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THE SKIPPACK CREEK WATERSHED IS BEING MANAGED BY THE 'SKIPPACK CREEK WATERSHED, MULTI-MUNICIPAL CONSORTIUM'

TOTAL TOWNSHIP BOUNDARY:  
14.77 Square Miles  
(9,453.8 Acres)

TO PERKIOMEN CREEK WATERSHED:  
1,924.4 Acres

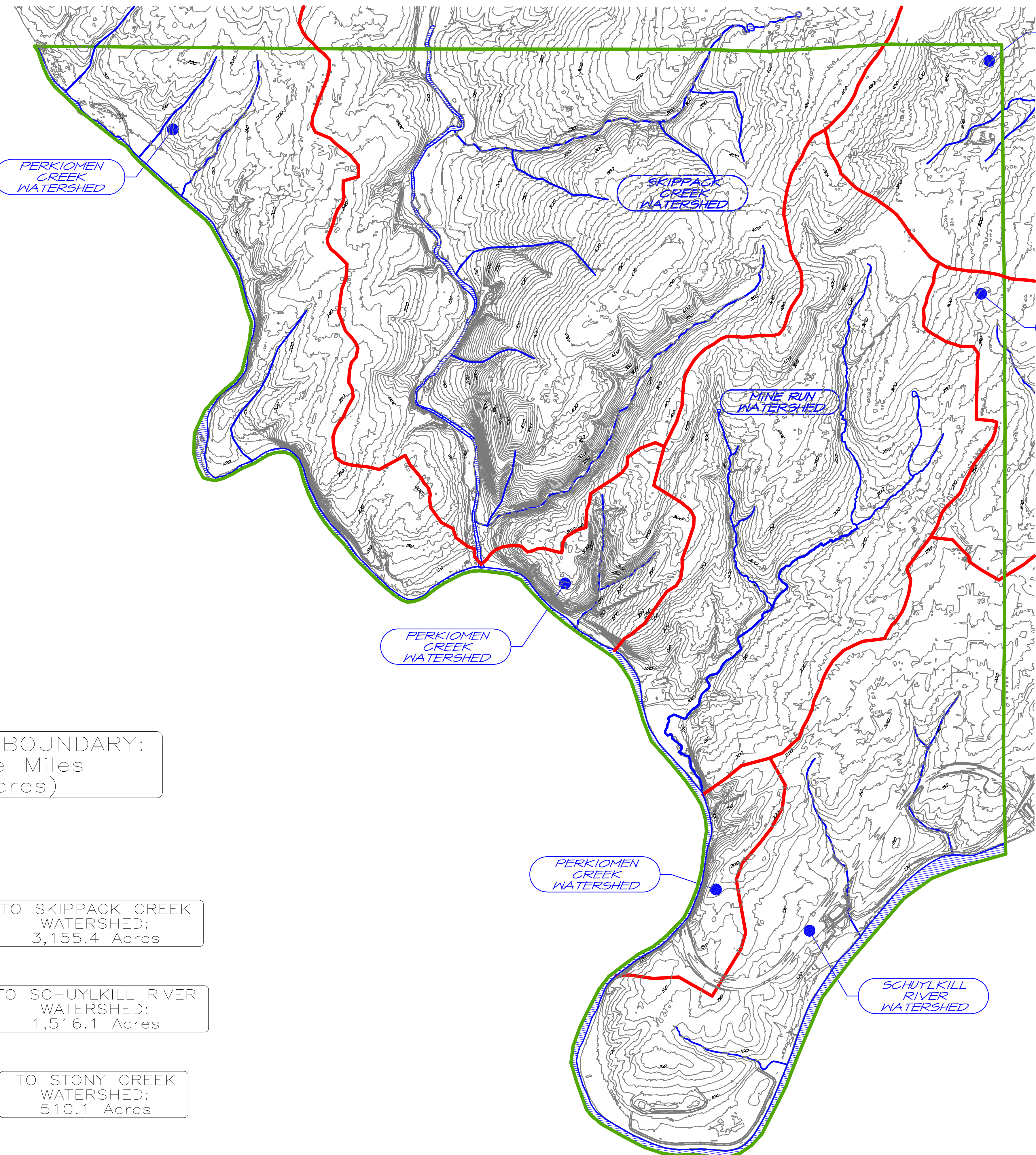
TO SKIPPACK CREEK WATERSHED:  
3,155.4 Acres

TO MINE RUN WATERSHED:  
2,117.9 Acres

TO SCHUYLKILL RIVER WATERSHED:  
1,516.1 Acres

TO INDIAN CREEK WATERSHED:  
229.9 Acres

TO STONY CREEK WATERSHED:  
510.1 Acres



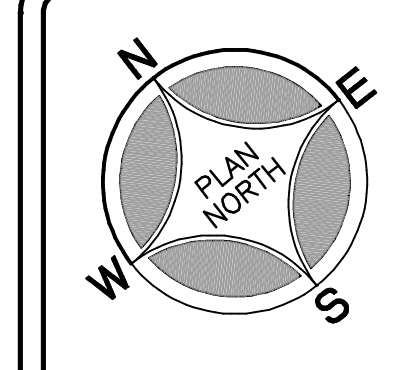
**PLAN LEGEND**

	Township Boundary
	Watershed Boundary
	Major Watercourses
	Topographic Contours (10' Interval)

Project No: 14-0313LP - Project Name: LOWER PROVIDENCE TOWNSHIP - Print Date: Sep 26, 2013 (13:50)

NO.	DATE	DESCRIPTION
1	08/09/2013	ISSUED FOR PERMITTING
2	08/09/2013	REVISION TO ADD MINE RUN WATERSHED
3	08/09/2013	REVISION TO ADD STONY CREEK WATERSHED
4	08/09/2013	REVISION TO ADD INDIAN CREEK WATERSHED
5	08/09/2013	REVISION TO ADD SKIPPACK CREEK WATERSHED
6	08/09/2013	REVISION TO ADD PERKIOMEN CREEK WATERSHED
7	08/09/2013	REVISION TO ADD SCHUYLKILL RIVER WATERSHED
8	08/09/2013	REVISION TO ADD TOWNSHIP BOUNDARY
9	08/09/2013	REVISION TO ADD TOPOGRAPHIC CONTOURS
10	08/09/2013	REVISION TO ADD LEGEND
11	08/09/2013	REVISION TO ADD SHEET INDEX

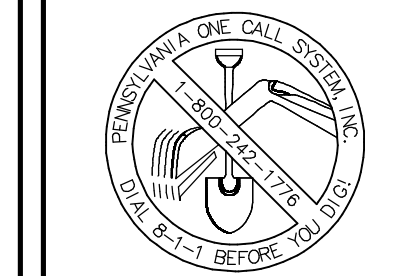
**REVISIONS**



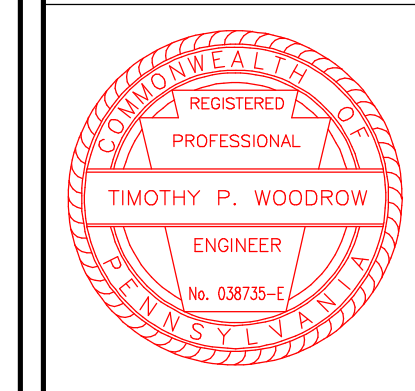
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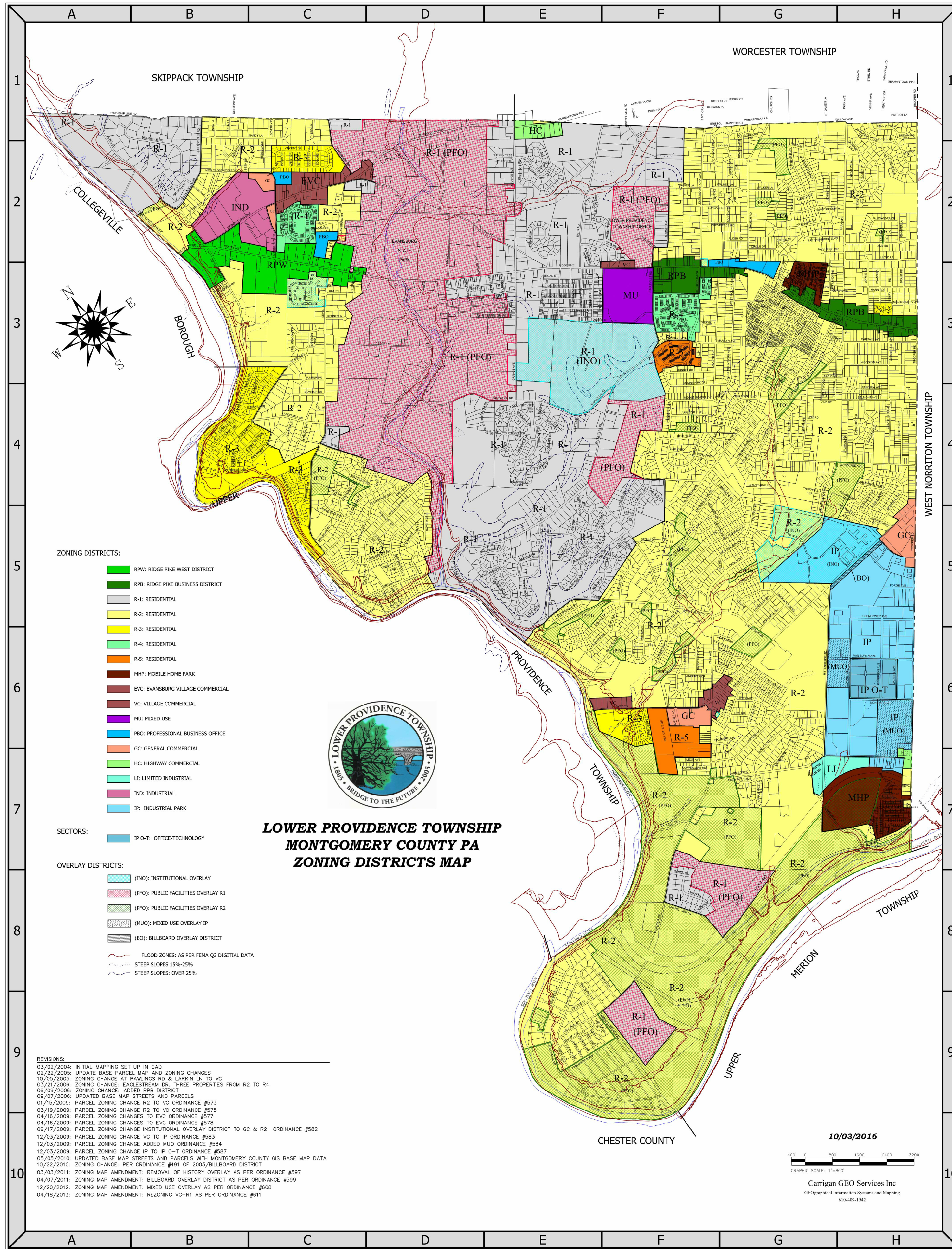
CALL 1-800-242-1776



Applicant: LOWER PROVIDENCE TOWNSHIP  
1000  
Eggenstein, PA 19003  
Phone: (610) 539-8020  
Township Boundary: 14.77 Sq. Miles (9,454 Acres)

FINAL PLAN  
**OVERALL TOWNSHIP WATERSHED BOUNDARY LIMITS & TOPOGRAPHY MAP**  
LOWER PROVIDENCE TOWNSHIP - MONTGOMERY COUNTY - PENNSYLVANIA  
**WOODROW & ASSOCIATES, INC.**  
MUNICIPAL CIVIL CONSULTING ENGINEERS  
1188 North Bethlehem Pike / Suite 5 - Lower Merion, PA 19002  
Phone: (215) 842-5548 / Fax: (215) 842-5679  
Web: www.woodrowinc.com

Layer List:  
B-SHT01\_TWP  
Job No:  
14-0313LP  
Plan Date:  
AUGUST 11, 2017  
Sheet No:



- ZONING DISTRICTS:**
- RPW: RIDGE PIKE WEST DISTRICT
  - RPB: RIDGE PIKE BUSINESS DISTRICT
  - R-1: RESIDENTIAL
  - R-2: RESIDENTIAL
  - R-3: RESIDENTIAL
  - R-4: RESIDENTIAL
  - R-5: RESIDENTIAL
  - MHP: MOBILE HOME PARK
  - EVC: EVANSBURG VILLAGE COMMERCIAL
  - VC: VILLAGE COMMERCIAL
  - MU: MIXED USE
  - PFO: PROFESSIONAL BUSINESS OFFICE
  - GC: GENERAL COMMERCIAL
  - HC: HIGHWAY COMMERCIAL
  - LI: LIMITED INDUSTRIAL
  - IND: INDUSTRIAL
  - IP: INDUSTRIAL PARK
- SECTORS:**
- IP O-T: OFFICE-TECHNOLOGY
- OVERLAY DISTRICTS:**
- (INO): INSTITUTIONAL OVERLAY
  - (PFO): PUBLIC FACILITIES OVERLAY R1
  - (PFO): PUBLIC FACILITIES OVERLAY R2
  - (MUO): MIXED USE OVERLAY IP
  - (BO): BILLBOARD OVERLAY DISTRICT
  - FLOOD ZONES: AS PER FEMA Q3 DIGITAL DATA
  - STEEP SLOPES 15%-25%
  - STEEP SLOPES: OVER 25%

