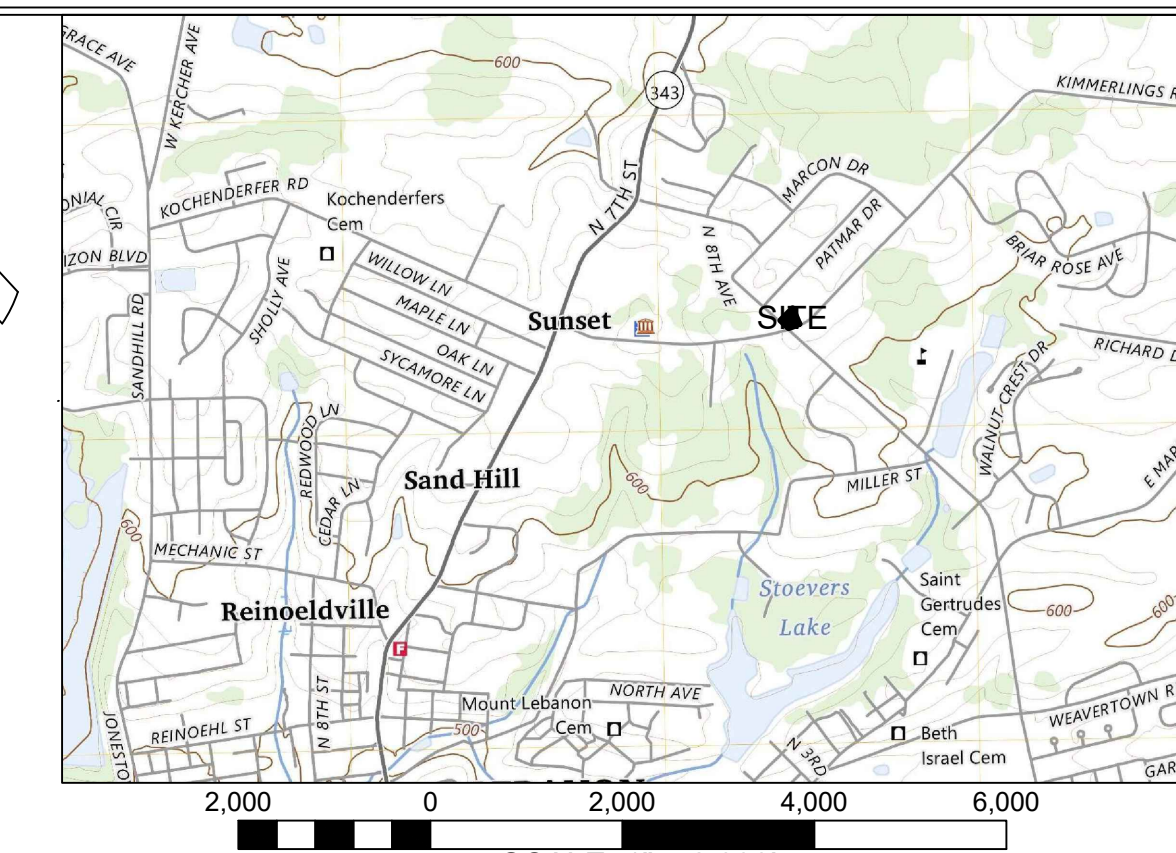
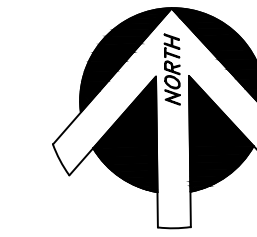


# STORMWATER MANAGEMENT AND EROSION AND SEDIMENTATION CONTROL PLAN FOR NS KIMMERLINGS ROAD NORTH LEBANON TOWNSHIP, LEBANON COUNTY COMMONWEALTH OF PENNSYLVANIA



## SITE DATA

ZONE	RESIDENTIAL (R1)
GROSS LOT AREA	21,518 SQUARE FEET (0.493 ACRES)
EXISTING IMPERVIOUS COVER	0.00 SQUARE FEET (0.00%)
PROPOSED IMPERVIOUS COVER	2,638 SQUARE FEET (12.26%)
PERMITTED IMPERVIOUS COVER	30%
WATER SERVICE	PUBLIC WATER (COLA)
SEWER SERVICE	PUBLIC SEWER (NLTMA)

## Impervious Area Summary (All Units in Square Feet)

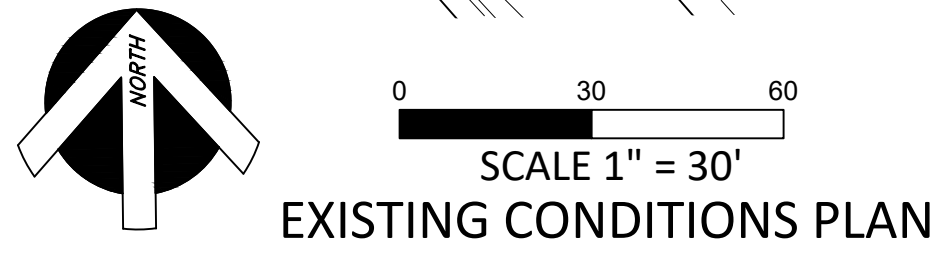
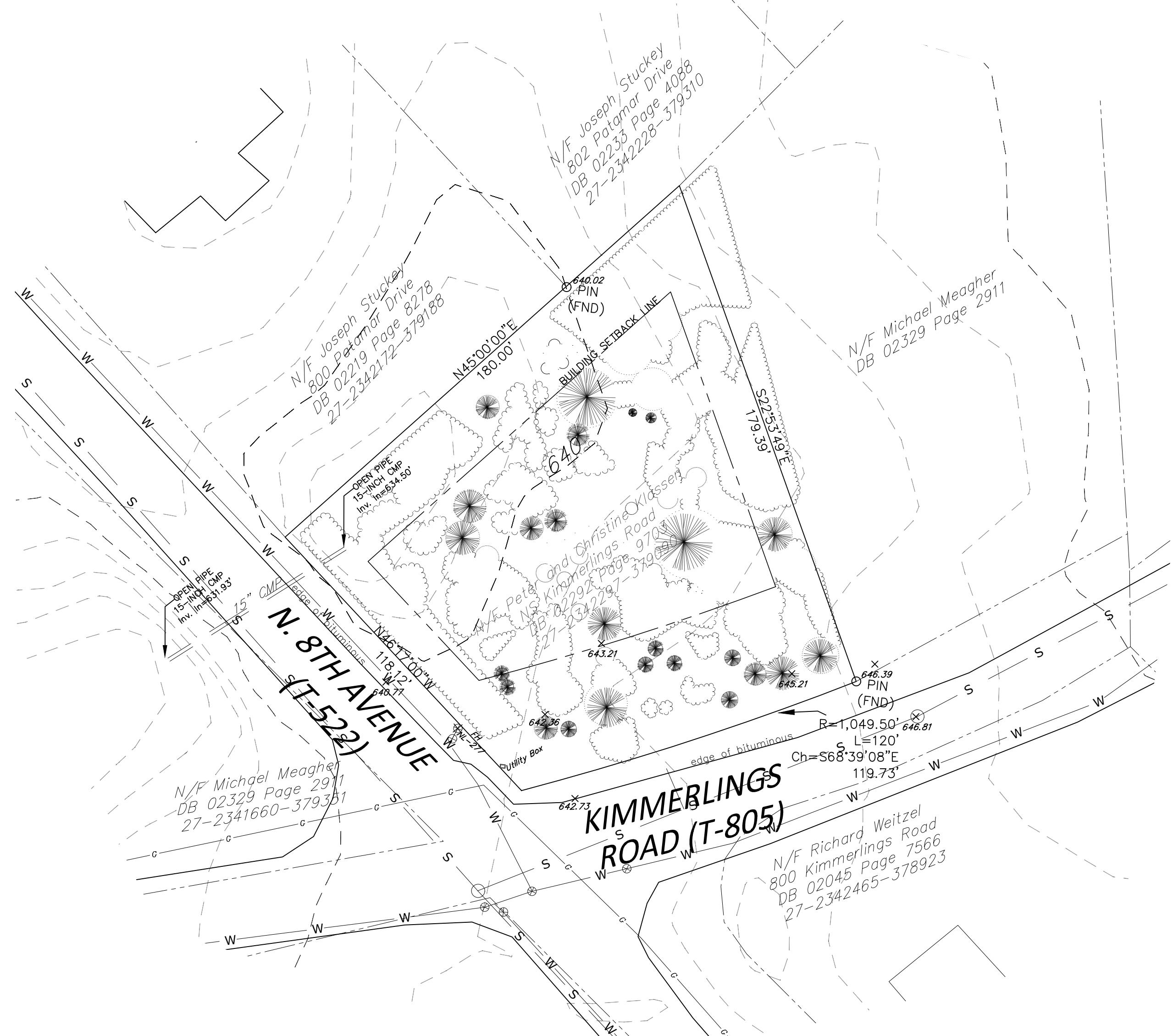
Cover Type	Existing Impervious	Area of Added Impervious Cover as Part of Project	Total Proposed Impervious Cover
Dwelling & Garage	0.00	1,520	1,520
Sidewalk	0.00	150	150
Deck	0.000	168	168
Driveway-Asphalt	0.00	800	800
<b>Total</b>	<b>0.00</b>	<b>2,638</b>	<b>2,638</b>

