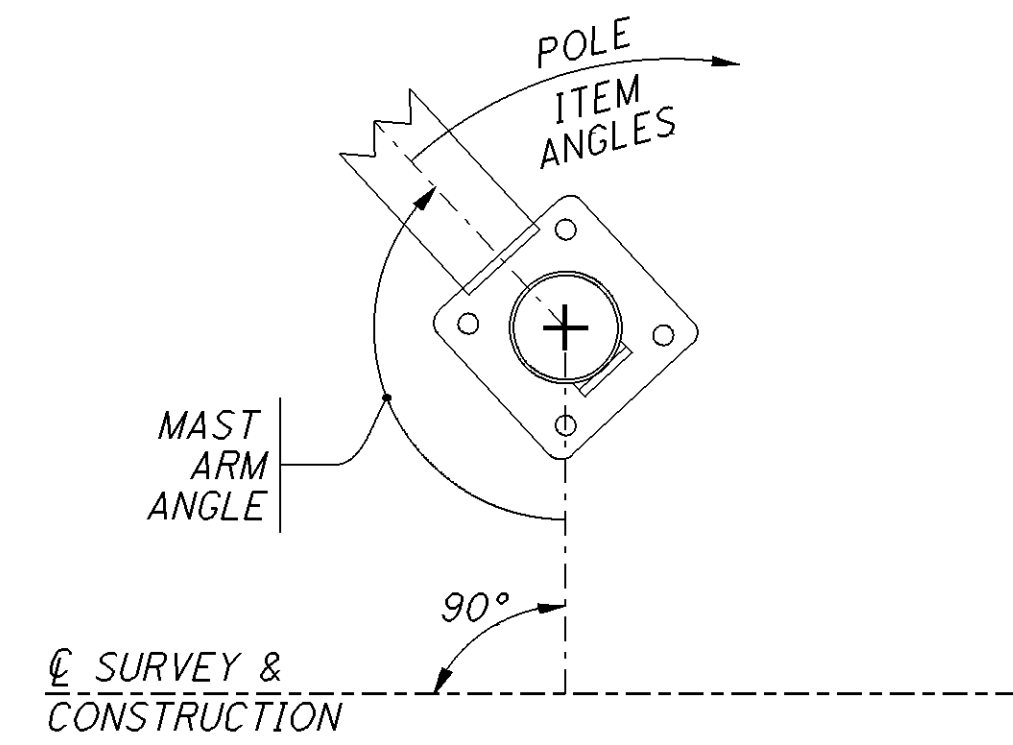
TC-81.21 DESIGN 11
 STA. 14+00, 50.5' RT
 NEW CHERRY VALLEY RD.
 LOOKING NORTH



SIGNAL SUPPORT P-3

TC-81.21 DESIGN 1
 STA. 13+39, 50.5' RT
 NEW CHERRY VALLEY RD.
 LOOKING EAST

SIGNAL SUPPORT ORIENTATION



SUPPORT NO./ MAST ARM	MAST ARM ANGLE	ANGLE FROM MAST ARM	
		DISCONNECT	HANDHOLE
DEGREES			
P-1	0	180	180
P-2	0	-	180
P-3	280	-	180

NOTES

- ALL ANGLES MEASURED CLOCKWISE FROM NEW CHERRY VALLEY RD.
- BASE PLATE IS ORIENTED SQUARE TO MAST ARM

P:\LIC\80704\Design\Roadway\Plan_Sheets\Traffic_Signals\RAMPC_TSD_002.dgn 28-FEB-2015 1:15PM jutz1

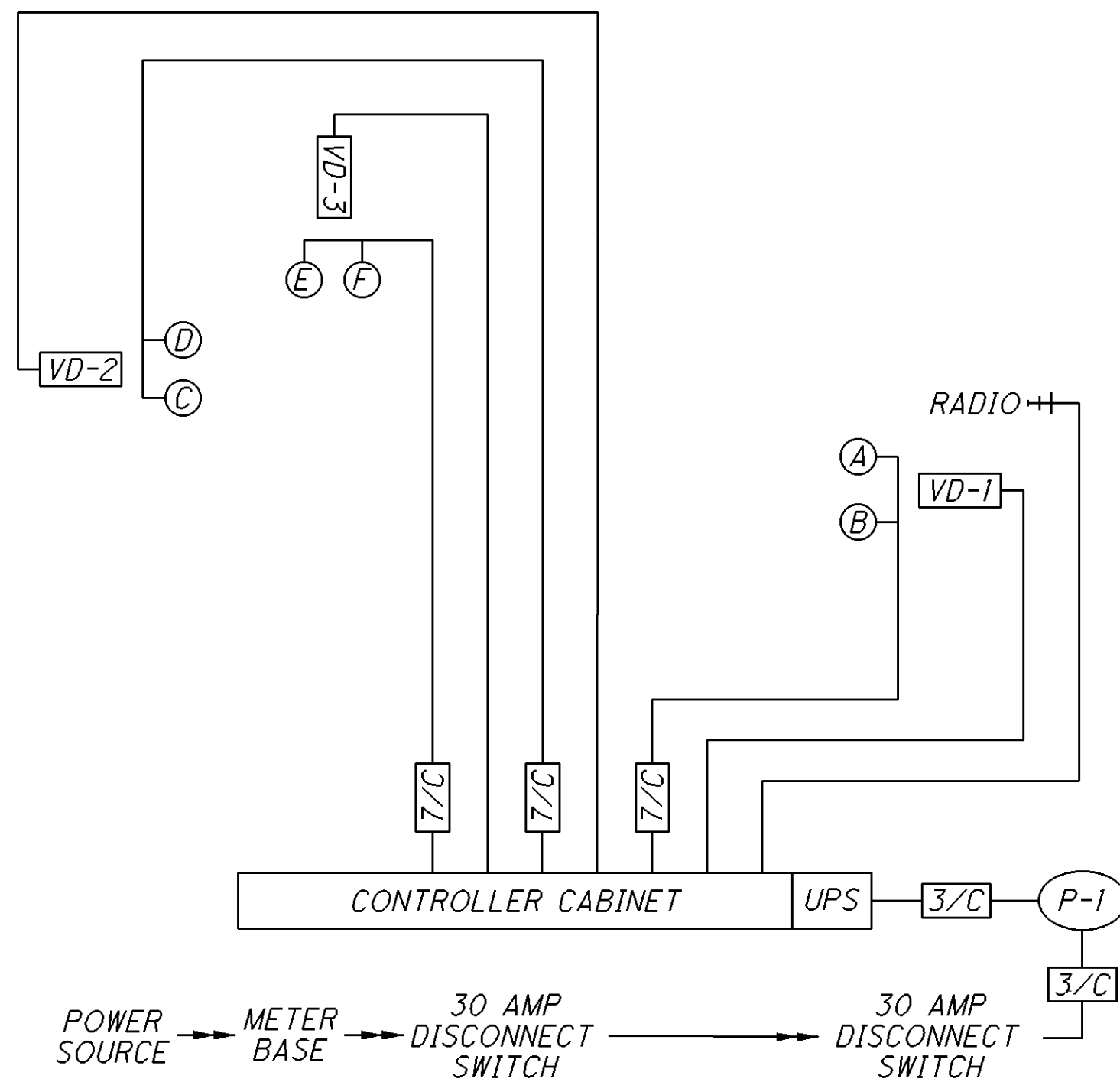
TRAFFIC SIGNAL TIMING CHART									
INTERSECTION: NEW CHERRY VALLEY RD./ RAMP C MAINTAINING AGENCY: CITY OF NEWARK									
START UP		DUAL ENTRY: YES		PHASES: 2 & 6, 4					
		REST IN RED:		RING 1		RING 2			
START IN:	ALL RED	OVERLAP		A	B	C	D		
TIME FOR FLASH OR ALL RED:	5 SEC.	PHASES		5	4				
FIRST PHASE(S):	2 & 6								
COLOR DISPLAYED:	GREEN								
INTERVAL OR FEATURE		CONTROLLER MOVEMENT NO.							
INTERSECTION MOVEMENT (PHASE)		1	2	3	4	5	6	7	8
DIRECTION			NB		EB	NB LT	SB		
MINIMUM GREEN (INITIAL) (SEC.)			20		12	7	20		
ADDED INITIAL *(SEC./ACTUATION)									
MAXIMUM INITIAL (SEC.)									
PASSAGE TIME (PRESET GAP) (SEC.)			3		3	3	3		
TIME BEFORE REDUCTION *(SEC.)									
MINIMUM GAP *(SEC.)									
TIME TO REDUCE *(SEC.)									
MAXIMUM GREEN I (SEC.)			60		45	35	60		
MAXIMUM GREEN II (SEC.)									
YELLOW CHANGE (SEC.)			4		4	4	4		
ALL RED CLEARANCE (SEC.)			2		2	2	2		
WALK (SEC.)									
PEDESTRIAN CLEARANCE (SEC.)									
RECALL	MAXIMUM (ON/OFF)								
	MINIMUM (ON/OFF)		X					X	
	PEDESTRIAN (ON/OFF)								
MEMORY (ON/OFF)									

*VOLUME DENSITY CONTROLS
SEE SHEET 611 FOR COORDINATION PLANS

FIELD WIRING HOOKUP CHART							
SIGNAL HEAD	INDICATION	FIELD TERMINAL	FLASH	SIGNAL HEAD	INDICATION	FIELD TERMINAL	FLASH
A (SB)	R	φ 6 R	R	E (EB LT)	R	φ 4 R	R
	Y	φ 6 Y			Y	φ 4 Y	
	G	φ 6 G			G	φ 4 G	
B (SB RT)	R	φ 6 R	R	F (EB RT)	R	φ 4 R	R
	Y	φ 6 Y			Y	φ 4 Y	
	G	φ 6 G			G	φ 4 G	
	---Y-->	LS 10/φ 4 Y			---Y-->	LS 9/φ 5 Y	
	---G-->	LS 10/φ 4 G			---R-->	LS 9/φ 5 G	
C (NB LT)	R	φ 2 R	R	OVERLAPS			
	Y	φ 2 Y		OLA	---Y-->	LS 9/φ 5 Y	OUT
	G	φ 2 G		OLA	---R-->	LS 9/φ 5 G	OUT
	<--Y---	φ 5 Y		OLA	---Y-->	LS 10/φ 4 Y	OUT
	<--G---	φ 5 G		OLA	---R-->	LS 10/φ 4 G	OUT
D (NB)	R	φ 2 R	R				
	Y	φ 2 Y					
	G	φ 2 G					

LS = LOAD SWITCH

WIRING DIAGRAM



NOTE: POWER CABLE SHALL BE #8 AWG WITH ALL SIGNAL CABLE BEING #14 AWG

CALCULATED
J.L.
CHECKED
H.G.

**TRAFFIC SIGNAL DETAIL SHEET
NEW CHERRY VALLEY RD./ RAMP C**

LIC-16-16.64

604
729

LEGEND

- 5 SECTION SIGNAL HEAD, 1-WAY, W/ BACKPLATE
- 3 SECTION SIGNAL HEAD, 1-WAY, W/ BACKPLATE
- VIDEO DETECTION CAMERA
- VIDEO DETECTION ZONE
- SPREAD SPECTRUM RADIO

SEE SHEET 597 FOR TRAFFIC SIGNAL QUANTITIES

SIGN LEGEND

- R10-3E (9" X 15') SIGN S1
- R10-3E (9" X 15') SIGN S2

SIGNAL INDICATIONS

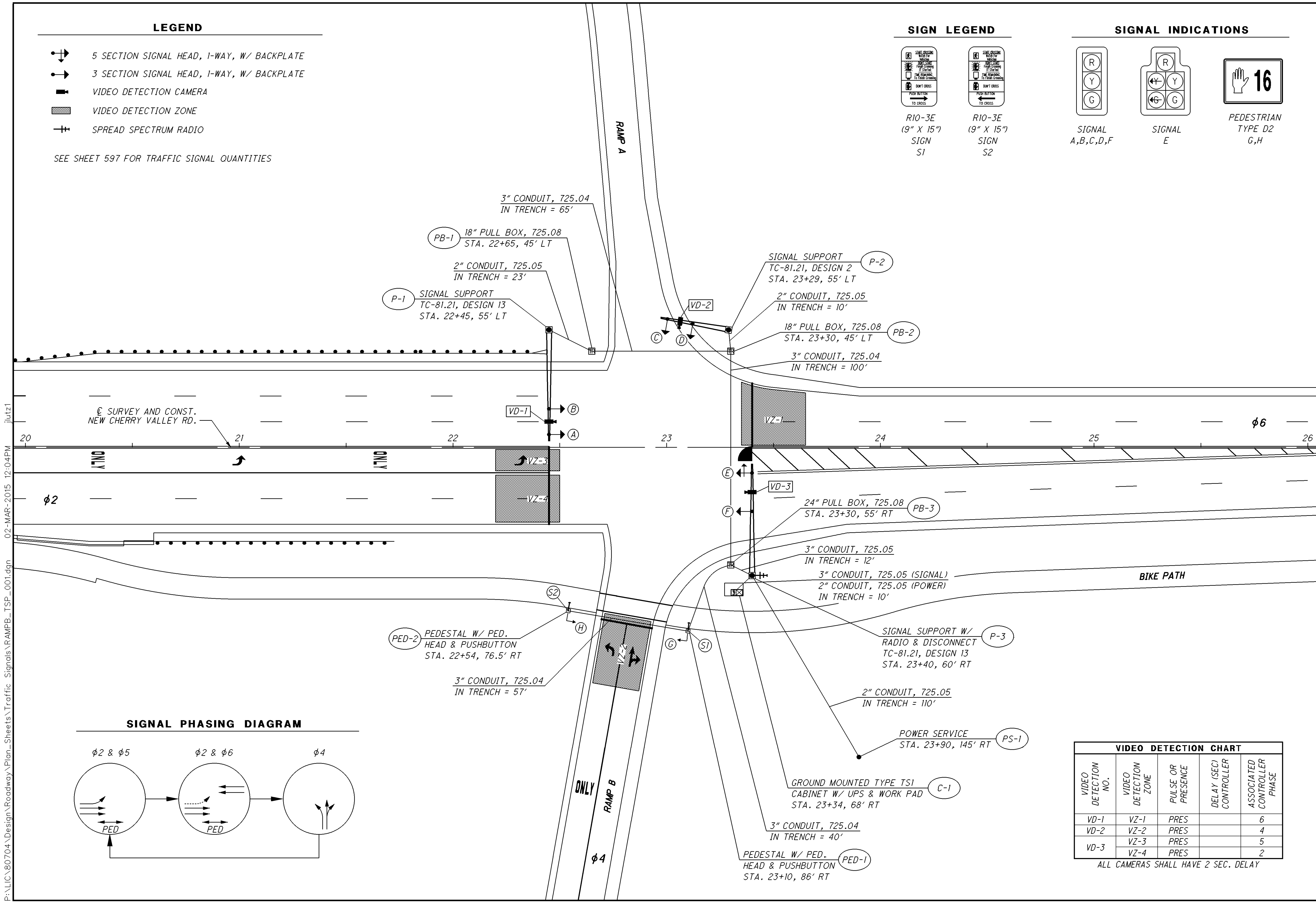
- SIGNAL A, B, C, D, F
- SIGNAL E
- PEDESTRIAN TYPE D2 G, H

CALCULATED: J.L.
CHECKED: H.G.

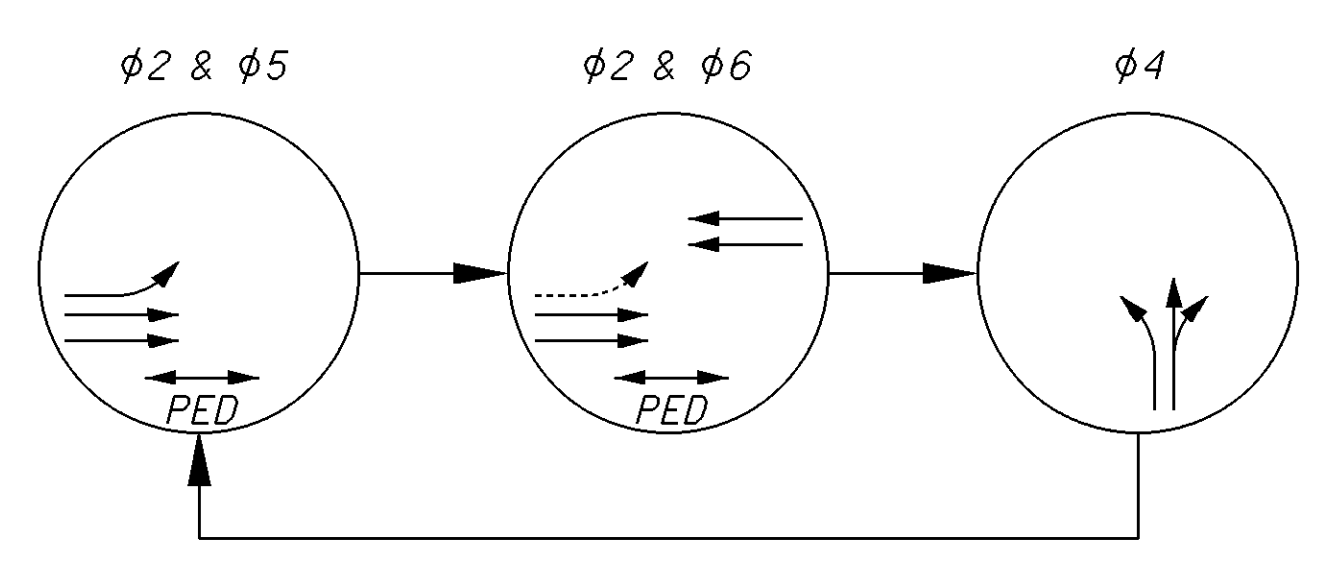
**TRAFFIC SIGNAL PLAN SHEET
NEW CHERRY VALLEY RD./ RAMP B**

LIC-16-16.64

605
729



SIGNAL PHASING DIAGRAM

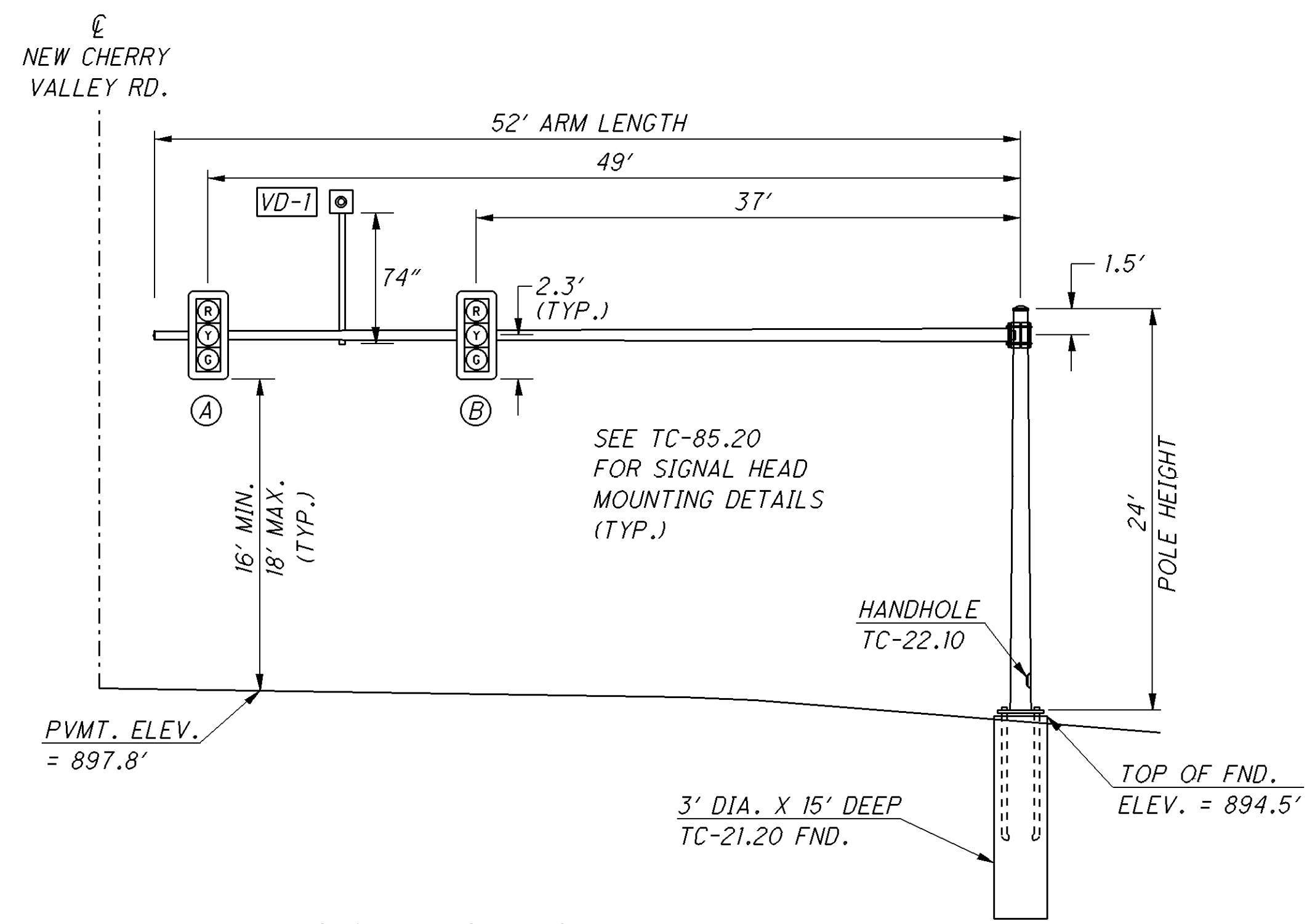


VIDEO DETECTION CHART

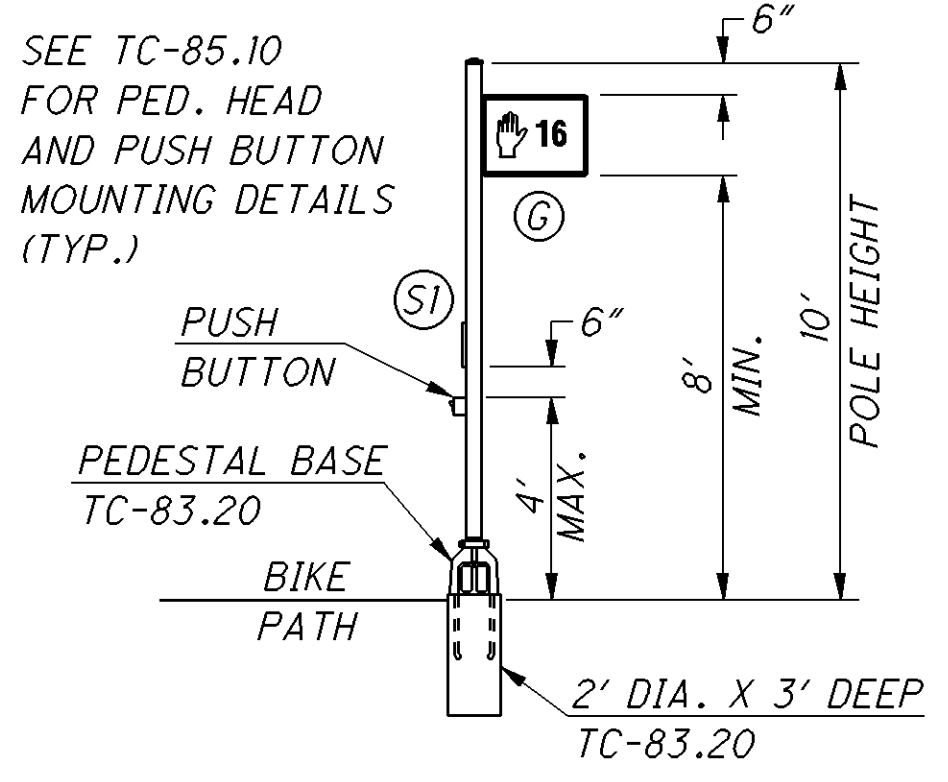
VIDEO DETECTION NO.	VIDEO DETECTION ZONE	PULSE OR PRESENCE	DELAY (SEC) CONTROLLER	ASSOCIATED CONTROLLER PHASE
VD-1	VZ-1	PRES		6
VD-2	VZ-2	PRES		4
VD-3	VZ-3	PRES		5
	VZ-4	PRES		2

ALL CAMERAS SHALL HAVE 2 SEC. DELAY

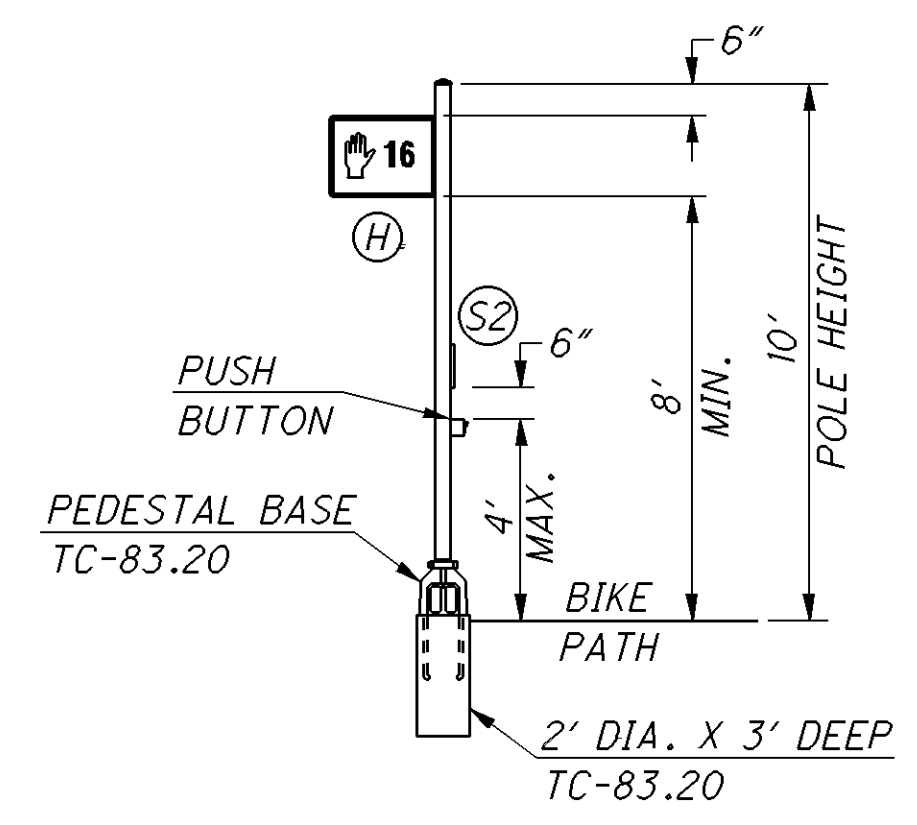
P:\LIC\80704\Design\Roadway\Plan_Sheets\Traffic_Signals\RAMPB_TSP_001.dgn 02-MAR-2015 12:04PM jilutz1



SIGNAL SUPPORT P-1
TC-81.21 DESIGN 13
STA. 22+45, 55' LT
NEW CHERRY VALLEY RD.
LOOKING SOUTH

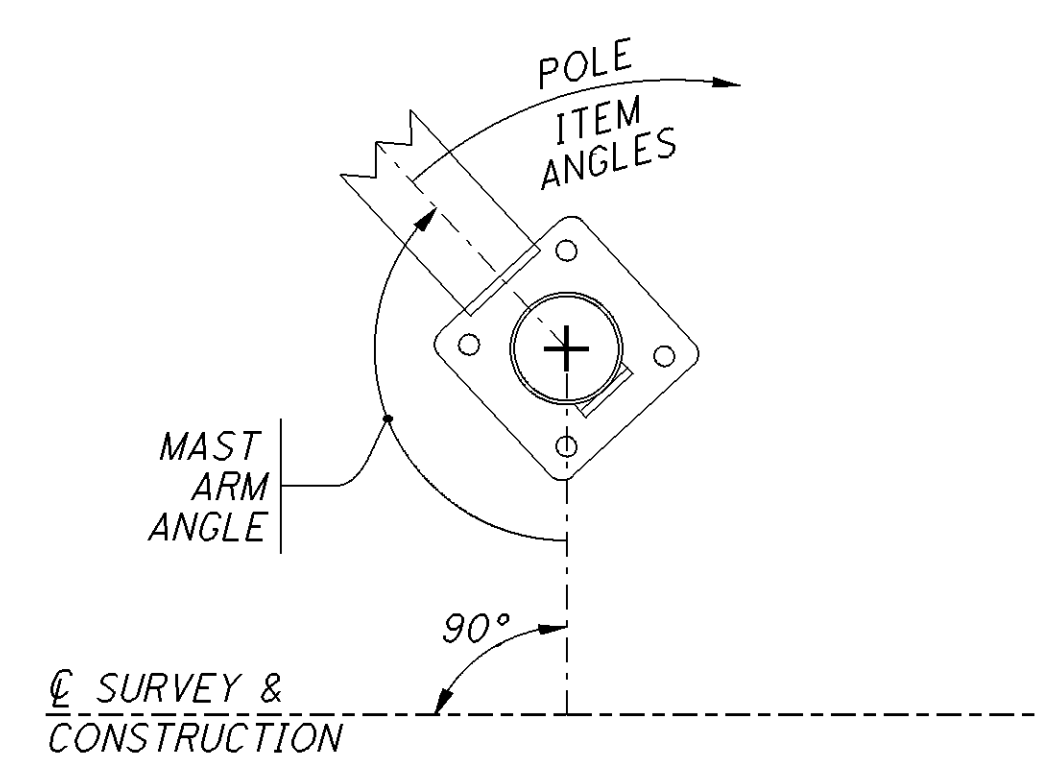


PEDESTAL PED-1
STA. 23+10, 86' RT.
NEW CHERRY VALLEY RD.
LOOKING NORTH



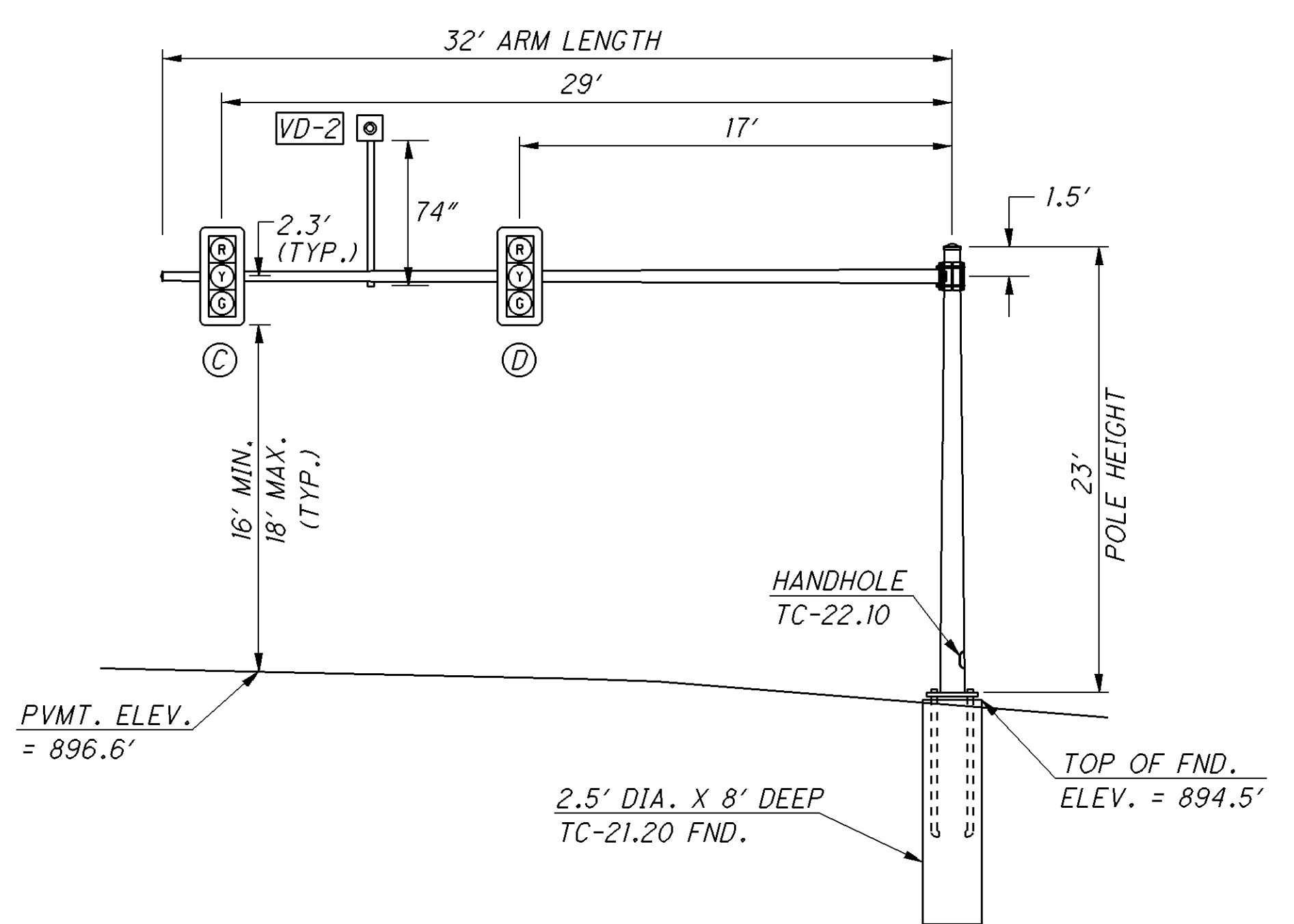
PEDESTAL PED-2
STA. 22+54, 76.5' RT.
NEW CHERRY VALLEY RD.
LOOKING SOUTH

SIGNAL SUPPORT ORIENTATION

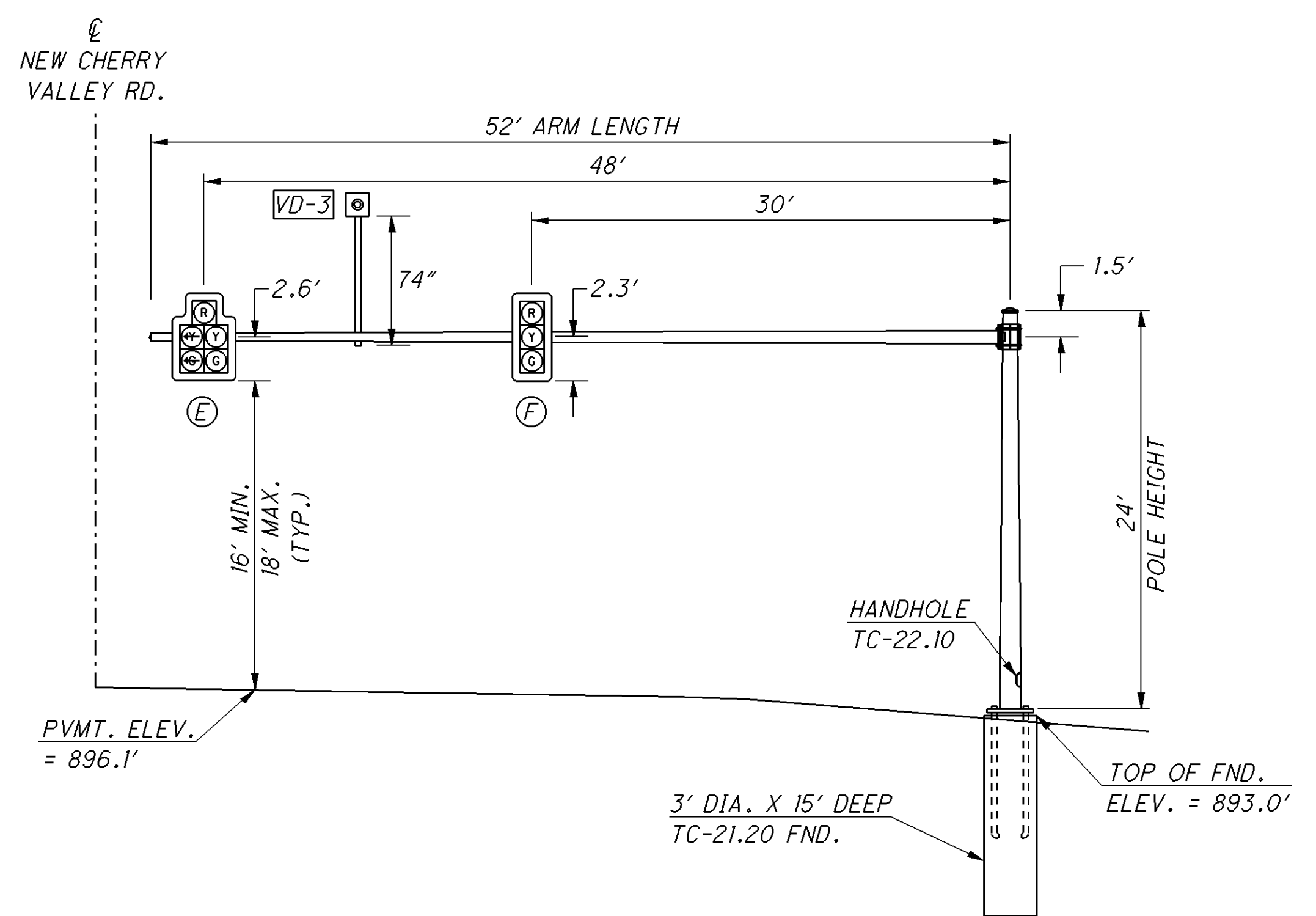


SUPPORT NO. / MAST ARM	MAST ARM ANGLE	ANGLE FROM MAST ARM	
		DISCONNECT	HANDHOLE
P-1	0	-	180
P-2	100	-	180
P-3	0	180	180

NOTES
1. ALL ANGLES MEASURED CLOCKWISE FROM NEW CHERRY VALLEY RD.
2. BASE PLATE IS ORIENTED SQUARE TO MAST ARM



SIGNAL SUPPORT P-2
TC-81.21 DESIGN 2
STA. 23+29, 55' LT
NEW CHERRY VALLEY RD.
LOOKING WEST



SIGNAL SUPPORT P-3
TC-81.21 DESIGN 13
STA. 23+40, 60' RT
NEW CHERRY VALLEY RD.
LOOKING NORTH

P:\LIC\80704\Design\Roadway\Plan_Sheets\Traffic_Signals\RAMPB_TSD_001.dgn 02-MAR-2015 11:56AM jutz1

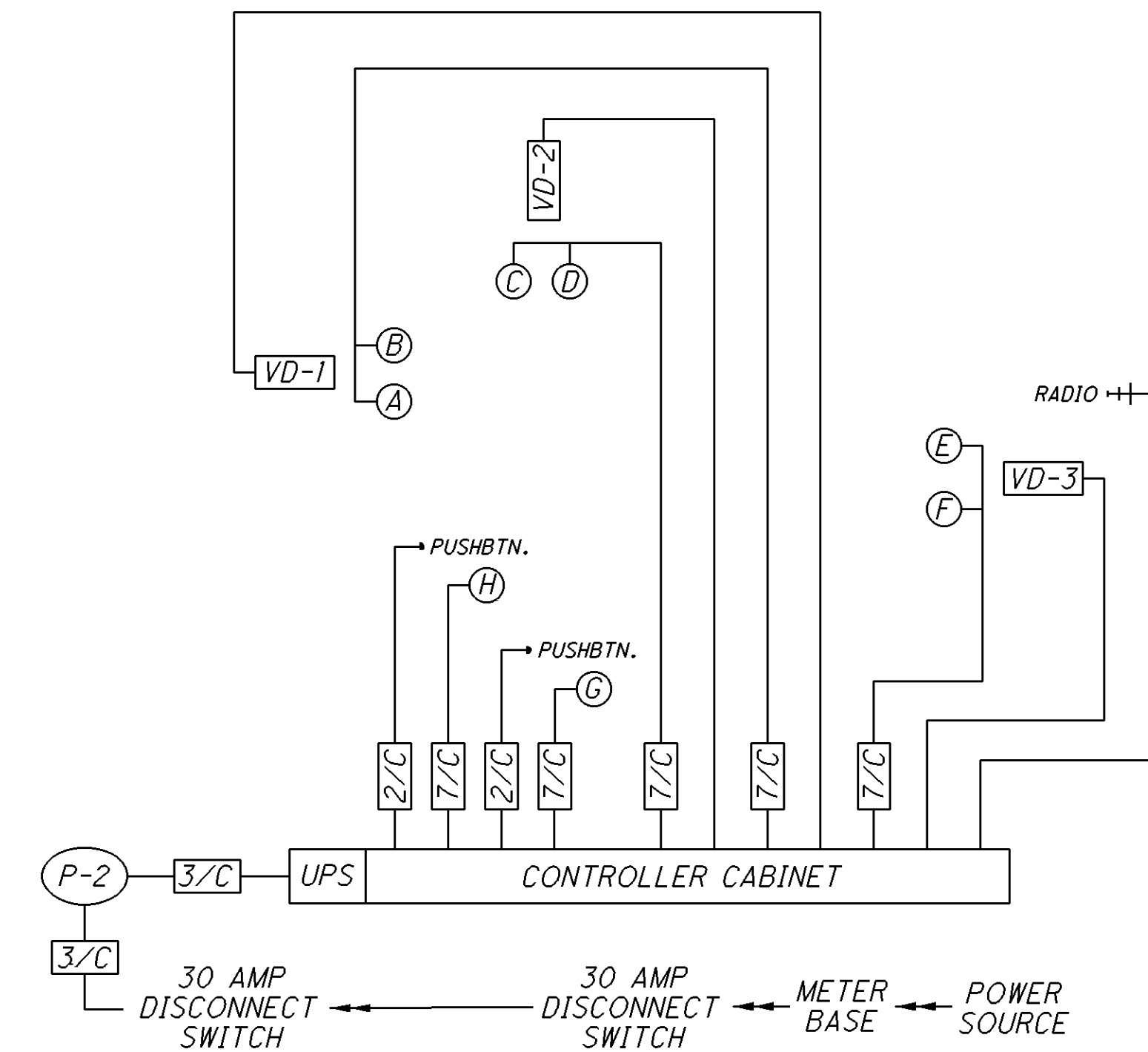
P:\LIC\80704\Design\Roadway\Plan_Sheets\Traffic_Signals\RAMPB_TSD_002.dgn 28-FEB-2015 1:15PM jutz1

TRAFFIC SIGNAL TIMING CHART								
INTERSECTION: NEW CHERRY VALLEY RD./ RAMP B								
MAINTAINING AGENCY: CITY OF NEWARK								
START UP		DUAL ENTRY: YES		PHASES: 2 & 6, 4				
START IN: ALL RED		REST IN RED:		RING 1		RING 2		
TIME FOR FLASH OR ALL RED: 5 SEC.		OVERLAP		A	B	C	D	
FIRST PHASE(S): 2 & 6		PHASES						
COLOR DISPLAYED: GREEN								
INTERVAL OR FEATURE		CONTROLLER MOVEMENT NO.						
INTERSECTION MOVEMENT (PHASE)		1	2	3	4	5	6	7
DIRECTION			NB		WB	NB LT	SB	
MINIMUM GREEN (INITIAL) (SEC.)			20		12	7	20	
ADDED INITIAL *(SEC./ACTUATION)								
MAXIMUM INITIAL (SEC.)								
PASSAGE TIME (PRESET GAP) (SEC.)			3		3	3	3	
TIME BEFORE REDUCTION *(SEC.)								
MINIMUM GAP *(SEC.)								
TIME TO REDUCE *(SEC.)								
MAXIMUM GREEN I (SEC.)			60		45	30	60	
MAXIMUM GREEN II (SEC.)								
YELLOW CHANGE (SEC.)			4		4	4	4	
ALL RED CLEARANCE (SEC.)			2		2	2	2	
WALK (SEC.)			9				9	
PEDESTRIAN CLEARANCE (SEC.)			7				7	
RECALL	MAXIMUM (ON/OFF)							
	MINIMUM (ON/OFF)		X				X	
	PEDESTRIAN (ON/OFF)							
MEMORY (ON/OFF)								

*VOLUME DENSITY CONTROLS
SEE SHEET 611 FOR COORDINATION PLANS

FIELD WIRING HOOKUP CHART							
SIGNAL HEAD	INDICATION	FIELD TERMINAL	FLASH	SIGNAL HEAD	INDICATION	FIELD TERMINAL	FLASH
A (SB)	R	φ 6 R	R	E (NB LT)	R	φ 2 R	R
	Y	φ 6 Y			Y	φ 2 Y	
	G	φ 6 G			G	φ 2 G	
B (SB)	R	φ 6 R	R	F (NB)	<--Y---	φ 5 Y	R
	Y	φ 6 Y			<--G---	φ 5 G	
	G	φ 6 G			R	φ 2 R	
C (WB LT)	R	φ 4 R	R	G-H N/S	Y	φ 2 Y	OUT
	Y	φ 4 Y			G	φ 2 G	
	G	φ 4 G			PEDESTRIAN MOVEMENTS		
D (WB RT)	R	φ 4 R	R	W		LS 9/φ 2 Y	OUT
	Y	φ 4 Y		DW		LS 9/φ 2 G	
	G	φ 4 G		LS = LOAD SWITCH			

WIRING DIAGRAM



NOTE: POWER CABLE SHALL BE #8 AWG WITH ALL SIGNAL AND PEDESTRIAN CABLE BEING #14 AWG

CALCULATED
J.L.
CHECKED
H.G.

TRAFFIC SIGNAL DETAIL SHEET
NEW CHERRY VALLEY RD./ RAMP B

LIC-16-16.64

607
729

LEGEND

- 5 SECTION SIGNAL HEAD, 1-WAY, W/ BACKPLATE
- 3 SECTION SIGNAL HEAD, 1-WAY, W/ BACKPLATE
- VIDEO DETECTION CAMERA
- VIDEO DETECTION ZONE
- SPREAD SPECTRUM RADIO

SEE SHEET 598 FOR TRAFFIC SIGNAL QUANTITIES

SIGN LEGEND

- Newark-Granville Rd
- TURNING VEHICLES
- R10-15R (30" X 30") SIGN S2
- R10-3E (9" X 15") SIGN S3
- R10-3E (9" X 15") SIGN S4

SIGNAL INDICATIONS

- SIGNAL A
- SIGNAL B,C,D,E
- SIGNAL F
- PEDESTRIAN TYPE D2 G,H

NOTE: ANGLE SIGNAL HEADS C,D TO ALIGN WITH ϕ OF NEW CHERRY VALLEY RD.

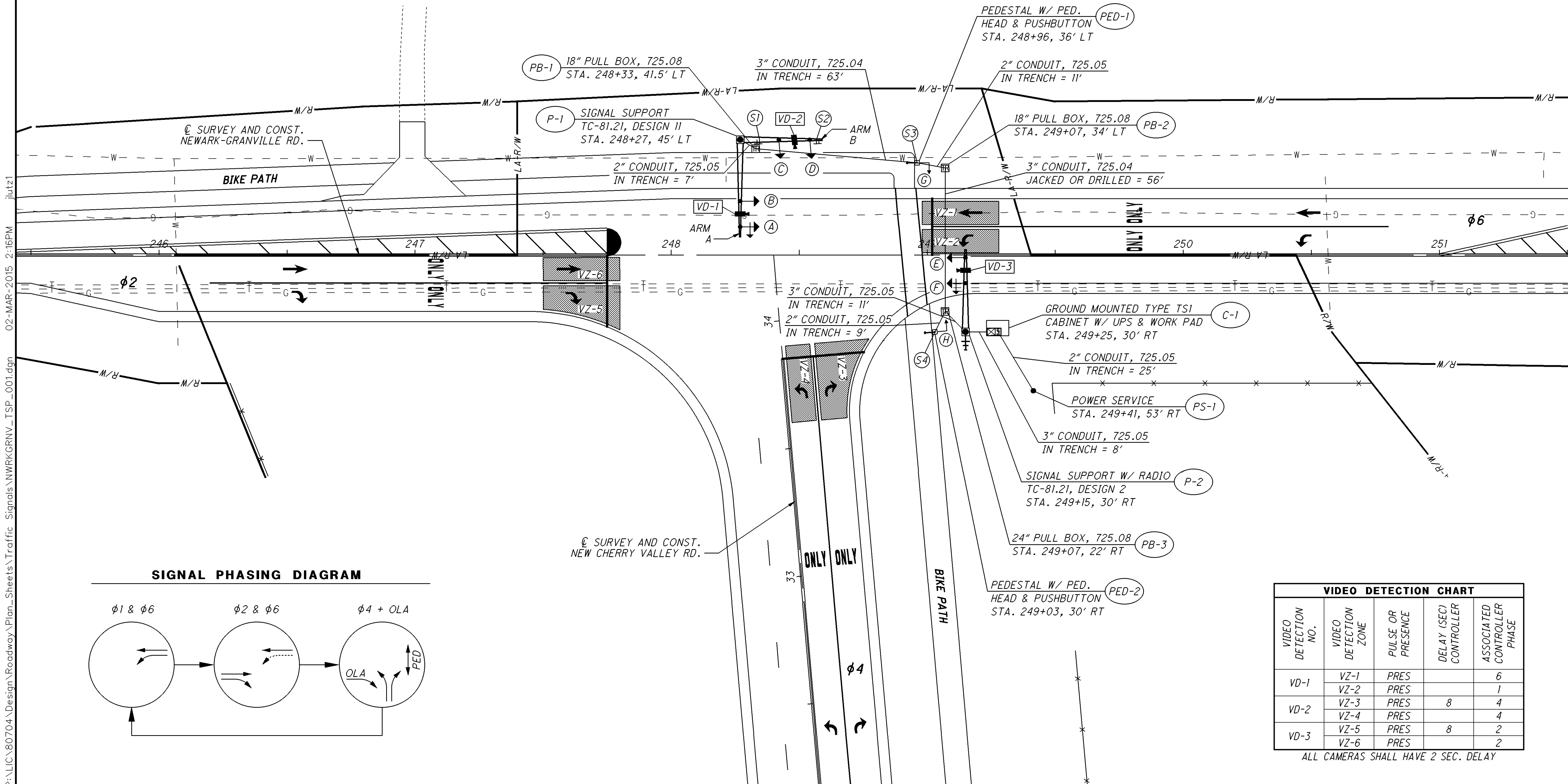
CALCULATED BY: J.L.
CHECKED BY: H.G.

0 20 40
HORIZONTAL SCALE IN FEET

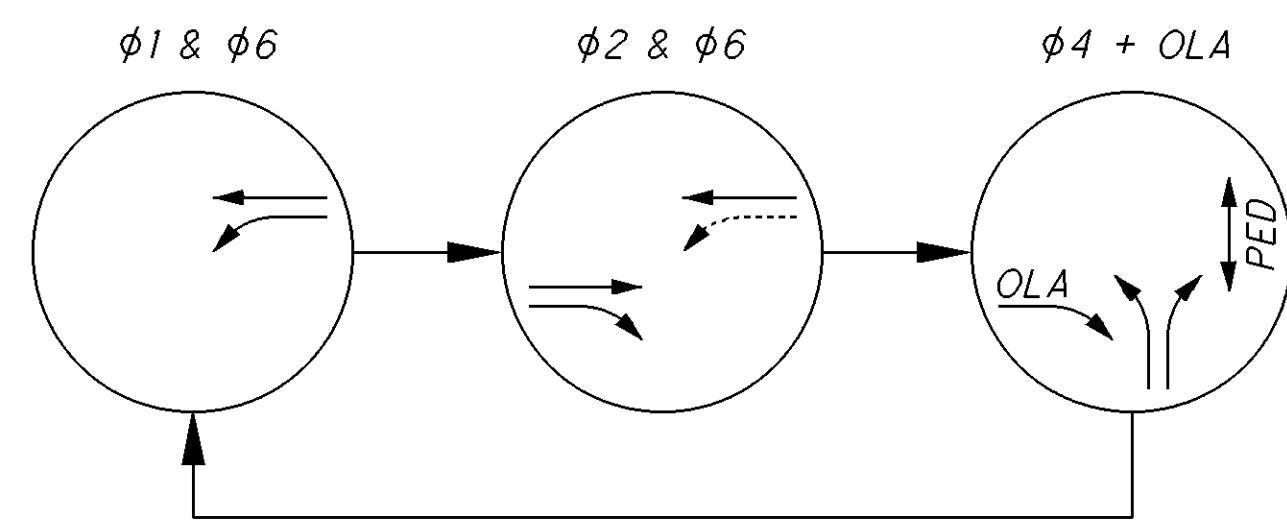
TRAFFIC SIGNAL PLAN SHEET
NEWARK-GRANVILLE RD./NEW CHERRY VALLEY RD.

LIC-16-16.64

608
729



SIGNAL PHASING DIAGRAM

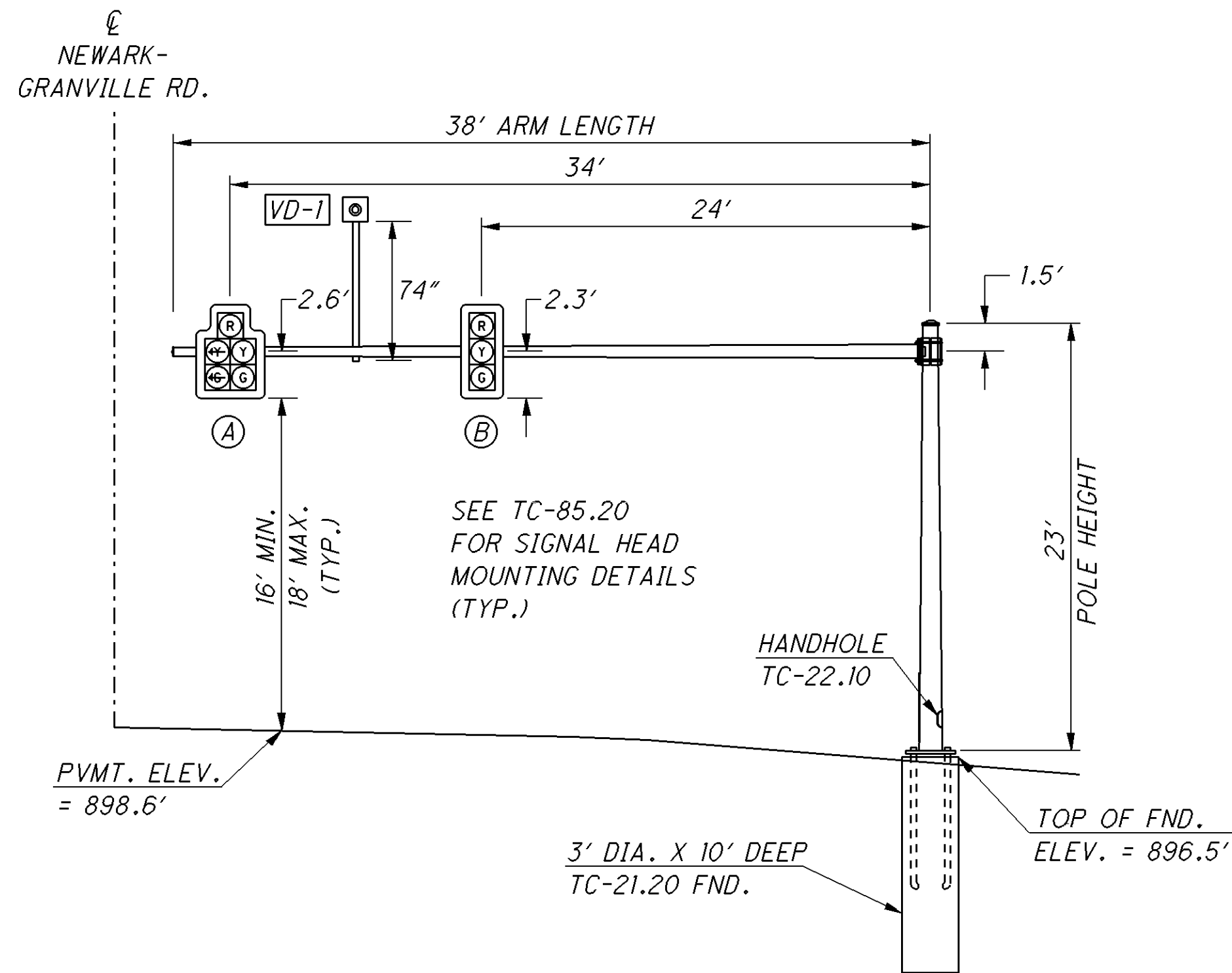


VIDEO DETECTION CHART				
VIDEO DETECTION NO.	VIDEO DETECTION ZONE	PULSE OR PRESENCE	DELAY (SEC) CONTROLLER	ASSOCIATED CONTROLLER PHASE
VD-1	VZ-1	PRES		6
	VZ-2	PRES		1
VD-2	VZ-3	PRES	8	4
	VZ-4	PRES		4
VD-3	VZ-5	PRES	8	2
	VZ-6	PRES		2

ALL CAMERAS SHALL HAVE 2 SEC. DELAY

P:\LIC\80704\Design\Roadway\Plan_Sheets\Traffic_Signals\NRKGRNV_TSP_001.dgn 02-MAR-2015 2:16PM jltzj

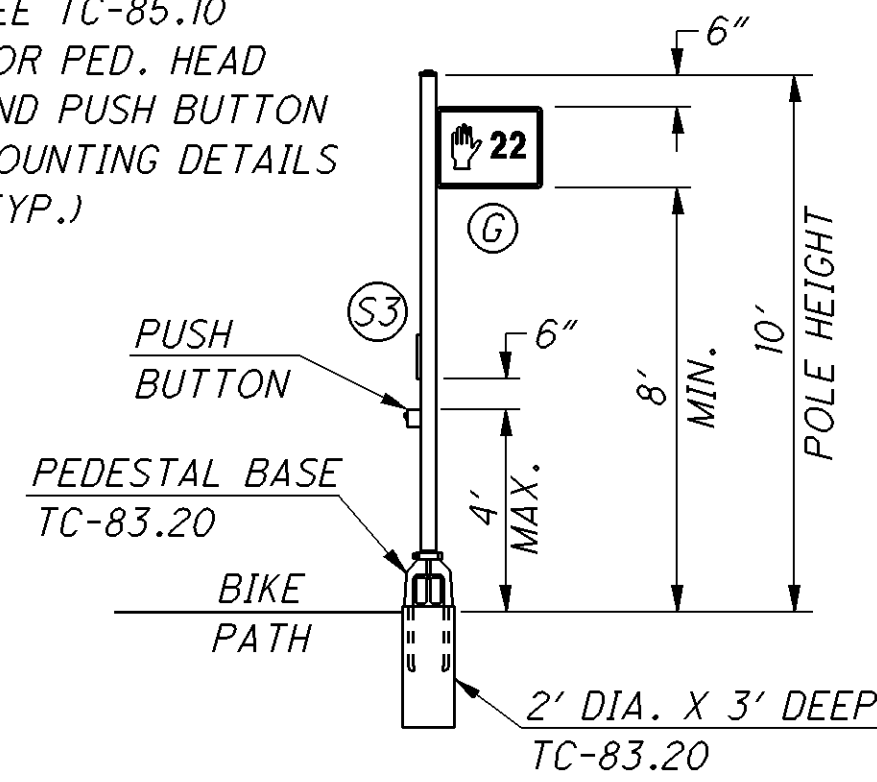
P:\LIC\80704\Design\Roadway\Plan_Sheets\Traffic_Signals\NRKGRNV_TSD_001.dgn 02-MAR-2015 12:03PM jutz1



SIGNAL SUPPORT P-1, ARM A

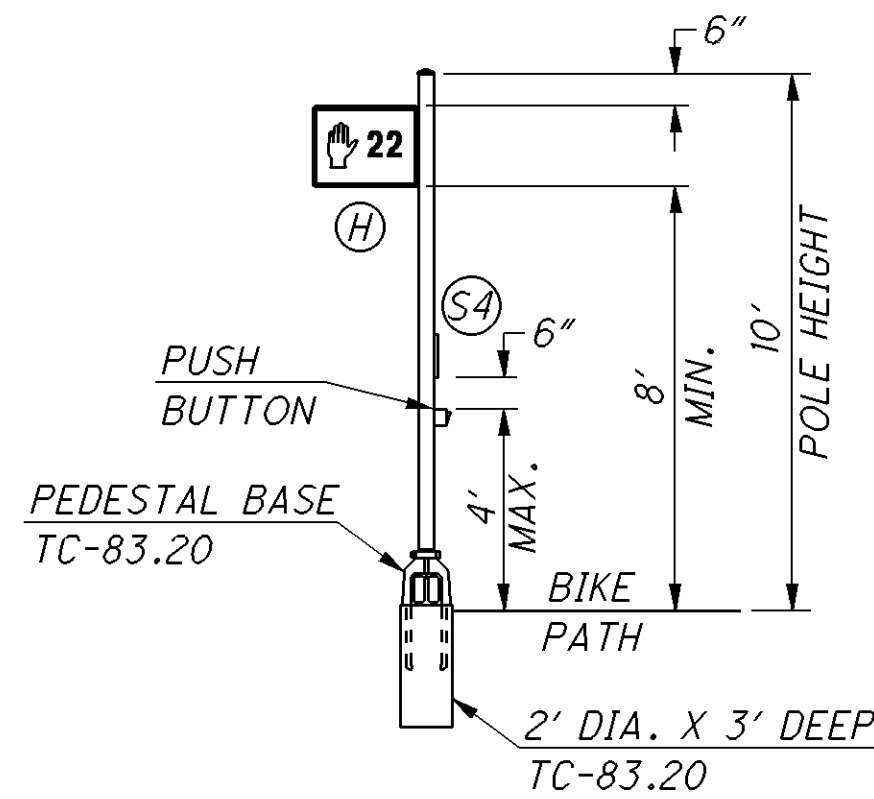
TC-81.21 DESIGN 11
STA. 248+27, 45' LT
NEWARK-GRANVILLE RD.
LOOKING WEST

SEE TC-85.10
FOR PED. HEAD
AND PUSH BUTTON
MOUNTING DETAILS
(TYP.)



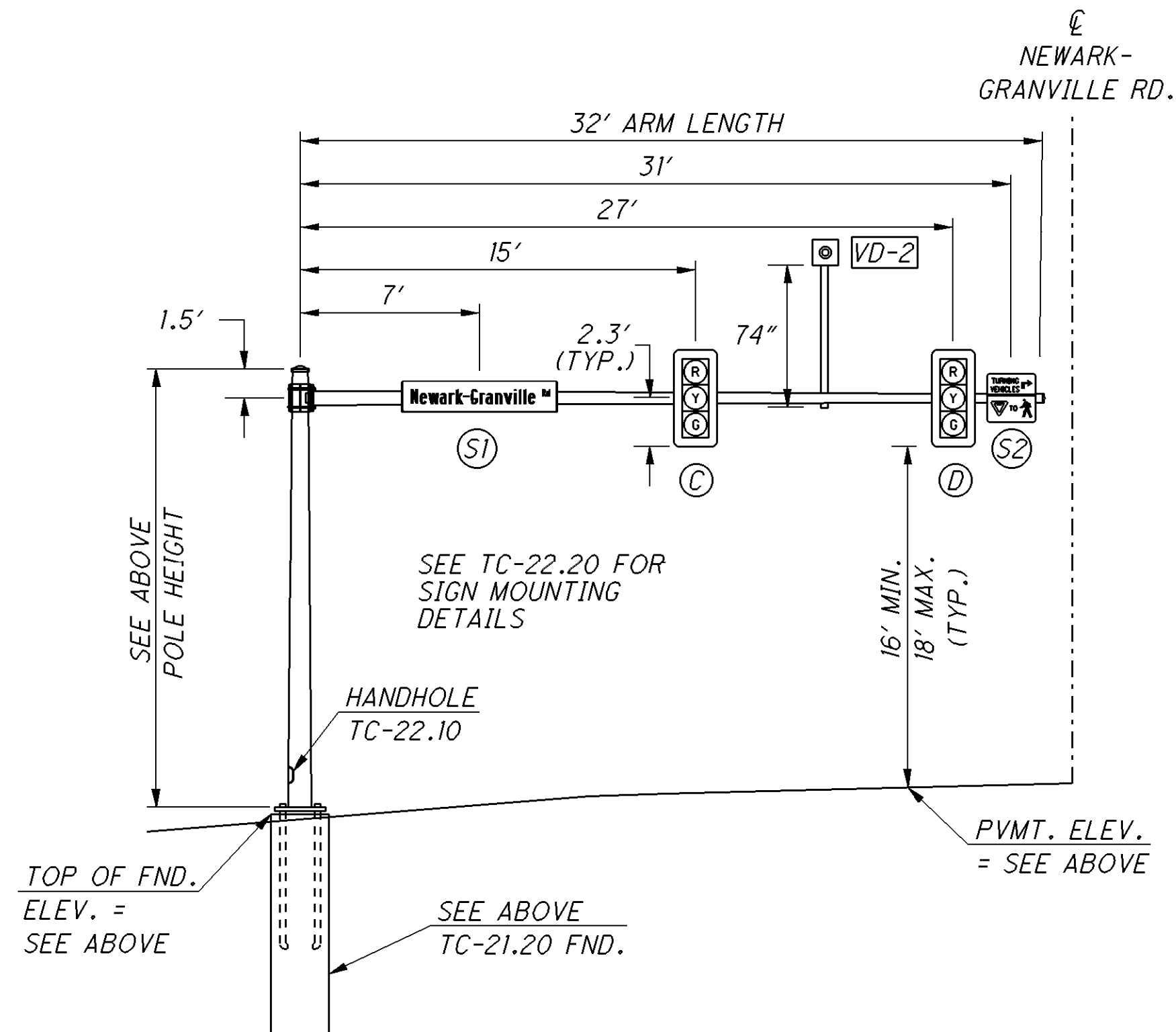
PEDESTAL PED-1

STA. 248+96, 36' LT.
NEWARK-GRANVILLE RD.
LOOKING NORTH



PEDESTAL PED-2

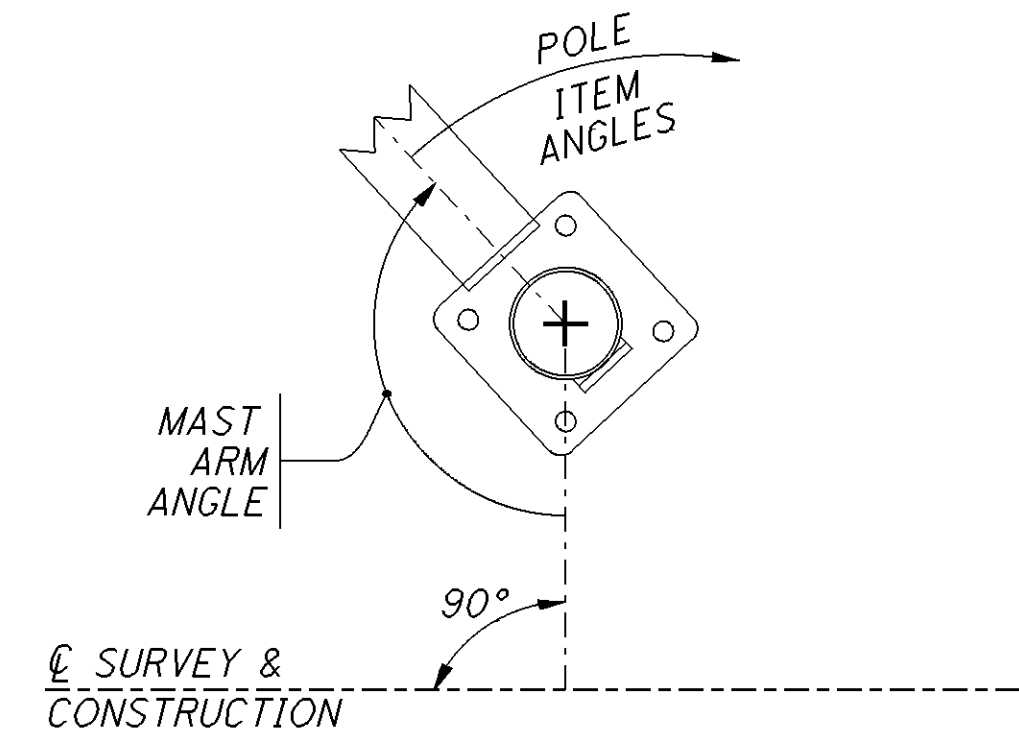
STA. 249+03, 30' RT.
NEWARK-GRANVILLE RD.
LOOKING SOUTH



SIGNAL SUPPORT P-1, ARM B

TC-81.21 DESIGN 11
STA. 248+27, 45' LT
NEWARK-GRANVILLE RD.
LOOKING NORTH

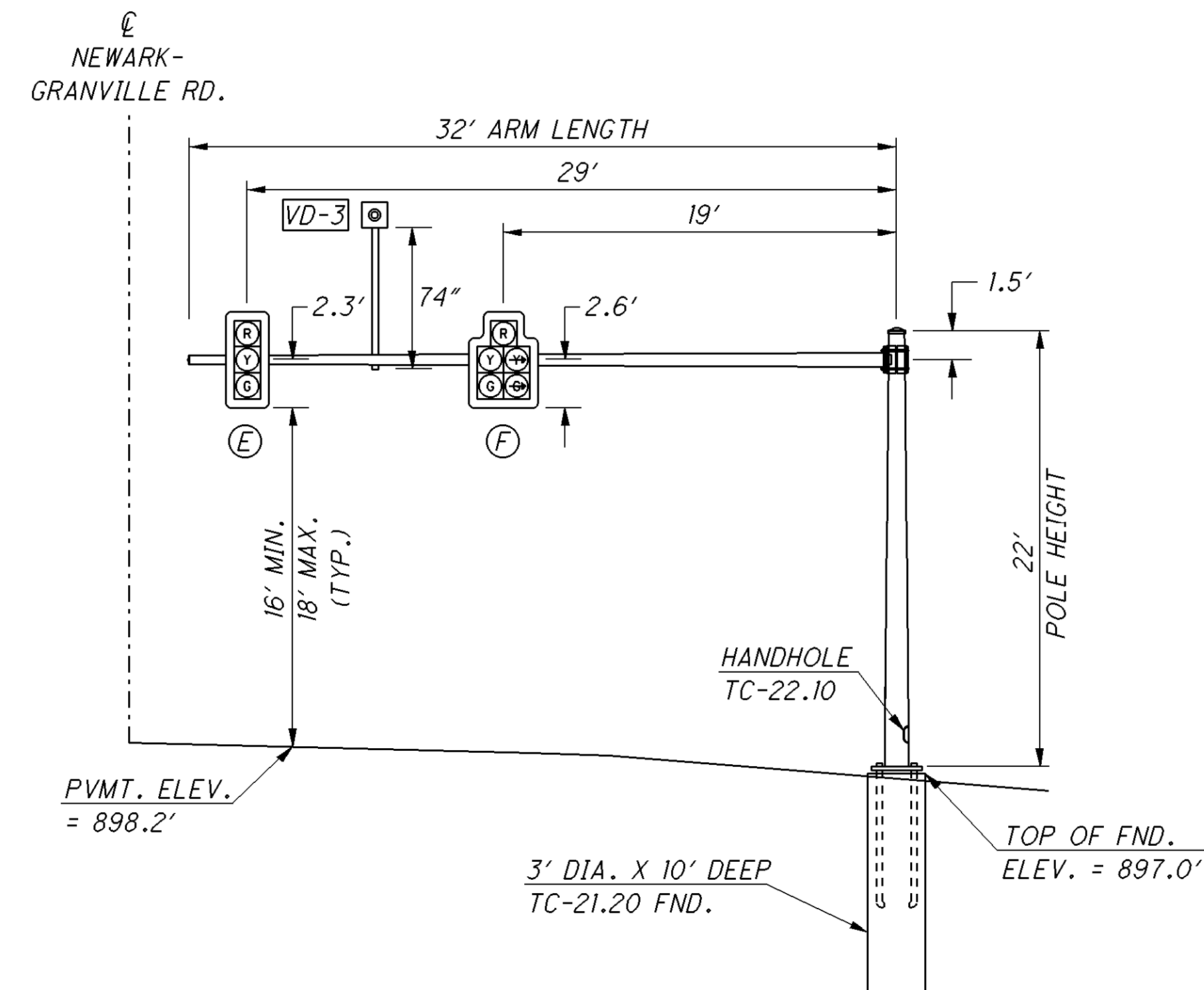
SIGNAL SUPPORT ORIENTATION



SUPPORT NO./ MAST ARM	MAST ARM ANGLE	ANGLE FROM MAST ARM	
		DISCONNECT	HANDHOLE
P-1A	0	-	180
P-1B	270	-	180
P-2	0	-	180

NOTES

1. ALL ANGLES MEASURED CLOCKWISE FROM NEWARK-GRANVILLE RD.
2. BASE PLATE IS ORIENTED SQUARE TO MAST ARM



SIGNAL SUPPORT P-2

TC-81.21 DESIGN 2
STA. 249+15, 30' RT
NEWARK-GRANVILLE RD.
LOOKING EAST

CALCULATED
J.L.L.
CHECKED
H.G.

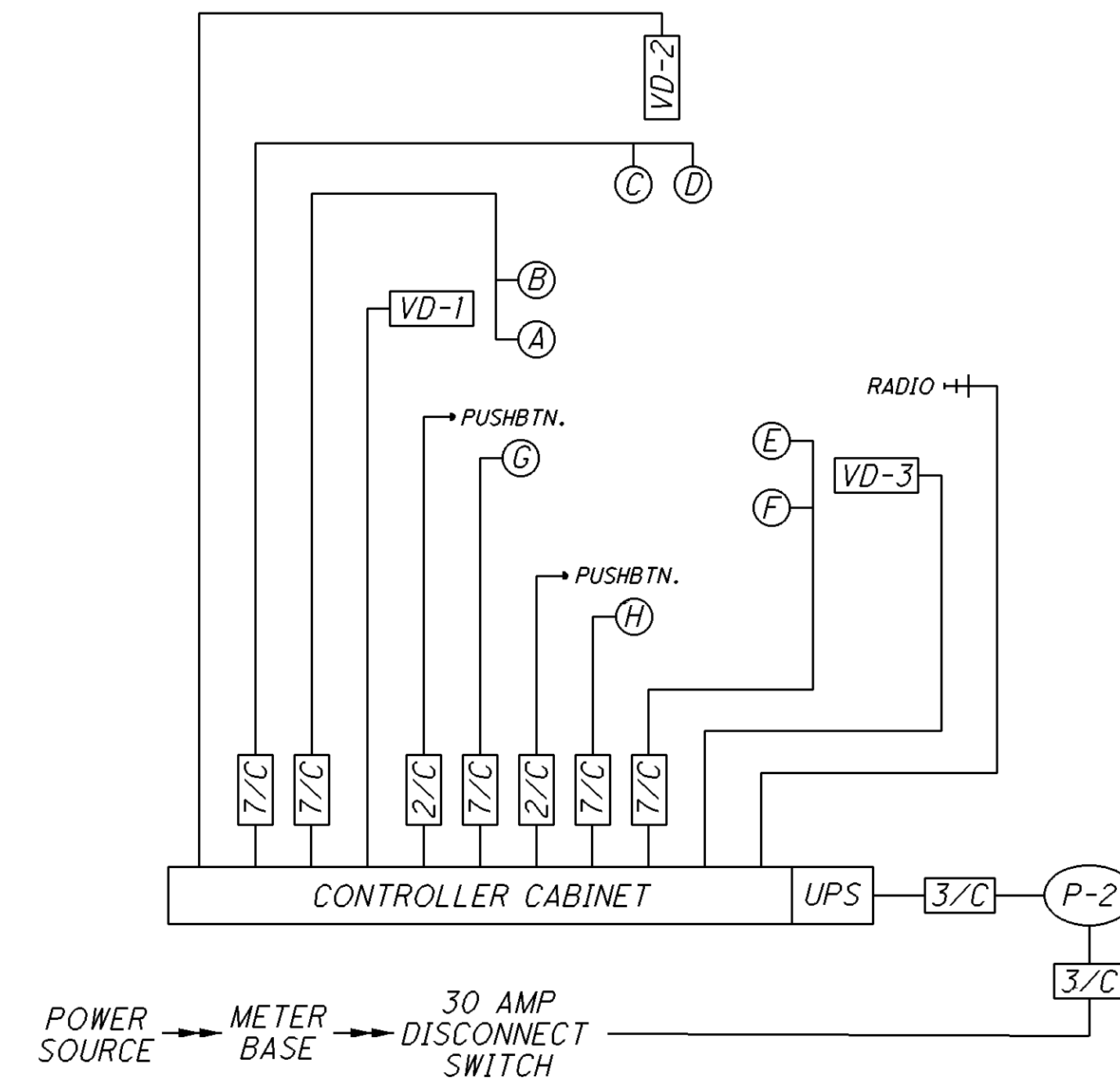
TRAFFIC SIGNAL TIMING CHART									
INTERSECTION: NEWARK-GRANVILLE RD./ NEW CHERRY VALLEY RD. MAINTAINING AGENCY: CITY OF NEWARK									
START UP			DUAL ENTRY: YES		PHASES: 2 & 6, 4				
			REST IN RED:		RING 1		RING 2		
START IN: ALL RED			OVERLAP		A	B	C	D	
TIME FOR FLASH OR ALL RED: 5 SEC.			PHASES		4				
FIRST PHASE(S): 2 & 6									
COLOR DISPLAYED: GREEN									
INTERVAL OR FEATURE		CONTROLLER MOVEMENT NO.							
INTERSECTION MOVEMENT (PHASE)		1	2	3	4	5	6	7	8
DIRECTION		WB LT	EB		NB		WB		
MINIMUM GREEN (INITIAL) (SEC.)		7	10		20		10		
ADDED INITIAL *(SEC./ACTUATION)									
MAXIMUM INITIAL (SEC.)									
PASSAGE TIME (PRESET GAP) (SEC.)		3	3		3		3		
TIME BEFORE REDUCTION *(SEC.)									
MINIMUM GAP *(SEC.)									
TIME TO REDUCE *(SEC.)									
MAXIMUM GREEN I (SEC.)		20	40		60		40		
MAXIMUM GREEN II (SEC.)									
YELLOW CHANGE (SEC.)		4	4		4		4		
ALL RED CLEARANCE (SEC.)		2	2		2		2		
WALK (SEC.)					10				
PEDESTRIAN CLEARANCE (SEC.)					12				
RECALL	MAXIMUM (ON/OFF)								
	MINIMUM (ON/OFF)				X				
	PEDESTRIAN (ON/OFF)								
MEMORY (ON/OFF)									

*VOLUME DENSITY CONTROLS
SEE SHEET XX FOR COORDINATION TABLES

FIELD WIRING HOOKUP CHART							
SIGNAL HEAD	INDICATION	FIELD TERMINAL	FLASH	SIGNAL HEAD	INDICATION	FIELD TERMINAL	FLASH
A (WB LT)	R	φ 6 R	R	E (EB)	R	φ 2 R	R
	Y	φ 6 Y			Y	φ 2 Y	
	G	φ 6 G			G	φ 2 G	
	<--Y---	φ 1 Y			R	φ 2 R	
B (WB)	R	φ 6 R	R	F (EB RT)	Y	φ 2 Y	R
	Y	φ 6 Y			G	φ 2 G	
	G	φ 6 G			---Y-->	LS 10/φ 4 Y	
					---R-->	LS 10/φ 4 G	
C (NB LT)	R	φ 4 R	R	PEDESTRIAN MOVEMENTS			
	Y	φ 4 Y		G-H	W	LS 9/φ 4 G	OUT
	G	φ 4 G		N/S	DW	LS 9/φ 4 R	
D (NB RT)	R	φ 4 R	R	OVERLAPS			
	Y	φ 4 Y		OLA	---Y-->	LS 10/φ 4 Y	OUT
	G	φ 4 G			---R-->	LS 10/φ 4 G	

LS = LOAD SWITCH

WIRING DIAGRAM



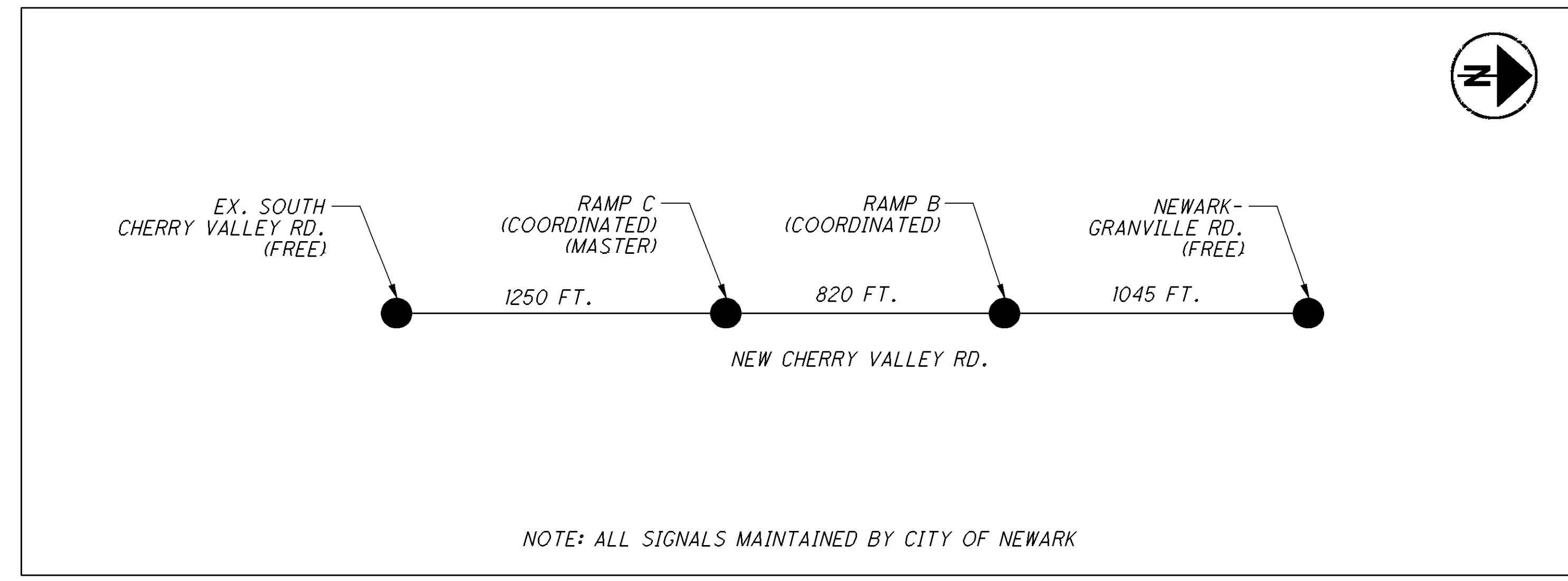
NOTE: POWER CABLE SHALL BE #8 AWG WITH ALL SIGNAL CABLE BEING #14 AWG

CALCULATED
J.L.
CHECKED
H.G.

TRAFFIC SIGNAL DETAIL SHEET
NEWARK-GRANVILLE RD./NEW CHERRY VALLEY RD.

LIC-16-16.64

CORRIDOR LAYOUT



COORDINATION TIMING CHARTS										
SPLITS (G+Y+AR) IN SECONDS										
PHASE	1	2	3	4	5	6	7	8	OFFSET 1 (SEC)	OFFSET 2 (SEC)
DIRECTION		NB		WB	NB LT	SB				
CYCLE/SPLIT	NEW CHERRY VALLEY RD. / RAMP C									
1/1		64		26	24	40			0	0

COORDINATION TIMING CHARTS										
SPLITS (G+Y+AR) IN SECONDS										
PHASE	1	2	3	4	5	6	7	8	OFFSET 1 (SEC)	OFFSET 2 (SEC)
DIRECTION		NB		EB	NB LT	SB				
CYCLE/SPLIT	NEW CHERRY VALLEY RD. / RAMP B									
1/1		54		36	24	30			24	36

COORDINATION TIMING PLANS				
DAY(S) OF WEEK	PLAN NAME	HOURS	CYCLE/SPLIT/OFFSET	CYCLE LENGTH (SEC)
MON-SUN	FREE	0:00-6:00	FREE	
	AM PEAK	6:00-11:00	1/1/1	90
	PM PEAK	11:00-19:00	1/1/2	90
	FREE	19:00-0:00	FREE	

- NOTES
- OFFSETS ARE MEASURED FROM REFERENCE PHASE(S) NUMBERED 2 & 6 "END OF GREEN/BEGINNING OF YELLOW."
 - MASTER INTERSECTION OFFSET REFERENCE IS ALWAYS EQUAL TO ZERO.

P:\LIC\80704\Design\Roadway\Plan_Sheets\Traffic_Signals\80704_COORD_PLAN.dgn 28-FEB-2015 1:15PM jutz1

ITEM 625, POWER SERVICE, AS PER PLAN

THE POWER SUPPLYING AGENCY FOR THIS PROJECT IS:

AMERICAN ELECTRIC POWER
SOLUTION CENTER
PHONE: 1-800-672-2231

A POLE MOUNTED POWER SERVICE SHALL BE INSTALLED AS SPECIFIED IN **CMS 625.15, 725.19, AND SCD HL-40.10** AT EACH LOCATION SHOWN IN THE PLANS. THE CONTRACTOR SHALL SUPPLY POWER AS SHOWN IN THE TABLE BELOW:

POWER SERVICE DATA									
POWER SERVICE	LINE VOLTS	CONNECTED LOAD (KVA)	SERVICE ENTRANCE CONDUCTOR SIZE NO. (AWG)	ENCLOSURE RATING (AMPS)	CIRCUIT NO.	CIRCUIT LOAD (AMPS)	CIRCUIT FUSE SIZE (AMPS)	CIRCUIT CABLE SIZE NO. (AWG)	MAINTAINING AGENCY
1	240/480V 1 PHASE 4-WIRE 3-COND. W/ GND.	5	2	60	A	11	20	2	CITY OF NEWARK
2	240/480V 1 PHASE 4-WIRE 3-COND. W/ GND.	4	2	60	B	9	20	2	CITY OF NEWARK
3	120/240V 1 PHASE 4-WIRE 3-COND. W/ GND.	2	2	60	C	9	20	2	CITY OF NEWARK
4	120/240V 1 PHASE 4-WIRE 3-COND. W/ GND.	2	2	60	D	7	20	2	CITY OF NEWARK

THE CONTRACTOR WILL BE RESPONSIBLE FOR CONTACTING THE POWER COMPANY FOR THE ELECTRICAL SERVICE CONNECTION. **A MINIMUM OF THREE (3) MONTHS NOTICE SHALL BE GIVEN TO THE POWER COMPANY FOR NEW INSTALLATIONS.** THE CONTRACTOR WILL BE RESPONSIBLE FOR REQUESTING AND SCHEDULING ANY INSPECTIONS THE POWER COMPANY MAY REQUIRE FOR THE POWER SERVICE HOOK UP. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR SPLICE SERVICE CABLE INTO THE POWER COMPANY'S CIRCUITS. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ANY NECESSARY PERMITS AND THE PAYING OF ALL FEES ASSOCIATED WITH THE SERVICE. THE CONTRACTOR SHALL PAY ALL POWER CHARGES UNTIL THE LIGHTING SERVICE IS ACCEPTED BY THE MAINTAINING AGENCY.

THE CONTRACTOR WILL BE RESPONSIBLE FOR SUPPLYING OR REQUESTING FROM POWER COMPANY A WOOD POLE (CONFORMING TO **CMS 632.17 & 732.13**) BE INSTALLED AT EACH LOCATION SHOWN IN THE PLANS FOR OVERHEAD POWER SERVICE CONNECTION AND MOUNTING OF METER BASE AND DISCONNECT SWITCH ENCLOSURE. SERVICE WILL THEN RUN FROM POLE MOUNTED METER BASE AND DISCONNECT SWITCH ENCLOSURE INTO 2" CONDUIT (CONFORMING TO **CMS 725.04**) DOWN POLE INTO ADJACENT PULL BOX WITH ALL INCLUDED IN PAYMENT FOR SERVICE PER **CMS 625.22**.

IF THE PROPOSED POWER SERVICE LOCATION SHOWN IN PLANS IS NOT FEASIBLE THEN THE CONTRACTOR SHALL MOVE THE POWER SERVICE LOCATION AT APPROVAL OF THE ENGINEER. ITEMIZED QUANTITIES SHALL BE ADJUSTED.

THE PHOTO-CELL SHALL ADHERE TO **CMS 725.19E** AND BE POLE MOUNTED ON THE POWER SERVICE POLE PER **SCD HL-40.10**. THE PHOTO-CELL SHALL BE PLACED CLEAR OF ALL OBSTRUCTIONS INCLUDING TREE BRANCHES. ALL INTEGRAL PHOTO-CELLS ON LUMINAIRE FIXTURES SHALL BE COVERED.

PADLOCKS FURNISHED SHALL BE EITHER BRASS OR BRONZE, EQUAL TO MASTER NO. 4BKA OR WILSON BOHANNAN 660A, AND KEYING SHALL BE TO THE CITY OF NEWARK MASTER.

PAYMENT SHALL BE MADE AT THE UNIT PRICE BID FOR EACH POWER SERVICE, COMPLETE IN PLACE, INCLUDING PHOTO-CELL, CONDUIT RISER, ALL CABLE, CONDUIT, FITTINGS, CLAMPS, DISCONNECT SWITCH WITH ENCLOSURE, METER BASE, GROUND RODS, PADLOCK AND KEY, PULL BOX, AND ALL OTHER INCIDENTALS NECESSARY FOR COMPLETE SERVICE, ALL CONNECTIONS TESTED AND ACCEPTED.

CONDUIT EXPANSION AND DEFLECTION

EXPANSION FITTINGS SHALL BE OZ TYPE AX, CROUSE HINDS TYPE XJG, APPLETON TYPE AX, OR EQUAL APPROVED BY THE ENGINEER. EACH EXPANSION FITTING SHALL PROVIDE 4 INCHES TOTAL MOVEMENT AND SHALL HAVE AN EXTERNAL COPPER BONDING JUMPER.

DEFLECTION COUPLINGS SHALL BE OZ TYPE DX, CROUSE HINDS TYPE XD, APPLETON TYPE DF, OR EQUAL APPROVED BY THE ENGINEER. EACH DEFLECTION COUPLING SHALL HAVE AN EXTERNAL COPPER BONDING JUMPER.

THE FITTING/ COUPLE SHALL BE INSTALLED IN BETWEEN THE ROADWAY BARRIER AND BRIDGE PARAPET LOCATED AT END OF THE BRIDGE APPROACH SLABS. SEE **SCD HL-30.31 & HL-30.32** FOR DETAILS.

THE COST OF FITTINGS AND COUPLINGS SHALL BE INCIDENTAL TO AND INCLUDED IN THE UNIT PRICE BID FOR THE CONDUIT BEING INSTALLED PER **CMS 625.22**.

UNDERDRAINS FOR PULL BOXES

SEE **SCD HL-30.11** FOR DETAILS OF DRAINING PULL BOXES. UNDERDRAINS FOR PULL BOXES SHALL BE USED WHERE FEASIBLE, AS DIRECTED BY THE ENGINEER. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY:

ITEM 611, 4" CONDUIT, TYPE E = 600 FT

ITEM 625, DUCT CABLE MISC.: 1-1/2" DUCT CABLE WITH FOUR NO. 2 AWG 5000 VOLT CABLES

THE DUCT CABLE FOR THIS ITEM SHALL BE A 4-WIRE, 3-CONDUCTOR, WITH GROUND SYSTEM AND ADHERE TO THE REQUIREMENTS OF **CMS 725.03**.

PAYMENT SHALL BE MADE AT THE UNIT PRICE BID AND INCLUDE FURNISHING AND INSTALLING THE DUCT CABLE AND ANY INCIDENTALS NECESSARY TO COMPLETE THE ITEM.

ITEM 625, LIGHT POLE REMOVED, AS PER PLAN

THIS ITEM CONSISTS OF THE REMOVAL AND SALVAGE OF THE EXISTING GROUND MOUNTED LIGHT POLE, TRANSFORMER BASE, BRACKET ARM, AND LUMINAIRE. THE CONTRACTOR SHALL CONTACT THE CITY OF NEWARK AT THE ADDRESS BELOW TO ARRANGE FOR PICKUP OF ITEMS.

B.J. VARNER
TRAFFIC OPERATIONS MANAGER
(740) 670-7739
1195 E. MAIN ST.
NEWARK, OH 43055

PAYMENT SHALL BE MADE AT THE UNIT PRICE BID AND INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE ITEM.

ITEM 625, DISTRIBUTION CABLE REMOVED, AS PER PLAN

THIS ITEM SHALL CONSIST OF REMOVING EXISTING BURIED DUCT CABLE FROM THE EXISTING LIGHTING SYSTEM. ALL MATERIALS REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR FOR PROPER DISPOSAL OFF OF THE PROJECT SITE.

PAYMENT SHALL BE MADE AT THE UNIT PRICE BID AND INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE ITEM.

ITEM 625, DISCONNECT CIRCUIT, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF THE DISCONNECTION OF AN EXISTING LIGHT CIRCUIT AT A PULL BOX OR TRANSFORMER BASE.

DISCONNECTION AT A PULL BOX SHALL INVOLVE CUTTING THE EXISTING CIRCUIT AND REMOVING ALL SPLICE KITS. ANY CABLE THAT IS TO BE ABANDONED SHALL BE TERMINATED FROM THE PULL BOX SO THAT NO CABLE IS LEFT IN THE BOX.

DISCONNECTION AT A TRANSFORMER BASE SHALL INVOLVE CUTTING THE EXISTING CIRCUIT AND REMOVING ALL CONNECTOR KITS. ALL DUCT CABLE NOT TO BE REUSED SHALL BE REMOVED FROM THE TRANSFORMER BASE AND THE EXISTING CONDUIT IN THE FOUNDATION SHALL BE CLEANED OF ALL CABLE AND DEBRIS SO THAT THE NEW DUCT CABLE CAN BE INSTALLED. ALL EXISTING CABLE TO REMAIN ACTIVE SHALL BE CUT IN A MANNER SO THAT THERE IS SUFFICIENT CABLE LEFT FOR RE-CONNECTION.

THOSE WIRES THAT ARE TO REMAIN ON ACTIVE CIRCUITS SHALL HAVE A WATER-RESISTANT SEAL AT THE CUT END. THE WATER-RESISTANT SEAL SHALL BE ACCOMPLISHED BY PLUGGING THE DEACTIVATED PORT OF AN EXISTING CONNECTOR KIT OR BY INSTALLING A CABLE SPLICE KIT ON THE CUT END OF THE CABLE.

PAYMENT SHALL BE MADE AT THE UNIT PRICE BID FOR EACH LOCATION WHERE DISCONNECTION IS REQUIRED, AND INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE ITEM.

ITEM 625, POWER SERVICE REMOVED, AS PER PLAN

THIS ITEM INCLUDES THE RELOCATION OF THE EXISTING GROUND MOUNTED POWER SERVICE FOR THE CHURCH SHELTER HOUSE LOCATED ON EXISTING SOUTH CHERRY VALLEY RD. SEE PLANS FOR LOCATION. WORK SHALL ALSO INCLUDE THE RECONNECTION OF THE EXISTING UNDERGROUND SERVICE INSIDE RIGHT-OF-WAY LIMITS. NEW UNDERGROUND SERVICE WILL RUN TO THE RELOCATED METER AND WILL BE PERFORMED BY THE POWER COMPANY. THE CONTRACTOR SHALL COORDINATE ALL WORK WITH THE POWER COMPANY. ANY ITEMS DAMAGED DURING RELOCATION SHALL BE REPLACED AT THE COST OF CONTRACTOR.

PAYMENT WILL INCLUDE THE RELOCATION OF GROUND MOUNTED FRAME, METER BASE, DISCONNECT SWITCH ENCLOSURE, AND ALL INCIDENTALS NECESSARY FOR A COMPLETE RELOCATED SERVICE, ALL CONNECTIONS TESTED AND ACCEPTED.

ITEM 625, LUMINAIRE, DECORATIVE, AS PER PLAN (100W, LED, 240V, TYPE III)

THIS ITEM INCLUDES FURNISHING AND INSTALLING A HOLOPHANE LED LUMINAIRE AS DETAILED ON THIS SHEET.

PAYMENT SHALL BE MADE AT THE UNIT PRICE BID AND INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO INSTALL THE LUMINAIRE.

ITEM 625, LIGHT POLE, DECORATIVE, AS PER PLAN (GROUND MOUNTED)

THIS ITEM INCLUDES FURNISHING AND INSTALLING A GROUND MOUNTED HOLOPHANE DECORATIVE LIGHT POLE WITH BREAKAWAY BASE AS DETAILED ON THIS SHEET.

PAYMENT SHALL BE MADE AT THE UNIT PRICE BID AND INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND ALL INCIDENTALS (EXCEPT ITEMS SEPARATELY ITEMIZED AS SPECIFIED ON THIS SHEET) NECESSARY TO ERECT THE LIGHT POLE.

ITEM 625, LIGHT POLE, DECORATIVE, AS PER PLAN (BRIDGE MOUNTED)

THIS ITEM INCLUDES FURNISHING AND INSTALLING A BRIDGE MOUNTED HOLOPHANE DECORATIVE LIGHT POLE AS DETAILED ON THIS SHEET.

PAYMENT SHALL BE MADE AT THE UNIT PRICE BID AND INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND ALL INCIDENTALS (EXCEPT ITEMS SEPARATELY ITEMIZED AS SPECIFIED ON THIS SHEET) NECESSARY TO ERECT THE LIGHT POLE.

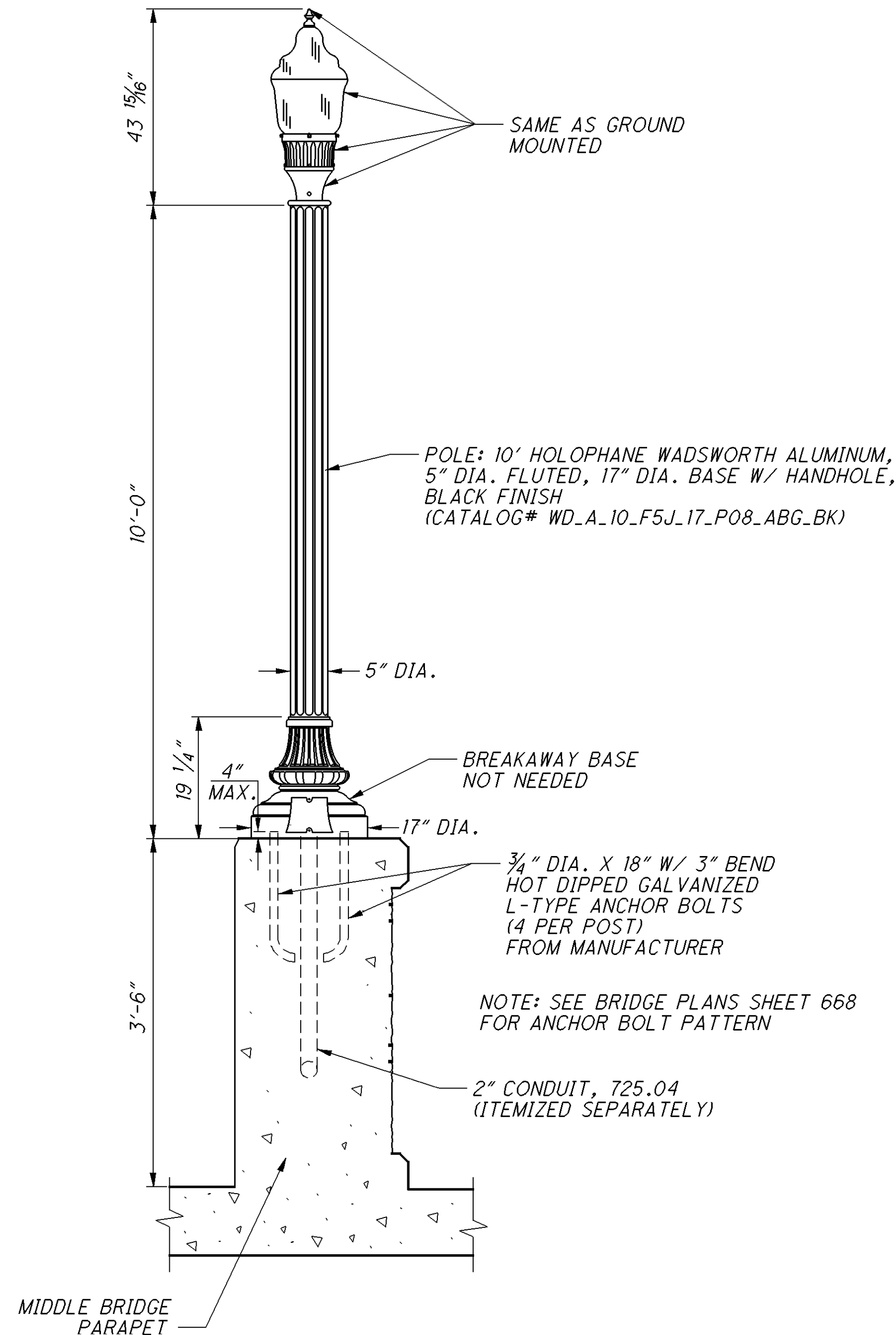
ITEM 625, LIGHT POLE ANCHOR BOLTS ON STRUCTURE, AS PER PLAN

THIS ITEM INCLUDES THE INSTALLATION OF FOUR (4) ANCHOR BOLTS FOR THE BRIDGE MOUNTED DECORATIVE LIGHT POLE. THE ANCHOR BOLTS SHALL BE SET IN THE MIDDLE BRIDGE PARAPET PRIOR TO POURING OF PARAPET CONCRETE. THE ANCHOR BOLTS MAY NEED SHIPPED TO JOB SITE FROM MANUFACTURER SEPERATE FROM REST OF LIGHTING ITEMS.

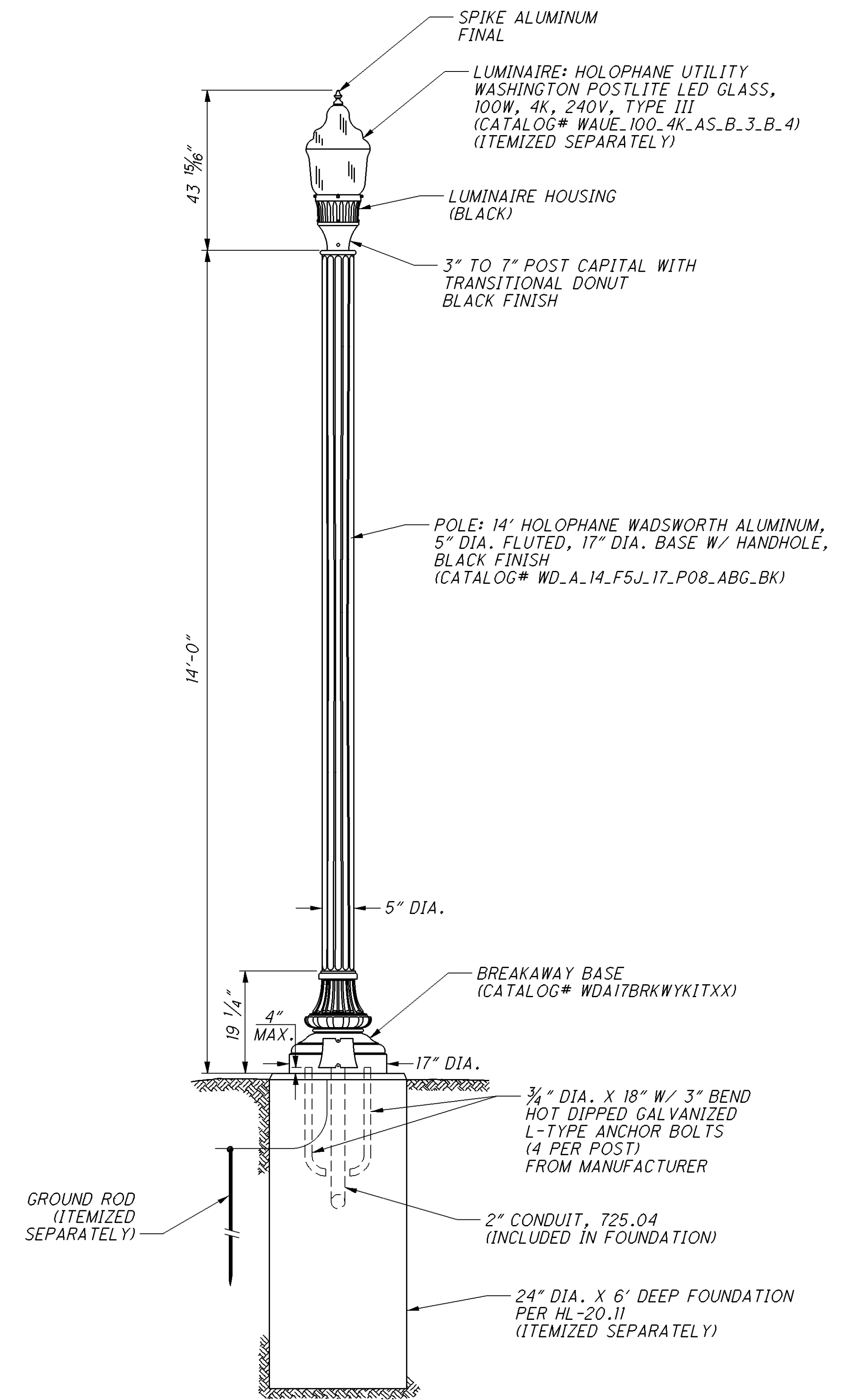
GROUNDING FOR THE BRIDGE MOUNTED DECORATIVE LIGHT POLE SHALL BE INCLUDED IN THE GROUNDING OF THE STRUCTURE.

PAYMENT SHALL BE MADE AT THE UNIT PRICE BID AND INCLUDE ALL INCIDENTALS NECESSARY TO INSTALL THE ANCHOR BOLTS.

BRIDGE MOUNTED DECORATIVE LIGHT POLE



GROUND MOUNTED DECORATIVE LIGHT POLE



P:\LIC\80704\Design\Roadway\Plan_Sheets\Lighting\80704_LGN_DECORATIVE.dgn 02-MAR-2015 1:34PM jlutzi

CALCULATED
J.L.
CHECKED
H.G.

ITEM 625, LUMINAIRE, LOW MAST, AS PER PLAN (400W, HPS, 480V, TYPE V)

THE LUMINAIRES SHALL BE AS SPECIFIED FOR LOW MAST LUMINAIRES IN CMS 725.11 EXCEPT THAT THE LUMINAIRE ARRAYS AND ASSOCIATED ILLUMINATION TEST AREAS ARE HEREBY WAIVED. IN ADDITION, THE LUMINAIRES FOR LOW MAST LIGHTING SHALL MEET THE FOLLOWING REQUIREMENTS:

LUMINAIRES FOR LOW MAST LIGHTING UNITS WITH SYMMETRIC DISTRIBUTION SHALL BE HOLOPHANE "HMST" WITH PHOTOMETRIC DISTRIBUTION 36383, GENERAL ELECTRIC "HM" WITH PHOTOMETRIC DISTRIBUTION 6312, OR COOPER "HMX" WITH PHOTOMETRIC DISTRIBUTION HMX4SDW, OR EQUAL AS APPROVED BY THE ENGINEER.

PAYMENT SHALL BE MADE AT THE UNIT PRICE BID AND INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO INSTALL THE LUMINAIRE.

ITEM 625, LUMINAIRE, LOW MAST, AS PER PLAN (376W, LED, 480V, TYPE V) (HOLOPHANE) (ALTERNATE)

THIS ITEM INCLUDES FURNISHING AND INSTALLING A HOLOPHANE HMAO LED II, 9 COB, 4K, 480V, GRAY, TYPE V WIDE LUMINAIRE. (CATALOG# HMLD2_09_4K_AH_G_AW) THE SURGE PROTECTION DEVICE FOR THE SOLID STATE LED SHALL ADHERE TO THE SPECIFICATIONS LISTED ON THIS SHEET.

PAYMENT SHALL BE MADE AT THE UNIT PRICE BID AND INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO INSTALL THE LUMINAIRE.

ITEM 625, LIGHT POLE, LOW MAST, AS PER PLAN

THIS ITEM INCLUDES FURNISHING AND INSTALLING AN ALUMINUM GROUND MOUNTED LOW MAST LIGHT POLE AND TRANSFORMER BASE AS DETAILED ON THIS SHEET.

PAYMENT SHALL BE MADE AT THE UNIT PRICE BID AND INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND ALL INCIDENTALS (EXCEPT ITEMS SEPARATELY ITEMIZED AS SPECIFIED ON THIS SHEET) NECESSARY TO ERECT THE LIGHT POLE.

SURGE PROTECTIVE DEVICE SPECIFICATIONS

THE SURGE PROTECTIVE DEVICE (SPD) USED TO PROTECT THE SOLID STATE (LED) LUMINAIRE WHERE IT CONNECTS TO THE AC POWER SOURCE SHALL MEET THE FOLLOWING MINIMUM SPECIFICATIONS. PROVIDE DOCUMENTATION SHOWING AUTHORIZED UL 1449 LISTING OF THE SPD AS "LISTED" OR "RECOGNIZED COMPONENT."

A. CERTIFIED TEST REPORTS

THE SPD MANUFACTURER SHALL PROVIDE A TEST REPORT FROM AN NVLAP ACCREDITED TEST LABORATORY SHOWING COMPLIANCE WITH THE PEAK AND REPETITIVE SURGE CURRENT SPECIFICATIONS BELOW.

B. MARKINGS

IN ADDITION TO THE MANUFACTURER, MODEL NUMBER, AND UL 1449 MARK, THE FOLLOWING INFORMATION SHALL BE CLEARLY AND PERMANENTLY MARKED ON THE SPD DATA LABEL:

1. ELECTRICAL RATINGS (OPERATING VOLTAGE, AC POWER FREQUENCY, LOAD CURRENT RATING FOR 2-PORT DEVICES, ETC.)
2. VOLTAGE PROTECTION RATING (VPR) IN VOLTS
3. NOMINAL DISCHARGE CURRENT (IN) RATING IN AMPS OF KA
4. MAXIMUM CONTINUOUS OPERATING VOLTAGE (MCOV) IN VOLTS
5. SHORT-CIRCUIT CURRENT RATING (SCCR) IN AMPS OR KA

SURGE PROTECTIVE DEVICE SPECIFICATIONS CONT.

C. LOCATION SCENARIO, PER ANSI/IEEE STD C62.41.1, SECTION 4.2
ODOT CONSIDERS THE LOCATION SCENARIO FOR THIS DEVICE TO BE SCENARIO 1.

D. LOCATION CATEGORY, PER ANSI/IEEE STD C62.41.1, SCENARIO 1
ODOT CONSIDERS THE EXPOSURE CONDITIONS FOR THIS DEVICE TO BE LOCATION CATEGORY C (HIGH).

E. TYPE DESIGNATION
THE SPD SHALL BE UL LISTED AS TYPE 2 OR TYPE 4, AND INTENDED FOR POINT-OF-USE ON THE LOADSIDE OF THE MAIN SERVICE DISCONNECT.

F. OPERATING VOLTAGE AND FREQUENCY
THE OPERATING VOLTAGE OF THE SPD SHALL BE 90-345 VAC AUTOSENSING, 60 HZ, UNLESS SPECIFIED OTHERWISE IN THE PLANS.

G. VOLTAGE PROTECT RATING (VPR)
THE UL-ASSIGNED VPR SHALL BE NO HIGHER THAN 2000 VOLTS FOR ALL MODES, OR A HIGHER LEVEL CERTIFIED IN WRITING BY THE MANUFACTURER TO BE BELOW THE DAMAGE THRESHOLD FOR THE PROTECTED EQUIPMENT.

H. NOMINAL DISCHARGE CURRENT (IN)
FOR THIS TYPE 2 SPD, UL- ASSIGNED IN SHALL BE 10 KA.

I. MAXIMUM CONTINUOUS OPERATING VOLTAGE (MCOV)
THE UL-ASSIGNED MCOV SHALL BE AT LEAST 420 VOLTS.

J. SHORT-CIRCUIT CURRENT RATING (SCCR)
FOR THIS TYPE 2 SPD, THE UL-ASSIGNED SCCR SHALL BE AT LEAST 5 KA, ASYMMETRIC.

K. PEAK, MAXIMUM, OR SINGLE-IMPULSE SURGE CURRENT RATING
THIS PARAMETER SHALL BE TESTED USING THE STANDARD WAVEFORMS CALLED FOR IN TABLE 1, ANSIC.62.41.1 SECTIONS 4 THROUGH 7, AND MEETING OR EXCEEDING 15 KA.

L. REPETITIVE SURGE CURRENT CAPACITY
THE SPD MANUFACTURER SHALL PRODUCE INTERNAL OR 3RD-PARTY TEST REPORTS AND CERTIFY IN WRITING THAT THE EXPECTED LIFETIME OF THE DEVICE IS AT LEAST 10 SURGES OF THE "STANDARD" WAVEFORMS IN TABLE 1 OF C.62.41.2 FOR THE LOCATION CATEGORY AND SCENARIO GIVEN ABOVE.

SCENARIO 1:
LOCATION CATEGORY C (HIGH) -
10KV 1.2/50 US VOLTAGE WAVEFORM
10KA 8/20 US CURRENT WAVEFORM

DE-RATING FOR MULTIPLE PULSES: ASSURE THAT THE DE-RATED CURRENT FOR 100 (102) HITS OF THE REQUIRED CURRENT WAVEFORM IS AT LEAST 2.5KA. PUBLISHED MOV-MANUFACTURER PULSE DERATING GRAPHS ARE ACCEPTABLE DOCUMENTATION OF THIS REQUIREMENT.

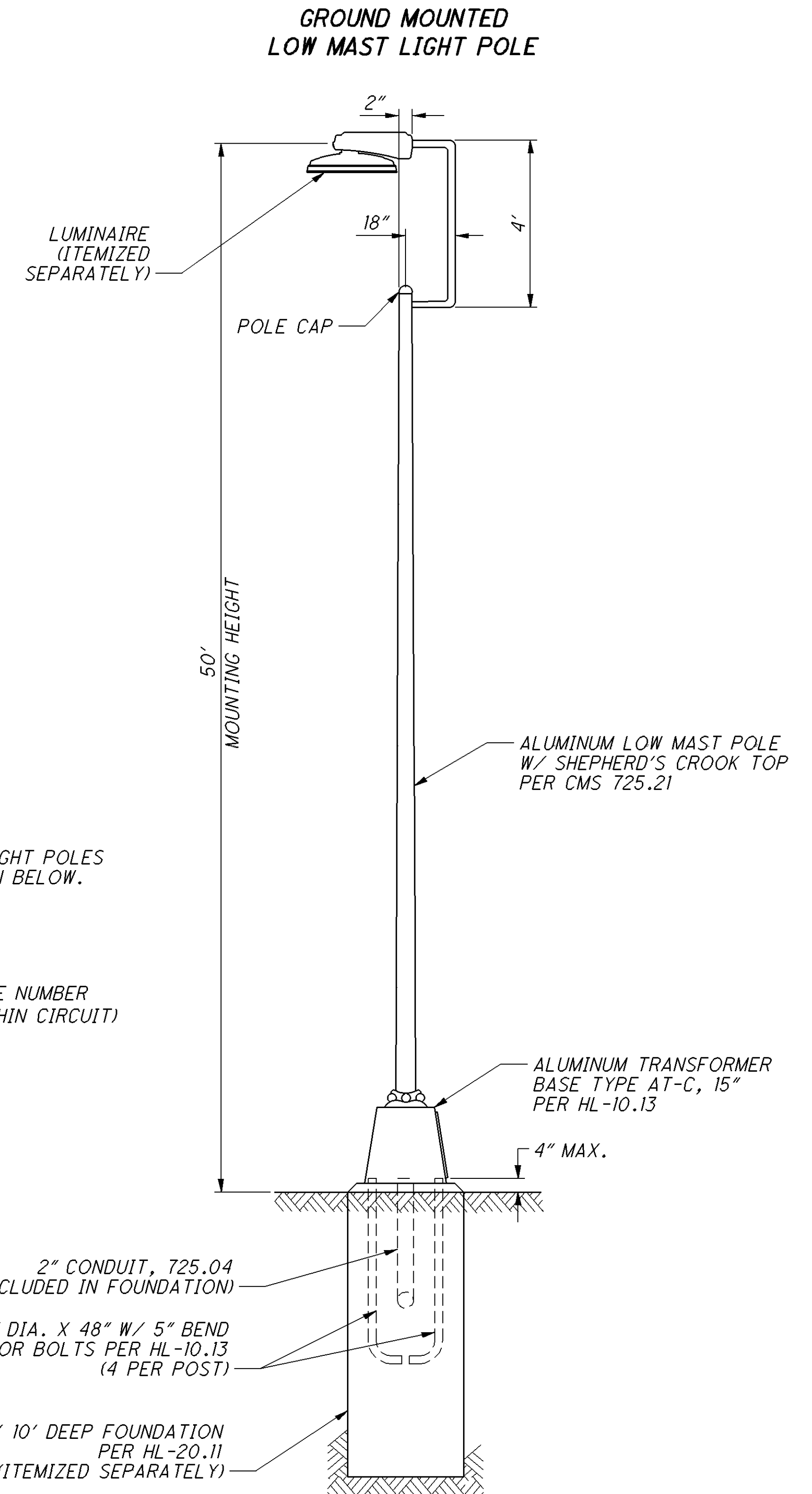
M. PROTECTION MODES
PROTECTED MODES FOR SPDS IN SINGLE-PHASE CIRCUITS SHALL BE L-N, L-G, N-G. PROTECTED MODES IN MULTI-WIRE SINGLE-PHASE CIRCUITS SHALL BE L-L, L-G.

N. INTERNAL FUSING
INTERNAL FUSING SHALL BE SUPPLIED AS DETERMINED BY THE SPD MANUFACTURER.

O. OPERATING TEMPERATURE AND HUMIDITY
THE SPD SHALL OPERATE WITH NO PERFORMANCE DEGRADATION OVER A MINIMUM TEMPERATURE RANGE OF -20° C TO 40° C, 0-95% RH, NON-CONDENSING.

SURGE PROTECTIVE DEVICE SPECIFICATIONS CONT.

P. SPD WARRANTY
MANUFACTURER SHALL PROVIDE A WRITTEN 5 YEAR WARRANTY AGAINST MATERIAL OR WORKMANSHIP FAILURE FROM THE DATE OF ODOT DOCUMENTED ACCEPTANCE TO THE PROJECT. THE WARRANTY WILL NOT APPLY IN THE CASE OF A DIRECT LIGHTNING STRIKE TO THE STRUCTURE. SPDS ARE CONSIDERED SACRIFICIAL COMPONENTS UNDER NORMAL INSTALLED ROADWAY LIGHTING CONDITIONS AND ARE EXCLUDED FROM THE LUMINAIRE WARRANTY UNLESS A KNOWN OR DEMONSTRABLE SPD DESIGN OR MANUFACTURING FAILURE IS INDICATED.



NOTE: LABEL ALL LOW MAST LIGHT POLES PER CMS 625.09 AND AS SHOWN BELOW.

A-1
CIRCUIT NUMBER POLE NUMBER (WITHIN CIRCUIT)

2" CONDUIT, 725.04 (INCLUDED IN FOUNDATION)
1.25" DIA. X 48" W/ 5" BEND ANCHOR BOLTS PER HL-10.13 (4 PER POST)
24" DIA. X 10' DEEP FOUNDATION PER HL-20.11 (ITEMIZED SEPARATELY)

CALCULATED
J.L.
CHECKED
H.G.

LOW MAST LIGHTING DETAILS

LIC-16-16.64

614
729

ITEM 625, LUMINAIRE, UNDERPASS, AS PER PLAN (50W, HPS, 480V, TYPE IV)

IN ADDITION TO THE REQUIREMENTS OF CMS 725.11, LUMINAIRES FOR UNDERPASS LIGHTING UNITS SHALL BE AMERICAN ELECTRIC "SIDELIGHT SERIES 582" WITH PHOTOMETRIC DISTRIBUTION AE208II, COOPER "WALL LIGHT" WITH PHOTOMETRIC DISTRIBUTION WPK15SXX, GENERAL ELECTRIC "VERSA-FLOOD II WALLIGHTER" WITH PHOTOMETRIC DISTRIBUTION 8578, HOLOPHANE "WALLPACK II" TEST WITH PHOTOMETRIC DISTRIBUTION 33263, OR EQUAL AS APPROVED BY THE ENGINEER.

LUMINAIRES FOR UNDERPASS LIGHTING UNIT WHICH ARE WALL MOUNTED SHALL BE FURNISHED WITH AN INTEGRAL FUSE HOLDER AND 10-AMPERE FUSES.

PAYMENT SHALL BE MADE AT THE UNIT PRICE BID AND INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO INSTALL THE LUMINAIRE.

ITEM 625, LUMINAIRE, UNDERPASS, AS PER PLAN (39W, LED, 480V, TYPE III) (HOLOPHANE) (ALTERNATE)

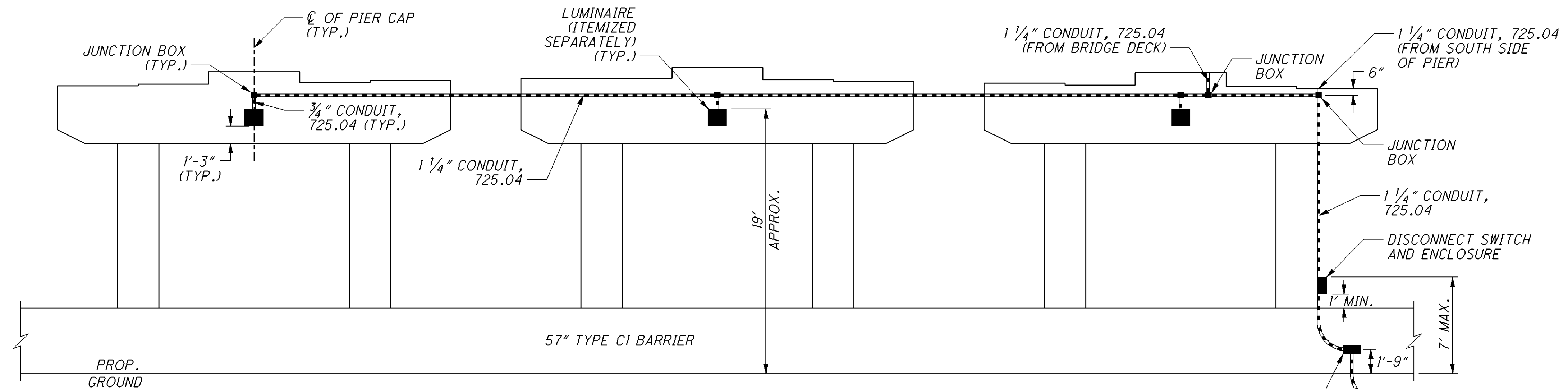
THIS ITEM INCLUDES FURNISHING AND INSTALLING A HOLOPHANE WALLPAK IV GLASS, 10 LED, 1000 MA, 4K, TYPE III, 480V, DOUBLE FUSING, BLACK, LUMINAIRE. (CATALOG# W4GLED_10C_1000_40K_T3M_480_DF_BK). THE SURGE PROTECTION DEVICE FOR THE SOLID STATE LED SHALL ADHERE TO THE SPECIFICATIONS LISTED ON SHEET 614.

PAYMENT SHALL BE MADE AT THE UNIT PRICE BID AND INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO INSTALL THE LUMINAIRE.

ITEM 625, SERVICE TO UNDERPASS LIGHTING, AS PER PLAN

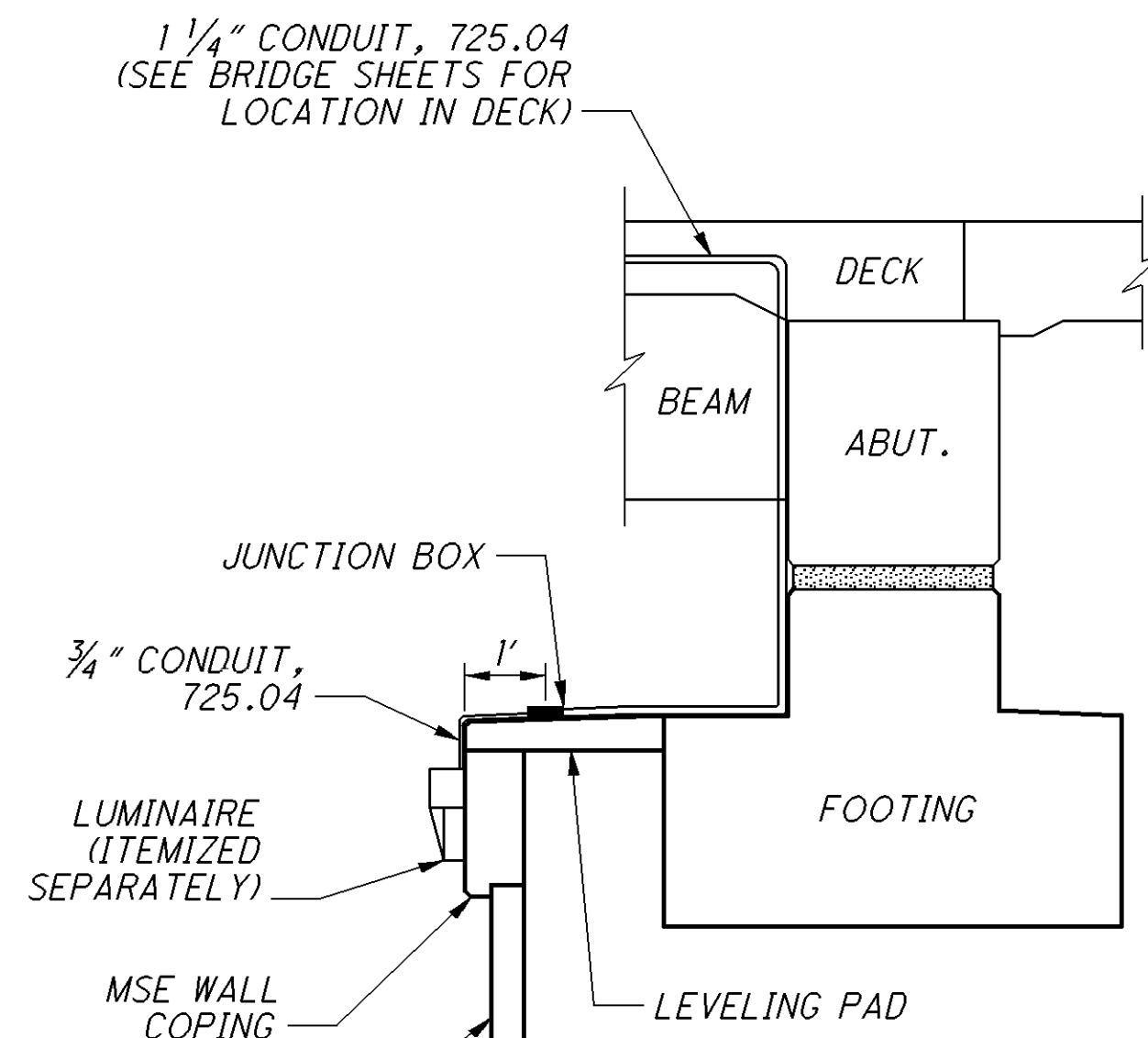
THIS ITEM SHALL CONSIST OF PROVIDING COMPLETE ELECTRICAL SERVICE FOR THE UNDERPASS LIGHTING SYSTEM ON BRIDGE NO. LIC-16-1718. THE INSTALLATION WORK SHALL INCLUDE CONDUITS, MOUNTINGS, FITTINGS, CONNECTIONS, CABLES, JUNCTION BOXES, DISCONNECT SWITCH WITH ENCLOSURE, AND ALL INCIDENTALS (EXCEPT ITEMS SEPARATELY ITEMIZED AS SPECIFIED BELOW) NECESSARY TO COMPLETE THE SERVICE AS SHOWN IN DETAILS BELOW.

PAYMENT SHALL BE MADE AT THE UNIT PRICE BID AND INCLUDE ALL LABOR, EQUIPMENT, AND MATERIALS NECESSARY FOR COMPLETE SERVICE, ALL CONNECTIONS TESTED AND ACCEPTED.



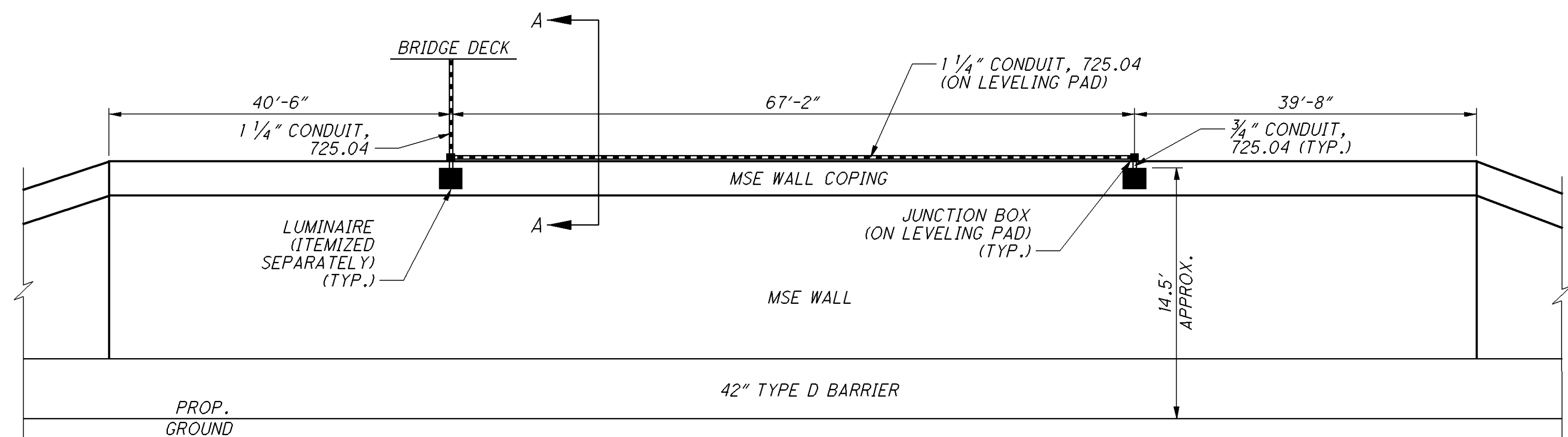
**BRIDGE NO. LIC-16-1718
PIER ELEVATION VIEW (LOOKING NORTH)**

NOTE: DETAIL ABOVE ALSO APPLIES TO SOUTH SIDE OF PIER



SECTION A-A

NOTE: SEE BRIDGE SHEETS FOR DIMENSIONS



**BRIDGE NO. LIC-16-1718
MSE WALL 1 ELEVATION VIEW (LOOKING SOUTH)**

P:\LIC\80704\Design\Roadway\Plan_Sheets\Lighting\80704_LGN_UNDERPASS.dgn 28-FEB-2015 11:42PM jutz1

CALCULATED
J.L.L.
CHECKED
H.G.G.

UNDERPASS LIGHTING DETAILS

LIC-16-16.64

615
729

618 - 621

SHEET NO.	LOCATION	625																							
		CONNECTION, FUSED PULL APART	CONNECTION, UNFUSED PERMANENT	LIGHT POLE, DECORATIVE, AS PER PLAN (GROUND MOUNTED)	LIGHT POLE, DECORATIVE, AS PER PLAN (BRIDGE MOUNTED)	LIGHT POLE, LOW MAST, AS PER PLAN (GROUND MOUNTED)	LIGHT POLE ANCHOR BOLTS ON STRUCTURE, AS PER PLAN	LIGHT POLE FOUNDATION, 24" X 6' DEEP	LIGHT POLE FOUNDATION, 24" X 10' DEEP	NO. 2 AWG 5000 VOLT DISTRIBUTION CABLE	NO. 10 AWG POLE AND BRACKET CABLE	DUCT CABLE, MISC.: 1-1/2" DUCT CABLE WITH FOUR NO. 2 AWG 5000 VOLT CABLES	CONDUIT, 3", 725.04	CONDUIT, JACKED OR DRILLED, 725.04, 3"	LUMINAIRE, LOW MAST, AS PER PLAN	LUMINAIRE, UNDERPASS, AS PER PLAN	LUMINAIRE, DECORATIVE, AS PER PLAN (96W, LED, 240V, TYPE III)	TRENCH, 24" DEEP	MEDIAN JUNCTION BOX	PULL BOX, 725.08, 18"	GROUND ROD	STRUCTURE GROUNDING SYSTEM	POWER SERVICE, AS PER PLAN	SERVICE TO UNDERPASS LIGHTING, AS PER PLAN	
		EACH	EACH	EACH	EACH	EACH	EACH	EACH	FT	FT	FT	FT	FT	EACH	EACH	EACH	FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	
CIRCUIT A																									
	A-1 TO A-2	3				1		1		55	360			1			350			1					
	A-2 TO PB-2	3				1		1		55	255			1			250			1					
	A-6 TO A-5	3				1		1		55	235			1			230			1					
	A-5 TO A-4	3				1		1		55	230			1			225			1					
	A-4 TO PB-3	3				1		1		55	275			1			270			1					
	A-9 TO A-10	3				1		1		55	360			1			350			1					
	A-10 TO A-11	3				1		1		55	280			1			275			1					
	A-11 TO A-12	3				1		1		55	250			1			245			1					
	A-12 TO A-13	3				1		1		55	280			1			275			1					
	A-13 TO PB-7	3				1		1		55	50			1			50			1					
	PB-7 TO PB-8		3						196			49					49		1						
	A-15 TO A-16	3				1		1		55	265			1			260			1					
	A-16 TO PB-9	3				1		1		55	145			1			140			1					
	A-18 TO A-17	3				1		1		55	250			1			245			1					
	A-17 TO PB-9	3				1		1		55	165			1			160			1					
	PB-9 TO PB-8		3						288			72					72		1						
	PB-8 TO PB-6		3								280						275		1						
	A-14 TO PB-6	3				1		1		55	25			1			25			1					
	PB-6 TO PB-5		3						520				130						1						
	A-8 TO PB-5	3				1		1		55	175			1			170			1					
	PB-5 TO A-7		3								295						290		1						
	A-7 TO PB-4	3				1		1		55	50			1			50			1					
	PB-4 TO PB-3		3						148			37					37		1						
	PB-3 TO A-3		3								205						200		1						
	A-3 TO PB-2	3				1		1		55	75			1			75			1					
	PB-2 TO PB-1		3								90						90		1						
	PB-1 TO PS-1		3																			1			
CIRCUIT B																									
	B-14 TO B-13	3				1		1		55	410			1			400			1					
	B-13 TO B-12	3				1		1		55	410			1			400			1					
	B-12 TO B-11	3				1		1		55	445			1			435			1					
	B-11 TO B-10	3				1		1		55	420			1			410			1					
	B-10 TO PB-10	3				1		1		55	50			1			50			1					
	PB-10 TO PB-11		3						372			93							1					1	
	UP-1 TO MB-1														8										
	MB-1 TO PB-11	3									280						275	1		1					
	PB-11 TO PB-12		3						236			59							1						
	B-9 TO PB-12	3				1		1		55	155			1			150			1					
	PB-12 TO B-8		3								255						250			1					
	B-8 TO B-7	3				1		1		55	430			1			420			1					
	B-7 TO PB-13	3				1		1		55	25			1			25			1					
	PB-13 TO PB-14		3						156			39							1						
	B-6 TO B-5	3				1		1		55	410			1			400			1					
	B-5 TO PB-14	3				1		1		55	385			1			375			1					
	PB-14 TO B-4		3								225						220		1						
	B-4 TO B-3	3				1		1		55	230			1			225			1					
	B-3 TO B-2	3				1		1		55	230			1			225			1					
	B-2 TO B-1	3				1		1		55	235			1			230			1					
	B-1 TO PB-15	3				1		1		55	85			1			85			1					
	PB-15 TO PS-2		3																			1			
	SG-1																					1			
TOTALS CARRIED TO GENERAL SUMMARY		99	45			32		32	1,916	1,760	9,275	158	321	32	8		9,233	1	13	33	1	2	1		

LIC-16 - 16.64 LIGHTING SUBSUMMARY - S.R. 16

LIC-16 - 16.64

CALCULATED
J.L.
CHECKED
H.G.