- REVISIONS:**
- 03/02/2004: INITIAL MAPPING SET UP IN CAD
  - 02/22/2005: UPDATE BASE PARCEL MAP AND ZONING CHANGES
  - 10/05/2005: ZONING CHANGE AT PAWLINGS RD & LARKIN LN TO VC
  - 03/21/2006: ZONING CHANGE: EAGLESTREAM DR. THREE PROPERTIES FROM R2 TO R4
  - 06/09/2006: ZONING CHANGE: ADDED RPB DISTRICT
  - 09/07/2006: UPDATED BASE MAP STREETS AND PARCELS
  - 01/15/2008: PARCEL ZONING CHANGE R2 TO VC ORDINANCE #573
  - 03/19/2009: PARCEL ZONING CHANGE R2 TO VC ORDINANCE #575
  - 04/16/2009: PARCEL ZONING CHANGES TO EVC ORDINANCE #577
  - 04/16/2009: PARCEL ZONING CHANGES TO EVC ORDINANCE #578
  - 09/17/2009: PARCEL ZONING CHANGE INSTITUTIONAL OVERLAY DISTRICT TO GC & R2 ORDINANCE #582
  - 12/03/2009: PARCEL ZONING CHANGE VC TO IP ORDINANCE #583
  - 12/03/2009: PARCEL ZONING CHANGE ADDED MUO ORDINANCE #584
  - 12/03/2009: PARCEL ZONING CHANGE IP TO IP O-T ORDINANCE #587
  - 05/05/2010: UPDATED BASE MAP STREETS AND PARCELS WITH MONTGOMERY COUNTY GIS BASE MAP DATA
  - 10/22/2010: ZONING CHANGE: PER ORDINANCE #611 OF 2003/BILLBOARD DISTRICT
  - 03/03/2011: ZONING MAP AMENDMENT: REMOVAL OF HISTORY OVERLAY AS PER ORDINANCE #597
  - 04/07/2011: ZONING MAP AMENDMENT: BILLBOARD OVERLAY DISTRICT AS PER ORDINANCE #599
  - 12/02/2012: ZONING MAP AMENDMENT: MIXED USE OVERLAY AS PER ORDINANCE #609
  - 04/16/2012: ZONING MAP AMENDMENT: REZONING VC-R1 AS PER ORDINANCE #611

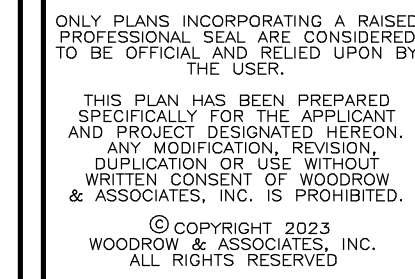
No.	DATE	DESCRIPTION
1	08/09/2013	REVISION TO ADD CHANGES TO WORCESTER TOWNSHIP
2	08/09/2013	REVISION TO ADD CHANGES TO WORCESTER TOWNSHIP
3	05/09/2013	REVISION TO ADD CHANGES TO WORCESTER TOWNSHIP
4	08/31/2013	REVISION TO ADD CHANGES TO WORCESTER TOWNSHIP

**REVISIONS**

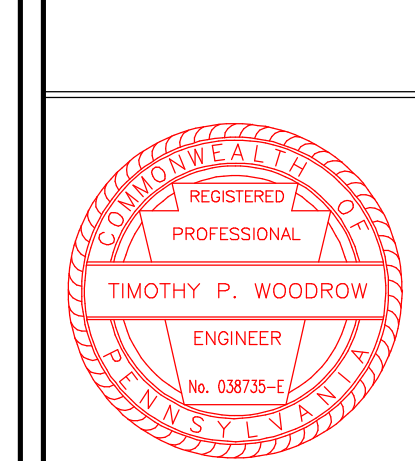
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**WOODROW & ASSOCIATES, INC.**  
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 Phone: (215) 542-5548 / Fax: (215) 542-5679  
 Web: www.woodrowinc.com

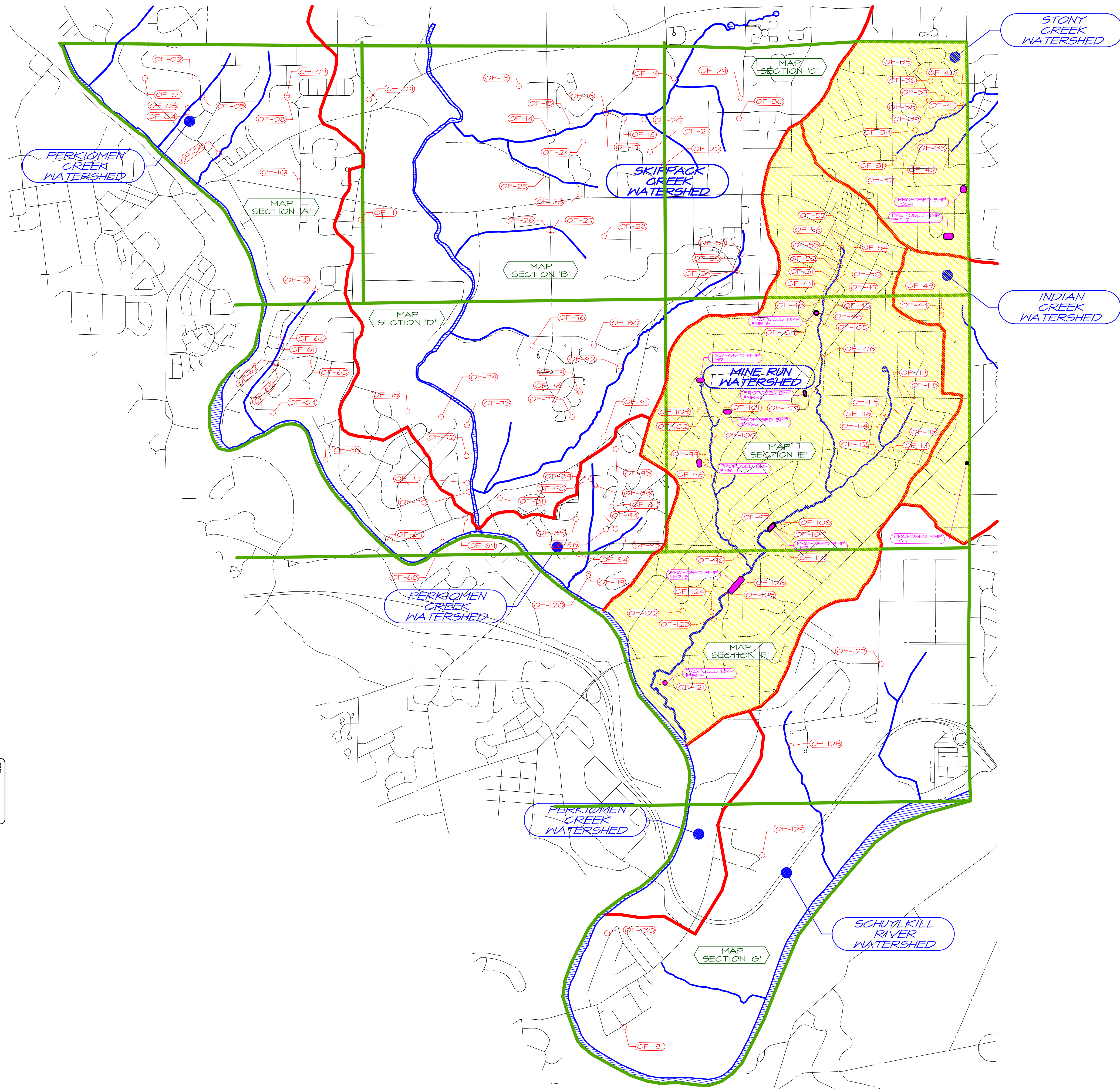
**TOWNSHIP ZONING MAP**  
**LOWER PROVIDENCE TOWNSHIP**  
 LOWER PROVIDENCE TOWNSHIP - MONTGOMERY COUNTY - PENNSYLVANIA  
**WOODROW & ASSOCIATES, INC.**  
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Layer List:  
 B-SHT02\_ZONING

Job No:  
 14-0313LP

Plan Date:  
 AUGUST 11, 2017

Sheet No:  
 2 of 11

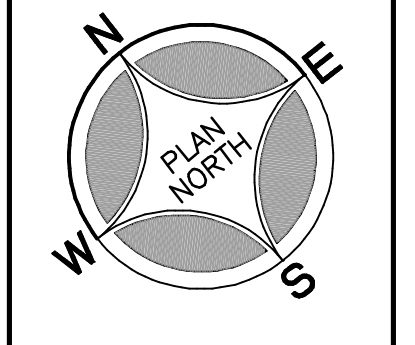


- PLAN LEGEND**
- Outfall Mapping Quadrants
  - Watershed Boundary
  - Major Watercourses
  - Watershed Areas with a Pollution Reduction requirement
  - Proposed Pollution Reduction BMPs

SEE FOLLOWING 7-SHEETS FOR  
DETAILED STORM SEWER  
MAPPING THROUGHOUT  
THE TOWNSHIP

NO.	DATE	DESCRIPTION
1	08/09/2013	Revisions to add Outfalls & Watershed Maps
2	08/13/2013	Revisions to add BMPs, while the Indian Creek Watershed
3	05/09/2013	Revisions per DEP email comments received 03/19/2013.
4	03/19/2013	Revisions per DEP email comments received 03/14/2013.
5	03/13/2013	Revisions per DEP email comments received 03/12/2013.

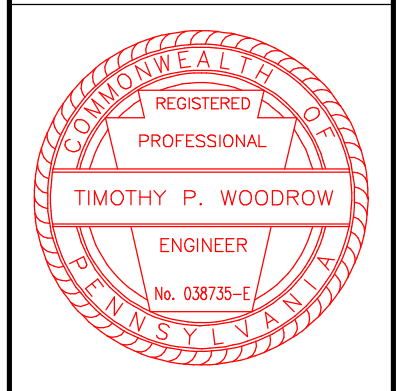
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Applicant: LOWER PROVIDENCE TOWNSHIP  
1000  
Eggenstein, PA 19003  
Phone: (610) 539-8020

Township Boundary: 14.77 Sq. Miles (9,454 Acres)

FINAL PLAN  
**TOWNSHIP STORM SEWER  
OUTFALL OVERALL MAP**  
LOWER PROVIDENCE TOWNSHIP

WOODROW & ASSOCIATES, INC.  
MUNICIPAL CIVIL CONSULTING ENGINEERS  
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Layer List:  
B-SHT03\_OUTFALL-A

Job No:  
14-0313LP

Plan Date:  
AUGUST 11, 2017

Sheet No:

**SKIPPACK TOWNSHIP**

**COLLEGEVILLE BOROUGH**

**PERKIOMEN CREEK WATERSHED**

**SKIPPACK CREEK WATERSHED**

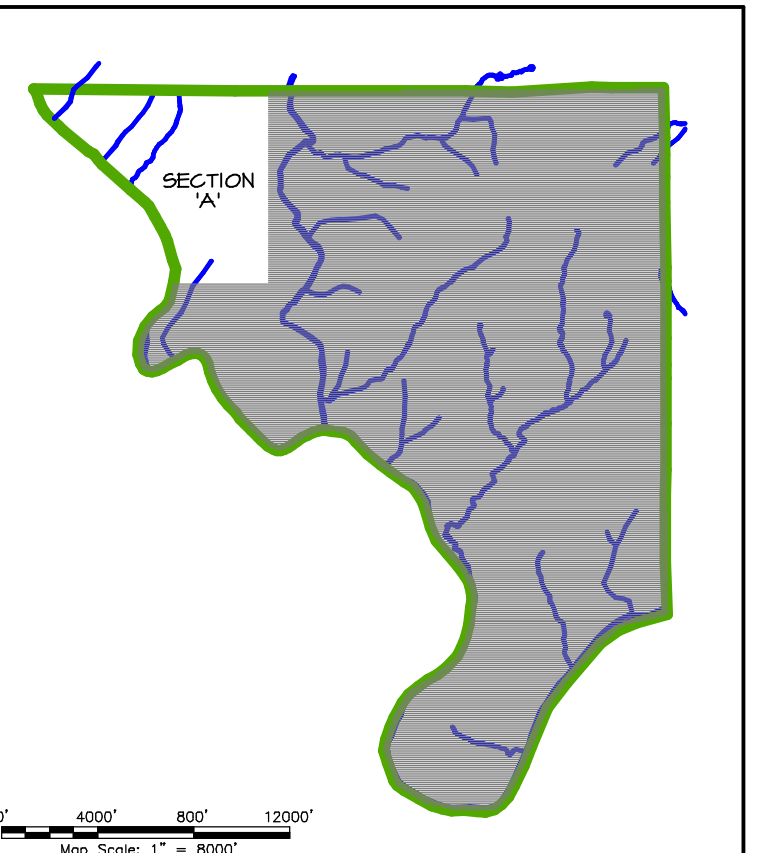
**PLAN LEGEND**

- Township Boundary
- Major Watercourses
- Watershed Boundary
- Contours (10' Interval)
- Drainage Area to Stormwater Outfalls
- PennDOT Roadways
- Storm Sewer Inlet
- Storm Sewer Headwall/Endwall
- Terminal Storm Outfall