## Zoning Requirements (R1)

Parameter	Requirement	Maximum or Minimum	Proposed House
Lot Size	15,000 SF	Minimum	21,518 SF
Front Yard Setback	40 Feet	Minimum	45 Feet
Side Yard Setback	15 Feet	Minimum	25.5 Feet
Rear Yard Setback	25 Feet	Minimum	59 Feet
Height	35 Feet	Maximum	<35 Feet

## NOTES

- THIS PLAN INTENDS TO SATISFY THE REQUIREMENTS OF NORTH LEBANON TOWNSHIP STORMWATER MANAGEMENT ORDINANCE (ORDINANCE 6 OF 2022, HEREIN "SWMO"). THE PROPOSED PROJECT INCLUDES THE CONSTRUCTION OF A NEW DWELLING, DRIVEWAY AND STORMWATER BMPs ON AN EXISTING LOT. THIS PLAN IS ACCOMPANIED BY A STORMWATER MANAGEMENT REPORT ENTITLED "STORMWATER MANAGEMENT AND EROSION AND SEDIMENTATION CONTROL REPORT FOR NS KIMMERLINGS ROAD".
- THE BOUNDARY SHOWN HEREON WAS PLOTTED FROM THE DEED AND BY OBTAINING RTK GPS LOCATIONS OF AVAILABLE PROPERTY CORNER MARKERS. NO BOUNDARY SURVEY WAS CONDUCTED BY NOLT ENGINEERING IN THE DEVELOPMENT OF THIS PLAN. SOURCE OF TITLE FOR THIS EFFORT WAS DEED BOOK 2922-9703.
- TWO-FOOT CONTOURS INCLUDED ON THIS PLAN ARE BASED ON PENNSYLVANIA DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES (DCNR) HIGH RESOLUTION LIGHT DETECTION AND RANGING (LIDAR) DATA. ALL DATA IS IN UNITS OF FEET, NAVD83 VERTICAL DATUM. THESE ELEVATIONS WERE SPOT CHECKED WITH RTK GPS AND REVISED ACCORDINGLY DURING A SITE VISIT BY NOLT ENGINEERING ON MARCH 11, 2025. SPOT ELEVATIONS SHOWN HEREON ARE NOT FOR CONSTRUCTION PURPOSES AND SHOULD BE VERIFIED PRIOR TO STARTING CONSTRUCTION.
- UNDERGROUND UTILITIES SHOWN ON THIS DRAWING ARE BASED ON INFORMATION PROVIDED AS PART OF THE PENNSYLVANIA ONE-CALL PERFORMED AS PART OF THIS DESIGN. THESE UTILITY LOCATIONS ARE APPROXIMATE AND ARE NOT INTENDED TO BE USED FOR CONSTRUCTION PURPOSES. THE CONTRACTOR IS REMINDED OF ITS RESPONSIBILITIES UNDER ACT 287. NOLT ENGINEERING LLC ASSUMES NO RESPONSIBILITY FOR ANY DAMAGE CAUSED BY THE CONTRACTOR USING THESE PLANS AS CONSTRUCTION DRAWINGS OR FAILING TO FULFILL ITS OBLIGATIONS UNDER ACT 287. NO RESPONSE WAS RECEIVED FROM ELECTRIC AND COMMUNICATION PROVIDERS, SO IT IS UNCLEAR IF THOSE UNDERGROUND UTILITIES ARE LOCATED ON THE PROPERTY. THE PROPOSED UTILITY LOCATIONS ARE DEPICTED TO DEMONSTRATE TOTAL LIMIT OF DISTURBANCE AND WILL NEED TO BE CONFIRMED WITH THE PROVIDERS. THERE IS A SEWER LATERAL ALREADY TAPPED INTO THE MAIN ALONG KIMMERLINGS ROAD AS SHOWN. THERE IS NO WATER SERVICE AND IT DOES NOT APPEAR THAT THERE IS A GAS LATERAL.
- THE PROPERTY IS A CORNER LOT. ACCORDING TO THE TOWNSHIP'S ZONING ORDINANCE, A CORNER LOT MUST HAVE ONE FRONT YARD, ONE REAR YARD AND TWO SIDE YARDS. THE YARD TOWARD WHICH THE FRONT ENTRANCE OF THE BUILDING FACES SHALL BE DESIGNATED AS THE FRONT YARD. THEREFORE, THE FRONT YARD WAS DESIGNATED AS THE YARD FACING KIMMERLINGS ROAD.
- THERE ARE NO FEMA REGULATED 100 YEAR FLOODPLAINS LOCATED ON THE PROPERTY BASED ON FEMA FLOOD INSURANCE RATE MAP 42075C0256E.
- THERE ARE NO WATERBODIES, PONDS, NWI WETLANDS, QUARRIES OR OTHER SIGNIFICANT TOPOGRAPHICAL FEATURES LOCATED ON THIS SITE. TREE CLEARING WAS PERFORMED ON THE PROPERTY PRIOR TO THIS PLAN. THE EXTENTS OF VEGETATION WAS DERIVED FROM NAIP INFRARED/NATURAL COLOR IMAGERY AND 2018 PEMA ORTHOIMAGERY. FOR PURPOSES OF STORMWATER MODELING, THESE AREAS WERE CONSIDERED WOODLAND FOR PRE CONSTRUCTION PURPOSES.
- ALL STORMWATER MANAGEMENT FACILITIES SHOWN ON THIS PLAN SHALL BE CONSTRUCTED BY THE DEVELOPER IN ACCORDANCE WITH THE DESIGN, CONDITIONS AND SPECIFICATIONS IDENTIFIED ON THIS PLAN. OWNERSHIP AND MAINTENANCE SHALL BE THE RESPONSIBILITY OF THE LANDOWNER, HIS SUCCESSORS, AND ASSIGNS, UNLESS SPECIFICALLY IDENTIFIED OTHERWISE HEREIN.
- STORMWATER MANAGEMENT FACILITIES SHALL BE MAINTAINED IN GOOD WORKING CONDITION SO THAT THEY ARE PERFORMING THEIR DESIGN FUNCTION, IN A MANNER ACCEPTABLE TO NORTH LEBANON TOWNSHIP, AS REQUIRED BY THE NORTH LEBANON TOWNSHIP SWMO. MAINTENANCE SHALL INCLUDE PERFORMING ROUTINE MAINTENANCE AND REPAIR OR REPLACEMENT OF DAMAGED FACILITIES, VEGETATION, OR STORMWATER AREAS TO CONDITIONS AS SHOWN ON THE APPROVED PLAN AND IN ACCORDANCE WITH THE NORTH LEBANON TOWNSHIP SWMO.
- ANY DRAINAGE AND UTILITY EASEMENTS SHOWN ON THE PLAN SHALL BE CONSTRUCTED, OWNED, AND MAINTAINED IN ACCORDANCE WITH THE APPROVED PLAN AND SHALL BE REFERENCED WITHIN THE PROPERTY DEED.
- RUNOFF FROM THE LOT IMPROVEMENTS SHALL BE DIRECTED TO THE STORMWATER MANAGEMENT FACILITIES. STORMWATER RUNOFF FROM EXISTING NATURAL SWALES AND/OR EXISTING DRAINAGE CONVEYORS SHALL NOT BE TOWARDS OR INTERCEPTED BY THE STORMWATER MANAGEMENT FACILITIES.
- CONTACT NORTH LEBANON TOWNSHIP AT (717)-273-7132 PRIOR TO CONSTRUCTION TO COORDINATE INSPECTIONS OF STORMWATER MANAGEMENT FACILITIES BY THE TOWNSHIP ENGINEER. NO OCCUPANCY IS PERMITTED UNTIL STORMWATER MANAGEMENT FACILITIES HAVE BEEN INSTALLED AND APPROVED THROUGH INSPECTION BY THE TOWNSHIP ENGINEER.
- THE TOTAL DISTURBANCE ASSOCIATED WITH THIS PROJECT IS 21,518 SQUARE FEET (THE BOUNDARY OF THE PROPERTY). CONTRACTOR SHALL BE AWARE THAT LAND DISTURBANCE ON THIS SITE LOCATED OUTSIDE OF THE LIMITS OF DISTURBANCE AS ILLUSTRATED ON THIS SHEET WILL BE IN VIOLATION OF 25 PA CODE 102.5.
- RECORD DRAWINGS WILL BE PROVIDED FOR ALL STORMWATER MANAGEMENT FACILITIES PRIOR TO OCCUPANCY OR THE RELEASE OF FINANCIAL SECURITY.
- NOTHING SHALL BE PLACED, PLANTED, SET, OR PUT WITHIN THE AREA OF AN EASEMENT THAT WOULD ADVERSELY AFFECT THE FUNCTION OF THE FACILITY WITHIN THE EASEMENT OR CONFLICT WITH THE EASEMENT AGREEMENT.
- A SET OF THESE STORMWATER MANAGEMENT SITE PLANS APPROVED BY NORTH LEBANON TOWNSHIP SHALL BE ON FILE AT THE DEVELOPMENT SITE THROUGHOUT THE DURATION OF THE REGULATED ACTIVITY.
- THROUGH APPLICATION OF CONTROL GUIDELINE 1, THE POST-DEVELOPMENT TOTAL RUNOFF VOLUME FOR ALL STORMS EQUAL TO OR LESS THAN THE 2-YEAR/24-HOUR EVENT CANNOT RESULT IN AN INCREASE FROM THE PRE-DEVELOPED CONDITIONS. A TOTAL STORAGE VOLUME OF 757 CUBIC FEET IS REQUIRED FOR THE IMPERVIOUS COVER ADDITION. THE STORMWATER INFILTRATION TRENCH ON THIS SHEET PROVIDES FOR A TOTAL OF 799 CUBIC FEET, REPRESENTING A CAPACITY OF 42 CUBIC FEET BEYOND WHAT IS CURRENTLY REQUIRED TO MEET THE TOWNSHIP'S SWMO. THIS EXCESS CAPACITY ALLOWS FOR SOME VARIATION IN AS-BUILT IMPERVIOUS COVER.
- INFILTRATION TESTING WAS PERFORMED BY DAVE LOCKARD, SEO, ON MARCH 24, 2025. THE RESULTS INDICATED AN INFILTRATION RATE OF 3.5 INCHES PER HOUR FOR TEST PIT 1 AND 3.75 INCHES PER HOUR FOR TEST PIT 2. A FACTOR OF SAFETY OF 2 WAS APPLIED TO THE 3.5 INCHES PER HOUR OBSERVED INFILTRATION RATE TO YIELD A DESIGN INFILTRATION RATE OF 1.75 INCHES PER HOUR. DURING THIS TESTING, THE LIMITING ZONE WAS NOT ENCOUNTERED AT THE DEPTH OF THE TEST PITS AT 72 INCHES. THE BOTTOM DEPTH OF THE INFILTRATION TRENCH IS AT A DEPTH OF 4.0 FEET, SO THIS RESULT DEMONSTRATES THAT THERE WILL BE AT LEAST TWO FEET OF SEPARATION BETWEEN THE BOTTOM OF THE INFILTRATION TRENCH AND THE LIMITING ZONE. THE REPORTS FROM THIS TESTING ARE INCLUDED WITH THE SWM&SC REPORT.
- A DRIVEWAY PERMIT SHALL BE OBTAINED FROM THE TOWNSHIP PRIOR TO CONSTRUCTION.
- ALL ITEMS REQUIRING INSPECTION SHALL BE COORDINATED BY THE OWNER/CONTRACTOR. ALL REQUESTS FOR REQUIRED INSPECTIONS BY THE CONTRACTOR ARE TO BE DEEMED AS APPROVED REQUESTS ON BEHALF OF THE OWNER. THE TOWNSHIP SHALL HAVE THE RIGHT OF ENTRY FOR THE PURPOSES OF INSPECTING ALL STORMWATER FACILITIES.
- IF A SUMP PUMP IS INSTALLED AND NOT CONNECTED TO THE STORM SEWER SYSTEM ON THE PROPERTY, IT SHALL BE CONNECTED TO A PERVIOUS AREA OF THE SITE IN A MANNER THAT DOES NOT RESULT IN ADVERSE IMPACT TO ADJACENT PROPERTIES.