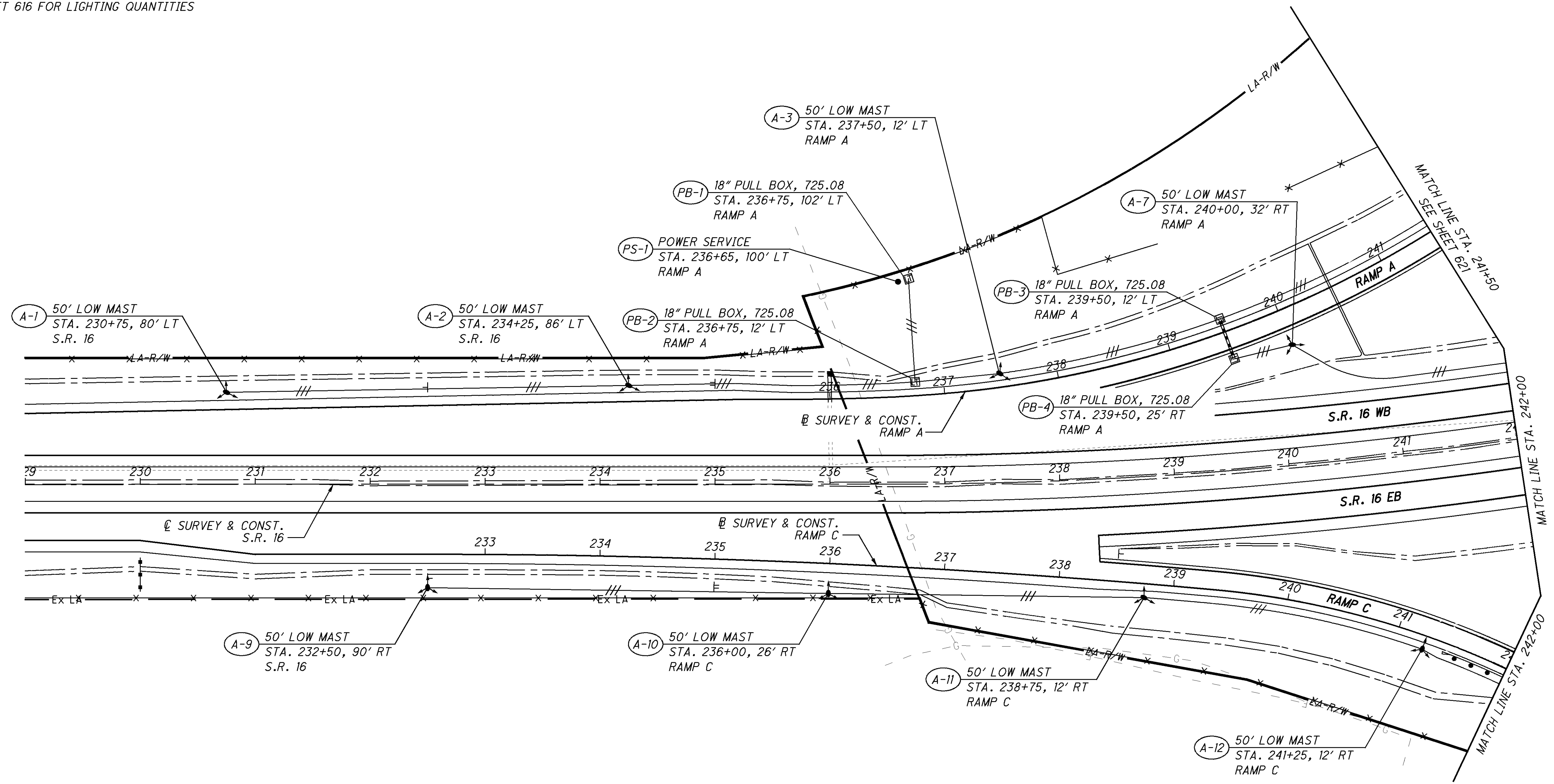
P:\LIC\80704\Design\Roadway\Plan_Sheets\Lighting\NEWCHRY_LSS_001.dgn 24-JUN-2015 11:55AM jlu1

SHEET NO.	LOCATION	625																						
		CONNECTION, FUSED PULL APART EACH	CONNECTION, UNFUSED PERMANENT EACH	LIGHT POLE, DECORATIVE, AS PER PLAN (GROUND MOUNTED) EACH	LIGHT POLE, DECORATIVE, AS PER PLAN (BRIDGE MOUNTED) EACH	LIGHT POLE, LOW MAST, AS PER PLAN (GROUND MOUNTED) EACH	LIGHT POLE ANCHOR BOLTS ON STRUCTURE, AS PER PLAN EACH	LIGHT POLE FOUNDATION, 24" X 6' DEEP EACH	LIGHT POLE FOUNDATION, 24" X 10' DEEP EACH	NO. 2 AWG 5000 VOLT DISTRIBUTION CABLE FT	NO. 10 AWG POLE AND BRACKET CABLE FT	DUCT CABLE, MISC.: 1-1/2" DUCT CABLE WITH FOUR NO. 2 AWG 5000 VOLT CABLES FT	CONDUIT, 3", 725.04 FT	CONDUIT, JACKED OR DRILLED, 725.04, 3" FT	LUMINAIRE, LOW MAST, AS PER PLAN EACH	LUMINAIRE, UNDERPASS, AS PER PLAN EACH	LUMINAIRE, DECORATIVE, AS PER PLAN (96W, LED, 240V, TYPE III) EACH	TRENCH, 24" DEEP FT	MEDIAN JUNCTION BOX EACH	PULL BOX, 725.08, 18" EACH	GROUND ROD EACH	STRUCTURE GROUNDING SYSTEM EACH	POWER SERVICE, AS PER PLAN EACH	POWER SERVICE REMOVED, AS PER PLAN EACH
CIRCUIT C																								
	C-1A TO PB-3A	3		1			1			19		10					1	10			1			
	PB-3A TO PB-3B		3						188				47							1				
	PB-3B TO C-1B		3						520			130						130		1				
	C-1B TO C-1C	3		1			1			19	140						1	135			1			
	C-1C TO C-1D	3		1			1			19	130						1	125			1			
	C-1D TO C-1	3		1			1			19	130						1	125			1			
	C-1 TO PB-3	3		1			1			19	70						1	70			1			
	C-3 TO PB-5	3		1			1			19	140						1	135			1			
	PB-5 TO PB-4		3						432			108						108		1				
	PB-4 TO C-2		3								10							10		1				
	C-2 TO PB-3	3		1			1			19	55						1	55			1			
	PB-3 TO PB-2		3						208				52							1				
	PB-2 TO PB-1		3								45							45		1				
	C-4 TO C-5	3		1			1			19	255						1	250			1			
	C-5 TO C-6	3		1			1			19	255						1	250			1			
	C-6 TO PB-7	3		1			1			19	95						1	95			1			
	C-19 TO P-8	3		1			1			19	115						1	110			1			
	C-17 TO PB-8	3		1			1			19	145						1	140			1			
	PB-8 TO PB-9		3						360			90						90		1				
	PB-9 TO C-18		3						60			15						15		1				
	C-18 TO C-16	3		1			1			19	255						1	250			1			
	C-16 TO C-14	3		1			1			19	255						1	250			1			
	C-14 TO C-12	3		1			1			19	275						1	270			1			
	C-12 TO C-10	3		1			1			19	270						1	265			1			
	C-10 TO C-8	3		1			1			19	255						1	250			1			
	C-8 TO PB-7	3		1			1			19	240						1	235			1			
	PB-7 TO PB-6		3						272			68						68		1				
	C-15 TO C-13	3		1			1			19	240						1	235			1			
	C-13 TO C-11	3		1			1			19	245						1	240			1			
	C-11 TO C-9	3		1			1			19	250						1	245			1			
	C-9 TO C-7	3		1			1			19	260						1	255			1			
	C-7 TO PB-6	3		1			1			19	110						1	105			1			
	PB-6 TO PB-1		3								110							105		1			1	
	PB-1 TO PS-3		3																				1	
	PS-5											120						120						1
TOTALS CARRIED TO GENERAL SUMMARY		69	33	23			23		2,040	437	4,350	541	99			23	4,791		10	23		1	1	

SHEET NO.	LOCATION	625																						
		CONNECTION, FUSED PULL APART EACH	CONNECTION, UNFUSED PERMANENT EACH	LIGHT POLE, DECORATIVE, AS PER PLAN (GROUND MOUNTED) EACH	LIGHT POLE, DECORATIVE, AS PER PLAN (BRIDGE MOUNTED) EACH	LIGHT POLE, LOW MAST, AS PER PLAN (GROUND MOUNTED) EACH	LIGHT POLE ANCHOR BOLTS ON STRUCTURE, AS PER PLAN EACH	LIGHT POLE FOUNDATION, 24" X 6' DEEP EACH	LIGHT POLE FOUNDATION, 24" X 10' DEEP EACH	NO. 2 AWG 5000 VOLT DISTRIBUTION CABLE FT	NO. 10 AWG POLE AND BRACKET CABLE FT	DUCT CABLE, MISC.: 1-1/2" DUCT CABLE WITH FOUR NO. 2 AWG 5000 VOLT CABLES FT	CONDUIT, 3", 725.04 FT	CONDUIT, JACKED OR DRILLED, 725.04, 3" FT	LUMINAIRE, LOW MAST, AS PER PLAN EACH	LUMINAIRE, UNDERPASS, AS PER PLAN EACH	LUMINAIRE, DECORATIVE, AS PER PLAN (96W, LED, 240V, TYPE III) EACH	TRENCH, 24" DEEP FT	MEDIAN JUNCTION BOX EACH	PULL BOX, 725.08, 18" EACH	GROUND ROD EACH	STRUCTURE GROUNDING SYSTEM EACH	POWER SERVICE, AS PER PLAN EACH	POWER SERVICE REMOVED, AS PER PLAN EACH
624 - 632	CIRCUIT D																							
	D-1 TO PB-10	3			1		1			860	19		215				1				1			
	PB-10 TO D-3		3															35		1				
	D-3 TO PB-11	3		1													1	90			1			
	PB-11 TO PB-12		3							368			92					92		1				
	D-2 TO PB-12	3		1				1				19					1	205			1			
	PB-12 TO D-4		3															35		1				
	D-4 TO PB-13	3		1				1				19					1	55			1			
	PB-13 TO PB-14		3							152			38					38		1				
	PB-14 TO D-6		3															185		1				
	D-6 TO D-8	3		1				1				19					1	255				1		
	D-8 TO D-10	3		1				1				19					1	260				1		
	D-10 TO D-12	3		1				1				19					1	260				1		
	D-12 TO PB-15	3		1				1				19					1	140				1		
	D-14 TO PB-15	3		1				1				19					1	155				1		
	PB-15 TO PB-16		3							284			71					71		1				
	D-5 TO D-7	3		1				1				19					1	230				1		
	D-7 TO D-9	3		1				1				19					1	255				1		
	D-9 TO D-11	3		1				1				19					1	250				1		
	D-11 TO D-13	3		1				1				19					1	255				1		
	D-13 TO PB-16	3		1				1				19					1	10				1		
	PB-16 TO PB-17		3							256			64					64		1				
	D-15 TO D-16	3		1				1		600		19		150			1	150				1		
D-16 TO PB-19	3		1				1		40		19		10			1	10				1			
PB-19 TO PB-18		3							204				51						1					
D-17 TO PB-18	3		1				1				19		120			1	115							
PB-18 TO PB-17		3											40				40		1					
PB-17 TO PS-4		3																				1		
TOTALS CARRIED TO GENERAL SUMMARY		51	30	16	1		1	16		2,764	323	2,840	640	51		17	3,205		9	17		1		

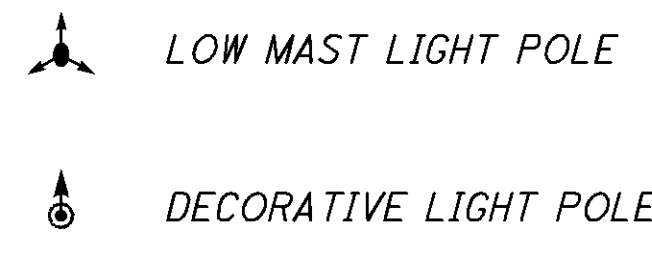
LEGEND	
	LOW MAST LIGHT POLE
	DECORATIVE LIGHT POLE
	1 1/2" DUCT-CABLE WITH 4 NO. 2 AWG 5000 VOLT CABLES
	3" CONDUIT, 725.04 WITH 4 NO. 2 AWG 5000 VOLT DISTRIBUTION CABLES
	PULLBOX
	POWER SERVICE

SEE SHEET 616 FOR LIGHTING QUANTITIES



POWER SERVICE DATA									
POWER SERVICE	LINE VOLTS	CONNECTED LOAD (KVA)	SERVICE ENTRANCE CONDUCTOR SIZE NO. (AWG)	ENCLOSURE RATING (AMPS)	CIRCUIT NO.	CIRCUIT LOAD (AMPS)	CIRCUIT FUSE SIZE (AMPS)	CIRCUIT CABLE SIZE (AWG)	MAINTAINING AGENCY
1	240/480V 1 PHASE 4-WIRE 3-COND. W/ GND.	5	2	60	A	11	20	2	CITY OF NEWARK

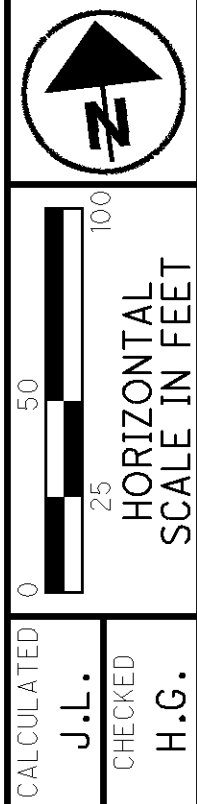
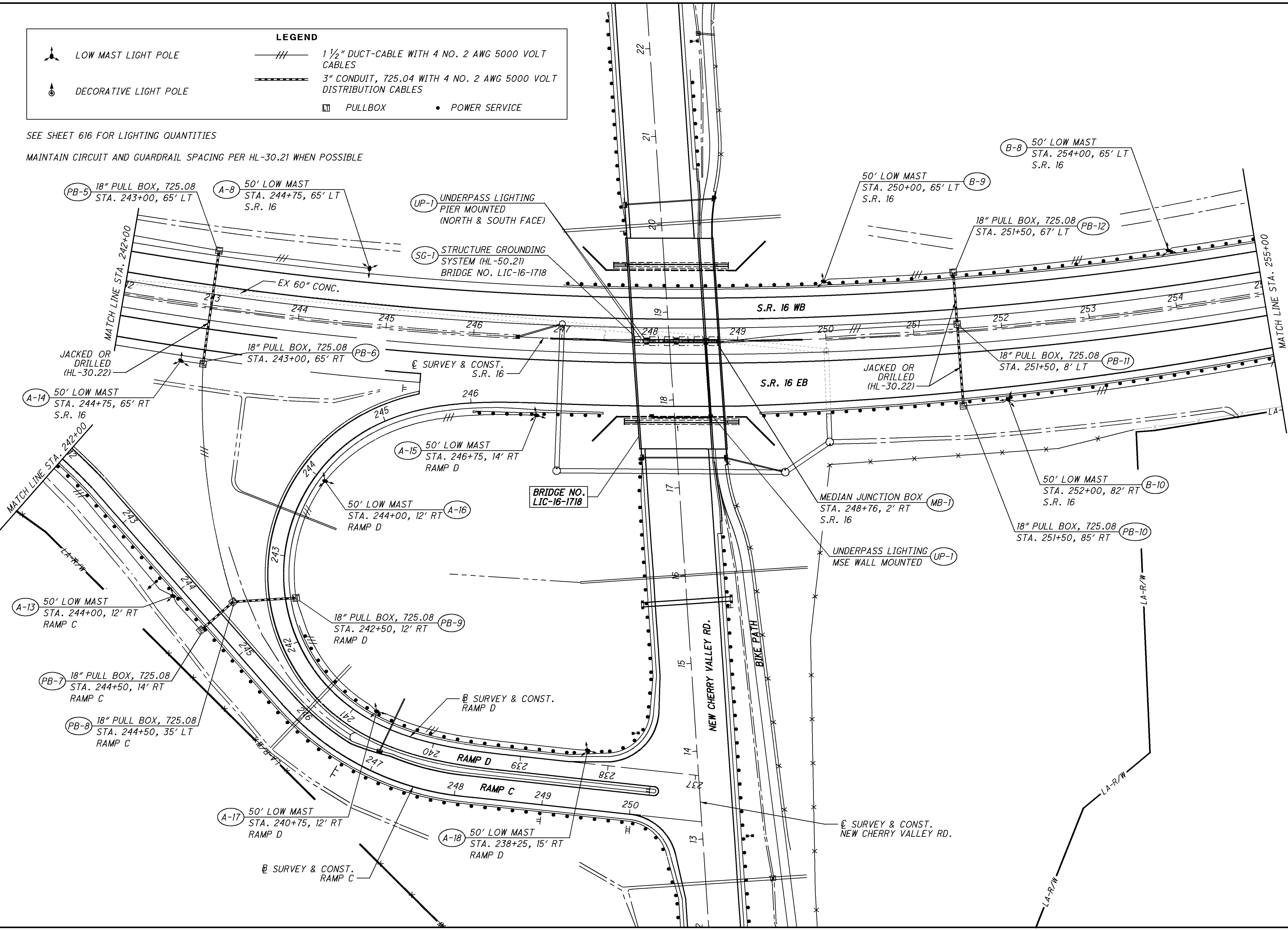
P:\LIC\80704\Design\Roadway\Plan_Sheets\Lighting\SR16_LPS_001.dgn 28-FEB-2015 2:19PM jiluz1



LEGEND

- /// 1 1/2" DUCT-CABLE WITH 4 NO. 2 AWG 5000 VOLT CABLES
- 3" CONDUIT, 725.04 WITH 4 NO. 2 AWG 5000 VOLT DISTRIBUTION CABLES
- PULLBOX
- POWER SERVICE

SEE SHEET 616 FOR LIGHTING QUANTITIES
 MAINTAIN CIRCUIT AND GUARDRAIL SPACING PER HL-30.21 WHEN POSSIBLE

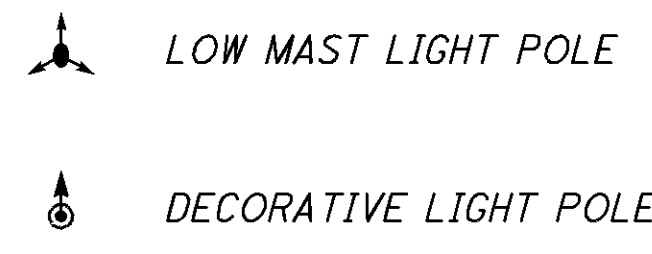


LIGHTING PLAN SHEET - S.R. 16
STA. 242+00 TO STA. 255+00

LIC-16-16.64

619
729

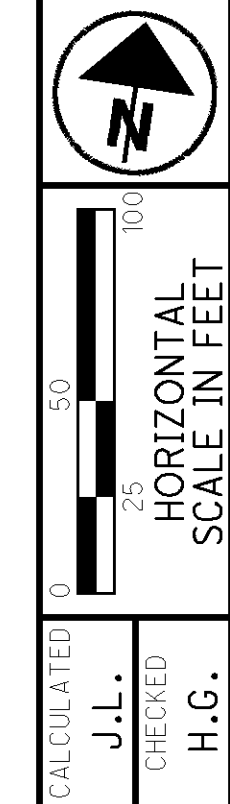
P:\LIC\80704\Design\Roadway\Plan_Sheets\Lighting\SR16_LPS_002.dgn 28-FEB-2015 2:19PM jutz1



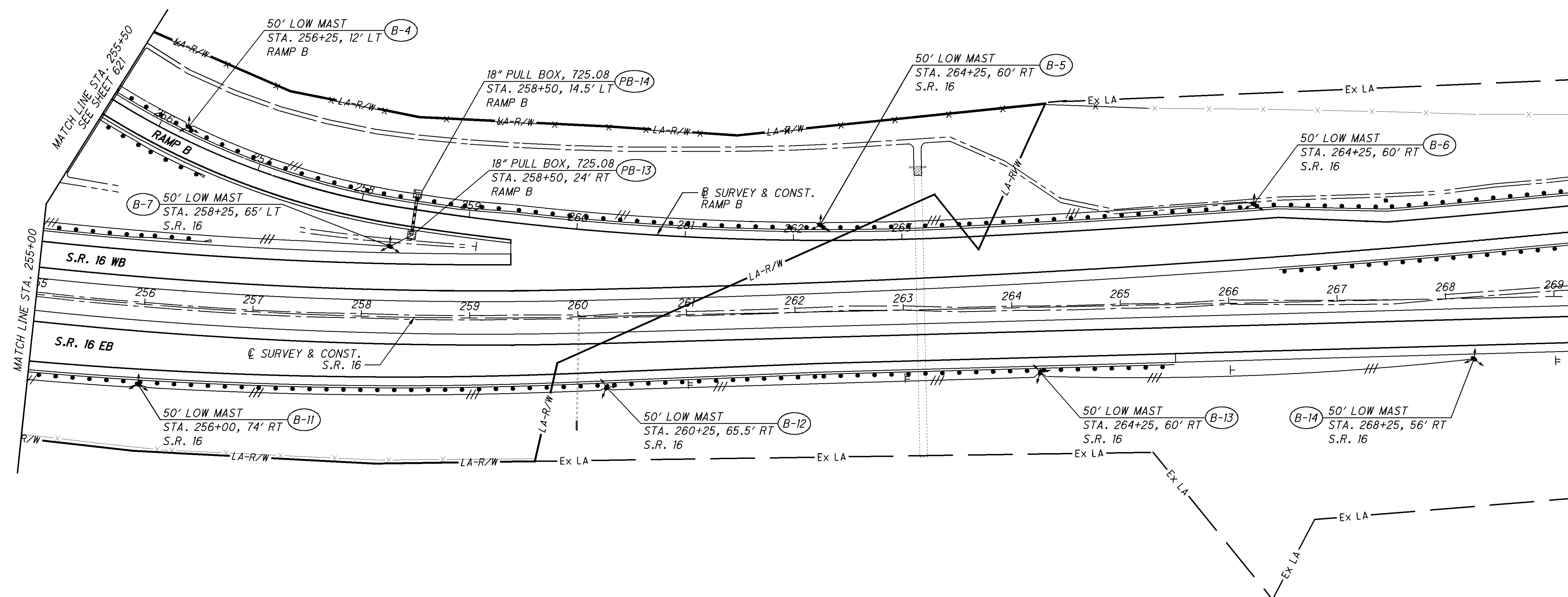
LEGEND

- /// 1 1/2" DUCT-CABLE WITH 4 NO. 2 AWG 5000 VOLT CABLES
- 3" CONDUIT, 725.04 WITH 4 NO. 2 AWG 5000 VOLT DISTRIBUTION CABLES
- PULLBOX
- POWER SERVICE

SEE SHEET 616 FOR LIGHTING QUANTITIES
 MAINTAIN CIRCUIT AND GUARDRAIL SPACING PER HL-30.21 WHEN POSSIBLE



CALCULATED J.L.
 CHECKED H.G.



LIC-16-16.64

LIGHTING PLAN SHEET - S.R. 16

STA. 255+00 TO STA. 269+00

LIC-16-16.64

620
729

P:\LIC\80704\Design\Roadway\Plan_Sheets\Lighting\SR16_LPS_003.dgn 28-FEB-2015 2:19PM jjutzi



0 25 50 100
HORIZONTAL
SCALE IN FEET







CALCULATED
J.L.
CHECKED
H.G.

LIGHTING PLAN SHEET
RAMP A / RAMP B

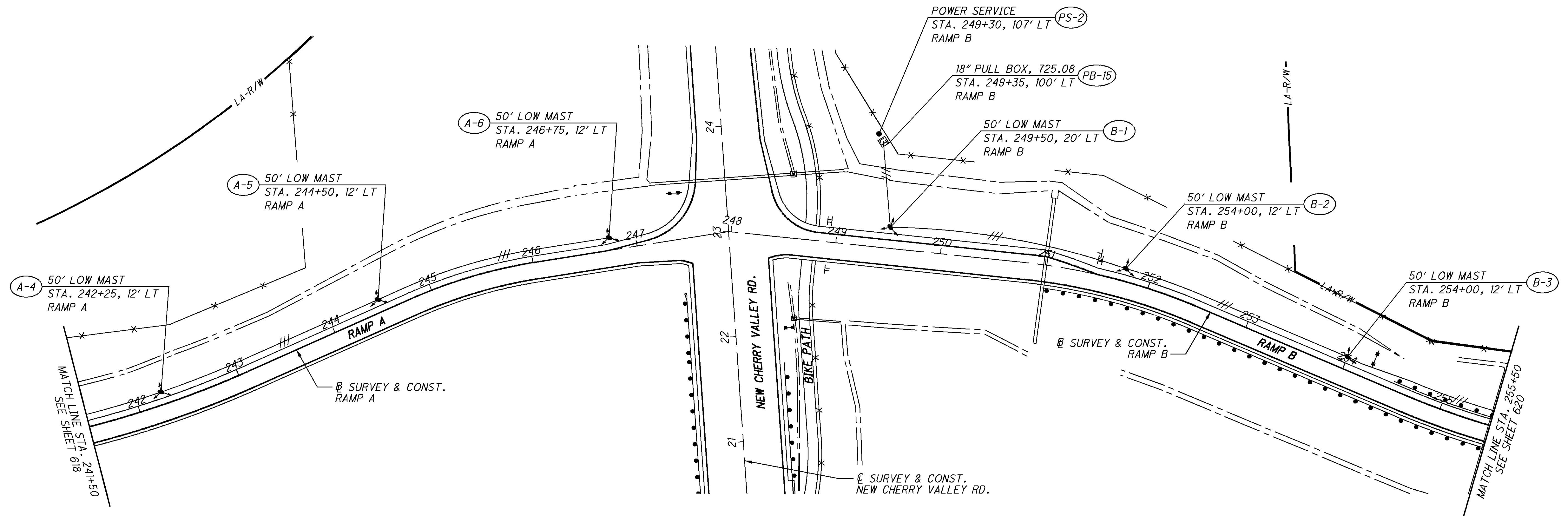
LIC-16-16.64

621
729

LEGEND

-  LOW MAST LIGHT POLE
-  DECORATIVE LIGHT POLE
-  1 1/2" DUCT-CABLE WITH 4 NO. 2 AWG 5000 VOLT CABLES
-  3" CONDUIT, 725.04 WITH 4 NO. 2 AWG 5000 VOLT DISTRIBUTION CABLES
-  PULLBOX
-  POWER SERVICE

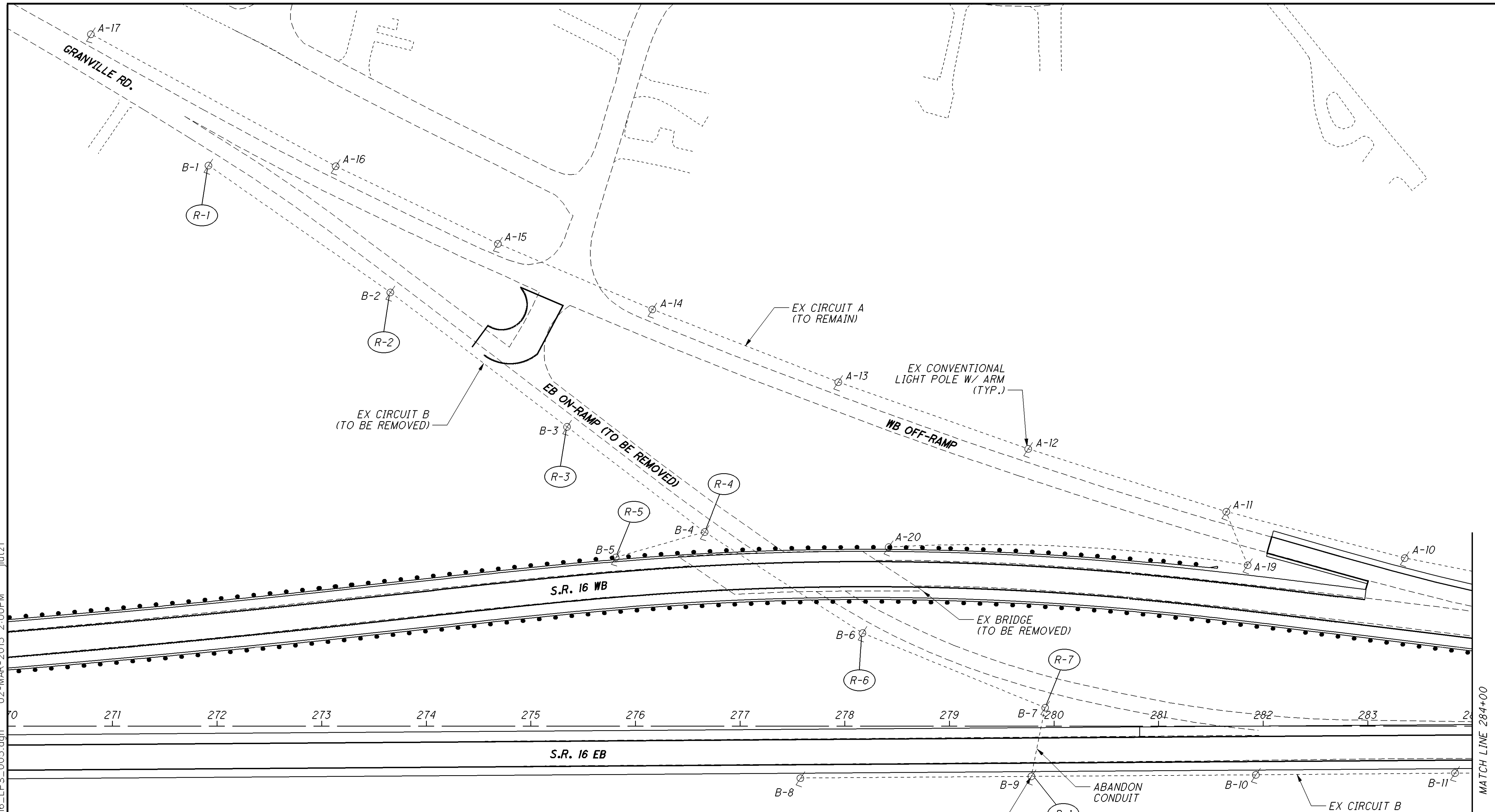
SEE SHEET 616 FOR LIGHTING QUANTITIES
MAINTAIN CIRCUIT AND GUARDRAIL SPACING PER HL-30.21 WHEN POSSIBLE



POWER SERVICE DATA									
POWER SERVICE	LINE VOLTS	CONNECTED LOAD (KVA)	SERVICE ENTRANCE CONDUCTOR SIZE NO. (AWG)	ENCLOSURE RATING (AMPS)	CIRCUIT NO.	CIRCUIT LOAD (AMPS)	CIRCUIT FUSE SIZE (AMPS)	CIRCUIT CABLE SIZE (AWG)	MAINTAINING AGENCY
2	240/480V 1 PHASE 4-WIRE 3-COND. W/ GND.	4	2	60	B	9	20	2	CITY OF NEWARK

P:\LIC\80704\Design\Roadway\Plan_Sheets\Lighting\SR16_LPS_004.dgn 28-FEB-2015 2:19PM jutz1

P:\LIC\80704\Design\Roadway\Plan_Sheets\Lighting\SR16_LPS_005.dgn 02-MAR-2015 2:00PM jutz1



CALCULATED
J.L.
CHECKED
H.G.

0 50 100
HORIZONTAL
SCALE IN FEET

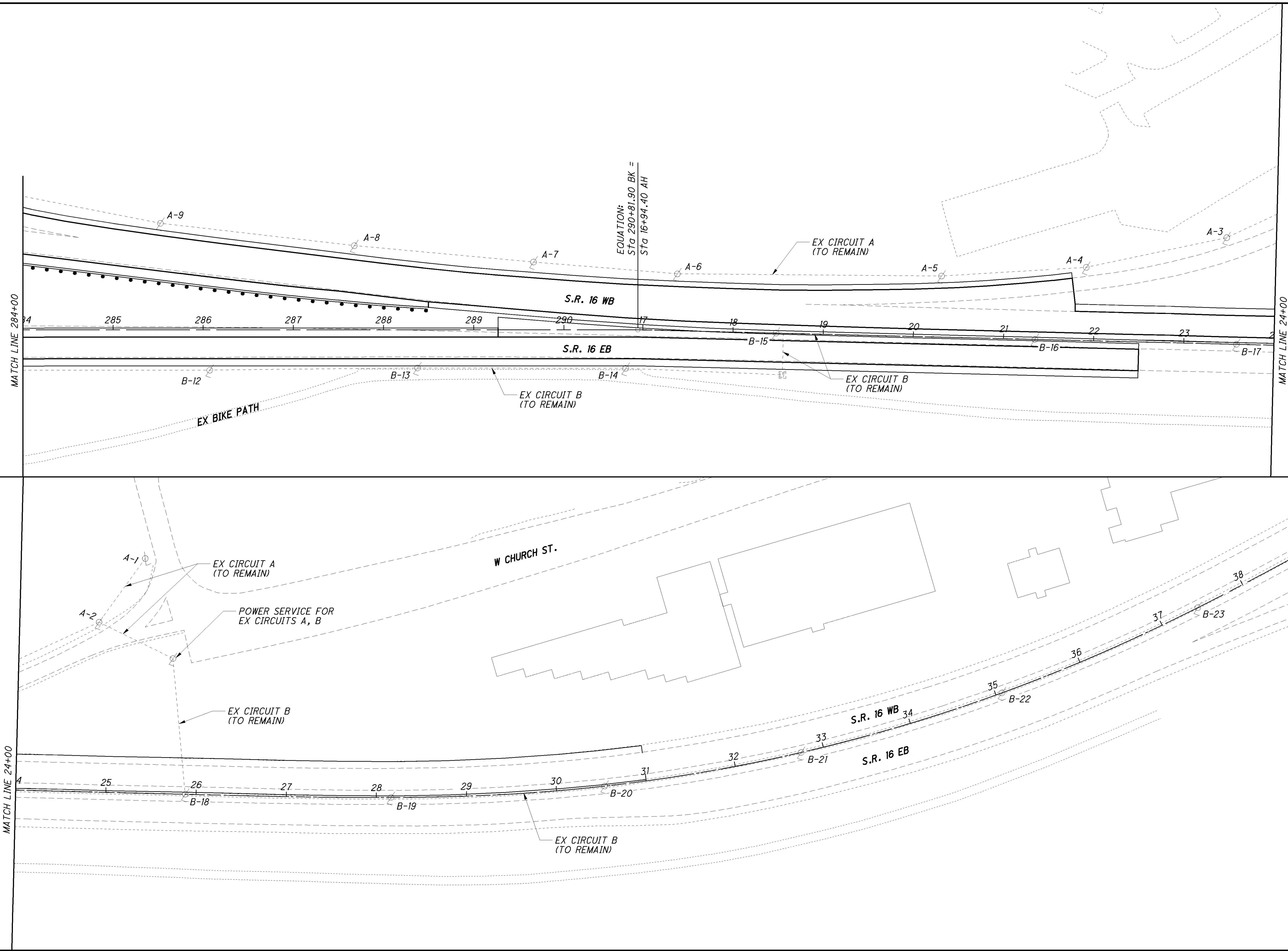
**EXISTING LIGHTING PLAN SHEET - S.R. 16
STA. 270+00 TO STA. 284+00**

LIC-16-16.64

622
729

LOCATION	625			
	LIGHT POLE REMOVED, AS PER PLAN EACH	LIGHT POLE FOUNDATION REMOVED EACH	DISTRIBUTION CABLE REMOVED, AS PER PLAN FT	DISCONNECT CIRCUIT, AS PER PLAN EACH
EX CIRCUIT B				
R-1 TO R-2	1	1	215	
R-2 TO R-3	1	1	215	
R-3 TO R-4	1	1	170	
R-5 TO R-4	1	1	95	
R-4 TO R-6	1	1	185	
R-6 TO R-7	1	1	195	
R-7 TO D-1	1	1		1
TOTALS CARRIED TO GENERAL SUMMARY	7	7	1,075	1

P:\LIC\80704\Design\Roadway\Plan_Sheets\Lighting\SR16_LPS_006.dgn 28-FEB-2015 2:19PM jutz1



CALCULATED
J.L.
CHECKED
H.G.

HORIZONTAL SCALE IN FEET

EXISTING LIGHTING PLAN SHEET - S.R. 16
STA. 284+00 TO STA. 39+00

LIC-16-16.64

623
729



10
20
30
40
HORIZONTAL
SCALE IN FEET

CALCULATED
J.L.
CHECKED
H.G.

LIC-16-16.6.4 LIGHTING PLAN SHEET EX. SOUTH CHERRY VALLEY RD.

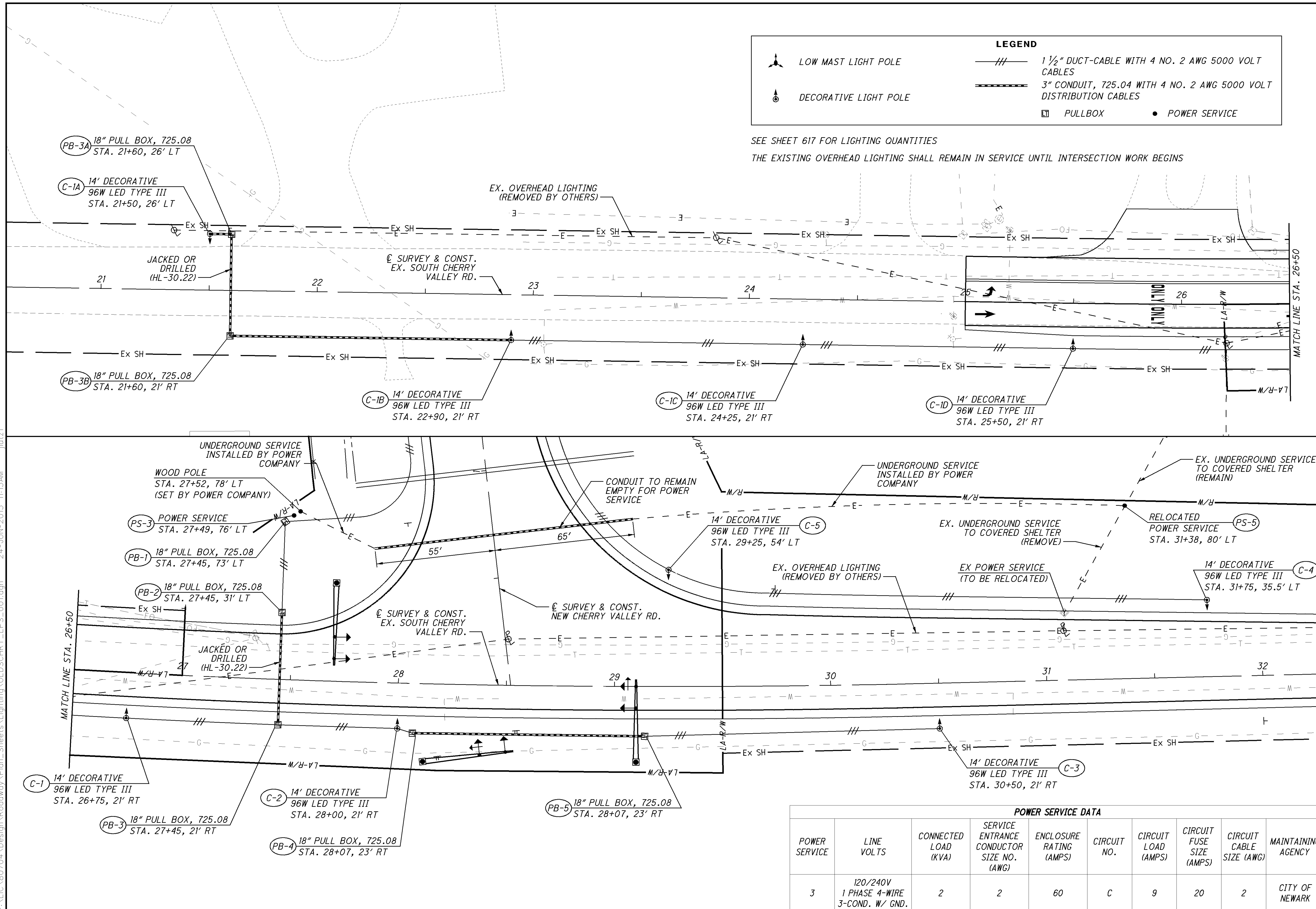
LIC-16-16.6.4

624
729

LEGEND

- LOW MAST LIGHT POLE
- DECORATIVE LIGHT POLE
- 1 1/2" DUCT-CABLE WITH 4 NO. 2 AWG 5000 VOLT CABLES
- 3" CONDUIT, 725.04 WITH 4 NO. 2 AWG 5000 VOLT DISTRIBUTION CABLES
- PULLBOX
- POWER SERVICE

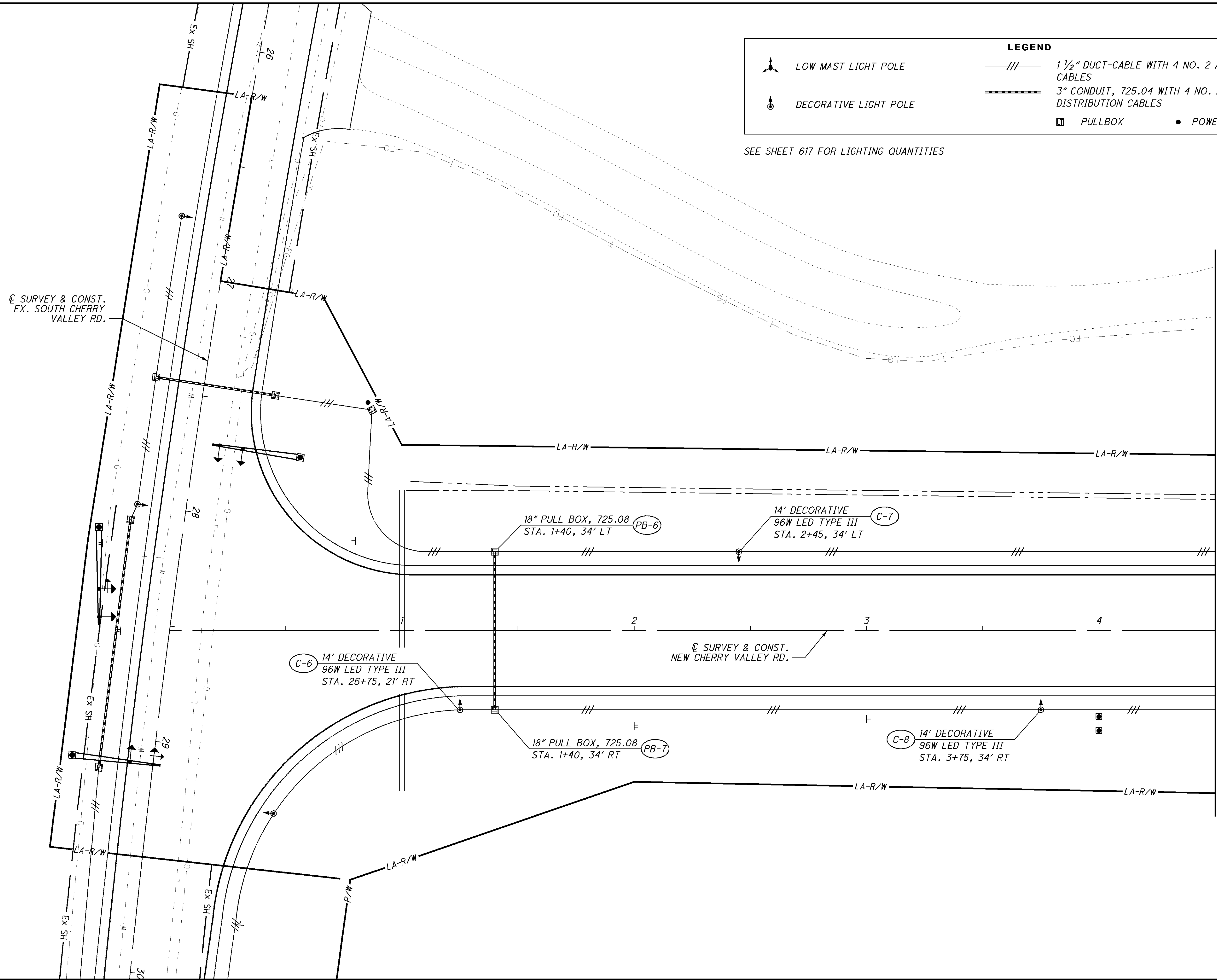
SEE SHEET 617 FOR LIGHTING QUANTITIES
THE EXISTING OVERHEAD LIGHTING SHALL REMAIN IN SERVICE UNTIL INTERSECTION WORK BEGINS



POWER SERVICE DATA									
POWER SERVICE	LINE VOLTS	CONNECTED LOAD (KVA)	SERVICE ENTRANCE CONDUCTOR SIZE NO. (AWG)	ENCLOSURE RATING (AMPS)	CIRCUIT NO.	CIRCUIT LOAD (AMPS)	CIRCUIT FUSE SIZE (AMPS)	CIRCUIT CABLE SIZE (AWG)	MAINTAINING AGENCY
3	120/240V 1 PHASE 4-WIRE 3-COND. W/ GND.	2	2	60	C	9	20	2	CITY OF NEWARK

P:\LIC\80704\Design\Roadway\Plan_Sheets\Lighting\OLD\SCHRY_LPS_001.dgn 24-JUN-2015 11:13 AM jcutz1

P:\LIC\80704\Design\Roadway\Plan_Sheets\Lighting\NEWCHRY_LPS_001.dgn 28-FEB-2015 2:19PM jutz1



LEGEND

	LOW MAST LIGHT POLE		1 1/2" DUCT-CABLE WITH 4 NO. 2 AWG 5000 VOLT CABLES
	DECORATIVE LIGHT POLE		3" CONDUIT, 725.04 WITH 4 NO. 2 AWG 5000 VOLT DISTRIBUTION CABLES
	PULLBOX		POWER SERVICE



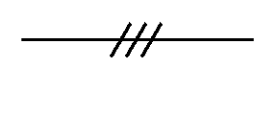



SEE SHEET 617 FOR LIGHTING QUANTITIES

CALCULATED
J.L.
CHECKED
H.G.

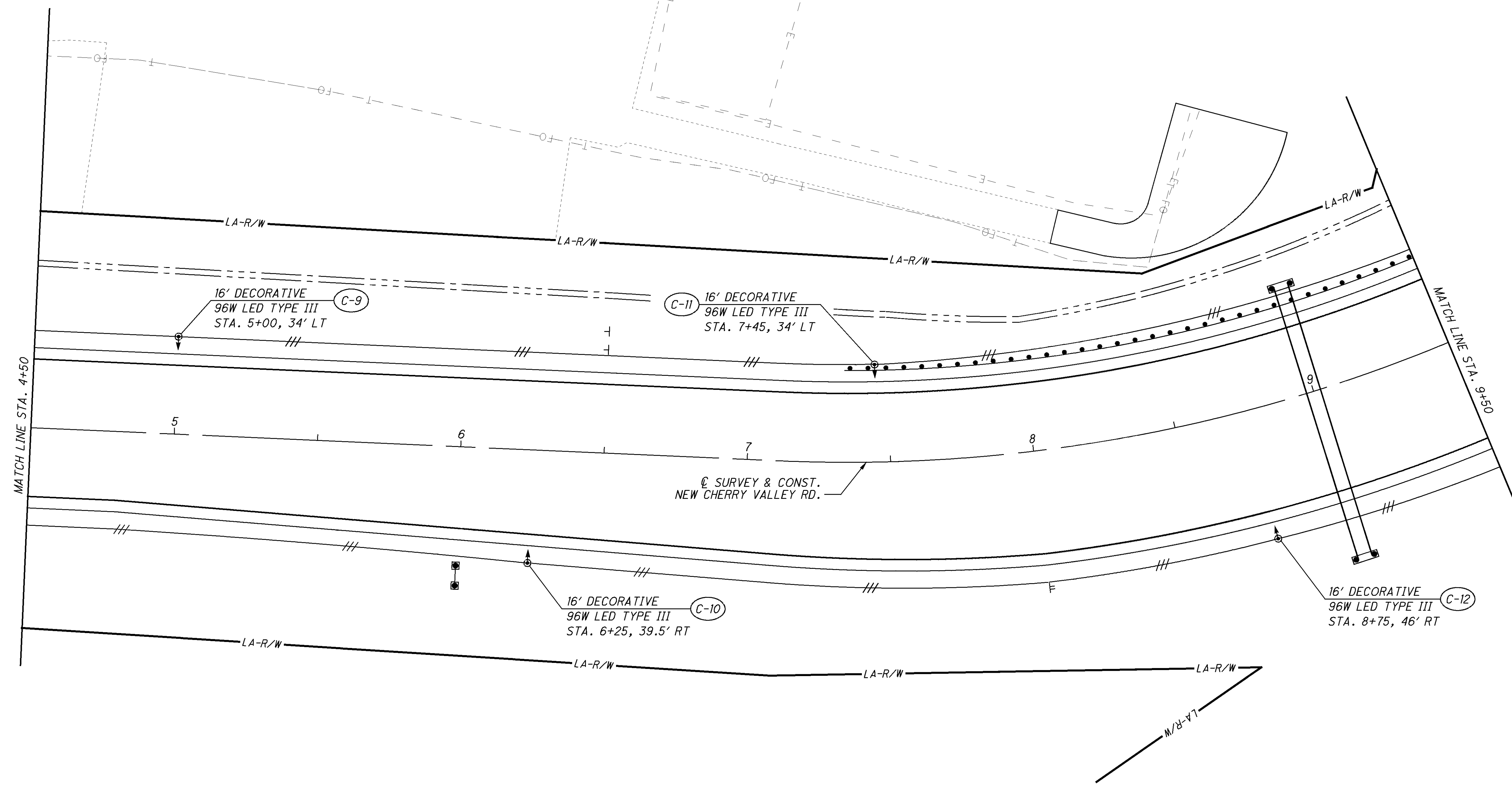
0 10 20 40
HORIZONTAL
SCALE IN FEET

**LIGHTING PLAN SHEET - NEW CHERRY VALLEY RD.
STA. 0+00 TO STA. 4+50**

P:\LIC\80704\Design\Roadway\Plan_Sheets\Lighting\NEWCHRY_LPS_002.dgn 28-FEB-2015 2:19PM jlutzi

LEGEND	
	LOW MAST LIGHT POLE
	DECORATIVE LIGHT POLE
	1 1/2" DUCT-CABLE WITH 4 NO. 2 AWG 5000 VOLT CABLES
	3" CONDUIT, 725.04 WITH 4 NO. 2 AWG 5000 VOLT DISTRIBUTION CABLES
	PULLBOX
	POWER SERVICE

SEE SHEET 617 FOR LIGHTING QUANTITIES
MAINTAIN CIRCUIT AND GUARDRAIL SPACING PER HL-30.21 WHEN POSSIBLE









CALCULATED J.L.
CHECKED H.G.

0 10 20 40
HORIZONTAL SCALE IN FEET

LIGHTING PLAN SHEET - NEW CHERRY VALLEY RD.
STA. 4+50 TO STA. 9+50

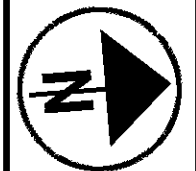
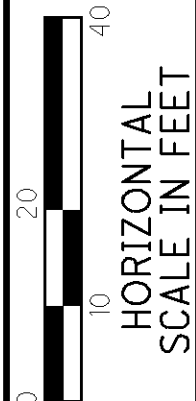
P:\LIC\80704\Design\Roadway\Plan_Sheets\Lighting\NEWCHRY_LPS_003.dgn 28-FEB-2015 2:19PM jlut1

LEGEND

	LOW MAST LIGHT POLE		1 1/2" DUCT-CABLE WITH 4 NO. 2 AWG 5000 VOLT CABLES
	DECORATIVE LIGHT POLE		3" CONDUIT, 725.04 WITH 4 NO. 2 AWG 5000 VOLT DISTRIBUTION CABLES
			PULLBOX
			POWER SERVICE

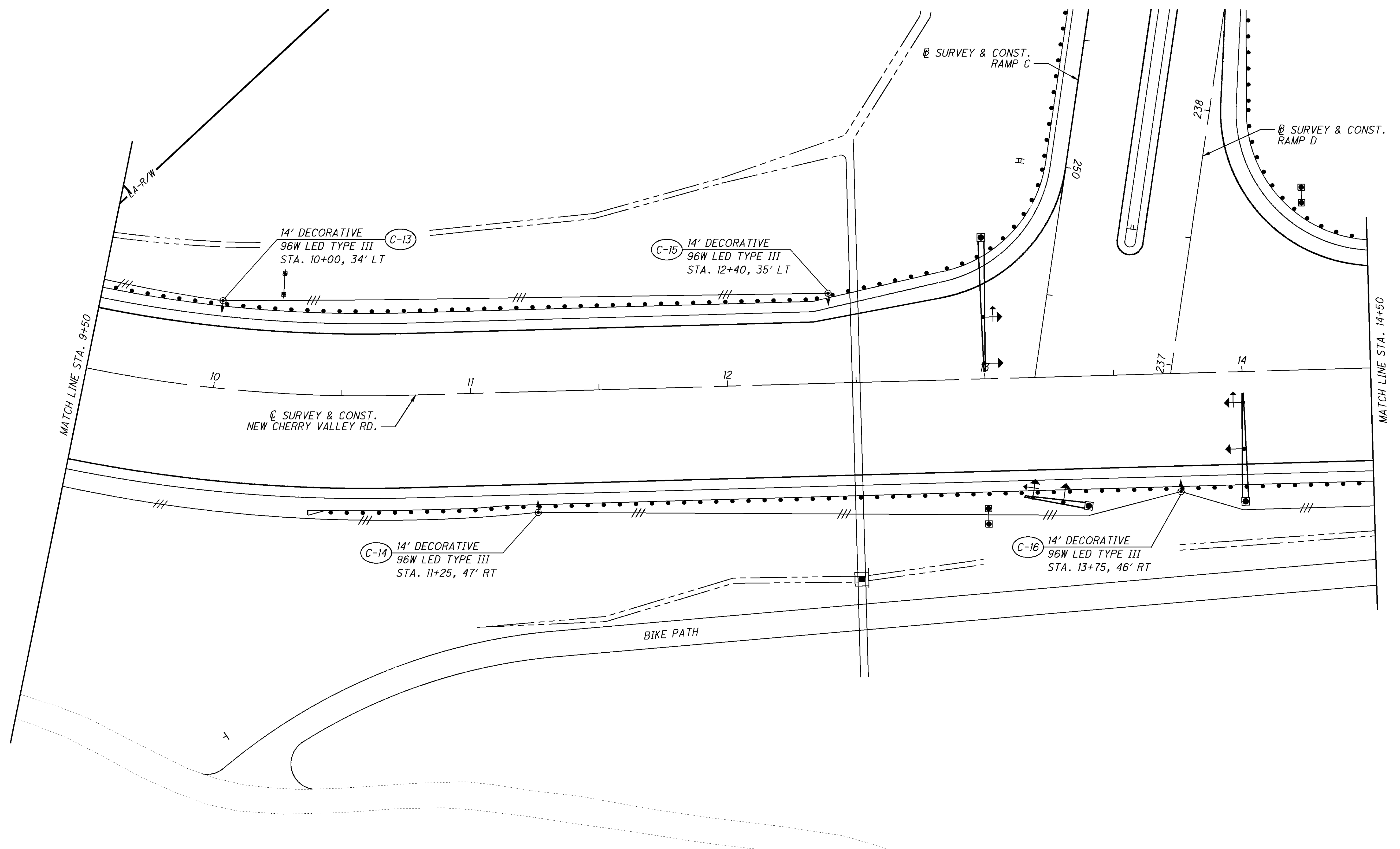
SEE SHEET 617 FOR LIGHTING QUANTITIES
MAINTAIN CIRCUIT AND GUARDRAIL SPACING PER HL-30.21 WHEN POSSIBLE

CALCULATED
J.L.
CHECKED
H.G.

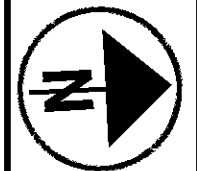



HORIZONTAL SCALE IN FEET

LIGHTING PLAN SHEET - NEW CHERRY VALLEY RD.
STA. 9+50 TO STA. 14+50



P:\LIC\80704\Design\Roadway\Plan_Sheets\Lighting\NEWCHRY_LPS_004.dgn 24-JUN-2015 11:26AM jutzl



0 10 20 40
HORIZONTAL
SCALE IN FEET

CALCULATED
J.L.
CHECKED
H.G.

LIGHTING PLAN SHEET - NEW CHERRY VALLEY RD.
STA. 14+50 TO STA. 19+50

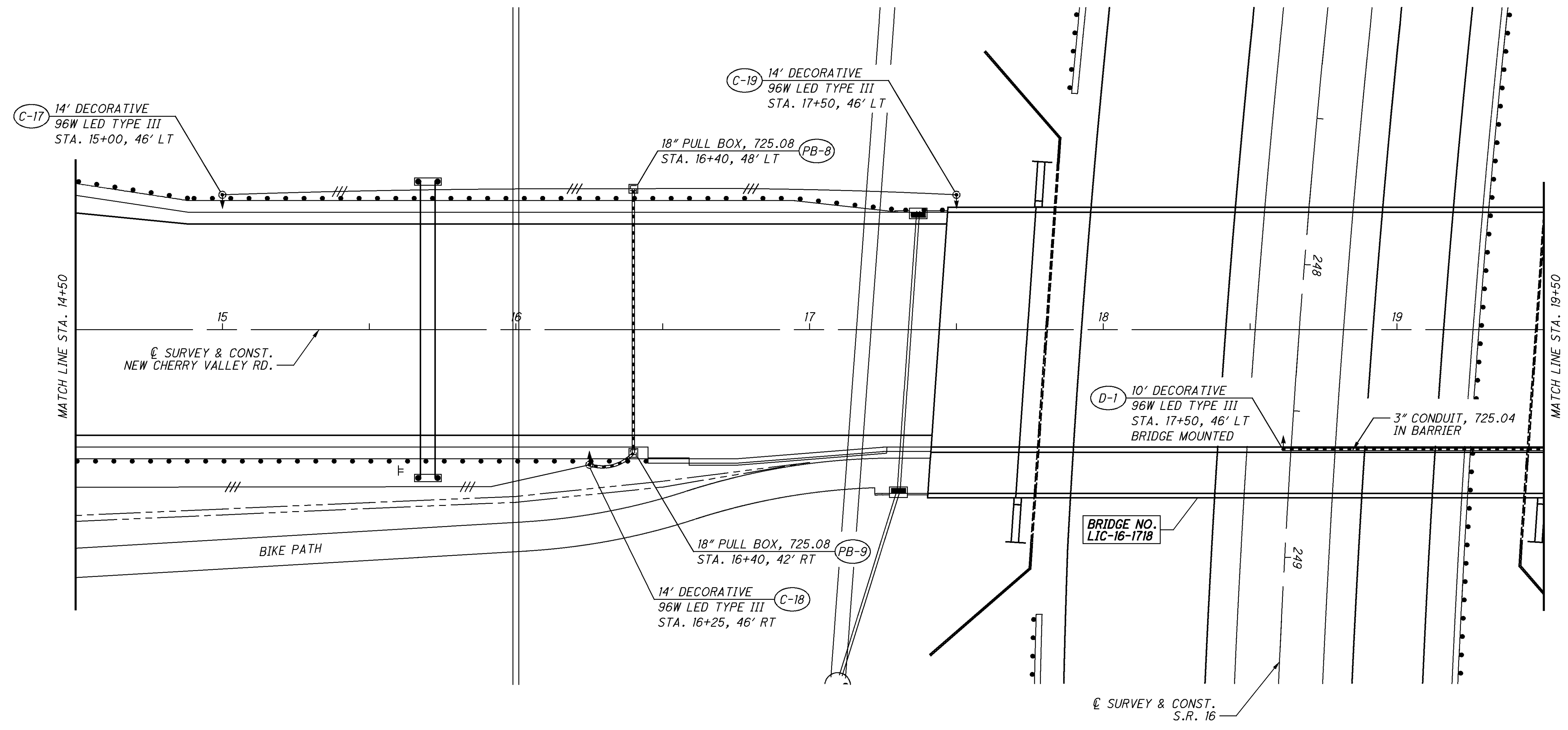
LIC-16-16.64

628
729

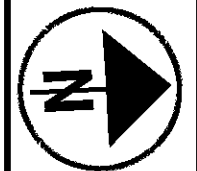
LEGEND

	LOW MAST LIGHT POLE		1 1/2" DUCT-CABLE WITH 4 NO. 2 AWG 5000 VOLT CABLES
	DECORATIVE LIGHT POLE		3" CONDUIT, 725.04 WITH 4 NO. 2 AWG 5000 VOLT DISTRIBUTION CABLES
	PULLBOX		POWER SERVICE

SEE SHEET 617/617A FOR LIGHTING QUANTITIES
MAINTAIN CIRCUIT AND GUARDRAIL SPACING PER HL-30.21 WHEN POSSIBLE



P:\LIC\80704\Design\Roadway\Plan_Sheets\Lighting\NEWCHRY_LPS_005.dgn 24-JUN-2015 11:24AM jutz1



0 10 20 40
HORIZONTAL
SCALE IN FEET

CALCULATED
J.L.
CHECKED
H.G.

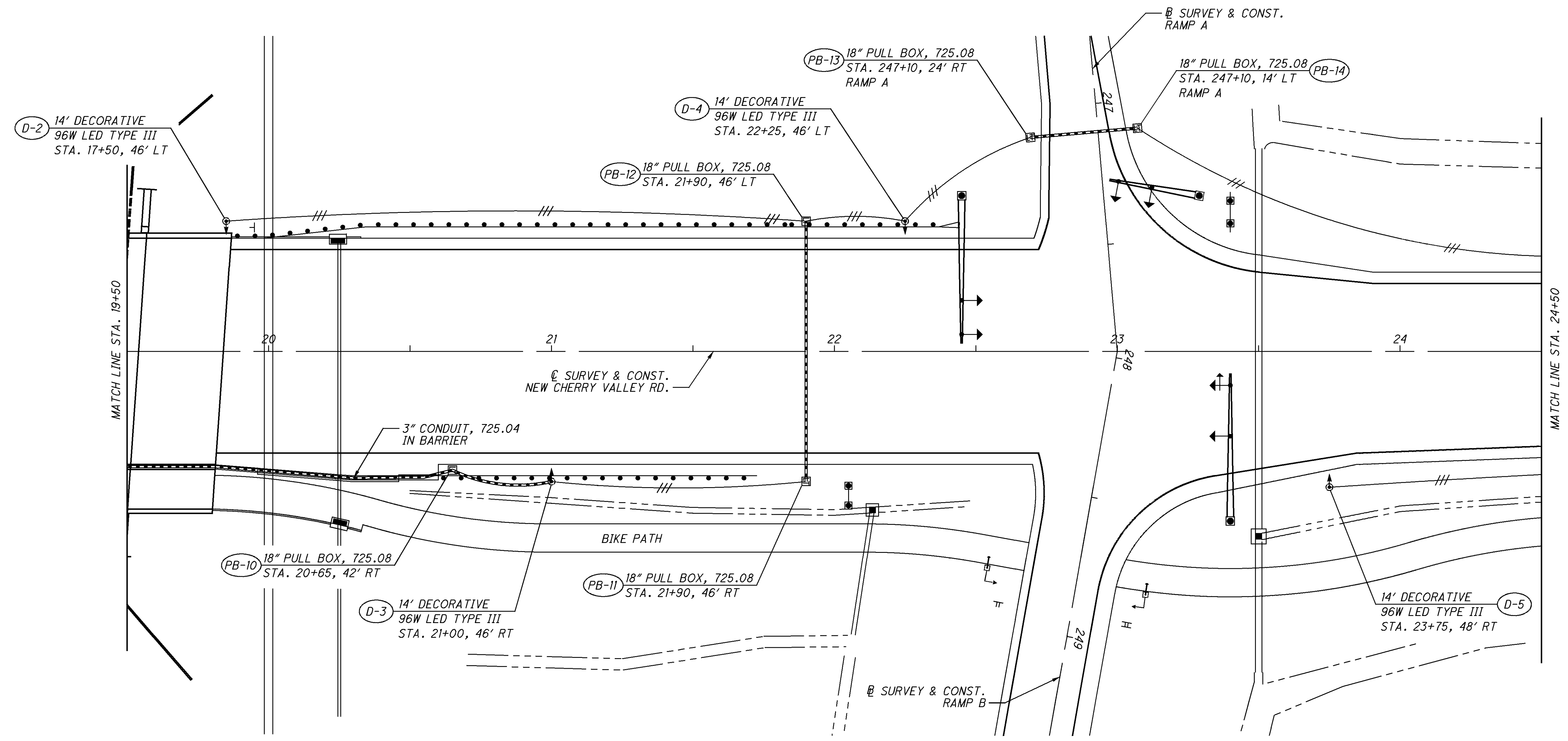
LIGHTING PLAN SHEET - NEW CHERRY VALLEY RD.
STA. 19+50 TO STA. 24+50

LIC-16-16.64

629
729

LEGEND	
	LOW MAST LIGHT POLE
	DECORATIVE LIGHT POLE
	1 1/2" DUCT-CABLE WITH 4 NO. 2 AWG 5000 VOLT CABLES
	3" CONDUIT, 725.04 WITH 4 NO. 2 AWG 5000 VOLT DISTRIBUTION CABLES
	PULLBOX
	POWER SERVICE

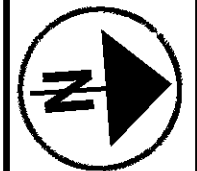
SEE SHEET 617A FOR LIGHTING QUANTITIES
MAINTAIN CIRCUIT AND GUARDRAIL SPACING PER HL-30.21 WHEN POSSIBLE



MATCH LINE STA. 19+50

MATCH LINE STA. 24+50

P:\LIC\80704\Design\Roadway\Plan_Sheets\Lighting\NEWCHRY_LPS_006.dgn 24-JUN-2015 11:22AM jutzl



0 10 20 40
HORIZONTAL
SCALE IN FEET


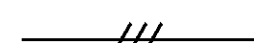




CALCULATED
J.L.
CHECKED
H.G.

LIGHTING PLAN SHEET - NEW CHERRY VALLEY RD.
STA. 24+50 TO STA. 29+50

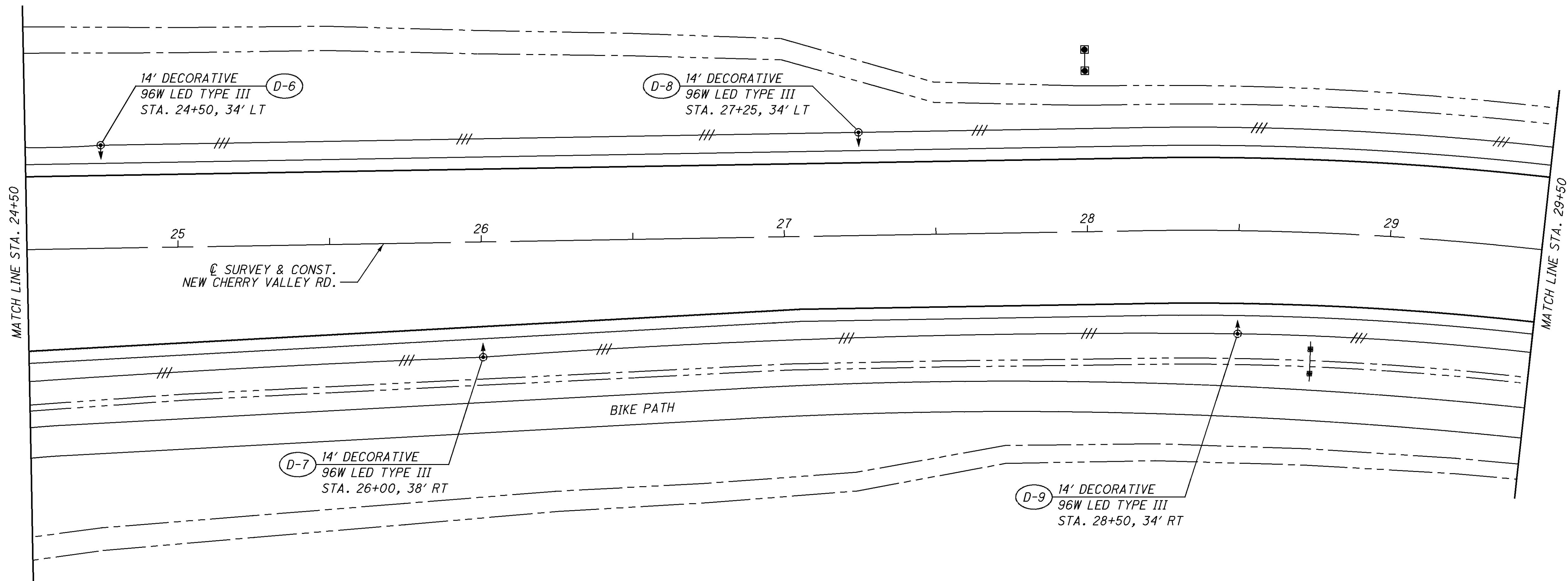
LIC-16-16.64

630
729

LEGEND

	LOW MAST LIGHT POLE		1 1/2" DUCT-CABLE WITH 4 NO. 2 AWG 5000 VOLT CABLES
	DECORATIVE LIGHT POLE		3" CONDUIT, 725.04 WITH 4 NO. 2 AWG 5000 VOLT DISTRIBUTION CABLES
			PULLBOX
			POWER SERVICE

SEE SHEET 617A FOR LIGHTING QUANTITIES



MATCH LINE STA. 24+50

MATCH LINE STA. 29+50

CL SURVEY & CONST.
NEW CHERRY VALLEY RD.

BIKE PATH

14' DECORATIVE
96W LED TYPE III
STA. 24+50, 34' LT (D-6)

(D-8) 14' DECORATIVE
96W LED TYPE III
STA. 27+25, 34' LT

(D-7) 14' DECORATIVE
96W LED TYPE III
STA. 26+00, 38' RT

(D-9) 14' DECORATIVE
96W LED TYPE III
STA. 28+50, 34' RT

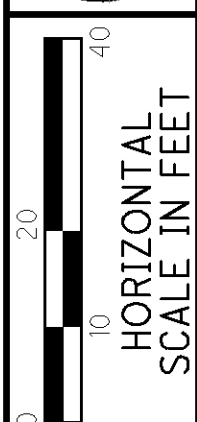
25

26

27

28

29



CALCULATED
J.L.
CHECKED
H.G.

LIGHTING PLAN SHEET - NEW CHERRY VALLEY RD.
STA. 29+50 TO STA. 34+25.81

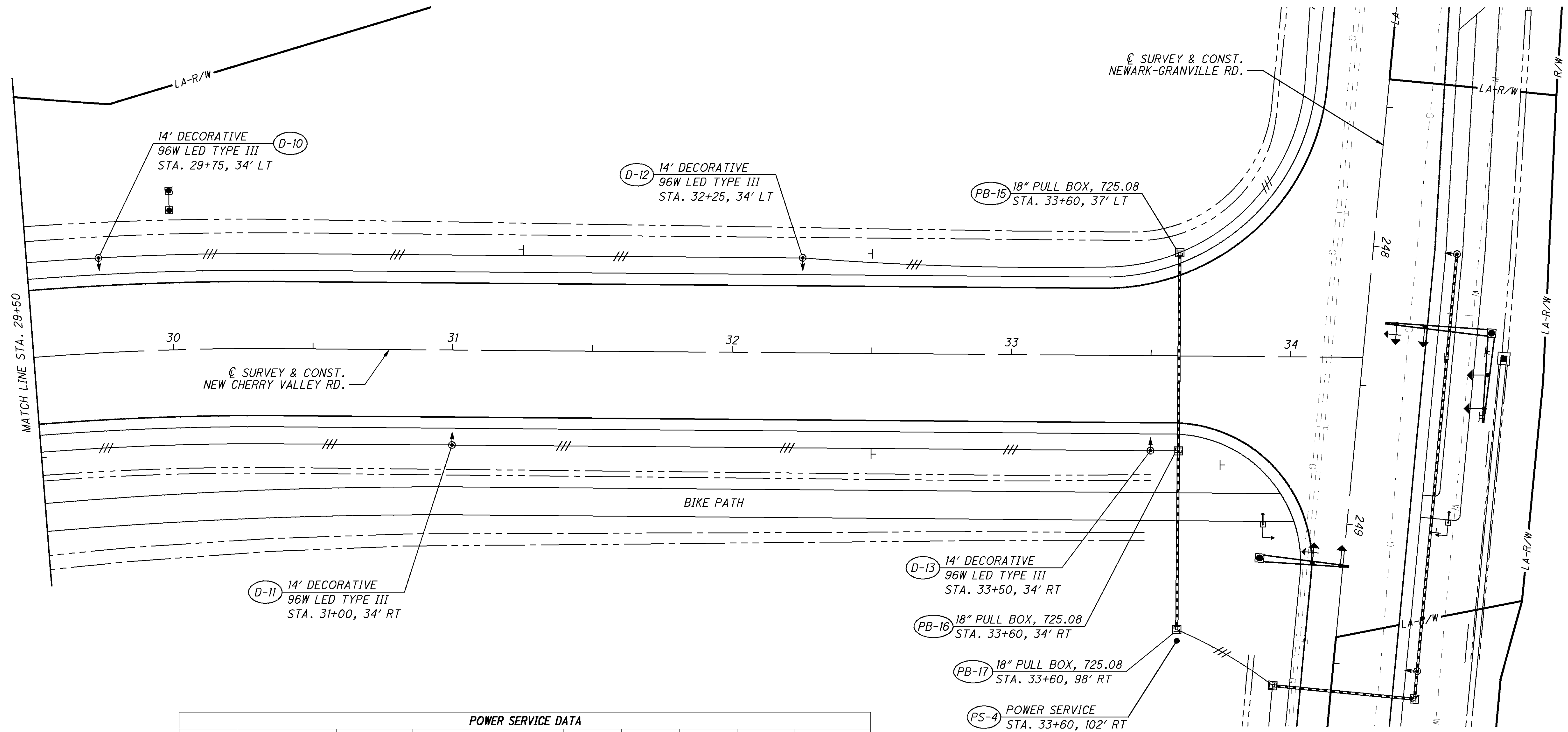
LIC-16-16.64

631
729

LEGEND

- LOW MAST LIGHT POLE
- DECORATIVE LIGHT POLE
- 1 1/2" DUCT-CABLE WITH 4 NO. 2 AWG 5000 VOLT CABLES
- 3" CONDUIT, 725.04 WITH 4 NO. 2 AWG 5000 VOLT DISTRIBUTION CABLES
- PULLBOX
- POWER SERVICE

SEE SHEET 617A FOR LIGHTING QUANTITIES




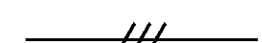




POWER SERVICE DATA

POWER SERVICE	LINE VOLTS	CONNECTED LOAD (KVA)	SERVICE ENTRANCE CONDUCTOR SIZE NO. (AWG)	ENCLOSURE RATING (AMPS)	CIRCUIT NO.	CIRCUIT LOAD (AMPS)	CIRCUIT FUSE SIZE (AMPS)	CIRCUIT CABLE SIZE (AWG)	MAINTAINING AGENCY
4	120/240V 1 PHASE 4-WIRE 3-COND. W/ GND.	2	2	60	D	7	20	2	CITY OF NEWARK

P:\LIC\80704\Design\Roadway\Plan_Sheets\Lighting\NEWCHRY_LPS_007.dgn 24-JUN-2015 11:20AM jutzl

P:\LIC\80704\Design\Roadway\Plan_Sheets\Lighting\NWRKGRNV_LPS_001.dgn 24-JUN-2015 11:18AM jutz1

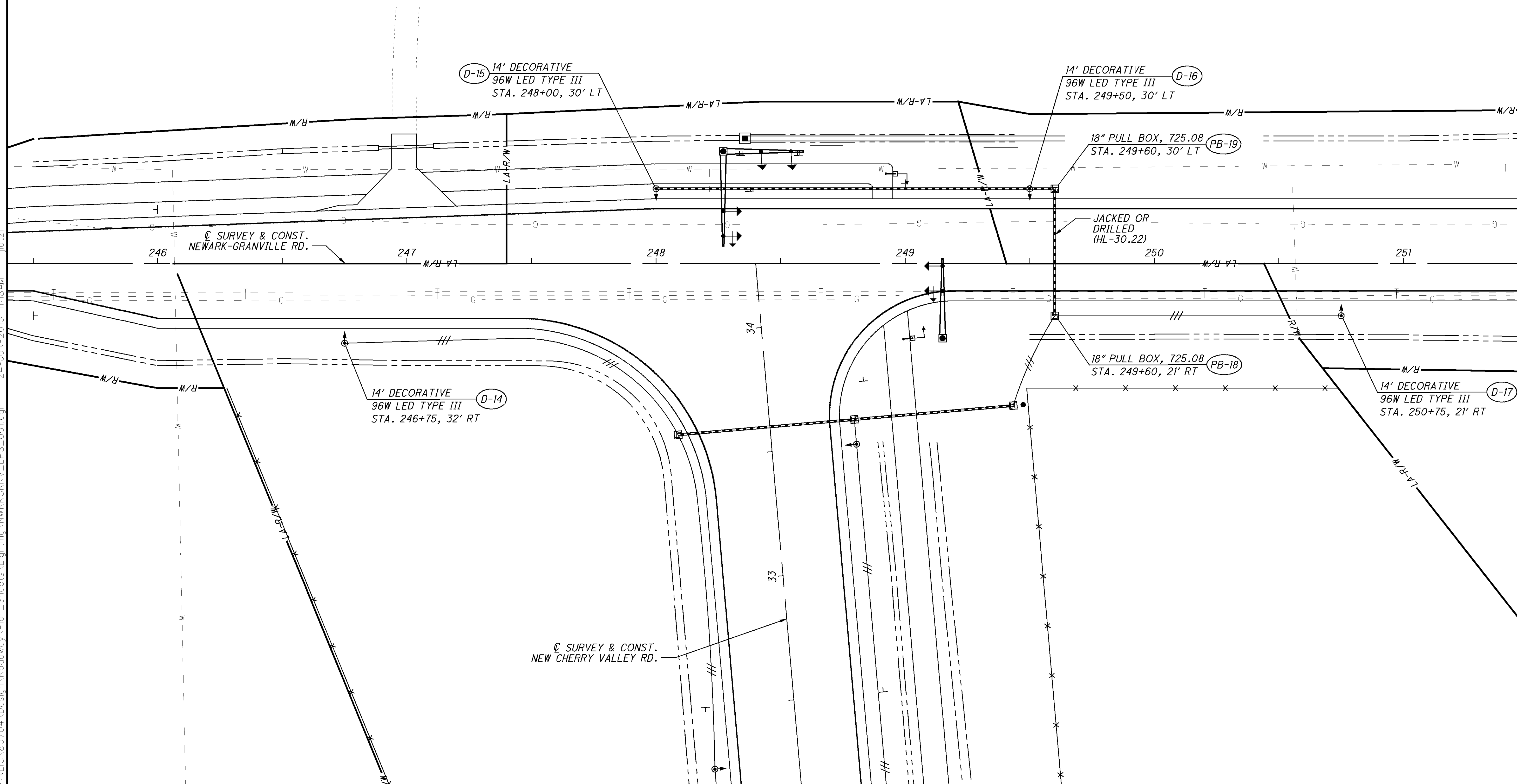
LEGEND

	LOW MAST LIGHT POLE		1 1/2" DUCT-CABLE WITH 4 NO. 2 AWG 5000 VOLT CABLES
	DECORATIVE LIGHT POLE		3" CONDUIT, 725.04 WITH 4 NO. 2 AWG 5000 VOLT DISTRIBUTION CABLES
	PULLBOX		POWER SERVICE

SEE SHEET 617A FOR LIGHTING QUANTITIES

CALCULATED
J.L.
CHECKED
H.G.

0 10 20 40
HORIZONTAL
SCALE IN FEET



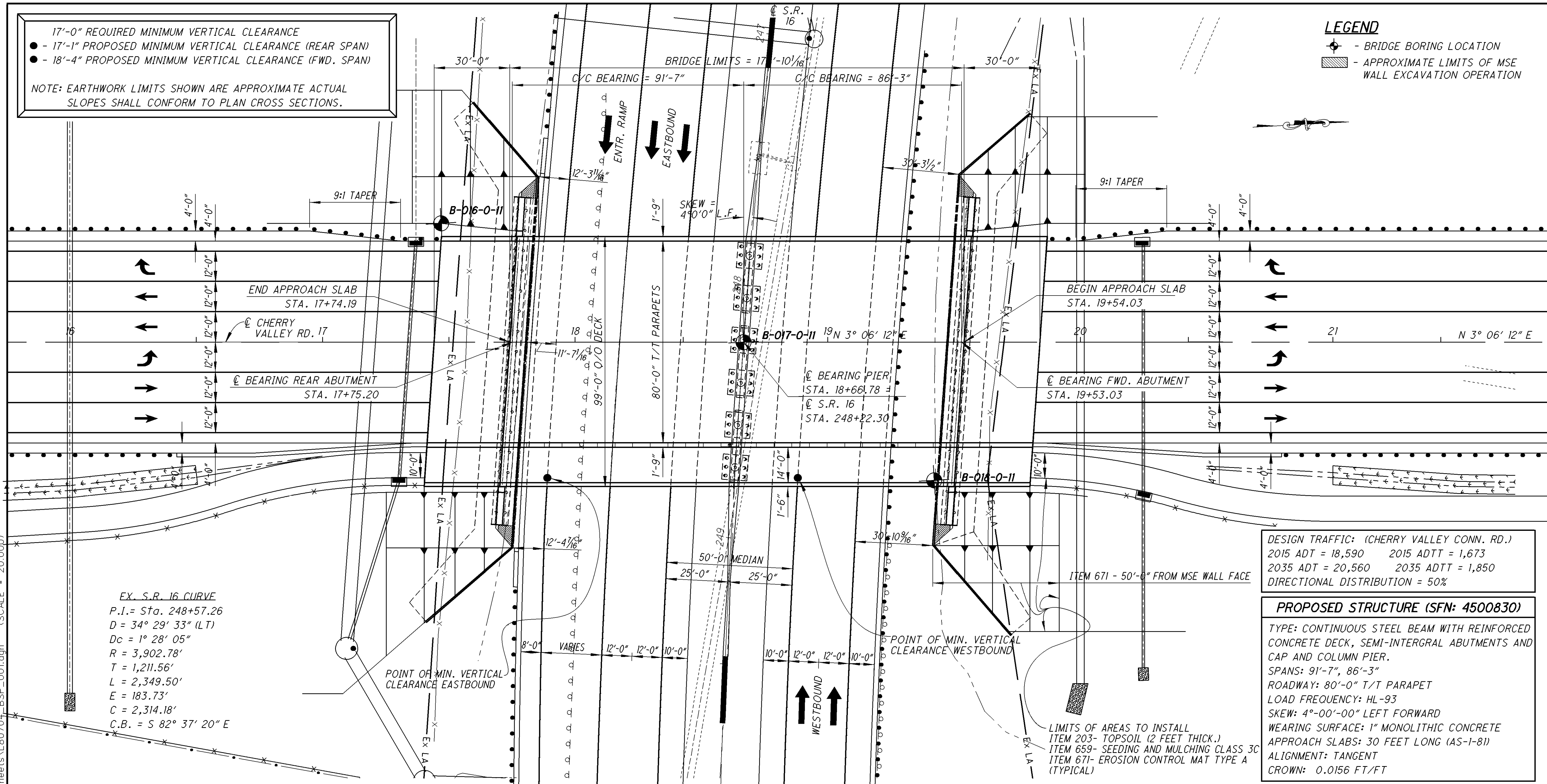
LIGHTING PLAN SHEET
NEWARK-GRANVILLE RD.

LIC-16-16.64

632
729

17'-0" REQUIRED MINIMUM VERTICAL CLEARANCE
 ● - 17'-1" PROPOSED MINIMUM VERTICAL CLEARANCE (REAR SPAN)
 ● - 18'-4" PROPOSED MINIMUM VERTICAL CLEARANCE (FWD. SPAN)
 NOTE: EARTHWORK LIMITS SHOWN ARE APPROXIMATE ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS SECTIONS.

LEGEND
 ● - BRIDGE BORING LOCATION
 [Hatched Area] - APPROXIMATE LIMITS OF MSE WALL EXCAVATION OPERATION



EX. S.R. 16 CURVE
 P.I. = Sta. 248+57.26
 D = 34° 29' 33" (LT)
 Dc = 1° 28' 05"
 R = 3,902.78'
 T = 1,211.56'
 L = 2,349.50'
 E = 183.73'
 C = 2,314.18'
 C.B. = S 82° 37' 20" E

DESIGN TRAFFIC: (CHERRY VALLEY CONN. RD.)
 2015 ADT = 18,590 2015 ADTT = 1,673
 2035 ADT = 20,560 2035 ADTT = 1,850
 DIRECTIONAL DISTRIBUTION = 50%

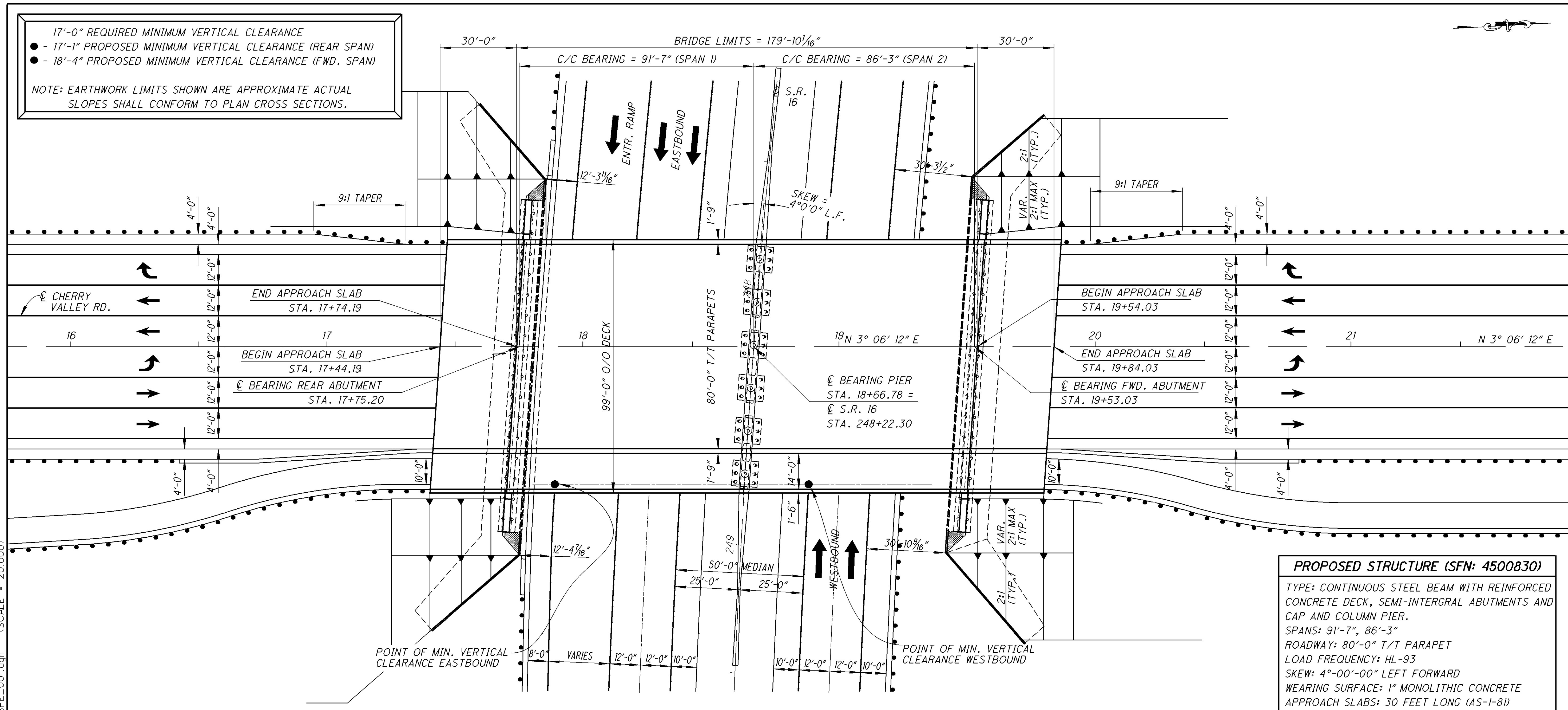
PROPOSED STRUCTURE (SFN: 4500830)
 TYPE: CONTINUOUS STEEL BEAM WITH REINFORCED CONCRETE DECK, SEMI-INTERGRAL ABUTMENTS AND CAP AND COLUMN PIER.
 SPANS: 91'-7", 86'-3"
 ROADWAY: 80'-0" T/T PARAPET
 LOAD FREQUENCY: HL-93
 SKEW: 4°-00'-00" LEFT FORWARD
 WEARING SURFACE: 1" MONOLITHIC CONCRETE
 APPROACH SLABS: 30 FEET LONG (AS-1-81)
 ALIGNMENT: TANGENT
 CROWN: 0.0156 FT/FT

PROPOSED PROFILE	906.56	906.98	907.33	907.60	907.80	907.92	907.97	907.95	907.86	907.69	907.44	907.13	906.74	906.27	905.74	905.13	904.44	903.70	902.95	902.20	901.45	900.70	
EXISTING PROFILE	874.80		875.96		876.56		883.22		882.62		883.15		885.59		885.88		885.84		886.12				
920	REAR ABUTMENT - 12" CAST-IN-PLACE REINFORCED CONCRETE PILES SLEEVED PILE LENGTH = 25' TOTAL ESTIMATED DRIVEN PILE LENGTH = 50' TOTAL FURNISHED PILE LENGTH = 55' P.V.I. STA 17+80.00, ELEV = 911.80' 510.00' VC BRIDGE LIMITS = 179'-10 1/16" 30'-0" A.S. 30'-0" A.S. +3.00% -3.00%																						
900	PIER - 14" CAST-IN-PLACE REINFORCED CONCRETE PILES 13 OF 42 PILES PREBORE LENGTH = 8' TOTAL ESTIMATED DRIVEN PILE LENGTH = 45' TOTAL FURNISHED PILE LENGTH = 50' EL. 897.16 EL. 877.00 EL. 895.50 TOP OF LEVELING PAD = 881.45 TOP OF LEVELING PAD = 879.00 17'-1" MIN. 18'-4" MIN.																						
880	FORWARD ABUTMENT - 12" CAST-IN-PLACE REINFORCED CONCRETE PILES SLEEVED PILE LENGTH = 18.00' TOTAL ESTIMATED DRIVEN PILE LENGTH = 60' TOTAL FURNISHED PILE LENGTH = 65' EXISTING 60" CONDUIT TO BE ABANDONED																						

P:\LIC\80704\Design\bridge\SFN - Route Name\Plan Sheets\L80704_BSP_001.dgn (SCALE = 20.000)

DESIGN AGENCY: OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5
 DATE: 9-15-2014
 TAG: 4500830
 STRUCTURE FILE NUMBER: 4500830
 DRAWN: JDR
 CHECKED: JDR
 DESIGNED: JDR
 STA. 15+75.00 TO STA. 21+85.00
 SITE PLAN: BRIDGE NO. LIC-16-1718
 CHERRY VALLEY ROAD OVER S.R. 16
 LIC-16-16.64
 1 / 54
 633 / 729

17'-0" REQUIRED MINIMUM VERTICAL CLEARANCE
 ● - 17'-1" PROPOSED MINIMUM VERTICAL CLEARANCE (REAR SPAN)
 ● - 18'-4" PROPOSED MINIMUM VERTICAL CLEARANCE (FWD. SPAN)
 NOTE: EARTHWORK LIMITS SHOWN ARE APPROXIMATE ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS SECTIONS.

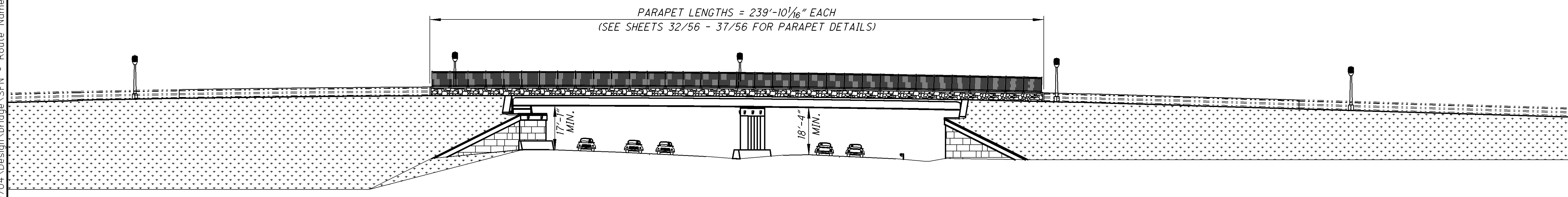


PLAN

PROPOSED STRUCTURE (SFN: 4500830)
 TYPE: CONTINUOUS STEEL BEAM WITH REINFORCED CONCRETE DECK, SEMI-INTERGRAL ABUTMENTS AND CAP AND COLUMN PIER.
 SPANS: 91'-7", 86'-3"
 ROADWAY: 80'-0" T/T PARAPET
 LOAD FREQUENCY: HL-93
 SKEW: 4°-00'-00" LEFT FORWARD
 WEARING SURFACE: 1" MONOLITHIC CONCRETE
 APPROACH SLABS: 30 FEET LONG (AS-1-81)
 ALIGNMENT: TANGENT
 CROWN: 0.0156 FT/FT

P.V.I. STA 17+80.00, ELEV = 911.80'
 510.00' VC
 +3.00% -3.00%

PARAPET LENGTHS = 239'-10 1/16" EACH
 (SEE SHEETS 32/56 - 37/56 FOR PARAPET DETAILS)



ELEVATION

P:\LIC\80704\Design\bridge\SFN - Route Name\Plan Sheets\L80704 - BPE_001.dgn (SCALE = 20.000)

P:\LIC\80704\Design\bridge\SFN - Route Name\Plan Sheets\L80704 - BNS_001.dgn (SCALE = 1,000)

STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWING(S):

- AS-1-81 DATED/REVISED 1/18/13
- GSD-1-96 DATED/REVISED 7/19/02
- SICD-1-96 DATED/REVISED 7/18/14
- SBR-1-13 DATED/REVISED 1/17/14
- VFP-1-90 DATED/REVISED 4/15/11

AND TO THE FOLLOWING SUPPLEMENTAL SPECIFICATION(S):

- SS 840 DATED/REVISED 10/17/14

DESIGN SPECIFICATIONS

DESIGN SPECIFICATIONS: THIS STRUCTURE CONFORMS TO THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2012, INCLUDING THE 2012 ERRATA AND THE ODOT BRIDGE DESIGN MANUAL, 2007 EXCEPTED AS NOTED ELSEWHERE IN THE PLANS.

LOAD MODIFIER FOR OPERATIONAL IMPORTANCE

OPERATIONAL IMPORTANCE: A LOAD MODIFIER OF 1.00 HAS BEEN ASSUMED FOR THE DESIGN OF THIS STRUCTURE IN ACCORDANCE WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, ARTICLE 1.3.5 AND THE ODOT BRIDGE DESIGN MANUAL, 2007.

DESIGN LOADING

DESIGN LOADING: DESIGN LOADING: HL-93

FUTURE WEARING SURFACE (FWS) OF 0.060 KIPS/SQ.FT.

DESIGN DATA

DESIGN DATA:

- CONCRETE CLASS QSC2 - COMPRESSIVE STRENGTH 4.5 KSI (SUPERSTRUCTURE)
- CONCRETE CLASS QSC1 - COMPRESSIVE STRENGTH 4.0 KSI (SUBSTRUCTURE)
- REINFORCING STEEL - ASTM A615 OR A996, GRADE 60, MINIMUM YIELD STRENGTH 60,000 KSI

STRUCTURAL STEEL - ASTM A709 GRADE 50 - YIELD STRENGTH 50 KSI

DECK PROTECTION METHOD

EPOXY COATED REINFORCING STEEL.
2.5" CONCRETE COVER.
PARAPETS.

MONOLITHIC WEARING SURFACE

MONOLITHIC WEARING SURFACE IS ASSUMED, FOR DESIGN PURPOSES, TO BE 1 INCH THICK.

PILE DESIGN LOADS (ULTIMATE BEARING VALUE)

PILE DESIGN LOADS (ULTIMATE BEARING VALUE):

THE ULTIMATE BEARING VALUE IS 199 KIPS PER PILE FOR THE REAR ABUTMENT PILES. THE ULTIMATE BEARING VALUE IS 376 KIPS PER PILE FOR THE PIER PILES. THE ULTIMATE BEARING VALUE IS 191 KIPS PER PILE FOR THE FORWARD ABUTMENT PILES.

REAR ABUTMENT PILES:

- 12" C.I.P. PILES 55 FEET LONG, FURNISHED LENGTH
- 1 DYNAMIC LOAD TESTING ITEMS

PIER PILES:

- 14" C.I.P. PILES 50 FEET LONG, FURNISHED LENGTH
- 1 DYNAMIC LOAD TESTING ITEMS

FORWARD ABUTMENT PILES:

- 12" C.I.P. PILES 65 FEET LONG, FURNISHED LENGTH
- 1 DYNAMIC LOAD TESTING ITEMS

PILE DRIVING CONSTRAINTS

PILE DRIVING CONSTRAINTS: PRIOR TO DRIVING ABUTMENT PILES TO THE ULTIMATE BEARING VALUE (UBV) OR TO REFUSAL ON BEDROCK, CONSTRUCT THE MSE WALL AND THE BRIDGE APPROACH EMBANKMENT BEHIND THE ABUTMENT UP TO THE BOTTOM OF THE FOOTING FOR A MINIMUM DISTANCE OF 200 FT BEHIND EACH ABUTMENT. THE CONTRACTOR MAY PRE-DRIVE ABUTMENT PILES BEFORE CONSTRUCTING MSE WALLS. PRE-DRIVING CONSISTS OF INSTALLING THE ABUTMENT PILES INTO THE SOIL ONLY AS FAR AS NECESSARY SO THAT THE PILE WILL REMAIN VERTICAL DURING MSE WALL CONSTRUCTION. IF PRE-DRIVING PILES, INSTALL PILE SLEEVES AROUND PILES BEFORE CONSTRUCTING THE MSE WALL. AT LEAST THREE FEET OF PILE MUST EXTEND ABOVE THE TOP OF THE PILE SLEEVE TO MEET THE REQUIREMENTS OF CMS 507.09 REGARDING SPLICES. DO NOT DRIVE ABUTMENT PILES TO THE UBV OR TO REFUSAL ON BEDROCK UNTIL AFTER THE ABOVE REQUIRED MSE WALL AND EMBANKMENT HAVE BEEN CONSTRUCTED AND A 15 CALENDAR DAY WAITING PERIOD HAS ELAPSED. THE ENGINEER MAY ADJUST THE LENGTH OF THE WAITING PERIOD BASED ON SETTLEMENT PLATFORM READINGS. AFTER THE SPECIFIED WAITING PERIOD HAS ELAPSED, DRIVE ABUTMENT PILES TO THE UBV OR TO REFUSAL ON BEDROCK. IN ORDER TO REMOVE ANY NEGATIVE SKIN FRICTION THAT HAS DEVELOPED DURING THE WAITING PERIOD, DRIVE EACH ABUTMENT PILE A DISTANCE OF AT LEAST 0.5 INCH.

IF NOT PRE-DRIVING ABUTMENT PILES, INSTALL THE ABUTMENT PILES THROUGH PILE SLEEVES AFTER THE ABOVE REQUIRED MSE WALL AND EMBANKMENT HAVE BEEN CONSTRUCTED AND THE SPECIFIED WAITING PERIOD HAS ELAPSED.

PREBORED HOLES, AS PER PLAN

IN ORDER TO PIERCE PORTIONS OF THE EXISTING CONCRETE CONDUIT TO BE ABANDONED AS PART OF THIS PLAN, PRE-BORED HOLES SHALL BE PERFORMED PRIOR TO PLACING PIER PILE NUMBERS 56 AND 63 THROUGH 74 (A TOTAL OF 13 PILES).

ALL PREBORING AND PILE DRIVING OPERATIONS OF THE PILE NUMBERS STATED SHALL OCCUR PRIOR TO FILLING THE ABANDONED CONDUIT AS SHOWN IN THE ROADWAY SECTION OF THIS PLAN.

ALL PROVISIONS OF CMS 507 SHALL APPLY EXCEPT THAT THE PREBORED HOLES MAY NOT BE LESS THAN THE OUTSIDE DIAMETER OF THE PILES TO BE INSTALLED.

THE CONTRACTOR SHALL PREBORE BATTER HOLES OR PLUM HOLES TO MATCH THE PROPOSED PILING INSTALLATION GEOMETRY. THE CONTRACTOR SHALL UTILIZE CAPABLE BITS/AUGERS TO DRILL THROUGH THE EXISTING CONCRETE CONDUIT. THE CONTRACTOR IS DIRECTED TO THE EXISTING PLANS FURNISHED IN ORDER TO PREDICT THE NECESSARY EQUIPMENT TO ACCOMPLISH THIS TASK.

THE CONTRACTOR SHALL BORE FROM THE BOTTOM OF PROPOSED PIER FOOTING TO THE BOTTOM OF THE EXISTING CONCRETE CONDUIT, 877.00 TO 869.00± RESPECTIVELY. THE TOTAL LENGTH IS THEREFORE ESTIMATED AT 8 FEET PER PREBORED HOLE.

ALL SKIN FRICTION HAS BEEN DISCOUNTED FOR THE ANTICIPATED 8 FT PREBORE LENGTH ALONG THE PILE.

ALL TIME, LABOR, AND MATERIALS REQUIRED TO COMPLETE THIS WORK SHALL BE INCLUDED WITH THE ITEMIZED PAYMENT FOR ITEM 507 - PREBORED HOLES, AS PER PLAN.

A QUANTITY OF 13 HOLES X 8 FEET PER HOLE = 104 FEET IS CARRIED IN THE BRIDGE SUMMARY FOR THIS ITEM.

LIC-16-16.64	BRIDGE NOTES BRIDGE NO. LIC-16-1718 CHERRY VALLEY ROAD OVER S.R. 16	DESIGN AGENCY OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5	DATE 3-1-2015	TAG 4500830
DESIGNED JDR	DRAWN JDR	REVIEWED JDR	STRUCTURE FILE NUMBER 4500830	
CHECKED CPS	REVISED			

REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=17"), AS PER PLAN

FURNISH APPROACH SLABS CONFORMING TO CMS 526. THE ACCEPTED QUANTITIES SHALL INCLUDE: CONCRETE, CURBS, REINFORCING STEEL, JOINT FILLERS, JOINT SEALERS, JOINT SEALS, WATERPROOFING, AND ANY OTHER INCIDENTALS SHOWN ON THE APPROACH SLAB DETAIL SHEETS. THE DEPARTMENT WILL MEASURE APPROACH SLABS BY THE NUMBER OF SQUARE YARDS.

FILL UNDER APPROACH SLABS

ITEM 203 - TYPE B, GRANULAR EMBANKMENT MATERIAL SHALL BE USED TO BRING THE SUBBASE TO GRADE FOR THE NEW APPROACH SLABS AS DETAILED ON THE APPROACH SLAB AND MSE WALL DETAIL SHEETS AND SHALL EXTEND AT LEAST 1'-6" ON BOTH SIDES OF EACH APPROACH SLAB.

BRIDGE SEAT ELEVATIONS

BRIDGE SEAT ELEVATIONS HAVE BEEN ADJUSTED UPWARD 0.0721 INCHES AT THE REAR ABUTMENT, 0.0662 INCHES AT THE FORWARD ABUTMENT, 0.0893 INCHES AT THE PIER TO COMPENSATE FOR THE VERTICAL DEFORMATION OF THE BEARINGS

WELD ATTACHMENT

WELD ATTACHMENT OF SUPPORTS FOR CONCRETE DECK FINISHING MACHINE TO AREAS OF THE FASCIA STRINGER FLANGES DESIGNATED "COMPRESSION". DO NOT WELD ATTACHMENTS TO AREAS DESIGNATED "TENSION". FILLET WELDS TO COMPRESSION FLANGES SHALL BE AT LEAST 1" FROM EDGE OF FLANGE, BE NO MORE THAN 2" LONG, AND BE AT LEAST 1/4" FOR THICKNESSES UP TO 3/4" OR 5/16" FOR GREATER THAN 3/4" THICK.

STEEL NOTCH TOUGHNESS REQUIREMENT (CHARPY V-NOTCH)

CVN: WHERE A SHAPE OR PLATE IS DESIGNATED (CVN), FURNISH MATERIAL THAT MEETS THE MINIMUM NOTCH TOUGHNESS REQUIREMENTS AS SPECIFIED IN 711.01

HIGH STRENGTH BOLTS

HIGH STRENGTH BOLTS SHALL BE 1 1/8" DIAMETER A325, TYPE I.

DECK PLACEMENT DESIGN ASSUMPTIONS:

DECK PLACEMENT DESIGN ASSUMPTIONS: THE FOLLOWING ASSUMPTIONS OF CONSTRUCTION MEANS AND METHODS WERE MADE FOR THE ANALYSIS AND DESIGN OF THE SUPERSTRUCTURE. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN OF THE FALSEWORK SUPPORT SYSTEM WITHIN THESE PARAMETERS AND WILL ASSUME RESPONSIBILITY FOR SUPERSTRUCTURE ANALYSIS FOR DEVIATION FROM THESE DESIGN ASSUMPTIONS.

AN EIGHT WHEEL FINISHING MACHINE WITH A MAXIMUM WHEEL LOAD OF 1.66 KIPS FOR A TOTAL MACHINE LOAD OF 13.3 KIPS.

A MINIMUM OUT-TO-OUT WHEEL SPACING AT EACH END OF THE MACHINE OF 103".

A MAXIMUM SPACING OF OVERHANG FALSEWORK BRACKETS OF 48 IN.

A MAXIMUM DISTANCE FROM THE CENTERLINE OF THE FASCIA GIRDER TO THE FACE OF THE SAFETY HANDRAIL OF 65".

PAINTING OF STRUCTURAL STEEL

ALL STRUCTURAL STEEL SHALL BE PAINTED IN ACCORDANCE WITH SECTION 514 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS.

THE FINISH COAT COLOR SHALL BE BROWN FS-595B-10324.

ELASTOMERIC BEARINGS

ELASTOMERIC BEARINGS: THE ELASTOMER SHALL HAVE A HARDNESS OF 50 DUROMETER. THE BEARINGS WERE DESIGNED IN ACCORDANCE WITH SECTION 14.7.5 (METHOD A) OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS. PERFORM THE LONG-TERM COMPRESSION PROOF LOAD TEST IN ACCORDANCE WITH THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, DIVISION II, SECTION 18.7.2.6 AND 18.7.4.5.

ITEM 625 - STRUCTURE GROUNDING SYSTEM

IN ORDER TO PROPERLY GROUND THIS STRUCTURE, A QUANTITY OF 1 EACH - STRUCTURE GROUNDING SYSTEM IS CARRIED IN THE GENERAL SUMMARY.

DECK SLAB CONCRETE QUANTITY

DECK SLAB CONCRETE QUANTITY: THE ESTIMATED QUANTITY OF DECK SLAB CONCRETE IS BASED ON THE CONSTANT DECK SLAB THICKNESS, AS SHOWN, PLUS THE QUANTITY OF CONCRETE THAT FORMS EACH BEAM/GIRDER HAUNCH. THE ESTIMATE ASSUMES A CONSTANT HAUNCH THICKNESS OF 2 INCHES OVER THE MIDDLE BEAM SECTIONS, 2.83 INCHES OVER THE REAR BEAM SECTIONS, AND 2.91 INCHES OVER THE FORWARD BEAM SECTIONS AND A CONSTANT HAUNCH WIDTH OUTSIDE THE EDGE OF EACH BEAM FLANGE OF 9 INCHES. DEVIATE FROM THIS HAUNCH THICKNESS AS NECESSARY TO PLACE THE DECK SURFACE AT THE FINISHED GRADE. THE ALLOWABLE TOLERANCE FOR THE HAUNCH WIDTH OUTSIDE THE EDGE OF EACH BEAM/GIRDER FLANGE IS +/- 3 INCHES.

THE HAUNCH THICKNESS WAS MEASURED AT THE CENTERLINE OF THE BEAM, FROM THE SURFACE OF THE DECK TO THE BOTTOM OF THE TOP FLANGE MINUS THE DECK SLAB THICKNESS. THE AREA OF ALL EMBEDDED STEEL PLATES HAS BEEN DEDUCTED FROM THE HAUNCH QUANTITY IN ACCORDANCE WITH 511.24.

ABUTMENT DIAPHRAGM CONCRETE

PLACE THE DIAPHRAGM CONCRETE ENCASING THE STRUCTURAL MEMBER ENDS WITH THE DECK CONCRETE OR AT LEAST 48 HOURS BEFORE PLACEMENT OF THE DECK CONCRETE. IF PLACED SEPARATELY, LOCATE THE HORIZONTAL CONSTRUCTION JOINT BETWEEN THE DIAPHRAGM AND DECK CONCRETE AT THE APPROACH SLAB SEAT.

ITEM 653 - TOPSOIL FURNISHED AND PLACED

PLACE THIS ITEM AS SHOWN ON THE SITE PLAN (SHEET 1/56)
 REAR LEFT = 50' X 45.00' AVG. WIDTH ÷ 9 = 2550.26 S.Y.
 REAR RIGHT = 50' X 43.85' AVG. WIDTH ÷ 9 = 2712.17 S.Y.
 FORWARD LEFT = 50' X 39.65' AVG. WIDTH ÷ 9 = 3473.94 S.Y.
 FORWARD RIGHT = 50' X 44.97' AVG. WIDTH ÷ 9 = 3786.90 S.Y.

GRAND TOTAL = 1,043.8 S.Y. X (2' THICK X (1 YD / 3 FT)) = 696 C.Y.

ITEM 659 - SEEDING AND MULCHING, CLASS 3C

PLACE THIS ITEM AS SHOWN ON THE SITE PLAN (SHEET 1/56)
 REAR LEFT = 50' X 45.00' AVG. WIDTH ÷ 9 = 2550.26 S.Y.
 REAR RIGHT = 50' X 43.85' AVG. WIDTH ÷ 9 = 2712.17 S.Y.
 FORWARD LEFT = 50' X 39.65' AVG. WIDTH ÷ 9 = 3473.94 S.Y.
 FORWARD RIGHT = 50' X 44.97' AVG. WIDTH ÷ 9 = 3786.90 S.Y.

GRAND TOTAL = 1,043.8 S.Y.= 1,044 SQ YD

ITEM 671 - EROSION CONTROL MAT, TYPE A

PLACE THIS ITEM AS SHOWN ON THE SITE PLAN (SHEET 1/56)
 REAR LEFT = 50' X 45.00' AVG. WIDTH ÷ 9 = 2550.26 S.Y.
 REAR RIGHT = 50' X 43.85' AVG. WIDTH ÷ 9 = 2712.17 S.Y.
 FORWARD LEFT = 50' X 39.65' AVG. WIDTH ÷ 9 = 3473.94 S.Y.
 FORWARD RIGHT = 50' X 44.97' AVG. WIDTH ÷ 9 = 3786.90 S.Y.

GRAND TOTAL = 1,043.8 S.Y.= 1,044 SQ YD

DESIGN AGENCY		OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5	
DESIGNED	DRAWN	REVIEWED	DATE
JDR	JDR	TAG	3-1-2015
CPS	REVISED	STRUCTURE FILE NUMBER	4500830
BRIDGE NOTES			
BRIDGE NO. LIC-16-1718			
CHERRY VALLEY ROAD OVER S.R. 16			
LIC-16-16.64			
4 / 56			
636			
729			

P:\LIC\80704\Design\bridge\SFN - Route Name\Plan Sheets\L80704 - BNS_001.dgn (SCALE = 1,000)

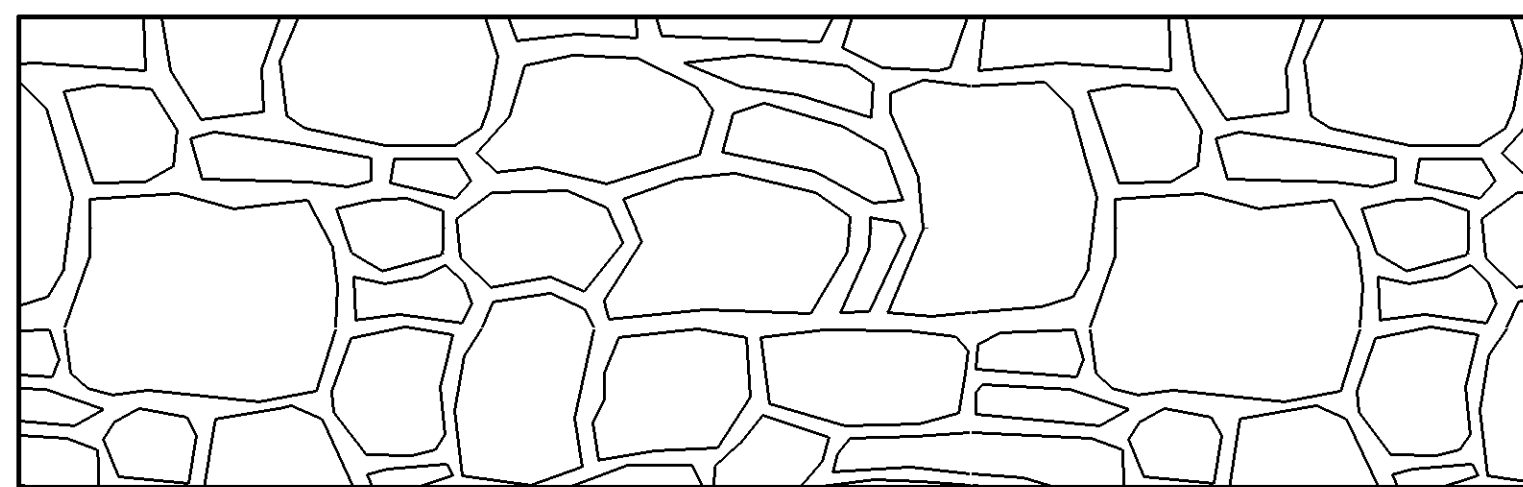
ITEM 511 - CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET), AS PER PLAN & ITEM 511 - CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT (INCLUDING FOOTING), AS PER PLAN

THE SURFACE FINISH SHALL BE ONE OF THE PATTERNS DESCRIBED BELOW IN THE ARCHITECTURAL SURFACE ELEVATION AND TABLE FROM AN APPROVED COMPANY MEETING THE DETAILS SHOWN ON THIS PAGE.

STAINING OF THE PATTERNED CONCRETE SURFACES SHALL BE DONE PRIOR TO APPLICATION OF ITEM 512 - SEALING OF CONCRETE SURFACES (NON-EPOXY). THE STAIN COLORED CONCRETE, USING LITHOCHROME TINTURA STAIN, SHALL BE COLOR 2626 LIGHT GRAY AS PROVIDED BY L.M. SCOFIELD COMPANY, DOUGLASVILLE, GEORGIA (800) 800-9900 OR APPROVED EQUAL. THE STAIN SHALL BE APPLIED BY AN EVEN AND CONTROLLED METHOD AS RECOMMENDED BY THE MANUFACTURER AND APPROVED BY THE ENGINEER. THE CONTRACTOR WILL NOT ALLOW OVERSPRAY OR RUNS TO RUIN THE APPEARANCE OF THE ADJACENT CONCRETE, WHICH SHALL REMAIN UNSTAINED.

TWO FULL SCALE, DIFFERENTLY PATTERNED, STAINED AND SEALED, PRECONSTRUCTION TEST PANELS SHALL BE PROVIDED FOR APPROVAL BY THE DIRECTOR. IF THE TEST PANELS DO NOT MEET THE APPROVAL OF THE DIRECTOR, THE RESULTS MAY BE GROUNDS TO REJECT THE PROPOSED PANEL SURFACE CHOSEN. THE TEST PANELS WILL BE PROVIDED REPEATEDLY, AS NECESSARY, UNTIL APPROVAL IS GRANTED. FIVE FEET BY FIVE FEET TEST PANELS SHALL BE PROVIDED. THE MOCK-UPS SHALL HAVE THE SAME ARCHITECTURAL RELIEF, THICKNESS, PATTERN, AND COLOR/SEALANT INTENDED TO BE USED ON THE PROJECT. THE PANELS SHALL BE OF THE SAME CEMENT, AGGREGATE SOURCE, AND CONCRETE SEALANT THAT WILL BE USED TO CONSTRUCT THE PROJECT. AFTER APPROVAL THE CONCRETE TEST PANELS SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR.

ALL AESTHETIC TREATMENT INCLUDING THE CONCRETE, SURFACE FINISH, STAIN, TEST PANELS, AND ALL OTHER MATERIALS REQUIRED TO COMPLETE THIS WORK SHALL BE INCLUDED WITH THE ITEMIZED PAYMENT FOR ITEM 511 - CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET), AS PER PLAN & ITEM 511 - CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT (INCLUDING FOOTING), AS PER PLAN



ARCHITECTURAL SURFACE - ELEVATION

THE FOLLOWING SHALL BE USED:

COMPANY NAME:	PANEL SURFACE TREATMENT:	SPECIFICATIONS:
CUSTOM ROCK INTERNATIONAL	NEW ENGLAND DRYSTACK # 12003	MAX RELIEF 1 3/8" LINER THICKNESS 2 1/4" STONE SIZE 3" TO 24"
SPEC FORMLINERS, INC.	WASHINGTON DRYSTACK # 1581	MAX RELIEF 1 1/2" LINER THICKNESS 2 5/8" STONE SIZE 4" TO 24"
APPROVED EQUAL	APPROVED EQUAL	APPROVED EQUAL

CONSTRUCTION SEQUENCE

SEE GENERAL NOTES FOR MAINTENANCE OF TRAFFIC NOTES AND MAINTENANCE OF TRAFFIC DETAIL SHEETS TO PLAN SEQUENCE OF OPERATIONS.

SURFACE SMOOTHNESS FOR BRIDGES AND APPROACHES

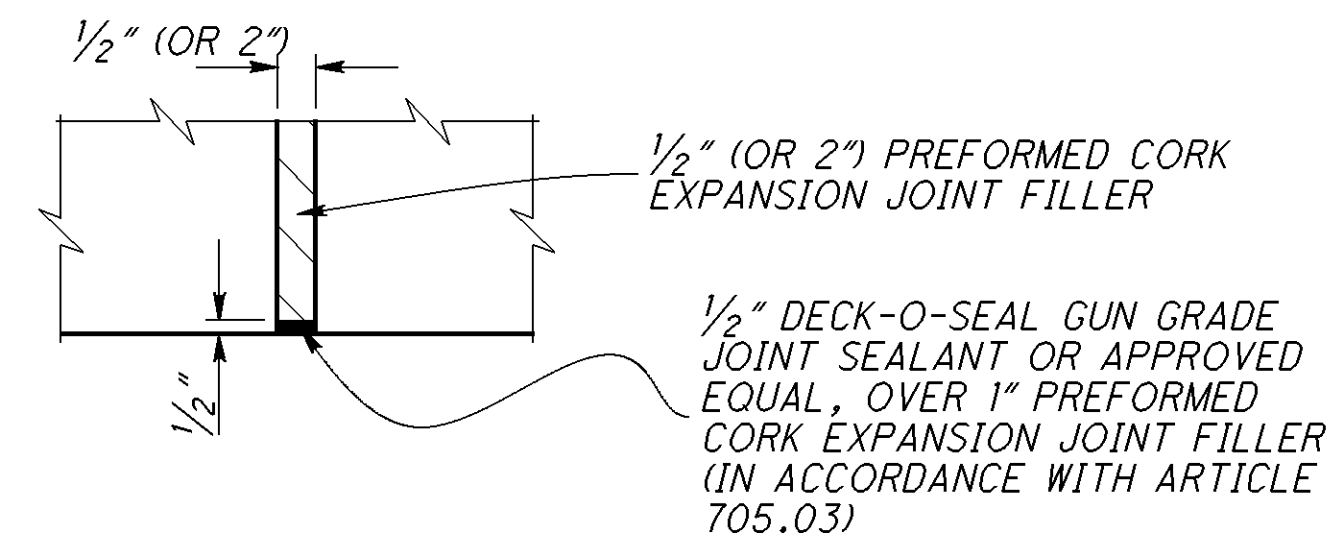
AT THE COMPLETION OF WORK FOR ALL PHASES OF CONSTRUCTION AND PRIOR TO OPENING THE BRIDGE TO TRAFFIC, THE CONTRACTOR SHALL PERFORM THE FOLLOWING AS PER PROPOSAL NOTE 555:

1. CLEAN, SWEEP, AND PREPARE THE FINAL DECK AND FINAL ROADWAY SURFACE.
2. MEASURE, GRIND, AND RE-MEASURE THE BRIDGE AND/OR ROADWAY AS NECESSARY.
3. GROOVING OF THE BRIDGE DECK.

ITEM 516 - 1/2" (OR 2") PREFORMED EXPANSION JOINT FILLER, AS PER PLAN

ALL 1/2" (OR 2") P.E.J.F. CALLED FOR IN THE PLANS SHALL BE PREFORMED CORK JOINT FILLER (IN ACCORDANCE WITH ARTICLE 705.03). RECESS JOINT FILLER 1/2" FOR ALL JOINTS (SEE DETAIL). SEAL ALL JOINTS THAT ARE ABOVE GRADE WITH DECK-O-SEAL GUN GRADE-JOINT SEALANT OR AN APPROVED EQUAL. THE COLOR SHALL BE STONE GRAY. APPROVED MANUFACTURER'S APPLICATION METHODS SHALL BE FOLLOWED DURING SURFACE PREPARATION AND APPLICATION FOR MAXIMUM EFFECTIVENESS.

DECK-O-SEAL
P.O. BOX 397
HAMPSHIRE, IL 60140
PHONE: 800-542-7665



PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 516 - 1/2" (OR 2") PEJF, A.P.P., SQ.FT., AND SHALL INCLUDE ALL LABOR, EQUIPMENT, AND INCIDENTALS REQUIRED TO COMPLETE THE WORK DESCRIBED.

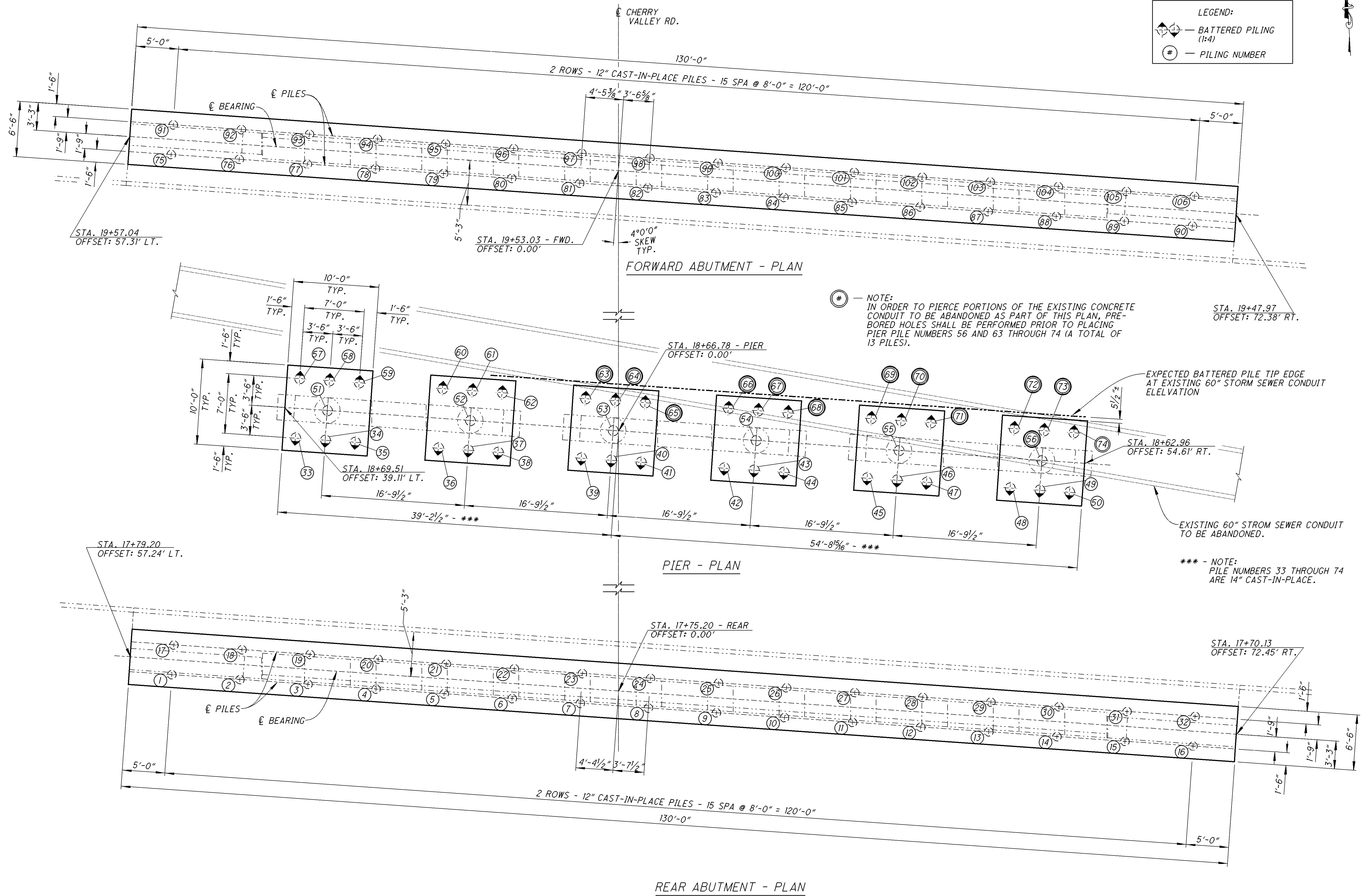
DESIGNED	JDR	CHECKED	CPS
DRAWN	JDR	REVISED	
REVIEWED	TAG	STRUCTURE FILE NUMBER	4500830
DATE	3-1-2015		
DESIGN AGENCY	OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5		
BRIDGE NOTES BRIDGE NO. LIC-16-1718 CHERRY VALLEY ROAD OVER S.R. 16			
LIC-16-16.64			
5 / 56			
637 729			

P:\LIC\80704\Design\bridge_sfn - Route Name\Plan Sheets\L80704_BNS_001.dgn (SCALE = 1:000)

PLAN SPLIT CODE		ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SUPER.	ABUT.	PIER	GENERAL	SEE SHEET NUMBER
03/NHS/BR/	04/ENH/OT/NEWA										
EROSION CONTROL											
		653	10000	696	CU YD	TOPSOIL FURNISHED AND PLACED ** - CARRIED TO SHEET 473/729				696	
		659	00540	1,044	SQ YD	SEEDING AND MULCHING, CLASS 3C ** - CARRIED TO SHEET 473/729				1,044	
		671	15000	1,044	SQ YD	EROSION CONTROL MAT, TYPE A ** - CARRIED TO SHEET 473/729				1,044	
LIGHTING											
		625	33000	1	EACH	STRUCTURE GROUNDING SYSTEM ** - CARRIED TO SHEET 616/729				1	
STRUCTURES 20 FOOT SPAN AND OVER (BRIDGE NO. LIC-16-1718)											
LUMP	LUMP	503	21300	LUMP		UNCLASSIFIED EXCAVATION					
LUMP	LUMP	505	11100	LUMP		PILE DRIVING EQUIPMENT MOBILIZATION					
2,969	551	507	00500	3,520	FT	12" CAST-IN-PLACE REINFORCED CONCRETE PILES, DRIVEN		3,520			
3,239	601	507	00550	3,840	FT	12" CAST-IN-PLACE REINFORCED CONCRETE PILES, FURNISHED		3,840			
1,594	296	507	00600	1,890	FT	14" CAST-IN-PLACE REINFORCED CONCRETE PILES, DRIVEN			1,890		
1,771	329	507	00650	2,100	FT	14" CAST-IN-PLACE REINFORCED CONCRETE PILES, FURNISHED			2,100		
88	16	507	92201	104	FT	PREBORED HOLES, AS PER PLAN			104		4/56
193,405	35,902	509	10000	229,307	POUND	EPOXY COATED REINFORCING STEEL	173,046	15,736	40,525		
511	95	511	34446	606	CU YD	CLASS QC2 CONCRETE WITH QC/OA, BRIDGE DECK	606				
70	48	511	34451	118	CU YD	CLASS QC2 CONCRETE WITH QC/OA, BRIDGE DECK (PARAPET), AS PER PLAN	118				5/56
60	11	511	41012	71	CU YD	CLASS QC1 CONCRETE WITH QC/OA, PIER ABOVE FOOTINGS			71		
218	40	511	43513	258	CU YD	CLASS QC1 CONCRETE WITH QC/OA, ABUTMENT INCLUDING FOOTING, AS PER PLAN		258			5/56
66	12	511	46512	78	CU YD	CLASS QC1 CONCRETE WITH QC/OA, FOOTING			78		
1,289	239	512	10050	1,528	SQ YD	SEALING OF CONCRETE SURFACES (NON-EPOXY)	1,044	103	215	166	
130	24	512	33000	154	SQ YD	TYPE 2 WATERPROOFING		154			
LUMP	LUMP	513	10040	LUMP		STRUCTURAL STEEL MEMBERS, LEVEL 2					
4,534	842	513	20000	5,376	EACH	WELDED STUD SHEAR CONNECTORS	5,376				
19,278	3,578	514	00060	22,856	SQ FT	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT	22,856				
19,278	3,578	514	00066	22,856	SQ FT	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT	22,856				
18	3	514	10000	21	EACH	FINAL INSPECTION REPAIR	21				
23	4	516	13201	27	SQ FT	1/2" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN	27				5/56
73	14	516	13901	87	SQ FT	2" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN	9	78			5/56
180	33	516	14020	213	FT	SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL		213			
164	30	516	14600	194	FT	STRUCTURAL JOINT OR JOINT SEALER, MISC.: JEENE SEAL WITH SLEEPER SLAB				194	49/56
20	4	516	44300	24	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (1'-6" x 1'-2" x 4.1479")	24				
10	2	516	44300	12	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (1'-9" x 1'-8" x 4.1479")	12				
105	20	518	21200	125	CU YD	POROUS BACKFILL WITH FILTER FABRIC		125			
3		523	20000	3	EACH	DYNAMIC LOAD TESTING		2	1		
557	103	526	30011	660	SQ YD	REINFORCED CONCRETE APPROACH SLABS WITH QC/OA (T=17"), AS PER PLAN				660	4/56
	238	SPECIAL	607E40000	238	FT	VANDAL PROTECTION FENCE (DECORATIVE)	238				38/56-44/56
1,015	189	203	35110	1,204	CU YD	GRANULAR MATERIAL, TYPE B		1,204			
228	42	203	35120	270	CU YD	GRANULAR MATERIAL, TYPE C		270			
6,230	1,157	840	20001	7,387	SQ FT	MECHANICALLY STABILIZED EARTH WALL, AS PER PLAN		7,387			50/56-56/56
1,015	188	840	21000	1,203	CU YD	WALL EXCAVATION		1,203			
681	127	840	22000	808	SQ YD	FOUNDATION PREPARATION		808			
3,068	570	840	23000	3,638	CU YD	SELECT GRANULAR BACKFILL		3,638			
755	140	840	25010	895	FT	6" DRAINAGE PIPE, PERFORATED		895			
63	12	840	25020	75	FT	6" DRAINAGE PIPE, NON-PERFORATED		75			
399	74	840	26001	473	FT	CONCRETE COPING, AS PER PLAN		473			54/56
	7,387	840	26050	7,387	SQ FT	AESTHETIC SURFACE TREATMENT		7,387			
4	1	840	27000	5	DAY	ON-SITE ASSISTANCE		5			

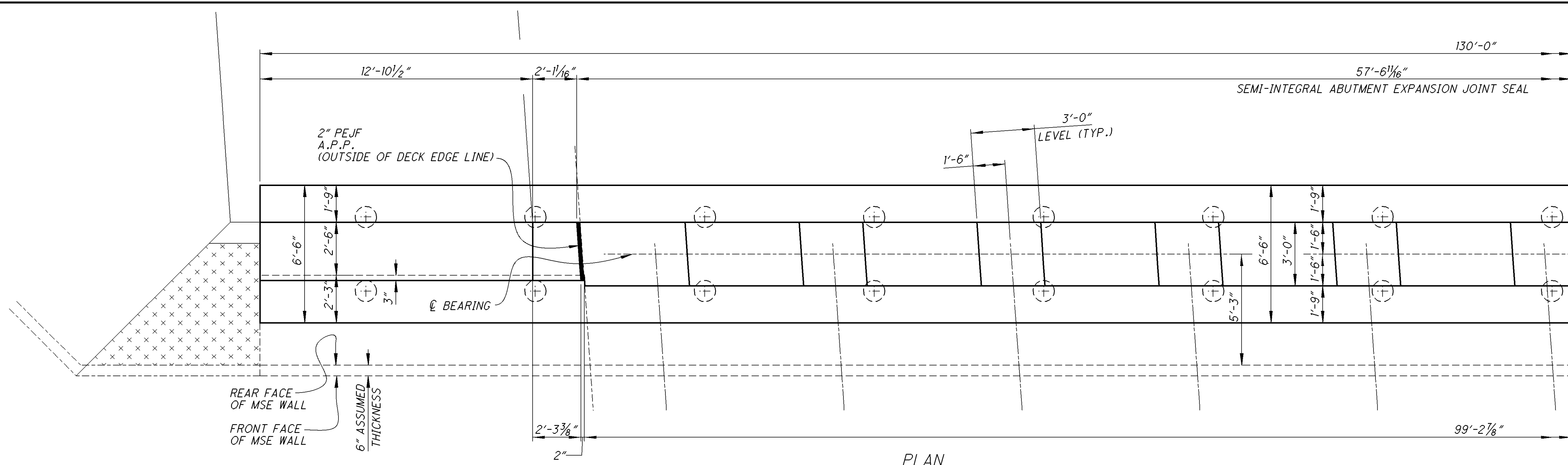
DESIGN AGENCY OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5
DATE 3-1-2015
REVIEWED TAG JDR STRUCTURE FILE NUMBER 4500830
DRAWN JDR REVISIONS
DESIGNED JDR CHECKED CPS
BRIDGE SUMMARY BRIDGE NO. LIC-16-1718 CHERRY VALLEY ROAD OVER S.R. 16
LIC-16-16.64
6 / 56
638 729

P:\LIC\80704\Design\bridge\SFN - Route Name\Plan Sheets\L80704_BPL_001.dgn (SCALE = 5.000)

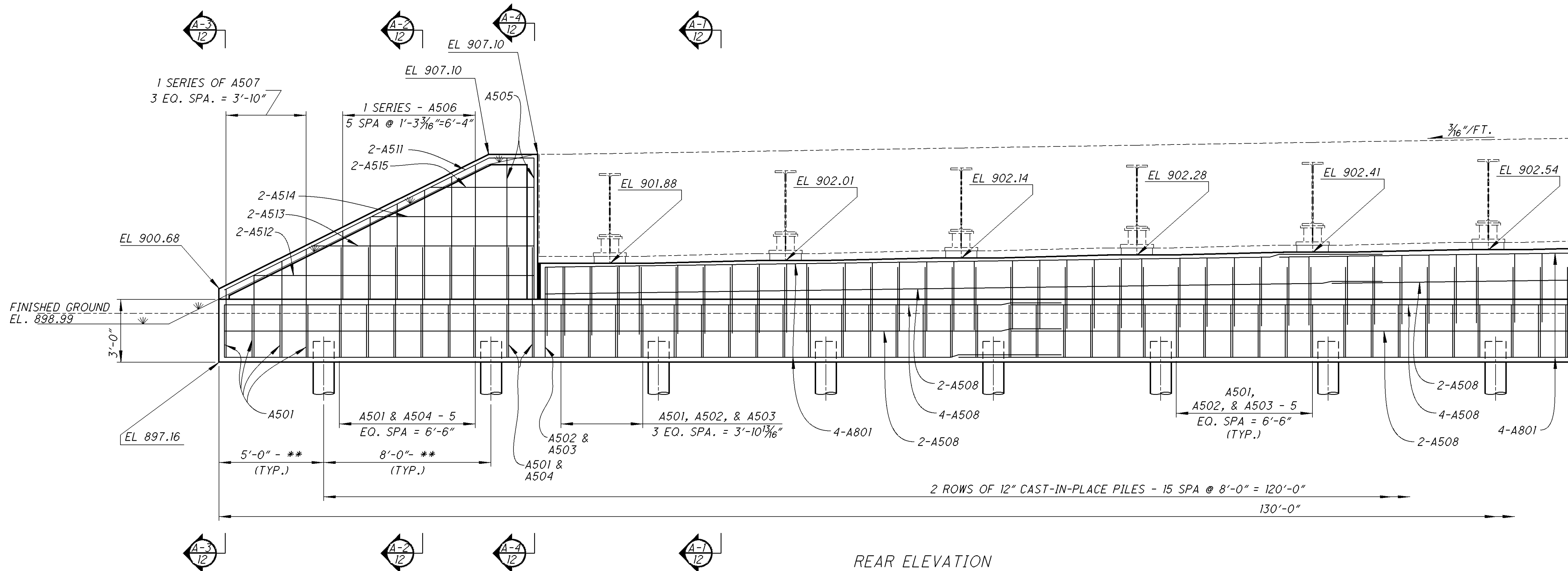


DESIGN AGENCY	OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5
DATE	3-1-2015
REVIEWED TAG	JDR
STRUCTURE FILE NUMBER	4500830
DRAWN	JDR
DESIGNED	JDR
CHECKED	CPS
PROJECT	PILING LAYOUT
BRIDGE NO.	LIC-16-1718
LOCATION	CHERRY VALLEY ROAD OVER S.R. 16
PROJECT NO.	LIC-16-16.64
PAGE	7 / 56
REVISED	639
	729

P:\LIC\80704\Design\bridge\SFN - Route Name\Plan Sheets\L80704 - General\80704 - BPA_001.DGN (SCALE=2.667)



PLAN



REAR ELEVATION
(RIGHT HALF)

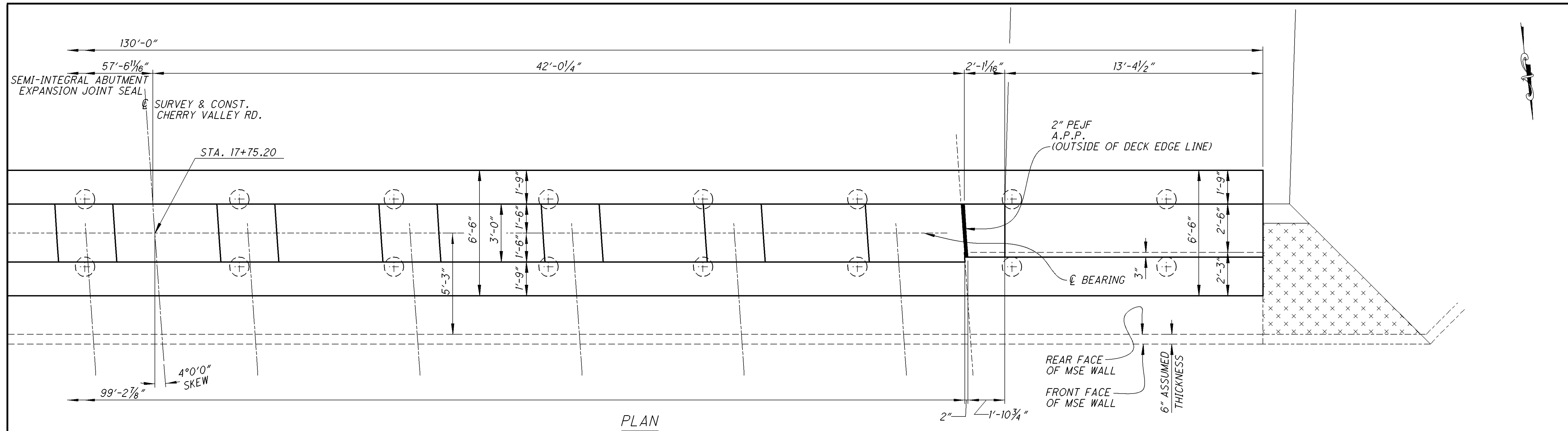
- LEVEL SEEDING

NO. 5 BAR LAP = 2'-5"
NO. 8 BAR LAP = 4'-11"

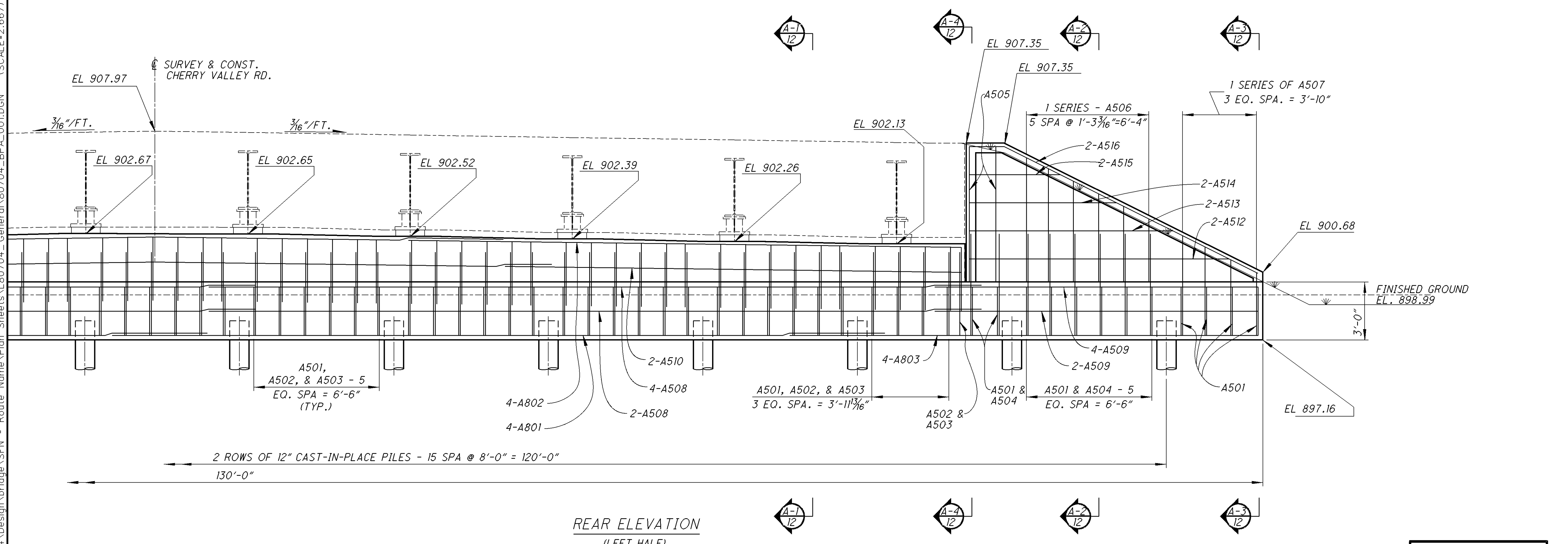
** - SEE SHEET 7/56 FOR PILING LAYOUT AND NUMBERING

DESIGN AGENCY OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5
DATE 3-1-2015
REVIEWED TAG JDR
STRUCTURE FILE NUMBER 4500830
DRAWN JDR
DESIGNED JDR
CHECKED CPS
PROPOSED ABUTMENT DETAILS (REAR) BRIDGE NO. LIC-16-1718 CHERRY VALLEY ROAD OVER S.R. 16
LIC-16-16.64
8 / 56
640 729

P:\LIC\80704\Design\bridge\SFN - Route Name\Plan Sheets\180704 - General\80704_BPA_001.DGN (SCALE=2.667)



PLAN



REAR ELEVATION
(LEFT HALF)

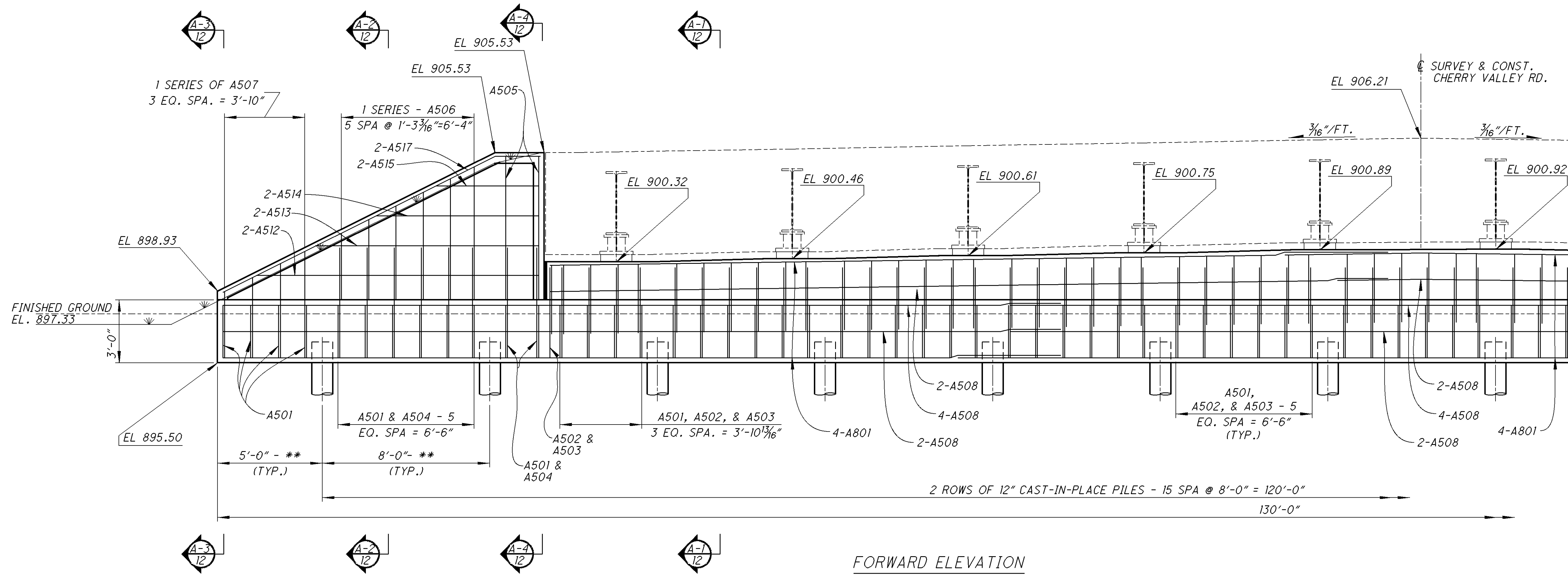
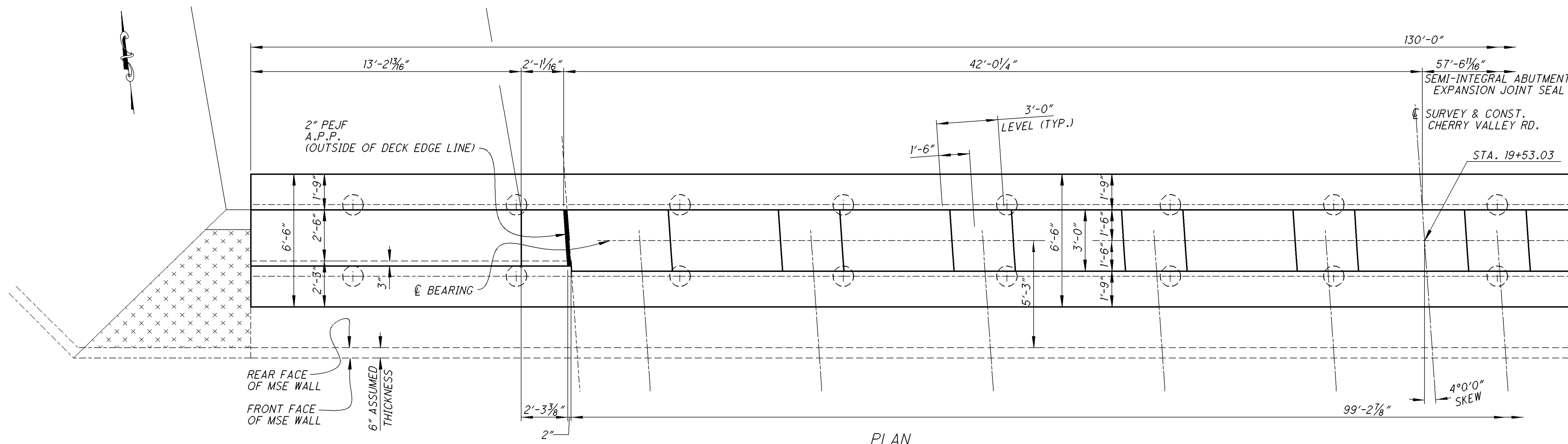
- LEVEL SEEDING

NO. 5 BAR LAP = 2'-5"
NO. 8 BAR LAP = 4'-11"

** - SEE SHEET 7/56 FOR PILING LAYOUT AND NUMBERING

DESIGN AGENCY	OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5
DATE	3-1-2015
REVIEWED TAG	JDR
STRUCTURE FILE NUMBER	4500830
DRAWN	JDR
DESIGNED	JDR
CHECKED	CPS
PROPOSED ABUTMENT DETAILS (REAR)	
BRIDGE NO. LIC-16-1718 CHERRY VALLEY ROAD OVER S.R. 16	
LIC-16-16.64	
9 / 56	641
	729

P:\LIC\80704\Design\bridge\SFN - Route Name\Plan Sheets\L80704_General\80704_BPA_001.DGN (SCALE=2.667)



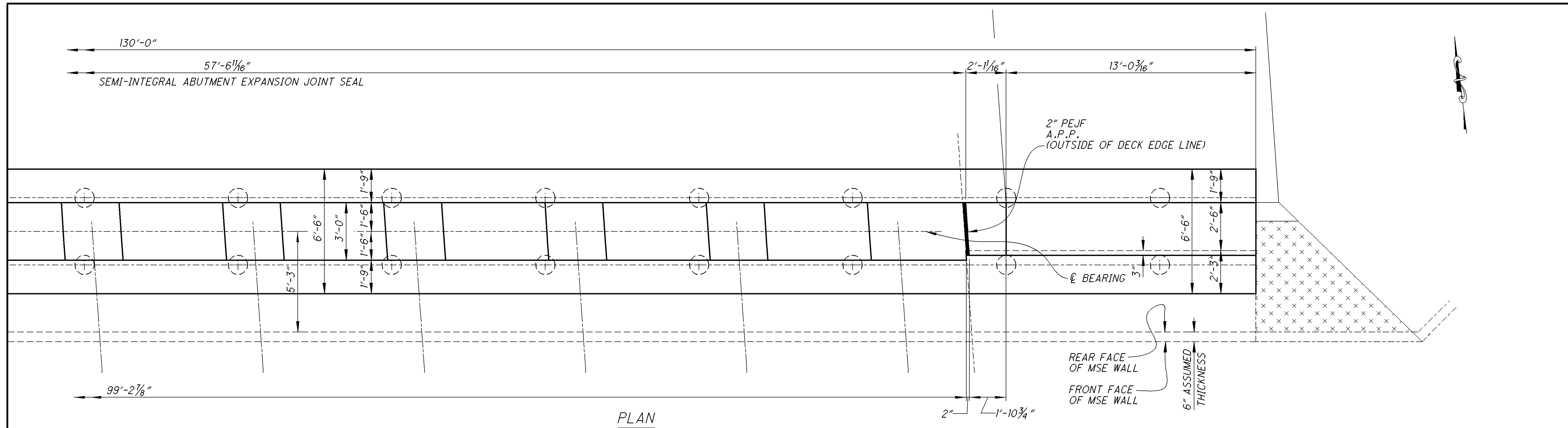
LEVEL SEEDING

NO. 5 BAR LAP = 2'-5"
NO. 8 BAR LAP = 4'-11"

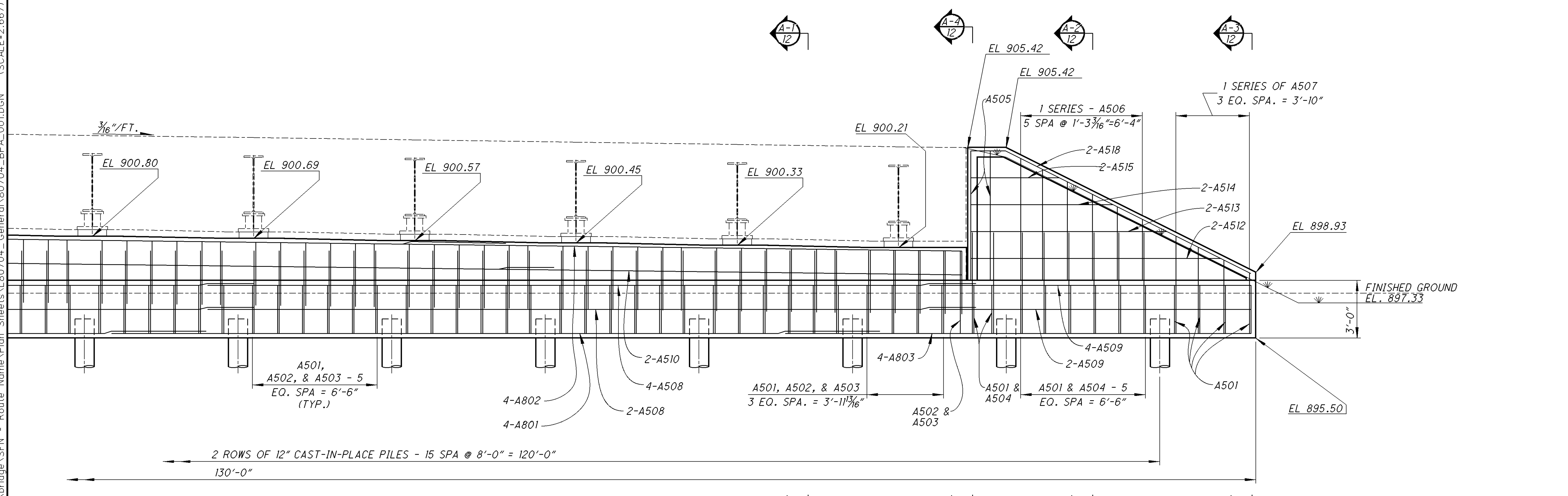
** - SEE SHEET 7/56 FOR PILING LAYOUT AND NUMBERING

DESIGN AGENCY OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5
DATE 3-1-2015
REVIEWED TAG JDR
STRUCTURE FILE NUMBER 4500830
DESIGNED JDR
CHECKED CPS
PROPOSED ABUTMENT DETAILS (FORWARD) BRIDGE NO. LIC-16-1718 CHERRY VALLEY ROAD OVER S.R. 16
LIC-16-16.64
10 / 56
642
729

P:\LIC\80704\Design\bridge\SFN - Route Name\Plan Sheets\L80704 - General\80704_BPA_001.DGN (SCALE=2.667)



PLAN



FORWARD ELEVATION
(RIGHT HALF)

- LEVEL SEEDING

NO. 5 BAR LAP = 2'-5"
NO. 8 BAR LAP = 4'-11"

** - SEE SHEET 7/56 FOR PILING LAYOUT AND NUMBERING

DESIGNED	JDR	CHECKED	CPS
DRAWN	JDR	REVIEWED	JDR
REVIEWED	TAG	DATE	3-1-2015
STRUCTURE FILE NUMBER	4500830	DESIGN AGENCY	OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5

LIC-16-16.64

BRIDGE NO. LIC-16-1718
CHERRY VALLEY ROAD OVER S.R. 16

11 / 56

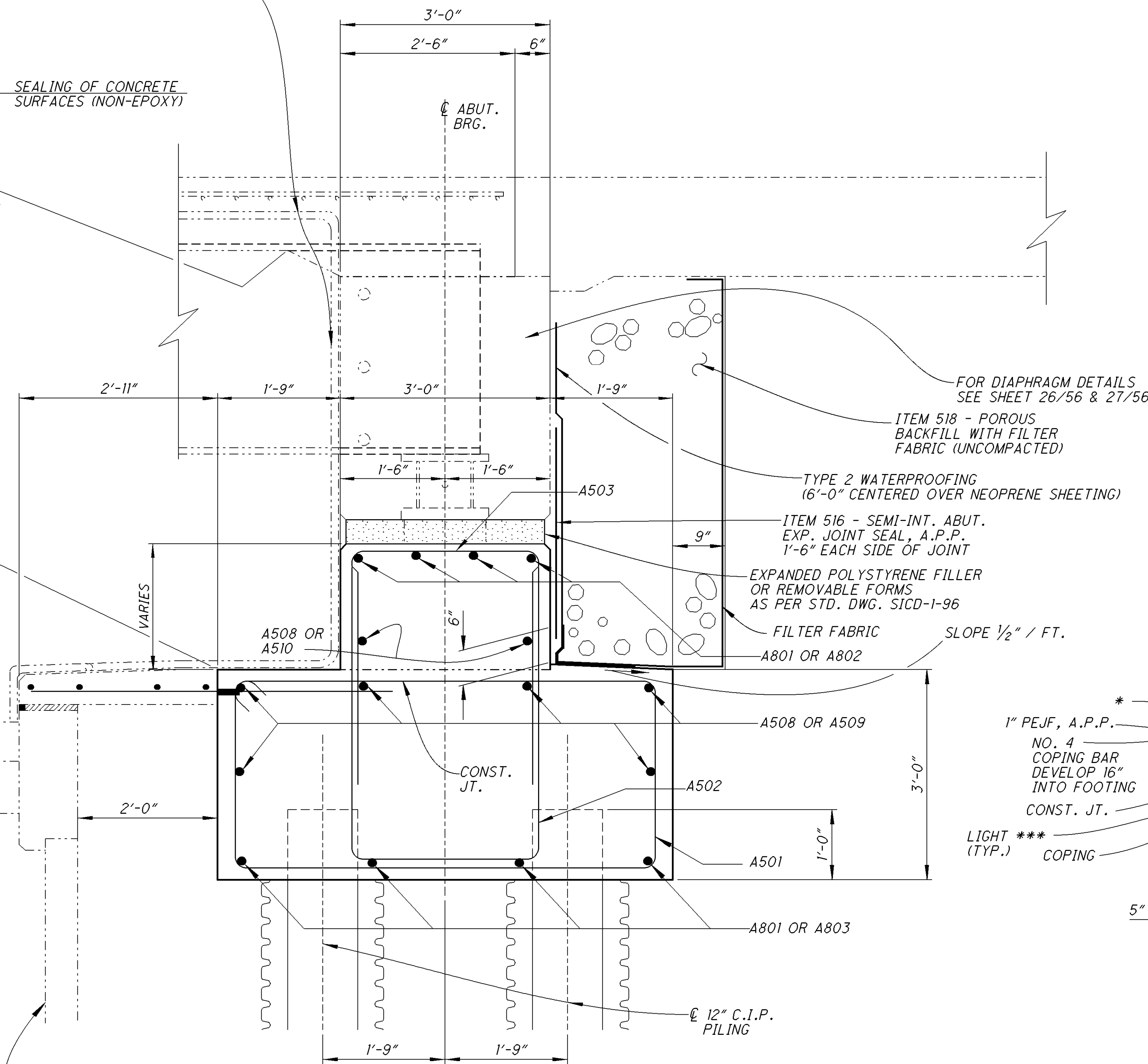
643
729

P:\LIC\80704\Design\bridge\SFN - Route Name\Plan Sheets\L80704_BPA_001.DGN (SCALE = 1.000)

CONDUIT, 1/4" T25.04 ***
DROP FROM DECK RUN
ALONG FACE OF DIAPHRAGM.

