FAI - SR 158-07.25
220092 PID - 110409
Dist 5 2/17/2022

Contract Proposal available @
www.contracts.dot.state.oh.us

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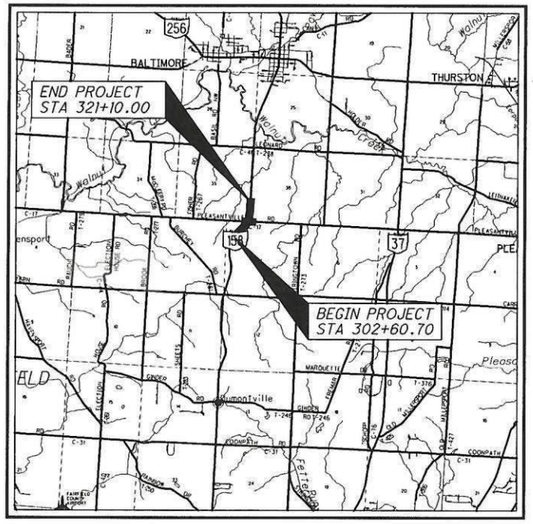


LOCATION MAP

LATITUDE: 39°48'47" LONGITUDE: 82°36'32"

SCALE IN MILES

0 1 2 3 4

N

PORTION TO BE IMPROVED
INTERSTATE HIGHWAY
FEDERAL ROUTES
STATE ROUTES
COUNTY & TOWNSHIP ROADS
OTHER ROADS

DESIGN DESIGNATION

CURRENT ADT (2022)	5,000
DESIGN YEAR ADT (2042)	5,600
DESIGN HOURLY VOLUME (2042)	750
DIRECTIONAL DISTRIBUTION	61%
TRUCKS (24 HOUR B&C)	7%
DESIGN SPEED	55 MPH
LEGAL SPEED	55 MPH

DESIGN FUNCTIONAL CLASSIFICATION:
MAJOR COLLECTOR (RURAL) (S.R. 158)
MINOR COLLECTOR (RURAL) (C.R. 17)

NHS PROJECT ..... NO

DESIGN EXCEPTIONS	APPROVAL DATE	SHEET NUMBERS
SUPERELEVATION RATE	5/6/20	2
STOPPING SIGHT DISTANCE	5/6/20	53
SHOULDER WIDTH	3/29/21	6

UNDERGROUND UTILITIES
Contact Two Working Days Before You Dig
OHIO811.org Before You Dig
OHIO811, 8-1-1, or 1-800-362-2764
(Non-members must be called directly)

PLAN PREPARED BY:

MOTT MACDONALD
18013 CLEVELAND PARKWAY DRIVE, SUITE 200, CLEVELAND, OHIO 44135
PHONE (216) 535-3640
FAX: (216) 265-2816

ENGINEERS SEAL: ROADWAY

STATE OF OHIO · CHRISTOPHER W. PRETO · 69222 · REGISTERED PROFESSIONAL ENGINEER

SIGNED: Chris Preto
DATE: 9/20/2021

ENGINEERS SEAL: TRAFFIC SIGNALS

STATE OF OHIO · SAMUEL J. BOBKO, JR. · E-74023 · REGISTERED PROFESSIONAL ENGINEER

SIGNED: Samuel J. Bobko
DATE: 9/20/2021

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

FAI-158-07.25

LIBERTY TOWNSHIP
GREENFIELD TOWNSHIP
FAIRFIELD COUNTY

INDEX OF SHEETS:

PROJECT DESCRIPTION

PAVEMENT WIDENING FOR THE ADDITION OF LEFT TURN LANES ON S.R. 158 AND A TRAFFIC SIGNAL AT THE INTERSECTION OF S.R. 158 AND PLEASANTVILLE ROAD (CR-17).

EARTH DISTURBED AREAS

PROJECT EARTH DISTURBED AREA:	4.89 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA:	0.25 ACRES
NOTICE OF INTENT EARTH DISTURBED AREA:	5.14 ACRES

2019 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PLANS AND CHANGES 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 EXCEPT AS NOTED ON SHEETS 19-21, AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

ADA DESIGN WAIVER

NONE REQUIRED

APPROVED Jason Z. Snoz
DATE 10/27/2021 DISTRICT DEPUTY DIRECTOR

APPROVED Jack Marchbanks
DATE 1-3-2022 DIRECTOR, DEPARTMENT OF TRANSPORTATION

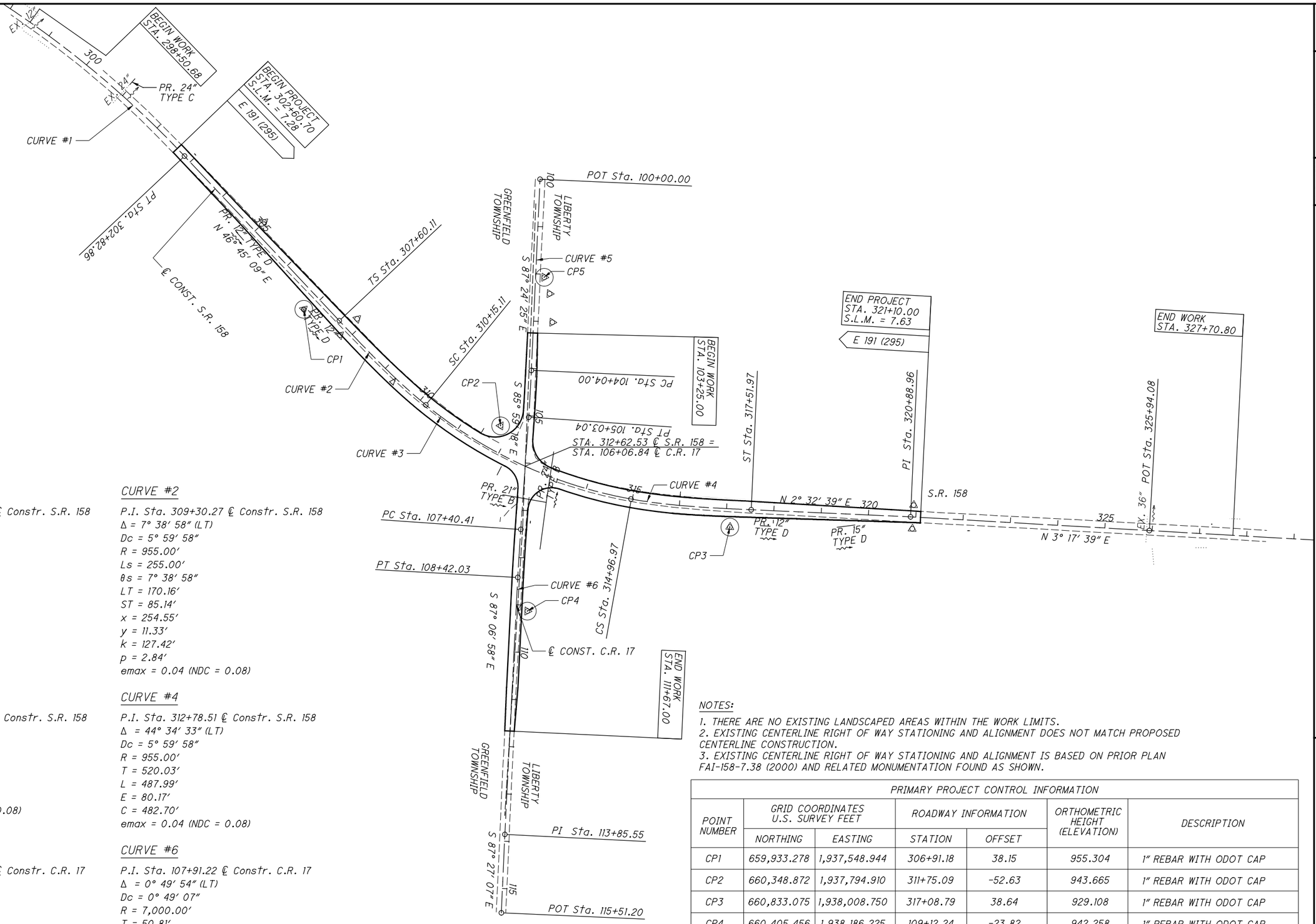
STANDARD CONSTRUCTION DRAWINGS

BP-3.1	1/21/22	HW-2.1	7/20/18	MT-101.60	1/17/20	TC-71.10	7/16/21			800	1/21/22
BP-4.1	7/19/13	HW-2.2	7/20/18	MT-101.70	1/17/20	TC-81.11	7/16/21			809	1/21/22
				MT-101.75	1/17/20	TC-83.10	1/17/20			813	10/19/18
CB-2-2A,	7/16/21	HL-10.11	1/15/21	MT-101.90	7/17/20	TC-83.20	7/21/17			821	4/20/12
2-2B, 2-2C		HL-10.12	1/20/17	MT-105.10	1/17/20	TC-84.20	10/18/13			832	10/19/18
CB-2-3, 2-4	7/16/21	HL-10.13	4/20/20	MT-120.00	1/19/18	TC-84.21	10/18/13			836	1/19/18
		HL-20.11	1/15/21			TC-85.10	4/17/20			872	1/21/22
		HL-30.11	1/15/21	TC-17.11	1/21/22	TC-85.21	7/16/21			874	4/17/20
		HL-30.22	1/15/21	TC-21.21	7/16/21	TC-85.22	1/19/18			875	1/18/19
DM-1.1	7/17/20			TC-41.20	10/18/13					902	12/31/12
DM-1.2	7/16/21	HL-60.11	7/21/17	TC-42.20	10/18/13					909	1/21/22
DM-4.3	1/15/16	HL-60.12	7/16/21	TC-52.10	10/18/13					913	4/21/17
DM-4.4	1/15/16			TC-52.20	1/15/21					921	4/20/12
		MT-97.10	4/19/19	TC-64.10	7/16/21						
RM-4.2	4/17/20	MT-97.12	1/20/17	TC-65.10	1/17/14						
		MT-99.20	4/19/19	TC-65.11	7/21/17						

SUPPLEMENTAL SPECIFICATIONS

SPECIAL PROVISIONS

FEDERAL PROJECT NO. E191(295)
PID NO. 110409
CONSTRUCTION PROJECT NO.
RAILROAD INVOLVEMENT NONE
FAI-158-07.25
1/131



CURVE #1

P.I. Sta. 293+06.21 ℄ Constr. S.R. 158
Δ = 57° 14' 07" (RT)
Dc = 2° 42' 00"
R = 2,122.02'
T = 1,157.81'
L = 2,119.78'
E = 295.31'
emax = 0.049

CURVE #2

P.I. Sta. 309+30.27 ℄ Constr. S.R. 158
Δ = 7° 38' 58" (LT)
Dc = 5° 59' 58"
R = 955.00'
Ls = 255.00'
θs = 7° 38' 58"
LT = 170.16'
ST = 85.14'
x = 254.55'
y = 11.33'
k = 127.42'
p = 2.84'
emax = 0.04 (NDC = 0.08)

CURVE #3

P.I. Sta. 312+61.29 ℄ Constr. S.R. 158
Δ = 28° 54' 35" (LT)
Dc = 5° 59' 58"
R = 955.00'
T = 246.18'
L = 481.86'
E = 31.22'
emax = 0.04 (NDC = 0.08)

CURVE #4

P.I. Sta. 312+78.51 ℄ Constr. S.R. 158
Δ = 44° 34' 33" (LT)
Dc = 5° 59' 58"
R = 955.00'
T = 520.03'
L = 487.99'
E = 80.17'
C = 482.70'
emax = 0.04 (NDC = 0.08)

CURVE #5

P.I. Sta. 104+53.52 ℄ Constr. C.R. 17
Δ = 1° 25' 07" (RT)
Dc = 1° 25' 57"
R = 4,000.00'
T = 49.52'
L = 99.04'
E = 0.31'
C = 99.04'
emax = NC

CURVE #6

P.I. Sta. 107+91.22 ℄ Constr. C.R. 17
Δ = 0° 49' 54" (LT)
Dc = 0° 49' 07"
R = 7,000.00'
T = 50.81'
L = 101.62'
E = 0.18'
C = 101.62'
emax = NC

NOTES:

1. THERE ARE NO EXISTING LANDSCAPED AREAS WITHIN THE WORK LIMITS.
2. EXISTING CENTERLINE RIGHT OF WAY STATIONING AND ALIGNMENT DOES NOT MATCH PROPOSED CENTERLINE CONSTRUCTION.
3. EXISTING CENTERLINE RIGHT OF WAY STATIONING AND ALIGNMENT IS BASED ON PRIOR PLAN FAI-158-7.38 (2000) AND RELATED MONUMENTATION FOUND AS SHOWN.

PRIMARY PROJECT CONTROL INFORMATION

POINT NUMBER	GRID COORDINATES U.S. SURVEY FEET		ROADWAY INFORMATION		ORTHOMETRIC HEIGHT (ELEVATION)	DESCRIPTION
	NORTHING	EASTING	STATION	OFFSET		
CP1	659,933.278	1,937,548.944	306+91.18	38.15	955.304	1" REBAR WITH ODOT CAP
CP2	660,348.872	1,937,794.910	311+75.09	-52.63	943.665	1" REBAR WITH ODOT CAP
CP3	660,833.075	1,938,008.750	317+08.79	38.64	929.108	1" REBAR WITH ODOT CAP
CP4	660,405.456	1,938,186.225	109+12.24	-23.82	942.258	1" REBAR WITH ODOT CAP
CP5	660,441.146	1,937,481.314	102+06.46	-18.35	935.239	1" REBAR WITH ODOT CAP

HORIZONTAL SCALE IN FEET
0 50 100 200

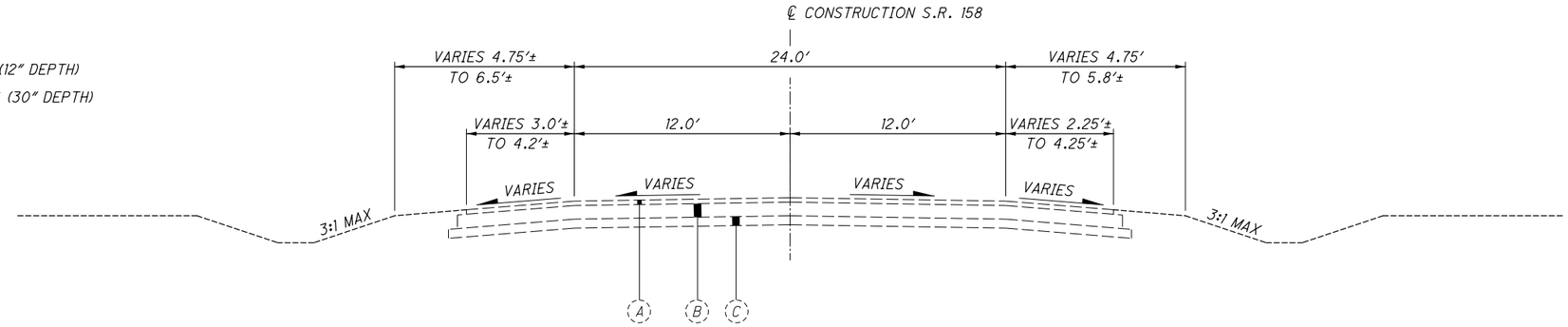
CALCULATED SHR
CHECKED CWP

SCHEMATIC PLAN

FAI-158-7.25

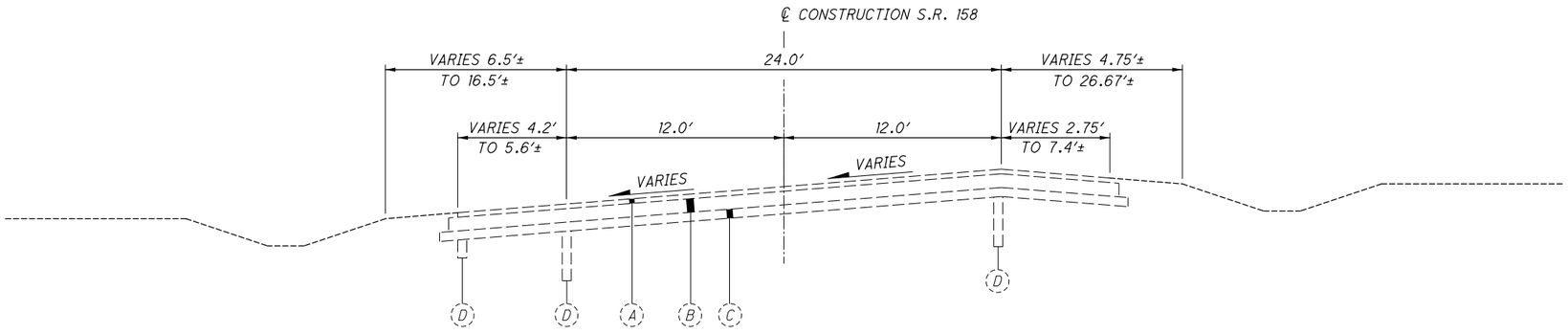
EXISTING LEGEND

- (A) 3" ASPHALT CONCRETE
- (B) 9" ASPHALT CONCRETE BASE
- (C) 6" AGGREGATE BASE
- (D) 4" SHALLOW PIPE UNDERDRAIN (12" DEPTH)
- (E) 4" SHALLOW PIPE UNDERDRAINS (30" DEPTH)
- (F) 8" AGGREGATE BASE



S.R. 158 (LANCASTER-KIRKERSVILLE RD.) - NORMAL SECTION

STATION 302+60.70 TO STA. 306+49.72
STATION 318+79.48 TO STA. 321+10.00



S.R. 158 (LANCASTER KIRKERSVILLE RD.) - SUPERELEVATED SECTION

STATION 306+49.72 TO STA. 318+79.48

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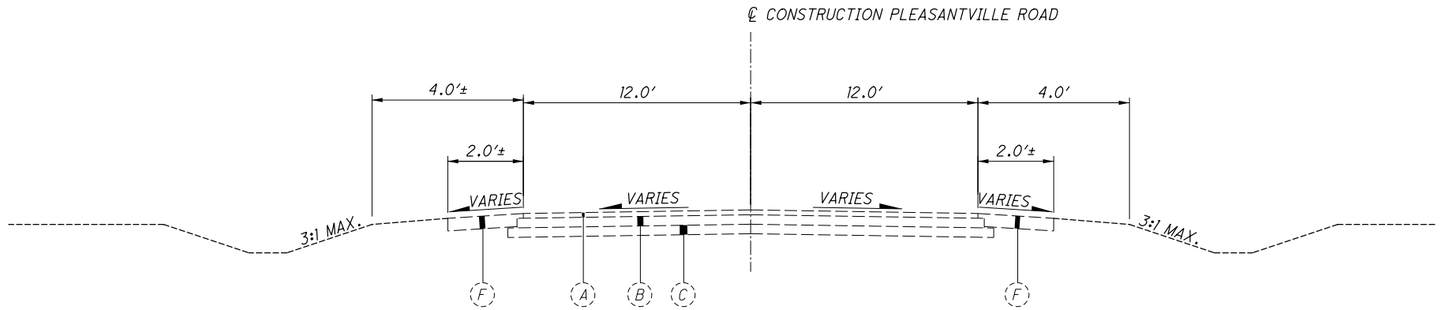
EXISTING TYPICAL SECTIONS - S.R. 158

FAI-158-07.25

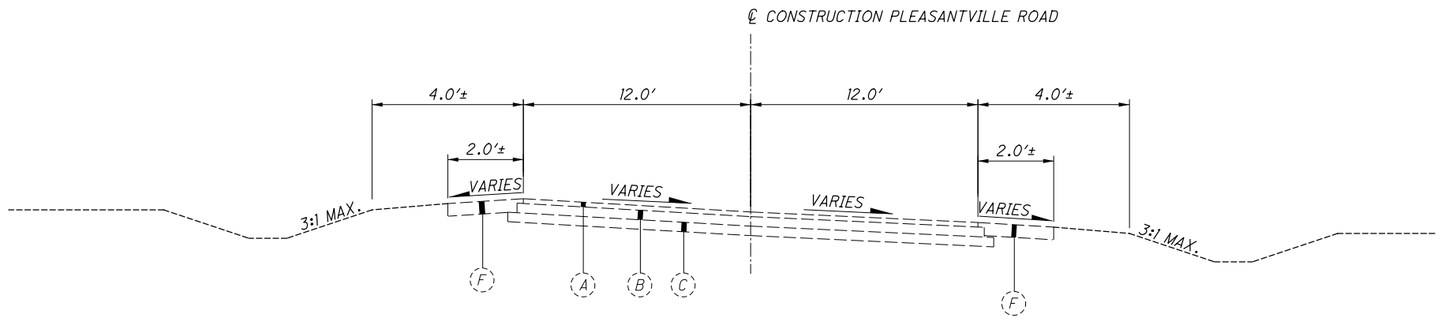
EXISTING LEGEND

- (A) 3" ASPHALT CONCRETE
- (B) 6" ASPHALT CONCRETE BASE
- (C) 6" AGGREGATE BASE
- (D) 4" SHALLOW PIPE UNDERDRAIN (12" DEPTH)
- (E) 4" SHALLOW PIPE UNDERDRAIN (30" DEPTH)
- (F) 8" AGGREGATE BASE



C.R. 17 (PLEASANTVILLE ROAD) - NORMAL SECTION

STA. 103+25.00 TO STA. 102+95.06
STA. 106+13.57 TO STA. 111+67.00



C.R. 17 (PLEASANTVILLE ROAD) - SUPERELEVATED SECTION

STA. 102+95.06 TO STA. 105+88.04

EXISTING TYPICAL SECTIONS - C.R. 17 (PLEASANTVILLE ROAD)

FAI-158-07.25

PROPOSED LEGEND

(1) ITEM 441 - 1 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), PG70-22M
(2) ITEM 441 - 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (449)
(3) ITEM 301 - 9" ASPHALT CONCRETE BASE
(4) ITEM 304 - 6" AGGREGATE BASE
(5) ITEM 204 - SUBGRADE COMPACTION
(6) ITEM 204 - PROOF ROLLING
(7) ITEM 407 - NON-TRACKING TACK COAT
(8) ITEM 605 - 6" SHALLOW PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC
(9) ITEM 605 - 6" BASE PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC
(10) ITEM 659 - SEEDING AND MULCHING
(11) ITEM 605 - AGGREGATE DRAINS
(12) ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE, 3" AVERAGE
(13) ITEM 202 - PAVEMENT REMOVED
(14) ITEM 441 - 1 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), PG64-22
(15) ITEM 441 - ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (449), (VARIABLE THICKNESS)
(16) ITEM 206 - CEMENT STABILIZED SUBGRADE, 12 INCHES DEEP
(17) ITEM 206 - CURING COAT
(18) ITEM 690 - SPECIAL - REINFORCED MESH FOR TRANSVERSE AND/OR LONGITUDINAL JOINTS AND CRACKS

[A] 2.0'± STA. 302+60.70
VARIES 2.0'± TO 4.0' STA. 302+60.70 TO STA. 302+82.86
4.0' STA. 302+82.86 TO STA. 317+38.00
VARIES 4.0' TO 2.1'± STA. 317+38.00 TO STA. 321+10.00
2.1'± STA. 321+10.00

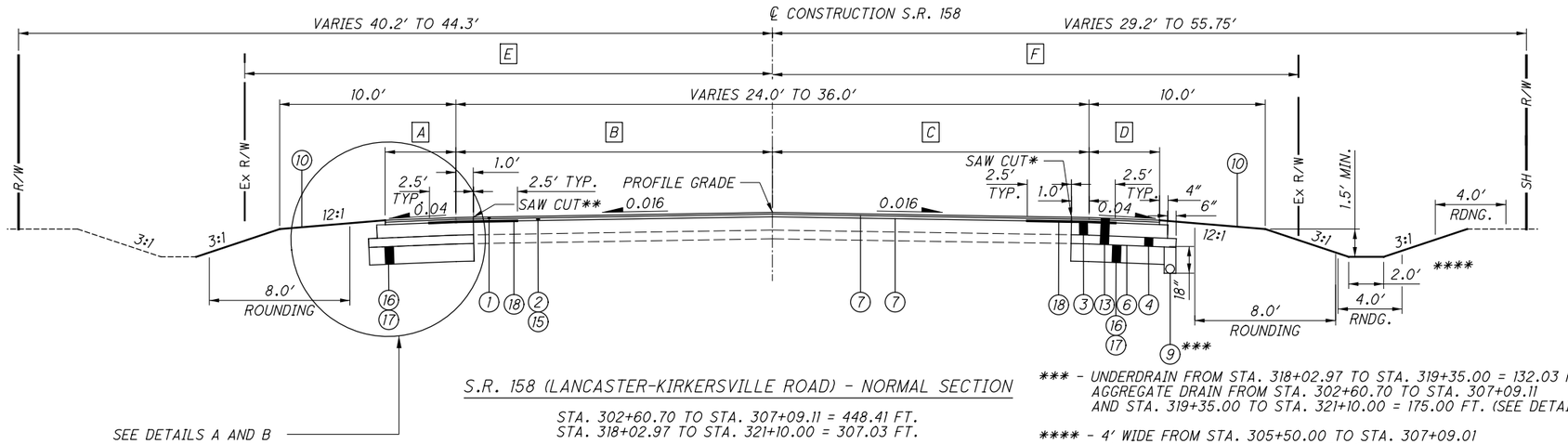
[B] 12.0' STA. 302+60.70 TO STA. 304+50.00
VARIES 12.0' TO 18.0' STA. 304+50.00 TO STA. 309+30.00
18.0' STA. 309+30.00 TO STA. 317+38.00
VARIES 18.0' TO 12.4' STA. 317+38.00 TO STA. 321+10.00
12.4'± STA. 321+10.00

[C] 12.0' STA. 302+60.70 TO STA. 304+50.00
VARIES 12.0' TO 18.0' STA. 304+50.00 TO STA. 307+80.00
18.0' STA. 307+80.00 TO STA. 315+88.00
VARIES 18.0' TO 11.6' STA. 315+88.00 TO STA. 321+10.00
11.6'± STA. 321+10.00

[D] 2.0'± STA. 302+60.70
VARIES 2.0'± TO 4.0' STA. 302+60.70 TO STA. 302+82.86
4.0' STA. 302+82.86 TO STA. 315+88.00
VARIES 4.0' TO 4.1'± STA. 317+38.00 TO STA. 320+52.07
VARIES 4.1'± TO 3.0'± STA. 320+52.07 TO STA. 321+10.00
3.0'± STA. 321+10.00

[E] 30.0' STA. 302+60.70
VARIES 30.0' TO 34.6'± STA. 302+60.70 TO STA. 307+09.11
VARIES 34.6'± TO 49.0'± STA. 307+09.11 TO STA. 310+50.00
VARIES 49.0'± TO 69.6'± STA. 310+50.00 TO STA. 316+00.00
VARIES 69.6'± TO 45.1'± STA. 316+00.00 TO STA. 318+02.97
VARIES 45.1'± TO 43.5'± STA. 318+02.97 T STA. 321+10.00
43.5'± STA. 321+10.00

[F] 30.0' STA. 302+60.70
VARIES 30.0' TO 43.3'± STA. 302+60.70 TO STA. 307+09.11
VARIES 43.3'± TO 35.9'± STA. 307+09.11 TO STA. 310+50.00
VARIES 35.9'± TO 46.6'± STA. 310+50.00 TO STA. 316+00.00
VARIES 46.6'± TO 42.2'± STA. 316+00.00 TO STA. 318+02.97
VARIES 42.4'± TO 40.6'± STA. 318+02.97 TO STA. 321+10.00
40.6'± STA. 321+10.00

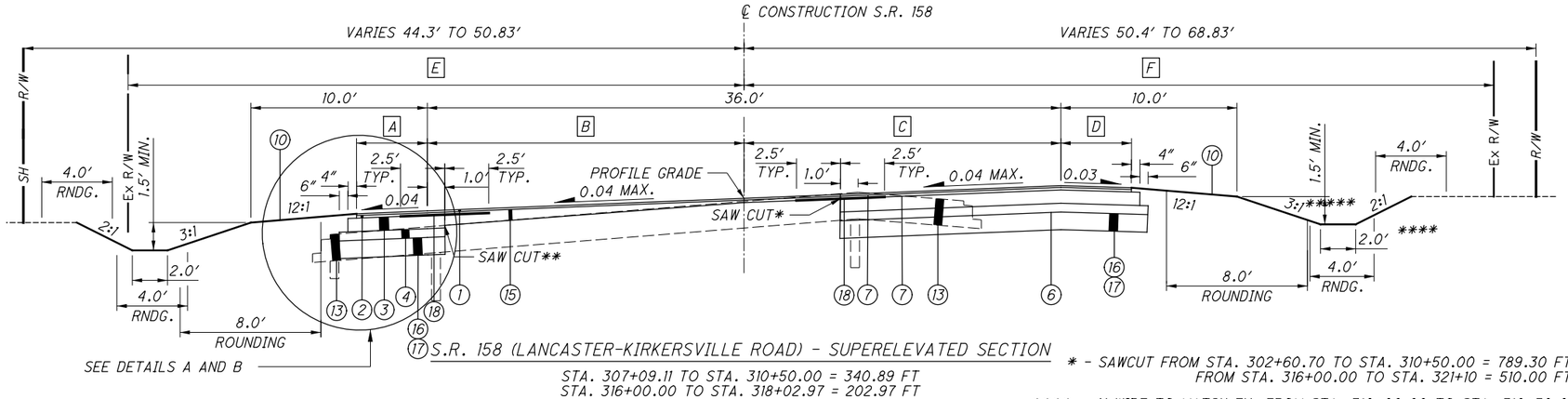


S.R. 158 (LANCASTER-KIRKERSVILLE ROAD) - NORMAL SECTION

STA. 302+60.70 TO STA. 307+09.11 = 448.41 FT.
STA. 318+02.97 TO STA. 321+10.00 = 307.03 FT.

*** - UNDERDRAIN FROM STA. 318+02.97 TO STA. 319+35.00 = 132.03 FT.
AGGREGATE DRAIN FROM STA. 302+60.70 TO STA. 307+09.11
AND STA. 319+35.00 TO STA. 321+10.00 = 175.00 FT. (SEE DETAIL A)

**** - 4' WIDE FROM STA. 305+50.00 TO STA. 307+09.01
4' WIDE FROM STA. 318+25.00 TO STA. 319+35.00



** - SAWCUT FROM STA. 302+60.70 TO STA. 310+50.00 = 789.30 FT.
FROM STA. 316+00.00 TO STA. 321+10.00 = 510.00 FT.

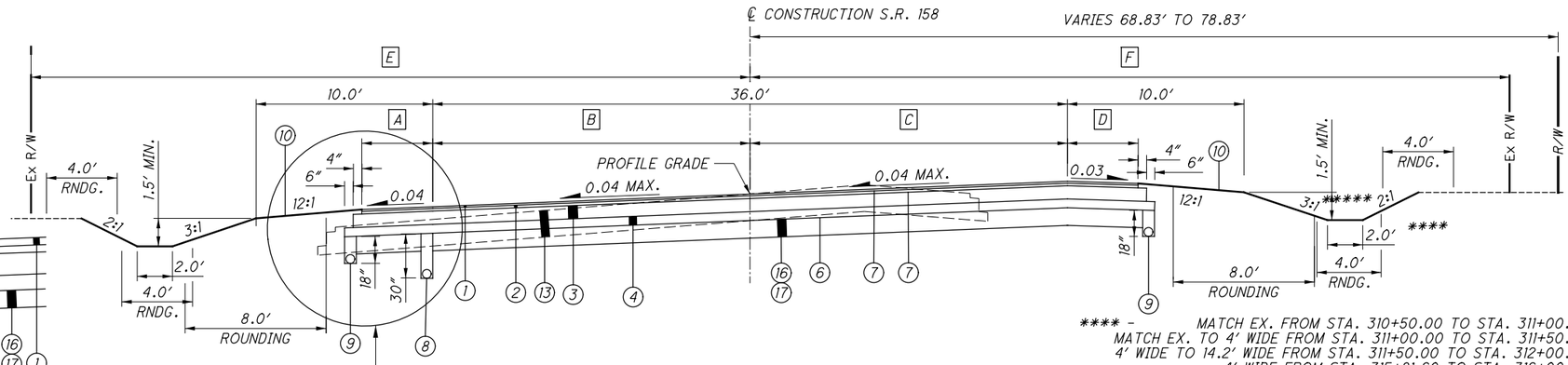
S.R. 158 (LANCASTER-KIRKERSVILLE ROAD) - SUPERELEVATED SECTION

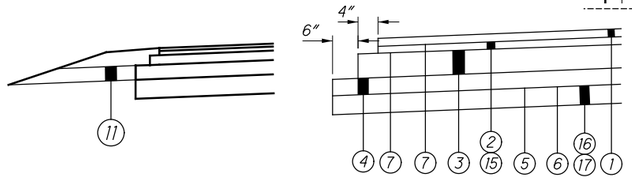
STA. 307+09.11 TO STA. 310+50.00 = 340.89 FT
STA. 316+00.00 TO STA. 318+02.97 = 202.97 FT

* - SAWCUT FROM STA. 302+60.70 TO STA. 310+50.00 = 789.30 FT.
FROM STA. 316+00.00 TO STA. 321+10 = 510.00 FT.

**** - 4' WIDE TO MATCH EX. FROM STA. 310+00.00 TO STA. 310+50.00
4' WIDE FROM STA. 307+09.11 TO STA. 310+00.00

***** - TRANSITIONS FROM 3:1 SLOPE TO 4:1 SLOPE
FROM STA. 310+00.00 TO STA. 310+50.00





DETAIL A - AGGREGATE DRAINS DETAIL B - SHOULDER STEP DETAIL

S.R. 158 (LANCASTER-KIRKERSVILLE ROAD) - SUPERELEVATED SECTION

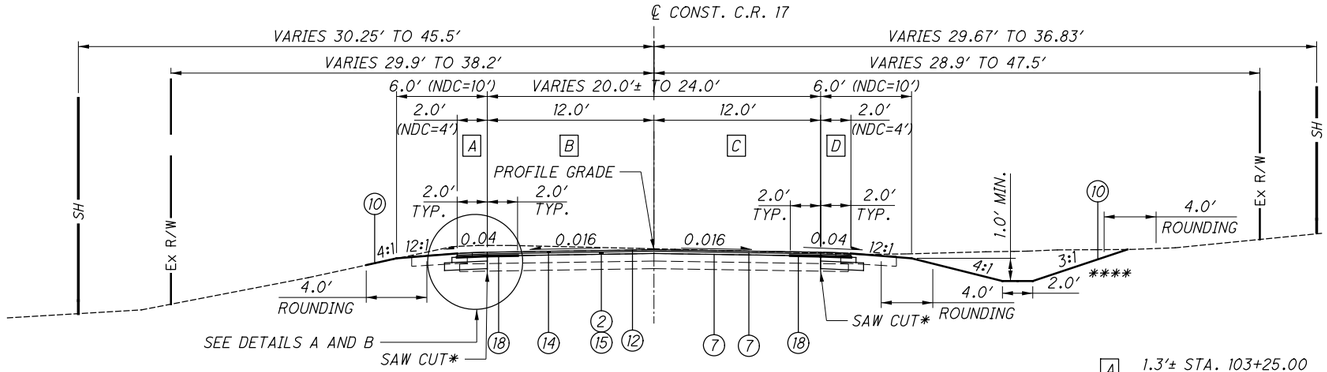
STA. 310+50.00 TO STA. 316+00.00 = 550 FT.

**** - MATCH EX. FROM STA. 310+50.00 TO STA. 311+00.00
MATCH EX. TO 4' WIDE FROM STA. 311+00.00 TO STA. 311+50.00
4' WIDE TO 14.2' WIDE FROM STA. 311+50.00 TO STA. 312+00.00
4' WIDE FROM STA. 315+81.60 TO STA. 316+00.00

***** - 4:1 SLOPE FROM STA. 310+50.00 TO STA. 313+50.00
TRANSITIONS FROM 4:1 SLOPE TO 3:1 SLOPE
FROM STA. 313+50.00 TO STA. 314+00.00

PROPOSED TYPICAL SECTIONS - S.R. 158

FAI-158-07.25



C.R. 17 - NORMAL SECTION

STA. 103+25.00 TO STA. 104+17.00 = 92 FT.
STA. 110+75.00 TO STA. 111+67.00 = 92 FT.

* - SAW CUT FROM STA. 103+25.00 TO STA. 104+17.00
SAW CUT FROM STA. 110+75.00 TO STA. 111+67.00

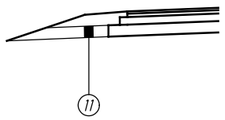
**** - DITCH WIDTH IS 1.0′ FROM STA. 110+75.00 TO STA. 111+67.00

[A] 1.3′± STA. 103+25.00
VARIES 1.3′± TO 2.0′ STA. 103+25.00 TO STA 104+17.00
VARIES 2.0′ TO 0.83′± STA. 110+75.00 TO STA 111+67.00
0.83′± STA. 111+67.00

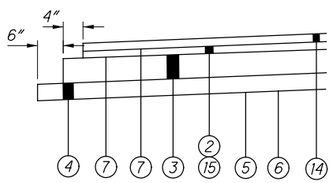
[B] 9.7′± STA. 103+25.00
VARIES 9.7′ TO 12.0′ STA. 103+25.00 TO STA 104+17.00
VARIES 12.0′ TO 8.9′± STA. 110+75.00 TO STA 111+67.00
8.9′± STA. 111+67.00

[C] 11.4′± STA. 103+25.00
VARIES 11.4′± TO 12.0′ STA. 103+25.00 TO STA 104+17.00
VARIES 12.0′ TO 11.2′± STA. 110+75.00 TO STA 111+67.00
11.2′± STA. 111+67.00

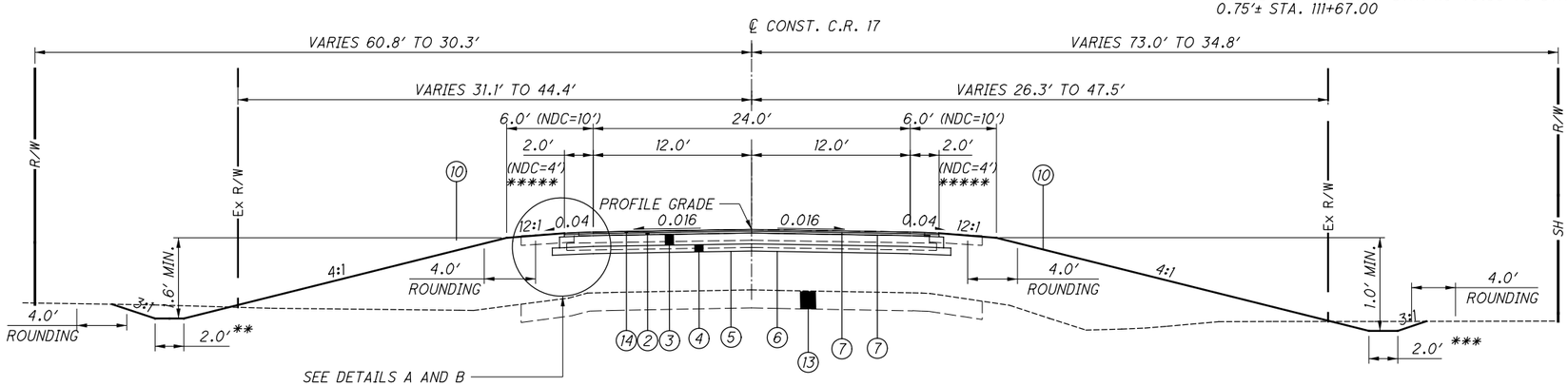
[D] 1.6′± STA. 103+25.00
VARIES 1.6′± TO 2.0′ STA. 103+25.00 TO STA 104+17.00
VARIES 2.0′ TO 0.75′± STA. 110+75.00 TO STA 111+67.00
0.75′± STA. 111+67.00



DETAIL A - AGGREGATE DRAINS



DETAIL B - SHOULDER STEP DETAIL



C.R. 17 - NORMAL SECTION

STA. 104+17.00 TO STA. 110+75.00 = 658 FT.

** - DITCH FROM STA. 106+79.22 TO STA. 110+59.20
*** - DITCH WIDTH IS 1.0′ FROM STA. 107+50.00 TO STA. 110+75.00
***** - SHOULDER WIDTH TRANSITIONS ARE SHOWN IN THE PLANS

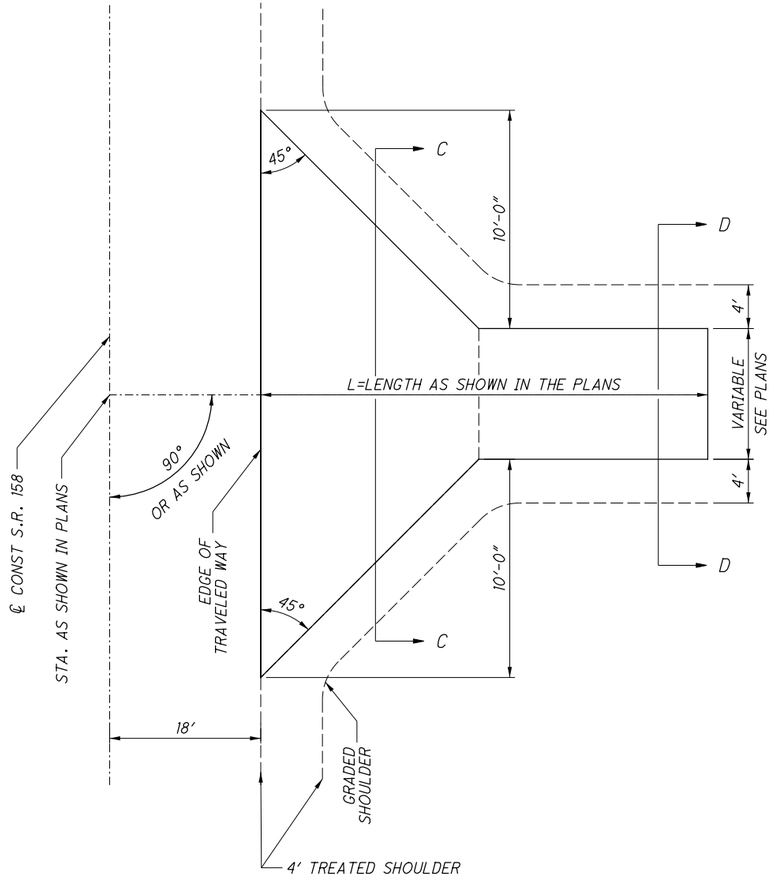
NOTES:

1. FOR PROPOSED LEGEND, SEE SHEET 5.

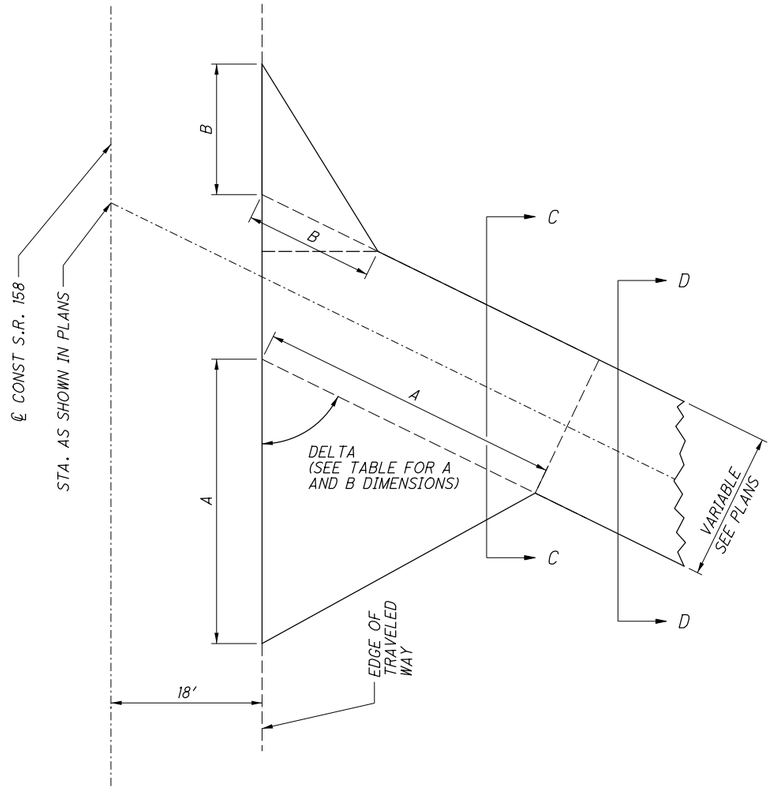
CALCULATED SHR
CHECKED CWP

PROPOSED TYPICAL SECTIONS - C.R. 17

FAI-158-07.25



TYPE 2 DRIVEWAY

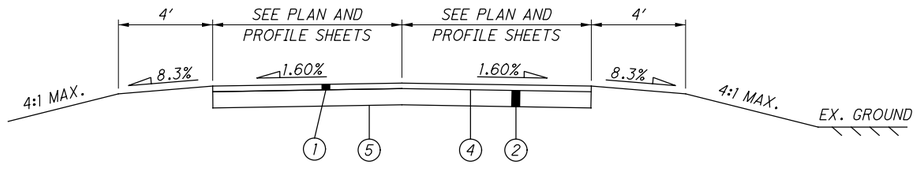


TYPE 2 SKEWED DRIVEWAY

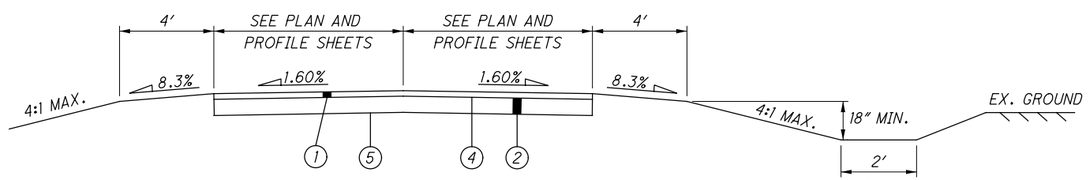
DELTA	A	B
80° TO 90°	20'	20'
75° TO 85°	25'	16'
65° TO 75°	28'	13'
55° TO 65°	33'	12'

NOTES

1. FOR DETAILS NOT SHOWN SEE STANDARD DRAWING BP-4.1.

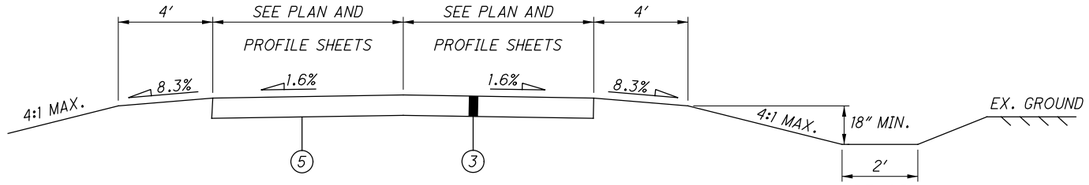


SECTION C-C



SECTION D-D

RESIDENTIAL DRIVE (EX. ASPHALT)



SECTION D-D

RESIDENTIAL DRIVE (EX. GRAVEL)

LEGEND

1. ITEM 441 - 1 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE I, (448) (DRIVEWAYS)
2. ITEM 301 - 3 1/2" ASPHALT CONCRETE BASE, PG64-22 (DRIVEWAYS)
3. ITEM 304 - 8" AGGREGATE BASE
4. ITEM 407 - NON-TRACKING TACK COAT
5. ITEM 204 - SUBGRADE COMPACTION

CALCULATED SHR
CHECKED CWP

DRIVE TYPICALS WITH PAVED SHOULDERS

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7
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CALCULATED SHR CHECKED CWP

ROUNDING

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

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.

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

ELECTRIC AND TRANSMISSIONS:

SOUTH CENTRAL POWER
DIRECTOR OF ENGINEERING
2780 COONPATH RD. NE
LANCASTER, OH 43130
ATTN: ZACK REED
PHONE: (740) 689-6150
MOBILE: (740) 415-4274
EMAIL: ZREED@SOUTHCENTRALPOWER.COM

GAS:

NORTHEAST OHIO NATURAL GAS
5640 LANCASTER-NEWARK RD. NE
PLEASANTVILLE, OH 43148
ATTN: MARK CALLAHAN
PHONE: (740) 400-4312
MOBILE: (740) 808-6040
EMAIL: MCALLAHAN@EGAS.NET

ENTERPRISE PRODUCTS COMPANY
PO BOX 4324
HOUSTON, TX 77210
ATTN: LAND ENCROACHMENTS GROUP
PHONE: (866) 901-8170
EMAIL: LAND_ENCROACHMENTS@EPROD.COM

TELECOMMUNICATIONS:

AT&T OHIO
160 NORTH SIXTH ST.
ZANESVILLE, OH 43701
ATTN: BARRETT TAMASOVICH
PHONE: (740) 454-3552
EMAIL: BT2178@ATT.COM

FRONTIER COMMUNICATIONS
1300 SANDUSKY RD.
MARION, OH 43302
ATTN: ROBERT CHANDLER
PHONE: (740) 592-0544
EMAIL: *ROBERT.L.* CHANDLER@FTR.COM

CHARTER COMMUNICATIONS
3760 INTERCHANGE DR.
COLUMBUS, OH 43204
ATTN: BRIAN AMENDE
PHONE: (740) 322-6703
EMAIL: BRIAN.AMENDE@CHARTER.COM

CONTINGENCY QUANTITIES

THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM WORK FOR ITEMS DESIGNATED BY PLAN NOTE TO BE USED **"AS DIRECTED BY THE ENGINEER"** UNLESS AUTHORIZED BY THE ENGINEER. THE ACTUAL WORK LOCATIONS AND QUANTITIES USED FOR SUCH ITEMS SHALL BE INCORPORATED INTO THE FINAL CHANGE ORDER GOVERNING COMPLETION OF THIS PROJECT.

SURVEYING PARAMETERS

PRIMARY PROJECT CONTROL MONUMENTS GOVERN ALL POSITIONING ON ODOT PROJECTS. SEE SHEET 2 FOR TABLE CONTAINING PROJECT CONTROL INFORMATION.

USE THE FOLLOWING PROJECT CONTROL, VERTICAL POSITIONING, AND HORIZONTAL POSITIONING PARAMETERS FOR ALL SURVEYING:

PROJECT CONTROL

POSITIONING METHOD: ODOT VRS AND DIGITAL LEVEL
MONUMENT TYPE: 1" REBAR WITH ODOT CAP

VERTICAL POSITIONING

ORTHOMETRIC HEIGHT DATUM: NAVD 88
GEOID: GEOID12A

HORIZONTAL POSITIONING

REFERENCE FRAME: NAD 83(2011)
ELLIPSOID: GRS80
MAP PROJECTION: LAMBERT CONFORMAL CONIC
COORDINATE SYSTEM: STATE PLANE OHIO SOUTH ZONE 3402
COMBINED SCALE FACTOR: 1 OR UNSCALED GRID
ORIGIN OF COORDINATE SYSTEM: 0,0

USE THE POSITIONING METHODS AND MONUMENT TYPE USED IN THE ORIGINAL SURVEY TO RESTORE ALL MONUMENTS RELATED TO PRIMARY PROJECT CONTROL THAT ARE DAMAGED OR DESTROYED BY CONSTRUCTION ACTIVITIES. RESTORE THE DAMAGED OR DESTROYED MONUMENTS IN ACCORDANCE WITH CMS 623.

UNITS ARE IN U.S. SURVEY FEET.

WORK LIMITS

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

CLEARING AND GRUBBING

THE DEPARTMENT HAS NOT MARKED INDIVIDUAL TREES AND STUMPS FOR REMOVAL. UNLESS SPECIFICALLY DESIGNATED AS "DO NOT DISTURB" IN THE PLANS, REMOVE ALL TREES AND STUMPS WITHIN THE CONSTRUCTION LIMITS UNDER THE LUMP SUM BID FOR ITEM 201 CLEARING AND GRUBBING.

ITEM 204 - PROOF ROLLING

THE FOLLOWING QUANTITY IS PROVIDED IN THE GENERAL SUMMARY TO ADDRESS LOCATIONS REQUIRING PROOF ROLLING.

ITEM 204 – PROOF ROLLING 5 HOURS.

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.

COOPERATION BETWEEN CONTRACTORS

THE STATE OF OHIO HAS CONTRACTED PROJECT: **FAI-037-6.10, PID 110412** WHICH MAY BE CONSTRUCTED CONCURRENTLY WITH THIS PROJECT. IT IS IMPERATIVE THAT THE CONTRACTORS COOPERATE FULLY WITH EACH OTHER AS OUTLINED IN SECTION 105.08 OF THE CMS. ALL MAINTENANCE OF TRAFFIC SHALL BE COORDINATED BETWEEN PROJECTS AND NOT CONFLICT WITH ONE ANOTHER.

DRIVEWAY APRONS

ALL DRIVEWAYS SHALL BE FEATHERED WITH ITEM 441 TO A DISTANCE OF FOUR FEET FROM EDGE OF ASPHALT PAVEMENT (6' FOR CONCRETE) AND SHALL BE CONSTRUCTED BY EXTENDING THE PAVER SCREED WITH NO JOINTS BETWEEN THE EDGE OF PAVEMENT AND THE APPROACH. THE FOUR-FOOT WIDTHS MAY VARY ACCORDING TO THE SITE CONDITIONS AS DIRECTED BY THE ENGINEER. ALL PROPOSED CONDUITS SHALL BE CONSTRUCTED BY SAW CUTTING THE EXISTING ASPHALT.

ITEM 407, NON-TRACKING TACK COAT

THE RATE OF APPLICATION OF THE ITEM 407, NON-TRACKING TACK COAT SHALL BE PER **CMS TABLE 407.06-1** AND SUBJECT TO ADJUSTMENT AS DIRECTED BY THE ENGINEER. PLAN QUANTITIES INDICATE AN AVERAGE APPLICATION RATE OF **0.08 GAL/SY** FOR TACK COAT UNDER THE INTERMEDIATE AND **0.05 GAL/SY** UNDER THE SURFACE COURSE, (FOR ESTIMATING PURPOSES ONLY).

ITEM 209, LINEAR GRADING

IN ORDER TO PROVIDE POSITIVE DRAINAGE FROM THE ROADWAY SURFACE TO THE SHOULDER BREAK, THE EXISTING ROADWAY SHOULDERS SHALL BE GRADED AND SHAPED USING A GRADER OF ADEQUATE SIZE TO PERFORM THE WORK TO THE SATISFACTION OF THE ENGINEER.

THE AREAS OF LINEAR GRADING WILL BE MARKED OUT BY THE PROJECT ENGINEER AND WILL INCLUDE ANY AREAS OUTSIDE THE AGGREGATE SHOULDER TO THE SHOULDER BREAK. THE CONTRACTOR WILL ONLY BE PAID FOR INTERSECTIONS AND GAPS IF THEY ARE WITHIN THE LIMITS OF A SECTION MARKED BY THE ENGINEER FOR GRADING. AREAS WITH GUARDRAIL SHALL NOT BE EXCLUDED.

ALL LINEAR GRADING WORK SHALL BE COMPLETED PRIOR TO PLACEMENT OF THE ASPHALT SURFACE COURSE.

ALL EXCESS MATERIAL REMAINING AROUND GUARDRAIL AND OTHER AREAS AFTER THE GRADER WORK IS COMPLETED SHALL BE REMOVED AND DISPOSED OF OFF-SITE BY THE CONTRACTOR. ALL EQUIPMENT, LABOR, OR INCIDENTALS REQUIRED TO COMPLETE THIS ITEM SHALL BE INCLUDED FOR PAYMENT IN THE UNIT PRICE BID FOR ITEM 209, LINEAR GRADING.

THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR THE ABOVE DESCRIBED PURPOSE:

ITEM 209, LINEAR GRADING 27 STA

ITEM SPECIAL – REINFORCED MESH FOR TRANSVERSE AND/OR LONGITUDINAL JOINTS AND CRACKS

THIS ITEMS SHALL BE USED TO REINFORCE LONGITIDINAL JOINTS AND PREVENT LONGITIDUNAL CRACKS. PLACE REINFORCING MESH ON PLANED SURFACE, 4.0' WIDE CENTERED OVER LONGITIDINAL JOINT ON CR 17 AND 5.0' WIDE CENTERED OVER LONGITIDUNAL JOINT on SR 158.. THIS WORK SHALL BE PERFORMED ON ALL JOINTS THROUGHOUT THE PROJECT LIMITS AS DIRECTED BY THE PROJECT ENGINEER. REINFORCING MATERIAL SHALL BE GLASGRID CG100 OR EQUIVALENT AND SHALL BE PLACED ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS AND THIS NOTE.

ALL MATERIALS, LABOR, EQUIPMENT, TOOLS, TRAFFIC CONTROL AND INCIDENTALS NEEDED TO COMPLETE THE WORK DESCRIBED ANOVE SHALL BE INCLUDED FOR PAYMENT IN THE UNIT PRICE BID FOR ITEM 690 SPECIAL – REINFORCED MESH FOR TRANSVERSE AND/OR LONGITIDUNAL JOINTS AND CRACKS.

STA. 302+60.70 TO STA. 310+50 = 789.3 FT * 2 = 1579 FT
STA. 316+00.00 TO STA. 321+10 = 510 FT * 2 = 1020 FT

STA. 103+25.00 TO STA. 104+17 = 92 FT * 2 = 184 FT
STA. 110+75.00 TO STA. 111+67 = 92 FT * 2 = 184 FT
(2599 FT x 5 FT WIDE MESH) + (268 FT * 4 FT WIDE MESH) / 9 = 1608 SY

ITEM 690 SPECIAL – REINFORCED MESH FOR TRANSVERSE AND/OR LONGITUDINAL JOINTS AND CRACKS, 1608 SY

QUANTITY CARRIED TO THE GENERAL SUMMARY.

GENERAL NOTES

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ITEM SPECIAL – MAILBOX SUPPORT

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 LOCATIONS SPECIFIED IN THE PLAN, OR OTHERWISE ESTABLISED BY THE ENGINEER.

WOOD POSTS SHALL BE NOMINAL 4 INCHES BY 4 INCHES SQUARE OR 4.5 INCHES DIAMETER ROUND, AND CONFORM TO 710.14.

STEEL POSTS SHAL BE NOMINAL PIPE SIZE 2 INCHES I.D., AND CONFORM TO AASHTO M 181.

ALL HARDWARE INCLUDING BUT NOT LIMITED TO PLATES, SCREWS, BOLTS, AND ETC. SHALL BE COMMERCIAL-GRADE GALVANIZED STEEL.

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

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.

PAYMENT UNDER THIS ITEM SHALL BE LIMITED TO FINAL PERMANENT INSTALLATIONS, TEMPORARY INSTALLATIONS SHALL BE IN ACCORDANCE WITH 107.10. HOWEVER, THE SAME MATERIAL AND SIZE LIMITATIONS AS FOR PERMANENT INSTALLATIONS SHALL APPLY.

MAILBOX SUPPORTS, COMPLETE IN PLACE, WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH, FOR ITEM SPECIAL MAILBOX SUPPORT SYSTEM, (SINGLE).

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.

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 ELEVATION OR RESULTS IN A CHANGE IN 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.

ITEM 605 - AGGREGATE DRAINS

AGGREGATE DRAINS SHALL BE PLACED AT 50 FOOT INTERVALS ON EACH SIDE OF NORMAL CROWNED SECTIONS, STAGGERED SO THAT EACH DRAIN IS 25 FEET FROM THE ADJACENT DRAIN ON THE OPPOSITE SIDE, AND AT 25 FOOT INTERVALS ON THE LOW SIDE ONLY OF SUPERELEVATED SECTIONS. AN AGGREGATE DRAIN SHALL BE PLACED AT THE LOW POINT OF EACH SAG VERTICAL CURVE.

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 CONTINUNANCE 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, 4" CONDUIT, TYPE E	50 FT
611, 4" CONDUIT, TYPE F	50 FT

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.

EXISTING SUBSURFACE DRAINAGE

PROVIDE UNOBSTRUCTED OUTLETS FOR ALL EXISTING UNDERDRAINS OR AGGREGATE DRAINS 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 INCLUDED IN THE GENERAL SUMMARY FOR THE WORK NOTED ABOVE:

601 TIED CONCRETE BLOCK MAT, WITH TYPE 1 UNDERLAYMENT 4 SQ. YD.
605 AGGREGATE DRAINS 50 FT.
611 6" CONDUIT, TYPE F 50 FT.
611 PRECAST REINFORCED CONCRETE OUTLET 2 EACH
605 6" UNCLASSIFIED PIPE UNDERDRAINS 100 FT.

ITEM 611 – CATCH BASIN, NO. 2-2B, AS PER PLAN

PRIOR TO ORDERING THE CATCH BASIN AT STA. 107+79.50 43.35' LT, THE CONTRACTOR IS TO LOCATE AND EXPOSE THE EXISTING 4" STORM SEWER. DEPENDING ON THE ACTUAL LOCATION AND ELEVATION OF THE 4" STORM SEWER, THE MANHOLE LOCATION AND OUTLETTING 8" STORM SEWER LOCATION, LENGTH AND ELEVATION MAY NEED TO BE ADJUSTED.

THESE PLANS ASSUMED A 1% SLOPE OF THE EXISTING 4" STORM SEWER AND LOCATION PERPENDICULAR TO THE ROAD.

PAYMENT FOR ALL THE OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR ITEM 611 – CATCH BASIN, NO. 2-2B, AS PER PLAN.

GENERAL NOTES

FAI-158-07.25

CALCULATED SHR
CHECKED CWP

GENERAL NOTES

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. **AN EMAIL** CONTAINING A COMMA DELIMITED ASCII FILE AND A SURVEYOR'S CERTIFICATION SHALL BE DELIVERED TO CODY.GIERHART@DOT.OHIO.GOV 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 FOR THE PROJECT:

- CATCH BASINS
- CULVERTS (INLET AND OUTLET INVERTS, TYPE AND SIZE)
- STORM SEWERS (INLET AND OUTLET INVERTS, TYPE AND SIZE)
- UNDERDRAIN OUTLETS
- POST-CONSTRUCTION BMPS
- SIGNS
- TRAFFIC SIGNAL POLES, PULL BOXES, AND CABINET

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 SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 623 CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN.

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 **50 FT**. 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 FILE A NEW FAA FORM 7460-1, ADVISING THE FAA THAT AERONAUTICAL STUDY NO. **2021-AGL-26255-OE, 2021-AGL-26256-OE, 2021-AGL-26257-OE, 2021-AGL-26258-OE, 2021-AGL-26290-OE AND 2021-AGL-26291-OE** IS BEING RESUBMITTED AND THAT AN ALTERATION TO THE ORIGINAL SUBMISSION IS REQUESTED.

THE PROPOSED SIGNAL POLES HAVE BEEN CLEARED UNDER **2021-AGL-26290-OE AND 2021-AGL-26291-OE**

THE PROPOSED ROADWAY HAS BEEN CLEARED UNDER **2021-AGL-26255-OE, 2021-AGL-26256-OE, 2021-AGL-26257-OE AND 2021-AGL-26258-OE**

NOTIFY THE ODOT OFFICE OF AVIATION WHEN RESUBMITTING AN FAA FORM 7460-1. NO TEMPORARY STRUCTURES OR CONSTRUCTION EQUIPMENT SHALL EXCEED THE PERMISSIBLE HEIGHT, UNTIL A COPY OF THE FAA APPROVAL AND THE ODOT OFFICE OF AVIATION PERMIT HAS BEEN FURNISHED TO THE PROJECT ENGINEER.

FAA APPROVAL MAY TAKE UP TO 45 DAYS. ALL SUBMISSIONS SHALL BE DIRECTED TO THESE OFFICES:

THE FEDERAL AVIATION ADMINISTRATION
SOUTHWEST REGIONAL OFFICE
OBSTRUCTION EVALUATION GROUP
10101 HILLWOOD PARKWAY
FORT WORTH, TX 76177
FAX: (817)-222-5920
http://ceaaa.faa.gov

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

SEEDING AND MULCHING

THE FOLLOWING QUANTITIES ARE PROVIDED TO PROMOTE GROWTH AND CARE OF PERMANENT SEEDED AREAS:

659, TOPSOIL 1,108 CU. YD.
111.2 CU. YD. PER 1,000 SQ. YD. OF SEEDING AND MUCLHING
111.2 x (9,958 ÷ 1000) = 1,108 CU. YD.

659, SEEDING AND MULCHING, CLASS 1 9,958 SQ. YD.

659, REPAIR SEEDING AND MULCHING 498 SQ. YD.
5% OF PERMANENT SEEDED AREA
0.05 x 9,958 = 498 SQ. YD.

659, COMMERCIAL FERTILIZER 1.34 TON
30 LBS PER 1,000 SQ. FT
[(30 x ((9,958 x 9) ÷ 1,000))] ÷ 2,000 = 1.34 TON

659, LIME 2.06 ACRES
9,958 ÷ 4,840 = 2.06 ACRES

659, WATER 54 M. GAL.
2 APPLICATIONS AT 0.0027 M. GAL. PER SQ. YD.
2 x (0.0027 x 9,958) = 54 M. GAL

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.

POST CONSTRUCTION STORM WATER TREATMENT

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

VEGETATED BIOFILTER

THIS PLAN UTILIZES VEGETATED BIOFILTER(S) FOR POST CONSTRUCTION STORM WATER TREATMENT. PLACE EITHER ITEM 660 SODDING OR ITEM 659 SEEDING AND MULCHING WITH A 4-INCH LIFT OF TOPSOIL AS SHOWN IN THE PLANS TO ANY DISTURBED AREA ON THE SHOULDER AND FORESLOPE DRAINING TO A VEGETATED BIOFILTER. THE DITCH FOR EACH VEGETATED BIOFILTER SHALL BE TRAPEZOIDAL, AS SHOWN IN THE PLAN CROSS SECTIONS. PROVIDE ITEM 670 AS SPECIFIED IN THE PLANS.

ITEM SPECIAL - MALTENE BASED LONGITUDINAL JOINT STABILIZER

This work shall consist of furnishing all labor, material, and equipment necessary to perform all operations for the application of a Maltene Based Longitudinal Joint Stabilization System to provide Maltene Based Longitudinal Joint Stabilizer on asphaltic concrete pavements at the center line joint after rumble stripes have been placed. The stabilization of joints shall be by spray application of a cationic emulsion composed of petroleum oils, resins and polymer emulsified with water. All work shall be in accordance with the specifications, the applicable drawings, and subject to the terms and conditions of this contract.

The Maltene Based Longitudinal Joint Stabilizer shall be a polymerized emulsion composed of a petroleum resin oil base and SBR copolymer uniformly emulsified with water. Each bidder must submit with their bid a certified statement from the manufacturer showing that the Maltene Based Longitudinal Joint Stabilizer conforms to the required physical and chemical requirements.

SPECIFICATIONS

Tests	Test Method ASTM	Requirements Min.	Max.
Tests on Emulsion:			
Residue, % W[1]	D-244(Mod.)	39	44
Miscibility Test[2]	D-244(Mod.)	No	
Coagulation			
Particle Charge Test	D-244	Positive	
Tests on Residue from Distillation:			
Flash Point, COC, °C	D-92	200	-
Viscosity @ 60°C, cSt	D-445	100	200
Asphaltenes, %w	D-2006-70	-	1.00
Maltene Dist. Ratio $\frac{PC + A_1}{S + A_2}$[5]	D-2006-70	0.2	0.8
Light Transmittance 30	Light Transmittance/DDE		
PC/S Ratio[5]	D-2006-70	0.5	-
Saturated Hydrocarbons,S[5]	D-2006-70	21	28
Polymer:			
Charge		Positive	
Monomer Ratio, Butadiene/Styrene		76/24	
Solids Content, percent by weight		63	
Coagulum on 80 mesh screen			
Maximum percent by weight		0.1	
Mooney Viscosity of Polymer			
(ML 4 @ 212°F) minimum		100	
pH of Polymer		5.0	
Weight per gallon,			
Wet pounds @ 63% solids content		7.94	

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[1] ASTM D-244 Evaporation Test for percent of residue is made by heating 100 gram sample to 149°C (300°F) until foaming ceases, then cool immediately and calculate results.

[2] Test procedure identical with ASTM D-244-60 except that .02 Normal Calcium Chloride solution shall be used in place of distilled water.

[3] Test procedure identical with ASTM D-244 except that distilled water shall be used in place of two percent sodium oleate solution.

[4] Test procedure is attached.

[5] Chemical composition by ASTM Method D-2006-70:
PC = Polar Compounds, A_1 = First Acidaffins
A_2 = Second Acidaffins, S = Saturated Hydrocarbons

PROCEDURE FOR THE DETERMINATION OF PERCENT LIGHT TRANSMITTANCE OF THE MALTENE BASED LONGITUDINAL JOINT STABILIZER.

A. APPARATUS
1) Container may be either glass, plastic or metal having a capacity of 6,000 ml.
2) Graduated cylinder, 1,000 ml, or greater
3) Light transmittance measuring apparatus, such as Bausch and Lomb or Lumetron spectrophotometer
4) Graduated pipette having 1 ml capacity to 0.01 ml accuracy
5) Suction bulb for use with pipette
6) Test tubes compatible with spectrophotometer, 3/4" X 6, Bausch and Lomb, Catalog No. 33-17-81, (B&L)

B. CALIBRATION OF SPECTROPHOTOMETER

1) Calibrate spectrophotometer as follows: (a) Set wavelength at 580 mu, (b) Allow spectrophotometer to warm-up thirty minutes, (c) Zero percent light transmittance (%LT) scale, (d) Rinse test tube three times with tap water and fill to top of circle marking on B&L test tube or approximately 2/3 full, (e) Place tube in spectrophotometer and set %LT scale at 100, and (f) repeat steps (c) and (e) two times or until no further adjustments are necessary.

C. PROCEDURE

1) Shake, stir or otherwise thoroughly mix emulsion to be tested. Place sample of emulsion in beaker and allow to stand one minute.
2) Place 2,000 ml tap water in container.
3) Suck 1.00 ml emulsion into pipette using suction bulb. Wipe off outside of pipette.
4) Using suction bulb, blow emulsion into container.
5) Rinse pipette by sucking in diluted emulsion solution and blowing out.
6) Clean pipette with soap or solvent and water. Rinse with acetone.
7) Stir diluted emulsion thoroughly.
8) Rinse out tube to be used with the diluted emulsion three times and fill to top of circle.
9) Calibrate spectrophotometer.
10) Place diluted emulsion sample tube in spectrophotometer, cover and read %LT to nearest tenth.
11) Repeat steps 9 and 10 until three identical consecutive readings are achieved.
12) The elapsed time between addition of emulsion to dilution of water and final %LT reading should not exceed 5 minutes.

MATERIAL PERFORMANCE:
The Maltene Based Longitudinal Joint Stabilizer shall have the capability to fully penetrate the asphalt pavement surface in the area around the construction joint to be treated. No surface coating shall remain within 30 minutes of application. The Maltene Based Longitudinal Joint Stabilizer shall be absorbed and incorporated into the asphalt binder. Verification that said incorporation of the Maltene Based Longitudinal Joint Stabilizer into the asphalt binder has been effected shall be by analysis of the chemical properties of said asphalt binder i.e. viscosity shall be improved to the following extent. The viscosity shall be reduced by a minimum of 30% as determined by dynamic shear rheometer (DSR) method for asphalt testing in accord with AASHTO T315-05. This analysis shall apply to extracted asphalt binder, taken from cores extracted thirty days following application, in the upper 3/8" of pavement. In addition the treated areas, 12" on either side of the construction joint as a minimum, shall be sealed in-depth to the intrusion of air and water as compared to adjacent pavement areas.

JOINTBOND®, manufactured by D&D Emulsion, Inc., Mansfield, Ohio, is a product of know quality and accepted performance, or an approved equal product.

APPLICATION TEMPERATURE/WEATHER LIMITATIONS:
The temperature of the Maltene Based Longitudinal Joint Stabilizer at the time of application shall be as recommended by the manufacturer. The Maltene Based Longitudinal Joint Stabilizer shall be applied only when the existing surface to be treated is thoroughly dry and when it is not threatening to rain. The Maltene Based Longitudinal Joint Stabilizer shall not be applied when the ambient temperature is below 40°F or may reach less than 40°F within the next twelve hours.

APPLICATING EQUIPMENT:
The distributor truck or other approved applicator for spreading the Maltene Based Longitudinal Joint Stabilizer shall be self-propelled, and shall have pneumatic tires. The distributor truck or applicator shall be designed and equipped to distribute the Maltene Based Longitudinal Joint Stabilizer uniformly on variable widths of surface at readily determined and controlled rates from 0.07 to 0.12 gallons per square yard of surface, and with an allowable variation from any specified rate not to exceed 5 percent of the specified rate.

The distributor or applicator equipment shall be computerized so as to control the rate of application selected regardless of forward speed of the applicator and shall include full circulation spray bars, pump tachometer, volume measuring device and a hand hose attachment suitable for application of the Maltene Based Longitudinal Joint Stabilizer manually to cover areas inaccessible to the distributor. The distributor or applicator shall be equipped to circulate and agitate the Maltene Based Longitudinal Joint Stabilizer within the tank.

A check of distributor or applicator equipment as well as application rate accuracy and uniformity of distribution shall be made when directed by the Engineer.

In the event that blotting of a misapplication of Maltene Based Longitudinal Joint Stabilizer is required sand or rock dust shall be applied. The truck used for applying sand or rock dust shall be equipped with a spreader that allows the sand to be uniformly distributed onto the pavement. The spreader shall be adjustable so as to accommodate various treatment widths. Applied sand or rock dust will be swept and removed prior to opening the area to traffic.

APPLICATION OF MALTENE BASED LONGITUDINAL JOINT STABILIZER:
The Maltene Based Longitudinal Joint Stabilizer should be applied after placement of the Center Line Rumble Stripes and prior to placement of the final center line pavement markings.

The Maltene Based Longitudinal Joint Stabilizer shall be applied by a distributor truck or approved applicator at the temperature recommended by the manufacturer and at the pressure required for the proper distribution. The Maltene Based Longitudinal Joint Stabilizer shall be so applied that uniform distribution is obtained at all points of the areas to be treated. Distribution shall begin with a running start to insure full rate of spread over the entire area to be treated. Areas inadvertently missed shall receive additional treatment as may be required by hand sprayer application.

Unless otherwise directed by the Engineer, the standard application width shall be (12") on either side of the center line construction joint as a minimum.

The Maltene Based Longitudinal Joint Stabilizer shall be spread at the rate of 0.07 to 0.12 gallons per square yard, or as approved by the Engineer following field testing. Test strips shall be applied at various rates of application for the purpose of selecting the rate of application that will be absorbed within a thirty minute period.

Where more than one application is to be made, succeeding applications shall be made as soon as penetration of the preceding application has been completed and the Engineer grants approval for additional applications.

Grades or super elevations of surfaces that may cause excessive runoff, in the opinion of the Engineer, shall have the required amounts of Maltene Based Longitudinal Joint Stabilizer applied in two applications as directed.

The Contractor shall furnish a quality inspection report showing the source, manufacturer, and the date shipped, for each load of Maltene Based Longitudinal Joint Stabilizer. When directed by the Engineer, the Contractor shall take representative samples of material for testing.

TRAFFIC CONTROL:

The Contractor shall schedule their operations and carry out the work in a manner to cause the least disturbance and/or interference with the normal flow of traffic over the areas to be treated. Treated portions of the pavement surfaces shall be kept free from traffic until penetration, in the opinion of the Engineer, has become complete and the area is suitable for traffic.

The Contractor shall be responsible for all traffic control and signing required to permit safe travel. If, in the opinion of the Engineer, proper signing is not being used, the Contractor shall stop all operations until safe signing and barricading is achieved.

IX. BASIS FOR PAYMENT:

The accepted quantities, measured as provided for above, will be paid for at the contract unit price bid for Item Special - Maltene Based Longitudinal Joint Stabilizer.

Maltene Based Longitudinal Joint Stabilizer shall be paid for PER SQUARE FOOT, which shall be full compensation for furnishing all materials; equipment, labor and incidentals to complete the work as specified and required.

ITEM 614, MAINTAINING TRAFFIC

TRAFFIC SHALL BE MAINTAINED BY USE OF THE EXISTING PAVEMENT, THE COMPLETED PAVEMENT, ITEM 615 PAVEMENT FOR MAINTAINING TRAFFIC, ITEM 615 ROADS FOR MAINTAINING TRAFFIC, AND TEMPORARY SURFACES USING ITEMS 410 AND 614.

ONE (1) LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES ON SR-158, EXCEPT FOR ONE WEEKEND CLOSURE DURING PRE-PHASE 1A, WHEN THROUGH TRAFFIC MAY BE DETOURED AS SHOWN ON THE DETOUR PLAN SHEETS. THE WEEKEND CLOSURE WILL BE PER PN 127.

TRAFFIC WILL BE MAINTAINED OR DETOURED ON CR-17, AS LISTED IN THE SEQUENCE OF CONSTRUCTION AND AS SHOWN ON THE DETOUR PLAN SHEETS. NO DISINCENTIVE SHALL BE ASSESSED IF THE ROADWAY REMAINS CLOSED TO TRAFFIC BEYOND THE SPECIFIED LIMIT.

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

MEMORIAL DAY	LABOR DAY
FOURTH OF JULY	THANKSGIVING

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 FRI THROUGH 6:00 AM MON
MONDAY	12:00N FRI THROUGH 6:00 AM TUES
TUESDAY	12:00N MON THROUGH 6:00 AM WED
WEDNESDAY	12:00N TUES THROUGH 6:00 AM THURS
THURSDAY	12:00N WED THROUGH 6:00 AM FRI
THANKSGIVING	6:00 AM WED THROUGH 6:00 AM MON
FRIDAY	12:00N THURS THROUGH 6:00 AM MON
SATURDAY	12:00N FRI THROUGH 6:00 AM MON

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE PER THE LANE VALUE CONTRACT (PN 127).

CRITICAL WORK – TIME WHEN ROAD MAY BE CLOSED	RESTRICTED TIME PERIODS	TIME UNIT	DISINCENTIVE $ PER TIME UNIT
WEEKEND CLOSURE OF S.R. 158	06:00 AM MONDAY	EACH HOUR	$1,000

LENGTH AND DURATION OF LANE CLOSURES AND RESTRICTIONS SHALL BE AT THE APPROVAL OF THE ENGINEER. IT IS THE INTENT TO MINIMIZE THE IMPACT TO THE TRAVELING PUBLIC. LANE CLOSURES OR RESTRICTIONS OVER SEGMENTS OF THE PROJECT IN WHICH NO WORK IS ANTICIPATED WITHIN A REASONABLE TIME FRAME, AS DETERMINED BY THE

ITEM 614, MAINTAINING TRAFFIC (CONTINUED)

ENGINEER, SHALL NOT BE PERMITTED. THE LEVEL OF UTILIZATION OF MAINTENANCE OF TRAFFIC DEVICES SHALL BE COMMENSURATE WITH THE WORK IN PROGRESS.

NOTICE OF CLOSURE SIGNS (W20-H13) SHALL BE ERECTED BY THE CONTRACTOR PRIOR TO THE SCHEDULED ROAD OR RAMP CLOSURE IN ACCORDANCE WITH THE NOTICE OF CLOSURE TIME TABLE BELOW. AT THE APPROVAL OF THE ENGINEER, PORTABLE CHANGEABLE MESSAGE SIGNS MAY BE USED IN LIEU OF THE STANDARD FLATSHEET SIGN FOR CLOSURE DURATIONS OF LESS THAN 1 WEEK.

