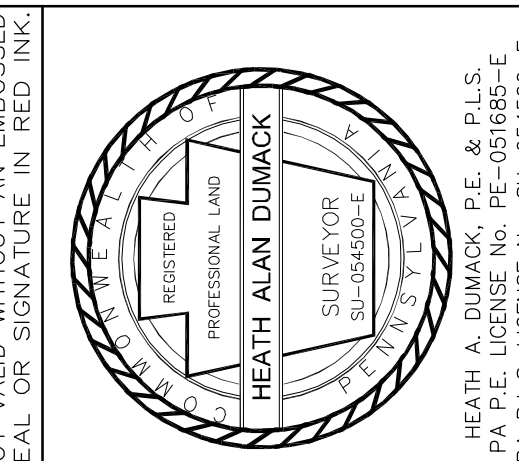


1511 LINDENHURST ROAD SUBDIVISION

LOWER MAKEFIELD TOWNSHIP, BUCKS COUNTY, PENNSYLVANIA

SERIAL No. 2023-0410388
 CALL BEFORE YOU DIG!
 PENNSYLVANIA LAW REQUIRES
 3 WORKING DAYS NOTICE FOR
 CONSTRUCTION PHASE AND 10 WORKING
 DAYS IN DESIGN STAGE-STOP CALL
 PENNSYLVANIA ONE CALL SYSTEM, INC.
 1-800-242-1776

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 ESTABLISHED IN 1964

677 DURHAM ROAD
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 PHONE: (215) 598-1230
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REV	DATE	REVISION
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**PRELIMINARY/FINAL PLAN
 MINOR SUBDIVISION**

EXISTING PARCEL INFO:
 T.M.P. No. 20-003-017
 DEED BOOK: 5029 PAGE No. 1855
 CURRENT ZONING: R-1

OWNER OF RECORD:
 JOSEPH SMITH & CYNTHIA MCDONOUGH
 1511 LINDENHURST ROAD
 YARDLEY, PA 19067

APPLICANT:
 SAME AS ABOVE

0
 GRAPHIC SCALE

COVER SHEET
 1511 LINDENHURST ROAD
 LOWER MAKEFIELD TOWNSHIP
 BUCKS COUNTY, PA

DRAWN BY: HAD
 CHECKED BY:
 SCALE: AS NOTED
 PROJECT No. 7533
 PLAN DATE: MAY 17, 2023
 SHEET No. 1 of 10



LOCATION MAP
 SCALE : 1" = 200'

INDEX OF DRAWINGS	
No.	DESCRIPTION
1	COVER SHEET
2	RECORD PLAN
3	EXISTING FEATURES PLAN
4	EROSION CONTROL PLAN
5	EROSION CONTROL DETAILS
6	POST CONSTRUCTION STORMWATER MANAGEMENT PLAN
7	POST CONSTRUCTION STORMWATER MANAGEMENT DETAILS
8	LANDSCAPE PLAN
9	LANDSCAPE DETAILS
10	CONSTRUCTION DETAILS

ZONED: R-1, RESIDENTIAL LOW-DENSITY DISTRICT
 USE: SINGLE FAMILY DWELLING

REQUIREMENT	SECTION	REQUIRED	EXISTING	PROPOSED LOT 1	PROPOSED LOT 2
MINIMUM LOT AREA	200-16	34,000 SF**	197,999 SF.	76,675 SF.	121,324 SF.
MINIMUM LOT WIDTH AT FRONT BUILDING LINE	200-18	110 FT**	427.42 FT.	243.53 FT.	133.70 FT.
MINIMUM FRONT YARD	200-18	80 FT	514.21 FT.	96.19 FT.	80 FT.
MINIMUM SIDE YARD	200-18	25 FT	20.57 FT.*	20.57 FT.*	25 FT.
MINIMUM REAR YARD	200-18	70 FT	105.79 FT.	105.79 FT.	70 FT.
MAXIMUM IMPERVIOUS SURFACE RATIO	200-19	18%	7.61%	15.39%	6.59%
MAXIMUM BUILDING HEIGHT	200-18	35 FT	<35 FT.	<35 FT.	<35 FT.
MAXIMUM DENSITY	200-16	1.40 DU/AC.	N/A		0.82 DU/AC

**INDICATES AN EXISTING NON-COMFORMITY
 **WITH ON-LOT PRIVATE WATER AND/OR ON-LOT SEWAGE FACILITIES, THE MINIMUM LOT AREA PERMITTED SHALL BE 34,000 SQUARE FEET WITH A MINIMUM LOT WIDTH AT THE BUILDING LINE OF 110 FEET

ON THE _____ DAY OF _____, 20____, BEFORE ME, THE
 SUBSCRIBER, A NOTARY PUBLIC OF THE COMMONWEALTH OF PENNSYLVANIA,

PERSONALLY APPEARED _____ WHO ACKNOWLEDGED THIS
 PLAN TO BE THE OFFICIAL PLAN OF PROPERTY SHOWN THEREON, SITUATE IN THE
 TOWNSHIP OF LOWER MAKEFIELD, COMMONWEALTH OF PENNSYLVANIA AND DESIRED

THAT THIS PLAN BE RECORDED ACCORDING TO LAW, _____

TO ALL TO WHOM THESE PRESENTS MAY COME, WE,
 SEND GREETINGS. KNOW YE THAT WE HAVE LAD OUT UPON OUR LAND SITUATE ON
 THE TOWNSHIP OF LOWER MAKEFIELD, COUNTY OF BUCKS, COMMONWEALTH OF PENNSYLVANIA,
 CERTAIN LOTS AND DEVELOPMENTS ACCORDING TO THE ACCOMPANYING PLAN WHICH IS
 HEREWITHT INTENDED TO BE RECORDED. WITNESS OUR HAND AND SEAL THIS

DAY OF _____, 20____

CORPORATION SEAL

APPROVED BY THE LOWER MAKEFIELD TOWNSHIP BOARD OF SUPERVISORS ON THIS _____ DAY OF _____, 20____

SECRETARY _____
 CHAIRMAN _____
 MEMBER _____

APPROVED BY THE LOWER MAKEFIELD TOWNSHIP PLANNING COMMISSION ON THIS _____ DAY OF _____, 20____

SECRETARY _____
 CHAIRMAN _____

REVIEWED BY THE LOWER MAKEFIELD TOWNSHIP ENGINEER ON THIS _____ DAY OF _____, 20____

TOWNSHIP ENGINEER _____

BUCKS COUNTY PLANNING COMMISSION NUMBER: _____
 PROCESSED AND REVIEWED. REPORT PREPARED BY THE BUCKS COUNTY PLANNING
 COMMISSION IN ACCORDANCE WITH THE MUNICIPAL PLANNING CODE.

RECORDING CERTIFICATION - COUNTY OF BUCKS
 THIS PLAN WAS RECORDED IN THE OFFICE FOR THE RECORDING OF DEEDS, IN
 AND FOR THE COUNTY OF BUCKS AT DONALDSTOWN, PENNSYLVANIA IN PLAN
 BOOK NO. _____ PAGE _____ ON _____, 20____

RECORDER OF DEEDS _____

HEATHER RIDGE DR
 (56' ROW WIDTH)

N/E LOWER MAKEFIELD TOWNSHIP
 TAX MAP PARCEL 20-073-014
 ZONED: R-1

50' WETLAND BUFFER

PROPOSED DWELLING 2,446 SF

PROPOSED STONE DRYWELL #1 37'x20'x1.5'

PROPOSED STONE DRYWELL #2 6'x15'x1.5'

PROPOSED POOL DECK 226.0

PROPOSED POOL 12'x16'

PROPOSED PORCH 67.25

PROPOSED WALKWAY 12.00

EXISTING IMPERVIOUS SURFACE TABULATION	LOT 1	LOT 2
DWELLING	5,300	2,446
COVERED PATIO	207	
SHED	142	
POOL HOUSE	288	0
DRIVE	1,432	3,145
GRAVEL	3,631	0
WALLS	3,436	411
WALKS/CONC.	373	4,270
TOTAL (SF)	15,062	1,368
IMPERVIOUS RATIO	7.61%	6.59%

PROPOSED IMPERVIOUS SURFACE TABULATION

DRAINAGE PLAN CERTIFICATION:
 I, HEATH DUMACK, P.E. ON THIS DATE _____ HAVE REVIEWED AND HEREBY CERTIFY THAT TO THE BEST OF MY KNOWLEDGE THE SWM SITE PLAN MEETS ALL DESIGN STANDARDS AND CRITERIA OF THE NESHAMINY CREEK WATERSHED ACT 167 STORMWATER MANAGEMENT ORDINANCE OR PLAN AND LOWER MAKEFIELD TOWNSHIP STORMWATER ORDINANCE.

OWNERS ACKNOWLEDGMENT:
 I, _____ (LAND OWNER), HEREBY ACKNOWLEDGES THAT THE STORMWATER MANAGEMENT SYSTEM, INCLUDING ALL BMP'S, ARE A PERMANENT FEATURE THAT CAN BE ALTERED OR REMOVED ONLY AFTER APPROVAL BY THE TOWNSHIP OF A REVISED PLAN, WHICH SHALL BE RECORDED WITH THE RECORD PLAN AND WHICH SHALL BE APPLICABLE TO ALL FUTURE LAND OWNERS.

SURVEYORS CERTIFICATION:
 I, HEATH A. DUMACK, P.E., ON THIS DATE _____ HAVE REVIEWED AND HEREBY CERTIFY THAT TO THE BEST OF MY KNOWLEDGE THE SITE DOES NOT HAVE A CLOSURE GREATER THAN ONE PART IN 10,000.

UTILITY USERS LIST

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SUBSURFACE DRYWELL INSPECTION AND MAINTENANCE SCHEDULE

- INSPECTION, MAINTENANCE AND REPAIR OF THE UNDERGROUND STORMWATER MANAGEMENT SYSTEMS SHALL BE THE RESPONSIBILITY OF THE PROPERTY OWNER.
- 100 PERCENT VEGETATIVE COVER BY HERBACEOUS SPECIES SHALL BE MAINTAINED THROUGHOUT ALL EMBANKMENTS AND LAWN AREAS WITH DIRECT DISCHARGE TO THE UNDERGROUND FACILITY. ANY AREA BECOMING VOID OF VEGETATION SHALL BE IMMEDIATELY CORRECTED BY REPLANTING OR OTHER ADEQUATE MEASURES NECESSARY TO PREVENT EROSION THAT MAY IMPAIR THE POROSITY OF THE SYSTEM. AT NO TIME SHALL MULCH BE USED ON SLOPES OF DIRECT DRAINAGE TO THE UNDERGROUND FACILITY.
- GRASS CLIPPINGS SHALL BE COLLECTED AND REMOVED TO PREVENT CLOGGING OF THE FACILITY. FALLEN LEAVES SHALL BE COLLECTED AND REMOVED FROM THE SITE. A MINIMUM OF ONE (1) TIME PER WEEK DURING THE FALL SEASON. ROOF DRAINS AND DEBRIS TRAPS SHALL BE CHECKED FOR LEAF LITTER AND OTHER DEBRIS, WHICH MAY CLOG PERFORATED PIPES AND OR STONE BEDS.
- INSPECT UNDERGROUND STORMWATER MANAGEMENT FACILITY AT LEAST FOUR TIMES A YEAR, AS WELL AS AFTER EVERY STORM EXCEEDING 1 INCH. REMOVE CLEANOUT CAPS AND INSPECT FOR DEBRIS. REMOVE ACCUMULATED LEAVES, TWIGS, SEDIMENT AND OTHER DEBRIS AS REQUIRED TO KEEP THE ROOF DRAINAGE SYSTEM CLEAN. IF AFTER INSPECTION IT IS DETERMINED THAT SEDIMENT NEEDS TO BE REMOVED FROM THE SEEPAGE BED, INJECT SYSTEM WITH WATER, SUSPEND SILT AND PUMP CHAMBER.
- EVALUATE THE DRAIN-DOWN TIME OF THE FACILITY TO ENSURE THE MAXIMUM TIME OF 72 HOURS IS NOT BEING EXCEEDED. IF DRAIN-DOWN TIMES ARE EXCEEDING THE MAXIMUM, DRAIN THE FACILITY BY PUMPING AND CLEANING OUT PERFORATED PIPE.
- THE PROPERTY OWNER SHALL SUBMIT AN ANNUAL REPORT TO THE TOWNSHIP DETAILING THE MAINTENANCE WORK, INCLUDING REPAIRS, IF ANY, THAT ARE CARRIED OUT DURING A GIVEN CALENDAR YEAR. SUCH REPORTS SHALL BE DUE ON OR ABOUT THE FIRST DAY OF MARCH OF THE FOLLOWING YEAR.