FOR ITEM AND QUANTITIES:
*** - SEE LIGHTING PLANS

SEALING OF CONCRETE
SURFACES (NON-EPOXY)



SECTION (A-1)
(BREASTWALL DETAIL)

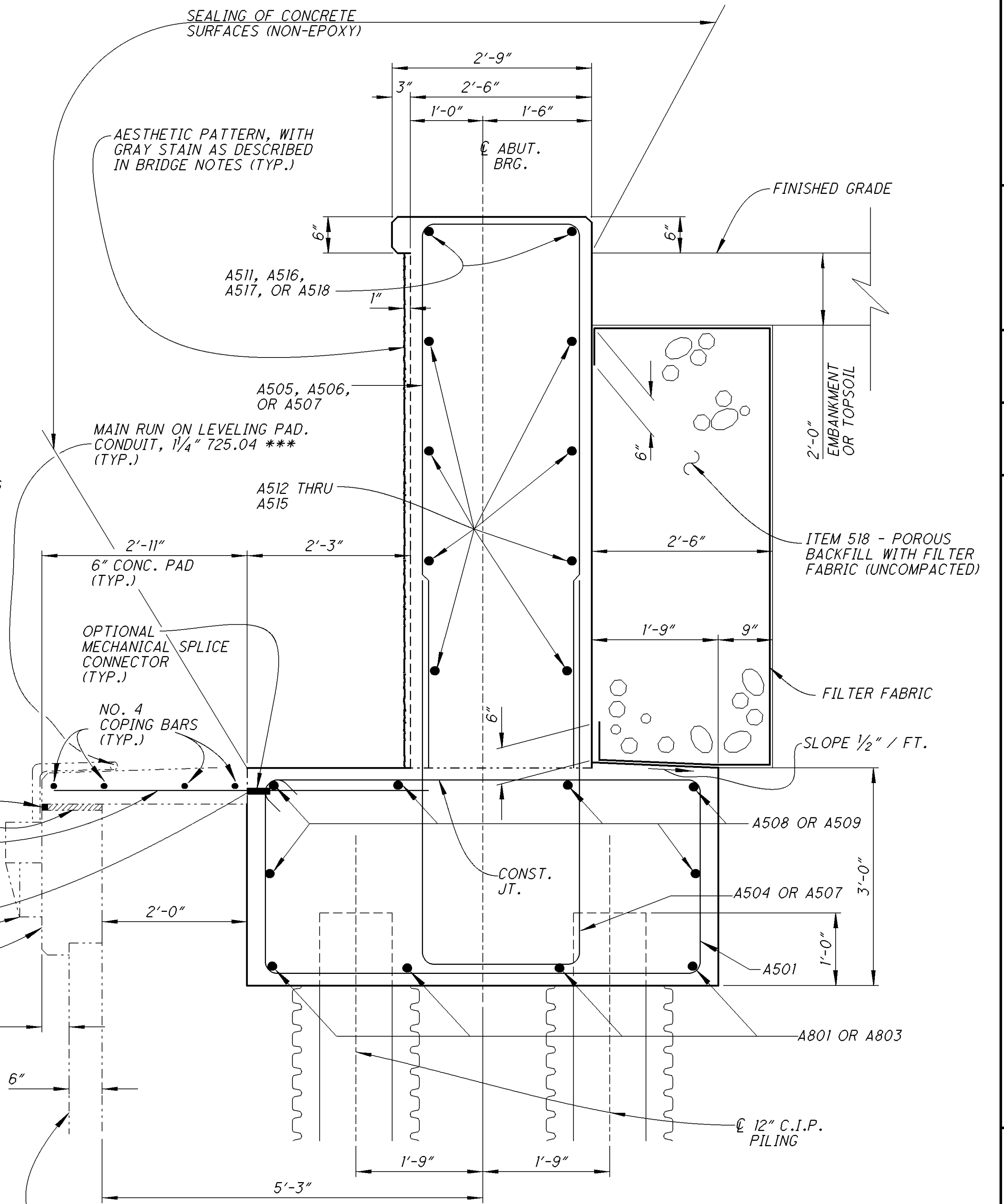
NOTE:
FOR ADDITIONAL CONCRETE
PAD AND COPING BAR DETAILS,
SEE SHEET MSE WALL DETAILS.

NOTE:
CONTRACTOR SHALL DESIGN THE
MECHANICAL ANCHOR STRIPS FOR
THE UNFACTORED LOAD OF 2.0 KIPS
PER FOOT OF WALL. PAYMENT FOR
THE METAL ANCHOR STRIPS SHALL
BE INCIDENTAL TO MSE WALL ITEM.

* - SEALING COMPOUND AND 1" P.E.J.F.
CARRIED WITH COPING FOR PAYMENT.

SEALING OF CONCRETE
SURFACES (NON-EPOXY)

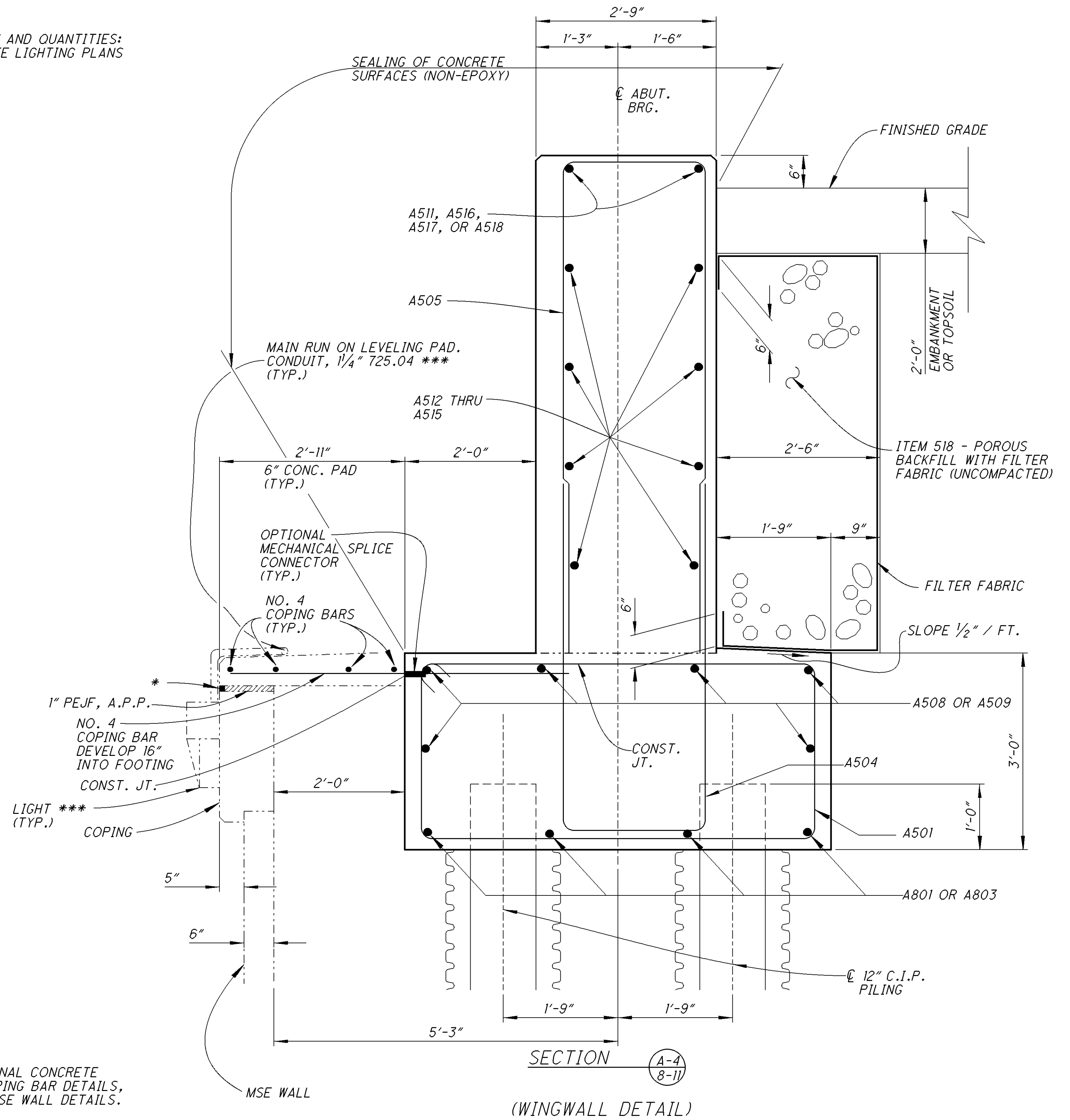
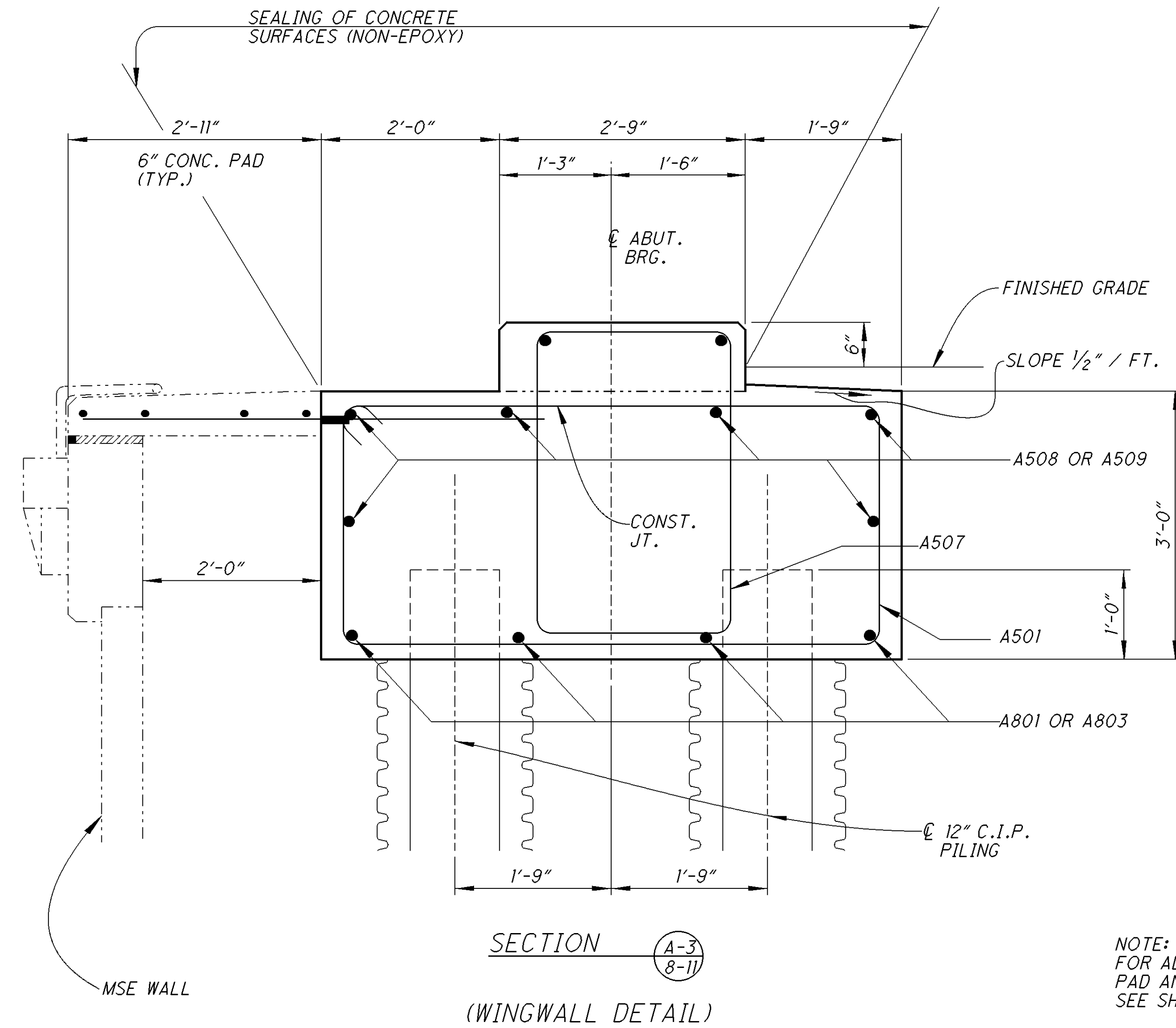
AESTHETIC PATTERN, WITH
GRAY STAIN AS DESCRIBED
IN BRIDGE NOTES (TYP.)



SECTION (A-2)
(WINGWALL DETAIL)

P:\LIC\80704\Design\bridge\SFN - Route Name\Plan Sheets\L80704_BPA_001.DGN (SCALE = 1.000)

FOR ITEM AND QUANTITIES:
*** - SEE LIGHTING PLANS

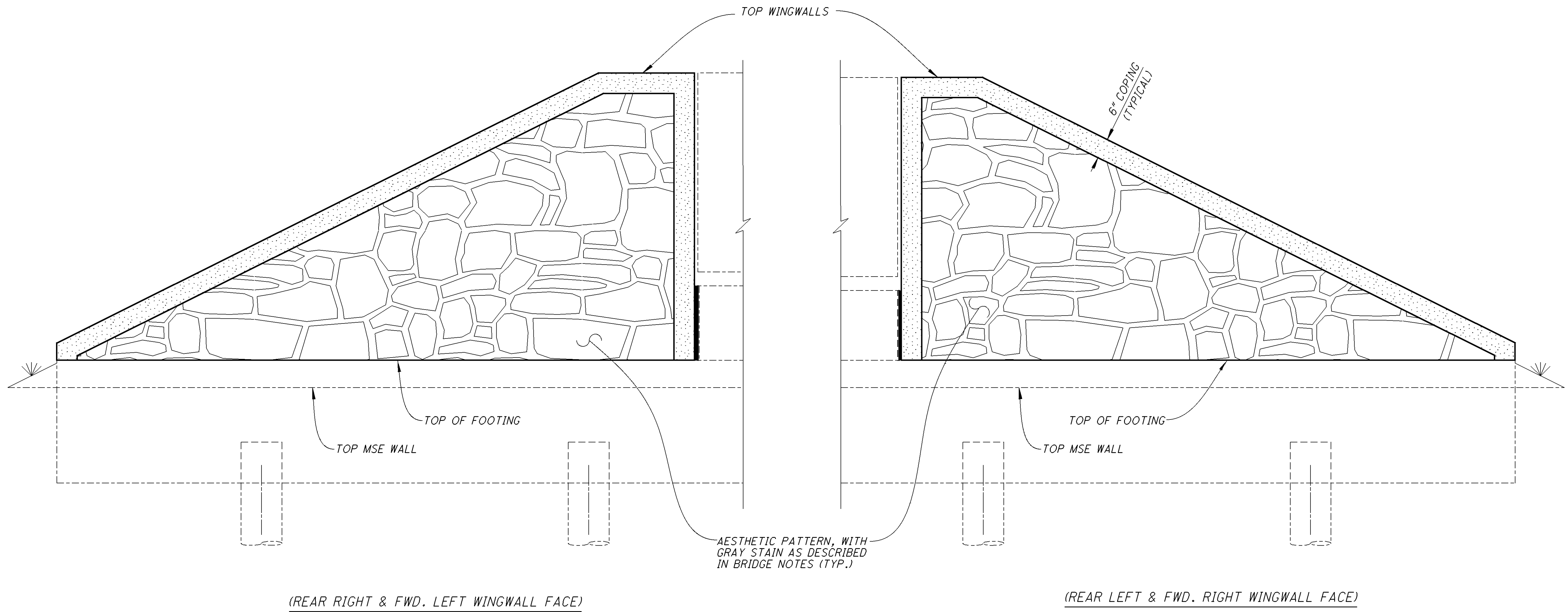


NOTE:
FOR ADDITIONAL CONCRETE
PAD AND COPING BAR DETAILS,
SEE SHEET MSE WALL DETAILS.

NOTE:
CONTRACTOR SHALL DESIGN THE
MECHANICAL ANCHOR STRIPS FOR
THE UNFACTORED LOAD OF 2.0 KIPS
PER FOOT OF WALL. PAYMENT FOR
THE METAL ANCHOR STRIPS SHALL
BE INCIDENTAL TO MSE WALL ITEM.

* - SEALING COMPOUND AND 1" P.E.J.F.
CARRIED WITH COPING FOR PAYMENT.

P:\LIC\80704\Design\bridge\SFN - Route Name\Plan Sheets\L80704_General\80704_BPA_001.DGN (SCALE=1:333)



TYPICAL WINGWALL AESTHETIC TREATMENT

 - FLUSH CONCRETE SURFACES (NO STAIN)

DESIGN AGENCY
OHIO DEPARTMENT OF
TRANSPORTATION, DISTRICT 5

REVIEWED TAG 3-1-2015
STRUCTURE FILE NUMBER 4500830

DRAWN JDR
REVISOR
DESIGNED JDR
CHECKED CPS

PROPOSED ABUTMENT DETAILS
BRIDGE NO. LIC-16-1718
CHERRY VALLEY ROAD OVER S.R. 16

LIC-16-16.64

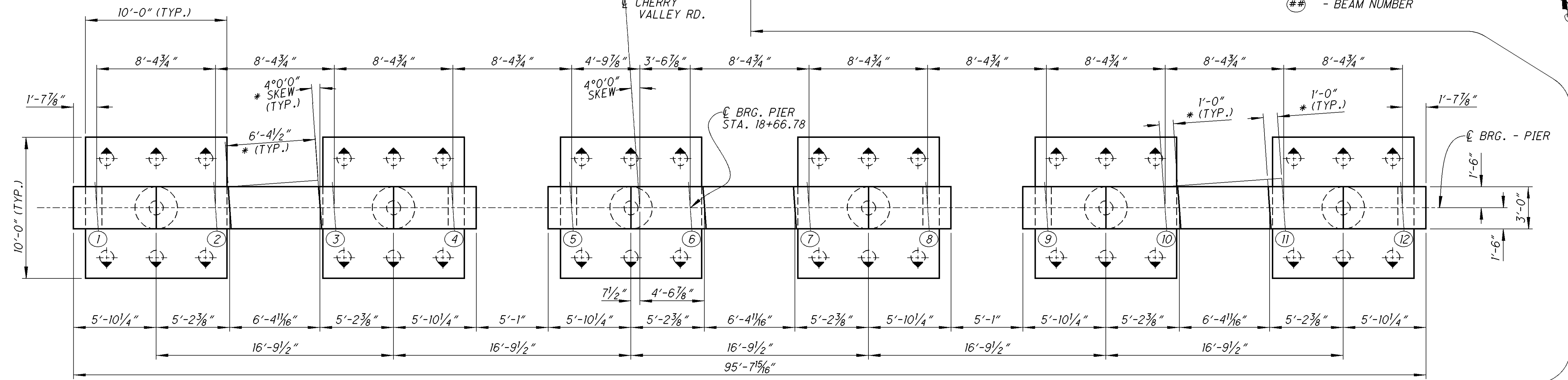
14 / 56

646
729

SEALING OF CONCRETE SURFACES (NON-EPOXY)

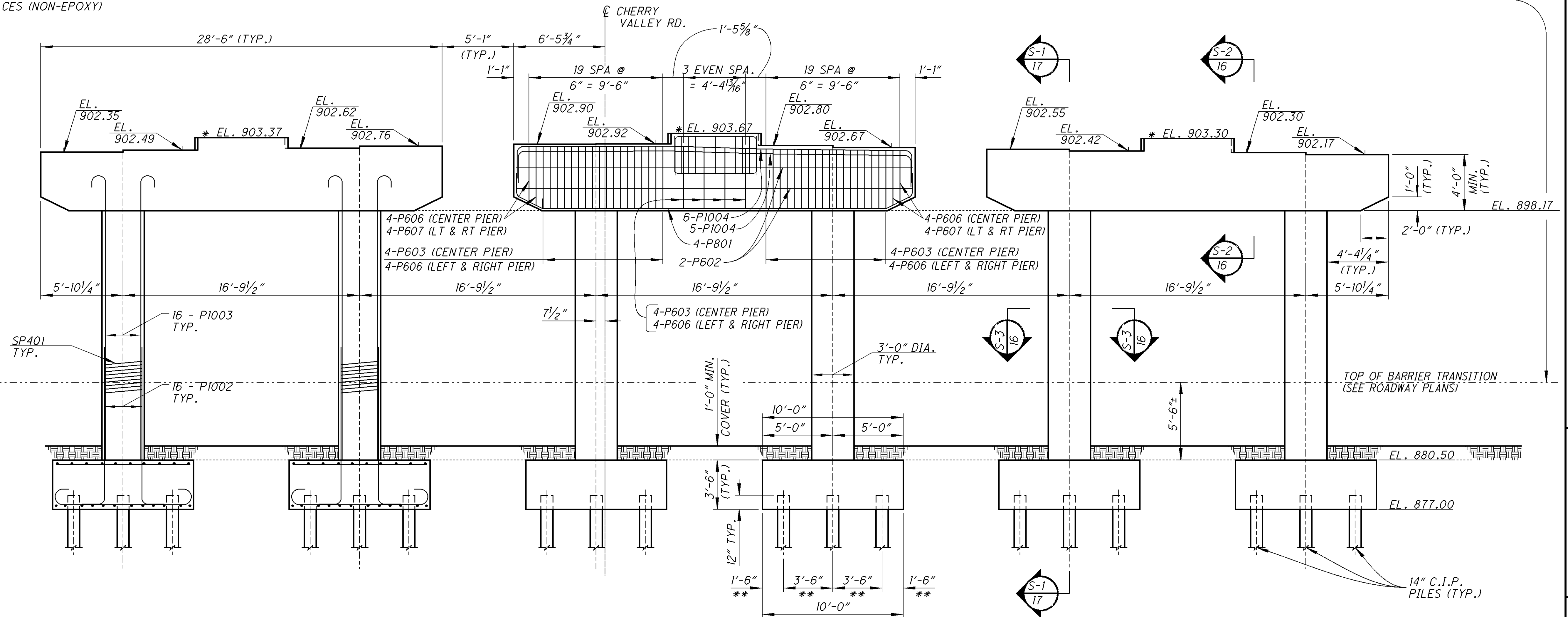
⊕ - BATTERED PILING (1:4)

- BEAM NUMBER



PLAN

SEALING OF CONCRETE SURFACES (NON-EPOXY)



LEFT ELEVATION

MID ELEVATION

RIGHT ELEVATION

* - SEE SHEET 16/56 FOR SEISMIC PEDESTAL DETAILS.
 ** - SEE SHEET 7/56 FOR PILING LAYOUT AND NUMBERING.

P:\LIC\80704\Design\bridge\SFN - Route Name\Plan Sheets\L80704_BPP_001.dgn (SCALE = 4.000)

DESIGN AGENCY
OHIO DEPARTMENT OF
TRANSPORTATION, DISTRICT 5

DATE
3-1-2015

DRAWN
JDR

DESIGNED
JDR

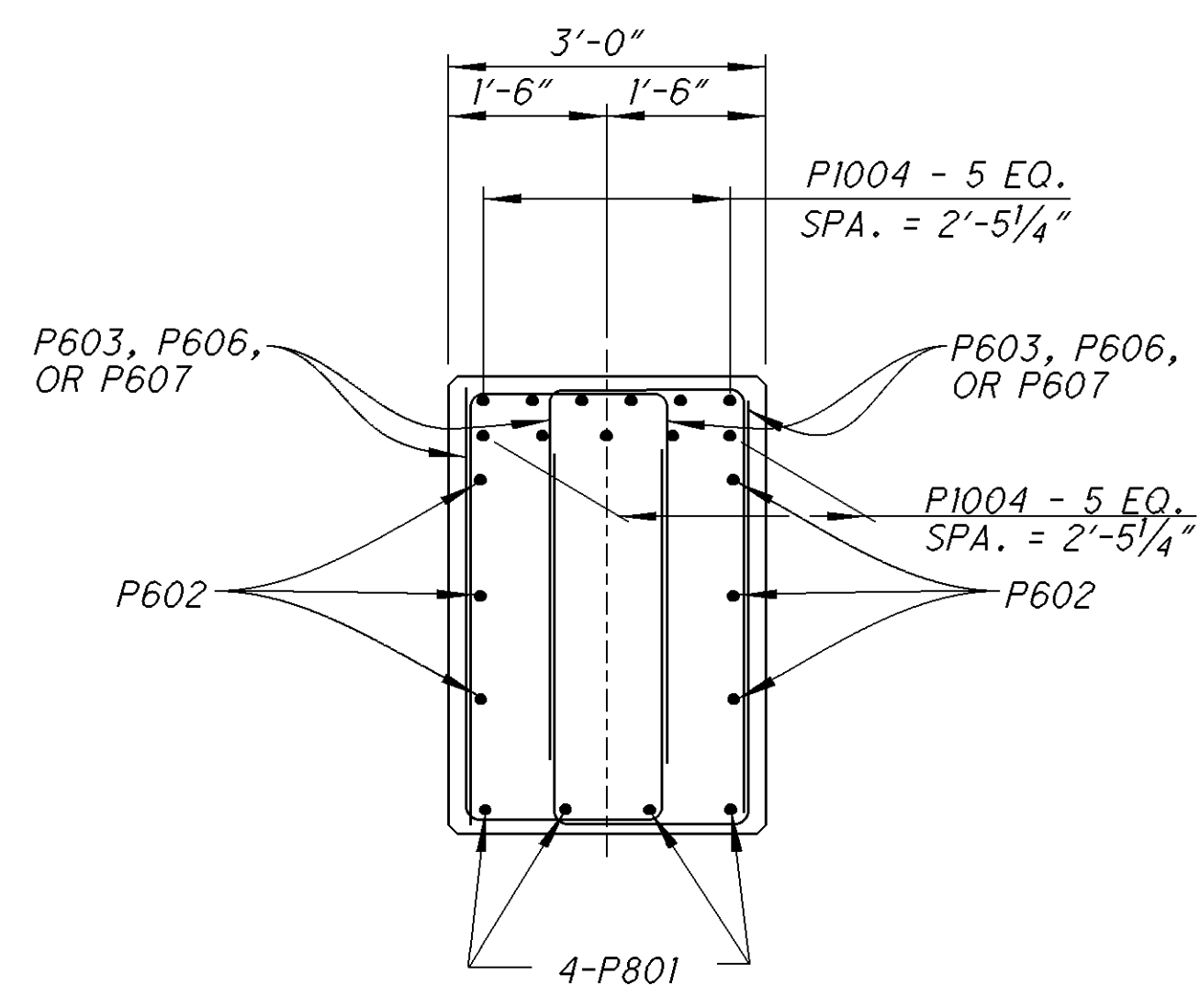
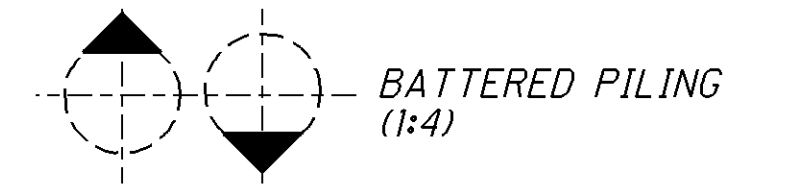
CHECKED
CPS

PIER DETAILS
BRIDGE NO. LIC-16-1718
CHERRY VALLEY ROAD OVER S.R. 16

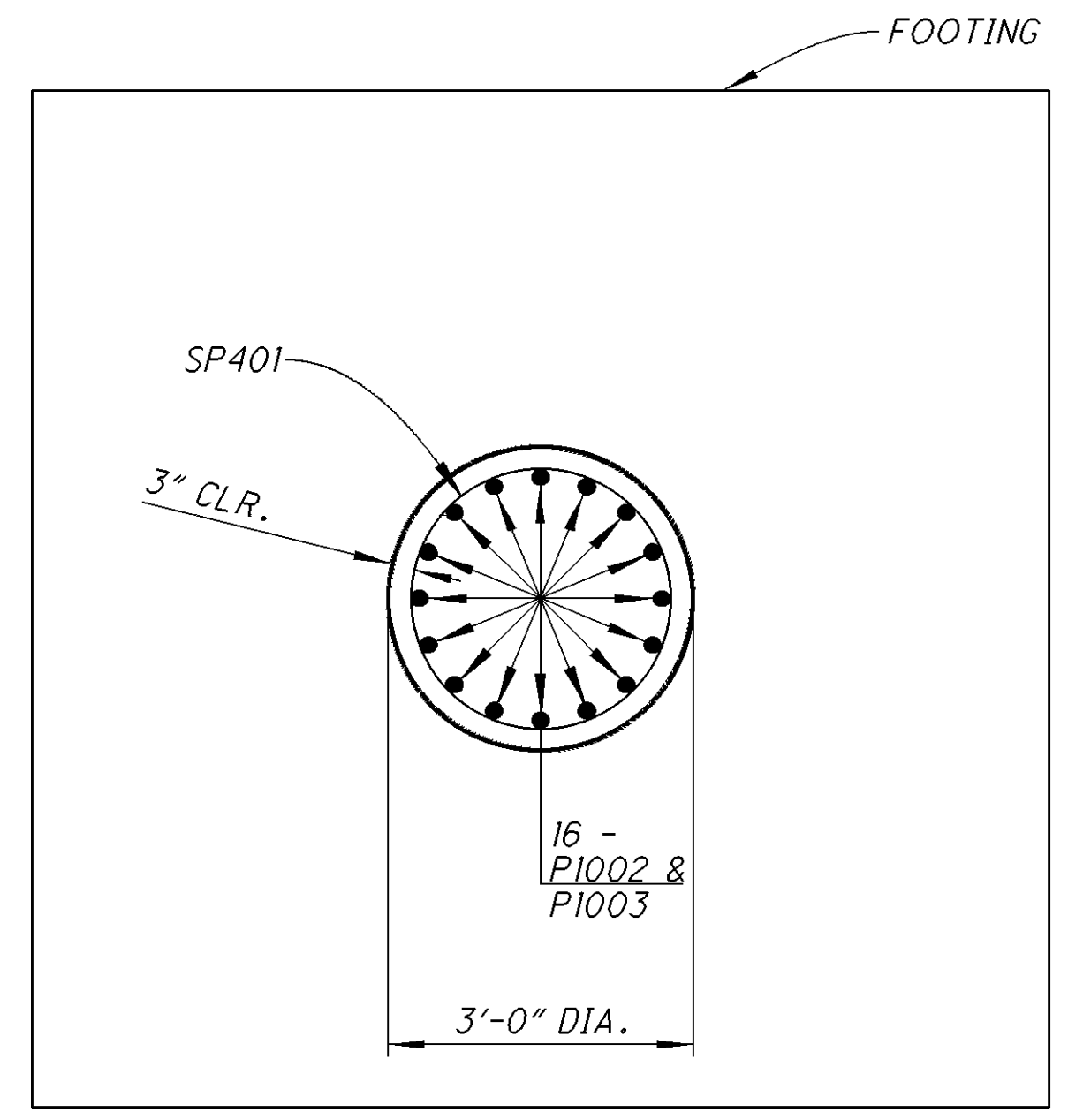
LIC-16-16.64

15 / 56

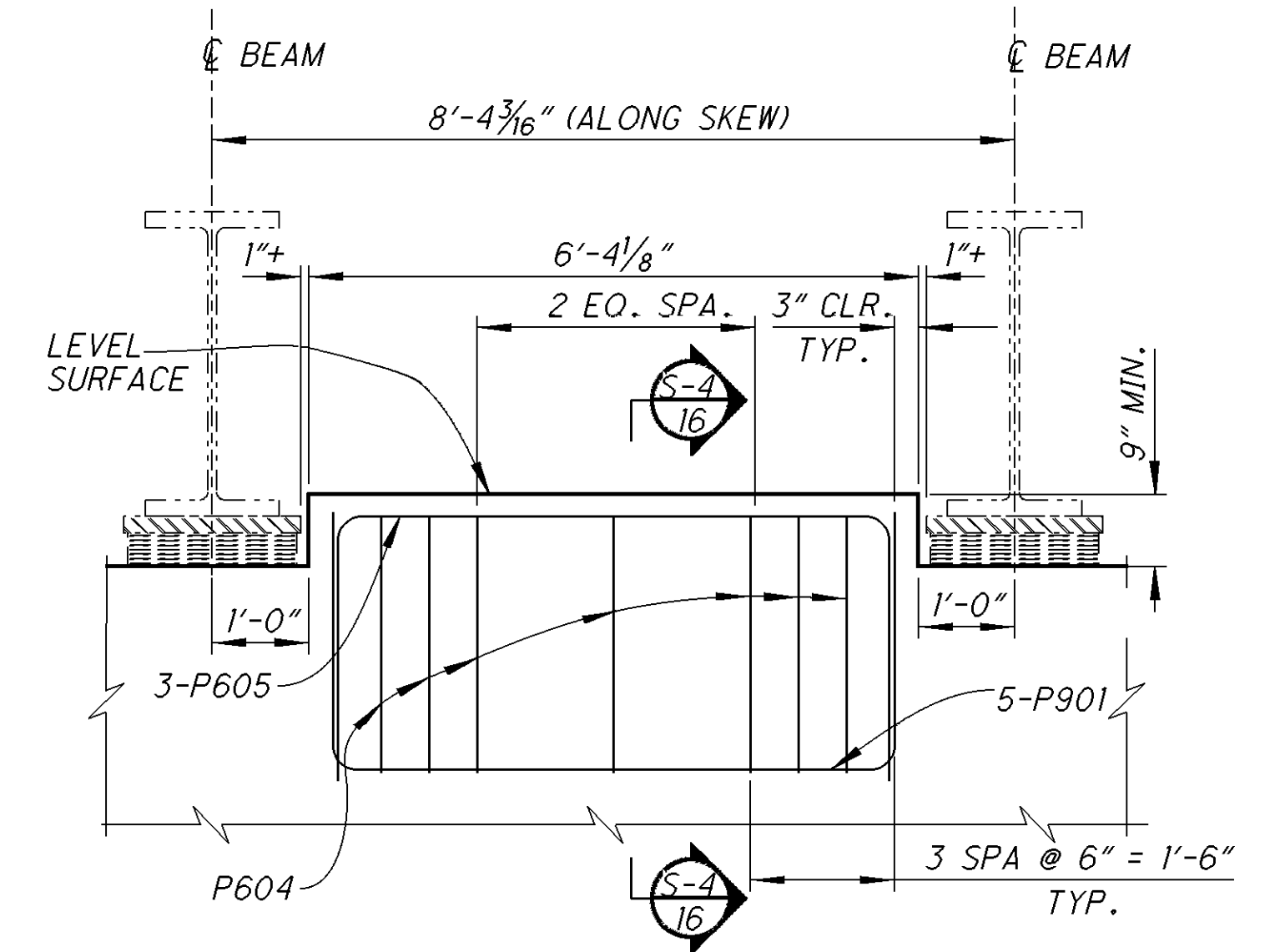
647
729



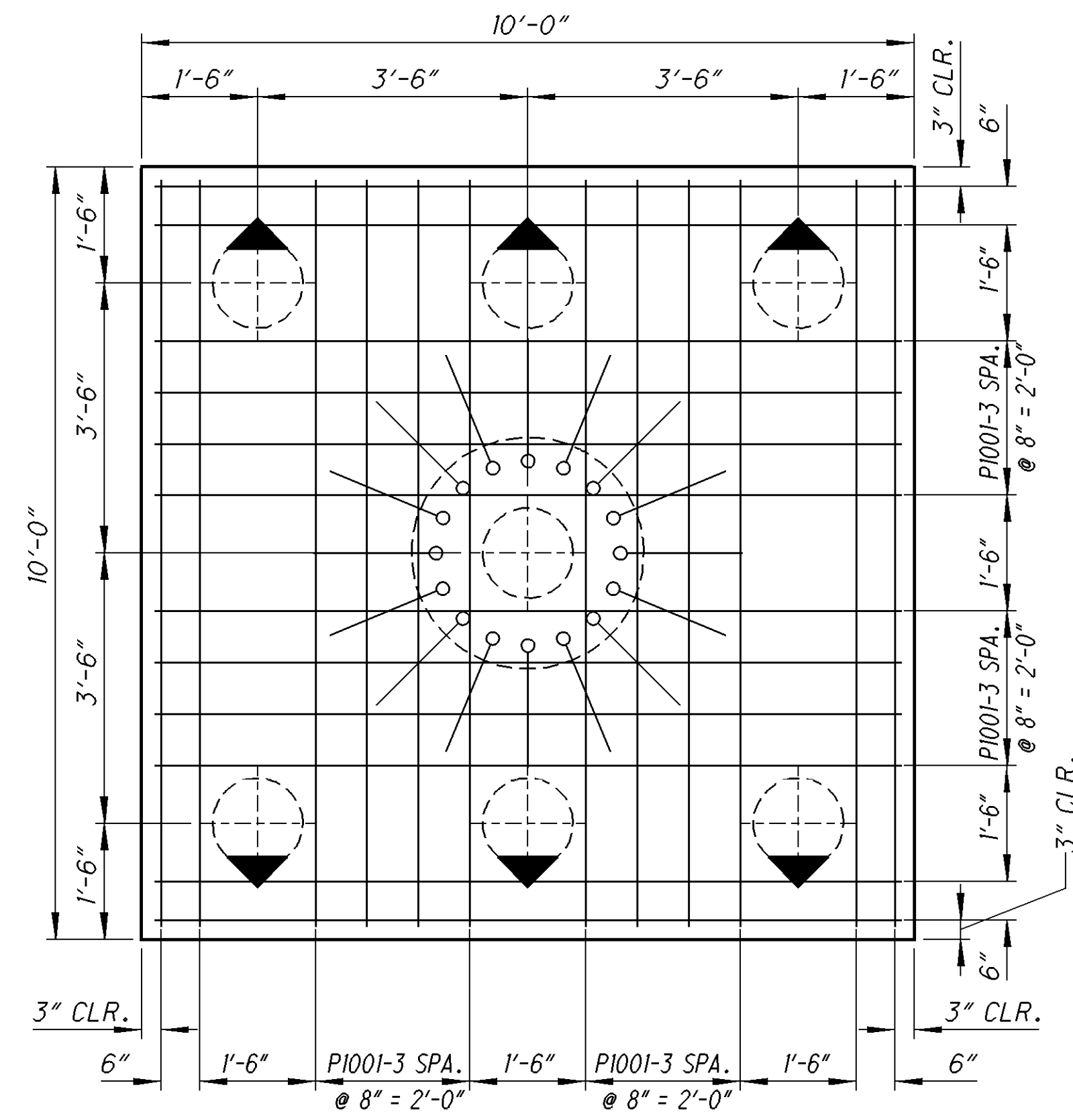
SECTION S-2
15



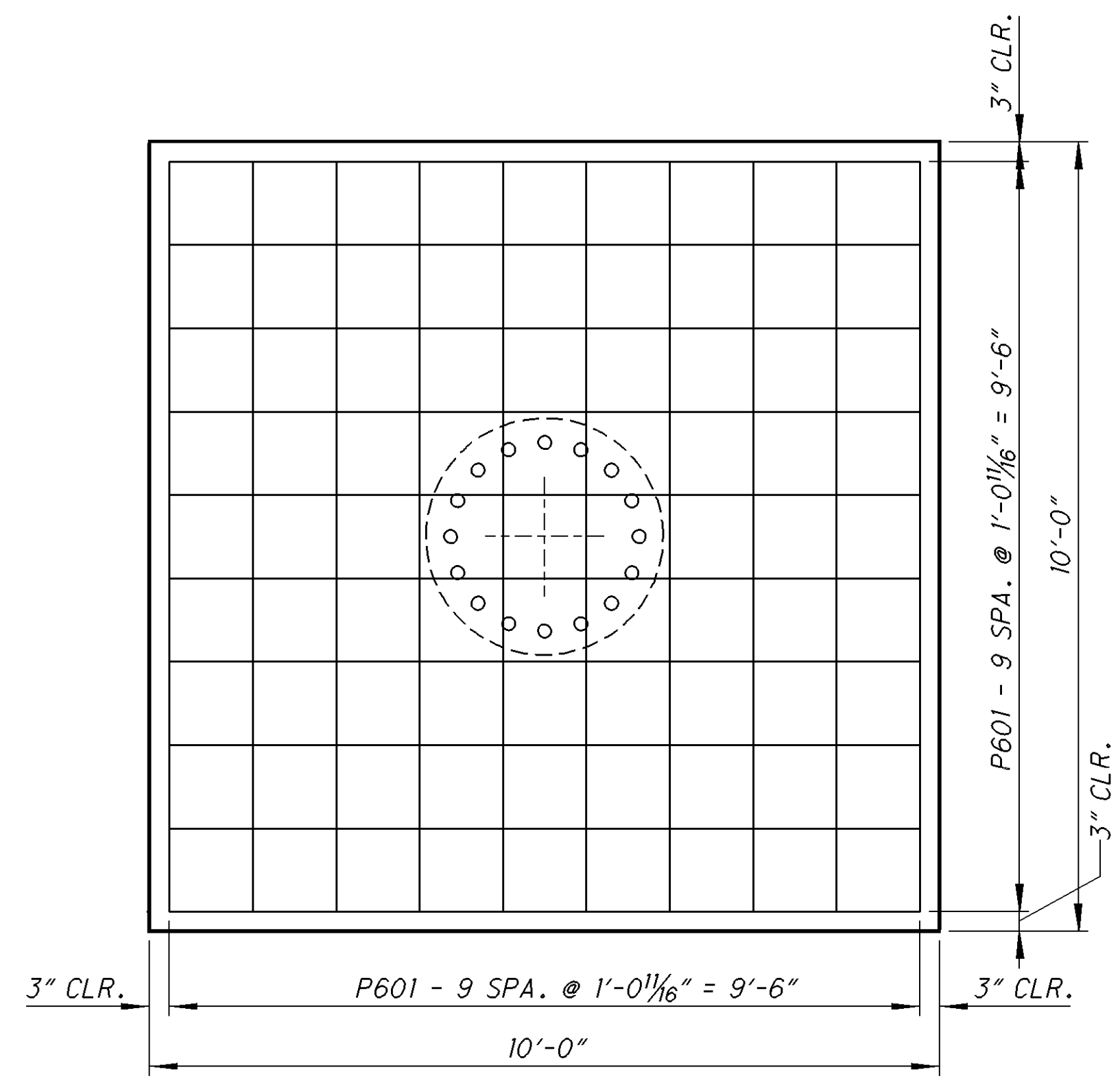
SECTION S-3
15



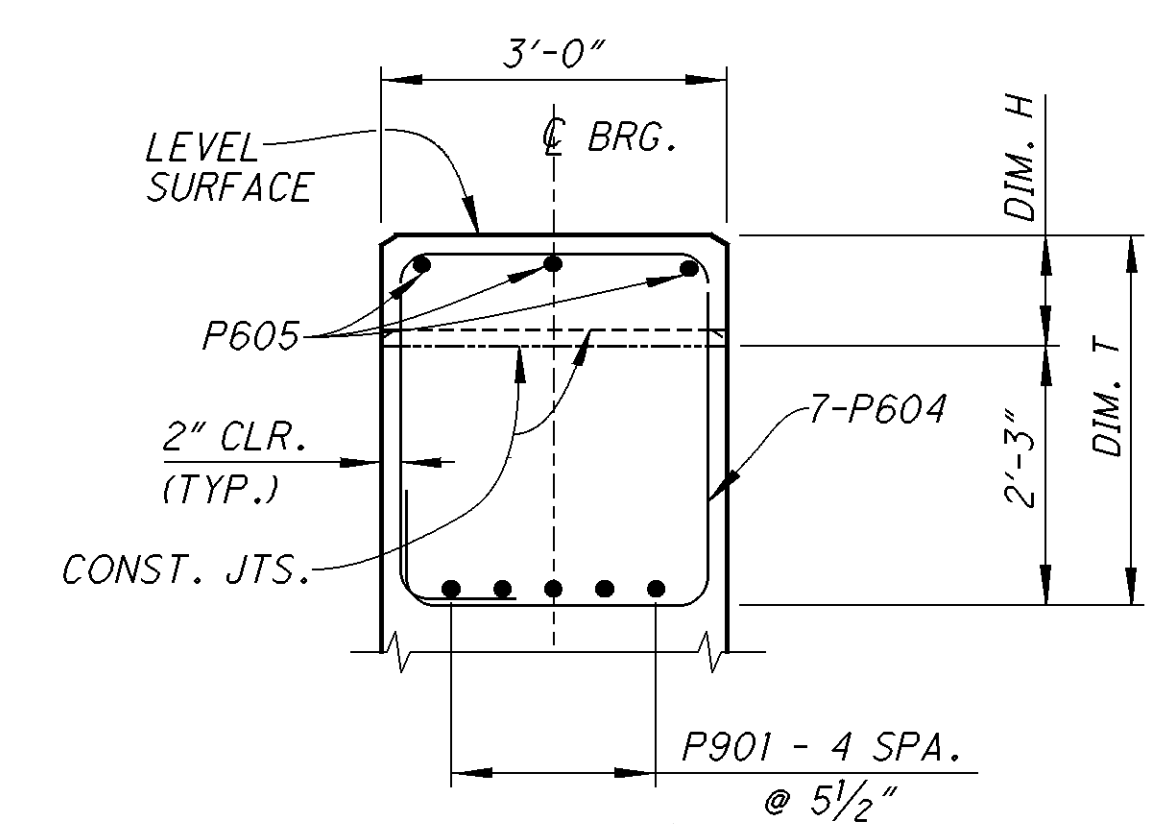
SEISMIC PEDESTAL DETAIL
(SHOWN NORMAL TO FACE OF PIER CAP)



FOOTING PLAN (BOTTOM MAT)



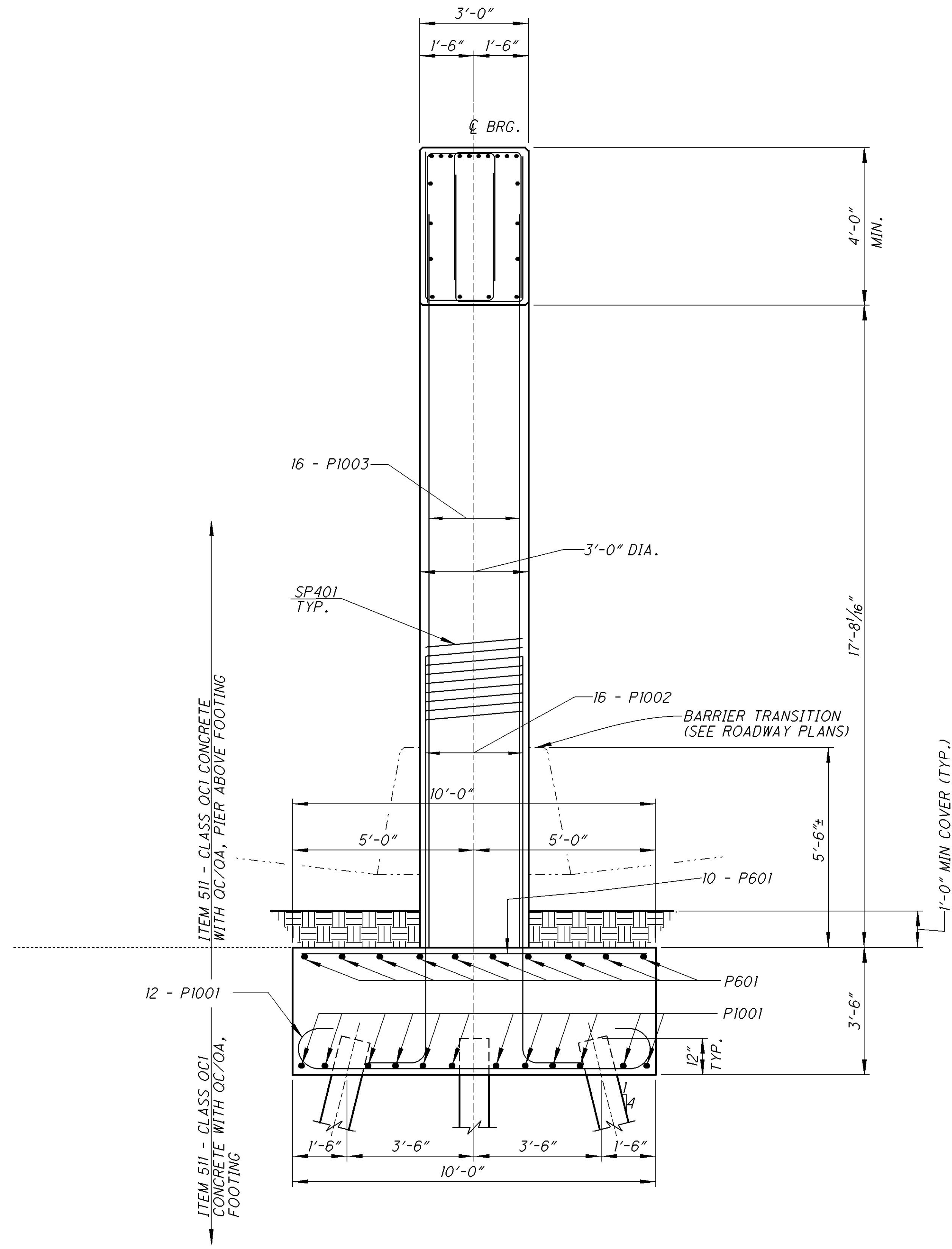
FOOTING PLAN (TOP MAT)



SECTION S-4
16

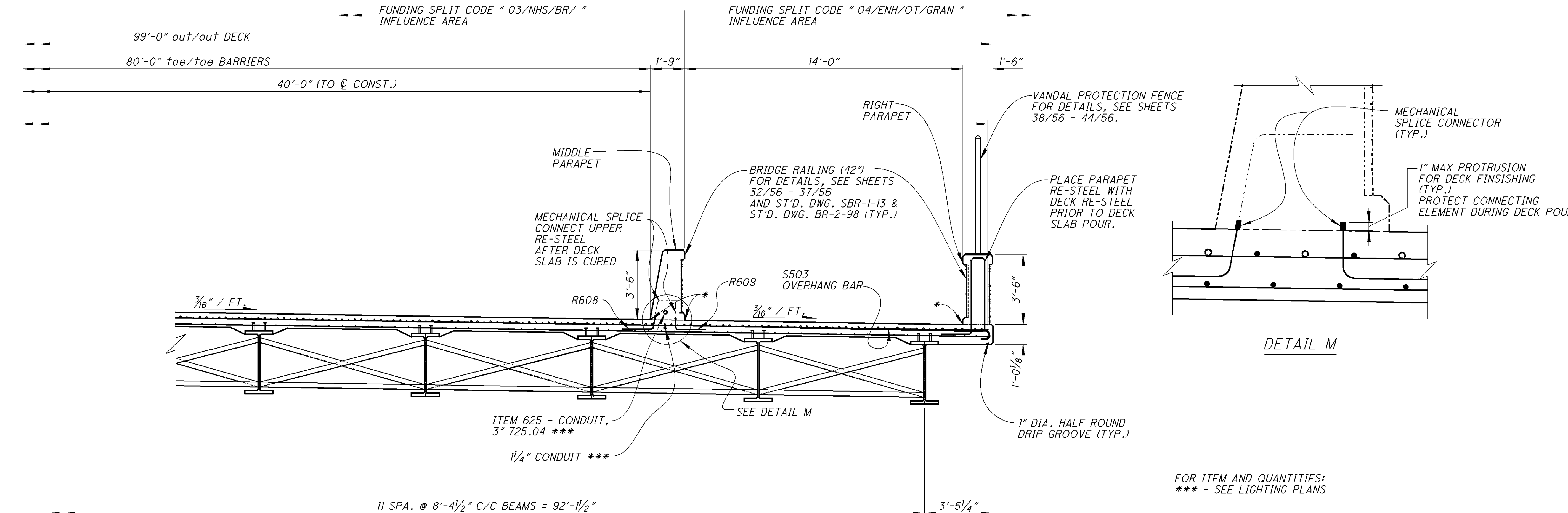
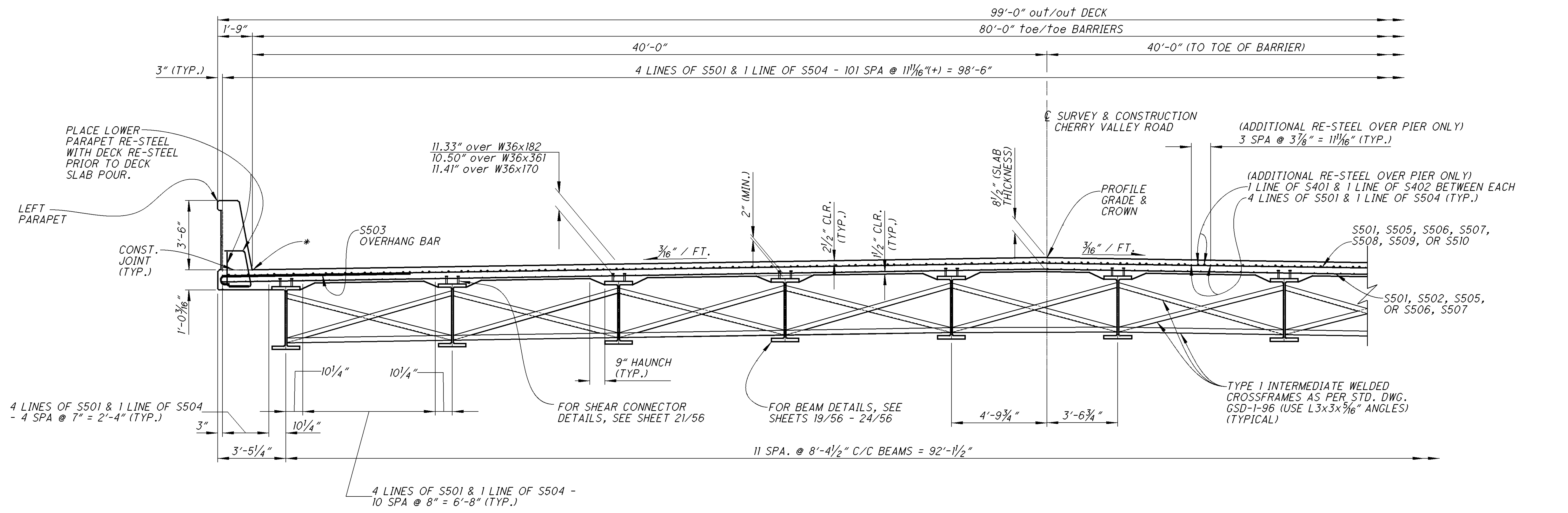
DIMENSIONS PER PIER SECTION:		
SECTION	DIM H	DIM T
LEFT	10 9/16"	3'-1 1/16"
MIDDLE	10 7/16"	3'-1 1/16"
RIGHT	12"	3'-3"

P:\LIC\80704\Design\bridge\SFN - Route Name\Plan Sheets\L80704_BPP_002.dgn (SCALE = 1.667)



DESIGNED JDR		DRAWN JDR		REVIEWED TAG		DATE 3-1-2015		DESIGN AGENCY OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5	
CHECKED CPS		REVISED		STRUCTURE FILE NUMBER 4500830					
LIC-16-16.64					PIER DETAILS BRIDGE NO. LIC-16-1718 CHERRY VALLEY ROAD OVER S.R. 16				
17 / 56		649 / 729							

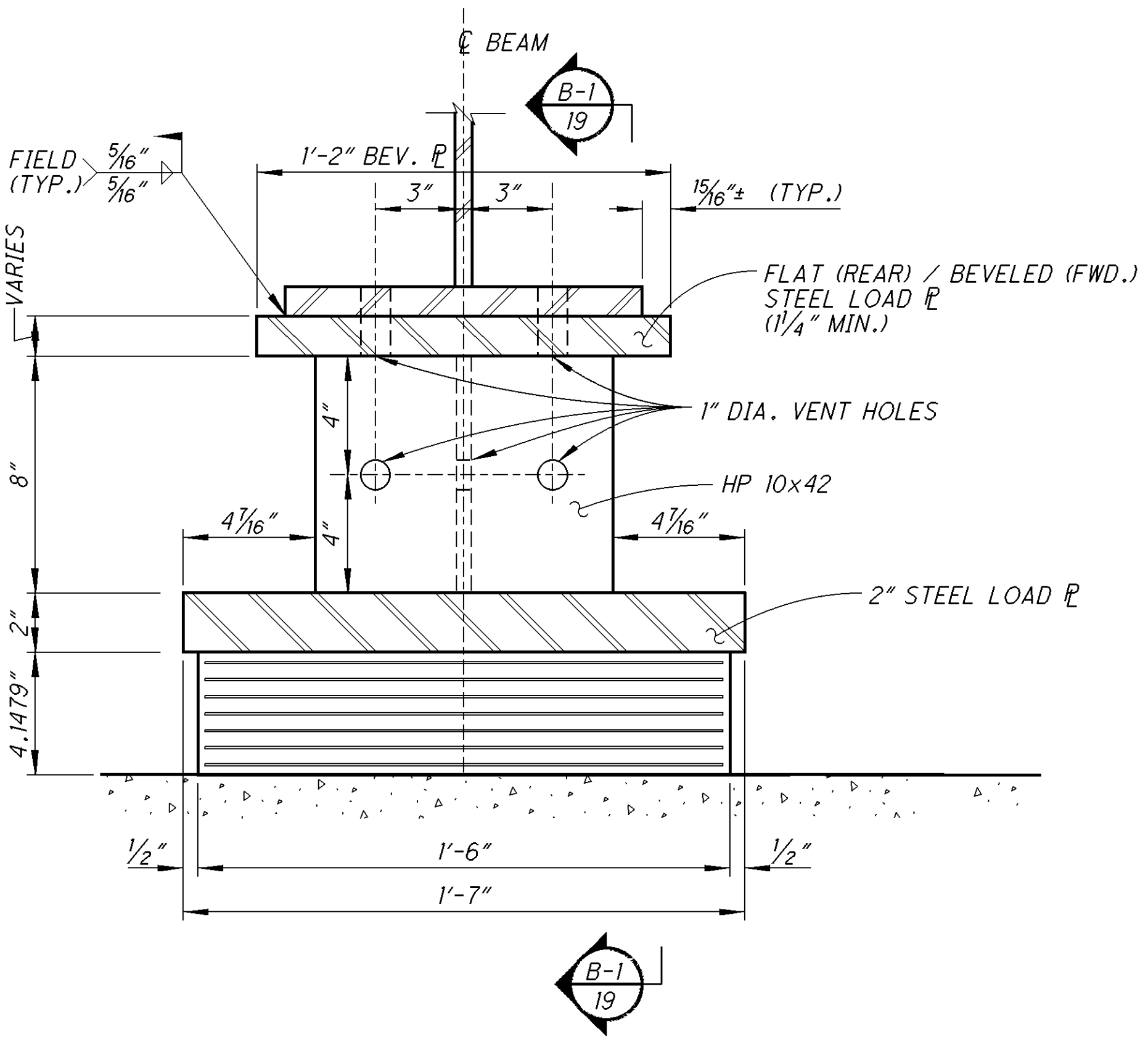
P:\LIC\80704\Design\bridge\SFN - Route Name\Plan Sheets\L80704 - BTS_001.dgn (SCALE = 2.667)



PROPOSED TRANSVERSE SECTION

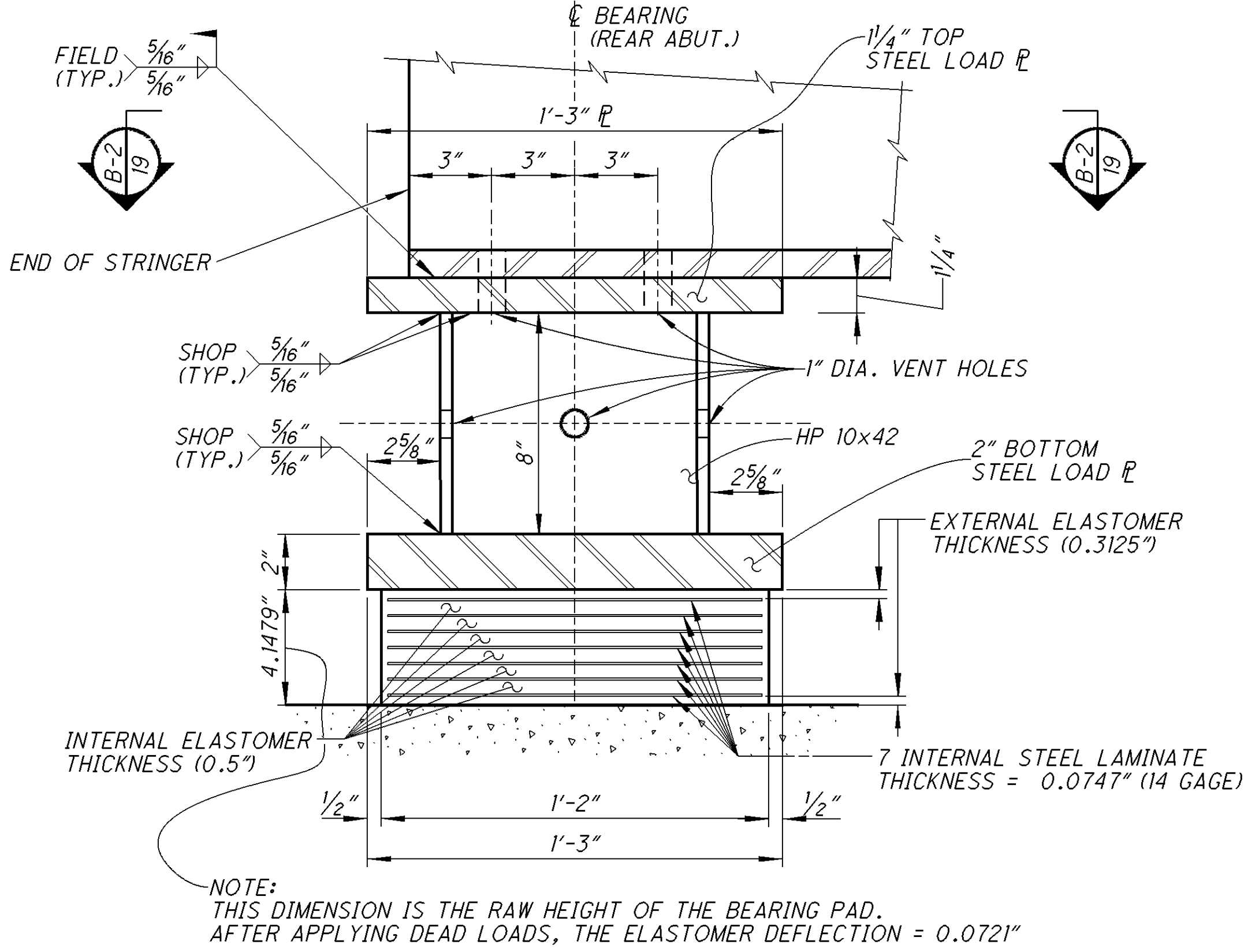
FOR ITEM AND QUANTITIES:
 *** - SEE LIGHTING PLANS
 * SEALING OF CONSTRUCTION JOINTS WITH HMWM AS PER C.M.S. 511.22 IS INCIDENTAL TO ITEM 511 QC/OA CONCRETE, CLASS QSC2 SUPERSTRUCTURE (DECK), AS PER PLAN. PROVIDE A MINIMUM BAND WIDTH OF 1'-0" CENTERED ON EACH JOINT SEALED.

DESIGN AGENCY	OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5
DATE	3-1-2015
REVIEWED TAG	4500830
DESIGNED JDR	CPS
DRAWN JDR	JDR
STRUCTURE FILE NUMBER	4500830
REVISIONS	
SECTION	TRANSVERSE SECTION
BRIDGE NO.	LIC-16-1718
CHERRY VALLEY ROAD OVER S.R. 16	
LIC-16-16.64	
18 / 56	
650	
729	

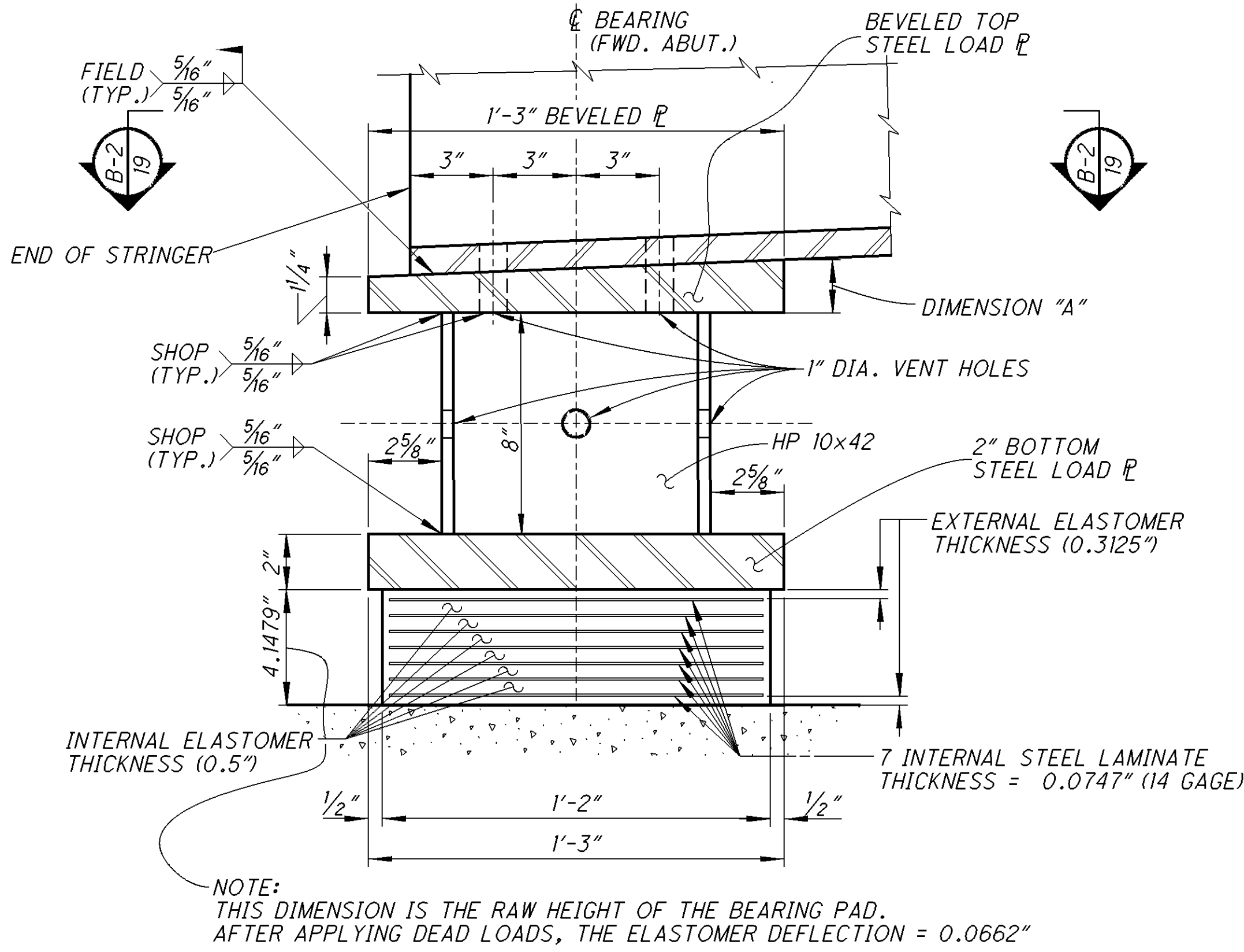


LAMINATED ELASTOMERIC EXPANSION BEARINGS - BOTH ABUTMENTS

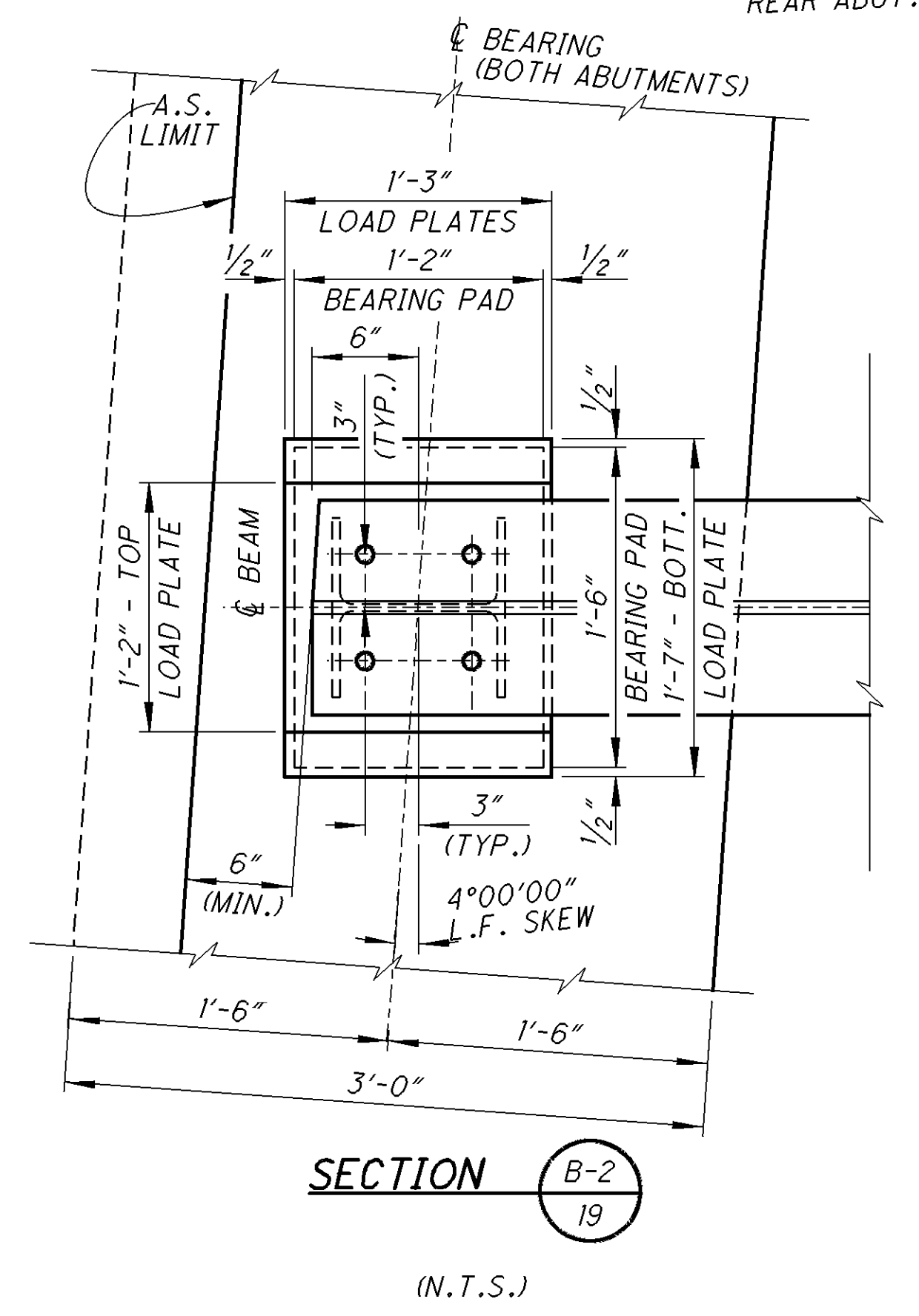
BEVEL TABLE		
BEVEL OF STEEL LOAD PLATES AT EACH SUBSTRUCTURE UNIT:		
LOCATION	BEVEL %	DIM. "A"
REAR	NONE	N/A
FORWARD	1.667%	1.500"



SECTION B-1
UP-STATION (REAR ABUTMENT)



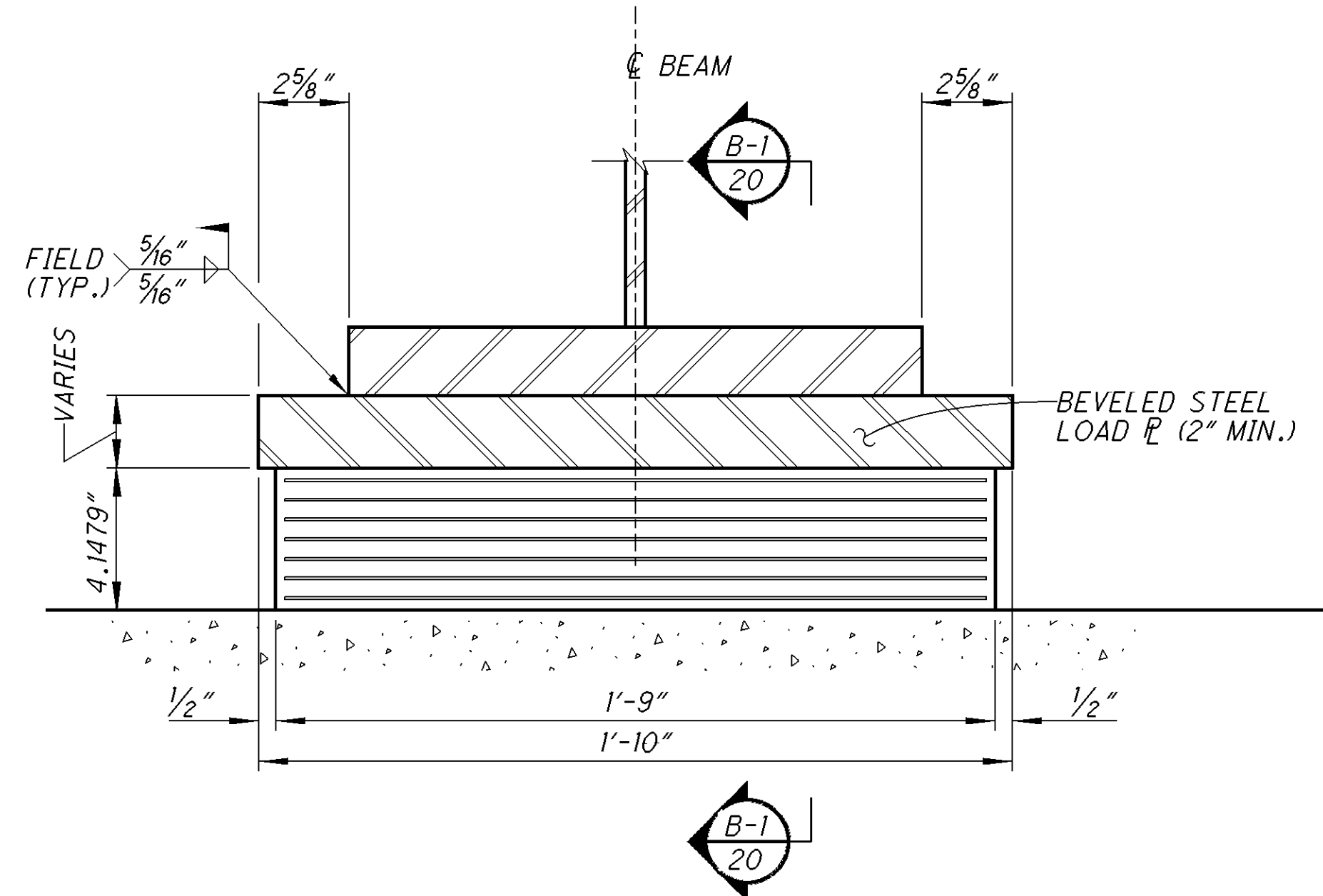
SECTION B-1
UP-STATION (FWD. ABUTMENT)



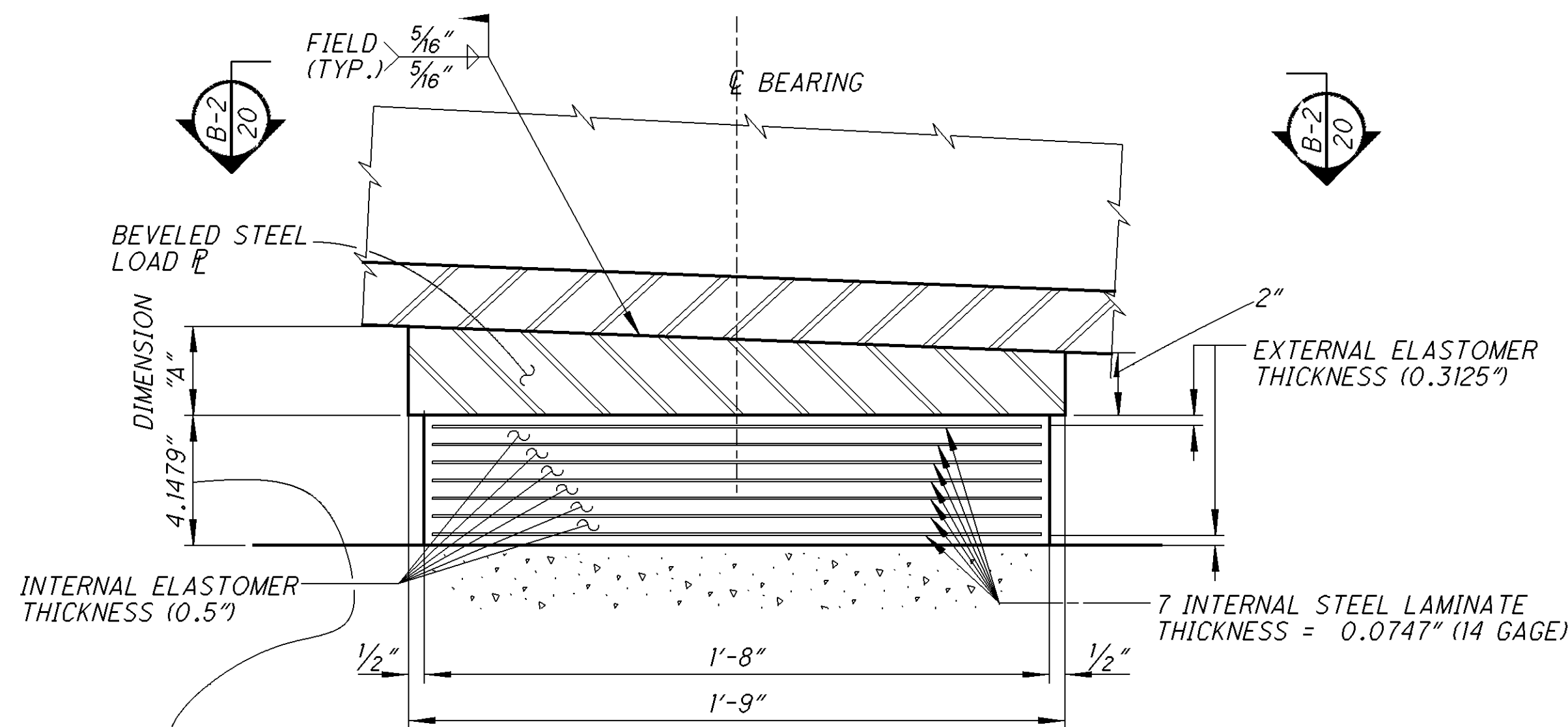
SECTION B-2
(N.T.S.)

P:\LIC\80704\Design\bridge\SFN - Route Name\Plan Sheets\L80704_BBD_001.dgn (SCALE = 0.333)

P:\LIC\80704\Design\bridge\SFN - Route Name\Plan Sheets\L80704 - L80704 - BBD_001.dgn (SCALE = 0.333)



LAMINATED ELASTOMERIC EXPANSION BEARINGS - PIER



NOTE: THIS DIMENSION IS THE RAW HEIGHT OF THE BEARING PAD. AFTER APPLYING DEAD LOADS, THE ELASTOMER DEFLECTION = 0.0893"

SECTION B-1
20
UP-STATION (PIER)

LOAD PLATE:
THE STEEL LOAD PLATES SHALL BE MADE OF A709 STEEL. THE STEEL LOAD PLATE SHALL BE BONDED BY VULCANIZATION TO THE ELASTOMER DURING THE MOLDING PROCESS.

WELDING:
WELDING OF THE LOAD PLATE TO THE SUPERSTRUCTURE SHALL BE CONTROLLED SO THAT THE PLATE TEMPERATURE AT THE ELASTOMER BONDED SURFACE SHALL NOT EXCEED 300°F AS DETERMINED BY THE USE OF PYROMETRIC STICKS OR OTHER TEMPERATURE MONITORING DEVICES.

BEARING REPOSITIONING:
IF THE LONGITUDINAL MOVEMENT OF THE BOTTOM BEAM FLANGES DUE TO CONSTRUCTION CAUSES BEARING SHEAR DEFLECTIONS TO EXCEED ONE-SIXTH OF THE BEARING HEIGHT AT 60°F +/- 10° OR THE STEEL IS ERECTED AT AN AMBIENT TEMPERATURE HIGHER THAN 80°F OR LOWER THAN 40°F AND THE BEARING SHEAR DEFLECTION EXCEEDS ONE-SIXTH OF THE BEARING HEIGHT AT 60°F +/- 10°F, THE BEAMS OR GIRDERS SHALL BE RAISED TO ALLOW THE BEARINGS TO RETURN TO THEIR UNDEFORMED SHAPE AT 60°F +/- 10°F.

NOTES:
ADDITIONAL UPPER LOAD PLATES AT THE ABUTMENTS AND ALL HP STEEL SHAPES SHALL BE INCLUDED WITH ITEM 516 ELASTOMERIC BEARING FOR PAYMENT.

FOR ADDITIONAL DETAILS, SEE STD. DWG. SICD-I-96

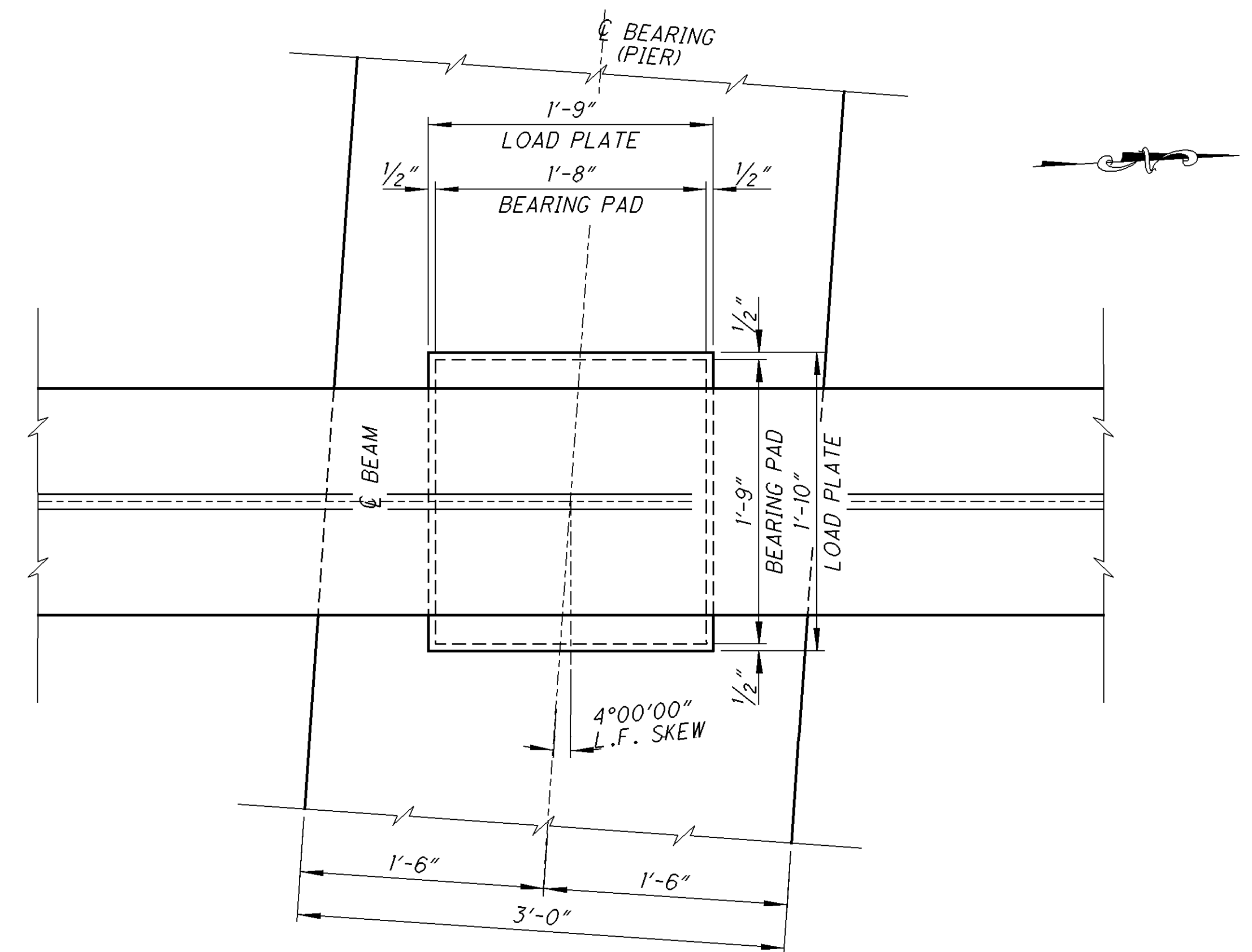
MARKINGS:
ALL BEARINGS AND LOAD PLATES SHALL BE MARKED PRIOR TO SHIPPING. THE MARKS SHALL INCLUDE THE BEARING LOCATION ON THE BRIDGE, AND A DIRECTION ARROW THAT POINTS, AND IS LABELED, UP-STATION. ALL MARKS SHALL BE PERMANENT AND BE VISIBLE AFTER THE BEARING IS INSTALLED.

BASIS OF PAYMENT:
THE UNIT BID PRICE SHALL INCLUDE ALL MATERIALS, LABOR, TESTING AND INCIDENTALS NECESSARY TO FURNISH AND INSTALL LAMINATED ELASTOMERIC BEARINGS, EITHER FIXED OR EXPANSION. PAYMENT WILL BE MADE AT THE CONTRACT PRICE BID FOR ITEM 516, EACH, ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE).

REAR ABUTMENT BEARING PAD: 1'-6" x 1'-2" x 4.1479" (50 DUROMETER)
LOAD PLATE (BOTTOM): 1'-7" x 1'-3" x 2"
PIER BEARING PAD: 1'-9" x 1'-8" x 4.1479" (50 DUROMETER)
LOAD PLATE: 1'-10" x 1'-9" x 2.000" min.
FWD. ABUTMENT BEARING PAD: 1'-6" x 1'-2" x 4.1479" (50 DUROMETER)
LOAD PLATE (BOTTOM): 1'-7" x 1'-3" x 2"

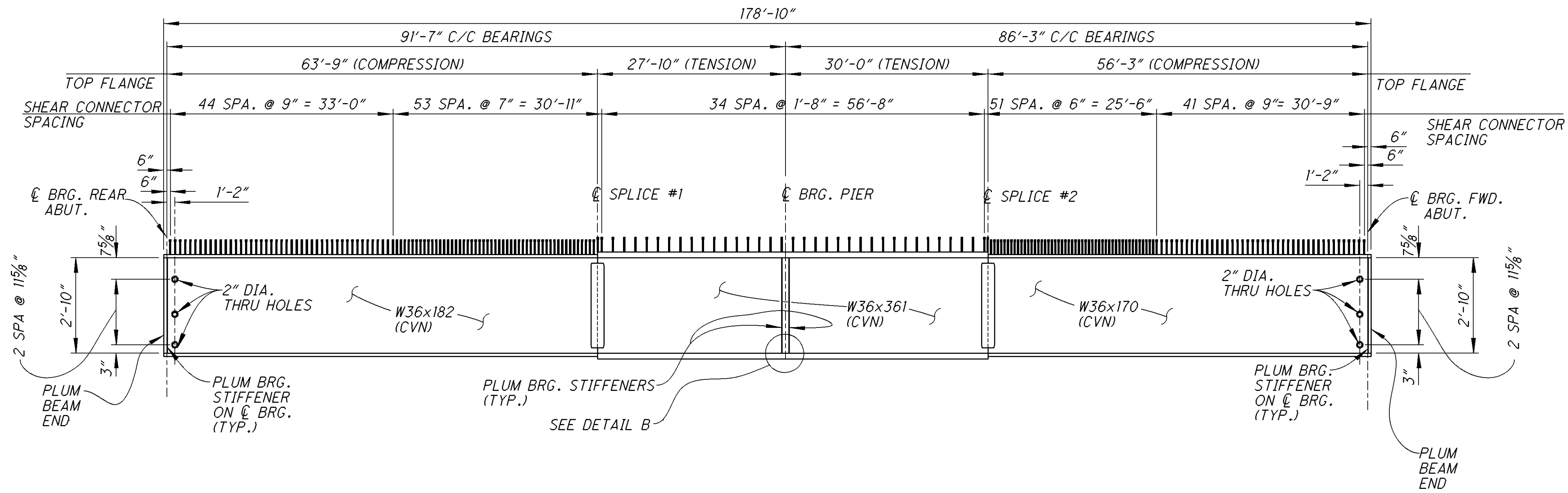
ELASTOMERIC BEARING PAD DESIGN DATA			
LOCATION	DL	LL	DL & LL
REAR ABUTMENT	97	73	170
PIER	221	149	370
FWD. ABUTMENT	91	72	163

BEVEL TABLE		
BEVEL OF STEEL LOAD P'S AT EACH SUBSTRUCTURE UNIT:		
LOCATION	BEVEL %	DIM. "A"
PIER	1.1905%	2.250"



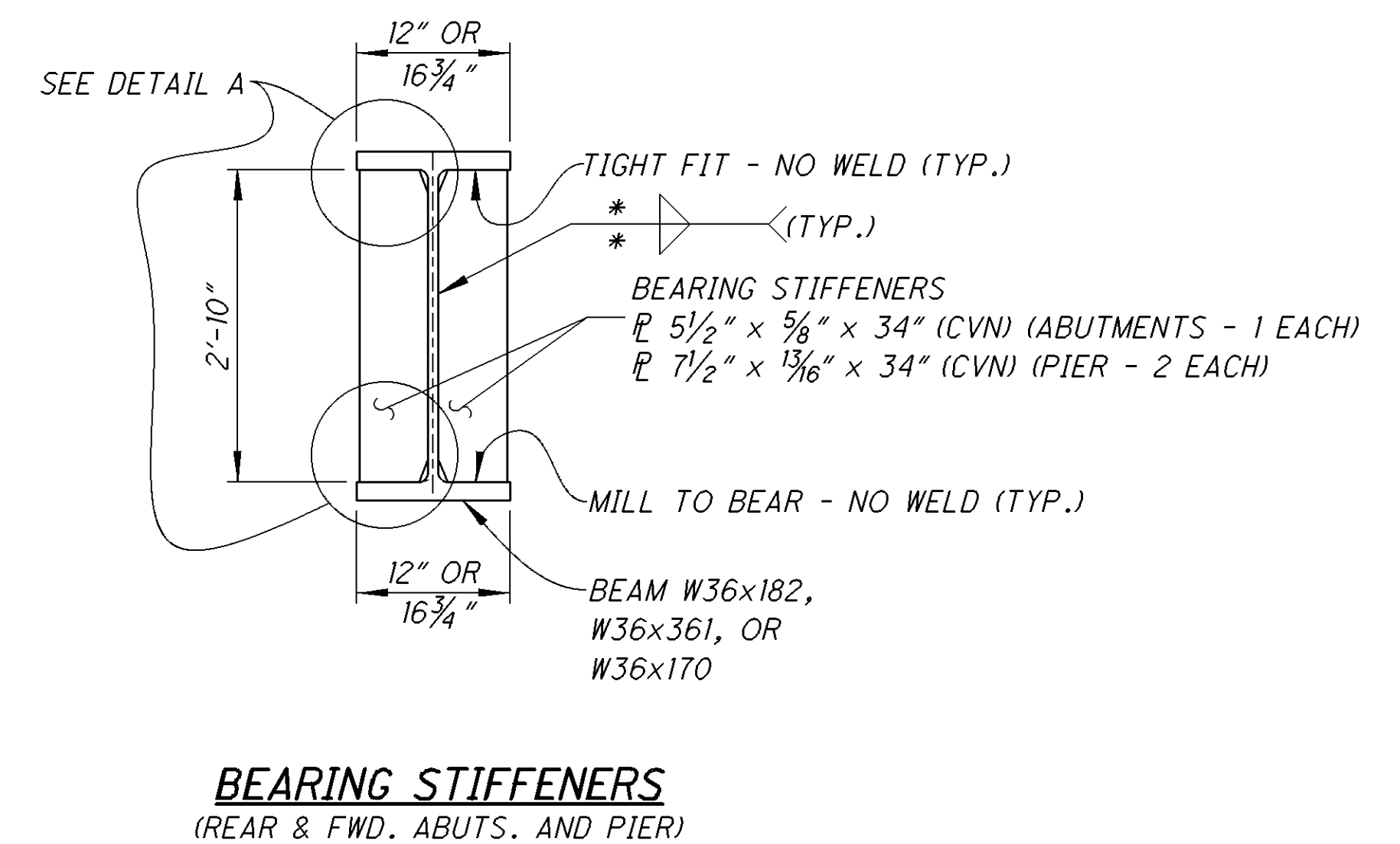
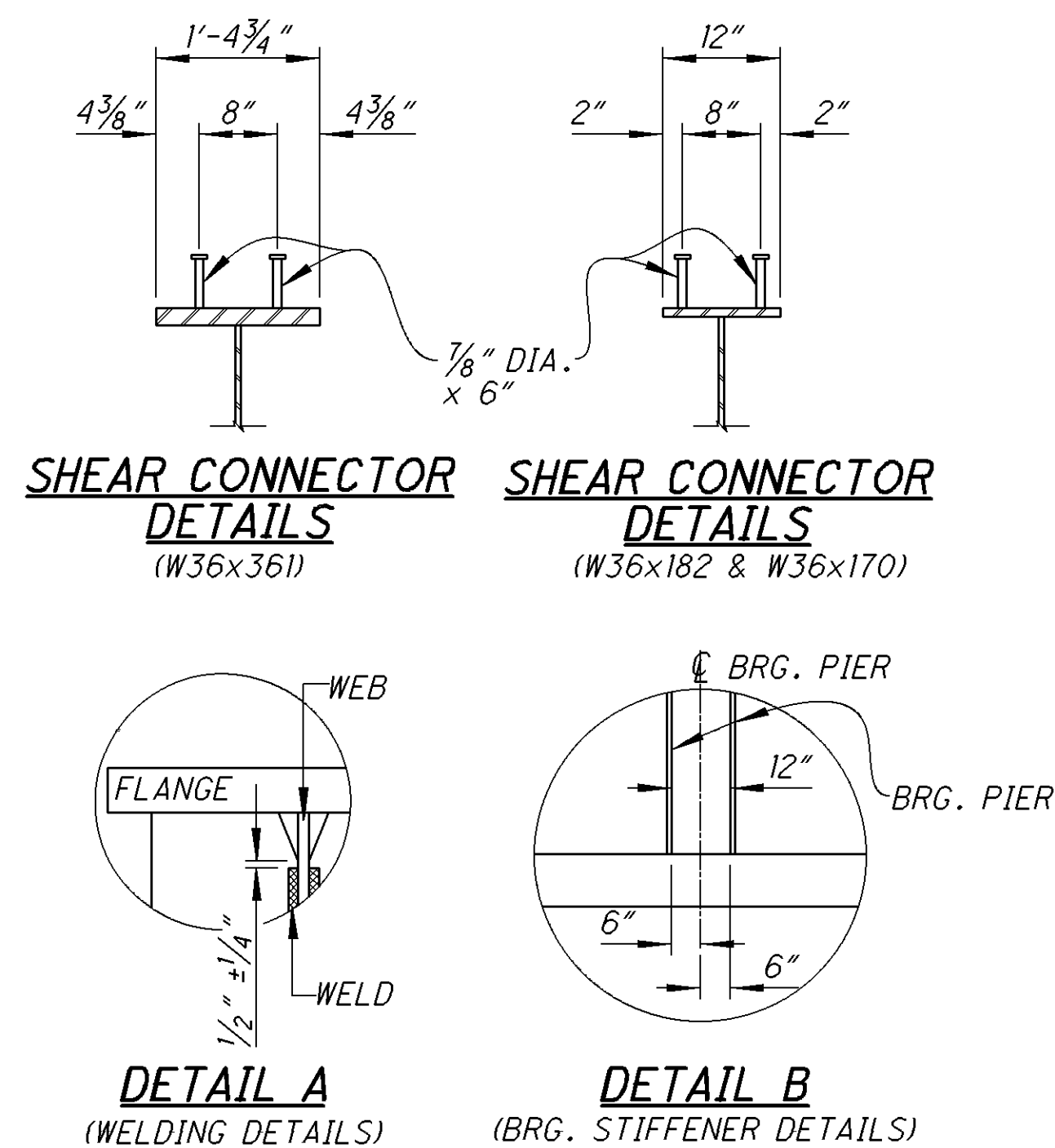
SECTION B-2
20
(N.T.S.)

P:\LIC\80704\Design\bridge\SFN - Route Name\Plan Sheets\L80704_BGD_001.dgn (SCALE = 1:333)



BEAM ELEVATION / SHEAR CONNECTOR SPACING
(NO CAMBER SHOWN & N.T.S.)

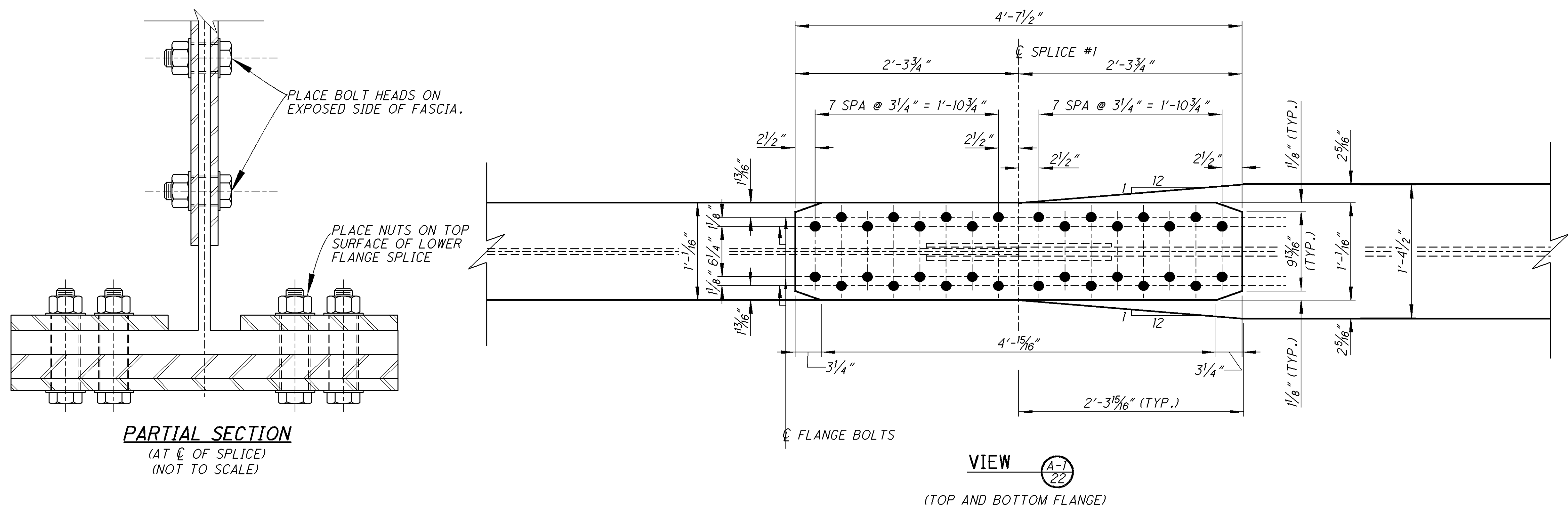
NOTES:
WELD ATTACHMENT OF SUPPORTS FOR CONCRETE DECK FINISHING MACHINE TO AREAS OF THE FASCIA STRINGER FLANGES DESIGNATED "COMPRESSION". DO NOT WELD ATTACHMENTS TO AREAS DESIGNATED "TENSION". FILLET WELDS TO COMPRESSION FLANGES SHALL BE AT LEAST 1" FROM EDGE OF FLANGE, BE AT LEAST 2" LONG AND BE AT LEAST 1/4" FOR THICKNESSES UP TO 3/4" OR 5/16" FOR GREATER THAN 3/4" THICK.
ALL SPLICE PLATES EXCEPT FILL PLATES SHALL BE CVN.
FOR CROSSFRAME LOCATIONS, SEE SHEET 25/56.
FOR ADDITIONAL DETAILS, SEE STANDARD DRAWING GSD-1-96.



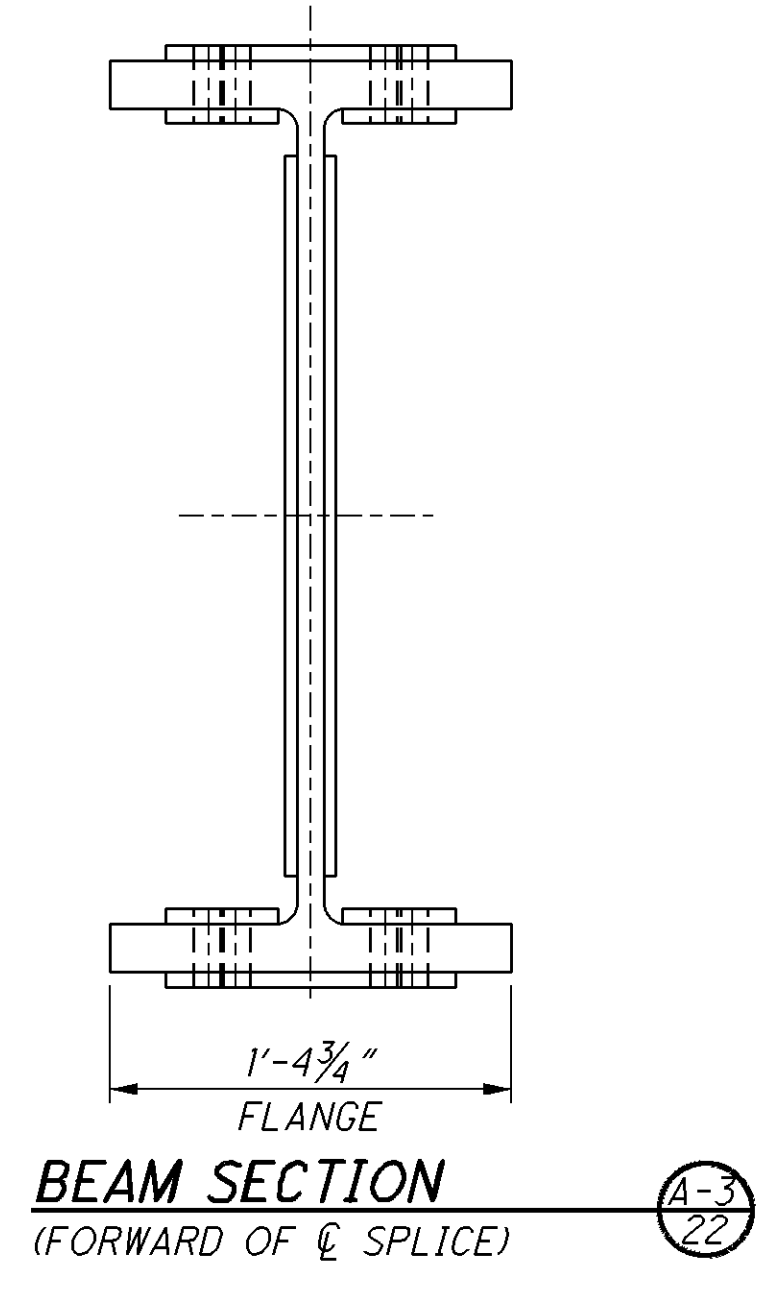
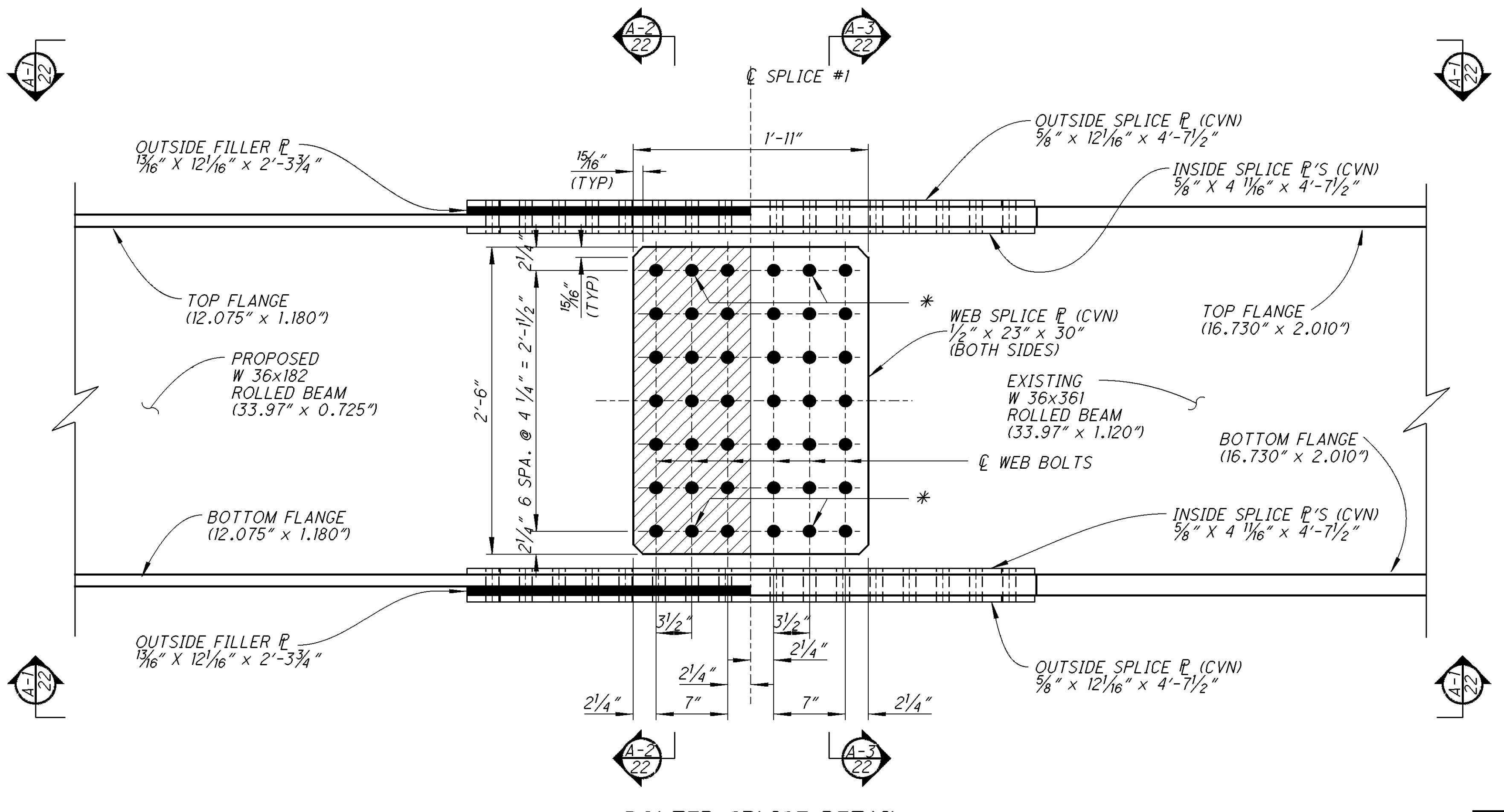
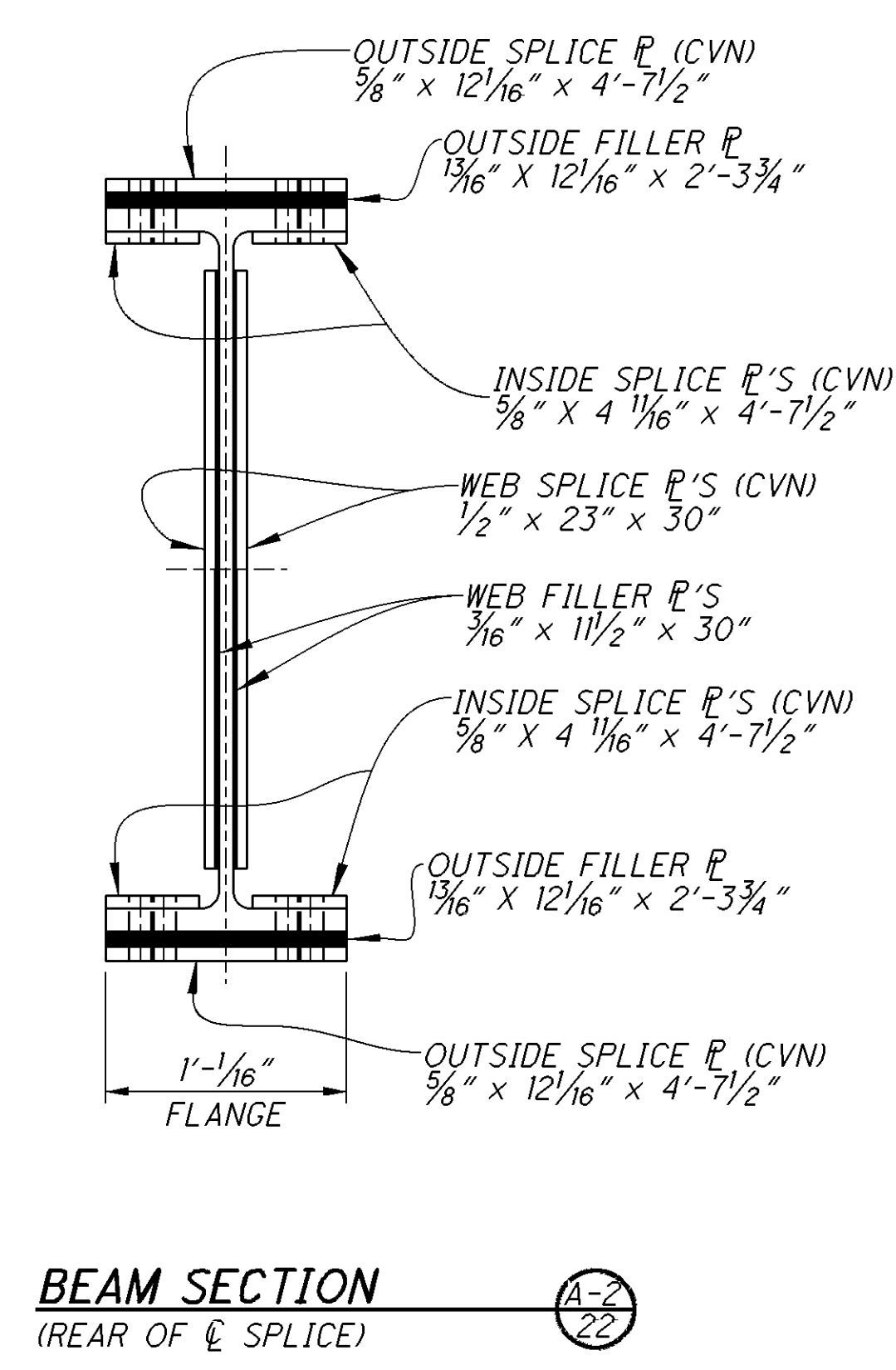
DESIGN AGENCY	OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5
DATE	3-1-2015
REVIEWED TAG	STRUCTURE FILE NUMBER
DRAWN	4500830
DESIGNED	
CHECKED	
BRIDGE NO.	LIC-16-1718
CHERRY VALLEY ROAD OVER S.R. 16	
BRIDGE NO.	LIC-16-64
21	56
653	729

* - FOR WELD SIZES, SEE STD. DWG. GSD-1-96

P:\LIC\80704\Design\bridge\SFN - Route Name\Plan Sheets\L80704_BSD_004.dgn (SCALE = 0.667)



NOTE:
EXCLUDE THE BOLT THREADS FROM THE SHEAR PLANES. (THE BOLT SHEAR STRENGTH FOR THE FLANGE AND WEB SPLICES HAS BEEN DESIGNED ASSUMING THAT THE THREADS ARE EXCLUDED FROM THE SHEAR PLANES.)
ALL BOLTS USED SHALL BE 1/8" DIAMETER.
ALL BOLT HOLES SHALL BE 13/16" DIAMETER.
BOLT SPECIFICATIONS SHALL CONFORM TO A325, TYPE I.



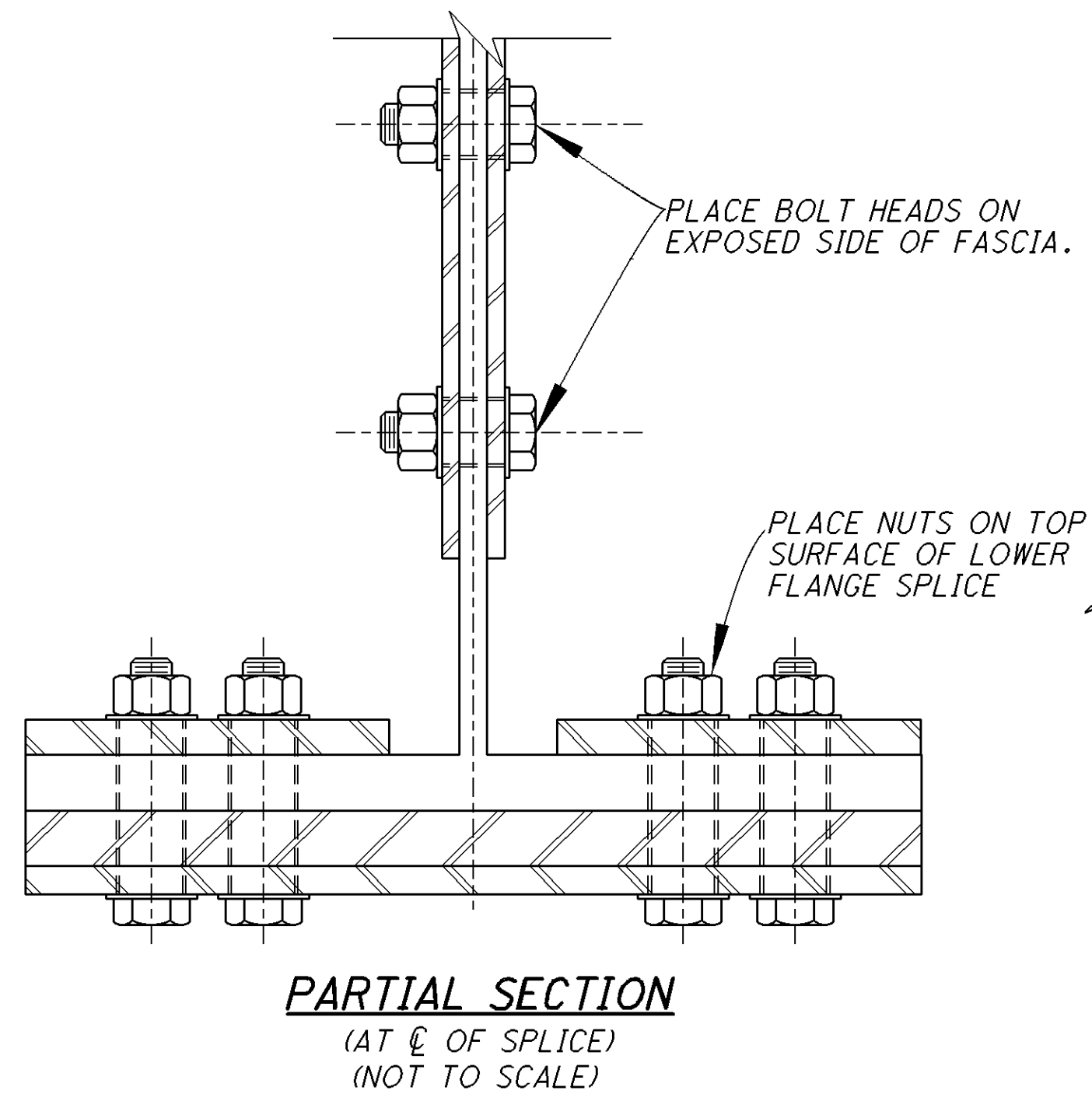
BOLTED SPLICE DETAIL
(SEE FRAMING PLAN FOR LOCATION IN SPAN 1)

* - BOLT AND NUT LOCATIONS TO BE PLACED AND TIGHTENED LAST

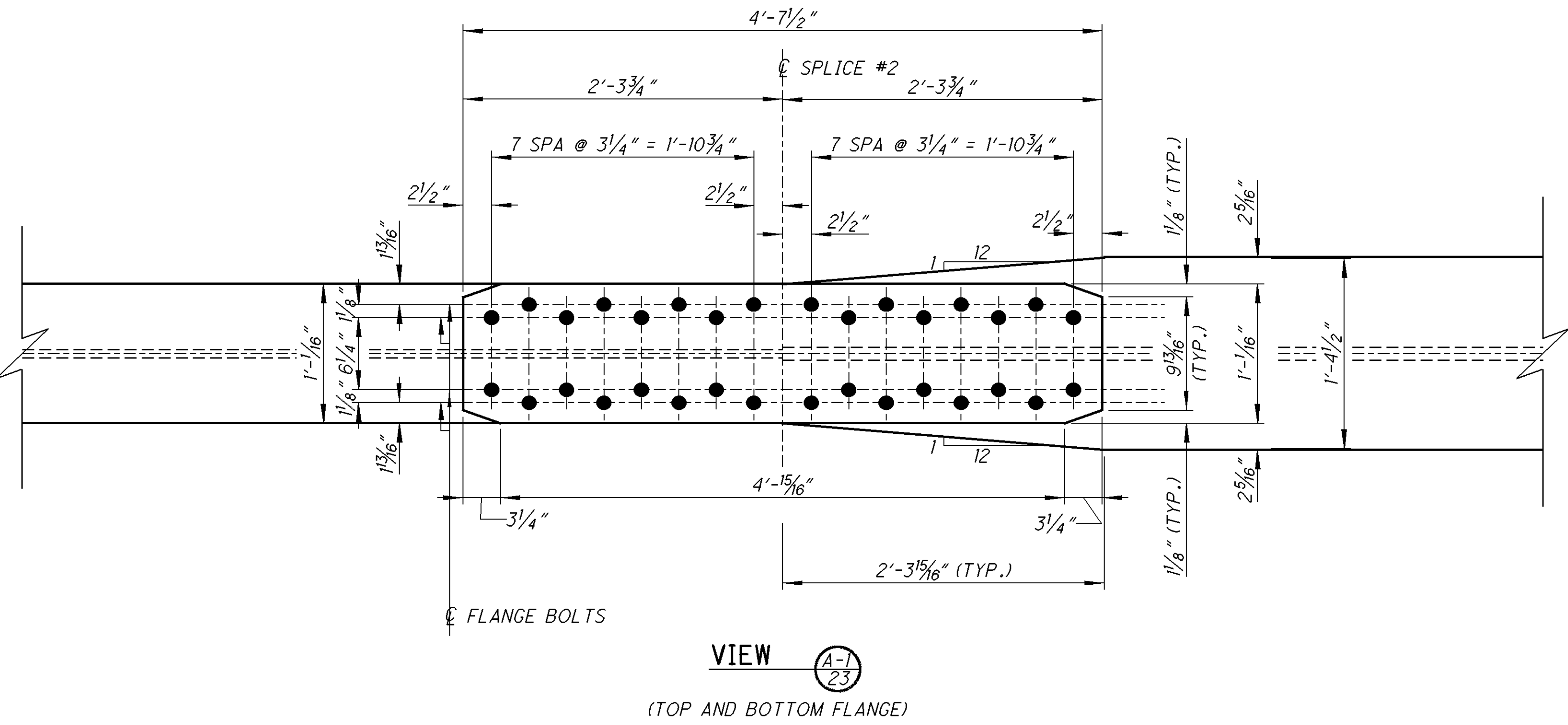
- WEB FILLER P BOTH SIDES OF WEB (SEE SECTION A-2)

DESIGNED	JDR	CHECKED	CPS
DRAWN	JDR	REVISED	
REVIEWED	TAG	STRUCTURE FILE NUMBER	4500830
DATE	3-1-2015		
DESIGN AGENCY	OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5		
BOLTED BEAM SPLICE # 1 DETAILS			
BRIDGE NO. LIC-16-1718 CHERRY VALLEY ROAD OVER S.R. 16			
LIC-16-16.64			
22 / 56		654 729	

P:\LIC\80704\Design\bridge\SFN - Route Name\Plan Sheets\L80704_BSD_004.dgn (SCALE = 0.667)

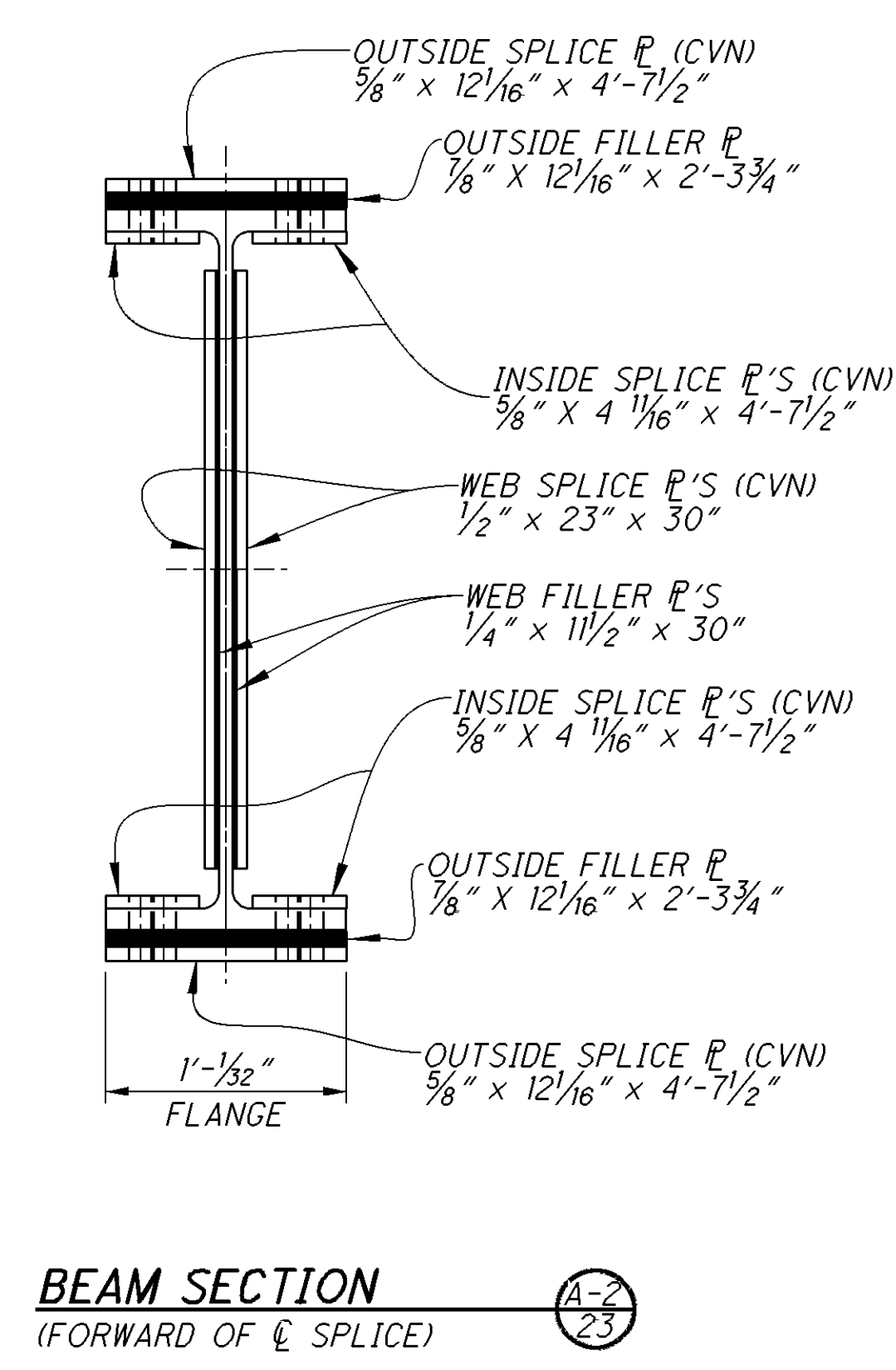


PARTIAL SECTION
(AT C OF SPLICE)
(NOT TO SCALE)

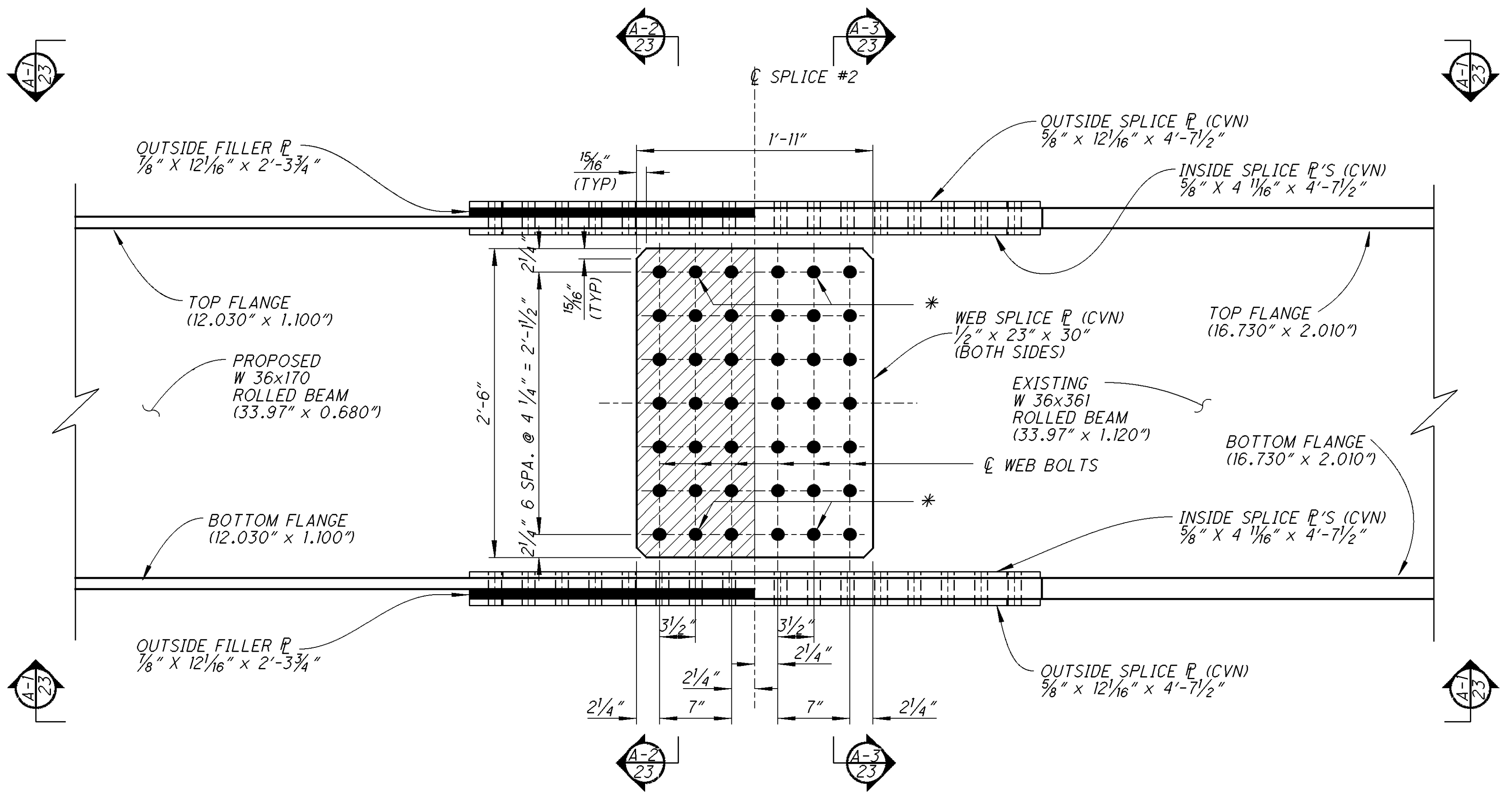


VIEW A-1
(TOP AND BOTTOM FLANGE)

NOTE:
EXCLUDE THE BOLT THREADS FROM THE SHEAR PLANES. (THE BOLT SHEAR STRENGTH FOR THE FLANGE AND WEB SPLICES HAS BEEN DESIGNED ASSUMING THAT THE THREADS ARE EXCLUDED FROM THE SHEAR PLANES.)
ALL BOLTS USED SHALL BE 1/8" DIAMETER.
ALL BOLT HOLES SHALL BE 13/16" DIAMETER.
BOLT SPECIFICATIONS SHALL CONFORM TO A325, TYPE I.



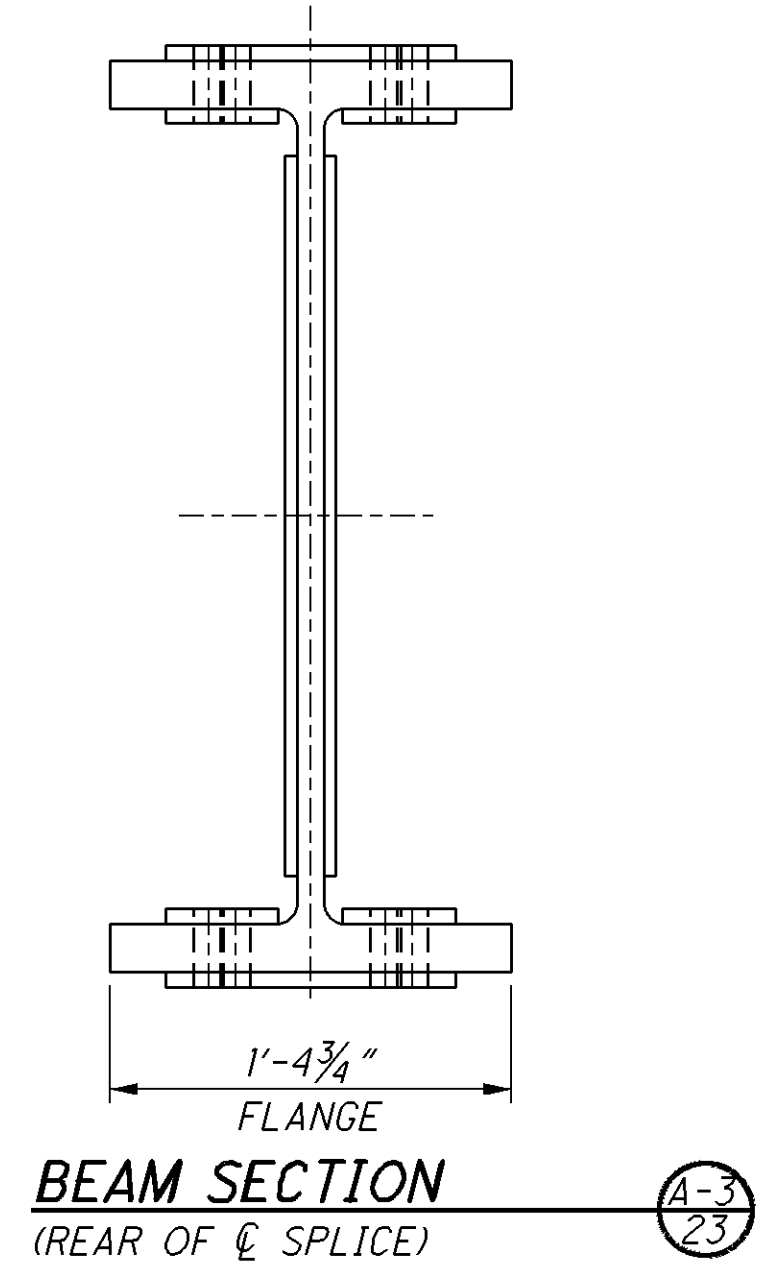
BEAM SECTION
(FORWARD OF C SPLICE)



BOLTED SPLICE DETAIL
(SEE FRAMING PLAN FOR LOCATION IN SPAN 2)

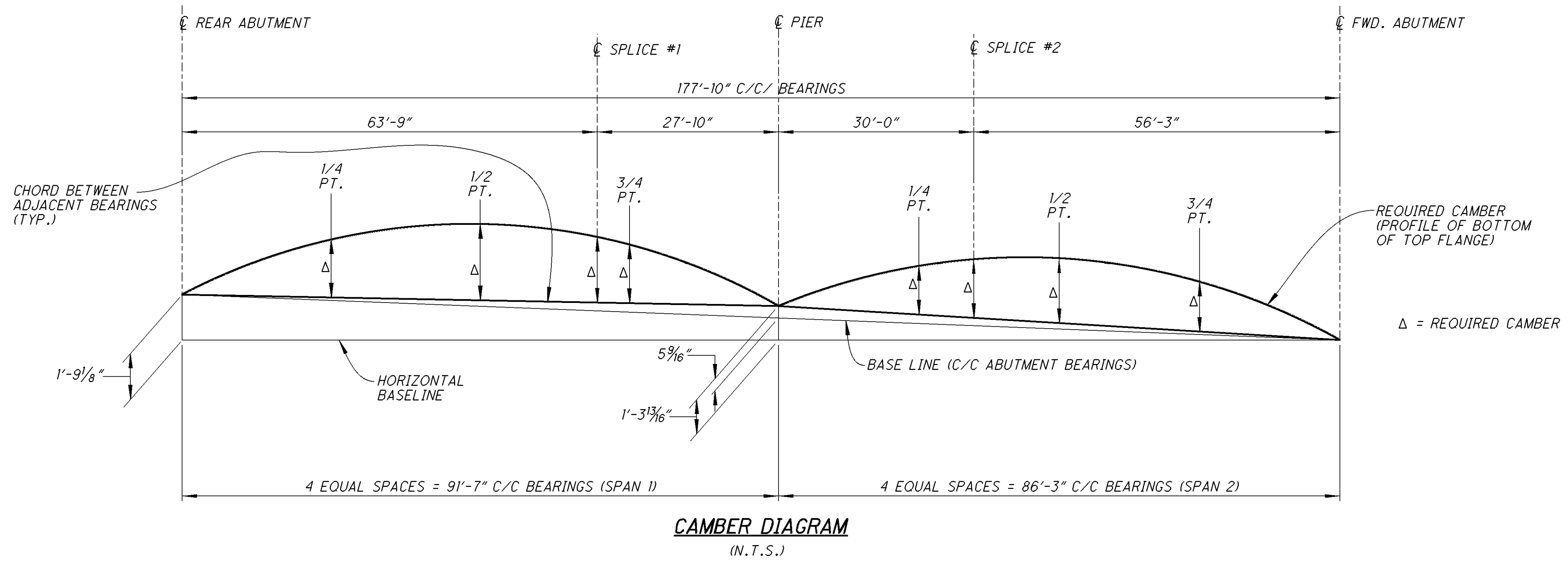
* - BOLT AND NUT LOCATIONS TO BE PLACED AND TIGHTENED LAST

- WEB FILLER P BOTH SIDES OF WEB (SEE SECTION A-2)



BEAM SECTION
(REAR OF C SPLICE)

P:\LIC\80704\Design\bridge\SFN - Route Name\Plan Sheets\L80704_BSD_003.dgn (SCALE = 10.667)



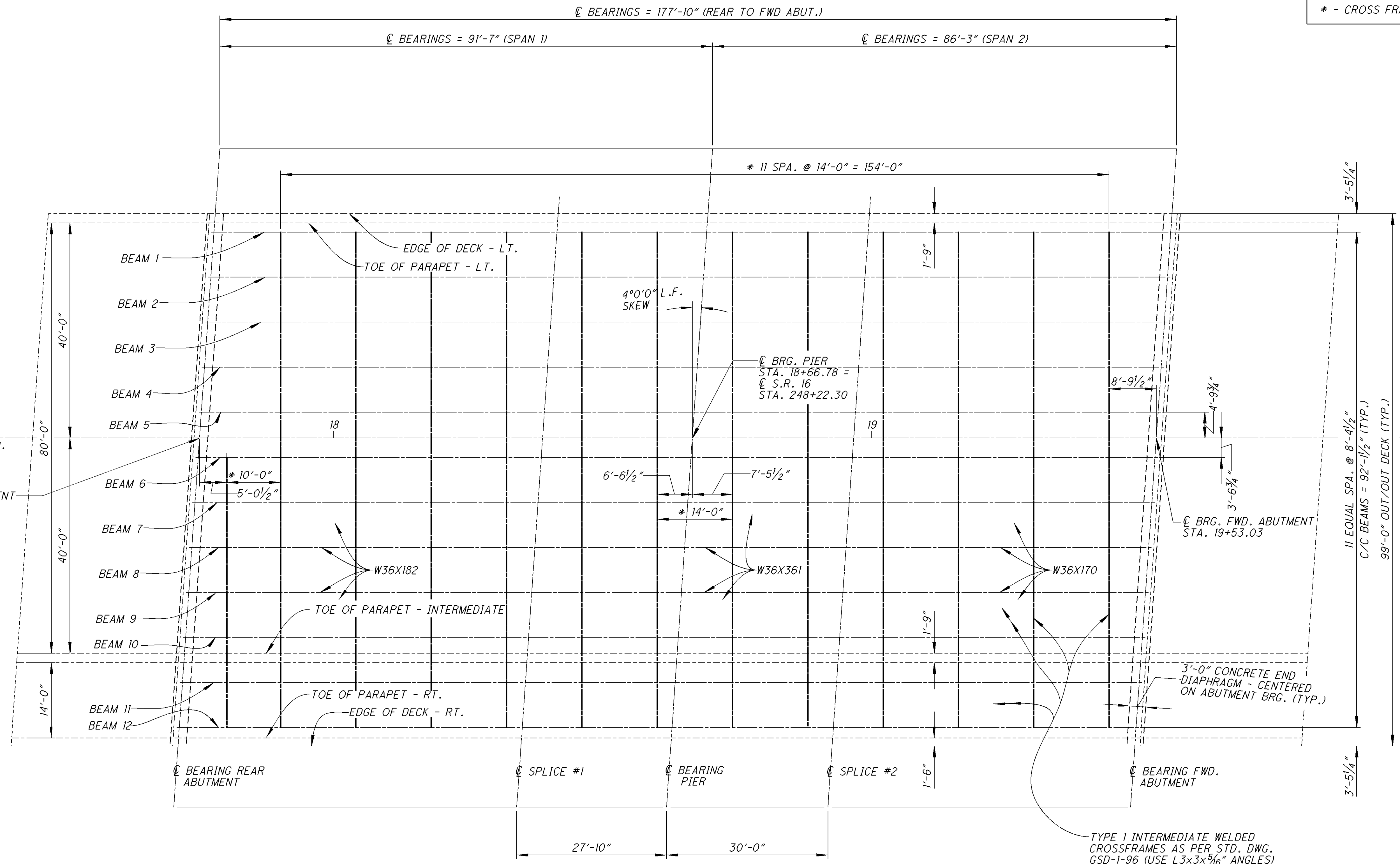
DEFLECTIONS & CAMBER TABLE								
POINT	1/4	1/2	SPLICE #1	3/4	1/4	SPLICE #2	1/2	3/4
DEFLECTION DUE TO WEIGHT OF STEEL	5/16"	3/8"	3/16"	3/16"	1/16"	3/16"	1/4"	1/4"
DEFLECTION DUE TO REMAINING DEAD LOAD	1 1/16"	1 5/8"	1 5/16"	1 1/16"	3/8"	5/8"	1 1/16"	1"
VERTICAL CURVE ADJUSTMENT	1/8"	1/2"	1 5/16"	1/8"	1"	1 1/4"	1 3/8"	1"
REQUIRED CAMBER = Δ	2 7/8"	3 1/2"	2 7/16"	2"	1 1/16"	2 1/16"	2 1/16"	2 1/4"
	SPAN 1				SPAN 2			



* - CROSS FRAME SPACING

P:\LIC\80704\Design\bridge\SFN - Route Name\Plan Sheets\L80704_BFP_001.dgn (SCALE = 10.000)

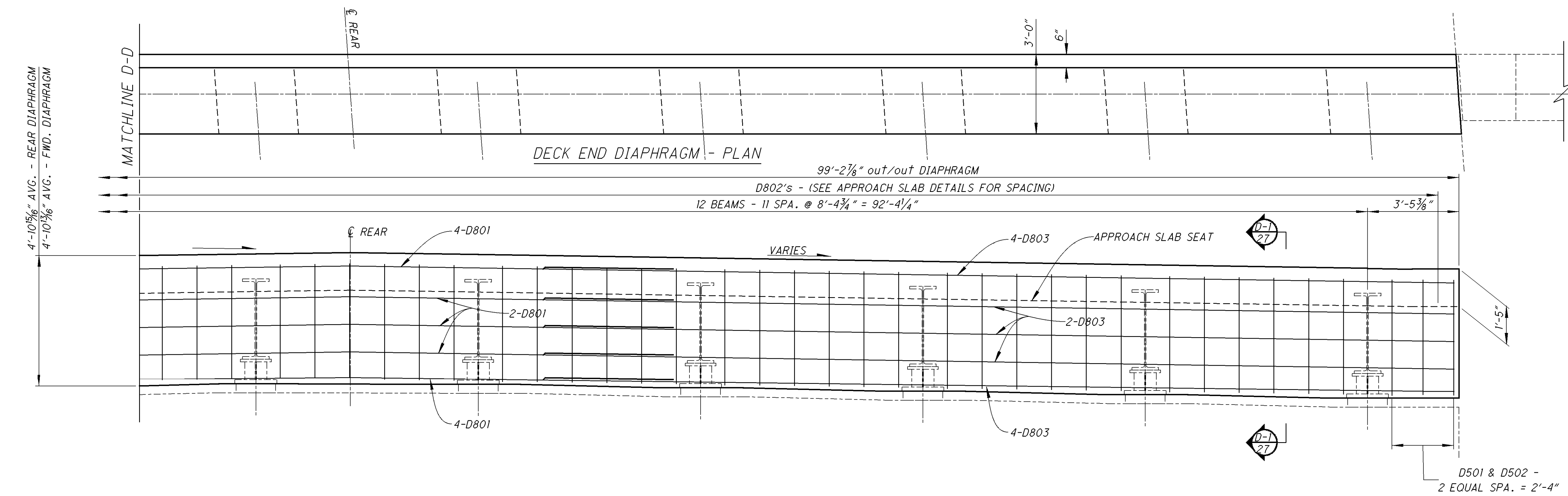
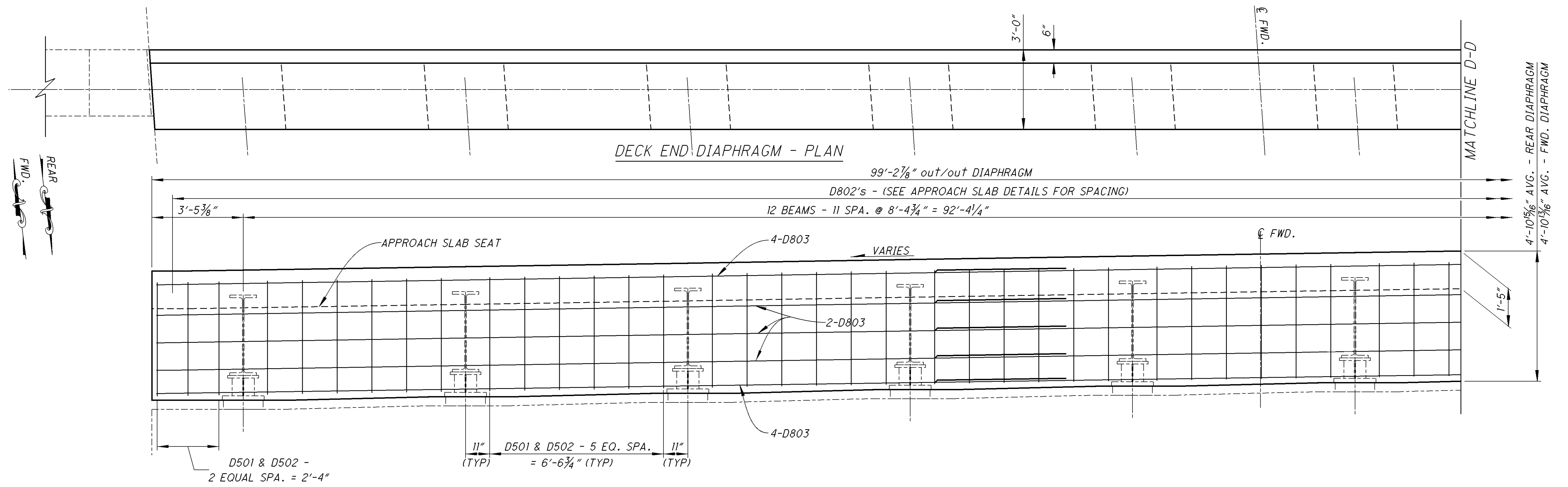
CL SURVEY & CONST.
CHERRY VALLEY RD.
(P.G. AND CROWN)
CL BRG. REAR ABUTMENT
STA. 17+75.20



FRAMING PLAN

DESIGN AGENCY OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5	
DATE 3-1-2015	REVIEWED TAG 4500830
DRAWN JDR	CHECKED CPS
BRIDGE NO. LIC-16-1718 CHERRY VALLEY ROAD OVER S.R. 16	
LIC-16-16.64	
25	56
657 729	

P:\LIC\80704\Design\bridge\SFN - Route Name\Plan Sheets\L80704_BDD_001.DGN (SCALE = 2.000)

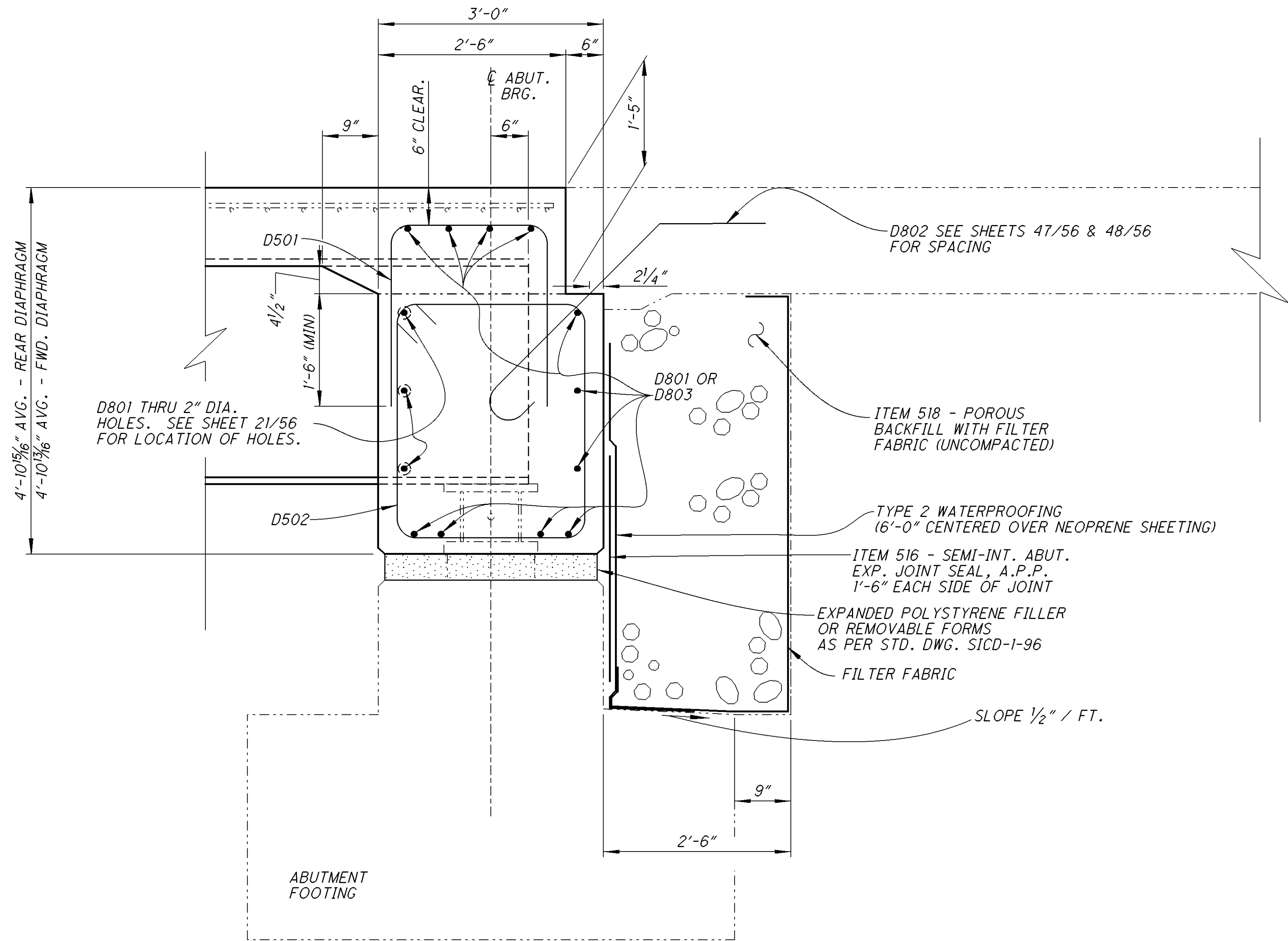


DECK END DIAPHRAGM - NORMAL ELEVATION VIEW
 (REAR SHOWN, FWD. SIMILAR)

RE-STEEL LAP SPLICE:
 NO. 8 BAR = 4'-11"

NOTES: - SEE DECK FINISH ELEVATIONS FOR ELEVATIONS.
 - DIMENSIONS GIVEN ALONG CL ABUTMENT BEARINGS.

