#### **STORM WATER NOTES**

- 1. ALL STORM WATER 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. . STORM WATER 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 STORMWATER MANAGEMENT ORDINANCE. MAINTENANCE SHALL INCLUDE PERFORMING ROUTINE MAINTENANCE AND REPAIR OR REPLACEMENT O DAMAGED FACILITIES, VEGETATION OR STORM WATER AREAS TO CONDITIONS AS SHOWN ON TH APPROVED PLAN AND IN ACCORDANCE WITH NORTH LEBANON TOWNSHIP STORM WATER MANAGEMENT ORDINANCE
- 3. 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.
- 4. RUNOFF FROM THE LOT IMPROVEMENTS SHALL BE DIRECTED TO THE STORM WATER MANAGEMENT FACILITIES. STORM WATER RUNOFF FROM EXISTING NATURAL SWALES AND/OR OTHER EXISTING DRAINAGE CONVEYORS SHALL NOT BE DIRECTED TOWARDS OR INTERCEPTED BY THE STORM WATER MANAGEMENT **FACILITIES**
- 5. TOWNSHIP OFFICIALS AND THEIR AGENTS OR EMPLOYEES HAVE THE RIGHT OF ACCESS FOR INSPECTION AND, IN CASES OF CONSTRUCTION DEFAULT, CONSTRUCTION OF THE STORM WATER MANAGEMENT FACILITIES. THE MAINTENANCE OF ALL SUCH FACILITIES SHALL BE THE RESPONSIBILITY OF THE LOT OWNER ON WHICH THE FACILITIES EXIST. NORTH LEBANON TOWNSHIP SHALL NOT BE LIABLE FOR MAINTENANCE OF ANY STORM WATER MANAGEMENT FACILITIES NOT CONSTRUCTED AS SHOWN HEREIN.
- 6. THE TOWNSHIP ENGINEER SHALL INSPECT ALL PHASES OF DEVELOPMENT OF THE SITE. CONTACT THE TOWNSHIP AT 717-273-7132 FOR INSPECTION OF EACH PHASE OF WORK AT LEAST 5 BUSINESS DAYS PRIOR TO BEGINNING OF EACH PHASE OF WORK. ANY PORTION OF THE WORK WHICH DOES NOT COMPLY WITH THE APPROVED PLAN MUST BE CORRECTED BY THE DEVELOPER. STONE MUST BE MOUNDED TO PROVIDE A MINIMUM OF 2' COVER OVER THE STORM SEWER PIPING WHERE
- THE PIPE IS SUBJECT TO ANY VEHICLE CROSSINGS DURING CONSTRUCTION. 8. STORMWATER INLETS, PIPES, CULVERTS AND SWALES (CUMULATIVELY REFERRED TO AS DRAINAGE IMPROVEMENTS) CONSTRUCTED ON THIS PLAN HAVE BEEN DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH REQUIREMENTS OF MUNICIPAL ORDINANCES GOVERNING LAND DEVELOPMENT OR IN ACCORDANCE WITH REGULATIONS OF THE PENNSYLVANIA DEPARTMENT OF TRANSPORTATION FOR ANY DRAINAGE IMPROVEMENTS TO STATE HIGHWAYS. THESE ORDINANCES AND REGULATIONS STIPULATE SIZES AND CAPACITIES FOR THESE DRAINAGE IMPROVEMENTS, WHICH SIZES AND CAPACITIES MAY HAVE LIMITED ABILITY TO CARRY AND TRANSFER STORMWATER DRAINAGE FROM CERTAIN SEVERE OR INTENSE STORMS. STECKBECK ENGINEERING & SURVEYING, INC. SHALL NOT BE RESPONSIBLE FOR ANY DAMAGE OR INJURY CAUSED BY SURFACE RUN-OFF OR FLOODING FROM STORMS WHICH GENERATE MORE RUNOFF THAN AS REQUIRED TO BE COLLECTED AND CONVEYED BY MUNICIPAL OR PENNDOT REGULATIONS.
- 9. DRAINAGE EASEMENTS SHALL ALLOW PASSAGE OF STORM WATER IN UNDERGROUND STORM WATER SEWER PIPING AND ASSOCIATED STRUCTURES, AND/OR ALLOW PASSAGE OF STORM WATER OVER THE SURFACE OF THE GROUND AND SHALL ALLOW ACCESS ACROSS THE AREA FOR PURPOSES OF MAINTENANCE OF THE STORM CONVEYANCE SYSTEMS. TREES, SHRUBBERY, AND STRUCTURES WITHIN DRAINAGE EASEMENTS ARE PROHIBITED UNLESS APPROVED BY THE TOWNSHIP. 10. EXISTING AND PROPOSED ROADSIDE GUTTERS OR SWALES SHALL NOT BE OBSTRUCTED BY DRIVEWAYS
- FILL, OR STRUCTURES. 11. ALL DEEDS FOR THE LOT(S) SHALL INCLUDE A REFERENCE TO THE EASEMENT(S) THAT ARE LOCATED WITHIN THE LOT ALONG WITH ANY RIGHTS AND RESTRICTIONS OF EACH EASEMENT INCLUDING LOT OWNER RESPONSIBILITY FOR OWNERSHIP AND MAINTENANCE OF THE EASEMENT. PIPES AND STRUCTURES WITHIN THE EASEMENT
- 12. ALL STORMWATER MAINS AND RELATED STRUCTURES WITHIN THE DEVELOPMENT SHALL BE CONSTRUCTED BY THE DEVELOPER. THE STORM WATER MANAGEMENT FACILITIES (S.W.M.F.) SHALL BE CONSTRUCTED PRIOR TO ANY OTHER CONSTRUCTION ON THE SITE. 13. SEWER MAINS SHALL BE SMOOTH LINED CORRUGATED POLYETHYLENE PIPE (SLCPP) AND SHALL BE
- CONCRETE ENCASED WHEN COVER IS LESS THAN 12" TO SUBGRADE. 14. ALL INLETS SHALL BE SUPPLIED WITH BICYCLE SAFE GRATES. 15. STORM WATER MAINS WHICH ARE LOCATED WITHIN A PUBLIC RIGHT-OF WAY SHALL BE OWNED AND MAINTAINED BY NORTH LEBANON TOWNSHIP. STORM SEWER MAINS WHICH ARE LOCATED WITHIN ANY LOTS SHALL BE OWNED AND MAINTAINED BY THE INDIVIDUAL LOT OWNER. TOWNSHIP OFFICIALS, INCLUDING
- NORTH LEBANON TOWNSHIP SUPERVISORS WILL HAVE THE RIGHT TO INSPECT AND/OR CORRECT ANY DEFICIENCIES IN THE STORM WATER COLLECTION SYSTEM WHICH IS LOCATED ON ANY LOT OR WITHIN AN EASEMENT WITHIN THE DEVELOPMENT AT ANY TIME IF DEEMED NECESSARY. 16. ALL NEW CATCH BASINS LOCATED IN TOWNSHIP RIGHT-OF-WAY MUST BE MARKED WITH A MEDALLION THAT STATES "DON'T POLLUTE, FLOWS TO WATERWAYS". THESE MEDALLIONS WILL BE PROVIDED FROM
- NORTH LEBANON TOWNSHIP AT THE EXPENSE OF THE DEVELOPER. THE MEDALLION MUST BE CENTERED ON THE TOP OF CURB OF A TYPE "C" INLET OR ON THE BACK OF THE TOP OF A TYPE 'M' INLET. 17. NO PERSON SHALL MODIFY, REMOVE, FILL, LANDSCAPE OR ALTER STORMWATER MANAGEMENT FACILITIES WHICH MAY HAVE BEEN INSTALLED ON A PROPERTY UNLESS A STORMWATER MANAGEMENT SITE PLAN HAS BEEN APPROVED WHICH AUTHORIZES SUCH MODIFICATIONS, REMOVAL, FILLING, LANDSCAPING OR ALTERATION. NO PERSON SHALL PLACE ANY STRUCTURE, FILL, LANDSCAPING OR VEGETATION INTO A STORMWATER MANAGEMENT FACILITY OR WITHIN A DRAINAGE EASEMENT WHICH WILL LIMIT OR ALTER THE FUNCTIONING OF THE FACILITY OR EASEMENT IN ANY MANNER. 18. ALL ENDWALLS AND FLARED END SECTIONS WITH PIPES OF 12-INCH OR GREATER DIAMETER SHALL BE
- PROTECTED FROM CHILD ENTRY BY PLACING REMOVABLE STAINLESS-STEEL BARS (AND COMPATIBLE MOUNTING HARDWARE) SPACED FOUR INCHES (4") APART ACROSS THE OPENING. 19. CONTRACTORS AND PROPERTY OWNERS SHALL NOT STORE CONSTRUCTION MATERIALS OR LOCATE TRASH
- RECEPTACLES (I.E. DUMPSTERS) ON THE PAVED CARTWAY OF STREETS. 20. ALL MUD FROM CONSTRUCTION ACTIVITIES SHALL BE CLEANED BY THE RESPONSIBLE CONTRACTOR OR PROPERTY OWNER AT THE END OF EACH WORKDAY. 21. STORMWATER INLETS OR DRAINAGE PIPES WHICH BECOME FILLED WITH MUD OR DEBRIS FROM