The contractor shall verify all dimensions and existing conditions at the site before construction.

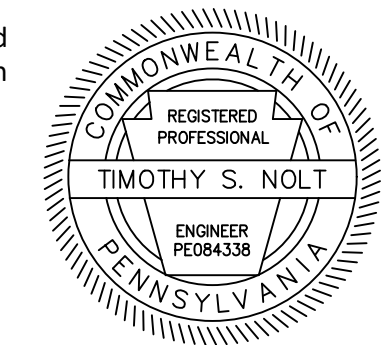
The contractor shall comply with the provisions of act 287 notification of utilities before excavation in the project area in order to determine the existence and location of all utilities. prior to any construction, the contractor will be required to contact all utilities and request them to mark their locations in the field. the one call system telephone number is number is (800-242-1776) PA ONE CALL DESIGN I.D. #20250631130 (NO DESIGN CONFLICTS) DATE: MARCH 4, 2025

- COMPANY: COMCAST CABLE LEBANON  
ADDRESS: C/O USIC LOCATING SERVICES INC  
13085 HAMILTON CROSSING BLVD STE 200  
CARMEL, IN 46032  
CONTACT: OFFICE PERSONNEL  
PHONE: 800-811-7981
- COMPANY: VERIZON PENNSYLVANIA LLC  
ADDRESS: 1050 VIRGINIA DR  
FORT WASHINGTON, PA 19034  
CONTACT: DIANE REDILLA  
EMAIL: diane.c.redilla@verizon.com  
PHONE: 215-591-6210
- COMPANY: LEBANON AUTHORITY CITY OF  
ADDRESS: 2311 RIDGEVIEW RD  
LEBANON, PA 17042  
CONTACT: BOB SENTZ  
EMAIL: BSNTZ@LEBANONAUTHORITY.ORG  
PHONE: 717-272-2841
- COMPANY: NORTH LEBANON TOWNSHIP  
ADDRESS: 725 KIMMERLINGS ROAD  
LEBANON, PA 17046  
CONTACT: OFFICE PERSONNEL  
PHONE: 717-273-7132
- COMPANY: PENNSYLVANIA ELECTRIC CO  
ADDRESS: 21 S MAIN STREET  
AKRON, OH 44308  
CONTACT: MELLYSSA ADAMS  
EMAIL: madams@firstenergycorp.com  
PHONE: 330-604-4073
- COMPANY: UGI UTILITIES INC  
ADDRESS: 1301 AIP DR  
MIDDLETOWN, PA 17057-5987  
CONTACT: GEOFFREY FERGUSON  
EMAIL: GFERGUSON@UGI.COM  
PHONE: 610-807-3118

## LICENSED PROFESSIONAL CERTIFICATION

I hereby certify that, to the best of my knowledge, the plan shown and described herein is true and correct and complies with the provisions of the North Lebanon Township Stormwater Management Ordinance.

