

East Hempfield Township

1700 Nissley Road ~ P.O. Box 128 ~ Landisville, Pennsylvania 17538

Phone 717-898-3100 ~ Fax 717-898-9486 ~ www.easthempfield.org

December 16, 2021

Rosemary Chiavetta, Secretary
Pennsylvania Public Utility Commission
PO Box 3265
Harrisburg, PA 17105-3265

Re: Lancaster County
East Hempfield Township
T-408 (T-607) Section LOC (Centerville Road)
DOT # 517 593 B
PUC No. A-2020-3021094
ECMS # E02796

Dear Secretary Chiavetta:

In accordance with ordering paragraph number 3 of PUC Secretarial Letter/Order at Docket No. A-2020-3021094 dated December 7, 2020, please find attached for your approval one half-size copy of the final signed Construction Drawings and Traffic Signal Plans for Construction of T-408 (T-607), Section LOC in Lancaster County, consisting of:

- Construction Plan Sheets 1, 3-4, 9, 36, 61, 326-327, 352-353 of 398.
- Cross-Section Sheets 40-41 of 234.
- Pavement Marking Plan Sheets 30 & 32 of 51.
- Traffic Signal Plan Sheets 8-13 of 39.
- Traffic Control Plan Sheets 1, 13-15, 22-23, 41-42, 48-49 and 66-75 of 102.

The Department of Transportation and the Township of East Hempfield hereby avers that a complete set of the aforesaid final Drawings for Construction plans are being sent to the following parties of record for examination in accordance with the attached Certificate of Service.

We respectfully request the approval of these plans and the subsequent issuance of a PUC Order. Should you have any questions or concerns, please feel free to contact Ryan Wintermyer at 717-846-7151.

Sincerely,
EAST HEMPFIELD TOWNSHIP

A handwritten signature in blue ink, appearing to read "Cindy A. Schweitzer", is written over a horizontal line.

Cindy A. Schweitzer
Township Manager/Secretary

CERTIFICATE OF SERVICE

I hereby certify that I have this day served a true copy of the foregoing document upon the participants listed below, in accordance with the requirements of 52 Pa. Code §1.54, by electronic submission:

Mr. Shawn Starling, Senior Engineer Public Improvements
Norfolk Southern Corporation
1200 Peachtree Street N.E.
Atlanta, GA 30309
Douglas.Starling@nscorp.com

Mr. Robert Hoffer, Norfolk Southern Consulting Engineer
AECOM
100 Sterling Parkway, Suite 205
Mechanicsburg, PA 17050
Robert.Hoffer@aecom.com

Mr. Joshua G. Parsons, Chairman
Lancaster County Commissioners
150 North Queen Street
Lancaster, PA 17603
GeorgeL@co.lancaster.pa.us

Mr. Perry Madonna, Director of Public Works
East Hempfield Township
1700 Nissley Road, PO Box 128
Landisville, PA 17538
Perry@easthempfield.org

Mr. W. Scott Wiglesworth, Supervisor
East Hempfield Township
1700 Nissley Road
Landisville, PA 17538
wiglesworth@easthempfield.org

Mr. H. Scott Russel, Supervisor
East Hempfield Township
1700 Nissley Road
Landisville, PA 17538
russell@easthempfield.org

Mr. Thomas A. Bennett, Supervisor
East Hempfield Township
1700 Nissley Road
Landisville, PA 17538
Bennett@easthempfield.org

Mr. Andrew C. Weaver, Supervisor
East Hempfield Township
1700 Nissley Road
Landisville, PA 17538
weaver@easthempfield.org

Mr. G. Edward Lefevre, Supervisor
East Hempfield Township
1700 Nissley Road
Landisville, PA 17538
edward@easthempfield.org

Mr. John Vilga, Maintenance Supervisor
Lancaster Area Sewer Authority (Sanitary Sewer)
130 Centerville Road
Lancaster, PA 17603
JVilga@lasa.org

Mr. Pete Hartmann, Engineering Support Technician
Lancaster Area Sewer Authority (Sanitary Sewer)
130 Centerville Road
Lancaster, PA 17603
PHartmann@lasa.org

Ms. Cindy McCormick, Deputy Director
City of Lancaster (Water)
120 North Duke Street, PO Box 1599
Lancaster, PA 17608
CMcCormick@cityoflancasterpa.com

Mr. Benjamin Perwien, Engineer
City of Lancaster (Water)
120 North Duke Street, PO Box 1599
Lancaster, PA 17608
BPerwien@cityoflancasterpa.com

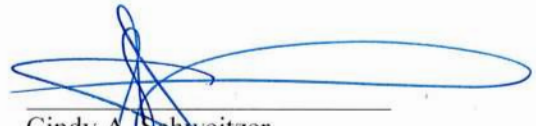
Ms. Charlotte Krupa, Agency Coordinator
Pennsylvania Power and Light (Electric)
2 North Ninth Street
Allentown, PA 18101
cakrupa@pplweb.com

Mr. Kenneth Groff, Project Manager
Pennsylvania Power and Light (Electric)
2 North Ninth Street
Allentown, PA 18101
KRGroff@pplweb.com

Ms. Colleen Kester
Pennsylvania Power and Light (Electric Transmission)
2 North Ninth Street
Allentown, PA 18101
CKester@pplweb.com

Mr. Mark Waselko, Engineer
Verizon Pennsylvania (Telecommunication)
126 North Duke Street
Lancaster, PA 17602
mark.a.waselko@verizon.com

Date: 12-17-21



Cindy A. Schweitzer,
Township Manager
East Hempfield Township

S.R.0030 ESTABLISHED AS A LIMITED ACCESS HIGHWAY
FROM STATION 298+00.00 TO STATION 334+50.00 BY
PLAN OF LEGISLATIVE ROUTE 792 SECTION 2 R/W,
APPROVED BY THE GOVERNOR ON FEBRUARY 21, 1964.

S.R.0030 RE-ESTABLISHED AS A LIMITED ACCESS HIGHWAY
FROM STATION 309+54.78 TO STATION 313+07.26 BY PLAN
OF S.R.4057 SECTION 002 R/W, SIGNED ON FEBRUARY 10,
2021, AND RECORDED IN THE LANCASTER RECORDER OF DEEDS
OFFICE DATED FEBRUARY 16, 2021.

DISTRICT	COUNTY	TOWNSHIP	CITY	ROUTE	SECTION	TOTAL SHEETS
8-0	LANCASTER	EAST HEMPFIELD		4057	002	398
		WEST HEMPFIELD		T-408	LOC	
		MANOR		T-543	LOC	

S.R.4057 SEC.002 MPMS NO.64767 ECMS NO.64767
T-408 SEC.LOC MPMS NO.101505
T-543 SEC.LOC MPMS NO.101505

COMMONWEALTH OF PENNSYLVANIA



DEPARTMENT OF TRANSPORTATION

DRAWINGS
FOR
CONSTRUCTION
OF

STATE ROUTE 4057 SECTION 002
IN LANCASTER COUNTY
FROM STA. 49+30.09 TO STA. 51+66.09 LENGTH 236.00 FT. 0.045 MI.
FROM SEG. 0010 OFFSET 0000 TO SEG. 0010 OFFSET 0236

AND

STATE ROUTE 0023
IN LANCASTER COUNTY
FROM STA. 480+00.00 TO STA. 502+00.00 LENGTH 2031.86 FT. 0.385 MI.
FROM SEG. 0150 OFFSET 1815 TO SEG. 0160 OFFSET 2042

AND

TOWNSHIP ROUTE T-408 SECTION LOC
IN LANCASTER COUNTY
FROM STA. 7+17.89 TO STA. 49+30.09 LENGTH 4188.59 FT. 0.793 MI.
FROM STA. 51+66.09 TO STA. 76+00.00 LENGTH 2274.50 FT. 0.431 MI.

ALSO

STATE ROUTE 8008

ALSO INCLUDED	
TRAFFIC CONTROL PLAN	102 SHEETS
SIGNING AND PAVEMENT MARKING PLAN	51 SHEETS
EAST HEMPFIELD TOWNSHIP WATER MAIN REPLACEMENT PLAN	7 SHEETS
EROSION AND SEDIMENT POLLUTION CONTROL PLAN	54 SHEETS
POST CONSTRUCTION STORMWATER MANAGEMENT PLAN	52 SHEETS
TRAFFIC SIGNAL PLAN	39 SHEETS
ROADSIDE DEVELOPMENT PLAN	2 SHEETS
STRUCTURE PLAN (S-39039)	55 SHEETS
CROSS SECTIONS	234 SHEETS
EXISTING STRUCTURE PLAN (S-6493)	6 SHEETS

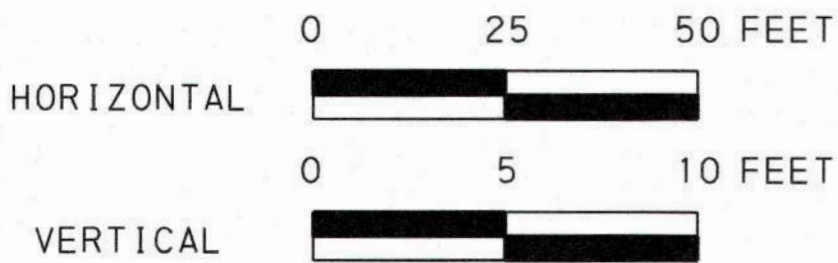
AND

TOWNSHIP ROUTE T-543 SECTION LOC
IN LANCASTER COUNTY
FROM STA. 0+00.00 TO STA. 7+17.89
LENGTH 628.79 FT. 0.119 MI.

AND

STATE ROUTE 0030 SECTION 145
IN LANCASTER COUNTY
FROM STA. 298+00.00 TO STA. 334+50.00
LENGTH 3500.25 FT. 0.663 MI.
FROM SEG. 0130 OFFSET 1009
TO SEG. 0140 OFFSET 2566
FROM SEG. 0131 OFFSET 1044
TO SEG. 0141 OFFSET 2598
TOTAL LENGTH 12,859.99 FT. 2.436 MI.

SCALE



PUC APPLICATION DOCKET NUMBER A-2020-3021094

DESIGN DESIGNATION
S.R.0030

HIGHWAY CLASSIFICATION	OTHER FREEWAYS AND EXPRESSWAYS (URBAN)	TRAFFIC DATA	
		CURRENT A.D.T.	DESIGN YEAR A.D.T.
DESIGN SPEED	- 60 MPH	- 64,820 (2023)	- 92,429 (2043)
PAVEMENT WIDTH	- 2 AT 24'	D.H.V. - 5,186	
SHOULDER WIDTH	- 10' RIGHT, 4' LEFT	D - 61%	
MEDIAN WIDTH	- 20' WITH 2' MEDIAN BARRIER	T - 7%	

DESIGN DESIGNATION
S.R.4057/T-543/T-408 (CENTERVILLE ROAD)

HIGHWAY CLASSIFICATION	MINOR ARTERIAL (URBAN)	TRAFFIC DATA	
		CURRENT A.D.T.	DESIGN YEAR A.D.T.
DESIGN SPEED	- 35 MPH	- 22,533 (2023)	- 28,266 (2043)
PAVEMENT WIDTH	- 60' TO 72'	D.H.V. - 2,253	
SHOULDER WIDTH	- 2' TO 8'	D - 55%	
		T - 5%	

DESIGN DESIGNATION
S.R.0023 (MARIETTA AVENUE)

HIGHWAY CLASSIFICATION	MINOR ARTERIAL (URBAN)	TRAFFIC DATA	
		CURRENT A.D.T.	DESIGN YEAR A.D.T.
DESIGN SPEED	- 35 MPH	- 17,921 (2023)	- 22,482 (2043)
PAVEMENT WIDTH	- 37' TO 59'	D.H.V. - 1,434	
SHOULDER WIDTH	- 2'	D - 57%	
		T - 2%	

RECOMMENDED DATE 12/14/2021
PROJECT MANAGER

RECOMMENDED DATE 12/14/2021
ACTING DISTRICT EXECUTIVE

RECOMMENDED DATE
DEPUTY SECRETARY

APPROVED DATE

SECRETARY OF TRANSPORTATION
(ON BEHALF OF THE GOVERNOR
AS WELL AS THE SECRETARY)

PREPARED BY:
JOHNSON, MIRMIRAN and
THOMPSON, INC.
220 ST. CHARLES WAY
SUITE 200
YORK, PA 17402



Douglas E. Moyer
November 8, 2021

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
8-0	LANCASTER	4057	002	3 OF 398
		T-543	LOC	
		T-408	LOC	
EAST HEMPFIELD TOWNSHIP				
REVISION NUMBER	REVISIONS			DATE BY

TABULATION OF PROPERTY OWNERS

- 4

NATICK LANCASTER REALTY CORP.
- 5

LANCASTER AREA SEWER AUTHORITY
- 6

MICRO PRECISION CORPORATION
- 7

MOOVE IN PARTNERS - CENTERVILLE, LP,
A PENNSYLVANIA LIMITED PARTNERSHIP
- 8

RHB SR. REALTY, LP
- 9

NORFOLK SOUTHERN RAILWAY COMPANY
- 10

JAMES T. GIBSON
- 27

AH2 PARTNERS, LLC,
A PENNSYLVANIA LIMITED
LIABILITY COMPANY
- 28

CAN DO PROPERTIES
- 29

BRIDGEWATER LANCASTER, LLC, A
PENNSYLVANIA LIMITED LIABILITY COMPANY
- 30

CENTERVILLE ACRES, LP
- 31

ABRAM S. HORST, JR.,
FAMILY LIMITED PARTNERSHIP
- 32

OLD SYCAMORE ASSOCIATES
- 33

TH MINIT MARKETS LLC,
A PENNSYLVANIA LIMITED LIABILITY COMPANY
- 35

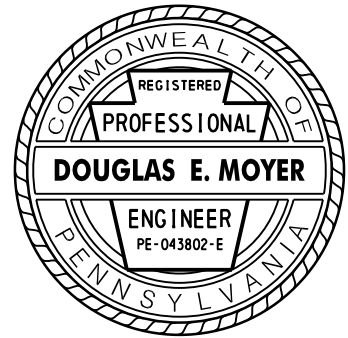
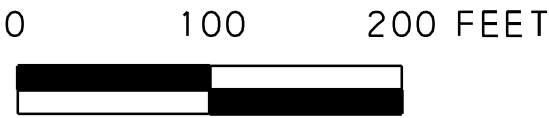
NORTHWEST BANK
- 103

IRONSTONE HOLDINGS, LLC

LEGEND

- PLAN
- PROFILE
- PARCEL IDENTIFICATION NUMBER
- PARCEL IDENTIFICATION NUMBER - NO TAKE
- SHEET LIMIT

INDEX MAP
SHEET 2 OF 7
SCALE



SEE PLAN SHEET 2

SEE INDEX SHEET 4

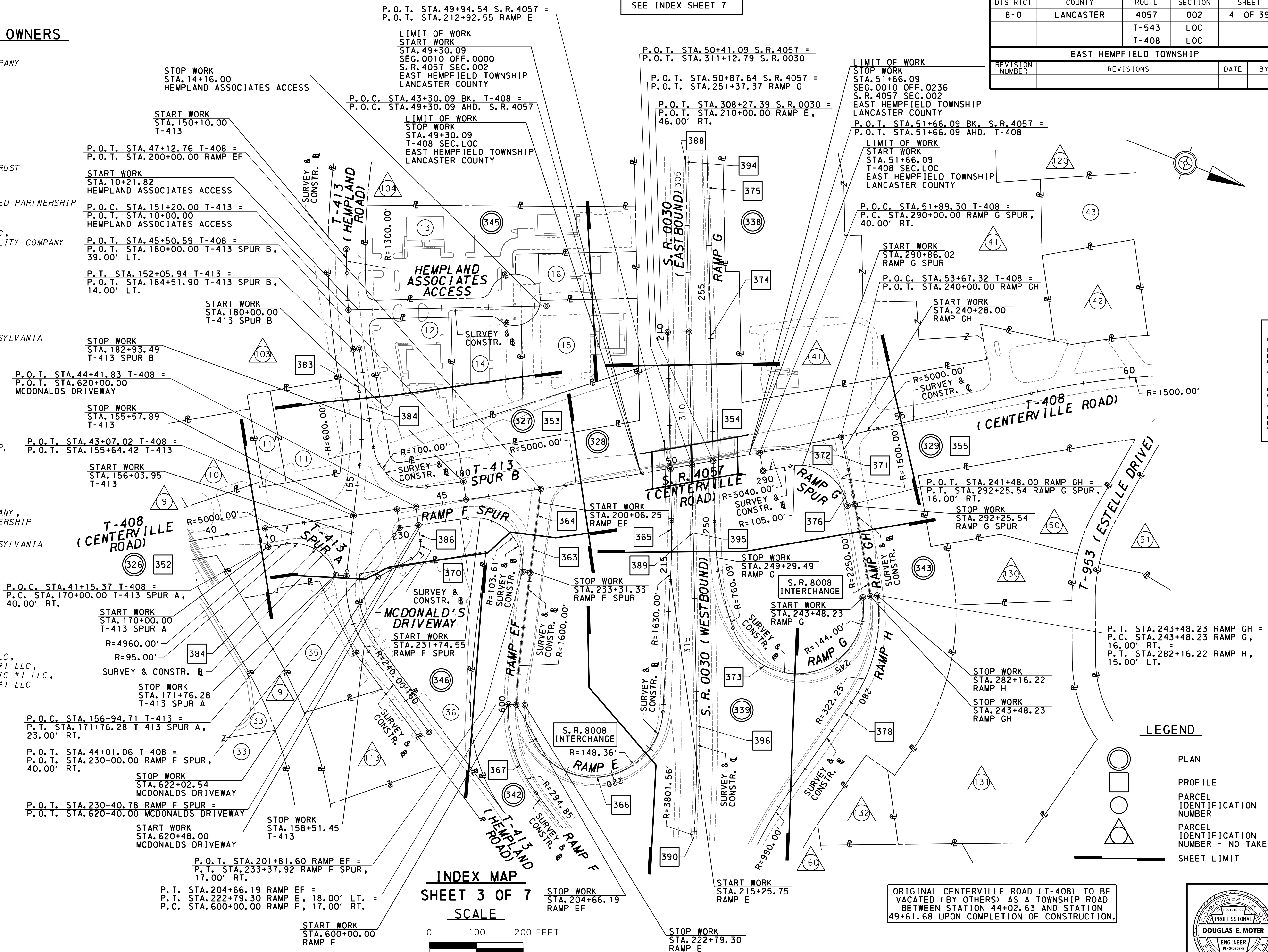
TABULATION OF PROPERTY OWNERS

- 9 NORFOLK SOUTHERN RAILWAY COMPANY
- 10 JAMES T. GIBSON
- 11 HET ENTERPRISES, LLC
- 12 NATIONAL RETAIL PROPERTIES TRUST
- 13 HEMPLAND ASSOCIATES, A LIMITED PARTNERSHIP
- 14 BEILER STOLTZFUS HOLDING, LLC, A PENNSYLVANIA LIMITED LIABILITY COMPANY
- 15 MOLT, LLC, A PENNSYLVANIA LIMITED LIABILITY COMPANY
- 16 DENNIS E STEINMETZ AND MICHAEL D STEINMETZ, TRADING AS S&P PROPERTIES
- 33 TH MINIT MARKETS LLC, A PENNSYLVANIA LIMITED LIABILITY COMPANY
- 35 NORTHWEST BANK
- 36 McDONALD'S CORPORATION d/b/a DELAWARE McDONALD'S CORPORATION
- 41 YORK SHERWOOD ASSOCIATES, L.P.
- 42 786KTZ, LLC
- 43 CENTERVILLE DEVELOPMENT COMPANY, A PENNSYLVANIA GENERAL PARTNERSHIP
- 50 CDJ ENTERPRISES, LLC, A PENNSYLVANIA LIMITED LIABILITY COMPANY
- 51 ESTELLE GROUP, LLC, A PENNSYLVANIA LIMITED LIABILITY COMPANY
- 103 IRONSTONE HOLDINGS, LLC
- 104 DEALBROOK LLC, PARAMOUNT PORTFOLIO CROSSINGS TIC #1 LLC, PARAMOUNT PORTFOLIO PAD TIC #1 LLC, PARAMOUNT PORTFOLIO FULTON TIC #1 LLC, PARAMOUNT PORTFOLIO LMS TIC #1 LLC
- 113 WESTFIELD MOTOR INN, INC.
- 120 PRATHER ENTITIES LLC
- 130 ROGER H. STRAUSE, D.D.S. AND LISA W. STRAUSE
- 131 HIGH PROPERTIES
- 132 YORK SHERWOOD ASSOCIATES, L.P.
- 133 MIRIAM ANNE PLACK
- 160 CHESWICKE, LLC.

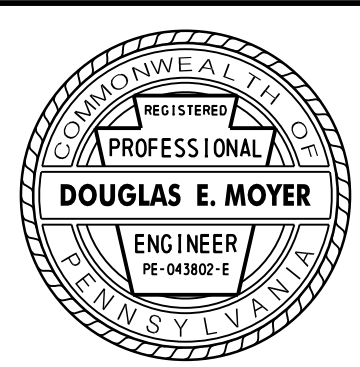
SEE PLAN SHEET 3

SEE INDEX SHEET 7

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
8-0	LANCASTER	4057	002	4 OF 398
		T-543	LOC	
		T-408	LOC	
EAST HEMPFIELD TOWNSHIP				
REVISION NUMBER	REVISIONS			DATE BY



SEE INDEX SHEET 5



DISTRICT	COUNTY	ROUTE	SECTION	SHEET
8-0	LANCASTER	4057	002	9 OF 398
		T-543	LOC	
		T-408	LOC	
MANOR AND EAST HEMPFIELD TOWNSHIPS				
REVISION NUMBER	REVISIONS			DATE BY

TABULATION OF OVERALL LENGTH

T-543	-	STA. 0+00.00	TO STA. 7+17.89	=	717.89 FT = 0.136 MI
T-408	-	STA. 7+17.89	TO STA. 49+30.09	=	4212.20 FT = 0.798 MI
S.R. 4057	-	STA. 49+30.09	TO STA. 51+66.09	=	236.00 FT = 0.045 MI
T-408	-	STA. 51+66.09	TO STA. 76+00.00	=	2433.91 FT = 0.461 MI
S.R. 0023	-	STA. 480+00.00	TO STA. 502+00.00	=	2200.00 FT = 0.417 MI
S.R. 0030	-	STA. 298+00.00	TO STA. 334+50.00	=	3650.00 FT = 0.691 MI
					OVERALL LENGTH = 13450.00 FT = 2.548 MI

TABULATION OF CONSTRUCTION LENGTH

T-543	-	STA. 0+62.44	TO STA. 6+91.23	=	628.79 FT = 0.119 MI
T-408	-	STA. 7+41.50	TO STA. 49+30.09	=	4188.59 FT = 0.793 MI
S.R. 4057	-	STA. 49+30.09	TO STA. 51+66.09	=	236.00 FT = 0.045 MI
T-408	-	STA. 51+66.09	TO STA. 71+39.78	=	1973.69 FT = 0.374 MI
T-408	-	STA. 72+03.55	TO STA. 75+04.36	=	300.81 FT = 0.057 MI
S.R. 0023	-	STA. 480+83.14	TO STA. 501+15.00	=	2031.86 FT = 0.385 MI
S.R. 0030	-	STA. 298+78.07	TO STA. 333+78.32	=	3500.25 FT = 0.663 MI
					OVERALL LENGTH = 12859.99 FT = 2.436 MI

LIST OF EQUALITIES

STA. 7+17.89 BK. T-543 = STA. 7+17.89 AHD. T-408
STA. 43+30.09 BK. T-408 = STA. 43+30.09 AHD. S.R. 4057
STA. 51+66.09 BK. S.R. 4057 = STA. 51+66.09 AHD. T-408

LIST OF SEGMENT EQUALITIES

S.R. 4057	-	SEGMENT 0010 OFFSET 0000	=	STA. 49+30.09
		SEGMENT 0010 OFFSET 0236	=	STA. 51+66.09
S.R. 0023	-	SEGMENT 0150 OFFSET 1974	=	STA. 481+58.72
		SEGMENT 0160 OFFSET 0000	=	STA. 481+58.72
S.R. 0030	-	SEGMENT 0140 OFFSET 0000	=	STA. 308+83.63
		SEGMENT 0130 OFFSET 2093	=	STA. 308+83.63
		SEGMENT 0141 OFFSET 0000	=	STA. 308+51.51
		SEGMENT 0131 OFFSET 2096	=	STA. 308+51.51

LIMIT OF WORK

STA. 76+00.00
T-408 SEC. LOC
EAST HEMPFIELD TOWNSHIP
LANCASTER COUNTY

LIMIT OF WORK

STA. 298+00.00
SEG. 0130 OFF. 1009
SEG. 0131 OFF. 1044
S.R. 0030 SEC. 145
EAST HEMPFIELD TOWNSHIP
LANCASTER COUNTY

LIMIT OF WORK

STA. 480+00.00
SEG. 0150 OFF. 1815
S.R. 0023 SEC. 002
WEST HEMPFIELD TOWNSHIP
LANCASTER COUNTY

LIMIT OF WORK

STA. 502+00.00
SEG. 0160 OFF. 2042
S.R. 0023 SEC. 002
EAST HEMPFIELD TOWNSHIP
LANCASTER COUNTY

LIMIT OF WORK

STA. 51+66.09
T-408 SEC. LOC
EAST HEMPFIELD TOWNSHIP
LANCASTER COUNTY

LIMIT OF WORK

STA. 51+66.09
SEG. 0010 OFF. 0236
S.R. 4057 SEC. 002
EAST HEMPFIELD TOWNSHIP
LANCASTER COUNTY

LIMIT OF WORK

STA. 334+50.00
SEG. 0140 OFF. 2566
SEG. 0141 OFF. 2598
S.R. 0030 SEC. 145
EAST HEMPFIELD TOWNSHIP
LANCASTER COUNTY

LIMIT OF WORK

STA. 49+30.09
T-408 SEC. LOC
EAST HEMPFIELD TOWNSHIP
LANCASTER COUNTY

LIMIT OF WORK

STA. 49+30.09
SEG. 0010 OFF. 0000
S.R. 4057 SEC. 002
EAST HEMPFIELD TOWNSHIP
LANCASTER COUNTY

LIMIT OF WORK

STA. 7+17.89
T-408 SEC. LOC
EAST HEMPFIELD TOWNSHIP
LANCASTER COUNTY

LIMIT OF WORK

STA. 7+17.89
T-543 SEC. LOC
MANOR TOWNSHIP
LANCASTER COUNTY

LIMIT OF WORK

STA. 0+00.00
T-543 SEC. LOC
MANOR TOWNSHIP
LANCASTER COUNTY

PA ONE CALL SYSTEM

PA ONE CALL PHONE: 1-800-242-1776

EAST HEMPFIELD TOWNSHIP DESIGN SERIAL NO.: 20161171062
20161171064
20161171067
20161171069
20161172962
20161172972
20161172986
20161172994
20161172999
20161173009

MANOR TOWNSHIP DESIGN SERIAL NO.: 20161171065
20161171068
20161171070

LIST OF PUBLIC UTILITIES

SYMBOL	UTILITY	ADDRESS	REPRESENTATIVE	CONTACT INFORMATION
—G—	UGI UTILITES, INC.	1301 AIP DRIVE MIDDLETOWN, PA 17057	GEOFFREY FERGUSON	(717) 255-1453
—G—	ENERGY TRANSFER	350 EAGLEVIEW BLVD., SUITE 130 EXTON, PA 19341	JOHN RUSZKAY	John.ruszkay@energytransfer.com
—W—	CITY OF LANCASTER	120 NORTH DUKE STREET LANCASTER, PA 17608	CINDY MCCORMICK	(717) 291-4729
—W—	EAST HEMPFIELD WATER AUTHORITY	920 CHURCH STREET LANDISVILLE, PA 17538	STEVEN GOHN	(717) 898-8231
—E—	PPL ELECTRIC UTILITIES	2 NORTH NINTH STREET ALLENTOWN, PA 18101	CHARLOTTE KRUPA	(610) 774-6287
—CTV—	COMCAST CABLE COMMUNICATION, INC.	1131 SOUTH DUKE STREET LANCASTER, PA 17602	CHARLES BRANDT, JR	(717) 987-2333
—S—	EAST HEMPFIELD TOWNSHIP (STORM SEWER/TRAFFIC SIGNALS)	1700 NISSLEY ROAD LANDISVILLE, PA 17538	PERRY MADONNA	(717) 898-3100
—S—	LANCASTER AREA SEWER AUTHORITY	130 CENTERVILLE ROAD LANCASTER, PA 17603	JOHN VILGA	(717) 344-5819
—T—	VERIZON PENNSYLVANIA, LLC	126 NORTH DUKE STREET LANCASTER, PA 17602	MARK WASELKO	(717) 299-8405
—T—	FRONTIER COMMUNICATIONS	100 CTE DRIVE DALLAS, PA 18612	JOSEPH WITT	(717) 786-2525
—FO—	WINDSTREAM	202 EAST FIRST STREET BIRDSBORO, PA 19505	TERRY WELLS	Terry.L.Wells@windstream.com
—FO—	ZAYO BANDWIDTH	1101 EAST LINDEN AVENUE LINDEN, NJ 07036	JIM JACOBSEN	(973) 214-6393

TABULATION OF STRUCTURE DATA

EXISTING

S.R. 4057 OVER S.R. 0030
STA. 50+44.90 S.R. 4057
SEG. 0010 OFF. 0025
TYPE = 4 SPAN, P/S CONC. SPREAD BOX BEAM
SPAN = 1 @ 35'-3 1/8", 1 @ 58'-9 1/2",
1 @ 46'-0 1/2", 1 @ 25'-0 1/8"
UNDERCLEARANCE = 14'-8"
CLEAR ROADWAY = 32'-0"
SKEW = 81°10'00"
STRUCTURE NO. S-6493 (NOV. 1, 1963) &
S-25608 (OCT. 6, 2004)

PROPOSED

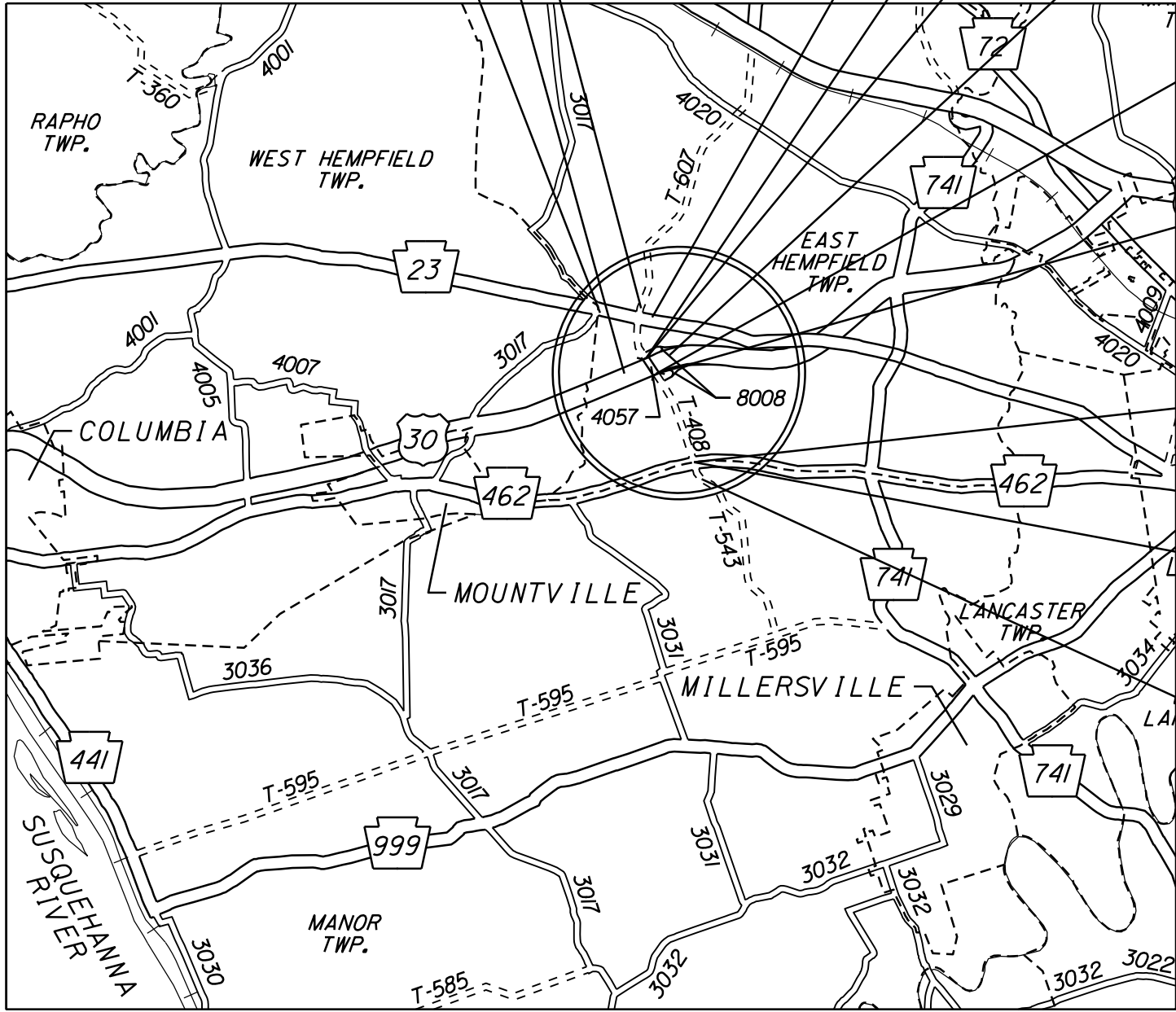
S.R. 4057 OVER S.R. 0030
STA. 50+41.09 S.R. 4057
SEG. 0010 OFF. 0025
TYPE = 2 SPAN CONT. COMP. P/S CONC.
SPREAD BOX BEAM BRIDGE
SPAN = 1 @ 86'-0", 1 @ 100'-0"
UNDERCLEARANCE = 16'-8 1/16"
CLEAR ROADWAY = 72'-0"
SKEW = 81°10'17"
STRUCTURE NO. S-39039
RECOMMENDED MARCH 30, 2021

- * INCLUDES ALL LUMP SUM ITEMS
- ** INCLUDES ALL LUMP SUM STRUCTURE ITEMS
- *** INCLUDES ALL BORROW ITEMS
- **** INCLUDES 53 CY OF R-3, 1,879 CY OF R-4, 47 CY OF R-5, 12 CY OF R-6, 6 CY OF R-7, 272 CY OF R-8
AND 490 CY OF STRUCTURAL BACKFILL
- ***** INCLUDES 27 CY OF UNSUITABLE MATERIAL

EARTHWORK SUMMARY - ENTIRE PROJECT

THE INFORMATION ON ESTIMATED AMOUNTS OF EARTHWORK HAS BEEN USED IN THE PRELIMINARY ESTIMATE. DO NOT USE
AS A WAIVER OF ANY PROVISIONS OF THE SPECIFICATIONS AND CONTRACTS. (ALL QUANTITIES ARE APPROXIMATE.)

CUBIC YARDS OF EXCAVATION						ROCK, CLASS R-4 (SLOPE PROTECTION)	ROCK, CLASS R-6 (SLOPE PROTECTION)	CUBIC YDS. COMPLETED EMBANKMENT ****	CUBIC YDS. BORROW EXCAVATION	CUBIC YDS. OF WASTE *****	CUBIC YARDS OF SELECT BORROW *****
CLASS 1	CLASS 1A	CLASS 1B	CLASS 2*	CLASS 3**	CLASS 4*						
92,489	---	---	10,811	1,351	8,479	1,879	12	44,180	---	87,737	5,105

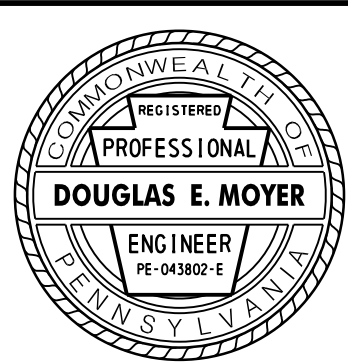


LOCATION MAP

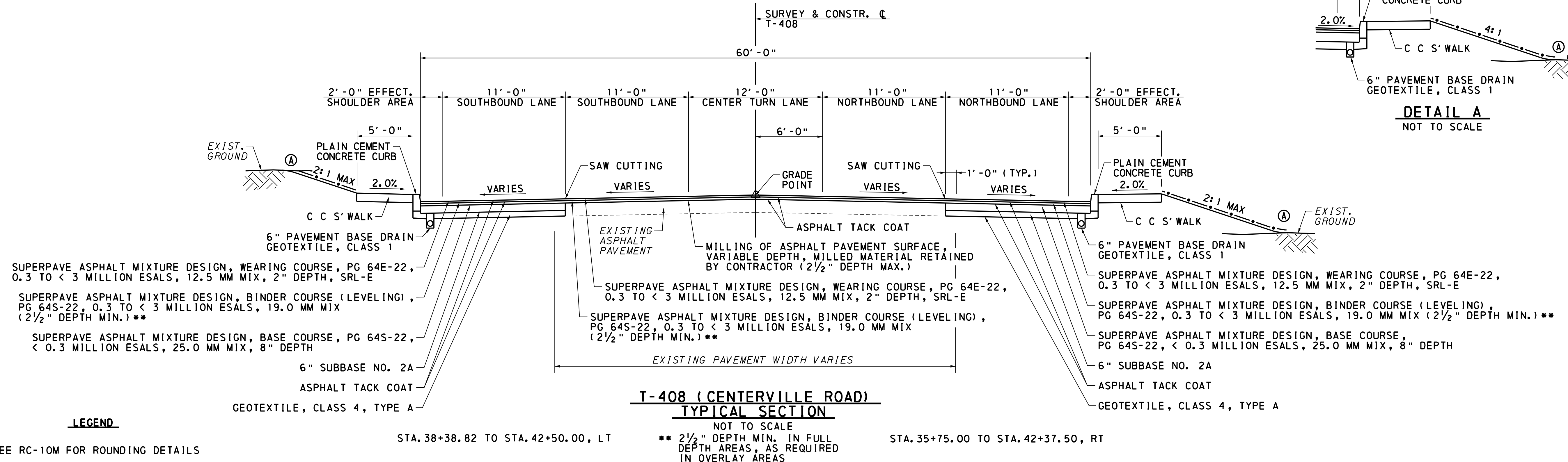
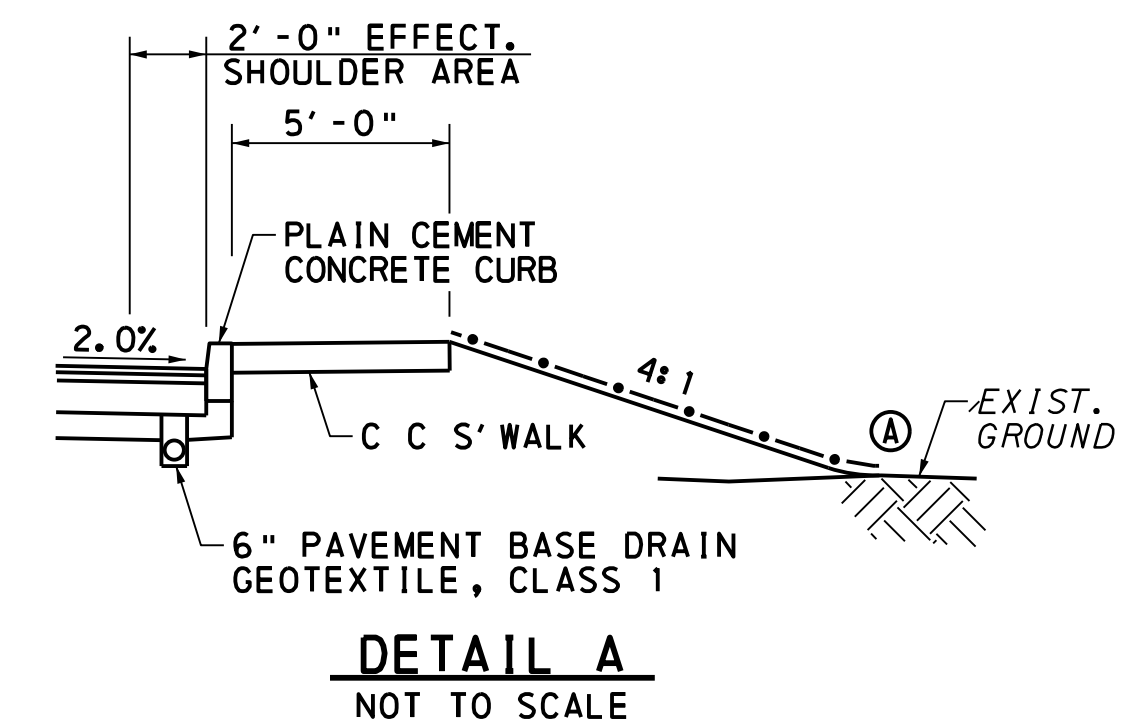
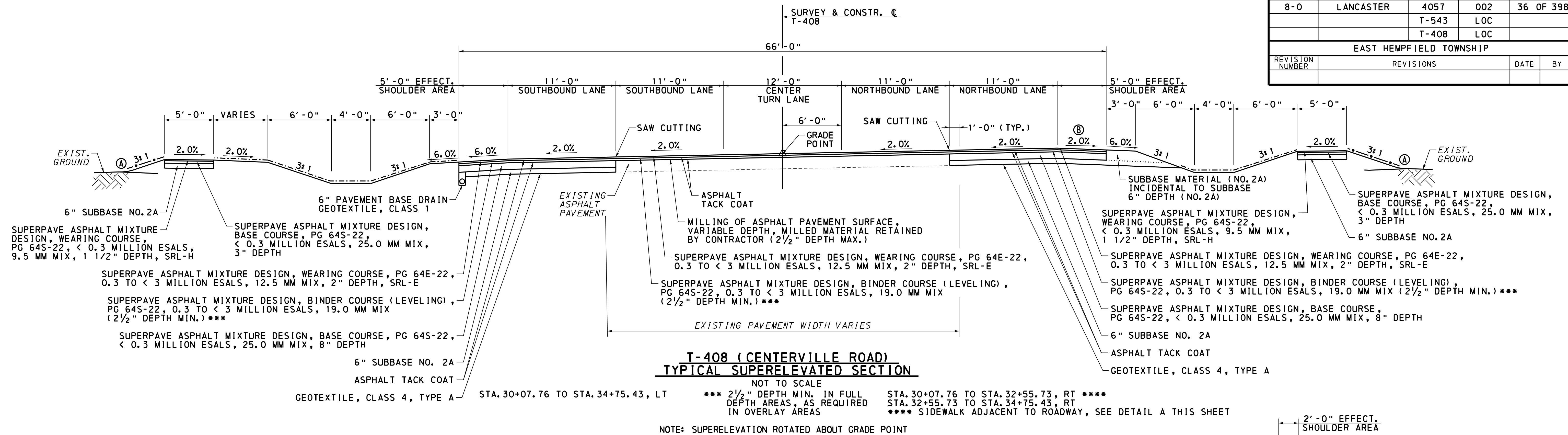
SCALE IN MILES
1 0 1 2

