

# PLANS OF SUBDIVISION

## FOR

# 115 W. MOYER ROAD

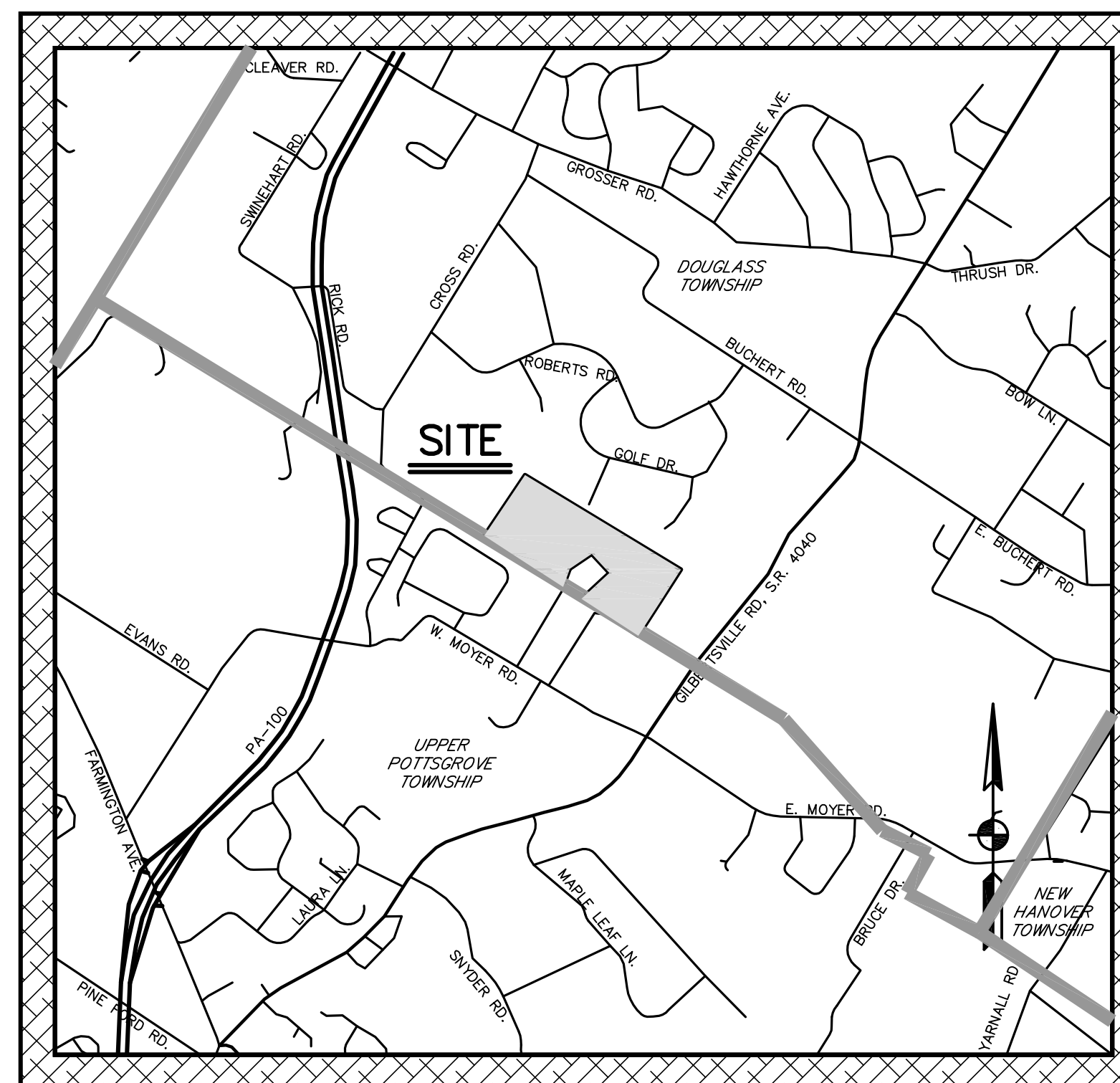
SITE SITUATE IN DOUGLASS TOWNSHIP, MONTGOMERY COUNTY

### PLAN SHEET INDEX

SHEET NO.	PLAN TITLE	DATE	LAST REVISED
1 OF 22	COVER SHEET	AUGUST 12, 2024	--
2 OF 22	OVERALL RECORD PLAN OF SUBDIVISION	AUGUST 12, 2024	--
3 OF 22	RECORD PLAN OF SUBDIVISION	AUGUST 12, 2024	--
4 OF 22	OVERALL EXISTING FEATURES PLAN	AUGUST 12, 2024	--
5 OF 22	EXISTING FEATURES PLAN	AUGUST 12, 2024	--
6 OF 22	OVERALL CONSTRUCTION IMPROVEMENT PLAN	AUGUST 12, 2024	--
7 OF 22	CONSTRUCTION IMPROVEMENT PLAN	AUGUST 12, 2024	--
8 OF 22	UTILITY PLAN	AUGUST 12, 2024	--
9 OF 22	OVERALL E&S CONTROL PLAN	AUGUST 12, 2024	--
10 OF 22	E&S DETAIL SHEET	AUGUST 12, 2024	--
11 OF 22	E&S DETAIL SHEET	AUGUST 12, 2024	--
12 OF 22	OVERALL PCSM PLAN	AUGUST 12, 2024	--
13 OF 22	PCSM DETAIL SHEET	AUGUST 12, 2024	--
14 OF 22	PCSM DETAIL SHEET	AUGUST 12, 2024	--
15 OF 22	PCSM LANDSCAPE PLAN	AUGUST 12, 2024	--
16 OF 22	PCSM LANDSCAPE DETAIL SHEET	AUGUST 12, 2024	--
17 OF 22	PLAN AND PROFILE MING DRIVE	AUGUST 12, 2024	--
18 OF 22	PLAN AND PROFILE LINKS ROAD	AUGUST 12, 2024	--
19 OF 22	LOT 18 WATER & SEWER PROFILE	AUGUST 12, 2024	--
20 OF 22	CONSTRUCTION DETAIL SHEET	AUGUST 12, 2024	--
21 OF 22	CONSTRUCTION DETAIL SHEET - SANITARY SEWER FACILITIES	AUGUST 12, 2024	--
22 OF 22	VEHICLE TURNPATH PLAN	AUGUST 12, 2024	--

### ADDITIONAL SUPPORTING DOCUMENTS

1 EROSION & SEDIMENT CONTROL AND POST-CONSTRUCTION STORMWATER MANAGEMENT PLAN NARRATIVE	AUGUST 12, 2024	--
2 STORMWATER INFILTRATION REPORT PREPARED BY VW CONSULTANTS, LLC.	JULY 4, 2024	--
3 AQUA WATER MAIN EXTENSION PLAN	--	--



SITE LOCATION MAP 1" = 800'

PREPARED FOR

# TERRALEAD, LLC

500 EXTON COMMONS  
EXTON, PA 19341

### SITE STATISTICS

1. SUBJECT TRACT MAY BE IDENTIFIED BY MONTGOMERY COUNTY TAX ASSESSMENT INFORMATION AS FOLLOWS:

DOUGLASS TOWNSHIP  
TAXMAPID: 32046 028  
PARID: 32-00-00664-00-6

2. RECORDED DEED DATA IS AS FOLLOWS:

AS RECORDED IN THE OFFICE FOR THE RECORDING OF DEEDS, ETC., IN AND FOR THE COUNTY OF MONTGOMERY AT NORRISTOWN, PENNSYLVANIA IN:  
PARID: 32-00-00664-00-6  
DEED BOOK 6220, PAGE 2178.

3. NAME AND ADDRESS OF THE OWNER OF THE SUBJECT TRACT:

PHYLLIS C. SWENSON & TAMMERA S. METKA  
PO BOX 56  
BOYERTOWN, PA. 19512

4. AREA STATISTICS:

GROSS TRACT AREA = 26.28 AC. (TO TITLE LINES)

### BMMA BOARD OF STANDARDS NOTES

1. ALL SANITARY SEWER MANHOLE COVERS SHALL HAVE INSERTS EXCEPT WHERE COVERS ARE WATERTIGHT.
2. ALL SANITARY SEWER LINES SHALL HAVE A MINIMUM COVER OF FOUR (4) FEET.
3. LATERALS SHALL HAVE A MINIMUM COVER OF FOUR (4) FEET AND A MINIMUM SLOPE OF 1/4" PER FOOT.
4. DEVELOPER IS RESPONSIBLE TO SECURE ALL NECESSARY PERMITS AND PAY APPLICABLE FEES.
5. ALL WORK TO BE IN ACCORDANCE WITH BMMA RULES AND REGULATIONS.
6. DEVELOPER SHALL COMPLY WITH ALL PERMIT REQUIREMENTS AND CONDITIONS SET FORTH BY BMMA.
7. BUILDING SEWERS SHALL BE TESTED IN ACCORDANCE WITH UCC AND PLUMBING CODE REQUIREMENTS.
8. DEVELOPER SHALL EXECUTE A SEWAGE SERVICE IMPROVEMENTS AGREEMENT WITH BMMA.
9. DEVELOPER IS RESPONSIBLE FOR SECURING THE PROPOSED OFF-SITE EASEMENT AND PROVIDING A COPY OF THE EXECUTED EASEMENT AGREEMENT TO BMMA PRIOR TO CONSTRUCTION.

APPROVED AS NOTED  
BMMA BOARD OF STANDARDS

MARK A. TOEPEL, AUTHORITY CHAIRMAN

DATE: \_\_\_\_\_

### ACT 50 UTILITY NOTE

ATTENTION ALL CONTRACTORS: LOCATIONS OF ALL EXISTING UTILITIES SHOWN HEREON HAVE BEEN DEVELOPED FROM UTILITY COMPANY RECORDS AND/OR ABOVE-GROUND INSPECTION OF THE SITE. COMPLETENESS OR ACCURACY OF TYPE, SIZE, DEPTH OR HORIZONTAL LOCATION OF UNDER-GROUND FACILITIES OR STRUCTURES CANNOT BE GUARANTEED. PURSUANT TO REQUIREMENTS OF PENNSYLVANIA LEGISLATIVE ACT NUMBER 121 AS PER THE AMENDMENT OF PA ACT 287 OF 1974, EFFECTIVE OCTOBER 30, 2017 CONTRACTORS MUST VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES AND FACILITIES PRIOR TO START OF WORK. REFERENCE UTILITY CASE NUMBER: 20241150954 & 20241150955.

WINDSTREAM  
829 MARTHA WAY  
HAWAII, IA 52233  
LOCATE DESK PERSONNEL  
locate.desk@windstream.com

BERKS MONTGOMERY MUNICIPAL AUTHORITY  
136 MUNICIPAL DR  
PO BOX 370  
GILBERTSVILLE, PA. 19525  
LEW CHRISTY  
lewchristy@berkspzcd.com

DOUGLASS TOWNSHIP  
PO BOX 287  
GILBERTSVILLE, PA. 19525  
MICHAEL HEYDT  
mheydt@douglasstownship.org

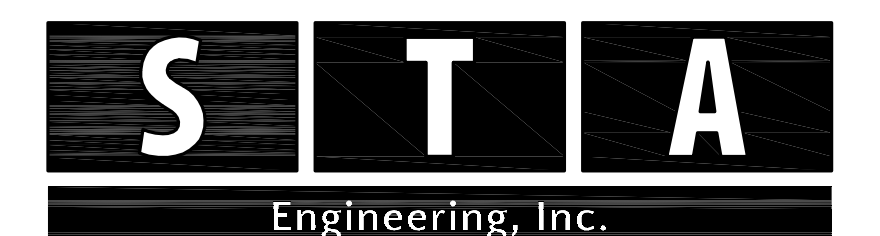
COMCAST  
4400 WAYNE AVENUE  
PHILADELPHIA, PA. 19140  
ROBERT HARVEY  
bob.harvey@comcast.com

FIRSTENERGY CORP  
76 S MAIN ST  
AKRON, OH 443081890  
OFFICE PERSONNEL

COMCAST CABLEVISION  
190 SHOEMAKER RD  
POTTSTOWN, PA. 19464  
DAVE FIEDLER

AQUA PENNSYLVANIA INC  
529 KING RD  
ROYERSFORD, PA. 19468  
DAVID RINEHART  
DRRINEHART@AQUAAMERICA.COM

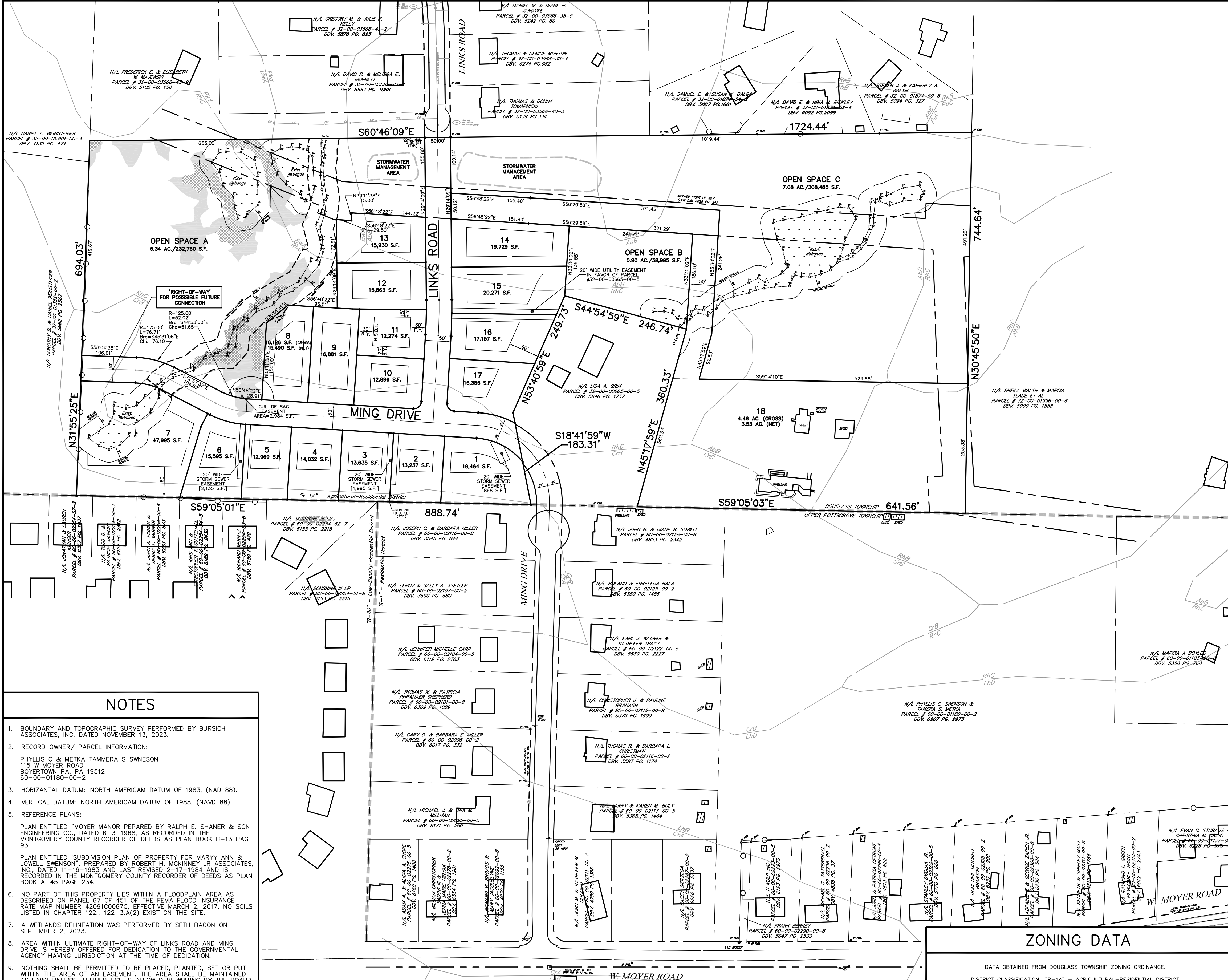
UGI UTILITIES INC-LANCASTER  
225 MORGANTOWN RD  
READING, PA. 19611  
KURT ZELASKOWSKI  
kzelaskowski@ugl.com



Civil Engineers • Land Surveyors

2499 KNIGHT ROAD, PENNSBURG, PA 18073  
PH: (215) 679-0200; www.stotac.com





**NOTES**

- BOUNDARY AND TOPOGRAPHIC SURVEY PERFORMED BY BURSICH ASSOCIATES, INC. DATED NOVEMBER 13, 2023.
- RECORD OWNER/ PARCEL INFORMATION:  
PHYLIS C & METKA TAMMERA S SWENSON  
115 W MOYER ROAD  
BOYERTOWN PA, PA 19512  
60-00-01180-00-2
- HORIZONTAL DATUM: NORTH AMERICAN DATUM OF 1983. (NAD 88).
- VERTICAL DATUM: NORTH AMERICAN DATUM OF 1988. (NAVD 88).
- REFERENCE PLANS:  
PLAN ENTITLED "MOYER MANOR PREPARED BY RALPH E. SHANER & SON ENGINEERING CO., DATED 8-3-1968, AS RECORDED IN THE MONTGOMERY COUNTY RECORDER OF DEEDS AS PLAN BOOK B-13 PAGE 93.  
PLAN ENTITLED "SUBDIVISION PLAN OF PROPERTY FOR MARY ANN & LOWELL SWENSON, PREPARED BY ROBERT H. MCKINNEY, JR. ASSOCIATES, INC., DATED 11-16-1983 AND LAST REVISED 2-17-1984, AND IS RECORDED IN THE MONTGOMERY COUNTY RECORDER OF DEEDS AS PLAN BOOK A-45 PAGE 234.
- NO PART OF THIS PROPERTY LIES WITHIN A FLOODPLAIN AREA AS DESCRIBED ON PANEL 87 OF 451 OF THE FEMA FLOOD INSURANCE RATE MAP NUMBER 42091C0067G, EFFECTIVE MARCH 2, 2017. NO SOILS LISTED IN CHAPTER 122., 122-3(a)(2) EXIST ON THE SITE.
- A WETLANDS DELINEATION WAS PERFORMED BY SETH BACON ON SEPTEMBER 2, 2023.
- AREA WITHIN ULTIMATE RIGHT-OF-WAY OF LINKS ROAD AND MING DRIVE IS HEREBY OFFERED FOR DEDICATION TO THE GOVERNMENTAL AGENCY HAVING JURISDICTION AT THE TIME OF DEDICATION.
- NOTHING SHALL BE PERMITTED TO BE PLACED, PLANTED, SET OR PUT WITHIN THE AREA OF AN EASEMENT. THE AREA SHALL BE MAINTAINED AS LAWN UNLESS FURTHER USE IS ALLOWED IN WRITING BY THE BOARD OF SUPERVISORS.
- A PERMIT SHALL BE REQUIRED FOR GRADING OPERATIONS.
- THE STORMWATER MANAGEMENT IS PROVIDED FOR 45% OF IMPERVIOUS SURFACE COVERAGE FOR LOTS 1 THROUGH 17, EXCEPT FOR LOT 7.
- LOT 18 HAS DRIVEWAY EASEMENT ACROSS PARCEL # 60-00-01180-00-2.
- A FEE IN LIEU OF PROVIDED FOR RECREATION FACILITIES.

SOILS DATA	
DATA OBTAINED FROM N.R.C.S. SOIL SURVEY.	
ASB - ABBOTTSTOWN SILT LOAM, 3 TO 8 PERCENT SLOPES.	
BaA - BUCKINGHAM SILT LOAM, 0 TO 3 PERCENT SLOPES.	
CRa - CROTON SILT LOAM, OCCASIONALLY PONDED, 0 TO 3 PERCENT SLOPES.	
CRb - CROTON SILT LOAM, OCCASIONALLY PONDED, 3 TO 8 PERCENT SLOPES.	
PDd - PENN-KUNSVILLE CHANNERY SILT LOAMS, 15 TO 25 PERCENT SLOPES.	
RNC - REAVILLE SILT LOAM, 8 TO 15 PERCENT SLOPES.	

811

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LEGEND

15% - 25% STEEP SLOPES

25% OR GREATER STEEP SLOPES

DENOTES WETLANDS

ZONING DATA		
DATA OBTAINED FROM DOUGLASS TOWNSHIP ZONING ORDINANCE.		
DISTRICT CLASSIFICATION: "R-1A" - AGRICULTURAL-RESIDENTIAL DISTRICT		
PROPOSED USE: SINGLE-FAMILY DETACHED DWELLING UNDER RESIDENTIAL CLUSTER DEVELOPMENT IN ACCORDANCE WITH ARTICLE XVII OF THE ZONING ORDINANCE.		
CRITERIA:	REQUIRED:	PROPOSED:
MINIMUM TRACT SIZE:	20 AC.	26.28 AC.
AVERAGE LOT SIZE:	15,000 S.F.	18,494 S.F.
MINIMUM LOT SIZE:	12,000 S.F.	12,274 S.F. (LOT 11)
MINIMUM LOT WIDTH @ SETBACK LINE:	90 FT.	80.0 FT.
MINIMUM FRONT YARD:	30 FT.	30.0 FT.
MINIMUM SIDE YARD:	MINIMUM:	15.0 FT.
	35 FT.	35.0 FT.
MINIMUM REAR YARD:	30 FT.	30.0 FT.
MAXIMUM BUILDING HEIGHT:	35 FT.	<35 FT.
MAXIMUM BUILDING COVERAGE (OF GROSS LOT AREA):	20 %	<20 %
MINIMUM COMMON OPEN SPACE:	45 % (11.83 AC.)	50.7 % (13.32 AC.)
MINIMUM CENTRAL OPEN SPACE (OF TOTAL OPEN SPACE):	8 %	0 %
ADDITIONAL BUILDING SETBACKS:		
MINIMUM FROM EXTERNAL SEMI-CONTROLLED ACCESS OR SCENIC ROADS ULTIMATE RIGHT OF WAY:	200 FT.	N/A
MINIMUM FROM ALL OTHER EXTERNAL ROAD ULTIMATE RIGHT OF WAYS:	100 FT.	N/A
MINIMUM FROM EXTERNAL TRACT BOUNDARIES:	60 FT.	N/A
MINIMUM FROM WETLANDS, FLOODPLAINS, OR WATERCOURSES:	25 FT.	25 FT.
* ZONING VARIANCE GRANTED		

ENGINEER CERTIFICATION

I, SUSAN A. RICE, P.E., ON THIS DATE \_\_\_\_\_, HEREBY CERTIFY THAT THE DRAINAGE PLAN MEETS ALL DESIGN STANDARDS AND CRITERIA OF THE DOUGLASS TOWNSHIP STORMWATER MANAGEMENT ORDINANCE.

SUSAN A. RICE, P.E.

STORMWATER STATEMENT

ANY REVISION TO THE APPROVED POST-CONSTRUCTION STORMWATER MANAGEMENT PLAN MUST BE APPROVED BY DOUGLASS TOWNSHIP AND THE MONTGOMERY COUNTY CONSERVATION DISTRICT AND/OR DEP (IF GREATER THAN 1 ACRE OF LAND DISTURBANCE). A REVISED EROSION AND SEDIMENT CONTROL PLAN MUST BE SUBMITTED TO THE MONTGOMERY COUNTY CONSERVATION DISTRICT FOR A DETERMINATION OF ADEQUACY.

APPLICANT SIGNATURE

RECORDING ACKNOWLEDGMENTS

COMMONWEALTH OF PENNSYLVANIA } SS:  
COUNTY OF MONTGOMERY

ON THIS, THE \_\_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_\_\_, BEFORE ME, THE UNDERSIGNED OFFICER, PERSONALLY APPEARED \_\_\_\_\_, BEING DULY SWORN ACCORDING TO LAW, DEPOSES AND SAYS THAT HE IS PRESIDENT OF TERRALEAD, LLC, A PENNSYLVANIA LIMITED LIABILITY CORPORATION, AND THAT HE BEING DULY AUTHORIZED TO DO SO, EXECUTED THE FOREGOING INSTRUMENT FOR THE PURPOSES THEREIN CONTAINED BY SIGNING AS PRESIDENT.

IN WITNESS WHEREOF, I HAVE HEREUNTO SET MY HAND AND OFFICIAL SEAL.

NOTARY PUBLIC \_\_\_\_\_

I, \_\_\_\_\_, ACKNOWLEDGE MYSELF TO BE A MEMBER OF TERRALEAD, LLC, A PENNSYLVANIA LIMITED LIABILITY CORPORATION, AND THAT AS SUCH BEING AUTHORIZED TO DO SO, CERTIFY THAT THE CORPORATION IS THE SOLE REGISTERED OWNER OF THE LAND HEREIN SUBDIVIDED AND THAT THERE ARE NO SUITS PENDING AFFECTING THE TITLE OF THE SAME AND THAT I DO HEREBY ADOPT THIS PLAN AND DESIRE THE SAME TO BE RECORDED. I DO FURTHER SAVE THE TOWNSHIP HARMLESS AND IDENTIFY THE TOWNSHIP OF DOUGLASS AGAINST ANY LIABILITY OR LOSS RESULTING FROM THE SUBDIVISION OR DEVELOPMENT OF THIS PLAT FOR WHATEVER REASON PRESENT OR FUTURE.

TERRALEAD, LLC

BY: \_\_\_\_\_  
PRESIDENT

TOWNSHIP SUPERVISOR'S CERTIFICATION:  
THIS PLAN HAS BEEN APPROVED BY THE DOUGLASS TOWNSHIP BOARD OF SUPERVISORS THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_\_\_.

\_\_\_\_\_  
CHAIRMAN, BOARD OF SUPERVISORS

\_\_\_\_\_  
ATTESTED: SECRETARY

TOWNSHIP PLANNING AGENCY CERTIFICATION:  
THIS PLAN HAS BEEN APPROVED BY THE DOUGLASS TOWNSHIP PLANNING AGENCY THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_\_\_.

\_\_\_\_\_  
PLANNING COMMISSION CHAIRMAN

\_\_\_\_\_  
ATTESTED: SECRETARY

TOWNSHIP ENGINEER'S CERTIFICATION:  
REVIEWED THIS \_\_\_\_\_ DAY OF 20\_\_\_\_ BY THE TOWNSHIP ENGINEER FOR DOUGLASS TOWNSHIP, MONTGOMERY COUNTY, PA.

ENGINEER'S SIGNATURE \_\_\_\_\_

RECORDED IN THE OFFICE OF THE RECORDER OF DEEDS, IN NORRISTOWN, PENNSYLVANIA, THE PLAN BOOK \_\_\_\_\_, PAGE \_\_\_\_\_, ON THE \_\_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_\_\_.

MCPC No. \_\_\_\_\_

PROCESSED AND REVIEWED: Report prepared by Montgomery County Planning Commission in accordance with the Municipalities Planning Code.

Certified this date \_\_\_\_\_

For the Director  
MONTGOMERY COUNTY PLANNING COMMISSION

SURVEYOR CERTIFICATION

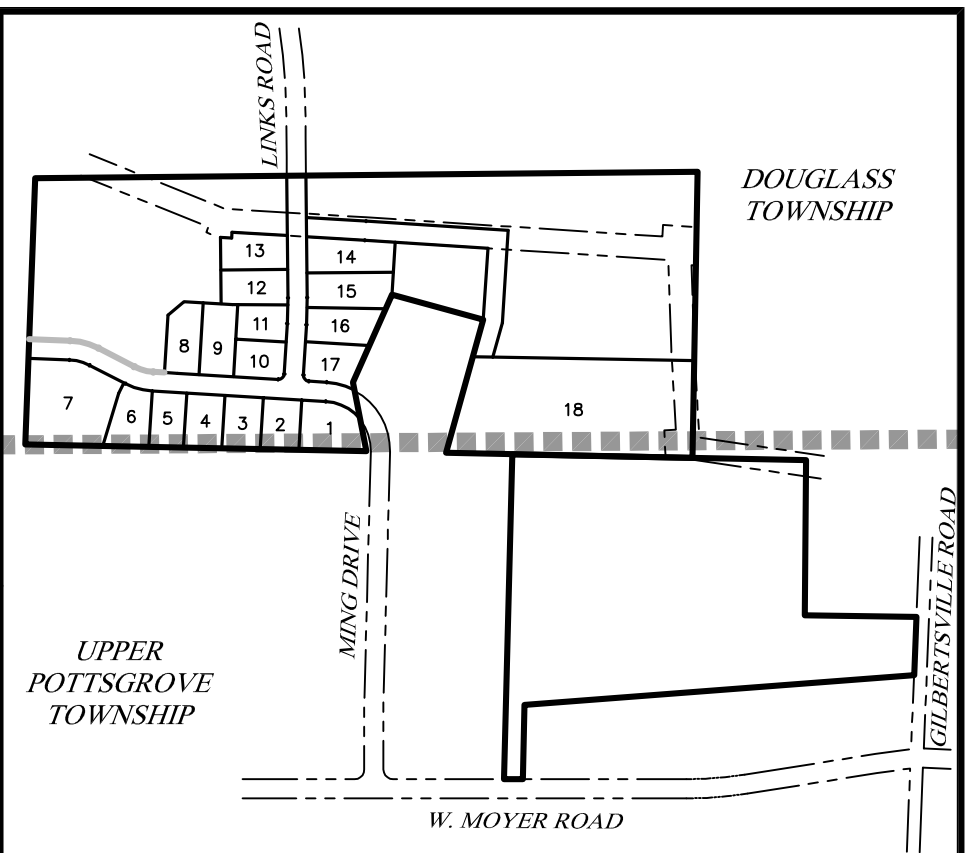
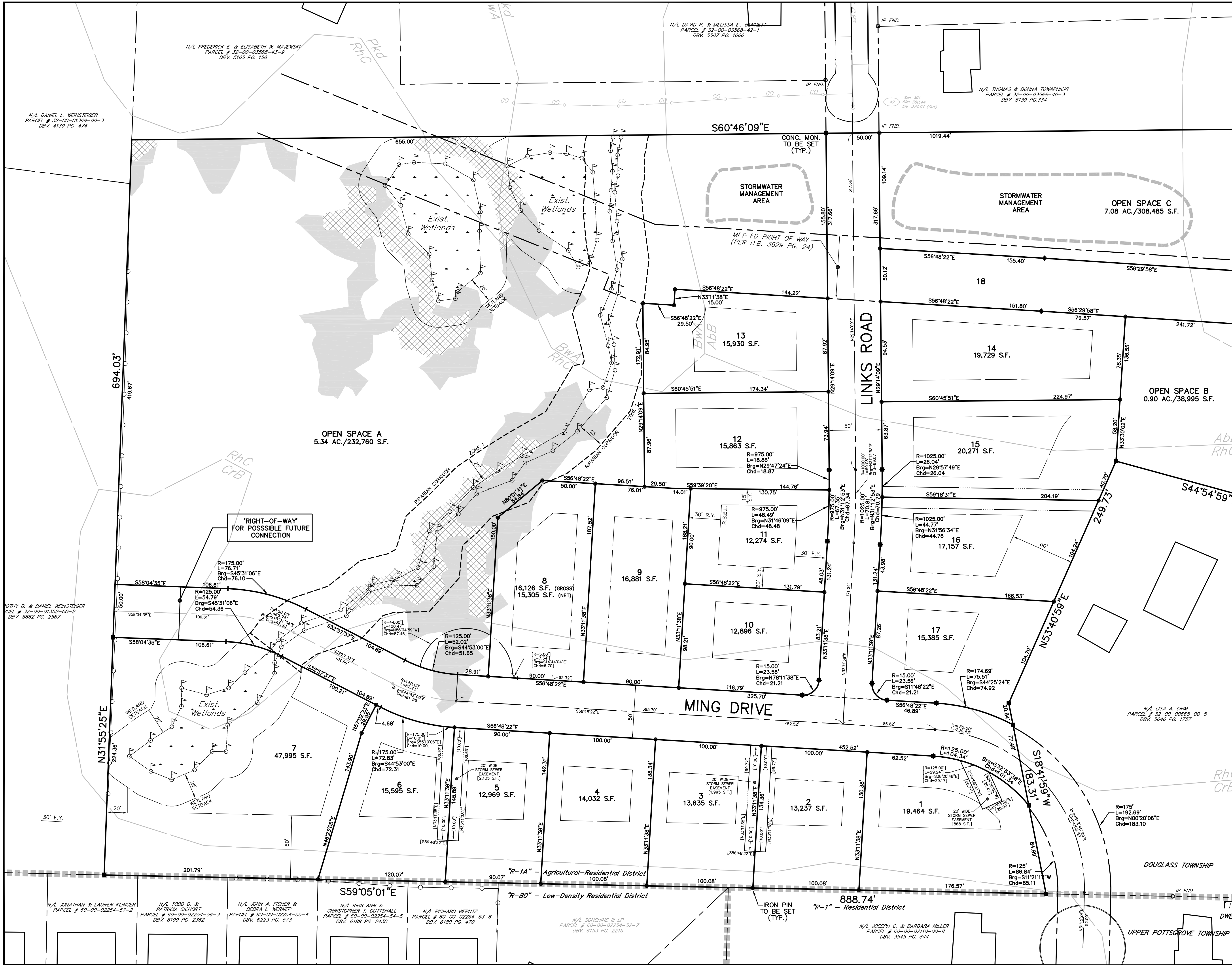
I HEREBY CERTIFY THAT THE PLAN SHOWN AND DESCRIBED HEREON, AS WELL AS ALL OTHER DRAWINGS WHICH ARE A PART OF THIS PLAN SET, ARE TRUE AND CORRECT TO THE ACCURACY REQUIRED BY THE DOUGLASS TOWNSHIP SUBDIVISION AND LAND DEVELOPMENT ORDINANCE, AND WERE PREPARED BY ME OR UNDER MY DIRECTION AND FOR WHICH I ACCEPT FULL RESPONSIBILITY, AND REPRESENTS A FIELD SURVEY PERFORMED BY ME OR UNDER MY DIRECTION. THE EXISTING PERIMETER MONUMENTS SHOWN HEREON HAVE BEEN LOCATED AS PART OF THE SURVEY AND ALL OTHER PROPOSED PERIMETER MONUMENTS SHALL BE SET.