CONSTRUCTION ACTIVITIES SHALL BE CLEANED BY THE RESPONSIBLE CONTRACTOR OR PROPERTY OWNER.

#### **BUILDING CODE NOTE**

ALL CONSTRUCTION SHALL BE SUBJECT TO THE REQUIREMENTS OF THE PENNSYLVANIA UNIFORM CONSTRUCTION CODE, AS ADOPTED BY THE TOWNSHIP.

#### NPDES APPROVAL

THE NPDES PERMIT WAS APPROVED ON 08/16/23 THE PERMIT WILL EXPIRE ON 12/07/24 NPDES PERMIT # PAC380267

#### FLOODPLAIN NOTE

N ACCORDANCE WITH THE FLOOD INSURANCE RATE MAP NUMBER 42075C0252E & 42075C0256E, EFFECTIVE DATE JULY 8, 2012, THE ENTIRE SITE IS IN THE ZONE "X" FLOOD CLASSIFICATION.

### WETLAND NOTE

REGULATED WETLANDS EXIST ON THE SUBJECT PROPERTY. A WETLAND INVESTIGATION WAS PERFORMED BY BRAD GOCHNAUER OF VORTEX ENVIRONMENTAL ON 09/27/22. SEE EXISTING CONDITIONS PLAN FOR LIMITS OF EXISTING WETLANDS.