LEGEND

- PROJECT LOCATION
- STATE HIGHWAY
- TOWNSHIP ROAD
- TOWNSHIP LINE

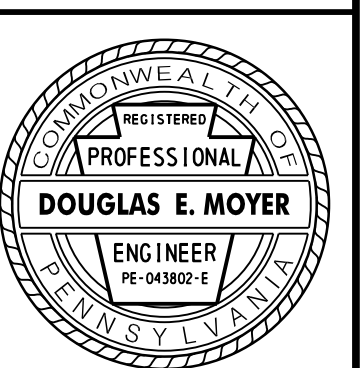


DISTRICT	COUNTY	ROUTE	SECTION	SHEET	
8-0	LANCASTER	4057	002	36 OF 398	
		T-543	LOC		
		T-408	LOC		
EAST HEMPFIELD TOWNSHIP					
REVISION NUMBER	REVISIONS			DATE	BY

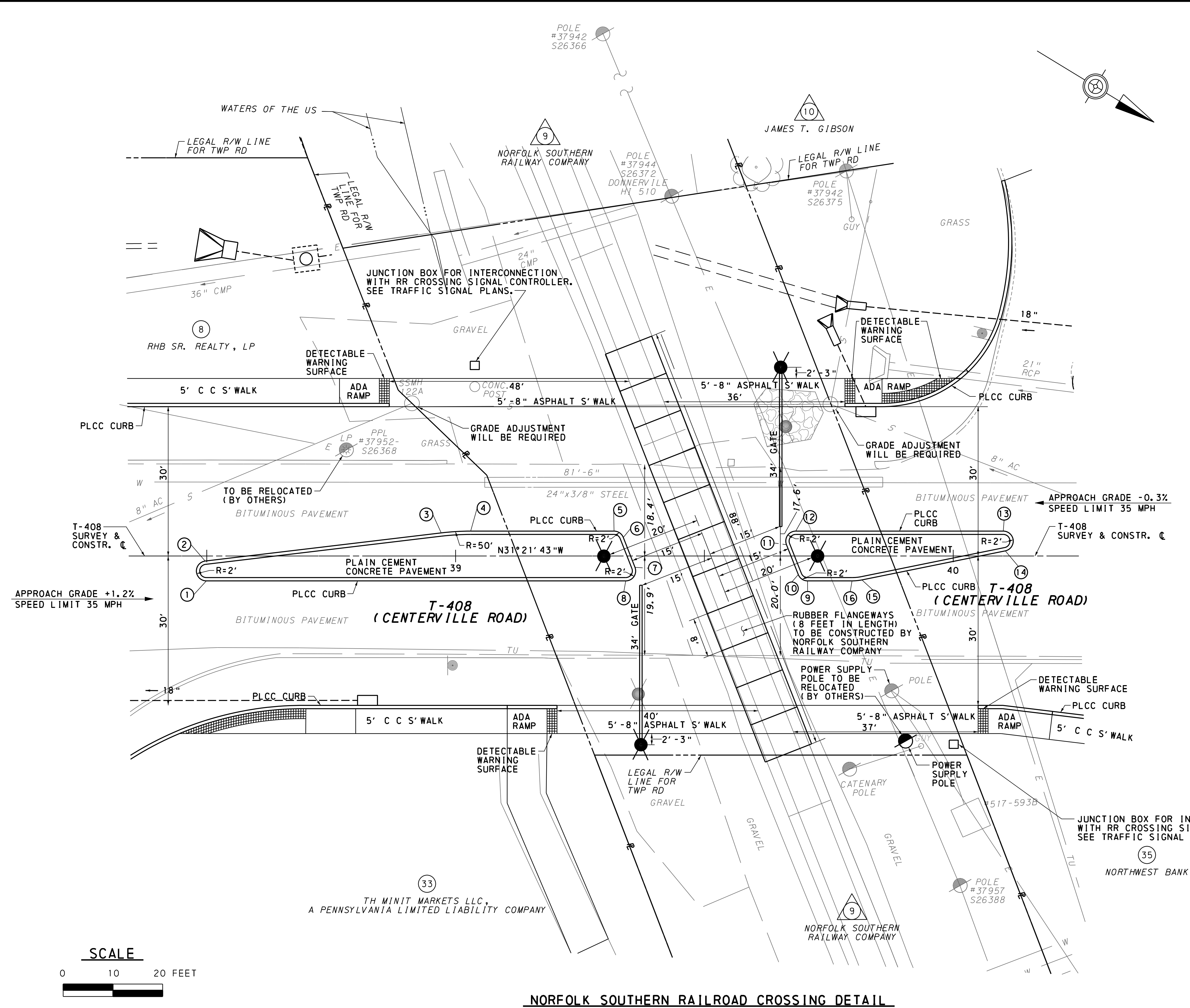


(A)	SEE RC-10M FOR ROUNDING DETAILS
(B)	SLOPE -2.00% WHEN RATE OF S/E EXCEEDS +2.00%
-.-.-.-.-	SEEDING AND SOIL SUPPLEMENTS - FORMULA B
-.-.-.-.-	SEEDING AND SOIL SUPPLEMENTS - FORMULA D
-.-.-.-.-	SEEDING AND SOIL SUPPLEMENTS - FORMULA L

EXISTING PAVEMENT WIDTH AT RAILROAD TRACKS
STA. 39+37.00 TO STA. 39+66.00 IS 38.0'
NOTE: SUPERELEVATION ROTATED ABOUT GRADE POINT



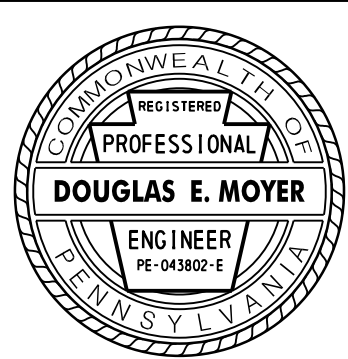
DISTRICT	COUNTY	ROUTE	SECTION	SHEET
8-0	LANCASTER	4057	002	61 OF 398
		T-543	LOC	
		T-408	LOC	
EAST HEMPFIELD TOWNSHIP				
REVISION NUMBER	REVISIONS			DATE
				BY



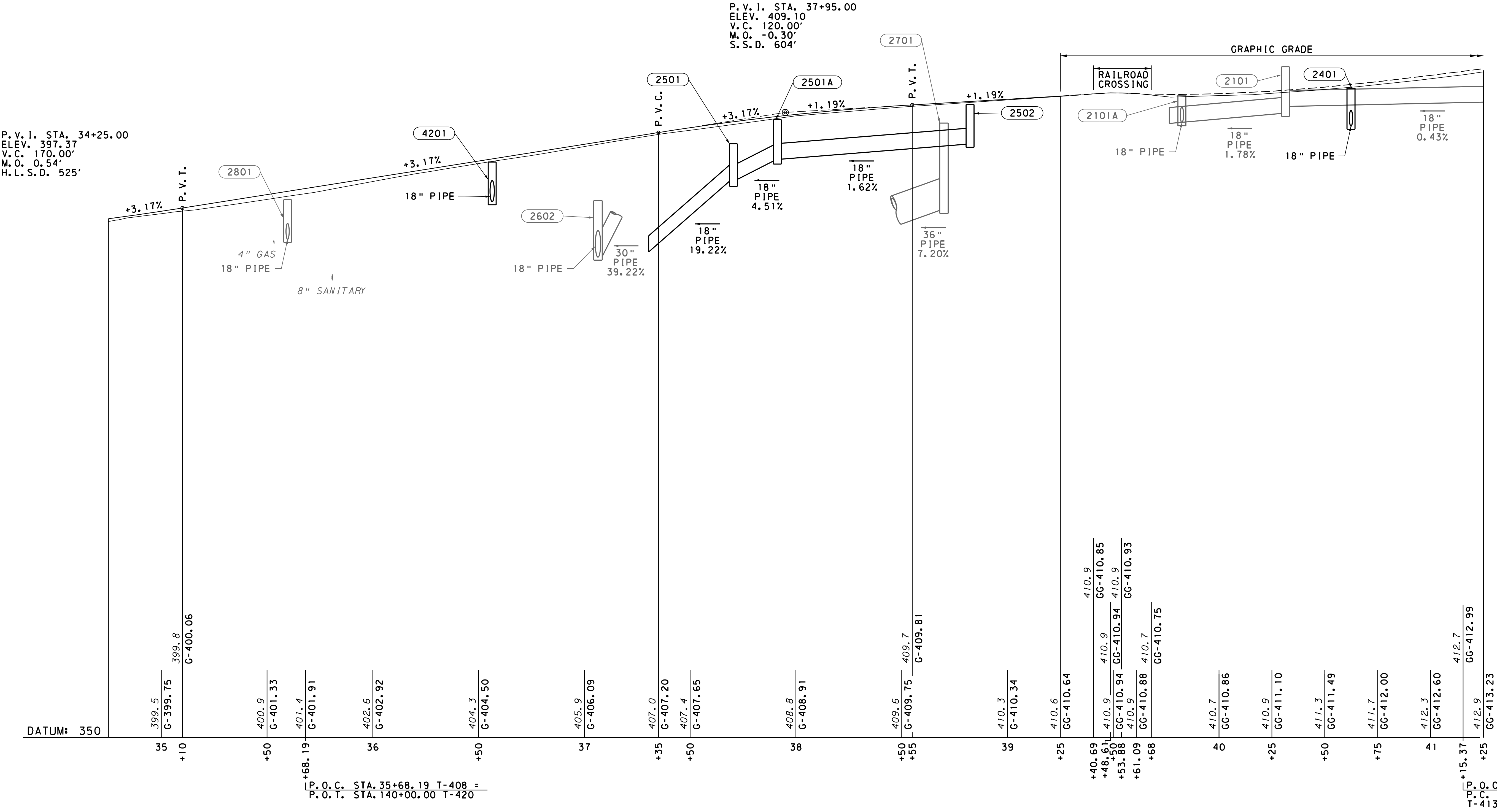
POINT	BASELINE	STATION	OFFSET (FEET)	GUTTERLINE ELEVATION (FEET)
1	T-408	38+49.92	5.00 RT	409.70
2	T-408	38+49.68	1.01 RT	409.73
3	T-408	38+97.11	4.65 LT	410.29
4	T-408	39+03.03	5.00 LT	410.39
5	T-408	39+31.84	5.00 LT	410.78
6	T-408	39+33.71	3.73 LT	410.79
7	T-408	39+36.05	2.27 RT	410.78
8	T-408	39+34.19	5.00 RT	410.73
9	T-408	39+70.73	5.00 RT	410.76
10	T-408	39+68.87	3.74 RT	410.75
11	T-408	39+66.50	2.26 LT	410.79
12	T-408	39+68.36	5.00 LT	410.76
13	T-408	40+10.07	5.00 LT	410.91
14	T-408	40+10.47	1.04 LT	410.95
15	T-408	39+81.66	4.80 RT	410.78
16	T-408	39+79.67	5.00 RT	410.77

- GENERAL NOTES**
1. THE CONTRACTOR WILL NOT BE PERMITTED TO STORE ANY EQUIPMENT OR MATERIALS ON NORFOLK SOUTHERN RAILWAY COMPANY PROPERTY WITHOUT PERMISSION FROM THE NORFOLK SOUTHERN ENGINEER.
 2. THE CONTRACTOR WILL COORDINATE WITH THE NORFOLK SOUTHERN SIGNAL DEPARTMENT FOR PROTECTION OF THE CROSSING GATE/FLASHER IMPACTED BY THE PROPOSED CONSTRUCTION.
 3. NORFOLK SOUTHERN FORCES WILL REMOVE AND INSTALL THE PROPOSED VEHICULAR CROSSING TO 2'-0" BEYOND THE OUTSIDE EDGE OF EACH RAIL. THE CONTRACTOR WILL COORDINATE WITH NORFOLK SOUTHERN FOR THE SCHEDULING OF THIS WORK AND WILL PROVIDE THE MAINTENANCE AND PROTECTION OF TRAFFIC FOR THE RAILROAD CROSSING DETOUR.
 4. NORFOLK SOUTHERN FORCES WILL REPLACE THE AT-GRADE CROSSING WARNING DEVICES (GATES AND LIGHTS).
 5. NORFOLK SOUTHERN EXPENSES ACCRUED TO SUPPORT THIS PROJECT WILL BE BILLED DIRECTLY TO EAST HEMPFIELD TOWNSHIP UNLESS OTHERWISE PROVIDED FOR IN THE CONSTRUCTION PLANS AND SPECIFICATIONS.

TH MINIT MARKETS LLC,
A PENNSYLVANIA LIMITED LIABILITY COMPANY

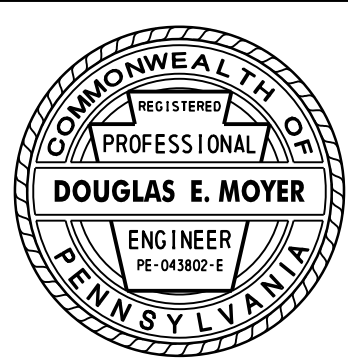


DISTRICT	COUNTY	ROUTE	SECTION	SHEET
8-0	LANCASTER	4057	002	352 OF 398
		T-543	LOC	
		T-408	LOC	
EAST HEMPFIELD TOWNSHIP				
REVISION NUMBER	REVISIONS			DATE
				BY

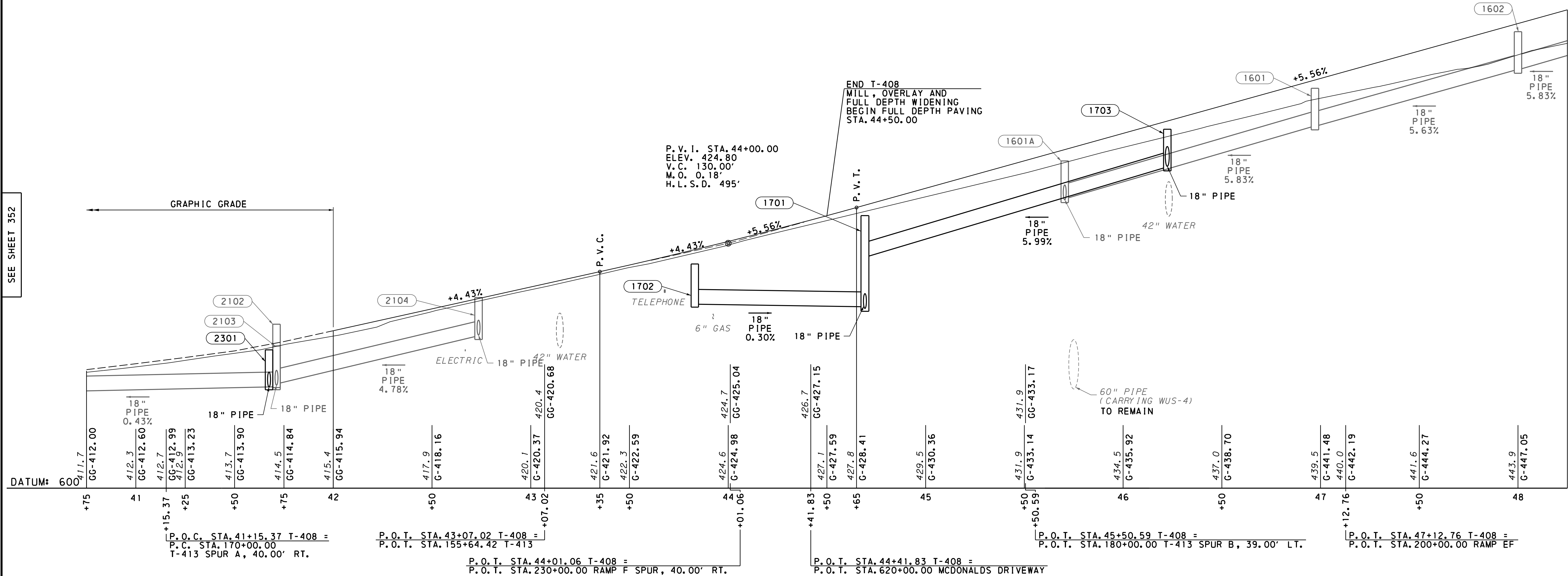


T-408
(CENTERVILLE ROAD)

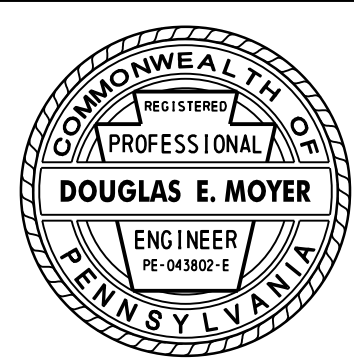
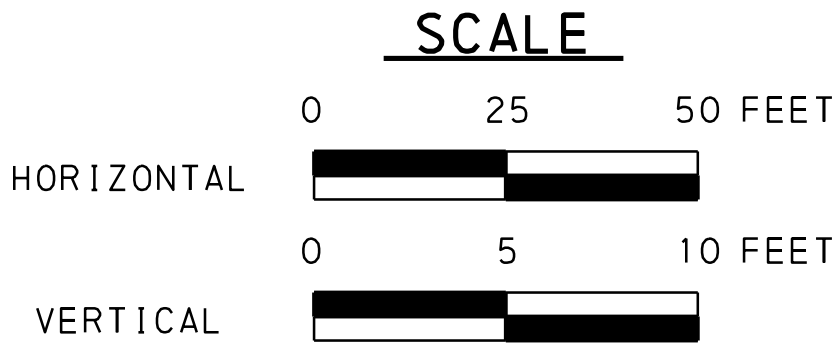
FOR PLAN, SEE SHEET 326



DISTRICT	COUNTY	ROUTE	SECTION	SHEET
8-0	LANCASTER	4057	002	353 OF 398
		T-543	LOC	
		T-408	LOC	
EAST HEMPFIELD TOWNSHIP				
REVISION NUMBER	REVISIONS			DATE
				BY



T-408
(CENTERVILLE ROAD)

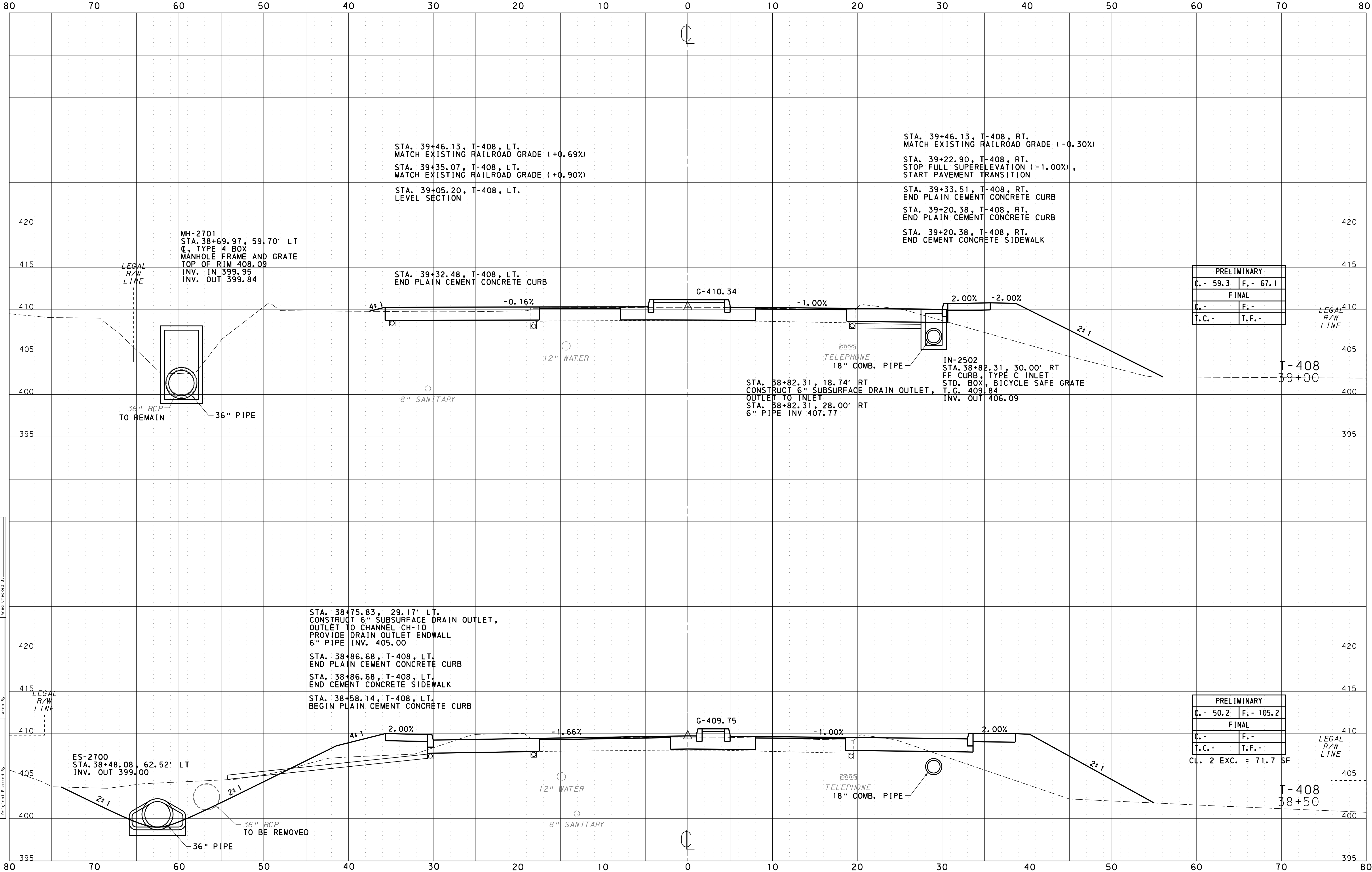


Dist.	County	Route	Sect.	Prelim. Bk. No.	Final Bk. No.	Sheet No.
8-0	LANCASTER	4057	002			40 OF 234

PLOTTED: Invalid expression

OPERATOR: Invalid expression
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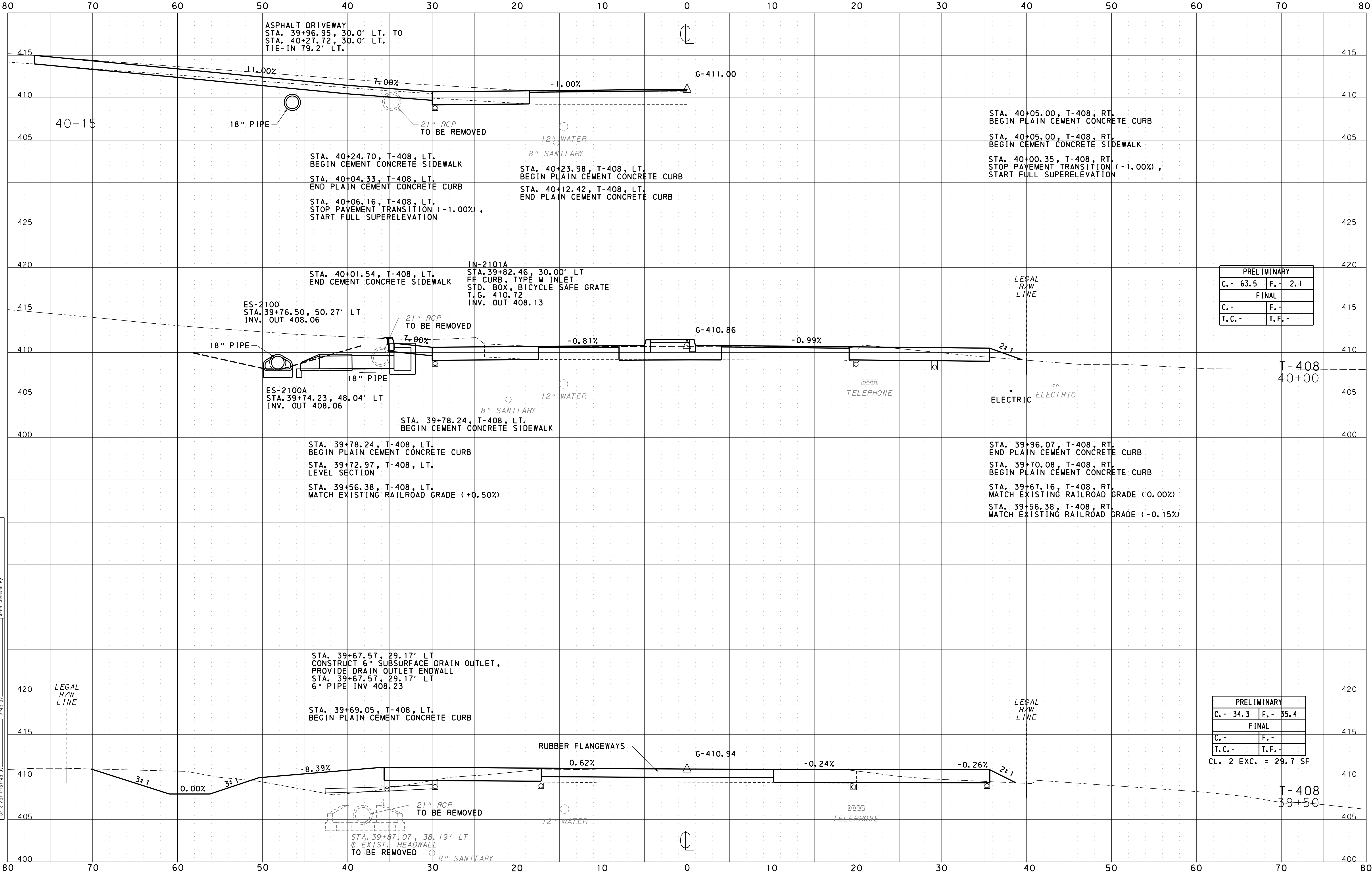
Finals Plotted By:	Original Checked By:
Finals Checked By:	Temp. Use By:
Area By:	Area Checked By:
Application No.	Route No.
Original Plotted By:	



Dist.	County	Route	Sect.	Prelim. Bk. No.	Final Bk. No.	Sheet No.
8-0	LANCASTER	4057	002			41 OF 234

OPERATOR: Invalid expression
FILE NAME: c:\pwork\ng\mt\k\inar\d\mt.com\d0249883\Xsec-Centerville Road.dgn

Application No.	Original Checked By	Finals Plotted By
Route No.	Temp. Use By	Finals Checked By
Original Plotted By	Area By	Area Checked By



PRELIMINARY	
C. - 63.5	F. - 2.1
FINAL	
C. -	F. -
T.C. -	T.F. -

PRELIMINARY	
C. - 34.3	F. - 35.4
FINAL	
C. -	F. -
T.C. -	T.F. -

CL. 2 EXC. = 29.7 SF

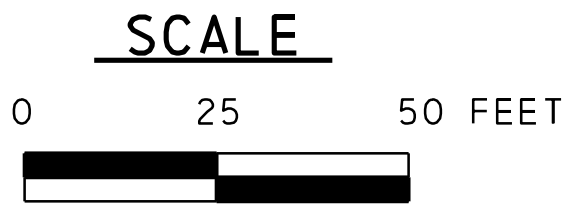
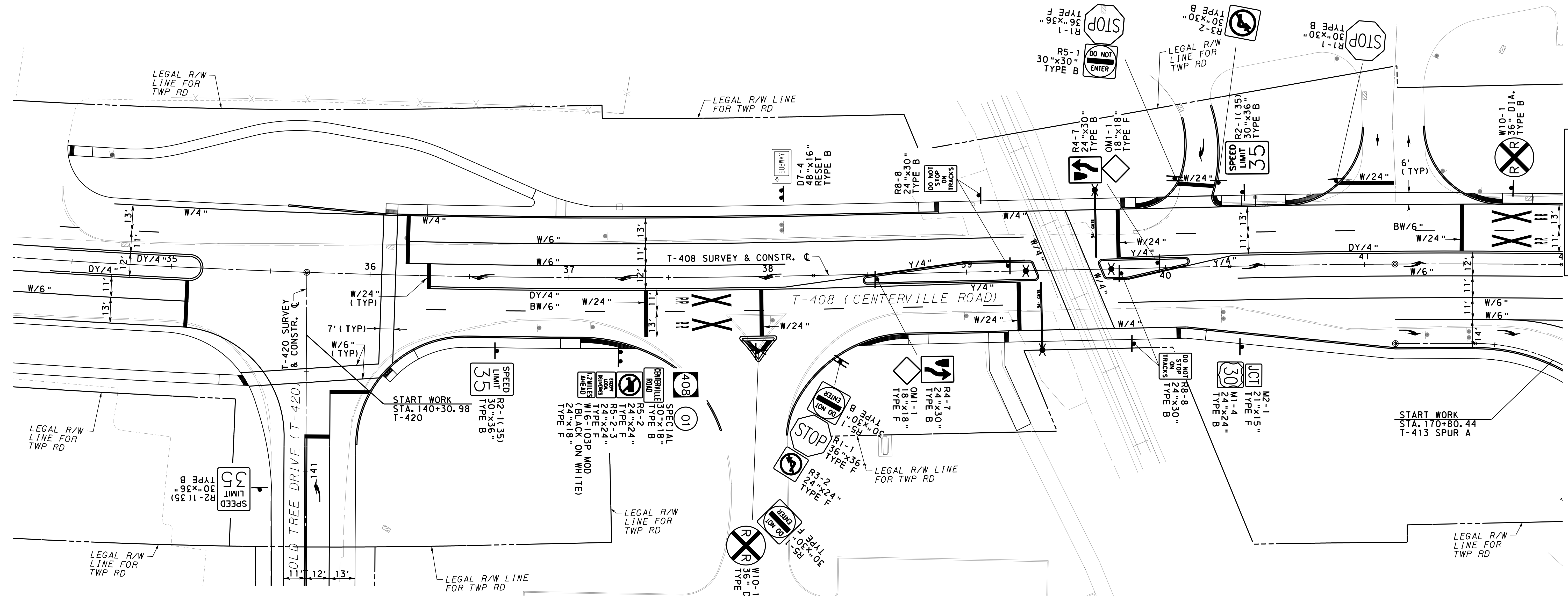
LEGEND

- W/4" - EXISTING WHITE LINE/WIDTH
BW/6" - EXISTING BROKEN WHITE LINE/WIDTH
DY/4" - EXISTING DOUBLE YELLOW LINE/WIDTH"
- EXISTING PAVEMENT MARKING SYMBOL
- EXISTING SIGN LOCATION
- PROPOSED SIGN LOCATION, 1 POST
- PROPOSED SIGN LOCATION, 2 POSTS
W/4" - SOLID WHITE LINE/WIDTH
W/6" - SOLID WHITE LINE/WIDTH
BW/6" - BROKEN WHITE LINE/WIDTH
AW/8" - AUXILIARY WHITE LINE/WIDTH
W/24" - SOLID WHITE LINE/WIDTH
DW/6" - DOTTED WHITE LINE/WIDTH
Y/4" - SOLID YELLOW LINE/WIDTH
DY/4" - SOLID DOUBLE YELLOW LINE/WIDTH
BY/4" - BROKEN YELLOW LINE/WIDTH
- PAVEMENT MARKING SYMBOL
- PAVEMENT MARKING LEGEND

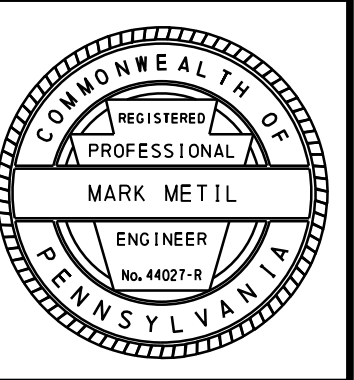
DISTRICT	COUNTY	ROUTE	SECTION	SHEET
8-0	LANCASTER	0030	145	30 OF 51
		4057	002	
		0023	002	
		T-543	LOC	
		T-408	LOC	
EAST HEMPFIELD TOWNSHIP				
REVISION NUMBER	REVISIONS	DATE	BY	

SEE PLAN SHEET 29 OF 51

SEE PLAN SHEET 32 OF 51

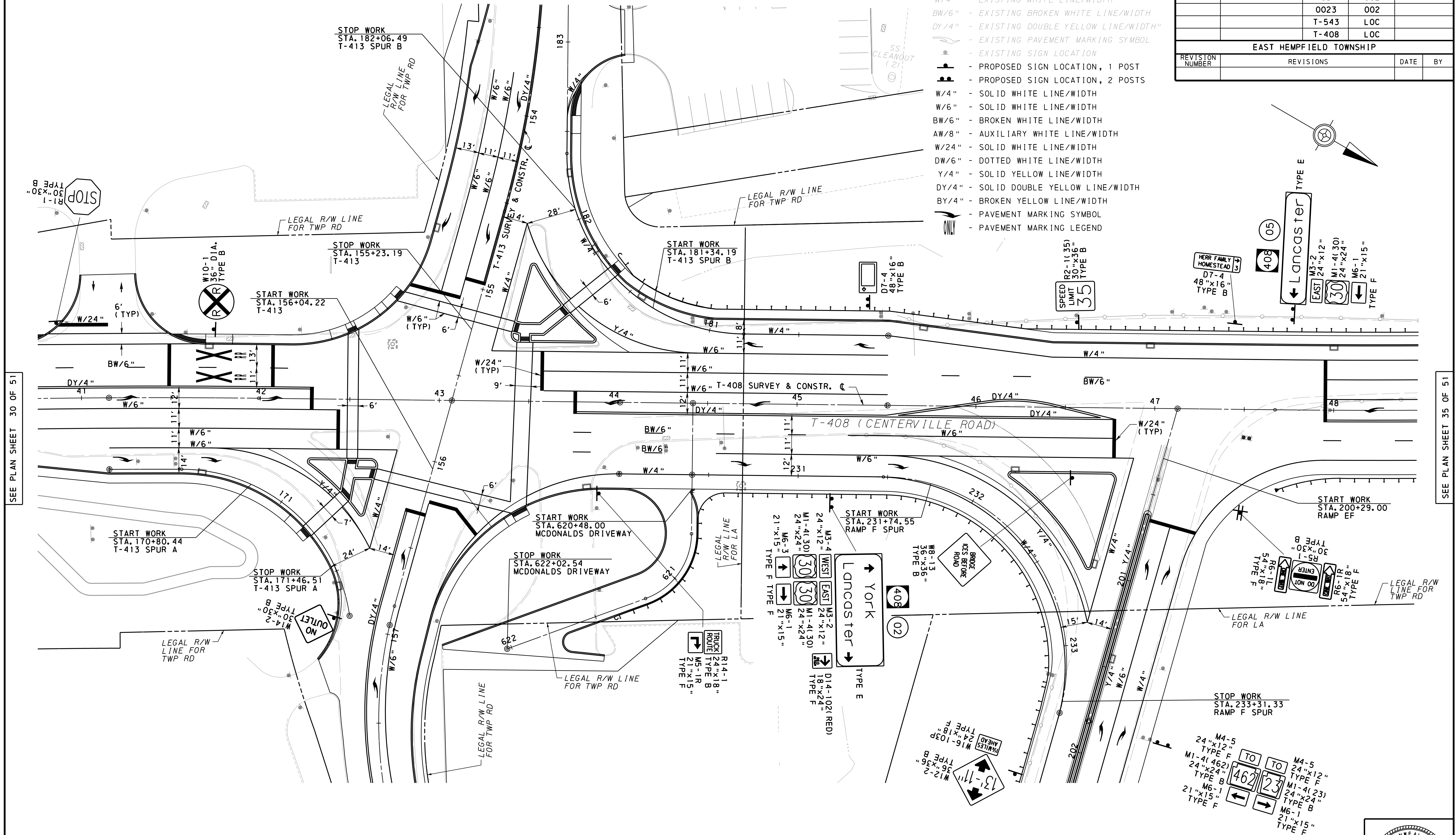


SIGNING AND
PAVEMENT MARKING PLAN

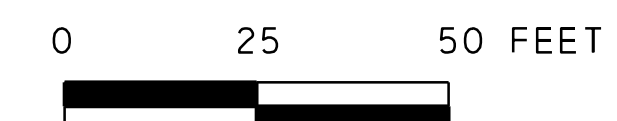


DISTRICT	COUNTY	ROUTE	SECTION	SHEET	
8-0	LANCASTER	0030	145	32 OF 51	
		4057	002		
		0023	002		
		T-543	LOC		
		T-408	LOC		
EAST HEMPFIELD TOWNSHIP					
REVISION NUMBER	REVISIONS			DATE	BY

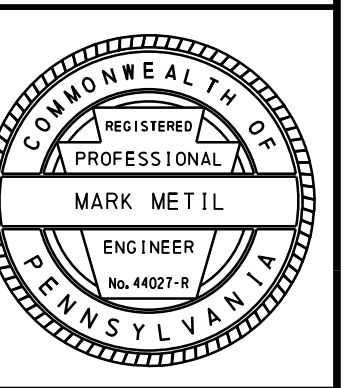
- W/4" - EXISTING WHITE LINE/WIDTH
- BW/6" - EXISTING BROKEN WHITE LINE/WIDTH
- DY/4" - EXISTING DOUBLE YELLOW LINE/WIDTH
-  - EXISTING PAVEMENT MARKING SYMBOL
-  - EXISTING SIGN LOCATION
-  - PROPOSED SIGN LOCATION, 1 POST
-  - PROPOSED SIGN LOCATION, 2 POSTS
- W/4" - SOLID WHITE LINE/WIDTH
- W/6" - SOLID WHITE LINE/WIDTH
- BW/6" - BROKEN WHITE LINE/WIDTH
- AW/8" - AUXILIARY WHITE LINE/WIDTH
- W/24" - SOLID WHITE LINE/WIDTH
- DW/6" - DOTTED WHITE LINE/WIDTH
- Y/4" - SOLID YELLOW LINE/WIDTH
- DY/4" - SOLID DOUBLE YELLOW LINE/WIDTH
- BY/4" - BROKEN YELLOW LINE/WIDTH
-  - PAVEMENT MARKING SYMBOL
-  - PAVEMENT MARKING LEGEND



SCALE



SIGNING AND PAVEMENT MARKING PLAN



DETECTION INFORMATION

DETECTOR	DETECTION ZONES & AREAS	MODE	ROUTE	LOCATION	PHASE
1	ZONES 1 & 2	PRESENCE	T-408 (CENTERVILLE RD.)	MAST ARM	02
2	ZONES 3 & 4	PRESENCE	T-408 (CENTERVILLE RD.)	MAST ARM	06
3	8 9 10 11 12	PRESENCE	T-408 (CENTERVILLE RD.)	MAST ARM	01
4	5 6 7	PRESENCE	T-420 (OLD TREE DR.)	MAST ARM	08
5	1 2 3 4	PRESENCE	T-408 (CENTERVILLE RD.)	MAST ARM	N/A

* DETECTION AREA IS USED EXCLUSIVELY FOR TRAFFIC VOLUME DATA COLLECTION.

ADVANCE DILEMMA ZONE NOTES (ZONES 1 & 4)

ESTIMATED TIME OF ARRIVAL: MIN 2.5 - MAX 5.5 SEC.
RANGE OF DETECTION: MIN 100 - MAX 350 FT. FROM STOP BAR
MINIMUM SPEED BOUNDARY: 25 MPH
ZONE MAY BE ADJUSTED IN THE FIELD.

DENSITY ZONE NOTES (ZONES 2 & 3)

RANGE OF DETECTION: MIN 0 - MAX 100 FT.
FROM STOP BAR
MINIMUM SPEED BOUNDARY: 1 MPH
ZONE MAY BE ADJUSTED IN THE FIELD.

DETECTOR NOTES

8 SECOND DELAY ON DETECTION AREA 5.
PUSHBUTTONS 1 & 3 CALL PEDESTRIAN PHASE 8.
PUSHBUTTONS 2 & 4 CALL PEDESTRIAN PHASE 2+6.
ALL PRESENCE DETECTION AREAS ARE USED FOR TRAFFIC VOLUME DATA COLLECTION.