THE TOWNSHIP AND/OR ITS AGENTS RESERVES THE RIGHT AND PRIVILEGE TO ENTER UPON SUCH LANDS FROM TIME TO TIME FOR THE PURPOSE OF INSPECTION OF SAID UNDERGROUND STORMWATER MANAGEMENT FACILITY IN ORDER TO ENSURE THAT THE STRUCTURAL AND DESIGN INTEGRITY AND MAINTENANCE REQUIREMENTS ARE BEING MAINTAINED BY THE OWNERS.

SITE CAPACITY CALCULATION

- FOR DETERMINING THE NET BUILDABLE SITE AREA, THE FOLLOWING FORM SHALL BE USED:
- CALCULATION FOR BASE SITE AREA:
 - DETERMINE GROSS SITE AREA BY ACTUAL ON-SITE SURVEY: 6100 AC
 - SUBTRACT THE FOLLOWING:
 - LAND WITH EXISTING ROADS AND THEIR ULTIMATE RIGHTS-OF-WAY AND UTILITY TRANSMISSION RIGHTS-OF-WAY: 1.555 AC
 - LAND WITHOUT DEVELOPMENT OPPORTUNITIES DUE TO RESTRICTIONS SUCH AS RESTRICTIVE COVENANTS AND CONSERVATION EASEMENTS: 0.00 AC
 - EQUALS BASE SITE AREA: 4.545 AC
 - CALCULATION FOR LAND WITH RESOURCE RESTRICTIONS AND RESOURCES PROTECTION:
 - DETERMINE LAND SUBJECT TO NATURAL RESOURCES. EACH SITE HAS UNIQUE NATURAL FEATURES. ALL APPLICATIONS SHALL INCLUDE MAPS SHOWING THE LOCATIONS OF THE RESOURCES TOGETHER WITH THE CALCULATIONS ON THE FOLLOWING CHART. IN THE EVENT THAT TWO OR MORE RESOURCES OVERLAP, ONLY THE RESOURCE WITH THE HIGHEST PROTECTION RATIO SHALL BE USED:

DATA MAPS	NATURAL RESOURCES DEVELOPMENTS	MINIMUM REQUIRED RESOURCE PROTECTION RATIO	LAND IN NATURAL RESOURCES (A.C.)	RESOURCE PROTECTION LAND (COLUMN I x COLUMN II)
HYDROLOGIC SURFACE FEATURES	FLOODPLAINS	1.00	0.000	0.000
	FLOODPLAIN SOILS	0.50	0.000	0.000
	WETLANDS	1.00	0.000	0.000
	WETLAND POND	1.00	0.000	0.000
	SHORELAND	1.00	1.001	1.001
	WOODLAND WATERCOURSE BUFFER	0.50	0.292	0.146
SLOPES	CLASS I STEEP SLOPES	0.70	0.070	0.049
	CLASS II STEEP SLOPES (GREATER THAN 25%)	1.00	0.078	0.078
WOODLAND ASSOCIATIONS	WOODLANDS	0.80	0.397	0.318
TOTAL LAND WITH NATURAL RESOURCE RESTRICTIONS: 2.360 Ac.				
TOTAL NATURAL RESOURCE PROTECTION LAND: 2.114 Ac.				

(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.

C. DETERMINE SITE CAPACITY
 (1) FOR ALL RESIDENTIAL SUBDIVISIONS AND LAND DEVELOPMENTS THE FOLLOWING CALCULATIONS SHALL APPLY:

(1) FIND NET BUILDABLE SITE AREA FOR SINGLE-FAMILY DETACHED AND TWO-FAMILY DEVELOPMENTS:
 BASE SITE AREA MINUS TOTAL RESOURCE PROTECTED LAND (DETERMINED IN STEP II) = NET BUILDABLE SITE AREA:
 $4.545 \text{ AC} - 2.114 \text{ AC} = 2.431 \text{ AC}$ NET BUILDABLE SITE AREA

(2) FIND MAXIMUM NUMBER OF PERMITTED DWELLING UNITS FOR ALL SINGLE-FAMILY DETACHED AND TWO-FAMILY DEVELOPMENTS:
 $2.431 \text{ AC} \times 1.40 \text{ DU/AC} = 3.40 \text{ DU}$ MAXIMUM DENSITY
 $3.40 \text{ DU} / 1.00 \text{ DU PERMITTED} = 3.40$ UNITS PERMITTED

LEGEND

- PROPERTY LINES
- OFF-SITE PROPERTY LINES
- EXISTING FENCE
- WETLAND FLAG
- EXISTING EDGE OF WATER
- EXISTING WETLANDS LINES
- WETLANDS BUFFER LINE
- UTILITY POLE
- GUY WIRE
- SON
- SON DOUBLE POST
- PROPOSED PROPERTY LINE
- PROPOSED BUILDING SETBACK LINE
- PROPOSED MONUMENT TO BE SET
- EXISTING TREE LINE



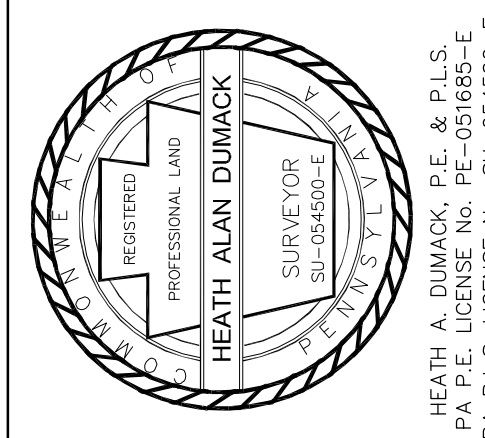
LOCATION MAP
 SCALE: 1"=800'

GENERAL NOTES:

- THE LOCATION OF EXISTING UNDERGROUND UTILITIES CONTAINED ON THESE PLANS HAVE BEEN OBTAINED BY FIELD SURVEY. COMPLETENESS OR ACCURACY OF UTILITIES 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 2008-121.
- NO PORTION OF THE SITE IS LOCATED WITHIN THE 100-YEAR FLOODPLAIN BOUNDARY AS IDENTIFIED ON FEMA MAP 4201700344, EFFECTIVE DATE MARCH 16, 2015.
- TOPOGRAPHY AND ELEVATIONS BASED ON A FIELD SURVEY PERFORMED BY DYNAMIC SURVEY, LLC IN OCTOBER & NOVEMBER OF 2020.
- ALL PROPOSED UTILITIES SHALL BE PLACED UNDERGROUND.
- PROPOSED DWELLING SHOWN ON LOT 2 IS SCHEMATIC ONLY.
- SITE TO BE SERVICED BY PRIVATE WATER AND ON-LOT SEWER.
- THE SITE IS LOCATED WITHIN THE NESHAMINY CREEK WATERSHED DISTRICT. THE SITE DRAINS TO AN UNNAMED TRIBUTARY TO CORE CREEK WITH A CHAPTER 93 CLASSIFICATION OF COLD WATER FISHES (CWF) AND MIGRATORY FISHES (MF).
- THIS PLAN WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT.

SERIAL No. 2023-0410388
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PRELIMINARY/FINAL PLAN
 MINOR SUBDIVISION

EXISTING PARCEL INFO:
 T.M.P. No. 20-003-017 PAGE No. 1855
 DEED BOOK: 5029
 CURRENT ZONING: R-1
 OWNER OF RECORD:
 JOSEPH SMITH & CYNTHIA MCDONOUGH
 1511 LINDENHURST ROAD
 YARDLEY, PA 19067
 APPLICANT:
 SAME AS ABOVE

RECORD PLAN
 1511 LINDENHURST ROAD

LOWER MAKEFIELD TOWNSHIP
 BUCKS COUNTY, PA
 DRAWN BY: HAD
 CHECKED BY:
 SCALE: 1"=50'
 PROJECT NO: 7533
 PLAN DATE: MAY 17, 2023
 SHEET NO: 2 OF 10

LEGEND

- PROPERTY LINES
- OFF-SITE PROPERTY LINES
- 2.00' --- EXISTING MAJOR CONTOUR & ELEVATION
- 2.50' --- EXISTING MINOR CONTOUR & ELEVATION
- E --- APPROX. LOC. EXIST. UNDERGROUND ELECTRIC LINES
- X --- EXISTING FENCE
- ▲ WETLAND FLAG
- EXISTING EDGE OF WATER
- EXISTING WETLANDS LINES
- 8" CIP --- WETLANDS BUFFER LINE
- EXISTING SANITARY SEWER
- 15" RCP --- EXISTING STORM SEWER
- UTILITY POLE
- GUY WIRE
- SIGN
- SIGN DOUBLE POST
- "M"-INLET
- "C"-INLET
- MANHOLE
- FLARED END SECTION
- HEADWALL
- DECIDUOUS TREE
- EVERGREEN TREE
- SHRUB
- FIRE HYDRANT
- WATER VALVE
- WATER METER
- GAS VALVE
- GAS METER
- ELECTRIC METER
- ELECTRIC BOX
- WELL
- CLEAN OUT
- WATER SHUT OFF VALVE
- DOWN SPOUT
- TELEPHONE BOX
- VALVE UNKNOWN
- EXISTING TREE LINE
- SOIL BOUNDARY LINE

Steep Slope Legend

- 8-15% Steep Slopes
- 15-25% Steep Slopes
- >25% Steep Slopes

SOIL SYMBOLS/ SERIES	DEPTH TO THE TOP SEASONAL WATER TABLE	DEPTH TO RESTRICTIVE FEATURE	BUILDINGS WITHOUT BASEMENTS	BUILDINGS WITH BASEMENTS	SMALL COMMERCIAL BUILDINGS	LAND CAPABILITY	PRIME FARMLAND	HYDROLOGY CODE
Bo BOWMANVILLE-KNAUERS SILT LOAMS	0 TO 18 INCHES	72 TO 99 INCHES (LITHIC BEDROCK)	VERY LIMITED DEPTH TO SATURATED ZONE, FLOODING	VERY LIMITED DEPTH TO SATURATED ZONE, FLOODING	VERY LIMITED DEPTH TO SATURATED ZONE, FLOODING	3w	NOT PRIME FARMLAND	C/D
CbB CHALFONT SILT LOAM 3 TO 8% SLOPES	6 TO 18 INCHES	15 TO 30 INCHES (FRAGIPAN) 42 TO 99 INCHES (LITHIC BEDROCK)	VERY LIMITED DEPTH TO SATURATED ZONE, DEPTH TO THIN CEMENTED PAN, DEPTH TO THICK CEMENTED PAN	VERY LIMITED DEPTH TO SATURATED ZONE	VERY LIMITED DEPTH TO SATURATED ZONE, DEPTH TO THIN CEMENTED PAN, DEPTH TO THICK CEMENTED PAN, SLOPE	3w	FARMLAND OF STATEWIDE IMPORTANCE	D
LkA LAWRENCEVILLE SILT LOAM 0 TO 3% SLOPES	18 TO 36 INCHES	24 TO 38 INCHES (FRAGIPAN) 48 TO 99 INCHES (LITHIC BEDROCK)	VERY LIMITED DEPTH TO SATURATED ZONE, DEPTH TO THIN CEMENTED PAN, DEPTH TO THICK CEMENTED PAN	VERY LIMITED DEPTH TO SATURATED ZONE	VERY LIMITED DEPTH TO SATURATED ZONE, DEPTH TO THIN CEMENTED PAN, DEPTH TO THICK CEMENTED PAN	2w	PRIME FARMLAND	C

Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Web Soil Survey. Available online at <http://websoilsurvey.nrcs.usda.gov/>. SITE ACCESSED ON DEC. 7, 2021

NATURAL RESOURCE CALCULATION TABLE:

NATURAL RESOURCE	% OF RESOURCE TO BE PROTECTED	% OF RESOURCE PERMITTED TO BE DISTURBED	TOTAL AREA OF NATURAL RESOURCE (AC.)	TOTAL AREA REQUIRED PROTECTION (AC.)	ACTUAL AREA OF RESOURCE PROTECTED (AC.)	ACTUAL AREA OF RESOURCE PROTECTED (%)	ACTUAL AREA OF RESOURCES DISTURBED (AC.)	ACTUAL AREA OF RESOURCE DISTURBED (%)
FLOODPLAIN	100%	0%	0.0000	0.0000	0.0000	0.00%	0.0000	0.00%
FLOODPLAIN SOILS (DELAWARE RIVER)	50%	50%	0.0000	0.0000	0.0000	0.00%	0.0000	0.00%
LAKES OR PONDS	100%	0%	0.0000	0.0000	0.0000	0.00%	0.0000	0.00%
LAKE AND POND SHORELINE	100%	0%	0.0000	0.0000	0.0000	0.00%	0.0000	0.00%
WETLANDS	100%	0%	0.5222	0.5222	0.5222	0.00%	0.0000	0.00%
WETLAND AND WATERCOURSE BUFFER	100%	0%	1.0010	1.0010	0.8805	88.0%	0.1205	12.0%
STEEP SLOPES (CLASS I)	50%	50%	0.5457	0.2728	0.4877	89.4%	0.0580	10.6%
STEEP SLOPES (CLASS II)	70%	30%	0.1519	0.1063	0.1454	95.7%	0.0065	4.3%
STEEP SLOPES (CLASS III)	100%	0%	0.0777	0.0777	0.0697	89.7%	0.0080	10.3%
WOODLANDS (R-1)	80%	20%	1.0781	0.8625	1.0781	100.0%	0.0000	0.0%