**TOWNSHIP STORM SEWER OUTFALL LOCATIONS:**

OUTFALL No.:	CORRESPONDING MUNICIPAL MAPPING OUTFALL No.:	LATITUDE:	LONGITUDE:	WATERCOURSE DISCHARGE:
OF-01	632.21	40.194038 N	-75.445344 W	UNNAMED TRIBUTARY TO PERKIOMEN CREEK
OF-02	632.14	40.191791 N	-75.441489 W	MILLER RUN TO PERKIOMEN CREEK
OF-03	632.10	40.190113 N	-75.443741 W	MILLER RUN TO PERKIOMEN CREEK
OF-04	633.02	40.189801 N	-75.443834 W	MILLER RUN TO PERKIOMEN CREEK
OF-05	632.01	40.190040 N	-75.441846 W	MILLER RUN TO PERKIOMEN CREEK
OF-06	705.09	40.185616 N	-75.444158 W	FRENCH RUN TO PERKIOMEN CREEK
OF-07	N/A	40.186082 N	-75.434687 W	FRENCH RUN TO PERKIOMEN CREEK
OF-08	673.69	40.185731 N	-75.434977 W	FRENCH RUN TO PERKIOMEN CREEK
OF-09	673.47	40.181554 N	-75.428445 W	UNNAMED TRIBUTARY TO SKIPPACK CREEK
OF-10	409.12	40.179924 N	-75.439499 W	UNNAMED TRIBUTARY TO PERKIOMEN CREEK
OF-11	585.09	40.174623 N	-75.436741 W	UNNAMED TRIBUTARY TO SKIPPACK CREEK
OF-12	611.16	40.172400 N	-75.445060 W	UNNAMED TRIBUTARY TO PERKIOMEN CREEK

**LOCATION MAP**



**REVISIONS**

No.	DATE	DESCRIPTION
1	08/09/2013	Revisions to 04B - Outfalls & Watershed Maps
2	08/13/2013	Revisions to add Miller Run, French Creek, Watershed
3	08/19/2013	Revisions per DEP annual comments received 07/19/2013
4	08/21/2013	Revisions to add Miller Run, French Creek, Watershed
5	08/21/2013	Revisions per DEP annual comments received 07/19/2013
6	08/21/2013	Revisions per DEP annual comments received 07/19/2013

200' 0' 400'

Scale in Feet (1" = 400')

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**WOODROW & ASSOCIATES, INC.**  
REGISTERED PROFESSIONAL ENGINEER  
TIMOTHY P. WOODROW  
No. 63672-1

Applicant: LOWER PROVIDENCE TOWNSHIP  
1000 E. Main St., Suite 100  
Ephrata, PA 19003  
Phone: (610) 539-8020  
Township Boundary: 14.77 Sq. Miles (9.454 Acres)

**WOODROW & ASSOCIATES, INC.**  
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Web: www.woodrowinc.com

Layer List:  
B-SHT04\_OUTFALL-A

Job No: 14-0313LP

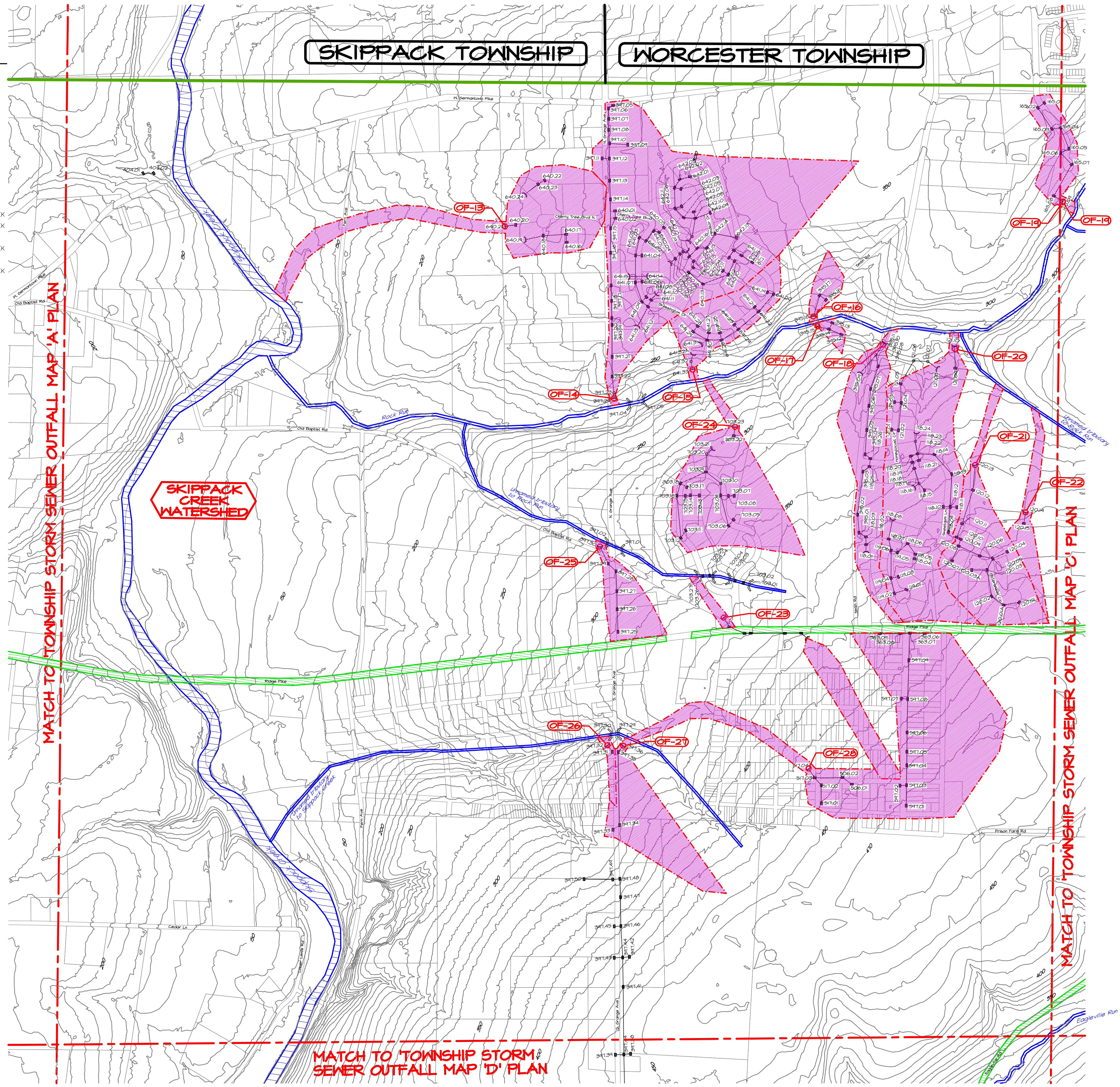
Plan Date: AUGUST 11, 2017

Sheet No:

Project No: 14-0313LP - Project Name: LOWER PROVIDENCE TOWNSHIP - Print Date: Sep 26, 2013 (13:52)

TOWNSHIP STORM SEWER OUTFALL LOCATIONS:

OUTFALL No.:	CORRESPONDING MUNICIPAL MAPPING OUTFALL No.:	LATITUDE:	LONGITUDE:	WATERCOURSE DISCHARGE:
OF-13	165.09	40.175436 N	-75.414940 W	UNNAMED TRIBUTARY TO SKIPPACK CREEK
OF-14	397.24	40.170696 N	-75.415925 W	ROCK RUN TO SKIPPACK CREEK
OF-15	641.33	40.170077 N	-75.413661 W	ROCK RUN TO SKIPPACK CREEK
OF-16	395.18	40.169382 N	-75.409912 W	ROCK RUN TO SKIPPACK CREEK
OF-17	395.15	40.168982 N	-75.409903 W	ROCK RUN TO SKIPPACK CREEK
OF-18	395.11	40.167993 N	-75.408865 W	ROCK RUN TO SKIPPACK CREEK
OF-19	165.09	40.167872 N	-75.402229 W	ROCK RUN TO SKIPPACK CREEK
OF-20	121.10	40.166847 N	-75.407224 W	ROCK RUN TO SKIPPACK CREEK
OF-21	120.13	40.164742 N	-75.408944 W	UNNAMED TRIBUTARY TO ROCK RUN TO SKIPPACK CREEK
OF-22	120.14	40.163073 N	-75.408835 W	UNNAMED TRIBUTARY TO ROCK RUN TO SKIPPACK CREEK
OF-23	N/A	40.165329 N	-75.417260 W	UNNAMED TRIBUTARY TO ROCK RUN TO SKIPPACK CREEK
OF-24	703.23	40.168449 N	-75.414141 W	ROCK RUN TO SKIPPACK CREEK
OF-25	397.30	40.168391 N	-75.418925 W	UNNAMED TRIBUTARY TO ROCK RUN TO SKIPPACK CREEK
OF-26	397.32	40.164893 N	-75.421918 W	UNNAMED TRIBUTARY TO SKIPPACK CREEK
OF-27	397.36	40.164669 N	-75.421593 W	UNNAMED TRIBUTARY TO SKIPPACK CREEK
OF-28	517.04	40.161946 N	-75.417725 W	UNNAMED TRIBUTARY TO SKIPPACK CREEK



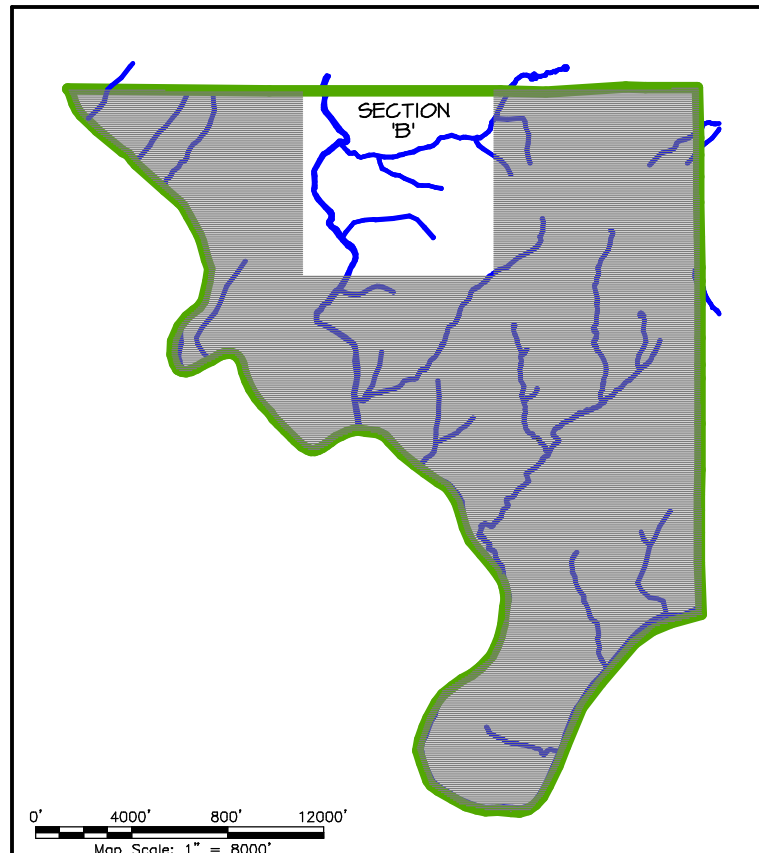
SKIPPACK TOWNSHIP

WORCESTER TOWNSHIP

PLAN LEGEND

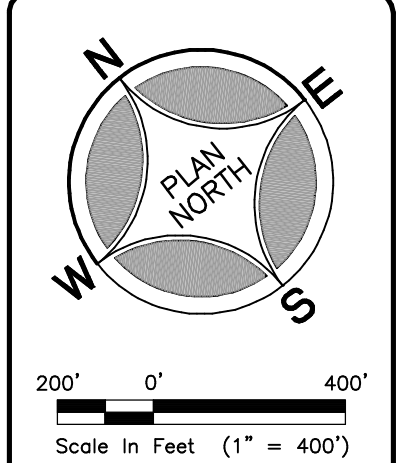
- Township Boundary
- Major Watercourses
- Watershed Boundary
- Contours (10' Interval)
- Drainage Area to Stormwater Outfalls
- PennDOT Roadways
- Storm Sewer Inlet
- Storm Sewer Headwall/Endwall
- Terminal Storm Outfall

LOCATION MAP



REVISIONS

No.	DATE	DESCRIPTION
1	08/09/2023	Revisions to add quantities & watercourse notes
2	08/09/2023	Revisions per DEP email comments received 07/19/2023.
3	08/09/2023	Revisions per DEP email comments received 07/19/2023.
4	08/09/2023	Revisions to add notes, while the Skipack Creek Watershed
5	08/09/2023	Revisions per DEP email comments received 07/19/2023.
6	08/09/2023	Revisions per DEP email comments received 07/19/2023.