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
8-0	LANCASTER	0030	145	8 OF 39
		4057	002	
		0023	002	
		T-543	LOC	
		T-408	LOC	
EAST HEMPFIELD TOWNSHIP				
REVISION NUMBER	REVISIONS	DATE	BY	

MATCHLINE A SHEET 9

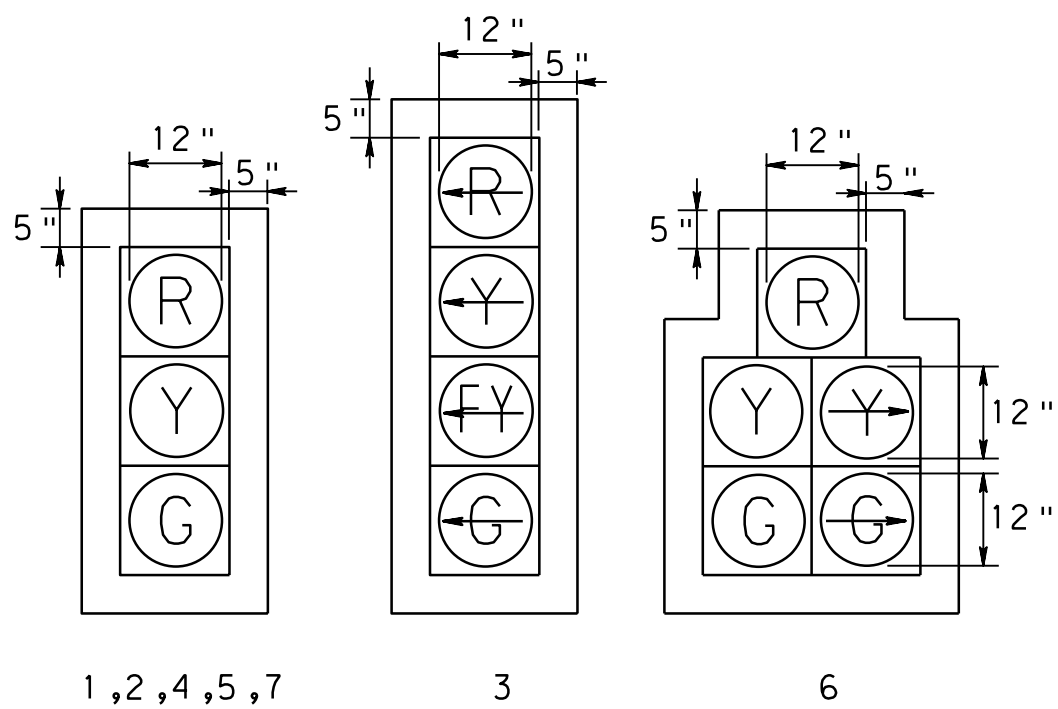
EXISTING

LEGEND

- | | | |
|--|------|---|
| | 4 | LUMINAIRE |
| | 4 | MAST ARM |
| | 4 | PEDESTAL |
| | 4 | VEHICULAR SIGNAL HEAD |
| | 4 | PEDESTRIAN SIGNAL HEAD |
| | 4 | EMERGENCY VEHICLE PREEMPTION DETECTOR |
| | 4 | EMERGENCY VEHICLE PREEMPTION CONFIRMATION LIGHT |
| | 4 | PRESENCE AREA DETECTOR |
| | 4 | ADVANCE DILEMMA ZONE DETECTOR |
| | 4 | SIGN |
| | 4 | PRESENCE DETECTION AREA / SIZE |
| | 4 | ADVANCE DILEMMA DETECTION ZONE / NUMBER |
| | 4 | PEDESTRIAN PUSH BUTTON |
| | 4 | PEDESTRIAN PUSH BUTTON / SIGN |
| | 4 | JUNCTION BOX |
| | C/2 | CONDUIT / SIZE |
| | CC4 | CONTROLLER ASSEMBLY |
| | W/4 | SOLID WHITE LINE / WIDTH |
| | Y/4 | SOLID YELLOW LINE / WIDTH |
| | BW/4 | BROKEN WHITE LINE / WIDTH |
| | DY/4 | DOUBLE YELLOW SOLID LINE / WIDTH |
| | BY/4 | BROKEN YELLOW LINE / WIDTH |
| | | PAVEMENT MARKING ARROW |

W/4"
Y/4"
BW/4"
DY/4"
BY/4"

SIGNALS



HAND/MAN ONE PIECE HOUSING LED



8, 9, 10, 11

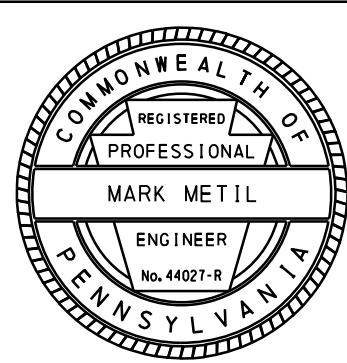
SIGNS

PLAN SYMBOL	SERIES DESIGNATION	DESCRIPTION	SIZE WxH	QTY.
A	R3-8A	LANE USE CONTROL (S-SR)	30"x30"	2
B	R3-8B	LANE USE CONTROL (L-S-S)	48"x30"	2
C	R3-8A	LANE USE CONTROL (L-R)	30"x30"	2
D	R10-12 FYA	LEFT TURN YIELD ON FLASHING YELLOW ARROW	36"x42"	1
E	R10-11	NO TURN ON RED	30"x36"	1
F	R10-10R	RIGHT TURN SIGNAL	30"x36"	1
G	D3-4	Centerville Rd	90"x16"	1
H	D3-4	Old Tree Dr	78"x16"	2
I	R10-3ER	EDUCATIONAL PUSH BUTTON FOR WALK SIGNAL WITH COUNTDOWN TIMER RIGHT	9"x15"	3
J	R10-3EL	EDUCATIONAL PUSH BUTTON FOR WALK SIGNAL WITH COUNTDOWN TIMER LEFT	9"x15"	1
K	R9-3	NO PEDESTRIAN CROSSING	18"x18"	2

NOTES:

EQUIP ALL VEHICULAR SIGNALS WITH BACKPLATES AND TUNNEL VISORS.

ALL BACKPLATES SHALL INCLUDE YELLOW RETROREFLECTIVE BORDERS.



COUNTY: LANCASTER

MUNICIPALITY: EAST HEMPFIELD TOWNSHIP

INTERSECTION: OLD TREE DRIVE (T-420) AND CENTERVILLE ROAD (T-408)

APPROVED AND ACCEPTED:

MUNICIPAL OFFICIAL DATE

RECOMMENDED:

DISTRICT TRAFFIC ENGINEER DATE

SCALE: 0 25' 50' FEET

MOVEMENT, SEQUENCE AND TIMING

	PHASE 1+6				PHASE 2+6				PHASE 8				EMERGENCY SB PRE-EMPTION				EMERGENCY NB PRE-EMPTION				EMERGENCY WB PRE-EMPTION				RAILROAD PRE-EMPTION				F L A S H I N G					
	INTERVALS				INTERVALS				INTERVALS				INTERVALS				INTERVALS				INTERVALS				INTERVALS									
SIGNALS	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4						
1,2	R	R	R	R	G	G	Y	R	R	R	R	R	SELECTIVE YELLOW	R	R	R	R	R	R	R	SELECTIVE YELLOW	R	R	R	R	SELECTIVE YELLOW	R	R	R	R	Y			
3	G	G	Y	R	R	Y	Y	R	R	R	R	R		G	Y	R	R	R	R	R		R	R	R	R		R	R	R	R	R	R	R	Y
4,5	G	G	Y	R	G	G	Y	R	R	R	R	R		G	Y	R	R	R	R	R		R	R	R	R		R	R	R	R	R	R	R	Y
6	R/G	R/G	R/Y	R	R	R	R	R	G	G	Y	R	SELECTIVE YELLOW	R	R	R	R	R	R	R	SELECTIVE YELLOW	R	R	R	R	SELECTIVE YELLOW	R	R	R	R	R	R		
7	R	R	R	R	R	R	R	R	G	G	Y	R		R	R	R	R	R	R	R		R	R	R	R		R	R	R	R	R	R	R	R
8,9	H	H	H	H	H	H	H	H	M	FH	H	H		H	H	H	H	H	H	H		H	H	H	H		H	H	H	H	H	H	H	OFF
10,11	H	H	H	H	M	FH	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	OFF			
FAIL-SAFE LAMP A	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF		
FAIL-SAFE LAMP B	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF		
FAIL-SAFE LAMP C	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF		
FIXED			3.6	2.8			3.6	2.8			3	4	①	②	③	④	①	②	③	④	①	②	③	④	①	②	③	④	①	49	④			
MINIMUM	3				10				3																									
PASSAGE	3				1				3																									
MAX I (FREE)	23				30				16																									
PED*					7	21			7	23																								
MEMORY	NON-LOCKING				MIN-RECALL				NON-LOCKING																									

NOTES:

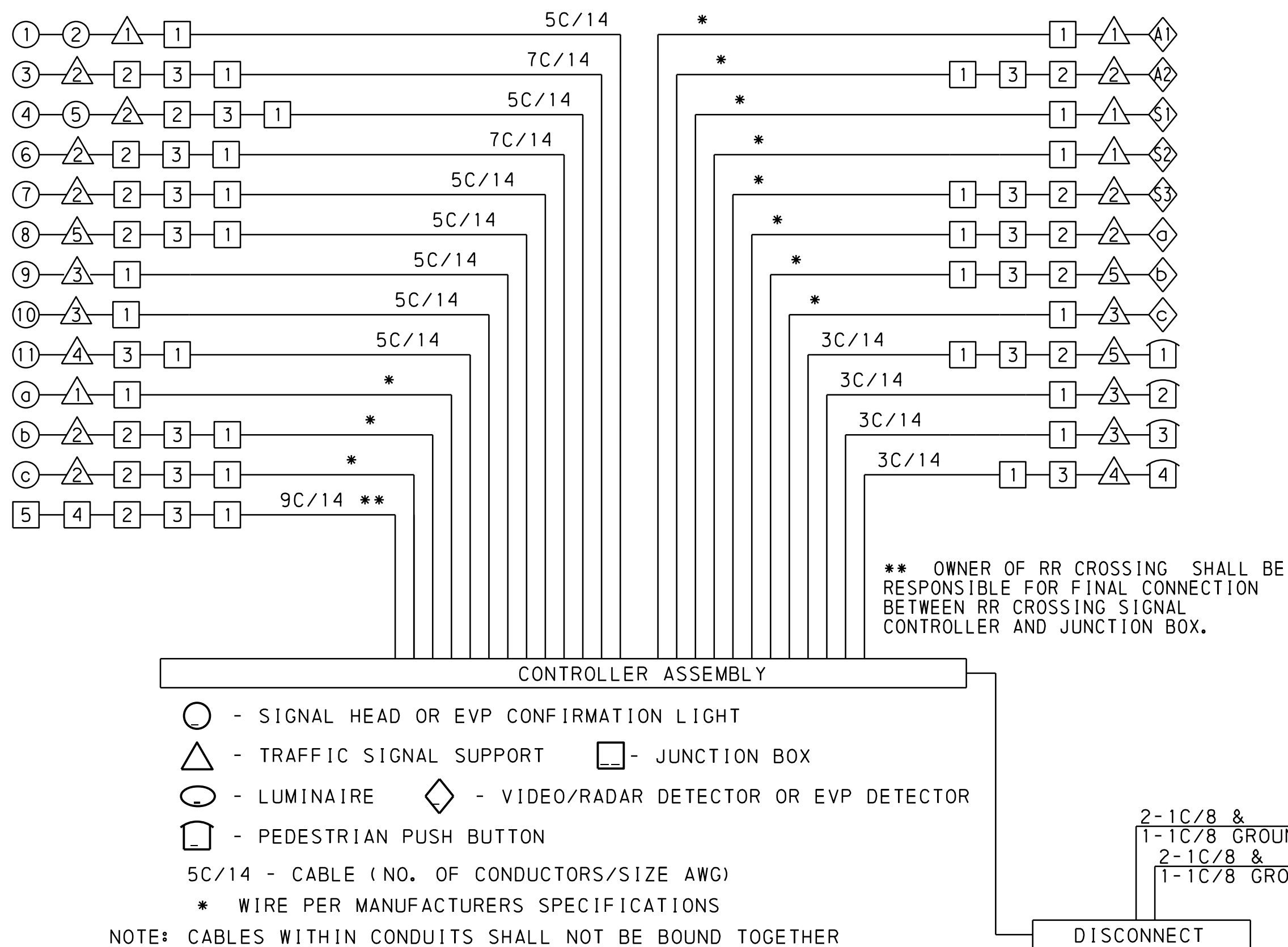
1. G IF FOLLOWED BY PHASE 2+6
2. R FROM 6AM TO 8PM
3. FY IF FOLLOWED BY PHASE 1+6. R FROM 6AM TO 8PM.
4. G IF FOLLOWED BY PHASE 1+6
5. Y/G IF FOLLOWED BY PHASE 1+6
6. R/G IF FOLLOWED BY PHASE 1+6
7. SELECTIVE YELLOW INCLUDES THE NORMAL ALL-RED PHASE INTERVAL
8. FOR DURATION OF PRE-EMPTION
9. NORMAL YELLOW AND ALL-RED PHASE TIMINGS SHALL BE UTILIZED

* UPON PEDESTRIAN ACTIVATION ONLY

LEGEND

EXISTING	PROPOSED	
	④	— ADVANCE DILEMMA DETECTION ZONE
W/4"	W/4"	— SOLID WHITE LINE / WIDTH
BW/6"	BW/6"	— BROKEN WHITE LINE / WIDTH
DY/4"	DY/4"	— DOUBLE YELLOW SOLID LINE / WIDTH
Y/4"	Y/4"	— SOLID YELLOW LINE / WIDTH
BY/4"	BY/4"	— BROKEN YELLOW LINE / WIDTH

WIRING DIAGRAM

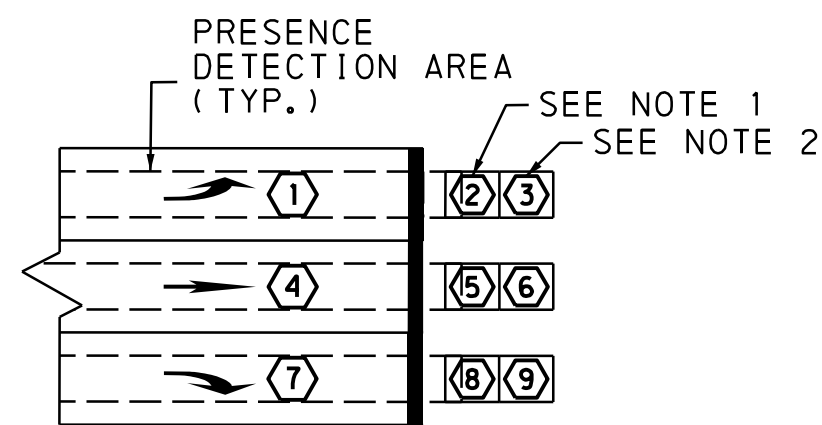
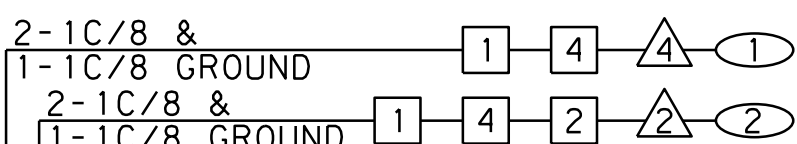


Centerville Rd

10.6"UC LET
8"LC LET
CLEARVIEW 2W

05.1 -
08.4 - C
06.6 - e
06.0 - n
04.4 - t
06.6 - e
03.8 - r
06.1 - v
03.6 - i
03.7 - i
03.4 - i
05.5 - e
08.0 - R
08.2 - R
05.6 - d
05.0 -

90.0



1. LOCATE A DETECTION ZONE IN FRONT OF THE STOP LINE WITHIN EACH APPROACH LANE TO COUNT ENTERING VEHICLES.
2. LOCATE A DETECTION ZONE IN FRONT OF THE TRAFFIC COUNT DETECTION ZONE TO DETECT ACTUATIONS DURING THE YELLOW CHANGE AND RED CLEARANCE INTERVALS FOR ALL APPROACH LANES EXCEPT FOR CHANNELIZED RIGHT TURN LANES AND RIGHT TURN LANES WHERE RIGHT-TURN-ON-RED MOVEMENTS ARE PERMITTED.
3. EACH DETECTION ZONE SHALL BE ON A DEDICATED DETECTOR CHANNEL.

DETECTION ZONE DETAIL FOR AUTOMATED
TRAFFIC SIGNAL PERFORMANCE MEASURES (ATSPM)
NOT TO SCALE

Old Tree Dr

10.6"UC LET
8"LC LET
CLEARVIEW 2W

03.3 -
10.2 - 0
03.4 - i
05.6 - d
08.0 -
07.7 - T
04.2 - r
06.4 - e
05.5 - e
08.0 -
09.0 - D
03.4 - r
03.3 -

RAILROAD PRE-EMPTION NOTES

THE VEHICULAR TRAFFIC SIGNAL CONTROLLER IS INTERCONNECTED WITH THE EXISTING RAILROAD CROSSING PROTECTION. WHEN THE RAILROAD CROSSING PROTECTION IS ACTIVATED, THE VEHICULAR TRAFFIC SIGNAL CONTROLLER WILL PROVIDE THE RAILROAD PRE-EMPTION PHASE. RAILROAD PRE-EMPTION MAY OCCUR DURING ANY INTERVAL OF THE NORMAL OPERATION. RAILROAD PRE-EMPTION SHALL HAVE PRIORITY OVER EMERGENCY VEHICLE PRE-EMPTION. NOTE: MINIMUM GREEN FOR ANY PHASE MUST BE SERVED.

THEREFORE, IF RAILROAD PRE-EMPTION OCCURS:

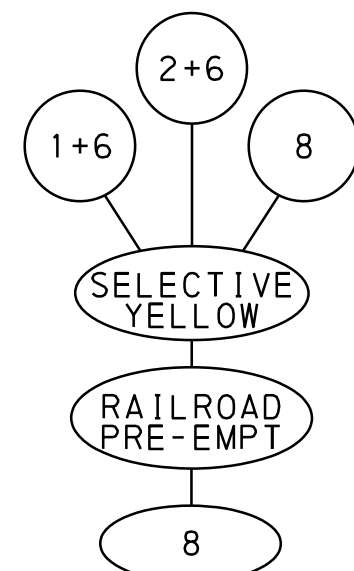
1. TERMINATE ANY WALK INTERVAL IMMEDIATELY, FOLLOWED BY A CLEARANCE INTERVAL OF 10 SECONDS PRIOR TO GOING TO INTERVAL 1 OF THE RAILROAD PRE-EMPTION PHASE.
2. ANY GREEN INDICATION UNDER NORMAL OPERATION OR DURING EMERGENCY PRE-EMPTION, EXCEPT THE GREEN INDICATIONS FOR SIGNALS 3, 4, AND 5, SHALL BE FOLLOWED IMMEDIATELY BY INTERVAL 1 OF THE RAILROAD PRE-EMPTION PHASE AFTER THE MINIMUM GREEN TIME HAS BEEN SERVED.
3. ANY YELLOW INDICATION SHALL TIME OUT AND BE FOLLOWED BY THE NORMAL ALL-RED INTERVAL AND BE FOLLOWED IMMEDIATELY BY INTERVAL 2 OF THE RAILROAD PRE-EMPTION PHASE.
4. ANY ALL-RED INTERVAL SHALL TIME OUT AND BE FOLLOWED IMMEDIATELY BY INTERVAL 2 OF THE RAILROAD PRE-EMPTION PHASE.

IF RAILROAD PRE-EMPTION OCCURS DURING EMERGENCY FLASHING, SIGNALS SHALL REMAIN IN EMERGENCY FLASHING.

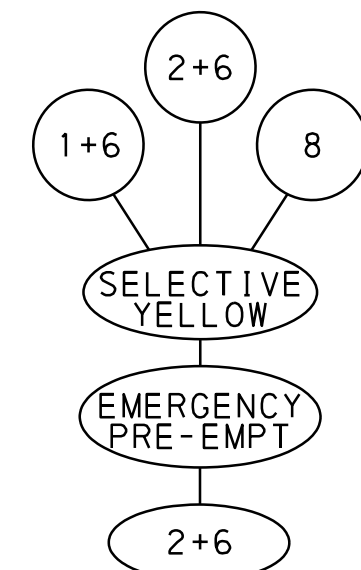
IF EMERGENCY VEHICLE PRE-EMPTION OCCURS DURING THE RAILROAD PRE-EMPTION, THE VEHICULAR TRAFFIC SIGNAL CONTROLLER SHALL CONTINUE IN THAT RAILROAD PRE-EMPTION INTERVAL.

UPON TERMINATION OF INTERVAL 4 OF THE RAILROAD PRE-EMPTION PHASE, THE VEHICULAR TRAFFIC SIGNAL CONTROLLER SHALL PROCEED TO INTERVAL 1 OF PHASE 8.

RAILROAD
PRE-EMPTION SEQUENCE



EMERGENCY VEHICLE
PRE-EMPTION SEQUENCE



EMERGENCY PRE-EMPTION NOTES

CONTROLLER TO BE EQUIPPED WITH EMERGENCY PRE-EMPTION FOR ALL APPROACHES. THE SIGNALS, WHEN ACTUATED BY EMERGENCY VEHICLES, SHALL PROVIDE AN APPROPRIATE SELECTIVE YELLOW TIME, FOLLOWED BY A GREEN INDICATION FOR THE EMERGENCY PRE-EMPTION PHASE AND A RED INDICATION FOR ALL OTHER PHASES. PRE-EMPTED APPROACH SHALL PROVIDE AN INDICATION (FAIL-SAFE LAMP) TO THE DRIVER OF THE APPROACHING EMERGENCY VEHICLE WHEN THE EQUIPMENT HAS PREEMPTED THE TRAFFIC SIGNAL FOR THAT APPROACH. THE FAIL-SAFE INDICATION SHALL BE A FLASHING WHITE LIGHT ON THE APPROACH FOR WHICH PRE-EMPTION IS PROVIDED. IF EMERGENCY PRE-EMPTION OCCURS DURING FLASHING, ALL SIGNALS SHALL REMAIN FLASHING.

IF THE SIGNALS HAVE BEEN ACTUATED BY PEDESTRIAN PUSH BUTTON, AND THE SIGNAL IS PRE-EMPTED, TERMINATE THE WALK INTERVAL IMMEDIATELY FOLLOWED BY THE APPROPRIATE FOW INTERVAL FOR ITS REQUIRED FULL DURATION. RAILROAD PRE-EMPTION SHALL HAVE PRIORITY OVER EMERGENCY VEHICULAR PRE-EMPTION PHASE.

COUNTY: LANCASTER

MUNICIPALITY:

EAST HEMPFIELD TOWNSHIP

INTERSECTION:

OLD TREE DRIVE (T-420) AND

CENTERVILLE ROAD (T-408)

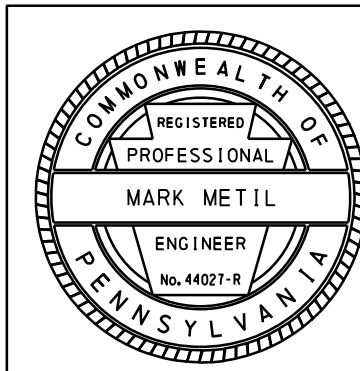
APPROVED AND ACCEPTED:

MUNICIPAL OFFICIAL DATE

RECOMMENDED:

DISTRICT TRAFFIC ENGINEER DATE

SCALE: 0 25' 50' FEET



TRAFFIC SIGNAL SUPPORTS**																																					
STRUC. NO.	ITEM NO.	DESCRIPTION	ROUTE	STATION	SIDE	OFFSET	H*	K	MAST ARM																				PEDESTAL								
									ARM "A"										ARM "B"										ARM "C"			SHAFT					
									SIGNAL LOCATION					SIGN LOCATION					W	L	SIGNAL LOCATION					SIGN LOCATION					Y	G	X	Z	H	M	N
									L	M	N	O	P	R	S	T	U	M			N	O	P	R	S	T	U										
①	0951-2130	TRAFFIC SIGNAL SUPPORT, 30' MAST ARM WITH LUMINAIRE ARM (30' MOUNTING HEIGHT)	T-408	36+33.6	RT	40.0'	17'			35'	27'	17'			11'				0°									15'	30'	62°							
②	9000-0708	TRAFFIC SIGNAL SUPPORT, DUAL MAST ARM, 30' AND 45' WITH LUMINAIRE ARM (30' MOUNTING HEIGHT)	T-408	35+58.5	LT	39.9'	17'			45'	38'	27'	16'		34'	12'			0°	30'	28'	20'			26'	22'	4'		90°	15'	30'	47°					
③	0951-4012	TRAFFIC SIGNAL SUPPORT, 12' PEDESTAL	T-408	36+14.3	RT	52.9'																									12'		9'				
④	0951-4012	TRAFFIC SIGNAL SUPPORT, 12' PEDESTAL	T-408	35+29.3	LT	51.5'																									12'		9'				
⑤	0951-4012	TRAFFIC SIGNAL SUPPORT, 12' PEDESTAL	T-408	36+10.9	RT	37.2'																									12'		9'				

* CONTRACTOR TO ASSUME RESPONSIBILITY FOR VERIFICATION OF ROADWAY AND TOP OF FOUNDATION ELEVATION TO ENSURE PROPER VERTICAL CLEARANCE PRIOR TO DETERMINING THIS DIMENSION.
** REFER TO TRAFFIC STANDARDS - SIGNALS, TC-8800 SERIES, FOR LETTER DESIGNATIONS.

GENERAL NOTES

INSTALL, OPERATE AND MAINTAIN THIS TRAFFIC SIGNAL IN ACCORDANCE WITH PENNSYLVANIA DEPARTMENT OF TRANSPORTATION REGULATIONS ON OFFICIAL TRAFFIC CONTROL DEVICES.

NO MODIFICATION OF THIS INSTALLATION IS PERMITTED UNLESS PRIOR APPROVAL IS GRANTED, IN WRITING, BY THE DEPARTMENT.

ALL MAINTENANCE NECESSARY FOR PROPER VISIBILITY OF THE SIGNALS, INCLUDING TRIMMING TREES, IS THE RESPONSIBILITY OF THE PERMITTEE.

THE PERMITTEE INSTALLS AND MAINTAINS ALL SIGNS AND PAVEMENT MARKINGS INDICATED ON THIS DRAWING WHICH ARE CONSIDERED PART OF THE PERMIT, UNLESS OTHERWISE INDICATED. THE DEPARTMENT MAINTAINS THE LONGITUDINAL PAVEMENT MARKINGS ON STATE HIGHWAYS.

INSTALL POST MOUNTED SIGNALS WITH THE SUPPORT AND SIGNAL HEADS AT A MINIMUM HORIZONTAL CLEARANCE OF 2 FEET BEHIND FACE OF CURB OR, IF NO CURB, A MINIMUM OF 2 FEET FROM EDGE OF SHOULDER AND 10 FEET FROM EDGE OF TRAVELWAY. INSTALL SUPPORT POLES FOR OVERHEAD SIGNALS OR ANY SIGNAL EQUIPMENT TO BE INSTALLED ON POLES AT A MINIMUM HORIZONTAL CLEARANCE OF 2 FEET BEHIND FACE OF CURB.

INSTALL SIGNAL HEADS AND SIGNS ERECTED OVER THE ROADWAY WITH THE BOTTOMS NOT LESS THAN 17 FEET NOR MORE THAN 19 FEET ABOVE THE ROADWAY.

INSTALL POST POST MOUNTED SIGNAL HEADS WITH BOTTOMS NOT LESS THAN 8 FEET NOR MORE THAN 15 FEET ABOVE THE SIDEWALK OR PAVEMENT GRADE.

INSTALL SIGNAL HEADS WITH A MINIMUM HORIZONTAL DISTANCE OF 8 FEET BETWEEN THE HEADS MEASURED AT RIGHT ANGLES TO THE APPROACH.

IN ADDITION TO THIS SIGNAL PERMIT, THE PERMITTEE MUST OBTAIN A HIGHWAY OCCUPANCY PERMIT PRIOR TO ANY OPENINGS BEING MADE IN OR UNDER ANY PORTION OF A STATE HIGHWAY.

THIS DRAWING CANNOT BE USED AS A CONSTRUCTION DRAWING UNLESS THE PERMITTEE COMPLIES WITH THE MOST RECENT ACT FOR PREVENTION OF DAMAGE TO UNDERGROUND UTILITIES. PRIOR TO CONSTRUCTION CONSULT WITH UTILITY COMPANIES TO RESOLVE ANY PROBLEMS WHICH MAY BE CREATED DUE TO THE LOCATION OF UTILITIES.

CONSTRUCTION NOTES

- A REPRESENTATIVE OF THE COMPANY SUPPLYING THE CONTROLLER SHALL BE PRESENT DURING THE ACTIVATION OF ALL TRAFFIC SIGNALS INCLUDED IN THIS PROJECT.
- PROVIDE TRAFFIC SIGNAL CONTROLLER CABINET LARGE ENOUGH TO SUITABLY ACCOMMODATE THE TRAFFIC SIGNAL CONTROLLER AND ALL REQUIRED EQUIPMENT. CABINET SHALL BE LARGE ENOUGH SO THAT ALL EQUIPMENT IS VISIBLE, ACCESSIBLE AND NOT STACKED ON TOP OF OTHER EQUIPMENT WITHIN THE CABINET.
- AT ALL LOCATIONS WHERE SURGE PROTECTION IS REQUIRED, PROVIDE MOV TYPE POWER LINE SURGE PROTECTION THAT IS UL 1449 LISTED. THE RATING SHALL HAVE A MINIMUM SURGE PROTECTION OF 50KVA AND A RESPONSE TIME OF LESS THAN ONE NANO-SECOND. ALSO INCLUDE SURGE PROTECTION FROM NEUTRAL TO GROUND IN CONTROLLER CABINET. WIRE SURGE PROTECTION IN ACCORDANCE WITH MANUFACTURERS SPECIFICATION FOR ALL MODES (L-L, L-N, L-G, N-G) THAT APPLY OR ARE OBTAINABLE WITH RESPECT TO SURGE PROTECTION MODEL AND POWER SOURCE. PROVIDE SURGE PROTECTION UNIT WITH STATUS INDICATOR SHOWING DEVICE FAILURE.
- CONTROLLER ASSEMBLY SHALL BE EQUIPPED WITH GENERATOR ADAPTOR CAPABLE OF OPERATING THE TRAFFIC SIGNAL, COMPATIBLE WITH THE MUNICIPAL GENERATOR, IN CASE OF A POWER OUTAGE.
- ALL PEDESTALS SHALL HAVE BREAKWAY DESIGN.

MISCELLANEOUS

ITEM NO.	QUAN.	UNIT	DESCRIPTION	LOCATION
0954-0403	1	EACH	ELECTRICAL SERVICE, TYPE C	CC3
0954-0600	1	EACH	UNINTERRUPTABLE POWER SUPPLY (UPS)	CC3
0955-3208	5	EACH	VEHICULAR SIGNAL HEAD, THREE 12" SECTIONS	POLES 1(2), 2(3)
0955-3209	1	EACH	VEHICULAR SIGNAL HEAD, FOUR 12" SECTIONS	POLES 2(1)
0955-3210	1	EACH	VEHICULAR SIGNAL HEAD, FIVE 12" SECTIONS	POLES 2(1)
0955-3722	4	EACH	LED COUNTDOWN PEDESTRIAN SIGNAL HEAD, TYPE A	POLES 3(2), 4(1), 5(1)
0956-0500	4	EACH	PEDESTRIAN PUSH BUTTON	POLES 3(2), 4(1), 5(1)
0956-0801	1	EACH	OPTICAL PREEMPTION SYSTEM	CC3
9000-0701	1	EACH	RAILROAD PREEMPTION CONNECTION (OLD TREE DRIVE)	CC3
9000-0704	1	EACH	TRAFFIC SIGNAL TIMING ADJUSTMENTS	AS DIRECTED
9000-0705	1	EACH	NEMA TS-2; TYPE 2 CONTROLLER ASSEMBLY, TYPE 1 MOUNTING WITH RAILROAD PREEMPTION	CC3
9000-0706	2	EACH	LED LUMINAIRE, ARM MOUNT	POLE 1, LUMINAIRE 2; POLE 2, LUMINAIRE 1
9000-0711	2	EACH	RADAR DETECTOR, ADVANCE/DILEMMA	POLES 1(1), 2(1)
9000-0712	3	EACH	RADAR DETECTOR, PRESENCE	POLES 1(2), 2(1)

* INCIDENTAL TO ITEM #0956-0500

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
8-0	LANCASTER	0030	145	10 OF 39
		4057	002	
		0023	002	
		T-543	LOC	
		T-408	LOC	
EAST HEMPFIELD TOWNSHIP				
REVISION NUMBER	REVISIONS			DATE BY

TRENCH, CONDUIT, JUNCTION BOX, ELECTRICAL ITEMS

DESCRIPTION	JUNCTION BOX, JB-2	AWG 8 UNDERGROUND CABLE, COPPER, 1 CONDUCTOR	2 INCH CONDUIT	4 INCH CONDUIT	TRENCH AND BACKFILL, TYPE I	TRENCH AND BACKFILL, TYPE II	TRENCH AND BACKFILL, TYPE III	SIGNAL CABLE, 14 AWG, 3 CONDUCTOR	SIGNAL CABLE, 14 AWG, 5 CONDUCTOR	SIGNAL CABLE, 14 AWG, 7 CONDUCTOR	JUNCTION BOX, JB-27	SIGNAL CABLE, 14 AWG, 9 CONDUCTOR
ITEM NO.	0910 0002	0910 4116	0954 0012	0954 0014	0954 0151	0954 0152	0954 0153	0954 0201	0954 0202	0954 0203	0954 0302	9000 0700
UNIT	EACH	LF	LF	LF	LF	LF	LF	LF	LF	LF	EACH	LF
LOCATION												
CONTROLLER CABINET TO JUNCTION BOX 1	1		13	26	5							
JUNCTION BOX 1 TO JUNCTION BOX 3			107	107	10	17	72				1	
JUNCTION BOX 2 TO JUNCTION BOX 3			95	95	7	7	73				1	
JUNCTION BOX 3 TO JUNCTION BOX 4			163			139	16				1	163
JUNCTION BOX 4 TO JUNCTION BOX 5			199			191					1	199
POLE 1 TO JUNCTION BOX 1			22	22	14							
POLE 2 TO JUNCTION BOX 2			13	13	5							
POLE 3 TO JUNCTION BOX 1			17		9							
POLE 4 TO JUNCTION BOX 3			16		8							
POLE 5 TO JUNCTION BOX 2			63		55							
ELECTRICAL DISTRIBUTION (SEE WIRING DIAGRAM)	1083							506	1190	576		362
TOTALS	1	1083	708	263	443	40	145	506	1190	576	4	362

SIGNS

PLAN SYMBOL	SERIES DESIGNATION	DESCRIPTION	SIZE W X H	SQ. FT. EA.	POST MOUNTED SIGNS, TYPE B 0931-001		STRUC. MTD. FLAT SHEET ALUMINUM SIGNS 0936-0200	
					QUAN.	TOTAL S.F.	QUAN.	TOTAL S.F.
	R3-8A	LANE USE CONTROL (S-SR)	30"x30"	6.25	2	12.5		
	R3-8B	LANE USE CONTROL (L-S-S)	48"x30"	10.0	2	20.0		
	R3-8A	LANE USE CONTROL (L-R)	30"x30"	6.25	2	12.5		
	R10-12 FYA	LEFT TURN YIELD ON FLASHING YELLOW ARROW	36"x42"	10.5			1	10.5
	R10-11	NO TURN ON RED	30"x36"	7.50			1	7.50
	R10-10R	RIGHT TURN SIGNAL	30"x36"	7.50			1	7.50
	D3-4	Centerville Rd	90"x16"	10.0			1	10.0
	D3-4	Old Tree Dr	78"x16"	8.66			2	17.32
	R10-3ER	EDUCATIONAL PUSH BUTTON FOR WALK SIGNAL WITH COUNTDOWN TIMER RIGHT	9"x15"	0.94	*			
	R10-3EL	EDUCATIONAL PUSH BUTTON FOR WALK SIGNAL WITH COUNTDOWN TIMER LEFT	9"x15"	0.94	*			
	R9-3	NO PEDESTRIAN CROSSING	18"x18"	2.25	2	4.50		
	TOTAL				8	49.5	6	52.82

COUNTY: LANCASTER

MUNICIPALITY:
EAST HEMPFIELD TOWNSHIP

INTERSECTION:
OLD TREE DRIVE (T-420) AND
CENTERVILLE ROAD (T-408)

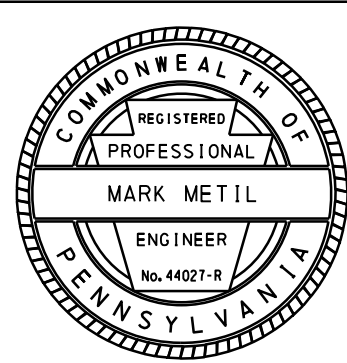
APPROVED AND ACCEPTED:

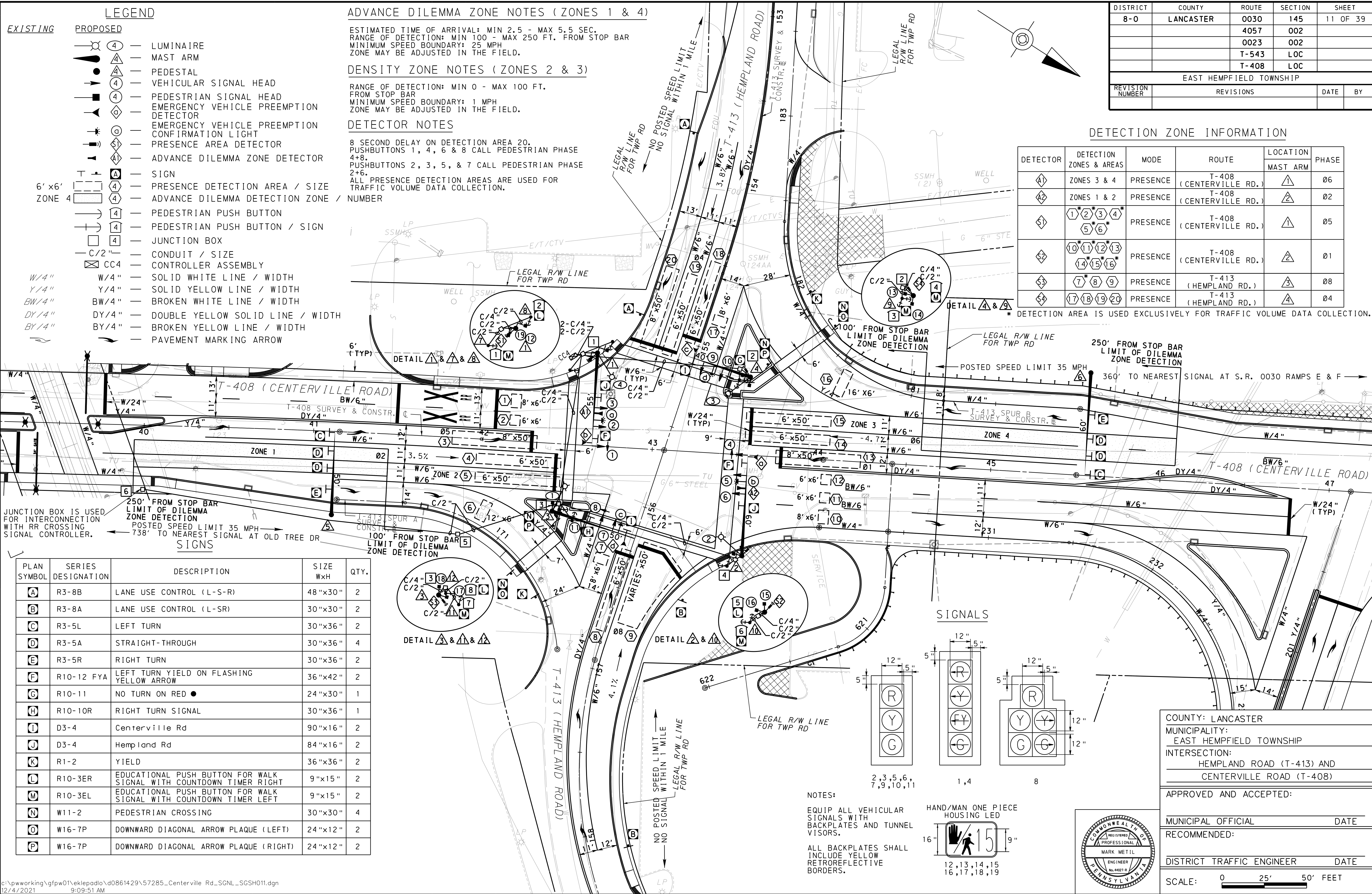
MUNICIPAL OFFICIAL DATE

RECOMMENDED:

DISTRICT TRAFFIC ENGINEER DATE

NOT TO SCALE





MOVEMENT, SEQUENCE AND TIMING

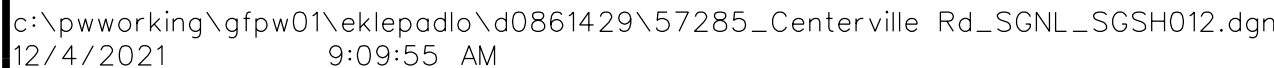
SIGNALS	INTERVALS				INTERVALS				INTERVALS				INTERVALS				INTERVALS				INTERVALS				INTERVALS				INTERVALS				INTERVALS															
1	G	G	Y	R	G	G	Y	R	F	Y	F	Y	F	Y	F	Y	F	Y	F	Y	G	Y	R	G	Y	R	G	Y	R	G	Y	R	G	Y	R	G	Y	R										
2,3	R	R	R	R	C	C	Y	R	R	R	R	R	C	C	Y	R	R	R	R	R																												
4	G	G	Y	R	F	Y	F	Y	G	Y	R	G	Y	R	F	Y	F	Y	R	R	R	R																										
5,6	R	R	R	R	R	R	R	R	C	C	Y	R	C	C	Y	R	R	R	R	R																												
7	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	C	Y	R																								
8	R/G	R/G	Y/R	R	R	R	R	R	R/G	R/G	Y/R	R	R	R	R	R	R	R	R	R	G	C	Y	R																								
9,10,11	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	C	Y	R																								
12,13	H	H	H	H	M	FH	H	H	H	H	H	H	M	FH	H	H	H	H	H	H	H	H	H	H																								
14,15	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	M	FH	H	H	H	H	H	H																								
16,17	H	H	H	H	H	H	H	H	M	FH	H	H	M	FH	H	H	H	H	H	H	H	H	H	H																								
18,19	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	M	FH	H	H	H	H	H	H																								
FAIL-SAFE LAMP A	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
FAIL-SAFE LAMP B	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
FAIL-SAFE LAMP C	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
FAIL-SAFE LAMP D	OFF	OFF	OFF	OFF	OFF																																											

* UPON PEDESTRIAN ACTIVATION ONLY

** OWNER OF RR CROSSING SHALL
 BE RESPONSIBLE FOR FINAL
 CONNECTION BETWEEN RR CROSSING
 SIGNAL CONTROLLER AND JUNCTION
 BOX.