CLIFFORD T. STOUT, P.L.S. #282-A

GRAPHIC SCALE

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 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1422 1423 1424 1425 1426 1427 1428 1429 1430 1431 1432 1433 1434 1435 1436 1437 1438 1439 1440 1441 1442 1443 1444 1445 1446 1447 1448 1449 1450 1451 1452 1453 1454 1455 1456 1457 1458 1459 1460 1461 1462 1463 1464 1465 1466 1467 1468 1469 1470 1471 1472 1473 1474 1475 1476 1477 1478 1479 1480 1481 1482 1483 1484 1485 1486 1487 1488 1489 1490 1491 1492 1493 1494 1495 1496 1497 1498 1499 1500 1501 1502 1503 1504 1505 1506 1507 1508 1509 1510 1511 1512 1513 1514 1515 1516 1517 1518 1519 1520 1521 1522 1523 1524 1525 1526 1527 1528 1529 1530 1531 1532 1533 1534 1535 1536 1537 1538 1539 1540 1541 1542 1543 1544 1545 1546 1547 1548 1549 1550 1551 1552 1553 1554 1555 1556 1557 1558 1559 1560 1561 1562 1563 1564 1565 1566 1567 1568 1569 1570 1571 1572 1573 1574 1575 1576 1577 1578 1579 1580 1581 1582 1583 1584 1585 1586 1587 1588 1589 1590 1591 1592 1593 1594 1595 1596 1597 1598 1599 1600 1601 1602 1603 1604 1605 1606 1607 1608 1609 1610 1611 1612 1613 1614 1615 1616 1617 1618 1619 1620 1621 1622 1623 1624 1625 1626 1627 1628 1629 1630 1631 1632 1633 1634 1635 1636 1637 1638 1639 1640 1641 1642 1643 1644 1645 1646 1647 1648 1649 1650 1651 1652 1653 1654 1655 1656 1657 1658 1659 1660 1661 1662 1663 1664 1665 1666 1667 1668 1669 1670 1671 1672 1673 1674 1675 1676 1677 1678 1679 1680 1681 1682 1683 1684 1685 1686 1687 1688 1689 1690 1691 1692 1693 1694 1695 1696 1697 1698 1699 1700 1701 1702 1703 1704 1705 1706 1707 1708 1709 1710 1711 1712 1713 1714 1715 1716 1717 1718 1719 1720 1721 1722 1723 1724 1725 1726 1727 1728 1729 1730 1731 1732 1733 1734 1735 1736 1737 1738 1739 1740 1741 1742 1743 1744 1745 1746 1747 1748 1749 1750 1751 1752 1753 1754 1755 1756 1757 1758 1759 1760 1761 1762 1763 1764 1765 1766 1767 1768 1769 1770 1771 1772 1773 1774 1775 1776 1777 1778 1779 1780 1781 1782 1783 1784 1785 1786 1787 1788 1789 1790 1791 1792 1793 1794 1795 1796 1797 1798 1799 1800 1801 1802 1803 1804 1805 1806 1807 1808 1809 1810 1811 1812 1813 1814 1815 1816 1817 1818 1819 1820 1821 1822 1823 1824 1825 1826 1827 1828 1829 1830 1831 1832 1833 1834 1835 1836 1837 1838 1839 1840 1841 1842 1843 1844 1845 1846 1847 1848 1849 1850 1851 1852 1853 1854 1855 1856 1857 1858 1859 1860 1861 1862 1863 1864 1865 1866 1867 1868 1869 1870 1871 1872 1873 1874 1875 1876 1877 1878 1879 1880 1881 1882 1883 1884 1885 1886 1887 1888 1889 1890 1891 1892 1893 1894 1895 1896 1897 1898 1899 1900 1901 1902 1903 1904 1905 1906 1907 1908 1909 1910 1911 1912 1913 1914 1915 1916 1917 1918 1919 1920 1921 1922 1923 1924 1925 1926 1927 1928 1929 1930 1931 1932 1933 1934 1935 1936 1937 1938 1939 1940 1941 1942 1943 1944 1945 1946 1947 1948 1949 1950 1951 1952 1953 1954 1955 1956 1957 1958 1959 1960 1961 1962 1963 1964 1965 1966 1967 1968 1969



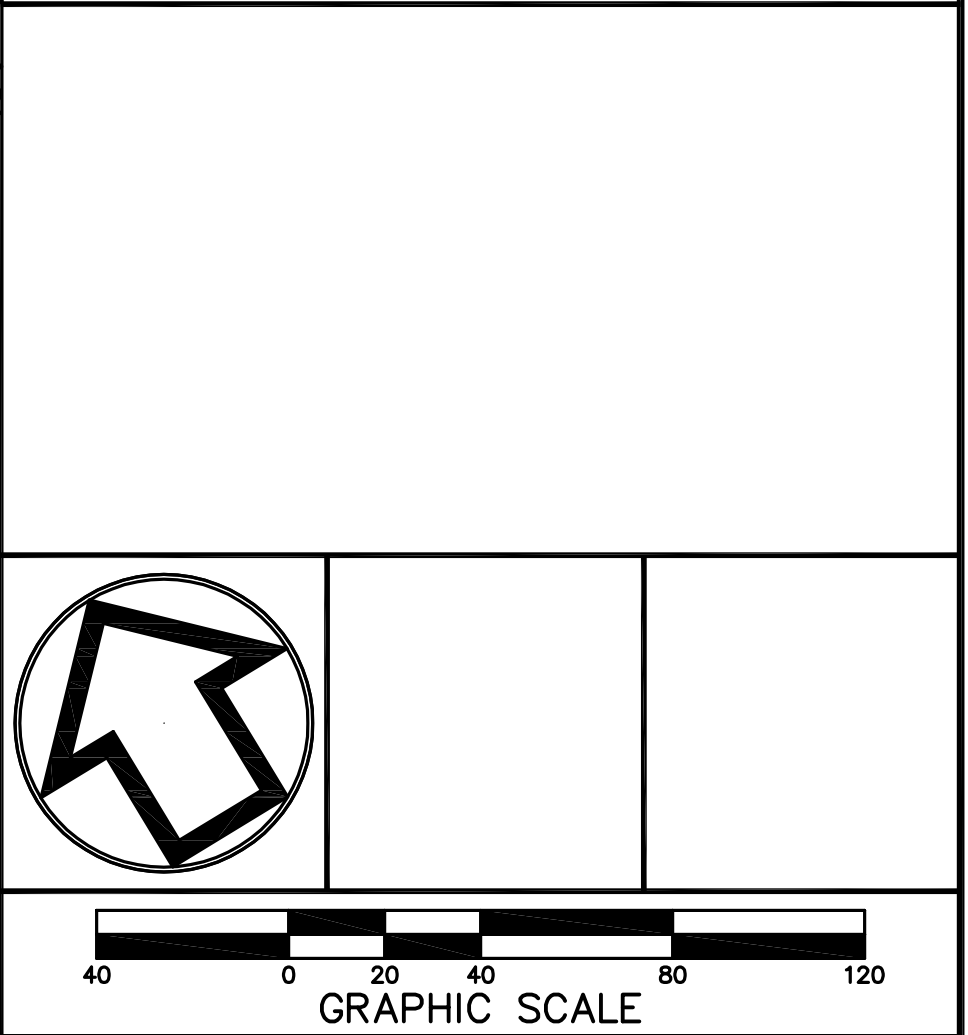


KEY MAP 1"=500'

NET LOT AREA CHART					
LOT NO.	AREA (S.F.)	STEEP SLOPES (S.F.)	1/2 ALLOWABLE (S.F.)	NET LOT AREA (S.F.)	MIN. REQ. LOT AREA (S.F.)
1	19,464	0	0	19,464	12,000
2	13,237	0	0	13,237	12,000
3	13,635	0	0	13,635	12,000
4	14,032	0	0	14,032	12,000
5	12,969	0	0	12,969	12,000
6	15,595	0	0	15,595	12,000
7	47,995	0	0	47,995	12,000
8	16,126	1,643	822	15,305	12,000
9	16,881	0	0	16,881	12,000
10	12,896	0	0	12,896	12,000
11	12,274	0	0	12,274	12,000
12	15,863	0	0	15,863	12,000
13	15,930	0	0	15,930	12,000
14	19,729	0	0	19,729	12,000
15	20,271	0	0	20,271	12,000
16	17,157	0	0	17,157	12,000
17	15,385	0	0	15,385	12,000
TOTAL LOT AREA:	299,439			298,618	
AVERAGE LOT AREA:				17,566	15,000

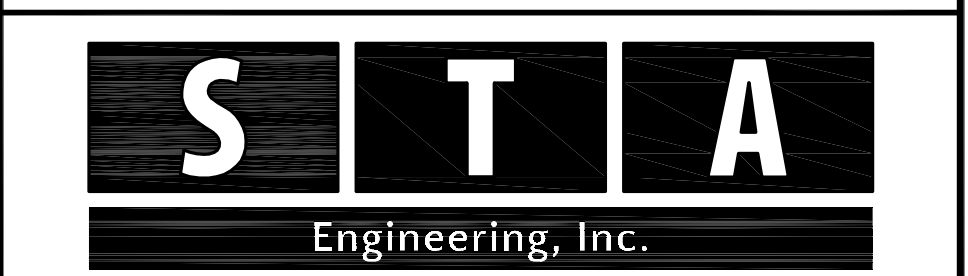
PROPOSED STREET LENGTHS	
LINKS ROAD:	569 L.F.
MING DRIVE:	1,036 L.F.

MONUMENT LEGEND	
○ IRON PIN FOUND	● IRON PIN TO BE SET
□ MONUMENT FOUND	■ MONUMENT TO BE SET



REVISIONS		
1	ADM	S.T.A. PLAN ORIGIN DATE
		AUG. 12, 2024

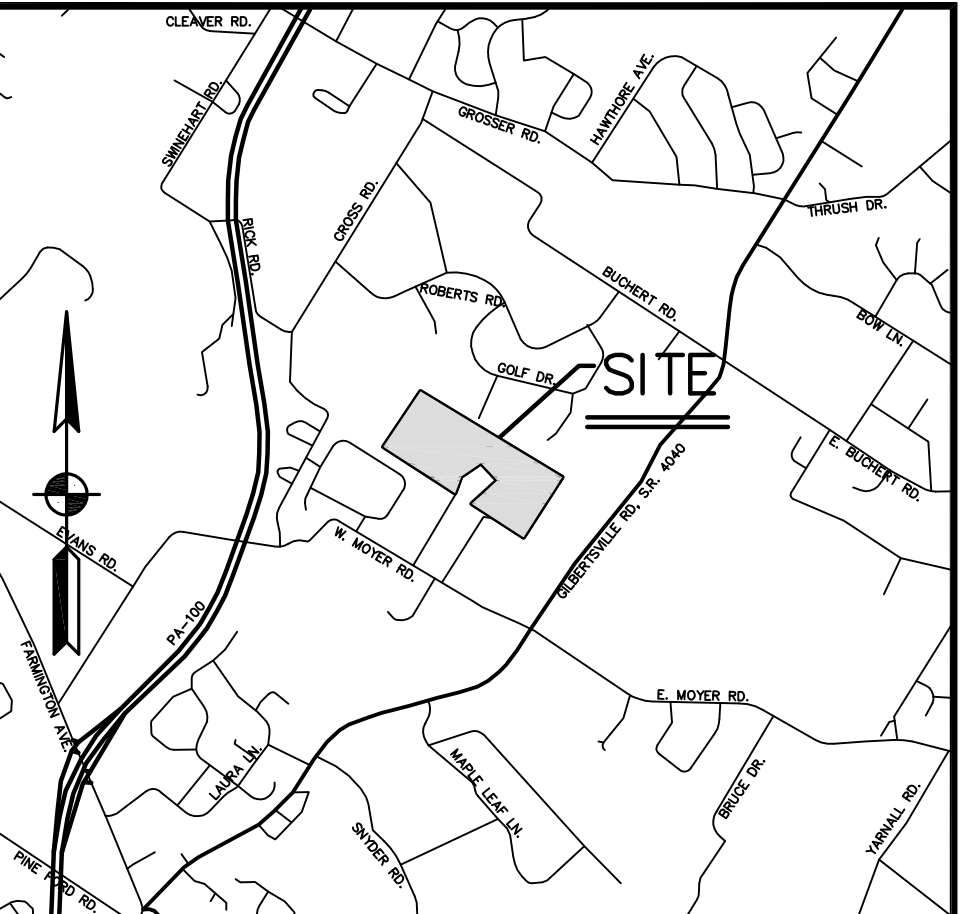
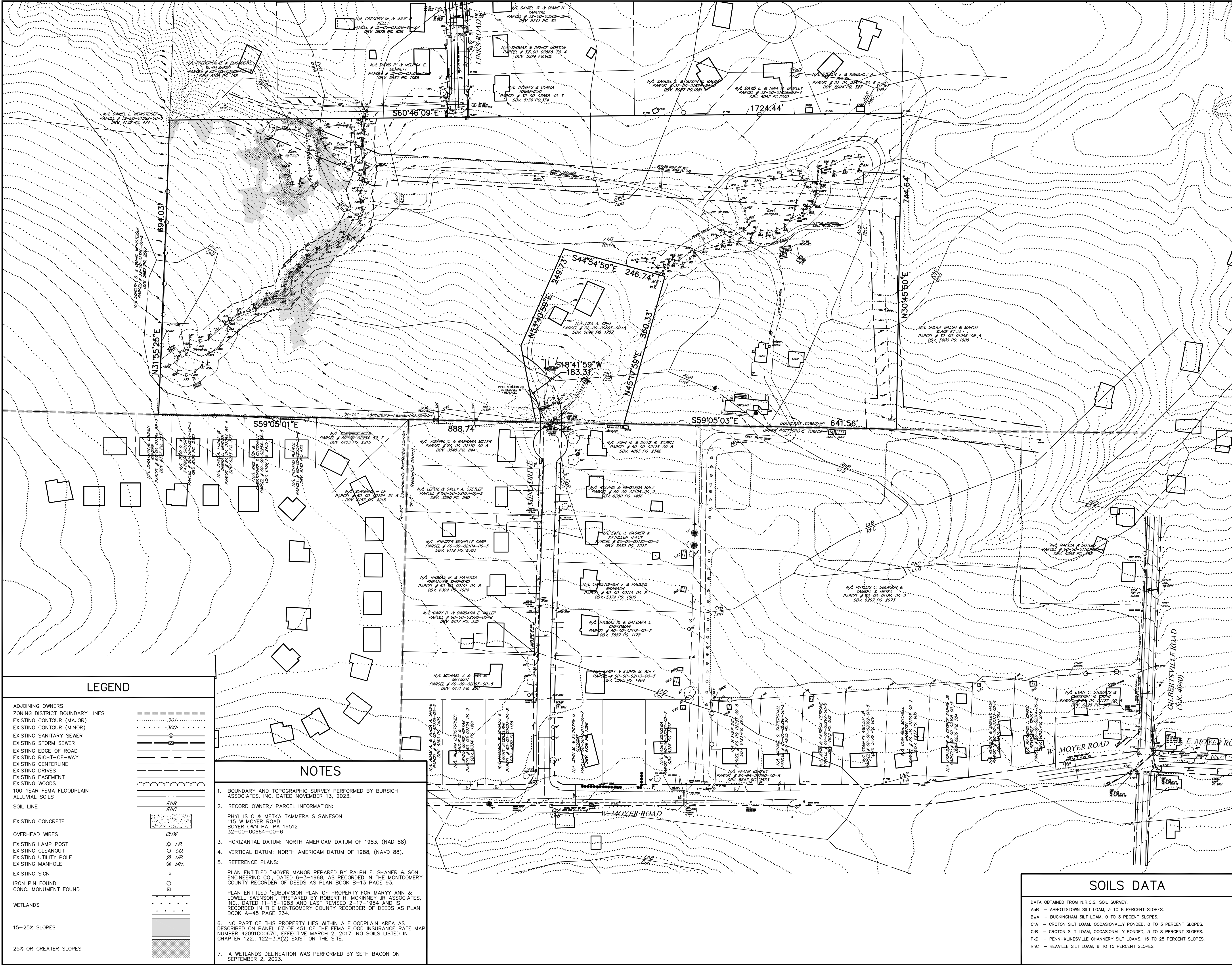
RECORD PLAN OF SUBDIVISION  
FOR  
**115 W. MOYER ROAD**  
PREPARED FOR  
**TERRALEAD, LLC**  
SITE SITUATE IN  
DOUGLASS TOWNSHIP  
MONTGOMERY COUNTY, PENNSYLVANIA



**Civil Engineers • Land Surveyors**  
2499 KNIGHT ROAD, PENNSBURG, PA 18073  
PH: (215) 679-0200; www.stotac.com

PLAN SCALE HORIZONTAL: <b>1"=40'</b>	DRAFTED BY <b>J.A.C.</b>	PROJECT MANAGER <b>S.A.R.</b>	PLAN SHEET NUMBER <b>3 OF 22</b>
	PROJECT NUMBER <b>6366</b>	DRAWING FILE NUMBER <b>6366SUB</b>	





SITE LOCATION MAP 1"=2000'

SITE STATISTICS

- SUBJECT TRACT MAY BE IDENTIFIED BY MONTGOMERY COUNTY TAX ASSESSMENT INFORMATION AS FOLLOWS:  
DOUGLASS TOWNSHIP  
TAXMAPID: 32046 028  
PARID: 32-00-00664-00-6
- RECORDED DEED DATA IS AS FOLLOWS:  
AS RECORDED IN THE OFFICE FOR THE RECORDING OF DEEDS, ETC., IN AND FOR THE COUNTY OF MONTGOMERY AT NORRISTOWN, PENNSYLVANIA IN:  
PARID: 32-00-00664-00-6  
DEED BOOK 6220, PAGE 2176.
- NAME AND ADDRESS OF THE OWNER OF THE SUBJECT TRACT:  
PHYLIS C. SWENSON & TAMMERA S. METKA  
PO BOX 56  
BOYERTOWN, PA. 19512
- AREA STATISTICS:  
GROSS TRACT AREA = 26.28 AC. (TO TITLE LINES)

ZONING DATA

DATA OBTAINED FROM DOUGLASS TOWNSHIP ZONING ORDINANCE.

DISTRICT CLASSIFICATION: "R-1A" - AGRICULTURAL-RESIDENTIAL DISTRICT

PROPOSED USE: SINGLE-FAMILY DETACHED DWELLING UNDER RESIDENTIAL CLUSTER DEVELOPMENT IN ACCORDANCE WITH ARTICLE XVII OF THE ZONING ORDINANCE.

CRITERIA:	REQUIRED:
MINIMUM TRACT SIZE:	30 AC.
AVERAGE LOT SIZE:	15,000 S.F.
MINIMUM LOT SIZE:	12,000 S.F.
MINIMUM LOT WIDTH @ SETBACK LINE:	50 FT.
MINIMUM FRONT YARD:	30 FT.
MINIMUM SIDE YARD:	15 FT.
MINIMUM REAR YARD:	35 FT.
MINIMUM BUILDING HEIGHT:	35 FT.
MAXIMUM BUILDING COVERAGE (OF GROSS LOT AREA):	20 %
MINIMUM COMMON OPEN SPACE:	45 %
MINIMUM CENTRAL OPEN SPACE (OF TOTAL OPEN SPACE):	8 %

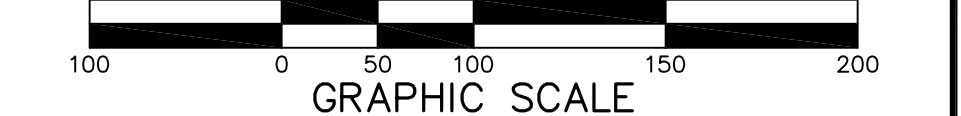
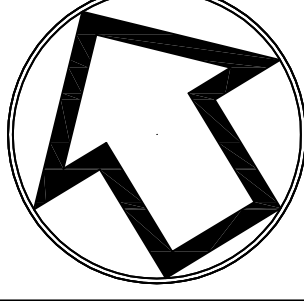
ADDITIONAL BUILDING SETBACKS:

MINIMUM FROM EXTERNAL SEMI-CONTROLLED ACCESS OR SCENIC ROADS ULTIMATE RIGHT OF WAY: 200 FT.

MINIMUM FROM ALL OTHER EXTERNAL ROAD ULTIMATE RIGHT OF WAYS: 100 FT.

MINIMUM FROM EXTERNAL TRACT BOUNDARIES: 60 FT.

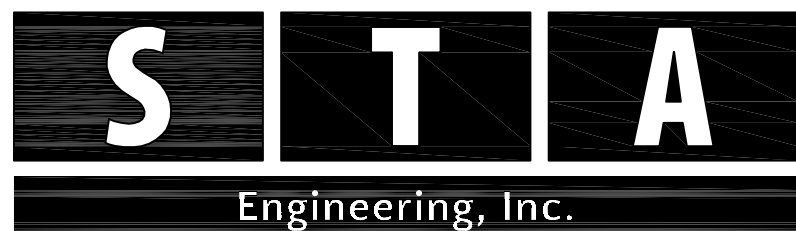
MINIMUM FROM WETLANDS, FLOODPLAINS, OR WATERCOURSES: 25 FT.



1	ADM	S.T.A. PLAN ORIGIN DATE	AUG. 12, 2024
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OVERALL EXISTING FEATURES PLAN

FOR  
**115 W. MOYER ROAD**  
PREPARED FOR  
**TERRALEAD, LLC**  
SITE SITUATE IN  
DOUGLASS TOWNSHIP  
MONTGOMERY COUNTY, PENNSYLVANIA



Civil Engineers • Land Surveyors

2499 KNIGHT ROAD, PENNSBURG, PA 18073  
PH: (215) 679-0200; www.stotac.com

PLAN SCALE HORIZONTAL: 1"=100'	DRAFTED BY A.D.M.	PROJECT MANAGER S.A.R.	PLAN SHEET NUMBER 6366EF 4 OF 22
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SOILS DATA

DATA OBTAINED FROM N.R.C.S. SOIL SURVEY.

ABB - ABBOTTSTOWN SILT LOAM, 3 TO 8 PERCENT SLOPES.

BWA - BUCKINGHAM SILT LOAM, 0 TO 3 PERCENT SLOPES.

CA - CROTON SILT LOAM, OCCASIONALLY PONDED, 0 TO 3 PERCENT SLOPES.

CB - CROTON SILT LOAM, OCCASIONALLY PONDED, 3 TO 8 PERCENT SLOPES.

PD - PENN-KUNESVILLE CHANNERY SILT LOAMS, 15 TO 25 PERCENT SLOPES.

RHC - REAVILLE SILT LOAM, 8 TO 15 PERCENT SLOPES.

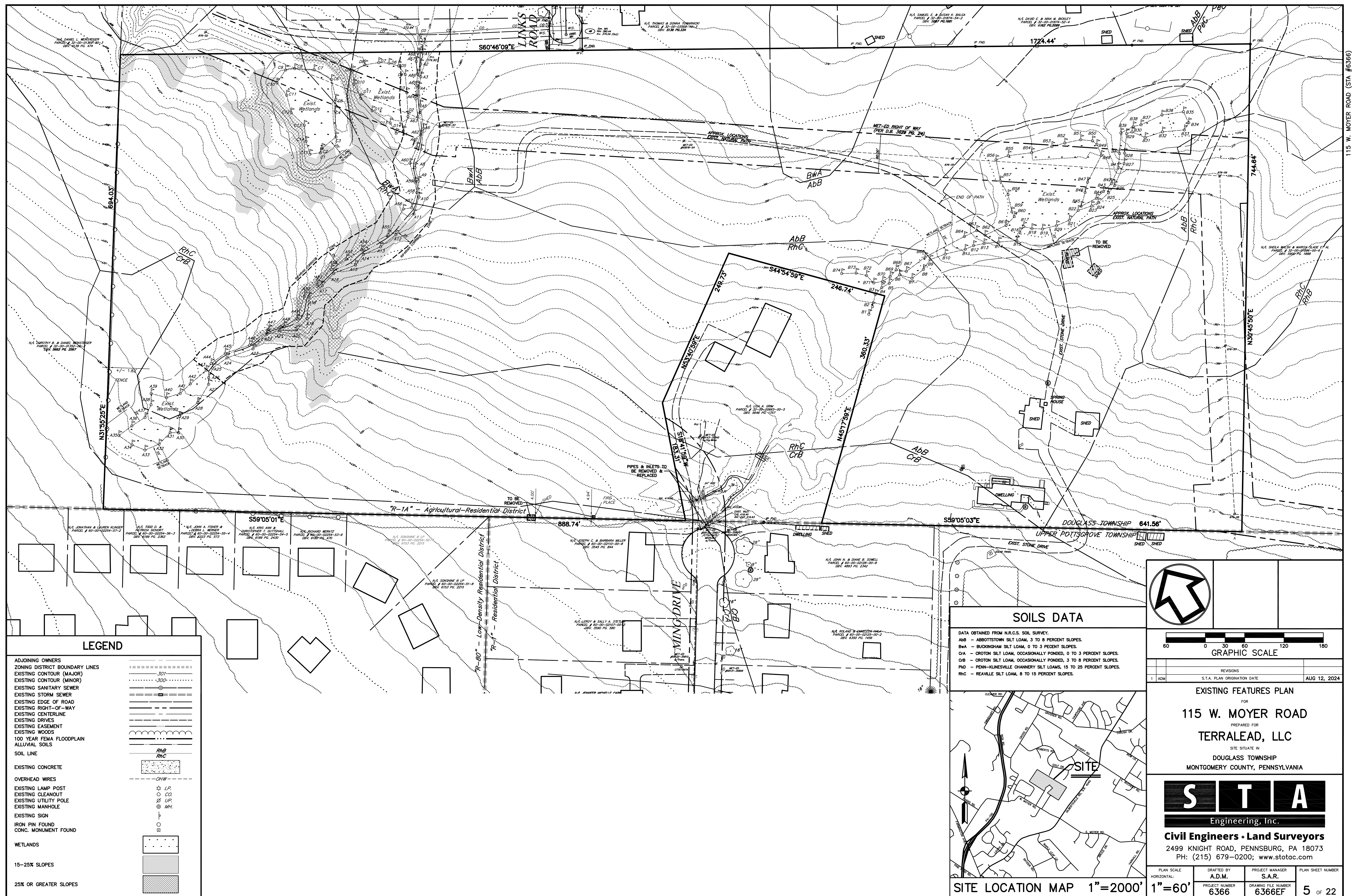
LEGEND

- ADJOINING OWNERS
- ZONING DISTRICT BOUNDARY LINES
- EXISTING CONTOUR (MAJOR)
- EXISTING CONTOUR (MINOR)
- EXISTING SANITARY SEWER
- EXISTING STORM SEWER
- EXISTING EDGE OF ROAD
- EXISTING RIGHT-OF-WAY
- EXISTING CENTERLINE
- EXISTING DRIVES
- EXISTING EASEMENT
- EXISTING WOODS
- 100 YEAR FEMA FLOODPLAIN
- ALLUVIAL SOILS
- SOIL LINE
- EXISTING CONCRETE
- OVERHEAD WIRES
- EXISTING LAMP POST
- EXISTING CLEANOUT
- EXISTING UTILITY POLE
- EXISTING MANHOLE
- EXISTING SIGN
- IRON PIN FOUND
- CONC. MONUMENT FOUND
- WETLANDS
- 15-25% SLOPES
- 25% OR GREATER SLOPES

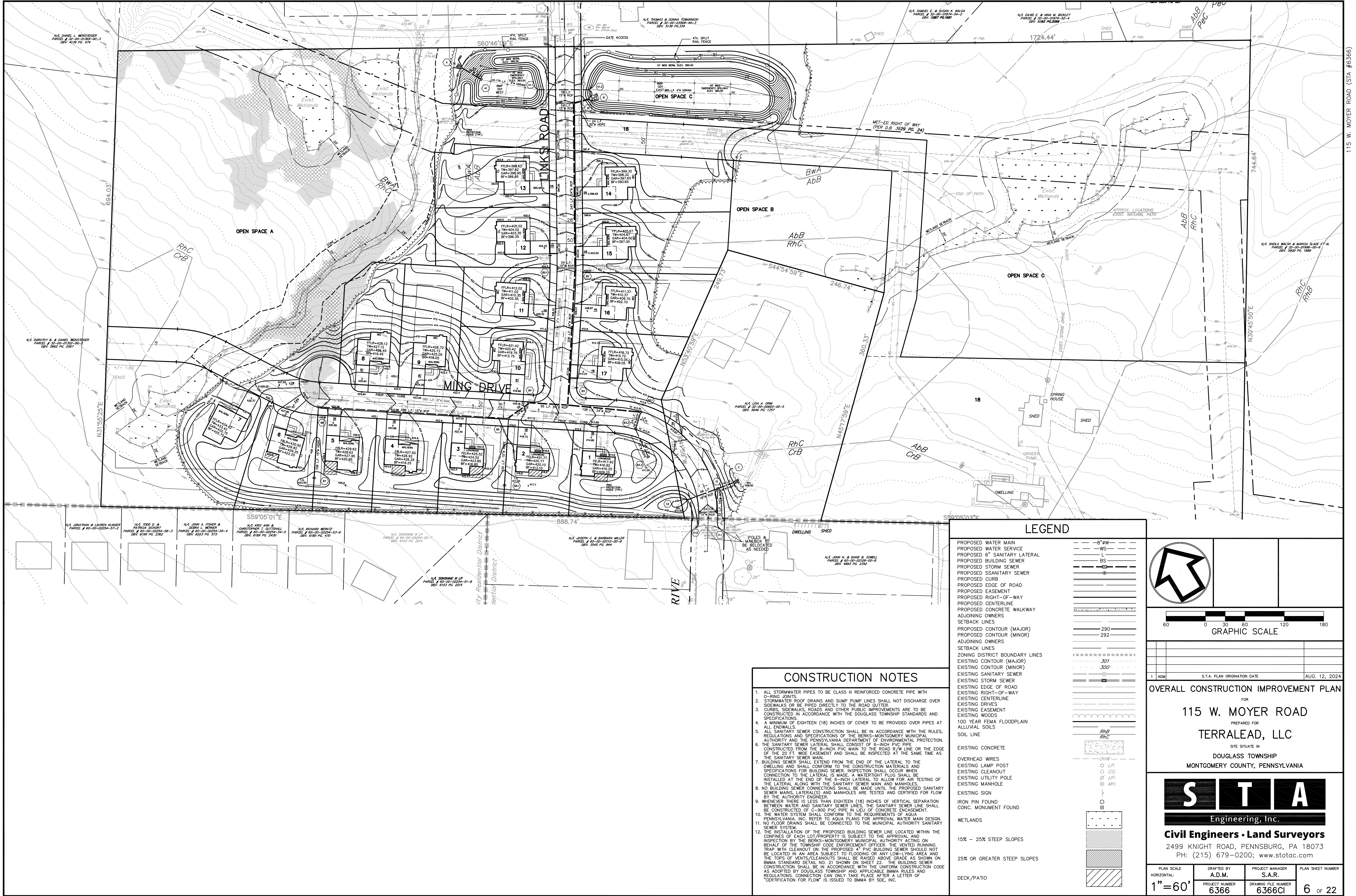
NOTES

- BOUNDARY AND TOPOGRAPHIC SURVEY PERFORMED BY BURSICH ASSOCIATES, INC. DATED NOVEMBER 13, 2023.
- RECORD OWNER/ PARCEL INFORMATION:  
PHYLIS C & METKA TAMMERA S SWENSON  
115 W MOYER ROAD  
BOYERTOWN PA, PA 19512  
32-00-00664-00-6
- HORIZONTAL DATUM: NORTH AMERICAN DATUM OF 1983, (NAD 88).
- VERTICAL DATUM: NORTH AMERICAN DATUM OF 1988, (NAVD 88).
- REFERENCE PLANS:  
PLAN ENTITLED "Moyer Manor" PREPARED BY RALPH E. SHANER & SON ENGINEERING CO., DATED 6-3-1968, AS RECORDED IN THE MONTGOMERY COUNTY RECORDER OF DEEDS AS PLAN BOOK 8-13 PAGE 93.  
PLAN ENTITLED "SUBDIVISION PLAN OF PROPERTY FOR MARY ANN & LOWELL SWENSON", PREPARED BY ROBERT H. MCKINNEY JR ASSOCIATES, INC., DATED 11-16-1983 AND LAST REVISED 2-17-1984 AND IS RECORDED IN THE MONTGOMERY COUNTY RECORDER OF DEEDS AS PLAN BOOK A-45 PAGE 234.
- NO PART OF THIS PROPERTY LIES WITHIN A FLOODPLAIN AREA AS DESCRIBED ON PANEL 67 OF 451 OF THE FEMA FLOOD INSURANCE RATE MAP NUMBER 42091C0067G, EFFECTIVE MARCH 2, 2017. NO SOILS LISTED IN CHAPTER 122, 122-3.A(2) EXIST ON THE SITE.
- A WETLANDS DELINEATION WAS PERFORMED BY SETH BACON ON SEPTEMBER 2, 2023.