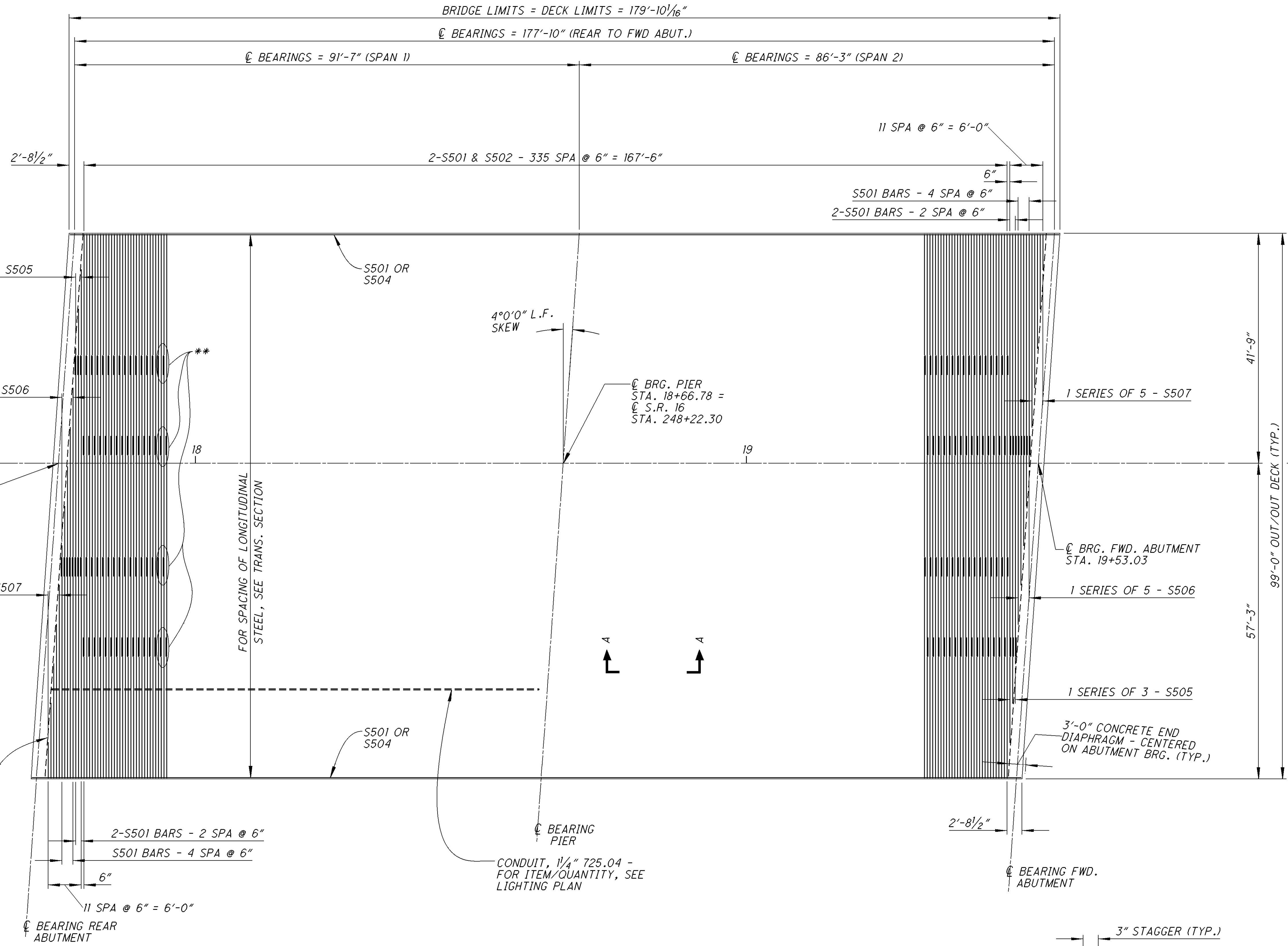
DESIGN AGENCY		OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5	
DATE	3-1-2015	DESIGNED	JDR
REVIEWED	TAG	DRAWN	JDR
STRUCTURE FILE NUMBER	4500830	CHECKED	CPS
DECK END DIAPHRAGM DETAILS			
BRIDGE NO. LIC-16-1718			
CHERRY VALLEY ROAD OVER S.R. 16			
LIC-16-16.64			
26	56		
658			
729			



SECTION D-1
26

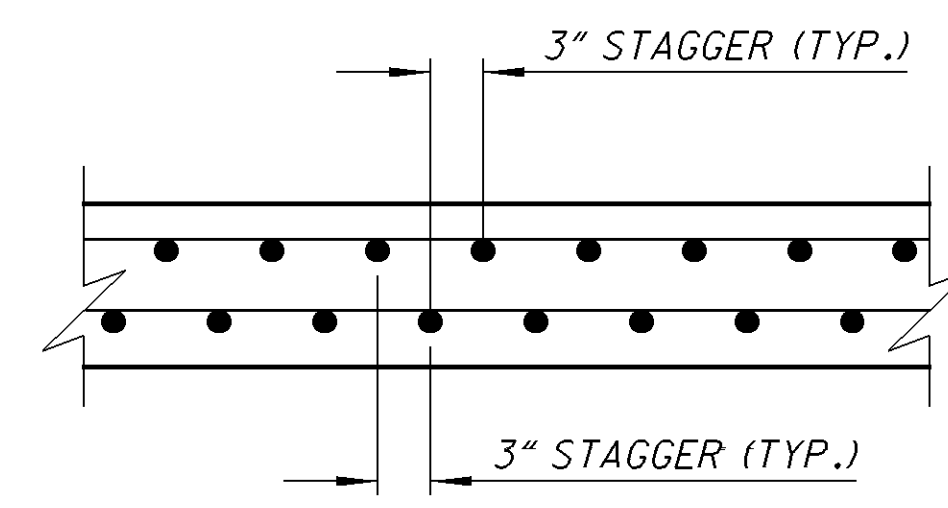
<p>LIC-16-16.64</p>	<p>DECK DIAPHRAGM DETAILS BRIDGE NO. LIC-16-1718 CHERRY VALLEY ROAD OVER S.R. 16</p>	<p>DESIGNED JDR CHECKED CPS</p>	<p>DRAWN JDR REVISED</p>	<p>REVIEWED TAG STRUCTURE FILE NUMBER 4500830</p>	<p>DATE 3-1-2015</p>	<p>DESIGN AGENCY OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5</p>
<p>27 / 56</p>	<p>659 729</p>					

P:\LIC\80704\Design\bridge\SFN - Route Name\Plan Sheets\L80704_BDS_001.dgn (SCALE = 10.000)



DECK REINFORCING PLAN (BOTTOM MAT)

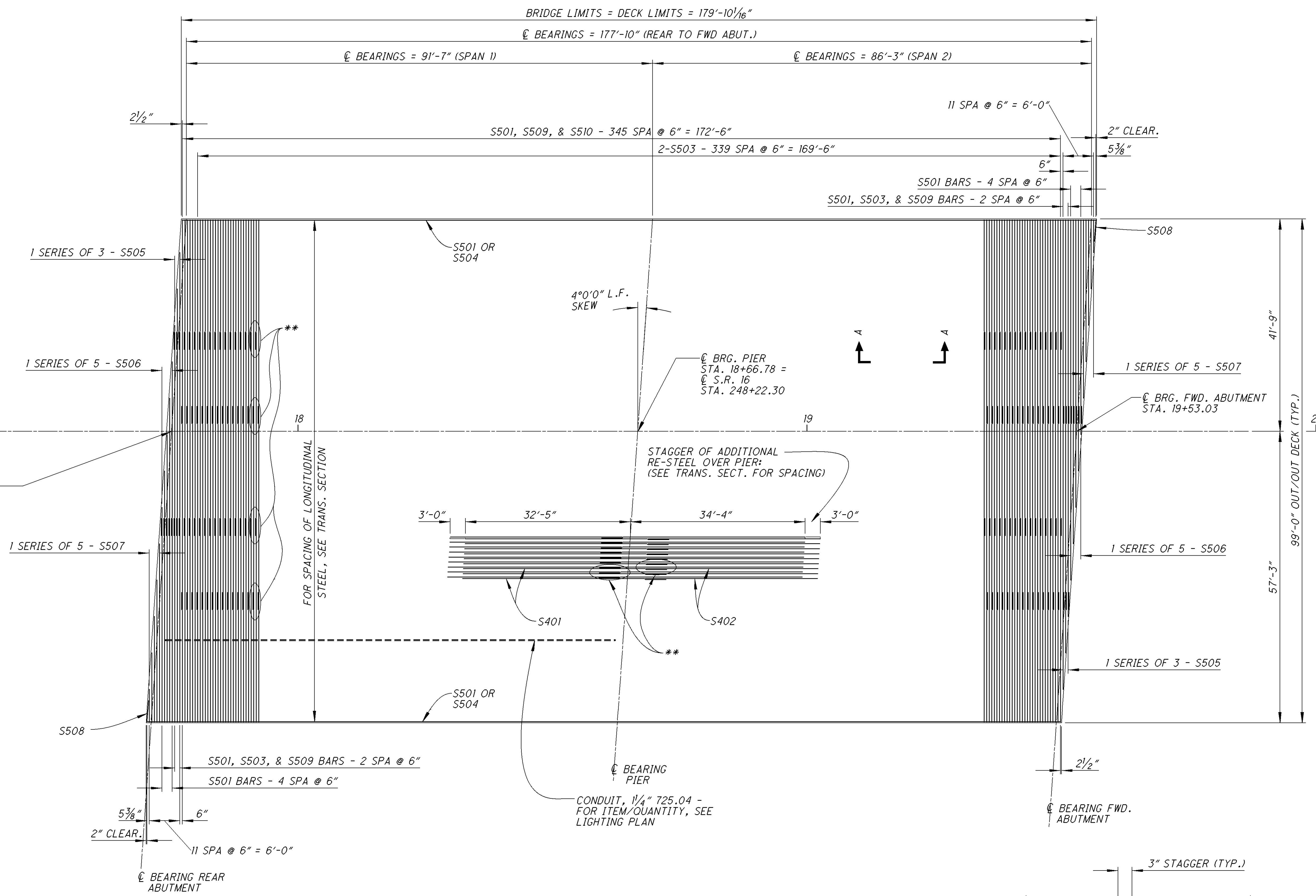
** - NOTE:
ALTERNATE BAR PLACEMENT IN ADJACENT LONGITUDINAL
AND TRANSVERSE ROWS IN ORDER TO STAGGER LAPS SHOWN
OR REQUIRED (TYP.)



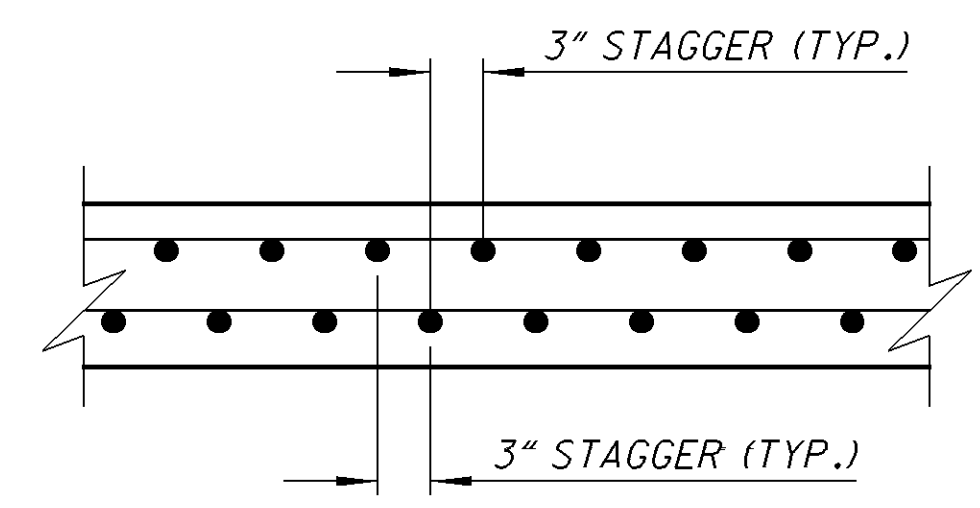
LAP LENGTHS	
No. 4	= 2'-9"
No. 5	= 3'-5"
No. 6	= 4'-1"

DESIGN AGENCY OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5	
DATE 3-1-2015	STRUCTURE FILE NUMBER 4500830
TAG 7	REVISED 4500830
DRAWN JDR	REVISED JDR
DESIGNED JDR	CHECKED CPS
DECK REINFORCING STEEL LAYOUT (BOTTOM MAT) BRIDGE NO. LIC-16-1718 CHERRY VALLEY ROAD OVER S.R. 16	
LIC-16-16.64	
28 / 56	
660 729	

P:\LIC\80704\Design\bridge\SFN - Route Name\Plan Sheets\L80704_BDS_002.dgn (SCALE = 10.000)



DECK REINFORCING PLAN (TOP MAT)



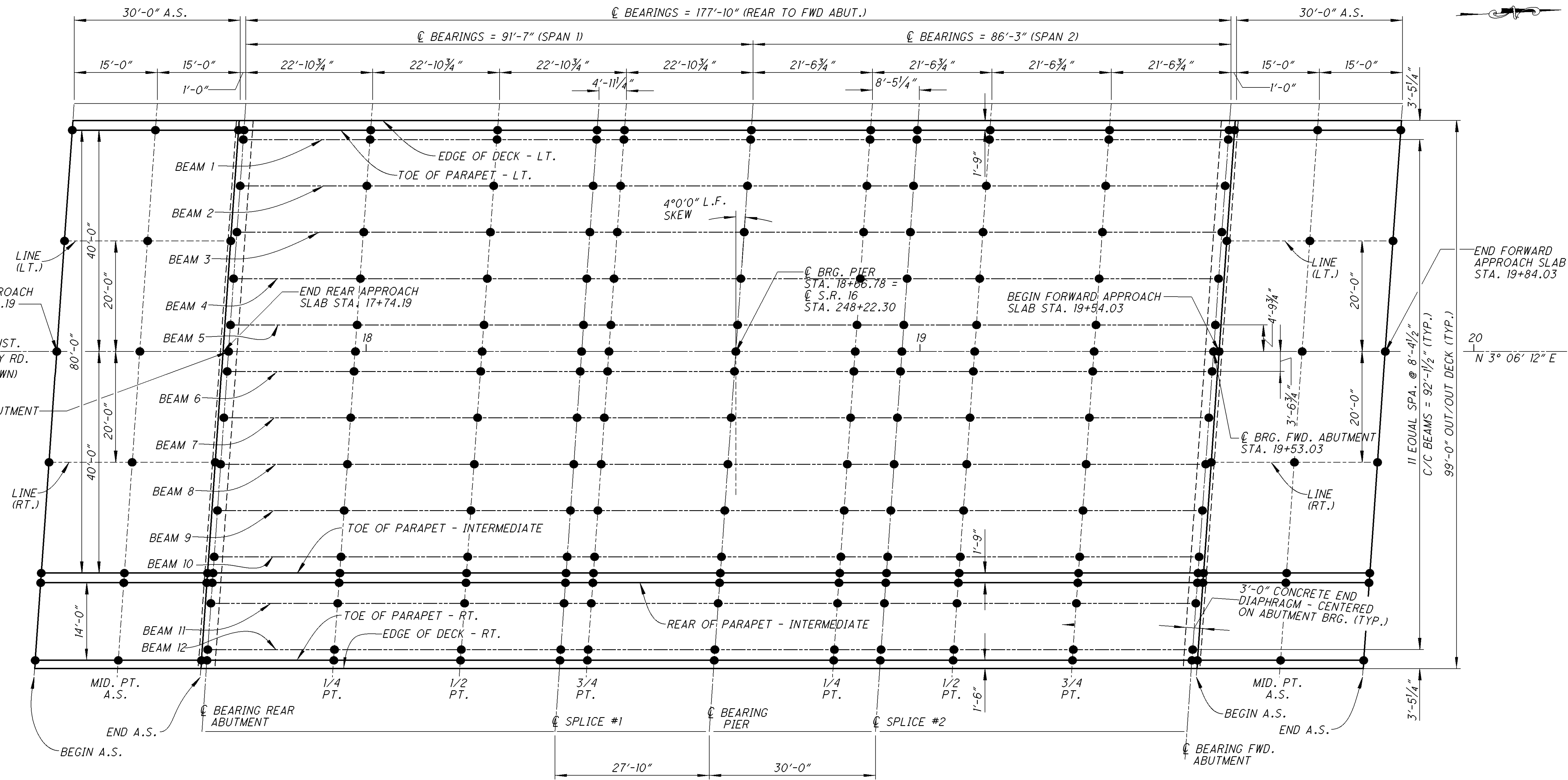
SECTION A-A

LAP LENGTHS	
No. 4	= 2'-9"
No. 5	= 3'-5"
No. 6	= 4'-1"

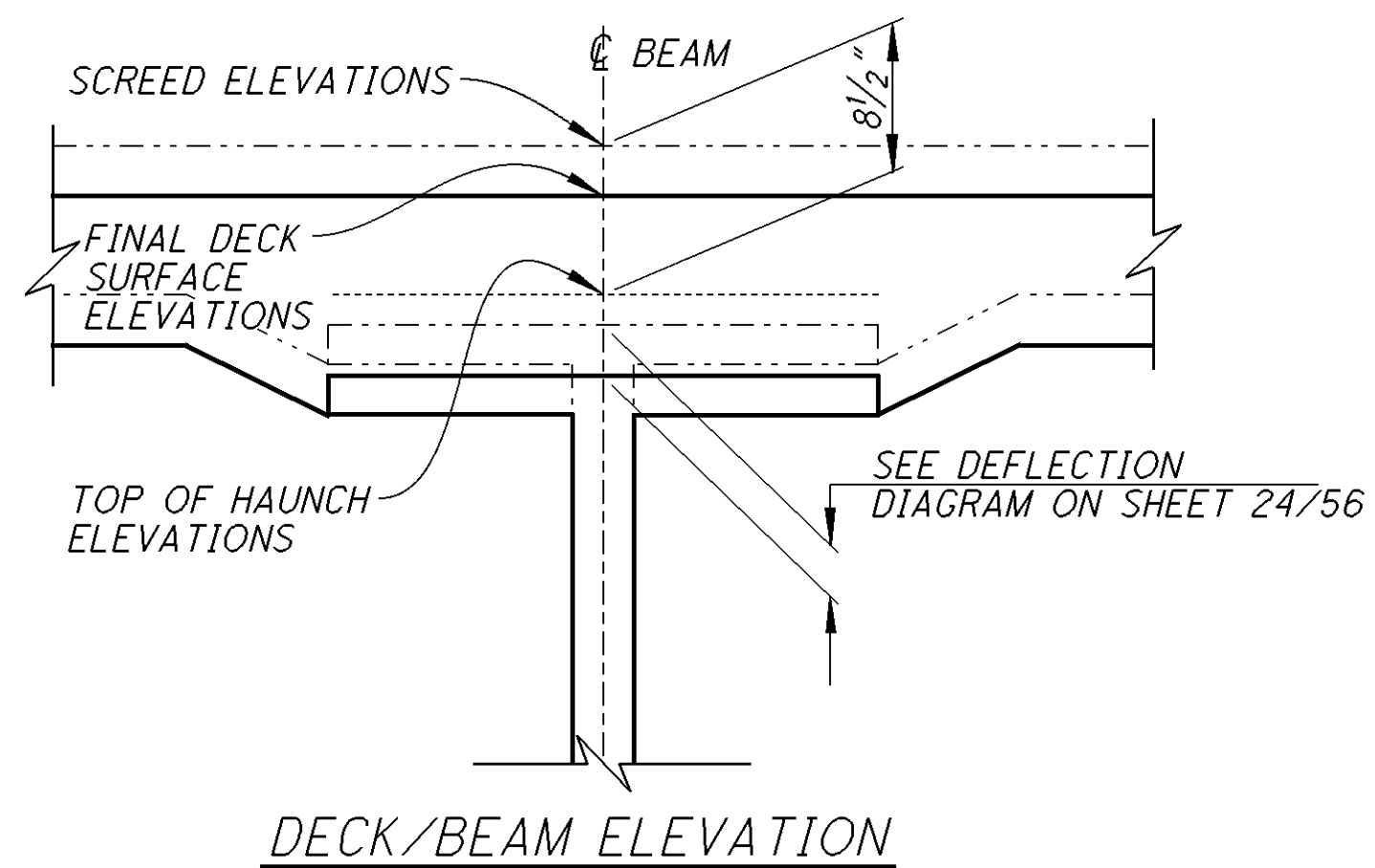
** - NOTE:
ALTERNATE BAR PLACEMENT IN ADJACENT LONGITUDINAL
AND TRANSVERSE ROWS IN ORDER TO STAGGER LAPS SHOWN
OR REQUIRED (TYP.)

DESIGN AGENCY OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5	DATE 3-1-2015	STRUCTURE FILE NUMBER 4500830
DRAWN JDR	TAG 7	REVISIONS REVISED
DESIGNED JDR	CHECKED CPS	
DECK REINFORCING STEEL LAYOUT (TOP MAT) BRIDGE NO. LIC-16-1718 CHERRY VALLEY ROAD OVER S.R. 16		
LIC-16-16.64		
29 / 56		661 729

P:\LIC\80704\Design\bridge\SFN - Route Name\Plan Sheets\L80704_BSD_002.dgn (SCALE = 10.000)



ELEVATION LOCATIONS - PLAN



TOP OF HAUNCH ELEVATIONS
 TOP OF HAUNCH ELEVATIONS SHOWN REPRESENT THE THEORETICAL LOCATION OF THE BOTTOM OF THE DECK ABOVE THE GIRDER HAUNCH PRIOR TO DEFLECTIONS CAUSED BY DECK PLACEMENT AND OTHER ANTICIPATED DEAD LOADS.

SCREED ELEVATIONS
 SCREED ELEVATIONS SHOWN REPRESENT THE THEORETICAL DECK SURFACE LOCATION PRIOR TO DEFLECTIONS CAUSED BY DECK PLACEMENT AND OTHER ANTICIPATED DEAD LOADS.

FINAL DECK SURFACE ELEVATIONS
 FINAL DECK SURFACE ELEVATIONS SHOWN REPRESENT THE DECK SURFACE LOCATION AFTER ALL ANTICIPATED DEAD LOAD DEFLECTIONS HAVE OCCURRED.

DESIGN AGENCY OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5	
DATE 3-1-2015	REVIEWED TAG 4500830
DRAWN JDR	CHECKED CPS
DESIGNED JDR	
BRIDGE NO. LIC-16-1718 CHERRY VALLEY ROAD OVER S.R. 16	
DECK AND APPROACH SLAB ELEVATION LOCATIONS	
LIC-16-16.64	
30	56
662 729	

DECK ELEVATIONS (SPAN 1)																								
LOCATION	CL BRG. - REAR ABUT.				1/4 PT.				1/2 PT.				SPLICE #1				3/4 PT.				CL BRG. - PIER			
	STATION	FINISHED DECK ELEV. (ft.)	SCREED ELEV. (ft.)	TOP OF HAUNCH SCREED ELEV. (ft.)	STATION	FINISHED DECK ELEV. (ft.)	SCREED ELEV. (ft.)	TOP OF HAUNCH SCREED ELEV. (ft.)	STATION	FINISHED DECK ELEV. (ft.)	SCREED ELEV. (ft.)	TOP OF HAUNCH SCREED ELEV. (ft.)	STATION	FINISHED DECK ELEV. (ft.)	SCREED ELEV. (ft.)	TOP OF HAUNCH SCREED ELEV. (ft.)	STATION	FINISHED DECK ELEV. (ft.)	SCREED ELEV. (ft.)	TOP OF HAUNCH SCREED ELEV. (ft.)	STATION	FINISHED DECK ELEV. (ft.)	SCREED ELEV. (ft.)	TOP OF HAUNCH SCREED ELEV. (ft.)
TOE OF PARAPET (LT.)	17+78.00	907.35	907.35	906.64	18+00.89	907.33	907.44	906.73	18+23.79	907.24	907.37	906.66	18+41.74	907.13	907.20	906.50	18+46.68	907.09	907.15	906.44	18+69.58	906.88	906.88	906.17
BEAM 1	17+77.88	907.38	907.38	906.67	18+00.77	907.35	907.47	906.76	18+23.67	907.27	907.40	906.69	18+41.62	907.15	907.23	906.52	18+46.56	907.12	907.18	906.47	18+69.46	906.91	906.91	906.20
BEAM 2	17+77.29	907.51	907.51	906.80	18+00.19	907.48	907.60	906.89	18+23.08	907.40	907.53	906.82	18+41.03	907.29	907.37	906.66	18+45.98	907.25	907.31	906.60	18+68.87	907.04	907.04	906.34
BEAM 3	17+76.71	907.64	907.64	906.93	17+99.60	907.62	907.73	907.03	18+22.50	907.53	907.67	906.96	18+40.45	907.42	907.50	906.79	18+45.39	907.39	907.45	906.74	18+68.29	907.18	907.18	906.47
BEAM 4	17+76.12	907.77	907.77	907.06	17+99.02	907.75	907.87	907.16	18+21.91	907.67	907.80	907.09	18+39.86	907.56	907.64	906.93	18+44.81	907.52	907.58	906.87	18+67.70	907.32	907.32	906.61
BEAM 5	17+75.54	907.90	907.90	907.19	17+98.43	907.88	908.00	907.29	18+21.33	907.80	907.93	907.22	18+39.28	907.69	907.77	907.06	18+44.22	907.66	907.72	907.01	18+67.12	907.45	907.45	906.75
P.G. & CROWN	17+75.20	907.97	907.97	907.27	17+98.10	907.96	908.07	907.37	18+20.99	907.88	908.01	907.30	18+38.94	907.77	907.85	907.14	18+43.89	907.73	907.79	907.09	18+66.78	907.53	907.53	906.82
BEAM 6	17+74.95	907.92	907.92	907.21	17+97.85	907.90	908.02	907.31	18+20.74	907.82	907.95	907.25	18+38.69	907.72	907.79	907.09	18+43.64	907.68	907.74	907.03	18+66.53	907.48	907.48	906.77
BEAM 7	17+74.37	907.79	907.79	907.08	17+97.26	907.77	907.89	907.18	18+20.16	907.69	907.83	907.12	18+38.10	907.59	907.67	906.96	18+43.05	907.55	907.61	906.91	18+65.95	907.35	907.35	906.65
BEAM 8	17+73.78	907.66	907.66	906.95	17+96.67	907.64	907.76	907.05	18+19.57	907.57	907.70	906.99	18+37.52	907.46	907.54	906.83	18+42.46	907.43	907.49	906.78	18+65.36	907.23	907.23	906.52
BEAM 9	17+73.19	907.52	907.52	906.82	17+96.09	907.51	907.63	906.92	18+18.98	907.44	907.57	906.86	18+36.93	907.34	907.41	906.71	18+41.88	907.30	907.36	906.65	18+64.77	907.10	907.10	906.40
BEAM 10	17+72.61	907.39	907.39	906.69	17+95.50	907.38	907.50	906.79	18+18.40	907.31	907.44	906.73	18+36.35	907.21	907.29	906.58	18+41.29	907.18	907.23	906.53	18+64.19	906.98	906.98	906.27
TOE OF PARAPET (INT.)	17+72.40	907.35	907.35	906.64	17+95.30	907.34	907.45	906.75	18+18.19	907.27	907.40	906.69	18+36.14	907.17	907.24	906.53	18+41.09	907.13	907.19	906.48	18+63.98	906.94	906.94	906.23
REAR OF PARAPET (INT.)	17+72.28	907.32	907.32	906.61	17+95.18	907.31	907.43	906.72	18+18.07	907.24	907.37	906.66	18+36.02	907.14	907.22	906.51	18+40.97	907.11	907.16	906.46	18+63.86	906.91	906.91	906.20
BEAM 11	17+72.02	907.26	907.26	906.55	17+94.92	907.25	907.37	906.66	18+17.81	907.18	907.31	906.61	18+35.76	907.08	907.16	906.45	18+40.71	907.05	907.11	906.40	18+63.60	906.86	906.86	906.15
BEAM 12	17+71.44	907.13	907.13	906.42	17+94.33	907.12	907.24	906.53	18+17.23	907.05	907.19	906.48	18+35.18	906.96	907.03	906.33	18+40.12	906.92	906.98	906.27	18+63.02	906.73	906.73	906.02
TOE OF PARAPET (RT.)	17+71.30	907.10	907.10	906.39	17+94.20	907.09	907.21	906.50	18+17.09	907.02	907.16	906.45	18+35.04	906.93	907.00	906.30	18+39.99	906.89	906.95	906.24	18+62.88	906.70	906.70	905.99

DECK ELEVATIONS (SPAN 2)																				
LOCATION	1/4 PT.				SPLICE #2				1/2 PT.				3/4 PT.				CL BRG. - FWD. ABUT.			
	STATION	FINISHED DECK ELEV. (ft.)	SCREED ELEV. (ft.)	TOP OF HAUNCH SCREED ELEV. (ft.)	STATION	FINISHED DECK ELEV. (ft.)	SCREED ELEV. (ft.)	TOP OF HAUNCH SCREED ELEV. (ft.)	STATION	FINISHED DECK ELEV. (ft.)	SCREED ELEV. (ft.)	TOP OF HAUNCH SCREED ELEV. (ft.)	STATION	FINISHED DECK ELEV. (ft.)	SCREED ELEV. (ft.)	TOP OF HAUNCH SCREED ELEV. (ft.)	STATION	FINISHED DECK ELEV. (ft.)	SCREED ELEV. (ft.)	TOP OF HAUNCH SCREED ELEV. (ft.)
TOE OF PARAPET (LT.)	18+91.14	906.62	906.66	905.95	18+99.59	906.51	906.56	905.86	19+12.70	906.32	906.40	905.69	19+34.26	905.95	906.03	905.33	19+55.83	905.53	905.53	904.82
BEAM 1	18+91.02	906.65	906.68	905.97	18+99.47	906.54	906.59	905.88	19+12.58	906.34	906.43	905.72	19+34.15	905.98	906.06	905.35	19+55.71	905.56	905.56	904.85
BEAM 2	18+90.44	906.79	906.82	906.11	18+98.89	906.68	906.73	906.02	19+12.00	906.46	906.57	905.86	19+33.56	906.12	906.20	905.49	19+55.12	905.70	905.70	905.00
BEAM 3	18+89.85	906.93	906.96	906.25	18+98.30	906.82	906.87	906.16	19+11.41	906.62	906.71	906.00	19+32.98	906.26	906.34	905.64	19+54.54	905.85	905.85	905.14
BEAM 4	18+89.26	907.07	907.10	906.39	18+97.72	906.95	907.01	906.30	19+10.83	906.76	906.85	906.14	19+32.39	906.40	906.49	905.78	19+53.95	905.99	905.99	905.28
BEAM 5	18+88.68	907.21	907.24	906.53	18+97.13	907.09	907.15	906.44	19+10.24	906.90	906.99	906.28	19+31.80	906.54	906.63	905.92	19+53.37	906.13	906.13	905.42
P.G. & CROWN	18+88.34	907.28	907.32	906.61	18+96.80	907.17	907.23	906.52	19+09.91	906.88	907.07	906.36	19+31.47	906.63	906.71	906.00	19+53.03	906.21	906.21	905.51
BEAM 6	18+88.09	907.23	907.26	906.55	18+96.55	907.12	907.17	906.47	19+09.66	906.93	907.02	906.31	19+31.22	906.57	906.66	905.95	19+52.78	906.16	906.16	905.46
BEAM 7	18+87.51	907.11	907.14	906.43	18+95.96	907.00	907.05	906.34	19+09.07	906.81	906.90	906.19	19+30.63	906.45	906.54	905.83	19+52.20	906.04	906.04	905.34
BEAM 8	18+86.92	906.99	907.02	906.31	18+95.37	906.88	906.93	906.22	19+08.48	906.69	906.77	906.07	19+30.05	906.33	906.42	905.71	19+51.61	905.93	905.93	905.22
BEAM 9	18+86.34	906.86	906.89	906.18	18+94.79	906.75	906.81	906.10	19+07.90	906.57	906.65	905.94	19+29.46	906.21	906.30	905.59	19+51.02	905.81	905.81	905.10
BEAM 10	18+85.75	906.74	906.77	906.06	18+94.20	906.63	906.68	905.96	19+07.31	906.44	906.53	905.82	19+28.88	906.09	906.18	905.47	19+50.44	905.69	905.69	904.96
TOE OF PARAPET (INT.)	18+85.55	906.70	906.73	906.02	18+94.00	906.59	906.64	905.93	19+07.11	906.40	906.49	905.78	19+28.67	906.05	906.13	905.42	19+50.23	905.65	905.65	904.94
REAR OF PARAPET (INT.)	18+85.42	906.67	906.70	905.99	18+93.88	906.56	906.62	905.91	19+06.99	906.38	906.46	905.75	19+28.55	906.03	906.11	905.40	19+50.11	905.62	905.62	904.91
BEAM 11	18+85.17	906.62	906.65	905.94	18+93.62	906.51	906.56	905.85	19+06.73	906.32	906.41	905.70	19+28.29	905.97	906.05	905.35	19+49.85	905.57	905.57	904.86
BEAM 12	18+84.58	906.49	906.52	905.81	18+93.03	906.38	906.44	905.73	19+06.14	906.20	906.29	905.56	19+27.70	905.85	905.93	905.23	19+49.27	905.45	905.45	904.74
TOE OF PARAPET (RT.)	18+84.44	906.46	906.49	905.79	18+92.90	906.36	906.41	905.70	19+06.01	906.17	906.26	905.55	19+27.57	905.82	905.91	905.20	19+49.13	905.42	905.42	904.71

REAR APPROACH SLAB FINISH ELEVATIONS							FORWARD APPROACH SLAB FINISH ELEVATIONS						
LOCATION	BEGIN APPR. SLAB		1/2 PT.		END APPR. SLAB		LOCATION	BEGIN APPR. SLAB		1/2 PT.		END APPR. SLAB	
	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.		STATION	ELEV.	STATION	ELEV.	STATION	ELEV.
EDGE OF APPROACH SLAB (LT.)	17+47.11	907.26	17+62.11	907.30	17+77.11	907.32	EDGE OF APPROACH SLAB (LT.)	19+56.95	905.48	19+71.95	905.16	19+86.95	904.80
TOE OF PARAPET (LT.)	17+46.99	907.29	17+61.99	907.33	17+76.99	907.35	TOE OF PARAPET (LT.)	19+56.83	905.51	19+71.83	905.19	19+86.83	904.83
LINE (LT.)	17+45.59	907.59	17+60.59	907.64	17+75.59	907.66	LINE (LT.)	19+55.43	905.85	19+70.43	905.53	19+85.43	905.18
P.G. & CROWN	17+44.19	907.90	17+59.19	907.95	17+74.19	907.97	P.G. & CROWN	19+54.03	906.19	19+69.03	905.87	19+84.03	905.53
LINE (RT.)	17+42.79	907.58	17+57.79	907.63	17+72.79	907.66	LINE (RT.)	19+52.63	905.91	19+67.63	905.59	19+82.63	905.25
TOE OF PARAPET (INT.)	17+41.39	907.26	17+56.39	907.32	17+71.39	907.35	TOE OF PARAPET (INT.)	19+51.23	905.63	19+66.23	905.31	19+81.23	904.97
REAR OF PARAPET (INT.)	17+41.27	907.24	17+56.27	907.29	17+71.27	907.32	REAR OF PARAPET (INT.)	19+51.11	905.60	19+66.11	905.29	19+81.11	904.94
TOE OF PARAPET (RT.)	17+40.29	907.01	17+55.29	907.07	17+70.29	907.10	TOE OF PARAPET (RT.)	19+50.13	905.40	19+65.13	905.09	19+80.13	904.75
EDGE OF APPROACH SLAB (RT.)	17+40.19	906.99	17+55.19	907.05	17+70.19	907.08	EDGE OF APPROACH SLAB (RT.)	19+50.03	905.38	19+65.03	905.07	19+80.03	904.73

DESIGN AGENCY
OHIO DEPARTMENT OF
TRANSPORTATION, DISTRICT 5

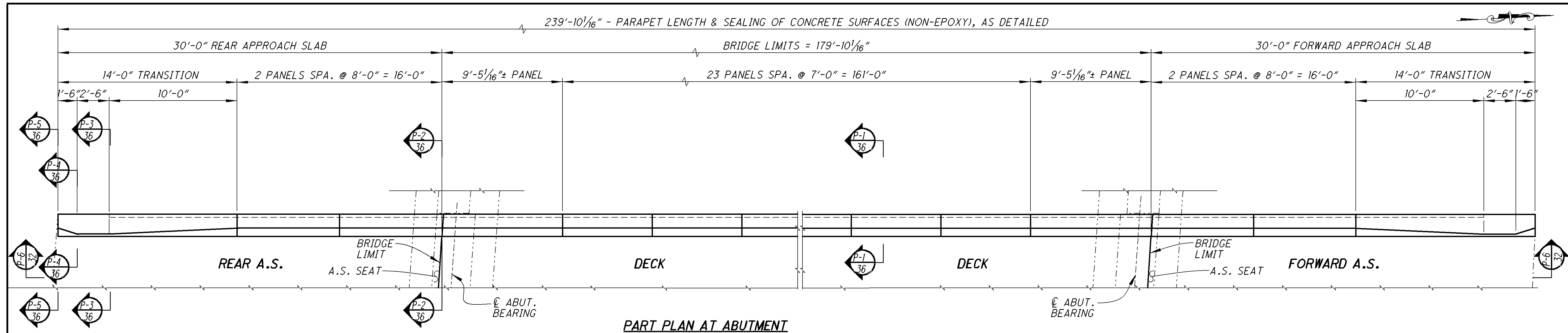
DATE
3-1-2015
TAG
STRUCTURE FILE NUMBER
4500830

DRAWN
JDR
REVISED
DESIGNED
JDR
CHECKED
CPS

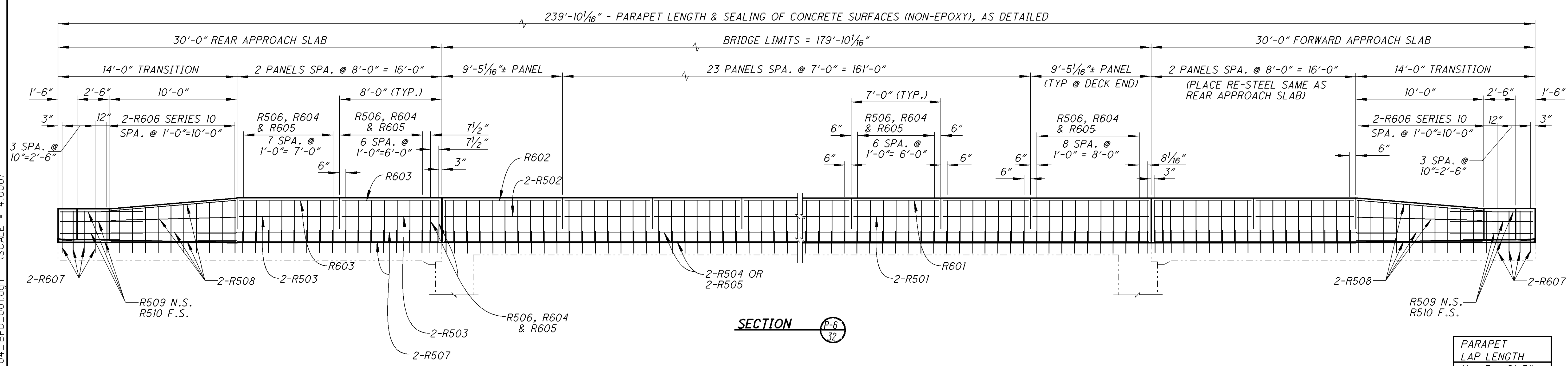
DECK & APPROACH SLAB ELEVATIONS
BRIDGE NO. LIC-16-1718
CHERRY VALLEY ROAD OVER S.R. 16

LIC-16-16.64</

P:\LIC\80704\Design\Bridge_SFN - Route Name\Plan Sheets\L80704 - BPD_001.dgn (SCALE = 4,000)

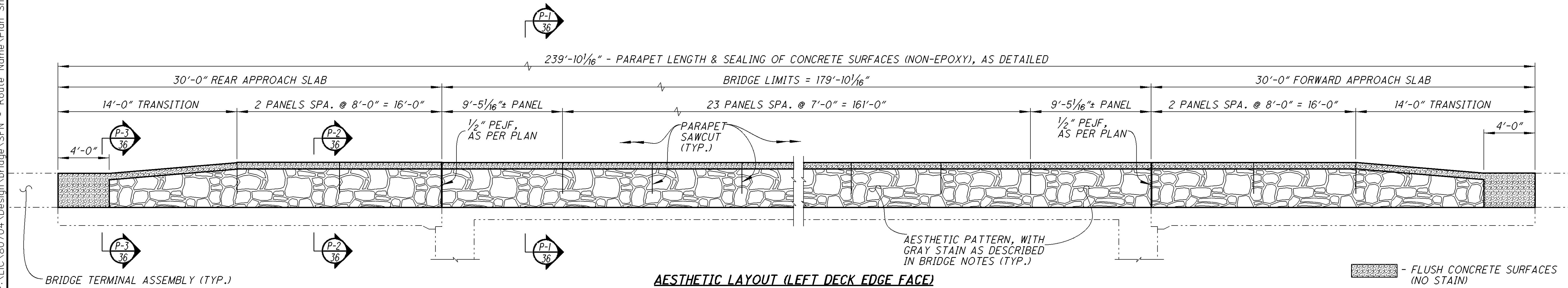


PART PLAN AT ABUTMENT



SECTION P-6/32

PARAPET LAP LENGTH	
No. 5	= 2'-5"
No. 6	= 2'-11"

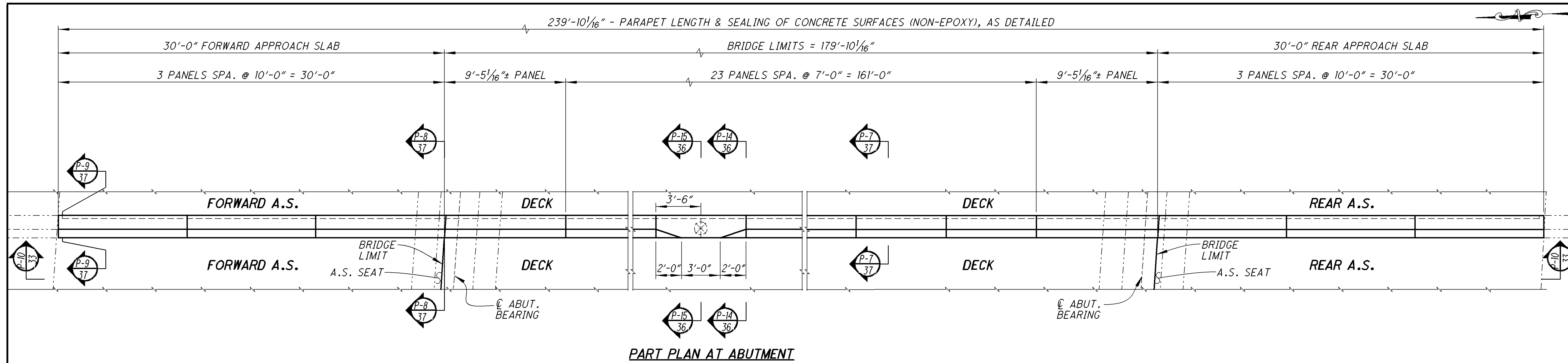


AESTHETIC LAYOUT (LEFT DECK EDGE FACE)

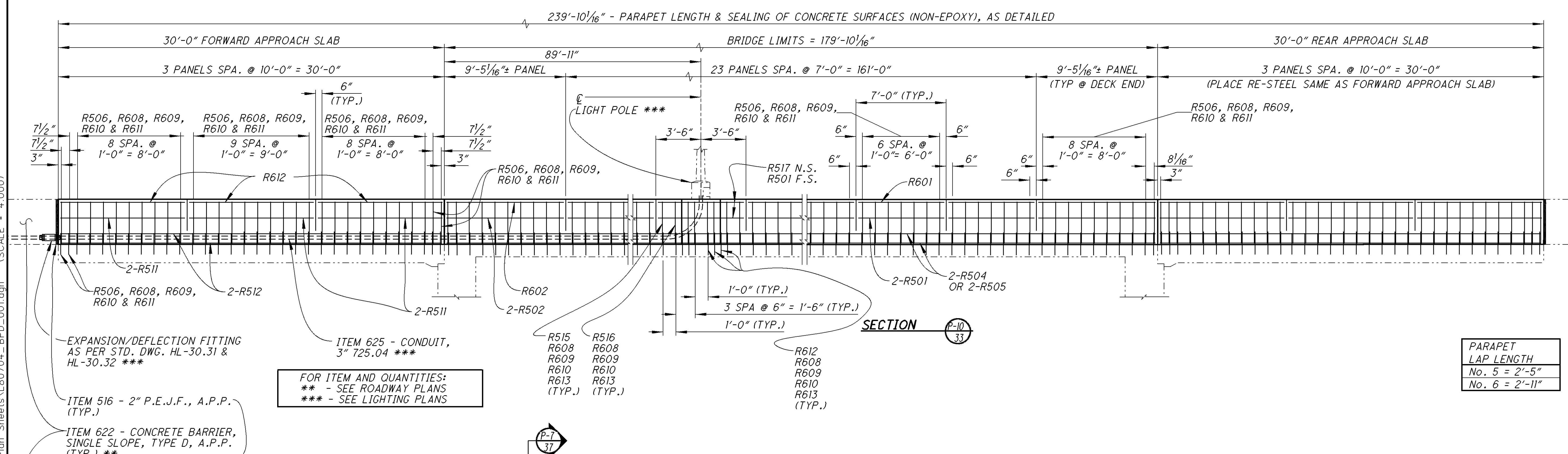
FLUSH CONCRETE SURFACES (NO STAIN)

DESIGN AGENCY	OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5
DATE	3-1-2015
REVIEWED TAG	JDR
STRUCTURE FILE NUMBER	4500830
DRAWN	JDR
REVISOR	JDR
DESIGNED	JDR
CHECKED	CPS
LEFT PARAPET DETAILS	
BRIDGE NO. LIC-16-1718	
CHERRY VALLEY ROAD OVER S.R. 16	
LIC-16-16.64	
32	56
664	729

P:\LIC\80704\Design\bridge\SFN - Route Name\Plan Sheets\L80704 - BPD_001.dgn (SCALE = 4,000)



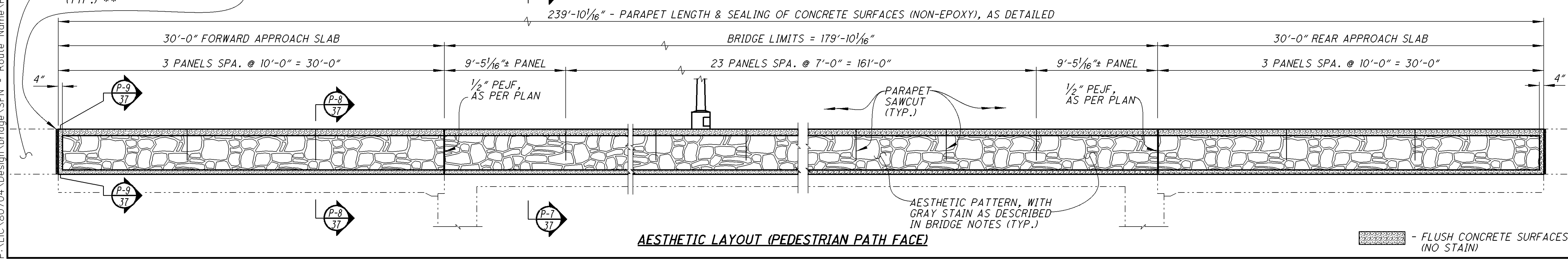
PART PLAN AT ABUTMENT



SECTION P-10 33

PARAPET LAP LENGTH	
No. 5	= 2'-5"
No. 6	= 2'-11"

FOR ITEM AND QUANTITIES:
 ** - SEE ROADWAY PLANS
 *** - SEE LIGHTING PLANS



AESTHETIC LAYOUT (PEDESTRIAN PATH FACE)

FLUSH CONCRETE SURFACES (NO STAIN)

DESIGN AGENCY
 OHIO DEPARTMENT OF
 TRANSPORTATION, DISTRICT 5

DATE
 3-1-2015

REVIEWED
 TAG 3-1-2015

DRAWN
 JDR

DESIGNED
 JDR

CHECKED
 CPS

STRUCTURE FILE NUMBER
 4500830

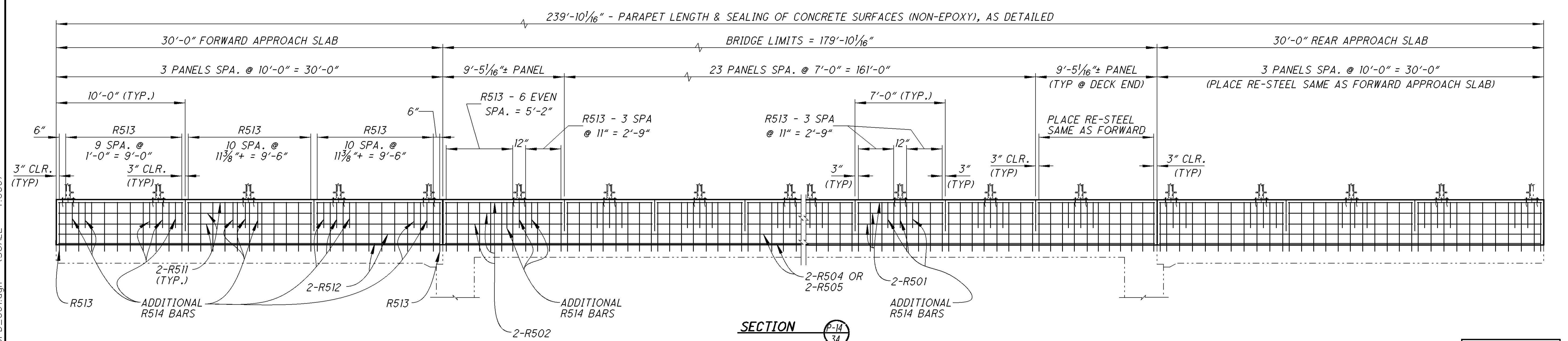
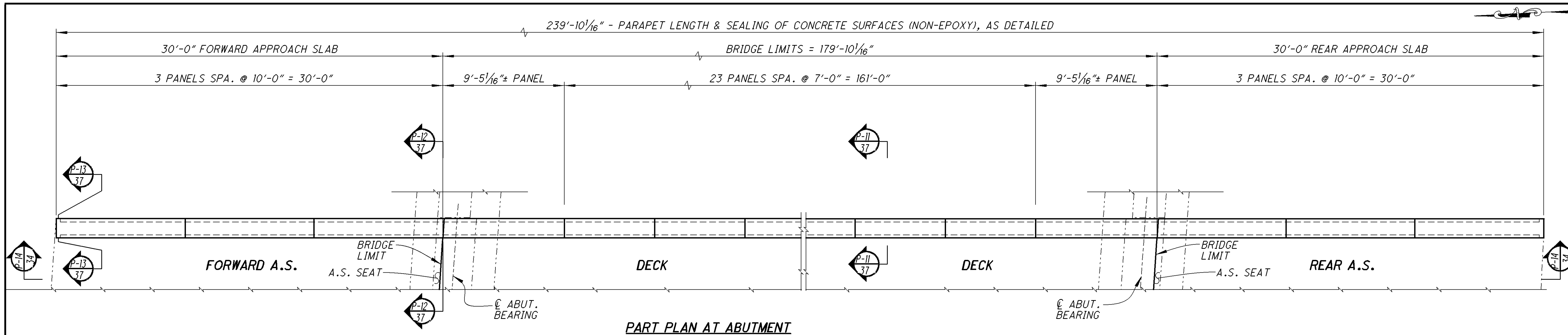
MIDDLE PARAPET DETAILS
 BRIDGE NO. LIC-16-1718
 CHERRY VALLEY ROAD OVER S.R. 16

LIC-16-16.64

33 / 56

665
 729

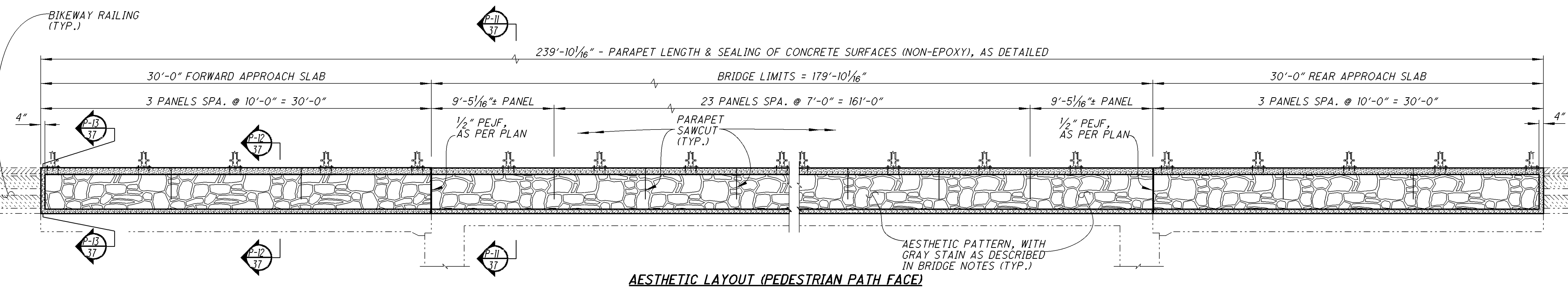
P:\LIC\80704\Design\bridge\SFN - Route Name\Plan Sheets\L80704 - BPD_001.dgn (SCALE = 4.000)



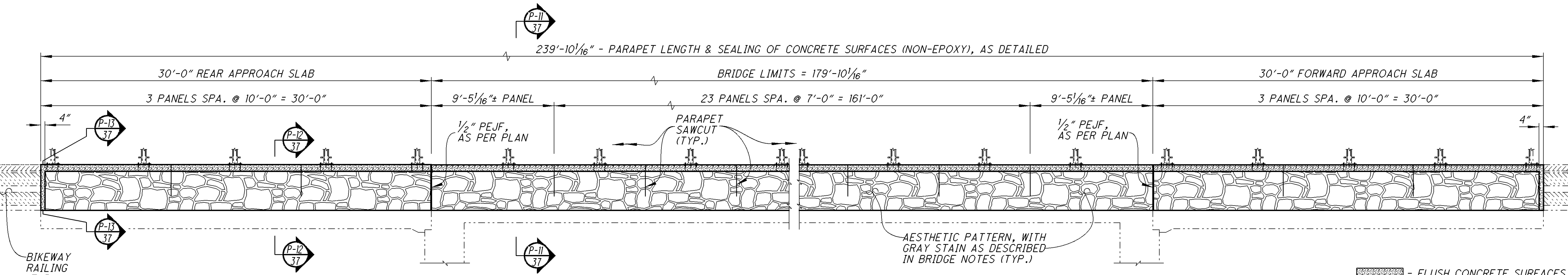
PARAPET LAP LENGTH	
No. 5	= 2'-5"
No. 6	= 2'-11"

DESIGN AGENCY	OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5
DATE	3-1-2015
REVIEWED TAG	37
STRUCTURE FILE NUMBER	4500830
DRAWN	JDR
REVISION	
DESIGNED	JDR
CHECKED	CPS
RIGHT PARAPET DETAILS	
BRIDGE NO. LIC-16-1718	
CHERRY VALLEY ROAD OVER S.R. 16	
LIC-16-16.64	
34	56
666	729

P:\LIC\80704\Design\bridge\SFN - Route Name\Plan Sheets\L80704 - BPD_001.dgn (SCALE = 4,000)



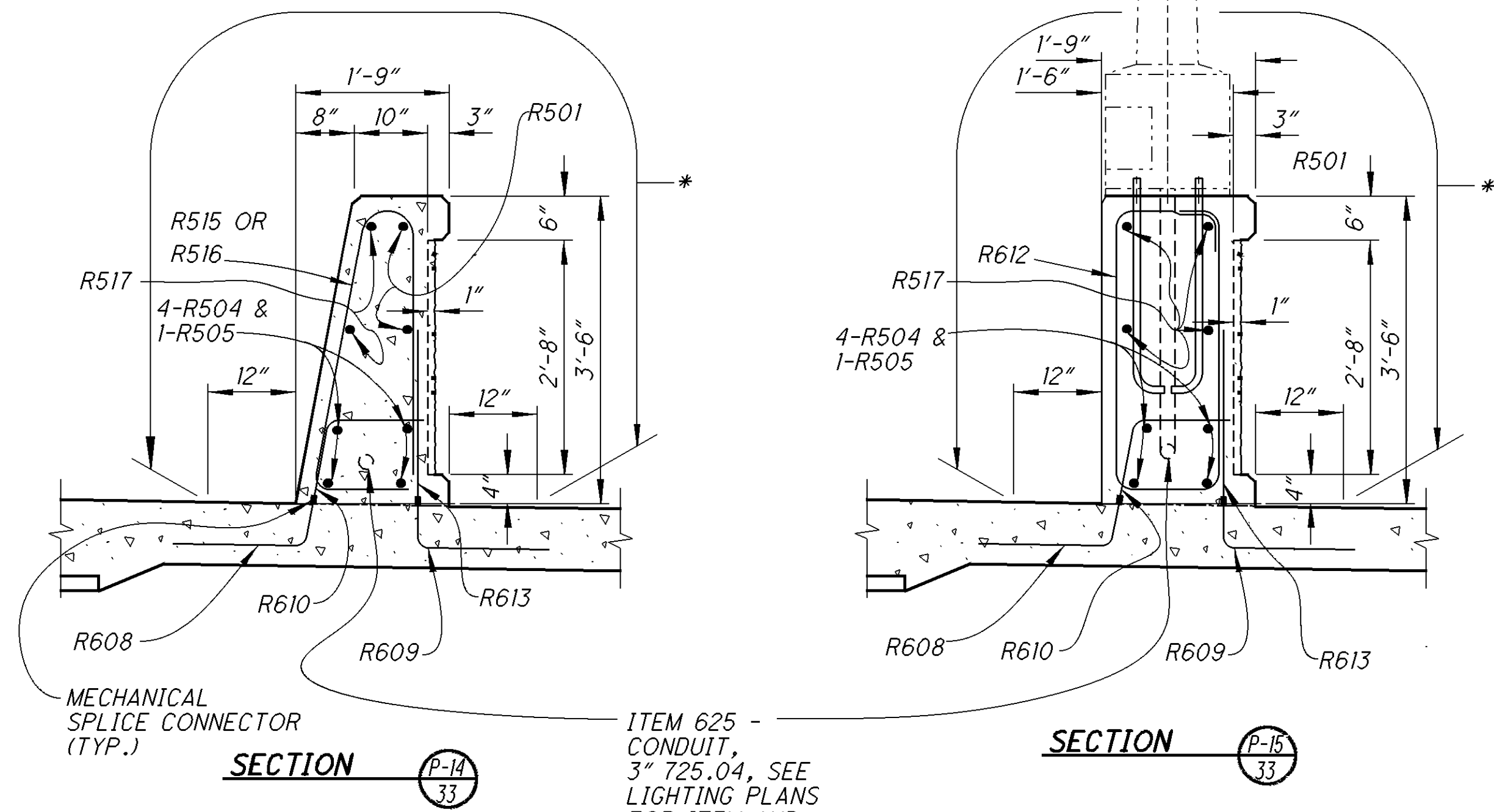
AESTHETIC LAYOUT (PEDESTRIAN PATH FACE)



AESTHETIC LAYOUT (RIGHT DECK EDGE FACE)

FLUSH CONCRETE SURFACES (NO STAIN)

DESIGNED	JDR	CHECKED	CPS
DRAWN	JDR	REVISED	
REVIEWED	TAG	STRUCTURE FILE NUMBER	4500830
DATE	3-1-2015		
DESIGN AGENCY	OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5		
RIGHT PARAPET DETAILS BRIDGE NO. LIC-16-1718 CHERRY VALLEY ROAD OVER S.R. 16			
LIC-16-16.64			
35 / 56		667 / 729	



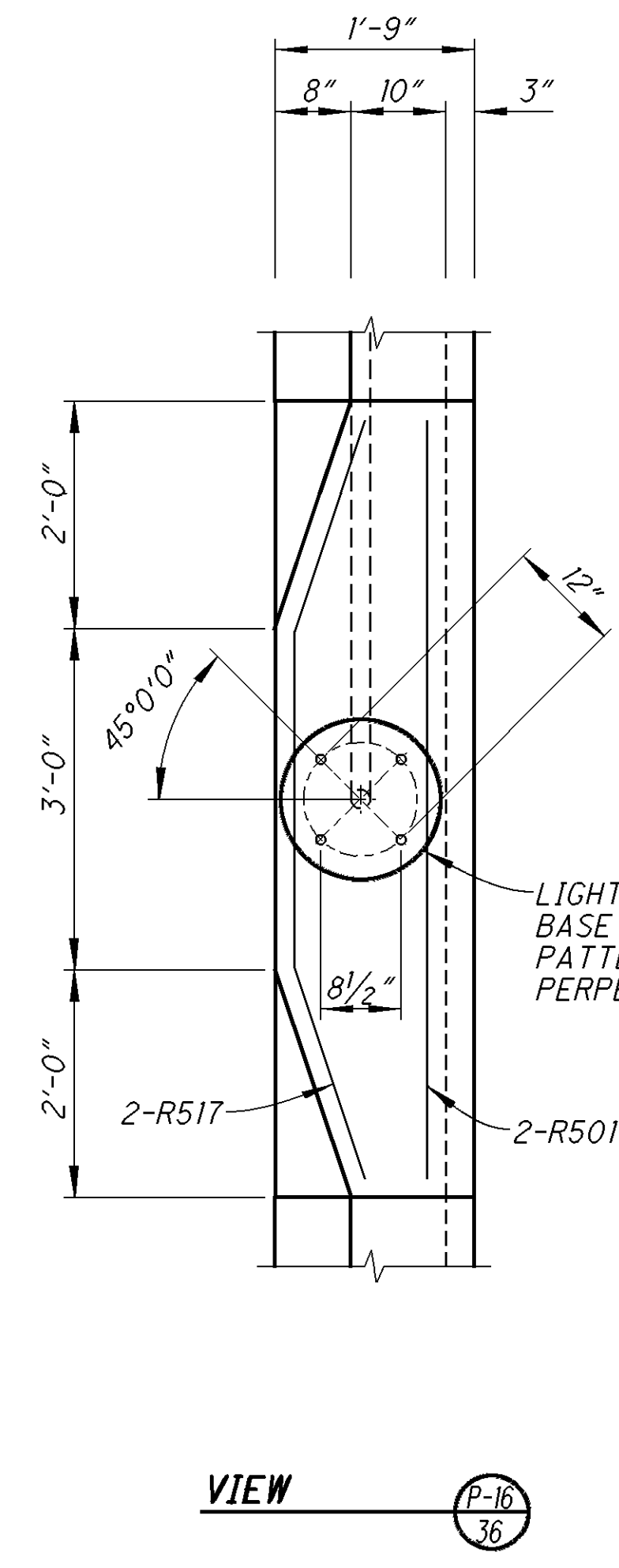
MECHANICAL SPLICE CONNECTOR (TYP.)

ITEM 625 - CONDUIT, 3" 725.04, SEE LIGHTING PLANS FOR ITEM AND QUANTITIES

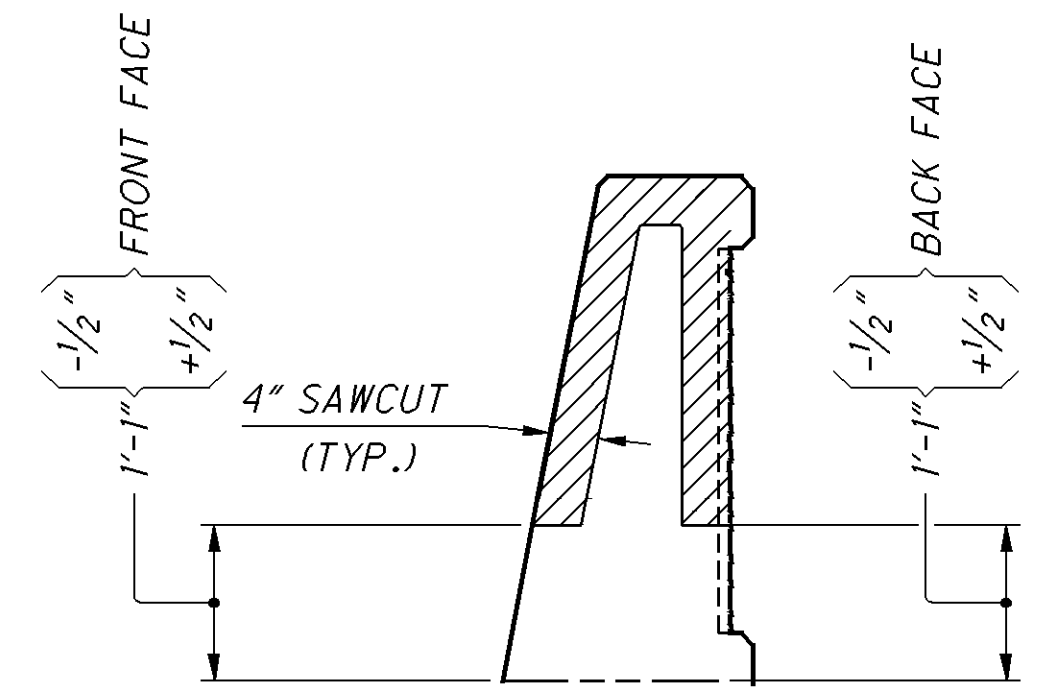
SECTION P-14 33

SECTION P-15 33

AESTHETIC PATTERN WITH GRAY STAIN AS DESCRIBED IN NOTE ON THIS SHEET (TYP.)



VIEW P-16 36

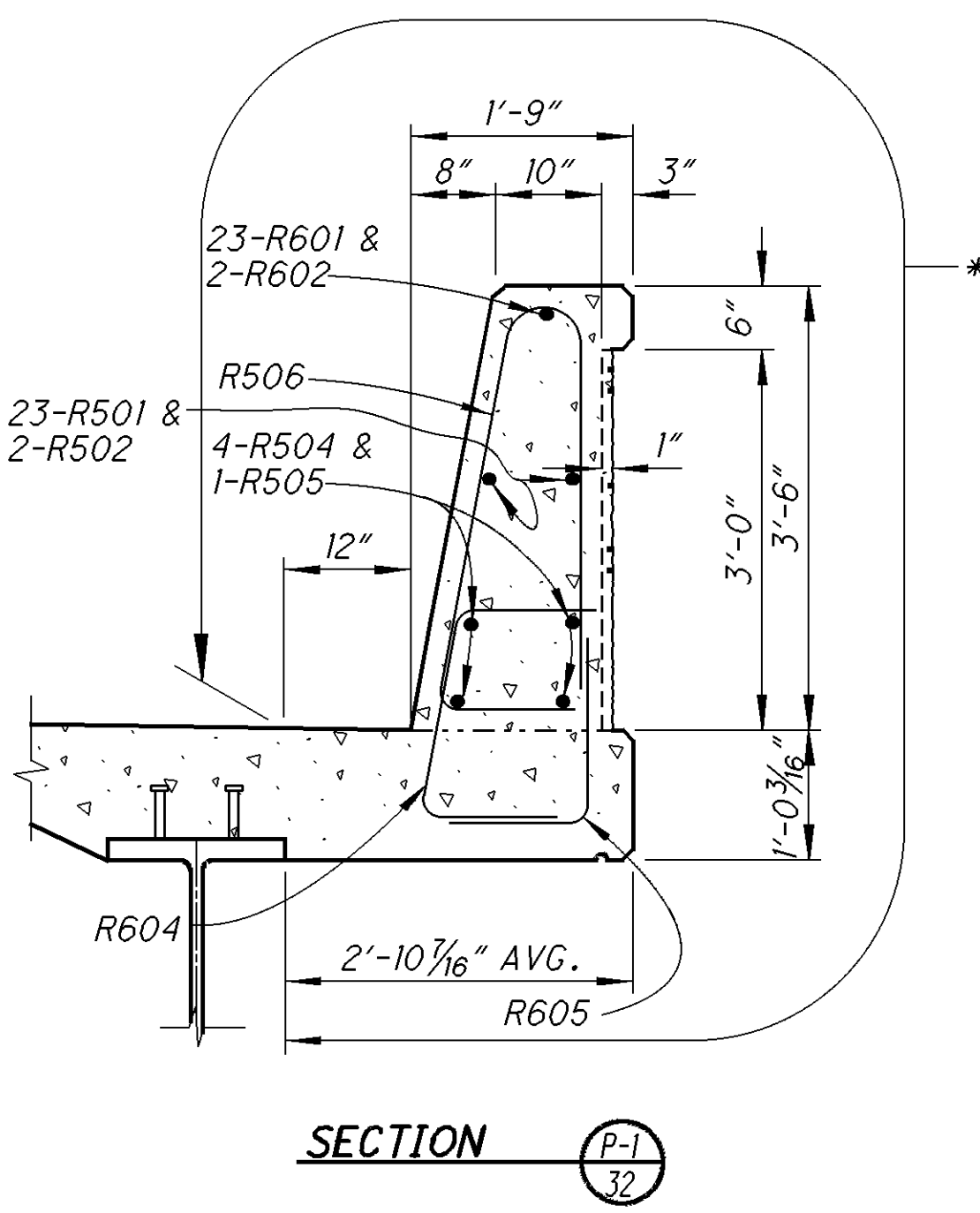


DETAIL A SECTION THROUGH SAWCUT SAWCUT PERIMETER = 6'-2"

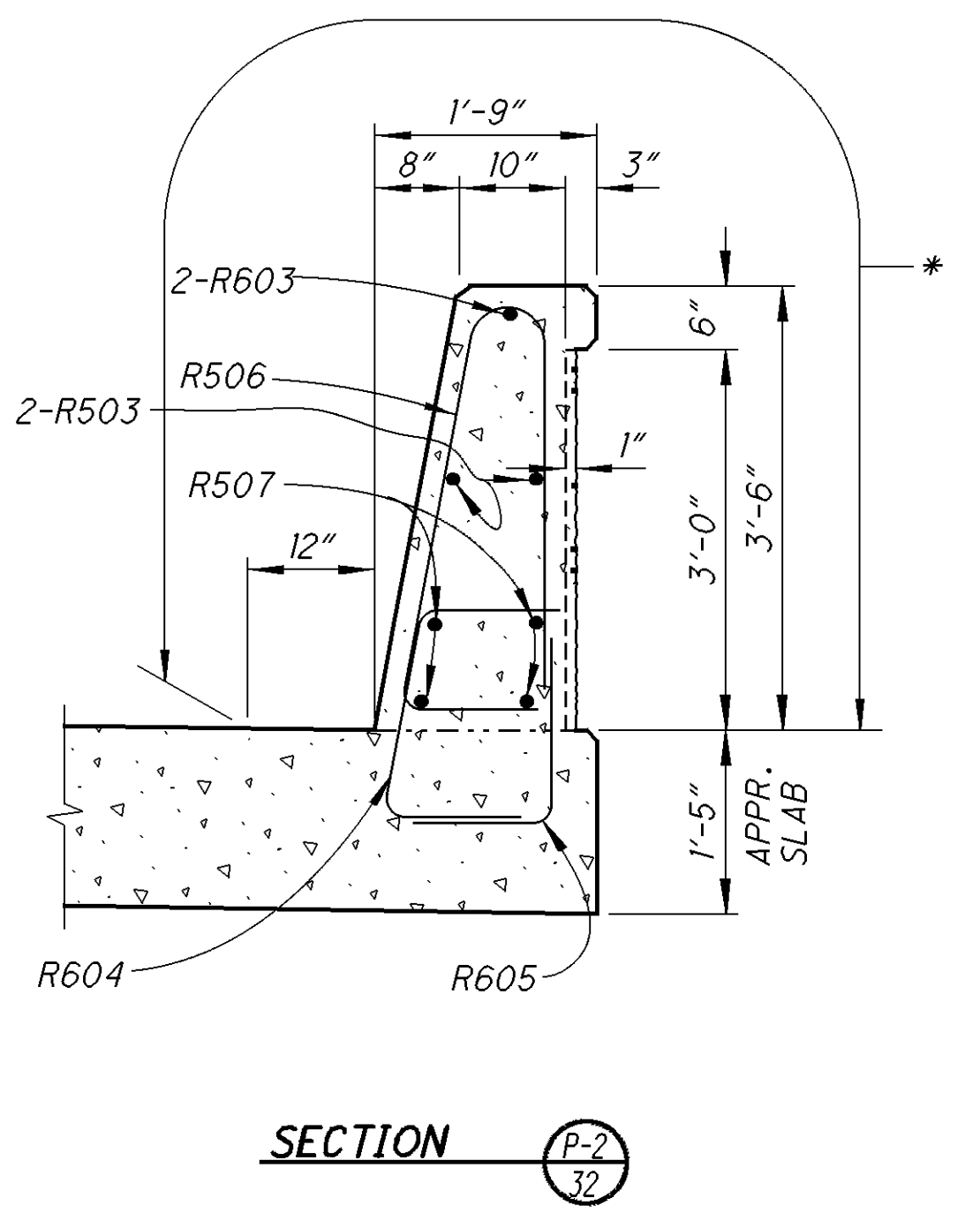
NOTE:
 -ALL REINFORCING STEEL TO BE EPOXY COATED.
 -FIELD BEND BARS WHERE NECESSARY
 -FOR ADDITIONAL DETAILS SEE STD. DWG. SBR-1-13
 -USE OF (GFRP) REINFORCEMENT, AS DETAILED IN STD. DWG SBR-1-13, IS NOT NECESSARY FOR TRADITIONALLY FORMED PARAPETS, AS SHOWN IN THIS PLAN.

PARAPET LAP LENGTH	
No. 5 = 2'-5"	
No. 6 = 2'-11"	

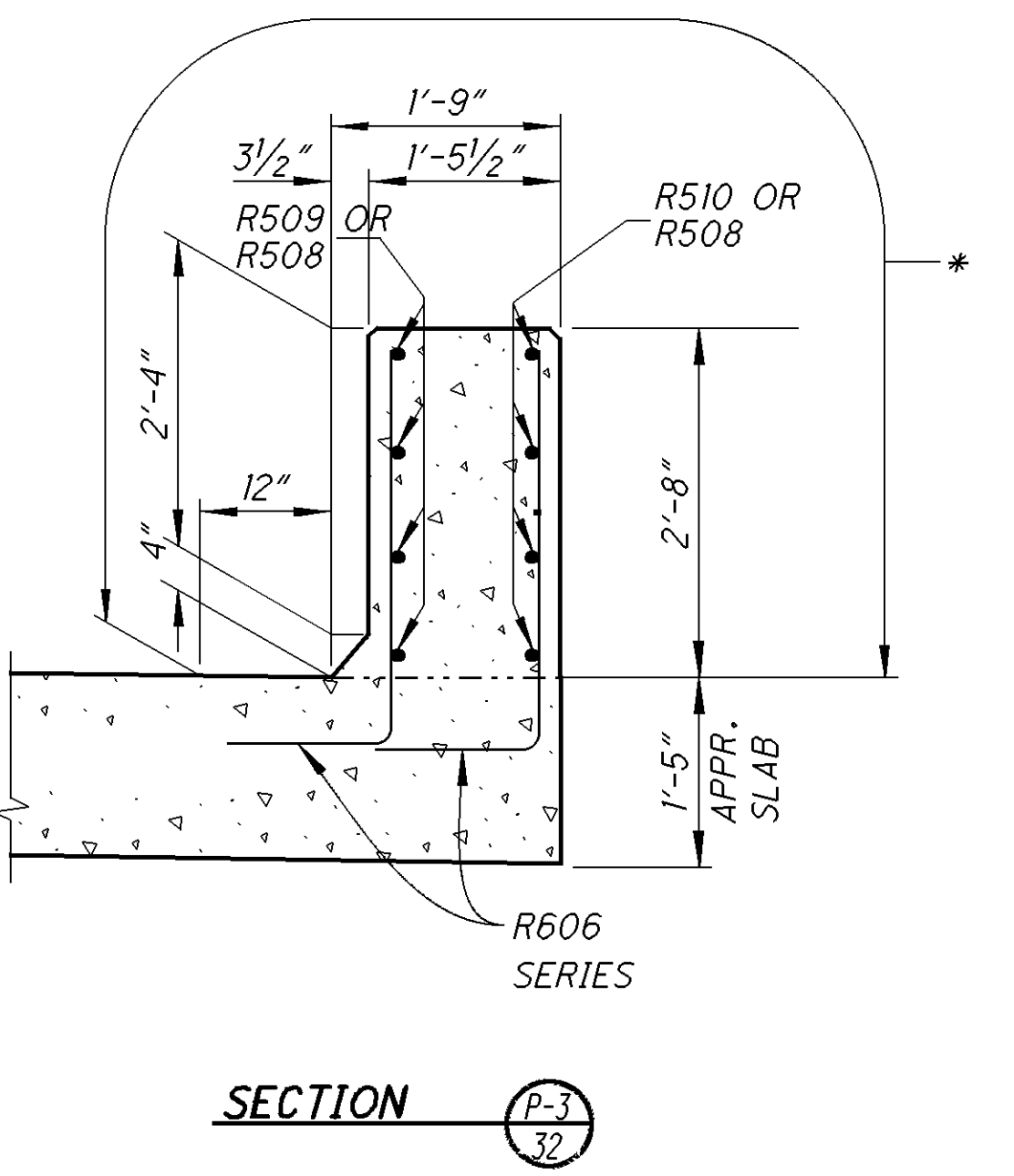
LEGEND
 * ITEM 512 - SEALING OF CONCRETE SURFACES (NON-EPOXY) = CLEAR COATING.



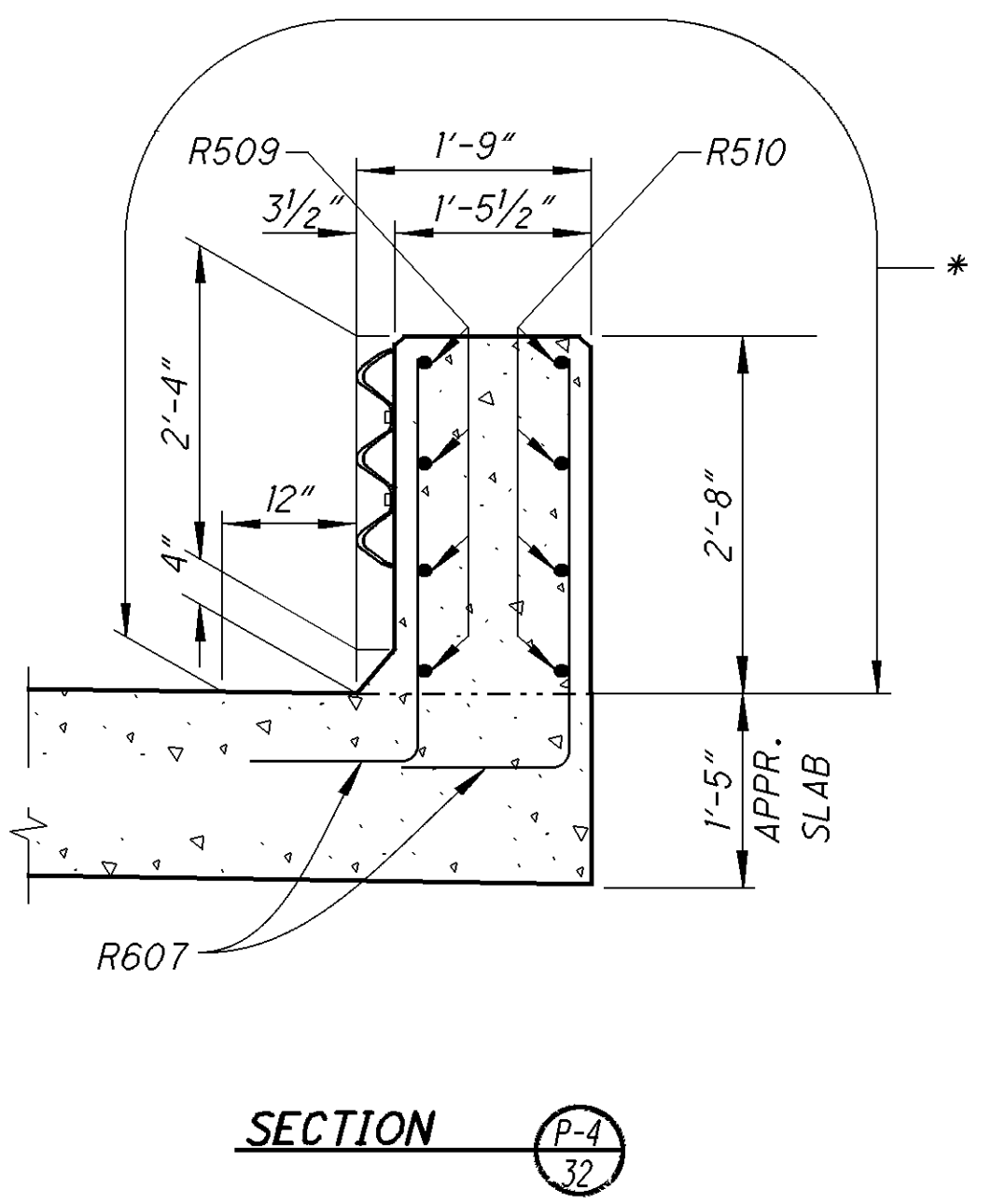
SECTION P-1 32



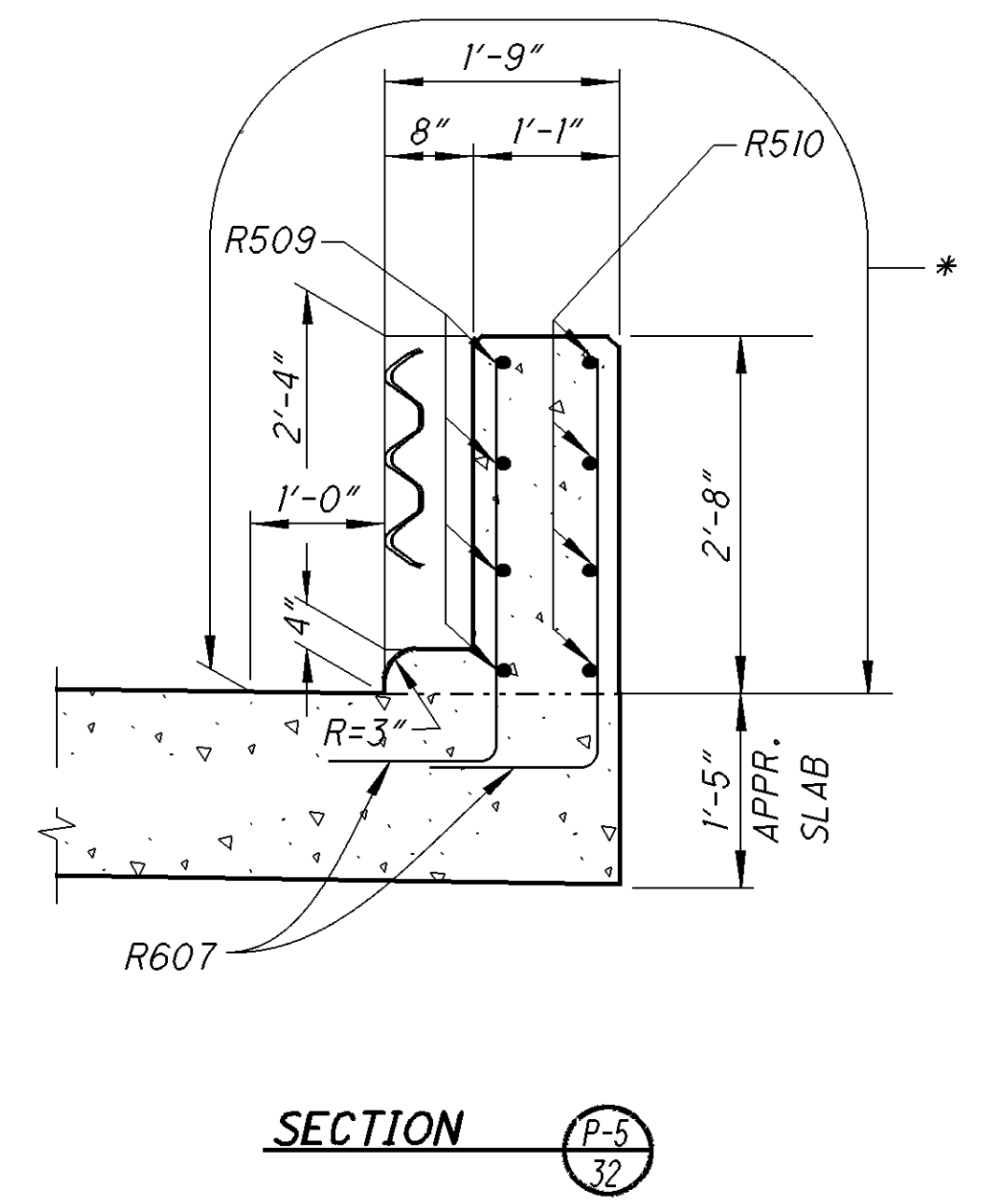
SECTION P-2 32



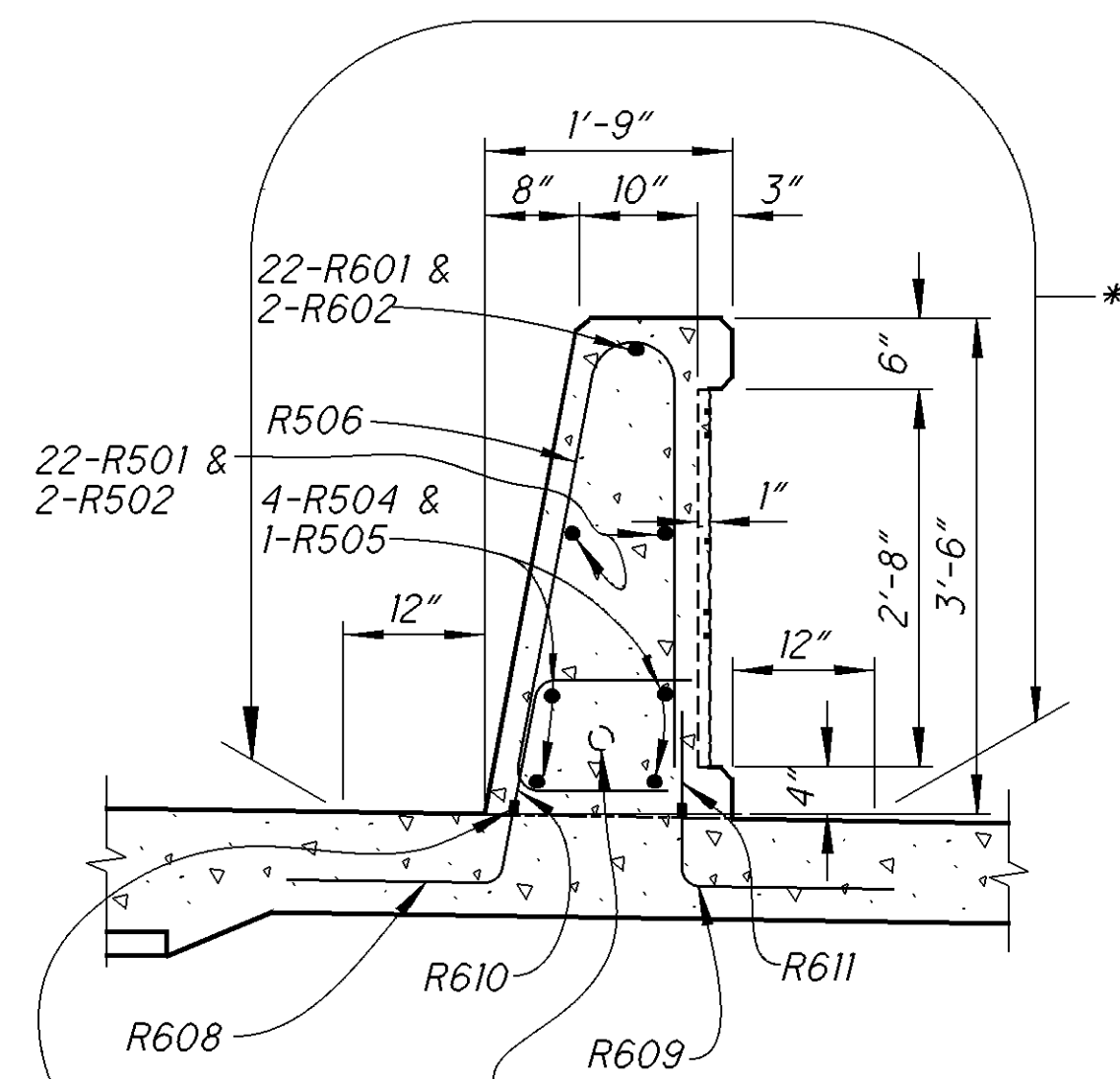
SECTION P-3 32



SECTION P-4 32

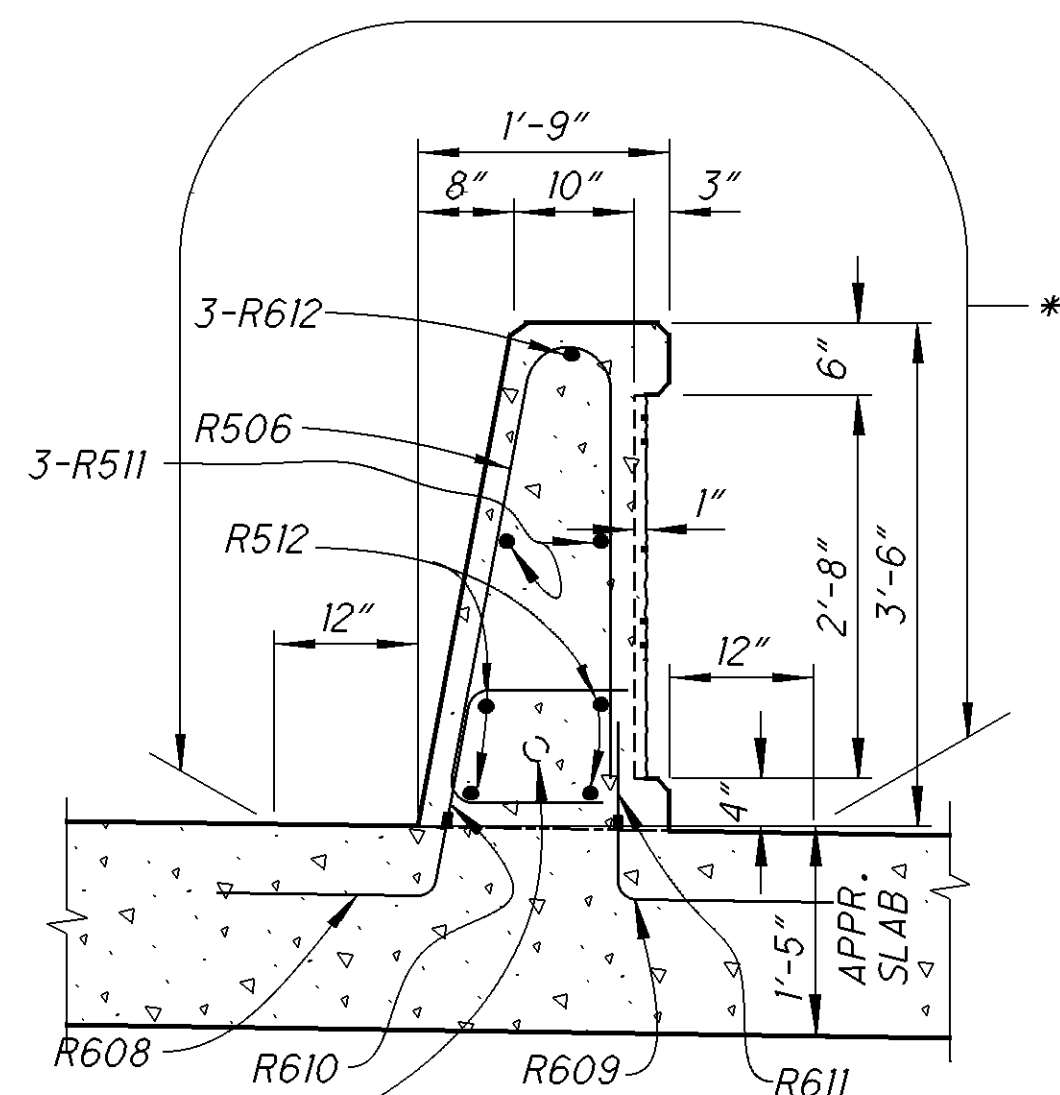


SECTION P-5 32

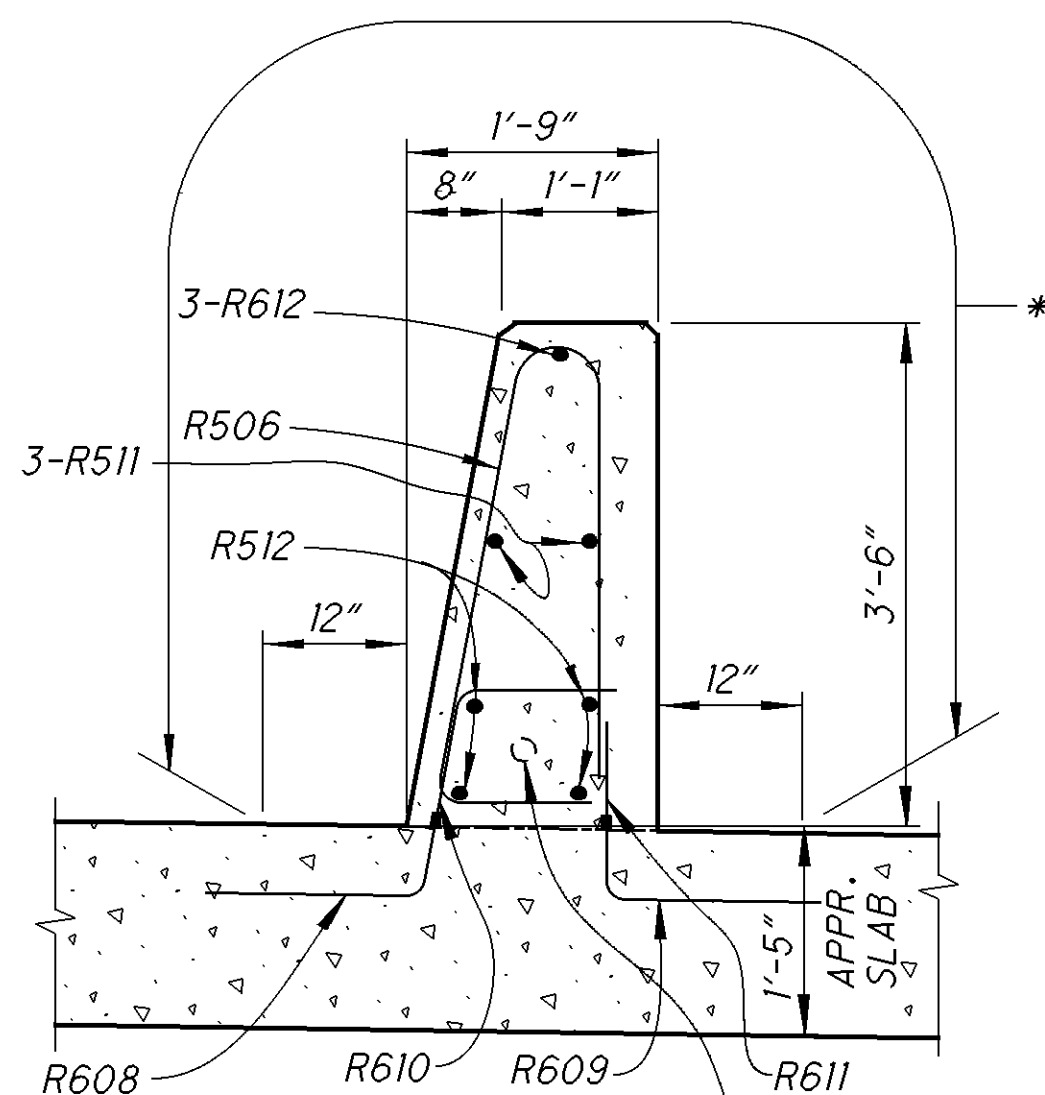


SECTION P-7
33

ITEM 625 - CONDUIT, 3" 725.04, SEE LIGHTING PLANS FOR ITEM AND QUANTITIES

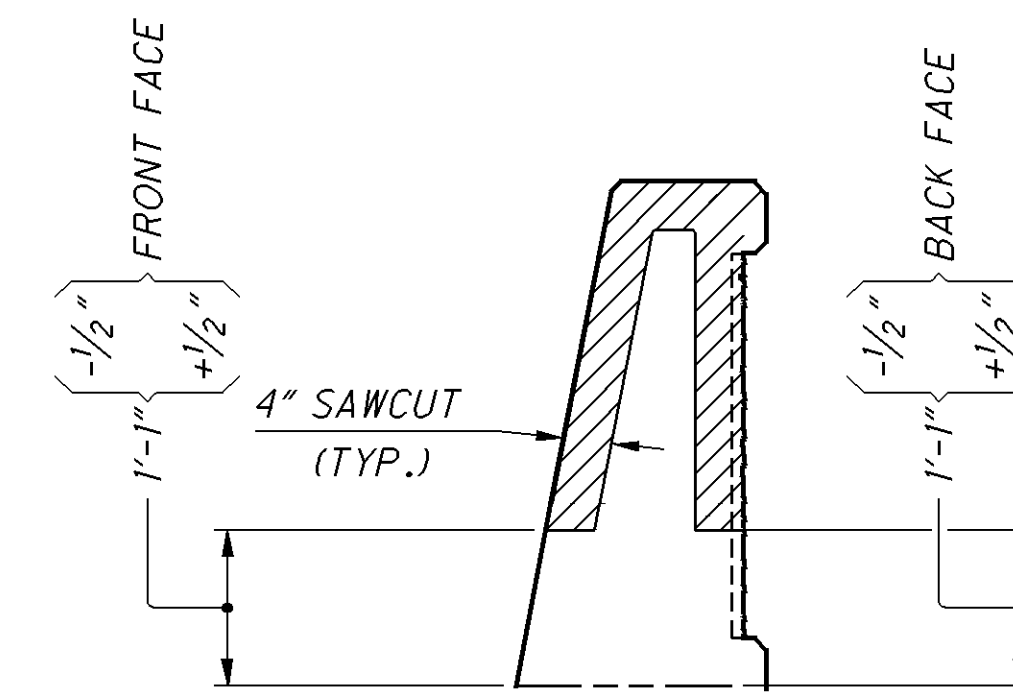


SECTION P-8
33



SECTION P-9
33

ITEM 625 - CONDUIT, 2" 725.04, SEE LIGHTING PLANS FOR ITEM AND QUANTITIES

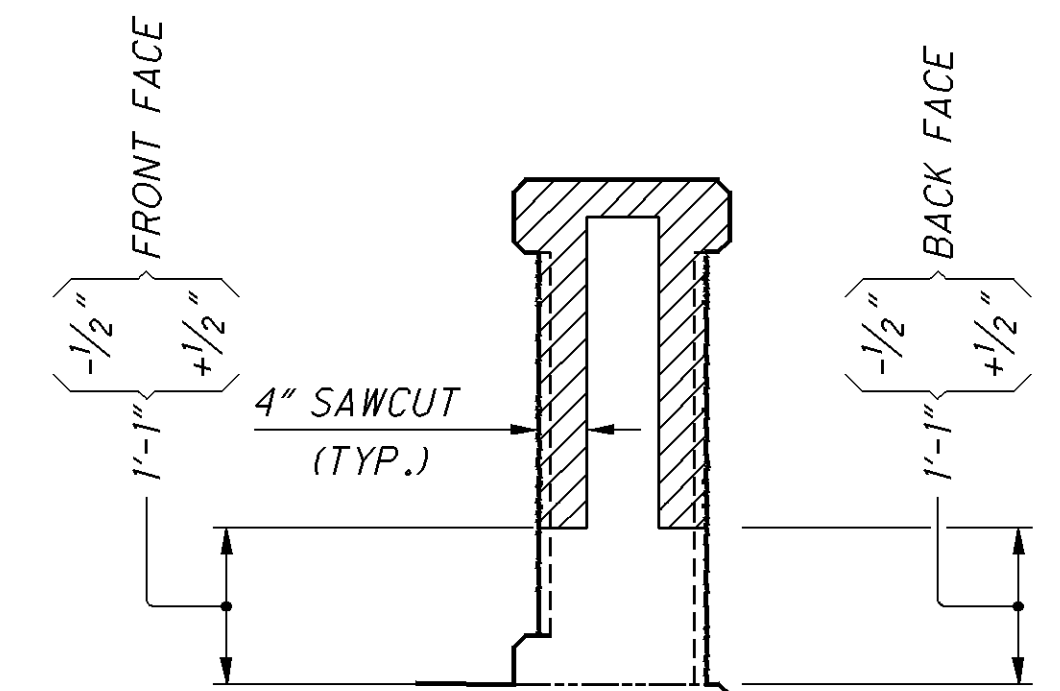


DETAIL A
SECTION THROUGH SAWCUT
SAWCUT PERIMETER = 6'-2"

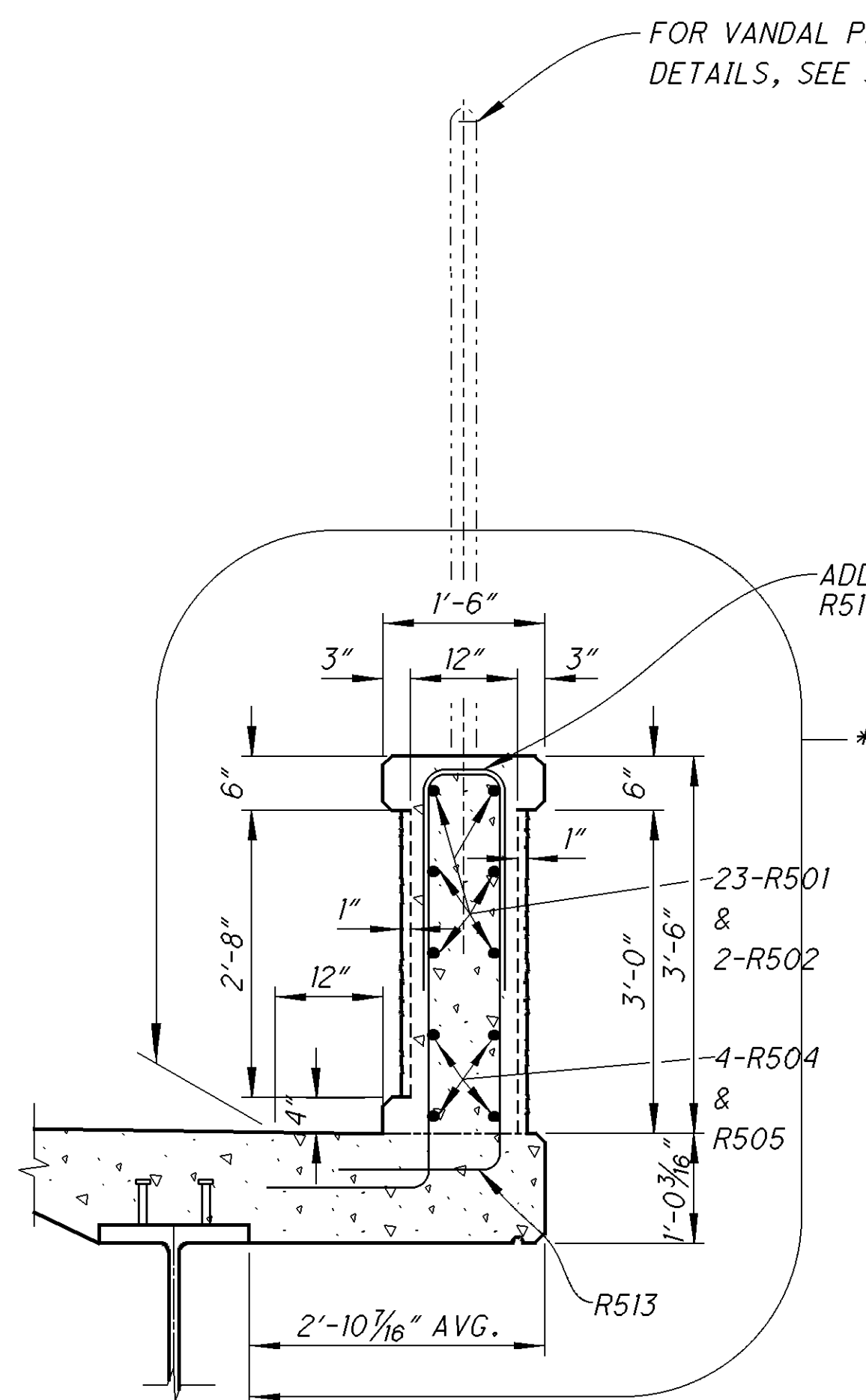
NOTE:
-ALL REINFORCING STEEL TO BE EPOXY COATED.
-FIELD BEND BARS WHERE NECESSARY
-FOR ADDITIONAL DETAILS SEE STD. DWG. SBR-1-13 & BR-2-98.
-USE OF (GFRP) REINFORCEMENT, AS DETAILED IN STD. DWG SBR-1-13, IS NOT NECESSARY FOR TRADITIONALLY FORMED PARAPETS, AS SHOWN IN THIS PLAN.

PARAPET LAP LENGTH	
No. 5 =	2'-5"
No. 6 =	2'-11"

LEGEND
* ITEM 512 - SEALING OF CONCRETE SURFACES (NON-EPOXY) = CLEAR COATING.

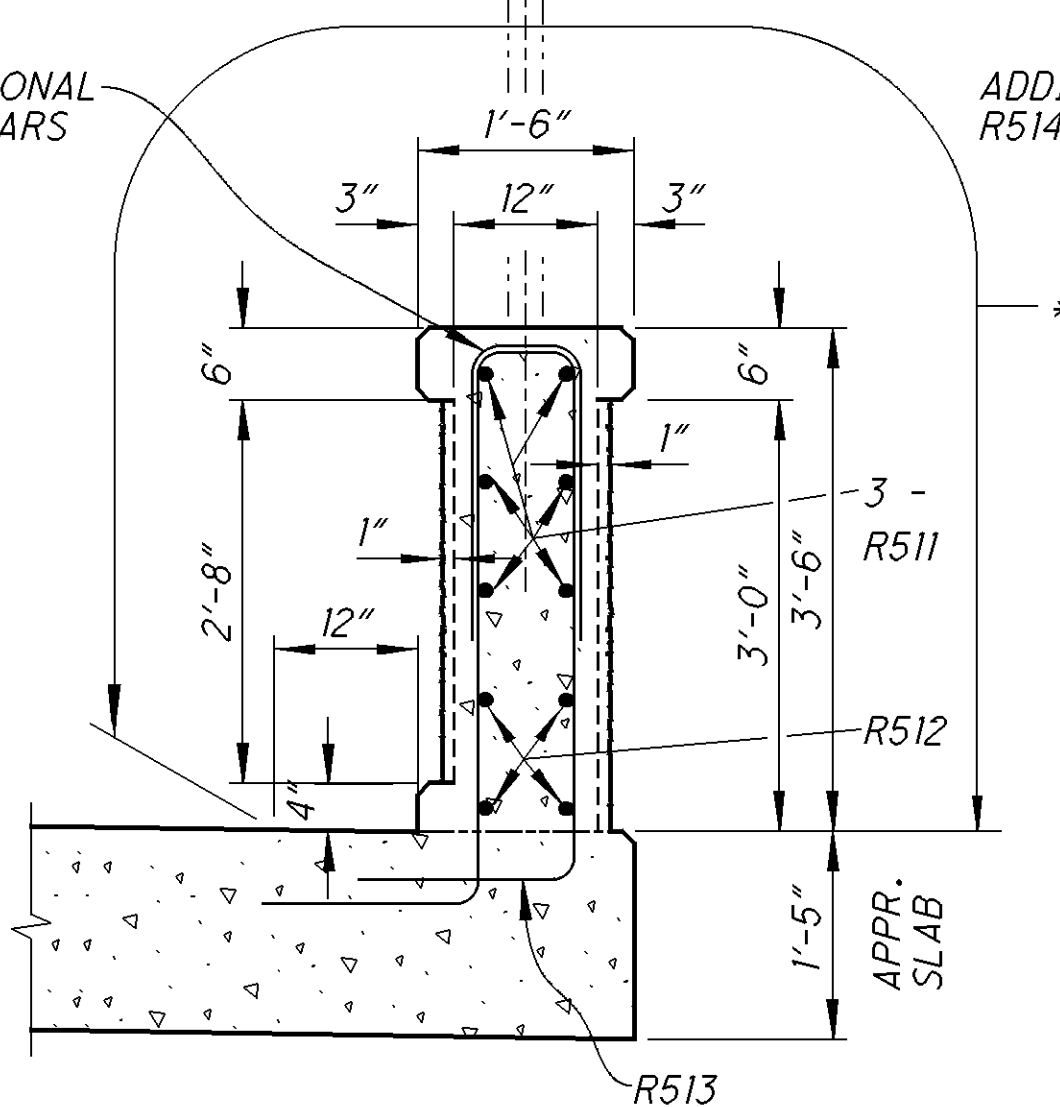


DETAIL B
SECTION THROUGH SAWCUT
SAWCUT PERIMETER = 6'-8"

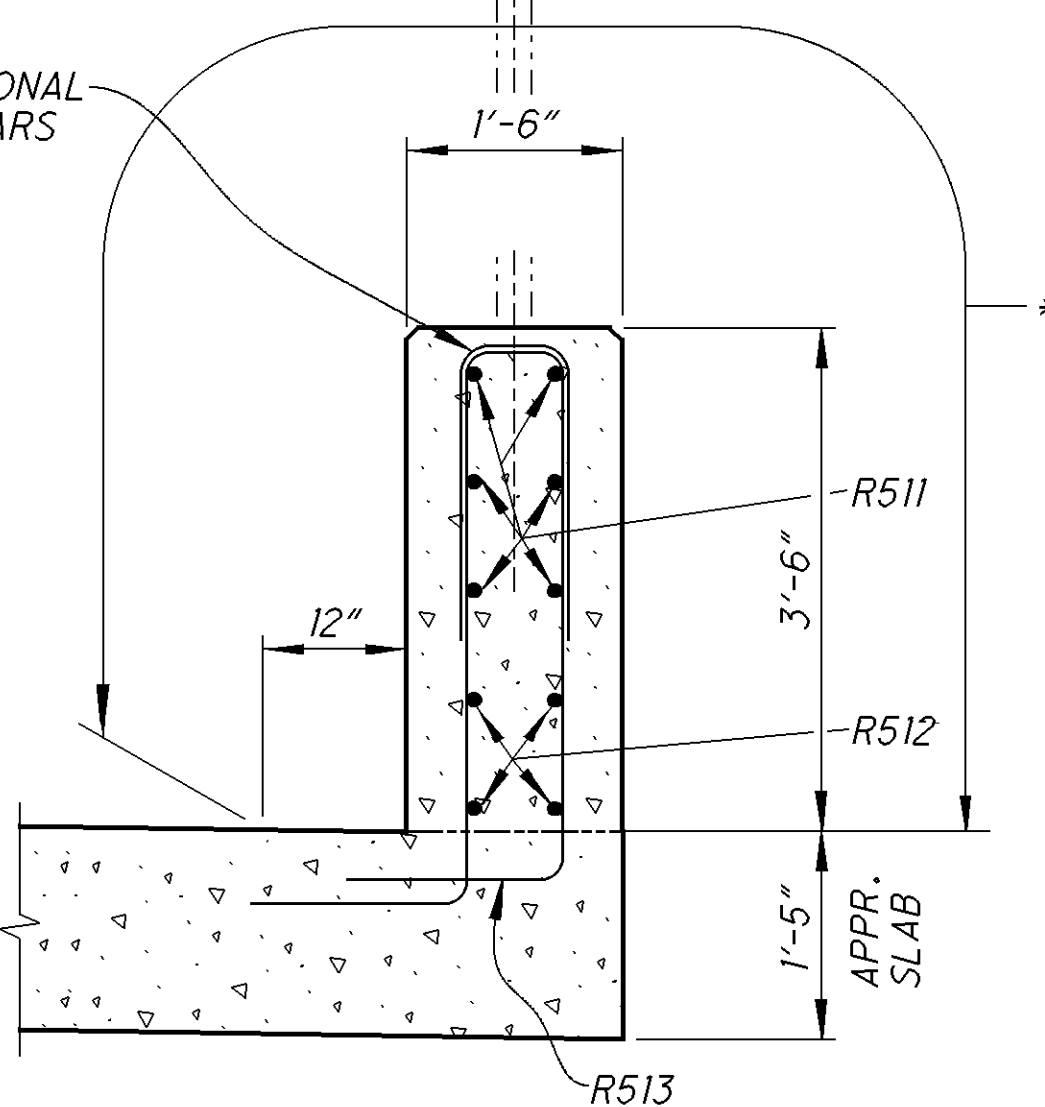


SECTION P-11
34-35

FOR VANDAL PROTECTION FENCE DETAILS, SEE SHEETS 38/56-44/56.

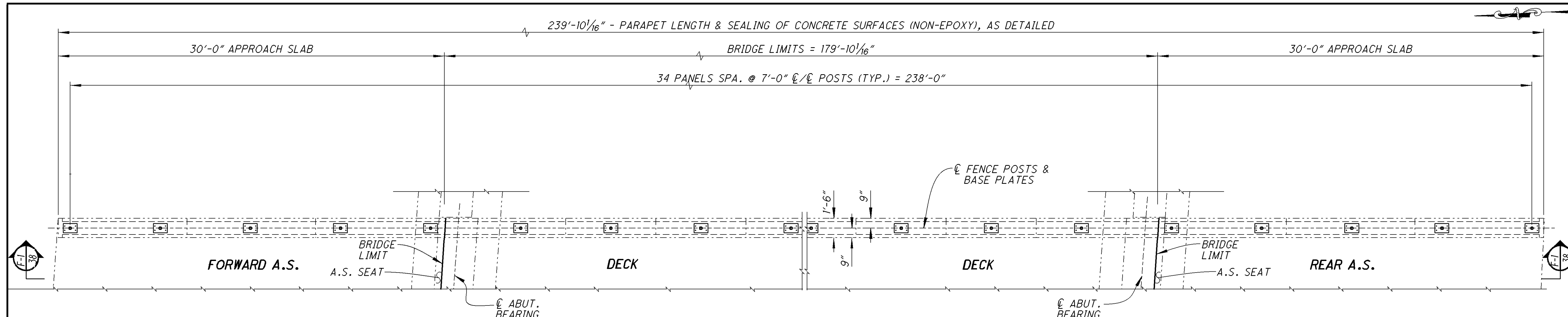


SECTION P-12
34-35



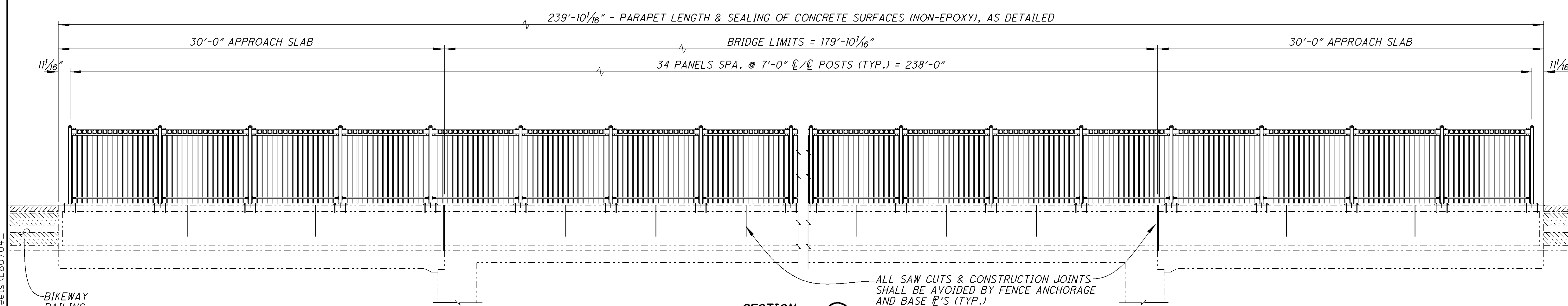
SECTION P-13
34-35

P:\LIC\80704\Design\bridge\SFN - Route Name\Plan Sheets\L80704



PART PLAN AT ABUTMENT

(NOTE: RAILS, PICKETS, MESH, ETC. NOT SHOWN FOR CLARITY)



SECTION F-1

VANDAL PROTECTION FENCE LAYOUT (RIGHT DECK EDGE PARAPET ONLY)

(NOTE: EXPANDED METAL MESH NOT SHOWN FOR CLARITY)

DESIGN AGENCY	OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5
DATE	3-1-2015
REVIEWED TAG	JDR
STRUCTURE FILE NUMBER	4500830
DRAWN	JDR
REVISION	
DESIGNED	JDR
CHECKED	CPS
VANDAL PROTECTION FENCE DETAILS	
BRIDGE NO. LIC-16-1718	
CHERRY VALLEY ROAD OVER S.R. 16	
LIC-16-16.64	
38	56
670	729

VANDAL PROTECTION FENCE (DECORATIVE) NOTES

DESCRIPTION:

THIS ITEM CONSISTS OF FURNISHING AND INSTALLING VANDAL FENCING ON NEW OR EXISTING CONCRETE BRIDGE RAILINGS. CONSTRUCT IN A MANNER THAT PROVIDES A RIGID, TAUT FENCE CLOSELY CONFORMING TO THE TOP SURFACE OF THE CONCRETE PARAPET. THIS PAY ITEM SHALL INCLUDE ANY AND ALL WORK NECESSARY TO FABRICATE AND INSTALL THE DECORATIVE STEEL VANDAL PROTECTION FENCE DESCRIBED HEREIN. THIS WILL INCLUDE STRUCTURAL STEEL AS DETAILED IN THE PLANS, SUCH AS POSTS, RAIL ELEMENTS, PICKETS, POST CAPS, DECORATIVE ORNAMENTS, BOLTS, WASHERS, NUTS, CONNECTIONS TO THE BARRIER, BASE PLATES, ANCHOR BOLTS, SHIMS, CAULKING, EXPANDED METAL, CLIPS, MISC. STEEL, AND ALL OTHER COMPONENTS AS DETAILED IN THIS PLAN. ALL FABRICATION AND WORK OF THIS ITEM SHALL BE SHOP PERFORMED.

MATERIALS:

ALL MATERIALS USED FOR THIS ITEM SHALL, AT A MINIMUM, MEET THE REQUIREMENTS OF STD. DWG. VPF-1-90. IF NOT SPECIFIED THEREIN OR IN THIS PLAN, ALL STEEL SHALL BE ASTM A709 GRADE 36 OR 50.

STEEL COATING:

ALL STEEL COMPONENTS OF THIS ITEM, EXCEPT AS OTHERWISE NOTED IN THIS PLAN, SHALL BE GALVANIZED AS PER STD. DWG. VPF-1-90 AND MODIFIED FOR A BLACK SHOP PAINT SYSTEM DESCRIBED AS FOLLOWS. PROPER SURFACE PREPARATION PRIOR TO GALVANIZING AND PAINTING IS MANDATORY. VENT HOLES MAY BE ADDED AS NEEDED FOR PROPER GALVANIZING. ALL MATERIAL SHALL BE FREE OF PAINT MARKS. AFTER GALVANIZING, THE STEEL SHALL NOT BE QUENCHED. THE GALVANIZING SURFACE SHALL BE FREE FROM ALL CONTAMINANTS AND THE SURFACE ADEQUATELY ROUGHENED BEFORE PAINTING. PRIOR TO PAINTING, THE GALVANIZED SURFACE SHALL BE GIVEN AN ACID WASH WITH A CLEAN, WARM WATER RINSE, THEN A LIGHT SWEEP BLAST IN THE SHOP AND SHALL BE PAINTED WITHIN 12 HOURS OF SWEEP BLASTING. THE SWEEP BLAST SHOULD BE SOFT (FRIABLE) MATERIAL SIMILAR TO MAGNESIUM/ALUMINUM SILICATE ABRASIVE. THE SWEEP BLAST SHALL BE TO SUCH AN EXTENT TO SUFFICIENTLY ROUGHEN THE SURFACE TO AID IN PAINT ADHESION BUT NOT REMOVING MORE THAN 10 MICRONS OF ZINC. FIELD CONNECTION AREAS SHALL HAVE A UNIFORM GALVANIZED COATING FREE OF LOCAL EXCESSIVE ROUGHNESS WHICH WOULD PREVENT THE FIELD CONNECTIONS FROM MAKING INTIMATE CONTACT. ALL DAMAGED GALVANIZING SHALL BE REPAIRED IN ACCORDANCE WITH ASTM A780, METHOD A1 OR A3.

THE PAINT SHALL BE SHOP APPLIED. (IF PAINTED WITHIN 48 HOURS AFTER GALVANIZING, AN ACID WASH WILL NOT BE NECESSARY, ONLY THE LIGHT SWEEP BLAST.) THE PAINT SYSTEM SHALL BE PER C.M.S. 514, IZEU, A TIE COAT OF EPOXY PAINT, AND TOP COAT OF URETHANE PAINT. THE INORGANIC ZINC PRIMER SHALL BE NON-PERFORMED. ALL EXPOSED AREAS OF THE FENCING, BASE PLATES, MISC. CONNECTIONS, BOLTS, WASHERS, AND NUTS SHALL BE PAINTED. THE BASE PLATE ANCHORS, NUTS, AND WASHERS SHALL NOT BE PAINTED BUT REMAIN GALVANIZED ONLY. TOUCH UP OF ANY DAMAGED PAINT DURING HANDLING AND ERECTION IS REQUIRED AND SHALL BE AS DIRECTED BY THE PROJECT ENGINEER. THE COLOR OF THE FINISHED FENCING SHALL BE GLOSS BLACK. THE COLOR SHALL BE COORDINATED THROUGH THE DISTRICT AND SHALL MATCH THE COLOR OF ANY DECORATIVE LIGHTING POSTS ON THE PROJECT.

POSTS:

POSTS SHALL BE AS DETAILED IN THIS PLAN WITH A WELD ATTACHED IRON CAP.

HORIZONTAL MEMBERS:

HORIZONTAL MEMBERS SHALL BE 1/2"x1/2" SQUARE CHANNEL WITH 3/16" WALL THICKNESS.

PICKETS:

PICKETS SHALL BE 3/4" SQUARE SOLID STEEL.

BASE PLATES:

BASE PLATES SHALL BE AS DETAILED IN THIS PLAN.

BASE PLATE ANCHORS:

USE 1/2" ANCHORS AS PER STD. DWG. VPF-1-90. CAST-IN-PLACE MECHANICAL ANCHORS SHALL NOT BE USED. ANCHORS SHALL BE GALVANIZED ONLY.

FILLET WELDS:

FILLET WELDS SHALL CONFORM TO CMS 513.

SHIM PLATES:

SHIM PLATES SHALL BE AS PER STD. DWG. VPF-1-90 AND AS DETAILED IN THIS PLAN. USE SHIMS AS REQUIRED TO ERECT THE POSTS PERPENDICULAR TO THE ROADWAY PROFILE.

TRAFFIC MAINTENANCE:

MAINTAIN TRAFFIC ACCORDING TO THE PROJECT PLANS.

VANDAL PROTECTION MESH:

WHERE DETAILED IN THE PLAN, PROVIDE THE FOLLOWING MATERIAL AS VANDAL PROTECTION MESH (3/4" #16 FLATTENED EXPANDED METAL AS SPECIFIED BY):

McNICHOLS -
3470 EAST KEMPER ROAD
CINCINNATI, OH 45241-2007
<http://www.mcnichols.com>
PHONE: 1-877-884-4653

DIRECT METALS -
3380 GRAND AVENUE
WAUKEGAN, IL 60085
<http://www.directmetals.com>
PHONE: 1-800-711-4939

OR

APPROVED EQUAL

EACH MESH ASSEMBLY PANEL, AS DETAILED, SHALL BE ONE UNIT OF SEAMLESS EXPANDED METAL. THE PROTECTIVE COATING OF THE ENTIRE MESH ASSEMBLY, FOR EACH TYPICAL PANEL DETAILED IN THE PLAN, SHALL BE GALVANIZED AND PAINTED BLACK, ACCORDING TO THE STEEL COATING NOTE ON THIS SHEET, TO MATCH FENCE.

MESH EDGE COLLAR:

VANDAL PROTECTION MESH COLLAR SHALL BE SHOP ATTACHED, BY INTERMITTENT WELDING, TO ALL FOUR EDGES OF EACH TYPICAL FENCE PANEL MESH.

MESH ATTACHMENT:

USE INTERMITTENT SPOT WELDING, AS SHOWN IN THE PLAN, TO RIGIDLY ATTACH THE VANDAL PROTECTION MESH FLUSH TO THE PICKETS AND HORIZONTAL MEMEBERS. PROVIDE A SHOP WELD ASSEMBLY PATTERN WHICH WILL KEEP ALL AREAS OF THE PROPOSED MESH SNUG TO THE PICKETS AND ELIMINATE ANY VIBRATING OR CHATTERING ONCE IN SERVICE.

APPROVAL OF PRODUCT:

TWO COMPLETE POST ASSEMBLIES AND ONE COMPLETE PANEL ASSEMBLY SHALL BE PROVIDED AND MOCK ASSEMBLED FOR APPROVAL BY THE DIRECTOR. IF THE TYPICAL TEST FENCE SECTION DOES NOT MEET THE APPROVAL OF THE DIRECTOR, THE RESULTS MAY BE GROUNDS TO REJECT THE PROPOSED TYPICAL FENCE SECTION. THE TEST FENCE SECTION WILL BE PROVIDED REPEATEDLY, AS NECESSARY, UNTIL APPROVAL IS GRANTED. AN UNREINFORCED, ONE FOOT THICK, PLAIN CONCRETE LEVELING PAD SHALL BE USED AS A DEMONSTRATION PLATFORM AT A LOCATION SUITABLE TO THE PROJECT ENGINEER. THE MOCK-UPS SHALL UTILIZE ALL OF THE MATERIALS, ANCHORAGES, AND HARDWARE INTENDED TO BE USED ON THE PROJECT TO DEMONSTRATE OVERALL FITUP AS WELL AS AESHTETIC QUALITIES. AFTER APPROVAL IS GRANTED, THE STEEL FENCE TEST SECTION MAY BE USED ON THE PROJECT.

CONSTRUCTION PROCEDURE:

1. FIELD VERIFY THE PLAN LOCATIONS OF ALL BASE PLATES AND MARK PARAPETS ACCORDINGLY.
2. MARK AND DRILL HOLES FOR THE 1/2" BASE PLATE ANCHORS USING A BASE PLATE TEMPLATE.
3. INSTALL 1/2" DIAMETER BASE PLATE ANCHORS.
4. INSTALL BASE PLATE AND POST ASSEMBLY AND SHIM WHERE REQUIRED. FULLY TIGHTEN ANCHORS TO BASE PLATES AND CHECK PLUMBNESS OF POSTS.
5. CAULK EDGES OF BASE PLATES, SHIMS AND SLEEVES.
6. CONTINUE INSTALLATION OF FENCE BY INSERTING FENCE PANELS AS DETAILED IN THE PLAN.
7. COMPLETE INSTALLATION OF THE FENCE BY FULLY SECURING AND TIGHTENING ALL HARDWARE.

METHOD OF MEASUREMENT:

THE DEPARTMENT WILL MEASURE THE QUANTITY BY THE FOOT. THE DEPARTMENT WILL MEASURE, ALONG THE BOTTOM OF THE FENCE, FROM CENTER TO CENTER OF END POSTS.

BASIS OF PAYMENT:

THE DEPARTMENT WILL MAKE PAYMENT FOR THE COMPLETED AND ACCEPTED QUANTITIES OF VANDAL FENCE AS FOLLOWS:

ITEM	UNIT	DESCRIPTION
607	FOOT	SPECIAL - VANDAL PROTECTION FENCE (DECORATIVE)

P:\LIC\80704\Design\bridge\SFN - Route Name\Plan Sheets\L80704_BFD_004.dgn (SCALE = 1:000)

DESIGN AGENCY
OHIO DEPARTMENT OF
TRANSPORTATION, DISTRICT 5

DATE
3-1-2015
TAG
STRUCTURE FILE NUMBER
4500830

DRAWN
JDR
REVISED

DESIGNED
JDR
CHECKED
CPS

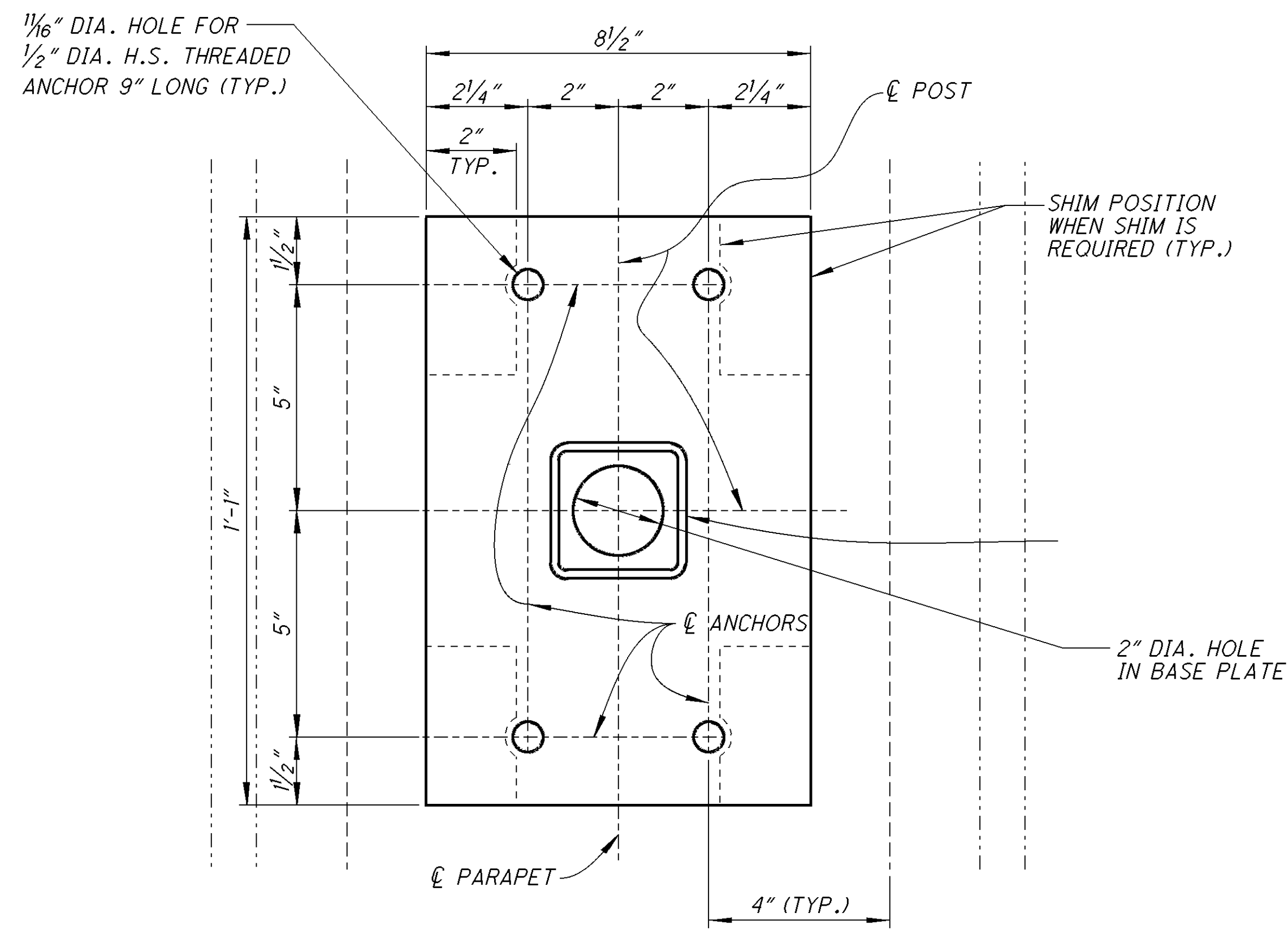
VANDAL PROTECTION FENCE NOTES
BRIDGE NO. LIC-16-1718
CHERRY VALLEY ROAD OVER S.R. 16

LIC-16-16.64

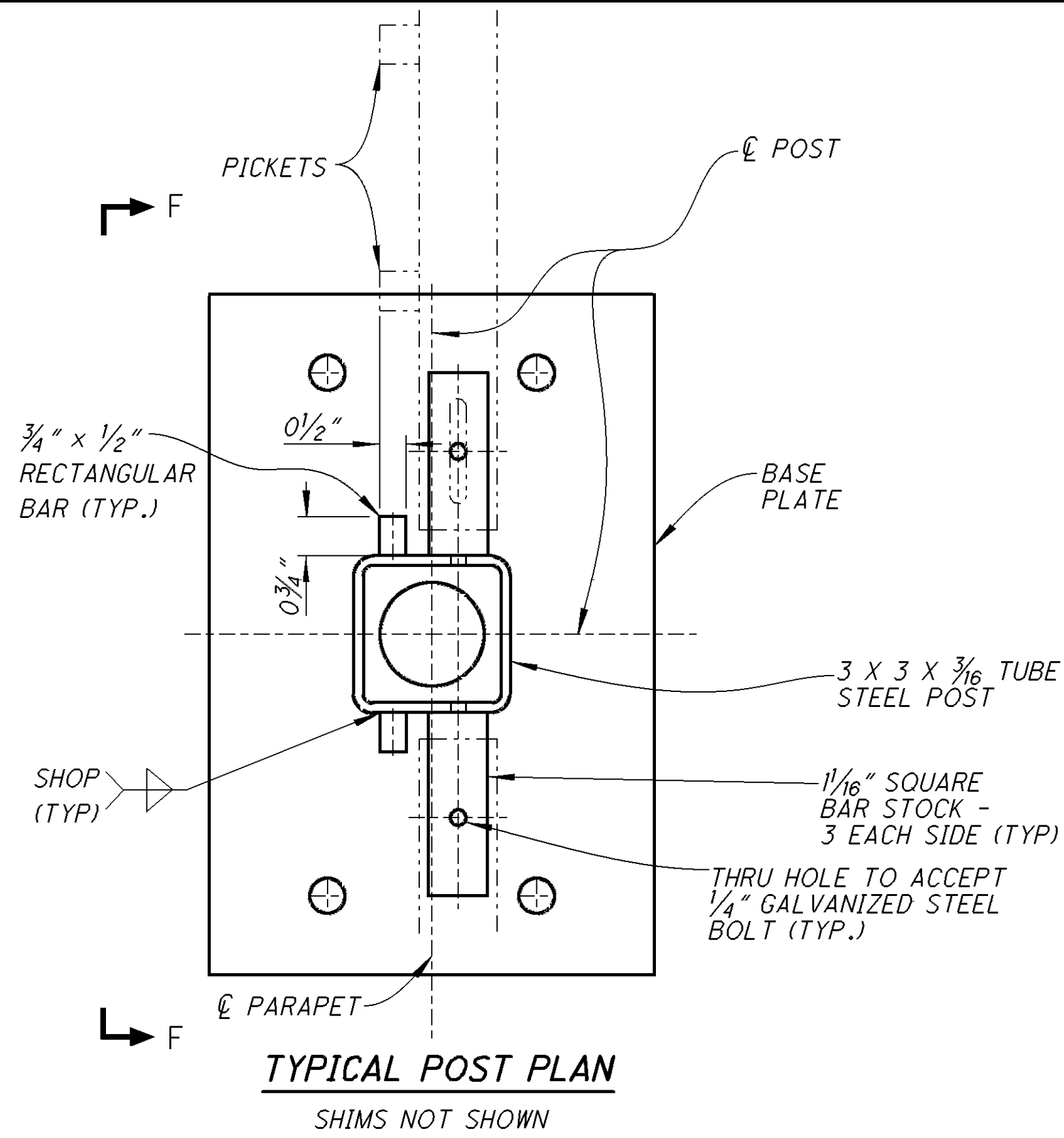
39 / 56

671
729

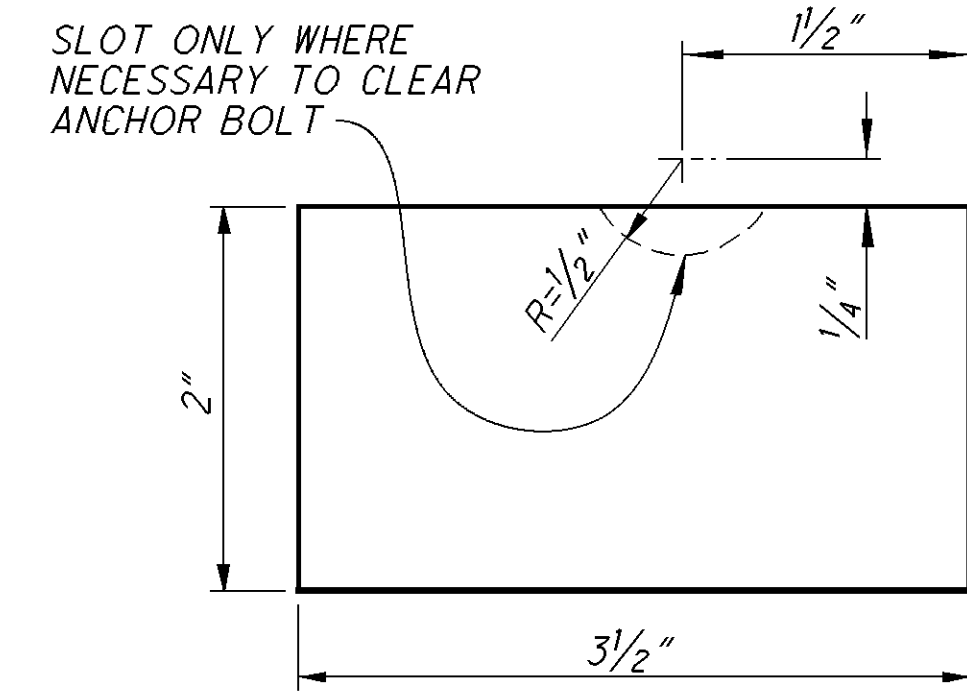
P:\LIC\80704\Design\bridge\SFN - Route Name\Plan Sheets\L80704 - BFD_003.dgn (SCALE = 0.200)



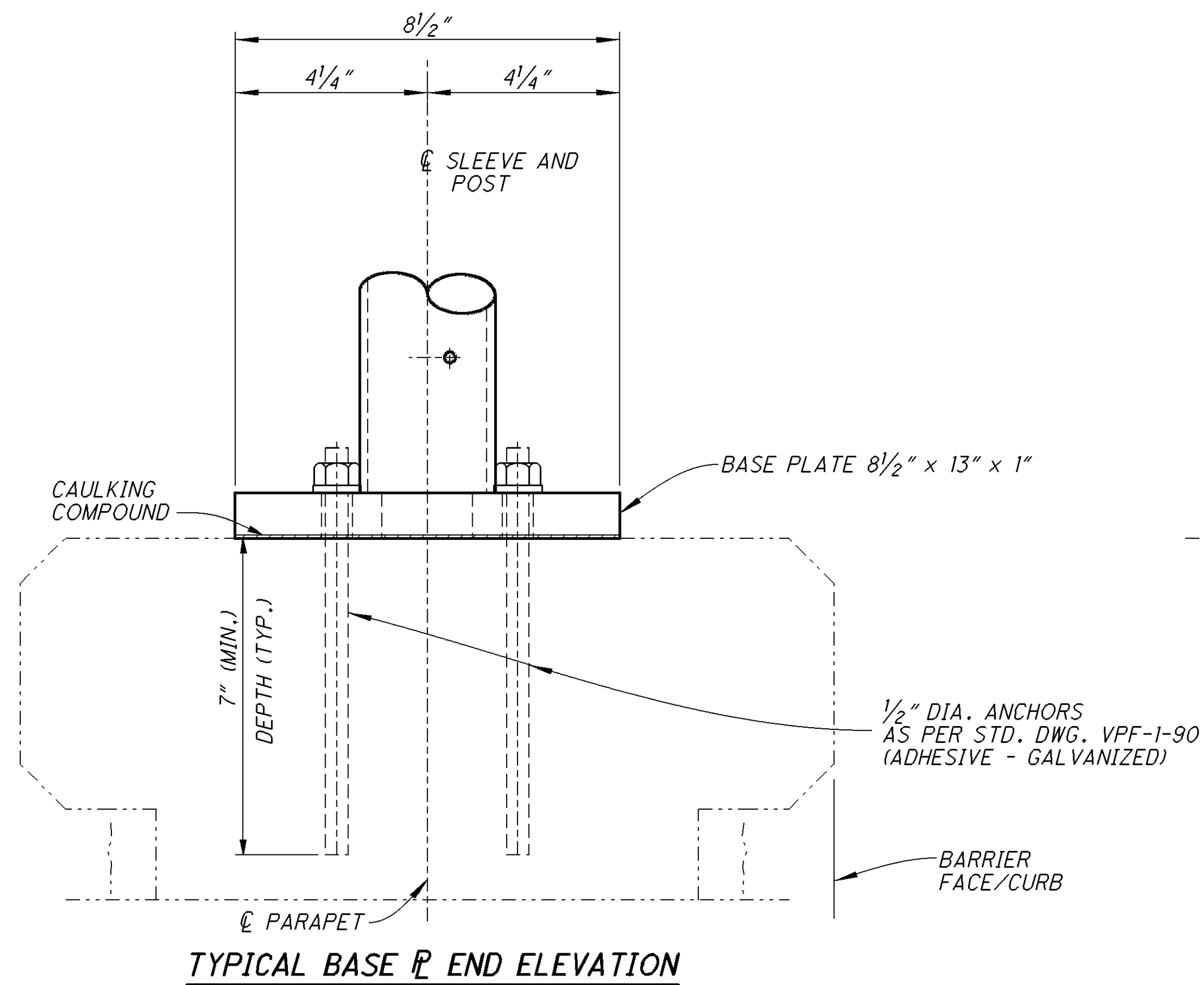
TYPICAL BASE P PLAN
SHIM POSITIONS ARE SHOWN



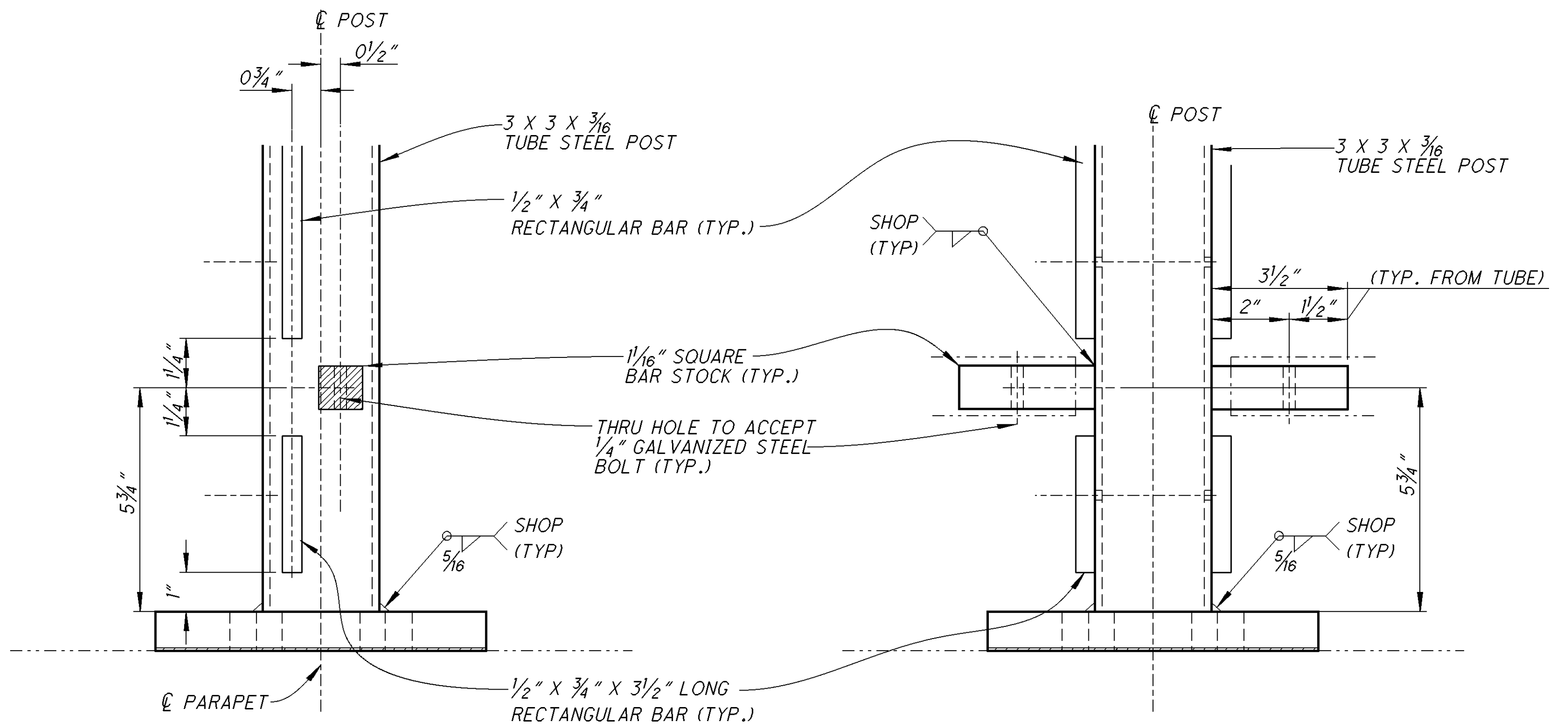
TYPICAL POST PLAN
SHIMS NOT SHOWN



BASE PLATE SHIMS
PROVIDE 1/16", 1/8" AND 1/4" THICK,
WHERE NECESSARY, TO SET ALL
POSTS PLUMB.