* WIRE PER MANUFACTURERS SPECIFICATIONS

NOT TO SCALE



TRAFFIC SIGNAL SUPPORTS***																						
STRUC. NO.	ITEM NO.	DESCRIPTION	ROUTE	STATION	SIDE	OFFSET	H*		K	MAST ARM										ARM "C"		
										ARM "A"												
										SIGNAL LOCATION					SIGN LOCATION							
							L	M	N	O	P	R	S	T	U							
	0951-2155	TRAFFIC SIGNAL SUPPORT,** 55' MAST ARM WITH LUMINAIRE ARM (30' MOUNTING HEIGHT)	T-408	42+64.3	LT	54.8'	17'	9'	55'	54'	42'	31'		49'	25'			0°	15'	30'	34°	
	0951-2160	TRAFFIC SIGNAL SUPPORT,** 60' MAST ARM WITH LUMINAIRE ARM (30' MOUNTING HEIGHT)	T-408	43+56.5	RT	59.5'	17'		60'	58'	46'	35'		54'	28'			0°	15'	30'	51°	
	0951-2150	TRAFFIC SIGNAL SUPPORT, 50' MAST ARM WITH LUMINAIRE ARM (30' MOUNTING HEIGHT)	T-413	156+19.4	RT	51.3'	17'	9'	50'	36'	28'	17'		45'	22'			0°	15'	30'	81°	
	0951-2140	TRAFFIC SIGNAL SUPPORT, 40' MAST ARM WITH LUMINAIRE ARM (30' MOUNTING HEIGHT)	T-413	155+7.5	LT	37.3'	17'	9'	40'	28'	16'			34'	11'			0°	15'	30'	55°	
	0951-0150	TRAFFIC SIGNAL SUPPORT,** 50' MAST ARM	T-408	41+12.6	RT	49.1'			50'					47'	37'	26'	14'	0°				
	0951-0160	TRAFFIC SIGNAL SUPPORT,** 60' MAST ARM	T-408	45+55.7	LT	60.6'			60'					59'	48'	38'	24'	0°				
	0951-4022	PEDESTRIAN STUB POLE, TYPE B	T-408	42+48.8	LT	43.7'																
	0951-4022	PEDESTRIAN STUB POLE, TYPE B	T-413	155+13.3	RT	49.0'																
	0951-4025	PEDESTRIAN STUB POLE, TYPE E	T-413	155+11.1	LT	29.1'																
	0951-4022	PEDESTRIAN STUB POLE, TYPE B	T-408	43+48.1	RT	66.1'																
	0951-4025	PEDESTRIAN STUB POLE, TYPE E	T-413	156+21.0	RT	38.4'																
	0951-4025	PEDESTRIAN STUB POLE, TYPE E	T-413	156+17.1	RT	47.7'																

* CONTRACTOR TO ASSUME RESPONSIBILITY FOR VERIFICATION OF ROADWAY AND TOP OF FOUNDATION ELEVATION TO ENSURE PROPER VERTICAL CLEARANCE PRIOR TO DETERMINING THIS DIMENSION.
** EQUIP WITH HARMONIC DAMPENING DEVICE.
*** REFER TO TRAFFIC STANDARDS - SIGNALS, TC-8800 SERIES, FOR LETTER DESIGNATIONS.

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
8-0	LANCASTER	0030	145	13 OF 39
		4057	002	
		0023	002	
		T-543	LOC	
		T-408	LOC	
EAST HEMPFIELD TOWNSHIP				
REVISION NUMBER	REVISIONS			DATE BY

SIGNS

PLAN SYMBOL	SERIES DESIGNATION	DESCRIPTION	SIZE W X H	SQ. FT. EA.	POST MOUNTED SIGNS, TYPE B 0931-0001		POST MOUNTED SIGNS, TYPE F 0935-0001		STRUC. MTD. FLAT SHEET ALUMINUM SIGNS 0936-0200	
					QUAN.	TOTAL S.F.	QUAN.	TOTAL S.F.	QUAN.	TOTAL S.F.
	R3-8B	LANE USE CONTROL (L-S-R)	48"x30"	10.0	2	20.0				
	R3-8A	LANE USE CONTROL (L-SR)	30"x30"	6.25	2	12.5				
	R3-5L	LEFT TURN	30"x36"	7.5					2	15.0
	R3-5A	STRAIGHT-THROUGH	30"x36"	7.5					4	30.0
	R3-5R	RIGHT TURN	30"x36"	7.5					2	15.0
	R10-12 FYA	LEFT TURN YIELD ON FLASHING YELLOW ARROW	36"x42"	10.5					2	21.0
	R10-11	NO TURN ON RED ●	24"x30"	5.0					1	5.0
	R10-10R	RIGHT TURN SIGNAL	30"x36"	7.5					1	7.5
	D3-4	Centerville Rd	90"x16"	10.0					2	20.0
	D3-4	Hempland Rd	84"x16"	9.33					2	18.66
	R1-2	YIELD	36"x36"	9.0	2	18.0				
	R10-3ER	EDUCATIONAL PUSH BUTTON FOR WALK SIGNAL WITH COUNTDOWN TIMER RIGHT	9"x15"	0.94	*					
	R10-3EL	EDUCATIONAL PUSH BUTTON FOR WALK SIGNAL WITH COUNTDOWN TIMER LEFT	9"x15"	0.94	*					
	W11-2	PEDESTRIAN CROSSING	30"x30"	6.25	4	25.0				
	W16-7P	DOWNWARD DIAGONAL ARROW PLAQUE (LEFT)	24"x12"	2.0			2	4.0		
	W16-7P	DOWNWARD DIAGONAL ARROW PLAQUE (RIGHT)	24"x12"	2.0			2	4.0		
TOTAL					10	75.5	4	8.0	16	132.16

GENERAL NOTES

INSTALL, OPERATE AND MAINTAIN THIS TRAFFIC SIGNAL IN ACCORDANCE WITH PENNSYLVANIA DEPARTMENT OF TRANSPORTATION REGULATIONS ON OFFICIAL TRAFFIC CONTROL DEVICES.

NO MODIFICATION OF THIS INSTALLATION IS PERMITTED UNLESS PRIOR APPROVAL IS GRANTED, IN WRITING, BY THE DEPARTMENT.

ALL MAINTENANCE NECESSARY FOR PROPER VISIBILITY OF THE SIGNALS, INCLUDING TRIMMING TREES, IS THE RESPONSIBILITY OF THE PERMITEE.

THE PERMITEE INSTALLS AND MAINTAINS ALL SIGNS AND PAVEMENT MARKINGS INDICATED ON THIS DRAWING WHICH ARE CONSIDERED PART OF THE PERMIT, UNLESS OTHERWISE INDICATED. THE DEPARTMENT MAINTAINS THE LONGITUDINAL PAVEMENT MARKINGS ON STATE HIGHWAYS.

INSTALL POST MOUNTED SIGNALS WITH THE SUPPORT AND SIGNAL HEADS AT A MINIMUM HORIZONTAL CLEARANCE OF 2 FEET BEHIND FACE OF CURB OR, IF NO CURB, A MINIMUM OF 2 FEET FROM EDGE OF SHOULDER AND 10 FEET FROM EDGE OF TRAVELWAY. INSTALL SUPPORT POLES FOR OVERHEAD SIGNALS OR ANY SIGNAL EQUIPMENT TO BE INSTALLED ON POLES AT A MINIMUM HORIZONTAL CLEARANCE OF 2 FEET BEHIND FACE OF CURB.

INSTALL SIGNAL HEADS AND SIGNS ERECTED OVER THE ROADWAY WITH THE BOTTOMS NOT LESS THAN 17 FEET NOR MORE THAN 19 FEET ABOVE THE ROADWAY.

INSTALL POST MOUNTED SIGNAL HEADS WITH BOTTOMS NOT LESS THAN 8 FEET NOR MORE THAN 15 FEET ABOVE THE SIDEWALK OR PAVEMENT GRADE.

INSTALL SIGNAL HEADS WITH A MINIMUM HORIZONTAL DISTANCE OF 8 FEET BETWEEN THE HEADS MEASURED AT RIGHT ANGLES TO THE APPROACH.

IN ADDITION TO THIS SIGNAL PERMIT, THE PERMITEE MUST OBTAIN A HIGHWAY OCCUPANCY PERMIT PRIOR TO ANY OPENINGS BEING MADE IN OR UNDER ANY PORTION OF A STATE HIGHWAY.

THIS DRAWING CANNOT BE USED AS A CONSTRUCTION DRAWING UNLESS THE PERMITEE COMPLIES WITH THE MOST RECENT ACT FOR PREVENTION OF DAMAGE TO UNDERGROUND UTILITIES. PRIOR TO CONSTRUCTION CONSULT WITH UTILITY COMPANIES TO RESOLVE ANY PROBLEMS WHICH MAY BE CREATED DUE TO THE LOCATION OF UTILITIES.

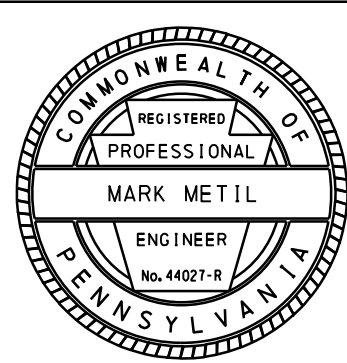
CONSTRUCTION NOTES

1. A REPRESENTATIVE OF THE COMPANY SUPPLYING THE CONTROLLER SHALL BE PRESENT DURING THE ACTIVATION OF ALL TRAFFIC SIGNALS INCLUDED IN THIS PROJECT.

2. PROVIDE TRAFFIC SIGNAL CONTROLLER CABINET LARGE ENOUGH TO SUITABLY ACCOMMODATE THE TRAFFIC SIGNAL CONTROLLER AND ALL REQUIRED EQUIPMENT. CABINET SHALL BE LARGE ENOUGH SO THAT ALL EQUIPMENT IS VISIBLE, ACCESSIBLE AND NOT STACKED ON TOP OF OTHER EQUIPMENT WITHIN THE CABINET.

3. AT ALL LOCATIONS WHERE SURGE PROTECTION IS REQUIRED, PROVIDE MOV TYPE POWER LINE SURGE PROTECTION THAT IS UL 1449 LISTED. THE RATING SHALL HAVE A MINIMUM SURGE PROTECTION OF 50KVA AND A RESPONSE TIME OF LESS THAN ONE NANO-SECOND. ALSO INCLUDE SURGE PROTECTION FROM NEUTRAL TO GROUND IN CONTROLLER CABINET. WIRE SURGE PROTECTION IN ACCORDANCE WITH MANUFACTURERS SPECIFICATION FOR ALL MODES (L-L, L-N, L-G, N-G) THAT APPLY OR ARE OBTAINABLE WITH RESPECT TO SURGE PROTECTION MODEL AND POWER SOURCE. PROVIDE SURGE PROTECTION UNIT WITH STATUS INDICATOR SHOWING DEVICE FAILURE.
4. CONTROLLER ASSEMBLY SHALL BE EQUIPPED WITH GENERATOR ADAPTOR CAPABLE OF OPERATING THE TRAFFIC SIGNAL, COMPATIBLE WITH THE MUNICIPAL GENERATOR, IN CASE OF A POWER OUTAGE.

5. ALL PEDESTALS SHALL HAVE BREAKWAY DESIGN.



COUNTY: LANCASTER	
MUNICIPALITY: EAST HEMPFIELD TOWNSHIP	
INTERSECTION: HEMPLAND ROAD (T-413) AND CENTERVILLE ROAD (T-408)	
APPROVED AND ACCEPTED:	
MUNICIPAL OFFICIAL	DATE
RECOMMENDED:	
DISTRICT TRAFFIC ENGINEER	DATE
NOT TO SCALE	

CONSTRUCTION SEQUENCE

STAGE 1A:

1. INSTALL TRAFFIC CONTROL MEASURES IN ACCORDANCE WITH THE TRAFFIC CONTROL PLAN.
2. SHIFT S.R. 0030 EASTBOUND AND WESTBOUND TRAFFIC TOWARD THE OUTSIDE SHOULDERS AT THE S.R. 4057 STRUCTURE OVER S.R. 0030.
3. CONSTRUCT FOOTING AND PIER FOR NORTHBOUND SIDE OF S.R. 4057 STRUCTURE OVER S.R. 0030.
4. REMOVE APPLICABLE TRAFFIC CONTROL MEASURES AND SHIFT S.R. 0030 TRAFFIC TO ORIGINAL LANES.

STAGE 1B:

1. INSTALL TRAFFIC CONTROL MEASURES IN ACCORDANCE WITH THE TRAFFIC CONTROL PLAN.
2. MAINTAIN T-543/T-408 (CENTERVILLE ROAD) TRAFFIC IN EXISTING TRAVEL LANES FROM SOUTH OF S.R. 0462 (COLUMBIA AVENUE) TO T-413 (HEMPLAND ROAD), NORTH OF RAMP EF TO T-953 (ESTELLE DRIVE), AND NORTH OF S.R.0023 (MARIETTA AVENUE). SHIFT T-408 (CENTERVILLE ROAD) TRAFFIC WESTWARD FROM T-413 (HEMPLAND ROAD) TO NORTH OF RAMP EF AND EASTWARD FROM T-543 (ESTELLE DRIVE) TO S.R. 0023 (MARIETTA AVENUE).
3. MAINTAIN S.R. 0023 (MARIETTA AVENUE) TRAFFIC IN EXISTING TRAVEL LANES.
4. MAINTAIN ALL SIDE ROAD TRAFFIC IN EXISTING TRAVEL LANES.
5. MAINTAIN RAMPS EF, E, F, GH, G, AND H TRAFFIC IN EXISTING TRAVEL LANES OR PROVIDE SLIGHT LANE SHIFTS AS INDICATED IN THE TRAFFIC CONTROL PLAN.
6. SHIFT S.R. 0030 WESTBOUND TRAFFIC TOWARD MEDIAN BETWEEN RAMP H AND RAMP G.
7. COORDINATE WITH NORFOLK SOUTHERN FOR INSTALLATION OF THE RUBBER FLANGEWAYS AT THE NORFOLK SOUTHERN RAILROAD CROSSING (STA. 39+50). NORFOLK SOUTHERN REQUIRES AN EXTENDED (3-DAY) WEEKEND TO COMPLETE THIS WORK. PROVIDE EXTENDED WEEKEND RAILROAD CLOSURE AND IMPLEMENT THE RAILROAD CROSSING DETOUR. REOPEN T-408 (CENTERVILLE ROAD) TO TRAFFIC IMMEDIATELY UPON COMPLETION OF THE WORK BY NORFOLK SOUTHERN.
8. CONSTRUCT T-408 (CENTERVILLE ROAD) TEMPORARY WIDENING AREAS FROM STA. 46+15 TO STA. 46+95 RT AND STA. 54+50 TO STA. 58+50 LT. REMOVE ISLAND AND CONSTRUCT TEMPORARY PAVEMENT FROM T-408 (CENTERVILLE ROAD) STA. 53+20 TO STA. 53+55 RT. REMOVE MOUNTABLE MEDIAN AND CONSTRUCT TEMPORARY PAVEMENT IN MEDIAN FROM RAMP EF STA. 200+20 TO RAMP F STA. 601+50 LT. PLACE TEMPORARY BARRIER AS SHOWN IN STAGE 2A. CONSTRUCT TEMPORARY RAMPS G AND H (FOR STAGE 2A) IN ACCORDANCE WITH THE RAMP DETAIL SHEETS. CONSTRUCT RAMP G (FOR STAGE 3) GRADING IN ACCORDANCE WITH THE RAMP DETAIL SHEETS.
9. CONSTRUCT S.R.0030 WESTBOUND SHOULDER FROM STA. 314+60 TO STA. 321+70.
10. CONSTRUCT T-543 (CENTERVILLE ROAD) SOUTHBOUND WIDENING FROM STA. 1+20 TO STA. 7+17 AND S.R. 0462 (COLUMBIA AVENUE) EASTBOUND WIDENING FROM STA. 396+30 TO STA. 397+78.
11. CONSTRUCT T-408 (CENTERVILLE ROAD) NORTHBOUND WIDENING FROM STA. 7+17 TO STA. 53+00 AND S.R. 0462 (COLUMBIA AVENUE) WESTBOUND WIDENING FROM STA. 397+78 TO STA. 398+90. MAINTAIN EXISTING RAILROAD GATES LOCATED AT THE NORFOLK SOUTHERN RAILROAD CROSSING WITH PAVEMENT BOX OUT AT EXISTING GATE.
12. CONSTRUCT NORTHBOUND SIDE OF S.R. 4057 STRUCTURE OVER S.R.0030.
13. CONSTRUCT WIDENING OF T-409 (INDUSTRY DRIVE), T-402 (SOUTH TREE DRIVE), T-420 (OLD TREE DRIVE), AND T-413 (HEMPLAND ROAD) FROM STA. 155+64 TO STA. 158+52.
14. CONSTRUCT T-408 (CENTERVILLE ROAD) SOUTHBOUND WIDENING FROM STA. 58+50 TO STA. 75+05.
15. CONSTRUCT S.R. 0023 (MARIETTA AVENUE) EASTBOUND WIDENING FROM STA. 482+10 TO STA. 497+16 AND WESTBOUND WIDENING FROM STA. 497+16 TO STA. 499+55.
16. CONSTRUCT RAMP EF WIDENING FROM STA. 202+00 TO STA. 204+66 LT AND RAMP E WIDENING FROM STA. 214+15 TO STA. 222+79 RT.
17. CONSTRUCT RAMP EF WIDENING FROM STA. 201+00 TO STA. 204+66 RT AND RAMP F WIDENING FROM STA. 600+00 RT TO S.R. 0030 STA. 332+00 RT.
18. CONSTRUCT HEMPLAND ASSOCIATES ACCESS DRIVE IN THREE SEPARATE STAGES AS SHOWN ON SHEET 23 OF 102. CONSTRUCT AREA 1 WHILE EXISTING ENTRANCES AND AREAS 2 AND 3 REMAIN OPEN TO TRAFFIC. OPEN HEMPLAND ASSOCIATES ACCESS DRIVE (AREA 1) TO TRAFFIC AND PAVE PARKING AREA 2 WHILE MAINTAINING ACCESS TO OTHER PROPERTIES AND PARKING AREA 3. PAVE PARKING AREA 3 AFTER PARKING AREA 2 IS COMPLETE AND OPEN TO TRAFFIC.
19. REMOVE APPLICABLE TRAFFIC CONTROL MEASURES AND SHIFT S.R. 0030 WESTBOUND TRAFFIC BETWEEN RAMP H AND RAMP G TO ORIGINAL LANES.

STAGE 2A:

1. INSTALL TRAFFIC CONTROL MEASURES IN ACCORDANCE WITH THE TRAFFIC CONTROL PLAN.
2. SHIFT RAMP EF TRAFFIC TOWARD MEDIAN AT INTERSECTION WITH T-408 (CENTERVILLE ROAD).
3. SHIFT T-408 (CENTERVILLE ROAD) TRAFFIC WESTWARD FROM RAMP GH TO NORTH OF S.R. 0023 (MARIETTA AVENUE).
4. SHIFT S.R. 0023 (MARIETTA AVENUE) TRAFFIC SOUTHWARD FROM S.R. 3017 (STONY BATTERY ROAD) TO T-408 (CENTERVILLE ROAD) AND NORTHWARD FROM T-408 (CENTERVILLE ROAD) TO THE EASTERN PROJECT LIMIT.
5. SHIFT S.R. 0030 WESTBOUND RAMP TRAFFIC TO TEMPORARY RAMPS G AND H.
6. CONSTRUCT RAMP EF WIDENING FROM STA. 200+00 TO STA. 202+00 LT. CONTINUE CONSTRUCTION OF T-408 (CENTERVILLE ROAD) NORTHBOUND WIDENING FROM STA. 47+00 TO STA. 51+50.
7. CONSTRUCT T-408 (CENTERVILLE ROAD) NORTHBOUND WIDENING FROM STA. 53+67 TO STA. 74+05.
8. CONSTRUCT RAMP GH FROM STA. 240+00 TO STA. 243+48 LT AND RAMP H FROM STA. 273+21 TO STA. 282+16. CONSTRUCT BIFURCATED CONCRETE MEDIAN BARRIER FROM RAMP GH STA. 241+40 TO RAMP H STA. 280+90 LF.
9. CONSTRUCT S.R. 0023 (MARIETTA AVENUE) WESTBOUND WIDENING FROM STA. 482+10 TO STA. 497+16 AND EASTBOUND WIDENING FROM STA. 497+16 TO STA. 501+15.

STAGE 2B:

1. INSTALL TRAFFIC CONTROL MEASURES IN ACCORDANCE WITH THE TRAFFIC CONTROL PLAN.
2. PROVIDE WEEKEND S.R. 30 RAMP CLOSURES AND IMPLEMENT THE S.R. 8008 RAMP DETOURS.
3. CONSTRUCT T-408 (CENTERVILLE ROAD) TIE-INS FOR RAMP EF STA. 200+00 TO STA. 201+50 AND RAMP GH STA. 240+00 TO STA. 241+25.
4. COMPLETE CONSTRUCTION OF TEMPORARY RAMP G FOR STAGE 3 IN ACCORDANCE WITH THE RAMP DETAIL SHEETS.
5. REMOVE APPLICABLE TRAFFIC CONTROL MEASURES, SHIFT T-408 (CENTERVILLE ROAD) TRAFFIC EASTWARD TO THE NEW NORTHBOUND STRUCTURE THROUGH THE INTERCHANGE AND OPEN S.R. 30 RAMPS IN ACCORDANCE WITH TRAFFIC CONTROL PLAN STAGE 3.

STAGE 3:

1. INSTALL TRAFFIC CONTROL MEASURES IN ACCORDANCE WITH THE TRAFFIC CONTROL PLAN.
2. SHIFT S.R. 0030 EASTBOUND AND WESTBOUND TRAFFIC TOWARD THE OUTSIDE SHOULDERS AT THE S.R. 4057 STRUCTURE OVER S.R. 0030.
3. SHIFT T-543 (CENTERVILLE ROAD) TRAFFIC WESTWARD.
4. SHIFT T-408 (CENTERVILLE ROAD) TRAFFIC EASTWARD FROM S.R. 0462 (COLUMBIA AVENUE) TO SOUTH OF T-953 (ESTELLE DRIVE). SHIFT T-408 (CENTERVILLE ROAD) TRAFFIC TO FINAL LANE CONFIGURATIONS FROM SOUTH OF T-953 (ESTELLE DRIVE) TO NORTH OF S.R. 0023 (MARIETTA AVENUE).
5. SHIFT S.R. 0023 (MARIETTA AVENUE) TRAFFIC TO FINAL LANE CONFIGURATIONS.
6. SHIFT RAMP EF TRAFFIC TOWARD THE OUTSIDE SHOULDERS. SHIFT RAMP E TRAFFIC TOWARD THE INSIDE SHOULDER. SHIFT RAMP F TRAFFIC TOWARD THE OUTSIDE SHOULDER.
7. CONSTRUCT T-543 (CENTERVILLE ROAD) NORTHBOUND WIDENING FROM STA. 1+20 TO STA. 7+17 AND S.R. 0462 (COLUMBIA AVENUE) EASTBOUND WIDENING FROM STA. 397+78 TO STA. 399+93.
8. CONSTRUCT T-408 (CENTERVILLE ROAD) SOUTHBOUND WIDENING FROM STA. 7+17 TO STA. 58+50 AND S.R. 0462 (COLUMBIA AVENUE) WESTBOUND WIDENING FROM STA. 396+30 TO STA. 397+78. MAINTAIN EXISTING RAILROAD GATES LOCATED AT THE NORFOLK SOUTHERN RAILROAD CROSSING WITH PAVEMENT BOX OUT AT EXISTING GATE.
9. REMOVE EXISTING S.R. 4057 BRIDGE STRUCTURE.
10. CONSTRUCT SOUTHBOUND SIDE OF S.R. 4057 STRUCTURE OVER S.R. 0030.
11. CONSTRUCT T-413 (HEMPFIELD ROAD) EASTBOUND AND WESTBOUND WIDENING FROM STA. 152+05 TO 155+64.
12. CONSTRUCT RAMP EF MEDIAN AND BARRIER FROM STA. 200+50 TO STA. 204+66. CONSTRUCT RAMP E WIDENING FROM STA. 218+20 TO STA. 222+79 LT. CONSTRUCT RAMP F WIDENING FROM STA. 600+00 TO STA. 607+80 LT.
13. CONSTRUCT RAMP GH FROM STA. 241+25 TO 243+48 RT AND RAMP G FROM STA. 243+48 TO STA. 250+00.
14. REMOVE APPLICABLE TRAFFIC CONTROL MEASURES.

STAGE 4A:

1. INSTALL TRAFFIC CONTROL MEASURES IN ACCORDANCE WITH THE TRAFFIC CONTROL PLAN.
2. SHIFT T-543/T-408 (CENTERVILLE ROAD) TRAFFIC TO FINAL LANE CONFIGURATIONS EXCEPT THROUGH THE NORFOLK SOUTHERN RAILROAD CROSSING AREA.
3. SHIFT RAMP EF, RAMP E, AND RAMP F TRAFFIC TO FINAL LANE CONFIGURATIONS.
4. SHIFT RAMP GH, RAMP G, AND RAMP H TRAFFIC TO FINAL LANE CONFIGURATIONS.
5. SHIFT S.R. 0030 EASTBOUND AND WESTBOUND TRAFFIC TOWARD THE OUTSIDE SHOULDERS.
6. FOLLOWING COMPLETION OF STAGE 3 WIDENING AT THE NORFOLK SOUTHERN RAILROAD CROSSING, CONSTRUCT MEDIAN ISLANDS AT RAILROAD CROSSING (STA. 38+48 TO STA. 40+12). COORDINATE WITH NORFOLK SOUTHERN FOR INSTALLATION OF NEW RAILROAD GATES AND LIGHTS AND REMOVAL OF EXISTING GATES. COMPLETE CONSTRUCTION OF ROADWAY WIDENING FOR BOX OUT AREAS AT REMOVED RAILROAD GATES. SEE SHEET 48 OF 102 FOR ADDITIONAL DETAILS.
7. CONSTRUCT ISLANDS AT INTERSECTION OF T-408 (CENTERVILLE ROAD) AND T-413 (HEMPLAND ROAD) AND AT INTERSECTIONS OF T-408 (CENTERVILLE ROAD) WITH RAMP EF AND RAMP GH.
8. CONSTRUCT MEDIAN BARRIER SECTION AT RAMP GH INTERSECTION WITH T-408 (CENTERVILLE ROAD) FROM RAMP GH STA. 240+70 TO 241+40.
9. PLACE FINAL WEARING COURSE AND FINAL PAVEMENT MARKINGS ON T-543/T-408 (CENTERVILLE ROAD), ALL SIDE ROADS, S.R. 0023 (MARIETTA AVENUE), AND S.R. 8008 RAMPS.
10. RECONSTRUCT S.R. 0030 MEDIAN FROM STA. 299+43 TO STA. 333+15 TO ASPHALT BASE COURSE.
11. REMOVE APPLICABLE TRAFFIC CONTROL MEASURES AND MILL S.R. 0030 TRAVEL LANE PAVEMENT TO CONCRETE BASE. PROVIDE S.R. 0030 CONCRETE BASE REPAIRS AS DIRECTED.

STAGE 4B:

1. INSTALL TRAFFIC CONTROL MEASURES IN ACCORDANCE WITH THE TRAFFIC CONTROL PLAN.
2. SHIFT S.R. 0030 EASTBOUND AND WESTBOUND TRAFFIC TOWARD THE MEDIAN.
3. CONSTRUCT S.R. 0030 EASTBOUND AND WESTBOUND WIDENING AND RAMPS E AND G WIDENING FROM S.R. 0030 STA. 299+43 TO STA. 312+50.
4. PLACE FINAL PAVEMENT COURSES AND FINAL PAVEMENT MARKINGS ON S.R. 0030 AND S.R. 8008 RAMP TIE-INS TO S.R.0030.
5. REMOVE ALL TRAFFIC CONTROL MEASURES.

TRAFFIC CONTROL PLAN

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
8-0	LANCASTER	4057	002	1 OF 102
		T-543	LOC	
		T-408	LOC	
MANOR AND EAST HEMPFIELD TOWNSHIPS				
REVISION NUMBER	REVISIONS			DATE
				BY

SHEET INDEX	
DESCRIPTION	SHEET
GENERAL NOTES	1
INDEX SHEETS	2 - 3
TABULATION SHEETS	4 - 6
TEMPORARY RAMP DETAILS	7 - 10
DETOUR PLAN SHEETS	11 - 15
TRAFFIC CONTROL PLAN SHEETS	16 - 55
TEMPORARY TRAFFIC SIGNAL PLAN SHEETS	56 - 102

GENERAL NOTES

THIS WORK CONSISTS OF THE MAINTENANCE OF TRAFFIC AND THE PROTECTION OF THE TRAVELING PUBLIC APPROACHING THE CONSTRUCTION AREA AND WITHIN THE LIMITS OF CONSTRUCTION.

FURNISH, ERECT, PLACE AND MAINTAIN TRAFFIC CONTROL SIGNS AND DEVICES AND MAINTAIN TRAFFIC DURING HOURS OF CONSTRUCTION AND AT ALL OTHER TIMES IN ACCORDANCE WITH THE METHODS INDICATED ON THESE DRAWINGS AND,

1. THE SPECIAL PROVISIONS OF THE CONTRACT.
2. PA CODE, TITLE 67, CHAPTER 212, OFFICIAL TRAFFIC CONTROL DEVICES.
3. PDT PUBLICATION 213, TEMPORARY TRAFFIC CONTROL GUIDELINES.
4. PDT PUBLICATION 35, APPROVED CONSTRUCTION MATERIALS (BULLETIN 15).
5. PDT PUBLICATION 408, SPECIFICATIONS.
6. MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
7. PDT PUBLICATION 236, HANDBOOK OF APPROVED SIGNS.
8. PDT PUBLICATION 111, TRAFFIC CONTROL PAVEMENT MARKING AND SIGNING STANDARDS.

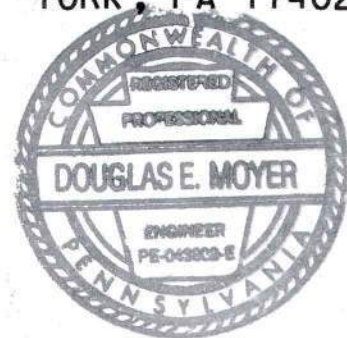
IMMEDIATELY UPON COMPLETION OF THE WORK, REMOVE THE DEVICES. THE DEPARTMENT WILL REMOVE ANY TRAFFIC CONTROL DEVICES ERECTED BY DEPARTMENT FORCES.

COVER OR REMOVE ALL SIGNS NOT IN USE.

SEE EROSION AND SEDIMENT POLLUTION CONTROL PLAN FOR CONSTRUCTION SEQUENCE OF DRAINAGE AND EROSION AND SEDIMENT CONTROL FACILITIES.

INCORPORATED WATERLINE CONSTRUCTION ON S.R. 0023 (MARIETTA AVENUE) AND NORTHERN T-408 (CENTERVILLE ROAD) TO BE COMPLETED PRIOR TO COMPLETION OF ROADWAY WIDENING IN THE AREA.

PREPARED BY:
JOHNSON, MIRMIRAN
and
THOMPSON, INC.
220 ST. CHARLES WAY
SUITE 200
YORK, PA 17402



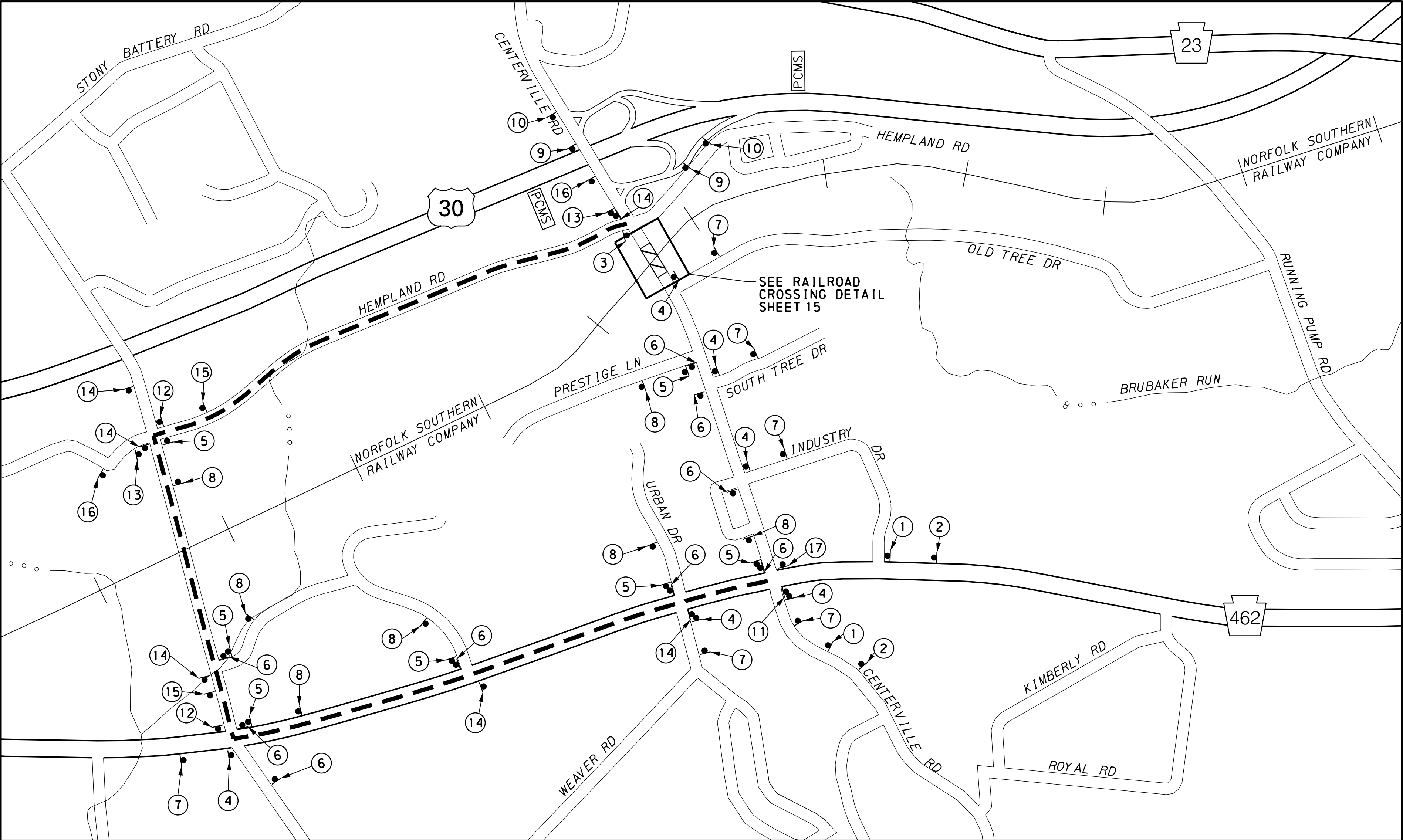
Douglas E. Moyer
November 4, 2021

RECOMMENDED _____20____
DISTRICT TRAFFIC ENGINEER _____
RECOMMENDED _____20____
ADE - CONSTRUCTION _____

DISTRICT	COUNTY	ROUTE	SECTION	SHEET	
8-0	LANCASTER	4057	002	13 OF 102	
		T-543	LOC		
		T-408	LOC		
MANOR AND EAST HEMPFIELD TOWNSHIPS					
REVISION NUMBER	REVISIONS			DATE	BY

3-LINE MESSAGE BOARD SUGGESTED PCMS MESSAGE	
SCREEN 1	SCREEN 2
CENTER -VILLE RD SOUTH	CLOSED FOLLOW DETOUR

LEGEND	
	DETOUR ROUTE
	WORK AREA
	TYPE III BARRICADE
	POST MOUNTED SIGN
	SIGN IDENTIFIER
	PORTABLE CHANGEABLE MESSAGE SIGN

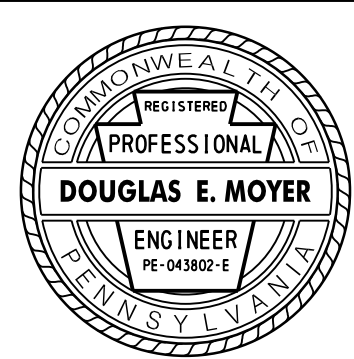


DETOUR LENGTH: 2.5 MILES

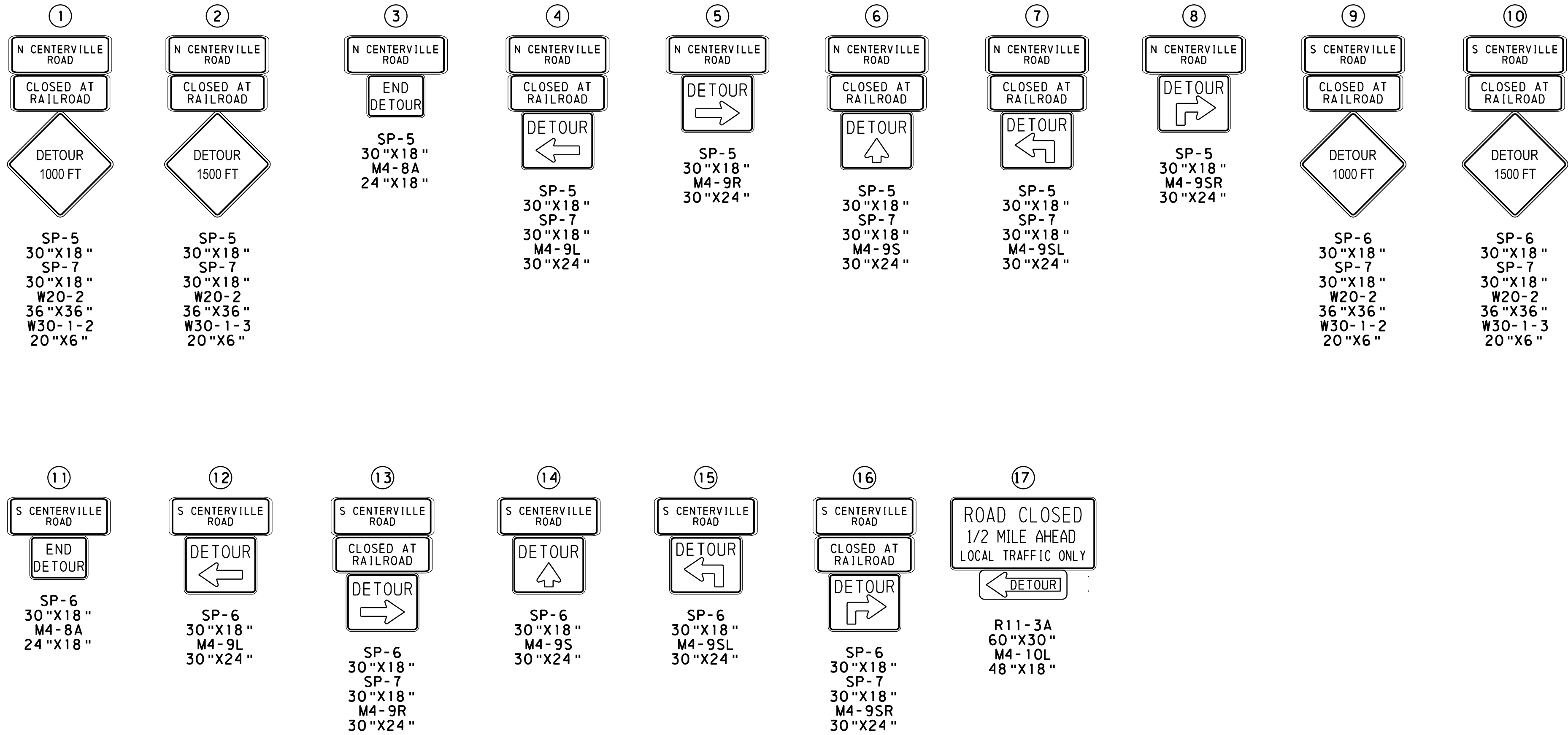
TRAFFIC CONTROL PLAN
RAILROAD CROSSING DETOUR



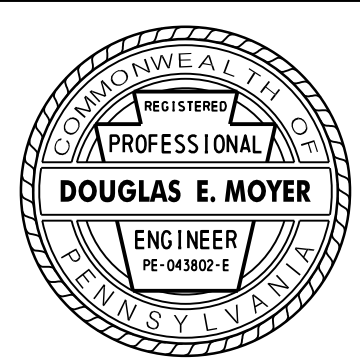
- NOTES:
- SIGNS AND LOCATIONS ARE NOT TO SCALE.
 - REFER TO PUB. 236 FOR SIGN DETAILS AND COLORS