*Natural resource chart treats each resource irrespective of other resources, the site capacity calculations utilize the resource with the highest protection ratio in the case of overlap

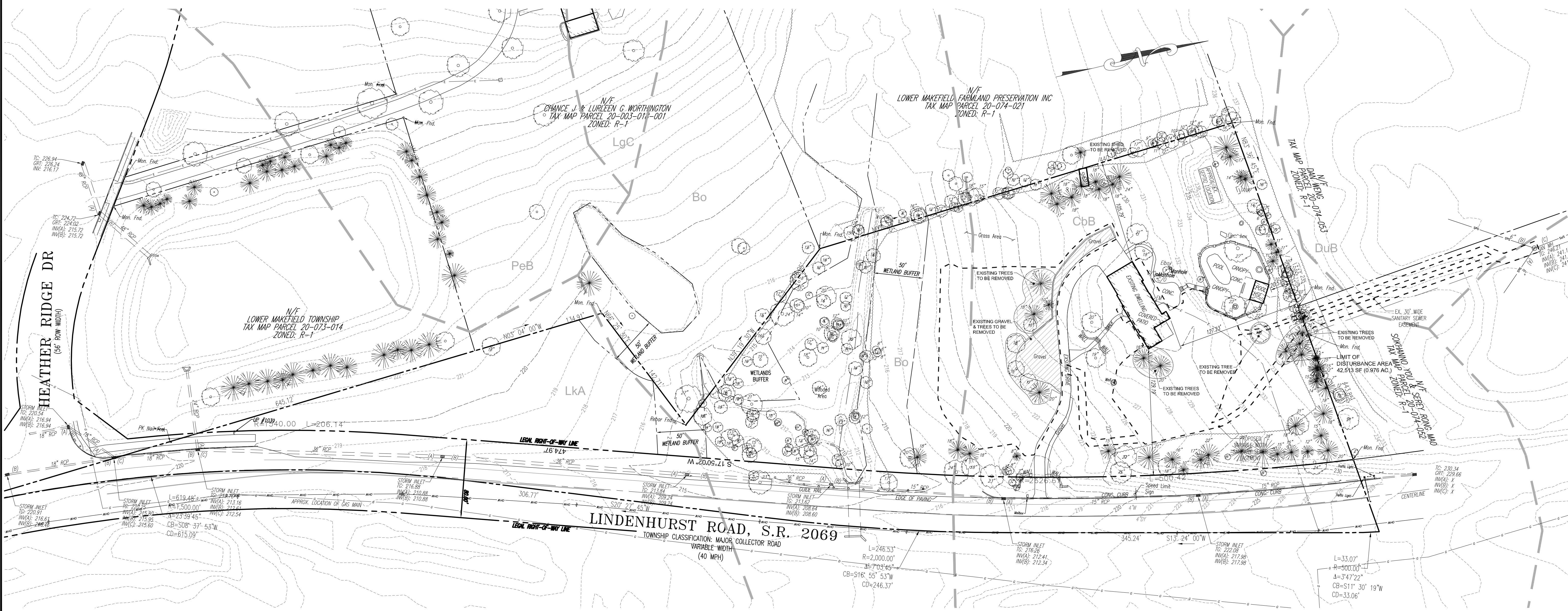
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PRELIMINARY/FINAL PLAN
MINOR SUBDIVISION

EXISTING PARCEL INFO:
 T.M.P. No. 20-003-017
 DEED BOOK: 5029
 PAGE No. 1855

CURRENT ZONING: R-1

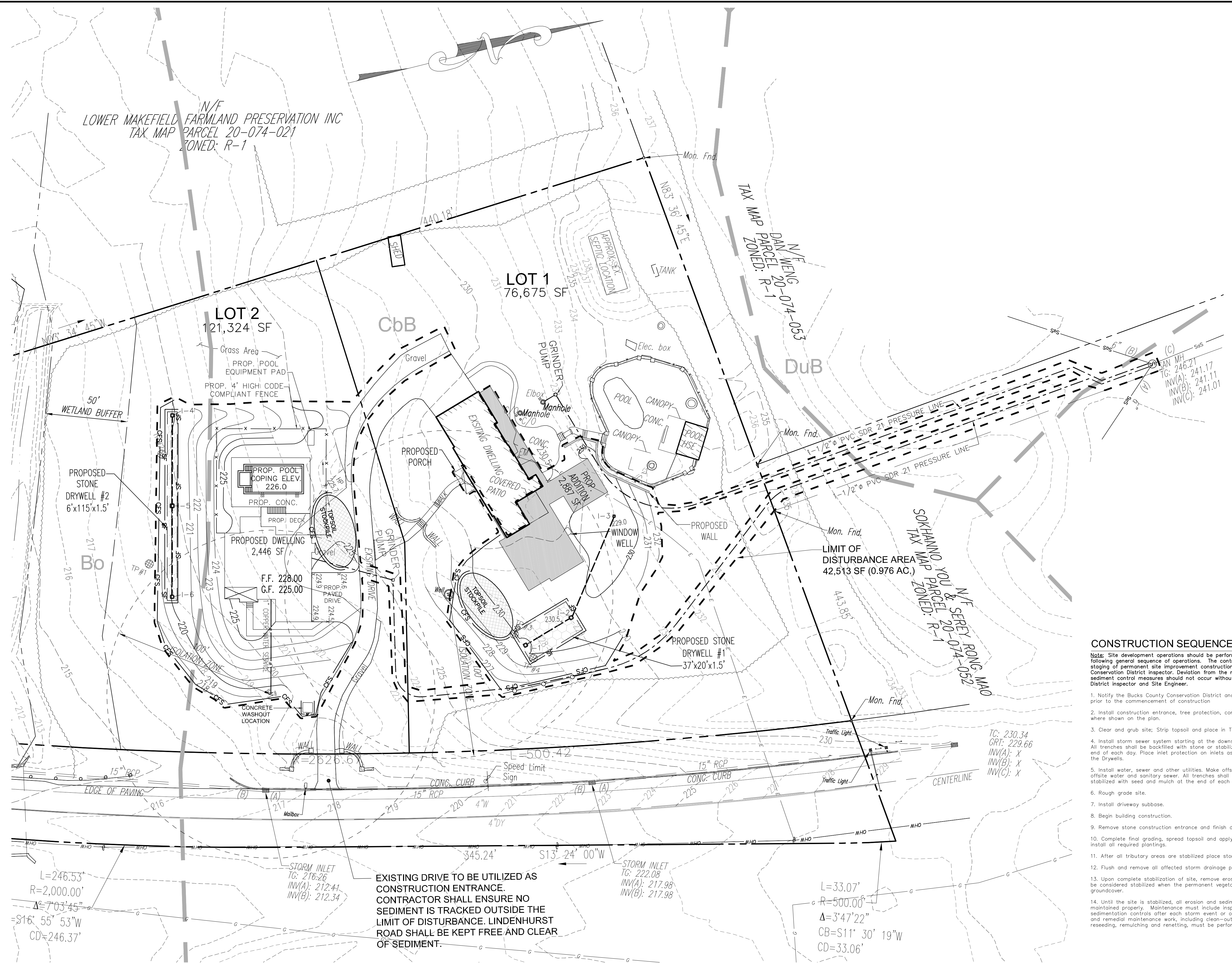
OWNER OF RECORD:
 JOSEPH SMITH & CYNTHIA MCDONOUGH
 1511 LINDENHURST ROAD
 YARDLEY, PA 19067

APPLICANT:
 SAME AS ABOVE

GRAPHIC SCALE: 0 25 50

EXISTING FEATURES PLAN
 1511 LINDENHURST ROAD
 LOWER MAKEFIELD TOWNSHIP
 BUCKS COUNTY, PA

DRAWN BY: HAD
 CHECKED BY:
 SCALE: 1"=50'
 PROJECT No: 7533
 PLAN DATE: MAY 17, 2023
 SHEET No: 3 of 10



- General Notes**
- THE LOCATION OF EXISTING UNDERGROUND UTILITIES CONTAINED ON THESE PLANS HAVE BEEN OBTAINED BY FIELD SURVEY. COMPLETENESS OR ACCURACY OF THE LOCATION OF UTILITIES 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 2008-121.
 - NO PORTION OF THE SITE IS LOCATED WITHIN THE 100-YEAR FLOODPLAIN BOUNDARY AS IDENTIFIED ON FEMA MAP 42017C0344, EFFECTIVE DATE MARCH 16, 2015.
 - TOPOGRAPHY AND ELEVATIONS BASED ON A FIELD SURVEY PERFORMED BY DYNAMIC SURVEY, LLC IN OCTOBER & NOVEMBER OF 2020.
 - ALL CONSTRUCTION, MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE LATEST STANDARDS AND SPECIFICATIONS OF BENSALEM TOWNSHIP AND THE PENNSYLVANIA DEPARTMENT OF TRANSPORTATION. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH OSHA STANDARDS.
 - ALL WORK AND MATERIALS SHALL BE INSPECTED BY THE TOWNSHIP ENGINEER AND/OR HIS APPROVED REPRESENTATIVES.
 - ALL PROPOSED UTILITIES TO BE PLACED UNDERGROUND.
 - CONTRACTOR IS RESPONSIBLE FOR CHECKING ALL DISTANCES, GRADES, QUANTITIES, LINES AND ELEVATIONS AND NOTIFYING DUMACK ENGINEERING OF ANY DISCREPANCIES PRIOR TO PROCEEDING WITH ANY WORK.
 - ALL STRUCTURAL FILL IN 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).
 - TREES TO REMAIN SHALL BE PROTECTED DURING CONSTRUCTION FROM ROOT COMPACTION, EQUIPMENT AND MATERIALS.
 - ALL BUILDING MATERIAL AND WASTES MUST BE REMOVED FROM THE SITE AND RECYCLED OR RECYCLED IN ACCORDANCE WITH DEP'S SOLID WASTE REGULATIONS (25 PA CODE 260.1 ET. SEQ. 271.1 ET. SEQ. AND 287.1 ET. SEQ., AND/OR ANY ADDITIONAL LOCAL, STATE, OR FEDERAL REGULATIONS. NO BUILDING MATERIALS (USED OR UNUSED) OR WASTE MATERIALS SHALL BE BURNED, BURIED, DUMPED, OR DISCHARGED AT THE SITE.
 - ANTICIPATED CONSTRUCTION WASTE INCLUDES WOOD, EROSION CONTROL BMPs CONSTRUCTION FENCING, AND MISCELLANEOUS.
 - NO KNOWN POTENTIAL POLLUTION PROBLEMS DUE TO GEOLOGIC CONDITION EXIST ON THIS SITE. WHERE POTENTIAL FOR POLLUTION IDENTIFIED, MEASURES ARE PROVIDED TO AVOID/MINIMIZE/ OR MITIGATE.
 - THIS PLAN MINIMIZES IMPERVIOUS SURFACES.
 - THIS PLAN MAXIMIZES THE PROTECTION OF DRAINAGE FEATURES AND EXISTING VEGETATION.
 - THIS PLAN MINIMIZES LAND CLEARING AND GRADING.
 - THIS PLAN MINIMIZES SOIL COMPACTION.
 - THIS PLAN UTILIZES STRUCTURAL AND NON-STRUCTURAL BMPs THAT PREVENT OR MINIMIZE CHANGES IN STORMWATER RUNOFF.
 - THIS PLAN IS CONSISTENT WITH THE DIMENSIONS AND ELEVATIONS USED IN SUPPORTING CALCULATIONS.
 - THIS PLAN IS CONSISTENT WITH EROSION & SEDIMENT CONTROL PLAN IN RELATION TO PROPOSED CONTOURS, IMPROVEMENTS, SOILS, WETLANDS, FLOODWAYS, STREAMS, DISCHARGE LOCATIONS, ETC..
 - THIS PLAN PRESERVES THE INTEGRITY OF STREAM CHANNELS AND MAINTAINS AND PROTECTS THE PHYSICAL, BIOLOGICAL AND CHEMICAL EQUALITIES OF THE RECEIVING STREAM.
 - SITE IS LOCATED WITHIN THE NESHAMNEY CREEK WATERSHED, SITE DRAINS TO AN UNNAMED TRIBUTARY TO CORE CREEK WITH A CHAPTER 93 CLASSIFICATION OF COLD WATER FISHES (CWF) AND MIGRATORY FISHES (MF).