THE SIGNS SHALL BE ERECTED ON THE RIGHT-HAND SIDE OF THE ROAD/RAMP FACING TRAFFIC. THEY SHALL BE PLACED SO AS NOT TO INTERFERE WITH THE VISIBILITY OF ANY OTHER TRAFFIC CONTROL SIGNS. ON ROADWAYS, THEY SHOULD BE ERECTED AT OR NEAR THE POINT OF CLOSURE. THE SIGNS MAY BE ERECTED ANYWHERE ON RAMPS AS LONG AS THEY ARE VISIBLE TO THE MOTORISTS USING THE RAMP. ON ENTRANCE RAMPS, THE SIGN SHALL BE ERECTED WELL IN ADVANCE OF THE MERGE AREA TO AVOID DISTRACTING MOTORISTS.

NOTICE OF CLOSURE SIGN TIME TABLE

ITEM	DURATION OF CLOSURE	SIGN DISPLAYED TO PUBLIC
ROAD CLOSURE	≥ 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	> 12 HOURS & < 2 WEEKS	7 CALENDAR DAYS PRIOR TO CLOSURE
	≤ 12 HOURS	2 BUSINESS DAYS PRIOR TO CLOSURE

THE SIGN SHALL DISPLAY THE DATE OF THE CLOSURE IN MMM-DD FORMAT AND THE NUMBER OF DAYS OF THE CLOSURE. THE LAST LINE OF THE W20-H13 SIGN LISTS A PHONE NUMBER WHICH A MOTORIST MAY CALL FOR ADDITIONAL INFORMATION. THIS IS TO BE A SPECIFIC OFFICE WITHIN THE DISTRICT RATHER THAN THE GENERAL SWITCHBOARD NUMBER.

THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN STANDARD 48 X 30 INCH ROAD CLOSED SIGNS, SIGN SUPPORTS, BARRICADES AND LIGHTS, AS DETAILED IN SCD MT-101.60 AT THE LOCATIONS SHOWN IN THE PLANS DURING PERIODS IN WHICH THE AFFECTED ROADS ARE CLOSED TO TRAFFIC.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH C&MS 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 SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

SUGGESTED SEQUENCE OF CONSTRUCTION

PRE-PHASE 1A – STORM SEWER INSTALLATION UNDER SR 158

CONSTRUCT A 24" STORM SEWER UNDER S.R. 158 JUST NORTH OF C.R. 17. THE WORK WILL BE PERFORMED UNDER A WEEKEND CLOSURE OF SR 158.

CR 17 WILL REMAIN OPEN DURING THE WEEKEND CLOSURE OF SR 158.

TEMPORARY ACCESS WOULD BE PROVIDED TO ALL DRIVEWAYS IMPACTED BY THE CONSTRUCTION.

PRE-PHASE 1B – MILLING ON SR 158

MILL PER THE TYPICAL SECTIONS.

CR 17 WILL REMAIN OPEN.

MAINTAIN ACCESS TO ALL PROPERTIES AT ALL TIMES.

PHASE 1 – TEMPORARY PAVEMENT ON WEST SIDE OF SR 158

MAINTAIN TWO LANES OF TRAFFIC AT ALL TIMES ON SR 158 AND CR 17 EAST OF SR 158. CONSTRUCT TEMPORARY PAVEMENT ON THE WEST SIDE OF SR 158. SHIFT SR 158 TRAFFIC TO THE EAST.

CR 17 WEST OF SR 158 WILL BE CLOSED AND DETOURED.

TEMPORARY ACCESS WOULD BE PROVIDED TO ALL DRIVEWAYS IMPACTED BY THE CONSTRUCTION.

PHASE 2 – SR 158 WIDENING TO THE EAST AND CR 17 RECONSTRUCTION (EAST OF SR 158)

MAINTAIN TWO LANES OF TRAFFIC AT ALL TIMES ON SR 158 AND CR 17 WEST OF SR 158. WIDEN SR 158 TO THE EAST. SHIFT SR 158 TRAFFIC TO THE WEST. THE CONTRACTOR IS TO CONSTRUCT THE WIDENED PAVEMENT UP TO AND INCLUDING THE INTERMEDIATE COURSE.

RECONSTRUCT CR 17 EAST OF SR 158.

CR 17 EAST OF SR 158 WILL BE CLOSED AND DETOURED.

TEMPORARY ACCESS WOULD BE PROVIDED TO ALL DRIVEWAYS IMPACTED BY THE CONSTRUCTION.

PHASE 3 – SR 158 WORK ON WEST SIDE AND CR 17 RECONSTRUCTION (WEST OF SR 158)

MAINTAIN TWO LANES OF TRAFFIC AT ALL TIMES ON SR 158 AND CR 17 EAST OF SR 158. REMOVE TEMPORARY PAVEMENT AND CONSTRUCT SR 158 PAVEMENT ON WEST SIDE AND SHIFT TRAFFIC TO THE EAST. THE CONTRACTOR IS TO CONSTRUCT THE WIDENED PAVEMENT UP TO AND INCLUDING THE INTERMEDIATE COURSE.

RECONSTRUCT CR 17 WEST OF SR 158.

CR 17 WEST OF SR 158 WILL BE CLOSED AND DETOURED.

SUGGESTED SEQUENCE OF CONSTRUCTION (CONTINUED)

TEMPORARY ACCESS WOULD BE PROVIDED TO ALL DRIVEWAYS IMPACTED BY THE CONSTRUCTION.

PHASE 4 – RESURFACING

THE WORK IN THE PHASE INCLUDES RESURFACING AND RESTRIPING OF SR-158.

MAINTAIN ACCESS TO ALL PROPERTIES AT ALL TIMES.

TEMPORARY ACCESS

ACCESS TO EXISTING DRIVEWAYS AND BUSINESSES SHALL BE MAINTAINED AT ALL TIMES.

PLACEMENT OF ASPHALT CONCRETE

TWO-WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES EXCEPT THAT ONE-WAY TRAFFIC WILL BE PERMITTED FOR MINIMUM PERIODS OF TIME CONSISTENT WITH THE REQUIREMENTS OF THE SPECIFICATIONS FOR PROTECTION OF COMPLETED ASPHALT CONCRETE COURSES.

BUTT JOINT

A BUTT JOINT WILL BE REQUIRED AT THE LOCATIONS SPECIFIED BELOW AND PER STANDARD DRAWING BP-3.1 UNLESS OTHERWISE SHOWN IN THE PLANS.

THE MINIMUM ASPHALT WEDGE LENGTH AT BUTT JOINTS SHALL BE 10'. THE GRINDING FOR BUTT JOINTS SHALL BE INCLUDED WITH ITEM 254, PAVEMENT PLANING, ASPHALT CONCRETE.

LOC.	ROUTE	DESCRIPTION	S.L.M.	ITEM 614 ASPHALT CONCRETE FOR MAINTAINING TRAFFIC CU. YD.
1	S.R. 158	BEGIN WORK	7.28	2
2	S.R. 158	END WORK	7.63	2
3	S.R. 17	BEGIN WORK		1
4	S.R. 17	END WORK		1
		TOTAL		6

TRENCH FOR WIDENING

TRENCH EXCAVATION FOR BASE WIDENING SHALL BE ONLY ON ONE SIDE OF THE PAVEMENT AT A TIME. THE OPEN TRENCH SHALL BE ADEQUATELY MAINTAINED AND PROTECTED WITH DRUMS OR BARRICADES AT ALL TIMES. PLACEMENT OF PROPOSED SUBBASE AND BASE MATERIAL SHALL FOLLOW AS CLOSELY AS POSSIBLE BEHIND EXCAVATION OPERATIONS. THE LENGTH OF WIDENING TRENCH WHICH IS OPEN AT ANY ONE TIME SHALL BE HELD TO A MINIMUM AND SHALL AT ALL TIMES BE SUBJECT TO APPROVAL OF THE ENGINEER.

MAINTENANCE OF TRAFFIC GENERAL NOTES

FAI-158-07.25

MAINTENANCE OF TRAFFIC GENERAL NOTES

OVERNIGHT TRENCH CLOSING

THE BASE WIDENING SHALL BE COMPLETED TO A DEPTH OF NO MORE THAN 12" BELOW THE EXISTING PAVEMENT BY THE END OF EACH WORK DAY. NO TRENCH SHALL BE LEFT OPEN OVERNIGHT EXCEPT FOR A SHORT LENGTH (25 FEET OR LESS) OF A WORK SECTION AT THE END OF THE TRENCH. IN CASE WORK MUST BE SUSPENDED BECAUSE OF INCLEMENT WEATHER OR OTHER REASONS, THE TRENCH FOR THE UNCOMPLETED BASE WIDENING SHALL BE BACKFILLED AT THE DIRECTION OF THE ENGINEER.

DUST CONTROL

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

ITEM 616, WATER 25 M. GAL.

DESIGNATED LOCAL DETOUR ROUTE

IN ADDITION TO THE OFFICIAL, SIGNED DETOUR ROUTE, A LOCAL ROUTE HAS BEEN DETERMINED TO BE THE SECONDARY, UNSIGNED DETOUR ROUTE OR "DESIGNATED LOCAL DETOUR ROUTE." THIS ROUTE IS SHOWN ON SHEETS 17 & 18. DURING THE TIME THAT TRAFFIC IS DETOURED, THE CONTRACTOR SHALL MAINTAIN THIS ROUTE IN A CONDITION WHICH IS REASONABLY SMOOTH AND FREE FROM HOLES, RUTS, RIDGES, BUMPS, DUST AND STANDING WATER. ONCE THE DETOUR IS REMOVED AND TRAFFIC RETURNED TO ITS NORMAL PATTERN, THE DESIGNATED LOCAL DETOUR ROUTE SHALL BE RESTORED TO A CONDITION THAT IS EQUIVALENT TO THAT WHICH EXISTED PRIOR TO ITS USE FOR THIS PURPOSE. ALL SUCH WORK SHALL BE PERFORMED WHEN AND AS DETERMINED BY THE ENGINEER.

THE FOLLOWING ESTIMATED QUANTITIES ARE PROVIDED FOR USE AS DETERMINED BY THE ENGINEER TO MAINTAIN AND SUBSEQUENTLY RESTORE THE DESIGNATED LOCAL DETOUR ROUTE.

ITEM 254, PAVEMENT PLANING, ASPHALT CONCRETE 480 SQ. YD.
ITEM 407, NON-TRACKING TACK COAT 39 GAL.
ITEM 614, ASPHALT CONCRETE FOR MAINTAINING TRAFFIC 40 CU. YD.
ITEM 642, CENTER LINE, TYPE 1 0.05 MILE

EARTHWORK FOR MAINTAINING TRAFFIC

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

EXCAVATION FOR MAINTAINING TRAFFIC 717 CU. YD.
EMBANKMENT FOR MAINTAINING TRAFFIC 489 CU. YD.

EARTHWORK FOR MAINTAINING TRAFFIC (CONTINUED)

WHEN UNDERCUTS ARE NECESSARY FOR MAINLINE PAVEMENT OR EMBANKMENT CONSTRUCTION, EVALUATE THE NEED FOR TEMPORARY ROAD UNDERCUTS IF WITHIN CLOSE PROXIMITY TO THE MAINLINE UNDERCUTS. A GEOTECHNICAL EVALUATION SHOULD BE CONSIDERED TO DETERMINE IF THE EXISTING SOIL CONDITIONS ARE ADEQUATE TO SUPPORT THE TEMPORARY ROAD. ADDITIONAL SOIL BORINGS ALONG THE TEMPORARY ROAD ARE NOT NORMALLY REQUIRED.

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'S APPROVED LIST FOR WORK ZONE IMPACT ATTENUATORS, FROM THE ROADWAY STANDARDS APPROVED PRODUCTS WEB PAGE.

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.

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGNS, AS PER PLAN

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND REMOVE, WHEN NO LONGER NEEDED, FOUR (4) CHANGEABLE MESSAGE SIGN. THE SIGN SHALL BE OF A TYPE SHOWN ON A LIST OF APPROVED PCMS UNITS AVAILABLE ON THE OFFICE OF MATERIALS MANAGEMENT WEB PAGE. THE LIST CONTAINS CLASS A AND B UNITS WITH MINIMUM LEGIBILITY DISTANCES OF 800 FEET AND 650 FEET, RESPECTIVELY.

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGNS, AS PER PLAN (CONTINUED)

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. THE PCMS SHALL BE DELINEATED IN ACCORDANCE WITH C&MS 614.03.

THE PROBABLE PCMS LOCATIONS AND WORK LIMITS FOR THOSE LOCATIONS ARE SHOWN ON SHEET(S) OF THE 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 YET PROTECTED FROM TRAFFIC. 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 AWAY FROM ALL TRAFFIC.

THE ENGINEER SHALL BE PROVIDED ACCESS TO EACH SIGN UNIT AND SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ODOT PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT, AND TO REVISE SIGN MESSAGES, IF NECESSARY.

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 PRECONSTRUCTION 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 TWICE.

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.

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGNS, AS PER PLAN (CONTINUED)

THE PCMS UNIT SHALL BE MAINTAINED IN GOOD WORKING ORDER BY THE CONTRACTOR IN ACCORDANCE WITH THE PROVISIONS OF C&MS 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 20 SIGN MONTH
ASSUMING 4 PCMS SIGN(S) FOR 5 MONTH(S)

MAINTENANCE OF TRAFFIC GENERAL NOTES

MAINTENANCE OF TRAFFIC SIGNAL/FLASHER INSTALLATION

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

1. 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 IS ACCEPTED.

2. 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 MISALIGNED 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.

MAINTENANCE OF TRAFFIC SIGNAL/FLASHER INSTALLATION (CONTINUED)

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 AND MAINTENANCE SERVICES BY CITY FORCES SHALL BE 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. 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.

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:

1. TIME OF NOTIFICATION OF MALFUNCTION;

2. TIME OF WORK CREWS ARRIVAL TO CORRECT THE MALFUNCTION;

3. ACTIONS TAKEN TO CORRECT THE MALFUNCTION, INCLUDING A LIST OF PARTS REPAIRED OR REPLACED;

4. A DIAGNOSIS OF REASON FOR THE MALFUNCTION AND PROBABILITY OF REOCCURRENCE;

5. TIME OF COMPLETION OF THE REPAIR AND SYSTEM RESTORED TO FULL SERVICE.

MAINTENANCE OF TRAFFIC SIGNAL/FLASHER INSTALLATION (CONTINUED)

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.

DELINEATION OF PORTABLE AND PERMANENT BARRIER

BARRIER REFLECTORS AND OBJECT MARKERS SHALL BE INSTALLED ON ALL PORTABLE BARRIER (PB) USED FOR TRAFFIC CONTROL; AND, ON PERMANENT CONCRETE BARRIER (INCLUDING BRIDGE PARAPETS) LOCATED WITHIN 5 FEET OF THE EDGE OF THE ADJACENT TRAVEL LANE.

BARRIER REFLECTORS SHALL CONFORM TO C&MS 626, EXCEPT THAT THE SPACING SHALL BE AS PER TRAFFIC SCD MT-101.70. OBJECT MARKERS AND THEIR INSTALLATION SHALL CONFORM TO C&MS 614.03 AND SCD MT-101.70. WHEN THE PB CONTAINS GLARE SCREEN, ONE SET OF THREE VERTICAL STRIPES OF SHEETING SHALL BE CONSIDERED EQUIVALENT TO AN OBJECT MARKER, ONE-WAY.

INCREASED BARRIER DELINEATION, AS SPECIFIED HEREIN, SHALL BE INSTALLED ON ALL PB AND PERMANENT CONCRETE BARRIER LOCATED WITHIN 5 FEET OF THE EDGE OF THE TRAVELED LANE UNDER EITHER OF THE FOLLOWING CONDITIONS: ALONG TAPERS AND TRANSITION AREAS; OR ALONG CURVES (OUTSIDE ONLY) WITH DEGREE OF CURVATURE GREATER THAN OR EQUAL TO 3 DEGREES.

THE INCREASED BARRIER DELINEATION SHALL CONSIST OF EITHER DELINEATION PANELS OR THE TRIPLE STACKING OF WORK ZONE BARRIER REFLECTORS.

DELINEATION PANELS SHALL CONSIST OF PANELS OF DELINEATION, APPROXIMATELY 34" LONG AND 6" WIDE AND SHALL BE "CRIMPED." PANELS SHALL BE INSTALLED AND SPACED PER TRAFFIC SCD MT-101.70.

TRIPLE-STACKED BARRIER REFLECTORS SHALL CONSIST OF ALIGNING THREE BARRIER REFLECTORS VERTICALLY, AT LOCATIONS WHERE A SINGLE BARRIER REFLECTOR WOULD BE OTHERWISE ATTACHED. THERE SHALL BE NO OPEN SPACE BETWEEN THE ADJACENT BARRIER REFLECTORS. THE TRIPLE-STACKED BARRIER REFLECTORS SHALL CONFORM TO C&MS 626, EXCEPT THAT THEY SHALL BE SPACED AND ALIGNED PER TRAFFIC SCD MT-101.70.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE PLANS AND CARRIED TO THE GENERAL SUMMARY:

ITEM 614, BARRIER REFLECTOR, TYPE 1 (BI-DIRECTIONAL) 71 EACH
ITEM 614, OBJECT MARKER, TWO-WAY 71 EACH
ITEM 614, INCREASED BARRIER DELINEATION 3429 FEET

PAYMENT SHALL BE FULL COMPENSATION FOR ALL MATERIAL, LABOR, INCIDENTALS AND EQUIPMENT NECESSARY FOR FURNISHING, INSTALLING, MAINTAINING AND REMOVING EACH OF THE ABOVE ITEMS.

ALONG RUNS OF INCREASED BARRIER DELINEATION WHERE THIS ITEM IS PROVIDED, THE QUANTITY SHALL BE MEASURED AS THE ENTIRE LENGTH OF THE RUN OF INCREASED BARRIER DELINEATION, INCLUDING THE SPACES BETWEEN THE INDIVIDUAL DELINEATION PANELS OR STACKS OF BARRIER REFLECTORS.

ITEM 614, LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE DURING CONSTRUCTION OPERATIONS

USE OF LAW ENFORCEMENT OFFICERS (LEOS) BY CONTRACTORS OTHER THAN THE USES SPECIFIED BELOW WILL NOT BE PERMITTED AT PROJECT COST. LEOS SHOULD NOT BE USED WHERE THE OMUTCD INTENDS THAT FLAGGERS BE USED.

IN ADDITION TO THE REQUIREMENTS OF C&MS 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) SHALL BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS:

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

• DURING A TRAFFIC SIGNAL INSTALLATION WHEN IMPACTING THE NORMAL FUNCTION OF THE SIGNAL OR THE FLOW OF TRAFFIC, 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).

IN ADDITION TO THE REQUIREMENT OF C&MS 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 THE FOLLOWING TRAFFIC CONTROL TASKS AS APPROVED BY THE ENGINEER:

• 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 FOR LONG-TERM LANE CLOSURES/SHIFTS (FOR THE FIRST AND LAST DAY OF MAJOR CHANGES IN TRAFFIC CONTROL SETUP).

"WITHOUT POSITIVE PROTECTION" MEANS USE OF DRUMS, CONES, SHADOW VEHICLE, ETC, WITHOUT PROTECTION FROM PORTABLE BARRIER OR OTHER RIGID BARRIER ALONG THE WORK AREA. THIS PHRASE DOES NOT APPLY TO CASES WHERE POSITIVE PROTECTION IS REQUIRED. MOBILE OPERATIONS ARE REGARDED AS "WITHOUT POSITIVE PROTECTION". FOR WORK ZONES USING A COMBINATION OF BARRIER AND TEMPORARY TRAFFIC CONTROL DEVICES (CONES, DRUMS, ETC), THE DESIGNATION SHALL BE BASED UPON THE TYPE OF DEVICES USED IN THE AREA THAT WORKERS ARE LOCATED.

ITEM 614, LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE DURING CONSTRUCTION OPERATIONS (CONTINUED)

IF MULTIPLE ACTIVE LOCALIZED QUALIFYING WORK AREAS OCCUR WITHOUT POSITIVE PROTECTION, PER MAINLINE TRAFFIC DIRECTION, PROVIDE A UNIFORMED LEO AND OFFICIAL PATROL CAR IN ADVANCE OF:

- THE FIRST ACTIVE WORK AREA THAT DRIVERS WILL ENCOUNTER; OR
- THE ACTIVE WORK AREA LATERALLY CLOSEST TO THE OPEN TRAVELED LANE; OR
- OTHER LOCATION AS APPROVED BY THE ENGINEER.

THE UNIFORMED LEO AND OFFICIAL PATROL CAR MAY RELOCATE AMONG THE LISTED LOCATIONS AS APPROPRIATE AS THE OPERATIONS PROCEED IN THE LOCALIZED QUALIFYING WORK AREAS.

IN GENERAL, LEOS SHOULD BE POSITIONED IN ADVANCE OF AND ON THE SAME SIDE AS THE LANE RESTRICTION OR AT THE POINT OF ROAD CLOSURE, AND TO MANUALLY CONTROL TRAFFIC MOVEMENTS THROUGH SIGNALIZED INTERSECTIONS IN WORK ZONES.

LEOS SHOULD NOT FORGO THEIR TRAFFIC CONTROL RESPONSIBILITIES TO APPREHEND MOTORISTS FOR ROUTINE TRAFFIC VIOLATIONS. HOWEVER, IF A MOTORIST'S 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 WITH THE APPROPRIATE AGENCIES 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.

ENSURE PROVIDED LEOS HAVE BEEN TRAINED APPROPRIATE TO THE JOB DECISIONS THEY ARE REQUIRED TO MAKE WHILE ON THE PROJECT, IN ACCORDANCE WITH C&MS 614.03.

THE LEO SHALL REPORT IN TO THE CONTRACTOR PRIOR TO THE START OF THE SHIFT, IN ORDER TO RECEIVE INSTRUCTIONS REGARDING SPECIFIC WORK ASSIGNMENTS DURING HIS/HER SHIFT. THE LEO IS EXPECTED TO STAY AT THE PROJECT SITE FOR THE ENTIRE DURATION OF HIS/HER SHIFT. THE LEO SHALL REPORT TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT. SHOULD IT BE NECESSARY TO LEAVE THE PROJECT SITE, THE LEO SHALL 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 HIS/HER SHIFT.

LEOS (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 QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 614, LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE DURING CONSTRUCTION OPERATIONS (CONTINUED)

ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE 128 HOURS

THE HOURS PAID SHALL INCLUDE ANY 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.

NOTIFICATION OF TRAFFIC RESTRICTIONS

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 AT (614) 887-4510 OR EMAIL AT D05.PIO@DOT.OHIO.GOV

DISTRICT PERMIT SECTION BY FAX AT (614) 887-4525 OR EMAIL AT BRIAN.BOSCH@DOT.OHIO.GOV

CENTRAL OFFICE SPECIAL HAUL PERMITS SECTION BY FAX AT (614) 728-4099 OR EMAIL AT HAULING.PERMITS@DOT.OHIO.GOV

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.

CALCULATED SHR
CHECKED SJP

MAINTENANCE OF TRAFFIC GENERAL NOTES

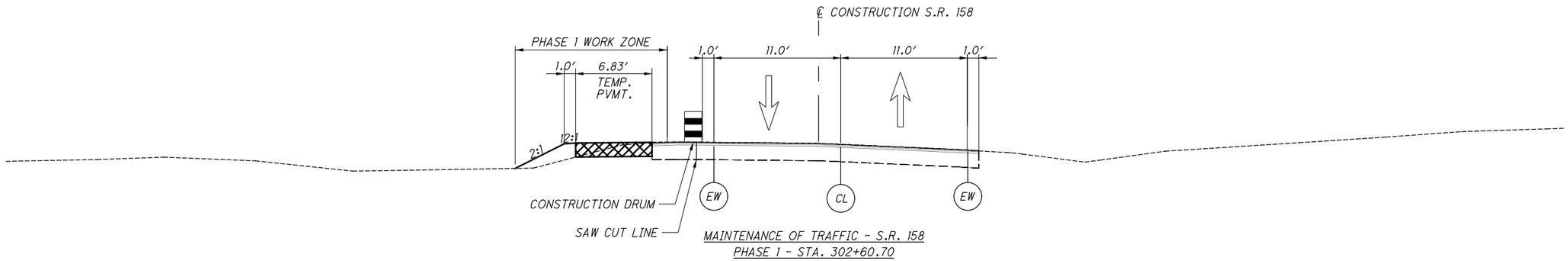
FAI-158-07.25

ITEM NO.									202	202	410	611	614	614	614	614	614	615	615	622	
SHEET NO.	REFERENCE NO.	PHASE	LOCATION	STATION		SIDE	LENGTH	AREA	PAVEMENT REMOVED	PIPE REMOVED, 24" AND UNDER	TRAFFIC COMPACTED SURFACE, TYPE C	12" CONDUIT, TYPE D	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS (BIDIRECTIONAL)	WORK ZONE CENTER LINE, CLASS I, 642 PAINT (DOUBLE SOLID)	WORK ZONE CENTER LINE, CLASS I, 740.06, TYPE I (DOUBLE SOLID)	WORK ZONE EDGE LINE, CLASS I, 6", 642 PAINT (WHITE)	WORK ZONE EDGE LINE, CLASS I, 6", 740.06, TYPE I (WHITE)	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B	PORTABLE BARRIER, UNANCHORED	
				FROM	TO		FT	SQ FT	SY	FT	CY	FT	EACH	MILE	MILE	MILE	MILE	SY	SY	FT	
		PHASE 1																			
22	CL-1		S.R. 158	298+18.71	312+35.26	CL	1417							0.27							
	EW-1			298+18.71	312+37.19	LT	1418									0.27					
	EW-2			301+02.85	322+16.70	RT	2114									0.41					
	DR-1			305+88.59		LT		138	16										16		
23	CL-2			313+19.57	327+70.80	CL	1451							0.28							
	EW-3			313+19.57	322+16.70	RT	897									0.17					
22				298+50.65	312+01.38	LT	1351	8236										916			
23				312+71.86	327+15.80	LT	1444	12608										1401			
23	D-1			314+57.70	314+93.48	LT	34.38			35		35									
	DR-2			314+80.58		LT		140	16										16		
	DR-3			317+30.28		LT		157	18										18		
24	DR-4			320+89.63		LT		130			3										
	DR-5			322+88.45		LT		195			4										
	DR-6			323+52.84		LT		281			6										
	DR-7			325+13.49		LT		160			3										
		PHASE 2																			
26	CL-1		S.R. 158	297+85.55	312+04.19	CL	1419							0.27							
	EW-1			297+85.55	327+64.45	LT	2979									0.57					
	EW-2			297+85.55	312+04.19	LT	1419									0.27					
	PB-1			301+53.70	322+98.00	LT	2144						2							2145	
27	CL-2			312+68.83	327+64.45	CL	1496							0.29							
	EW-3			312+68.83	327+64.45	LT	1496									0.29					
		PHASE 3																			
30	CL-1		S.R. 158	300+32.00	312+41.27	CL	1209							0.23							
	EW-1			300+32.00	312+41.27	RT	1209									0.23					
	EW-2			300+32.00	324+55.94	RT	2424									0.46					
	PB-1			308+68.00	321+52.00	LT	1284						2							1284	
31	CL-2		S.R. 158	313+29.11	324+55.94	CL	1127							0.22							
	EW-3			313+29.11	324+55.94	RT	1127									0.22					
		PHASE 4																			
			S.R. 158	302+60.70	311+80.00	CL	919								0.18						
				302+60.70	311+45.85	LT	885										0.17				
				302+60.70	312+24.97	RT	964										0.19				
				313+12.84	321+10.00	LT	797										0.16				
				313+45.42	321+10.00	RT	765										0.15				
				311+80.00	321+10.00	CL	930								0.18						
TOTALS CARRIED TO GENERAL SUMMARY									50	35	16	35	4	1.56	0.36	2.89	0.67	2317	50	3429	

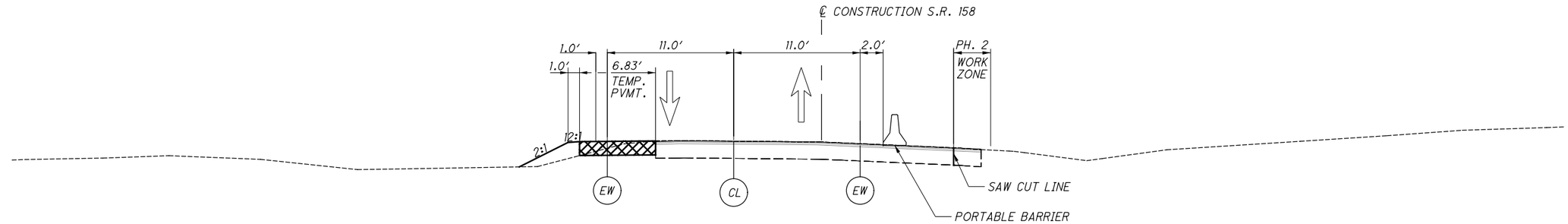
CALCULATED CWP
CHECKED SJP

MAINTENANCE OF TRAFFIC SUBSUMMARY

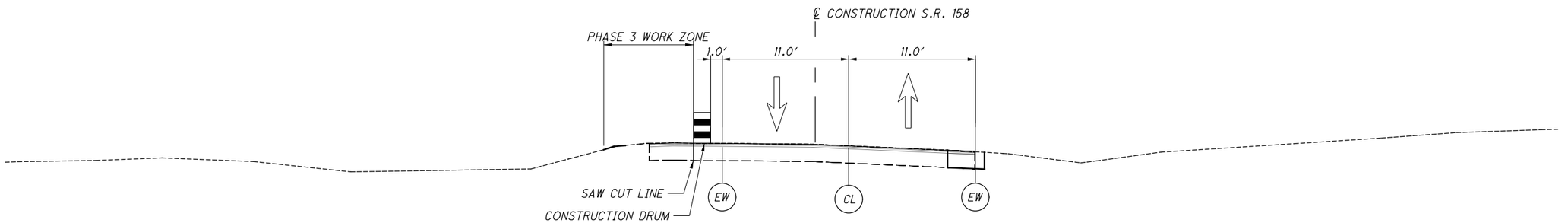
FAI-158-07.25



MAINTENANCE OF TRAFFIC - S.R. 158
PHASE 1 - STA. 302+60.70



MAINTENANCE OF TRAFFIC - S.R. 158
PHASE 2 - STA. 302+60.70



MAINTENANCE OF TRAFFIC - S.R. 158
PHASE 3 - STA. 302+60.70

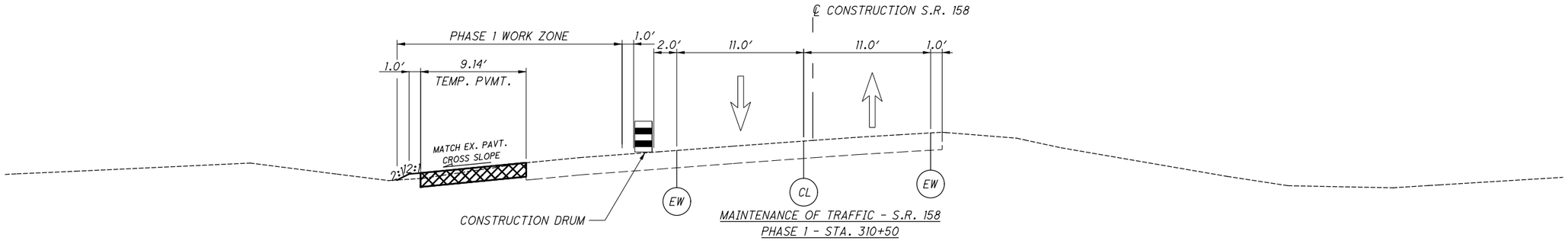
NOTES:

1. FOR LEGEND, SEE SHEET17.

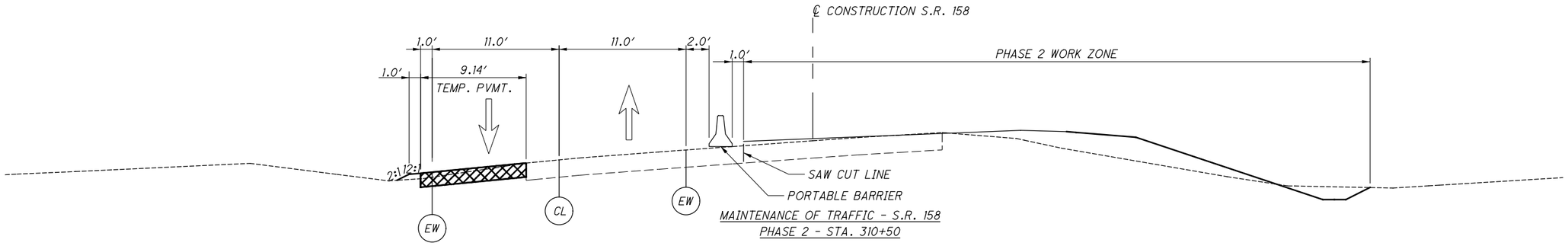
CALCULATED AS
CHECKED CWP

MAINTENANCE OF TRAFFIC - TYPICAL SECTIONS

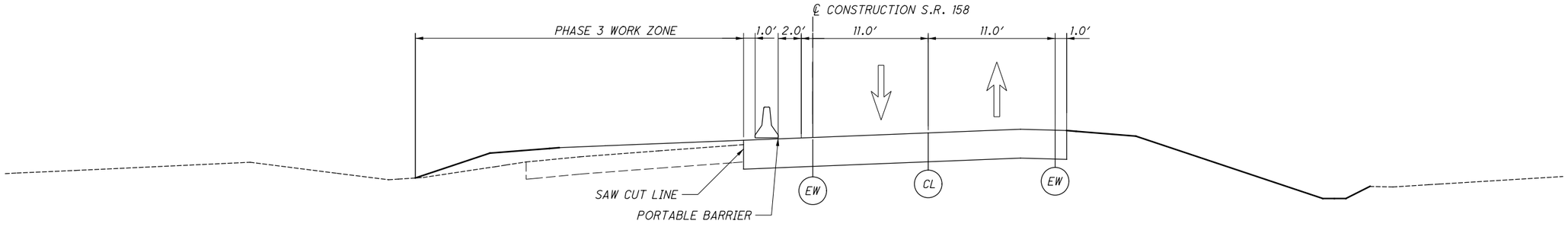
FAI-158-07.25



MAINTENANCE OF TRAFFIC - S.R. 158
PHASE 1 - STA. 310+50



MAINTENANCE OF TRAFFIC - S.R. 158
PHASE 2 - STA. 310+50



MAINTENANCE OF TRAFFIC - S.R. 158
PHASE 3 - STA. 310+50

LEGEND:

- ITEM 410 - TRAFFIC COMPACTED SURFACE, TYPE A OR B
- CL — ITEM 614 - WORK ZONE CENTER LINE
- EW — ITEM 614 - WORK ZONE EDGE LINE, 6" (WHITE)

MAINTENANCE OF TRAFFIC - TYPICAL SECTIONS

CALCULATED AS
CHECKED CWP

FAI-158-07.25

17
131

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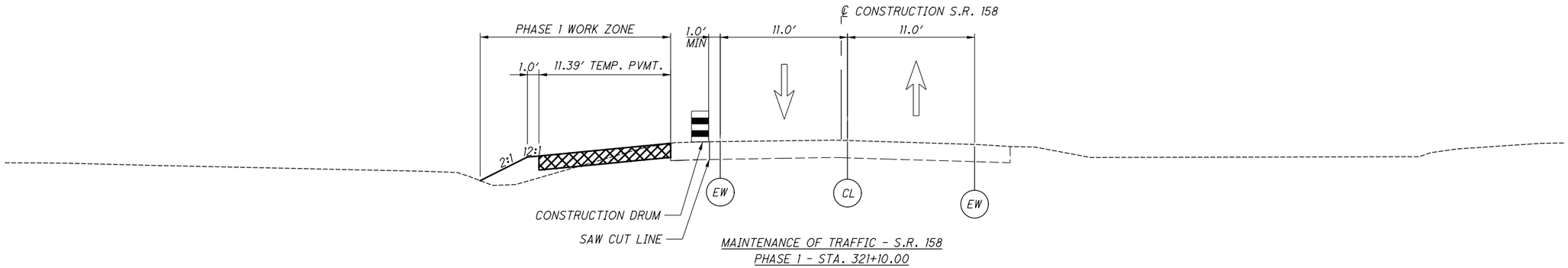
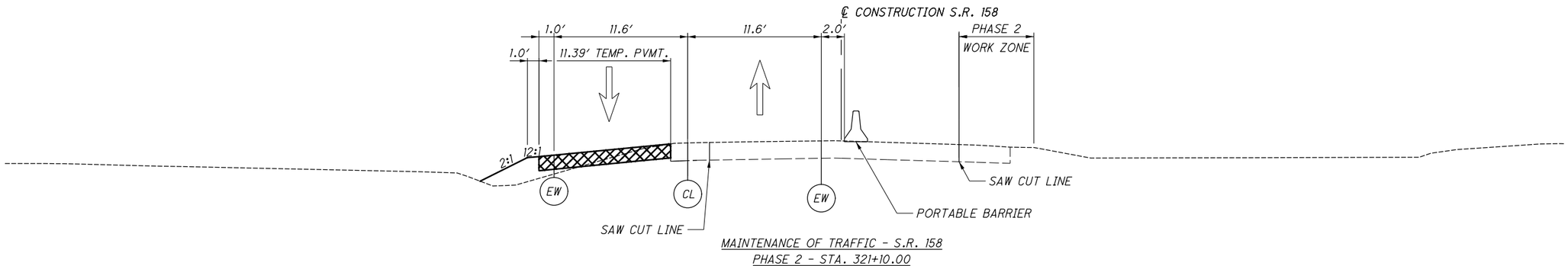
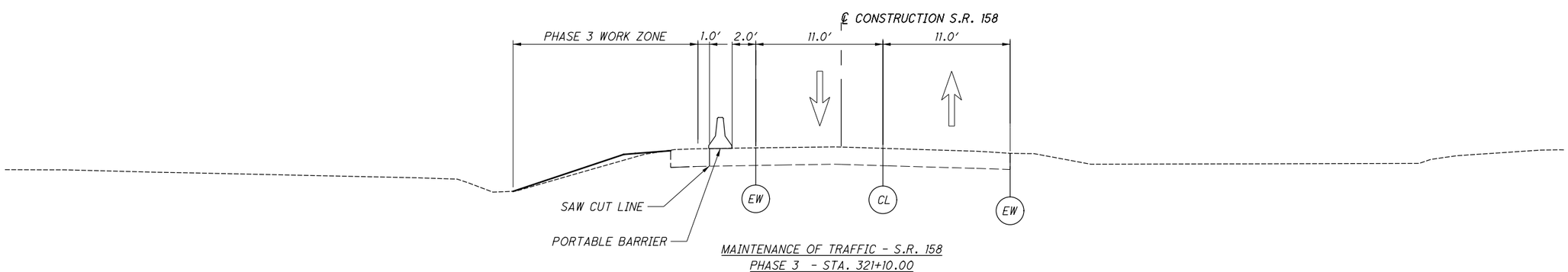


MAINTENANCE OF TRAFFIC - S.R. 158
PHASE 1 - STA. 321+10.00



MAINTENANCE OF TRAFFIC - S.R. 158
PHASE 2 - STA. 321+10.00



MAINTENANCE OF TRAFFIC - S.R. 158
PHASE 3 - STA. 321+10.00

NOTES:

1. FOR LEGEND, SEE SHEET 17.

CALCULATED AS
CHECKED CWP

MAINTENANCE OF TRAFFIC - TYPICAL SECTIONS

FAI-158-07.25

1 — ROAD CLOSED
R11-2-48
ON TYPE III BARRICADES WITH 1 TYPE B FLASHING WARNING LIGHT (PER BARRICADE)

2 — DETOUR AHEAD
W20-2-48
158
M1-5-24-3

3 — ROAD CLOSED 2.3 MILES AHEAD
LOCAL TRAFFIC ONLY
R11-3A-60
DETOUR
M4-10L-48
ON TYPE III BARRICADES WITH 1 TYPE B FLASHING WARNING LIGHT (PER BARRICADE)

4 — ROAD CLOSED 7.2 MILES AHEAD
LOCAL TRAFFIC ONLY
R11-2-48
DETOUR
M4-10R-48
ON TYPE III BARRICADES WITH 1 TYPE B FLASHING WARNING LIGHT (PER BARRICADE)

5 — 158
M1-5-24-3
ROAD CLOSED 1.0 MILES AHEAD
LOCAL TRAFFIC ONLY
R11-3A-60

6 — ROAD CLOSED AHEAD
W20-3-48
158
M1-5-24-3

7 — DETOUR
M4-8-12
158
M1-5-24-3
M6-1-12

8 — DETOUR
M4-8-12
158
M1-5-24-3
M6-1-12

9 — DETOUR
M4-8-12
158
M1-5-24-3
M6-3-12

10 — END DETOUR
M4-8a-24
158
M1-5-24-3

11 — DETOUR
M4-8-12
158
M1-5-24-3

12 — 158
M1-5-24-3
ROAD CLOSED 1.1 MILES AHEAD
LOCAL TRAFFIC ONLY
R11-3A-60

13 — 158
M1-5-24-3
ROAD CLOSED 2.6 MILES AHEAD
LOCAL TRAFFIC ONLY
R11-3A-60

14 — 158
M1-5-24-3
ROAD CLOSED 3.2 MILES AHEAD
LOCAL TRAFFIC ONLY
R11-3A-60

N — NORTH
M3-4-24
S — SOUTH
M3-2-24

BALTIMORE - SOMERSET RD (S.R. 256)
LEITNAKER RD. (T380)
EAST MARKET ST (S.R. 256)
HOLDEN RD.
PLEASANTVILLE RD. (CR-17)
STRINGTOWN RD.
LANCASTER-NEWARK RD (S.R. 37)
MARQUETTE DR.
GINDER RD. (T246)
COONPATH RD. (CR-31)
RAINBOW DR. (CR-79)
E MAIN ST (U.S. 22)
N HIGH ST
N COLUMBUS ST
WEST MARKET ST (S.R. 256)
LEONARD RD. (CR-15)
FISHER RD. (T267)
MCCLEERY RD. (T265)
BURCHEY RD. (T281)
CARROLL EASTERN RD. (CR-21)
SHEETS RD. (T283)
BROOK RD. (T277)
LANCASTER-KIRKERSVILLE RD. (S.R. 158)
BASIL WESTERN RD
37
256
158
188
22

LEGEND:
DIRECTION OF DETOUR
WORK AREA

TYPE A WARNING LIGHT
TYPE A WARNING LIGHT
ROAD WORK AHEAD
W20-1-48
ROAD CLOSED AHEAD
W20-3-48
158
M1-5-24-3
1000 FEET
W16-2P-30
ROAD CLOSED AHEAD
W20-3-48
158
M1-5-24-3
500 FEET
W16-2P-30
THESE SIGNS WILL BE PLACED AS PER STANDARD DRAWING MT-101.60

HORIZONTAL SCALE IN FEET
0 1000 2000 4000
CALCULATED AS
CHECKED CWP

MAINTENANCE OF TRAFFIC - DETOUR PLAN
PRE-PHASE 1A - SR 158 DETOUR

FAI-158-07.25

19
131

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TYPE A WARNING LIGHT

TYPE A WARNING LIGHT

ROAD WORK AHEAD
W20-1-48

ROAD CLOSED AHEAD
W20-3-48

158
M1-5-24-3

1000 FEET
W16-2P-30

ROAD CLOSED AHEAD
W20-3-48

158
M1-5-24-3

500 FEET
W16-2P-30

THESE SIGNS WILL BE PLACED AS PER STANDARD DRAWING MT-101.60

1

ROAD CLOSED
R11-2-48
ON TYPE III BARRICADES WITH 1 TYPE B FLASHING WARNING LIGHT (PER BARRICADE)

2

DETOUR AHEAD
W20-2-48

FAIRFIELD 17 COUNTY
M1-H6a-18

3

ROAD CLOSED 1.3 MILES AHEAD
LOCAL TRAFFIC ONLY
R11-3A-60

DETOUR
M4-10R-48
ON TYPE III BARRICADES WITH 1 TYPE B FLASHING WARNING LIGHT (PER BARRICADE)

4

ROAD CLOSED
R11-2-48

DETOUR
M4-10L-48
ON TYPE III BARRICADES WITH 1 TYPE B FLASHING WARNING LIGHT (PER BARRICADE)

5

ROAD CLOSED AHEAD
W20-3-48

6

FAIRFIELD 17 COUNTY
M1-H6a-18

DETOUR
M4-9L-30

7

FAIRFIELD 17 COUNTY
M1-H6a-18

DETOUR
M4-9R-30

8

FAIRFIELD 17 COUNTY
M1-H6a-18

DETOUR
M4-9C-30

9

END DETOUR
M4-8a-24

FAIRFIELD 17 COUNTY
M1-H6a-18

W

WEST
M3-4-24

E

EAST
M3-2-24

10

158
M1-5-24-3

ROAD CLOSED
0.7 MILES AHEAD
LOCAL TRAFFIC ONLY
R11-3A-60

MCCLEERY RD. (T265)

FISHER RD. (T267)

LANCASTER-KIRKERSVILLE RD. (SR-158)

PLEASANTVILLE RD. (CR-17)

BROOK RD. (T277)

BURCHEY RD. (T281)

158

STRINGTOWN RD (T273)

CARROLL EASTERN RD. (CR-21)

SHEETS RD. (T283)

CARROLL EASTERN RD. (T114)

LEGEND:

DIRECTION OF DETOUR

WORK AREA

N

0 250 500 1000
HORIZONTAL SCALE IN FEET

CALCULATED CWP
CHECKED ZSS

MAINTENANCE OF TRAFFIC - DETOUR PLAN
PHASE 1,3 - CR 17 CLOSURE WEST OF SR 158

FAI-158-07.25

20
131

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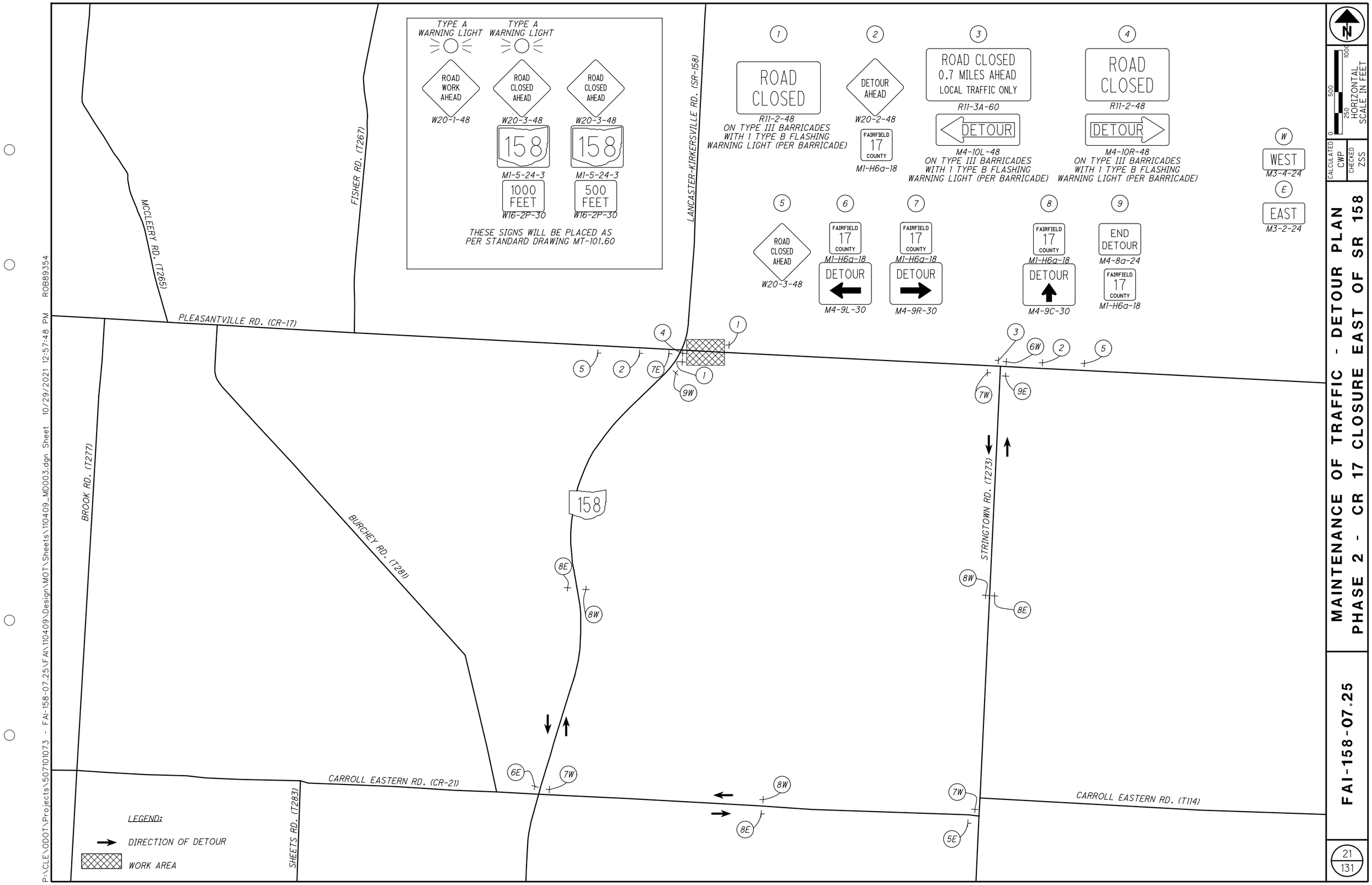
TYPE A WARNING LIGHT
TYPE A WARNING LIGHT
ROAD WORK AHEAD
W20-1-48
ROAD CLOSED AHEAD
W20-3-48
ROAD CLOSED AHEAD
W20-3-48
158
M1-5-24-3
158
M1-5-24-3
1000 FEET
W16-2P-30
500 FEET
W16-2P-30
THESE SIGNS WILL BE PLACED AS PER STANDARD DRAWING MT-101.60
1
ROAD CLOSED
R11-2-48
ON TYPE III BARRICADES WITH 1 TYPE B FLASHING WARNING LIGHT (PER BARRICADE)
2
DETOUR AHEAD
W20-2-48
FAIRFIELD 17 COUNTY
M1-H6a-18
3
ROAD CLOSED 0.7 MILES AHEAD LOCAL TRAFFIC ONLY
R11-3A-60
DETOUR
M4-10L-48
ON TYPE III BARRICADES WITH 1 TYPE B FLASHING WARNING LIGHT (PER BARRICADE)
4
ROAD CLOSED
R11-2-48
DETOUR
M4-10R-48
ON TYPE III BARRICADES WITH 1 TYPE B FLASHING WARNING LIGHT (PER BARRICADE)
5
ROAD CLOSED AHEAD
W20-3-48
6
FAIRFIELD 17 COUNTY
M1-H6a-18
DETOUR
M4-9L-30
7
FAIRFIELD 17 COUNTY
M1-H6a-18
DETOUR
M4-9R-30
8
FAIRFIELD 17 COUNTY
M1-H6a-18
DETOUR
M4-9C-30
9
END DETOUR
M4-8a-24
FAIRFIELD 17 COUNTY
M1-H6a-18
W
WEST
M3-4-24
E
EAST
M3-2-24
PLEASANTVILLE RD. (CR-17)
MCCLEERY RD. (T265)
FISHER RD. (T267)
LANCASTER-KIRKERSVILLE RD. (SR-158)
BROOK RD. (T277)
BURCHEY RD. (T281)
STRINGTOWN RD. (T273)
CARROLL EASTERN RD. (CR-21)
SHEETS RD. (T283)
CARROLL EASTERN RD. (T114)
158
LEGEND:
DIRECTION OF DETOUR
WORK AREA
N
0 250 500 1000
HORIZONTAL SCALE IN FEET
CALCULATED CWP
CHECKED ZSS
TRAFFIC - DETOUR PLAN
MAINTENANCE OF TRAFFIC - CLOSURE EAST OF SR 158
PHASE 2 - CR 17
FAI-158-07.25
21
131
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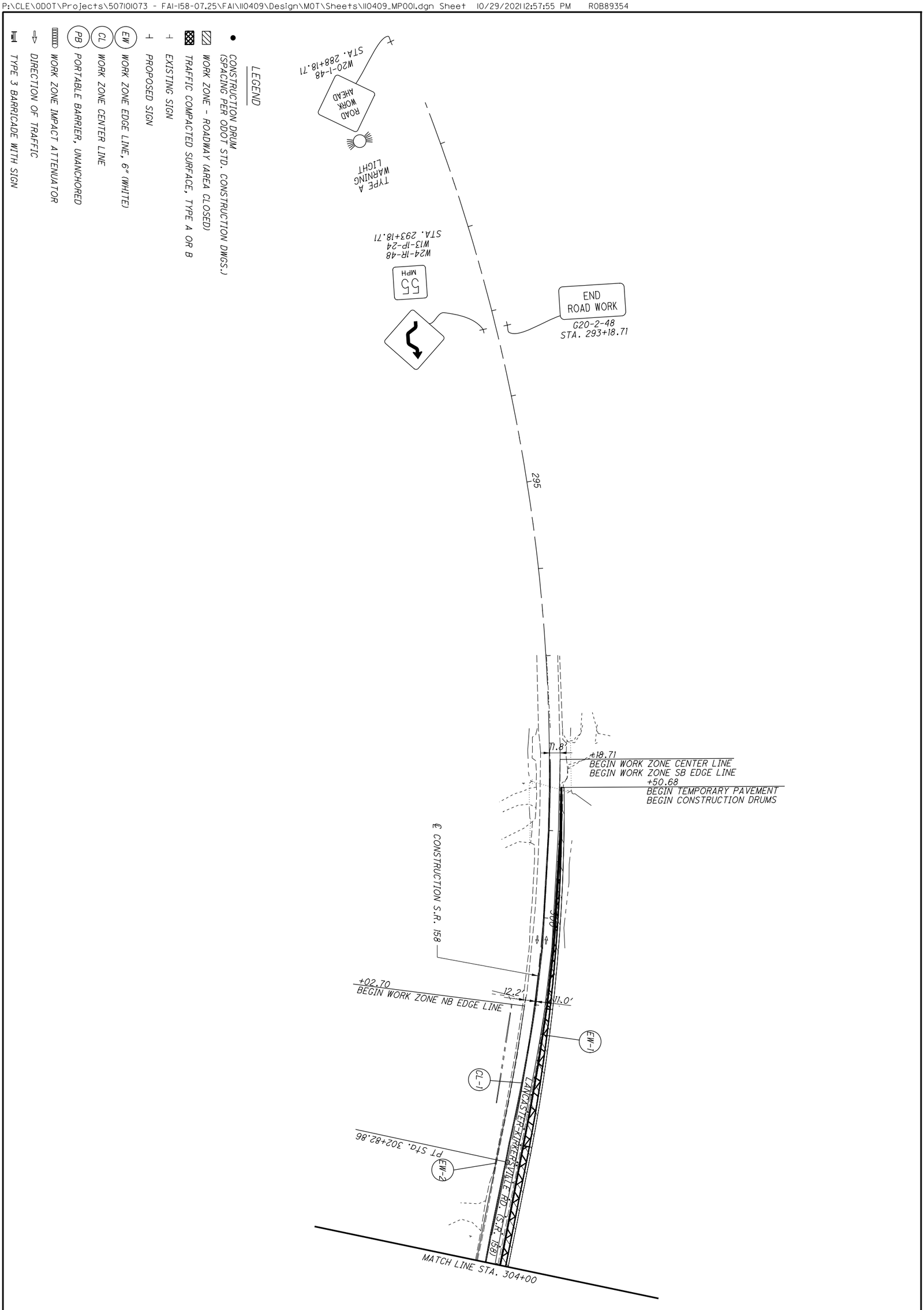
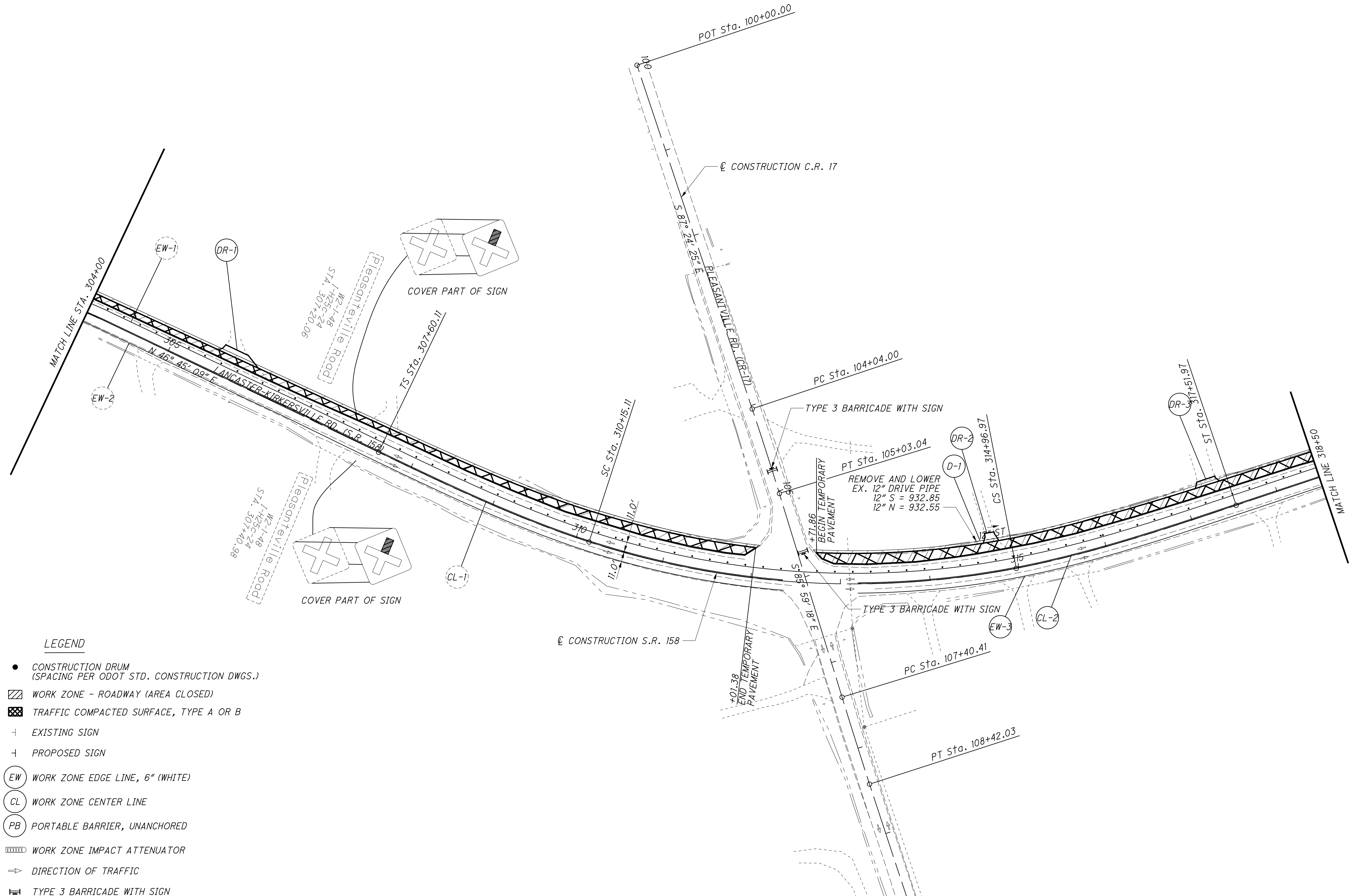


FAI-158-07.25

MAINTENANCE OF TRAFFIC - PHASE 1
S.R. 158 - BEGIN TO STA. 304+00.00

CALCULATED AS
CHECKED CWP

0 25 50 100
HORIZONTAL SCALE IN FEET


POT Sta. 100+00.00
100
℄ CONSTRUCTION C.R. 17
S 87° 24' 25" E
PLEASANTVILLE RD. (CR-17)
MATCH LINE STA. 304+00
EW-1
DR-1
EW-2
305
N 46° 45' 09" E
LANCASTER-KIRKERSVILLE RD. (S.R. 158)
Pleasantville Road
STA. 301+20.06
W21-1-48
I-H25C-24
COVER PART OF SIGN
TS Sta. 307+60.11
SC Sta. 310+15.11
11.0'
310
Pleasantville Road
STA. 301+40.98
W21-1-48
I-H25C-24
COVER PART OF SIGN
CL-1
℄ CONSTRUCTION S.R. 158
+01.38
END TEMPORARY PAVEMENT
PC Sta. 104+04.00
TYPE 3 BARRICADE WITH SIGN
101
PT Sta. 105+03.04
+71.86
BEGIN TEMPORARY PAVEMENT
REMOVE AND LOWER
EX. 12" DRIVE PIPE
12" S = 932.85
12" N = 932.55
DR-2
D-1
CS Sta. 314+96.97
315
DR-3
ST Sta. 317+51.97
MATCH LINE 318+50
S 85° 59' 18" E
TYPE 3 BARRICADE WITH SIGN
EW-3
CL-2
PC Sta. 107+40.41
PT Sta. 108+42.03

LEGEND

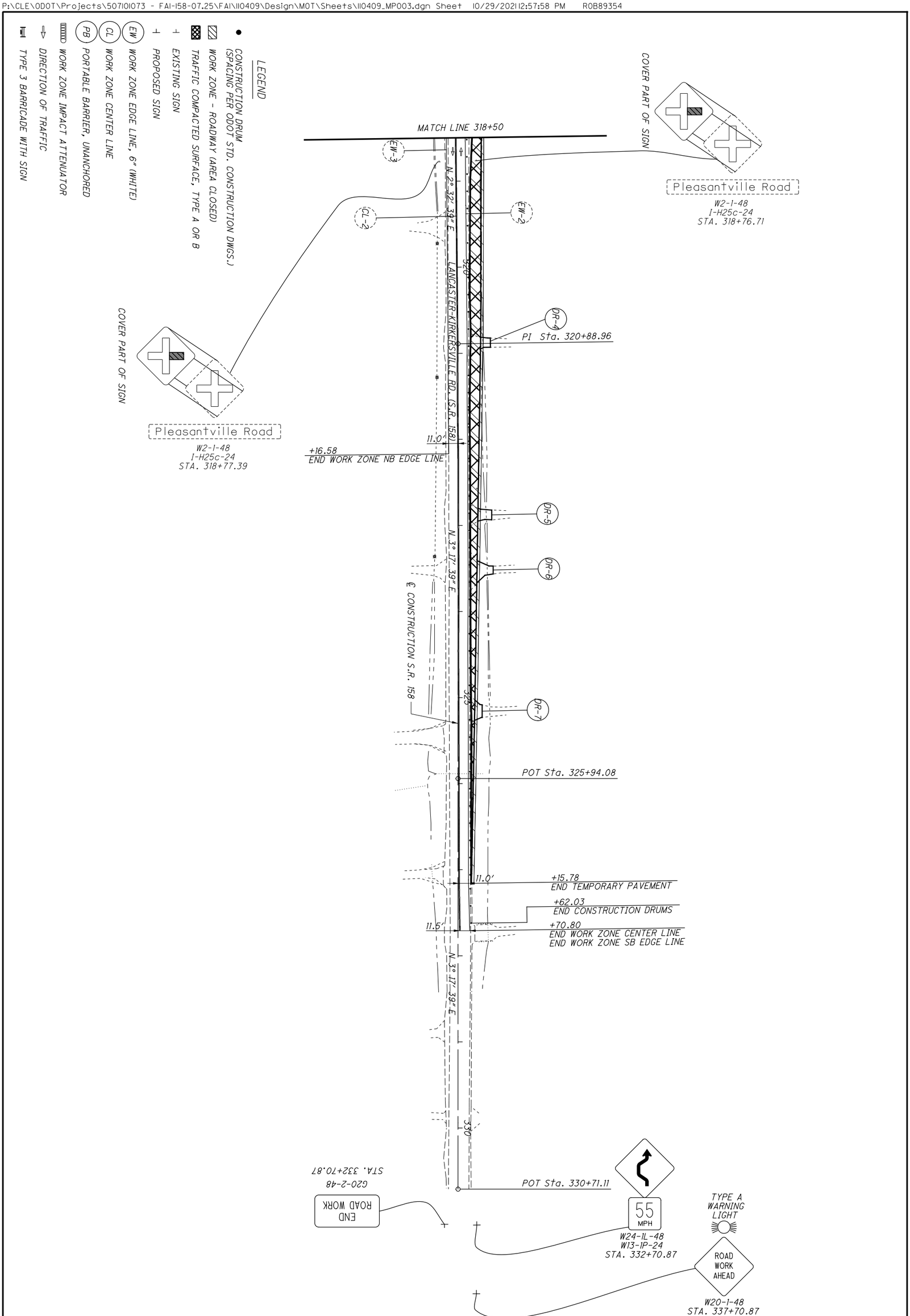
- ● CONSTRUCTION DRUM (SPACING PER ODOT STD. CONSTRUCTION DWGS.)
- WORK ZONE - ROADWAY (AREA CLOSED)
- TRAFFIC COMPACTED SURFACE, TYPE A OR B
- EXISTING SIGN
- PROPOSED SIGN
- (EW) WORK ZONE EDGE LINE, 6" (WHITE)
- (CL) WORK ZONE CENTER LINE
- (PB) PORTABLE BARRIER, UNANCHORED
- WORK ZONE IMPACT ATTENUATOR
- DIRECTION OF TRAFFIC
- TYPE 3 BARRICADE WITH SIGN

HORIZONTAL SCALE IN FEET: 0 25 50 100

CALCULATED AS | CHECKED CWP

MAINTENANCE OF TRAFFIC - PHASE 1
STA. 304+00.00 TO STA. 318+50.00

FAI-158-07.25



24 / 131	FAI-158-07.25	MAINTENANCE OF TRAFFIC - PHASE 1 S.R. 158 - STA. 318+50.00 TO END	CALCULATED AS CHECKED CWP	0 50 25 100 HORIZONTAL SCALE IN FEET

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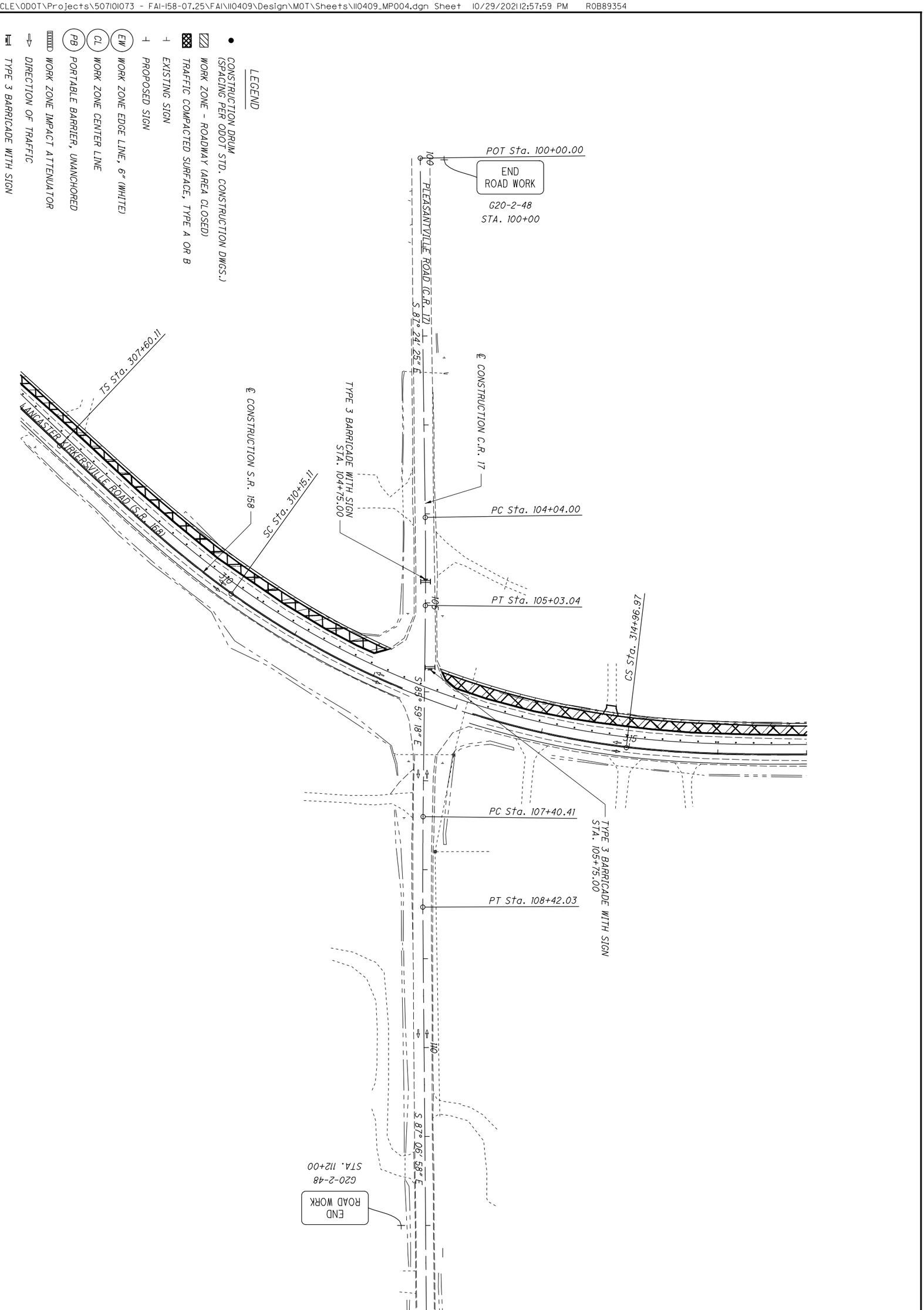
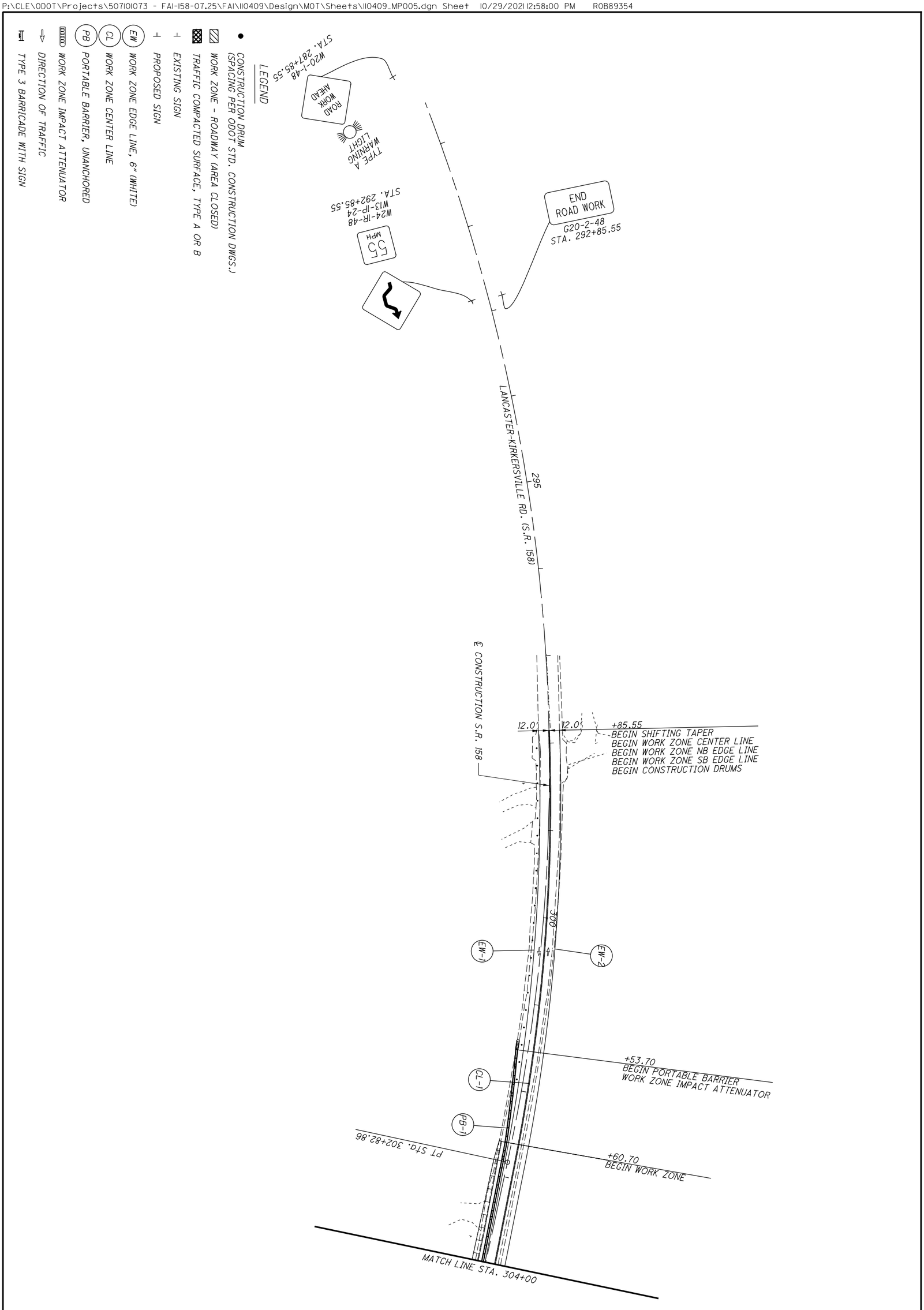
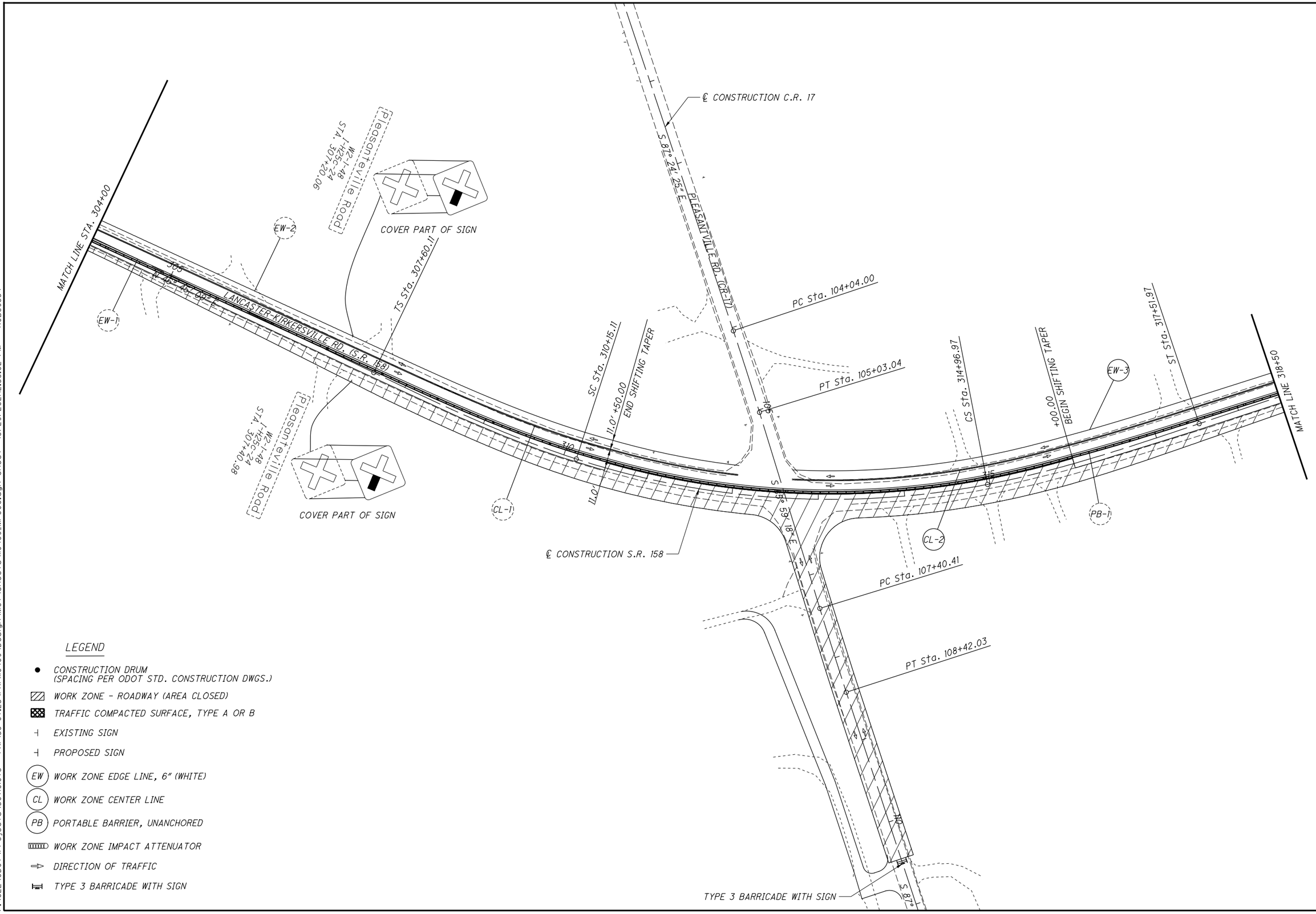


25 / 131	FAI-158-07.25	MAINTENANCE OF TRAFFIC - PHASE 1 C.R. 17	CALCULATED AS CHECKED CWP	0 50 25 100 HORIZONTAL SCALE IN FEET


LEGEND
CONSTRUCTION DRUM (SPACING PER ODOT STD. CONSTRUCTION DWGS.)
WORK ZONE - ROADWAY (AREA CLOSED)
TRAFFIC COMPACTED SURFACE, TYPE A OR B
EXISTING SIGN
PROPOSED SIGN
WORK ZONE EDGE LINE, 6" (WHITE)
WORK ZONE CENTER LINE
PORTABLE BARRIER, UNANCHORED
WORK ZONE IMPACT ATTENUATOR
DIRECTION OF TRAFFIC
TYPE 3 BARRICADE WITH SIGN
ROAD WORK AHEAD
W20-1-48
STA. 287+85.55
TYPE A WARNING LIGHT
55 MPH
W24-1R-48
W13-1P-24
STA. 292+85.55
END ROAD WORK
G20-2-48
STA. 292+85.55
LANCASTER-KIRKERSVILLE RD. (S.R. 158)
295
℄ CONSTRUCTION S.R. 158
12.0
12.0
+85.55
BEGIN SHIFTING TAPER
BEGIN WORK ZONE CENTER LINE
BEGIN WORK ZONE NB EDGE LINE
BEGIN WORK ZONE SB EDGE LINE
BEGIN CONSTRUCTION DRUMS
305
EW-1
EW-2
+53.70
BEGIN PORTABLE BARRIER
WORK ZONE IMPACT ATTENUATOR
CL-1
PB-1
PT STA. 302+82.86
+60.70
BEGIN WORK ZONE
MATCH LINE STA. 304+00



LEGEND

- CONSTRUCTION DRUM (SPACING PER ODOT STD. CONSTRUCTION DWGS.)
- WORK ZONE - ROADWAY (AREA CLOSED)
- TRAFFIC COMPACTED SURFACE, TYPE A OR B
- EXISTING SIGN
- PROPOSED SIGN
- (EW) WORK ZONE EDGE LINE, 6" (WHITE)
- (CL) WORK ZONE CENTER LINE
- (PB) PORTABLE BARRIER, UNANCHORED
- WORK ZONE IMPACT ATTENUATOR
- DIRECTION OF TRAFFIC
- TYPE 3 BARRICADE WITH SIGN