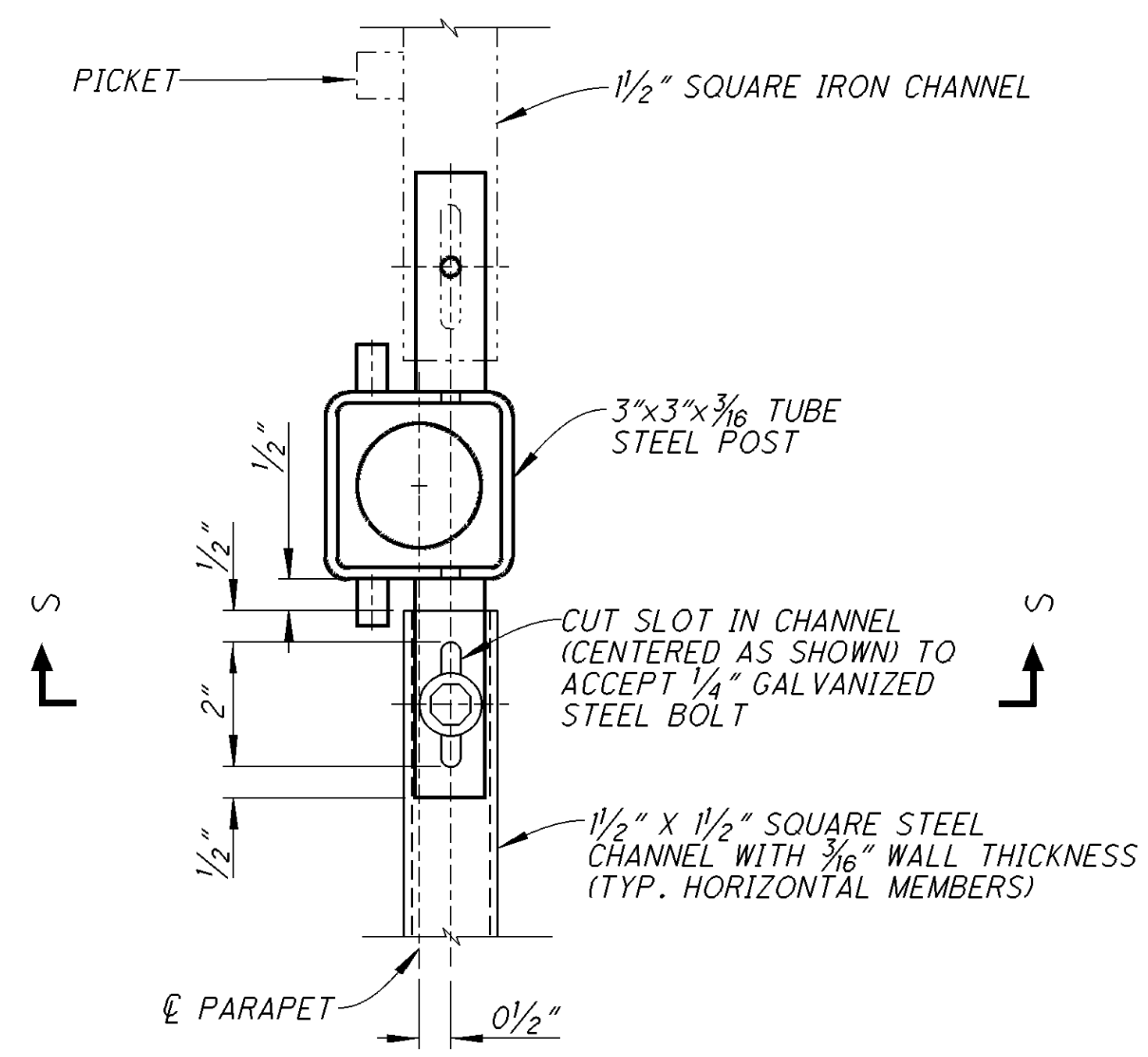
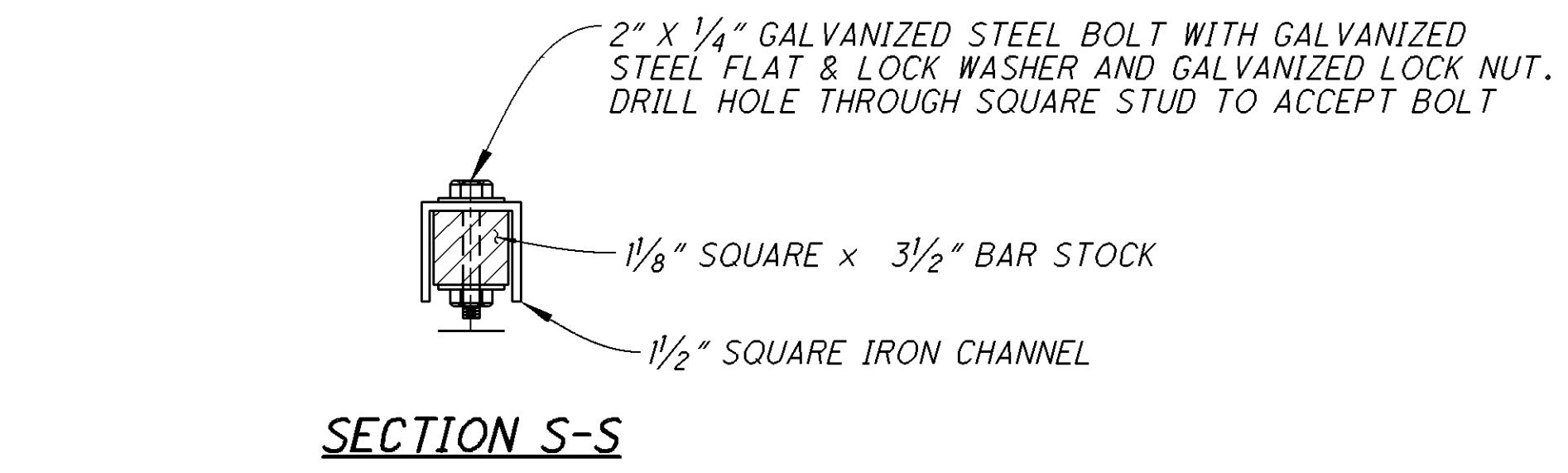


TYPICAL BASE P END ELEVATION



TYPICAL POST TO BASE P ELEVATION

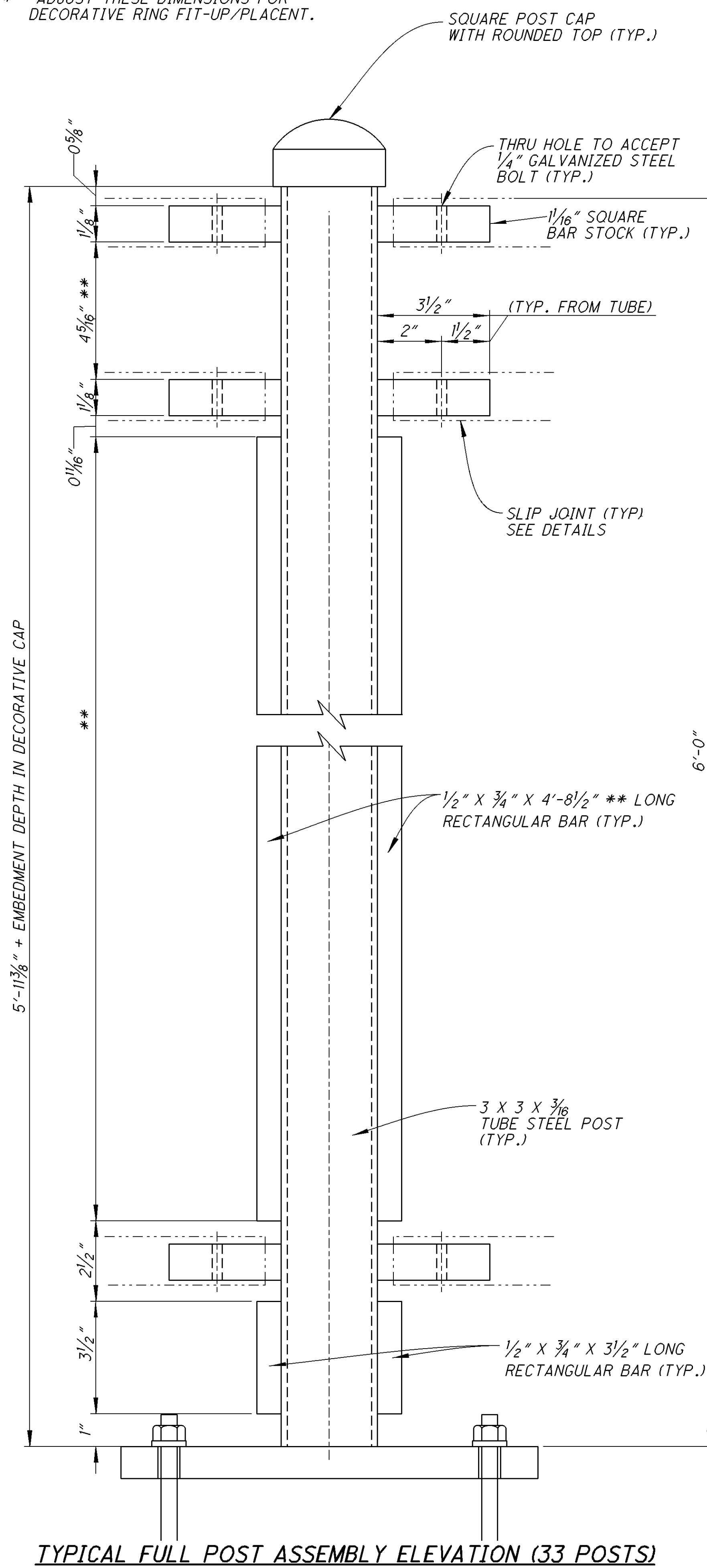
ELEVATION VIEW F-F



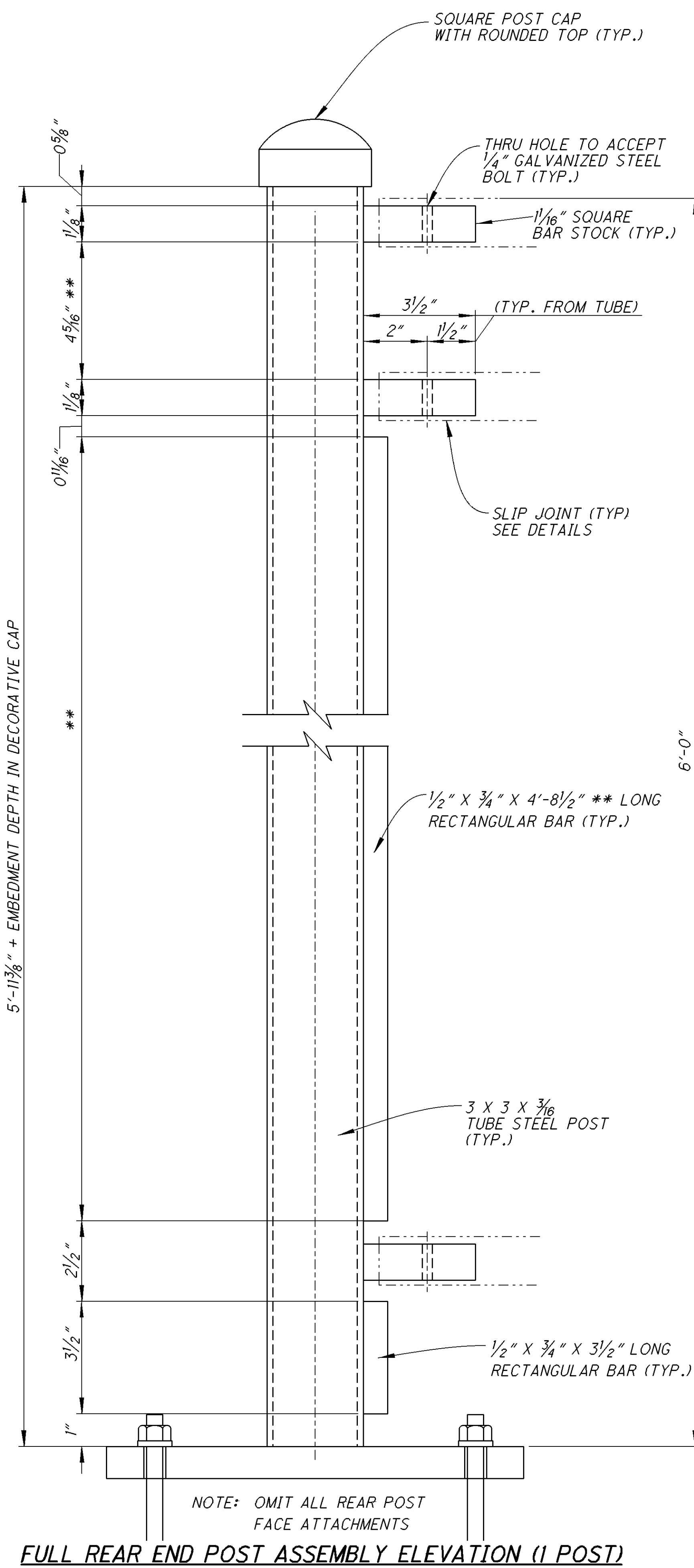
DESIGNED JDR		DRAWN JDR		REVIEWED TAG		DATE 3-1-2015		DESIGN AGENCY OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5	
CHECKED CPS		REVISED		STRUCTURE FILE NUMBER 4500830					
VANDAL PROTECTION FENCE DETAILS					BRIDGE NO. LIC-16-1718				
LIC-16-16.64					CHERRY VALLEY ROAD OVER S.R. 16				
41		56		673					
				729					

P:\LIC\80704\Design\bridge\SFN - Route Name\Plan Sheets\L80704 - BFD_003.dgn (SCALE = 0.200)

** - ADJUST THESE DIMENSIONS FOR DECORATIVE RING FIT-UP/PLACENT.

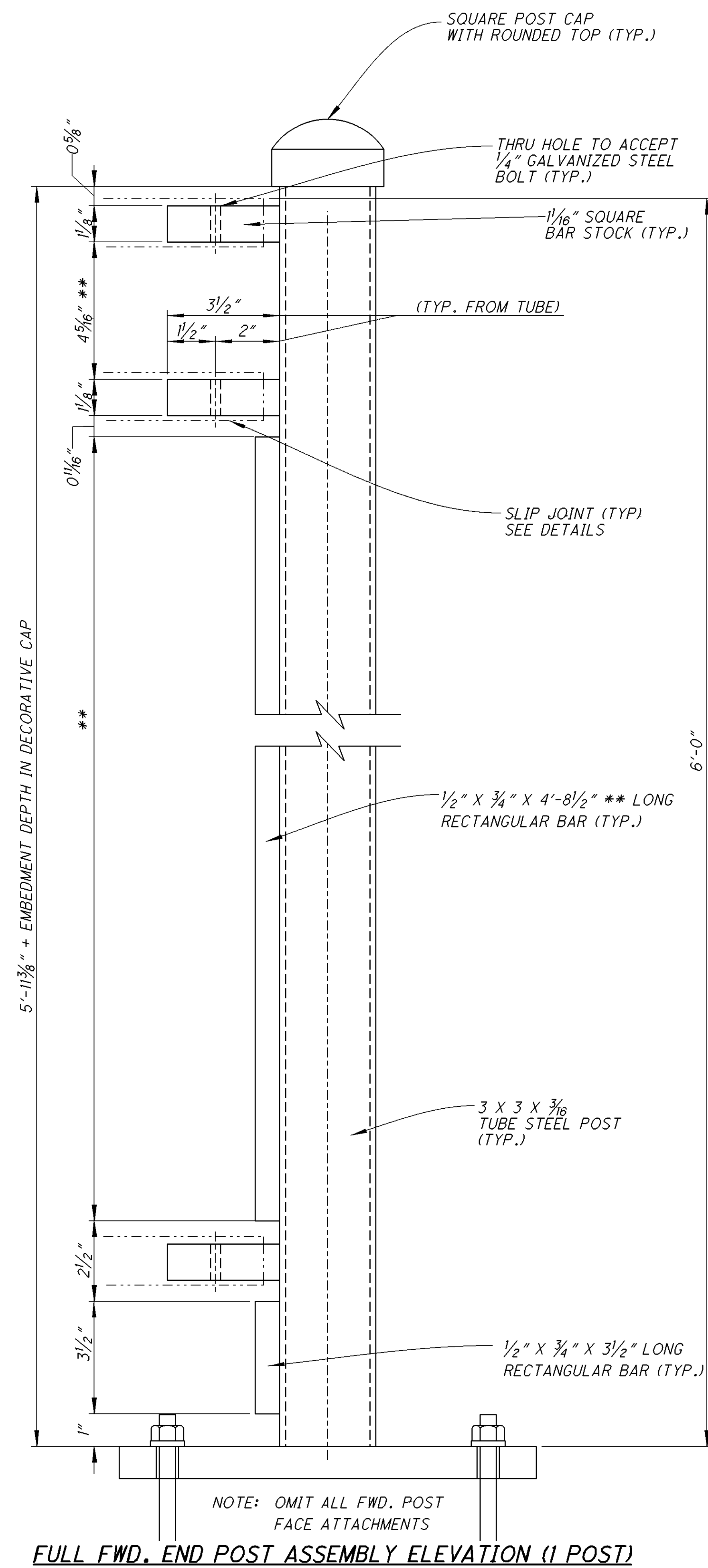


TYPICAL FULL POST ASSEMBLY ELEVATION (33 POSTS)



FULL REAR END POST ASSEMBLY ELEVATION (1 POST)

NOTE: OMIT ALL REAR POST FACE ATTACHMENTS

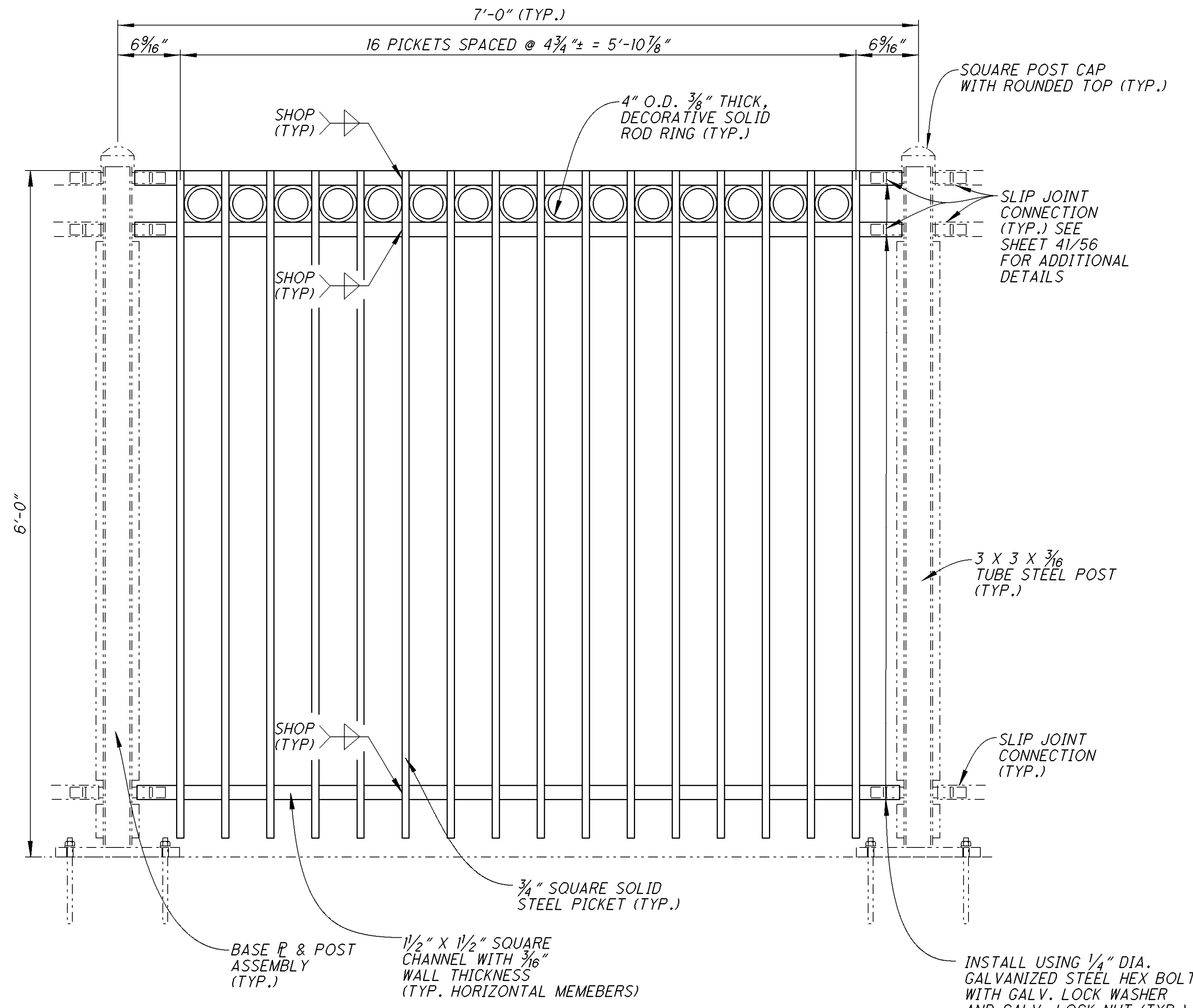


FULL FWD. END POST ASSEMBLY ELEVATION (1 POST)

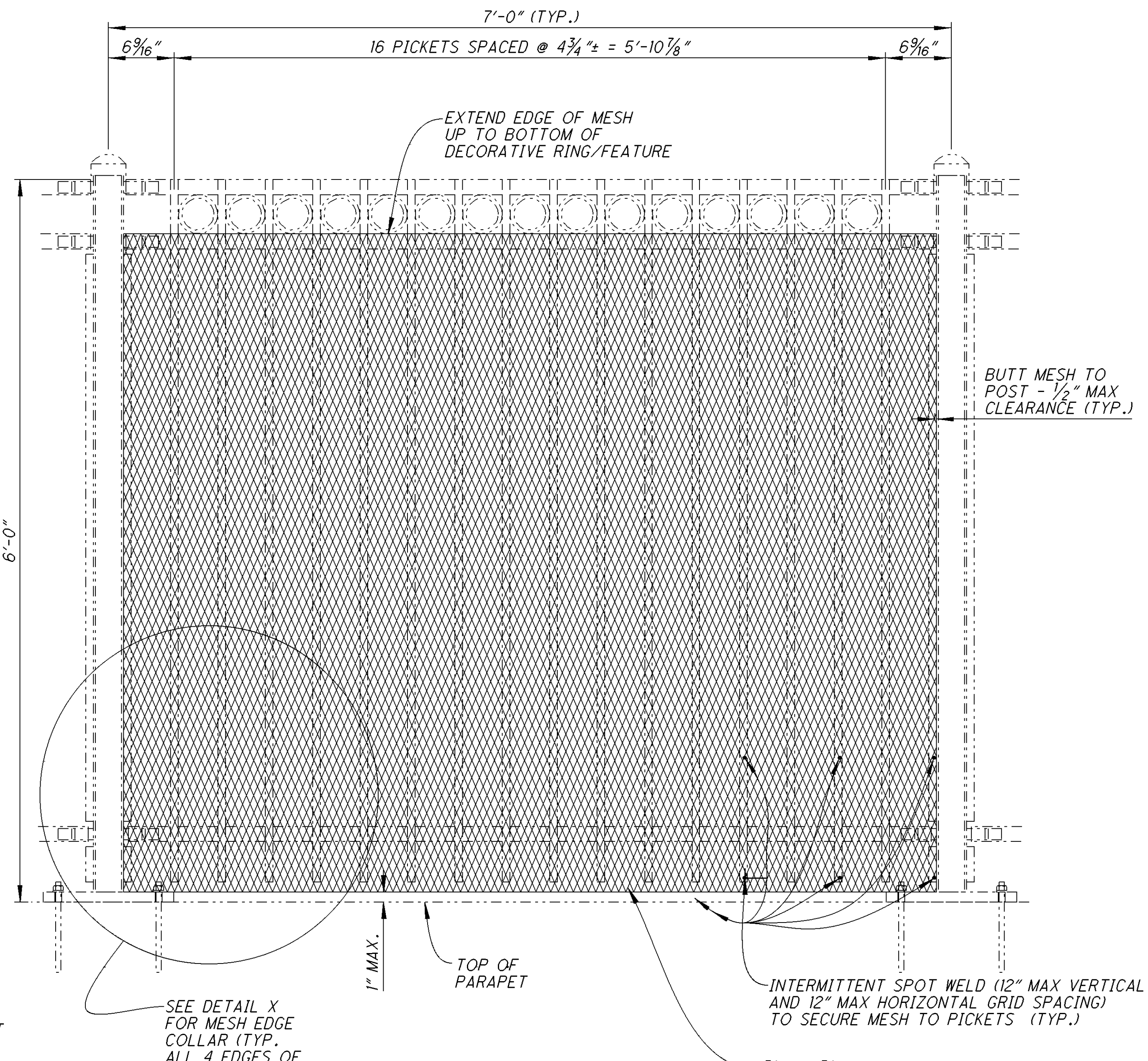
NOTE: OMIT ALL FWD. POST FACE ATTACHMENTS

DESIGN AGENCY		OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5	
DESIGNED	JDR	DATE	3-1-2015
CHECKED	CPS	REVIEWED TAG	3-1-2015
DRAWN	JDR	STRUCTURE FILE NUMBER	4500830
REVISIONS			
VANDAL PROTECTION FENCE DETAILS			
BRIDGE NO. LIC-16-1718			
CHERRY VALLEY ROAD OVER S.R. 16			
LIC-16-16.64		42 / 56	
729			

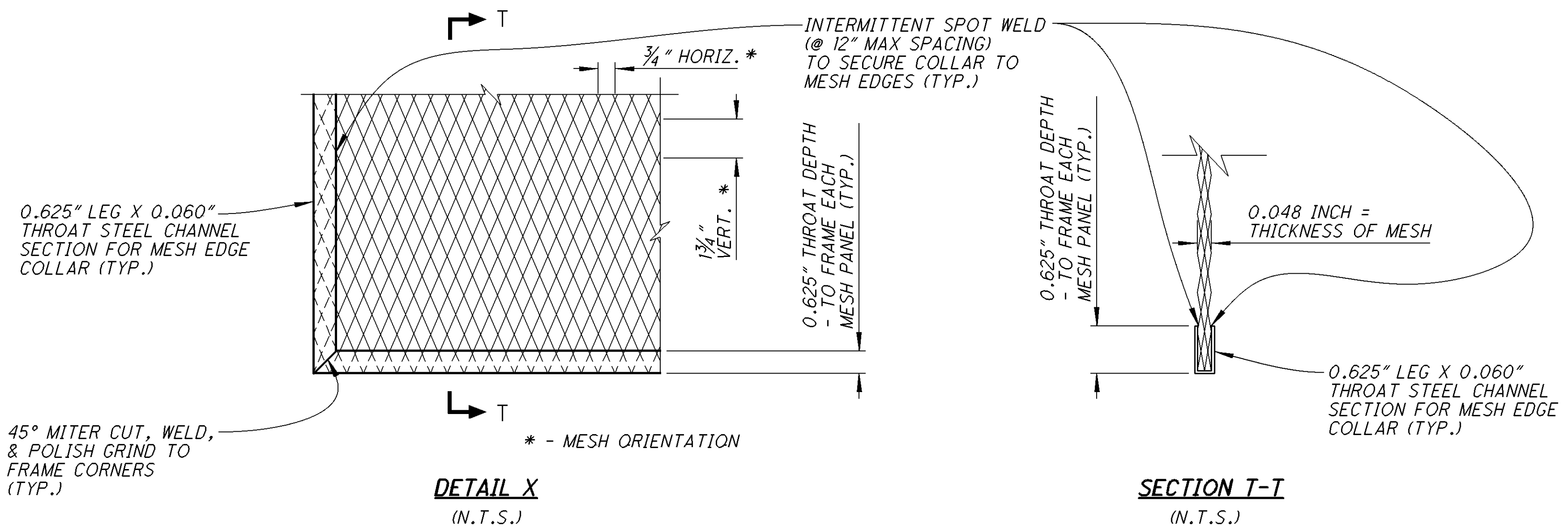
P:\LIC\80704\Design\bridge\SFN - Route Name\Plan Sheets\L80704_BFD_002.DGN (SCALE = 0.667)



TYPICAL DECORATIVE FENCE PANEL ASSEMBLY
(INNER/MULTI-USE PATH FACE = WEST FACE)



TYPICAL DECORATIVE FENCE PANEL
(INNER/MULTI-USE PATH FACE = WEST FACE)

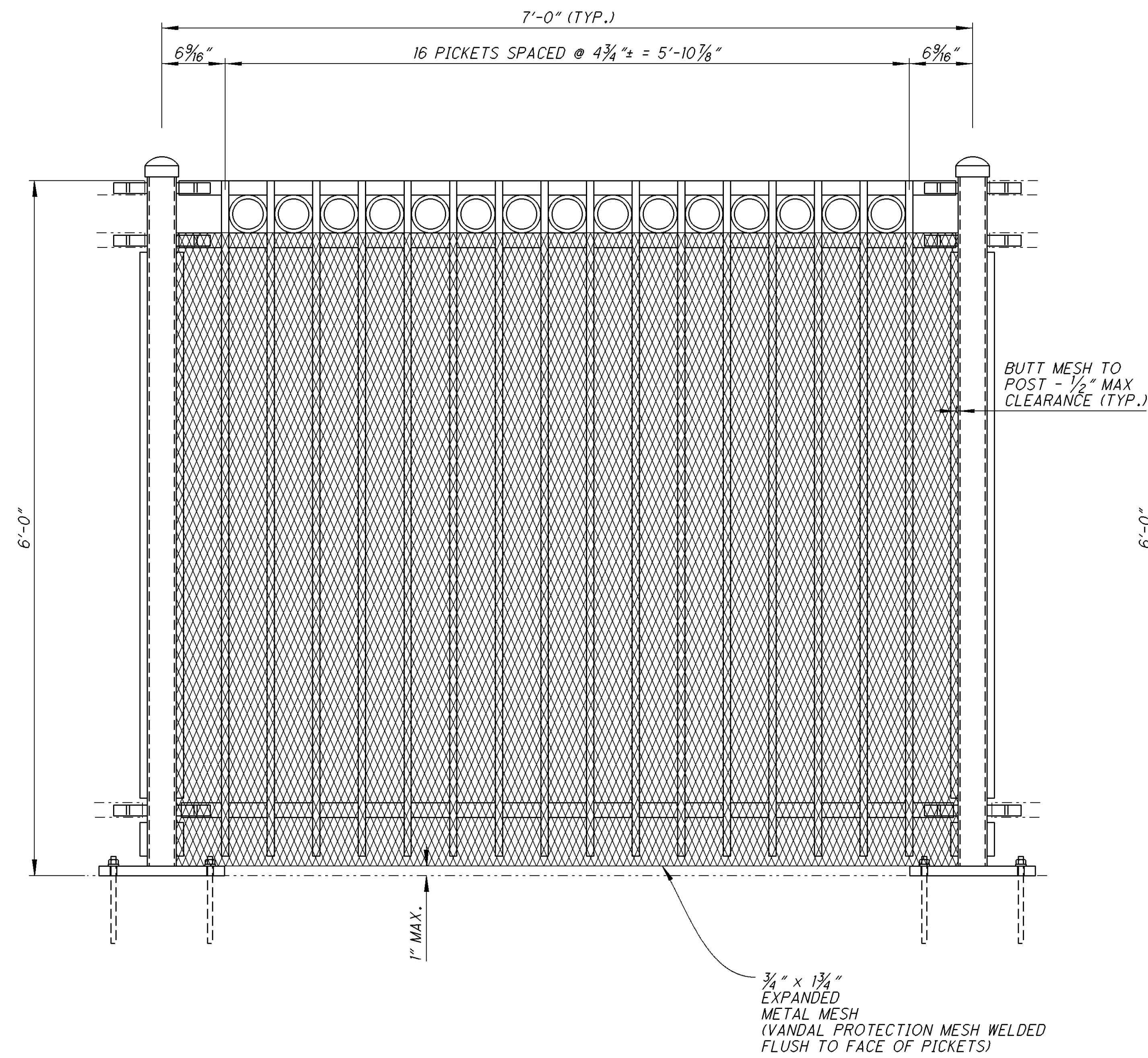


DETAIL X
(N.T.S.)

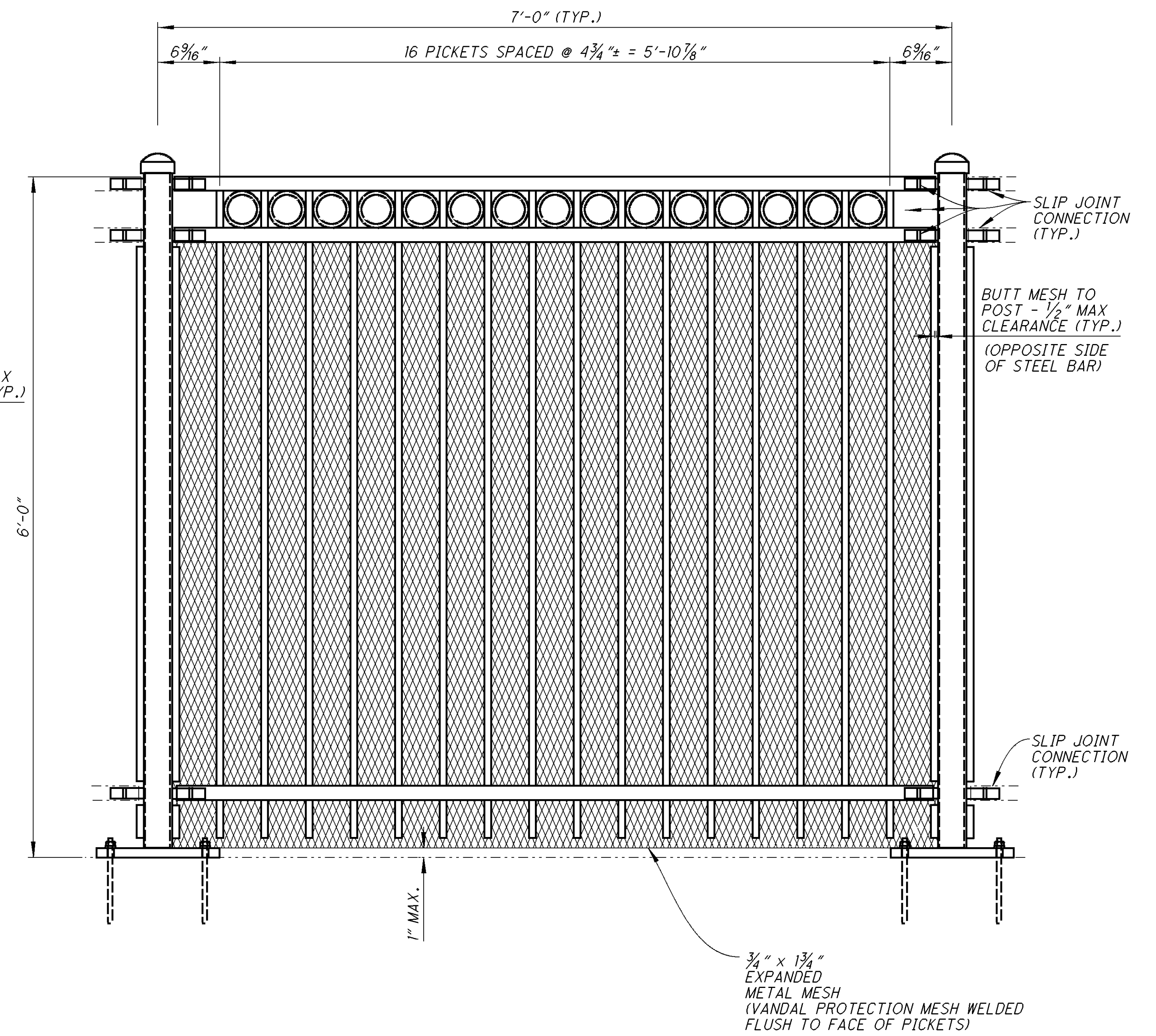
SECTION T-T
(N.T.S.)

DESIGN AGENCY		OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5	
DATE	3-1-2015	DESIGNED	JDR
REVIEWED	JDR	CHECKED	CPS
TAG	4500830	STRUCTURE FILE NUMBER	
VANDAL PROTECTION FENCE DETAILS			
BRIDGE NO. LIC-16-1718			
CHERRY VALLEY ROAD OVER S.R. 16			
LIC-16-16.64		43 / 56	
675		729	

P:\LIC\80704\Design\bridge\SFN - Route Name\Plan Sheets\L80704_BFD_002.DGN (SCALE = 0.667)



TYPICAL DECORATIVE FENCE PANEL
(INNER/MULTI-USE PATH FACE = WEST FACE)



TYPICAL DECORATIVE FENCE PANEL
(OUTER FACE = EAST FACE)

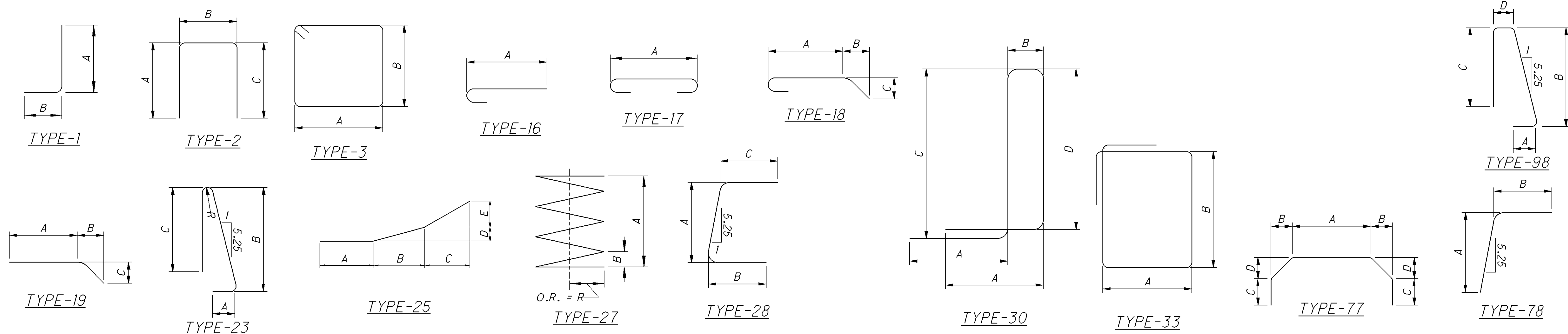
DESIGN AGENCY		OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5	
DATE	3-1-2015	DRAWN	JDR
REVIEWED	TAG	CHECKED	CPS
STRUCTURE FILE NUMBER	4500830	REVISED	
VANDAL PROTECTION FENCE DETAILS			
BRIDGE NO. LIC-16-1718			
CHERRY VALLEY ROAD OVER S.R. 16			
LIC-16-16.64			
44	56		
676			
729			

P:\LIC\80704\Design\bridge\SFN - Route Name\Plan Sheets\L80704_BR_001.dgn (SCALE = 1.000)

MARK	NUMBER REQ'D.	LENGTH	WEIGHT	TYPE	DIMENSIONS						
					A	B	C	D	E	R	INC.
ABUTMENTS											
A501	196	17'-7"	3,595	3	6'-0"	2'-6"					
A502	152	10'-10"	1,717	2	4'-3"	2'-7"	4'-3"				
A503	152	8'-10"	1,400	2	3'-3"	2'-7"	3'-3"				
A504	32	12'-4"	412	2	5'-3"	2'-1"	5'-3"				
A505	8	15'-4"	128	2	6'-9"	2'-1"	6'-9"				
A506	4 SERIES OF 6	14'-6" TO 8'-2"	284	2	6'-4" TO 3'-2"	2'-1"	6'-4" TO 3'-2"				7 5/8"
A507	4 SERIES OF 4	14'-10" TO 11'-1"	216	3	5'-1" TO 3'-2"	2'-1"	5'-1" TO 3'-2"				7 5/8"
A508	44	40'-0"	1,836	STR.	40'-0"						
A509	12	16'-9"	210	STR.	16'-9"						
A510	4	23'-11"	100	STR.	23'-11"						
A511	2	16'-1"	34	19	14'-2"	1'-9"	10"				
A512	8	13'-1"	109	STR.	13'-1"						
A513	8	10'-3"	86	STR.	10'-3"						
A514	8	7'-5"	62	STR.	7'-5"						
A515	8	4'-7"	38	STR.	4'-7"						
A516	2	16'-5"	34	19	14'-8"	1'-7"	9"				
A517	2	16'-6"	34	19	14'-7"	1'-9"	10"				
A518	2	16'-0"	33	19	14'-3"	1'-7"	9"				
A801	40	40'-0"	4,272	STR.	40'-0"						
A802	8	28'-11"	618	STR.	28'-11"						
A803	8	24'-3"	518	STR.	24'-3"						
ABUTMENT SUB-TOTAL			15,736								

MARK	NUMBER REQ'D.	LENGTH	WEIGHT	TYPE	DIMENSIONS						
					A	B	C	D	E	R	INC.
PIER											
SP401	6	387'-0"	1,551	27	17'-8"	4 1/2"				1'-3" O.R.	
P601	120	9'-6"	1,712	STR.							
P602	12	28'-2"	508	STR.							
P603	160	10'-6"	2,523	2	4'-1"	2'-8"	4'-1"				
P604	21	13'-0"	410	33	3'-1"	2'-8"					
P605	9	11'-4"	153	2	2'-11"	5'-10"	2'-11"				
P606	336	9'-8"	4,878	2	3'-8"	2'-8"	3'-8"				
P607	64	8'-8"	833	2	3'-2"	2'-8"	3'-2"				
P801	12	32'-4"	1,036	77	24'-5"	1'-10"	2'-0"	11"			
P901	15	11'-1"	565	2	2'-11"	5'-10"	2'-11"				
PI001	144	12'-4"	7,642	17	9'-6"						
PI002	96	12'-8"	5,232	1	11'-2"	1'-10"					
PI003	96	21'-8"	8,950	16	20'-3"						
PI004	33	31'-11"	4,532	2	2'-3"	28'-2"	2'-3"				
PIER SUB-TOTAL			40,525								
SUPERSTRUCTURE (DIAPHRAGMS)											
D501	144	7'-0"	1,051	2	2'-7"	2'-1"	2'-7"				
D502	144	11'-11"	1,790	3	2'-7"	3'-1"					
D801	28	40'-0"	2,990	STR.							
D802	134	5'-2"	1,849	18	2'-10"	1'-0"	1'-0"				
D803	56	34'-6"	5,158	STR.							
DIAPHRAGMS SUB-TOTAL			12,838								
ABUTMENT SUB-TOTAL			15,736								
PIER SUB-TOTAL			40,525								
DIAPHRAGMS SUB-TOTAL			12,838								
SHEET TOTAL QUANTITY			69,099								

QUANTITIES CARRIED TO SHEET 46/56



DESIGN AGENCY: OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5
 DATE: 3-1-2015
 TAG: STRUCTURE FILE NUMBER 4500830
 DRAWN: JDR
 DESIGNED: JDR
 CHECKED: CPS
 REINFORCING STEEL SCHEDULE
 BRIDGE NO. LIC-16-1718
 CHERRY VALLEY ROAD OVER S.R. 16
 LIC-16-16.64
 45 / 56
 677
 729

P:\LIC\80704\Design\bridge\SFN - Route Name\Plan Sheets\L80704_80704_BR_001.dgn (SCALE = 1.000)

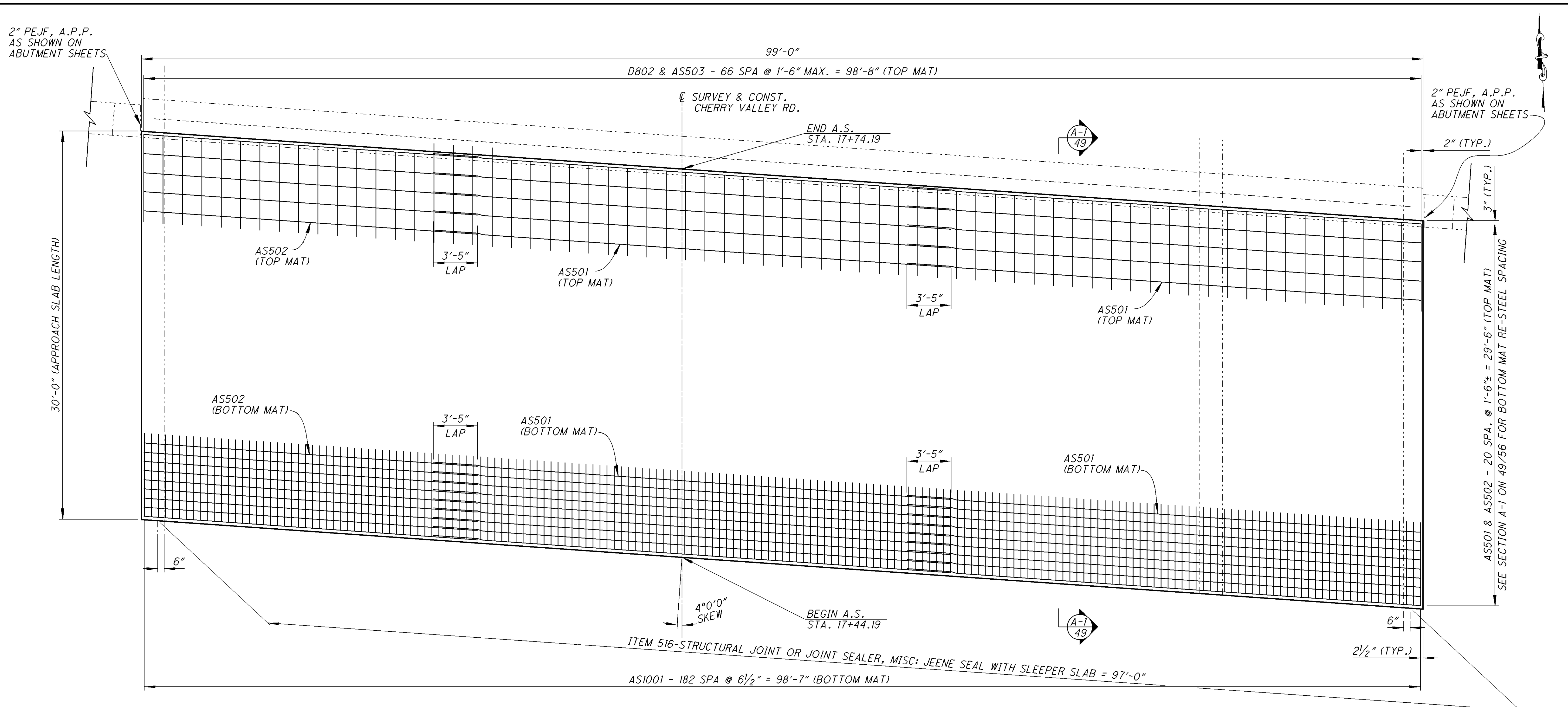
MARK	NUMBER REQ'D.	LENGTH	WEIGHT	TYPE	DIMENSIONS						
					A	B	C	D	E	R	INC.
SUPERSTRUCUTRE (DECK)											
S401	202	40'-0"	5,397	STR.							
S402	202	32'-6"	4,385	STR.							
S501	1988	40'-0"	82,939	STR.							
S502	336	25'-6"	8,936	STR.							
S503	686	10'-2"	7,274	16	9'-7"						
S504	233	33'-3"	8,080	STR.							
A505	4 SERIES OF 3	4'-10" TO 19'-2"	150	STR.							7'-2"
A506	4 SERIES OF 5	5'-8" TO 34'-4"	417	STR.							7'-2"
A507	4 SERIES OF 5	6'-5" TO 35'-1"	433	STR.							7'-2"
S508	2	4'-3"	9	STR.							
S509	352	40'-7"	14,900	16	40'-0"						
S510	346	26'-1"	9,413	16	25'-6"						
DECK SUB-TOTAL			142,333								

MARK	NUMBER REQ'D.	LENGTH	WEIGHT	TYPE	DIMENSIONS						
					A	B	C	D	E	R	INC.
PARAPETS											
R501	232	6'-8"	1,613	STR.							
R502	20	9'-1"	189	STR.							
R503	8	7'-8"	64	STR.							
R504	48	40'-0"	2,003	STR.							
R505	12	29'-2"	365	STR.							
R506	453	7'-4"	3,465	23	11"	3'-3"	3'-0"				2 3/4" I.R.
R507	8	18'-3"	152	STR.							
R508	16	10'-0"	167	STR.							
R509	8	5'-8"	47	25	1'-10"	2'-5"	1'-4"	1 1/2"	5"		
R510	8	5'-8"	47	STR.							
R511	48	7'-8"	384	STR.							
R512	16	29'-8"	495	STR.							
R513	272	10'-8"	3,026	30	1'-6"	8"	3'-10"	3'-8"			
R514	101	4'-5"	465	2	2'-0"	8"					
R515	2	7'-6"	16	98	11"	3'-3"	3'-0"	8"			
R516	2	7'-10"	16	98	11"	3'-3"	3'-0"	12"			
R517	2	8'-5"	18	25	1'-11 1/2"	2'-9 1/2"	1'-6 1/2"	11 1/4"	1'-2 1/4"		
R601	45	6'-8"	451	STR.							
R602	4	9'-1"	55	STR.							
R603	4	7'-8"	46	STR.							
R604	215	3'-2"	1,023	28	1'-7"	1'-0"	11"				
R605	215	2'-5"	780	1	1'-7"	1'-0"					
A606	4 SERIES OF 11	4'-10" TO 4'-2"	297	1	4'-0" TO 3'-4"	1'-0"					13/16"
R607	16	4'-0"	96	1	1'-0"	3'-2"					
R608	245	2'-1"	767	19	1'-6"	1 1/2"	9"				
R609	245	2'-1"	767	1	9"	1'-6"					
R610	245	1'-8"	613	78	11"	11"					
R611	238	11"	328	STR.							
R612	6	10'-0"	90	33	1'-2"	3'-2"					
R613	10	2'-0"	30	STR.							
PARAPETS SUB-TOTAL			17,875								
SUPER. (DECK) SUB-TOTAL			142,333								
PARAPETS SUB-TOTAL			17,875								
THIS SHEET TOTAL			160,208								
			+								
PREVIOUS SHEET TOTAL			69,099								
GRAND TOTAL QUANTITY			229,307								

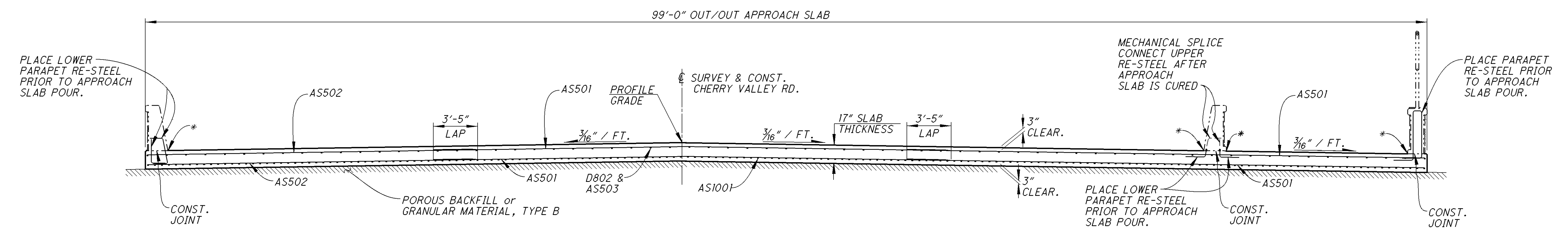
QUANTITY CARRIED TO BRIDGE SUMMARY, SHEET 6/56

LIC-16-16.64	REINFORCING STEEL SCHEDULE BRIDGE NO. LIC-16-1718 CHERRY VALLEY ROAD OVER S.R. 16
DESIGN AGENCY OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5	DATE 3-1-2015
DRAWN JDR	REVIEWED JDR
CHECKED CPS	TAG 4500830
FILE NUMBER 4500830	

P:\LIC\80704\Design\bridge\SFN - Route Name\Plan Sheets\L80704_BAS_001.dgn (SCALE = 4.000)



PLAN



ELEVATION

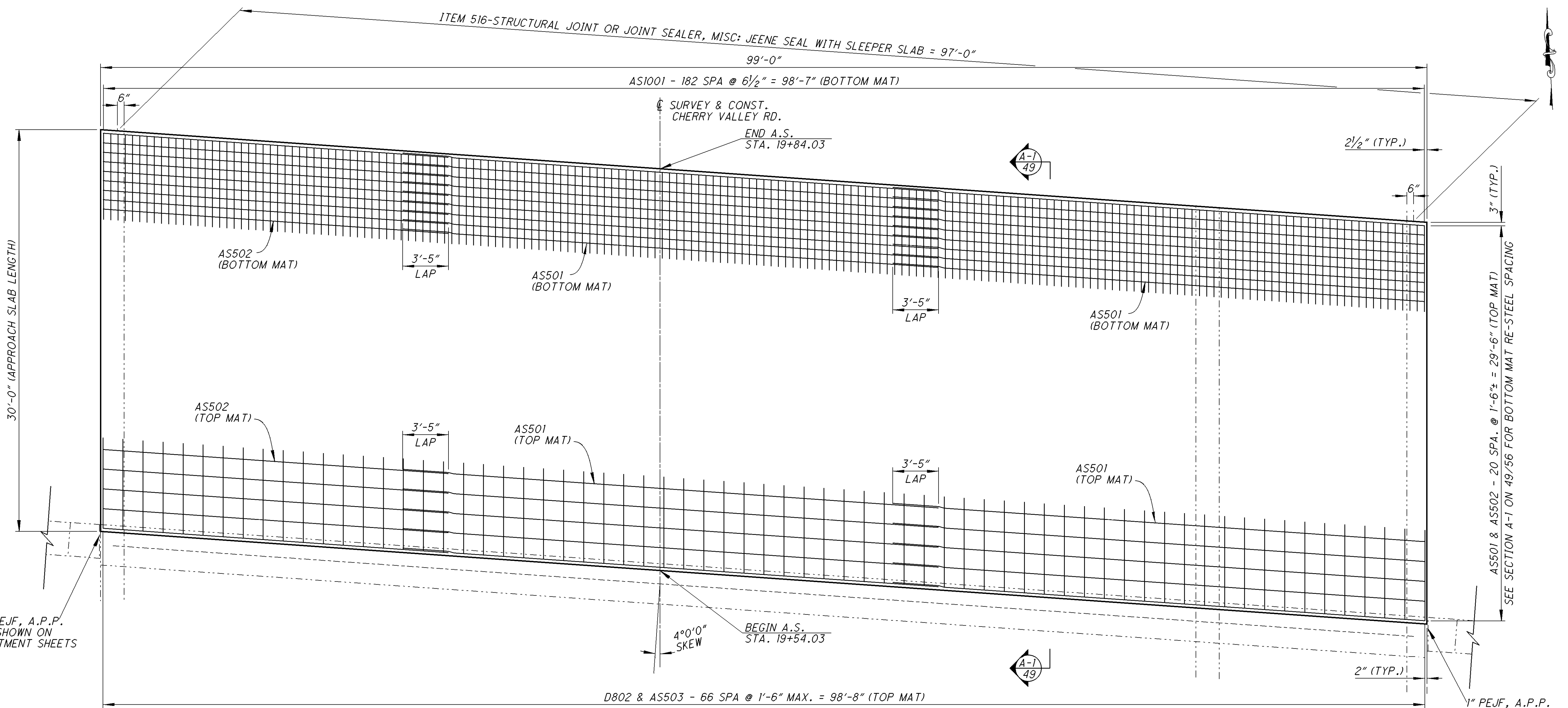
* ALL LONGITUDINAL CONSTRUCTION JOINTS SHALL BE SEALED 1'-0" IN WIDTH WITH HMWM RESIN (SEE PROPOSAL NOTE) APPROACH SLAB SEALING IS INCLUDED IN ITEM 526 REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=17"), AS PER PLAN

RE-STEEL LAP LENGTH NO. 5 = 2'-5"

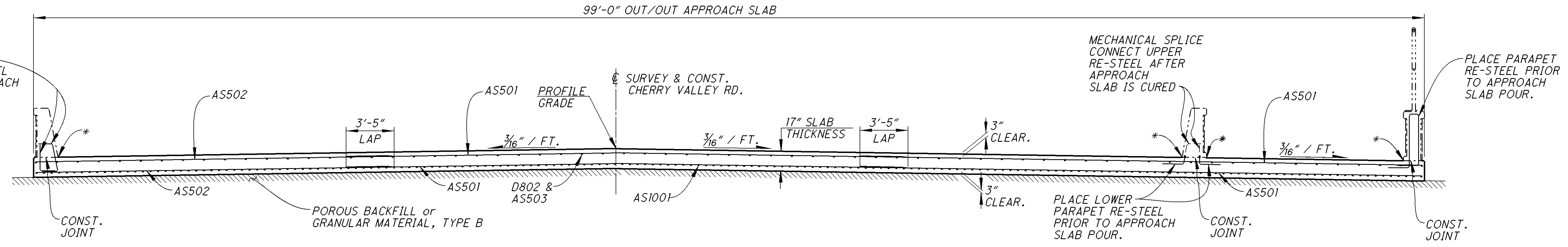
NOTES: - FOR ADDITIONAL DETAILS SEE STANDARD DRAWING AS-1-81.
- FOR APPROACH SLAB FINISH ELEVATIONS, SEE SHEET 31/56.

DESIGN AGENCY	OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5
DATE	3-1-2015
REVIEWED TAG	STRUCTURE FILE NUMBER 4500830
DRAWN JDR	REVISED
DESIGNED JDR	CHECKED CPS
REAR APPROACH SLAB DETAILS	
BRIDGE NO. LIC-16-1718 CHERRY VALLEY ROAD OVER S.R. 16	
LIC-16-16.64	
47	56
679 729	

P:\LIC\80704\Design\bridge\SFN - Route Name\Plan Sheets\L80704_BAS_001.dgn (SCALE = 4.000)



PLAN



ELEVATION

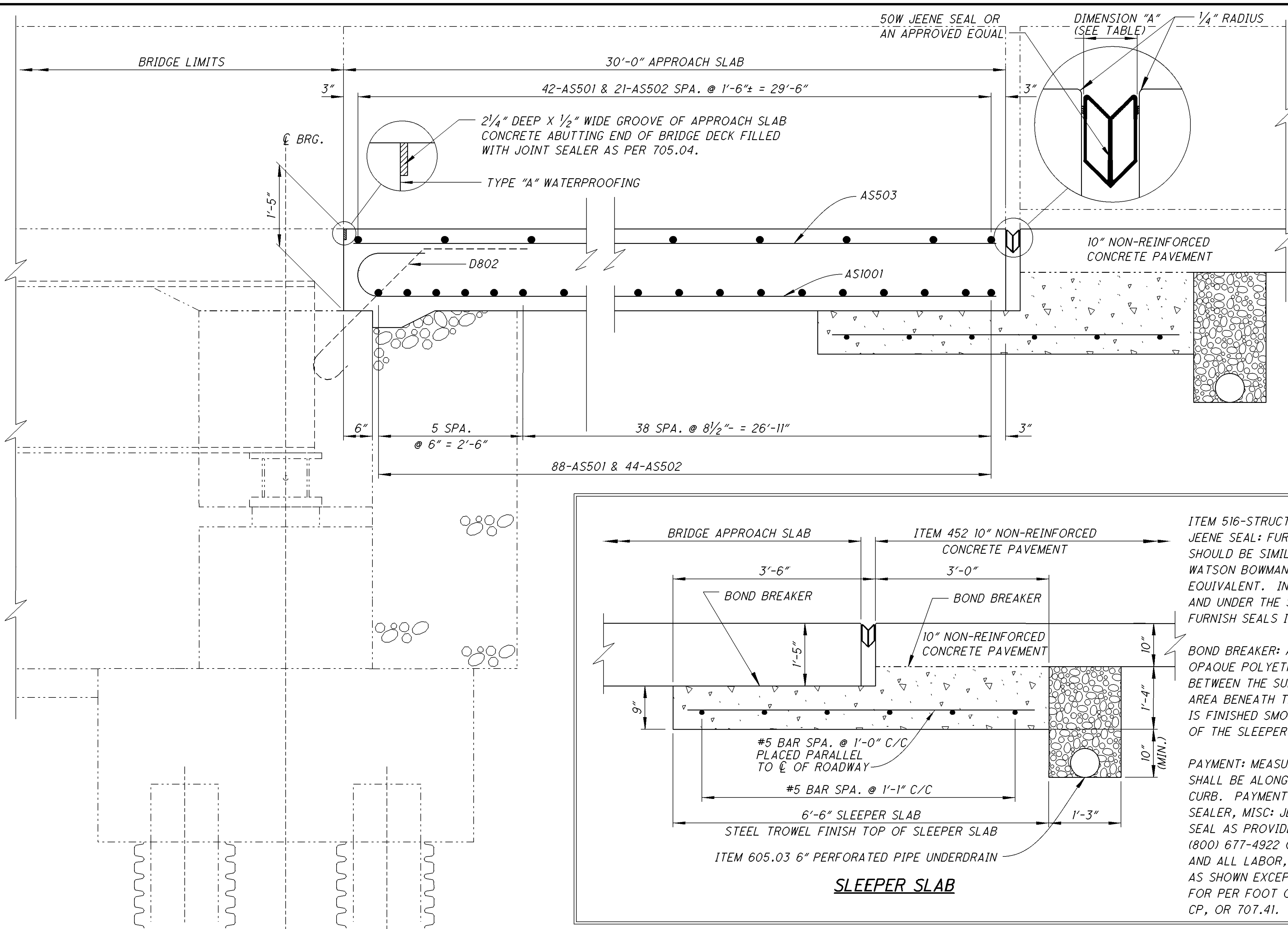
* ALL LONGITUDINAL CONSTRUCTION JOINTS SHALL BE SEALED 1'-0" IN WIDTH WITH HMWM RESIN (SEE PROPOSAL NOTE) APPROACH SLAB SEALING IS INCLUDED IN ITEM 526 REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=17"), AS PER PLAN

RE-STEEL LAP LENGTH NO. 5 = 2'-5"

NOTES: - FOR ADDITIONAL DETAILS SEE STANDARD DRAWING AS-1-81.
- FOR APPROACH SLAB FINISH ELEVATIONS, SEE SHEET 31/56.

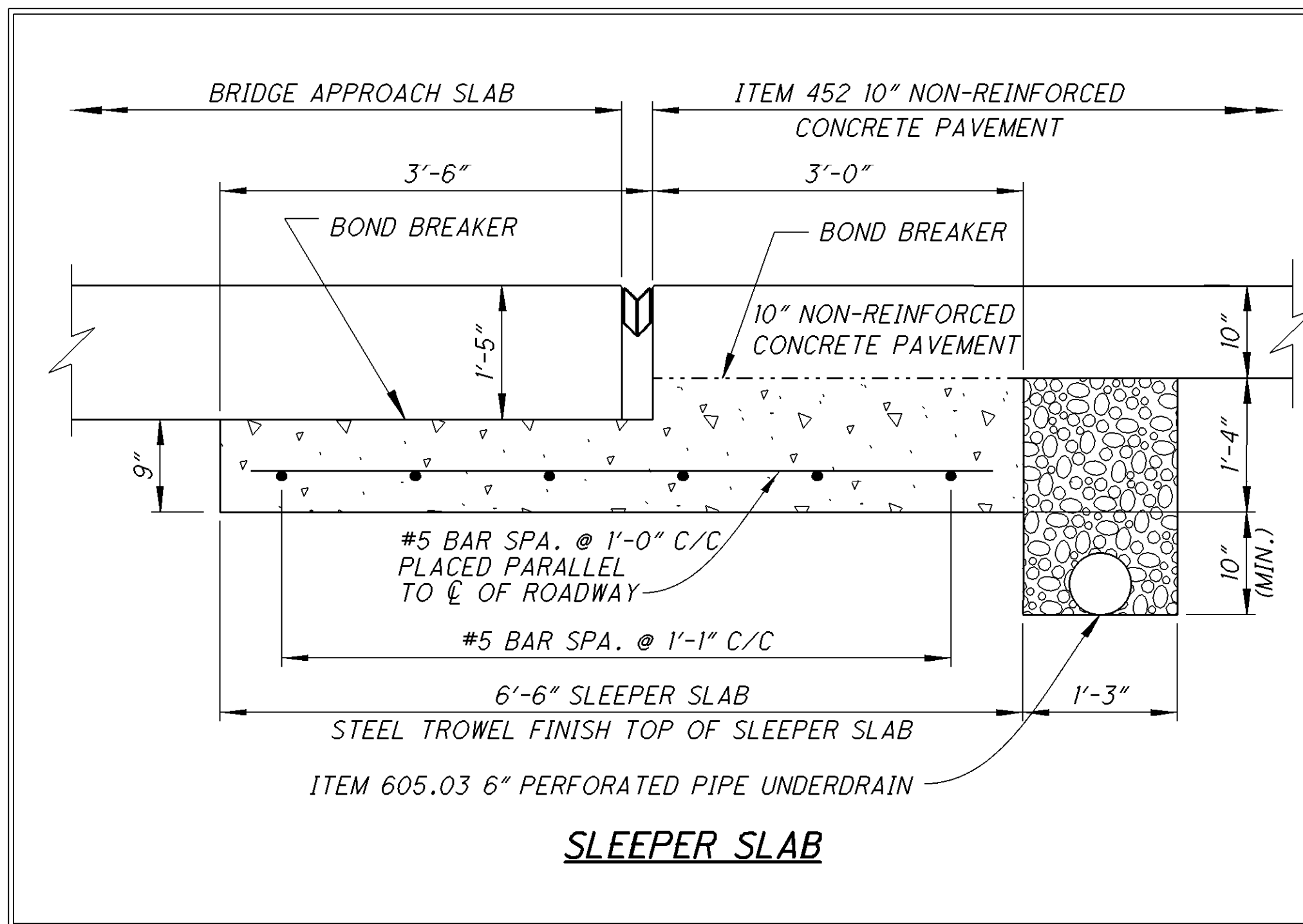
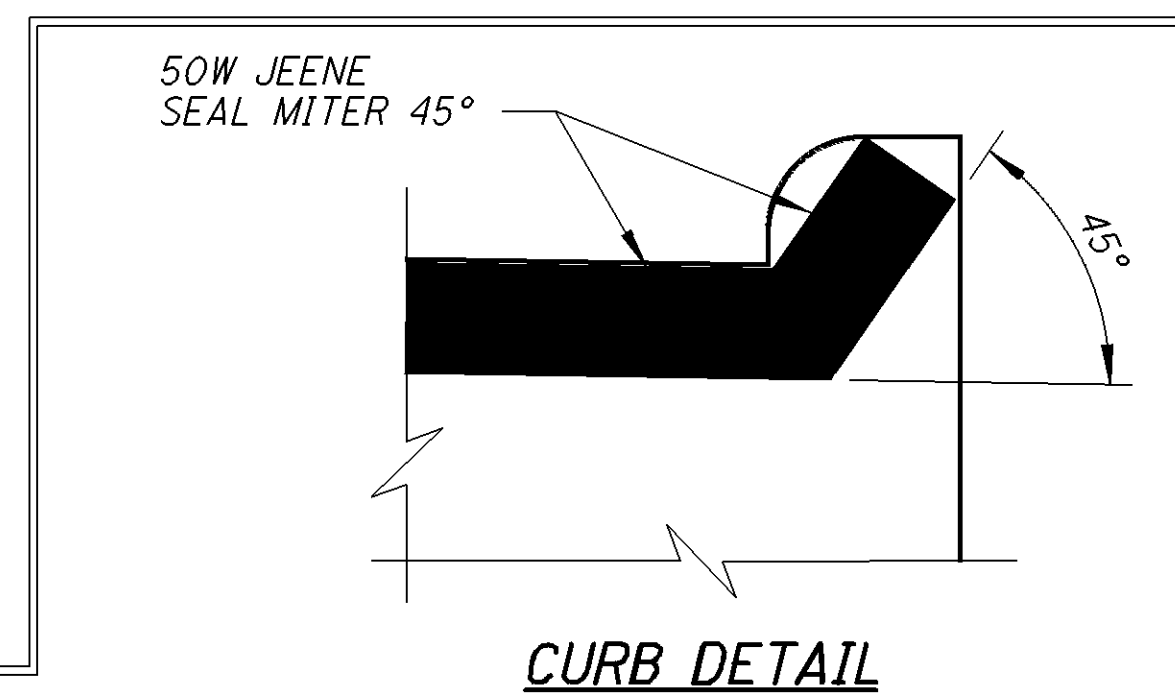
DESIGN AGENCY OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5	DATE 3-1-2015	DESIGNED JDR	DRAWN JDR	REVIEWED TAG	STRUCTURE FILE NUMBER 4500830
FORWARD APPROACH SLAB DETAILS					
BRIDGE NO. LIC-16-1718					
CHERRY VALLEY ROAD OVER S.R. 16					
LIC-16-16.64					
48 / 56					
680					
729					

P:\LIC\80704\Design\bridge\SFN - Route Name\Plan Sheets\L80704 - BAS_001.dgn (SCALE = 1.000)



ITEM	DESCRIPTION	QUANT'Y	UNIT
516	STRUCTURAL JOINT OR JOINT SEALER, MISC: JEENE SEAL WITH SLEEPER SLAB	194	FT
518	POROUS BACKFILL WITH FILTER FABRIC	125	CU YD
526	REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=17"), AS PER PLAN	660	SQ YD

QUANTITIES CARRIED TO SHEET 6/56.
QUANTITIES ARE FOR 2 APPROACH SLABS.



ITEM 516-STRUCTURAL JOINT OR JOINT SEALER, MISC: JEENE SEAL WITH SLEEPER SLAB
JEENE SEAL: FURNISH MATERIAL CONFORMING TO 705.11. THE SEAL CONFIGURATION SHOULD BE SIMILAR TO THE DETAILS SHOWN HERIN. ACCEPTED MANUFACTURES ARE: WATSON BOWMAN ACME CORP. (MODEL JEENE W PROFILE 50W) OR AN APPROVED EQUIVALENT. INSTALL THE SEAL ACCORDING TO THE MANUFACTURE'S SPECIFICATIONS AND UNDER THE SUPERVISION OF THE MANUFACTURER'S DESIGNATED REPRESENTATIVE. FURNISH SEALS IN ONE CONTIUOUS PIECE UNLESS APPROVED BY THE ENGINEER.

BOND BREAKER: A BOND BREAKER CONSISTING OF TWO 4 FOOT SHEETS OF CLEAR OR OPAQUE POLYETHYLENE FILM, ITEM 705.06, SHALL BE CENTERED ABOVE THE JOINT BETWEEN THE SUBBASE AND THE SLEEPER SLAB. CARE SHALL BE TAKEN IN THE AREA BENEATH THE POLYETHYLENE FILM TO ENSURE THE SURFACE OF THE SUBBASE IS FINISHED SMOOTH AND IS FLUSH WITH OR SLIGHTLY HIGHER THAN THE SURFACE OF THE SLEEPER SLAB. THE FILM SHALL HAVE A NOMINAL THICKNESS OF 4 MILS.

PAYMENT: MEASUREMENT OF THE EXPANSION JOINT FOR PAYMENT PURPOSES SHALL BE ALONG THE CENTERLINE OF THE SLEEPER SLAB AND BETWEEN THE BACKS OF CURB. PAYMENT SHALL BE PER FOOT OF ITEM 516 - STRUCTURAL JOINT OR JOINT SEALER, MISC: JEENE SEAL WITH SLEEPER SLAB AND SHALL INCLUDE 50W JEENE SEAL AS PROVIDED BY WATSON BOWMAN ACME CORPORATION, AMHERST, NEW YORK (800) 677-4922 OR AN APPROVED EQUAL, CONCRETE SLEEPER SLAB, RESTEEL AND ALL LABOR, MATERIALS AND INCIDENTALS NEEDED TO CONSTRUCT THE JOINT AS SHOWN EXCEPT FOR THE PIPE UNDERDRAIN. THE UNDERDRAINS SHALL BE PAID FOR PER FOOT OF ITEM 605- 6" SHALLOW PIPE UNDERDRAIN, ITEM 707.32 TYPE CP, OR 707.41.

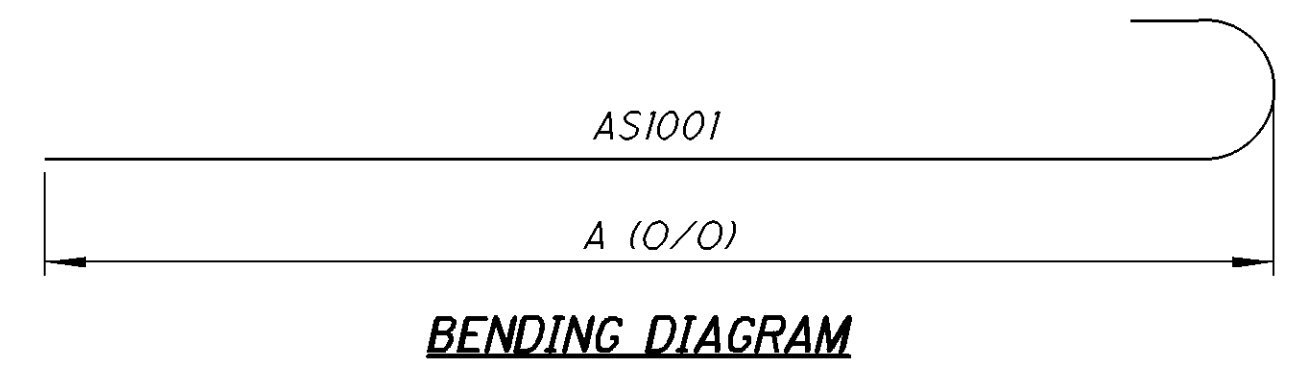
SECTION A-1
47 & 48

NOTE:
TYPE "A" WATERPROOFING SHALL NOT EXTEND ABOVE THE BOTTOM OF THE CUT GROOVE IN WHICH THE HOT APPLIED JOINT SEALER IS TO BE PLACED. IT SHALL BE APPLIED TO THE ENTIRE AREA OF THE ABUTMENT OR SUPERSTRUCTURE WHICH COMES INTO CONTACT WITH THE APPROACH SLAB.

NOTE:
FOR ADDITIONAL DETAILS SEE STANDARD DRAWING AS-1-81.

NOTE:
FOR APPROACH SLAB FINISH ELEVATIONS, SEE SHEET 31/56.

AMBIENT TEMP. (°F)	DIMENSION "A"	
	REAR ABUT. (50W SEAL)	FWD. ABUT. (50W SEAL)
90°	1 1/16"	1 1/16"
80°	1 1/2"	1 1/2"
70°	1 5/8"	1 5/8"
60°	1 3/4"	1 3/4"
50°	1 7/8"	1 7/8"
40°	2"	2"



MARK	NUMBER REQ'D.	LENGTH	TYPE	DIMENSIONS				
				A	B	C	R	INC.
APPROACH SLABS								
AS501	260	40'-0"	STR.					
AS502	130	38'-0"	STR.					
AS503	134	23'-8"	STR.					
AS1001	366	30'-11"	BENT	29'-6"				

CURB AND RE-STEEL IS INCLUDED FOR PAYMENT WITH ITEM 526 REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=17"), AS PER PLAN

DESIGN AGENCY: OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5
 DATE: 3-1-2015
 TAG: 4500830
 STRUCTURE FILE NUMBER: 4500830
 DRAWN: JDR
 CHECKED: CPS
 DESIGNED: JDR
 REVISIONS: 1
 REAR & FORWARD APPROACH SLAB DETAILS
 BRIDGE NO. LIC-16-1718
 CHERRY VALLEY ROAD OVER S.R. 16
 LIC-16-16.64
 49 / 56
 681
 729

DESIGN SPECIFICATIONS:

THIS STRUCTURE CONFORMS TO THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2012, INCLUDING THE 2012 ERRATA AND THE ODOT BRIDGE DESIGN MANUAL, 2007 EXCEPTED AS NOTED ELSEWHERE IN THE PLANS.

REFER TO THE FOLLOWING SUPPLEMENTAL SPECIFICATIONS:

SUPPLEMENT SPECIFICATION 840 DATED 10/17/2014

DESIGN LOADING:

HL-93 LOADING
FUTURE WEARING SURFACE (FWS) OF 60 POUNDS PER SQUARE FOOT

DESIGN DATA:

CLASS C CONCRETE, MISC: COPING - COMPRESSIVE STRENGTH 4000 PSI

REINFORCING STEEL - ASTM A615 OR A996 GRADE 60
MINIMUM YIELD STRENGTH 60,000 PSI

DESIGN SUBMITTALS:

THE CONTRACTOR IS HEREBY NOTIFIED THAT THE MSE RETAINING WALL SHALL BE DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS PROVIDED IN SUPPLEMENTAL SPECIFICATION 840. AFTER THE AWARD OF THE CONTRACT, THE CONTRACTOR SHALL SUBMIT MSE RETAINING WALL DETAIL DESIGN PLANS (4 SETS), DESIGN CALCULATIONS (2 SETS), AND SHOP DRAWINGS PER 501.04 TO THE PROJECT ENGINEER FOR REVIEW AND APPROVAL BY THE DIRECTOR. THE PLANS FOR RETAINING WALLS SHALL BE PREPARED BY AN APPROVED MSE WALL SUPPLIER LISTED IN SUPPLEMENTAL SPECIFICATION 840. THE PLANS SHALL BE SUBMITTED EIGHT WEEKS PRIOR TO THE BEGINNING OF CONSTRUCTION OF THE WALLS AND THE CONTRACTOR SHALL ALLOW FOUR WEEKS FOR THE REVIEW BY ODOT.

PROPRIETARY RETAINING WALL DATA:

THE PROPRIETARY WALL SUPPLIER SHALL DESIGN THE INTERNAL STABILITY OF A MECHANICALLY STABILIZED EARTH (MSE) WALL IN ACCORDANCE WITH SUPPLEMENTAL SPECIFICATION 840 TO SUPPORT THE ABUTMENT. THE DESIGN FOR INTERNAL STABILITY SHALL INCLUDE AN UNFACTORED HORIZONTAL STRIP LOAD FROM THE SUPERSTRUCTURE OF 2.0 K/FT APPLIED PERPENDICULAR TO THE FACE OF WALL AT A POINT HALF THE HEIGHT OF THE CONCRETE FOOTING.

FACTORED BEARING RESISTANCE FOR THE DESIGN OF THE MSE WALLS:

THE FACTORED BEARING RESISTANCE FOR THE DESIGN OF MSE WALL 1 IS 10.0 KSF AND FOR MSE WALL 2 IS 10.0 KSF.

UNDERCUT AND BACKFILL:

PRIOR TO CONSTRUCTION OF THE MSE WALLS, THE EXISTING IN-SITU SOILS, WHERE SPECIFIED IN THE PLANS, SHALL BE REMOVED AND THE RESULTING EXCAVATION SHALL BE BACKFILLED WITH EITHER GRANULAR MATERIAL TYPE B, OR GRANULAR MATERIAL, TYPE C TO THE ELEVATION OF THE BOTTOM OF THE MSE WALL LEVELING PAD. THE SOIL SHOULD BE OVEREXCAVATED TO AT LEAST ELEVATION 872.17 OR 874.17 AS SHOWN AT THE REAR MSE WALL AND TO AT LEAST 877.5 OR 875.00 AS SHOWN AT THE FORWARD MSE WALL. IF SOFT OR LOOSE SOILS ARE ENCOUNTERED BELOW THESE ELEVATIONS, THE OVEREXCAVATION MAY NEED TO EXTEND DEEPER. THE LIMITS SHOULD BE VERIFIED AND ADJUSTED AFTER RECEIVING THE FINAL MSE WALL DRAWINGS.

MINIMUM SOIL REINFORCEMENT LENGTH

THE MINIMUM SOIL REINFORCEMENT LENGTH AT MSE WALL 1 & 2 IS 70% OF THE WALL HEIGHT.

SEALING OF CONCRETE SURFACES (NON-EPOXY (CLEAR)):

SURFACES OF THE MSE WALL PANELS AND ASSOCIATED COMPONENTS AS DETAILED IN THE PLANS, SHALL BE SEALED WITH A NON-EPOXY CLEAR SEALER AS PER CMS 512. ALL MATERIAL AND WORK ASSOCIATED WITH THIS ITEM IS INCIDENTAL TO ITEM 840 - MSE WALL, AS PER PLAN.

REINFORCING STEEL:

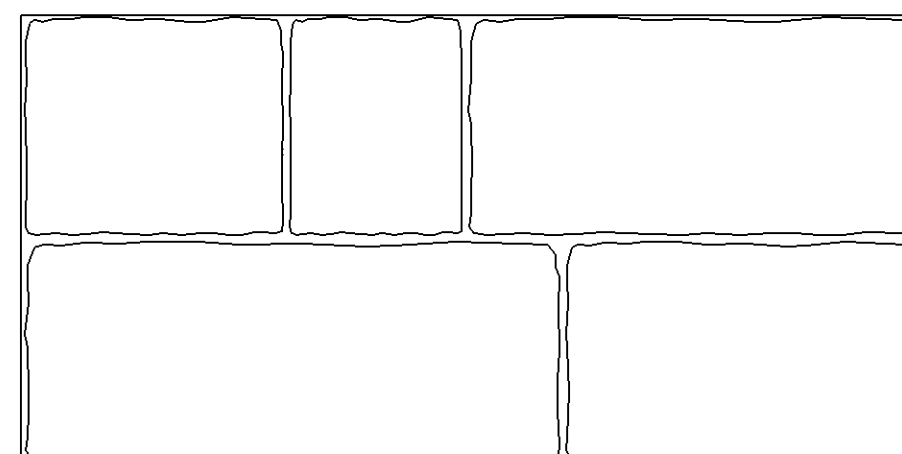
UPON THE WALL MANUFACTURER'S MSE WALL DESIGN, AND AS DESCRIBED IN THE PLAN AND SS 840, FURNISH AND INSTALL EPOXY COATED REINFORCING STEEL ACCORDING TO CMS 509 AND INCIDENTAL TO ITEM 840 MECHANICALLY STABILIZED EARTH WALL, AS PER PLAN.

ARCHITECTURAL FINISH: (MSE WALL):

AN AESTHETIC TREATMENT SYSTEM SHALL BE SUCH TO DUPLICATE CLOSELY THE APPEARANCE OF INDIGENOUS SANDSTONE. THE SURFACE FINISH SHALL BE PATTERN #1102-R2 FROM CUSTOM ROCK INTERNATIONAL OR AN APPROVED EQUAL MEETING THE DETAILS SHOWN ON THIS PAGE. THE INTEGRALLY COLORED CONCRETE USING CHROMIX ADMIXTURES SHALL BE COLOR C-21 ADOBE TAN OR 1010 BROWNSTONE AS PROVIDED BY L.M. SCOFIELD COMPANY, DOUGLASVILLE, GEORGIA (800) 800-9900 OR APPROVED EQUAL. TWO PRECONSTRUCTION PANELS WILL BE REQUIRED, ONE WITH C-21 ADOBE TAN AND ONE WITH 1010 BROWNSTONE. THE DIRECTOR WILL DECIDE THE COLOR FROM THE TEST SAMPLES.

TWO PRECONSTRUCTION TEST SAMPLES SHALL BE PROVIDED FOR APPROVAL BY THE DIRECTOR. IF THE TEST SAMPLES DO NOT MEET THE APPROVAL OF THE DIRECTOR, THE RESULTS MAY BE GROUNDS TO REJECT THE PROPOSED MSE WALL PANELS OR INTEGRALLY COLORED CONCRETE. THE TEST SAMPLE MUST PASS APPROVAL. FAILURE WILL CONSTITUTE PLACEMENT OF ANOTHER TEST SAMPLE. A FIVE FOOT BY FIVE FOOT TEST SAMPLE SHOULD BE MADE (OR THE SIZE AS THE TYPICAL MSE WALL PANELS). THE MOCK-UP SHALL HAVE THE SAME ARCHITECTURAL RELIEF, THICKNESS AND PATTERN AS USED ON THE PROJECT. THE SAMPLE SHOULD BE OF THE SAME CEMENT, AGGREGATE SOURCE, AND INTEGRALLY COLORED CONCRETE THAT WILL BE USED TO MAKE THE MSE WALL PANELS. AFTER APPROVAL THE CONCRETE TEST SAMPLE SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR.

ALL AESTHETIC TREATMENT INCLUDING THE INTEGRALLY COLORED CONCRETE, SURFACE FINISH, TEST SAMPLES AND ALL OTHER MATERIALS REQUIRED TO COMPLETE THIS WORK SHALL BE INCLUDED WITH THE SQ. FT. PAYMENT FOR ITEM 840 - AESTHETIC SURFACE TREATMENT.



CUSTOM ROCK INTERNATIONAL (C.R.I.)
PATTERN # 1102-R2 OR APPROVED EQUAL

RECTANGULAR CUT STONE (EVEN COURSING):
NUMBER OF COURSES PER 5 FT. TALL PANEL = 2
MAX RELIEF = 2"
AVERAGE RELIEF = 1/2"
STONE SIZES (LENGTH) = 2' TO 6'

ARCHITECTURAL WALL ELEVATION

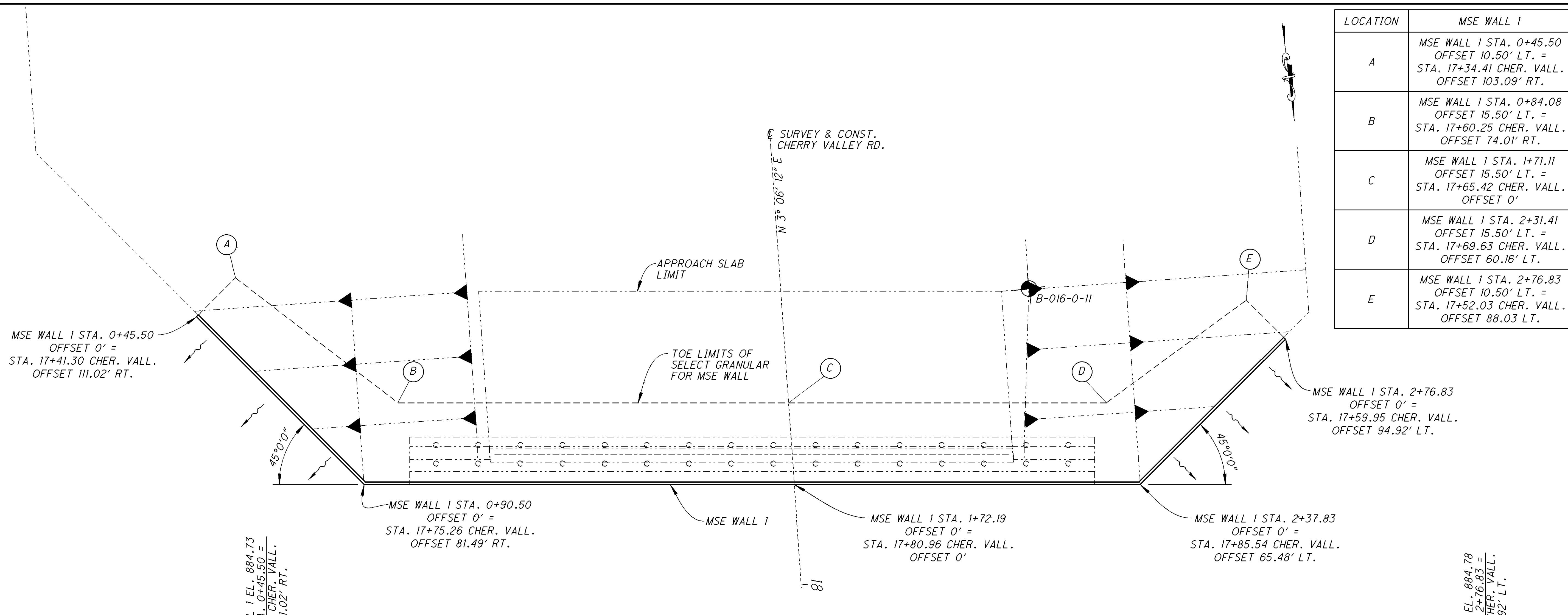
MSE WALL PHASED CONSTRUCTION

INDIVIDUAL MSE WALLS, AS SHOWN IN THIS PLAN, ARE TO BE CONSTRUCTED IN SINGLE PHASES FOR EACH WALL NUMBER.

P:\LIC\80704\Design\bridge\SFN - Route Name\Plan Sheets\L80704 - MSE_001.dgn (SCALE = 1/1000)

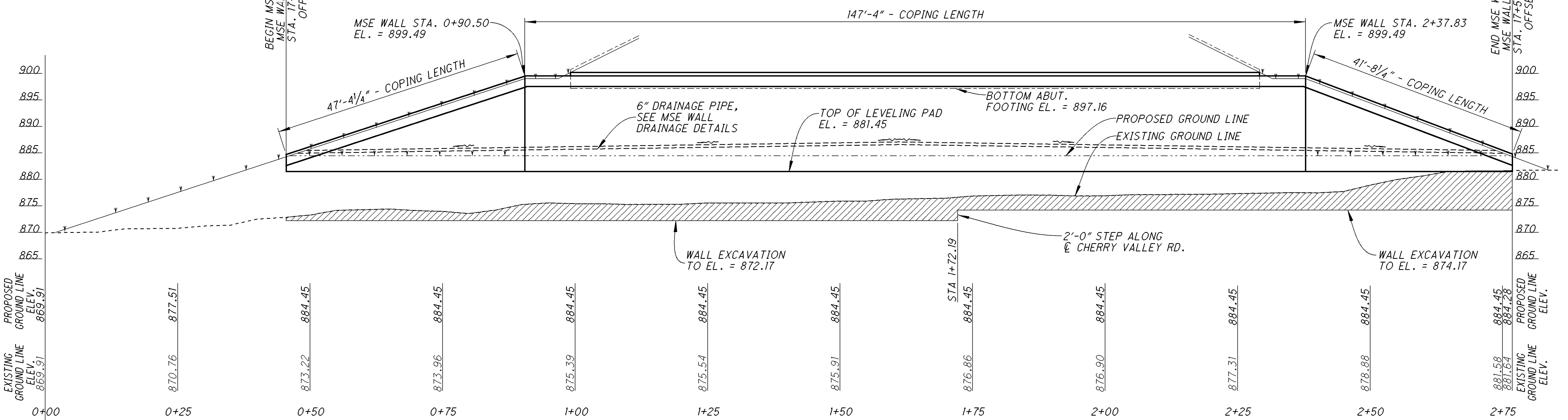
DESIGN AGENCY OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5	
DATE 3-1-2015	STRUCTURE FILE NUMBER 4500830
REVIEWED TAG	DESIGNED JDR
DRAWN JDR	CHECKED CPS
MSE WALL NOTES BRIDGE NO. LIC-16-1718 CHERRY VALLEY ROAD OVER S.R. 16	
LIC-16-16.64	
50	56
682 729	

P:\LIC\80704\Design\bridge\SFN - Route Name\Plan Sheets\L80704 (SCALE = 10.000)



LOCATION	MSE WALL 1
A	MSE WALL 1 STA. 0+45.50 OFFSET 10.50' LT. = STA. 17+34.41 CHER. VALL. OFFSET 103.09' RT.
B	MSE WALL 1 STA. 0+84.08 OFFSET 15.50' LT. = STA. 17+60.25 CHER. VALL. OFFSET 74.01' RT.
C	MSE WALL 1 STA. 1+71.11 OFFSET 15.50' LT. = STA. 17+65.42 CHER. VALL. OFFSET 0'
D	MSE WALL 1 STA. 2+31.41 OFFSET 15.50' LT. = STA. 17+69.63 CHER. VALL. OFFSET 60.16' LT.
E	MSE WALL 1 STA. 2+76.83 OFFSET 10.50' LT. = STA. 17+52.03 CHER. VALL. OFFSET 88.03' LT.

PLAN

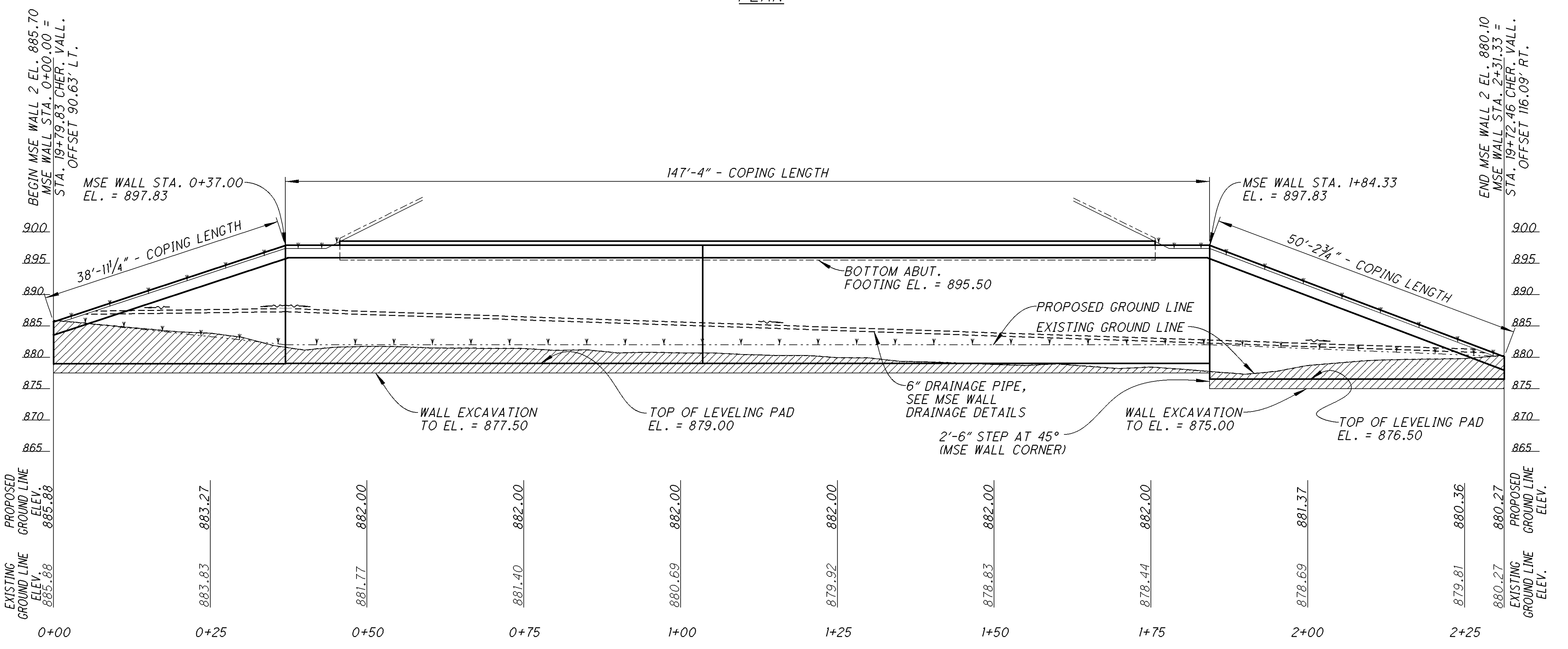
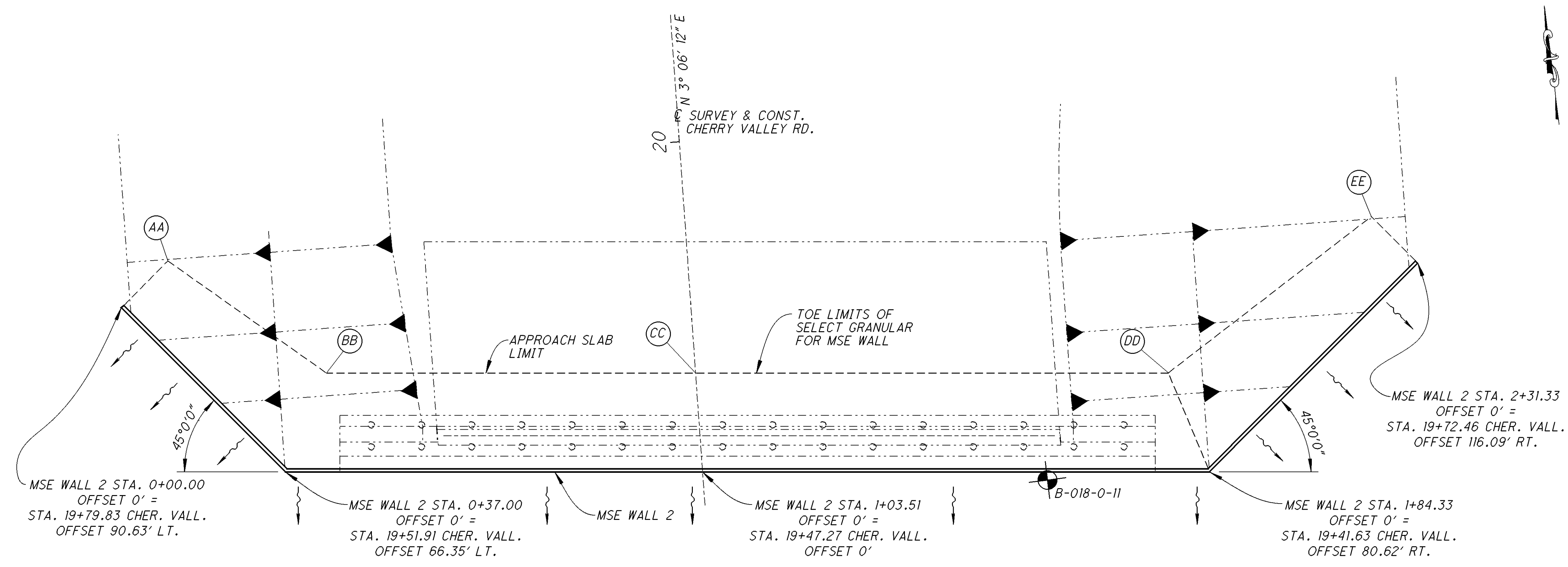


PROFILE

▨ - WALL EXCAVATION

DESIGN AGENCY: OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5
 DATE: 3-1-2015
 TAG: 3-1-2015
 STRUCTURE FILE NUMBER: 4500830
 DRAWN: JDR
 CHECKED: CPS
 DESIGNED: JDR
 REVISIONS: 1
 MSE WALL 1 PLAN & PROFILE DETAILS
 BRIDGE NO. LIC-16-1718
 CHERRY VALLEY ROAD OVER S.R. 16
 LIC-16-16.64
 51 / 56
 683
 729

P:\LIC\80704\Design\bridge\SFN - Route Name\Plan Sheets\L80704-



LOCATION	MSE WALL 2
AA	MSE WALL 2 STA. 0+00.00 OFFSET 10.50' LT. = STA. 19+86.72 CHER. VALL. OFFSET 82.70 LT.
BB	MSE WALL 2 STA. 0+43.52 OFFSET 15.75' LT. = STA. 19+67.16 CHER. VALL. OFFSET 58.75 LT.
CC	MSE WALL 2 STA. 1+02.41 OFFSET 15.75' LT. = STA. 19+63.05 CHER. VALL. OFFSET 0'
DD	MSE WALL 2 STA. 1+77.81 OFFSET 15.75' LT. = STA. 19+57.80 CHER. VALL. OFFSET 75.21 RT.
EE	MSE WALL 2 STA. 2+31.33 OFFSET 10.50' LT. = STA. 19+80.39 CHER. VALL. OFFSET 109.20 RT.

DESIGNED	JDR	CPS
DRAWN	JDR	REVISED
REVIEWED	TAG	STRUCTURE FILE NUMBER
DATE	3-1-2015	4500830
DESIGN AGENCY		
OHIO DEPARTMENT OF		
TRANSPORTATION, DISTRICT 5		

MSE WALL 2 PLAN & PROFILE DETAILS
BRIDGE NO. LIC-16-1718
CHERRY VALLEY ROAD OVER S.R. 16

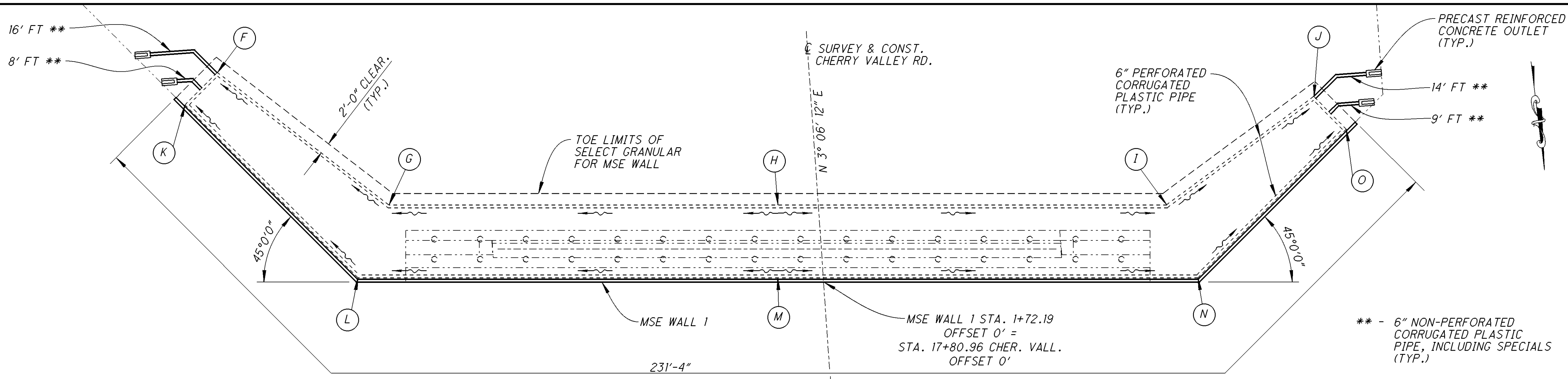
LIC-16-16.64

52 / 56

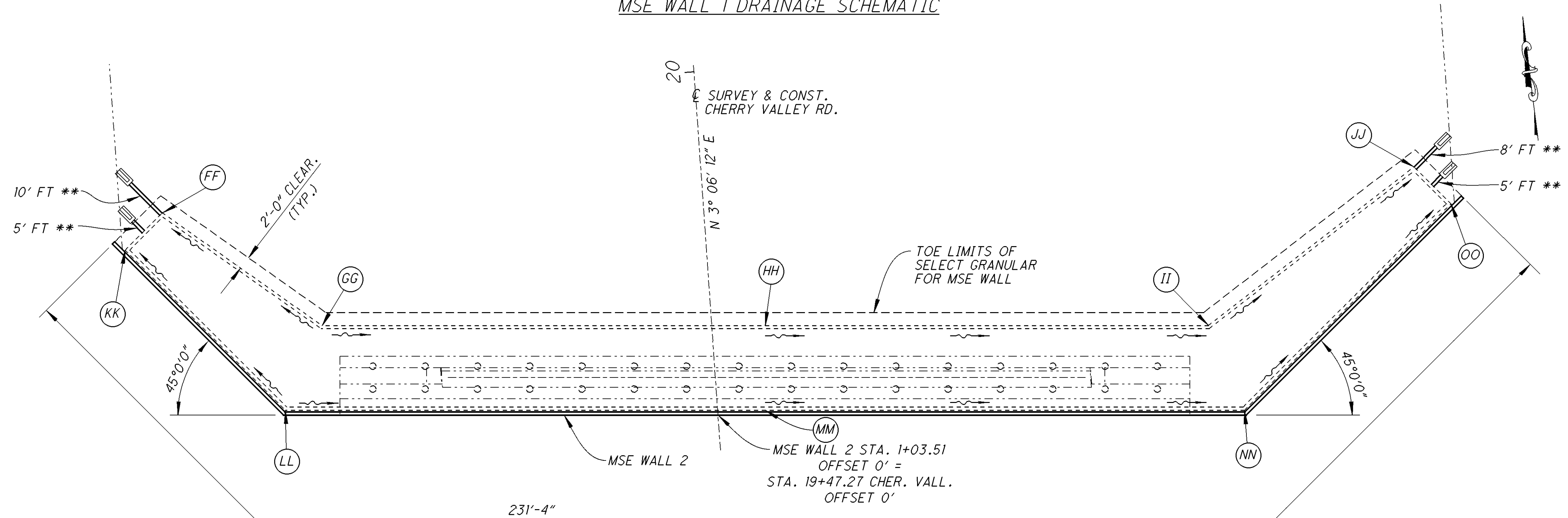
684
729

▨ - WALL EXCAVATION

P:\LIC\80704\Design\bridge_sfn - Route Name\Plan Sheets\L80704_MSE_003.dgn (SCALE = 10.000)



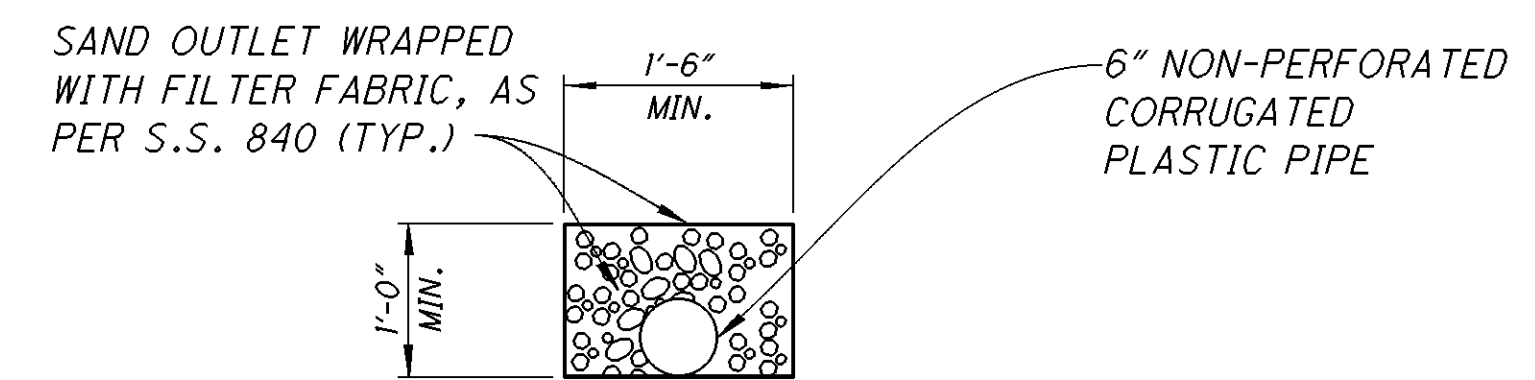
MSE WALL 1 DRAINAGE SCHEMATIC



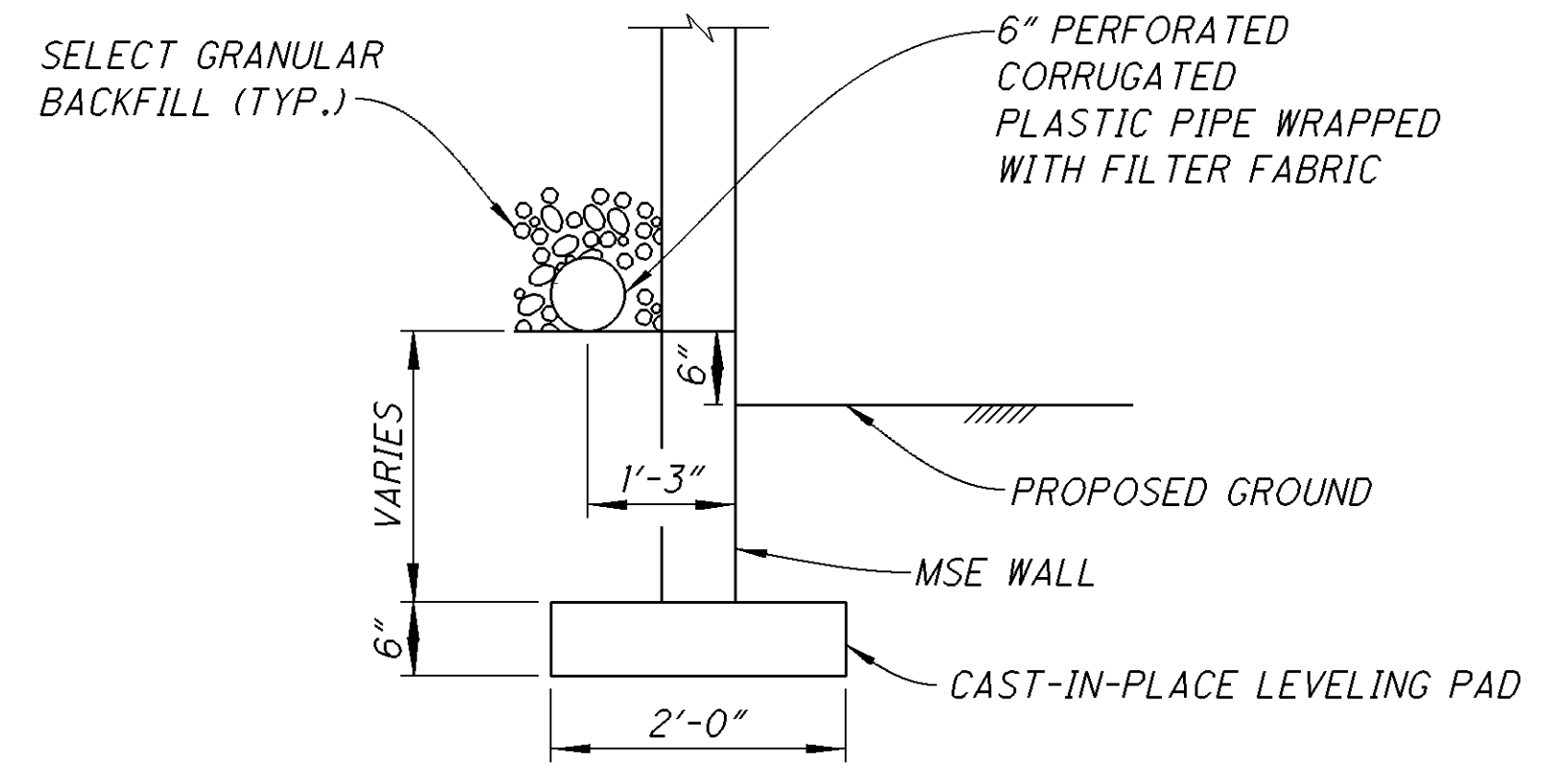
MSE WALL 2 DRAINAGE SCHEMATIC

MSE WALL 1	
LOCATION	ELEVATION
F	884.95
G	885.35
H	886.06
I	885.29
J	884.95
K	884.95
L	885.55
M	886.58
N	885.46
O	884.95

MSE WALL 2	
LOCATION	ELEVATION
FF	886.88
GG	887.28
HH	884.76
II	882.24
JJ	880.77
KK	886.88
LL	887.28
MM	884.78
NN	882.29
OO	880.77



PIPE SECTION DETAIL
(OUTSIDE SELECT GRANULAR BACKFILL)



PIPE SECTION DETAIL
(WITHIN SELECT GRANULAR BACKFILL)

DESIGN AGENCY: OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5

DATE: 3-1-2015

REVIEWED TAG: 4500830

DRAWN JDR

DESIGNED JDR

CHECKED CPS

MSE WALL 1 & 2 DRAINAGE DETAILS

BRIDGE NO. LIC-16-1718

CHERRY VALLEY ROAD OVER S.R. 16

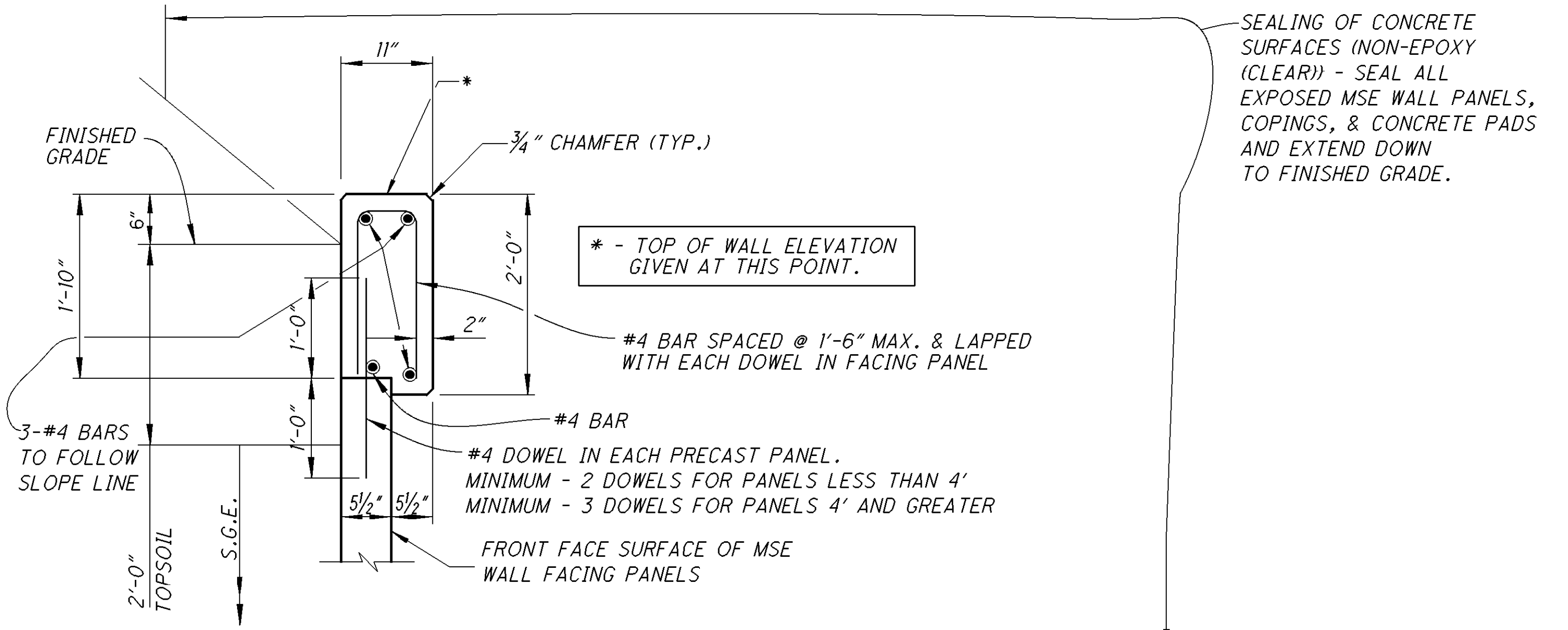
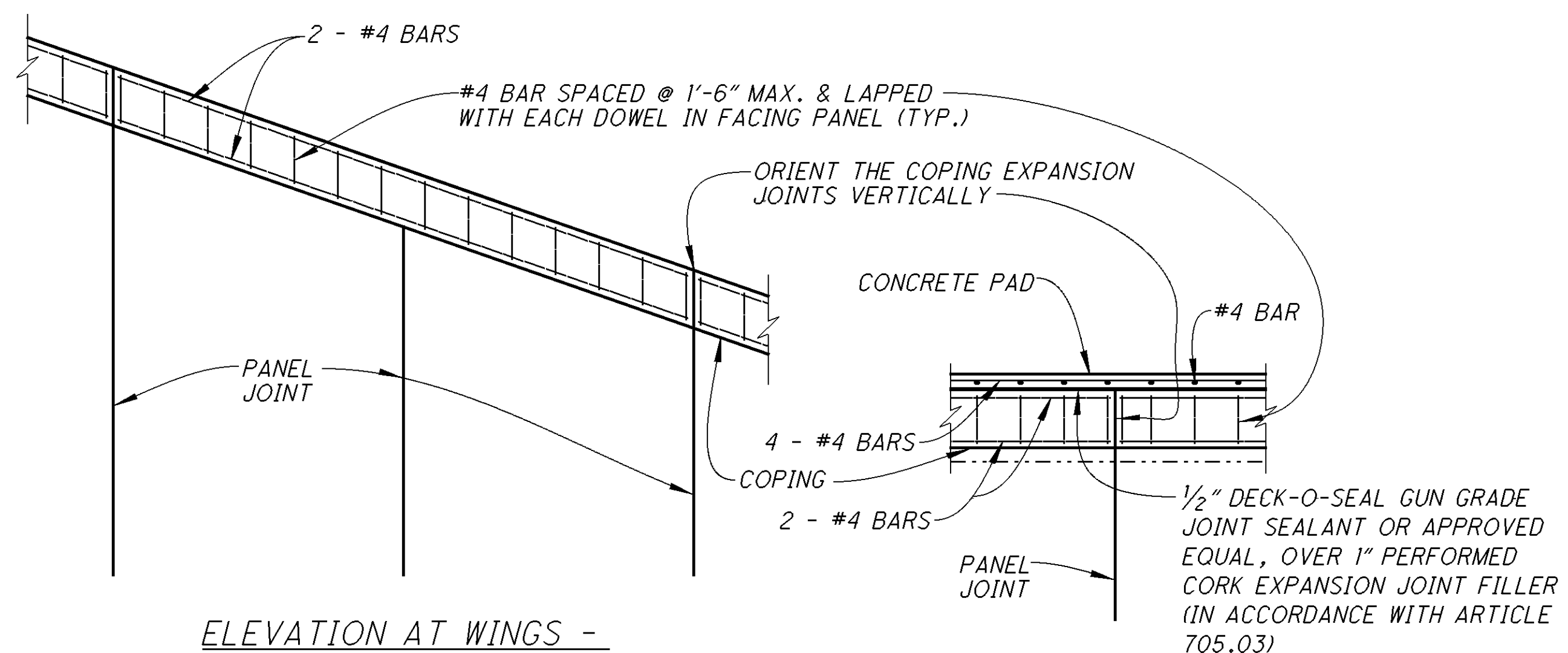
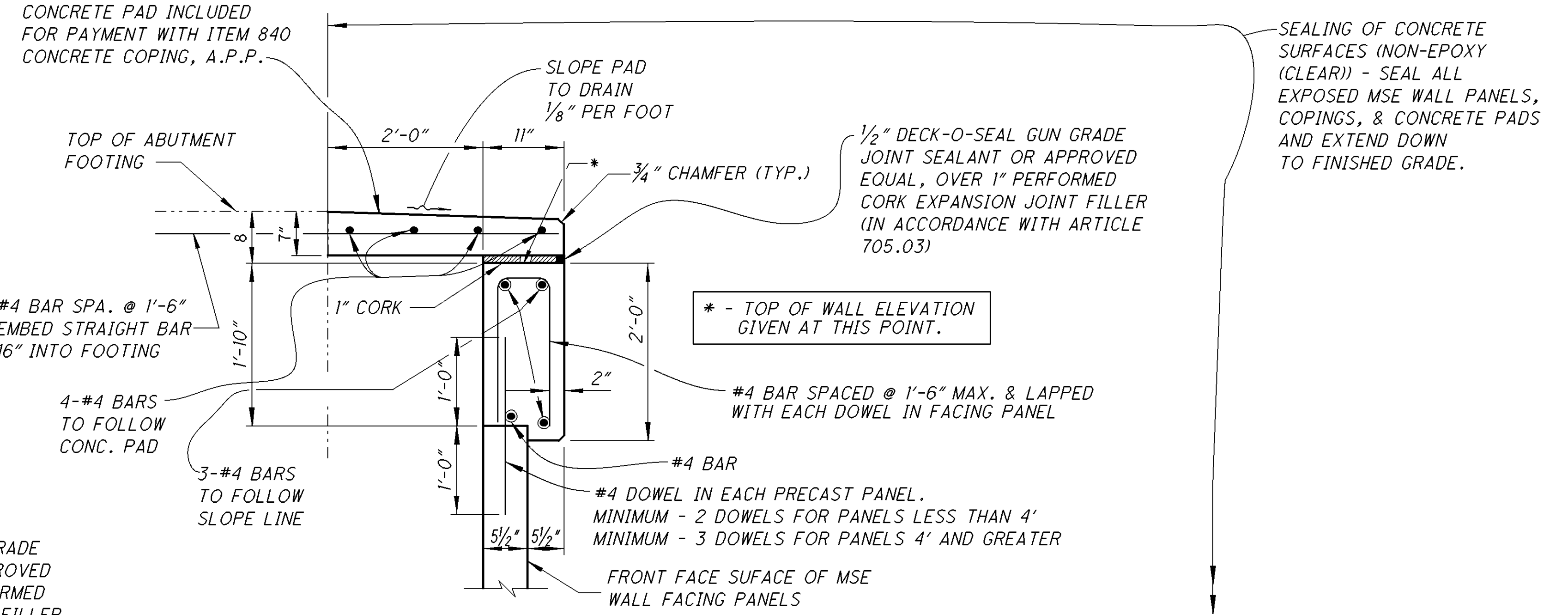
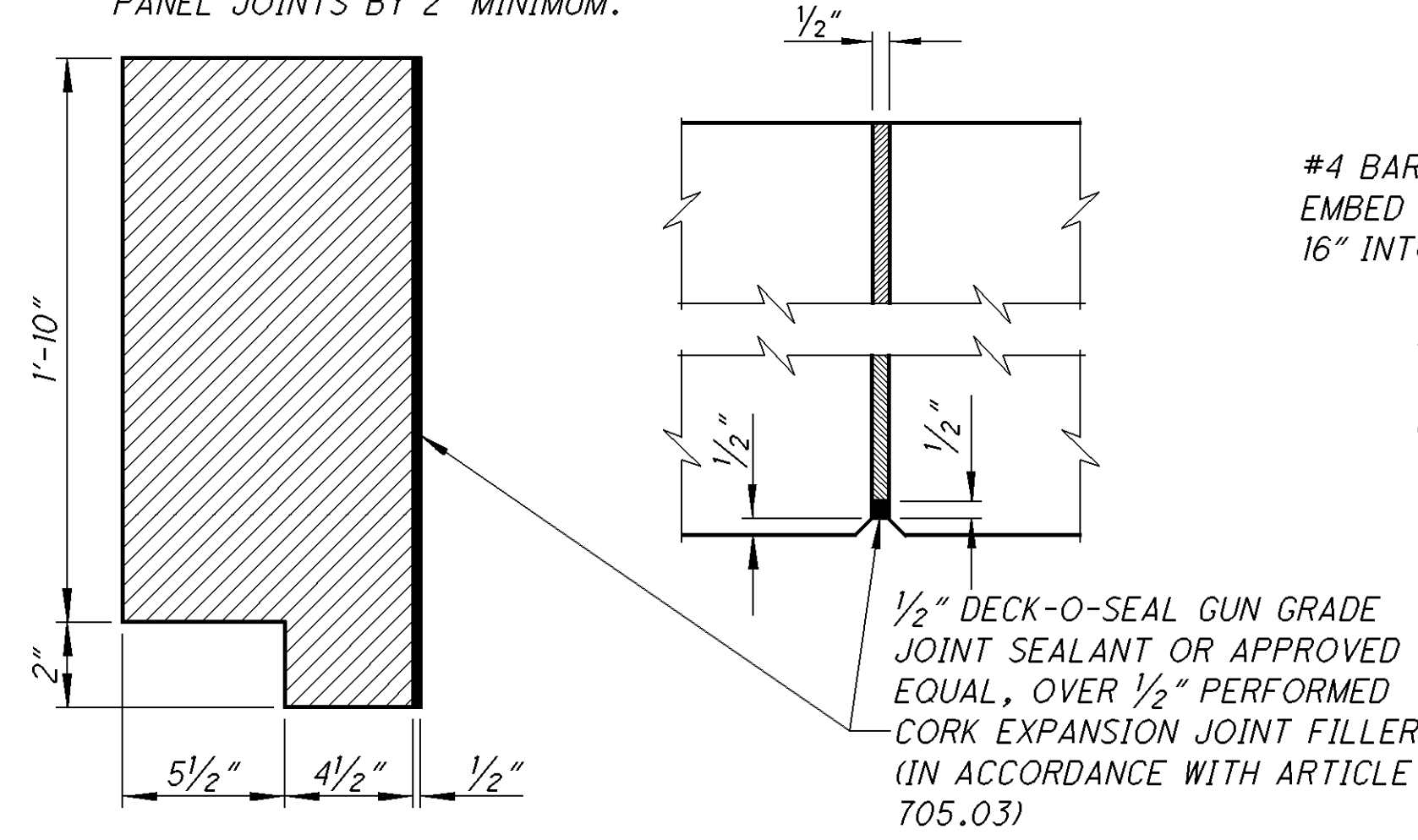
LIC-16-16.64

53 / 56

685

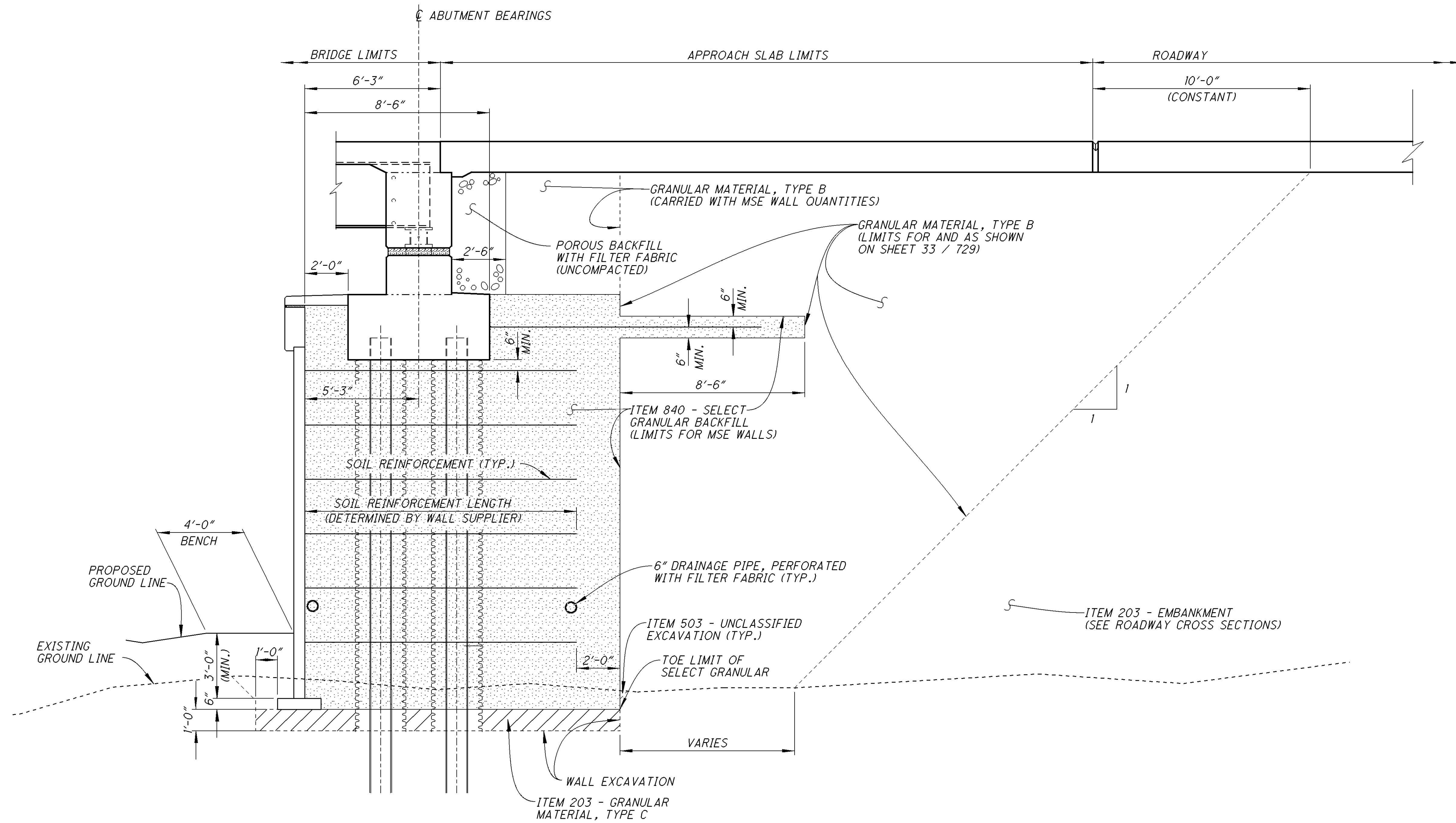
729

- NOTES:
1. JOINTS IN COPING SHALL COINCIDE WITH ϕ OF PANEL JOINT. REINFORCING STEEL SHALL BE STOPPED 2" SHORT OF EACH SIDE OF THE JOINTS.
 2. PROVIDE $\frac{1}{2}$ " EXPANSION JOINTS AT MAXIMUM SPACING OF 20'-0" TO COINCIDE WITH PANEL JOINTS.
 3. VERTICAL STEEL SHALL CLEAR EITHER SIDE OF PANEL JOINTS BY 2" MINIMUM.



NOTE: EXPANSION JOINT SPACING SHALL BE MODIFIED AS PER THE MANUFACTURER'S MSE WALL PANEL DESIGN. ALL COST ASSOCIATED WITH THIS SHALL BE PAID FOR IN ITEM 840 - COPING, AS PER PLAN.

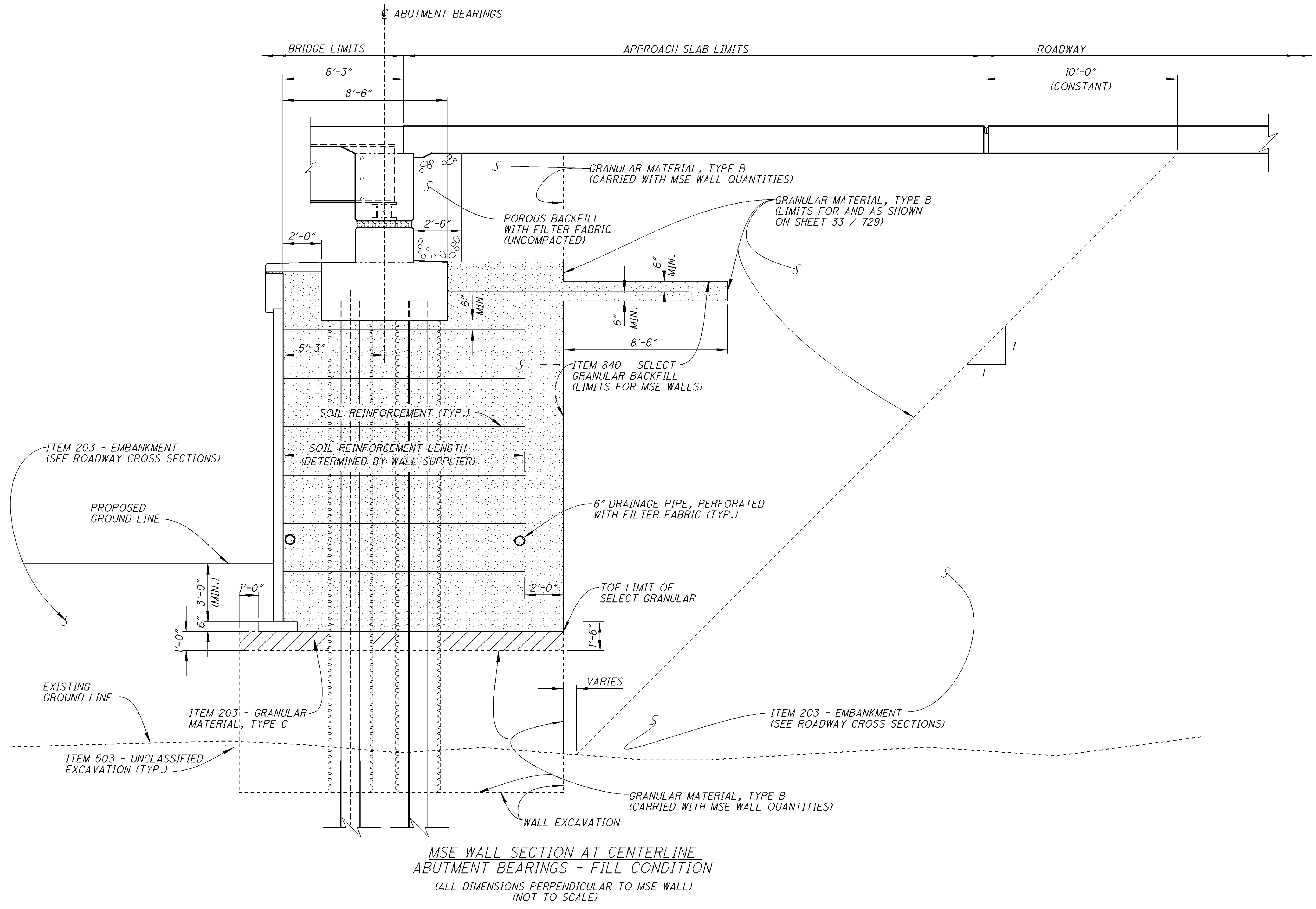
P:\LIC\80704\Design\bridge\SFN - Route Name\Plan Sheets\L80704_MSE_006.dgn (SCALE = 2.667)



**MSE WALL SECTION AT CENTERLINE
ABUTMENT BEARINGS - CUT CONDITION**
(ALL DIMENSIONS PERPENDICULAR TO MSE WALL)
(NOT TO SCALE)

DESIGN AGENCY OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5	
REVIEWED TAG JDR	DATE 3-1-2015 STRUCTURE FILE NUMBER 4500830
DRAWN JDR	REVISIONS
DESIGNED JDR	CHECKED CPS
TYPICAL MSE WALL SECTION BRIDGE NO. LIC-16-1718 CHERRY VALLEY ROAD OVER S.R. 16	
LIC-16-16.64	
55	56
687 729	

P:\LIC\80704\Design\bridge\SFN - Route Name\Plan Sheets\L80704_MSE_006.dgn (SCALE = 2.667)



**MSE WALL SECTION AT CENTERLINE
ABUTMENT BEARINGS - FILL CONDITION**
(ALL DIMENSIONS PERPENDICULAR TO MSE WALL)
(NOT TO SCALE)

ITEM 202 - WEARING COURSE REMOVED

THIS ITEM SHALL BE PERFORMED ON THE EXISTING:

REAR APPROACH SLAB (BRIDGE NO. LIC-16-1771L)
- STA 276+65.51 TO STA 276+90.51
QUANTITY = (25' LONG x 24' WIDE)/9 = 66.7 S.Y

FORWARD APPROACH SLAB (BRIDGE NO. LIC-16-1771L)
- STA 278+75.48 TO STA 279+00.48
QUANTITY = (25' LONG x 24' WIDE)/9 = 66.7 S.Y

TOTAL QUANTITY CARRIED TO BRIDGE SUMMARY:
66.7 S.Y. + 66.7 S.Y. = 133 S.Y.

ITEM 202- STRUCTURE REMOVED, AS PER PLAN

REMOVE THE STRUCTURE (BRIDGE NO. LIC-16-1773L) IN PHASES, AS DETAILED IN THE PLAN. AT THE ABUTMENTS, REMOVE THE ENTIRE BACKWALL. AT THE PIERS, REMOVE THE CAPS AND PORTIONS OF THE COLUMNS. THE EXISTING REAR AND FORWARD APPROACH SLABS ARE INCLUDED FOR REMOVAL WITH THIS ITEM. THE EXISTING ASPHALT CONCRETE ATOP THIS STRUCTURE'S APPROACH SLABS IS ITEMIZED FOR REMOVAL WITH ITEM 202 - WEARING COURSE REMOVED.

ITEM 622 - PORTABLE BARRIER, 32", BRIDGE MOUNTED, AS PER PLAN

- 1) USE THE PCB AS DETAILED ON STD. DWG. PCB-91 (NJ SHAPE SEGMENTS WITH ANCHORING HOLES)
- 2) ANCHOR THE PCB ON AT LEAST 2 INCHES OF ASPHALT (OR AS SHOWN IN THE PLAN) WITH 4 ANCHORING BOLTS PER BARRIER SEGMENT, ONE LOCATED AT EACH CORNER OF THE PCB.
- 3) EACH ANCHORING BOLT SHALL BE 1 INCH DIAMETER HIGH-STRENGTH STEEL WITH A NUT AND WASHER AS SPECIFIED IN PCB-91.
- 4) ANCHORING BOLTS WILL BE A MINIMUM OF 36 INCHES LONG.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 622 - PORTABLE CONCRETE BARRIER, 32", AS PER PLAN, FT., AND SHALL INCLUDE ALL LABOR, EQUIPMENT, AND INCIDENTALS REQUIRED TO COMPLETE THE WORK DESCRIBED.

ITEM SPECIAL - RETAINING WALL MISC.: TEMPORARY WIRE FACED MSE WALL

1.0 GENERAL

THIS WORK CONSISTS OF DESIGNING THE INTERNAL STABILITY OF THE WALL; PREPARING SHOP DRAWINGS; AND FABRICATING AND CONSTRUCTING THE TEMPORARY WIRE FACED MSE WALL. THIS WORK ALSO INCLUDES EXCAVATION FOR THE WALL. THE TEMPORARY WIRE FACED MECHANICALLY STABILIZED EARTH WALL (TWF MSE WALL) SHALL BE ONE OF THE FOLLOWING PROPRIETARY SYSTEMS OR AN APPROVED EQUAL:

TERRATREL WALL SYSTEM
THE REINFORCED EARTH COMPANY
144 NORTH FARNSWORTH AVE, SUITE 505
AURORA, IL 60505
(630) 898-3334

WELDED WIRE WALL SYSTEM
HILFIKER RETAINING WALLS
1902 HILFIKER LANE
EUREKA, CA 98803
(707) 443-5093

TENSAR GEOGRID WALL SYSTEM
TENSAR INTERNATIONAL CORPORATION
2500 NORTHWINDS PARKWAY
SUITE 500
ALPHARETTA, GA 30009
(888) 828-5126

2.0 MATERIALS

FURNISH THE TWF MSE WALL, INCLUDING THE SOIL REINFORCEMENT, WIRE FACING PANELS, SOIL RETENTION FABRIC, JOINT MATERIALS AND ALL NECESSARY INCIDENTALS FROM ONE OF THE PROPRIETARY MANUFACTURERS LISTED IN SECTION 1.0 OR AN APPROVED EQUAL.

2.1 WIRE FACING

WIRE FACING SHALL BE SHOP FABRICATED OF COLD DRAWN STEEL WIRE CONFORMING TO THE MINIMUM REQUIREMENTS OF ASTM A-82 AND WELDED INTO THE FINISHED CONFIGURATION IN ACCORDANCE WITH ASTM 1-185.

2.2 SOIL REINFORCEMENT

SOIL REINFORCEMENTS MAY BE A STEEL STRIP, WELDED WIRE GRID, OR GEOGRIDS CONFORMING TO ONE OF THE FOLLOWING:

- A. STEEL CONFORMING TO ASTM A572, GRADE 65 AND SHAPED ACCORDING TO THE SHOP DRAWING. THE FASTENERS SHALL BE 1/2" DIAMETER, HEXAGONAL CAP SCREW BOLTS AND NUTS, CONFORMING TO 711.09 (ASTM A325).
- B. WELDED WIRE MESH CONFORMING TO THE REQUIREMENTS OF 709.10.
- C. GEOGRIDS CONSISTING OF HIGH DENSITY POLYETHYLENE (HDPE) GRIDS FORMED BY A REGULAR NETWORK OF INTEGRALLY CONNECTED TENSILE ELEMENTS.

2.3 SOIL RETENTION FABRIC

THE INSIDE OF THE TWF MSE WALL SHALL HAVE A RETENTION OR FILTER FABRIC PLACED WITHIN THE REINFORCED FILL AS SHOWN IN THE PLANS. RETENTION FABRIC SHALL BE WOVEN POLYPROPYLENE FABRIC. ACCEPTABLE FABRICS INCLUDE "CARTHAGE MILLS - CARTHAGE 15%", "US FABRICS - US 1540", "MIRAFI - FW402", OR APPROVED EQUAL.

3.0 DETAIL DRAWINGS

PREPARE DETAILS DRAWINGS AND DESIGN CALCULATIONS IN ACCORDANCE WITH THE 6TH EDITION OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 2012, AND THESE PROVISIONS. IN THE EVENT OF A CONFLICT, THIS SPECIFICATION WILL GOVERN.

THE DETAIL DRAWINGS SHALL INCLUDE THE FOLLOWING INFORMATION:

- A. A SITE PLAN FO THE FULL LENGTH OF THE RETAINING WALL.
- B. AN ELEVATION VIEW OF THE FULL LENGTH OF THE RETAINING WALL.
- C. THE SOIL REINFORCEMENT LENGTHS.
- D. REPRESENTATIVE CROSS-SECTIONS AT EACH DESIGN CHANGE.
- E. ACTUAL BEARING PRESSURES.
- F. ALLOWABLE BEARING PRESSURE.
- G. DESIGN LIFE.
- H. ANGLE OF INTERNAL FRICTION OF SELECT GRANULAR MATERIAL.

TWO OHIO REGISTERED ENGINEERS, AS DESCRIBED IN SS840, SHALL SIGN, SEAL AND DATE THE DETAIL DRAWINGS, DESIGN CALCULATIONS AND ACCEPTANCE LETTER PROVIDED BY THE STATE.

THIRTY (30) DAYS PRIOR TO THE COMMENCEMENT OF WALL CONSTRUCTION, SUBMIT TO THE ENGINEER, TWO COPIES OF THE DETAIL DRAWINGS ON 11"x17" SHEETS, TWO COPIES OF THE DESIGN CALCULATIONS, AND THE SIGNED ACCEPTANCE LETTER. THE ENGINEER WILL SUBMIT THE DRAWINGS, CALCULATIONS, AND ACCEPTANCE LETTER TO THE OFFICE OF STRUCTURAL ENGINEERING (OSE) FOR INFORMATION. DEPARTMENT APPROVAL IS NOT REQUIRED.

ENSURE THAT THE SHOP DRAWINGS MEET THE REQUIREMENTS FOR MATERIALS. FIELD MEASUREMENTS, CONSTRUCTION REQUIREMENTS AND CONTRACT REQUIREMENTS. COORDINATE DETAILS OF THE WORK TO BE PERFORMED BY OTHER ENTITIES ON THE PROJECT. THE DEPARTMENT WILL NOT MAKE ALLOWANCE FOR ADDITIONAL COST OR DELAYS TO THE CONTRACTOR FOR INCORRECT FABRICATION AS A RESULT OF FAILURE TO COORDINATE OR PERFORM THIS COORDINATION. SUBMIT TWO COPIES OF THE SHOP DRAWINGS ON 11"x17" SHEETS TO THE ENGINEER WITH THE DELIVERY OF THE MATERIALS TO THE PROJECT. DEPARTMENT APPROVAL OF SHOP DRAWINGS IS NOT REQUIRED.

4.0 CONSTRUCTION REQUIREMENTS

4.1 WALL EXCAVATION

PERFORM WALL EXCAVATION TO THE BOTTOM OF THE REINFORCED SOIL MASS IN ACCORDANCE WITH CMS 503. PROVIDE TEMPORARY SHEETING AS REQUIRED TO MAINTAIN TRAFFIC DURING WALL EXCAVATION.

4.2 UNDERCUT AND BACKFILL

THERE ARE NO SPECIFIC UNSUITABLE FOUNDATION SOILS BELOW THE REINFORCED SOIL MASS TO BE REMOVED FOR THIS ITEM.

4.3 FOUNDATION PREPARATION

FOR A WIDTH EQUAL TO OR EXCEEDING THE WIDTH OF THE REINFORCED SOIL MASS, LEVEL AND COMPACT THE FOUNDATION SOIL ACCORDING TO ITEM 203.05.

4.4 WALL ERECTION

FOR VERTICAL WALL, VERTICAL TOLERANCES (PLUMBNESS) AND HORIZONTAL ALIGNMENT TOLERANCES SHALL NOT EXCEED 2 INCHES WHEN MEASURED ALONG A 10 FEET STRAIGHT EDGE. FOR VERTICAL WALLS, THE OVERALL VERTICAL TOLERANCE OF THE WALL (PLUMBNESS FROM THE TOP TO BOTTOM) SHALL NOT EXCEED 2 INCHES PER 10 FEET OF WALL HEIGHT.