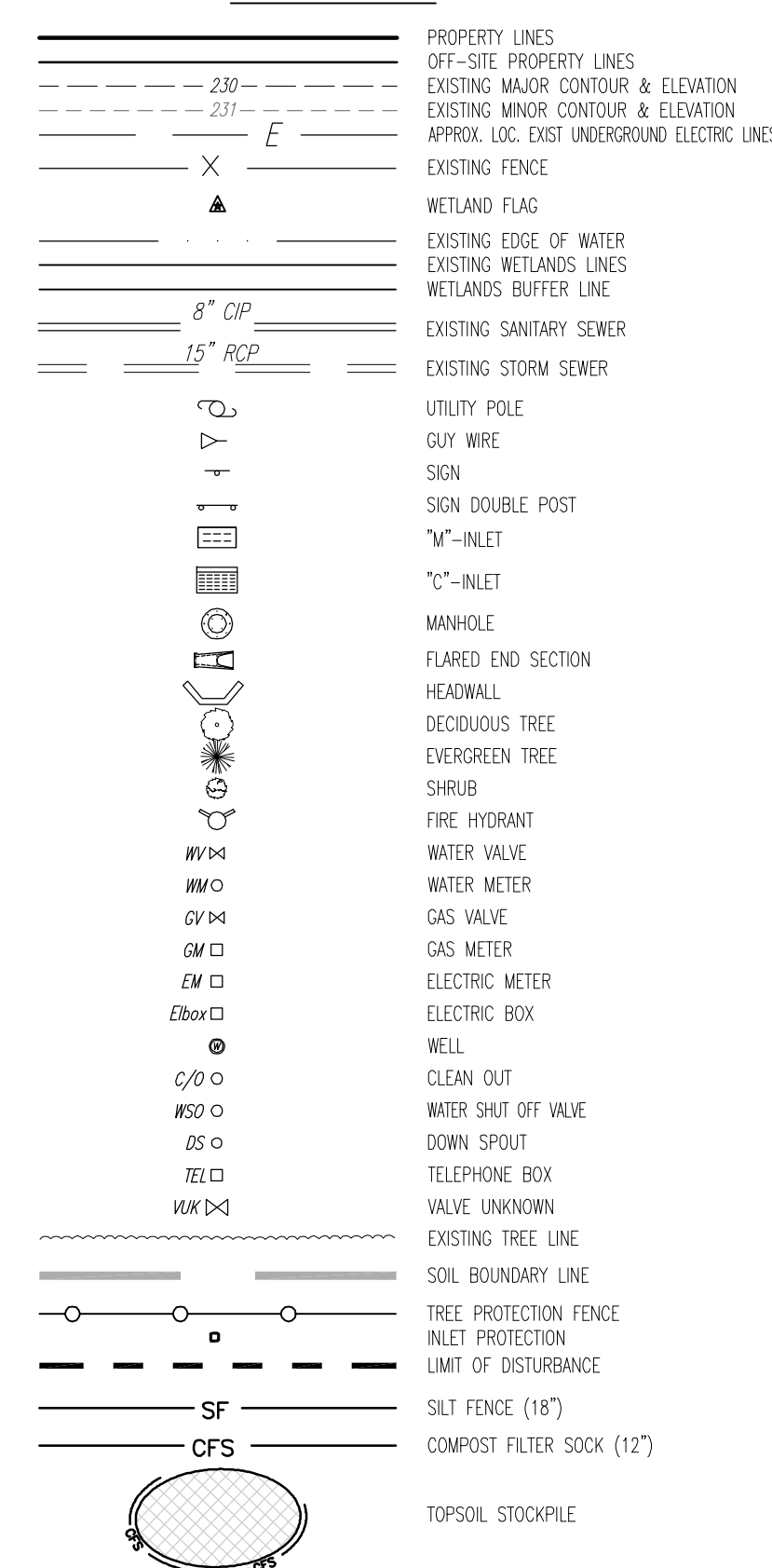
- DUST CONTROL MEASURES TO INCLUDE:**
- THE APPLICATION OF WATER TO THE WORKSITE AFTER SEED IS APPLIED.
 - THE UTILIZATION OF A ROCK CONSTRUCTION ENTRANCE, ALONG WITH WETTING AND SWEEPING THE ENTRANCE AS NEEDED.
 - WETTING AND COVERING ANY DEBRIS GENERATED FROM THIS PROJECT UPON REMOVAL.
 - UTILIZING THE SITES NATURAL DRAINAGE FEATURES ALONG WITH SILT FENCES AND OTHER EROSION CONTROL DEVICES, AS SHOWN, TO PREVENT UNCONTROLLED DISCHARGE OF WATER FROM THE DUST CONTROL MEASURES.
 - AND A 10 MPH SPEED LIMIT WITHIN THE WORKSITE.

CONSTRUCTION SEQUENCE

Note: Site development operations should be performed in accordance with the following general sequence of operations. The contractor may deviate from the staging of permanent site improvement construction items, with approval of the Conservation District Inspector. Deviation from the relative order of erosion and sediment control measures should not occur without approval of the Conservation District Inspector and Site Engineer.

- Notify the Bucks County Conservation District and Lower Makefield Township 3 days prior to the commencement of construction.
- Install construction entrance, tree protection, compost filter sock and silt fence where shown on the plan.
- Clear and grub site; Strip topsoil and place in Topsoil Stockpile.
- Install storm sewer system starting at the downstream ends and working upstream. All trenches shall be backfilled with stone or stabilized with seed and mulch at the end of each day. Place inlet protection on inlets as shown. Omit the working stone of the Drywells.
- Install water, sewer and other utilities. Make offsite utility connections and install offsite water and sanitary sewer. All trenches shall be backfilled with stone or stabilized with seed and mulch at the end of each day.
- Rough grade site.
- Install driveway subbase.
- Begin building construction.
- Remove stone construction entrance and finish driveway construction.
- Complete final grading, spread topsoil and apply permanent seeding mixture and install all required plantings.
- After all tributary areas are stabilized place stone storage in drywells.
- Flush and remove all affected storm drainage pipe of accumulated silt.
- Upon complete stabilization of site, remove erosion control devices. The site shall be considered stabilized when the permanent vegetation has provided a 70% groundcover.
- Until the site is stabilized, all erosion and sedimentation controls must be maintained properly. Maintenance must include inspections of all erosion and sedimentation controls after each storm event or on a weekly basis. All preventative and remedial maintenance work, including clean-out, repair, replacement, regrading, reseeded, mulching and renetting, must be performed immediately.

LEGEND



SOIL SYMBOLS/ SERIES	DEPTH TO THE TOP SEASONAL WATER TABLE	DEPTH TO RESTRICTIVE FEATURE	BUILDINGS WITHOUT BASEMENTS	BUILDINGS WITH BASEMENTS	SMALL COMMERCIAL BUILDINGS	LAND CAPABILITY	PRIME FARMLAND	HYDROLOGY CODE
Bo BOWMANVILLE-KNAUERS SILT LOAMS	0 TO 18 INCHES	72 TO 99 INCHES (LITHIC BEDROCK)	VERY LIMITED DEPTH TO SATURATED ZONE, FLOODING	VERY LIMITED DEPTH TO SATURATED ZONE, FLOODING	VERY LIMITED DEPTH TO SATURATED ZONE, FLOODING	3w	NOT PRIME FARMLAND	C/D
CbB CHALFONT SILT LOAM 3 TO 8% SLOPES	6 TO 18 INCHES	15 TO 30 INCHES (FRAGIPAN) 42 TO 99 INCHES (LITHIC BEDROCK)	VERY LIMITED DEPTH TO SATURATED ZONE, DEPTH TO THIN CEMENTED PAN, DEPTH TO THICK CEMENTED PAN	VERY LIMITED DEPTH TO SATURATED ZONE	VERY LIMITED DEPTH TO SATURATED ZONE, DEPTH TO THIN CEMENTED PAN, DEPTH TO THICK CEMENTED PAN, SLOPE	3w	FARMLAND OF IMPORTANCE	D
LkA LAWRENCEVILLE SILT LOAM 0 TO 3% SLOPES	18 TO 36 INCHES	24 TO 38 INCHES (FRAGIPAN) 48 TO 99 INCHES (LITHIC BEDROCK)	VERY LIMITED DEPTH TO SATURATED ZONE, DEPTH TO THIN CEMENTED PAN, DEPTH TO THICK CEMENTED PAN	VERY LIMITED DEPTH TO SATURATED ZONE	VERY LIMITED DEPTH TO SATURATED ZONE, DEPTH TO THIN CEMENTED PAN, DEPTH TO THICK CEMENTED PAN	2w	PRIME FARMLAND	C

Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Web Soil Survey. Available online at <http://websoilsurvey.nrcs.usda.gov/>. SITE ACCESSED ON DEC. 7, 2021

SERIAL No. 2023-0410388
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 1-800-242-1776

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DUMACK ENGINEERING
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 FAX: (215) 598-1232

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PRELIMINARY/FINAL PLAN MINOR SUBDIVISION

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 YARDLEY, PA 19067

APPLICANT:
 SAME AS ABOVE

EROSION & SEDIMENT CONTROL PLAN
 1511 LINDENHURST ROAD
 LOWER MAKEFIELD TOWNSHIP
 BUCKS COUNTY, PA

DRAWN BY: HAD
 CHECKED BY:
 SCALE: 1"=30'
 PROJECT No. 7533
 PLAN DATE: MAY 17, 2023
 SHEET No. 4 OF 10

LEGEND

	PROPERTY LINES
	OFF-SITE PROPERTY LINES
	EXISTING MAJOR CONTOUR & ELEVATION
	EXISTING MINOR CONTOUR & ELEVATION
	APPROX. LOC. OF EXIST. UNDERGROUND ELECTRIC LINES
	EXISTING FENCE
	WETLAND FLAG
	EXISTING EDGE OF WATER
	EXISTING WETLANDS LINES
	WETLANDS BUFFER LINE
	EXISTING SANITARY SEWER
	EXISTING STORM SEWER
	UTILITY POLE
	GUY WIRE
	SIGN
	SIGN DOUBLE POST
	T-INLET
	C-INLET
	MANHOLE
	FLARED END SECTION
	HEADWALL
	DECIDUOUS TREE
	EVERGREEN TREE
	SHRUB
	FIRE HYDRANT
	WATER VALVE
	WATER METER
	GAS VALVE
	GAS METER
	ELECTRIC METER
	ELECTRIC BOX
	WELL
	CLEAN OUT
	WATER SHUT OFF VALVE
	DOWN SPOUT
	TELEPHONE BOX
	VALVE UNKNOWN
	EXISTING TREE LINE
	SOIL BOUNDARY LINE
	PROPOSED STORM SEWER
	PROPOSED MAJOR CONTOUR & ELEVATION
	PROPOSED MINOR CONTOUR & ELEVATION
	PROPOSED FENCE
	SWM TEST PIT LOCATION

SUBSURFACE DRYWELL INSPECTION AND MAINTENANCE SCHEDULE

- INSPECTION, MAINTENANCE AND REPAIR OF THE UNDERGROUND STORMWATER MANAGEMENT SYSTEMS SHALL BE THE RESPONSIBILITY OF THE PROPERTY OWNER.
- 100 PERCENT VEGETATIVE COVER BY HERBACEOUS SPECIES SHALL BE MAINTAINED THROUGHOUT ALL EMBANKMENTS AND LAWN AREAS WITH DIRECT DISCHARGE TO THE UNDERGROUND FACILITY. ANY AREA BECOMING VOID OF VEGETATION SHALL BE IMMEDIATELY CORRECTED BY REPLANTING OR OTHER ADEQUATE MEASURES NECESSARY TO PREVENT EROSION THAT MAY JEOPARDIZE THE POROSITY OF THE SYSTEM. AT NO TIME SHALL MULCH BE USED ON SLOPES OF DIRECT DRAINAGE TO THE UNDERGROUND FACILITY.
- GRASS CLIPPINGS SHALL BE COLLECTED AND REMOVED TO PREVENT CLOGGING OF THE FACILITY. FALLEN LEAVES SHALL BE COLLECTED AND REMOVED FROM THE SITE A MINIMUM OF ONE (1) TIME PER WEEK DURING THE FALL SEASON. ROOF DRAINS AND DEBRIS TRAPS SHALL BE CHECKED FOR LEAF LITTER AND OTHER DEBRIS, WHICH MAY CLOG PERFORATED PIPES AND/OR STONE BEDS.
- INSPECT UNDERGROUND STORMWATER MANAGEMENT FACILITY AT LEAST FOUR TIMES A YEAR, AS WELL AS AFTER EVERY STORM EXCEEDING 1 INCH. REMOVE CLEANOUT CAPS AND INSPECT FOR DEBRIS. REMOVE ACCUMULATED LEAVES, TWIGS, SEDIMENT AND OTHER DEBRIS AS REQUIRED TO KEEP THE ROOF DRAINAGE SYSTEM CLEAN. IF AFTER INSPECTION IT IS DETERMINED THAT SEDIMENT NEEDS TO BE REMOVED FROM THE SEEPAGE BED, INJECT SYSTEM WITH WATER, SUSPEND SILT AND PUMP CHAMBER.
- EVALUATE THE DRAIN-DOWN TIME OF THE FACILITY TO INSURE THE MAXIMUM TIME OF 72 HOURS IS NOT BEING EXCEEDED. IF DRAIN-DOWN TIMES ARE EXCEEDING THE MAXIMUM, DRAIN THE FACILITY BY PUMPING AND CLEANING OUT PERFORATED PIPE.
- THE PROPERTY OWNER SHALL SUBMIT AN ANNUAL REPORT TO THE TOWNSHIP DETAILING THE MAINTENANCE WORK, INCLUDING REPAIRS, IF ANY, THAT ARE CARRIED OUT DURING A GIVEN CALENDAR YEAR. SUCH REPORTS SHALL BE DUE ON OR ABOUT THE FIRST DAY OF MARCH OF THE FOLLOWING YEAR.

