

GENERAL NOTES:

- THIS MAP REPRESENTS A BOUNDARY SURVEY COMPLETED BY VCEA IN MARCH AND APRIL 2023. THE REPRESENTATION OF THE TRACT BOUNDARY HEREON IS BASED ON PA STATE PLANE COORDINATE SYSTEM (NAD 83). THE COURSES AND DISTANCES SHOWN IN PARENTHESES ARE DERIVED FROM THE DEED OF RECORD.
 - A TOPOGRAPHIC SURVEY WAS PERFORMED BY VCEA IN MARCH AND APRIL 2023. THE VERTICAL DATUM IS NAVD 88 AS DERIVED FROM RTK GPS OBSERVATIONS DERIVED THROUGH THE KEYNETOPS TRIMBLE VRS NETWORK.
 - THIS SURVEY DOES NOT CONSTITUTE A TITLE SEARCH BY THE SURVEYOR. ALL INFORMATION REGARDING EASEMENTS AND OTHER DOCUMENTS THAT MAY AFFECT THE QUALITY OF TITLE FOR THE SUBJECT PROPERTY WAS OBTAINED FROM FILE NUMBER: OR2370743 PREPARED BY OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY, HAVING AN EFFECTIVE DATE OF APRIL 28, 2023. (SURVEY COMMENTS IN BOLD)
- EXCEPTIONS:
- ANY DISCREPANCIES, CONFLICTS OR SHORTAGES IN AREA OR BOUNDARY LINES, ANY ENCROACHMENTS OR ANY OVERLAPPING OF IMPROVEMENTS WHICH A CORRECT SURVEY WOULD SHOW.
 - PROOF OF PAYMENT OF ANY BILLINGS FOR SERVICES PROVIDED BY MUNICIPALITY.
 - PROOF THERE ARE NO ARREARAGE FOR CHILD SUPPORT DUE IN TH4, OR ANY OTHER, JURISDICTION AGAINST ME/US.
 - EASEMENT GRANTED TO LOWER MAKEFIELD TOWNSHIP BOARD OF SUPERVISORS AS SET FORTH IN DEED BOOK 2410, PAGE 358. (RIGHTS GRANTED TO LOWER MAKEFIELD TOWNSHIP BOARD OF SUPERVISORS IN DEED BOOK TO A 10 FEET WIDE BIKE PATH EASEMENT SUBJECT TO THE FOLLOWING:
 - THE SAID EASEMENT SHALL BE USED SOLELY AS A BIKE PATH.
 - GRANTEE, ITS SUCCESSORS AND ASSIGNS, SHALL COMPLETE THE CONSTRUCTION OF SAID BIKE PATH WITHIN ONE YEAR OF DATE OF DOCUMENT.
 - GRANTEE, ITS SUCCESSORS AND ASSIGNS, SHALL PAY ANY AND ALL TAXES AND ASSESSMENTS WHICH MAY BE IMPOSED UPON THE EASEMENT AREA AND ITS USE.
 - GRANTEE, ITS SUCCESSORS AND ASSIGNS, ASSUMES THE OBLIGATION TO REMOVE SAID BIKE PATH WHEN NO LONGER USED OR MAINTAINED BY THE GRANTEE...FOR A PERIOD OF ONE YEAR...AND SHALL AGAIN MERGE WITH THE LAND OF GRANTEE...
 - GRANTEE, ITS SUCCESSORS AND ASSIGNS, SHALL RETAIN THE RIGHT OF INGRESS, EGRESS AND REGRESS OVER SAID EASEMENT AREA AND THIS RIGHT IS DOMINANT AND SUPERIOR TO THE EASEMENT USE.
 - GRANTEE, ITS SUCCESSORS AND ASSIGNS, SHALL INDEMNIFY...GRANTEES...FROM ALL COSTS AND EXPENSES...GROWING OUT OF THE...USE...OF SAID BIKE PATH... (- SHOWN)
 - GRANT OF EASEMENT GRANTED TO LOWER MAKEFIELD TOWNSHIP AS SET FORTH IN DEED BOOK 2482, PAGE 426. (RIGHTS GRANTED TO LOWER MAKEFIELD TOWNSHIP TO A 30 FEET WIDE SANITARY SEWER EASEMENT - SHOWN).
 - THIS SURVEY DOES NOT CERTIFY AS TO THE PRESENCE OR ABSENCE OF UNDERGROUND IMPROVEMENTS OR ENCROACHMENTS.
 - THE EXTENT OF THE WATERS SHOWN HERE AND THE ABSENCE OF WETLANDS WERE DETERMINED BY VW CONSULTANTS, LLC ON APRIL 5, 2023.
 - THE PARCEL SHOWN HEREON IS NOT LOCATED IN A SPECIAL FLOOD HAZARD AREA (SFHA) PER FLOOD INSURANCE RATE MAPS (FIRM) PREPARED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA), BEING PANEL 451 OF 532, MAP NUMBER: 4201700451J EFFECTIVE MARCH 16, 2015.
 - NO CERTIFICATION IS MADE BY VAN CLEEF ENGINEERING ASSOCIATES AS TO THE POSITION OF ANY UTILITIES OR TO THE COMPLETENESS OF ANY UTILITIES SHOWN. ALL CONTRACTORS WORKING ON THIS SITE SHALL COMPLY WITH THE REQUIREMENTS OF ACT 287 OF 1974 AS AMENDED BY ACT 80 OF 2017 (UNDERGROUND UTILITY LINE PROTECTION LAW). VCEA HAS REGISTERED THIS SITE WITH THE PA ONE-CALL SYSTEM ON MARCH 2, 2023 (SERIAL NO. 20230610854).
 - SOILS TAKEN FROM NRCS WEBSITE.
 - IT IS ANTICIPATED THAT THESE LOTS WILL BE SERVED BY PUBLIC WATER & SEWER.
 - AREA OF ULTIMATE ROAD RIGHTS-OF-WAY FOR EDGEWOOD ROAD AND SANDY RUN ROAD ARE OFFERED FOR DEDICATION TO LOWER MAKEFIELD TOWNSHIP.
 - IT IS ANTICIPATED A FEE IN LIEU OF RECREATION LAND WILL BE OFFERED TO LOWER MAKEFIELD TOWNSHIP.
 - ALL SITE IMPROVEMENTS ARE DEFERRED TO THE INDIVIDUAL LOT BUILDING PERMIT/APPLICATION STAGE.
 - THE SPECIAL SETBACKS FROM RESOURCE-PROTECTED LANDS PER ZONING SECTION 200-61(C) ARE PROVIDED SCHEMATICALLY ON THE CONCEPTUAL GRADING PLAN/SITE IMPROVEMENT PLAN MEASURED FROM THE LIMIT OF THE RESOURCE PROTECTED WOODLANDS PROPOSED TRELINE.
 - THE PROPOSED SETBACKS PROVIDED ON THE RECORD PLAN ARE SHOWN PER THE R-2 ZONING DISTRICT REQUIREMENTS PRIOR TO ANY SPECIAL SETBACKS ASSOCIATED WITH RESOURCE-PROTECTED LANDS.