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**WOODROW & ASSOCIATES, INC.**  
REGISTERED PROFESSIONAL ENGINEER  
TIMOTHY P. WOODROW  
No. 63672-1

Applicant: LOWER PROVIDENCE TOWNSHIP  
1000 E. Main St.  
Ephrata, PA 17040  
Phone: (610) 539-8020

Township Boundary: 14.77 Sq. Miles (9,454 Acres)

FINAL PLAN  
TOWNSHIP STORM SEWER OUTFALL MAP SECTION 'B'  
LOWER PROVIDENCE TOWNSHIP - PENNSYLVANIA  
WOODROW & ASSOCIATES, INC.  
MUNICIPAL CIVIL CONSULTING ENGINEERS  
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Fax: (215) 542-5679  
Web: www.woodrowinc.com

Layer List:  
B-SHT05\_OUTFALL-B

Job No:  
14-0313LP

Plan Date:  
AUGUST 11, 2017

Sheet No:  
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Project No: 14-0313LP - Project Name: OMBP - PROVIDENCE TOWNSHIP - Print Date: Sep 26, 2023 (13:52)

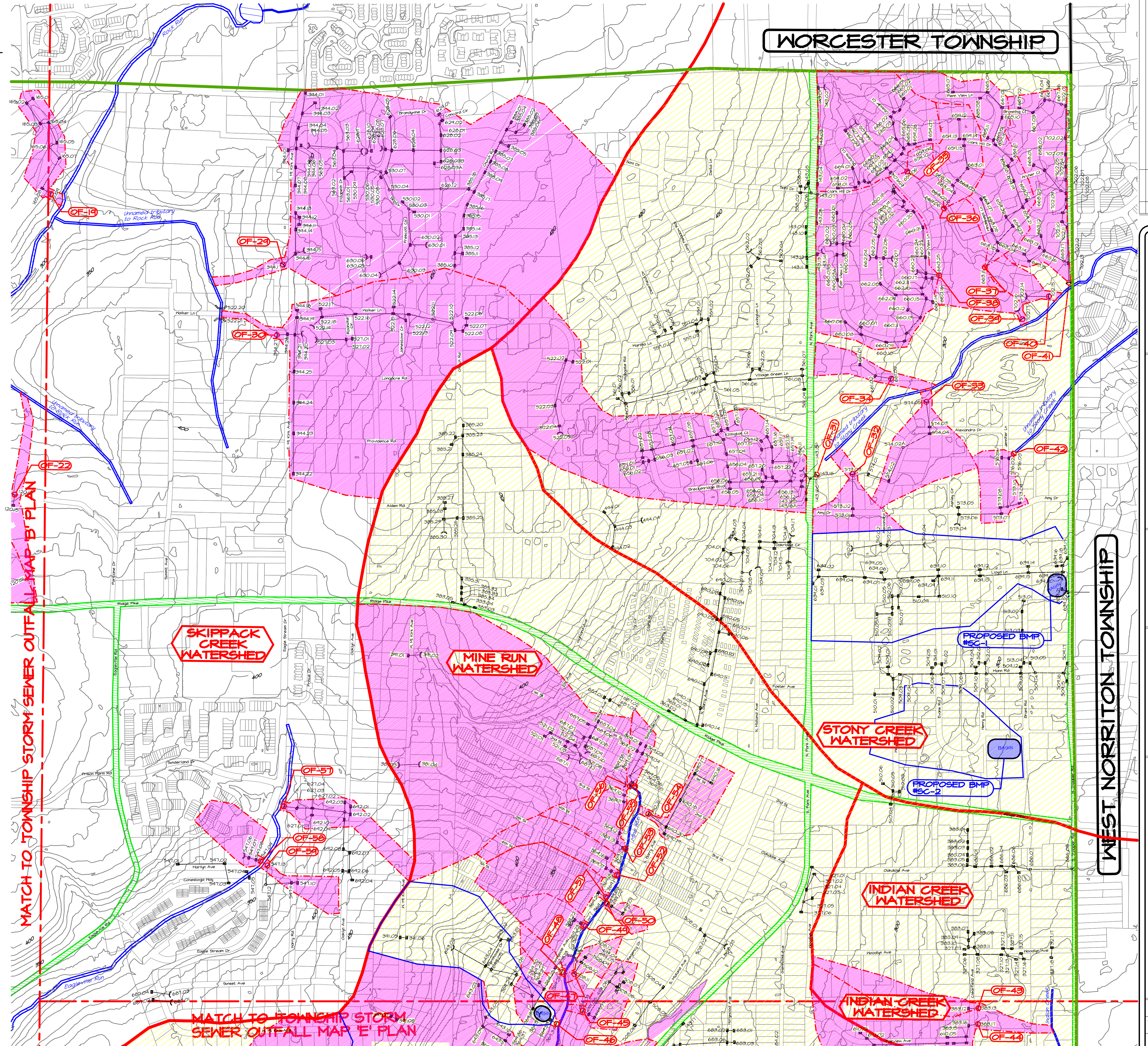
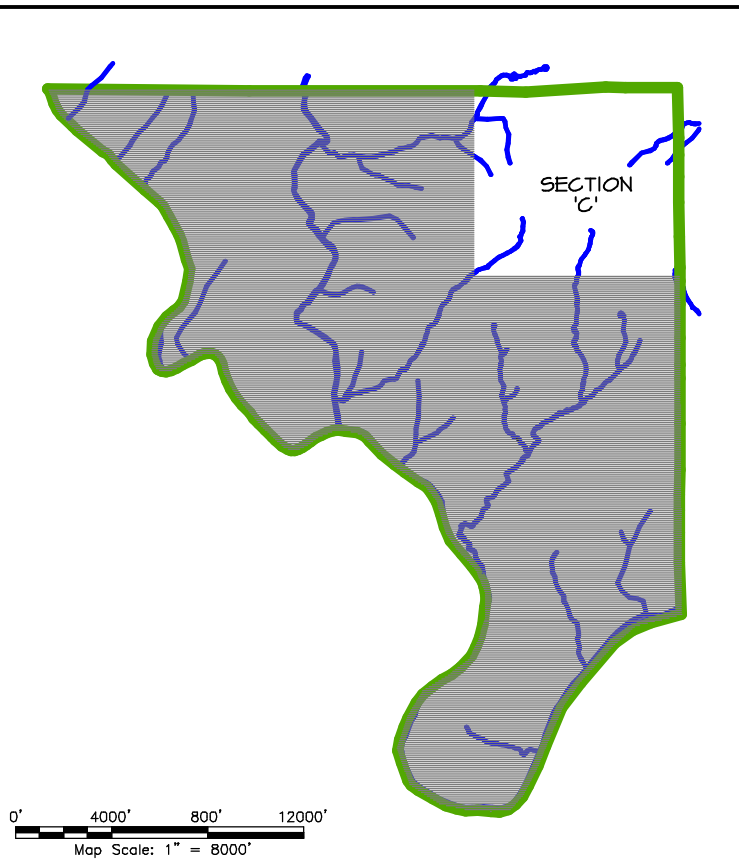
TOWNSHIP STORM SEWER OUTFALL LOCATIONS:

OUTFALL No.:	CORRESPONDING MUNICIPAL MAPPING OUTFALL No.:	LATITUDE:	LONGITUDE:	WATERCOURSE DISCHARGE:
OF-19	165.09	40.167872 N	-75.402229 W	UNNAMED TRIBUTARY TO ROCK RUN TO SKIPPACK CREEK
OF-29	394.17	40.163643 N	-75.398404 W	UNNAMED TRIBUTARY TO ROCK RUN TO SKIPPACK CREEK
OF-30	394.27	40.162054 N	-75.400150 W	UNNAMED TRIBUTARY TO ROCK RUN TO SKIPPACK CREEK
OF-31	143.16	40.152090 N	-75.389495 W	UNNAMED TRIBUTARY TO STONY CREEK
OF-32	573.03	40.151539 N	-75.388783 W	UNNAMED TRIBUTARY TO STONY CREEK
OF-33	574.05	40.151897 N	-75.385488 W	UNNAMED TRIBUTARY TO STONY CREEK
OF-34	661.03	40.152728 N	-75.385884 W	UNNAMED TRIBUTARY TO STONY CREEK
OF-35	659.06	40.156242 N	-75.381670 W	UNNAMED TRIBUTARY TO STONY CREEK
OF-36	663.06	40.155192 N	-75.381505 W	UNNAMED TRIBUTARY TO STONY CREEK
OF-37	663.11	40.153500 N	-75.381805 W	UNNAMED TRIBUTARY TO STONY CREEK
OF-38	660.25	40.153843 N	-75.382980 W	UNNAMED TRIBUTARY TO STONY CREEK
OF-39	702.17	40.152082 N	-75.382100 W	UNNAMED TRIBUTARY TO STONY CREEK
OF-40	702.15	40.152106 N	-75.380667 W	UNNAMED TRIBUTARY TO STONY CREEK
OF-41	702.13	40.152111 N	-75.380105 W	UNNAMED TRIBUTARY TO STONY CREEK
OF-42	576.03	40.149978 N	-75.383943 W	UNNAMED TRIBUTARY TO STONY CREEK
OF-43	383.13	40.141033 N	-75.395361 W	INDIAN CREEK
OF-44	383.17	40.139904 N	-75.395560 W	INDIAN CREEK
OF-45	499.09	40.145879 N	-75.404593 W	MINE RUN
OF-46	369.34	40.145965 N	-75.405454 W	MINE RUN
OF-47	508.11	40.146820 N	-75.404271 W	MINE RUN
OF-48	369.26	40.146759 N	-75.404561 W	MINE RUN
OF-49	369.24	40.147369 N	-75.402988 W	MINE RUN
OF-50	369.03	40.147374 N	-75.402290 W	MINE RUN
OF-51	369.21	40.147566 N	-75.402213 W	MINE RUN
OF-52	369.19	40.147788 N	-75.401371 W	MINE RUN
OF-53	369.15	40.148120 N	-75.400743 W	MINE RUN
OF-54	690.21	40.148559 N	-75.399416 W	MINE RUN
OF-55	369.07	40.149188 N	-75.399303 W	MINE RUN
OF-56	369.09	40.149293 N	-75.399383 W	MINE RUN
OF-57	627.04	40.153672 N	-75.407879 W	EAGLEVILLE RUN TO SKIPPACK CREEK
OF-58	547.09	40.153075 N	-75.409491 W	EAGLEVILLE RUN TO SKIPPACK CREEK
OF-59	547.13	40.152892 N	-75.409553 W	EAGLEVILLE RUN TO SKIPPACK CREEK

PLAN LEGEND

- Township Boundary
- Major Watercourses
- Watershed Boundary
- Contours (10' Interval)
- Drainage Area to proposed BMP modifications
- Watershed Areas with a Pollution Reduction requirement
- Drainage Area to Stormwater Outfalls
- PennDOT Roadways
- Proposed Pollution Reduction BMPs
- Storm Sewer Inlet
- Storm Sewer Headwall/Endwall
- Terminal Storm Outfall