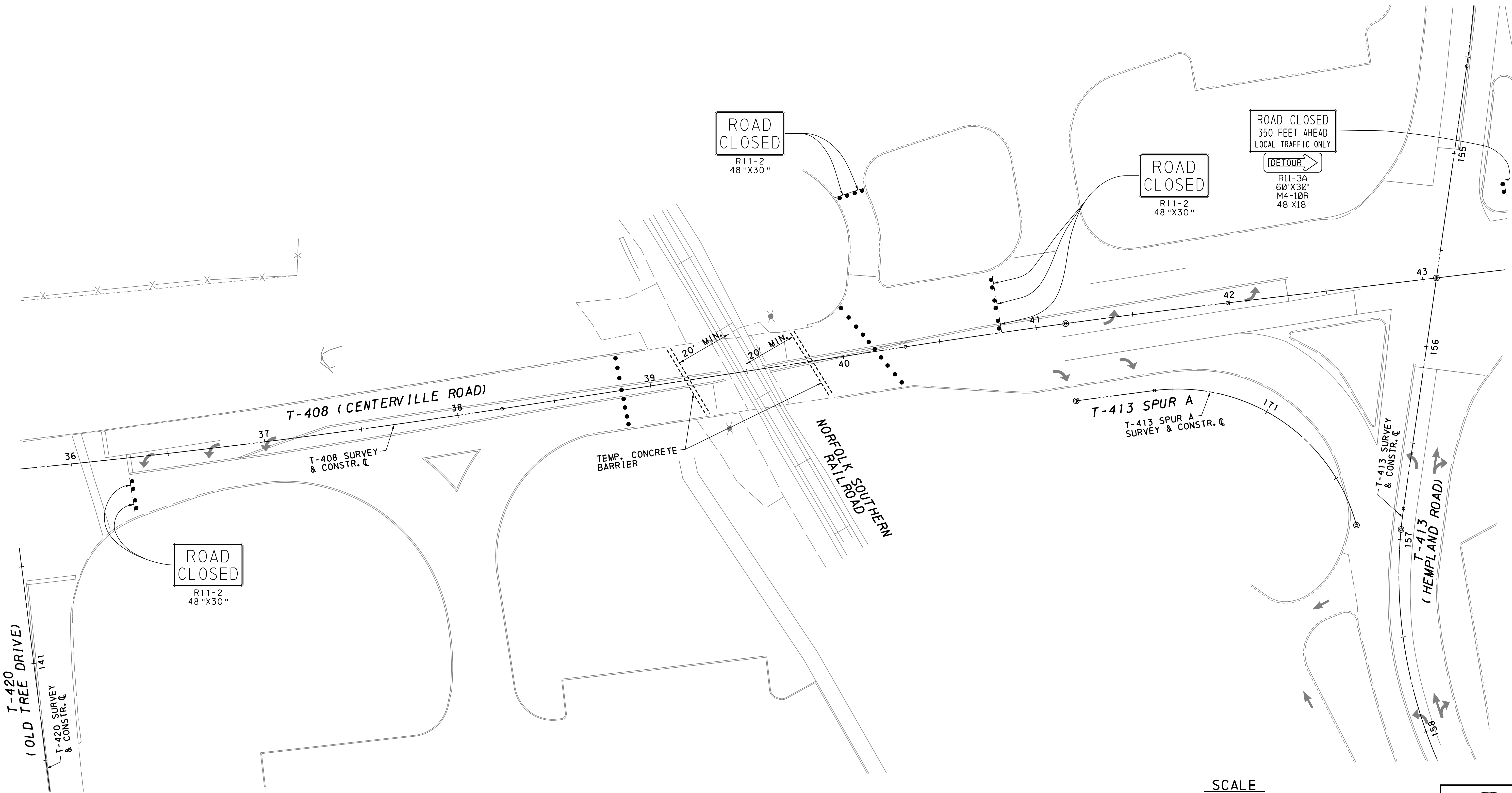
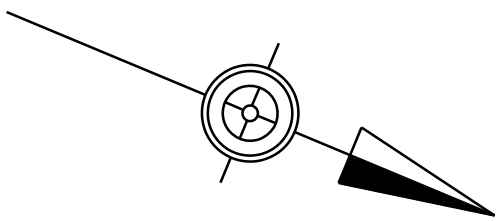
DISTRICT	COUNTY	ROUTE	SECTION	SHEET
8-0	LANCASTER	4057	002	14 OF 102
		T-543	LOC	
		T-408	LOC	
MANOR AND EAST HEMPFIELD TOWNSHIPS				
REVISION NUMBER	REVISIONS			DATE
				BY



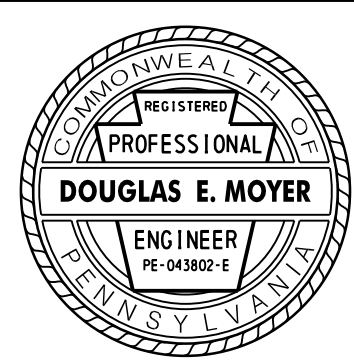
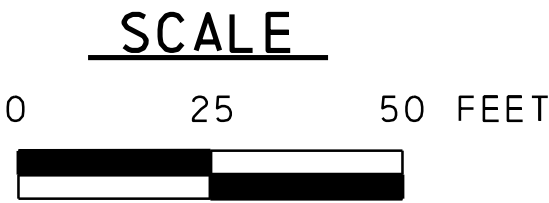
TRAFFIC CONTROL PLAN
RAILROAD CROSSING DETOUR



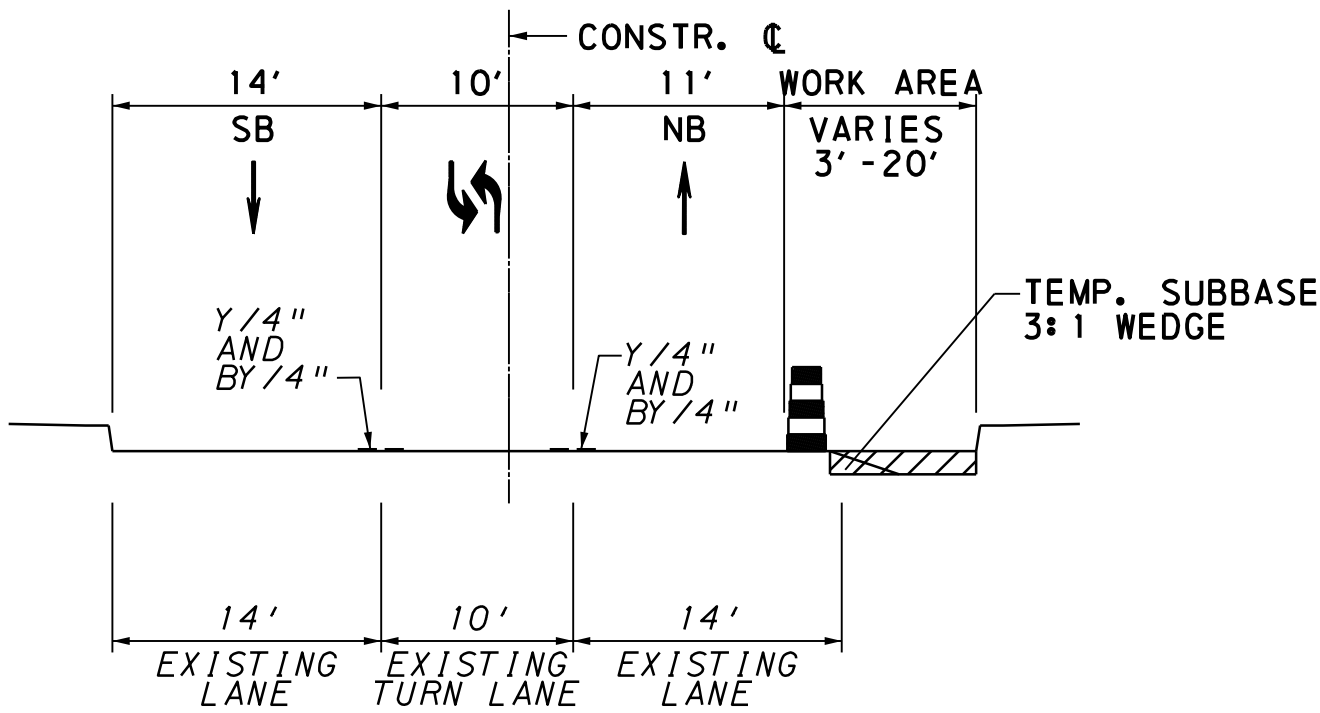
DISTRICT	COUNTY	ROUTE	SECTION	SHEET	
8-0	LANCASTER	4057	002	15 OF 102	
		T-543	LOC		
		T-408	LOC		
EAST HEMPFIELD TOWNSHIP					
REVISION NUMBER	REVISIONS			DATE	BY



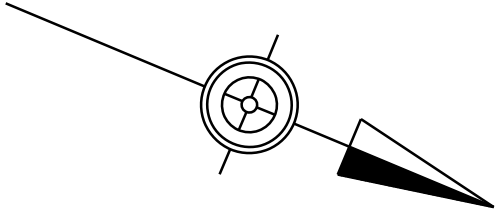
TRAFFIC CONTROL PLAN
RAILROAD CROSSING DETOUR



DISTRICT	COUNTY	ROUTE	SECTION	SHEET
8-0	LANCASTER	4057	002	22 OF 102
		T-543	LOC	
		T-408	LOC	
EAST HEMPFIELD TOWNSHIP				
REVISION NUMBER	REVISIONS			DATE
				BY



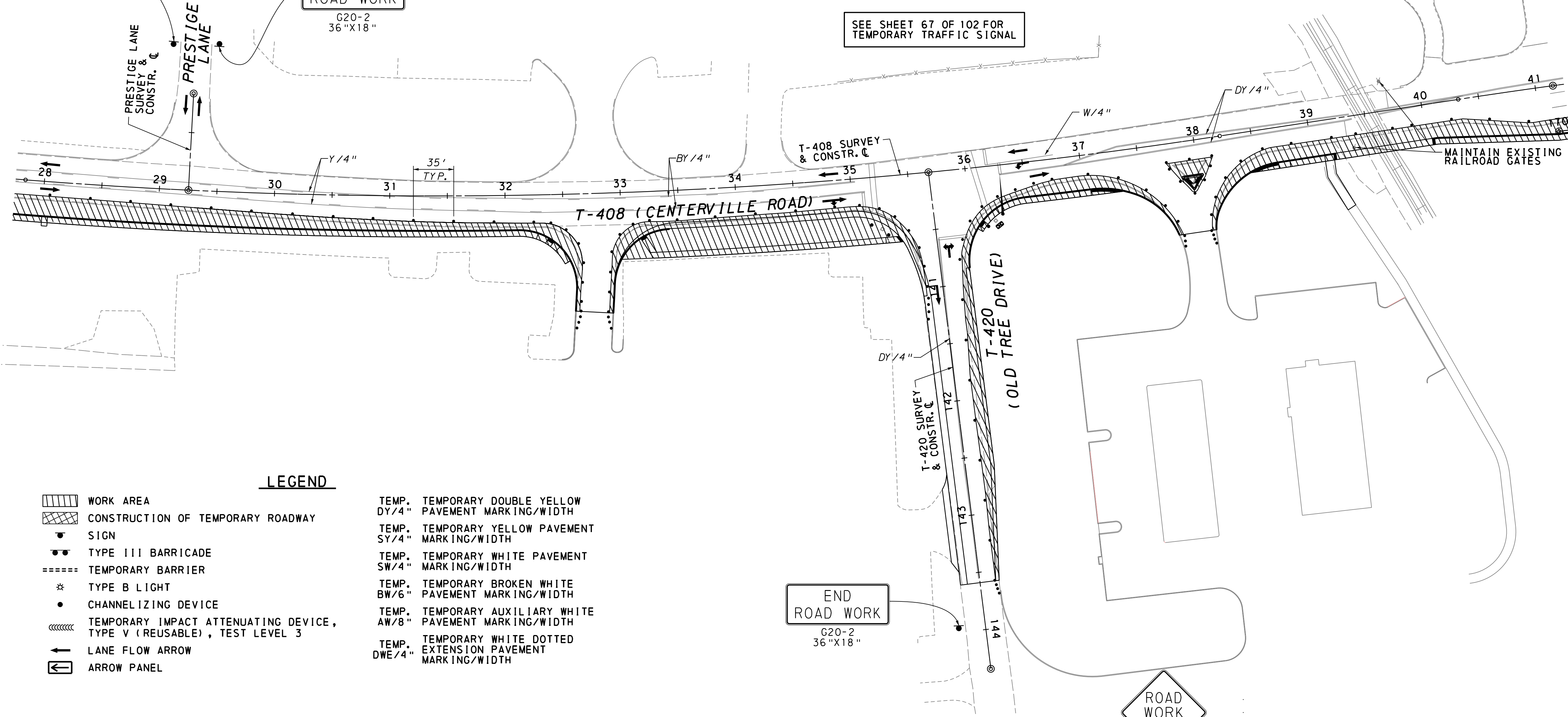
T-408 (CENTERVILLE RD)
STA. 9+20 TO STA. 41+00
NOT TO SCALE



W20-1
W30-1-6
36"X36"
20"X6"

END
ROAD WORK
G20-2
36"X18"

SEE SHEET 67 OF 102 FOR
TEMPORARY TRAFFIC SIGNAL



LEGEND

- WORK AREA
- CONSTRUCTION OF TEMPORARY ROADWAY
- SIGN
- TYPE III BARRICADE
- TEMPORARY BARRIER
- TYPE B LIGHT
- CHANNELIZING DEVICE
- TEMPORARY IMPACT ATTENUATING DEVICE, TYPE V (REUSABLE), TEST LEVEL 3
- LANE FLOW ARROW
- ARROW PANEL

- TEMP. TEMPORARY DOUBLE YELLOW PAVEMENT MARKING/WIDTH DY/4"
- TEMP. TEMPORARY YELLOW PAVEMENT MARKING/WIDTH SY/4"
- TEMP. TEMPORARY WHITE PAVEMENT MARKING/WIDTH SW/4"
- TEMP. TEMPORARY BROKEN WHITE PAVEMENT MARKING/WIDTH BW/6"
- TEMP. TEMPORARY AUXILIARY WHITE PAVEMENT MARKING/WIDTH AW/8"
- TEMP. TEMPORARY WHITE DOTTED EXTENSION PAVEMENT MARKING/WIDTH DWE/4"

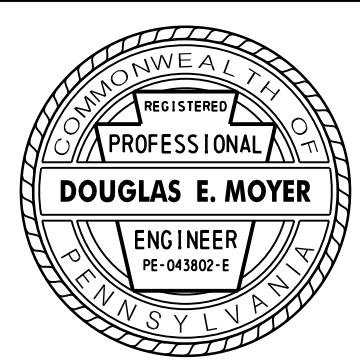
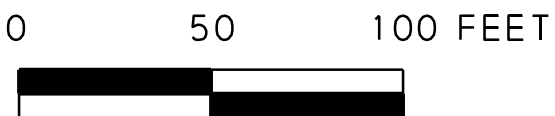
END
ROAD WORK
G20-2
36"X18"



W20-1
W30-1-6
36"X36"
20"X6"

TRAFFIC CONTROL PLAN
STAGE 1B

SCALE



SEE PLAN SHEET 21

SEE PLAN SHEET 23

LEGEND

- WORK AREA
- CONSTRUCTION OF TEMPORARY ROADWAY
- SIGN
- TYPE III BARRICADE
- TEMPORARY BARRIER
- TYPE B LIGHT
- CHANNELIZING DEVICE
- TEMPORARY IMPACT ATTENUATING DEVICE, TYPE V (REUSABLE), TEST LEVEL 3
- LANE FLOW ARROW
- ARROW PANEL
- TEMP. TEMPORARY DOUBLE YELLOW PAVEMENT MARKING/WIDTH
- TEMP. TEMPORARY YELLOW PAVEMENT MARKING/WIDTH
- TEMP. TEMPORARY WHITE PAVEMENT MARKING/WIDTH
- TEMP. TEMPORARY BROKEN WHITE PAVEMENT MARKING/WIDTH
- TEMP. TEMPORARY AUXILIARY WHITE PAVEMENT MARKING/WIDTH
- TEMP. TEMPORARY WHITE DOTTED EXTENSION PAVEMENT MARKING/WIDTH

ROAD WORK AHEAD

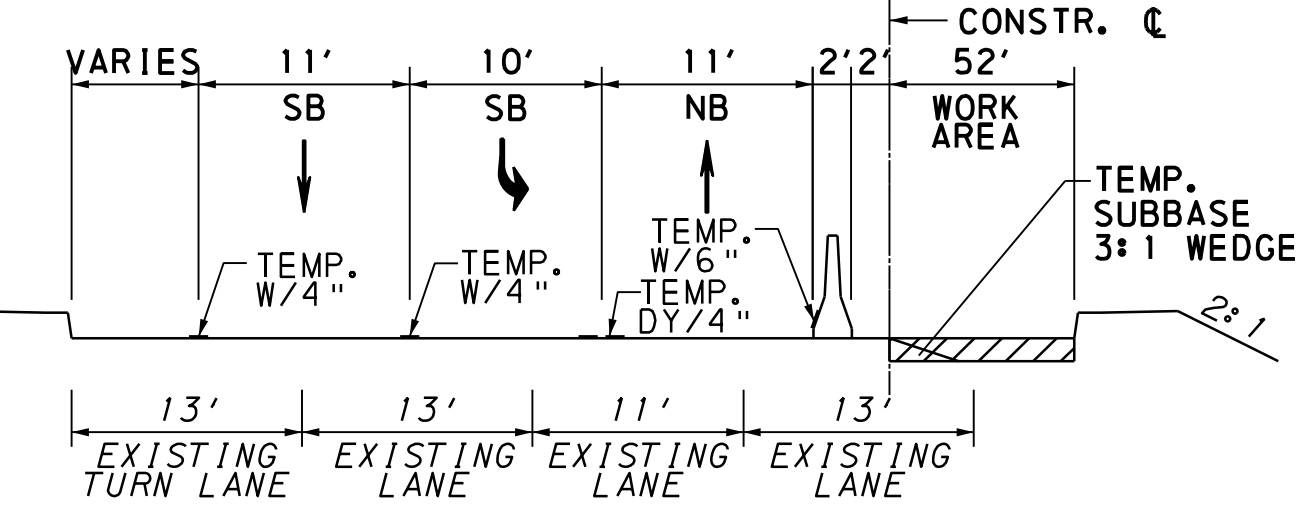
W20-1
W30-1-6
36"X36"
20"X6"

SEE SHEET 72 OF 102 FOR TEMPORARY TRAFFIC SIGNAL

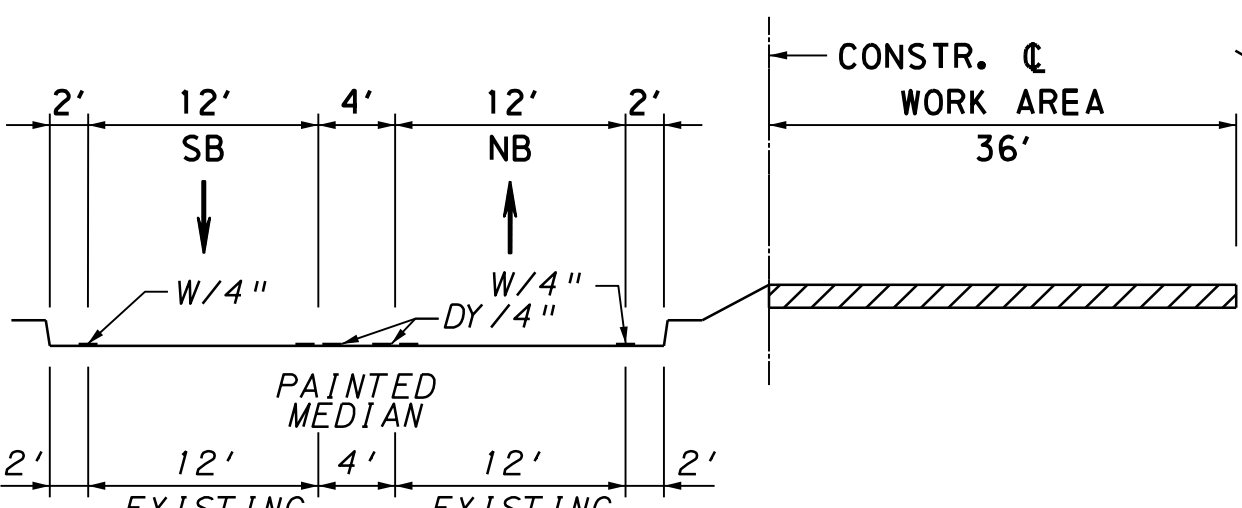
END ROAD WORK
G20-2
36"X18"

HEMPLAND ASSOCIATES ACCESS

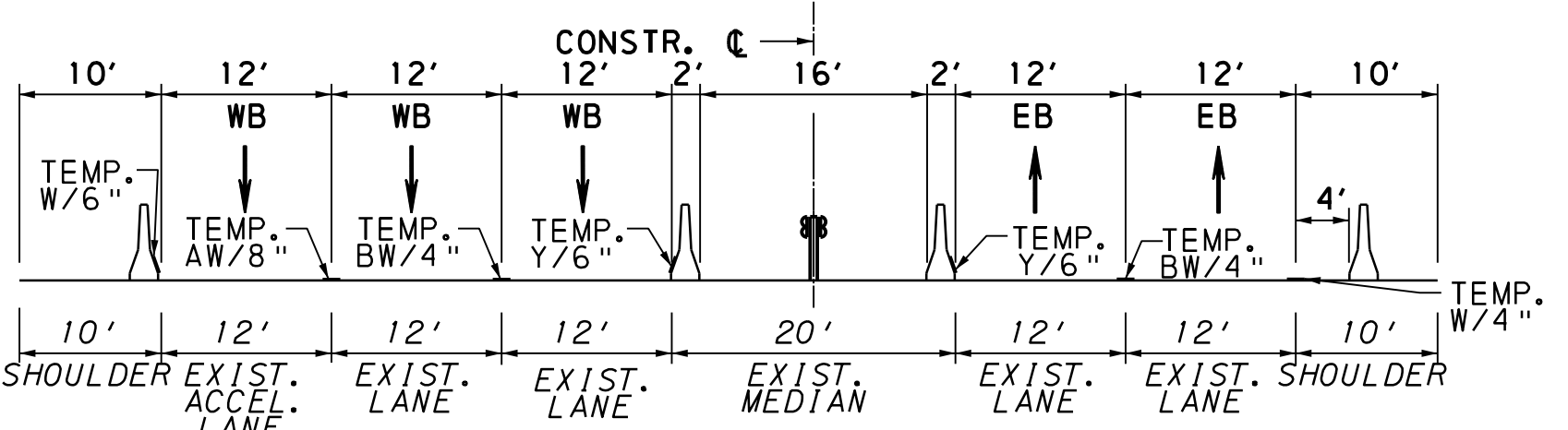
HEMPLAND ASSOCIATES SURVEY & CONSTR.



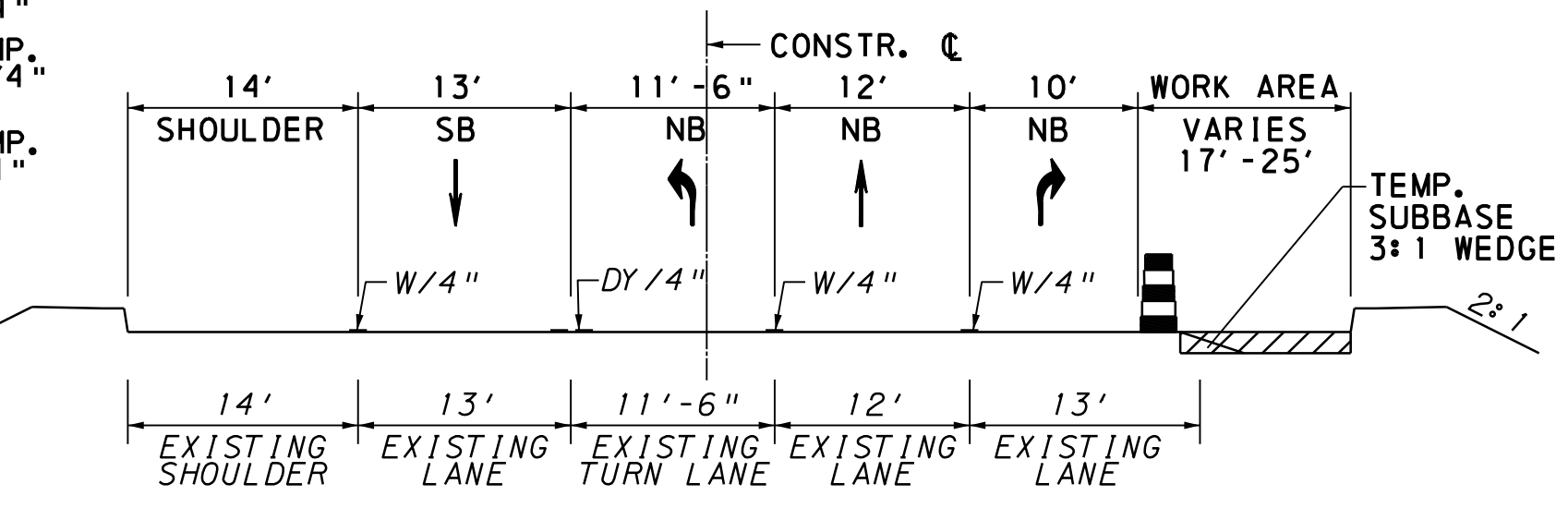
T-408 (CENTERVILLE RD)
STA. 44+00 TO STA. 47+00
NOT TO SCALE



T-408 (CENTERVILLE RD)
STA. 47+00 TO STA. 54+00
NOT TO SCALE



S.R. 0030
STA. 310+00 TO STA. 313+50
NOT TO SCALE



T-408 (CENTERVILLE RD)
STA. 41+00 TO STA. 42+50
NOT TO SCALE

SEE SHEET 78 OF 102 FOR TEMPORARY TRAFFIC SIGNAL

T-408 SURVEY & CONSTR.

TEMP. W/4
TEMP. W/4
TEMP. DY/4

TEMP. W/4
TEMP. W/4
TEMP. DY/4

TEMP. W/4
TEMP. W/4
TEMP. DY/4

TEMP. W/4
TEMP. W/4
TEMP. DY/4

TEMP. W/4
TEMP. W/4
TEMP. DY/4

TEMP. W/4
TEMP. W/4
TEMP. DY/4

TEMP. W/4
TEMP. W/4
TEMP. DY/4

TEMP. W/4
TEMP. W/4
TEMP. DY/4

TEMP. W/4
TEMP. W/4
TEMP. DY/4

TEMP. W/4
TEMP. W/4
TEMP. DY/4

TEMP. W/4
TEMP. W/4
TEMP. DY/4

TEMP. W/4
TEMP. W/4
TEMP. DY/4

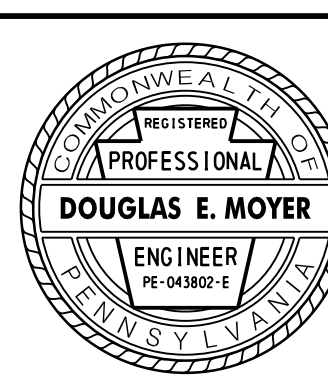
TEMP. W/4
TEMP. W/4
TEMP. DY/4

TEMP. W/4
TEMP. W/4
TEMP. DY/4

TEMP. W/4
TEMP. W/4
TEMP. DY/4

TEMP. W/4
TEMP. W/4
TEMP. DY/4

TRAFFIC CONTROL PLAN STAGE 1B

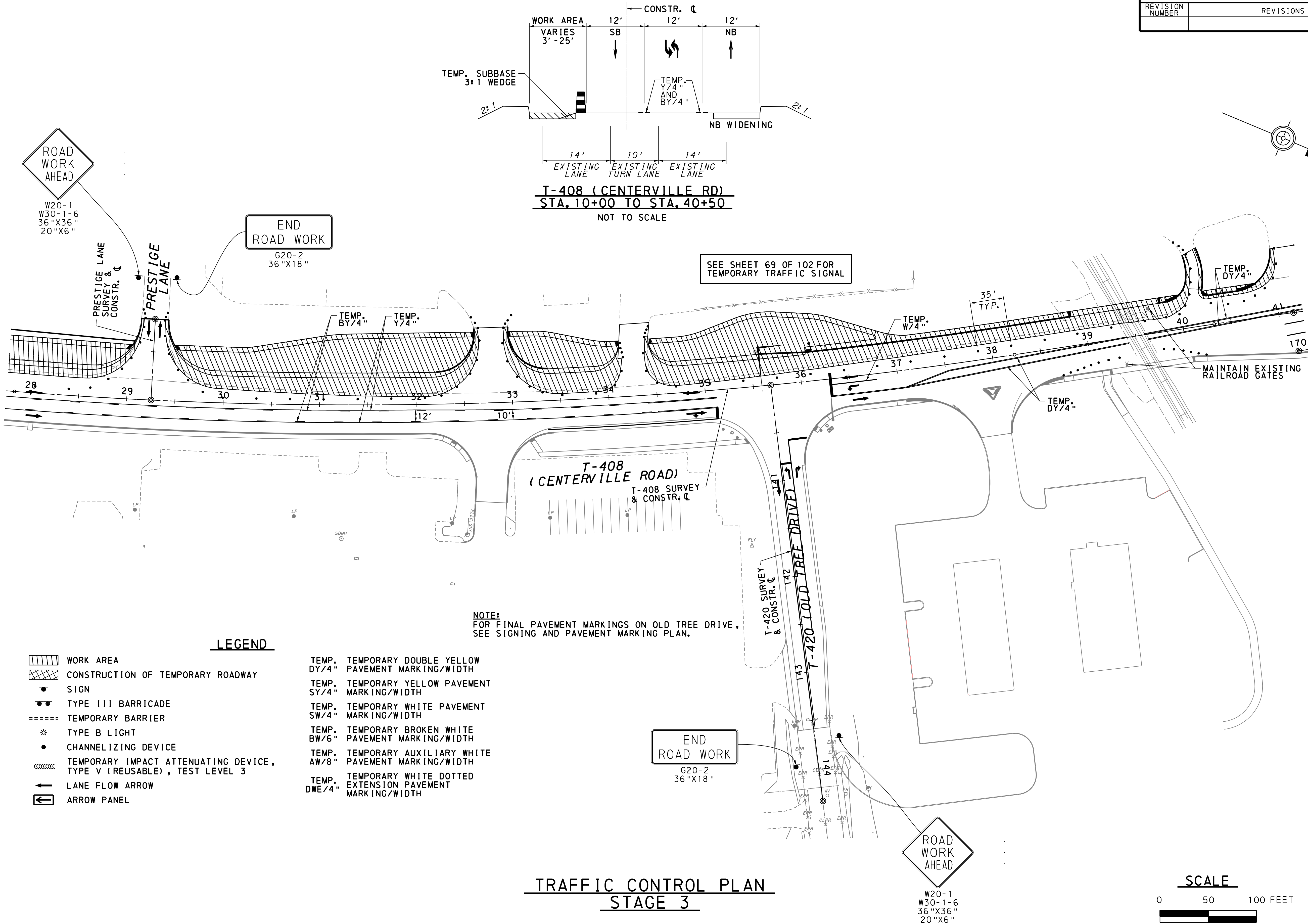


SEE PLAN SHEET 22

SEE PLAN SHEET 24

SEE PLAN SHEET 28

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
8-0	LANCASTER	4057	002	41 OF 102
		T-543	LOC	
		T-408	LOC	
EAST HEMPFIELD TOWNSHIP				
REVISION NUMBER	REVISIONS			DATE
				BY



SEE PLAN SHEET 42

LEGEND

- WORK AREA
- CONSTRUCTION OF TEMPORARY ROADWAY
- SIGN
- TYPE III BARRICADE
- TEMPORARY BARRIER
- TYPE B LIGHT
- CHANNELIZING DEVICE
- TEMPORARY IMPACT ATTENUATING DEVICE, TYPE V (REUSABLE), TEST LEVEL 3
- LANE FLOW ARROW
- ARROW PANEL
- TEMP. TEMPORARY DOUBLE YELLOW PAVEMENT MARKING/WIDTH
- TEMP. TEMPORARY YELLOW PAVEMENT MARKING/WIDTH
- TEMP. TEMPORARY WHITE PAVEMENT MARKING/WIDTH
- TEMP. TEMPORARY BROKEN WHITE PAVEMENT MARKING/WIDTH
- TEMP. TEMPORARY AUXILIARY WHITE PAVEMENT MARKING/WIDTH
- TEMP. TEMPORARY WHITE DOTTED EXTENSION PAVEMENT MARKING/WIDTH

ROAD WORK AHEAD
W20-1
W30-1-6
36"X36"
20"X6"

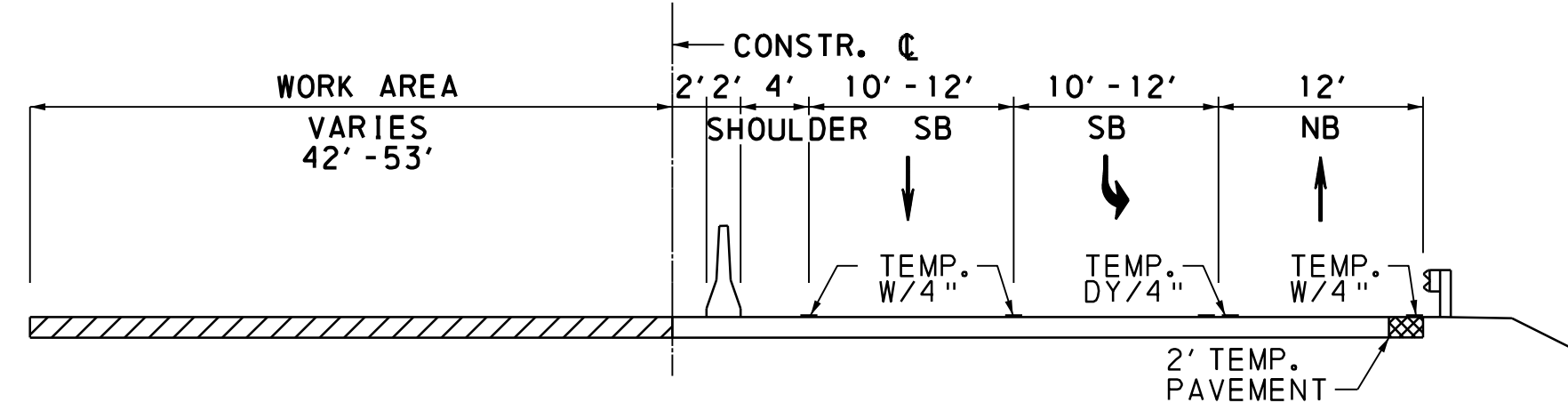
SEE SHEET 74 OF 102 FOR TEMPORARY TRAFFIC SIGNAL

END ROAD WORK
G20-2
36"X18"

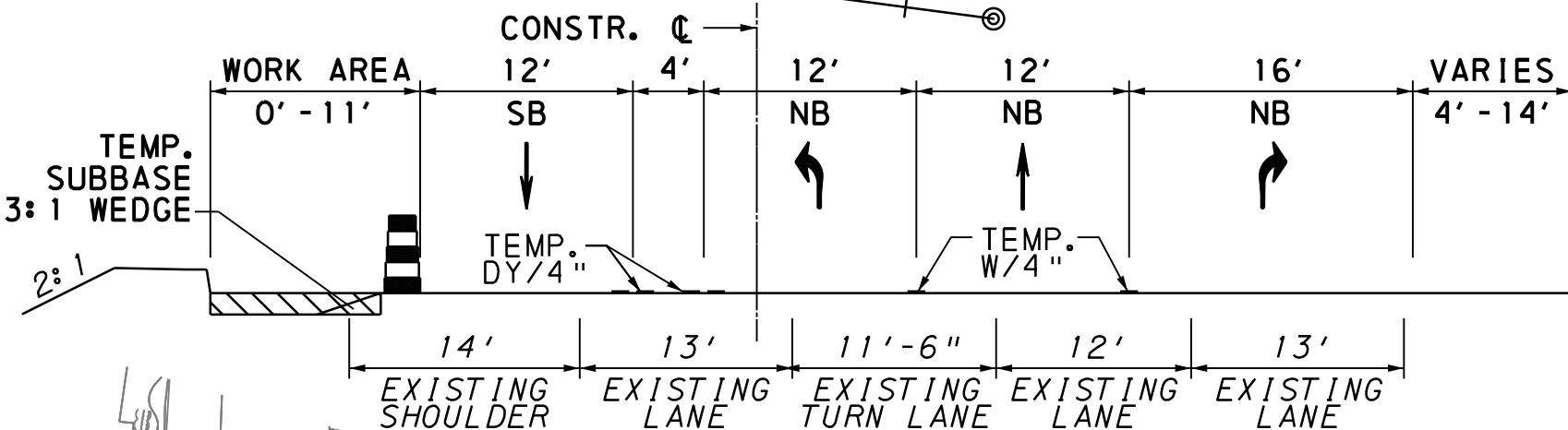
ROAD WORK AHEAD
W20-1
W30-1-6
36"X36"
20"X6"

SEE PLAN SHEET 45

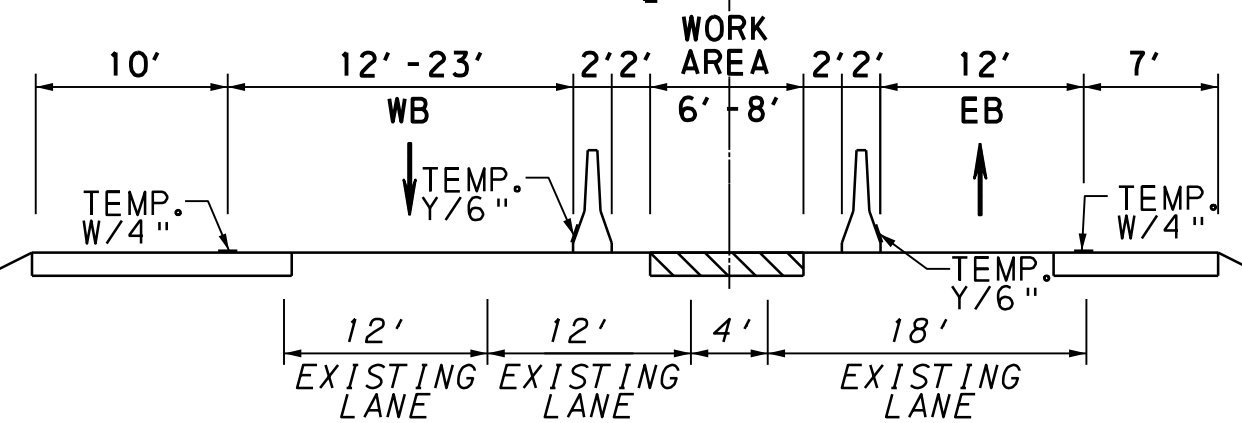
DISTRICT	COUNTY	ROUTE	SECTION	SHEET
8-0	LANCASTER	4057	002	42 OF 102
		T-543	LOC	
		T-408	LOC	
EAST HEMPFIELD TOWNSHIP				
REVISION NUMBER	REVISIONS			DATE
				BY



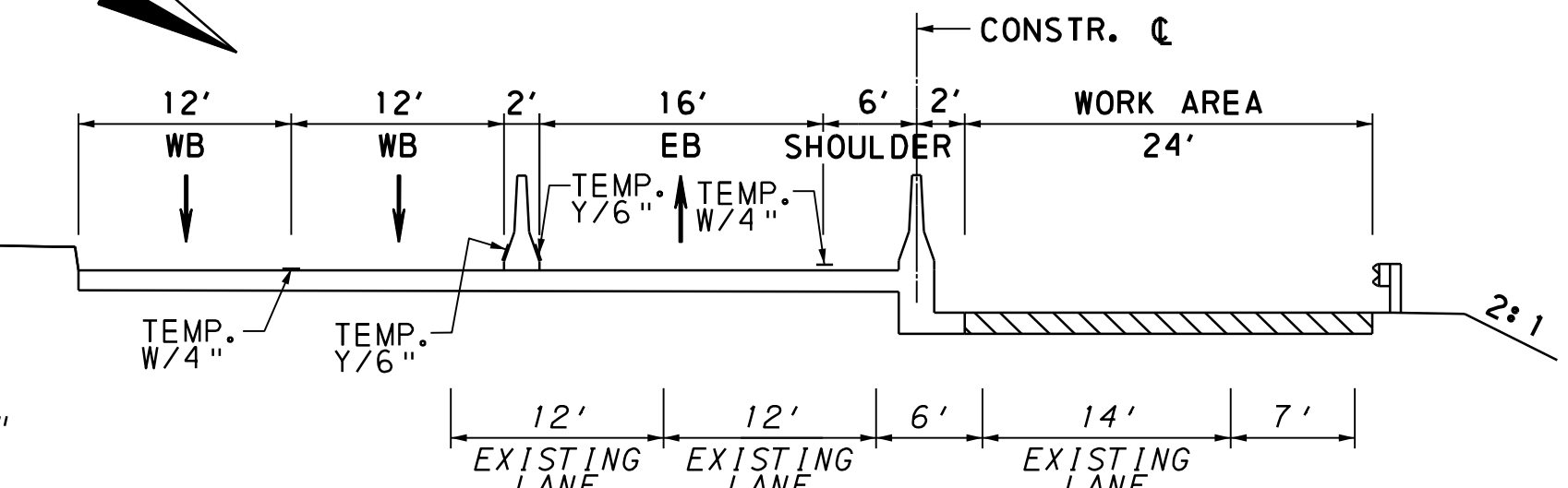
T-408 (CENTERVILLE RD)
STA. 44+00 TO STA. 49+00
NOT TO SCALE



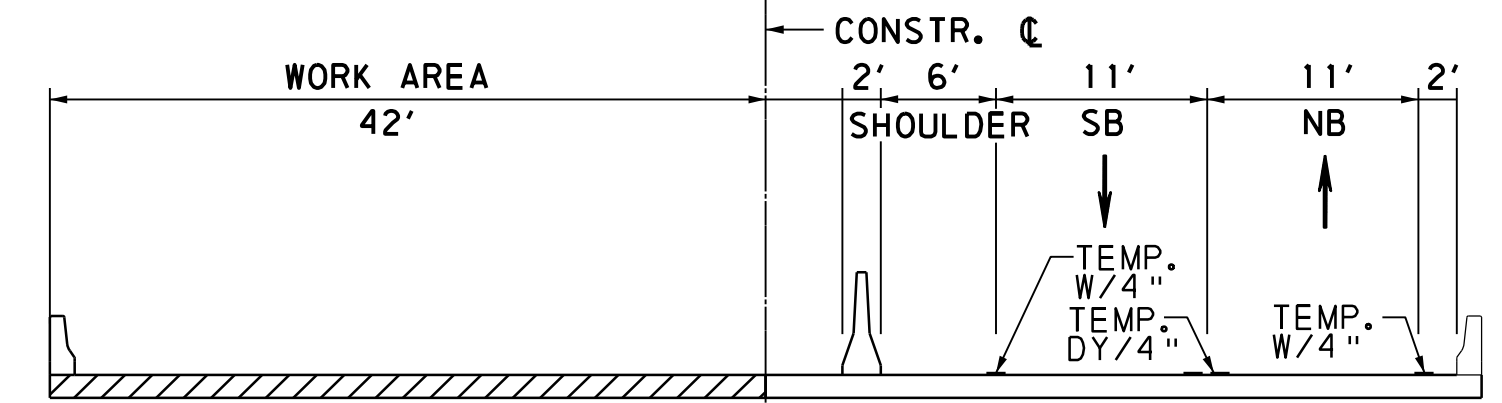
T-408 (CENTERVILLE RD)
STA. 41+00 TO STA. 42+50
NOT TO SCALE