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED AS
CHECKED CWP

MAINTENANCE OF TRAFFIC - PHASE 2
STA. 304+00.00 TO STA. 318+50.00

FAI-158-07.25

27
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LEGEND

- CONSTRUCTION DRUM (SPACING PER ODOT STD. CONSTRUCTION DWGS.)
- WORK ZONE - ROADWAY (AREA CLOSED)
- TRAFFIC COMPACTED SURFACE, TYPE A OR B
- EXISTING SIGN
- PROPOSED SIGN
- (EW) WORK ZONE EDGE LINE, 6" (WHITE)
- (CL) WORK ZONE CENTER LINE
- (PB) PORTABLE BARRIER, UNANCHORED
- WORK ZONE IMPACT ATTENUATOR
- DIRECTION OF TRAFFIC
- TYPE 3 BARRICADE WITH SIGN

MATCH LINE 318+50

(EW-1)

N 2° 32' 39" E

320'

(CL-2)

(EW-3)

(PB-1)

COVER PART OF SIGN

Pleasantville Road
W2-1-48
I-H25c-24
STA. 318+76.71

COVER PART OF SIGN

Pleasantville Road
W2-1-48
I-H25c-24
STA. 318+77.39

PI Sta. 320+88.96

+10.00
END WORK AREA

℄ CONSTRUCTION S.R. 158

+98.00
END PORTABLE BARRIER
WORK ZONE IMPACT ATTENUATOR

N 3° 17' 39" E

12.0'

325'

12.0'

POT Sta. 325+94.08

11.8'

11.4'

+64.45
END SHIFTING TAPER
END WORK ZONE CENTER LINE
END WORK ZONE NB EDGE LINE
END WORK ZONE SB EDGE LINE
END CONSTRUCTION DRUMS

LANCASTER-KIRKERSVILLE RD. (S.R. 158) 330'

N 3° 17' 39" E

POT Sta. 330+71.11

55
MPH
W24-1L-48
W13-1P-24
STA. 332+64.45

TYPE A
WARNING
LIGHT

ROAD
WORK
AHEAD
W20-1-48
STA. 337+64.45

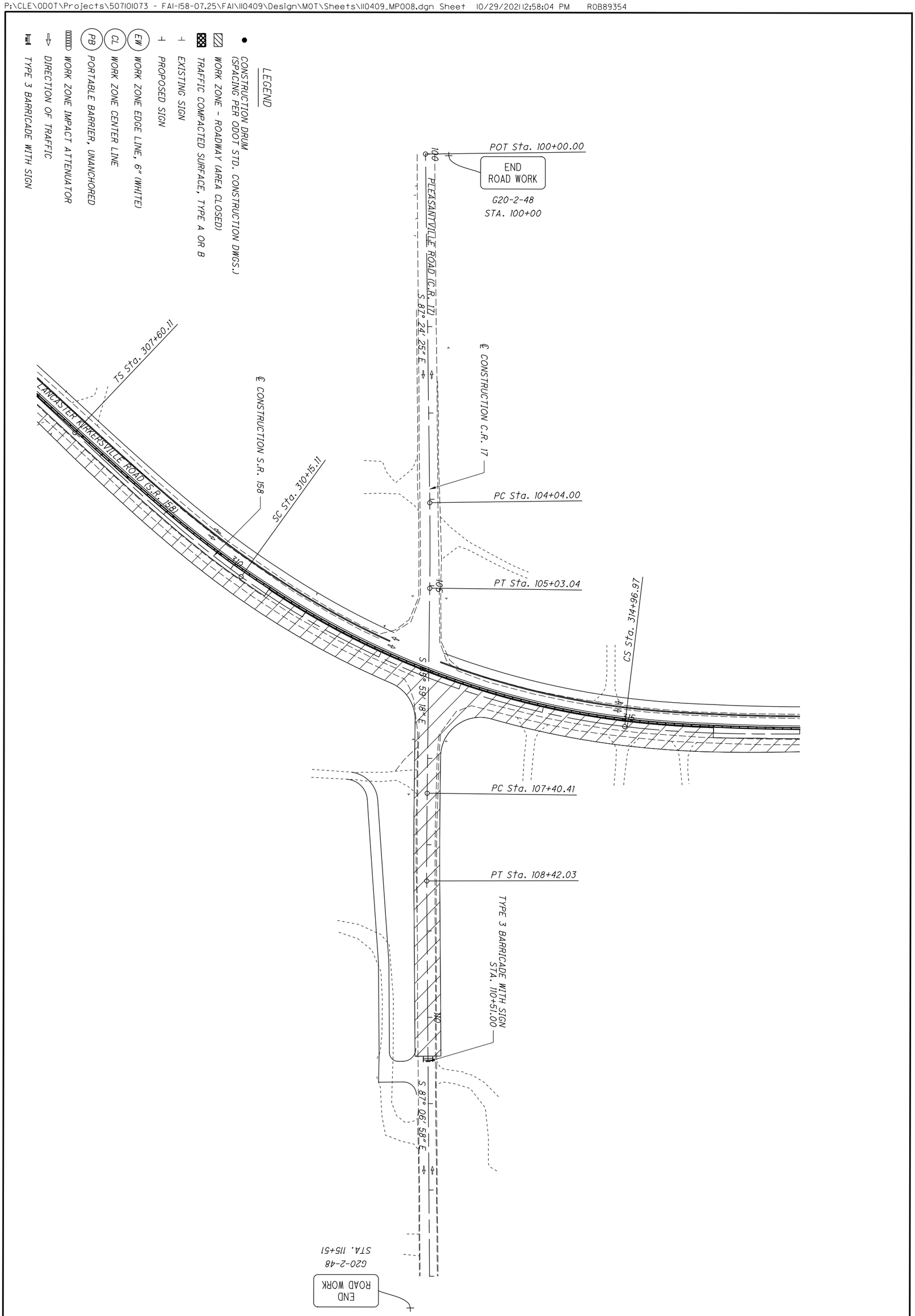
STA. 332+64.45
620-2-48
END
ROAD WORK

MAINTENANCE OF TRAFFIC - PHASE 2
S.R. 158 - STA. 318+50.00 TO END

CALCULATED AS
CHECKED CWP

0 25 50 100
HORIZONTAL SCALE IN FEET

N

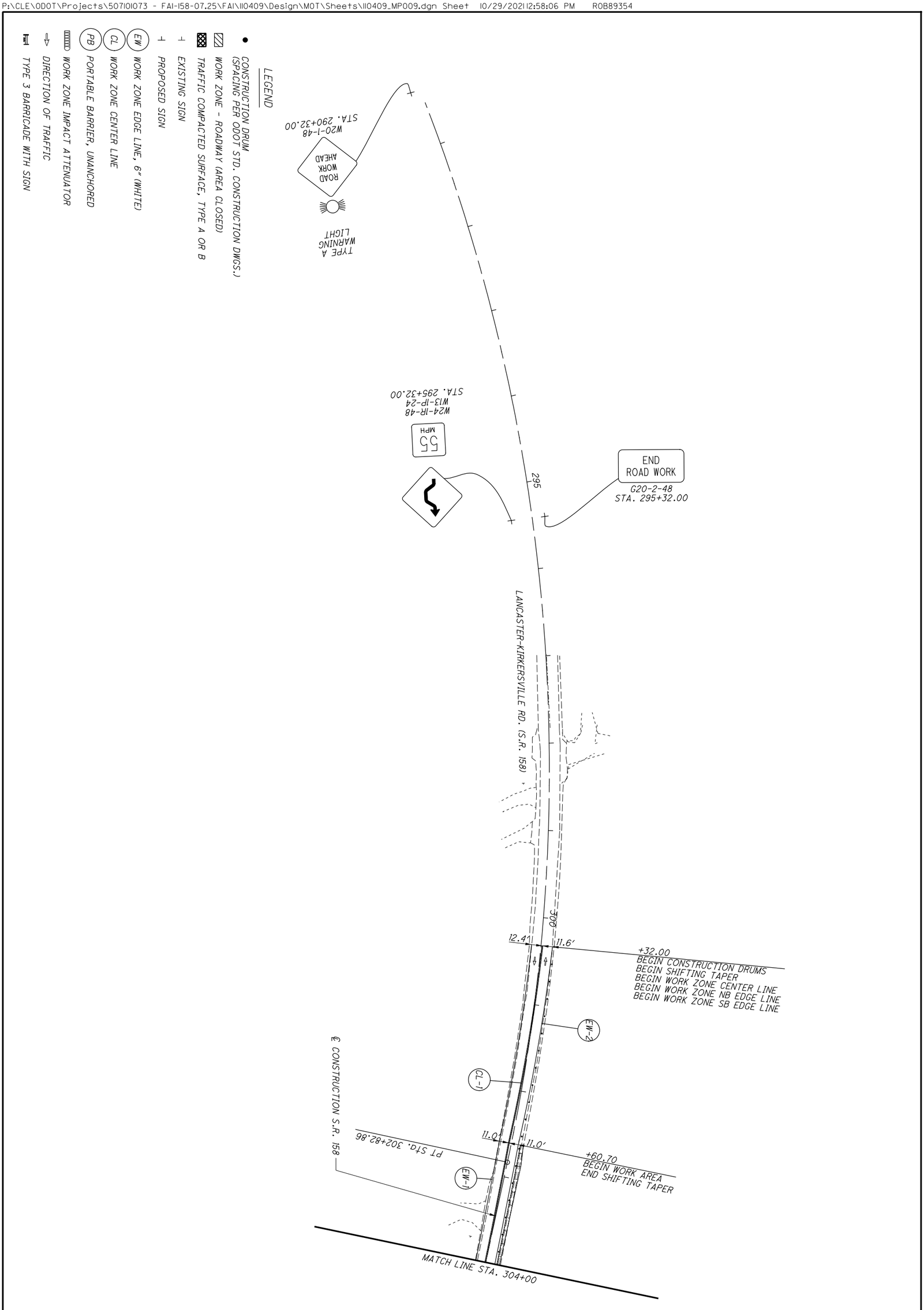


FAI-158-07.25

MAINTENANCE OF TRAFFIC - PHASE 2
C.R. 17

CALCULATED AS
CHECKED CWP

0 25 50 100
HORIZONTAL SCALE IN FEET



FAI-158-07.25

MAINTENANCE OF TRAFFIC - PHASE 3
S.R. 158 - BEGIN TO STA. 304+00.00

CALCULATED JAV
CHECKED CWP

0 25 50 100
HORIZONTAL SCALE IN FEET

MATCH LINE STA. 304+00

+45.00
BEGIN SHIFTING TAPER

EW-2

EW-1

305

N 46° 45' 09" E LANCASTER-KIRKERSVILLE RD. (S.R. 158)

[Pleasantville Road]
W2-1-48
I-HOSC-24
STA. 307+20.06

TS Sta. 307+60.11

COVER PART OF SIGN

+68.00
BEGIN PORTABLE BARRIER
WORK ZONE IMPACT ATTENUATOR

+00.00
END CONSTRUCTION DRUMS
SC Sta. 310+15.11

+50.00
END SHIFTING TAPER

310

11.0'

[Pleasantville Road]
W2-1-48
I-HOSC-24
STA. 307+40.98

COVER PART OF SIGN

CL-1

11.0'

℄ CONSTRUCTION S.R. 158

POT Sta. 100+00.00

100

℄ CONSTRUCTION C.R. 17

S 87° 24' 25" E PLEASANTVILLE RD. (CR-17)

PC Sta. 104+04.00

TYPE 3 BARRICADE WITH SIGN

PT Sta. 105+03.04

105

CS Sta. 314+96.97

315

PB-1

+00.00
BEGIN SHIFTING TAPER

ST Sta. 317+51.97

MATCH LINE 318+50

CL-2

EW-3

59° 18" E

PC Sta. 107+40.41

PT Sta. 108+42.03

LEGEND

- CONSTRUCTION DRUM (SPACING PER ODOT STD. CONSTRUCTION DWGS.)
- WORK ZONE - ROADWAY (AREA CLOSED)
- TRAFFIC COMPACTED SURFACE, TYPE A OR B
- EXISTING SIGN
- PROPOSED SIGN
- (EW) WORK ZONE EDGE LINE, 6" (WHITE)
- (CL) WORK ZONE CENTER LINE
- (PB) PORTABLE BARRIER, UNANCHORED
- WORK ZONE IMPACT ATTENUATOR
- DIRECTION OF TRAFFIC
- TYPE 3 BARRICADE WITH SIGN

N

0 25 50 100
HORIZONTAL SCALE IN FEET

CALCULATED JAV
CHECKED CWP

MAINTENANCE OF TRAFFIC - PHASE 3
STA. 304+00.00 TO STA. 318+50.00

FAI-158-07.25

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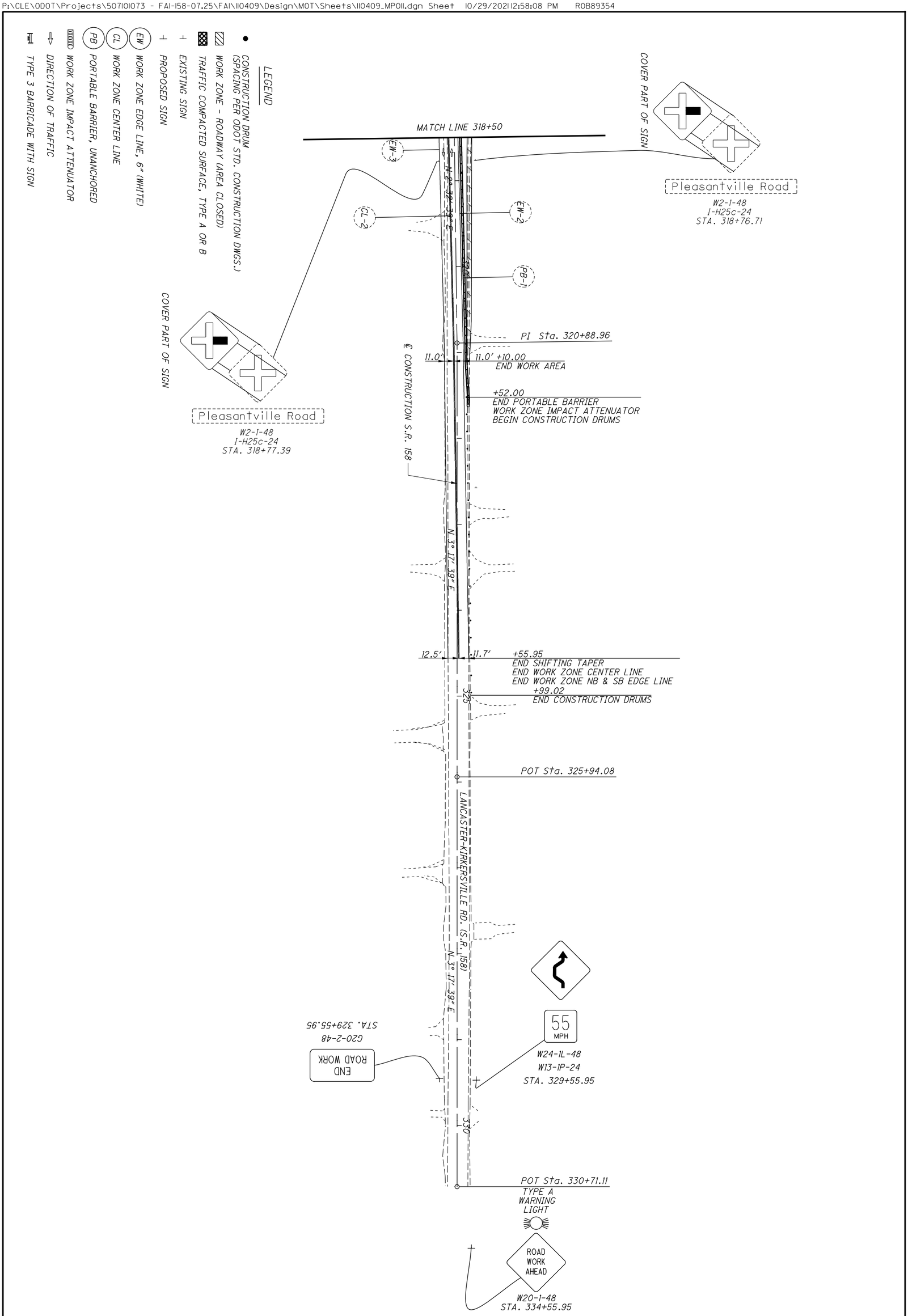
131



32 / 131	FAI-158-07.25	MAINTENANCE OF TRAFFIC - PHASE 3 S.R. 158 - STA. 318+50.00 TO END	CALCULATED JAV CHECKED CWP	0 50 25 100 HORIZONTAL SCALE IN FEET

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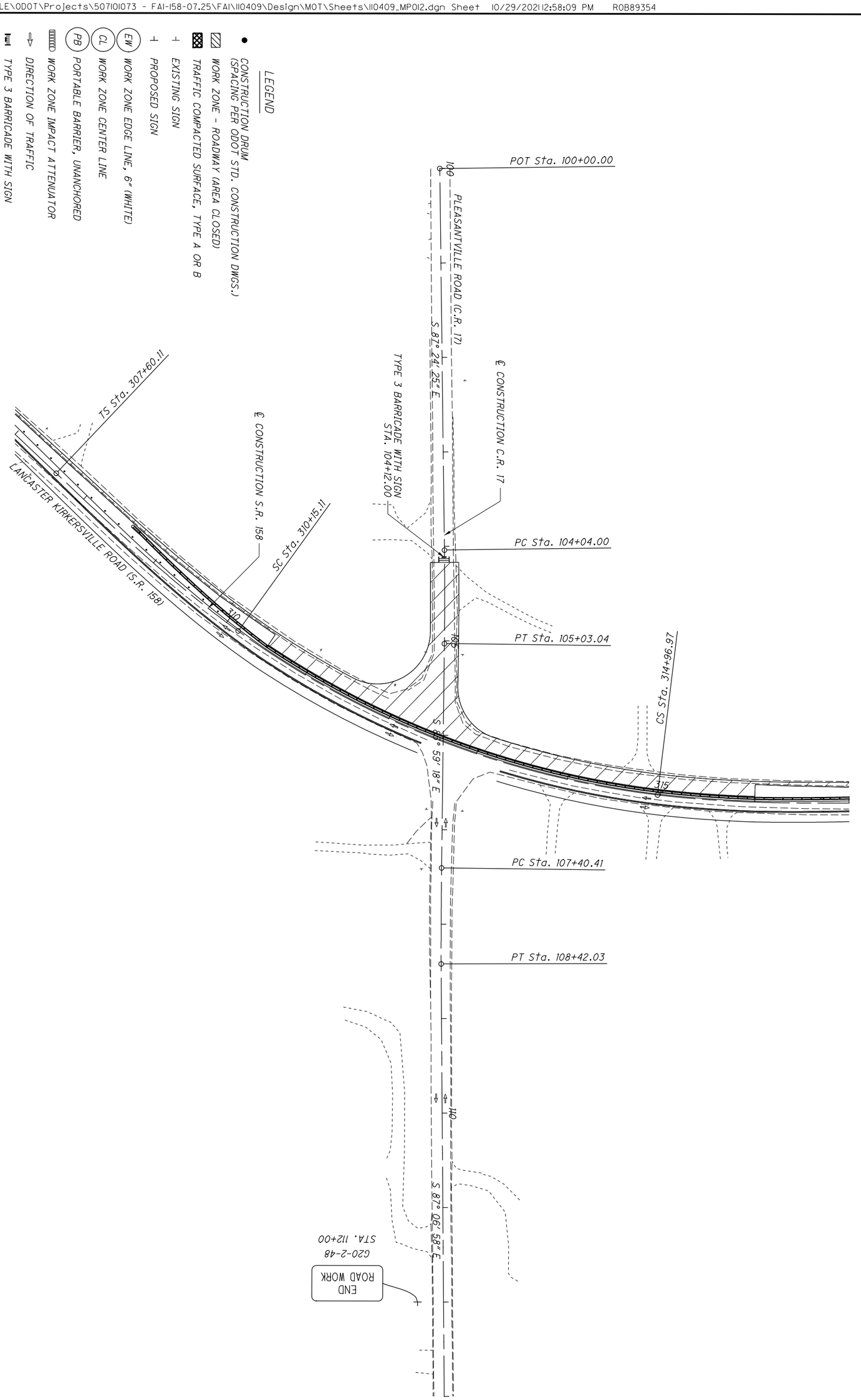
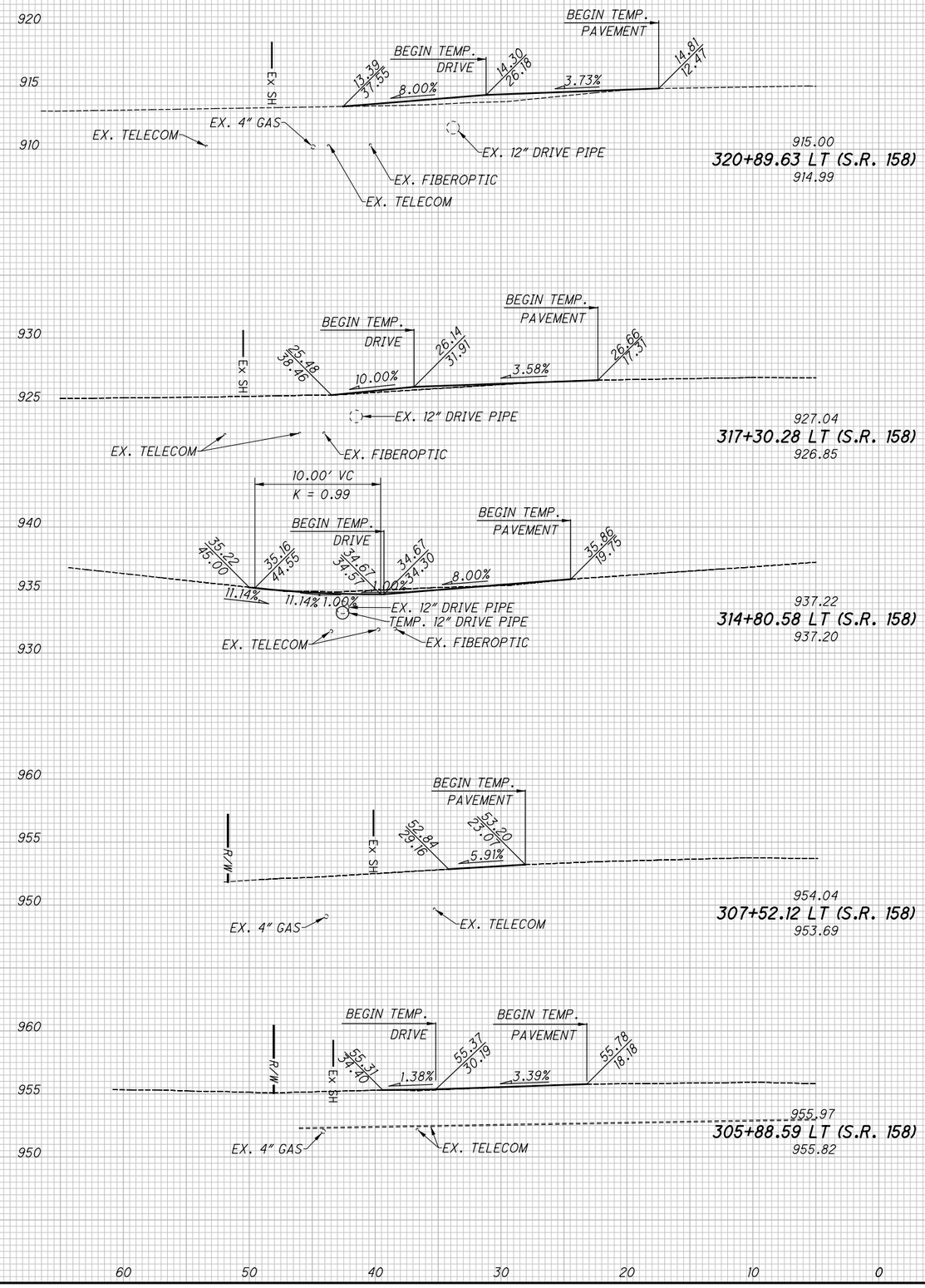


FAI-158-07.25

MAINTENANCE OF TRAFFIC - PHASE 3
C.R. 17

CALCULATED JAV
CHECKED CWP

0 25 50 100
HORIZONTAL SCALE IN FEET



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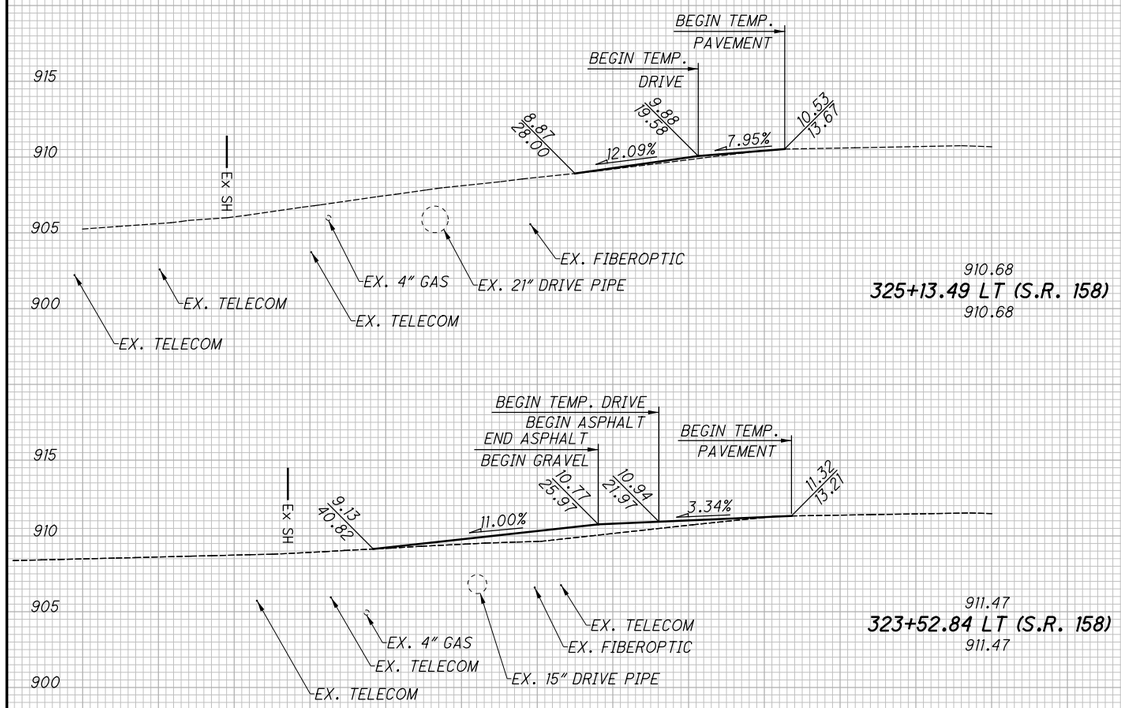
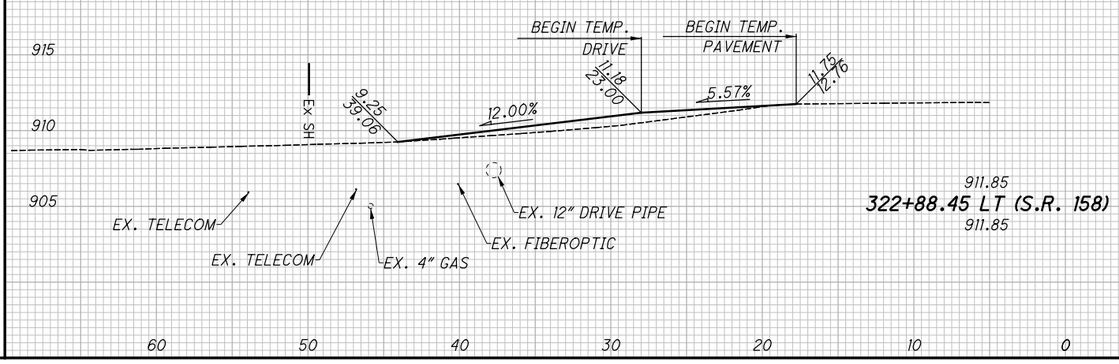
CALCULATED SHR
CHECKED CWP

MAINTENANCE OF TRAFFIC - TEMPORARY DRIVE ACCESS
S.R. 158 - STA. 305+88.59 TO STA. 320+89.63

FAI-158-07.25





60 50 40 30 20 10 0 10 20 30 40 50 60

MAINTENANCE OF TRAFFIC - TEMPORARY DRIVE ACCESS
S.R. 158 - STA. 322+88.45 TO STA. 325+13.49

CALCULATED SHR
CHECKED CWP

FAI-158-07.25

35
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SHEET NUM.													PART.	ITEM	ITEM	GRAND	UNIT	DESCRIPTION	SEE
8	9	10	15	39	40	41	42	43	44	71	76	110	01/SAF /PV		EXT	TOTAL			SHEET NO.
																		ROADWAY	
LS													LS	201	11000	LS		CLEARING AND GRUBBING	
							3						3	202	20010	3	EACH	HEADWALL REMOVED	
			50		5,643	501							6,194	202	23000	6,194	SY	PAVEMENT REMOVED	
			35				1,009						1,044	202	35100	1,044	FT	PIPE REMOVED, 24" AND UNDER	
				16									16	202	53100	16	EACH	MAILBOX REMOVED	
							2						2	202	58100	2	EACH	CATCH BASIN REMOVED	
				102									102	202	75000	102	FT	FENCE REMOVED	
						230				1,678	511		2,419	203	10000	2,419	CY	EXCAVATION	
										1,486	2,801		4,287	203	20000	4,287	CY	EMBANKMENT	
					1,628	1,499							3,127	204	10000	3,127	SY	SUBGRADE COMPACTION	
2													2	204	45000	2	HOUR	PROOF ROLLING	
					169								169	206	10500	169	TON	CEMENT	
					6,514								6,514	206	11000	6,514	SY	CURING COAT	
					6,514								6,514	206	15010	6,514	SY	CEMENT STABILIZED SUBGRADE, 12 INCHES DEEP	
27													27	209	60200	27	STA	LINEAR GRADING	
												9	9	623	40500	9	EACH	REFERENCE MONUMENT	
1,608													1,608	SPECIAL	69012050	1,608	SY	REINFORCED MESH FOR TRANSVERSE AND/OR LONGITUDINAL JOINTS AND CRACKS	8
				16									16	SPECIAL	69050100	16	EACH	MAILBOX SUPPORT SYSTEM, SINGLE	9
																		EROSION CONTROL	
	4							8					12	601	21050	12	SY	TIED CONCRETE BLOCK MAT WITH TYPE 1 UNDERLAYMENT	
							2						2	601	32204	2	CY	ROCK CHANNEL PROTECTION, TYPE C WITH GEOTEXTILE FABRIC	
		1,108											1,108	659	00300	1,108	CY	TOPSOIL	
		9,958											9,958	659	00500	9,958	SY	SEEDING AND MULCHING, CLASS 1	
		498											498	659	14000	498	SY	REPAIR SEEDING AND MULCHING	
		1.34											1.34	659	20000	1.34	TON	COMMERCIAL FERTILIZER	
		2.06											2.06	659	31000	2.06	ACRE	LIME	
		54											54	659	35000	54	MGAL	WATER	
							566						566	670	00700	566	SY	DITCH EROSION PROTECTION	
							33						33	670	00710	33	SY	DITCH EROSION PROTECTION MAT, TYPE A	
							209						209	670	00720	209	SY	DITCH EROSION PROTECTION MAT, TYPE B	
													LS	832	15000	LS		STORM WATER POLLUTION PREVENTION PLAN	
													LS	832	15002	LS		STORM WATER POLLUTION PREVENTION INSPECTIONS	
													LS	832	15010	LS		STORM WATER POLLUTION PREVENTION INSPECTION SOFTWARE	
													33,873	832	30000	33,873	EACH	EROSION CONTROL	
																		DRAINAGE	
							1.3						1.3	602	20000	1.3	CY	CONCRETE MASONRY	
								1,143					1,143	605	11110	1,143	FT	6" SHALLOW PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC	
	100												100	605	13300	100	FT	6" UNCLASSIFIED PIPE UNDERDRAINS	
								384					384	605	14020	384	FT	6" BASE PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC	
	50								526				576	605	31100	576	FT	AGGREGATE DRAINS	
	50												50	611	00400	50	FT	4" CONDUIT, TYPE E	
	50												50	611	00406	50	FT	4" CONDUIT, TYPE F	
								57					57	611	00510	57	FT	6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS	
	50												50	611	01500	50	FT	6" CONDUIT, TYPE F	
							101						101	611	02000	101	FT	8" CONDUIT, TYPE C	
			35				315						350	611	04900	350	FT	12" CONDUIT, TYPE D	
							64						64	611	06400	64	FT	15" CONDUIT, TYPE D	
							10						10	611	07900	10	FT	18" CONDUIT, TYPE D	
							94						94	611	08900	94	FT	21" CONDUIT, TYPE B	
							108						108	611	10400	108	FT	24" CONDUIT, TYPE B	
							17						17	611	10600	17	FT	24" CONDUIT, TYPE C, 706.02	
							2						2	611	98471	2	EACH	CATCH BASIN, NO. 2-2B, AS PER PLAN	9
							1						1	611	98510	1	EACH	CATCH BASIN, NO. 2-3	
	2							4					6	611	99710	6	EACH	PRECAST REINFORCED CONCRETE OUTLET	

CALCULATED SHR
CHECKED CWP

GENERAL SUMMARY

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SHEET NUM.												PART.		ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
8	9	10	12	39	40	41	86	87	99	100		01/SAF /PV							
																		PAVEMENT	
			480		3,567							4,047		254	01000	4,047	SY	PAVEMENT PLANING, ASPHALT CONCRETE	
					3,076							3,076		255	20000	3,076	FT	FULL DEPTH PAVEMENT SAWING	
					1,911							1,911		301	56000	1,911	CY	ASPHALT CONCRETE BASE, PG64-22, (449)	
						75						75		301	56100	75	CY	ASPHALT CONCRETE BASE, PG64-22, (449), (DRIVEWAYS)	
					1,313	225						1,538		304	20000	1,538	CY	AGGREGATE BASE	
			39		1,320	42						1,401		407	20000	1,401	GAL	NON-TRACKING TACK COAT	
					67							67		441	70000	67	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), PG64-22	
					318							318		441	70100	318	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), PG70-22M	
					721							721		441	70300	721	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (449)	
						34						34		441	70500	34	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), (DRIVEWAYS)	
					3,299							3,299		SPECIAL	69098200	3,299	SF	MALTENE BASED LONGITUDINAL JOINT STABILIZER	10A
																		TRAFFIC CONTROL	
							0.32					0.32		618	43000	0.32	MILE	RUMBLE STRIPES, CENTER LINE (ASPHALT CONCRETE)	
							57					57		621	00100	57	EACH	RPM	
							23					23		621	54000	23	EACH	RAISED PAVEMENT MARKER REMOVED	
								248.7				248.7		630	03100	248.7	FT	GROUND MOUNTED SUPPORT, NO. 3 POST	
								13.6				13.6		630	04100	13.6	FT	GROUND MOUNTED SUPPORT, NO. 4 POST	
									8			8		630	79500	8	EACH	SIGN SUPPORT ASSEMBLY, POLE MOUNTED	
								137.2	24			161.2		630	80100	161.2	SF	SIGN, FLAT SHEET	
								29				29		630	84900	29	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	
								19				19		630	86002	19	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	
			0.05									0.05		642	00300	0.05	MILE	CENTER LINE, TYPE 1	
							0.97					0.97		644	00104	0.97	MILE	EDGE LINE, 6"	
							0.67					0.67		644	00300	0.67	MILE	CENTER LINE	
							687					687		644	00400	687	FT	CHANNELIZING LINE, 8"	
							71					71		644	00500	71	FT	STOP LINE	
							241					241		644	00700	241	FT	TRANSVERSE/DIAGONAL LINE	
							8					8		644	01300	8	EACH	LANE ARROW	
																		TRAFFIC SIGNALS	
									2			2		625	00450	2	EACH	CONNECTION, FUSED PULL APART	
									2			2		625	00460	2	EACH	CONNECTION, UNFUSED PULL APART	
									2			2		625	18510	2	EACH	BRACKET ARM, 30'	
									36			36		625	25408	36	FT	CONDUIT, 2", 725.051	
									40			40		625	25604	40	FT	CONDUIT, 4", 725.051	
									2			2		625	26253	2	EACH	LUMINAIRE, CONVENTIONAL, SOLID STATE (LED), AS PER PLAN, 150W, 120V, TYPE II	96
									76			76		625	29002	76	FT	TRENCH, 24" DEEP	
									1			1		625	30700	1	EACH	PULL BOX, 725.08, 18"	
									1			1		625	30706	1	EACH	PULL BOX, 725.08, 24"	
									5			5		625	32000	5	EACH	GROUND ROD	
									76			76		625	36010	76	FT	UNDERGROUND WARNING/MARKING TAPE	
									1			1		625	76000	1	EACH	ARC FLASH CALCULATIONS AND LABEL	
									10			10		632	05006	10	EACH	VEHICULAR SIGNAL HEAD, (LED), 3-SECTION, 12" LENS, 1-WAY, POLYCARBONATE	
									2			2		632	05086	2	EACH	VEHICULAR SIGNAL HEAD, (LED), 5-SECTION, 12" LENS, 1-WAY, POLYCARBONATE	
									12			12		632	25000	12	EACH	COVERING OF VEHICULAR SIGNAL HEAD	
										445		445		632	30200	445	FT	MESSENGER WIRE, 7 STRAND, 3/8" DIAMETER WITH ACCESSORIES	
										445		445		632	30600	445	FT	TETHER WIRE, WITH ACCESSORIES	
										482		482		632	40400	482	FT	SIGNAL CABLE, 4 CONDUCTOR, NO. 14 AWG	
										1,925		1,925		632	40700	1,925	FT	SIGNAL CABLE, 7 CONDUCTOR, NO. 14 AWG	
										4		4		632	64000	4	EACH	STRAIN POLE FOUNDATION	
										4		4		632	64950	4	EACH	TEST HOLE PERFORMED	
										90		90		632	67200	90	FT	POWER CABLE, 2 CONDUCTOR, NO. 8 AWG	
										1		1		632	70001	1	EACH	POWER SERVICE, AS PER PLAN	98
										2		2		632	86140	2	EACH	STRAIN POLE, TYPE TC-81.11, DESIGN 12	
										2		2		632	87140	2	EACH	COMBINATION STRAIN POLE, TYPE TC-81.11, DESIGN 12	

CALCULATED SHR
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GENERAL SUMMARY

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SHEET NUM.													PART.	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
8	9	10	11	12	13	14	15	100					01/SAE /PV						
																		TRAFFIC SIGNALS (CONT.)	
								1					1	633	65521	1	EACH	CABINET, TYPE 332, AS PER PLAN	97
								1					1	633	67101	1	EACH	CABINET FOUNDATION, AS PER PLAN	97
								1					1	633	67201	1	EACH	CONTROLLER WORK PAD, AS PER PLAN	97
								1					1	633	75001	1	EACH	UNINTERRUPTIBLE POWER SUPPLY (UPS), 1000 WATT, AS PER PLAN	97
								4					4	809	69001	4	EACH	ADVANCE RADAR DETECTION, AS PER PLAN	98
								6					6	809	69101	6	EACH	STOP LINE RADAR DETECTION, AS PER PLAN	98
								1					1	809	69123	1	EACH	ATC CONTROLLER, AS PER PLAN (PROGRAM AND INSTALL ONLY)	97
																		MAINTENANCE OF TRAFFIC	
							16						16	410	13000	16	CY	TRAFFIC COMPACTED SURFACE, TYPE C	
						128							128	614	11110	128	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	
					3,429								3,429	614	11630	3,429	FT	INCREASED BARRIER DELINEATION	
							4						4	614	12384	4	EACH	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (BIDIRECTIONAL)	
													LS	614	12420	LS		DETOUR SIGNING	
			6	40									46	614	13000	46	CY	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	
					71								71	614	13310	71	EACH	BARRIER REFLECTOR, TYPE 1, BIDIRECTIONAL	
					71								71	614	13360	71	EACH	OBJECT MARKER, TWO WAY	
				20									20	614	18601	20	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	12
							1.56						1.56	614	21100	1.56	MILE	WORK ZONE CENTER LINE, CLASS I, 642 PAINT	
							0.36						0.36	614	21200	0.36	MILE	WORK ZONE CENTER LINE, CLASS I, 740.06, TYPE I	
							2.89						2.89	614	22100	2.89	MILE	WORK ZONE EDGE LINE, CLASS I, 4", 642 PAINT	
							0.67						0.67	614	22200	0.67	MILE	WORK ZONE EDGE LINE, CLASS I, 4", 740.06, TYPE I	
													LS	615	10000	LS		ROADS FOR MAINTAINING TRAFFIC	
							2,317						2,317	615	20000	2,317	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A	
							50						50	615	25000	50	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B	
				25									25	616	10000	25	MGAL	WATER	
							3,429						3,429	622	41100	3,429	FT	PORTABLE BARRIER, UNANCHORED	
																		INCIDENTALS	
			LS										LS	614	11000	LS		MAINTAINING TRAFFIC	
													7	619	16010	7	MNTH	FIELD OFFICE, TYPE B	
													LS	623	10001	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN	10
													LS	624	10000	LS		MOBILIZATION	

CALCULATED SHR
CHECKED CWP

GENERAL SUMMARY

FAI-158-07.25

ITEM NO.								202	202	690														
SHEET NO.	REFERENCE NO.	STATION		SIDE	LENGTH	WIDTH	AREA	MAILBOX REMOVED	FENCE REMOVED	SPECIAL - MAILBOX SUPPORT SYSTEM, SINGLE														
		FROM	TO		FT	FT	SQ FT	EACH	FT	EACH														
LANCASTER-KIRKERSVILLE ROAD (SR 158)																								
47	MB-1	305+04.61		RT				1		1														
47	MB-2	305+76.14		RT				1		1														
47	MB-3	306+88.40		RT				1		1														
47	MB-4	307+87.48		RT				1		1														
49	MB-5	315+15.67		RT				1		1														
49	R-1	315+78.52	316+72.38	RT	101.26				102															
49	MB-6	315+84.43		RT				1		1														
49	MB-7	317+37.31		RT				1		1														
50	MB-8	318+04.11		RT				1		1														
50	MB-9	319+73.30		RT				1		1														
50	MB-10	320+84.64		RT				1		1														
PLEASANTVILLE ROAD (CR 17)																								
52	MB-11	103+59.30		RT				1		1														
52	MB-12	103+62.57		RT				1		1														
53	MB-13	107+15.48		RT				1		1														
53	MB-14	108+79.61		RT				1		1														
54	MB-15	110+81.62		LT				1		1														
54	MB-16	110+90.99		RT				1		1														
TOTALS CARRIED TO GENERAL SUMMARY								16	102	16														

CALCULATED SHR
CHECKED CWP

ROADWAY SUBSUMMARY

FAI-158-07.25

ITEM NO.							202	204	255	254	206	206	206	301	304	407	407	441	441	441	441	SPECIAL
STATION		SIDE	LENGTH	BEGIN WIDTH	END WIDTH	AREA	PAVEMENT REMOVED	SUBGRADE COMPACTION	FULL DEPTH PAVEMENT SAWING	PAVEMENT PLANING, ASPHALT CONCRETE, 3" AVERAGE	12" CEMENT STABILIZED SUBGRADE	CEMENT	CURING COAT	9" ASPHALT CONCRETE BASE, PG64-22, (449)	6" AGGREGATE BASE	NON-TRACKING TACK COAT (0.05 GAL/SQ YD)	NON-TRACKING TACK COAT (0.08 GAL/SQ YD)	1.25" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), PG70-22M	1.25" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), PG64-22	1.75" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (449)	ASPHALT CONRETE INTERMEDIATE COURSE, TYPE 2, (449), VARIABLE THICKNESS	MALTENE BASED LONGITUDIANL JOINT STABILIZER @ .10 GAL/SY
FROM	TO		FT	FT	FT	SQ FT	SY	SY	FT	SY	SY	TON	SY	CY	CY	GAL	GAL	CY	CY	CY	CY	SF
LANCASTER-KIRKERSVILLE ROAD (SR 158)																						
302+60.70	310+50.00	LT/RT	789.30	3.5 / 2.8	5.7 / 8.3	8532	948		1605													
310+50.00	316+00.00	LT/RT	550.00	36.10	35.38	19529	2170															
316+00.00	321+10.00	LT/RT	510.00	5.08 / 6.4	3.1 / 4.6	4991	555		1051													
302+60.70	310+50.00	LT	789.30	3.45	2.80	2673					429	11	429	82	62	30		10.3		14		
302+60.70	310+50.00	RT	789.30	2.79	19.08	10067					1250	32	1250	287	199	112		38		54		
310+50.00	311+47.69	LT/RT	97.69	44.00	44.00	4292					493	13	493	120	81	48		17		23		
313+45.42	316+00.00	LT/RT	254.58	44.00	44.00	11284					1296	34	1296	316	213	125		43		61		
316+00.00	321+10.00	LT	510.00	3.44	3.07	2587					372	10	372	77	56	29		10		14		
316+00.00	321+10.00	RT	510.00	16.48	4.58	5853					735	19	735	167	116	65		23		32		
302+60.70	307+09.11	LT/RT	448.41	22.09	21.86	9891				1099							176	39		53	44	
307+09.11	310+50.00	LT/RT	340.89	21.86	22.13	7458				829							133	29		40	91	
316+00.00	318+02.97	LT/RT	202.97	23.93	22.40	4591				510							82	18.1		25	25	
318+02.97	321+10.00	LT/RT	307.03	22.40	21.43	6758				751							120	26		37	20	
302+60.70	311+80.00	LT	919.30	2.00	2.00	1839																1839
313+80.00	321+10.00	RT	730.00	2.00	2.00	1460																1460
INTERSECTION OF PLEASANTVILLE ROAD (CR 17) AND LANCASTER-KIRKERSVILLE ROAD (SR 158)																						
311+47.69	313+45.42	LT/RT	197.73	44.00	44.00	16643					1938	50	1938	466	315	185		64		90		
104+89.99	106+97.71		207.72	30.00	30.32																	
PLEASANTVILLE ROAD (CR 17)																						
103+25.00	104+17.00	LT/RT	92.00	2.3 / 2.5	5.6 / 3.7	530	59		207													
104+17.00	105+80.63	LT/RT	163.63	28.00	99.79	5352	595															
106+19.35	110+75.00	LT/RT	455.65	83.51	20.89	11527	1281															
110+75.00	111+67.00	LT/RT	92.00	1.9 / 1.0	1.8 / 1.7	326	36		213													
103+25.00	104+17.00	LT	92.00	2.31	5.62	366		49						11	8	4			1	2		
103+25.00	104+17.00	RT	92.00	2.48	3.68	278		39						9	7	3			1	2		
104+17.00	104+89.99	LT/RT	72.99	28.00	30.00	2087		239						59	40	23			8	11		
106+97.71	110+75.00	LT/RT	377.29	30.32	28.00	10613		1214						298	202	118			41	57		
110+75.00	111+67.00	LT	92.000	6.56	1.82	385		51						12	9	4			1	2		
110+75.00	111+67.00	RT	92.000	3.43	1.71	236		35						7	6	3			1	1		
103+25.00	104+17.00	LT/RT	92.000	19.16	18.70	1742				194							31		7	9	0.3	
110+75.00	111+67.00	LT/RT	92.000	18.01	18.04	1658				184							29		6	9	4	
SUBTOTAL																749	571			538	183	
TOTALS CARRIED TO GENERAL SUMMARY							5643	1628	3076	3567	6514	169	6514	1911	1313	1320		318	67	721		3299

CALCULATED SHR CHECKED CWP

PAVEMENT SUBSUMMARY

FAI-158-07.25

ITEM NO.								202	203	204	301	304	407	441											
SHEET NO.	REFERENCE NO.	STATION	SIDE	DRIVE TYPE (RESID / COMM / FIELD)	EXISTING SURFACE (ASPHALT / CONCRETE / GRAVEL)	APRON AREA	DRIVE AREA	PAVEMENT REMOVED	EXCAVATION	SUBGRADE COMPACTION	3.5" ASPHALT CONCRETE BASE, PG64-22, (449), (DRIVEWAYS)	8" AGGREGATE BASE	NON-TRACKING TACK COAT, (0.05 GAL/SQ YD)	1.25" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), (DRIVEWAYS)										
				(R/C/F)	(A/C/G)	SQ FT	SQ FT	SY	CY	SY	CY	CY	GAL	CY											
LANCASTER-KIRKERSVILLE ROAD (SR 158)																									
47	DR-1	303+48.51	RT	R	A	297		40		34	4		2	2											
47	DR-2	304+83.69	RT	R	G	104	249		11	40	1	9	1	1											
47	DR-3	305+70.00	LT	R	A	644		58		72	7		4	3											
47	DR-4	307+10.00	RT	R	G	123	260		14	43	1	10	1	1											
47	DR-5	307+56.75	LT	R	A	384		28		43	5		3	2											
49	DR-6	313+88.00	RT	R	A	298		54		34	4		2	2											
49	DR-7	314+70.10	LT	R	A	498		50		56	6		3	2											
49	DR-8	314+92.50	RT	R	A	561		73		63	7		4	3											
49	DR-9	315+58.80	RT	R	G	123	291		13	46	2	11	1	1											
49	DR-10	317+14.50	LT	R	A	544		58		61	6		4	3											
49	DR-11	317+79.20	RT	R	G	107	200		11	35	2	8	1	1											
50	DR-12	319+48.87	RT	R	G	114	141		10	29	2	7	1	1											
50	DR-13	320+82.90	LT	R	G	89	248		9	38	1	9	1	1											
50	DR-14	322+88.45	LT	R	G	107	272		9	43	2	10	1	1											
51	DR-15	323+52.84	LT	R	G	190	482		14	75	3	17	2	1											
51	DR-16	325+13.49	LT	R	G	111	190		6	34	2	8	1	1											
PLEASANTVILLE ROAD (CR 17)																									
52	DR-17	103+86.90	RT	R	A	819		82		91	9		5	4											
52	DR-18	104+47.29	LT	R	A	476		58		53	6		3	2											
53	DR-19	107+19.28	RT	R	G	1227			30																
54	DR-20	110+62.71	LT	R	G	111	126		8	27	2	6	1	1											
54	DR-21	110+62.71	RT	R	G	156	5082			582	2	130	1	1											
54	DR-22	111+33.23	RT	R	G	3862			95																
TOTALS CARRIED TO GENERAL SUMMARY								501	230	1499	75	225	42	34											

CALCULATED SHR
CHECKED CWP

DRIVEWAY SUBSUMMARY

FAI-158-07.25

41
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ITEM NO.						202	202	202	601	602	611	611	611	611	611	611	611	611	670	670	670						
SHEET NO.	REFERENCE NO.	STATION FROM	STATION TO	SIDE	LENGTH	HEADWALL REMOVED	PIPE REMOVED, 24" AND UNDER	CATCH BASIN REMOVED	ROCK CHANNEL PROTECTION, TYPE C WITH GEOTEXTILE FABRIC	CONCRETE MASONRY	8" CONDUIT, TYPE C	12" CONDUIT, TYPE D	15" CONDUIT, TYPE D	18" CONDUIT, TYPE D	21" CONDUIT, TYPE B	24" CONDUIT, TYPE B	24" CONDUIT, TYPE C, 706.02	CATCH BASIN, NO. 2-2B AS PER PLAN	CATCH BASIN, NO. 2-3	DITCH EROSION PROTECTION	DITCH EROSION PROTECTION MAT, TYPE A	DITCH EROSION PROTECTION MAT, TYPE B						
					FT	EACH	FT	EACH	CY	CY	FT	FT	FT	FT	FT	FT	FT	EACH	EACH	SY	SY	SY						
LANCASTER-KIRKERSVILLE ROAD (SR 158)																											
46	D-1	300+95.82	300+95.82	LT	16.43	1				0.43							17										
47	D-2	304+73.73	304+97.72	RT	23.99		31						24														
47	D-3	306+99.41	307+23.38	RT	39.38		40					24															
48	D-4	309+50.00	312+00.00	RT	250.00																	209					
48	D-5	313+07.42	313+24.14	RT	107.73	1	101		2	0.46						108											
49	D-6	313+86.38	314+01.83	RT	16.00							16															
49	D-7	314+57.70	314+93.48	LT	34.38		35					35															
49	D-8	314+85.89	315+09.09	RT	24.00		52					52															
49	D-9	315+58.18	315+81.59	RT	24.00		40					24															
49	D-10	315+81.60	317+73.00	RT	191.40															160							
49	D-11	317+09.69	317+49.24	LT	39.44		40					40															
49	D-12	317+73.12	317+93.59	RT	20.48		40					21															
50	D-13	318+25.00	319+35.00	RT	110.00															92							
50	D-14	319+34.93	319+72.26	RT	37.87		37					38						1									
PLEASANTVILLE ROAD (CR 17)																											
52	D-15	103+65.12	104+05.10	RT	40.00		47						40														
53	D-16	106+71.09	106+79.22	BOTH	93.23	1	64	1		0.33					94				1								
53	D-17	106+71.00	107+10.00	RT	39.00																33						
53	D-18	106+79.22	107+79.50	LT	100.28						101							1									
53	D-19	107+16.79	107+26.79	RT	10.00									10													
53	D-20	107+79.72	110+79.98	LT	300.26		441	1																			
53	D-21	108+80.50	108+92.05	RT	11.55		10					10															
54	D-22	110+45.86	110+79.65	RT	33.79							34															
54	D-23	110+59.20	110+80.00	LT	20.80							21															
54	D-24	111+19.14	111+49.40	RT	30.26		31																				
47	D-2A	305+50.00	306+99.41	RT	149.41															125							
47	D-3A	307+23.48	309+50.00	RT	226.62															189							
TOTALS CARRIED TO GENERAL SUMMARY						3	1009	2	2	1.3	101	315	64	10	94	108	17	2	1	566	33	209					

CALCULATED SHR
CHECKED CWP

DRAINAGE SUBSUMMARY

FAI-158-07.25

UNDERDRAIN SUBSUMMARY

CALCULATED SHR
CHECKED CWP

ITEM NO.						601	605	605	611	611				FOR INFORMATION ONLY BENDS AND BRANCHES										
SHEET NO.	REFERENCE NO.	STATION FROM	STATION TO	SIDE	LENGTH	TIED CONCRETE BLOCK MAT, TYPE 1 WITH TYPE 1 UNDERLAYMENT	6" SHALLOW PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC	6" BASE PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC	6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS	PRECAST REINFORCED CONCRETE OUTLET				6" x 6" WYE	6" x 45° BEND	6" x 90° BEND	6" x 90° TEE	6" END CAP						
					FT	SY	FT	FT	FT	EACH				EACH	EACH	EACH	EACH	EACH						
	LANCASTER-KIRKERSVILLE ROAD (SR 158)																							
48	UD-1	310+50.00	311+45.85	LT	95.85		96		4.08							1								
48	UD-2	310+50.00	311+45.85	LT	95.85	2		96	7.55	1				1	1	1		1						
48	UD-3	310+50.00	312+17.81	RT	167.81	2	168		19.54	1						1								
48	UD-4	313+12.84	316+00.00	LT	287.16		288		4.08							1								
48	UD-5	313+12.84	316+00.00	LT	287.16	2		288	6.09	1				1	1	1								
48	UD-6	313+45.42	318+00.00	RT	454.58	2	455		5.97	1							1							
50	UD-7	318+00.00	319+35.01	RT	135.01		136		9.57							1								
TOTALS CARRIED TO GENERAL SUMMARY						8	1143	384	57	4				2	2	6	1	1						

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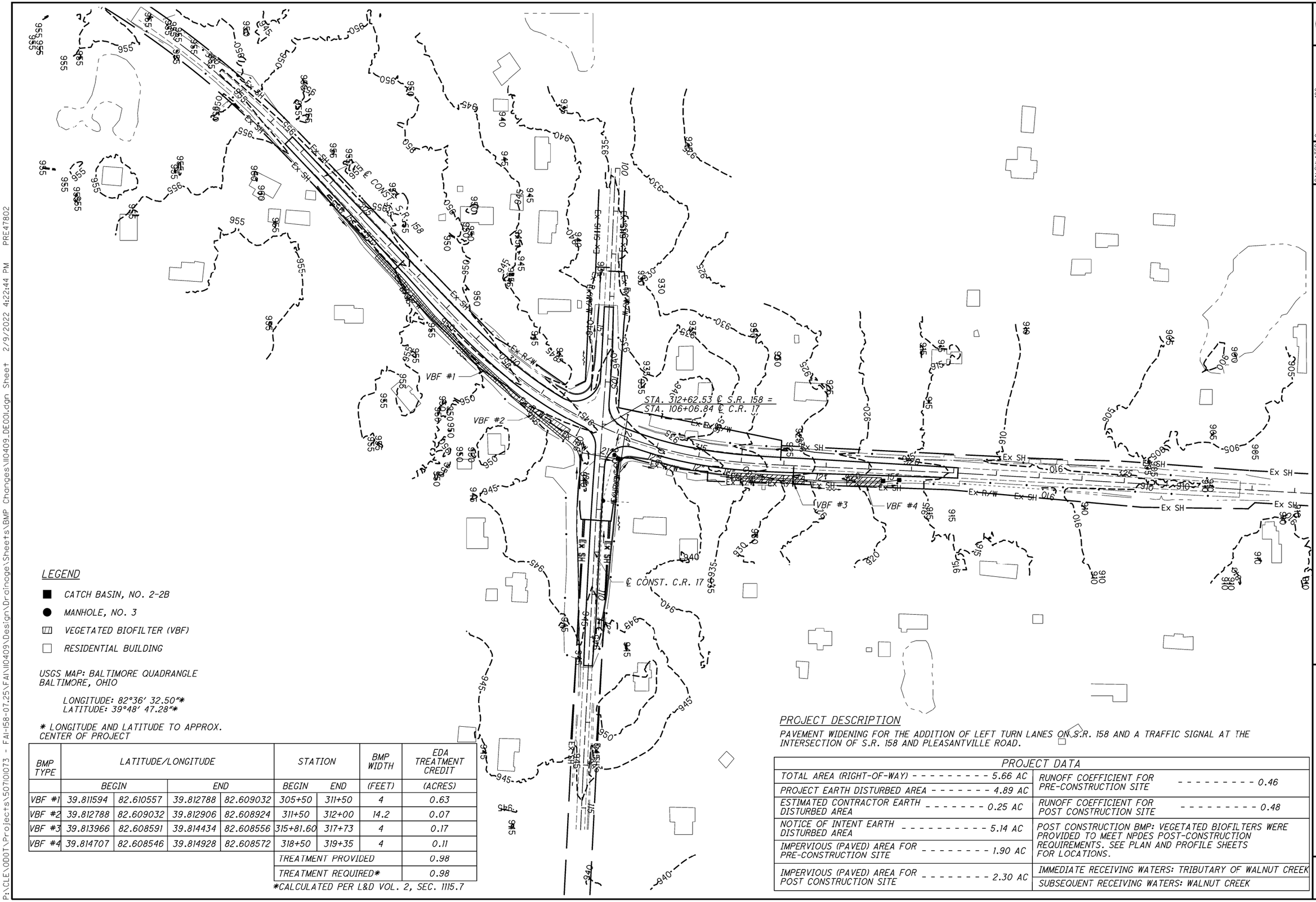
ITEM NO.					605			ITEM NO.					605						
SHEET NO.	REFERENCE NO.	STATION FROM	STATION TO	SIDE	LENGTH	AGGREGATE DRAINS			SHEET NO.	REFERENCE NO.	STATION FROM	STATION TO	SIDE	LENGTH	AGGREGATE DRAINS				
					FT	FT								FT	FT				
	LANCASTER-KIRKERSVILLE ROAD (SR 158)									PLEASANTVILLE ROAD (CR 17)									
46		302+75.00		RT	5.00	5			52		103+50.00		RT	7.50	8				
46		303+00.00		LT	3.50	4			52		103+75.00		LT	8.50	9				
47		303+25.00		RT	9.50	10			52		104+20.00		LT	7.50	8				
47		303+50.00		LT	4.00	4			52		104+50.00		RT	7.75	8				
47		304+00.00		LT	5.25	6			52		104+75.00		LT	7.75	8				
47		304+25.00		RT	8.25	9			52		104+90.00		RT	8.50	9				
47		304+50.00		LT	5.75	6			53		105+25.00		LT	7.75	8				
47		305+00.00		LT	5.50	6			53		106+75.00		RT	8.00	8				
47		305+25.00		RT	7.75	8			53		107+00.00		LT	7.75	8				
47		305+75.00		RT	7.75	8			53		107+40.00		RT	7.75	8				
47		306+25.00		LT	7.75	8			53		107+50.00		LT	7.74	8				
47		306+50.00		RT	7.75	8			53		107+75.00		RT	7.75	8				
47		306+75.00		LT	6.75	7			53		108+00.00		LT	7.00	7				
47		306+90.00		RT	7.75	8			53		108+25.00		RT	7.75	8				
47		307+25.00		LT	7.50	8			53		108+50.00		LT	7.75	8				
47		307+50.00		RT	7.75	8			53		108+75.00		RT	7.75	8				
47		307+80.00		LT	7.75	8			53		109+00.00		LT	7.75	8				
47		308+00.00		RT	7.25	8			53		109+25.00		RT	7.75	8				
48		308+25.00		LT	8.25	9			53		109+50.00		LT	7.75	8				
48		308+50.00		LT	7.75	8			53		109+75.00		RT	7.75	8				
48		308+75.00		LT	7.50	8			53		110+00.00		LT	7.75	8				
48		309+00.00		LT	7.00	7			54		110+25.00		RT	7.50	8				
48		309+25.00		LT	7.00	7			54		110+50.00		LT	6.00	6				
48		309+50.00		LT	7.00	7			54		110+75.00		RT	6.50	7				
48		309+75.00		LT	7.25	8			54		111+00.00		LT	3.00	3				
48		310+00.00		LT	7.00	7			54		111+10.00		RT	6.75	7				
48		310+25.00		LT	7.75	8			54		111+50.00		LT	3.75	4				
49		316+25.00		LT	7.50	8													
49		316+50.00		LT	7.00	7													
49		316+75.00		LT	7.00	7													
49		317+00.00		LT	7.00	7													
49		317+55.00		LT	7.50	8													
49		317+75.00		LT	7.00	7													
49		318+00.00		LT	6.25	7													
50		318+25.00		RT	7.75	8													
50		318+50.00		LT	5.25	6													
50		318+75.00		RT	8.00	8													
50		319+00.00		LT	3.75	4													
50		319+25.00		RT	6.25	7													
50		319+50.00		LT	3.75	4													
50		319+75.00		RT	7.75	8													
50		320+00.00		LT	3.25	4													
50		320+25.00		RT	7.75	8													
50		320+50.00		LT	3.25	4													
50		320+75.00		RT	7.75	8													
50		321+05.00		LT	3.75	4													
											SUBTOTAL 2				204				
			SUBTOTAL 1			322					SUBTOTAL 1				322				
											TOTALS CARRIED TO GENERAL SUMMARY				526				

CALCULATED SHR
CHECKED CWP

AGGREGATE DRAIN SUBSUMMARY

FAI-158-07.25



LEGEND

- ■ CATCH BASIN, NO. 2-2B
- ● MANHOLE, NO. 3
- ▨ VEGETATED BIOFILTER (VBF)
- □ RESIDENTIAL BUILDING

USGS MAP: BALTIMORE QUADRANGLE
BALTIMORE, OHIO

LONGITUDE: 82°36′ 32.50″*
LATITUDE: 39°48′ 47.28″*

* LONGITUDE AND LATITUDE TO APPROX. CENTER OF PROJECT

BMP TYPE	LATITUDE/LONGITUDE				STATION		BMP WIDTH	EDA TREATMENT CREDIT
	BEGIN		END		BEGIN	END	(FEET)	(ACRES)
VBF #1	39.811594	82.610557	39.812788	82.609032	305+50	311+50	4	0.63
VBF #2	39.812788	82.609032	39.812906	82.608924	311+50	312+00	14.2	0.07
VBF #3	39.813966	82.608591	39.814434	82.608556	315+81.60	317+73	4	0.17
VBF #4	39.814707	82.608546	39.814928	82.608572	318+50	319+35	4	0.11
					TREATMENT PROVIDED			0.98
					TREATMENT REQUIRED*			0.98

*CALCULATED PER L&D VOL. 2, SEC. 1115.7

PROJECT DESCRIPTION

PAVEMENT WIDENING FOR THE ADDITION OF LEFT TURN LANES ON S.R. 158 AND A TRAFFIC SIGNAL AT THE INTERSECTION OF S.R. 158 AND PLEASANTVILLE ROAD.

PROJECT DATA	
TOTAL AREA (RIGHT-OF-WAY) - - - - - - - - - 5.66 AC	RUNOFF COEFFICIENT FOR PRE-CONSTRUCTION SITE - - - - - - - - - 0.46
PROJECT EARTH DISTURBED AREA - - - - - - - 4.89 AC	
ESTIMATED CONTRACTOR EARTH DISTURBED AREA - - - - - - - 0.25 AC	RUNOFF COEFFICIENT FOR POST CONSTRUCTION SITE - - - - - - - - - 0.48
NOTICE OF INTENT EARTH DISTURBED AREA - - - - - - - - - - 5.14 AC	POST CONSTRUCTION BMP: VEGETATED BIOFILTERS WERE PROVIDED TO MEET NPDES POST-CONSTRUCTION REQUIREMENTS. SEE PLAN AND PROFILE SHEETS FOR LOCATIONS.
IMPERVIOUS (PAVED) AREA FOR PRE-CONSTRUCTION SITE - - - - - - - - 1.90 AC	
IMPERVIOUS (PAVED) AREA FOR POST CONSTRUCTION SITE - - - - - - - - 2.30 AC	IMMEDIATE RECEIVING WATERS: TRIBUTARY OF WALNUT CREEK
	SUBSEQUENT RECEIVING WATERS: WALNUT CREEK

HORIZONTAL SCALE IN FEET
0 50 100 200

CALCULATED SHR
CHECKED CWP

PROJECT SITE PLAN

FAI-158-07.25

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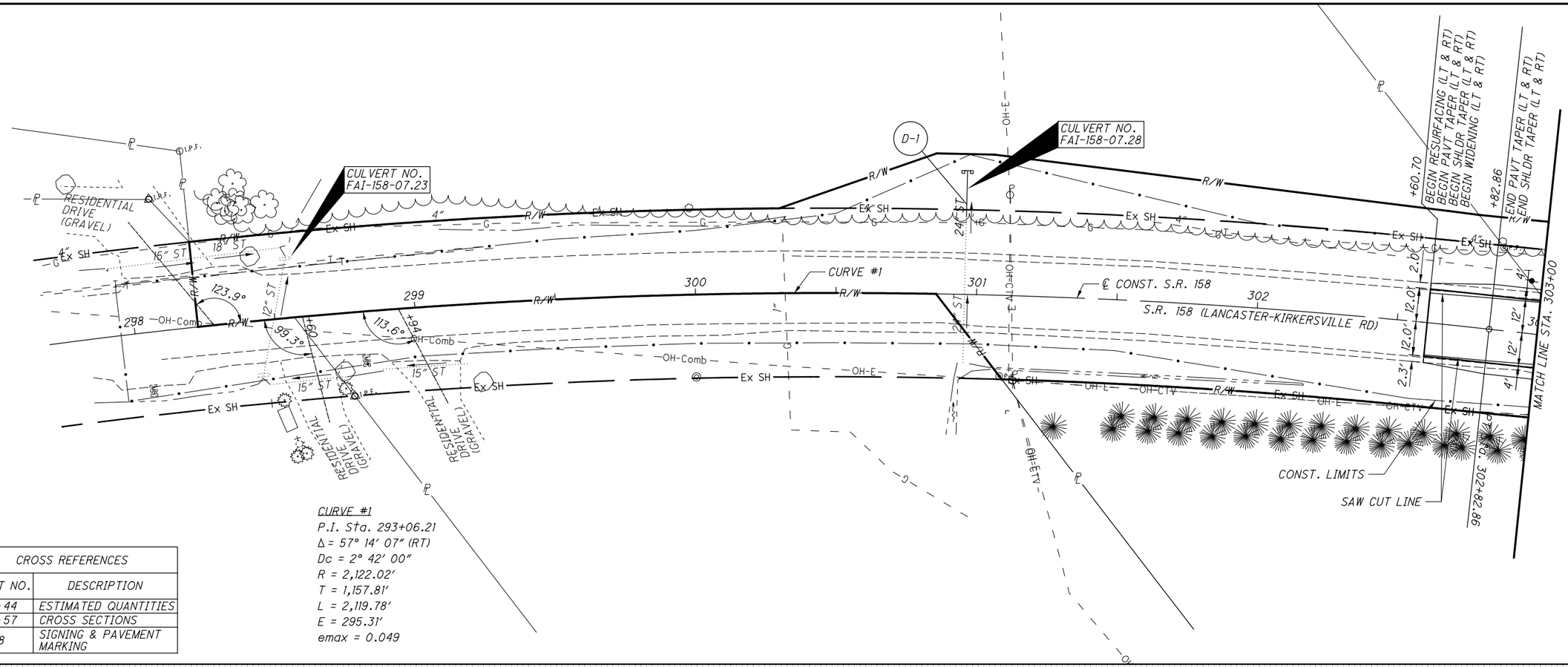
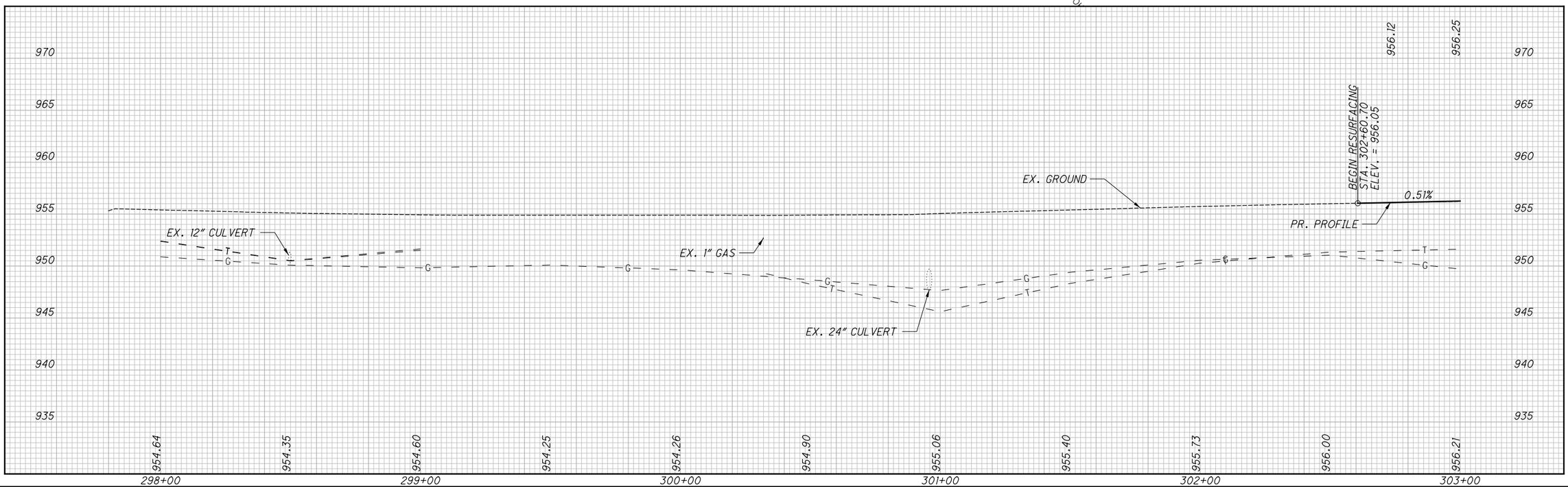


CROSS REFERENCES	
SHEET NO.	DESCRIPTION
39 - 44	ESTIMATED QUANTITIES
55 - 57	CROSS SECTIONS
88	SIGNING & PAVEMENT MARKING

CURVE #1
P.I. Sta. 293+06.21
Δ = 57° 14′ 07″ (RT)
Dc = 2° 42′ 00″
R = 2,122.02′
T = 1,157.81′
L = 2,119.78′
E = 295.31′
emax = 0.049



PLAN AND PROFILE - S.R. 158
BEGIN TO STA. 303+00.00

CALCULATED SHR
CHECKED CWP

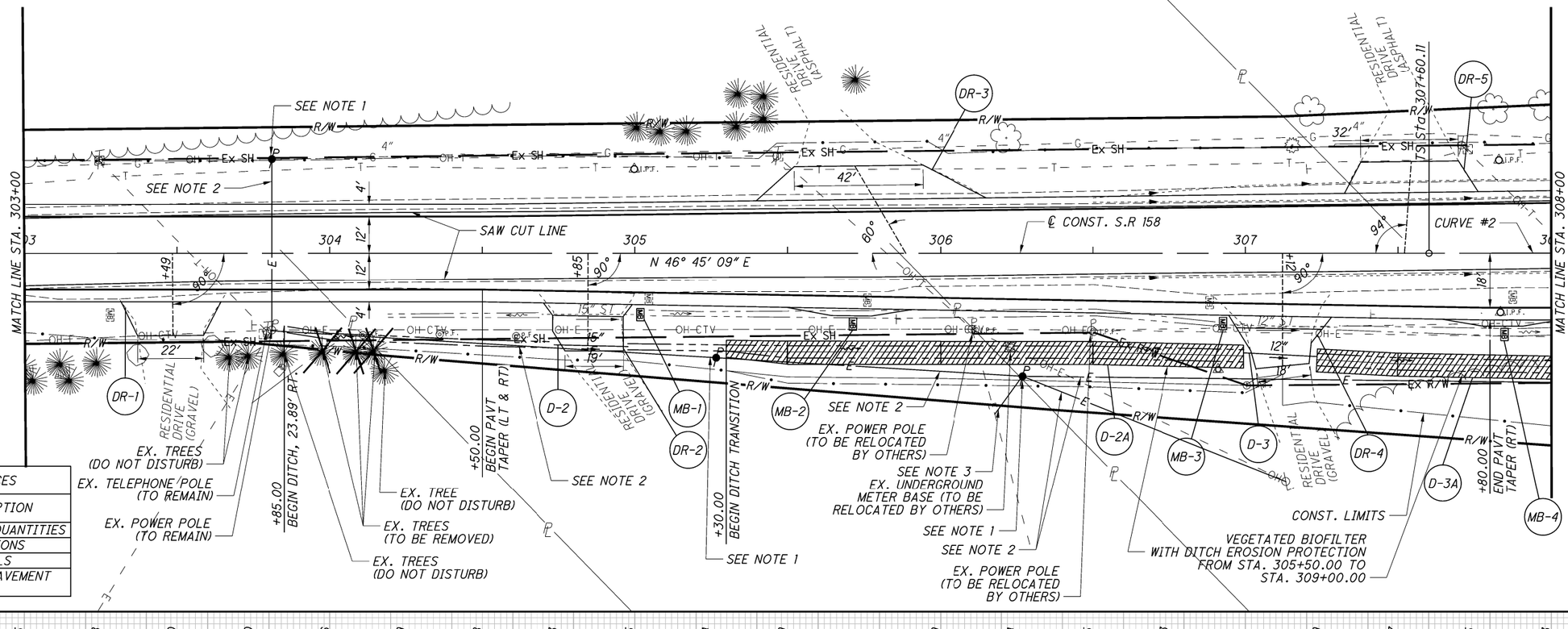
HORIZONTAL SCALE IN FEET
0 10 20 40

FAI-158-07.25

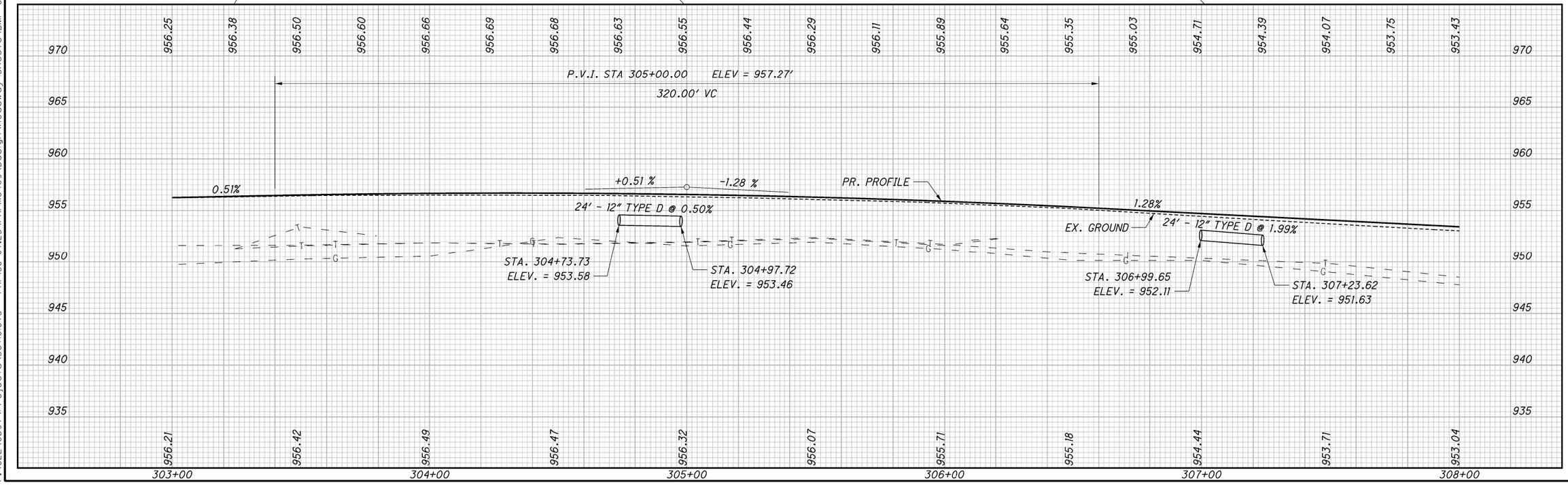
46
131

NOTES:

1. PROPOSED POWER POLE (BY OTHERS)
2. PROPOSED OVERHEAD ELECTRIC (BY OTHERS)
3. PROPOSED UNDERGROUND ELECTRIC (BY OTHERS)



CROSS REFERENCES	
SHEET NO.	DESCRIPTION
39 - 44	ESTIMATED QUANTITIES
57 - 60	CROSS SECTIONS
81 - 83	DRIVE DETAILS
89 - 90	SIGNING & PAVEMENT MARKING



HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED SHR
CHECKED CWP

PLAN AND PROFILE - S.R. 158
STA. 303+00.00 TO STA. 308+00.00

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CROSS REFERENCES	
SHEET NO.	DESCRIPTION
39 - 44	ESTIMATED QUANTITIES
60 - 63	CROSS SECTIONS
81 - 83	DRIVE DETAILS
89 - 90	SIGNING & PAVEMENT MARKING
104	TRAFFIC SIGNAL PLAN

CURVE #2
P.I. Sta. 309+30.27 k = 127.42'
Δ = 7° 38' 58" (LT) p = 2.84'
Dc = 5° 59' 58" emax = 0.04
R = 955.00'
Ls = 255.00'
θs = 7° 38' 58"
LT = 170.16'
ST = 85.14'
x = 254.55'
y = 11.33'

CURVE #3
P.I. Sta. 312+61.29 T = 246.18'
Δ = 28° 54' 35" (LT) L = 481.86'
Dc = 5° 59' 58" E = 31.22'
R = 955.00' emax = 0.04