LOCATION MAP

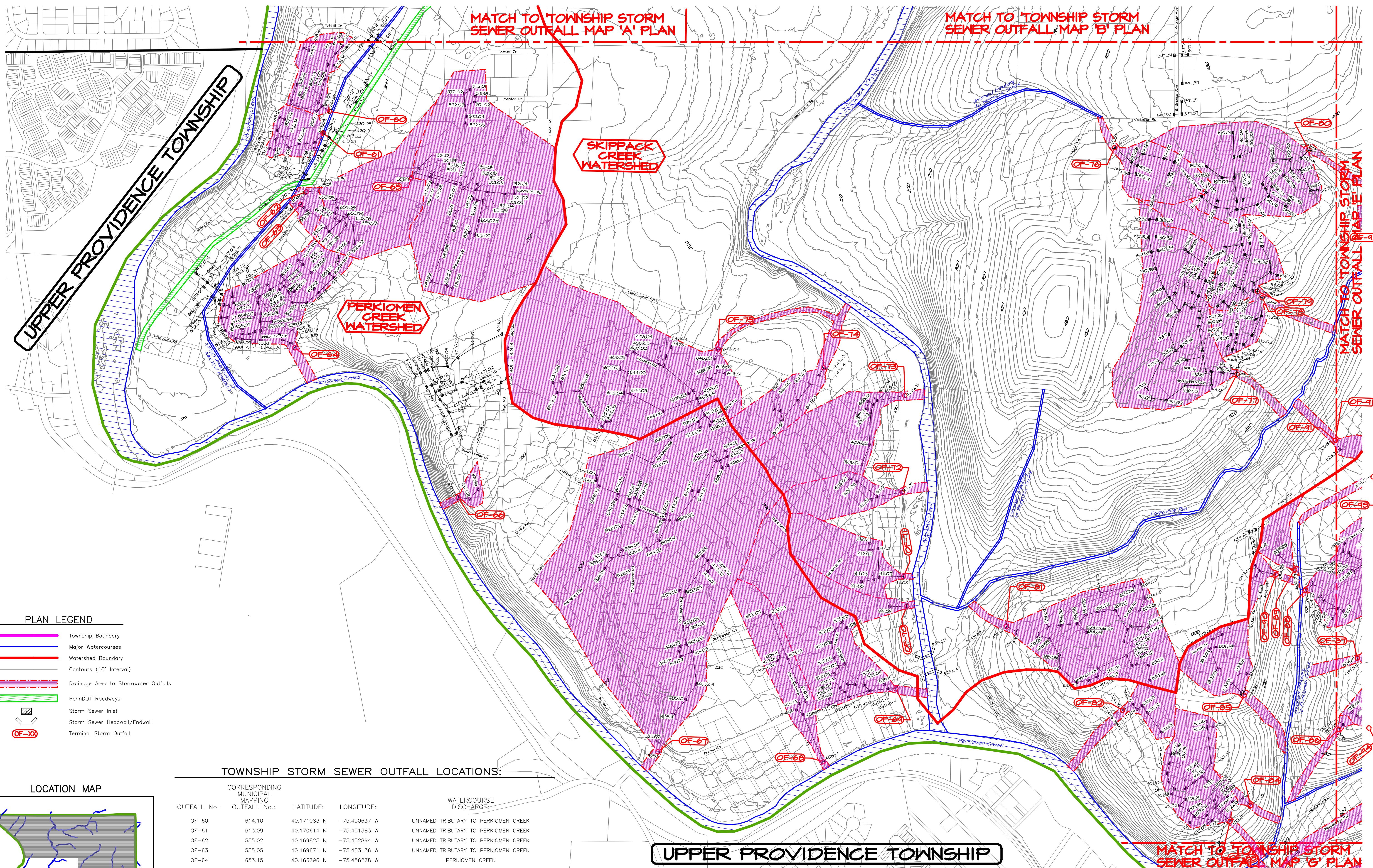


WORCESTER TOWNSHIP

WEST NORRITON TOWNSHIP

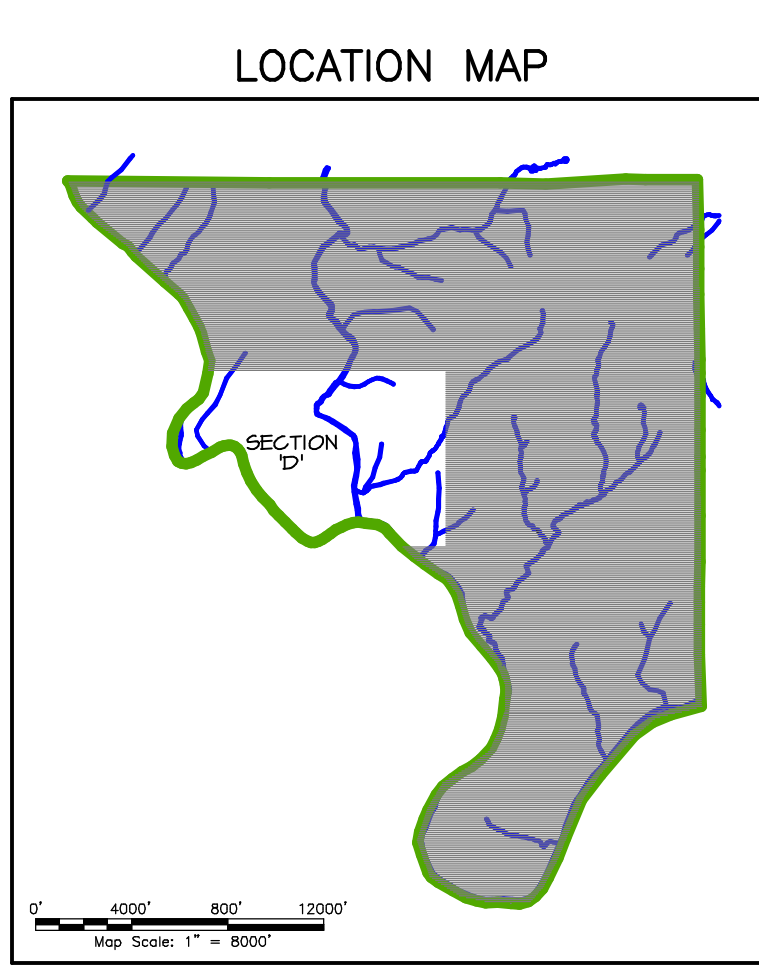
**REVISIONS**

No.	DATE	DESCRIPTION
1	08/09/2013	Revisions to 14-0313LP - Worcester Township
2	08/13/2013	Revisions to 14-0313LP - Worcester Township
3	08/19/2013	Revisions to 14-0313LP - Worcester Township
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5	08/27/2013	Revisions to 14-0313LP - Worcester Township
6	09/02/2013	Revisions to 14-0313LP - Worcester Township
7	09/09/2013	Revisions to 14-0313LP - Worcester Township
8	09/16/2013	Revisions to 14-0313LP - Worcester Township
9	09/23/2013	Revisions to 14-0313LP - Worcester Township
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12	10/14/2013	Revisions to 14-0313LP - Worcester Township
13	10/21/2013	Revisions to 14-0313LP - Worcester Township
14	10/28/2013	Revisions to 14-0313LP - Worcester Township
15	11/04/2013	Revisions to 14-0313LP - Worcester Township
16	11/11/2013	Revisions to 14-0313LP - Worcester Township
17	11/18/2013	Revisions to 14-0313LP - Worcester Township
18	11/25/2013	Revisions to 14-0313LP - Worcester Township
19	12/02/2013	Revisions to 14-0313LP - Worcester Township
20	12/09/2013	Revisions to 14-0313LP - Worcester Township
21	12/16/2013	Revisions to 14-0313LP - Worcester Township
22	12/23/2013	Revisions to 14-0313LP - Worcester Township
23	12/30/2013	Revisions to 14-0313LP - Worcester Township
24	01/06/2014	Revisions to 14-0313LP - Worcester Township
25	01/13/2014	Revisions to 14-0313LP - Worcester Township
26	01/20/2014	Revisions to 14-0313LP - Worcester Township
27	01/27/2014	Revisions to 14-0313LP - Worcester Township
28	02/03/2014	Revisions to 14-0313LP - Worcester Township
29	02/10/2014	Revisions to 14-0313LP - Worcester Township
30	02/17/2014	Revisions to 14-0313LP - Worcester Township
31	02/24/2014	Revisions to 14-0313LP - Worcester Township
32	03/02/2014	Revisions to 14-0313LP - Worcester Township
33	03/09/2014	Revisions to 14-0313LP - Worcester Township
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38	04/13/2014	Revisions to 14-0313LP - Worcester Township
39	04/20/2014	Revisions to 14-0313LP - Worcester Township
40	04/27/2014	Revisions to 14-0313LP - Worcester Township
41	05/04/2014	Revisions to 14-0313LP - Worcester Township
42	05/11/2014	Revisions to 14-0313LP - Worcester Township
43	05/18/2014	Revisions to 14-0313LP - Worcester Township
44	05/25/2014	Revisions to 14-0313LP - Worcester Township
45	06/01/2014	Revisions to 14-0313LP - Worcester Township
46	06/08/2014	Revisions to 14-0313LP - Worcester Township
47	06/15/2014	Revisions to 14-0313LP - Worcester Township
48	06/22/2014	Revisions to 14-0313LP - Worcester Township
49	06/29/2014	Revisions to 14-0313LP - Worcester Township
50	07/06/2014	Revisions to 14-0313LP - Worcester Township
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61	09/21/2014	Revisions to 14-0313LP - Worcester Township
62	09/28/2014	Revisions to 14-0313LP - Worcester Township
63	10/05/2014	Revisions to 14-0313LP - Worcester Township
64	10/12/2014	Revisions to 14-0313LP - Worcester Township
65	10/19/2014	Revisions to 14-0313LP - Worcester Township
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77	01/11/2015	Revisions to 14-0313LP - Worcester Township
78	01/18/2015	Revisions to 14-0313LP - Worcester Township
79	01/25/2015	Revisions to 14-0313LP - Worcester Township
80	02/01/2015	Revisions to 14-0313LP - Worcester Township
81	02/08/2015	Revisions to 14-0313LP - Worcester Township
82	02/15/2015	Revisions to 14-0313LP - Worcester Township
83	02/22/2015	Revisions to 14-0313LP - Worcester Township
84	02/29/2015	Revisions to 14-0313LP - Worcester Township
85	03/06/2015	Revisions to 14-0313LP - Worcester Township
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87	03/20/2015	Revisions to 14-0313LP - Worcester Township
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89	04/03/2015	Revisions to 14-0313LP - Worcester Township
90	04/10/2015	Revisions to 14-0313LP - Worcester Township
91	04/17/2015	Revisions to 14-0313LP - Worcester Township
92	04/24/2015	Revisions to 14-0313LP - Worcester Township
93	05/01/2015	Revisions to 14-0313LP - Worcester Township
94	05/08/2015	Revisions to 14-0313LP - Worcester Township
95	05/15/2015	Revisions to 14-0313LP - Worcester Township
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97	05/29/2015	Revisions to 14-0313LP - Worcester Township
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126	12/18/2015	Revisions to 14-0313LP - Worcester Township
127	12/25/2015	Revisions to 14-0313LP - Worcester Township
128	01/01/2016	Revisions to 14-0313LP - Worcester Township
129	01/08/2016	Revisions to 14-0313LP - Worcester Township
130	01/15/2016	Revisions to 14-0313LP - Worcester Township
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175	11/26/2016	Revisions to 14-0313LP - Worcester Township
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197	04/29/2017	Revisions to 14-0313LP - Worcester Township



**PLAN LEGEND**

- Township Boundary
- Major Watercourses
- Watershed Boundary
- Contours (10' Interval)
- Drainage Area to Stormwater Outfalls
- PennDOT Roadways
- Storm Sewer Inlet
- Storm Sewer Headwall/Endwall
- Terminal Storm Outfall



**TOWNSHIP STORM SEWER OUTFALL LOCATIONS:**

OUTFALL No.:	CORRESPONDING MUNICIPAL MAPPING No.:	LATITUDE:	LONGITUDE:	WATERCOURSE DISCHARGE:
OF-60	614.10	40.171083 N	-75.450637 W	UNNAMED TRIBUTARY TO PERKIOMEN CREEK
OF-61	613.09	40.170614 N	-75.451383 W	UNNAMED TRIBUTARY TO PERKIOMEN CREEK
OF-62	555.02	40.169825 N	-75.452894 W	UNNAMED TRIBUTARY TO PERKIOMEN CREEK
OF-63	555.05	40.169671 N	-75.453136 W	UNNAMED TRIBUTARY TO PERKIOMEN CREEK
OF-64	653.15	40.166796 N	-75.456278 W	PERKIOMEN CREEK
OF-65	321.14	40.168341 N	-75.449738 W	PERKIOMEN CREEK
OF-66	617.03	40.161283 N	-75.454970 W	PERKIOMEN CREEK
OF-67	325.01	40.153311 N	-75.454955 W	PERKIOMEN CREEK
OF-68	406.17	40.150446 N	-75.450691 W	PERKIOMEN CREEK
OF-69	325.13	40.150734 N	-75.447604 W	SKIPPACK CREEK
OF-70	411.10	40.152288 N	-75.445448 W	SKIPPACK CREEK
OF-71	411.08	40.154419 N	-75.443282 W	SKIPPACK CREEK
OF-72	411.03	40.156405 N	-75.441418 W	SKIPPACK CREEK
OF-73	406.06	40.147761 N	-75.419284 W	SKIPPACK CREEK
OF-74	647.05	40.158276 N	-75.442899 W	SKIPPACK CREEK
OF-75	646.04	40.160272 N	-75.445453 W	SKIPPACK CREEK
OF-76	197.07	40.158330 N	-75.430603 W	UNNAMED TRIBUTARY TO SKIPPACK CREEK

**TOWNSHIP STORM SEWER OUTFALL LOCATIONS:**

OUTFALL No.:	CORRESPONDING MUNICIPAL MAPPING No.:	LATITUDE:	LONGITUDE:	WATERCOURSE DISCHARGE:	OUTFALL No.:	CORRESPONDING MUNICIPAL MAPPING No.:	LATITUDE:	LONGITUDE:	WATERCOURSE DISCHARGE:
OF-77	196.07	40.151763 N	-75.432368 W	EAGLEVILLE RUN TO SKIPPACK CREEK	OF-84	102.15	40.142880 N	-75.440655 W	UNNAMED TRIBUTARY TO PERKIOMEN CREEK
OF-78	195.05	40.152883 N	-75.430114 W	EAGLEVILLE RUN TO SKIPPACK CREEK	OF-85	634.16	40.145272 N	-75.438830 W	UNNAMED TRIBUTARY TO PERKIOMEN CREEK
OF-79	190.24	40.153073 N	-75.430063 W	EAGLEVILLE RUN TO SKIPPACK CREEK	OF-86	183.05	40.143280 N	-75.436785 W	UNNAMED TRIBUTARY TO PERKIOMEN CREEK
OF-80	192.14	40.155139 N	-75.426005 W	EAGLEVILLE RUN TO SKIPPACK CREEK	OF-87	634.41	40.144123 N	-75.434848 W	UNNAMED TRIBUTARY TO PERKIOMEN CREEK
OF-81	185.10	40.150282 N	-75.443303 W	EAGLEVILLE RUN TO SKIPPACK CREEK	OF-88	634.29	40.146432 N	-75.434677 W	UNNAMED TRIBUTARY TO PERKIOMEN CREEK
OF-82	101.16	40.146837 N	-75.442632 W	PERKIOMEN CREEK	OF-89	634.27	40.147057 N	-75.434664 W	UNNAMED TRIBUTARY TO PERKIOMEN CREEK
OF-83	102.13	40.142915 N	-75.441744 W	UNNAMED TRIBUTARY TO PERKIOMEN CREEK	OF-90	634.25	40.147251 N	-75.435271 W	UNNAMED TRIBUTARY TO PERKIOMEN CREEK
					OF-91	325.34	40.149070 N	-75.430968 W	EAGLEVILLE RUN TO SKIPPACK CREEK

**REVISIONS**

No.	DATE	DESCRIPTION
1	08/09/2023	Revised to add Skippack & Waplesboro Roads
2	08/09/2023	Revised to add Skippack & Waplesboro Roads
3	08/09/2023	Revised to add Skippack & Waplesboro Roads
4	08/09/2023	Revised to add Skippack & Waplesboro Roads

Scale in Feet (1" = 400')

ONLY PLANS INCORPORATING A RAISED PROFESSIONAL SEAL ARE CONSIDERED TO BE OFFICIAL AND RELIED UPON BY THE USER.

THIS PLAN HAS BEEN PREPARED SPECIFICALLY FOR THE APPLICANT AND PROJECT DESIGNATED HEREON. ANY MODIFICATION, REVISION, DUPLICATION OR USE WITHOUT WRITTEN CONSENT OF WOODROW & ASSOCIATES, INC. IS PROHIBITED.