- ### CONSTRUCTION NOTES
- ALL STORMWATER PIPES TO BE CLASS III REINFORCED CONCRETE PIPE WITH G-RING JOINTS.
  - STORMWATER ROOF DRAINS AND SUMP PUMP LINES SHALL NOT DISCHARGE OVER SIDEWALKS OR BE PIPED DIRECTLY TO THE ROAD GUTTER.
  - CURBS, SIDEWALKS, PAVES AND OTHER PUBLIC IMPROVEMENTS ARE TO BE CONSTRUCTED IN ACCORDANCE WITH THE DOUGLASS TOWNSHIP STANDARDS AND SPECIFICATIONS.
  - A MINIMUM OF EIGHTEEN (18) INCHES OF COVER TO BE PROVIDED OVER PIPES AT ALL ENDWALLS.
  - ALL SANITARY SEWER CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE RULES, REGULATIONS AND SPECIFICATIONS OF THE BERKS-MONTGOMERY MUNICIPAL AUTHORITY AND THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION.
  - THE SANITARY SEWER LATERAL SHALL CONSIST OF 6-INCH PVC PIPE CONSTRUCTED FROM THE 6-INCH PVC MAIN TO THE ROAD R/W LINE OR THE EDGE OF THE 20 FT. WIDE EASEMENT AND SHALL BE INSPECTED AT THE SAME TIME AS THE SANITARY SEWER MAIN.
  - BUILDING SEWER SHALL EXTEND FROM THE END OF THE LATERAL TO THE DWELLING AND SHALL CONFORM TO THE CONSTRUCTION MATERIALS AND SPECIFICATIONS FOR BUILDING SEWER. INSPECTION SHALL OCCUR WHEN CONNECTION TO THE LATERAL IS MADE. A WATERTIGHT PLUG SHALL BE INSTALLED AT THE END OF THE 6-INCH LATERAL TO ALLOW FOR AIR TESTING OF THE LATERAL ALONG WITH THE SANITARY SEWER MAIN AND MANHOLES.
  - NO BUILDING SEWER CONNECTIONS SHALL BE MADE UNTIL THE PROPOSED SANITARY SEWER MAINS, LATERAL(S) AND MANHOLES ARE TESTED AND CERTIFIED FOR FLOW BY THE AUTHORITY ENGINEER.
  - WHENEVER THERE IS LESS THAN EIGHTEEN (18) INCHES OF VERTICAL SEPARATION BETWEEN WATER AND SANITARY SEWER LINES, THE SANITARY SEWER LINE SHALL BE CONSTRUCTED OF C-900 PVC PIPE IN LIEU OF CONCRETE ENCASEMENT.
  - THE WATER SYSTEM SHALL CONFORM TO THE REQUIREMENTS OF AQUA PENNSYLVANIA, INC. REFER TO AQUA PLANS FOR APPROVAL WATER MAIN DESIGN.
  - NO FLOOR DRAINS SHALL BE CONNECTED TO THE MUNICIPAL AUTHORITY SANITARY SEWER SYSTEM.
  - THE INSTALLATION OF THE PROPOSED BUILDING SEWER LINE LOCATED WITHIN THE CONFINES OF EACH LOT/PROPERTY IS SUBJECT TO THE APPROVAL AND INSPECTION BY THE BERKS-MONTGOMERY MUNICIPAL AUTHORITY ACTING ON BEHALF OF THE TOWNSHIP CODE ENFORCEMENT OFFICER. THE VENTED RUNNING TRAP WITH CLEANOUT ON THE PROPOSED 4" PVC BUILDING SEWER SHOULD NOT BE LOCATED IN AN AREA SUBJECT TO FLOODING OR ANY LOW-LYING AREA AND THE TOPS OF VENTS/CLEANOUTS SHALL BE RAISED ABOVE GRADE AS SHOWN ON BMMA STANDARD DETAIL NO. 21 SHOWN ON SHEET 22. THE BUILDING SEWER CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE UNIFORM CONSTRUCTION CODE AS ADOPTED BY DOUGLASS TOWNSHIP AND APPLICABLE BMMA RULES AND REGULATIONS. CONNECTION CAN ONLY TAKE PLACE AFTER A LETTER OF "CERTIFICATION FOR FLOW" IS ISSUED TO BMMA BY SDE, INC.

### LEGEND

PROPOSED WATER MAIN	8" Ø W
PROPOSED WATER SERVICE	WS
PROPOSED 6" SANITARY LATERAL	BS
PROPOSED BUILDING SEWER	BS
PROPOSED STORM SEWER	SS
PROPOSED SSANITARY SEWER	SS
PROPOSED CURB	CR
PROPOSED EDGE OF ROAD	ER
PROPOSED EASEMENT	EA
PROPOSED RIGHT-OF-WAY	ROW
PROPOSED CENTERLINE	CL
PROPOSED CONCRETE WALKWAY	WC
ADJOINING OWNERS	AO
SETBACK LINES	SL
PROPOSED CONTOUR (MAJOR)	290
PROPOSED CONTOUR (MINOR)	292
ADJOINING OWNERS	AO
SETBACK LINES	SL
ZONING DISTRICT BOUNDARY LINES	BD
EXISTING CONTOUR (MAJOR)	301
EXISTING CONTOUR (MINOR)	300
EXISTING SANITARY SEWER	SS
EXISTING STORM SEWER	SS
EXISTING EDGE OF ROAD	ER
EXISTING RIGHT-OF-WAY	ROW
EXISTING CENTERLINE	CL
EXISTING DRIVES	DR
EXISTING EASEMENT	EA
EXISTING WOODS	WO
100 YEAR FEMA FLOODPLAIN	FF
ALLUVIAL SOILS	AL
SOIL LINE	SL
EXISTING CONCRETE	CC
OVERHEAD WIRES	OW
EXISTING LAMP POST	LP
EXISTING CLEANOUT	CO
EXISTING UTILITY POLE	UP
EXISTING MANHOLE	MH
EXISTING SIGN	SI
IRON PIN FOUND	IP
CONC. MONUMENT FOUND	CM
WETLANDS	W
15% - 25% STEEP SLOPES	15-25
25% OR GREATER STEEP SLOPES	25+
DECK/PATIO	DP

### GRAPHIC SCALE

60 0 30 60 120 180

1	ADM	S.T.A. PLAN ORIGIN DATE	AUG. 12, 2024
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### OVERALL CONSTRUCTION IMPROVEMENT PLAN

FOR  
**115 W. MOYER ROAD**  
PREPARED FOR  
**TERRALEAD, LLC**  
SITE SITUATE IN  
DOUGLASS TOWNSHIP  
MONTGOMERY COUNTY, PENNSYLVANIA

## STA

Engineering, Inc.

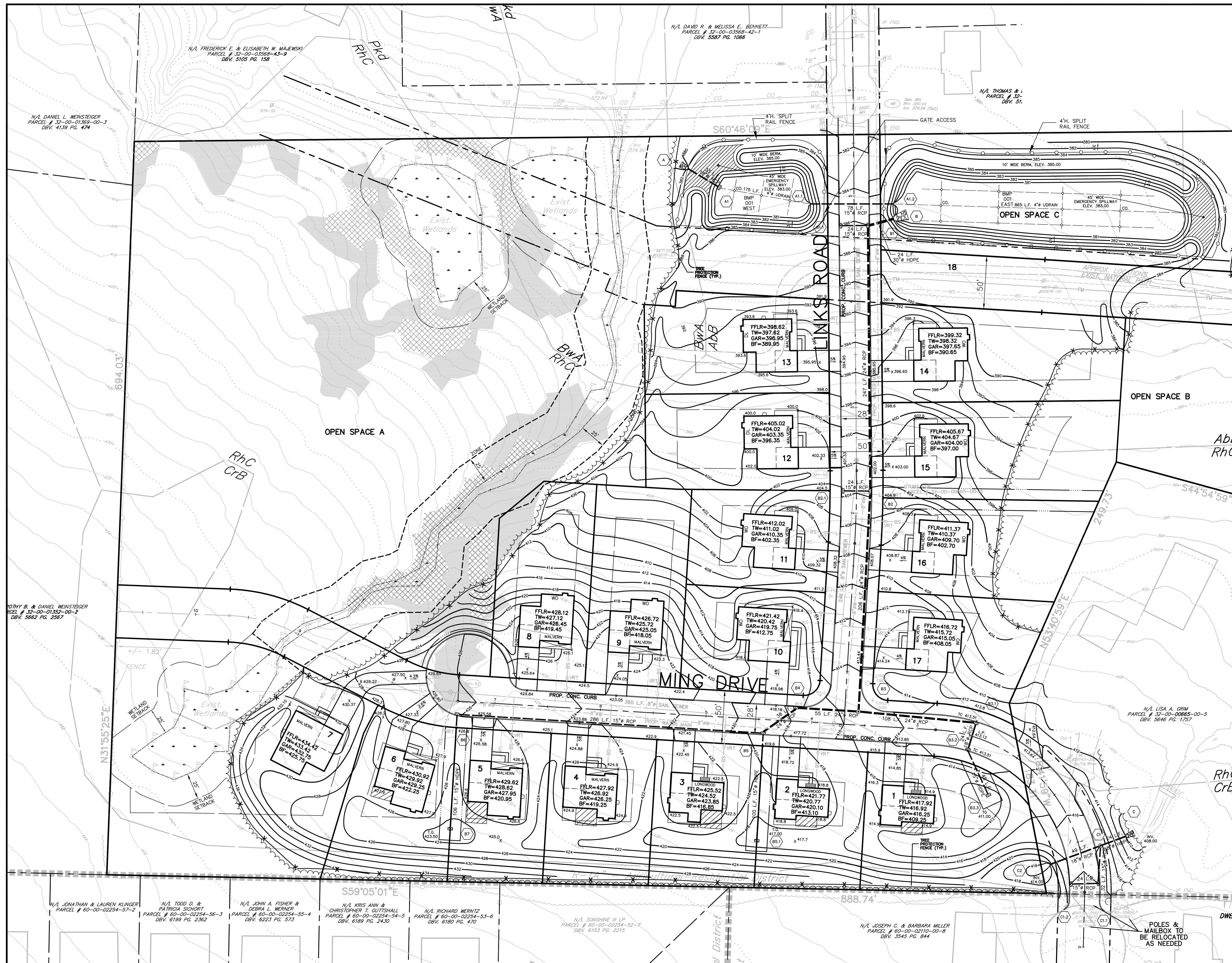
### Civil Engineers • Land Surveyors

2499 KNIGHT ROAD, PENNSBURG, PA 18073  
PH: (215) 679-0200; www.stotac.com

PLAN SCALE HORIZONTAL: <b>1"=60'</b>	DRAFTED BY A.D.M.	PROJECT MANAGER S.A.R.	PLAN SHEET NUMBER <b>6 OF 22</b>
	PROJECT NUMBER <b>6366</b>	DRAWING FILE NUMBER <b>6366CI</b>	

115 W. MOYER ROAD (STA #6366)





## LEGEND

PROPOSED WATER MAIN	8" Ø W
PROPOSED WATER SERVICE	WS
PROPOSED 6" SANITARY LATERAL	L
PROPOSED BUILDING SEWER	BS
PROPOSED STORM SEWER	CS
PROPOSED SSANITARY SEWER	SS
PROPOSED CURB	
PROPOSED EDGE OF ROAD	
PROPOSED EASEMENT	
PROPOSED RIGHT-OF-WAY	
PROPOSED CENTERLINE	
PROPOSED CONCRETE WALKWAY	
ADJOINING OWNERS	
SETBACK LINES	
PROPOSED CONTOUR (MAJOR)	290
PROPOSED CONTOUR (MINOR)	292
ADJOINING OWNERS	
SETBACK LINES	
ZONING DISTRICT BOUNDARY LINES	
EXISTING CONTOUR (MAJOR)	301
EXISTING CONTOUR (MINOR)	300
EXISTING SANITARY SEWER	
EXISTING STORM SEWER	
EXISTING EDGE OF ROAD	
EXISTING RIGHT-OF-WAY	
EXISTING CENTERLINE	
EXISTING DRIVES	
EXISTING EASEMENT	
EXISTING WOODS	
100 YEAR FEMA FLOODPLAIN	
ALLUVIAL SOILS	
SOIL LINE	
EXISTING CONCRETE	
OVERHEAD WIRES	OHW
EXISTING LAMP POST	LP
EXISTING CLEANOUT	CO
EXISTING UTILITY POLE	UP
EXISTING MANHOLE	MH
EXISTING SIGN	
IRON PIN FOUND	
CONC. MONUMENT FOUND	
WETLANDS	
15% - 25% STEEP SLOPES	
25% OR GREATER STEEP SLOPES	
DECK/PATIO	

	REVISONS	
1	ADM	S.T.A. PLAN ORIGINATION DATE AUG. 12, 2024

### CONSTRUCTION IMPROVEMENT PLAN

FOR

## 115 W. MOYER ROAD

PREPARED FOR

## TERRALEAD, LLC

SITE SITUATE IN

DOUGLASS TOWNSHIP

MONTGOMERY COUNTY, PENNSYLVANIA

# S T A

## Engineering, Inc.

### Civil Engineers • Land Surveyors

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 PH: (215) 679-0200; [www.stotac.com](http://www.stotac.com)

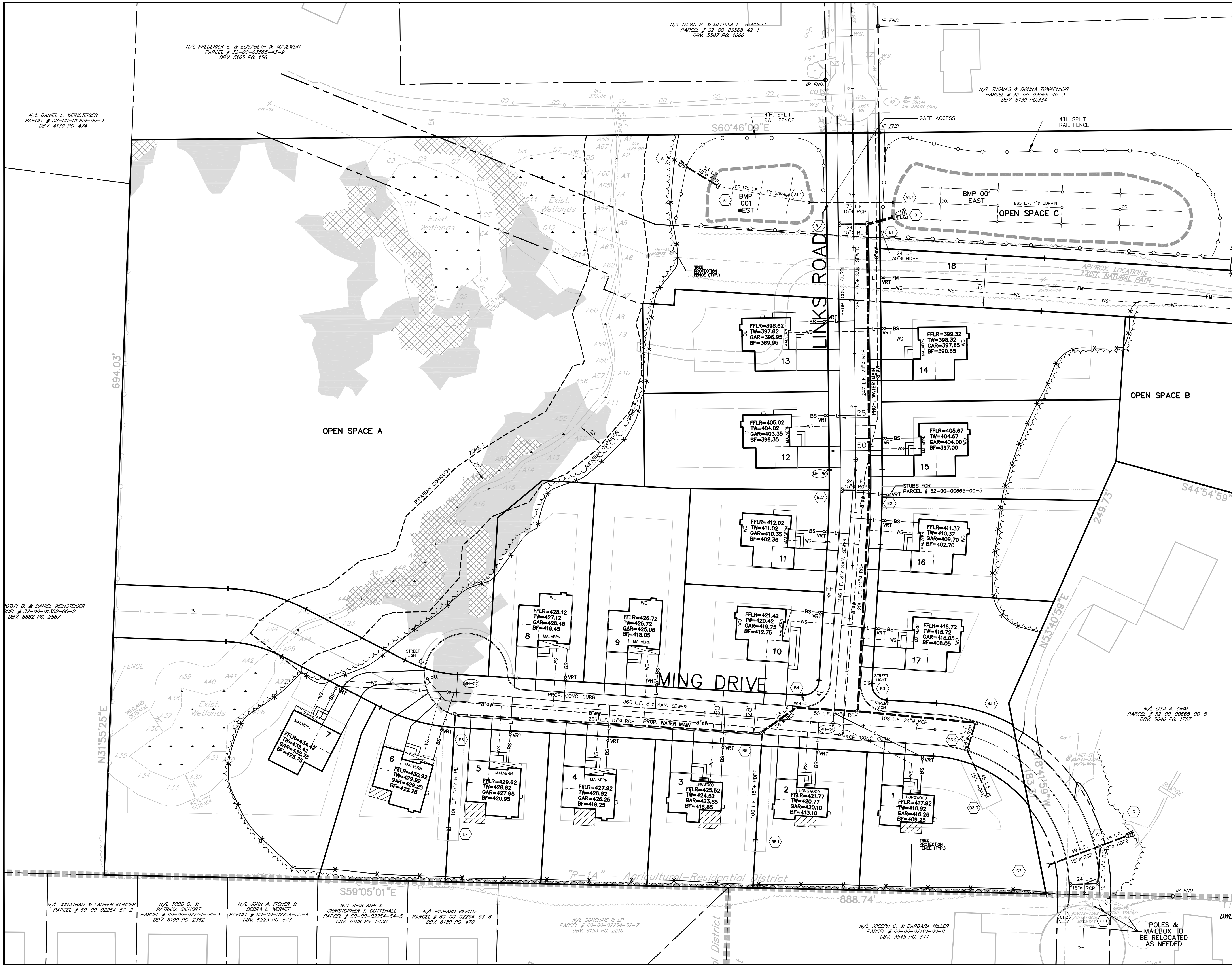
PLAN SCALE  
 HORIZONTAL:  
**1" = 40'**

DRAFTED BY  
**A.D.M.**  
 PROJECT NUMBER  
**6366**

PROJECT MANAGER  
**S.A.R.**  
 DRAWING FILE NUMBER  
**6366CI**

PLAN SHEET NUMBER  
**7** OF **22**





### LEGEND

PROPOSED WATER MAIN	---
PROPOSED WATER SERVICE	---
PROPOSED 6" SANITARY LATERAL	---
PROPOSED BUILDING SEWER	---
PROPOSED VENTED RUNNING TRAP	---
PROPOSED CLEANOUT	---
PROPOSED STORM SEWER	---
PROPOSED SSANITARY SEWER	---
PROPOSED CURB	---
PROPOSED EDGE OF ROAD	---
PROPOSED EASEMENT	---
PROPOSED RIGHT-OF-WAY	---
PROPOSED CENTERLINE	---
PROPOSED CONCRETE WALKWAY	---
ADJOINING OWNERS	---
SETBACK LINES	---

40 0 20 40 60 80 100 120

GRAPHIC SCALE

REVISIONS	
S.T.A. PLAN ORIGINATION DATE	AUG. 12, 2024
1	ADM

UTILITY PLAN  
FOR  
**115 W. MOYER ROAD**  
PREPARED FOR  
**TERRALEAD, LLC**  
SITE SITUATE IN  
DOUGLASS TOWNSHIP  
MONTGOMERY COUNTY, PENNSYLVANIA

**S T A**

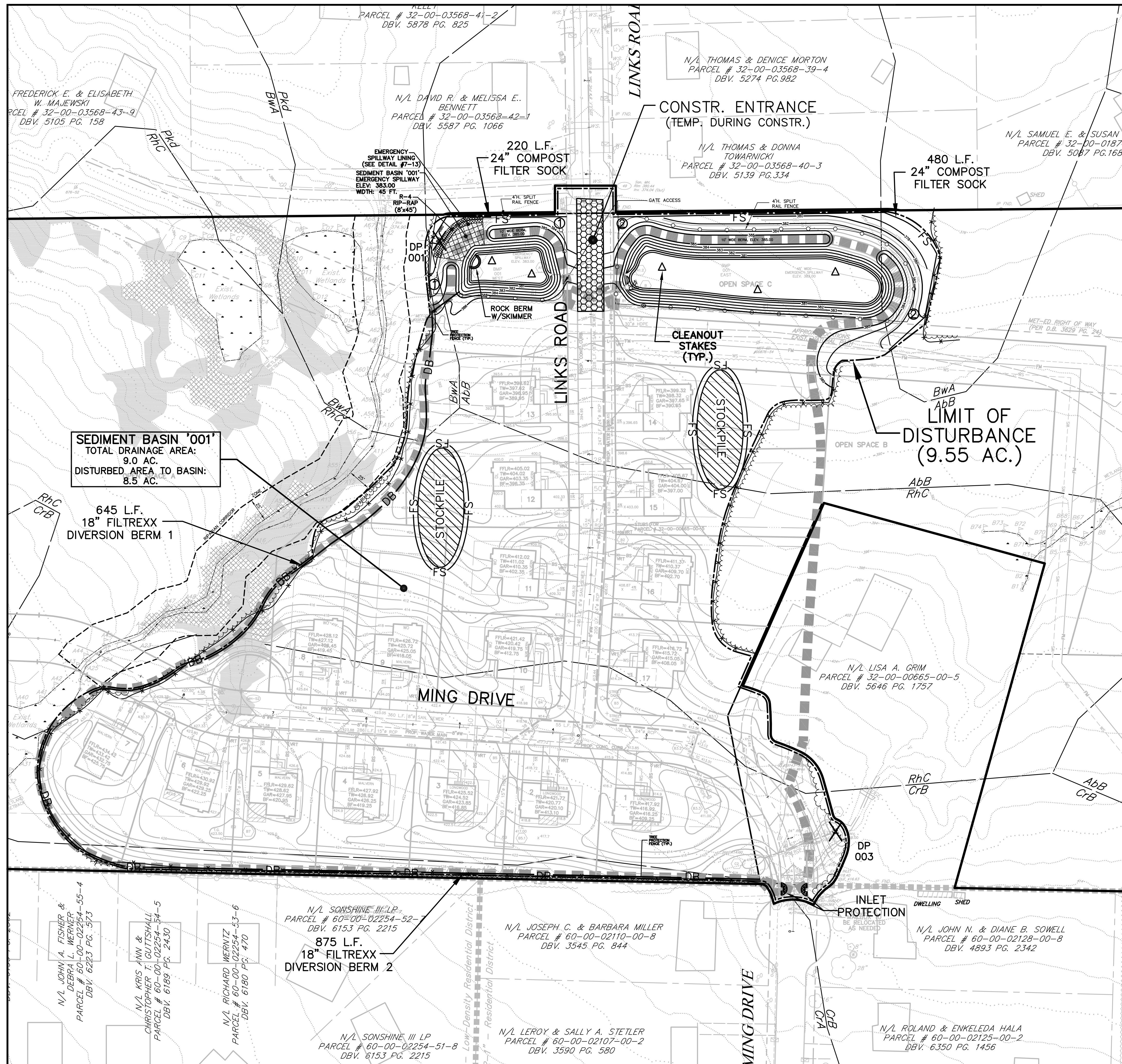
Engineering, Inc.

**Civil Engineers • Land Surveyors**  
2499 KNIGHT ROAD, PENNSBURG, PA 18073  
PH: (215) 679-0200; www.stotac.com

PLAN SCALE HORIZONTAL: <b>1"=40'</b>	DRAFTED BY A.D.M.	PROJECT MANAGER S.A.R.	PLAN SHEET NUMBER <b>8 OF 22</b>
	PROJECT NUMBER 6366	DRAWING FILE NUMBER 6366UT	

115 W. MOYER ROAD (STA #6366)





**PROJECT SITE BOUNDARY**

**COMPOST FILTER SOCK**

**FILTREXX DIVERSION BERM**

**LIMIT OF DISTURBANCE**

**INLET SHED LINE**

**SEDIMENT BASIN/TRAP SHED LINE**

**TREE PROTECTION FENCE**

**ORANGE CONSTRUCTION FENCE**

**BAFFLE**

**STOCKPILE AREA**

**CONSTRUCTION ENTRANCE**

**INLET PROTECTION**

**EROSION CONTROL BLANKET (E.C.B.)**

**TEMPORARY CONTOURS - MINOR**

**TEMPORARY CONTOURS - MAJOR**

**CLEANOUT STAKES**

(WHEN ACCUMULATED SEDIMENT HAS REACHED THE SEDIMENT CLEANOUT ELEVATION, THE SEDIMENT MUST BE REMOVED AND THE BASIN RETURNED TO ITS ORIGINAL DIMENSIONS. SURVEY RIBBON STAPLED TO THE STAKE SHOULD BE USED TO MARK THE CLEANOUT ELEVATION).

**ADJOINING OWNERS**

**SETBACK LINES**

**ZONING**

**FLOODPLAIN**

**TOP OF BANK**

**BOTTOM OF BANK**

**EXISTING STREAM**

**EXISTING SANITARY SEWER**

**EXISTING STORM SEWER**

**EXISTING CURB**

**EXISTING EDGE OF ROAD**

**EXISTING RIGHT-OF-WAY**

**EXISTING CENTERLINE**

**EXISTING DRIVES**

**EXISTING EXISTING SOILS**

**EXISTING TREE ROW**

**EXISTING WATER MAIN**

**EXISTING OVERHEAD WIRES**

**UTILITY POLE**

**EXISTING SIGN**

**FIRE HYDRANT**

**CLEAN OUT**

**WATER VALVE**

**WATER SERVICE**

**IRON PIN FOUND**

**CONC. MONUMENT FOUND**

**EXISTING CONTOURS - MINOR**

**EXISTING CONTOURS - MAJOR**

**PROPOSED CONTOUR (MAJOR)**

**PROPOSED CONTOUR (MINOR)**

**PROPOSED WATER MAIN**

**PROPOSED WATER SERVICE**

**PROPOSED SANITARY LATERAL**

**PROPOSED RAIN WATER COLLECTOR**

**PROPOSED STORM SEWER**

**PROPOSED SSANITARY SEWER**

**PROPOSED CURB**

**PROPOSED EDGE OF ROAD**

**PROPOSED RIGHT-OF-WAY**

**PROPOSED CENTERLINE**

**PROPOSED CONCRETE WALKWAY**

**APPROX. LOC. GAS MAIN**

**APPROX. LOC. ELECTRIC & COMMUNICATIONS**

**WETLANDS**

**15-25% SLOPES**

**25% OR GREATER SLOPES**

**LEGEND**

FS FS

DB DB

X X X

O O

USE NAG S75 FOR SLOPES

△

BWA RHC

Water Main

UP

FH

CO

WV

WS

1.32

1.30

310

312

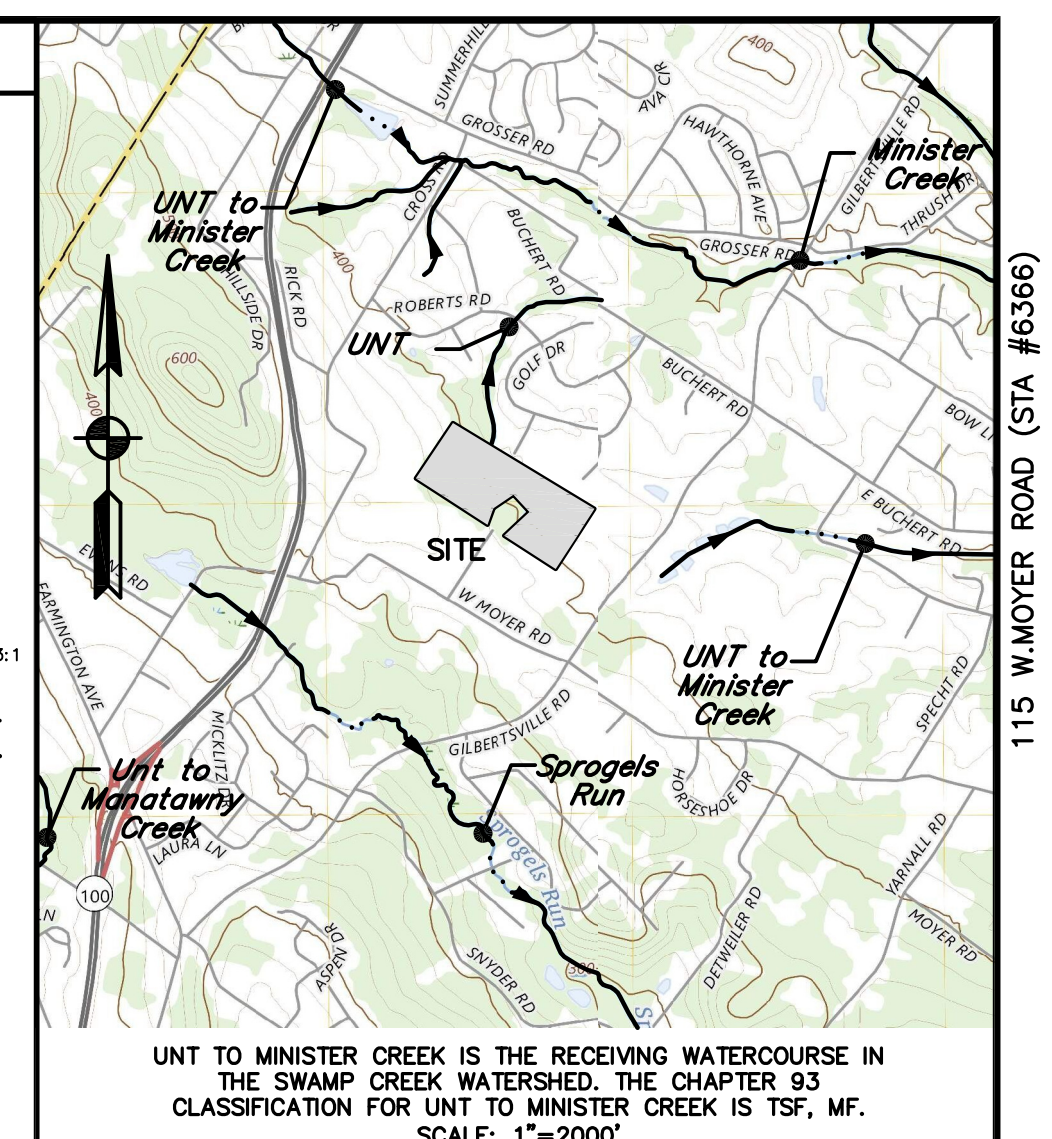
8"6W

WS

6W

8" C

E/C



## RECYCLING STATEMENT

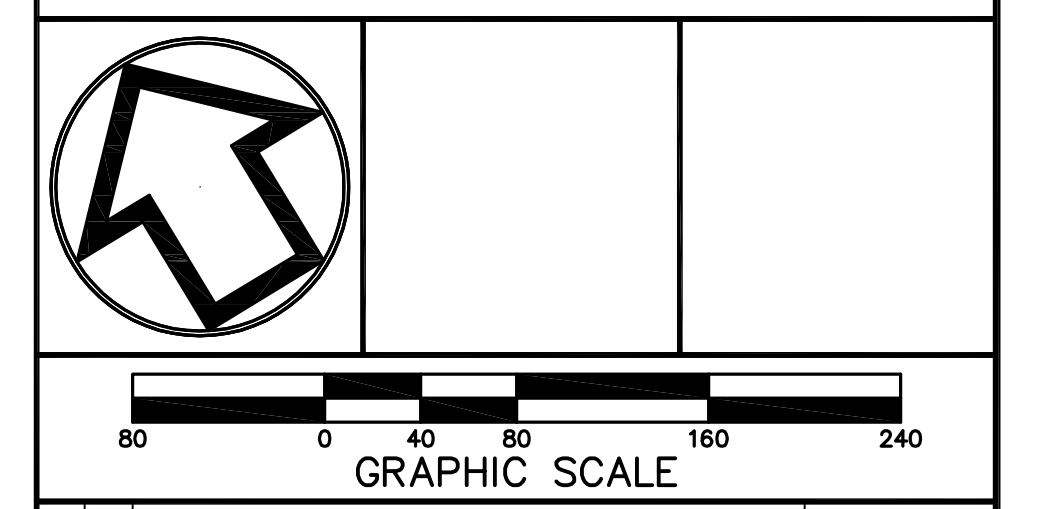
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SOILS DATA

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ACT 50 UTILITY NOTE

### CRITICAL STAGES OF BMP CONSTRUCTION

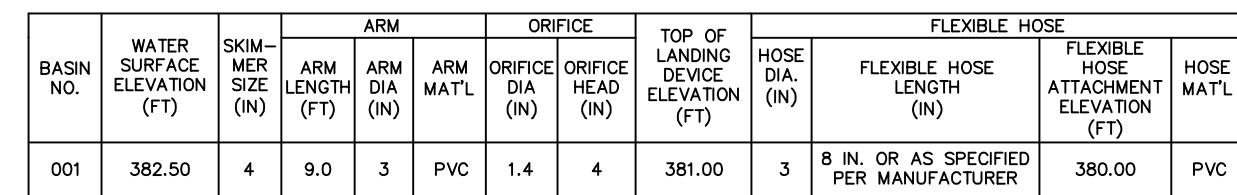


1	ADM	S.T.A. PLAN ORIGINATOR DATE	AUG. 12, 2024
<p>OVERALL E&amp;S CONTROL PLAN</p> <p>FOR</p> <p><b>115 W. MOYER ROAD</b></p> <p>PREPARED FOR</p> <p><b>TERRALEAD, LLC</b></p> <p>SITE SITUATE IN</p> <p><b>DOUGLASS TOWNSHIP</b></p> <p><b>MONTGOMERY COUNTY, PENNSYLVANIA</b></p>			
<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="background-color: black; color: white; padding: 10px 20px; font-size: 48px; font-weight: bold;">S</div> <div style="background-color: black; color: white; padding: 10px 20px; font-size: 48px; font-weight: bold;">T</div> <div style="background-color: black; color: white; padding: 10px 20px; font-size: 48px; font-weight: bold;">A</div> </div> <div style="background-color: black; color: white; padding: 10px 0; font-size: 24px; font-weight: bold; text-align: center;">Engineering, Inc.</div>			
<p><b>Civil Engineers • Land Surveyors</b></p> <p>2499 KNIGHT ROAD, PENNSBURG, PA 18073</p> <p>PH: (215) 679-0200; <a href="http://www.stotac.com">www.stotac.com</a></p>			
PLAN SCALE HORIZONTAL:	DRAFTED BY <b>M.J.P.</b>	PROJECT MANAGER <b>S.A.R.</b>	PLAN SHEET NUMBER
<div style="font-size: 36px; font-weight: bold;">1" = 50'</div>	PROJECT NUMBER <div style="font-size: 24px; font-weight: bold;">6366</div>	DRAWING FILE NUMBER <div style="font-size: 24px; font-weight: bold;">6366ES</div>	<div style="font-size: 36px; font-weight: bold;">9</div> OF 22

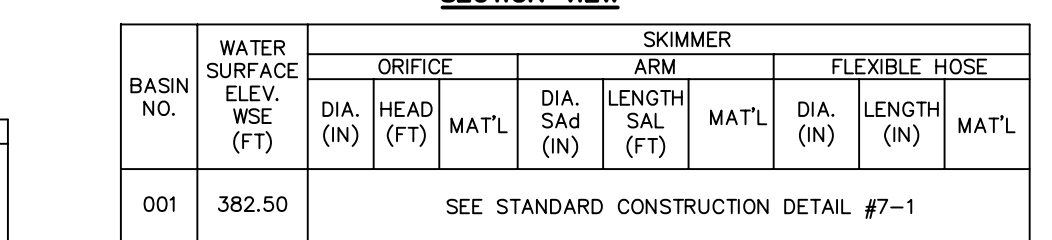








SEDIMENT SHALL BE REMOVED FROM THE BASIN WHEN IT REACHES THE LEVEL MARKED ON THE SEDIMENT CLEAN-OUT STAKE OR THE TOP OF THE LANDING DEVICE.

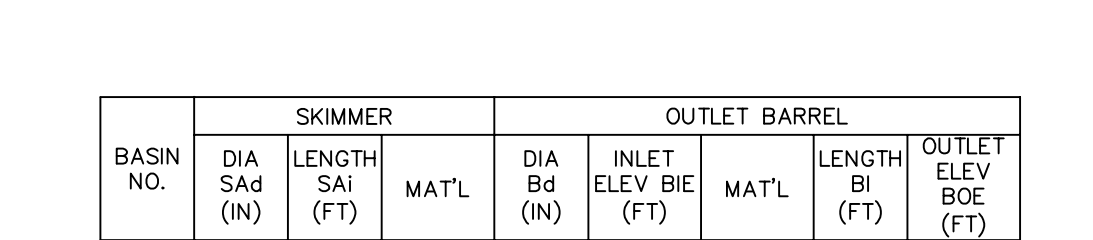


NOTES:

ALL POST-CONSTRUCTION ORIFICES ON PERMANENT RISER BELOW TEMPORARY RISER EXTENSION SHALL HAVE WATER-TIGHT TEMPORARY SEALS PROVIDED. THE USE OF A STEEL PLATE AND WATERTIGHT SEAL IS PREFERRED BUT MARINE GRADE PLYWOOD IS ALSO ACCEPTABLE. TEMPORARY STUB INVERT ELEVATION SHALL BE SET AT OR BELOW SEDIMENT CLEAN-OUT ELEVATION.