REFERENCE PLANS:

- PLAN ENTITLED "MINOR SUBDIVISION PLAN MADE FOR SEBASTIAN PINELLI ESTATE" BY ALL COUNTY, INC. DATED AUGUST 10, 1995, LAST REVISED MAY 24, 1996, AS RECORDED IN PLAN BOOK 294 PAGE 4.
- PLAN ENTITLED "FINAL LAND DEVELOPMENT PLAN OF YARDLEY-MAKEFIELD RESCUE SQUAD" PREPARED BY TRI-STAY ENGINEERS AND LAND SURVEYORS, INC. DATED MAY 19, 1997, LAST REVISED DECEMBER 23, 1998 AS RECORDED IN PLAN BOOK 295 PAGE 11.
- PLAN ENTITLED "LAYOUT AND PAVING PLAN CANTERBURY ESTATES", SHEET 1 OF 10, BY WILLIAM G. MAJOR ASSOCIATES, DATED MAY 21, 1975, LAST REVISED APRIL 21, 1977, AS RECORDED IN PLAN BOOK 155 PAGE 20.
- PLAN ENTITLED "PA, P.U.C. APPLICATION PLAN RAILROAD CROSSING IMPROVEMENTS EDGEWOOD ROAD" PREPARED BY PICKERING, CORTS & SUMMERS, INC. DATED MAY 4, 1982, AS RECORDED IN PLAN BOOK 270 PAGE 15.

WAIVERS REQUESTED:

- 178-95.D.1; MAXIMUM PROPOSED GRADING OF 4:1 REQUIRED (3:1 PROVIDED TO MINIMIZE THE ENVIRONMENTAL IMPACT).
- 178-44.(A) REQUIRES DRIVEWAYS TO BE INSTALLED AT 8% MAXIMUM GRADE. NOTE: 10% PROVIDED (WITH USE OF 4% SAFE STOPPING AREA AT STREET AND APPROPRIATE DRIVEWAY SLOPE IN ADVANCE OF GARAGE) TO MINIMIZE THE ENVIRONMENTAL IMPACT.

SITE CAPACITY CALCULATIONS:

A. STEP I: DETERMINE BASE SITE AREA

- DETERMINE GROSS SITE AREA BY ACTUAL ON-SITE SURVEY: 4.175 AC.
- SUBTRACT THE FOLLOWING:
 - LAND WITHIN EXISTING ROADS AND THEIR ULTIMATE RIGHTS-OF-WAY AND UTILITY TRANSMISSION RIGHTS-OF-WAY: -0.705 AC.
 - LAND WITHOUT DEVELOPMENT OPPORTUNITIES DUE TO RESTRICTIONS SUCH AS RESTRICTIVE COVENANTS AND CONSERVATION EASEMENTS: -0.000 AC.
- EQUALS BASE SITE AREA: 3.470 AC.