*Timothy S. Nolt*  
Professional Engineer



April 14, 2025

## LANDOWNER ACKNOWLEDGMENT OF PERMANENCE OF BMPs

I, the undersigned hereby represent that no person shall modify, remove, fill, landscape, or alter any Storm Water Management BMPs, facilities, areas, or structures without the written approval of North Lebanon Township.

Peter Klassen  
Christine G. Klassen

## NORTH LEBANON TOWNSHIP ENGINEER CERTIFICATE

Reviewed by the North Lebanon Township Township Engineer this \_\_\_\_\_ day of \_\_\_\_\_, 2025.

Township Engineer

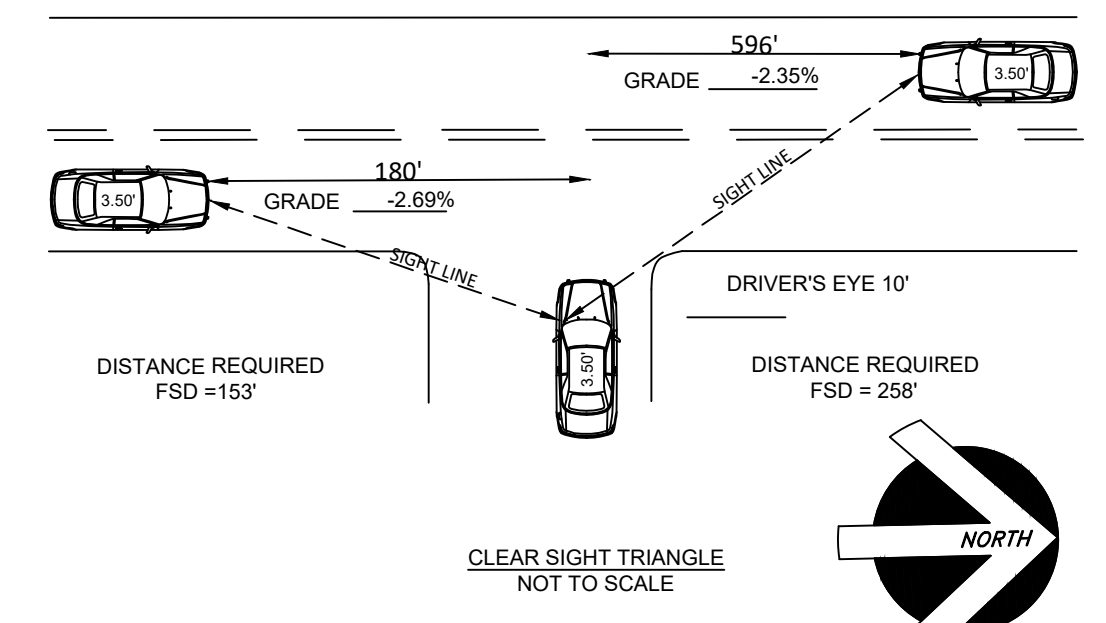
## CARBONATE GEOLOGY

I hereby that the proposed stormwater facilities are not underlain by carbonate geology.

*Timothy S. Nolt*  
Professional Engineer

APRIL 14, 2025

Site Soil Summary	
Parameter	BeB- Bedington shaly silt loam, 3 to 8 percent slopes
Drainage Class	Well Drained
Within LOD	Yes
Hydrologic Soil Group	B
Depth to Water Table	>80 Inches
Depth to Lithic Bedrock	60 to 80 Inches
Hydic Soil?	No



## CERTIFICATE OF OWNERSHIP, ACKNOWLEDGMENT OF PLAN AND OFFER OF DEDICATION

COMMONWEALTH OF PENNSYLVANIA  
COUNTY OF LEBANON

On this, the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, before me, the undersigned officer, personally appeared \_\_\_\_\_ who being duly sworn according to the law, deposes and says that he is the Owner of the property shown on this plan, that the plan thereof was made at his direction, that he acknowledges the same to be his act and plan, that he desires same to be recorded, and acknowledges the same to be his act and plan, that he desires the same to be recorded, and that all streets and other property identified as proposed public property (excepting those areas labeled "NOT FOR DEDICATION" are hereby dedicated to the public use.

Notary (Seal) \_\_\_\_\_ Owner Signature \_\_\_\_\_

## CERTIFICATE FOR APPROVAL BY THE BOARD OF SUPERVISORS

At a meeting held on \_\_\_\_\_, the Board of Supervisors of North Lebanon Township, Lebanon County, Pennsylvania approved the STORMWATER MANAGEMENT SITE PLAN for the property as shown hereon. No other Stormwater Management Site plan or plans shall be recognized. Approval includes all documentation, including the comments or requirements of official reviewing individuals or agencies. Approval is based on compliance with applicable ordinances, rules, and regulations, and shall not be construed as a guarantee to any person or organization that the design of any part of the plan will function as anticipated under any or all conditions or situations. Additionally, that by review and approval of the plan, the Township expressly declines the assumption of liability errors, omissions, or mistakes in judgement in the design, engineering, construction or expected function of the matters reviewed and/or approved.

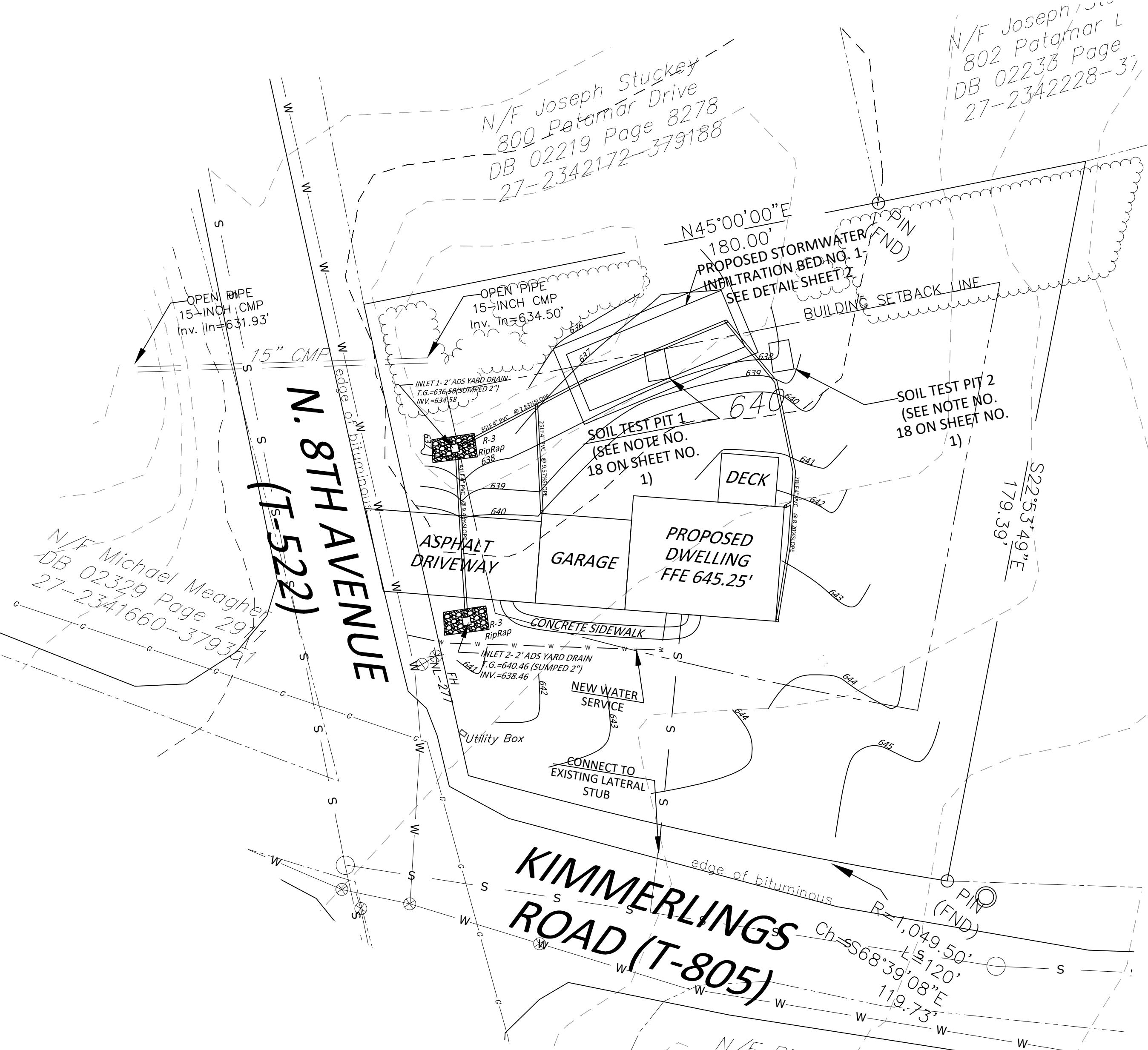
COVER SHEET AND EXISTING CONDITIONS PLAN NS KIMMERLINGS ROAD NORTH LEBANON TOWNSHIP, LEBANON COUNTY		SHEET 1 OF 3
		REVISION DATE(S):
DATE: APRIL 14, 2025	DRAWN BY: TSN	SCALE: AS NOTED (WHEN PRINTED 24"x36")
4190 Nolt Road Mount Joy, PA 17552 717-278-5423		tim@noltengineering.com www.noltengineering.com