#### **INFILTRATION NOTE:**

INFILTRATION FACILITIES RELY ON PERMEABLE SOIL CONDITIONS TO DEWATER AND FUNCTION PROPERLY. AS PART OF THE DESIGN PROCESS, INFILTRATION TESTING WAS CONDUCTED BY A QUALIFIED PROFESSIONAL, SOIL SCIENTIST LICENSED GEOLOGIST OR THEIR DESIGNATED REPRESENTATIVE TO ASSURE THAT CONDITIONS WERE CONDUCIVE TO UTILIZE THIS TYPE OF FACILITY FOR STORMWATER MANAGEMENT CONTROL. EVERY PRECAUTION MUST BE TAKEN BY THE CONTRACTOR DURING THE CONSTRUCTION OF THE INFILTRATION FACILITY TO ASSURE THAT COMPACTION DOES NOT OCCUR WHICH WOULD COMPROMISE THE PERMEABILITY OF THE FLOOR OF THE INFILTRATION FACILITY. IF AFTER INSTALLATION, ANY INFILTRATION FACILITY DOES NOT FUNCTION AS DESIGNED THE CONTRACTOR WILL BE RESPONSIBLE TO PERFORM REMEDIATION, OUTLINED BY THE QUALIFIED PROFESSIONAL, TO RESTORE BEFORE CONSTRUCTION PERMEABILITY.

#### AS-BUILT NOTE

E DEVELOPER SHALL BE RESPONSIBLE FOR PROVIDING AS-BUILT PLANS OF ALL SWM BMPS INCLUDED IN THE APPROVED SUBDIVISION, LAND DEVELOPMENT OR SWM SITE PLAN AS SPECIFIED IN SECTION 406 OF THE NORTH LEBANON TOWNSHIP STORMWATER MANAGEMENT ORDINANCE.

#### PURPOSE OF PLAN NOTE

THE PURPOSE OF THIS PLAN IS TO PROPOSE 29 LOTS (PHASE 1) OF THE ESTATES AT HEARTHSIDE DEVELOPMENT. THE OVERALL PLAN PROPOSES 120 LOTS. THIS PLAN ALSO PROPOSES ROAD INFRASTRUCTURE, STORMWATER MANAGEMENT FACILITIES AND PUBLIC SEWER AND WATER MAINS.

### PRELIMINARY PLAN APPROVAL NOTE

PRELIMINARY PLANS WERE APPROVED BY THE NORTH LEBANON TOWNSHIP BOARD OF SUPERVISORS AT THEIR REGULARLY SCHEDULED MEETING ON APRIL 22, 2024.

DATE

OWNERS	CERTIFICATION	AND ACK	KNOWLE	EDGMENT

COMMONWEALTH OF PENNSYLVANIA COUNTY OF \_\_\_\_\_

ON THIS, THE	DAY OF	, 2024, BEFORE ME	,
THE UNDERSIGNED	OFFICER, PERSONALLY	APPEARED	

WHO BEING DULY SWORN ACCORDING TO LAW. DEPOSES AND SAYS THAT THE CORPORATION IS THE OF THE PROPERTY SHOWN ON THIS PLAN, THAT HE IS AUTHORIZED TO EXECUTE SAID PLAN ON BEHALF OF THE CORPORATION, THAT THE PLAN THEREOF WAS MADE AT ITS DIRECTION, THAT IT ACKNOWLEDGES THE SAME TO BE ITS ACT AND PLAN, THÁT IT DESIRES THE SAME TO BE RECORDED, AND THAT I ACKNOWLEDGES ALL STORMWATER MANAGEMENT FACILITIES ARE PERMANENT FIXTURES THAT CAN BE ALTERED OR REMOVED ONLY AFTER APPROVAL OF A REVISED STORMWATER MANAGEMENT SITE PLAN BY THE TOWNSHIP.

Name/Title	
MT. PLEASANT VENTURES, LLC	

# THE ESTATES AT HEARTHSIDE OWNER: MT. PLEASANT VENTURES, LLC

**BMP/OUTFALL LOCATIONS** LATITUDE LONGITUDE BMP 
 BASIN A
 40°22'13.32"
 76°26'38.43"
 PHASE

 BASIN B
 40°22'14.54"
 76°26'27.93"
 PHASE

 BASIN C
 40°22'17.14"
 76°26'18.94"
 PHASE

 BASIN D
 40'22'08.58"
 76'26'17.55"

 BASIN E
 40'22'06.16"
 76'26'21.85"

 BASIN F
 40'22'01.34"
 76'26'21.39"

 BASIN G
 40'21'51.55"
 76'26'10.42"

LEBANON COUNTY PLANNING DEPARTMENT	NORTH LEBANON TOWNSH PLANNING COMMISSION
	AT A MEETING HELD ON, 2024, NORTH LEBANON TOWNSHIP, LEBANON COU THIS PLAN AND A COPY OF THE REVIEW C TOWNSHIP OFFICE.
REVIEWED DATE	
CERTIFICATION OF PLAN ACCURACY	CHAIRMAN OR VICE CHAIRMAN
I HEREBY CERTIFY, TO THE BEST OF MY KNOWLEDGE, THE PLAN SHOWN AND DESCRIBED HEREON IS TRUE AND CORRECT TO THE ACCURACY REQUIRED BY THE NORTH LEBANON TOWNSHIP SUBDIVISION AND LAND	NORTH LEBANON TOWNSH