TRANSITION UNIFORMLY FROM 3:1 FORESLOPE AND 2:1 BACKSLOPE TO 4:1 FORESLOPE AND 3:1 BACKSLOPE FROM STA. 311+50.00 ℄ S.R. 158 TO STA. 105+00.00 ℄ C.R. 17

VEGETATED BIOFILTER WITH DITCH EROSION PROTECTION FROM STA. 305+50.00 TO STA. 309+50.00

PRECAST REINFORCED CONCRETE OUTLET AND TIED CONCRETE BLOCK MAT, TYPE 1

℄ CONST. C.R. 17 (PLEASANTVILLE RD)

℄ CONST. S.R. 158

309 S.R. 158 (LANCASTER-KIRKERSVILLE RD)

LIBERTY TOWNSHIP
GREENFIELD TOWNSHIP

MATCH LINE STA. 308+00

MATCH LINE STA. 313+50

SEE NOTE 1
SEE NOTE 2
SEE NOTE 3
SEE NOTE 4

EX. POWER POLE (TO BE RELOCATED BY OTHERS)

ROCK CHANNEL PROTECTION, TYPE C
7' LONG, 4' WIDE, 18" DEEP

CULVERT NO. FAI-158-07.51

CULVERT NO. FAI-158-07.50

6"-90° BEND

SAW CUT LINE

CONST. LIMITS

TELEPHONE POLE (TO BE RELOCATED BY OTHERS)

POWER POLE (TO BE RELOCATED BY OTHERS)

PR. CABINET (BY OTHERS)

TREE (TO BE REMOVED)

NOTES:
1. PROPOSED POWER POLE (BY OTHERS)
2. PROPOSED OVERHEAD ELECTRIC (BY OTHERS)
3. PROPOSED UNDERGROUND ELECTRIC (BY OTHERS)
4. PROPOSED GAS LOWERING (BY OTHERS)

P.V.I. STA 312+50.00 ELEV = 947.67'
800.00' VC

PR. PROFILE
EX. GROUND
1.28%
-1.28 %
-4.30 %

STA 313+30.65, 53.93' RT
CB NO. 2-3, GRATE ELEV 940.25

STA 313+13.67, 49.80' RT
EX. CB, GRATE ELEV 939.97
(TO BE ABANDONED)
EX. 18" CPP NW 937.36
EX. 18" CPP SW 937.32
EX. 8" CPP SE 937.74

EX. FIBEROPTIC
EX. TELECOM
EX. 4" GAS (TO BE LOWERED BY OTHERS)
PR. 24" STORM
EX. 18" STORM (TO BE REMOVED)
PR. ELECTRIC (BY OTHERS)

953.43 953.11 952.79 952.46 952.10 951.72 951.32 950.90 950.45 949.97 949.48 948.96 948.41 947.84 947.25 946.64 946.00 945.34 944.65 943.94 943.21 942.46 941.68
953.04 952.45 951.88 951.16 950.30 949.29 948.20 946.96 945.77 944.45 942.81 941.40
960 955 950 945 940 935 930
308+00 309+00 310+00 311+00 312+00 313+00

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED SHR
CHECKED CWP

PLAN AND PROFILE - S.R. 158
STA. 308+00.00 TO STA. 313+50.00

FAI-158-07.25

48
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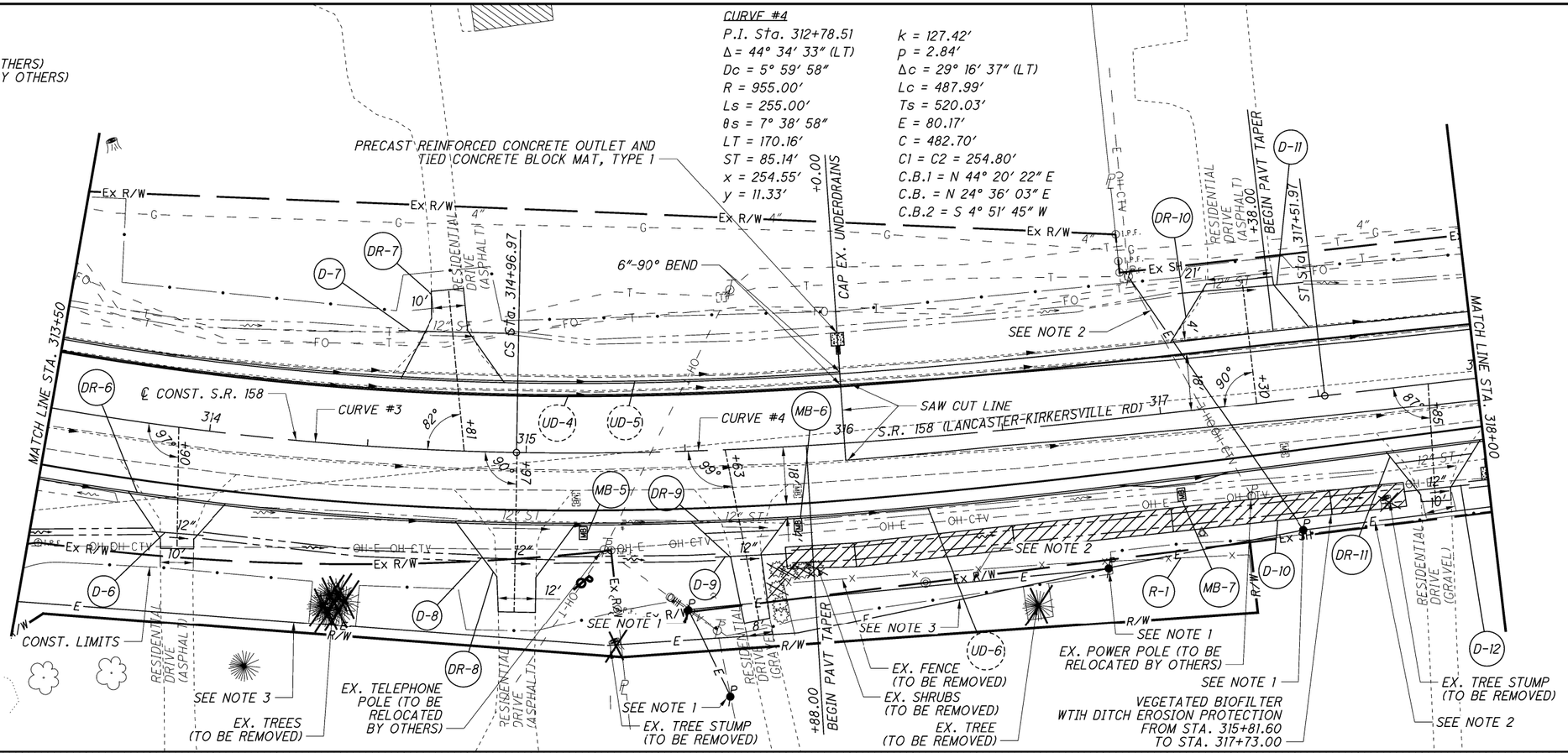
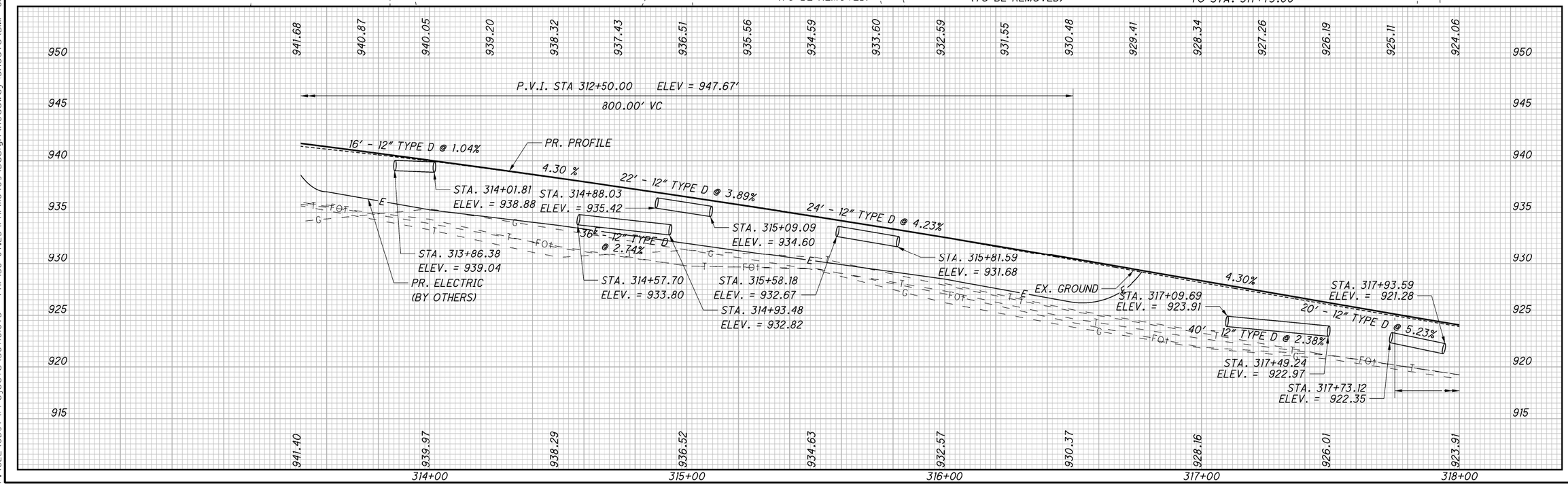
NOTES:

1. PROPOSED POWER POLE (BY OTHERS)
2. PROPOSED OVERHEAD ELECTRIC (BY OTHERS)
3. PROPOSED UNDERGROUND ELECTRIC (BY OTHERS)

CROSS REFERENCES	
SHEET NO.	DESCRIPTION
39 - 44	ESTIMATED QUANTITIES
63 - 66	CROSS SECTIONS
81 - 83	DRIVE DETAILS
90 - 91	SIGNING & PAVEMENT MARKING

CURVE #4
P.I. Sta. 312+78.51
Δ = 44° 34′ 33″ (LT)
Dc = 5° 59′ 58″
R = 955.00′
Ls = 255.00′
θs = 7° 38′ 58″
LT = 170.16′
ST = 85.14′
x = 254.55′
y = 11.33′
k = 127.42′
p = 2.84′
Δc = 29° 16′ 37″ (LT)
Lc = 487.99′
Ts = 520.03′
E = 80.17′
C = 482.70′
C1 = C2 = 254.80′
C.B.1 = N 44° 20′ 22″ E
C.B. = N 24° 36′ 03″ E
C.B.2 = S 4° 51′ 45″ W





HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED SHR
CHECKED CWP

PLAN AND PROFILE - S.R. 158
STA. 313+50.00 TO STA. 318+00.00

FAI-158-07.25

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131

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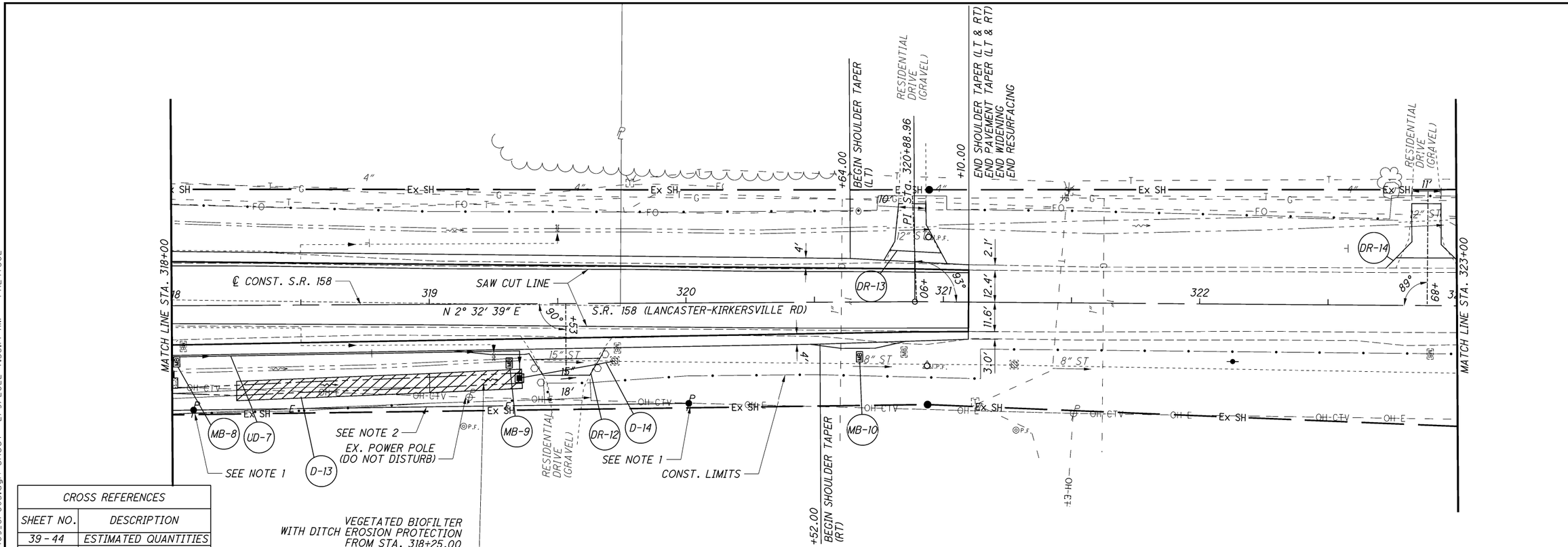
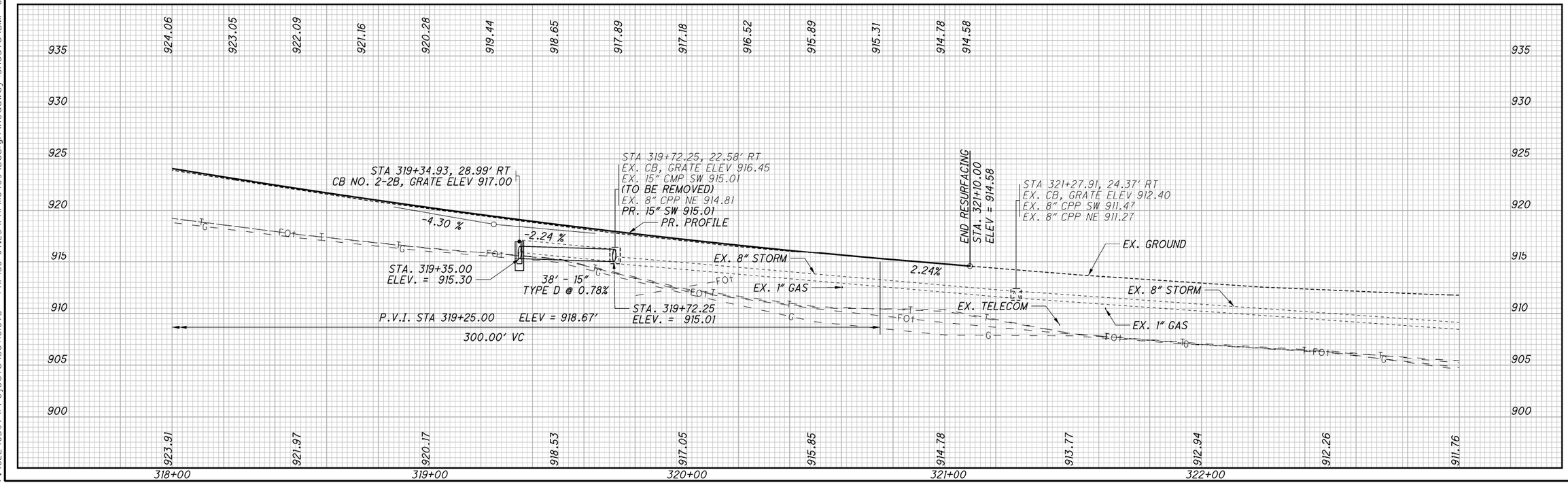


CROSS REFERENCES	
SHEET NO.	DESCRIPTION
39 - 44	ESTIMATED QUANTITIES
66 - 69	CROSS SECTIONS
81 - 83	DRIVE DETAILS
90 - 91	SIGNING & PAVEMENT MARKING



NOTES:

1. PROPOSED POWER POLE (BY OTHERS)
2. PROPOSED OVERHEAD ELECTRIC (BY OTHERS)
3. PROPOSED UNDERGROUND ELECTRIC (BY OTHERS)

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED SHR
CHECKED CWP

PLAN AND PROFILE - S.R. 158
STA. 318+00.00 TO STA. 323+00.00

FAI-158-07.25

50
131

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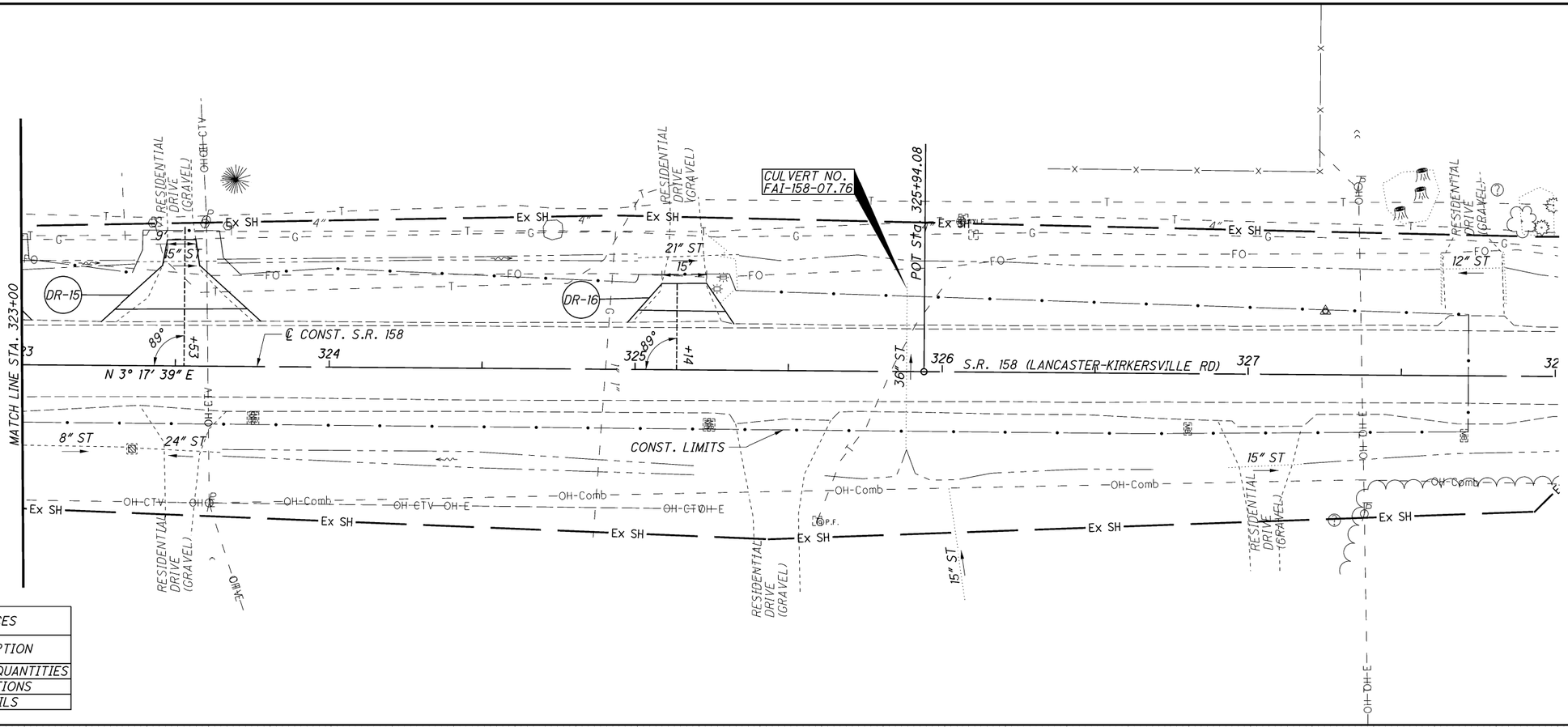


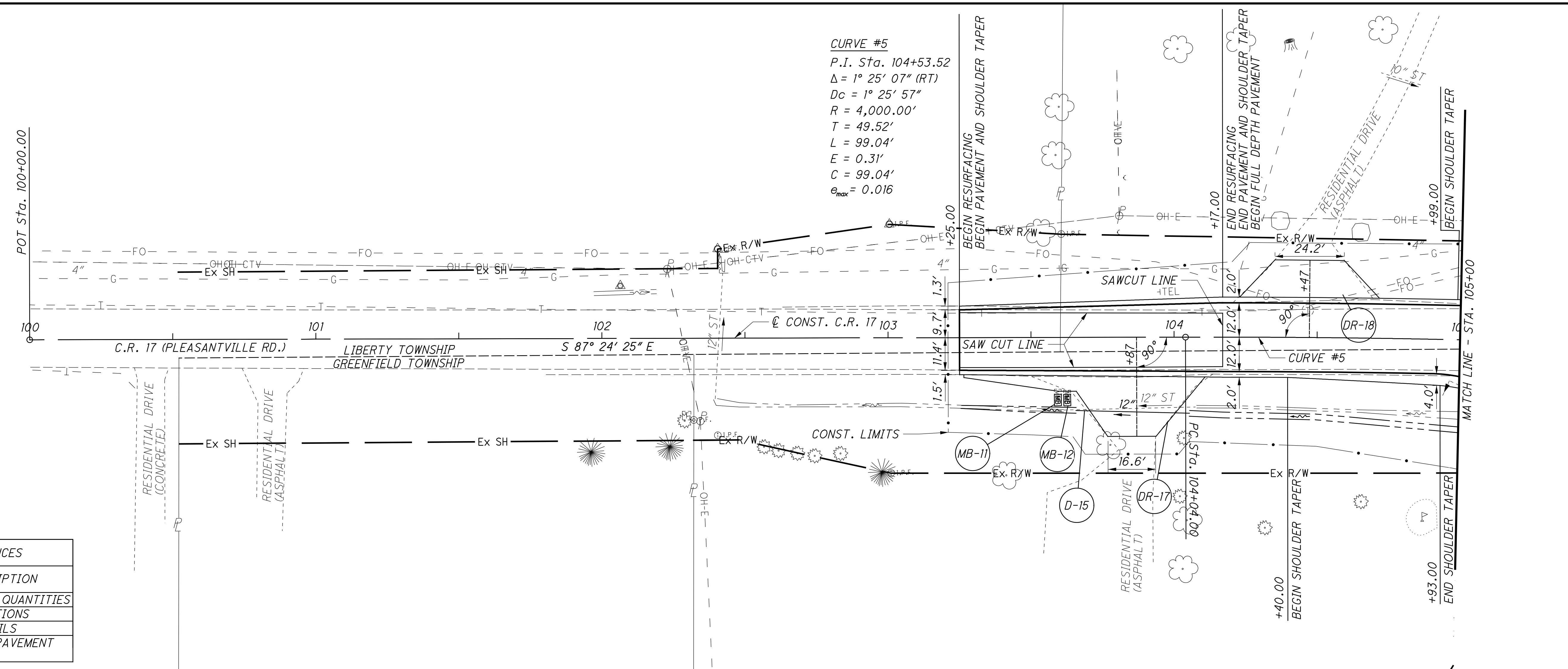
CROSS REFERENCES	
SHEET NO.	DESCRIPTION
39 - 44	ESTIMATED QUANTITIES
69 - 71	CROSS SECTIONS
81 - 83	DRIVE DETAILS

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED SHR
CHECKED CWP

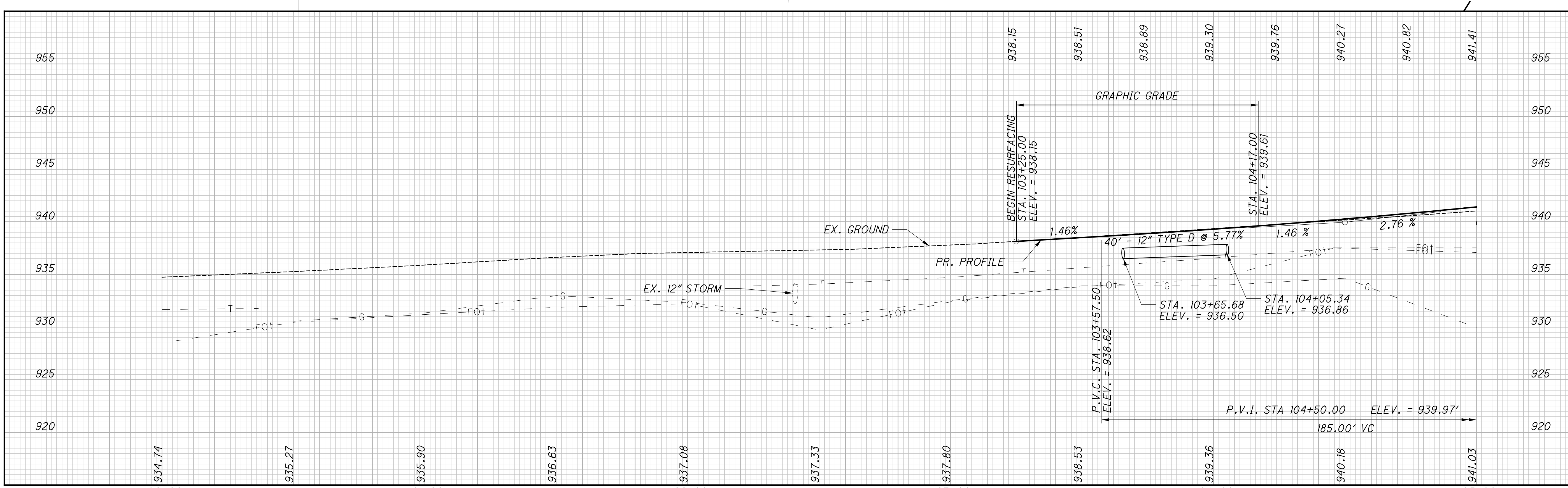
PLAN AND PROFILE - S.R. 158
STA. 323+00.00 TO END

FAI-158-07.25



CROSS REFERENCES

SHEET NO.	DESCRIPTION
39 - 44	ESTIMATED QUANTITIES
72 - 73	CROSS SECTIONS
84	DRIVE DETAILS
92 - 93	SIGNING & PAVEMENT MARKING



HORIZONTAL SCALE IN FEET

CALCULATED SHR
CHECKED CWP

PLAN AND PROFILE
CR-17 - BEGIN TO STA. 105+00.00

FAI-158-07.25

52
131

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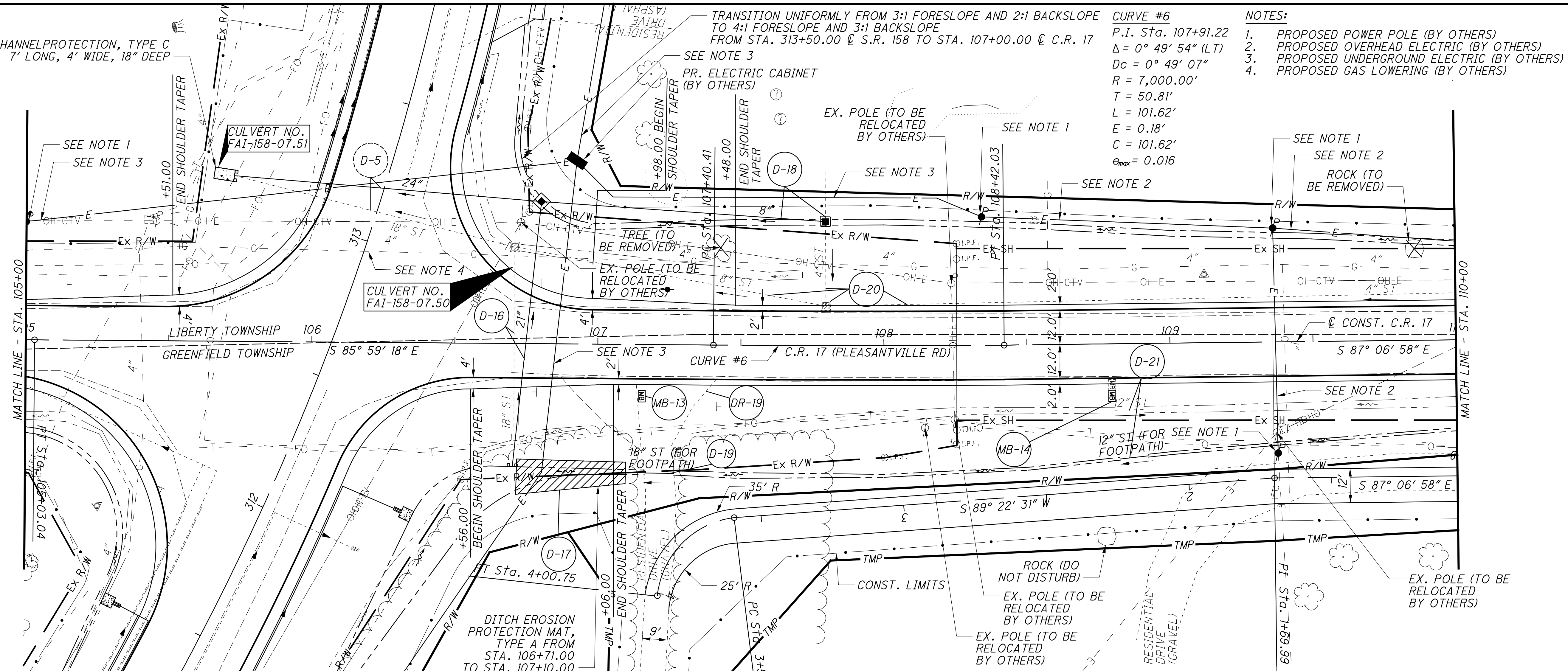
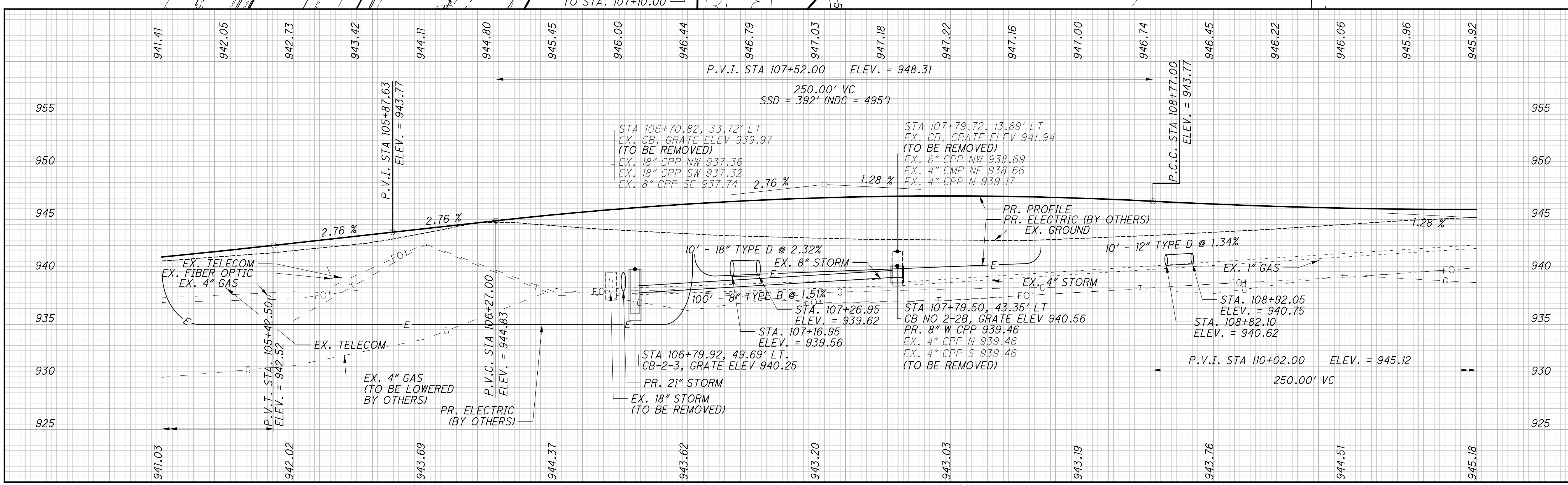


ROCK CHANNELPROTECTION, TYPE C
7' LONG, 4' WIDE, 18" DEEP
TRANSITION UNIFORMLY FROM 3:1 FORESLOPE AND 2:1 BACKSLOPE
TO 4:1 FORESLOPE AND 3:1 BACKSLOPE
FROM STA. 313+50.00 ℄ S.R. 158 TO STA. 107+00.00 ℄ C.R. 17
CURVE #6
P.I. Sta. 107+91.22
Δ = 0° 49' 54" (LT)
Dc = 0° 49' 07"
R = 7,000.00'
T = 50.81'
L = 101.62'
E = 0.18'
C = 101.62'
emax = 0.016
NOTES:
1. PROPOSED POWER POLE (BY OTHERS)
2. PROPOSED OVERHEAD ELECTRIC (BY OTHERS)
3. PROPOSED UNDERGROUND ELECTRIC (BY OTHERS)
4. PROPOSED GAS LOWERING (BY OTHERS)
SEE NOTE 3
PR. ELECTRIC CABINET
(BY OTHERS)
CULVERT NO.
FAI-158-07.51
SEE NOTE 1
SEE NOTE 2
EX. POLE (TO BE RELOCATED BY OTHERS)
ROCK (TO BE REMOVED)
TREE (TO BE REMOVED)
CULVERT NO.
FAI-158-07.50
SEE NOTE 4
MATCH LINE - STA. 105+00
MATCH LINE - STA. 110+00
LIBERTY TOWNSHIP
GREENFIELD TOWNSHIP
S 85° 59' 18" E
CURVE #6
C.R. 17 (PLEASANTVILLE RD)
℄ CONST. C.R. 17
S 87° 06' 58" E
S 89° 22' 31" W
18" ST (FOR FOOTPATH)
12" ST (FOR FOOTPATH)
BEGIN SHOULDER TAPER
END SHOULDER TAPER
ROCK (DO NOT DISTURB)
CONST. LIMITS
RESIDENTIAL DRIVE (GRAVEL)
DITCH EROSION
PROTECTION MAT,
TYPE A FROM
STA. 106+71.00
TO STA. 107+10.00
PT Sta. 4+00.75
PI Sta. 105+03.04

CROSS REFERENCES	
SHEET NO.	DESCRIPTION
39 - 44	ESTIMATED QUANTITIES
73 - 76	CROSS SECTIONS
84 - 85	DRIVE DETAILS
92 - 94	SIGNING & PAVEMENT MARKING
104	TRAFFIC SIGNAL PLAN



P.V.I. STA 107+52.00 ELEV. = 948.31
250.00' VC
SSD = 392' (NDC = 495')
P.V.I. STA 105+87.63
ELEV. = 943.77
P.C.C. STA 108+77.00
ELEV. = 943.77
2.76 %
1.28 %
PR. PROFILE
PR. ELECTRIC (BY OTHERS)
EX. GROUND
EX. TELECOM
EX. FIBER OPTIC
EX. 4" GAS
EX. 8" STORM
EX. 4" STORM
EX. 1" GAS
10' - 18" TYPE D @ 2.32%
10' - 12" TYPE D @ 1.34%
100' - 8" TYPE B @ 1.51%
P.V.T. STA. 105+42.50
ELEV. = 942.52
P.V.C. STA 106+27.00
ELEV. = 944.83
P.V.I. STA 110+02.00 ELEV. = 945.12
250.00' VC
PR. 21" STORM
EX. 18" STORM
(TO BE REMOVED)
PR. ELECTRIC
(BY OTHERS)
EX. 4" GAS
(TO BE LOWERED
BY OTHERS)
105+00
106+00
107+00
108+00
109+00
110+00

PLAN AND PROFILE

CR-17 - STA. 105+00.00 TO STA. 110+00.00

HORIZONTAL SCALE IN FEET

CALCULATED SHR
CHECKED CWP

FAI-158-07.25

53 / 131

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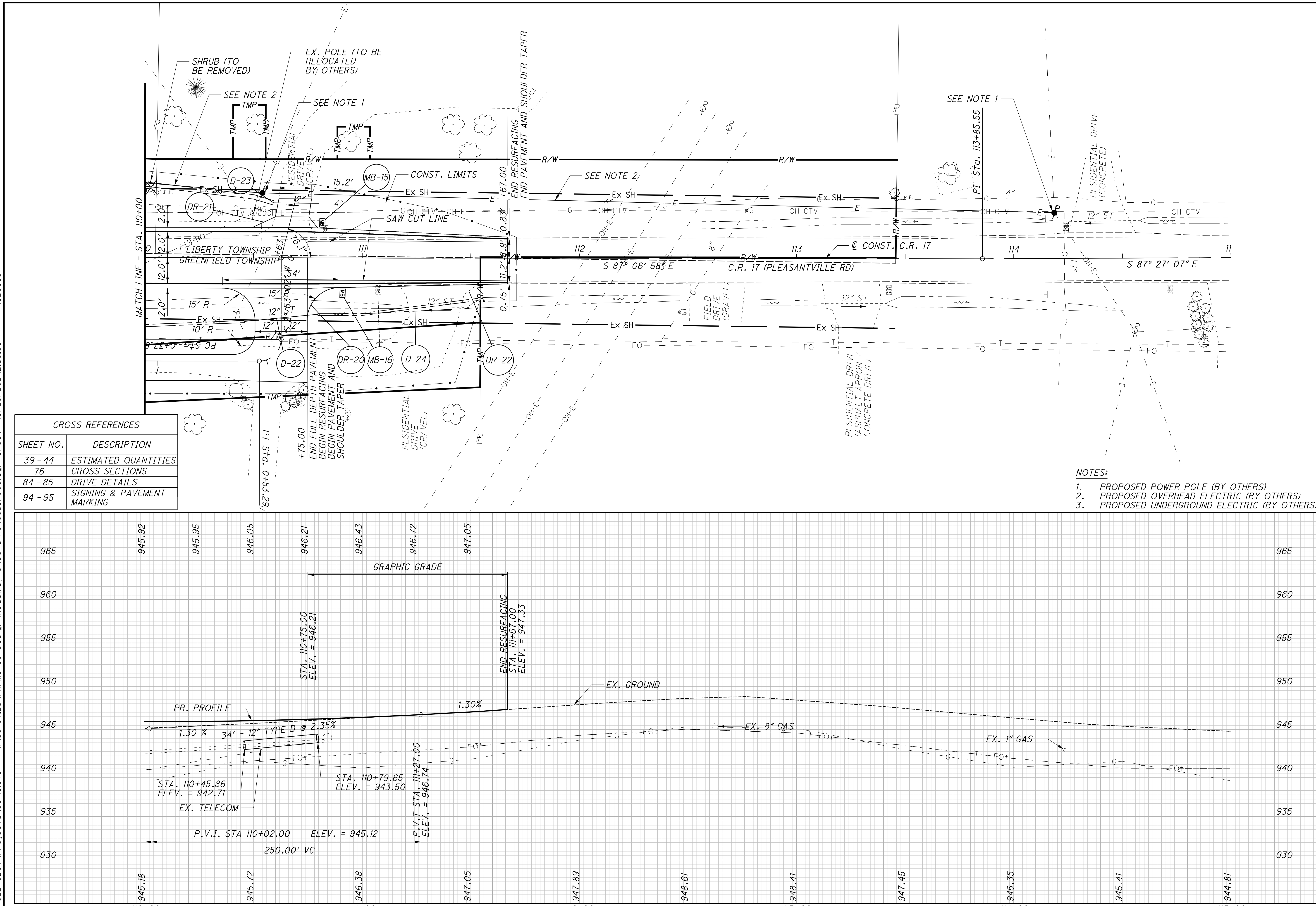

CROSS REFERENCES	
SHEET NO.	DESCRIPTION
39 - 44	ESTIMATED QUANTITIES
76	CROSS SECTIONS
84 - 85	DRIVE DETAILS
94 - 95	SIGNING & PAVEMENT MARKING

NOTES:

1. PROPOSED POWER POLE (BY OTHERS)
2. PROPOSED OVERHEAD ELECTRIC (BY OTHERS)
3. PROPOSED UNDERGROUND ELECTRIC (BY OTHERS)

PLAN AND PROFILE
CR-17 - STA. 110+00.00 TO END

CALCULATED SHR
CHECKED CWP

FAI-158-07.25

SEEDING	
END WIDTH	SQ. YDS.
0	0
0	0
0	0
0	0
0	0

LEGEND

- MOT TEMPORARY PAVEMENT
- PAVEMENT REMOVED
- 12" CHEMICALLY STABILIZED SUBGRADE

960 / 955 / 950

EX SH

EX SH

299+50.00
954.25

EX. 4" GAS

299+00.00
954.60

EX. 4" GAS

EX. TELECOM CABLE

EX. 15" STORM

EX SH

EX SH

298+50.00
954.35

EX. 4" GAS

EX. 18" STORM

HEADWALL, FULL HEIGHT
STA. 298+55.71, 21.57' LT.
INV. 12" E = 950.10

EX. TELECOM CABLE

42 FT - 12" STORM @ 1.24%

HEADWALL, FULL HEIGHT
STA. 298+44.05, 20.05' RT.
INV. 12" W = 950.62

EX SH

EX SH

298+00.00
954.64

EX. 15" STORM

EX. 4" GAS

EX. TELECOM CABLE

60 50 40 30 20 10 0 10 20 30 40 50 60

END AREA		VOLUME	
CUT	FILL	CUT	FILL
3*	0*		
0	0		
		4*	0*
		0	0
1*	0*		
0	0		
		0*	0*
		0	0
0*	0*		
0	0		
		0*	0*
		0	0
0*	0*		
0	0		
		0	0

* - MOT CUT AND FILL QUANTITIES

CALCULATED SHR
CHECKED CWP

CROSS SECTIONS - S.R. 158
STA. 298+00.00 TO STA. 299+50.00

FAI-158-07.25

55
131

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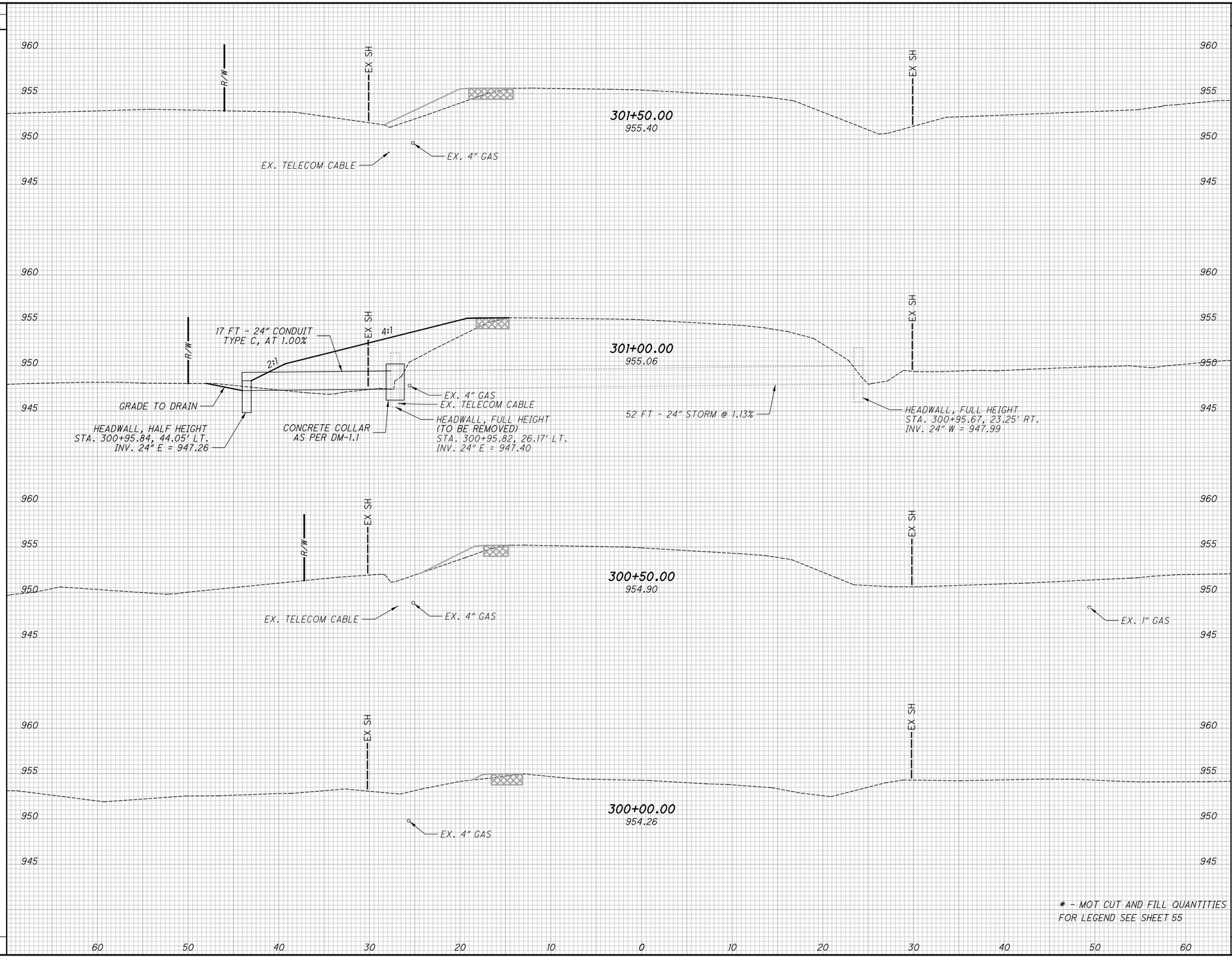
SEEDING END WIDTH	SEEDING SQ. YDS.
0	0
33	93
0	0
0	0
0	0
93	



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
3*	22*		
0	0		
		10*	79*
		0	0
7*	64*		
0	33		
		9*	62*
		0	31
3*			
0	0		
		6*	4*
		0	0
4*	1*		
0	0		
		7*	1*
		0	0
		0	31

* - MOT CUT AND FILL QUANTITIES

FOR LEGEND SEE SHEET 55

CALCULATED SHR
CHECKED CWP

CROSS SECTIONS - S.R. 158
STA. 300+00.00 TO STA. 301+50.00

FAI-158-07.25

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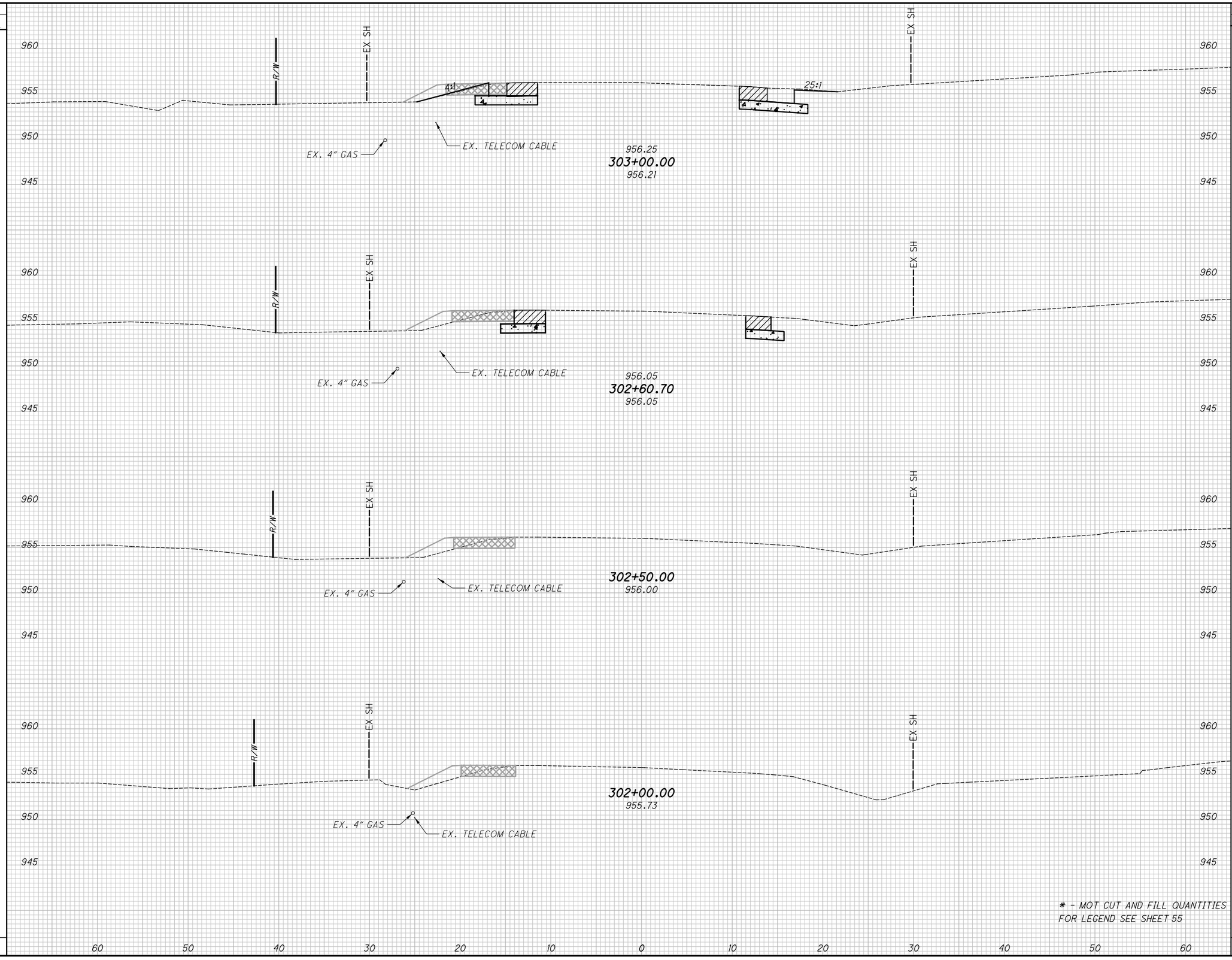
SEEDING END WIDTH	SEEDING SQ. YDS.
14	31
0	0
0	0
0	0
31	



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
5*	4*		
9	2		
		12*	7*
		7	2
5*	5*		
1	1		
		7*	2*
		0	0
5*	5*		
0	0		
		9*	10*
		0	0
5*	6*		
0	0		
		7*	26*
		0	0
		7	2

* - MOT CUT AND FILL QUANTITIES
FOR LEGEND SEE SHEET 55

CALCULATED SHR
CHECKED CWP

CROSS SECTIONS - S.R. 158
STA. 302+00.00 TO STA. 303+00.00

FAI-158-07.25

57
131

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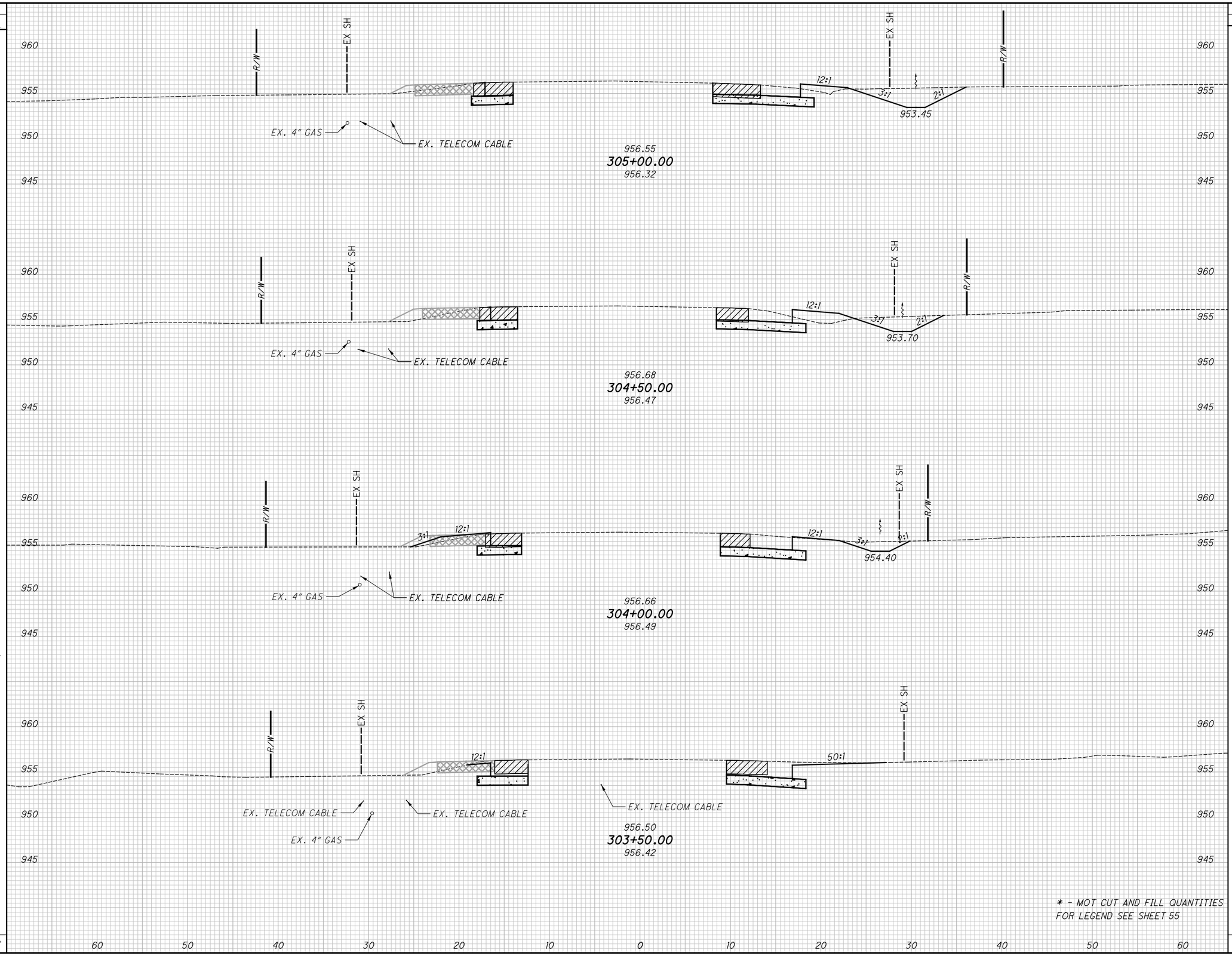
SEEDING END WIDTH	SEEDING SQ. YDS.
	21
	111
	19
	118
	24
	105
	14
	78
	412



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
5*	4*		
21	6		
		12*	6*
		33	14
4*	3*		
15	9		
		9*	5*
		24	11
5*	2*		
11	3		
		8*	5*
		15	3
8*	3*		
5	1		
		11*	7*
		13	3
		85	31

* - MOT CUT AND FILL QUANTITIES
FOR LEGEND SEE SHEET 55

CALCULATED SHR
CHECKED CWP

CROSS SECTIONS - S.R. 158
STA. 303+50.00 TO STA. 305+00.00

FAI-158-07.25

58
131

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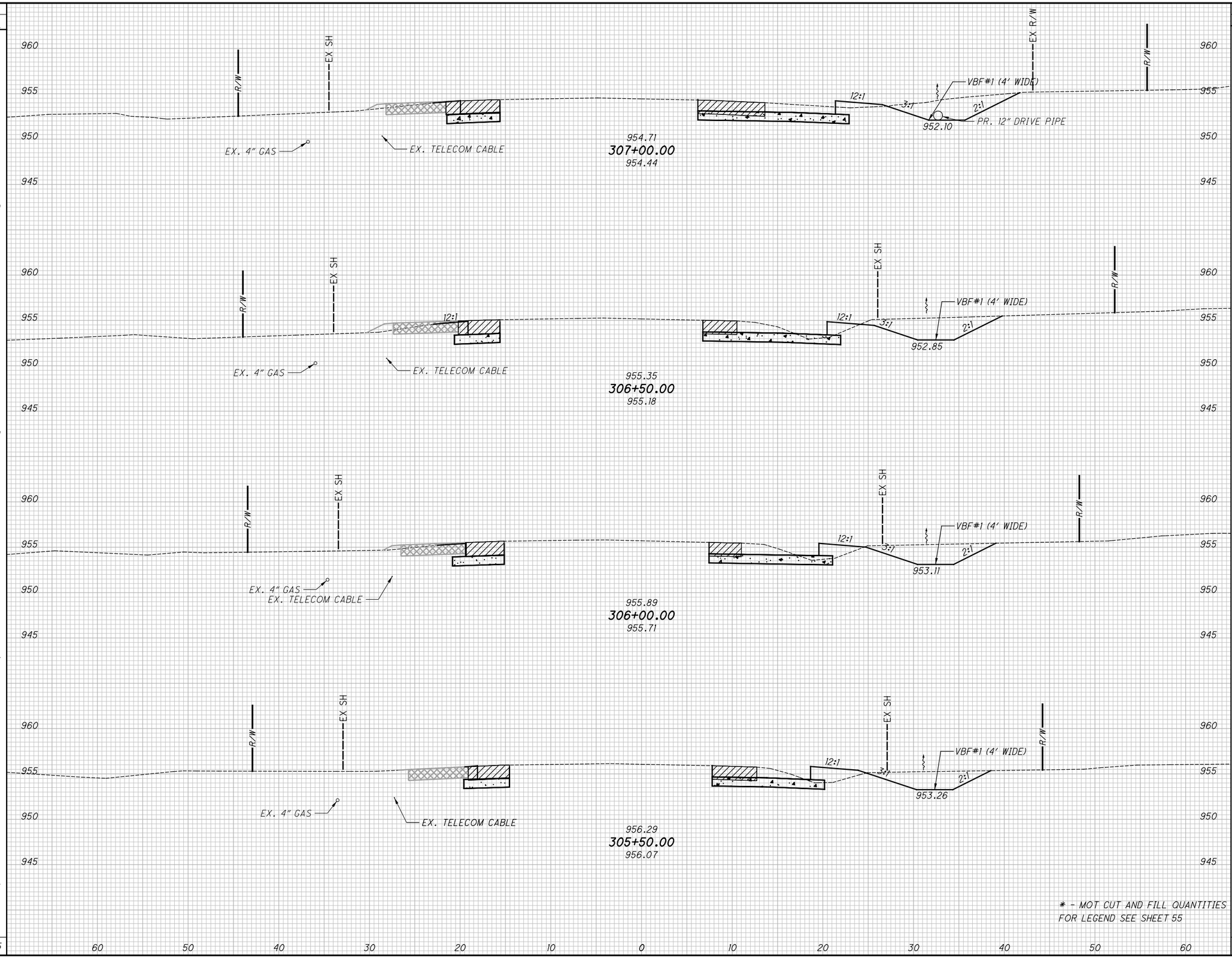
SEEDING	
END WIDTH	SQ. YDS.
26	140
25	139
25	133
24	123
	535



END AREA		VOLUME	
CUT	FILL	CUT	FILL
6*	1*		
29	9		
		12*	2*
		54	16
9*	2*		
30	8		
		14*	2*
		52	14
7*	1*		
27	8		
		14*	1*
		45	16
8*	0*		
22	10		
		14*	3*
		39	14
		190	60

* - MOT CUT AND FILL QUANTITIES

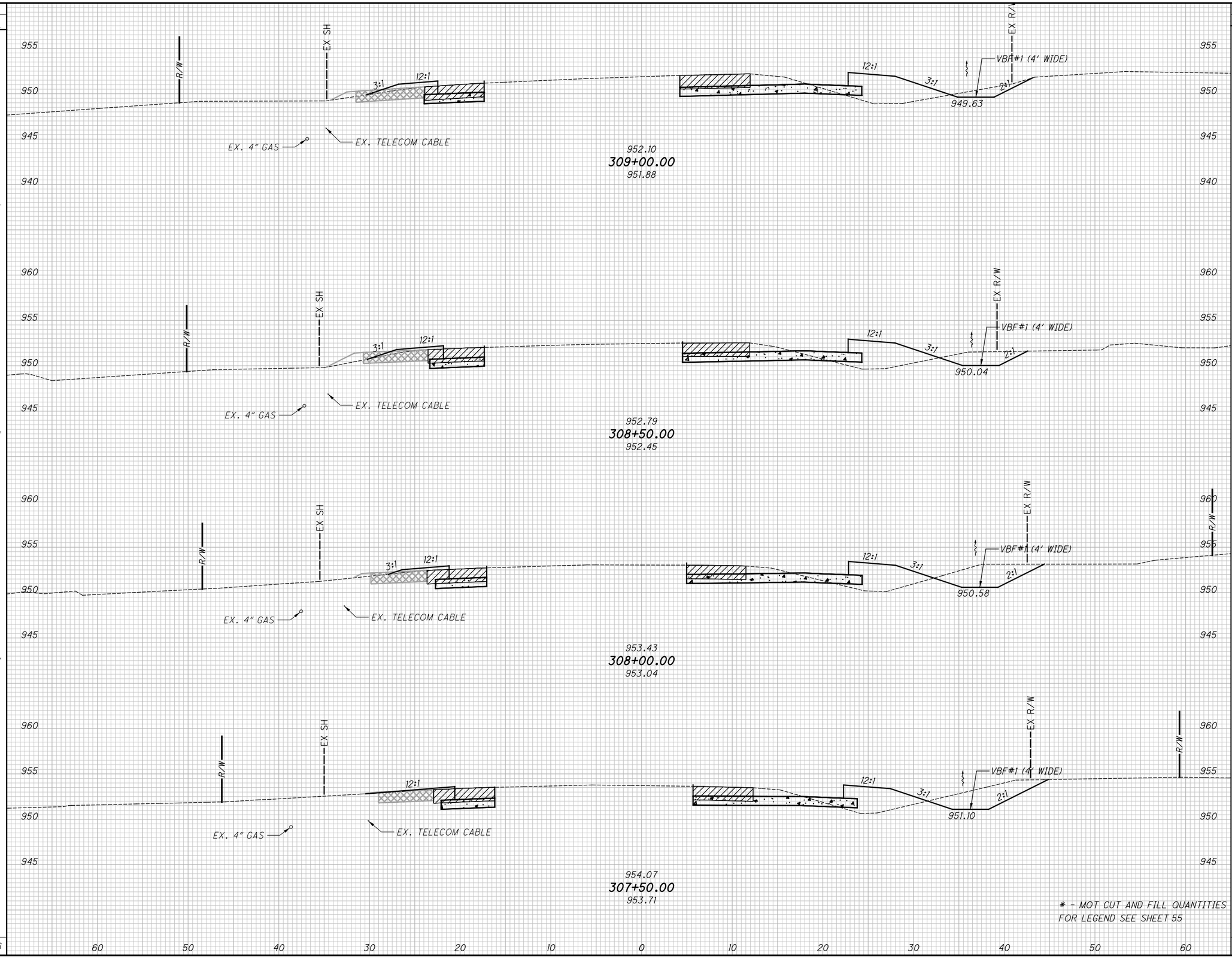
FOR LEGEND SEE SHEET 55

CALCULATED SHR
CHECKED CWP

CROSS SECTIONS - S.R. 158
STA. 305+50.00 TO STA. 307+00.00

FAI-158-07.25

SEEDING	
END WIDTH	SQ. YDS.
31	168
31	169
31	182
35	167
	686



END AREA		VOLUME	
CUT	FILL	CUT	FILL
7*	1*		
11	40		
		14*	3*
		22	71
6*	2*		
13	38		
		12*	3*
		32	70
15*	1*		
22	38		
		19*	1*
		42	64
7*	0*		
24	32		
		20*	1*
		48	38
		144	243

* - MOT CUT AND FILL QUANTITIES
FOR LEGEND SEE SHEET 55

CALCULATED SHR
CHECKED CWP

CROSS SECTIONS - S.R. 158
STA. 307+50.00 TO STA. 309+00.00

FAI-158-07.25

60
131

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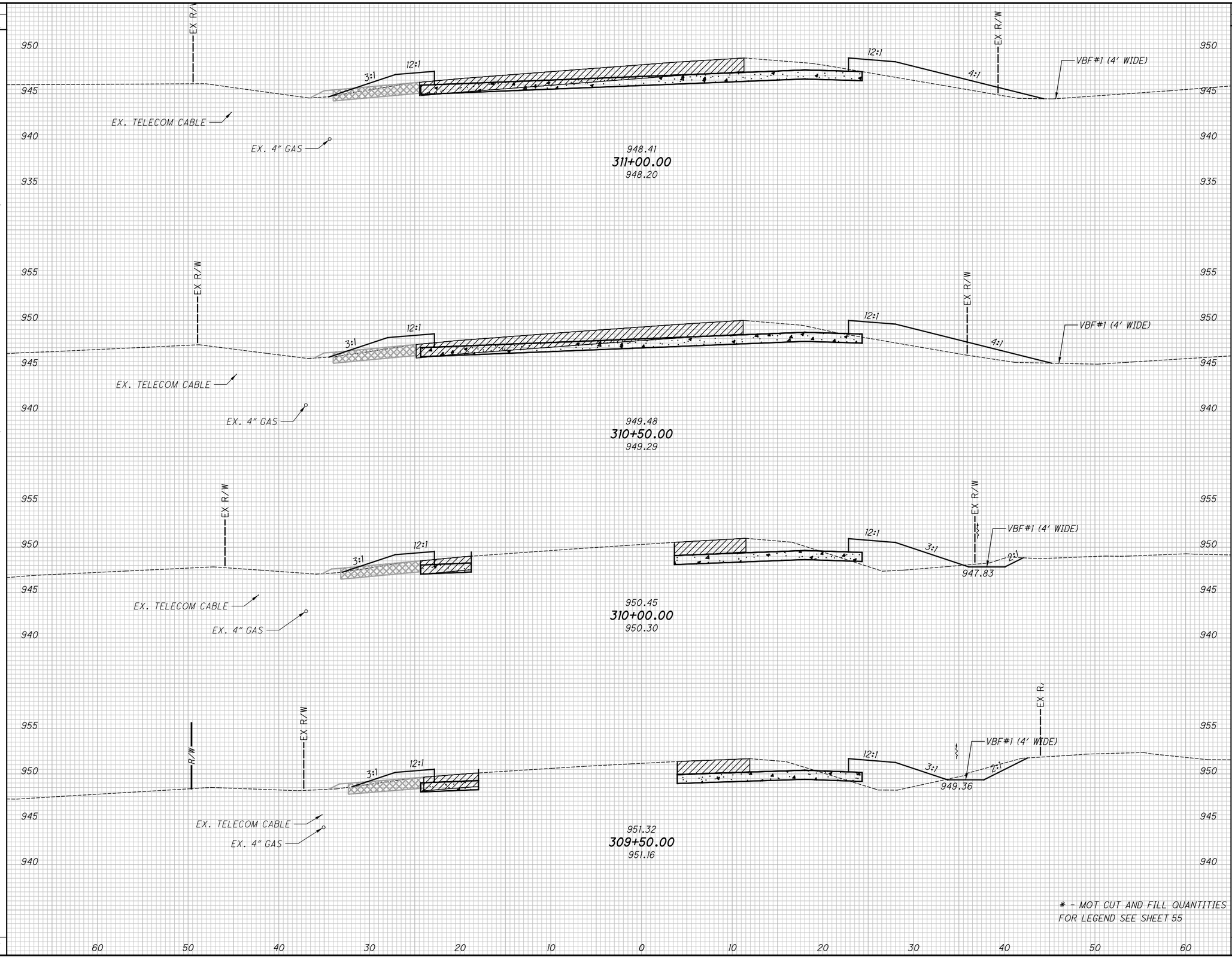
SEEDING END WIDTH	SEEDING SQ. YDS.
35	198
36	188
32	174
31	171
	731



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
8*	1*		
16	47		
		19*	2*
		29	90
9*	1*		
15	51		
		16*	1*
		25	86
8*	1*		
12	43		
		16*	1*
		22	76
8*	1*		
13	39		
		15*	2*
		21	72
		97	324

* - MOT CUT AND FILL QUANTITIES

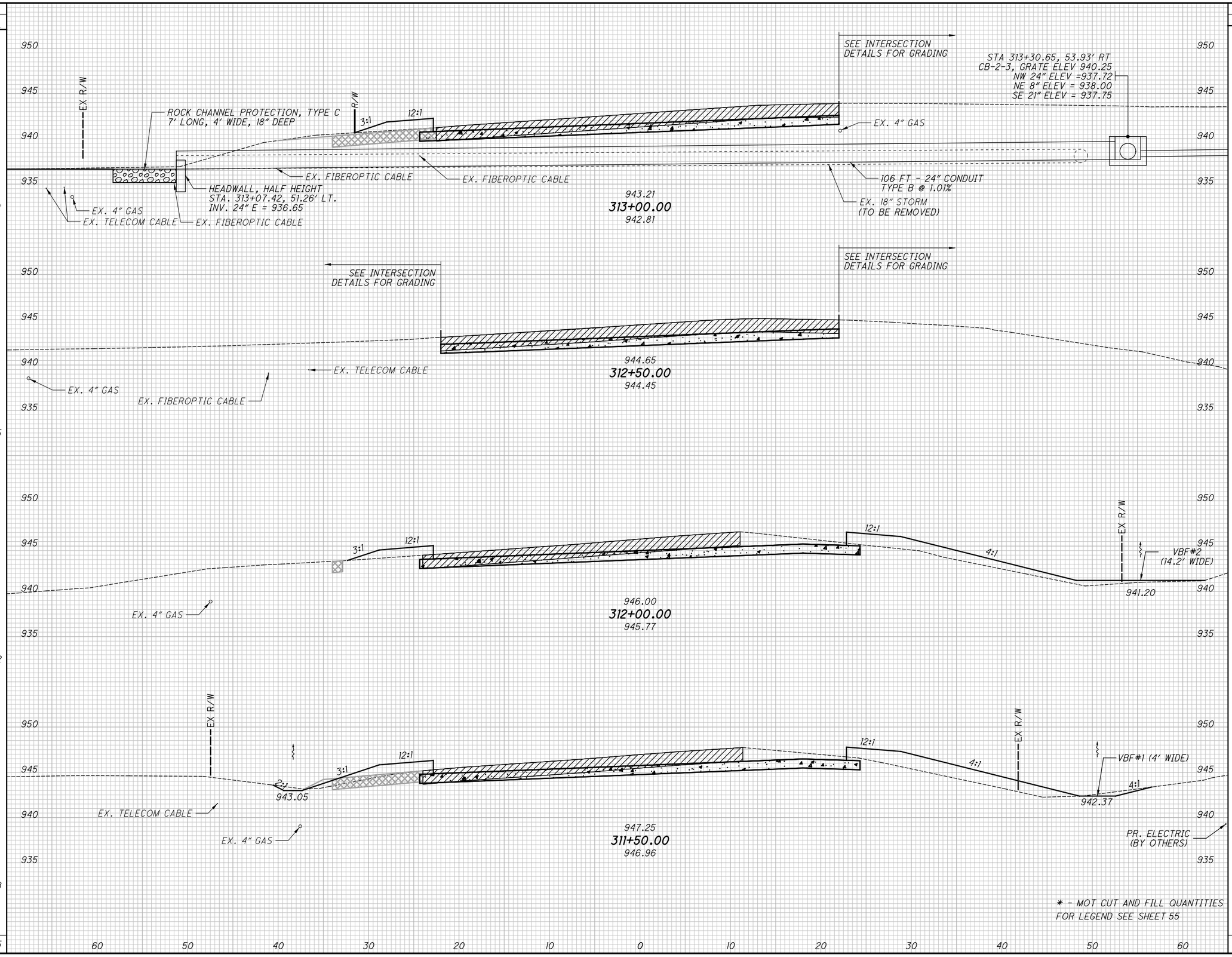
FOR LEGEND SEE SHEET 55

CALCULATED SHR
CHECKED CWP

CROSS SECTIONS - S.R. 158
STA. 309+50.00 TO STA. 311+00.00

FAI-158-07.25

SEEDING END WIDTH	SEEDING SQ. YDS.
	21
	160
	0
	225
	51
	292
	54
	248
	925



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
16*	0*		
49	29		
		28*	0*
		79	58
37	34		
		15*	0*
		57	67
1*	0*		
25	39		
		1*	1*
		58	84
12*	1*		
39	52		
		12*	2*
		50	91
		244	300

* - MOT CUT AND FILL QUANTITIES
FOR LEGEND SEE SHEET 55

CALCULATED SHR
CHECKED CWP

CROSS SECTIONS - S.R. 158
STA. 311+50.00 TO STA. 313+00.00

FAI-158-07.25

62
131

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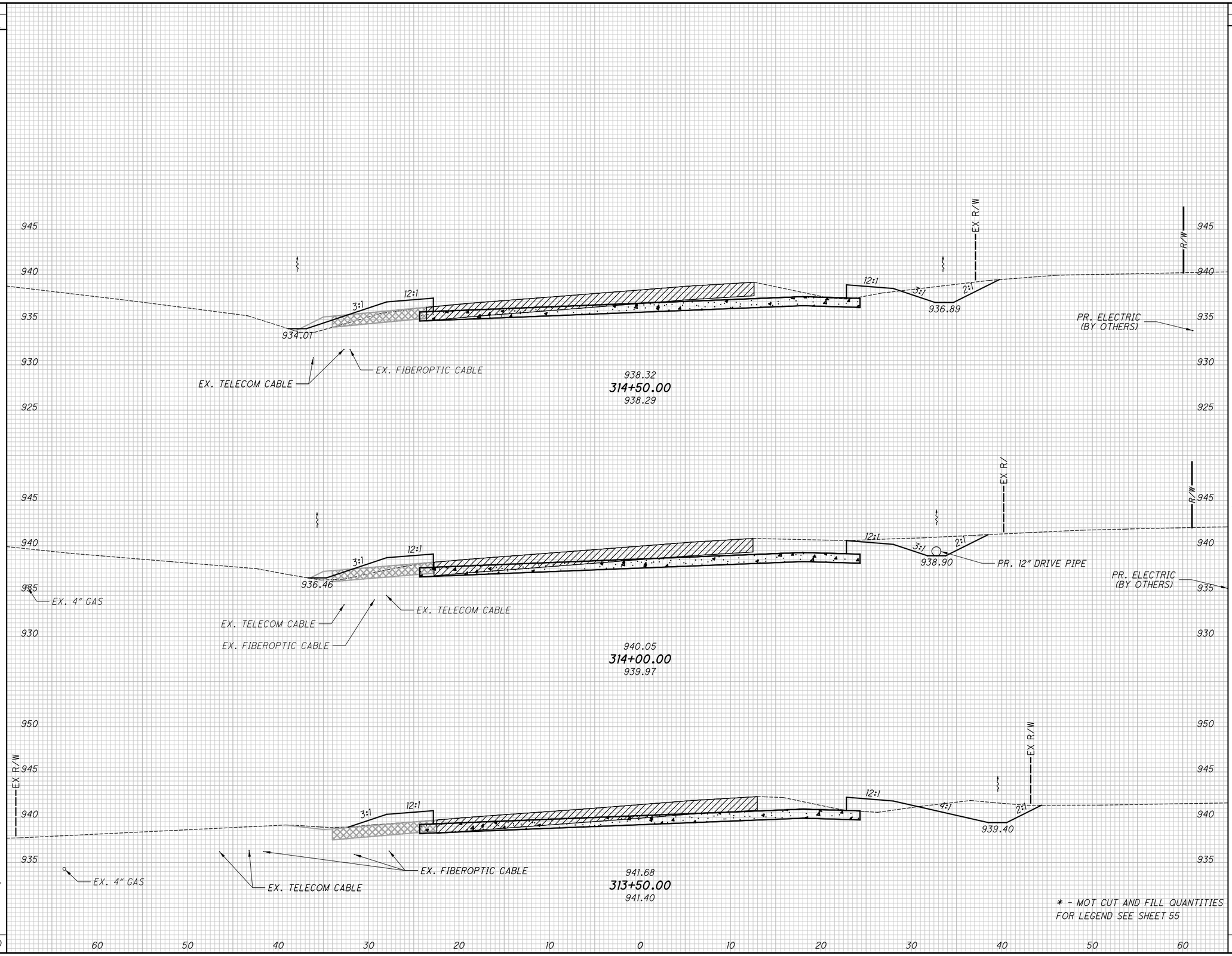
SEEDING END WIDTH	SEEDING SQ. YDS.
35	187
32	181
33	152
	520



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
12*	10*		
22	33		
		22*	11*
		50	53
24*	2*		
33	25		
		33*	2*
		56	54
15*	0*		
28	34		
		36*	0*
		71	58
		177	165

* - MOT CUT AND FILL QUANTITIES

FOR LEGEND SEE SHEET 55

CALCULATED SHR

CHECKED CWP

CROSS SECTIONS - S.R. 158
STA. 313+50.00 TO STA. 314+50.00

FAI-158-07.25

63
131

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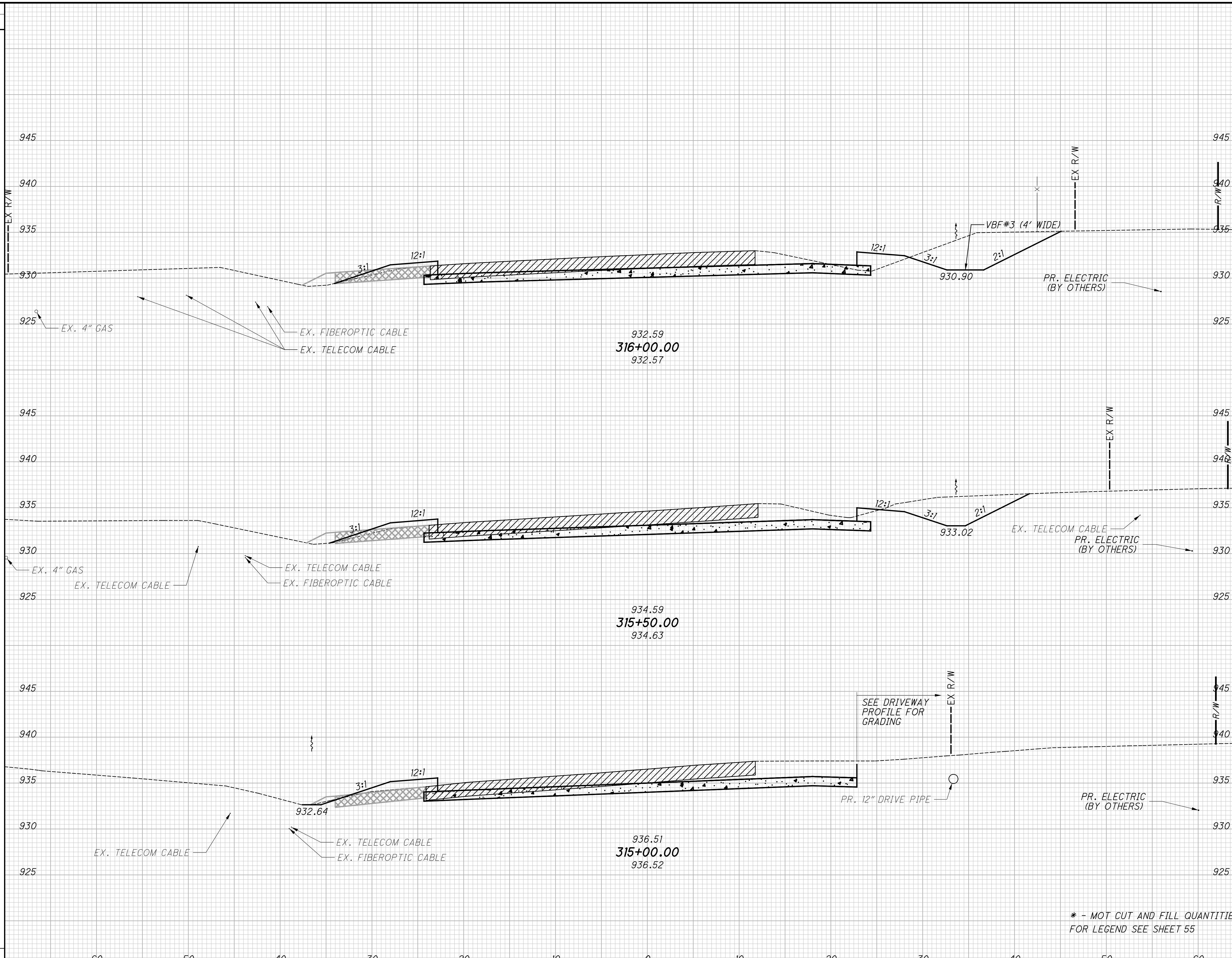
SEEDING	
END WIDTH	SQ. YDS.
37	193
33	193
36	199
	585