THE TOWNSHIP AND/OR ITS AGENTS RESERVES THE RIGHT AND PRIVILEGE TO ENTER UPON SUCH LANDS FROM TIME TO TIME FOR THE PURPOSE OF INSPECTION OF SAID UNDERGROUND STORMWATER MANAGEMENT FACILITY IN ORDER TO ENSURE THAT THE STRUCTURAL AND DESIGN INTEGRITY AND MAINTENANCE REQUIREMENTS ARE BEING MAINTAINED BY THE OWNERS.

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STORMWATER MANAGEMENT CALCULATIONS

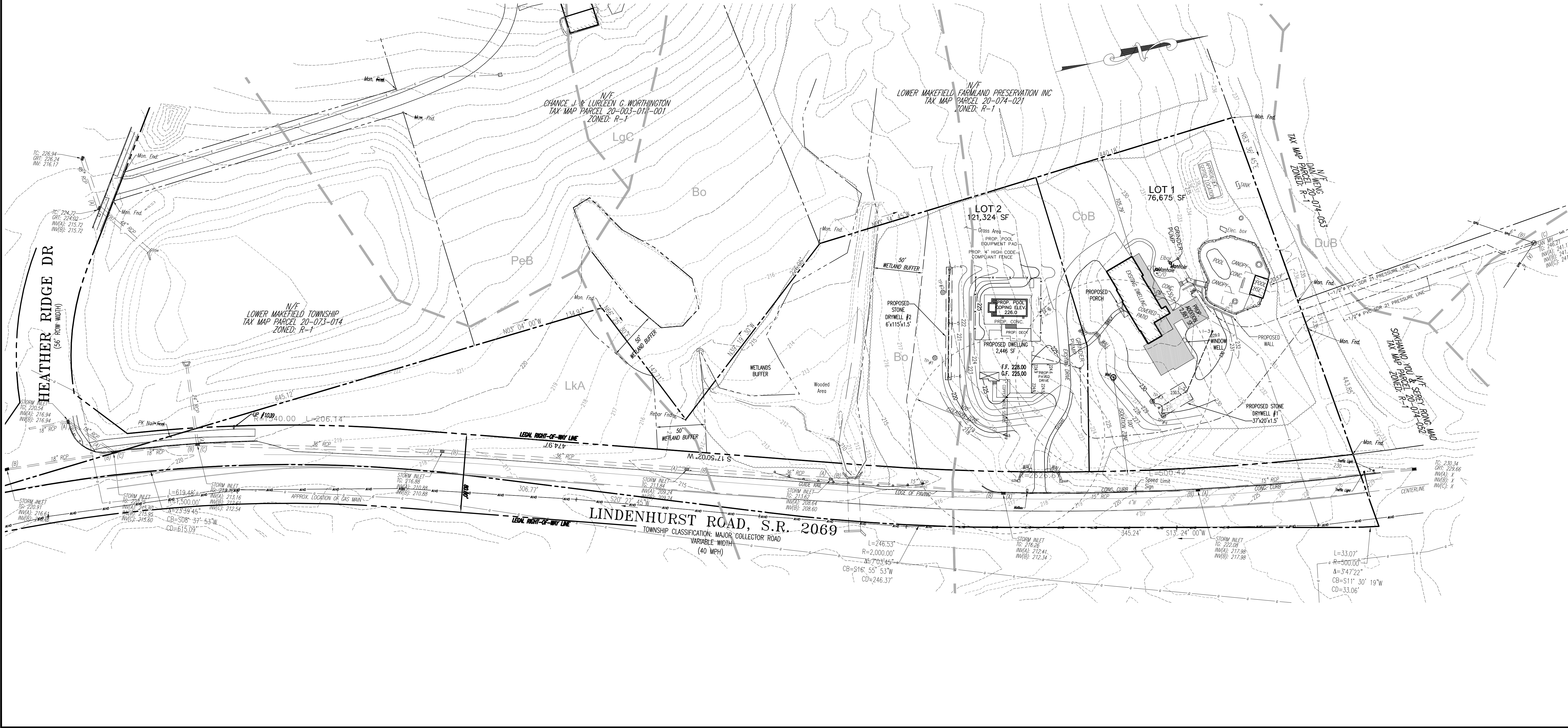
APPENDIX I: SMALL PROJECT STORMWATER MANAGEMENT (SWM) SITE PLAN
 MAXIMUM ALLOWABLE IMPERVIOUS SURFACE = 5,000 S.F.
 PROPOSED IMPERVIOUS = 4,732 S.F.
 FUTURE IMPERVIOUS = 268 S.F.
 TOTAL VOLUME RUNOFF (S.F.) = 5,000 S.F. * 2 IN. (1/12) = 833 C.F.

PROPOSED DRYWELL #1
 PROPOSED DRYWELL: 37' x 20' x 1.5'
 PROPOSED DRYWELL STORAGE: 37' x 20' x 1.5' x 0.4 = 444 C.F.
 *ASSUMED 40% VOID RATIO

PROPOSED DRYWELL #2
 PROPOSED DRYWELL: 6' x 115' x 1.5'
 PROPOSED DRYWELL STORAGE: 6' x 115' x 1.5' x 0.4 = 414 C.F.
 TOTAL PROVIDED VOLUME = 444 C.F. + 414 C.F. = 858 > 833 C.F.

General Notes

- THE LOCATION OF EXISTING UNDERGROUND UTILITIES CONTAINED ON THESE PLANS HAVE BEEN OBTAINED BY FIELD SURVEY. COMPLETENESS OR ACCURACY OF THE LOCATION OF UTILITIES 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 2008-121.
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SERIAL No. 2023-0410388
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 PENNSYLVANIA LAW REQUIRES 3 WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND 10 WORKING DAYS IN DESIGN STAGE-STOP CALL
PENNSYLVANIA ONE CALL SYSTEM, INC.
 1-800-242-1776

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 SURVEYOR
 SU-054500-E
 A PROFESSIONAL CORPORATION
 HEATH A. DUMACK, P.E. & P.L.S.
 PA P.E. LICENSE NO. PE-051685-E
 PA P.L.S. LICENSE NO. SU-054500-E

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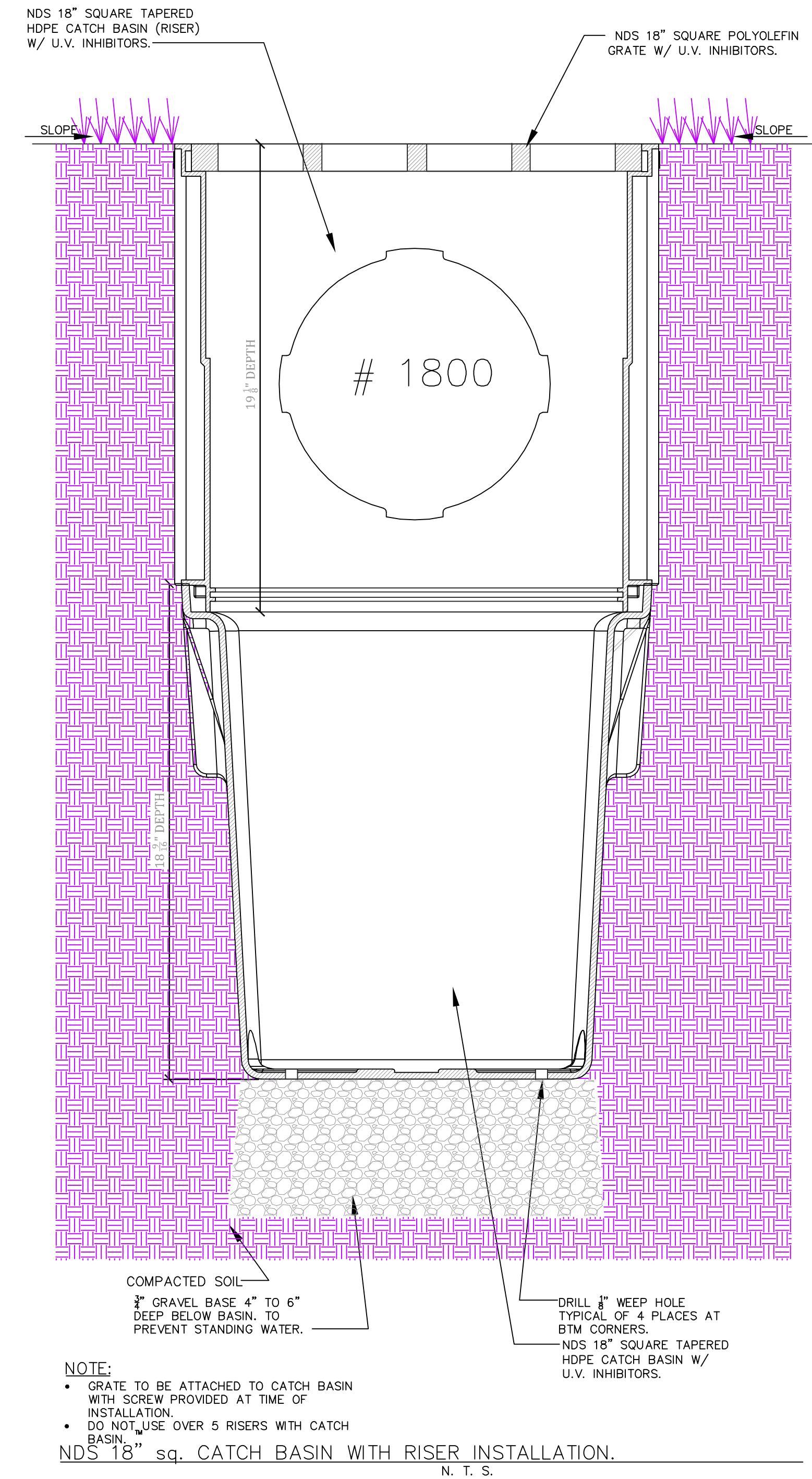
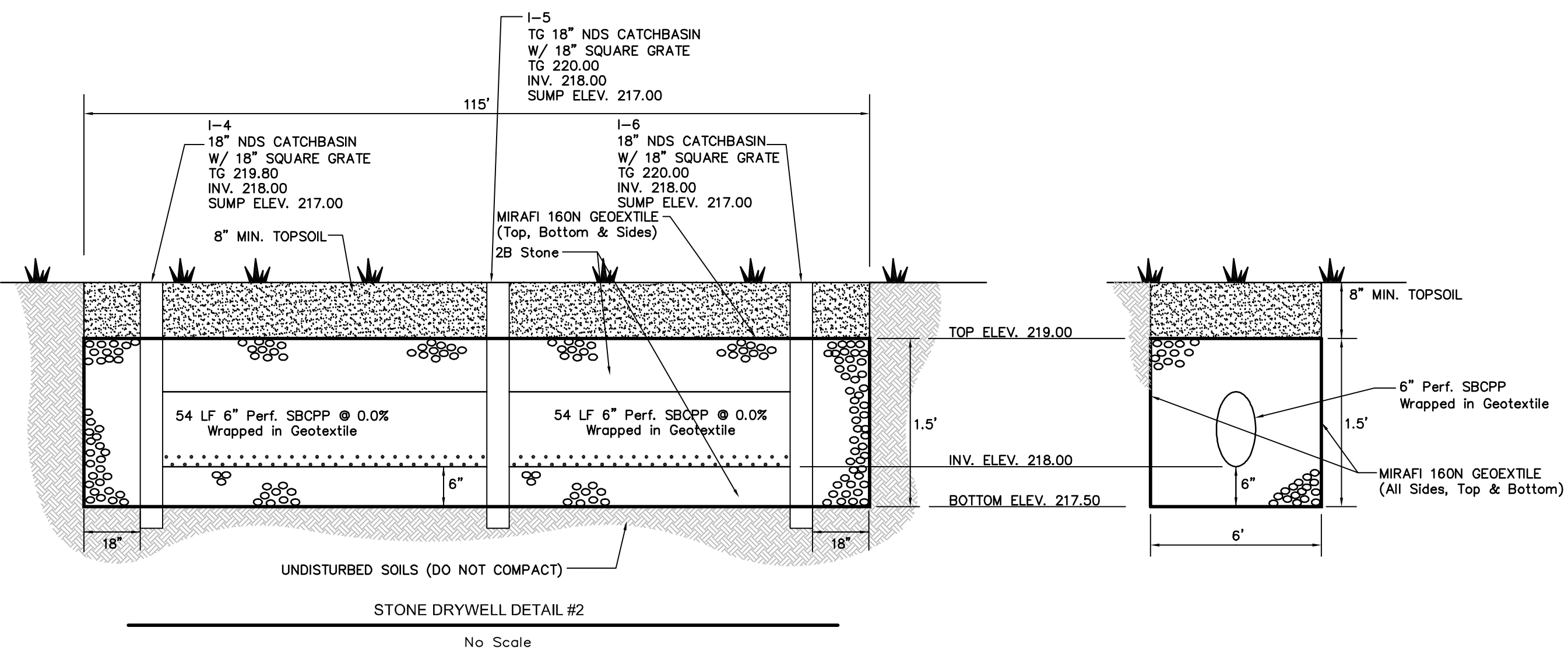
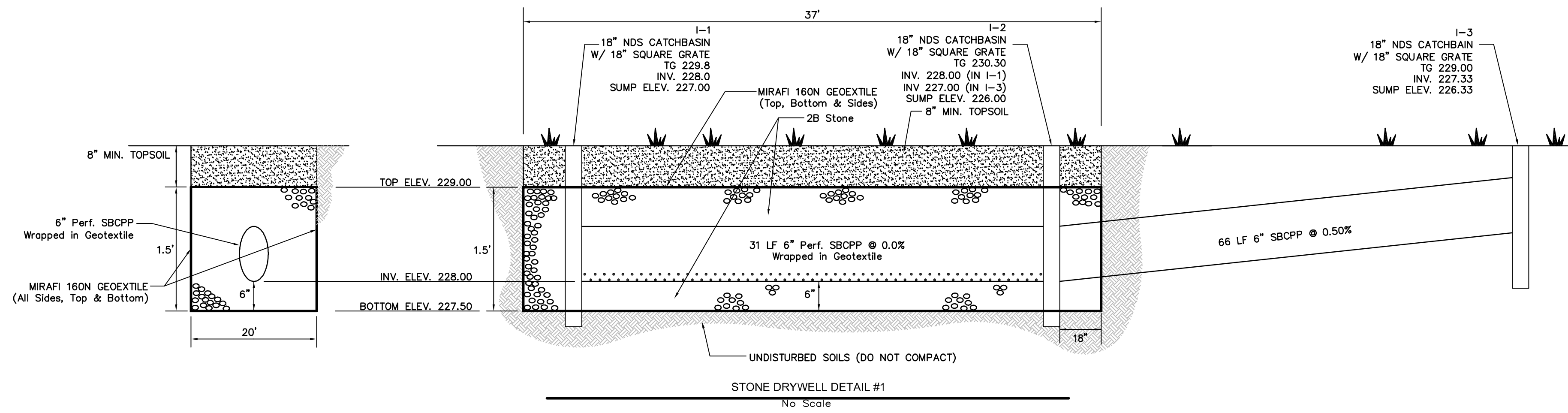
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 YARDLEY, PA 19067