DATE

DATE

AT A MEETING HELD ON SUPERVISORS OF NORTH LEBANON TOW PENNSYLVANIA APPROVED THE FINAL I PROPERTY AS SHOWN HEREON. NO O RECOGNIZED. APPROVAL INCLUDES AL COMMENTS OR REQUIREMENTS OF OFFI AGENCIES. APPROVAL IS BASED ON O ORDINANCES, RULES AND REGULATIONS AS A GUARANTEE TO ANY PERSON OF ANY PART OF THE PLAN WILL FUNCTION ALL CONDITIONS OR SITUATIONS. ADD APPROVAL OF THE PLAN, THE TOWNSH ASSUMPTION OF LIABILITY ERRORS, OM IN THE DESIGN, ENGINEERING, CONSTRU THE MATTERS REVIEWED AND/OR APPF
APPROVED

APPROVED	

APPROVED

NOTARY PUBLIC	

# THE PROPOSED STORMWATER MANAGEMENT BMP(S) IS/ARE OR IS/ARE NO UNDERLAIN BY LIMESTONE.

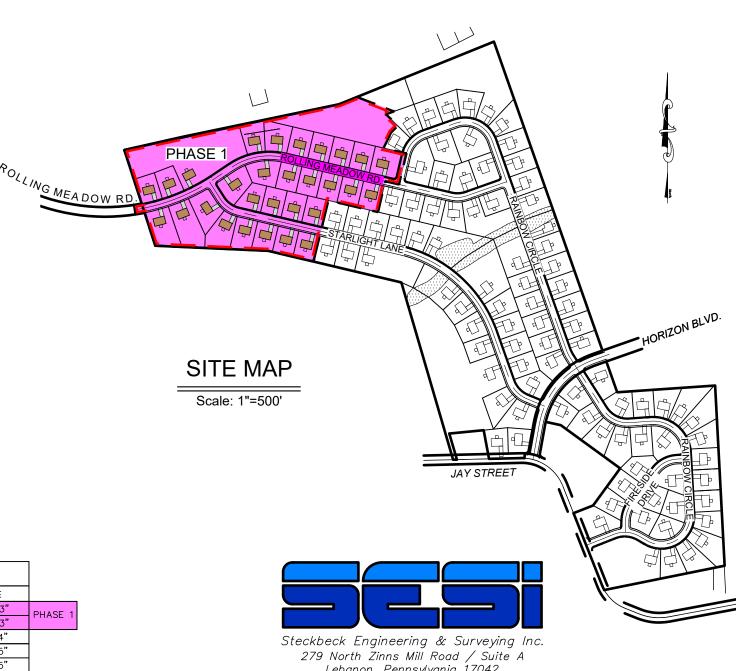
NORTH LEBANON TOWNSHIP STORMWATER MANAGEMENT ORDINANCE.

DEVELOPMENT ORDINANCE AND COMPLIES WITH THE PROVISIONS OF THE

# STEPHEN A. SHERK, P.E.

JASON E. CHERNICH, P.L.S

**CERTIFICATION OF SURVEY ACCURACY** I HEREBY CERTIFY THAT TO THE BEST OF MY KNOWLEDGE, THE SURVEY SHOWN AND DESCRIBED HEREON IS TRUE AND CORRECT TO THE ACCURACY REQUIRED BY THE NORTH LEBANON TOWNSHIP, NORTH LEBANON TOWNSHIP AND THE CITY OF LEBANON SUBDIVISION AND LAND DEVELOPMENT ORDINANCES.



# FINAL PHASE 1 SUBDIVISION & LAND DEVELOPMENT PLAN

FOR

LOCATED IN

NORTH LEBANON TOWNSHIP LEBANON COUNTY, PENNSYLVANIA JUNE 19, 2024

REVISION	DATE	ΒY
PER ARRO LETTER DATED 7/3/24	8/12/24	CDS
PER NLTMA REVISIONS	8/12/24	CDS
PER LCPD LETTER DATED 7/16/24	8/12/24	CDS