OWNER & APPLICANT  
Peter Klassen and Christine G. Klassen  
276 S. Center Street  
Jonestown, PA 17038  
klassenconstruction@icloud.com  
717-821-9930

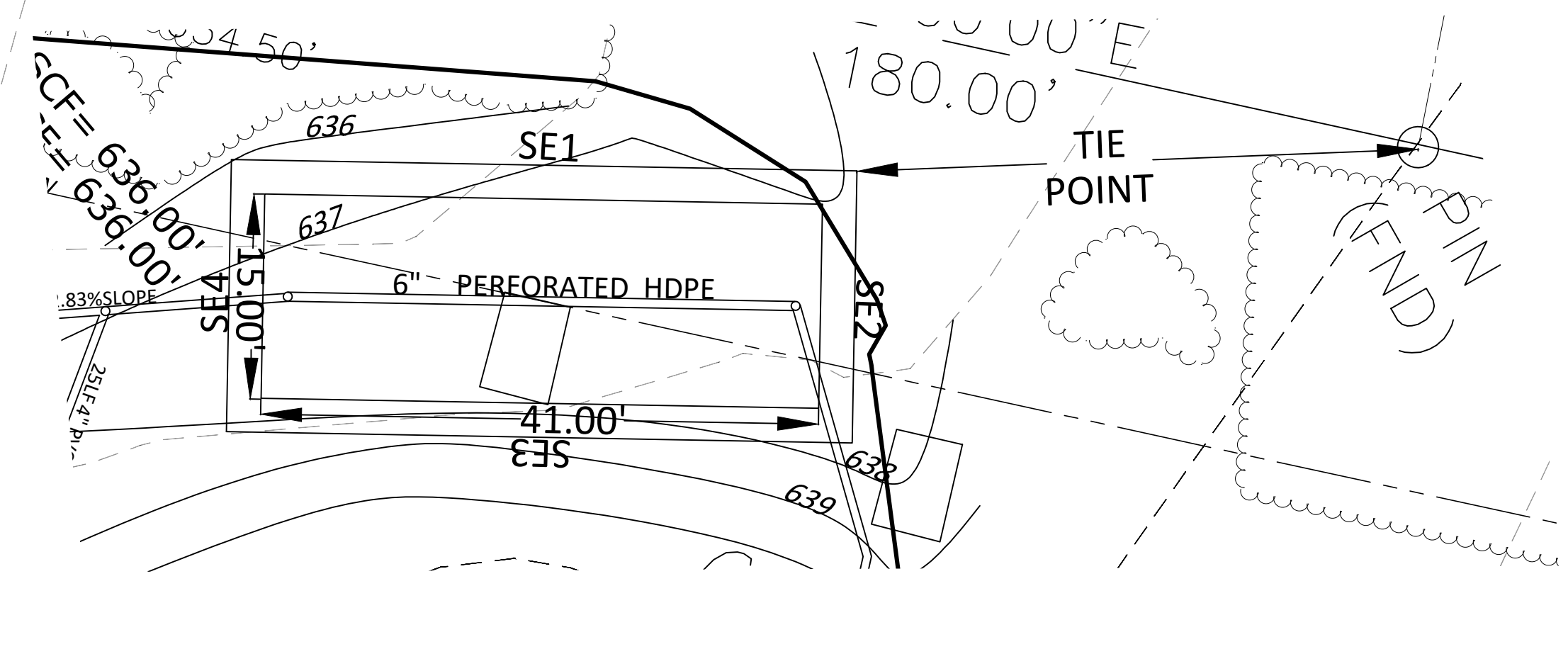
1. NO PERMANENT OBSTRUCTIONS AND/OR PLANT MATERIALS OVER THREE FEET HIGH SHALL BE PLACED WITHIN THE CLEAR SIGHT TRIANGLE.  
2. USING 35 MPH FOR N. 8TH AVENUE TO THE NORTH AND 25 MPH FOR 8TH AVENUE TO THE SOUTH. THERE IS A STOP SIGN FOR TRAFFIC HEADING NORTH AND IT IS GENERALLY NOT FEASIBLE FOR TRAFFIC TO TRAVEL MORE THAN 25 MPH HEADING NORTH IF THE MOTORIST STOPS AT THE INTERSECTION.

**STORMWATER NOTES**

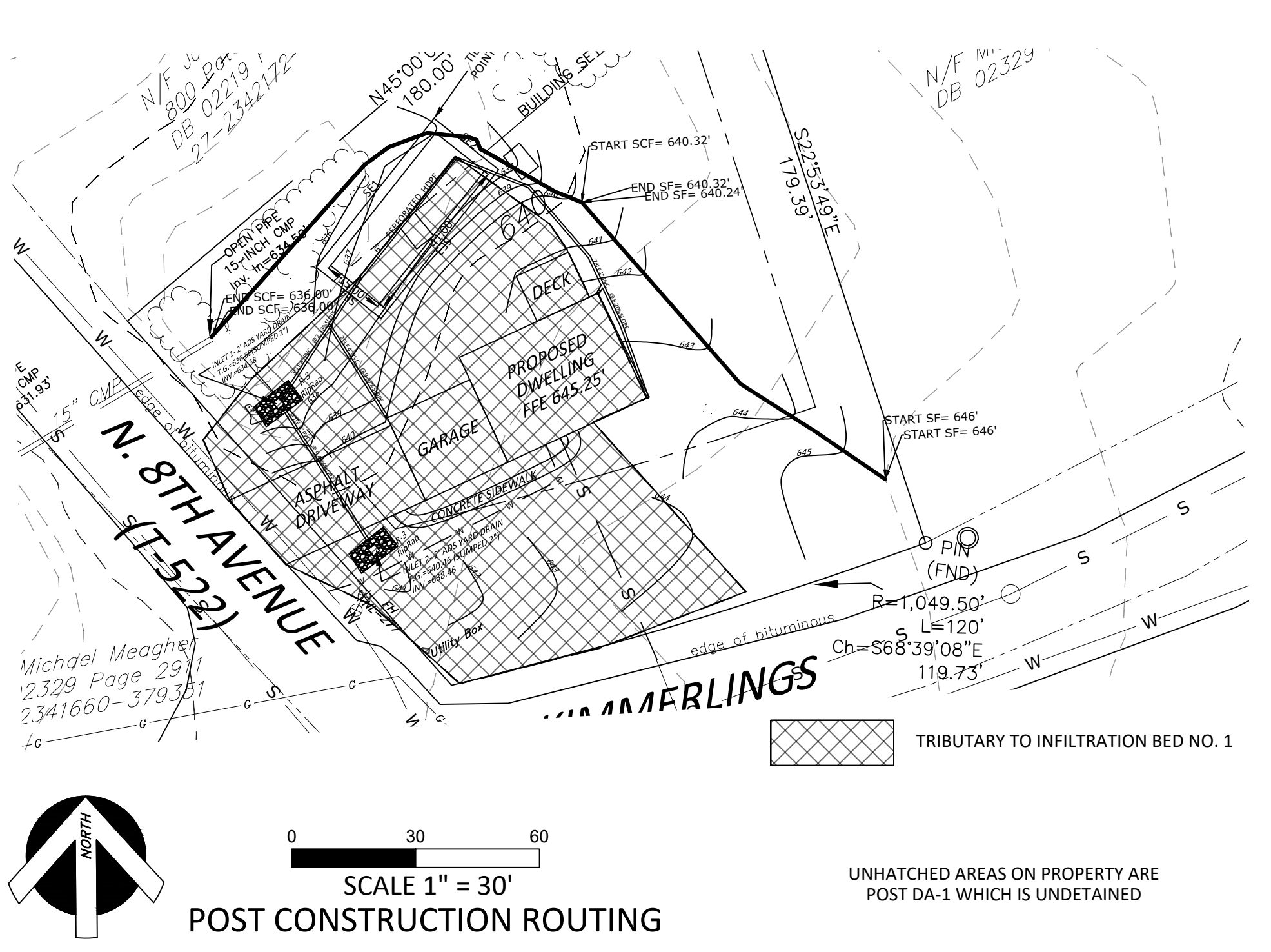
- TREES SHOWN HEREON ARE TO REMAIN AFTER CONSTRUCTION.
- SUGGESTED GRADING IS SHOWN HEREON. THE DESIGN INTENT IS TO CONVEY ONLY THOSE PORTIONS OF THE PROPERTY HIGHLIGHTED ON THE POST CONSTRUCTION ROUTING DIAGRAM TO THE INFILTRATION BED. OTHER AREAS OF THE PROPERTY OR ADJACENT STREETS SHOULD BE BYPASSED AROUND THE INFILTRATION BED AND CONTINUE TO CONTRIBUTE RUNOFF TO THE 15-INCH DIAMETER CULVERT PIPE SHOWN. UNDER NO CIRCUMSTANCE SHOULD THIS AREA NEAR THE 15-INCH DIAMETER CULVERT BE BLOCKED OR REGRADED. CONTRACTOR SHALL ENSURE ANY TREE DEBRIS OR SEDIMENT MATERIAL THAT DEPOSITS IN THIS AREA DURING CONSTRUCTION IS PROMPTLY REMOVED.
- THE PIPE SLOPES SHOWN HEREON ARE FOR ILLUSTRATION PURPOSES THAT THE INSTALLATION IS FEASIBLE BASED ON THE PROPOSED GRADING PROVIDED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONFIRMING SLOPES AND INSTALLING ALL 4-INCH DIAMETER PIPE AT A SLOPE NOT LESS THAN 2 PERCENT. IF A TWO PERCENT SLOPE IS NOT FEASIBLE BETWEEN INLET 1 AND THE INFILTRATION BED, 6-INCH DIAMETER PIPE SHALL BE USED FOR THIS RUN.