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WOODROW & ASSOCIATES, INC. REGISTERED PROFESSIONAL ENGINEER No. 63672-1

CALL 1-800-242-1776

APPLICANT: LOWER PROVIDENCE TOWNSHIP  
1000 E. Highways, PA 19003  
Phone: (610) 539-8020

TOWNSHIP BOUNDARY: 14.77 Sq. Miles (9,454 Acres)

FINAL PLAN  
TOWNSHIP STORM SEWER OUTFALL MAP SECTION 'D'  
LOWER PROVIDENCE TOWNSHIP - PENNSYLVANIA  
WOODROW & ASSOCIATES, INC. MUNICIPAL CIVIL CONSULTING ENGINEERS  
1108 North Berksboro Pike, Suite 500 - Lower Merion, PA 19022  
Phone: (215) 542-5548 Fax: (215) 542-5679  
Web: www.woodrowinc.com

Layer List: B-SHT07\_OUTFALL-D  
Job No: 14-0313LP  
Plan Date: AUGUST 11, 2017  
Sheet No: 7 of 11

MATCH TO TOWNSHIP STORM SEWER OUTFALL MAP 'B' PLAN

MATCH TO TOWNSHIP STORM SEWER OUTFALL MAP 'C' PLAN

INDIAN CREEK WATERSHED

MINE RUN WATERSHED

MINE RUN WATERSHED

PERKIOMEN CREEK WATERSHED

MINE RUN WATERSHED

INDIAN CREEK WATERSHED

SCHUYLKILL RIVER WATERSHED

MATCH TO TOWNSHIP STORM SEWER OUTFALL MAP 'F' PLAN

MATCH TO TOWNSHIP STORM SEWER OUTFALL MAP 'D' PLAN

WEST NORRITON TOWNSHIP

**PLAN LEGEND**

- Township Boundary
- Major Watercourses
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**LOCATION MAP**

TOWNSHIP STORM SEWER OUTFALL LOCATIONS:

OUTFALL No.:	CORRESPONDING MUNICIPAL MAPPING OUTFALL No.:	LATITUDE:	LONGITUDE:	WATERCOURSE DISCHARGE:	OUTFALL No.:	CORRESPONDING MUNICIPAL MAPPING OUTFALL No.:	LATITUDE:	LONGITUDE:	WATERCOURSE DISCHARGE:	OUTFALL No.:	CORRESPONDING MUNICIPAL MAPPING OUTFALL No.:	LATITUDE:	LONGITUDE:	WATERCOURSE DISCHARGE:
OF-92	393.02	40.152624 N	-75.424862 W	EAGLEVILLE RUN TO SKIPPACK CREEK	OF-101	322.22	40.144513 N	-75.420446 W	UNNAMED TRIBUTARY TO MINE RUN	OF-110	374.09	40.133362 N	-75.423233 W	MINE RUN
OF-93	679.15	40.147861 N	-75.430596 W	EAGLEVILLE RUN TO SKIPPACK CREEK	OF-102	635.21	40.145722 N	-75.420832 W	UNNAMED TRIBUTARY TO MINE RUN	OF-111	596.02	40.134257 N	-75.408387 W	UNNAMED TRIBUTARY TO MINE RUN
OF-94	183.03	40.142815 N	-75.435888 W	UNNAMED TRIBUTARY TO PERKIOMEN CREEK	OF-103	634.92	40.146239 N	-75.420916 W	UNNAMED TRIBUTARY TO MINE RUN	OF-112	577.20	40.134567 N	-75.409599 W	UNNAMED TRIBUTARY TO MINE RUN
OF-95	176.14	40.141798 N	-75.435504 W	UNNAMED TRIBUTARY TO MINE RUN	OF-104	369.37	40.145643 N	-75.406569 W	MINE RUN	OF-113	595.02	40.134393 N	-75.408259 W	UNNAMED TRIBUTARY TO MINE RUN
OF-96	568.05	40.134933 N	-75.427399 W	UNNAMED TRIBUTARY TO MINE RUN	OF-105	499.11	40.145433 N	-75.406046 W	MINE RUN	OF-114	577.17	40.136077 N	-75.407720 W	UNNAMED TRIBUTARY TO MINE RUN
OF-97	496.05	40.136376 N	-75.427517 W	UNNAMED TRIBUTARY TO MINE RUN	OF-106	378.17	40.143265 N	-75.408001 W	MINE RUN	OF-115	593.03	40.134656 N	-75.406908 W	UNNAMED TRIBUTARY TO MINE RUN
OF-98	107.13	40.141132 N	-75.424982 W	UNNAMED TRIBUTARY TO MINE RUN	OF-107	631.17	40.141577 N	-75.410718 W	MINE RUN	OF-116	577.10	40.136546 N	-75.406908 W	UNNAMED TRIBUTARY TO MINE RUN
OF-99	634.67	40.142443 N	-75.424045 W	UNNAMED TRIBUTARY TO MINE RUN	OF-108	706.03	40.134947 N	-75.421859 W	MINE RUN	OF-117	319.18	40.136560 N	-75.401402 W	UNNAMED TRIBUTARY TO MINE RUN
OF-100	669.06	40.143226 N	-75.423067 W	UNNAMED TRIBUTARY TO MINE RUN	OF-109	374.03	40.135126 N	-75.422664 W	MINE RUN	OF-118	582.06	40.136126 N	-75.403313 W	UNNAMED TRIBUTARY TO MINE RUN

**REVISIONS**

No.	DATE	DESCRIPTION
1	08/09/2023	Revisions to 14-0313LP - West Norriton Township
2	08/10/2023	Revisions to 14-0313LP - West Norriton Township
3	08/11/2023	Revisions to 14-0313LP - West Norriton Township
4	08/12/2023	Revisions to 14-0313LP - West Norriton Township
5	08/13/2023	Revisions to 14-0313LP - West Norriton Township
6	08/14/2023	Revisions to 14-0313LP - West Norriton Township
7	08/15/2023	Revisions to 14-0313LP - West Norriton Township
8	08/16/2023	Revisions to 14-0313LP - West Norriton Township
9	08/17/2023	Revisions to 14-0313LP - West Norriton Township
10	08/18/2023	Revisions to 14-0313LP - West Norriton Township
11	08/19/2023	Revisions to 14-0313LP - West Norriton Township
12	08/20/2023	Revisions to 14-0313LP - West Norriton Township
13	08/21/2023	Revisions to 14-0313LP - West Norriton Township
14	08/22/2023	Revisions to 14-0313LP - West Norriton Township
15	08/23/2023	Revisions to 14-0313LP - West Norriton Township
16	08/24/2023	Revisions to 14-0313LP - West Norriton Township
17	08/25/2023	Revisions to 14-0313LP - West Norriton Township
18	08/26/2023	Revisions to 14-0313LP - West Norriton Township
19	08/27/2023	Revisions to 14-0313LP - West Norriton Township
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21	08/29/2023	Revisions to 14-0313LP - West Norriton Township
22	08/30/2023	Revisions to 14-0313LP - West Norriton Township
23	08/31/2023	Revisions to 14-0313LP - West Norriton Township
24	09/01/2023	Revisions to 14-0313LP - West Norriton Township
25	09/02/2023	Revisions to 14-0313LP - West Norriton Township
26	09/03/2023	Revisions to 14-0313LP - West Norriton Township
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28	09/05/2023	Revisions to 14-0313LP - West Norriton Township
29	09/06/2023	Revisions to 14-0313LP - West Norriton Township
30	09/07/2023	Revisions to 14-0313LP - West Norriton Township
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58	10/05/2023	Revisions to 14-0313LP - West Norriton Township
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98	11/14/2023	Revisions to 14-0313LP - West Norriton Township
99	11/15/2023	Revisions to 14-0313LP - West Norriton Township
100	11/16/2023	Revisions to 14-0313LP - West Norriton Township

**REVISIONS**

200' 0' 400'

Scale in Feet (1" = 400')

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WEST NORRITON TOWNSHIP

14.77 Sq. Miles (9,454 Acres)

CALL 1-800-242-1776

WOODROW & ASSOCIATES, INC.

REGISTERED PROFESSIONAL ENGINEER

TIMOTHY P. WOODROW

IN. 030201

LOWER PROVIDENCE TOWNSHIP

1000 E. Main St., Suite 1000, Exton, PA 19341

Phone: (610) 539-8020

14.77 Sq. Miles (9,454 Acres)

WOODROW & ASSOCIATES, INC.

MUNICIPAL CIVIL CONSULTING ENGINEERS

1108 North Bethlehem Pike, Suite 500, Lower Merion, PA 19022

Phone: (215) 542-5549 Fax: (215) 542-5679

www.woodrowassociates.com

FINAL PLAN

TOWNSHIP STORM SEWER OUTFALL MAP SECTION 'E' LOWER PROVIDENCE TOWNSHIP

Layer List: B-SHT08\_OUTFALL-E

Job No: 14-0313LP

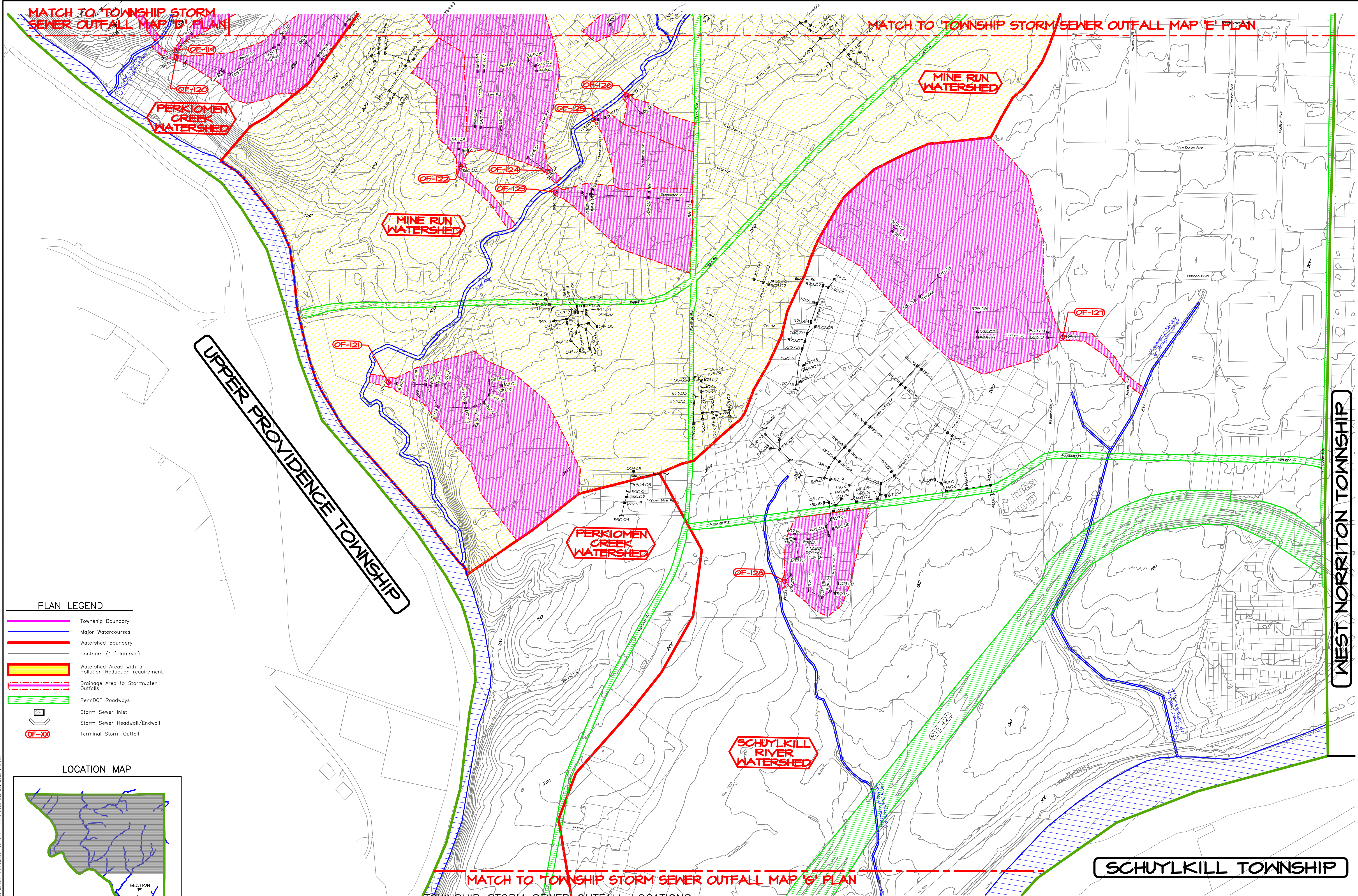
Plan Date: AUGUST 11, 2017

Sheet No: 8 of 11



MATCH TO TOWNSHIP STORM SEWER OUTFALL MAP 'D' PLAN

MATCH TO TOWNSHIP STORM SEWER OUTFALL MAP 'E' PLAN



UPPER PROVIDENCE TOWNSHIP

WEST NORRITON TOWNSHIP

SCHUYLKILL TOWNSHIP

MATCH TO TOWNSHIP STORM SEWER OUTFALL MAP 'G' PLAN

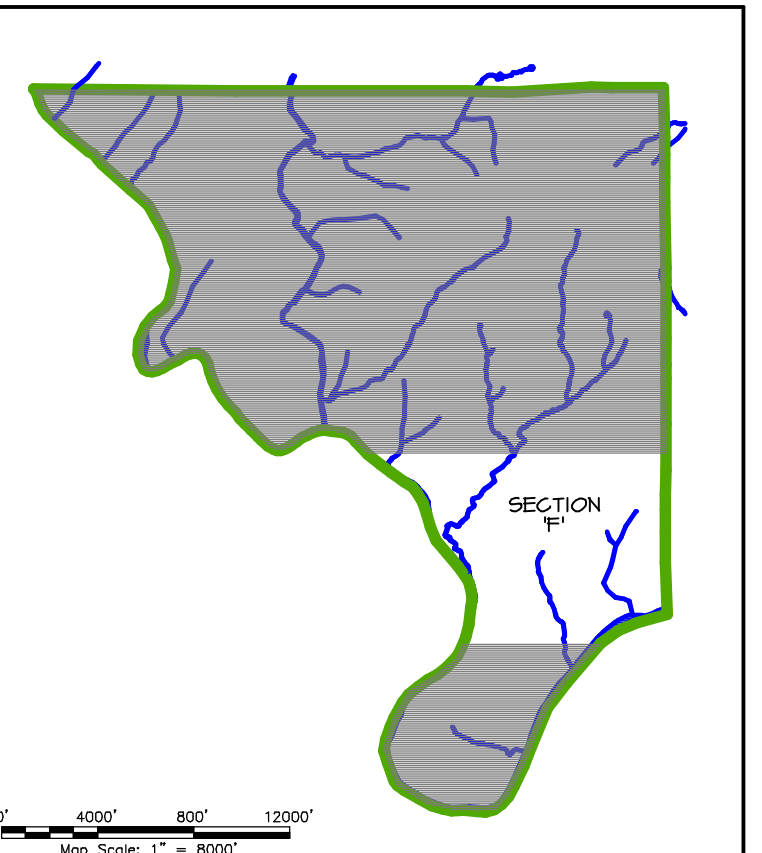
TOWNSHIP STORM SEWER OUTFALL LOCATIONS:

CORRESPONDING MUNICIPAL MAPPING	CORRESPONDING MUNICIPAL MAPPING	LATITUDE: LONGITUDE:		WATERCOURSE DISCHARGE:	CORRESPONDING MUNICIPAL MAPPING	CORRESPONDING MUNICIPAL MAPPING	LATITUDE: LONGITUDE:		WATERCOURSE DISCHARGE:
OUTFALL No.:	OUTFALL No.:				OUTFALL No.:	OUTFALL No.:			
OF-119	570.02	40.141370 N	-75.440903 W	UNNAMED TRIBUTARY TO PERKIOMEN CREEK	OF-124	589.02	40.132842 N	-75.433358 W	MINE RUN
OF-120	565.15	40.141227 N	-75.441120 W	UNNAMED TRIBUTARY TO PERKIOMEN CREEK	OF-125	579.03	40.133172 N	-75.430993 W	MINE RUN
OF-121	621.15	40.130984 N	-75.442454 W	MINE RUN	OF-126	600.02	40.133159 N	-75.429751 W	MINE RUN
OF-122	567.03	40.134129 N	-75.435617 W	MINE RUN	OF-127	528.11	40.121228 N	-75.423065 W	UNNAMED TRIBUTARY TO SCHUYLKILL RIVER
OF-123	579.06	40.132449 N	-75.433610 W	MINE RUN	OF-128	672.06	40.120792 N	-75.435447 W	UNNAMED TRIBUTARY TO SCHUYLKILL RIVER

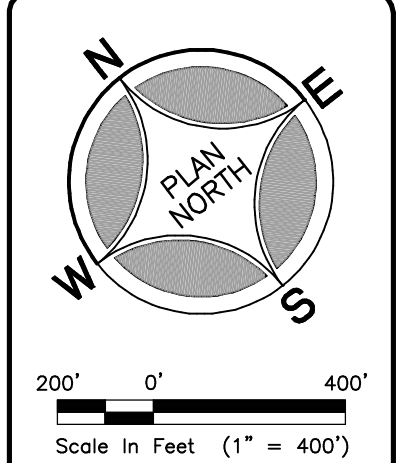
PLAN LEGEND

- Township Boundary
- Major Watercourses
- Watershed Boundary
- Contours (10' Interval)
- Watershed Areas with a Pollution Reduction requirement
- Drainage Area to Stormwater Outfalls
- PennDOT Roadways
- Storm Sewer Inlet
- Storm Sewer Headwall/Endwall
- Terminal Storm Outfall

LOCATION MAP



NO.	DATE	DESCRIPTION
1	08/09/2013	Revisions to 10' Contours & Watershed Maps
2	08/09/2013	Revisions to 10' Contours & Watershed Maps
3	08/09/2013	Revisions to 10' Contours & Watershed Maps
4	08/09/2013	Revisions to 10' Contours & Watershed Maps
5	08/09/2013	Revisions to 10' Contours & Watershed Maps



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REGISTERED PROFESSIONAL ENGINEER  
TIMOTHY P. WOODROW  
No. 63672-1

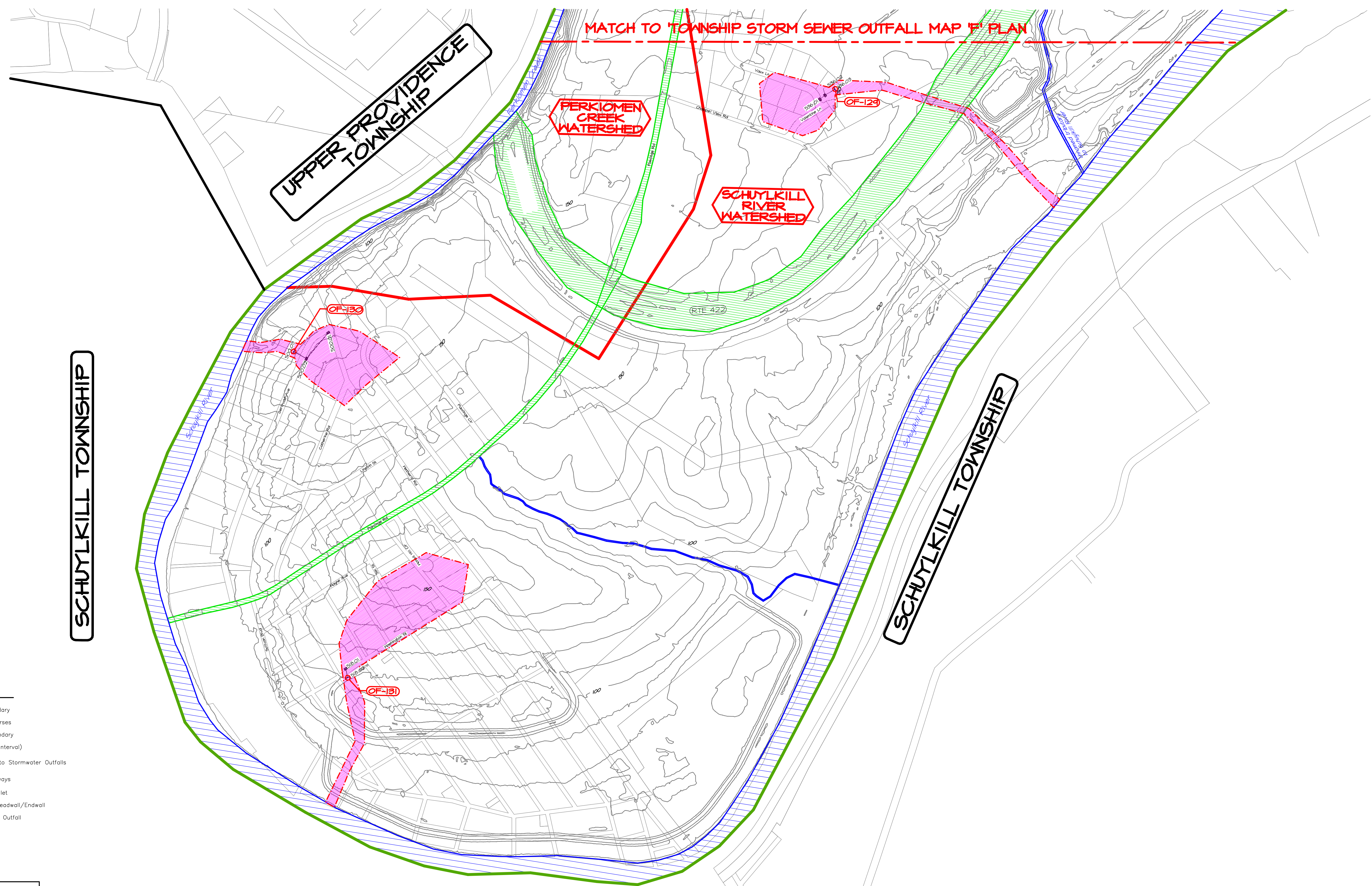
Applicant: LOWER PROVIDENCE TOWNSHIP  
1000 E. Main St.  
Ephrata, PA 19003  
Phone: (610) 539-8020

Township Boundary: 14.77 Sq. Miles (9,454 Acres)

FINAL PLAN  
TOWNSHIP STORM SEWER OUTFALL MAP SECTION 'F'  
LOWER PROVIDENCE TOWNSHIP  
WOODROW & ASSOCIATES, INC.  
MUNICIPAL CIVIL CONSULTING ENGINEERS  
1108 North Bethlehem Pike / Suite 500 - Lower Merion, PA 19022  
Phone: (215) 642-5548 Fax: (215) 642-5579  
Web: www.woodrowinc.com

Layer List: B-SHT09\_OUTFALL-F  
Job No: 14-0313LP  
Plan Date: AUGUST 11, 2017  
Sheet No: 9 of 11

Project No: 14-0313LP - Project Name: LOWER PROVIDENCE TOWNSHIP - Plan Date: Sep 26, 2013 (1313LP)



SCHUYLKILL TOWNSHIP

UPPER PROVIDENCE TOWNSHIP

SCHUYLKILL TOWNSHIP

PERKIOMEN CREEK WATERSHED

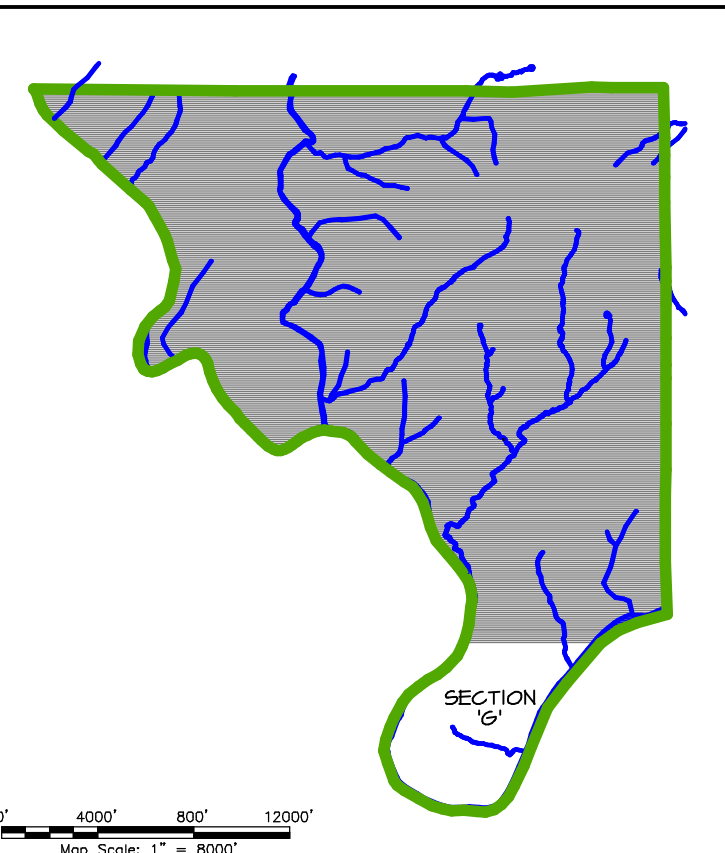
SCHUYLKILL RIVER WATERSHED

MATCH TO 'TOWNSHIP STORM SEWER OUTFALL MAP 'F' PLAN'

PLAN LEGEND

- Township Boundary
- Major Watercourses
- Watershed Boundary
- Contours (10' Interval)
- Drainage Area to Stormwater Outfalls
- PennDOT Roadways
- Storm Sewer Inlet
- Storm Sewer Headwall/Endwall
- Terminal Storm Outfall

LOCATION MAP

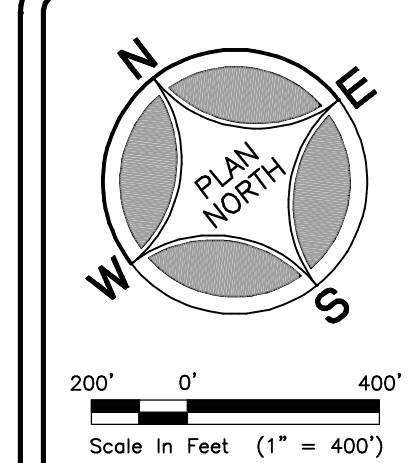


TOWNSHIP STORM SEWER OUTFALL LOCATIONS:

OUTFALL No.:	CORRESPONDING MUNICIPAL MAPPING No.:	LATITUDE:	LONGITUDE:	WATERCOURSE DISCHARGE:
OF-129	536.03	40.115105 N	-75.444537 W	UNNAMED TRIBUTARY TO SCHUYLKILL RIVER
OF-130	500.03	40.118263 N	-75.462561 W	SCHUYLKILL RIVER
OF-131	518.02	40.111156 N	-75.467254 W	SCHUYLKILL RIVER

NO.	DATE	DESCRIPTION
1	08/07/2013	Revisions to OF-129, Schuylkill & Schuylkill Maps
2	08/07/2013	Revisions to OF-130, Schuylkill & Schuylkill Maps
3	08/07/2013	Revisions to OF-131, Schuylkill & Schuylkill Maps
4	08/07/2013	Revisions to OF-129, Schuylkill & Schuylkill Maps

REVISIONS



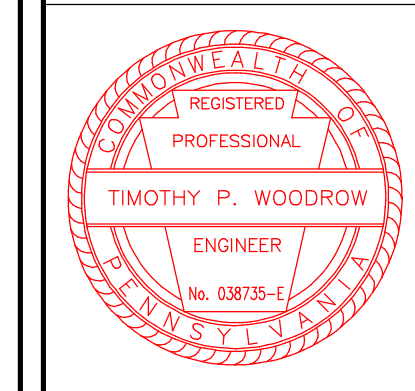
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Applicant: LOWER PROVIDENCE TOWNSHIP  
 1000  
 Exton, PA 19341  
 Phone: (610) 539-8020

Township Boundary: 14.77 Sq. Miles (9,454 Acres)

FINAL PLAN  
 TOWNSHIP STORM SEWER OUTFALL MAP SECTION 'G'  
 LOWER PROVIDENCE TOWNSHIP

WOODROW & ASSOCIATES, INC.  
 MUNICIPAL/CIVIL CONSULTING ENGINEERS  
 1188 North Bethlehem Pike / Suite 5 - Lower Merion, PA 19002  
 Phone: (215) 542-5548 / Fax: (215) 542-5679  
 Web: www.woodrowinc.com

Layer List:  
 B-SHT10\_OUTFALL-G

Job No:  
 14-0313LP

Plan Date:  
 AUGUST 11, 2017

Sheet No:  
 10 of 11

**SURFACE STABILIZATION NOTES:**

**FERTILIZATION, SEEDING AND MULCHING:**

**TEMPORARY COVER ON DISTURBED AREAS:**

Upon temporary cessation of an earth disturbance or any stage or phase of an activity where a cessation of earth disturbance activities exceed 4 days, the site shall be immediately seeded, mulched or otherwise protected from accelerated erosion and sedimentation pending future earth disturbance activities.