Lebanon, Pennsylvania 17042 Phone: (717) 272–7110 Fax: (717) 272-7348

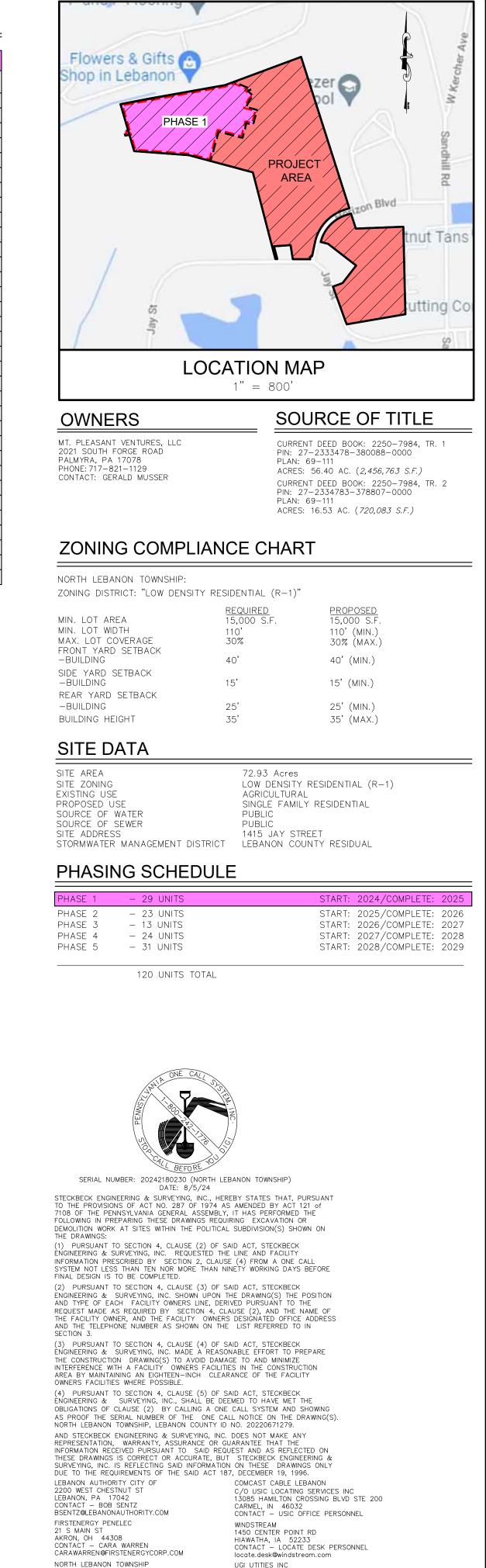
ΗP THE PLANNING COMMISSION OF UNTY. PENNSYLVANIA REVIEWED COMMENTS IS ON FILE IN THE DATE HIP SUPERVISORS 2024, THE BOARD OF WNSHIP, LEBANON COUNTY, LAND DEVELOPMENT PLAN FOR THE THER PLAN OR PLANS SHALL BE L DOCUMENTATION. INCLUDING THE NORTH LEBANON TWP PLANNING COMMISSION ICIAL REVIEWING INDIVIDUALS OR COMPLIANCE WITH APPLICABLE AT A MEETING HELD ON\_\_\_\_\_, 2024, THE PLANNING COMMISSION OF NORTH LEBANON TOWNSHIP, LEBANON COUNTY, PENNSYLVANIA RECOMMENDED S, AND SHALL NOT BE CONSTRUED ORGANIZATION THAT THE DESIGN OF ON AS ANTICIPATED UNDER ANY OR FOR APPROVAL THE LAND DEVELOPMENT PLAN OF THE PROPERTY AS SHOWN ITIONALLY. THAT BY REVIEW AND/OR HEREON. HIP EXPRESSLY DECLINES THE ISSIONS OR MISTAKES IN JUDGEMENT UCTION, OR EXPECTED FUNCTION OF RÓVED. DATE CHAIRPERSON DATE NORTH LEBANON TOWNSHIP ENGINEER REVIEWED BY THE NORTH LEBANON TOWNSHIP ENGINEER THIS \_\_\_\_\_, 2024. DAY OF\_\_\_\_\_ DATE DATE REVIEWED DATE

## LIST OF DRAWINGS

	Phase 1 Drawing List Table
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4	EXISTING CONDITIONS PLAN
5	EXISTING CONDITIONS PLAN
6	EXISTING CONDITIONS PLAN
7	EXISTING CONDITIONS PLAN
8	OVERALL SUBDIVISION PLAN
9	SUBDIVISION PLAN
10	LAYOUT PLAN
11	EASEMENT PLAN
12	POST CONSTRUCTION STORMWATER MANAGEMENT PLAN
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15	POST CONSTRUCTION STORMWATER MANAGEMENT DETAILS
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25	SITE DETAILS
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33	EROSION & SEDIMENTATION POLLUTION CONTROL DETAILS