B. STEP II: DETERMINE NATURAL RESOURCES LAND TO BE PROTECTED AND PERCENT OF BASE SITE AREA IN RESOURCE-PROTECTED LAND.

RESOURCE	PROTECTION RATIO	ACRES OF LAND IN RESOURCE	RESOURCE PROTECTION LAND
FLOODPLAIN	100%	0.000	0.000
FLOODPLAIN SOILS (ABUTTING DEL. RIVER)	50%	0.000	0.000
LAKES OR PONDS	100%	0.000	0.000
WETLANDS	100%	0.000	0.000
LAKES AND POND SHORELINE	100%	0.000	0.000
WETLANDS AND WATERCOURSE BUFFERS*	100%	0.639	0.639
STEEP SLOPES 8-15%	50%	0.000	0.000
STEEP SLOPES 15-25%	70%	0.000	0.000
STEEP SLOPES 25% PLUS	100%	0.008	0.008
WOODLAND ASSOCIATIONS R-2	75%	2.749	2.062
TOTALS		3.396	2.709

(2) DETERMINE PERCENTAGE OF BASE SITE AREA CLASSIFIED AS RESOURCE-PROTECTED LAND:
 TOTAL RESOURCE-PROTECTED LAND DIVIDED BY BASE SITE AREA = % OF BASE SITE AREA CLASSIFIED AS RESOURCE-PROTECTED LAND.
 2.709 AC./3.470 AC. = 78%

C. STEP III: DETERMINE SITE CAPACITY.

- FOR ALL RESIDENTIAL SUBDIVISIONS AND LAND DEVELOPMENTS THE FOLLOWING CALCULATIONS SHALL APPLY:
 - SINGLE-FAMILY DETACHED DEVELOPMENTS AND TWO FAMILY DEVELOPMENTS:
 - FIND NET BUILDABLE SITE AREA FOR SINGLE-FAMILY DETACHED AND TWO-FAMILY DEVELOPMENTS.

BASE SITE AREA MINUS TOTAL RESOURCE PROTECTION LAND (DETERMINED IN STEP II) = NET BUILDABLE SITE AREA	3.470 AC. - 2.709 AC. = 0.761 AC.	
BASE SITE AREA	TOTAL RESOURCE PROTECTED LAND	NET BUILDABLE SITE AREA
 - FIND MAXIMUM NUMBER OF PERMITTED DWELLING UNITS FOR ALL SINGLE-FAMILY DETACHED AND TWO-FAMILY DEVELOPMENTS.
 - WITH RECREATION LAND:

NET BUILDABLE SITE AREA - [(1/DENSITY)+.05] = TOTAL NUMBER OF DWELLINGS PERMITTED	0.761 AC. - [(1/2.70)+.05] = 0.341
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 - WITH FEE IN LIEU OF RECREATION LAND:

0.761 AC. x 2.70 = 2.05		
NET BUILDABLE SITE AREA	MAXIMUM DENSITY ON NET BUILDABLE SITE AREA	UNITS PERMITTED SITE AREA

CERTIFICATIONS

COMMONWEALTH OF PENNSYLVANIA:
 COUNTY OF BUCKS
OWNERSHIP, ACKNOWLEDGEMENT OF PLAN AND OFFER OF DEDICATION
 I, _____, HAVE LAID OUT UPON OUR LAND, SITUATED IN THE TOWNSHIP OF LOWER MAKEFIELD, COUNTY OF BUCKS, COMMONWEALTH OF PENNSYLVANIA, CERTAIN LOTS, STREETS AND/OR IMPROVEMENTS, ACCORDING TO THIS PLAN, WHICH IS INTENDED TO BE RECORDED. WITNESS MY HAND AND SEAL THIS _____ DAY OF _____, 2023.

CAROLINE E. TIMKO
 THERESA C. TIMKO

ON THIS, THE _____ DAY OF _____, 20____, BEFORE ME, A NOTARY PUBLIC, PERSONALLY APPEARED THEIR, WHO ACKNOWLEDGED THEMSELVES TO BE THE OWNER, AND THEY, AS SUCH THEIR, BEING AUTHORIZED TO DO SO, HAS EXECUTED THE FOREGOING PLAN BY SIGNING HIS NAME AS OWNER.
 IN WITNESS WHEREOF, I HERELIANT SET MY HAND AND OFFICIAL SEAL.

NOTARY PUBLIC SIGNATURE

BOARD OF SUPERVISORS

APPROVED BY THE BOARD OF SUPERVISORS OF THE TOWNSHIP OF LOWER MAKEFIELD AT A PUBLIC MEETING ON THE _____ DAY OF _____, 20____.

TOWNSHIP ENGINEER
 REVIEWED BY THE TOWNSHIP ENGINEER AND RECOMMENDED FOR APPROVAL ON THE _____ DAY OF _____, 20____.

BUCKS COUNTY PLANNING COMMISSION
 BCPC No. 12919
 PROCESSED AND REVIEWED. REPORT PREPARED BY THE BUCKS COUNTY PLANNING COMMISSION IN ACCORDANCE WITH THE MUNICIPALITIES PLANNING CODE.

CERTIFIED THIS DATE _____

RECORDER OF DEEDS
 RECORDED IN THE OFFICE FOR THE RECORDING OF DEEDS, ETC. IN AND FOR THE COUNTY OF BUCKS AT DOYLESTOWN, PENNSYLVANIA IN PLAN BOOK _____ PAGE _____ ON _____, 20____.

SURVEYOR'S CERTIFICATION
 THIS PLAN REPRESENTS A SURVEY, MADE BY ROBERT W. COOK, PA P.L.S. NO. SUD75256, THAT THE MONUMENTS SHOWN HEREON EXIST AS LOCATED AND THAT THE DIMENSIONAL AND GEODETIC DETAILS ARE CORRECT.