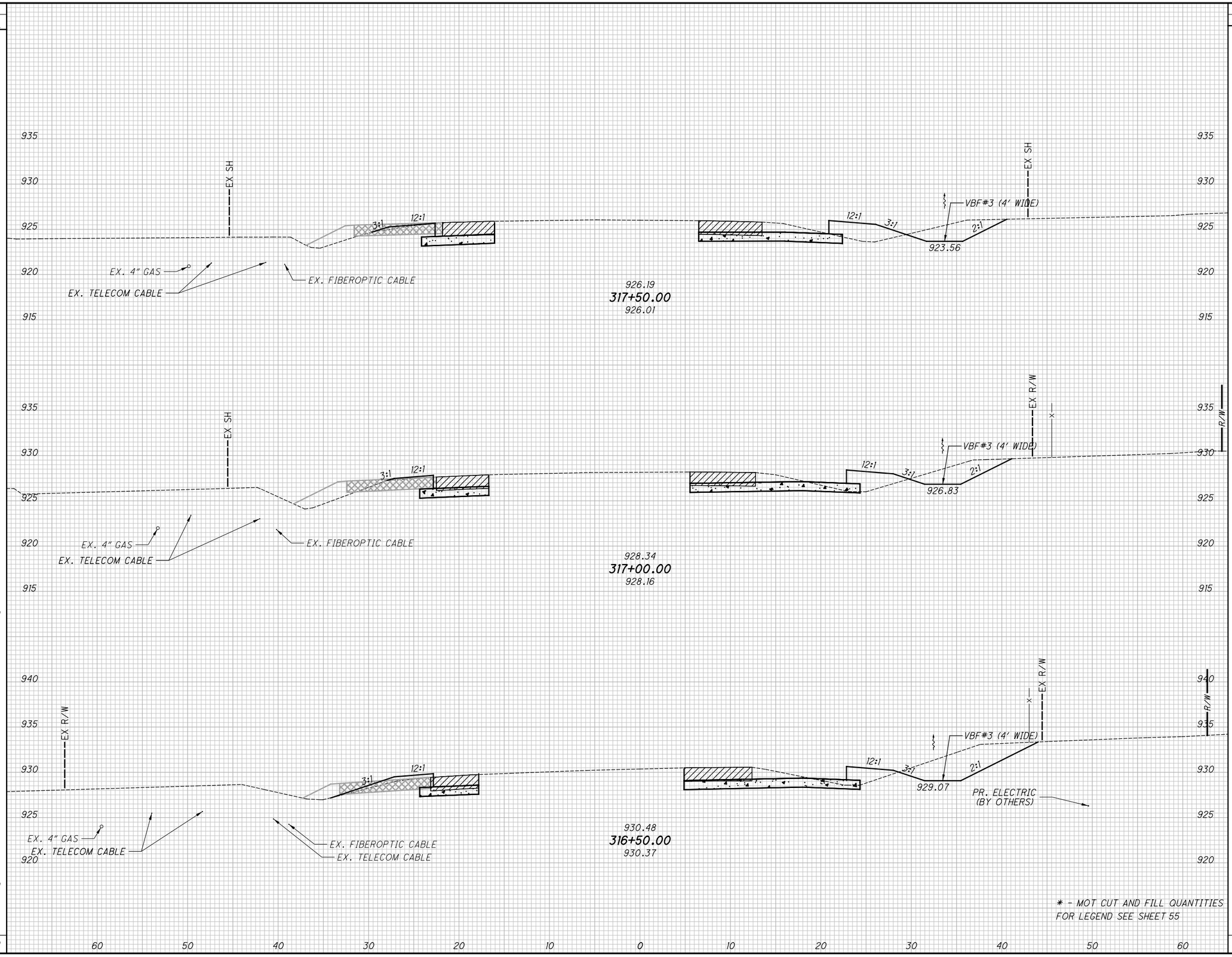
END AREA		VOLUME	
CUT	FILL	CUT	FILL
8*	3*		
45	21		
		14*	10*
		82	35
29*	8*		
44	17		
		34*	8*
		61	32
12*	1*		
22	18		
		37*	10*
		40	47
		183	114

CALCULATED SHR
CHECKED CWP

CROSS SECTIONS - S.R. 158
STA. 315+00.00 TO STA. 316+00.00

FAI-158-07.25

SEEDING	
END WIDTH	SQ. YDS.
29	151
25	169
36	199
	519



END AREA		VOLUME	
CUT	FILL	CUT	FILL
6*	6*		
20	17		
		9*	14*
		44	31
8*	8*		
28	17		
		12*	12*
		57	32
7*	4*		
34	17		
		14*	7*
		73	35
		174	98

* - MOT CUT AND FILL QUANTITIES

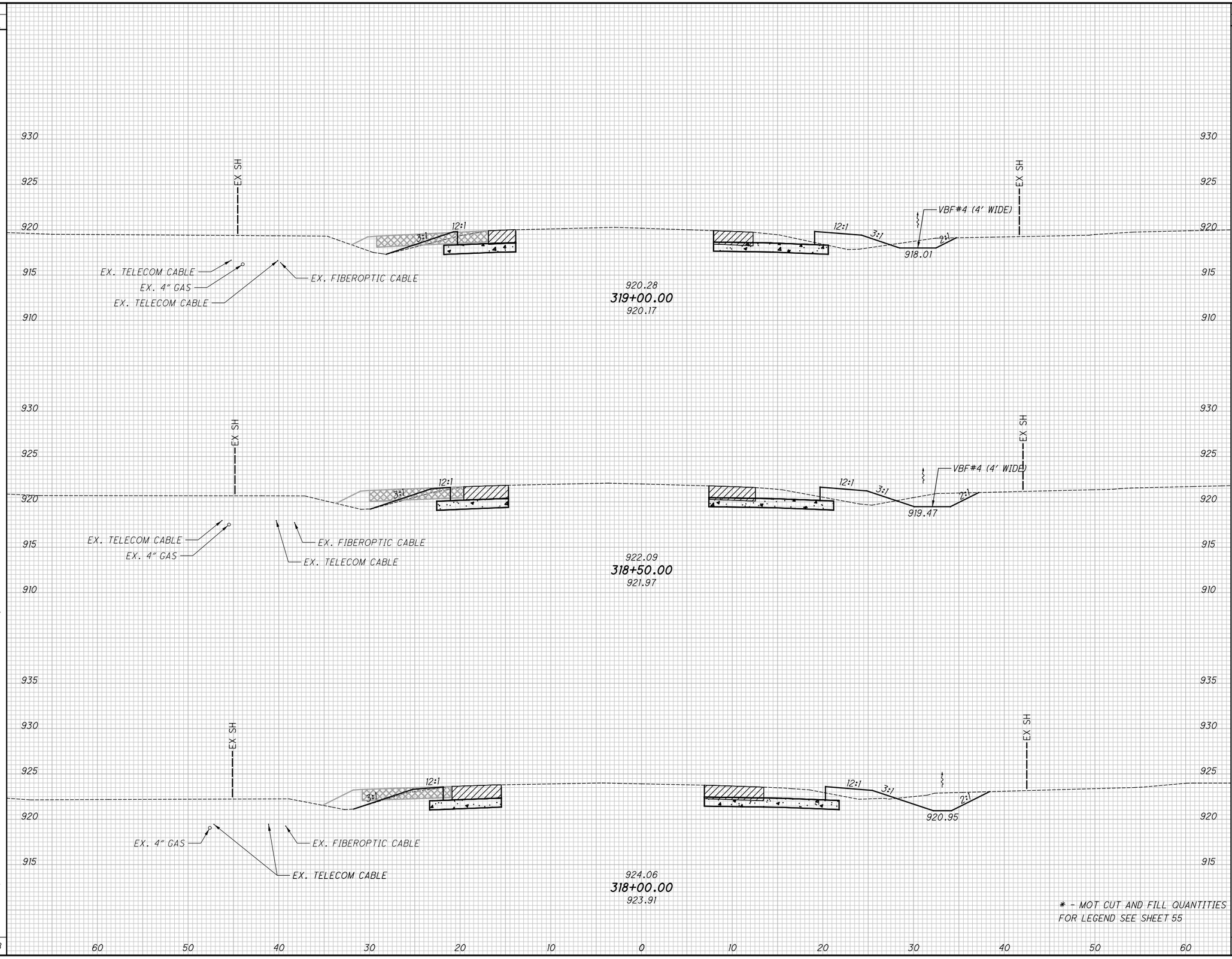
FOR LEGEND SEE SHEET 55

CALCULATED SHR
CHECKED CWP

CROSS SECTIONS - S.R. 158
STA. 316+50.00 TO STA. 317+50.00

FAI-158-07.25

SEEDING	
END WIDTH	SQ. YDS.
25	151
29	163
30	164
	478



END AREA		VOLUME	
CUT	FILL	CUT	FILL
1*	5*		
15	16		
		8*	10*
		30	27
3*	6*		
18	14		
		4*	12*
		34	22
4*	6*		
19	10		
		7*	12*
		36	24
		100	73

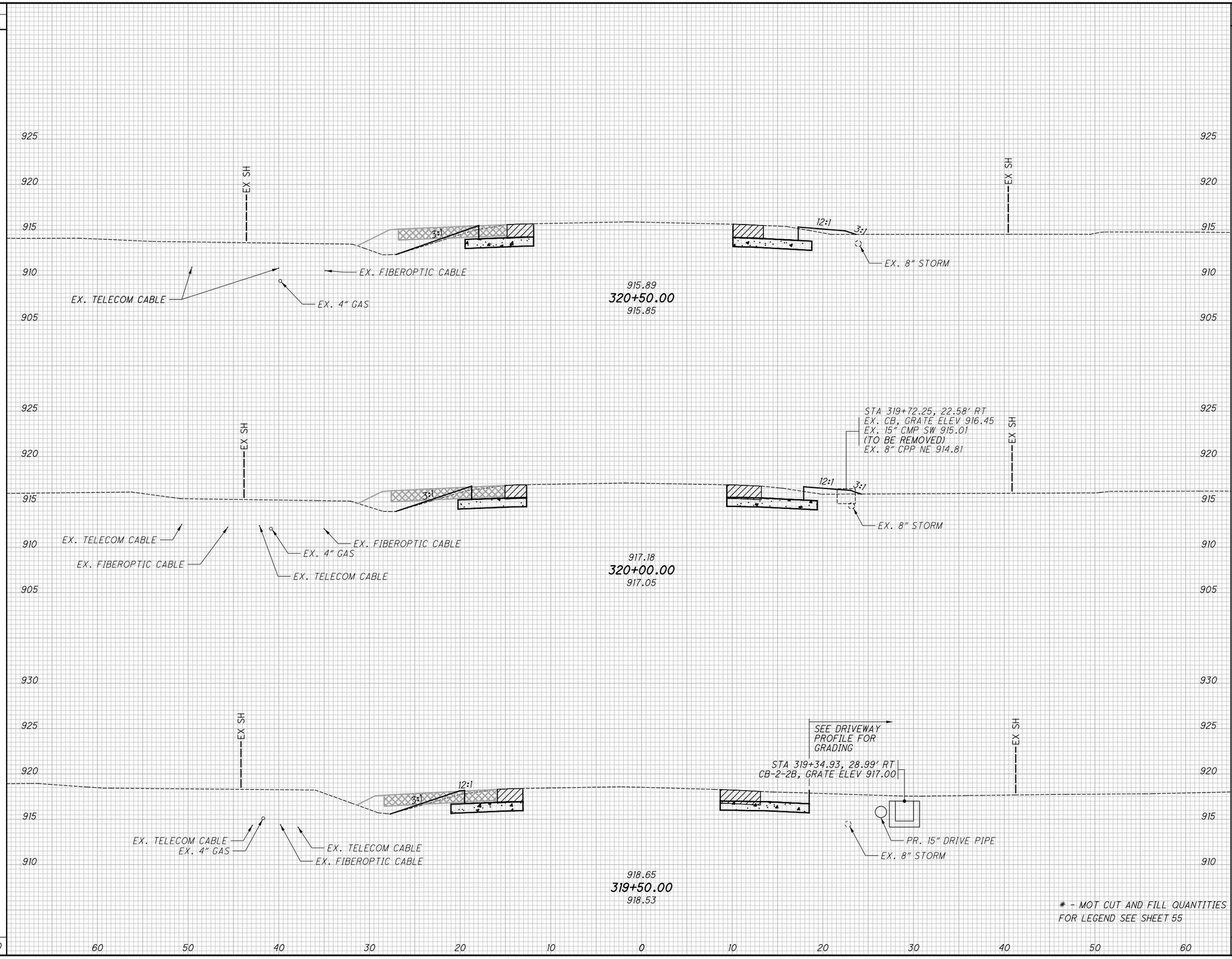
* - MOT CUT AND FILL QUANTITIES
FOR LEGEND SEE SHEET 55

CALCULATED SHR
CHECKED CWP

CROSS SECTIONS - S.R. 158
STA. 318+00.00 TO STA. 319+00.00

FAI-158-07.25

SEEDING	
END WIDTH	SQ. YDS.
17	93
16	116
25	141
	350



END AREA		VOLUME	
CUT	FILL	CUT	FILL
5*	12*		
9	6		
		11*	18*
		17	11
6*	8*		
10	7		
		11*	12*
		19	10
7*	6*		
11	4		
		12*	10*
		24	18
		60	39

* - MOT CUT AND FILL QUANTITIES
FOR LEGEND SEE SHEET 55

CALCULATED SHR
CHECKED CWP

CROSS SECTIONS - S.R. 158
STA. 319+50.00 TO STA. 320+50.00

FAI-158-07.25

SEEDING	
END WIDTH	SQ. YDS.
0	0
0	0
0	0
0	49
	49

END AREA		VOLUME	
CUT	FILL	CUT	FILL
6*	7*		
0	0		
		12*	15*
		0	0
6*	9*		
0	0		
		11*	16*
		0	0
6*	11*		
0	0		
		9*	4*
		0	0
6*	11*		
0	0		
		2*	21*
		9	5
		9	5

* - MOT CUT AND FILL QUANTITIES
FOR LEGEND SEE SHEET 55

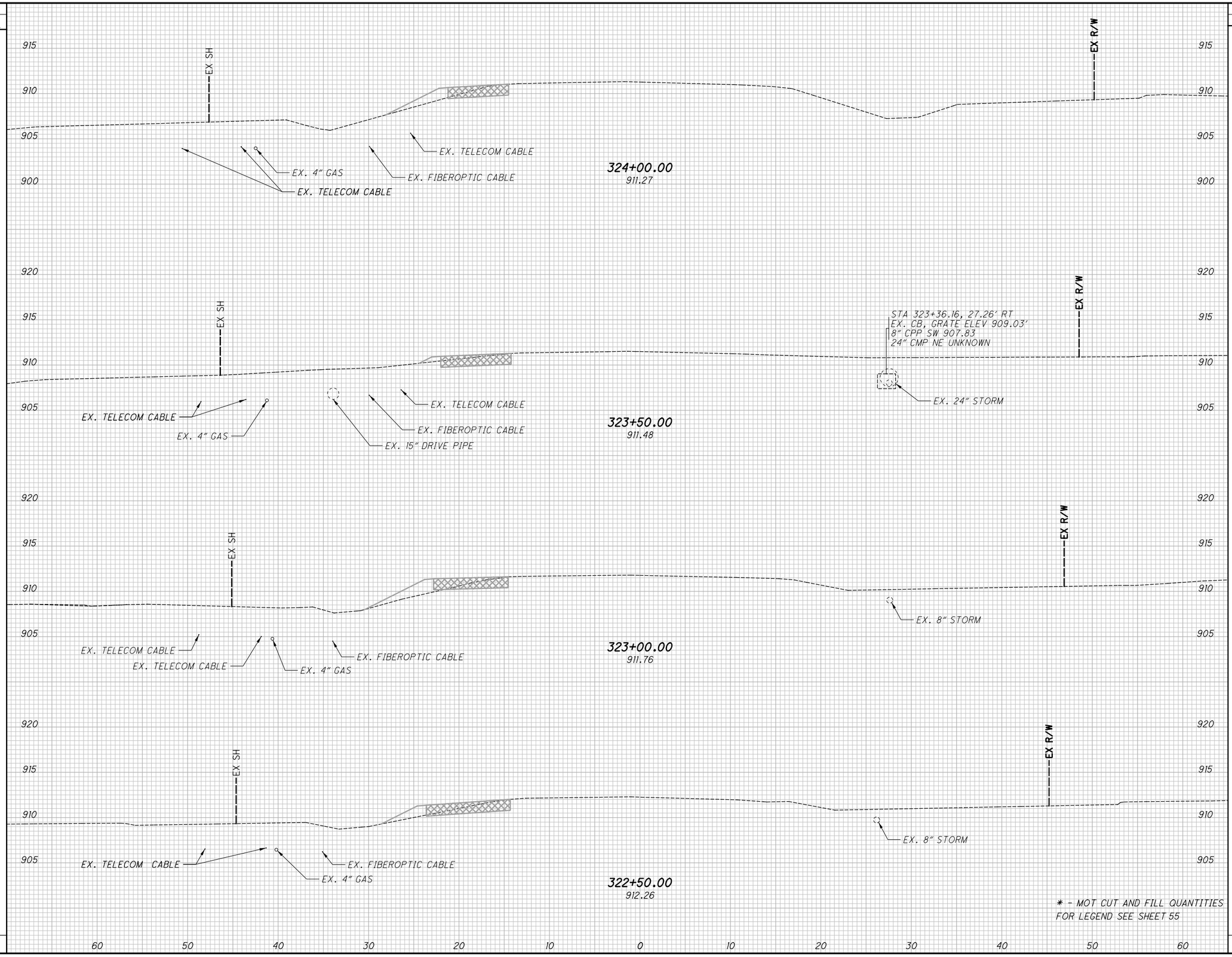
CALCULATED SHR
CHECKED CWP

CROSS SECTIONS - S.R. 158
STA. 321+00.00 TO STA. 322+00.00

FAI-158-07.25

P:\CLE\ODOT\Projects\50710I0073 - FAI-I58-07.25\FAI\I0409\Design\Roadway\Sheets\I0409_XS00I.dgn Sheet1 10/29/2021 2:56:17 PM ROB89354

SEEDING	
END WIDTH	SQ. YDS.
0	0
	0
0	
	0
0	
	0
0	



END AREA	
CUT	FILL
5*	5*
0	0
7*	1*
0	0
4*	7*
0	0
7*	4*
0	0

VOLUME	
CUT	FILL
9*	5*
0	0
12*	8*
0	0
11*	10*
0	0
10*	9*
0	0
0	0

* - MOT CUT AND FILL QUANTITIES

FOR LEGEND SEE SHEET 55

CALCULATED SHR
CHECKED CWP

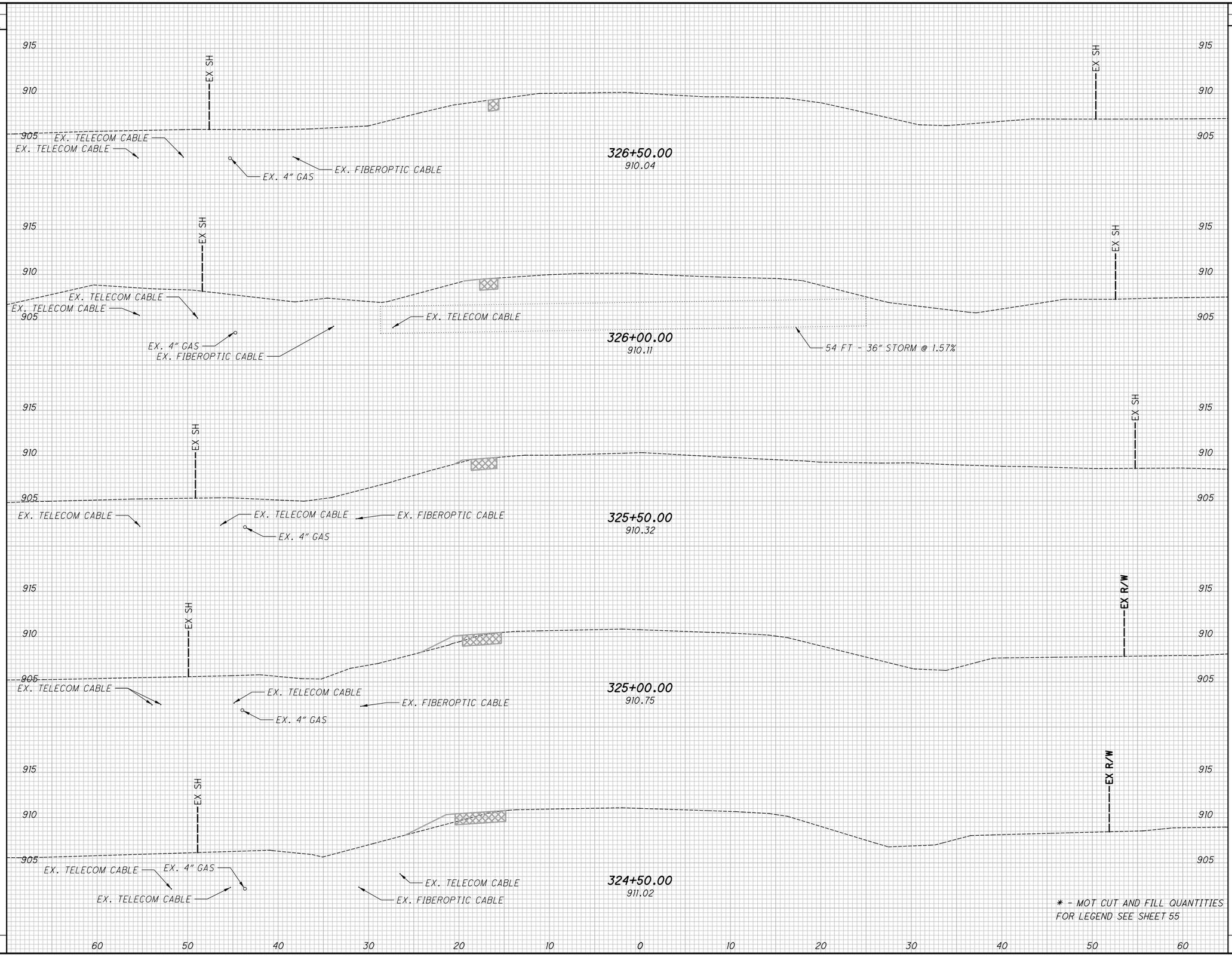
CROSS SECTIONS - S.R. 158
STA. 322+50.00 TO STA. 324+00.00

FAI-158-07.25

69
131

P:\CLE\ODOT\Projects\50710073 - FAI-158-07.25\FAI\10409\Design\Roadway\Sheets\110409_XS001.dgn Sheet1 10/29/2021 2:56:18 PM ROB89354

SEEDING END WIDTH	SEEDING SQ. YDS.
0	0
0	0
0	0
0	0
0	0
0	0



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
1*	0*		
0	0		
		2*	0*
		0	0
2*	0*		
0	0		
		3*	0*
		0	0
3*	0*		
0	0		
		5*	2*
		0	0
4*	2*		
0	0		
		7*	5*
		0	0
5*	3*		
0	0		
		8*	8*
		0	0
		0	0

* - MOT CUT AND FILL QUANTITIES
FOR LEGEND SEE SHEET 55

CALCULATED SHR
CHECKED CWP

CROSS SECTIONS - S.R. 158
STA. 324+50.00 TO STA. 326+50.00

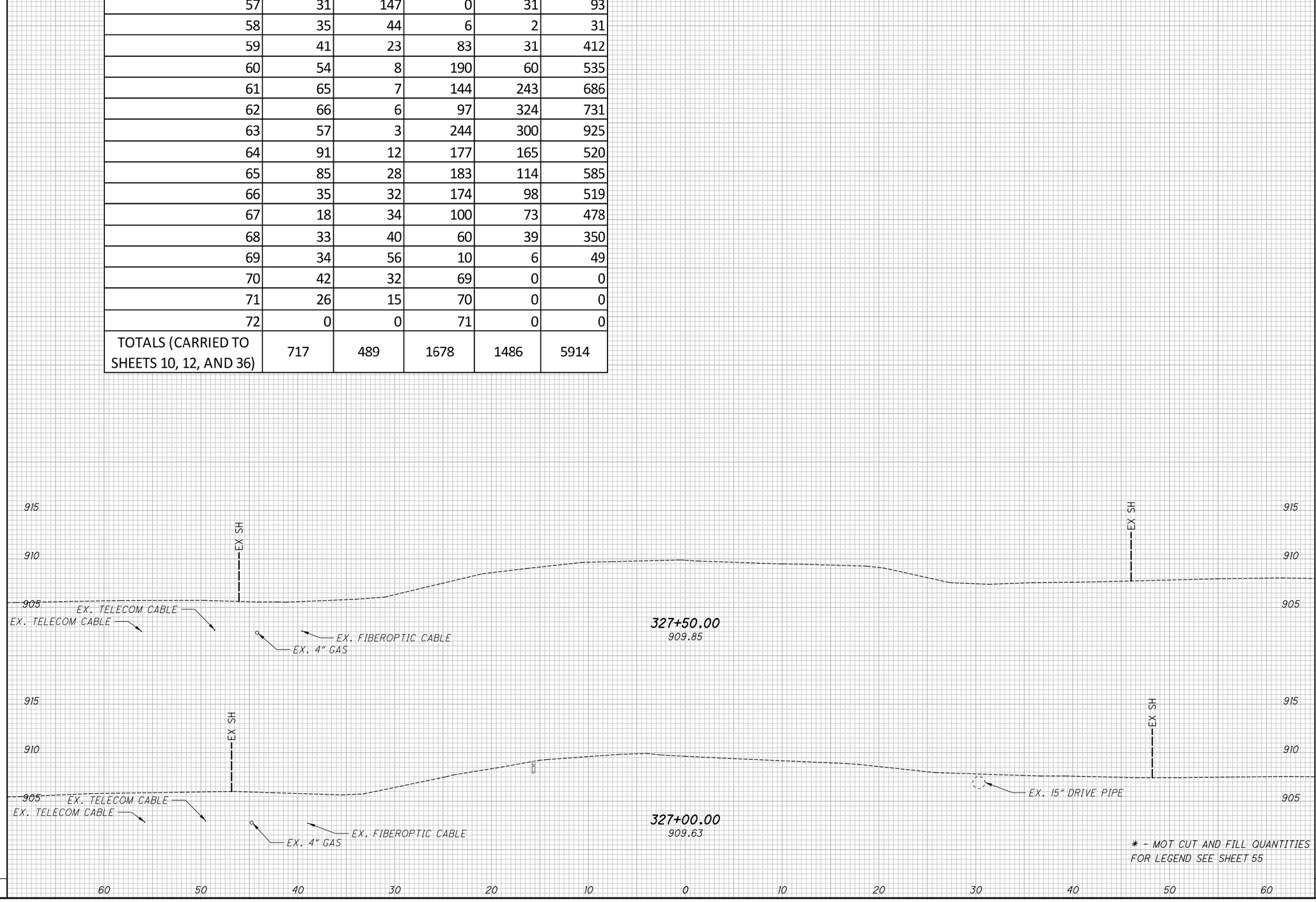
FAI-158-07.25

70
131

P:\CLE\ODOT\Projects\50710073 - FAI-158-07.25\FAI\10409\Design\Roadway\Sheets\110409_XS001.dgn Sheet 10/29/2021 2:56:19 PM ROB89354

SEEDING	
END WIDTH	SQ. YDS.
0	0
0	0
0	0
0	0

S.R. 158 EARTHWORK					
SHEET NO.	MOT CUT	MOT FILL	CUT	FILL	SEEDING
56	4	0	0	0	0
57	31	147	0	31	93
58	35	44	6	2	31
59	41	23	83	31	412
60	54	8	190	60	535
61	65	7	144	243	686
62	66	6	97	324	731
63	57	3	244	300	925
64	91	12	177	165	520
65	85	28	183	114	585
66	35	32	174	98	519
67	18	34	100	73	478
68	33	40	60	39	350
69	34	56	10	6	49
70	42	32	69	0	0
71	26	15	70	0	0
72	0	0	71	0	0
TOTALS (CARRIED TO SHEETS 10, 12, AND 36)	717	489	1678	1486	5914



* - MOT CUT AND FILL QUANTITIES FOR LEGEND SEE SHEET 55

END AREA		VOLUME	
CUT	FILL	CUT	FILL
0	0	0	0
0	0	0	0
0	0	0	0

CALCULATED SHR
CHECKED CWP

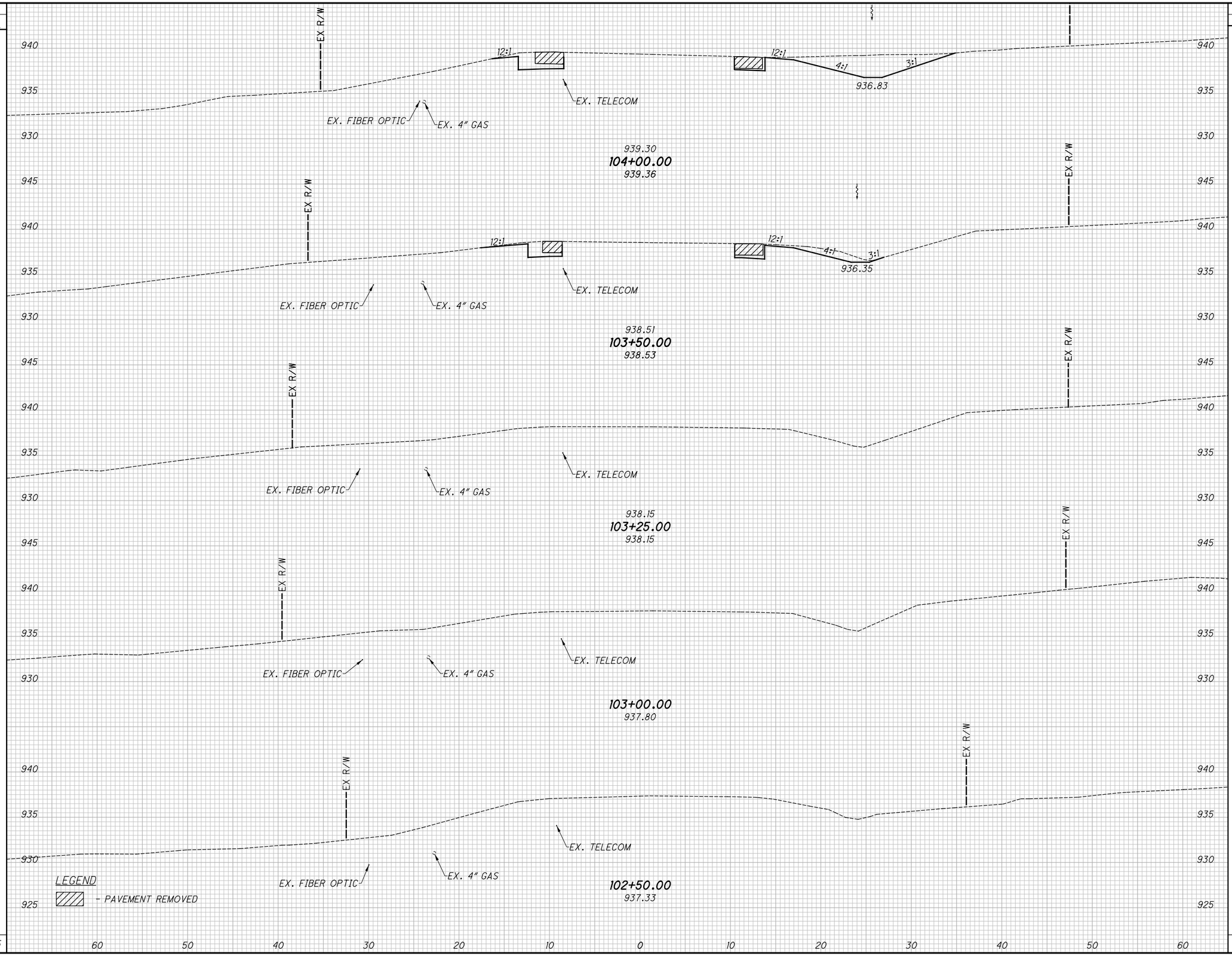
CROSS SECTIONS - S.R. 158
STA. 327+00.00 TO STA. 327+50.00

FAI-158-07.25

71
131

P:\CLE\ODOT\Projects\507100173 - FAI-158-07.25\FAI\110409\Design\Roadway\Sheets\BMP Changes\110409_XS001.dgn Sheet 2/9/2022 3:32:36 PM PRE47802

SEEDING	
END WIDTH	SQ. YDS.
26	127
20	28
0	0
0	0
0	0
	155



END AREA	
CUT	FILL
33	3
13	0
1	0
0	0
0	0

VOLUME	
CUT	FILL
42	3
6	0
0	0
0	0
48	3

CALCULATED SHR
CHECKED CWP

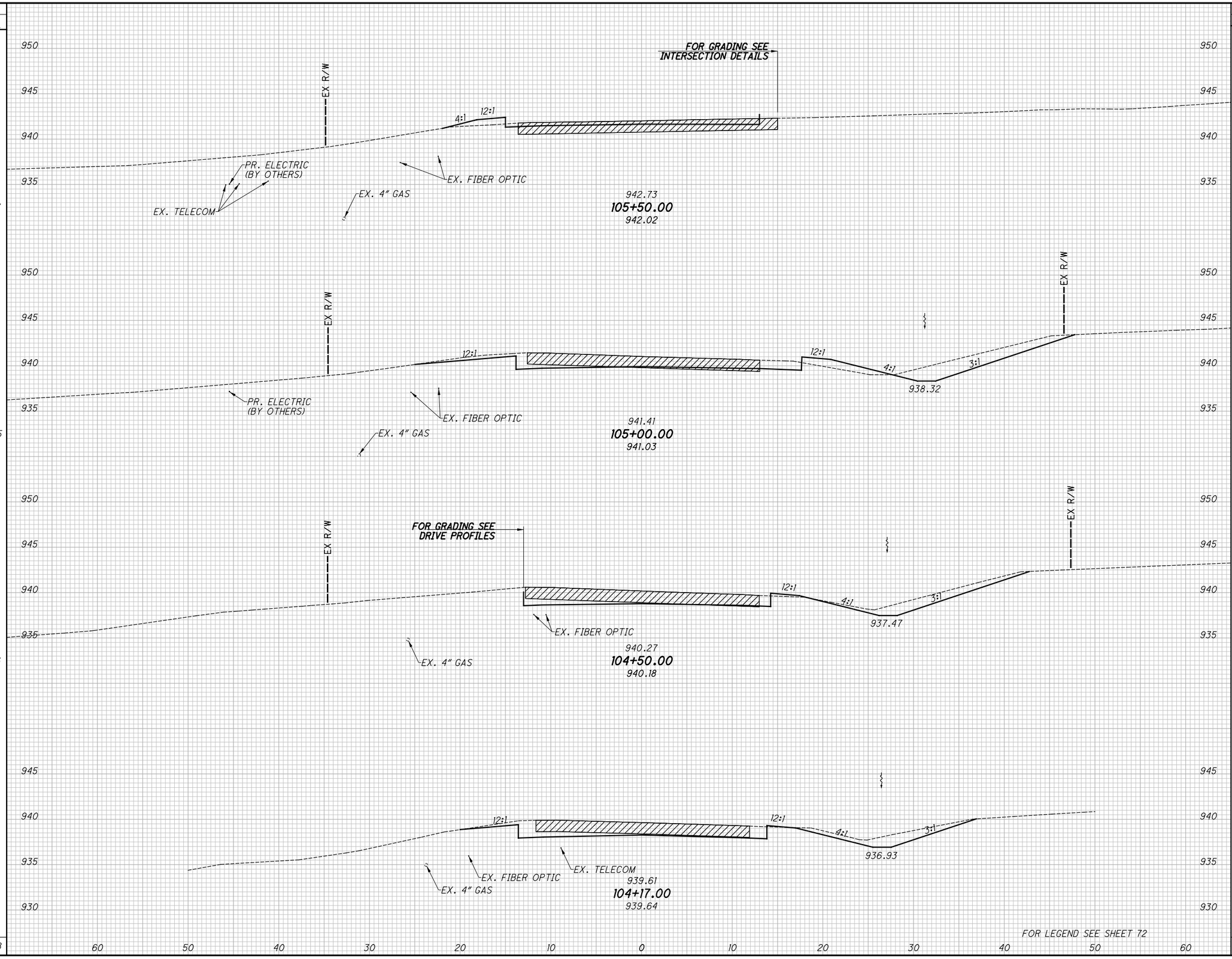
CROSS SECTIONS CR-17
STA. 103+25.00 TO STA. 104+00.00

FAI-158-07.25

72
131

P:\CLE\ODOT\Projects\50710073 - FAI-158-07.25\FAI\10409\Design\Roadway\Sheets\110409_XS002.dgn Sheet 10/29/2021 12:59:08 PM ROB89354

SEEDING END WIDTH	SEEDING SQ. YDS.
8	143
43	205
30	156
31	54
	558



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
1	27		
		16	39
17	16		
		33	21
20	8		
		49	10
22	4		
		18	2
		116	72

CALCULATED SHR
CHECKED CWP

CROSS SECTIONS CR-17
STA. 104+17.00 TO STA. 105+50.00

FAI-158-07.25

73
131

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SEEDING	
END WIDTH	SQ. YDS.
71	390
69	371
64	178
0	0
	939

END AREA	
CUT	FILL
19	256
13	178
59	45
1	16

VOLUME	
CUT	FILL
29	402
67	207
56	56
1	39
153	704

CALCULATED SHR
CHECKED CWP

CROSS SECTIONS CR-17
STA. 106+00.00 TO STA. 107+50.00

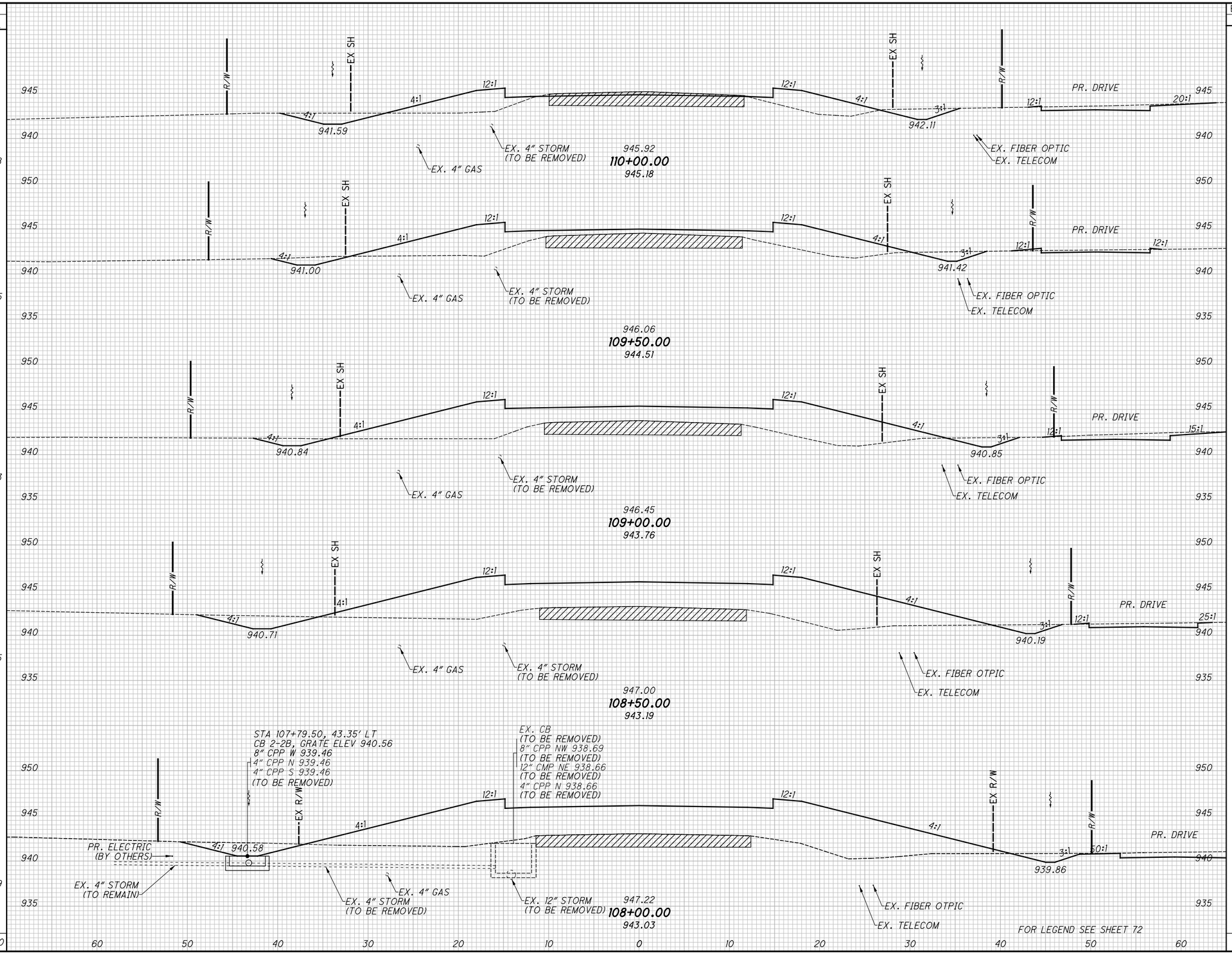
FAI-158-07.25

74
131

P:\CLE\ODOT\Projects\50710073 - FAI-158-07.25\FAI\10409\Design\Roadway\Sheets\10409_XS002.dgn Sheet 10/29/2021 2:59:09 PM ROB89354

FOR LEGEND SEE SHEET 72

SEEDING END WIDTH	SEEDING SQ. YDS.
48	278
52	305
58	353
69	395
73	399
	1730



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
15	69		
10	119	23	174
9	184	17	281
16	245	23	397
17	276	30	482
		32	492
		125	1826

CALCULATED SHR
CHECKED CWP

CROSS SECTIONS CR-17
STA. 108+00.00 TO STA. 110+00.00

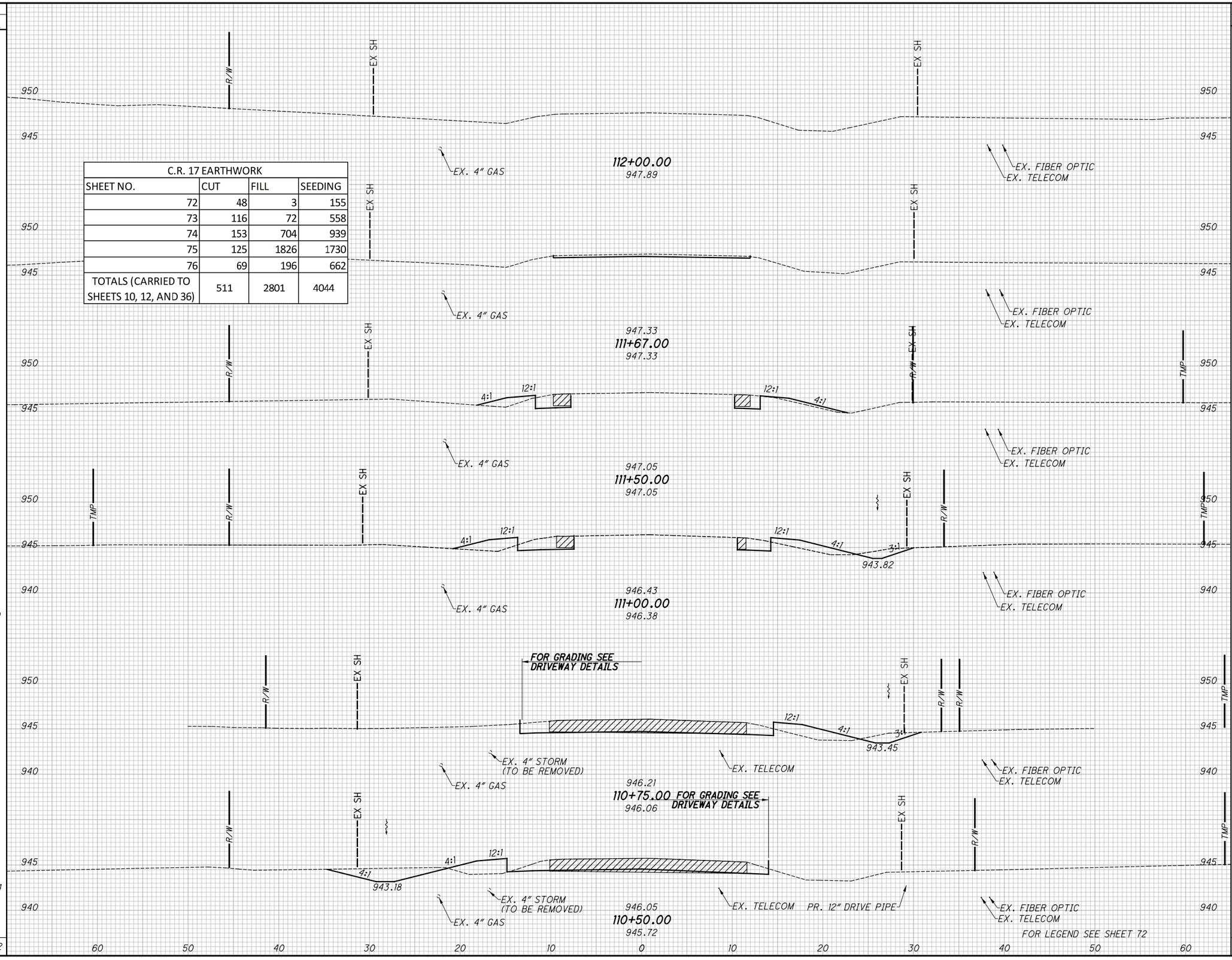
FAI-158-07.25

FOR LEGEND SEE SHEET 72

P:\CLE\ODOT\Projects\50710073 - FAI-158-07.25\FAI\110409\Design\Roadway\Sheets\110409_XS002.dgn Sheet 10/29/2021 12:59:10 PM ROBB9354

SEEDING END WIDTH	SEEDING SQ. YDS.
0	0
	0
0	
	17
17	
	118
24	
	189
17	
	84
43	
	254
	662

C.R. 17 EARTHWORK			
SHEET NO.	CUT	FILL	SEEDING
72	48	3	155
73	116	72	558
74	153	704	939
75	125	1826	1730
76	69	196	662
TOTALS (CARRIED TO SHEETS 10, 12, AND 36)	511	2801	4044



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
0	0		
		0	0
0	0		
		1	2
3	7		
		8	19
6	15		
		21	50
4	11		
		10	24
17	40		
		29	101
		69	196

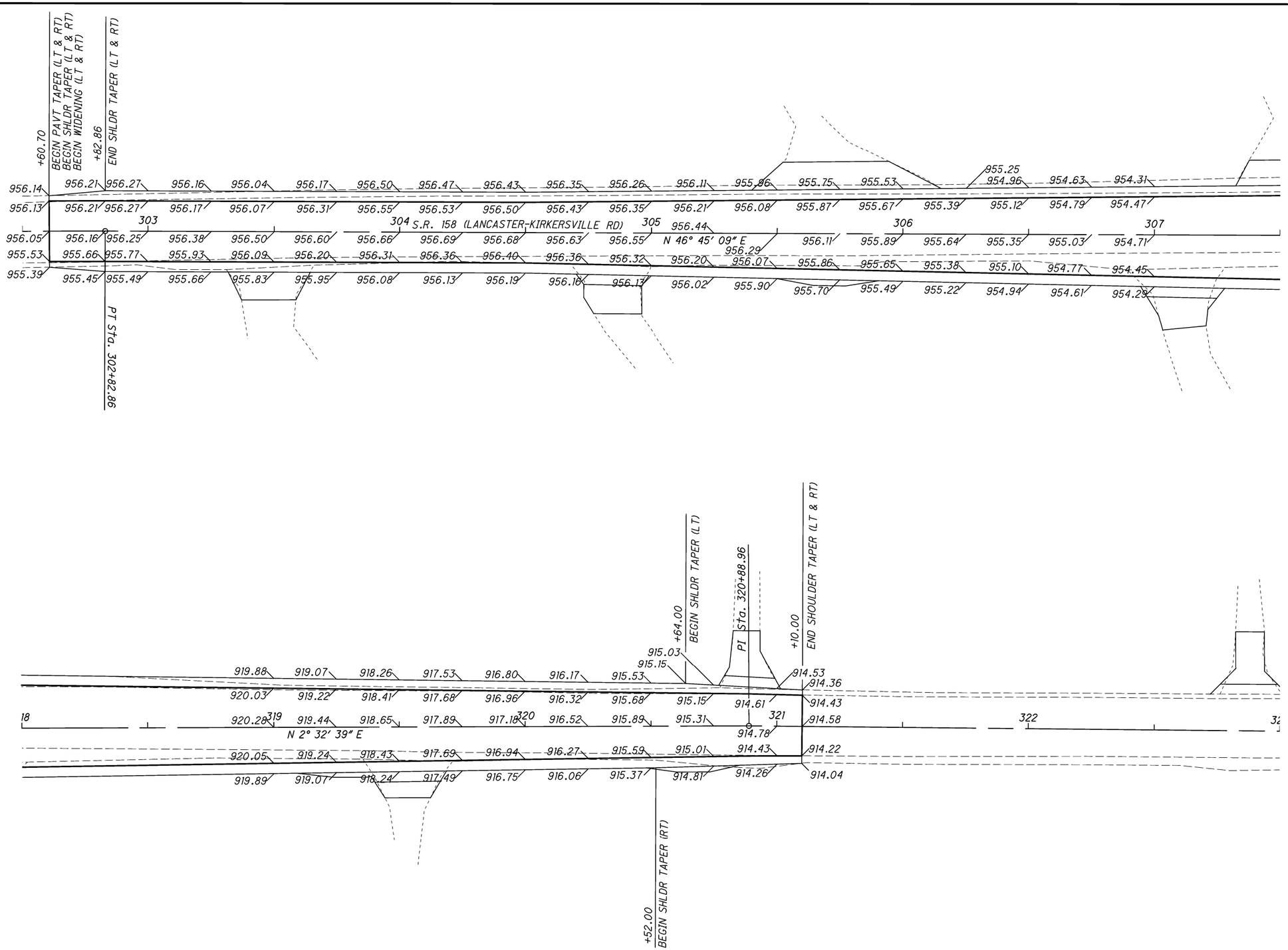
CALCULATED SHR
CHECKED CWP

CROSS SECTIONS CR-17
STA. 110+50.00 TO STA. 112+00.00

FAI-158-07.25

76
131

P:\CLE\ODOT\Projects\50710073 - FAI-158-07.25\FAI\110409\Design\Roadway\Sheets\110409_XS002.dgn Sheet 10/29/2021 2:59:10 PM ROB89354



HORIZONTAL SCALE IN FEET
0 10 20 40

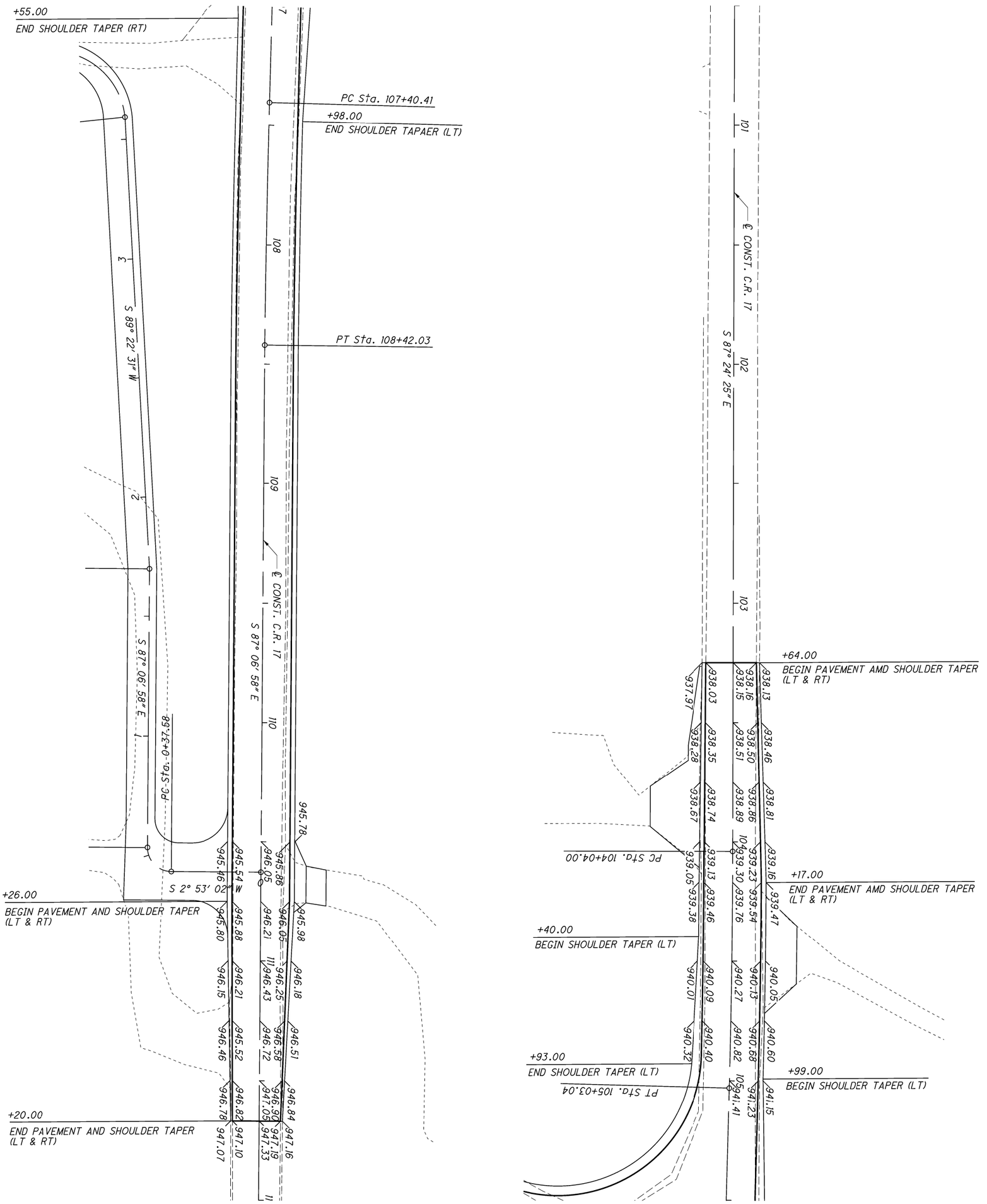
CALCULATED SHR
CHECKED CWP

PAVEMENT TRANSITIONS
S.R. 158

FAI-158-07.25

77
131

P:\CLE\000T\Projects\50710073 - FAI-158-07.25\FAI\110409\Design\Roadway\Sheets\110409_GA001.dgn Sheet1 10/29/2021 2:59:17 PM R0889354



78 / 131	FAI-158-07.25	PAVEMENT TRANSITIONS C.R. 17	CALCULATED SHR CHECKED CWP	0 10 20 40 HORIZONTAL SCALE IN FEET

S.R. 158 - SUPERELEVATION TABLE

P.I. STATION = 312+61.29 | Dc = 5° 59' 58"

LEFT SHOULDER EDGE				LEFT SIDE					CENTERLINE CONTROL		RIGHT SIDE					RIGHT SHOULDER EDGE				
SHOULDER ELEVATION	ELEVATION CORRECTION	CROSS SLOPE	WIDTH	EOP ELEVATION	TRANSITION RATE	ELEVATION CORRECTION	CROSS SLOPE	WIDTH	STATION	PROFILE GRADE	WIDTH	CROSS SLOPE	ELEVATION CORRECTION	TRANSITION RATE	LANE ELEVATION	WIDTH	CROSS SLOPE	ELEVATION CORRECTION	SHOULDER ELEVATION	REMARKS
954.19	-0.16	-0.04	4.0	954.35		-0.24	-0.016	15.24	307+09.11	954.59	16.71	-0.016	-0.27		954.32	4.0	-0.04	-0.16	954.16	**NC**
953.98	-0.16	-0.04	4.0	954.14		-0.25	-0.016	15.44	307+25.00	954.39	17.00	**-0.011**	-0.19		954.20	4.0	-0.04	-0.16	954.04	
953.66	-0.16	-0.04	4.0	953.82		-0.25	-0.016	15.75	307+50.00	954.07	17.46	**-0.003**	-0.06		954.01	4.0	-0.04	-0.16	953.85	
953.53	-0.16	-0.04	4.0	953.69		-0.25	-0.016	15.84	307+57.29	953.94	17.59	**0.000**	0.00		953.94	4.0	-0.04	-0.16	953.78	**LEVEL**
953.33	-0.16	-0.04	4.0	953.49		-0.26	-0.016	16.06	307+75.00	953.75	17.91	**0.005**	0.08		953.83	4.0	-0.04	-0.16	953.67	
953.01	-0.16	-0.04	4.0	953.17		-0.26	-0.016	16.38	308+00.00	953.43	18.00	**0.013**	0.23		953.66	4.0	-0.04	-0.16	953.50	
952.87	-0.16	-0.04	4.0	953.03		-0.26	-0.016	16.51	308+11.11	953.29	18.00	**0.016**	0.29		953.58	4.0	-0.04	-0.16	953.42	**RC**
952.66	-0.16	-0.04	4.0	952.82		-0.29	**-0.017**	16.69	308+25.00	953.11	18.00	**0.017**	0.31		953.42	4.0	-0.04	-0.16	953.26	
952.29	-0.16	-0.04	4.0	952.45		-0.34	**-0.020**	17.00	308+50.00	952.79	18.00	**0.020**	0.36		953.15	4.0	-0.04	-0.16	952.99	
951.91	-0.16	-0.04	4.0	952.07		-0.39	**-0.022**	17.31	308+75.00	952.46	18.00	**0.022**	0.40		952.86	4.0	-0.04	-0.16	952.70	
951.50	-0.16	-0.04	4.0	951.66		-0.44	**-0.025**	17.63	309+00.00	952.10	18.00	**0.025**	0.45		952.55	4.0	-0.04	-0.16	952.39	
951.06	-0.16	-0.04	4.0	951.22		-0.50	**-0.028**	17.94	309+25.00	951.72	18.00	**0.028**	0.50		952.23	4.0	-0.04	-0.16	952.07	
950.60	-0.16	-0.04	4.0	950.76		-0.56	**-0.031**	18.00	309+50.00	951.32	18.00	**0.031**	0.56		951.88	4.0	-0.04	-0.16	951.72	
950.12	-0.16	-0.04	4.0	950.28		-0.62	**-0.034**	18.00	309+75.00	950.90	18.00	**0.034**	0.62		951.51	4.0	-0.04	-0.16	951.35	
949.61	-0.16	-0.04	4.0	949.77		-0.68	**-0.038**	18.00	310+00.00	950.45	18.00	**0.038**	0.68		951.13	4.0	**-0.034**	-0.14	950.99	
949.28	-0.16	-0.04	4.0	949.44	213:1	-0.72	-0.040	18.00	310+15.11	950.16	18.00	0.040	0.72	213:1	950.88	4.0	-0.03	-0.12	950.76	**FS**
949.09	-0.16	-0.04	4.0	949.25		-0.72	-0.040	18.00	310+25.00	949.97	18.00	0.040	0.72		950.69	4.0	-0.03	-0.12	950.57	
948.60	-0.16	-0.04	4.0	948.76		-0.72	-0.040	18.00	310+50.00	949.48	18.00	0.040	0.72		950.20	4.0	-0.03	-0.12	950.08	
948.08	-0.16	-0.04	4.0	948.24		-0.72	-0.040	18.00	310+75.00	948.96	18.00	0.040	0.72		949.68	4.0	-0.03	-0.12	949.56	
947.53	-0.16	-0.04	4.0	947.69		-0.72	-0.040	18.00	311+00.00	948.41	18.00	0.040	0.72		949.13	4.0	-0.03	-0.12	949.01	
946.96	-0.16	-0.04	4.0	947.12		-0.72	-0.040	18.00	311+25.00	947.84	18.00	0.040	0.72		948.56	4.0	-0.03	-0.12	948.44	
946.37	-0.16	-0.04	4.0	946.53		-0.72	-0.040	18.00	311+50.00	947.25	18.00	0.040	0.72		947.97	4.0	-0.03	-0.12	947.85	
945.76	-0.16	-0.04	4.0	945.92		-0.72	-0.040	18.00	311+75.00	946.64	18.00	0.040	0.72		947.36	4.0	-0.03	-0.12	947.24	
945.12	-0.16	-0.04	4.0	945.28		-0.72	-0.040	18.00	312+00.00	946.00	18.00	0.040	0.72		946.72	4.0	-0.03	-0.12	946.60	
944.46	-0.16	-0.04	4.0	944.62		-0.72	-0.040	18.00	312+25.00	945.34	18.00	0.040	0.72		946.06	4.0	-0.03	-0.12	945.94	
943.77	-0.16	-0.04	4.0	943.93		-0.72	-0.040	18.00	312+50.00	944.65	18.00	0.040	0.72		945.37	4.0	-0.03	-0.12	945.25	
943.06	-0.16	-0.04	4.0	943.22		-0.72	-0.040	18.00	312+75.00	943.94	18.00	0.040	0.72		944.66	4.0	-0.03	-0.12	944.54	
942.33	-0.16	-0.04	4.0	942.49		-0.72	-0.040	18.00	313+00.00	943.21	18.00	0.040	0.72		943.93	4.0	-0.03	-0.12	943.81	
941.58	-0.16	-0.04	4.0	941.74		-0.72	-0.040	18.00	313+25.00	942.46	18.00	0.040	0.72		943.18	4.0	-0.03	-0.12	943.06	
940.80	-0.16	-0.04	4.0	940.96		-0.72	-0.040	18.00	313+50.00	941.68	18.00	0.040	0.72		942.40	4.0	-0.03	-0.12	942.28	
939.99	-0.16	-0.04	4.0	940.15		-0.72	-0.040	18.00	313+75.00	940.87	18.00	0.040	0.72		941.59	4.0	-0.03	-0.12	941.47	
939.17	-0.16	-0.04	4.0	939.33		-0.72	-0.040	18.00	314+00.00	940.05	18.00	0.040	0.72		940.77	4.0	-0.03	-0.12	940.65	
938.32	-0.16	-0.04	4.0	938.48		-0.72	-0.040	18.00	314+25.00	939.20	18.00	0.040	0.72		939.92	4.0	-0.03	-0.12	939.80	
937.44	-0.16	-0.04	4.0	937.60		-0.72	-0.040	18.00	314+50.00	938.32	18.00	0.040	0.72		939.04	4.0	-0.03	-0.12	938.92	
935.74	-0.16	-0.04	4.0	935.90		-0.72	-0.040	18.00	314+96.97	936.62	18.00	0.040	0.72		937.34	4.0	-0.03	-0.12	937.22	**FS**
935.63	-0.16	-0.04	4.0	935.79		-0.71	**-0.040**	18.00	315+00.00	936.51	18.00	**0.040**	0.71		937.22	4.0	**-0.031**	-0.12	937.09	
934.74	-0.16	-0.04	4.0	934.90		-0.66	**-0.037**	18.00	315+25.00	935.56	18.00	**0.037**	0.66		936.23	4.0	-0.04	-0.16	936.07	
933.82	-0.16	-0.04	4.0	933.98		-0.61	**-0.034**	18.00	315+50.00	934.59	18.00	**0.034**	0.61		935.21	4.0	-0.04	-0.16	935.05	
932.88	-0.16	-0.04	4.0	933.04		-0.56	**-0.031**	18.00	315+75.00	933.60	18.00	**0.031**	0.56		934.16	4.0	-0.04	-0.16	934.00	
931.92	-0.16	-0.04	4.0	932.08		-0.51	**-0.028**	18.00	316+00.00	932.59	17.85	**0.028**	0.51		933.09	4.0	-0.04	-0.16	932.93	
930.93	-0.16	-0.04	4.0	931.09		-0.46	**-0.025**	18.00	316+25.00	931.55	17.55	**0.025**	0.45		931.99	4.0	-0.04	-0.16	931.83	
929.92	-0.16	-0.04	4.0	930.08		-0.40	**-0.022**	18.00	316+50.00	930.48	17.25	**0.022**	0.38		930.87	4.0	-0.04	-0.16	930.71	
928.91	-0.16	-0.04	4.0	929.07		-0.35	**-0.019**	18.00	316+75.00	929.41	16.94	**0.019**	0.33		929.74	4.0	-0.04	-0.16	929.58	
927.89	-0.16	-0.04	4.0	928.05		-0.29	**-0.016**	18.00	317+00.00	928.34	16.64	**0.016**	0.27		928.60	4.0	-0.04	-0.16	928.44	
927.85	-0.16	-0.04	4.0	928.01		-0.29	-0.016	18.00	317+00.97	928.30	16.62	**0.016**	0.27		928.57	4.0	-0.04	-0.16	928.41	**RC**
926.81	-0.16	-0.04	4.0	926.97		-0.29	-0.016	18.00	317+25.00	927.26	16.33	**0.008**	0.14		927.40	4.0	-0.04	-0.16	927.24	
925.74	-0.16	-0.04	4.0	925.90		-0.29	-0.016	17.82	317+50.00	926.19	16.03	**0.001**	0.01		926.20	4.0	-0.04	-0.16	926.04	
925.66	-0.16	-0.04	4.0	925.82		-0.28	-0.016	17.79	317+51.97	926.10	16.00	**0.000**	0.00		926.10	4.0	-0.04	-0.16	925.94	**LEVEL**
924.68	-0.16	-0.04	4.0	924.84		-0.28	-0.016	17.44	317+75.00	925.11	15.72	**-0.007**	-0.11		925.00	4.0	-0.04	-0.16	924.84	
923.63	-0.16	-0.04	4.0	923.79		-0.27	-0.016	17.07	318+00.00	924.06	15.42	**-0.015**	-0.23		923.83	4.0	-0.04	-0.16	923.67	
923.51	-0.16	-0.04	4.0	923.67		-0.27	-0.016	17.02	318+02.97	923.94	15.38	-0.016	-0.25		923.69	4.0	-0.04	-0.16	923.53	**NC**

CALCULATED SHR | CHECKED CWP

SUPERELEVATION TABLE

S.R. 158

FAI-158-0725

STA. 313+14.27, 78' LT. ℄ S.R. 158 =
STA. 105+48.89, 72' RT. ℄ C.R. 17

Δ = 72°51'24.1"
R = 60'
L = 76.30'

CURVE #5
P.I. Sta. 104+53.52
Δ = 1° 25' 07" (RT)
Dc = 1° 25' 57"
R = 4,000.00'
T = 49.52'
L = 99.04'
E = 0.31'
C = 99.04'
C.B. = S 86° 41' 52" E

STA. 313+46.38, 68' RT. ℄ S.R. 158 =
STA. 106+97.99, 62' LT. ℄ C.R. 17

Δ = 105°13'00"
R = 50'
L = 91.82'

STA. 312+62.53, ℄ S.R. 158 =
STA. 106+06.84, ℄ C.R. 17

S 85° 59' 18" E

℄ CONST. C.R. 17
(PLEASANTVILLE RD.)