**PERMANENT COVER ON DISTURBED AREAS:**

Disturbed areas which are either at finish grade or will not be redisturbed a within one (1) year period must be seeded and mulched with a permanent seed mixture.

All disturbed areas shall be stabilized immediately with a temporary seed and mulch mixture applied at the recommended rates. Site preparation of mulch and maintenance shall be performed in accordance with the Penn State University's Erosion Control & Conservation Plantings on Noncropland manual and Pennsylvania Department of Transportation publication form 408 specifications (latest edition). During nongermination periods, mulch must be applied at the recommended rates.

Graded areas shall be scarified or otherwise loosened to a depth of 3" to 5" prior to topsoil placement to permit the bonding of new topsoil.

**MULCHING:**

All seeded areas should be mulched or blanketed to minimize the potential for failure to establish adequate vegetated cover. Mulching may also be used as a temporary stabilization of disturbed areas in non-germinating seasons. Mulch shall be applied immediately after seeding or at the termination of grading operations during non-germinating seasons.

Straw and hay mulch should be anchored or tackified immediately after application to prevent being windblown. A tractor-drawn implement may be used to "rip" the straw or hay into the soil about 3 inches deep. This method should be limited to slopes no steeper than 3H:1V. The machinery shall be operated on the contour.

Polymeric and gum tackifiers mixed and applied according to manufacturer's recommendations may be used to tack mulch. Avoid application during rain and on windy days. A 24 hour curing period and a soil temperature of 45 degrees F are typically required. Application should generally be heaviest at edges of seeded areas and at crests of slopes and banks to prevent loss. The remainder of the area shall have binder applied uniformly. Binders may only be applied after mulch is spread or sprayed onto the mulch as it is being blown onto the soil.

Synthetic binders, or chemical binders, may be used as recommended by the manufacturer to anchor mulch provided that sufficient documentation is provided to show they are non-toxic to native plant and animal species.

Mulch on slopes of 8% or steeper should be held in place with netting, light-weight plastic, fiber, or paper nets may be stapled over the mulch according to manufacturer's recommendations.

Shredded paper hydromulch should not be used on slopes steeper than 5%. Wood fiber hydromulch may be applied on steeper slopes provided a tackifier is used. The application for any hydromulch should be 2000 lb/acre at a minimum.

**MULCH APPLICATION RATES**

Mulch Type:	Per Acre:	Application Rate (Min.)		Notes:
		Per 1,000 S.F.	Per 1,000 S.Y.	
Straw	3 tons	140 lbs.	1,240 lbs.	Either wheat or oat straw, free of weeds, not chopped or finely broken
Hay	3 tons	140 lbs.	1,240 lbs.	Timothy, mixed clover and timothy or other native forage grasses
Wood Chips	4-6 tons	185-275 lbs.	1,650-2500 lbs.	May prevent germination of grasses and legumes
Hydromulch	1 ton	47 lbs.	415	See limitations above

**SEEDING SCHEDULE:**

Seeding to conform to specifications outlined in Section 804 - Seeding and Soil Supplements of PADOT Publication 408/2003 (latest revision).

A soils test should be performed in order to determine actual lime and fertilizer needs of the project site instead of using the generic application rates listed below.

**TEMPORARY SEEDING SPECIFICATION - FORMULA E:**

100% ANNUAL RYEGRASS (LOLIUM MULTIFLORUM): 10.0 lbs./1,000 s.y.

**PERMANENT SEEDING SPECIFICATION - FORMULA B:**

70% Tall Fescue (Festuca Arundinacea var., Kentucky 31): 15.0 lbs./1,000 s.y.  
 30% Creeping Red Fescue or Chewings Fescue: 6.0 lbs./1,000 s.y.

**SEEDING RATES FOR THE ABOVE MIXTURES:**

Spread seeds where indicated and at the rates specified above (and Table A, Pub 408, Section 804). Spread seeds within the following dates, or as otherwise indicated or directed:

- \* Formula B: - March 15 to June 01  
 August 01 to October 15
- \* Formula E: - March 15 to October 15

Extend seeding dates where project conditions warrant. Apply full treatment or apply only 50% of the permanent seeding and soil supplements and apply the remaining 50% within the next seeding dates.

Place mulch, hay or straw immediately after seeding or within 48 hours after seeding is completed. Place hay or straw uniformly, in a continuous blanket, until seeding is completed. If directed, increase the rate of application, depending upon the material used, season, soil conditions or method of application.

**SOIL SUPPLEMENTS:**

Pulverized agricultural limestone and commercial fertilizer shall be applied to all disturbed areas which are to be seeded in both temporary and permanent conditions at the following rates:

**SOIL AMENDMENT APPLICATION RATE EQUIVALENTS**

Soil Amendment	Permanent Seeding Application Rate			Notes
	Per Acre:	Per 1,000 S.F.	Per 1,000 S.Y.	
Agricultural Lime	6 tons	240 lb.	2,480 lb.	Or as per soil test; may not be required in agricultural fields
10-10-20 Fertilizer	1,000 lb.	25 lb.	210 lb.	Or as per soil test; may not be required in agricultural fields
Temporary Seeding Application Rate				
Agricultural Lime	1 ton	40 lb.	410 lb.	Typically not required for topsoil stockpiles
10-10-10 Fertilizer	500 lb.	12.5 lb.	100 lb.	Typically not required for topsoil stockpiles

*Adapted from Penn State, "Erosion Control and Conservation Plantings on Noncropland"*

**B.M.P. OPERATION & MAINTENANCE PROGRAM**

Lower Providence Township shall be responsible for the maintenance and care of all BMPs shown on these plans.

All BMP's outlined below require yearly inspection and maintenance to ensure they are functioning as designed. More frequent inspection and maintenance may be required if listed as such on the BMP's specific maintenance notes. Maintenance of the BMPs will include removal of any debris and flushing of the storm system (if applicable). An inspection report shall be compiled by a credible Engineering Firm under the direction of a Licensed Engineer. Lower Providence Township shall assume all responsibility for the cost associated with the inspection, cleaning of the system, engineering fees and ultimately any costs associated with recommended repairs and/or replacement of said facilities. Copies of the inspection report shall be filed at the Township for review and record keeping with State regulations.

If any BMP fails to drain the storage volume within 72 hours, the remaining water shall be immediately pumped into the failed BMP Outlet Structure and a certified professional contacted to investigate the cause and recommend a solution to the degrading failure.

**Maintenance of Basins/Rain Gardens (Semi-annually):**

Lower Providence Township shall be responsible to ensure that the Basins and Rain Garden are in operational condition, particularly the condition of the embankments, outlet structures, trash racks, grass aprons, inlets, and other safety related items. While vegetation (seed mixes, plugs, and plantings) are being established, pruning and weeding may be required. Inspection shall be completed quarterly and after major rainfall events. Sediment removal shall be performed when the basin is completely dry. Any removed sediment should be disposed of properly, and once removed, disturbed areas need to be immediately restabilized and revegetated. Debris may also need to be removed every year. Perennial plantings, if utilized, may be cut down at the end of the growing season. Mulch, if utilized, should be re-spread when erosion is evident and be replenished as needed. Once every two to three years the entire area may require mulch replacement. Maintain all Basin/Rain Garden berm and perimeter areas on a weekly basis. DO NOT apply pesticides or fertilizers where stormwater will be conveyed. Mow bio-filter planting area twice a year. The berm and outside embankment shall be mowed regularly to maintain a lawn condition. Mow interior embankment areas and floor areas twice a year. Once a year mowing is sufficient to keep a meadow from reverting to woodlands, but may not be sufficient to discourage woody seedlings, brambles, invasive vines and multiflora rose. Mowing more than twice a year will only encourage cool season grass species and create additional turf areas. Recommended dates for mowing are early July for the first cutting and a second cutting in March up to April 15th. This will maximize bird and animal habitat and promote desirable and attractive vegetation. Mow these areas when the ground is dry and at a height of 8"-8" during the dormant season. Monitor for intrusion by invasive plants such as thistle. Eliminate invasives by spot mowing, spot spraying, or wick application of appropriate herbicide, or manual or mechanical pulling. A combination of strategies may be the best approach. Trees and shrubs should be inspected twice per year to evaluate health. During periods of extended drought, Basin/Rain Garden areas may require watering. Inflow and outflow structures shall be inspected at least two times per year for erosion. Rip-rap areas, if applicable, at these structures shall be replaced to design specifications if necessary.

**Maintenance of the Bio-planting Areas:**

1st Year:

New plantings shall be closely monitored on a weekly basis during the 1st year of establishment in order to quickly identify any potential problems with the new growth. Any areas of discovered erosion shall be immediately fixed and re-seeded with a permanent seed mixture. Any plantings that die off within the first year shall be immediately replaced. All proposed plantings shall be routinely watered during the first year in order to promote vigorous growth and establishment of all bio-swale and stiling areas.

Semi-annually after 1st Year growth establishment:

Monitor bio-planting areas for intrusion by invasive plants such as thistle. Eliminate invasives by spot mowing, spot spraying, or wick application of appropriate herbicide, or manual pulling. A combination of strategies may be the best approach. Re-stabilize any areas of discovered erosion immediately.

**Maintenance of the storm sewer collection system (After each runoff event):**

Lower Providence Township shall be responsible to ensure that the storm sewer collection and/or lawn drain system is free and clear of any debris. The system shall be inspected after each runoff event and cleared if required.

**Maintenance of the Stabilized Streambank (Annually and within 48 hours after the end of every major storm event >1" rainfall depth):**

Inspect and correct erosion problems, damage to vegetation, and sediment and debris accumulations (address when >3" at any spot or covering vegetation).

Inspect vegetation on side slopes for erosion and formation of rills or gullies, correct as needed.

Inspect for pools of standing water; dewater and discharge to an approved location and restore to design grade.

Inspect for litter along the stop of streambank that could cause damage or erosion.

Inspect fiber log for damage and/or displacement. Immediately repair or replace fiber log if damage and/or displacement is discovered.

**LOWER PROVIDENCE TOWNSHIP SHALL BE RESPONSIBLE FOR ALL OPERATION & MAINTENANCE RESPONSIBILITIES, AND ANY ASSOCIATED COSTS, FOR THE PROPOSED BMPs**

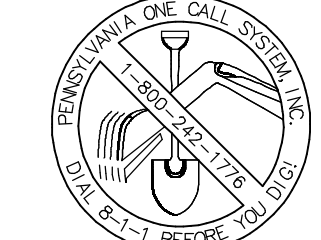
NO.	DATE	DESCRIPTION
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6	08/07/2013	Revisions to add OpenFlow & Watercourse Markings
7	08/07/2013	Revisions to add BMPs, while the design is in progress
8	05/09/2013	Revisions per DEP annual commitments received 03/19/2013.
9	05/09/2013	Revisions per DEP annual commitments received 03/19/2013.
10	03/19/2013	Revisions per DEP annual commitments received 03/19/2013.
11	03/19/2013	Revisions per DEP annual commitments received 03/19/2013.
12	03/19/2013	Revisions per DEP annual commitments received 03/19/2013.
13	03/19/2013	Revisions per DEP annual commitments received 03/19/2013.
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**REVISIONS**

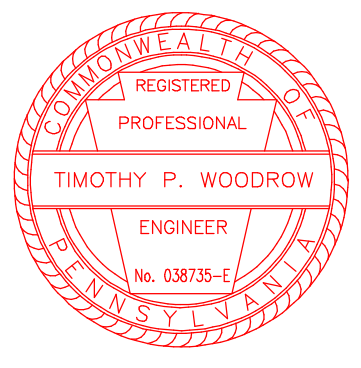
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CALL 1-800-242-1776



Applicant: LOWER PROVIDENCE TOWNSHIP  
 1000  
 Exponent, PA 19403  
 Phone: (610) 539-8020

Township Boundary: 14.77 Sq. Miles (9.45± Acres)

FINAL PLAN  
**OPERATION & MAINTENANCE NOTES**  
 LOWER PROVIDENCE TOWNSHIP  
 WOODROW & ASSOCIATES, INC.  
 MUNICIPAL CIVIL CONSULTING ENGINEERS  
 1108 North Behrman Pike / Suite 500 / Lower Merion, PA 19002  
 Phone: (215) 842-5848 / Fax: (215) 842-5679  
 Web: www.woodrowinc.com



Layer List:  
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 14-0313LP  
 Plan Date:  
 AUGUST 11, 2017  
 Sheet No: