100 GREENRIDGE ROAD DEVELOPMENT

PRELIMINARY SUBDIVISION AND LAND DEVELOPMENT PLANS

TAX PARCELS #32-1-17.1 & 32-1-11
100 GREENRIDGE ROAD
UPPER UWCHLAN TOWNSHIP, CHESTER COUNTY, PENNSYLVANIA

OWNER OF RECORD

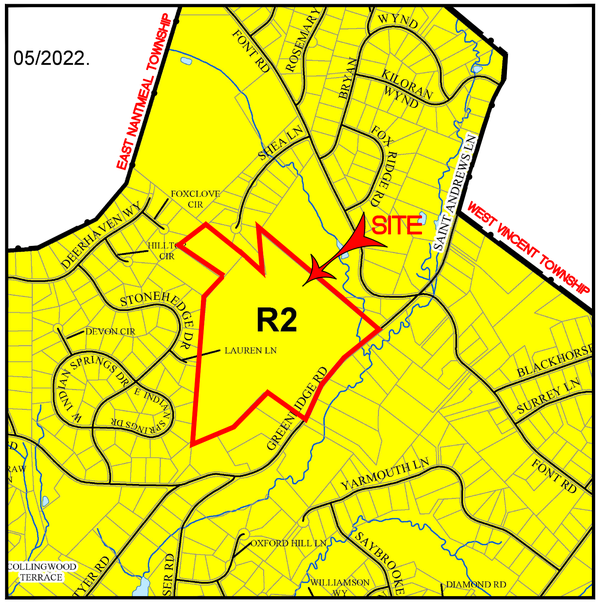
RICHARD T. WILLIAMS AND BONNIE C. WILLIAMS
BY AND THROUGH THEIR DULY APPOINTED
POWER OF ATTORNEY;
ANDREA PETTIBONE, ESQUIRE
205 EXETER ROAD
DEVON, PA 19333
610-212-9059

EQUITABLE OWNER/APPLICANT

TOLL MID-ATLANTIC LP COMPANY, INC.
1140 VIRGINIA DRIVE
FORT WASHINGTON, PA 19034
215-938-8000

ENGINEER, SURVEYOR, PLANNER, LANDSCAPE ARCHITECT

ESE CONSULTANTS, INC.
1140 VIRGINIA DRIVE
FORT WASHINGTON, PA 19034
215-914-2050



ZONING MAP
SCALE: 1"=800'

FEET 800 0 400 800 1600
GRAPHIC SCALE 1 inch = 800 ft.

LEGEND

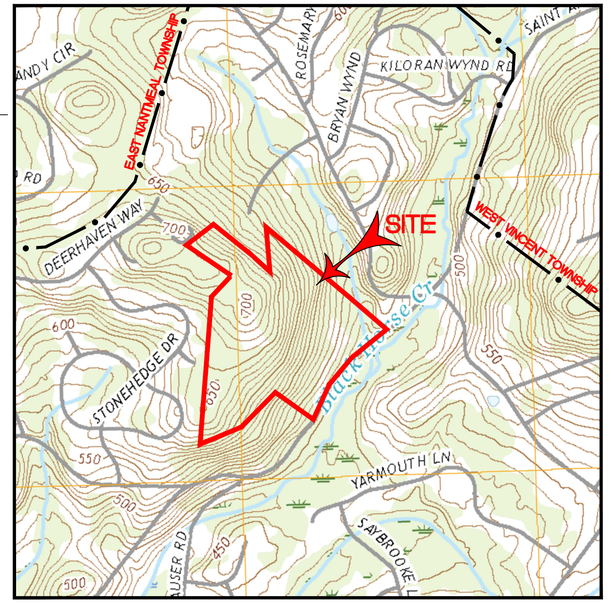
Township Boundaries
Roads
Streams
Tax parcels

Current Zoning

- R1 - Residential District (1 dwelling unit/2 acres) - 2412.272 ac.
- R2 - Residential District (1 dwelling unit/acre) - 3368.33 ac.
- R3 - Residential District (1.5 dwelling units/acre) - 780.521 ac.
- R4 - Residential District (2-4 dwelling units/acre) - 239.419 ac.
- C1 - Village Commercial District - 124.493 ac.
- C2 - Limited Commercial District - 12.734 ac.
- C3 - Highway Commercial District - 116.433 ac.
- LI - Limited Industrial District - 259.015 ac.
- PI - Planned Industrial/Office District - 193.536 ac.
- Water Bodies

Overlay Districts

- PRD - Planned Residential Development



LOCATION MAP
SCALE: 1"=800'

FEET 800 0 400 800 1600
GRAPHIC SCALE 1 inch = 800 ft.

SHEET INDEX

SUBDIVISION AND LAND DEVELOPMENT PLANS

SHEET NO.	REFERENCE NO.	DESCRIPTION
1	SD01.01	COVER SHEET
2 - 7	RP50.01 - RP50.06	RECORD PLANS*
8	SD02.01	GENERAL NOTES
9	SD02.02	CONDITIONS OF APPROVAL
10	SD03.01	EXISTING FEATURES PLAN
11	SD03.02	AERIAL PHOTOGRAPH PLAN
12	SD03.03	SITE ANALYSIS & CONSERVATION PLAN - EXISTING
13	SD03.04	SITE ANALYSIS & CONSERVATION PLAN - PROPOSED
14	SD04.01	OVERALL SITE PLAN
15 - 19	SD05.01 - SD05.05	GRADING & UTILITY PLAN
20 - 26	SD07.01 - SD07.07	ROAD PLAN & PROFILE
27 - 28	SD07.08 - SD07.09	EASEMENT PROFILES
29 - 30	SD08.01 - SD08.02	CONSTRUCTION DETAILS
31	SD08.03	STORM SEWER DETAILS
32	SD08.04	SANITARY SEWER DETAILS
33	SD08.05	WATER DETAILS
34 - 37	SD08.06 - SD08.09	BASIN DETAILS
38 - 42	SD09.01 - SD09.05	LANDSCAPE PLANS
43 - 44	SD09.06 - SD09.07	LANDSCAPE DETAILS AND NOTES
45 - 46	SD09.08 - SD09.09	ASH TREE REMOVAL PLAN
47 - 48	SD09.10 - SD09.11	TREE REMOVAL PLAN
49	SD09.12	EXISTING TREE SCHEDULE

* PLANS TO BE RECORDED

SHEET INDEX (SEPARATE COVER)

SOIL EROSION & SEDIMENT CONTROL PLANS

SHEET NO.	REFERENCE NO.	DESCRIPTION
1	ES01.01	COVER SHEET
2	ES20.01	EROSION & SEDIMENT CONTROL OVERALL PLAN
3 - 6	ES20.02 - ES20.05	EROSION & SEDIMENT CONTROL PLANS
7 - 10	ES21.01 - ES21.04	EROSION & SEDIMENT CONTROL DETAILS
11 - 12	ES22.01 - ES22.02	EROSION & SEDIMENT CONTROL NOTES

SHEET INDEX (SEPARATE COVER)

DRAINAGE AREA PLANS

SHEET NO.	REFERENCE NO.	DESCRIPTION
1	DR40.01	COVER SHEET
2	DR40.02	PRE-DEVELOPED DRAINAGE AREA PLAN
3	DR40.03	POST-DEVELOPED DRAINAGE AREA PLAN
4-8	DR40.04 - DR40.08	INLET DRAINAGE AREA PLAN

STREET INDEX

PLAN IDENTIFICATION	STREET NAME
ROAD 'A'	---
ROAD 'B'	---

Know what's below. Call before you dig.

THE PENNSYLVANIA ONE CALL SYSTEM (POCS)
ASSIGNED NEW EXCAVATION FINAL DESIGN SERIAL NUMBER: 20230730153, 20230730160 AND 20230730170.

THE FOLLOWING UTILITY COMPANIES WERE NOTIFIED:
COLUMBIA GAS TRANSMISSION DOWNINGTOWN (CD) (610)-518-1900
AQUA PENNSYLVANIA, INC. (HTD) (610)-525-1400
COMCAST CABLE CHESTER COUNTY (JZ) (610) 429-4035
PECO AN EXELON COMPANY (KF) (800) 841-4141
UPPER UWCHLAN TWP/UPPER UWCHLAN MUNICIPAL AUTHORITY (UUT) (610)-458-9400
VERIZON PENNSYLVANIA, LLC (YI) (800) 837-4966

CONTACT:
JOHN H. BAIONNO, P.E. PROJECT ENGINEER
JUSTIN BARNETT, R.L.A. LANDSCAPE ARCHITECT
JAMES M. HOLLIDAY, P.L.S. LICENSED SURVEYOR

ESE CONSULTANTS
ENGINEERING • PLANNING • SURVEYING • ENVIRONMENTAL
ESE Consultants, Inc.
1140 Virginia Drive • Fort Washington, PA 19034
T: 215-914-2050

JOHN H. BAIONNO ENGINEER COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL

REV.	DATE	DESCRIPTION	DRAWN

COVER SHEET

100 GREENRIDGE ROAD DEVELOPMENT
UPPER UWCHLAN TOWNSHIP, CHESTER COUNTY, PENNSYLVANIA

DATE: 03/31/2023	SCALE: AS NOTED
DESIGN: JHB	DRAWN: STAFF
JOB NO.: 8145	FILE NAME: 8145-01-COVER
REF. NO.: SD01.01	
SHEET NO.: 1 OF 49	

N:\PROJECTS\PENNSYLVANIA\8145-GREENRIDGE ROAD\ENGDEPT\DRAWINGS\SHEET DRAWINGS\8145-01-COVER.DWG-Eric Stengel-4/5/2023 4:19 PM

100 GREENRIDGE ROAD DEVELOPMENT

PRELIMINARY SUBDIVISION AND LAND DEVELOPMENT PLANS

TAX PARCELS #32-1-17.1 & 32-1-11

100 GREENRIDGE ROAD

UPPER UWCHLAN TOWNSHIP, CHESTER COUNTY, PENNSYLVANIA

GRAPHIC SCALE

150 0 75 150 300 600

(IN FEET)
1 inch = 150 ft.

OWNER OF RECORD:

RICHARD T. WILLIAMS AND
BONNIE C. WILLIAMS
BY AND THROUGH THEIR DULY APPOINTED
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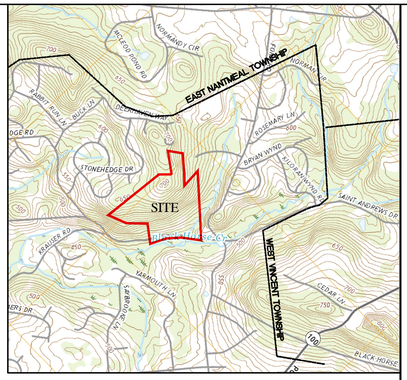
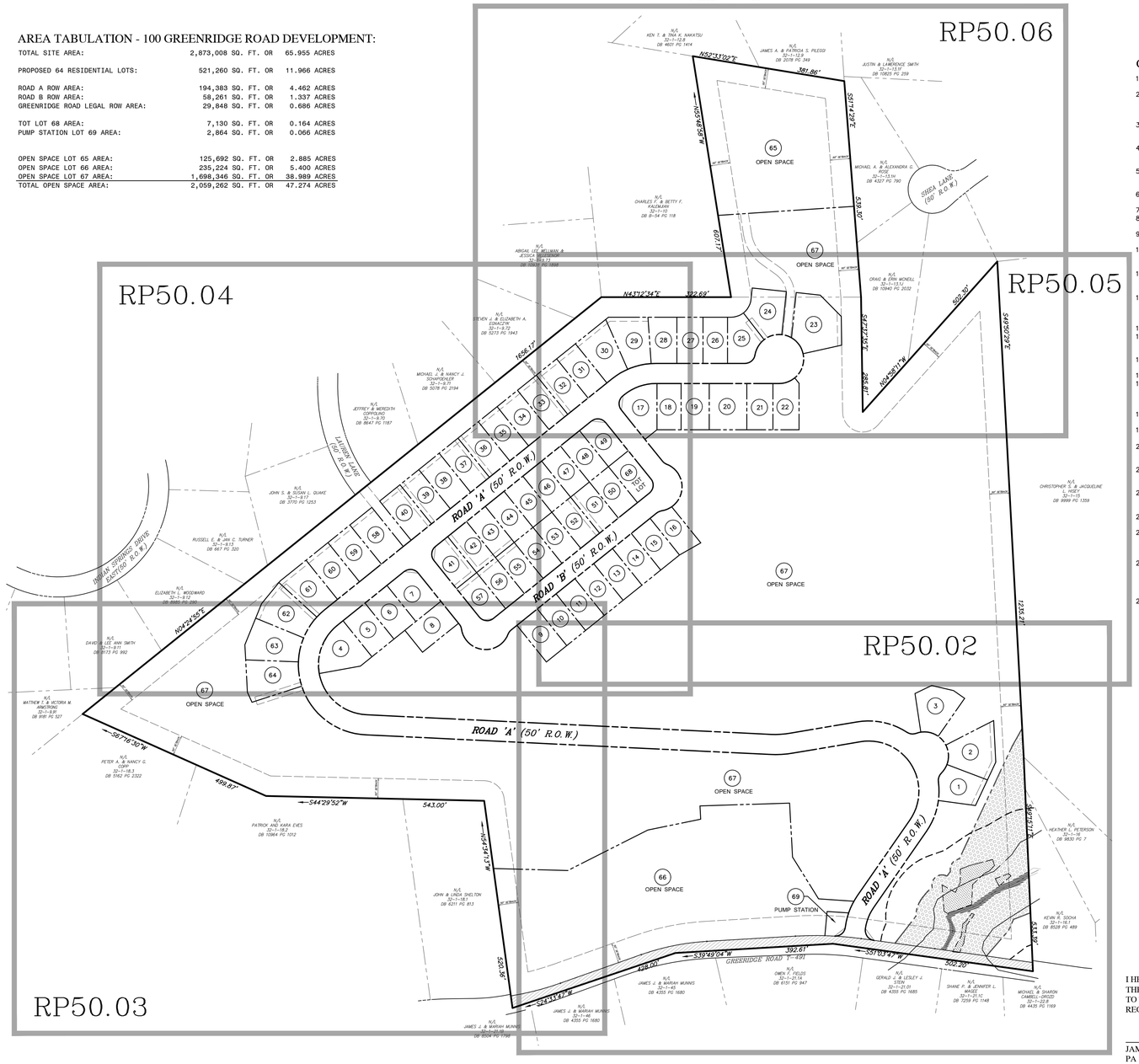


LOCATION MAP
N.T.S.

AREA TABULATION - 100 GREENRIDGE ROAD DEVELOPMENT:

TOTAL SITE AREA:	2,873,008 SQ. FT. OR	65.955 ACRES
PROPOSED 64 RESIDENTIAL LOTS:	521,260 SQ. FT. OR	11.966 ACRES
ROAD A ROW AREA:	194,383 SQ. FT. OR	4.462 ACRES
ROAD B ROW AREA:	58,261 SQ. FT. OR	1.337 ACRES
GREENRIDGE ROAD LEGAL ROW AREA:	29,848 SQ. FT. OR	0.686 ACRES
TOT LOT 68 AREA:	7,130 SQ. FT. OR	0.164 ACRES
PUMP STATION LOT 69 AREA:	2,864 SQ. FT. OR	0.066 ACRES
OPEN SPACE LOT 65 AREA:	125,692 SQ. FT. OR	2.885 ACRES
OPEN SPACE LOT 66 AREA:	235,224 SQ. FT. OR	5.400 ACRES
OPEN SPACE LOT 67 AREA:	1,698,346 SQ. FT. OR	38.989 ACRES
TOTAL OPEN SPACE AREA:	2,059,262 SQ. FT. OR	47.274 ACRES



GENERAL NOTES:

1.) PROPERTY IS DELINEATED AS TAX MAP PARCEL NOS. 32-001-0017.01 AND 32-001-0011.
2.) THIS PROJECT IS LOCATED WITHIN THE F1 FLEXIBLE DEVELOPMENT OVERLAY DISTRICT. THE APPLICANT RECEIVED CONDITIONAL USE APPROVAL FOR A 64 - LOT SUBDIVISION UTILIZING SINGLE-FAMILY DETACHED LOTS ON AUGUST 21, 2021.
3.) OUTBOUND INFORMATION WAS OBTAINED FROM BOUNDARY SURVEY PREPARED BY CHESTER VALLEY ENGINEERS, INC. FOR SUBJECT PROPERTY. PLAN DATED JUNE 11 2021.
4.) THESE PLANS WERE PREPARED IN ACCORDANCE WITH THE UPPER UWCHLAN TOWNSHIP ZONING ORDINANCE AND UPPER UWCHLAN TOWNSHIP SUBDIVISION AND LAND DEVELOPMENT ORDINANCE.
5.) THE WETLANDS AND WATERS OF THE COMMONWEALTH SHOWN ON THESE PLANS WERE DELINEATED BY ESE CONSULTANTS, INC., JUNE 2021. WETLAND JURISDICTION DETERMINATION FROM US ARMY CORPS OF ENGINEERS IS PENDING.
6.) THE TOPOGRAPHIC INFORMATION SHOWN ON THESE PLANS WERE PREPARED BY ESE CONSULTANTS, INC., PLAN DATED JULY 01, 2021.
7.) SOILS ARE TAKEN FROM NRCS CHESTER COUNTY, PA SOIL SURVEY.
8.) PRECAUTIONARY AND PROHIBITIVE SLOPES ARE MAPPED/DELINEATED IN ACCORDANCE WITH THE UPPER UWCHLAN TOWNSHIP ZONING ORDINANCE.
9.) FLOODPLAIN MAPPED FROM FEMA PANEL 42029C0090G. PLAN LAST REVISED SEPTEMBER 29, 2017.
10.) TOWNSHIP RIPARIAN BUFFER LINE IS BASED ON THE OUTERMOST LIMITS OF THE FOLLOWING: 75' FROM TOP-OF-BANK OF A STREAM, 25' FROM WETLANDS, OR THE HYDRIC SOIL BOUNDARY LINE.
11.) THE EXISTING STREAM IS A TRIBUTARY TO THE BLACK MARSH CREEK AND IS DEFINED AS A HIGH QUALITY STREAM PER PA DEP. A 150' BUFFER, MEASURED FROM TOP OF BANK, IS SHOWN IN ACCORDANCE WITH PA DEP REGULATIONS.
12.) THE MAJORITY OF THE SITE HAS GEOLOGICAL PROPERTIES MADE UP OF PRECAMBRIAN GRAPHITIC FELSIC GNEISS. THE EASTERN CORNER OF THE SITE CONTAINS AREAS MADE UP OF PRECAMBRIAN GRAPHITIC FELSIC GNEISS, INCLUDING PICKERING GNEISS AND SMALL AREAS OF MARBLE.
13.) SITE IS LOCATED WITHIN SUBBASIN #827 OF THE CHRISTINA BASIN.
14.) THE PROPOSED STREETS SERVING THE DEVELOPMENT SHALL BE PRIVATE, CONVEYED TO THE COMMUNITY ASSOCIATION, AND PERPETUALLY MAINTAINED BY THE COMMUNITY ASSOCIATION.
15.) THE PROPOSED SUBDIVISION WILL FEATURE AN EMERGENCY ACCESS VIA GRASS-PAVE CONNECTION TO LAUREN LANE.
16.) THE PROPOSED SUBDIVISION WILL BE SERVED BY PUBLIC WATER.
17.) THE PROPOSED SUBDIVISION WILL BE SERVICED BY THE ROUTE 100 SEWAGE TREATMENT PLANT. DISPOSAL OF EFFLUENT WILL OCCUR ON-SITE THROUGH DRIP IRRIGATION. THE PROPOSED DRIP IRRIGATION FIELDS & SEWAGE PUMP STATION WILL BE OFFERED FOR DEDICATION TO UPPER UWCHLAN TOWNSHIP.
18.) ALL SANITARY SEWER IMPROVEMENTS SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH THE UPPER UWCHLAN TOWNSHIP MUNICIPAL SPECIFICATIONS.
19.) THE PROPOSED SANITARY CAPACITY FOR THE DEVELOPMENT WILL BE 14,400 GPD (225 GPD/EDU).
20.) THE COMBINED RESTRICTED & REQUIRED PLAYGROUND; NEIGHBORHOOD OPEN SPACE; AND PAVED TRAIL WILL BE OWNED AND MAINTAINED BY THE COMMUNITY ASSOCIATION.
21.) THE PROPOSED NATURE TRAILS WILL BE AVAILABLE FOR PUBLIC ACCESS VIA 20' EASEMENT. NATURE TRAILS WILL BE OWNED & MAINTAINED BY THE COMMUNITY ASSOCIATION.
22.) OPEN SPACE SHALL NOT BE SEPARATELY SOLD AND SHALL NOT BE FURTHER SUBDIVIDED OR DEVELOPED. OPEN SPACE CANNOT BE ALTERED/TRANSFERRED WITHOUT THE EXPRESSED WRITTEN CONSENT OF UPPER UWCHLAN TOWNSHIP.
23.) THE PROPOSED STORM WATER MANAGEMENT FACILITIES WILL BE OWNED AND MAINTAINED BY THE COMMUNITY ASSOCIATION.
24.) THE EXISTING HOME, GARAGE AND SUBSEQUENT STRUCTURES, ALONG WITH THE EXISTING POOL AND PATIO, WILL BE DEMOLISHED. A PORTION OF THE EXISTING DRIVEWAY WILL REMAIN AND BE UTILIZED AS PART OF A COMMUNITY TRAIL NETWORK.
25.) THE PROJECT SITE SHARES A COMMON BOUNDARY WITH PARCEL 32-1-15, WHICH HAS BEEN IDENTIFIED AS CLASS II HISTORIC RESOURCE. NO IMPACT FROM THE PROPOSED DEVELOPMENT IS ANTICIPATED AS RESTRICTED OPEN SPACE HAS BEEN PROPOSED BETWEEN THE AREA OF DEVELOPMENT AND THE COMMON BOUNDARY LINE.
26.) ALL UNITS WILL FEATURE A 2-CAR GARAGE AND DRIVEWAY SPACE FOR 2 ADDITIONAL VEHICLES.

LEGEND:

- MONUMENT TO BE SET
- MONUMENT FOUND
- IRON PIN/PIPE FOUND
- (50) PROPOSED LOT NUMBER
- BUILDING SETBACK LINE
- PROPOSED CENTER LINE
- STREAM LINE
- PROPOSED PROPERTY LINE
- PROPOSED R.O.W.
- OUTBOUND LINE
- PROPOSED EASEMENT
- RIPARIAN BUFFER
- STREAM BUFFER
- WETLANDS LIMIT
- EXISTING STREAM
- FLOODPLAIN (ZONE X)

CERTIFICATION OF ACCURACY

I HEREBY CERTIFY TO THE BEST OF MY KNOWLEDGE THAT THE THE PLAN SHOWN AND DESCRIBED HEREON IS TRUE AND CORRECT TO THE ACCURACY REQUIRED BY THE LAND SUBDIVISION REGULATIONS OF THE TOWNSHIP OF UPPER UWCHLAN.

JAMES M. HOLLIDAY
PA LICENSE NO. SU-075130

COMMONWEALTH OF PENNSYLVANIA
COUNTY OF MONTGOMERY

EQUITABLE OWNER/CORPORATE CERTIFICATION:

I DO HEREBYCERTIFY THAT TOLL MID-ATLANTIC L.P. COMPANY, INC., A DELAWARE CORPORATION, IS THE REGISTERED EQUITABLE OWNER AND APPLICANT OF THE LAND HEREIN SUBDIVIDED, PROPOSED TO BE DEVELOPED AND THAT IT DOES ADOPT THIS PLAN AND DESIRE THE SAME TO BE RECORDED.

BY: _____
BRIAN THIERRIN
SENIOR VICE PRESIDENT

T.M.P. NO. 32-00-0017.0100 AND 32-00-0011.0000

NOTARY PUBLIC
COMMONWEALTH OF PENNSYLVANIA
COUNTY OF MONTGOMERY

ON THE ___DAY OF _____2023, BEFORE ME THE UNDERSIGNED NOTARY PUBLIC, PERSONALLY APPEARED BRIAN THIERRIN, WHO ACKNOWLEDGED HIMSELF TO BE SENIOR VICE PRESIDENT OF TOLL MID-ATLANTIC COMPANY L.P. COMPANY, INC., A DELAWARE CORPORATION, AND HE AS SUCH OFFICER BEING AUTHORIZED TO DO SO, HAS EXECUTED THE FOREGOING PLAN BY SIGNING HIS NAME AS SUCH OFFICER.

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

NOTARY PUBLIC: _____

MY COMMISSION EXPIRES: _____

PLANNING COMMISSION OF UPPER UWCHLAN TOWNSHIP

REVIEWED BY THE PLANNING COMMISSION OF UPPER UWCHLAN TOWNSHIP, CHESTER COUNTY ON THIS____DAY OF_____,2023.

_____
_____

CERTIFICATE OF MUNICIPAL APPROVAL

APPROVED BY THE BOARD OF SUPERVISORS OF THE TOWNSHIP OF UPPER UWCHLAN.
THIS____DAY OF_____, 2023.

_____
_____
_____

TOWNSHIP ENGINEER CERTIFICATION

THIS PLAN HAS BEEN REVIEWED BY THE UPPER UWCHLAN TOWNSHIP ENGINEER IN ACCORDANCE WITH THE SUBDIVISION AND LAND DEVELOPMENT ORDINANCE AT THE TIME OF SUBDIVISION.

_____
ENGINEER

CHESTER COUNTY PLANNING COMMISSION

REVIEWED BY THE CHESTER COUNTY PLANNING COMMISSION ON THIS_____ DAY OF_____2023.

_____
DATE

SURVEYOR CERTIFICATION

I HEREBY CERTIFY THAT I AM A REGISTERED PROFESSIONAL LAND SURVEYOR, LICENSED IN COMPLIANCE WITH THE LAWS OF THE COMMONWEALTH OF PENNSYLVANIA; THAT TO THE BEST OF MY KNOWLEDGE THIS IS TRUE AND CORRECT TO THE ACCURACY REQUIRED BY THE LAND SUBDIVISION REGULATIONS OF THE TOWNSHIP OF UPPER UWCHLAN.

_____
JAMES M. HOLLIDAY
PA LICENSE NO. SU-075130

CAUTION:
IF THIS DOCUMENT DOES NOT CONTAIN THE ORIGINAL SIGNATURE AND SEAL OF THE LAND SURVEYOR, IT IS NOT AN AUTHENTIC COPY AND SHOULD NOT BE RELIED UPON AND MAY HAVE BEEN ALTERED.

James M. Holliday

JAMES M. HOLLIDAY
PROFESSIONAL LAND SURVEYOR
PA LICENSE NO. SU-075130

ESE CONSULTANTS
ENGINEERING • PLANNING • SURVEYING • ENVIRONMENTAL
ESE Consultants, Inc.
1140 Virginia Drive • Fort Washington, PA 19034
T: 215-914-2050

REV.	DATE	DESCRIPTION	DRAWN

RECORD PLAN
(RECORD SHEET 1 OF 6)

100 GREENRIDGE ROAD DEVELOPMENT
UPPER UWCHLAN TOWNSHIP, CHESTER COUNTY, PENNSYLVANIA

DATE: 03/31/23	SCALE: 1"=50'
DESIGN: JHB	DRAWN: KMS
JOB NO.: 8145	FILE NAME: RP50.01
REF. NO.:	RP50.01
SHEET NO.: 2	OF 49

MATCHLINE – SEE SHEET RP50.05

MATCHLINE – SEE SHEET RP50.03

67
OPEN SPACE
1,698,346 S.F.
38.989 ACRES

67
OPEN SPACE
1,698,346 S.F.
38.989 ACRES

66
OPEN SPACE
235,224 S.F.
5.400 ACRES

69
PUMP STATION
2,864 S.F.
0.066 ACRES

ROAD 'A' (50' R.O.W.)
(194,383 S.F. OR 4.462 ACRES)

EXISTING RIGHT OF WAY AREA
29,848 S.F. OR 0.686 ACRES

GREENRIDGE ROAD T-491

1 — 8,576 S.F. 0.197 ACRES
2 — 11,751 S.F. 0.270 ACRES
3 — 9,931 S.F. 0.228 ACRES

10' STORM DRAINAGE EASEMENT
2,196 S.F.

SITE TRIANGLE (TYP)

50' SETBACK

N/A
CHRISTOPHER S. & JACQUELINE L. HISEY
32-1-15
DB 9959 PG 1359

N/A
HEATHER L. PETERSON
32-1-16
DB 9830 PG 7

N/A
KEVIN R. SOCHA
32-1-16.1
DB 8528 PG 489

N/A
OWEN F. FIELDS
32-1-21.1A
DB 6151 PG 947

N/A
GERALD J. & LESLEY J. STEIN
32-1-21.01
DB 4355 PG 1685

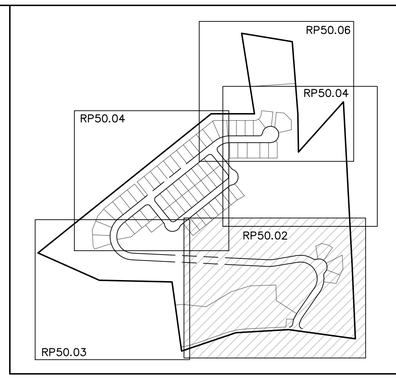
N/A
SHANE P. & JENNIFER L. MAGEE
32-1-21.1C
DB 7259 PG 1148

N/A
MICHAEL & SHARON CAMBELL-DROZD
32-1-22.8
DB 4435 PG 1169

N/A
JAMES J. & MARIAH MUNNIS
32-1-45
DB 4355 PG 1680

N/A
JAMES J. & MARIAH MUNNIS
32-1-46
DB 4355 PG 1680

I.PIN(F)



KEY MAP
N.T.S.

OWNER OF RECORD:

RICHARD T. WILLIAMS AND
BONNIE C. WILLIAMS
BY AND THROUGH THEIR DULY APPOINTED
POWER OF ATTORNEY:
ANDREA PETTIBONE, ESQUIRE
205 EXETER ROAD
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- PROPOSED R.O.W.
- OUTBOUND LINE
- PROPOSED EASEMENT
- RIPARIAN BUFFER
- STREAM BUFFER
- WETLANDS LIMIT
- EXISTING STREAM
- FLOODPLAIN (ZONE X)

FEET
50 0 25 50 100
GRAPHIC SCALE 1 inch = 50 ft.

CURVE TABLE

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE	TANGENT
C1	150.00'	70.37'	69.73'	S25°29'47"E	26°52'52"	35.85'
C2	150.00'	351.71'	276.50'	S79°13'42"E	134°20'42"	356.36'
C3	250.00'	54.07'	53.97'	N39°47'45"E	12°23'34"	27.14'
C9	25.00'	37.27'	33.91'	S03°46'05"W	85°24'35"	23.07'
C10	175.00'	82.10'	81.35'	S25°29'47"E	26°52'52"	41.82'
C11	125.00'	293.10'	230.42'	S79°13'42"E	134°20'42"	296.96'
C12	275.00'	59.48'	59.37'	N39°47'45"E	12°23'34"	29.86'
C27	225.00'	48.67'	48.57'	S39°47'45"W	12°23'34"	24.43'
C28	175.00'	130.54'	127.54'	S54°58'10"W	42°44'26"	68.48'
C29	25.00'	23.25'	22.42'	S49°42'00"W	53°16'46"	12.54'
C30	60.00'	163.00'	117.30'	N79°06'47"W	155°39'13"	278.14'
C31	25.00'	23.25'	22.42'	N27°55'33"W	53°16'46"	12.54'
C32	175.00'	129.84'	126.88'	N33°18'39"W	42°30'36"	68.07'
C33	125.00'	58.08'	57.56'	N25°22'00"W	26°37'19"	29.57'
C34	25.00'	34.91'	32.14'	N89°02'52"W	80°00'24"	20.98'
C39	175.00'	34.00'	33.95'	S33°22'16"E	11°07'53"	17.05'
C40	175.00'	48.10'	47.95'	S19°55'50"E	15°44'59"	24.20'
C57	60.00'	12.17'	12.15'	S28°52'14"W	11°37'15"	6.11'
C58	60.00'	45.49'	44.41'	S56°23'59"W	43°26'16"	23.90'
C59	60.00'	29.28'	28.99'	N87°53'58"W	27°57'50"	14.94'
C60	60.00'	50.18'	48.73'	N49°57'36"W	47°54'53"	26.66'
C61	60.00'	25.88'	25.68'	N13°38'40"W	24°42'59"	13.15'
C62	175.00'	46.99'	46.85'	N46°52'22"W	15°23'08"	23.64'
C63	175.00'	82.85'	82.08'	N25°37'04"W	27°07'28"	42.21'
C66	29.00'	5.25'	5.24'	S43°51'40"E	10°22'01"	2.63'
C67	844.97'	24.60'	24.60'	N45°38'19"E	1°40'06"	12.30'
C68	1047.81'	98.19'	98.15'	S49°26'40"W	5°22'08"	49.13'
C69	725.01'	127.54'	127.38'	S28°47'00"W	10°04'45"	63.93'
C70	595.00'	167.11'	166.56'	S31°47'23"W	16°05'31"	84.11'
C71	844.97'	73.28'	73.26'	S42°19'12"W	4°58'08"	36.66'
C72	844.97'	163.89'	163.64'	S45°23'32"W	11°06'48"	82.20'

AREA TABULATION - 100 GREENRIDGE ROAD DEVELOPMENT:

TOTAL SITE AREA:	2,873,008 SQ. FT. OR	65.955 ACRES
PROPOSED 64 RESIDENTIAL LOTS:	521,260 SQ. FT. OR	11.966 ACRES
ROAD A ROW AREA:	194,383 SQ. FT. OR	4.462 ACRES
ROAD B ROW AREA:	58,261 SQ. FT. OR	1.337 ACRES
GREENRIDGE ROAD LEGAL ROW AREA:	29,848 SQ. FT. OR	0.686 ACRES
TOT LOT 68 AREA:	7,130 SQ. FT. OR	0.164 ACRES
PUMP STATION LOT 69 AREA:	2,864 SQ. FT. OR	0.066 ACRES
OPEN SPACE LOT 65 AREA:	125,692 SQ. FT. OR	2.885 ACRES
OPEN SPACE LOT 66 AREA:	235,224 SQ. FT. OR	5.400 ACRES
OPEN SPACE LOT 67 AREA:	1,698,346 SQ. FT. OR	38.989 ACRES
TOTAL OPEN SPACE AREA:	2,059,262 SQ. FT. OR	47.274 ACRES

ZONING REQUIREMENTS:

GROSS SITE AREA: 65.95 ACRES
TAX MAP PARCEL NO.: 32-001-0017.1, 32-001-0011
BASE ZONING DISTRICT: R2 – RESIDENTIAL DISTRICT
OVERLAY DISTRICT: F1 – FLEXIBLE DEVELOPMENT OVERLAY
PROPOSED USE: FLEXIBLE DEVELOPMENT OVERLAY OPTION; SINGLE-FAMILY, DETACHED LOTS
TOTAL NUMBER OF PROPOSED RESIDENTIAL LOTS: 64 BUILDING LOTS

FLEXIBLE DEVELOPMENT OVERLAY DISTRICT (F1):

SINGLE-FAMILY DETACHED:	REQUIRED	PROPOSED
MINIMUM TRACT AREA (SF)	10 AC.	+65 AC.
MAXIMUM IMPERVIOUS SURFACE – PER LOT (%)	35/45/55	35/45/55*
MINIMUM OPEN SPACE RATIO (%)	40	44
PERMISSIBLE DENSITY (DU/AC)	1.1	.95
MAXIMUM BUILDING HEIGHT (FT.)	35	35
MINIMUM FRONT YARD (FT.)	25	25

*SEE LOT IMPERVIOUS CHART SHEET 7.

CERTIFICATION OF ACCURACY

I HEREBY CERTIFY TO THE BEST OF MY KNOWLEDGE THAT THE THE PLAN SHOWN AND DESCRIBED HEREON IS TRUE AND CORRECT TO THE ACCURACY REQUIRED BY THE LAND SUBDIVISION REGULATIONS OF THE TOWNSHIP OF UPPER UWCHLAN.

JAMES M. HOLLIDAY
PA LICENSE NO. SU-075130

SURVEYOR CERTIFICATION

I HEREBY CERTIFY THAT I AM A REGISTERED PROFESSIONAL LAND SURVEYOR, LICENSED IN COMPLIANCE WITH THE LAWS OF THE COMMONWEALTH OF PENNSYLVANIA; THAT TO THE BEST OF MY KNOWLEDGE THIS IS TRUE AND CORRECT TO THE ACCURACY REQUIRED BY THE LAND SUBDIVISION REGULATIONS OF THE TOWNSHIP OF UPPER UWCHLAN.

JAMES M. HOLLIDAY
PA LICENSE NO. SU-075130

CAUTION:
IF THIS DOCUMENT DOES NOT CONTAIN A RAISED SEAL OF PROFESSIONAL LAND SURVEYOR, IT IS NOT AN AUTHENTICATED SURVEY DOCUMENT AND MAY HAVE BEEN ALTERED.

James M. Holliday
JAMES M. HOLLIDAY
PROFESSIONAL LAND SURVEYOR
PA LICENSE NO. SU-075130

ESE CONSULTANTS
ENGINEERING • PLANNING • SURVEYING • ENVIRONMENTAL
ESE Consultants, Inc.
1140 Virginia Drive • Fort Washington, PA 19034
T: 215-914-2050

REV.	DATE	DESCRIPTION	DRAWN

RECORD PLAN
(RECORD SHEET 2 OF 6)

100 GREENRIDGE ROAD DEVELOPMENT
UPPER UWCHLAN TOWNSHIP, CHESTER COUNTY, PENNSYLVANIA

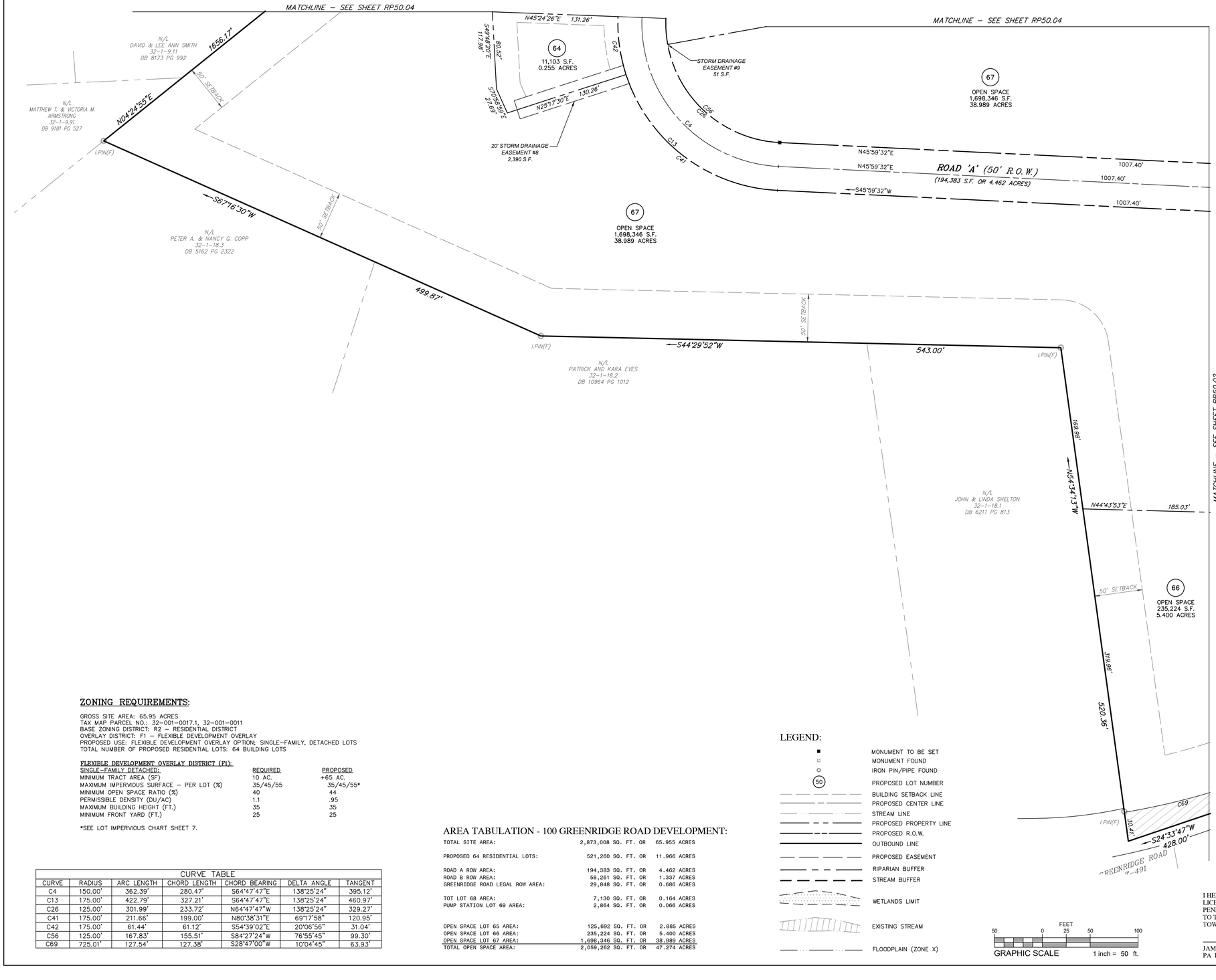
DATE: 03/31/23	SCALE: 1"=50'
DESIGN: JHB	DRAWN: KMS
JOB NO.: 8145	FILE NAME: RP50.02
REF. NO.:	RP50.02
SHEET NO.: 3 OF 49	

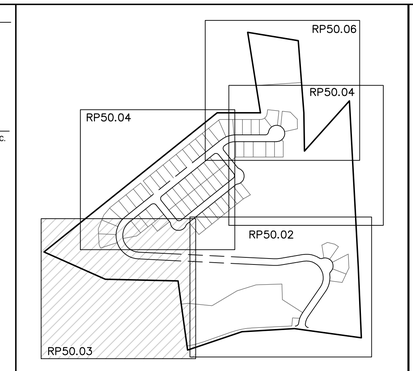
OWNER OF RECORD:

RICHARD T. WILLIAMS AND
BONNIE C. WILLIAMS
BY AND THROUGH THEIR DULY
APPOINTED POWER OF ATTORNEY;
ANDREA PETTIBONE, ESQUIRE
205 EXETER ROAD
DEVON, PA 19333
610-212-9059

EQUITABLE OWNER AND APPLICANT:

TOLL MID-ATLANTIC, L.P. COMPANY, INC.
1140 VIRGINIA DRIVE
FORT WASHINGTON, PA 19034
(215)938-8000





KEY MAP
N.T.S.

CAUTION:
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ZONING REQUIREMENTS:

GROSS SITE AREA: 65.95 ACRES
TAX MAP PARCEL NO.: 32-001-0017.1, 32-001-0011
BASE ZONING DISTRICT: R2 – RESIDENTIAL DISTRICT
OVERLAY DISTRICT: F1 – FLEXIBLE DEVELOPMENT OVERLAY
PROPOSED USE: FLEXIBLE DEVELOPMENT OVERLAY OPTION; SINGLE-FAMILY, DETACHED LOTS
TOTAL NUMBER OF PROPOSED RESIDENTIAL LOTS: 64 BUILDING LOTS

FLEXIBLE DEVELOPMENT OVERLAY DISTRICT (F1):

SINGLE-FAMILY DETACHED:	REQUIRED	PROPOSED
MINIMUM TRACT AREA (SF)	10 AC.	+65 AC.
MAXIMUM IMPERVIOUS SURFACE – PER LOT (%)	35/45/55	35/45/55*
MINIMUM OPEN SPACE RATIO (%)	40	44
PERMISSIBLE DENSITY (DU/AC)	1.1	.95
MAXIMUM BUILDING HEIGHT (FT.)	35	35
MINIMUM FRONT YARD (FT.)	25	25

*SEE LOT IMPERVIOUS CHART SHEET 7.

CURVE TABLE						
CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE	TANGENT
C4	150.00'	362.39'	280.47'	S64°47'47"E	138°25'24"	395.12'
C13	175.00'	422.79'	327.21'	S64°47'47"E	138°25'24"	460.97'
C26	125.00'	301.99'	233.72'	N64°47'47"W	138°25'24"	329.27'
C41	175.00'	211.66'	199.00'	N80°38'31"E	69°17'58"	120.95'
C42	175.00'	61.44'	61.12'	S54°39'02"E	20°06'56"	31.04'
C56	125.00'	167.83'	155.51'	S84°27'24"W	76°55'45"	99.30'
C69	725.01'	127.54'	127.38'	S28°47'00"W	10°04'45"	63.93'

AREA TABULATION - 100 GREENRIDGE ROAD DEVELOPMENT:

TOTAL SITE AREA:	2,873,008 SQ. FT. OR	65.955 ACRES
PROPOSED 64 RESIDENTIAL LOTS:	521,260 SQ. FT. OR	11.966 ACRES
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OPEN SPACE LOT 67 AREA:	1,698,346 SQ. FT. OR	38.989 ACRES
TOTAL OPEN SPACE AREA:	2,059,262 SQ. FT. OR	47.274 ACRES

LEGEND:

- MONUMENT TO BE SET
- MONUMENT FOUND
- IRON PIN/PIPE FOUND
- (50) PROPOSED LOT NUMBER
- BUILDING SETBACK LINE
- PROPOSED CENTER LINE
- STREAM LINE
- PROPOSED PROPERTY LINE
- PROPOSED R.O.W.
- OUTBOUND LINE
- PROPOSED EASEMENT
- RIPARIAN BUFFER
- STREAM BUFFER
- WETLANDS LIMIT
- EXISTING STREAM
- FLOODPLAIN (ZONE X)

GRAPHIC SCALE
50 0 25 50 100 FEET
1 inch = 50 ft.

CERTIFICATION OF ACCURACY

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JAMES M. HOLLIDAY
PA LICENSE NO. SU-075130

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JAMES M. HOLLIDAY
PA LICENSE NO. SU-075130

REV.	DATE	DESCRIPTION
		DRAWN

RECORD PLAN
(RECORD SHEET 3 OF 6)

100 GREENRIDGE ROAD DEVELOPMENT

UPPER UWCHLAN TOWNSHIP, CHESTER COUNTY, PENNSYLVANIA

DATE: 03/31/23	SCALE: 1"=50'
DESIGN: JHB	DRAWN: KMS
JOB NO.: 8145	FILE NAME: RP50.03
REF. NO.:	RP50.03
SHEET NO.:	4 OF 49

OWNER OF RECORD:

RICHARD T. WILLIAMS AND
BONNIE C. WILLIAMS
BY AND THROUGH THEIR DULY
APPOINTED POWER OF ATTORNEY;
ANDREA PETTIBONE, ESQUIRE
205 EXETER ROAD
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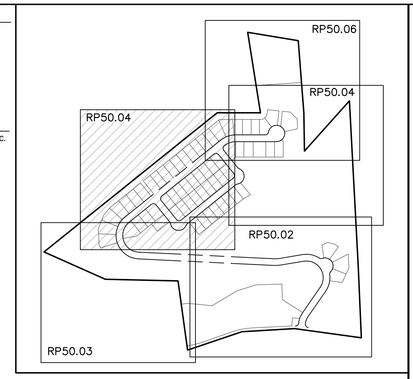

KEY MAP
N.T.S.

ZONING REQUIREMENTS:

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TAX MAP PARCEL NO.: 32-001-0017.1, 32-001-0011
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MINIMUM FRONT YARD (FT.)	25	25

*SEE LOT IMPERVIOUS CHART SHEET 7.

CURVE TABLE

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE	TANGENT
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C7	50.00'	78.54'	70.71'	S49°24'55"W	90°00'00"	50.00'
C13	175.00'	422.79'	327.21'	S64°47'47"E	138°25'24"	460.97'
C22	25.00'	13.07'	12.92'	N10°33'27"W	29°56'45"	6.69'
C23	60.50'	158.28'	116.85'	N49°24'55"E	149°53'30"	224.94'
C24	25.00'	13.07'	12.92'	S70°36'42"E	29°56'45"	6.69'
C25	25.00'	39.27'	35.36'	N49°24'55"E	90°00'00"	25.00'
C26	125.00'	301.99'	233.72'	N64°47'47"W	138°25'24"	329.27'
C43	175.00'	61.44'	61.12'	N34°32'06"W	20°06'56"	31.04'
C44	175.00'	61.44'	61.12'	N14°25'10"W	20°06'56"	31.04'
C45	175.00'	26.81'	26.78'	N00°01'37"E	8°46'37"	13.43'
C55	125.00'	134.16'	127.81'	N26°19'54"W	61°29'39"	74.36'

AREA TABULATION - 100 GREENRIDGE ROAD DEVELOPMENT:

TOTAL SITE AREA:	2,873,008 SQ. FT. OR	65.955 ACRES
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LEGEND:

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- MONUMENT FOUND
- IRON PIN/PIPE FOUND
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- PROPOSED CENTER LINE
- STREAM LINE
- PROPOSED PROPERTY LINE
- PROPOSED R.O.W.
- OUTBOUND LINE
- PROPOSED EASEMENT
- RIPARIAN BUFFER
- STREAM BUFFER
- WETLANDS LIMIT
- EXISTING STREAM
- FLOODPLAIN (ZONE X)

GRAPHIC SCALE
FEET
50 0 25 50 100
1 inch = 50 ft.

CERTIFICATION OF ACCURACY

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JAMES M. HOLLIDAY
PA LICENSE NO. SU-075130

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JAMES M. HOLLIDAY
PA LICENSE NO. SU-075130

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James M. Holliday

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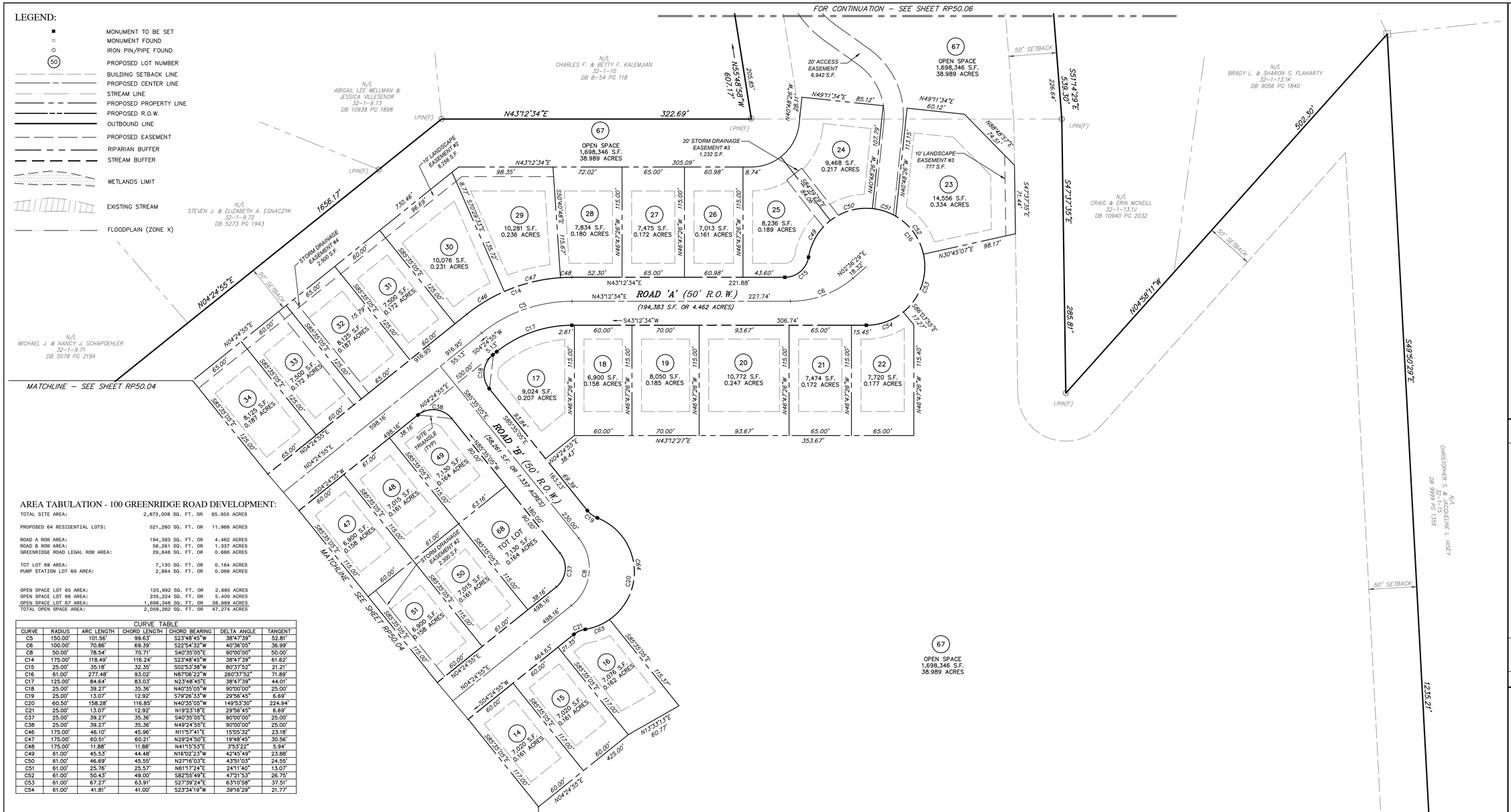
REV.	DATE	DESCRIPTION

RECORD PLAN
(RECORD SHEET 4 OF 6)

100 GREENRIDGE ROAD DEVELOPMENT
UPPER UWCHLAN TOWNSHIP, CHESTER COUNTY, PENNSYLVANIA

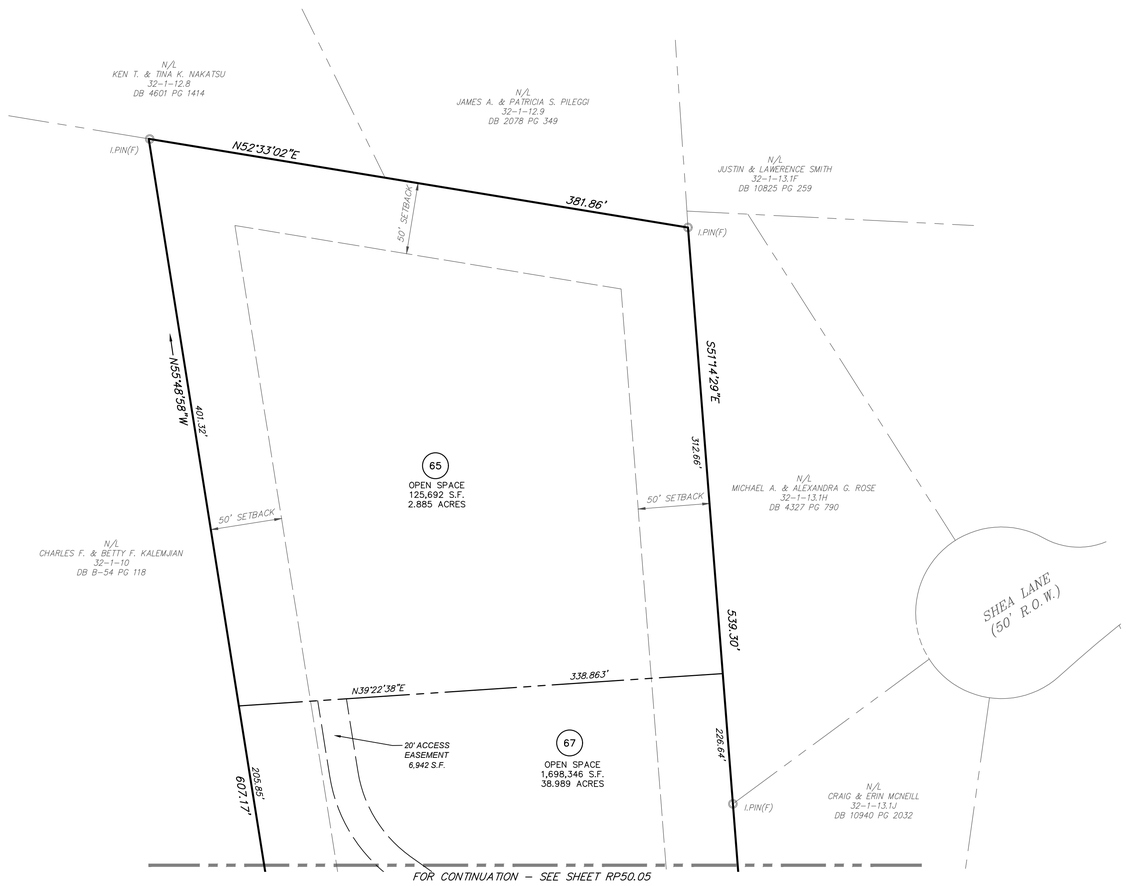
DRAWN:

DATE: 03/31/23	SCALE: 1"=50'
DESIGN: JHB	DRAWN: KMS
JOB NO.: 8145	FILE NAME: RP50.04
REF. NO.:	RP50.04
SHEET NO.:	5 OF 49


LEGEND:
MONUMENT TO BE SET
MONUMENT FOUND
IRON PIN/PIPE FOUND
PROPOSED LOT NUMBER
BUILDING SETBACK LINE
PROPOSED CENTER LINE
STREAM LINE
PROPOSED PROPERTY LINE
PROPOSED R.O.W.
OUTBOUND LINE
PROPOSED EASEMENT
RIPARIAN BUFFER
STREAM BUFFER
WETLANDS LIMIT
EXISTING STREAM
FLOODPLAIN (ZONE X)
FOR CONTINUATION – SEE SHEET RP50.06
MATCHLINE – SEE SHEET RP50.04
MATCHLINE – SEE SHEET RP50.02
ROAD 'A' (50' R.O.W.)
(194,383 S.F. OR 4.462 ACRES)
ROAD 'B' (50' R.O.W.)
(58,261 S.F. OR 1.337 ACRES)
OPEN SPACE
1,698,346 S.F.
38.989 ACRES
67
N/L
CHARLES F. & BETTY F. KALEMJIAN
32-1-10
DB 8-54 PG 118
N/L
ABIGAIL LEE WELLMAN &
JESSICA VILLESENOR
32-1-9.73
DB 10938 PG 1898
N/L
STEVEN J. & ELIZABETH A. EGNACZYK
32-1-9.72
DB 5273 PG 1943
N/L
MICHAEL J. & NANCY J. SCHAPOEHLER
32-1-9.71
DB 5078 PG 2194
N/L
BRADY L. & SHARON S. FLAHARTY
32-1-13.1K
DB 9056 PG 1840
N/L
CRAIG & ERIN MCNEILL
32-1-13.1J
DB 10940 PG 2032
N/L
CHRISTOPHER S. & JACQUELINE L. HISEY
DB 9999 PG 1359
N55°48'58"W 607.17'
N43°12'34"E 322.69'
N04°24'55"E 1656.17'
S51°14'29"E 539.30'
S47°37'35"E 226.84'
N04°58'11"W 502.30'
S49°50'39"E 1235.21'
N43°12'34"E 221.88'
N43°12'34"E 227.74'
S43°12'34"W 306.74'
N43°12'27"E 353.67'
S30°45'07"E 98.17'
N30°45'07"E 98.17'
S86°35'05"E 916.95'
N86°35'05"W 916.95'
S04°24'55"W 916.95'
N04°24'55"E 598.16'
S04°24'55"W 464.63'
N13°33'13"E 60.77'
S86°35'05"E 425.00'
N04°24'55"E 353.67'
S86°35'05"E 115.37'
S86°35'05"E 117.00'
N86°35'05"W 180.00'
S86°35'05"E 180.00'
S04°24'55"W 60.00'
N04°24'55"E 60.00'
S86°35'05"E 125.00'
N86°35'05"W 125.00'
S86°35'05"E 115.00'
N86°47'26"W 115.00'
S86°35'05"E 115.00'
N86°47'26"W 115.00'
S86°35'05"E 115.00'
N86°47'26"W 115

LOT IMPERVIOUS CHART

Lot Number	Lot Area (SF)	Max Impervious Area (SF)*	Impervious Percentage (%)	Remaining Lawn Area (SF)
1	8,576	3,859	45	4,717
2	11,749	5,287	45	6,462
3	9,931	4,469	45	5,462
4	10,439	4,698	45	5,741
5	8,050	3,623	45	4,428
6	8,050	3,623	45	4,428
7	9,066	4,080	45	4,986
8	8,050	3,623	45	4,428
9	7,605	3,422	45	4,183
10	7,020	3,159	45	3,861
11	7,020	3,159	45	3,861
12	7,020	3,159	45	3,861
13	7,020	3,159	45	3,861
14	7,020	3,159	45	3,861
15	7,020	3,159	45	3,861
16	7,076	3,184	45	3,892
17	9,024	4,061	45	4,963
18	6,900	3,795	55	3,105
19	8,050	3,623	45	4,428
20	10,772	4,847	45	5,925
21	7,474	3,363	45	4,111
22	7,720	3,474	45	4,246
23	14,556	5,095	35	9,461
24	9,468	4,261	45	5,207
25	8,236	3,706	45	4,530
26	7,013	3,156	45	3,857
27	7,475	3,364	45	4,111
28	7,834	3,525	45	4,309
29	10,281	4,626	45	5,655
30	10,076	4,534	45	5,542
31	7,500	3,375	45	4,125
32	8,125	3,656	45	4,469
33	7,500	3,375	45	4,125
34	8,125	3,656	45	4,469
35	7,500	3,375	45	4,125
36	8,125	3,656	45	4,469
37	7,500	3,375	45	4,125
38	8,125	3,656	45	4,469
39	7,500	3,375	45	4,125
40	8,125	3,656	45	4,469
41	7,226	3,252	45	3,974
42	6,900	3,795	55	3,105
43	6,900	3,795	55	3,105
44	6,900	3,795	55	3,105
45	6,900	3,795	55	3,105
46	6,900	3,795	55	3,105
47	6,900	3,795	55	3,105
48	7,015	3,157	45	3,858
49	7,130	3,209	45	3,922
50	7,015	3,157	45	3,858
51	6,900	3,795	55	3,105
52	6,900	3,795	55	3,105
53	6,900	3,795	55	3,105
54	6,900	3,795	55	3,105
55	6,900	3,795	55	3,105
56	6,900	3,795	55	3,105
57	7,226	3,252	45	3,974
58	8,751	3,938	45	4,813
59	8,751	3,938	45	4,813
60	8,751	3,938	45	4,813
61	9,746	4,386	45	5,360
62	10,831	4,874	45	5,957
63	11,198	5,039	45	6,159
64	11,103	4,996	45	6,107

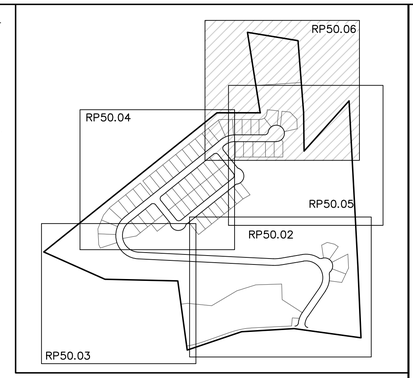


OWNER OF RECORD:

RICHARD T. WILLIAMS AND
BONNIE C. WILLIAMS
BY AND THROUGH THEIR DULY APPOINTED
POWER OF ATTORNEY;
ANDREA PETTIBONE, ESQUIRE
205 EXETER ROAD
DEVON, PA 19333
610-212-9059

EQUITABLE OWNER AND APPLICANT:

TOLL MID-ATLANTIC, L.P. COMPANY, INC.
1140 VIRGINIA DRIVE
FORT WASHINGTON, PA 19034
(215)938-8000



KEY MAP
N.T.S.

GENERAL NOTES:

1.) PROPERTY IS DELINEATED AS TAX MAP PARCEL NOS. 32-001-0017.01 AND 32-001-0011.
2.) THIS PROJECT IS LOCATED WITHIN THE F1 FLEXIBLE DEVELOPMENT OVERLAY DISTRICT. THE APPLICANT RECEIVED CONDITIONAL USE APPROVAL FOR A 64 - LOT SUBDIVISION UTILIZING SINGLE-FAMILY DETACHED LOTS ON AUGUST 21, 2021.
3.) OUTBOUND INFORMATION WAS OBTAINED FROM BOUNDARY SURVEY PREPARED BY CHESTER VALLEY ENGINEERS, INC. FOR SUBJECT PROPERTY. PLAN DATED JUNE 11 2021.
4.) THESE PLANS WERE PREPARED IN ACCORDANCE WITH THE UPPER UWCHLAN TOWNSHIP ZONING ORDINANCE AND UPPER UWCHLAN TOWNSHIP SUBDIVISION AND LAND DEVELOPMENT ORDINANCE.
5.) THE WETLANDS AND WATERS OF THE COMMONWEALTH SHOWN ON THESE PLANS WERE DELINEATED BY ESE CONSULTANTS, INC., JUNE 2021. WETLAND JURISDICTION DETERMINATION FROM US ARMY CORPS OF ENGINEERS IS PENDING.
6.) THE TOPOGRAPHIC INFORMATION SHOWN ON THESE PLANS WERE PREPARED BY ESE CONSULTANTS, INC., PLAN DATED JULY 01, 2021.
7.) SOILS ARE TAKEN FROM NRCS CHESTER COUNTY, PA SOIL SURVEY.
8.) PRECAUTIONARY AND PROHIBITIVE SLOPES ARE MAPPED/DELINEATED IN ACCORDANCE WITH THE UPPER UWCHLAN TOWNSHIP ZONING ORDINANCE.
9.) FLOODPLAIN MAPPED FROM FEMA PANEL 42029C0090G. PLAN LAST REVISED SEPTEMBER 29, 2017.
10.) TOWNSHIP RIPARIAN BUFFER LINE IS BASED ON THE OUTERMOST LIMITS OF THE FOLLOWING: 75' FROM TOP-OF-BANK OF A STREAM, 25' FROM WETLANDS, OR THE HYDRIC SOIL BOUNDARY LINE.
11.) THE EXISTING STREAM IS A TRIBUTARY TO THE BLACK MARSH CREEK AND IS DEFINED AS A HIGH QUALITY STREAM PER PA DEP. A 150' BUFFER, MEASURED FROM TOP OF BANK, IS SHOWN IN ACCORDANCE WITH PA DEP REGULATIONS.
12.) THE MAJORITY OF THE SITE HAS GEOLOGICAL PROPERTIES MADE UP OF PRECAMBRIAN GRAPHITIC FELSIC GNEISS. THE EASTERN CORNER OF THE SITE CONTAINS AREAS MADE UP OF PRECAMBRIAN GRAPHITIC FELSIC GNEISS, INCLUDING PICKERING GNEISS AND SMALL AREAS OF MARBLE.
13.) SITE IS LOCATED WITHIN SUBBASIN #827 OF THE CHRISTINA BASIN.
14.) THE PROPOSED STREETS SERVING THE DEVELOPMENT SHALL BE PRIVATE, CONVEYED TO THE COMMUNITY ASSOCIATION, AND PERPETUALLY MAINTAINED BY THE COMMUNITY ASSOCIATION.
15.) THE PROPOSED SUBDIVISION WILL FEATURE AN EMERGENCY ACCESS VIA GRASS-PAVE CONNECTION TO LAUREN LANE.
16.) THE PROPOSED SUBDIVISION WILL BE SERVED BY PUBLIC WATER.
17.) THE PROPOSED SUBDIVISION WILL BE SERVICED BY THE ROUTE 100 SEWAGE TREATMENT PLANT. DISPOSAL OF EFFLUENT WILL OCCUR ON-SITE THROUGH DRIP IRRIGATION. THE PROPOSED DRIP IRRIGATION FIELDS & SEWAGE PUMP STATION WILL BE OFFERED FOR DEDICATION TO UPPER UWCHLAN TOWNSHIP.
18.) ALL SANITARY SEWER IMPROVEMENTS SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH THE UPPER UWCHLAN TOWNSHIP MUNICIPAL SPECIFICATIONS.
19.) THE PROPOSED SANITARY CAPACITY FOR THE DEVELOPMENT WILL BE 14,400 GPD (225 GPD/EDU).
20.) THE COMBINED RESTRICTED & REQUIRED PLAYGROUND; NEIGHBORHOOD OPEN SPACE; AND PAVED TRAIL WILL BE OWNED AND MAINTAINED BY THE COMMUNITY ASSOCIATION.
21.) THE PROPOSED NATURE TRAILS WILL BE AVAILABLE FOR PUBLIC ACCESS VIA 20' EASEMENT. NATURE TRAILS WILL BE OWNED & MAINTAINED BY THE COMMUNITY ASSOCIATION.
22.) OPEN SPACE SHALL NOT BE SEPARATELY SOLD AND SHALL NOT BE FURTHER SUBDIVIDED OR DEVELOPED. OPEN SPACE CANNOT BE ALTERED/TRANSFERRED WITHOUT THE EXPRESSED WRITTEN CONSENT OF UPPER UWCHLAN TOWNSHIP.
23.) THE PROPOSED STORM WATER MANAGEMENT FACILITIES WILL BE OWNED AND MAINTAINED BY THE COMMUNITY ASSOCIATION.
24.) THE EXISTING HOME, GARAGE AND SUBSEQUENT STRUCTURES, ALONG WITH THE EXISTING POOL AND PATIO, WILL BE DEMOLISHED. A PORTION OF THE EXISTING DRIVEWAY WILL REMAIN AND BE UTILIZED AS PART OF A COMMUNITY TRAIL NETWORK.
25.) THE PROJECT SITE SHARES A COMMON BOUNDARY WITH PARCEL 32-1-15, WHICH HAS BEEN IDENTIFIED AS CLASS II HISTORIC RESOURCE. NO IMPACT FROM THE PROPOSED DEVELOPMENT IS ANTICIPATED AS RESTRICTED OPEN SPACE HAS BEEN PROPOSED BETWEEN THE AREA OF DEVELOPMENT AND THE COMMON BOUNDARY LINE.
26.) ALL UNITS WILL FEATURE A 2-CAR GARAGE AND DRIVEWAY SPACE FOR 2 ADDITIONAL VEHICLES.

NATURAL RESOURCE AREAS:

NATURAL RESOURCE:	AREA(ACRES)	DISTURBANCE(ACRES)
WOODLANDS & HEDGEROWS:	49.21 ACRES	
WETLANDS & WATERCOURSES:	.30 ACRES	0.00 ACRES
FLOODPLAIN & FLOODPLAIN SOILS:	.88 ACRES	
RIPARIAN BUFFER AREA:	1.62 ACRES	
PROHIBITIVE SLOPES AREA:	7.30 ACRES	
PRECAUTIONARY SLOPES AREA:	26.08 ACRES	

ZONING REQUIREMENTS:

GROSS SITE AREA: 65.95 ACRES
TAX MAP PARCEL NO.: 32-001-0017.1, 32-001-0011
BASE ZONING DISTRICT: R2 - RESIDENTIAL DISTRICT
OVERLAY DISTRICT: F1 - FLEXIBLE DEVELOPMENT OVERLAY
PROPOSED USE: FLEXIBLE DEVELOPMENT OVERLAY OPTION; SINGLE-FAMILY, DETACHED LOTS
TOTAL NUMBER OF PROPOSED RESIDENTIAL LOTS: 64 BUILDING LOTS

FLEXIBLE DEVELOPMENT OVERLAY DISTRICT (F1):

SINGLE-FAMILY DETACHED:	REQUIRED	PROPOSED
MINIMUM TRACT AREA (SF)	10 AC.	+65 AC.
MAXIMUM IMPERVIOUS SURFACE - PER LOT (%)	35/45/55	35/45/55*
MINIMUM OPEN SPACE RATIO (%)	40	44
PERMISSIBLE DENSITY (DU/AC)	1.1	.95
MAXIMUM BUILDING HEIGHT (FT.)	35	35
MINIMUM FRONT YARD (FT.)	25	25

*SEE LOT IMPERVIOUS CHART THIS SHEET.

OPEN SPACE CHART:

GROSS TRACT AREA	65.95 ACRES
REQUIRED RESTRICTED OPEN SPACE:	40% OR 26.38 ACRES
PROPOSED RESTRICTED OPEN SPACE:	29.13 ACRES
REQUIRED USABLE OPEN SPACE:	15% OR 9.89 ACRES
PROPOSED USABLE OPEN SPACE:	20.98 ACRES
REQUIRED PLAYGROUND & NEIGHBORHOOD PARK ACREAGE (§ 162-54):	3 ACRES
VARIABLE WIDTH PAVED TRAIL (PUBLIC):	.74 ACRES
6'-WIDE NATURE TRAIL (PUBLIC):	1.34 ACRES
POCKET PARK (PRIVATE):	.36 ACRES
PROPOSED PLAYGROUND & NEIGHBORHOOD PARK ACREAGE:	3.02 ACRES

AREA TABULATION - 100 GREENRIDGE ROAD DEVELOPMENT:

TOTAL SITE AREA:	2,873,008 SQ. FT. OR	65.955 ACRES
PROPOSED 64 RESIDENTIAL LOTS:	521,260 SQ. FT. OR	11.966 ACRES
ROAD A ROW AREA:	194,383 SQ. FT. OR	4.462 ACRES
ROAD B ROW AREA:	58,261 SQ. FT. OR	1.337 ACRES
GREENRIDGE ROAD LEGAL ROW AREA:	29,848 SQ. FT. OR	0.686 ACRES
TOT LOT 68 AREA:	7,130 SQ. FT. OR	0.164 ACRES
PUMP STATION LOT 69 AREA:	2,864 SQ. FT. OR	0.066 ACRES
OPEN SPACE LOT 65 AREA:	125,692 SQ. FT. OR	2.885 ACRES
OPEN SPACE LOT 66 AREA:	235,224 SQ. FT. OR	5.400 ACRES
OPEN SPACE LOT 67 AREA:	1,698,346 SQ. FT. OR	38.989 ACRES
TOTAL OPEN SPACE AREA:	2,059,262 SQ. FT. OR	47.274 ACRES

LEGEND:

- MONUMENT TO BE SET
- MONUMENT FOUND
- IRON PIN/PIPE FOUND
- (50) PROPOSED LOT NUMBER
- BUILDING SETBACK LINE
- PROPOSED CENTER LINE
- STREAM LINE
- PROPOSED PROPERTY LINE
- PROPOSED R.O.W.
- OUTBOUND LINE
- PROPOSED EASEMENT
- RIPARIAN BUFFER
- STREAM BUFFER
- WETLANDS LIMIT
- EXISTING STREAM
- FLOODPLAIN (ZONE X)

FEET
50 0 25 50 100
GRAPHIC SCALE 1 inch = 50 ft.

CERTIFICATION OF ACCURACY

I HEREBY CERTIFY TO THE BEST OF MY KNOWLEDGE THAT THE THE PLAN SHOWN AND DESCRIBED HEREON IS TRUE AND CORRECT TO THE ACCURACY REQUIRED BY THE LAND SUBDIVISION REGULATIONS OF THE TOWNSHIP OF UPPER UWCHLAN.

JAMES M. HOLLIDAY
PA LICENSE NO. SU-075130

SURVEYOR CERTIFICATION

I HEREBY CERTIFY THAT I AM A REGISTERED PROFESSIONAL LAND SURVEYOR, LICENSED IN COMPLIANCE WITH THE LAWS OF THE COMMONWEALTH OF PENNSYLVANIA; THAT TO THE BEST OF MY KNOWLEDGE THIS IS TRUE AND CORRECT TO THE ACCURACY REQUIRED BY THE LAND SUBDIVISION REGULATIONS OF THE TOWNSHIP OF UPPER UWCHLAN.

JAMES M. HOLLIDAY
PA LICENSE NO. SU-075130

CAUTION:
IF THIS DOCUMENT DOES NOT CONTAIN A PROFESSIONAL SEAL, IT IS NOT AN AUTHENTICATED ORIGINAL DOCUMENT AND MAY HAVE BEEN ALTERED.

JAMES M. HOLLIDAY
PROFESSIONAL LAND SURVEYOR
PA LICENSE NO. SU-075130

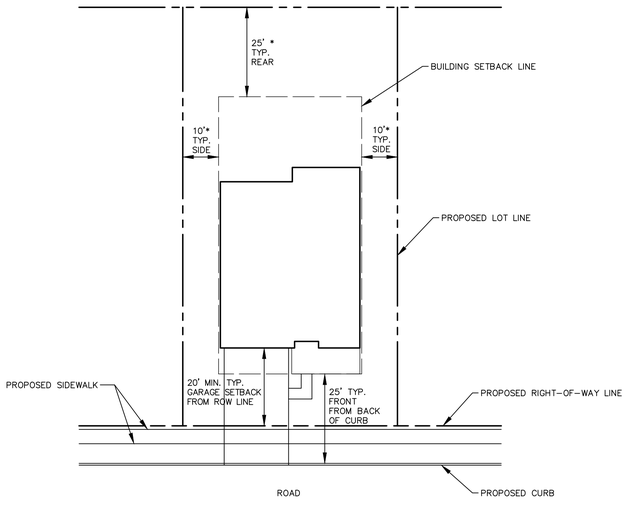
ESE CONSULTANTS
ENGINEERING • PLANNING • SURVEYING • ENVIRONMENTAL
ESE Consultants, Inc.
1140 Virginia Drive • Fort Washington, PA 19034
T: 215-914-2050

REV.	DATE	DESCRIPTION	DRAWN

RECORD PLAN
(RECORD SHEET 6 OF 6)

100 GREENRIDGE ROAD DEVELOPMENT
UPPER UWCHLAN TOWNSHIP, CHESTER COUNTY, PENNSYLVANIA

DATE: 04/11/23	SCALE: 1"=50'
DESIGN: JHB	DRAWN: KMS
JOB NO.: 8145	FILE NAME: RP50.06
REF. NO.:	RP50.06
SHEET NO.: 7 OF 49	



* USE 10' SIDE YARDS AND 25' REAR YARDS INSTEAD OF THE RESPECTIVE 20' AND 50' BUILDING SEPARATIONS PER THE TOWNSHIP ENGINEER'S RECOMMENDATION.

TYPICAL LOT SETBACK DETAIL

N.T.S.

PRECAUTIONARY SLOPES NOTES:

ZO SECTION 200-107.D.(3)(c): ON ANY LOT CONTAINING AN AREA OR AREAS OF PRECAUTIONARY SLOPES, THE TOTAL AMOUNT OF IMPERVIOUS SURFACE THAT MAY BE INSTALLED OR MAINTAINED WITHIN THE TOTAL AREA OR AREAS OF PRECAUTIONARY SLOPES SHALL NOT EXCEED 50% OF THE MAXIMUM AMOUNT OF IMPERVIOUS SURFACE PERMITTED ON ANY LOT IN THE UNDERLYING BASE ZONE DISTRICT.

PRECAUTIONARY SLOPES IMPERVIOUS CHART		
LOT #	LOT AREA	ALLOWABLE IMPERVIOUS IN AREAS OF PRECAUTIONARY SLOPES (10% OF LOT)
1	8,576 SF	857 SF
2	11,751 SF	1,175 SF
3	9,931 SF	993 SF
4	10,439 SF	1,043 SF
5	8,050 SF	805 SF
8	8,050 SF	805 SF
9	7,605 SF	760 SF
10	7,020 SF	702 SF
11	7,020 SF	702 SF
12	7,020 SF	702 SF
13	7,020 SF	702 SF
16	7,076 SF	707 SF
20	10,772 SF	1,077 SF
21	7,474 SF	747 SF
22	7,720 SF	772 SF
23	14,556 SF	1,455 SF
30	10,076 SF	1,007 SF
31	7,500 SF	750 SF
32	8,125 SF	812 SF
33	7,500 SF	750 SF
48	7,015 SF	701 SF
49	7,130 SF	713 SF
50	7,015 SF	701 SF
51	6,900 SF	690 SF
64	11,103 SF	1,110 SF

LOT IMPERVIOUS CHART

Lot Number	Lot Area (SF)	Max Impervious Area (SF)*	Impervious Percentage (%)	Remaining Lawn Area (SF)
1	8,576	3,859	45	4,717
2	11,749	5,287	45	6,462
3	9,931	4,469	45	5,462
4	10,439	4,698	45	5,741
5	8,050	3,623	45	4,428
6	8,050	3,623	45	4,428
7	9,066	4,080	45	4,986
8	8,050	3,623	45	4,428
9	7,605	3,422	45	4,183
10	7,020	3,159	45	3,861
11	7,020	3,159	45	3,861
12	7,020	3,159	45	3,861
13	7,020	3,159	45	3,861
14	7,020	3,159	45	3,861
15	7,020	3,159	45	3,861
16	7,076	3,184	45	3,892
17	9,024	4,061	45	4,963
18	6,900	3,795	55	3,105
19	8,050	3,623	45	4,428
20	10,772	4,847	45	5,925
21	7,474	3,363	45	4,111
22	7,720	3,474	45	4,246
23	14,556	5,095	35	9,461
24	9,468	4,261	45	5,207
25	8,236	3,706	45	4,530
26	7,013	3,156	45	3,857
27	7,475	3,364	45	4,111
28	7,834	3,525	45	4,309
29	10,281	4,626	45	5,655
30	10,076	4,534	45	5,542
31	7,500	3,375	45	4,125
32	8,125	3,656	45	4,469
33	7,500	3,375	45	4,125
34	8,125	3,656	45	4,469
35	7,500	3,375	45	4,125
36	8,125	3,656	45	4,469
37	7,500	3,375	45	4,125
38	8,125	3,656	45	4,469
39	7,500	3,375	45	4,125
40	8,125	3,656	45	4,469
41	7,226	3,252	45	3,974
42	6,900	3,795	55	3,105
43	6,900	3,795	55	3,105
44	6,900	3,795	55	3,105
45	6,900	3,795	55	3,105
46	6,900	3,795	55	3,105
47	6,900	3,795	55	3,105
48	7,015	3,157	45	3,858
49	7,130	3,209	45	3,922
50	7,015	3,157	45	3,858
51	6,900	3,795	55	3,105
52	6,900	3,795	55	3,105
53	6,900	3,795	55	3,105
54	6,900	3,795	55	3,105
55	6,900	3,795	55	3,105
56	6,900	3,795	55	3,105
57	7,226	3,252	45	3,974
58	8,751	3,938	45	4,813
59	8,751	3,938	45	4,813
60	8,751	3,938	45	4,813
61	9,746	4,386	45	5,360
62	10,831	4,874	45	5,957
63	11,198	5,039	45	6,159
64	11,103	4,996	45	6,107

GENERAL NOTES:

1. PROPERTY IS DELINEATED AS TAX MAP PARCEL NOS. 32-001-0017.1 AND 32-001-0011.
2. THIS PROJECT IS LOCATED IN THE R-2 RESIDENTIAL ZONING DISTRICT, WITHIN THE F1 FLEXIBLE DEVELOPMENT OVERLAY DISTRICT.
3. THE PROJECT RECEIVED CONDITIONAL USE APPROVAL FOR A 64 LOT SUBDIVISION UTILIZING SINGLE-FAMILY DETACHED LOTS ON OCTOBER 11, 2022.
4. OUTBOUND INFORMATION WAS OBTAINED FROM BOUNDARY SURVEY PREPARED BY CHESTER VALLEY ENGINEERS, INC. FOR SUBJECT PROPERTY. PLAN DATED JUNE 11 2021.
5. THESE PLANS WERE PREPARED IN ACCORDANCE WITH THE UPPER UWCHLAN TOWNSHIP ZONING ORDINANCE (CHAP. 200), THE UPPER UWCHLAN TOWNSHIP SUBDIVISION AND LAND DEVELOPMENT ORDINANCE (CHAP. 162), AND THE UPPER UWCHLAN TOWNSHIP STORMWATER MANAGEMENT ORDINANCE (CHAP. 152).
6. THE WETLANDS AND WATERS OF THE COMMONWEALTH SHOWN ON THESE PLANS WERE DELINEATED BY ESE CONSULTANTS, INC., JUNE 2021. WETLAND JURISDICTION DETERMINATION FROM US ARMY CORPS OF ENGINEERS IS PENDING.
7. THE TOPOGRAPHIC INFORMATION SHOWN ON THESE PLANS WERE PREPARED BY ESE CONSULTANTS, INC., PLAN DATED JULY 01, 2021.
8. SOILS ARE TAKEN FROM NRCS CHESTER COUNTY, PA SOIL SURVEY.
9. PRECAUTIONARY AND PROHIBITIVE SLOPES ARE MAPPED/DELINEATED IN ACCORDANCE WITH THE UPPER UWCHLAN TOWNSHIP ZONING ORDINANCE.
10. FLOODPLAIN MAPPED FROM FEMA PANEL 42029C0090G. PLAN LAST REVISED SEPTEMBER 29, 2017.
11. TOWNSHIP RIPARIAN BUFFER LINE IS BASED ON THE OUTERMOST LIMITS OF THE FOLLOWING: 75' FROM TOP-OF-BANK OF A STREAM, 25' FROM WETLANDS, OR THE HYDRIC SOIL BOUNDARY LINE.
12. THE EXISTING STREAM IS A TRIBUTARY TO THE BLACK MARSH CREEK AND IS DEFINED AS A HIGH QUALITY STREAM PER PA DEP. A 150' BUFFER, MEASURED FROM TOP OF BANK, IS SHOWN IN ACCORDANCE WITH PA DEP REGULATIONS.
13. THE PROPOSED STREETS SERVING THE DEVELOPMENT SHALL BE PRIVATE, CONVEYED TO THE COMMUNITY ASSOCIATION, AND PERPETUALLY MAINTAINED BY THE COMMUNITY ASSOCIATION.
14. THE PROPOSED SUBDIVISION WILL FEATURE AN EMERGENCY ACCESS VIA GRASS-PAVE CONNECTION TO LAUREN LANE.
15. THE EXISTING HOME, GARAGE AND ASSOCIATED STRUCTURES, ALONG WITH THE EXISTING POOL AND PATIO, WILL BE DEMOLISHED. A PORTION OF THE EXISTING DRIVEWAY WILL REMAIN AND BE UTILIZED AS PART OF A COMMUNITY TRAIL NETWORK.
16. THE PROJECT SITE SHARES A COMMON BOUNDARY WITH PARCEL 32-1-15, WHICH HAS BEEN IDENTIFIED AS CLASS I HISTORIC RESOURCE. NO IMPACT FROM THE PROPOSED DEVELOPMENT IS ANTICIPATED AS RESTRICTED OPEN SPACE HAS BEEN PROPOSED BETWEEN THE AREA OF DEVELOPMENT AND THE COMMON BOUNDARY LINE.
17. OPEN SPACE:
    - 17.a. THE COMBINED RESTRICTED & REQUIRED PLAYGROUND; NEIGHBORHOOD OPEN SPACE; AND PAVED TRAIL WILL BE OWNED AND MAINTAINED BY THE COMMUNITY ASSOCIATION.
    - 17.b. THE PROPOSED NATURE TRAIL WILL BE AVAILABLE FOR PUBLIC ACCESS VIA 20' EASEMENT. NATURE TRAIL WILL BE OWNED & MAINTAINED BY THE COMMUNITY ASSOCIATION.
    - 17.c. OPEN SPACE SHALL NOT BE SEPARATELY SOLD AND SHALL NOT BE FURTHER SUBDIVIDED OR DEVELOPED. OPEN SPACE CANNOT BE ALTERED/TRANSFERRED WITHOUT THE EXPRESSED WRITTEN CONSENT OF UPPER UWCHLAN TOWNSHIP.
18. DOMESTIC WATER:
    - 18.a. THE PROPOSED SUBDIVISION WILL BE SERVED BY PUBLIC WATER.
    - 18.b. WATERMAINS ARE TO BE CONSTRUCTED WITHIN THE PAVED CARTWAY, 4' FROM THE PROPOSED FACE OF CURB. WATER LATERAL LOCATIONS PROVIDED ON THE TYPICAL BUILDING LOT DETAIL ARE APPROXIMATE AND MAY NEED TO BE ADJUSTED AS FIELD CONDITIONS WARRANT.
    - 18.c. WATERMAINS SHALL BE CONSTRUCTED OF 8" CEMENT-LINED, DUCTILE IRON, MINIMUM CLASS 52 PIPE, OR AS APPROVED BY AQUA PENNSYLVANIA.
    - 18.d. HORIZONTAL SEPARATION (IF APPLICABLE): SEWERS SHOULD BE LAID AT LEAST 10 FEET, HORIZONTALLY, FROM ANY EXISTING OR PROPOSED WATER MAIN.
    - 18.e. VERTICAL SEPARATION (IF APPLICABLE): WHENEVER SEWERS MUST CROSS UNDER WATER MAINS, THE SEWER SHALL BE LAID AT SUCH AN ELEVATION THAT THE TOP OF THE SEWER IS AT LEAST 18 INCHES BELOW THE BOTTOM OF THE WATER MAIN.
    - 18.f. ALL WATER MAINS AND THEIR APPURTENANCES ARE TO CONFORM WITH THE SPECIFICATIONS OF AQUA PENNSYLVANIA. THE CONTRACTOR SHALL OBTAIN AND IMPLEMENT THESE SPECIFICATIONS.
    - 18.g. ALL PROPOSED FIRE HYDRANTS SHALL BE PROVIDED WITH AN APPROVED GATE VALVE A MAXIMUM OF 5 FEET FROM HYDRANT.
    - 18.h. ALL WATER MAINS SHALL BE HYDROSTATICALLY TESTED AND DISINFECTED IN ACCORDANCE WITH AQUA PENNSYLVANIA SPECIFICATIONS, PRIOR TO ACCEPTANCE.
    - 18.i. ALL TEES, BENDS, HYDRANTS, TERMINUS AND SIMILAR WATER LINE APPURTENANCES SHALL BE INSTALLED WITH CONCRETE THRUST BLOCKS.
    - 18.j. A MINIMUM OF 3.5 FEET OF COVER SHALL BE PROVIDED OVER WATER LINES BELOW FINAL GRADE.
    - 18.k. ALL WATER SERVICES 2" AND SMALLER SHALL BE TYPE K SOFT COPPER.
    - 18.l. ALL TRENCHING, PIPE LAYING AND BACKFILLING SHALL BE IN ACCORDANCE WITH FEDERAL OSHA REGULATIONS.
    - 18.m. THE UTILITY CONTRACTOR SHALL HAVE APPROVAL OF ALL GOVERNING AGENCIES HAVING JURISDICTION OVER THIS SYSTEM PRIOR TO INSTALLATION.
19. SANITARY SEWER:
    - 19.a. PUBLIC SEWER IS PROVIDED FOR THIS SITE.
    - 19.b. THE PROPOSED SUBDIVISION WILL BE SERVICED BY THE ROUTE 100 SEWAGE TREATMENT PLANT. DISPOSAL OF EFFLUENT WILL OCCUR ON-SITE THROUGH DRIP IRRIGATION. THE PROPOSED DRIP IRRIGATION FIELDS & SEWAGE PUMP STATION WILL BE OFFERED FOR DEDICATION TO UPPER UWCHLAN TOWNSHIP.
    - 19.c. THE PROPOSED SANITARY CAPACITY FOR THE DEVELOPMENT WILL BE 14,400 GPD (225 GPD/EDU).
    - 19.d. ALL SEWER CONSTRUCTION IS TO CONFORM TO THE TECHNICAL SPECIFICATIONS FOR CONSTRUCTION OF SEWER MAINS AND APPURTENANCES TO BE CONNECTED TO THE PUBLIC SEWER SYSTEM BY THE UPPER UWCHLAN TOWNSHIP MUNICIPAL AUTHORITY, AS AMENDED.
    - 19.e. SEWER MAINS ARE TO BE DEDICATED TO UPPER UWCHLAN TOWNSHIP. THE APPLICANT WILL GRANT ACCESS EASEMENTS TO THE TOWNSHIP MUNICIPAL AUTHORITY TO MAINTAIN THE SEWER MAIN WHERE NECESSARY.
    - 19.f. THE GRAVITY SEWER MAIN SHALL BE CONSTRUCTED OF 8" SDR-35 PVC. CONFORMING TO ASTM D3034.
    - 19.g. A MINIMUM ONE AND ONE-HALF (1-1/2') FOOT VERTICAL CLEARANCE SHALL BE MAINTAINED BETWEEN SANITARY SEWERS AND DOMESTIC WATER MAINS. .
    - 19.h. A MINIMUM OF FOUR (4') FEET OF COVER SHALL BE MAINTAINED OVER ALL SANITARY SEWER MAINS.
20. STORM SEWER AND STORMWATER MANAGEMENT:
    - 20.a. THE STORMWATER MANAGEMENT SYSTEM HAS BEEN DESIGNED FOR THE MAXIMUM ALLOWABLE IMPERVIOUS SURFACE PER LOT.
    - 20.b. THE STORM SEWER SYSTEM HAS BEEN DESIGNED FOR THE 100-YEAR STORM.
    - 20.c. THE DETENTION BASINS AND STORM WATER COLLECTION SYSTEMS SHALL BE OWNED AND MAINTAINED BY THE COMMUNITY HOMEOWNERS ASSOCIATION AND SHALL PROVIDE A BLANKET STORM WATER ACCESS EASEMENT TO THE TOWNSHIP FOR THE PURPOSE OF ACCESS TO EACH DETENTION BASIN FACILITY. THIS ACCESS EASEMENT SHALL BE USED BY THE TOWNSHIP TO INSPECT THE CONDITION OF THE DETENTION FACILITY ON AN ANNUAL BASIS. ALL COSTS AND EXPENSES ASSOCIATED WITH SAID INSPECTION SHALL BE PAID TO THE TOWNSHIP BY THE COMMUNITY HOMEOWNERS ASSOCIATION IN PERPETUITY. IF IN THE JUDGMENT OF THE TOWNSHIP ENGINEER THE OWNER HAS FAILED TO MAINTAIN THE DETENTION FACILITY IN SUCH A MANNER AS TO INSURE ITS PROPER FUNCTIONING, THE TOWNSHIP, UPON PROVIDING WRITTEN NOTICE, SHALL HAVE THE RIGHT TO ENTER UPON THE LANDS OF THE OWNER AND MAKE ANY REPAIRS NECESSARY TO THE BASIN FACILITY AND ASSOCIATED FACILITIES TO INSURE THAT SUCH FACILITIES FUNCTION AND PERFORM IN ACCORDANCE WITH THE DESIGN SPECIFICATIONS. ANY AND ALL COSTS INCURRED BY THE TOWNSHIP FOR SUCH REPAIRS AND/OR MAINTENANCE SHALL BE PAID IN FULL BY THE COMMUNITY HOMEOWNERS ASSOCIATION.
    - 20.d. MAINTENANCE AND REPAIR TO THE STORM WATER DETENTION FACILITIES AND RELATED PIPES, INLETS AND OUTLET STRUCTURES SHALL BE THE RESPONSIBILITY OF THE COMMUNITY HOMEOWNERS ASSOCIATION, WITH RIGHT-OF-WAY ACCESS GRANTED TO UPPER UWCHLAN TOWNSHIP. MAINTENANCE OF STORM WATER DETENTION FACILITIES SHALL INCLUDE THE ANNUAL MOWING OF THE PERIMETER GRASS AREAS AND BASIN FLOOR, CLEARING OF DEBRIS (QUARTERLY), YEARLY INSPECTION OF OUTLET FACILITIES, AND REPLACEMENT OR REPAIR OF ANY DAMAGED FACILITIES (OUTLET STRUCTURE, UNDERGROUND PIPING SYSTEM, BERMING, LANDSCAPING, ETC.). THE APPLICANT IS AWARE THE INFILTRATION AREAS ARE DESIGNED TO REMAIN INUNDATED WITH STORM WATER FOR SOME PERIOD AFTER ALL STORM EVENTS.
21. DRIVEWAYS:
    - 21.a. ALL UNITS WILL FEATURE A 2-CAR GARAGE AND DRIVEWAY SPACE FOR 2 ADDITIONAL VEHICLES
    - 21.b. THE MAXIMUM GRADE FOR ACCESS TO GARAGES SHALL NOT EXCEED 8%. THE MINIMUM GRADE SHALL NOT BE LESS THAN 2%.
22. GRADING AND EXCAVATION:
    - 22.a. NO EXCAVATION OR FILL SHALL BE MADE WITH A FACE STEEPER THAN TWO (2) HORIZONTAL TO ONE (1) VERTICAL, EXCEPT UNDER ONE OR BOTH OF THE FOLLOWING CONDITIONS:
        - 22.1. THE MATERIAL IS SUFFICIENTLY STABLE TO SUSTAIN A STEEPER SLOPE. A WRITTEN STATEMENT TO THAT EFFECT FROM A PROFESSIONAL ENGINEER LICENSED IN THE COMMONWEALTH OF PENNSYLVANIA AND EXPERIENCED IN EROSION CONTROL SHALL BE SUBMITTED TO THE TOWNSHIP. THE STATEMENT SHALL AFFIRM THAT THE SITE HAS BEEN INSPECTED AND THE DEVIATION FROM THE SLOPE RESTRICTION SHALL NOT RESULT IN INJURY TO PERSONS OR DAMAGE TO PROPERTY. A DETAIL OF THE TREATMENT OF THE SLOPE ,(PROPOSED GRADE, SEEDING, EROSION PROTECTION, ETC., SHALL BE SUBMITTED WITH THE APPLICATION.
        - 22.2. A CONCRETE, MASONRY, OR OTHER APPROVED RETAINING WALL IS DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER LICENSED IN THE COMMONWEALTH OF PENNSYLVANIA CONSTRUCTED TO SUPPORT THE FACE OF THE EXCAVATION OR FILL.
    - 22.b. THE TOP OR BOTTOM EDGES OF SLOPES SHALL BE A MINIMUM OF FIVE (5) FEET FROM PROPERTY LINES OR RIGHT-OF-WAY LINES OF STREETS IN ORDER TO PERMIT THE NORMAL ROUNDING OF THE EDGE WITHOUT ENCROACHMENT ON ABUTTING PROPERTY.
    - 22.c. ADEQUATE PROVISION SHALL BE MADE TO PREVENT SURFACE WATER FROM DAMAGING THE CUT FACE OF EXCAVATION AND THE SLOPING SURFACES OF FILLS.
    - 22.d. NO PERSON, CORPORATION, OR OTHER SUCH ENTITY SHALL BLOCK, IMPEDE THE FLOW OF, ALTER, CONSTRUCT ANY STRUCTURE, OR DEPOSIT ANY MATERIAL OR THING OR PERFORM ANY WORK THAT WILL AFFECT THE NORMAL OR FLOOD FLOW IN ANY STREAM OR WATERCOURSE WITHOUT HAVING OBTAINED PRIOR APPROVAL FROM THE TOWNSHIP AND/OR DEPARTMENT OF ENVIRONMENTAL PROTECTION, WHICHEVER IS APPLICABLE.
    - 22.e. ALL LOTS, TRACTS, OR PARCELS SHALL BE GRADED TO PROVIDE POSITIVE DRAINAGE AWAY FROM BUILDINGS AND DISPOSE OF IT WITHOUT PONDING,G (DETENTION/RETENTION FACILITIES, SWALES, ETC.) IS PART OF THE STORM WATER MANAGEMENT PLAN FOR THE SITE.
    - 22.f. CONCENTRATION OF SURFACE WATER RUN-OFF SHALL BE PERMITTED ONLY IN SWALES, WATERCOURSES, OR STORM WATER MANAGEMENT FACILITIES.
    - 22.g. IN NO CASE SHALL GRADING BE DONE IN SUCH A MANNER AS TO DIVERT WATER ONTO THE PROPERTY OF ANOTHER LANDOWNER UNLESS PART OF A STORM WATER MANAGEMENT PLAN.
    - 22.h. EARTH DISTURBANCE/STAGING SHALL BE IN STRICT ACCORDANCE WITH THE APPROVED GRADING AND EROSION/SEDIMENTATION CONTROL PLAN.
    - 22.i. AREAS OF THE SITE TO REMAIN UNDISTURBED SHALL BE PROTECTED FROM ENCROACHMENT BY CONSTRUCTION EQUIPMENT/VEHICLES TO MAINTAIN THE EXISTING INFILTRATION CHARACTERISTICS OF THE SOIL.
    - 22.j. THE MINIMUM DEPTH OF TOPSOIL TO BE REPLACED SHALL BE SIX (6) INCHES IN ALL DISTURBED AREAS WITH THE EXCEPTION OF THE BOTTOM OF INFILTRATION FACILITY.
    - 22.k. DURING GRADING OPERATIONS, NECESSARY MEASURES FOR DUST CONTROL MUST BE EXERCISED.
    - 22.l. NO GRADING EQUIPMENT SHALL BE PERMITTED TO BE LOADED AND/OR UNLOADED ON A PAVED PUBLIC STREET, AND NO GRADING EQUIPMENT SHALL BE PERMITTED TO TRAVEL ON OR ACROSS A PUBLIC STREET UNLESS LICENSED FOR OPERATION ON PUBLIC THOROUGHFARES.
    - 22.m. GRADING EQUIPMENT SHALL NOT BE PERMITTED TO CROSS STREAMS. TEMPORARY CROSSINGS SHALL ONLY BE PERMITTED WHERE APPLICATION IS MADE TO, AND APPROVAL RECEIVED FROM, PADEP (WHERE APPLICABLE), CHESTER COUNTY CONSERVATION DISTRICT, AND THE TOWNSHIP.
23. THE LOCATION OF EXISTING UNDERGROUND UTILITIES CONTAINED ON THESE PLANS HAVE BEEN DEVELOPED FROM UTILITY AS-BUILTS AND SUPPLEMENTED WITH FIELD LOCATIONS WHERE POSSIBLE. COMPLETENESS OR ACCURACY CANNOT BE GUARANTEED. THE CONTRACTOR SHALL VERIFY ALL EXISTING SITE CONDITIONS, SURFACE AND SUBSURFACE, AND SHALL NOTIFY THE ENGINEER IN THE EVENT OF DISCREPANCIES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY UNDERGROUND UTILITY USERS FOR COMPLIANCE WITH PENNSYLVANIA ACT 181 OF 2006. PENNSYLVANIA ONE-CALL SERIAL NUMBER #20132672228 HAS BEEN OBTAINED FOR DESIGN PURPOSES ONLY.
24. PEDESTRIAN ACCESS RAMP CONSTRUCTION MUST CONFORM TO THE MOST CURRENT REQUIREMENTS SET FORTH WITHIN PENNDOT RC-67M DETAILS AND THE AMERICANS WITH DISABILITIES ACT (ADA) AT THE TIME OF CONSTRUCTION. THIS MAY REQUIRE REDESIGN OF SIDEWALK AND/OR RAMP ACCESS IN THE FIELD FROM THAT SHOWN ON THE APPROVED LAND DEVELOPMENT PLAN.
25. DWELLING AND GRADING SHOWN ON THE SUBDIVISION PLAN IS SCHEMATIC AND ALTERNATE DWELLING/LOT GRADING MUST BE APPROVED BY THE TOWNSHIP VIA REVIEW OF PLOT PLANS
26. NOTHING SHALL BE PERMITTED TO BE CONSTRUCTED, PLACED, PLANTED SET OR PUT WITHIN THE AREA OF ANY EASEMENT THAT WILL INTERFERE WITH THE INTENDED USE OF THE EASEMENT, THE FACILITIES FOR WHICH THE EASEMENT WAS ESTABLISHED, OR MAINTENANCE OF THE EASEMENT AND/OR FACILITIES.
27. PROPOSED ROAD CONSTRUCTION SHALL CONFORM TO UPPER UWCHLAN TOWNSHIP STANDARDS.
28. ALL BUILDING WASTE FROM DEMOLITION SHALL BE DISPOSED OF PER PA SOLID WASTE MANAGEMENT ACT OF 1980. WASTE SHALL NOT BE DISPOSED OF ON-SITE. ALL STRUCTURAL FILL IN AND WITHIN 50' OF THE BUILDING AREAS (MATERIAL UNDER CARTWAYS, SLABS, INLETS, ENDWALLS ETC.) SHALL BE COMPACTED TO 95% OF MAXIMUM DRY DENSITY (ASTM D1557). ALL OTHER STRUCTURAL FILL SHALL BE COMPACTED TO 95% OF MAXIMUM DRY DENSITY (ASTM D698).
29. ANY JUNK OR DISCARDED ITEMS FOUND WITHIN THE SITE MUST BE REMOVED AND DISPOSED OF PROPERLY.
30. ALL MANMADE FEATURES WITHIN THE LIMIT OF DISTURBANCE ARE TO BE DEMOLISHED AND REMOVED, EXCEPT AS NOTED ON THE PLANS.
31. ALL PROPOSED UTILITIES SHALL BE UNDERGROUND.
32. RESPECTIVE UTILITY COMPANIES TO PROVIDE GAS, ELECTRIC, PHONE & CABLE LOCATIONS AND PLANS AT THE TIME OF CONSTRUCTION.
33. GARAGE SPACES SHALL BE PROHIBITED FROM BEING CONVERTED TO HABITABLE AREAS.
34. AN NPDES PERMIT IS REQUIRED FOR THIS PROJECT FROM THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION.
35. ON-STREET PARKING SHALL BE RESTRICTED TO ONE SIDE OF ALL INTERNAL STREETS AS DEFINED BY PROPOSED STREET SIGNAGE.

WAIVERS GRANTED AS PART OF OCT. 11, 2022 CONDITIONAL USE APPROVAL:

SALDO 162-28.A: WAIVER TO NOT REQUIRE GREENRIDGE ROAD TO BE WIDENED.

SALDO 162-28.A: WAIVER TO ALLOW A CARTWAY WIDTH OF 28 FEET FOR THE PROPOSED ROADS.

SALDO 162-33.A: WAIVER TO ALLOW A SINGLE ACCESS ROAD INTO THE SITE.

SALDO 162-33.D: WAIVER TO PROVIDE A SINGLE ACCESS STREET (ROAD A) LONGER THAN 500 FEET.

SITE DATA :

GROSS SITE AREA: 65.95 ACRES
TAX MAP PARCEL NO.: 32-001-0017.1, 32-001-0011
BASE ZONING DISTRICT: R2 - RESIDENTIAL DISTRICT
OVERLAY DISTRICT: F1 - FLEXIBLE DEVELOPMENT OVERLAY
PROPOSED USE: FLEXIBLE DEVELOPMENT OVERLAY OPTION; SINGLE-FAMILY, DETACHED LOTS
TOTAL NUMBER OF PROPOSED RESIDENTIAL LOTS: 64 BUILDING LOTS

ZONING REQUIREMENTS:

FLEXIBLE DEVELOPMENT OVERLAY DISTRICT (F1): SINGLE-FAMILY DETACHED:	REQUIRED	PROPOSED
MINIMUM TRACT AREA	10 AC.	+65 AC.
MAXIMUM IMPERVIOUS SURFACE - PER LOT (%)	35/45/55	35/45/55*
MINIMUM OPEN SPACE RATIO (%)	40	44
PERMISSIBLE DENSITY (DU/AC)	1.1	.95
MAXIMUM BUILDING HEIGHT (FT.)	35	35
MINIMUM FRONT YARD (FT.)	25	25

*SEE LOT IMPERVIOUS CHART THIS SHEET.

F1 FLEXIBLE DEVELOPMENT OVERLAY DISTRICT CALCULATIONS §200-72.D

1. CALCULATION FOR MINIMUM RESTRICTED OPEN SPACE

GROSS TRACT AREA: = 65.95 AC.
F-1 OVERLAY DISTRICT MINIMUM OPEN SPACE RATIO: = 40%

MINIMUM RESTRICTED OPEN SPACE: = 26.38 AC.
PROPOSED RESTRICTED OPEN SPACE: = 29.13 AC. (44%)

2. PERMITTED DENSITY CALCULATION

(a) ESTABLISHMENT OF NET TRACT AREA

D(2)(a)[1] GROSS TRACT AREA:	= 65.95 AC.
- PERMANENT RIGHT OF WAY:	= .69 AC.
- UTILITY EASEMENTS/RIGHTS OF WAY:	= 0 AC.
- DRAINAGE/STORMWATER MANAGEMENT EASEMENTS:	= 0 AC.
D(2)(a)[2] - EXISTING SEWAGE DISPOSAL FACILITY:	= 0 AC.
D(2)(a)[3][a-c] - FLOOD HAZARD DISTRICT AREA (75% OF AREA):	= .66 AC.
- WETLANDS AREA (75% OF AREA):	= .05 AC.
- PROHIBITIVE SLOPES AREA (75% OF AREA):	= 5.47 AC.
D(2)(a)[4] - NONRESIDENTIAL USE AREA:	= 0 AC.
NET TRACT AREA:	= 59.08 AC.

(b) CALCULATION OF PERMISSIBLE DENSITY

D(2)(b)[1] F1 FLEXIBLE DEVELOPMENT OVERLAY DISTRICT MULTIPLIER: = (1.1 DU/AC)

NET TRACT AREA (59.08 AC.) X DISTRICT MULTIPLIER (1.1):

PERMISSIBLE DENSITY: = 65 DU(64.98)

3. BONUS DENSITY CALCULATION

(a) PUBLIC/CENTRALIZED SEWER SERVICE N/A

(b) OPEN SPACE CONSERVATION

PROPOSED RESTRICTED OPEN SPACE: = 44%
RESTRICTED OPEN SPACE EXCEEDING MINIMUM REQ.: = 4%

BONUS DENSITY CALCULATION:
4% OPEN SPACE X 2% OF PERMISSIBLE DENSITY: = 8%
8% BONUS DENSITY X 65 DWELLING UNITS: = 5 DWELLING UNITS

TOTAL PERMITTED DENSITY: = 70 DWELLING UNITS

OPEN SPACE CHART:

GROSS TRACT AREA	65.95 ACRES
REQUIRED RESTRICTED OPEN SPACE:	40% OR 26.38 ACRES
PROPOSED RESTRICTED OPEN SPACE:	29.13 ACRES
REQUIRED USABLE OPEN SPACE:	15% OR 9.89 ACRES
PROPOSED USABLE OPEN SPACE:	20.98 ACRES
REQUIRED PLAYGROUND & NEIGHBORHOOD PARK ACREAGE (§ 162-54):	3 ACRES
VARIABLE WIDTH PAVED TRAIL (PUBLIC):	.74 ACRES
6'-WIDE NATURE TRAIL (PUBLIC):	1.34 ACRES
POCKET PARK (PRIVATE):	.36 ACRES
PROPOSED PLAYGROUND & NEIGHBORHOOD PARK ACREAGE:	3.02 ACRES

NATURAL RESOURCE AREAS:

NATURAL RESOURCE:	AREA(ACRES)	DISTURBANCE(ACRES)
WOODLANDS & HEDGEROWS:	49.21 ACRES	19.06 ACRES
WETLANDS & WATERCOURSES:	0.30 ACRES	0.00 ACRES
FLOODPLAIN & FLOODPLAIN SOILS:	0.88 ACRES	0.00 ACRES
RIPARIAN BUFFER AREA:	1.62 ACRES	0.00 ACRES
PROHIBITIVE SLOPES AREA:	7.30 ACRES	0.85 ACRES
PRECAUTIONARY SLOPES AREA:	26.08 ACRES	8.06 ACRES

REQUESTED VARIANCE/WAIVERS:

ZONING 200-107.D(2): VARIANCE REQUESTED TO PERMIT THE CONSTRUCTION AND INSTALLATION OF PROPOSED ROADS AND ASSOCIATED RETAINING WALLS, SIDEWALK, AND UTILITIES WITHIN PROHIBITIVE STEEP SLOPES.

SWMO 152-308.A: WAIVER REQUESTED TO PERMIT POST-CONSTRUCTION STORMWATER MANAGEMENT PEAK FLOW RATES EXCEEDING THE REQUIRED REDUCTION LIMITS FOR P.O.I. #2. THE DESIGN WILL REDUCE THE POST-CONSTRUCTION FLOWS TO LESS THAN 75% OF THE PRE-CONSTRUCTION VALUES BUT IT WILL NOT MEET THE STATED REDUCTION VALUES FOR THE 2-YEAR, 5-YEAR, AND 10-YEAR STORMS.

SWMO 152-311.G(9): WAIVER REQUESTED TO PERMIT COVER EXCEEDING THE 10-FOOT MAXIMUM REQUIREMENTS OVER DRAINAGE PIPES.

SWMO 152-311.H(1): WAIVER REQUESTED TO PERMIT THE MAXIMUM DETENTION/RETENTION BASIN WATER DEPTH TO BE GREATER THAN 2 FEET FOR THE 2-YEAR STORM AND 5 FEET FOR THE 100-YEAR STORM.

SWMO 152-311.H(9): WAIVER REQUESTED TO PERMIT AN ADEQUATE ALTERNATIVE TO THE CONCRETE MONOSLAB PAVERS FOR THE EMERGENCY SPILLWAY LINING. THE PERMANENT EROSION CONTROL MATTING WILL ALLOW GRASS TO GROW, WHILE MAINTAINING THE STRUCTURAL INTEGR

THE UPPER UWCHLAN TOWNSHIP BOARD OF SUPERVISORS GRANTED CONDITIONAL USE APPROVAL ON OCTOBER 11, 2022 WITH THE FOLLOWING CONDITIONS OF APPROVAL.

1. THE DEVELOPMENT SHALL BE BUILT AND DESIGNED GENERALLY IN ACCORDANCE WITH THE CONDITIONAL USE PLAN WHICH WAS ADMITTED AS EXHIBIT A–8 AS SUCH PLAN IS REVISED TO COMPLY WITH THIS ORDER AND TO OBTAIN LAND DEVELOPMENT APPROVAL FROM THE BOARD OF SUPERVISORS.

2. A MAXIMUM OF 64 DWELLING UNITS SHALL BE PERMITTED IN THE DEVELOPMENT.

3. THE MAXIMUM AREA OF PRECAUTIONARY AND PROHIBITIVE SLOPES ON THE PROPERTY THAT APPLICANT SHALL BE ALLOWED TO DISTURB SHALL BE LIMITED TO THE AREAS SET FORTH IN THE STEEP SLOPE CONSERVATION DISTRICT NARRATIVE DATED DECEMBER 15, 2021 WHICH WAS ADMITTED AS EXHIBIT A–12 AND IS SUMMARIZED IN FINDING OF FACT #53. THIS CONDITION SHALL NOT BE CONSTRUED AS GRANTING APPLICANT A VARIANCE FROM SECTION 200–107.D(2) TO DISTURB AREAS OF PROHIBITIVE STEEP SLOPES IN ORDER TO CONSTRUCT PORTIONS OF ROAD A. IF APPLICANT DOES NOT OBTAIN APPROVAL FROM THE TOWNSHIP'S ZONING HEARING BOARD FOR SUCH VARIANCE, THE PLAN MUST BE REVISED.

4. APPLICANT SHALL ADDRESS TO THE SATISFACTION OF THE BOARD ALL OUTSTANDING COMMENTS IN THE TOWNSHIP ENGINEER'S REVIEW LETTER DATED JANUARY 7, 2022 WHICH WAS ADMITTED AS EXHIBIT B–14, UNLESS RECOMMENDATIONS IN THAT LETTER ARE MODIFIED BY THE BOARD THROUGH THE IMPOSITION OF CONDITIONS IN THIS DECISION AND ORDER.

5. ACCESS TO THE DEVELOPMENT SHALL BE FROM ROAD A INTERSECTING WITH GREEN RIDGE ROAD AS GENERALLY DEPICTED ON EXHIBIT A–8. THE BOARD APPROVES WAIVERS FROM SECTION 162–33. A TO ALLOW A SINGLE ACCESS ROAD AND FROM SECTION 162–33. D TO ALLOW ROAD A TO EXCEED 500 FEET IN LENGTH.

6. APPLICANT SHALL INSTALL AN EMERGENCY ACCESS TO LAUREN LANE USING REINFORCED TURF AND PAVERS WITH THE EXACT SPECIFICATIONS APPROVED BY THE TOWNSHIP ENGINEER, FIRE CHIEF AND BOARD DURING LAND DEVELOPMENT. APPLICANT SHALL INSTALL A LOCKED GATE AT THE ENTRANCE TO THE EMERGENCY ACCESS IN THE DEVELOPMENT WHICH WILL PROHIBIT RESIDENTS FROM THE DEVELOPMENT ACCESSING LAUREN LANE. THE SPECIFICATIONS FOR THE GATE SHALL BE APPROVED BY THE TOWNSHIP ENGINEER, FIRE CHIEF AND BOARD. THE ASSOCIATION SHALL MAINTAIN THE GATE AS A COMMON FACILITY. APPLICANT SHALL INSTALL A POST AND RAIL FENCE ALONG THE NORTHERN AND SOUTHERN BOUNDARIES OF THE EMERGENCY ACCESS TO DELINEATE THE EMERGENCY ACCESS SEPARATE FROM THE SIDE YARDS OF LOTS 43 AND 58. THE SPECIFICATIONS FOR THE FENCE SHALL BE APPROVED BY THE BOARD AS PART OF LAND DEVELOPMENT.

7. THE ROADS IN THE DEVELOPMENT SHALL REMAIN PRIVATE ROADS AND SHALL BE CONVEYED TO THE ASSOCIATION AND PERPETUALLY MAINTAINED BY THE ASSOCIATION. THE ASSOCIATION SHALL ALSO BE RESPONSIBLE FOR MAINTAINING THE EMERGENCY ACCESS WHICH SHALL INCLUDE REMOVING SNOW AND ICE.

8. APPLICANT SHALL PROHIBIT ALL CONTRACTORS INVOLVED IN BUILDING ANY ASPECT OF THE DEVELOPMENT FROM USING THE EMERGENCY ACCESS AS A MEANS OF ACCESS FOR CONSTRUCTION VEHICLES.

9. THE PLAN SHALL PROVIDE THE 50 FOOT BUFFER GENERALLY EXTENDING FROM THE REAR LOT LINE OF LOTS 26–28, 29–42, 58–64 AND THE 1.68–ACRE OPEN SPACE LOT AS DEPICTED ON THE PLAN TO THE WESTERN PROPERTY BOUNDARY. APPLICANT SHALL INSTALL BOLLARDS OR SOME OTHER PROPERTY BOUNDARY MARKER (OTHER THAN A FENCE) AT THE REAR LOT LINES OF ALL LOTS THAT ABUT THE 50 FOOT BUFFER SO THAT THERE IS A VISIBLE BOUNDARY BETWEEN THE REAR LOT LINES AND THE 50 FOOT BUFFER. OTHER THAN THE EXISTING FENCE WHICH MAY REMAIN AND THE BOLLARDS (OR OTHER APPROVED PROPERTY BOUNDARY MARKER), THERE SHALL BE NO IMPROVEMENTS OR GRADING WITHIN THE 50 FOOT BUFFER, INCLUDING TRAILS. ALL EXISTING VEGETATION, EXCEPT FOR DEAD, DISEASED OR DYING TREES SHALL BE MAINTAINED AND PRESERVED IN THE 50 FOOT BUFFER. APPLICANT SHALL PLANT ADDITIONAL PLANTINGS IN THE 50 FOOT BUFFER INCLUDING EVERGREEN TREES TO PROVIDE AN EFFECTIVE SCREEN ALL YEAR ROUND. THE EXACT SPECIFICATIONS FOR THE LANDSCAPING THAT APPLICANT MUST INSTALL IN THE 50 FOOT BUFFER SHALL BE DETERMINED BY THE BOARD WITH INPUT FROM THE LAND PLANNER, TOWNSHIP ENGINEER, AND PLANNING COMMISSION DURING LAND DEVELOPMENT PROVIDED HOWEVER THAT ONLY DEER RESISTANT PLANTINGS SHALL BE USED. THE 50 FOOT BUFFER SHALL BE CONVEYED TO THE ASSOCIATION AND MAINTAINED AS A COMMON FACILITY OF THE ASSOCIATION. THE ASSOCIATION SHALL ANNUALLY INSPECT THE LANDSCAPING IN THE 50 FOOT BUFFER AND REPLACE DEAD, DISEASED OR DYING TREES.

10. APPLICANT SHALL PREPARE A SEQUENCE OF CONSTRUCTION WHICH SHALL REQUIRE THE ADDITIONAL LANDSCAPING AS REQUIRED BY THE APPROVED LANDSCAPING PLAN IN THE 50 FOOT BUFFER TO BE INSTALLED PRIOR TO DISTURBANCE OR EARTH WORK FOR ALL LOTS THAT ABUT THE REAR OF THE LOTS IN STONEHEDGE.

11. APPLICANT SHALL REMOVE ALL DEAD OR DYING ASH TREES ON PROPERTY.

12. DURING LAND DEVELOPMENT APPLICANT SHALL IDENTIFY ALL SPECIMEN TREES ON THE PROPERTY, AS DEFINED IN THE SALDO, AND PRESERVE ALL SPECIMEN TREES LOCATED IN OPEN SPACE AND IN THE 50 FOOT BUFFER, UNLESS SUCH TREES ARE DEAD, DISEASED OR DYING. APPLICANT SHALL MAKE ALL POSSIBLE EFFORTS TO PRESERVE SPECIMEN TREES LOCATED ELSEWHERE ON THE PROPERTY AND SHALL ONLY REMOVE SPECIMEN TREES LOCATED IN AREAS OF THE PROPERTY WHERE IMPROVEMENTS OR INFRASTRUCTURE IS PROPOSED, UNLESS SUCH TREES ARE DEAD, DISEASED OR DYING.

13. APPLICANT SHALL COMPLY WITH THE TREE MITIGATION AND REPLACEMENT REQUIREMENTS IN THE SALDO. THE EXACT REPLACEMENT NUMBER AND SPECIES OF TREES THAT APPLICANT MUST INSTALL SHALL BE DETERMINED AS PART OF THE LAND DEVELOPMENT PROCESS WHEN APPLICANT SUBMITS DETAILED LANDSCAPING PLANS.

14. APPLICANT SHALL REVISE THE PLAN SO THAT THE WIDTH OF THE CARTWAY FOR ALL PROPOSED ROADS IS 28 FEET, AS OPPOSED TO 32 FEET WIDE AS DEPICTED ON THE PLAN. APPLICANT SHALL INSTALL A MEDIAN ISLAND ON ROAD A IN AREAS WHERE THE SLOPE OF THE ROAD WARRANTS SUCH TRAFFIC CALMING DEVICE TO SLOW TRAFFIC DRIVING DOWNHILL. THE SPECIFICATIONS FOR THE MEDIAN ISLAND AND LOCATION OF SAME SHALL BE DETERMINED BY THE BOARD AS PART OF LAND DEVELOPMENT. THE BOARD GRANTS A WAIVER FROM SECTION 162–28. A TO ALLOW A CARTWAY WIDTH OF 28 FEET.

15. APPLICANT SHALL NOT BE REQUIRED TO WIDEN THE EXISTING CARTWAY OF GREENRIDGE ROAD PROVIDED THAT IT SHALL OFFER FOR PERPETUAL DEDICATION TO THE TOWNSHIP ADDITIONAL RIGHT OF WAY IN A WIDTH APPROVED BY THE TOWNSHIP ENGINEER DURING LAND DEVELOPMENT. THE BOARD GRANTS A WAIVER FROM SECTION 162–28. A TO NOT REQUIRE GREENRIDGE ROAD TO BE WIDENED.

16. APPLICANT SHALL REVISE THE PLAN TO PROVIDE SIDEWALKS ON BOTH SIDES OF ALL PROPOSED ROADS, AS OPPOSED TO ONE SIDE OF THE ROADS AS DEPICTED ON THE PLAN.

17. IF DURING CONSTRUCTION ANY UTILITY SERVICE (SUCH AS WATER, CABLE, INTERNET, ETC.) TO EXISTING RESIDENTS WILL BE DISRUPTED, APPLICANT SHALL SEND WRITTEN NOTICE AT LEAST 72 HOURS IN ADVANCE TO AFFECTED RESIDENTS.

18. APPLICANT SHALL PREPARE, EXECUTE AND RECORD WITH THE FINAL SUBDIVISION AND LAND DEVELOPMENT PLANS A DECLARATION OF COVENANTS, RESTRICTIONS AND EASEMENTS FOR THE COMMUNITY IN ACCORDANCE WITH THE PENNSYLVANIA UNIFORM PLANNED COMMUNITY ACT. THE DECLARATION SHALL INCLUDE ALL RESTRICTIONS REQUIRED BY THIS DECISION, THE ZONING DECISION, AND ANY TERMS IN THE BOARD'S LAND DEVELOPMENT APPROVAL IF GRANTED. THE DECLARATION MUST BE APPROVED BY THE BOARD AS PART OF LAND DEVELOPMENT AND RECORDED WITH THE FINAL PLANS.

19. APPLICANT SHALL INCLUDE IN THE AGREEMENT OF SALE AND DEED FOR ANY LOT THAT HAS PRECAUTIONARY OR PROHIBITIVE STEEP SLOPES AND IN THE ASSOCIATION DECLARATION A DISCLOSURE THAT ADVISES THE BUYER OF THE PRESENCE OF PRECAUTIONARY AND/OR PROHIBITIVE STEEP SLOPES ON THE LOT AND EXPLAINS THAT THE ORDINANCE AND THIS DECISION RESTRICTS WHAT CAN BE BUILT IN SUCH AREAS. THE DISCLOSURE SHALL INCLUDE THE LOT NUMBER, LOT AREA, AREA OF PRECAUTIONARY AND PROHIBITIVE STEEP SLOPES ON THE LOT, AREA OF MAXIMUM ALLOWABLE IMPERVIOUS COVER ON THE LOT, AREA OF IMPERVIOUS COVER BUILT BY APPLICANT, AND AREA OF IMPERVIOUS COVER THAT THE BUYER HAS LEFT TO BUILD. THE TOWNSHIP MUST APPROVE THE LANGUAGE TO BE INCLUDED IN THE AGREEMENT OF SALE AND DEED FOR ANY LOT THAT HAS PRECAUTIONARY OR PROHIBITIVE STEEP SLOPES AND IN THE ASSOCIATION DECLARATION.

20. APPLICANT SHALL PREPARE AND PROVIDE TO EACH LOT OWNER WITH THE AGREEMENT OF SALE A PLOT PLAN OF THE RESPECTIVE LOT WHICH SHOWS THE AREAS OF PRECAUTIONARY AND PROHIBITIVE STEEP SLOPES ON THE LOT, IF ANY, AND THE TOTAL AREA OF THESE SLOPES THAT APPLICANT INTENDS TO DISTURB IN THE CONSTRUCTION OF THE DWELLING AND OTHER IMPERVIOUS SURFACES. THE LOT OWNERS SHALL BE REQUIRED TO SIGN A DISCLOSURE THAT IDENTIFIES THE TOTAL AMOUNT OF IMPERVIOUS COVER THAT WILL BE CONSTRUCTED ON EACH LOT BY APPLICANT AND THE BALANCE OF IMPERVIOUS COVER THAT THE LOT OWNER MAY BUILD.

21. THE DECLARATION SHALL REQUIRE THAT LOT OWNERS MUST OBTAIN APPROVAL FROM THE ASSOCIATION BEFORE CONSTRUCTING ANY ADDITIONAL IMPROVEMENTS ON THEIR LOT AFTER CONVEYANCE BY APPLICANT. THE ASSOCIATION SHALL CONFIRM THAT ANY PROPOSED IMPROVEMENT TO BE BUILT BY A LOT OWNER DOES NOT EXCEED THE MAXIMUM IMPERVIOUS COVER ALLOCATED FOR THAT LOT. THE ASSOCIATION'S WRITTEN APPROVAL MUST BE INCLUDED IN THE BUILDING PERMIT APPLICATION SUBMITTED TO THE TOWNSHIP.

22. THE PLAN SHALL BE REVISED TO ELIMINATE THE PROPOSED NATURE TRAIL LOCATED IN THE 8.63–ACRE TRACT OF OPEN SPACE TO THE SOUTH OF ROAD A AND THE PROPOSED TRAIL ALONG GREENRIDGE ROAD. THE AREA OF THESE PROPOSED TRAILS SHALL BE DEDUCTED FROM APPLICANT'S CALCULATION OF LAND THAT IT PROPOSES FOR ACTIVE RECREATION. THE PLAN SHALL BE REVISED TO PROVIDE THE REQUIRED 3.0 ACRES OF ACTIVE USABLE RECREATIONAL AREA.

23. THE PLAN SHALL INCLUDE THE PROPOSED COMMUNITY TRAIL LEADING FROM ROAD C THROUGH STEEP SLOPES TO CONNECT TO ROAD A IN BETWEEN LOTS 2 AND 3. THIS TRAIL SHALL BE PAVED AND MAINTAINED AS A COMMON FACILITY BY THE ASSOCIATION. THE DESIGN AND SPECIFICATIONS FOR THIS TRAIL SHALL BE DETERMINED BY THE BOARD AS PART OF LAND DEVELOPMENT.

24. THE ASSOCIATION DECLARATION SHALL IDENTIFY ALL AREAS OF EXISTING WETLANDS ON THE PROPERTY AND INCLUDE RESTRICTIONS THAT THESE WETLAND AREAS MAY NOT BE DISTURBED OR DEVELOPED IN ANY MANNER. THE TOWNSHIP SHALL HAVE THE RIGHT TO ENFORCE THIS RESTRICTION IN THE DECLARATION.

25. APPLICANT SHALL COMPLY WITH THE RECOMMENDATIONS FROM THE LUDWIGS CORNER FIRE DEPARTMENT AS OUTLINED ON EXHIBIT B–9.

26. DURING LAND DEVELOPMENT APPLICANT SHALL DETERMINE IF BLASTING OF STONE OR ROCK ON THE PROPERTY IS NECESSARY. IF BLASTING IS REQUIRED, APPLICANT SHALL ADD NOTES TO THE PLAN WHICH OUTLINE THE PRECAUTIONARY STEPS THAT IT SHALL TAKE TO PROTECT STRUCTURES ON ADJOINING LANDS DURING BLASTING. APPLICANT SHALL PROVIDE 7 DAYS ADVANCE WRITTEN NOTICE TO ANY PROPERTY OWNERS WITHIN 200 FEET OF THE PROPOSED BLASTING AND PROVIDE DETAILS ABOUT WHAT BLASTING ACTIVITY WILL OCCUR.

27. DECLARANT SHALL PREPARE AN ESTIMATED BUDGET FOR THE ASSOCIATION WHICH SHALL INCLUDE ADEQUATE RESERVES FOR MAINTENANCE OF ALL COMMON FACILITIES INCLUDING RETAINING WALLS. THE MINIMUM AMOUNT OF MONEY WHICH SHALL BE HELD IN THE ASSOCIATION'S CAPITAL RESERVE ACCOUNT SHALL BE NO LESS THAN THE INITIAL CONSTRUCTION COST OF THE RETAINING WALLS PLUS A 0.5% ANNUAL INFLATIONARY INCREASE. THE ASSOCIATION SHALL CONFIRM IN WRITING EVERY YEAR TO THE TOWNSHIP THAT THE AMOUNT OF MONEY IN THE ASSOCIATION'S RESERVE ACCOUNT IS SUFFICIENT TO MAINTAIN AND REPLACE THE RETAINING WALLS. THE TOWNSHIP MAY REQUIRE THAT THE ASSOCIATION IMPOSE A SPECIAL ASSESSMENT TO INCREASE THE AMOUNT IN RESERVE IF THE TOWNSHIP ENGINEER DETERMINES THAT THE AMOUNT HELD IN RESERVE IS NOT SUFFICIENT TO REPLACE RETAINING WALLS. THE ASSOCIATION MAY ASSUME THAT THE USEFUL LIFE OF THE RETAINING WALLS IS 30 YEARS.

28. THE ASSOCIATION SHALL RETAIN A STRUCTURAL ENGINEER LICENSED IN THE COMMONWEALTH OF PENNSYLVANIA TO INSPECT THE RETAINING WALLS ALONG ROAD A EVERY TWO YEARS AND PREPARE A WRITTEN INSPECTION REPORT. THE ASSOCIATION SHALL SEND THE WRITTEN REPORT TO THE TOWNSHIP. IF THE REPORT IDENTIFIES THAT MAINTENANCE OR REPAIRS ARE NEEDED TO THE WALLS, THE ASSOCIATION SHALL COMPLETE SUCH REPAIRS WITHIN A TIME FRAME APPROVED BY THE TOWNSHIP AND SEND A WRITTEN REPORT TO THE TOWNSHIP CONFIRMING THAT THE REPAIRS WERE MADE.

29. APPLICANT SHALL RETAIN A STRUCTURAL ENGINEER TO DESIGN THE RETAINING WALLS IN THE DEVELOPMENT AND SHALL SUBMIT SUCH DESIGN TO THE TOWNSHIP FOR APPROVAL AS PART OF LAND DEVELOPMENT. ROAD A SHALL BE DESIGNED IN A MANNER TO MINIMIZE THE HEIGHT OF THE RETAINING WALLS. THE TOWNSHIP ENGINEER AND PLANNING COMMISSION SHALL PROVIDE COMMENT ON THE DESIGN, MATERIALS, COLORS, FENCING AND LANDSCAPING AROUND THE RETAINING WALLS, BUT ULTIMATE APPROVAL SHALL BE GIVEN BY THE BOARD AS PART OF LAND DEVELOPMENT. THE RETAINING WALLS SHALL BE PERPETUALLY MAINTAINED BY THE ASSOCIATION.

30. APPLICANT SHALL PRESERVE THE SIGHT LINES TO THE HISTORIC SPRING HOUSE LOCATED ON PARCEL 32–1–15 SO THAT A BUFFER IS PROVIDED BETWEEN THE DEVELOPMENT AND THE SPRING HOUSE.

31. APPLICANT SHALL DOCUMENT BY PHOTOGRAPHS ALL HISTORIC FEATURES ON THE PROPERTY AS SUGGESTED BY THE HISTORICAL COMMISSION.

32. APPLICANT SHALL INSTALL AN INTERPRETIVE SIGN NEAR THE HISTORIC WELL STRUCTURE ON THE PROPERTY IN THE OPEN SPACE AND PRESERVE THIS HISTORIC WELL.

33. APPLICANT SHALL RETAIN THE STONE WALL LOCATED ALONG THE EDGE OF GREENRIDGE ROAD AND THE ASSOCIATION SHALL MAINTAIN THIS STONE WALL AS A COMMON FACILITY.

34. APPLICANT SHALL NAME THE ROADS IN THE DEVELOPMENT AFTER HISTORICAL OWNERS OF THE PROPERTY.

35. THE DEVELOPMENT SHALL BE SERVICED BY PUBLIC WATER.

36. THE DEVELOPMENT SHALL BE SERVICED BY PUBLIC SEWER PROVIDED BY THE TOWNSHIP MUNICIPAL AUTHORITY. THE DESIGN OF ALL SEWER FACILITIES NECESSARY TO SERVICE THE DEVELOPMENT SHALL BE APPROVED BY THE MUNICIPAL AUTHORITY AND PADEP. APPLICANT SHALL PURCHASE FROM THE MUNICIPAL AUTHORITY SUFFICIENT CAPACITY FOR TREATMENT OF THE SEWAGE THAT THE DEVELOPMENT GENERATES AT THE ROUTE 100 FACILITY. APPLICANT SHALL PROVIDE ON THE PROPERTY OR OTHER SUITABLE PROPERTY APPROVED BY THE TOWNSHIP AND MUNICIPAL AUTHORITY DISPOSAL FIELDS WITH SUFFICIENT DISPOSAL CAPACITY TO TREAT THE SEWAGE THAT THE DEVELOPMENT GENERATES.

37. THE FINAL LANDSCAPING PLAN FOR THE DEVELOPMENT SHALL BE APPROVED BY THE BOARD DURING LAND DEVELOPMENT AND SHALL COMPLY WITH THE TOWNSHIP CODE UNLESS THE BOARD GRANTS WAIVERS OF CERTAIN PROVISIONS OF THE CODE.

38. APPLICANT SHALL PROVIDE A BLANKET EASEMENT ON THE FINAL LAND DEVELOPMENT PLAN IN FAVOR OF THE TOWNSHIP WHICH SHALL ALLOW THE TOWNSHIP TO PROVIDE PUBLIC SERVICES SUCH AS SEWER AND TRASH SERVICE.

39. APPLICANT SHALL BE PERMITTED TO PROVIDE ON STREET PARKING ON ONE SIDE OF THE STREETS IN CERTAIN LOCATIONS THROUGHOUT THE DEVELOPMENT. APPROPRIATE LOCATIONS MUST BE APPROVED BY THE TOWNSHIP ENGINEER, FIRE MARSHAL AND BOARD DURING LAND DEVELOPMENT APPROVAL. APPLICANT SHALL PROHIBIT ON STREET PARKING ON THE OTHER SIDE OF THE INTERNAL STREETS AND SHALL DESIGNATE THIS SIDE OF THE STREET AS A FIRE LANE. APPLICANT SHALL INSTALL SIGNAGE APPROVED BY THE TOWNSHIP AS PART OF LAND DEVELOPMENT AND INCLUDE THE PARKING RESTRICTION IN THE ASSOCIATION DECLARATION WHICH SHALL BE SUBMITTED TO THE BOARD AND TOWNSHIP AS PART OF LAND DEVELOPMENT AND SHALL BE REVIEWED AND APPROVED BY THE TOWNSHIP SOLICITOR PRIOR TO RECORDATION OF THE FINAL PLAN. THE TOWNSHIP SHALL HAVE THE RIGHT TO ENFORCE THE RESTRICTIONS IN THE DECLARATION WHICH PROHIBIT PARKING ON ONE SIDE OF THE STREETS.

40. APPLICANT SHALL PAY THE TOWNSHIP'S TRANSPORTATION IMPACT FEE BASED ON CHAPTER 79 OF THE TOWNSHIP CODE AS CALCULATED BY THE TOWNSHIP TRAFFIC ENGINEER.

41. THE LIGHTING PLAN WHICH WAS ADMITTED AS EXHIBIT A–24 IS NOT APPROVED AS PART OF THIS DECISION AND INSTEAD SHALL BE APPROVED BY THE BOARD AS PART OF LAND DEVELOPMENT. ALL LIGHTS IN THE DEVELOPMENT SHALL COMPLY WITH THE LIGHTING STANDARDS IN THE TOWNSHIP CODE AND NOT EMIT GLARE BEYOND THE PROPERTY BOUNDARY OR PROJECT LIGHT UPWARD. ALL LIGHTS INSTALLED IN THE REAR OF DWELLINGS SHALL PROJECT DOWN AND NOT EMIT GLARE BEYOND LOT BOUNDARIES OR INTO THE SKY. THE ASSOCIATION DECLARATION SHALL PROHIBIT FLOOD LIGHTS OR LIGHTS IN THE REAR OF THE LOT WHICH PROJECT UPWARD OR OUTWARD TOWARDS THE REAR LOTS IN THE STONEHEDGE DEVELOPMENT.

42. THE BOARD SHALL DETERMINE WHERE AND IF IT WANTS APPLICANT TO INSTALL STREETLIGHTS AS PART OF THE LAND DEVELOPMENT PLANS.

43. THE STORMWATER MANAGEMENT DESIGN FOR THE DEVELOPMENT SHALL BE DESIGNED FOR THE MAXIMUM ALLOWABLE IMPERVIOUS SURFACE PERMITTED BY THE ORDINANCE (AS OPPOSED TO THE MAXIMUM IMPERVIOUS SURFACE PROPOSED BY THE PLANS).

44. NOTWITHSTANDING ANYTHING TO THE CONTRARY IN THE ORDINANCE, THE SETBACK FOR ACCESSORY STRUCTURES SHALL BE CONSISTENT WITH SETBACKS FOR DWELLINGS.

45. APPLICANT AND ITS SUCCESSORS AND ASSIGNS IN INTEREST TO THE PROPERTY SHALL BE STRICTLY BOUND BY THIS DECISION.

COMMONWEALTH OF PENNSYLVANIA
JOHN H. BALCHUNIS
ENGINEER
REGISTERED PROFESSIONAL

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ESE Consultants, Inc.
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REV.	DATE	DESCRIPTION	DRAWN

CONDITIONS OF APPROVAL
PER CONDITIONAL USE

100 GREENRIDGE ROAD DEVELOPMENT
UPPER UWCHLAN TOWNSHIP, CHESTER COUNTY, PENNSYLVANIA

DATE: 03/31/2023	SCALE: AS NOTED
DESIGN: JHB	DRAWN: STAFF
JOB NO.: 8145	FILE NAME: 8145-02-NOTES
REF. NO.: SD02.02	
SHEET NO.: 9 OF 49	

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NOTES:

1. OUTBOUND INFORMATION WAS OBTAINED FROM BOUNDARY SURVEY PREPARED BY CHESTER VALLEY ENGINEERS, INC. FOR SUBJECT PROPERTY. PLAN DATED JUNE 11 2021.
2. THE WETLANDS AND WATERS OF THE COMMONWEALTH SHOWN ON THESE PLANS WERE DELINEATED BY ESE CONSULTANTS, INC., JUNE 2021. A PRELIMINARY WETLAND JURISDICTIONAL DETERMINATION FROM US ARMY CORPS OF ENGINEERS WAS GRANTED ON MARCH 3, 2022.
3. THE TOPOGRAPHIC INFORMATION SHOWN ON THESE PLANS WERE PREPARED BY ESE CONSULTANTS, INC., PLAN DATED JULY 01, 2021.
4. SOILS ARE TAKEN FROM NRCS CHESTER COUNTY, PA SOIL SURVEY.
5. PRECAUTIONARY AND PROHIBITIVE SLOPES ARE MAPPED/DELINEATED IN ACCORDANCE WITH THE UPPER UWCHLAN TOWNSHIP ZONING ORDINANCE.
6. FLOODPLAIN MAPPED FROM FEMA PANEL 42029C0090G.
7. PLAN LAST REVISED SEPTEMBER 29, 2017.
8. TOWNSHIP RIPARIAN BUFFER LINE IS BASED ON THE OUTERMOST LIMITS OF THE FOLLOWING: 75' FROM TOP-OF-BANK OF A STREAM, 25' FROM WETLANDS, OR THE HYDRIC SOIL BOUNDARY LINE.
9. THE EXISTING STREAM IS A TRIBUTARY TO THE BLACK MARSH CREEK AND IS DEFINED AS A HIGH QUALITY STREAM PER PA DEP. A 150' BUFFER, MEASURED FROM TOP OF BANK, IS SHOWN IN ACCORDANCE WITH PA DEP REGULATIONS.
10. THE HORIZONTAL DATUM IS NAD83.
11. THE VERTICAL DATUM SHOWN IS BASED ON NAVD88.
12. SITE BENCH MARK – SQUARE CHISEL CUT ON TOP OF CURB ON INLET ON LAUREN LANE (STONEHEDGE SUBDIVISION). SAID INLET BEING ON THE NORTH SIDE OF LAUREN LANE AT THE RETURN OF STONEHEDGE DRIVE.
13. SOIL TEST PIT LOCATIONS WERE TAKEN FROM THE "EXPLORATION LOCATION MAP", DATED JUNE 2021, PREPARED BY GEO-TECHNOLOGY ASSOCIATES, INC.

SOILS LEGEND

GENERATED FROM THE USDA-NRCS WEB SOIL SURVEY.

SOIL SURVEY AREA: CHESTER COUNTY, PA

CpA	COKESBURY SILT LOAM – HIGH WATER TABLE, HYDRIC
GdB	GLADSTONE GRAVELLY LOAM – 3 TO 8 PERCENT SLOPE
GdC	GLADSTONE GRAVELLY LOAM – 8 TO 15 PERCENT
GdD	GLADSTONE GRAVELLY LOAM – 15 TO 25 PERCENT
GeD	GLADSTONE-PARKER GRAVELLY LOAM – 15 TO 25 PERCENT

LEGEND

- EXISTING R.O.W.
- EXISTING BOUNDARY LINE
- MAJOR CONTOURS
- MINOR CONTOURS
- EXISTING SETBACK LINE
- EXISTING TREE LINE
- EXISTING SHRUB
- EXISTING SIGN
- EXISTING MAIL BOX
- EXISTING UTILITY POLE
- EXISTING INLET
- EXISTING MANHOLE
- SOILS LINE
- EXISTING STREAM
- CONCRETE MONUMENT
- EXISTING GAS LINE
- EXISTING WATER LINE
- EXISTING STORM PIPE
- EXISTING WATER VALVES
- EXISTING HYDRANTS
- EXISTING STONE WALL
- FLOODPLAIN
- TOWNSHIP RIPARIAN BUFFER LINE
- PA DEP 150' HIGH QUALITY STREAM BUFFER LINE
- WETLANDS LIMIT
- WATERS OF THE U.S.
- PROHIBITIVE SLOPES
- PRECAUTIONARY SLOPES
- SLOPES UNDER 15%
- TP-10 TEST PIT NUMBER & LOCATION

FEET

120 0 60 120 240

GRAPHIC SCALE 1 inch = 120 ft.

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COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JAMES M. HOLLIDAY LAND SURVEYOR

REV.	DATE	DESCRIPTION	DRAWN

EXISTING FEATURES PLAN

100 GREENRIDGE ROAD DEVELOPMENT

UPPER UWCHLAN TOWNSHIP, CHESTER COUNTY, PENNSYLVANIA

DATE: 03/31/2023	SCALE: 1"=120'
DESIGN: MRZ	DRAWN: STAFF
JOB NO.: 8145	FILE NAME: 8145-03.A-EXIST
REF. NO.: SD03.01	
SHEET NO.: 10 OF 49	

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GRAPHIC SCALE
1 inch = 120 ft.
120 0 60 120 240 FEET

SHEET NO.: 11 OF 49
DRAWING NO.: SD03.02
JOB NO.: 8145
FILE NAME: 8145-03.B-AERIAL
DESIGN: JHB
DRAWN: STAFF
DATE: 03/31/2023
SCALE: 1"=120'

AERIAL PHOTOGRAPH PLAN

100 GREENRIDGE ROAD DEVELOPMENT

UPPER UWCHLAN TOWNSHIP, CHESTER COUNTY, PENNSYLVANIA

REV.	DATE	DESCRIPTION	DRAWN

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL ENGINEER
JOHN H. BRUNO
PE-050278-E

SITE DATA :

GROSS SITE AREA: 65.95 ACRES
TAX MAP PARCEL NO.: 32-001-0017.1, 32-001-0011
BASE ZONING DISTRICT: R2 – RESIDENTIAL DISTRICT
OVERLAY DISTRICT: F1 – FLEXIBLE DEVELOPMENT OVERLAY
PROPOSED USE: FLEXIBLE DEVELOPMENT OVERLAY OPTION; SINGLE-FAMILY, DETACHED LOTS
TOTAL NUMBER OF PROPOSED RESIDENTIAL LOTS: 64 BUILDING LOTS

NATURAL RESOURCE AREAS:

NATURAL RESOURCE:	AREA (ACRES)	DISTURBANCE (ACRES)
WOODLANDS & HEDGEROWS:	49.21 ACRES	19.06 ACRES
WETLANDS & WATERCOURSES:	0.30 ACRES	0.00 ACRES
FLOODPLAIN & FLOODPLAIN SOILS:	0.88 ACRES	0.00 ACRES
RIPARIAN BUFFER AREA:	1.62 ACRES	0.00 ACRES
PROHIBITIVE SLOPES AREA:	7.30 ACRES	0.85 ACRES
PRECAUTIONARY SLOPES AREA:	26.08 ACRES	8.06 ACRES

Notes:

1) **Green Shading** (eastern corner of subject property): Precambrian graphitic felsic gneiss, includes Pickering Gneiss and small areas of marble; dominantly quartz and feldspar with varying amounts of graphite and various metamorphic minerals; medium grained, light to dark gray and greenish gray.
2) **Purple Shading:** Precambrian, graphitic felsic gneiss, medium grained, medium to dark gray, locally gneissic, predominantly feldspar and quartz.
3) **Blue Shading:** Precambrian banded mafic gneiss, dark, fine to medium grained; includes rocks of probable sedimentary origin.
4) **Yellow Shading:** Chickies Formation, light-gray, hard, massive, scolithus-bearing quartzite and quartz schist; thin, interbedded dark slate at top; conglomerate.
5) Base map obtained from Google Earth 2021
   i. Horton, J.D., C.A. San Juan, and D.B. Stoeser, 207, The State Geologic Map Compilation (SGMC) geodatabase of the continuous United States: U.S. Geological Survey Data Series 1052

GTA — GEO-TECHNOLOGY ASSOCIATES, INC., Geotechnical and Environmental Consultants, 2405 John Fries Highway, Quakertown, Pennsylvania 18951, (215) 536-8363, www.gtaenv.com

SITE GEOLOGY MAP
GREENRIDGE ROAD
CHESTER COUNTY, PA

SCALE	DATE	DRAWN BY	REVIEW BY	JOB NO.	FIGURE NO.
NTS	JUN 2021	MDF	MWD	31210193	2

LEGEND

- EXISTING STRUCTURE
- EXISTING DIRT/GRAVEL ROAD
- EXISTING EDGE OF PAVING
- EXISTING R.O.W.
- EXISTING BOUNDARY LINE
- MAJOR CONTOURS
- MINOR CONTOURS
- EXISTING SETBACK LINE
- EXISTING SPOT ELEVATION
- EXISTING TREE LINE
- EXISTING VEGETATION LINE
- EXISTING DECIDUOUS TREE
- EXISTING SHRUB
- EXISTING SIGN
- EXISTING MAIL BOX
- EXISTING UTILITY POLE
- EXISTING INLET
- EXISTING MANHOLE
- SOILS LINE
- EXISTING STREAM
- EXISTING CONCRETE MONUMENT
- EXISTING GAS LINE
- EXISTING WATER LINE
- EXISTING STORM PIPE
- EXISTING WATER VALVES
- EXISTING HYDRANTS
- EXISTING STONE WALL
- FLOODPLAIN
- TOWNSHIP RIPARIAN BUFFER LINE
- PA DEP 150' STREAM BUFFER LINE
- WETLANDS LIMIT
- WATERS OF THE U.S.
- PRECAUTIONARY SLOPES
- PROHIBITIVE SLOPES
- SLOPES UNDER 15%
- PROPOSED TREE LINE
- BUILDING SETBACK LINE
- PROPOSED CENTER LINE
- PROPOSED PROPERTY LINE
- PROPOSED R.O.W.
- PROPOSED CURB
- PROPOSED 4' WIDE SIDEWALK WITH ACCESS RAMP
- OUTBOUND LINE
- PROPOSED SPLIT RAIL FENCE
- PROPOSED EASEMENT
- PROPOSED LOT NUMBER
- LIMIT OF DISTURBANCE
- GEOLOGIC DELINEATION LINE

SOILS LEGEND

GENERATED FROM THE USDA-NRCS WEB SOIL SURVEY.
SOIL SURVEY AREA: CHESTER COUNTY, PA

CpA	COKESBURY SILT LOAM – HIGH WATER TABLE, HYDRIC
GdB	GLADSTONE GRAVELLY LOAM – 3 TO 8 PERCENT SLOPE
GdC	GLADSTONE GRAVELLY LOAM – 8 TO 15 PERCENT
GdD	GLADSTONE GRAVELLY LOAM – 15 TO 25 PERCENT
GeD	GLADSTONE-PARKER GRAVELLY LOAM – 15 TO 25 PERCENT

SITE IMPACT NOTES/RESOLUTIONS:

1. THE EXISTING HOME, GARAGE AND SUBSEQUENT STRUCTURES, ALONG WITH THE EXISTING POOL AND PATIO, WILL BE DEMOLISHED. A PORTION OF THE EXISTING DRIVEWAY WILL REMAIN AND BE UTILIZED AS PART OF A COMMUNITY TRAIL NETWORK.
2. THE APPLICANT IS SEEKING A ZONING VARIANCE TO DISTURB AREAS OF PROHIBITIVE SLOPES ON THE SITE IN ORDER TO SERVICE THE MAIN DEVELOPMENT PAD (ROAD A) FROM GREENRIDGE ROAD.
3. THE MAJORITY OF THE PROPOSED DEVELOPMENT IS LOCATED NEAR THE HIGH-POINT OF THE SITE, NEAR THE SHARED BOUNDARY WITH THE STONEHENGE DEVELOPMENT TO THE WEST. WHILE THE F1 DEVELOPMENT OVERLAY ORDINANCE ALLOWS FOR A 50' BUILDING SETBACK FROM THE TRACT PERIMETER, THE APPLICANT HAS PROPOSED A 50' LOT SETBACK THAT WILL ALLOW THE MAJORITY OF THE EXISTING VEGETATION LOCATED BETWEEN THE STONEHEDGE DEVELOPMENT AND THE PROPOSED DEVELOPMENT, TO REMAIN UNDISTURBED, WITH THE EXCEPTION OF A PROPOSED GRASS-PAVE EMERGENCY ACCESS.
4. THE PROPOSED DEVELOPMENT WILL REQUIRE DISTURBANCE OF MAN-MADE PROHIBITIVE & PRECAUTIONARY SLOPES, RESULTING FROM THE CONSTRUCTION OF THE EXISTING HOME & ACCESSORY USES. THESE AREAS HAVE BEEN IDENTIFIED ON THE PLAN.
5. WITH THE EXCEPTION OF THE NECESSARY CONSTRUCTION AND DISTURBANCE TO BUILD "ROAD A", THE PROPOSED DEVELOPMENT WILL HAVE MINIMAL IMPACT ON AREAS OF PRECAUTIONARY SLOPES. NO MAXIMUM OR MINIMUM DISTURBANCE IS IDENTIFIED IN THE ORDINANCE.
6. THE PROPOSED DEVELOPMENT WILL REQUIRE DISTURBANCE TO AREAS OF WOODLANDS ON SITE. THE ZONING ORDINANCE ALLOWS FOR DISTURBANCE OF EXISTING WOODLANDS ON SITE, UP TO 25% SHOULD THE APPLICANT REQUIRE GREATER DISTURBANCE DURING LAND DEVELOPMENT, THE APPLICANT WILL PROVIDE FOR THE NECESSARY TREE REPLACEMENT AS REQUIRED PER CODE.
7. THE WETLANDS AND WATERS OF THE COMMONWEALTH SHOWN ON THESE PLANS, IN ADDITION TO THE RESPECTIVE RIPARIAN AND DEP STREAM BUFFERS SHALL REMAIN UNDISTURBED.
8. THE PROJECT SITE SHARES A COMMON BOUNDARY WITH PARCEL 32-1-15, WHICH HAS BEEN IDENTIFIED AS CLASS II HISTORIC RESOURCE. NO IMPACT FROM THE PROPOSED DEVELOPMENT IS ANTICIPATED AS RESTRICTED OPEN SPACE HAS BEEN PROPOSED BETWEEN THE AREA OF DEVELOPMENT AND THE COMMON BOUNDARY LINE.

FEET
120 0 60 120 240
GRAPHIC SCALE 1 inch = 120 ft.

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — JOHN A. DALOISIO — ENGINEER — PROJECT MANAGER

ESE CONSULTANTS
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ESE Consultants, Inc.
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REV.	DATE	DESCRIPTION	DRAWN

SITE ANALYSIS & CONSERVATION PLAN – EXISTING

100 GREENRIDGE ROAD DEVELOPMENT
UPPER UWCHLAN TOWNSHIP, CHESTER COUNTY, PENNSYLVANIA

DATE: 03/31/2023	SCALE: 1"=120'
DESIGN: MRZ	DRAWN: STAFF
JOB NO.: 8145	FILE NAME: 8145-01C-SITE-IMPACT.DWG
REF. NO.: **SD03.03**	
SHEET NO.: **12** OF **49**	

N:\PROJECTS\PENNSYLVANIA\8145-GREENRIDGE ROAD\ENGDEPT\DRAWINGS\SHEET DRAWINGS\8145-03C-SITE-IMPACT EXISTING.DWG-Eric Stengel-4/5/2023, 4:48 PM

SITE DATA :

GROSS SITE AREA: 65.95 ACRES
TAX MAP PARCEL NO.: 32-001-0017.1, 32-001-0011
BASE ZONING DISTRICT: R2 – RESIDENTIAL DISTRICT
OVERLAY DISTRICT: F1 – FLEXIBLE DEVELOPMENT OVERLAY
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GTA	GEO-TECHNOLOGY ASSOCIATES, INC. Geotechnical and Environmental Consultants 2405 John Fries Highway Quakertown, Pennsylvania 18951 (215) 536-8363 www.gtaenq.com	**SITE GEOLOGY MAP** GREENRIDGE ROAD CHESTER COUNTY, PA

SCALE	DATE	DRAWN BY	REVIEW BY	JOB NO.	FIGURE NO.
NTS	JUN 2021	MDF	MWD	31210993	2

LEGEND

- EXISTING STRUCTURE
- EXISTING DIRT/GRAVEL ROAD
- EXISTING EDGE OF PAVING
- EXISTING R.O.W.
- EXISTING BOUNDARY LINE
- MAJOR CONTOURS
- MINOR CONTOURS
- EXISTING SETBACK LINE
- EXISTING SPOT ELEVATION
- EXISTING TREE LINE
- EXISTING VEGETATION LINE
- EXISTING DECIDUOUS TREE
- EXISTING SHRUB
- EXISTING SIGN
- EXISTING MAIL BOX
- EXISTING UTILITY POLE
- EXISTING INLET
- EXISTING MANHOLE
- SOILS LINE
- EXISTING STREAM
- EXISTING CONCRETE MONUMENT
- EXISTING GAS LINE
- EXISTING WATER LINE
- EXISTING STORM PIPE
- EXISTING WATER VALVES
- EXISTING HYDRANTS
- EXISTING STONE WALL
- FLOODPLAIN
- TOWNSHIP RIPARIAN BUFFER LINE
- PA DEP 150' STREAM BUFFER LINE
- WETLANDS LIMIT
- WATERS OF THE U.S.
- PRECAUTIONARY SLOPES
- PROHIBITIVE SLOPES
- SLOPES UNDER 15%
- TP-10 — TEST PIT NUMBER & LOCATION
- PROPOSED TREE LINE
- BUILDING SETBACK LINE
- PROPOSED CENTER LINE
- PROPOSED PROPERTY LINE
- PROPOSED R.O.W.
- PROPOSED CURB
- PROPOSED 4' WIDE SIDEWALK WITH ACCESS RAMP
- OUTBOUND LINE
- PROPOSED SPLIT RAIL FENCE
- PROPOSED EASEMENT
- 68 — PROPOSED LOT NUMBER
- LOD — LIMIT OF DISTURBANCE

SOILS LEGEND

GENERATED FROM THE USDA-NRCS WEB SOIL SURVEY.
SOIL SURVEY AREA: CHESTER COUNTY, PA

CpA	COKESBURY SILT LOAM – HIGH WATER TABLE, HYDRIC
GdB	GLADSTONE GRAVELLY LOAM – 3 TO 8 PERCENT SLOPE
GdC	GLADSTONE GRAVELLY LOAM – 8 TO 15 PERCENT
GdD	GLADSTONE GRAVELLY LOAM – 15 TO 25 PERCENT
GeD	GLADSTONE-PARKER GRAVELLY LOAM – 15 TO 25 PERCENT

SITE IMPACT NOTES/RESOLUTIONS:

1. THE EXISTING HOME, GARAGE AND SUBSEQUENT STRUCTURES, ALONG WITH THE EXISTING POOL AND PATIO, WILL BE DEMOLISHED. A PORTION OF THE EXISTING DRIVEWAY WILL REMAIN AND BE UTILIZED AS PART OF A COMMUNITY TRAIL NETWORK.
2. THE APPLICANT IS SEEKING A ZONING VARIANCE TO DISTURB AREAS OF PROHIBITIVE SLOPES ON THE SITE IN ORDER TO SERVICE THE MAIN DEVELOPMENT PAD (ROAD A) FROM GREENRIDGE ROAD.
3. THE MAJORITY OF THE PROPOSED DEVELOPMENT IS LOCATED NEAR THE HIGH-POINT OF THE SITE, NEAR THE SHARED BOUNDARY WITH THE STONEHENGE DEVELOPMENT TO THE WEST. WHILE THE F1 DEVELOPMENT OVERLAY ORDINANCE ALLOWS FOR A 50' BUILDING SETBACK FROM THE TRACT PERIMETER, THE APPLICANT HAS PROPOSED A 50' LOT SETBACK THAT WILL ALLOW THE MAJORITY OF THE EXISTING VEGETATION LOCATED BETWEEN THE STONEHEDGE DEVELOPMENT AND THE PROPOSED DEVELOPMENT, TO REMAIN UNDISTURBED, WITH THE EXCEPTION OF A PROPOSED GRASS-PAVE EMERGENCY ACCESS.
4. THE PROPOSED DEVELOPMENT WILL REQUIRE DISTURBANCE OF MAN-MADE PROHIBITIVE & PRECAUTIONARY SLOPES, RESULTING FROM THE CONSTRUCTION OF THE EXISTING HOME & ACCESSORY USES. THESE AREAS HAVE BEEN IDENTIFIED ON THE PLAN.
5. WITH THE EXCEPTION OF THE NECESSARY CONSTRUCTION AND DISTURBANCE TO BUILD "ROAD A", THE PROPOSED DEVELOPMENT WILL HAVE MINIMAL IMPACT ON AREAS OF PRECAUTIONARY SLOPES. NO MAXIMUM OR MINIMUM DISTURBANCE IS IDENTIFIED IN THE ORDINANCE.
6. THE PROPOSED DEVELOPMENT WILL REQUIRE DISTURBANCE TO AREAS OF WOODLANDS ON SITE. THE ZONING ORDINANCE ALLOWS FOR DISTURBANCE OF EXISTING WOODLANDS ON SITE, UP TO 25%. SHOULD THE APPLICANT REQUIRE GREATER DISTURBANCE DURING LAND DEVELOPMENT, THE APPLICANT WILL PROVIDE FOR THE NECESSARY TREE REPLACEMENT AS REQUIRED PER CODE.
7. THE WETLANDS AND WATERS OF THE COMMONWEALTH SHOWN ON THESE PLANS, IN ADDITION TO THE RESPECTIVE RIPARIAN AND DEP STREAM BUFFERS SHALL REMAIN UNDISTURBED.
8. THE PROJECT SITE SHARES A COMMON BOUNDARY WITH PARCEL 32-1-15., WHICH HAS BEEN IDENTIFIED AS CLASS II HISTORIC RESOURCE. NO IMPACT FROM THE PROPOSED DEVELOPMENT IS ANTICIPATED AS RESTRICTED OPEN SPACE HAS BEEN PROPOSED BETWEEN THE AREA OF DEVELOPMENT AND THE COMMON BOUNDARY LINE.

GRAPHIC SCALE: 1 inch = 120 ft. (FEET: 120, 0, 60, 120, 240)

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — JOHN A. DALOISIO — ENGINEER — PROJECT MANAGER

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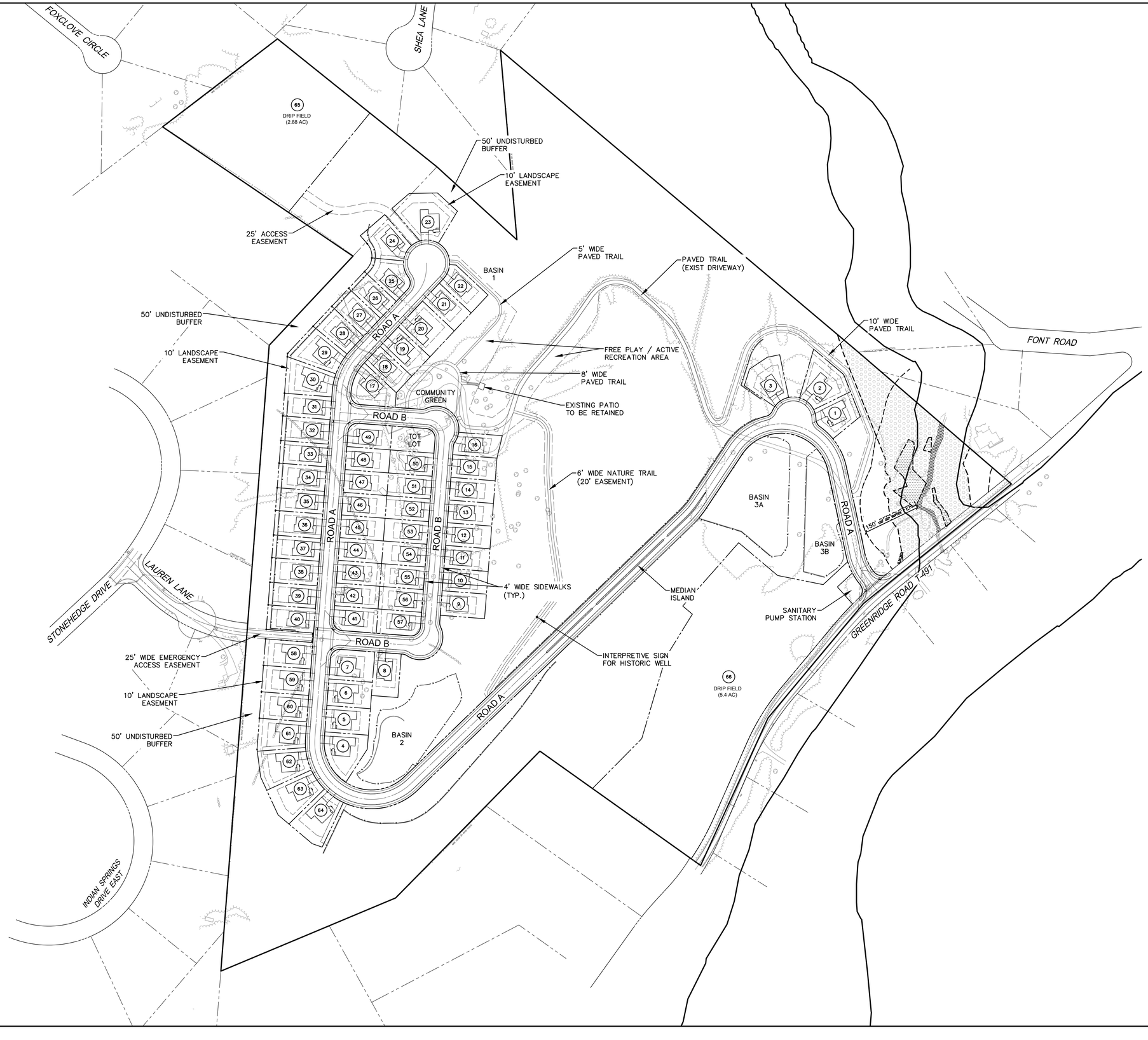
REV.	DATE	DESCRIPTION	DRAWN

SITE ANALYSIS & CONSERVATION PLAN – PROPOSED

100 GREENRIDGE ROAD DEVELOPMENT
UPPER UWCHLAN TOWNSHIP, CHESTER COUNTY, PENNSYLVANIA

DATE: 03/31/2023	SCALE: 1"=120'
DESIGN: MRZ	DRAWN: STAFF
JOB NO.: 8145	FILE NAME: 8145-SSD-SITE IMPACT PROP
REF. NO.: **SD03.04**	
SHEET NO.: **13** OF **49**	

N:\PROJECTS\PENNSYLVANIA\8145-GREENRIDGE ROAD\ENGDEPT\DRAWINGS\SHEET DRAWINGS\8145-03D-SITE IMPACT PROP.DWG-Eric Stengel-4/5/2023 4:48 PM



LEGEND

- EXISTING STRUCTURE
- 100 EXISTING CONTOURS
- PROPOSED TREE LINE
- EXISTING TREE LINE
- WETLANDS LIMIT
- WATERS OF THE U.S.
- BUILDING SETBACK LINE
- PROPOSED CENTER LINE
- STREAM LINE
- PROPOSED PROPERTY LINE
- PROPOSED R.O.W.
- EXISTING CARTWAY
- PROPOSED CURB
- PROPOSED 4' WIDE SIDEWALK WITH ACCESS RAMP
- OUTBOUND LINE
- PROPOSED SPLIT RAIL FENCE
- PROPOSED EASEMENT
- (68) PROPOSED LOT NUMBER

FEET
120 0 60 120 240
GRAPHIC SCALE 1 inch = 120 ft.

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
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REV.	DATE	DESCRIPTION
		DRAWN

100 GREENRIDGE ROAD DEVELOPMENT
UPPER UWCHLAN TOWNSHIP, CHESTER COUNTY, PENNSYLVANIA

OVERALL SITE PLAN

DATE: 03/31/2023	SCALE: 1"=120'
DESIGN: MRZ	DRAWN: STAFF
JOB NO.: 8145	FILE NAME: 8145-04-OVERALL
REF. NO.: SD04.01	
SHEET NO.: 14 OF 49	

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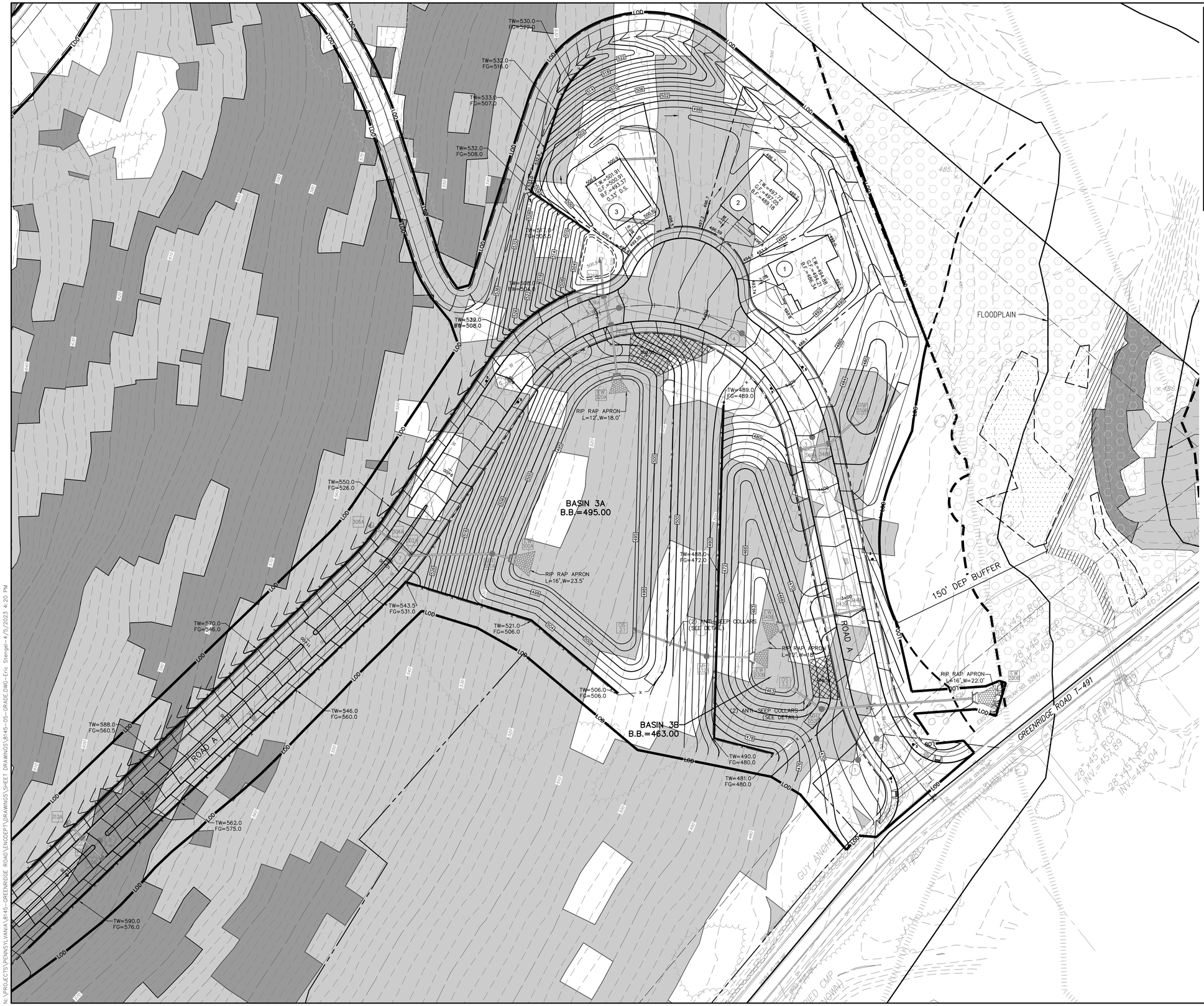

KEY MAP
SCALE: 1"=600'

LEGEND

- EXISTING STRUCTURE
- EXISTING CONTOURS
- PROPOSED CONTOURS
- PROPOSED SPOT ELEVATION
- EXISTING SPOT ELEVATION
- DRAINAGE FLOW ARROW (YARD)
- PROPOSED DRIVEWAY SLOPE
- PROPOSED TREE LINE
- EXISTING TREE LINE
- EXISTING INLET W/STORM SEWER
- PROPOSED 8" WATER LINE W/FIRE HYDRANT, THRUST BLOCK & TEE VALVE
- PROPOSED SANITARY MANHOLE NUMBER
- PROPOSED SANITARY MANHOLE
- PROPOSED STORM STRUCTURE NUMBER
- PROPOSED ROAD INLET
- PROPOSED YARD INLET
- PROPOSED ENDWALL
- PROPOSED STORM MANHOLE
- PROPOSED FLARED END SECTION
- BUILDING SETBACK LINE
- PROPOSED CENTER LINE
- STREAM LINE
- PROPOSED PROPERTY LINE
- PROPOSED R.O.W.
- PROPOSED EASEMENT
- EXISTING CARTWAY
- LIMIT OF DISTURBANCE
- PROPOSED CURB
- PROPOSED 5' WIDE SIDEWALK WITH ACCESS RAMP
- OUTBOUND LINE
- PROPOSED SPLIT RAIL FENCE
- EXISTING FENCE
- PROPOSED RIP-RAP
- PROPOSED TOP OF WALL ELEVATION
- PROPOSED GARAGE FLOOR ELEVATION
- PROPOSED BASEMENT FLOOR ELEVATION
- PROPOSED LOT NUMBER
- EXISTING UTILITY POLE
- EXISTING TREE
- WETLANDS LIMIT
- WATERS OF THE U.S.
- STOP SIGN
- SPEED LIMIT SIGN
- NO OUTLET SIGN
- PEDESTRIAN CROSSING
- NO PARKING THIS SIDE SIGN
- INTERPRETIVE SIGN (HISTORIC WELL STRUCTURE)
- EMERGENCY ACCESS GATE
- RELOCATED UTILITY POLE

GRAPHIC SCALE
FEET
40 0 20 40 80
1 inch = 40 ft.

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL ENGINEER
JOHN H. BALCHUNIS
PROFESSIONAL ENGINEER

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REV.	DATE	DESCRIPTION	DRAWN

GRADING & UTILITY PLAN

100 GREENRIDGE ROAD DEVELOPMENT
UPPER UWCHLAN TOWNSHIP, CHESTER COUNTY, PENNSYLVANIA

DATE: 03/31/2023	SCALE: 1"=40'
DESIGN: JHB	DRAWN: STAFF
JOB NO.: 8145	FILE NAME: 8145-05-GRADE
REF. NO.:	SD05.01
SHEET NO.: 15 OF 49	

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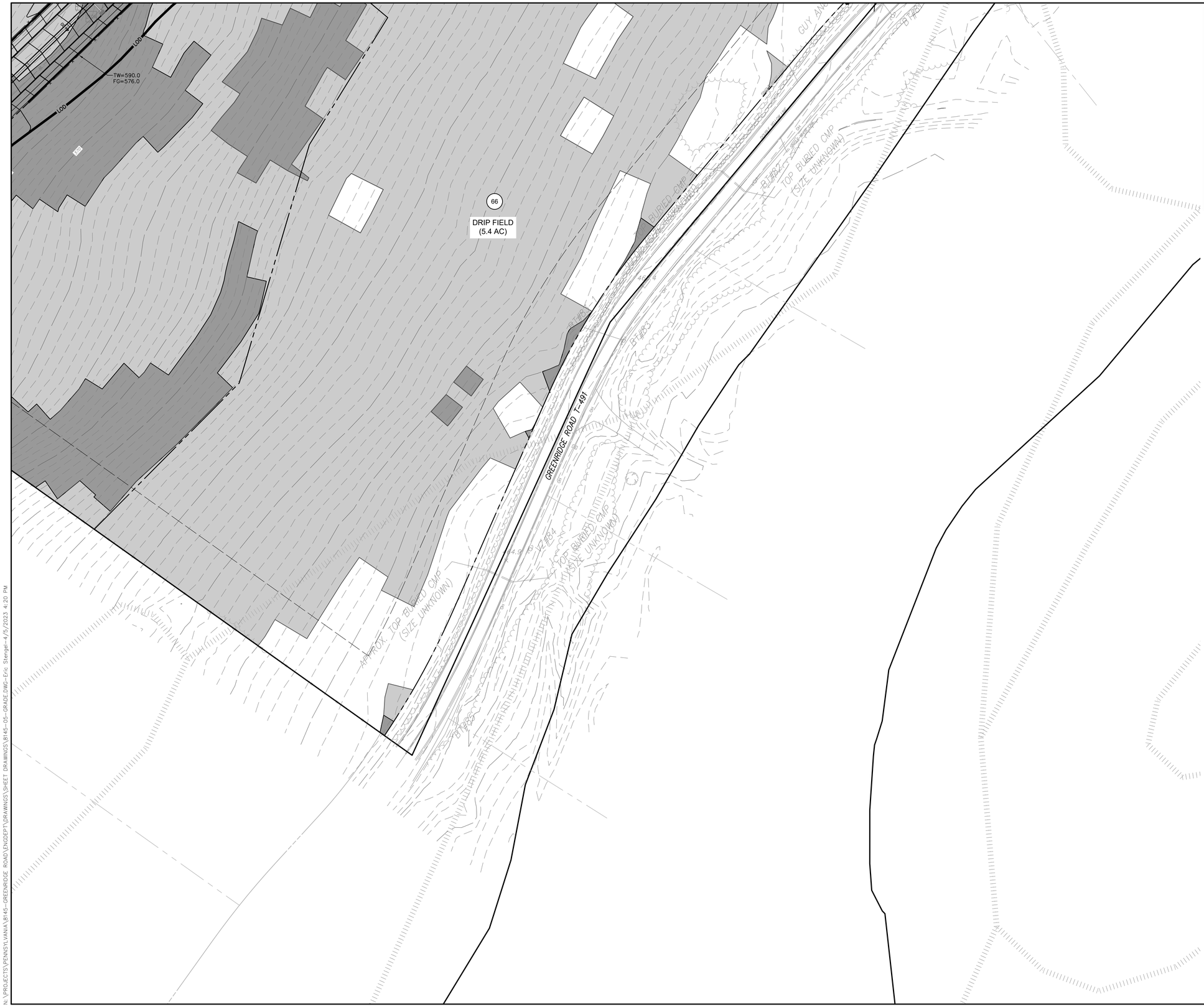
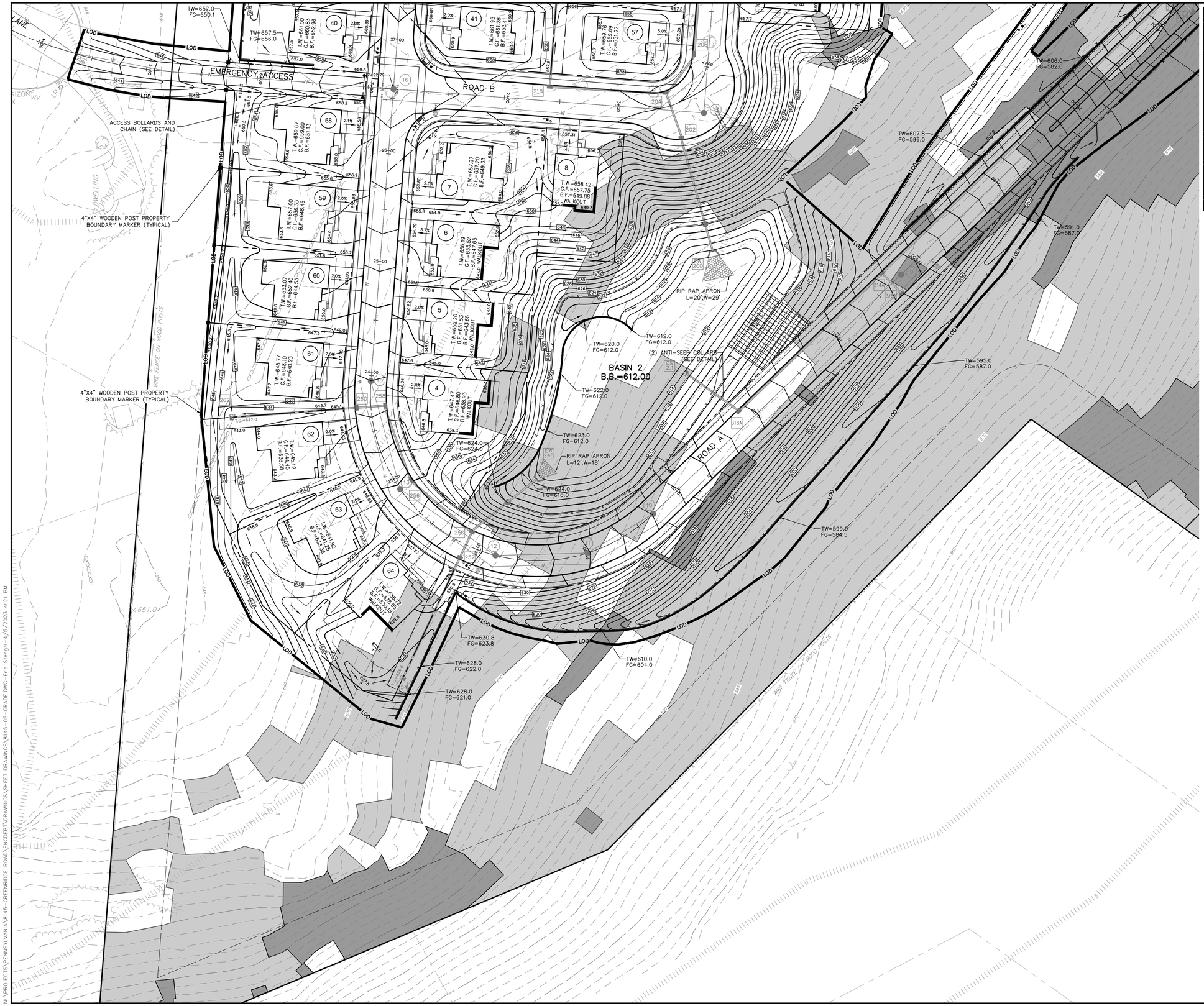
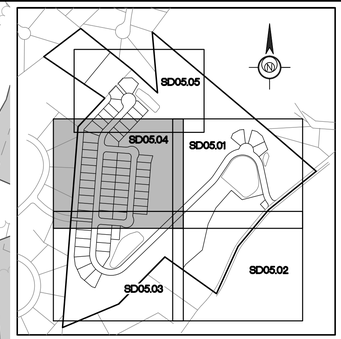

66
DRIP FIELD
(5.4 AC)
GREENRIDGE ROAD T-491
TW=590.0
FG=576.0
LOD
LOD
BEF
BURIED CMP
(SIZE UNKNOWN)
APPROX. TOP BURIED CMP
(SIZE UNKNOWN)
GUY LINE
BTWBZ
BTWBZ
BTWBZ


EMERGENCY ACCESS
ROAD B
ROAD A
ACCESS BOLLARDS AND CHAIN (SEE DETAIL)
4"X4" WOODEN POST PROPERTY BOUNDARY MARKER (TYPICAL)
WIRE FENCE ON WOOD POSTS
BASIN 2
B.B.=612.00
RIP RAP APRON L=20',W=29'
RIP RAP APRON L=12',W=18'
(2) ANTI-SEEP COLLARS (SEE DETAIL)
TW=657.0
FG=650.1
TW=657.5
FG=656.0
TW=606.0
FG=582.0
TW=607.8
FG=596.0
TW=591.0
FG=587.0
TW=595.0
FG=587.0
TW=599.0
FG=584.5
TW=610.0
FG=604.0
TW=630.8
FG=623.8
TW=628.0
FG=622.0
TW=628.0
FG=621.0
TW=620.0
FG=612.0
TW=612.0
FG=612.0
TW=622.0
FG=612.0
TW=623.0
FG=612.0
TW=624.0
FG=624.0
TW=624.0
FG=616.0
T.W.=658.42
G.F.=657.75
B.F.=649.88
WALKOUT
T.W.=657.87
G.F.=657.20
B.F.=648.37
WALKOUT
T.W.=656.19
G.F.=655.52
B.F.=646.69
WALKOUT
T.W.=652.20
G.F.=651.53
B.F.=642.46
WALKOUT
T.W.=647.47
G.F.=646.80
B.F.=638.63
WALKOUT
T.W.=659.67
G.F.=659.00
B.F.=650.17
T.W.=657.00
G.F.=656.33
B.F.=648.46
T.W.=653.47
G.F.=652.40
B.F.=644.53
T.W.=648.77
G.F.=648.10
B.F.=640.23
T.W.=645.12
G.F.=644.45
B.F.=636.58
T.W.=641.95
G.F.=641.28
B.F.=633.39
T.W.=661.95
G.F.=661.28
B.F.=653.41
T.W.=659.76
G.F.=659.09
B.F.=651.22
T.W.=637.31
G.F.=636.64
B.F.=627.85
T.W.=636.98
G.F.=636.31
B.F.=627.52
WALKOUT
T.W.=661.20
G.F.=660.53
B.F.=652.96
T.W.=641.25
G.F.=640.58
B.F.=631.39
DWELLING
SHED
SHED
SHED



KEY MAP
SCALE: 1"=600'

LEGEND

- EXISTING STRUCTURE
- EXISTING CONTOURS
- PROPOSED CONTOURS
- PROPOSED SPOT ELEVATION
- EXISTING SPOT ELEVATION
- DRAINAGE FLOW ARROW (YARD)
- PROPOSED DRIVEWAY SLOPE
- PROPOSED TREE LINE
- EXISTING TREE LINE
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- PROPOSED SANITARY MANHOLE NUMBER
- PROPOSED SANITARY MANHOLE
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- PROPOSED CURB
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- STOP SIGN
- SPEED LIMIT SIGN
- NO OUTLET SIGN
- PEDESTRIAN CROSSING
- NO PARKING THIS SIDE SIGN
- INTERPRETIVE SIGN (HISTORIC WELL STRUCTURE)
- EMERGENCY ACCESS GATE
- RELOCATED UTILITY POLE

FEET
40 0 20 40 80
GRAPHIC SCALE 1 inch = 40 ft.

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NO.	DESCRIPTION	DATE	DRAWN

GRADING & UTILITY PLAN

100 GREENRIDGE ROAD DEVELOPMENT

UPPER UWCHLAN TOWNSHIP, CHESTER COUNTY, PENNSYLVANIA

DATE: 03/31/2023	SCALE: 1"=40'
DESIGN: JHB	DRAWN: STAFF
JOB NO.: 8145	FILE NAME: 8145-05-GRADE
REF. NO.: **SD05.04**	
SHEET NO.: **18** OF **49**	

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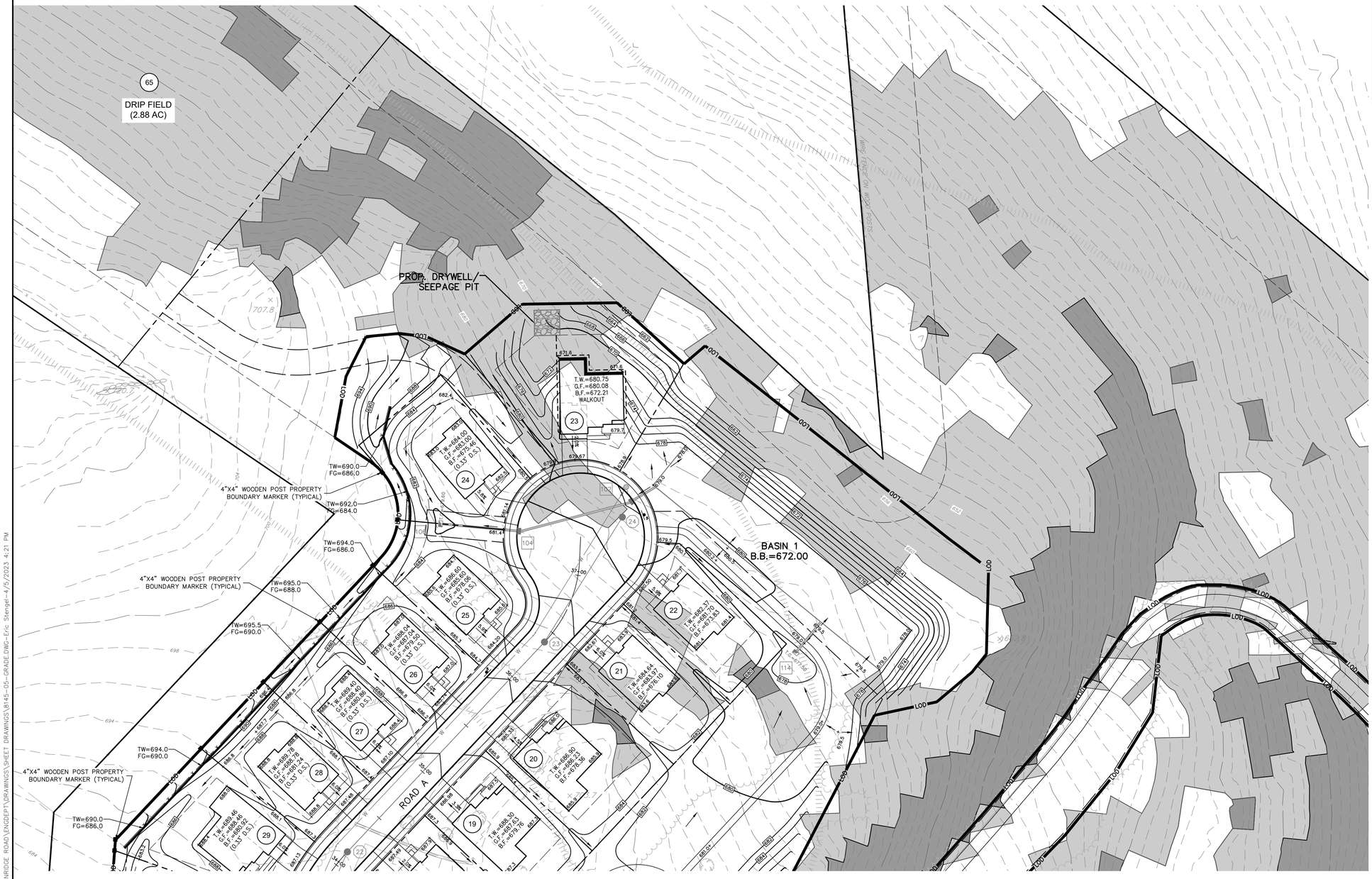

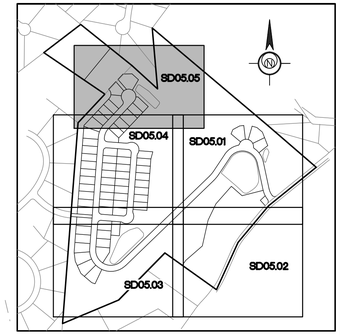

KEY MAP
SCALE: 1"=600'

LEGEND

- EXISTING STRUCTURE
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- EMERGENCY ACCESS GATE
- RELOCATED UTILITY POLE

FEET
40 0 20 40 80
GRAPHIC SCALE 1 inch = 40 ft.

COMMONWEALTH OF PENNSYLVANIA
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REV.	DATE	DESCRIPTION	DRAWN

GRADING & UTILITY PLAN

100 GREENRIDGE ROAD DEVELOPMENT

UPPER UWCHLAN TOWNSHIP, CHESTER COUNTY, PENNSYLVANIA

DATE: 03/31/2023	SCALE: 1"=40'
DESIGN: JHB	DRAWN: STAFF
JOB NO.: 8145	FILE NAME: 8145-05-GRADE
REF. NO.: SD05.05	
SHEET NO.: 19 OF 49	

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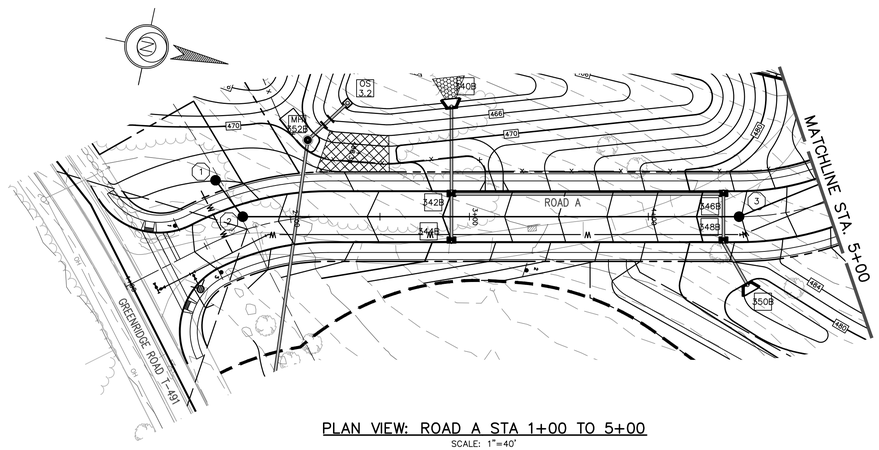
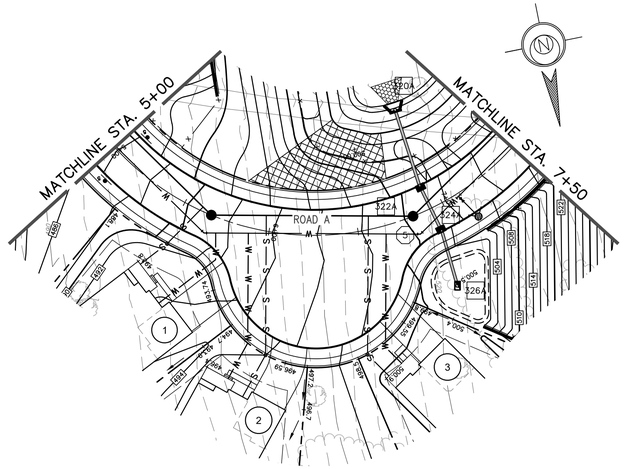


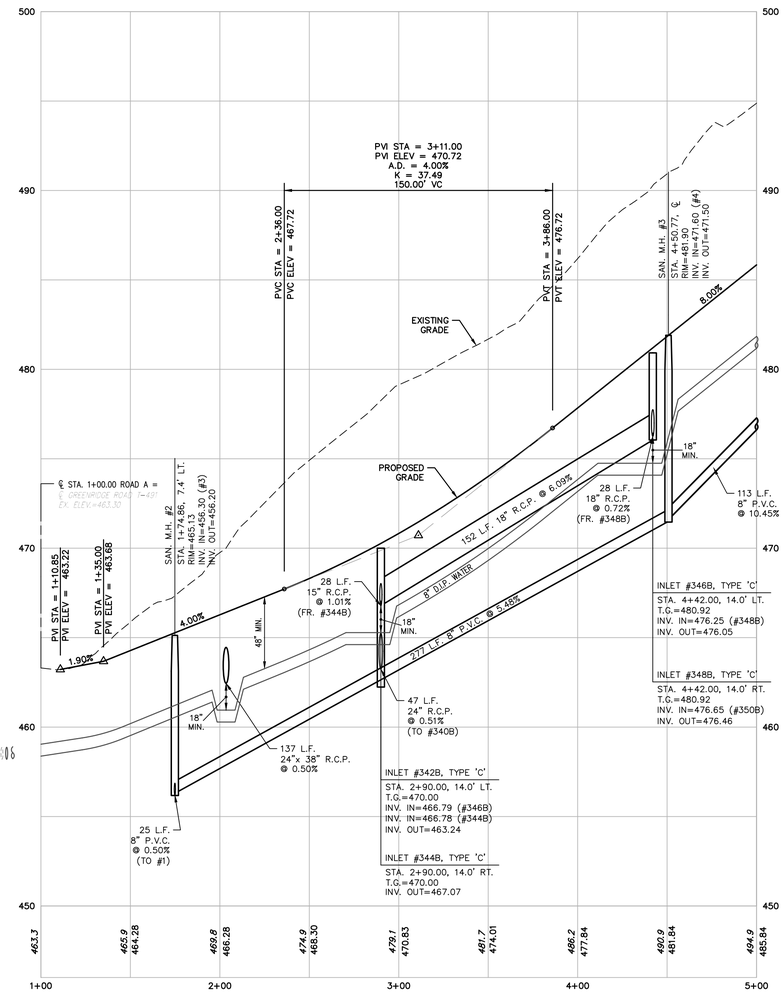
PLAN VIEW: ROAD A STA 1+00 TO 5+00

SCALE: 1"=40'



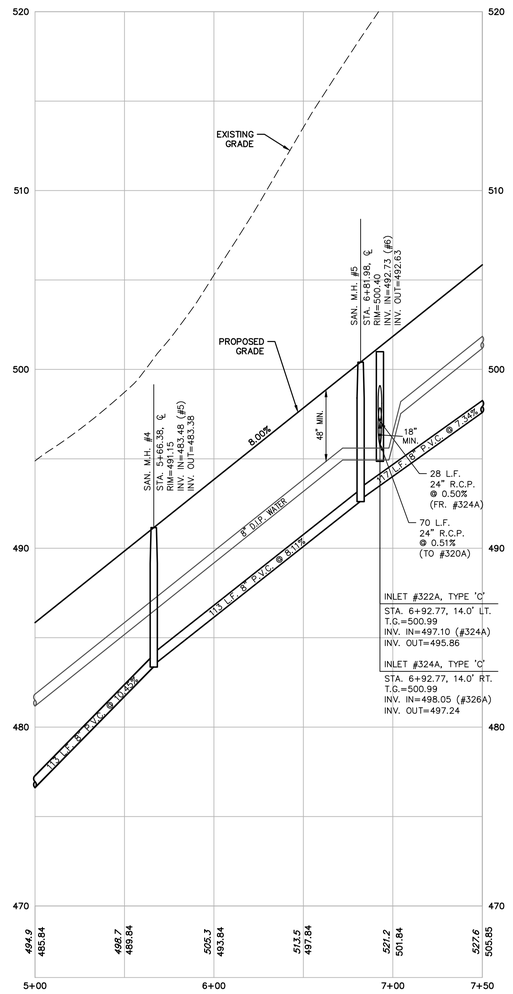
PLAN VIEW: ROAD A STA 5+00 TO 7+50

SCALE: 1"=40'



PROFILE: ROAD A STA. 1+00 TO 5+00

1"=40' Horizontal
1"=4' Vertical



PROFILE: ROAD A STA. 5+00 TO 7+50

1"=40' Horizontal
1"=4' Vertical

SANITARY SEWER NOTES

1. ALL PVC GRAVITY SANITARY SEWER PIPE SHALL BE SDR-35 PVC PIPE.
2. ALL PVC GRAVITY SANITARY SEWER PIPE FITTINGS SHALL BE MOLDED SDR-35 PVC PIPE FITTINGS.

FEET
40 0 20 40 80
GRAPHIC SCALE 1 inch = 40 ft.

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ENGINEER
JOHN H. BALCHUNIS
PROJECT MANAGER

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REV.	DATE	DESCRIPTION	DRAWN

ROAD PLAN AND PROFILE
ROAD A STA. 1+00 TO STA. 7+50

100 GREENRIDGE ROAD DEVELOPMENT
UPPER UWCHLAN TOWNSHIP, CHESTER COUNTY, PENNSYLVANIA

DATE: 03/31/2023	SCALE: 1"=40'
DESIGN: JHB	DRAWN: STAFF
JOB NO.: 8145	FILE NAME: 8145-07.A-PROF-R
REF. NO.: SD07.01	
SHEET NO.: 20 OF 49	

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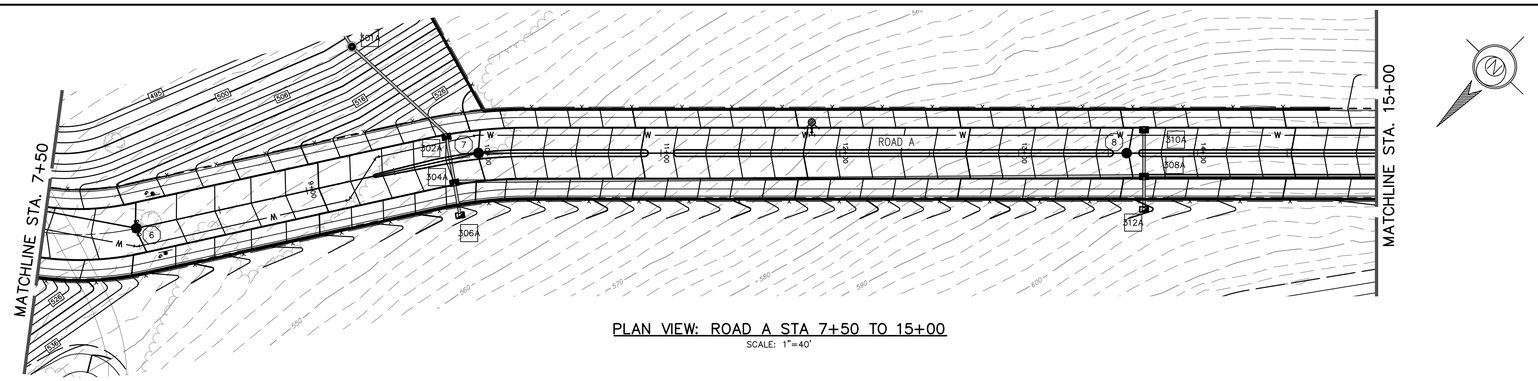
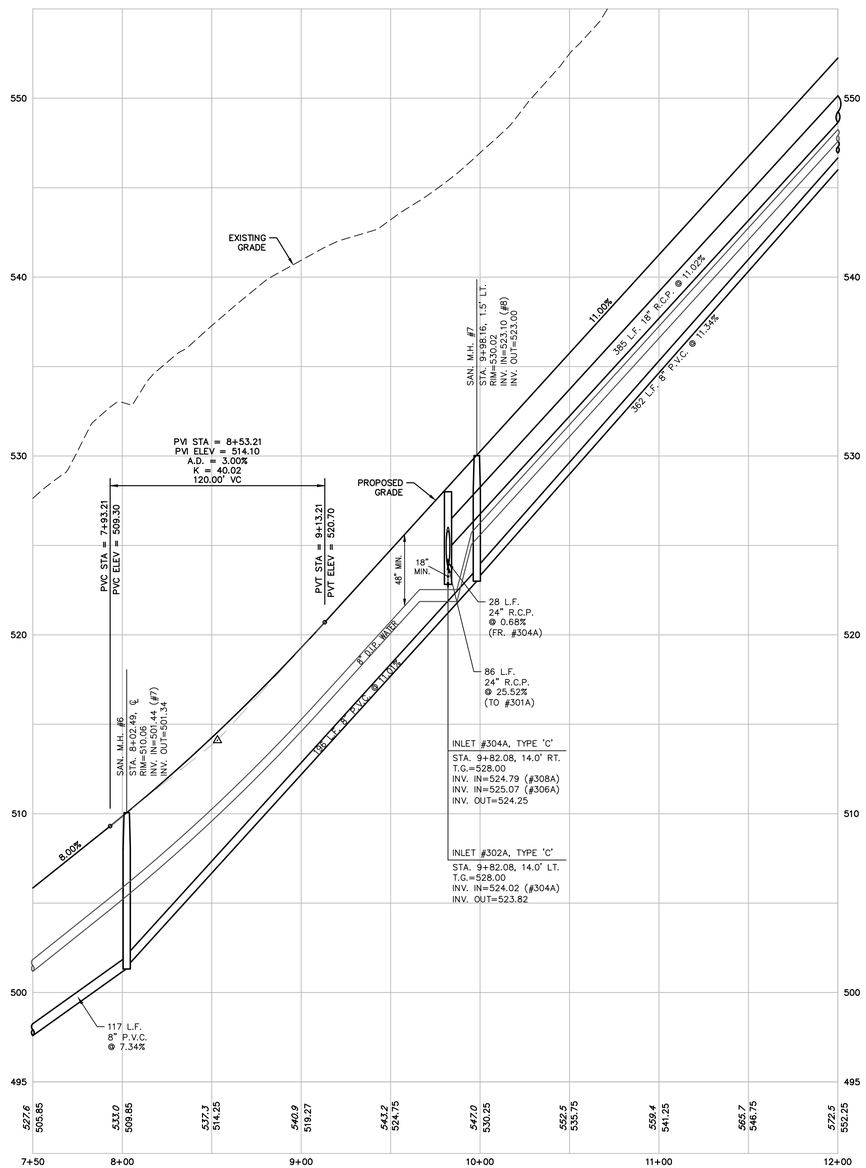


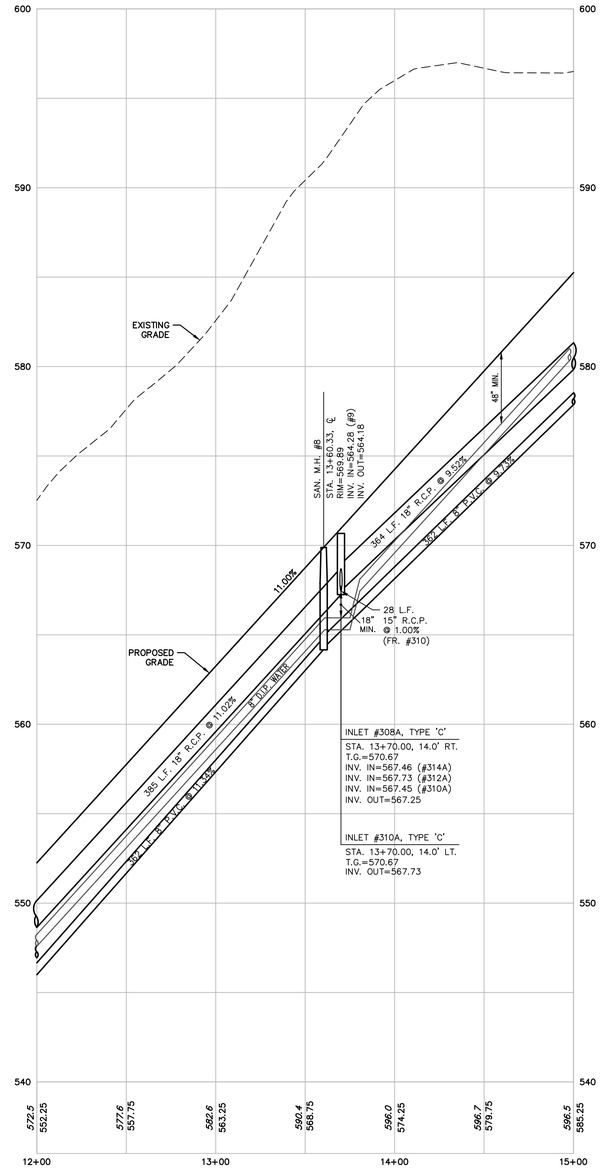
PLAN VIEW: ROAD A STA 7+50 TO 15+00

SCALE: 1"=40'



PROFILE: ROAD A STA. 7+50 TO 12+00

1"=40' Horizontal
1"=4' Vertical



PROFILE: ROAD A STA. 12+00 TO 15+00

1"=40' Horizontal
1"=4' Vertical

SANITARY SEWER NOTES

1. ALL PVC GRAVITY SANITARY SEWER PIPE SHALL BE SDR-35 PVC PIPE.
2. ALL PVC GRAVITY SANITARY SEWER PIPE FITTINGS SHALL BE MOLDED SDR-35 PVC PIPE FITTINGS.

FEET
40 0 20 40 80
GRAPHIC SCALE 1 inch = 40 ft.

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER JOHN A. BALDINO PROJECT ENGINEER

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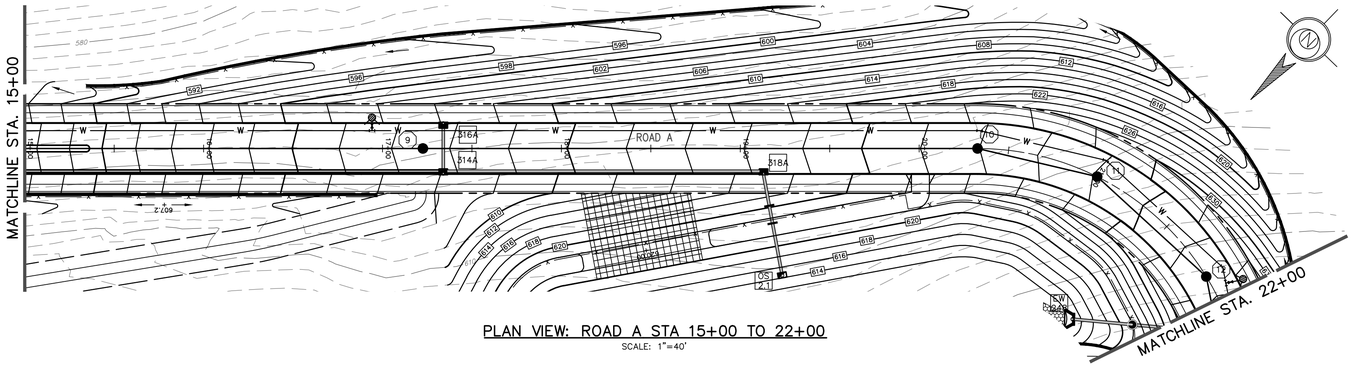
REV.	DATE	DESCRIPTION	DRAWN

ROAD PLAN AND PROFILE
ROAD A STA. 7+50 TO STA. 15+00

100 GREENRIDGE ROAD DEVELOPMENT
UPPER UWCHLAN TOWNSHIP, CHESTER COUNTY, PENNSYLVANIA

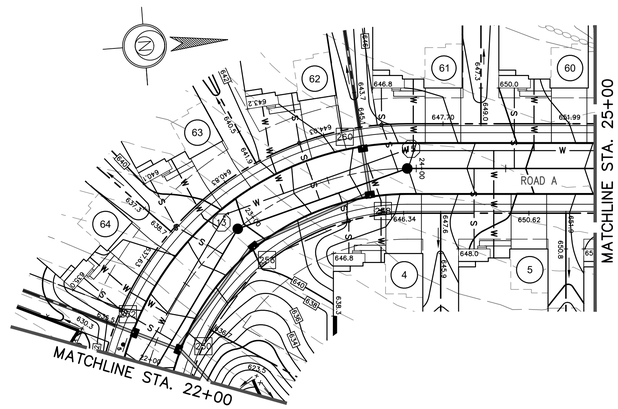
DATE: 03/31/2023	SCALE: 1"=40'
DESIGN: JHB	DRAWN: STAFF
JOB NO.: 8145	FILE NAME: 8145-07.A-PROF-R
REF. NO.:	**SD07.02**
SHEET NO.:	**21** OF **49**

N:\PROJECTS\PENNSYLVANIA\8145-GREENRIDGE ROAD\ENGDEPT\DRAWINGS\SHEET DRAWINGS\8145-07.A-PROF-R.DWG-Eric Stengel-4/5/2023 4:21 PM



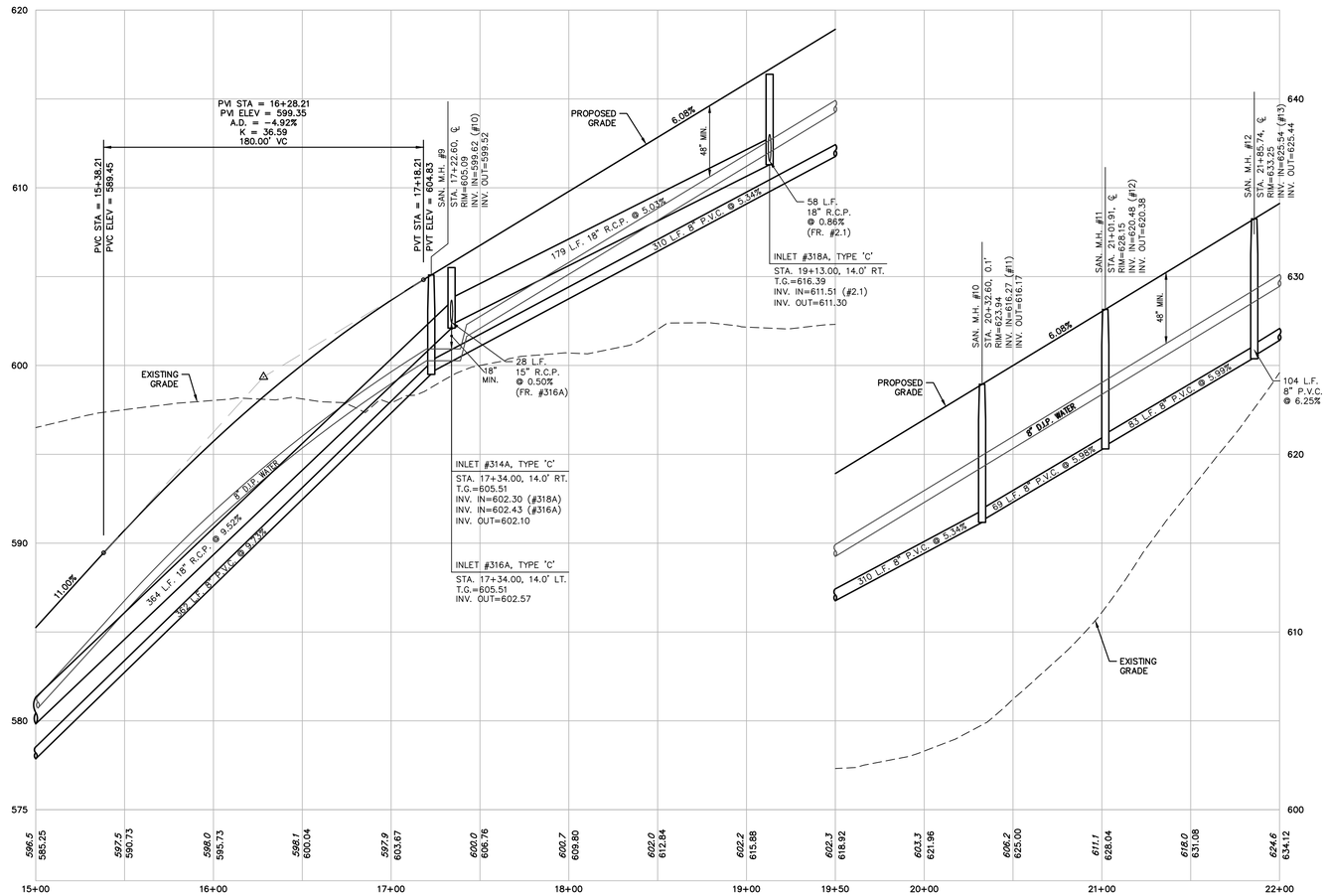
PLAN VIEW: ROAD A STA 15+00 TO 22+00

SCALE: 1"=40'



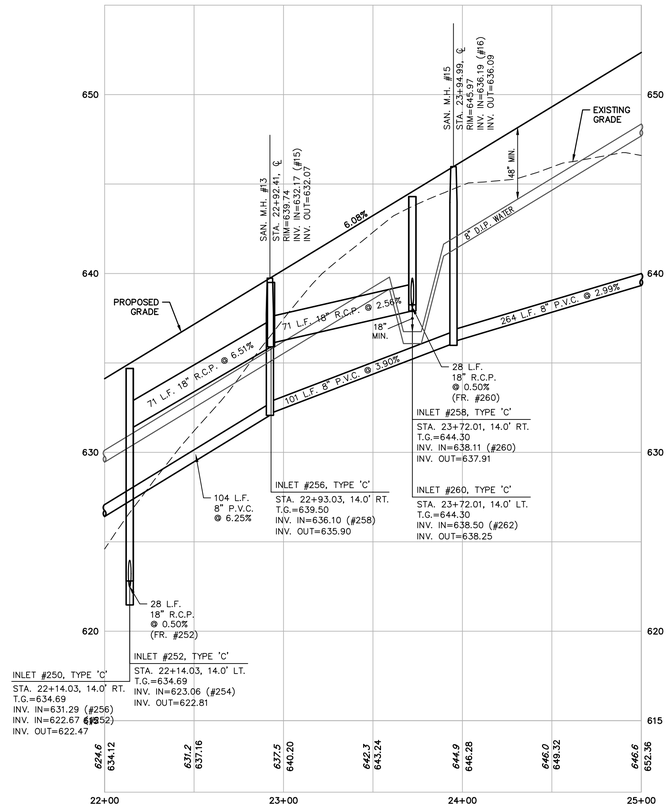
PLAN VIEW: ROAD A STA 22+00 TO 25+00

SCALE: 1"=40'



PROFILE: ROAD A STA. 15+00 TO 22+00

1"=40' Horizontal
1"=4' Vertical



PROFILE: ROAD A STA. 22+00 TO 25+00

1"=40' Horizontal
1"=4' Vertical

SANITARY SEWER NOTES

1. ALL PVC GRAVITY SANITARY SEWER PIPE SHALL BE SDR-35 PVC PIPE.
2. ALL PVC GRAVITY SANITARY SEWER PIPE FITTINGS SHALL BE MOLDED SDR-35 PVC PIPE FITTINGS.

GRAPHIC SCALE 1 inch = 40 ft.

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — JOHN H. BALDWIN — ENGINEER — No. PE082177

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REV.	DATE	DESCRIPTION	DRAWN

ROAD PLAN AND PROFILE
ROAD A STA. 15+00 TO STA. 25+00

100 GREENRIDGE ROAD DEVELOPMENT

UPPER UWCHLAN TOWNSHIP, CHESTER COUNTY, PENNSYLVANIA

DATE: 03/31/2023	SCALE: 1"=40'
DESIGN: JHB	DRAWN: STAFF
JOB NO.: 8145	FILE NAME: 8145-07.A-PROF-R
REF. NO.: **SD07.03**	
SHEET NO.: **22** OF **49**	

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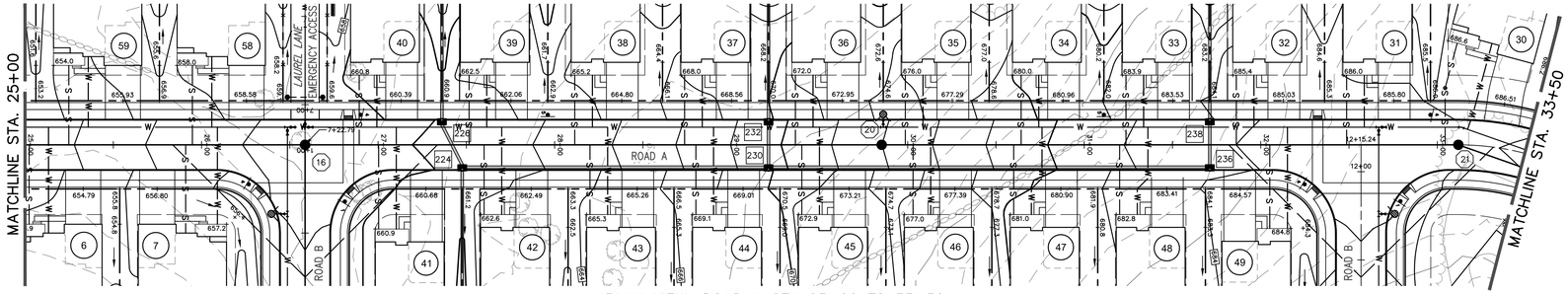
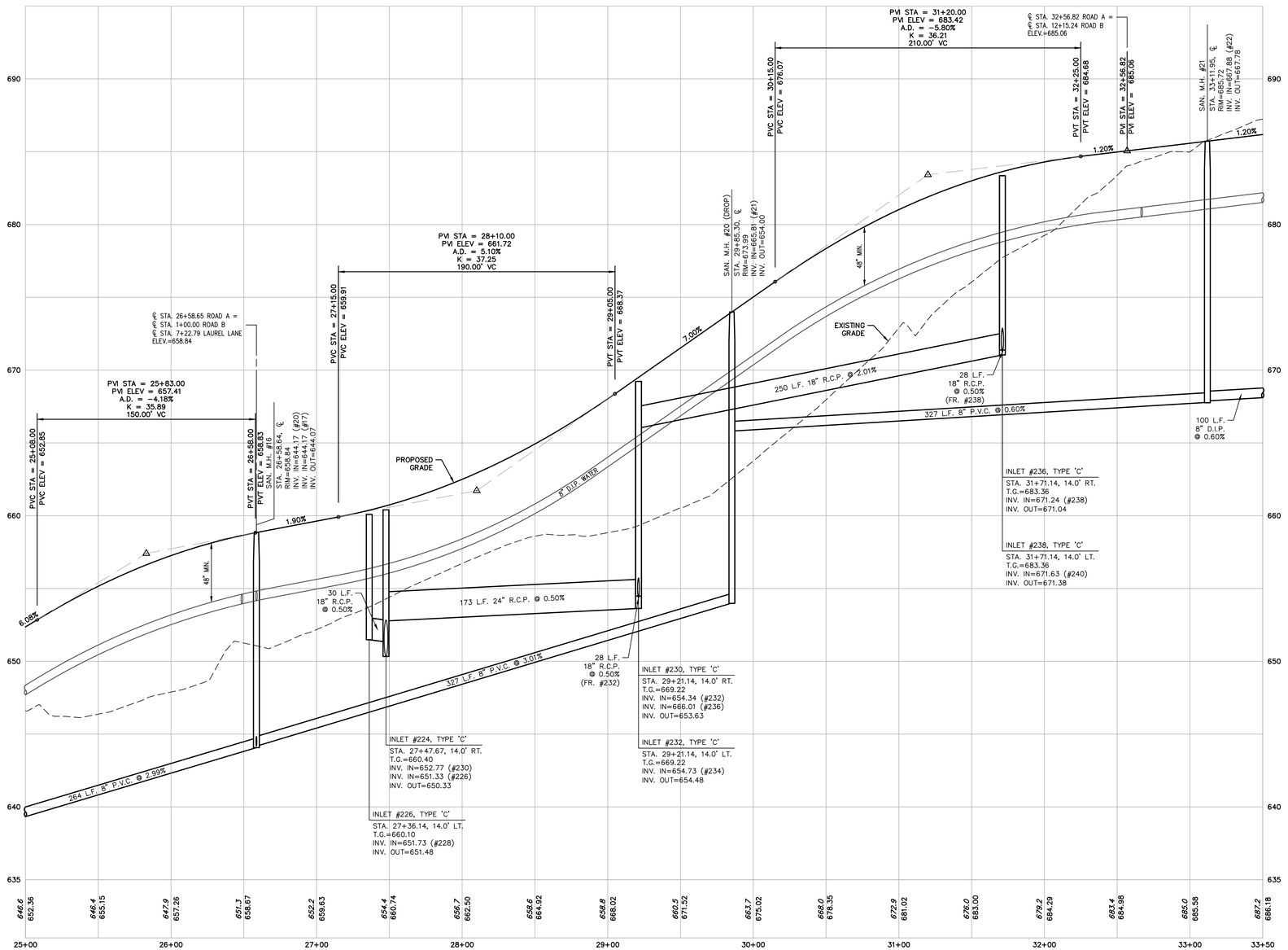


PLAN VIEW: ROAD A STA 25+00 TO 33+50

SCALE: 1"=40'



PROFILE: ROAD A STA. 25+00 TO 33+50

1"=40' Horizontal
1"=4' Vertical

SANITARY SEWER NOTES

1. ALL PVC GRAVITY SANITARY SEWER PIPE SHALL BE SDR-35 PVC PIPE.
2. ALL PVC GRAVITY SANITARY SEWER PIPE FITTINGS SHALL BE MOLDED SDR-35 PVC PIPE FITTINGS.

GRAPHIC SCALE 1 inch = 40 ft.

FEET 40 0 20 40 80

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JOHN H. BALCHUNIS ENGINEER No. 20008 PROFESSIONAL ENGINEER

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REV.	DATE	DESCRIPTION	DRAWN

ROAD PLAN AND PROFILE
ROAD A STA. 25+00 TO STA. 33+50

100 GREENRIDGE ROAD DEVELOPMENT

UPPER UWCHLAN TOWNSHIP, CHESTER COUNTY, PENNSYLVANIA

DATE: 03/31/2023	SCALE: 1"=40'
DESIGN: JHB	DRAWN: STAFF
JOB NO.: 8145	FILE NAME: 8145-07.A-PROF-R
REF. NO.:	**SD07.04**
SHEET NO.:	**23** OF **49**

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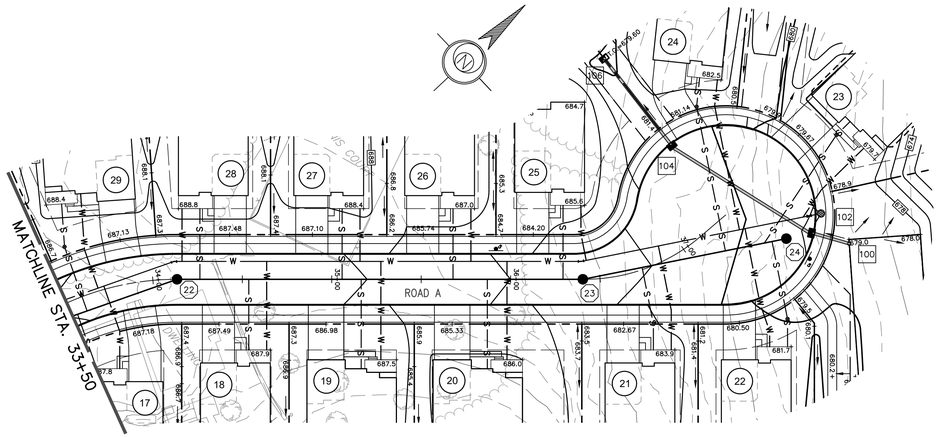
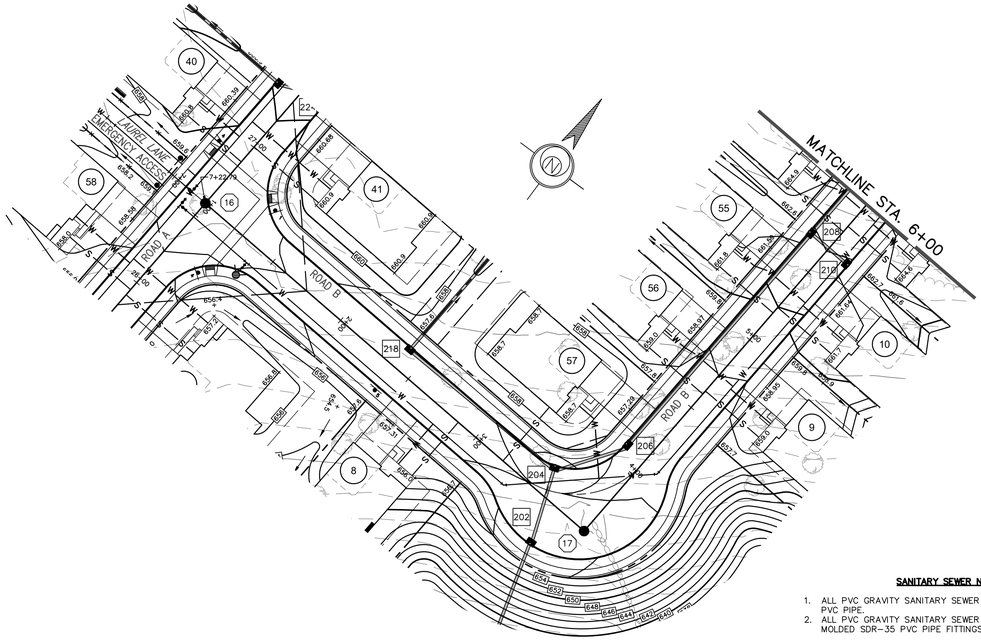


PLAN VIEW: ROAD A STA 33+50 TO 37+30.44

SCALE: 1"=40'

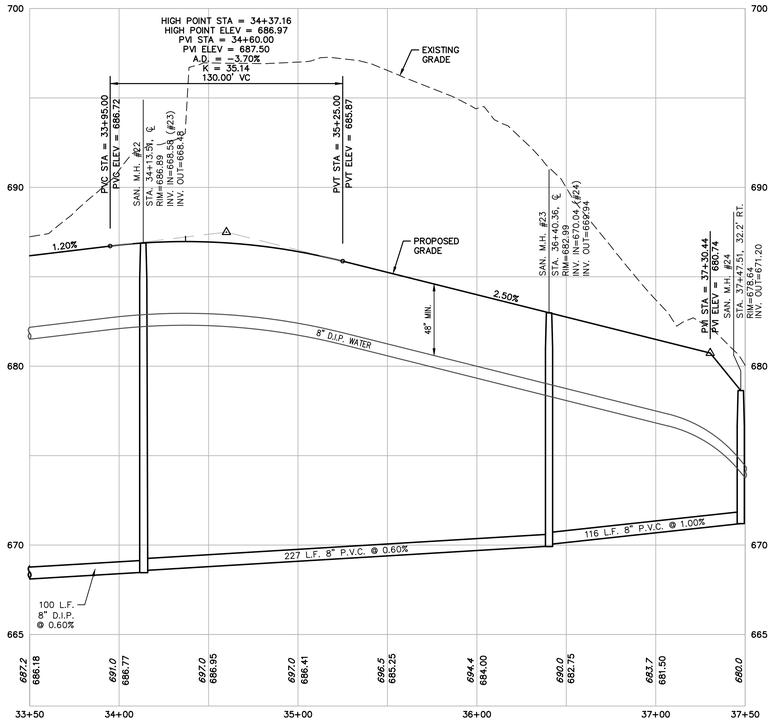


PLAN VIEW: ROAD B STA 1+00 TO 6+00

SCALE: 1"=40'

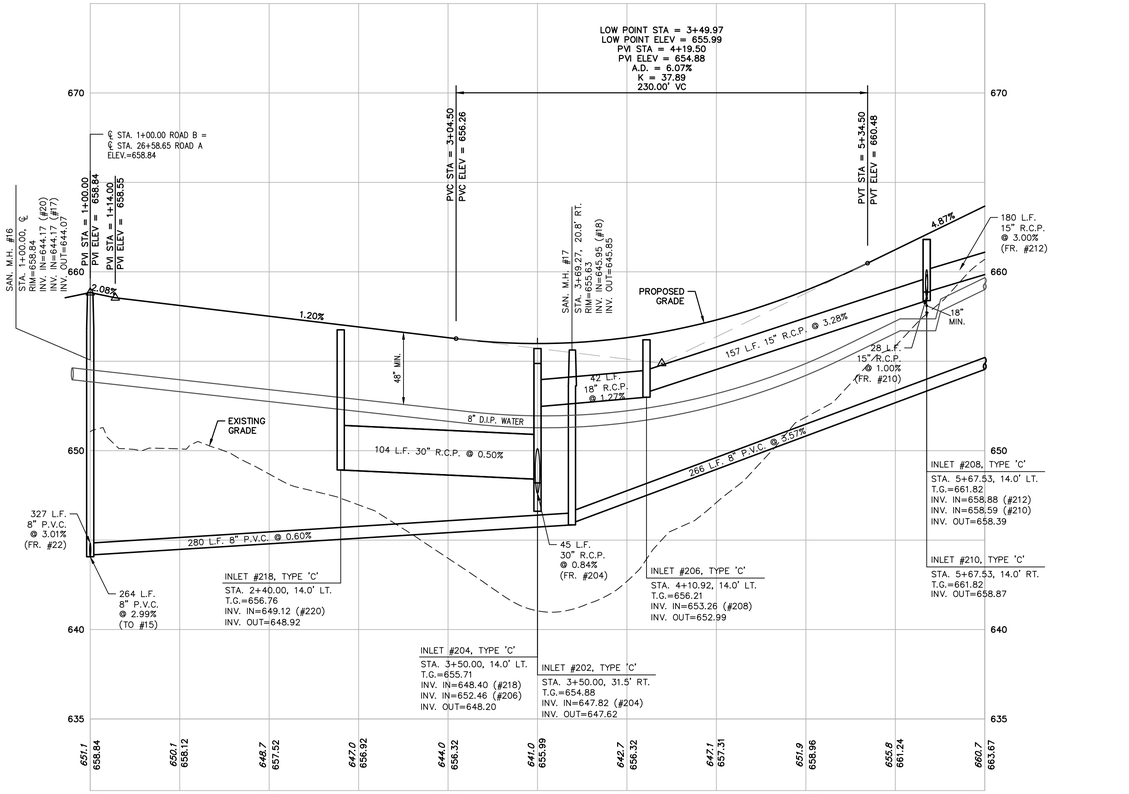
SANITARY SEWER NOTES

1. ALL PVC GRAVITY SANITARY SEWER PIPE SHALL BE SDR-35 PVC PIPE.
2. ALL PVC GRAVITY SANITARY SEWER PIPE FITTINGS SHALL BE MOLDED SDR-35 PVC PIPE FITTINGS.



PROFILE: ROAD A STA. 33+50 TO 37+30.44

1"=40' Horizontal
1"=4' Vertical



PROFILE: ROAD B STA. 1+00 TO 6+00

1"=40' Horizontal
1"=4' Vertical

GRAPHIC SCALE 1 inch = 40 ft.

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COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JOHN H. BALDINO ENGINEER

REV.	DATE	DESCRIPTION	DRAWN

ROAD PLAN AND PROFILE
ROAD A STA. 33+50 TO STA. 37+30.44
ROAD B STA. 1+00 TO STA. 6+00

100 GREENRIDGE ROAD DEVELOPMENT
UPPER UWCHLAN TOWNSHIP, CHESTER COUNTY, PENNSYLVANIA

DATE: 03/31/2023	SCALE: 1"=40'
DESIGN: JHB	DRAWN: STAFF
JOB NO.: 8145	FILE NAME: 8145-07.A-PROF-R
REF. NO.:	SD07.05
SHEET NO.:	24 OF 49

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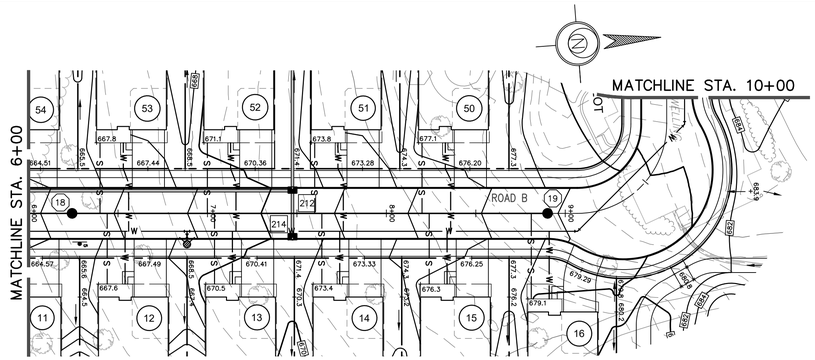
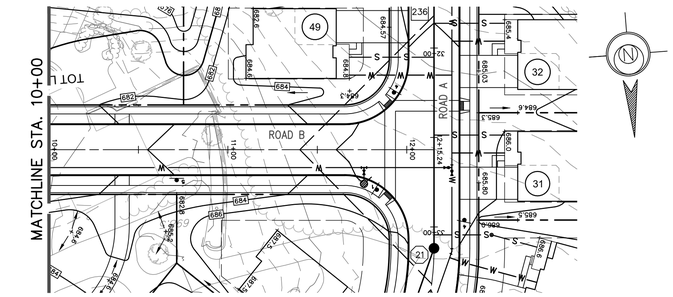


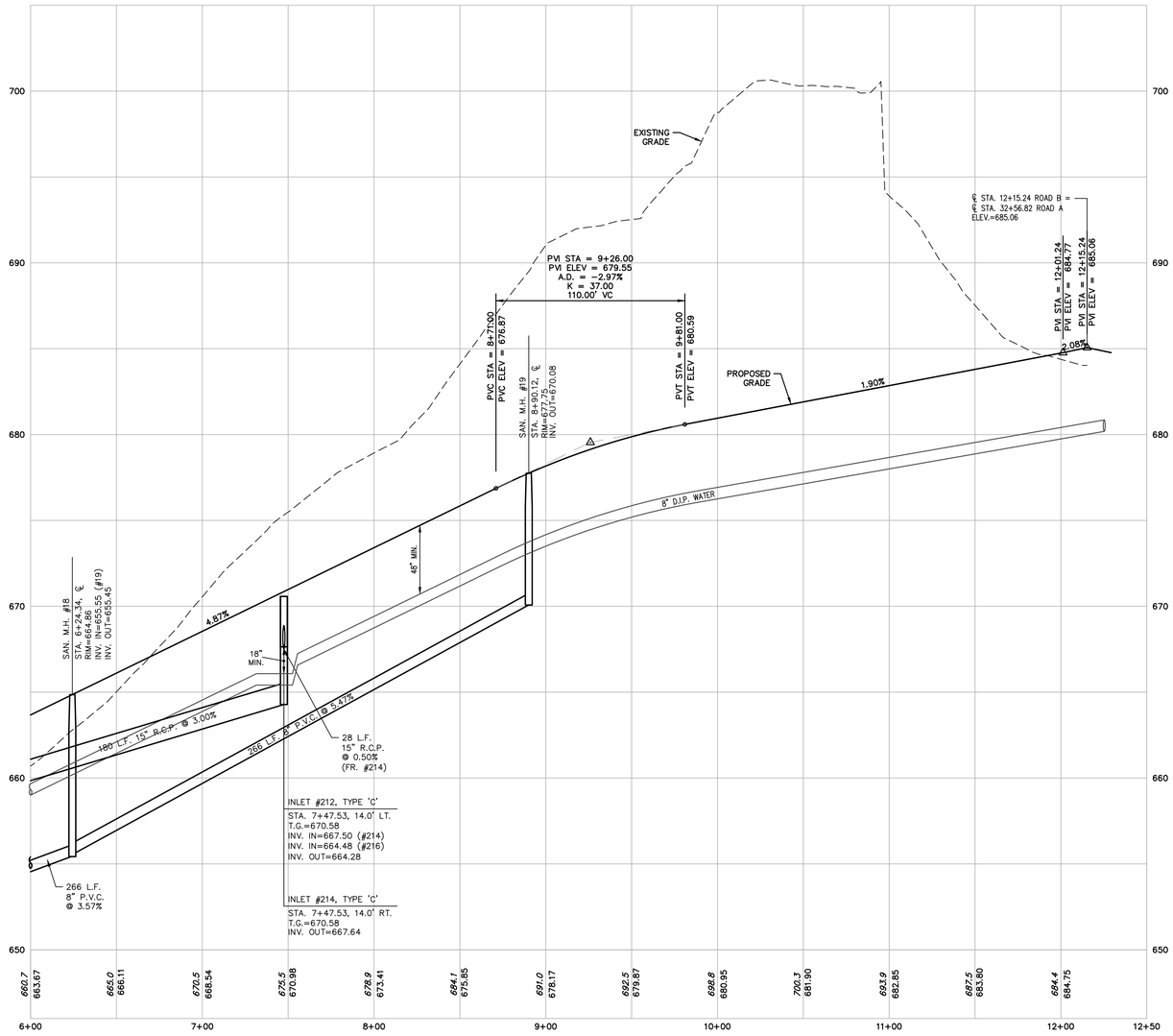
PLAN VIEW: ROAD B STA 6+00 TO 10+00

SCALE: 1"=40'



PLAN VIEW: ROAD B STA 10+00 TO 12+15.24

SCALE: 1"=40'



PROFILE: ROAD B STA. 6+00 TO 12+15.24

1"=40' Horizontal
1"=4' Vertical

SANITARY SEWER NOTES

1. ALL PVC GRAVITY SANITARY SEWER PIPE SHALL BE SDR-35 PVC PIPE.
2. ALL PVC GRAVITY SANITARY SEWER PIPE FITTINGS SHALL BE MOLDED SDR-35 PVC PIPE FITTINGS.

FEET
40 0 20 40 80
GRAPHIC SCALE 1 inch = 40 ft.

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
JOHN H. BALCHUNIS
ENGINEER
No. 20067
PROFESSIONAL ENGINEER

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		DRAWN

ROAD PLAN AND PROFILE
ROAD B STA. 6+00 TO STA. 12+15.24

100 GREENRIDGE ROAD DEVELOPMENT
UPPER UWCHLAN TOWNSHIP, CHESTER COUNTY, PENNSYLVANIA

DATE: 03/31/2023	SCALE: 1"=40'
DESIGN: JHB	DRAWN: STAFF
JOB NO.: 8145	FILE NAME: 8145-07.A-PROF-R
REF. NO.:	SD07.06
SHEET NO.:	25 OF 49

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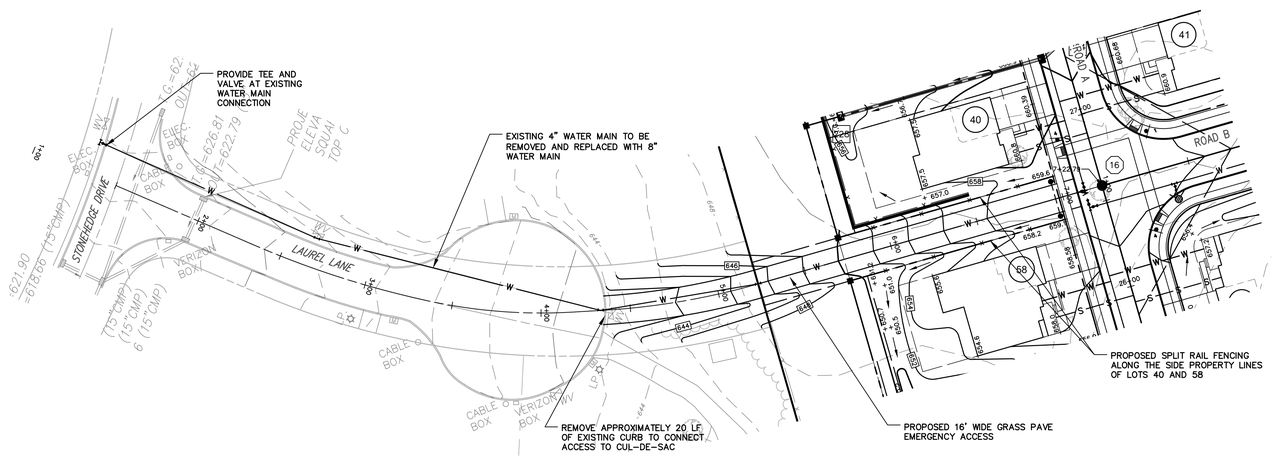
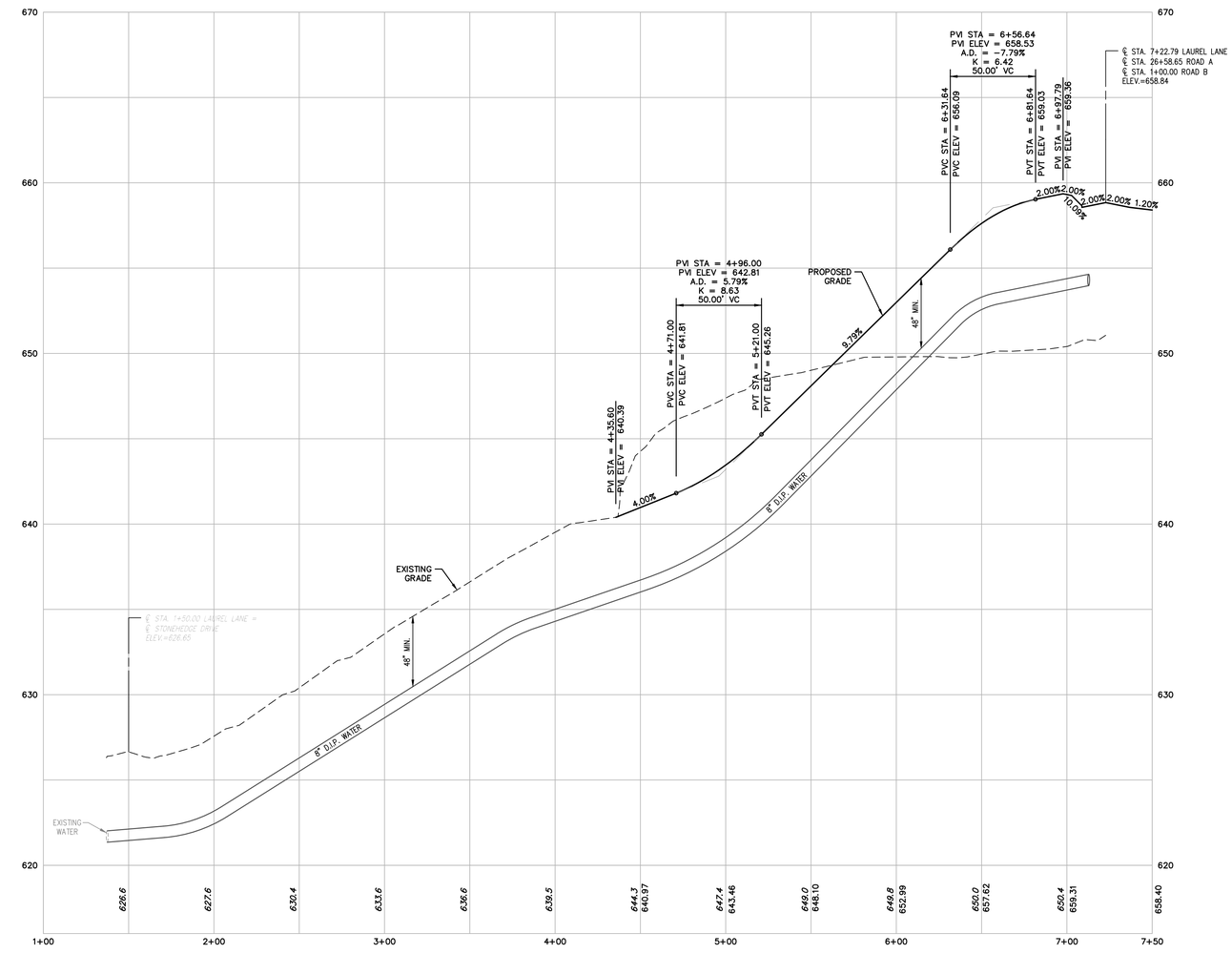


PLAN VIEW: LAUREL LANE EMERGENCY ACCESS

SCALE: 1"=40'



PROFILE: LAUREL LANEEMERGENCY ACCESS

1"=40' Horizontal
1"=4' Vertical

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REGISTERED PROFESSIONAL
JOHN H. BALCHUNIS
ENGINEER
No. PE076271

REV.	DATE	DESCRIPTION	DRAWN

ROAD PLAN AND PROFILE
LAUREL LANE EMERGENCY ACCESS

100 GREENRIDGE ROAD DEVELOPMENT
UPPER UWCHLAN TOWNSHIP, CHESTER COUNTY, PENNSYLVANIA

DATE: 03/31/2023	SCALE: 1"=40'
DESIGN: JHB	DRAWN: STAFF
JOB NO.: 8145	FILE NAME: 8145-07.A-PROF-R
REF. NO.:	SD07.07
SHEET NO.:	26 OF 49

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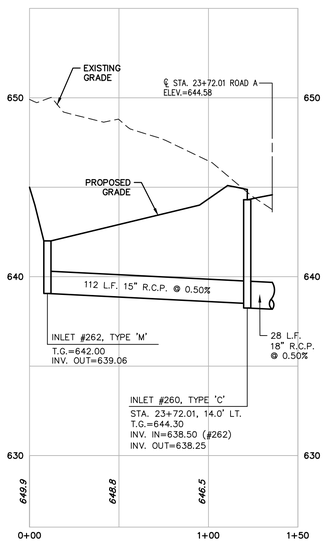
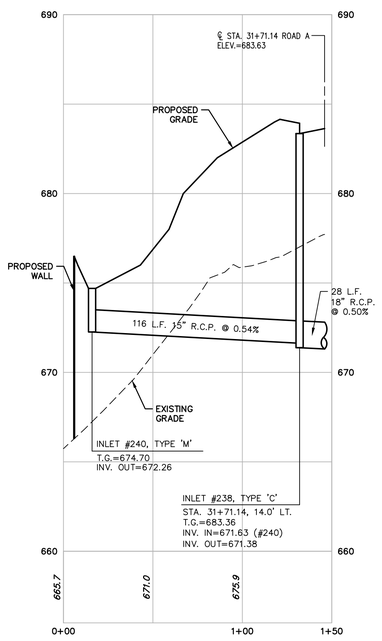


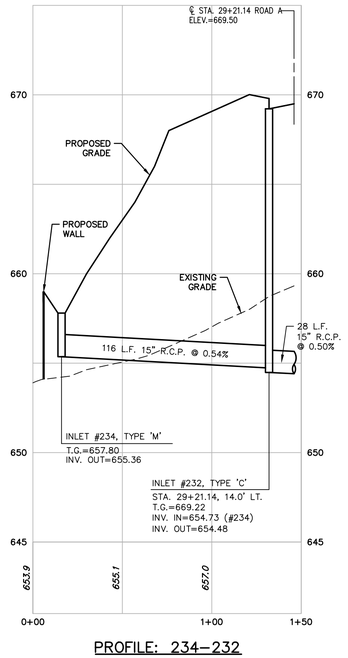
PROFILE: 262–260

1"=40' Horizontal
1"=4' Vertical



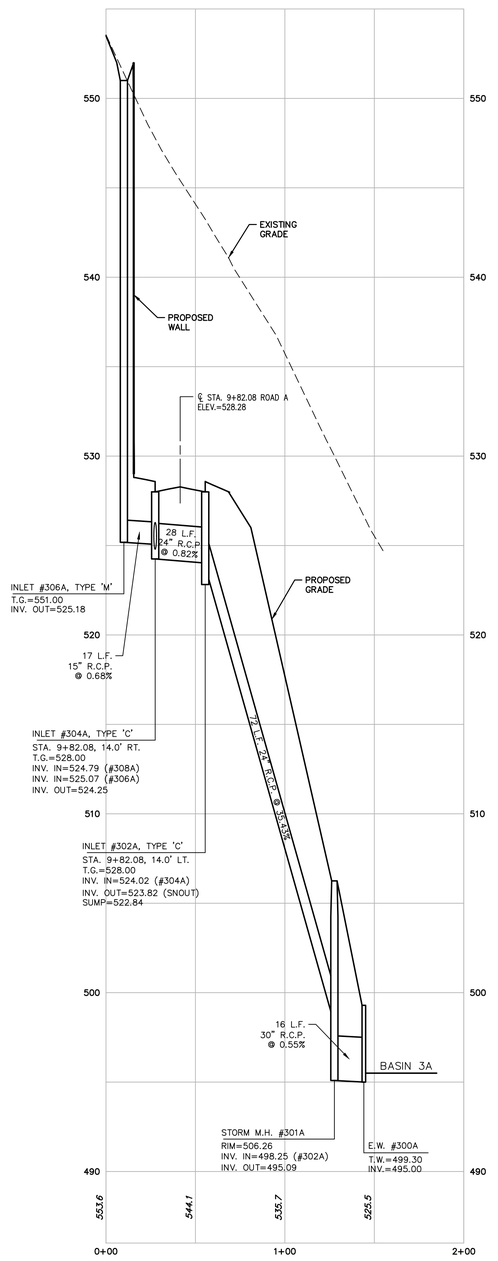
PROFILE: 240–238

1"=40' Horizontal
1"=4' Vertical



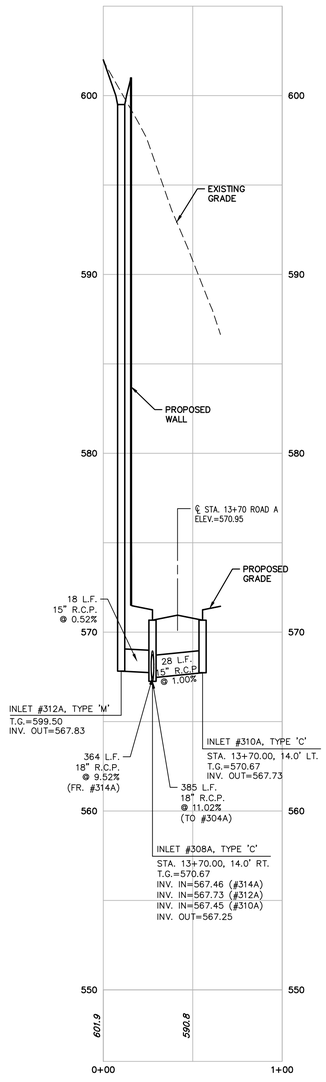
PROFILE: 234–232

1"=40' Horizontal
1"=4' Vertical



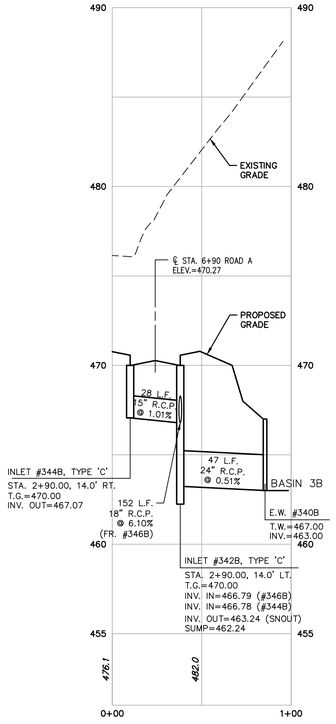
PROFILE: 306A–300A

1"=40' Horizontal
1"=4' Vertical



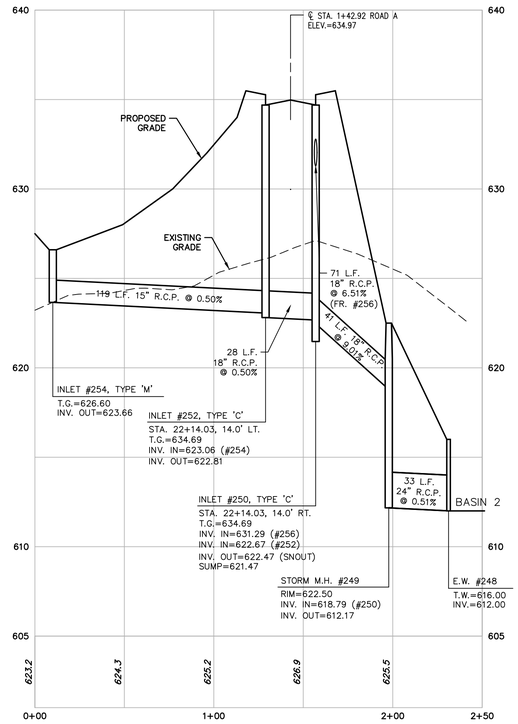
PROFILE: 312A–310A

1"=40' Horizontal
1"=4' Vertical



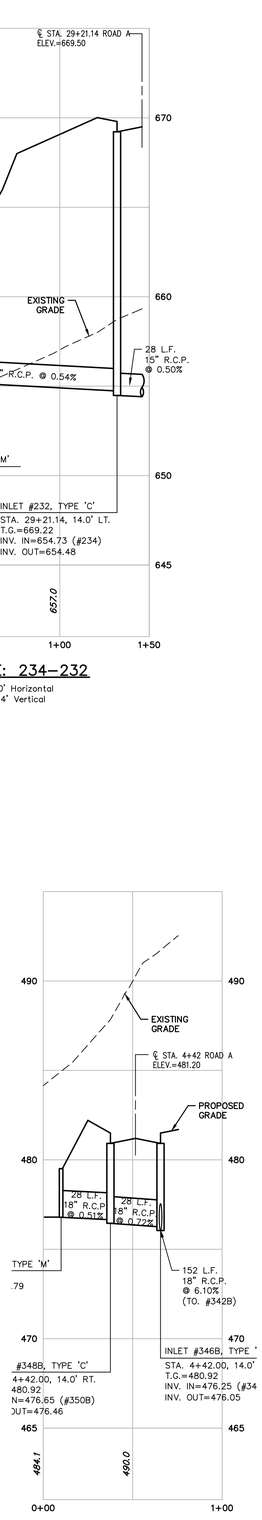
PROFILE: 344B–340B

1"=40' Horizontal
1"=4' Vertical



PROFILE: 254–248

1"=40' Horizontal
1"=4' Vertical



PROFILE: 350B–348B

1"=40' Horizontal
1"=4' Vertical

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
JOHN A. BALDINO
ENGINEER
No. 19036E

REV.	DATE	DESCRIPTION	DRAWN

EASEMENT PROFILES

100 GREENRIDGE ROAD DEVELOPMENT
UPPER UWCHLAN TOWNSHIP, CHESTER COUNTY, PENNSYLVANIA

DATE: 03/31/2023	SCALE: AS NOTED
DESIGN:	DRAWN: STAFF
JOB NO.: 8145	FILE NAME: 8145-07.8-PROF-E
REF. NO.:	SD07.09
SHEET NO.:	27 OF 49

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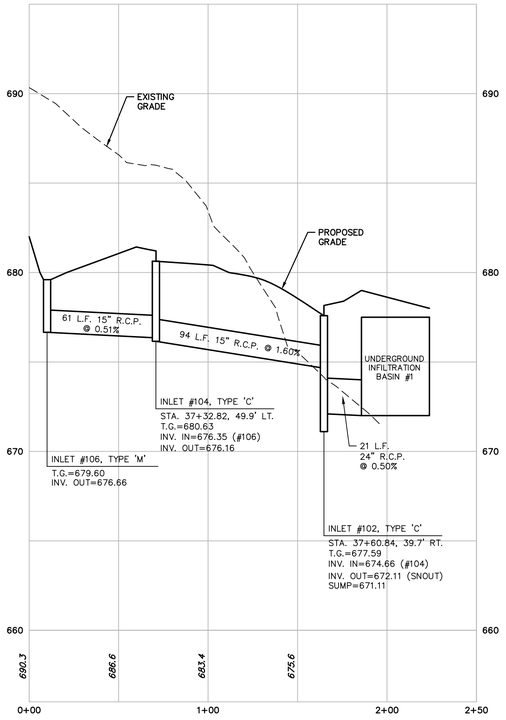
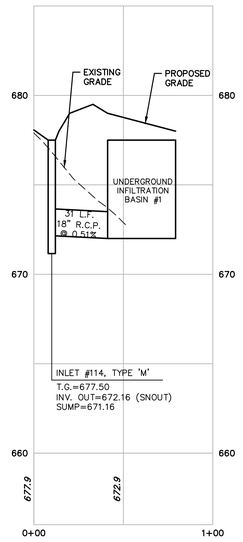


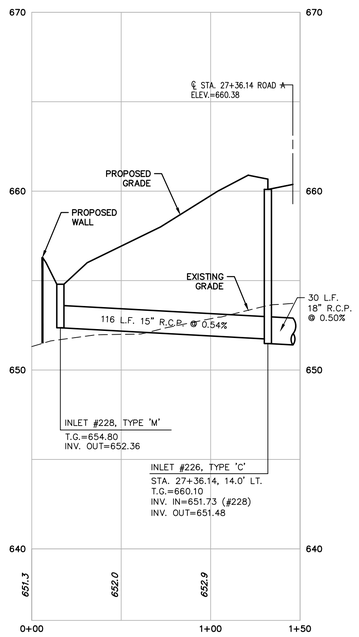
PROFILE: 106–100

1"=40' Horizontal
1"=4' Vertical



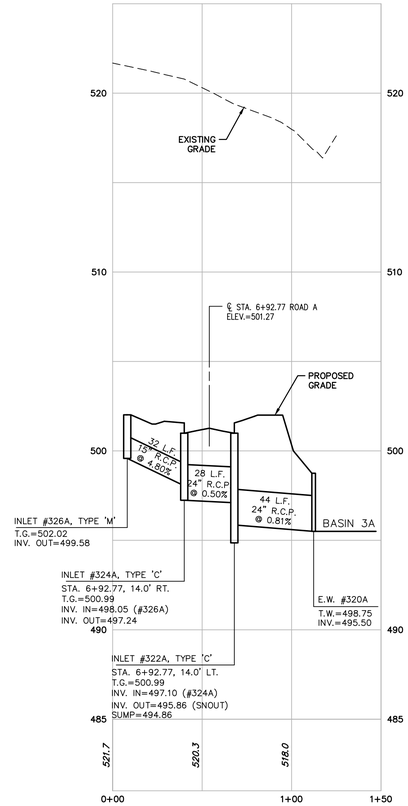
PROFILE: 114–112

1"=40' Horizontal
1"=4' Vertical



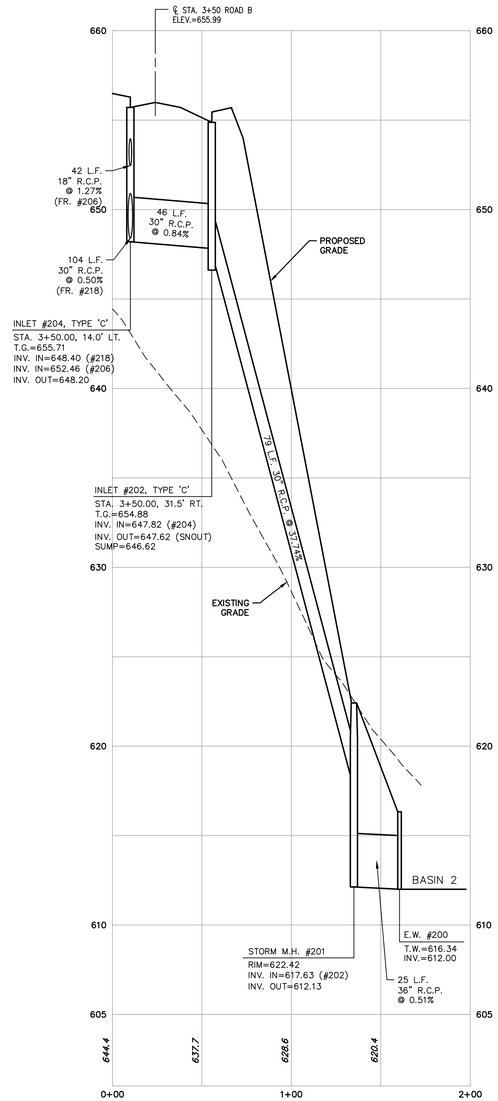
PROFILE: 228–226

1"=40' Horizontal
1"=4' Vertical



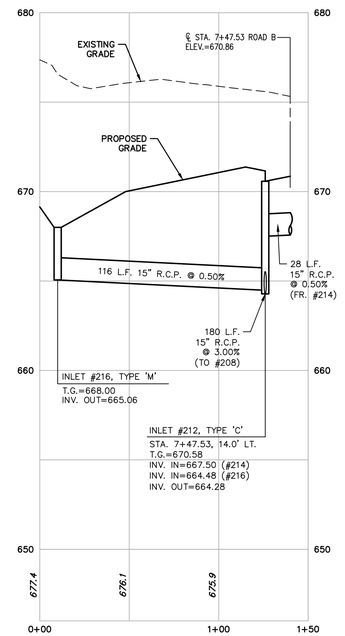
PROFILE: 326A–320A

1"=40' Horizontal
1"=4' Vertical



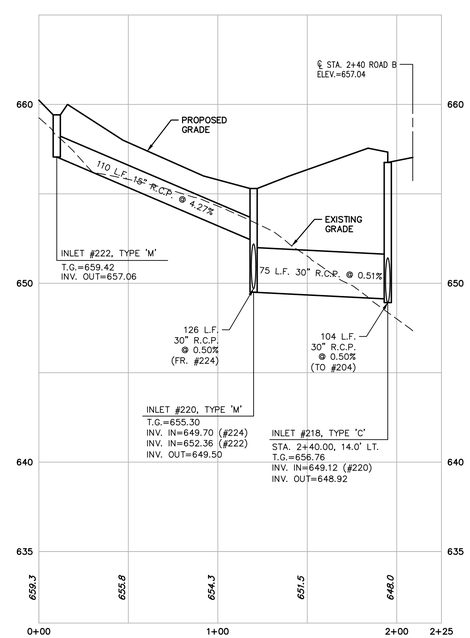
PROFILE: 204–200

1"=40' Horizontal
1"=4' Vertical



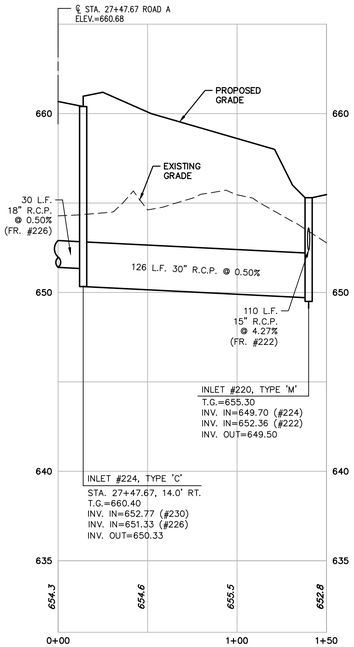
PROFILE: 216–212

1"=40' Horizontal
1"=4' Vertical



PROFILE: 222–218

1"=40' Horizontal
1"=4' Vertical



PROFILE: 224–220

1"=40' Horizontal
1"=4' Vertical

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COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — JOHN A. BALDINO — ENGINEER

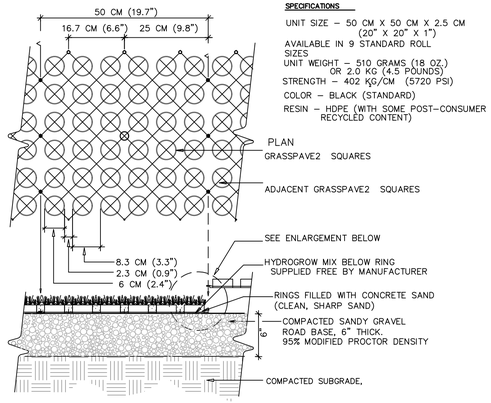
REV.	DATE	DESCRIPTION	DRAWN

EASEMENT PROFILES

100 GREENRIDGE ROAD DEVELOPMENT
UPPER UWCHLAN TOWNSHIP, CHESTER COUNTY, PENNSYLVANIA

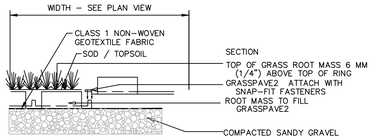
DATE: 03/31/2023	SCALE: AS NOTED
DESIGN:	DRAWN: STAFF
JOB NO.: 8145	FILE NAME: B145-07.B-PROF-E
REF. NO.: **SD07.08**	
SHEET NO.: **28** OF **49**	

N:\PROJECTS\PENNSYLVANIA\8145-GREENRIDGE ROAD\ENGDEPT\DRAWINGS\SHEET DRAWINGS\B145-07.B-PROF-E.DWG-Eric Stengel-4/5/2023 4:23 PM



SPECIFICATIONS

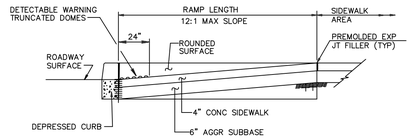
UNIT SIZE – 50 CM X 50 CM X 2.5 CM
(20" X 20" X 1")
AVAILABLE IN 9 STANDARD ROLL SIZES
UNIT WEIGHT – 510 GRAMS (18 OZ.)
OR 2.0 KG (4.5 POUNDS)
STRENGTH – 402 KG/CM (5720 PSI)
COLOR – BLACK (STANDARD)
RESIN – HDPE (WITH SOME POST-CONSUMER RECYCLED CONTENT)



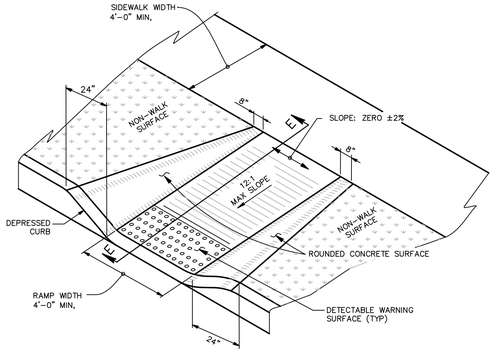
ENLARGEMENT

NOTES:
1. GRASS/PLANT TYPES SHALL BE SPECIFIED BY A LANDSCAPE ARCHITECT OR LANDSCAPE DESIGNER.
2. TO BE INSTALLED FOR BASIN ACCESS DRIVES.
3. CLASS 1 NON-WOVEN GEOTECTILE FABRIC TO BE INSTALLED BETWEEN COMPACTED SANDY GRAVEL BASE AND GRASSPAVE2 UNITS.

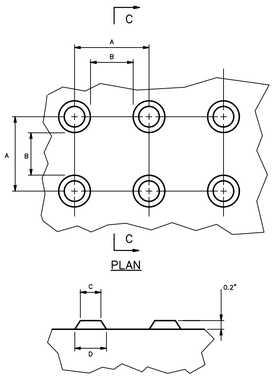
EMERGENCY ACCESS DRIVE (GRASSPAVE2) DETAIL
N.T.S.



SECTION E-E



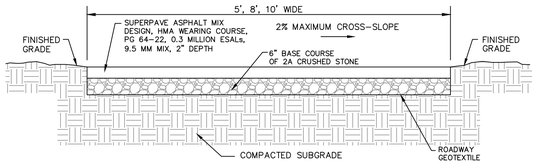
TYPE 4A CURB RAMP DETAIL
(PERPENDICULAR)
Pa-DOT RC-67M
N.T.S.



TRUNCATED DOME DIMENSIONS		
DIM	MIN	MAX
A	1.6"	2.4"
B	0.65"	1.5"
C	(13)	(13)
D	0.9"	1.4"

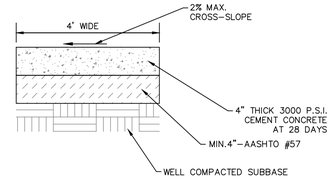
(13) THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION.

DETECTABLE WARNING SURFACE (DWS) TRUNCATED DOME DETAIL
N.T.S.
Pa-DOT RC-67M



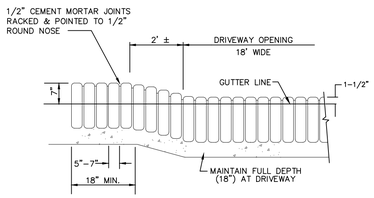
STANDARD TRAIL CROSS-SECTION DETAIL
N.T.S.

NOTES:
1. ALL TRAILS SHALL BE UNDERLAIN WITH ROADWAY GEOTEXTILE FABRIC.
2. ALL MATERIALS AND METHODS OF CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE TOWNSHIP CODE AND APPLICABLE STANDARDS OF AASHTO.
3. SUBGRADE SHALL BE TREATED WITH ROUND UP HERBICIDE OR EQUAL PRIOR TO STONE PLACEMENT.

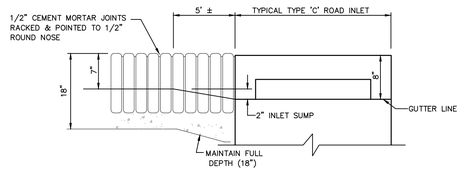


NOTES:
1. ALL CONSTRUCTION PRACTICES AND MATERIALS TO MEET PENNDOT PUB. 408 SPECIFICATIONS UNLESS OTHERWISE NOTED.
2. CONCRETE SIDEWALK TO HAVE A CONTROL JOINT EVERY 5' WITH A 1/2" EXPANSION JOINT EVERY 30'.
3. ALL EDGES TO BE ROUNDED WITH A 1/4" TOOL.
4. ALL SIDEWALKS SHALL RECEIVE A BROOM FINISH.

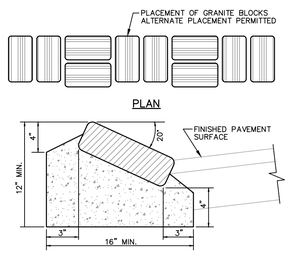
CONCRETE SIDEWALK DETAIL
N.T.S.



TYPICAL ELEVATION @ DRIVEWAY/CURB DEPRESSION DETAIL
N.T.S.

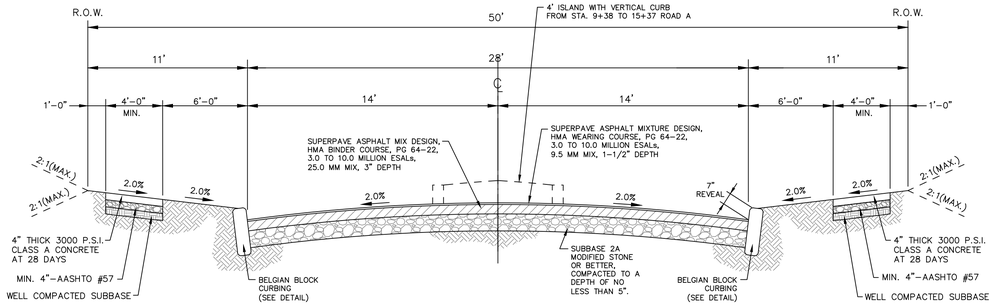


BELGIAN BLOCK CURB TRANSITION @ INLET DETAIL
N.T.S.

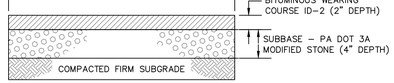


MOUNTABLE GRANITE (BELGIAN) BLOCK CURB
N.T.S.

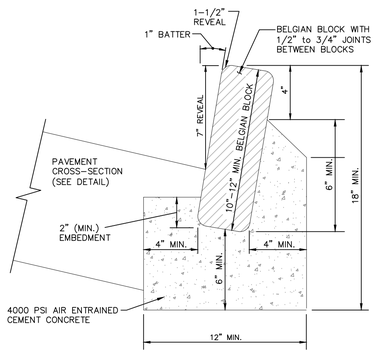
NOTE:
1. TO BE INSTALLED AT THE ENDS OF THE ROAD A ISLANDS.



TYPICAL ROAD CROSS SECTION



DRIVEWAY DETAIL
N.T.S.



VERTICAL BELGIAN BLOCK CURB
N.T.S.

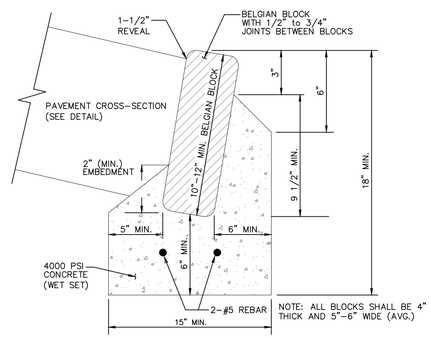
NOTES:
1. ALL BLOCKS SHALL BE 4" THICK AND 5"-6" WIDE (AVG.).

2. PROVIDE 1/2" PREFORMED BITUMINOUS FIBER EXPANSION JOINTS, TRIMMED TO CONFORM TO CURB SECTION, AT "PC" & "PT" OF CURB RETURNS AND WHERE BELGIAN BLOCK CURB MEETS CONCRETE CURB OR OTHER STRUCTURES. 30' INTERVALS ELSEWHERE.

3. THE JOINTS BETWEEN BLOCKS SHALL BE ½" – ¾" CEMENT MORTAR (1:2) JOINTS RAKED AND POINTED TO ½" NOSE.

4. PAINT SURFACE AT FOOTER WITH AC-20 PRIOR TO PAVEMENT INSTALLATION

5. EXPANSION JOINT MATERIAL BETWEEN CURBING AND ADJOINING SIDEWALK SHALL BE SIKAFLEX OR AN EQUIVALENT APPROVED BY THE TOWNSHIP ENGINEER.

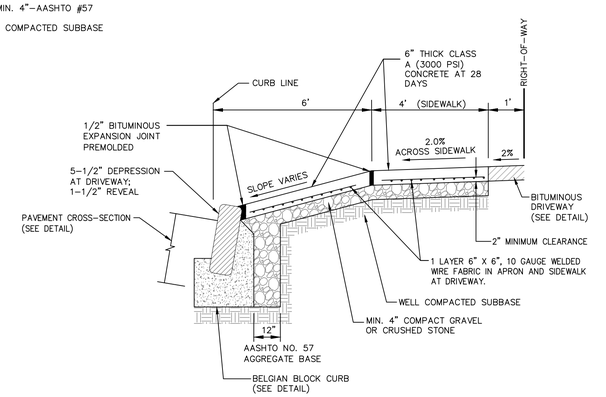


NOTES:
1. PAINT SURFACE WITH AC-20 PRIOR TO BITUMINOUS BASE COURSE.

2. PROVIDE 1/2" PREFORMED BITUMINOUS FIBER EXPANSION JOINTS, TRIMMED TO CONFORM TO CURB SECTION, AT "PC" & "PT" OF CURB RETURNS AND WHERE BELGIAN BLOCK CURB MEETS CONCRETE CURB OR OTHER STRUCTURES. 20' INTERVALS ELSEWHERE.

3. THE JOINTS BETWEEN BLOCKS SHALL BE ½" – ¾" CEMENT MORTAR (1:2) JOINTS RAKED AND POINTED TO ½" NOSE.

VERTICAL BELGIAN BLOCK CURB AT DRIVEWAY
N.T.S.



NOTE:
1. APRON AND SIDEWALK AT DRIVEWAY TO BE 6" THICK; ALL CONCRETE SHALL BE CLASS "A", 3000 PSI, @ 28 DAY STRENGTH
2. PIPES, GRATES, WOOD PLANKS OR OTHER MATERIALS SHALL NOT BE PLACED IN THE GUTTER TO FORM A DRIVEWAY RAMP
3. WHERE IT IS NECESSARY TO REPLACE EXISTING VERTICAL CURVES WITH DEPRESSED CURBING, TWO – TEN (10) FOOT LONG SECTIONS OF EXISTING CURB SHALL BE REMOVED DOWN TO THE SUBGRADE WITHOUT DISTURBING THE ADJACENT CARTWAY PAVING. THE DEPRESSED CURB SHALL THEN BE FORMED AND POURED IN PLACE ACCORDING TO THE DIMENSIONS IN THE APPENDIX. ANY PORTIONS OF THE CARTWAY DISTURBED DURING CURBING REMOVAL OR INSTALLATION WILL BE REPAIRED TO NEW CONDITION.
4. WHEN CURBING MUST BE CUT FOR DEPRESSED CURB INSTALLATION, THE LENGTH OF THE REMAINING SECTION SHALL BE NO LESS THAN FOUR (4) FEET BETWEEN JOINTS AND THE CUT SHALL BE MADE IN A NEAT MANNER WITH A POWER SAW EQUIPPED WITH A PROPER MASONRY CUTTING BLADE.
5. ANY DEPRESSED CURB SECTIONS THAT ARE UNUSED WHEN A DEVELOPMENT OR PHASE OF A DEVELOPMENT IS COMPLETED, SHALL BE COMPLETELY REMOVED AND REPLACED WITH A FULL SECTION UPRIGHT CURBING TO LINE AND GRADE OF ADJACENT CURBING. FORMING AND POURING VERTICAL CURBING ON TOP OF AN EXISTING CURB DEPRESSION WILL NOT BE PERMITTED.

CONCRETE DRIVEWAY APRON AND SIDEWALK DETAIL
N.T.S.

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
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1140 Virginia Drive • Fort Washington, PA 19034
T: 215-914-2050

REV.	DATE	DESCRIPTION	DRAWN

CONSTRUCTION DETAILS

100 GREENRIDGE ROAD DEVELOPMENT
UPPER UWCHLAN TOWNSHIP, CHESTER COUNTY, PENNSYLVANIA

DATE: 03/31/2023	SCALE: AS NOTED
DESIGN: JHB	DRAWN: STAFF
JOB NO.: 8145	FILE NAME: 8145-08A-DET-CONST
REF. NO.:	SD08.01
SHEET NO.:	29 OF 49

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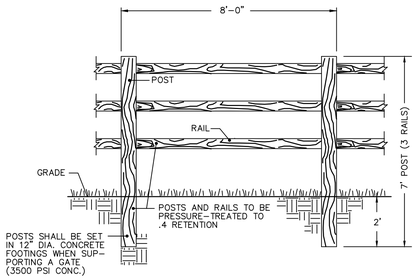


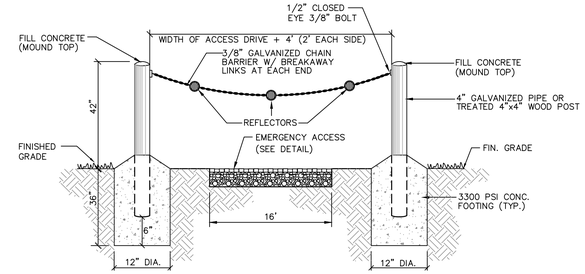
SPLIT – RAIL FENCE DETAIL
N.T.S.

NO PARKING SIGN DETAIL (R7-1)
N.T.S.

PENNDOT R2-1, 24" x 30"

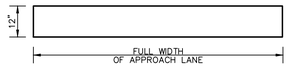
SPEED LIMIT SIGN DETAIL
N.T.S.

NO OUTLET SIGN DETAIL
N.T.S.
(W14-2)

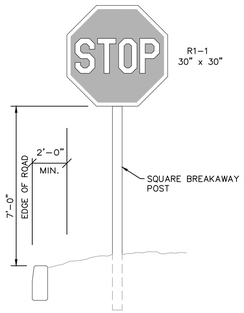


NOTES
1. THIS BARRIER IS SUBJECT TO REVIEW AND APPROVAL OF THE TOWNSHIP FIRE MARSHALL
2. SHOP DRAWINGS AND OR CUT SHEETS SHALL BE SENT TO TOWNSHIP PRIOR TO INSTALLATION OF THIS BARRIER
3. PROVIDE BREAKAWAY BOLLARDS AND CHAINS
4. TOWNSHIP FIRE MARSHAL TO BE PROVIDED WITH PAD LOCK KEYS TO LOCKS ON CHAIN, AS USED IN TOWNSHIP.

ACCESS BOLLARDS AND CHAIN FOR EMERGENCY ACCESS
N.T.S.



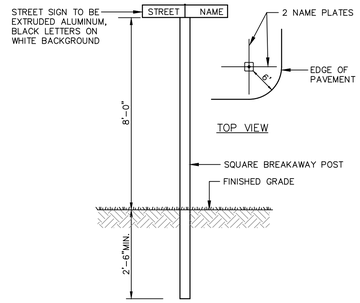
(WHITE) STOP BAR
N.T.S.



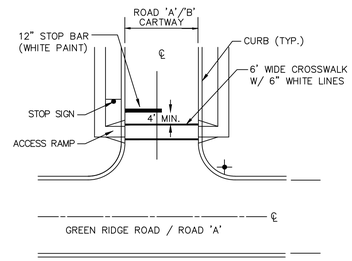
INSTALLATION, DIMENSIONS, COLORS AND DETAILS OF VARIOUS SIZE SIGNS, SHIELDS AND ACCESORY PANELS TO FOLLOW STANDARDS IN THE CURRENT "STANDARD HIGHWAY SIGNS PUBLICATION" AND THE CURRENT "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS".

NOTES:
1. ALL SIGNS SHALL BE IN ACCORDANCE WITH DEPT. OF TRANSPORTATION STANDARDS.
2. THE LOCATION OF ALL PROPOSED SIGNS SHALL BE COORDINATED WITH THE LOCATION OF ALL UNDERGROUND UTILITIES.

STOP SIGN LOCATION DETAIL
N.T.S.



STREET SIGN
N.T.S.



INTERSECTION STRIPING & SIGN DETAIL
N.T.S.

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COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — JOHN H. BALDINO — ENGINEER — No. PE082170

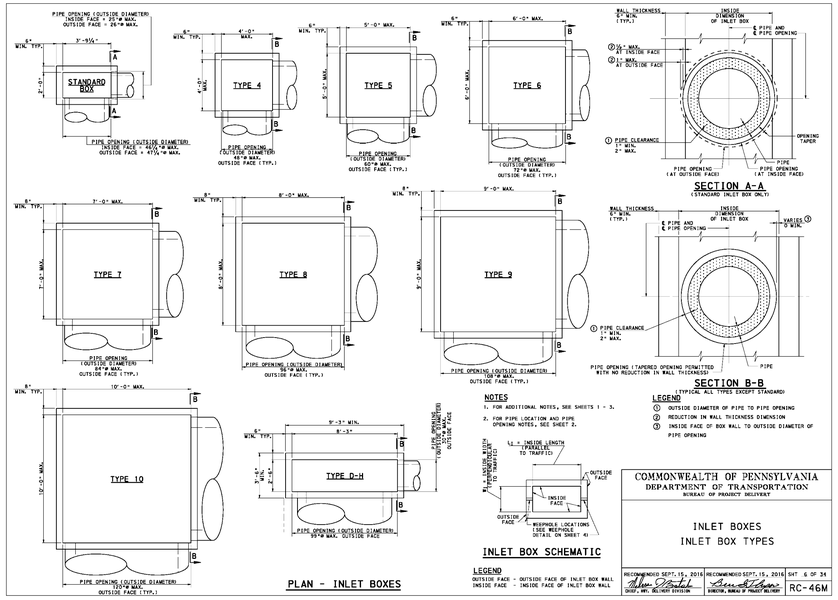
REV.	DATE	DESCRIPTION	DRAWN

CONSTRUCTION DETAILS

100 GREENRIDGE ROAD DEVELOPMENT
UPPER UWCHLAN TOWNSHIP, CHESTER COUNTY, PENNSYLVANIA

DATE: 03/31/2023	SCALE: AS NOTED
DESIGN: JHB	DRAWN: STAFF
JOB NO.: 8145	FILE NAME: 8145-08A-DET-CONST
REF. NO.: SD08.02	
SHEET NO.: 30 OF 49	

N:\PROJECTS\PENNSYLVANIA\8145-GREENRIDGE ROAD\ENGDEPT\DRAWINGS\SHEET DRAWINGS\8145-08A-DET-CONSTDWG-Eric Stengel-4/5/2023 4:23 PM



PLAN - INLET BOXES

SECTION A-A
(STANDARD INLET BOX ONLY)

SECTION B-B
(TYPICAL ALL TYPES EXCEPT STANDARD)

PIPE OPENING ①TAPERED OPENING PERMITTED WITH NO REDUCTION IN WALL THICKNESS

NOTES

1. FOR ADDITIONAL NOTES, SEE SHEETS 1 - 3.
2. FOR PIPE LOCATION AND PIPE OPENING NOTES, SEE SHEET 2.

LEGEND

① OUTSIDE DIAMETER OF PIPE TO PIPE OPENING
② REDUCTION IN WALL THICKNESS DIMENSION
③ INSIDE FACE OF BOX WALL TO OUTSIDE DIAMETER OF PIPE OPENING

INLET BOX SCHEMATIC

LEGEND

OUTSIDE FACE - OUTSIDE FACE OF INLET BOX WALL
INSIDE FACE - INSIDE FACE OF INLET BOX WALL

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION
BUREAU OF PROJECT DELIVERY

INLET BOXES
INLET BOX TYPES

RECOMMENDED SEPT. 15, 2016 — CHIEF, MPC DELIVERY DIVISION
RECOMMENDED SEPT. 15, 2016 — DIRECTOR, BUREAU OF PROJECT DELIVERY
SHT 6 OF 34
RC-46M

GENERAL NOTES:

1. DESIGN SPECIFICATIONS AND REQUIREMENTS:
   - AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS AND AS SUPPLEMENTED BY THE DESIGN MANUAL, PART 4, STRUCTURES.
   - INLET BOXES ARE DESIGNED FOR THE LOAD AND RESISTANCE FACTOR DESIGN METHOD (LRFD).
   - INLET BOXES ARE DESIGNED FOR AN ALLOWABLE FOUNDATION PRESSURE EQUAL TO 2.0 TONS/SQ. FT. AT THE SERVICE LIMIT STATE.
2. CONSTRUCTION SPECIFICATIONS:
   - PROVIDE MATERIALS AND PERFORM WORK IN ACCORDANCE WITH THE CURRENT VERSION OF THE PENNSYLVANIA DEPARTMENT OF TRANSPORTATION PUBLICATION 408 AND THE CONTRACT SPECIAL PROVISIONS.
3. SHOP DRAWINGS FOR INLET BOXES, TOP SLABS, AND TRANSITION SLABS ARE NOT REQUIRED IF THE ITEM IS CONSTRUCTED FABRICATED IN ACCORDANCE WITH THIS STANDARD.
4. THIS STANDARD DEPICTS THE DIMENSIONS REQUIRED FOR UNIFORMITY AND INTERCHANGEABILITY. IT DOES NOT INCLUDE DETAILS REQUIRED FOR FABRICATION OR ERECTION. FOR ANY DEVIATIONS OR MODIFICATIONS OF THIS STANDARD, SUBMIT SHOP DRAWINGS TO THE BUREAU OF PROJECT DELIVERY, HIGHWAY DELIVERY DIVISION CHIEF FOR REVIEW AND ACCEPTANCE.
5. THE DESIGNER IS RESPONSIBLE FOR DETERMINING THE TYPE OF INLET BOX REQUIRED FOR EACH INLET BOX LOCATION, AND PIPE OPENINGS, AS SHOWN IN TABLES A AND B ON SHEET 7A FOR ADDITIONAL INFORMATION. THE DESIGNER IS ALSO RESPONSIBLE TO DETERMINE THE REQUIRED PAY ITEM FOR AN INSTALLATION BASED ON THE OVERALL INSTALLATION METHOD.
6. THE SELECTION OF COMPONENTS TO ACHIEVE A SPECIFIED INLET ASSEMBLY IS THE CONTRACTOR'S RESPONSIBILITY, UNLESS OTHERWISE INDICATED ON THE CONTRACT DOCUMENTS.
7. THE SIZE OF THE INLET TOP UNITS, PER RC-45M, ARE BASED ON THE MINIMUM DIMENSIONS INDICATED FOR THE STANDARD INLET BOX.
8. MINIMUM PIPE DIAMETERS (INSIDE):
   - FULL HEIGHT LESS THAN OR EQUAL TO 25'-1 1/8": FOR CIRCULAR PIPE OR EQUIVALENT SIZE PIPE ARCH
   - FULL HEIGHTS GREATER THAN 25'-1 2/4"
9. INSIDE INLET BOX DIMENSIONS ARE BASED ON PROVIDING A PIPE OPENING TO ACCOMODATE A MINIMUM 18" PIPE TO A MAXIMUM 96" PIPE. PIPE LARGER THAN 96" MAY BE USED WITH THE DESIGNER PROVIDING THE PIPE OPENING DESIGN DETAILS IN ACCORDANCE WITH PENNDOT REQUIREMENTS.
10. INLETS THAT EXCEED THE MAXIMUM HEIGHT INDICATED REQUIRE SPECIAL DESIGN AND DETAILS. DESIGNER IS RESPONSIBLE FOR PROVIDING DESIGN AND DETAILS IN ACCORDANCE WITH PENNDOT REQUIREMENTS.
11. SHOW ORIENTATION OF INLET BOXES ON THE CONTRACT DRAWINGS.
12. THE TOP SLAB IS NOT PERMITTED TO BE POURED MONOLITHICALLY WITH THE ADJACENT BOX SECTION.
13. PROVIDE 2" DIAMETER WEEPHOLES IN THE WALLS WHEN THE DEPTH BETWEEN THE FINISHED GRADE ELEVATION AND THE TOP OF BOTTOM SLAB ELEVATION IS GREATER THAN 12'-0":
   - VERTICAL PLACEMENTS 5'-0" MAXIMUM SPACING
   - PLACE THE BOTTOM ROW OF PLACE WEEPHOLES IN THE SIDE WALLS THAT ARE PERPENDICULAR TO THE TRAFFIC.
   - LOCATE WEEPHOLES A MINIMUM OF 6" FROM PIPE OPENINGS OR JOINTS.
   - LOCATE WEEPHOLES A MINIMUM OF 1'-0" ABOVE OUTLET PIPE INVERT.
14. PROVIDE MONOLITHIC STEPS WHEN THE DEPTH BETWEEN THE FINISHED GRADE ELEVATION AND THE TOP OF BOTTOM SLAB ELEVATION IS GREATER THAN 5'-0". LOCATE THE TOP STEP 6" MINIMUM BELOW THE TOP OF THE INLET BOX. SHALLOW INLETS, WHERE THE DEPTH FROM TOP OF INLET TO BOTTOM SLAB IS LESS THAN 5'-0" IN DEPTH, SHALL BE MADE WITH VERTICAL STEP-IRONS AND ARE ACCEPTABLE AND DO NOT REQUIRE PATCHING. FOR DETAILS, REFER TO RC-39M.
15. IF A REQUIRED DETAIL IS NOT FOUND IN THIS STANDARD OR ON THE CONTRACT DRAWINGS THE DESIGNER IS RESPONSIBLE TO PROVIDE DETAILS FOR SPECIFIC DETAILS MUST BE MADE TO THE BUREAU OF PROJECT DELIVERY, HIGHWAY DELIVERY DIVISION CHIEF.
16. FOR INLET TOPS, GRATES, GRADE ADJUSTMENT RINGS AND FRAMES, REFER TO RC-45M.

MATERIAL NOTES:

1. PROVIDE THE FOLLOWING CONCRETE CLASSES:
   - CAST-IN-PLACE CLASS A CEMENT CONCRETE (DESIGN COMPRESSIVE STRENGTH, f'_c = 3,000 PSI)
   - PRECAST CLASS A CEMENT CONCRETE (DESIGN COMPRESSIVE STRENGTH, f'_c = 4,000 PSI)
2. A HIGHER STRENGTH OF CONCRETE MAY BE SUBSTITUTED FOR A LOWER STRENGTH OF CONCRETE AT NO ADDITIONAL COST TO THE DEPARTMENT. SUBMIT MIX DESIGN TO THE DEPARTMENT FOR REVIEW AND ACCEPTANCE.
3. REINFORCEMENT STEEL:
   - THE USE OF DEFORMED REINFORCEMENT BARS THAT MEET THE REQUIREMENTS OF AASHTO M 31 OR ASTM A706. DO NOT WELD REINFORCEMENT BARS WITHOUT A PENNDOT APPROVED WELDING PROCEDURE.
   - PROVIDE MINIMUM LAP AND EMBEDMENT LENGTH FOR REINFORCING BARS OF 30 DIAMETERS OR IN ACCORDANCE WITH THE CURRENT AASHTO SPECIFICATIONS AND PENNDOT PUBLICATION 408, SECTION 1020, PART 4, WHICHEVER IS GREATER. REFER TO TABLE ON SHEET 3.
   - BAR SPACINGS:
     - MINIMUM SPACING = 4" - or -
     - MAXIMUM SPACING = 2'-0" or 1.5 MEMBER THICKNESS
   - PERMITTED BAR SIZES#:
     - INLET BOXES #3, #4, #5, #6
     - HAIRPIN BAR SIZES #4 AND #5 PERMITTED IN THE TOP SLABS AND TRANSITION SLABS.
   - WIRE REINFORCEMENT, GENERAL REQUIREMENTS FOR REINFORCEMENT BARS#:
     - INLET BOXES: 0.20 in²/ft EACH WAY
     - BOTTOM SLAB:
       - TOP MAT = 0.20 in²/ft EACH WAY
       - BOTTOM MAT = 0.30 in²/ft EACH WAY
4. WELDED WIRE FABRIC (WWF)#:
   - PROVIDE GRADE 65 PLAIN WELDED WIRE FABRIC THAT MEET THE REQUIREMENTS OF ASTM A185 OR GRADE 70 DEFORMED WELDED WIRE FABRIC THAT MEET THE REQUIREMENTS OF ASTM A497.
   - ALL WELDED WIRE FABRIC SHOWN IS SOFT CONVERTED METRIC SIZES.
   - MINIMUM WIRE SIZE AND SPACING FOR WELDED WIRE FABRIC EQUAL TO THE LARGER OF THE BAR SPACINGS OR SIZES.
   - WIRE SPACINGS:
     - MINIMUM SPACING = 3" - or -
     - MAXIMUM SPACING = 2'-0" OR 1.5 MEMBER THICKNESS
   - PERMITTED WWF SIZES#:
     - MINIMUM WIRE SIZE = W4 (#4)
     - MAXIMUM WIRE SIZE = W20 (#20)
     - WWF IS NOT PERMITTED IN CAST-IN-PLACE INLET BOXES.
     - WWF IS NOT PERMITTED IN THE TOP SLABS AND TRANSITION SLABS.
   - MINIMUM AREA OF STEEL REQUIREMENTS FOR WWF#:
     - WALLS = 0.12 in²/ft EACH WAY
     - BOTTOM SLAB:
       - TOP MAT = 0.20 in²/ft EACH WAY
       - BOTTOM MAT = 0.30 in²/ft EACH WAY
5. NON-SHRINK GROUT:
   - PROVIDE NON-SHRINK GROUT IN ACCORDANCE WITH PUBLICATION 408, SECTION 1001.2(d).
6. EPOXY BONDING COMPOUND:
   - PROVIDE EPOXY BONDING COMPOUND IN ACCORDANCE WITH PUBLICATION 408, SECTION 706.1.
7. MORTAR:
   - PROVIDE MORTAR IN ACCORDANCE WITH PUBLICATION 408, SECTION 705.1(a).
8. CAULKING COMPOUND:
   - PROVIDE CAULKING COMPOUND IN ACCORDANCE WITH PUBLICATION 408, SECTION 705.8(d).
9. GASKETS:
   - PROVIDE GASKETS IN ACCORDANCE WITH PUBLICATION 408, SECTION 705.5(b).
10. MANHOLE STEPS:
    - PROVIDE MANHOLE STEPS IN ACCORDANCE WITH PUBLICATION 408, SECTION 605.2(c).
11. SUBBASE MATERIAL AND PREPARATION:
    - PROVIDE NO. 2A COARSE AGGREGATE IN ACCORDANCE WITH PUBLICATION 408, SECTION 703.2 AND COMPACT IN ACCORDANCE WITH PUBLICATION 408, SECTION 350.3(e).
    - PLACE AND COMPACT IN 4" LAYERS TO PROVIDE A 1'-0" MINIMUM LAYERS.
    - PROVIDE A 1'-0" MINIMUM BEDDING.

FIELD CONSTRUCTION NOTES:

1. CONSTRUCT OR PLACE INLET BOXES LEVEL, UNLESS OTHERWISE INDICATED OR DIRECTED.
2. CONSTRUCT OR PLACE INLET BOXES ON A SUBBASE CONSTRUCTED OF COMPACTED NO. 2A COARSE AGGREGATE. PLACE AND COMPACT IN 4" LAYERS TO PROVIDE A 1'-0" MINIMUM DEPTH.
3. LOCATE PIPE OR PIPES AS INDICATED OR DIRECTED.
4. CONNECT PIPES TO INLET BOXES WITH MORTAR OR WATERTIGHT RUBBER FLEXIBLE CONNECTORS.
5. FORM BOTTOM OF INLET, USING CLASS A CEMENT CONCRETE, TO CHANNEL THE FLOW TOWARD THE OUTLET PIPE. PROVIDE #4 REINFORCEMENT BARS SPACED AT 12" CENTER TO CENTER MAXIMUM WHEN THE THICKNESS EXCEEDS 3".
6. BACKFILL EXCAVATED SPACES AROUND THE STRUCTURE WITH ACCEPTABLE EMBANKMENT MATERIAL.
7. THE FOLLOWING ITEMS ARE INCIDENTAL TO THE COST OF THE INLET BOX PAY ITEM: EXCAVATION; BACKFILL; CONCRETE FOR THE INLET BOX, INCLUDING INLET TOP; CONCRETE FOR BENCHING, FLOW, TRANSITION SLABS, TOP SLAB; BACKFILL AND ANY OTHER MISCELLANEOUS ITEMS REQUIRED FOR THE CONSTRUCTION OF THE INLET BOX.

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2	GENERAL NOTES - 2
3	GENERAL NOTES - 3
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6	INLET BOX TYPES
7	TOP SLABS - 1
8	TOP SLABS - 2
9	TOP SLABS - 3
10	TOP SLABS - 4
11	TRANSITION SLABS - 1
12	TRANSITION SLABS - 2
13	CAST-IN-PLACE INLET BOXES - 1
14	CAST-IN-PLACE INLET BOXES - 2
15	CAST-IN-PLACE INLET BOXES - 3
16	CAST-IN-PLACE INLET BOXES - 4
17	CAST-IN-PLACE INLET BOXES DESIGN TABLE - 1 (REINFORCEMENT BARS)
18	CAST-IN-PLACE INLET BOXES DESIGN TABLE - 2 (REINFORCEMENT BARS)
19	CAST-IN-PLACE INLET BOXES DESIGN TABLE - 3 (REINFORCEMENT BARS)
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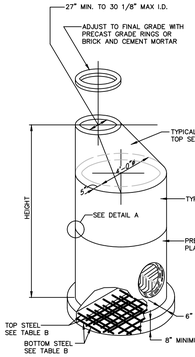
29	PRECAST INLET BOXES DESIGN TABLE - 1 (WELDED WIRE FABRIC)
30	PRECAST INLET BOXES DESIGN TABLE - 2 (WELDED WIRE FABRIC)
31	PRECAST INLET BOXES DESIGN TABLE - 3 (WELDED WIRE FABRIC)
32	PRECAST INLET BOXES DESIGN TABLE - 4 (WELDED WIRE FABRIC)
33	PRECAST INLET BOXES DESIGN TABLE - 5 (WELDED WIRE FABRIC)
34	MISCELLANEOUS DETAILS

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION
BUREAU OF PROJECT DELIVERY

INLET BOXES
GENERAL NOTES - 1

RECOMMENDED SEPT. 15, 2016 — CHIEF, MPC DELIVERY DIVISION
RECOMMENDED SEPT. 15, 2016 — DIRECTOR, BUREAU OF PROJECT DELIVERY
SHT 1 OF 34
RC-46M

NOTE
STORM MANHOLE FRAME AND COVER TO BE NEENAH #R-1557 OR APPROVED EQUAL.

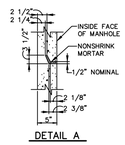


PRECAST MANHOLE

TABLE A
BASE SLAB DIMENSIONS

MAXIMUM DIAMETER OF PIPE	TYPE OF MANHOLE	DEPTH FROM TOP OF MANHOLE TO INVERT OF PIPE	AS DESIGNED ** TONS PER SQUARE FOOT	MINIMUM WIDTH OF BASE	MINIMUM THICKNESS OF BASE BELOW BOTTOM OF THE PIPE
30"	A	MAX. 10'-0"	0.65	6'-6"	0'-8"
30"	A	MAX. 20'-0"	0.82	7'-0"	0'-8"
30"	A	MAX. 30'-0"	1.12	7'-0"	0'-8"
30"	A	MAX. 40'-0"	1.38	7'-6"	1'-0"
30"	B	MAX. 50'-0"	1.50	8'-6"	1'-6"
30"	B	MAX. 60'-0"	1.55	9'-6"	2'-0"
———	MOD.	MAX. 40'-0"	1.05	7'-0"	1'-0"

** A SAFE BEARING CAPACITY OF 1.50 TONS PER SQUARE FOOT IS ASSUMED TO DETERMINE THE BASE SIZE. WHEN THE SUBSOIL IS EXTREMELY POOR, PROCEED WITH CONSTRUCTION ONLY AFTER THE ENGINEER SPECIFIES AN ADEQUATE BASE DESIGN.



DETAIL A

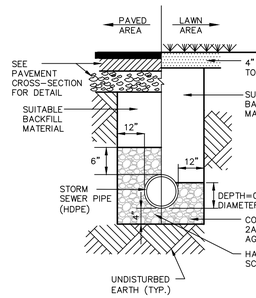
TABLE B

PRECAST MANHOLE HEIGHT	TOP STEEL REQUIREMENTS	BOTTOM STEEL REQUIREMENTS
≤ 30'-0"	#5 BARS @ 12" C to C OR 0.18 in² /FT WWF	#4 BARS @ 12" C to C OR 0.28 in² /FT WWF
> 30'-0" OR to 60'-0"	#6 BARS @ 12" C to C OR 0.15 in² /FT WWF *	#4 BARS @ 6" C to C OR 0.24 in² /FT WWF *

* PROVIDE WELDED WIRE FABRIC MEETING THE REQUIREMENTS OF PUBLICATION 408 SPECIFICATIONS, SECTION 709.3

NOTE:
ALL MANHOLES IN NON-PAVED AREAS TO UTILIZE BOLTED COVER.

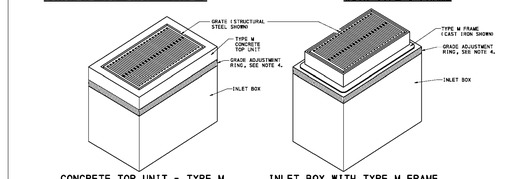
STORM MANHOLE DETAIL
N.T.S.



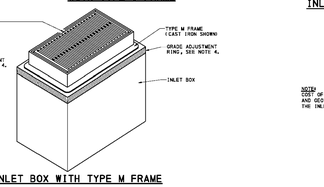
NOTES

1. FOR HDPE PIPE THE COMPACTED 2A AGGREGATE BACKFILL SHALL BE EXTENDED TO 6" ABOVE THE TOP OF THE PIPE PER MANUFACTURER DIRECTION.
2. BACKFILLING OR TAMPING WITH TRENCHING MACHINE IS PROHIBITED.
3. WHERE OPENINGS HAVE BEEN MADE IN EXISTING TOWNSHIP ROADS, PAVING SHALL BE RESTORED IN ACCORDANCE WITH THE PAVING STANDARDS CONTAINED IN THIS ORDINANCE. OPENINGS MADE IN STATE ROADS SHALL BE RESTORED IN ACCORDANCE WITH PENNSYLVANIA DEPARTMENT OF TRANSPORTATION SPECIFICATIONS. PERMITS SHALL BE REQUIRED BEFORE PAVING IS OPENED IN ANY EXISTING STATE OR TOWNSHIP ROAD.
4. WHERE OPENINGS ARE MADE BEHIND THE CURB LINE, THE OPENING SHALL BE COVERED WITH GOOD TOPSOIL TO A DEPTH OF SIX (6) INCHES AND SEEDED OR SODDED TO THE SATISFACTION OF THE TOWNSHIP ENGINEER.

STORM SEWER PIPE TRENCH DETAIL
N.T.S.



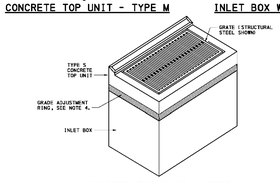
CONCRETE TOP UNIT - TYPE C



CONCRETE TOP UNIT - TYPE C ALTERNATE WITH TYPE C FRAME

CONCRETE TOP UNIT - TYPE M

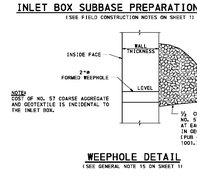
INLET BOX WITH TYPE M FRAME



CONCRETE TOP UNIT - TYPE S

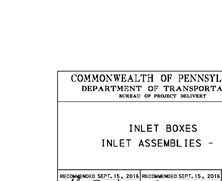
NOTES:

1. FOR ADDITIONAL NOTES, SEE SHEETS 1 - 3.
2. STANDARD INLET BOXES SHOWN, PROVIDE TOP SLABS FOR OTHER INLET BOX TYPES.
3. SEE RC-45M FOR DETAILS FOR THE CONCRETE TOP UNITS, FRAMES, AND GRATES.
4. PROVIDE GRADE ADJUSTMENT RINGS WHEN REQUIRED. SEE RC-45M FOR DETAILS.



NOTE:
TOP OF NO. 2A COARSE AGGREGATE IS INCIDENTAL TO THE INLET BOX.

INLET BOX SUBBASE PREPARATION DETAIL
(SEE FIELD CONSTRUCTION NOTES ON SHEET 1)



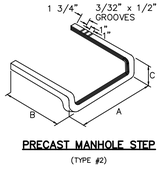
NOTE:
TOP OF NO. 57 COARSE AGGREGATE AND GEOTEXTILE IS INCIDENTAL TO THE INLET BOX.

WEEPHOLE DETAIL
(SEE GENERAL NOTE 15 ON SHEET 1)

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION
BUREAU OF PROJECT DELIVERY

INLET BOXES
INLET ASSEMBLIES - 1

RECOMMENDED SEPT. 15, 2016 — CHIEF, MPC DELIVERY DIVISION
RECOMMENDED SEPT. 15, 2016 — DIRECTOR, BUREAU OF PROJECT DELIVERY
SHT 4 OF 34
RC-46M

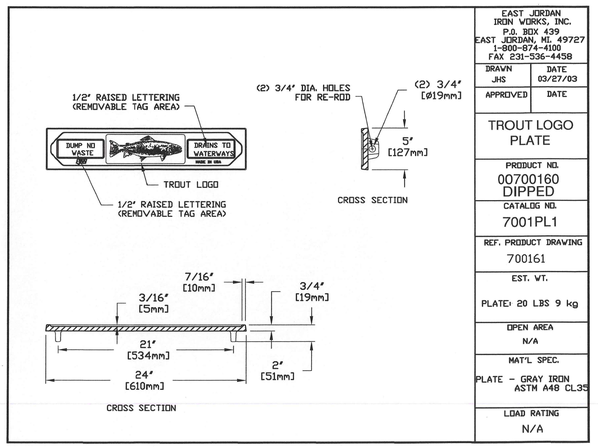


PRECAST MANHOLE STEP
(TYPE #1)

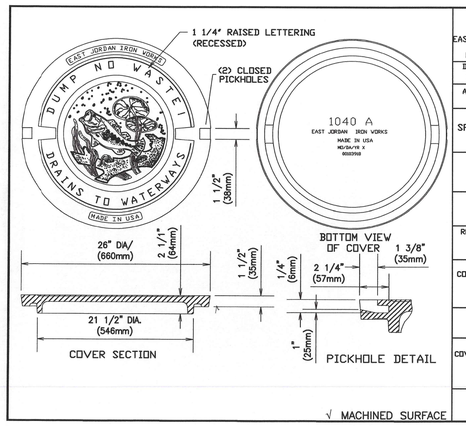
PRECAST MANHOLE STEP
(TYPE #2)

TYPICAL CROSS SECTION ON ALL STEPS

APPLICATION	DIMENSION (IN.) A	B	C
PRECAST M.H. (TYPE 1)	13 3/4	10	3 3/4
PRECAST M.H. (TYPE 2)	13 3/4	11	3 3/4



EAST JORDAN IRON WORKS, INC. P.O. BOX 439 EAST JORDAN, MI. 49727 1-800-874-4100 FAX 231-536-4458	
DRAWN JHS	DATE 03/27/03
APPROVED	DATE
TROUT LOGO PLATE	
PRODUCT NO. 00700160 DIPPED	
CATALOG NO. 7001PL1	
REF. PRODUCT DRAWING 700161	
EST. WT. PLATE: 20 LBS 9 kg	
OPEN AREA N/A	
MAT'L SPEC. PLATE - GRAY IRON ASTM A48 CL35	
LOAD RATING N/A	



EAST JORDAN IRON WORKS, INC. P.O. BOX 439 EAST JORDAN, MI. 49727 1-800-874-4100 FAX 231-536-4458	
DRAWN DEW	DATE 04/18/02
APPROVED	DATE
SPECIAL LETTERED COVER	
PRODUCT NO. 00103918 DIPPED	
CATALOG NO. 1040A	
REF. PRODUCT DRAWING 00103919	
EST. WT. COVER: 150 LBS 68 kg	
OPEN AREA N/A	
MAT'L SPEC. COVER - GRAY IRON ASTM A48 CL35	
LOAD RATING HEAVY DUTY	

ESE CONSULTANTS
ENGINEERING • PLANNING • SURVEYING • ENVIRONMENTAL
ESE Consultants, Inc.
1140 Virginia Drive • Fort Washington, PA 19034
T: 215-914-2050

COMMONWEALTH OF PENNSYLVANIA — JOHN H. BALCHUNIS — ENGINEER — REGISTERED PROFESSIONAL

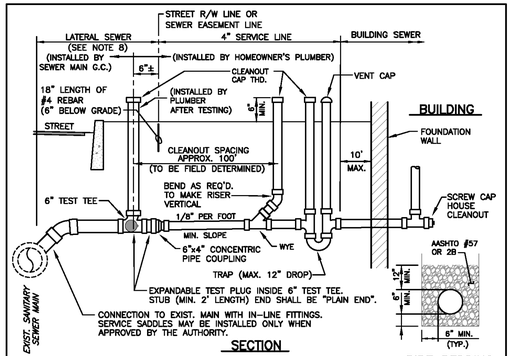
REV.	DATE	DESCRIPTION	DRAWN

STORM SEWER DETAILS

100 GREENRIDGE ROAD DEVELOPMENT
UPPER UWCHLAN TOWNSHIP, CHESTER COUNTY, PENNSYLVANIA

DATE: 03/31/2023	SCALE: AS NOTED
DESIGN: JHB	DRAWN: STAFF
JOB NO.: 8145	FILE NAME: 8145-08.B-DET-STORM
REF. NO.: SD08.03	
SHEET NO.: 31 OF 49	

N:\PROJECTS\PENNSYLVANIA\8145-GREENRIDGE ROAD\ENGDEPT\DRAWINGS\SHEET DRAWINGS\8145-08.B-DET-STORM.DWG-Eric Stengel-4/5/2023 4:23 PM



SECTION

PIPE BEDDING

NOTES:

1. PROVIDE 6" OF AASHTO NO. 57 STONE BELOW PIPE AND 12" ABOVE PIPE (TYPICAL ENTIRE LENGTH OF LATERAL AND SERVICE LINE)
2. MINIMUM SLOPE = 1/8" PER FT.
3. MINIMUM DEPTH OF COVER = 4 FT
4. PIPE MATERIALS:
   LATERAL SEWER – PVC SDR 35 OR DIP CLASS 52 WHEN INSTALLED IN FILL MATERIAL
   SERVICE LINE – PVC SDR 35 OR SCH. 40
5. TO CONDUCT AIR TESTING OF SERVICE LINE, INSTALL EXPANDABLE PLUGS AT LOCATIONS SHOWN.
6. NO SEWER SERVICE LINE VENT CAPS SHALL BE INSTALLED WITHIN A 100-YR FLOOD PLAIN OR WITHIN FLOOD PRONE AREAS.
7. NO VENT CAPS OR CLEANOUTS SHALL BE INSTALLED IN DRIVEWAYS OR OTHER PAVED AREAS, UNLESS SPECIFICALLY APPROVED BY ULTMA. VENTS AND CLEANOUTS LOCATED IN PAVED AREAS MUST BE PROVIDED WITH A FRAME AND COVER IN ACCORDANCE WITH VENT & CLEANOUTS IN PAVED AREAS DETAIL.
8. THE LATERAL SEWER SHALL BE INSTALLED TO THE EDGE OF THE SEWER EASEMENT FOR SEWERS LOCATED IN AN EASEMENT OR TO THE STREET RIGHT-OF-WAY AS A MINIMUM, OR TO SUCH POINT, AS REQUIRED, TO CLEAR STREET SIDEWALKS AND UNDERGROUND UTILITIES.
9. CLEANOUTS AND VENTS IN LAWN AREAS MUST BE 6" MINIMUM ABOVE GRADE.

REVISION	DATE
6	4/21
5	9/15
4	10/14
3	1/13
2	6/05
1	11/04

Upper Uwchlan Township Municipal Authority
STANDARD DETAIL – SEWER SYSTEM

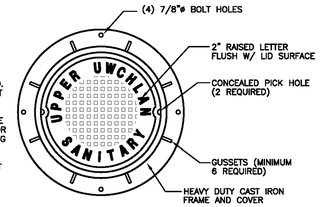
LATERAL & SERVICE LINE

ARRO
Suite 200, 321 N. Furnace St.
Birdsboro, PA 19508
Tel 610.374.5285
Fax 610.374.5287

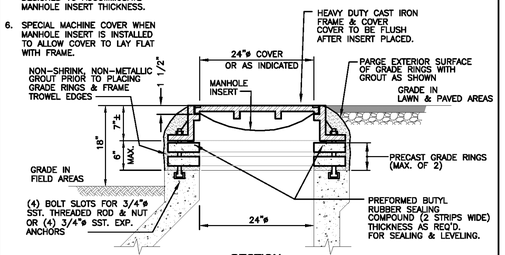
DATE: APRIL 2021
DETAIL: 7000SD17

NOTES:

1. MANHOLE FRAME & COVER SHALL BE CAT. NO. 1045 FRAME & 1040AOS COVER, BY EAST JORDAN IRON WORKS, DESIGNED FOR AASHTO HS-25 LOADING.
2. MANHOLE INSERT IS NOT REQ'D. WHEN INSTALLING A WATERTIGHT FRAME & COVER.
3. ANCHOR BOLT HOLES SHALL BE DRILLED WITH A PERCUSSION OR ROTARY HAMMER DRILL UTILIZING A CARBIDE DRILL BIT. CORE DRILLING, OR ROTATIONAL ONLY DRILLING, OF ANY KIND, IS NOT ALLOWED.
4. FRAME ANCHORS SHALL BE TIGHTENED PRIOR TO CURING OF NON-SHRINK, NON-METALLIC GROUT.
5. COVER RECESS SHALL BE DESIGNED TO ACCOMMODATE MANHOLE INSERT THICKNESS.
6. SPECIAL MACHINE COVER WHEN MANHOLE INSERT IS INSTALLED TO ALLOW COVER TO LAY FLAT WITH FRAME.



PLAN-COVER PATTERN



SECTION

REVISION	DATE
4	4/21
3	1/13
2	6/05
1	11/04

Upper Uwchlan Township Municipal Authority
STANDARD DETAIL – SEWER SYSTEM

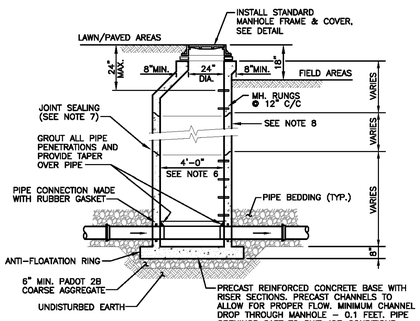
MANHOLE FRAME & COVER

ARRO
Suite 200, 321 N. Furnace St.
Birdsboro, PA 19508
Tel 610.374.5285
Fax 610.374.5287

DATE: APRIL 2021
DETAIL: 7000SD04

NOTES:

1. ADJUST TO GRADE WITH CONCRETE GRADE RINGS (MAXIMUM VERTICAL ADJUSTMENT 6") SEE FRAME & COVER DETAILS
2. MECHANICALLY VIBRATED PRECAST CONCRETE SHALL CONFORM TO A.S.T.M. SPEC. C-478.
3. IF INCOMING INVERT EXCEEDS OUTGOING INVERT BY GREATER THAN OR EQUAL TO 6", SEE INSIDE SPLASH/INSIDE DROP MANHOLE DETAILS.
4. FOR MANHOLES WHERE TOP OF RIM TO INVERT DISTANCE IS LESS THAN 5'-0", USE FLAT TOP MANHOLE IN LIEU OF CONE TOP.
5. FILL ALL LIFTING HOLES WITH NON-SHRINK, NON-METALLIC GROUT.
6. LARGER DIAMETER MANHOLE REQUIRED ON INSIDE DROP AND INSIDE SPLASH CONNECTION GREATER THAN 12", SEE MANHOLE DETAILS FOR INSIDE SPLASH/INSIDE DROP
7. PROVIDE 2 RINGS OF PREFORMED BUTYL RUBBER SEALING COMPOUND (INSIDE & OUTSIDE) AT ALL MANHOLE JOINTS.
8. COAT EXTERIOR WITH BITUMASTIC, 20-MIL DFT (TYP.).



SECTION

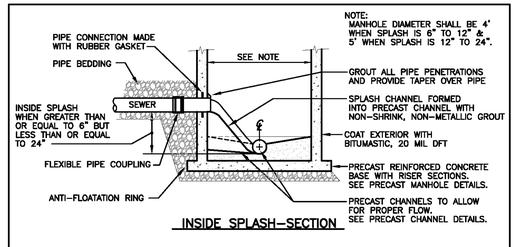
REVISION	DATE
4	4/21
3	1/13
2	6/05
1	11/04

Upper Uwchlan Township Municipal Authority
STANDARD DETAIL – SEWER SYSTEM

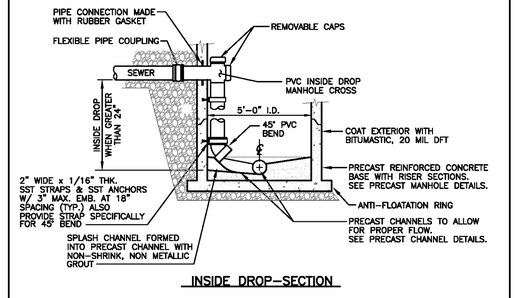
PRECAST MANHOLE
8" THROUGH 24" SEWERS

ARRO
Suite 200, 321 N. Furnace St.
Birdsboro, PA 19508
Tel 610.374.5285
Fax 610.374.5287

DATE: APRIL 2021
DETAIL: 7000SD01



INSIDE SPLASH-SECTION



INSIDE DROP-SECTION

REVISION	DATE
4	4/21
3	1/13
2	6/05
1	11/04

Upper Uwchlan Township Municipal Authority
STANDARD DETAIL – SEWER SYSTEM

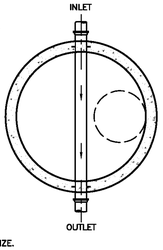
MANHOLE OPTIONS
INSIDE SPLASH/INSIDE DROP

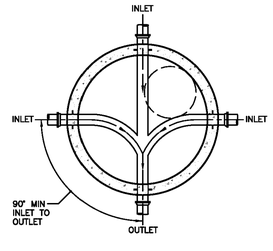
ARRO
Suite 200, 321 N. Furnace St.
Birdsboro, PA 19508
Tel 610.374.5285
Fax 610.374.5287

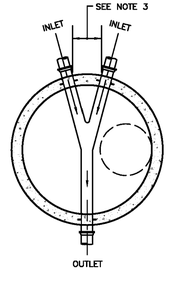
DATE: APRIL 2021
DETAIL: 7000SD07

NOTES:

1. THREE INLET PIPES AND ONE OUTLET PIPE MAX INTO MANHOLE.
2. NO LATERALS INTO MANHOLES, EXCEPT BY SPECIAL EXCEPTION FROM TOWNSHIP AUTHORITY.
3. MINIMUM 12" SEPARATION FROM EDGE OF PIPE PENETRATION TO EDGE OF PIPE PENETRATION.
4. MINIMUM CHANNEL DROP THROUGH MANHOLE:
   STRAIGHT THROUGH – 0.1 FEET
   BEND – 0.2 FEET
5. ALL CHANNELS SHALL BE PRECAST, UNLESS OTHERWISE SPECIFICALLY NOTED OR APPROVED.
6. THESE DETAILS APPLY TO PRECAST CHANNELS IN NEW MANHOLES, AND FIELD-FORMED CHANNELS IN EXISTING MANHOLES.
7. CHANNEL BENCH AT PIPE SHALL MATCH 3/4 CROWN ELEVATION OF PIPE AND RISE 1/2" PER FOOT TO THE MANHOLE WALLS.
8. CHANNELS SHALL MATCH THE CROSS-SECTIONAL DIMENSIONS OF THE PIPES ENTERING AND EXITING THE MANHOLE. SMOOTH TRANSITIONS SHALL BE PROVIDED BETWEEN CHANGES IN PIPE SIZE.







REVISION	DATE
4	4/21
3	1/13
2	6/05
1	11/04

Upper Uwchlan Township Municipal Authority
STANDARD DETAIL – SEWER SYSTEM

PRECAST MANHOLE CHANNELS

ARRO
Suite 200, 321 N. Furnace St.
Birdsboro, PA 19508
Tel 610.374.5285
Fax 610.374.5287

DATE: APRIL 2021
DETAIL: 7000SD08

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
JOHN H. BALCHUNIS
ENGINEER

ESE CONSULTANTS
ENGINEERING • PLANNING • SURVEYING • ENVIRONMENTAL

ESE Consultants, Inc.
1140 Virginia Drive • Fort Washington, PA 19034
T: 215-914-2050

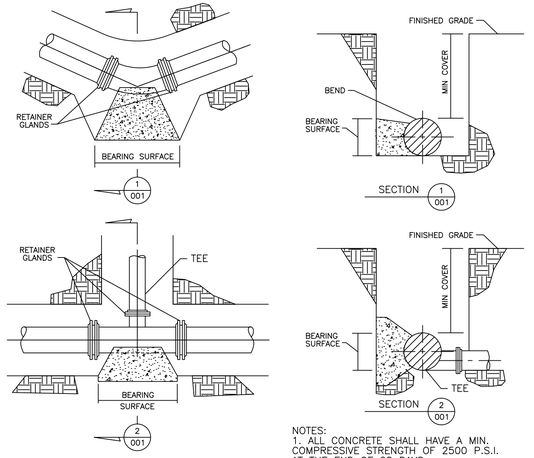
REV.	DATE	DESCRIPTION	DRAWN

SANITARY SEWER DETAILS

100 GREENRIDGE ROAD DEVELOPMENT
UPPER UWCHLAN TOWNSHIP, CHESTER COUNTY, PENNSYLVANIA

DATE: 03/31/2023	SCALE: AS NOTED
DESIGN: JHB	DRAWN: STAFF
JOB NO.: 8145	FILE NAME: 8145-08.C-DET-SAN
REF. NO.: SD08.04	
SHEET NO.: 32 OF 49	

N:\PROJECTS\PENNSYLVANIA\8145-GREENRIDGE ROAD\ENGDEPT\DRAWINGS\SHEET DRAWINGS\8145-08.C-DET-SAN.DWG-Eric Stenger-4/5/2023, 4:24 PM



PLAN

NOTES:
1. ALL CONCRETE SHALL HAVE A MIN. COMPRESSIVE STRENGTH OF 2500 P.S.I. AT THE END OF 28 DAYS.
2. NO COUPLING OR JOINTS SHALL BE COVERED WITH CONCRETE.
3. FOR BEARING SURFACE DIMENSIONS SEE TABLES FOR VARIOUS PIPE SIZES.
4. BEARING SURFACE MUST BE UNDISTURBED EARTH.
5. PIPING SHALL BE WRAPPED WITH POLYETHYLENE PRIOR TO PLACEMENT OF CONCRETE.

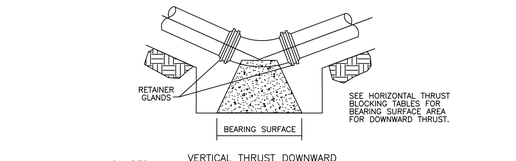
HORIZONTAL THRUST BLOCKING 150 PSI WORKING PRESSURE

PIPE SIZES	6" AND 8"				10" AND 12"			
TYPE OF BEARING MATERIAL AND ALLOWABLE LOADS	DEGREE BEND OR DEFLECTION				DEGREE BEND OR DEFLECTION			
	11 1/4°	22 1/2°	45°	90°	11 1/4°	22 1/2°	45°	90°
SAND 1 TON/SQ.FT, SOFT CLAY 1 TON/SQ.FT.	1.50	3.00	6.00	12.00	3.00	6.00	12.00	24.50
SAND & GRAVEL 2 TON/SQ.FT.	1.00	1.50	3.00	6.00	1.50	3.00	6.00	12.00
CLAY 3 TON/SQ.FT.	1.00	1.00	2.00	4.00	1.00	2.00	4.00	8.00
SOFT ROCK 5 TON/SQ.FT.	1.00	1.00	1.00	2.50	1.00	1.00	2.50	5.00
ROCK 20 TON/SQ.FT.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

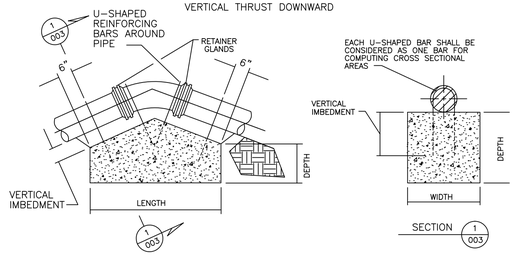
PIPE SIZES	14 AND 16"			
TYPE OF BEARING MATERIAL AND ALLOWABLE LOADS	DEGREE BEND OR DEFLECTION			
	11 1/4°	22 1/2°	45°	90°
SAND 1 TON/SQ.FT, SOFT CLAY 1 TON/SQ.FT.	5.50	11.00	21.50	43.00
SAND & GRAVEL 2 TON/SQ.FT.	2.50	5.50	11.00	21.50
CLAY 3 TON/SQ.FT.	2.00	3.50	7.00	14.00
SOFT ROCK 5 TON/SQ.FT.	1.00	2.00	4.50	8.50
ROCK 20 TON/SQ.FT.	1.00	1.00	1.00	2.00

NOTE:
BEARING SURFACE AREAS SHOWN ARE MINIMUMS FOR THE VARIOUS PIPE SIZES.

HORIZONTAL THRUST BLOCKING AND VERTICAL THRUSTS DOWNWARD BEARING SURFACE AREA



VERTICAL THRUST DOWNWARD



VERTICAL THRUST UPWARD

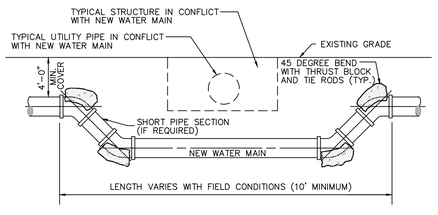
NOTES:
1. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 2500 P.S.I. AT THE END OF 28 DAYS.
2. PAINT ALL EXPOSED STEEL WITH TWO COATS OF ASPHALT PAINT.
3. NO COUPLING OR JOINTS SHALL BE CONVEYED WITH CONCRETE.
4. ALL-THREADS WITH PIPE STRAPS MAY BE USED IN PLACE OF REINFORCING BARS.
5. ALL THRUST BLOCKS SHOWN ARE INTENDED AS A GUIDE AND SHALL WITHSTAND THE REQUIRED PRESSURE.
6. RETAINER GLANDS REQUIRED ON ALL MECHANICAL JOINT FITTINGS.
7. CERTAIN SITUATIONS MAY WARRENT THE USE OF TIE RODS, AUTHORIZED BY THE WATER COMPANY ONLY.

VERTICAL THRUST BLOCKING

PIPE SIZE	6" AND 8"			10" AND 12"			14" AND 16"		
DEGREE BEND OR DEFLECTION	11 1/4°	22 1/2°	45°	11 1/4°	22 1/2°	45°	11 1/4°	22 1/2°	45°
LENGTH	3.00	4.00	6.00	4.50	6.00	8.00	6.00	8.00	11.00
WIDTH	3.00	3.00	3.00	3.00	3.00	4.00	3.50	3.50	5.00
DEPTH	2.00	3.00	4.00	3.00	4.50	5.00	3.50	5.00	5.00
SQ. IN. REINFORCING	0.17	0.33	0.65	0.37	0.74	1.46	0.66	1.32	2.60

BAR NO.	5	6	7	8	9	10	11
CROSS-SECTION IN.² PER BAR	0.31	0.44	0.60	0.79	1.00	1.27	1.56
VERTICAL IMBEDMENT	15"	19"	26"	35"	44"	56"	68"

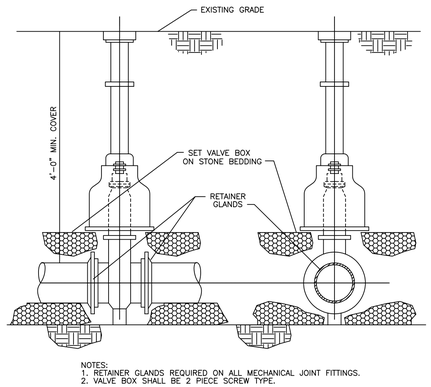
VERTICAL THRUST BLOCKING – UPWARD THRUSTS SCHEDULE OF DIMENSIONS 150 P.S.I. WORKING PRESSURE



NOTES:
1. THIS METHOD OF CONSTRUCTION SHALL BE UTILIZED BY THE CONTRACTOR WHERE IT IS NECESSARY TO PASS BENEATH AN EXISTING UTILITY PIPE OR STRUCTURE TO MAINTAIN A MINIMUM 3'-6" COVER OVER THE NEW WATER MAIN.
2. THIS DETAIL IS TO BE USED AS DIRECTED BY AQUA PENNSYLVANIA.

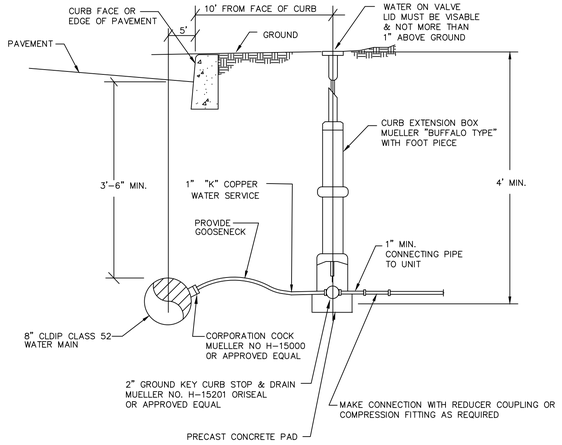
WATER MAIN/UTILITY PIPE CROSSING DETAIL

N.T.S.



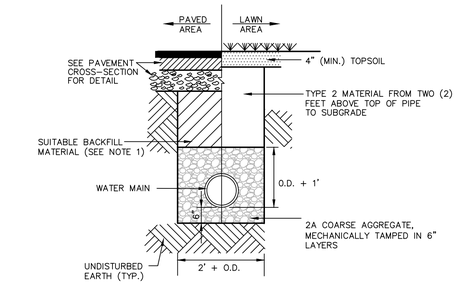
NOTES:
1. RETAINER GLANDS REQUIRED ON ALL MECHANICAL JOINT FITTINGS.
2. VALVE BOX SHALL BE 2 PIECE SCREW TYPE.

GATE VALVE INSTALLATION



WATER SERVICE CONNECTIONS

NOT TO SCALE



NOTES

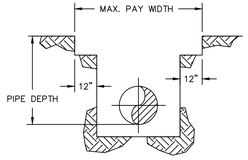
1. SUITABLE BACKFILL MATERIAL, WHEN USED AS BACKFILL SHALL BE CAPABLE OF BEING COMPACTED TO AT LEAST NINETY-FIVE PERCENT (95%) OF MAXIMUM DENSITY AT OPTIMUM MOISTURE CONTENT.

2. TYPE 1 MATERIAL: EXCAVATED MATERIAL FROM THE TRENCH OR MATERIALS FROM OTHER SOURCES WHICH ARE FREE FROM LARGE CLODS, ROOTS, OR STONES LARGER THAT TWO INCHES MAY BE USED.

3. TYPE 2 MATERIAL: EXCAVATED MATERIAL FROM THE TRENCH OR MATERIALS FROM OTHER SOURCES WHICH ARE FREE FROM LARGE CLODS, ROOTS, OR STONES LARGER THAN EIGHT INCHES MAY BE USED.

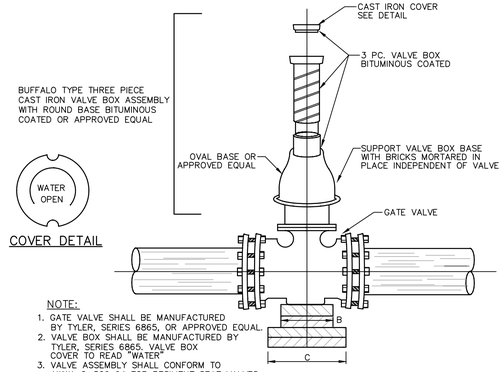
WATER MAIN TRENCH DETAIL

N.T.S.



NOMINAL PIPE DIA. (IN.)	MAX. PAY WIDTH PIPE DEPTH 0'-6"	MAX. PAY WIDTH PIPE DEPTH OVER 6'
4	5.0	6.0
8	5.0	6.0
10	5.0	6.0
12	5.0	6.0
14	5.5	6.0
15	5.5	6.0
16	5.5	6.0
18	5.5	6.0
20	6.0	6.0
24	6.0	6.0
27	–	6.5
30	–	6.5
36	–	7.0
42	–	8.0
48	–	8.5
54	–	9.0
60	–	9.5

MAXIMUM TRENCH WIDTHS FOR STREET REPAVING

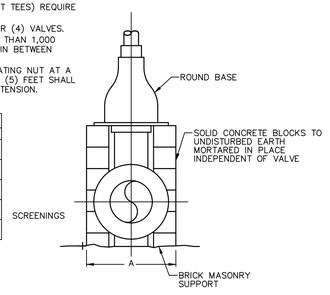


COVER DETAIL

ELEVATION

NOTE:
1. GATE VALVE SHALL BE MANUFACTURED BY TYLER, SERIES 6865, OR APPROVED EQUAL.
2. VALVE BOX SHALL BE MANUFACTURED BY TYLER, SERIES 6865. VALVE BOX COVER TO READ "WATER".
3. VALVE ASSEMBLY SHALL CONFORM TO AWWA C-509 94 FOR RESILIENT SEAT VALVES.
4. ANY VALVE WITH AN OPERATING NUT AT A DEPTH GREATER THAN FIVE (5) FEET SHALL REQUIRE A VALVE STEM EXTENSION.
5. ALL TEES (EXCEPT HYDRANT TEES) REQUIRE THREE (3) VALVES.
6. ALL CROSSES REQUIRE FOUR (4) VALVES.
7. THERE SHALL BE NO MORE THAN 1,000 LINEAR FEET OF WATER MAIN BETWEEN VALVES.
8. ANY VALVE WITH AN OPERATING NUT AT A DEPTH GREATER THAN FIVE (5) FEET SHALL REQUIRE A VALVE STEM EXTENSION.

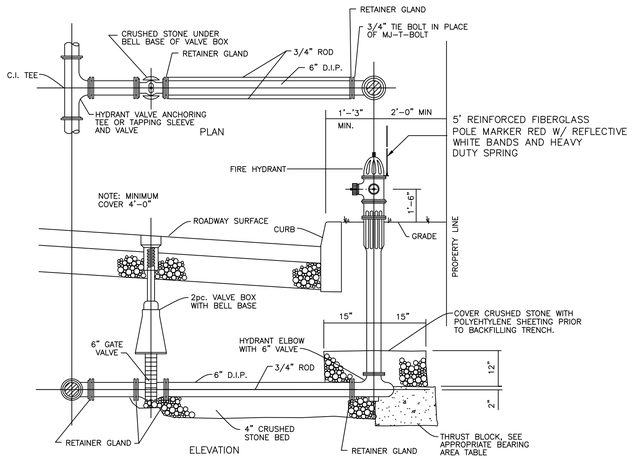
SZ. OF VALVE	DIMENSIONS		
	A	B	C
12"	24	8	14
10"	24	8	14
8"	20	6	12
6"	8	4	10
4"	8	4	10



END VIEW

GATE VALVE WITH VALVE BOX DETAIL

N.T.S.



ELEVATION

NOTES:
1. THREAD SPECIFICATION: NATIONAL STANDARD;
1. BARREL COLOR: FIRE PROT. RED; BONNET COLOR: REFLECTIVE WHITE; CAP COLOR: GLOSS WHITE.
2. APPROVED HYDRANT MODELS ARE MUELLER CENTURION, DARLING B-84-B AND KENNEDY GUARDIAN.
3. ALL HYDRANTS SHALL INCLUDE ONE 4½" PUMPER NOZZLE AND TWO 2½" HOSE NOZZLES.
4. HYDRANT VALVE OPENING SHALL BE 5¼".
5. ALL HYDRANTS SHALL OPEN LEFT.
6. ALL HYDRANTS SHALL BE EQUIPPED WITH A 5 FOOT REINFORCED FIBERGLASS POLE MARKER WITH RED AND WHITE REFLECTIVE BANDS. THE POLE MARKER SHALL HAVE A FLEXIBLE SHAFT, HEAVY DUTY SPRING AND INTEGRAL MOUNTING BRACKET. REFERENCE MODEL 22516 FROM USA BLUE BOOK.
7. RETAINER GLANDS REQUIRED ON ALL MECHANICAL JOINT FITTINGS.
8. DRAIN HOLE IN HYDRANT MUST NOT BE OBSTRUCTED WITH CONCRETE.
9. ALL TIE BOLTS, RODS NUTS AND WASHERS SHALL BE COATED WITH BITUMASTIC AFTER INSTALLATION.
10. A BLUE PLASTIC ROAD REFLECTOR TO BE PLACED IN CENTER OF ROADWAY LOCATED IN FRONT OF FIRE HYDRANT. REFLECTOR TO BE RECESSED INTO ROADWAY.
11. CURBING IN FRONT OF HYDRANT 15' ON EACH SIDE TO BE PAINTED YELLOW.
12. FIRE HYDRANT MUST BE SUPPLIED WITH AT LEAST 8" MAIN.

FIRE HYDRANT DETAIL

ESE CONSULTANTS
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1140 Virginia Drive • Fort Washington, PA 19034
T: 215-914-2050

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JOHN H. BALDINO ENGINEER No. PE 076211

REV.	DATE	DESCRIPTION	DRAWN

WATER DETAILS

100 GREENRIDGE ROAD DEVELOPMENT
UPPER UWCHLAN TOWNSHIP, CHESTER COUNTY, PENNSYLVANIA

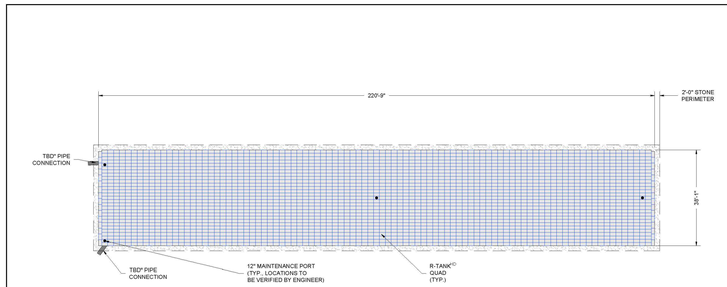
DATE: 03/31/2023	SCALE: AS NOTED
DESIGN: JHB	DRAWN: STAFF
JOB NO.: 8145	FILE NAME: 8145-OLD-DET-WATER
REF. NO.:	SD08.05
SHEET NO.:	33 OF 49

N:\PROJECTS\PENNSYLVANIA\8145-GREENRIDGE ROAD\ENGDEPT\DRAWINGS\SHEET DRAWINGS\8145-08_D-DET-WATER.DWG-Eric Stengel-4/5/2023 4:24 PM

R-TANK DETAILS

N.T.S.

NOTE:
UNDERGROUND INFILTRATION BASIN SYSTEM BY FERGUSON WATERWORKS OR AN APPROVED ALTERNATIVE MANUFACTURER.



R-TANK QUANTITIES

R-TANK[©] MODULE TYPE	QUAD
TRAFFIC LOAD	NON-TRAFFIC
# OF QUAD R-TANKS	2729
TOTAL SYSTEM STORAGE	50,021 CF
R-TANK STORAGE VOLUME	44,521 CF
STONE STORAGE VOLUME (40% VOID RATIO)	5,500 CF
STONE BED FOOTPRINT	9,455 SF
STONE QUANTITY	556 CY
NON-WOVEN GEOTEXTILE TANK WRAP	2,516 SY
NON-WOVEN GEOTEXTILE EXCAVATION WRAP	2,954 SY
12" MAINTENANCE PORTS	4
GEOTEXTILE PIPE BOOTS (TBD)	2
STORMWATER CPS (TBD)	2

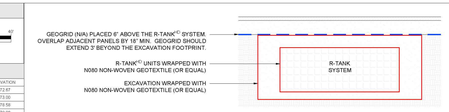
NOTE: STONE QUANTITY INCLUDES 6" OF COVER AND 4" OF BASE
NOTE: GEOTEXTILE LINER QUANTITIES INCLUDE A 15% WASTE FACTOR
SEE SHEETS 3 - 5 FOR DETAILS AND ADDITIONAL INFORMATION

GRAPHIC SCALE

SCALE 1" = 20'

R-TANK ELEVATIONS

DESCRIPTION	ELEVATION
BASE INV.	672.67
TANK INV.	673.00
TOP OF TANK	679.58
GEOGRID	679.08
MIN. ALLOW. FINAL GRADE	679.58
MAX. ALLOW. FINAL GRADE	685.67

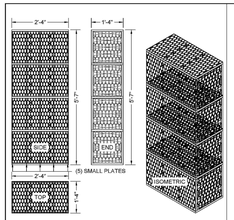


R-TANK[©] TANK WRAP & EXCAVATION ENVELOPE DETAIL

FERGUSON WATERWORKS — FOR ADDITIONAL INFORMATION PLEASE CONTACT A FERGUSON WATERWORKS SALES REPRESENTATIVE AT 1-800-440-3436, www.fergusonww.com

R-TANK[©] SYSTEM LAYOUT
NAME TBD - ESE CONSULTANTS PROJECT
CHESTER , PA

SCALE 1" = 20'
DRAWN BY RC
DATE 03/30/2023
SHEET NO. 2 of 6

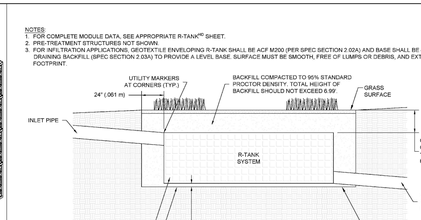


MODULE DATA

GEOMETRY:	LOAD RATING:
LENGTH = 28.15 IN. (715 MM)	33.4 PSI. (MODULE ONLY)
WIDTH = 15.75 IN. (400 MM)	H20/HS20S - SEE SPEC FOR
HEIGHT = 66.93 IN. (1700 MM)	COVER REQUIREMENTS
TANK VOLUME = 17.17 CF	MATERIAL:
STORAGE VOLUME = 16.31 CF	100% RECYCLED POLYPROPYLENE
VOID INTERNAL VOLUME: 95%	SMALL PLATES REQUIRED:
VOID SURFACE AREA: 90%	5/SEGMENT, 20/MODULE

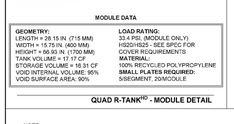
QUAD R-TANK[©] - MODULE DETAIL

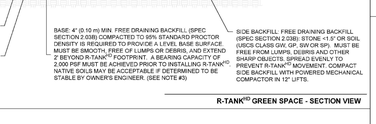
NOTES
1. FOR COMPLETE MODULE DATA, SEE APPROPRIATE R-TANK[©] SHEET.
2. PRE-TREATMENT STRUCTURES NOT SHOWN.
3. FOR INFILTRATION APPLICATIONS, GEOTEXTILE ENVELOPING R-TANK SHALL BE ACF M200 (PER SPEC SECTION 2.02A) AND BASE SHALL BE 4" MIN. UNCOMPACTED FREE DRAINING BACKFILL (SPEC SECTION 2.03A) TO PROVIDE A LEVEL BASE. SURFACE MUST BE SMOOTH, FREE OF LUMPS OR DEBRIS, AND EXTEND 3' BEYOND R-TANK[©] FOOTPRINT.



R-TANK[©] GREEN SPACE - SECTION VIEW

NOTE:
- PIPE BOOTS ARE AVAILABLE IN THE FOLLOWING STANDARD SIZES: 8", 12", 15", 18", 24".
- LARGER, SPECIAL ORDER, CUSTOM SIZES ARE AVAILABLE.





R-TANK TYPICAL TANK INLET/OUTLET W/ GEOTEXTILE PIPE BOOT DETAIL

R-TANK[©] SYSTEM DETAILS
NAME TBD - ESE CONSULTANTS PROJECT
CHESTER , PA

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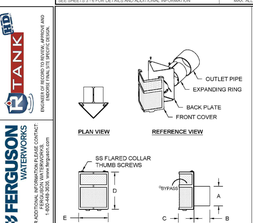
SHEET NO. 3 of 6



PIPE DIA. (A)	STUB LENGTH (B)	CPS DEPTH (C)	CPS HEIGHT (D)	CPS WIDTH (E)
6"	4.00"	8.50"	10.00"	10.00"
8"	6.00"	11.00"	12.25"	11.50"
12"	8.00"	16.00"	15.50"	15.50"
15"	8.00"	16.00"	21.50"	18.50"
18"	8.00"	16.00"	28.00"	21.50"

STORMRING CPS PRETREATMENT DETAIL

NOTES
1. THIS PORT IS USED TO PUMP WATER INTO THE SYSTEM AND RE-SUSPEND ACCUMULATED SEDIMENT SO THAT IT MAY BE PUMPED OUT.
2. MINIMUM REQUIRED MAINTENANCE INCLUDES A QUARTERLY INSPECTION DURING THE FIRST YEAR OF OPERATION AND A BI-YEARLY INSPECTION THEREAFTER. FLUSH AS NEEDED.
3. THE R-TANK[©] QUAD, R-TANK[©] AND R-TANK[©] MAY BE USED IN TRAFFIC APPLICATIONS.
4. SEE TRAFFIC LOADING DETAIL FOR MINIMUM & MAXIMUM COVER REQUIREMENTS.
5. IF MAINTENANCE PORT IS LOCATED IN A NON-TRAFFIC AREA, A PLASTIC CAP CAN BE USED IN LIEU OF A FRAME AND COVER WITH CONCRETE COLLAR.

R-TANK TYPICAL MAINTENANCE PORT

R-TANK[©] SYSTEM DETAILS
NAME TBD - ESE CONSULTANTS PROJECT
CHESTER , PA

SCALE NTS
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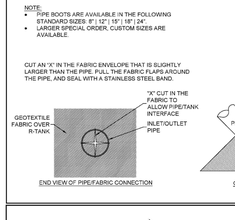
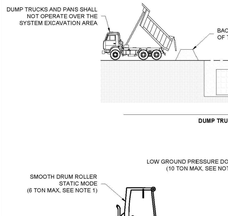
DATE 03/30/2023
SHEET NO. 4 of 6



DUMP TRUCK DETAIL (SEE NOTE 3)

NOTES:
1. FOLLOWING PLACEMENT OF SIDE BACKFILL, A UNIFORM 12" LIFT OF THE FREELY DRAINING MATERIAL (SPEC SECTION 2.03 B2) SHALL BE PLACED OVER THE R-TANK AND LIGHTLY COMPACTED USING A WALK-BEHIND TRENCH ROLLER. ALTERNATELY, A HAND-HELD PLATE (MAXIMUM GROUND VEHICLE WEIGHT OF 6 TONS) MAY BE USED. ROLLER MUST REMAIN IN STATIC MODE UNTIL A MINIMUM OF 24" OF COVER HAS BEEN PLACED OVER THE MODULES. SHEEP FOOT ROLLERS SHOULD NOT BE USED. **SPEC SECTION 3.05 A3**
2. ONLY LOW PRESSURE TIRE OR TRACK VEHICLES (LESS THAN 7 PSI) AND OPERATING WEIGHT OF LESS THAN 20,000 LBS) SHALL BE OPERATED OVER THE R-TANK SYSTEM DURING CONSTRUCTION. **SPEC SECTION 3.05 A3**
3. DUMP TRUCKS AND PANS SHALL NOT BE OPERATED WITHIN THE R-TANK SYSTEM AT ANY TIME. WHERE NECESSARY, THE HEAVY EQUIPMENT SHOULD UNLOAD IN AN AREA ADJACENT TO THE R-TANK SYSTEM AND THE MATERIAL SHOULD BE MOVED OVER THE SYSTEM WITH TRACKED EQUIPMENT. **SPEC SECTION 3.05 A3**
4. ENSURE THAT ALL UNRELATED CONSTRUCTION TRAFFIC IS KEPT AWAY FROM THE LIMITS OF EXCAVATION UNTIL THE PROJECT IS COMPLETE AND FINAL SURFACE MATERIALS ARE IN PLACE. NO NON-INSTALLATION RELATED LOADING SHOULD BE ALLOWED OVER THE R-TANK SYSTEM UNTIL THE FINAL DESIGN ELEVATION HAS BEEN CONSTRUCTED (INCLUDING PAVEMENT). **SPEC SECTION 3.05 B**
5. SEE R-TANK INSTALLATION GUIDE OR CONTACT YOUR LOCAL FERGUSON REPRESENTATIVE FOR ADDITIONAL INFORMATION.



CONSTRUCTION EQUIPMENT COVER DETAIL - GREEN SPACE

R-TANK[©] CONSTRUCTION EQUIPMENT COVER DETAIL
NAME TBD - ESE CONSULTANTS PROJECT
CHESTER , PA

SCALE NTS
DRAWN BY RC
DATE 03/30/2023
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R-TANK SPECIFICATION

PART 1 - GENERAL
1.01 SECTION INCLUDES
A. Drawings, technical specification and general provisions of the Contract as modified herein apply to this section.

1.02 DESCRIPTION OF WORK INCLUDED
A. Provide excavation and base preparation per geotechnical engineer's recommendations and/or as shown on the design drawings, to provide adequate support for project design loads and safety from excavation sidewall collapse. Excavations shall be in accordance with the owner's and OSHA requirements.
B. Provide and install R-Tank(s) [X]. R-Tank[©], R-Tank[©], or R-Tank[©] system (hereafter called R-Tank) and all related products including fill materials, geotextiles, geogrids, inlet and outlet pipe-stub connections per the manufacturer's minimum guidelines provided in this section.
C. Provide all excavation, shoring, dewatering, backfilling, grading, compaction, and pavement section as specified.
D. Protect R-Tank system from construction traffic after installation until completion of all construction activity in the installation area.

1.03 QUALITY CONTROL
A. All materials shall be manufactured in ISO certified facilities.
B. Installation Contractor shall demonstrate the following experience:
1. Contractor shall have a minimum of 5 years experience in similar projects.
2. A minimum of 25,000 cubic feet of storage volume completed within 2 years.
3. Contractor experience requirement may be waived if the manufacturer's representative provides on-site training and during construction.
C. Installation Personnel: Performed only by skilled workers with satisfactory record of performance on bulk earthworks, pipe, chamber, or geotextile/drainage composite projects of comparable size and quantity.
D. Contractor must have the manufacturer's representative available for site review if requested by Owner.

1.04 SUBMITTALS
A. Shop Drawings: Submit R-Tank layout drawings. Drawings shall include typical section details as well as the required base elevation of stone and tanks, minimum cover requirements and tank configuration.
B. Submit manufacturer's product data, including compressive strength and unit weight.
C. Submit R-Tank manufacturer's certification.
D. Submit R-Tank sample for review. Reviewed and accepted samples will be returned to the Contractor.
E. Submit material certificates for geotextile, geogrid, base course and backfill materials.
F. Submit equipment specifications and personnel requirements as specified in Section 1.03 A.
G. Any proposed equal alternative product substitution to this specification must be submitted for review and approved prior to bid opening. Review package should include third party reviewed performance data that meets or exceeds criteria in Table 2.01 B.

1.05 DELIVERY, STORAGE, AND HANDLING
A. Protect R-Tank from damage during delivery, storage during delivery, and storm UV sensitive materials under tarp to protect from sunlight when time from delivery to installation exceeds two weeks. Storage of materials should be on smooth surfaces, free from dirt, mud and debris.
B. Handling is to be performed with equipment appropriate to the materials and site conditions, and may include hand, handcart, forklifts, extension lifts, etc.
C. Replacement:
1. Care must be taken when handling plastics when air temperatures are 32°F and below or below as plastic becomes brittle.
2. Do not use frozen materials or materials mixed or coated with ice or frost.
3. Do not build on frozen ground or wet, saturated or muddy subgrade.

1.06 PRE-INSTALLATION CONFERENCE
A. Prior to the start of the installation, a preinstallation conference shall occur with the representatives from the design team, the general contractor, the excavation contractor, the R-Tank installation contractor, and the manufacturer's representative.

1.07 PROJECT CONDITIONS
A. Coordinate installation for the R-Tank system with other on-site activities to eliminate all non-installation related construction traffic over the completed R-Tank system. No loads (including storage loads) shall be allowed directly over the R-Tank system unless it has been installed to the indicated final lines and grades and has been protected as shown on the system or at any time.
B. Protect adjacent work from damage during R-Tank system installation.
C. Protect downstream drainage facilities from sediment during construction. Inlet protection is to be in place and functional prior to operation of the R-Tank system. Additional pretreatment measures may be needed if unit is operational during construction due to increased sediment loads.
D. Contractor is responsible for any damage to the system during construction.

PART 2 - PRODUCTS
2.01 R-TANK[©] UNITS
A. R-Tank[©] - injection molded plastic tank plates assembled to form a 95% void modular structure of predesigned height (custom for each project).
B. R-Tank units shall meet the following Physical & Chemical Characteristics:

Parameter	Test Method	R-Tank[©] Quad	R-Tank[©] HD	R-Tank[©]
Void Ratio	-	95%	95%	95%
Material	-	100% Recycled Polypropylene	100% Recycled Polypropylene	100% Recycled Polypropylene
Impact Absorption Strength	ASTM D 4226 Method A	30 ft-lbs	30 ft-lbs	30 ft-lbs
Lateral Compression Strength	ASTM D 2412 (10,000 lb/ft load)	20% max	20% max	20% max
Load Rating	ASTM D 2412 (10,000 lb/ft load)	33.4 PSI	33.4 PSI	33.4 PSI
Flow Capacity	Manufacturer's testing per ASTM D4716	1 ft/s	1 ft/s	1 ft/s
Flammability	ASTM D 635 (Self-Extinguishing)	Pass	Pass	Pass
Chemical Resistance	ASTM D 543 (Practices A and B)	Pass	Pass	Pass
Ozone Resistance	ASTM D 1149 (7 days @ 7 ppm)	Pass	Pass	Pass

Supplier: Ferguson Waterworks 2851 Cardinal Road Richmond, VA 23224 (T): 800-446-3636, (F): 804-730-7779 www.fergusonww.com

2.02 GEOSYNTHETICS
A. Geotextile - all geotextile envelope is required to prevent backfill material from entering the R-Tank system.
1. Standard Application: The standard geotextile shall be an 8 oz/ yd² square yard nonwoven geotextile (ACF N080 or equivalent).
2. Infiltration Applications: Where tanks are installed/installed through the geotextile as a function of the system design, a woven monofilament (ACF M200 or equivalent) shall be used.
B. Geogrid: For installations subject to traffic loads and/or when required by project plans, install geogrid (ACF BX12 or equivalent) to reinforce backfill above the R-Tank system. Geogrid is not required for NT ACF M200 infiltration applications, as often not required for traffic load applications.

2.03 BACKFILL & COVER MATERIALS
A. Backfill material shall be clean, crushed stone and smaller than 1.5" in diameter) or soil (GW, GP, SW, or SP as classified by the Unified Soil Classification System) shall be used below the R-Tank system (if permanent). Material must be free from loam, debris, and any sharp objects that could cut the geotextile. Material shall be within 3 percent of the optimum moisture content as determined by ASTM D698 at the time of installation.
B. For UD modules with less than 14" of top cover, backfill materials shall be free draining stone (angular and smaller than 1.5" in diameter). The use of soil backfill on the sides and top of the UD module is not permitted unless the modules are installed outside of traffic areas or with cover depths of 14" or more. Top backfill material (from top of module to bottom of pavement base or 12" maximum) must be consistent with side backfill.
C. Cover Materials: Structural fill shall consist of granular materials (well graded) in green spaces and not subjected to vehicular loads, backfill materials may either follow the guidelines for Traffic Applications above, or the top backfill layer (12" minimum) may consist of AASHTO #57 stone blended with 30-40% (by volume) topsoil to aid in establishing vegetation.
D. Additional Cover Materials: Structural Fill shall consist of granular materials meeting the gradational requirements of SM, SP, SW, GM, GP or GW as classified by the Unified Soil Classification System. Material must be free from loam, debris, and any sharp objects that could cut the geotextile. Material shall be within 2 percent of the optimum moisture content of 10 percent and a maximum Plasticity Index of 4. Material shall be within 3 percent of the optimum moisture content as determined by ASTM D698 at the time of installation.

2.04 OTHER MATERIALS
A. Utility Marker: Install metallic tape at corners of R-Tank system to mark the area for future utility detection.

PART 3 - EXECUTION
3.01 EXAMINATION OF R-TANK UNITS
A. Assembly of modules shall be performed in accordance with the R-Tank Installation Manual, Section 2.

3.02 LAYOUT AND EXCAVATION
A. Installer shall stake out, excavate, and prepare the subgrade area to the required plan grades and dimensions, ensuring that the excavation is at least 2 feet greater than R-Tank dimensions in each direction allowing for installation of geotextile filter fabric. R-Tank modules, and fine grading backfill materials.
B. All excavations must be prepared with OSHA approved excavated sides and sufficient working space.
C. Protect partially completed installation against damage from other construction traffic by establishing a perimeter with high visibility construction tape, fencing, barricades, or other suitable methods as directed by Owner.
D. Protect R-Tank system from construction traffic after installation until completion of all construction activity in the installation area.

3.03 PREPARATION OF BASE
A. Place a thin layer (2" unless otherwise specified) of bedding material (Section 2.03 A), over the subgrade to establish a level working platform for the R-Tank modules. Level to within +/- 1" from as shown on the plans. Native soils or other material may be acceptable if determined to meet the requirements of 2.03 A and are approved by the owner's engineer.
1. Standard Applications: Static roll or otherwise compact bedding materials until they are firm and unyielding.
2. Infiltration Applications: Do not compact bedding materials unless otherwise specified by the owner's engineer.
B. Outline the footprint of the R-Tank system on the excavation floor using spray paint or chalk line to ensure a 2' perimeter is available around the R-Tank system for proper installation and compaction of backfill.

3.04 INSTALLATION OF THE R-TANKS
A. Where a geotextile wrap is specified on the stone base, cut strips to length and install in excavation, removing wrinkles so material lays flat. Overlap geotextile a minimum 12" or as recommended by manufacturer. Use tape, special adhesives, sandbags or other suitable means to secure overlap. As geotextiles can be damaged by extreme heat, smoking is not permissible wherever the geotextile, and tools using a flame to bum the overlaps, such as propane torches, are prohibited.
B. Install R-Tank modules in accordance with the R-Tank Installation Manual and these recommendations and the contract documents. The R-Tank units shall be separated from impervious soils or from excavated surfaces by the geotextile specified in Section 3.04A.
C. Install R-Tank modules by placing side to side, in accordance with the design drawings. No lateral connections are required. It is advisable to use a string line to form square corners and straight alignments. Do not exceed 12" of vertical stacking of R-Tank modules before backfilling the first layer of backfill around the modules.
D. For UD, and SD installations, the top cap of the R-Tank units must be placed on the perimeter of the system. This will typically require that the two ends of the tank arrow will have a row of tanks placed perpendicular to all other tanks. If this is not shown in the construction drawings, it is a simple field adjustment that will have minimal effect on the overall performance of the system. Do not cut the R-Tank units.
E. For UD installations, this is not a perpendicular end row required.
F. Wrap the R-Tank ends and sides in specified geotextile. Cut strips of geotextile so that it will cover the sides and top, encapsulating the entire system to prevent backfill entry into the system. Overlap geotextile 12" or as recommended by manufacturer. Tape seal joints or use adhesive to prevent backfill entry. If specified, install non-woven liner during placement.
G. Identify locations of inlet, outlet and any other penetrations of the geotextile (and optional liner). These connections should be installed flush (butted up to the R-Tank) and the geotextile cut to fit around the pipe. Secure geotextile around pipe penetrations using a flexible compressible wrap material such as foam or geotextile to prevent migration of stone and pipe clamps. Support pipes in accordance with the drawings during backfill operations to prevent pipe from settling and damaging the connection. Improvise the use of specified pipe. Connecting pipes at 90 degree angles facilitates construction, unless otherwise specified. Ensure end of pipe is installed snug against R-Tank system.
H. Install observation ports in the locations shown on the drawings. Ports are typically located at the ends of the isolator rows. Remove 1/2 of each inlet & outlet connection, and with a maximum spacing of one maintenance port for every 2,500 square feet. Install soil ports as noted in the R-Tank Installation Guide.
I. If required, install ventilation pipes and vents as specified on drawings to provide ventilation for proper hydraulic performance. The number of pipes and vents will depend on the size and configuration of the system. Pipes shall be 4" to 6" in diameter and may allow with PVC pipe into a landscaped area with 3/4" bend or venting bolted to inhibit the ingress of debris. A ground level cleanout or cap may be used.

3.05 BACKFILLING OF THE R-TANK UNITS
A. Backfill and fill with recommended materials as follows:
1. Backfill around the perimeter of the R-Tank units in 12" (300 mm) lifts around the perimeter in lifts with a maximum thickness of 12". Each lift shall be placed around the entire perimeter such that each lift is no more than 24" higher than the adjacent lift at any time. Ensure that the side backfill along any other location on the perimeter of the R-Tank system. No lift shall be placed over top of tanks until the side backfill has been completed.
2. Backfill shall be compacted at the specified moisture content to a minimum of 95% of the Standard Proctor Density until no further densification is observed (for self-compacting stone materials). The soils lifts must be compacted with walk behind compaction equipment. Even when "self-compacting" backfill materials are selected, a walk behind vibratory compactor must be used.
3. Take care to ensure that the compaction process does not allow the machinery to come into contact with the modules due to the potential for damage to the geotextile and R-Tank units.
4. No compaction equipment is permissible to operate directly on the R-Tank modules.
B. Top Backfill: Only five pressure inches of backfill shall be specified over the R-Tank system during construction. Dump Trucks and Pans shall not be operated within the R-Tank system footprint at any time. Heavy equipment should unload in an area adjacent to the R-Tank system and the material should be moved over the system using tracked equipment with an initial lift of 24" of cover. Take care to ensure that the compaction process does not allow the machinery to come into contact with the modules due to the potential for damage to the geotextile and R-Tank units.
a. Typical Applications: Install a 12" (or as shown on plans) lift of fine grading material (Section 2.03 B) over the R-Tank Units, maintaining 12" between equipment tracks and R-Tank System. Lightly compacted using a walk-behind trench roller. Alternately, a roller (maximum gross vehicle weight of 6 tons) may be used. Roller must remain in static mode until a minimum of 24" of cover has been placed over the R-Tank units. Vibratory rollers should not be used.
b. Shallow Applications (< 12" total cover): Install top backfill in accordance with a above.
C. If required, install a geogrid as shown, centered about a minimum of 3 feet beyond the limits of the excavation wall.
D. Backfill above the geogrid (if applicable) and over the entire footprint of the R-Tank system with fine grading material (Section 2.03 C) at the specified moisture content and compacted to a minimum of 95% of the Standard Proctor Density until no further densification is observed over the entire footprint of the R-Tank System. During placement of fill above the system, unless otherwise specified, a uniform elevation of fill shall be maintained to within 12" across the footprint of the R-Tank system. Do not exceed maximum cover depths listed in Table 2.01 B.
E. Place additional layers of pavement, and/or geogrid at elevations as specified in the contract documents. Install layer of geosynthetics and reinforcement placed above the R-Tank system shall extend a minimum of 3 feet beyond the limits of the excavation wall.
F. Final Fill: Additional fill materials may be placed over the R-Tank system to the elevations of excavation until the project is complete and final surface materials are in place. No non-installation related loading should be allowed over the R-Tank system until the final design section has been constructed (including pavement).
C. Place surfacing materials, such as groundcovers (no large trees), or paving materials over the structure with care to avoid displacement of cover fill and damage to surrounding soils.
D. Backfill depth over R-Tank system must be within the limitations shown in the table in Section 2.01 B. If the total backfill depth does not comply with the table, contact engineer or manufacturer's representative for assistance.

3.06 MAINTENANCE REQUIREMENTS
A. A routine maintenance effort is required to ensure proper performance of the R-Tank system. The Maintenance program should be focused on pretreatment systems. Ensuring these structures are properly maintained will significantly reduce the risk of contamination of the R-Tank system and stormwater released from the site. The treatment systems shall be inspected and cleaned in accordance with the inspection agency and by the manufacturer (for proprietary systems). Maintain as needed using acceptable practices or following manufacturer's guidelines (for proprietary systems).
B. All inlet pipes and inspection and/or Maintenance Ports in the R-Tank system will need to be inspected for accumulation of sediments at least quarterly through the first year of operation and at least yearly thereafter.
C. Maintenance shall be performed as noted in the R-Tank Maintenance Guide or beyond a level acceptable to the Owner's engineer, the R-Tank system should be flushed.
D. All inspection and maintenance activities should be performed in accordance with the R-Tank Operation, Inspection & Maintenance Manual.

R-TANK[©] SPECIFICATION
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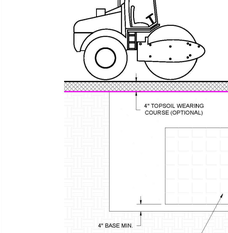


*NOTES:-
SUMP DEPTH OF 50" MIN. FOR 24R & 24F SNOUTS.
SUMP DEPTH OF 60.75" MIN. FOR 30F SNOUTS.
DRILL 2" DIA. WEEP HOLES 12" O.C. AT BOTTOM OF ALL SUMPED INLET BOXES TO PREVENT STANDING WATER

SNOUT OIL-WATER-DEBRIS SEPARATOR

NOTES:

1. ALL HOODS AND TRAPS FOR CATCH BASINS AND WATER QUALITY STRUCTURES SHALL BE
AS MANUFACTURED BY:
BEST MANAGEMENT PRODUCTS, INC.
5.5 MT. ARCHER RD.
LYME, CT 06371
(860) 434-0277, (860) 434-3195 FAX
TOLL FREE: (800) 504-8008 OR (888) 434-0277
WEB SITE: www.bmpinc.com
OR PRE-APPROVED EQUAL

2. ALL HOODS SHALL BE CONSTRUCTED OF A GLASS REINFORCED RESIN COMPOSITE WITH ISO GEL COAT EXTERIOR FINISH WITH A MINIMUM 0.125" LAMINATE THICKNESS.

3. ALL HOODS SHALL BE EQUIPPED WITH A WATERTIGHT ACCESS PORT, A MOUNTING FLANGE, AND AN ANTI-SIPHON VENT PIPE AND ELBOW AS DRAWN. (SEE CONFIGURATION DETAIL)

4. THE SIZE AND POSITION OF THE HOOD SHALL BE DETERMINED BY OUTLET PIPE SIZE AS PER MANUFACTURER'S RECOMMENDATION (SNOUT SIZE ALWAYS LARGER THAN PIPE SIZE).

5. THE BOTTOM OF THE HOOD SHALL EXTEND DOWNWARD A MINIMUM DISTANCE EQUAL TO 1/2 THE OUTLET PIPE DIAMETER WITH A MINIMUM DISTANCE OF 6" FOR PIPES <12" I.D. "

6. THE ANTI-SIPHON VENT SHALL EXTEND ABOVE HOOD BY MINIMUM OF 3" AND A MAXIMUM OF 12" ACCORDING TO STRUCTURE CONFIGURATION.

7. THE SURFACE OF THE STRUCTURE WHERE THE HOOD IS MOUNTED SHALL BE FINISHED SMOOTH AND FREE OF LOOSE MATERIAL AND PIPE SHALL BE FINISHED FLUSH TO WALL.

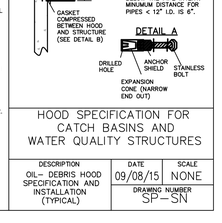
8. ALL STRUCTURE JOINTS SHALL BE WATERTIGHT.

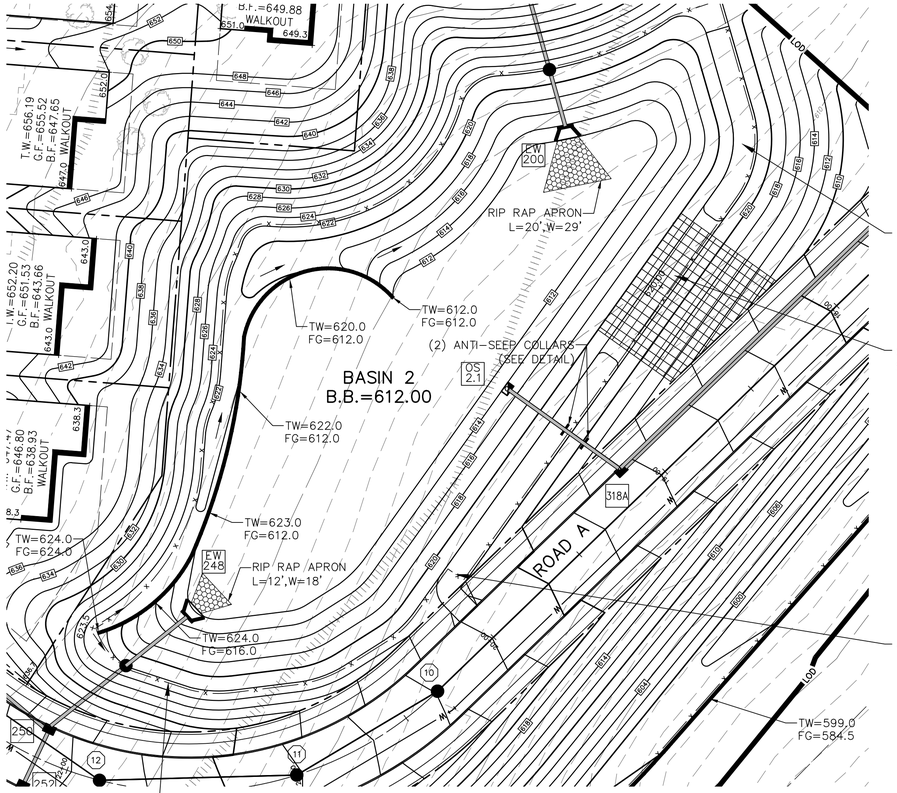
9. THE HOOD SHALL BE SECURELY ATTACHED TO STRUCTURE WALL WITH 3/8" STAINLESS STEEL BOLTS AND OIL-RESISTANT GASKET AS SUPPLIED BY MANUFACTURER. (SEE INSTALLATION DETAIL)

10. INSTALLATION INSTRUCTIONS SHALL BE FURNISHED WITH MANUFACTURER SUPPLIED INSTALLATION KIT. INSTALLATION KIT SHALL INCLUDE:
A. ALL INSTALLATION INSTRUCTIONS
B. PVC ANTI-SIPHON VENT PIPE AND ADAPTER
C. OIL-RESISTANT CRUSHED CELL FOAM GASKET WITH PSA BACKING
D. 3/8" STAINLESS STEEL BOLTS
E. ANCHOR SHIELDS

US Patent # 6126817, 7951294, 7857966, 8512556
Canada Patent # 2285146, 2690156, 2690156 others pending

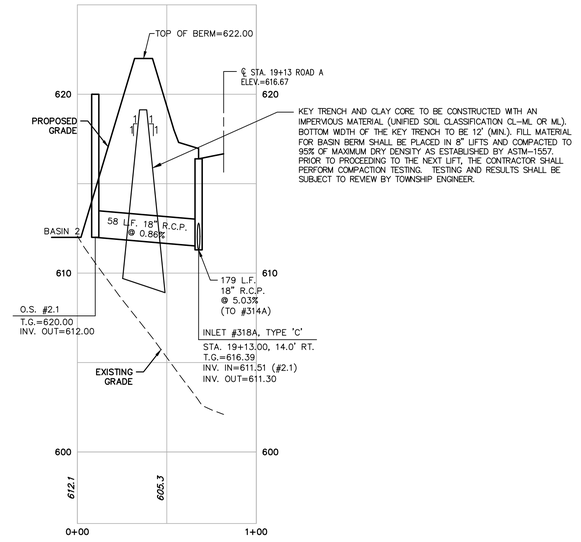
INSTALLATION DETAIL


FOAM GASKET W/ PSA BACKING (TRIM TO LENGTH)
DETAIL B
MOUNTING FLANGE
ANCHOR W/ BOLT (SEE DETAIL A)
D
1/2 D
GASKET COMPRESSED BETWEEN HOOD AND STRUCTURE (SEE DETAIL B)
INSTALLATION NOTE: POSITION HOOD SUCH THAT BOTTOM FLANGE IS A DISTANCE OF 1



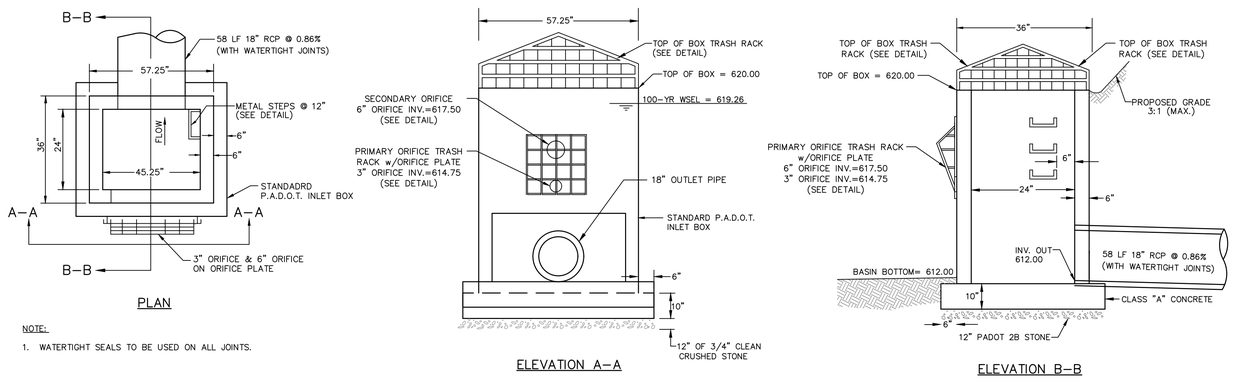
PLAN VIEW: INFILTRATION BASIN #2

SCALE: 1"=30'



PROFILE: 2.1–318A

1"=40' Horizontal
1"=4' Vertical



BASIN #2 OUTLET STRUCTURE

N.T.S.

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
JOHN H. BALCHUNIS
ENGINEER
No. PE062171

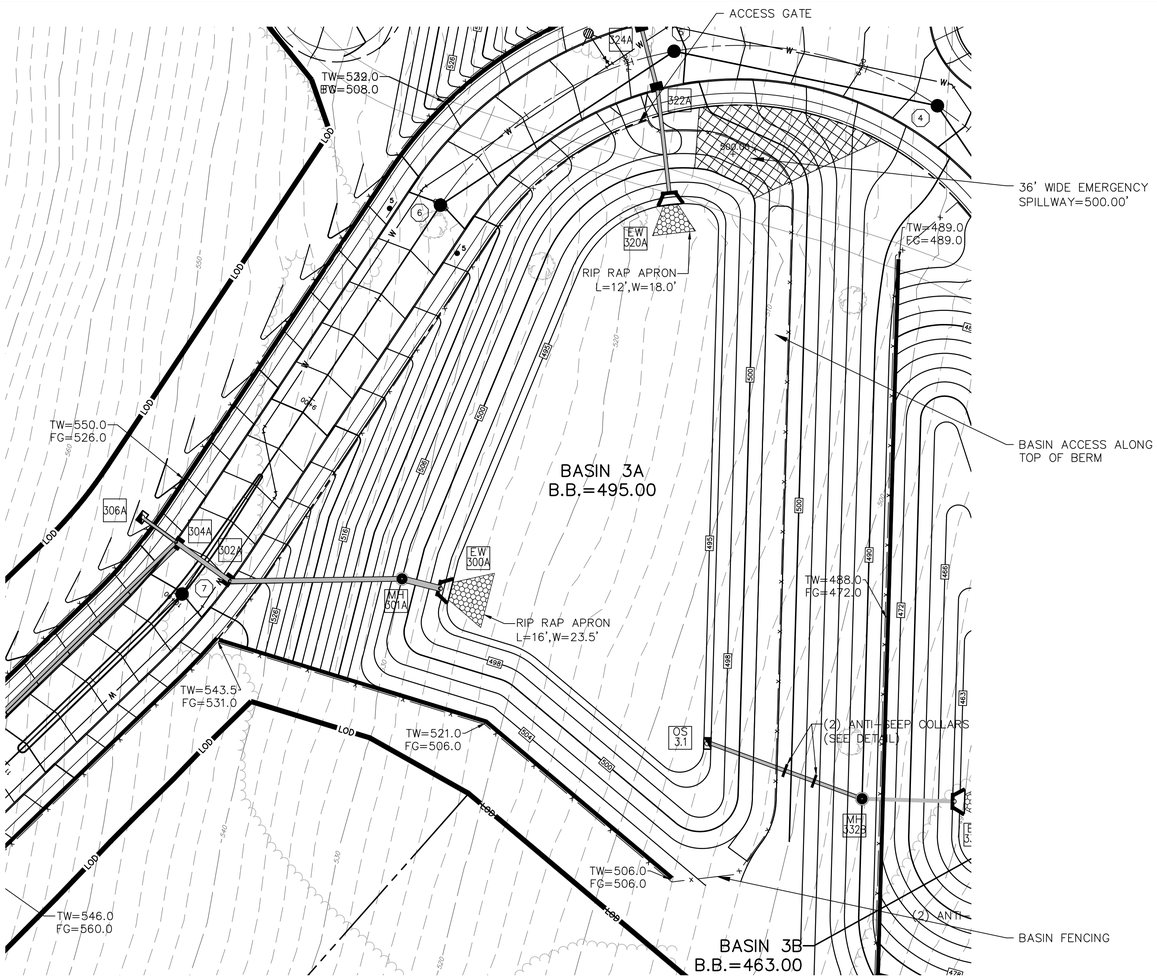
REV.	DATE	DESCRIPTION	DRAWN

BASIN DETAILS

100 GREENRIDGE ROAD DEVELOPMENT
UPPER UWCHLAN TOWNSHIP, CHESTER COUNTY, PENNSYLVANIA

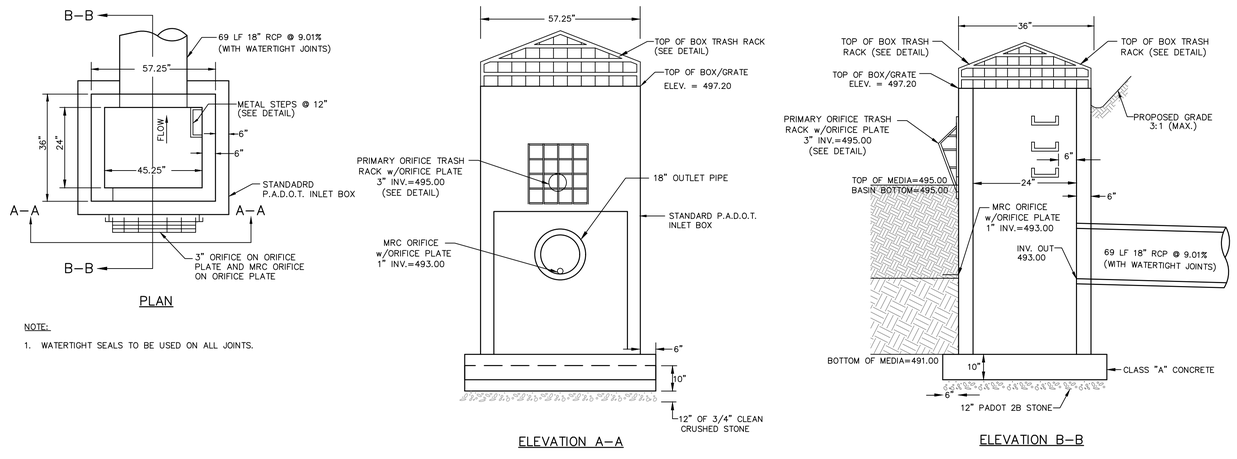
DATE: 03/31/2023	SCALE: AS NOTED
DESIGN: JHB	DRAWN: STAFF
JOB NO.: 8145	FILE NAME: 8145-08E-DET-BASIN
REF. NO.: SD08.07	
SHEET NO.: 35 OF 49	

N:\PROJECTS\PENNSYLVANIA\8145-GREENRIDGE ROAD\ENGDEPT\DRAWINGS\SHEET DRAWINGS\8145-08E-DET-BASIN.DWG-Eric Stengel-4/5/2023 4:25 PM



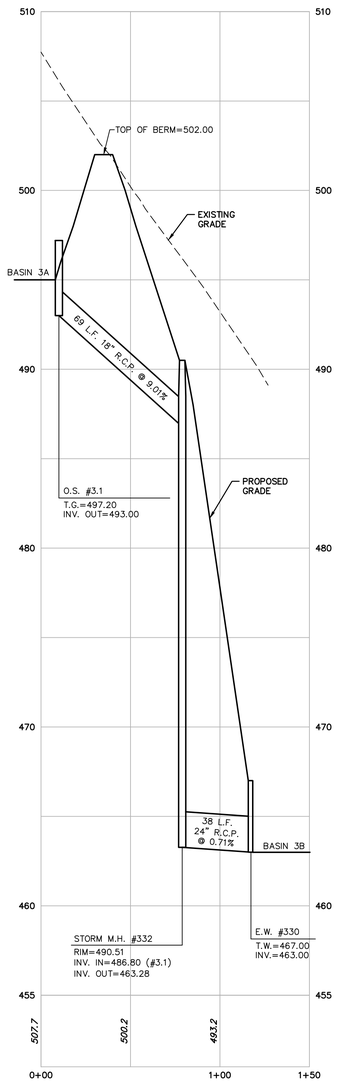
PLAN VIEW: MANAGED RELEASE CONCEPT (MRC) BASIN #3A

SCALE: 1"=30'



MRC BASIN #3A OUTLET STRUCTURE

N.T.S.



PROFILE: 3.1–330

1"=40' Horizontal
1"=4' Vertical

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COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — JOHN H. BALCHUNIS — ENGINEER — 049021 — EXPIRES 6/30/2023

REV.	DESCRIPTION	DRAWN
DATE		

BASIN DETAILS

100 GREENRIDGE ROAD DEVELOPMENT
UPPER UWCHLAN TOWNSHIP, CHESTER COUNTY, PENNSYLVANIA

DATE: 03/31/2023	SCALE: AS NOTED
DESIGN: JHB	DRAWN: STAFF
JOB NO.: 8145	FILE NAME: 8145-08E-DET-BASIN
REF. NO.:	SD08.08
SHEET NO.:	36 OF 49

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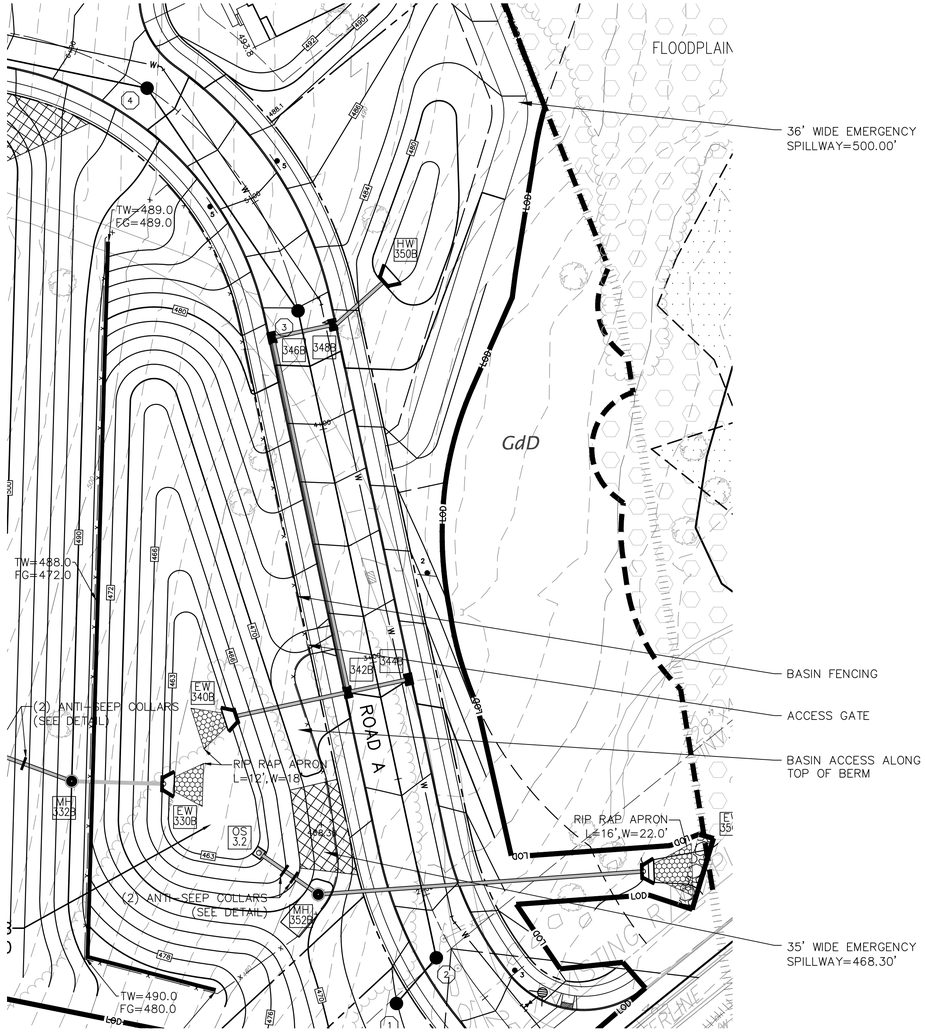
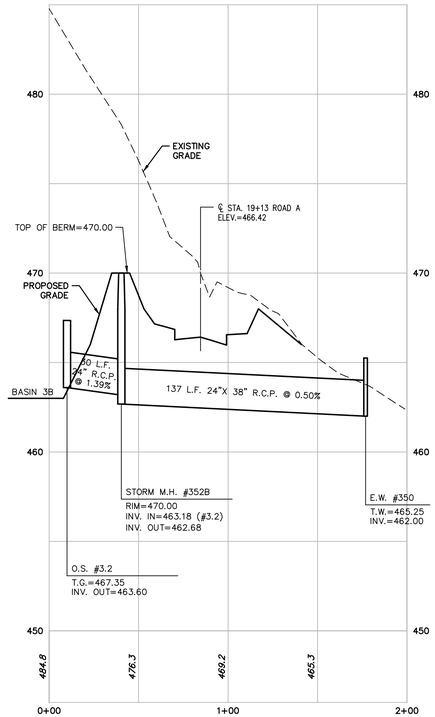


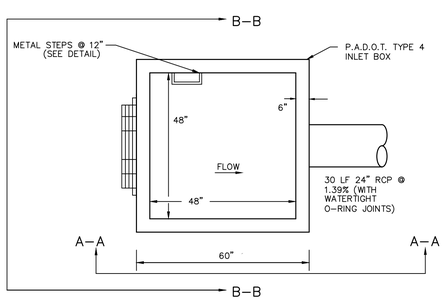
PLAN VIEW: DETENTION BASIN #3B

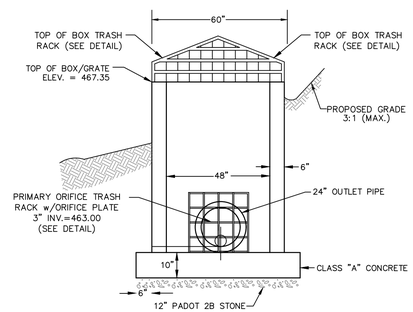
SCALE: 1"=30'



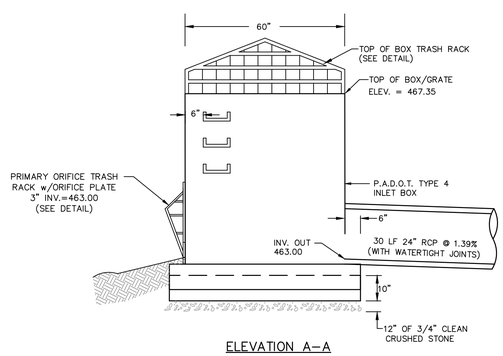
PROFILE: 3.2-350

1"=40' Horizontal
1"=4' Vertical





ELEVATION B-B



ELEVATION A-A

BASIN #3B OUTLET STRUCTURE

N.T.S.

NOTE:

1. WATERTIGHT SEALS TO BE USED ON ALL JOINTS.

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COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — JOHN H. BALCHUNIS — ENGINEER — 24GE04611400 — PROFESSIONAL ENGINEER

REV.	DATE	DESCRIPTION	DRAWN

BASIN DETAILS

100 GREENRIDGE ROAD DEVELOPMENT
UPPER UWCHLAN TOWNSHIP, CHESTER COUNTY, PENNSYLVANIA

DATE: 03/31/2023	SCALE: AS NOTED
DESIGN: JHB	DRAWN: STAFF
JOB NO.: 8145	FILE NAME: 8145-08E-DET-BASIN
REF. NO.: SD08.09	
SHEET NO.: 37 OF 49	

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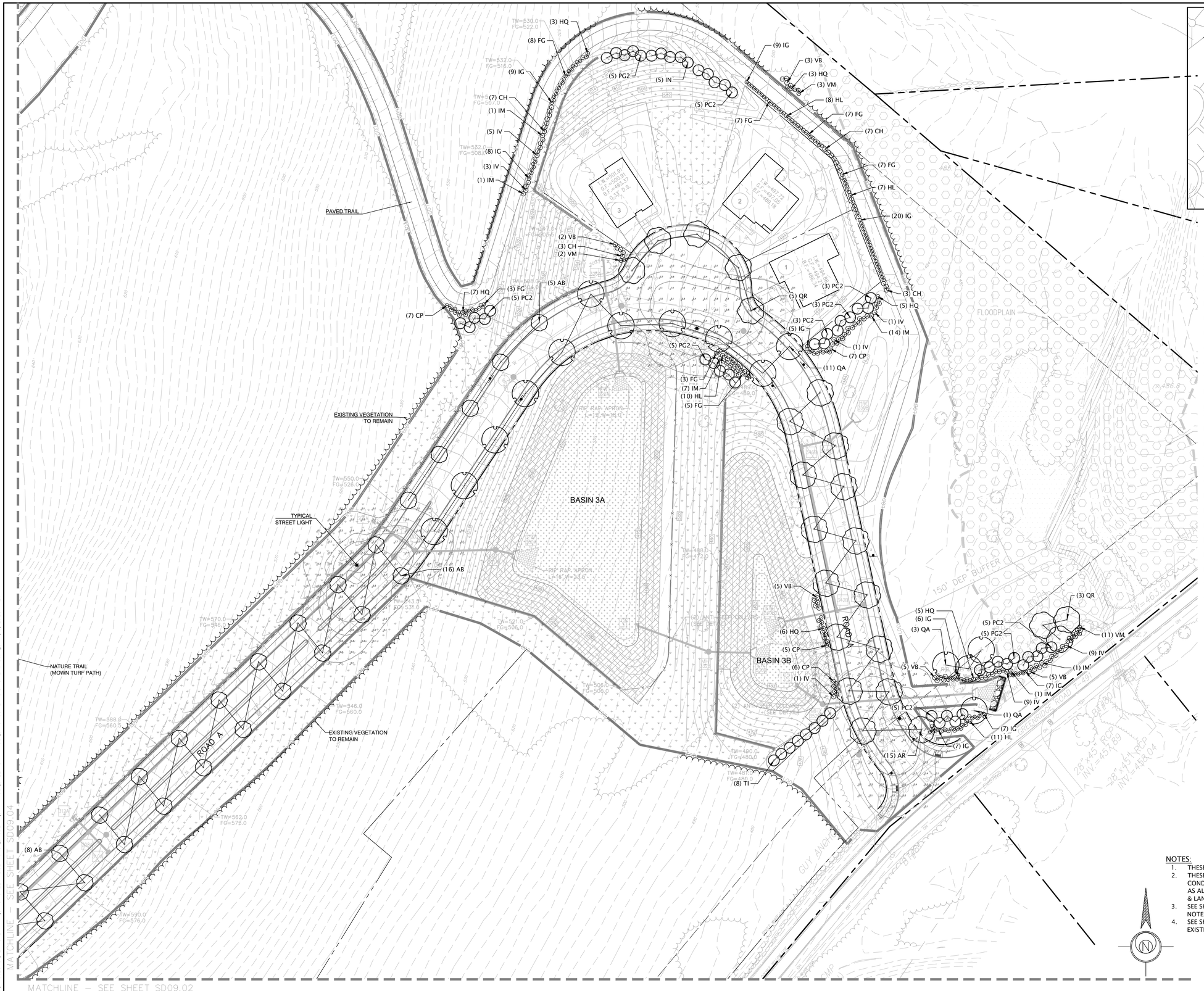
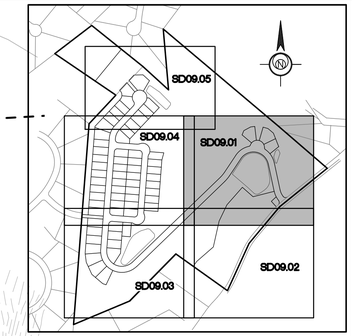




KEY MAP
SCALE: 1"=600'

PLANT SCHEDULE

TREES (NEW/EXISTING ROAD FRONTAGE)	
AB	BOWHALL RED MAPLE
AR	REDPOINTE® MAPLE
IN	NELLIE R. STEVENS HOLLY
PG2	WHITE SPRUCE
PC2	COLORADO SPRUCE
QA	WHITE OAK
QR	RED OAK
TI	GREEN GIANT ARBORVITAE
UA	VALLEY FORGE AMERICAN ELM
REQUIRED SCREENING TREES	
JV	EASTERN REDCEDAR
PG	WHITE SPRUCE
PC	COLORADO SPRUCE
SHRUBS (NEW/EXISTING ROAD FRONTAGE)	
CP	PINK SPIRES SUMMERSWEET
CH	IVORY HALO® TATARIAN DOGWOOD
FG	MT. AIRY DWARF WITCHALDER
HL	LIMELIGHT PANICLE HYDRANGEA
HQ	OAKLEAF HYDRANGEA
IG	SHAMROCK INKBERRY HOLLY
IM	MR. POPPINS® WINTERBERRY
IV	BERRY HEAVY® WINTERBERRY
VM	BLUE MUFFIN ARROWWOOD VIBURNUM
VB	BLACKHAW VIBURNUM

SEED MIX

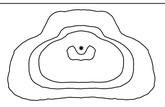
NATIVE UPLAND WILDLIFE FORGE & COVER MEADOW MIX
ERNST SEED MIX - ERNMX-123 (OR APPROVED EQUAL)

BASIN FLOOR SEED MIX - LOW MAINTENANCE
ERNST SEED MIX - ERNMX-126 (OR APPROVED EQUAL)

BASIN SIDE SLOPE
ERNST SEED MIX - ERNMX - 183
(OR APPROVED EQUAL)

GENERAL LAWN SEED MIX
60% KENTUCKY BLUEGRASS
10% PENNFINE PERENNIAL RYEGRASS
30% PENNLAWN FESCUE

TYP. STREET LIGHT



NOTES:
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3. SEE SHEETS SD09.06-09.07 FOR PLANT SCHEDULE, DETAILS, NOTES, SPECIFICATIONS, AND REQUIREMENT CALCULATIONS.
4. SEE SHEETS SD09.08-09.12 FOR ASH TREE REMOVAL PLANS, EXISTING TREE REMOVAL PLANS AND SCHEDULE

FEET
40 0 20 40 80
GRAPHIC SCALE 1 inch = 40 ft.

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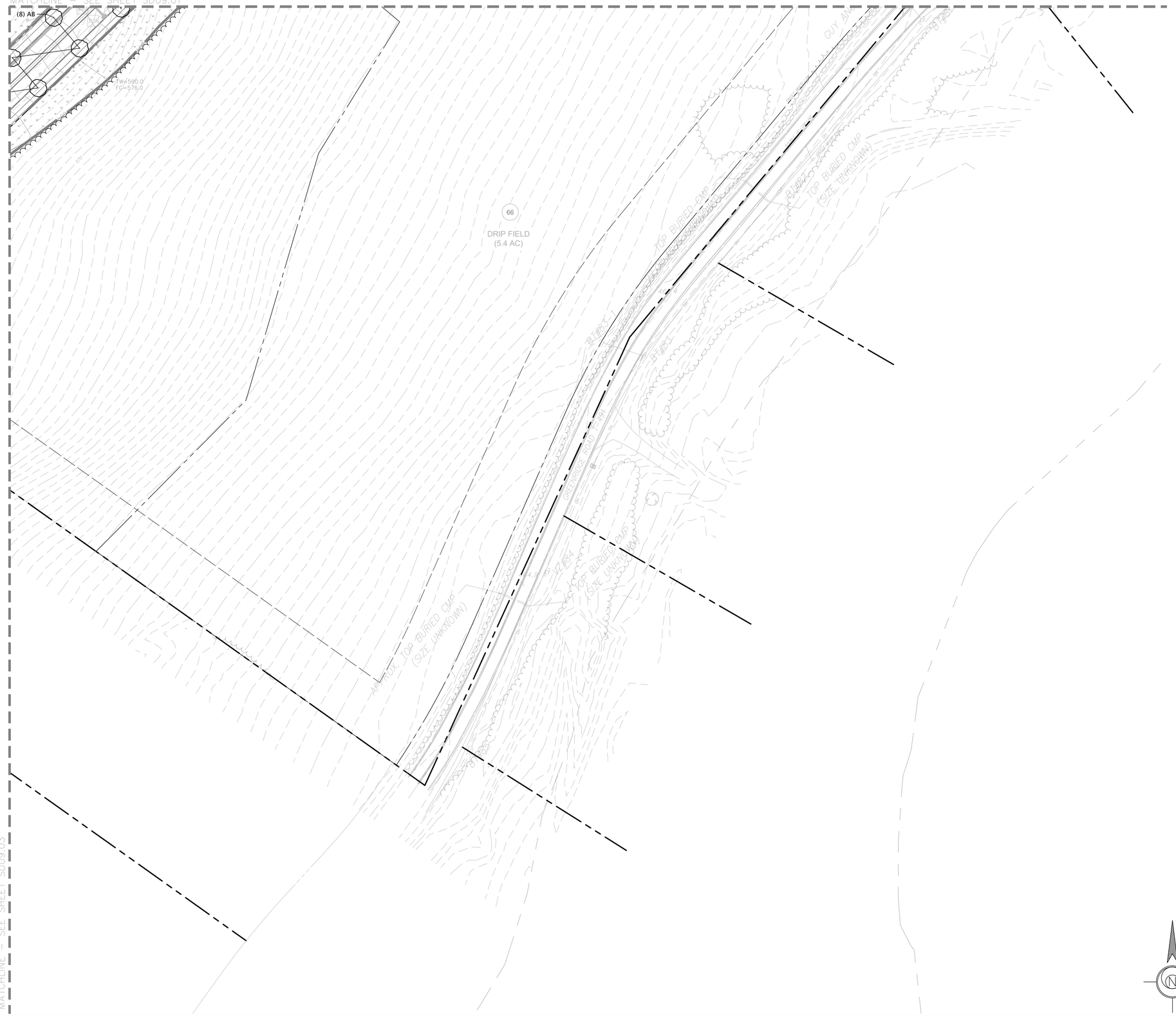
REV.	DATE	DESCRIPTION
		DRAWN

LANDSCAPE PLAN

100 GREENRIDGE ROAD DEVELOPMENT
UPPER UWCHLAN TOWNSHIP, CHESTER COUNTY, PENNSYLVANIA

DATE: 03/31/2023	SCALE: 1"=40'
DESIGN: JHB	DRAWN: STAFF
JOB NO.: 8145	FILE NAME: 8145-09-LAND
REF. NO.: SD09.01	
SHEET NO.: 38 OF 49	

N:\PROJECTS\PENNSYLVANIA\8145-GREENRIDGE ROAD\ENGDEPT\DRAWINGS\SHEET DRAWINGS\8145-09-LAND.DWG-Eric Stenger-4/5/2023 4:26 PM


MATCHLINE – SEE SHEET SD09.01
(8) AB
TW=590.0'
FG=576.0'
66
DRIP FIELD
(5.4 AC)
TOP BURIED CMP
(SIZE UNKNOWN)
APPROX. TOP BURIED CMP
(SIZE UNKNOWN)
GUY ANCHOR
BUSH
BUSH
BUSH

MATCHLINE — SEE SHEET SD09.04

MATCHLINE — SEE SHEET SD09.02

EMERGENCY ACCESS

ROAD B

ROAD A

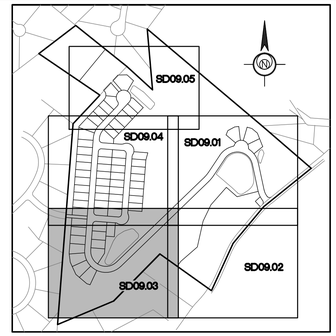
BASIN 2

NATURE TRAIL
(MOWN TURF PATH)

TYPICAL
STREET LIGHT

EXISTING VEGETATION
TO REMAIN

(8) VM
(7) HQ
(41) IG
(40) IG
(7) HQ
(6) VM
(8) PG
(7) PC
(9) JV
(10) PG
(10) AR
(11) PC
(8) JV
(7) PG
(7) PC
(3) QA
(16) QR
(2) UA
(13) UA
(14) UA
(8) AB
(4) AR
(15) QR



KEY MAP
SCALE: 1"=600'

PLANT SCHEDULE

TREES (NEW/EXISTING ROAD FRONTAGE)	
AB	BOWHALL RED MAPLE
AR	REDPOINTE® MAPLE
IN	NELLIE R. STEVENS HOLLY
PG2	WHITE SPRUCE
PC2	COLORADO SPRUCE
QA	WHITE OAK
QR	RED OAK
TI	GREEN GIANT ARBORVITAE
UA	VALLEY FORGE AMERICAN ELM
REQUIRED SCREENING TREES	
JV	EASTERN REDCEDAR
PG	WHITE SPRUCE
PC	COLORADO SPRUCE
SHRUBS (NEW/EXISTING ROAD FRONTAGE)	
CP	PINK SPIRES SUMMERSWEET
CH	IVORY HALO® TATARIAN DOGWOOD
FG	MT. AIRY DWARF WITCHALDER
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IM	MR. POPPINS® WINTERBERRY
IV	BERRY HEAVY® WINTERBERRY
VM	BLUE MUFFIN ARROWWOOD VIBURNUM
VB	BLACKHAW VIBURNUM

SEED MIX

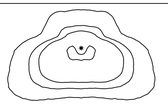
NATIVE UPLAND WILDLIFE FORGE & COVER MEADOW MIX
ERNST SEED MIX - ERNMX-123 (OR APPROVED EQUAL)

BASIN FLOOR SEED MIX - LOW MAINTENANCE
ERNST SEED MIX - ERNMX-126 (OR APPROVED EQUAL)

BASIN SIDE SLOPE
ERNST SEED MIX - ERNMX - 183
(OR APPROVED EQUAL)

GENERAL LAWN SEED MIX
60% KENTUCKY BLUEGRASS
10% PENNFINE PERENNIAL RYEGRASS
30% PENNLAWN FESCUE

TYP. STREET LIGHT



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3. SEE SHEETS SD09.06-09.07 FOR PLANT SCHEDULE, DETAILS, NOTES, SPECIFICATIONS, AND REQUIREMENT CALCULATIONS.
4. SEE SHEETS SD09.08-09.12 FOR ASH TREE REMOVAL PLANS, EXISTING TREE REMOVAL PLANS AND SCHEDULE

FEET
40 0 20 40 80
GRAPHIC SCALE 1 inch = 40 ft.

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REV.	DATE	DESCRIPTION
		DRAWN

LANDSCAPE PLAN

100 GREENRIDGE ROAD DEVELOPMENT
UPPER UWCHLAN TOWNSHIP, CHESTER COUNTY, PENNSYLVANIA

DATE: 03/31/2023	SCALE: 1"=40'
DESIGN: JHB	DRAWN: STAFF
JOB NO.: 8145	FILE NAME: 8145-09-LAND
REF. NO.: SD09.03	
SHEET NO.: 40 OF 49	

N:\PROJECTS\PENNSYLVANIA\8145-GREENRIDGE ROAD\ENGDEPT\DRAWINGS\SHEET DRAWINGS\8145-09-LAND.DWG-Eric Stenger-4/5/2023 4:26 PM

MATCHLINE – SEE SHEET SD09.05

MATCHLINE – SEE SHEET SD09.03

MATCHLINE – SEE SHEET SD09.01

ROAD A

ROAD B

TOT LOT

TYPICAL STREET LIGHT

PAVED TRAIL

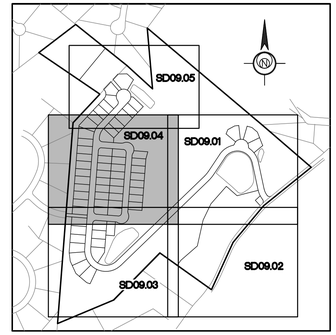
EXISTING VEGETATION TO REMAIN

NATURE TRAIL (MOWN TURF PATH)

EMERGENCY ACCESS

STOCKADE FENCE

(9) JV
(8) PG
(7) JV
(6) PC
(6) PG
(7) PC
(6) JV
(7) PG
(7) PC
(7) JV
(6) PC
(7) PG
(8) VM
(7) HQ
(41) IG
(40) IG
(7) HQ
(6) VM
(8) PG
(6) AR
(5) PC2
(6) IV
(1) IM
(6) CP
(6) VM
(3) PG2
(5) CH
(2) AR
(6) PG2
(5) IN
(7) IG
(9) HL
(5) FG
(5) HQ
(5) HL
(3) UA
(16) QA
(16) TI
(13) UA
(9) TI
(5) VM
(3) QA
(2) UA
(16) QR
(8) AB



KEY MAP
SCALE: 1"=600'

PLANT SCHEDULE

TREES (NEW/EXISTING ROAD FRONTAGE)

AB	BOWHALL RED MAPLE
AR	REDPOINTE® MAPLE
IN	NELLIE R. STEVENS HOLLY
PG2	WHITE SPRUCE
PC2	COLORADO SPRUCE
QA	WHITE OAK
QR	RED OAK
TI	GREEN GIANT ARBORVITAE
UA	VALLEY FORGE AMERICAN ELM

REQUIRED SCREENING TREES

JV	EASTERN REDCEDAR
PG	WHITE SPRUCE
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VB	BLACKHAW VIBURNUM

SEED MIX

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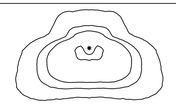
ERNST SEED MIX - ERNMX-123 (OR APPROVED EQUAL)

BASIN FLOOR SEED MIX - LOW MAINTENANCE
ERNST SEED MIX - ERNMX-126 (OR APPROVED EQUAL)

BASIN SIDE SLOPE
ERNST SEED MIX - ERNMX - 183
(OR APPROVED EQUAL)

GENERAL LAWN SEED MIX
60% KENTUCKY BLUEGRASS
10% PENNFINE PERENNIAL RYEGRASS
30% PENNLAWN FESCUE

TYP. STREET LIGHT



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FEET
40 0 20 40 80
GRAPHIC SCALE 1 inch = 40 ft.

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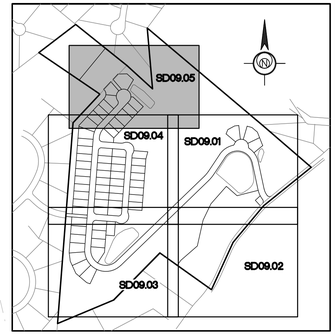
REV.| DATE | DESCRIPTION | DRAWN

LANDSCAPE PLAN

100 GREENRIDGE ROAD DEVELOPMENT
UPPER UWCHLAN TOWNSHIP, CHESTER COUNTY, PENNSYLVANIA

DATE: 03/31/2023	SCALE: 1"=40'
DESIGN: JHB	DRAWN: STAFF
JOB NO.: 8145	FILE NAME: 8145-09-LAND
REF. NO.:	SD09.04
SHEET NO.: 41	OF 49

N:\PROJECTS\PENNSYLVANIA\8145-GREENRIDGE ROAD\ENGDEPT\DRAWINGS\SHEET DRAWINGS\8145-09-LAND.DWG, Eric Stenger, 4/5/2023 4:26 PM



KEY MAP
SCALE: 1"=600'

PLANT SCHEDULE

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IV	BERRY HEAVY® WINTERBERRY
VM	BLUE MUFFIN ARROWWOOD VIBURNUM
VB	BLACKHAW VIBURNUM

SEED MIX

NATIVE UPLAND WILDLIFE FORGE & COVER MEADOW MIX
ERNST SEED MIX - ERNMX-123 (OR APPROVED EQUAL)

BASIN FLOOR SEED MIX - LOW MAINTENANCE
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BASIN SIDE SLOPE
ERNST SEED MIX - ERNMX - 183
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GENERAL LAWN SEED MIX
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10% PENNFINE PERENNIAL RYEGRASS
30% PENNLAWN FESCUE

TYP. STREET LIGHT

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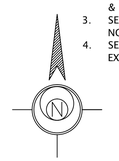

GRAPHIC SCALE 1 inch = 40 ft.
FEET 40 0 20 40 80

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REV.	DATE	DESCRIPTION
		DRAWN

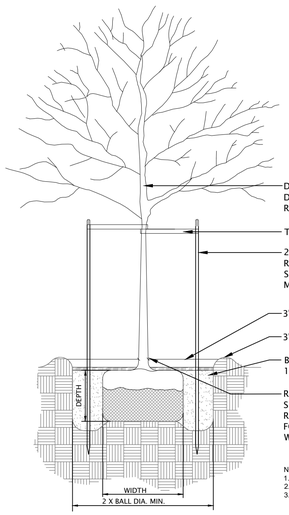
LANDSCAPE PLAN

100 GREENRIDGE ROAD DEVELOPMENT
UPPER UWCHLAN TOWNSHIP, CHESTER COUNTY, PENNSYLVANIA

DATE: 03/31/2023	SCALE: 1"=40'
DESIGN: JHB	DRAWN: STAFF
JOB NO.: 8145	FILE NAME: 8145-09-LAND
REF. NO.: SD09.05	
SHEET NO.: 42 OF 49	

N:\PROJECTS\PENNSYLVANIA\8145-GREENRIDGE ROAD\ENGDEPT\DRAWINGS\SHEET DRAWINGS\8145-09-LAND.DWG, Eric Stengel, 4/5/2023 4:27 PM

TYPE 1& 2 SHADE TREES	
CALIPER	MIN. DIA. ROOTBALL
1/2 INCH	12 INCH
3/4 INCH	14 INCH
1 INCH	16 INCH
1 1/4 INCH	18 INCH
1 1/2 INCH	20 INCH
1 3/4 INCH	22 INCH
2 INCH	24 INCH
2 1/2 INCH	28 INCH
3 INCH	32 INCH
3 1/2 INCH	38 INCH
4 INCH	42 INCH
4 1/2 INCH	48 INCH
5 INCH	54 INCH
5 1/2 INCH	57 INCH
6 INCH	60 INCH
7 INCH	70 INCH
8 INCH	80 INCH



DO NOT CUT CENTRAL LEADER. TREES WITH DAMAGED/CUT/BROKEN CENTRAL LEADERS WILL BE REJECTED. ALL DAMAGED BRANCHES TO BE REMOVED

TWO OPPOSING, NON-ABRASIVE FLEXIBLE TIES

2" X 2" X 8' TREE STAKE, PLACED OUTSIDE ROOTBALL, MINIMUM 18" INTO UNDISTURBED SUBGRADE PRIOR TO BACKFILLING
MINIMUM 2 STAKES PER TREE

3" MULCH WITH NO MULCH AGAINST TRUNK

3" EARTH SAUCER

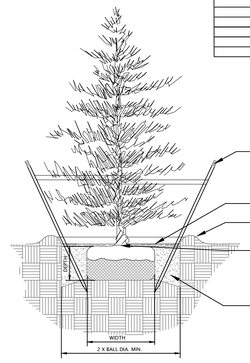
BACKFILL MIXTURE: 1 PART TOPSOIL, 1 PART PEAT MOSS, 1 PART COURSE SAND

REMOVE BURLAP FROM TOP 1/3 OF BALL. NO BURLAP SHALL BE SEEN ABOVE SOIL LINE. ROPE & TWINE TO BE REMOVED FROM PIT. CUT WIRE BASKET IN 4 PLACES, FOLD DOWN 8" INTO HOLE. TOP OF BALL TO BE LEVEL WITH GRADE. ROOT FLARE EXPOSED.

NOTE:
1. SEE CHART FOR MINIMUM ROOTBALL DIAMETER.
2. THE DEPTH OF ROOTBALL SHALL BE NO LESS THAN 60% ITS WIDTH.
3. STAKES & TIES TO BE REMOVED AFTER GUARANTEE PERIOD.

TREE PLANTING AND STAKING
NOT TO SCALE

TYPE 1, 2 &3 SPREADING, BROAD, COMPACT UPRIGHT		TYPE 4&5 PYRAMIDAL, BROAD UPRIGHT		TYPE 6 COLUMNAR	
SPREAD (TYPES 1&2) HEIGHT (TYPE 3)	MIN. DIA. BALL	HEIGHT/ CALIPER	MIN. DIA. BALL	HEIGHT/ CALIPER	MIN. DIA. BALL
9 IN.	8 IN.	12 IN.	8 IN.	12 IN.	7 IN.
12 IN.	10 IN.	15 IN.	10 IN.	15 IN.	8 IN.
15 IN.	12 IN.	18 IN.	12 IN.	18 IN.	9 IN.
18 IN.	14 IN.	24 IN.	14 IN.	24 IN.	11 IN.
24 IN.	16 IN.	30 IN.	16 IN.	30 IN.	13 IN.
30 IN.	18 IN.	3 FT.	18 IN.	3 FT.	14 IN.
36 IN.	24 IN.	4 FT.	20 IN.	4 FT.	16 IN.
42 IN.	26 IN.	5 FT.	22 IN.	5 FT.	18 IN.
4 FT.	28 IN.	6 FT.	24 IN.	6 FT.	20 IN.
5 FT.	36 IN.	7 FT.	26 IN.	7 FT.	22 IN.
5 FT.	40 IN.	8 FT.	28 IN.	8 FT.	24 IN.
7 FT.	46 IN.	9 FT. /3 IN.	32 IN.	9 FT. 2 1/2 IN.	26 IN.
8 FT.	52 IN.	3 1/2 IN.	34 IN.	3 IN.	28 IN.
		4 IN.	38 IN.	3 1/2 IN.	32 IN.
		4 1/2 IN.	42 IN.	4 IN.	36 IN.
		5 IN.	48 IN.	4 1/2 IN.	40 IN.
		5 1/2 IN.	54 IN.	5 IN.	44 IN.
		6 IN.	60 IN.	5 1/2 IN.	48 IN.
		7 IN.	72 IN.	6 IN.	54 IN.
		8 IN.	84 IN.	7 IN.	66 IN.
		9 IN.	90 IN.	8 IN.	78 IN.
				9 IN.	90 IN.



TWO OPPOSING, NON-ABRASIVE FLEXIBLE TIES
2" X 2" X 8' TREE STAKE, PLACED OUTSIDE ROOTBALL AT 60 DEGREE ANGLE, MINIMUM 18" INTO SUBGRADE, STAKE CANNOT TOUCH BALL, MINIMUM 2 STAKES PER TREE.

MULCH AS SPECIFIED. NO MULCH AGAINST TRUNK.

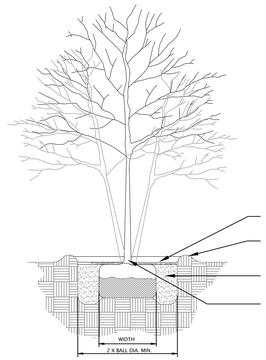
3" EARTH SAUCER

REMOVE BURLAP FROM TOP 1/3 OF BASE. NO BURLAP SHALL BE SEEN ABOVE SOILS LINE. ROPE & TWINE TO BE REMOVED FROM PIT. CUT WIRE BASKET IN 4 PLACES, FOLD DOWN 8" INTO HOLE. TOP OF BALL TO BE LEVEL WITH GRADE. ROOT FLARE EXPOSED.

BACKFILL MIXTURE: 1 PART TOPSOIL, 1 PART PEAT MOSS, 1 PART COURSE SAND

NOTE:
1. SEE CHART FOR MINIMUM ROOTBALL DIAMETER.
2. THE DEPTH OF ROOTBALL SHALL BE NO LESS THAN 60% ITS WIDTH

CONIFER PLANTING AND STAKING
NOT TO SCALE



3" MULCH WITH NO MULCH AGAINST TRUNK

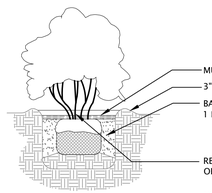
3" EARTH SAUCER

BACKFILL MIXTURE: 1 PART TOPSOIL, 1 PART PEAT MOSS, 1 PART COURSE SAND

REMOVE BURLAP FROM TOP 1/3 OF BASE. NO BURLAP SHALL BE SEEN ABOVE SOILS LINE. ROPE & TWINE TO BE REMOVED FROM PIT. CUT WIRE BASKET IN 4 PLACES, FOLD DOWN 8" INTO HOLE. TOP OF BALL TO BE LEVEL WITH GRADE. ROOT FLARE EXPOSED.

NOTE:
1. SEE CHART FOR MINIMUM ROOTBALL DIAMETER.
2. THE DEPTH OF ROOTBALL SHALL BE NO LESS THAN 60% ITS WIDTH.

MULTI-STEM TREE PLANTING
NOT TO SCALE



MULCH AS SPECIFIED

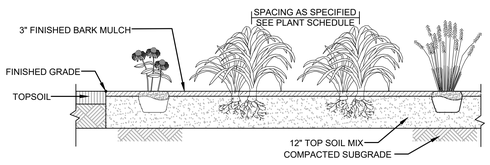
3" EARTH SAUCER

BACKFILL MIXTURE: 2 PARTS NATIVE SOIL, 1 PART TOP SOIL, 1 PART PEAT MOSS

REMOVE BURLAP FROM TOP 1/3 OF BASE, TOP OF BALL TO BE LEVEL WITH GRADE

NOTE:
SHRUB ROOTBALLS SHALL BE TYPICALLY 12" WIDE. THE DEPTH OF THE ROOTBALL SHALL BE NO LESS THAN 65% ITS WIDTH.

SHRUB PLANTING
NOT TO SCALE



ANNUAL /PERENNIAL/GRASSES/GROUNDCOVER BEDS
NOT TO SCALE

PLANT SCHEDULE

TREES (NEW/EXISTING ROAD FRONTAGE)

CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT	SIZE
AB	29	ACER RUBRUM `BOWHALL` MIN. 14'-16' HT.	BOWHALL RED MAPLE	B & B	3" - 3 1/2" CAL.
AR	41	ACER RUBRUM `FRANK JR.` MIN. 14'-16' HT.	REDPOINTE® MAPLE	B & B	3" - 3 1/2" CAL.
IN	17	ILEX X 'NELLIE R. STEVENS'	NELLIE R. STEVENS HOLLY	B & B	7`-8` HT.
PG2	32	PICEA GLAUCA	WHITE SPRUCE	B & B	7`-8` HT.
PC2	41	PICEA PUNGENS	COLORADO SPRUCE	B & B	7`-8` HT.
QA	42	QUERCUS ALBA MIN. 14'-16' HT.	WHITE OAK	B & B	3" - 3 1/2" CAL.
QR	39	QUERCUS RUBRA MIN. 14'-16' HT.	RED OAK	B & B	3" - 3 1/2" CAL.
TI	33	THUJA X 'GREEN GIANT'	GREEN GIANT ARBORVITAE	B & B	7`-8` HT.
UA	45	ULMUS AMERICANA 'VALLEY FORGE' MIN. 14'-16' HT.	VALLEY FORGE AMERICAN ELM	B & B	3" - 3 1/2" CAL.

REQUIRED SCREENING TREES

CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT	SIZE
JV	55	JUNIPERUS VIRGINIANA	EASTERN REDCEDAR	B & B	7`-8` HT.
PG	60	PICEA GLAUCA	WHITE SPRUCE	B & B	7`-8` HT.
PC	57	PICEA PUNGENS	COLORADO SPRUCE	B & B	7`-8` HT.

SHRUBS (NEW/EXISTING ROAD FRONTAGE)

CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT.	SIZE
CP	31	CLETHRA ALNIFOLIA 'PINK SPIRES'	PINK SPIRES SUMMERSWEET	CONT.	24"-30" HT.
CH	25	CORNUS ALBA 'BAILHALO'	IVORY HALO® TATARIAN DOGWOOD	CONT.	24"-30" HT.
FG	45	FOTHERGILLA GARDENII 'MT. AIRY'	MT. AIRY DWARF WITCHALDER	CONT.	24"-30" HT.
HL	60	HYDRANGEA PANICULATA 'LIMELIGHT'	LIMELIGHT PANICLE HYDRANGEA	CONT.	24"-30" HT.
HQ	57	HYDRANGEA QUERCIFOLIA	OAKLEAF HYDRANGEA	CONT.	24"-30" HT.
IG	166	ILEX GLABRA 'SHAMROCK'	SHAMROCK INKBERRY HOLLY	CONT.	24"-30" HT.
IM	26	ILEX VERTICILLATA 'FARROWMRP'	MR. POPPINS® WINTERBERRY	CONT.	24"-30" HT.
IV	35	ILEX VERTICILLATA 'SPRAVY'	BERRY HEAVY® WINTERBERRY	CONT.	24"-30" HT.
VM	41	VIBURNUM DENTATUM 'BLUE MUFFIN'	BLUE MUFFIN ARROWWOOD VIBURNUM	CONT.	24"-30" HT.

LANDSCAPE NOTES:

1. IN THE EVENT THAT ANY DISCREPANCIES BETWEEN THE QUANTITIES OF PLANTS INDICATED ON THE PLANT SCHEDULE AND THOSE INDICATED ON THE PLAN, THE QUANTITIES INDICATED ON THE PLAN SHALL GOVERN.
2. NO SUBSTITUTIONS SHALL BE ACCEPTED, EXCEPT WITH THE WRITTEN PERMISSION OF THE LANDSCAPE ARCHITECT OR HIS AGENT AND THE TOWNSHIP CONSULTANTS.
3. THE LANDSCAPE ARCHITECT OR HIS AGENT SHALL BE THE SOLE JUDGE OF THE QUALITY AND ACCEPTABILITY OF THE MATERIALS. ALL REJECTED MATERIALS SHALL BE IMMEDIATELY REPLACED WITH ACCEPTABLE MATERIAL AT NO ADDITIONAL COST.
4. ALL PLANT BEDS SHALL BE MULCHED WITH A MINIMUM OF 3" SHREDDED BARK MULCH OR OTHER MATERIAL APPROVED BY THE LANDSCAPE ARCHITECT.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PLANTING AT CORRECT GRADES AND ALIGNMENT.
6. PLANTS SHALL BE TYPICAL OF THEIR SPECIES AND VARIETY; HAVE NORMAL GROWTH HABITS; WELL DEVELOPED BRANCHES, DENSELY FOLIATED, VIGOROUS ROOT SYSTEMS AND BE FREE FROM DEFECTS AND INJURIES.
7. THE CONTRACTOR SHALL REPORT ANY SOIL OR DRAINAGE CONDITION CONSIDERED DETRIMENTAL TO THE GROWTH OF PLANT MATERIAL.
8. QUALITY AND SIZE OF PLANTS, SPREAD OF ROOTS AND SIZE OF BALLS SHALL BE IN ACCORDANCE WITH "AMERICAN STANDARDS FOR NURSERY STOCK" ANSI 260 (MOST RECENT EDITION) AS PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN, INC.
9. B & B PLANTS SHALL BE HANDLED FROM THE BOTTOM OF THE ROOT BALL ONLY. PLANTS WITH BROKEN, SPLIT OR DAMAGED ROOT BALLS SHALL BE REJECTED.
10. TREES SHALL BE LOCATED IN A MANNER WHICH WILL NOT OBSTRUCT ACCESS TO FIRE HYDRANT OR VISIBILITY OF STREET OR TRAFFIC SIGNS. NO TREES OR SHRUBS SHALL BE PLANTED IN A SIGHT TRIANGLE. NO TREES SHALL BE PLANTED IN ANY UTILITY OR MUNICIPAL EASEMENTS.
11. PLANTING OPERATIONS SHALL BE PERFORMED DURING PERIODS WITHIN THE PLANTING SEASON WHEN WEATHER AND SOIL CONDITION ARE SUITABLE.
SPRING PLANTING SEASON SHALL BE: MARCH 1ST TO JUNE 1ST.
FALL PLANTING SEASON SHALL BE: AUGUST 15TH TO DECEMBER 15TH FOR EVERGREEN PLANTS AND SEPTEMBER 15TH TO DECEMBER 15TH, FOR DECIDUOUS PLANTS.
12. SET ALL PLANTS PLUMB AND STRAIGHT. SET AT SUCH LEVEL THAT, AFTER SETTLEMENT, A NORMAL OR NATURAL RELATIONSHIP TO THE CROWN OF THE PLANT WITH THE GROUND SURFACE WILL BE ESTABLISHED. LOCATE PLANTS IN THE CENTER OF THE PLANTING PIT.
13. ALL PLANT MATERIALS SHALL BE GUARANTEED FOR ONE YEAR FROM THE DATE OF ACCEPTANCE. ANY PLANT MATERIAL THAT DIES WITHIN THAT PERIOD SHALL BE REPLACED WITH THE SAME SIZE AND SPECIES OF PLANT MATERIAL.
14. THE LOCATION OF ALL PLANT MATERIAL IS DIAGRAMMATIC AND SUBJECT TO FIELD CONDITIONS AND LOT SPECIFIC DESIGN CONSIDERATIONS. FINAL LOCATION OF ALL PLANT MATERIAL SHALL BE DETERMINED IN THE FIELD UNDER THE DIRECTION OF THE LANDSCAPE ARCHITECT OR HIS AGENT.
15. THE CONTRACTOR SHALL GIVE ALL NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY BEARING UPON THE PERFORMANCE OF THE WORK.
16. THE CONTRACTOR SHALL BE RESPONSIBLE TO CALL FOR UTILITY LOCATIONS, IF NECESSARY.

LANDSCAPE REQUIREMENTS

§162-57.D: NEW ROAD FRONTAGE LANDSCAPE CALCULATION			
PROPOSED LF OF NEW ROAD = 4,708 LF			
Improvement /Conditions	**DECIDUOUS TREES**	**EVERGREEN TREES**	**SHRUBS**
(c) 4,708 LF x 2 (both sides of road)/100 = 94.16	2 x 94.16	1 x 94.16	5 x 94.16
Required Plantings	189	95	471
§162-57.D: EXISTING ROAD FRONTAGE LANDSCAPE CALCULATION			
EXISTING LF OF GREENRIDGE ROAD = *343 LF			
Improvement /Conditions	**DECIDUOUS TREES**	**EVERGREEN TREES**	**SHRUBS**
(c) 343 LF /100 = 3.43	2 x 3.43	1 x 3.43	5 x 3.43
Required Plantings	7	4	18
Total Required Plantings	196	99	489
Total Proposed Plantings	196	123	514

* PER §162-57.D(2), BASED ON THE AMOUNT OF EXISTING VEGETATION SET TO REMAIN AND EXISTING TOPOGRAPHY OF THE SITE,. APPLICANT IS EXCLUDING THE BALANCE OF EXISTING FRONTAGE ALONG GREENRIDGE ROAD FROM THE REQUIRED PLANTING CALCULATIONS.

IN ADDITION, CALCULATION OF THE EXISTING TRACT BOUNDARY FOR REQUIRED BUFFER PLANTING CALCULATIONS HAS BEEN EXCLUDED. BASED ON THE AMOUNT OF EXISTING VEGETATION SET TO REMAIN AND THE EXISTING TOPOGRAPHY WITHIN 100' OF THE TRACT BOUNDARY, ADDITIONAL BUFFERING HAS NOT BEEN PROPOSED WITH THE EXCEPTION OF SCREEN PLANTINGS NOTED BELOW.

PER CONDITION #9 OF THE CONDITIONAL USE DECISION, A 50' BUFFER IS TO REMAIN UNDISTURBED AND IMPROVED WITH SCREEN PLANTINGS ALONG THE REAR PROPERTY LINES OF LOTS 23, 29-40, 58-64 WHERE ADJACENT TO EXISTING RESIDENTIAL DEVELOPMENT. PER THE SCREENING CALCULATION CHART SHOWN HEREIN, 172 EVERGREENS ARE PROPOSED WITHIN, AND ADJACENT TO, A PROPOSED LANDSCAPE EASEMENT ALONG THE BACKS OF THE PROPOSED LOTS NOTED ABOVE TO ACHIEVE THE SCREENING AND BUFFERING REQUIREMENTS NOTED IN THE ORDINANCE.

§162-55.B(6): REPLACEMENT PLANTING CALCULATION	
CALCULATED WOODLAND/ HEDGEROW AREA:	52.74 AC
PROPOSED WOODLAND/HEDGEROW DISTURBANCE:	19.06 AC or 36%
AREA SUBJECT TO REPLACEMENT CALCULATIONS:	*5.88 AC or 11%
REPLACEMENT PLANTINGS = 5.88 AC or 256,132 SF/ 300 SF	854
SPECIMEN TREES RETAINED ON SITE	346
REPLACEMENT TREE CREDIT (346 SPECIMEN TREES X 3)	1,038
TOTAL REQUIRED REPLACEMENT PLANTINGS	0

* PER §162-55.B(3)(c), WOODLAND DISTURBANCE IN EXCESS OF 25% OF ANY EXISTING AREA OF WOODLAND OR HEDGEROW ON ANY TRACT SUBJECT TO SUBDIVISION SHALL REQUIRE REPLACEMENT PLANTINGS.

§162-57.C(5): SCREENING CALCULATION	
1,656 LF (REAR PROPERTY LINE OF LOTS 23, 29-40, 58-64)	
Improvement /Conditions C(5)(a) 1,656 LF/ 10'	**EVERGREEN TREES**
Total Required Plantings	167
Total Proposed Plantings	172

PROPOSED SEED MIXES

BASIN SIDE SLOPE

ERNST SEED MIX 183 (OR APPROVED EQUAL)
20 LB PER ACRE OR 1/2 LB PER 1,000 SF)

Mix Composition
36.0% Panicum clandestinum, 'Tioga' (Deertongue)
20.0% Carex vulpinoidea, PA Ecotype(Fox Sedge, PA Ecotype)
20.0% Elymus virginicus, PA Ecotype (Virginia Wildrye, PA Ecotype)
20.0% Panicum virgatum, 'Shawnee' (Switchgrass)
2.0% Juncus tenuis, PA Ecotype (Path Rush, PA Ecotype)
1.0% Juncus effusus (Soft Rush)
1.0% Panicum rigidulum, PA Ecotype (Redtop Panicgrass)
Total: 100%

BASIN BOTTOM - LOW MAINTENANCE

ERNST SEED MIX 126 (OR APPROVED EQUAL)
20-40 LB PER ACRE OR 1LB PER 1,000 SF)

Mix Composition
25% Redtop Panicgrass, PA Ecotype (Panicum rigidulum (P. stipitatum), PA Ecotype)
16% Virginia Wildrye, PA Ecotype (Elymus virginicus, PA Ecotype)
16% Alkaligrass, 'Fults' (Puccinellia distans, 'Fults')
15% Fowl Bluegrass (Poa palustris)
10% Creeping Bentgrass (Agrostis stolonifera)
10% Ticklegrass (Rough Bentgrass), PA Ecotype (Agrostis scabra, PA Ecotype)
5% Soft Rush (Juncus effusus)
2% Autumn Bentgrass, PA Ecotype (Agrostis perennans, PA Ecotype)
1% Path Rush, PA Ecotype (Juncus tenuis, PA Ecotype)
Total: 100%
- See more at: http://www.ernstseed.com

NATIVE UPLAND WILDLIFE FORGE & COVER MEADOW MIX

ERNST SEED MIX - 123
(OR APPROVED EQUAL)
20 LB PER ACRE
Mix Composition
34% Big Bluesteem, "Southlow", MI Ecotype
27% Switchgrass 'Shawnee'
21% Virginia Wildrye, PA Ecotype
9% Indiangrass, PA Ecotype
3% Partridge Pea, PA Ecotype
3% Blackeyed Susan
1.5% Oxeye Sunflower, PA Ecotype
.5% Plains Coreopsis
.4% Showy Ticktrefoil, PA Ecotype
.1% Common Milkweed, PA Ecotype
.1% Wild Bergamot, Fort Indiantown GAP PA Ecotype

GENERAL LAWN SEED MIX

GENERAL LAWN SEED MIX
4 LBS. PER 1,000 SF
Mix Composition
60% Kentucky Bluegrass
10% Pennfine Perennial Rygrass
30% Pennlawn Fescue

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REV.	DATE	DESCRIPTION	DRAWN

LANDSCAPE DETAILS & NOTES

100 GREENRIDGE ROAD DEVELOPMENT
UPPER UWCHLAN TOWNSHIP, CHESTER COUNTY, PENNSYLVANIA

DATE: 03/31/2023	SCALE: AS NOTED
DESIGN: JHB	DRAWN: STAFF
JOB NO.: 8145	FILE NAME: 8145-09-LAND-DET
REF. NO.: SD09.06	
SHEET NO.: 43 OF 49	

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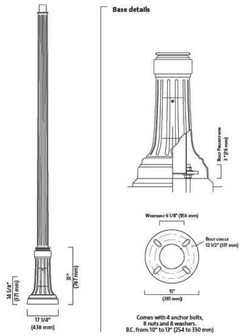
Luminaire ordering guide

Example: MPTR-55W32LED4K-G3-LE3-120-CDMGM2S-PH8-BKTX

Series	LED Module	CCT	Gen.	Optical System	Voltage	Driver	Luminaire option	Mounting	Pole	Finish
MPTR			G3							
MPTR[1] MetroScape LED post top luminaire	**35W32LED**[2] **55W32LED**[2] **72W32LED** **97W32LED**[2] **55W48LED** **80W48LED** **108W48LED** **140W48LED**[2] **70W64LED** **110W64LED** **90W80LED** **135W80LED**	**3K** 3000K **4K** 4000K	**G3** Gen3	**LE2** Type II (ASYM) flat lens **LE3** Type III (ASYM) flat lens **LE3W**[3] Type III (ASYM) wide flat lens **LE4** Type IV (ASYM) flat lens **LE5** Type V (SYMM) flat lens	**120** 120V **208** 208V **240** 240V **277** 277V **347** 347V **480** 480V	**CDMG**[2] Dynadimmer for standard dimming (consult complete Dynadimmer scenarios on pg 3) **CLO**[2] Pre-set driver to manage lumen depreciation **AST**[2] Pre-set driver for progressive start-up **OTL**[2] Pre-set driver to signal end of life of the lamp **DALI**[2] Pre-set driver compatible with the DALI control system **DMG** 0-10 volt **SRD**[1] Sensor ready driver (standard configuration) **SRD1**[1] Sensor ready driver (alternate configuration)	**HS** House Side Shield **OVR** Dynadimmer override function **PH8** Photoelectric cell **PH9** Shorting Cap **PHXL**[2] Photoelectric cell, extended life **RCD**[4] 5-Pin receptacle for dimming photoelectric cell **RCD7**[4] 7-Pin receptacle for photoelectric cell **TN3**[5] Fitter to fit over a 3" (76 mm) O.D. by 4" (102 mm) long tenon **TN3.5**[5] Fitter to fit over a 3½" (89 mm) O.D. by 4" (102 mm) long tenon	Consult the Signify web site for details and the complete line of Mountings	Consult the Signify web site for details and the complete line of Poles	**BE2TX** **BE6TX** **BE8TX** **BG2TX** **BKTX** **BRTX** **GN4TX** **GN6TX** **GN8TX** **GNTX** **GR** **GY3TX** **NP** **RD2TX** **RD4TX** **TG** **TS** **WHTX** (see pg 4 for codes)

1. DMG 0-10V driver come standard.
2. Not available with 347V and 480V.
3. Not available with HS option.
4. Use of photoelectric cell or shorting cap is required to ensure proper illumination.
5. Not available with Motion Response.

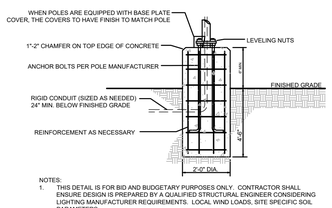
ALUMINUM FLUTED POLE > **RTA906 / RTA907**



CATALOG NUMBER	NOMINAL HEIGHT		TENON SECTION		WALL THICKNESS		WEIGHT		EPA RATING 90 MPH	110 MPH	120 MPH	150 MPH	ANCHOR BOLTS	
	ft	m	in	mm	in	mm	lbs	kg	sq.ft	sq.ft	sq.ft	sq.ft	in	mm
RTA906F-10	10	3.05	4	102	0.125	3.2	74	34	27.23	18.23	15.26	9.56	3/4 x 27	19-686
RTA906V-10	10	3.05	4	102	0.250	6.4	92	42	30	30	30	19.26	3/4 x 27	19-686
RTA906F-12	12	3.66	4	102	0.125	3.2	79	36	21.41	14.18	11.8	7.23	3/4 x 27	19-686
RTA906V-12	12	3.66	4	102	0.250	6.4	100	45	30	30	25.24	15.69	3/4 x 27	19-686
RTA906F-14	14	4.27	4	102	0.125	3.2	83	38	17.21	11.24	9.27	5.51	3/4 x 27	19-686
RTA906V-14	14	4.27	4	102	0.250	6.4	108	49	30	24.56	20.55	12.84	3/4 x 27	19-686
RTA906F-16	16	4.88	4	102	0.125	3.2	86	39	14.11	9.01	7.37	4.2	3/4 x 27	19-686
RTA906V-16	16	4.88	4	102	0.250	6.4	114	52	30	20.49	17.09	10.53	3/4 x 27	19-686
RTA907B-18	18	5.49	4	102	0.156	4.0	117	53	21.25	13.78	11.33	6.64	3/4 x 27	19-686
RTA907N-18	18	5.49	4	102	0.188	4.8	124	56	27.17	17.83	14.75	8.66	3/4 x 27	19-686
RTA907B-20	20	6.1	4	102	0.156	4.0	124	56	17.66	11.24	9.13	5.14	3/4 x 27	19-686
RTA907N-20	20	6.1	4	102	0.188	4.8	131	59	22.78	14.75	12.11	6.99	3/4 x 27	19-686

STREET LIGHT DETAIL (QTY: 9)
NOT TO SCALE

LIGHT POLE DETAIL (QTY: 9)
NOT TO SCALE



NOTES:
1. THIS DETAIL IS FOR BID AND BUDGETARY PURPOSES ONLY. CONTRACTOR SHALL ENSURE DESIGN IS PREPARED BY A QUALIFIED STRUCTURAL ENGINEER CONSIDERING LIGHTING MANUFACTURER REQUIREMENTS. LOCAL WIND LOADS, SITE SPECIFIC SOIL PARAMETERS.

LIGHT POLE FOUNDATION
NOT TO SCALE

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ESE Consultants, Inc.
1140 Virginia Drive • Fort Washington, PA 19034
T: 215-914-2050

REV.	DATE	DESCRIPTION	DRAWN

LANDSCAPE DETAILS & NOTES

100 GREENRIDGE ROAD DEVELOPMENT
UPPER UWCHLAN TOWNSHIP, CHESTER COUNTY, PENNSYLVANIA

DATE: 03/31/2023	SCALE: AS NOTED
DESIGN: JHB	DRAWN: STAFF
JOB NO.: 8145	FILE NAME: 8145-09-LND-DET
REF. NO.: **SD09.07**	
SHEET NO.: **44** OF **49**	

N:\PROJECTS\PENNSYLVANIA\8145-GREENRIDGE ROAD\ENGDEPT\DRAWINGS\SHEET DRAWINGS\8145-09-LAND-DET DWG-Eric Stengel-4/5/2023, 4:27 PM

TREE REMOVAL NOTES:

1. PER CONDITION 11 OF THE CONDITIONAL USE DECISION, APPLICANT SHALL REMOVE ALL DEAD OR DYING ASH TREES ON PROPERTY.
2. 135 TOTAL ASH TREES RATED EITHER POOR, VERY POOR, DYING OR DEAD ARE MARKED FOR REMOVAL.
3. REFER TO SD09.12 FOR EXISTING TREE SCHEDULE.
4. CONTRACTOR TO VERIFY ANY TREE MARKED FOR REMOVAL IS WITHIN PROJECT BOUNDARY.

TREE REMOVAL LEGEND:

X - INDICATES TREE TO BE REMOVED

FEET
100 0 50 100 200
GRAPHIC SCALE 1 inch = 100 ft.

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ESE Consultants, Inc.
1140 Virginia Drive • Fort Washington, PA 19034
T: 215-914-2050

REV.	DATE	DESCRIPTION	DRAWN

ASH TREE REMOVAL PLAN

100 GREENRIDGE ROAD DEVELOPMENT
UPPER UWCHLAN TOWNSHIP, CHESTER COUNTY, PENNSYLVANIA

DATE: 03/31/2023	SCALE: AS NOTED
DESIGN: JHB	DRAWN: STAFF
JOB NO.: 8145	FILE NAME: 8145-09-LAND-DET
REF. NO.:	SD09.08
SHEET NO.:	45 OF 49

N:\PROJECTS\PENNSYLVANIA\8145-GREENRIDGE ROAD\ENGDEPT\DRAWINGS\SHEET DRAWINGS\8145-09-LAND-DET.DWG-Eric Stengel-4/5/2023 4:27 PM

TREE REMOVAL NOTES:

1. PER CONDITION 11 OF THE CONDITIONAL USE DECISION, APPLICANT SHALL REMOVE ALL DEAD OR DYING ASH TREES ON PROPERTY.
2. 135 TOTAL ASH TREES RATED EITHER POOR, VERY POOR, DYING OR DEAD ARE MARKED FOR REMOVAL.
3. REFER TO SD09.12 FOR EXISTING TREE SCHEDULE.
4. CONTRACTOR TO VERIFY ANY TREE MARKED FOR REMOVAL IS WITHIN PROJECT BOUNDARY.

TREE REMOVAL LEGEND:

X - INDICATES TREE TO BE REMOVED

MATCHLINE – SEE SHEET SD09.08

CONTRACTOR TO VERIFY TREE 1527 IS WITHIN PROJECT BOUNDARY PRIOR TO REMOVAL
ASH TREES TO BE REMOVED (TYP.)
CONTRACTOR TO VERIFY TREE 1430-1431 IS WITHIN PROJECT BOUNDARY PRIOR TO REMOVAL
ASH TREES TO BE REMOVED (TYP.)
STRAWBRIDGE
LAUREN LANE
ASH DRIVE
ASH DRIVE EAST
BASIN 2
BASIN 3B
GREENRIDGE ROAD – SR
GREENRIDGE ROAD – SR
32-1-9.70 N/L MEREDITH DB 1987 PG 1197
32-1-9.13 N/L RUSSELL E. & JAN C. TURNER DB 694 PG 320
32-1-9.14 N/L ELIZABETH J. WOODWARD DB 1965 PG 1201
32-1-9.15 N/L DAVID & LEE ANN SMITH DB 878 PG 1
32-1-9.12 N/L JOHN SR & SON DB 1970 PG 1
32-1-14.1 N/L JOHN & LINDA SHELDEN DB 5270 PG 813
32-1-10.2 N/L PETER A. & NANCY C. DORE DB 5164 PG 2332
32-1-14.2 N/L PATRICIA ANN HIGA ETAL DB 1984 PG 1972
32-1-14.4 N/L GERALD L. & ESTATE OF 3 ETAL DB 4265 PG 1685
32-1-14.5 N/L MICHAEL W. & SUSAN CONRAD DB 4214 PG 1190
32-1-14.6 N/L JAMES & JENNIFER WEST DB 4179 PG 148
32-1-14.7 N/L JAMES & JENNIFER WEST DB 4179 PG 148
32-1-14.8 N/L JAMES & JENNIFER WEST DB 4179 PG 148
32-1-14.9 N/L JAMES & JENNIFER WEST DB 4179 PG 148
32-1-14.10 N/L JAMES & JENNIFER WEST DB 4179 PG 148
32-1-14.11 N/L JAMES & JENNIFER WEST DB 4179 PG 148
32-1-14.12 N/L JAMES & JENNIFER WEST DB 4179 PG 148
32-1-14.13 N/L JAMES & JENNIFER WEST DB 4179 PG 148

TREE REMOVAL NOTES:

1. REFER TO SD09.06 FOR TREE REPLACEMENT CALCULATIONS
2. REFER TO SD09.08-SD09 FOR ASH TREE REMOVAL PLAN
3. REFER TO SD09.12 FOR EXISTING TREE SCHEDULE

TREE REMOVAL LEGEND:

X - INDICATES TREE TO BE REMOVED

- INDICATES SPECIMEN TREE

FEET
100 0 50 100 200
GRAPHIC SCALE 1 inch = 100 ft.

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REV. | DATE | DESCRIPTION | DRAWN

TREE REMOVAL PLAN

100 GREENRIDGE ROAD DEVELOPMENT
UPPER UWCHLAN TOWNSHIP, CHESTER COUNTY, PENNSYLVANIA

DATE: 03/31/2023	SCALE: AS NOTED
DESIGN: JHB	DRAWN: STAFF
JOB NO.: 8145	FILE NAME: 8145-09-LAND-DET
REF. NO.: SD09.10	
SHEET NO.: 47 OF 49	

N:\PROJECTS\PENNSYLVANIA\8145-GREENRIDGE ROAD\ENGDEPT\DRAWINGS\SHEET DRAWINGS\8145-09-LAND-DET.DWG-Eric Stengel-4/5/2023 4:27 PM

TREE REMOVAL NOTES:

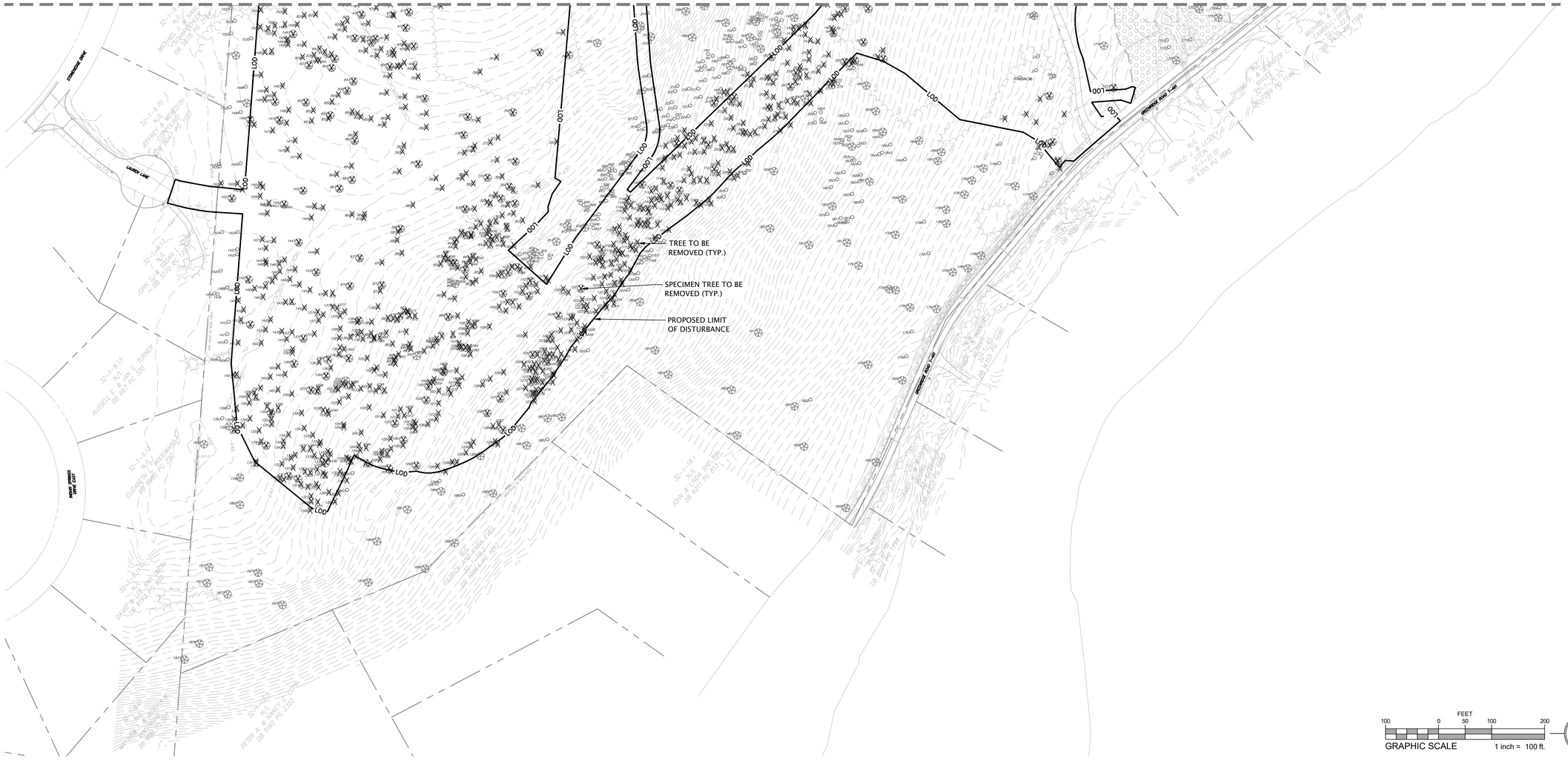
1. REFER TO SD09.06 FOR TREE REPLACEMENT CALCULATIONS
2. REFER TO SD09.08-SD09 FOR ASH TREE REMOVAL PLAN
3. REFER TO SD09.12 FOR EXISTING TREE SCHEDULE

TREE REMOVAL LEGEND:

X - INDICATES TREE TO BE REMOVED

- INDICATES SPECIMEN TREE

MATCHLINE – SEE SHEET SD09.10


LOD
STRUDGE DRIVE
LAUREN LANE
GREENRIDGE ROAD (T-429)
TREE TO BE REMOVED (TYP.)
SPECIMEN TREE TO BE REMOVED (TYP.)
PROPOSED LIMIT OF DISTURBANCE
ADAM JENNINGS DRIVE EAST
32-1-9.70 JEFFREY A. & MEREDITH MICHAEL
32-1-9.72 JOHN S. & KAREN L. KNOX
32-1-9.13 RUSSELL E. & IAN C. TURNER
32-1-9.14 ELIZABETH N. WOODWARD
32-1-9.15 DAVID R. & LEE ANN SMITH
32-1-9.16 MARK & KRISTEN KOSTELNIK
32-1-9.17 PETER A. & NANCY C. DIPIETRO
32-1-48.1 JOHN & ROSA SHI-HSIEN
32-1-48.2 PATRICK AND LISA REES
32-1-48.3 GERALD L. & KERI A. SCHLEIFER
32-1-48.4 JAMES A. & ANNE M. MCGRATH
32-1-48.5 JAMES A. & ANNE M. MCGRATH
32-1-48.6 MICHAEL V. & SUSAN CAMPISI
32-1-48.7 SHARON A. SKLAMBER
32-1-48.8 SHARON A. SKLAMBER
32-1-48.9 SHARON A. SKLAMBER
32-1-48.10 SHARON A. SKLAMBER
32-1-48.11 SHARON A. SKLAMBER
32-1-48.12 SHARON A. SKLAMBER
32-1-48.13 SHARON A. SKLAMBER
32-1-48.14 SHARON A. SKLAMBER
32-1-48.15 SHARON A. SKLAMBER
32-1-48.16 SHARON A. SKLAMBER
32-1-48.17 SHARON A. SKLAMBER
32-1-48.18 SHARON A. SKLAMBER
32-1-48.19 SHARON A. SKLAMBER

TAG	SPECIES	DBH	NOTES	REMOVAL
1	PIN OAK	21		X
2	SLIPPERY ELM	16		X
3	ASH	28	SPECIMEN	X
4	SASSAFRAS	15		X
5	CHESTNUT OAK	20		O
6	CHESTNUT OAK	15		O
7	CHESTNUT OAK	10		O
8	WHITE PINE	17		X
9	WHITE PINE	21		X
10	WHITE PINE	22		X
11	WHITE PINE	15		X
12	WHITE PINE	27	SPECIMEN	X
13	WHITE PINE	18		X
14	BLACK WALNUT	19		X
15	WHITE PINE	21		X
16	ASH	18		O
17	ASH	17		X
18	WHITE PINE	27	SPECIMEN	X
19	RED MAPLE	21		O
20	BLACK LOCUST	15		X
21	WHITE PINE	18		X
22	RED MAPLE	20		O
23	RED MAPLE	19		O
24	PIN OAK	24	SPECIMEN	X
25	DOUGLAS FIR	28	SPECIMEN	X
26	RED OAK	9		X
27	MULBERRY	13		X
28	RED MAPLE	10		O
29	TULIP POPLAR	29	SPECIMEN	X
30	TULIP POPLAR	28	SPECIMEN	X
31	RED MAPLE	15		X
32	ASH	17		O
33	RED OAK	7		X
34	BLACK LOCUST	30		X
35	ASH	13		O
36	BIRCH	8		X
37	TULIP POPLAR	33	SPECIMEN	X
38	RED MAPLE	18		X
39	TULIP POPLAR	29	SPECIMEN	X
40	REDBUD	9		X
41	BLACK CHERRY	11		X
42	TULIP POPLAR	29	SPECIMEN	X
43	REDBUD	6		X
44	REDBUD	8		X
45	TULIP POPLAR	22		X
46	SASSAFRAS	11		X
47	SASSAFRAS	11		X
48	RED MAPLE	13	SPECIMEN	X
49	RED MAPLE	13		X
50	TULIP POPLAR	13		X
51	TULIP POPLAR	30	SPECIMEN	X
52	TULIP POPLAR	10		X
53	TREE OF HEAVEN	6		O
54	SLIPPERY ELM	13		X
55	ASH	29	SPECIMEN	X
56	TULIP POPLAR	22		X
57	TULIP POPLAR	13	SPECIMEN	X
58	ASH	16		X
59	SHRUB HICKORY	16		X
60	TULIP POPLAR	30	SPECIMEN	X
61	TULIP POPLAR	23		X
62	TULIP	28	SPECIMEN	X
63	TULIP POPLAR	29	SPECIMEN	X
64	TULIP POPLAR	31	SPECIMEN	X
65	TULIP POPLAR	31	SPECIMEN	X
66	WHITE PINE	18		X
67	TULIP POPLAR	30	SPECIMEN	X
68	TULIP POPLAR	28	SPECIMEN	X
69	TULIP POPLAR	30	SPECIMEN	X
70	TULIP POPLAR	29	SPECIMEN	X
71	TULIP POPLAR	30	SPECIMEN	X
72	TULIP POPLAR	25	SPECIMEN	X
73	TULIP POPLAR	33	SPECIMEN	X
74	TULIP POPLAR	24	SPECIMEN	X
75	TULIP POPLAR	23		X
76	BEECH	15		X
77	BEECH	15		O
78	BEECH	17		X
79	TULIP POPLAR	22		X
80	TULIP POPLAR	29	SPECIMEN	X
81	TULIP POPLAR	25	SPECIMEN	X
82	TULIP POPLAR	15		X
83	SHRUB HICKORY	16		X
84	HICKORY	8		X
85	SLIPPERY ELM	12		X
86	TULIP POPLAR	18		X
87	TULIP POPLAR	25	SPECIMEN	X
88	TULIP POPLAR	18		X
89	BEECH	9		X
90	HICKORY	9		X
91	HICKORY	15		X
92	ASH	25	SPECIMEN	X
93	HICKORY	9		O
94	TULIP POPLAR	21		X
95	RED MAPLE	12		O
96	TULIP POPLAR	22		O
97	RED MAPLE	6		O
98	HICKORY	19		O
99	HICKORY	21		O
100	HICKORY	22		O
101	RED OAK	14		X
102	TULIP POPLAR	17		O
103	TULIP POPLAR	22		O
104	RED OAK	25	SPECIMEN	O
105	RED OAK	22	SPECIMEN	X
106	TULIP POPLAR	29	SPECIMEN	X
107	RED OAK	13		O
108	ASH	13		O
109	RED OAK	16		O
110	RED OAK	8		O
111	RED OAK	19		X
112	TULIP POPLAR	27	SPECIMEN	O
113	RED OAK	10		O
114	TULIP POPLAR	26	SPECIMEN	O
115	RED OAK	7		O
116	RED OAK	24	SPECIMEN	X
117	TULIP POPLAR	28	SPECIMEN	X
118	TULIP POPLAR	23	SPECIMEN	X
119	SASSAFRAS	6		X
120	HICKORY	11		X
121	HICKORY	21		X
122	WHITE OAK	18		X
123	TULIP POPLAR	27	SPECIMEN	O
124	TULIP POPLAR	18		O
125	TULIP POPLAR	23		X
126	WHITE OAK	10		O
127	WHITE OAK	19		O
128	CHESTNUT OAK	10		O
129	RED OAK	19		O
130	BEECH	7		O
131	WHITE OAK	19		O
132	BEECH	17		O
133	RED MAPLE	9		X
134	HICKORY	19		X
135	TULIP POPLAR	27	SPECIMEN	X
136	RED OAK	19		X
137	TREE OF HEAVEN	10		X
138	HICKORY	12		X
139	TULIP POPLAR	23		X
140	HICKORY	6		X
141	TULIP POPLAR	25	SPECIMEN	X
142	TULIP POPLAR	22		X
143	RED OAK	6		X
144	RED OAK	16		X
145	BEECH	7		X
146	RED OAK	18		X
147	HICKORY	7		X
148	TULIP POPLAR	17		X
149	RED OAK	29	SPECIMEN	O
150	TULIP POPLAR	14		O

TAG	SPECIES	DBH	NOTES	REMOVAL
151	HICKORY	16		X
152	TULIP POPLAR	17		X
153	BEECH	21		X
154	TULIP POPLAR	26	SPECIMEN	X
155	BEECH	22		X
156	BEECH	21		X
157	RED OAK	23		X
158	WHITE OAK	19		X
159	CHESTNUT OAK	23		X
160	WHITE OAK	16		X
161	CHESTNUT OAK	26	SPECIMEN	O
162	CHESTNUT OAK	17		O
163	RED OAK	7		O
164	LARCH	18		X
165	RED OAK	16		O
166	CHESTNUT OAK	15		X
167	CHESTNUT OAK	12		O
168	RED OAK	19		O
169	WHITE OAK	16		O
170	RED OAK	25	SPECIMEN	X
171	RED OAK	25	SPECIMEN	X
172	RED OAK	17		O
173	TULIP POPLAR	26	SPECIMEN	O
174	RED OAK	20		O
175	RED OAK	11		X
176	WHITE OAK	20		X
177	CHESTNUT OAK	21		X
178	CHESTNUT OAK	20		O
179	WHITE OAK	13		X
180	TULIP POPLAR	25	SPECIMEN	X
181	ASH (DEAD)	15		XX
182	RED OAK	17		O
183	RED OAK	20		X
184	HICKORY	11		O
185	TULIP POPLAR	25	SPECIMEN	X
186	TULIP POPLAR	24	SPECIMEN	X
187	TULIP POPLAR	22		X
188	TULIP POPLAR	25	SPECIMEN	X
189	HICKORY	9		O
190	HICKORY	20		X
191	TULIP POPLAR	24		X
192	TULIP POPLAR	13		O
193	HICKORY	21		X
194	HBM	20		O
195	HICKORY	17		X
196	BEECH	25	SPECIMEN	X
197	HICKORY	16		O
198	TULIP POPLAR	28	SPECIMEN	O
199	WHITE OAK	16		O
200	HICKORY	8		X
201	BEECH	14		X
202	TULIP POPLAR	24	SPECIMEN	X
203	BEECH	6		X
204	RED OAK	20		X
205	HICKORY	7		X
206	RED OAK	8		X
207	RED OAK	14		X
208	RED OAK	13		X
209	RED OAK	18		X
210	RED OAK	27		X
211	TULIP POPLAR	26	SPECIMEN	X
212	RED OAK	16		X
213	CHESTNUT OAK	15		X
214	TULIP POPLAR	32	SPECIMEN	X
215	TULIP POPLAR	8		O
216	CHESTNUT OAK	10		O
217	RED OAK	16		O
218	TULIP POPLAR	17		O
219	BEECH	11		O
220	CHESTNUT OAK	8		O
221	TULIP POPLAR	14		O
222	RED OAK	15		O
223	RED OAK	8		O
224	RED OAK	19		O
225	RED OAK	8		X
226	TULIP POPLAR	15		X
227	TULIP POPLAR	25	SPECIMEN	X
228	RED OAK	19		X
229	RED OAK	22		X
230	RED OAK	15		X
231	TULIP POPLAR	11		X
232	BEECH	7		X
233	RED OAK	14		O
234	TULIP POPLAR	14		X
235	RED OAK	21		X
236	TULIP POPLAR	26	SPECIMEN	X
237	RED OAK	15		X
238	TULIP POPLAR	16		O
239	HICKORY	9		O
240	BLACK CHERRY	9		O
241	HICKORY	11		O
242	CHESTNUT OAK	16		O
243	RED OAK	8		O
244	HBM	8		O
245	HICKORY	13		O
246	TULIP POPLAR	20		O
247	CHESTNUT OAK	12		O
248	TULIP POPLAR	9		X
249	RED MAPLE	6		O
250	HICKORY	20		X
251	TULIP POPLAR	15		X
252	ASH (DEAD)	12		XX
253	TULIP POPLAR	23		X
254	HICKORY	8		X
255	BEECH	8		X
256	ASH	12		X
257	HICKORY	8		X
258	RED OAK	24	SPECIMEN	X
259	HICKORY	15		X
260	HICKORY	15		X
261	RED OAK	19		X
262	HICKORY	8		X
263	HICKORY	9		X
264	TULIP POPLAR	14		X
265	HICKORY	7		O
266	TULIP POPLAR	10		X
267	HICKORY	14		X
268	HICKORY	6		X
269	HICKORY	8		X
270	HICKORY	10		O
271	TULIP POPLAR	19		X
272	RED MAPLE	13		X
273	TULIP POPLAR	27	SPECIMEN	X
274	TULIP POPLAR	6		X
275	TULIP POPLAR	22		X
276	HICKORY	20		X
277	ASH	8		X
278	TULIP POPLAR	22		X
279	RED OAK	13		X
280	RED OAK	17		X
281	WHITE OAK	19		X
282	WHITE OAK	14		X
283	TULIP POPLAR	21		X
284	RED OAK	7		X
285	ASH	18		X
286	RED OAK	12		X
287	TULIP POPLAR	10		X
288	TULIP POPLAR	12		X
289	RED OAK	9		X
290	RED OAK	21		X
291	HICKORY	19		X
292	WHITE OAK	10		X
293	RED OAK	6		X
294	RED OAK	16		X
295	WHITE OAK	20		X
296	WHITE OAK	16		X
297	HICKORY	7		X
298	HICKORY	7		X
299	TULIP POPLAR	22		X
300	TULIP POPLAR	12		X

TAG	SPECIES	DBH	NOTES	REMOVAL
301	TULIP POPLAR	9		O
302	TULIP POPLAR	19		O
303	TULIP POPLAR	8		X
304	TULIP POPLAR	16		O
305	WHITE OAK	10		O
306	WHITE OAK	14		O
307	TULIP POPLAR	7		O
308	CHERRY	12		O
309	RED OAK	23		O
310	CHESTNUT OAK	21		O
311	CHESTNUT OAK	26	SPECIMEN	O
312	RED OAK	23		O
313	RED OAK	28	SPECIMEN	O
314	WHITE OAK	17		O
315	RED OAK	16		O
316	CHESTNUT OAK	10		O
317	WHITE OAK	11		O
318	RED OAK	19		O
319	WHITE OAK	10		O
320	TULIP POPLAR	25	SPECIMEN	X
321	TULIP POPLAR	25	SPECIMEN	O
322	SHRUB HICKORY	12		O
323	TULIP POPLAR	10		O
324	TULIP POPLAR	15		O
325	TULIP POPLAR	20		O
326	TULIP POPLAR	26	SPECIMEN	O
327	TULIP POPLAR	15		O
328	TULIP POPLAR	22		O
329	TULIP POPLAR	26	SPECIMEN	X
330	TULIP POPLAR	22		O
331	TULIP POPLAR	18		O
332	WHITE OAK	20		O
333	RED OAK	37	SPECIMEN	X
334	CHESTNUT OAK	24	SPECIMEN	X
335	WHITE OAK	22		X
336	RED OAK	18		O
337	TULIP POPLAR	22		X
338	TULIP POPLAR	25	SPECIMEN	X
339	TULIP POPLAR	22		X
340	TULIP POPLAR	22		X
341	TULIP POPLAR	22		X
342	TULIP POPLAR	22		X
343	TULIP POPLAR	22		X
344	TULIP POPLAR	22		X
345	TULIP POPLAR	22		X
346	TULIP POPLAR	22		X
347	TULIP POPLAR	22		X
348	TULIP POPLAR	22		X
349	TULIP POPLAR	22		X
350	TULIP POPLAR	22		X
351	TULIP POPLAR	22		X
352	TULIP POPLAR	22		X
353	TULIP POPLAR	22		X
354	TULIP POPLAR	22		X
355	TULIP POPLAR	22		X
356	TULIP POPLAR	22		X
357	TULIP POPLAR	22		X
358	TULIP POPLAR	22		X
359	TULIP POPLAR	22		X
360	TULIP POPLAR	22		X
361	TULIP POPLAR	22		X
362	TULIP POPLAR	22		X
363	TULIP POPLAR	22		X
364	TULIP POPLAR	22		X
365	TULIP POPLAR	22		X
366	TULIP POPLAR	22		X
367	TULIP POPLAR	22		X
368	TULIP POPLAR	22		X
369	TULIP POPLAR	22		X
370	TULIP POPLAR	22		X
371	TULIP POPLAR	22		X
372	TULIP POPLAR	22		X
373	TULIP POPLAR	22		X
374	TULIP POPLAR	22		X
375	TULIP POPLAR	22		X
376	TULIP POPLAR	22		X
377	TULIP POPLAR	22		X
378	TULIP POPLAR	22		X
379	TULIP POPLAR	22		X
380	TULIP POPLAR	22		X
381	TULIP POPLAR	22		X
382	TULIP POPLAR	22		X
383	TULIP POPLAR	22		X
384	TULIP POPLAR	22		X
385	TULIP POPLAR	22		X
386	TULIP POPLAR	22		X
387	TULIP POPLAR	22		X
388	TULIP POPLAR	22		X
389	TULIP POPLAR	22		X
390	TULIP POPLAR	22		X
391	TULIP POPLAR	22		X
392	TULIP POPLAR	22		X
393	TULIP POPLAR	22		X
394	TULIP POPLAR	22		X
395	TULIP POPLAR	22		X
396	TULIP POPLAR	22		X
397	TULIP POPLAR	22		X
398	TULIP POPLAR	22		X
399	TULIP POPLAR	22		X
400	TULIP POPLAR	22		X
401	TULIP POPLAR	22		X
402	TULIP POPLAR	22		X
403	TULIP POPLAR	22		X
404	TULIP POPLAR	22		X
405	TULIP POPLAR	22		X
406	TULIP POPLAR	22		X
407	TULIP POPLAR	22		X
408	TULIP POPLAR	22		X
409	TULIP POPLAR	22		X
410	TULIP POPLAR	22		X
411	TULIP POPLAR	22		X
412	TULIP POPLAR	22		X
413	TULIP POPLAR	22		X
414	TULIP POPLAR	22		X
415	TULIP POPLAR	22		X
416	TULIP POPLAR	22		X
417	TULIP POPLAR	22		X
418	TULIP POPLAR	22		X
419	TULIP POPLAR	22		X
420	TULIP POPLAR	22		X
421	TULIP POPLAR	22		X
422	TULIP POPLAR	22		X
423	TULIP POPLAR	22		X
424	TULIP POPLAR	22		X
425	TULIP POPLAR	22		X
426	TULIP POPLAR	22		X
427	TULIP POPLAR	22		X
428	TULIP POPLAR	22		X
429	TULIP POPLAR	22		X
430	TULIP POPLAR	22		X
431	TULIP POPLAR	22		X
432	TULIP POPLAR	22		X
433	TULIP POPLAR	22		X
434	TULIP POPLAR	22		X
435	TULIP POPLAR	22		X
436	TULIP POPLAR	22		X
437	TULIP POPLAR	22		X
438	TULIP POPLAR	22		X
439	TULIP POPLAR	22		X
440	TULIP POPLAR	22		X
441	TULIP POPLAR	22		X
442	TULIP POPLAR	22		X
443	TULIP POPLAR	22		X
444	TULIP POPLAR	22		X
445	TULIP POPLAR	22		X
446	TULIP POPLAR	22		X
447	TULIP POPLAR	22		X
448	TULIP POPLAR	22		X
449	TULIP POPLAR	22		X
450	TULIP POPLAR	22		X

TAG	SPECIES	DBH	NOTES	REMOVAL
451	HICKORY	11		X
452	HICKORY	10		X
453	DOUGLAS FIR	6		X
454	WHITE OAK	12		X
455	CHESTNUT OAK	17		X
456	BEECH	21		X
457	DOUGLAS FIR	7		X
458	TULIP POPLAR	19		X
459	WHITE OAK	18		X
460	WHITE OAK	16		X
461	WHITE OAK	22		X
462	BEECH	25	SPECIMEN	X
463	BEECH	24	SPECIMEN	X
464	LARCH	18		X
465	ORN. CHERRY	15		X
466	BEECH	25	SPECIMEN	X
467	CHESTNUT OAK	27	SPECIMEN	X
468	WHITE OAK	19		X
469	CHESTNUT OAK	17		X
470	BEECH	15		X
471	CHESTNUT OAK	17		X
472	RED OAK	20		X
473	BEECH	17		X
474	WHITE PINE	16		X
475	PIN OAK	19		X
476	RED OAK	18		X
477	HICKORY	16		X
478	BEECH	24	SPECIMEN	X
479	BEECH	18		X
480	BEECH	24	SPECIMEN	X
481	NORWAY MAPLE	14		X
482	BEECH	17		X
483	CHESTNUT OAK	24	SPECIMEN	X
484	HEMLOCK	7		X
485	HEMLOCK	10		X
486	TULIP POPLAR	21		X
487	RED OAK	18		X
488	RED OAK	20	SPECIMEN	O
489	BEECH	20		X
490	TULIP POPLAR	25	SPECIMEN	X
491	WHITE OAK	14		X
492	BLACK BIRCH	20		X
493	TULIP POPLAR	24	SPECIMEN	X
494	TULIP POPLAR	21		X
495	RED OAK	22		X
496	TULIP POPLAR	25	SPECIMEN	X
497	RED OAK	24		X
498	TULIP POPLAR	19		X
499	TULIP POPLAR	25	SPECIMEN	X
500	TULIP POPLAR	30	SPECIMEN	X
501	BEECH	7		X
502	TULIP POPLAR	20		O
503	TULIP POPLAR	24	SPECIMEN	O
504	TULIP POPLAR	26	SPECIMEN	X
505	RED OAK	21		X
506	BEECH	21		X
507	TULIP POPLAR	23		X
508	TULIP POPLAR	30	SPECIMEN	X
509	TULIP POPLAR	30	SPECIMEN	X
510	BEECH	23		X
511	TULIP POPLAR	31	SPECIMEN	X
512	WHITE OAK	30	SPECIMEN	O
513	HICKORY	8		X
514	TULIP POPLAR	29	SPECIMEN	X
515	WHITE PINE	6		X
516	RED OAK	16		X
517	TULIP POPLAR	20		X
518	BEECH	15		X
519	BEECH	24	SPECIMEN	X
520	DOUGLAS FIR	9		X
521	RED OAK	26	SPECIMEN	X
522	TULIP POPLAR	17		X
523	RED OAK	23		X
524	WHITE OAK	25	SPECIMEN	X
525	BEECH	10		X
526	RED OAK	19		X
527	TULIP POPLAR	16		X
528	BEECH	8		X
529	HICKORY	9		X
530	BEECH	16		X
531	HICKORY	22		X
532	BEECH	21		X
533	RED OAK	22		X
534	RED OAK	23		X
535	BEECH	26	SPECIMEN	X
536	BEECH	8		X
537	TULIP POPLAR	21		X
538	TULIP POPLAR	24	SPECIMEN	X
539	BEECH	30	SPECIMEN	X
540	CHESTNUT OAK	12		X
541	RED MAPLE	15		X
542	BEECH	12		X
543	RED MAPLE	24	SPECIMEN	X
544	BEECH	17		X
545	RED OAK	21		X
546	BEECH	8		X
547	TULIP POPLAR	28	SPECIMEN	X
548	TULIP POPLAR	24	SPECIMEN	X
549	TULIP POPLAR	10		X
550	BEECH	6		X
551	BEECH	6		X
552	BEECH	23		X
553	TULIP POPLAR	9		X
554	RED OAK	11		X
555	HICKORY	11		X
556	BEECH	21		X
557	TULIP POPLAR	24	SPECIMEN	X
558	BEECH	8		X
559	BEECH	24	SPECIMEN	X
560	TULIP POPLAR	26	SPECIMEN	X
561	BEECH	15		X
562	BEECH	17		X
563	RED OAK	24	SPECIMEN	X
564	TULIP POPLAR	29	SPECIMEN	X
565	RED OAK	18		X
566	RED OAK	16		X
567	BEECH	19		X
568	WHITE OAK	19		X
569	TULIP POPLAR	22		X
570	TULIP POPLAR	25	SPECIMEN	X
571	WHITE OAK	19		X
572	WHITE OAK	17		X
573	RED OAK	23		X
574	CHESTNUT OAK	22		X
575	WHITE OAK	15		X
576	WHITE OAK	20		X
577	CHESTNUT OAK	19		X
578	WHITE OAK	16		X
579	TULIP POPLAR	22		X
580	TULIP POPLAR	22		X
581	HICKORY	22		X
582	TULIP POPLAR	22		X
583	BEECH	21		X
584	TULIP POPLAR	14		X

TAG	SPECIES	DBH	NOTES	REMOVAL
585	RED OAK	20		X
586	TULIP POPLAR	17		X
587	TULIP POPLAR	14		X
588	TULIP POPLAR	8		O
589	TULIP POPLAR	22		X
590	TULIP POPLAR	17		X
591	TULIP POPLAR	23		X
592	TULIP POPLAR	12		X
593	TULIP POPLAR	16		X
594	TULIP POPLAR	8		X
595	TULIP POPLAR	11		X
596	TULIP POPLAR	10		X
597	TULIP POPLAR	29	SPECIMEN	X
598	TULIP POPLAR	18		X
599	TULIP POPLAR	45	SPECIMEN	X
600	TULIP POPLAR	8		O
601	TULIP POPLAR	15		X
602	TULIP POPLAR	15		X
603	TULIP POPLAR	16		X
604	TULIP POPLAR	15		X
605	TULIP POPLAR	16		X
606	TULIP POPLAR	16		X
607	TULIP POPLAR	8		X
608	TULIP POPLAR	16		X
609	TULIP POPLAR	16		X
610	TULIP POPLAR	16		X
611	TULIP POPLAR	16		X
612	TULIP POPLAR	16		X
613	TULIP POPLAR	16		X
614	TULIP POPLAR	16		X
615	TULIP POPLAR	16		X
616	TULIP POPLAR	16		X
617	TULIP POPLAR	16		X
618	TULIP POPLAR	16		X
619	TULIP POPLAR	16		X
620	TULIP POPLAR	16		X
621	TULIP POPLAR	16		X
622	TULIP POPLAR	16		X
623	TULIP POPLAR	16		X
624	TULIP POPLAR	16		X
625	TULIP POPLAR	16		X
626	TULIP POPLAR	16		X
627	TULIP POPLAR	16		X
628	TULIP POPLAR	16		X
629	TULIP POPLAR	16		X
630	TULIP POPLAR	16		X
631	BEECH	12		X
632	BEECH	12		X
633	RED OAK	13		X
634	TULIP POPLAR	20		X
635	TULIP POPLAR	23		X
636	TULIP POPLAR	19		O
637	TULIP POPLAR	22		O
638	RED OAK	14		X
639	BEECH	7		X
640	BEECH	8		X
641	BEECH	6		X
642	RED OAK	12		X
643	RED OAK	26	SPECIMEN	X
644	TULIP POPLAR	15		X
645	BEECH	8		X
646	BEECH	8		X
647	WHITE OAK	15		X
648	BEECH	11		X
649	RED OAK	7		X
650	BEECH	8		X
651	TULIP POPLAR	15		X
652	BEECH	23		X
653	TULIP POPLAR	9		X
654	RED OAK	11		X
655	HICKORY	11		X
656	TULIP POPLAR	24	SPECIMEN	X
657	TULIP POPLAR	24	SPECIMEN	X
658	BEECH	17		X
659	TULIP POPLAR	22		X
660	TULIP POPLAR	20		X
661	TULIP POPLAR	33	SPECIMEN	X
662	TULIP POPLAR	29	SPECIMEN	X
663	TULIP POPLAR	7		X
664	HICKORY	14		X
665	TULIP POPLAR	22		X
666	BEECH	27	SPECIMEN	X
667	BEECH	19		X
668	TULIP POPLAR	24	SPECIMEN	X
669	TULIP POPLAR	20		X
670	TULIP POPLAR	18		X
671	TULIP POPLAR	6		X
672	TULIP POPLAR	20		X
673	TULIP POPLAR	26	SPECIMEN	X
674	TULIP POPLAR	24	SPECIMEN	X
675	TULIP POPLAR	28	SPECIMEN	X
676	TULIP POPLAR	19		X
677	RED OAK	18		X
678	TULIP POPLAR	22		X
679	TULIP POPLAR	23		X
680	WHITE OAK	17		X
681	TULIP POPLAR	23		X
682	TULIP POPLAR	23		X
683	BEECH	21		X
684	TULIP POPLAR	14		X

TAG	SPECIES	DBH	NOTES	REMOVAL
685	TULIP POPLAR	18		X
686	TULIP POPLAR	29	SPECIMEN	X
687	HICKORY	7		X
688	TULIP POPLAR	27	SPECIMEN	X
689	TULIP POPLAR	25	SPECIMEN	X
690	BEECH	15		X
691	BEECH	11		X
692	TULIP POPLAR	25	SPECIMEN	X
693	TULIP POPLAR	8		X
694	TULIP POPLAR	24	SPECIMEN	X
695	TULIP POPLAR	17		X
696	TULIP POPLAR	26	SPECIMEN	X
697	TULIP POPLAR	25	SPECIMEN	X