ROBERT W. COOK _____ DATE _____

PROFESSIONAL ENGINEER CERTIFICATION
 I, SAMUEL D. COSTANZO, PA PE NO. 041557-R DO HEREBY CERTIFY TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF, THAT THE INFORMATION CONTAINED IN THE ACCOMPANYING PLANS, SPECIFICATIONS, AND REPORTS HAVE BEEN PREPARED IN ACCORDANCE WITH ACCEPTED ENGINEERING PRACTICE, IS TRUE AND CORRECT, AND IS IN CONFORMANCE WITH THE ZONING ORDINANCE AND THE SUBDIVISION AND LAND DEVELOPMENT ORDINANCE OF LOWER MAKEFIELD TOWNSHIP AS LAST AMENDED.

SAMUEL D. COSTANZO _____ DATE _____

I, SAMUEL D. COSTANZO, STATE THAT TO THE BEST OF MY KNOWLEDGE, THE PLANS ARE IN CONFORMITY WITH ENGINEERING, ZONING, BUILDING, SANITATION, AND OTHER APPLICABLE TOWNSHIP ORDINANCES.

SAMUEL D. COSTANZO _____ DATE _____

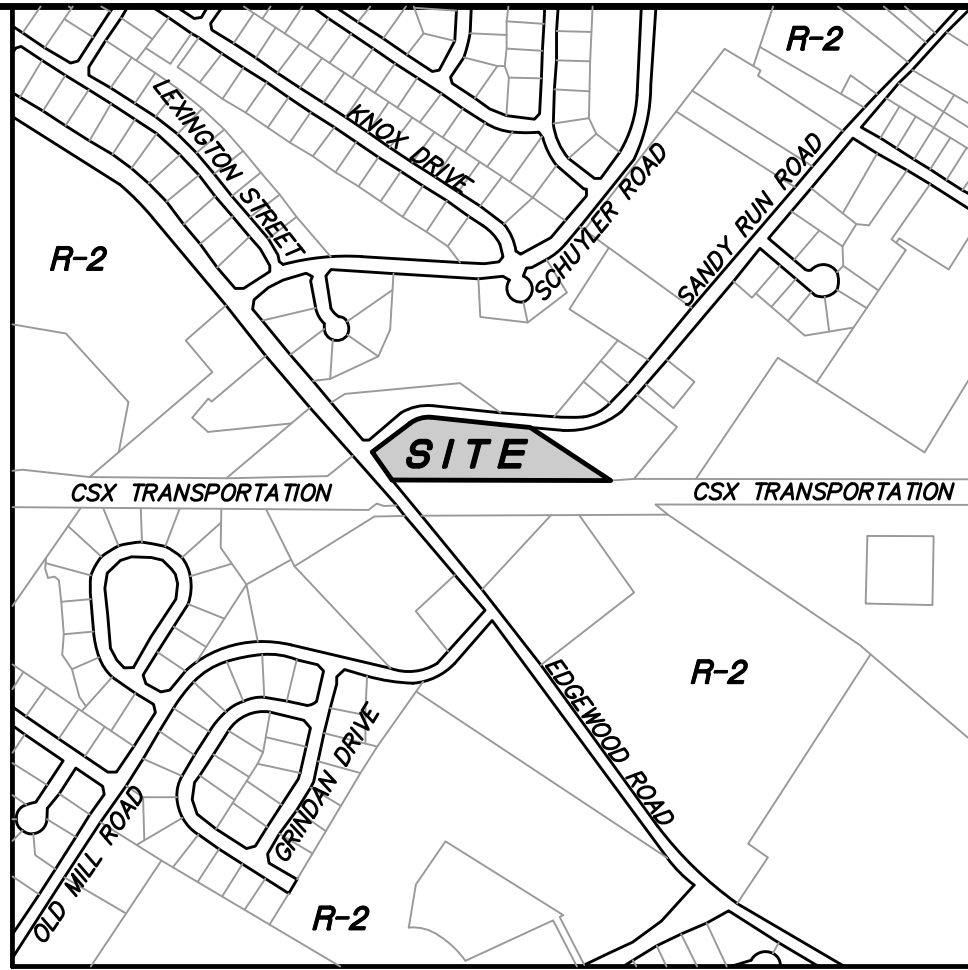
WETLANDS CERTIFICATION:

I, MAX RUSSICK, CPSS, OF VW CONSULTANTS, LLC HEREBY CERTIFY THAT I HAVE PERFORMED A WATERS EVALUATION OF THIS SITE IN ACCORDANCE WITH CURRENT STATE AND FEDERAL GUIDELINES AND HAVE DETERMINED THAT THE ON-SITE WATERS BOUNDARY AS SHOWN HEREON ACCURATELY REPRESENTS MY FINDINGS.