### IMPERVIOUS COVER BREAKDOW (ENTIRE DEVELOPMENT)

PROPOSED STREETS (INCLUDING CURBING) PROPOSED SIDEWALKS PROPOSED DRIVEWAYS PROPOSED DWELLINGS



1301 AIP DR MIDDLETOWN, PA 17057

sbateman@ugi.com

CONTACT - STEPHEN BATEMAN

725 KIMMERLINGS ROAD

1026 HAY ST

LEBANON, PA 17046 CONTACT – OFFICE PERSONNEL

VERIZON PENNSYLVANIA LLC

PITTSBURGH, PA 15221 CONTACT – DEBORAH BARUM

deborah.d.delia@verizon.com

313.078 S.F. 7.18 AC 46,657 S.F., 1.07 AC. 115,772 S.F., 2.65 AC. 292,800 S.F., 6.72 AC

#### NLTMA SANITARY SEWER NOTES

- EXISTING SEWER WILL NOT BE DISTURBED IN ANY WAY. ALL CONSTRUCTION SHALL BE IN ACCORDANCE W/NLTMA STANDARDS.
- 3. PROPOSED GRAVITY LATERALS SHALL BE SLOPED AT A MINIMUM 1/4" PER FOOT,
- UNLESS OTHERWISE NOTED ON THE PLAN. 4. STANDARD CLEANOUTS MUST BE "SCREWED ON" CAPS (PLUGS) AND THEY ARE TO BE WATER TIGHT
- SPACE BETWEEN TEST TEE & SEWER MAIN WILL BE AS REQUIRED BY NLTMA. TRENCH MUST REMAIN OPEN FOR INSPECTION. ANY TRENCH THAT IS FILLED MUST BE UNCOVERED FOR INSPECTION IT IS THE CONTRACTORS RESPONSIBILITY TO CONTACT NLTMA FOR INSPECTION
- . A PRE-CONSTRUCTION MEETING WILL BE REQUIRED. 8. METAL MARKING TAPE WILL BE PLACED 12" ABOVE THE PIPE FOR THE ENTIRE
- HORIZONTAL RUN. . AIR TESTING FOR ALL SEWER MAINS AND LATERALS SHALL BE 5LBS/5 MIN. NO DROP 10. VACUUM TEST OF MANHOLES SHALL BE 10 LBS. VACUUM WITH AN ALLOWABLE DROP
- OF 1LB/1 MIN. 11. VACUUM TEST UNIT SHALL BE PLACED IN THE FRAME AREA ONLY. 12. LINE WILL BE PLUGGED AT THE COMPLETION OF EACH WORKDAY TO PREVENT DEBRIS
- AND WATER FROM ENTERING THE LINE. 13. AN APPOINTED NLTMA INSPECTOR MUST BE PRESENT AT ALL TIMES WHEN ANY SEWER
- WORK IS PERFORMED.
- 14. INSPECTORS WILL BE AVAILABLE FROM 8 AM TO 3 PM. A 1/2 HOUR LUNCH BREAK WILL BE TAKEN DAILY DURING WHICH TIME NO SEWER WORK WILL BE ALLOWED.
- 15. ALL LINES SHALL BE FLUSHED WITH FRESH WATER TO CLEAR CONSTRUCTION DEBRIS UPON COMPLETION OF THE PROJECT.
- 16. MANDRELL TESTING WILL BE CONDUCTED FOR ALIGNMENT OF THE PIPE. 17. DAMAGED OR CRACKED MANHOLE SECTIONS WILL BE REJECTED.
- 18. DOUBLE MASTIC ON ALL JOINTS ON MANHOLES. 19. STEPS MUST BE ALIGNED.
- 20. NO CONCRETE PATCHING OF ANY KIND WILL BE ACCEPTED ON LEAKING JOINTS OR ON ANY CRACKED OR DAMAGED MANHOLES SECTIONS.
- 21. GROUTING OF THE INVERT IN ANY INVERT OUT PIPES SHALL BE DONE.
- 22. AFTER CONSTRUCTION IS COMPLETE THE CONSTRUCTED SEWER SHALL NOT BE TESTED UNTIL 30 DAYS HAS PASSED 23. BASEMENT SERVICE IS ENCOURAGED, AS NO GRINDER PUMPS WILL BE ALLOWED.
- 24. NO DROP MANHOLES OR INSIDE SPLASH MANHOLES WILL BE ALLOWED.
- 25. RE-BAR MUST BE INSTALLED AT THE END OF EACH LATERAL CONNECTED TO THE MAIN TO FACILITATE LATERAL LOCATION. 26. BUILDING OWNER SHALL BE REQUIRED TO PARTICIPATE IN THE NLTMA "STRONG WASTE MANAGEMENT PROGRAM" WHICH REQUIRES AN AGREEMENT BY THE OWNER TO MONITOR, SAMPLE AND TEST SEWAGE DISCHARGE SEMI-ANNUALLY AT OWNER'S EXPENSE AND SUPPLY RESULTS TO NITMA
- 27. BUILDING OWNER GRANTS PERPETUAL RIGHT OF ACCESS TO THE SEWER LATERALS AND MANHOLES SHOWN HEREON FOR PURPOSE OF INSPECTION, MONITORING AND/OR SAMPLING
- 28. NO PRODUCTION AREA OR STORAGE AREA FLOOR DRAINS ARE ALLOWED. 29. THE APPLICANT ACKNOWLEDGES THAT APPROVAL OF THIS LAND DEVELOPMENT PLAN DOES NOT CONSTITUTE APPROVAL OF THE WASTEWATER DISCHARGE FROM THE PROPOSED FACILITY. APPLICANT ACKNOWLEDGES THAT DISCHARGE MUST COMPLY WITH THE CRITERIA SET FORTH IN THE NORTH LEBANON TOWNSHIP MUNICIPAL AUTHORITY (NLTMA) STRONG WASTE MANAGEMENT ORDINANCE. COMPLIANCE WITH THE ORDINANCE MIGHT NECESSITATE THAT APPLICANT CONSTRUCT PRETREATMENT FACILITIES TO TREAT WASTEWATER PRIOR TO DISCHARGE INTO THE NLTMA SEWER SYSTEM. APPLICANT ACKNOWLEDGES THEY ARE REQUIRED TO MAKE APPLICATION TO NLTMA FOR A STRONG WASTE MANAGEMENT PERMIT AND THAT NO DISCHARGE FROM THE SUBJECT FACILITY CAN COMMENCE UNTIL APPROVAL HAS BEEN GRANTED BY NLTMA AND/OR THE PERMIT HAS BEEN ISSUED IF PERMIT IS DEEMED NECESSARY BY NLTMA UNDER THE TERMS OF THE STRONG WASTE MANAGEMENT ORDINANCE.

#### STANDARD WATER SUPPLY NOTE

WATER SUPPLY FOR THE LOT OR LOTS SHALL BE PROVIDED BY EXTENSION OF THE EXISTING NLTMA PUBLIC WATER SYSTEM. CONNECTION TO THE PUBLIC WATER SYSTEM IS REQUIRED.