APPLICANT:
 SAME AS ABOVE

GRAPHIC SCALE

PCSWM PLAN
 1511 LINDENHURST ROAD
 LOWER MAKEFIELD TOWNSHIP
 BUCKS COUNTY, PA

DRAWN BY: HAD
 CHECKED BY:
 SCALE: 1"=50'
 PROJECT No: 7533
 PLAN DATE: MAY 17, 2023
 SHEET No: 6 OF 10



NOTE:

- GRATE TO BE ATTACHED TO CATCH BASIN WITH SCREW PROVIDED AT TIME OF INSTALLATION.
- DO NOT USE OVER 5 RISERS WITH CATCH BASIN.

NDS 18" sq. CATCH BASIN WITH RISER INSTALLATION.
N. T. S.

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PCSWM DETAILS
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DRAWN BY: HAD CHECKED BY:
 SCALE: AS NOTED PROJECT No. 7533
 PLAN DATE: MAY 17, 2023 SHEET No. 7 of 10

LEGEND

- PROPERTY LINES
- OFF-SITE PROPERTY LINES
- 230 --- EXISTING MAJOR CONTOUR & ELEVATION
- 231 --- EXISTING MINOR CONTOUR & ELEVATION
- E --- APPROX. LOC. EXIST. UNDERGROUND ELECTRIC LINES
- X --- EXISTING FENCE
- ▲ WETLAND FLAG
- EXISTING EDGE OF WATER
- EXISTING WETLANDS LINES
- WETLANDS BUFFER LINE
- 8" COP --- EXISTING SANITARY SEWER
- 15" RCP --- EXISTING STORM SEWER
- UTILITY POLE
- GUY WIRE
- SIGN
- SIGN DOUBLE POST
- "M"-INLET
- "C"-INLET
- MANHOLE
- FLARED END SECTION
- HEADWALL
- DECIDUOUS TREE
- EVERGREEN TREE
- SHRUB
- FIRE HYDRANT
- WATER VALVE
- WATER METER
- GAS VALVE
- GAS METER
- ELECTRIC METER
- ELECTRIC BOX
- WELL
- CLEAN OUT
- WATER SHUT OFF VALVE
- DOWN SPOUT
- TELEPHONE BOX
- VALVE UNKNOWN
- EXISTING TREE LINE
- SOIL BOUNDARY LINE
- PROPOSED STORM SEWER
- 230 --- PROPOSED MAJOR CONTOUR & ELEVATION
- 231 --- PROPOSED MINOR CONTOUR & ELEVATION
- X --- PROPOSED FENCE

STREET TREE CALCULATIONS

Section 178-81.B(2)(b)
 AN AVERAGE OF ONE STREET TREE SHALL BE INSTALLED FOR EVERY 20 FEET OF CURBLINE.
 1,181.53/30 = 39.38 TREES
 39 TREES REQUIRED

39 TREES REQUIRED
 0 TREES PROPOSED
 44 TREES EXISTING
 44 EXISTING TREES PROVIDED

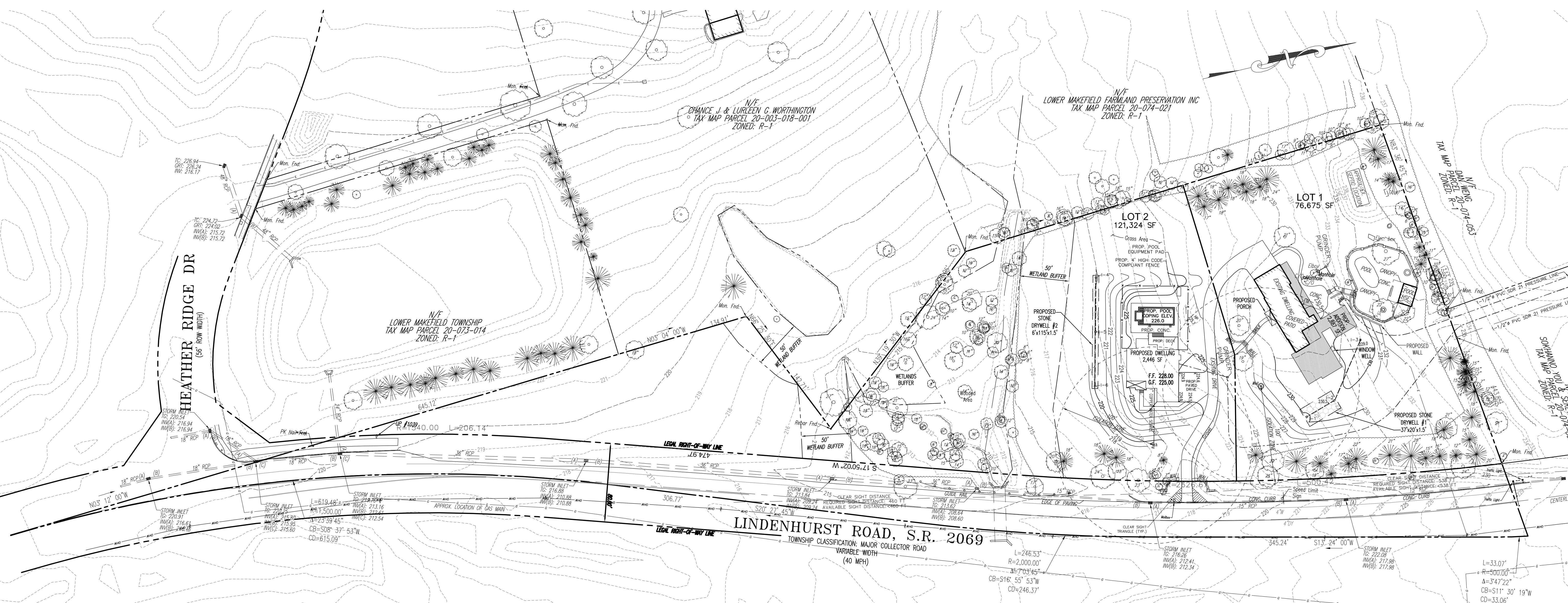
TREE REPLACEMENT CALCULATIONS

Section 178-85.H(4)(A)(1)
 TREES WITH A DIAMETER OF 10" TO 18" WHICH ARE REMOVED SHALL BE REPLACED WITH NO LESS THAN FOUR (4) TREES MEASURING 2.5"-F CALIFER.
 6 (10", 13", 15", 16", 18", 17" CAL. TREE REMOVED) * 4 = 24 TREES

Section 178-85.H(4)(A)(2)
 TREES WITH A DIAMETER OF 18" TO 30" WHICH ARE REMOVED SHALL BE REPLACED WITH NO LESS THAN SEVEN (7) TREES MEASURING 2.5"-F CALIFER.
 8 (18", 18", 18", 18", 20", 20", 21", 24" CAL. TREE REMOVED) * 7 = 56 TREES

Section 178-85.H(4)(A)(3)
 TREES WITH A DIAMETER OF 30" OR MORE WHICH ARE REMOVED SHALL BE REPLACED WITH NO LESS THAN TEN (10) TREES MEASURING 2.5"-F CALIFER.
 0 (CAL. TREE REMOVED) * 10 = 0 TREES

80 TREES REQUIRED
 0 TREES PROPOSED
 0 REPLACEMENT TREES PROVIDED
 *THE APPLICANT IS REQUESTING A FEE-IN-LEIU FOR THE 80 REPLACEMENT TREES.



SERIAL No. 2023-0410388
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 PA P.L.S. License No. SU-0545400-E

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PRELIMINARY/FINAL PLAN
MINOR SUBDIVISION

EXISTING PARCEL INFO:
 T.M.P. No. 20-003-017
 DEED BOOK: 5029
 PAGE No. 1855

CURRENT ZONING: R-1

OWNER OF RECORD:
 JOSEPH SMITH & CYNTHIA MCDONOUGH
 1511 LINDENHURST ROAD
 YARDLEY, PA 19067

APPLICANT:
 SAME AS ABOVE

50 0 25 50
 GRAPHIC SCALE

LANDSCAPING PLAN
 1511 LINDENHURST ROAD
 LOWER MAKEFIELD TOWNSHIP
 BUCKS COUNTY, PA

DRAWN BY: HAD
 CHECKED BY:

SCALE: 1"=50'
 PROJECT No: 7533

PLAN DATE: MAY 17, 2023
 SHEET No: 8 of 10

Landscape Materials, Planting - Seeding - Sodding Specifications

PART 1 - GENERAL

- 1. DESCRIPTION OF WORK
A. Furnish, deliver and plant new plant material to the extent shown on drawings and in the plant list schedules.
B. Maintain and guarantee survival of new plant material for 18 Months from the date all of the work is accepted.
C. Provide care and treatment of existing plant material.
D. Previous Work
(1) Examine all substrates and other related areas to which the work of this section is to be incorporated.
(2) Execution of the work of this section shall constitute acceptance of all existing and previously executed work and other conditions as being satisfactory in every respect.
(3) Contractor shall protect all existing work from damage.
2. QUALITY CONTROL
A. Name of plants shall agree with the nomenclature of "Standard Plant Names" as adopted by the American Joint Committee on Horticulture, 1942 Edition.