MAX RUSSICK _____ DATE _____

INDEX OF SHEETS:

SHEET No.	TITLE
1	RECORD PLAN (SHEET 1 OF 1 TO BE RECORDED)
2	EXISTING FEATURES/DEMOLITION PLAN & CONCEPT GRADING/SITE IMPROVEMENT PLAN



ZONING DATA:
 ZONED: R-2 - RESIDENTIAL MEDIUM-DENSITY
 PROPOSED USE: DWELLING, SINGLE FAMILY DETACHED (PERMITTED)

	REQUIRED	PROPOSED
MAX. DENSITY	2.70 DU/AC.	2.63 DU/AC.
MIN. LOT AREA	12,500 SF	90,183 SF (2.070 AC.)
MIN. LOT WIDTH (Ø FRONT BLDG LINE)	85 FT.	198 FT.
MAX. BLDG. HEIGHT	35 FT.	306 FT.
MIN. YARDS		
FRONT	30 FT. (SANDY RUN RD.)	30 FT.
REAR	80 FT. (EDGEWOOD RD.)	80 FT.
SIDE	15 FT.	15 FT.
MAX. IMPERV. SURFACE DEVELOPER	45 FT.	45 FT.
OWNER	.15	≤0.15
	.18	≤0.18

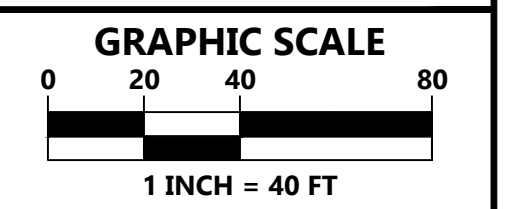
IMPERVIOUS SURFACE SUMMARY

	PERMITTED:	PROPOSED:
5,000 SF PER LOT (PER STORMWATER DESIGN)		
HOUSE	1,980 SF	1,980 SF
DRIVEWAY	1,770 SF	1,863 SF
SERVICE WALK	174 SF	174 SF
RETAINING WALL	0 SF	150 SF
BIKE PATH	90 SF	0 SF
TOTAL	4,014 SF	4,167 SF
ADDITIONAL IMPERVIOUS PERMITTED:	5,000 SF	5,000 SF
	-4,014 SF	-4,167 SF
	986 SF	833 SF

Van Cleef ENGINEERING WITH FOCUS
 Local/Regional Planning
 Municipal Engineering
 Site Development
 Surveying/Aerial Drones/GIS
 Water/Wastewater
 Bridges/Highways
 Construction Inspection
 Environmental
 Geotechnical/Dams
 Landscape Architecture

REV/DESCRIPTION	DATE
1 PER TOWNSHIP REVIEW	08 02-13-24

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PLAN NOTATION
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ROBERT W. COOK, PA P.L.S. DATE _____
 PENNSYLVANIA PROFESSIONAL SURVEYOR NUMBER SUD75256

SAMUEL D. COSTANZO, PA PE DATE _____
 PENNSYLVANIA PROFESSIONAL ENGINEER NUMBER 041557-R

Van Cleef ENGINEERING WITH FOCUS
 VAN CLEEF ENGINEERING ASSOCIATES, LLC
 501 NORTH MAIN STREET, DOYLESTOWN, PA 19011
 WEB: WWW.VANCLEEFENGINEERING.COM
 PHONE (610) 345-1874

RECORD PLAN (SHEET 1 OF 1 TO BE RECORDED)