SCALE 1" = 20'  
PROPOSED CONDITIONS PLAN



SCALE 1" = 10'  
STORMWATER EASEMENT DETAIL

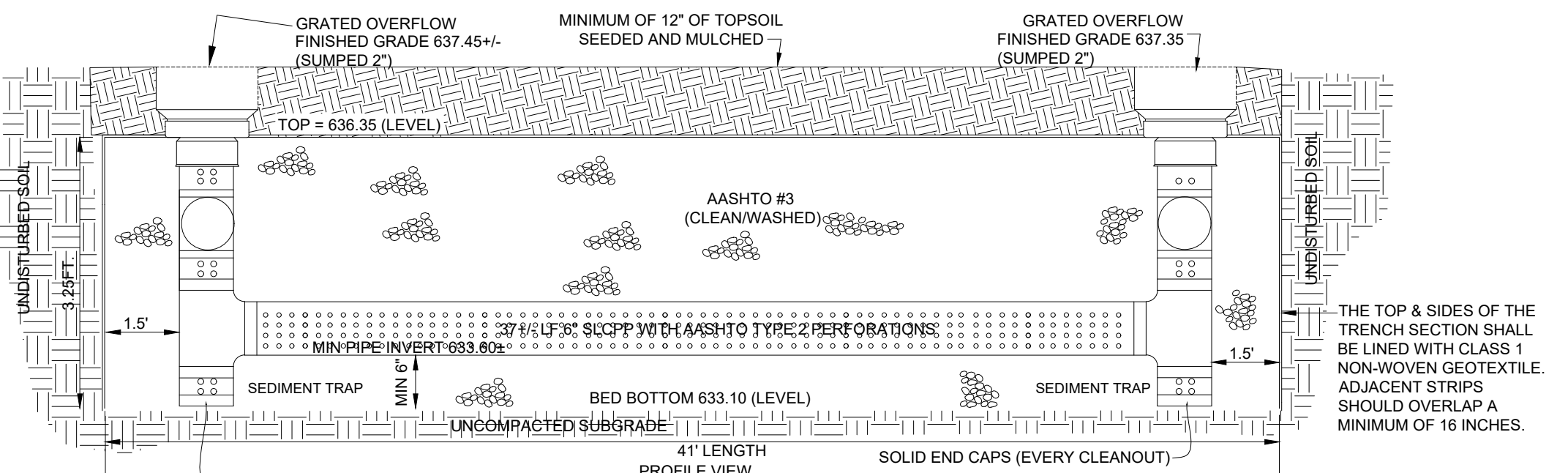


SCALE 1" = 30'  
POST CONSTRUCTION ROUTING

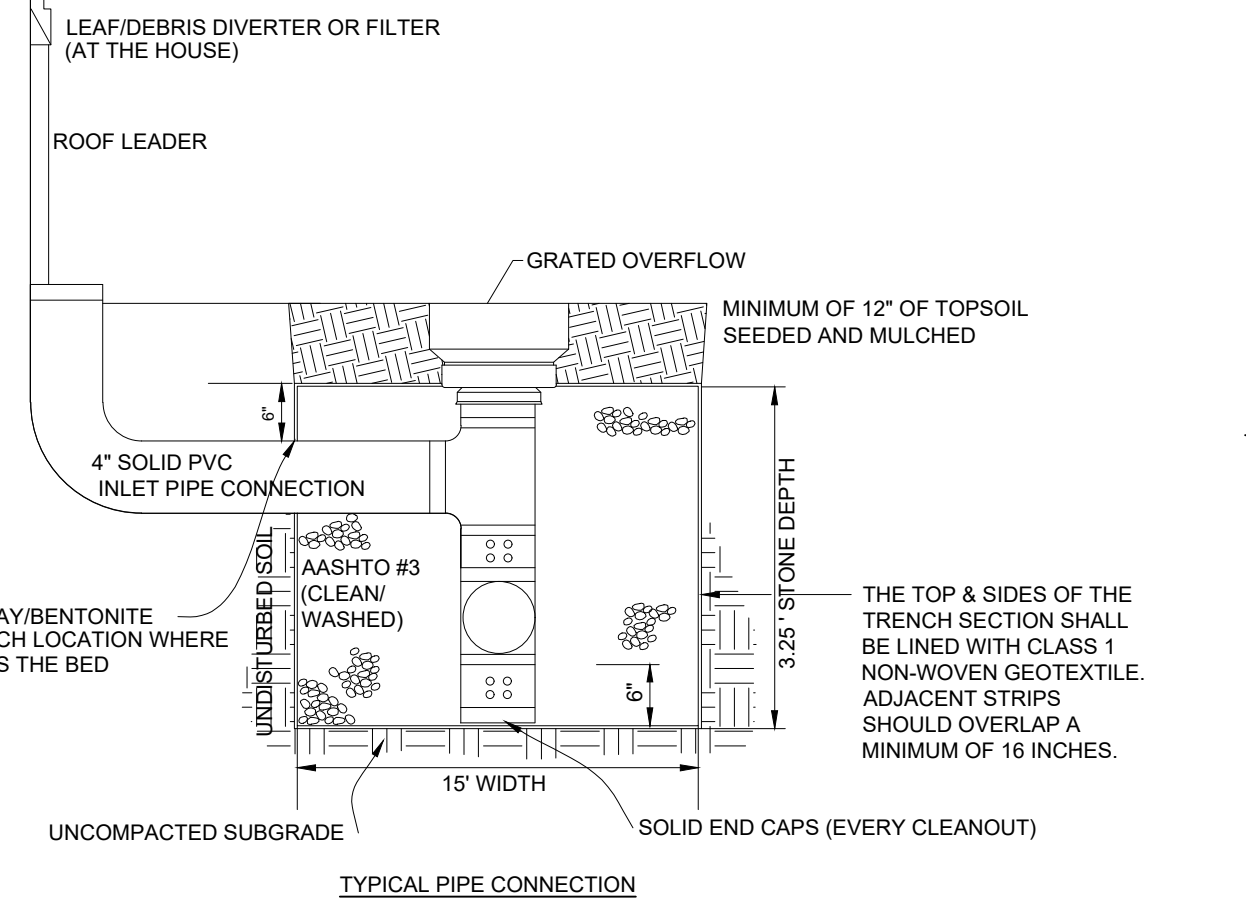
PROPOSED STORMWATER EASEMENT (SE)