- 3. PRODUCTS
A. Topsoil: Shall be a natural, friable, fertile, fine sandy loam possessing the characteristics of representative topsoils in the vicinity.
B. Fertilizer: All fertilizer shall be granular powder or pellet with 35 - 80% of the total nitrogen in a slowly available form with a minimum analysis of 5-10-5.
C. Mulch: Material shall be well aged (2 years min.) finely shredded hardwood bark, dark brown in color, or approved equal.
D. Lime: Natural limestone containing not less than 85% of total carbonates, ground so that not less than 90% passes a 10-mesh sieve and not less than 50% passes a 100-mesh sieve.
E. Planting Mixture: A thorough mixture of minimum 90% water insoluble nitrogen content and a soil index below 50% is preferred.

- 4. SUBMITTALS
A. Certification: Submit certificates of inspection as required by governmental authorities, and manufacturer's or vendor's certified analysis for soil amendments and fertilizer materials.
B. Fertilizer: All fertilizer shall be granular powder or pellet with 35 - 80% of the total nitrogen in a slowly available form with a minimum analysis of 5-10-5.
C. Mulch: Material shall be well aged (2 years min.) finely shredded hardwood bark, dark brown in color, or approved equal.
D. Lime: Natural limestone containing not less than 85% of total carbonates, ground so that not less than 90% passes a 10-mesh sieve and not less than 50% passes a 100-mesh sieve.
E. Planting Mixture: A thorough mixture of minimum 90% water insoluble nitrogen content and a soil index below 50% is preferred.

- 5. DELIVERY, STORAGE AND HANDLING
A. Plants shall be packed, transported and handled with the utmost care to insure adequate protection from injury.
B. Packaged Materials: Deliver package materials in containers showing weight, analysis and name of manufacturer.
C. Soil: Time delivery so that soil will be placed within 24 hours after stripping.
D. Trees and Shrubs: provide freshly dug trees and shrubs. Do not prune prior to delivery.
E. Site Conditions
A. Utilities: Determine location of underground utilities and perform work in a manner which will avoid any damage.
B. Excavation: When conditions detrimental to plant growth are encountered,
C. Planting Time: Plant or install materials during normal planting seasons for each type of landscape work required.
D. Coordination with Lawn: Plant trees and shrubs after final grades are established and prior to planting of lawns.
7. GUARANTEE
A. Guarantee lawns through 18 months maintenance and guarantee period and until final acceptance.
B. All plant material shall be guaranteed for a period of 18 Months from date of acceptance.
C. Replacement will be made according to these same specifications and during the normal planting period.
D. In case of any questions regarding the conditions and satisfactory establishment of a rejected plant, the contractor may, if approved by the owner allow such plant to remain through another growing season at which time the rejected plant if found to be dead, or in an unhealthy or badly injured condition, shall be replaced.

- PART 2 - PLANTING PROCEDURES
A. The planting seasons shall be as follows:
B. All planting materials and planting operations are subject to the requirements of Local Municipal Ordinances.
C. No trees or shrubs may be planted on drywell berms. Berms shall be maintained as grass lawn.
D. Fertilizer - granular fertilizer shall be incorporated into the soil mix at recommended rates.
E. Trees and shrubs shall bear same relationship to finished grade as they did in the nursery row.
F. Before placing trees in pits, lightly scarify the existing soil at the bottom of the pit, but not so much that the tree should require stabilization.
G. All trees shall be placed directly on firm, stable soil.
H. The plant pit shall be filled with planting mixture as specified and placed in 6" layers around the ball.
I. Each layer shall be carefully tamped in place in a manner to avoid injury to the roots or ball or disturbing the position of the plant.
J. All containerized stock shall be removed from containers and the root mass should either be physically loosened or allowed to prevent strangulation.
K. Failure to comply with planting procedures outlined above is basis for rejection of plant material by owner.
L. Backfill: Material shall be a friable agricultural loam suitable for growing plant material free from sticks, stones and other foreign material.
M. Landscape contractor is responsible for watering sufficiently at time of planting and until job is completed and turned over to owner.
N. Plant material locations are approximate, when necessary, adjustments may be made in the field and approved by the owner prior to installation.
O. All intersections, trees shall be located no closer than thirty (30) feet to the intersection of the street right-of-way lines except when governing standards increase the distance for clear sight.
P. Tree planting shall not take place within 10 feet of any utility line, underground or overhead.
Q. Planting Ground Cover
Space plants as shown in plan or on plant schedule. Dig holes large enough to allow spreading of roots and backfill with planting mixture. Work soil around roots to eliminate air pockets and leave a slight saucer indentation around plants to hold water. Water thoroughly after planting being care not to cover crown of plants with wet soil. Mulch areas between ground cover plants; place not less than 2" deep.

- PART 3 - GUARANTEE AND MAINTENANCE
A. All required plantings shall be guaranteed for a period of eighteen (18) months from the date of plantings and shall be certified to be alive and healthy as determined by a landscape architect at the end of the guarantee period.
B. Maintenance crew with a trained foreman shall visit the site once weekly from spring (beginning of crocus) to fall (ending frost) and once monthly during the winter.
C. Where it is necessary to replace plant material or to repair the lawn the Owner shall inform the Contractor thereof before such replacement work.
D. Maintenance shall include, as determined by Owner: mowing, watering, cultivating, weeding, mulching, control of insects and diseases, pruning, and other horticultural operations for proper growth and appearance of plant materials and beds, and lawns.
E. The Contractor shall guarantee that plants shall be in a vigorous and thriving condition during and at the end of the guarantee period.
F. During the Maintenance and Guarantee period, damage to planting not caused by the Contractor shall be excluded from the Guarantee.
G. Where evidence of such damage excluded from guarantee exists, advise the Owner in writing describing the damage.
H. During the Maintenance and Guarantee period, damage to planting not caused by the Contractor shall be excluded from the Guarantee.
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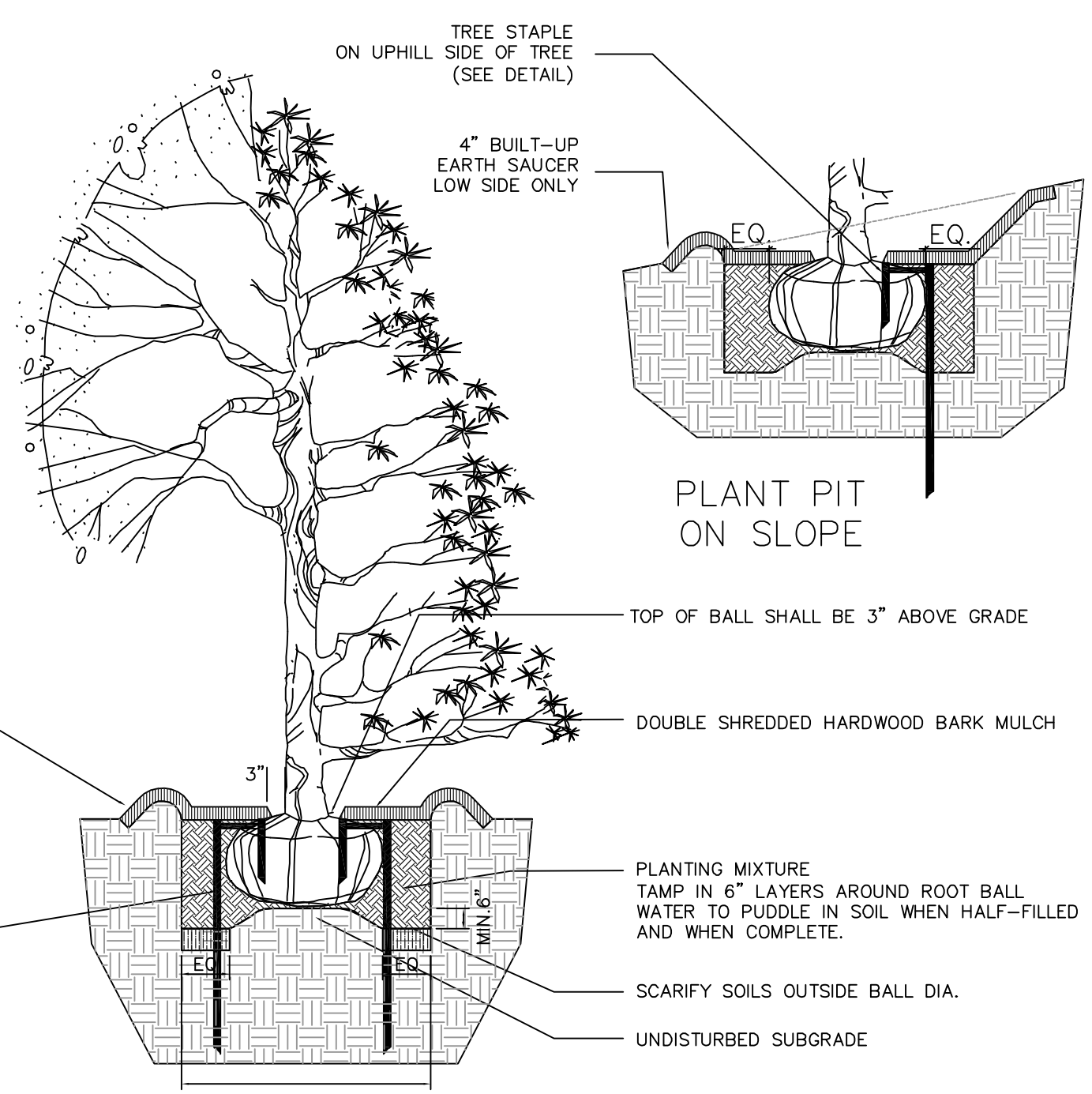
- PART 4 - FINAL INSPECTION FOR ACCEPTANCE
A. The Contractor shall notify the Owner upon completion of guarantee and maintenance and request final inspection prior to acceptance of work.
B. Should any portion of the work be unacceptable, the Contractor shall make all work acceptable and request a reinspection by the Owner.
C. The Contractor will be notified by letter of acceptance within five days after inspection of five days after reinspection should the letter be received.
D. Upon notice of final acceptance, the Owner will assume maintenance.
PART 5 - SEEDING/SODDING SPECIFICATIONS
1. TOPSOIL
A. Topsoil shall be stripped and stockpiled in areas on-site as directed by the Owner.
B. The surface of all earth areas shall be finished to a reasonable smooth compact surface.
C. The subgrade shall be thoroughly loosened to a depth of at least three inches before topsoil is spread.
D. Coordination with Lawn: Plant trees and shrubs after final grades are established and prior to planting of lawns.
2. FERTILIZATION
A. For permanent seeding: limestone shall be applied according to soil tests, or worked in closely at a rate of 2,000 lbs. per acre together with a commercial fertilizer of 10-20-20 (N-P-K) or equivalent dry formulation applied at a rate of 1,000 lbs. per acre.
B. Initial limestone and fertilizer applications are to be blended into the top 2" of topsoil by raking, discing, harrowing or by other acceptable methods.
C. Seeding
A. Grass seed shall have a minimum purity of 85%, minimum germination (PLS) of 75% and weed content not exceeding a maximum of 12%.
D. Sodding
A. Sod: Provide strongly rooted sod, not less than 2 years old and free of weeds and undesirable native grasses.
E. Edging at Mulch Bed
A. Sod: Provide strongly rooted sod, not less than 2 years old and free of weeds and undesirable native grasses.
B. Sod: Provide strongly rooted sod, not less than 2 years old and free of weeds and undesirable native grasses.