PLACE SOIL REINFORCEMENT PERPENDICULAR TO THE WALL FACING UNLESS OTHERWISE SHOWN ON THE PLANS OR DIRECTED BY THE ENGINEER. ATTACH THE REINFORCEMENT TO THE FACING AS DIRECTED BY THE MANUFACTURER'S GUIDELINES. PRIOR TO PLACEMENT OF THE GRANULAR BACKFILL, ENSURE THAT THE REINFORCEMENT IS CONTINUOUS FROM THE WIRE FACING TO THE END OF THE REINFORCING ZONE; PULLED TAUT WITH ENOUGH FORCE TO ELIMINATE WRINKLES OR FOLDS; AND HELD IN A MANNER APPROVED BY THE MANUFACTURER. DO NOT SPLICE THE SOIL REINFORCEMENT OR OPERATE EQUIPMENT DIRECTLY ON THE SOIL REINFORCEMENT.

4.5 SELECT GRANULAR BACKFILL PLACEMENT

PLACE THE SELECT GRANULAR BACKFILL MATERIAL LEVEL UP TO THE ELEVATION OF THE SOIL REINFORCEMENT BEFORE ATTACHING TO THE WIRE FACING. ATTACH AND PLACE SOIL REINFORCEMENTS ACCORDING TO THE RECOMMENDATIONS OF THE MANUFACTURER.

AT THE END OF EACH DAY'S OPERATION, SHAPE THE LAST LEVEL OF EMBANKMENT TO RAPIDLY DIRECT RAIN WATER RUNOFF AWAY FROM THE WALL FACE. DO NOT ALLOW SURFACE RUNOFF FROM ADJACENT AREAS TO ENTER THE WALL CONSTRUCTION SITE.

COMPACT THE REINFORCED ZONE OF FILL WITHOUT DISTURBING OR DISTORTING THE SOIL REINFORCEMENT AND WIRE FACING. PLACE THE EMBANKMENT MATERIAL WITHIN 3 FEET OF THE BACKSIDE OF THE FACING IN 6 TO 8 INCH THICK LIFTS AND COMPACT THIS AREA BY AT LEAST 3 PASSES OF A LIGHT MECHANICAL TAMPER. THIS AREA DOES NOT HAVE TO SATISFY DENSITY TEST REQUIREMENTS.

4.6 EMBANKMENT CONSTRUCTION

CONSTRUCT EMBANKMENT WITHIN THE PLAN SPECIFIED LIMITS OF THE PROPRIETARY WALL EMBANKMENT AND OUTSIDE THE PLAN SPECIFIED LIMITS OF THE SELECT GRANULAR BACKFILL ACCORDING TO CMS 203.

BGS_001.dgn (SCALE = 1:000)

P:\LIC\80704\Design\bridge\LIC-16-1771L\Plan Sheets\L80704-

DESIGN AGENCY
OHIO DEPARTMENT OF
TRANSPORTATION, DISTRICT 5

DATE
3-1-2015
TAG
STRUCTURE FILE NUMBER
4500849

DRAWN
JDR
REVIEWED
DESIGNED
JDR
CHECKED
CPS

BRIDGE NOTES
BRIDGE NO. LIC-16-1773L
OVER EXISTING S.R. 16 ENTRANCE RAMP

LIC-16-16.64

2 / 9

690
729

ITEM SPECIAL - RETAINING WALL MISC.: TEMPORARY WIRE FACED MSE WALL (CONTINUED...)

5.0 DESIGN REQUIREMENTS FOR TEMPORARY WIRE FACED MSE WALLS

THE DESIGN OF THE TWFMSE WALL SHALL BE IN STRICT CONFORMANCE WITH THE 6TH EDITION OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 2012, SS 840, AND DESIGN REQUIREMENTS LISTED BELOW:

A. THE DESIGN SHALL MEET ALL PLAN REQUIREMENTS. THE RECOMMENDATIONS OF THE WALL SYSTEM SUPPLIERS SHALL NOT OVERRIDE THE MINIMUM PERFORMANCE REQUIREMENTS SHOWN HEREIN. OTHER SYSTEMS OFFERED BY THE APPROVED SUPPLIER SHALL NOT BE SUBMITTED IN LIEU OF THE SYSTEM WHICH IS CALLED FOR IN SECTION 1.0.

B. ONE HUNDRED PERCENT OF THE SOIL REINFORCEMENTS WHICH ARE DESIGNED AND PLACED IN THE REINFORCED EARTH VOLUME SHALL EXTEND TO AND BE CONNECTED TO THE WIRE FACING ELEMENT AS RECOMMENDED BY THE MANUFACTURER.

C. UNDER SERVICE LOADS, THE MINIMUM FACTOR OF SAFETY AT THE CONNECTION BETWEEN THE WIRE FACING AND THE SOIL REINFORCEMENTS SHALL BE 1.5. THE MINIMUM FACTOR OF SAFETY AGAINST REINFORCEMENT PULLOUT SHALL BE 1.5 AT 1/2" DEFORMATION.

D. COMPUTE THE COEFFICIENT OF LATERAL EARTH PRESSURE KA AND THE APPLICATION OF THE LATERAL FORCES TO THE REINFORCED SOIL MASS FOR EXTERNAL STABILITY ANALYSIS USING THE COULOMB METHOD, BUT ASSUMING NO WALL FRICTION.

E. SOIL PARAMETERS FOR USE IN DESIGN ARE AS FOLLOWS:

REILL ZONE	TYPE OF SOIL	SOIL UNIT WEIGHT	ERLECTION ANGLE	COHESION
REINFORCED ZONE	SELECT GRANULAR BACKFILL	120 LBS/CU. FT.	34°	0
RETAINED ZONE	ON-SITE SOIL VARYING FROM SANDY SILT, SOME CLAY	120 LBS/CU. FT.	30°	0

F. THE ALLOWABLE REINFORCEMENT TENSION OF STEEL (INEXTENSIBLE) REINFORCEMENT ELEMENTS FOR STRUCTURAL DESIGN AND CONNECTION (PULLOUT DESIGN SHALL BE BASED ON THE THICKNESS OF THE ELEMENTS AT THE END OF THE STRUCTURE'S DESIGN LIFE. IN ESSENCE, THE MINIMUM THICKNESS OF THE REINFORCEMENT ELEMENTS SHALL BE THAT THICKNESS WHICH WILL PROVIDE FOR THE STRUCTURAL REQUIREMENT PLUS THE SACRIFICED THICKNESS AT THE END OF THE DESIGN LIFE.

G. THE DESIGN LIFE OF THE TEMPORARY WIRE FACED MECHANICALLY STABILIZED EARTH SYSTEM SHALL BE 3 YEARS. STEEL ELEMENTS FOR THIS WALL ARE NOT REQUIRED TO BE GALVANIZED OR EPOXY COATED.

H. COMPUTE THE INTERNAL STABILITY, INCLUDING DEFINITION OF FAILURE PLANE AND LATERAL EARTH PRESSURE COEFFICIENT, FOR PROPRIETARY WALL MANUFACTURER ACCORDING TO AASHTO SECTION 11.10.6 INCLUDING THE USE OF THE COHERENT GRAVITY METHOD / FOR INEXTENSIBLE REINFORCEMENT OR THE SIMPLIFIED METHOD FOR EXTENSIBLE SOIL REINFORCEMENT.

I. THE WALL HEIGHT FOR DESIGN PURPOSES SHALL BE MEASURED FROM THE BOTTOM OF THE WIRE FACING UNIT TO THE ELEVATION OF THE TOP WIRE FACING UNIT AT THE FACE OF THE WALL. WHEN THE WALL IS RETAINING A SLOPING SURCHARGE THEN THE WALL HEIGHT SHALL BE DEFINED AS THE EQUIVALENT DESIGN HEIGHT (H) AS SHOWN IN AASHTO FIGURE 3.11.5.8.1-2. THE MINIMUM REINFORCING STRIP LENGTH SHALL BE 70 PERCENT OF THE WALL HEIGHT, AS APPROPRIATELY DEFINED FOR EITHER A LEVEL OR SLOPING BACKFILL.

J. THE YIELD STRENGTH (FY) FOR METALLIC SOIL REINFORCEMENT SHALL BE 65 KSI.

L. THE WALL SYSTEM SHALL ACCOMMODATE UP TO ONE PERCENT DIFFERENTIAL SETTLEMENT ALONG THE LENGTH OF THE WALL IN THE LONGITUDINAL DIRECTION.

M. COMPUTE THE VERTICAL STRESS AT EACH REINFORCEMENT LEVEL BY CONSIDERING LOCAL EQUILIBRIUM OF ALL THE FORCES ACTING ABOVE THE LEVEL UNDER INVESTIGATION. THE VERTICAL STRESS (BEARING PRESSURE) AT EACH REINFORCEMENT LEVEL MAY BE COMPUTED USING THE MEYERHOF METHOD IN THE SAME MANNER AS THE BEARING PRESSURE COMPUTED FOR THE BASE OF THE WALL.

6.0 METHOD OF MEASUREMENT

THE DEPARTMENT WILL MEASURE THE TEMPORARY WIRE FACED MSE WALL SYSTEM AS LUMP SUM.

7.0 BASIS OF PAYMENT

TEMPORARY WIRE FACED MSE WALLS MEASURED, INCLUDING ENGINEERING, DESIGN SUBMITTALS, EXCAVATION, FOUNDATION PREPARATION, WIRE FACED PANELS, SOIL REINFORCEMENT SYSTEM, SOIL RETENSION FABRIC, SELECT GRANULAR BACKFILL, 6" DIAMETER PERFORATED CORRUGATED PLASTIC PIPE WITH FILTER FABRIC, AND ALL INCIDENTALS REQUIRED TO CONSTRUCT THE TWFMSE WALL WILL BE PAID FOR AND INCLUDED IN THE CONTRACT UNIT PRICE LUMP SUM BID FOR "ITEM SPECIAL RETAINING WALL, MISC: TEMPORARY WIRE FACED MSE WALL" UNLESS SEPERATELY ITEMIZED IN THE PLAN.

THE DEPARTMENT WILL PAY FOR UNDERCUT AND BACKFILL QUANTITIES BEYOND THE LIMITS SHOWN IN THE PLANS AS EXTRA WORK, AS DESCRIBED IN 109.05.

THE DEPARTMENT WILL PAY FOR ACCEPTED QUANTITIES AT THE CONTRACT PRICE AS FOLLOWS:

ITEM	UNIT	DESCRIPTION
SPECIAL	LUMP SUM	RETAINING WALL, MISC.: TEMPORARY WIRE FACED MSE WALL

P:\LIC\80704\Design\bridge\LIC-16-1771L\Plan Sheets\L80704.dgn (SCALE = 1:1000)

DESIGN AGENCY
OHIO DEPARTMENT OF
TRANSPORTATION, DISTRICT 5

DATE
3-1-2015
TAG
STRUCTURE FILE NUMBER
4500849

DRAWN
JDR
REVISIONS
DESIGNED
JDR
CHECKED
CPS

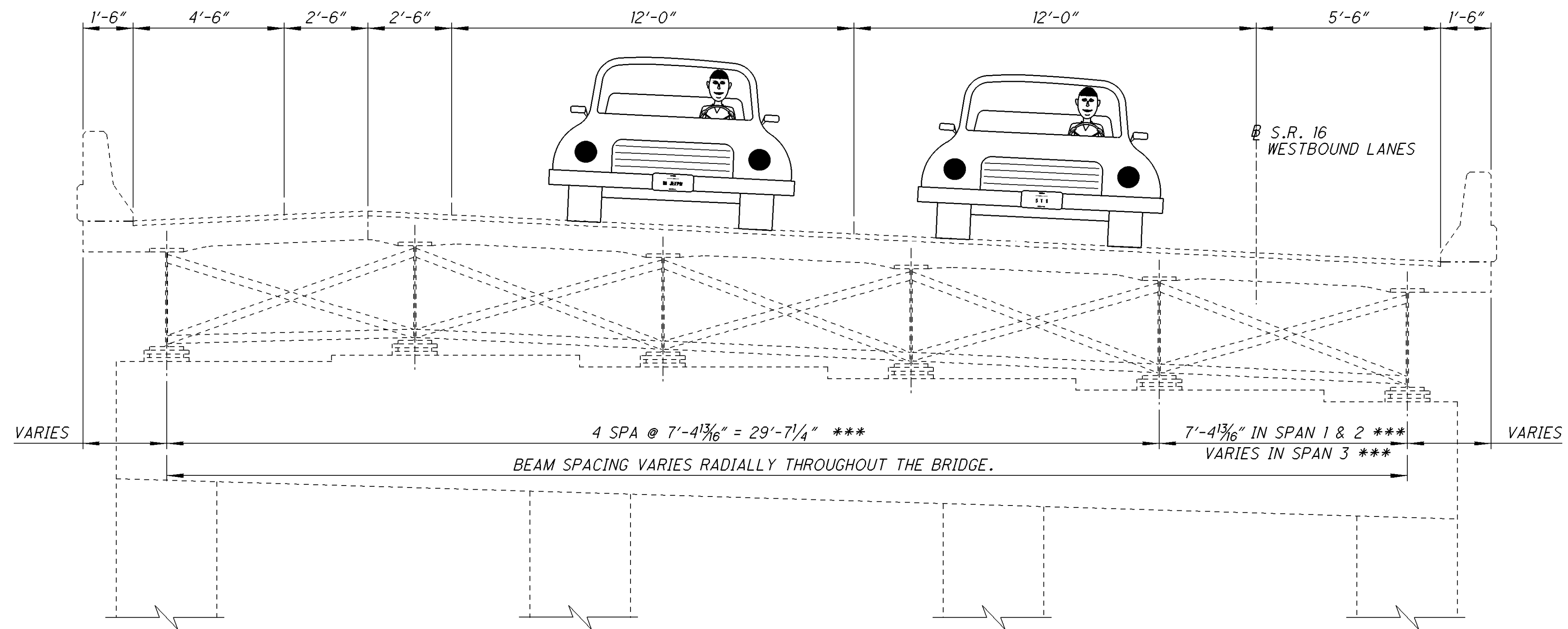
BRIDGE NOTES
BRIDGE NO. LIC-16-1773L
OVER EXISTING S.R. 16 ENTRANCE RAMP

LIC-16-16.64

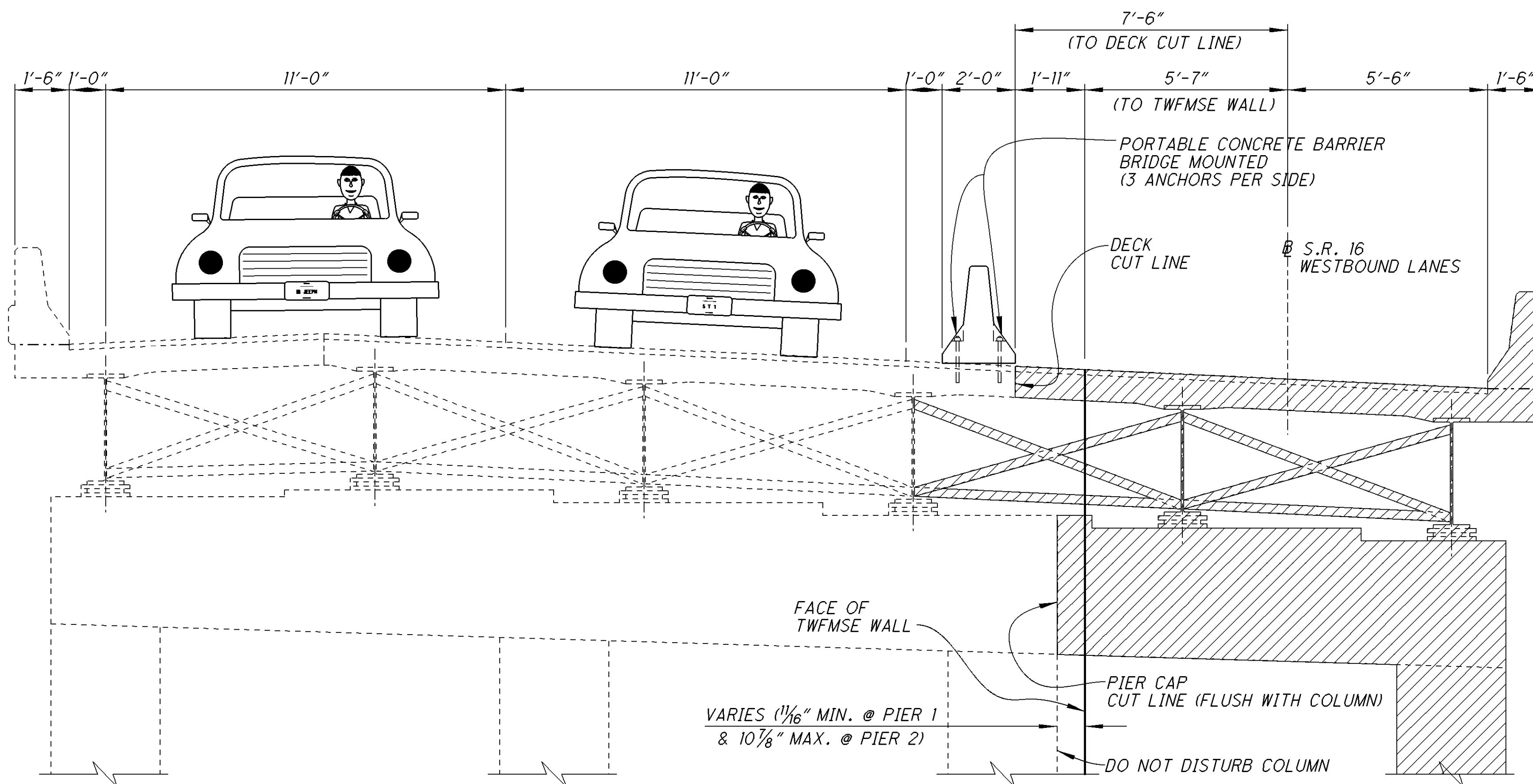
3 / 9

691
729

P:\LIC\80704\Design\bridge\LIC-16-1771L\Plan Sheets\L80704.dgn (SCALE = 2.333)



EXISTING TRANSVERSE SECTION - PHASE A: PARTIAL FILL PLACEMENT



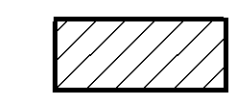
EXISTING TRANSVERSE SECTION - PHASE B: M.O.T. & BRIDGE REMOVAL

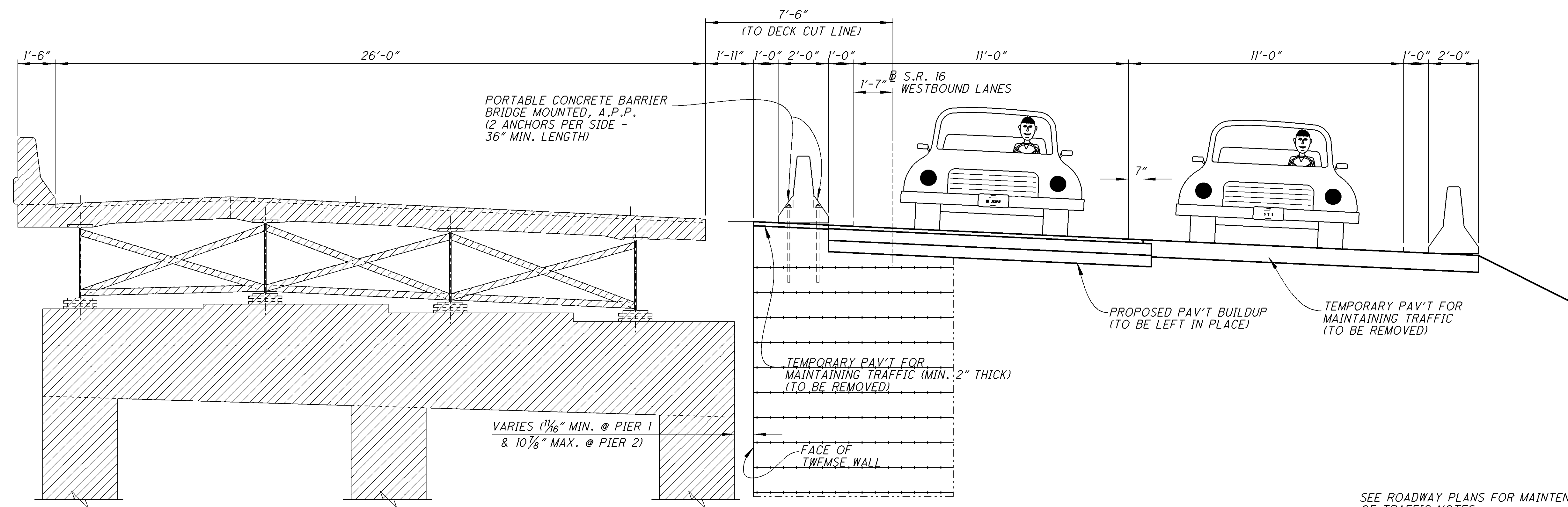
*** - DIMENSIONS NORMAL TO BEAMS

SEE ROADWAY PLANS FOR MAINTENANCE OF TRAFFIC NOTES

- PHASE REMOVALS

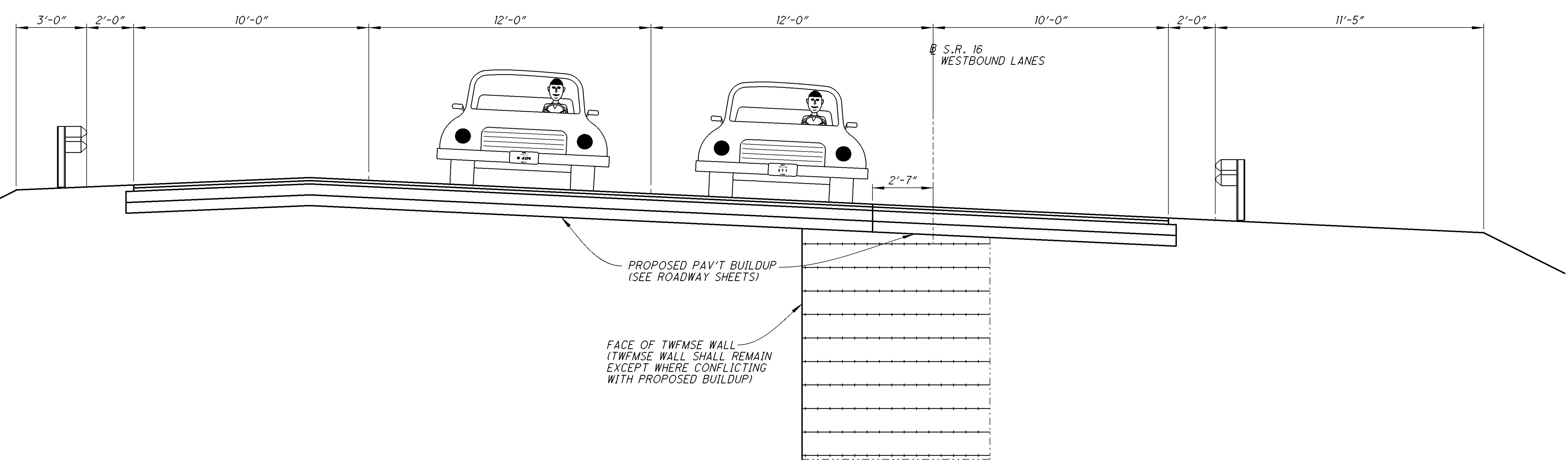
DESIGNED JDR	CHECKED CPS	DRAWN JDR	REVIEWED TAG	DATE 9-15-2014	DESIGN AGENCY OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5
BRIDGE NO. LIC-16-1773L		STRUCTURE FILE NUMBER 4500849		EXISTING TRANSVERSE SECTION OVER EXISTING S.R. 16 ENTRANCE RAMP	
LIC-16-16.64		4 / 9		692 729	

 - PHASE REMOVALS



EXISTING TRANSVERSE SECTION - PHASE C: M.O.T., TWMSE WALL, & BRIDGE REMOVAL

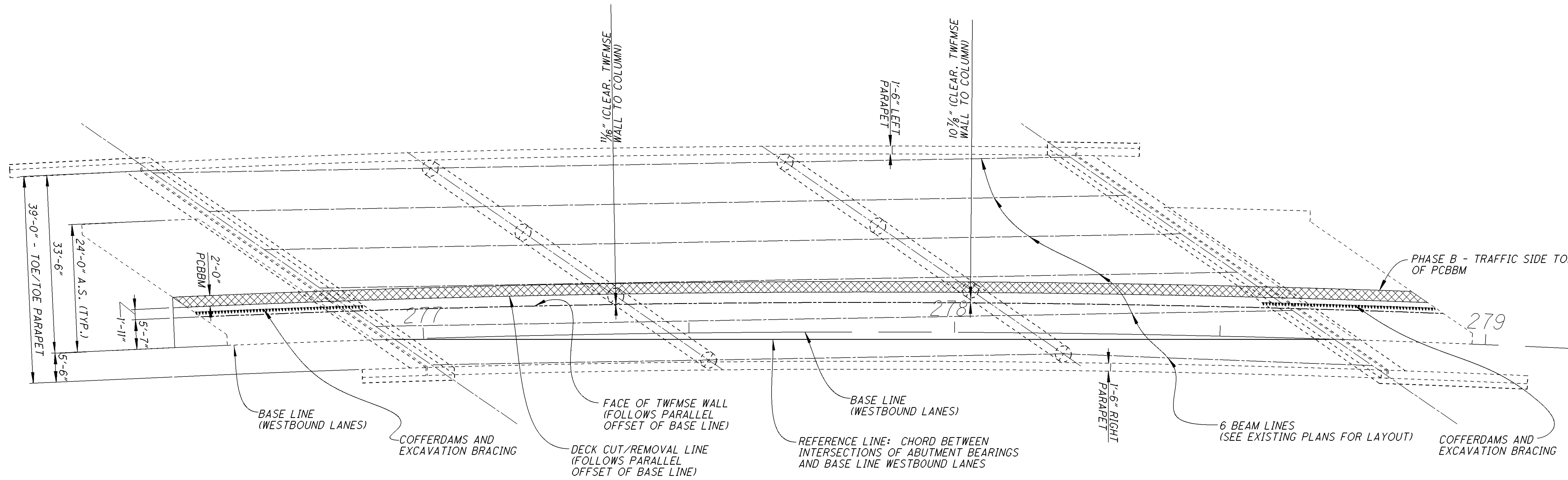
SEE ROADWAY PLANS FOR MAINTENANCE OF TRAFFIC NOTES



FINAL TRANSVERSE SECTION - PHASE D: BRIDGE REMOVED & FINAL ROADWAY CONDITION

P:\LIC\80704\Design\bridge\LIC-16-1771L\Plan Sheets\L80704.dgn (SCALE = 2.333)

DESIGN AGENCY	OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5
DESIGNED	JDR
CHECKED	CPS
DRAWN	JDR
REVISOR	
REVIEWED	TAG
DATE	9-15-2014
STRUCTURE FILE NUMBER	4500849
EXISTING TRANSVERSE SECTION	
BRIDGE NO. LIC-16-1773L	
OVER EXISTING S.R. 16 ENTRANCE RAMP	
LIC-16-16.64	
5 / 9	
693	
729	



EXISTING DECK PLAN

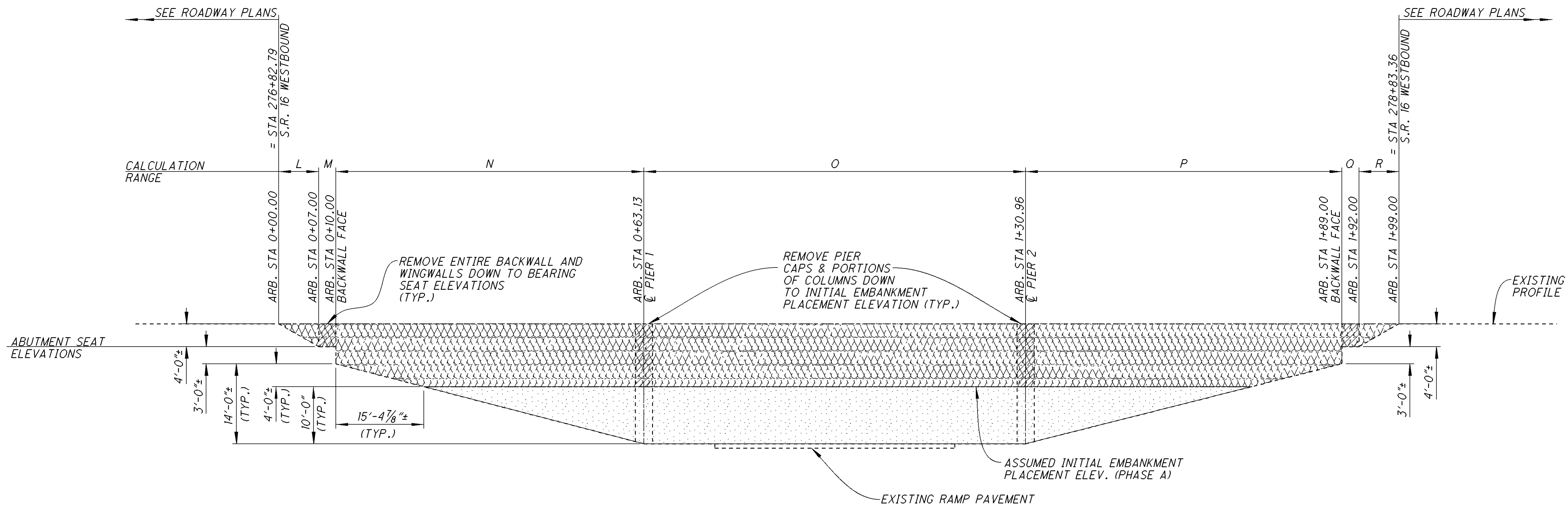
(PHASE B - CUT LINE SHOWN)

(PHASE C M.O.T. NOT SHOWN: SEE SHEET 5/9 AND ROADWAY PLANS FOR DETAILS AND PLAN VIEW.)



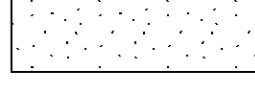
PCBBM = PORTABLE CONCRETE BARRIER,
32", BRIDGE MOUNTED

EXISTING STRUCTURE (SFN: 4500849)	
TYPE: CONTINUOUS STEEL BEAM WITH REINFORCED CONCRETE DECK AND SUBSTRUCTURE	
SPANS: 53'-6", 68'-6", AND 55'-0" ALONG REFERENCE CHORD (R.C.)	
ROADWAY: 39'-0" T/T PARAPET	
LOAD FREQUENCY: C.F. 2000	
SKEW: 55°-26'-26" RIGHT FWD. W/ R.C.	
WEARING SURFACE: 1" MONOLITHIC CONCRETE	
APPROACH SLABS: 25 FEET LONG (AS-1-54)	
ALIGNMENT: 2 DEG. CURVE RIGHT	
SUPERELEVATION: 0.047 FT/FT	
DISPOSITION: TO BE REMOVED	

P:\LIC\80704\Design\bridge\LIC-16-1771L\Plan Sheets\L80704-BSD_001.dgn (SCALE = 10.000)



EXISTING BRIDGE PROFILE VIEW

-  - ASSUMED LIMITS OF TEMPORARY WIRE FACED MSE WALL (TWMSE WALL) (FOR ESTIMATION PURPOSES ONLY, AREA = 1,927 SQ. FT.)
-  - MINIMUM PORTIONS OF STRUCTURES REMOVED
-  - ASSUMED INITIAL EMBANKMENT PLACEMENT (PHASE A)

ARB. = ARBITRARY STATIONING (ALONG C W.B. LANES)

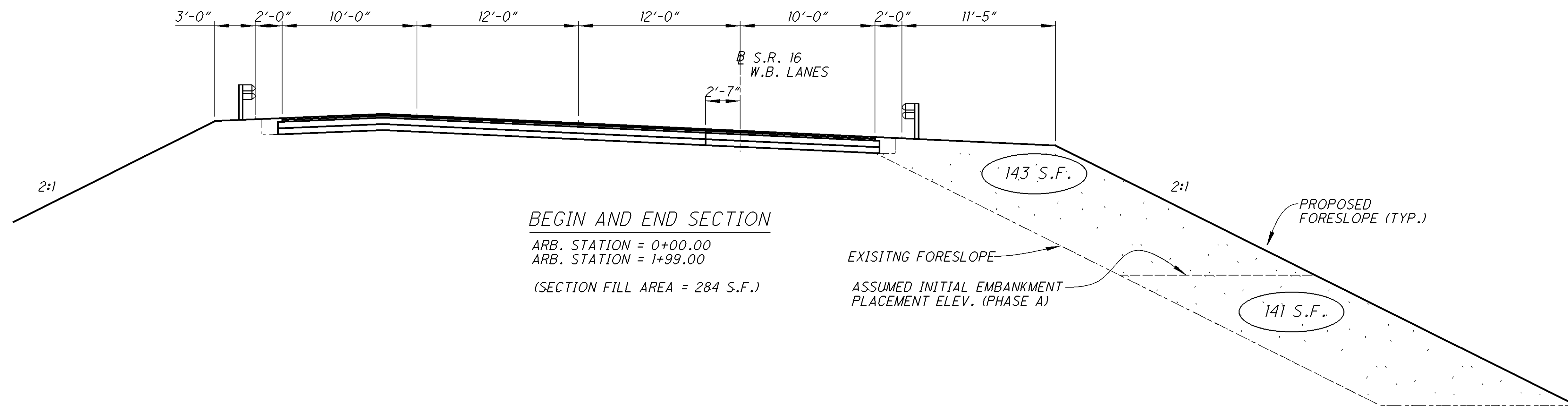
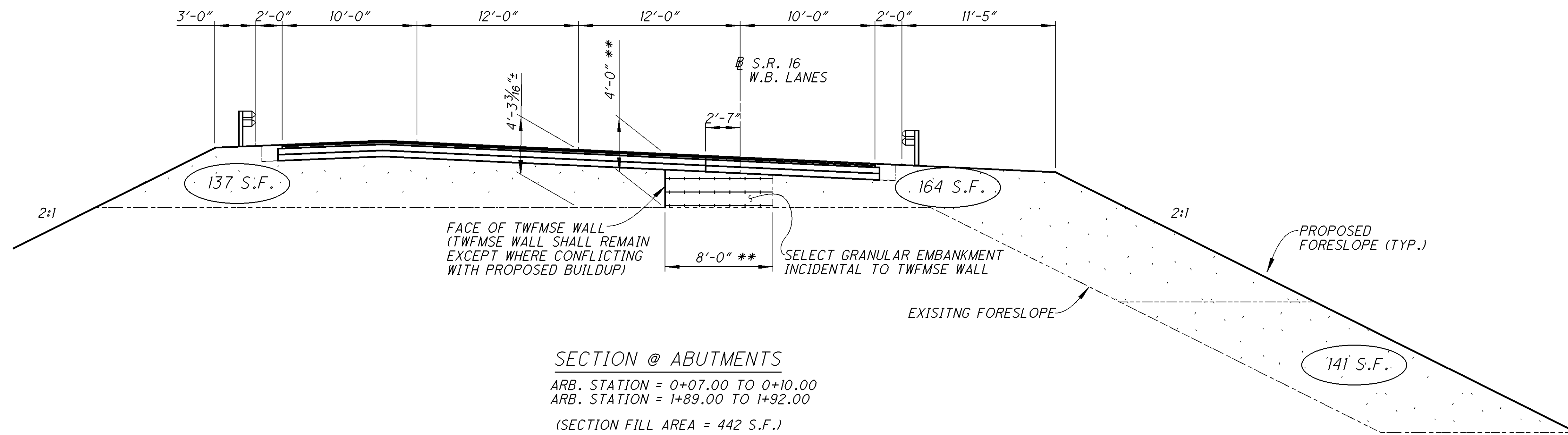
EMBANKMENT CALCULATION:

RANGE		
L	$(284 \text{ sf} + 442 \text{ sf}) / 2 \times (7 \text{ ft}) / 27 =$	94.1 C.Y.
M	$(442 \text{ sf}) \times (3 \text{ ft}) / 27 =$	49.1 C.Y.
N	$(623 \text{ sf} + 1,981 \text{ sf}) / 2 \times (53.13 \text{ ft}) / 27 =$	2,562.0 C.Y.
O	$(1,981 \text{ sf}) \times (67.83 \text{ ft}) / 27 =$	4,976.7 C.Y.
P	$(623 \text{ sf} + 1,981 \text{ sf}) / 2 \times (58.04 \text{ ft}) / 27 =$	2,798.8 C.Y.
Q	$(442 \text{ sf}) \times (3 \text{ ft}) / 27 =$	49.1 C.Y.
R	$(284 \text{ sf} + 442 \text{ sf}) / 2 \times (7 \text{ ft}) / 27 =$	94.1 C.Y.

TOTAL = 10,624 C.Y.

** = ASSUMED DIMENSIONS

S.F. = SECTION END AREA

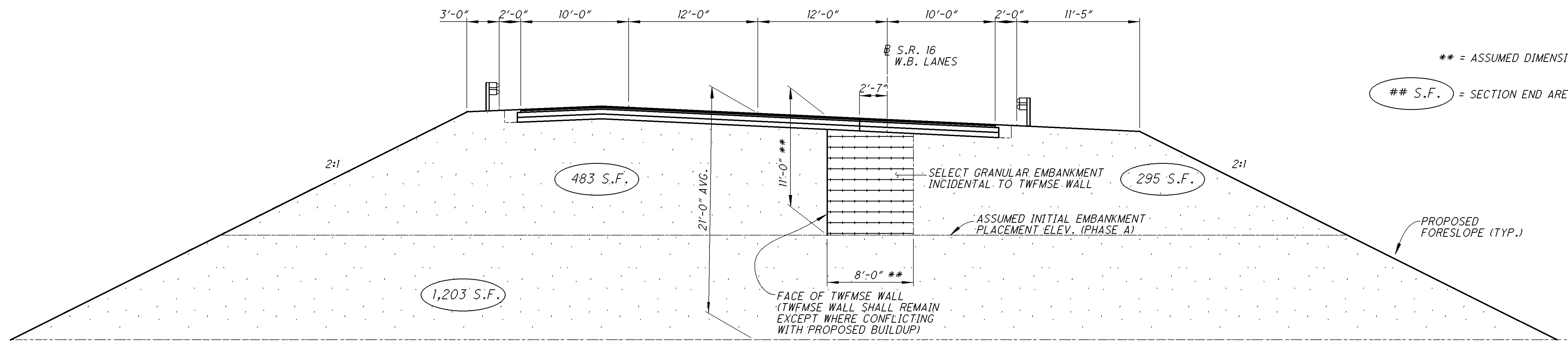


NOTE:
FOR PROPOSED PAV'T BUILDUP & FURTHER TYPICAL DETAILS,
SEE ROADWAY SECTION OF THIS PLAN

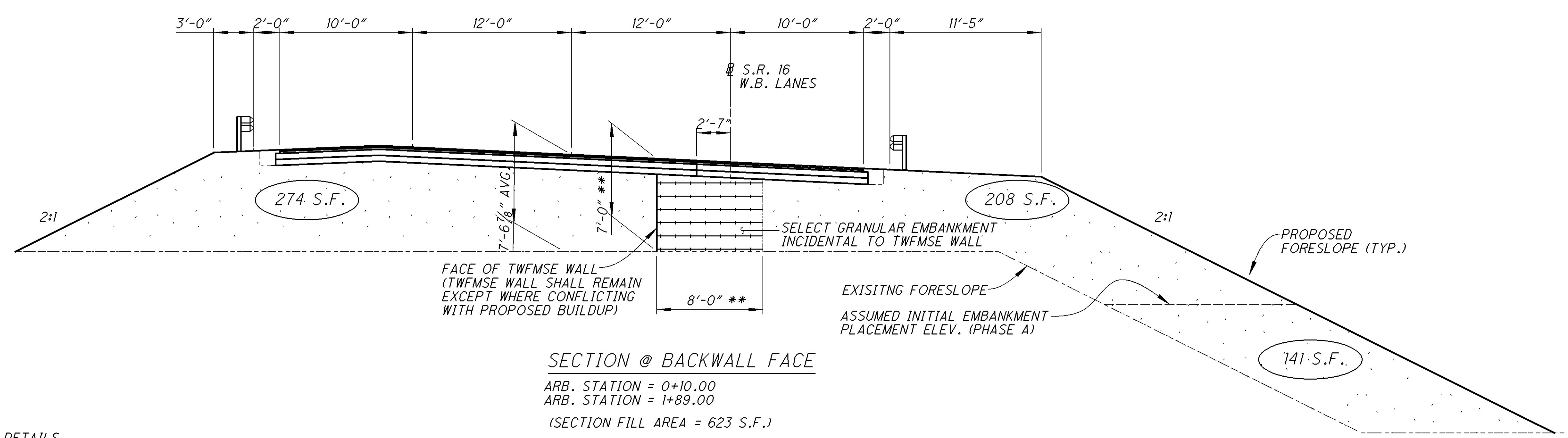
P:\LIC\80704\Design\bridge\bridge\LIC-16-1771L\Plan Sheets\L80704-BFS_001.dgn (SCALE = 5,000)

DESIGN AGENCY OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5	
REVIEWED TAG	DATE 3-1-2015
DRAWN JDR	STRUCTURE FILE NUMBER 4500849
DESIGNED JDR	CHECKED CPS
PROPOSED FILL SECTIONS @ BRIDGE BRIDGE NO. LIC-16-1773L OVER EXISTING S.R. 16 ENTRANCE RAMP	
LIC-16-16.64	
8	9
696	729

P:\LIC\80704\Design\bridge\lic-16-1771L\Plan Sheets\L80704.dgn (SCALE = 5,000) BFS_001.dgn



SECTION UNDER SPAN 2
 ARB. STATION = 0+63.13 TO 1+30.96
 (SECTION FILL AREA = 1,981 S.F.)

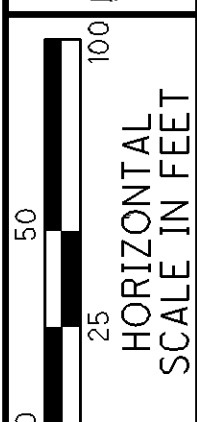


SECTION @ BACKWALL FACE
 ARB. STATION = 0+10.00
 ARB. STATION = 1+89.00
 (SECTION FILL AREA = 623 S.F.)

NOTE:
 FOR PROPOSED PAV'T BUILDUP & FURTHER TYPICAL DETAILS,
 SEE ROADWAY SECTION OF THIS PLAN

** = ASSUMED DIMENSIONS
 ## S.F. = SECTION END AREA

DESIGN AGENCY OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5	
DATE 3-1-2015	REVIEWED TAG 7
STRUCTURE FILE NUMBER 4500849	DRAWN JDR REVISED
DESIGNED JDR CHECKED CPS	
PROPOSED FILL SECTIONS @ BRIDGE BRIDGE NO. LIC-16-1773L OVER EXISTING S.R. 16 ENTRANCE RAMP	
LIC-16-16.64	
9	9
697	729

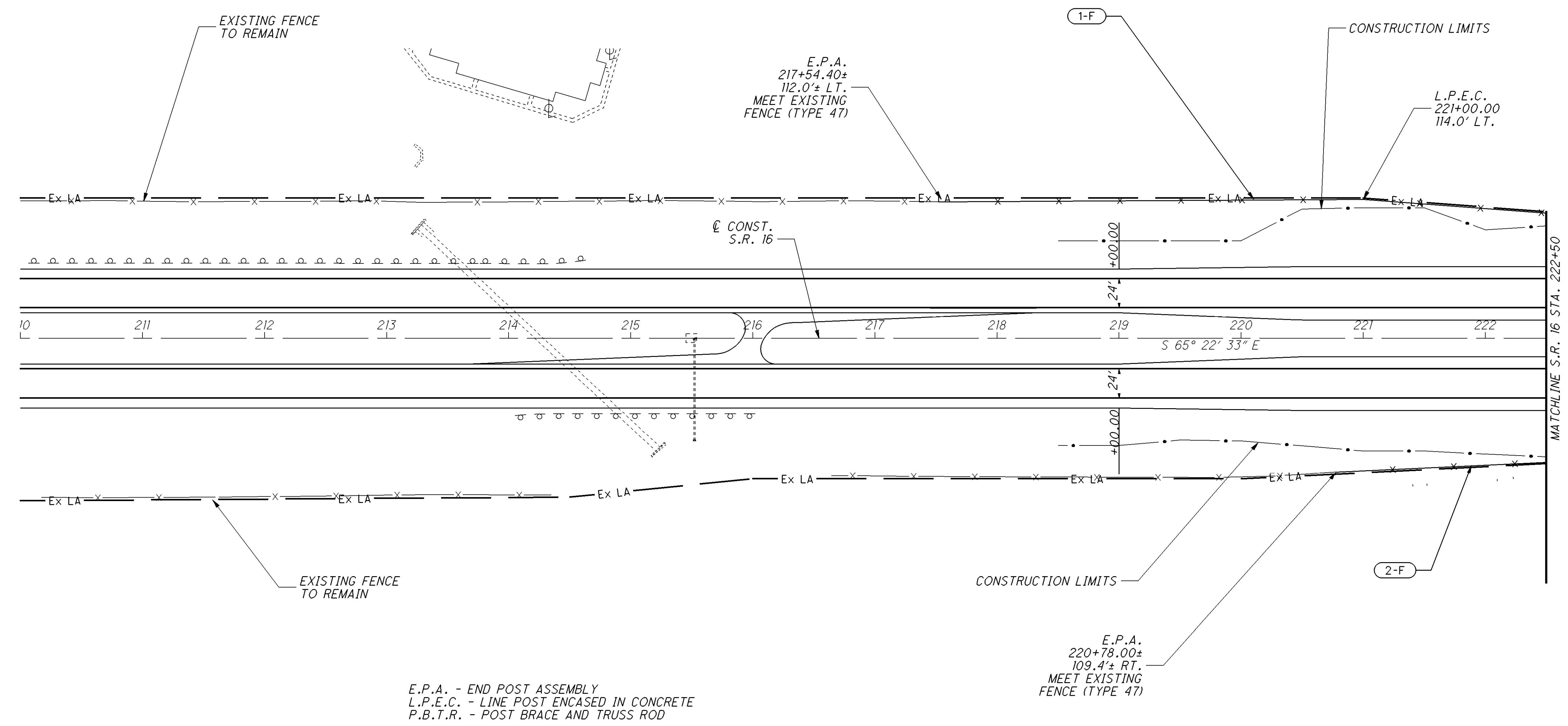


CALCULATED
C.Y.
CHECKED

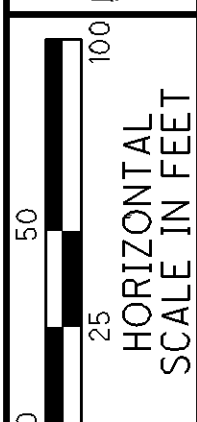
**S.R. 16 FENCE DETAIL
STA. 210+00 TO STA. 222+50**

LIC-16-16.64

698
729



SR16_FDS_001.dgn 01/06/15

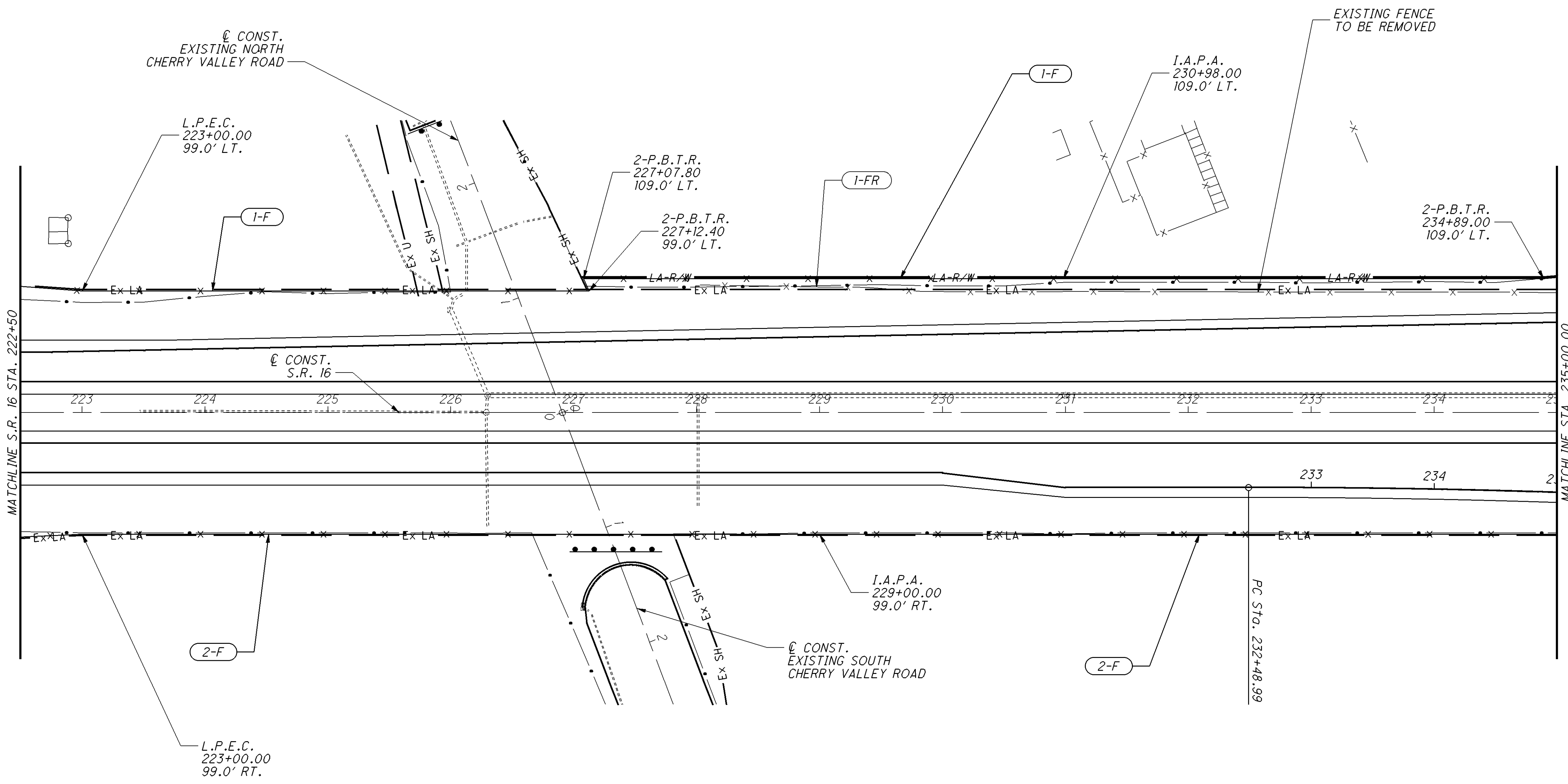


CALCULATED
C.Y.
CHECKED

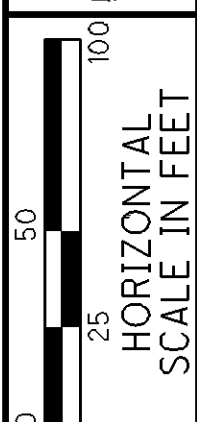
S.R. 16 FENCE PLAN
STA. 222+50 TO STA. 235+00

LIC-16-16.64

699
729



E.P.A. - END POST ASSEMBLY
 L.P.E.C. - LINE POST ENCASED IN CONCRETE
 P.B.T.R. - POST BRACE AND TRUSS ROD
 I.A.P.A. - INTERMEDIATE ANCHOR POST ASSEMBLY

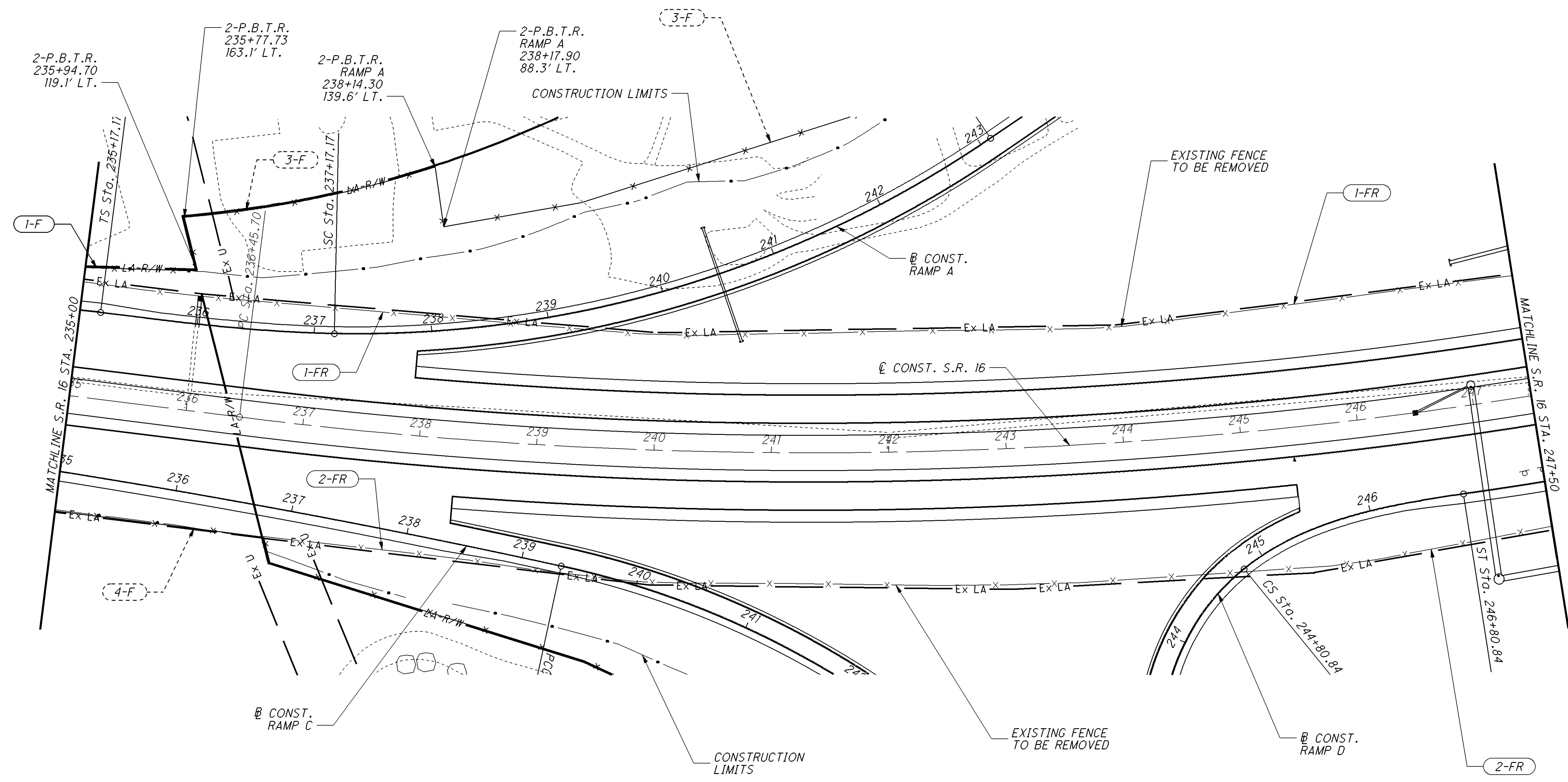


CALCULATED
C.Y.
CHECKED

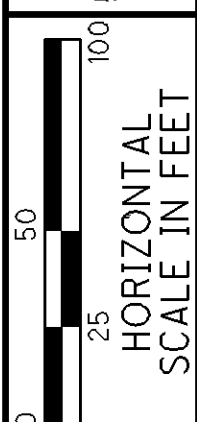
**S.R. 16 FENCE PLAN
STA. 235+00 TO STA. 247+50**

LIC-16-16.64

700
729



E.P.A. - END POST ASSEMBLY
 L.P.E.C. - LINE POST ENCASED IN CONCRETE
 P.B.T.R. - POST BRACE AND TRUSS ROD

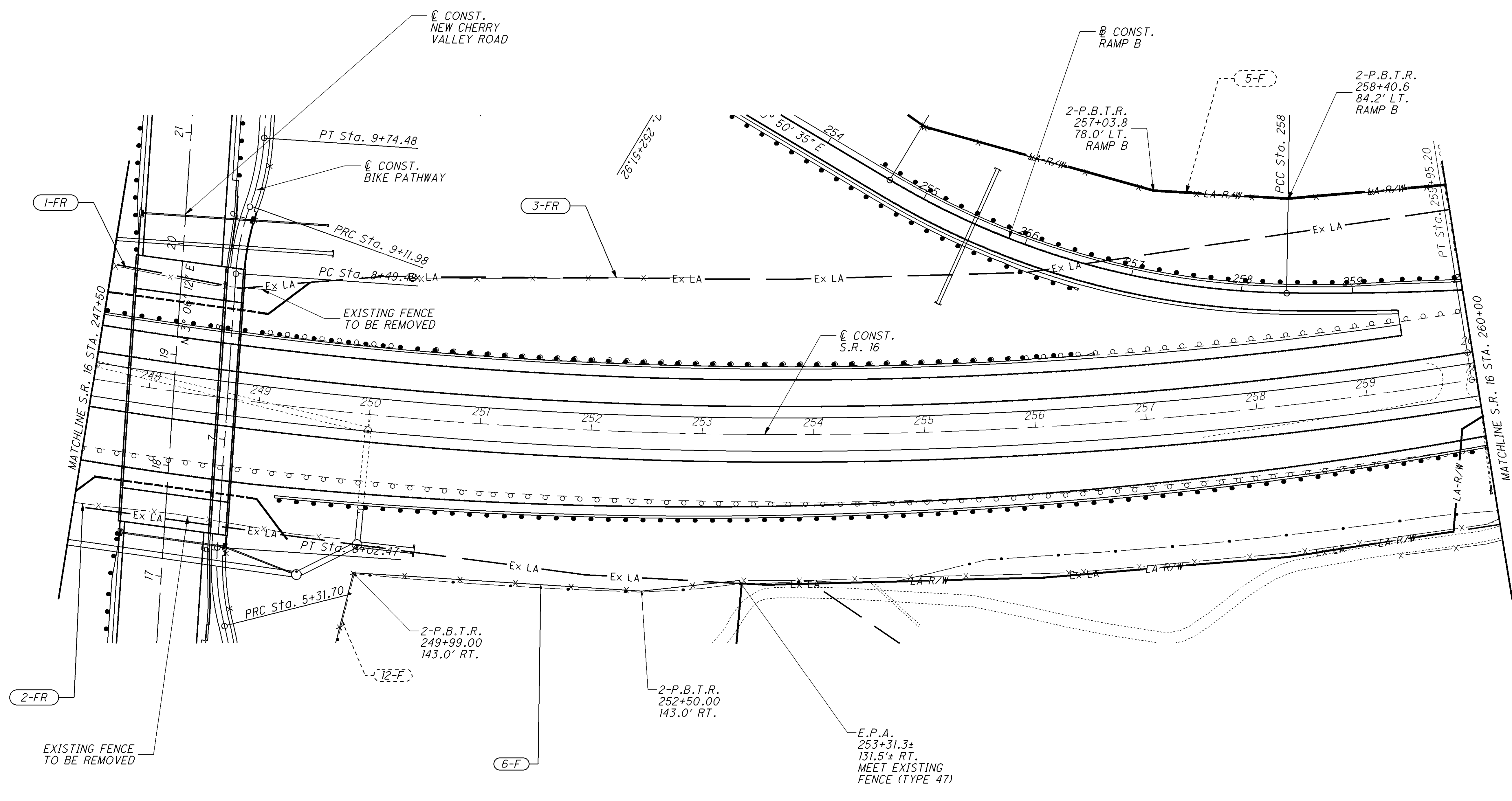


CALCULATED
C.Y.
CHECKED

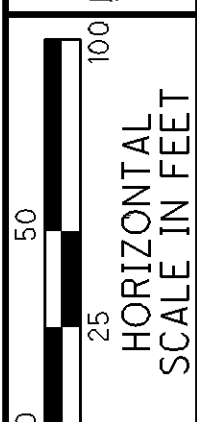
**S.R. 16 FENCE PLAN
STA. 247+50 TO STA. 260+00**

LIC-16-16.64

701
729



E.P.A. - END POST ASSEMBLY
 L.P.E.C. - LINE POST ENCASED IN CONCRETE
 P.B.T.R. - POST BRACE AND TRUSS ROD

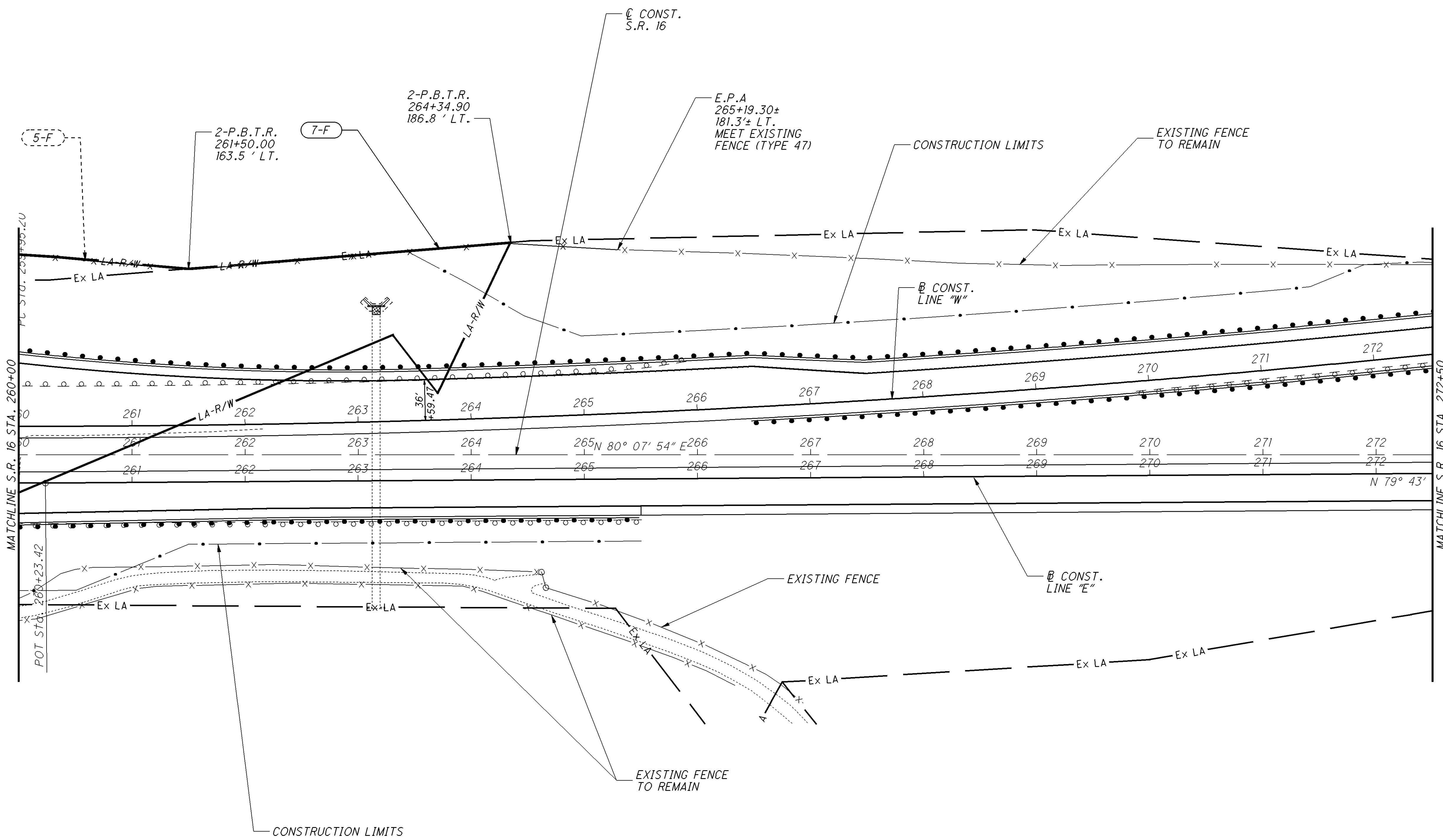


CALCULATED
C.Y.
CHECKED

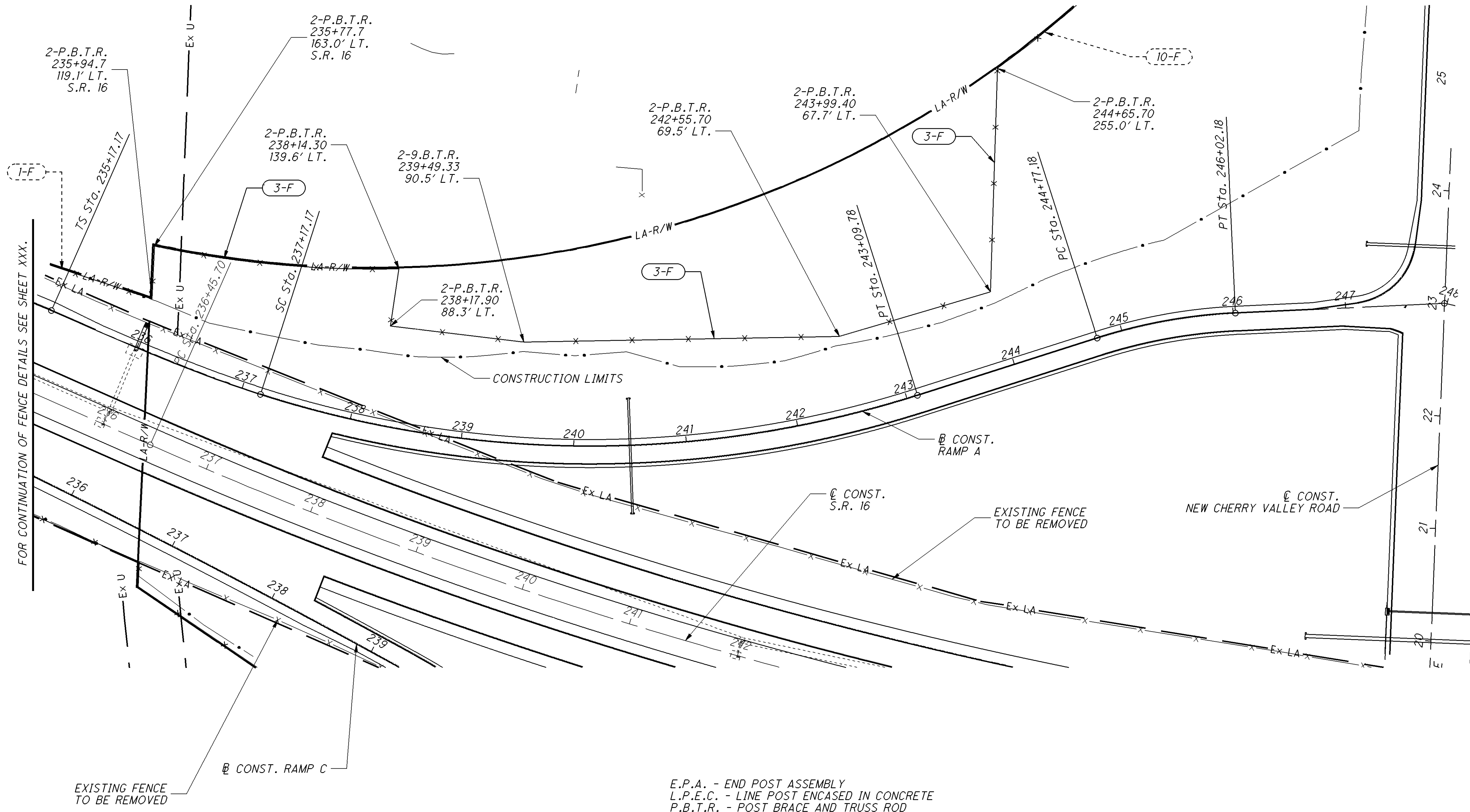
**S.R. 16 FENCE PLAN
STA. 260+00 TO STA. 272+50**

LIC-16-16.64

702
729



E.P.A. - END POST ASSEMBLY
 L.P.E.C. - LINE POST ENCASED IN CONCRETE
 P.B.T.R. - POST BRACE AND TRUSS ROD



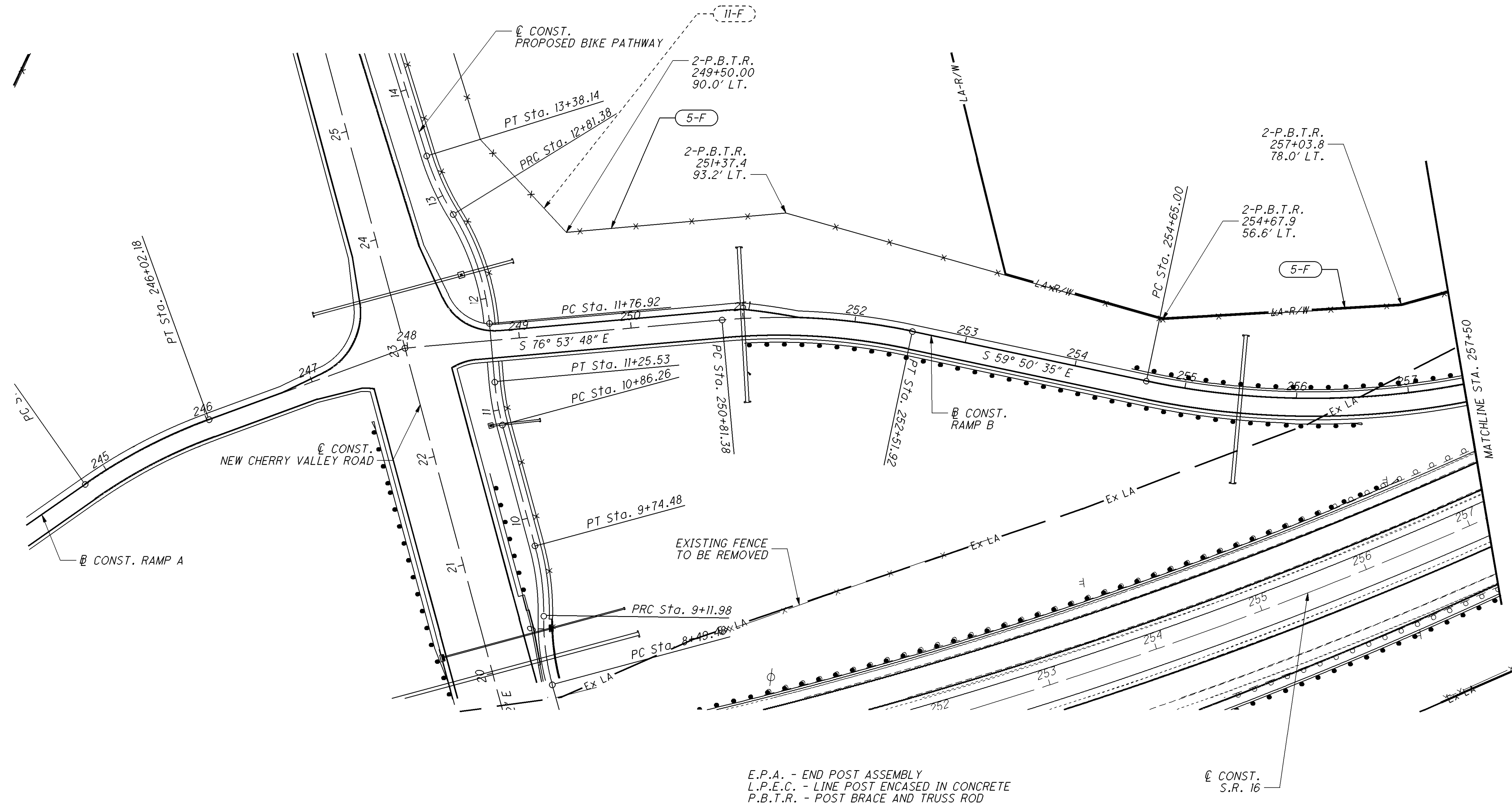
E.P.A. - END POST ASSEMBLY
 L.P.E.C. - LINE POST ENCASED IN CONCRETE
 P.B.T.R. - POST BRACE AND TRUSS ROD

CALCULATED
 C.Y.
 CHECKED

HORIZONTAL SCALE IN FEET

RAMP A FENCE PLAN
STA. 237+87.45 TO STA. 247+54.39

LIC-16-16.64

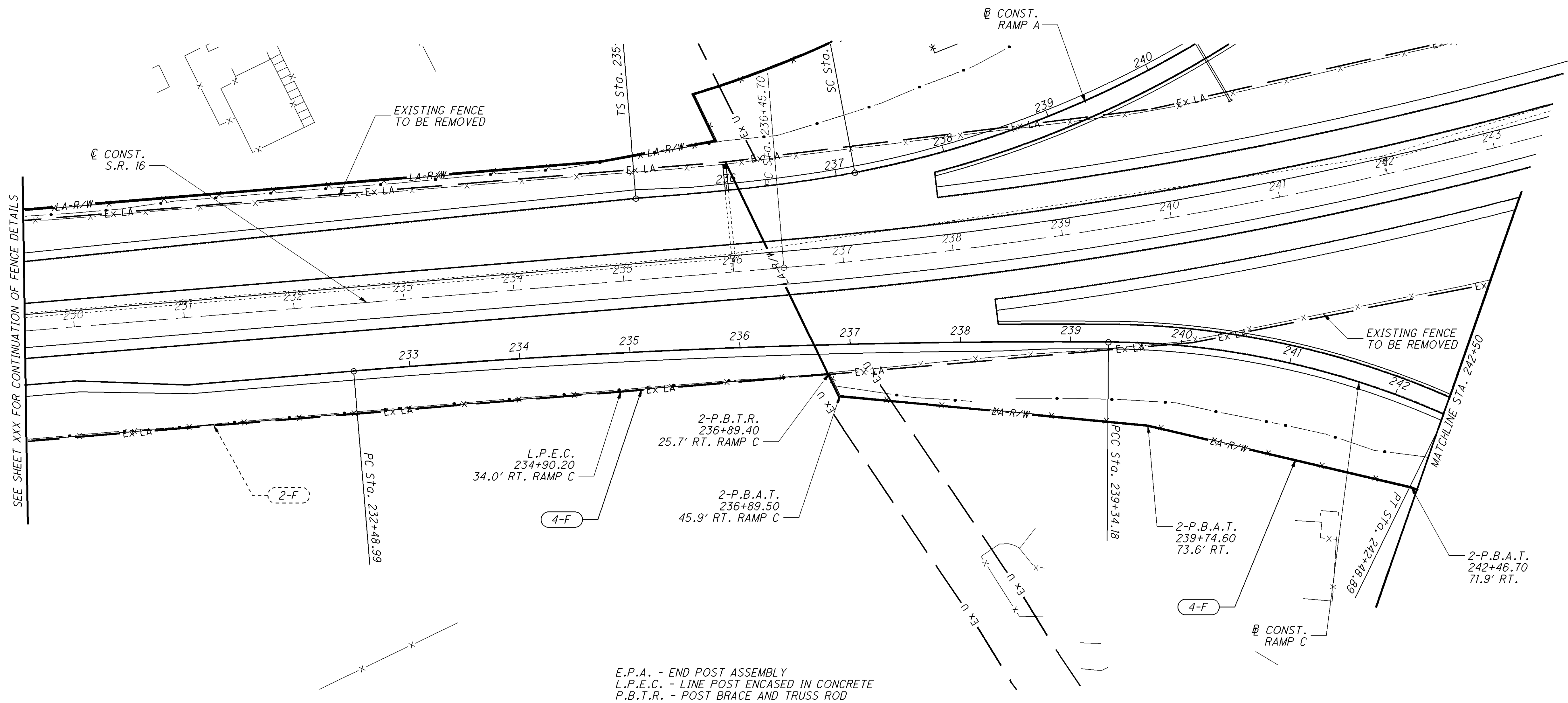


CALCULATED
C.Y.
CHECKED

0 50 100
25
HORIZONTAL
SCALE IN FEET

RAMP B FENCE PLAN
STA. 248+34.24 TO STA. 257+50.00

LIC-16-16.64



E.P.A. - END POST ASSEMBLY
 L.P.E.C. - LINE POST ENCASED IN CONCRETE
 P.B.T.R. - POST BRACE AND TRUSS ROD

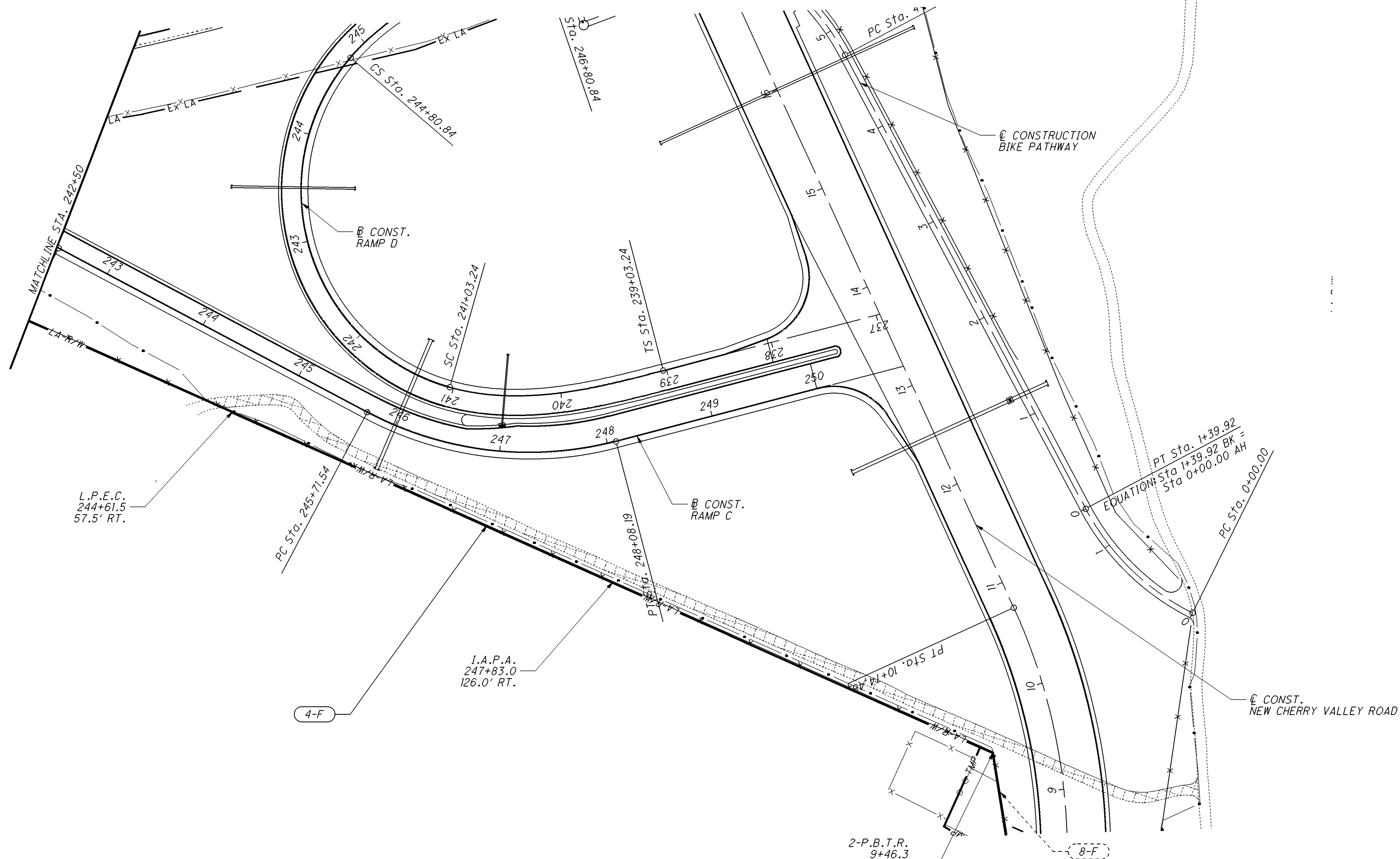
SEE SHEET XXX FOR CONTINUATION OF FENCE DETAILS

CALCULATED
 C.Y.
 CHECKED

0 50 100
 HORIZONTAL
 SCALE IN FEET

RAMP C FENCE PLAN
STA. 238+34.36 TO STA. 242+50.00

LIC-16-16.64



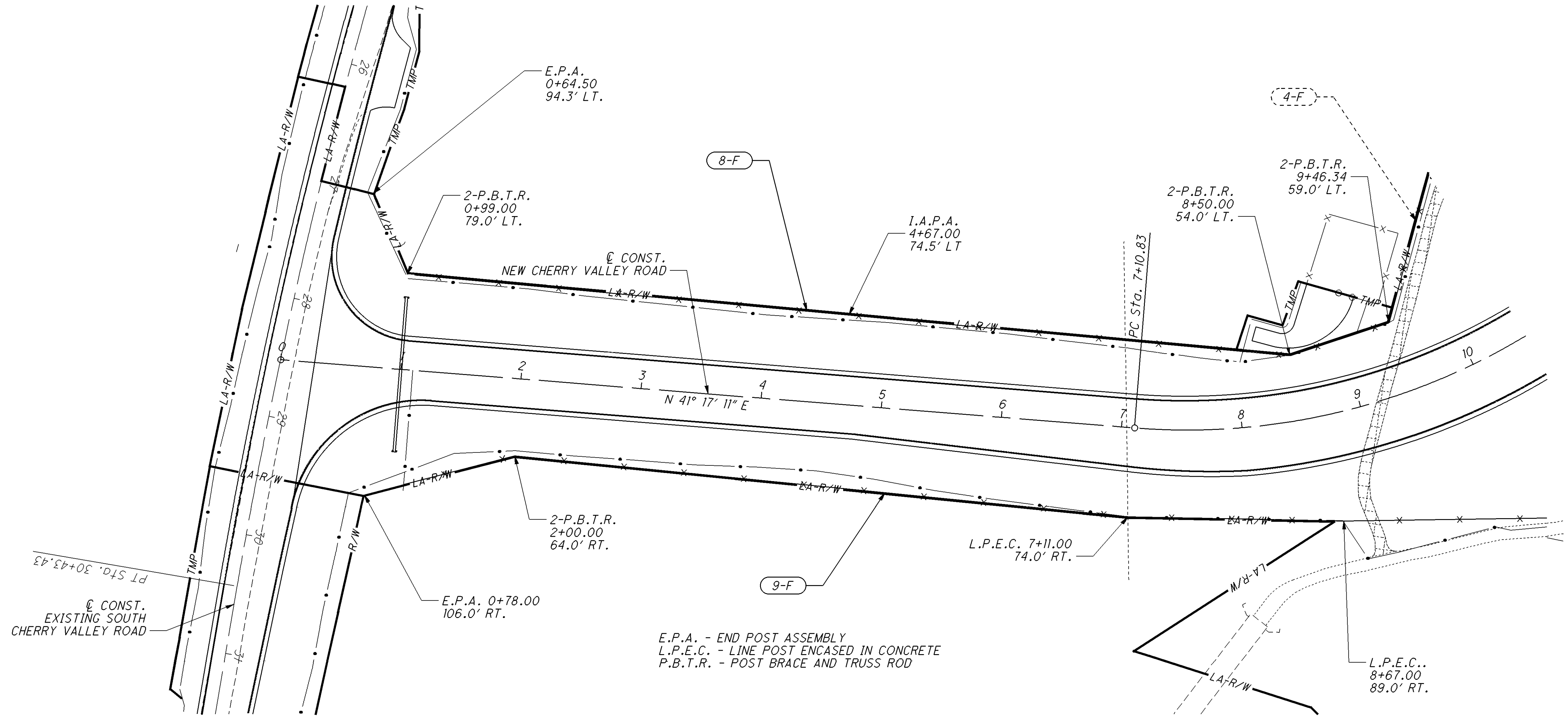
E.P.A. - END POST ASSEMBLY
 L.P.E.C. - LINE POST ENCASED IN CONCRETE
 P.B.T.R. - POST BRACE AND TRUSS ROD
 I.A.P.A. - INTERMEDIATE ANCHOR POST ASSEMBLY

CALCULATED
 C.Y.
 CHECKED

0 50 100
 HORIZONTAL
 SCALE IN FEET

RAMP C FENCE PLAN
STA. 242+50.00 TO STA. 250+72.69

LIC-16-16.64



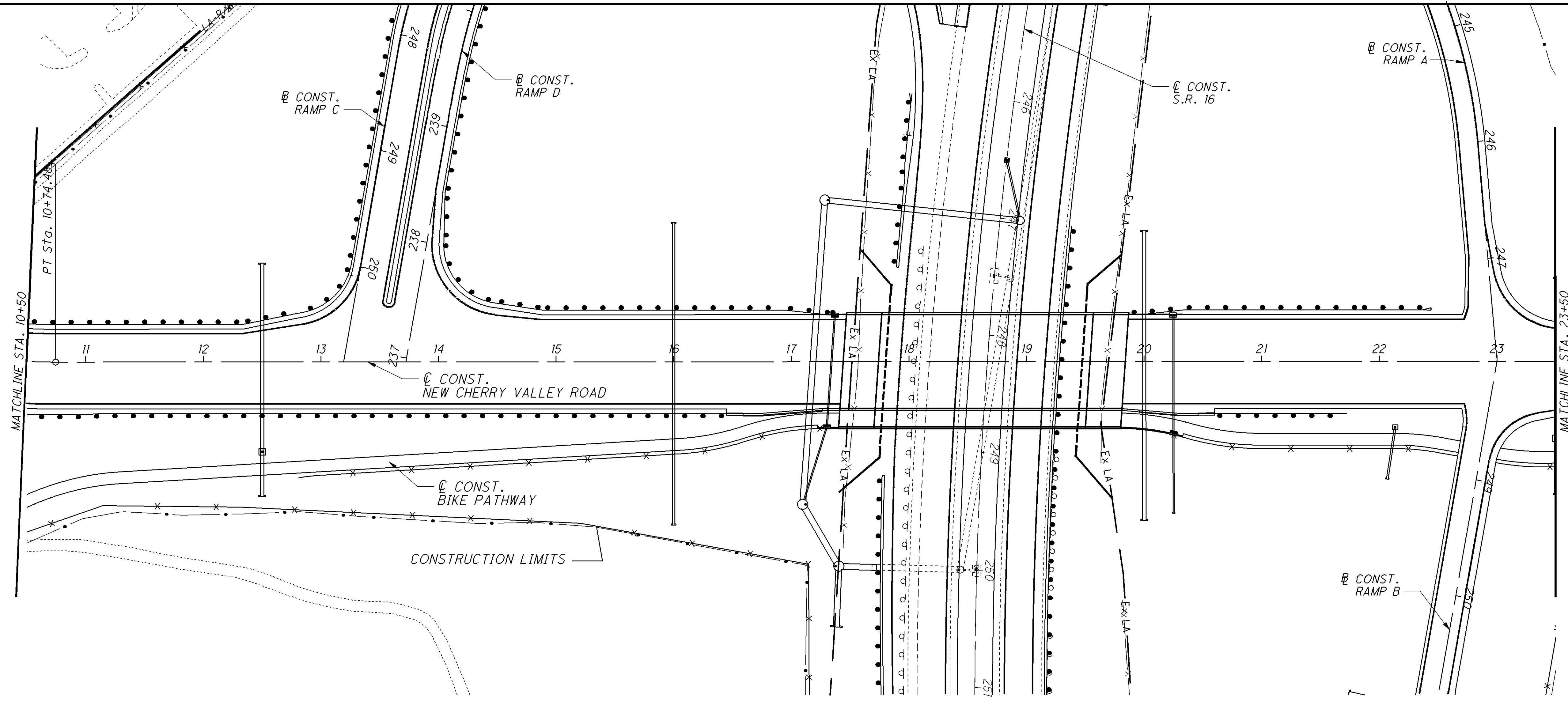
E.P.A. - END POST ASSEMBLY
 L.P.E.C. - LINE POST ENCASED IN CONCRETE
 P.B.T.R. - POST BRACE AND TRUSS ROD

CALCULATED
 C.Y.
 CHECKED

0 50 100
 HORIZONTAL
 SCALE IN FEET

NEW CHERRY VALLEY RD. FENCE PLAN
STA. 0+28.08 TO STA. 10+50.00

LIC-16-16.64



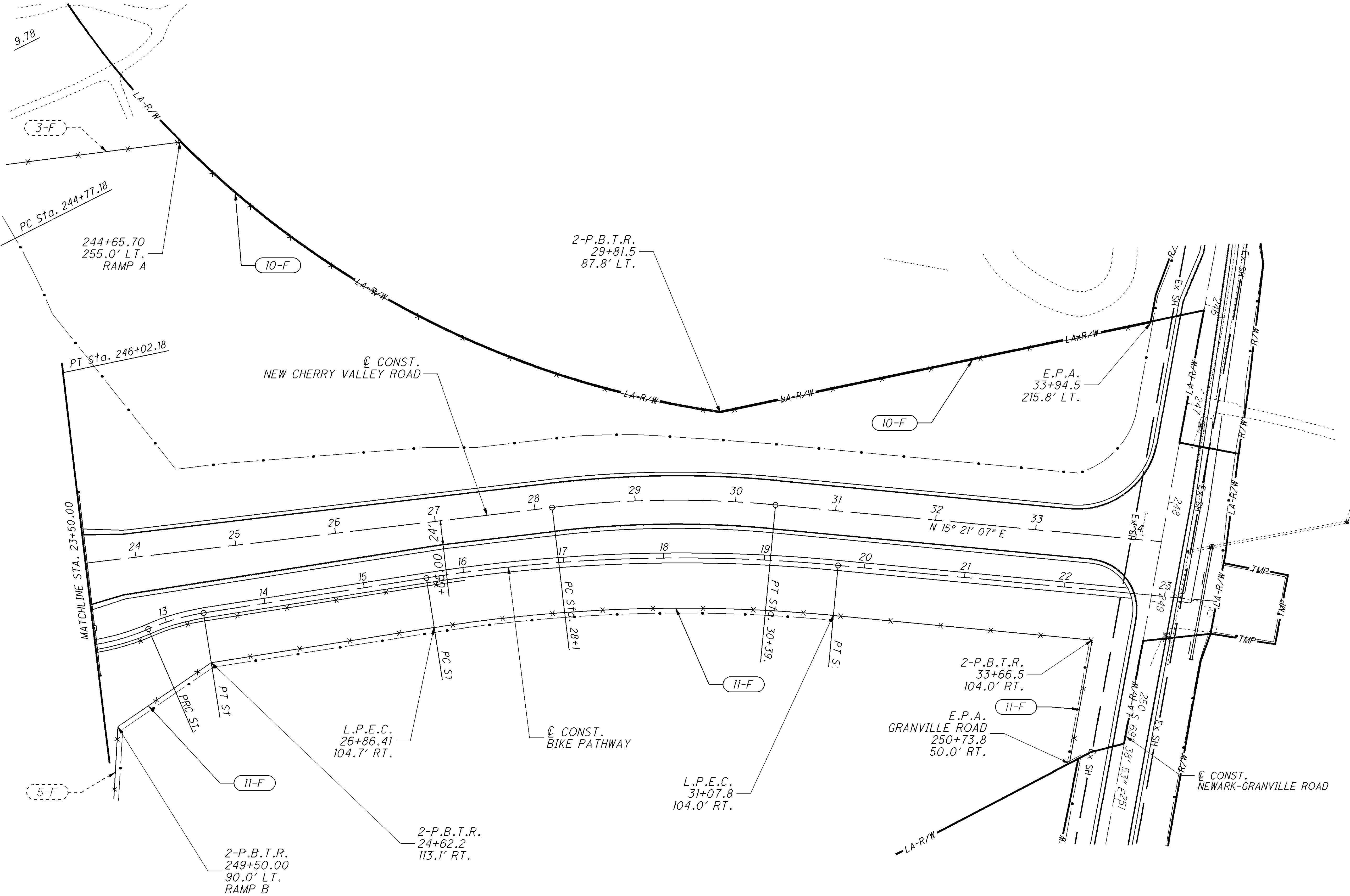
SEE BIKE PATHWAY FENCE PLAN SHEET
FOR DETAILS IN THIS AREA

CALCULATED
C.Y.
CHECKED

0 50 100
HORIZONTAL
SCALE IN FEET

NEW CHERRY VALLEY RD FENCE PLAN
STA. 10+50.00 TO STA. 23+50.00

LIC-16-16.64



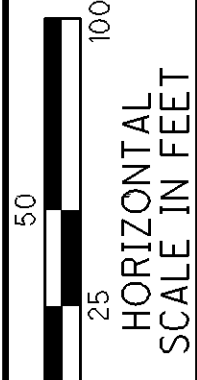
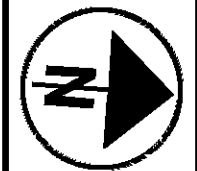
E.P.A. - END POST ASSEMBLY
 L.P.E.C. - LINE POST ENCASED IN CONCRETE
 P.B.T.R. - POST BRACE AND TRUSS ROD

CALCULATED
 C.Y.
 CHECKED

0 50 100
 HORIZONTAL
 SCALE IN FEET

NEW CHERRY VALLEY RD FENCE PLAN
STA. 23+50.00 TO STA. 34+25.81

LIC-16-16.64

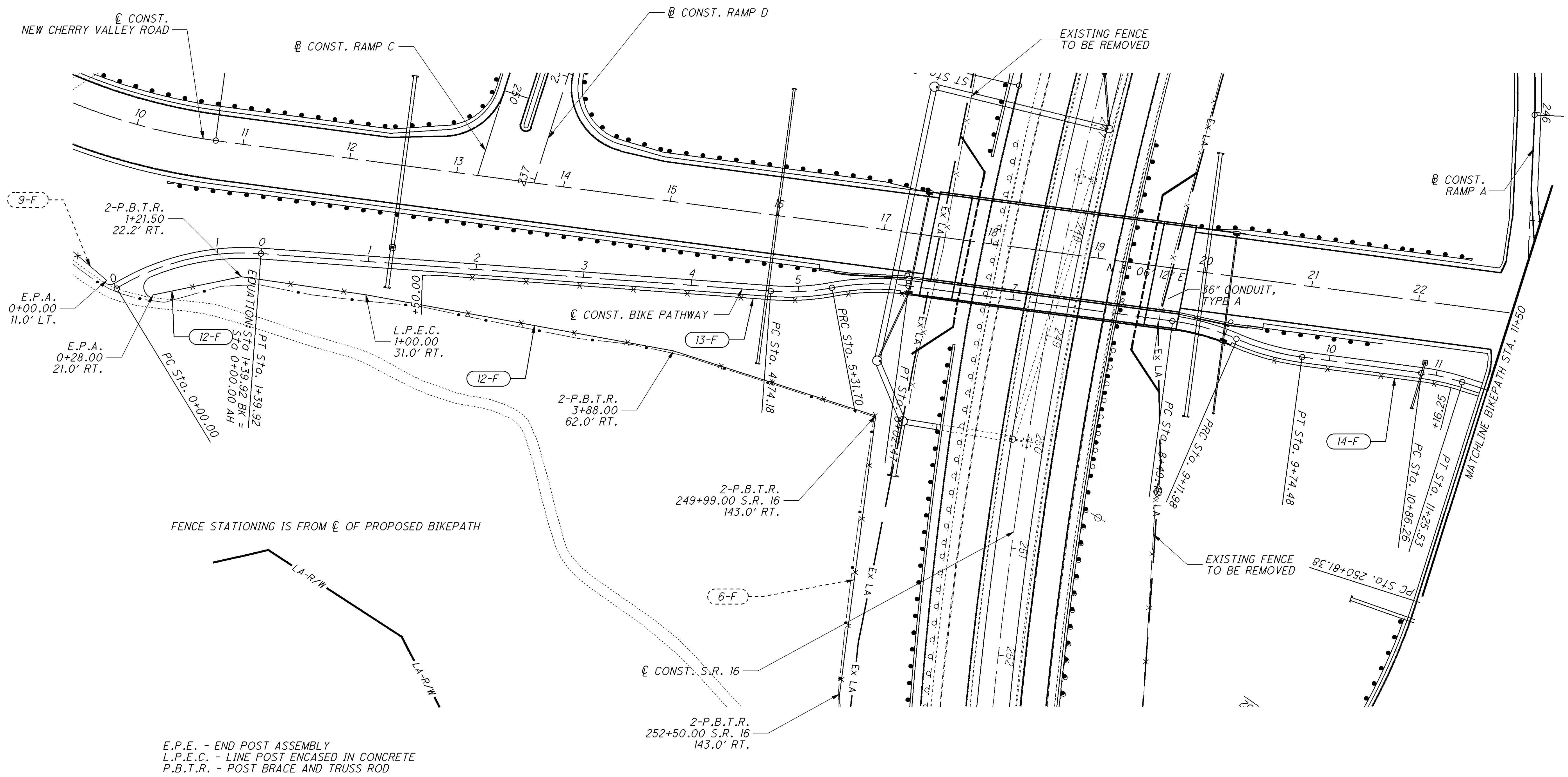


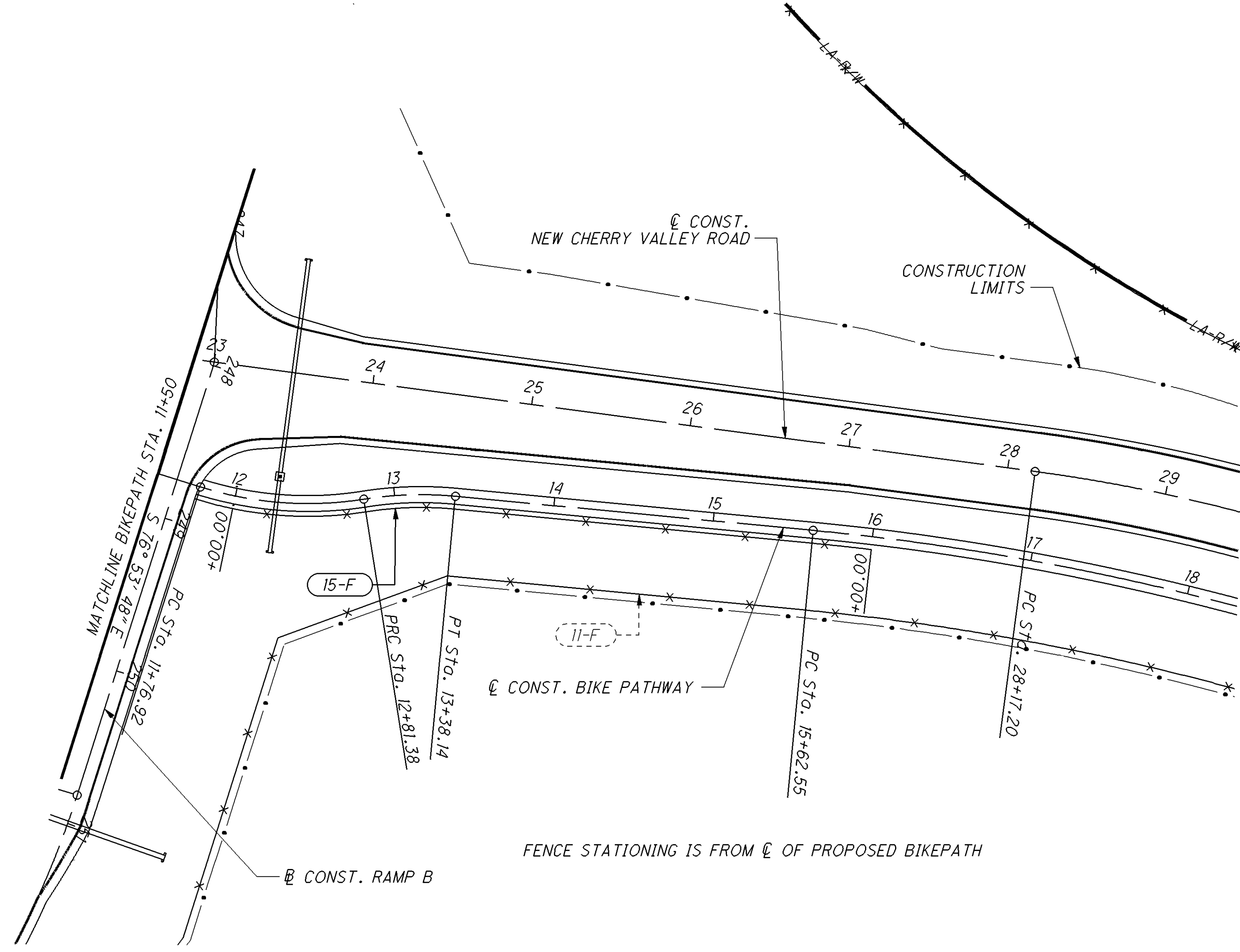
CALCULATED
C.Y.
CHECKED

BIKE PATHWAY FENCE PLAN STA. 0+00 TO STA. 11+50

LIC-16-16.64

710
729





CALCULATED	RG	CHECKED

0 50 100
HORIZONTAL SCALE IN FEET

BIKE PATHWAY FENCE PLAN
STA. 11+50 TO STA. 16+00

LIC-16-16.64

REF NO.	SHEET NO.	STATION TO STATION	202		607		625	FOR INFORMATION ONLY							
			FENCE REMOVED		FENCE, TYPE CLT	FENCE, MISC.: WOOD FENCE	GROUND ROD	POST BRACE AND TRUSS ROD	INTERMEDIATE ANCHOR POST ASSEMBLY	END POST ASSEMBLY (TYPE CLT FENCE)	LINE POST ENCASED IN CONCRETE				
			FT		FT	FT	EACH	EACH	EACH	EACH	EACH				
S.R. 16															
1-FR	699-701	228+03.00 TO 249+04.00	LT	2075											
2-FR	700-701	236+77.00 TO 249+85.00	RT	1350											
3-FR	701	250+23.00 TO 253+00.00	LT	260											
S.R. 16															
1-F	698-700	217+54.40 TO 235+77.70	LT		1900		2	10		1	2				
2-F	698-699	220+78.00 TO 234+90.2(RAMP A)	RT		1415				1	1	1				
6-F	701	249+99.00 TO 253+31.3±	RT		350			4		1					
7-F	702	261+50.00 TO 265+19.30	LT		385			4		1					
RAMP A															
3-F	703	235+77.7 TO 244+65.70	LT		1010			12							
RAMP C															
4-F	705-706	234+90.20 TO 9+46.3(NEW CHERRY VALLEY)	RT		1725		2	6	1		2				
RAMP B															
5-F	702 & 703	249+50.00 TO 261+50.00(S.R. 16)	LT		1177			8							
NEW CHERRY VALLEY ROAD															
8-F	707	0+64.50 TO 9+46.34	LT		825			6	1	1					
9-F	707 & 710	0+78.00 TO 0+00.00(BIKEPATH)	RT		1003			2		2	2				
10-F	709	244+65.7(RAMP A TO 33+94.50)	LT		1050			2		1					
11-F	709	249+50.00(RAMP B) TO 250+73.8(NEWARK/GRANVILLE ROAD)	RT		1121			2			2				
BIKE PATH															
12-F	710	0+28.00 TO 249+99.0(S.R. 16)	RT		688			4		1	1				
13-F	710	1+50.00 TO 6+14.50	RT			465		60	3	9	10				
14-F	710	8+53.89 TO 11+16.25	RT			263		FOR INFORMATION ONLY							
15-F	710A	12+00.00 TO 16+00.00	RT			400									
SUB-TOTALS															
				3685		7962	4								
						4687									
						1128									
TOTALS CARRIED TO GENERAL SUMMARY				3685		12649	1128	4							

CALCULATED CMY CHECKED	FENCE SUBSUMMARY	LIC-16-16.64
------------------------------	------------------	--------------

SR16_FSS_001.DGN 01/09/15

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

**RIGHT OF WAY
LEGEND SHEET
LIC-16-16.80**

**1ST QTR. T2N, R13W, USML
3RD QTR., T2N, R12W, USML
4TH QTR., SECTION 3,
T2N, R13W, USML
VILLAGE OF GRANVILLE
CITY OF NEWARK
LICKING COUNTY**

PROJECT DESCRIPTION

INTERSECTION UPGRADE FROM AN AT GRADE CROSSING TO A LIMITED ACCESS INTERCHANGE ON S.R. 16 APPROXIMATELY 0.4 MI EAST OF THE EXISTING CHERRY VALLEY ROAD (C.R. 128) INTERSECTION. THE PROJECT WILL INCLUDE FULL-DEPTH PAVEMENT REHABILITATION ON S.R. 16 AND THE INSTALLATION OF FOUR SIGNALIZED INTERSECTIONS. THE PROJECT WILL REMOVE THE S.R. 16 EB ON-RAMP AT GRANVILLE ROAD AND THE 17.73 L STRUCTURE ON S.R. 16 WB.

PROJECT CONTROL

NORTH AMERICAN VERTICAL DATUM (NAVD 88)
AND STATE PLANE GRID COORDINATES, SOUTH ZONE.

LIMITED ACCESS

THIS IMPROVEMENT IS ESPECIALLY DESIGNED FOR THROUGH TRAFFIC AND HAS BEEN DECLARED A LIMITED ACCESS HIGHWAY OR FREEWAY BY ACTION OF THE DIRECTOR IN ACCORDANCE WITH THE PROVISIONS OF SECTION 5511.02 OF THE OHIO REVISED CODE.

PLAN PREPARED BY:

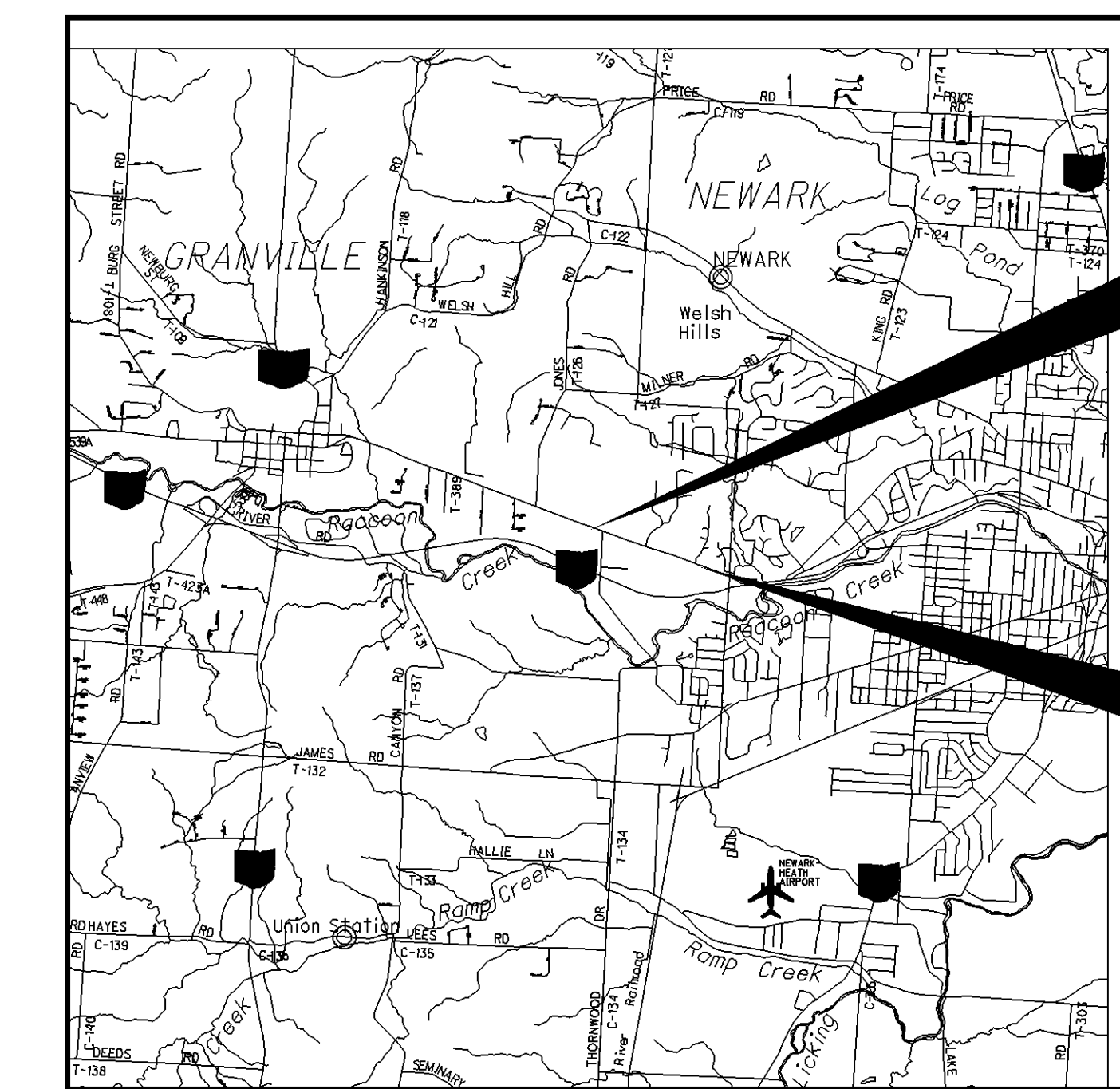
FIRM NAME: ODOT, DISTRICT 5
PLANS PREPARED BY: CANDY SHOEMAKER
FIELD REVIEW: 02/06/13
OWNERSHIP VERIFIED BY: CHARLES PRICE, JR.
DATE COMPLETED: 02/06/13

UNDERGROUND UTILITIES
CONTACT BOTH SERVICES
CALL TWO WORKING DAYS
BEFORE YOU DIG

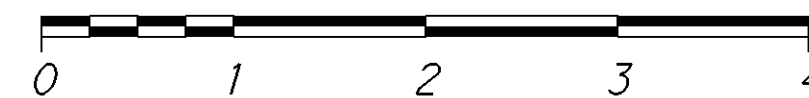
CALL
1-800-362-2764
(TOLL FREE)

OHIO UTILITIES PROTECTION SERVICE
NON-MEMBERS
MUST BE CALLED DIRECTLY

OIL & GAS PRODUCERS PROTECTIVE
SERVICE CALL: **1-800-925-0988**



LOCATION MAP
SCALE IN MILES



UTILITY OWNERS

GRANVILLE WATER TREATMENT PLANT 445 PALMER LANE GRANVILLE, OHIO 43023 ATTN: LARRY FRUTH 740-587-0165	AEP DISTRIBUTION 850 TECH CENTER DRIVE GAHANNA, OHIO 43230 ATTN: PAUL PAXTON 614-883-6831	COLUMBIA GAS OF OHIO 2429 LINDEN AVE. P.O. BOX 310 ZANESVILLE, OHIO 43702 ATTN: WILLIAM RICH 740-648-0079	WINDSTREAM 66 NORTH FOURTH STREET NEWARK, OHIO 43055 ATTN: JACKIE CAUGHENBAUGH 740-349-8866
CITY OF NEWARK DIVISION OF WATER/WASTE WATER 34 SOUTH FIFTH STREET NEWARK, OHIO 43055 ATTN: ROGER LOOMIS CELL # 740-670-7945 OFFICE # 740-349-6765 EMERGENCY # AFTER 4:30 ON WEDNESDAYS 740-670-7940	TIME WARNER CABLE 3760 INTERCHANGE DRIVE COLUMBUS, OHIO 43204 ATTN: RAY MAURER 614-481-5262	NATIONAL GAS AND OIL CORP. 1500 GRANVILLE ROAD P.O. BOX 4970 NEWARK, OHIO 43058-4970 ATTN: GREG WILSON 740-348-1254	MARATHON ASHLAND PIPE LINE LLC 539 SOUTH MAIN STREET FINDLAY, OHIO 45840 ATTN: DAVID WISNER 419-421-2211

NOTE:
THE LOCATION OF THE UNDERGROUND UTILITES SHOWN ON THE PLANS ARE OBTAINED FROM THE OWNER OF THE UTILITIIES AS REQUIRED BY SECTION 153.64 O.R.C.

CONVENTIONAL SYMBOLS

County Line	Ditch / Creek (Ex)
Township Line	Ditch / Creek (Pr)
Section Line	Tree Line (Ex)
Corporation Line	Ownership Hook Symbol
Fence Line (Ex)	Property Line Symbol
Center Line	Break Line Symbol
Right of Way (Ex)	Tree (Pr)
Right of Way (Pr)	Tree (Remove)
Standard Highway Ease.(Ex)	Evergreen (Ex)
Temporary Right of Way	Evergreen (Remove)
Channel Ease. (Pr)	Wetland (Pr)
Utility Ease. (Ex)	Post (Ex)
Railroad	Light (Ex)
Guardrail (Ex)	Fire Hydrant (Ex)
Construction Limits	Water Valve (Ex)
Edge of Pavement (Ex)	Telephone Pole (Ex)
Edge of Pavement (Pr)	Light Pole (Ex)
Edge of Shoulder (Ex)	
Edge of Shoulder (Pr)	

INDEX OF SHEETS:

CENTERLINE PLAT	2
PROPERTY MAP	3
SUMMARIES OF ADDITIONAL RIGHT OF WAY	4-5
RIGHT OF WAY DETAIL SHEETS	6-17

LEGEND:

WL = FEE SIMPLE WITH LIMITATION OF ACCESS
WD = WARRANTY DEED
SH = STANDARD HIGHWAY EASEMENT
LA = LIMITED ACCESS EASEMENT
T = TEMPORARY EASEMENT
CH = CHANNEL EASEMENT
U = UTILITY EASEMENT
V = IN NAME OF ANOTHER STATE AGENCY, LPA, ETC.

STRUCTURE KEY

[White Box]	RESIDENTIAL
[Black Box]	COMMERCIAL
[Hatched Box]	OUT-BUILDING

I, Charles W. Price, Jr., P. S. have conducted a survey of the existing conditions for the Ohio Department of Transportation in September, 2012. The results of that survey are contained herein.

Underground utility locations are shown for informational purposes only. Though they are believed to be accurate, their location is as marked on the ground by the utility company per OUPS Confirmation Number A224301917 & A224302119 and those markings subsequently being surveyed as a part of this project.

The horizontal coordinates expressed herein are based on the Ohio State Plane Coordinates system, NAD 83, South Zone.

As a part of this project I have reestablished the locations of the existing property lines and centerline of existing Right of Way for property takes contained herein.

As a part of this project I have established the proposed property lines, calculated the Gross Take, present roadway occupied (PRO), Net Take and Net Residue; as well as prepared the legal descriptions necessary to acquire the parcels as shown herein.

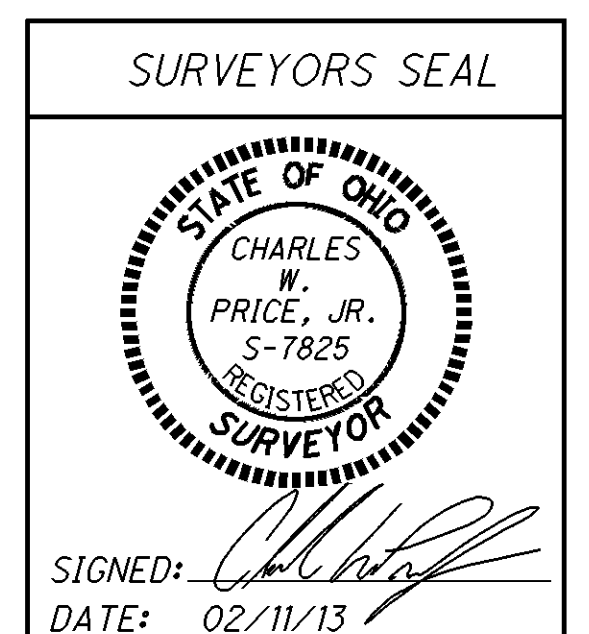
As a part of this work I have set monuments at the proposed property corners, and other points shown herein.

The iron pins and caps will be 3/4" x 30" rebar with aluminum cap stamped "Odot R/W District 5". All of my work contained herein was conducted in accordance with Ohio Administrative Code 4733-37 commonly known as "A Minimum Standards for Boundary Surveys in the State of Ohio" unless so noted.

The words I and my as used herein are to mean that either myself or someone working under my direct supervision.

Charles W. Price, Jr., Professional Land Surveyor # 7825

Date: 02/11/13



FEDERAL PROJECT NO. _____
PID NO. 80704
RAILROAD INVOLVEMENT NONE
RIGHT OF WAY LEGEND SHEET
LIC-16-16.80
1/17
712/729

P:\LIC\80704\DESIGN\RIGHT_OF_WAY\PLAN_SHEETS\80704_0001_RTS.dgn 03/05/13

BASIS FOR BEARINGS:

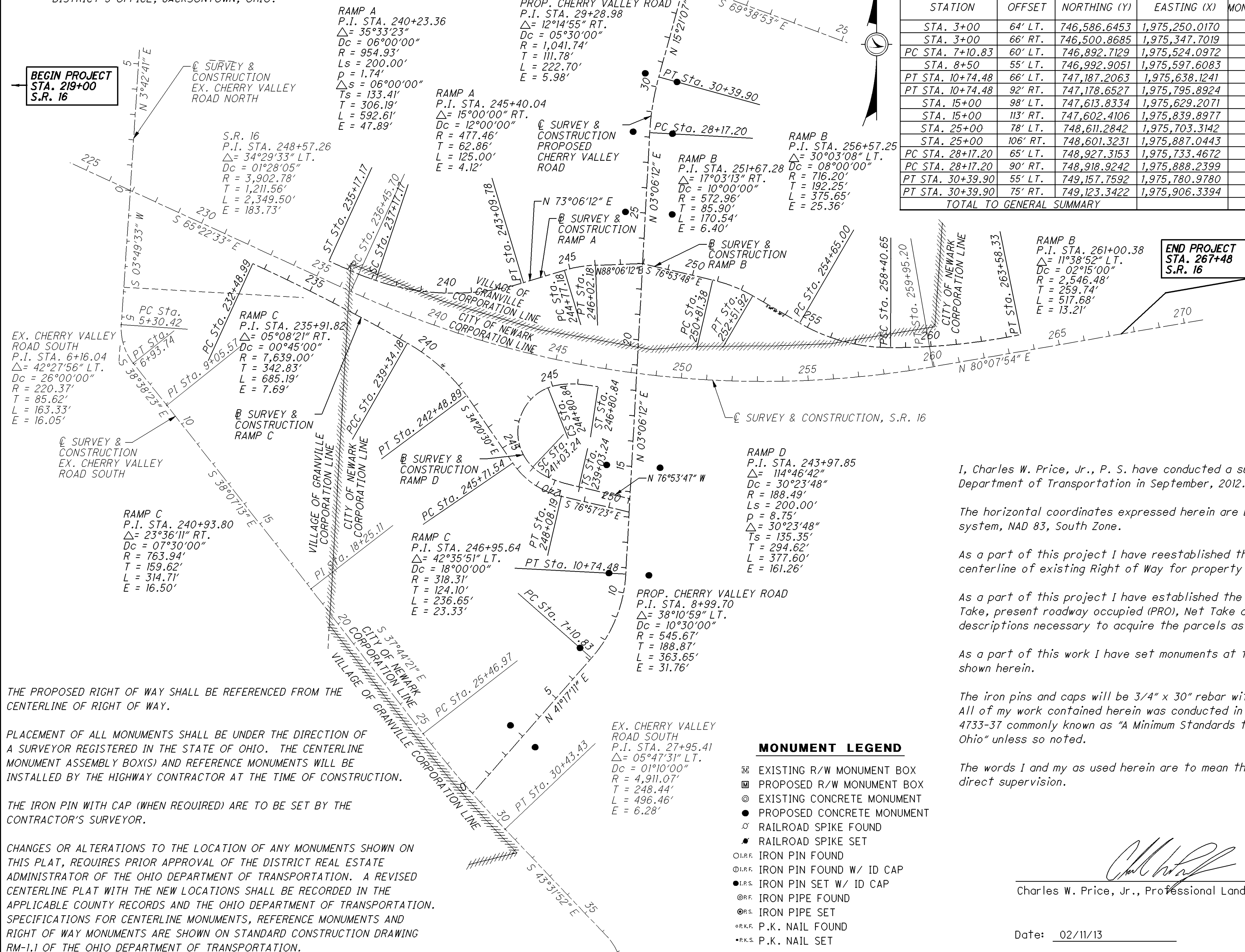
ALL BEARINGS SHOWN ARE BASED ON THE OHIO STATE PLANE COORDINATES SYSTEM, SOUTH ZONE.

NOTE: THE EXISTING R/W WIDTH AND LOCATION WERE DETERMINED USING DOCUMENTATION ON FILE FROM THE OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5 OFFICE, JACKSONTOWN, OHIO.

1ST QTR. T2N, R13W, USML; 3RD QTR., T2N, R12W, USML; 4TH QTR., SECTION 3, T2N, R13W, USML VILLAGE OF GRANVILLE / CITY OF NEWARK LICKING COUNTY

MONUMENT TABLE

PROPOSED CHERRY VALLEY ROAD		PROJECT COORDINATES SEE SURVEY CERTIFICATION		MONUMENTS TO BE SET DURING CONSTRUCTION	R/W MON. EXPECTED TO BE DISTURBED	
STATION	OFFSET	NORTHING (Y)	EASTING (X)	MON. ASSEMBLY	R/W MON.	DESCRIPTION
STA. 3+00	64' LT.	746,586.6453	1,975,250.0170	1		
STA. 3+00	66' RT.	746,500.8685	1,975,347.7019	1		
PC STA. 7+10.83	60' LT.	746,892.7129	1,975,524.0972	1		
STA. 8+50	55' LT.	746,992.9051	1,975,597.6083		1	PIN SET INSIDE CONSTRUCTION LIMITS
PT STA. 10+74.48	66' LT.	747,187.2063	1,975,638.1241	1		
PT STA. 10+74.48	92' RT.	747,178.6527	1,975,795.8924	1		
STA. 15+00	98' LT.	747,613.8334	1,975,629.2071	1		
STA. 15+00	113' RT.	747,602.4106	1,975,839.8977	1		
STA. 25+00	78' LT.	748,611.2842	1,975,703.3142	1		
STA. 25+00	106' RT.	748,601.3231	1,975,887.0443	1		
PC STA. 28+17.20	65' LT.	748,927.3153	1,975,733.4672	1		
PC STA. 28+17.20	90' RT.	748,918.9242	1,975,888.2399	1		
PT STA. 30+39.90	55' LT.	749,157.7592	1,975,780.9780	1		
PT STA. 30+39.90	75' RT.	749,123.3422	1,975,906.3394	1		
TOTAL TO GENERAL SUMMARY				13	1	



HORIZONTAL SCALE IN FEET
 0 100 200 400
 PID NO. **80704**
 STATE JOB NO.
 R/W DESIGNER CS
 R/W REVIEWER CP
CENTERLINE PLAT
LIC-16-16.80
 2/17
 713
 729

I, Charles W. Price, Jr., P. S. have conducted a survey of the existing conditions for the Ohio Department of Transportation in September, 2012. The results of that survey are contained herein.

The horizontal coordinates expressed herein are based on the Ohio State Plane Coordinates system, NAD 83, South Zone.

As a part of this project I have reestablished the locations of the existing property lines and centerline of existing Right of Way for property takes contained herein.

As a part of this project I have established the proposed property lines, calculated the Gross Take, present roadway occupied (PRO), Net Take and Net Residue; as well as prepared the legal descriptions necessary to acquire the parcels as shown herein.

As a part of this work I have set monuments at the proposed property corners, and other points shown herein.

The iron pins and caps will be 3/4" x 30" rebar with aluminum cap stamped "Odot R/W District 5". All of my work contained herein was conducted in accordance with Ohio Administrative Code 4733-37 commonly known as "A Minimum Standards for Boundary Surveys in the State of Ohio" unless so noted.

The words I and my as used herein are to mean that either myself or someone working under my direct supervision.

MONUMENT LEGEND

- ☐ EXISTING R/W MONUMENT BOX
- ▣ PROPOSED R/W MONUMENT BOX
- ⊙ EXISTING CONCRETE MONUMENT
- PROPOSED CONCRETE MONUMENT
- ⦿ RAILROAD SPIKE FOUND
- ⦿ RAILROAD SPIKE SET
- I.R.F. IRON PIN FOUND
- I.R.F. IRON PIN FOUND W/ ID CAP
- I.R.S. IRON PIN SET W/ ID CAP
- ⊖ I.R.P. IRON PIPE FOUND
- ⊖ I.R.S. IRON PIPE SET
- ⦿ P.K. NAIL FOUND
- ⦿ P.K. NAIL SET

Charles W. Price, Jr.
 Charles W. Price, Jr., Professional Land Surveyor # 7825

Date: 02/11/13

SURVEYORS SEAL

STATE OF OHIO
 CHARLES W. PRICE, JR.
 S-7825
 REGISTERED SURVEYOR

SIGNED: *Charles W. Price, Jr.*
 DATE: 02/11/13

P:\LIC\80704\DESIGN\RIGHT_OF_WAY\PLAN_SHEETS\80704_0001_RCP.dgn 02/07/13

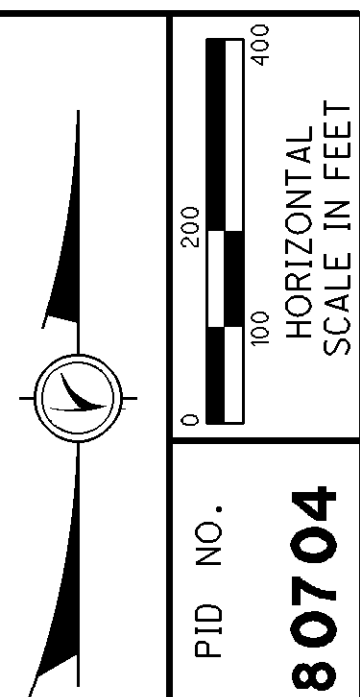
THE PROPOSED RIGHT OF WAY SHALL BE REFERENCED FROM THE CENTERLINE OF RIGHT OF WAY.

PLACEMENT OF ALL MONUMENTS SHALL BE UNDER THE DIRECTION OF A SURVEYOR REGISTERED IN THE STATE OF OHIO. THE CENTERLINE MONUMENT ASSEMBLY BOX(S) AND REFERENCE MONUMENTS WILL BE INSTALLED BY THE HIGHWAY CONTRACTOR AT THE TIME OF CONSTRUCTION.

THE IRON PIN WITH CAP (WHEN REQUIRED) ARE TO BE SET BY THE CONTRACTOR'S SURVEYOR.

CHANGES OR ALTERATIONS TO THE LOCATION OF ANY MONUMENTS SHOWN ON THIS PLAT, REQUIRES PRIOR APPROVAL OF THE DISTRICT REAL ESTATE ADMINISTRATOR OF THE OHIO DEPARTMENT OF TRANSPORTATION. A REVISED CENTERLINE PLAT WITH THE NEW LOCATIONS SHALL BE RECORDED IN THE APPLICABLE COUNTY RECORDS AND THE OHIO DEPARTMENT OF TRANSPORTATION. SPECIFICATIONS FOR CENTERLINE MONUMENTS, REFERENCE MONUMENTS AND RIGHT OF WAY MONUMENTS ARE SHOWN ON STANDARD CONSTRUCTION DRAWING RM-1.1 OF THE OHIO DEPARTMENT OF TRANSPORTATION.

**1ST QTR. T2N,
R13W, USML
3RD QTR., T2N,
R12W, USML
4TH QTR., SECTION 3,
T2N, R13W, USML
VILLAGE OF GRANVILLE
CITY OF NEWARK
LICKING COUNTY**



PID NO. **80704**

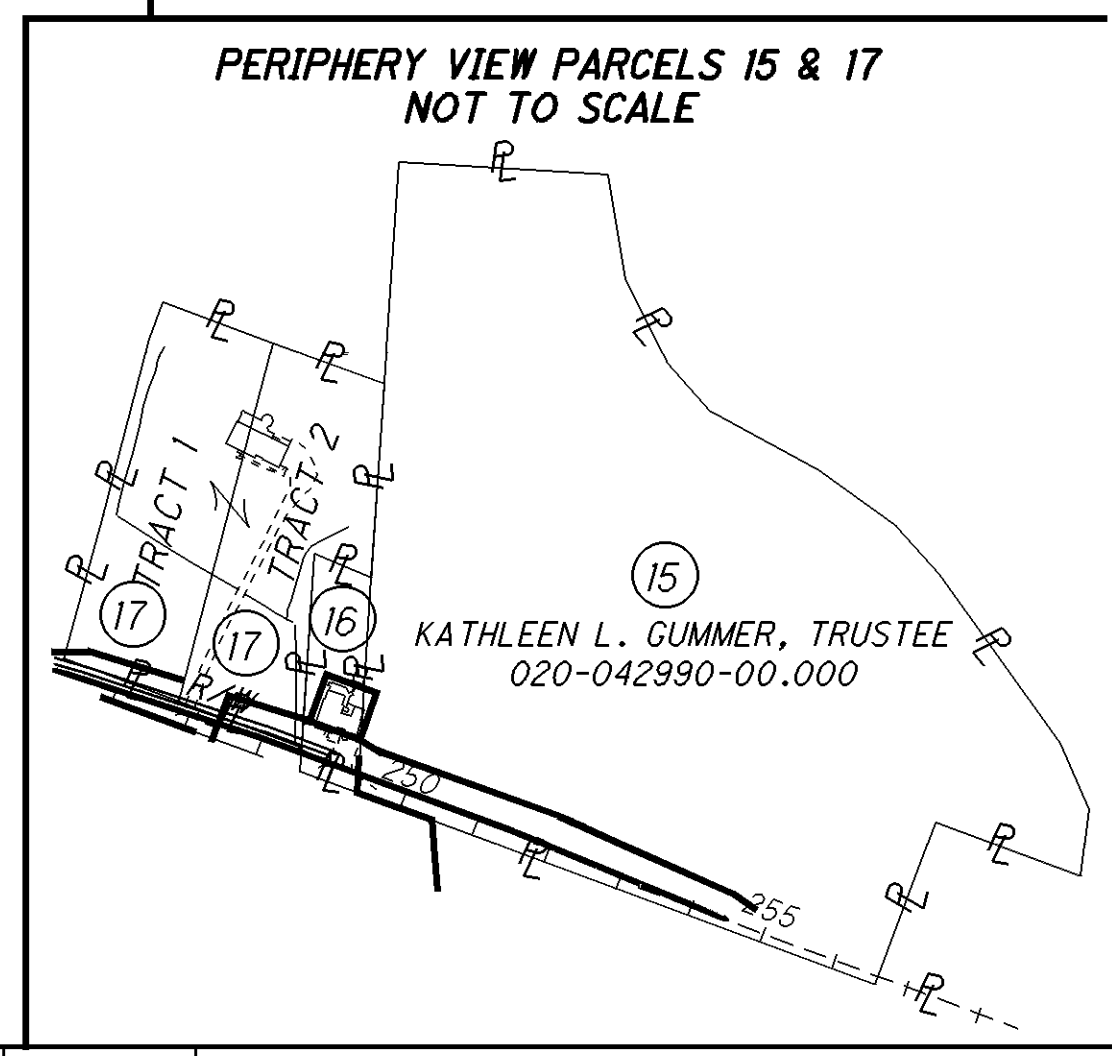
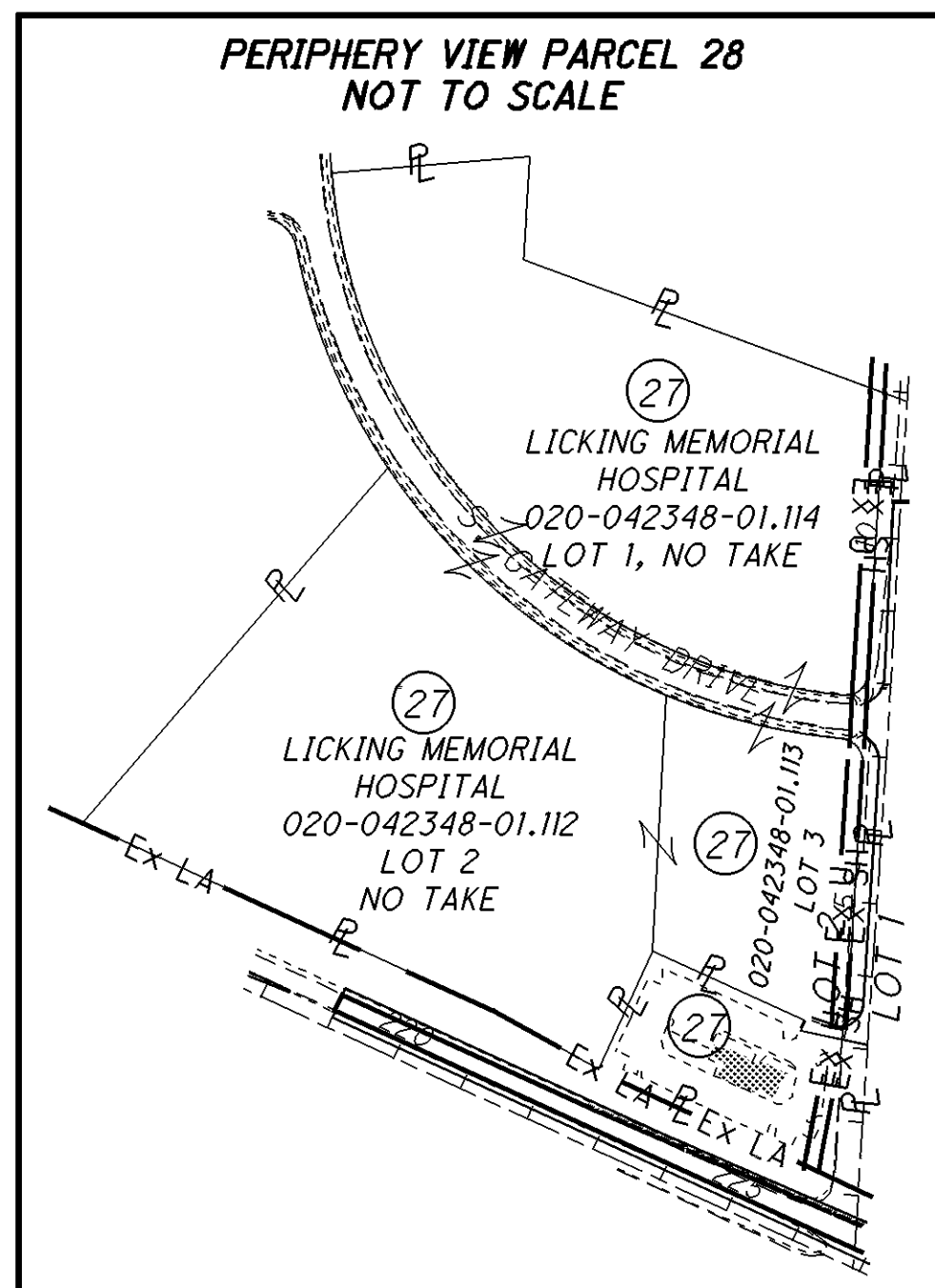
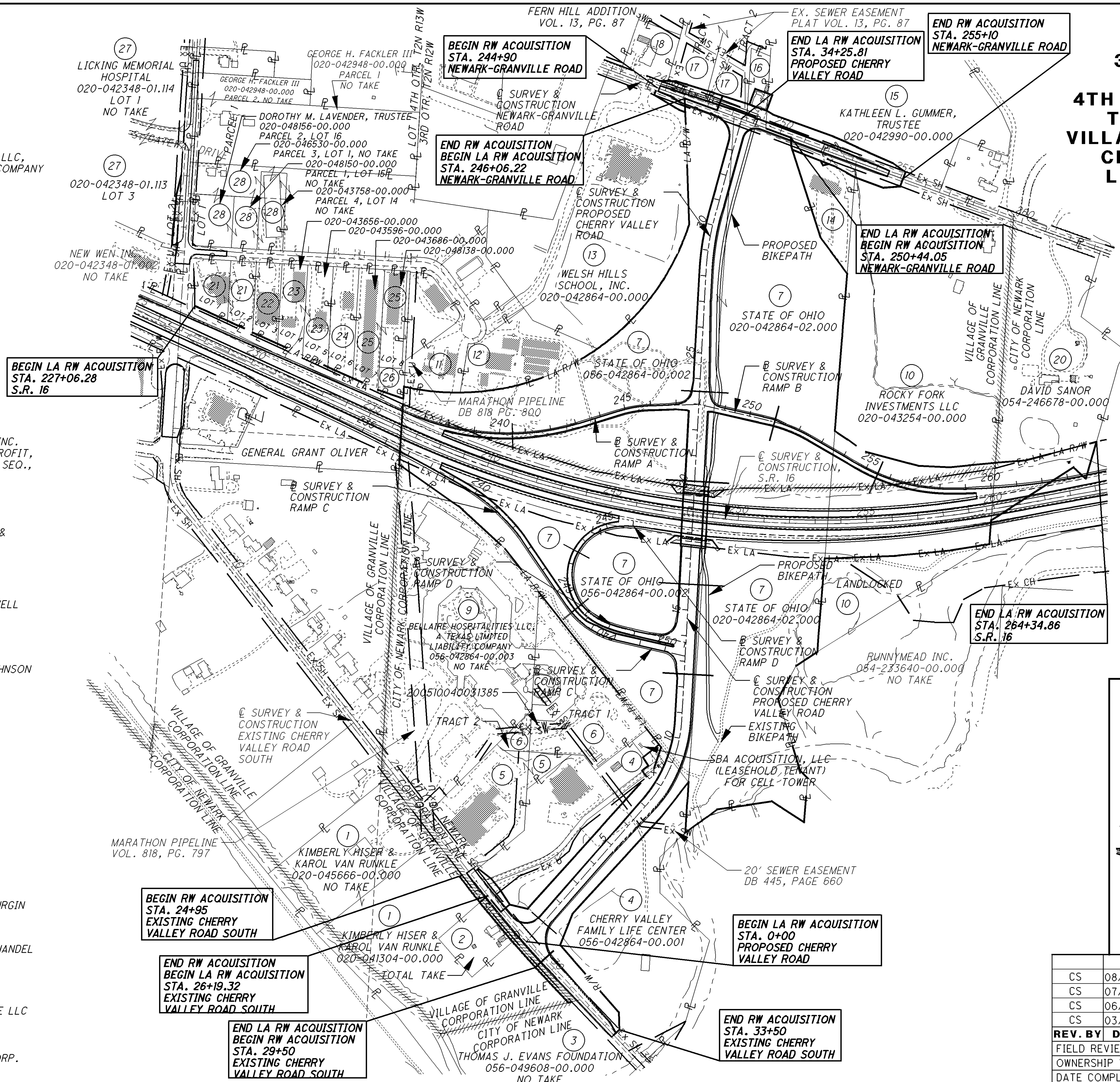
STATE JOB NO.

R/W DESIGNER CS
R/W REVIEWER CP

PROPERTY MAP

LIC-16-16.80

3 / 17
714
729



REV. BY	DATE	DESCRIPTION
CS	08/05/13	REVISED NAME ON PARCEL 9
CS	07/16/13	ADDED 2-E, PARCEL 2 NOW TOTAL TAKE
CS	06/06/13	ADDED 27-T & 28-T
CS	03/28/13	REVISED R & LA ON PARCEL 7
FIELD REVIEW BY: CS & CP		
OWNERSHIP VERIFIED BY: CP		
DATE COMPLETED: 02/11/13		

- 2 TONYA J. BOLDEN
020-043944-00.000
- 5 HOCO, LTD.
056-042864-00.004
- 6 BELLAIRE HOSPITALITIES LLC,
A TEXAS LIMITED LIABILITY COMPANY
056-042864-00.003
NO TAKE
- 8 NOT USED
- 11 MARK WEBSTER
020-042864-03.003
NO TAKE
- 12 THOMAS J. &
TIMOTHY STYPULA
020-042864-03.005
NO TAKE
- 14 NEWARK CONGREGATION
OF JEHOVAH'S WITNESSES INC.,
A CORPORATION, NOT FOR PROFIT,
UNDER SECTIONS 1702.01 ET. SEQ.,
REVISED CODE OF OHIO
020-043950-00.000
- 16 JACALYN M. HAMPSHIRE &
GRANT S. STULLER
020-043824-00.000
- 17 DAVID B. & LISA V. ELWELL
020-041448-00.000
- 18 JEREMY A. & CAROL J. JOHNSON
020-049194-00.000
- 19 NOT USED
- 21 LICKING MEMORIAL
HEALTH FOUNDATION
020-043710-00.000
- 22 RYAN JOINT VENTURE
020-043734-00.000
- 23 SUSAN G. & DAVID A. BURGIN
- 24 ARTHUR T. JR. & JUDITH HANDEL
020-047520-00.000
- 25 WEST TOWN MINI STORAGE LLC
- 26 BARNES ADVERTISING CORP.
020-048138-01.000

P:\LIC\80704\DESIGN\RIGHT_OF_WAY\PLAN_SHEETS\80704_0001_RPM.dgn 08/05/13

TOTAL NUMBER OF :

17 - OWNERSHIPS
27 - PARCELS
1 - TOTAL TAKES

1 - OWNERSHIPS WITH STRUCTURES INVOLVED
2 - OWNERSHIPS WITH "P" ITEMS

NET RESIDUE = RECORD AREA - TOTAL P.R.O. - NET TAKE

ALL AREAS IN ACRES

- Ⓐ RESIDUE OFFSET FROM PROPOSED CHERRY VALLEY ROAD SOUTH
- Ⓑ RESIDUE OFFSET FROM NEWARK GRANVILLE ROAD
- Ⓒ RESIDUE OFFSET FROM PROPOSED CHERRY VALLEY ROAD

GRANTEE:
ALL RIGHT OF WAY ACQUIRED IN THE NAME OF STATE OF OHIO UNLESS OTHERWISE SHOWN.

*DENOTES RIGHT OF WAY ENCROACHMENT

PARCEL NO.	OWNER	SHEET NO.	OWNERS RECORD		AUDITOR'S PARCEL	RECORD AREA(AC.)	TOTAL P.R.O.	GROSS TAKE	P.R.O. IN TAKE	NET TAKE	STRUC-TURE	NET RESIDUE		TYPE FUND	REMARKS AND PERSONALTY	AS ACQUIRED
			BOOK	PAGE								LEFT	RIGHT			INSTRUMENT NUMBER
1-WLV	KIMBERLY HISER & KAROL VAN RUNKLE	6-7	201106300	0012170	020-041304-00.000	12.67	0.507	0.121	0.091	0.030	NO		Ⓐ12.133	STATE	TO BE ACQUIRED IN THE NAME OF THE VILLAGE OF GRANVILLE	201403270005422
1-T1		6-7						0.029	0.000	0.029	NO				LOT 1; FOR GRADING	201404300007664
1-T2		6-7							0.043	0.000	0.043	NO				LOT 1; FOR GRADING
			201106300	0012169	020-045666-00.000	4.269									NO TAKE	
2-WLV	TONYA J. BOLDEN	6-7	201008090	0015258	020-043944-00.000	**1.144	0.134	0.179	0.134	0.045	NO		Ⓐ0.000		TOTAL TAKE; **0.991 ACRE = RECORD AREA; 1.144 ACRE SURVEY AREA	201308140020867
2-E		6-7						0.965	0.000	0.965					*ENCROACHING SIDEWALK TO BE REMOVED; TO BE ACQUIRED IN THE NAME OF THE VILLAGE OF GRANVILLE	201308140020866
3	THOMAS J. EVANS FOUNDATION		607	152	056-049608-00.000	3									NO TAKE	
4-WLV	CHERRY VALLEY FAMILY LIFE CENTER (FEE OWNER)	6-7	39	241	056-042864-00.001	14.985	0.683	3.236	0.178	3.058	NO	Ⓒ4.436	Ⓒ6.358		LOT 1 PT.; TO BE ACQUIRED IN THE NAME OF THE CITY OF NEWARK	APPROPRIATED
4-WDV		6-7						0.725	0.275	0.450	NO				LOT 1 PT.; TO BE ACQUIRED IN THE NAME OF THE CITY OF NEWARK	
4-T1		6-7						0.076	0.000	0.076	NO				TO CONSTRUCT DRIVE	
4-T2		6-7						0.094	0.000	0.094	NO				TO CONSTRUCT DRIVE	
	SBA ACQUISITION, LLC (LEASEHOLD TENANT)														CELL TOWER LEASE	
5	HOCO, LTD.		200405190	0017911	056-042864-00.004	2.986	0.200								NO TAKE	
6	BELLAIRE HOSPITALITIES LLC, A TEXAS LIMITED LIABILITY COMPANY		201104150	007259	056-042864-00.003	3.742	0.000								NO TAKE; TRACT 1	
						0.263	0.000								NO TAKE; TRACT 2	
7-WL	STATE OF OHIO	6-11,14-17	782	386	056-042864-00.002	**30.438	6.340	30.438	6.340	24.098	NO	0.000	0.000		**SURVEYED AREA = 30.48 AC.; RECORD AREA = 35.438 AC.	
				685	360	020-042864-02.000	**25.876	2.899	25.876	2.899	22.977	NO	0.000	0.000		**SURVEYED AREA = 25.876 AC.; RECORD AREA = 20.29 AC.
8	NOT USED															
9	BELLAIRE HOSPITALITIES LLC, A TEXAS LIMITED LIABILITY COMPANY		201104150	007259	056-042864-00.003	12.515									NO TAKE; LOT 1 PT.	
10-WL	ROCKY FORK INVESTMENTS LLC	16-17	201011050	0022592	020-043254-00.000	22.947	4.596	5.379	4.147	1.232	NO	14.507	2.514 (LL)		RIGHT RESIDUE IS LANDLOCKED	201311050027407
10-WDV		10-11							0.229	0.131	0.098	NO				TO BE ACQUIRED IN THE NAME OF THE VILLAGE OF GRANVILLE
11	MARK WEBSTER		170	364	020-042864-03.003	1.02									NO TAKE	
12	THOMAS J. & TIMOTHY STYPULA		226	567	020-042864-03.005	2.18									NO TAKE	

P:\LIC\80704\DESIGN\RIGHT_OF_WAY\PLAN_SHEETS\80704_0001_RSS.DGN 01/21/15

FEDERAL PROJECT NO. 80704
PID NO. 80704
STATE JOB NO.
R.W. DESIGNER C.S.
R.W. REVIEWER C.P.
SUMMARY OF ADDITIONAL RIGHT OF WAY
LIC-16-16.80

NOTE:
ALL TEMPORARY PARCELS TO BE OF 24 MONTHS DURATION.

NOTE:
UNDER NO CIRCUMSTANCES ARE TEMPORARY EASEMENTS ACQUIRED FOR THE PURPOSE OF STRUCTURE REMOVAL TO BE USED FOR STORAGE OF MATERIAL OR EQUIPMENT BY THE CONTRACTOR. UPON COMPLETION OF THE WORK REQUIRED FOR SUCH REMOVAL AND SUBSEQUENT RECLAMATION, THE EASEMENT SHALL BE VACATED IMMEDIATELY.

CS	8/05/13	REVISED NAME ON PARCEL 9
CS	7/16/13	ADDED 2-E; PARCEL 2 IS TOTAL TAKE NOW
CS	3/28/13	REVISED RECORD AREA PARCEL 7
REV BY:	DATE	DESCRIPTION
FIELD REVIEW BY: CS & CP		
OWNERSHIP VERIFIED BY: CP		
DATE COMPLETE: 02/11/13		

4 / 17
715
729

NET RESIDUE = RECORD AREA - TOTAL P.R.O. - NET TAKE

ALL AREAS IN ACRES

- (A) RESIDUE OFFSET FROM PROPOSED CHERRY VALLEY ROAD SOUTH
- (B) RESIDUE OFFSET FROM NEWARK GRANVILLE ROAD
- (C) RESIDUE OFFSET FROM PROPOSED CHERRY VALLEY ROAD

GRANTEE:
ALL RIGHT OF WAY ACQUIRED IN THE NAME OF STATE OF OHIO UNLESS OTHERWISE SHOWN.