Line Table			Line Table		
Line #	Length	Direction	Line #	Length	Direction
SE1	46'	N 30° 51' 30" E	TIE POINT	41.27'	N 27° 33' 12" E
SE2	20'	S 59° 08' 30" E			
SE3	46'	S 30° 51' 30" W			
SE4	20'	N 59° 08' 30" W			

THE APPLICANT HEREBY GRANTS NORTH LEBANON TOWNSHIP AND ITS AGENTS A GENERAL ACCESS EASEMENT ACROSS THE LOT FROM THE NEAREST PUBLIC RIGHT-OF-WAY TO ACCESS STORMWATER MANAGEMENT FACILITIES. THE STORMWATER EASEMENT IN THE ABOVE TABLE ENSURES NOTHING WILL BE CONSTRUCTED OVER TOP OF THE NEW INFILTRATION BEDS THAT WILL IMPAIR ITS FUNCTION. THIS SHALL BE A FLOATING EASEMENT, MEANING THE EASEMENT WILL BE ADJUSTED AS NECESSARY TO REFLECT AS BUILT CONDITIONS. THE GENERAL ACCESS EASEMENT ALSO PERTAINS TO KEY DRAINAGE COLLECTION FEATURES, CONVEYANCE PIPING, AND CRITICAL SURFACE FLOW PATHS.



INFILTRATION BED NO. 1  
NOT TO SCALE



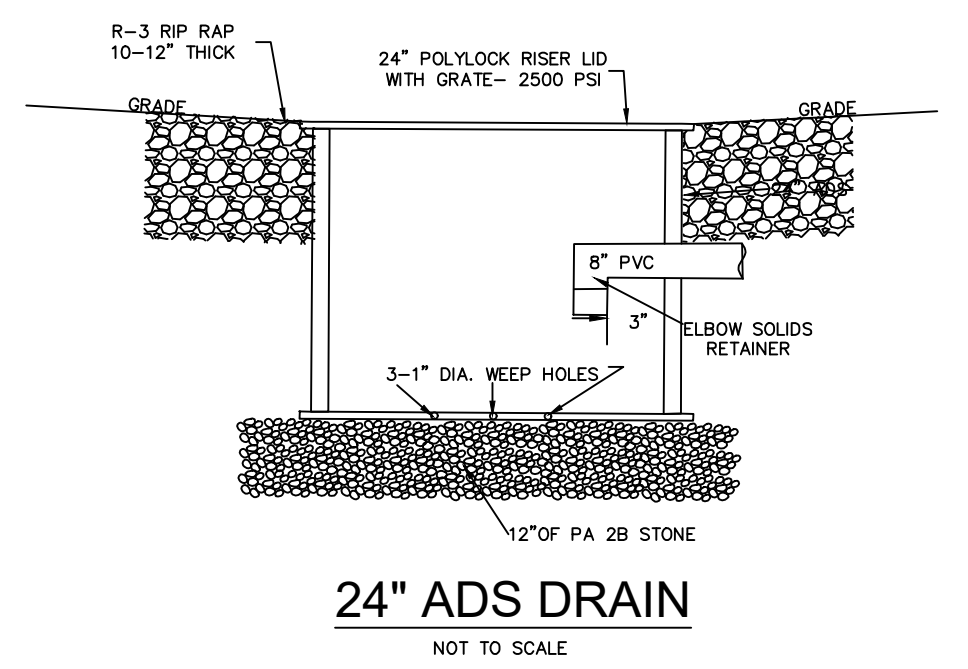
TYPICAL PIPE CONNECTION

- STORMWATER INFILTRATION BED NOTES**
- THE CONTRACTOR SHALL PREVENT VEHICULAR TRAFFIC AND CONSTRUCTION EQUIPMENT FROM CROSSING THE AREA DURING CONSTRUCTION.
  - THE BED BOTTOMS SHALL BE LEVEL AND BE SIZED AS SHOWN.
  - THE CONTRACTOR SHALL NOT COMPACT THE BOTTOM OF THE BED DURING CONSTRUCTION IN ORDER TO MAINTAIN SOIL PERMEABILITY.
  - NO TREES SHALL BE PLANTED OVER THE SURFACE OF THE INFILTRATION BED AND A 5 FOOT BUFFER SHALL BE OBSERVED AROUND THE PERIMETER OF THE BED WHERE NO TREES SHALL BE PERMITTED.
  - THE GRATED OVERFLOWS SHALL BE CAPABLE OF PREVENTING RODENT ENTRY.
  - NON-WOVEN GEOTEXTILE SHALL CONSIST OF NEEDLED NON-WOVEN POLYPROPYLENE FIBERS AND MEET THE FOLLOWING PROPERTIES:
    - A. GRAB TENSILE STRENGTH (ASTM-D4832) 120 LBS
    - B. MULLEN BURST STRENGTH (ASTM-D3786) 225 PSI
    - C. FLOW RATE (ASTM-D491) 95 GAL/MIN/FT
    - D. UV RESISTANCE AFTER 500 HRS (ASTM-D4355) 70%
    - E. HEAT-SET OR HEAT-CALCENDARED FABRICS ARE NOT PERMITTED. ACCEPTABLE TYPES INCLUDE MIRAFI 140N, AMOCO 4547, AND GEOTEX 451
  - STONE FOR INFILTRATION BED SHALL BE 1/2-INCH TO 1-INCH UNIFORMLY GRADED COARSE AGGREGATE, WITH A WASH LOSS OF NO MORE THAN 0.5%, AASHTO SIZE NUMBER 3 PER AASHTO SPECIFICATIONS, PART I, 19TH ED., 1998, OR LATER AND SHALL HAVE VOIDS 40% AS MEASURED BY ASTM-C29.
  - INFILTRATION BED NO. 1 DIMENSIONS (L X W X D) - 41 FEET X 15 FEET X 3.25 FEET
  - STORAGE VOLUMES INCLUDED IN NOTE ABOVE DOES NOT CONSIDER THE TOPSOIL BETWEEN THE BED AND THE FINISHED GRADE. STORAGE VOLUME DOES INCLUDE STORAGE IN 8-INCH PIPE (SEE CALCULATIONS IN SWM PLAN).
  - THE CONTRACTOR SHALL ENSURE THAT A 2-FOOT SEPARATION IS MAINTAINED BETWEEN THE BOTTOM OF THE STONE BED AND THE LIMITING ZONE. THE CONTRACTOR SHALL PROBE THE AREA WITH A METAL ROD TO CONFIRM SEPARATION. IF ROCK IS ENCOUNTERED THAT PROHIBITS INSTALLATION OF THE INFILTRATION TRENCH AT THE ELEVATIONS PROPOSED, THE ROCK SHALL BE EXCAVATED AND REMOVED IN ORDER TO PROVIDE THE REQUIRED 2-FOOT SEPARATION. IF OVER-EXCAVATION OF ROCK IS REQUIRED THE BACKFILL MATERIAL AND PLACEMENT METHOD SHALL BE AS OUTLINED BY THE DESIGN ENGINEER, WITH COORDINATION WITH THE TOWNSHIP.
  - THE 8-INCH PERFORATED DISTRIBUTION PIPE IS SHOWN AT ITS LOWEST LOCATION. THE CONTRACTOR MAY, AT ITS DISCRETION, RAISE THIS PIPE TO ACCOMMODATE FOR ACTUAL SITE CONDITIONS. HOWEVER, IN NO CIRCUMSTANCE SHALL THE DISTRIBUTION PIPE HAVE LESS THAN 6-INCHES OF STONE COVER AND 12-INCHES OF TOPSOIL COVER.
  - ALL STORM SEWER PIPING SHALL BE INSTALLED WITH WATERTIGHT JOINTS.
  - CONTRACTOR MAY SUBSTITUTE AASHTO #3 FOR AASHTO #57 (CLEAN) AT ITS DISCRETION.
  - NO GEOTEXTILE SHALL BE INSTALLED ON THE BOTTOM OF THE INFILTRATION BEDS.

- STORMWATER INFILTRATION BED CONSTRUCTION SEQUENCE NOTES**
- DUE TO THE NATURE OF CONSTRUCTION SITES, SUBSURFACE INFILTRATION SHOULD BE INSTALLED TOWARD THE END OF THE CONSTRUCTION PERIOD, IF POSSIBLE.
  - INSTALL AND MAINTAIN ADEQUATE EROSION AND SEDIMENT CONTROL MEASURES (AS PER THE PENNSYLVANIA EROSION AND SEDIMENTATION CONTROL PROGRAM MANUAL) DURING CONSTRUCTION.
  - THE EXISTING SUBGRADE UNDER THE BED AREAS SHOULD NOT BE COMPACTED OR SUBJECT TO EXCESSIVE CONSTRUCTION EQUIPMENT TRAFFIC PRIOR TO GEOTEXTILE AND STONE TRENCH PLACEMENT. THE SUBGRADE SHALL REMAIN UNCOMPACTED AND PREPARED FOR INFILTRATION. THE TOWNSHIP AND TOWNSHIP ENGINEER SHALL BE NOTIFIED WHEN THE SUBGRADE IS PREPARED.
  - WHERE EROSION OF SUBGRADE HAS CAUSED ACCUMULATION OF FINE MATERIALS AND/OR SURFACE PONDING, THIS MATERIAL SHOULD BE REMOVED WITH LIGHT EQUIPMENT AND THE UNDERLYING SOILS SCARIFIED TO A MINIMUM DEPTH OF 6 INCHES WITH A YORK RAKE (OR EQUIVALENT) AND LIGHT TRACTOR. ALL FINE GRADING SHOULD BE DONE BY HAND. ALL TRENCH BOTTOMS SHOULD BE AT LEVEL GRADE.
  - EARTHEN BERMS (IF USED) BETWEEN INFILTRATION TRENCHES SHOULD BE LEFT IN PLACE DURING EXCAVATION. THESE BERMS DO NOT REQUIRE COMPACTION IF PROVEN STABLE DURING CONSTRUCTION.
  - INSTALL UPSTREAM AND DOWNSTREAM CONTROL STRUCTURES, CLEANOUTS, PERFORATED PIPING, AND ALL OTHER NECESSARY STORMWATER STRUCTURES.
  - CONDUCT INFILTRATION TESTING AT THE BOTTOM OF THE BED WHEN INFILTRATION BED IS EXCAVATED. GEOTEXTILE AND TRENCH AGGREGATE SHOULD BE PLACED IMMEDIATELY AFTER APPROVAL OF SUBGRADE PREPARATION AND INSTALLATION OF STRUCTURES. GEOTEXTILE SHOULD BE PLACED IN ACCORDANCE WITH MANUFACTURER'S STANDARDS AND RECOMMENDATIONS. ADJACENT STRIPS OF GEOTEXTILE SHOULD OVERLAP A MINIMUM OF 16 INCHES. IT SHOULD ALSO BE SECURED AT LEAST 4 FEET OUTSIDE OF TRENCH IN ORDER TO PREVENT ANY RUNOFF OR SEDIMENT FROM ENTERING THE STORAGE TRENCH. THIS EDGE STRIP SHOULD REMAIN IN PLACE UNTIL ALL BARE SOILS CONTIGUOUS TO TRENCHES ARE STABILIZED AND VEGETATED. AS THE SITE IS FULLY STABILIZED, EXCESS GEOTEXTILE ALONG TRENCH EDGES CAN BE CUT BACK TO THE EDGE OF THE TRENCH.
  - CLEAN-WASHED, UNIFORMLY GRADED AGGREGATE SHOULD BE PLACED IN THE TRENCH IN MAXIMUM 8-INCH LIFTS. EACH LAYER SHOULD BE LIGHTLY COMPACTED, WITH CONSTRUCTION EQUIPMENT KEPT OFF THE TRENCH BOTTOM AS MUCH AS POSSIBLE. THE INFILTRATION SYSTEM SHALL BE PROTECTED FROM SEDIMENT LADEN RUNOFF AT ALL TIMES, INCLUDING DURING CONSTRUCTION AND AS A PERMANENT STORMWATER MANAGEMENT FACILITY.
  - APPROVED TOPSOIL SHOULD BE PLACED OVER INFILTRATION TRENCH.
  - SEED AND STABILIZE TOPSOIL.
  - DO NOT REMOVE INLET PROTECTION OR OTHER EROSION AND SEDIMENT CONTROL MEASURES UNTIL SITE IS FULLY STABILIZED.

**INFILTRATION BED MAINTENANCE**

THE APPLICANT SHALL BE RESPONSIBLE FOR THE SHORT TERM AND LONG TERM MAINTENANCE OF THE PROPOSED STORMWATER MANAGEMENT FACILITIES DEPICTED ON THESE PLANS. MAINTENANCE ACTIVITIES REQUIRED FOR THE SUBSURFACE BED ARE SIMILAR TO THOSE OF ANY INFILTRATION SYSTEM AND FOCUS ON REGULAR SEDIMENT AND DEBRIS REMOVAL. THIS MAINTENANCE OBJECTIVE IS TO PREVENT: CLOGGING, ACCUMULATION OF SEDIMENT, STANDING WATER, AND STRUCTURAL FAILURE OF THE INFILTRATION SYSTEM. INSPECT AND MAINTAIN THE SYSTEM THROUGH THE CLEAN-OUT SUMP. THE OVERALL SYSTEM SHALL BE INSPECTED BY THE APPLICANT AT LEAST ONCE A MONTH AND SHALL BE KEPT FREE FROM DEBRIS TO PREVENT CLOGGING. THE OWNER SHALL BE RESPONSIBLE FOR CLEANING THE LEAF DIVERTER/FILTER AS NEEDED. THE APPLICANT SHALL ALSO BE RESPONSIBLE FOR VACUUMING THE SEDIMENT TRAPS TWICE A YEAR AND KEEPING THE OVERFLOW DISCHARGE CLEAR OF OBSTRUCTIONS SO THE INFILTRATION SYSTEM FUNCTIONS AS DESIGNED. THE OVERLYING VEGETATION OF SUBSURFACE INFILTRATION FEATURES SHOULD BE MAINTAINED IN GOOD CONDITION, AND ANY BARE SPOTS REVEGETATED AS SOON AS POSSIBLE. VEHICULAR ACCESS ON SUBSURFACE INFILTRATION AREAS SHOULD BE PROHIBITED, AND CARE SHOULD BE TAKEN TO AVOID EXCESSIVE COMPACTION BY MOWERS.



24" ADS DRAIN  
NOT TO SCALE

NOTES:  
DRAIN SHALL BE PROVIDED WITH A PERMANENT INLET FILTER- ADS FLEXFORM OR APPROVED EQUAL.  
IF DRAIN COMES WITH TWO HOLES, THE UNUSED HOLE SHALL BE PLUGGED.

<p><b>PROPOSED CONDITIONS PLAN</b> NS KIMMERLINGS ROAD NORTH LEBANON TOWNSHIP, LEBANON COUNTY</p>		<p><b>SHEET</b> 2 OF 3</p>
<p><b>NOLT ENGINEERING</b></p>		<p>4190 Nolt Road Mount Joy, PA 17552 717-278-5423</p>
<p>DATE: APRIL 14, 2025</p>	<p>DRAWN BY: TSN</p>	<p>SCALE: AS NOTED (WHEN PRINTED 24"x36")</p>
		<p>REVISION DATE(S):</p>
		<p>tim@noltengineering.com www.noltengineering.com</p>