- PART 6 - SEED MIX BREAKDOWN:
1. SEED MIX 'A'
FINE LAWN PERMANENT SEED MIX:
POA PRATENSIS KENTUCKY BLUEGRASS
FESTUCA RUBRA CREEPING RED FESCUE
LOLIUM PERENNE TURF-TYPE PERENNIAL RYE GRASS
Seed rate: 4 pounds per 1,000 s.f. (175 lbs. per acre)

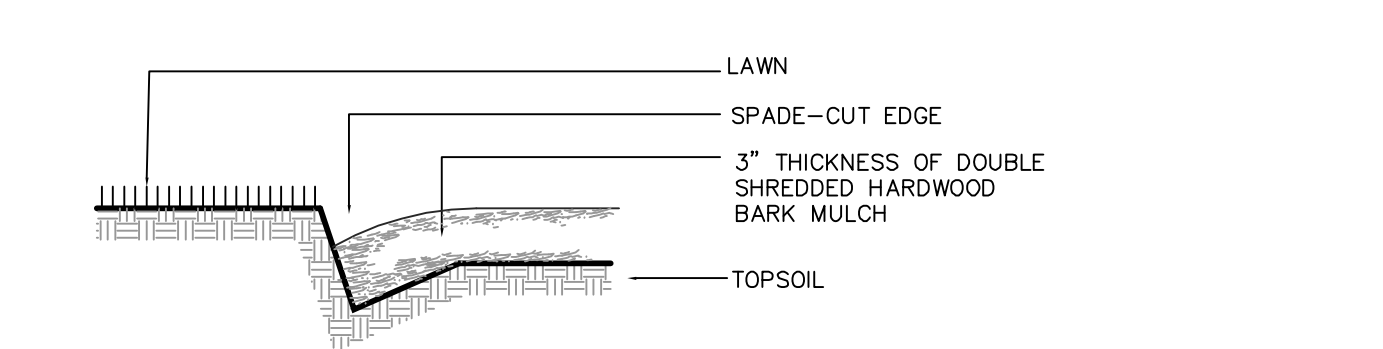
PART 7 - EXISTING TREE MAINTENANCE

- A. PRUNING METHODS. ALL FINAL CUTS SHALL BE MADE SUFFICIENTLY CLOSE TO THE TRUNK OR PARENT LINES BUT WITHOUT CUTTING INTO THE BRANCH COLLAR OR LEAVING A PROTRUDING STUB.
B. FERTILIZATION METHODS. (ALL TREES WHICH HAVE EXPERIENCED ANY DISTURBANCE OR HAVE HAD DAMAGE TO THE ROOTS OR BRANCHES SHALL BE FERTILIZED.
C. TREE STABILIZATION. ATTEND TO ALL PLANTING DEBRIS.
D. REMOVAL OF ALL PLANTING DEBRIS.
E. MAINTENANCE
1. Begin maintenance immediately after planting.
2. Maintain trees, shrubs and other plants until final acceptance by owner.
3. Maintain trees, shrubs and other plants by pruning, cultivating and weeding as required for healthy growth.
4. Maintain lawns by watering, fertilizing, seeding, mowing, liming, and other operations such as rolling, regrading and replanting as required to establish a neat, acceptable lawn, free of eroded or bare areas.
F. CLEANUP AND PROTECTION
1. During landscape work, keep pavements clean and work area in an orderly condition.
2. Protect landscape work and materials from damage due to landscape operations.
G. INSPECTION AND ACCEPTANCE
1. When landscape work is completed, including maintenance, Owner will make an inspection to determine acceptability.
2. Where inspected landscape work does not comply with requirements, reduce rejected work and continue specified maintenance until inspected by Owner and found to be acceptable.

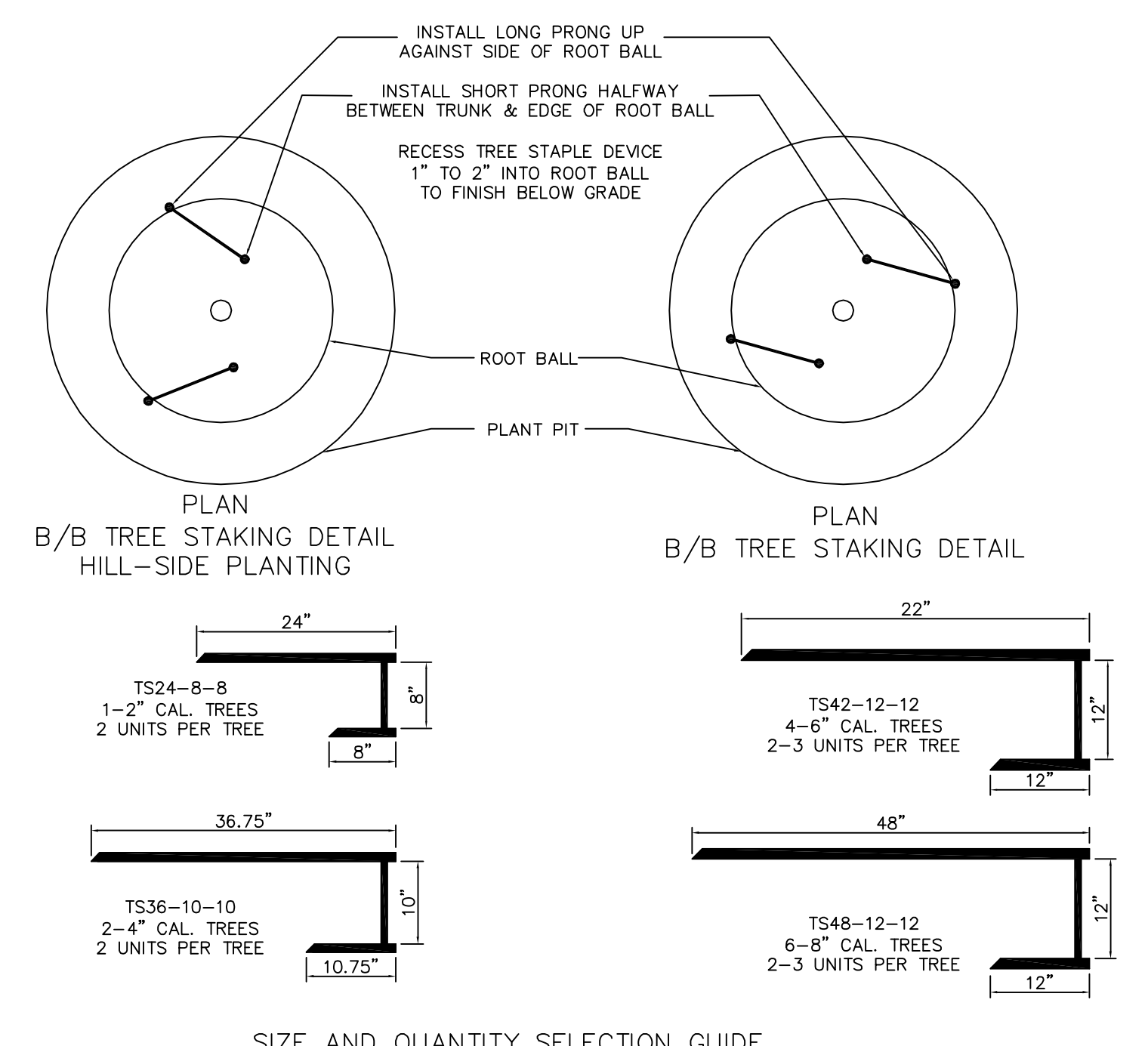
- PART 7 - EXISTING TREE MAINTENANCE (continued)
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1 TREE PLANTING DETAIL NOT TO SCALE



2 EDGING AT MULCH BED NOT TO SCALE

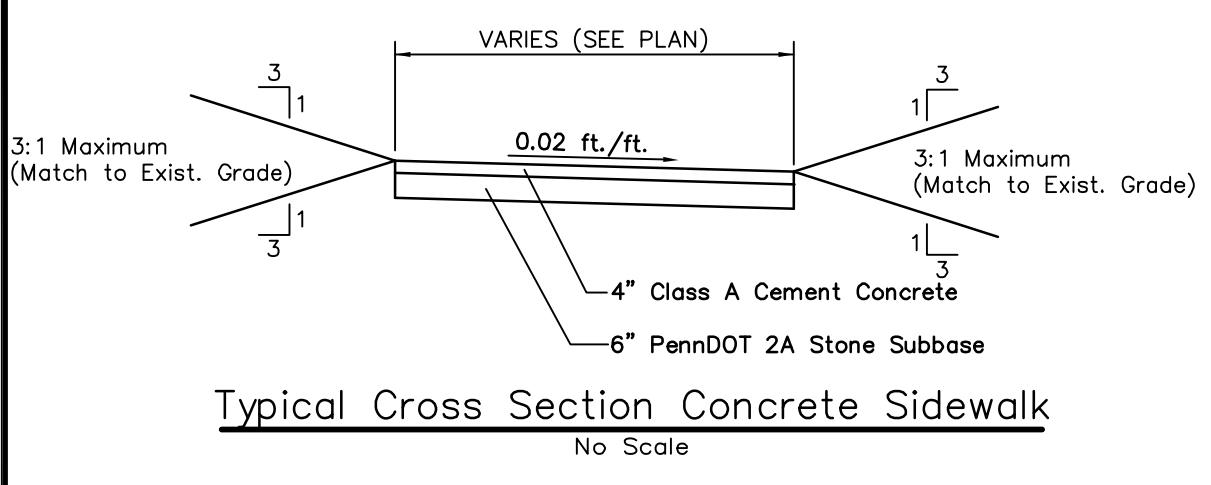
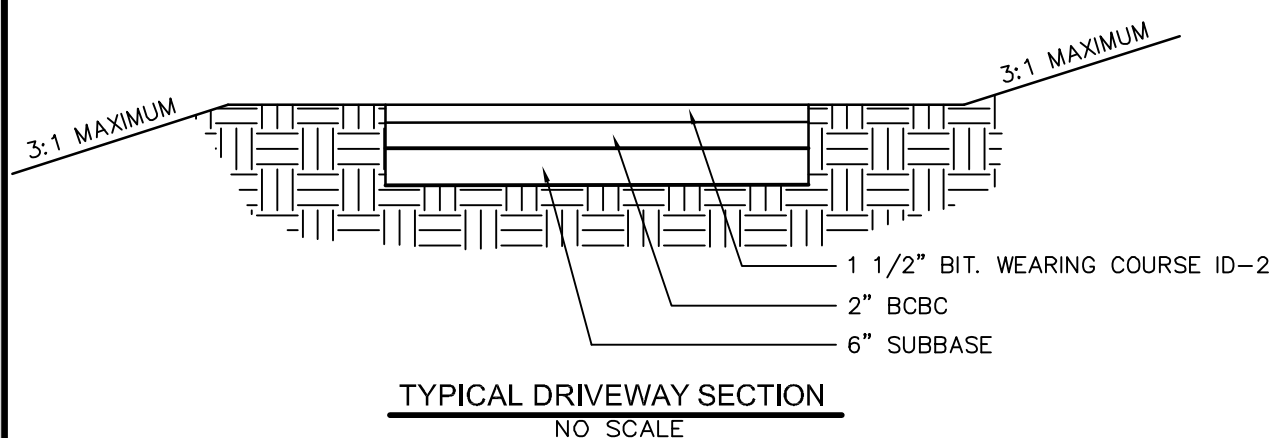


SIZE AND QUANTITY SELECTION GUIDE

Professional seal and information for Heath Alan Dumack, Registered Professional Engineer and Registered Professional Surveyor. Includes contact information for Dumack Engineering & Surveyors.

Professional seal and information for Dumack Engineering & Surveyors, established in 1964. Includes contact information for Heath A. Dumack, P.E. & P.L.S.

Site plan information including a table for date and revision, a graphic scale, and project details for 'LANDSCAPE DETAILS' at '1511 LINDENHURST ROAD'. Includes owner, applicant, and drawing information.



SURVEY MONUMENTS

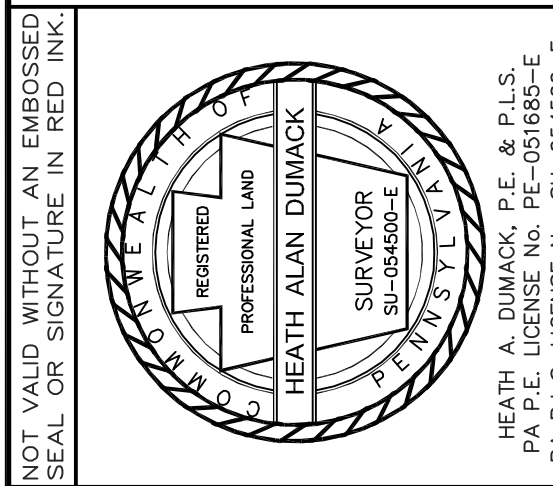
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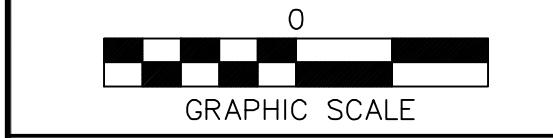
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APPLICANT:
 SAME AS ABOVE



CONSTRUCTION DETAILS
1511 LINDENHURST ROAD

LOWER MAKEFIELD TOWNSHIP
 BUCKS COUNTY, PA

DRAWN BY: HAD
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SCALE: AS NOTED
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PLAN DATE: MAY 17, 2023
 SHEET No: 10 of 10