RAMP EF
STA. 200+50 TO STA. 204+66
NOT TO SCALE

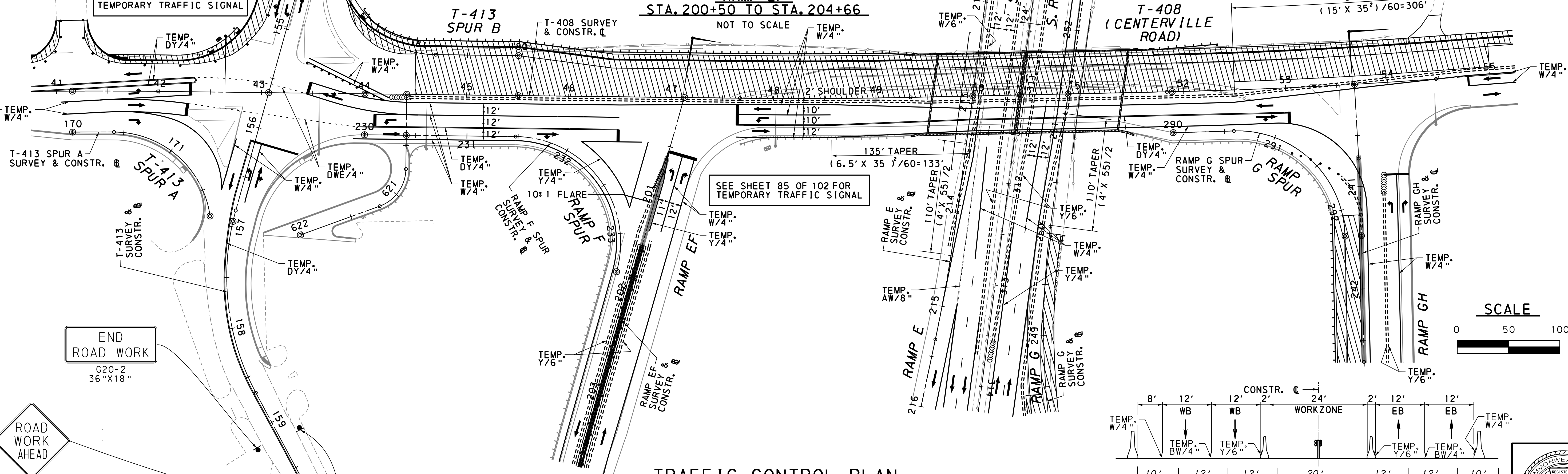


RAMP GH
STA. 241+25 TO STA. 243+48
NOT TO SCALE

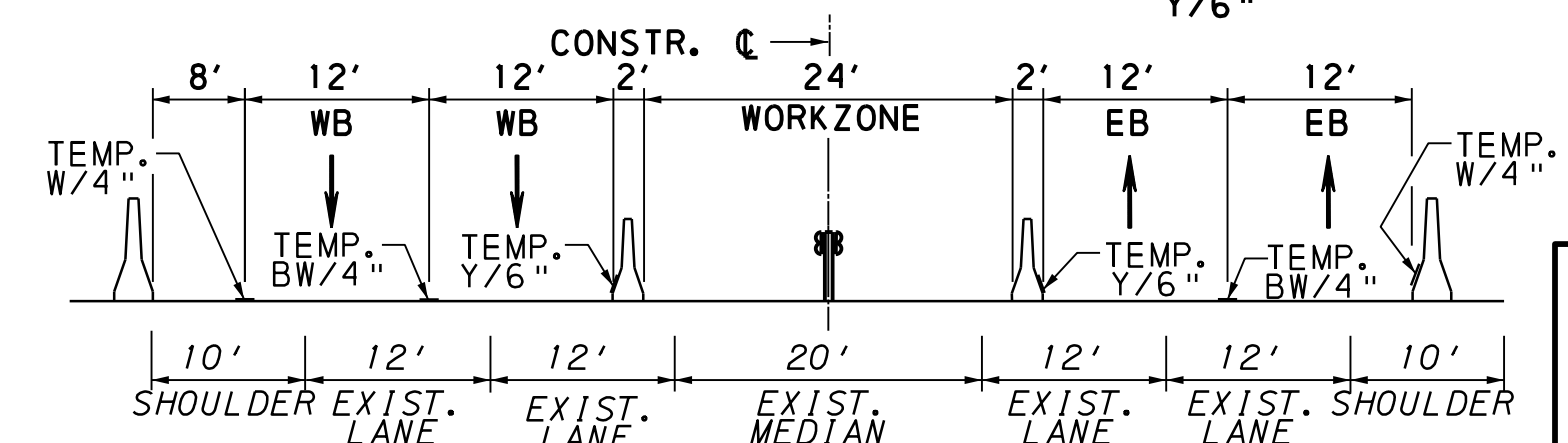
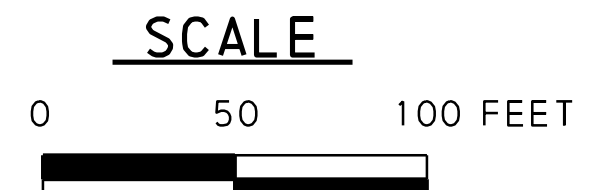


T-408 (CENTERVILLE RD)
STA. 49+00 TO STA. 54+00
NOT TO SCALE

SEE SHEET 86 OF 102 FOR TEMPORARY TRAFFIC SIGNAL



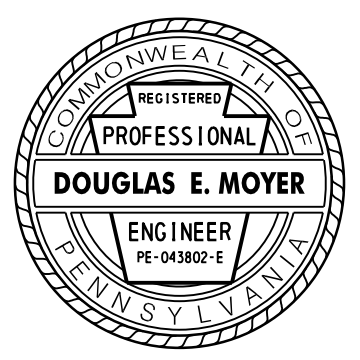
TRAFFIC CONTROL PLAN
STAGE 3



S.R. 0030
STA. 309+00 TO STA. 313+50
NOT TO SCALE

SEE PLAN SHEET 46

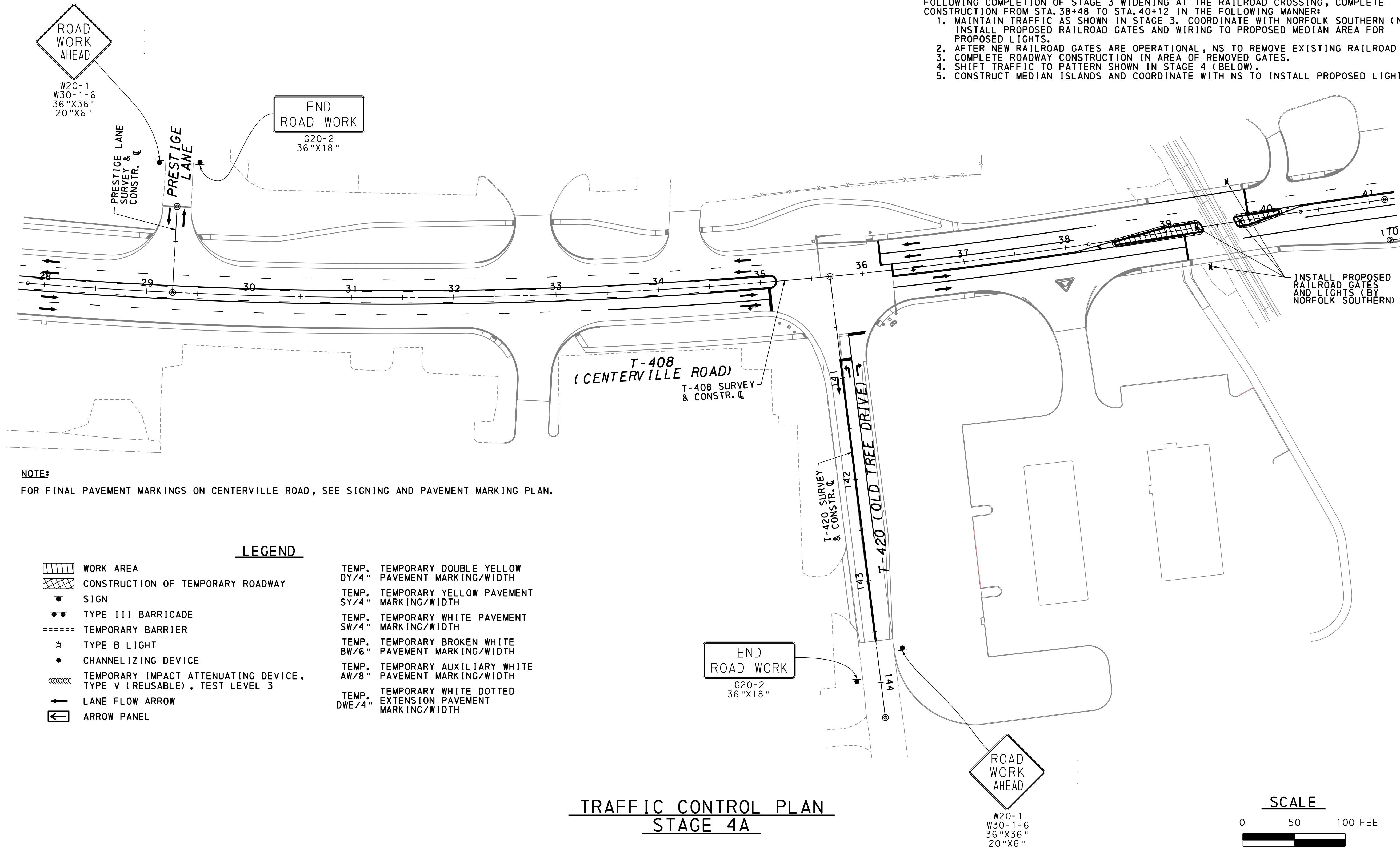
SEE PLAN SHEET 43



DISTRICT	COUNTY	ROUTE	SECTION	SHEET
8-0	LANCASTER	4057	002	48 OF 102
		T-543	LOC	
		T-408	LOC	
EAST HEMPFIELD TOWNSHIP				
REVISION NUMBER	REVISIONS			DATE
				BY

NOTE:

- FOLLOWING COMPLETION OF STAGE 3 WIDENING AT THE RAILROAD CROSSING, COMPLETE CONSTRUCTION FROM STA. 38+48 TO STA. 40+12 IN THE FOLLOWING MANNER:
1. MAINTAIN TRAFFIC AS SHOWN IN STAGE 3. COORDINATE WITH NORFOLK SOUTHERN (NS) TO INSTALL PROPOSED RAILROAD GATES AND WIRING TO PROPOSED MEDIAN AREA FOR PROPOSED LIGHTS.
 2. AFTER NEW RAILROAD GATES ARE OPERATIONAL, NS TO REMOVE EXISTING RAILROAD GATES.
 3. COMPLETE ROADWAY CONSTRUCTION IN AREA OF REMOVED GATES.
 4. SHIFT TRAFFIC TO PATTERN SHOWN IN STAGE 4 (BELOW).
 5. CONSTRUCT MEDIAN ISLANDS AND COORDINATE WITH NS TO INSTALL PROPOSED LIGHTS.



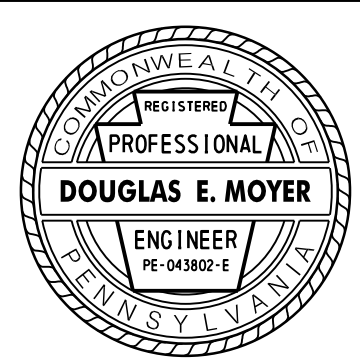
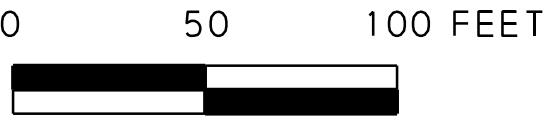
NOTE:
FOR FINAL PAVEMENT MARKINGS ON CENTERVILLE ROAD, SEE SIGNING AND PAVEMENT MARKING PLAN.

LEGEND

- | | | | |
|--|--|--------------|---|
| | WORK AREA | TEMP. DY/4" | TEMPORARY DOUBLE YELLOW PAVEMENT MARKING/WIDTH |
| | CONSTRUCTION OF TEMPORARY ROADWAY | TEMP. SY/4" | TEMPORARY YELLOW PAVEMENT MARKING/WIDTH |
| | SIGN | TEMP. SW/4" | TEMPORARY WHITE PAVEMENT MARKING/WIDTH |
| | TYPE III BARRICADE | TEMP. BW/6" | TEMPORARY BROKEN WHITE PAVEMENT MARKING/WIDTH |
| | TEMPORARY BARRIER | TEMP. AW/8" | TEMPORARY AUXILIARY WHITE PAVEMENT MARKING/WIDTH |
| | TYPE B LIGHT | TEMP. DWE/4" | TEMPORARY WHITE DOTTED EXTENSION PAVEMENT MARKING/WIDTH |
| | CHANNELIZING DEVICE | | |
| | TEMPORARY IMPACT ATTENUATING DEVICE, TYPE V (REUSABLE), TEST LEVEL 3 | | |
| | LANE FLOW ARROW | | |
| | ARROW PANEL | | |

TRAFFIC CONTROL PLAN
STAGE 4A

SCALE



LEGEND

- WORK AREA
- CONSTRUCTION OF TEMPORARY ROADWAY
- SIGN
- TYPE III BARRICADE
- TEMPORARY BARRIER
- TYPE B LIGHT
- CHANNELIZING DEVICE
- TEMPORARY IMPACT ATTENUATING DEVICE, TYPE V (REUSABLE), TEST LEVEL 3
- LANE FLOW ARROW
- ARROW PANEL
- TEMP. TEMPORARY DOUBLE YELLOW PAVEMENT MARKING/WIDTH
- TEMP. TEMPORARY YELLOW PAVEMENT MARKING/WIDTH
- TEMP. TEMPORARY YELLOW PAVEMENT MARKING/WIDTH
- TEMP. TEMPORARY WHITE PAVEMENT MARKING/WIDTH
- TEMP. TEMPORARY BROKEN WHITE PAVEMENT MARKING/WIDTH
- TEMP. TEMPORARY AUXILIARY WHITE PAVEMENT MARKING/WIDTH
- TEMP. TEMPORARY WHITE DOTTED EXTENSION PAVEMENT MARKING/WIDTH

ROAD WORK AHEAD

W20-1
W30-1-6
36"X36"
20"X6"

END ROAD WORK

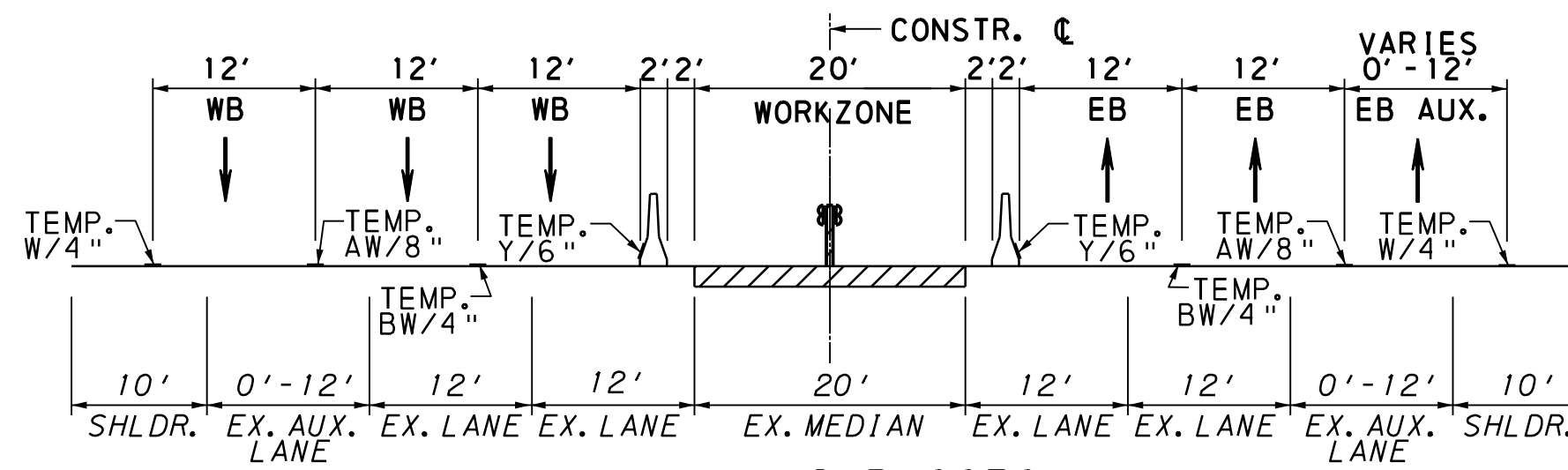
G20-2
36"X18"

NOTE:
FOR FINAL PAVEMENT MARKINGS ON CENTERVILLE ROAD AND HEMPLAND ROAD, SEE SIGNING AND PAVEMENT MARKING PLAN.

TRAFFIC CONTROL PLAN STAGE 4A

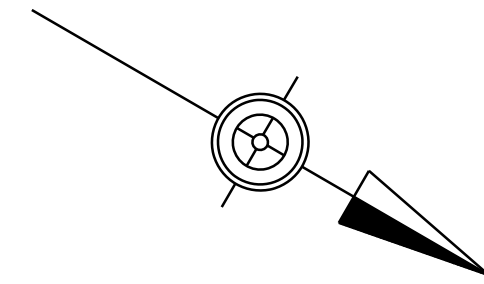
SEE PLAN SHEET 50

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
8-0	LANCASTER	4057	002	49 OF 102
		T-543	LOC	
		T-408	LOC	
EAST HEMPFIELD TOWNSHIP				
REVISION NUMBER	REVISIONS			DATE BY



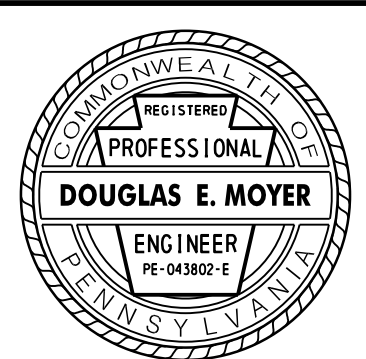
S. R. 0030
STA. 299+43 TO STA. 333+14

NOT TO SCALE



SCALE

0 50 100 FEET



SEE PLAN SHEET 48

SEE PLAN SHEET 51

TEMPORARY TRAFFIC SIGNALS				
ITEM NO.	QUAN.	UNIT	DESCRIPTION	LOCATION
9000-0728	1	EACH	TEMPORARY TRAFFIC SIGNALS (STAGES 1B, 2A, 2B, & 3)	OLD TREE DRIVE (T-420) AND CENTERVILLE ROAD (T-408)

* TEMPORARY SIGNAL PLANS NOT PROVIDED SINCE EXISTING TRAFFIC SIGNAL EQUIPMENT IS TO REMAIN (EXCEPT FOR CONTROLLER). INSTALL EQUIPMENT IN CONTROLLER CABINET TO MAINTAIN COORDINATION AS INDICATED IN THE TABULATION OF QUANTITIES.

TABULATION OF QUANTITIES OLD TREE DRIVE (T-420) AND CENTERVILLE ROAD (T-408) STAGES 1B, 2A & 2B (FOR INFORMATION ONLY)			
QUAN.	UNIT	DESCRIPTION	REMARKS
3	EACH	TRAFFIC SIGNAL SUPPORT, WOOD STRAIN POLE WITH LUMINAIRE ARM (30' MOUNTING HEIGHT)	  
1	EACH	TRAFFIC SIGNAL SUPPORT, WOOD STRAIN POLE	
1	EACH	NEMA TS-2; TYPE 2 CONTROLLER ASSEMBLY, TYPE 1 MOUNTING WITH GPS TIME CLOCK AND RAILROAD PREEMPTION	CC3
1	EACH	TRAFFIC SIGNAL TIMING ADJUSTMENTS	AS DIRECTED
5	EACH	VEHICULAR SIGNAL HEAD, THREE 12" SECTIONS	    
1	EACH	VEHICULAR SIGNAL HEAD, FIVE 12" SECTIONS	
1	EACH	ELECTRICAL SERVICE, TYPE A	CC3
2	EACH	RADAR DETECTOR, ADVANCE/DILEMMA	 
2	EACH	RADAR DETECTOR, PRESENCE	 
3	EACH	LED LUMINAIRE, ARM MOUNT	  
*	LS	MISCELLANEOUS HARDWARE	
25.25	SF	POST MOUNTED SIGNS, TYPE B	
9.5	SF	POST MOUNTED SIGNS, TYPE F	
42.5	SF	STRUCTURE MOUNTED FLAT SHEET ALUMINUM SIGNS	
2391	LF	AWG 8 ABOVE GROUND CABLE, COPPER, 1 CONDUCTOR	
853	LF	SIGNAL CABLE, 14 AWG, 5 CONDUCTOR	
215	LF	SIGNAL CABLE, 14 AWG, 7 CONDUCTOR	

* AS NEEDED

TABULATION OF QUANTITIES OLD TREE DRIVE (T-420) AND CENTERVILLE ROAD (T-408) STAGE 3 (FOR INFORMATION ONLY)			
QUAN.	UNIT	DESCRIPTION	REMARKS
2	EACH	VEHICULAR SIGNAL HEAD, THREE 8" SECTIONS	 
18.75	SF	POST MOUNTED SIGNS, TYPE B	
200	LF	SIGNAL CABLE, 14 AWG, 5 CONDUCTOR	
150	LF	SIGNAL CABLE, 14 AWG, 3 CONDUCTOR	
2	EA	PEDESTRIAN PUSH BUTTON	 

CONSTRUCTION NOTES

- A MINIMUM DISTANCE OF 8' AND A PREFERRED DISTANCE OF 12' SHALL BE MAINTAINED BETWEEN SIGNAL FACES ALONG A LINE PERPENDICULAR TO THE CENTER LINE OF THE APPROACH.
- NON-APPLICABLE AND CONFLICTING PAVEMENT MARKINGS SHALL BE ERADICATED.
- ALL STOP BARS SHALL BE LOCATED A MINIMUM OF 40' FROM THE NEAREST SIGNAL INDICATION.
- ADJUSTMENT OF THE VIDEO DETECTORS, TO THE SATISFACTION OF THE DEPARTMENT, WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- ALL PERMANENT CONFLICTING SIGNS SHALL BE COVERED PER THIS PERMIT. THEY WILL BE UNCOVERED UPON REMOVAL OF THIS SIGNAL.
- INSTALL SIGNALS WITH ENOUGH CABLE TO ALLOW FOR RELOCATION OF SIGNALS DURING FUTURE PHASES OF CONSTRUCTION.
- PLACE PAVEMENT MARKINGS IN ACCORDANCE WITH PUBLICATION 111M.
- AT NO TIME DURING CONSTRUCTION WILL VISIBILITY TO THE TEMPORARY SIGNAL HEADS BE BLOCKED OR OBSTRUCTED BY THE NEW TRAFFIC SIGNAL POLE INSTALLATION.
- IF PROPOSED SIGNS MATCH EXISTING SIGNS, AND ARE IN ACCEPTABLE LOCATIONS AND CONDITION, THEY MAY BE USED IN LIEU OF PROPOSED SIGNS SHOWN ON THIS PERMIT.
- ENSURE TEMPORARY POLES ARE OF ADEQUATE STRENGTH AND SUPPORTED PROPERLY FOR REQUIRED LOADING. USE STEEL POLES IF NECESSARY AT NO ADDITIONAL COST. ENSURE EXISTING MAST ARMS AND SIGNAL SUPPORTS CAN SUPPORT ANY REQUIRED ADDITIONAL LOADING.
- ENSURE THAT WIRES SPANNING TRAFFIC LANES DO NOT BLOCK SIGNAL HEADS, AND HAVE SUFFICIENT VERTICAL CLEARANCE.
- ENSURE THAT EXISTING EQUIPMENT TO REMAIN IN USE IS OPERATING ACCEPTABLY. REPAIR OR REPLACE AT NO ADDITIONAL COST IF NEEDED.
- EQUIP CONTROLLER WITH GPS PULSE SYNCHRONIZATION DEVICE FOR TIME-BASED COORDINATION.
- COORDINATE WITH LOCAL MUNICIPALITIES TO ENSURE PREEMPTION SYSTEM IS COMPATIBLE WITH EMITTERS.
- CONTRACTOR TO INSTALL PREEMPTION EQUIPMENT IN OPTIMAL LOCATIONS FOR PROPER FUNCTIONALITY.

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
8-0	LANCASTER	0030	145	66 OF 102
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		0023	002	
		T-543	LOC	
		T-408	LOC	
EAST HEMPFIELD TOWNSHIP				
REVISION NUMBER	REVISIONS			DATE BY

GENERAL NOTES

INSTALL, OPERATE AND MAINTAIN THIS TRAFFIC SIGNAL IN ACCORDANCE WITH PENNSYLVANIA DEPARTMENT OF TRANSPORTATION. REGULATION ON OFFICIAL TRAFFIC CONTROL DEVICES, AND PUBLICATION 408M, LATEST REVISIONS.

NO MODIFICATION OF THIS INSTALLATION IS PERMITTED UNLESS PRIOR APPROVAL IS GRANTED, IN WRITING, BY THE DEPARTMENT.

ALL MAINTENANCE NECESSARY FOR PROPER VISIBILITY OF SIGNALS, INCLUDING TRIMMING TREES, IS THE RESPONSIBILITY OF THE PERMITTEE.

THE PERMITTEE INSTALLS AND MAINTAINS ALL SIGNS AND PAVEMENT MARKINGS INDICATED ON THIS DRAWING WHICH ARE CONSIDERED PART OF THE PERMIT, UNLESS OTHERWISE INDICATED. THE DEPARTMENT MAINTAINS THE LONGITUDINAL PAVEMENT MARKINGS ON STATE HIGHWAYS.

POST MOUNTED SIGNALS SHALL BE INSTALLED WITH THE SIGNAL HEAD A MINIMUM OF 2 FEET BEHIND THE FACE OF THE CURB OR EDGE OF THE SHOULDER. SUPPORT POLES FOR OVERHEAD SIGNALS SHALL ALSO HAVE A MINIMUM HORIZONTAL CLEARANCE OF 2 FEET.

THE BOTTOM OF SIGNAL HEADS AND SIGNS ERRECTED OVER THE ROADWAY SHALL NOT BE LESS THAN 17 FEET OR MORE THAN 19 FEET ABOVE THE ROADWAY. THE BOTTOM OF POST MOUNTED SIGNAL HEADS SHALL NOT BE LESS THAN 10 FEET NOR MORE THAN 15 FEET ABOVE THE SIDEWALK OR PAVEMENT GRADE.

THE MINIMUM HORIZONTAL DISTANCE BETWEEN SIGNAL HEADS, MEASURED AT RIGHT ANGLES TO THE APPROACH, SHALL BE 8 FEET.

IN ADDITION TO THIS SIGNAL PERMIT, THE PERMITTEE MUST OBTAIN A HIGHWAY OCCUPANCY PERMIT PRIOR TO ANY OPENINGS BEING MADE IN OR UNDER ANY PORTION OF A STATE HIGHWAY.

THIS DRAWING CANNOT BE USED AS A CONSTRUCTION DRAWING UNLESS THE PERMITTEE COMPLIES WITH THE PROVISIONS OF ACT 287-1974, AS AMENDED BY ACT 38-1991 AND ACT 187-1996, PREVENTION OF DAMAGE TO UNDERGROUND UTILITIES. PRIOR TO CONSTRUCTION, CONSULT WITH UTILITY COMPANIES TO RESOLVE ANY PROBLEMS WHICH MAY BE CREATED DUE TO THE LOCATION OF UTILITIES.

PERMITTEE IS RESPONSIBLE FOR OBTAINING APPROVAL FOR INSTALLATION OF TRAFFIC SIGNAL DEVICES LOCATED OUTSIDE HIGHWAY RIGHT-OF-WAY.

COORDINATE WITH DISTRICT TRAFFIC SIGNAL UNIT PRIOR TO ANY CONSTRUCTION STAGE CHANGE TO COORDINATE CHANGES TO SIGNALS.

NO PERMANENT SIGNAL EQUIPMENT SHALL BE USED FOR TEMPORARY SIGNALS, EXCEPT FOR EQUIPMENT SHOWN WITHIN THIS PLAN.

TEMPORARY TRAFFIC SIGNAL PERMIT

IN ACCORDANCE WITH THE VEHICLE CODE, THE SECRETARY OF TRANSPORTATION HEREBY APPROVES THE INSTALLATION AND OPERATION OF A TRAFFIC SIGNAL AT THE INTERSECTION OF:
OLD TREE DRIVE (T-402) AND CENTERVILLE ROAD (T-408)

IN THE EAST HEMPFIELD TOWNSHIP, COUNTY OF LANCASTER

THIS PERMIT IS ISSUED TO, AND ACCEPTED BY THE CONTRACTOR

THIS INSTALLATION SHALL BE IN ACCORDANCE WITH THE VEHICLE CODE AND THE REGULATIONS FOR TRAFFIC SIGNS, SIGNALS AND MARKINGS OF THE DEPARTMENT OF TRANSPORTATION, AND SHALL CONFORM TO THE FOLLOWING REQUIREMENTS AND THOSE CONTAINED ON THE ATTACHED SHEETS.

TYPE OF CONTROLLER ACTUATED

TYPE OF SIGNAL MOUNTING TEMPORARY SIGNAL

HOURS OF OPERATION AS "STOP" AND GO" CONTINUOUSLY

HOURS OF OPERATION AS "FLASHING" EQUIPPED FOR EMERGENCY FLASHING

CONTROLLER OPERATION CONTROLLER TO PROVIDE THE PHASING, TIMING, AND SIGNAL DISPLAY AS INDICATED ON THE DIAGRAM.

ALL WORK PERFORMED BY THE PERMITTEE IN THE ERECTION OF THE TRAFFIC SIGNAL SHALL BE UNDER AND SUBJECT TO THE DIRECTION OF THE SECRETARY OF TRANSPORTATION OR HIS AUTHORIZED REPRESENTATIVES. THE SAID PERMITTEE SHALL USE DUE DILIGENCE IN THE EXECUTION OF THE WORK AUTHORIZED UNDER THIS PERMIT AND SHALL NOT OBSTRUCT OR ENDANGER TRAVEL ALONG THE SAID ROAD. ALL OPERATIONS MUST BE CONDUCTED SO AS TO PERMIT SAFE AND REASONABLE FREE TRAVEL AT ALL TIMES OVER THE ROAD WITHIN THE LIMITS OF THE WORK HEREIN PERMITTED.

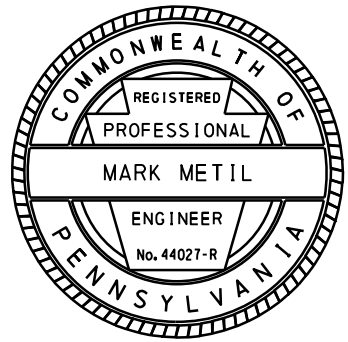
THE PERMITTEE COVENANTS AND AGREES TO FULLY INDEMNIFY AND SAVE HARMLESS THE DEPARTMENT OF TRANSPORTATION AND ASSUME ALL LIABILITY FOR DAMAGES OR INJURY, OCCURRING TO ANY PERSON, PERSONS AS PROPERTY THROUGH OR IN CONSEQUENCE OF ANY ACT OR OMISSION OF ANYONE WORKING ON THE CONSTRUCTION, OR FROM FAULTY MAINTENANCE OR OPERATION OF SUCH TRAFFIC SIGNAL.

THE SECRETARY OF TRANSPORTATION, BY LAW, RESERVES THE RIGHT TO REVOKE AND ANNUL THIS PERMIT IF THE PERMITTEE SHALL AT ANYTIME WILLFULLY OR NEGLIGENTLY FAILS TO COMPLY WITH THE CONDITIONS CONTAINED IN THIS PERMIT, OR, UPON CHANGES IN THE TRAFFIC CONDITIONS, FAIL TO MAKE ANY CHANGES IN THE CONSTRUCTION OR OPERATION OF THIS SIGNAL, OR TO REMOVE IT, WHEN SO ORDERED BY THE SECRETARY OF TRANSPORTATION. THE PERMITTEE SHALL MAINTAIN THE SIGNAL IN A SAFE CONDITION AT ALL TIMES. THE PERMITTEE SHALL NOT MAKE ANY CHANGE IN THE CONSTRUCTION OR OPERATION OF THIS TRAFFIC SIGNAL WITHOUT PRIOR WRITTEN APPROVAL OF THE SECRETARY OF TRANSPORTATION.

INITIAL DATE: APPROVED: YASSMIN GRAMIAN, P.E.

REVISION DATE: BY: DISTRICT EXECUTIVE

COUNTY: LANCASTER
MUNICIPALITY: EAST HEMPFIELD TOWNSHIP
INTERSECTION: OLD TREE DRIVE (T-402) AND CENTERVILLE ROAD (T-408)
SCALE: 0 25 50 75

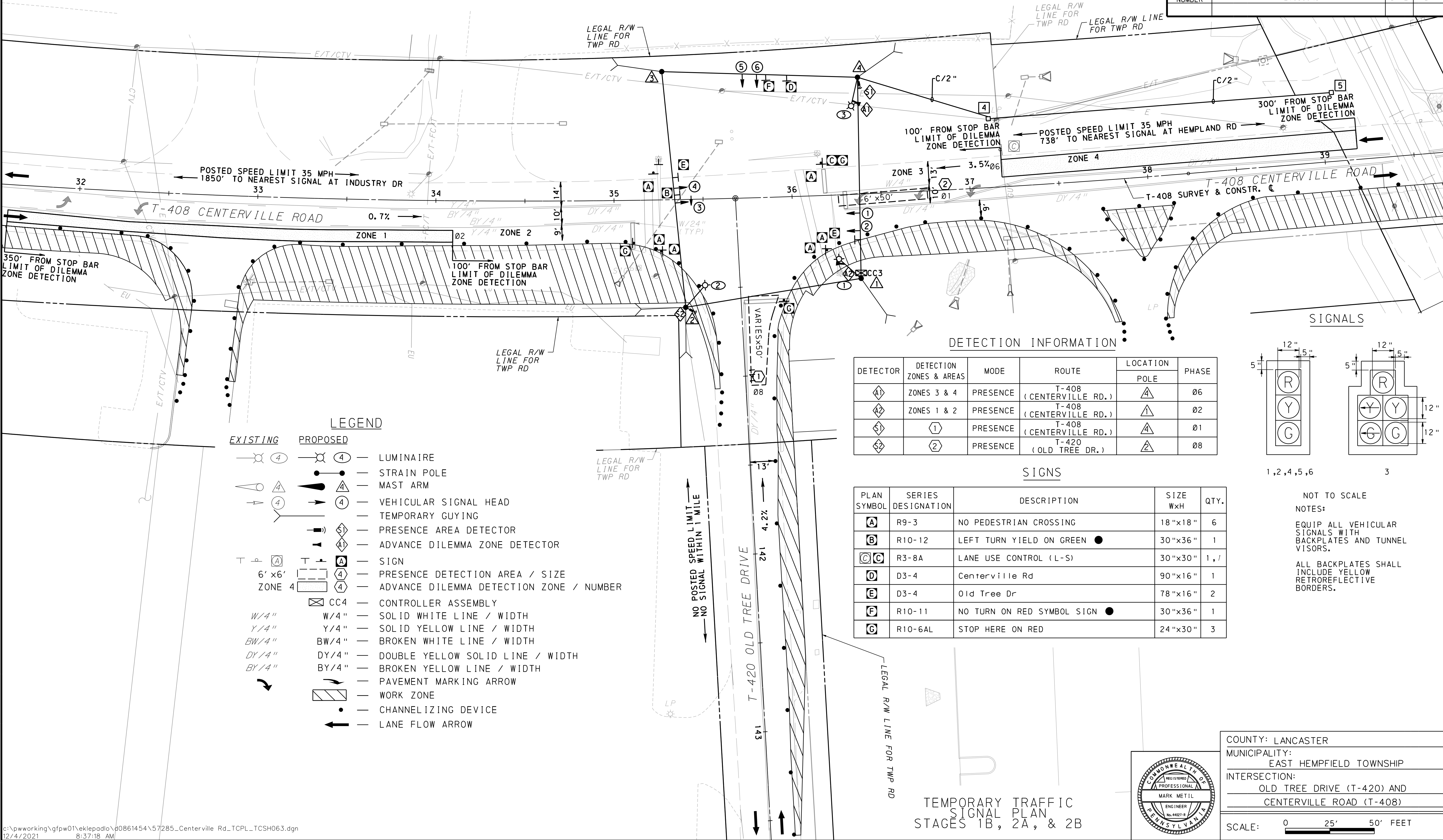


ADVANCE DILEMMA ZONE NOTES (ZONES 1 & 4) DENSITY ZONE NOTES (ZONES 2 & 3)

ESTIMATED TIME OF ARRIVAL: MIN 2.5 - MAX 5.5 SEC.
RANGE OF DETECTION: MIN 100 - MAX 350 FT. FROM STOP BAR
MINIMUM SPEED BOUNDARY: 25 MPH
ZONE MAY BE ADJUSTED IN THE FIELD.

RANGE OF DETECTION: MIN 0 - MAX 100 FT. FROM STOP BAR
MINIMUM SPEED BOUNDARY: 1 MPH
ZONE MAY BE ADJUSTED IN THE FIELD.

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8-0	LANCASTER	0030	145	67 OF 102
		4057	002	
		0023	002	
		T-543	LOC	
		T-408	LOC	
EAST HEMPFIELD TOWNSHIP				
REVISION NUMBER	REVISIONS	DATE	BY	



LEGEND

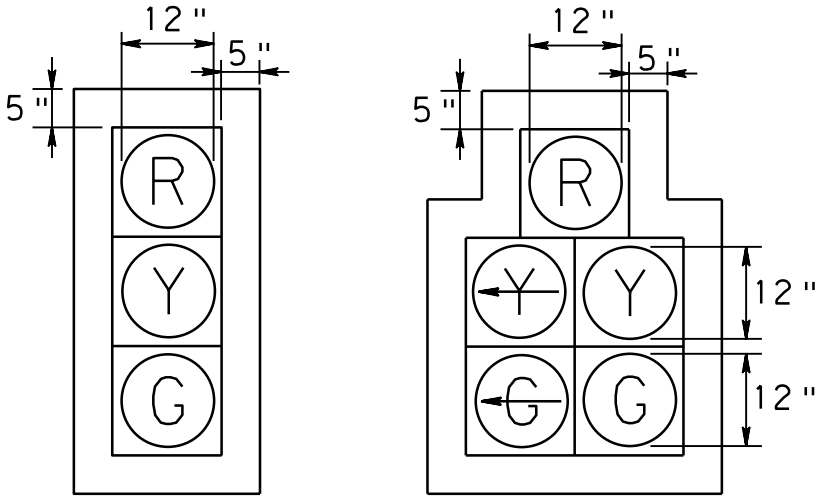
EXISTING	PROPOSED	
		LUMINAIRE
		STRAIN POLE
		MAST ARM
		VEHICULAR SIGNAL HEAD
		TEMPORARY GUYING
		PRESENCE AREA DETECTOR
		ADVANCE DILEMMA ZONE DETECTOR
		SIGN
		PRESENCE DETECTION AREA / SIZE
		ADVANCE DILEMMA DETECTION ZONE / NUMBER
		CC4 — CONTROLLER ASSEMBLY
		W/4" — SOLID WHITE LINE / WIDTH
		Y/4" — SOLID YELLOW LINE / WIDTH
		BW/4" — BROKEN WHITE LINE / WIDTH
		DY/4" — DOUBLE YELLOW SOLID LINE / WIDTH
		BY/4" — BROKEN YELLOW LINE / WIDTH
		PAVEMENT MARKING ARROW
		WORK ZONE
		CHANNELIZING DEVICE
		LANE FLOW ARROW

DETECTION INFORMATION

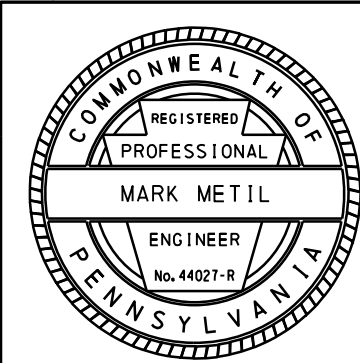
DETECTOR	DETECTION ZONES & AREAS	MODE	ROUTE	LOCATION	PHASE
				POLE	
1	ZONES 3 & 4	PRESENCE	T-408 (CENTERVILLE RD.)	1	06
2	ZONES 1 & 2	PRESENCE	T-408 (CENTERVILLE RD.)	2	02
3	1	PRESENCE	T-408 (CENTERVILLE RD.)	3	01
4	2	PRESENCE	T-420 (OLD TREE DR.)	4	08

SIGNS

PLAN SYMBOL	SERIES DESIGNATION	DESCRIPTION	SIZE WxH	QTY.
A	R9-3	NO PEDESTRIAN CROSSING	18"x18"	6
B	R10-12	LEFT TURN YIELD ON GREEN	30"x36"	1
C	R3-8A	LANE USE CONTROL (L-S)	30"x30"	1, 1
D	D3-4	Centerville Rd	90"x16"	1
E	D3-4	Old Tree Dr	78"x16"	2
F	R10-11	NO TURN ON RED SYMBOL SIGN	30"x36"	1
G	R10-6AL	STOP HERE ON RED	24"x30"	3



NOT TO SCALE
NOTES:
EQUIP ALL VEHICULAR SIGNALS WITH BACKPLATES AND TUNNEL VISORS.
ALL BACKPLATES SHALL INCLUDE YELLOW RETROREFLECTIVE BORDERS.