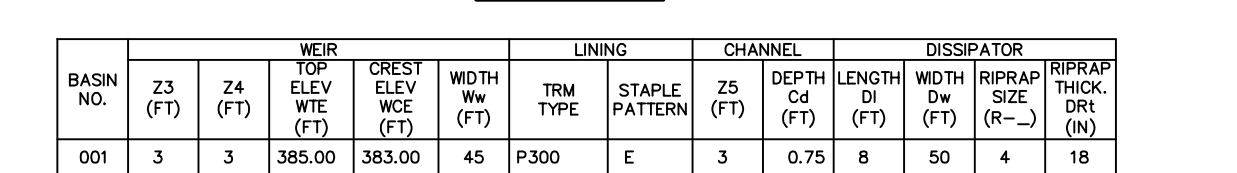
STANDARD CONSTRUCTION DETAIL #7.2



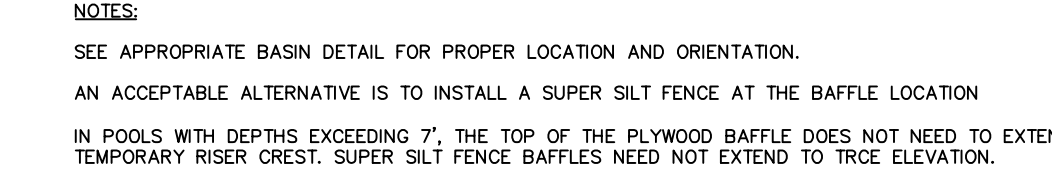
NOTES:

SEDIMENT BASINS, INCLUDING ALL APPURTENANT WORKS, SHALL BE CONSTRUCTED TO THE DETAIL AND STANDARD SPECIFICATIONS OF THE DISTRICT ENGINEER, CHARGE, BANGALORE.

UPON COMPLETION, THE EMBANKMENT SHALL BE SEEDED, MULCHED, BLANKETED OR OTHERWISE STABILIZED ACCORDING TO THE SPECIFICATIONS OF THE E&S PLAN DRAWINGS. TREES SHALL NOT BE PLANTED ON THE EMBANKMENT.



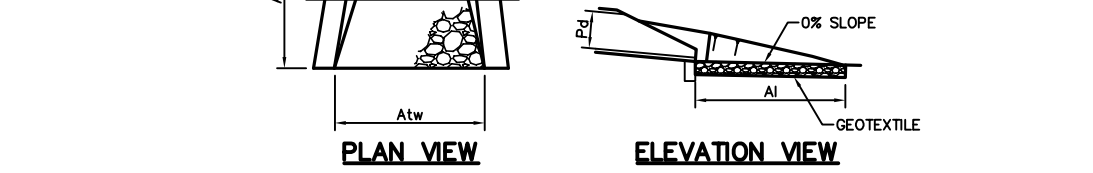
STANDARD CONSTRUCTION DETAIL #7-13  
SEDIMENT BASIN EMERGENCY SPILLWAY WITH TRM LINING



STANDARD CONSTRUCTION DETAIL #7-14  
BAFFLE  
NOT TO SCALE



12 IN. THICK (MIN.)  
CAST-IN-PLACE OR  
PRECAST CONCRETE  
COLLAR (MIN. 2000 PSI)



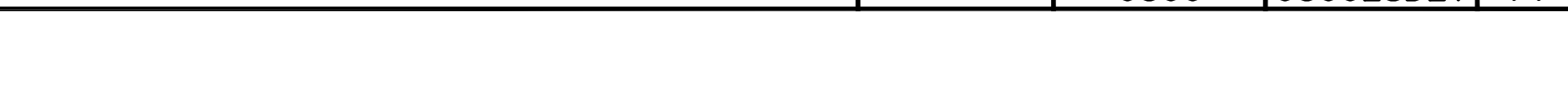
ALL APRONS SHALL BE CONSTRUCTED TO THE DIMENSIONS SHOWN. TERMINAL WIDTHS SHALL BE ADJUSTED AS NECESSARY TO MATCH RECEIVING CHANNELS.

ALL APRONS SHALL BE INSPECTED AT LEAST WEEKLY AND AFTER EACH RUNOFF EVENT. DISPLACED RIPRAP WITHIN THE APRON SHALL BE REPLACED IMMEDIATELY.

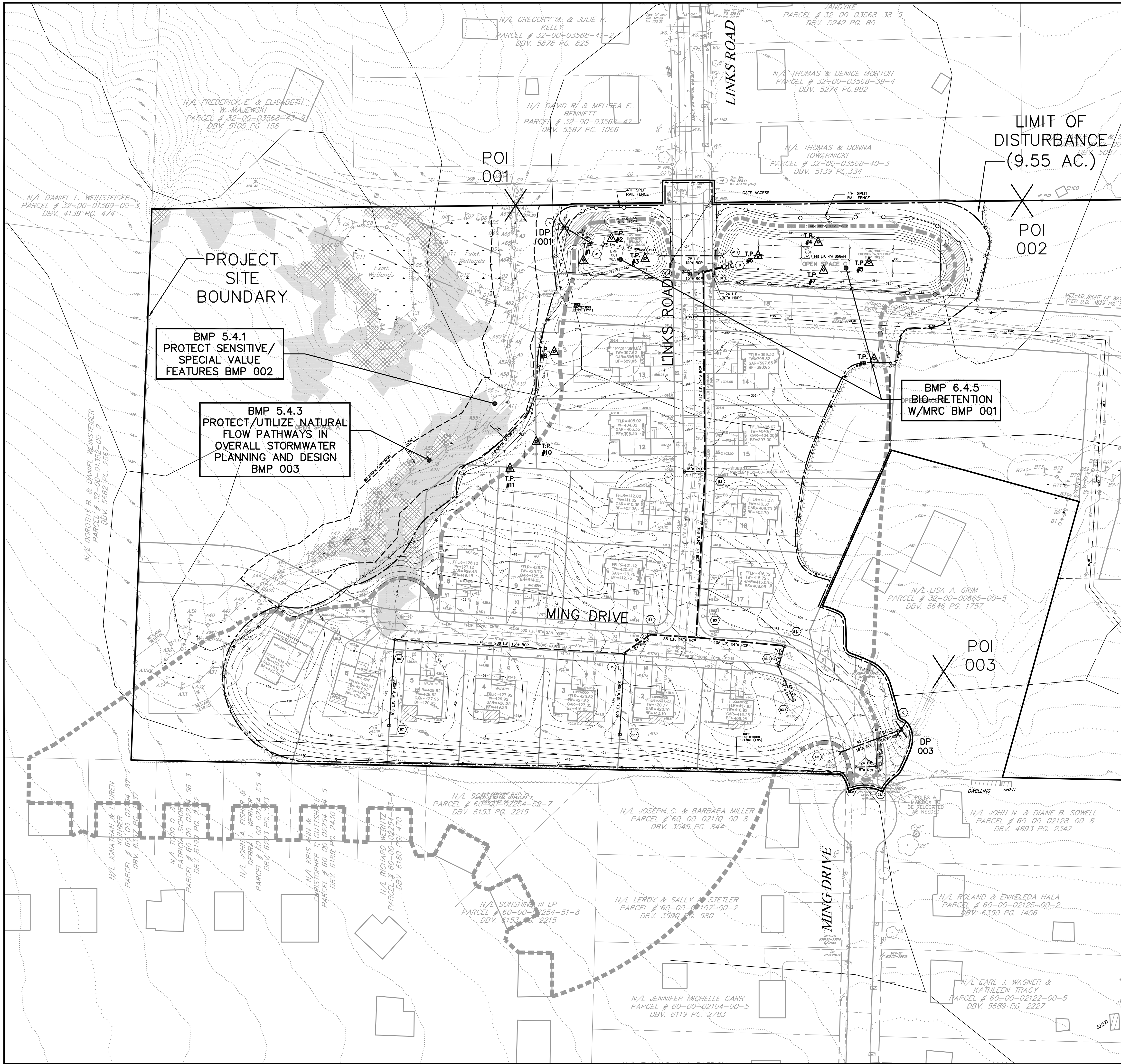
**STANDARD CONSTRUCTION DETAIL #9-1**



	Perennial ryegrass	15	20
	Birdfoot trefoil, plus	6	10
3	Festulolium	30	35
	Birdfoot trefoil, plus	6	10
	Road verges	10	10
	Crown vetch, plus	10	15
5 <sup>a</sup>	Tall fescue, or	20	25







SEE PCSM LANDSCAPE SHEETS 15 & 16 FOR SEED MIX DETAILS AND AMENDED SOIL AREAS

### CRITICAL STAGES OF BMP CONSTRUCTION

THE FOLLOWING STORMWATER MANAGEMENT BMP SHALL HAVE CONSTRUCTION OVERSIGHT:

- BIO-RETENTION W/MRC BMP 001
- CONCRETE CRADLE
- LANDSCAPE RESTORATION

### ACT 50 UTILITY NOTE

**811** ATTENTION ALL CONTRACTORS: LOCATIONS OF ALL EXISTING UTILITIES SHOWN HEREON HAVE BEEN DEVELOPED FROM UTILITY COMPANY RECORDS AND/OR ABOVE-GROUND INSPECTION OF THE SITE. COMPLETENESS OR ACCURACY OF TYPE, SIZE, DEPTH OR HORIZONTAL LOCATION OF UNDERGROUND FACILITIES OR STRUCTURES CANNOT BE GUARANTEED. PURSUANT TO REQUIREMENTS OF PENNSYLVANIA LEGISLATIVE ACT NUMBER 121 AS PER THE AMENDMENT OF PA ACT 287 OF 1974, EFFECTIVE OCTOBER 30, 2017 CONTRACTORS MUST VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES AND FACILITIES PRIOR TO START OF WORK. REFERENCE UTILITY CASE NUMBER: 20241150954 & 20241150955.

### NOTES

1. NO PERSON SHALL MODIFY, REMOVE, FILL, LANDSCAPE, OR ALTER ANY EXISTING STORMWATER CONTROL OR BMP UNLESS IT IS PART OF AN APPROVED MAINTENANCE PROGRAM WITHOUT THE WRITTEN APPROVAL OF DOUGLASS TOWNSHIP.
2. NO PERSON SHALL PLACE ANY STRUCTURE, FILL, LANDSCAPING, OR VEGETATION INTO A STORMWATER CONTROL OR BMP OR WITHIN A DRAINAGE EASEMENT THAT WOULD LIMIT OR ALTER THE FUNCTIONING OF THE STORMWATER CONTROL OR BMP WITHOUT THE WRITTEN APPROVAL OF DOUGLASS TOWNSHIP.

### SOILS DATA

DATA OBTAINED FROM N.R.C.S. SOIL SURVEY.

ABW - ABBOTTSTOWN SILT LOAM, 3 TO 8 PERCENT SLOPES.

BWA - BUCKINGHAM SILT LOAM, 0 TO 3 PERCENT SLOPES.

CA - CROTON SILT LOAM, OCCASIONALLY PONDED, 0 TO 3 PERCENT SLOPES.

CB - CROTON SILT LOAM, OCCASIONALLY PONDED, 3 TO 8 PERCENT SLOPES.

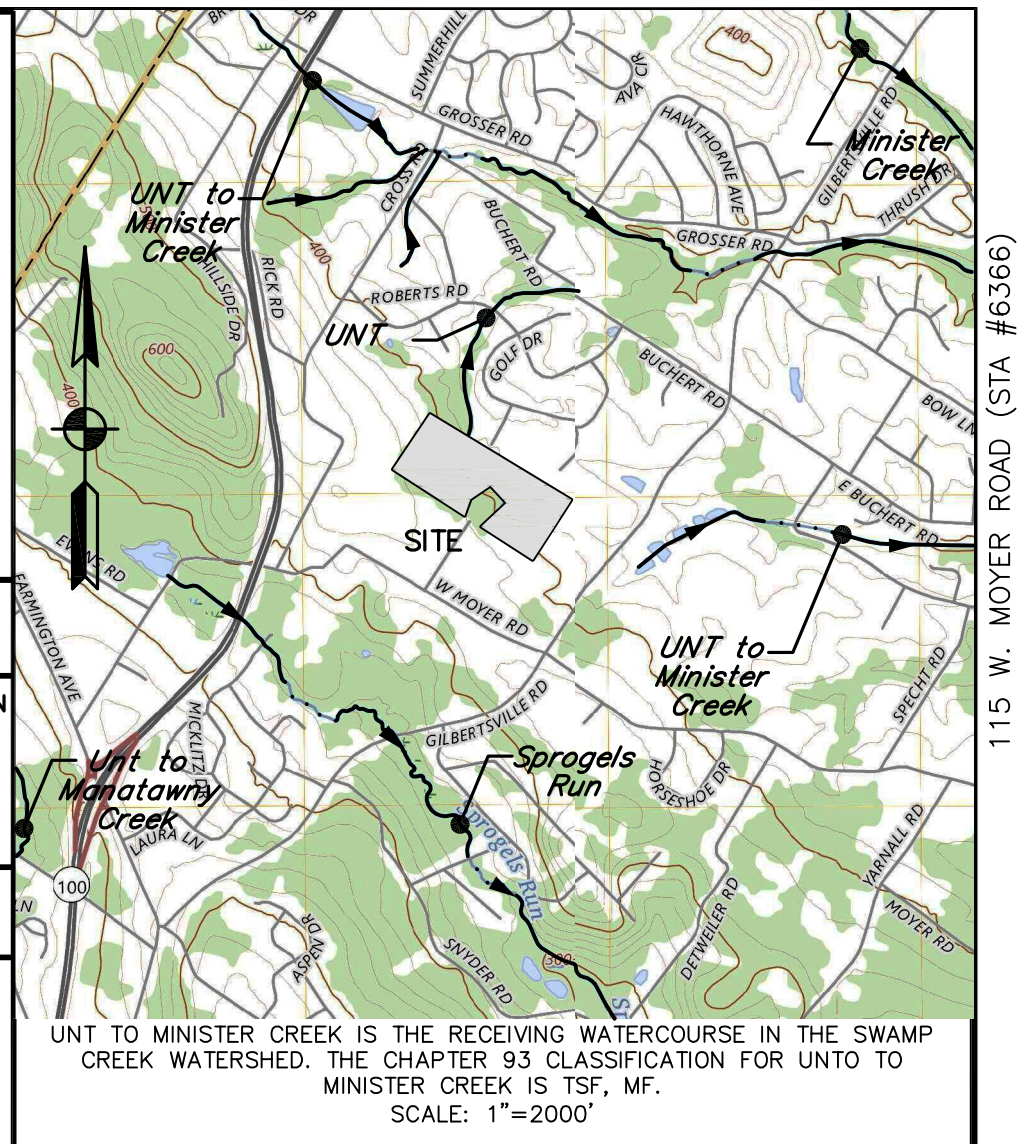
PKD - PENN-KUNESVILLE CHANNERY SILT LOAMS, 15 TO 25 PERCENT SLOPES.

RH - REAVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES.

RNC - REAVILLE SILT LOAM, 8 TO 15 PERCENT SLOPES.

### LEGEND

- LIMIT OF DISTURBANCE
- - - PROJECT SITE BOUNDARY
- X POINT OF INFLUENCE
- △ T.P. #1
- BASIN SHED BOUNDARY
- STORMWATER TEST PIT
- PROPOSED TREE PROTECTION FENCE
- PROPOSED WATER SERVICE
- PROPOSED SANITARY LATERAL
- PROPOSED STORM SEWER
- PROPOSED SANITARY SEWER
- PROPOSED TREE ROW
- PROPOSED CURB
- PROPOSED EDGE OF ROAD
- PROPOSED EASEMENT
- PROPOSED RIGHT-OF-WAY
- PROPOSED CENTERLINE
- PROPOSED CONCRETE WALKWAY
- PROPOSED CONTOUR (MAJOR)
- PROPOSED CONTOUR (MINOR)
- PROPOSED IRON PIN
- PROPOSED CONCRETE MONUMENT
- ADJOINING OWNERS
- SETBACK LINES
- ZONING DISTRICT BOUNDARY LINES
- EXISTING CONTOUR (MAJOR)
- EXISTING CONTOUR (MINOR)
- EXISTING SANITARY SEWER
- EXISTING STORM SEWER
- EXISTING EDGE OF ROAD
- EXISTING RIGHT-OF-WAY
- EXISTING CENTERLINE
- EXISTING DRIVES
- EXISTING EASEMENT
- EXISTING WOODS
- 100 YEAR FEMA FLOODPLAIN
- ALLUVIAL SOILS
- SOIL LINE
- EXISTING CONCRETE
- OVERHEAD WIRES
- EXISTING LAMP POST
- EXISTING CLEANOUT
- EXISTING UTILITY POLE
- EXISTING MANHOLE
- EXISTING SIGN
- IRON PIN FOUND
- CONC. MONUMENT FOUND
- WETLANDS
- 15-25% SLOPES
- 25% OR GREATER SLOPES
- G APPROX. LOC. GAS MAIN
- E/C APPROX. LOC. ELECTRIC & COMMUNICATIONS



### ENGINEER CERTIFICATION

I, SUSAN A. RICE, P.E., ON THIS DATE, HEREBY CERTIFY THAT THE DRAINAGE PLAN MEETS ALL DESIGN STANDARDS AND CRITERIA OF THE DOUGLASS TOWNSHIP STORMWATER MANAGEMENT ORDINANCE.

SUSAN A. RICE, P.E.

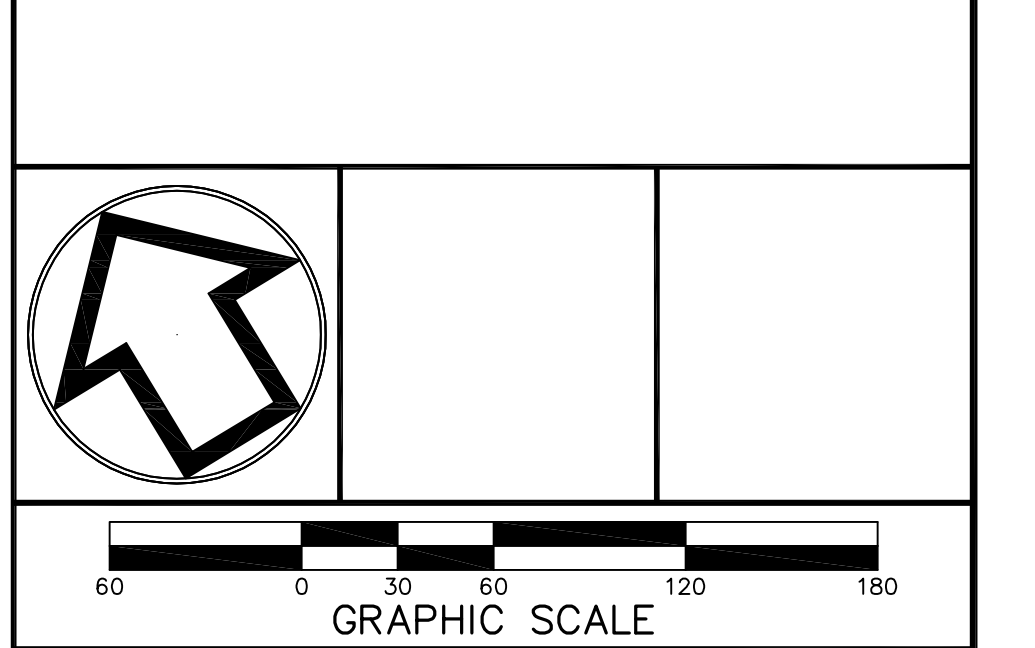
### STORMWATER STATEMENT

ANY REVISION TO THE APPROVED POST-CONSTRUCTION STORMWATER MANAGEMENT PLAN MUST BE APPROVED BY DOUGLASS TOWNSHIP AND THE MONTGOMERY COUNTY CONSERVATION DISTRICT AND/OR DEP (IF GREATER THAN 1 ACRE OF LAND DISTURBED). A REVISED EROSION AND SEDIMENT CONTROL PLAN MUST BE SUBMITTED TO THE MONTGOMERY COUNTY CONSERVATION DISTRICT FOR A DETERMINATION OF ADEQUACY.

APPLICANT SIGNATURE

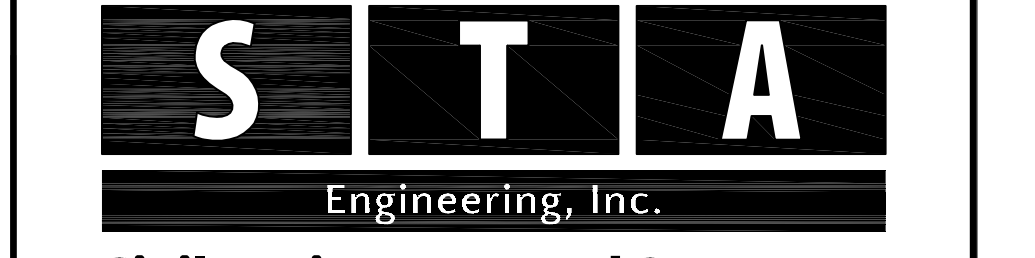
### RECYCLING STATEMENT

IF NECESSARY, SEDIMENT SHOULD BE REMOVED WHEN THE BMP'S ARE THOROUGHLY DRY. TRASH AND DEBRIS REMOVED FROM THE SITE SHOULD BE DEPOSITED ONLY AT SUITABLE DISPOSAL/RECYCLING SITES AND MUST COMPLY WITH APPLICABLE LOCAL, STATE, AND FEDERAL WASTE REGULATIONS. IN THE CASE WHERE A BMP IS USED FOR SEDIMENT CONTROL, IT SHOULD BE REGRADED AND RESEDED IMMEDIATELY AFTER CONSTRUCTION HAS CONCLUDED.



1	ADM	S.T.A. PLAN ORIGIN DATE	AUG. 12, 2024
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OVERALL PCSM PLAN  
FOR  
**115 W. MOYER ROAD**  
PREPARED FOR  
**TERRALEAD, LLC**  
SITE SITUATE IN  
DOUGLASS TOWNSHIP  
MONTGOMERY COUNTY, PENNSYLVANIA



**Civil Engineers • Land Surveyors**  
2499 KNIGHT ROAD, PENNSBURG, PA 18073  
PH: (215) 679-0200; www.stotac.com

PLAN SCALE HORIZONTAL: <b>1"=60'</b>	DRAFTED BY <b>M.J.P.</b>	PROJECT MANAGER <b>S.A.R.</b>	PLAN SHEET NUMBER <b>12 of 22</b>
	PROJECT NUMBER <b>6366</b>	DRAWING FILE NUMBER <b>6366PCSM</b>	



POST-CONSTRUCTION STORMWATER MANAGEMENT OPERATION & MAINTENANCE NOTES

1. BMP DESCRIPTIONS:

The primary BMP's proposed for the development site consists of the following:

Non-Structural BMP's

BMP 5.4.1 Protect Sensitive/Special Value Features - Stream and wetlands to remain

BMP 5.4.3 Protect/Utilize Natural Flow Pathways in Overall Stormwater Planning and Design

Structural BMP's

BMP 6.4.5 Bio-retention w/MRC BMP 001

2. GENERAL BMP OPERATION, MAINTENANCE, INSPECTION AND CERTIFICATION NOTES:

At such time that the site is stabilized and the temporary during construction erosion and sediment controls are removed, the permanent non-structural and structural BMP's will be installed and functioning. The structural BMP's are intended to be permanent facilities that mitigate peak flows and address minimal volume control in addition to promoting water quality.

General Maintenance - The stormwater management BMP's shall be owned and maintained by a Homeowners Association (HOA) in perpetuity. The HOA shall conduct maintenance on a short-term and long-term schedule in accordance with the maintenance procedures outlined in this narrative and on the PCSM plans. Until such time that the site is fully established and operational, the developer and/or permittee shall perform the required maintenance of the stormwater management BMP's. In addition to the procedures outlined in the narrative and on the plans, the HOA shall be responsible to make a visual inspection of the BMP facilities after every storm event greater than 1.0-inch and after extreme events (10-, 50- and 100-year storm events) to verify their integrity and to note any damage requiring corrective action. Furthermore, the HOA shall be responsible to perform an annual inspection of the facilities and generate a report to document the condition of the facilities. Copies of the annual report shall be submitted to the HOA for review and, where required, corrective action. If significant repairs are required, the Township Engineer shall be consulted prior to repair. The Municipality shall have the right, but not the duty, to inspect the stormwater management facilities, and if the HOA fails to do so, perform necessary maintenance. Blanket easements over the stormwater management facilities will be provided for access to the facilities by all parties requiring access in the HOA documents.

Critical Stages/ Oversight - The permittee shall provide engineering construction oversight during installation of all aspects of the stormwater management facility. A licensed professional engineer knowledgeable in the design and construction of stormwater BMPs, preferably the design engineer, shall conduct the oversight. Refer to the PCSM plans for a complete tabulation of the designated BMP's requiring construction oversight.

Final Certification - the permittee shall include with the Notice of Termination "Record Drawings" with a final certification statement from a licensed professional, which reads as follows:

"I, (name), do hereby certify pursuant to the penalties of 18. Pa.c.s.a. § 4904 to the best of my knowledge, information and belief, that the accompanying record drawings accurately reflect the as-built conditions, are true and correct, and are in conformance with Chapter 102 of the Rules and Regulations of the Department of Environmental Protection and that the project was constructed in accordance with the approved PCSM Plan, all approved plan changes and accepted construction practices."

The permittee shall retain a copy of the record drawings as a part of the approved PCSM Plan and shall provide a copy of the record drawings as a part of the approved PCSM Plan to the person identified in this section as being responsible for the long-term operation and maintenance of the PCSM BMP's.

Upon permanent stabilization of the earth disturbance activity under § 102.22(a)(2) (relating to permanent stabilization), and installation of BMP's in accordance with an approved plan prepared and implemented in accordance with § 102.4 and 102.8 (relating to erosion and sediment control requirements), the permittee or co-permittee shall submit a Notice of Termination (NOT) to the Department or County Conservation District. Prior to accepting the NOT, the Department and/or Conservation District staff will perform a final inspection and approve or deny the NOT.

3. SPECIFIC BMP OPERATION AND MAINTENANCE NOTES:

Short Term:

Inspect BMP's after every storm event greater than 1.0-inch and after extreme events (10-, 50- and 100-year storm events) for damage and/or erosion activity, paying close attention to the embankments, spillway, and berm. Repair erosion with appropriate measures immediately.

Inspect BMP plantings on a monthly basis during the growing season for the first two years to evaluate plant establishment and mortality - replace dead plants with same or like plants able to establish in the cultural conditions present. If necessary, replace plants with a different species suitable to any microclimatic effects that might develop.

Long Term:

Until the permittee or co-permittee has received written approval of a Notice of Termination, the permittee or co-permittee will remain responsible for compliance with the permit terms and conditions including long-term operation and maintenance of all PCSM BMP's on the project site and responsibility for violations occurring on the project site.

The permittee or co-permittee shall be responsible for long-term operation and maintenance of PCSM BMP's unless a different person is identified in the Notice of Termination and has agreed to long-term operation and maintenance of PCSM BMP's.

For any property containing a PCSM BMP, the permittee or co-permittee shall record an instrument with the recorder of deeds, which will assure discharge of the PCSM BMP and the related obligations in the ordinary course of a title search of the subject property. The permittee must identify the PCSM BMP, provide the necessary access related to long-term operation and maintenance for PCSM BMP's and provide notice that the responsibility for long-term operation and maintenance of the PCSM BMP is a covenant that runs with the land that is binding upon and enforceable by subsequent grantees, and provide proof of filing with the Notice of Termination under § 102.70(b)(5) (relating to permit termination).

The person or entity responsible for performing long-term operation and maintenance may enter into an agreement with another person including a conservation district, non-profit organization, municipality, authority, private corporation or other person to transfer the responsibility for PCSM BMP's or to perform long-term operation and maintenance and provide notice thereof to the department.

A permittee or co-permittee that fails to transfer long-term operation and maintenance of the PCSM BMP or otherwise fails to comply with this requirement shall remain jointly and severally responsible with the landowner for long-term operation and maintenance of the PCSM BMP's located on the property.

A written report must be completed to document each inspection and all BMP repair and maintenance activities.

The PCSM Plan, inspection reports and monitoring records shall be available for review and inspection by the Department or the Conservation District.

Specific BMP Construction Sequence and Long-Term Maintenance Notes:

GENERAL:

1. Catch basins and inlets should be inspected and cleaned at least two times per year and after storm events greater than 1.0-inch and after extreme events (10-, 50- and 100-year storm events)
2. Vehicles should not be parked or driven over infiltration BMP's.

3. Structural BMP's should be inspected for accumulation of sediment, damage to outlet structures, signs of contamination or spills, and berm stability.

BMP 5.4.1 - PROTECT SENSITIVE/SPECIAL VALUE FEATURES

BMP 5.4.3 - PROTECT/UTILIZE NATURAL FLOW PATHWAYS IN OVERALL STORMWATER PLANNING AND DESIGN

Individual property owners will own and maintain the property within their lot, which includes the areas listed below. The level of maintenance required within these areas will be maintained as close to the existing conditions as possible and require minimal management.

The areas shall be maintained as follows:

Wooded Areas

The wooded areas will be left in their natural state and maintained to a limited degree to preserve their health and stability. This shall be accomplished by the removal of damaging invasive vines along the woodland edges and in forest gaps. Live and dead trees shall not be cut down or removed unless they pose a threat to human safety. Dead trees shall be left standing and lying on the forest floor for wildlife habitat.

Stream and Wetland Areas

Limiting disturbance adjacent to stream and wetland areas will provide the best protection for these areas. The vegetation surrounding the stream and wetland areas shall not be disturbed. The vegetation will provide an effective buffer and naturally control erosion and sedimentation, absorb chemicals, and excess nutrients, and promote infiltration of stormwater runoff. Monitor and control erosion and sedimentation with natural vegetation. The limit of this reach for deciduous trees and single evergreen trees shall be the area of the pit excavation. For all evergreen tree and shrub clusters, a fully mulched bed shall be created. Mating planting beds entirely around and

10. All shrubs are to be mulched in groups. No singularly mulched shrubs will be accepted, unless a singular specimen shrub in lawn has been shown on the drawings. A continuous mulch bed shall be provided for each grouping or cluster of shrubs to the extent of their collective branch drip line.

BMP 6.4.5 - BIO-RETENTION w/MRC BMP 001

Characteristics and Functions:

1. The BMP has 3:1 side slopes. BMP 001 is 2.0:0.1 deep from the emergency spillway elevation to the bottom of the BMP.
2. The BMP has 2:0.1 of amended soil in the bottom and is proposed to be seeded with a seed mix that will create a naturalized BMP setting requiring minimal maintenance (mowing).
3. An underdrain with a small orifice of 1.2 inches is utilized to dewater the BMP at the end of the 24-hour storm (surface storage) and soil storage volume.
4. Additional trees and shrubs are planted in and around the BMP to create a naturalized setting.
5. The BMP controls peak stormwater flows for all design storms and provides water quality benefits.
6. The BMP has 0.6 ft. of surface storage for stormwater runoff (i.e. the controlling orifice is set above the bottom of the BMP).

SITE SPECIFIC CONSTRUCTION SEQUENCE

CONSTRUCTION SEQUENCE NOTES:

• At least 7 days prior to starting any catch disturbance activities (including clearing and grubbing) the owner and/or operator shall invite all contractors, the landowner, appropriate municipal officials, the E&S plan preparer, the PCSM plan preparer, the designated licensed professional and a representative from the Montgomery County Conservation District to an on-site pre-construction meeting.

• Critical stages as noted throughout the construction sequence are defined as sequence steps that require the permittee to provide engineering construction oversight. A licensed professional engineer knowledgeable in the design and construction of stormwater BMP's shall conduct the oversight.

• At least 3 days prior to starting any earth disturbance activities, or expanding into an area previously unmarked, the Pennsylvania One Call System, Inc. shall be notified at 1-800-242-1776 for the location of existing underground utility lines.

• All earth disturbance activities shall proceed in accordance with the following sequence. Each step of the sequence shall be completed before proceeding to the next step, except where noted. Deviation from the sequence must be approved by the Montgomery County Conservation District or by the department prior to implementation.

• Any cessation of activity for 4 days or longer requires temporary stabilization.

• As soon as slopes, channels, ditches and other disturbed areas reach final grade, they must be permanently stabilized immediately.

• Perimeter compost filter sock to be installed by clearing area for sock and installing sock immediately after clearing and installing equipment as you go. No disturbed area/lane(s) be left without perimeter controls. Sock shall be installed to minimize existing tree removal to the greatest extent possible.

• Critical Stage - BMP 5.4.1 - Protect Sensitive/Special Value Features (BMP 002) and BMP 5.4.3 - Protect/Utilize Natural Flow Pathways in Overall Stormwater Planning and Design (BMP 003). Ensure all E&S controls are maintained throughout construction to protect the special features and drainage pathways.

CONSTRUCTION SEQUENCE:

1. Field-mark the limits of disturbance, streams and wetlands prior to disturbance activities (i.e. survey stakes, posts & rope, construction fence, etc.) in accordance with the erosion and sediment control plan.

2. Clear, grub and strip topsoil in the area proposed for the construction retention. Install the temporary stone construction retention/tire cleaner in accordance with the construction detail.

3. Install compost filter sock 1 & 2 and diversion berm 1 & 2 as shown on the erosion and sediment control plan. Note: any compost filter sock that is moved during installation of underground pipes should be reinstalled after the pipe is installed.

4. Clear, grub and strip topsoil from the area for the construction of Sediment Basin 001. Stockpile and stabilize topsoil. Protect stockpile with compost filter sock.

5. Critical Stage - Construct Sediment Basin 001. Install permanent outlet structure, outlet pipe, concrete grade and channelized emergency spillway. Ensure that storm sewer structures and piping have watertight seals and that the permanent orifice is plugged during the E&S stage. Install bulle and sediment clean out stakes as indicated. Install skimmers and rock berms. Install 12" Ø pipe at bottom of basin. Complete final grading of sediment basin area, replace topsoil, seed and mulch and install erosion control matting on side slopes and spillways. Drainage shall be directed to the sediment basin throughout construction and before the on-site storm sewer is installed and functioning with the use of temporary swales and/or diversion berms.