#### STANDARD SEWER SUPPLY NOTE

SEWAGE DISPOSAL FOR THE LOT SHALL BE PROVIDED BY EXTENSION OF THE EXISTING NLTMA PUBLIC SEWER SYSTEM. CONNECTION TO THE PUBLIC SEWER SYSTEM IS REQUIRED.

#### **GEOTECHNICAL ENGNIEERING NOTES:**

- GEOTECHNICAL ENGINEERING INVESTIGATION WAS CONDUCTED AND PREPARED BY ECS MID-ATLANTIC, LLC, RESULTS ARE PROVIDED IN THE GEOTECHNICAL REPORT DATED AUGUST 2,
- IS RECOMMENDED THAT PROBING ON A 25-FOOT GRID IS COMPLETED WITHIN EACH BASIN
- BOTTOM TO EVALUATE PROPER OFFSET DISTANCE FROM BEDROCK LIMITING ZONES. 3. AN AUTHORIZED REPRESENTATIVE FROM THE GEOTECHNICAL ENGINEER SHALL BE ON LOCATION, AT THE TIME OF CONSTRUCTION, TO VERIFY THE SUBGRADE CONDITIONS OF ALL BMPS
- 4. INFILTRATION FACILITIES LOCATED WITHIN 25 FEET OF A BUILDING REQUIRE AN APPROVAL LETTER FROM THE GEOTECHNICAL ENGINEER.
- 5. ROCK EXCAVATION SHOULD BE EXPECTED TO ACHIEVE THE REQUIRED 2-FOOT BUFFER WITHIN THE VARIOUS INFILTRATION FACILITIES BASED ON TESTING PREVIOUSLY COMPLETED.

#### **OPERATIONS STANDARDS NOTE:**

THE APPLICANT/OWNER/DEVELOPER SHALL COMPLY WITH THE REQUIREMENTS OF SECTION 316 OPERATIONS AND PERFORMANCE STANDARDS OF THE ZONING ORDINANCE. COMPLIANCE EGULATIONS INCLUDE BUT NOT LIMITED TO AIR POLLUTION. AIRBORNE EMISSIONS. ODOR OPEN BURNING FLECTRICAL DIESEL GAS OR OTHER SOURCES OF POWER FIRE AND EXPLOSIVES, GLARE AND HEAT, MATERIALS AND WASTE STORAGE, HANDLING AND DISPOSAL F WASTE, NOISE POLLUTION, SEWAGE AND OTHER WASTE DISPOSAL, VIBRATION AND WATER

#### **PRE-CONSTRUCTION / INSPECTION NOTES** APPLICANT AND HIS CONTRACTOR ARE REQUIRED TO SCHEDULE A PRE-CONSTRUCTION

- MEETING WITH THE MUNICIPAL ENGINEERS AND MUNICIPALITIES PRIOR TO THE COMMENCEMENT THE APPLICANT AND HIS CONTRACTOR ARE RESPONSIBLE FOR PROVIDING A MINIMUM OF THREE BUSINESS DAYS NOTICE TO THE MUNICIPAL ENGINEERS OFFICE FOR INSPECTIONS OF ALL ESCROWED ITEMS: NORTH LEBANON TOWNSHIP – ARRO ENGINEERING – 717–569–7021
- IF ESCROWED ITEMS ARE INSTALLED, PLACED OR CONSTRUCTED WITHOUT THE REQUIRED NOTICE AND INSPECTION, THEN ITEMS WILL NEED TO BE REMOVED IN TOTALITY AND REPLACED AT NO COST TO THE MUNICIPALITY UNDER THE CONSTRICTION OBSERVATION OF THE MUNICIPAL FNGINFFR
- 3. THE MUNICIPAL ENGINEER SHALL INSPECT ALL PHASES OF DEVELOPMENT OF THE SITE, AND SHALL BE NOTIFIED OF THE COMMENCEMENT OF SUCH WORK AT LEAST 5 BUSINESS DAYS PRIOR TO BEGINNING IT IS THE RESPONSIBILITY OF THE OWNER SUBDIVIDER DEVELOPER OR HIS AGENT TO NOTIFY THE MUNICIPAL ENGINEER 24 HOURS IN ADVANCE OF THE COMPLETION OF EACH IDENTIFIED PHASE OF DEVELOPMENT.
- 4. ANY PORTION OF THE WORK WHICH DOES NOT COMPLY WITH THE APPROVED PLAN MUST BE CORRECTED BY THE DEVELOPER. NO WORK MAY PROCEED ON ANY SUBDIVISION OR LAND DEVELOPMENT OR BUILDING CONSTRUCTION UNTIL THE REQUIRED CORRECTIONS HAVE BEEN 5. IF AT ANY STATE OF THE WORK, THE MUNICIPALITY OR ITS ENGINEER DETERMINES THAT THE
- SOIL OR OTHER CONDITIONS ARE NOT AS STATED OR SHOWN ON THE PLAN. IT MAY REFUSE TO APPROVE FURTHER WORK AND THE MUNICIPALITY OR ITS DESIGNEE MAY REVOKE EXISTING APPROVALS UNTIL A REVISED PLAN IS SUBMITTED AND APPROVED. 6. A COPY OF ALL GEOTECHNICAL ENGINEER INSPECTIONS SHALL BE PROVIDED TO THE MUNICIPALITY.