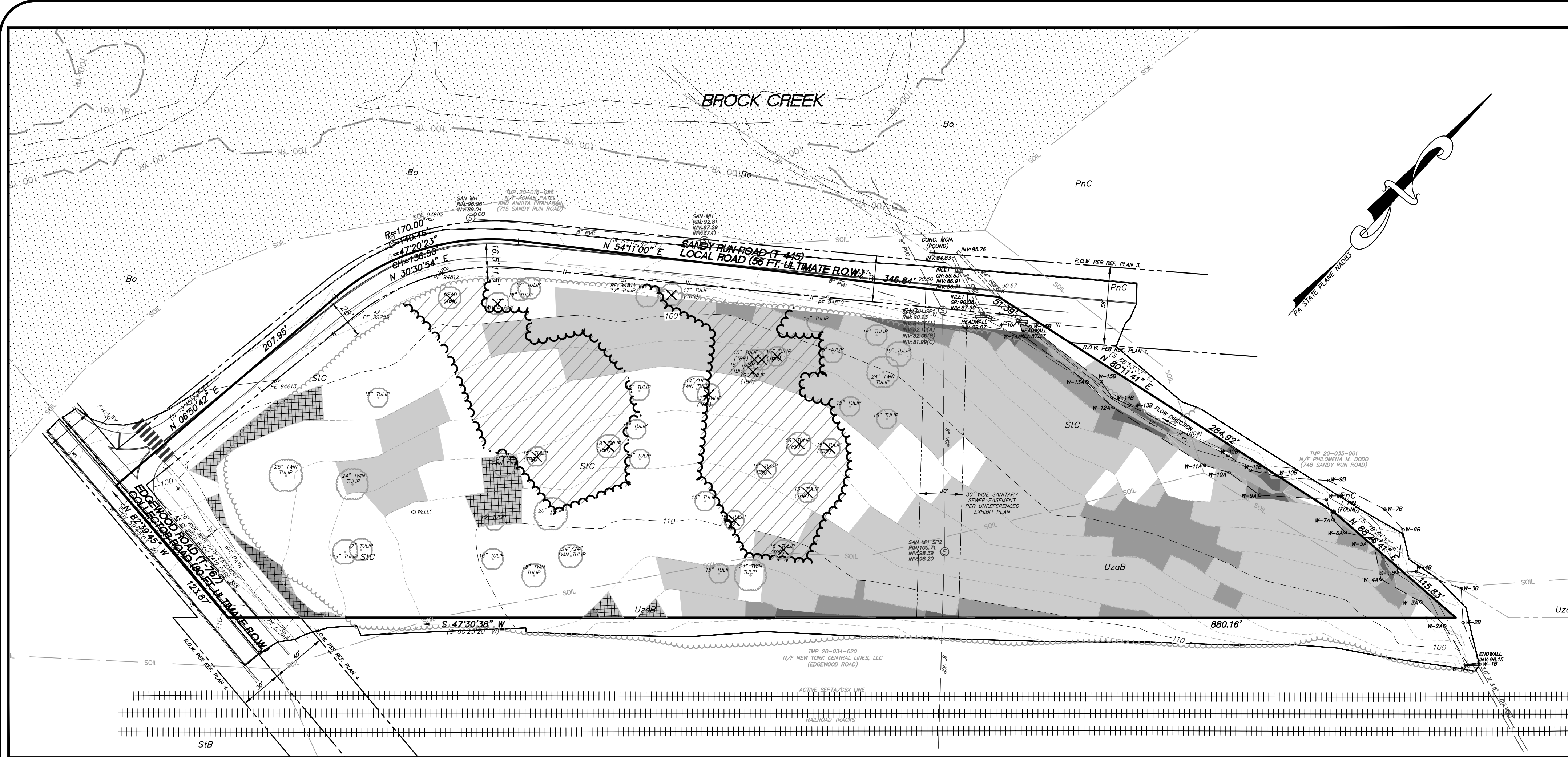
FOR

THERESA CLEARY AND CAROLINE TIMKO-NOYES

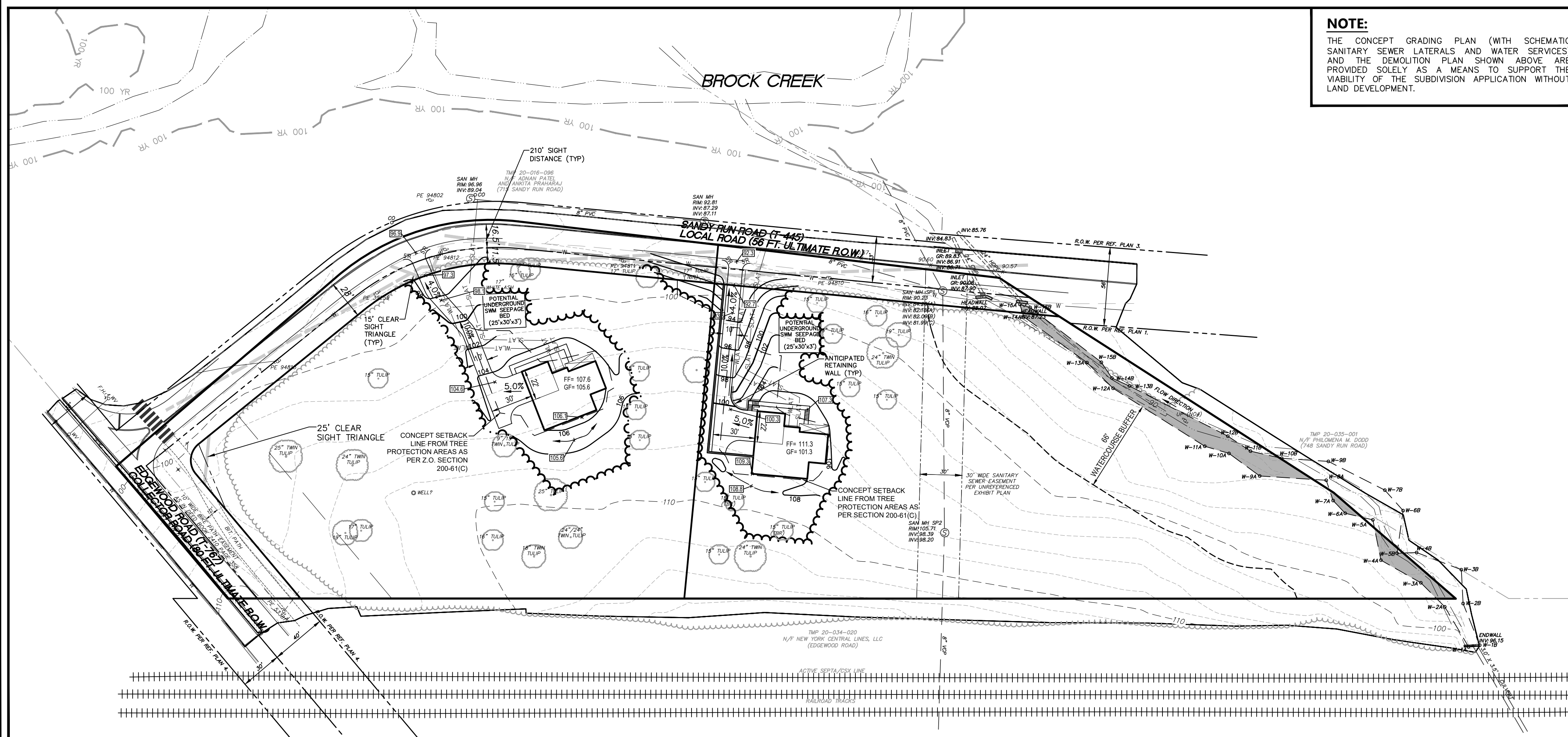
DATE:	SEPTEMBER 6, 2023
SCALE:	1"=40'
DESIGNED BY:	JB
DRAWN BY:	ENP
CHECKED BY:	SDC
JOB NUMBER:	2201-LM