COUNTY: LANCASTER
MUNICIPALITY: EAST HEMPFIELD TOWNSHIP
INTERSECTION: OLD TREE DRIVE (T-420) AND CENTERVILLE ROAD (T-408)

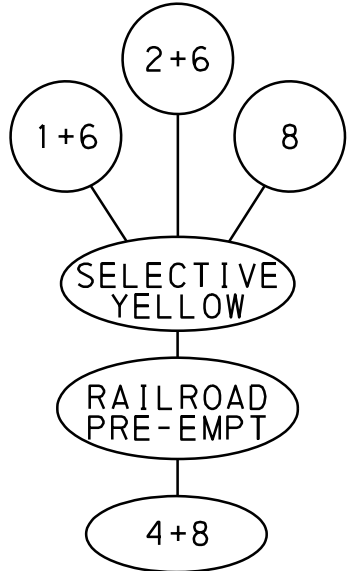
SCALE: 0 25' 50' FEET

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
8-0	LANCASTER	0030	145	68 OF 102
		4057	002	
		0023	002	
		T-543	LOC	
		T-408	LOC	
EAST HEMPFIELD TOWNSHIP				
REVISION NUMBER	REVISIONS			DATE BY

	PHASE 1+6			PHASE 2+6			PHASE 8			RAILROAD PRE-EMPTION	FLASHING			
											F L A S H I N G			
	INTERVALS			INTERVALS			INTERVALS			INTERVALS				
SIGNALS	1	2	3				1	2	3		1	2	3	4
1,2	R	R	R				G	Y	R		R	R	R	Y
3	G/4	Y/4	R/2				G	Y	R		R	R	R	Y
4	G	Y	R				G	Y	R		R	R	R	Y
5,6	R	R	R				R	R	R		G	Y	R	R
											SELECTIVE YELLOW	R	R	R
FIXED		3.6	2.4					3.6	2.4			3	2.8	
MINIMUM	3						10				3			
PASSAGE	3						1				3			
MAX I (FREE)	20						40				20			
MEMORY	NON-LOCKING			MIN-RECALL			NON-LOCKING							

NOTES:
1. G/4 IF FOLLOWED BY PHASE 2+6
2. G IF FOLLOWED BY PHASE 2+6
3. SELECTIVE YELLOW INCLUDES THE NORMAL ALL-RED PHASE INTERVAL
4. NORMAL YELLOW AND ALL-RED PHASE TIMINGS SHALL BE UTILIZED

RAILROAD PRE-EMPTION SEQUENCE



RAILROAD PRE-EMPTION NOTES

THE VEHICULAR TRAFFIC SIGNAL CONTROLLER IS INTERCONNECTED WITH THE EXISTING RAILROAD CROSSING PROTECTION. WHEN THE RAILROAD CROSSING PROTECTION IS ACTIVATED, THE VEHICULAR TRAFFIC SIGNAL CONTROLLER WILL PROVIDE THE RAILROAD PRE-EMPTION PHASE. RAILROAD PRE-EMPTION MAY OCCUR DURING ANY INTERVAL OF THE NORMAL OPERATION.
NOTE: MINIMUM GREEN FOR ANY PHASE MUST BE SERVED.

THEREFORE, IF RAILROAD PRE-EMPTION OCCURS:

1. UTILIZE THE APPROPRIATE CLEARANCE INTERVAL PRIOR TO GOING TO INTERVAL 1 OF THE RAILROAD PRE-EMPTION PHASE.
2. ANY GREEN INDICATION UNDER NORMAL OPERATION OR DURING EMERGENCY PRE-EMPTION, EXCEPT THE GREEN INDICATIONS FOR SIGNALS 3 AND 4, SHALL BE FOLLOWED IMMEDIATELY BY INTERVAL 1 OF THE RAILROAD PRE-EMPTION PHASE AFTER THE MINIMUM GREEN TIME HAS BEEN SERVED.
3. ANY YELLOW INDICATION SHALL TIME OUT AND BE FOLLOWED BY THE NORMAL ALL-RED INTERVAL AND BE FOLLOWED IMMEDIATELY BY INTERVAL 2 OF THE RAILROAD PRE-EMPTION PHASE.
4. ANY ALL-RED INTERVAL SHALL TIME OUT AND BE FOLLOWED IMMEDIATELY BY INTERVAL 2 OF THE RAILROAD PRE-EMPTION PHASE.

IF RAILROAD PRE-EMPTION OCCURS DURING EMERGENCY FLASHING, SIGNALS SHALL REMAIN IN EMERGENCY FLASHING.

UPON TERMINATION OF INTERVAL 4 OF THE RAILROAD PRE-EMPTION PHASE, THE VEHICULAR TRAFFIC SIGNAL CONTROLLER SHALL PROCEED TO INTERVAL 1 OF PHASE 8.

D
Centerville Rd

10.6"UC LET
8"LC LET
CLEARVIEW 2W

05.1 -
08.4 - C
06.6 - e
06.0 - n
04.4 - t
06.6 - e
03.8 - r
06.1 - v
03.6 - i
03.7 - l
03.4 - l
05.5 - e
08.0 -
08.2 - R
05.6 - d
05.0 -

90.0

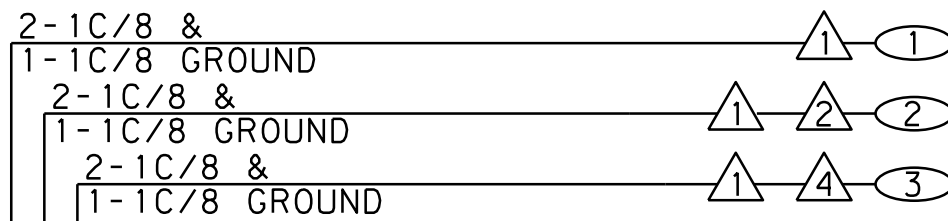
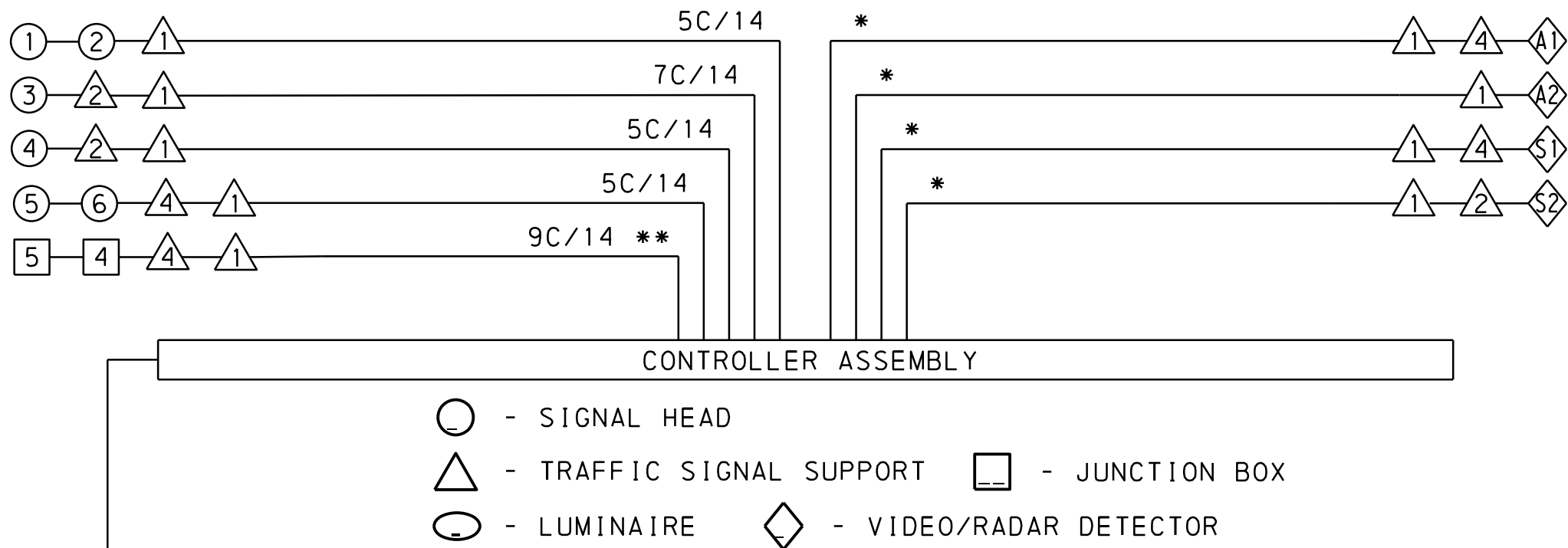
E
Old Tree Dr

10.6"UC LET
8"LC LET
CLEARVIEW 2W

03.3 -
10.2 - 0
03.4 - l
05.6 - d
08.0 -
07.7 - T
04.2 - r
06.4 - e
05.5 - e
08.0 -
09.0 - D
03.4 - r
03.3 -

78.0

WIRING DIAGRAM



5C/14 - CABLE (NO. OF CONDUCTORS/SIZE AWG)

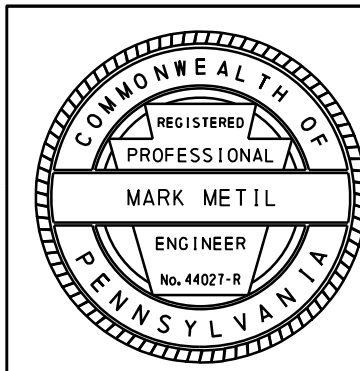
* WIRE PER MANUFACTURERS SPECIFICATIONS.
** INSTALL JUNCTION BOXES 4 AND 5 AS SHOWN ON THE PERMANENT TRAFFIC SIGNAL PLANS. OWNER OF RR CROSSING SHALL BE RESPONSIBLE FOR FINAL CONNECTION BETWEEN RR CROSSING SIGNAL CONTROLLER AND JUNCTION BOX.

NOTE: CABLES WITHIN CONDUITS SHALL NOT BE BOUND TOGETHER

COORDINATION CHART

EVENT NO.	TIME	PLAN	DAY OF WEEK							CYCLE	OFFSET (STAGE 1)	OFFSET (STAGE 2)	SPLIT								REMARKS
			M	T	W	T	F	S	S				01	02	03	04	05	06	07	08	
1	00:00	FREE	X	X	X	X	X	X	X	-	-	-	-	-	-	-	-	-	-	-	MAX I
2	06:30	1	X	X	X	X	X	X	X	130	122	40	30	69	-	-	-	99	-	31	AM PEAK
3	08:00	2	X	X	X	X	X	X	X	130	124	105	26	64	-	-	-	90	-	40	MIDDAY PEAK
4	15:00	3	X	X	X	X	X	X	X	130	125	80	19	65	-	-	-	84	-	46	PM PEAK
5	18:00	FREE	X	X	X	X	X	X	X	-	-	-	-	-	-	-	-	-	-	-	FREE
6	11:00	4								130	124	105	26	64	-	-	-	90	-	40	WEEKEND
7	14:00	FREE								-	-	-	-	-	-	-	-	-	-	-	FREE

TEMPORARY TRAFFIC
SIGNAL PLAN
STAGES 1B, 2A, & 2B



COUNTY: LANCASTER
MUNICIPALITY: EAST HEMPFIELD TOWNSHIP
INTERSECTION: OLD TREE DRIVE (T-420) AND CENTERVILLE ROAD (T-408)

SCALE: 0 25' 50' FEET

ADVANCE DILEMMA ZONE NOTES (ZONES 1 & 4)

ESTIMATED TIME OF ARRIVAL: MIN 2.5 - MAX 5.5 SEC.
RANGE OF DETECTION: MIN 100' - MAX 350 FT. FROM STOP BAR
MINIMUM SPEED BOUNDARY: 25 MPH
ZONE MAY BE ADJUSTED IN THE FIELD.

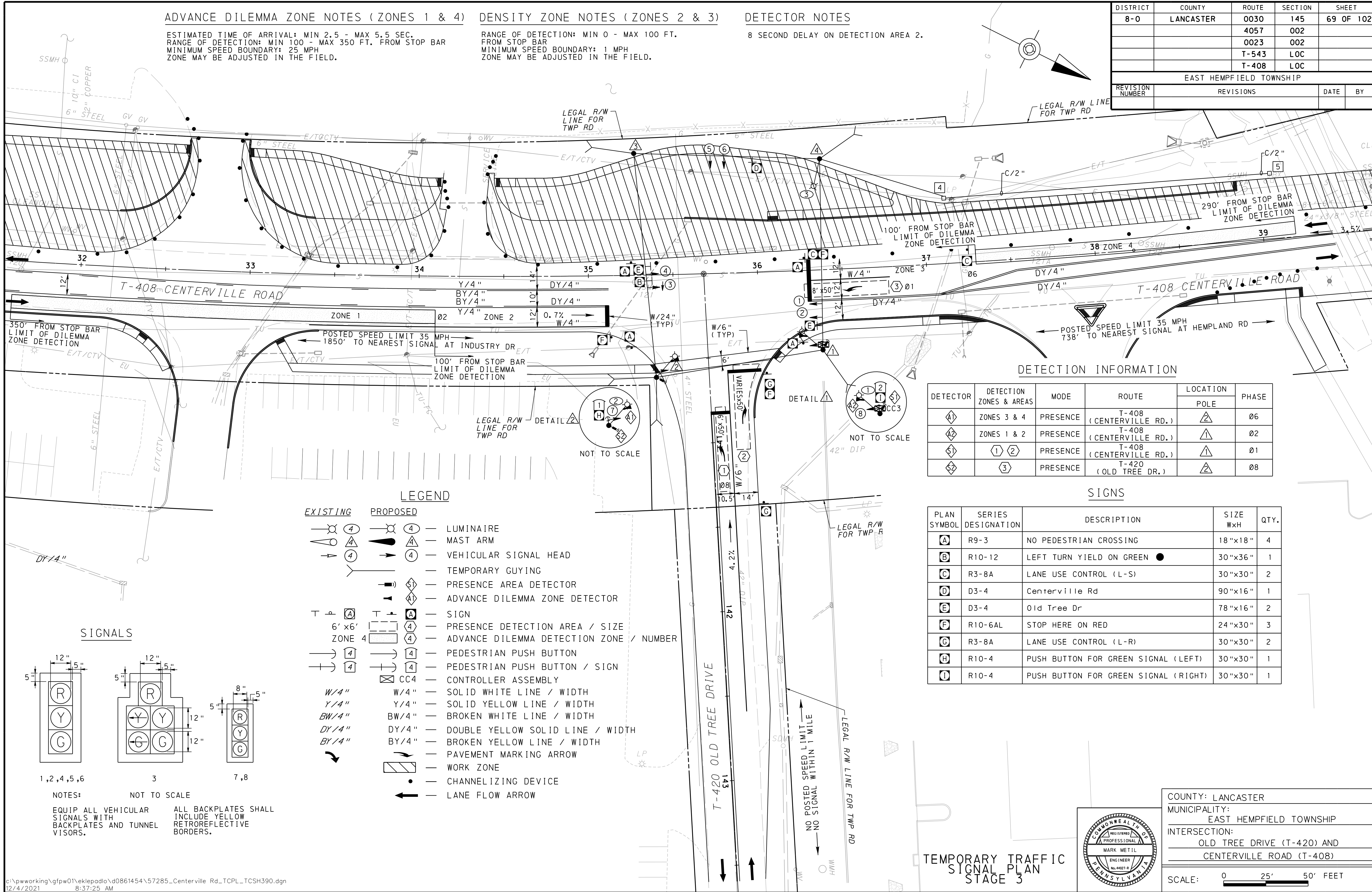
DENSITY ZONE NOTES (ZONES 2 & 3)

RANGE OF DETECTION: MIN 0 - MAX 100 FT.
FROM STOP BAR
MINIMUM SPEED BOUNDARY: 1 MPH
ZONE MAY BE ADJUSTED IN THE FIELD.

DETECTOR NOTES

8 SECOND DELAY ON DETECTION AREA 2.

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
8-0	LANCASTER	0030	145	69 OF 102
		4057	002	
		0023	002	
		T-543	LOC	
		T-408	LOC	
EAST HEMPFIELD TOWNSHIP				
REVISION NUMBER	REVISIONS	DATE	BY	



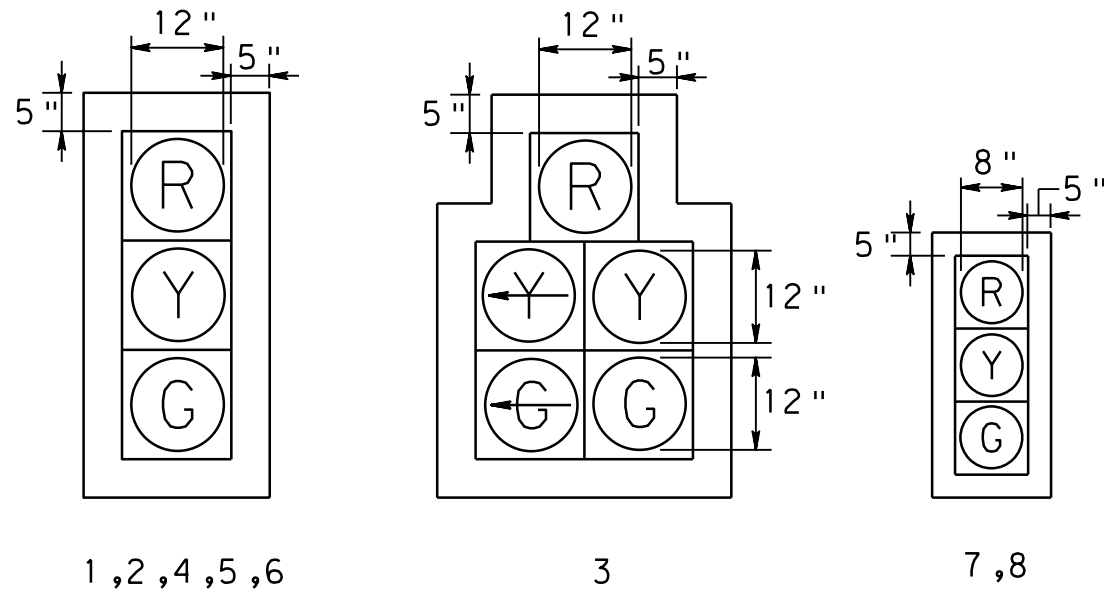
DETECTION INFORMATION

DETECTOR	DETECTION ZONES & AREAS	MODE	ROUTE	LOCATION	PHASE
				POLE	
1	ZONES 3 & 4	PRESENCE	T-408 (CENTERVILLE RD.)	2	06
2	ZONES 1 & 2	PRESENCE	T-408 (CENTERVILLE RD.)	1	02
3	1 2	PRESENCE	T-408 (CENTERVILLE RD.)	1	01
4	3	PRESENCE	T-420 (OLD TREE DR.)	2	08

SIGNS

PLAN SYMBOL	SERIES DESIGNATION	DESCRIPTION	SIZE WxH	QTY.
A	R9-3	NO PEDESTRIAN CROSSING	18"x18"	4
B	R10-12	LEFT TURN YIELD ON GREEN	30"x36"	1
C	R3-8A	LANE USE CONTROL (L-S)	30"x30"	2
D	D3-4	Centerville Rd	90"x16"	1
E	D3-4	Old Tree Dr	78"x16"	2
F	R10-6AL	STOP HERE ON RED	24"x30"	3
G	R3-8A	LANE USE CONTROL (L-R)	30"x30"	2
H	R10-4	PUSH BUTTON FOR GREEN SIGNAL (LEFT)	30"x30"	1
I	R10-4	PUSH BUTTON FOR GREEN SIGNAL (RIGHT)	30"x30"	1

SIGNALS



NOTES: NOT TO SCALE

EQUIP ALL VEHICULAR SIGNALS WITH BACKPLATES AND TUNNEL VISORS.
ALL BACKPLATES SHALL INCLUDE YELLOW RETROREFLECTIVE BORDERS.

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
8-0	LANCASTER	0030	145	70 OF 102
		4057	002	
		0023	002	
		T-543	LOC	
		T-408	LOC	
EAST HEMPFIELD TOWNSHIP				
REVISION NUMBER	REVISIONS			DATE BY

MOVEMENT, SEQUENCE AND TIMING

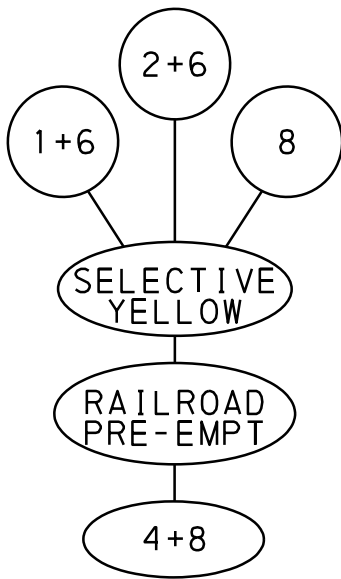
	PHASE 1+6				PHASE 2+6				PHASE 8				RAILROAD PRE-EMPTION				FLASHING
	INTERVALS				INTERVALS				INTERVALS				INTERVALS				
SIGNALS	1	2	3		1	2	3		1	2	3		1	2	3	4	
1,2	R	R	R		G	Y	R		R	R	R		SELECTIVE YELLOW	R	R	R	Y
3	G ₆	Y ₄	R ₂		G	Y	R		R	R	R			G ₆	Y	R	Y
4	G	Y ₂	R ₂		G	Y	R		R	R	R			G	Y	R	Y
5,6	R	R	R		R	R	R		G	Y	R			R	R	R	R
7,8*	R	R	R		G	Y	R		R	R	R			R	R	R	Y
FIXED		3.6	2.5			3.6	2.5			3	2.4		①	33	④	④	
MINIMUM	3				10				3								
PASSAGE	3				1				3								
MAX I (FREE)	20				40				20								
MEMORY	NON-LOCKING				MIN-RECALL				NON-LOCKING								

NOTES:

1. G/4 IF FOLLOWED BY PHASE 2+6
2. G IF FOLLOWED BY PHASE 2+6
3. SELECTIVE YELLOW INCLUDES THE NORMAL ALL-RED PHASE INTERVAL
4. NORMAL YELLOW AND ALL-RED PHASE TIMINGS SHALL BE UTILIZED

* UPON PED ACTIVATION ONLY

RAILROAD
PRE-EMPTION SEQUENCE



RAILROAD PRE-EMPTION NOTES

THE VEHICULAR TRAFFIC SIGNAL CONTROLLER IS INTERCONNECTED WITH THE EXISTING RAILROAD CROSSING PROTECTION. WHEN THE RAILROAD CROSSING PROTECTION IS ACTIVATED, THE VEHICULAR TRAFFIC SIGNAL CONTROLLER WILL PROVIDE THE RAILROAD PRE-EMPTION PHASE. RAILROAD PRE-EMPTION MAY OCCUR DURING ANY INTERVAL OF THE NORMAL OPERATION.

NOTE: MINIMUM GREEN FOR ANY PHASE MUST BE SERVED.

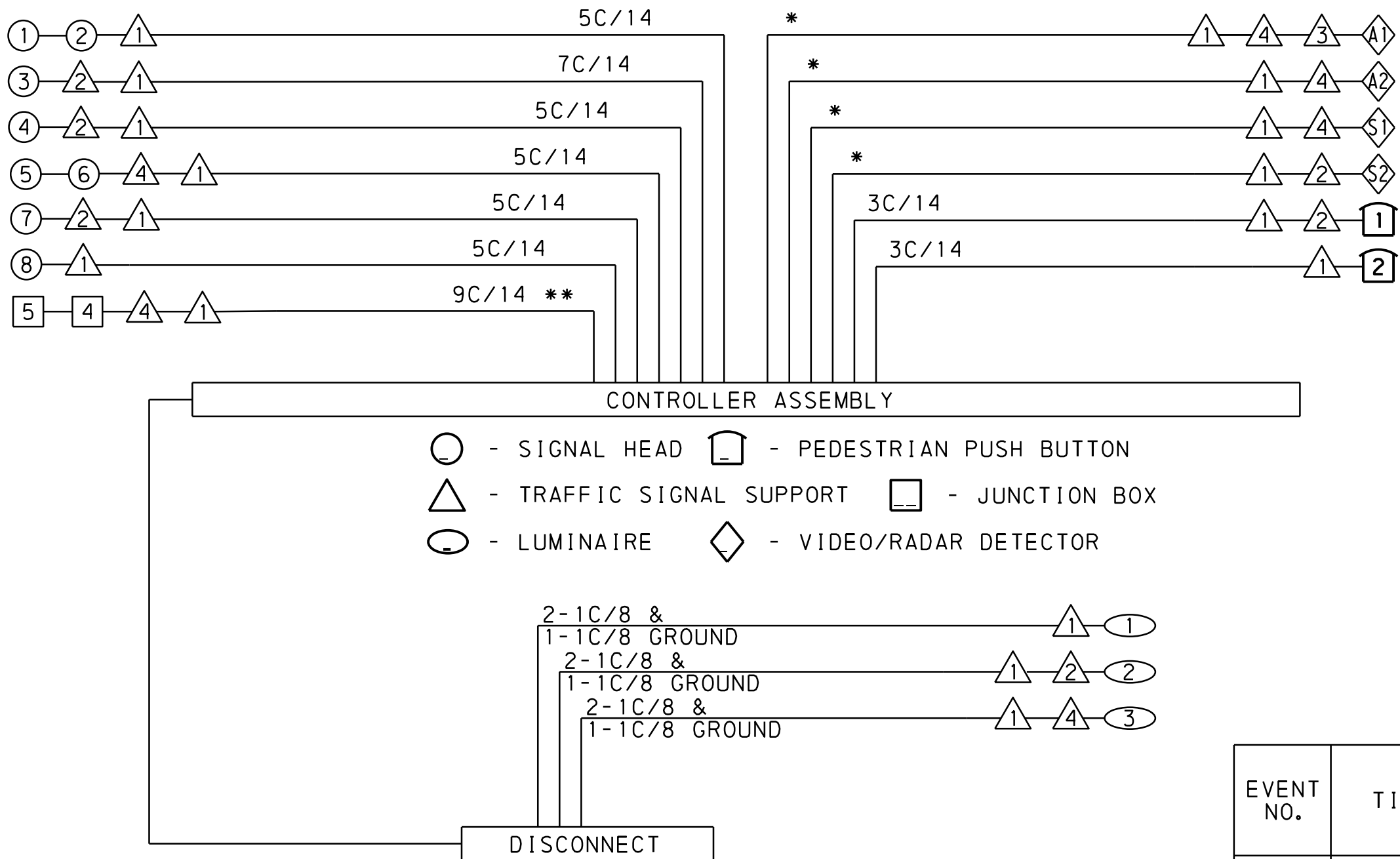
THEREFORE, IF RAILROAD PRE-EMPTION OCCURS:

1. UTILIZE THE APPROPRIATE CLEARANCE INTERVAL PRIOR TO GOING TO INTERVAL 1 OF THE RAILROAD PRE-EMPTION PHASE.
2. ANY GREEN INDICATION UNDER NORMAL OPERATION OR DURING EMERGENCY PRE-EMPTION, EXCEPT THE GREEN INDICATIONS FOR SIGNALS 3 AND 4, SHALL BE FOLLOWED IMMEDIATELY BY INTERVAL 1 OF THE RAILROAD PRE-EMPTION PHASE AFTER THE MINIMUM GREEN TIME HAS BEEN SERVED.
3. ANY YELLOW INDICATION SHALL TIME OUT AND BE FOLLOWED BY THE NORMAL ALL-RED INTERVAL AND BE FOLLOWED IMMEDIATELY BY INTERVAL 2 OF THE RAILROAD PRE-EMPTION PHASE.
4. ANY ALL-RED INTERVAL SHALL TIME OUT AND BE FOLLOWED IMMEDIATELY BY INTERVAL 2 OF THE RAILROAD PRE-EMPTION PHASE.

IF RAILROAD PRE-EMPTION OCCURS DURING EMERGENCY FLASHING, SIGNALS SHALL REMAIN IN EMERGENCY FLASHING.

UPON TERMINATION OF INTERVAL 4 OF THE RAILROAD PRE-EMPTION PHASE, THE VEHICULAR TRAFFIC SIGNAL CONTROLLER SHALL PROCEED TO INTERVAL 1 OF PHASE 8.

WIRING DIAGRAM



5C/14 - CABLE (NO. OF CONDUCTORS/SIZE AWG)

* WIRE PER MANUFACTURERS SPECIFICATIONS

** INSTALL JUNCTION BOXES 4 AND 5 AS SHOWN ON THE PERMANENT TRAFFIC SIGNAL PLANS. OWNER OF RR CROSSING SHALL BE RESPONSIBLE FOR FINAL CONNECTION BETWEEN RR CROSSING SIGNAL CONTROLLER AND JUNCTION BOX.

NOTE: CABLES WITHIN CONDUITS SHALL NOT BE BOUND TOGETHER

COORDINATION CHART

EVENT NO.	TIME	PLAN	DAY OF WEEK							CYCLE	OFFSET	SPLIT								REMARKS
			M	T	W	T	F	S	S			01	02	03	04	05	06	07	08	
1	00:00	FREE								-	-	-	-	-	-	-	-	-	-	MAX I
2	06:30	1								130	119	34	76	-	-	-	110	-	20	AM PEAK
3	08:00	2								130	118	29	76	-	-	-	105	-	25	MIDDAY PEAK
4	15:00	3								130	113	21	80	-	-	-	101	-	29	PM PEAK
5	18:00	FREE								-	-	-	-	-	-	-	-	-	-	FREE
6	11:00	4								130	118	29	76	-	-	-	105	-	25	WEEKEND
7	14:00	FREE								-	-	-	-	-	-	-	-	-	-	FREE

D
Centerville Rd

10.6"UC LET
8"LC LET
CLEARVIEW 2W

05.1 -
08.4 - C
06.6 - e
06.0 - n
04.4 - t
06.6 - e
03.8 - r
06.1 - v
03.6 - i
03.7 - l
03.4 - l
05.5 - e
08.0 -
08.2 - R
05.6 - d
05.0 -

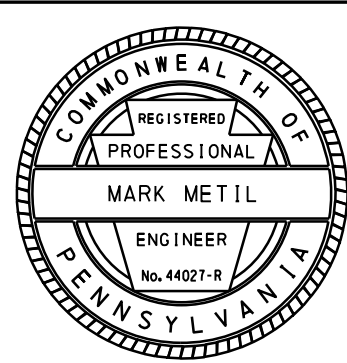
90.0

E
Old Tree Dr

10.6"UC LET
8"LC LET
CLEARVIEW 2W

03.3 -
10.2 - O
03.4 - l
05.6 - d
08.0 -
07.7 - T
04.2 - r
06.4 - e
05.5 - e
08.0 -
09.0 - D
03.4 - r
03.3 -

78.0



COUNTY: LANCASTER

MUNICIPALITY:
EAST HEMPFIELD TOWNSHIP

INTERSECTION:
OLD TREE DRIVE (T-420) AND
CENTERVILLE ROAD (T-408)

SCALE: 0 25' 50' FEET

TEMPORARY TRAFFIC
SIGNAL PLAN
STAGE 3

TEMPORARY TRAFFIC SIGNALS				
ITEM NO.	QUAN.	UNIT	DESCRIPTION	LOCATION
9000-0729	1	EACH	TEMPORARY TRAFFIC SIGNALS (STAGES 1B, 2A, 2B, & 3)	HEMPLAND ROAD (T-413) AND CENTERVILLE ROAD (T-408)

* TEMPORARY SIGNAL PLANS NOT PROVIDED SINCE EXISTING TRAFFIC SIGNAL EQUIPMENT IS TO REMAIN (EXCEPT FOR CONTROLLER). INSTALL EQUIPMENT IN CONTROLLER CABINET TO MAINTAIN COORDINATION AS INDICATED IN THE TABULATION OF QUANTITIES.

TABULATION OF QUANTITIES HEMPLAND ROAD (T-413) AND CENTERVILLE ROAD (T-408) STAGES 1B, 2A & 2B (FOR INFORMATION ONLY)			
QUAN.	UNIT	DESCRIPTION	REMARKS
4	EACH	TRAFFIC SIGNAL SUPPORT, WOOD STRAIN POLE WITH LUMINAIRE ARM (30' MOUNTING HEIGHT)	① ② ③ ④
1	EACH	NEMA TS-2; TYPE 2 CONTROLLER ASSEMBLY, TYPE 1 MOUNTING WITH GPS TIME CLOCK AND RAILROAD PREEMPTION	CC4
1	EACH	TRAFFIC SIGNAL TIMING ADJUSTMENTS	AS DIRECTED
7	EACH	VEHICULAR SIGNAL HEAD, THREE 12" SECTIONS	② ④ ⑤ ⑥ ⑦ ⑧ ⑨
2	EACH	VEHICULAR SIGNAL HEAD, FIVE 12" SECTIONS	① ③
1	EACH	ELECTRICAL SERVICE, TYPE A	CC4
2	EACH	RADAR DETECTOR, ADVANCE/DILEMMA	④ ⑤
4	EACH	RADAR DETECTOR, PRESENCE	⑥ ⑦ ⑧ ⑨
4	EACH	LED LUMINAIRE, ARM MOUNT	① ② ③ ④
*	LS	MISCELLANEOUS HARDWARE	
71.75	SF	POST MOUNTED SIGNS, TYPE B	
6.75	SF	POST MOUNTED SIGNS, TYPE F	
92.5	SF	STRUCTURE MOUNTED FLAT SHEET ALUMINUM SIGNS	
3525	LF	AWG 8 ABOVE GROUND CABLE, COPPER, 1 CONDUCTOR	
1475	LF	SIGNAL CABLE, 14 AWG, 5 CONDUCTOR	
400	LF	SIGNAL CABLE, 14 AWG, 7 CONDUCTOR	

* AS NEEDED

TABULATION OF QUANTITIES HEMPLAND ROAD (T-413) AND CENTERVILLE ROAD (T-408) STAGE 3 (FOR INFORMATION ONLY)			
QUAN.	UNIT	DESCRIPTION	REMARKS
2	EACH	VEHICULAR SIGNAL HEAD, THREE 12" SECTIONS	⑩ ⑪
18.75	SF	POST MOUNTED SIGNS, TYPE B	
475	LF	SIGNAL CABLE, 14 AWG, 5 CONDUCTOR	

GENERAL NOTES

INSTALL, OPERATE AND MAINTAIN THIS TRAFFIC SIGNAL IN ACCORDANCE WITH PENNSYLVANIA DEPARTMENT OF TRANSPORTATION. REGULATION ON OFFICIAL TRAFFIC CONTROL DEVICES, AND PUBLICATION 408M, LATEST REVISIONS.

NO MODIFICATION OF THIS INSTALLATION IS PERMITTED UNLESS PRIOR APPROVAL IS GRANTED, IN WRITING, BY THE DEPARTMENT.

ALL MAINTENANCE NECESSARY FOR PROPER VISIBILITY OF SIGNALS, INCLUDING TRIMMING TREES, IS THE RESPONSIBILITY OF THE PERMITTEE.

THE PERMITTEE INSTALLS AND MAINTAINS ALL SIGNS AND PAVEMENT MARKINGS INDICATED ON THIS DRAWING WHICH ARE CONSIDERED PART OF THE PERMIT, UNLESS OTHERWISE INDICATED. THE DEPARTMENT MAINTAINS THE LONGITUDINAL PAVEMENT MARKINGS ON STATE HIGHWAYS.

POST MOUNTED SIGNALS SHALL BE INSTALLED WITH THE SIGNAL HEAD A MINIMUM OF 2 FEET BEHIND THE FACE OF THE CURB OR EDGE OF THE SHOULDER. SUPPORT POLES FOR OVERHEAD SIGNALS SHALL ALSO HAVE A MINIMUM HORIZONTAL CLEARANCE OF 2 FEET.

THE BOTTOM OF SIGNAL HEADS AND SIGNS ERECTED OVER THE ROADWAY SHALL NOT BE LESS THAN 17 FEET OR MORE THAN 19 FEET ABOVE THE ROADWAY. THE BOTTOM OF POST MOUNTED SIGNAL HEADS SHALL NOT BE LESS THAN 10 FEET NOR MORE THAN 15 FEET ABOVE THE SIDEWALK OR PAVEMENT GRADE.

THE MINIMUM HORIZONTAL DISTANCE BETWEEN SIGNAL HEADS, MEASURED AT RIGHT ANGLES TO THE APPROACH, SHALL BE 8 FEET.

IN ADDITION TO THIS SIGNAL PERMIT, THE PERMITTEE MUST OBTAIN A HIGHWAY OCCUPANCY PERMIT PRIOR TO ANY OPENINGS BEING MADE IN OR UNDER ANY PORTION OF A STATE HIGHWAY.

THIS DRAWING CANNOT BE USED AS A CONSTRUCTION DRAWING UNLESS THE PERMITTEE COMPLIES WITH THE PROVISIONS OF ACT 287-1974, AS AMENDED BY ACT 38-1991 AND ACT 187-1996, PREVENTION OF DAMAGE TO UNDERGROUND UTILITIES. PRIOR TO CONSTRUCTION, CONSULT WITH UTILITY COMPANIES TO RESOLVE ANY PROBLEMS WHICH MAY BE CREATED DUE TO THE LOCATION OF UTILITIES.

PERMITTEE IS RESPONSIBLE FOR OBTAINING APPROVAL FOR INSTALLATION OF TRAFFIC SIGNAL DEVICES LOCATED OUTSIDE HIGHWAY RIGHT-OF-WAY.

COORDINATE WITH DISTRICT TRAFFIC SIGNAL UNIT PRIOR TO ANY CONSTRUCTION STAGE CHANGE TO COORDINATE CHANGES TO SIGNALS.

NO PERMANENT SIGNAL EQUIPMENT SHALL BE USED FOR TEMPORARY SIGNALS, EXCEPT FOR EQUIPMENT SHOWN WITHIN THIS PLAN.

CONSTRUCTION NOTES

1. A MINIMUM DISTANCE OF 8' AND A PREFERRED DISTANCE OF 12' SHALL BE MAINTAINED BETWEEN SIGNAL FACES ALONG A LINE PERPENDICULAR TO THE CENTER LINE OF THE APPROACH.
2. NON-APPLICABLE AND CONFLICTING PAVEMENT MARKINGS SHALL BE ERADICATED.
3. ALL STOP BARS SHALL BE LOCATED A MINIMUM OF 40' FROM THE NEAREST SIGNAL INDICATION.
4. ADJUSTMENT OF THE VIDEO DETECTORS, TO THE SATISFACTION OF THE DEPARTMENT, WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.
5. ALL PERMANENT CONFLICTING SIGNS SHALL BE COVERED PER THIS PERMIT. THEY WILL BE UNCOVERED UPON REMOVAL OF THIS SIGNAL.
6. INSTALL SIGNALS WITH ENOUGH CABLE TO ALLOW FOR RELOCATION OF SIGNALS DURING FUTURE PHASES OF CONSTRUCTION.
7. PLACE PAVEMENT MARKINGS IN ACCORDANCE WITH PUBLICATION 111M.
8. AT NO TIME DURING CONSTRUCTION WILL VISIBILITY TO THE TEMPORARY SIGNAL HEADS BE BLOCKED OR OBSTRUCTED BY THE NEW TRAFFIC SIGNAL POLE INSTALLATION.
9. IF PROPOSED SIGNS MATCH EXISTING SIGNS, AND ARE IN ACCEPTABLE LOCATIONS AND CONDITION, THEY MAY BE USED IN LIEU OF PROPOSED SIGNS SHOWN ON THIS PERMIT.
10. ENSURE TEMPORARY POLES ARE OF ADEQUATE STRENGTH AND SUPPORTED PROPERLY FOR REQUIRED LOADING. USE STEEL POLES IF NECESSARY AT NO ADDITIONAL COST. ENSURE EXISTING MAST ARMS AND SIGNAL SUPPORTS CAN SUPPORT ANY REQUIRED ADDITIONAL LOADING.
11. ENSURE THAT WIRES SPANNING TRAFFIC LANES DO NOT BLOCK SIGNAL HEADS, AND HAVE SUFFICIENT VERTICAL CLEARANCE.
12. ENSURE THAT EXISTING EQUIPMENT TO REMAIN IN USE IS OPERATING ACCEPTABLY. REPAIR OR REPLACE AT NO ADDITIONAL COST IF NEEDED.
13. EQUIP CONTROLLER WITH GPS PULSE SYNCHRONIZATION DEVICE FOR TIME-BASED COORDINATION.
14. COORDINATE WITH LOCAL MUNICIPALITIES TO ENSURE PREEMPTION SYSTEM IS COMPATIBLE WITH EMITTERS.
15. CONTRACTOR TO INSTALL PREEMPTION EQUIPMENT IN OPTIMAL LOCATIONS FOR PROPER FUNCTIONALITY.

TEMPORARY TRAFFIC SIGNAL PERMIT

IN ACCORDANCE WITH THE VEHICLE CODE, THE SECRETARY OF TRANSPORTATION HEREBY APPROVES THE INSTALLATION AND OPERATION OF A TRAFFIC SIGNAL AT THE INTERSECTION OF:
HEMPLAND ROAD (T-413) AND CENTERVILLE ROAD (T-408)

IN THE EAST HEMPFIELD TOWNSHIP, COUNTY OF LANCASTER

THIS PERMIT IS ISSUED TO, AND ACCEPTED BY THE CONTRACTOR

THIS INSTALLATION SHALL BE IN ACCORDANCE WITH THE VEHICLE CODE AND THE REGULATIONS FOR TRAFFIC SIGNS, SIGNALS AND MARKINGS OF THE DEPARTMENT OF TRANSPORTATION, AND SHALL CONFORM TO THE FOLLOWING REQUIREMENTS AND THOSE CONTAINED ON THE ATTACHED SHEETS.

TYPE OF CONTROLLER ACTUATED
TYPE OF SIGNAL MOUNTING TEMPORARY SIGNAL
HOURS OF OPERATION AS "STOP" AND GO" CONTINUOUSLY
HOURS OF OPERATION AS "FLASHING" EQUIPPED FOR EMERGENCY FLASHING
CONTROLLER OPERATION CONTROLLER TO PROVIDE THE PHASING, TIMING, AND SIGNAL DISPLAY
AS INDICATED ON THE DIAGRAM.