*DENOTES RIGHT OF WAY ENCROACHMENT

PARCEL NO.	OWNER	SHEET NO.	OWNERS RECORD		AUDITOR'S PARCEL	RECORD AREA(AC.)	TOTAL P.R.O.	GROSS TAKE	P.R.O. IN TAKE	NET TAKE	STRUC-TURE	NET RESIDUE		TYPE FUND	REMARKS AND PERSONALTY	AS ACQUIRED		
			BOOK	PAGE								LEFT	RIGHT			INSTRUMENT NUMBER		
13-WDV	WELSH HILLS SCHOOL, INC.	10-11	464	494	020-042864-00.000	11.44	0.222	0.120	0.084	0.036	NO		(B)11.182	STATE	TO BE ACQUIRED IN THE NAME OF THE VILLAGE OF GRANVILLE	201406040010052		
14-WDV	NEWARK CONGREGATION OF JEHOVAH'S WITNESS INC. A CORPORATION, NOT FOR PROFIT, UNDER SECTIONS 1702.01 ET. SEQ. REVISED CODE OF OHIO	10-11	60	295	020-043950-00.000	1.61	0.185	0.280	0.185	0.095	YES		(B)1.330		TO BE ACQUIRED IN THE NAME OF THE VILLAGE OF GRANVILLE; (2) ELECTRIC DRIVEWAY LIGHTS TO BE REMOVED	201407150013216		
14-T		10-11						0.006	0.000	0.006	NO				TO CONSTRUCT DRIVE	201407150013217		
15-WDV	KATHLEEN L. GUMMER, TRUSTEE	10-11	800	116	020-042990-00.000	13.41	0.499	0.736	0.395	0.341	NO		(B)12.57		TO BE ACQUIRED IN THE NAME OF THE VILLAGE OF GRANVILLE	201406040010050		
15-T		10-11						0.013	0.000	0.013	NO				TO REMOVE STRUCTURE FOR PARCEL 16	201406040010051		
16-WLV	JACALYN M. HAMPSHIRE & GRANT S. STULLER	10-11	20060317	0007585	020-043824-00.000	0.50	0.055	0.118	0.055	0.063	NO		(B)0.382		TO BE ACQUIRED IN THE NAME OF THE VILLAGE OF GRANVILLE	201311050027409		
16-T		10-11						0.092	0.000	0.092	YES				TO REMOVE STRUCTURE	201311050027406		
17-WLV	DAVID B. & LISA V. ELWELL	10-11	350	276	020-041448-00.000	LOT 10743	0.000	0.080	0.000	0.080	NO				TRACT 1, FERN HILL ADDITION VOL. 13, PG. 87; TO BE ACQUIRED IN THE NAME OF THE VILLAGE OF GRANVILLE	201403200004869		
17-WDV		10-11				LOT 10743	0.000	0.082	0.000	0.082	NO				TRACT 1, FERN HILL ADDITION VOL. 13, PG. 87; TO BE ACQUIRED IN THE NAME OF THE VILLAGE OF GRANVILLE	201403200004870		
							LOT 10744	0.000	0.039	0.000	0.039	NO			TRACT 2, FERN HILL ADDITION VOL. 13, PG. 87; TO BE ACQUIRED IN THE NAME OF THE VILLAGE OF GRANVILLE			
18-WDV	JEREMY A. & CARA J. JOHNSON	10-11	20060202	20003348	020-049194-00.000	1.80	0.129	0.026	0.022	0.004	NO		1.667		LOT 10745, FERN HILL ADDITION VOL. 13, PG. 87; TO BE ACQUIRED IN THE NAME OF THE VILLAGE OF GRANVILLE	201406250011599		
19	NOT USED																	
20-WL	DAVID A. & SHARON A. SANOR	16-17	723	509	054-246678-00.000	7.43	1.148	1.176	1.148	0.028	NO		6.254			201409160017997		
21-WL	LICKING COUNTY MEMORIAL HEALTH FOUNDATION	12-15	20120426	00009161	020-043710-00.000	LOT 1	0.000	0.032	0.000	0.032	NO				WESTGATE CENTER SUBDIVISION PB 8, PG. 202-204	201404300007661		
					020-043710-00.000	LOT 2	0.000	0.025	0.000	0.025	NO			WESTGATE CENTER SUBDIVISION PB 8, PG. 202-204				
22-WL	RYAN JOINT VENTURE	12-15	715	283	020-043734-00.000	LOT 3	0.000	0.025	0.000	0.025	NO				WESTGATE CENTER SUBDIVISION PB 8, PG. 202-204	201406040010056		
23-WL	SUSAN G. & DAVID A. BURGIN	12-15	20051103	00035067	020-043656-00.000	LOT 4	0.000	0.025	0.000	0.025	S (I)				WESTGATE CENTER SUBDIVISION PB 8, PG. 202-204; ANIMAL CLINIC SIGN TO BE REMOVED	APPROPRIATED		
			OR 583	313	020-043596-00.000	LOT 5	0.000	0.025	0.000	0.025	NO				WESTGATE CENTER SUBDIVISION PB 8, PG. 202-204			
24-WL	ARTHUR T. JR. & JUDITH HANDEL	12-15	20050202	20003244	020-047520-00.000	LOT 6	0.000	0.025	0.000	0.025	NO				WESTGATE CENTER SUBDIVISION PB 8, PG. 202-204	201408260016318		
25-WL	WEST TOWN MINI STORAGE LLC	12-15	20040209	00004511	020-043686-00.000	LOT 7	0.000	0.025	0.000	0.025	NO				WESTGATE CENTER SUBDIVISION PB 8, PG. 202-204	201406160010774		
					020-048138-00.000	LOT 8 PT.			NO								NO TAKE; WESTGATE CENTER SUBDIVISION PB 8, PG. 202-204	
26-WL	BARNES ADVERTISING CORP.	12-15	713	314	020-048138-01.000	LOT 8 PT.	0.000	0.037	0.000	0.037	NO				WESTGATE CENTER SUBDIVISION PB 8, PG. 202-204	201407150013215		
27-T	LICKING MEMORIAL HOSPITAL	12-13	20020403	0012712	020-042348-01.113	2.313		0.086	0.000	0.086	NO				FOR PAVEMENT REMOVAL: LOT 3 ERINWOOD COMMERCIAL SUBDIVISION PB 15, PG. 173	201404300007662		
					020-042348-01.114	7.066											NO TAKE; LOT 1 ERINWOOD COMMERCIAL SUBDIVISION PB 15, PG. 173	
					020-042348-01.112	7.976												NO TAKE; LOT 2 ERINWOOD COMMERCIAL SUBDIVISION PB 15, PG. 173
28-T	DOROTHY M. LAVENDER, TRUSTEE OF THE DOROTHY M. LAVENDER TRUST DATED JUNE 30, 2010	12-13	20100730	0014609	020-048156-00.000	2.313		0.001	0.000	0.001	NO				FOR PAVEMENT REMOVAL: PARCEL 2; LOT 16 WESTGATE CENTER SUBDIVISION VOL. 8, PG. 202	201404300007663		
					020-046530-00.000	2.21											NO TAKE; PARCEL 3; LOT 1, WESTGATE CENTER SUBDIVISION VOL. 8, PG. 202	
					020-048150-00.000	LOT 15												NO TAKE; PARCEL 1; WESTGATE CENTER SUBDIVISION VOL. 8, PG. 202
					020-043758-00.000	0.692												NO TAKE; PARCEL 4; LOT 14, WESTGATE CENTER SUBDIVISION VOL. 8, PG. 202

NOTE:
ALL TEMPORARY PARCELS TO BE OF 24 MONTHS DURATION.

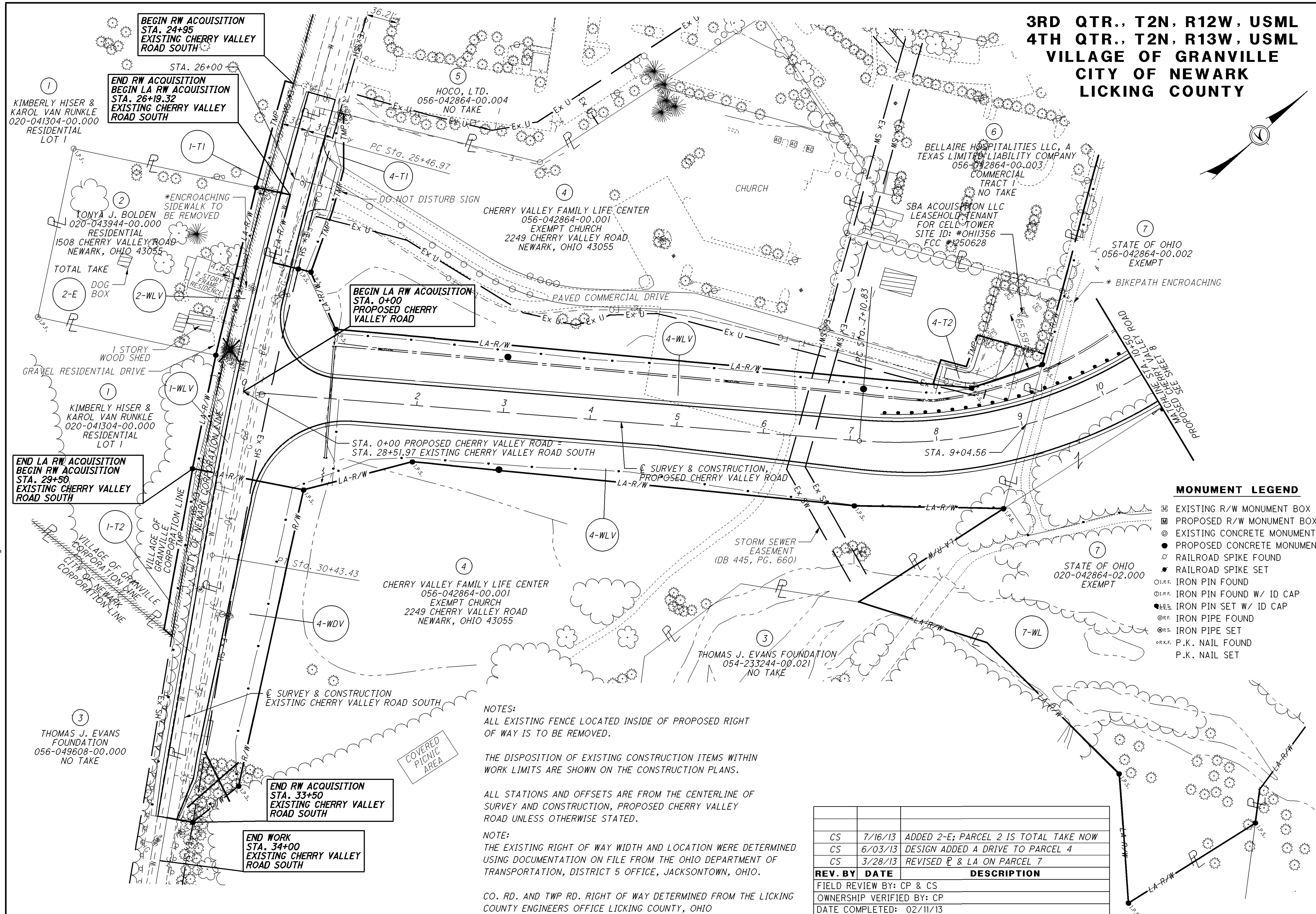
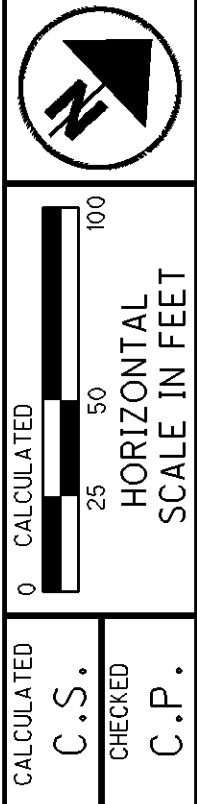
NOTE:
UNDER NO CIRCUMSTANCES ARE TEMPORARY EASEMENTS ACQUIRED FOR THE PURPOSE OF STRUCTURE REMOVAL TO BE USED FOR STORAGE OF MATERIAL OR EQUIPMENT BY THE CONTRACTOR. UPON COMPLETION OF THE WORK REQUIRED FOR SUCH REMOVAL AND SUBSEQUENT RECLAMATION, THE EASEMENT SHALL BE VACATED IMMEDIATELY.

CS	6/06/13	ADDED PARCELS 27-T & 28-T
REV BY:	DATE	DESCRIPTION
FIELD REVIEW BY:	CS & CP	
OWNERSHIP VERIFIED BY:	CP	
DATE COMPLETE:	02/11/13	

FEDERAL PROJECT NO. 80704
 PID NO. 80704
 STATE JOB NO.
 R.W. DESIGNER C.S.
 R.W. REVIEWER C.P.
SUMMARY OF ADDITIONAL RIGHT OF WAY
 LIC-16-16.80
 5 / 17
 716
 729

P:\LIC\80704\DESIGN\RIGHT_OF_WAY\PLAN_SHEETS\80704_0002_RSS.DGN 01/21/15

3RD QTR., T2N, R12W, USML
 4TH QTR., T2N, R13W, USML
 VILLAGE OF GRANVILLE
 CITY OF NEWARK
 LICKING COUNTY



MONUMENT LEGEND

- ▣ EXISTING R/W MONUMENT BOX
- ▣ PROPOSED R/W MONUMENT BOX
- ⊙ EXISTING CONCRETE MONUMENT
- PROPOSED CONCRETE MONUMENT
- ⊙ RAILROAD SPIKE FOUND
- ⊙ RAILROAD SPIKE SET
- ⊙ I.P.F. IRON PIN FOUND
- ⊙ I.P.F. IRON PIN FOUND W/ ID CAP
- ⊙ I.P.S. IRON PIN SET W/ ID CAP
- ⊙ I.P.F. IRON PIPE FOUND
- ⊙ I.P.S. IRON PIPE SET
- ⊙ P.K. NAIL FOUND
- ⊙ P.K. NAIL SET

NOTES:
 ALL EXISTING FENCE LOCATED INSIDE OF PROPOSED RIGHT OF WAY IS TO BE REMOVED.

THE DISPOSITION OF EXISTING CONSTRUCTION ITEMS WITHIN WORK LIMITS ARE SHOWN ON THE CONSTRUCTION PLANS.

ALL STATIONS AND OFFSETS ARE FROM THE CENTERLINE OF SURVEY AND CONSTRUCTION, PROPOSED CHERRY VALLEY ROAD UNLESS OTHERWISE STATED.

NOTE:
 THE EXISTING RIGHT OF WAY WIDTH AND LOCATION WERE DETERMINED USING DOCUMENTATION ON FILE FROM THE OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5 OFFICE, JACKSONTOWN, OHIO.

CO. RD. AND TWP RD. RIGHT OF WAY DETERMINED FROM THE LICKING COUNTY ENGINEERS OFFICE LICKING COUNTY, OHIO

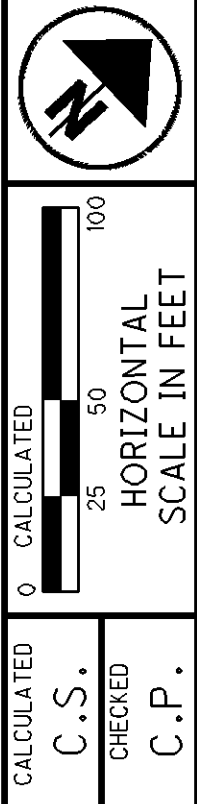
REV. BY	DATE	DESCRIPTION
CS	7/16/13	ADDED 2-E; PARCEL 2 IS TOTAL TAKE NOW
CS	6/03/13	DESIGN ADDED A DRIVE TO PARCEL 4
CS	3/28/13	REVISED R & LA ON PARCEL 7
FIELD REVIEW BY: CP & CS		
OWNERSHIP VERIFIED BY: CP		
DATE COMPLETED: 02/11/13		

P:\LIC\80704\DESIGN\RIGHT_OF_WAY\PLAN_SHEETS\80704_0001_RDS.dgn 07/16/13

RIGHT OF WAY TOPO SHEET
 STA. 0+00 TO STA. 10+50
 PROPOSED CHERRY VALLEY ROAD

LIC-16-16.80

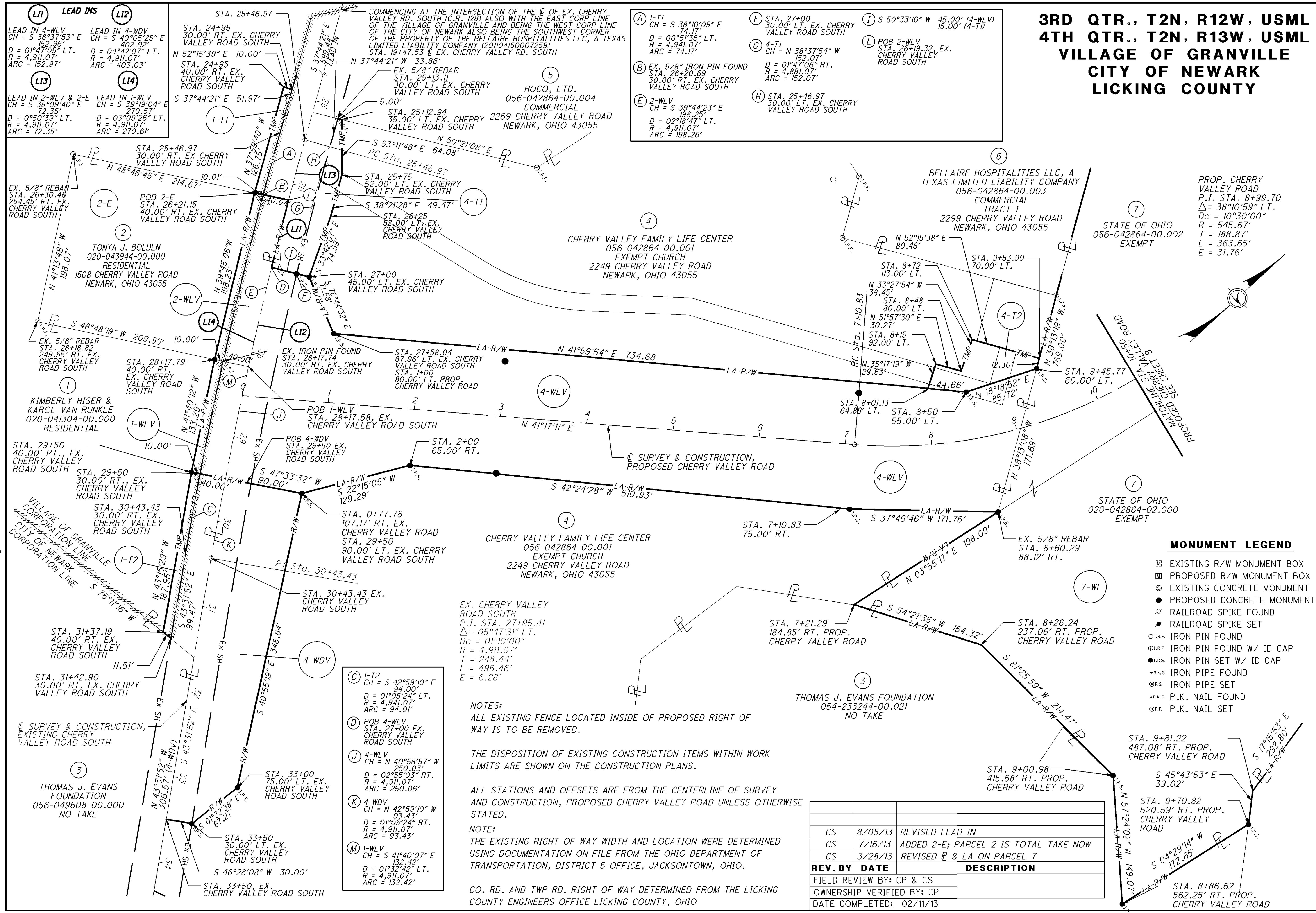
**3RD QTR., T2N, R12W, USML
4TH QTR., T2N, R13W, USML
VILLAGE OF GRANVILLE
CITY OF NEWARK
LICKING COUNTY**



**RIGHT OF WAY BOUNDARY SHEET
STA. 0+00 TO STA. 10+50
PROPOSED CHERRY VALLEY ROAD**

LIC-16-16.80

7 / 17
718
729



- (A) I-T1
CH = S 38°10'09" E
74.17'
D = 00°51'36" LT.
R = 4,941.07'
ARC = 74.17'
- (B) EX. 5/8" IRON PIN FOUND
STA. 26+20.69
30.00' RT. EX. CHERRY
VALLEY ROAD SOUTH
- (C) EX. 5/8" REBAR
STA. 25+13.11
30.00' LT. EX. CHERRY
VALLEY ROAD SOUTH
- (D) 2-WLV
CH = S 39°44'23" E
198.25'
D = 02°18'47" LT.
R = 4,911.07'
ARC = 198.26'
- (E) STA. 27+00
45.00' LT. EX. CHERRY
VALLEY ROAD SOUTH
- (F) STA. 27+00
30.00' LT. EX. CHERRY
VALLEY ROAD SOUTH
- (G) 4-T1
CH = N 38°37'54" W
152.07'
D = 01°47'06" RT.
R = 4,881.07'
ARC = 152.07'
- (H) STA. 25+46.97
30.00' LT. EX. CHERRY
VALLEY ROAD SOUTH
- (I) S 50°33'10" W 45.00' (4-WLV)
15.00' (4-T1)
- (J) POB 2-WLV
STA. 26+19.32, EX.
CHERRY VALLEY
ROAD SOUTH

- (C) I-T2
CH = S 42°59'10" E
94.00'
D = 01°05'24" LT.
R = 4,941.07'
ARC = 94.01'
- (D) POB 4-WLV
STA. 27+00 EX.
CHERRY VALLEY
ROAD SOUTH
- (J) 4-WLV
CH = N 40°58'57" W
250.03'
D = 02°55'03" RT.
R = 4,911.07'
ARC = 250.06'
- (K) 4-WDV
CH = N 42°59'10" W
93.43'
D = 01°05'24" RT.
R = 4,911.07'
ARC = 93.43'
- (M) I-WLV
CH = S 41°40'07" E
132.42'
D = 01°32'42" LT.
R = 4,911.07'
ARC = 132.42'

NOTES:
ALL EXISTING FENCE LOCATED INSIDE OF PROPOSED RIGHT OF WAY IS TO BE REMOVED.

THE DISPOSITION OF EXISTING CONSTRUCTION ITEMS WITHIN WORK LIMITS ARE SHOWN ON THE CONSTRUCTION PLANS.

ALL STATIONS AND OFFSETS ARE FROM THE CENTERLINE OF SURVEY AND CONSTRUCTION, PROPOSED CHERRY VALLEY ROAD UNLESS OTHERWISE STATED.

NOTE:
THE EXISTING RIGHT OF WAY WIDTH AND LOCATION WERE DETERMINED USING DOCUMENTATION ON FILE FROM THE OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5 OFFICE, JACKSONTOWN, OHIO.

CO. RD. AND TWP RD. RIGHT OF WAY DETERMINED FROM THE LICKING COUNTY ENGINEERS OFFICE LICKING COUNTY, OHIO

- MONUMENT LEGEND**
- ▣ EXISTING R/W MONUMENT BOX
 - ▣ PROPOSED R/W MONUMENT BOX
 - EXISTING CONCRETE MONUMENT
 - PROPOSED CONCRETE MONUMENT
 - RAILROAD SPIKE FOUND
 - RAILROAD SPIKE SET
 - I.P.F. IRON PIN FOUND
 - I.P.F. IRON PIN FOUND W/ ID CAP
 - I.P.S. IRON PIN SET W/ ID CAP
 - R.P.S. IRON PIPE FOUND
 - R.P.S. IRON PIPE SET
 - P.K. NAIL FOUND
 - P.K. NAIL SET

REV. BY	DATE	DESCRIPTION
CS	8/05/13	REVISED LEAD IN
CS	7/16/13	ADDED 2-E; PARCEL 2 IS TOTAL TAKE NOW
CS	3/28/13	REVISED R & LA ON PARCEL 7
FIELD REVIEW BY: CP & CS		
OWNERSHIP VERIFIED BY: CP		
DATE COMPLETED: 02/11/13		

P:\LIC\80704\DESIGN\RIGHT_OF_WAY\PLAN_SHEETS\80704_001D.RDS.dgn 08/05/13

**3RD QTR., T2N, R12W, USML
VILLAGE OF GRANVILLE
CITY OF NEWARK
LICKING COUNTY**

⑥
BELLAIRE HOSPITALITIES LLC, A
TEXAS LIMITED LIABILITY COMPANY
056-042864-00.003
COMMERCIAL
TRACT 1
2299 CHERRY VALLEY ROAD
NEWARK, OHIO 43055
NO TAKE

CHERRY VALLEY
LODGE

PAVED COMMERCIAL DRIVE

* ENCROACHING
BIKEPATH TO
BE REMOVED

MATCHLINE
STA. 245+00
SEE SHEET 14

MATCHLINE STA. 243+00
S.R. 16
SEE SHEET 14

MATCHLINE STA. 243+00
RAMP A
SEE SHEET 14

* ENCROACHING
BIKEPATH TO
BE REMOVED

B SURVEY &
CONSTRUCTION,
RAMP C

⑦
STATE OF OHIO
056-042864-00.002
EXEMPT

STA. 18+66.78 PROP. CHERRY VALLEY RD.
= STA. 248+22.30 S.R. 16

STA. 13+72.25 PROP. CHERRY VALLEY RD.
= STA. 236+96.65 RAMP D

ST Sta. 246+80.84

STA. 23+00 PROP. CHERRY VALLEY RD.
= STA. 247+87.98 RAMP A
= STA. 247+97.68 RAMP B

⑦
STATE OF OHIO
056-042864-00.002
EXEMPT

PT Sta. 10+74.40
STA. 13+49.44 PROP. CHERRY VALLEY RD.
= STA. 250+82.55 RAMP C

C SURVEY & CONSTRUCTION,
PROPOSED CHERRY VALLEY ROAD

C SURVEY & CONSTRUCTION,
PROPOSED BIKEPATH

⑦
STATE OF OHIO
020-042864-02.000
EXEMPT

C SURVEY & CONSTRUCTION,
S.R. 16

EXISTING BIKEPATH

MATCHLINE STA. 251+00
S.R. 16
SEE SHEET 16

STA. 248+74.65 RAMP B =
STA. 11+62.25 BIKEPATH

⑦
STATE OF OHIO
020-042864-02.000
EXEMPT

B SURVEY & CONSTRUCTION,
RAMP B

PC Sta. 250+81.38
MATCHLINE STA. 251+00
RAMP B
SEE SHEET 16

MONUMENT LEGEND

- ▭ EXISTING R/W MONUMENT BOX
- ▭ PROPOSED R/W MONUMENT BOX
- EXISTING CONCRETE MONUMENT
- PROPOSED CONCRETE MONUMENT
- ⚡ RAILROAD SPIKE FOUND
- ⚡ RAILROAD SPIKE SET
- I.P.F. IRON PIN FOUND
- I.P.F. IRON PIN FOUND W/ ID CAP
- I.P.S. IRON PIN SET W/ ID CAP
- I.P.F. IRON PIPE FOUND
- I.P.S. IRON PIPE SET
- P.K.F. P.K. NAIL FOUND
- P.K.S. P.K. NAIL SET

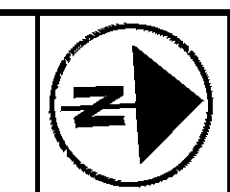
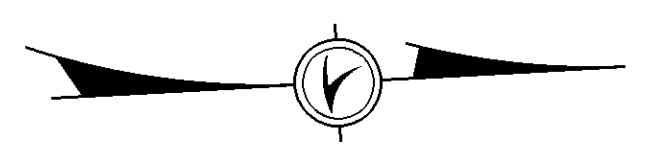
NOTES:
ALL EXISTING FENCE LOCATED INSIDE OF PROPOSED
RIGHT OF WAY IS TO BE REMOVED.

THE DISPOSITION OF EXISTING CONSTRUCTION ITEMS
WITHIN WORK LIMITS ARE SHOWN ON THE CONSTRUCTION
PLANS.

ALL STATIONS AND OFFSETS ARE FROM THE CENTERLINE
OF SURVEY AND CONSTRUCTION, PROPOSED CHERRY VALLEY
ROAD UNLESS OTHERWISE STATED.

NOTE:
THE EXISTING RIGHT OF WAY WIDTH AND LOCATION WERE DETERMINED
USING DOCUMENTATION ON FILE FROM THE OHIO DEPARTMENT OF
TRANSPORTATION, DISTRICT 5 OFFICE, JACKSONTOWN, OHIO.

CO. RD. AND TWP RD. RIGHT OF WAY DETERMINED FROM THE LICKING
COUNTY ENGINEERS OFFICE LICKING COUNTY, OHIO



0 CALCULATED
25 50 100
SCALE IN FEET
C.S. CHECKED
C.P.

RIGHT OF WAY TOPO SHEET
STA. 10+50 TO STA. 23+50
PROPOSED CHERRY VALLEY ROAD

LIC-16-16.80

8 / 17

719
729

REV. BY	DATE	DESCRIPTION
FIELD REVIEW BY: CP & CS		
OWNERSHIP VERIFIED BY: CP		
DATE COMPLETED: 02/11/13		

P:\LIC\80704\DESIGN\RIGHT_OF_WAY\PLAN_SHEETS\80704_0002_RDS.dgn 01/07/12

**3RD QTR., T2N, R12W, USML
VILLAGE OF GRANVILLE
CITY OF NEWARK
LICKING COUNTY**

6
BELLAIRES HOSPITALITIES LLC, A
TEXAS LIMITED LIABILITY COMPANY
056-042864-00.003
COMMERCIAL
TRACT 1
2299 CHERRY VALLEY ROAD
NEWARK, OHIO 43055
NO TAKE

RAMP C
P.I. STA. 246+95.64
 $\Delta = 42^{\circ}35'51''$ LT.
Dc = 18'00'00"
R = 318.31'
T = 124.10'
L = 236.65'
E = 23.33'

RAMP D
P.I. STA. 243+97.85
 $\Delta = 114^{\circ}46'42''$
Dc = 30'23'48"
R = 188.49'
Ls = 200.00'
p = 8.75'
 $\Delta s = 30^{\circ}23'48''$
Ts = 135.35'
T = 294.62'
L = 377.60'
E = 161.26'

S.R. 16
P.I. STA. 248+57.26
 $\Delta = 34^{\circ}29'33''$ LT.
Dc = 01'28'05"
R = 3,902.78'
T = 1,211.56'
L = 2,349.50'
E = 183.73'

RAMP A
P.I. STA. 245+40.04
 $\Delta = 15^{\circ}00'00''$ RT.
Dc = 12'00'00"
R = 477.46'
T = 62.86'
L = 125.00'
E = 4.12'

MATCHLINE STA. 10+50
PROPOSED CHERRY VALLEY ROAD
SEE SHEET 7

STA. 23+50
PROPOSED CHERRY VALLEY ROAD
SEE SHEET 11

MONUMENT LEGEND

- ☐ EXISTING R/W MONUMENT BOX
- ▣ PROPOSED R/W MONUMENT BOX
- EXISTING CONCRETE MONUMENT
- PROPOSED CONCRETE MONUMENT
- ⚡ RAILROAD SPIKE FOUND
- ⚡ RAILROAD SPIKE SET
- I.P.F. IRON PIN FOUND
- I.P.F. IRON PIN FOUND W/ ID CAP
- I.P.S. IRON PIN SET W/ ID CAP
- I.P.F. IRON PIPE FOUND
- I.P.S. IRON PIPE SET
- P.K.F. P.K. NAIL FOUND
- P.K.S. P.K. NAIL SET

NOTES:
ALL EXISTING FENCE LOCATED INSIDE OF PROPOSED
RIGHT OF WAY IS TO BE REMOVED.

THE DISPOSITION OF EXISTING CONSTRUCTION ITEMS
WITHIN WORK LIMITS ARE SHOWN ON THE CONSTRUCTION
PLANS.

ALL STATIONS AND OFFSETS ARE FROM THE CENTERLINE
OF SURVEY AND CONSTRUCTION, PROPOSED CHERRY VALLEY
ROAD UNLESS OTHERWISE STATED.

NOTE:
THE EXISTING RIGHT OF WAY WIDTH AND LOCATION WERE DETERMINED
USING DOCUMENTATION ON FILE FROM THE OHIO DEPARTMENT OF
TRANSPORTATION, DISTRICT 5 OFFICE, JACKSONTOWN, OHIO.

CO. RD. AND TWP RD. RIGHT OF WAY DETERMINED FROM THE LICKING
COUNTY ENGINEERS OFFICE LICKING COUNTY, OHIO

REV. BY	DATE	DESCRIPTION
FIELD REVIEW BY: CP & CS		
OWNERSHIP VERIFIED BY: CP		
DATE COMPLETED: 02/11/13		

RIGHT OF WAY BOUNDARY SHEET
STA. 10+50 TO STA. 23+50
PROPOSED CHERRY VALLEY ROAD

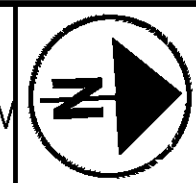
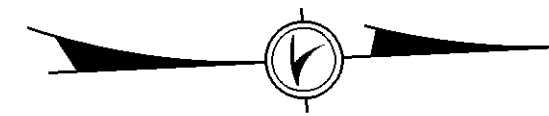
LIC-16-16.80

9 / 17

720
729

P:\LIC\80704\DESIGN\RIGHT_OF_WAY\PLAN_SHEETS\80704_002D_RDS.dgn 01/07/12

**4TH QTR., SECTION 3,
T2N, R12W, USML
VILLAGE OF GRANVILLE
LICKING COUNTY**



0 CALCULATED
C.S. CHECKED
C.P.

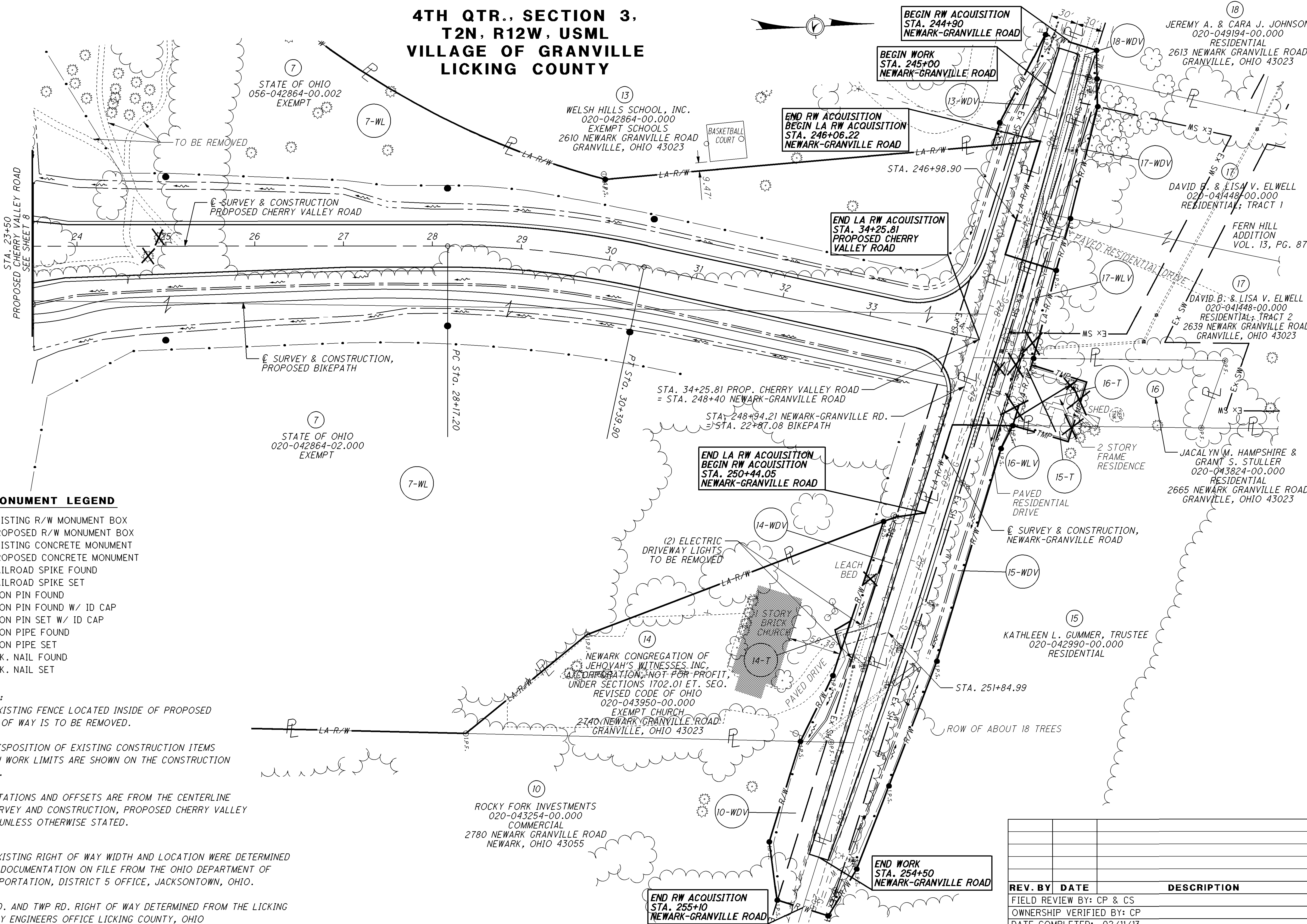
SCALE IN FEET
0 25 50 100
HORIZONTAL

**RIGHT OF WAY TOPO SHEET
STA. 23+50 TO STA. 34+25.81
PROPOSED CHERRY VALLEY ROAD**

LIC-16-16.80

10 / 17

721
729



MONUMENT LEGEND

- ▭ EXISTING R/W MONUMENT BOX
- ▭ PROPOSED R/W MONUMENT BOX
- ⊙ EXISTING CONCRETE MONUMENT
- PROPOSED CONCRETE MONUMENT
- ⚡ RAILROAD SPIKE FOUND
- RAILROAD SPIKE SET
- I.P.F. IRON PIN FOUND
- I.P.F. IRON PIN FOUND W/ ID CAP
- I.P.S. IRON PIN SET W/ ID CAP
- ⊙ I.P.F. IRON PIPE FOUND
- ⊙ I.P.S. IRON PIPE SET
- P.K.F. P.K. NAIL FOUND
- P.K.S. P.K. NAIL SET

NOTES:
ALL EXISTING FENCE LOCATED INSIDE OF PROPOSED RIGHT OF WAY IS TO BE REMOVED.

THE DISPOSITION OF EXISTING CONSTRUCTION ITEMS WITHIN WORK LIMITS ARE SHOWN ON THE CONSTRUCTION PLANS.

ALL STATIONS AND OFFSETS ARE FROM THE CENTERLINE OF SURVEY AND CONSTRUCTION, PROPOSED CHERRY VALLEY ROAD UNLESS OTHERWISE STATED.

NOTE:
THE EXISTING RIGHT OF WAY WIDTH AND LOCATION WERE DETERMINED USING DOCUMENTATION ON FILE FROM THE OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5 OFFICE, JACKSONTOWN, OHIO.

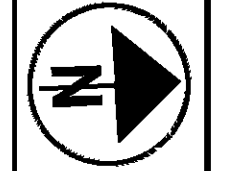
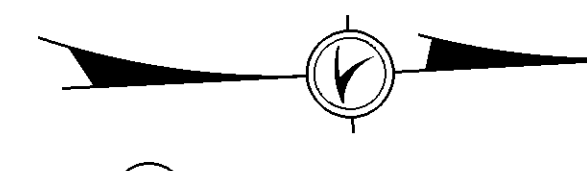
CO. RD. AND TWP RD. RIGHT OF WAY DETERMINED FROM THE LICKING COUNTY ENGINEERS OFFICE LICKING COUNTY, OHIO

REV. BY	DATE	DESCRIPTION

FIELD REVIEW BY: CP & CS
OWNERSHIP VERIFIED BY: CP
DATE COMPLETED: 02/11/13

P:\LIC\80704\DESIGN\RIGHT_OF_WAY\PLAN_SHEETS\80704_0003_RDS.dgn 06/06/13

**4TH QTR., SECTION 3,
T2N, R12W, USML
VILLAGE OF GRANVILLE
LICKING COUNTY**



0 CALCULATED
C.S.
CHECKED
C.P.

SCALE IN FEET
0 25 50 100
HORIZONTAL

RIGHT OF WAY BOUNDARY SHEET
STA. 23+50 TO STA. 34+25.81
PROPOSED CHERRY VALLEY ROAD

LIC-16-16.80

11 / 17

722
729

STA. 23+50
PROPOSED CHERRY VALLEY ROAD
SEE SHEET 9

7
STATE OF OHIO
056-042864-00.002
EXEMPT

CH = N 60°23'24" E
1,274.38'
D = 84°50'15" LT.
Dc = 06°03'56"
R = 944.62'
ARC = 1,398.69'

7
STATE OF OHIO
020-042864-02.000
EXEMPT

STA. 29+81.43
88.82' LT. PROP.
CHERRY VALLEY ROAD

PROP. CHERRY VALLEY RD.
P.I. STA. 29+28.98
Δ = 12°14'55" RT.
Dc = 05°30'00"
R = 1,041.74'
T = 111.78'
L = 222.70'
E = 5.98'

LEAD INS
N 69°38'53" W
708.99' (13-WDV)
374.57' (16-WDV)
453.78' (17-WDV)
791.32' (18-WDV)

MONUMENT LEGEND

- ▣ EXISTING R/W MONUMENT BOX
- ▣ PROPOSED R/W MONUMENT BOX
- ⊙ EXISTING CONCRETE MONUMENT
- PROPOSED CONCRETE MONUMENT
- ⊙ RAILROAD SPIKE FOUND
- ⊙ RAILROAD SPIKE SET
- I.R.F. IRON PIN FOUND
- I.R.F. IRON PIN FOUND W/ ID CAP
- I.R.S. IRON PIN SET W/ ID CAP
- ⊙ I.R.F. IRON PIPE FOUND
- ⊙ I.R.S. IRON PIPE SET
- ⊙ R.K.F. P.K. NAIL FOUND
- ⊙ R.K.S. P.K. NAIL SET

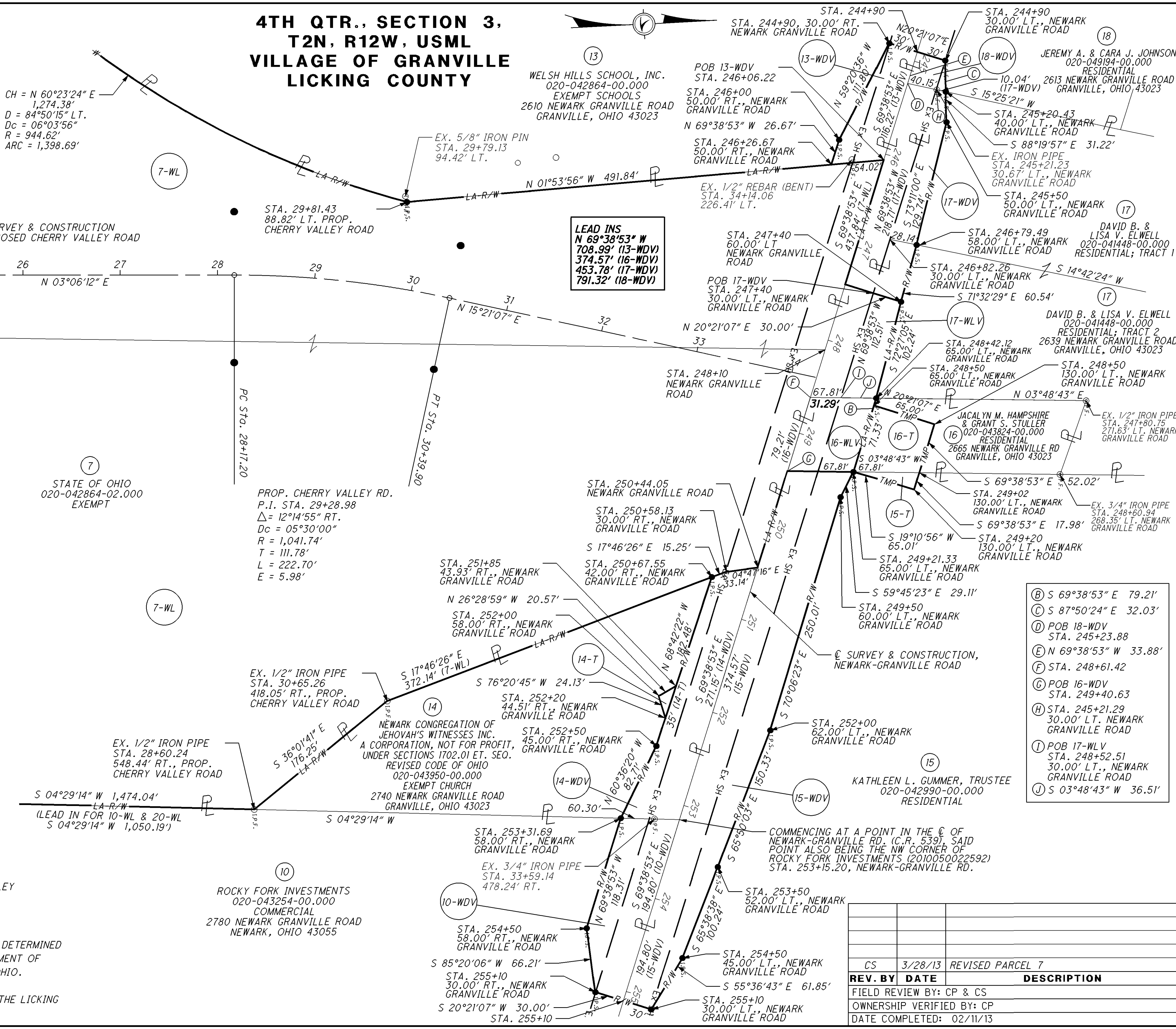
NOTES:
ALL EXISTING FENCE LOCATED INSIDE OF PROPOSED RIGHT OF WAY IS TO BE REMOVED.

THE DISPOSITION OF EXISTING CONSTRUCTION ITEMS WITHIN WORK LIMITS ARE SHOWN ON THE CONSTRUCTION PLANS.

ALL STATIONS AND OFFSETS ARE FROM THE CENTERLINE OF SURVEY AND CONSTRUCTION, PROPOSED CHERRY VALLEY ROAD UNLESS OTHERWISE STATED.

NOTE:
THE EXISTING RIGHT OF WAY WIDTH AND LOCATION WERE DETERMINED USING DOCUMENTATION ON FILE FROM THE OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5 OFFICE, JACKSONTOWN, OHIO.

CO. RD. AND TWP RD. RIGHT OF WAY DETERMINED FROM THE LICKING COUNTY ENGINEERS OFFICE LICKING COUNTY, OHIO



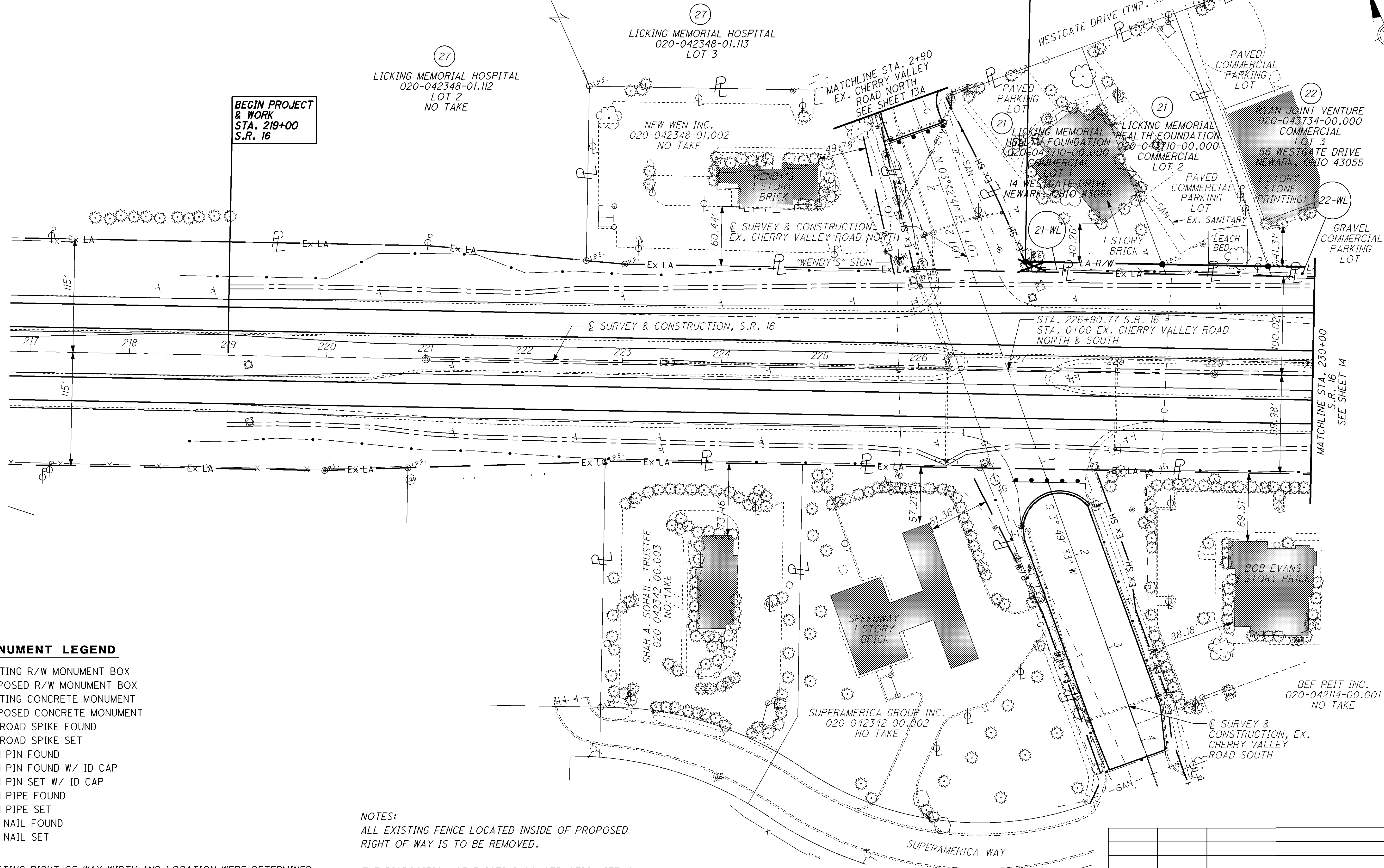
P:\LIC\80704\DESIGN\RIGHT_OF_WAY\PLAN_SHEETS\80704_003D_RDS.dgn 03/28/13

REV. BY	DATE	DESCRIPTION
CS	3/28/13	REVISED PARCEL 7
FIELD REVIEW BY: CP & CS		
OWNERSHIP VERIFIED BY: CP		
DATE COMPLETED: 02/11/13		

**3RD QTR., T2N, R12W, USML
VILLAGE OF GRANVILLE
LICKING COUNTY**

WESTGATE CENTER SUBDIVISION
P.B. 8 PGS. 202-204

BEGIN LA RW ACQUISITION
STA. 227+06.28
S.R. 16



BEGIN PROJECT & WORK
STA. 219+00
S.R. 16

LICKING MEMORIAL HOSPITAL
020-042348-01.112
LOT 2
NO TAKE

LICKING MEMORIAL HOSPITAL
020-042348-01.113
LOT 3

NEW WEN INC.
020-042348-01.002
NO TAKE

21

LICKING MEMORIAL HEALTH FOUNDATION
020-042370-00.000
COMMERCIAL LOT 2

RYAN JOINT VENTURE
020-043734-00.000
COMMERCIAL LOT 3
56 WESTGATE DRIVE
NEWARK, OHIO 43055

22

GRAVEL COMMERCIAL PARKING LOT

SHAH A. SOHAIL, TRUSTEE
020-042342-00.003
NO TAKE

SPEEDWAY 1 STORY BRICK

SUPERAMERICA GROUP INC.
020-042342-00.002
NO TAKE

BOB EVANS 1 STORY BRICK

BEF REIT INC.
020-042114-00.001
NO TAKE

MONUMENT LEGEND

- ▭ EXISTING R/W MONUMENT BOX
- ▭ PROPOSED R/W MONUMENT BOX
- ⊙ EXISTING CONCRETE MONUMENT
- PROPOSED CONCRETE MONUMENT
- ⊗ RAILROAD SPIKE FOUND
- ⊗ RAILROAD SPIKE SET
- I.P.F. IRON PIN FOUND
- I.P.F. IRON PIN FOUND W/ ID CAP
- I.P.S. IRON PIN SET W/ ID CAP
- ⊙ I.P.F. IRON PIPE FOUND
- ⊙ I.P.S. IRON PIPE SET
- ⊙ P.K.F. P.K. NAIL FOUND
- ⊙ P.K.S. P.K. NAIL SET

NOTE:
THE EXISTING RIGHT OF WAY WIDTH AND LOCATION WERE DETERMINED USING DOCUMENTATION ON FILE FROM THE OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5 OFFICE, JACKSONTOWN, OHIO.

CO. RD. AND TWP RD. RIGHT OF WAY DETERMINED FROM THE LICKING COUNTY ENGINEERS OFFICE LICKING COUNTY, OHIO

NOTES:
ALL EXISTING FENCE LOCATED INSIDE OF PROPOSED RIGHT OF WAY IS TO BE REMOVED.

THE DISPOSITION OF EXISTING CONSTRUCTION ITEMS WITHIN WORK LIMITS ARE SHOWN ON THE CONSTRUCTION PLANS.

ALL STATIONS AND OFFSETS ARE FROM THE CENTERLINE OF SURVEY AND CONSTRUCTION, S.R. 16 UNLESS OTHERWISE STATED.

REV. BY	DATE	DESCRIPTION
CS	06/06/13	ADDED PARCEL 27
CS	03/20/13	ADDED A NEW SHEET FOR NEW PARCELS 27-30
FIELD REVIEW BY: CP & CS		
OWNERSHIP VERIFIED BY: CP		
DATE COMPLETED: 02/11/13		



RIGHT OF WAY TOPO SHEET
STA. 217+00 TO STA. 230+00 S.R. 16

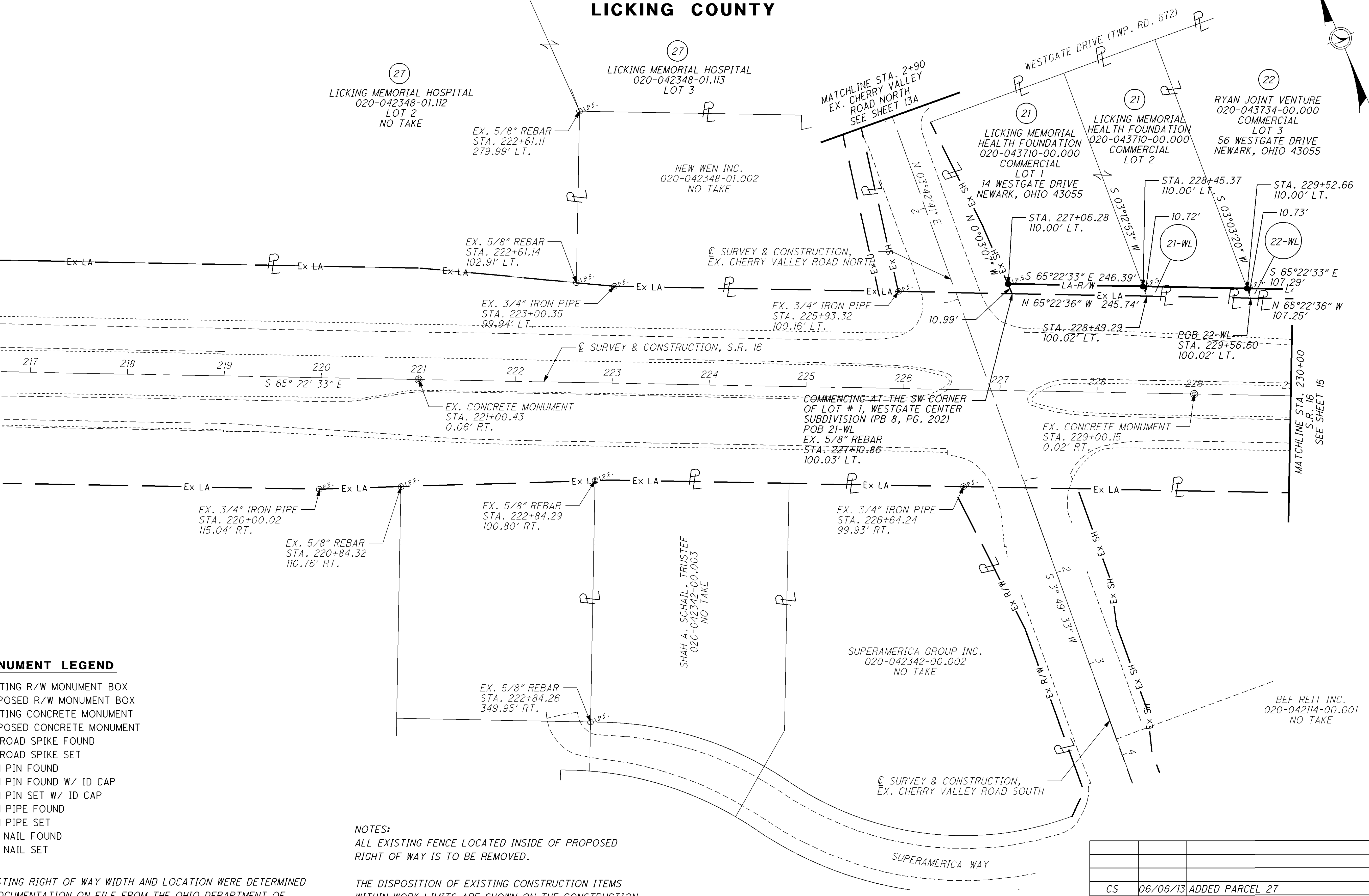
LIC-16-16.80

12 / 17
723
729

P:\LIC\80704\DESIGN\RIGHT_OF_WAY\PLAN_SHEETS\80704_0004_RDS.dgn 06/06/13

**3RD QTR., T2N, R12W, USML
VILLAGE OF GRANVILLE
LICKING COUNTY**

WESTGATE CENTER SUBDIVISION
P.B. 8 PGS. 202-204



0 CALCULATED
C.S. CHECKED
C.P. CHECKED

0 25 50 100
HORIZONTAL
SCALE IN FEET

**RIGHT OF WAY BOUNDARY SHEET
STA. 217+00 TO STA. 230+00 S.R. 16**

LIC-16-16.80

13 / 17
724
729

MONUMENT LEGEND

- ▭ EXISTING R/W MONUMENT BOX
- ▭ PROPOSED R/W MONUMENT BOX
- ⊙ EXISTING CONCRETE MONUMENT
- PROPOSED CONCRETE MONUMENT
- ⊕ RAILROAD SPIKE FOUND
- ⊕ RAILROAD SPIKE SET
- ⊙ I.P.F. IRON PIN FOUND
- ⊙ I.P.F. IRON PIN FOUND W/ ID CAP
- I.P.S. IRON PIN SET W/ ID CAP
- ⊙ I.P. IRON PIPE FOUND
- ⊙ I.P.S. IRON PIPE SET
- ⊕ P.K.F. P.K. NAIL FOUND
- ⊕ P.K.S. P.K. NAIL SET

NOTE:
THE EXISTING RIGHT OF WAY WIDTH AND LOCATION WERE DETERMINED USING DOCUMENTATION ON FILE FROM THE OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5 OFFICE, JACKSONTOWN, OHIO.

CO. RD. AND TWP RD. RIGHT OF WAY DETERMINED FROM THE LICKING COUNTY ENGINEERS OFFICE LICKING COUNTY, OHIO

NOTES:
ALL EXISTING FENCE LOCATED INSIDE OF PROPOSED RIGHT OF WAY IS TO BE REMOVED.

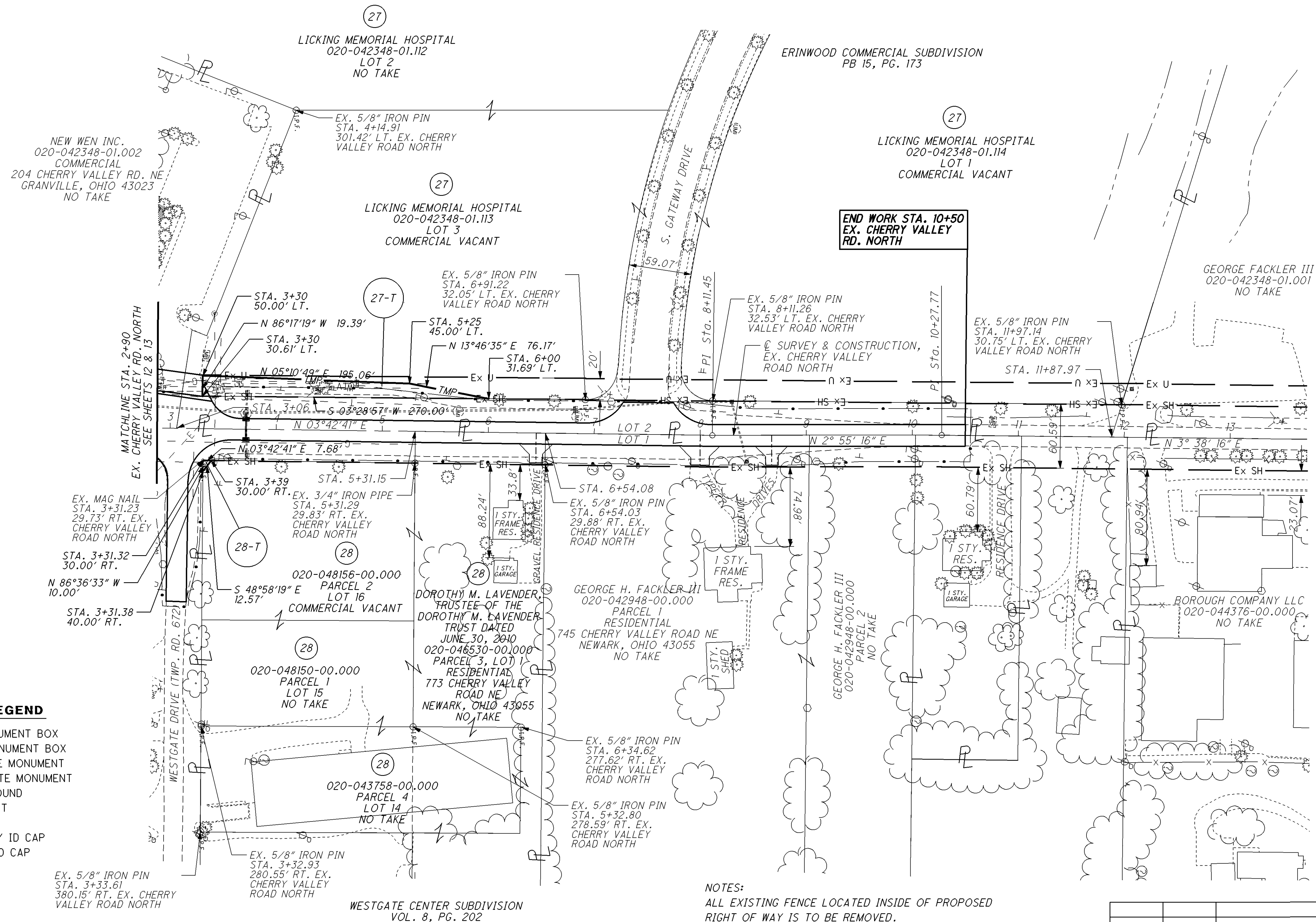
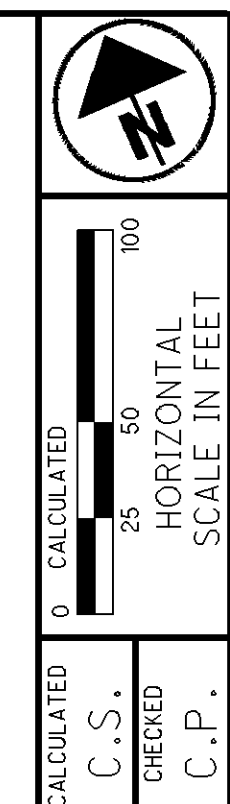
THE DISPOSITION OF EXISTING CONSTRUCTION ITEMS WITHIN WORK LIMITS ARE SHOWN ON THE CONSTRUCTION PLANS.

ALL STATIONS AND OFFSETS ARE FROM THE CENTERLINE OF SURVEY AND CONSTRUCTION, S.R. 16 UNLESS OTHERWISE STATED.

REV. BY	DATE	DESCRIPTION
CS	06/06/13	ADDED PARCEL 27
CS	03/20/13	ADDED A NEW SHEET FOR NEW PARCELS 27-30
FIELD REVIEW BY: CP & CS		
OWNERSHIP VERIFIED BY: CP		
DATE COMPLETED: 02/11/13		

P:\LIC\80704\DESIGN\RIGHT_OF_WAY\PLAN_SHEETS\80704_004D_RDS.dgn 06/06/13

**3RD QTR., T2N, R12W, USML
VILLAGE OF GRANVILLE
LICKING COUNTY**



MONUMENT LEGEND

- EXISTING R/W MONUMENT BOX
- PROPOSED R/W MONUMENT BOX
- EXISTING CONCRETE MONUMENT
- PROPOSED CONCRETE MONUMENT
- RAILROAD SPIKE FOUND
- RAILROAD SPIKE SET
- I.R.P.F. IRON PIN FOUND
- I.R.P.F. IRON PIN FOUND W/ ID CAP
- I.R.S. IRON PIN SET W/ ID CAP
- I.R.P. IRON PIPE FOUND
- I.R.P.S. IRON PIPE SET
- P.K.F. P.K. NAIL FOUND
- P.K.S. P.K. NAIL SET

NOTE:
THE EXISTING RIGHT OF WAY WIDTH AND LOCATION WERE DETERMINED USING DOCUMENTATION ON FILE FROM THE OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5 OFFICE, JACKSONTOWN, OHIO.

CO. RD. AND TWP RD. RIGHT OF WAY DETERMINED FROM THE LICKING COUNTY ENGINEERS OFFICE LICKING COUNTY, OHIO

NOTES:
ALL EXISTING FENCE LOCATED INSIDE OF PROPOSED RIGHT OF WAY IS TO BE REMOVED.

THE DISPOSITION OF EXISTING CONSTRUCTION ITEMS WITHIN WORK LIMITS ARE SHOWN ON THE CONSTRUCTION PLANS.

ALL STATIONS AND OFFSETS ARE FROM THE CENTERLINE OF SURVEY AND CONSTRUCTION, S.R. 16 UNLESS OTHERWISE STATED.

REV. BY	DATE	DESCRIPTION
FIELD REVIEW BY: CP & CS		
OWNERSHIP VERIFIED BY: CP		
DATE COMPLETED: 02/11/13		

P:\LIC\80704\DESIGN\RIGHT_OF_WAY\PLAN_SHEETS\80704_0008_RDS.dgn 06/06/13

**RIGHT OF WAY TOPO SHEET
STA. 217+00 TO STA. 230+00 S.R. 16**

LIC-16-16.80

13A/17

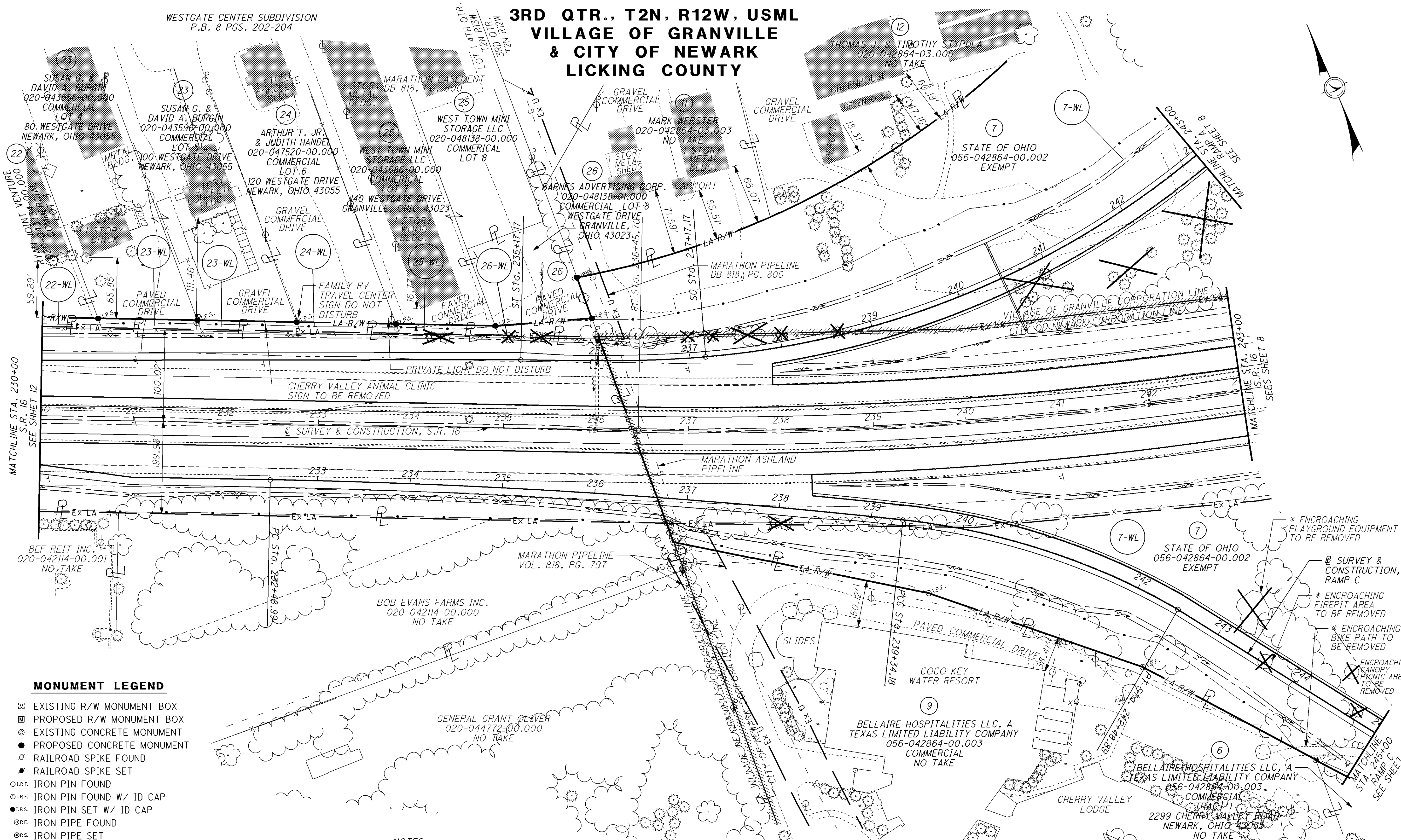
725
729

WESTGATE CENTER SUBDIVISION
P.B. 8 PGS. 202-204

**3RD QTR., T2N, R12W, USML
VILLAGE OF GRANVILLE
& CITY OF NEWARK
LICKING COUNTY**

0 CALCULATED
C.S. CHECKED
C.P. ✓

0 25 50 100
SCALE IN FEET



MONUMENT LEGEND

- ☐ EXISTING R/W MONUMENT BOX
- ▣ PROPOSED R/W MONUMENT BOX
- ⊙ EXISTING CONCRETE MONUMENT
- PROPOSED CONCRETE MONUMENT
- ⊗ RAILROAD SPIKE FOUND
- ⊕ RAILROAD SPIKE SET
- I.P.F. IRON PIN FOUND
- ⊙ I.P.F. IRON PIN FOUND W/ ID CAP
- I.P.S. IRON PIN SET W/ ID CAP
- ⊙ I.P. IRON PIPE FOUND
- I.P. IRON PIPE SET
- ⊙ P.K. P.K. NAIL FOUND
- P.K. P.K. NAIL SET

NOTE:
THE EXISTING RIGHT OF WAY WIDTH AND LOCATION WERE DETERMINED USING DOCUMENTATION ON FILE FROM THE OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5 OFFICE, JACKSONTOWN, OHIO.

CO. RD. AND TWP RD. RIGHT OF WAY DETERMINED FROM THE LICKING COUNTY ENGINEERS OFFICE LICKING COUNTY, OHIO

NOTES:
ALL EXISTING FENCE LOCATED INSIDE OF PROPOSED RIGHT OF WAY IS TO BE REMOVED.

THE DISPOSITION OF EXISTING CONSTRUCTION ITEMS WITHIN WORK LIMITS ARE SHOWN ON THE CONSTRUCTION PLANS.

ALL STATIONS AND OFFSETS ARE FROM THE CENTERLINE OF SURVEY AND CONSTRUCTION, S.R. 16 UNLESS OTHERWISE STATED.

- * ENCROACHING PLAYGROUND EQUIPMENT TO BE REMOVED
- * ENCROACHING FIREPIT AREA TO BE REMOVED
- * ENCROACHING BIKE PATH TO BE REMOVED
- * ENCROACHING PANTRY PANIC AREA TO BE REMOVED

REV. BY	DATE	DESCRIPTION
CS	8/05/13	REVISED OWNER ON PARCEL 9
FIELD REVIEW BY: CP & CS		
OWNERSHIP VERIFIED BY: CP		
DATE COMPLETED: 02/11/13		

P:\LIC\80704\DESIGN\RIGHT_OF_WAY\PLAN_SHEETS\80704_0005_RDS.dgn 08/05/13

**RIGHT OF WAY TOPO SHEET
STA. 230+00 TO STA. 243+00 S.R. 16**

LIC-16-16.80

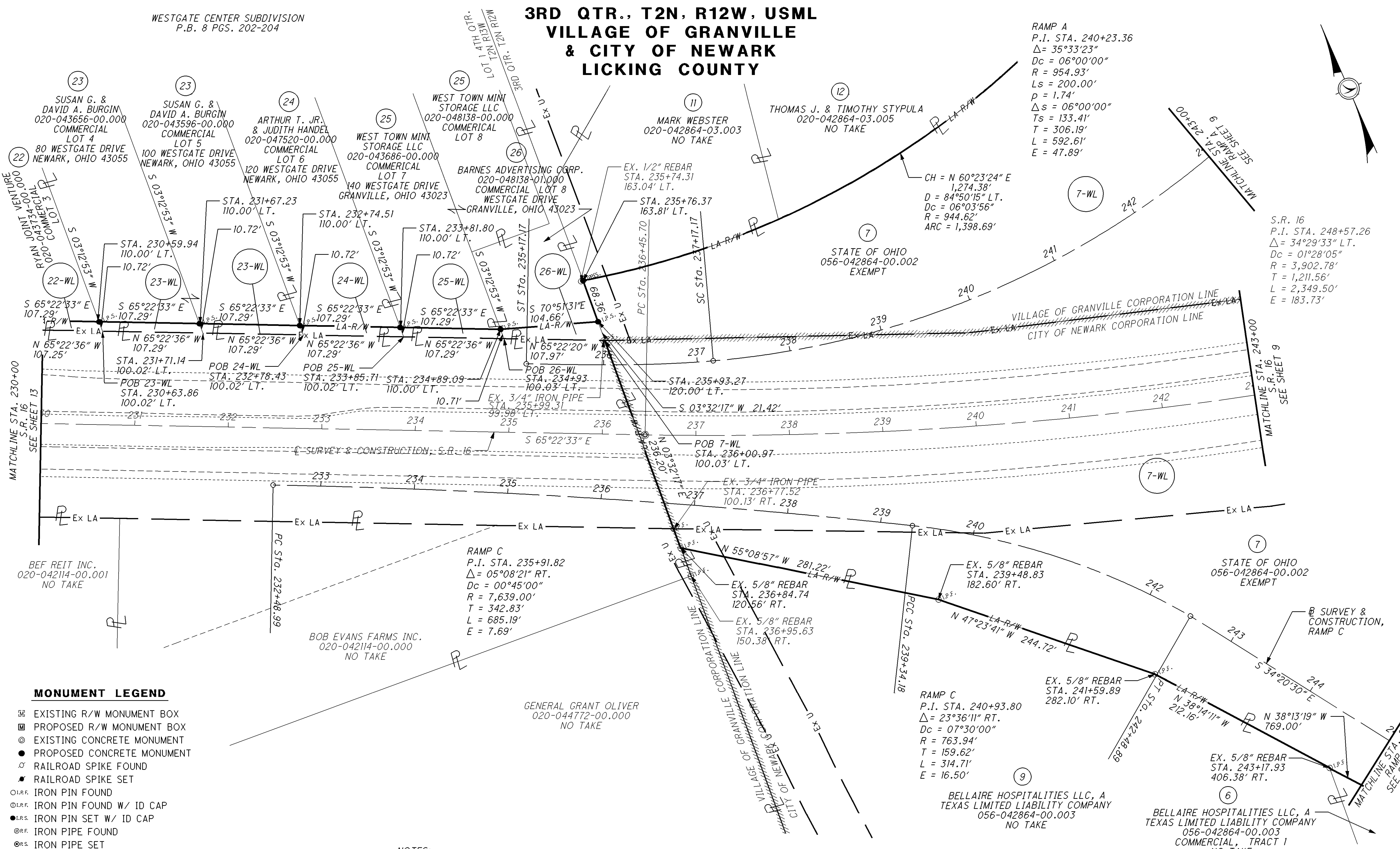
14 / 17

726
729

**3RD QTR., T2N, R12W, USML
VILLAGE OF GRANVILLE
& CITY OF NEWARK
LICKING COUNTY**

RAMP A
P.I. STA. 240+23.36
 $\Delta = 35^{\circ}33'23''$
 $Dc = 06^{\circ}00'00''$
 $R = 954.93'$
 $Ls = 200.00'$
 $p = 1.74'$
 $\Delta s = 06^{\circ}00'00''$
 $Ts = 133.41'$
 $T = 306.19'$
 $L = 592.61'$
 $E = 47.89'$

S.R. 16
P.I. STA. 248+57.26
 $\Delta = 34^{\circ}29'33''$ LT.
 $Dc = 01^{\circ}28'05''$
 $R = 3,902.78'$
 $T = 1,211.56'$
 $L = 2,349.50'$
 $E = 183.73'$



MONUMENT LEGEND

- EXISTING R/W MONUMENT BOX
- PROPOSED R/W MONUMENT BOX
- EXISTING CONCRETE MONUMENT
- PROPOSED CONCRETE MONUMENT
- RAILROAD SPIKE FOUND
- RAILROAD SPIKE SET
- IRON PIN FOUND
- IRON PIN FOUND W/ ID CAP
- IRON PIN SET W/ ID CAP
- IRON PIPE FOUND
- IRON PIPE SET
- P.K. NAIL FOUND
- P.K. NAIL SET

NOTE:
THE EXISTING RIGHT OF WAY WIDTH AND LOCATION WERE DETERMINED USING DOCUMENTATION ON FILE FROM THE OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5 OFFICE, JACKSONTOWN, OHIO.

CO. RD. AND TWP RD. RIGHT OF WAY DETERMINED FROM THE LICKING COUNTY ENGINEERS OFFICE LICKING COUNTY, OHIO

NOTES:
ALL EXISTING FENCE LOCATED INSIDE OF PROPOSED RIGHT OF WAY IS TO BE REMOVED.

THE DISPOSITION OF EXISTING CONSTRUCTION ITEMS WITHIN WORK LIMITS ARE SHOWN ON THE CONSTRUCTION PLANS.

ALL STATIONS AND OFFSETS ARE FROM THE CENTERLINE OF SURVEY AND CONSTRUCTION, S.R. 16 UNLESS OTHERWISE STATED.

0 CALCULATED
C.S. CHECKED
C.P.

**RIGHT OF WAY BOUNDARY SHEET
STA. 230+00 TO STA. 243+00 S.R. 16**

LIC-16-16.80

REV. BY	DATE	DESCRIPTION
CS	8/05/13	REVISED OWNER ON PARCEL 9
FIELD REVIEW BY: CP & CS		
OWNERSHIP VERIFIED BY: CP		
DATE COMPLETED: 02/11/13		

P:\LIC\80704\DESIGN\RIGHT_OF_WAY\PLAN_SHEETS\80704_005D_RDS.dgn 08/05/13

**1ST QTR., T2N, R13W, USML
VILLAGE OF GRANVILLE
& CITY OF NEWARK
LICKING COUNTY**

0 CALCULATED
C.S. CHECKED
C.P.

0 25 50 100
HORIZONTAL SCALE IN FEET

END WORK
STA. 289+27.13
S.R. 16

END PROJECT
STA. 267+48
S.R. 16

END LA RW ACQUISITION
STA. 264+34.86
S.R. 16

10
ROCKY FORK INVESTMENTS LLC
020-043254-00.000
COMMERCIAL
2780 NEWARK GRANVILLE ROAD
NEWARK, OHIO 43055

20
DAVID A. & SHARON A. SANOR
054-246678-00.000
RESIDENTIAL
1805 NEWARK GRANVILLE ROAD
NEWARK, OHIO 43055

7
STATE OF OHIO
020-042864-02.000
EXEMPT

7
STATE OF OHIO
020-042864-02.000
EXEMPT

10
ROCKY FORK INVESTMENTS LLC
020-043254-00.000
COMMERCIAL
2780 NEWARK GRANVILLE ROAD
NEWARK, OHIO 43055

RUNNYMEAD INC.
054-233640-00.000
NO TAKE

- MONUMENT LEGEND**
- ☐ EXISTING R/W MONUMENT BOX
 - ▣ PROPOSED R/W MONUMENT BOX
 - ⊙ EXISTING CONCRETE MONUMENT
 - PROPOSED CONCRETE MONUMENT
 - ✕ RAILROAD SPIKE FOUND
 - ⚡ RAILROAD SPIKE SET
 - I.P.F. IRON PIN FOUND
 - ⊙ I.P.F. IRON PIN FOUND W/ ID CAP
 - I.P.S. IRON PIN SET W/ ID CAP
 - ⊙ I.P.S. IRON PIPE FOUND
 - ⊙ I.P.S. IRON PIPE SET
 - ⊙ P.K.F. P.K. NAIL FOUND
 - ⊙ P.K.S. P.K. NAIL SET

NOTE:
THE EXISTING RIGHT OF WAY WIDTH AND LOCATION WERE DETERMINED USING DOCUMENTATION ON FILE FROM THE OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5 OFFICE, JACKSONTOWN, OHIO.

CO. RD. AND TWP RD. RIGHT OF WAY DETERMINED FROM THE LICKING COUNTY ENGINEERS OFFICE LICKING COUNTY, OHIO

NOTES:
ALL EXISTING FENCE LOCATED INSIDE OF PROPOSED RIGHT OF WAY IS TO BE REMOVED.

THE DISPOSITION OF EXISTING CONSTRUCTION ITEMS WITHIN WORK LIMITS ARE SHOWN ON THE CONSTRUCTION PLANS.

ALL STATIONS AND OFFSETS ARE FROM THE CENTERLINE OF SURVEY AND CONSTRUCTION, CHERRY VALLEY CONNECTOR ROAD UNLESS OTHERWISE STATED.

REV. BY	DATE	DESCRIPTION
CS	3/28/13	REVISED R & LA ON PARCEL 7
FIELD REVIEW BY: CP & CS		
OWNERSHIP VERIFIED BY: CP		
DATE COMPLETED: 02/11/13		

RIGHT OF WAY TOPO SHEET
STA. 251+00 TO STA. 264+00 S.R. 16

LIC-16-16.80

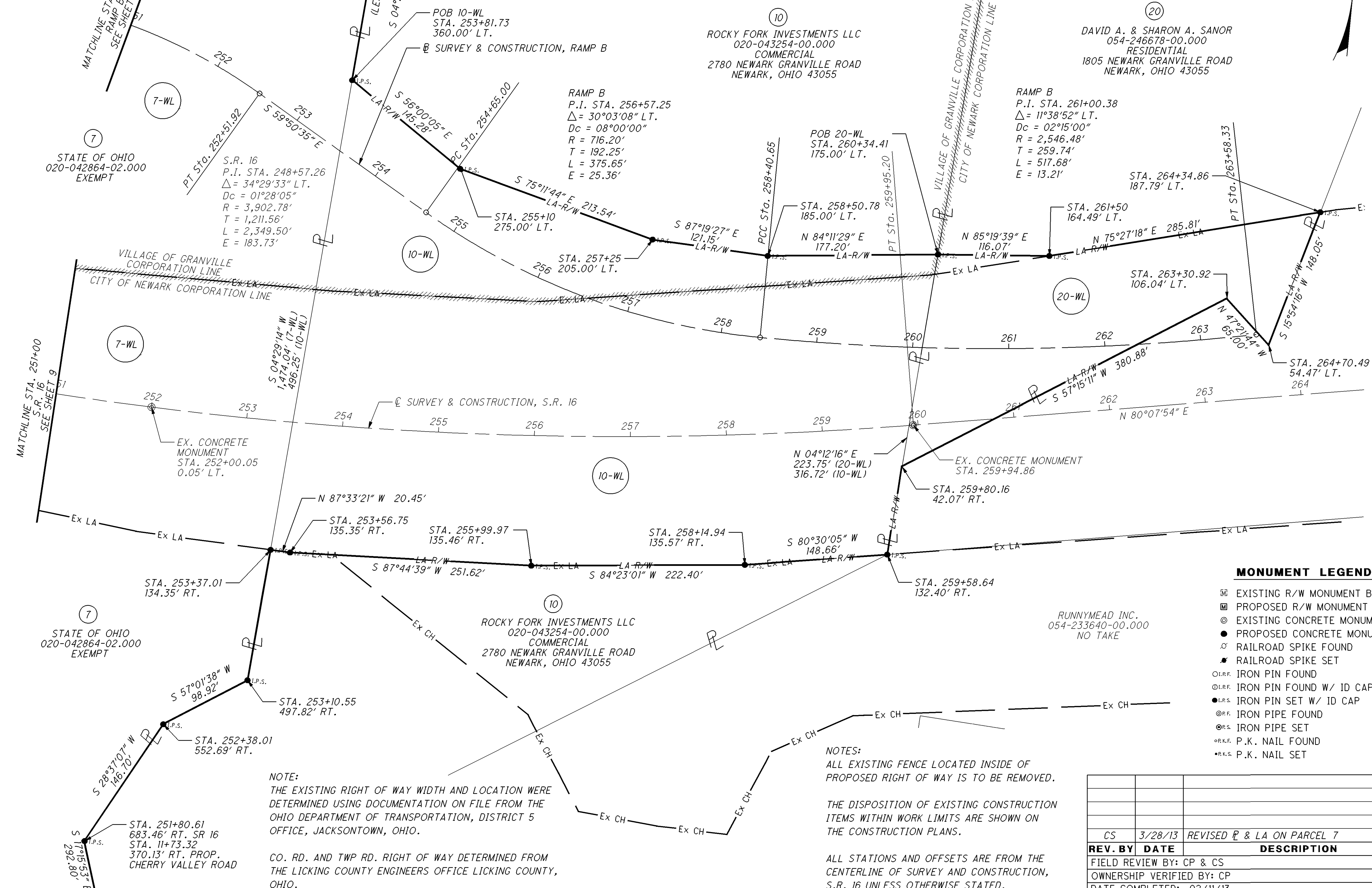
16 / 17

728
729

P:\LIC\80704\DESIGN\RIGHT_OF_WAY\PLAN_SHEETS\80704_0006_RDS.dgn 03/28/13

**1ST QTR., T2N, R13W, USML
VILLAGE OF GRANVILLE
& CITY OF NEWARK
LICKING COUNTY**

RAMP B
P.I. STA. 251+67.28
 $\Delta = 17^{\circ}03'13''$ RT.
Dc = 10°00'00"
R = 572.96'
T = 85.90'
L = 170.54'
E = 6.40'



RAMP B
P.I. STA. 261+00.38
 $\Delta = 11^{\circ}38'52''$ LT.
Dc = 02°15'00"
R = 2,546.48'
T = 259.74'
L = 517.68'
E = 13.21'

RAMP B
P.I. STA. 256+57.25
 $\Delta = 30^{\circ}03'08''$ LT.
Dc = 08°00'00"
R = 716.20'
T = 192.25'
L = 375.65'
E = 25.36'

S.R. 16
P.I. STA. 248+57.26
 $\Delta = 34^{\circ}29'33''$ LT.
Dc = 01°28'05"
R = 3,902.78'
T = 1,211.56'
L = 2,349.50'
E = 183.73'

MONUMENT LEGEND

- ☐ EXISTING R/W MONUMENT BOX
- ▣ PROPOSED R/W MONUMENT BOX
- EXISTING CONCRETE MONUMENT
- PROPOSED CONCRETE MONUMENT
- ⊗ RAILROAD SPIKE FOUND
- ⊗ RAILROAD SPIKE SET
- I.P.F. IRON PIN FOUND
- I.P.F. IRON PIN FOUND W/ ID CAP
- I.P.S. IRON PIN SET W/ ID CAP
- I.P.F. IRON PIPE FOUND
- I.P.S. IRON PIPE SET
- R.K.F. P.K. NAIL FOUND
- R.K.S. P.K. NAIL SET

NOTES:
ALL EXISTING FENCE LOCATED INSIDE OF PROPOSED RIGHT OF WAY IS TO BE REMOVED.

THE DISPOSITION OF EXISTING CONSTRUCTION ITEMS WITHIN WORK LIMITS ARE SHOWN ON THE CONSTRUCTION PLANS.

ALL STATIONS AND OFFSETS ARE FROM THE CENTERLINE OF SURVEY AND CONSTRUCTION, S.R. 16 UNLESS OTHERWISE STATED.

NOTE:
THE EXISTING RIGHT OF WAY WIDTH AND LOCATION WERE DETERMINED USING DOCUMENTATION ON FILE FROM THE OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5 OFFICE, JACKSONTOWN, OHIO.

CO. RD. AND TWP RD. RIGHT OF WAY DETERMINED FROM THE LICKING COUNTY ENGINEERS OFFICE LICKING COUNTY, OHIO.

RUNNYMEAD INC.
054-233640-00.000
NO TAKE

ROCKY FORK INVESTMENTS LLC
020-043254-00.000
COMMERCIAL
2780 NEWARK GRANVILLE ROAD
NEWARK, OHIO 43055

DAVID A. & SHARON A. SANOR
054-246678-00.000
RESIDENTIAL
1805 NEWARK GRANVILLE ROAD
NEWARK, OHIO 43055

ROCKY FORK INVESTMENTS LLC
020-043254-00.000
COMMERCIAL
2780 NEWARK GRANVILLE ROAD
NEWARK, OHIO 43055

STATE OF OHIO
020-042864-02.000
EXEMPT

STATE OF OHIO
020-042864-02.000
EXEMPT

0. CALCULATED
C.S. CHECKED
C.P.

SCALE IN FEET
0 25 50 100

**RIGHT OF WAY BOUNDARY SHEET
STA. 251+00 TO STA. 264+00 S.R. 16**

LIC-16-16.80

REV. BY	DATE	DESCRIPTION
CS	3/28/13	REVISED R & LA ON PARCEL 7
FIELD REVIEW BY: CP & CS		
OWNERSHIP VERIFIED BY: CP		
DATE COMPLETED: 02/11/13		

PROJECT DESCRIPTION

THE PROJECT INVOLVES THE CONSTRUCTION OF A NEW INTERCHANGE ALONG STATE ROUTE 16 IN LICKING COUNTY, OHIO. THE NEW INTERCHANGE WILL CONTAIN A NEW ROADWAY TO CONNECT CHERRY VALLEY ROAD AND GRANVILLE ROAD. A NEW BRIDGE IS PLANNED TO CARRY THE NEW CHERRY VALLEY ROAD OVER SR 16. FOUR (4) NEW RAMPS ARE ALSO PLANNED AT THE INTERCHANGE ALONG WITH IMPROVEMENTS TO EXISTING CHERRY VALLEY ROAD AND GRANVILLE ROAD IN THE VICINITY OF THE NEW CHERRY VALLEY ROAD.

HISTORIC RECORDS

THIS PLAN SET CONTAINS DATA FROM THIRTY-SEVEN (37) HISTORIC BORINGS ALONG EXISTING S.R. 16 FROM THE ORIGINAL CONSTRUCTION PLANS LIC-16/161-14.20/17.39/11.72 PT II- 1960

GEOLOGY

THE PROJECT SITE LIES ON THE GALION GLACIATED LOW PLATEAU PHYSIOGRAPHIC REGION, JUST WEST OF THE ALLEGHENY ESCARPMENT. THE OVERALL PROJECT AREA WAS GLACIATED BY BOTH THE ILLINOIAN AND WISCONSIN ICE SHEETS. GLACIAL OUTWASH FILLED AN ANCIENT VALLEY LEAVING A THICK LAYER OF PREDOMINANTLY GRANULAR DEPOSITS OVER MOST OF THE AREA. EXPOSED BEDROCK IS LOCATED IN THE EASTERN PORTION OF THE PROJECT. THE BEDROCK CONSISTS OF MISSISSIPPIAN AGE SHALE AND SANDSTONE.

RECONNAISSANCE

ON JANUARY 26, 2011, A RECONNAISSANCE VISIT WAS MADE. A MAJOR PORTION OF THE ROADWAYS WILL BE CONSTRUCTED ONTO RELATIVELY FLAT, UNDEVELOPED LAND WITH SURFACE COVER CONSISTING OF TALL GRASS. RAMP B WILL BE CONSTRUCTED THROUGH A WOODED AREA CONTAINING TREES AND BRUSH AND A LOW-LYING AREA. EXPOSED BEDROCK IS PRESENT NEAR THE EAST END OF RAMP B, NORTH OF SR 16.

A MAJOR PORTION OF THE PROJECT WILL BE CONSTRUCTED ON STATE OF OHIO PROPERTY. SURROUNDING LAND USE CONSISTS OF COMMERCIAL, RESIDENTIAL, AND UNDEVELOPED LAND. RACCOON CREEK IS LOCATED SOUTH OF SR 16 AND EAST OF THE PROPOSED ROADWAY.

SUBSURFACE EXPLORATION

FORTY (40) TEST BORINGS, DESIGNATED AS B-001-0-11 THROUGH B-039-0-11 AND B-027-1-11 WERE COMPLETED AS PART OF THIS SUBSURFACE EXPLORATION, BETWEEN FEBRUARY 22 AND MARCH 17, 2011. THE BORINGS WERE DRILLED WITH A TRUCK MOUNTED DRILL RIG, USING 3 1/4 INCH I.D. HOLLOW STEM AUGERS TO ADVANCE THE HOLES THROUGH THE SOIL. DISTURBED SOIL SAMPLES WERE OBTAINED IN ACCORDANCE WITH THE STANDARD PENETRATION TEST (AASHTO T206) AT 1.5 TO 5.0 FOOT INTERVALS FOR THE FULL DEPTH OF THE SOIL PORTION OF THE BORINGS. MULTIPLE DRILL RIGS WERE USED TO DRILL THIS SITE, HAMMER CALIBRATIONS ASSOCIATED WITH THESE DRILL RIGS WERE CALIBRATED ON FEBRUARY 26, 2010 AND MARCH 16, 2011. THE DRILL ROD ENERGY RATIO ASSOCIATED WITH THESE HAMMERS IS 86% AND 80.8%.

EXPLORATION FINDINGS

ROADWAY

BORINGS B-001-0-11 THROUGH B-015-0-11 AND B-019-0-11 THROUGH B-039-0-11, AND B-037-0-11 WERE DRILLED FOR THIS PROJECT.

BELOW THE SURFACE COVER IN BORING B-010-0-11, HIGHLY WEATHERED SHALE BEDROCK OVERLYING WEATHERED SANDSTONE WAS ENCOUNTERED TO A DEPTH OF 10.0 FEET. THESE BEDROCK LAYERS WERE ABLE TO BE AUGURED AND SAMPLED USING STANDARD SOIL SAMPLING TECHNIQUES.

BELOW THE SURFACE COVER, THE REMAINING BORINGS ENCOUNTERED GRAVEL AND/OR STONE FRAGMENTS, GRAVEL AND/OR STONE FRAGMENTS WITH SAND, GRAVEL AND/OR STONE FRAGMENTS WITH SAND AND SILT, COARSE AND FINE SAND, SILT, SANDY SILT, SILT AND CLAY, CLAYEY SILT, ELASTIC CLAY, AND CLAY, OF THE A-1-a, A-1-b, A-2-4, A-3a, A-4a, A-4b, A-6a, A-6b, A-7-5, AND A-7-6 CATEGORIES TO DEPTHS RANGING FROM 7.0 TO 25 FEET.

STRUCTURE FOUNDATION

AT THE SURFACE BORINGS B-016-0-1, B-017-0-11, AND B-018-0-11 ENCOUNTERED 1 TO 6 INCHES OF TOPSOIL. BELOW THE SURFACE COVER, BORINGS B-016-0-11 AND B-017-0-11 ENCOUNTERED SANDY SILT OF THE A-4a CATEGORY TO DEPTHS RANGING FROM 2.5 TO 5 FEET BELOW GRADE.

BELOW THE SANDY SILT LAYERS IN BORINGS B-016-0-11 AND B-017-0-11, AND BENEATH THE SURFACE COVER IN BORING B-018-0-11, THE BORINGS ENCOUNTERED LAYERS OF GRAVEL AND/OR STONE FRAGMENTS, GRAVEL AND/OR STONE FRAGMENTS WITH SAND, GRAVEL AND/OR STONE FRAGMENTS WITH SAND AND SILT, COARSE AND FINE SAND, SANDY SILT, SILT, AND SILT AND CLAY OF THE A-1-a, A-1-b, A-2-4, A-3a, A-4a, A-4b, AND A-6a SOIL CATEGORIES EXTENDING DOWNWARD TO THEIR DRILLED DEPTH.

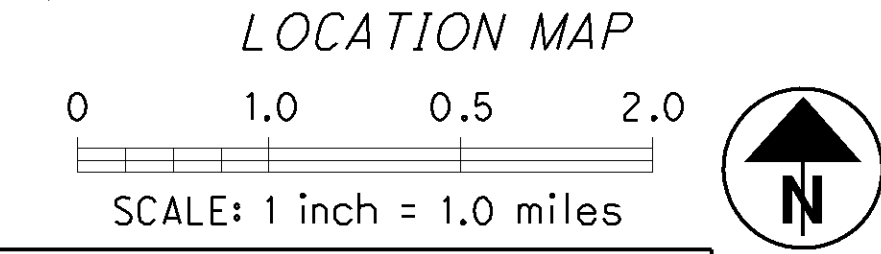
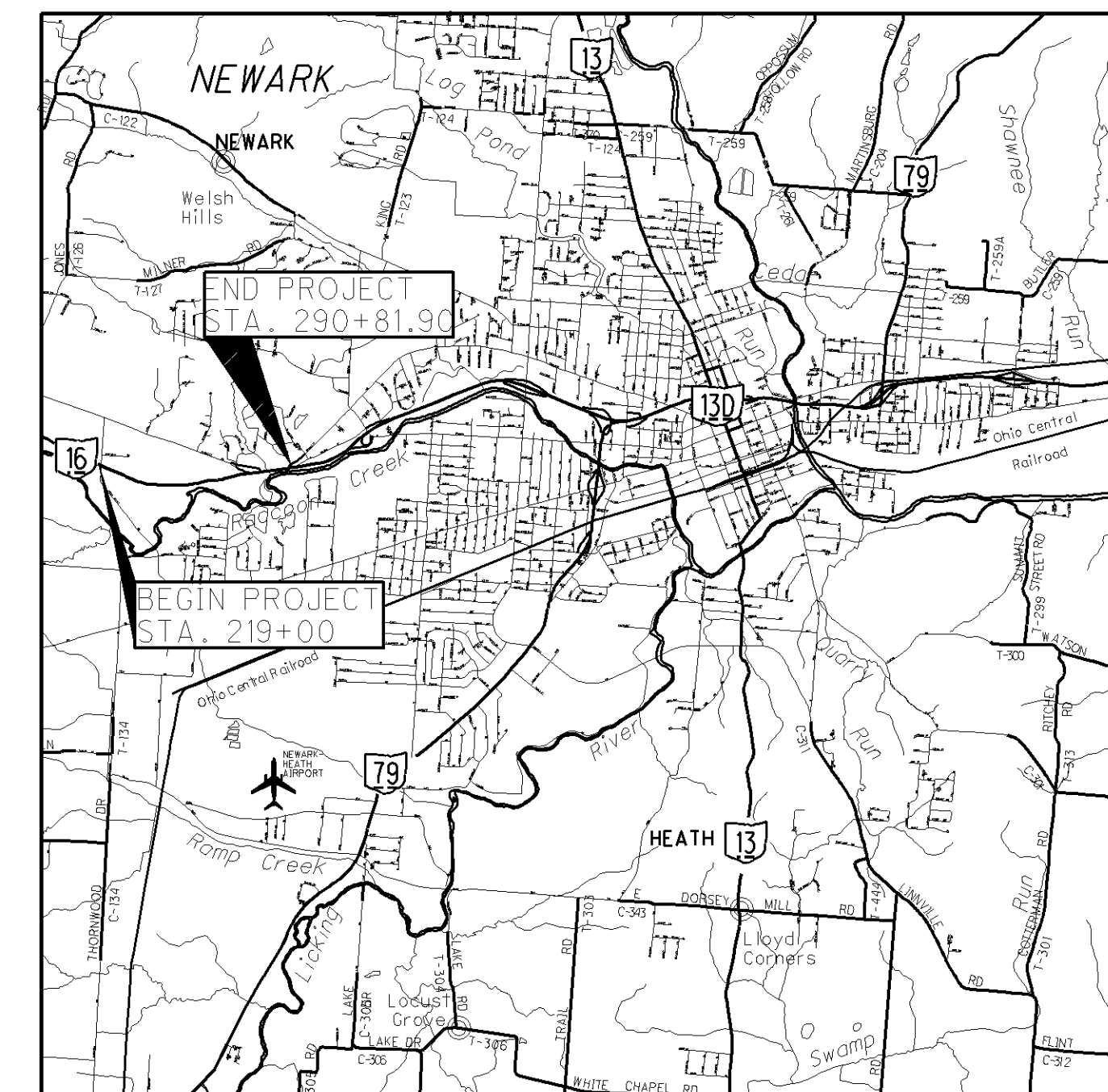
LEGEND

DESCRIPTION	ODOT CLASS	CLASSIFIED MECH./VISUAL	
GRAVEL AND/OR STONE FRAGMENTS	A-1-a	9	21
GRAVEL AND/OR STONE FRAGMENTS WITH SAND	A-1-b	17	39
GRAVEL AND/OR STONE FRAGMENTS W/SAND AND SILT	A-2-4	14	33
COARSE AND FINE SAND	A-3a	6	7
SANDY SILT	A-4a	42	34
SILT	A-4b	7	2
SILT AND CLAY	A-6a	18	15
SILTY CLAY	A-6b	6	5
ELASTIC CLAY	A-7-5	1	0
CLAY	A-7-6	5	1
	TOTAL	125	157
WEATHERED SHALE	VISUAL		
SANDSTONE	VISUAL		

- PAVEMENT OR BASE = X = APPROXIMATE THICKNESS
- SOD AND TOPSOIL = X = APPROXIMATE THICKNESS
- BORING LOCATION - PLAN VIEW
- HISTORIC BORING LOCATION - PLAN VIEW-1960 SET (013017) LIC-16/161-14.20/17.39/11.72 PT II
- DRIVE SAMPLE AND/OR ROCK CORE BORING PLOTTED TO VERTICAL SCALE ONLY. HORIZONTAL BAR INDICATES A CHANGE IN STRATIGRAPHY.
- INDICATES STANDARD PENETRATION RESISTANCE NORMALIZED TO 60% DRILL ROD ENERGY RATIO
- INDICATES STANDARD PENETRATION RESISTANCE
- INDICATES A NON-PLASTIC MATERIAL WITH A MOISTURE CONTENT GREATER THAN 25% OR GREATER THAN 19% WITH A WET APPEARANCE.

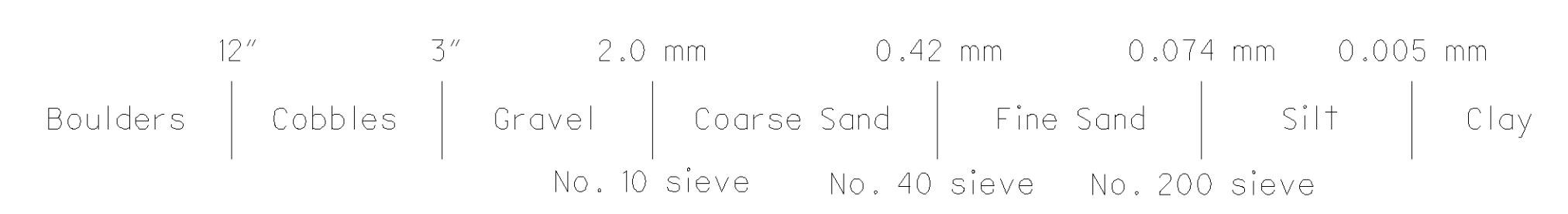
LEGEND - HISTORIC

DESCRIPTION	ODOT CLASS	CLASSIFIED MECH./VISUAL	
GRAVEL AND/OR STONE FRAGMENTS	A-1-a	37	-
GRAVEL AND/OR STONE FRAGMENTS WITH SAND	A-1-b	27	-
GRAVEL AND/OR STONE FRAGMENTS W/SAND AND SILT	A-2-4	13	-
GRAVEL AND/OR STONE FRAGMENTS W/SAND, SILT & CLAY	A-2-6	3	-
COARSE AND FINE SAND	A-3a	7	-
SANDY SILT	A-4a	49	-
SILT	A-4b	35	-
SILT AND CLAY	A-6a	7	-
SILTY CLAY	A-6b	3	-
ELASTIC CLAY	A-7-5	1	-
	TOTAL	182	-
RANDOM FILL	VISUAL		
BOULDERS	VISUAL		
SHALE	VISUAL		
WEATHERED SHALE	VISUAL		
SANDSTONE	VISUAL		
WEATHERED SANDSTONE	VISUAL		



- INDICATES A PLASTIC MATERIAL WITH A MOISTURE CONTENT EQUAL TO OR GREATER THAN THE LIQUID LIMIT MINUS 3.
- * INDICATES A SAMPLE TAKEN WITHIN 3 FT OF PROPOSED GRADE.
- WC INDICATES WATER CONTENT IN PERCENT.
- W— INDICATES FREE WATER ELEVATION.
- ▼ INDICATES STATIC WATER ELEVATION.
- NP INDICATES A NON-PLASTIC SAMPLE.
- SS INDICATES A SPLIT SPOON SAMPLE, STANDARD PENETRATION TEST.
- AS INDICATES AN AUGER SAMPLE.

PARTICLE SIZE DEFINITIONS



RECON. - JG 01/26/11
 DRILLING - CTL ENGINEERING INC. 02/26 - 03/17/2011
 DRAWN - N.T. 02/07/13
 REVIEWED - JG 02/11/13

SPECIFICATIONS

THIS GEOTECHNICAL EXPLORATION WAS PERFORMED IN ACCORDANCE WITH THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, OFFICE OF GEOTECHNICAL ENGINEERING, SPECIFICATIONS FOR GEOTECHNICAL EXPLORATIONS, DATED JANUARY 2010.

AVAILABLE INFORMATION

ALL AVAILABLE SOIL INFORMATION THAT CAN BE SHOWN ON THE SOIL PROFILE SHEETS HAS BEEN REPORTED. ADDITIONAL SUBSURFACE EXPLORATIONS MAY HAVE BEEN MADE TO STUDY SOME SPECIFIC ASPECT OF THE PROJECT. COPIES OF THIS DATA, IF ANY MAY BE INSPECTED IN THE DISTRICT DEPUTY DIRECTOR'S OFFICE, THE OFFICE OF GEOTECHNICAL ENGINEERING AT 1600 WEST BROAD STREET OR THE OFFICE OF STRUCTURAL ENGINEERING 1980 WEST BROAD STREET.

INDEX OF SHEETS						
LOCATION FROM STA. TO STA.	PLAN VIEW SHEET	PROFILE SHEET	CROSS- SECTION SHEET	CUT+ MAX.	FILL EMB.+ MAX.	
S.R. 16						
210+00 222+50	6	6	-	N/A	N/A	
222+50 235+00	7	7	-	N/A	N/A	
235+00 247+50	8	8	-	N/A	N/A	
239+50	-	-	28	N/A	N/A	
247+50 260+00	9	9	-	N/A	N/A	
253+00	-	-	29	N/A	N/A	
260+00 272+50	10	10	-	N/A	N/A	
262+00	-	-	30	N/A	N/A	
266+00	-	-	30A	N/A	N/A	
269+50	-	-	30B	N/A	N/A	
272+50 285+00	11	11	-	N/A	N/A	
285+00 23+62	12	12	-	N/A	N/A	
NEW CHERRY VALLEY RD.						
0+00 10+50	13	13	-	N/A	13 FT	
10+50 23+50	14	15	-	N/A	31 FT	
23+50 34+25.81	16	16	-	2 FT	12 FT	
RAMP A						
235+17.17 247+87.89	17	17	-	1 FT	12 FT	
RAMP B						
247+99.39 257+50	18	18	-	N/A	24 FT	
257+00	-	-	31	N/A	24 FT	
257+50 264+73.84	19	19	-	N/A	24 FT	
RAMP C						
234+72.56 242+50	20	20	-	N/A	10 FT	
242+50 250+82.55	21	21	-	N/A	22 FT	
RAMP D						
236+96.65 247+33.98	22	22	-	N/A	23 FT	
EXISTING CHERRY VALLEY RD.						
0+00 11+50	23	23	-	N/A	N/A	
11+50 24+00	24	24	-	N/A	N/A	
24+00 36+50	25	25	-	N/A	N/A	
GRANVILLE RD.						
242+00 255+00	26	26	-	N/A	N/A	

+ AT THE TIME THAT THESE SHEETS WERE PREPARED, THE PROPOSED GRADE ALONG EXISTING S.R. 16, EXISTING CHERRY VALLEY ROAD, AND GRANVILLE ROAD HAD NOT BEEN PROVIDED BY ODOT
 MAXIMUM CUT AND FILL VALUES WERE MEASURED ALONG THE SOIL PROFILE FOR EACH ROADWAY

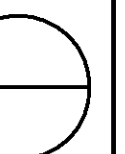
SUMMARY OF SOIL TEST DATA S.R. 16

SUMMARY OF SOIL TEST DATA S.R. 16

EXPLOR. ID	FROM	TO	SAMPLE ID	N ₆₀	% REC	% GR	% CS	% FS	% SILT	% CLAY	LL	PL	PI	% WC	ODOT CLASS (G1)
B-001-0-11 STA.229+98.41 55.17' LT.	1.5	3	SS-1	7	67	0	1	15	55	29	31	19	12	21	A-6a (9)*
	3	4.5	SS-2	10	17				SAME AS SS-1				21	A-6a (VISUAL)	
	4.5	6	SS-3	6	61	22	8	21	32	17	34	19	15	15	A-6a (5)
	6	7.5	SS-4	13	56				SAME AS SS-3				19	A-6a (VISUAL)	
B-002-0-11 STA.231+99.35 54.94' RT.	1	2.5	SS-1	17	72	0	1	48	46	5	33	20	13	19	A-6a (4)*
	2.5	4	SS-2	13	67				SAME AS SS-1				24	A-6a (VISUAL)	
	4	5.5	SS-3	9	72	0	0	23	50	27	34	18	16	20	A-6b (10)
	5.5	7	SS-4	4	100	6	2	19	50	23	37	20	17	15	A-6b (10)
	7	8.5	SS-5	3	39				SAME AS SS-4				22	A-6b (VISUAL)	
8.5	10	SS-6	9	67	BROWN, GRAVEL AND/OR STONE FRAGMENTS WITH SAND AND SILT						15	A-2-4 (VISUAL)			
B-003-0-11 STA.233+98.12 55.86' LT.	1.5	3	SS-1	13	28				SAME AS SS-2				12	A-6b (VISUAL)*	
	3	4.5	SS-2	10	67	28	15	17	29	11	36	20	16	20	A-6b (3)
	4.5	6	SS-3	4	56	36	14	15	23	12	-	-	-	18	A-2-4 (VISUAL)
	6	7.5	SS-4	3	39				SAME AS SS-3				16	A-2-4 (VISUAL)	
	8.5	10	SS-5	13	67				SAME AS SS-3				6	A-2-4 (VISUAL)	
B-004-0-11 STA.236+00.15 62.20' RT.	0	1.5	SS-1	7	89	6	5	20	53	16	27	19	8	20	A-4b (7)*
	1.5	3	SS-2	9	78				SAME AS SS-3				9	A-6a (VISUAL)*	
	3	4.5	SS-3	6	61	11	10	17	46	16	30	19	11	13	A-6a (6)*
	4.5	6	SS-4	4	39				SAME AS SS-3				22	A-6a (VISUAL)	
	6	7.5	SS-5	22	44	46	19	12	20	3	-	-	-	19	A-1-b (VISUAL)
8.5	10	SS-6	29	72				SAME AS SS-5				10	A-1-b (VISUAL)		
B-005-0-11 STA.248+99.14 56.20' RT.	1	2.5	SS-1	20	17	BROWN, GRAVEL AND/OR STONE FRAGMENTS WITH SAND AND SILT					6	A-2-4 (VISUAL)*			
	2.5	4	SS-2	29	78	19	8	17	42	14	26	17	9	12	A-4a (4)*
	4	5.5	SS-3	40	83	43	8	13	28	8	29	20	9	11	A-4a (0)
	5.5	7	SS-4	46	72				SAME AS SS-3				12	A-4a (VISUAL)	
B-006-0-11 STA.253+00.22 55.20' RT.	1	2.5	SS-1	13	67	1	9	20	53	17	28	18	10	12	A-4b (7)*
	2.5	4	SS-2	14	56	20	13	16	38	13	26	18	8	12	A-4a (3)*
	4	5.5	SS-3	20	72				SAME AS SS-2				9	A-4a (VISUAL)	
5.5	7	SS-4	10	83	13	11	15	47	14	29	19	10	19	A-4a (5)	
B-007-0-11 STA.257+00.32 55.96' RT.	1	2.5	SS-1	10	78	1	5	22	46	26	29	17	12	17	A-6a (8)*
	2.5	4	SS-2	13	78				SAME AS SS-1				16	A-6a (VISUAL)*	
	4	5.5	SS-3	26	67	17	11	19	39	14	26	18	8	13	A-4a (4)
5.5	7	SS-4	23	89				SAME AS SS-3				12	A-4a (VISUAL)		
B-008-0-11 STA.260+99.79 50.97' RT.	1	2.5	SS-1	24	72	3	5	25	49	18	25	16	9	9	A-4a (6)*
	2.5	4	SS-2	24	67				SAME AS SS-1				12	A-4a (VISUAL)*	
	4	5.5	SS-3	20	83	31	2	14	39	14	31	20	11	14	A-6a (4)
5.5	7	SS-4	11	89				SAME AS SS-3				11	A-6a (VISUAL)		
B-009-0-11 STA.261+36.32 54.62' LT.	1.5	3	SS-1	14	78	13	10	23	39	15	23	15	8	14	A-4a (4)*
	4	5.5	SS-2	20	56				SAME AS SS-1				11	A-4a (VISUAL)	
	6.5	8	SS-3	52	67				SAME AS SS-1				6	A-4a (VISUAL)	
	9	10.5	SS-4	39	44				SAME AS SS-1				7	A-4a (VISUAL)	
	11.5	13	SS-5	13	89	54	3	5	25	13	32	19	13	16	A-6a (1)
	14	15.5	SS-6	36	39				SAME AS SS-5				11	A-6a (VISUAL)	
	16.5	18	SS-7	26	83	45	6	13	24	12	29	17	12	11	A-6a (1)
19	20.5	SS-8	27	89				SAME AS SS-7				9	A-6a (VISUAL)		
B-010-0-11 STA.264+87.61 60.96' LT.	1.5	3	SS-1	49	83	BROWN, HIGHLY WEATHERED SHALE					8	(VISUAL)*			
	3	4.5	SS-2	72	83	SAME AS SS-1					7	(VISUAL)			
	4.5	6	SS-3	72	72	SAME AS SS-1					8	(VISUAL)			

EXPLOR. ID	FROM	TO	SAMPLE ID	N ₆₀	% REC	% GR	% CS	% FS	% SILT	% CLAY	LL	PL	PI	% WC	ODOT CLASS (G1)
B-010-0-11 (CONT.)	6	7.5	SS-4	-	71				SAME AS SS-1				7	(VISUAL)	
	8.5	10	SS-5	90	56				BROWN, SANDSTONE				8	(VISUAL)	
B-011-0-11 STA.267+50.82 53.66' LT.	1.5	3	SS-1	14	78	9	8	16	45	22	29	16	13	15	A-6a (8)*
	3	4.5	SS-2	17	67				SAME AS SS-1				16	A-6a (VISUAL)	
4.5	6	SS-3	11	83	37	8	20	29	6	22	16	6	13	A-2-4 (0)	
B-012-0-11 STA.3+16.95 11.14' RT.	1	2.5	SS-1	6	72	26	11	20	33	10	26	17	9	12	A-4a (2)
	3.5	5	SS-2	6	83				SAME AS SS-1				16	A-4a (VISUAL)	
	6	7.5	SS-3	9	89	4	21	27	36	12	28	19	9	18	A-4a (3)
	8.5	10	SS-4	4	50				SAME AS SS-2				18	A-4a (VISUAL)	
	10	11.5	SS-5	19	44	BROWN, GRAVEL AND OR STONE FRAGMENTS WITH SAND						15	A-1-b (VISUAL)		
B-013-0-11 STA.7+16.27 20.85' RT.	1	2.5	SS-1	11	94				SAME AS SS-2				16	A-4a (VISUAL)	
	3.5	5	SS-2	7	89	1	3	45	38	13	21	16	5	24	A-4a (3)
	6	7.5	SS-3	14	44				SAME AS SS-2				21	A-4a (VISUAL)	
	8.5	10	SS-4	42	67	6	9	19	44	22	21	14	7	11	A-4a (6)
B-014-0-11 STA.11+09.91 0.20' LT.	1	2.5	SS-1	3	83	0	3	33	48	16	22	17	5	18	A-4a (6)
	3.5	5	SS-2	3	39				SAME AS SS-1				17	A-4a (VISUAL)	
	6	7.5	SS-3	14	56				SAME AS SS-1				13	A-4a (VISUAL)	
	8.5	10	SS-4	26	33	BROWN, SANDY SILT						11	A-4a (VISUAL)		
13.5	15	SS-5	34	67	39	17	16	25	3	NP	NP	NP	14	A-2-4 (0)	
B-015-0-11 STA.14+09.67 0.02' RT.	1	2.5	SS-1	10	56	5	6	33	42	14	31	21	10	27	A-4a (4)
	3.5	5	SS-2	22	39				SAME AS SS-1				17	A-4a (VISUAL)	
	6	7.5	SS-3	20	56	31	13	20	29	7	24	18	6	13	A-4a (0)
	8.5	10	SS-4	26	44				SAME AS SS-3				15	A-4a (VISUAL)	
	11	12.5	SS-5	19	83	10	8	15	45	22	23	15	8	13	A-4a (6)
	13.5	15	SS-6	16	83				SAME AS SS-5				11	A-4a (VISUAL)	
B-019-0-11 STA.22+59.73 0.10' RT.	1	2.5	SS-1	11	72	6	5	18	50	21	39	20	19	20	A-6b (11)
	3.5	5	SS-2	3	56	32	21	14	22	11	-	-	-	16	A-6a (VISUAL)
	6	7.5	SS-3	11	44	BROWN, GRAVEL AND/OR STONE FRAGMENTS WITH SAND AND SILT						11	A-2-4 (VISUAL)		
	8.5	10	SS-4	11	67	23	22	21	30	4	19	16	3	9	A-2-4 (0)
	11	12.5	SS-5	30	33	15	18	18	43	6	23	18	5	9	A-4a (3)
	13.5	15	SS-6	14	72	BROWN, GRAVEL AND/OR STONE FRAGMENTS WITH SAND AND SILT						10	A-2-4 (VISUAL)		
B-020-0-11 STA.27+09.73 0.02' RT.	16	17.5	SS-7	20	83				SAME AS SS-6				10	A-2-4 (VISUAL)	
	18.5	20	SS-8	17	83				SAME AS SS-6				8	A-2-4 (VISUAL)	
	1	2.5	SS-1	3	72	9	7	17	49	18	28	20	8	25	A-4a (6)
	3.5	5	SS-2	7	50				SAME AS SS-1				22	A-4a (VISUAL)	
	6	7.5	SS-3	4	56				SAME AS SS-1				23	A-4a (VISUAL)	
	8.5	10	SS-4	13	56	44	17	9	26	4	NP	NP	NP	9	A-2-4 (0)
11	12.5	SS-5	10	61				SAME AS SS-4				14	A-2-4 (VISUAL)		
13.5	15	SS-6	20	78	5	7	17	40	31	25	14	11	11	A-6a (8)	

SUMMARY OF SOIL TEST DATA - NEW CHERRY VALLEY ROAD



J:\depi5\11 Projects\11050016COL-ODOT Dist 5-Cherry Valley Rd\Design\12.11.08 stage 2 submittal\2013 revisions\11050016COL--21.05.13\80704ID003.dgn 6/27/2013 12:43:36 PM ntvaroch

SUMMARY OF SOIL TEST DATA - NEW CHERRY VALLEY ROAD (CONT.)

Table with columns: EXPLOR. ID, FROM, TO, SAMPLE ID, N60, % REC, % GR, % CS, % FS, % SILT, % CLAY, LL, PL, PI, % WC, ODOT CLASS (G1). Rows include B-021-0-11 STA.31+07.15 22.85' LT. and B-022-0-11 STA.238+00.48 14.44' LT.

SUMMARY OF SOIL TEST DATA- RAMP A

Table with columns: EXPLOR. ID, FROM, TO, SAMPLE ID, N60, % REC, % GR, % CS, % FS, % SILT, % CLAY, LL, PL, PI, % WC, ODOT CLASS (G1). Rows include B-022-0-11 STA.238+00.48 14.44' LT. and B-023-0-11 STA.240+81.90 107.23' LT.

Table with columns: EXPLOR. ID, FROM, TO, SAMPLE ID, N60, % REC, % GR, % CS, % FS, % SILT, % CLAY, LL, PL, PI, % WC, ODOT CLASS (G1). Rows include B-023-0-11 STA.240+81.90 107.23' LT. and B-024-0-11 STA.245+86.17 149.83' LT.

Table with columns: EXPLOR. ID, FROM, TO, SAMPLE ID, N60, % REC, % GR, % CS, % FS, % SILT, % CLAY, LL, PL, PI, % WC, ODOT CLASS (G1). Rows include B-024-0-11 STA.245+86.17 149.83' LT. and B-025-0-11 STA.249+74.65 167.03' LT.

SUMMARY OF SOIL TEST DATA- RAMP B

Table with columns: EXPLOR. ID, FROM, TO, SAMPLE ID, N60, % REC, % GR, % CS, % FS, % SILT, % CLAY, LL, PL, PI, % WC, ODOT CLASS (G1). Rows include B-025-0-11 STA.249+74.65 167.03' LT. and B-026-0-11 STA.253+24.92 59.76' LT.

Table with columns: EXPLOR. ID, FROM, TO, SAMPLE ID, N60, % REC, % GR, % CS, % FS, % SILT, % CLAY, LL, PL, PI, % WC, ODOT CLASS (G1). Rows include B-026-0-11 STA.253+24.92 59.76' LT. and B-027-0-11 STA.257+35.05 23.13' LT.

Table with columns: EXPLOR. ID, FROM, TO, SAMPLE ID, N60, % REC, % GR, % CS, % FS, % SILT, % CLAY, LL, PL, PI, % WC, ODOT CLASS (G1). Rows include B-027-0-11 STA.257+35.05 23.13' LT. and B-028-0-11 STA.257+37.82 107.74' LT.

SUMMARY OF SOIL TEST DATA - RAMP B (CONT.)

Table with columns: EXPLOR. ID, FROM, TO, SAMPLE ID, N60, % REC, % GR, % CS, % FS, % SILT, % CLAY, LL, PL, PI, % WC, ODOT CLASS (G1). Rows include B-027-1-11 STA.257+37.82 107.74' LT. and B-028-0-11 STA.239+98.81 6.23' LT.

SUMMARY OF SOIL TEST DATA - RAMP C

Table with columns: EXPLOR. ID, FROM, TO, SAMPLE ID, N60, % REC, % GR, % CS, % FS, % SILT, % CLAY, LL, PL, PI, % WC, ODOT CLASS (G1). Rows include B-028-0-11 STA.239+98.81 6.23' LT. and B-029-0-11 STA.243+91.13 33.68' LT.

Table with columns: EXPLOR. ID, FROM, TO, SAMPLE ID, N60, % REC, % GR, % CS, % FS, % SILT, % CLAY, LL, PL, PI, % WC, ODOT CLASS (G1). Rows include B-029-0-11 STA.243+91.13 33.68' LT. and B-030-0-11 STA.248+15.90 38.32' LT.

Table with columns: EXPLOR. ID, FROM, TO, SAMPLE ID, N60, % REC, % GR, % CS, % FS, % SILT, % CLAY, LL, PL, PI, % WC, ODOT CLASS (G1). Rows include B-030-0-11 STA.248+15.90 38.32' LT. and B-031-0-11 STA.244+35.18 43.35' LT.

SUMMARY OF SOIL TEST DATA- RAMP D

Table with columns: EXPLOR. ID, FROM, TO, SAMPLE ID, N60, % REC, % GR, % CS, % FS, % SILT, % CLAY, LL, PL, PI, % WC, ODOT CLASS (G1). Rows include B-031-0-11 STA.244+35.18 43.35' LT. and B-032-0-11 STA.23+94.39 16.15' LT.

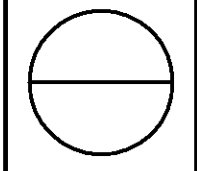
SUMMARY OF SOIL TEST DATA EXISTING CHERRY VALLEY ROAD

Table with columns: EXPLOR. ID, FROM, TO, SAMPLE ID, N60, % REC, % GR, % CS, % FS, % SILT, % CLAY, LL, PL, PI, % WC, ODOT CLASS (G1). Rows include B-032-0-11 STA.23+94.39 16.15' LT. and B-033-0-11 STA.27+51.48 41.76' LT.

DRAWN C.L. CHECKED NT

SOIL PROFILE SUMMARY OF SOIL TEST DATA

LIC-16-16.80



j:\dept\15\11 Projects\11050016\COL-0DOT-Dist 5-Cherry Valley Rd\Design\12.11.08 stage 2_submittal_2013_revisions\11050016\COL--21.05.13\80704ID004.dgn 6/27/2013 12:43:56 PM ntvaroch

SUMMARY OF SOIL TEST DATA - EXISTING CHERRY VALLEY ROAD (CONT.)

HISTORIC-SUMMARY OF SOIL TEST DATA (CONT.)

EXPLOR. ID	FROM	TO	SAMPLE ID	N60	% REC	% GR	% CS	% FS	% SILT	% CLAY	LL	PL	PI	% WC	ODOT CLASS (G1)
B-034-0-11 STA.29+42.56 44.77' LT.	0	1.5	SS-1	6	39				BROWN, SANDY SILT					27	A-4a (VISUAL)
	1.5	3	SS-2	4	67	24	31	22	23	0	21	17	4	20	A-1-b (0)
	3	4.5	SS-3	7	50	3	5	11	63	18	31	21	10	20	A-4b (8)
	4.5	6	SS-4	10	89				BROWN, SILT					21	A-4b (VISUAL)
	6	7.5	SS-5	6	83				BROWN, SILT					23	A-4b (VISUAL)
	8.5	10	SS-6	1	83	2	4	40	45	9	28	20	8	21	A-4a (4)
	11	12.5	SS-7	24	78	BROWN, GRAVEL AND/OR STONE FRAGMENTS WITH SAND AND SILT					8	A-2-4 (VISUAL)			
B-035-0-11 STA.33+05.55 10.86' LT.	1	2.5	SS-1	14	78	29	11	33	22	5	NP	NP	NP	11	A-2-4 (0)*
	2.5	4	SS-2	9	44	29	22	26	21	2	NP	NP	NP	7	A-1-b (0)*
	4	5.5	SS-3	10	67	SAME AS SS-2					9	A-1-b (VISUAL)			
	5.5	7	SS-4	7	61	12	10	62	15	1	NP	NP	NP	11	A-3a (0)
	8.5	10	SS-5	9	72	SAME AS SS-4					15	A-3a (VISUAL)			

SUMMARY OF SOIL TEST DATA - GRANVILLE ROAD

B-036-0-11 STA.242+43.23 10.39' RT.	1.5	3	SS-1	34	22	BROWN, GRAVEL AND/OR STONE FRAGMENTS WITH SAND AND SILT					4	A-2-4 (VISUAL)*			
	3	4.5	SS-2	10	67	3	9	16	52	20	26	17	9	15	A-4b (7)*
	4.5	6	SS-3	10	72	13	12	26	29	20	40	20	20	19	A-6b (6)
	6	7.5	SS-4	7	17	SAME AS SS-3					16	A-6b (VISUAL)			
	8.5	10	SS-5	3	39	39	8	17	27	9	28	19	9	15	A-4a (0)
B-037-0-11 STA.246+40.19 20.68' RT.	0	1.5	SS-1	3	78	12	6	12	46	24	37	22	15	22	A-6a (9)*
	1.5	3	SS-2	9	56	11	10	15	41	23	42	24	18	22	A-7-6 (9)
	3	4.5	SS-3	4	78	6	29	39	18	8	NP	NP	NP	16	A-3a (0)
	4.5	6	SS-4	0	44	SAME AS SS-3					8	A-3a (VISUAL)			
	6	7.5	SS-5	0	78	4	25	46	13	12	NP	NP	NP	10	A-3a (0)
	8.5	10	SS-6	1	50	SAME AS SS-5					13	A-3a (VISUAL)			
	11	12.5	SS-7	10	28	19	22	27	23	9	21	15	6	19	A-2-4 (0)
	13.5	15	SS-8	33	78	SAME AS SS-7					15	A-2-4 (VISUAL)			
B-038-0-11 STA.250+38.71 17.71' RT.	0	1.5	SS-1	3	50	6	4	13	64	13	41	26	15	26	A-7-6 (10)*
	1.5	3	SS-2	6	22	13	12	12	52	11	45	31	14	29	A-7-5 (8)*
	3	4.5	SS-3	7	50	BROWN, SANDY SILT					9	A-4a (VISUAL)			
	4.5	6	SS-4	3	56	1	6	67	22	4	NP	NP	NP	14	A-3a (0)
	6	7.5	SS-5	3	56	SAME AS SS-4					11	A-3a (VISUAL)			
	8.5	10	SS-6	3	33	8	21	43	25	3	NP	NP	NP	12	A-3a (0)
	11	12.5	SS-7	3	17	SAME AS SS-6					19	A-3a (VISUAL)			
B-039-0-11 STA.254+39.54 11.98' RT.	1.5	3	SS-1	6	44	16	9	18	40	17	27	17	10	14	A-4a (4)*
	3	4.5	SS-2	1	44	SAME AS SS-1					19	A-4a (VISUAL)			
	4.5	6	SS-3	3	89	4	27	27	34	8	20	15	5	22	A-4a (1)
	6	7.5	SS-4	3	89	SAME AS SS-3					20	A-4a (VISUAL)			
	8.5	10	SS-5	10	83	0	1	9	62	28	33	20	13	18	A-6a (9)

HISTORIC-SUMMARY OF SOIL TEST DATA

STA. 219+00	0.3	4	AS-1		18	9	19	30	24	30	20	10	20	A-4a
CL	4	10	AS-2		59	16	8	10	7	NP	NP	NP	11	A-1-b
	10	16	AS-3		51	22	9	10	8	NP	NP	NP	7	A-1-b
STA. 222+75	0.5	4	AS-1		22	9	11	33	25	26	18	8	19	A-4a
CL	4	10	AS-2		52	15	8	14	11	NP	NP	NP	12	A-1-b
	10	15	AS-3		57	23	9	5	6	NP	NP	NP	13	A-1-a
STA. 226+78	0.3	2	AS-1		23	16	12	25	24	26	23	3	15	A-4a
CL	2	6	AS-2		0	1	2	56	41	37	20	17	22	A-6b
	6	12	AS-3		51	21	9	11	8	NP	NP	NP	10	A-1-b

EXPLOR. ID	FROM	TO	SAMPLE ID	N60	% REC	% GR	% CS	% FS	% SILT	% CLAY	LL	PL	PI	% WC	ODOT CLASS (G1)
STA. 229+00	0.5	3	AS-1			0	16	16	36	32	33	11	12	21	A-6a
CL	3	8	AS-2			77	12	4	-	7	-	NP	NP	9	A-1-a
	8	12	AS-3			57	15	7	13	8	23	20	3	8	A-1-b
STA. 231+15	0.5	3	AS-1			0	2	22	45	31	30	18	12	19	A-6a
CL	3	6	AS-2			34	9	16	22	19	32	20	12	21	A-6a
	6	12	AS-3			71	4	9	12	4	NP	NP	NP	9	A-1-b
STA. 233+00	0.5	5	AS-1			41	11	13	18	17	32	20	12	21	A-2-6
CL	5	6	AS-2			58	5	7	23	7	NP	NP	NP	12	A-2-4
	6	10	AS-3			60	11	10	12	7	NP	NP	NP	11	A-1-b
	10	12	AS-4			47	20	13	14	6	NP	NP	NP	8	A-1-b
STA. 236+00	0.3	5	AS-1			8	11	15	33	33	33	22	11	24	A-6a
CL	5	12	AS-2			56	22	7	8	7	NP	NP	NP	10	A-1-a
STA. 239+50	0.3	4	AS-1			43	19	12	11	15	27	18	9	15	A-2-4
CL	4	5	AS-2			25	25	20	18	12	NP	NP	NP	12	A-2-4
	5	10	AS-3			48	15	10	18	9	NP	NP	NP	12	A-2-4
STA. 239+50 60' RT	0.3	2	AS-1			0	3	22	43	32	24	19	5	19	A-4a
	2	7	AS-2			46	17	13	13	11	NP	NP	NP	15	A-1-b
STA. 242+50	0.2	3	AS-1			0	3	29	42	26	23	18	5	22	A-4a
CL	3	6	AS-2			46	17	11	12	14	30	18	12	17	A-2-6
	6	10	AS-3			59	14	7	14	6	NP	NP	NP	8	A-1-b
STA. 244+50	0	3	AS-1			5	10	16	40	29	23	20	3	18	A-4a
CL	3	8	AS-2			54	21	6	11	8	NP	NP	NP	8	A-1-b
	8	12	AS-3			53	22	7	11	7	NP	NP	NP	8	A-1-b
STA. 247+00	0.3	2	AS-1			30	14	14	18	24	37	22	15	20	A-6a
CL	2	8	AS-2			60	13	7	14	6	NP	NP	NP	8	A-1-b
STA. 249+75	0	1	AS-1			0	1	11	60	28	38	29	9	33	A-4b
CL	1	6	AS-2			36	11	26	17	10	NP	NP	NP	25	A-2-4
	6	10.5	AS-3			59	16	11	9	5	NP	NP	NP	14	A-1-a
STA. 251+50	0.5	4	AS-1			16	42	19	14	9	NP	NP	NP	12	A-1-b
CL	4	9	AS-2			72	15	4	-	9	-	NP	NP	16	A-1-a
	9	12	AS-3			70	15	9	-	6	-	NP	NP	14	A-1-a
STA. 253+20 75' RT	0.4	3	AS-1			0	1	30	47	22	NP	NP	NP	30	A-4a
	3	6	AS-2			0	12	45	27	16	NP	NP	NP	31	A-4a
	6	10	AS-3			79	8	6	-	7	-	NP	NP	15	A-1-a
	10	15	AS-4			16	11	16	41	16	18	14	4	14	A-4a
	15	20	AS-5			54	20	14	-	12	-	NP	NP	19	A-1-a
STA. 253+25	0.3	2	AS-1			0	1	20	52	27	NP	NP	NP	40	A-4b
CL	2	4	AS-2			12	10	49	20	9	NP	NP	NP	29	A-3a
	4	9	AS-3			76	15	5	-	4	-	NP	NP	15	A-1-a
	9	12	AS-4			16	14	17	37	16	18	14	4	13	A-4a
	12	16	AS-5			52	32	10	-	6	-	NP	NP	12	A-1-a
	16	20	AS-6			51	36	9	-	4	-	NP	NP	13	A-1-a

DRAWN: C.L. CHECKED: NT	SOIL PROFILE SUMMARY OF SOIL TEST DATA	LIC-16-16.80	4 / 37
-------------------------	---	---------------------	--------

j:\dept15\11 Projects\11050016COL-0DOT Dist 5-Cherry Valley Rd\Design\12.11.08 stage 2 submittal\2013 revisions\11050016COL--21.05.13\80704ID005.dgn 6/27/2013 12:44:13 PM ntvavroch

HISTORIC-SUMMARY OF SOIL TEST DATA (CONT.)

EXPLOR. ID	FROM	TO	SAMPLE ID	N ₆₀	% REC	% GR	% CS	% FS	% SILT	% CLAY	LL	PL	PI	% WC	ODOT CLASS (G1)
STA. 254+50	0.4	5	AS-1			0	0	19	55	26	NP	NP	NP	38	A-4b
CL	5	10	AS-2			65	21	9	-	5	NP	NP	NP	15	A-1-a
	10	15	AS-3			68	22	5	-	5	NP	NP	NP	13	A-1-a
	15	20	AS-4			48	30	14	-	8	NP	NP	NP	12	A-1-b
STA. 255+68	0.4	5	AS-1			0	1	38	46	15	NP	NP	NP	25	A-4a
CL	5	9	AS-2			75	15	5	-	5	NP	NP	NP	13	A-1-a
	9	15	AS-3			35	8	15	28	14	19	13	6	11	A-4a
	15	20	AS-4			53	32	10	-	5	NP	NP	NP	13	A-1-a
STA. 259+00	0.4	7	AS-1			19	14	39	21	7	NP	NP	NP	15	A-3a
26' LT	7	11	AS-2			75	11	6	-	8	NP	NP	NP	12	A-1-a
	11	15	AS-3			54	33	9	-	4	NP	NP	NP	13	A-1-a
	15	20	AS-4			55	30	10	-	5	NP	NP	NP	10	A-1-a
STA. 262+00	0.3	6	AS-1			29	20	21	21	9	NP	NP	NP	17	A-2-4
52' RT	6	9	AS-2			82	12	3	-	3	NP	NP	NP	15	A-1-a
	9	15	AS-3			39	44	12	-	5	NP	NP	NP	13	A-1-b
	15	20	AS-4			51	33	10	-	6	NP	NP	NP	12	A-1-a
STA. 262+00	0.4	4	AS-1			0	1	25	50	24	NP	NP	NP	24	A-4b
115' RT	4	7	AS-2			47	6	15	21	11	23	20	3	23	A-2-4
	7	10	AS-3			11	9	11	44	25	18	15	3	22	A-4a
	10	17	AS-4			51	34	9	-	6	NP	NP	NP	7	A-1-a
	17	24	AS-5			48	36	12	-	4	NP	NP	NP	14	A-1-b
STA. 263+55	0.4	7	AS-1			38	6	27	21	8	NP	NP	NP	15	A-2-4
70' RT	7	9	AS-2			58	21	14	-	7	NP	NP	NP	14	A-1-a
	9	14	AS-3			14	16	22	31	17	NP	NP	NP	13	A-4a
STA. 269+50	0	1	SS-1			16	9	14	46	15	NP	NP	NP	13	A-4a
CL	5	6	SS-2			10	5	52	14	19	NP	NP	NP	18	A-3a
	10	11	SS-3			0	10	52	23	15	NP	NP	NP	27	A-4a
	15	16	SS-4			0	7	19	54	20	23	17	6	19	A-4b
	19	21				BROWN, SANDSTONE					(VISUAL)				
	21	31				BROWN AND GRAY, SHALE					(VISUAL)				
	31	38				GRAY TO BROWN, SANDSTONE					(VISUAL)				
	38	50				GRAY, SHALE					(VISUAL)				
	50	52				BROWN, SANDSTONE					(VISUAL)				
	52	59				GRAY, SHALE					(VISUAL)				
STA. 270+75	0.4	5	AS-1			16	12	14	36	22	33	17	16	21	A-6b
65' LT.	5	10	AS-2			3	1	7	71	18	27	21	6	25	A-4b
	10	17	AS-3			22	8	16	29	25	28	18	10	17	A-4a
	17	23	AS-4			24	8	15	34	19	28	19	9	18	A-4a
	23	30	AS-4			27	7	15	31	20	24	17	7	21	A-4a
STA. 272+50	0.4	6	AS-1			0	0	3	70	27	29	23	6	24	A-4b
CL	6	10	AS-2			46	15	11	18	10	32	18	14	15	A-2-6
	10	14	AS-3			10	15	48	20	7	NP	NP	NP	14	A-3a
	14	17	AS-4			21	8	13	31	27	29	20	9	18	A-4a
	17	23	AS-5			22	15	29	21	13	NP	NP	NP	18	A-2-4
	23	25	AS-6			13	6	17	48	16	NP	NP	NP	16	A-4a

HISTORIC-SUMMARY OF SOIL TEST DATA (CONT.)

EXPLOR. ID	FROM	TO	SAMPLE ID	N ₆₀	% REC	% GR	% CS	% FS	% SILT	% CLAY	LL	PL	PI	% WC	ODOT CLASS (G1)	
STA. 274+50	0.4	3	AS-1			3	6	12	52	27	25	18	7	22	A-4b	
CL	3	10	AS-2			34	16	19	16	15	26	17	9	18	A-2-4	
	10	15	AS-3			38	15	20	18	9	23	17	6	19	A-2-4	
	15	17	AS-4			7	3	5	40	45	33	11	12	21	A-6a	
STA. 277+40	0	2	AS-1			RANDOM FILL- CINDERS, GLASS, SAND, SILT, ETC.										UCF (VISUAL)
27' LT.	2	5	AS-2			33	15	15	24	13	NP	NP	NP	15	A-4a	
	5	10	AS-3			19	10	15	33	23	22	16	6	14	A-4a	
	10	15	AS-4			12	10	15	38	25	24	17	7	15	A-4a	
STA. 279+00	0.4	7	AS-1 ⁺			0	1	21	70	28	25	20	5	20	A-4b	
100' LT.	7	9	AS-2			79	8	5	-8-	-	NP	NP	NP	20	A-1-a	
	9	15	AS-3			11	9	26	32	22	18	16	2	10	A-4a	
	15	19	AS-4			17	11	20	32	20	19	15	4	13	A-4a	
	19	25	AS-5			56	18	17	-9-	-	NP	NP	NP	14	A-1-a	
	25	30	AS-6			27	18	41	-14-	-	NP	NP	NP	16	A-3a	
STA. 279+50	0.4	3	AS-1			0	1	13	58	28	NP	NP	NP	22	A-4b	
CL	3	10	AS-2			18	19	23	24	16	24	17	7	18	A-4a	
	10	16	AS-3			11	9	16	36	28	20	13	7	12	A-4a	
	16	20	AS-4			0	2	23	62	13	NP	NP	NP	20	A-4b	
	20	25	AS-5			32	25	32	-11-	-	NP	NP	NP	13	A-1-b	
	25	30	AS-6			39	22	23	11	5	NP	NP	NP	13	A-1-b	
STA. 280+19.12	0	1.5	SS-1			0	4	12	50	34	NP	NP	NP	24	A-4b	
99.68' LT.	1.5	2.5	SS-2			0	3	9	56	32	31	21	10	22	A-4b	
	2.5	3.5	SS-3			0	1	19	52	28	28	25	3	22	A-4b	
	3.5	4.1	SS-4			8	5	15	46	26	NP	NP	NP	21	A-4a	
	4.1	5	SS-5			52	9	15	14	10	NP	NP	NP	12	A-1-b	
	5	6	SS-6			65	12	11	6	6	NP	NP	NP	25	A-1-a	
	6	7	SS-7			59	11	12	15	3	NP	NP	NP	12	A-1-b	
	7	8	SS-8			70	5	7	16	2	NP	NP	NP	16	A-1-b	
	8	9	SS-9			66	10	7	15	2	NP	NP	NP	14	A-1-b	
	11	12	SS-10			78	1	5	13	3	NP	NP	NP	13	A-1-b	
	14	15	SS-11			0	1	3	68	28	30	20	10	22	A-4b	
	15	16	SS-12			0	4	16	64	16	NP	NP	NP	18	A-4b	
	16	17	SS-13			59	13	17	-11-	-	NP	NP	NP	12	A-1-a	
	19	20	SS-14			64	10	15	9	2	NP	NP	NP	12	A-1-a	
	22	23	SS-15			71	8	10	9	2	NP	NP	NP	10	A-1-a	
	25	26	SS-16			91	3	3	-3-	-	NP	NP	NP	10	A-1-a	
	27	28	SS-17			3	3	30	46	18	NP	NP	NP	17	A-4a	
	30	31	SS-18			21	8	23	34	14	NP	NP	NP	15	A-4a	
	32.5	33.5	SS-19			28	13	15	32	12	NP	NP	NP	11	A-4a	
	36	37	SS-20			28	11	25	25	11	NP	NP	NP	14	A-4a	
	37	38	SS-21			18	10	24	37	11	NP	NP	NP	12	A-4a	
	40	41	SS-22			8	9	21	43	19	NP	NP	NP	17	A-4a	
STA. 281+00	0.5	6	AS-1			17	31	28	14	10	NP	NP	NP	14	A-3a	
50' LT.	6	10	AS-2			78	8	6	-8-	-	NP	NP	NP	11	A-1-a	
	10	16	AS-3			0	1	6	81	12	31	26	5	23	A-4b	
	16	23	AS-4			20	9	16	35	20	21	16	5	18	A-4a	
	23	30	AS-5			24	11	15	32	18	22	17	5	34	A-4a	
STA. 282+00	0.4	6	AS-1			0	1	22	57	20	NP	NP	NP	23	A-4b	
CL	6	11	AS-2			6	15	8	-12-	-	NP	NP	NP	19	A-1-a	
	11	16	AS-3			0	1	49	42	8	NP	NP	NP	21	A-4a	
	16	20														

J:\dept15\11 Projects\11050016\COL-0DOT Dist. 5-Cherry Valley Rd\Design\12.11.08 stage 2 submittal\2013 revisions\11050016\COL--21.05.13\80704ID005A.dgn 6/27/2013 12:44:32 PM nivaroch

HISTORIC-SUMMARY OF SOIL TEST DATA (CONT.)