6. Upon installation and stabilization of the sediment basin and all perimeter sediment control BMP's and at least 3 days prior to proceeding with the bulk earth disturbance activities, the permittee or co-permittee shall provide notification to the department or authorized conservation district.

NOTE: SEDIMENT BASIN MUST BE COMPLETELY STABILIZED PRIOR TO ANY EARTH DISTURBANCE OF THE RESPECTIVE TRIBUTARY DRAINAGE AREA.

7. Strip any remaining topsoil and stockpile. Stabilize stockpile and protect with compost filter sock. Clear and grub any remaining areas left to be disturbed.

8. Install sanitary sewer starting with the most downstream connection and proceeding upslope. Construct all storm sewer structures and piping including A1 to A1.2, Storm sewer C2 to C to be constructed with watertight seal. Install inlet protection once installed. Simultaneously install remainder of utilities (water, electric, gas, cable, etc.) in accordance with the following considerations:

- a. Trenches shall be backfilled above the original ground level to allow for settlement and to prevent runoff from following the trench line when backfill settles.
- b. Apply soil supplements, seed and mulch as required.
- c. The total length of excavated trench open at any one time should not be greater than the total length of utility line that can be placed in the trench and backfilled in one working day.
- d. No more than 50 linear feet of open trench should exist when utility line installation ceases at the end of the workday.

9. Install curbing, sidewalk, stone base course and bituminous base course. Stabilize disturbed areas immediately with seed and mulch.

10. Construction of dwellings can begin. Install on-lot sediment controls in accordance with construction details 10-1, 10-2 or 10-3, as applicable, prior to construction on each lot. If roadway is not stabilized, access to the constructed units shall be stabilized to a minimum of a stone base for construction vehicle access. Construct buildings, sidewalks and interior paving.

11. Replace topsoil equal to pre-development depth or to a minimum depth of 6-in., whichever is greater. And replace topsoil, wherever and whenever possible. Seed and mulch each area of disturbance immediately after construction is completed. No more than 15,000 s.f. of disturbed area shall reach final grade before initiating seeding and mulching operations. Graded areas should be scarified or otherwise loosened to a depth of 3- to 5-inches prior to topsoil placement.

12. Install trees and shrubs wherever and whenever possible in accordance with the PCSM Landscape Plan and details.

13. Perform final landscaping operations. In such cases, permanently seed and mulch disturbed areas. Seeding shall follow fertilization and seeding rates specified in seeding specification chart. If finish grading is not practical, temporarily seed all disturbed areas.

NOTE: THE MONTGOMERY COUNTY CONSERVATION DISTRICT MUST BE NOTIFIED PRIOR TO THE CONVERSION OF BMP 001.

14. Critical Stage - upon establishing a minimum uniform 70 % perennial vegetative cover or other permanent non-vegetative cover with a density sufficient to resist accelerated surface erosion and subsurface characteristics sufficient to resist sliding and other movements in areas upstream of Sediment Basin 001, the sediment basin can be converted to the permanent stormwater management facility BMP 001. Convert the facility in accordance with the following sequence and the construction details:

- a. Notify Douglass Township and the Conservation District prior to construction.
- b. A licensed professional engineer (or authorized representative) knowledgeable in the design and construction of stormwater BMP's, preferably the design engineer, shall conduct the oversight of conversion of the stormwater facility.
- c. Remove the upper one foot of existing soil that has clogged with accumulated sediment and then excavate BMP bottom area to proposed invert depth and scarify the existing soil surfaces. Do not compact in-situ soils. To the greatest extent possible, excavation should be performed with the lightest practical equipment. Excavation should be placed outside the limits of the bio-retention area to the greatest extent practical.
- d. Install impermeable liner for BMP 001 in accordance with manufacturer's specifications, only if groundwater is encountered and the required one foot of separation from the BMP bottom is not met.
- e. Install u-drain and cap with dewatering orifice in accordance with the detail. Connect u-drain to 120 pipe with appropriate caps/reducers. Ensure that all pipes and seals are watertight. Seal any temporary openings in the concrete box.
- f. Install soil mix to required design depth and fine grade, being careful not to compact. Refer to Basin and BMP soil mix specifications. The placement of soil media should be done from outside the BMP footprint to avoid compaction by construction equipment. Equipment should never drive over placed soil media.
- g. Prepare for seeding by eliminating any weed growth prior to seed installation using an appropriate herbicide to control undesirable vegetation. For optimal seed establishment, soil pH shall be between 5.5 and 6.5.
- h. Apply seed by carefully proportioning seed for the entire area. Broadcast seed in two separate applications by applying seed at half the suggested rate for each application to ensure even and adequate coverage. After the full rate of seeding has been achieved, follow by rolling or tracking seed into the top 1/4 inch of soil to achieve good soil to soil contact - do not roll or track the seed when soil is wet.

1. Cover seeded area with a light layer of salt hay, threshed straw or pine needles or apply erosion control matting over 3:1 slopes.
  2. Plant and mulch according to specifications on the landscape plan.
15. After all construction work is completed, install final paving, permanent striping and signage.
16. Upon final stabilization, remove all other temporary sediment controls. An area shall be considered to have achieved final stabilization if it has minimum uniform 70 % perennial vegetative cover or other permanent non-vegetative cover with a density sufficient to resist accelerated surface erosion and subsurface characteristics sufficient to resist sliding and other movements.

17. Critical Stage - The site engineer shall inspect all PCSM BMP's to ensure that the BMP's have not been impacted by construction activities.

18. Within 30 days after the completion of earth disturbance activities authorized by this permit, including the permanent stabilization of the site and proper installation of PCSM BMP's in accordance with the approved PCSM plan and/or upon submission of the not if answer, the permittee shall file with the department or authorized conservation district a statement signed by a licensed professional and by the permittee certifying that work has been performed in accordance with the terms and conditions of this permit and the approved E&S and PCSM plans. Completion certificates are needed to ensure that all work is performed in accordance with the terms and conditions of the permit and approved E&S and PCSM plans.

ANY SEDIMENT CONTROL, SUCH AS COMPOST FILTER SOCK, ROCK FILTER, OR INLET FILTER MUST NOT BE REMOVED UNTIL ALL VEGETATION (UPSTREAM OR THAT PARTICULAR CONTROL) HAS BEEN RE-ESTABLISHED.

ANY AREA (S) DISTURBED DURING THE REMOVAL OF SEDIMENT CONTROLS SHALL BE IMMEDIATELY RE-STABILIZED.

SEEDING SPECIFICATIONS

TEMPORARY SEEDING (DURING CONSTRUCTION)				
MIXTURE NUMBER	SPECIES	% BY WEIGHT	APPLICATION RATE	PURE LIVE SEED (PLS)
1	SPRING GRASS (SPRING)	100%	4-5 LBS PER 1000 S.F.	64
APPROVED EQUAL	ANNUAL RYEGRASS (SPRING OR FALL)	100%	4-5 LBS PER 1000 S.F.	10
	WINTER WHEAT (FALL)	100%	4-5 LBS PER 1000 S.F.	90
	WINTER RYE (FALL)	100%	4-5 LBS PER 1000 S.F.	56

PERMANENT SEEDING FOR LAWN AREAS OUTSIDE OF BMP AREAS				
MIXTURE NUMBER	SPECIES	% BY WEIGHT	APPLICATION RATE	PURE LIVE SEED (PLS)
2	TALL FESCUE	100%	6-8 LBS PER 1000 S.F.	60
APPROVED EQUAL	FINE FESCUE	100%	6-8 LBS PER 1000 S.F.	30
	KENTUCKY BLUEGRASS	80-90%	3-4 LBS PER 1000 S.F.	25
	PLUS REDTOP	10-20%		
	PERENNIAL RYEGRASS	100%	2-5 LBS PER 1000 S.F.	15

SUITABLE FOR FREQUENT MOWING.  
DO NOT SHORTER THAN 4 INCHES.

APPLICATION DATES:  
MARCH 15 - APRIL 15  
AUGUST 1 - OCTOBER 15

NOTE: WHEN A DISTURBED AREA IS TO BE STABILIZED BY VEGETATION, NO MORE THAN 15,000 S.F. SHALL BE PLANTED IN ONE DAY. SEEDING SHOULD BE COMPLETED PRIOR TO THE END OF THE SEASON. SEEDING ACTIVITIES ARE COMPLETED BEFORE SEEDING AND MULCHING OPERATIONS ARE COMPLETED IS NOT RECOMMENDED.

TABLE 11.2 SOIL AMENDMENT APPLICATION RATE EQUIVALENT				
SOIL AMENDMENT	PER ACRE	PER 1,000 S.F.	PER 1,000 S.F.	NOTES
AGRICULTURAL, LINE	6 TONS	240 lb.	2,400 lb.	OR AS PER SOIL TESTS, MAY NOT BE REQUIRED IN AGRICULTURAL FIELDS
10-20-20 FERTILIZER	1,000 lb.	25 lb.	210 lb.	OR AS PER SOIL TESTS, MAY NOT BE REQUIRED IN AGRICULTURAL FIELDS
TEMPORARY SEEDING APPLICATION RATE				
AGRICULTURAL, LINE	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

TABLE 11.6 MULCH APPLICATION RATES

MULCH TYPE	PER ACRE	PER 1,000 S.F.	PER 1,000 S.F.	NOTES
STRAW	3 TONS	140 lb.	1,240 lb.	OTHER WEED OR GRASS STRAW (PER 1000 S.F.) SHOULD BE USED TO "COMB" THE STRAW OR HAY INTO THE SOIL - ABOUT 3 INCHES. THIS METHOD SHOULD BE LIMITED TO SLOPES NO STEEPER THAN 3:1. THE MACHINERY MUST BE OPERATED ON THE CONTOUR. NOTE: CHIPPING OF HAY OR STRAW BY RUNNING OVER IT WITH TRACKED MACHINERY IS NOT RECOMMENDED.
HAY	3 TONS	140 lb.	1,240 lb.	TYPICALLY WEED COVERED AND THINLY OR OTHER NATIVE FORBIDERS
WOOD CHIPS	4-6 TONS	180-275 lb.	1,650-2,500 lb.	MAY PREVENT GROWTH OF GRASSES AND LEGUMES
HYDROMULCH	1 TON	47 lb.	415 lb.	SEE LIMITATIONS ABOVE

1. STRAW AND HAY MULCH SHOULD BE ANCHORED OR TACKLED IMMEDIATELY AFTER APPLICATION. MULCH SHOULD ONLY BE APPLIED DURING DRY AND OR WINDY DAYS. A 24-HOUR CURING PERIOD AND A SOIL TEMPERATURE HIGHER THAN 45 DEGREES ARE TYPICALLY REQUIRED. APPLICATION SHOULD GENERALLY BE SEPARATE AT EDGES OF SEEDING AREAS. MULCH SHOULD BE APPLIED UNIFORMLY. BROADCASTS MAY BE APPLIED AFTER MULCH IS SPREAD OR SPRAYED INTO THE MULCH AS IT IS BEING BLOWN ONTO THE SOIL. APPLYING STRAW AND BINDER TOGETHER IS GENERALLY MORE EFFECTIVE.

2. POLYMERIC AND GUM TACKIFIERS MIXED AND APPLIED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS MAY BE USED TO LOCK MULCH AND AVOID APPLICATION DURING RAIN AND ON WINDY DAYS. A 24-HOUR CURING PERIOD AND A SOIL TEMPERATURE HIGHER THAN 45 DEGREES ARE TYPICALLY REQUIRED. APPLICATION SHOULD GENERALLY BE SEPARATE AT EDGES OF SEEDING AREAS. MULCH SHOULD BE APPLIED UNIFORMLY. BROADCASTS MAY BE APPLIED AFTER MULCH IS SPREAD OR SPRAYED INTO THE MULCH AS IT IS BEING BLOWN ONTO THE SOIL. APPLYING STRAW AND BINDER TOGETHER IS GENERALLY MORE EFFECTIVE.

3. UNFERTILIZED BROADCASTS, OR CHEMICAL BROADCASTS, ARE NOT RECOMMENDED BY THE MANUFACTURERS TO ANCHOR MULCH PROVIDED SUFFICIENT DOCUMENTATION IS PROVIDED TO SHOW THEY ARE NON-TOXIC TO NATIVE PLANT AND ANIMAL SPECIES.

4. MULCH ON SLOPES OF 8% OR STEEPER SHOULD BE HELD IN PLACE WITH NETTING. NETS SHOULD BE INSTALLED TO PROTECT MULCH FROM WIND. NETS MAY BE STAPLED OVER THE MULCH ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.

5. UNFERTILIZED PAPER HYDROMULCH SHOULD NOT BE USED ON SLOPES STEEPER THAN 8%. WOOD CHIP HYDROMULCH MAY BE APPLIED ON STEEPER SLOPES PROVIDED SUFFICIENT DOCUMENTATION IS PROVIDED TO SHOW THEY ARE NON-TOXIC TO NATIVE PLANT AND ANIMAL SPECIES.

TABLE 11.4 Recommended Seed Mixtures				
Mixture Number	Species	Seeding Rate	Pure Live Seed 1	Adverse Sites
1	Spring oats (spring), or Annual ryegrass (spring or fall), or Winter wheat (fall), or Rye (fall)	64 10 90	96 15 120	
2	Tall fescue, or Fine fescue, or Kentucky bluegrass, plus Redtop, or Perennial ryegrass	60 25 3	75 20 3	
3	Blindfold trefoil, plus Red clover, or Crownvetch, plus Tall fescue, or Perennial ryegrass	6 10 20	10 15 25	
4	Blindfold trefoil, plus Red clover, or Crownvetch, plus Tall fescue, or Perennial ryegrass	6 10 20	10 15 25	
5	Blindfold trefoil, plus Red clover, or Crownvetch, plus Tall fescue, or Perennial ryegrass	6 10 20	10 15 25	
6	Blindfold trefoil, plus Red clover, or Crownvetch, plus Tall fescue, or Perennial ryegrass	6 10 20	10 15 25	
7	Blindfold trefoil, plus Red clover, or Crownvetch, plus Tall fescue, or Perennial ryegrass	6 10 20	10 15 25	
8	Blindfold trefoil, plus Red clover, or Crownvetch, plus Tall fescue, or Perennial ryegrass	6 10 20	10 15 25	
9	Blindfold trefoil, plus Red clover, or Crownvetch, plus Tall fescue, or Perennial ryegrass	6 10 20	10 15 25	
10	Blindfold trefoil, plus Red clover, or Crownvetch, plus Tall fescue, or Perennial ryegrass	6 10 20	10 15 25	
11	Blindfold trefoil, plus Red clover, or Crownvetch, plus Tall fescue, or Perennial ryegrass	6 10 20	10 15 25	
12	Blindfold trefoil, plus Red clover, or Crownvetch, plus Tall fescue, or Perennial ryegrass	6 10 20	10 15 25	
13	Blindfold trefoil, plus Red clover, or Crownvetch, plus Tall fescue, or Perennial ryegrass	6 10 20	10 15 25	

1. PLS is the product of the percentage of pure seed times percentage germination divided by 100. For example, to secure the actual planting rate for tall fescue, divide 12 pounds PLS shown on the seed tag. Thus, if the PLS content of a given seed lot is 85%, divide 12 PLS by 0.85 to get 14.1 pounds seed required to plant one acre. All mixtures in this table are shown in terms of PLS. If high quality seed is used and the seed lot is 95% pure, the seeding rate for tall fescue, winter wheat at 11.5 bushels per acre, and winter rye at 1 bushel per acre. If germination is below 90%, increase the suggested seeding rates by 0.5 bushel per acre.

2. This mixture is suitable for frequent mowing. Do not cut shorter than 4 inches.

3. Keep seedlings to be fed continuously in table. These species have many seeds per pound and are very competitive. To seed small quantities of small seeds such as weeping lovegrass and redtop, divide by six (6).

4. Use for highway edges and similar sites where the desired species after establishment is crownvetch.

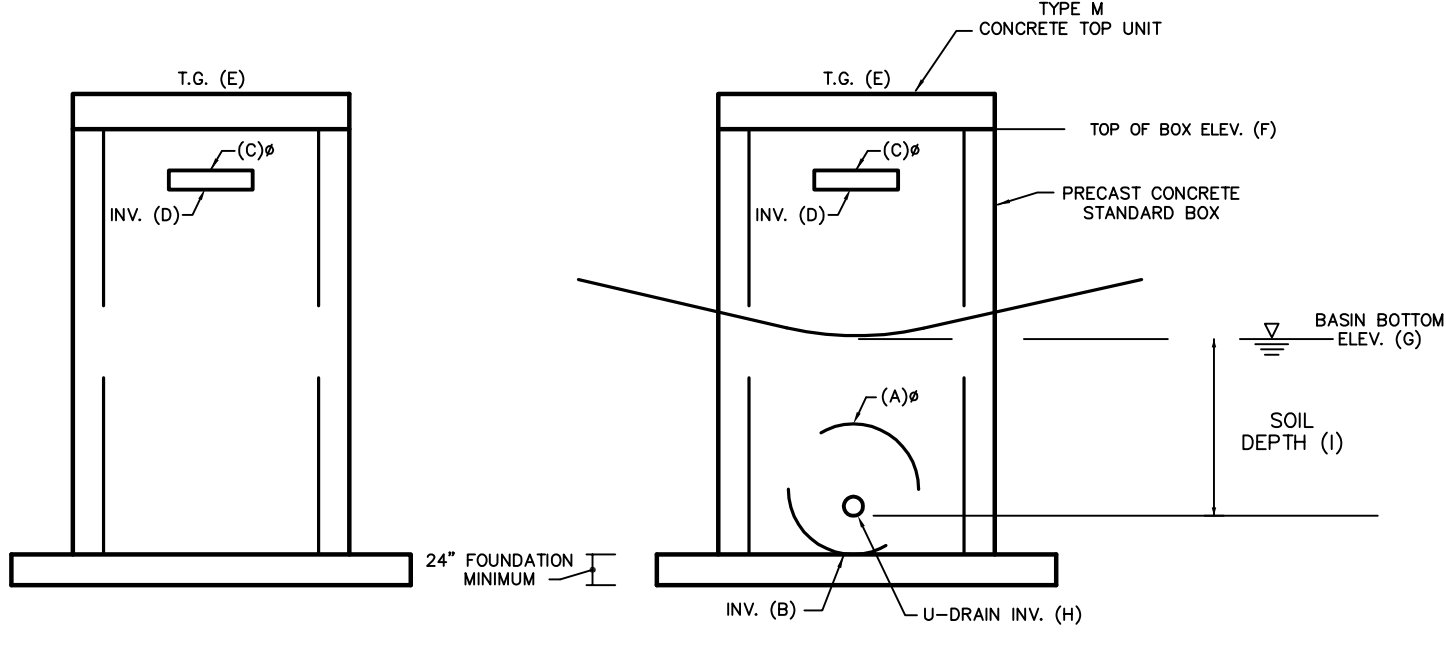
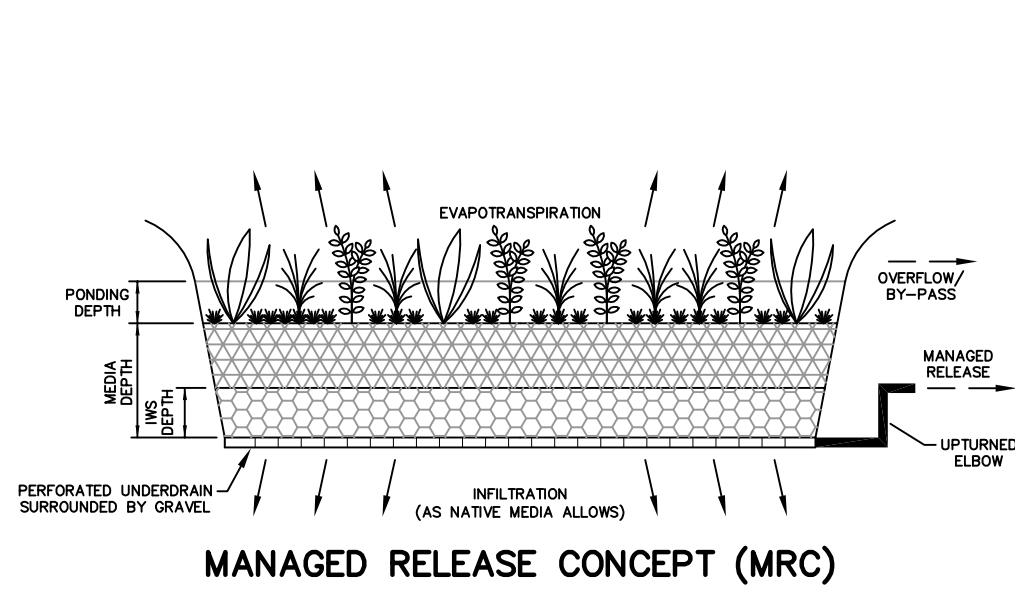
5. Do not use in extreme southeastern or extreme southwestern Pennsylvania. Seeding is expected to be well adapted to most of PA.

6. Use only where southern or 9 to 10 inches.

7. Seed mixtures containing crown vetch should not be used in areas adjacent to wetlands or stream channels due to the invasive nature of this species.

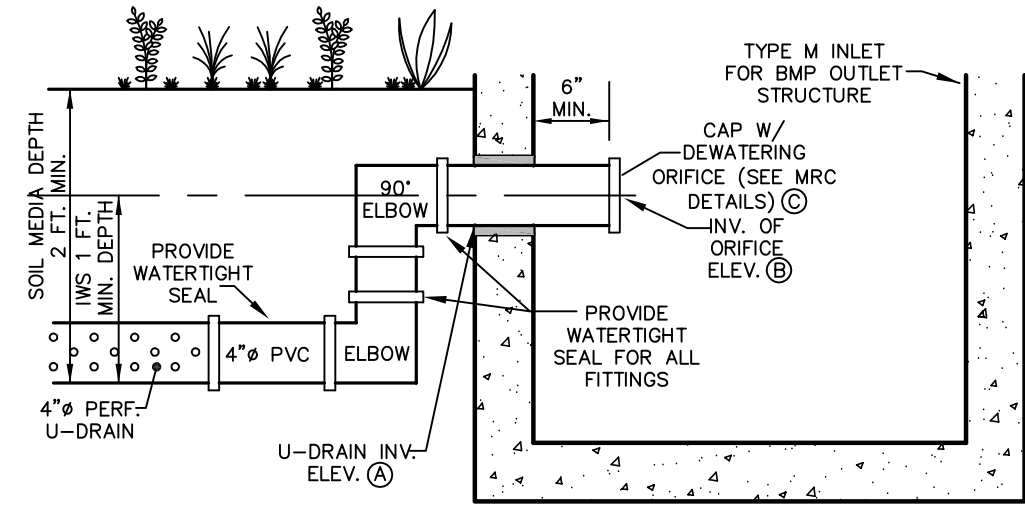
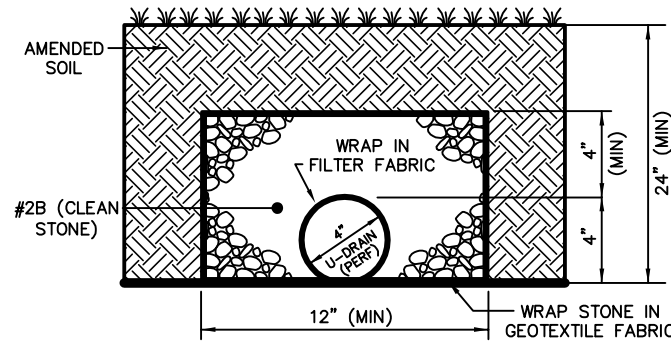
TABLE 11.5 Recommended Seed Mixtures for Stabilizing Disturbed Areas				
Site Condition	Seeding Rate	Seed Mixture (Select one mixture)	Nurse Crop	Seed Mixture (Select one mixture)
Slopes and Banks (not mowed)	1 plus	3, 5, 8, or 12"	1 plus	3, 5, 8, or 12"
Well-drained	1 plus	3 or 7"	1 plus	3 or 7"
Variable drainage	1 plus	2 or 10"	1 plus	2 or 10"
Slopes and Banks (mowed)	1 plus	2 or 10"	1 plus	2 or 10"
Well-drained	1 plus	2 or 10"	1 plus	2 or 10"
Slopes and Banks (grazed/hay)	1 plus	2 or 10"	1 plus	2 or 10"
Well-drained	1 plus	2 or 10"	1 plus	2 or 10"
Gullies and Eroded Areas	1 plus	3, 5, 7, or 12"	1 plus	3, 5, 7, or 12"
Erosion Control Facilities (BMPs)	1 plus	2, 3, or 4"	1 plus	2, 3, or 4"
Drainage ditches	1 plus	2, 3, or 4"	1 plus	2, 3, or 4"
Shallow, less than 3 feet deep	1 plus	2, 3, or 4"	1 plus	2, 3, or 4"
Deep, not mowed	1 plus	2, 3, or 4"	1 plus	2, 3, or 4"
Point banks, dikes, levees, dams, diversion channels, and occasional water flow areas	1 plus	2, 3, or 4"	1 plus	2, 3, or 4"
Mowed areas	1 plus	2 or 3"	1 plus	2 or 3"
Non-mowed areas	1 plus	3 or 7"	1 plus	3 or 7"
For hay or silage on diversion channels and occasional water flow areas	1 plus	3 or 7"	1 plus	3 or 7"
Highways	1 plus	2, 3, or 4"	1 plus	2, 3, or 4"
Non-mowed areas	1 plus	3 or 6"	1 plus	3 or 6"
Pure crownvetch?	1 plus	5, 7, 8, 9, or 10"	1 plus	5, 7, 8, 9, or 10"
Well-drained	1 plus	3 or 7"	1 plus	3 or 7"
Poorly drained	1 plus	2 or 4"	1 plus	2 or 4"
Areas mowed several times per year	1 plus	2, 3, or 10"	1 plus	2, 3, or 10"
Utility Right-of-Way	1 plus	2, 3, or 10"	1 plus	2, 3, or 10"
Well-drained	1 plus	5, 8, or 12"	1 plus	5, 8, or 12"
Variable drainage	1 plus	3 or 7"	1 plus	3 or 7"
Well-drained areas for grazing/hay	1 plus	2, 3, or 13"	1 plus	2, 3, or 13"
Eroded Disturbed Areas	1 plus	2, 3, or 13"	1 plus	2, 3, or 13"
Sandy Landfills	1 plus	3, 5, 7, 11, or 12"	1 plus	3, 5, 7, 11, or 12"
Soil	1 plus	3, 5, 7, 11, or 12"	1 plus	3, 5, 7, 11, or 12"
Bank, waste mazes, fly ash, slag, settling basin Residue	1 plus	3, 5, 7, 8, 9, 11, or 12"	1 plus	3, 5, 7, 8, 9, 11, or 12"
Residue (no to slow release)	1 plus	3 or 13"	1 plus	3 or 13"
Severely disturbed areas for grazing/hay	1 plus	3 or 13"	1 plus	3 or 13"
Penn State, "Erosion Control and Conservation Plantings on Noncropland"	1 plus	3 or 13"	1 plus	3 or 13"





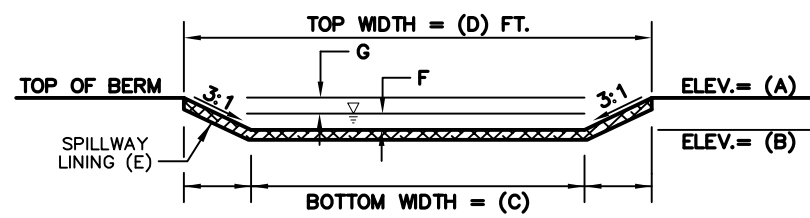
BASIN I.D.	OUTLET PIPE DIAMETER (IN.)	OUTLET PIPE INV. (FT.)	BASE ORIFICE 4"H X 24"W (2)	BASE ORIFICE INV. (FT.)	TOP OF GRATE ELEV. (FT.)	TOP OF BOX ELEV. (FT.)	BASIN BOTTOM ELEV. (FT.)	U-DRAIN or DEWATERING ORIFICE INV. (FT.)	SOIL DEPTH (FT.)
001	18	380.00		381.60	382.75	382.08	381.00	380.00	2.0

**OUTLET STRUCTURE DETAIL**



BMP I.D.	U-DRAIN INV. ELEV. (FT.)	INV. ORIFICE ELEV. (FT.)	DEWATERING ORIFICE SIZE (IN.)
001	379.00	380.00	1.2"

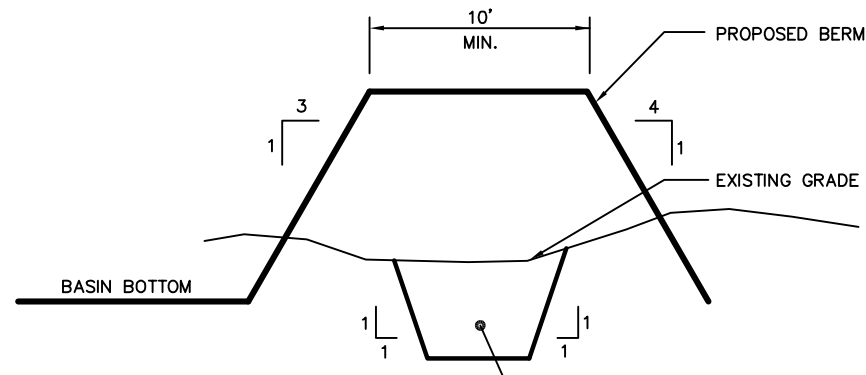
**OUTLET STRUCTURE DETAIL FOR BIO-RETENTION WITH MRC**  
N.T.S.



BMP I.D.	TOP OF BERM ELEV. (FT.)	EMERGENCY SPILLWAY ELEV. (FT.)	BOTTOM WIDTH (FT.)	TOP WIDTH (FT.)	SPILLWAY LINING (2)	FLOW DEPTH (FT.)	FREEDBOARD (FT.)
001 EAST	385.00	383.00	45	57	P300	0.50	1.50
001 WEST	385.00	383.00	45	57	P300	0.50	1.50

**EMERGENCY SPILLWAY CROSS-SECTION**  
N.T.S.

- NOTES:
1. THE UPSTREAM EDGE OF THE SPILLWAY LINING IS TO EXTEND A MINIMUM OF 3 FEET BELOW THE SPILLWAY CREST ELEVATION AND THE DOWNSTREAM SLOPE OF THE SPILLWAY SHALL AS A MINIMUM EXTEND TO THE TOE OF THE EMBANKMENT.
  2. SPILLWAY SHALL BE PERMANENTLY SEEDED IN ACCORDANCE WITH SPECIFICATIONS ON THE EROSION AND SEDIMENT CONTROL DETAIL SHEET.

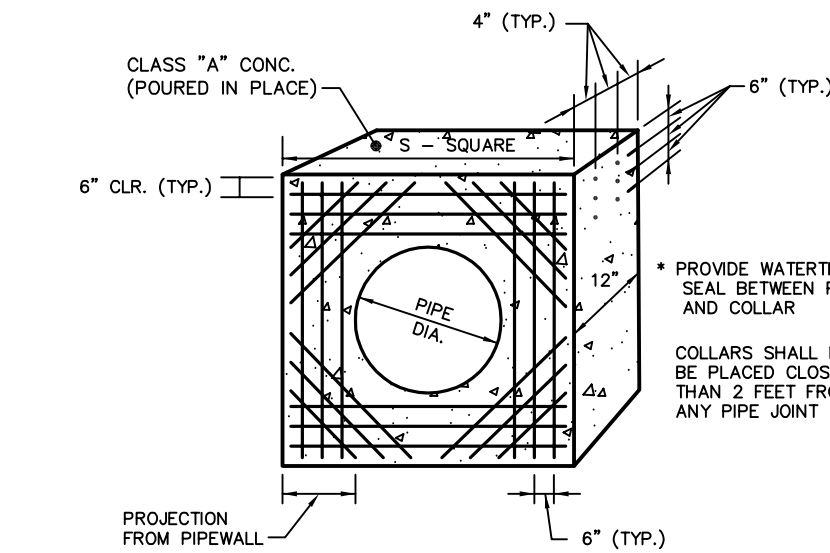


- CONSTRUCTION NOTES:
1. **SITE PREPARATION** - Areas under the embankment and any structural works shall be cleared, grubbed and the topsoil stripped to remove the trees, vegetation, roots, or objectionable material. In order to facilitate clean-out and other restoration, the pool area will be cleared of all brush and excess trees.
  2. **CUT OFF TRENCH** - A cut-off trench will be excavated along the centerline dam on earth fill embankments. The minimum depth shall be 3 feet. The cut-off trench shall extend up both abutments to the riser crest elevation. The minimum bottom width shall be 8 feet but wide enough to permit operation of compaction equipment. The side slopes shall be no steeper than 1:1. Compaction requirements shall be the same as those for embankment. The trench shall be kept free from standing water during backfilling operations.
  3. **EMBANKMENT** - The fill material shall be taken from selected borrow areas. It shall be free of roots, woody vegetation, oversized stones, rocks or other objectionable material. Areas on which fill is to be placed shall be scarified prior to placement of fill.

The fill material should contain sufficient moisture so that it can be formed by hand into a ball without crumbling. If water can be squeezed out of the ball, it is too wet for proper compaction.

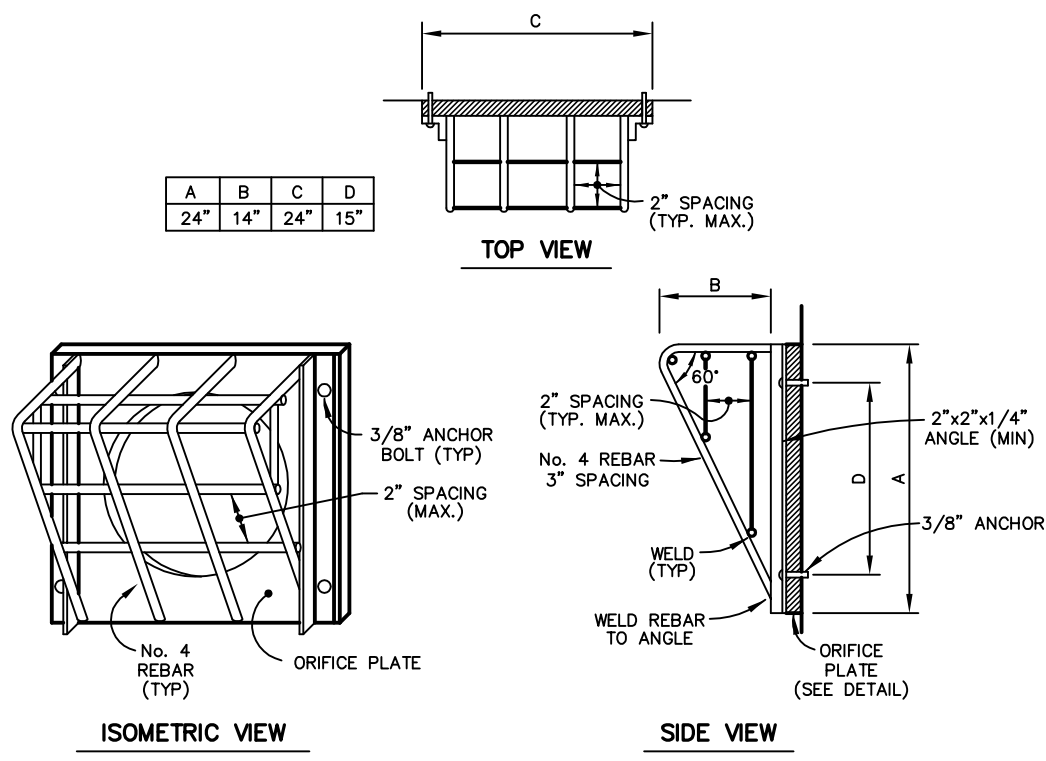
Compaction will be obtained by routing earthmoving equipment and vibratory roller compactors over the fill so that the entire surface of the fill is troweled but at least one track of the equipment and compactor drum. Five passes of the compaction equipment over the entire surface of each lift is required. Embankment compaction to visible non-movement is also required.

**BASIN BERM CONSTRUCTION DETAIL**



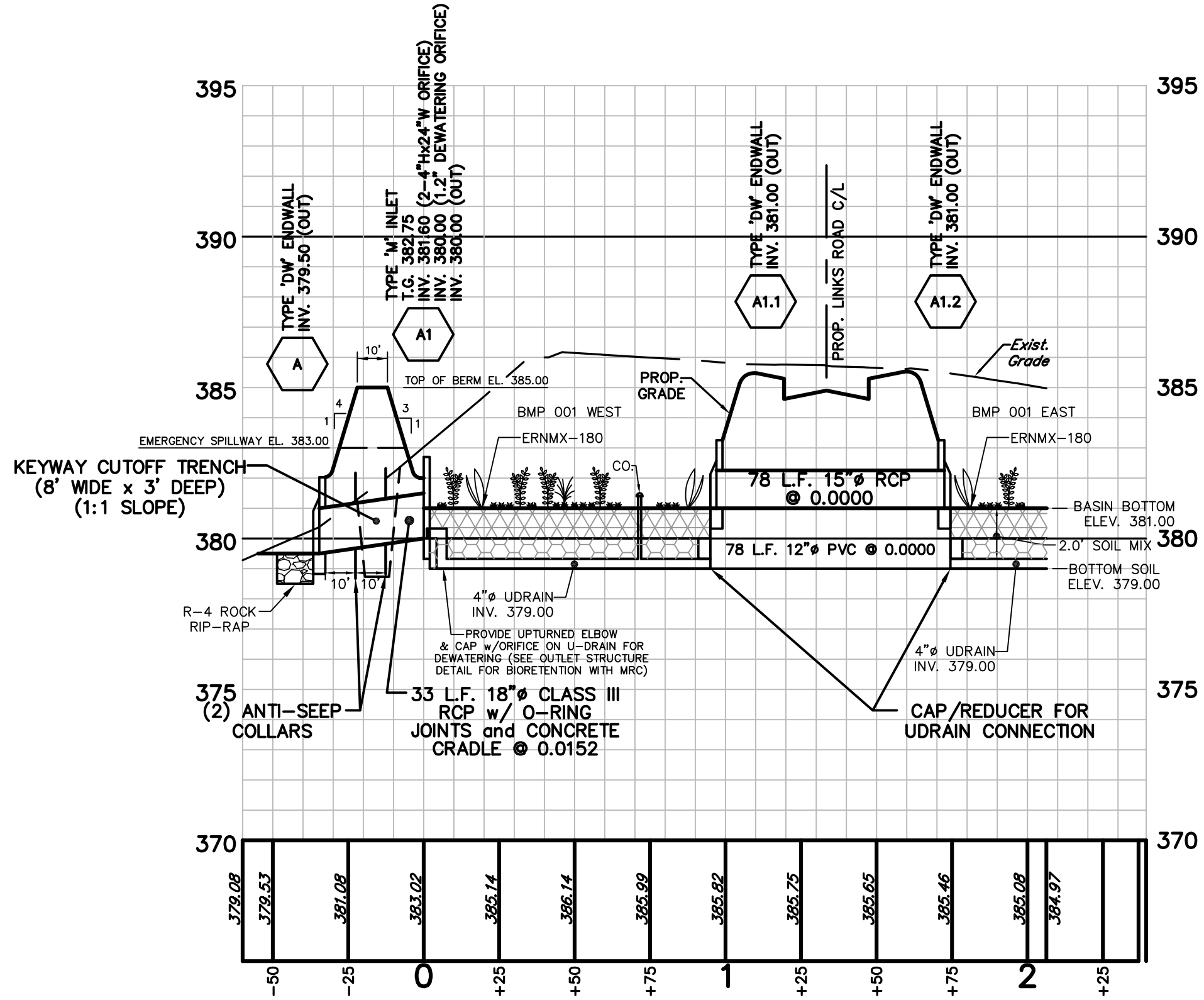
BASIN/ POND	OUTLET PIPE DIAMETER (IN.)	S	DESIGN COLLAR DIMENSIONS (FT.)	NUMBER OF COLLARS	DESIGN COLLAR PROJECTED FROM PIPE (FT.)	DISTANCE RISE TO 1st COLLAR (FT.)	COLLAR SPACING (FT.)
001	18	72	6.0	2	2.0	15	10

**REINFORCED CAST-IN-PLACE ANTI-SEEP COLLAR**



**TRASH RACK DETAILS**

AFTER RACK IS CONSTRUCTED (WELDED) THE ASSEMBLY SHALL BE PAINTED WITH EPOXY COATING.

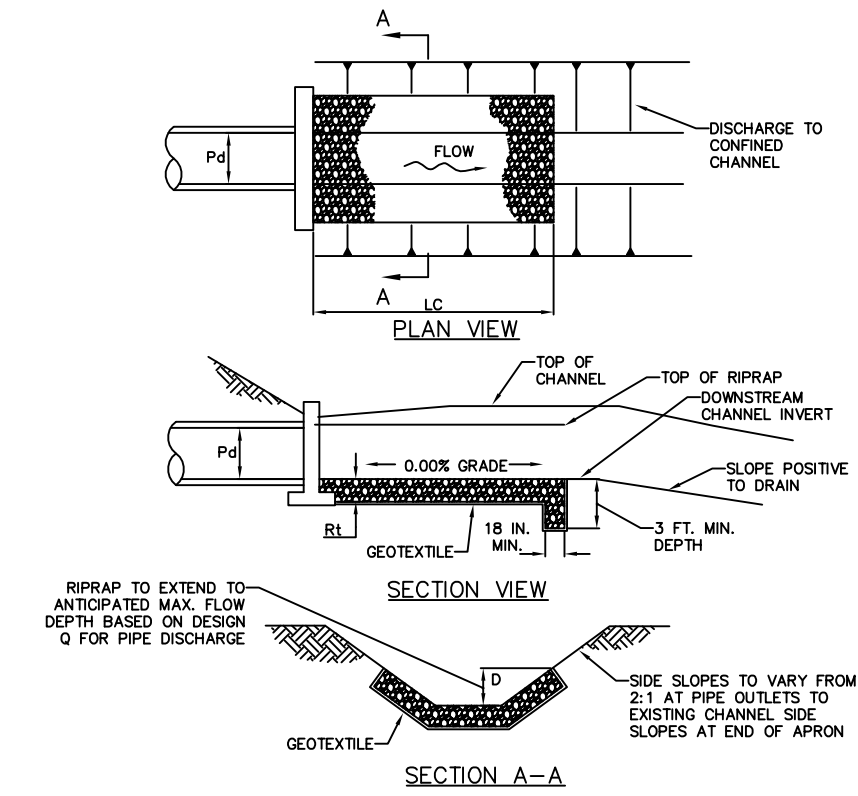


BMP I.D.	SURFACE STORAGE DEPTH (FT.)	SOIL SURFACE AREA (S.F.)	GROUND WATER ELEV. (FT.)	1.2 IN. WATER ELEV. (FT.)	2-YR WATER ELEV. (FT.)	100-YR WATER ELEV. (FT.)
001	0.60	15,690	NE*	381.59	381.46	381.98

\*NOT ENCOUNTERED

- NOTES:
1. LIMITS OF SOIL MIX TO BE STAKED IN THE FIELD PRIOR TO PLACEMENT FOR FINAL CONVERSION.
  2. ALL JOINTS SHALL BE WATERTIGHT.
  3. USE MASTIC OR EQUIVALENT TO ENSURE WATERTIGHT SEAL WITHIN STORM SEWER STRUCTURES.

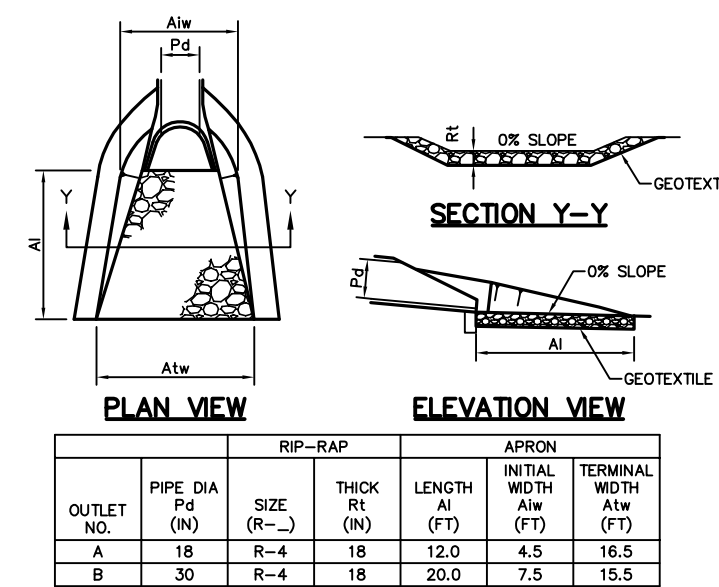
**BMP 001**



OUTLET NO.	PIPE DIA. (IN.)	PIPE SIZE (IN.)	RIPRAP THICK. (IN.)	LENGTH (FT.)	INITIAL BOTTOM WIDTH (AT ENDWALL) (FT.)	END WIDTH (FT.)	INITIAL TOP WIDTH (AT ENDWALL) (FT.)	END TOP WIDTH (FT.)	SIDE SLOPES H:V
C	18	4	18	10	4.5	4.5	10.5	10.5	2:1

- NOTES:
- ALL APRONS SHALL BE CONSTRUCTED TO THE DIMENSIONS SHOWN. TERMINAL WIDTHS SHALL BE ADJUSTED AS NECESSARY TO MATCH RECEIVING CHANNELS.
  - ALL APRONS SHALL BE INSPECTED AT LEAST WEEKLY AND AFTER EACH RUNOFF EVENT. DISPLACED RIPRAP WITHIN THE APRON SHALL BE REPLACED IMMEDIATELY.

**STANDARD CONSTRUCTION DETAIL #9-3**  
RIPRAP APRON AT PIPE OUTLET TO AN EXISTING CHANNEL  
NOT TO SCALE



**STANDARD CONSTRUCTION DETAIL #9-1**  
RIPRAP APRON AT PIPE OUTLET  
WITH FLARED END SECTION OR ENDWALL  
NOT TO SCALE

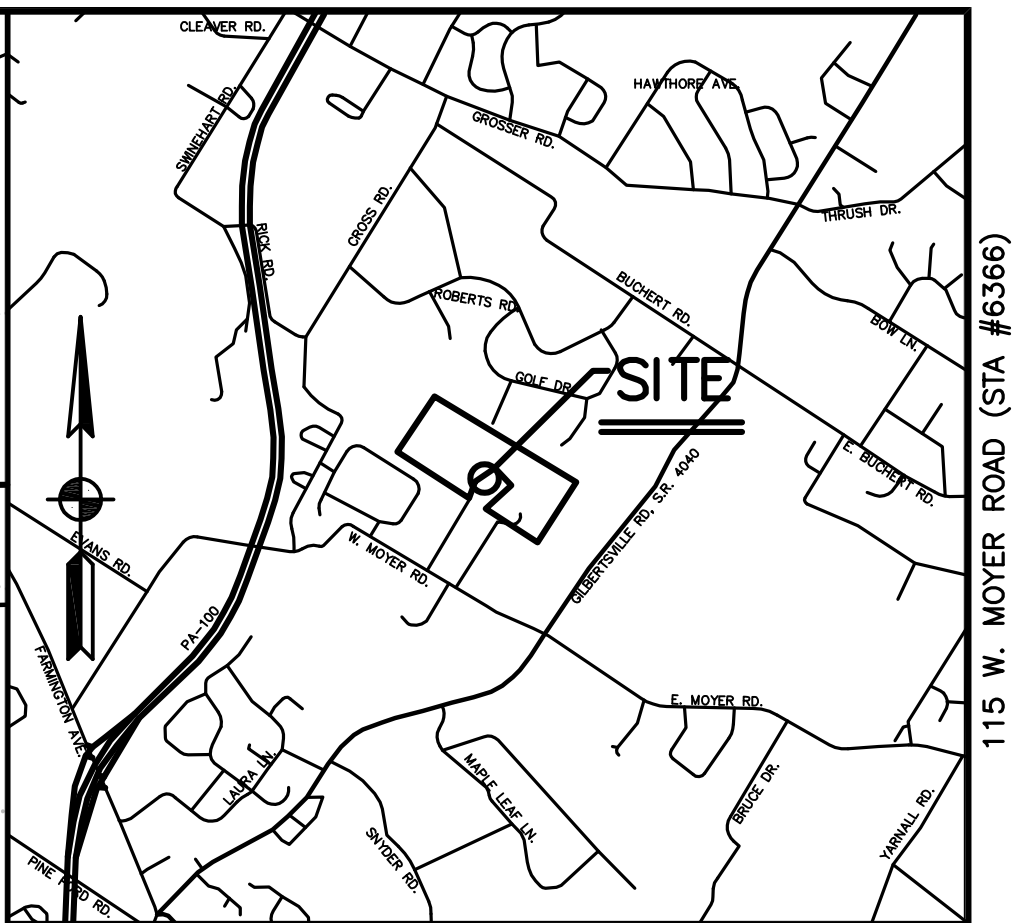
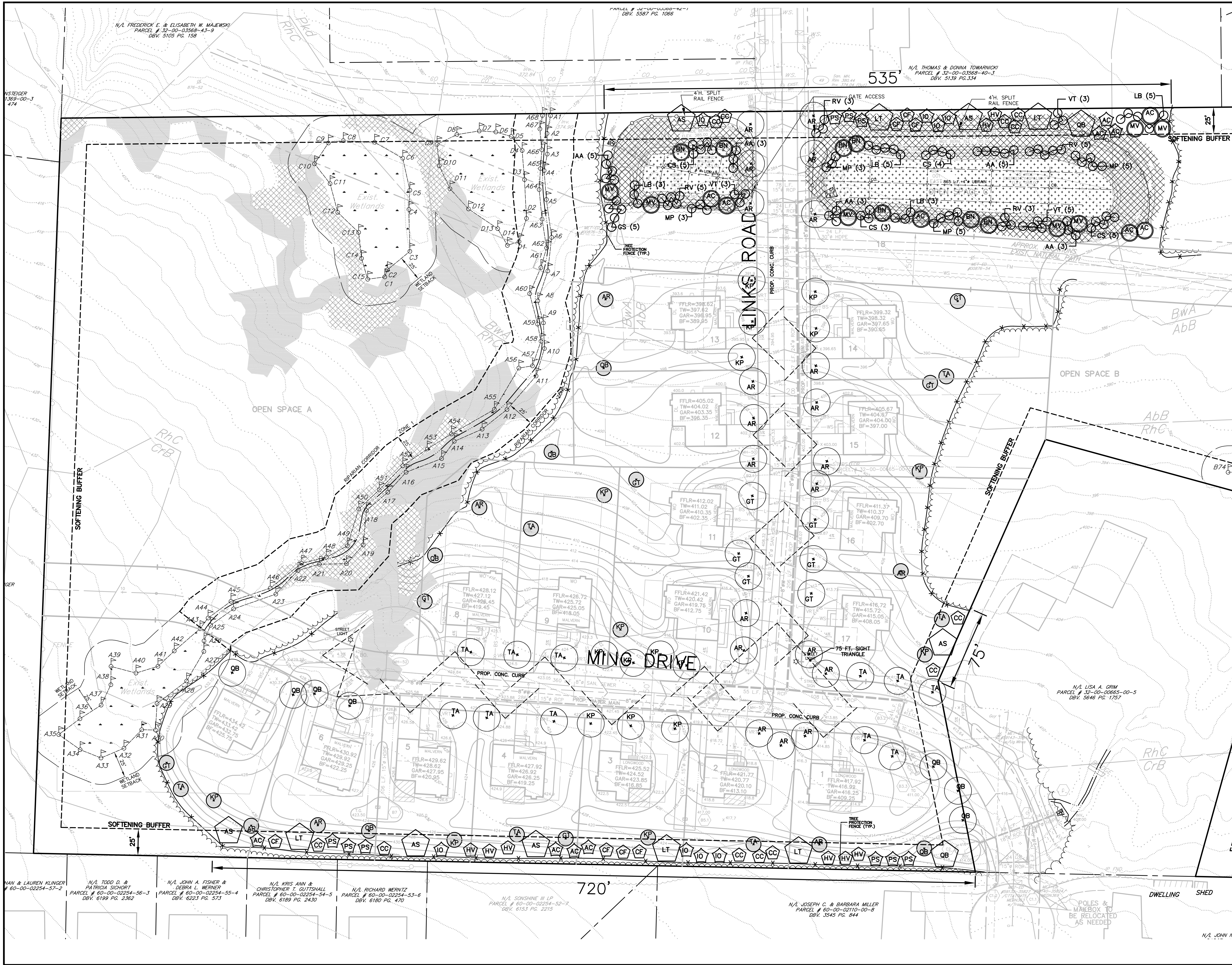
PCSM DETAIL SHEET  
FOR  
**115 W. MOYER ROAD**  
PREPARED FOR  
**TERRALEAD, LLC**  
SITE SITUATE IN  
DOUGLASS TOWNSHIP  
MONTGOMERY COUNTY, PENNSYLVANIA

**S T A**  
Engineering, Inc.

**Civil Engineers • Land Surveyors**  
2499 KNIGHT ROAD, PENNSBURG, PA 18073  
PH: (215) 679-0200; www.stotac.com

PLAN SCALE HORIZONTAL: <b>N.T.S.</b>	DRAFTED BY <b>M.J.P.</b>	PROJECT MANAGER <b>S.A.R.</b>	PLAN SHEET NUMBER <b>14</b> OF <b>22</b>
PROJECT NUMBER <b>6366</b>	DRAWING FILE NUMBER <b>6366PCSM</b>		

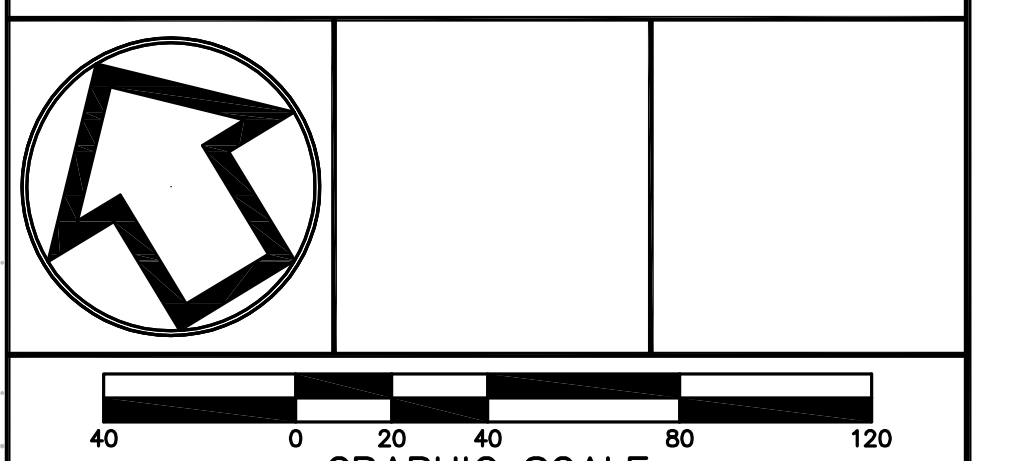




SITE LOCATION MAP 1"=2000'

LEGEND

- STREET TREE (SEE SCHEDULE FOR TYPE)
- SOFTENING BUFFER CANOPY TREE (SEE SCHEDULE FOR TYPE)
- SOFTENING BUFFER EVERGREEN TREE (SEE SCHEDULE FOR TYPE)
- SOFTENING BUFFER UNDERSTORY TREE (SEE SCHEDULE FOR TYPE)
- ON-LOT TREE PLANTING SHADE TREE (SEE SCHEDULE FOR TYPE)
- BASIN/BMP PLANTING TREE (SEE SCHEDULE FOR TYPE)
- BASIN/BMP PLANTING SHRUB (SEE SCHEDULE FOR TYPE)
- AMENDED SOILS/BASIN FLOOR MIX: ERNMIX-180 (OR APPROVED EQUAL)
- BASIN SIDE SLOPE: ERNMIX-181 (OR APPROVED EQUAL)
- TREE PROTECTION FENCE



1	ADM	S.T.A. PLAN ORIGINATION DATE	AUG. 12, 2024
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PCSM LANDSCAPE PLAN  
FOR  
**115 W. MOYER ROAD**  
PREPARED FOR  
**TERRALEAD, LLC**  
SITE SITUATE IN  
DOUGLASS TOWNSHIP  
MONTGOMERY COUNTY, PENNSYLVANIA



PLAN SCALE HORIZONTAL: <b>1"=40'</b>	DRAFTED BY A.D.M.	PROJECT MANAGER S.A.R.	PLAN SHEET NUMBER <b>15 OF 22</b>
	PROJECT NUMBER 6366	DRAWING FILE NUMBER 6366LA	



LANDSCAPE REQUIREMENTS			PLANT SCHEDULE & CALCULATIONS					BASIN SEEDING NOTES	
LANDSCAPE REQUIREMENTS			REQUIRED	PROVIDED					
230-46: STREET TREES									
REQ.: 1 TREE PER 35 FT.									
LINKS ROAD - 946 FT. (DOES NOT INCLUDE MET-ED ROW)			27 TREES	27 TREES					
MING DRIVE - 1,006 FT.			29 TREES	29 TREES					
230-47: SOFTENING BUFFER									
REQ.: 1 CANOPY TREE, 2 UNDERSTORY TREES & 2 EVERGREENS PER 100 FT.									
FOR 5,734 L.F. PROPERTY LINE									
4,404 L.F. WOODED AREA TO REMAIN									
1,330 L.F. SOFTENING BUFFER									
CANOPY TREES (2.5" MIN. CAL.)			13 TREES	13 TREES					
UNDERSTORY TREES (1.5" MIN. CAL.)			27 TREES	27 TREES					
EVERGREEN TREES (8" MIN. HEIGHT)			27 TREES	27 TREES					
230-49.B: ADDITIONAL PLANTINGS									
REQ.: 1 CANOPY TREE PER 10,000 S.F. OF LOT AREA									
FOR 299,439 S.F. OF LOT AREA									
TREES			30 TREES	30 TREES					
230-50: BASIN PLANTINGS									
REQ.: 2 TREES, & 10 SHRUBS PER 100 FT.									
FOR 675 FT. OF PERIMETER FOR 001 EAST TREES			14 TREES	14 TREES					
SHRUBS			68 SHRUBS	68 SHRUBS					
FOR 315 FT. OF PERIMETER FOR 001 WEST TREES			6 TREES	6 TREES					
SHRUBS			32 SHRUBS	32 SHRUBS					
REPLACEMENT TREES			TBD	173 TREES					

TYPICAL DECIDUOUS TREE PLANTING DETAIL

TYPICAL EVERGREEN TREE PLANTING DETAIL

TREE PROTECTION FENCE DETAIL

not to scale

SHRUB PLANTING

not to scale

STREET TREES				
TREES SHALL BE PLANTED A MIN. OF 5 FT. & MAX. OF 15 FT. FROM ROW				
PLANT SCHEDULE				
KEY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT QTY.
SHADE TREES				
AR	ACER RUBRUM	RED MAPLE	2.5" CAL.	B&B 20
GT	QUERCUS TRIACANTHOS INERMIS	THORNLESS HONEYLOCUST	2.5" CAL.	B&B 6
KP	KOELREUTERIA PANICULATA	GOLDEN RAIN TREE	2.5" CAL.	B&B 12
QB	QUERCUS BICOLOR	SWAMP WHITE OAK	2.5" CAL.	B&B 7
TA	TILIA AMERICANA	AMERICAN LINDEN	2.5" CAL.	B&B 11
			TOTAL:	56
SOFTENING BUFFER				
1 CANOPY TREE, 2 UNDERSTORY TREES AND 2 EVERGREENS REQUIRED PER EVERY 100 L.F. PROPERTY BOUNDARY WITHOUT EXISTING VEGETATION				
PLANT SCHEDULE				
KEY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT QTY.
CANOPY TREES				
AS	ACER SACCHARUM	SUGAR MAPLE	1.5" CAL.	B&B 6
LT	LIRIODENDRON TULIPIFERA	TULIPTREE	1.5" CAL.	B&B 5
QB	QUERCUS BICOLOR	SWAMP WHITE OAK	1.5" CAL.	B&B 2
			TOTAL:	13
UNDERSTORY TREES				
CC	CEROS CANADENSIS	REDBUD	1.5" CAL.	B&B 12
CF	CORNUS FLORIDA	FLOWERING DOGWOOD	1.5" CAL.	B&B 7
HV	HAMMAMELIS VIRGINIANA	WITCH HAZEL	1.5" CAL.	B&B 8
			TOTAL:	27
EVERGREEN TREES				
AC	ABIES CONCOLOR	WHITE FIR	6" HT.	B&B 10
IO	ILEX OPACA	AMERICAN HOLLY	6" HT.	B&B 8
PS	PINUS STROBUS	WHITE PINE	6" HT.	B&B 9
			TOTAL:	27
ADDITIONAL PLANTINGS				
1 CANOPY TREE PER 10,000 S.F. OF LOT AREA				
PLANT SCHEDULE				
KEY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT QTY.
SHADE TREES				
AR	ACER RUBRUM	RED MAPLE	2.5" CAL.	B&B 6
GT	QUERCUS TRIACANTHOS INERMIS	THORNLESS HONEYLOCUST	2.5" CAL.	B&B 6
KP	KOELREUTERIA PANICULATA	GOLDEN RAIN TREE	2.5" CAL.	B&B 7
QB	QUERCUS BICOLOR	SWAMP WHITE OAK	2.5" CAL.	B&B 5
TA	TILIA AMERICANA	AMERICAN LINDEN	2.5" CAL.	B&B 6
			TOTAL:	30
STORMWATER PLANTINGS - BASIN 001 EAST				
2 TREES AND 10 SHRUBS REQUIRED PER EVERY 100 L.F. OF BASIN PERIMETER				
PLANT SCHEDULE				
KEY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT QTY.
SHADE TREES				
AC	AMELANCHIER CANADENSIS	SHADBLOW SERVICEBERRY	1.5" CAL.	B&B 4
BN	BETULA NIGRA	RIVER BIRCH	2.5" CAL.	B&B 5
MV	MAGNOLIA VIRGINIANA	SWEETBAY MAGNOLIA	1.5" CAL.	B&B 5
			TOTAL:	14
SHRUBS				
AA	ARONIA ARBUTIFOLIA	RED CHOKEBERRY	24" HT.	B&B 11
CS	CORNUS SERICEA	REDOSIER DOGWOOD	24" HT.	B&B 12
LB	LINDERA BENZON	SPICEBUSH	24" HT.	B&B 13
MP	MYRICA PENNSYLVANICA	NORTHERN BAYBERRY	24" HT.	B&B 13
RV	RHODODENDRON VISCOSUM	SWAMP AZALEA	24" HT.	B&B 11
VT	VIBURNUM TRIBOLM	AMERICAN CRANBERRY	24" HT.	B&B 8
			TOTAL:	68
STORMWATER PLANTINGS - BMP 001 WEST				
2 TREES AND 10 SHRUBS REQUIRED PER EVERY 100 L.F. OF BASIN PERIMETER				
PLANT SCHEDULE				
KEY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT QTY.
SHADE TREES				
AC	AMELANCHIER CANADENSIS	SHADBLOW SERVICEBERRY	1.5" CAL.	B&B 2
BN	BETULA NIGRA	RIVER BIRCH	2.5" CAL.	B&B 2
MV	MAGNOLIA VIRGINIANA	SWEETBAY MAGNOLIA	1.5" CAL.	B&B 2
			TOTAL:	6
SHRUBS				
AA	ARONIA ARBUTIFOLIA	RED CHOKEBERRY	24" HT.	B&B 8
CS	CORNUS SERICEA	REDOSIER DOGWOOD	24" HT.	B&B 10
LB	LINDERA BENZON	SPICEBUSH	24" HT.	B&B 3
MP	MYRICA PENNSYLVANICA	NORTHERN BAYBERRY	24" HT.	B&B 3
RV	RHODODENDRON VISCOSUM	SWAMP AZALEA	24" HT.	B&B 5
VT	VIBURNUM TRIBOLM	AMERICAN CRANBERRY	24" HT.	B&B 3
			TOTAL:	32

1	JAC	S.T.A. PLAN ORIGINATION DATE
		AUG. 12, 2024

PCSM LANDSCAPE DETAIL SHEET

FOR

115 W. MOYER ROAD

PREPARED FOR

TERRALEAD, LLC

SITE SITUATE IN

DOUGLASS TOWNSHIP

MONTGOMERY COUNTY, PENNSYLVANIA

S

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A

Engineering, Inc.

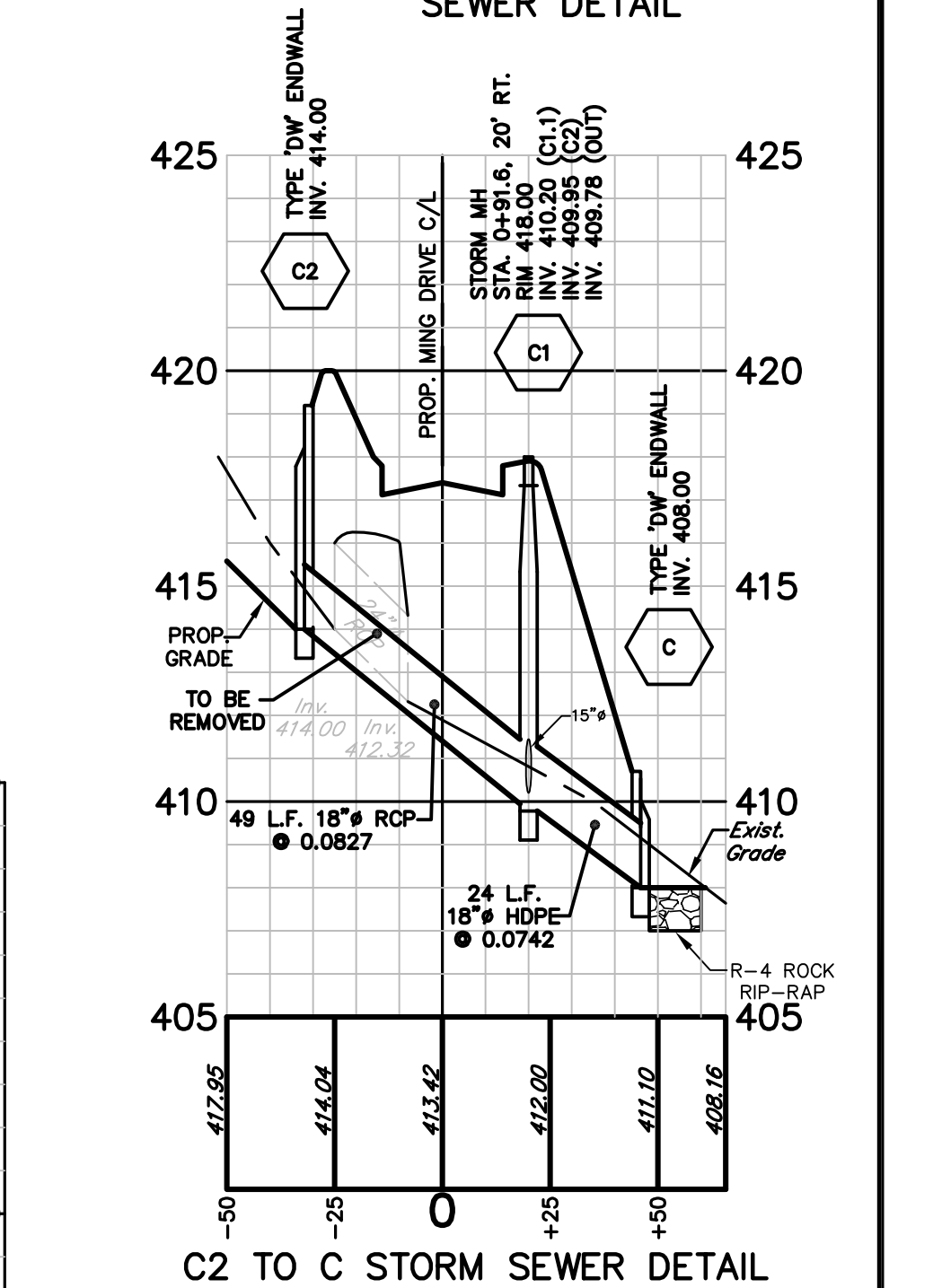
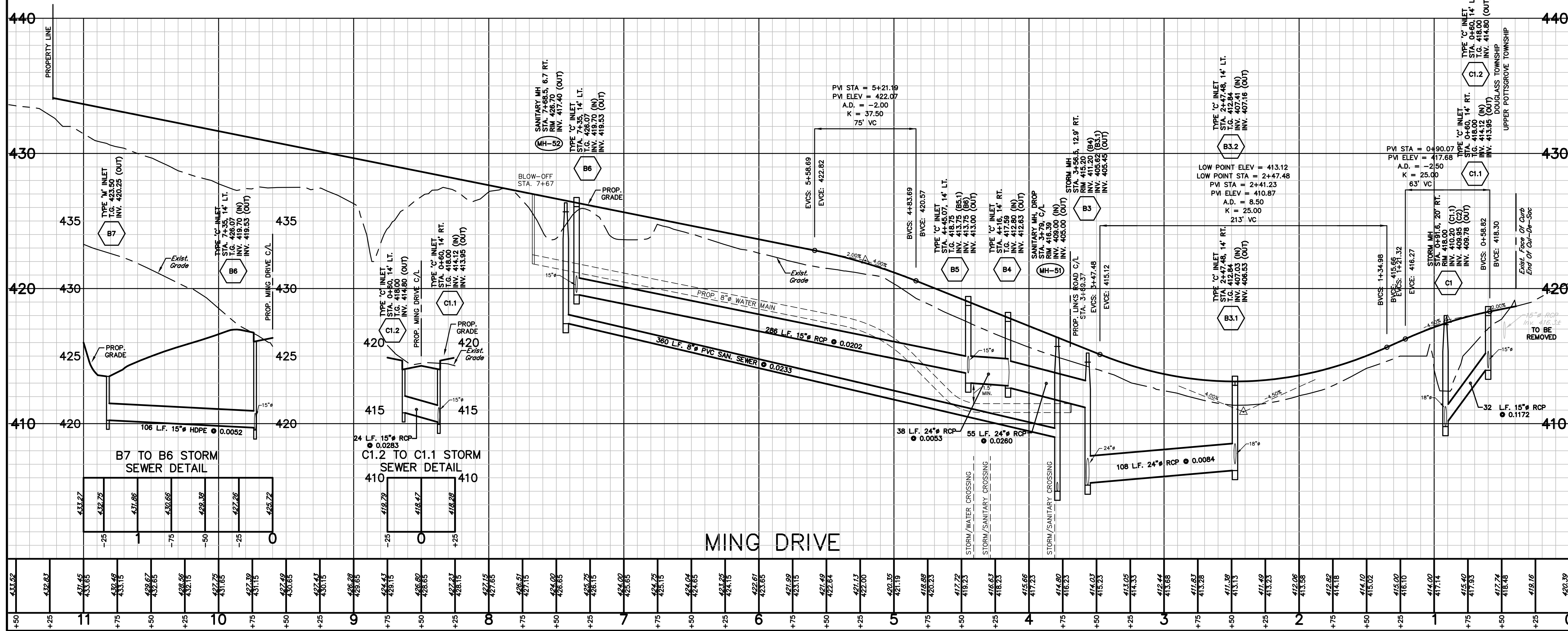
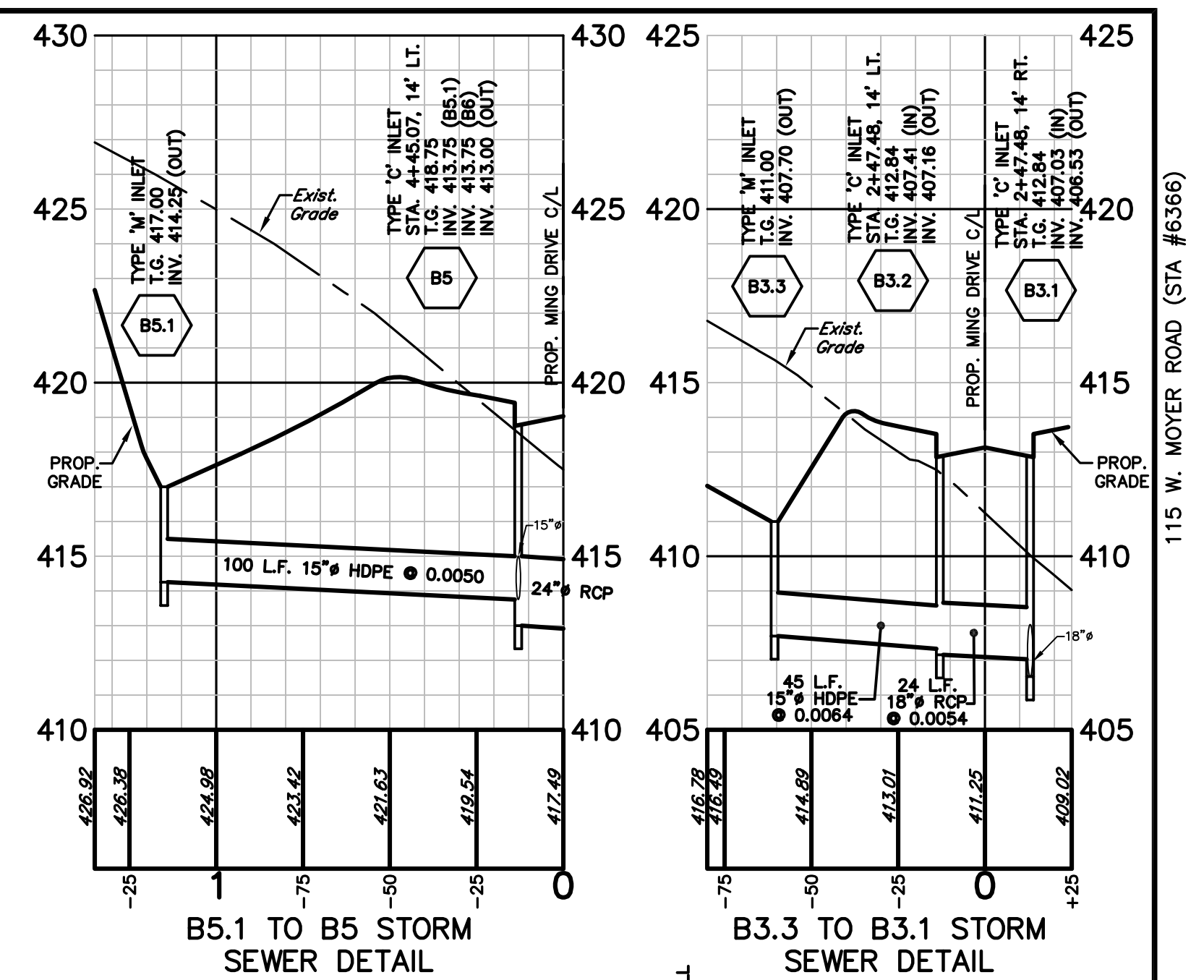
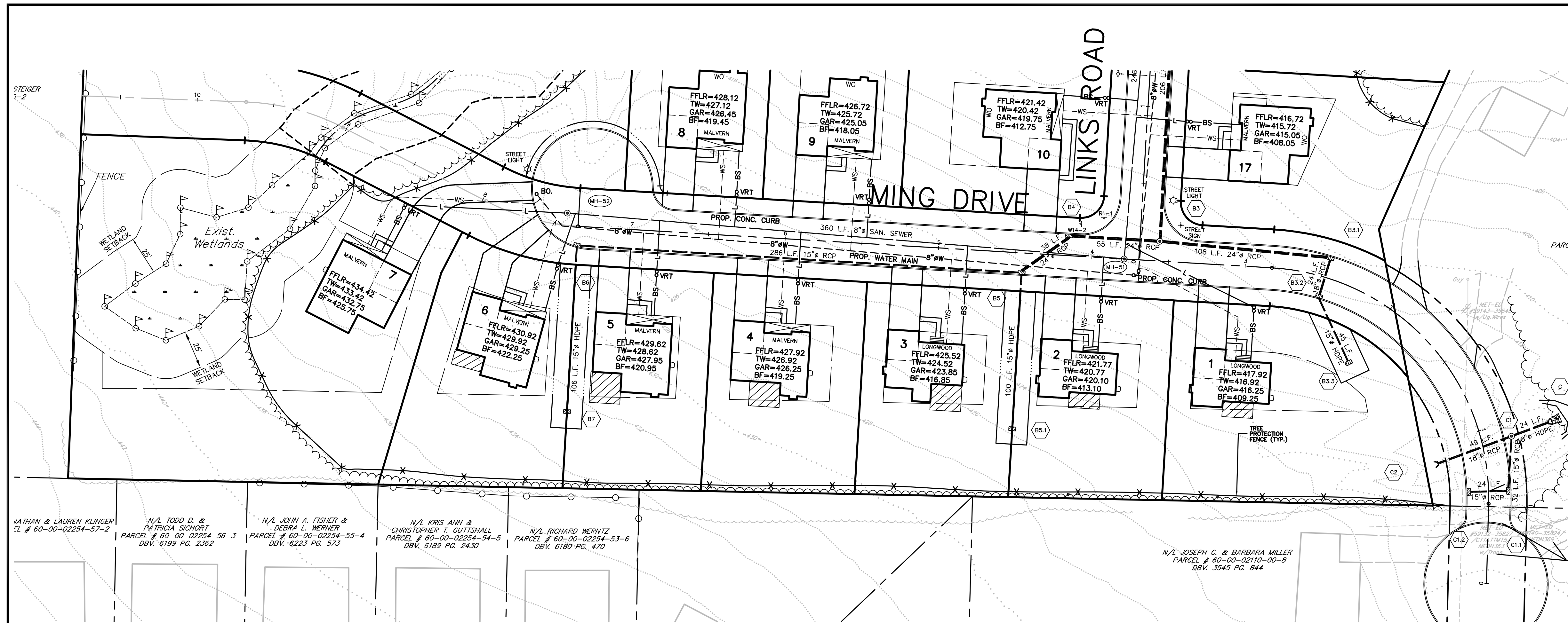
Civil Engineers • Land Surveyors

2499 KNIGHT ROAD, PENNSBURG, PA 18073

PH: (215) 679-0200; www.stotac.com

PLAN SCALE	DRAFTED BY	PROJECT MANAGER	PLAN SHEET NUMBER
N.T.S.	A.D.M.	S.A.R.	
	PROJECT NUMBER	DRAWING FILE NUMBER	
	6366	6366LA	16 OF 22





GRAPHIC SCALE

1 JAC

S.T.A. PLAN ORIGIN DATE

AUG. 12, 2024

PLAN AND PROFILE OF

MING DRIVE

AS PART OF

115 W. MOYER ROAD

PREPARED FOR

TERRALEAD, LLC

SITE SITUATE IN

DOUGLASS TOWNSHIP

MONTGOMERY COUNTY, PENNSYLVANIA

**S T A**

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PH: (215) 679-0200; www.stotac.com

PLAN SCALE

HORIZONTAL: 1" = 40'

VERTICAL: 1" = 4'

DRAFTED BY

J.A.C.

PROJECT MANAGER

S.A.R.

PROJECT NUMBER

6366

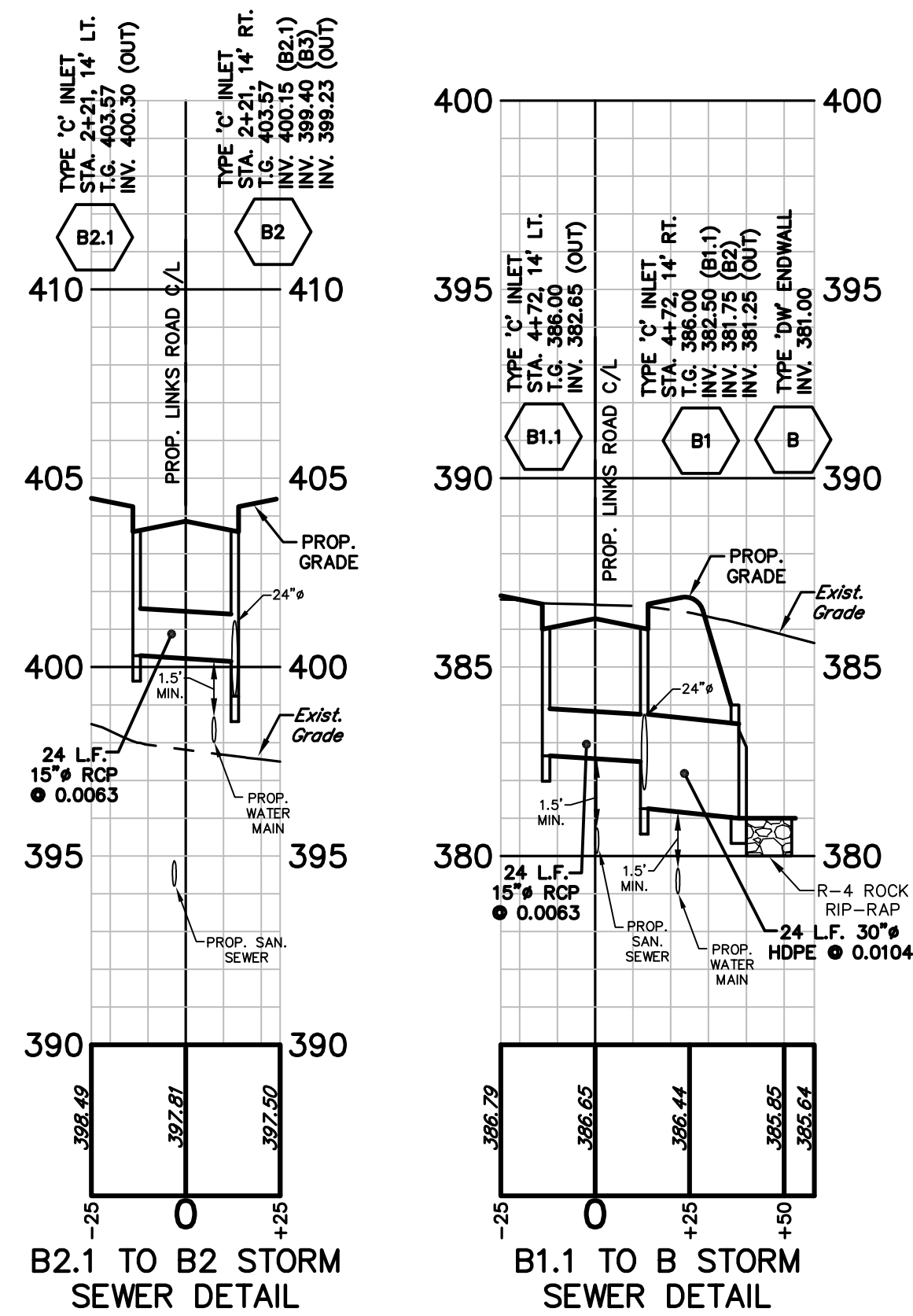
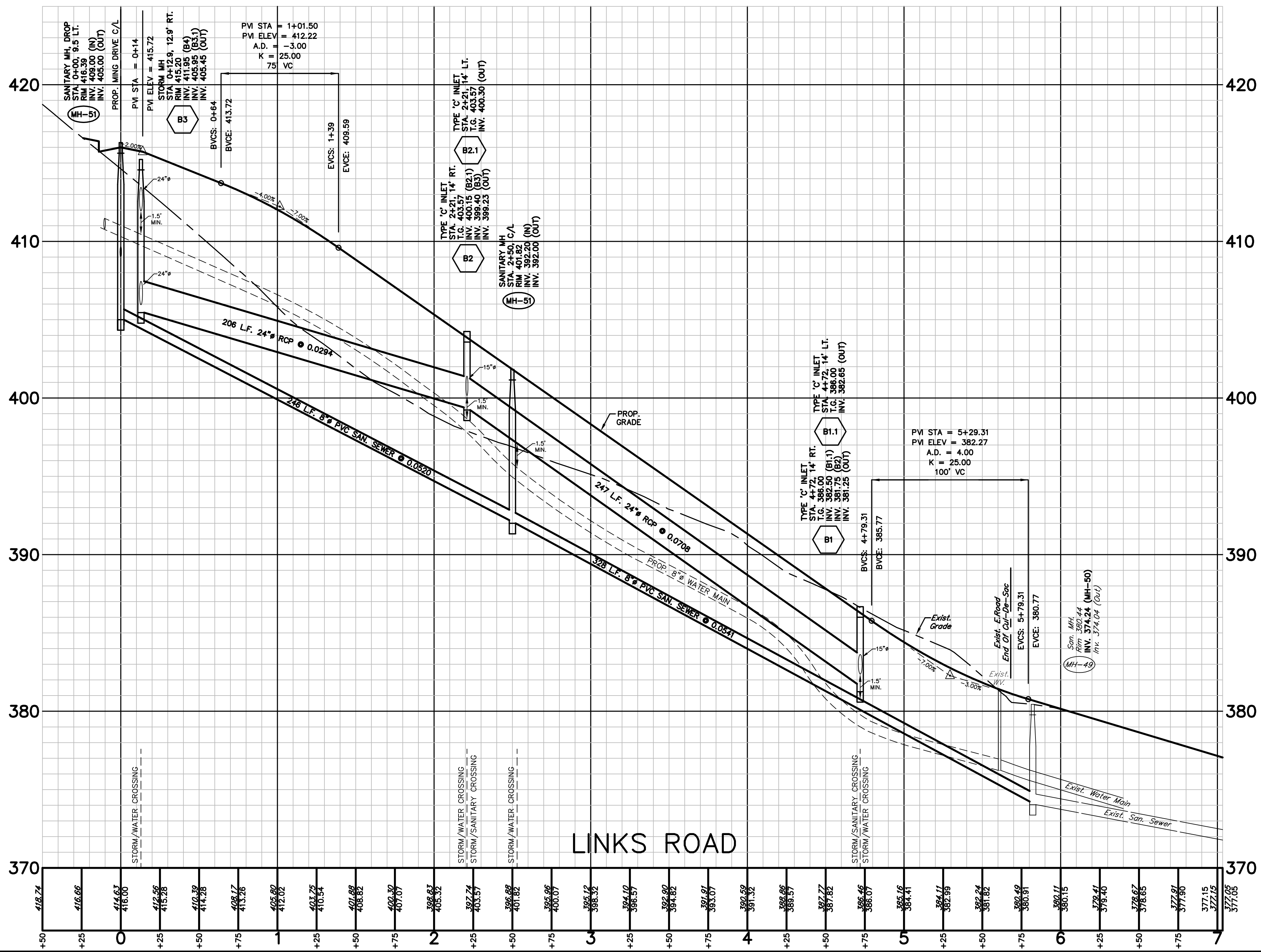
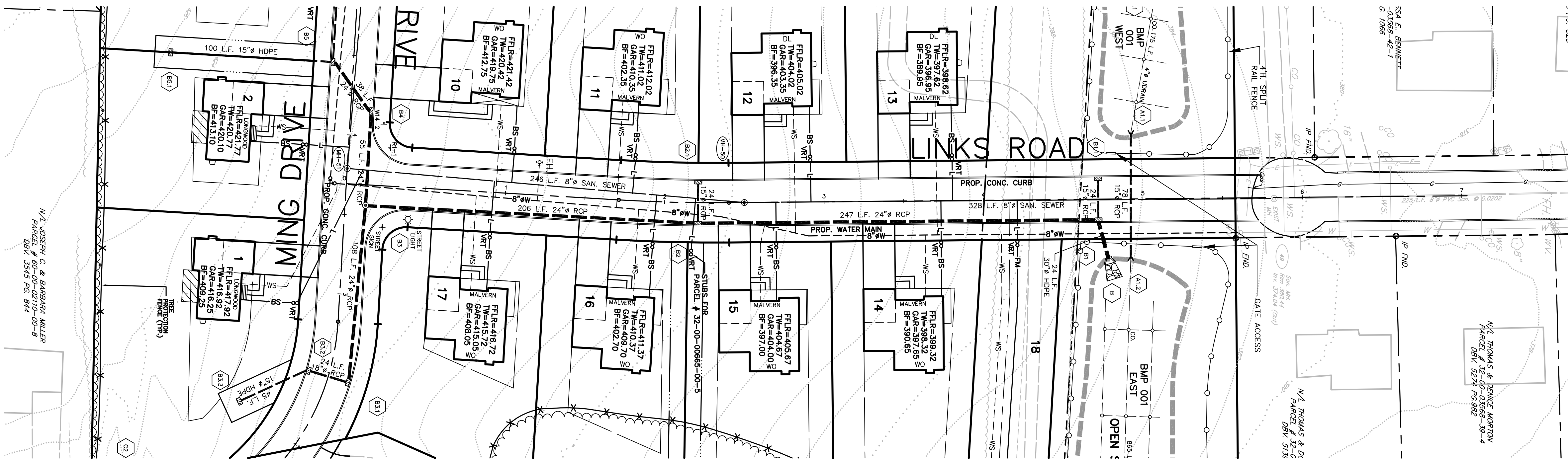
DRAWING NUMBER

6366PRD

PLAN SHEET NUMBER

17 OF 22





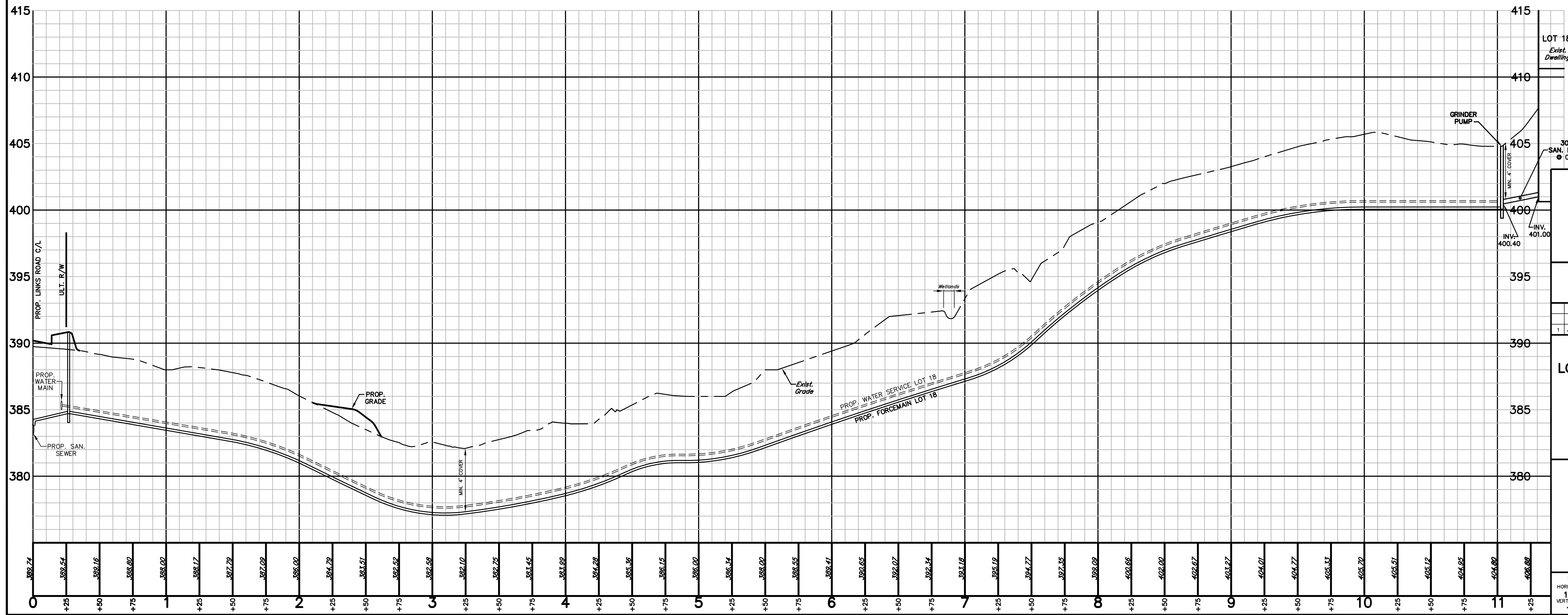
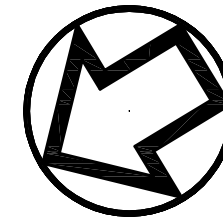
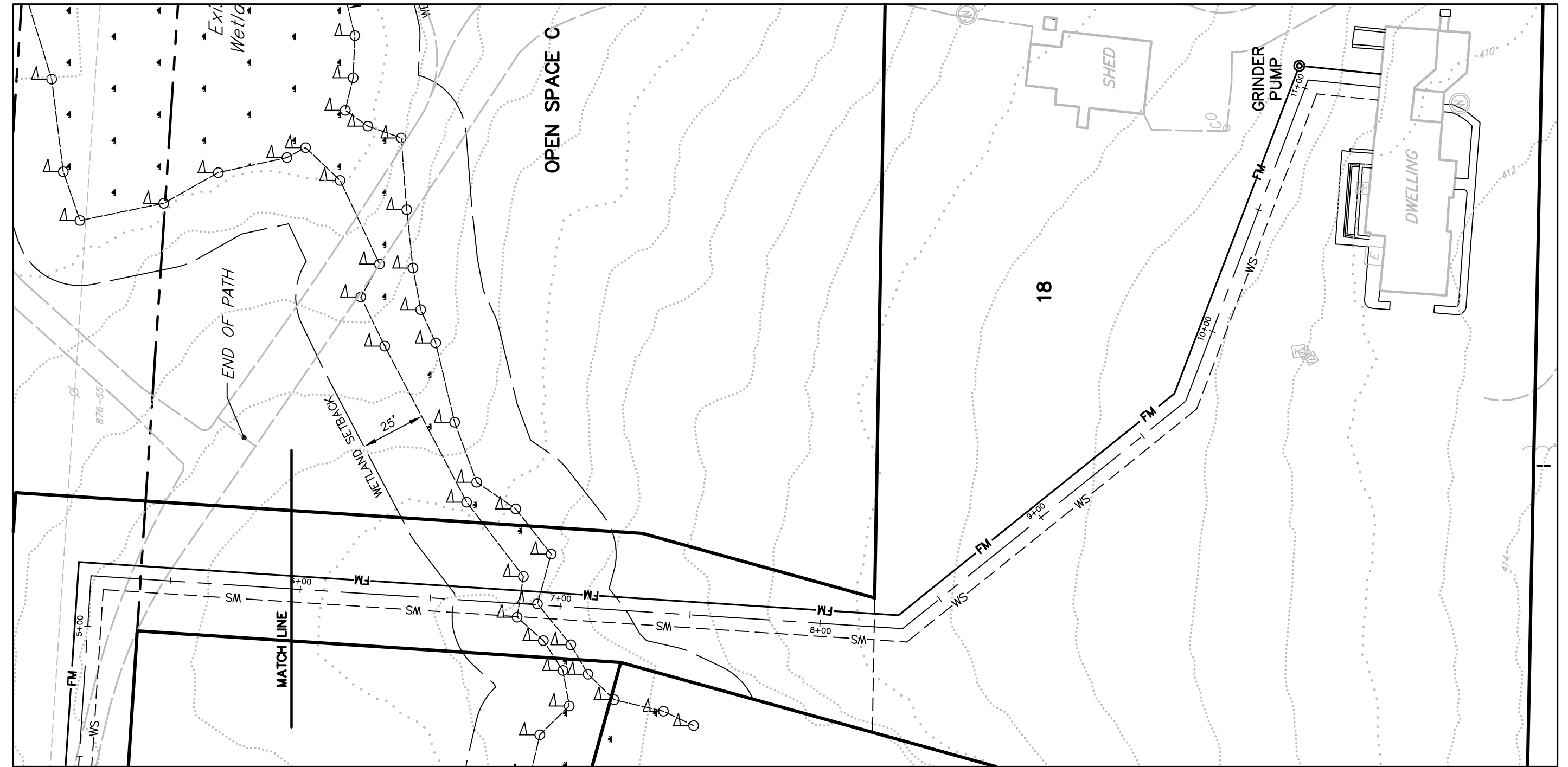
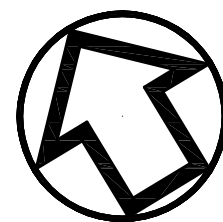
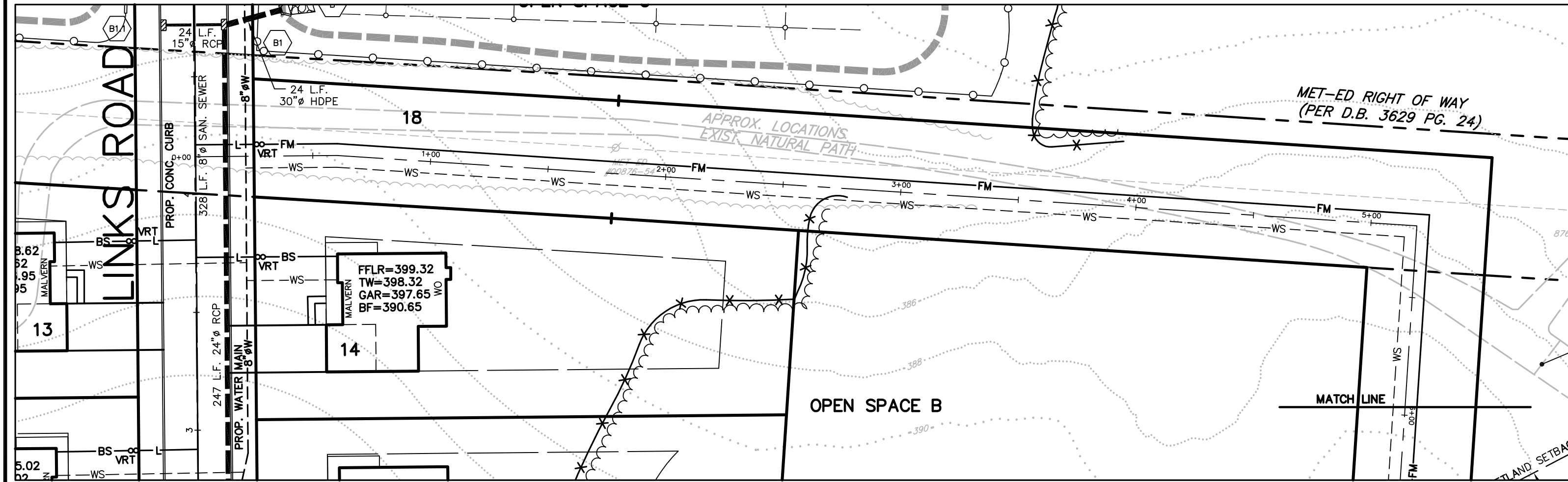
1	JAC	S.T.A. PLAN ORIGINATION DATE	AUG. 12, 2024
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PLAN AND PROFILE  
OF  
**LINKS ROAD**  
AS PART OF  
**115 W. MOYER ROAD**  
PREPARED FOR  
**TERRALEAD, LLC**  
SITE SITUATE IN  
DOUGLASS TOWNSHIP  
MONTGOMERY COUNTY, PENNSYLVANIA

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PLAN SCALE HORIZONTAL: 1" = 40' VERTICAL: 1" = 4'	DRAFTED BY J.A.C.	PROJECT MANAGER S.A.R.	PLAN SHEET NUMBER 6366 6366PRD 18 OF 22
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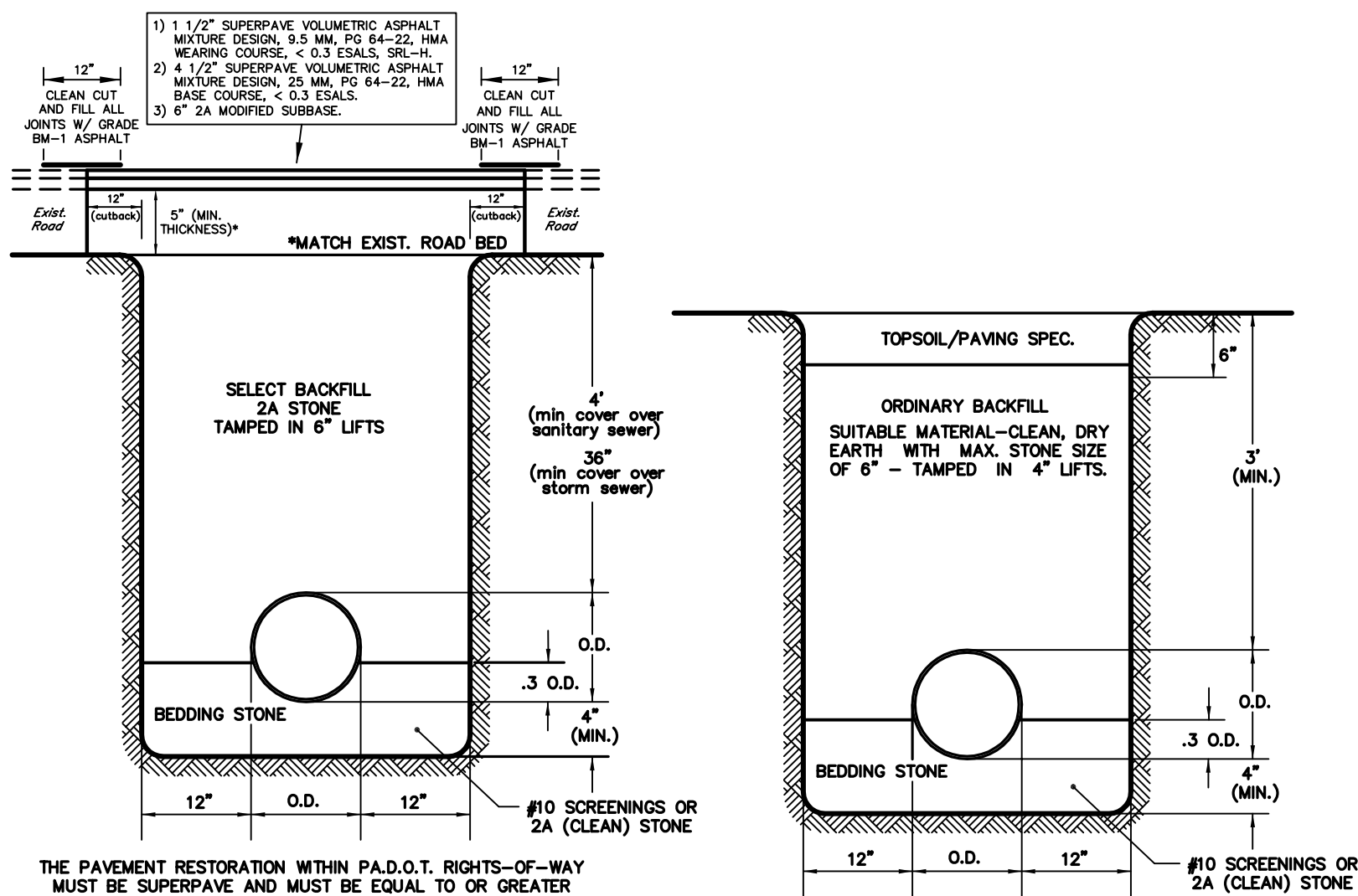