ALL WORK PERFORMED BY THE PERMITTEE IN THE ERECTION OF THE TRAFFIC SIGNAL SHALL BE UNDER AND SUBJECT TO THE DIRECTION OF THE SECRETARY OF TRANSPORTATION OR HIS AUTHORIZED REPRESENTATIVES. THE SAID PERMITTEE SHALL USE DUE DILIGENCE IN THE EXECUTION OF THE WORK AUTHORIZED UNDER THIS PERMIT AND SHALL NOT OBSTRUCT OR ENDANGER TRAVEL ALONG THE SAID ROAD. ALL OPERATIONS MUST BE CONDUCTED SO AS TO PERMIT SAFE AND REASONABLE FREE TRAVEL AT ALL TIMES OVER THE ROAD WITHIN THE LIMITS OF THE WORK HEREIN PERMITTED.

THE PERMITTEE COVENANTS AND AGREES TO FULLY INDEMNIFY AND SAVE HARMLESS THE DEPARTMENT OF TRANSPORTATION AND ASSUME ALL LIABILITY FOR DAMAGES OR INJURY, OCCURRING TO ANY PERSON, PERSONS AS PROPERTY THROUGH OR IN CONSEQUENCE OF ANY ACT OR OMISSION OF ANYONE WORKING ON THE CONSTRUCTION, OR FROM FAULTY MAINTENANCE OR OPERATION OF SUCH TRAFFIC SIGNAL.

THE SECRETARY OF TRANSPORTATION, BY LAW, RESERVES THE RIGHT TO REVOKE AND ANNUL THIS PERMIT IF THE PERMITTEE SHALL AT ANYTIME WILLFULLY OR NEGLIGENTLY FAILS TO COMPLY WITH THE CONDITIONS CONTAINED IN THIS PERMIT, OR, UPON CHANGES IN THE TRAFFIC CONDITIONS, FAIL TO MAKE ANY CHANGES IN THE CONSTRUCTION OR OPERATION OF THIS SIGNAL, OR TO REMOVE IT, WHEN SO ORDERED BY THE SECRETARY OF TRANSPORTATION. THE PERMITTEE SHALL MAINTAIN THE SIGNAL IN A SAFE CONDITION AT ALL TIMES. THE PERMITTEE SHALL NOT MAKE ANY CHANGE IN THE CONSTRUCTION OR OPERATION OF THIS TRAFFIC SIGNAL WITHOUT PRIOR WRITTEN APPROVAL OF THE SECRETARY OF TRANSPORTATION.

INITIAL DATE: APPROVED: YASSMIN GRAMIAN, P.E.

REVISION DATE: BY:

DISTRICT EXECUTIVE

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
8-0	LANCASTER	0030	145	71 OF 102
		4057	002	
		0023	002	
		T-543	LOC	
		T-408	LOC	
EAST HEMPFIELD TOWNSHIP				
REVISION NUMBER	REVISIONS			DATE BY

SIGNS

PLAN SYMBOL	SERIES DESIGNATION	DESCRIPTION	SIZE WxH	QTY.
	R3-8B	LANE USE CONTROL (L-S-R)	48"x30"	2
	R3-8A	LANE USE CONTROL (L-SR)	30"x30"	3, 2
	R3-5L	LEFT TURN	30"x36"	1
	R3-6SR	OPTIONAL RIGHT TURN	30"x36"	1
	R10-12	LEFT TURN YIELD ON GREEN ●	30"x36"	2
	R10-11	NO TURN ON RED ●	24"x30"	2
	D3-4	Centerville Rd	90"x16"	2
	D3-4	Hempland Rd	84"x16"	2
	R1-2	YIELD	36"x36"	1, 1
	R4-106	ENTER HERE SIGN	24"x30"	1
	R9-3	NO PEDESTRIAN CROSSING	18"x18"	11
	R10-6AL	STOP HERE ON RED	24"x30"	3

ADVANCE DILEMMA ZONE NOTES (ZONES 1 & 4)

ESTIMATED TIME OF ARRIVAL: MIN 2.5 - MAX 5.5 SEC.
RANGE OF DETECTION: MIN 100' MAX 350 FT. FROM STOP BAR
MINIMUM SPEED BOUNDARY: 25 MPH
ZONE MAY BE ADJUSTED IN THE FIELD.

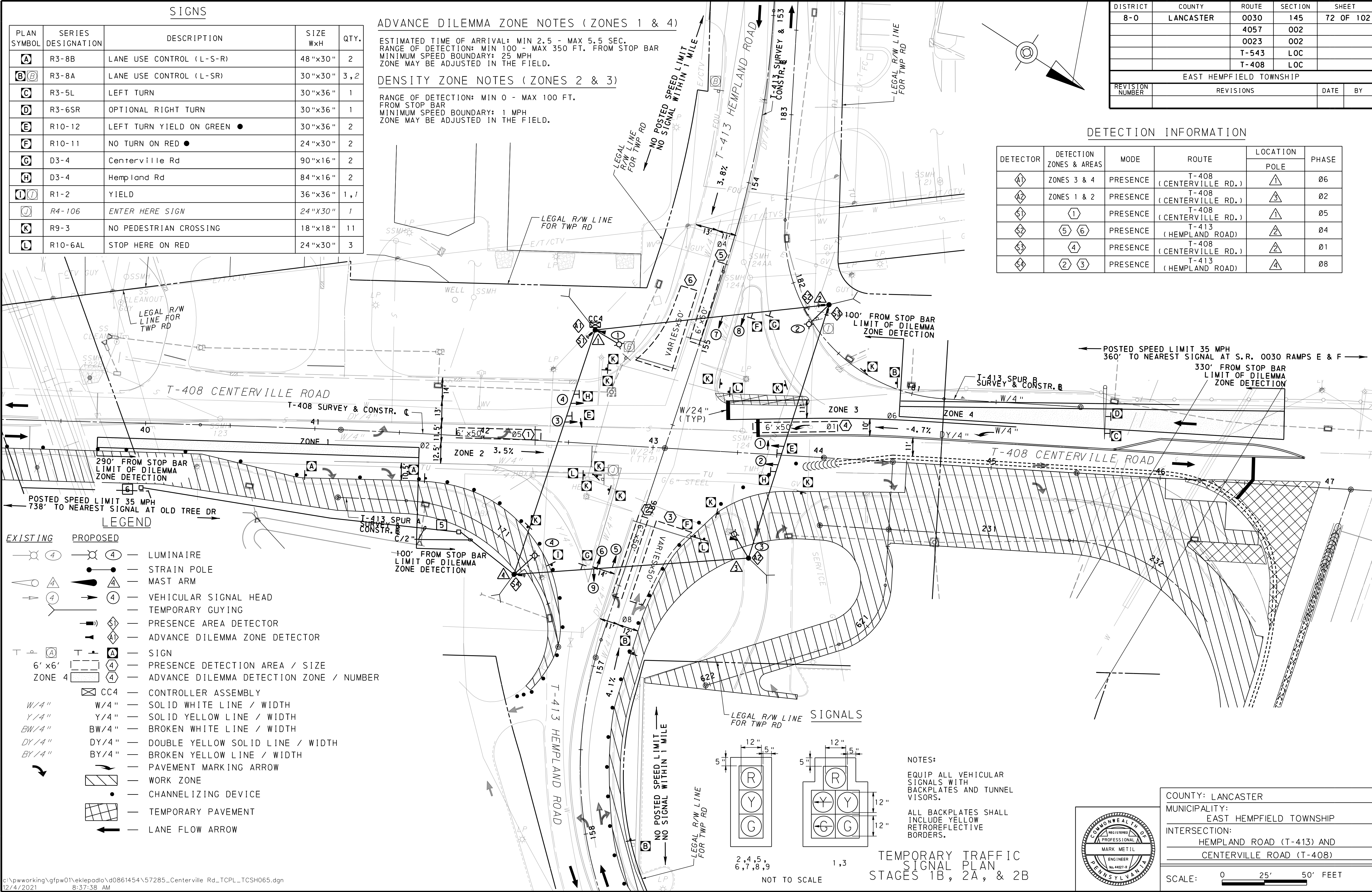
DENSITY ZONE NOTES (ZONES 2 & 3)

RANGE OF DETECTION: MIN 0 - MAX 100 FT.
FROM STOP BAR
MINIMUM SPEED BOUNDARY: 1 MPH
ZONE MAY BE ADJUSTED IN THE FIELD.

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
8-0	LANCASTER	0030	145	72 OF 102
		4057	002	
		0023	002	
		T-543	LOC	
		T-408	LOC	
EAST HEMPFIELD TOWNSHIP				
REVISION NUMBER	REVISIONS			DATE BY

DETECTION INFORMATION

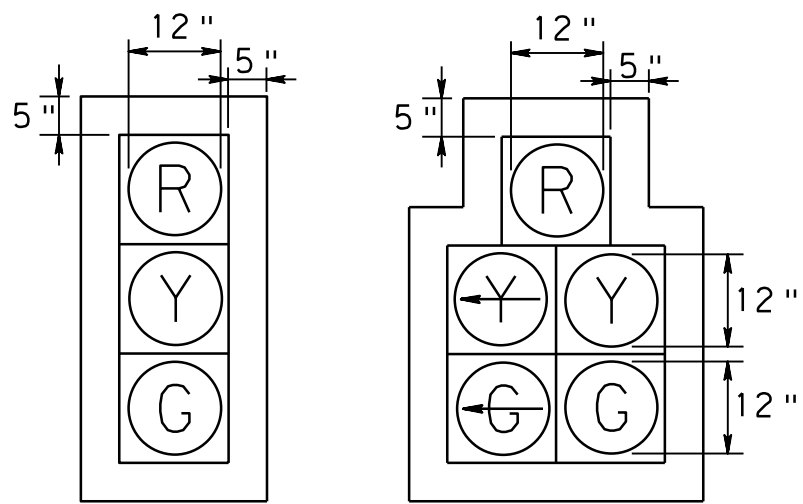
DETECTOR	DETECTION ZONES & AREAS	MODE	ROUTE	LOCATION	PHASE
				POLE	
A1	ZONES 3 & 4	PRESENCE	T-408 (CENTERVILLE RD.)	△1	06
A2	ZONES 1 & 2	PRESENCE	T-408 (CENTERVILLE RD.)	△3	02
S1	①	PRESENCE	T-408 (CENTERVILLE RD.)	△1	05
S2	⑤ ⑥	PRESENCE	T-413 (HEMPLAND ROAD)	△2	04
S3	④	PRESENCE	T-408 (CENTERVILLE RD.)	△2	01
S4	② ③	PRESENCE	T-413 (HEMPLAND ROAD)	△4	08



LEGEND

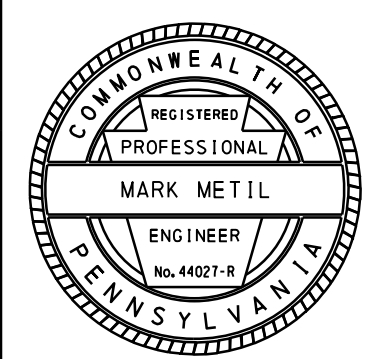
EXISTING	PROPOSED	
		LUMINAIRE
		STRAIN POLE
		MAST ARM
		VEHICULAR SIGNAL HEAD
		TEMPORARY GUYING
		PRESENCE AREA DETECTOR
		ADVANCE DILEMMA ZONE DETECTOR
		SIGN
		PRESENCE DETECTION AREA / SIZE
		ADVANCE DILEMMA DETECTION ZONE / NUMBER
		CONTROLLER ASSEMBLY
		SOLID WHITE LINE / WIDTH
		SOLID YELLOW LINE / WIDTH
		BROKEN WHITE LINE / WIDTH
		DOUBLE YELLOW SOLID LINE / WIDTH
		BROKEN YELLOW LINE / WIDTH
		PAVEMENT MARKING ARROW
		WORK ZONE
		CHANNELIZING DEVICE
		TEMPORARY PAVEMENT
		LANE FLOW ARROW

SIGNALS



NOTES:
EQUIP ALL VEHICULAR SIGNALS WITH BACKPLATES AND TUNNEL VISORS.
ALL BACKPLATES SHALL INCLUDE YELLOW RETROREFLECTIVE BORDERS.

TEMPORARY TRAFFIC SIGNAL PLAN
STAGES 1B, 2A, & 2B



COUNTY: LANCASTER
MUNICIPALITY: EAST HEMPFIELD TOWNSHIP
INTERSECTION: HEMPLAND ROAD (T-413) AND CENTERVILLE ROAD (T-408)

SCALE: 0 25' 50' FEET

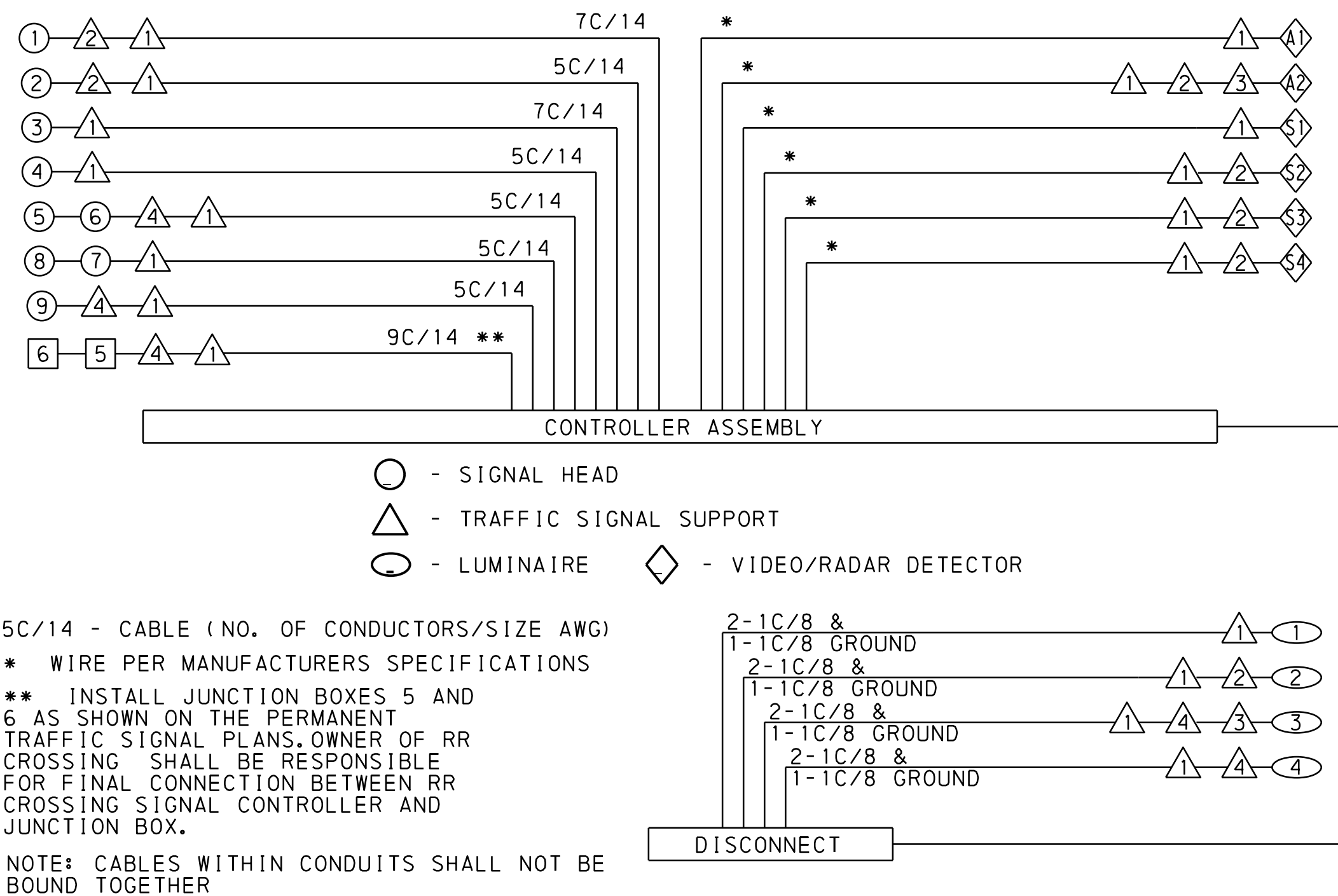
MOVEMENT, SEQUENCE AND TIMING

	PHASE 1+5				PHASE 1+6				PHASE 2+5				PHASE 2+6				PHASE 4+8				RAILROAD PRE-EMPTION				F L A S H I N G	
	INTERVALS				INTERVALS				INTERVALS				INTERVALS				INTERVALS				INTERVALS					
SIGNALS	1	2	3		1	2	3		1	2	3		1	2	3		1	2	3		1	2	3	4		
1	R④	Y④	R④		R	R	R		G④	Y④	R④		G	Y④	R④		R	R	R		SELECTIVE YELLOW	G④	Y④	R	Y	Y
2	R	R	R		R	R	R		G	Y④	R④		G	Y④	R④		R	R	R			G	Y	R	R	Y
3	R④	Y④	R④		G④	Y④	R④		R	R	R		G	Y④	R④		R	R	R			R	R	R	R	Y
4	R	R	R		G	Y④	R④		R	R	R		G	Y④	R④		R	R	R			R	R	R	R	Y
5,6	R	R	R		R	R	R		R	R	R		R	R	R		G	Y	R			R	R	R	R	R
7,8,9	R	R	R		R	R	R		R	R	R		R	R	R		G	Y	R		R	R	R	R	R	
FIXED		3	3.5			4.1	3.5			4.1	3.5			4.1	3.5			3.3	3.5		⑦	31	⑧	⑧		
MINIMUM	3				3				3				10				3									
PASSAGE	3				3				3				1				3									
MAX I (FREE)	10				10				10				35				28									
MEMORY	NON-LOCKING				NON-LOCKING				NON-LOCKING				MIN-RECALL				NON-LOCKING									

NOTES:

1. R/6 IF FOLLOWED BY PHASE 2+5
2. R/6 IF FOLLOWED BY PHASE 1+6
3. G/4 IF FOLLOWED BY PHASE 2+6
4. G IF FOLLOWED BY PHASE 2+6
5. G IF FOLLOWED BY PHASE 2+5
6. G IF FOLLOWED BY PHASE 1+6
7. SELECTIVE YELLOW INCLUDES THE NORMAL ALL-RED PHASE INTERVAL
8. NORMAL YELLOW AND ALL-RED PHASE TIMINGS SHALL BE UTILIZED

WIRING DIAGRAM



COORDINATION CHART

EVENT NO.	TIME	PLAN	DAY OF WEEK							CYCLE	OFFSET (STAGE 1)	OFFSET (STAGE 2)	SPLIT								REMARKS
			M	T	W	T	F	S	S				01	02	03	04	05	06	07	08	
1	00:00	FREE								-	-	-	-	-	-	-	-	-	-	-	MAX I
2	06:30	1								130	6	54	15	87	-	28	15	87	-	28	AM PEAK
3	08:00	2								130	7	118	15	83	-	32	15	83	-	32	MIDDAY PEAK
4	15:00	3								130	129	75	15	83	-	32	15	83	-	32	PM PEAK
5	18:00	FREE								-	-	-	-	-	-	-	-	-	-	-	FREE
6	11:00	4								130	7	118	15	83	-	32	15	83	-	32	WEEKEND
7	14:00	FREE								-	-	-	-	-	-	-	-	-	-	-	FREE

G

Centerville Rd

10.6"UC LET
8"LC LET
CLEARVIEW 2W

05.1 -
08.4 - C
06.6 - e
06.0 - n
04.4 - t
06.6 - e
03.8 - r
06.1 - v
03.6 - i
03.7 - l
03.4 - l
05.5 - e
08.0 -
08.2 - R
05.6 - d
05.0 -

90.0

H

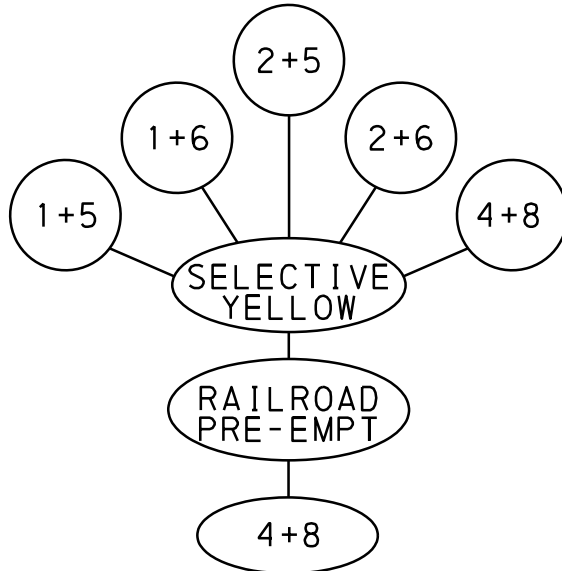
Hempland Rd

10.6"UC LET
8"LC LET
CLEARVIEW 2W

04.4 -
08.8 - H
06.6 - e
09.5 - m
06.5 - p
03.4 - l
06.6 - a
06.3 - n
05.6 - d
08.0 -
08.3 - R
05.6 - d
04.4 -

84.0

RAILROAD
PRE-EMPTION SEQUENCE



RAILROAD PRE-EMPTION NOTES

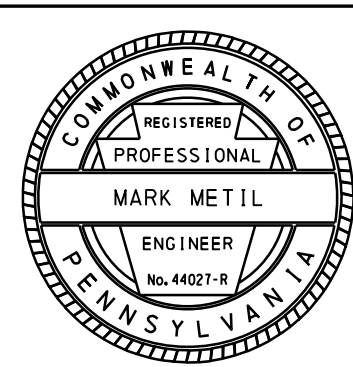
THE VEHICULAR TRAFFIC SIGNAL CONTROLLER IS INTERCONNECTED WITH THE EXISTING RAILROAD CROSSING PROTECTION. WHEN THE RAILROAD CROSSING PROTECTION IS ACTIVATED, THE VEHICULAR TRAFFIC SIGNAL CONTROLLER WILL PROVIDE THE RAILROAD PRE-EMPTION PHASE. RAILROAD PRE-EMPTION MAY OCCUR DURING ANY INTERVAL OF THE NORMAL OPERATION.
 NOTE: MINIMUM GREEN FOR ANY PHASE MUST BE SERVED.

THEREFORE, IF RAILROAD PRE-EMPTION OCCURS:

1. UTILIZE THE APPROPRIATE CLEARANCE INTERVAL PRIOR TO GOING TO INTERVAL 1 OF THE RAILROAD PRE-EMPTION PHASE.
2. ANY GREEN INDICATION UNDER NORMAL OPERATION OR DURING EMERGENCY PRE-EMPTION, EXCEPT THE GREEN INDICATIONS FOR SIGNALS 1, AND 2, SHALL BE FOLLOWED IMMEDIATELY BY INTERVAL 1 OF THE RAILROAD PRE-EMPTION PHASE AFTER THE MINIMUM GREEN TIME HAS BEEN SERVED.
3. ANY YELLOW INDICATION SHALL TIME OUT AND BE FOLLOWED BY THE NORMAL ALL-RED INTERVAL AND BE FOLLOWED IMMEDIATELY BY INTERVAL 2 OF THE RAILROAD PRE-EMPTION PHASE.
4. ANY ALL-RED INTERVAL SHALL TIME OUT AND BE FOLLOWED IMMEDIATELY BY INTERVAL 2 OF THE RAILROAD PRE-EMPTION PHASE.

IF RAILROAD PRE-EMPTION OCCURS DURING EMERGENCY FLASHING, SIGNALS SHALL REMAIN IN EMERGENCY FLASHING.

UPON TERMINATION OF INTERVAL 4 OF THE RAILROAD PRE-EMPTION PHASE, THE VEHICULAR TRAFFIC SIGNAL CONTROLLER SHALL PROCEED TO INTERVAL 1 OF PHASE 4+8.



COUNTY: LANCASTER

MUNICIPALITY:
EAST HEMPFIELD TOWNSHIP

INTERSECTION:
HEMPLAND ROAD (T-413) AND
CENTERVILLE ROAD (T-408)

SCALE: 0 25' 50' FEET

TEMPORARY TRAFFIC
SIGNAL PLAN
STAGES 1B, 2A, & 2B

SIGNS

PLAN SYMBOL	SERIES DESIGNATION	DESCRIPTION	SIZE WxH	QTY.
	R3-8B	LANE USE CONTROL (L-S-R)	48"x30"	2
	R3-8A	LANE USE CONTROL (L-SR)	30"x30"	6
	R10-12	LEFT TURN YIELD ON GREEN ●	30"x36"	2
	R10-11	NO TURN ON RED ●	24"x30"	1
	D3-4	Centerville Rd	90"x16"	2
	D3-4	Hempland Rd	84"x16"	2
	R1-2	YIELD	36"x36"	1
	R9-3	NO PEDESTRIAN CROSSING	18"x18"	7
	R10-6AL	STOP HERE ON RED	24"x30"	3

ADVANCE DILEMMA ZONE NOTES (ZONES 1 & 4)

ESTIMATED TIME OF ARRIVAL: MIN 2.5 - MAX 5.5 SEC.
 RANGE OF DETECTION: MIN 100 - MAX 350 FT. FROM STOP BAR
 MINIMUM SPEED BOUNDARY: 25 MPH
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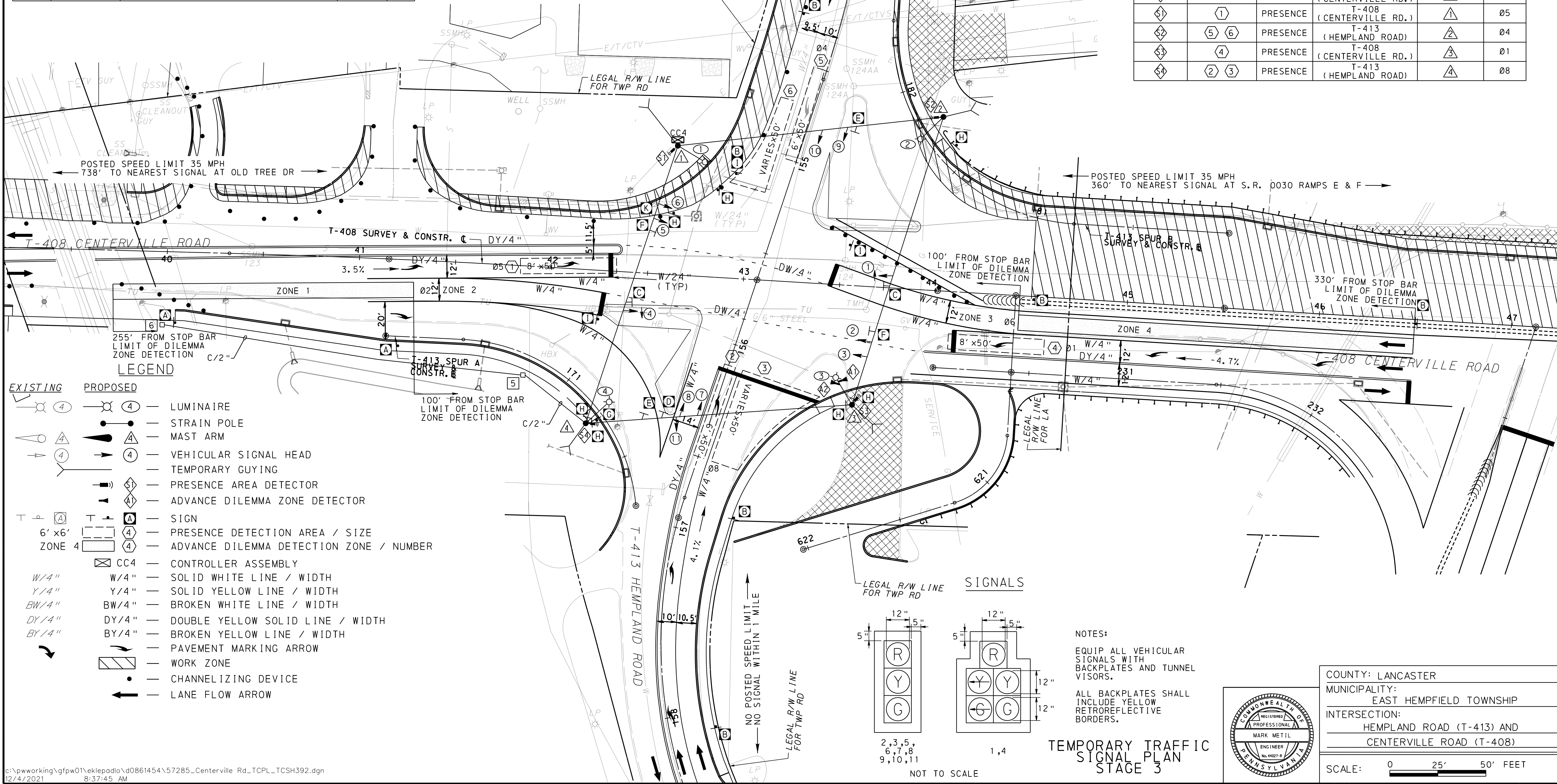
DENSITY ZONE NOTES (ZONES 2 & 3)

RANGE OF DETECTION: MIN 0 - MAX 100 FT. FROM STOP BAR
 MINIMUM SPEED BOUNDARY: 1 MPH
 ZONE MAY BE ADJUSTED IN THE FIELD.

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
8-0	LANCASTER	0030	145	74 OF 102
		4057	002	
		0023	002	
		T-543	LOC	
		T-408	LOC	
EAST HEMPFIELD TOWNSHIP				
REVISION NUMBER	REVISIONS			DATE BY

DETECTION INFORMATION

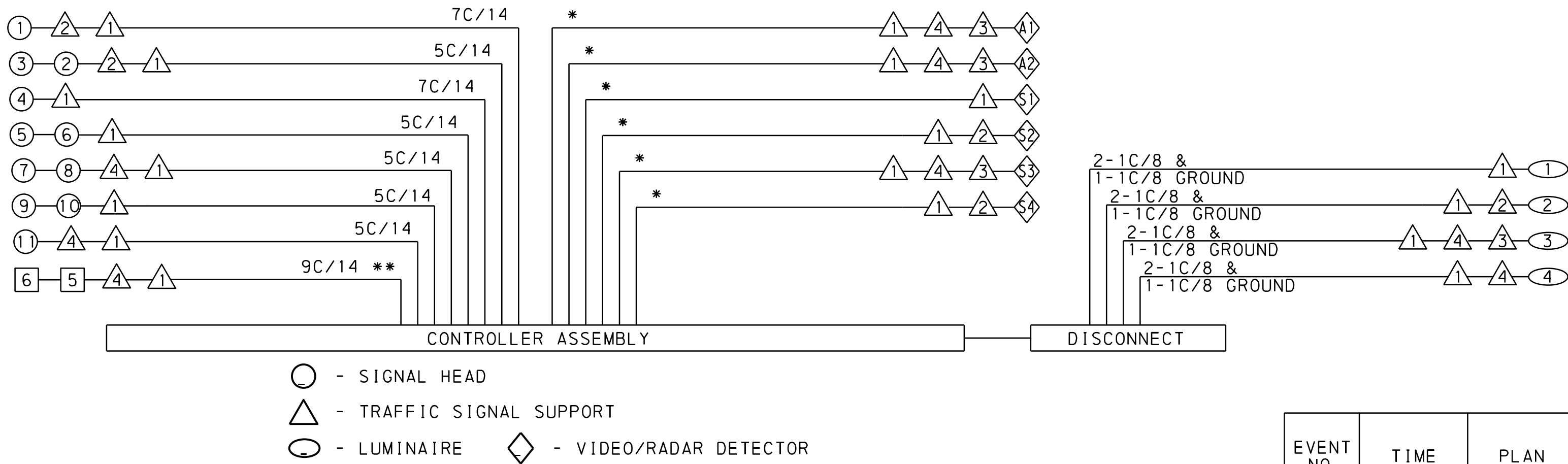
DETECTOR	DETECTION ZONES & AREAS	MODE	ROUTE	LOCATION	PHASE
				POLE	
A1	ZONES 3 & 4	PRESENCE	T-408 (CENTERVILLE RD.)	△	06
A2	ZONES 1 & 2	PRESENCE	T-408 (CENTERVILLE RD.)	△	02
S1	①	PRESENCE	T-408 (CENTERVILLE RD.)	△	05
S2	⑤ ⑥	PRESENCE	T-413 (HEMPLAND ROAD)	△	04
S3	④	PRESENCE	T-408 (CENTERVILLE RD.)	△	01
S4	② ③	PRESENCE	T-413 (HEMPLAND ROAD)	△	08



MOVEMENT, SEQUENCE AND TIMING																									
	PHASE 1+5				PHASE 1+6				PHASE 2+5				PHASE 2+6				PHASE 4+8				RAILROAD PRE-EMPTION				F L A S H I N G
	INTERVALS				INTERVALS				INTERVALS				INTERVALS				INTERVALS				INTERVALS				
SIGNALS	1	2	3		1	2	3		1	2	3		1	2	3		1	2	3		1	2	3	4	
1	R/6	Y/4	R/0		R	R	R		G/6	Y/4	R/0		G	Y/0	R/0		R	R	R		SELECTIVE YELLOW	G/6	Y/4	R	Y
2,3	R	R	R		R	R	R		G	Y/0	R/0		G	Y/0	R/0		R	R	R			G	Y	R	Y
4	R/6	Y/4	R/0		G/6	Y/4	R/0		R	R	R		G	Y/0	R/0		R	R	R			R	R	R	Y
5,6	R	R	R		G	Y/0	R/0		R	R	R		G	Y/0	R/0		R	R	R			R	R	R	Y
7,8	R	R	R		R	R	R		R	R	R		R	R	R		G	Y	R			R	R	R	R
9,10,11	R	R	R		R	R	R		R	R	R		R	R	R		G	Y	R		R	R	R	R	
FIXED		3	4.3			4.1	4.3			4.1	4.3			4.1	4.3			3.3	3		⑦	31	⑧	⑧	
MINIMUM	3				3				3				10				3								
PASSAGE	3				3				3				1				3								
MAX I (FREE)	10				10				10				35				28								
MEMORY	NON-LOCKING				NON-LOCKING				NON-LOCKING				MIN-RECALL				NON-LOCKING								

- NOTES:
1. R/6 IF FOLLOWED BY PHASE 2+5
 2. R/6 IF FOLLOWED BY PHASE 1+6
 3. G/4 IF FOLLOWED BY PHASE 2+6
 4. G IF FOLLOWED BY PHASE 2+6
 5. G IF FOLLOWED BY PHASE 2+5
 6. G IF FOLLOWED BY PHASE 1+6
 7. SELECTIVE YELLOW INCLUDES THE NORMAL ALL-RED PHASE INTERVAL
 8. NORMAL YELLOW AND ALL-RED PHASE TIMINGS SHALL BE UTILIZED

WIRING DIAGRAM



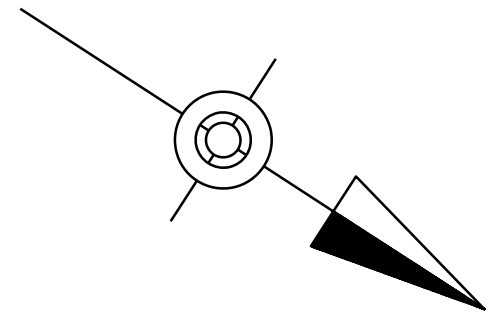
5C/14 - CABLE (NO. OF CONDUCTORS/SIZE AWG)

* WIRE PER MANUFACTURERS SPECIFICATIONS.

** INSTALL JUNCTION BOXES 5 AND 6 AS SHOWN ON THE PERMANENT TRAFFIC SIGNAL PLANS. OWNER OF RR CROSSING SHALL BE RESPONSIBLE FOR FINAL CONNECTION BETWEEN RR CROSSING SIGNAL CONTROLLER AND JUNCTION BOX.

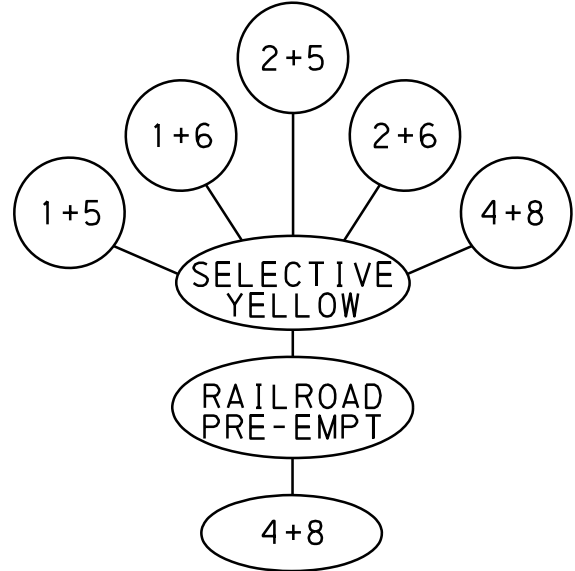
NOTE: CABLES WITHIN CONDUITS SHALL NOT BE BOUND TOGETHER

E		F	
Centerville Rd		Hempland Rd	
10.6"UC LET 8"LC LET CLEARVIEW 2W		10.6"UC LET 8"LC LET CLEARVIEW 2W	
05.1 -		04.4 -	
08.4 - C		08.8 - H	
06.6 - e		06.6 - e	
06.0 - n		09.5 - m	
04.4 - t		06.5 - p	
06.6 - e		03.4 - l	
03.8 - r		06.6 - a	
06.1 - v		06.3 - n	
03.6 - i		05.6 - d	
03.7 - l		08.0 -	
03.4 - l		08.3 - R	
05.5 - e		05.6 - d	
08.0 -		04.4 -	
08.2 - R		84.0	
05.6 - d			
05.0 -			
90.0			



DISTRICT	COUNTY	ROUTE	SECTION	SHEET
8-0	LANCASTER	0030	145	75 OF 102
		4057	002	
		0023	002	
		T-543	LOC	
		T-408	LOC	
EAST HEMPFIELD TOWNSHIP				
REVISION NUMBER	REVISIONS			DATE BY

RAILROAD
PRE-EMPTION SEQUENCE



RAILROAD PRE-EMPTION NOTES

THE VEHICULAR TRAFFIC SIGNAL CONTROLLER IS INTERCONNECTED WITH THE EXISTING RAILROAD CROSSING PROTECTION. WHEN THE RAILROAD CROSSING PROTECTION IS ACTIVATED, THE VEHICULAR TRAFFIC SIGNAL CONTROLLER WILL PROVIDE THE RAILROAD PRE-EMPTION PHASE. RAILROAD PRE-EMPTION MAY OCCUR DURING ANY INTERVAL OF THE NORMAL OPERATION.

NOTE: MINIMUM GREEN FOR ANY PHASE MUST BE SERVED.

THEREFORE, IF RAILROAD PRE-EMPTION OCCURS:

1. UTILIZE THE APPROPRIATE CLEARANCE INTERVAL PRIOR TO GOING TO INTERVAL 1 OF THE RAILROAD PRE-EMPTION PHASE.
2. ANY GREEN INDICATION UNDER NORMAL OPERATION OR DURING EMERGENCY PRE-EMPTION, EXCEPT THE GREEN INDICATIONS FOR SIGNALS 1, AND 2, SHALL BE FOLLOWED IMMEDIATELY BY INTERVAL 1 OF THE RAILROAD PRE-EMPTION PHASE AFTER THE MINIMUM GREEN TIME HAS BEEN SERVED.
3. ANY YELLOW INDICATION SHALL TIME OUT AND BE FOLLOWED BY THE NORMAL ALL-RED INTERVAL AND BE FOLLOWED IMMEDIATELY BY INTERVAL 2 OF THE RAILROAD PRE-EMPTION PHASE.
4. ANY ALL-RED INTERVAL SHALL TIME OUT AND BE FOLLOWED IMMEDIATELY BY INTERVAL 2 OF THE RAILROAD PRE-EMPTION PHASE.

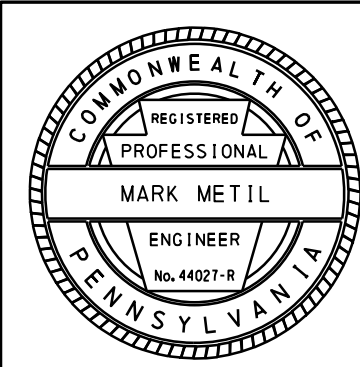
IF RAILROAD PRE-EMPTION OCCURS DURING EMERGENCY FLASHING, SIGNALS SHALL REMAIN IN EMERGENCY FLASHING.

UPON TERMINATION OF INTERVAL 4 OF THE RAILROAD PRE-EMPTION PHASE, THE VEHICULAR TRAFFIC SIGNAL CONTROLLER SHALL PROCEED TO INTERVAL 1 OF PHASE 4+8.

COORDINATION CHART

EVENT NO.	TIME	PLAN	DAY OF WEEK							CYCLE	OFFSET	SPLIT								REMARKS
			M	T	W	T	F	S	S			01	02	03	04	05	06	07	08	
1	00:00	FREE	X	X	X	X	X	X	X	-	-	-	-	-	-	-	-	-	-	MAX I
2	06:30	1	X	X	X	X	X	X	X	130	127	15	88	-	27	15	88	-	27	AM PEAK
3	08:00	2	X	X	X	X	X	X	X	130	2	15	83	-	32	15	83	-	32	MIDDAY PEAK
4	15:00	3	X	X	X	X	X	X	X	130	120	15	82	-	33	15	82	-	33	PM PEAK
5	18:00	FREE	X	X	X	X	X	X	X	-	-	-	-	-	-	-	-	-	-	FREE
6	11:00	4								130	2	15	83	-	32	15	83	-	32	WEEKEND
7	14:00	FREE								-	-	-	-	-	-	-	-	-	-	FREE

TEMPORARY TRAFFIC
SIGNAL PLAN
STAGE 3



COUNTY: LANCASTER

MUNICIPALITY:
EAST HEMPFIELD TOWNSHIP

INTERSECTION:
HEMPLAND ROAD (T-413) AND
CENTERVILLE ROAD (T-408)

SCALE: 0 25' 50' FEET