TMP 20-034-020-004

LOWER MAKEFIELD TOWNSHIP
 BUCKS COUNTY, PENNSYLVANIA



EXISTING FEATURES/DEMOLITION PLAN



CONCEPT GRADING PLAN/SITE IMPROVEMENT PLAN

NOTE:
THE CONCEPT GRADING PLAN (WITH SCHEMATIC SANITARY SEWER LATERALS AND WATER SERVICES) AND THE DEMOLITION PLAN SHOWN ABOVE ARE PROVIDED SOLELY AS A MEANS TO SUPPORT THE VIABILITY OF THE SUBDIVISION APPLICATION WITHOUT LAND DEVELOPMENT.

LEGEND

- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- EXISTING SPOT ELEVATION
- EXISTING FENCE
- EXISTING PROPERTY LINE
- EXISTING ADJACENT PROPERTY LINE
- EXISTING LEGAL RIGHT OF WAY
- EXISTING EASEMENT
- EXISTING ROAD CENTERLINE
- EXISTING ROAD
- EXISTING CURB
- EXISTING EDGE OF DRIVE
- EXISTING SIGN
- EXISTING SOILS LIMIT AND SOILS TYPE
- EXISTING STREAM
- EXISTING TREES
- EXISTING TREE LINE
- EXISTING UTILITY POLES
- EXISTING OVERHEAD ELECTRIC
- EXISTING STORM SEWER
- EXISTING SANITARY SEWER
- EXISTING WATER MAIN
- EXISTING WATER VALVE
- EXISTING FIRE HYDRANT
- EXISTING SLOPE 8 TO 15 PERCENT
- EXISTING SLOPE 15 TO 25 PERCENT
- EXISTING SLOPE 25< PERCENT
- EXISTING WOODLANDS
- EXISTING TREE TO BE REMOVED
- EXISTING ITEM TO BE REMOVED
- EXISTING 100 YEAR FLOODPLAIN
- EXISTING WATERS OF THE US
- PROPOSED CONTOUR (CONCEPT ONLY)
- PROPOSED EASEMENT
- PROPOSED RIGHT OF WAY
- PROPOSED SETBACK LINE
- PROPOSED LIMIT OF TREES CLEARING (CONCEPT ONLY)
- FINISHED FLOOR ELEVATION (CONCEPT ONLY)
- GARAGE FLOOR ELEVATION (CONCEPT ONLY)
- PROPOSED SPOT ELEVATION (CONCEPT ONLY)

SOIL LIMITATIONS:

SOIL TYPE	SEASONAL HIGH WATER TABLE (FT)	PERCENT TO BEDROCK (IN)	HYDROLOGIC GROUP	HYDRIC SOILS
PENN-LANSDALE COMPLEX, 8 TO 15 PERCENT SLOPES (PnC)	> 6.7	20-40	B	NO (1)
STEINBURG GRAVELLY LOAM, 8 TO 15 PERCENT SLOPES (S1C)	> 6.7	20-40	B	NO (1)
URBAN LAND-UDORTHERTS, GRAVELLY COMPLEX, 0 TO 8 PERCENT SLOPES (UzaB)	2.5-6.0	72-99	A	NO (1)

GENERAL NOTES:

- SOILS SHOWN HEREON ARE AS MAPPED BY THE NATURAL RESOURCES CONSERVATION SERVICES (NRCS) WEBSITE FOR BUCKS COUNTY ON JULY 5, 2022.
- THE SITE DRAINS TO AN UNNAMED TRIBUTARY PRIOR TO ENTERING THE BROCK CREEK WATERSHED. THE WATERS DESIGNATED/EXISTING USES ARE WWF (WARM WATER FISHES) AS CLASSIFIED BY THE PA CODE CHAPTER 93.

POST CONSTRUCTION STORMWATER MANAGEMENT
Simplified Method for Volume Requirement for Lower Makefield

PROJECT NAME: Lot 1 & Lot 2 Sandy Run Road
 LOCATION: Lower Makefield Township, Bucks County
 PREPARED BY: JB DATE: 02/06/24
 CHECKED BY: SDC DATE: 02/06/24

Additional Imp = 5000sf
 Maximum Impervious allowed per Lot

Required Infiltration Volume:
 Per phone call with township engineer
 $R_v = 2.00 \text{ inches} \times (\text{total impervious area in square feet})$
 $R_v = 833.3 \text{ cf}$
 Total 833.3 cf

Proposed Infiltration Volume:
 Utilizing a seepage bed
 Length: 25
 Width: 30
 Depth: 3
 $R_v = 900.0 \text{ cf (40\% voids)}$

Provided	Required
900.0	833.3
>	OK

NATURAL RESOURCE PROTECTION (LOT 1):