℄ CONST. S.R. 158

PT STA. 105+03.04

STA. 311+44.62, 78' LT. ℄ S.R. 158 =
STA. 104+89.78, 72' RT. ℄ C.R. 17

Δ = 117°30'41.4"
R = 60'
L = 123.06'

STA. 312+23.95, 68' RT. ℄ S.R. 158 =
STA. 106+55.56, 62' RT. ℄ C.R. 17

Δ = 67°26'17"
R = 50'
L = 58.85'

CURVE #3
P.I. Sta. 312+76.56
Δ = 44° 12' 30" (LT)
Dc = 5° 59' 58"
R = 955.00'
Ls = 255.00'
θs = 7° 38' 58"
LT = 170.16'
ST = 85.14'
x = 254.55'
y = 11.33'
k = 127.42'
p = 2.84'
Δc = 28° 54' 34" (LT)
Lc = 481.86'
Ts = 516.44'
Es = 78.82'
C = 476.77'
C1 = C2 = 254.80'
C.B.1 = N 44° 12' 12" E
C.B. = N 24° 38' 54" E
C.B.2 = S 5° 05' 37" W

24" ST
18" ST
21" ST
8" ST
10' Typ.
6.30'
1.82'
8.85'

HORIZONTAL SCALE IN FEET
0 5 10 20

CALCULATED SHR
CHECKED CWP

INTERSECTION DETAIL
S.R. 158 AND PLEASANTVILLE ROAD (C.R. 17)

FAI-158-07.25

80
131

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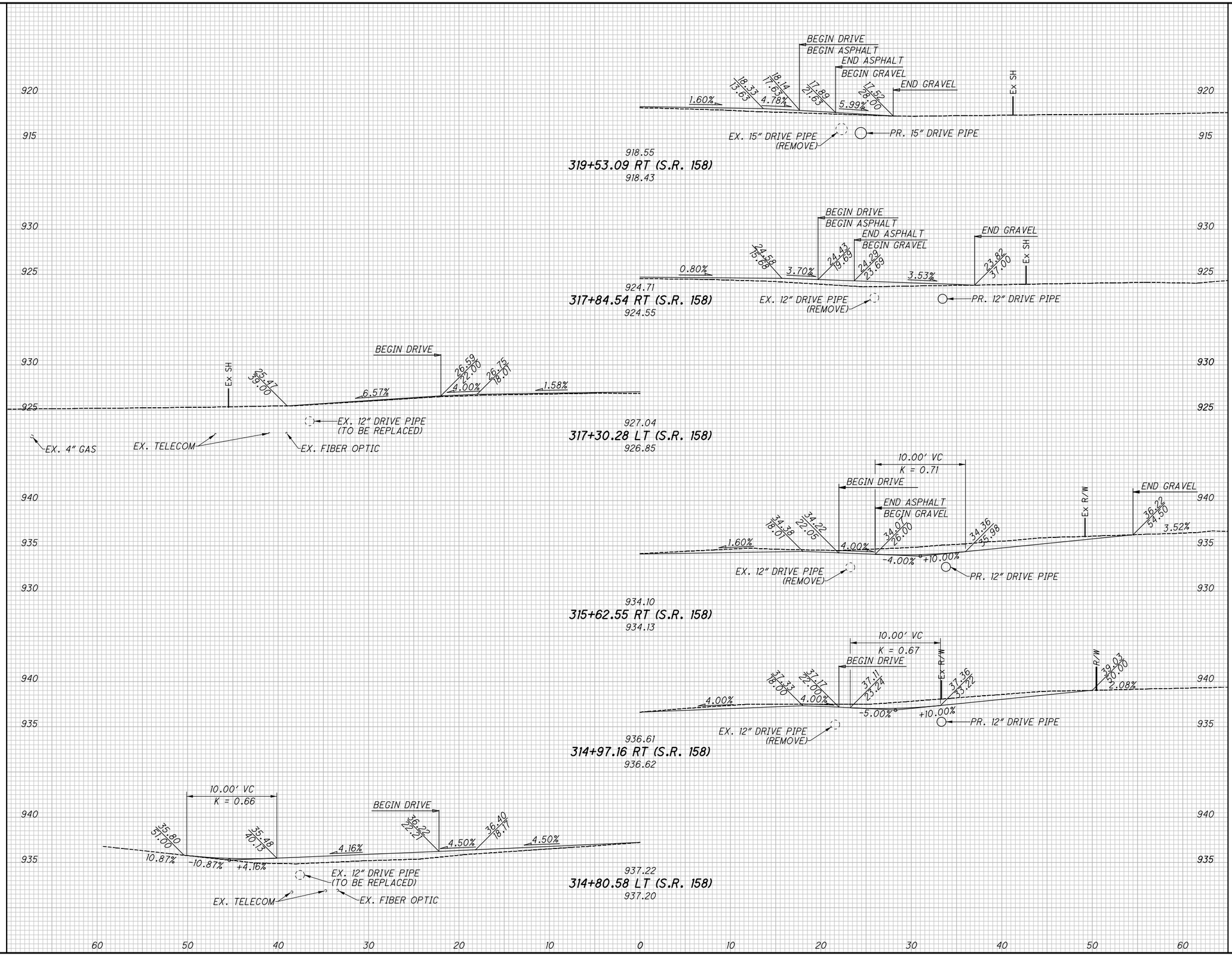
CALCULATED SHR
CHECKED CWP

DRIVEWAY PROFILES - S.R. 158
STA. 303+48.51 TO STA. 313+90.26

FAI-158-07.25



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CALCULATED SHR
CHECKED CWP

DRIVEWAY PROFILES - S.R. 158
STA. 314+80.58 TO STA. 319+53.09

FAI-158-07.25

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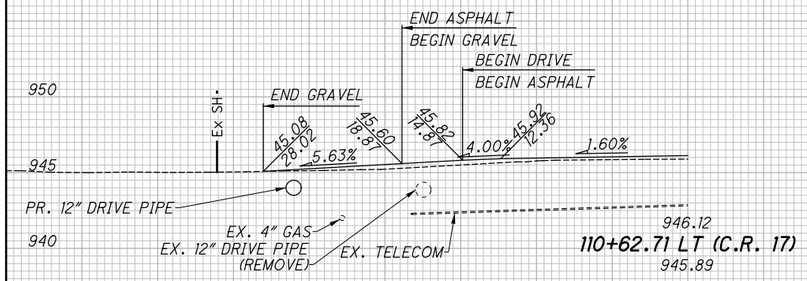
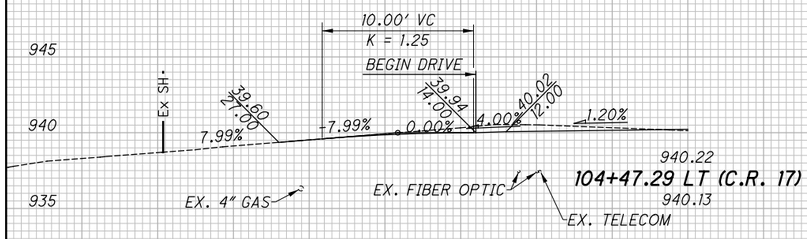
CALCULATED SHR
CHECKED CWP

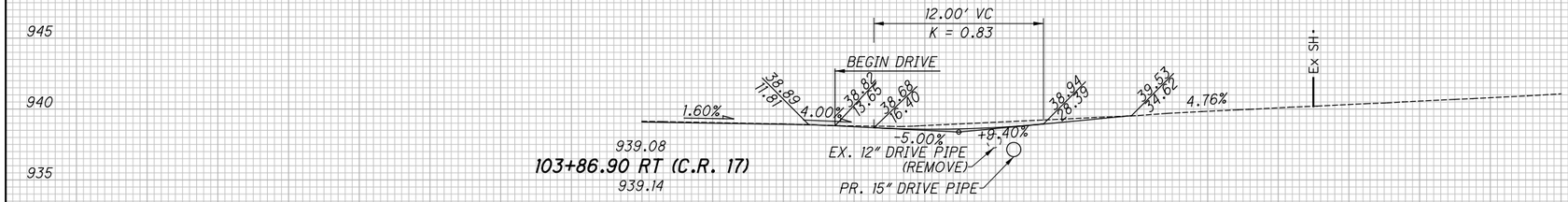
DRIVEWAY PROFILES - S.R. 158
STA. 320+89.63 TO STA. 325+13.49

FAI-158-07.25

SEE SHEET 85 FOR NEW PERMANENT DRIVE







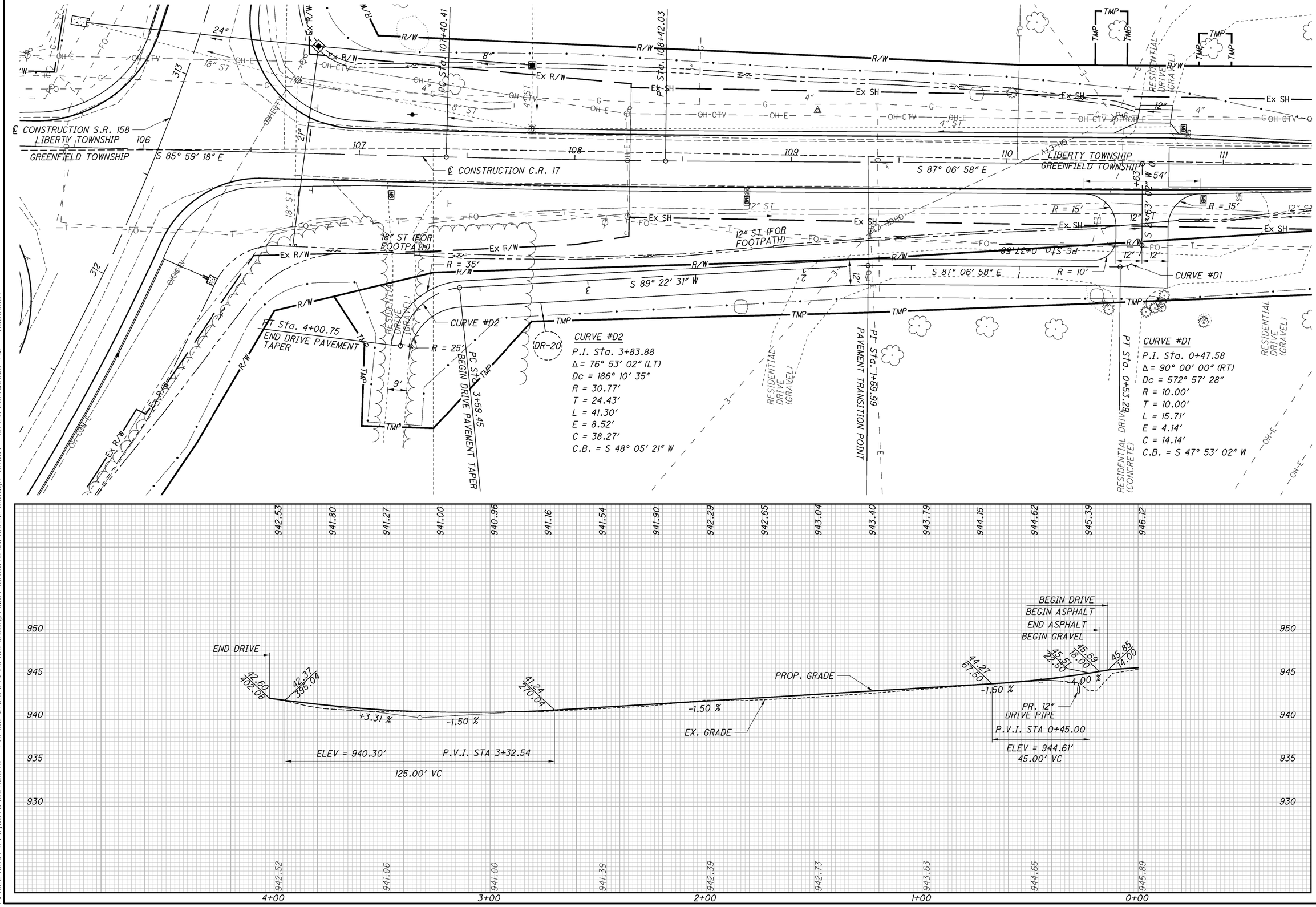
40 30 20 10 0 10 20 30 40 50 60 70 80

CALCULATED SHR
CHECKED CWP

DRIVEWAY PROFILES - C.R. 17
STA. 103+86.90 TO STA. 110+62.71

FAI-158-07.25

84
131



CURVE #D2

P.I. Sta. 3+83.88
Δ = 76° 53′ 02″ (LT)
Dc = 186° 10′ 35″
R = 30.77′
T = 24.43′
L = 41.30′
E = 8.52′
C = 38.27′
C.B. = S 48° 05′ 21″ W

CURVE #D1

P.I. Sta. 0+47.58
Δ = 90° 00′ 00″ (RT)
Dc = 572° 57′ 28″
R = 10.00′
T = 10.00′
L = 15.71′
E = 4.14′
C = 14.14′
C.B. = S 47° 53′ 02″ W

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED SHR
CHECKED CWP

PLAN AND PROFILE
PROPOSED SHARED ACCESS DRIVE

FAI-158-07.25

85
131

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ITEM NO.								644	644	644	644	644	644		621	621	621		618					
SHEET NO.	REFERENCE NO.	STATION FROM	STATION TO	SIDE	LENGTH	WIDTH	AREA	EDGE LINE, 6", TYPE 1 (WHITE)	CENTER LINE, TYPE 1; SOLID, DOUBLE (YELLOW)	CHANNELIZING LINE, 8", TYPE 1	STOP LINE, TYPE 1	TRANSVERSE/DIAGONAL LINE, TYPE 1 (YELLOW)	LANE ARROW, TYPE 1		TWO WAY YELLOW/YELLOW RPM	TWO WAY WHITE/RED RPM	RAISED PAVEMENT MARKER REMOVED		CENTER LINE, RUMBLE STRIPES, (ASPHALT CONCRETE)					
		FT	FT		FT	FT	SQ FT	MILE	MILE	FT	FT	FT	EACH		EACH	EACH	EACH		MILE					
LANCASTER-KIRKERSVILLE ROAD (SR 158)																								
88	EW-1	302+60.70	311+45.85	LT	885.15			0.17																
88	EW-2	302+60.70	312+24.97	RT	964.27			0.18																
88	CL-1	302+60.70	311+80.00	LT	919.30				0.17															
88	RS	302+60.70	311+80.00	LT	919.30																			
88	RPM	302+60.70	311+80.00	LT	919.30										12		12		0.17					
88	CL-2	302+60.70	308+55.00	BOTH	594.30				0.11						8									
88	TY-1	302+60.70	312+10.00	BOTH								127												
89	CH-1	308+55.01	312+10.00	RT	354.99					355						10								
89	LA-1	308+86.00		BOTH									1											
89	LA-2	309+74.00		BOTH									1											
89	LA-3	310+62.00		BOTH									1											
89	LA-4	311+50.00		BOTH									1											
89	SL-1	311+80.00		BOTH							12													
89	EW-3	313+12.84	321+10.00	LT	797.16			0.15																
89	EW-4	313+45.42	321+10.00	RT	764.58			0.14																
89	CL-3	311+80.00	321+10.00	RT	930.00				0.18															
89	RS	313+30.00	321+10.00	RT	780.00														0.15					
89	RPM	313+30.00	321+10.00	RT	780.00										11		11							
89	EW-1	311+45.85	104+90.31	LT	122.98			0.02																
90	EW-2	312+24.97	106+55.97	RT	58.91			0.01																
90	EW-3	105+47.83	313+12.84	LT	76.88			0.01																
90	EW-4	106+97.71	313+45.42	RT	91.87			0.02																
90	SL-2	312+10.00		RT							12													
90	SL-3	313+23.00		LT							12													
90	CH-2	313+23.00	316+55.00	LT	332.00					332						9								
90	SL-4	313+30.00		BOTH							12													
90	LA-5	313+60.00		BOTH									1											
90	LA-6	314+48.00		BOTH									1											
90	LA-7	315+36.00		BOTH									1											
90	LA-8	316+24.00		BOTH									1											
90	TY-2	316+60.00	320+88.96	BOTH								114												
90	CL-4	316+60.00	320+88.96	BOTH	428.96				0.08						6									
PLEASANTVILLE ROAD (CR 17)																								
93	EW-5	103+25.00	105+47.83	LT	222.83			0.04																
93	EW-6	103+25.00	104+90.31	RT	165.31			0.03																
93	CL-5	103+25.00	105+00.00	CL	175.00				0.03															
93	SL-5	105+00.00		RT							12													
93	SL-6	107+00.00		LT							11													
93	EW-7	106+97.71	111+67.00	LT	469.29			0.09																
93	EW-8	106+55.97	111+67.00	RT	511.03			0.10																
93	CL-6	107+00.00	111+67.00	CL	467.00				0.09															
SUBTOTALS															38	19								
TOTALS CARRIED TO GENERAL SUMMARY								0.97	0.67	687	71	241	8		57		23		0.32					

CALCULATED SHR
CHECKED CWP

PAVEMENT MARKING SUBSUMMARY

FAI-158-07.25

ITEM NO.								630	630	630	630	630												
SHEET NO.	REFERENCE NO.	STATION	SIDE	CODE	SIZE (INCHES)			GROUND MOUNTED SUPPORT, NO. 3 POST	GROUND MOUNTED SUPPORT, NO. 4 POST	SIGN, FLAT SHEET	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL												
					W	x	H	FT	FT	SF	EACH	EACH												
LANCASTER-KIRKERSVILLE ROAD (SR 158)																								
88	S-1	303+74.72	RT	W1-2L	36	x	36		13.6	9	1	1												
			RT	D10-H8	12	x	12			1	1													
			RT	D10-H8	12	x	12			1	1													
	S-2	305+85.24	RT	S3-1	36	x	36	14.7		9	1	1												
89	S-3	307+20.34	LT	W3-3	30	x	30	12.8		6.25	1	1												
				W16-H8P	48	x	8			2.67	1													
	S-4	307+40.74	RT	W3-3	30	x	30	13.8		6.25	1	1												
				W16-H8P	48	x	8			2.67	1													
	S-5	308+05.00	RT	R3-H8bh	36	x	30	12.9		7.5														
	S-6	311+01.21	LT	M3-3	24	x	12	13.0		2	1	1												
			LT	M1-5	24	x	30			5	1													
	S-7	311+78.78	LT	D3-H6b	48	x	12	11.9 / 11.1		4		2												
	S-8	311+80.00	RT	R3-H8bh	36	x	30	12.5		7.5														
90	S-9	313+30.00	LT	R3-H8bh	36	x	30	12.9		7.5														
	S-10	314+25.00	RT	M3-1	24	x	12	12.7		2														
				M1-5	24	x	30			5	1													
	S-11	317+05.00	RT	R3-H8bh	36	x	30	12.8		7.5														
91	S-12	318+76.80	LT	W3-3	30	x	30	14.5		6.25	1	1												
				W16-H8P	48	x	8			2.67	1													
	S-13	318+77.26	RT	W3-3	30	x	30	13.8		6.25	1	1												
				W16-H8P	48	x	8			2.67	1													
	S-14	322+57.62	LT	W1-1R	30	x	30	14.5		6.25	1	1												
PLEASANTVILLE ROAD (CR 17)																								
92	S-15		LT	W3-3	30	x	30	13.0		6.25	1	1												
	S-16		RT	W3-3	30	x	30	13.0		6.25	1	1												
93	R-1	105+12.13	RT	R1-1-36	36	x	36				1	1												
			RT	W4-4P-24	24	x	12				1													
	R-2	105+14.33	LT	R1-1-36	36	x	36				1	1												
			LT	W4-4P	24	x	12				1													
	R-3	106+78.74	RT	R1-1	36	x	36				1	1												
			RT	W4-4P	24	x	12				1													
	R-4	106+80.32	LT	R1-1	36	x	36				1	1												
			LT	W4-4P	24	x	12				1													
94	S-17	107+41.74	RT	M-H6a	18	x	18	11.6		2.25	1	1												
95	S-18	114+14.67	LT	W3-3	30	x	30	13.0		6.25	1	1												
	S-19	114+15.42	RT	W3-3	30	x	30	14.3		6.25	1	1												
TOTALS CARRIED TO GENERAL SUMMARY								248.7	13.6	137.2	29	19												

CALCULATED AS
CHECKED CWP

SIGNING SUBSUMMARY

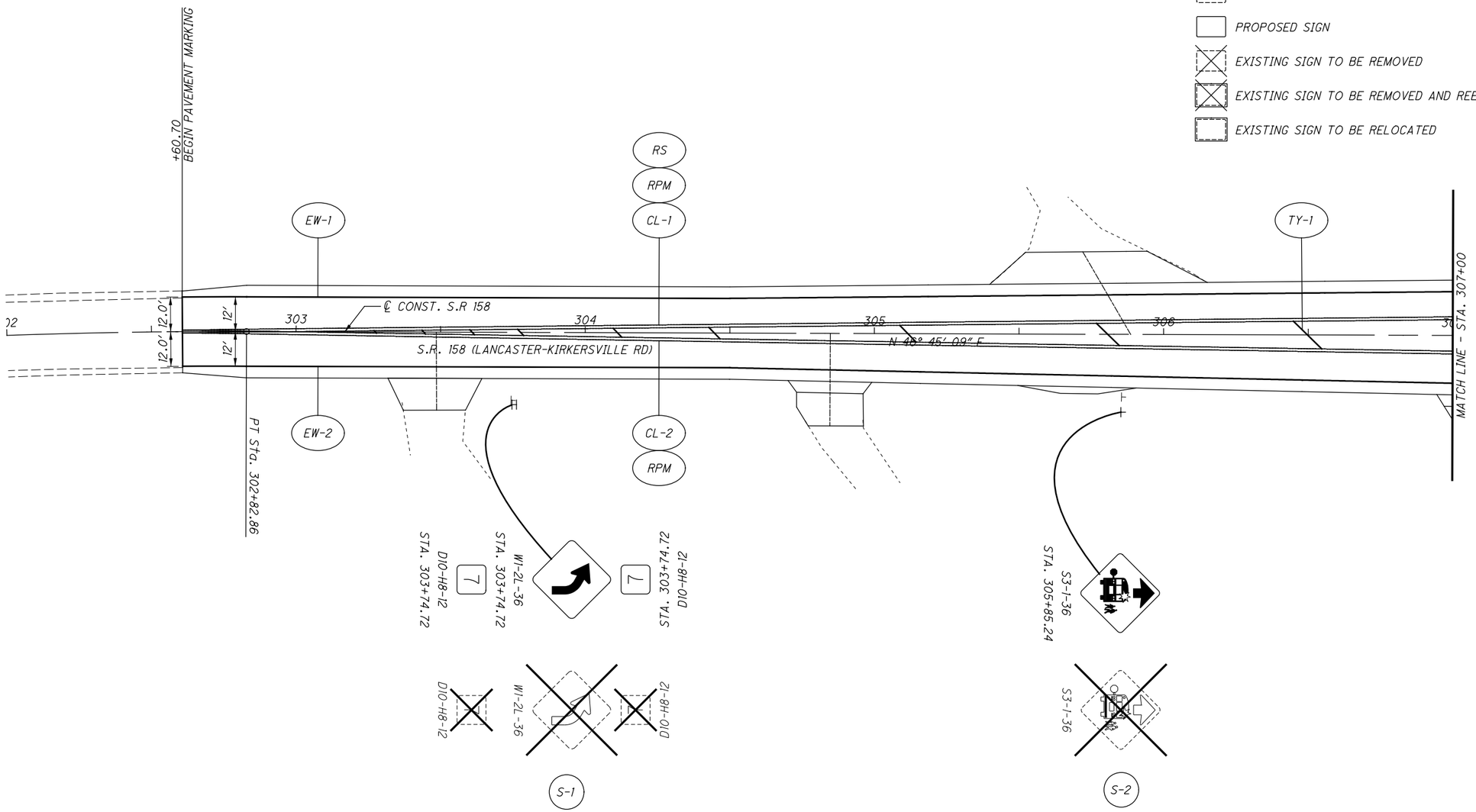
FAI-158-07.25

PAVEMENT MARKING LEGEND

- EW - EDGE LINE (WHITE), 6"
- CL - CENTER LINE: SOLID, DOUBLE (YELLOW)
- CH - CHANNELIZING LINE, 8"
- SL - STOP LINE
- LA - LANE ARROW
- TY - TRANSVERSE/DIAGONAL LINE (YELLOW)
- RPM - RAISED PAVEMENT MARKER
- RS - RUMBLE STRIPES

SIGNING LEGEND

- EXISTING GROUND MTD. SIGN SUPPORT
- BACK TO BACK EXISTING GROUND MTD. SIGN SUPPORT
- EXISTING GROUND MTD. SIGN WITH 2 SUPPORTS
- PROPOSED GROUND MTD. SIGN SUPPORT
- BACK TO BACK PROPOSED GROUND MTD. SIGN SUPPORT
- PROPOSED GROUND MTD. SIGN WITH 2 SUPPORTS
- EXISTING SIGN
- PROPOSED SIGN
- EXISTING SIGN TO BE REMOVED
- EXISTING SIGN TO BE REMOVED AND REERECTED
- EXISTING SIGN TO BE RELOCATED



HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED SHR
CHECKED CWP

PAVEMENT MARKING PLAN
SIGNING AND PAVEMENT MARKING PLAN
SR 158 - STA. 302+00 TO STA. 307+00

FAI-158-07.25

88
131

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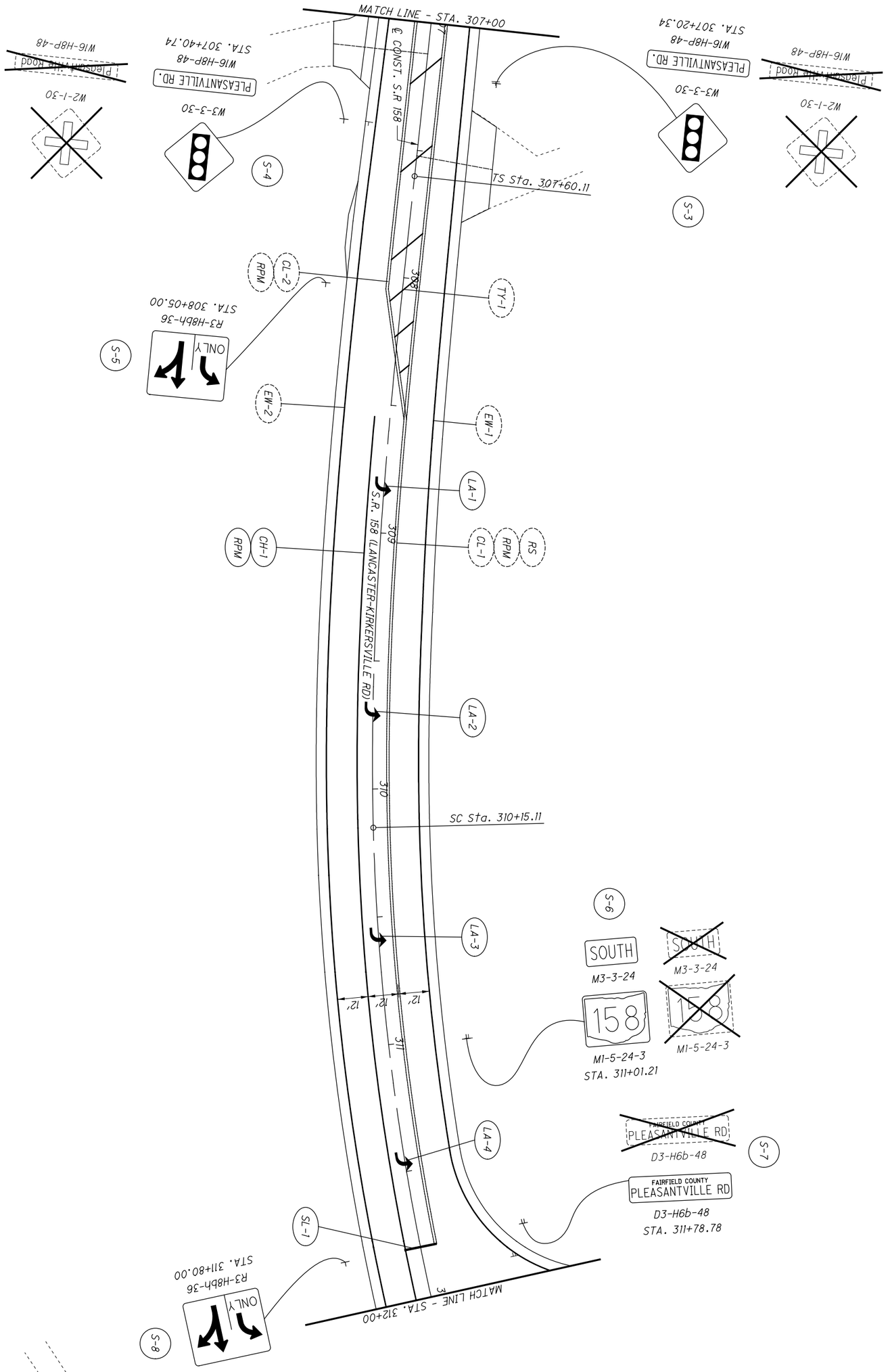
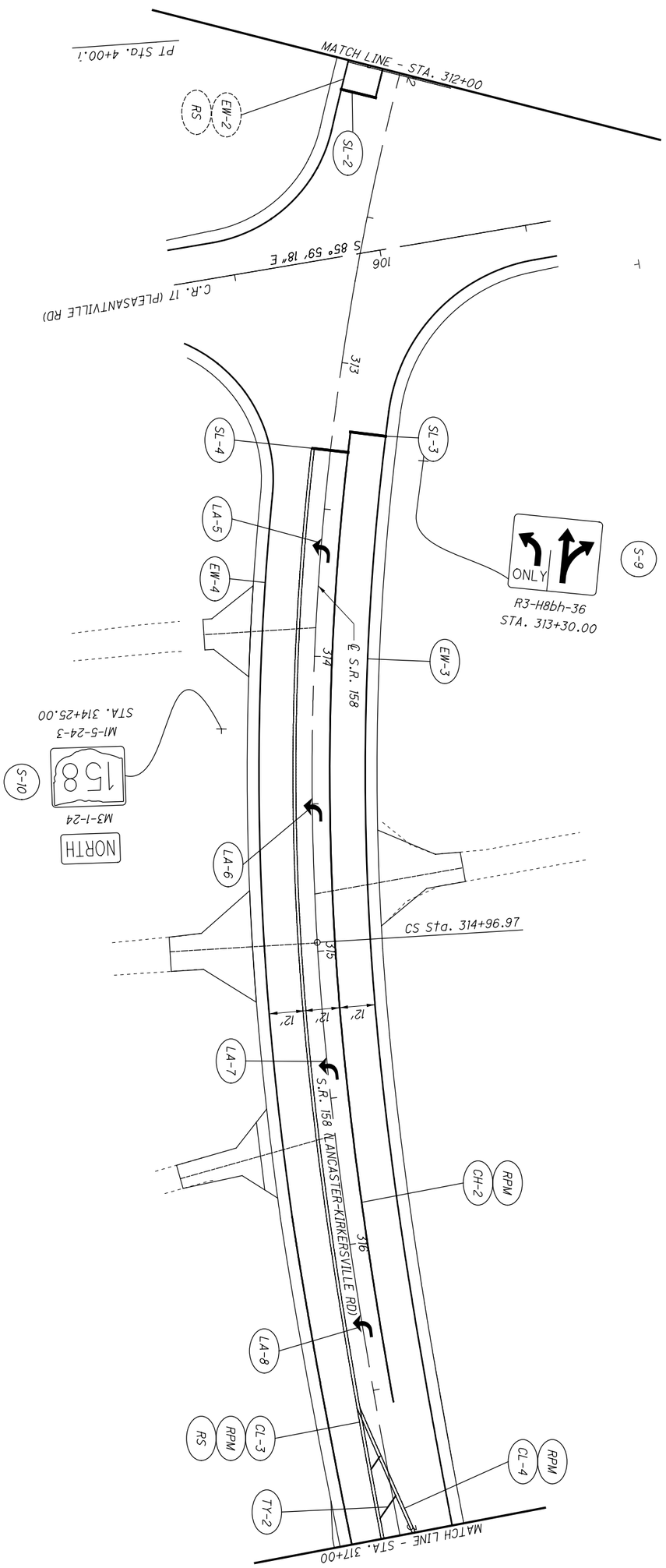


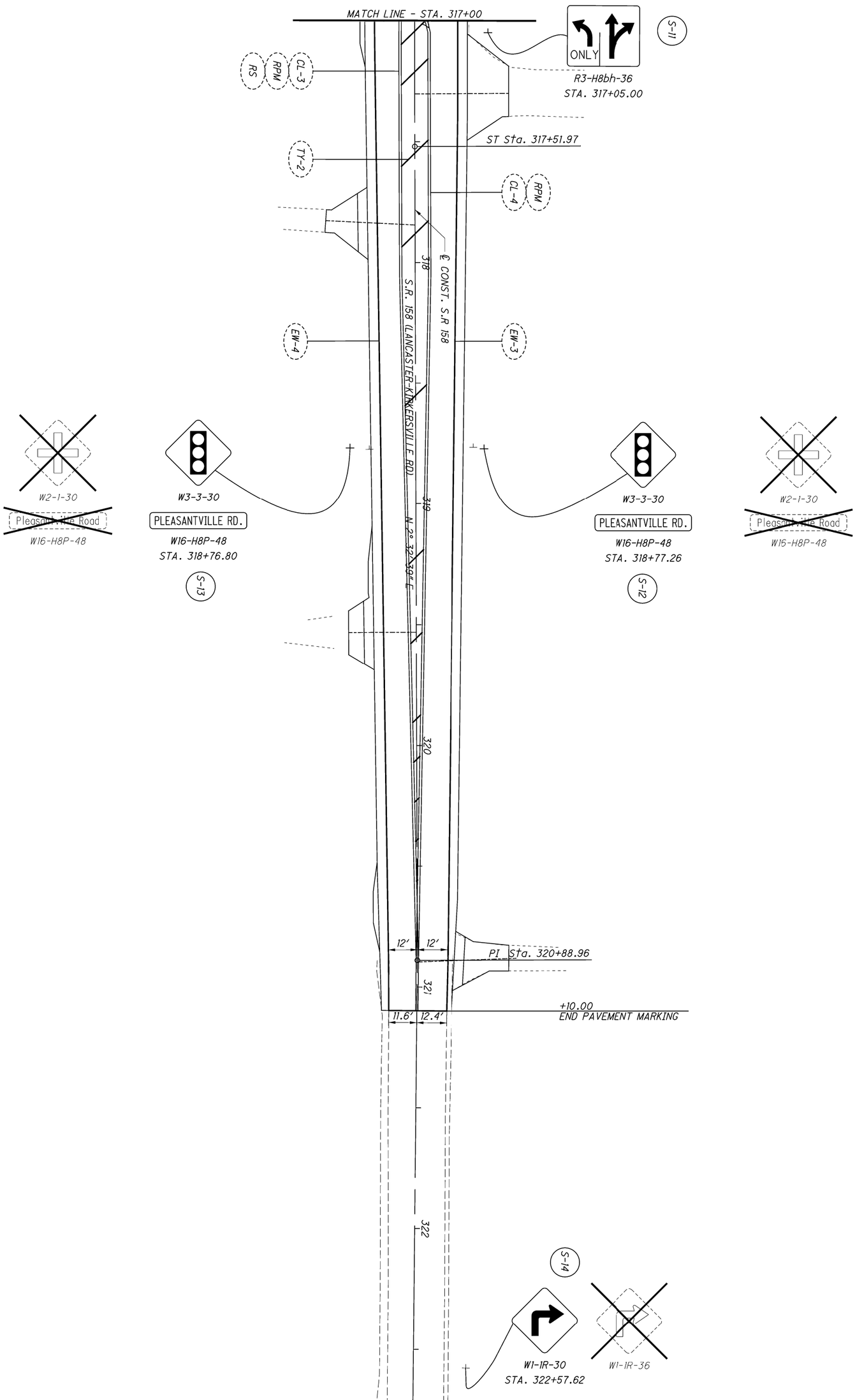
NOTES:

1. FOR PAVEMENT MARKING AND SIGNING LEGENDS, SEE SHEET88.



NOTES:

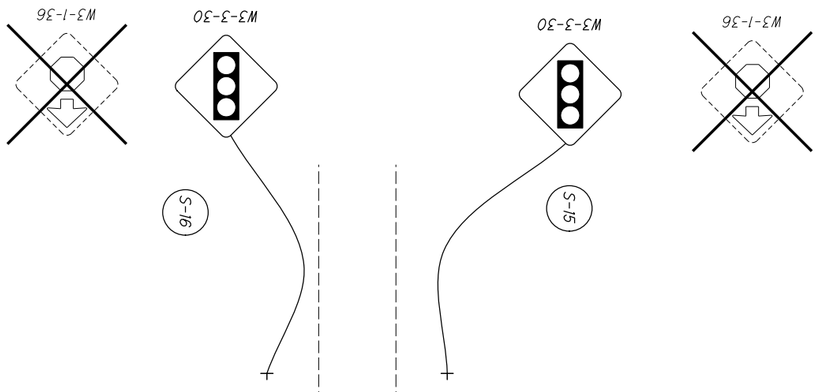
1. FOR PAVEMENT MARKING AND SIGNING LEGENDS, SEE SHEET 88

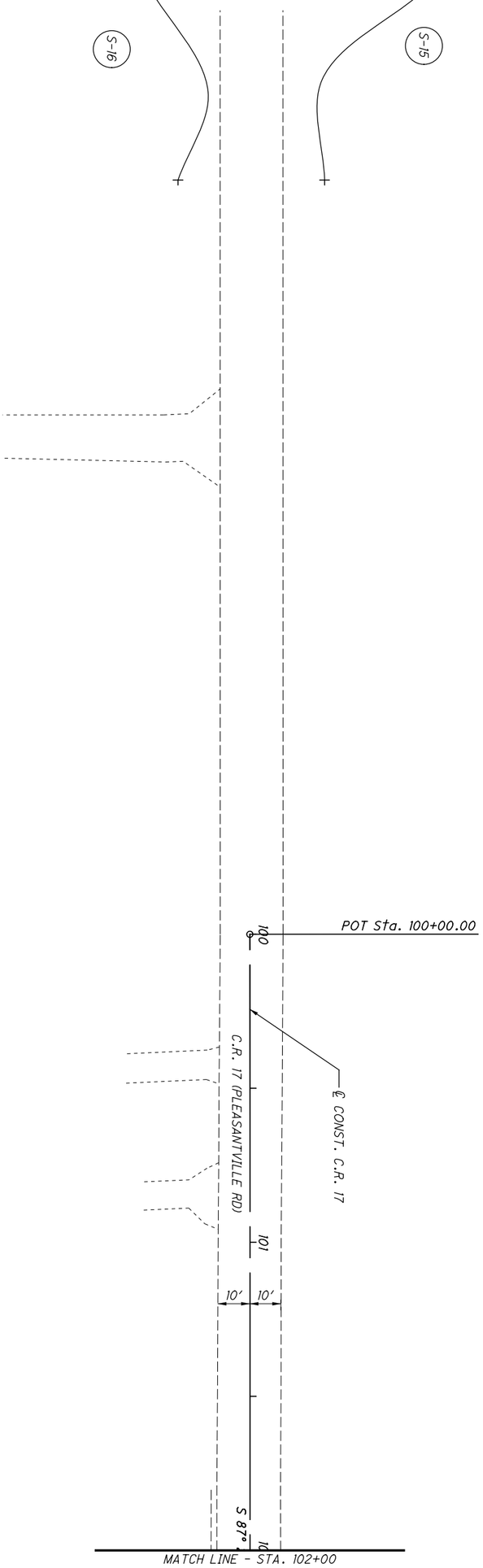


NOTES:

1. FOR PAVEMENT MARKING AND SIGNING LEGENDS, SEE SHEET 88.

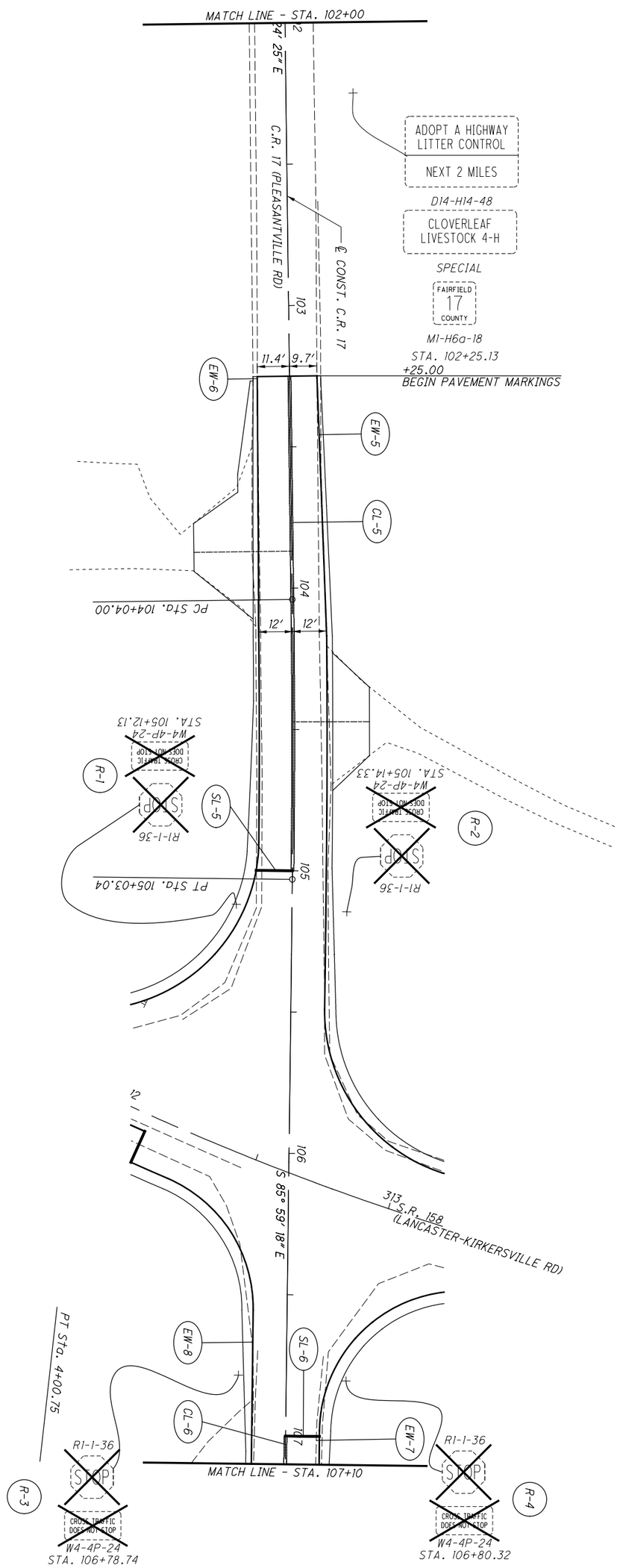
91 / 131	FAI-158-07.25	SIGNING AND PAVEMENT MARKING PLAN SR 158 - STA. 317+00.00 TO STA. 322+57.62	CALCULATED SHR CHECKED CWP	0 10 20 40 HORIZONTAL SCALE IN FEET





NOTES:

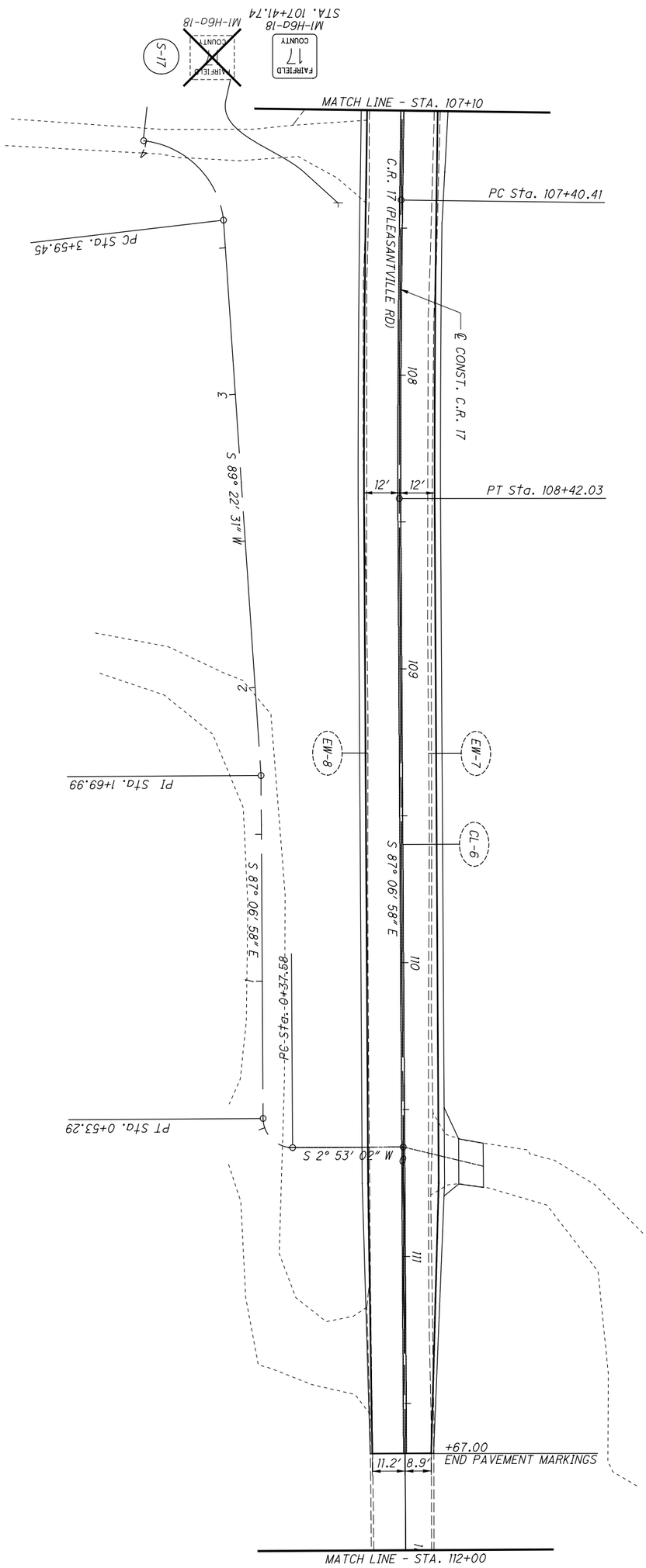
1. FOR PAVEMENT MARKING AND SIGNING LEGENDS, SEE SHEET 8A.



NOTES:

1. FOR PAVEMENT MARKING AND SIGNING LEGENDS, SEE SHEET 88.

93 / 131	FAI-158-07.25	SIGNING AND PAVEMENT MARKING PLAN CR 17 - STA. 102+00.00 TO STA. 107+10.00	CALCULATED SHR CHECKED CWP	0 20 10 40 HORIZONTAL SCALE IN FEET



NOTES:

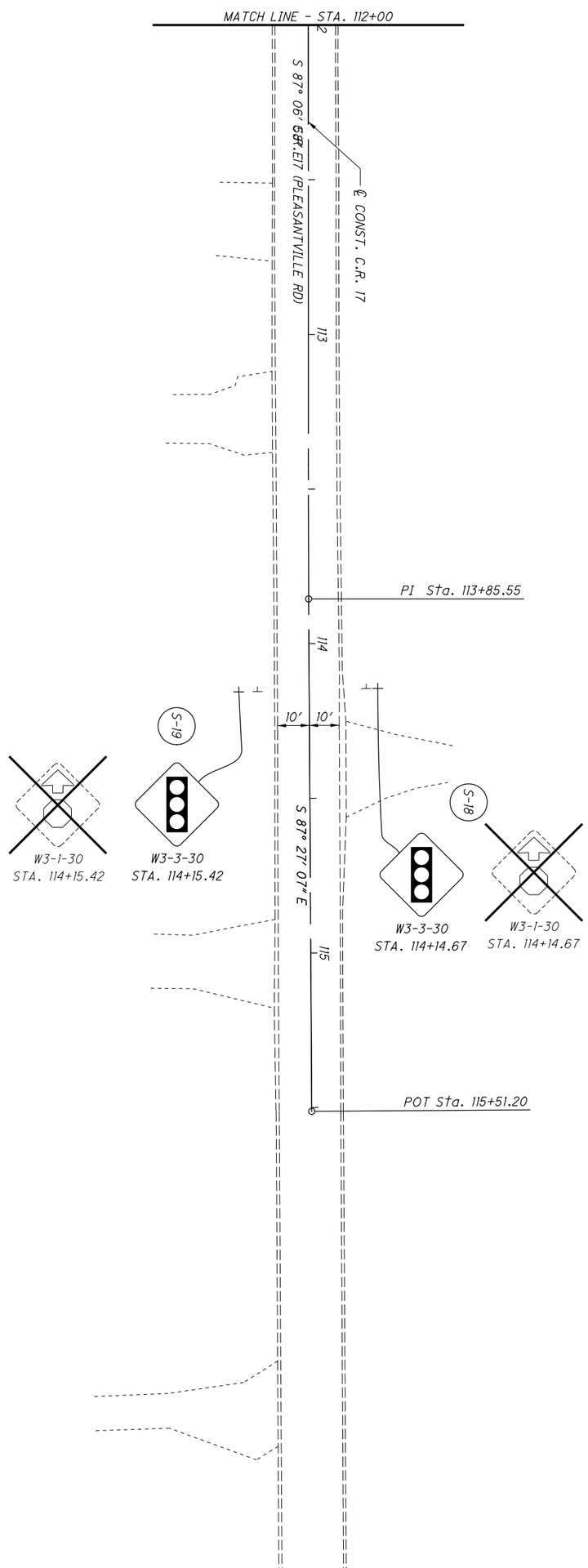
1. FOR PAVEMENT MARKING AND SIGNING LEGENDS, SEE SHEET 8&

FAI-158-07.25

SIGNING AND PAVEMENT MARKING PLAN
CR 17 - STA. 107+10.00 TO STA. 112+00.00

CALCULATED SHR
CHECKED CWP

0 10 20 40
HORIZONTAL SCALE IN FEET



NOTES:

1. FOR PAVEMENT MARKING AND SIGNING LEGENDS, SEE SHEET 88.

FAI-158-07.25

SIGNING AND PAVEMENT MARKING PLAN
CR 17 - STA. 112+00.00 TO END

CALCULATED SHR
CHECKED CWP

0 10 20 40
HORIZONTAL SCALE IN FEET

CALCULATED AC
CHECKED SJB

SIGNAL ACTIVATION

PRIOR TO ACTIVATING THE NEW TRAFFIC SIGNAL TO STOP-AND-GO MODE, ALL ITEMS IN THE PROPOSED SIGNAL PLAN SHALL BE FULLY COMPLETED, (I.E., VEHICLE DETECTION, ETC). IF THERE ARE CONSTRUCTABILITY ISSUES (I.E., ROADWAY WIDENING, ETC.) THAT PREVENT THE SIGNAL FROM BEING COMPLETED PRIOR TO ACTIVATION, IT SHALL BE BROUGHT TO THE ATTENTION OF THE PROJECT ENGINEER AND DISTRICT TRAFFIC ENGINEER. THE DISTRICT TRAFFIC ENGINEER WILL THEN REVIEW, APPROVE OR REJECT PROPOSALS TO ACTIVATE THE TRAFFIC SIGNAL PRIOR TO COMPLETION.

THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER AND DISTRICT TRAFFIC ENGINEER AT LEAST 10 WORKING DAYS PRIOR TO SCHEDULING THE FINAL INSPECTION OF THE SIGNAL INSTALLATION. FINAL INSPECTION IS NOT CONSIDERED COMPLETE UNTIL DESIGNATED DISTRICT TRAFFIC PERSONNEL INSPECT THE TRAFFIC SIGNAL AND ISSUE WRITTEN APPROVAL. IF ISSUES ARE FOUND DURING THE FINAL INSPECTION THAT EFFECT THE SAFETY OF THE TRAVELING PUBLIC AND/OR THE EFFICIENCY OF THE INTERSECTION, THE SIGNAL SHALL NOT BE ACTIVATED ON THE PROPOSED DATE. ANY PUNCH LIST ITEMS THAT ARE FOUND SHALL BE CORRECTED AND REINSPECTED BY DISTRICT TRAFFIC PERSONNEL PRIOR TO FINAL ACCEPTANCE. ODOT FORCES SHALL ONLY ASSUME DAY TO DAY MAINTENANCE OF THE TRAFFIC SIGNAL AFTER FINAL WRITTEN ACCEPTANCE HAS BEEN ISSUED.

625, LUMINAIRE, CONVENTIONAL, SOLID STATE (LED), AS PER PLAN (150W, 120V, TYPE II)

THE CONVENTIONAL LUMINAIRE SPECIFIED ABOVE SHALL CONFORM TO SUPPLEMENTAL SPECIFICATION 813 AND 913 AND SELECTED FROM THE APPROVED LIST OF LED LUMINAIRES:

HTTP://WWW.DOT.STATE.OH.US/DIVISIONS/CONSTRUCTIONMGT/MATERIALS/APPROVED%20LIST/SOLID_STATE_LUMINAIRES_SS_813.PDF

IF THE STRAIN POLE/BRACKET ARM IS BEING PAINTED THE LUMINAIRE HOUSING SHALL BE POWDER COATED TO MATCH

A PHOTOCELL SHALL BE INCLUDED TO BE MOUNTED ON THE STRAIN POLE TO CONTROL ALL LUMINAIRES AT THE INTERSECTION.

THE CONTRACTOR SHALL SUBMIT THE LUMINAIRE TO THE ENGINEER FOR ACCEPTANCE PRIOR TO ORDERING.

WORK INSPECTION

THE CONTRACTOR SHALL PROVIDE THE PROJECT ENGINEER AND DISTRICT TRAFFIC ENGINEER WITH 72 HOUR NOTICE OF ANY SIGNAL WORK TO BE PERFORMED AT THE INTERSECTION SITE(S) SO THAT INSPECTION SERVICES CAN BE SUPPLIED.

STRAIN POLE AND PEDESTAL FOUNDATION ELEVATIONS

ELEVATIONS SHOWN IN THE PLANS FOR STRAIN POLE AND PEDESTAL FOUNDATIONS ARE FOR COMPUTATIONAL PURPOSES ONLY. THE ACTUAL ELEVATION OF THE FOUNDATION SHALL BE IN ACCORDANCE WITH TRAFFIC SCD TC-21.21 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-21.21 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.

VARMINT GUARDS

VARMINT GUARDS SHALL BE INSTALLED ON ALL STRAIN POLES AS SHOWN ON **SCD HL-10.31** EXCEPT AS MODIFIED HEREIN. VARMINT GUARDS SHALL CONSIST OF **1/8"** (MINIMUM) STAINLESS STEEL SHEETING. ATTACH SHEETING WITH **3/4"** STAINLESS STEEL BANDS WITH A MINIMUM 2" OVERLAP. PAYMENT SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE STRAIN POLE AND INCLUDE ALL LABOR, EQUIPMENT, AND MATERIALS.

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 10-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: CONTROLLER, CABINET, UNINTERRUPTIBLE POWER SUPPLY, VEHICLE DETECTION EQUIPMENT, LED LAMP UNITS, NETWORK AND COMMUNICATION/INTERCONNECT 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 WILL BE INCIDENTAL TO AND INCLUDED IN THE CONTRACT UNIT PRICE OF THE VARIOUS ITEMS MAKING UP THE SYSTEM.

GROUNDING AND BONDING

THE REQUIREMENTS OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS (C&MS) AND THE TC SERIES OF STANDARD CONSTRUCTION DRAWINGS ARE MODIFIED AS FOLLOWS:

A. 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. 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.

GROUNDING AND BONDING (CONTINUED)

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

TRAFFIC SIGNAL GENERAL NOTES

FAI-158-07.25

CALCULATED AC
CHECKED SJB

GROUNDING AND BONDING (CONTINUED)

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.

TEST HOLE PERFORMED

IT IS ANTICIPATED THAT THE CONTRACTOR WILL ENCOUNTER UNDERGROUND UTILITIES WHILE EXCAVATING FOR SIGNAL SUPPORT FOUNDATIONS OR SIMILAR FOUNDATIONS. AFTER ACCURATELY IDENTIFYING THE PROPOSED LOCATION OF THE FOUNDATION, AS SHOWN IN THE PLANS AND AFTER MODIFYING THAT LOCATION, IF NECESSARY, BASED ON THE FIELD MARKING OF UNDERGROUND UTILITY LOCATION, THE CONTRACTOR DISCOVERS A UTILITY CONFLICT DURING THE EXCAVATION OPERATION, THE CONTRACTOR WILL BE COMPENSATED FOR EACH PARTIAL FOUNDATION EXCAVATION ACCORDING TO THE BID PRICE.

BEFORE THE CONTRACTOR BEGINS THE EXCAVATION AT THE MODIFIED LOCATION, THE CONTRACTOR SHALL VERIFY THAT THERE WILL BE NO OVERHEAD UTILITY CONFLICTS RESULTING FROM THE NEW SIGNAL SUPPORT LOCATION. NEW SUPPORT LOCATIONS ARE TO BE APPROVED BY THE ENGINEER.

THE WORK WILL INCLUDE BACKFILLING, COMPACTING, AND RESTORATION OF THE EXCAVATION TO THE SITE'S ORIGINAL CONDITION.

EXCAVATIONS SHALL NOT BE LEFT OPEN OVERNIGHT.

PAYMENT FOR THIS ITEM SHALL BE AT THE UNIT PRICE BID PER EACH ITEM 632 TEST HOLE PERFORMED TO BE USED AT THE DIRECTION OF THE ENGINEER.

632 SIGNAL SUPPORT FOUNDATION

PRIOR TO ORDERING THE SIGNAL SUPPORTS, THE CONTRACTOR SHALL CONTACT OUPS TO HAVE ALL THE UTILITIES LOCATED IN THE FIELD THEN MEET WITH THE PROJECT ENGINEER TO LOCATE THE PROPOSED SUPPORT LOCATIONS TO INSURE THERE ARE NO CONFLICTS WITH UTILITIES. IF THERE ARE ISSUES, THE PROJECT ENGINEER SHALL PROVIDE GUIDANCE AS TO THE RELOCATION OF THE SUPPORT POLES.

PAYMENT WILL BE AT THE CONTRACT UNIT PRICE AND WILL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS, TOOLS, EQUIPMENT AND OTHER INCIDENTALS NECESSARY FOR EACH SUPPORT FURNISHED, IN PLACE, COMPLETE AND ACCEPTED.

ITEM 809 ATC CONTROLLER, AS PER PLAN (PROGRAM AND INSTALL ONLY)

ALL REQUIREMENTS OF SS 809 SHALL BE FOLLOWED, ALONG WITH THE ADDITIONAL DESCRIPTION AS STATED BELOW. THE ATC CONTROLLER WILL BE PROVIDED BY THE DISTRICT WITHOUT PROGRAMMING. IN THE CASE OF A 332/336 CABINET TYPE, THE CONTROLLER WILL BE PROVIDED WITH THE POWER CORD.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROGRAMMING THE CONTROLLER TO THE PROPOSED CONDITIONS ACCORDING TO THE PLANS. ODOT WILL NOT BE RESPONSIBLE FOR THE PROGRAMMING.

THE CONTROLLER SHALL BE LISTED ON THE TAP AND BE AN ECONOLITE COBALT AND COMPATIBLE WITH THE CABINET TYPE BEING INSTALLED.

PAYMENT SHALL BE MADE ONCE THE CONTROLLER IS PROGRAMMED, INSTALLED, TESTED, FUNCTIONING ACCORDING TO THE PLANS, AND SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS TO COMPLETE THE WORK.

633 CABINET, TYPE 332, AS PER PLAN

THE CABINET SHALL BE FURNISHED AND INSTALLED ACCORDING TO CMS 633 AND 733 AND BE LISTED ON THE TRAFFIC AUTHORIZED PRODUCTS LIST (TAP).

THE CABINET SHALL BE FURNISHED WITH AN EDI MONITOR AS ALLOWED ON THE TAP/APPROVED PRODUCTS LIST.

THE CONTRACTOR SHALL NOT REASSIGN THE CABINET DETECTOR INPUTS IN ORDER TO REDUCE THE NUMBER OF 2-CHANNEL DETECTOR UNITS SUPPLIED AND SHALL USE THE STANDARD CALTRANS INPUT FILE DESIGNATIONS FOLLOWING PLAN INSERT SHEET 203324.

PAYMENT FOR ITEM 633 CABINET, TYPE 332, AS PER PLAN WILL BE AT THE CONTRACT BID PRICE PER EACH COMPLETE AND IN PLACE INCLUDING ALL CONNECTIONS TESTED AND ACCEPTED.

633 UNINTERRUPTIBLE POWER SUPPLY (UPS), 1000 WATT, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF C&MS 633 AND 733, POLE ATTACHMENT HARDWARE WILL BE INCLUDED FOR POLE-MOUNTED CABINETS, AND A CABINET RISER (8 INCH MINIMUM) AND ANCHOR BOLTS WILL BE PROVIDED FOR BASE-MOUNTED CABINETS. BEFORE PERFORMING THE WORK, THE CONTRACTOR, THE DISTRICT TRAFFIC ENGINEER AND THE PROJECT ENGINEER WILL PERFORM A SITE INSPECTION TO ESTABLISH THE LOCATION OF THE UPS CABINET AND FOUNDATION.

THE UPS CABINET SHALL INCLUDE A GENERATOR POWER PANEL WITH A HEAVY DUTY POWER RELAY VERSUS THE LINE VOLTAGE GENERATOR SWITCH. 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.

THE CABINET SHALL HAVE A DOOR STOP MECHANISM AND THERMOSTATICALLY CONTROLLED FAN.

THE CABINET SHALL INCLUDE A BATTERY BALANCING DEVICE THAT REGULATES THE BATTERIES AND OPTIMIZES PERFORMANCE.

AFTER FOUR (4) HOURS OF BATTERY RUNTIME, THE SYSTEM SHALL BE PROGRAMMED TO SWITCH THE INTERSECTION FROM FULL OPERATION TO CONTROLLER AUTOMATIC FLASH OPERATION THROUGH THE MONITOR. THE CONTROLLER SHALL BE PROGRAMMED SO THAT FLASH OPERATION SHALL BEGIN ONCE THE INTERSECTION RUNS MINOR STREET GREEN (TYP. PH. 4 &8), ALL-RED CLEARANCE, AND THEN FLASH OPERATION.

THE UPS OUTPUT NOTIFICATIONS FOR ON BATTERY, BATTERY 2-HOUR TIMER, AND LOW BATTERY SHALL BE WIRED INTO THE TRAFFIC SIGNAL CABINET BACK PANEL OR THROUGH THE CONTROLLER WITH A C11 TO PROVIDE SPECIAL STATUS ALARMS FOR EACH OUTPUT INTO THE SIGNAL CONTROLLER.

THIS ITEM SHALL INCLUDE A GREEN AND RED LED STATUS INDICATOR LAMP TO ALLOW MAINTENANCE PERSONNEL AND LAW ENFORCEMENT TO QUICKLY ASSESS WHETHER A TRAFFIC SIGNAL CABINET IS BEING POWERED BY A UPS. THE LED HOUSING SHALL BE NEMA 4X, IP65 OR IP66, RATED FOR OUTDOOR USE AND BE TAMPER/ SHATTER RESISTANT. IT SHALL BE A DOMED ENCLOSURE CONTAINING A RED LENS WITH LED THAT IS VISIBLE FROM 100 FOOT MINIMUM. THE ENCLOSURE AND LED MODULE SHOULD BE PLACED ON THE SIDE OF THE UPS CABINET FACING TOWARDS THE MAINLINE ROADWAY AND SEALED FROM WATER INTRUSION. IT SHOULD BE WIRED USING MINIMUM 20GA STRANDED, INSULATED HOOKUP WIRE TO THE STATUS RELAY OUTPUTS OF THE UPS. THE WIRES SHALL BE TERMINATED BY LUGS AT THE DISPLAY END AND PERMANENTLY LABELED "BACKUP POWER STATUS DISPLAY," WITH WIRE POLARITY INDICATED. THE RED LED SHALL ONLY ILLUMINATE TO INDICATE THE CABINET IS OPERATING UNDER UPS BACKUP POWER (THE "BACKUP" OPERATING CONDITION).

633 UNINTERRUPTIBLE POWER SUPPLY (UPS), 1000 WATT, AS PER PLAN (CONTINUED)

THIS ITEM INCLUDES PROGRAMMING THE UPS STATUS RELAY OUTPUTS TO PRODUCE THE LAMP STATUS DISPLAYS. THESE STATUS DISPLAYS WILL BE SOLID 100% DUTY CYCLE (NOT FLASHING) DISPLAYS. THE OPERATING VOLTAGE OF THE LED LAMP SHALL BE 120V AC UNLESS OTHERWISE INDICATED.

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 9' L X 6' W AND PROVIDE A LEVEL WORK PAD.

THE CONTRACTOR SHALL CONSTRUCT THE WORK PAD AS FOLLOWS:
-EXCAVATE A MINIMUM OF 9" BELOW GRADE
-PLACE AND COMPACT 6" OF MATERIAL CONFORMING TO 304.02
-INSTALL A CAST-IN-PLACE WORK PAD THAT IS A MINIMUM OF 4" THICK

THE CONTROLLER WORK PAD SHALL BE IN ACCORDANCE WITH CMS 633.11, SCD TC-83.20 AND PIS 208320.

PAYMENT SHALL BE MADE AT THE UNIT PRICE BID AND INCLUDE ALL LABOR, EQUIPMENT, MATERIAL AND INCIDENTALS NECESSARY TO CONSTRUCT THE CONCRETE WORK PAD.

633, CABINET FOUNDATION, AS PER PLAN

THIS ITEM SHALL INCLUDE THE ADDITIONAL EXCAVATION AND CONCRETE NECESSARY TO EXTEND THE CONTROLLER CABINET FOUNDATION TO SUPPORT THE UNINTERRUPTIBLE POWER SUPPLY (UPS) CABINET. THE CONTRACTOR SHALL PROVIDE A FOUNDATION LARGE ENOUGH TO ACCOMMODATE THE UPS BEING PROVIDED BY A SEPARATE BID ITEM.

THE CONTROLLER AND UPS FOUNDATION SHALL BE IN ACCORDANCE WITH CMS 633.11, SCD TC-83.20 AND PIS 208320.

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 MATERIALS AS PER CMS 104.04.

TRAFFIC SIGNAL GENERAL NOTES

FAI-158-07.25

809 ADVANCE RADAR DETECTION, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF FURNISHING AND INSTALLING A WAVETRONIX SMARTSENSOR ADVANCE DETECTION UNIT (MODEL SS-200E). THE DETECTION UNIT SHALL INCLUDE THE FOLLOWING:

1. POWER SHALL BE PROVIDED FROM THE TRAFFIC CABINET.

2. ALL REQUIRED INPUTS CARDS SHALL BE INCLUDED IN THE TRAFFIC CABINET AND SHALL BE COMPATIBLE WITH CALTRANS, NEMA TS1 AND NEMA TS2 DETECTOR RACKS. THE CARDS SHALL PROVIDE TRUE PRESENCE DETECTOR CALLS OR CONTACT CLOSURE TO THE TRAFFIC CONTROLLER.

3. THE UNIT SHALL BE MOUNTED DIRECTLY TO A POLE OR MAST ARM, AS RECOMMENDED BY THE MANUFACTURER. CABLE(S) SHALL BE PROVIDED AS REQUIRED AND RECOMMENDED BY THE MANUFACTURER.

4. SURGE PROTECTION DEVICES, AS RECOMMENDED BY THE MANUFACTURER SHALL BE INCLUDED BOTH AT THE POLE WHERE THE UNIT IS LOCATED TO PROTECT THE UNIT AND IN THE TRAFFIC CABINET TO PROTECT THE CABINET ELECTRONICS.

5. THE MANUFACTURER'S REPRESENTATIVE SHALL BE ON SITE DURING INSTALLATION AND TESTING AND SHALL PROVIDE ONSITE TRAINING ON THE SETUP, OPERATION AND MAINTENANCE OF THE UNIT.

6. A SERIAL TO ETHERNET COMMUNICATIONS MODULE AND ETHERNET CABLE (MINIMUM 7 FEET).

7. THE POWER SUPPLY AND COMMUNICATION MODULES SHALL BE SECURED TO A SINGLE PANEL THAT CAN BE MOUNTED INTERIOR TO THE TRAFFIC CABINET. THE PANEL SHALL INCLUDE MODULAR-PLUG STYLE CONNECTIONS FOR UP TO FOUR (4) SENSOR CABLES. ADDITIONAL SENSORS MAY BE HARD-WIRED TO THE COMMUNICATION MODULES, AS NECESSARY.

8. THE CONTRACTOR SHALL INSTALL THE RADAR DETECTION PRIOR TO MILLING/DISABLING EXISTING LOOPS.

9. THE INSTALLATION SHALL INCLUDE ALL CONTROLLER PROGRAMMING FOR COMPLETE INSTALLATION, WHICH INCLUDES MODIFICATIONS FOR REMOVAL OF EXISTING DETECTION.

PAYMENT FOR ITEM 809 ADVANCE RADAR DETECTION, AS PER PLAN SHALL BE MADE AT THE CONTRACT UNIT PRICE FOR EACH UNIT, COMPLETE AND IN PLACE INCLUDING ALL REQUIRED CABINET HARDWARE, MOUNTING BRACKETS, CABLES, CONDUIT, CONNECTIONS TESTED AND ACCEPTED, AND ANY OTHER NECESSARY HARDWARE TO ESTABLISH A FULLY FUNCTIONAL DETECTION SYSTEM.

809 STOP-LINE RADAR DETECTION, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF FURNISHING AND INSTALLING A WAVETRONIX SMARTSENSOR MATRIX DETECTION UNIT. THE DETECTION UNIT SHALL INCLUDE THE FOLLOWING:

1. POWER SHALL BE PROVIDED FROM THE TRAFFIC CABINET.

2. ALL REQUIRED INPUTS CARDS SHALL BE INCLUDED IN THE TRAFFIC CABINET AND SHALL BE COMPATIBLE WITH CALTRANS, NEMA TS1 AND NEMA TS2 DETECTOR RACKS. THE CARDS SHALL PROVIDE TRUE PRESENCE DETECTOR CALLS OR CONTACT CLOSURE TO THE TRAFFIC CONTROLLER.

3. THE UNIT SHALL BE MOUNTED DIRECTLY TO A POLE OR MAST ARM, AS RECOMMENDED BY THE MANUFACTURER. CABLE(S) SHALL BE PROVIDED AS REQUIRED AND RECOMMENDED BY THE MANUFACTURER. EACH UNIT IS TO USE 3 BANDS TO ATTACH UNITS PER MANUFACTURERS RECOMMENDATIONS.

4. SURGE PROTECTION DEVICES, AS RECOMMENDED BY THE MANUFACTURER SHALL BE INCLUDED BOTH AT THE POLE WHERE THE UNIT IS LOCATED TO PROTECT THE UNIT AND IN THE TRAFFIC CABINET TO PROTECT THE CABINET ELECTRONICS.

5. THE MANUFACTURER'S REPRESENTATIVE SHALL BE ON SITE DURING INSTALLATION AND TESTING AND SHALL PROVIDE ONSITE TRAINING ON THE SETUP, OPERATION AND MAINTENANCE OF THE UNIT.

6. A SERIAL TO ETHERNET COMMUNICATIONS MODULE AND ETHERNET CABLE (MINIMUM 7 FEET).

7. THE POWER SUPPLY AND COMMUNICATION MODULES SHALL BE SECURED TO A SINGLE PANEL THAT CAN BE MOUNTED INTERIOR TO THE TRAFFIC CABINET. THE PANEL SHALL INCLUDE MODULAR-PLUG STYLE CONNECTIONS FOR UP TO FOUR (4) SENSOR CABLES. ADDITIONAL SENSORS MAY BE HARD-WIRED TO THE COMMUNICATION MODULES, AS NECESSARY.

8. THE CONTRACTOR SHALL INSTALL THE RADAR DETECTION PRIOR TO MILLING/DISABLING EXISTING LOOPS.

9. THE INSTALLATION SHALL INCLUDE ALL CONTROLLER PROGRAMMING FOR COMPLETE INSTALLATION, WHICH INCLUDES MODIFICATIONS FOR REMOVAL OF EXISTING DETECTION.

PAYMENT FOR ITEM 809 STOP-LINE RADAR DETECTION, AS PER PLAN SHALL BE MADE AT THE CONTRACT UNIT PRICE FOR EACH UNIT, COMPLETE AND IN PLACE INCLUDING ALL REQUIRED CABINET HARDWARE, MOUNTING BRACKETS, CABLES, CONDUIT AND CONNECTIONS TESTED AND ACCEPTED.

ITEM 632 – POWER SERVICE, AS PER PLAN

THE POWER SUPPLYING AGENCY FOR THIS PROJECT IS:

SOUTH CENTRAL POWER COMPANY
2780 COONPATH ROAD NE
LANCASTER, OH 43130
PHONE: (800) 282-5064
CONTACT: MICHAEL CONRAD

THE CONTRACTOR WILL BE RESPONSIBLE FOR CONTACTING THE POWER COMPANY FOR THE ELECTRICAL SERVICE CONNECTION. A MINIMUM OF THREE 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 SIGNALS AND LIGHTING SYSTEM IS ACCEPTED BY ODOT.

IF THE PROPOSED POWER SERVICE LOCATION SHOWN IN THE PLANS IS NOT FEASIBLE THEN THE CONTRACTOR SHALL MOVE THE POWER SERVICE LOCATION AT THE APPROVAL OF THE ENGINEER. ITEMIZED QUANTITIES SHALL BE ADJUSTED.

PADLOCKS FURNISHED SHALL BE EITHER BRASS OR BRONZE, EQUAL TO MASTER NO. 4BKA OR WILSON BOHANNON 660A, AND KEYING SHALL BE TO THE ODOT MASTER.

THE CONTRACTOR SHALL INSTALL A WOOD POLE AS SHOWN IN THE PLANS THAT WILL CONTAIN A GROUND-MOUNTED STRUT FRAME POWER SERVICE CONFORMING TO SCD HL-40.20. THE PHOTO-CELL SHALL BE MOUNTED 10 FEET ABOVE THE NEAREST EDGE OF PAVEMENT ELEVATION ON THE WOOD POLE. THE POWER SERVICE SHALL BE A MINIMUM OF 100 AMP SERVICE. PROVIDE SEPARATE DISCONNECTS FOR THE 120/240V LIGHTING CIRCUIT, AS WELL AS THE 120/240V TRAFFIC SIGNALS. SEPARATE SIGNAL DISCONNECTS SHALL ALSO BE INSTALLED ON THE SIDE OF THE TRAFFIC SIGNAL CONTROLLER CABINETS THAT WILL REMOVE POWER TO THAT INDIVIDUAL INTERSECTION'S SIGNAL.

PAYMENT SHALL BE MADE AT THE UNIT PRICE BID FOR THE POWER SERVICE, COMPLETE AND IN PLACE, INCLUDING, PHOTO-CELL, CONDUIT RISER, ALL CABLE, CONDUIT, CLAMPS, TRENCHING, POWER CABLE, FITTINGS, DISCONNECT SWITCH WITH ENCLOSURE, METER BASE, GROUND RODS, PADLOCK AND KEY, PULL BOX, WOOD POLE, AND ALL INCIDENTALS NECESSARY FOR COMPLETE SERVICE, ALL CONNECTIONS TESTED AND ACCEPTED.

THE FOLLOWING QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY:

ITEM 632, POWER SERVICE, AS PER PLAN 1 EACH

POWER SERVICE DATA					
POWER SERVICE	LINE VOLTS	CONNECTED LOAD (KVA)	SERVICE ENTRANCE CONDUCTOR SIZE NO.	ENCLOSURE RATING (AMPS)	CIRCUIT NO.
EXISTING POWER POLE STA 312+82.05, 71.96' LT	120/240V 1 PHASE 3-WIRE 3-COND. W/ GND. NEUTRAL	5	1/0	100	SIGNAL
		CIRCUIT LOAD (AMPS)	CIRCUIT FUSE SIZE (AMPS)	CIRCUIT CABLE SIZE (AWG)	MAINTAINING AGENCY
		7	20	6	ODOT DISTRICT 5

CALCULATED AC CHECKED SJB

TRAFFIC SIGNAL GENERAL NOTES

FAI-158-07.25

SHEET NO.	REFERENCE FROM	REFERENCE TO	STATION	CODE	SIZE (INCHES) W	x	H	625 CONNECTION, FUSED PULL APART EACH	625 CONNECTION, UNFUSED PULL APART EACH	625 BRACKET ARM, 30' EACH	625 CONDUIT, 2", 725.051 FT	625 CONDUIT, 4", 725.051 FT	625 LUMINAIRE, CONVENTIONAL, SOLID STATE (LED), AS PER PLAN, 150 W, 120V, TYPE II) EACH	625 TRENCH FT	625 PULL BOX, 725.08, 24" EACH	625 PULL BOX, 725.08, 18" EACH	625 GROUND ROD EACH	625 UNDERGROUND WARNING/MARKING TAPE LF	625 ARC FLASH CALCULATIONS AND LABEL EACH	630 SIGN SUPPORT ASSEMBLY, POLE MOUNTED EACH	630 SIGN, FLAT SHEET SF	632 VEHICULAR SIGNAL HEAD, (LED), 3 SECTION, 12" LENS, 1-WAY, POLYCARBONATE, BLACK EACH	632 VEHICULAR SIGNAL HEAD, (LED), 5 SECTION, 12" LENS, 1-WAY, POLYCARBONATE, BLACK EACH	632 COVERING OF VEHICULAR SIGNAL HEAD EACH
	INTERSECTION OF LANCASTER-KIRKERSVILLE ROAD (SR 158) AND PLEASANTVILLE ROAD (CR 17)																								
104	C1		313+25.94														1		1						
	C1	PB1										10		10				10							
	PB1	SP1										30		30				30							
	PB1		313+23.68												1										
	SP1		312+92.69	R9-3-18	18	x	24										1			2	6	1		1	
	SP2		311+82.07	R9-3-18	18	x	24										1			2	6	1		1	
	SP3		313+18.53	R9-3-18	18	x	24										1			2	6	1		1	
	SP4		312+23.33	R9-3-18	18	x	24										1			2	6	1		1	
	SP1	SP3																				1	1	2	
	SP3	SP4																				2		2	
	SP4	SP2																				1	1	2	
	SP2	SP1																				2		2	
	L-SP1							1	1	1			1												
	L-SP4							1	1	1			1												
	PBL		312+96.94													1								
	WP	C1									25			25				25							
	WP	PBL									6			6				6							
	PBL	SP1									5			5				5							
TOTALS CARRIED TO GENERAL SUMMARY								2	2	2	36	40	2	76	1	1	5	76	1	8	24	10	2	12	

CALCULATED AC
CHECKED SJB

TRAFFIC SIGNAL SUBSUMMARY

FAI-158-07.25

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SHEET NO.	REFERENCE FROM	REFERENCE TO	STATION	632 MESSENGER WIRE, 7 STRAND, 3/8" DIAMETER WITH ACCESSORIES FT	632 TETHER WIRE, WITH ACCESSORIES FT	632 SIGNAL CABLE, 4 CONDUCTOR, NO 14 AWG FT	632 SIGNAL CABLE, 7 CONDUCTOR, NO 14 AWG FT	632 STRAIN POLE FOUNDATION EACH	632 TEST HOLE PERFORMED EACH	632 POWER CABLE, 2 CONDUCTOR, NO. 8 AWG FT	632 POWER SERVICE, AS PER PLAN EACH	632 STRAIN POLE, TYPE TC-81.11, DESIGN 12 EACH	632 COMBINATION STRAIN POLE, TYPE TC-81.11, DESIGN 12 EACH	633 CABINET, (TYPE 332), AS PER PLAN EACH	633 CABINET FOUNDATION, AS PER PLAN EACH	633 CONTROLLER WORK PAD, AS PER PLAN EACH	633 UNINTERRUPTIBLE POWER SUPPLY (UPS), 1000 WATT, AS PER PLAN EACH	809 ADVANCE RADAR DETECTION, AS PER PLAN EACH	809 STOP LINE RADAR DETECTION, AS PER PLAN EACH	809 ATC CONTROLLER, AS PER PLAN (PROGRAM AND INSTALL ONLY) EACH
	INTERSECTION OF LANCASTER-KIRKERSVILLE ROAD (SR 158) AND PLEASANTVILLE ROAD (CR 17)																				
104	C1										1			1	1	1	1			1	
	PB1		313+23.68																		
	SP1		312+92.69										1					1	1		
	SP2		311+82.07									1						1	2		
	SP3		313+18.53									1						1	2		
	SP4		312+23.33										1					1	1		
	SP1	SP3		115	115			1	1												
	SP3	SP4		105	105			1	1												
	SP4	SP2		115	115			1	1												
	SP2	SP1		110	110			1	1												
	L-SP1					121															
	L-SP4					361															
	WP		313+00							30											
	WP	C1								60											
	C1	2A/2B					185														
	C1	4A/4B					290														
	C1	8A/8B					165														
	C1	6A/6B					290														
	C1	6C					105														
	C2	8C					260														
	C3	4C					255														
	C4	2C					375														
TOTALS CARRIED TO GENERAL SUMMARY				445	445	482	1925	4	4	90	1	2	2	1	1	1	1	4	6	1	

CALCULATED AC
CHECKED SJB

TRAFFIC SIGNAL SUBSUMMARY

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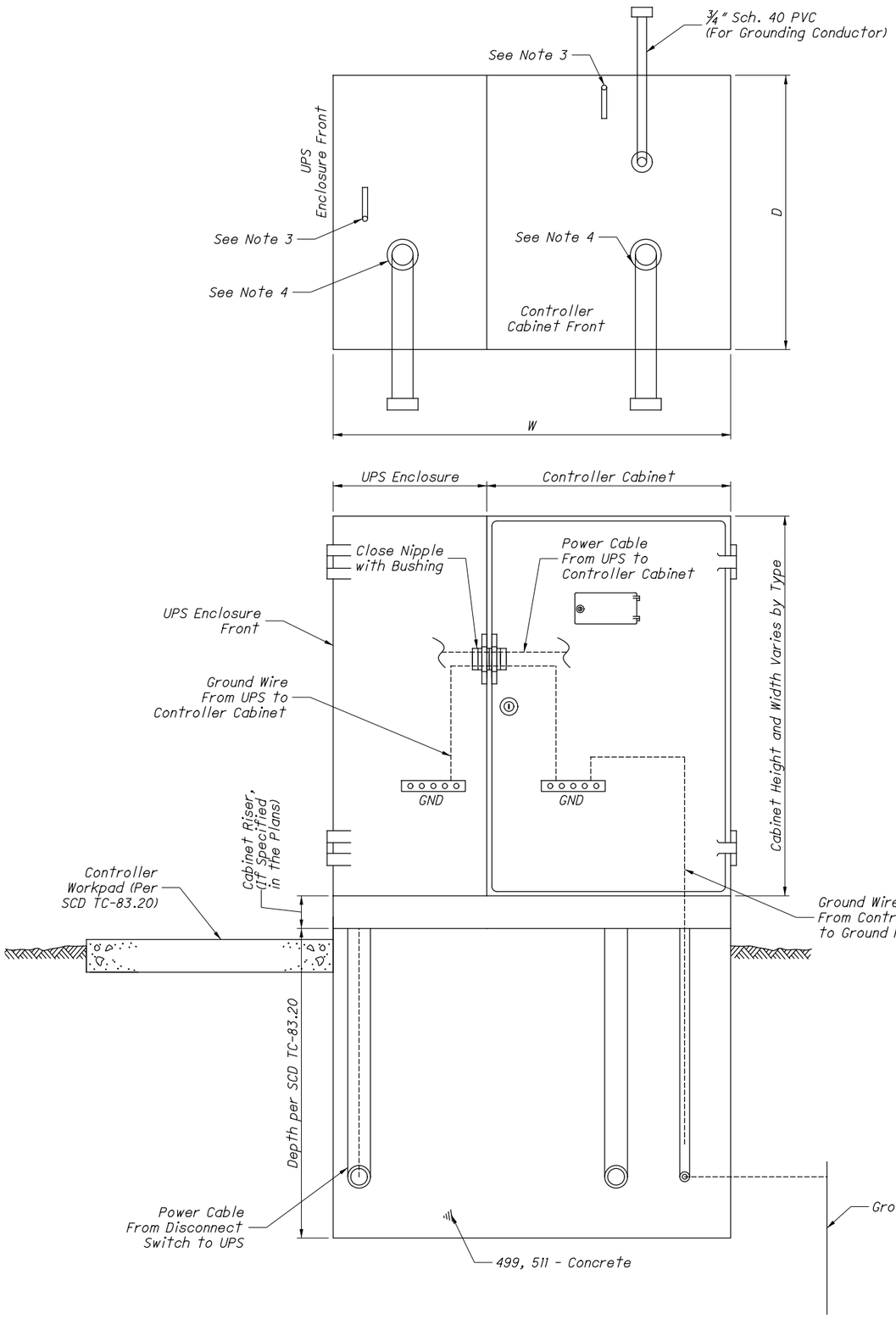

NOTES:

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 ¾" 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.

OFFICE OF ROADWAY ENGINEERING

DESIGNED XXX | REVIEWED XXX

REVISION DATE 07-18-2014 | CHECKED CHECKED

PLAN INSERT SHEET

UNINTERRUPTIBLE POWER SUPPLY (UPS) AND CONTROLLER CABINET FOUNDATION

FAI-158-07.25

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MATERIAL SPECIFICATIONS FOR BBS GENERATOR POWER PANEL EQUIPMENT

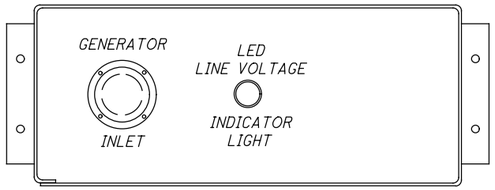
GENERATOR INLET - The inlet shall be 30 amp, 125/250V, locking, four (4) wire grounding and meet the NEMA configuration number L14-30-P 30A 125/250V specification. The inlet shall be a Hubbell catalog #2715.

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.

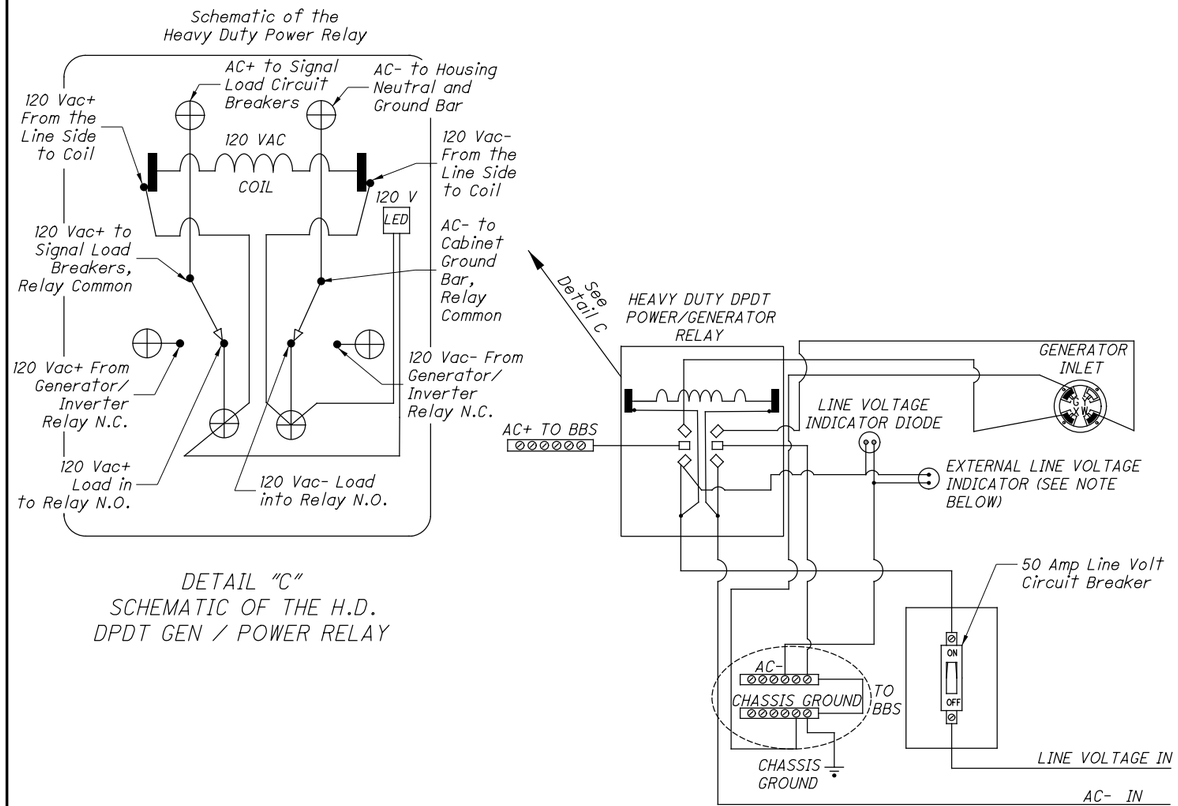
LINE VOLTAGE INDICATOR LIGHT - The indicator light shall be 125V AC light emitting diode with a red lens.

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 accomodate 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

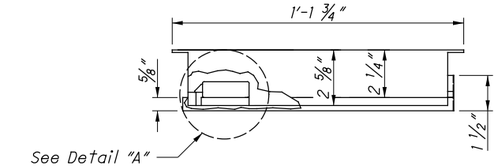


DETAIL "C"
SCHEMATIC OF THE H.D.
DPDT GEN / POWER RELAY

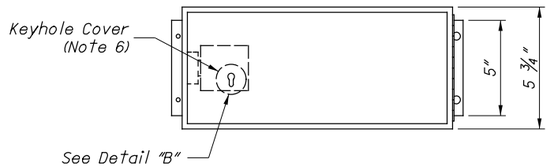
ELECTRICAL HOOKUP DETAIL FOR THE BBS GENERATOR POWER PANEL

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.

GENERATOR POWER PANEL ENCLOSURE



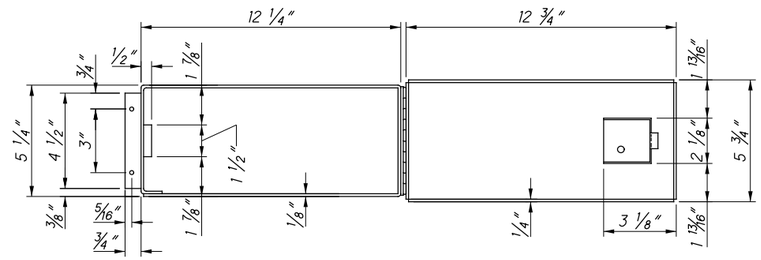
TOP VIEW



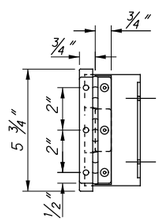
FRONT VIEW CLOSED DOOR

NOTES:

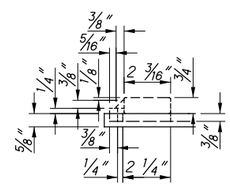
1. The enclosure shall be constructed of 1/8" thick alumimum.
2. The lock shall be the standard police door type, keyed with the standard flasher door skeleton key.
3. The door shall be sealed with a foam rubber gasket to prevent moisture from entering the enclosure.
4. The enclosure shall be mounted 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.
5. The hinge shall be of stainless steel or equivalent corrosive-resistant material.
6. Keyhole shall be covered with a movable circular aluminum or brass cover with top pivot pin.