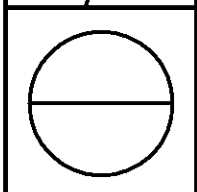
EXPLOR. ID	FROM	TO	SAMPLE ID	N ₆₀	% REC	% GR	% CS	% FS	% SILT	% CLAY	LL	PL	PI	% WC	ODOT CLASS (G)
STA. 282+00	0.4	6	AS-1			0	1	22	57	20	NP	NP	NP	23	A-4b
CL	6	11	AS-2			6	15	8	-12-		NP	NP	NP	19	A-1-a
	11	16	AS-3			0	1	49	42	8	NP	NP	NP	21	A-4a
	16	20	AS-4			0	3	85	-12-		NP	NP	NP	23	A-3a
STA. 283+01.63	0.3	2	AS-1			58	7	8	15	12	29	20	9	11	A-2-4
161.63' LT.	2	5	AS-2			48	12	14	19	7	NP	NP	NP	17	A-2-4
	5	11	AS-3			8	1	55	29	7	NP	NP	NP	25	A-4a
	11	16	AS-4			0	1	14	68	17	NP	NP	NP	18	A-4b
	16	20	AS-5			0	2	5	62	31	21	19	2	22	A-4b
STA. 285+10.66	0	1	SS-1			0	4	28	44	24	NP	NP	NP	17	A-4a
127.41' LT.	1	2.5	SS-2			0	1	22	58	19	NP	NP	NP	27	A-4b
	2.5	3.5	SS-3			47	16	17	12	8	NP	NP	NP	11	A-1-b
	3.5	5.5	SS-4			66	11	12	-11-		NP	NP	NP	12	A-1-a
	5.5	6.5	SS-5			71	7	10	8	4	NP	NP	NP	11	A-1-a
	6.5	7.5	SS-6			80	7	6	5	2	NP	NP	NP	10	A-1-a
	7.5	8.5	SS-7			0	1	1	62	36	24	19	5	17	A-4b
	8.5	10	SS-8			0	0	0	72	28	NP	NP	NP	18	A-4b
	10	11	SS-9			0	2	4	42	52	39	22	17	20	A-6b
	11	12	SS-10			0	0	0	74	26	NP	NP	NP	21	A-4b
	12	13	SS-11			0	0	2	54	44	26	19	7	24	A-4b
	13	14	SS-12			0	0	0	63	37	NP	NP	NP	26	A-4b
	15	16	SS-13			0	0	0	56	44	26	21	5	23	A-4b
	17.5	18.5	SS-14			0	0	0	54	46	29	23	6	24	A-4b
	20	21	SS-15			15	9	28	41	7	NP	NP	NP	13	A-4a
	22.5	23.5	SS-16			21	9	13	48	9	NP	NP	NP	16	A-4a
	25	26	SS-17			13	6	13	41	27	25	18	7	16	A-4a
	27.5	28.5	SS-18			21	9	9	35	26	29	23	6	18	A-4a
	30	31	SS-19			0	4	5	51	40	31	23	8	18	A-4b
STA. 285+50	0.3	5	AS-1			60	11	7	14	8	24	18	6	11	A-1-b
CL	5	11	AS-2			39	9	13	24	15	29	19	10	21	A-4a
	11	16	AS-3			0	5	18	54	23	25	2	23	24 ⁺	A-4b
	16	18	AS-4			8	5	29	39	19	NP	NP	NP	40	A-4a
	18	20	AS-5			83	6	6	-5-		NP	NP	NP	15	A-1-a
	20	25	AS-6			0	2	25	65	8	NP	NP	NP	23	A-4b
	25	30	AS-7			0	1	21	58	20	NP	NP	NP	16	A-4b
STA. 285+50	0.4	4	AS-1			0	1	8	63	28	35	24	11	31	A-6a
71' RT	4	7	AS-2			82	8	6	-4-		NP	NP	NP	16	A-1-a
	7	10	AS-3			11	2	9	56	22	23	18	5	16	A-4b
	10	15	AS-4			6	2	18	44	30	20	15	5	17	A-4a
STA. 286+00	0.4	3	AS-1			0	2	32	49	17	NP	NP	NP	32	A-4a
100' LT.	3	7	AS-2			0	4	28	47	21	44	32	12	51	A-7-5
	7	14.5	AS-3			68	14	7	6	5	NP	NP	NP	18	A-1-a
	14.5	18	AS-4			34	11	12	30	13	NP	NP	NP	15	A-4a
STA. 289+35	0.4	7	AS-1			67	6	10	10	7	NP	NP	NP	11	A-1-b
CL	7	11	AS-2			0	1	22	50	27	25	19	6	22	A-4b
	11	12	AS-3			8	2	6	52	32	29	20	9	12	A-4b

+WC SHOWN AS 25 ON HISTORIC PROFILE AND SHOWN AS 24 ON HISTORIC SUMMARY OF SOIL TEST DATA

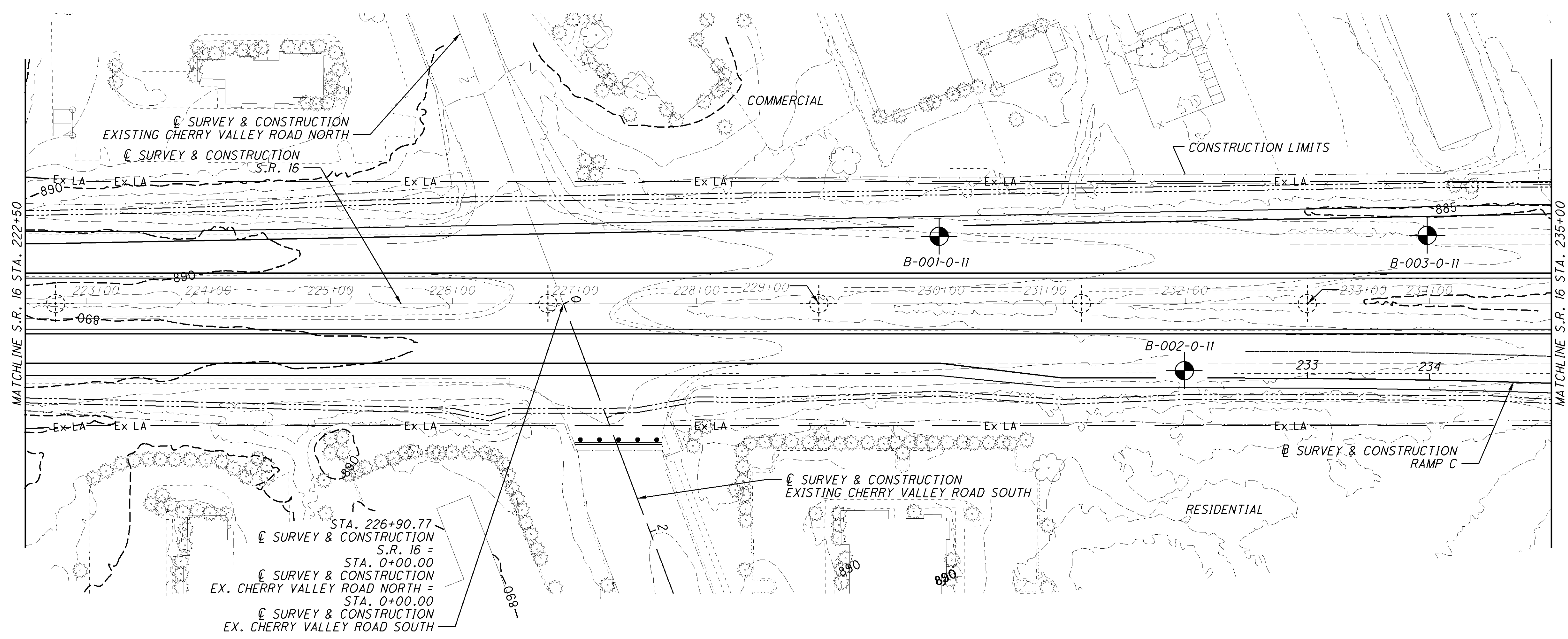
DRAWN
C.L.
CHECKED
NT

SOIL PROFILE
SUMMARY OF SOIL TEST DATA

LIC-16-16.80

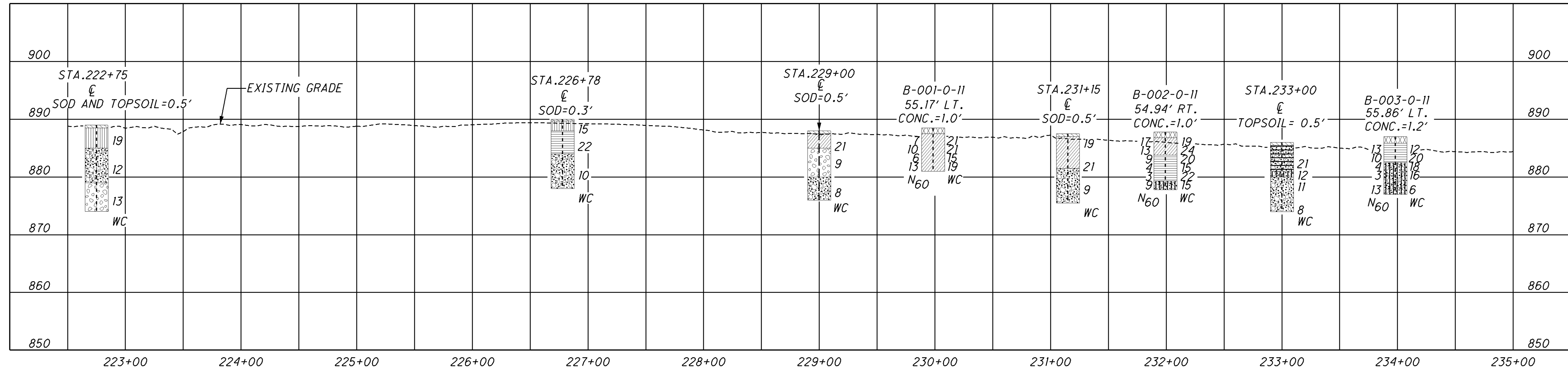


J:\dept15\11 Projects\11050016COL-ODOT Dist 5-Cherry Valley Rd\Design\12.11.08 stage 2 submittal\2013 revisions\11050016COL--21.05.13\80704GP007.dgn 6/27/2013 12:34:53 PM nivaroch



STA. 226+90.77
 CL SURVEY & CONSTRUCTION
 S.R. 16 =
 STA. 0+00.00
 CL SURVEY & CONSTRUCTION
 EX. CHERRY VALLEY ROAD NORTH =
 STA. 0+00.00
 CL SURVEY & CONSTRUCTION
 EX. CHERRY VALLEY ROAD SOUTH

NOTE:
 AT THE TIME THAT THESE SHEETS WERE PREPARED, THE PROPOSED GRADE ALONG EXISTING
 S.R. 16 HAD NOT BEEN PROVIDED BY ODOT.

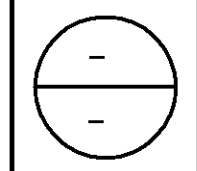


HORIZONTAL SCALE IN FEET

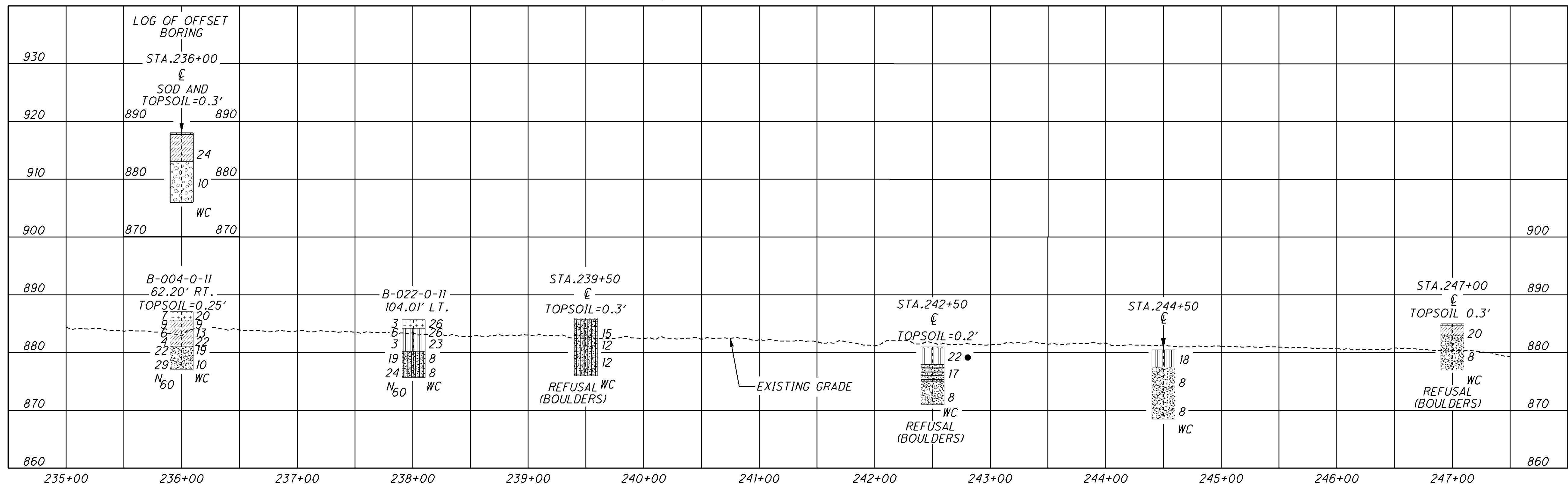
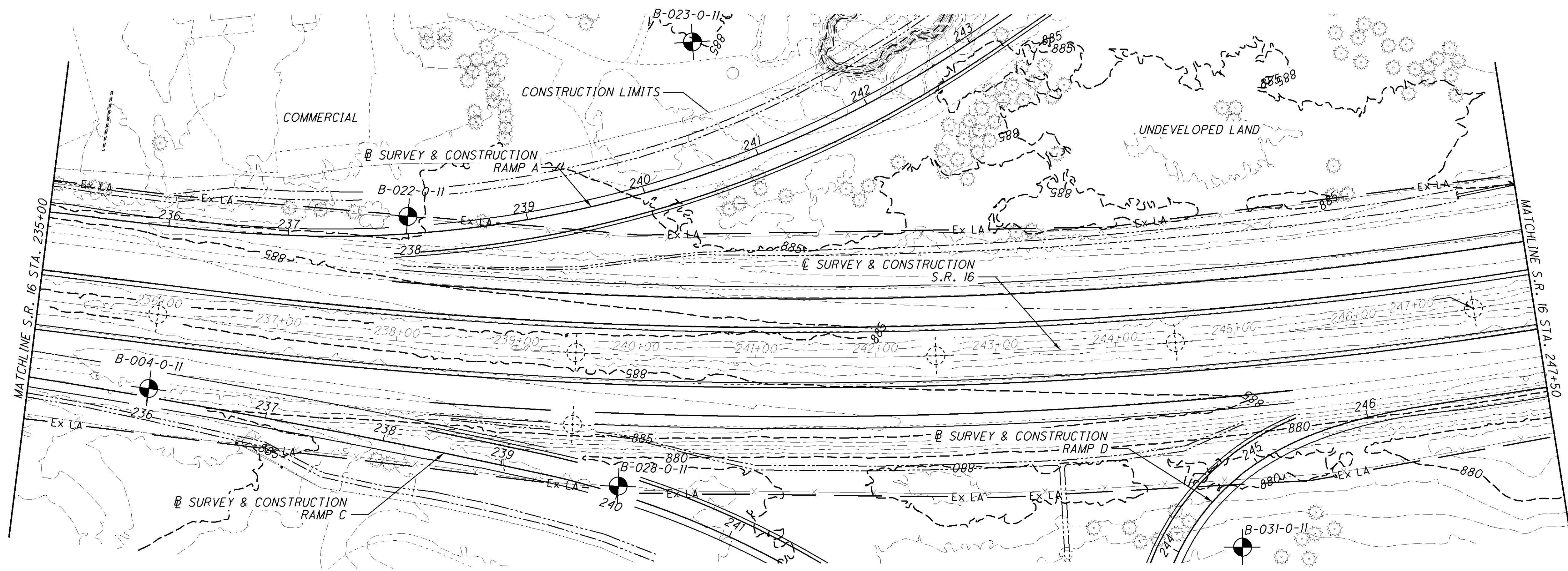
DRAWN: N.K.S.
 CHECKED: NT

SOIL PROFILE
 STA. 222+50 TO STA. 235+00 - S.R. 16

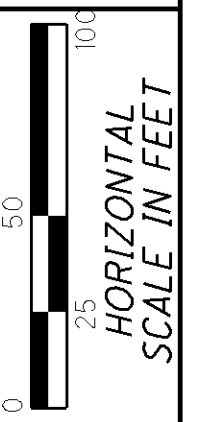
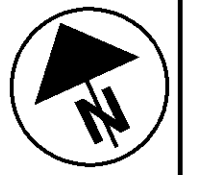
LIC-16-16.80



J:\dept15\11 Projects\1050016COL-ODOT Dist 5-Cherry Valley Rd\Design\12.11.08 stage 2 submittal\2013 revisions\1050016COL--21.05.13\80704GP008.dgn 6/27/2013 12:35:10 PM ntvoroch



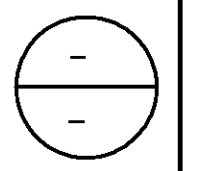
NOTE:
 SEE SHEET 17 OF 37 FOR BORING B-023-0-11 SOIL PROFILE
 SEE SHEET 20 OF 37 FOR BORING B-028-0-11 SOIL PROFILE
 SEE SHEET 28 OF 37 FOR HISTORIC BORING AT STATION 239+50, 60' RT. SOIL PROFILE
 SEE SHEET 22 OF 37 FOR BORING B-031-0-11 SOIL PROFILE
 AT THE TIME THAT THESE SHEETS WERE PREPARED, THE PROPOSED GRADE ALONG EXISTING S.R. 16 HAD NOT BEEN PROVIDED BY ODOT.



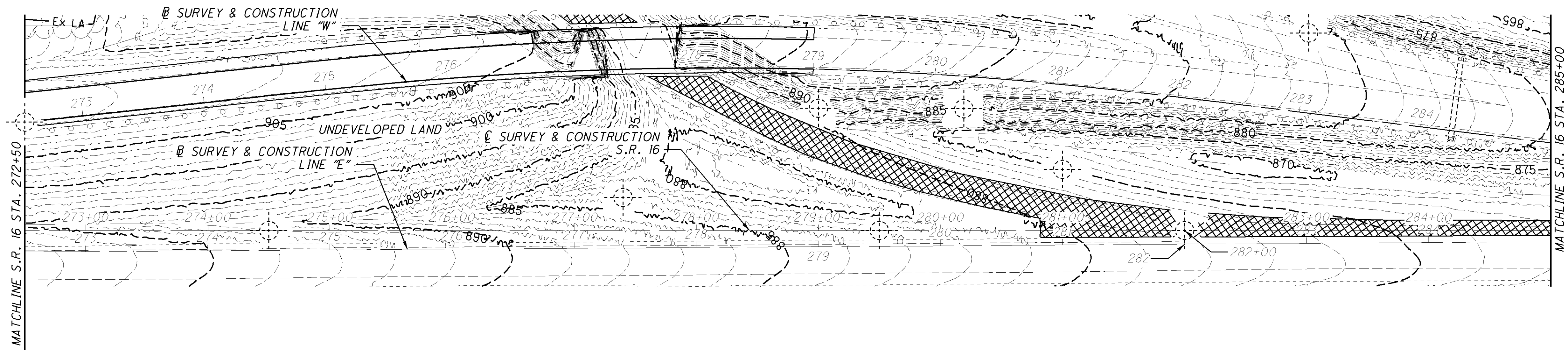
DRAWN: N.K.S.
 CHECKED: NT

SOIL PROFILE
 STA. 235+00 TO STA. 247+50 - S.R. 16

LIC-16-16.80

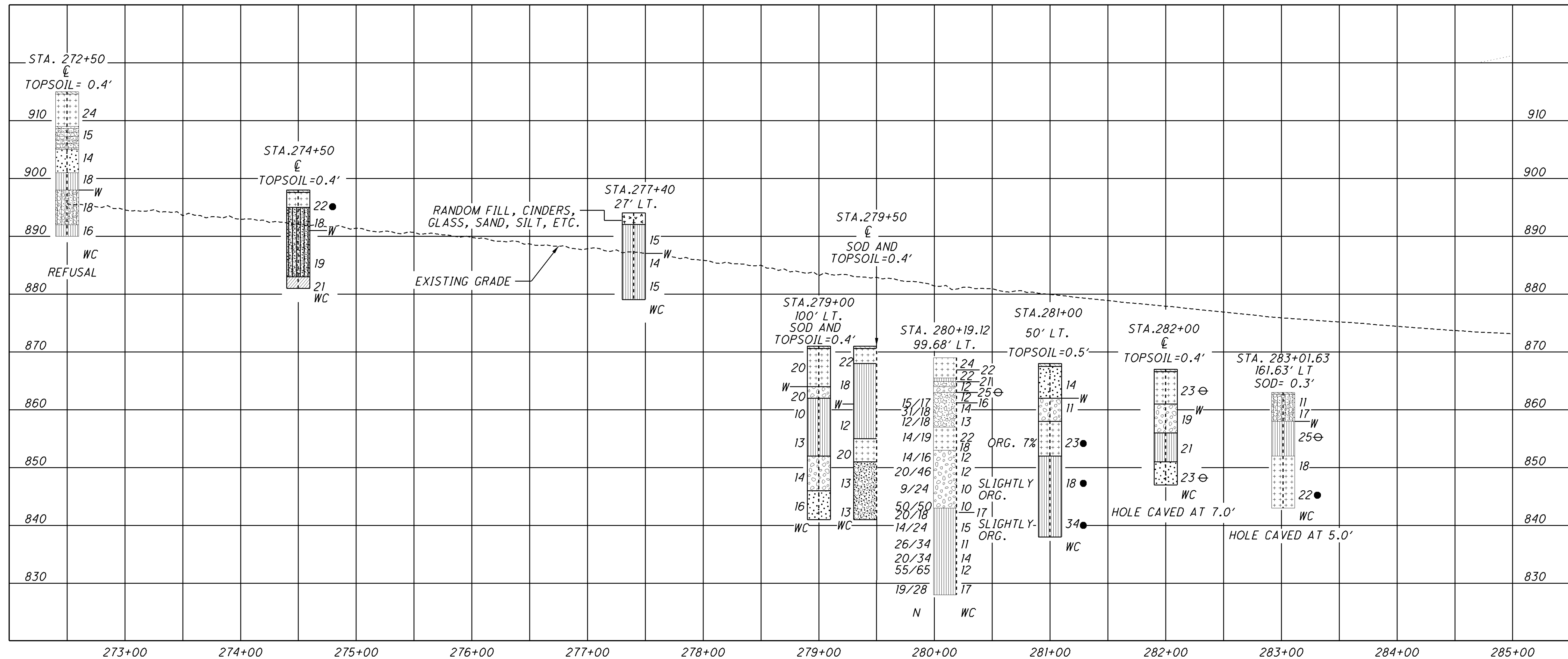


J:\dept15\11 Projects\11050016COL-ODOT Dist 5-Cherry Valley Rd\Design\12.11.08 stage 2 submittal\2013 revisions\11050016COL--21.05.13\80704GP011.dgn 6/27/2013 12:36:18 PM nivaroch



NOTE:

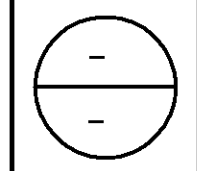
AT THE TIME THAT THESE SHEETS WERE PREPARED, THE PROPOSED GRADE ALONG EXISTING S.R. 16 HAD NOT BEEN PROVIDED BY ODOT.



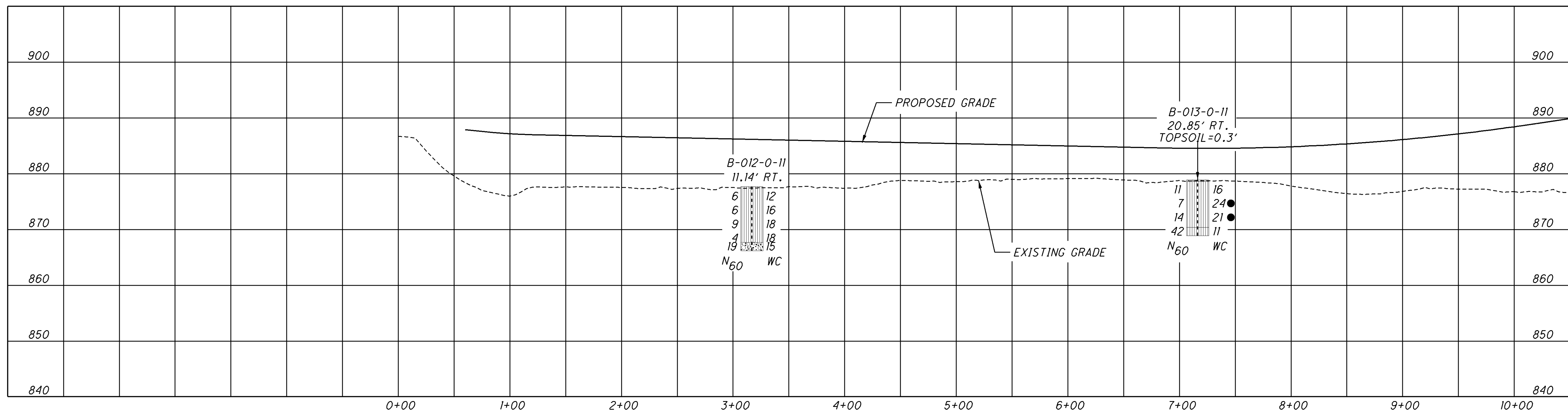
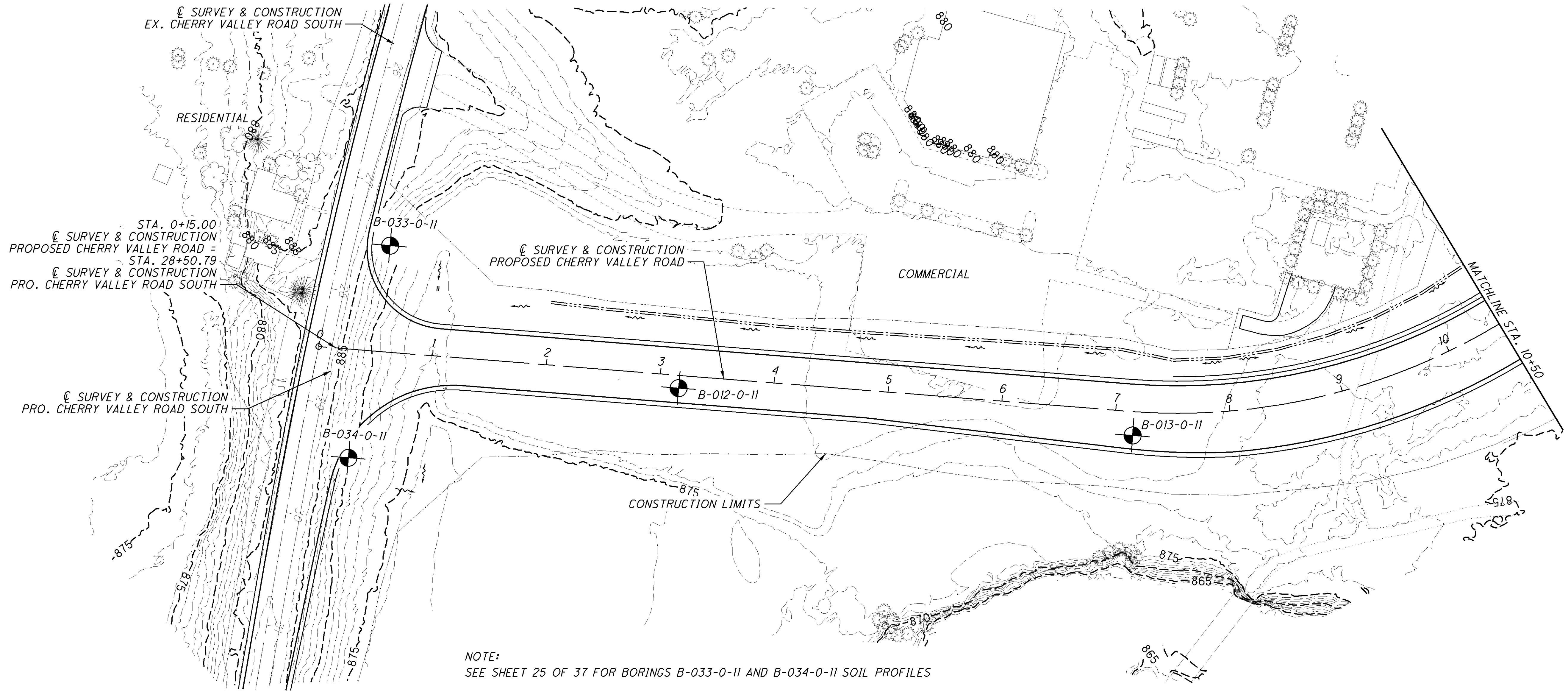
DRAWN: N.K.S.
CHECKED: NT

SOIL PROFILE
STA. 272+50 TO STA. 285+00 - S.R. 16

LIC-16-16.80



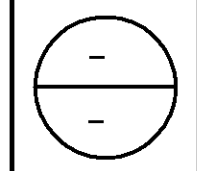
J:\dept15\11 Projects\11050016COL-0DOT Dist 5-Cherry Valley Rd\Design\12.11.08 stage 2 submittal\11050016COL--21.05.13\80704GP013.dgn 6/27/2013 12:37:11 PM nivaroch

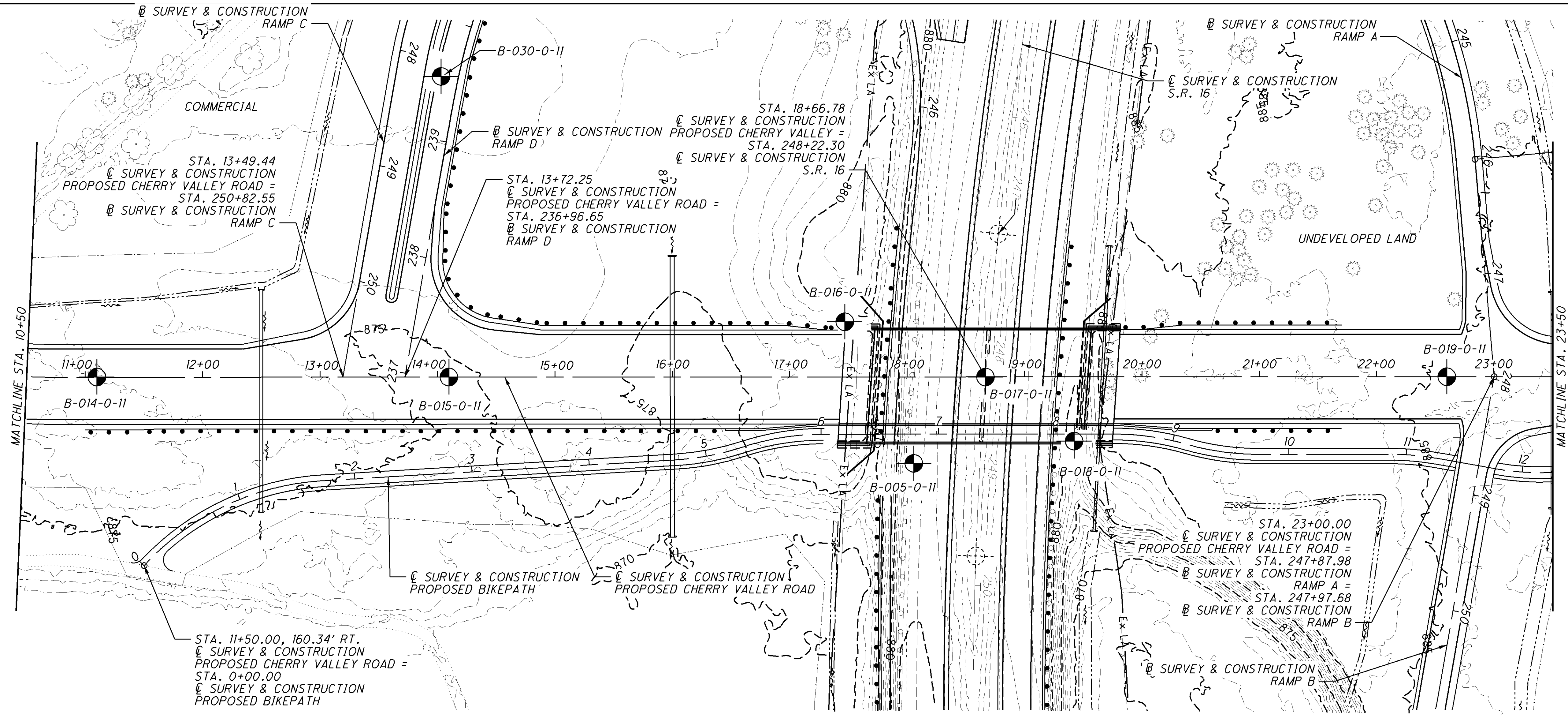


DRAWN: N.K.S.
CHECKED: NT

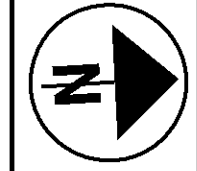
SOIL PROFILE
STA. 0+00.00 TO STA. 10+50.00
NEW CHERRY VALLEY ROAD

LIC-16-16.80





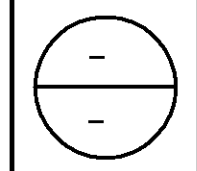
NOTE:
 SEE SHEET 15 OF 37 FOR BORINGS B-014-0-11, B-015-0-11, B-016-0-11, B-017-0-11, B-018-0-11 AND B-019-0-11 SOIL PROFILES
 SEE SHEET 21 OF 37 FOR BORING B-030-0-11 SOIL PROFILE
 SEE SHEET 9 OF 37 FOR BORING B-005-0-11 SOIL PROFILE AND FOR
 HISTORIC BORINGS AT STATION 249+75, \odot SOIL PROFILES
 SEE SHEET 8 OF 37 FOR HISTORIC BORING AT STATION 247+00, \odot SOIL PROFILE



DRAWN: N.K.S.
 CHECKED: NT

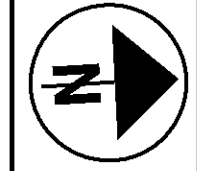
SOIL PROFILE
STA. 10+50.00 TO STA. 23+50.00
NEW CHERRY VALLEY ROAD

LIC-16-16.80



J:\dept15\11 Projects\11050016COL-0DOT Dist 5-Cherry Valley Rd\Design\12.11.08 stage 2 submittal\2013 revisions\11050016COL--21.05.13\80704GF015.dgn 6/27/2013 12:33:43 PM ntvaroch

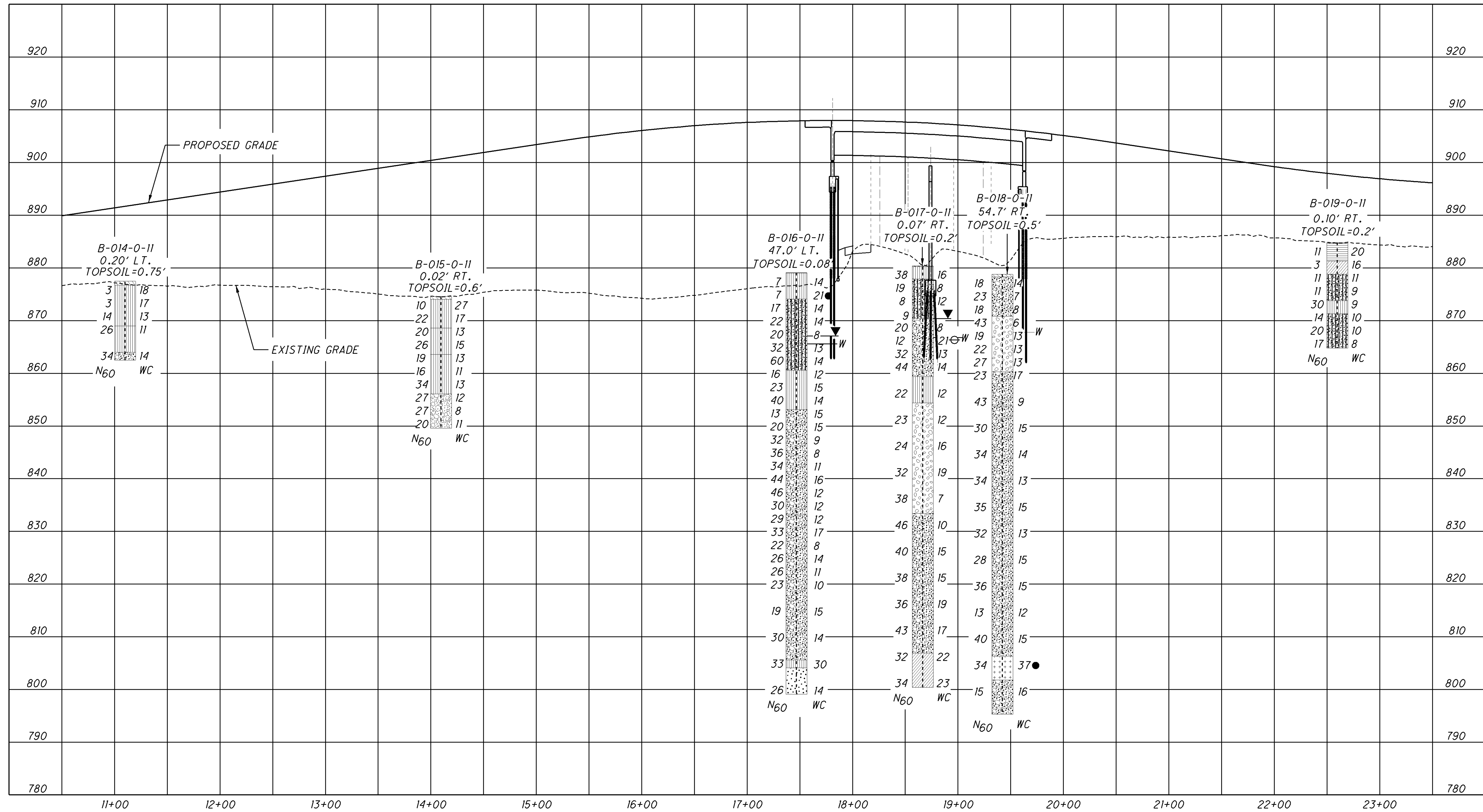
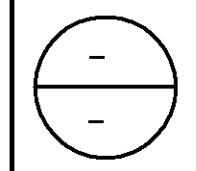
NOTE:
SEE SHEET 14 OF 37 FOR BORINGS B-014-0-II, B-015-0-II, B-016-0-II, B-017-0-II, B-018-0-II, AND B-019-0-II IN PLAN VIEW



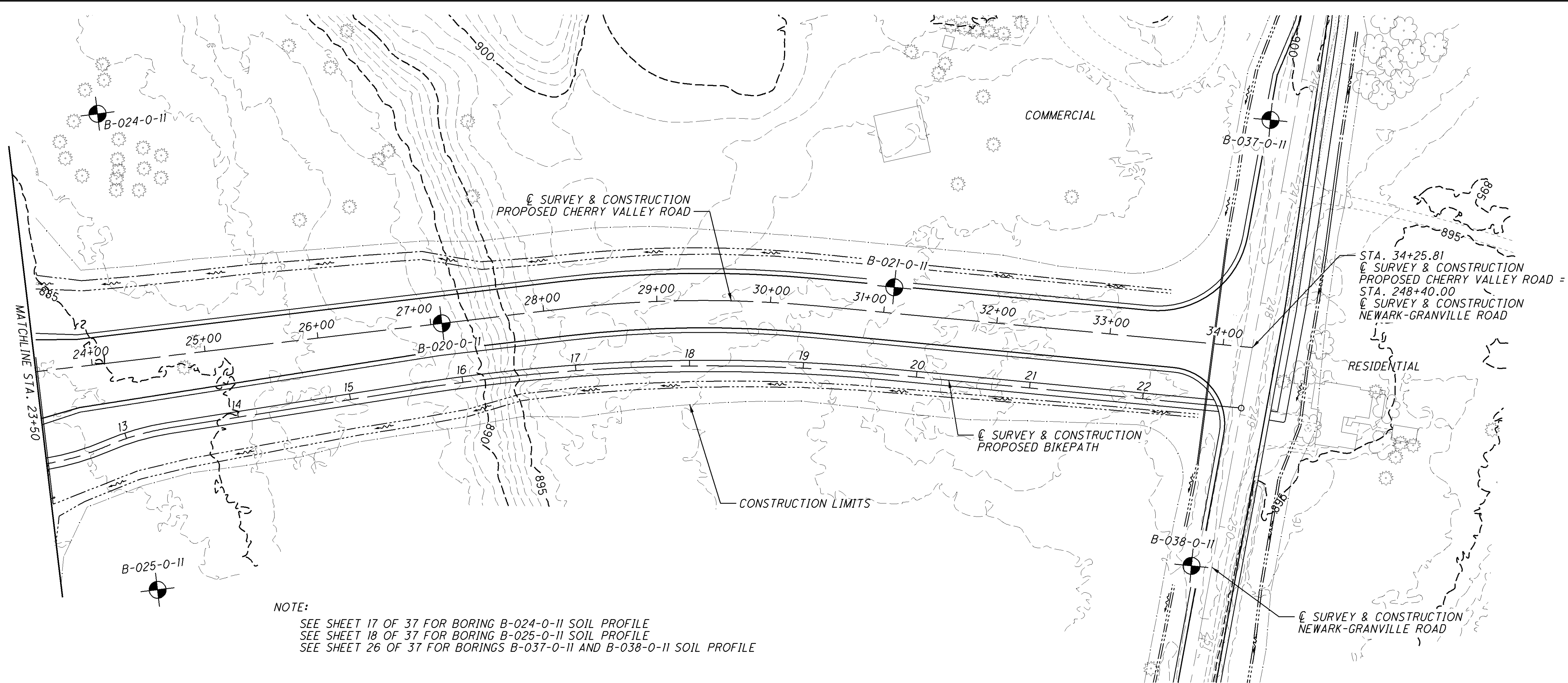
DRAWN
N.K.S.
CHECKED
NT

SOIL PROFILE
STA. 10+50.00 TO STA. 23+50.00
NEW CHERRY VALLEY ROAD

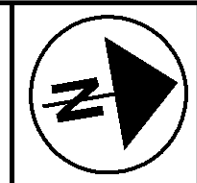
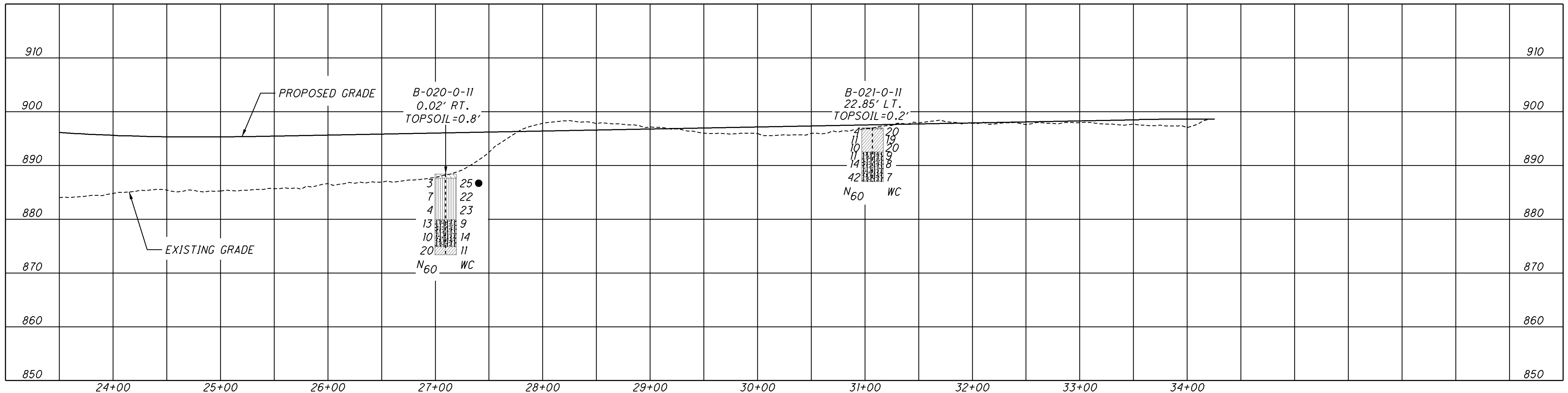
LIC-16-16.80



J:\dept15\11 Projects\11050016COL-0DOT Dist 5-Cherry Valley Rd\Design\12.11.08 stage 2 submittal\2013 revisions\11050016COL--21.05.13\80704GP016.dgn 6/27/2013 12:37:46 PM ntvoroch



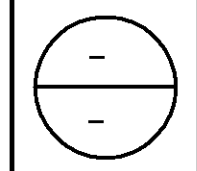
NOTE:
 SEE SHEET 17 OF 37 FOR BORING B-024-0-11 SOIL PROFILE
 SEE SHEET 18 OF 37 FOR BORING B-025-0-11 SOIL PROFILE
 SEE SHEET 26 OF 37 FOR BORINGS B-037-0-11 AND B-038-0-11 SOIL PROFILE



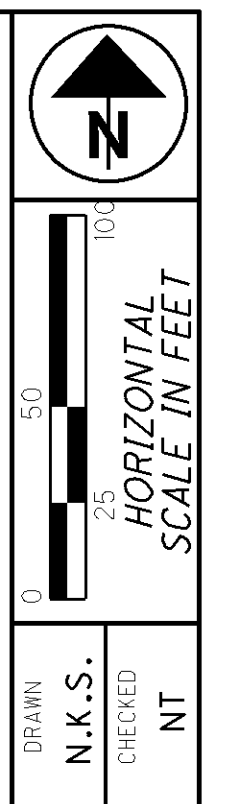
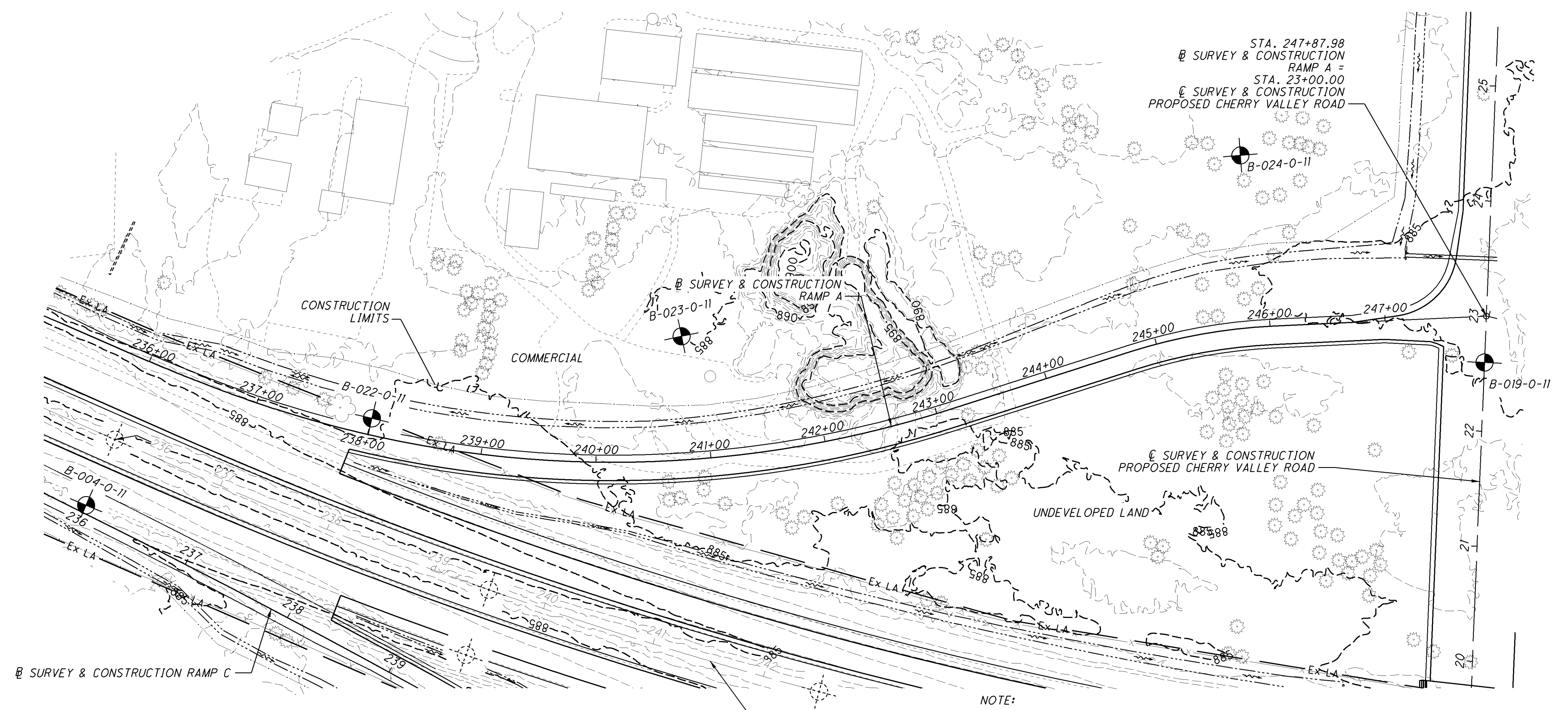
DRAWN: N.K.S.
 CHECKED: NT

SOIL PROFILE
 STA. 23+50.00 TO STA. 34+25.81
 NEW CHERRY VALLEY ROAD

LIC-16-16.80

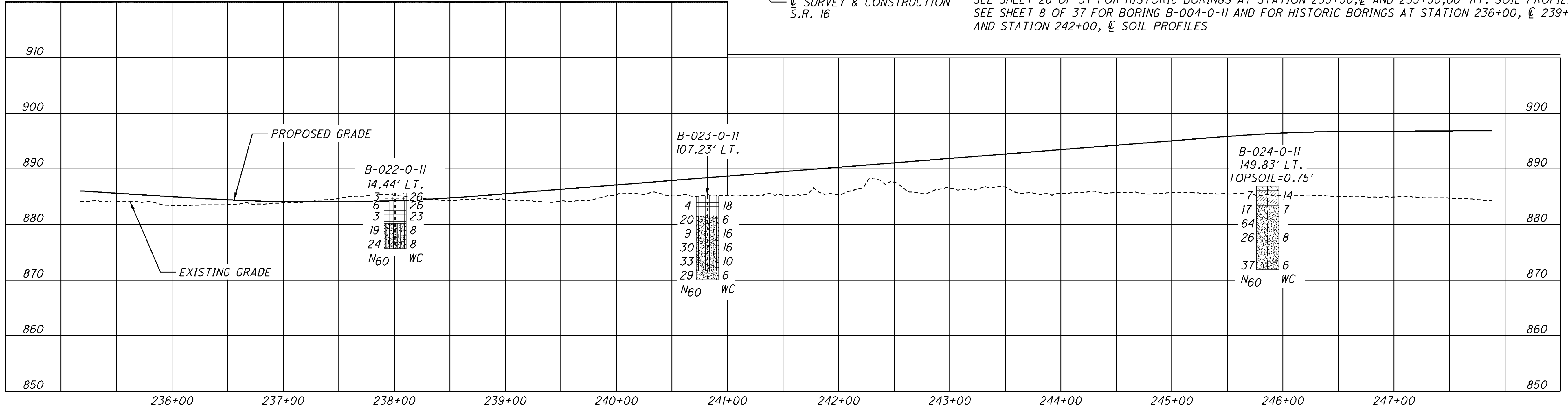


I:\dent5\11_Proj\11050016\COL-0001_Dist_5-Cherry_Valley_Rd\Design\12_11_08_stage_2_submittal\11050016\COL-2105_13A\80704GP017.dgn 6/27/2013 12:38:03 PM nivaroch

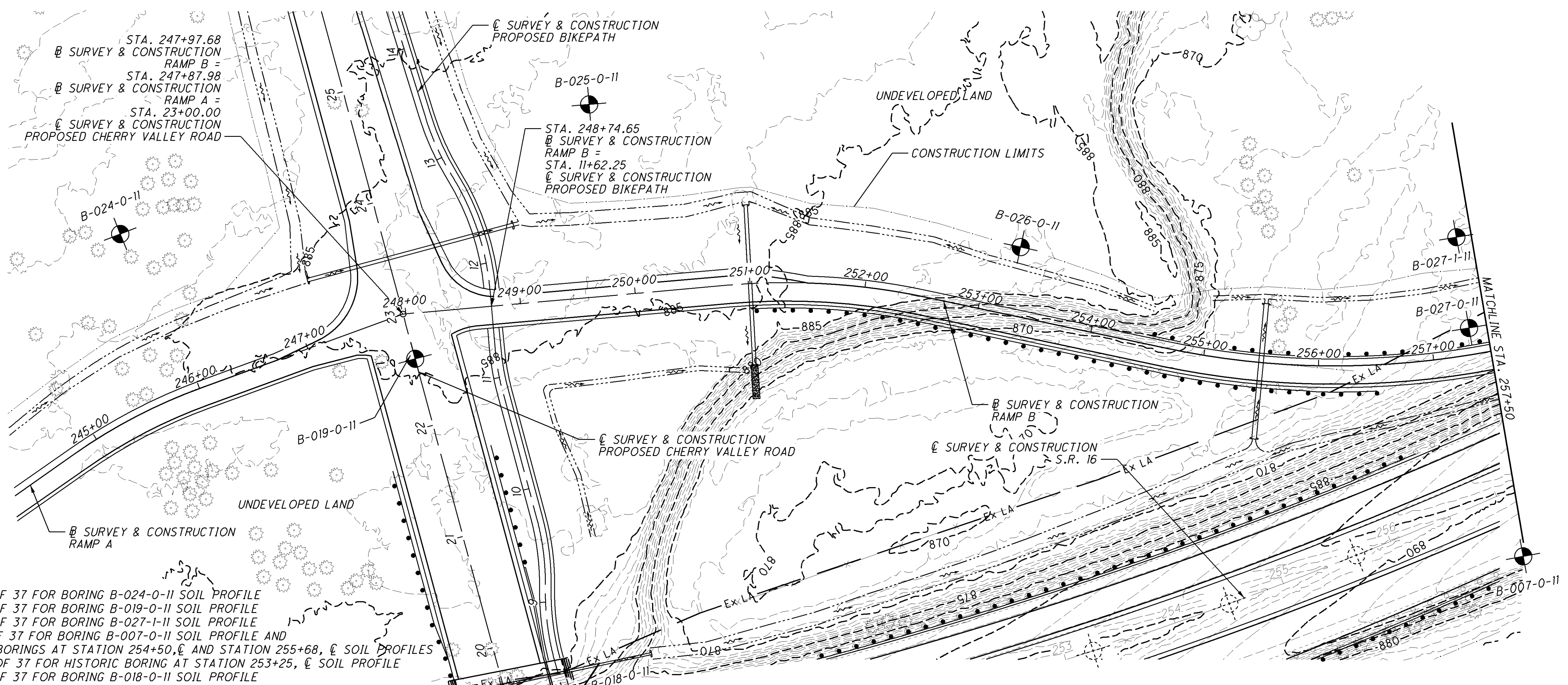


DRAWN: N.K.S. CHECKED: NT
SOIL PROFILE STA. 235+17.17 TO STA. 247+87.98 - RAMP A

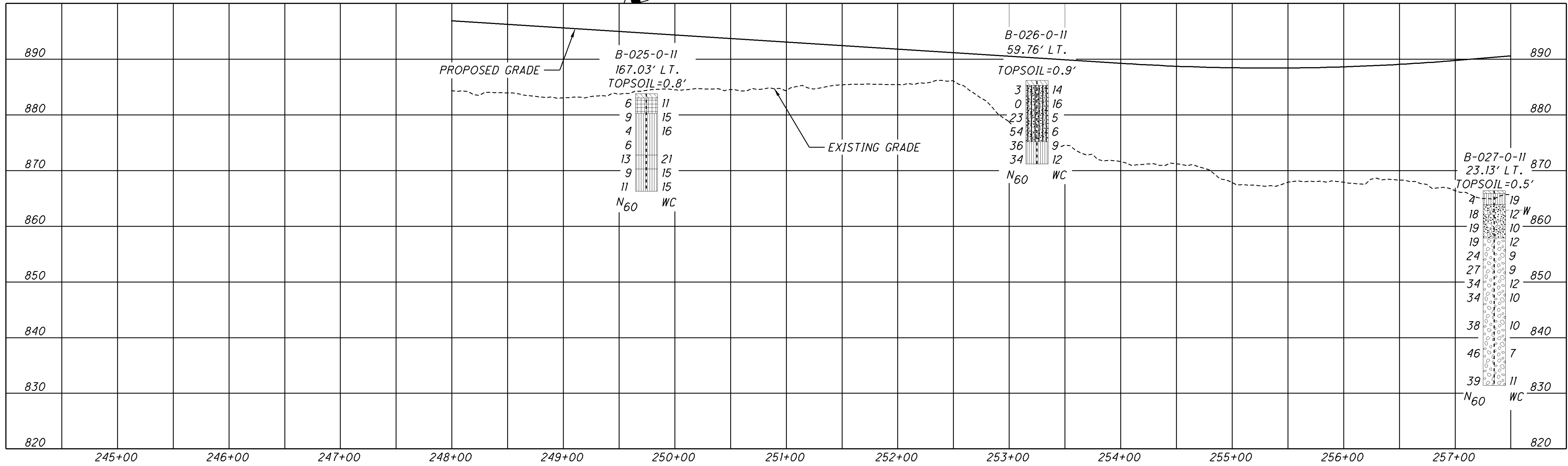
NOTE:
 SEE SHEET 15 OF 37 FOR BORING B-019-0-11 SOIL PROFILE
 SEE SHEET 28 OF 37 FOR HISTORIC BORINGS AT STATION 239+50, E AND 239+50,60' RT. SOIL PROFILES
 SEE SHEET 8 OF 37 FOR BORING B-004-0-11 AND FOR HISTORIC BORINGS AT STATION 236+00, E 239+50, E AND STATION 242+00, E SOIL PROFILES





J:\dept15\11 Projects\11050016COL-0DOT Dist 5-Cherry Valley Rd\Design\12.11.08 stage 2 submittal\2013 revisions\11050016COL--21.05.13.80704GP018.dgn 6/27/2013 12:38:22 PM ntvtrach



NOTE:
 SEE SHEET 17 OF 37 FOR BORING B-024-0-11 SOIL PROFILE
 SEE SHEET 15 OF 37 FOR BORING B-019-0-11 SOIL PROFILE
 SEE SHEET 31 OF 37 FOR BORING B-027-1-11 SOIL PROFILE
 SEE SHEET 9 OF 37 FOR BORING B-007-0-11 SOIL PROFILE AND
 FOR HISTORIC BORINGS AT STATION 254+50.00, ϵ AND STATION 255+68, ϵ SOIL PROFILES
 SEE SHEET 29 OF 37 FOR HISTORIC BORING AT STATION 253+25, ϵ SOIL PROFILE
 SEE SHEET 15 OF 37 FOR BORING B-018-0-11 SOIL PROFILE



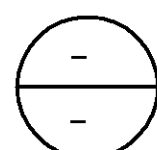



DRAWN	N.K.S.	CHECKED	NT
-------	--------	---------	----

SOIL PROFILE
STA. 247+99.39 TO STA. 257+50.00 - RAMP B

LIC-16-16.80

18 / 37



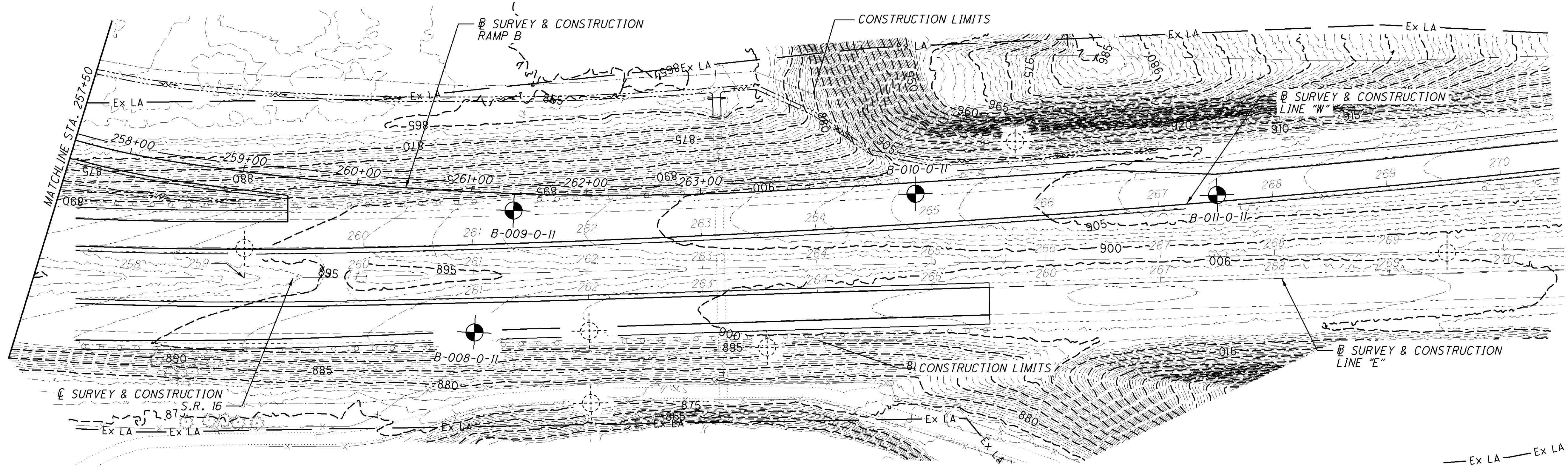
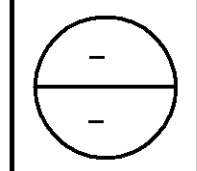
J:\dept15\11 Projects\11050016COL-0DOT Dist 5-Cherry Valley Rd\Design\12.11.08 stage 2 submittal\2013 revisions\11050016COL--21.05.13\80704GP019.dgn 6/27/2013 12:38:46 PM ntvoroch



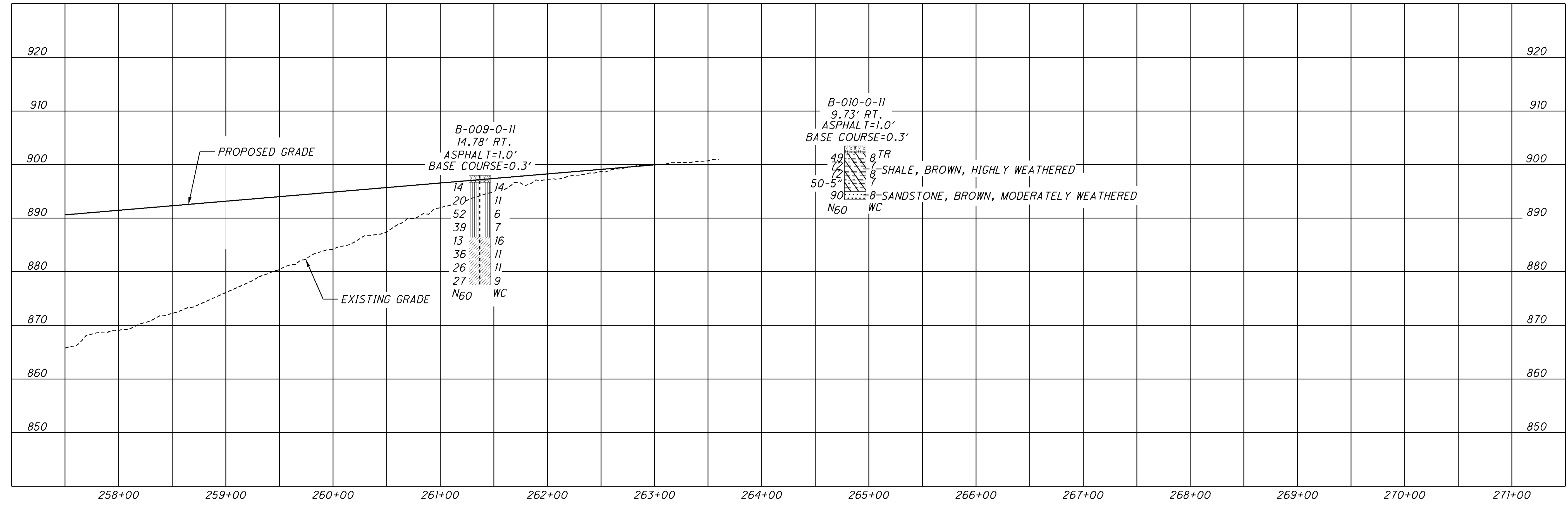
DRAWN N.K.S. CHECKED NT

SOIL PROFILE
STA. 257+50.00 TO STA. 264+73.84 - RAMP B

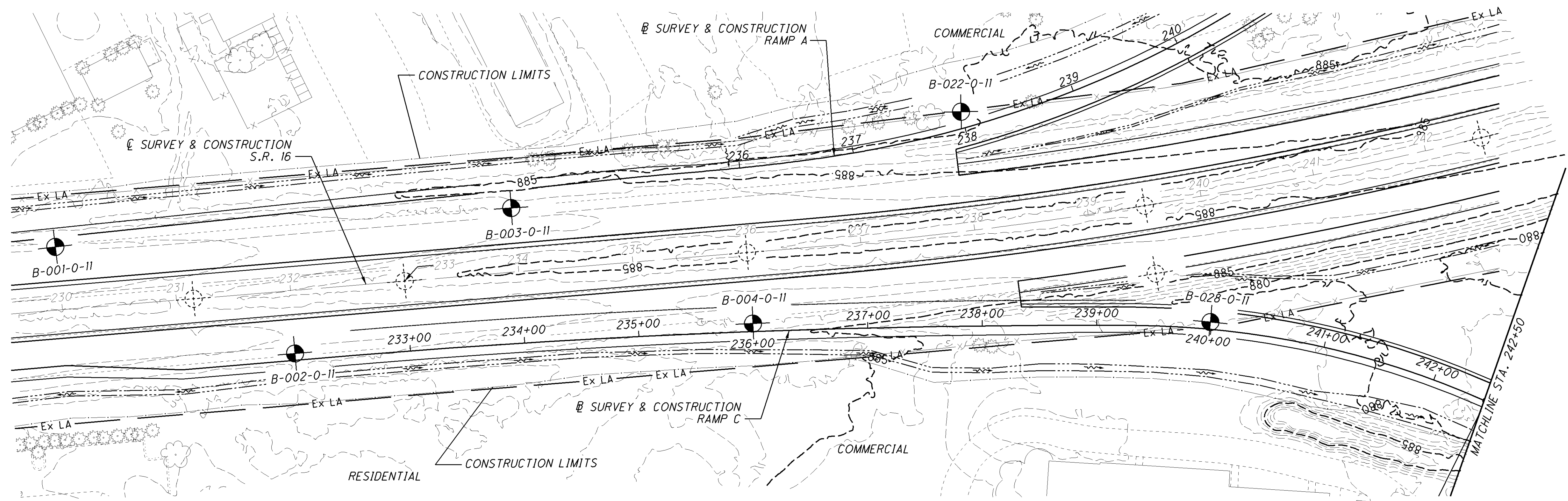
LIC-16-16.80



NOTE:
SEE SHEET 9 OF 37 FOR HISTORIC BORING AT STATION 259+00, 26' LT. SOIL PROFILE
SEE SHEET 10 OF 37 FOR BORINGS B-008-0-II AND B-011-0-II AND
FOR HISTORIC BORINGS AT STATION 262+00, 52' RT.; STATION 263+55, 70' RT.
STATION 265+80, 66' LT.; STATION 269+50, CL SOIL PROFILES
SEE SHEET 30 OF 37 FOR HISTORIC BORING AT STATION 262+00, 115' RT. (SR 16 ALIGNMENT)

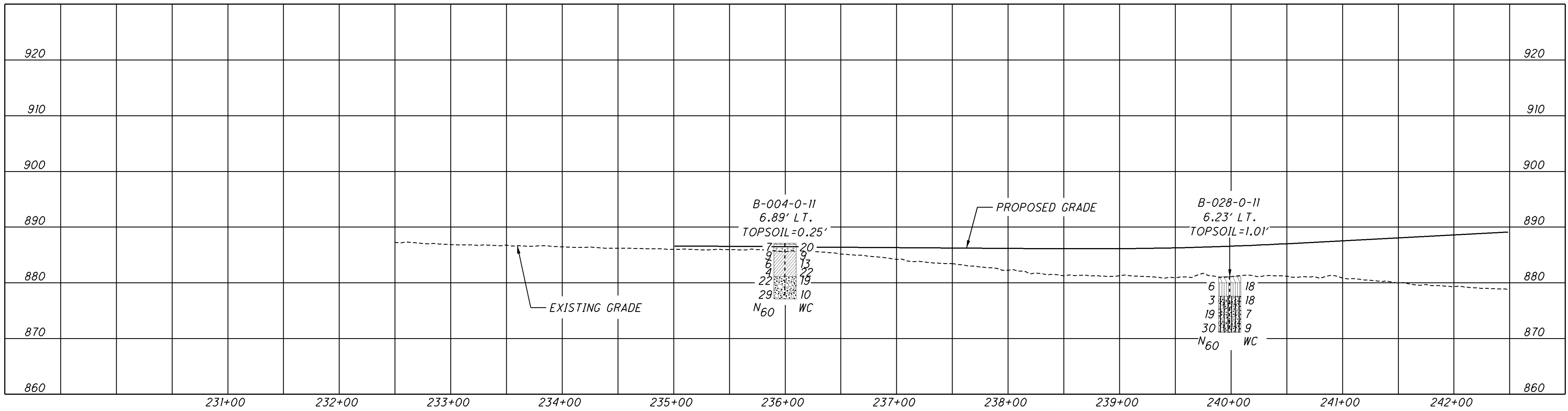


J:\dept15\11 Projects\11050016COL-0DOT Dist 5-Cherry Valley Rd\Design\12.11.08 stage 2 submittal\2013 revisions\11050016COL--21.05.13\80704GPO20.dgn 6/27/2013 12:39:03 PM ntvoroch

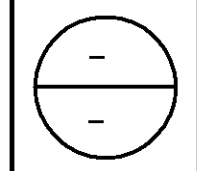


DRAWN: N.K.S. CHECKED: NT
SOIL PROFILE
STA. 234+72.56 TO STA. 242+50.00 - RAMP C

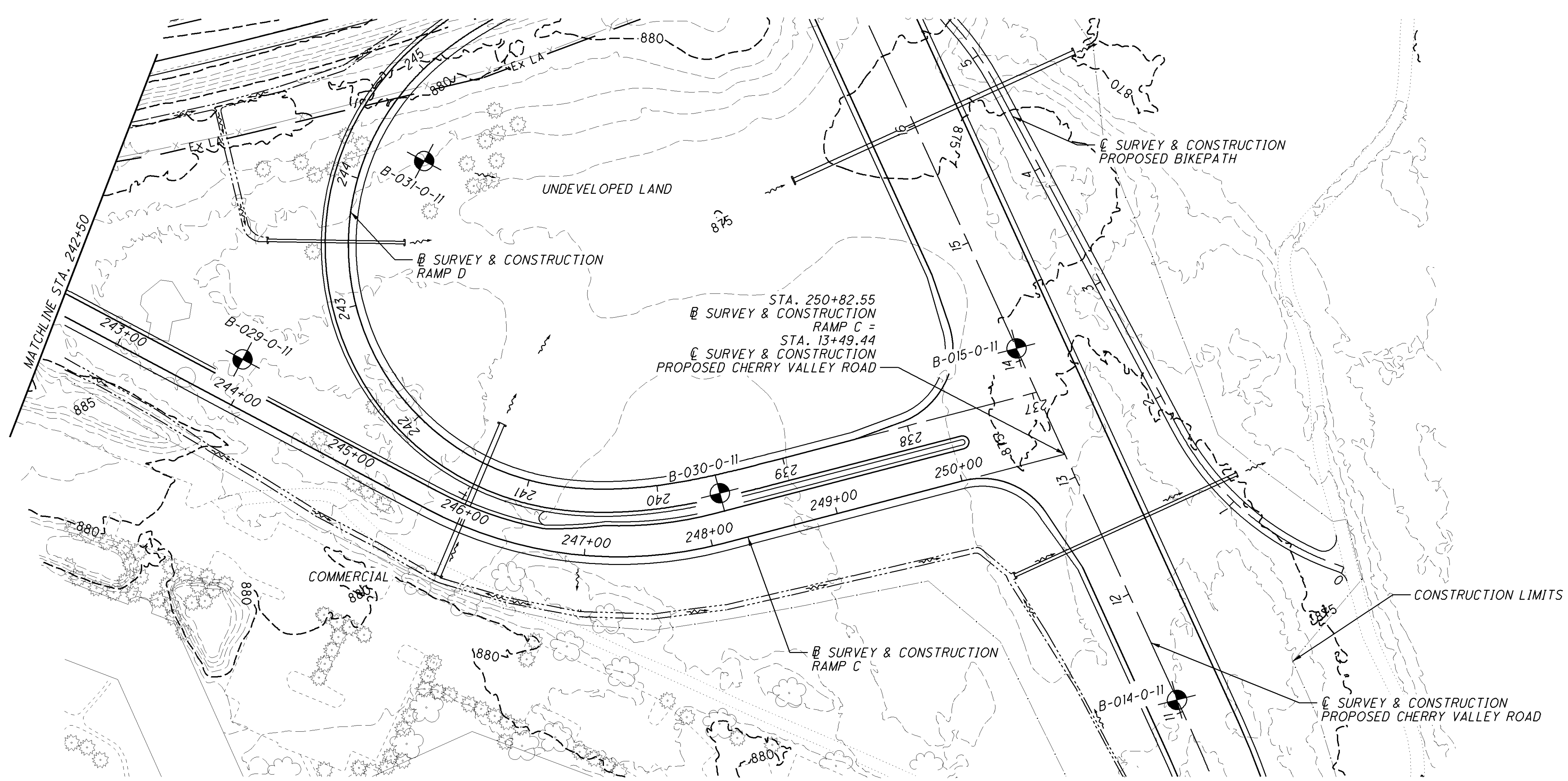
NOTE:
 SEE SHEET 7 OF 37 FOR BORINGS B-001-0-11, B-002-0-11, B-003-0-11 AND
 FOR HISTORIC BORINGS AT STATION 231+15, ϕ AND STATION 233+00, ϕ SOIL PROFILES
 SEE SHEET 8 OF 37 FOR HISTORIC BORINGS AT STATION 236+00, ϕ , STATION 239+50, ϕ , AND STATION 242+50, ϕ SOIL PROFILES
 SEE SHEET 17 OF 37 FOR BORING B-022-0-11 SOIL PROFILE
 SEE SHEET 28 OF 37 FOR HISTORIC BORING AT STATION AT 239+50, 60' RT. SOIL PROFILE



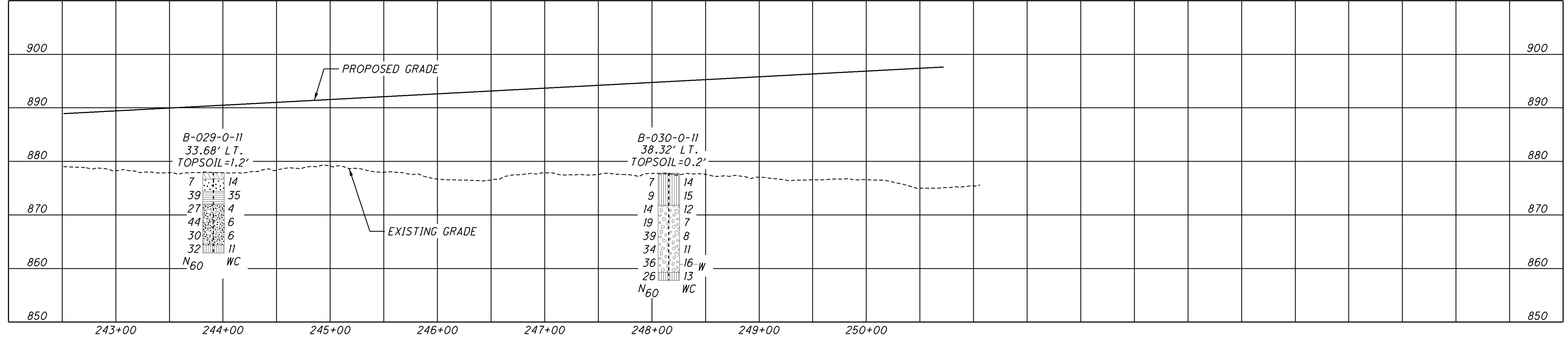
LIC-16-16.80



J:\dept15\11 Projects\11050016COL-0DOT Dist 5-Cherry Valley Rd\Design\12.11.08 stage 2 submittal\2013 revisions\11050016COL--21.05.13\80704GP021.dgn 6/27/2013 12:39:18 PM nitvaroch



NOTE:
 SEE SHEET 22 OF 37 FOR BORING B-031-0-11 SOIL PROFILE.
 SEE SHEET 15 OF 37 FOR BORINGS B-015-0-11 AND B-014-0-11 SOIL PROFILE.



DRAWN	N.K.S.
CHECKED	NT

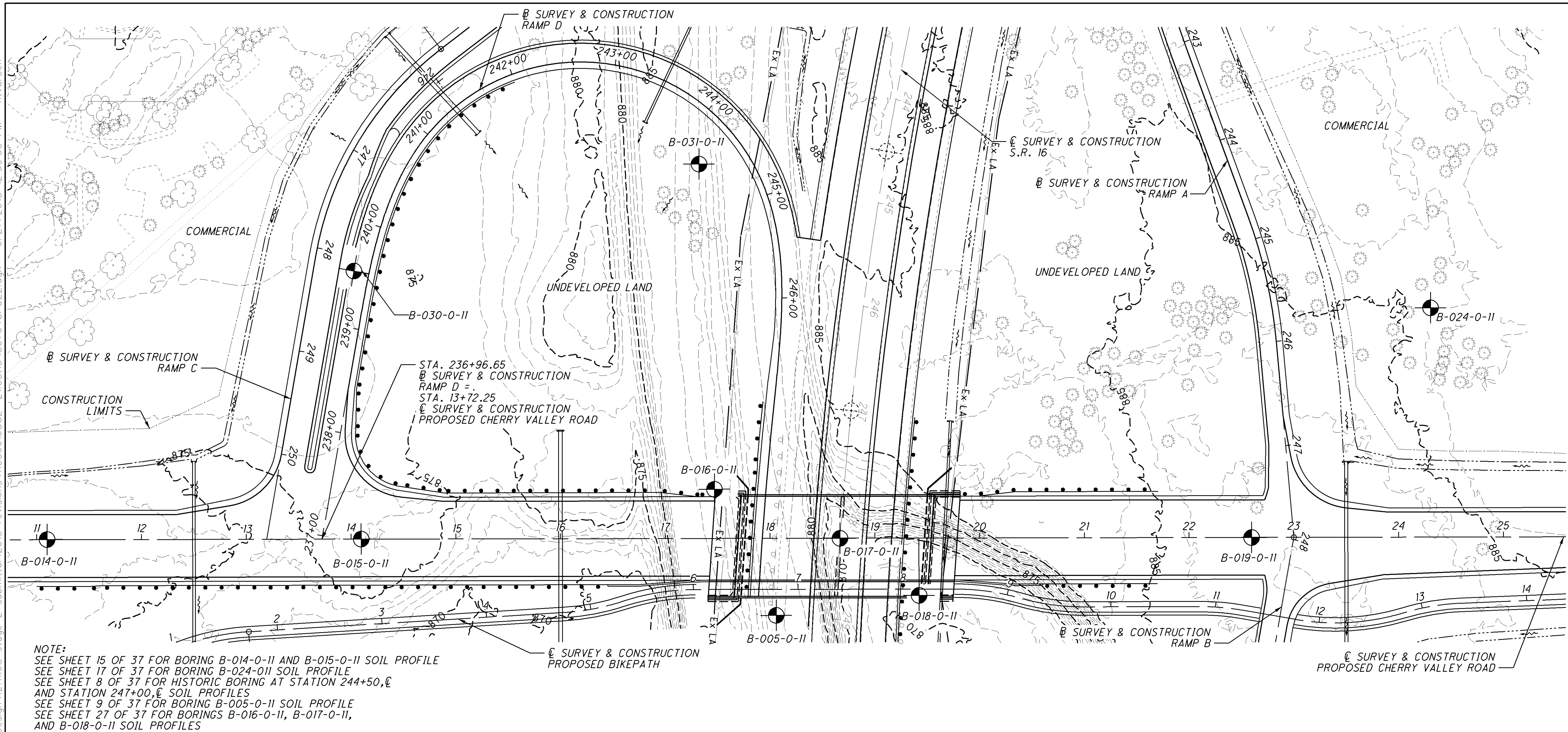
LIC-16-16.80

STA. 242+50.00 TO STA. 250+82.55 - RAMP C

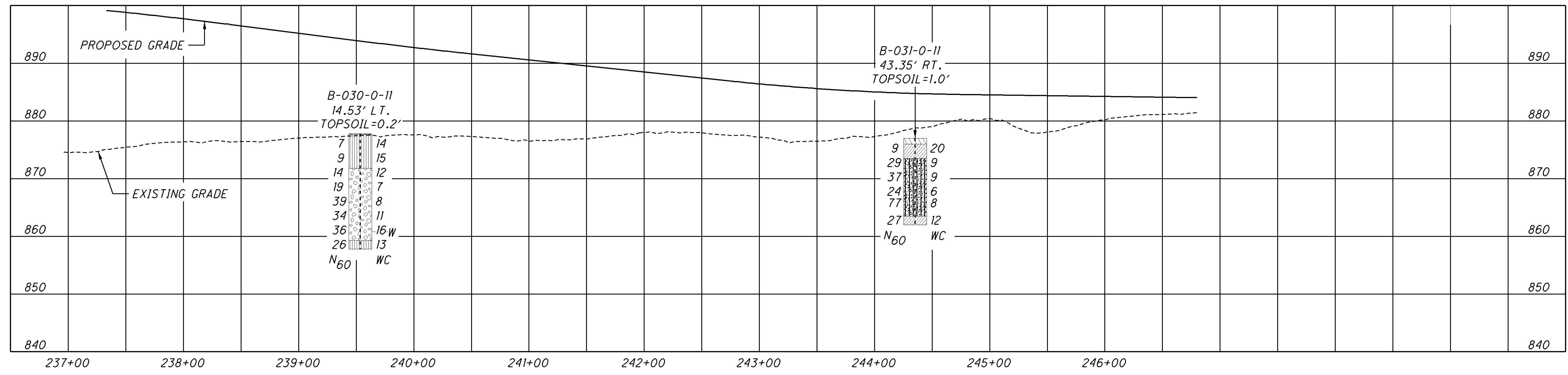
SOIL PROFILE

21 / 37

J:\dept15\11 Projects\11050016COL-0DOT Dist 5-Cherry Valley Rd\Design\12.11.08 stage 2 submittal\2013 revisions\11050016COL--21.05.13\80704GP022.dgn 6/27/2013 12:39:35 PM ntvoroch



NOTE:
 SEE SHEET 15 OF 37 FOR BORING B-014-0-11 AND B-015-0-11 SOIL PROFILE
 SEE SHEET 17 OF 37 FOR BORING B-024-0-11 SOIL PROFILE
 SEE SHEET 8 OF 37 FOR HISTORIC BORING AT STATION 244+50, & STATION 247+00, & SOIL PROFILES
 AND STATION 247+00, & SOIL PROFILES
 SEE SHEET 9 OF 37 FOR BORING B-005-0-11 SOIL PROFILE
 SEE SHEET 27 OF 37 FOR BORINGS B-016-0-11, B-017-0-11, AND B-018-0-11 SOIL PROFILES



HORIZONTAL SCALE IN FEET

DRAWN: N.K.S. CHECKED: NT

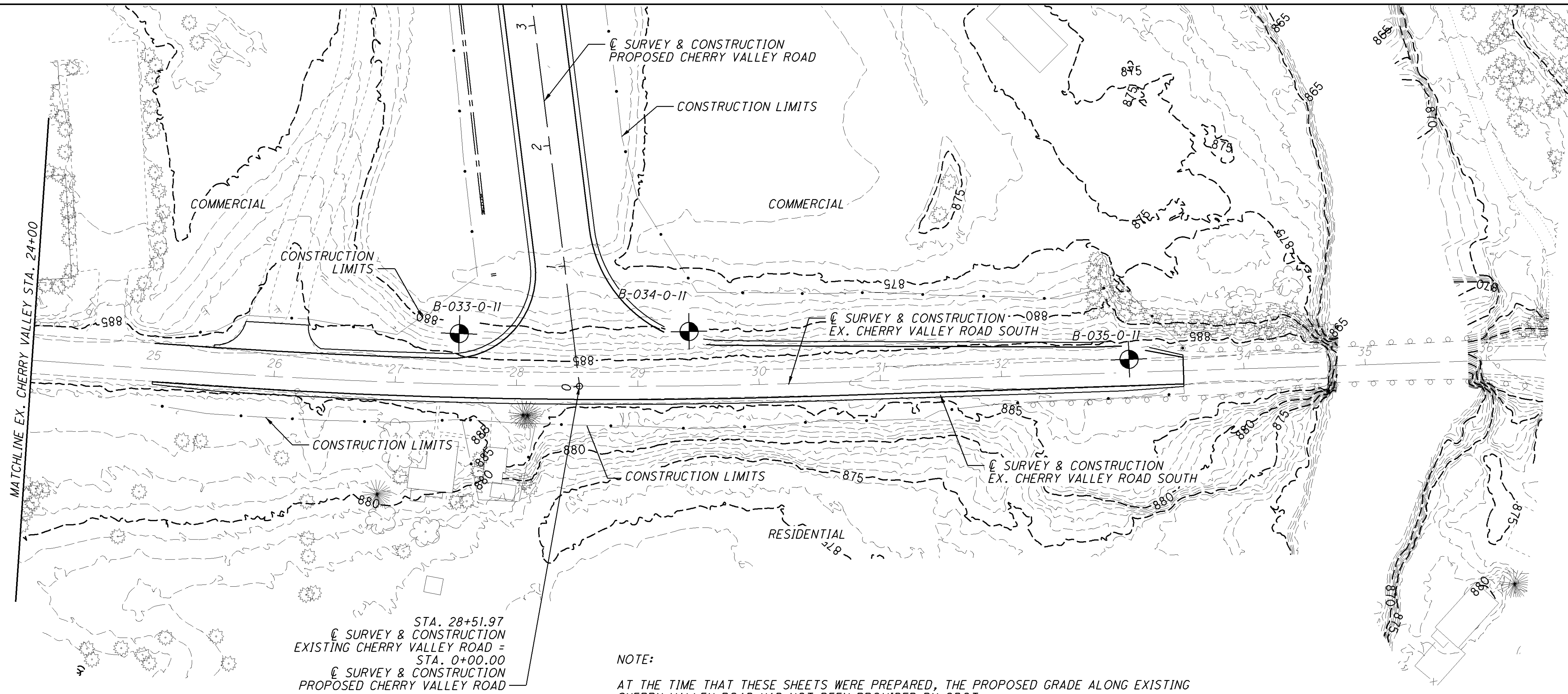
SOIL PROFILE

STA. 236+96.65 TO STA. 247+33.98 - RAMP D

LIC-16-16.80

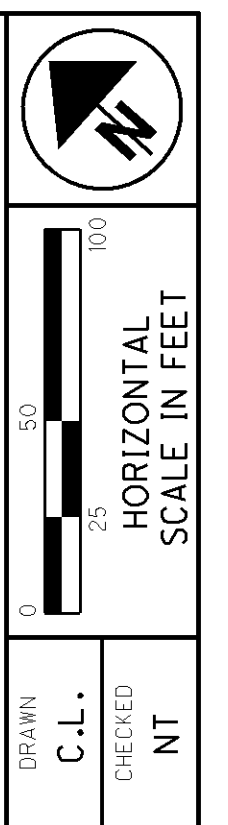
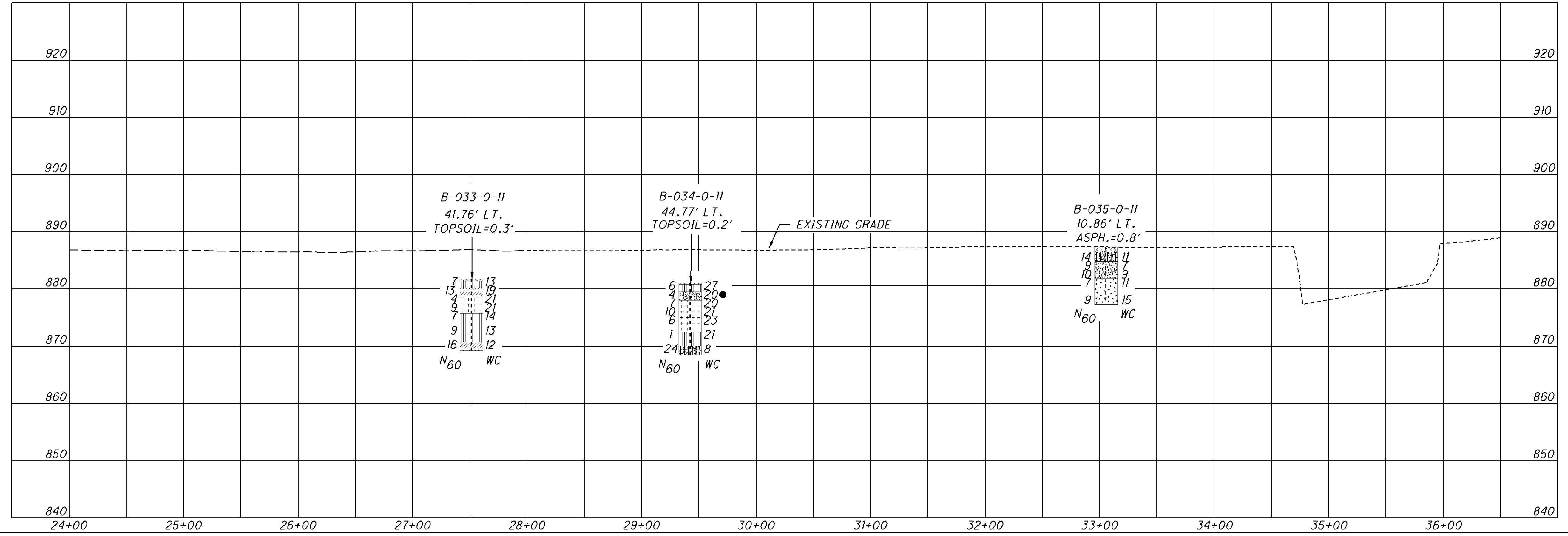
22 / 37

J:\dept5\11 Projects\11050016COL-ODOT Dist 5-Cherry Valley Rd\Design\12.11.08 stage 2 submittal\2013 revisions\11050016COL--21.05.13\8070



STA. 28+51.97
 SURVEY & CONSTRUCTION
 EXISTING CHERRY VALLEY ROAD =
 STA. 0+00.00
 SURVEY & CONSTRUCTION
 PROPOSED CHERRY VALLEY ROAD

NOTE:
 AT THE TIME THAT THESE SHEETS WERE PREPARED, THE PROPOSED GRADE ALONG EXISTING
 CHERRY VALLEY ROAD HAD NOT BEEN PROVIDED BY ODOT.

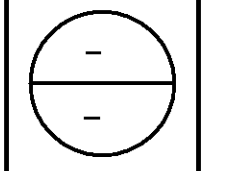


DRAWN: C.L.
 CHECKED: NT

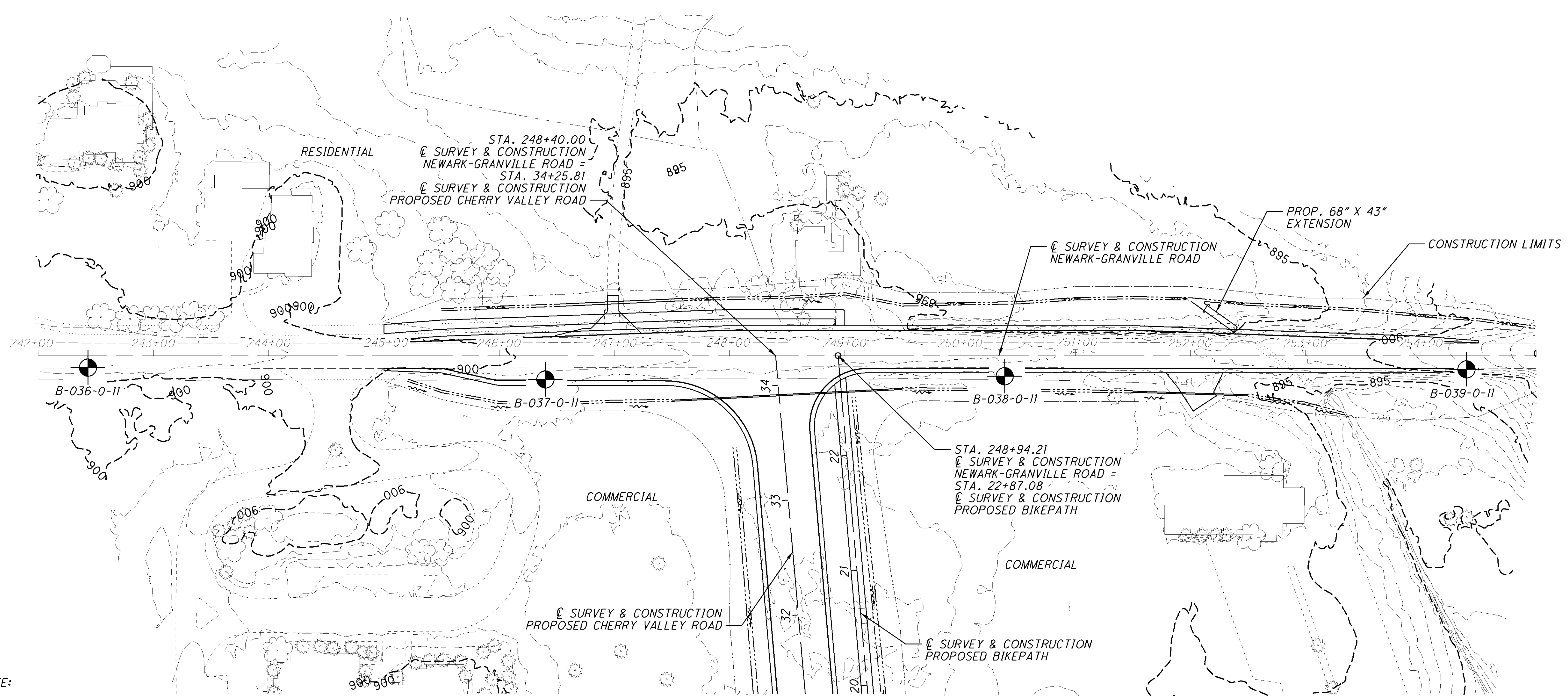
SOIL PROFILE
 STA. 24+00 TO STA. 36+50
 EXISTING CHERRY VALLEY

LIC-16-16.80

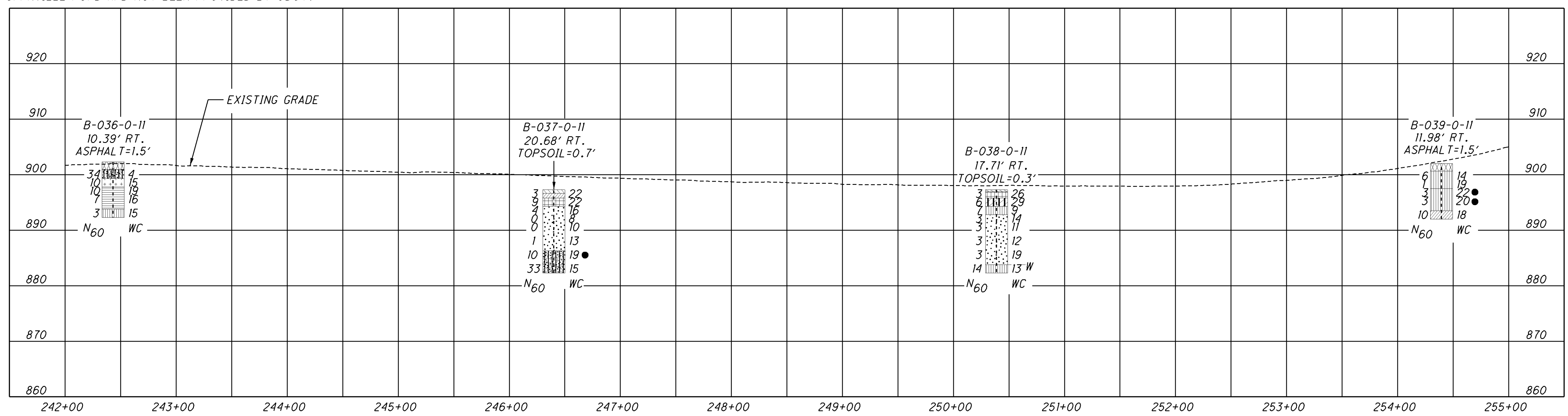
25 / 37



J:\dept15\11 Projects\11050016COL-ODOT Dist 5-Cherry Valley Rd\Design\12.11.08 stage 2 submittal\2013 revisions\11050016COL--21.05.13.80704GPO26.dgn 6/27/2013 12:42:05 PM nivaroch



NOTE:
 AT THE TIME THAT THESE SHEETS WERE PREPARED, THE PROPOSED GRADE ALONG GRANVILLE ROAD HAD NOT BEEN PROVIDED BY ODOT.



DRAWN

N.K.S.

CHECKED

NT

SOIL PROFILE

STA. 242+00.00 TO STA. 255+00.00

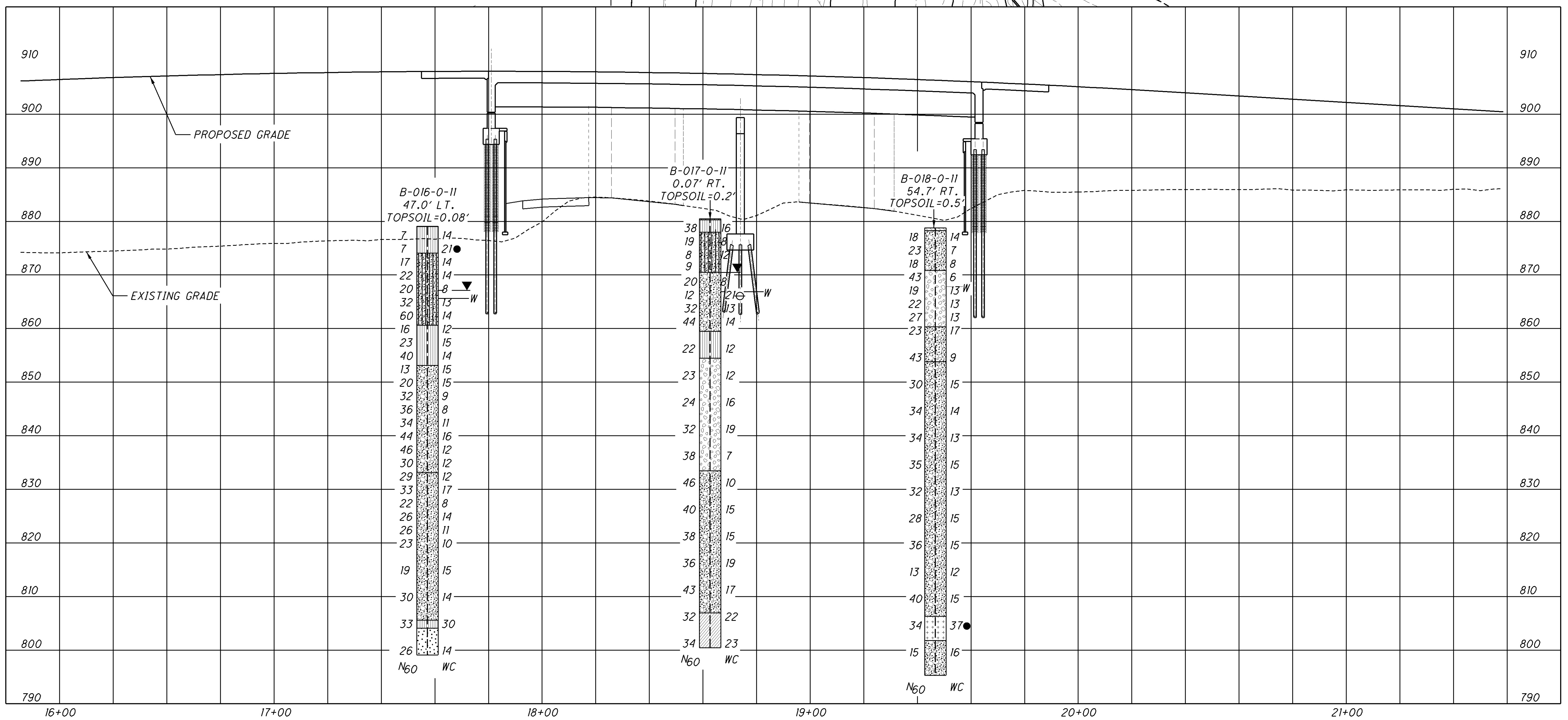
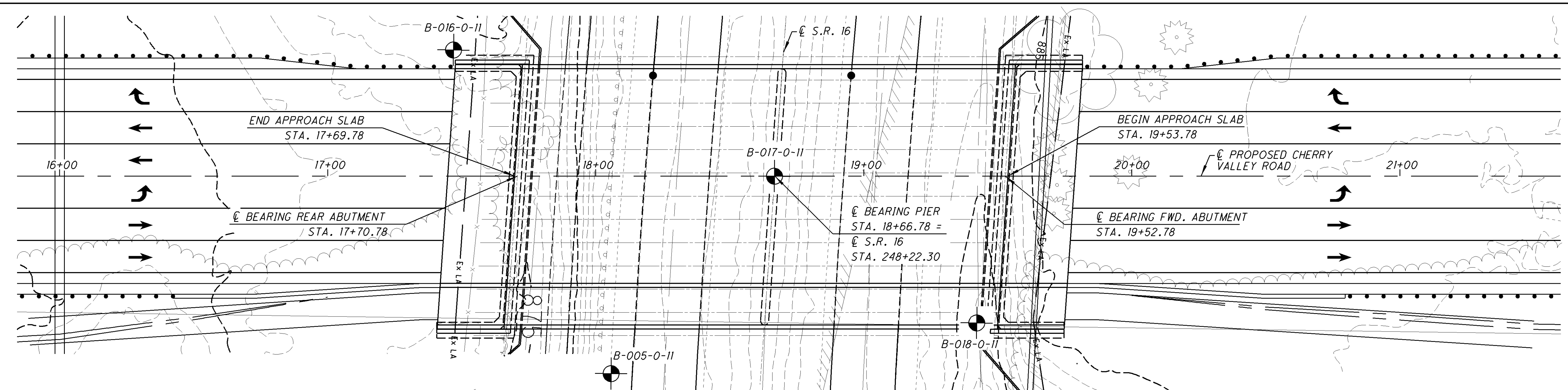
LIC-16-16.80

26

/

37

J:\dept\5\11 Projects\11050016COL-0DOT Dist 5-Cherry Valley Rd\Design\12.11.08 stage 2 submittal\2013 revisions\11050016COL--21.05.13\807046P027.dgn 6/27/2013 12:42:23 PM ntvoroch



HORIZONTAL SCALE IN FEET

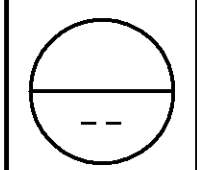
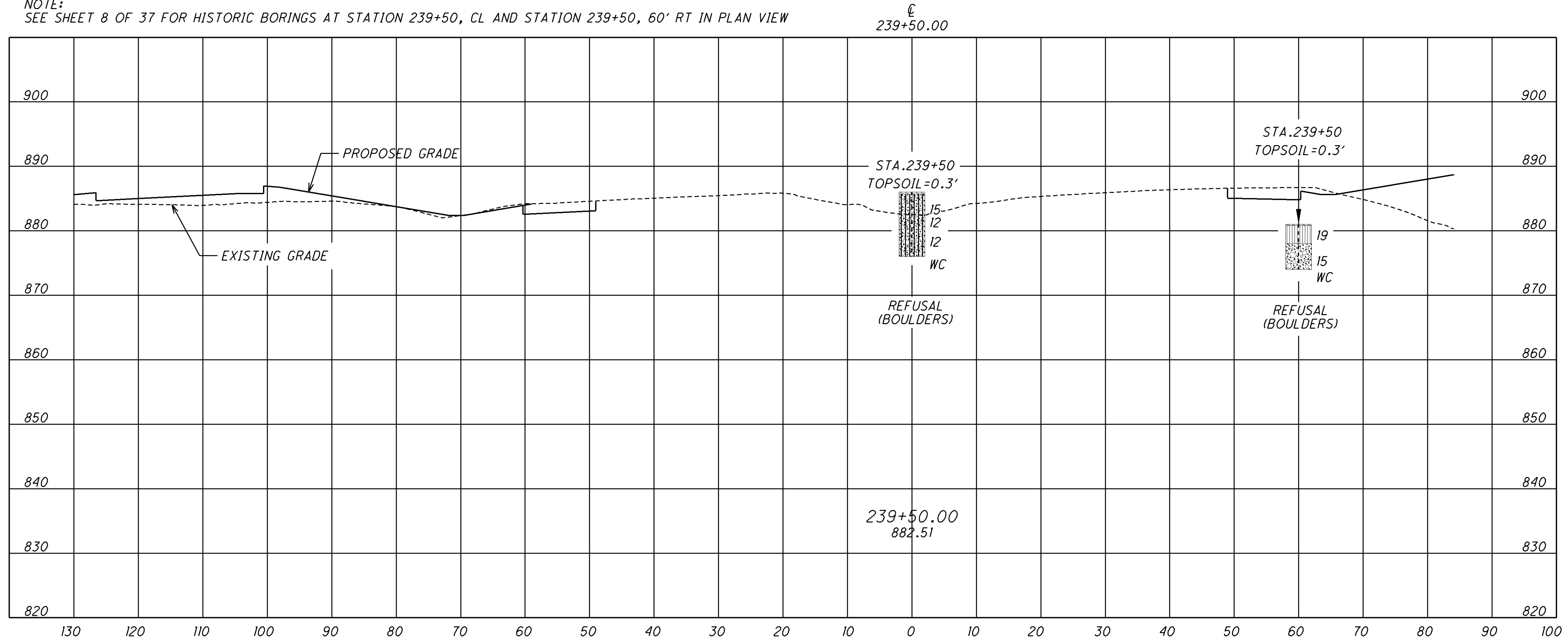
DRAWN: N.K.S. CHECKED: NT

STRUCTURE FOUNDATION EXPLORATION
BRIDGE NO. LIC-16-1718
S.R. 16 UNDER CHERRY VALLEY ROAD

LIC-16-16.80

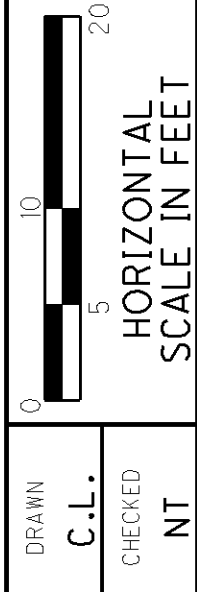
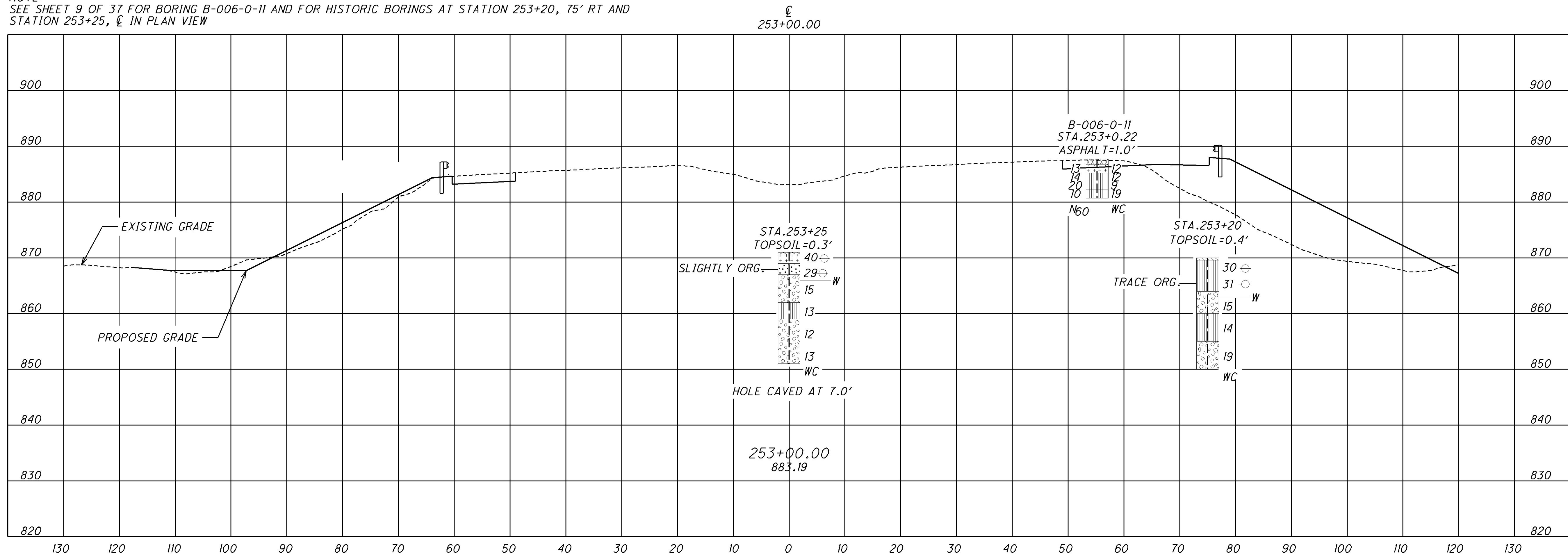
27/37

NOTE:
SEE SHEET 8 OF 37 FOR HISTORIC BORINGS AT STATION 239+50, CL AND STATION 239+50, 60' RT IN PLAN VIEW



J:\dept5\11 Projects\11050016COL-0DOT_Dist_5-Cherry Valley Rd\Design\12.11.08_stage_2_submittal\2013_revisions\11050016COL--21.05.13\80704\PO29.dgn 6/27/2013 12:45:06 PM ntvaroch

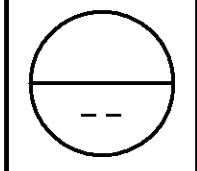
NOTE:
SEE SHEET 9 OF 37 FOR BORING B-006-0-11 AND FOR HISTORIC BORINGS AT STATION 253+20, 75' RT AND STATION 253+25, C IN PLAN VIEW



DRAWN	C.L.
CHECKED	NT

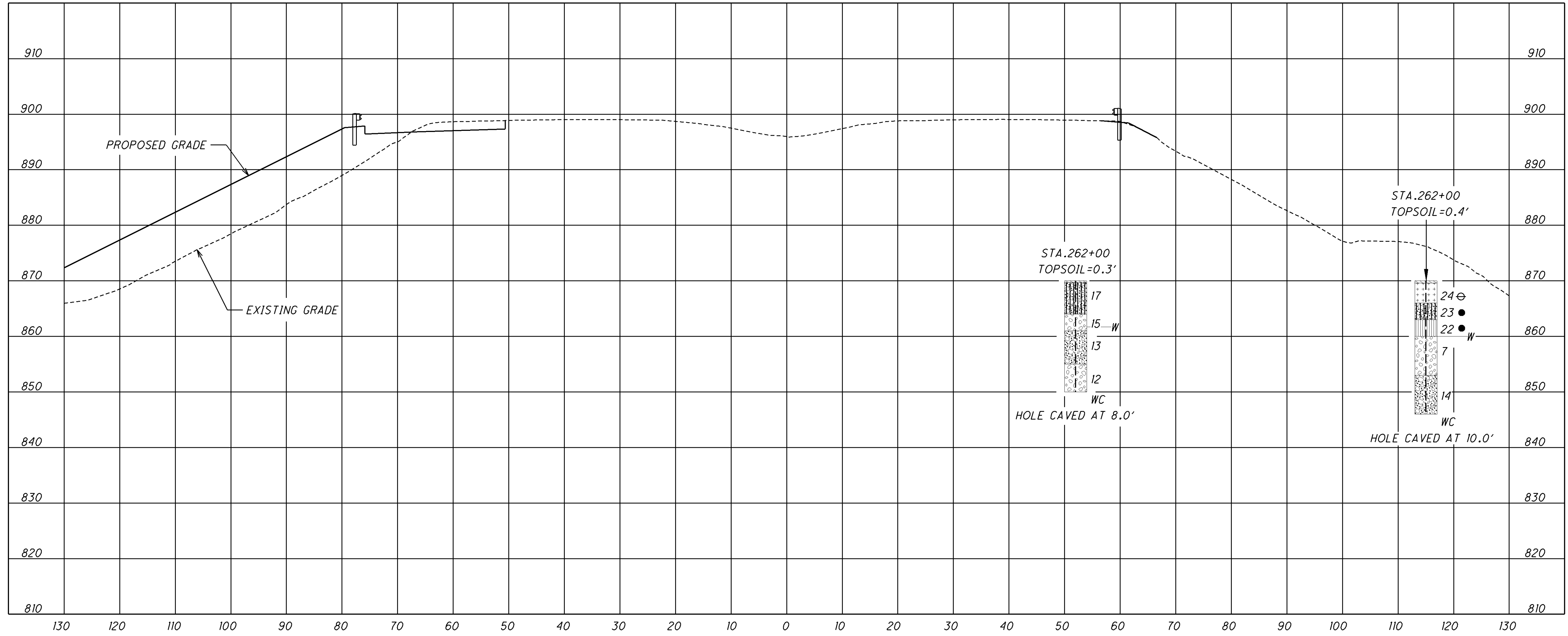
SOIL PROFILE
S.R. 16 CROSS SECTION STA. 253+00

LIC-16-16.80



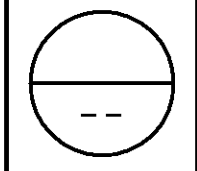
NOTE:
SEE SHEET 10 OF 37 FOR HISTORIC BORINGS AT STATION 262+00, 52' RT. AND STATION 262+00, 115' RT IN PLAN VIEW.

262+00.00

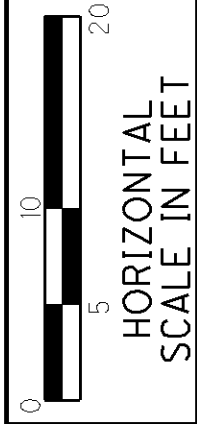


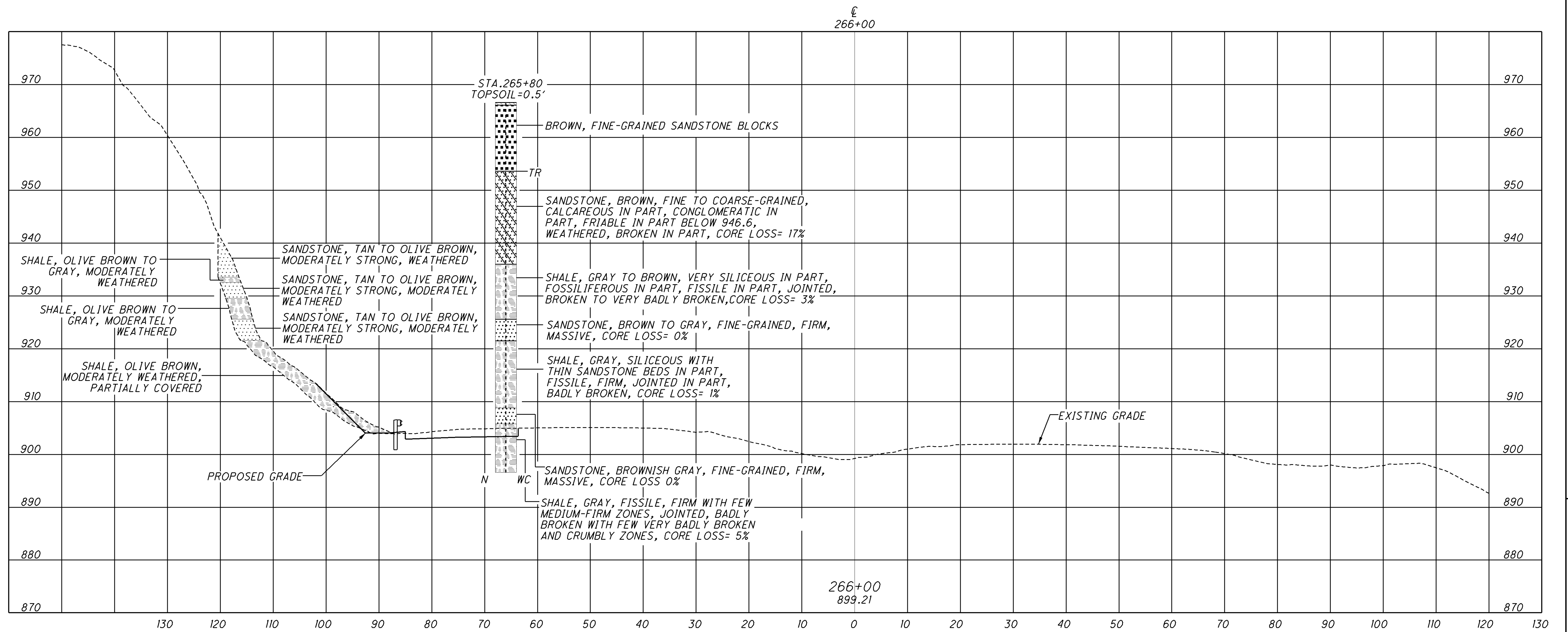
S.R.16 CROSS SECTION STA. 262+00

LIC-16-16.80



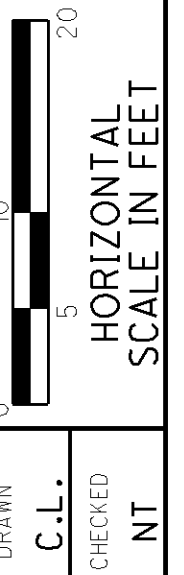
DRAWN C.L. CHECKED NT





NOTE:

SEE SHEET 10 OF 37 FOR HISTORIC BORING AT STATION 265+80, 66' LT IN PLAN VIEW

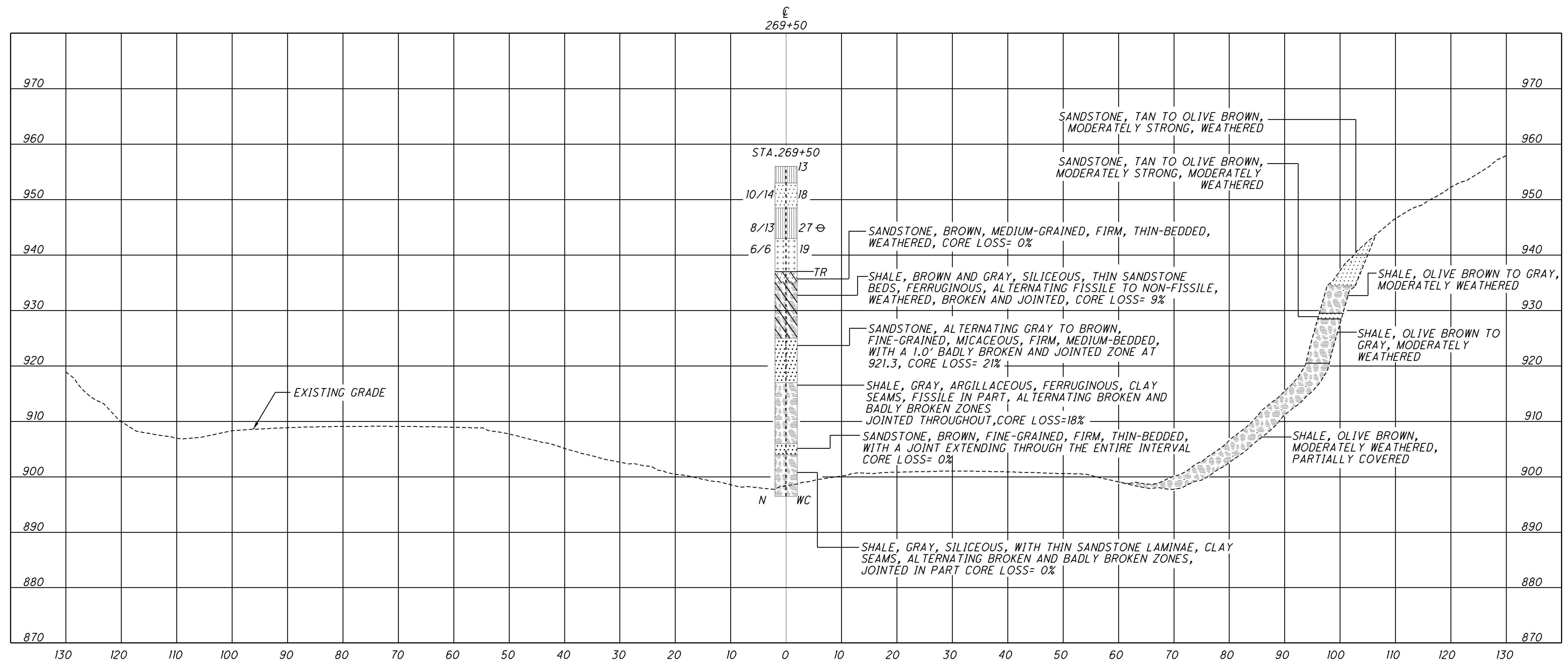


DRAWN C.L.
CHECKED NT

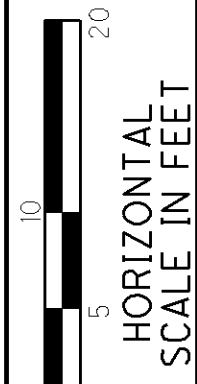
**SOIL PROFILE
S.R. 16 CROSS SECTION STA. 266+00**

LIC-16-16.80

J:\dept5\11 Projects\11050016\COL-0DOT_Dist_5-Cherry_Valley_Rd\Design\12.11.08_stage_2_submittal\2013_revisions\11050016\COL--21.05.13\80704\PO30B.dgn 6/27/2013 12:45:58 PM nivaroch



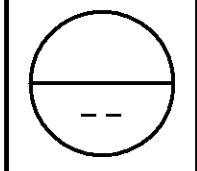
NOTE:
SEE SHEET 10 OF 37 FOR HISTORIC BORING AT STATION 269+50, ⊕ IN PLAN VIEW



DRAWN C.L.
CHECKED NT

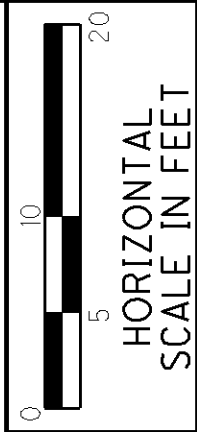
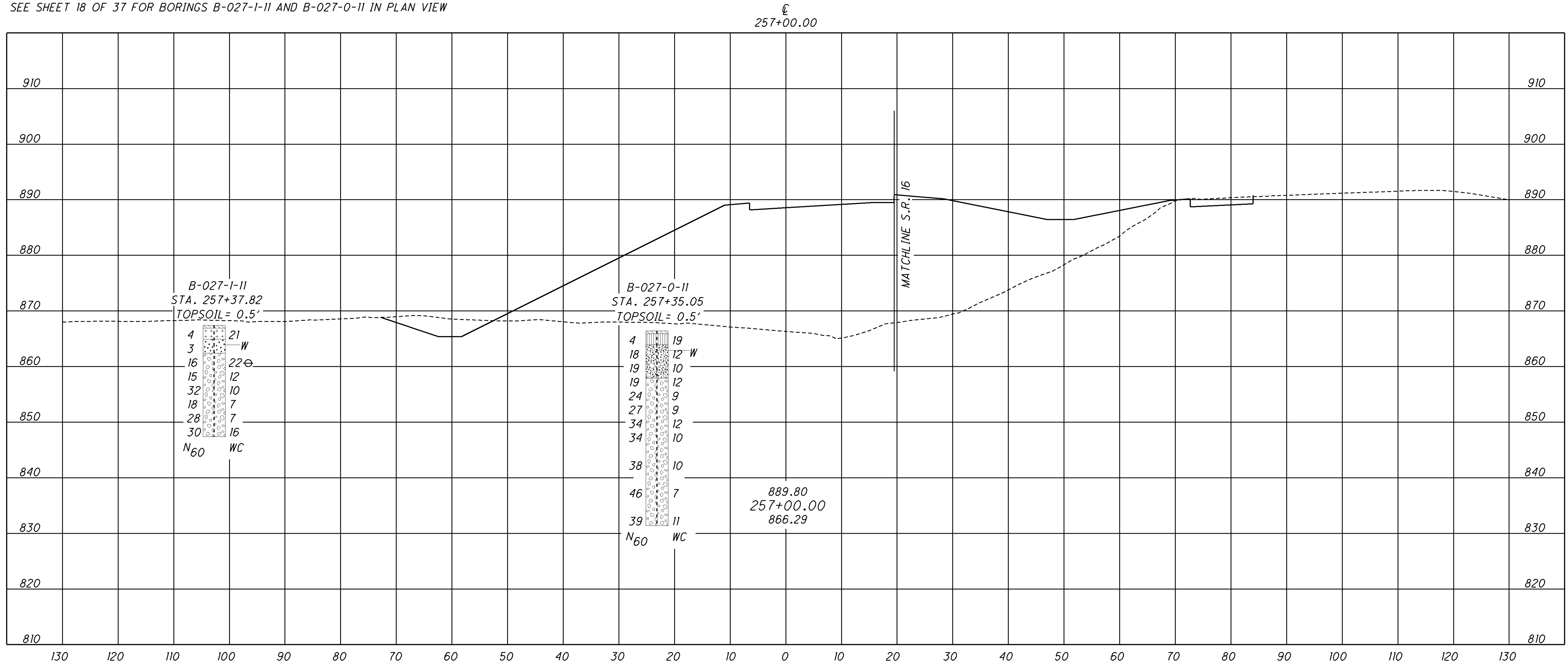
SOIL PROFILE
S.R. 16 CROSS SECTION STA. 269+50

LIC-16-16.80



J:\dept5\11 Projects\11050016\COL-0DOT_Dist_5-Cherry_Valley_Rd\Design\12.11.08_stage_2_submittal\2013_revisions\11050016\COL--21.05.13\80704\IP031.dgn 6/27/2013 12:46:13 PM ntvaroch

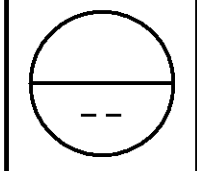
NOTE:
SEE SHEET 18 OF 37 FOR BORINGS B-027-1-11 AND B-027-0-11 IN PLAN VIEW



DRAWN	C.L.
CHECKED	NT

**SOIL PROFILE
RAMP B CROSS SECTION STA. 257+00**

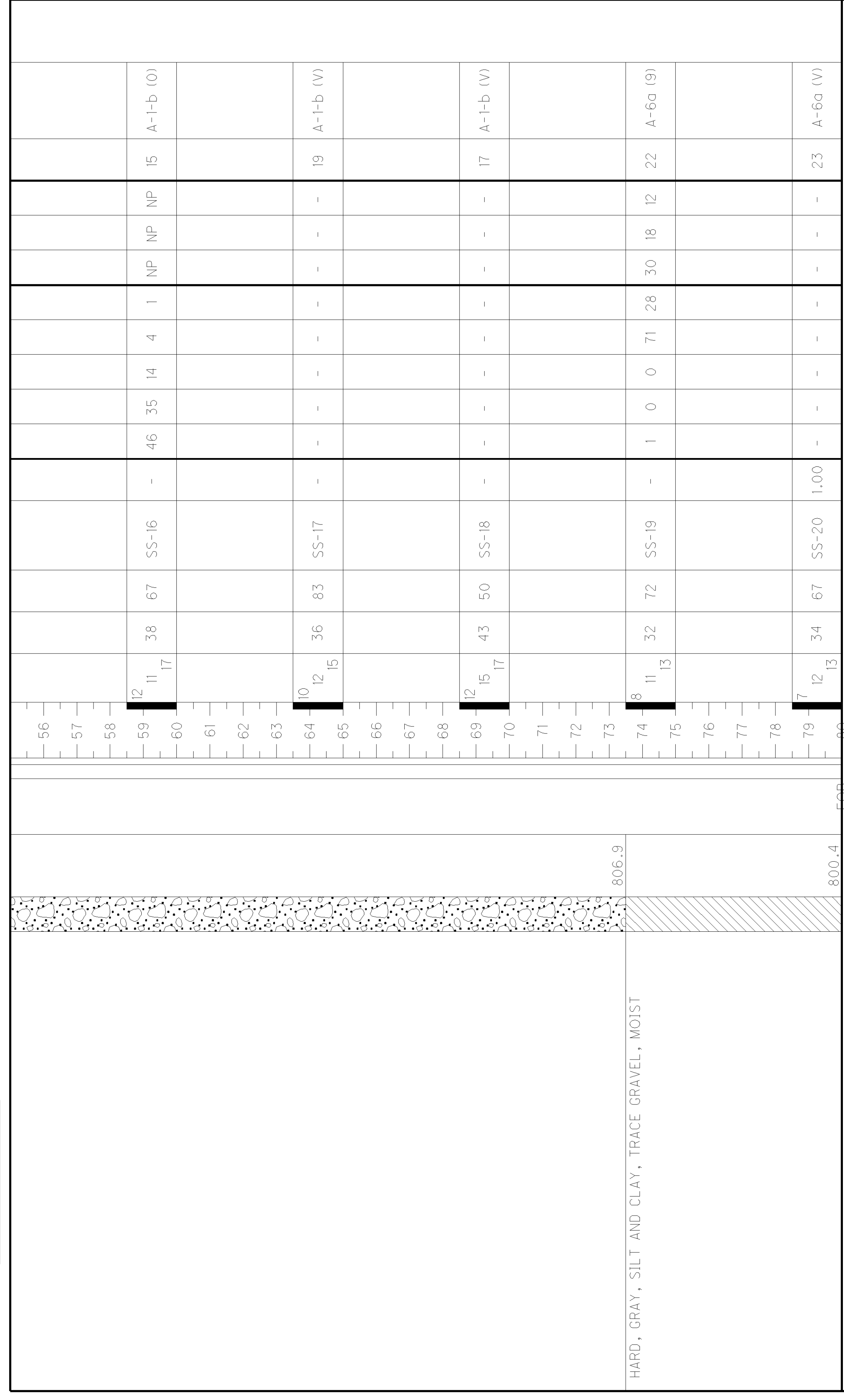
LIC-16-16.80



PROJECT: LIC-16.16.80		DRILLING FIRM / OPERATOR: CTL / JP		DRILL RIG: 03050TKR349-09		STATION / OFFSET: 17+46.94, 47.00 LT		EXPLORATION ID				
TYPE: STRUCTURE		SAMPLING FIRM / LOGGER: CTL / JP		HAMMER: CME AUTOMATIC		ALIGNMENT: NEW CHERRY VALLEY RD		B-016-0-11				
PID: 80704 BR ID: LIC-16-17.18		DRILLING METHOD: 3.25" HSA		CALIBRATION DATE: 10/13/09		ELEVATION: 879.1 (MSL) EOB: 80.0 ft.		PAGE				
START: 2/22/11 END: 2/22/11		SAMPLING METHOD: SPT		ENERGY RATIO (%): 86		COORD: 747857.650 N, 1975693.500 E		1 OF 2				
MATERIAL DESCRIPTION AND NOTES		ELEV.	DEPTHS	SPT / ROD	REC N ₆₀ (%)	SAMPLE ID	HP (1tsf)	GR CS FS SI CL	ATTERBERG LL PL PI	WC CLASS (G1)	ODOT CLASS (G1)	INST.
Topsoil (1')		879.0	1									
MEDIUM STIFF, BROWN, SANDY SILT, SOME GRAVEL, LITTLE CLAY, DAMP		874.1	2	2	7	SS-1	1.00	26 11 20 28 15	27 18 9	14	A-4a (2)	
@3.5'; TRACE GRAVEL, MOIST			3									
MEDIUM DENSE, BROWN, GRAVEL AND/OR STONE FRAGMENTS WITH SAND AND SILT, TRACE CLAY, DAMP			4	6	7	SS-2	-	10 19 20 31 20	24 16 8	21	A-4a (3)	
@13.5'; DENSE, WET			5									
@16.0'; VERY DENSE			6	3	4	SS-3	-	- - - - -	- - - - -	14	A-2-4 (V)	
VERY STIFF, GRAY, SANDY SILT, LITTLE GRAVEL, LITTLE CLAY, TILL, DAMP		860.6	7	4	17	SS-4	-	26 22 25 18 9	18 15 3	14	A-2-4 (O)	
@21.0'; MOIST			8									
@23.5'; HARD, DAMP			9	4	22	SS-5	-	- - - - -	- - - - -	8	A-2-4 (V)	
MEDIUM DENSE, BROWN, GRAVEL AND/OR STONE FRAGMENTS WITH SAND, TRACE SILT, WET		853.1	10	6	22	SS-6	-	26 22 25 18 9	18 15 3	14	A-2-4 (O)	
@31.0'; DENSE			11									
MEDIUM DENSE, BROWN, GRAVEL AND/OR STONE FRAGMENTS WITH SAND, TRACE SILT, WET			12	5	20	SS-7	-	- - - - -	- - - - -	15	A-4a (V)	
@43.5'; MEDIUM DENSE			13									
MEDIUM DENSE, BROWN, GRAVEL AND/OR STONE FRAGMENTS WITH SAND, TRACE SILT, TRACE CLAY, WET		833.1	14	3	13	SS-8	3.50	11 19 37 15 20	14 6	12	A-4a (3)	
@48.5'; DENSE			15									
@51.0'; MEDIUM DENSE			16	4	16	SS-9	-	- - - - -	- - - - -	15	A-4a (V)	
@53.0'; SAND HEAVE (1')			17									
			18	7	6	SS-10	1.00	11 19 37 15 20	14 6	12	A-4a (3)	
			19									
			20	3	13	SS-11	-	24 54 16 6 0	NP NP	15	A-1-b (O)	
			21									
			22	4	20	SS-12	-	- - - - -	- - - - -	15	A-1-b (V)	
			23									
			24	5	10	SS-13	-	- - - - -	- - - - -	9	A-1-b (V)	
			25									
			26	7	15	SS-14	-	- - - - -	- - - - -	8	A-1-b (V)	
			27									
			28	7	11	SS-15	-	- - - - -	- - - - -	11	A-1-b (V)	
			29									
			30	12	21	SS-16	-	- - - - -	- - - - -	16	A-1-b (V)	
			31									
			32	6	16	SS-17	-	- - - - -	- - - - -	12	A-1-b (V)	
			33									
			34	6	12	SS-18	-	- - - - -	- - - - -	12	A-1-b (V)	
			35									
			36	13	14	SS-19	-	27 34 31 5 3	NP NP	12	A-1-b (O)	
			37									
			38	6	16	SS-20	-	- - - - -	- - - - -	17	A-1-b (V)	
			39									
			40	16	7	SS-21	-	- - - - -	- - - - -	8	A-1-b (V)	
			41									
			42	25	10	SS-22	-	- - - - -	- - - - -	14	A-1-b (V)	
			43									
			44									
			45									
			46									
			47									
			48									
			49									
			50									
			51									
			52									
			53									
			54									
			55									

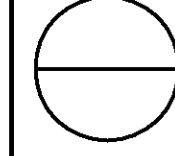
PROJECT: LIC-16-16.80 TYPE: STRUCTURE		DRILLING FIRM / OPERATOR: CTL / MID-OHIO		DRILL RIG: CME-550-MID OHIO		STATION / OFFSET: 18+66.66, 0.07 RT		EXPLOSION ID									
PID: 80704 BR ID: LIC-16-17.18		SAMPLING FIRM / LOGGER: CTL / MID-OHIO		HAMMER: CME AUTOMATIC		ALIGNMENT: NEW CHERRY VALLEY RD		B-017-0-11									
START: 3/16/11 END: 3/16/11		DRILLING METHOD: 3.25" HSA		CALIBRATION DATE: 3/16/11		ELEVATION: 880.4 (MSL) EOB: 80.0 ft.		PAGE									
		SPT METHOD: SPT		ENERGY RATIO (%): 80.8		COORD: 747974.653 N, 1975746.982 E		1 OF 2									
MATERIAL DESCRIPTION AND NOTES		ELEV.	DEPTHS	SPT/ROD	N60	REC SAMPLE ID	HP (1tsf)	GRADATION (%)			ATTERBERG			WC	ODOT CLASS (G1)	INST.	
								GR	CS	FS	SI	CL	LL	PL	PI		
Topsoil (2")		880.4	1	9													
HARD, BROWN, SANDY SILT, SOME GRAVEL, TRACE CLAY, DAMP		880.3	2	14	38	SS-1	2.00	25	16	16	33	10	26	17	9	16	A-4a (2)
		877.9	3														
MEDIUM DENSE, BROWN, GRAVEL AND/OR STONE FRAGMENTS WITH SAND AND SILT, TRACE CLAY, DAMP			4	7	19	SS-2	-	-	-	-	-	-	-	-	-	8	A-2-4 (V)
			5	7													
@6.0'; LOOSE			6	3	8	SS-3	-	46	16	12	20	6	-	-	-	12	A-2-4 (V)
			7	3													
MEDIUM DENSE, BRWON, GRAVEL AND/OR STONE FRAGMENTS WITH SAND, LITTLE SILT, TRACE CLAY, DAMP		870.4	9	3	9	SS-4	-	-	-	-	-	-	-	-	-	-	A-2-4 (V)
			10	4													
@13.5'; WET			11	5	20	SS-5	-	-	-	-	-	-	-	-	-	8	A-1-b (V)
			12	7	8												
			13														
@16.0'; DENSE			14	5	12	SS-6	-	27	34	24	12	3	NP	NP	NP	21	A-1-b (O)
			15	4	5												
VERY STIFF, GRAY, SANDY SILT, LITTLE GRAVEL, LITTLE CLAY, TILL, DAMP		859.4	16	5	32	SS-7	-	41	16	26	15	2	NP	NP	NP	13	A-1-b (O)
			17	12													
			18														
MEDIUM DENSE, GRAY, GRAVEL AND/OR STONE FRAGMENTS, SOME SAND, TRACE SILT, TRACE CLAY WITH COBBLES, WET		854.4	19	14	44	SS-8	-	-	-	-	-	-	-	-	-	14	A-1-b (V)
			20	15	18												
			21														
			22														
			23														
			24	8	22	SS-9	-	14	11	18	41	16	21	13	8	12	A-4a (4)
			25	8													
			26														
			27														
			28														
			29	7	23	SS-10	-	-	-	-	-	-	-	-	-	12	A-1-a (V)
			30	7	10												
			31														
			32														
			33														
			34	9	24	SS-11	-	66	18	9	6	1	NP	NP	NP	16	A-1-a (O)
			35	9	9												
			36														
			37														
			38														
@38.5'; DENSE			39	10	32	SS-12	-	-	-	-	-	-	-	-	-	19	A-1-a (V)
			40	11	13												
			41														
			42														
			43														
			44	16	38	SS-13	-	63	19	10	7	1	NP	NP	NP	7	A-1-a (O)
			45	16	12												
			46														
			47														
			48														
DENSE, GRAY, GRAVEL AND/OR STONE FRAGMENTS WITH SAND, TRACE SILT, TRACE CLAY, DAMP		833.4	49	15	46	SS-14	-	-	-	-	-	-	-	-	-	10	A-1-b (V)
			50	17	17												
			51														
			52														
			53														
			54	10	40	SS-15	-	-	-	-	-	-	-	-	-	15	A-1-b (V)
			55	14	16												

EXPLORATION ID: B-017-0-11 (CONTD.)



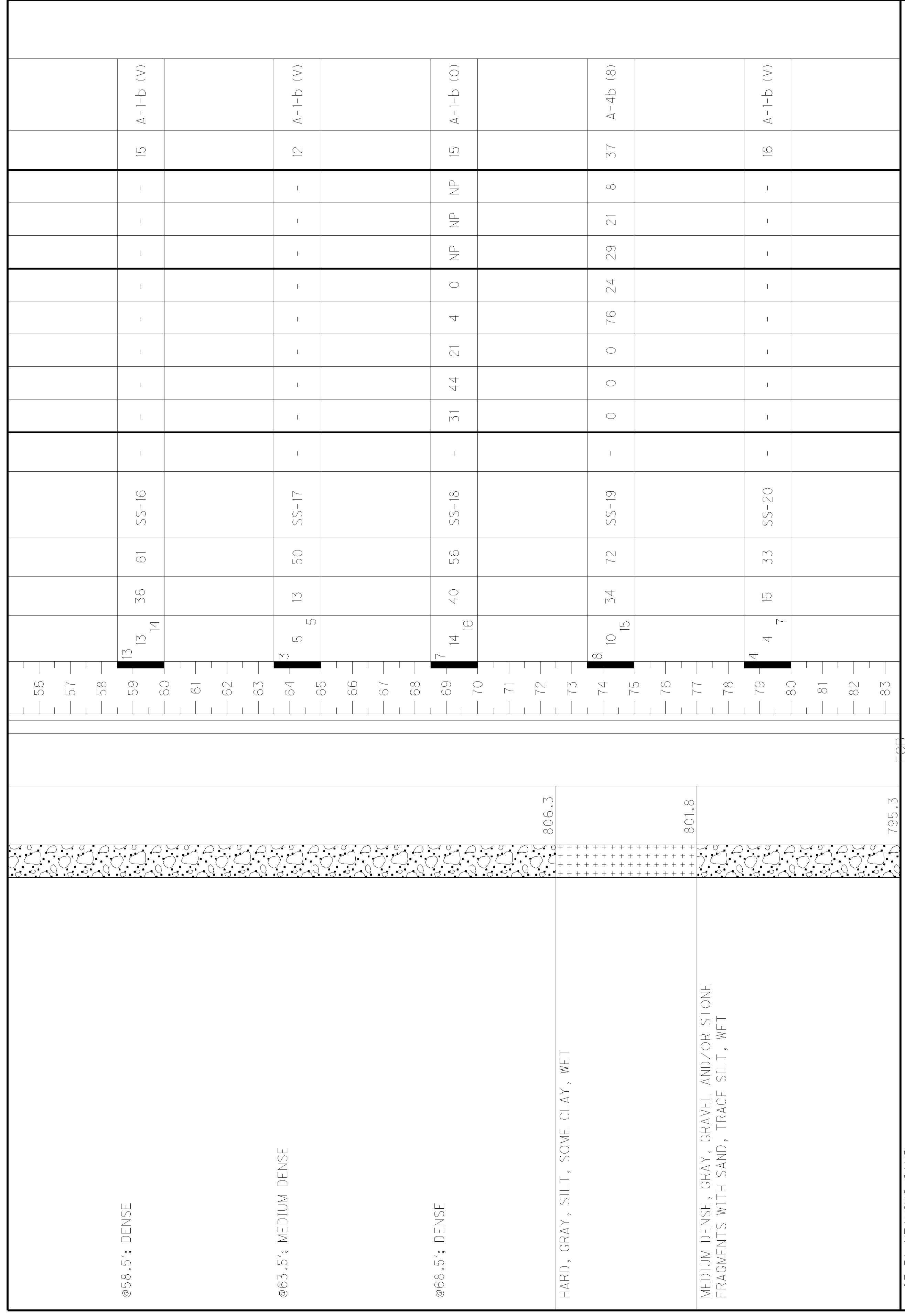
NOTES: CAVED AT 11.3'; GROUNDWATER LEVEL MEASURED AT 10.0' AT COMPLETION

ABANDONMENT METHODS, MATERIALS, QUANTITIES: SOIL CUTTINGS



PROJECT: LIC-16-16.80 STRUCTURE	DRILLING FIRM / OPERATOR: MID OHIO / MID-OHIO SAMPLING FIRM / LOGGER: CTL / P. TUTTLE	DRILL RIG: CME-550-MID OHIO HAMMER: CME AUTOMATIC	STATION / OFFSET: 19+42.15, 54.74' RT	EXPLOSION ID B-018-0-11												
					ALIGNMENT: NEW CHERRY VALLEY RD											
PID: 80704 BR ID: LIC-16-17.18	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 3/16/11	ELEVATION: 878.8 (MSL) EOB: 83.5 ft.	PAGE												
START: 3/14/11 END: 3/14/11	SAMPLING METHOD: SPT	ENERGY RATIO (%): 80.8	COORD: 748047.067 N, 1975805.663 E	1 OF 2												
MATERIAL DESCRIPTION AND NOTES	ELEV. 878.8 878.3	SPT/ ROD	N60	REC (%)	SAMPLE ID	HP (1tsf)	GRADATION (%)				ATTERBERG			WC CLASS (GI)	ODOT CLASS (GI)	INST.
							GR	CS	FS	SI	CL	LL	PL			
Topsoil (6") MEDIUM DENSE, BROWN, GRAVEL AND/OR STONE FRAGMENTS WITH SAND, SOME SILT, TRACE CLAY, DAMP	1	3	18	67	SS-1	-	60	8	7	23	2	NP	NP	NP	14	A-1-b (O)
	2	6	7													
	3															
	4	10	8	23	67	SS-2	-	-	-	-	-	-	-	-	7	A-1-b (V)
	5		9													
	6	5	6	18	72	SS-3	-	35	38	12	14	1	NP	NP	8	A-1-b (O)
	7	6	7													
	8															
	9	11	15	43	67	SS-4	-	65	12	11	11	1	NP	NP	6	A-1-a (O)
	10		17													
@6.0'; LITTLE SILT	11	9	7	19	78	SS-5	-	-	-	-	-	-	-	-	13	A-1-a (V)
	12		7													
	13															
	14	9	8	22	72	SS-6	-	62	16	9	12	1	21	17	4	A-1-a (O)
	15															
	16	10	10	27	72	SS-7	-	-	-	-	-	-	-	-	13	A-1-a (V)
	17		10													
	18															
	19	5	6	23	50	SS-8	-	36	33	17	14	0	NP	NP	17	A-1-b (O)
	20		11													
@23.5'; DENSE, TRACE SILT	21															
	22															
	23															
	24	16	19	43	33	SS-9	-	-	-	-	-	-	-	-	9	A-1-b (V)
	25		13													
	26															
	27															
	28															
	29	8	11	30	61	SS-10	-	-	-	-	-	-	-	-	15	A-1-b (V)
	30		11													
@33.5'; DENSE	31															
	32															
	33															
	34	10	11	34	61	SS-11	-	49	31	13	7	0	NP	NP	14	A-1-b (O)
	35		14													
	36															
	37															
	38															
	39	9	11	34	39	SS-12	-	-	-	-	-	-	-	-	13	A-1-b (V)
	40		14													
@53.5'; MEDIUM DENSE	41															
	42															
	43															
	44	10	13	35	61	SS-13	-	-	-	-	-	-	-	-	15	A-1-b (V)
	45		13													
	46															
	47															
	48															
	49	10	11	32	44	SS-14	-	-	-	-	-	-	-	-	13	A-1-b (V)
	50		13													
51																
52																
53																
54	7	9	28	67	SS-15	-	49	34	13	4	0	NP	NP	15	A-1-b (O)	
55		12														

EXPLORATION ID: B-018-0-11 (CONTD.)



NOTES: NONE
 ABANDONMENT METHODS, MATERIALS, QUANTITIES: SOIL CUTTINGS