RESOURCE PROTECTION RATIO	LAND IN RESOURCE*	REQUIRED RESOURCE PROTECTION LAND	PROPOSED RESOURCE PROTECTION LAND***
FLOODPLAIN	100%	0.000 AC.	0.000 AC.
FLOODPLAIN SOILS (ABUTTING DEL. RIVER)	50%	0.000 AC.	0.000 AC.
LAKES OR PONDS	100%	0.000 AC.	0.000 AC.
WETLANDS AND WATERS	100%	0.000 AC.	0.000 AC.
LAKE AND POND SHORELINE	100%	0.000 AC.	0.000 AC.
WETLANDS AND WATERCOURSE BUFFERS**	100%	0.000 AC.	0.000 AC.
STEEP SLOPES (8%-15%)**	50%	0.261 AC.	0.261 AC.
STEEP SLOPES (15%-25%)**	70%	0.000 AC.	0.000 AC.
STEEP SLOPES (25% PLUS)**	50%	0.000 AC.	0.000 AC.
WOODLAND ASSOCIATIONS R-2	75%	1.568 AC.	1.220 AC.

NATURAL RESOURCE PROTECTION (LOT 2):

RESOURCE PROTECTION RATIO	LAND IN RESOURCE*	REQUIRED RESOURCE PROTECTION LAND	PROPOSED RESOURCE PROTECTION LAND
FLOODPLAIN	100%	0.000 AC.	0.000 AC.
FLOODPLAIN SOILS (ABUTTING DEL. RIVER)	50%	0.000 AC.	0.000 AC.
LAKES OR PONDS	100%	0.000 AC.	0.000 AC.
WETLANDS AND WATERS	100%	0.069 AC.	0.069 AC.
LAKE AND POND SHORELINE	100%	0.000 AC.	0.000 AC.
WETLANDS AND WATERCOURSE BUFFERS**	100%	0.596 AC.	0.596 AC.
STEEP SLOPES (8%-15%)**	50%	1.237 AC.	0.619 AC.
STEEP SLOPES (15%-25%)**	70%	0.206 AC.	0.144 AC.
STEEP SLOPES (25% PLUS)**	100%	0.031 AC.	0.031 AC.
WOODLAND ASSOCIATIONS R-2	75%	1.920 AC.	1.440 AC.

* THE AMOUNT OF LAND IN EACH RESOURCE IS THE TOTAL AMOUNT OF THAT RESOURCE OUTSIDE THE ULTIMATE RIGHTS OF WAY OF EXISTING STREETS.
 ** EXCLUDES STEEP SLOPE AREAS LESS THAN 3,000 SF
 *** STANDARD WATERCOURSE BUFFER WIDTH IS 50 FEET, HOWEVER PURSUANT TO ZONING ORDINANCE §200-51.B.(4)(C)(1) IF SLOPES WITHIN 300 FEET OF THE WATERCOURSE ARE 5% OR GREATER, THEN WATER COURSE BUFFER IS TO INCREASE 4' FOR EACH PERCENT OF SLOPE GREATER THAN 5%. THE EXISTING (AVERAGE) SLOPE WITHIN 300 FEET OF WATERCOURSE IS 9%. 9%-5% = 4%. 4' x 4 FEET PER PERCENT OF SLOPE OVER 5 = 16. THEREFORE THE WATERCOURSE BUFFER INCREASES FROM 50 FEET TO 66 FEET.
 **** ASSUMES ENTIRE TEMPORARY GRADING EASEMENT ON LOT 1 WILL BE DISTURBED.

NOT FOR LAND DEVELOPMENT OR FOR CONSTRUCTION

Van Cleef
ENGINEERING WITH FOCUS

Local/Regional Planning
 Municipal Engineering
 Construction Inspection
 Environmental
 Geotechnical/Dams
 Landscaping Architecture

Surveying/Aerial Drones/GIS
 Water/Wastewater

1 PER TOWNSHIP REVIEW JB 02-13-24

REV/DESCRIPTION AUTH DATE

SERIAL NO. 20230610854

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GRAPHIC SCALE
 0 25 50 100
 1 INCH = 50 FT

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ROBERT W. COOK, PA P.L.S. DATE
 PENNSYLVANIA PROFESSIONAL SURVEYOR NUMBER SU27256

SAMUEL D. COSTANZO, PA PE DATE
 ENGINEER NUMBER 041557-R

Van Cleef
ENGINEERING WITH FOCUS

VAN CLEEF ENGINEERING ASSOCIATES, LLC
 501 NORTH MAIN STREET, DOYLESTOWN, PA 19901
 WWW.VANCLEEFENGINEERING.COM
 PHONE 610-348-1876

EXISTING FEATURES/DEMOLITION PLAN & CONCEPT GRADING/SITE IMPROVEMENT PLAN FOR

HERESA CLEARY AND CAROLINE TIMKO-NOYES

DATE: SEPTEMBER 6, 2023
 SCALE: 1"=50'
 DESIGNED BY: JB
 DRAWN BY: ENP
 CHECKED BY: SDC
 JOB NUMBER: 2201-LM

TMP 20-034-020-004

LOWER MAKEFIELD TOWNSHIP
 BUCKS COUNTY, PENNSYLVANIA

2 of 2