40		0		20		40		60		80		100		120			
GRAPHIC SCALE																	
1		JAC		S.T.A. PLAN ORIGIN DATE								AUG. 12, 2024					
PLAN AND PROFILE OF LOT 18 WATER SERVICE & FORCEMAIN AS PART OF 115 W. MOYER ROAD PREPARED FOR TERRALEAD, LLC SITE SITUATE IN DOUGLASS TOWNSHIP MONTGOMERY COUNTY, PENNSYLVANIA																	
<b>S T A</b> Engineering, Inc.																	
Civil Engineers • Land Surveyors 2499 KNIGHT ROAD, PENNSBURG, PA 18073 PH: (215) 679-0200; www.stotac.com																	
PLAN SCALE HORIZONTAL: 1" = 40' VERTICAL: 1" = 4'		DRAFTED BY J.A.C.				PROJECT MANAGER S.A.R.				PROJECT NUMBER 6366 DRAWING FILE NUMBER 6366PRD						PLAN SHEET NUMBER 19 OF 22	

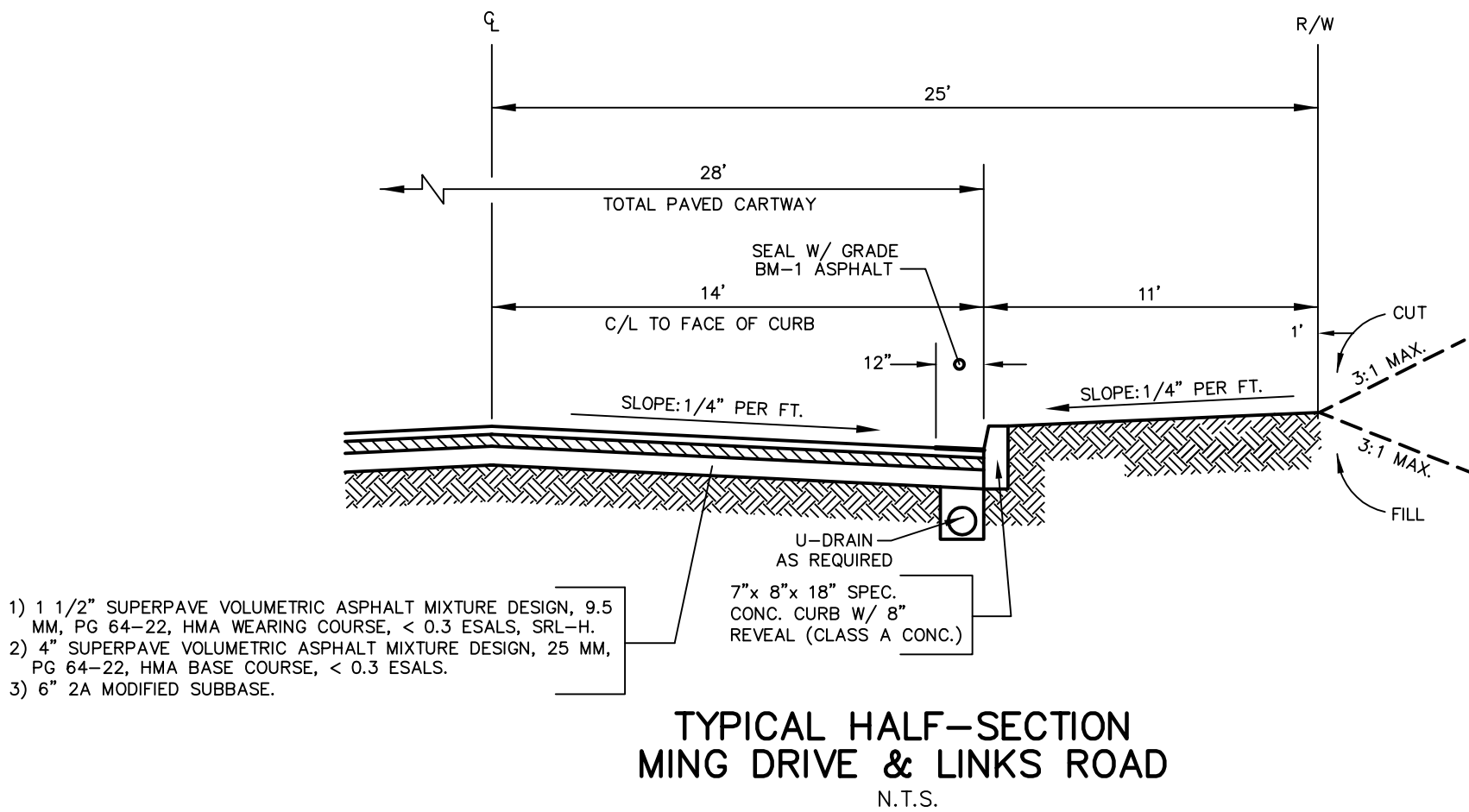


REFER TO PENNDOT PUBLICATION 72M, STANDARDS FOR ROADWAY CONSTRUCTION FOR THE FOLLOWING APPLICABLE STORM SEWER DETAILS:

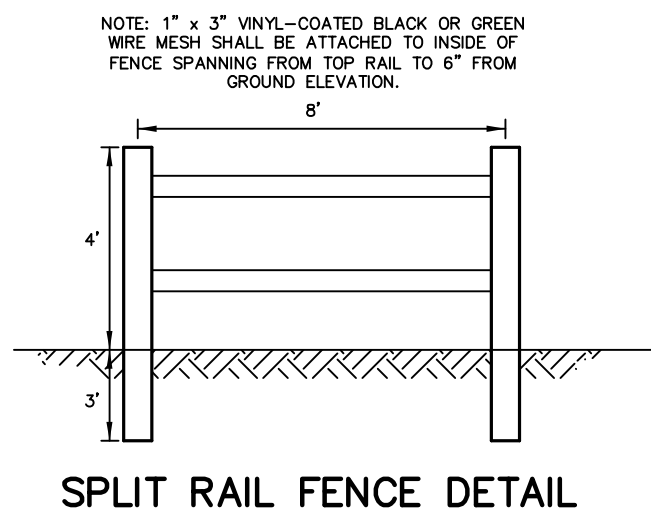
- RC-30M: (5 SHEETS) SUBSURFACE DRAINS (NOV. 30, 2021)  
RC-31M: (3 SHEETS) ENDWALLS (NOV. 30, 2021)  
RC-33M: (2 SHEETS) END SECTIONS FOR PIPE CULVERTS (JUNE 1, 2020)  
RC-39M: (30 SHEETS) STORM WATER MANHOLES (NOV. 30, 2021)  
RC-45M: (24 SHEETS) INLET TOPS, GRATES AND FRAMES (FEB. 19, 2021)  
RC-46M: (34 SHEETS) INLET BOXES (FEB. 19, 2021)



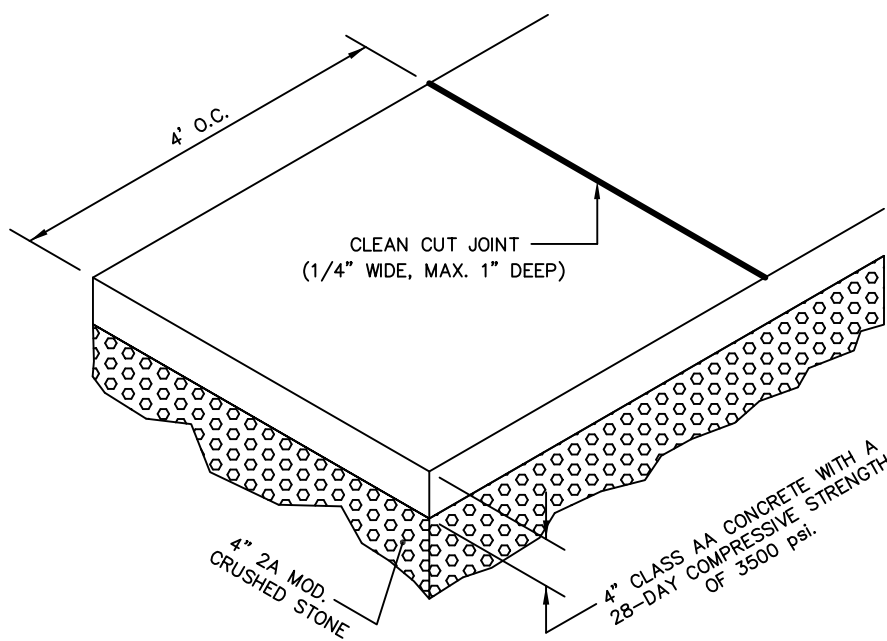
STORM SEWER TRENCH RESTORATION DETAIL WITHIN EXISTING CARTWAY  
STORM SEWER TRENCH RESTORATION DETAIL OUTSIDE EXISTING CARTWAY



TYPICAL HALF-SECTION MING DRIVE & LINKS ROAD  
N.T.S.

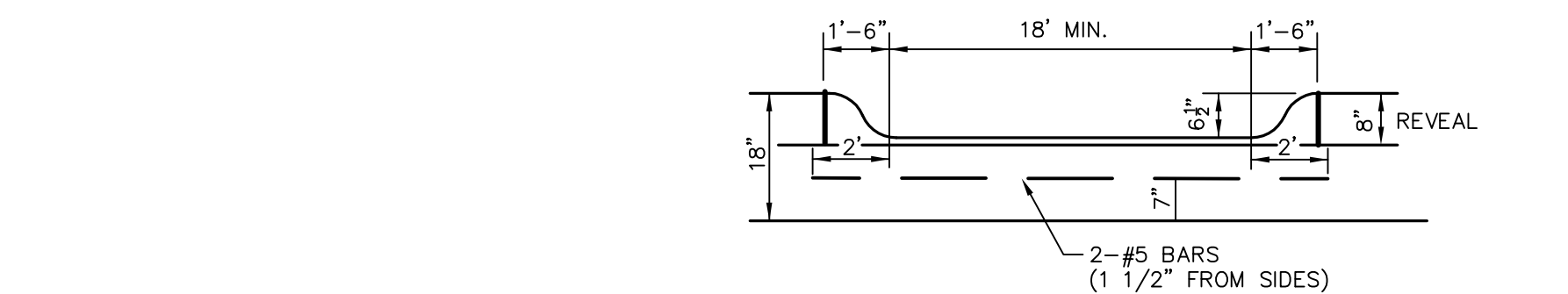


SPLIT RAIL FENCE DETAIL

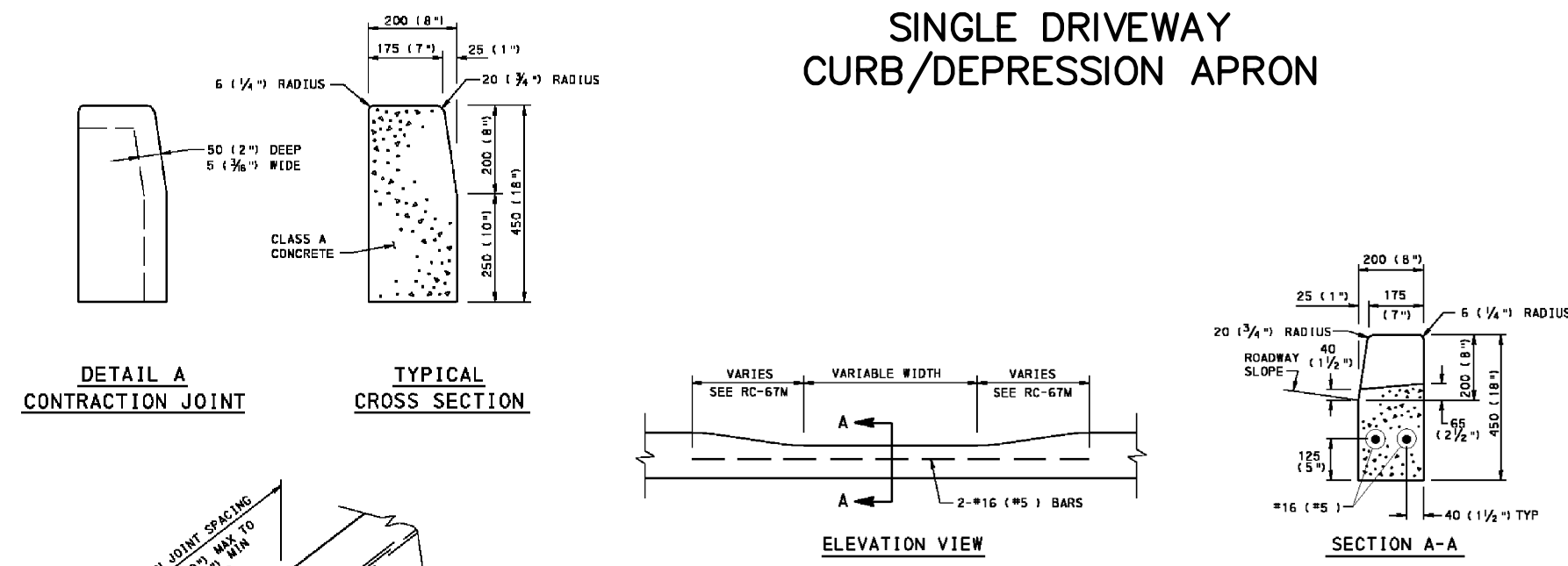


- NOTES:  
1. USE CLASS AA CONCRETE WITH A 28-DAY COMPRESSIVE STRENGTH OF 3,500 PSI.  
2. CLEAN OUT JOINT TO BE FORMED EVERY 5 FT.  
3. EXPANSION JOINTS WITH 1/2" PRE-MOLDED MATERIAL SHALL BE PLACED EVERY 30 FT.  
4. SUITABLE PROTECTION & CURING SHALL BE PER PDOT 1.71.1.  
5. ALL EDGES TO BE ROUNDED WITH A 1/4" TOOL.

CONVENTIONAL SIDEWALK DETAIL  
N.T.S.



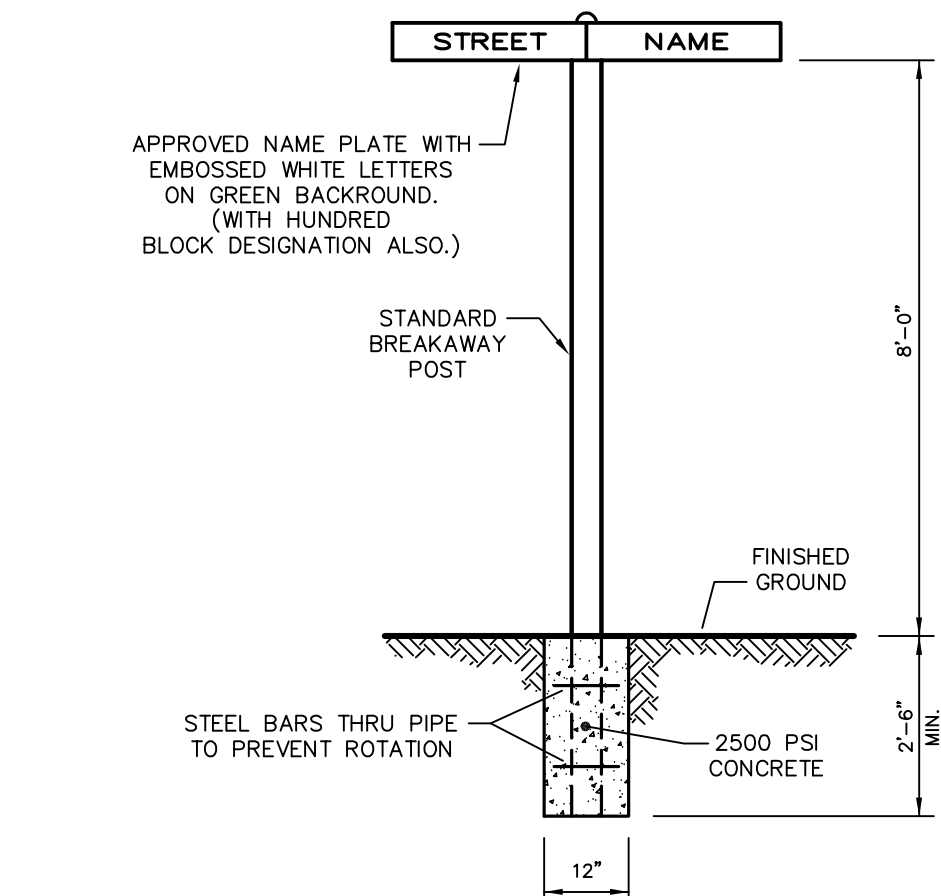
SINGLE DRIVEWAY CURB/DEPRESSION APRON



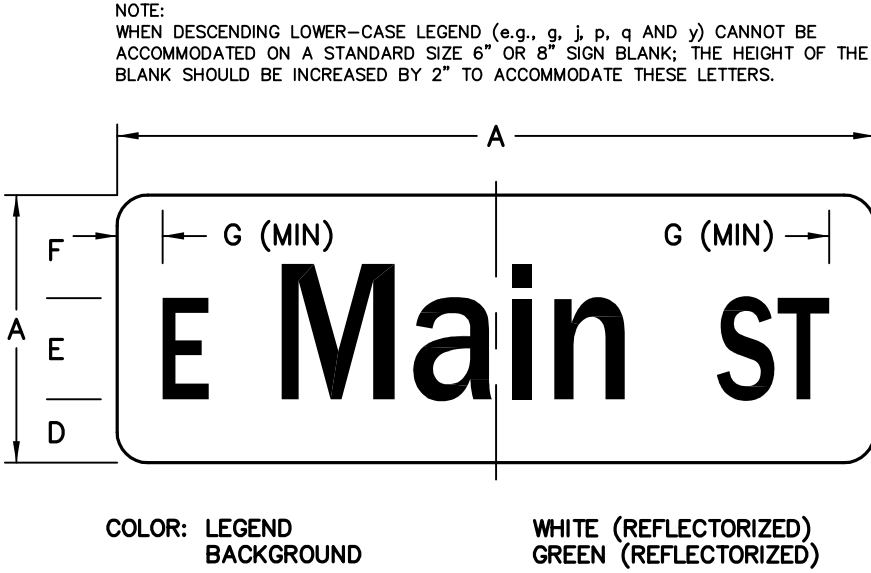
DEPRESSED CURB FOR DRIVEWAYS

- NOTES:  
1. PROVIDE MATERIALS AND CONSTRUCTION MEETING THE REQUIREMENTS OF PENNDOT FOR A DEPRESSURED CURB FOR PLAIN CEMENT CONCRETE CURBS AND GUTTERS. SECTION 647 FOR PLAIN CEMENT CONCRETE CURB GUTTERS.  
2. SPACE CONTRACTION JOINTS IN UNIFORM LENGTHS OR SECTIONS.  
3. PLACE 20 (1/2) THICK PREMOULDED EXPANSION JOINT. FILL WITH MATERIAL AT STRUCTURES AND AT THE END OF THE DRIVEWAY. BUT MATERIAL TO CONFORM TO CROSS SECTIONAL AREA OF CURB.  
4. SEE SECTION FOR PLAIN CEMENT CONCRETE CURB SLOPED TOP TREATMENT AT END OF STRUCTURES.  
5. RIDGE CURBS ARE INSTALLED ALONG TO PARKING LINES A 180 (1/2) INCH CURB CAN BE UTILIZED WITH APPROVAL FROM THE LOCAL MUNICIPALITY.  
6. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED. U.S. CUSTOMARY UNITS IN ( ) PARENTHESES.

COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF TRANSPORTATION BUREAU OF DESIGN			
CURBS AND GUTTERS			
RECOMMENDED JUN. 1, 2010	RECOMMENDED JUN. 1, 2010	SHT 1 OF 1	
CHIEF, MPA, DIVISION 0	DIRECTOR, BUREAU OF DESIGN	RC-64M	

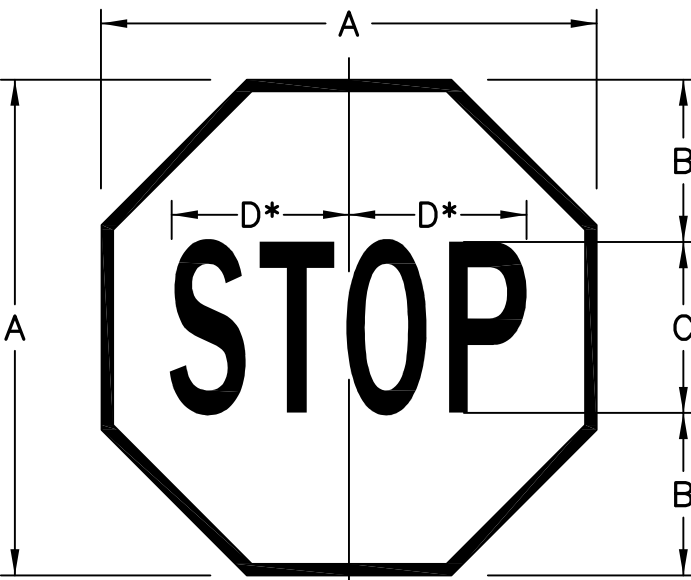


NOTE: SIGN TO HAVE HIGH INTENSITY BACKING.  
TYPICAL STREET SIGN DETAIL  
N.T.S.



DIMENSIONS - IN					
SIZE	A	B	C	D	E
VAR. x 8"	4"	1"	3"	2"	1"
VAR. x 8"	0"	4"	4"	5"	1.4"

D3-1

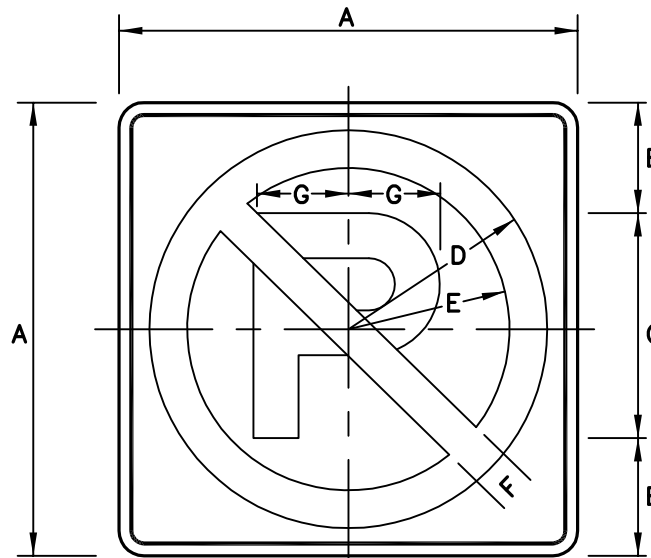


COLOR: LEGEND AND BORDER WHITE (REFLECTORIZED) RED (REFLECTORIZED)\*

DIMENSIONS - IN					
SIZE	A	B	C	D	E
24" x 24"	8	8	10	0.6	0.1-24

\* REDUCE SPACING 40%

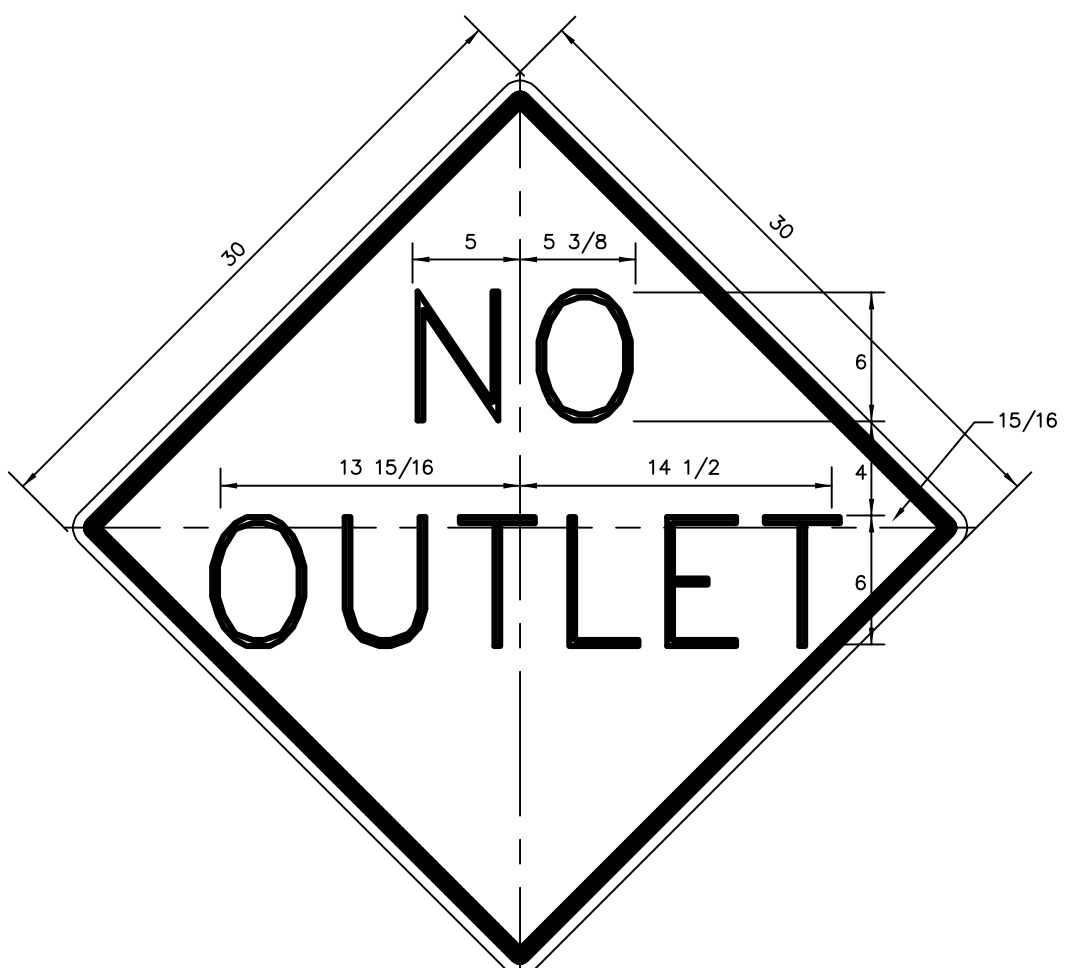
R1-1



COLOR: SYMBOL AND BORDER BLACK (NON-REFLECTORIZED) RED (REFLECTORIZED)\* WHITE (REFLECTORIZED)\*

DIMENSIONS - IN									
SIZE	A	B	C	D	E	F	G	H	I
12" x 12"	3	6E(M)	4.9	3.9	1	2.4	0.4	0.4	—

R8-3



COLOR: LEGEND AND BORDER BLACK (NON-REFLECTORIZED) YELLOW (REFLECTORIZED)

NOTE: SIGN TO HAVE HIGH INTENSITY BACKING.

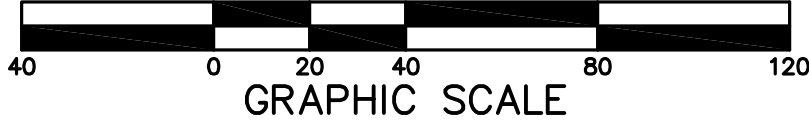
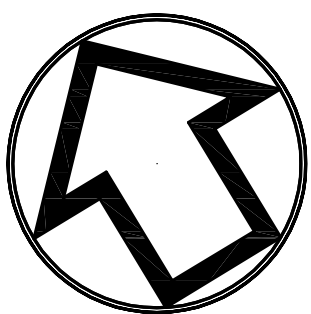
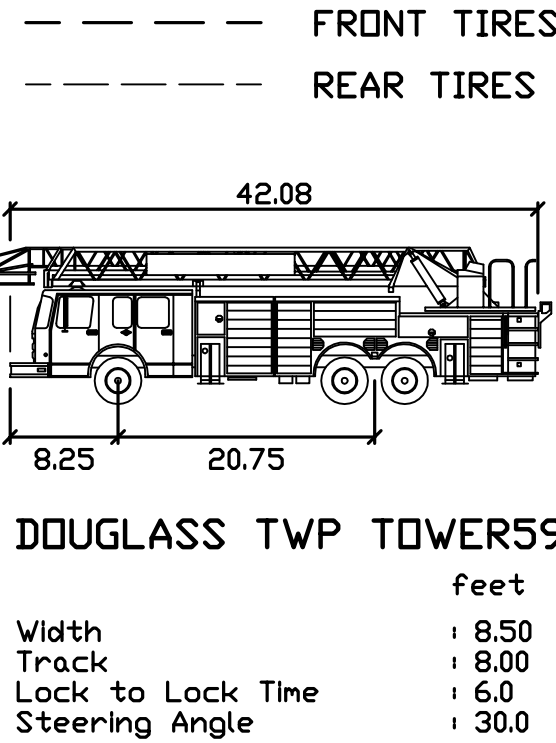
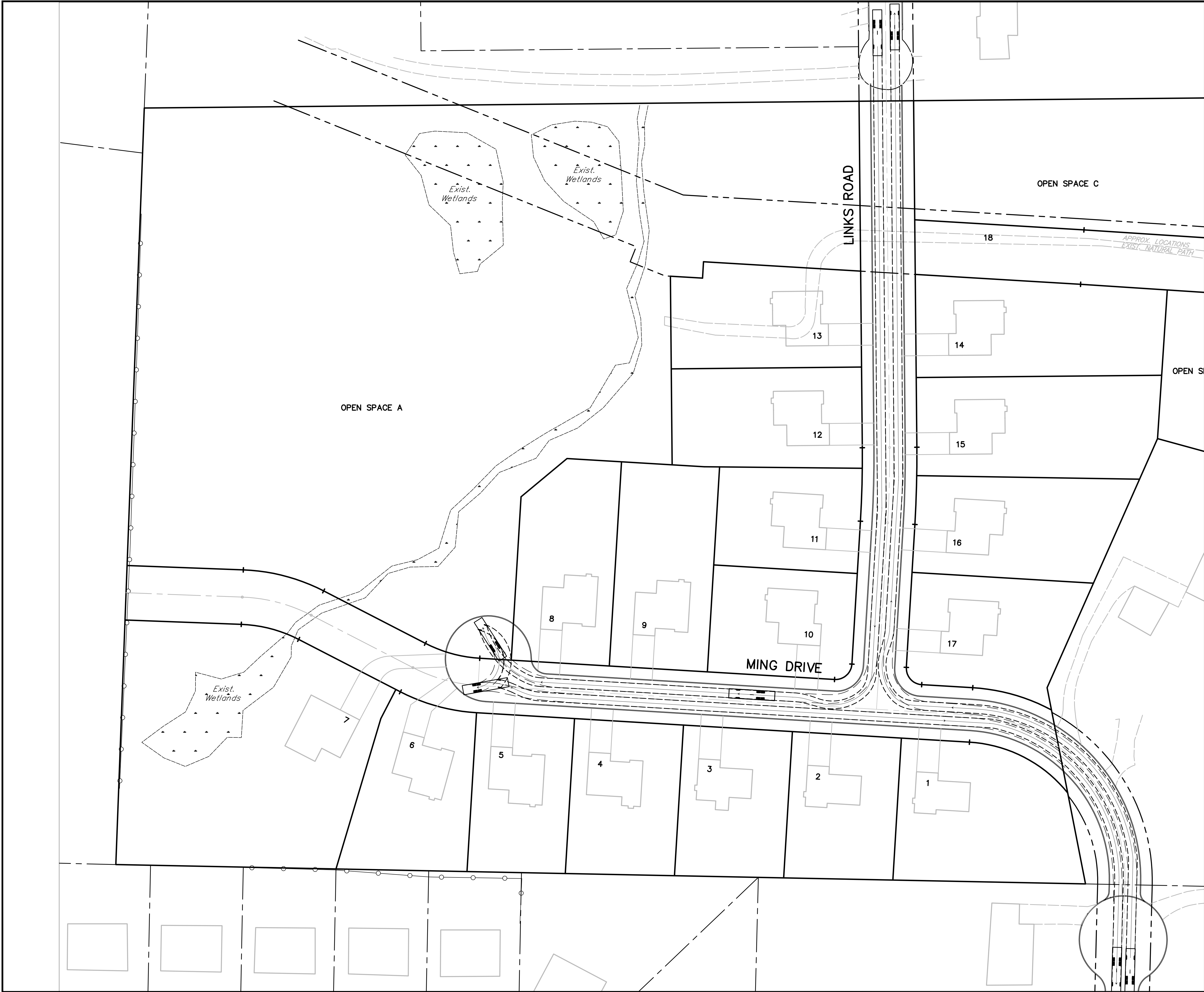
W14-2

1 JAC S.T.A. PLAN ORIGIN DATE AUG. 12, 2024			
CONSTRUCTION DETAIL SHEET			
OF			
115 W. MOYER ROAD			
PREPARED FOR			
TERRALEAD, LLC			
SITE SITUATE IN			
DOUGLASS TOWNSHIP			
MONTGOMERY COUNTY, PENNSYLVANIA			
<b>S T A</b>			
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PLAN SCALE	DRAFTED BY	PROJECT MANAGER	PLAN SHEET NUMBER
HORIZONTAL:	J.A.C.	S.A.R.	
N.T.S.	6366	6366DET	20 OF 22



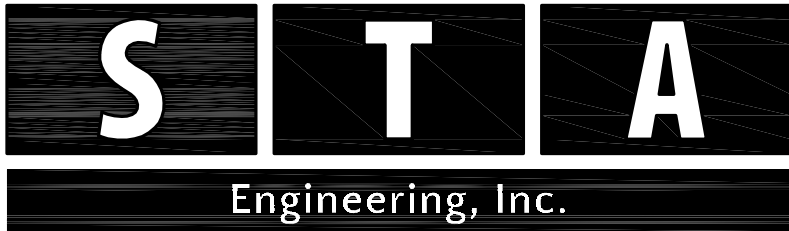






REVISIONS		
1	ADM	S.T.A. PLAN ORIGIN DATE: AUG. 12, 2024

VEHICLE TURNPATH PLAN  
FOR  
**115 W. MOYER ROAD**  
PREPARED FOR  
**TERRALEAD, LLC**  
SITE SITUATE IN  
DOUGLASS TOWNSHIP  
MONTGOMERY COUNTY, PENNSYLVANIA



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PLAN SCALE HORIZONTAL: <b>1"=40'</b>	DRAFTED BY A.D.M. PROJECT NUMBER <b>6366</b>	PROJECT MANAGER S.A.R. DRAWING FILE NUMBER <b>6366TTP</b>	PLAN SHEET NUMBER <b>22</b> OF <b>22</b>
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