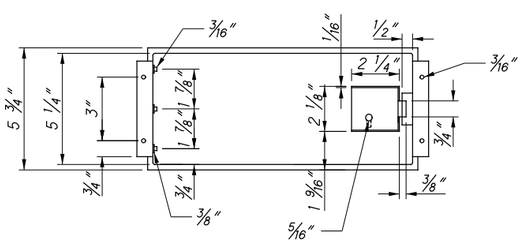
FRONT VIEW OPEN DOOR



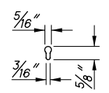
RIGHT SIDE VIEW
CLOSED DOOR



DETAIL "A"



BACK VIEW CLOSED DOOR



DETAIL "B"

THIS DRAWING REPLACES PIS 20301Z DATED 04-20-2012.

OFFICE OF ROADWAY ENGINEERING

DESIGNED XXX
REVIEWED XXX
REVISION DATE 07-18-2014
CHECKED CHECKED

PLAN INSERT SHEET
BATTERY BACKUP SYSTEM (BBS)
GENERATOR POWER PANEL

FAI-158-07.25

1 / 1

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SEPAC AND ASC/3 INPUT FILE INFORMATION FOR THE 332 CABINET

UPPER INPUT FILE (FILE=I)

UPPER CHANNEL	PHASE	1	2	2	2	3	4	4	4	1		MANUAL	2	6	FLASH
	DEFAULT FUNCTION	EXT-CALL	EXT-CALL	EXT-CALL	EXT-CALL	EXT-CALL	EXT-CALL	EXT-CALL	EXT-CALL	EXT-CALL	SPARE	CONTROL ADV.	PED	PED	SENSE
	SEPAC DETECTOR NO.	VEH 1	VEH 3	VEH 5	VEH 7	VEH 9	VEH 11	VEH 13	VEH 15	VEH 17			PED 2	PED 6	
	ASC/3 DETECTOR NO.	VEH 1	VEH 2	VEH 3	VEH 4	VEH 5	VEH 6	VEH 7	VEH 8	VEH 9			PED 2	PED 6	
	C1 PIN NUMBER	56	39	63	47	58	41	65	49	60		80	67	68	81
	FIELD TERMINALS	1-D,E	2-D,E	3-D,E	4-D,E	5-D,E	6-D,E	7-D,E	8-D,E	9-D,E	10-D,E	11-D,E	12-D,E	13-D,E	14-D,E
SLOT NUMBER		1	2	3	4	5	6	7	8	9	10	11	12	13	14
LOWER CHANNEL	PHASE	1	2	2	2	3	4	4	4	3		ADV.	4	8	STOP
	DEFAULT FUNCTION	EXT-CALL	EXT-CALL	EXT-CALL	EXT-CALL	EXT-CALL	EXT-CALL	EXT-CALL	EXT-CALL	EXT-CALL	SPARE	ENABLE	PED	PED	TIME
	SEPAC DETECTOR NO.	VEH 1	VEH 4	VEH 6	VEH 7	VEH 9	VEH 12	VEH 14	VEH 15	VEH 18			PED 4	PED 8	
	ASC/3 DETECTOR NO.	VEH 1	VEH 10	VEH 11	VEH 4	VEH 5	VEH 14	VEH 15	VEH 8	VEH 13			PED 4	PED 8	
	C1 PIN NUMBER	56	43	76	47	58	45	78	49	62		53	69	70	82
	FIELD TERMINALS	1-J,K	2-J,K	3-J,K	4-J,K	5-J,K	6-J,K	7-J,K	8-J,K	9-J,K	10-J,K	11-J,K	12-J,K	13-J,K	14-J,K

LOWER INPUT FILE (FILE=J)

UPPER CHANNEL	PHASE	5	6	6	6	7	8	8	8	5					
	DEFAULT FUNCTION	EXT-CALL	EXT-CALL	EXT-CALL	EXT-CALL	EXT-CALL	EXT-CALL	EXT-CALL	EXT-CALL	EXT-CALL	SPARE	SPARE	EV - A	EV - B	RR - 1
	SEPAC DETECTOR NO.	VEH 19	VEH 21	VEH 23	VEH 25	VEH 29	VEH 31	VEH 33	VEH 35	VEH 37					
	ASC/3 DETECTOR NO.	VEH 17	VEH 18	VEH 19	VEH 20	VEH 21	VEH 22	VEH 23	VEH 24	VEH 25					
	C1 PIN NUMBER	55	40	64	48	57	42	66	50	59		54	71	72	51
	FIELD TERMINALS	1-D,E	2-D,E	3-D,E	4-D,E	5-D,E	6-D,E	7-D,E	8-D,E	9-D,E	10-D,E	11-D,E	12-D,E	13-D,E	14-D,E
SLOT NUMBER		1	2	3	4	5	6	7	8	9	10	11	12	13	14
LOWER CHANNEL	PHASE	5	6	6	6	7	8	8	8	7					
	DEFAULT FUNCTION	EXT-CALL	EXT-CALL	EXT-CALL	EXT-CALL	EXT-CALL	EXT-CALL	EXT-CALL	EXT-CALL	EXT-CALL	SPARE	SPARE	EV - C	EV - D	RR - 2
	SEPAC DETECTOR NO.	VEH 19	VEH 22	VEH 24	VEH 25	VEH 29	VEH 32	VEH 34	VEH 35	VEH 38					
	ASC/3 DETECTOR NO.	VEH 17	VEH 26	VEH 27	VEH 20	VEH 21	VEH 30	VEH 31	VEH 24	VEH 29					
	C1 PIN NUMBER	55	44	77	48	57	46	79	50	61		75	73	74	52
	FIELD TERMINALS	1-J,K	2-J,K	3-J,K	4-J,K	5-J,K	6-J,K	7-J,K	8-J,K	9-J,K	10-J,K	11-J,K	12-J,K	13-J,K	14-J,K

SEPAC AND ASC/3 INPUT FILE INFORMATION FOR THE 336 CABINET

UPPER CHANNEL	PHASE	1	2	3	4	5	6	7	8				2	6	FLASH
	DEFAULT FUNCTION	EXT-CALL	EXT-CALL	EXT-CALL	EXT-CALL	EXT-CALL	EXT-CALL	EXT-CALL	EXT-CALL	RR - 1	EV - A	EV - B	PED	PED	SENSE
	SEPAC DETECTOR NO.	VEH 1	VEH 3	VEH 9	VEH 11	VEH 19	VEH 21	VEH 29	VEH 31				PED 2	PED 6	
	ASC/3 DETECTOR NO.	VEH 1	VEH 2	VEH 5	VEH 6	VEH 17	VEH 18	VEH 21	VEH 22				PED 2	PED 6	
	C1 PIN NUMBER	56	39	58	41	55	40	57	42	51	71	72	67	68	81
	FIELD TERMINALS	1-D,E	2-D,E	3-D,E	4-D,E	5-D,E	6-D,E	7-D,E	8-D,E	9-D,E	10-D,E	11-D,E	12-D,E	13-D,E	14-D,E
SLOT NUMBER		1	2	3	4	5	6	7	8	9	10	11	12	13	14
LOWER CHANNEL	PHASE	2	2	4	4	6	6	8	8				4	8	STOP
	DEFAULT FUNCTION	EXT-CALL	EXT-CALL	EXT-CALL	EXT-CALL	EXT-CALL	EXT-CALL	EXT-CALL	EXT-CALL	RR - 2	EV - C	EV - D	PED	PED	TIME
	SEPAC DETECTOR NO.	VEH 7	VEH 4	VEH 15	VEH 12	VEH 25	VEH 22	VEH 35	VEH 32				PED 4	PED 8	
	ASC/3 DETECTOR NO.	VEH 4	VEH 10	VEH 8	VEH 14	VEH 20	VEH 26	VEH 24	VEH 30				PED 4	PED 8	
	C1 PIN NUMBER	47	43	49	45	48	44	50	46	52	73	74	69	70	82
	FIELD TERMINALS	1-J,K	2-J,K	3-J,K	4-J,K	5-J,K	6-J,K	7-J,K	8-J,K	9-J,K	10-J,K	11-J,K	12-J,K	13-J,K	14-J,K

THIS DRAWING REPLACES PIS 203324 DATED 10-18-2013.

OFFICE OF ROADWAY ENGINEERING

DESIGNED XXX REVIEWED XXX

REVISION DATE 07-15-2016 CHECKED CHECKED

PLAN INSERT SHEET

SEPAC AND ASC/3 INPUT FILE INFORMATION FOR 332 AND 336 CABINETS

FAI-158-07.25

1 / 1

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PULLBOX TABLE

PULL BOX #	STATION	SIDE	OFFSET	SIZE (IN.)
PB1	313+23.68	LT	42.89	24
PBL	312+96.94	LT	50.72	18
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-

10'-4" CONDUIT - (8) 7/C, (8) 8/C IN TRENCH

GROUND MOUNTED CONTROLLER W/ UPS (C 1) STA 313+25.94, 52.02' LT

30'-4" CONDUIT - (8) 7/C, (8) 8/C IN TRENCH

25'-2" CONDUIT - POWER (SIGNALS) IN TRENCH

WOODEN POLE FOR PROPOSED POWER SERVICE (WP) STA 313+00.00, 55.00' LT

6'-2" CONDUIT - POWER (LIGHTING) IN TRENCH

5'-2" CONDUIT - POWER (LIGHTING) IN TRENCH

SIGNAL POLE (SP 1) STA 312+92.69, 47.84' LT

EXISTING POWER POLE STA 312+82.05, 71.96' LT

SIGNAL POLE (SP 2) STA 311+82.07, 56.98' LT

SIGNAL POLE (SP 3) STA 313+18.53, 60.66' RT

SIGNAL POLE (SP 4) STA 312+23.33, 43.93' LT

℄ CONST. C.R. 17 (PLEASANTVILLE RD.)

℄ CONST. S.R. 158

STA. 312+62.53, ℄ S.R. 158 = STA. 106+06.84, ℄ C.R. 17

S 85° 59' 18" E

18" ST (FOR FOOTPATH)

PB1 PBL 6C 8A 8B 8C 2A 2B 4A 4B 4C 6A 6B 2C

ϕ 1 ϕ 2 ϕ 4 ϕ 5 ϕ 6 ϕ 8

104 105 106 107 108 311 312 313 314

Ex R/W Ex SH R/W OH-E OH-CTV OH-COM-E FO TEL G T

PROPOSED SIGNING

R9-3-18 (1)

PROPOSED SIGNAL HEADS

12 IN. LED, WITH BACKPLATES BLACK POLYCARBONATE

2B, 2C, 4A, 4B, 4C 6B, 6C, 8A, 8B, 8C

2A, 6A

NOTE: RADAR DETECTION ZONES SHOWN ON SHEET 105

LEGEND

- TRAFFIC SIGNAL, 3 HEAD
- TRAFFIC SIGNAL, 5 HEAD
- SIGNAL SUPPORT POLE
- GROUND MOUNTED CONTROLLER W/ UPS
- TR TRAFFIC PULL BOX
- E LIGHTING PULL BOX
- S STOP LINE RADAR DETECTION UNIT
- D DILEMMA ZONE RADAR DETECTION UNIT
- RADAR DETECTION ZONE
- BRACKET ARM WITH LUMINAIRE
- PROPOSED POLE MOUNTED SIGN

HORIZONTAL SCALE IN FEET 0 10 20 40

CALCULATED AC CHECKED SJB

TRAFFIC SIGNAL PLAN
S.R. 158 AND PLEASANTVILLE ROAD (C.R. 17)

FAI-158-07.25

104 / 131

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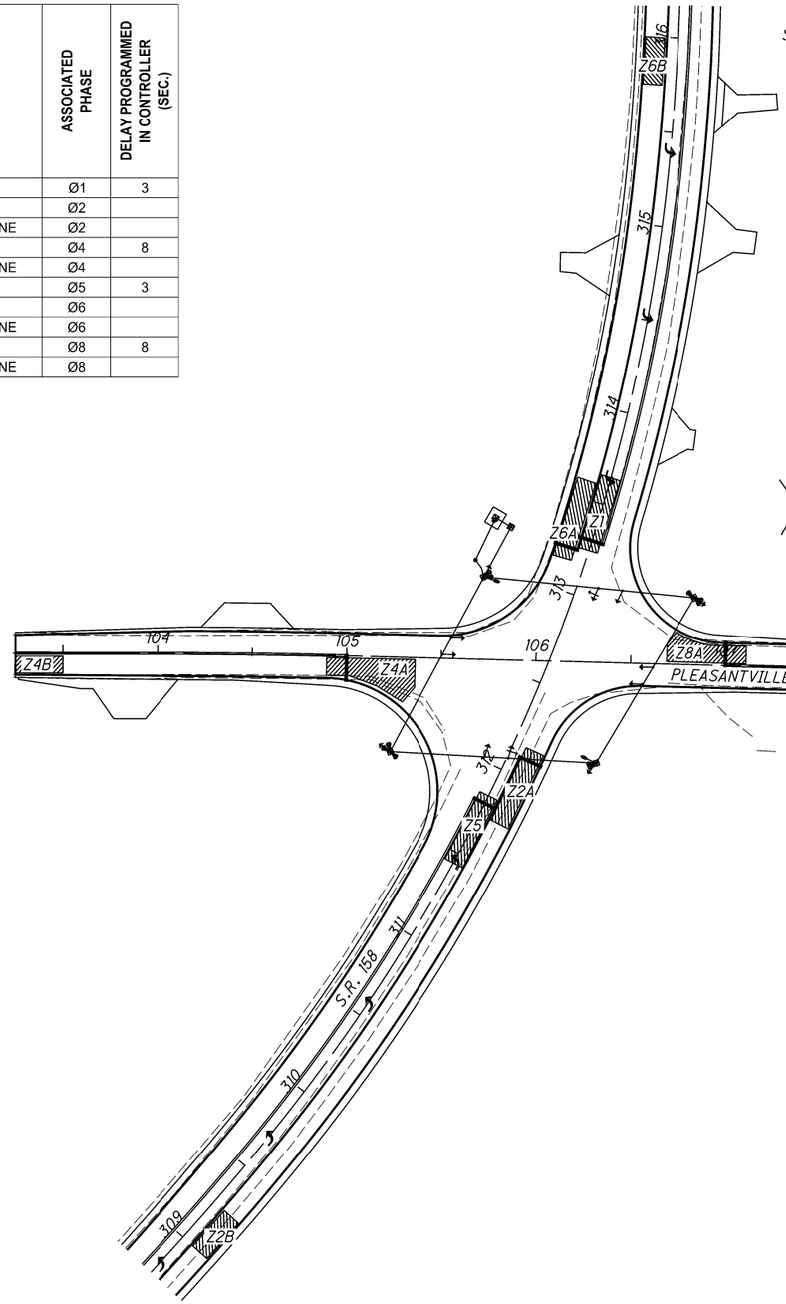
RADAR DETECTION CHART

DETECTION ZONE	MOVEMENT	RADAR TYPE	ASSOCIATED PHASE	DELAY PROGRAMMED IN CONTROLLER (SEC.)
Z1	SBLT	STOP BAR	Ø1	3
Z2A	NB	STOP BAR	Ø2	
Z2B	NB	DILEMMA ZONE	Ø2	
Z4A	EB	STOP BAR	Ø4	8
Z4B	EB	DILEMMA ZONE	Ø4	
Z5	NBLT	STOP BAR	Ø5	3
Z6A	SB	STOP BAR	Ø6	
Z6B	SB	DILEMMA ZONE	Ø6	
Z8A	WB	STOP BAR	Ø8	8
Z8B	WB	DILEMMA ZONE	Ø8	



S.R. 158: BEGINNING OF ADVANCE DETECTION ZONE APPROXIMATELY 250 FT FROM STOP BAR (TYP)

ADVANCE RADAR DETECTION ZONE APPROXIMATELY 25 FT IN LENGTH (TYP)

C.R. 17: BEGINNING OF ADVANCE DETECTION ZONE APPROXIMATELY 150 FT FROM STOP BAR (TYP)

ADVANCE RADAR DETECTION ZONE APPROXIMATELY 25 FT IN LENGTH

HORIZONTAL SCALE IN FEET
0 20 40 80

CALCULATED AC
CHECKED SJB

RADAR DETECTION ZONES
S.R. 158 AND PLEASANTVILLE ROAD (C.R. 17)

FAI-158-07.25

105
131

SIGNAL TIMING CHART

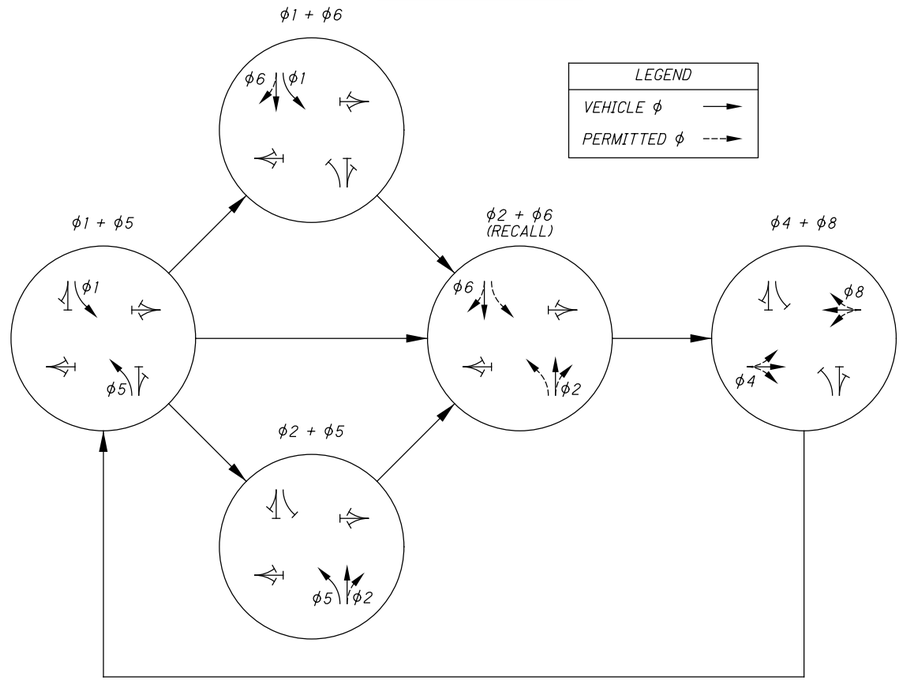
INTERSECTION: S.R. 158 AND PLEASANTVILLE ROAD (C.R. 17)									
MAINTAINING AGENCY: ODOT									
START UP		DUAL ENTRY: YES		PHASES:			Ø4 & Ø8		
		REST IN RED:		RING 1	NO		RING 2	NO	
START IN: YELLOW/RED FLASH		OVERLAP			A	B	C	D	
TIME FOR: FLASH , ALL RED (SEC.): 4 (SEC.)									
FIRST PHASE(S): Ø2 & Ø6		PHASES			-	-	-	-	
COLOR DISPLAYED: GREEN									
INTERVAL OR FEATURE		CONTROLLER MOVEMENT NO.							
INTERSECTION MOVEMENT (PHASE)		1	2	3	4	5	6	7	8
DIRECTION		SBLT	NB	-	EB	NBLT	SB	-	WB
MINIMUM GREEN (INITIAL)	(SEC.)	8	20	-	12	8	20	-	12
ADDED INITIAL	*(SEC./ACTUATION)	-	1	-	-	-	1	-	-
MAXIMUM INITIAL	(SEC.)	-	30	-	-	-	30	-	-
PASSAGE TIME (PRESET GAP)	(SEC.)	3	5	-	3	3	5	-	3
TIME BEFORE REDUCTION	*(SEC.)	-	-	-	-	-	-	-	-
MINIMUM GAP	*(SEC.)	-	-	-	-	-	-	-	-
TIME TO REDUCE	*(SEC.)	-	-	-	-	-	-	-	-
MAXIMUM GREEN I	(SEC.)	20	50	-	30	20	50	-	30
MAXIMUM GREEN II	(SEC.)	-	-	-	-	-	-	-	-
YELLOW CHANGE	(SEC.)	5	5	-	4	5	5	-	4
ALL RED CLEARANCE	(SEC.)	1.5	1.5	-	2	1.5	1.5	-	2
DELAYED GREEN (LPI) '	(SEC.)	-	-	-	-	-	-	-	-
FLASHING YELLOW ARROW DELAY^	(SEC.)	-	-	-	-	-	-	-	-
WALK	(SEC.)	-	-	-	-	-	-	-	-
PEDESTRIAN CLEARANCE	(SEC.)	-	-	-	-	-	-	-	-
RECALL	MAXIMUM (ON/OFF)	-	-	-	-	-	-	-	-
	MINIMUM (ON/OFF)	-	X	-	-	-	X	-	-
	PEDESTRIAN (ON/OFF)	-	-	-	-	-	-	-	-
MEMORY	(ON/OFF)	-	-	-	-	-	-	-	-

*VOLUME DENSITY CONTROLS

NOTES:

- *ALL MOVEMENTS SHALL BE ACTUATED. THE PRIMARY THRU MOVEMENT SHALL HAVE MINIMUM RECALL ACTIVE TO REST IN GREEN.*
- *RADAR DETECTION UNITS FOR DILEMMA ZONE DETECTION SHALL PLACE A CONSTANT CALL TO THE CONTROLLER WHEN VEHICLE TRAVEL TIMES TO THE STOP BAR ARE BETWEEN 2.5 AND 6 SECONDS. SPEED TRIGGER SHALL BE SET FOR VEHICLES TRAVELING 35 MPH OR GREATER.*
- *ALL DETECTOR DELAYS SHALL BE PLACED IN THE CONTROLLER.*
- *RADAR DETECTION ZONES SHOWN ON SHEET105 .*

PHASING DIAGRAM



CALCULATED AC
CHECKED SJB

TRAFFIC SIGNAL PLAN DETAILS
S.R. 158 AND PLEASANTVILLE ROAD (C.R. 17)

FAI-158-07.25

106
131

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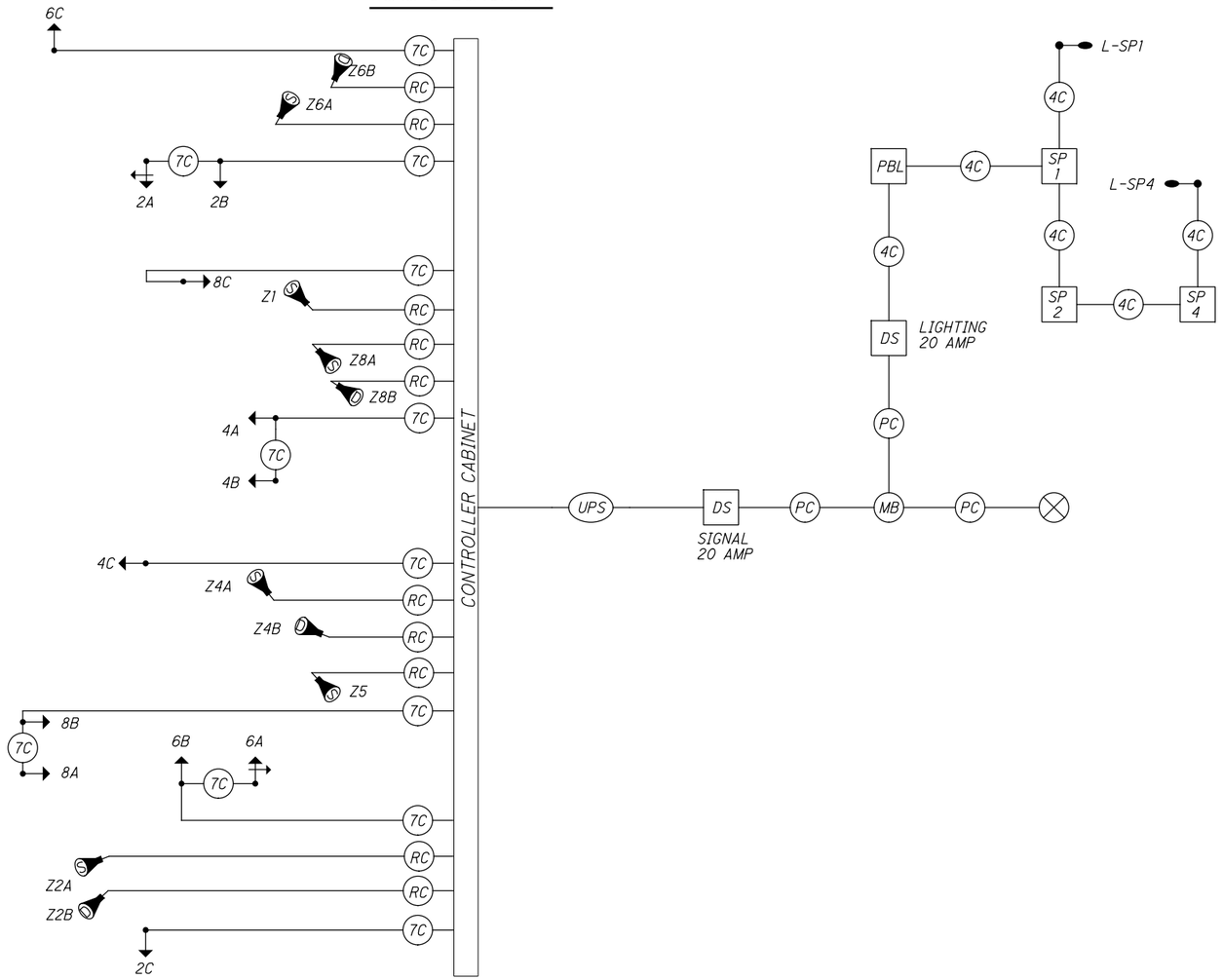
WIRING DIAGRAM



FIELD WIRING HOOK-UP CHART

TEM Form 496-16 Field Wiring Hook-up Chart

SIGNAL HEAD	INDICATION	FIELD TERMINAL	FLASH
2A (NB LT)	R	Ø2 R	Y
	Y	Ø2 Y	
	G	Ø2 G	
	<--Y---	Ø5 Y/LS 5 Y	
	<--G---	Ø5 G/LS 5 G	
2B, 2C (NB)	R	Ø2 R	Y
	Y	Ø2 Y	
	G	Ø2 G	
4A, 4B, 4C (EB)	R	Ø4 R	R
	Y	Ø4 Y	
	G	Ø4 G	
6A (SB LT)	R	Ø6 R	Y
	Y	Ø6 Y	
	G	Ø6 G	
	<--Y---	Ø1 Y/LS 1 Y	
	<--G---	Ø1 G/LS 1 G	
6B, 6C (SB)	R	Ø6 R	Y
	Y	Ø6 Y	
	G	Ø6 G	
LS = LOAD SWITCH			

SIGNAL HEAD	INDICATION	FIELD TERMINAL	FLASH
8A, 8B, 8C (WB)	R	Ø8 R	R
	Y	Ø8 Y	
	G	Ø8 G	
PEDESTRIAN MOVEMENTS			
-	-	-	-
-	-	-	
-	-	-	-
-	-	-	
-	-	-	-
-	-	-	
-	-	-	-
-	-	-	
OVERLAPS			
-	-	-	-
	-	-	
-	-	-	-
	-	-	

LEGEND

BRACKET ARM WITH LUMINAIRE	DISCONNECT SWITCH
TRAFFIC SIGNAL, 5 UNIT HEAD, 12"	WOODEN POLE FOR POWER SERVICE
TRAFFIC SIGNAL, 3 UNIT, 12"	SERVICE CABLE, 3 CONDUCTOR, NO. 8 AWG
DILEMMA ZONE RADAR DETECTION UNIT	POWER CABLE, 2 CONDUCTOR, NO. 8 AWG
STOP LINE RADAR DETECTION UNIT	PHOTOELECTRIC CELL
SIGNAL CABLE, 7 CONDUCTOR, NO. 14 AWG	SIGNAL SUPPORT POLE NO. --
SIGNAL CABLE, 4 CONDUCTOR, NO. 14 AWG	METER BASE
RADAR DETECTION CABLE	UNINTERRUPTIBLE POWER SUPPLY CABLE

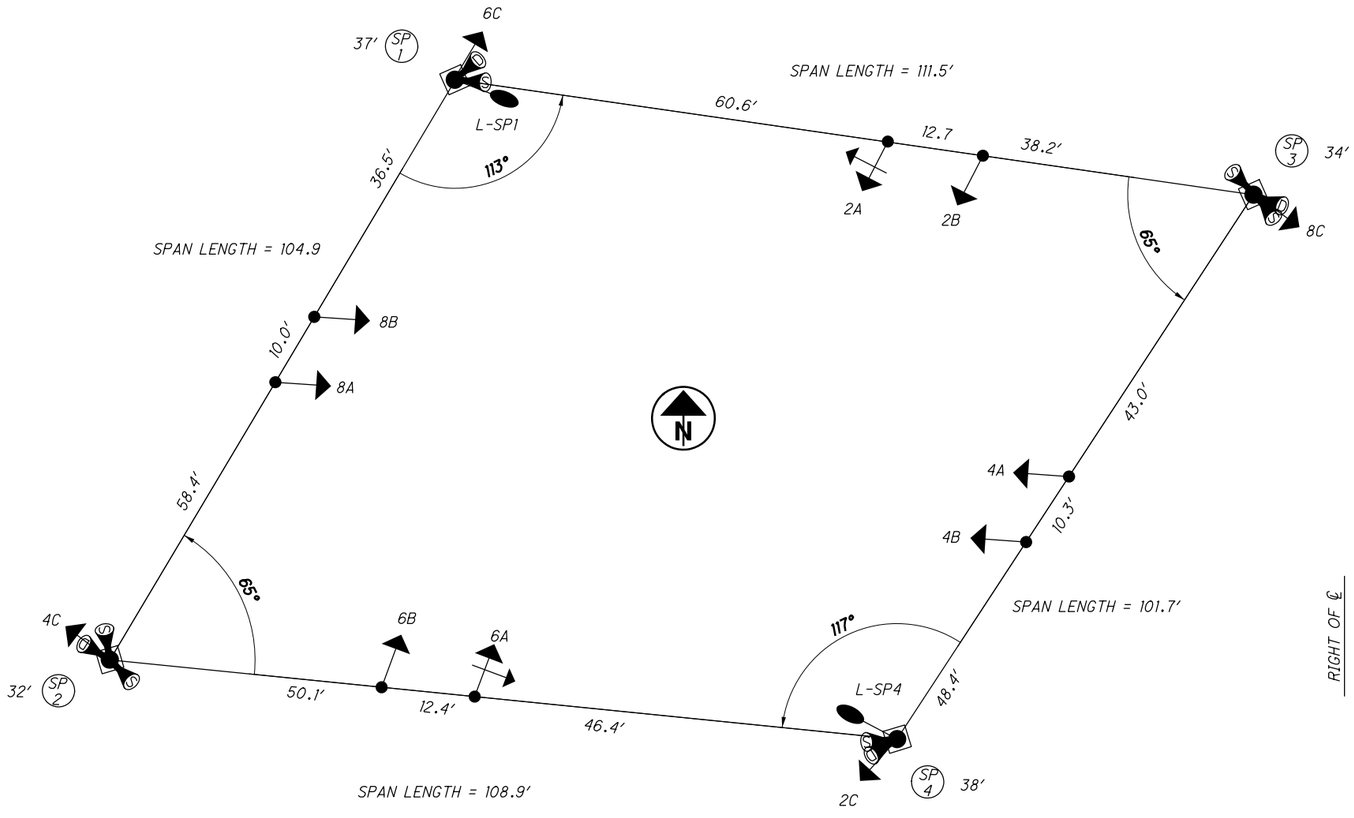
CALCULATED AC
CHECKED SJB

TRAFFIC SIGNAL PLAN DETAILS
S.R. 158 AND PLEASANTVILLE ROAD (C.R. 17)

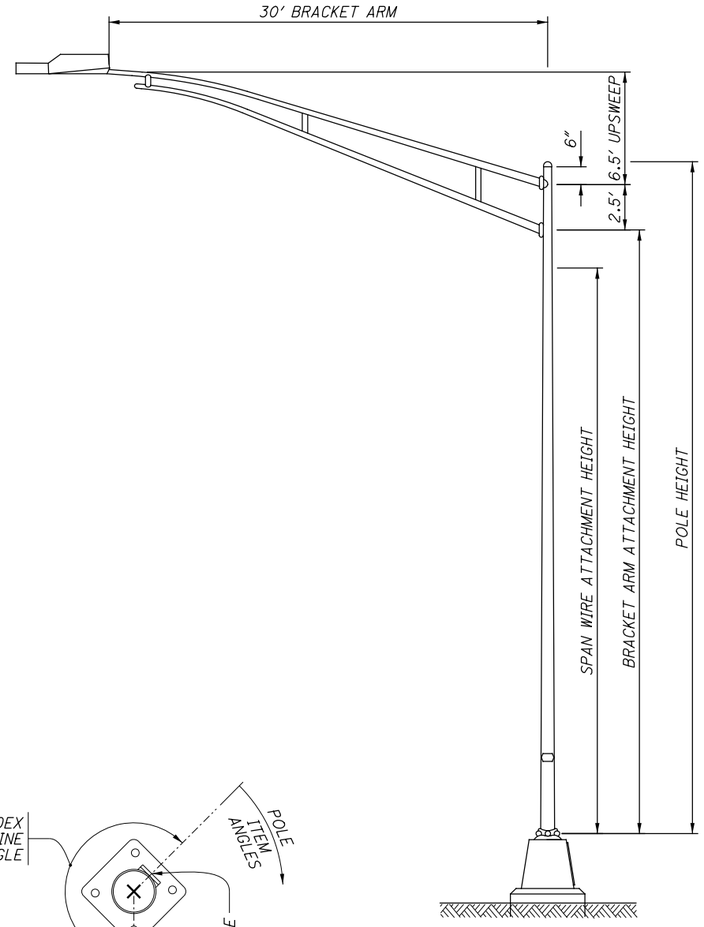
FAI-158-07.25

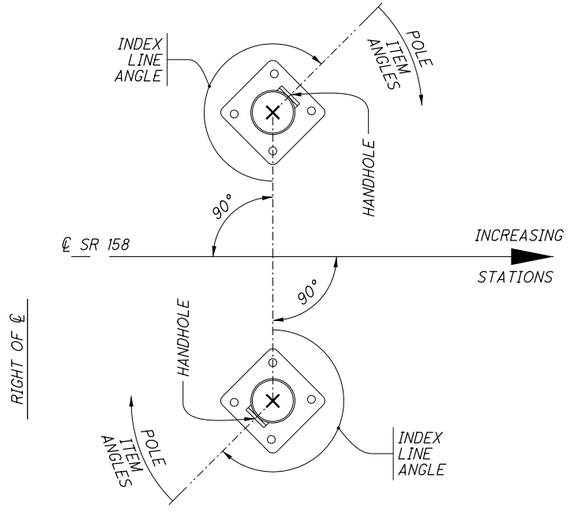
STRAIN POLE PLAN DETAILS

REFERENCE SHEET NO.	STATION & OFFSET	POLE NO.	DESIGN NO.	POLE HEIGHT (FT.)	FOUNDATION ELEV.	SPAN WIRE ATTACHMENT HEIGHT (FT.)		BRACKET ARM ATTACHMENT HEIGHT	CABLE ENTRANCE DISTANCE FROM TOP (IN.)	INDEX LINE ANGLE (DEG.)	POLE ITEM ANGLES (DEG.)		
											HANDHOLES	POWER SERVICE	BRACKET ARM
104	312+92.69, 47.84' LT	SP-1	12	37	939.1	30.7 to SP-3	29.8 to SP-2	34	12	225	0	270	135
104	311+82.07, 56.98' LT	SP-2	12	32	943.1	26.3 to SP-1	29.9 to SP-4			135	0		
104	313+18.53, 60.66' RT	SP-3	12	34	941.4	29.2 to SP-1	31.2 to SP-4			135	0		
104	312+23.33, 43.93' RT	SP-4	12	38	940.1	31.4 to SP-2	30.7 to SP-3	35		225	0		135



SPAN WIRE DETAILS





NOTES:

- ALL ANGLES ARE MEASURED CLOCKWISE.
- THE INDEX LINE GOES THROUGH THE CENTER OF THE HANDHOLE.

POLE DIAGRAM

CALCULATED AC
CHECKED SJB

TRAFFIC SIGNAL PLAN DETAILS
S.R. 158 AND PLEASANTVILLE ROAD (C.R. 17)

FAI-158-07.25

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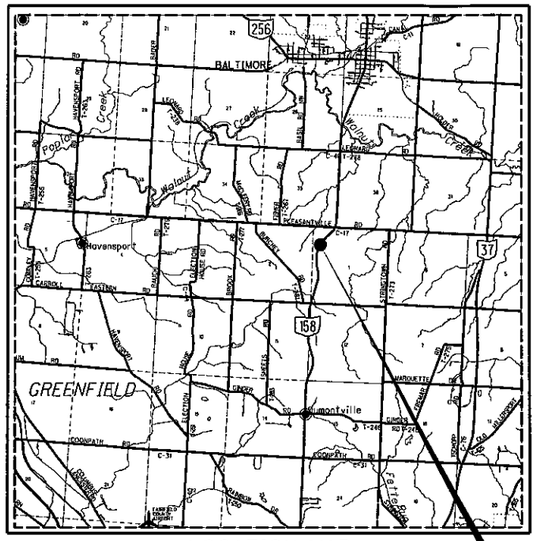
RIGHT OF WAY
LEGEND SHEET

FAI-158-7.25

FAIRFIELD COUNTY
GREENFIELD TOWNSHIP
NORTHWEST 1/4 SECTION 1, T15, R19W
LIBERTY TOWNSHIP
SOUTHEAST 1/4 SECTION 35, T16N, R19W
SOUTHWEST 1/4 SECTION 36, T16N, R19W



LOCATION MAP

LATITUDE: 39°48'37" LONGITUDE: -82°36'44"

SCALE IN MILES

0 1 2 3 4

N

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

INDEX OF SHEETS:

PROJECT DESCRIPTION

INTERSECTION UPGRADE AT S.R. 158 AND PLEASANTVILLE RD. (C.R. 17) AND RELATED WORK.

PROJECT CONTROL

NORTH AMERICAN VERTICAL DATUM (NAVD 88)
OHIO STATE PLANE GRID COORDINATE SYSTEM, SOUTH ZONE, GRID COORDINATES, NAD 83 (CONUS), GEOID 12A (OHIO).

PLAN PREPARED BY:

FIRM NAME: ODOT, DISTRICT 5
PLANS PREPARED BY: CANDY SHOEMAKER
FIELD REVIEW BY: LUKE WALKER & CANDY SHOEMAKER
OWNERSHIP VERIFIED BY: LUKE WALKER
DATE COMPLETED: 11/05/2020

UNDERGROUND UTILITIES
Contact Two Working Days Before You Dig
OHIO811.org Before You Dig
OHIO811, 8-1-1, or 1-800-362-2764
(Non-members must be called directly)

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

FRONTIER COMMUNICATIONS
754 WEST UNION ST.
ATHENS, OH 45701
ATTN: KENNY WAGGONER
740-592-0544
KENNETH.E.WAGGONER@FTR.COM

NORTHEAST OHIO NATURAL GAS
5460 LANCASTER-NEWARK RD. NE
PLEASANTVILLE, OH 43148
ATTN: MARK CALLAHAN
MOBILE: 740-808-6040
DIRECT: 740-400-4312
MCALLAHAN@EGAS.NET

SOUTH CENTRAL POWER
DIRECTOR OF ENGINEERING
2780 COONPATH RD., NE
PO BOX 250
LANCASTER, OH 43130
ATTN: ZACK REED
740-689-6150
CELL: 740-415-4274
ZREED@SOUTHCENTRALPOWER.COM

AT&T
160 NORTH SIXTH ST.
ZANESVILLE, OH 43701
ATTN: BARRETT TAMASOVICH
740-454-3552
BT2178@ATT.COM

SPECTRUM CABLE TV
3760 INTERCHANGE DRIVE
COLUMBUS, OHIO 43204
ATTN: BRIAN AMENDE
740-322-6703
BRIAN.AMENDE@CHARTER.COM

CONVENTIONAL SYMBOLS

County Line
Township Line
Section Line
Corporation Line or
Fence Line (Ex) (Pr)
Center Line
Right of Way (Ex) Ex R/W
Right of Way (Pr) R/W
Standard Highway Ease.(Ex) Ex SH
Standard Highway Ease.(Pr) SH
Slope Ease.(Ex) Ex SL
Slope Ease.(Pr) SL
Temporary Right of Way TMP
Channel Ease. (Pr) CH
Utility Ease. (Ex) Ex U
Railroad or
Guardrail (Ex) (Pr)
Construction Limits
Edge of Pavement (Ex)
Edge of Pavement (Pr)
Edge of Shoulder (Ex)
Edge of Shoulder (Pr)
Ditch / Creek (Ex)
Ditch / Creek (Pr)
Tree Line (Ex)
Ownership Hook Symbol , Example
Property Line Symbol , Example
Break Line Symbol , Example
Tree (Pr) , Tree (Ex) , Shrub (Ex)
Tree (Remove) , Shrub (Remove)
Evergreen (Ex) , Stump
Evergreen (Remove) , Stump (Remove)
Wetland (Pr) , Grass (Pr) , Aerial Target
Post (Ex) , Mailbox (Ex) , Mailbox (Pr)
Light (Ex) , Telephone Marker (Ex)
Fire Hydrant (Ex) , Water Meter (Ex)
Water Valve (Ex) , Utility Valve Unknown (Ex.)
Telephone Pole (Ex) , Power Pole (Ex)
Light Pole (Ex)

STRUCTURE KEY

RESIDENTIAL
COMMERCIAL
OUT-BUILDING

LEGEND:
SH = STANDARD HIGHWAY EASEMENT
SL = SLOPE EASEMENT
T = TEMPORARY EASEMENT
CH = CHANNEL EASEMENT
WD = WARRANTY DEED

I, Luke Walker, P. S. have conducted a survey of the existing conditions for the Ohio Department of Transportation in August, 2020. 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 OHIO811 Confirmation Number A920400290 and those markings subsequently being surveyed as a part of this project.

The horizontal geometry expressed herein is based on State Plane coordinate System, NAD83 (2011), Ohio South Zone 3402, Grid Values, Orthometric heights are based on NAVD 88, Geoid 12A (Ohio).

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.

Luke Walker, Professional Surveyor # 8701

Date: 12/10/20

STATE OF OHIO SURVEYORS SEAL
LUKE C. WALKER S-8701 REGISTERED PROFESSIONAL SURVEYOR
SIGNED:
DATE: 12/10/20

FEDERAL PROJECT NO. 00000
PID NO. 110409
CALCULATED CS CHECKED LW

RIGHT OF WAY LEGEND SHEET

FAI-158-7.25

1 / 18

109 / 131

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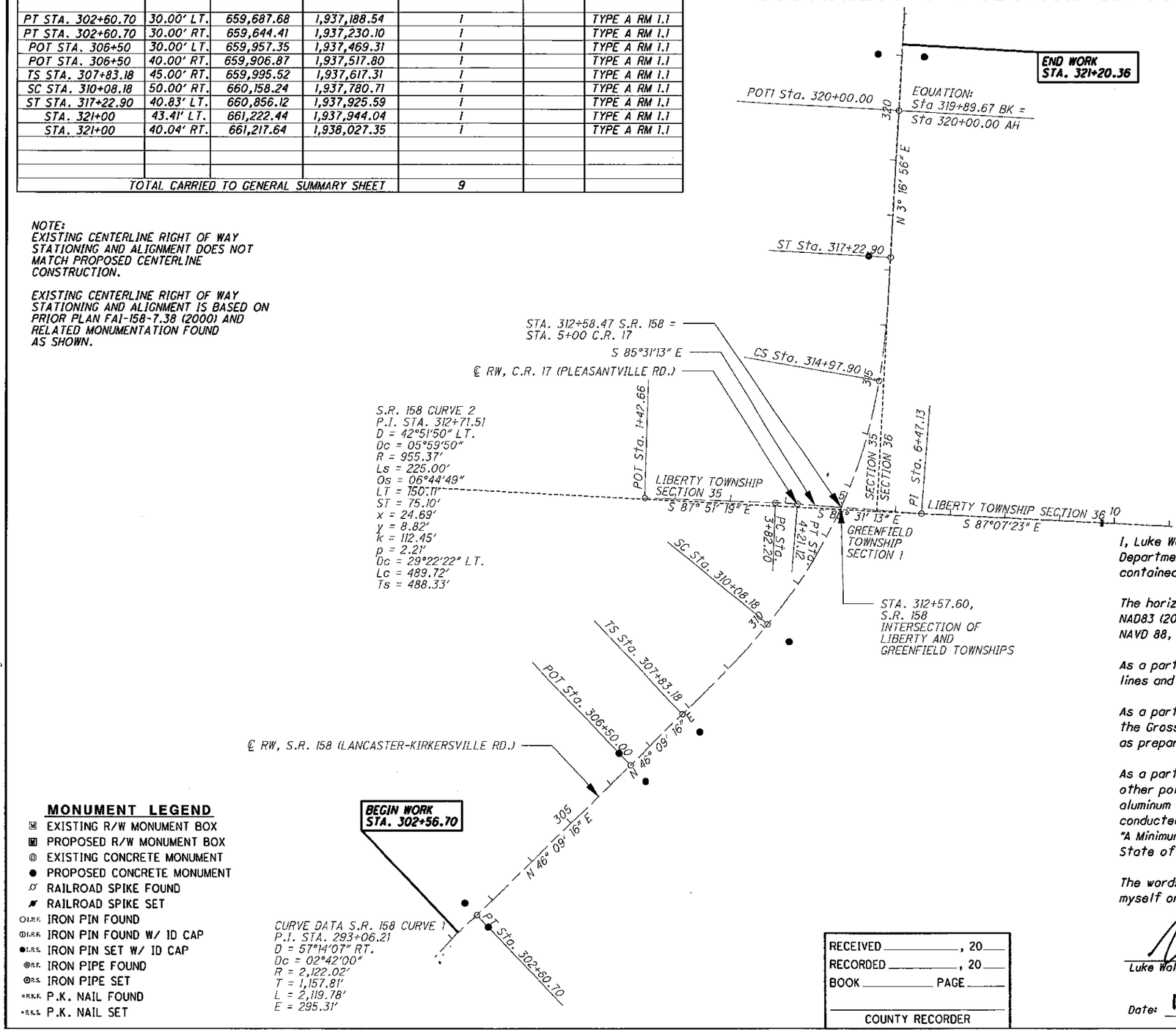
FAIRFIELD COUNTY
GREENFIELD TOWNSHIP
NORTHWEST 1/4 SECTION 1, T15N, R19W
LIBERTY TOWNSHIP
SOUTHEAST 1/4 SECTION 35, T16N, R19W
SOUTHWEST 1/4 SECTION 36, T16N, R19W

MONUMENT TABLE

℄ RW of S.R. 158		PROJECT COORDINATES SEE SURVEY CERTIFICATION		MONUMENTS TO BE SET DURING CONSTRUCTION	R/W MON. EXPECTED TO BE DISTURBED	
STATION	OFFSET	NORTH (Y)	EAST (X)	REFERENCE MONUMENT	R/W MON.	DESCRIPTION
PT STA. 302+60.70	30.00' LT.	659,687.68	1,937,188.54	1		TYPE A RM 1.1
PT STA. 302+60.70	30.00' RT.	659,644.41	1,937,230.10	1		TYPE A RM 1.1
POT STA. 306+50	30.00' LT.	659,957.35	1,937,469.31	1		TYPE A RM 1.1
POT STA. 306+50	40.00' RT.	659,906.87	1,937,517.80	1		TYPE A RM 1.1
TS STA. 307+83.18	45.00' RT.	659,995.52	1,937,617.31	1		TYPE A RM 1.1
SC STA. 310+08.18	50.00' RT.	660,158.24	1,937,780.71	1		TYPE A RM 1.1
ST STA. 317+22.90	40.83' LT.	660,856.12	1,937,925.59	1		TYPE A RM 1.1
STA. 321+00	43.41' LT.	661,222.44	1,937,944.04	1		TYPE A RM 1.1
STA. 321+00	40.04' RT.	661,217.64	1,938,027.35	1		TYPE A RM 1.1
TOTAL CARRIED TO GENERAL SUMMARY SHEET				9		

NOTE:
EXISTING CENTERLINE RIGHT OF WAY STATIONING AND ALIGNMENT DOES NOT MATCH PROPOSED CENTERLINE CONSTRUCTION.

EXISTING CENTERLINE RIGHT OF WAY STATIONING AND ALIGNMENT IS BASED ON PRIOR PLAN FAI-158-7.38 (2000) AND RELATED MONUMENTATION FOUND AS SHOWN.



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

SETTING OF ALL MONUMENTS SHALL BE PERFORMED BY A SURVEYOR REGISTERED IN THE STATE OF OHIO. THE MONUMENT ASSEMBLIES AND REFERENCE MONUMENTS WILL BE INSTALLED BY THE CONTRACTOR AT THE TIME OF CONSTRUCTION. THE IRON PIN AND CAP (WHEN REQUIRED) ARE TO BE INSTALLED BY THE CONTRACTOR'S SURVEYOR.

CHANGES OR ALTERATIONS TO THE LOCATION OF ANY MONUMENTS SHOWN IN THIS TABLE, REQUIRE PRIOR APPROVAL FROM THE DISTRICT REAL ESTATE ADMINISTRATOR OF THE OHIO DEPARTMENT OF TRANSPORTATION. IN THE EVENT THAT CHANGES OR ALTERATIONS ARE APPROVED, A REVISED CENTERLINE PLAT WITH THE NEW LOCATIONS SHALL BE RECORDED IN THE APPLICABLE COUNTY RECORDS AND THE OHIO DEPARTMENT OF TRANSPORTATION. SPECIFICATIONS FOR MONUMENT ASSEMBLIES, REFERENCE MONUMENTS AND RIGHT OF WAY MONUMENTS ARE SHOWN ON STANDARD CONSTRUCTION DRAWING RM-1.1.

I, Luke Walker, P. S. have conducted a survey of the existing conditions for the Ohio Department of Transportation in August, 2020. The results of that survey are contained herein.

The horizontal geometry expressed herein is based on State Plane coordinate System, NAD83 (2011), Ohio South Zone 3402, Grid Values, Orthometric heightsare based on NAVD 88, Geoid 12A (Ohio).

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.

Luke Walker, Professional Surveyor # 8701

Date: 12/10/20

STATE OF OHIO
SURVEYORS SEAL
LUKE C. WALKER
S-8701
REGISTERED
PROFESSIONAL SURVEYOR
SIGNED: 12/10/20
DATE: 12/10/20

RECEIVED _____, 20____
RECORDED _____, 20____
BOOK _____ PAGE _____
_____
COUNTY RECORDER

HORIZONTAL SCALE IN FEET
0 50 100 200

PID NO. 110409
R/W DESIGNER CS
R/W REVIEWER LW

CENTERLINE PLAT

FAI-158-7.25

2 / 18
110 / 131

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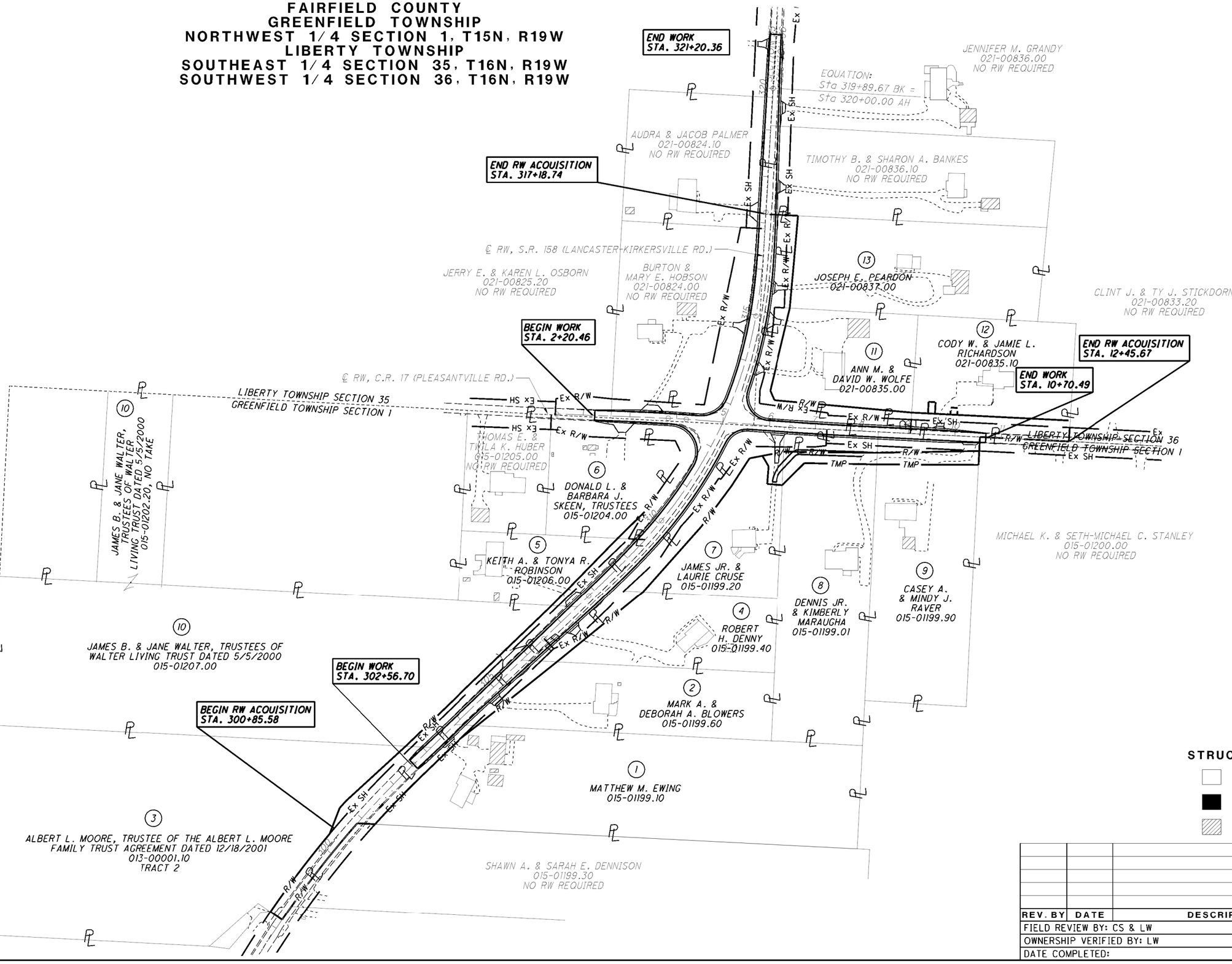
FAIRFIELD COUNTY
GREENFIELD TOWNSHIP
NORTHWEST 1/4 SECTION 1, T15N, R19W
LIBERTY TOWNSHIP
SOUTHEAST 1/4 SECTION 35, T16N, R19W
SOUTHWEST 1/4 SECTION 36, T16N, R19W



STRUCTURE KEY

- RESIDENTIAL
- COMMERCIAL
- OUT-BUILDING

REV. BY	DATE	DESCRIPTION

FIELD REVIEW BY: CS & LW
OWNERSHIP VERIFIED BY: LW
DATE COMPLETED:

HORIZONTAL SCALE IN FEET
0 50 100 200

PID NO. 110409
R/W DESIGNER CS
R/W REVIEWER LW

PROPERTY MAP AND SUMMARY OF ADDITIONAL RIGHT OF WAY

FAI-158-7.25

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TOTAL NUMBER OF :

13 OWNERSHIPS 0 TOTAL TAKES
18 PARCELS 0 OWNERSHIPS W/ STRUCTURES INVOLVED

RECORD AREA - TOTAL PRO - NET TAKE = NET RESIDUE

ALL AREAS IN ACRES

GRANTEE:

ALL RIGHT OF WAY ACQUIRED IN THE NAME OF THE STATE OF OHIO UNLESS OTHERWISE SHOWN.

* DENOTES RIGHT OF WAY ENCROACHMENT
** SURVEYED AREA

PARCEL NO.	OWNER	OWNERS RECORD	AUDITOR'S PARCEL	RECORD AREA	TOTAL P.R.O.	GROSS TAKE	P.R.O. IN TAKE	NET TAKE	STRUCTURE	NET RESIDUE LEFT	NET RESIDUE RIGHT	TYPE FUND	REMARKS	AS ACQUIRED
												STATE		
1-WD	MATTHEW M. EWING	OR 1692, PG. 3761	015-01199.10	5.01	0.206	0.208	0.206	0.002	NO		4.802			202100015242
2-WD	MARK A. & DEBORAH A. BLOWERS	OR 1572, PG. 856	015-01199.60	2.05	0.138	0.206	0.138	0.068	NO		1.844			202100022122
3-WD	ALBERT L. MOORE, TRUSTEE OF THE ALBERT L.	OR 1651, PG. 1124	013-00001.10	7.78	0.332	0.410	0.332	0.078	NO	7.370			TRACT 2	202100015830
	MOORE FAMILY TRUST AGREEMENT DATED 12/18/2001													
4-WD	ROBERT H. DENNY	VOL. 668, PG. 117	015-01199.40	1.53	0.036	0.145	0.036	0.109	NO		1.385			202100015243
5-WD	KEITH A. & TONYA R. ROBINSON	OR 1651, PG. 2233	015-01206.00	1.14	0.143	0.207	0.143	0.064	NO	0.933				202100015828
6-WD	DONALD L. & BARBARA J. SKEEN, TRUSTEES	OR 1477, PG. 173	015-01204.00	1.16	0.000	0.016	0.000	0.016	NO	1.144				202100015241
7-WD	JAMES W. JR. & LAURIE M. CRUSE	DB 647, PG. 726	015-01199.20	1.49	0.000	0.281	0.000	0.281	NO		1.209			202100015244
7-T						0.054	0.000	0.054	NO				TO CONSTRUCT A DRIVE FOR ACCESS TO PARCEL 7 DURING CONSTRUCTION	202100015245
8-WD	DENNIS JR. & KIMBERLY MARAUGHA	OR 1314, PG. 2959	015-01199.01	3	0.077	0.143	0.077	0.066	NO		2.857			202100014399
8-T						0.138	0.000	0.138	NO				TO CONSTRUCT A DRIVE FOR ACCESS TO PARCEL 8 DURING CONSTRUCTION	202100014400
9-WD	CASEY A. & MINDY J. RAVER	OR 1637, PG. 1544	015-01199.90	2.91	0.151	0.188	0.151	0.037	NO		2.722			202100019044
9-T						0.138	0.000	0.138	NO				TO CONSTRUCT A DRIVE	202100019045
10-WD	JAMES B. & JANE WALTER, TRUSTEES	OR 1113, PG. 2397	015-01207.00	8.03	0.301	0.401	0.301	0.100	NO	7.629				202100015829
	OF WALTER LIVING TRUST DATED 5/5/2000													
11-WD	ANN M. & DAVID W. WOLFE	OR 1655, PG. 815	021-00835.00	1.62	0.000	0.236	0.000	0.236	NO		1.384			202100019042
12-WD	CODY W. & JAMIE L. RICHARDSON	OR 1842, PG. 4602	021-00835.10	2	0.234	0.352	0.234	0.118	NO		1.648			202100015239
12-T1						0.009	0.000	0.009	NO				TO REMOVE A TREE	202100015240
12-T2						0.005	0.000	0.005	NO				TO REMOVE A TREE	202100015240
13-WD	JOSEPH E. PEARDON	OR 1501, PG. 1916	021-00837.00	2.52	0.000	0.078	0.000	0.078	NO		2.442			202100019043
												STATE		

NOTE: UNDER NO CIRCUMSTANCES ARE TEMPORARY EASEMENTS TO BE USED FOR STAORAGE OF MATERIAL OR EQUIPMENT BY THE CONTRACTOR UNLESS NOTED OTHERWISE.

NOTE: ALL TEMPORARY PARCELS TO BE OF 12 MONTH DURATION.

LEGEND:
LA = LIMITED ACCESS EASEMENT
SH = STANDARD HIGHWAY EASEMENT
SL = SLOPE EASEMENT
T = TEMPORARY EASEMENT
CH = CHANNEL EASEMENT
WD = WARRANTY DEED

REV. BY	DATE	DESCRIPTION
CS	2/17/21	RE REQUEST TO SAVE TREES PARCEL 9

FIELD REVIEW BY: LW / CS
OWNERSHIP VERIFIED BY: LW
DATE COMPLETED:

FEDERAL PROJECT NO. 00000
PID NO. 110409
STATE JOB NO.
RW DESIGNER C.S.
RW REVIEWER L.W.

SUMMARY SHEET
RIGHT OF WAY

FAI-158-7.25

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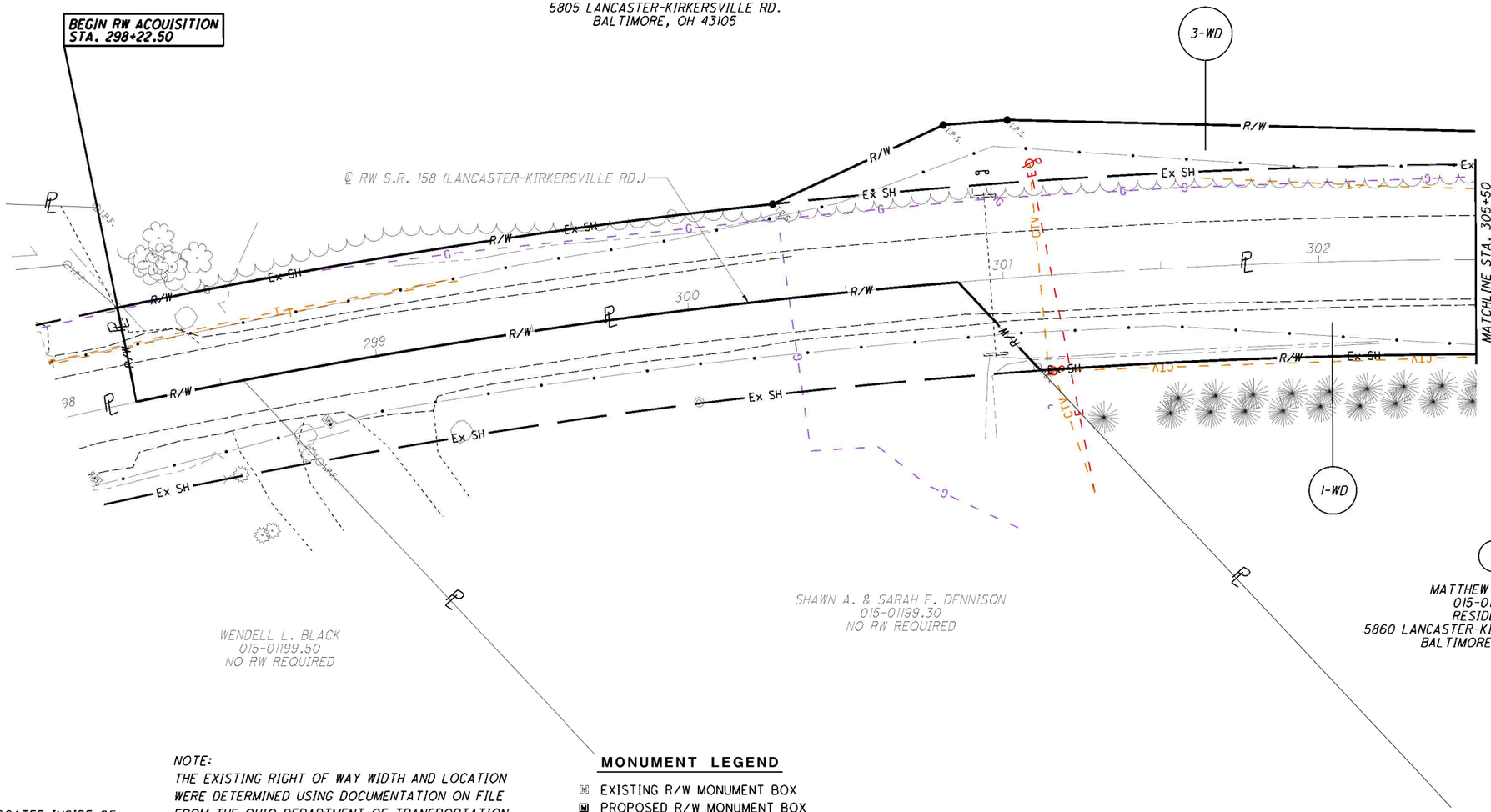
FAIRFIELD COUNTY
GREENFIELD TOWNSHIP
NORTHWEST 1/4 SECTION 1, T15N, R19W



NOTES:
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NOTE:
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NOTE:
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FAI-158-7.38 (2000)
FAI-158-1.75-9.46 7.54 (1955)
FAI-158-1.55 SH462 SEC. B (1933)

UNLESS SUPERCEDED BY INTERSECTING ODOT PLANS, CO. RD. AND TWP RD. RIGHT OF WAY DETERMINED FROM THE FAIRFIELD COUNTY ENGINEERS OFFICE FAIRFIELD 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
- P.F. IRON PIPE FOUND
- P.S. IRON PIPE SET
- P.K.F. P.K. NAIL FOUND
- P.K.S. P.K. NAIL SET

REV	DATE	DESCRIPTION

COMPLETION DATE:

HORIZONTAL SCALE IN FEET
0 10 20 40

PID NO. 110409

CALCULATED C.S.
CHECKED L.W.

RIGHT OF WAY TOPO SHEET
STA. 298+00 TO STA. 302+50

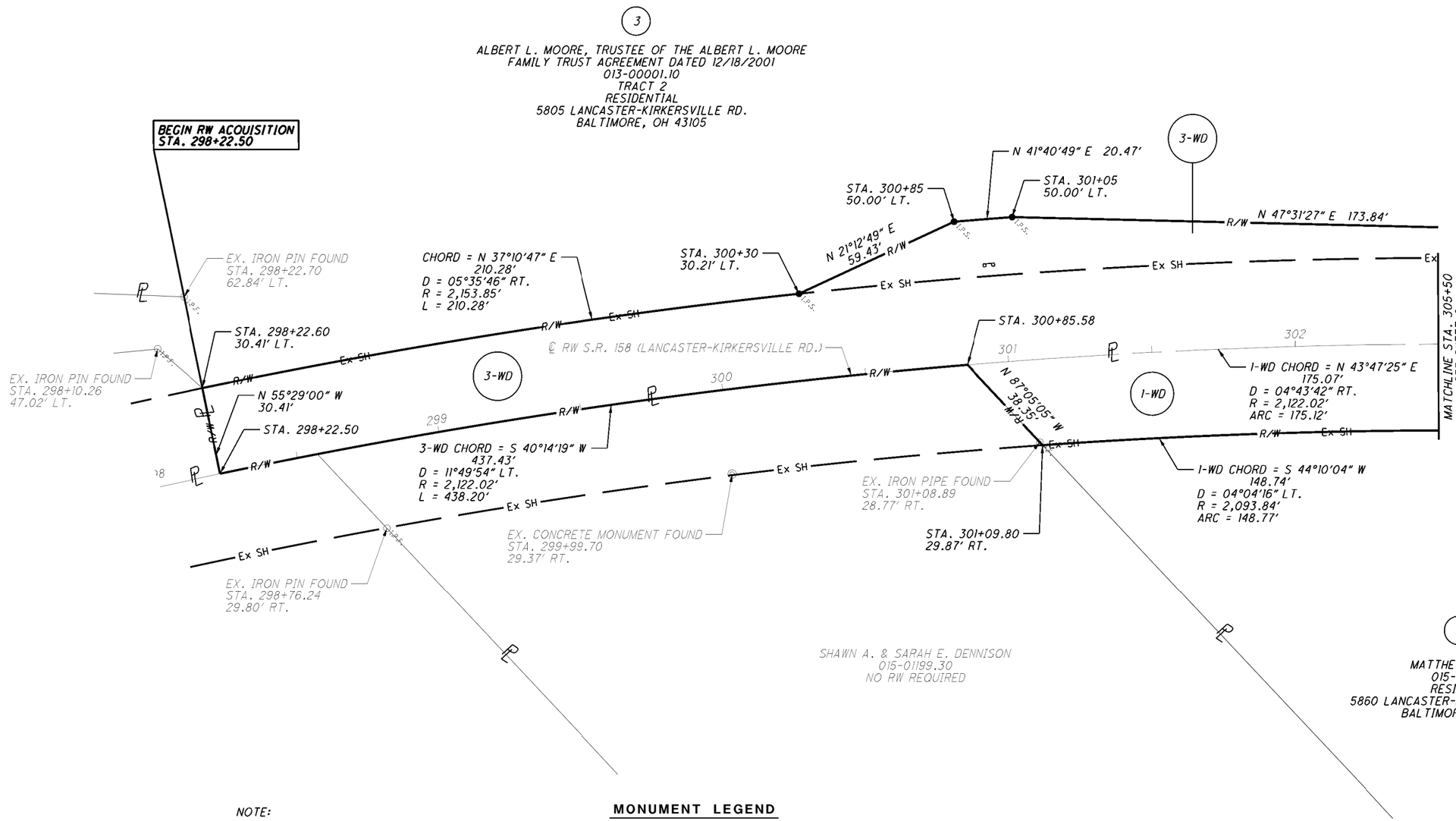
FAI-158-7.25

5 / 18

113 / 131

I:\PROJECTDATA\FAI\110409\DESIGN\RW\SHEETS\110409-RD001.dgn 01/25/21

FAIRFIELD COUNTY
GREENFIELD TOWNSHIP
NORTHWEST 1/4 SECTION 1, T15N, R19W



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- P.F. IRON PIPE FOUND
- P.S. IRON PIPE SET
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- P.K.S. P.K. NAIL SET

REV	DATE	DESCRIPTION

COMPLETION DATE:

HORIZONTAL SCALE IN FEET
0 10 20 40

PID NO. 110409

CALCULATED C.S.
CHECKED L.W.

RIGHT OF WAY BOUNDARY SHEET
STA. 298+00 TO STA. 302+50

FAI-158-7.25

6 / 18

114 / 131

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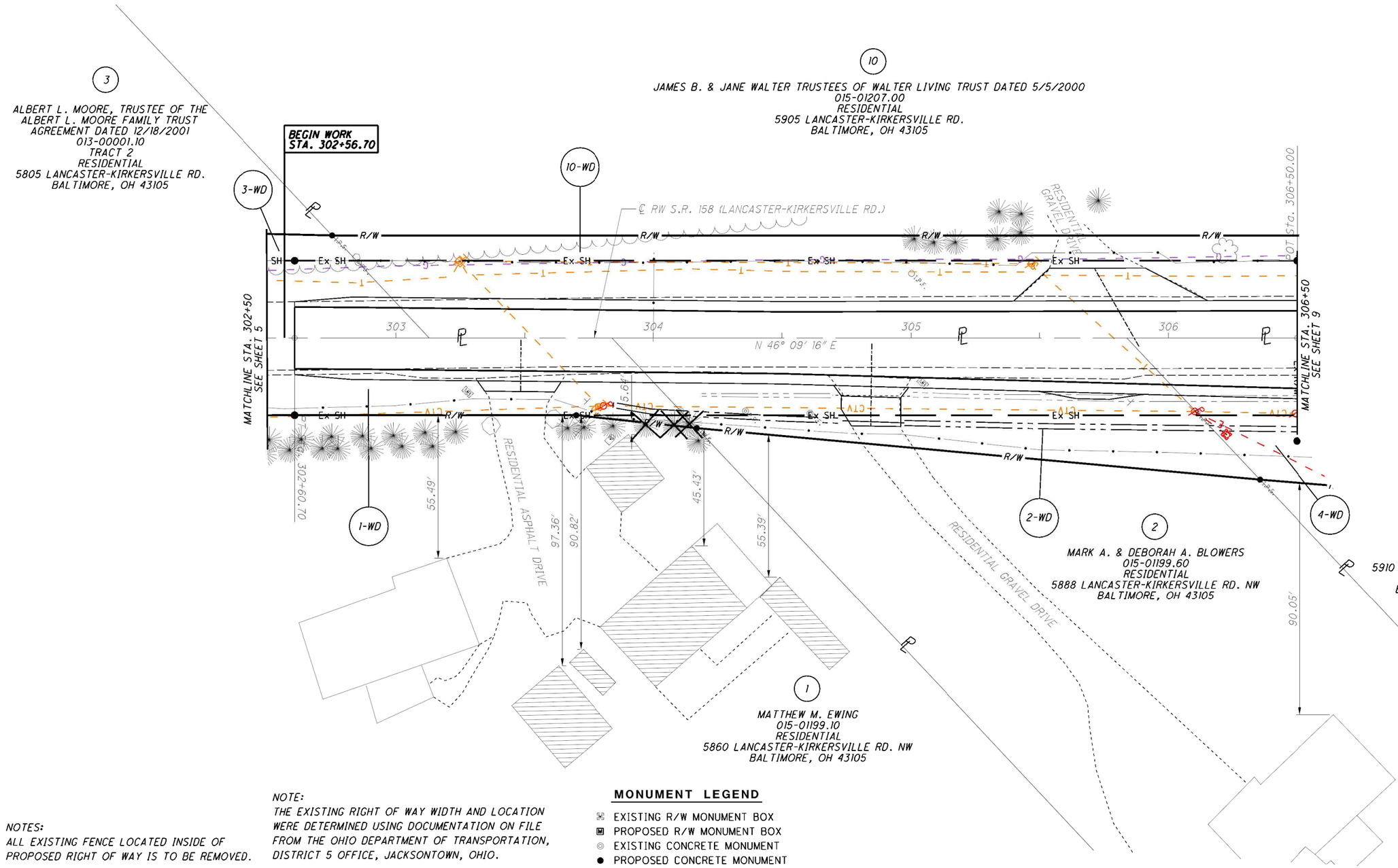
FAIRFIELD COUNTY
GREENFIELD TOWNSHIP
NORTHWEST 1/4 SECTION 1, T15N, R19W



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- P.S. IRON PIPE SET
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- P.K.S. P.K. NAIL SET

REV	DATE	DESCRIPTION

COMPLETION DATE:

HORIZONTAL SCALE IN FEET
0 10 20 40

PID NO. 110409

CALCULATED C.S.
CHECKED L.W.

RIGHT OF WAY TOPO SHEET
STA. 300+85 TO STA. 306+50

FAI-158-7.25

7 / 18

115 / 131

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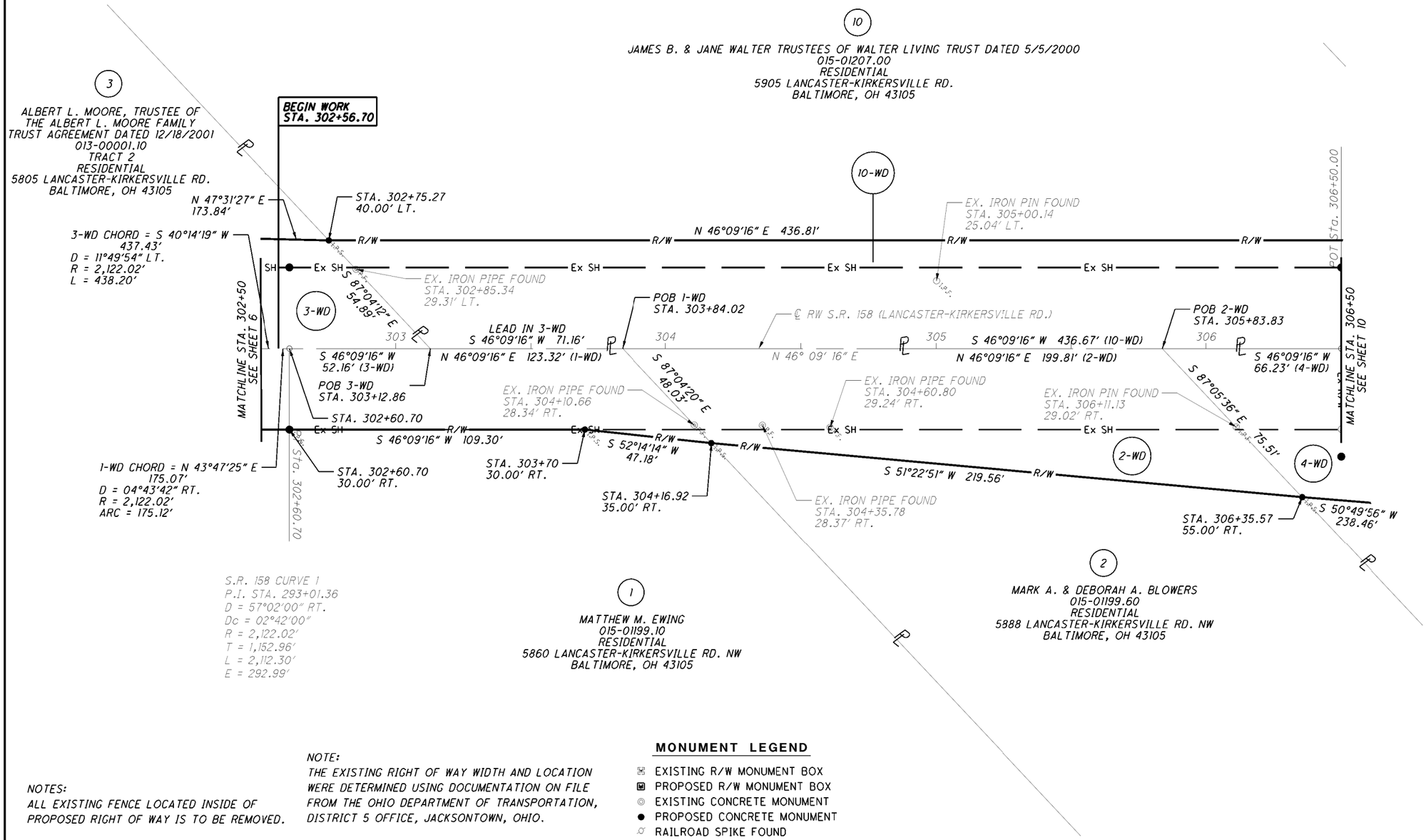
FAIRFIELD COUNTY
GREENFIELD TOWNSHIP
NORTHWEST 1/4 SECTION 1, T15N, R19W



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FAI-158-1.55 SH462 SEC. B (1933)

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- P.S. IRON PIPE SET
- P.K.F. P.K. NAIL FOUND
- P.K.S. P.K. NAIL SET

REV	DATE	DESCRIPTION

COMPLETION DATE:

HORIZONTAL SCALE IN FEET
0 10 20 40

PID NO. 110409
CALCULATED C.S.
CHECKED L.W.

RIGHT OF WAY BOUNDARY SHEET
STA. 302+50 TO STA. 306+50

FAI-158-7.25

8 / 18

116 / 131

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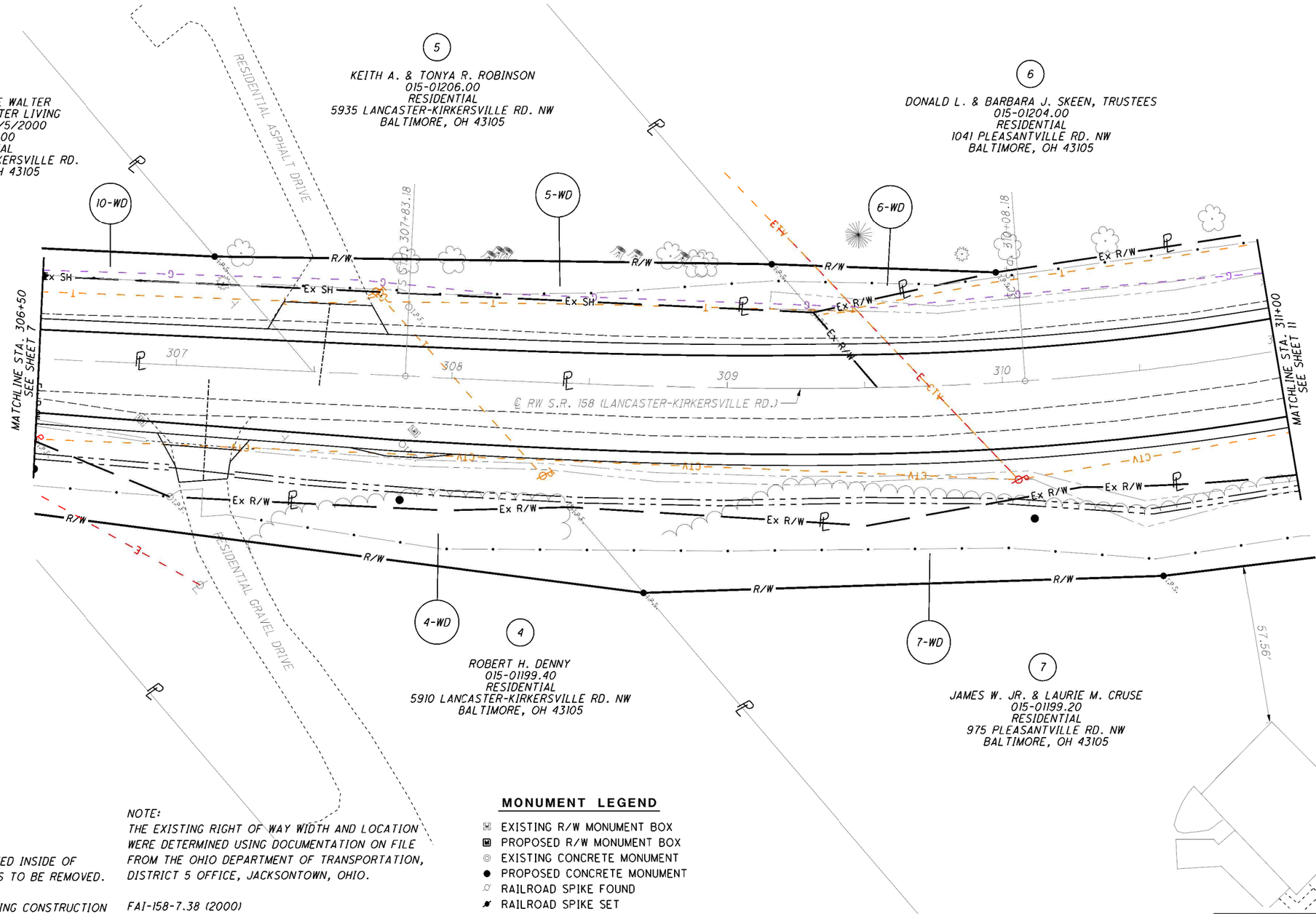
FAIRFIELD COUNTY
GREENFIELD TOWNSHIP
NORTHWEST 1/4 SECTION 1, T15N, R19W



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REV	DATE	DESCRIPTION

COMPLETION DATE:

HORIZONTAL SCALE IN FEET
0 10 20 40

PID NO. 110409

CALCULATED C.S.
CHECKED L.W.

RIGHT OF WAY TOPO SHEET
STA. 306+50 TO STA. 311+00

FAI-158-7.25

9 / 18

117 / 131

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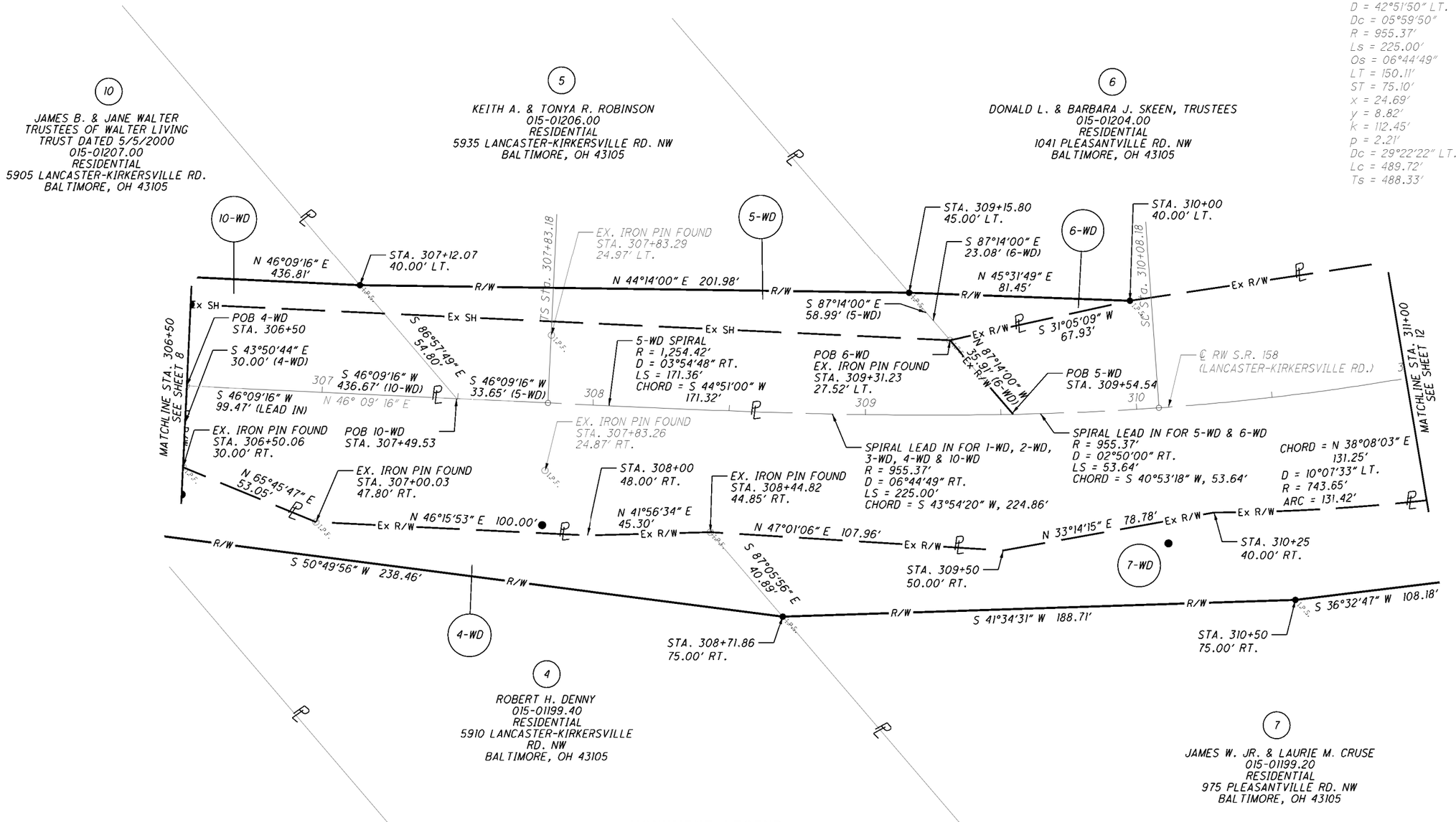
FAIRFIELD COUNTY
GREENFIELD TOWNSHIP
NORTHWEST 1/4 SECTION 1, T15N, R19W



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REV	DATE	DESCRIPTION

COMPLETION DATE:

HORIZONTAL SCALE IN FEET
0 10 20 40

PID NO. 110409

CALCULATED C.S.
CHECKED L.W.

RIGHT OF WAY BOUNDARY SHEET
STA. 306+50 TO STA. 311+00

FAI-158-7.25

10 / 18

118 / 131

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FAIRFIELD COUNTY
GREENFIELD TOWNSHIP
NORTHWEST 1/4 SECTION 1, T15N, R19W
LIBERTY TOWNSHIP
SOUTHEAST 1/4 SECTION 35, T16N, R19W
SOUTHWEST 1/4 SECTION 36, T16N, R19W

MONUMENT LEGEND

- EXISTING R/W MONUMENT BOX
- PROPOSED R/W MONUMENT BOX
- EXISTING CONCRETE MONUMENT
- PROPOSED CONCRETE MONUMENT
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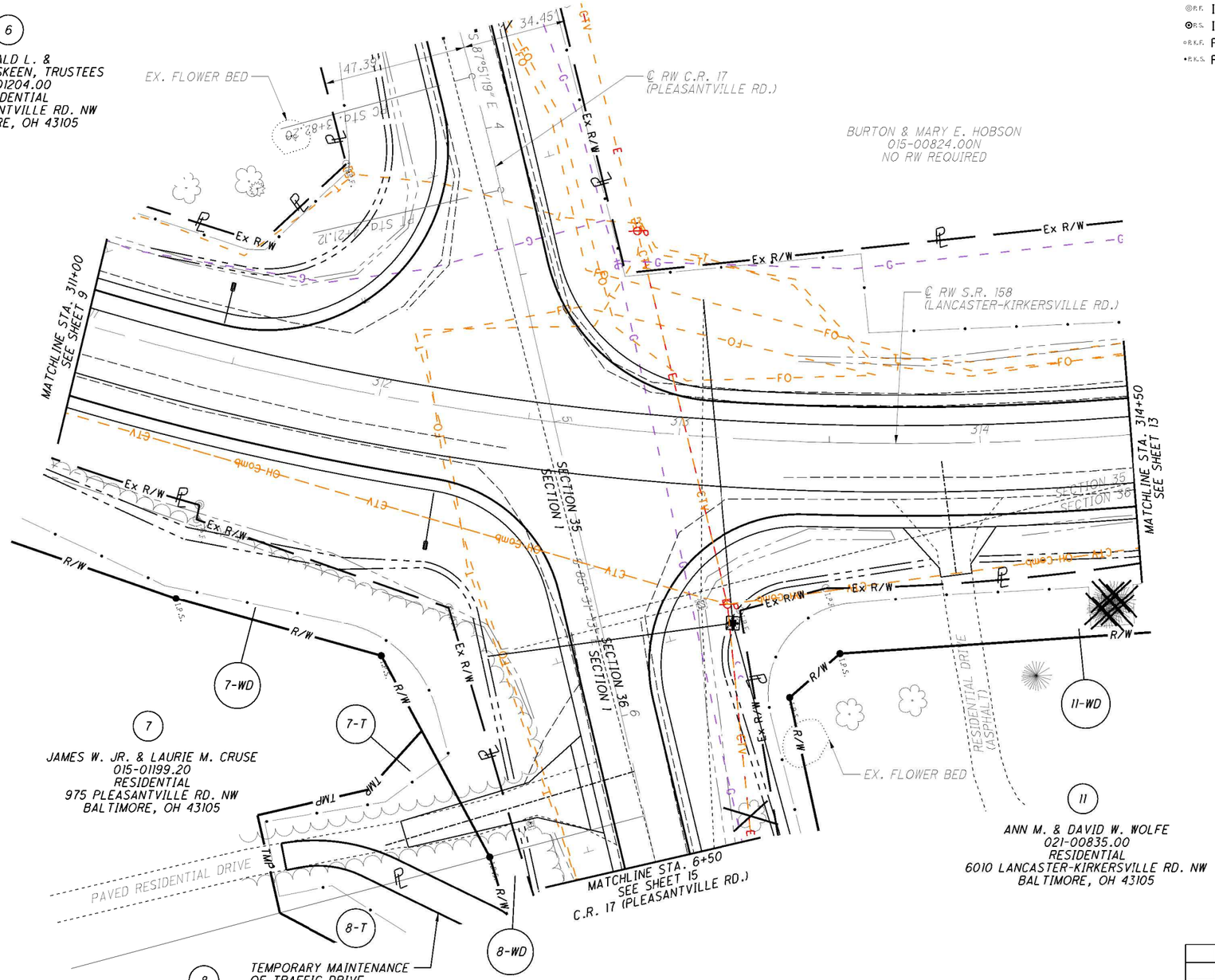

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FAI-158-1.55 SH462 SEC. B (1933)

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I:\PROJECTDATA\FAI\110409\DESIGN\\RW\SHEETS\110409-RD004.dgn 01/25/21

HORIZONTAL SCALE IN FEET
0 10 20 40

PID NO. 110409

CALCULATED C.S.
CHECKED L.W.

RIGHT OF WAY TOPO SHEET STA. 311+00 TO STA. 314+50

FAI-158-7.25

11 / 18

119 / 131

REV	DATE	DESCRIPTION

COMPLETION DATE:

FAIRFIELD COUNTY
GREENFIELD TOWNSHIP
NORTHWEST 1/4 SECTION 1, T15N, R19W
LIBERTY TOWNSHIP
SOUTHEAST 1/4 SECTION 35, T16N, R19W
SOUTHWEST 1/4 SECTION 36, T16N, R19W

MONUMENT LEGEND

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- P.S. IRON PIPE SET
- P.K.F. P.K. NAIL FOUND
- P.K.S. P.K. NAIL SET

HORIZONTAL SCALE IN FEET: 0, 10, 20, 40

PID NO. 110409

CALCULATED C.S. CHECKED L.W.

S.R. 158 CURVE 2
P.I. STA. 312+71.51
D = 42°51'50" LT.
Dc = 05°59'50"
R = 955.37'
Ls = 225.00'
Os = 06°44'49"
LT = 150.11'
ST = 75.10'
x = 24.69'
y = 8.82'
k = 112.46'
p = 2.21'
Dc = 29°22'22" LT.
Lc = 489.72'
Ts = 488.33'

6
DONALD L. & BARBARA J. SKEEN, TRUSTEES
015-01204.00
RESIDENTIAL
1041 PLEASANTVILLE RD. NW
BALTIMORE, OH 43105

34.45'
47.39'
PC Sta. 3+82.20
EX. IRON PIN FOUND
STA. 311+73.17
73.10' LT.
I.R.F.
PT Sta. 4+21.12
Ex R/W
Ex R/W
Ex R/W

C.R. 17 CURVE 1
P.I. STA. 4+01.66
D = 02°20'06" RT.
Dc = 06°00'00"
R = 954.93'
T = 19.46'
L = 38.92'
E = 0.20'

BURTON & MARY E. HOBSON
015-00824.00
NO RW REQUIRED

LEAD INS FOR 1-WD, 2-WD, 3-WD, 4-WD, 5-WD, 6-WD & 10-WD
CHORD = S 31°54'08" W, 249.57'
D = 15°00'38" RT.
R = 955.37'
ARC = 250.29'

LEAD INS FOR 7-WD, 8-WD, 9-WD, 11-WD & 12-WD
CHORD = S 24°31'23" W, 4.21'
D = 00°15'08" RT.
R = 955.37'
ARC = 4.21'

POINT OF COMMENCEMENT IS REFERENCED BY A RAILROAD SPIKE SET AT SOUTHEAST CORNER OF SECTION 35, THE SOUTHWEST CORNER OF SECTION 36, T16N, R19W, S83°34'11" E, 66.39'

MATCHLINE STA. 311+00
SEE SHEET 10

CHORD = N 38°08'03" E
131.25'
D = 10°07'33" LT.
R = 743.65'
ARC = 131.42'

STA. 312+54.26
SECTION 35
SECTION 1
312
313
314

REFERENCING A MONUMENT BOX OF RECORD
FAI-158-7.38 (2000)
STA. 312+58.47, S.R. 158
STA. 5+00, C.R. 17

EX. CONCRETE MONUMENT FOUND
STA. 311+50.33
48.01' RT.

S 61°18'08" E 4.87'

EX. IRON PIN FOUND
STA. 311+50.51
52.88' RT.

LEAD IN
COURSE
S 86°57'01" E
67.82'

LEAD IN 13-WD
CHORD = N 17°13'02" E, 238.81'
D = 14°21'34" LT.
R = 955.37'
ARC = 239.43'

MATCHLINE STA. 314+50
SEE SHEET 14

EX. IRON PIN FOUND
STA. 313+50.07
48.32' RT.

SECTION 35
SECTION 36

CHORD = N 10°03'08" E 176.86'
D = 13°39'32" LT.
R = 743.65'
ARC = 177.28'

7-WD

N 36°48'15" E
88.65'

EX. IRON PIN FOUND
STA. 312+33.09
65.86' RT.

STA. 312+77.68
63.36' RT.

STA. 312+15
85.00' RT., S.R. 158
STA. 5+62.78
73.08' RT., C.R. 17

LEAD INS
S 87°07'23" E
67.57' (7-WD)
158.91' (8-WD)
269.18' (9-WD)
337.90' (11-WD & 12-WD)

N 02°31'53" E
29.37'

Ex R/W

S 36°32'47" W 108.18'

STA. 311+50
80.00' RT.

S 33°00'06" W R/W 70.78'

S 88°50'22" E Ex R/W 83.16'

EX. IRON PIN FOUND
STA. 313+23.47
56.99' RT.

11-WD

R/W

S 13°30'15" W 182.61'

STA. 313+55
70.00' RT.

S 23°42'35" E 22.09'

STA. 313+40
85.00' RT., S.R. 158
STA. 6+06.56
55.71' LT., C.R. 17

7

JAMES W. JR. & LAURIE M. CRUSE
015-01199.20
RESIDENTIAL
975 PLEASANTVILLE RD. NW
BALTIMORE, OH 43105

STA. 5+90
65.59' RT.,
C.R. 17

S 79°05'03" W 75.64'

7-T

STA. 6+05
87.00' RT.,
C.R. 17

N30°31'45"W
26.15'

N 79°05'03" E
47.40'

S 02°30'43" W 10.01'

POB 7-WD
STA. 312+63.42
141.92' RT., S.R. 158
STA. 6+35.36
43.00' RT., C.R. 17

N 82°12'37" W 149.73'

S 84°50'33" E
296.99'

11

ANN M. & DAVID W. WOLFE
021-00835.00
RESIDENTIAL
6010 LANCASTER-KIRKERSVILLE RD. NW
BALTIMORE, OH 43105

N 04°28'47" E
38.00'

STA. 6+05
125.00' RT.,
C.R. 17

N 85°53'13" W
33.18'

STA. 312+55.34
145.65' RT. S.R. 158
STA. 6+35.70
53.00' RT., C.R. 17

S 02°30'43" W
42.65'

STA. 312+98.44
126.96' RT., S.R. 158
STA. 6+33.90
0.37' RT., C.R. 17

S 02°30'43" W
72.04'

STA. 6+38.18
125.00' RT.,
C.R. 17

8-T

8-WD

MATCHLINE STA. 6+50
SEE SHEET 16
C.R. 17 (PLEASANTVILLE RD.)
P.I. STA. 6+47.13, C.R. 17 =
SECTION LINE AHEAD

S 45°19'04" W
67.26'

N 89°18'11" W
201.42'

N 89°54'36" E
65.28'

8

DENNIS JR. & KIMBERLY MARAUGHA
015-01199.01
947 PLEASANTVILLE RD. NW
BALTIMORE, OH 43105

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.

FAI-158-7.38 (2000)
FAI-158-1.75-9.46 7.54 (1955)
FAI-158-1.55 SH462 SEC. B (1933)

UNLESS SUPERCEDED BY INTERSECTING ODOT PLANS, CO. RD. AND TWP RD. RIGHT OF WAY DETERMINED FROM THE FAIRFIELD COUNTY ENGINEERS OFFICE FAIRFIELD COUNTY, OHIO

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NOTE:
ALL STATIONS AND OFFSETS ARE FROM THE CENTERLINE OF RIGHT OF WAY, S.R. 158 UNLESS OTHERWISE STATED.

REV	DATE	DESCRIPTION

COMPLETION DATE:

RIGHT OF WAY BOUNDARY SHEET
STA. 311+00 TO STA. 314+50

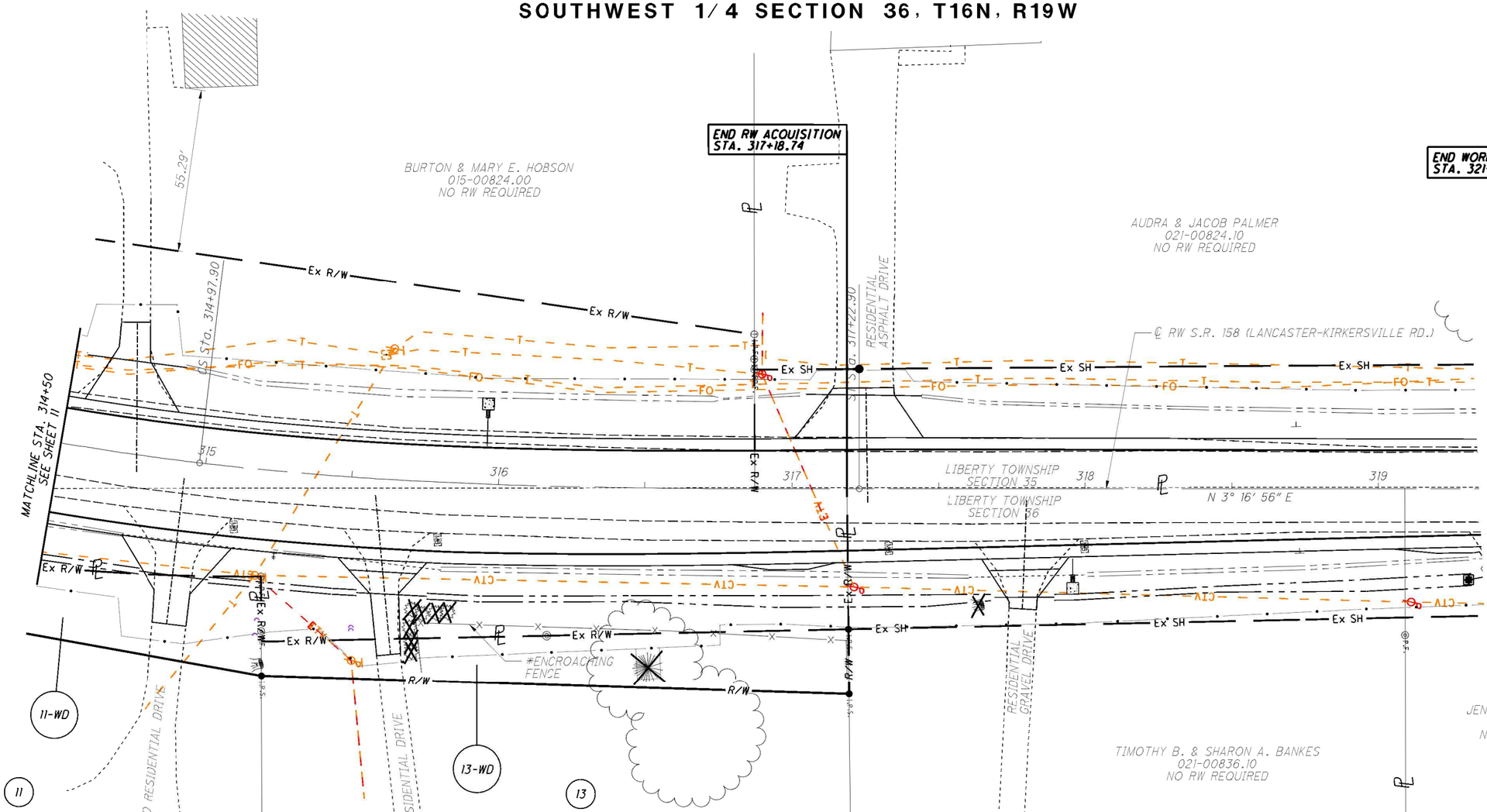
FAI-158-7.25

12 / 18

120
131

I:\PROJECTDATA\FAI\110409\DESIGN\RW\SHEETS\110409-RD014.dgn 01/26/21

FAIRFIELD COUNTY
LIBERTY TOWNSHIP
SOUTHEAST 1/4 SECTION 35, T16N, R19W
SOUTHWEST 1/4 SECTION 36, T16N, R19W



ANN M. & DAVID W. WOLFE
021-00835.00
RESIDENTIAL
6010 LANCASTER-KIRKERSVILLE RD. NW
BALTIMORE, OH 43105

JOSEPH E. PEARDON
021-00837.00
RESIDENTIAL
6050 LANCASTER-KIRKERSVILLE RD. NW
BALTIMORE, OH 43105

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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.K. IRON PIPE FOUND
- I.P.S. IRON PIPE SET
- P.K.F. P.K. NAIL FOUND
- P.K.S. P.K. NAIL SET

REV	DATE	DESCRIPTION

COMPLETION DATE:

HORIZONTAL SCALE IN FEET
0 10 20 40

PID NO. 110409

CALCULATED C.S.
CHECKED L.W.

RIGHT OF WAY TOPO SHEET
STA. 314+50 TO STA. 319+35

FAI-158-7.25

13 / 18

121
131

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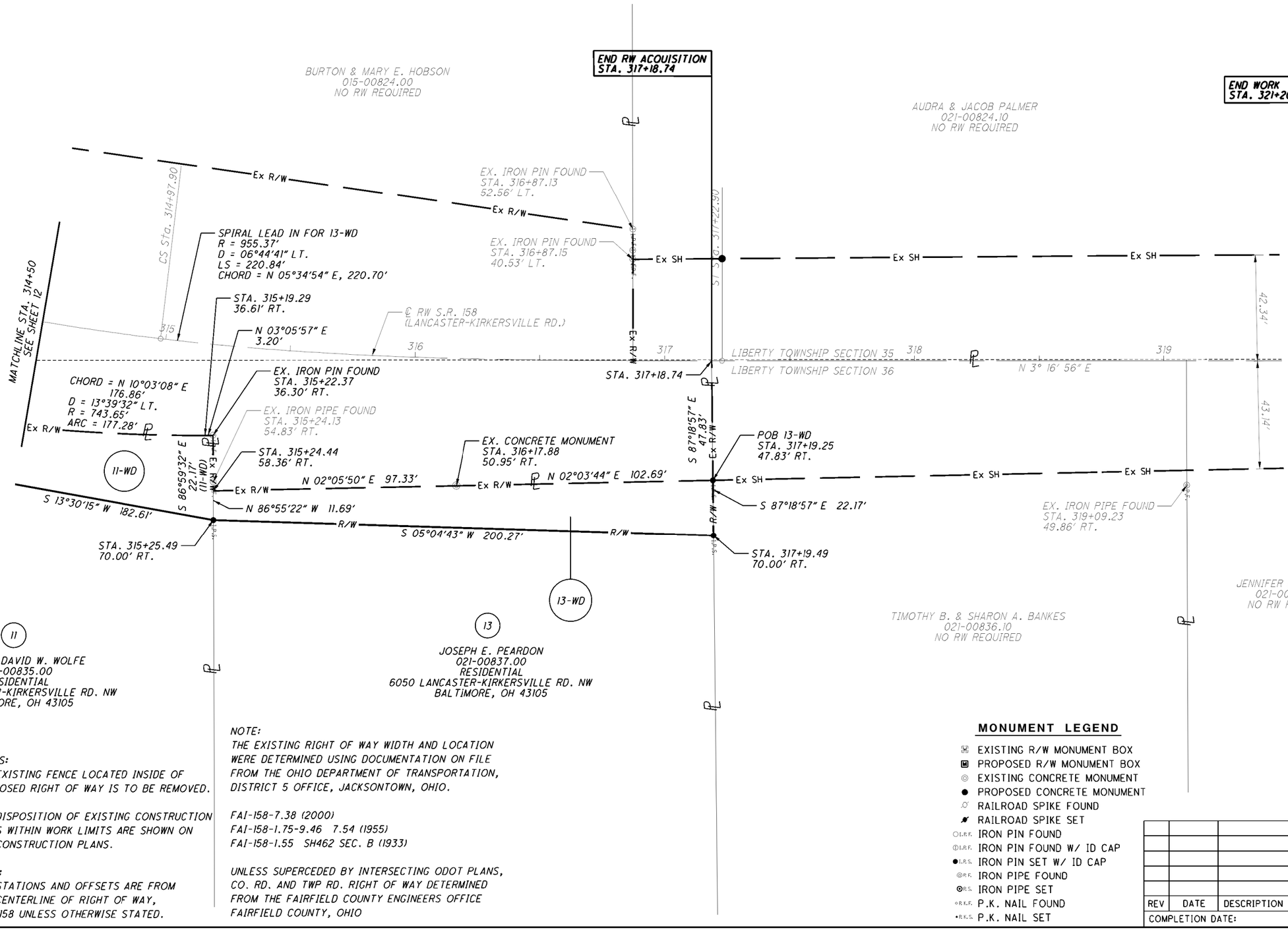
FAIRFIELD COUNTY
LIBERTY TOWNSHIP
SOUTHEAST 1/4 SECTION 35, T16N, R19W
SOUTHWEST 1/4 SECTION 36, T16N, R19W



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COMPLETION DATE:		

HORIZONTAL SCALE IN FEET
0 10 20 40

PID NO. 110409
CALCULATED C.S.
CHECKED L.W.

RIGHT OF WAY BOUNDARY SHEET
STA. 314+50 TO STA. 319+35

FAI-158-7.25

14 / 18

122
131

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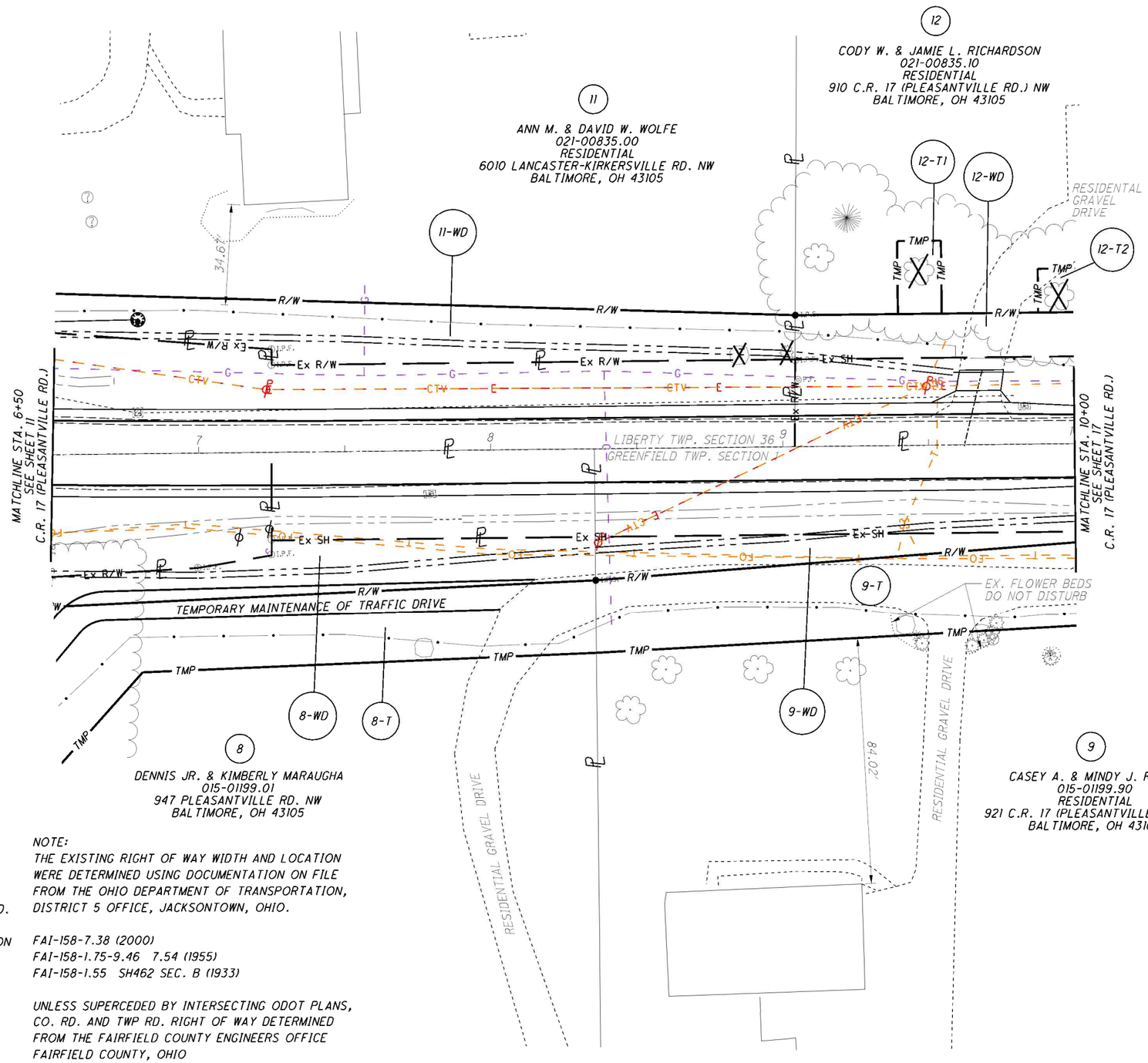
FAIRFIELD COUNTY
GREENFIELD TOWNSHIP
NORTHWEST 1/4 SECTION 1, T15N, R19W
LIBERTY TOWNSHIP
SOUTHWEST 1/4 SECTION 36, T16N, R19W



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- P.P.F. IRON PIPE FOUND
- P.P.S. IRON PIPE SET
- P.K.F. P.K. NAIL FOUND
- P.K.S. P.K. NAIL SET

REV	DATE	DESCRIPTION
1	2/17/21	RE REQUEST TO SAVE FLOWER BEDS PARCEL 9
COMPLETION DATE:		

HORIZONTAL SCALE IN FEET
0 10 20 40

PID NO. 110409

CALCULATED C.S.
CHECKED L.W.

RIGHT OF WAY TOPO SHEET
STA. 6+50 TO STA. 10+00, C.R. 17

FAI-158-7.25

15 / 18

123 / 131

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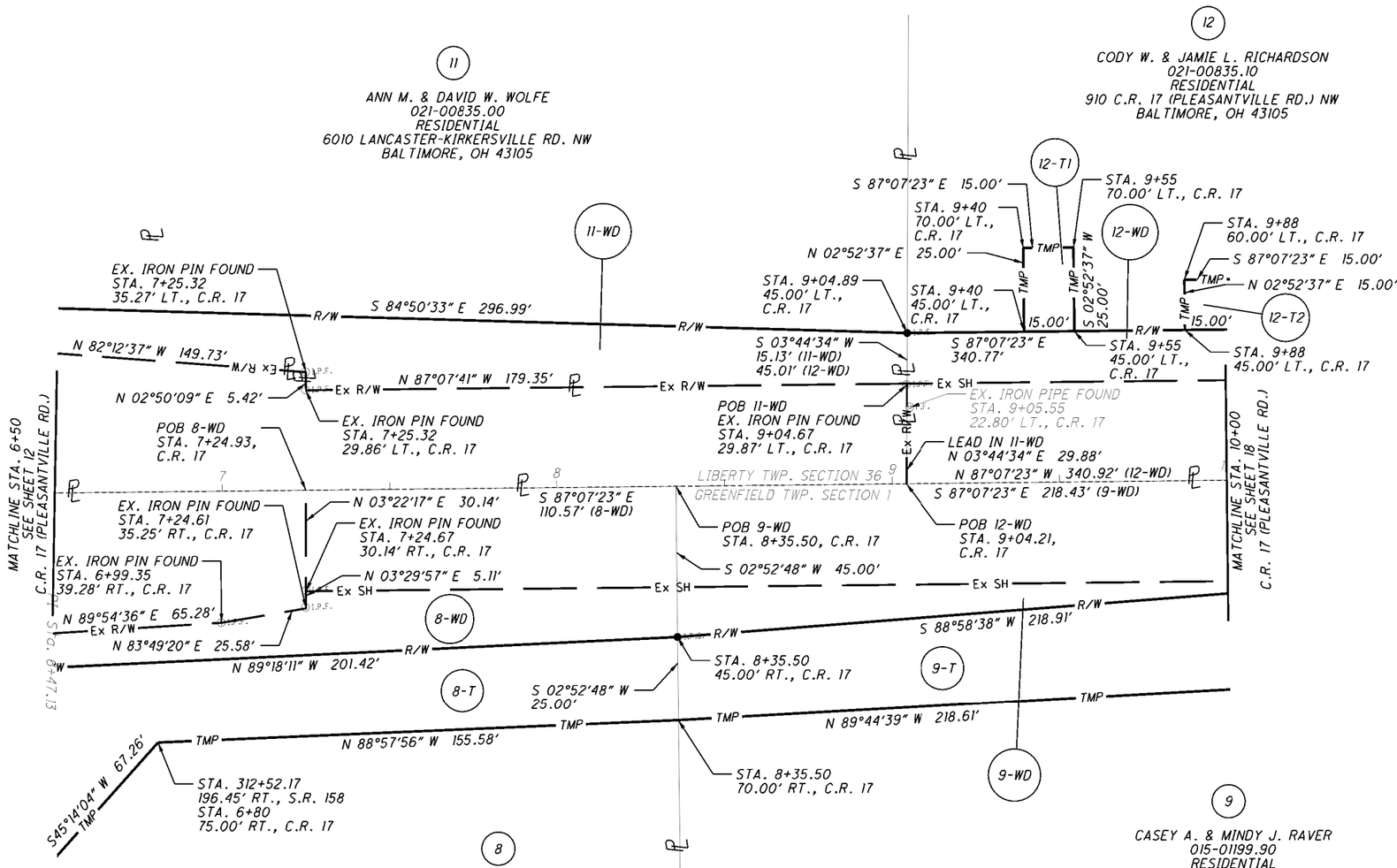
FAIRFIELD COUNTY
GREENFIELD TOWNSHIP
NORTHWEST 1/4 SECTION 1, T15N, R19W
LIBERTY TOWNSHIP
SOUTHWEST 1/4 SECTION 36, T16N, R19W



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- IRON PIPE SET
- P.K. NAIL FOUND
- P.K. NAIL SET

REV	DATE	DESCRIPTION

COMPLETION DATE:

HORIZONTAL SCALE IN FEET
0 10 20 40

PID NO. 110409

CALCULATED C.S.
CHECKED L.W.

RIGHT OF WAY BOUNDARY SHEET
STA. 6+50 TO STA. 10+00, C.R. 17

FAI-158-7.25

16 / 18

124 / 131

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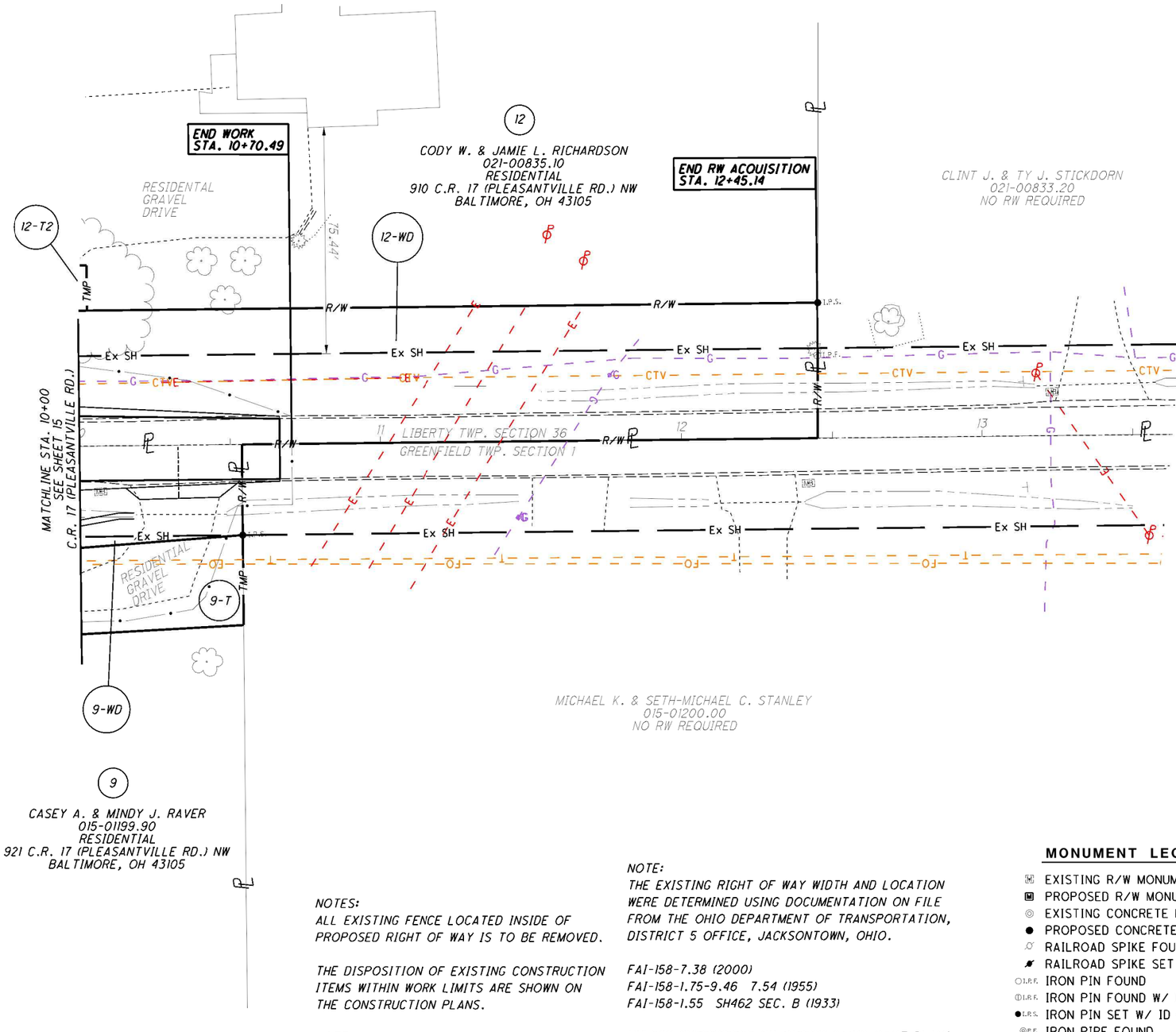
FAIRFIELD COUNTY
GREENFIELD TOWNSHIP
NORTHWEST 1/4 SECTION 1, T15N, R19W
LIBERTY TOWNSHIP
SOUTHWEST 1/4 SECTION 36, T16N, R19W



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REV	DATE	DESCRIPTION

COMPLETION DATE:

HORIZONTAL SCALE IN FEET
0 10 20 40

PID NO. 110409

CALCULATED C.S.
CHECKED L.W.

RIGHT OF WAY TOPO SHEET
STA. 10+00 TO STA. 13+50, C.R. 17

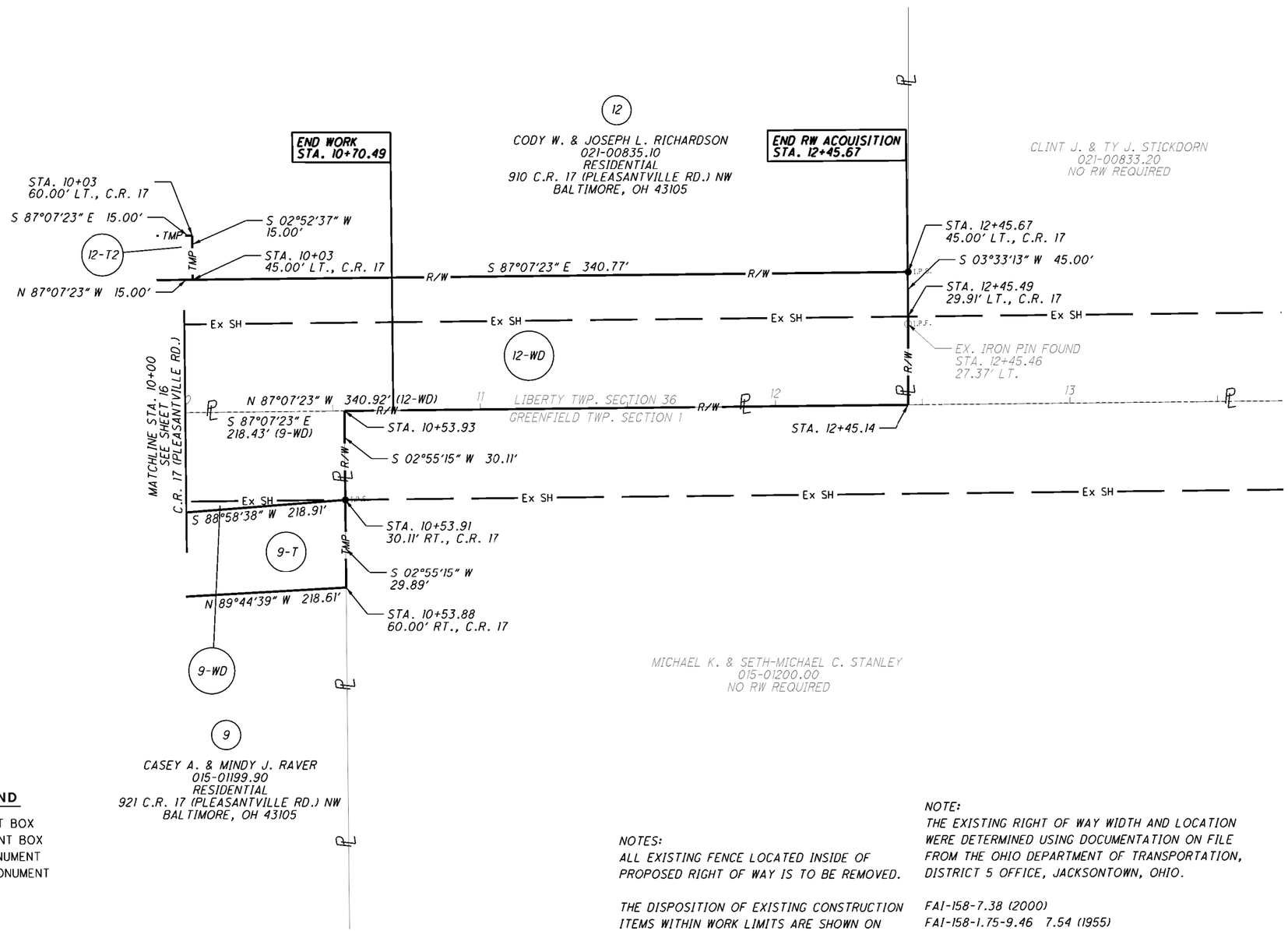
FAI-158-7.25

17 / 18

125
131

I:\PROJECTDATA\FAI\110409\DESIGN\RW\SHEETS\110409-RD007.dgn 01/25/21

FAIRFIELD COUNTY
GREENFIELD TOWNSHIP
NORTHWEST 1/4 SECTION 1, T15N, R19W
LIBERTY TOWNSHIP
SOUTHWEST 1/4 SECTION 36, T16N, R19W



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UNLESS SUPERCEDED BY INTERSECTING ODOT PLANS, CO. RD. AND TWP RD. RIGHT OF WAY DETERMINED FROM THE FAIRFIELD COUNTY ENGINEERS OFFICE FAIRFIELD COUNTY, OHIO

REV	DATE	DESCRIPTION

COMPLETION DATE:

HORIZONTAL SCALE IN FEET
0 10 20 40

PID NO. 110409

CALCULATED C.S.
CHECKED L.W.

RIGHT OF WAY BOUNDARY SHEET
STA. 10+00 TO STA. 13+50, C.R. 17

FAI-158-7.25

18 / 18

126
131

I:\PROJECTDATA\FAI\110409\DESIGN\RW\SHEETS\110409-RD017.dgn 01/25/21

PROJECT DESCRIPTION

THE PROJECT IS LOCATED 1.36 MILES SOUTH OF THE VILLAGE OF BALTIMORE, OHIO. THE PROJECT INVOLVES PERFORMING AN INTERSECTION UPGRADE AT SR 158 AND PLEASANTVILLE ROAD (CR-17)

HISTORIC RECORDS

NO HISTORIC RECORDS WERE FOUND FOR THIS PROJECT.

GEOLOGY

ACCORDING TO THE OHIO DEPARTMENT OF NATURAL RESOURCES (ODNR), PHYSIOGRAPHIC REGIONS OF OHIO, THE SITE LIES IN THE GALION GLACIATED LOW PLATEAU REGION, JUST NORTH OF THE BORDER LINE OF THE KILLBUCK- GLACIATED PITTSBURG PLATEAU REGION.

ACCORDING TO BEDROCK GEOLOGIC MAP OF OHIO (2006), THE BEDROCK BELOW THE SITE CONSISTS OF MISSISSIPIAN AGE SANDSTONE, SILTSTONE, CLAYSTONE OR LIMESTONE.

RECONNAISSANCE

ON JULY 11, 2019 A SITE VISIT WAS PERFORMED. EXISTING OVERHEAD LINES ARE PRESENT ADJACENT TO THE NORTHBOUND LANE OF SR 158, AND THE WESTBOUND LANE OF CR 17. THE OVERHEAD LINES CROSS THE ROADS IN FEW AREAS. FEW LONGITUDINAL AND TRANSVERSE CRACKS WERE NOTED ON THE PAVEMENT OF SR 158 PARTICULARLY NEAR THE SR 158 & CR 17 INTERSECTION. HOWEVER, THE OBSERVED CRACKS WERE NOT SEVERE.

PAVEMENT CRACKING WAS ALSO NOTED ON CR 17. THE CRACKING WAS MORE SEVERE, EAST OF CR 17 & SR 158 INTERSECTION.

SUBSURFACE EXPLORATION

ELEVEN (11) TEST BORINGS, IDENTIFIED AS BORINGS B-001-0-19 THROUGH B-004-0-19 AND B-006-0-19 THROUGH B-012-0-19 WERE DRILLED TO DEPTHS RANGING FROM 6.4 TO 10.0 FEET BELOW GRADE. ONE PAVEMENT CORING IDENTIFIED AS X-005-0-19 WAS ALSO DRILLED FOR THIS PROJECT. THE BORINGS WERE PERFORMED WITH A TRUCK-MOUNTED DRILL RIG UTILIZING HOLLOW STEM AUGERS (HSA), ON MARCH 4 AND MARCH 5, 2020. STANDARD PENETRATION TESTS WERE CONDUCTED USING A 140-POUND AUTOMATIC HAMMER FALLING 30 INCHES TO DRIVE 2-INCH O.D. SPLIT BARREL SAMPLERS. THE ENERGY TRANSFER RATIO ASSOCIATED WITH THE AUTOMATIC SPT HAMMER WAS 84.4 PERCENT. THE HAMMER WAS CALIBRATED ON JULY 10, 2019.

EXPLORATION FINIDNGS

BELOW THE SURFACE COVER, THE BORINGS ENCOUNTERED COHESIVE SOILS EXTENDING DOWNWARDS TO THE DRILLED DEPTHS OR TO THE TOP OF ROCK IN BORING B-008-0-19. THE COHESIVE SOILS WERE CLASSIFIED AS SANDY SILT (A-4a), SILT (A-4b), SILT AND CLAY (A-6a), SILTY CLAY (A-6b) OR CLAY (A-7-6). BORING B-008-0-19 EXHIBITED TOP OF ROCK AT A DEPTH OF 4.0 FEET BELOW GRADE. THE BEDROCK WAS CLASSIFIED AS SANDSTONE.

GROUNDWATER LEVELS WERE MEASURED IN BORINGS B-008-0-19 THROUGH B-010-0-19, AND BORING B-012-0-19 AT DEPTHS RANGING FROM 2.5 TO 3.2 FEET BELOW GRADE. THESE DEPTHS CORRESPOND TO ELEVATIONS RANGING FROM 934.3 TO 945.4 FEET.

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 JULY 2019.

AVAILABLE INFORMATION

THE SOIL, BEDROCK, AND GROUNDWATER INFORMATION COLLECTED FOR THIS SUBSURFACE EXPLORATION THAT CAN BE CONVENIENTLY DISPLAYED ON THE SOIL PROFILE SHEETS HAS BEEN PRESENTED. GEOTECHNIOCAL REPORTS, IF PREPARED, ARE AVAILABLE FOR REVIEW ON THE OFFICE OF CONTRACT SALES WEBSITE.

LEGEND

DESCRIPTION	ODOT CLASS	CLASSIFIED MECH./VISUAL	
SANDY SILT	*A-4a*	*7*	*15*
SILT	*A-4b*	*1*	*0*
SILT AND CLAY	*A-6a*	*1*	*1*
SILTY CLAY	*A-6b*	*0*	*2*
CLAY	*A-7-6*	*6*	*12*
	TOTAL	*10*	*16*
SANDSTONE	*VISUAL*		
PAVEMENT OR BASE = X = APPROXIMATE THICKNESS	*VISUAL*		
SOD AND TOPSOIL = X = APPROXIMATE THICKNESS	*VISUAL*		

EXPLORATION LOCATION - PLAN VIEW- TEST BORING

EXPLORATION LOCATION - PLAN VIEW- PAVEMENT CORE

DRIVE SAMPLE AND/OR ROCK CORE BORING PLOTTED TO VERTICAL SCALE ONLY. HORIZONTAL BAR INDICATES A CHANGE IN STRATIGRAPHY.

WC INDICATES WATER CONTENT IN PERCENT.

N_{60} INDICATES STANDARD PENETRATION RESISTANCE NORMALIZED TO 60% DRILL ROD ENERGY RATIO.

X/Y/D" NUMBER OF BLOWS FOR STANDARD PENETRATION TEST (SPT): X= NUMBER OF BLOWS FOR 6 INCHES (UNCORRECTED).

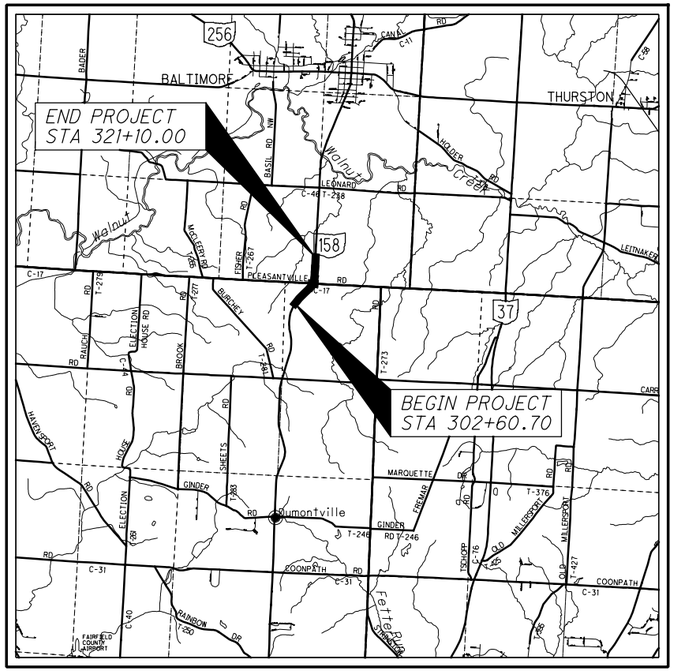
W— INDICATES FREE WATER ELEVATION.

▼— INDICATES STATIC WATER LEVEL

SS INDICATES A SPLIT SPOON SAMPLE.

TR INDICATES TOP OF ROCK

INDEX OF SHEETS					
LOCATION FROM STA. TO STA.	PLAN VIEW SHEET	PROFILE SHEET	CROSS-SECTION SHEET	CUT MAX.	FILL EMB. MAX.
SR 158					
298+00 312+00	3	3	-	<1.0 FT	<1.0 FT
312+00 323+00	4	4	-	<1.0 FT	<1.0 FT
CR 17					
100+00 114+00	5	5	-	<1.0 FT	4.0 FT



LOCATION MAP

SCALE IN MILES

0 1 2 3 4

N

PARTICLE SIZE DEFINITIONS

12"	3"	2.0 mm	0.42 mm	0.074 mm	0.005 mm
BOULDERS	COBBLES	GRAVEL	COARSE SAND	FINE SAND	SILT	CLAY
		No. 10 SIEVE	No. 40 SIEVE	No. 200 SIEVE		

RECON. - SM 07/11/2019

DRILLING - CTL ENGINEERING INC. 03/04/20 TO 03/05/20
03/05/2020

DRAWN - NKS 05/04/2020

REVIEWED - SM 05/13/2020

CTL ENGINEERING, INC.
2860 FISHER ROAD
COLUMBUS, OHIO 43204
PHONE:(614)276-8123 FAX:(614)276-6377

PID NO. 110409

SOIL PROFILE

FAI-158-07.25

SUMMARY OF SOIL TEST DATA

S.R. 158

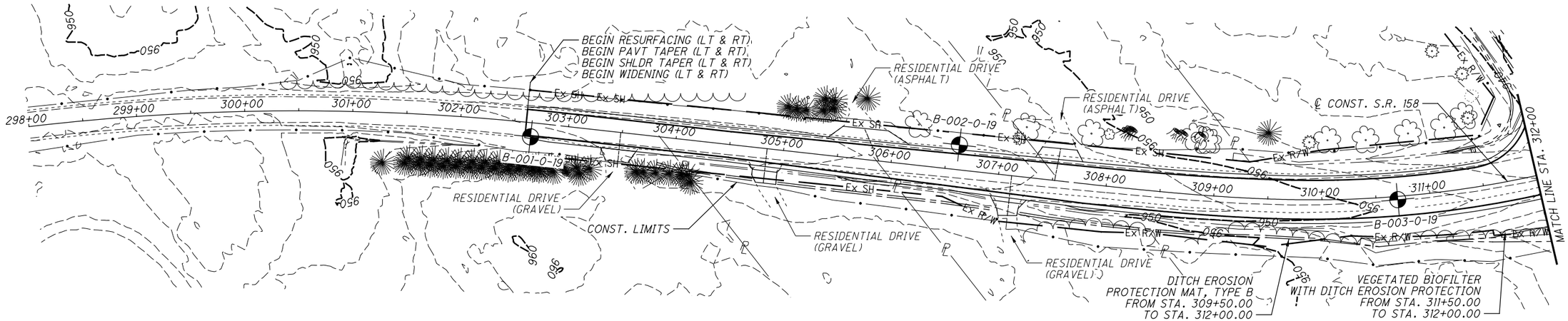
EXPLORATION NO., STATION & OFFSET	FROM TO	SAMPLE ID	N60	% REC	HP tsf	% GR	% CS	% FS	% SILT	% CLAY	LL	PL	PI	% WC	ODOT CLASS (GI)	ppm SO4
B-001-0-19	01.00-02.50	SS-1	10	100	3	3	4	12	40	41	46	21	25	20	A-7-6 (15)	<100
STA. 302+66, 13' RT.	02.50-04.00	SS-2	24	100	3.75	SAME AS SS-1								21	A-7-6 (VISUAL)	-
LATITUDE:39.811098100	04.00-05.50	SS-3	23	100	4.5	SAME AS SS-1								16	A-7-6 (VISUAL)	-
LONGITUDE:-82.611338900	05.50-07.00	SS-4	31	100	4.5	SAME AS SS-1								17	A-7-6 (VISUAL)	-
B-002-0-19	01.00-02.50	SS-1	17	100	4	0	1	2	62	35	46	23	23	21	A-7-6 (14)	<100
STA. 306+61, 23' LT.	02.50-04.00	SS-2	20	100	3.5	2	3	7	44	44	40	21	19	20	A-6b (12)	-
LATITUDE:39.811913700	04.00-05.50	SS-3	20	100	4	VERY STIFF, BROWN, SILTY CLAY, TRACE SAND, TRACE GRAVEL								16	A-6b (VISUAL)	-
LONGITUDE:-82.610405600	05.50-07.00	SS-4	32	100	2.5	SAME AS SS-3								19	A-6b (VISUAL)	-
	08.50-10.00	SS-5	48	100	4.5	SAME AS SS-3 CONTAINS WEATHERED SHALE FRAGMENTS								9	A-6b (VISUAL)	-
B-003-0-19	01.00-02.50	SS-1	31	100	-	31	16	11	24	18	27	17	10	8	A-4a (1)	-
STA. 310+70, 3' RT.	02.50-04.00	SS-2	21	100	4.5	VERY STIFF, BROWN, SILTY CLAY, LITTLE SAND, LITTLE GRAVEL								19	A-6b (VISUAL)	-
LATITUDE:39.812672200	04.00-05.50	SS-3	15	100	2.5	SAME AS SS-2								22	A-6b (VISUAL)	-
LONGITUDE:-82.609332800	05.50-07.00	SS-4	23	100	4.5	SAME AS SS-2								20	A-6b (VISUAL)	-
	08.50-10.00	SS-5	34	100	3	SAME AS SS-2								18	A-6b (VISUAL)	-
B-004-0-19	01.00-02.50	SS-1	17	100	1.5	5	9	14	42	30	36	21	15	18	A-6a (9)	<100
STA. 314+38, 13' RT.	02.50-04.00	SS-2	20	100	3.5	VERY STIFF, BROWN, SILTY CLAY, LITTLE SAND, TRACE GRAVEL								19	A-6b (VISUAL)	-
LATITUDE:39.813578200	04.00-05.50	SS-3	20	100	3.5	SAME AS SS-2								17	A-6b (VISUAL)	-
LONGITUDE:-82.608751300	05.50-07.00	SS-4	24	100	4.5	SAME AS SS-2								18	A-6b (VISUAL)	-
	08.50-10.00	SS-5	34	100	4.5	SAME AS SS-2								15	A-6b (VISUAL)	-
B-006-0-19	01.00-02.50	SS-1	11	100	1.25	3	4	11	41	41	49	23	26	30	A-7-6 (16)	-
STA. 317+52, 27' LT.	02.50-04.00	SS-2	17	100	3	3	2	10	40	45	46	22	24	23	A-7-6 (15)	-
LATITUDE:39.814035500	04.00-05.50	SS-3	17	100	3.25	SAME AS SS-2								21	A-7-6 (VISUAL)	-
LONGITUDE:-82.608768900	05.50-07.00	SS-4	24	100	2	VERY STIFF, BROWN, SILT AND CLAY, LITTLE SAND, TRACE GRAVEL								19	A-6a (VISUAL)	-
	08.50-10.00	SS-5	32	100	4.5	HARD, BROWN, SILTY CLAY, SOME SAND, LITTLE GRAVEL								17	A-6b (VISUAL)	-
B-007-0-19	01.00-02.50	SS-1	14	100	3	1	7	19	52	21	25	17	8	18	A-4b (8)	<100
STA. 320+25, 12' RT.	02.50-04.00	SS-2	15	100	2.75	VERY STIFF, BROWN, SILTY CLAY, SOME SAND, TRACE GRAVEL								19	A-6b (VISUAL)	-
LATITUDE:39.814447100	04.00-05.50	SS-3	28	100	4.5	SAME AS SS-2								18	A-6b (VISUAL)	-
LONGITUDE:-82.608769600	05.50-07.00	SS-4	28	100	3.5	SAME AS SS-2								19	A-6b (VISUAL)	-

C.R. 17

EXPLORATION NO., STATION & OFFSET	FROM TO	SAMPLE ID	N60	% REC	HP tsf	% GR	% CS	% FS	% SILT	% CLAY	LL	PL	PI	% WC	ODOT CLASS (GI)	ppm SO4
B-008-0-19	01.00-02.50	SS-1	21	100	3	1	4	13	57	25	24	18	6	17	A-4b (8)	-
STA. 102+48, 9' RT.	02.50-04.00	SS-2	10	100	2.25	3	1	7	56	33	33	18	15	21	A-6a (10)	-
LATITUDE:39.815189700	04.00-05.50	SS-3	62	100	4.5	SANDSTONE, BROWN, SEVERELY WEATHERED, MODERATELY STRONG.								18	ROCK (VISUAL)	-
LONGITUDE:-82.608590200	05.50-06.41	SS-4	38/50/5"	100	4.5	SAME AS SS-3								8	ROCK (VISUAL)	-
B-009-0-19	01.00-02.50	SS-1	18	100	4.5	29	11	12	29	19	26	17	9	16	A-4a (3)	<100
STA. 105+90, 16' LT.	02.50-04.00	SS-2	14	100	-	STIFF, BROWN, SILTY CLAY, SOME SAND, SOME GRAVEL, POSSIBLE FILL								7	A-6b (VISUAL)	-
LATITUDE:39.813161200	04.00-05.50	SS-3	13	100	1.75	STIFF, BROWN, CLAY, LITTLE SAND, LITTLE SILT, TRACE GRAVEL								23	A-7-6 (VISUAL)	-
LONGITUDE:-82.610276700	05.50-07.00	SS-4	30	100	4.5	SAME AS SS-3								16	A-7-6 (VISUAL)	-
B-010-0-19	01.00-02.50	SS-1	15	100	4	10	17	17	33	23	28	18	10	14	A-4a (4)	-
STA. 107+91, 10' RT.	02.50-04.00	SS-2	10	100	2.25	VERY STIFF, GRAY, CLAY, LITTLE SAND, LITTLE SILT, TRACE GRAVEL								24	A-7-6 (VISUAL)	-
LATITUDE:39.813181000	04.00-05.50	SS-3	18	100	2.5	SAME AS SS-2								26	A-7-6 (VISUAL)	-
LONGITUDE:-82.609059000	05.50-07.00	SS-4	30	100	3	SAME AS SS-2								22	A-7-6 (VISUAL)	-
	08.50-10.00	SS-5	28	100	4.5	SAME AS SS-2								16	A-7-6 (VISUAL)	-
B-011-0-19	01.00-02.50	SS-1	14	100	2	0	2	6	47	45	59	28	31	26	A-7-6 (20)	<100
STA. 110+99, 9' RT.	02.50-04.00	SS-2	17	100	-	14	12	14	31	29	35	18	17	10	A-6b (8)	-
LATITUDE:39.813071300	04.00-05.50	SS-3	14	100	4.5	SAME AS SS-2								19	A-6b (VISUAL)	-
LONGITUDE:-82.608347000	05.50-07.00	SS-4	28	100	2	SAME AS SS-2								19	A-6b (VISUAL)	-
	08.50-10.00	SS-4	27	100	2.75	SAME AS SS-2								21	A-6b (VISUAL)	-
B-012-0-19	01.00-02.50	SS-1	15	100	2.25	3	9	16	45	27	27	17	10	17	A-4a (7)	<100
STA. 113+10, 5' LT.	02.50-04.00	SS-2	14	100	2.75	VERY STIFF, BROWN, SILTY CLAY, LITTLE SAND, TRACE GRAVEL								20	A-6b (VISUAL)	-
LATITUDE:39.813031100	04.00-05.50	SS-3	14	100	3.25	SAME AS SS-2								19	A-6b (VISUAL)	-
LONGITUDE:-82.607251000	05.50-07.00	SS-4	21	100	2.25	SAME AS SS-2								19	A-6b (VISUAL)	-

RESIDENTIAL/TREES

RESIDENTIAL



RESIDENTIAL

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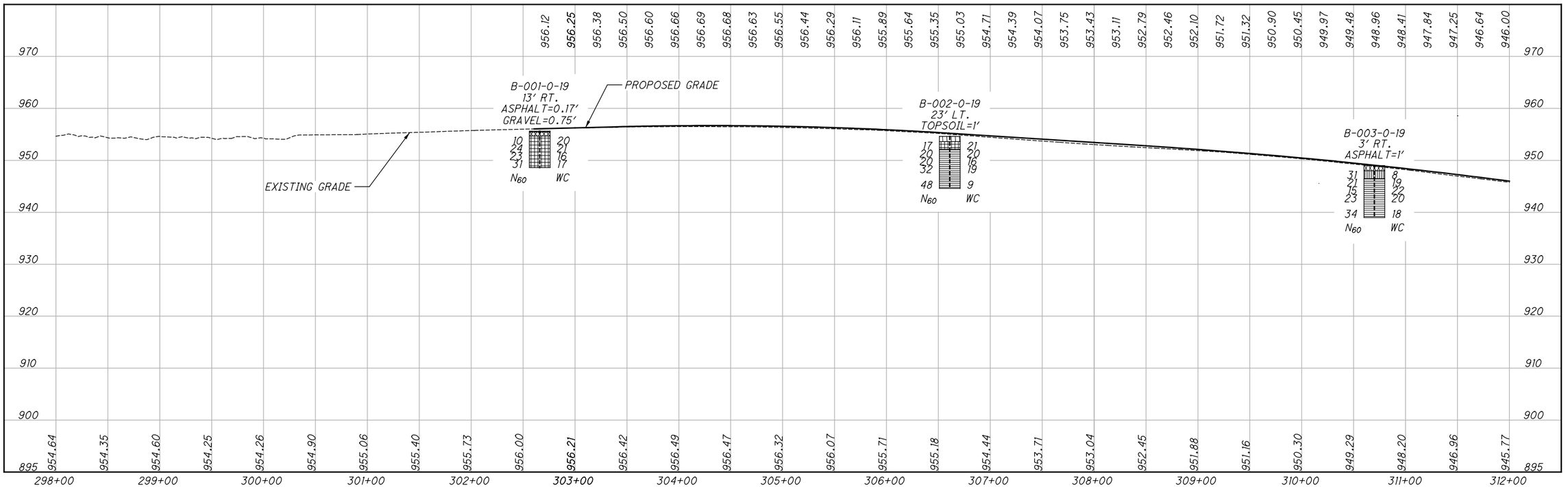

HORIZONTAL SCALE IN FEET
0 25 50 100

DRAWN N.K.S
CHECKED SM

SOIL PROFILE
STA 298+00 TO STA 312+00 SR 158

FAI-158-07.25

3 / 5

129 / 131

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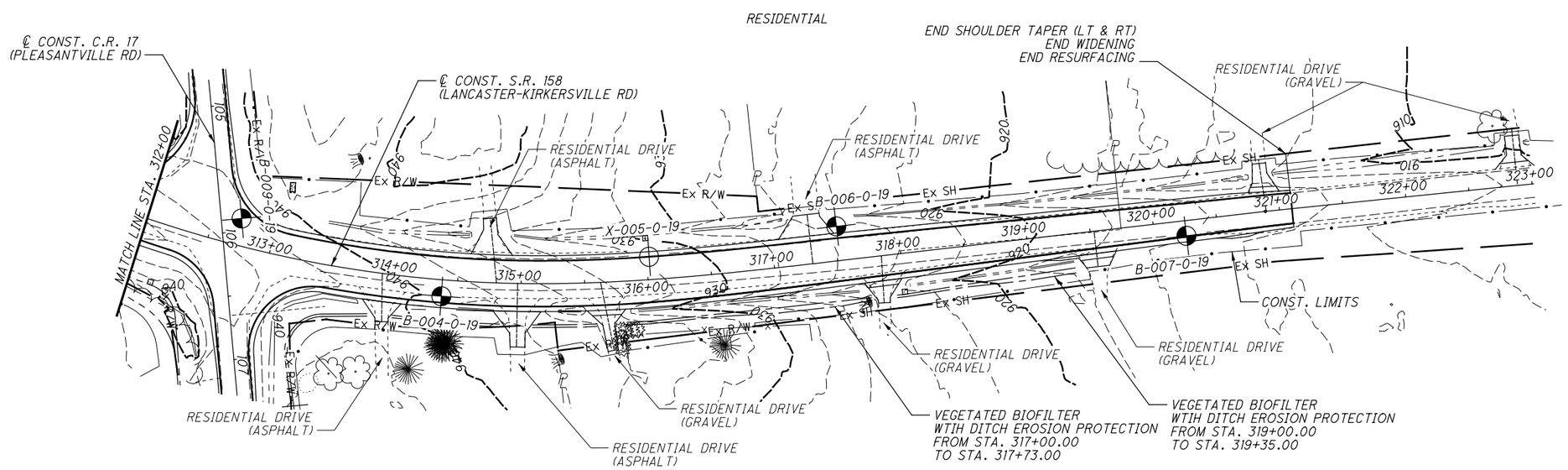
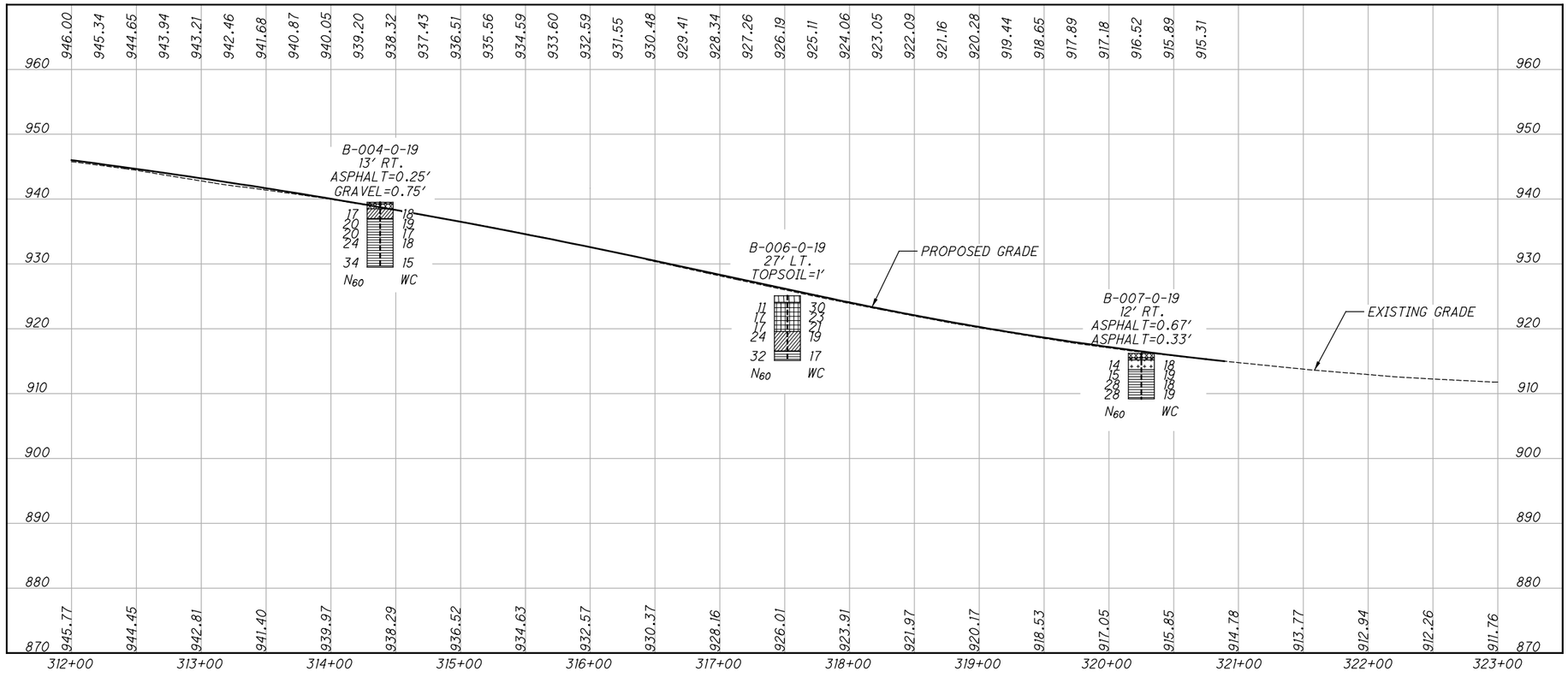


NOTE : SEE SHEET 5 OF 5 FOR SOIL PROFILE B-009-0-19.
PAVEMENT CORE X-005-0-19 EXHIBITED 12 INCHES OF ASPHALT OVER 5 INCHES OF GRANULAR BASE



SOIL PROFILE
STA 312+00 TO STA 323+00 SR 158

FAI-158-07.25

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131

HORIZONTAL SCALE IN FEET
0 25 50 100

DRAWN N.K.S
CHECKED SM

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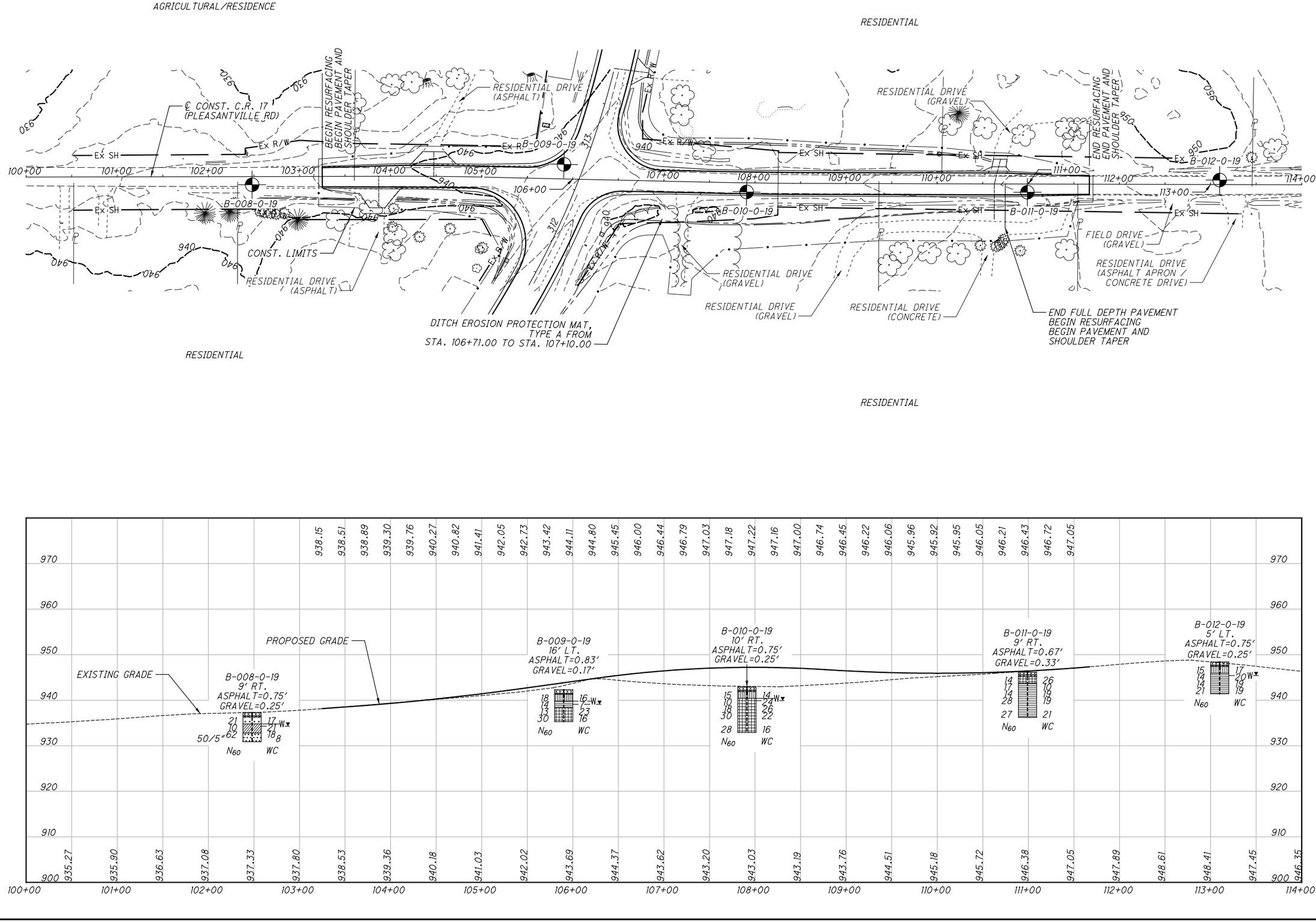

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HORIZONTAL SCALE IN FEET
0 25 50 100

DRAWN N.K.S
CHECKED SM

SOIL PROFILE
STA 100+00 TO STA 114+00 C.R. 17

FAI-158-07.25

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