#### **CONTRACTOR NOTES**

- CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND ELEVATIONS ON SITE PRIOR TO THE START OF CONSTRUCTION. UNDERGROUND UTILITIES HAVE BEEN SHOWN ACCORDING TO INFORMATION PROVIDED BY OTHERS AND MUST BE FIELD VERIFIED PRIOR TO CONSTRUCTION, EXCAVATION OR BLASTING. THE ACTUAL LOCATIONS OF THESE UTILITIES HAVE NOT BEEN FIELD VERIFIED AND THE LOCATIONS ARE APPROXIMATE. STECKBECK ENGINEERING & SURVEYING, INC. (SESI) DOES NOT MAKE ANY REPRESENTATION, WARRANTY, ASSURANCE OR GUARANTEE THAT THE UNDERGROUND UTILITY LOCATION INFORMATION PROVIDED BY OTHERS AND REFLECTED ON THESE DRAWINGS IS CORRECT AND ACCURATE. SESI ASSUMES NO LIABILITY FOR ANY DAMAGE INCURRED AS A RESULT OF UNDERGROUND UTILITIES OMITTED OR INACCURATELY SHOWN.
- THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE. DAMAGE TO ANY UTILITY SHALL BE REPAIRED TO THE SATISFACTION OF THE OWNER, UTILITY COMPANY OR AUTHORITY, AT THE CONTRACTOR'S EXPENSE. 3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY PERMITS FROM THE
- MUNICIPALITY, COUNTY, STATE OR AUTHORITY RELATIVE TO CONSTRUCTION SHOWN ON 4. THE CONTRACTOR IS RESPONSIBLE FOR ALL TESTING AND RECORD DRAWINGS AS MAY BE REQUIRED BY THE MUNICIPALITY AND/OR THE VARIOUS AUTHORITIES RELATIVE TO THE
- CONSTRUCTION SHOWN ON THESE PLANS. 5. PROVIDE 95% MODIFIED PROCTOR DENSITY PER ASTMD-698 IN AREAS WHERE PROPOSED UTILITIES ARE LOCATED ON FILL.

#### STANDARD STORMWATER NOTES

UPON RECORDING.

- ALL STORM WATER 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.
- 2. STORM WATER MANAGEMENT FACILITIES SHALL BE MAINTAINED IN GOOD WORKING CONDITION SO THAT THEY ARE PERFORMING THEIR DESIGN FUNCTION, IN A MANNER ACCEPTABLE TO THE COUNTY, AS REQUIRED BY THE NORTH LEBANON TOWNSHIP SUBDIVISION & LAND DEVELOPMENT ORDINANCE. MAINTENANCE SHALL INCLUDE PERFORMING ROUTINE MAINTENANCE AND REPAIR OR REPLACEMENT OF DAMAGED
- FACILITIES, VEGETATION OR STORM WATER AREAS TO CONDITIONS AS SHOWN ON THE APPROVED PLAN AND IN ACCORDANCE WITH THE NORTH LEBANON TOWNSHIP SUBDIVISION & LAND DEVELOPMENT ORDINANCE. 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 STORM WATER
- MANAGEMENT FACILITIES. STORM WATER RUNOFF FROM EXISTING NATURAL SWALES AND/OR OTHER EXISTING DRAINAGE CONVEYORS SHALL NOT BE DIRECTED TOWARDS OR INTERCEPTED BY THE STORM WATER MANAGEMENT FACILITIES. TOWNSHIP OFFICIALS AND THEIR AGENTS OR EMPLOYEES HAVE THE RIGHT OF ACCESS FOR
- INSPECTION AND, IN CASES OF CONSTRUCTION DEFAULT, CONSTRUCTION OF THE STORMWATER MANAGEMENT FACILITIES. 6. 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. 7. ROOF DRAINS SHALL NOT BE CONNECTED TO STREETS, SANITARY SEWERS OR ROADSIDE
- DITCHES 8. INFILTRATION FACILITIES HAVE BEEN TESTED AND DESIGNED IN ACCORDANCE WITH ACCEPTABLE MEASURES AND ONCE CONSTRUCTED MUST WORK AS DESIGNED. FAILURE OF INFILTRATION FACILITIES TO WORK AS DESIGNED WILL LEAD TO TESTING. IF TESTING INDICATES FACILITIES WERE COMPACTED OR OTHERWISE NOT CONSTRUCTED AS PER PLAN, THE INSTALLER OF THE FACILITIES WILL BE RESPONSIBLE FOR CONSTRUCTING THE
- FACILITIES TO THEIR DESIGNED WORKING CONDITION. 9. A PDF COPY OF THE APPROVED PCSM PLAN SHALL BE SUBMITTED TO THE TOWNSHIP UPON RECORDING.
- 10. A PDF COPY OF THE APPROVED PCSM PLAN SHALL BE SUBMITTED TO THE TOWNSHIP UPON RECORDING.
- THESE STRUCTURES ARE THE RESPONSIBILITY OF THE PROPERTY OWNER WHEN LOCATED ON PRIVATE PROPERTY. ACCESS TO BE PROVIDED TO THE TOWNSHIP FOR THE PURPOSE OF INSPECTION TO THE TOWNSHIP. 12. A PDF COPY OF THE APPROVED PCSM PLAN SHALL BE SUBMITTED TO THE TOWNSHIP

### STORM WATER MANAGEMENT OWNERSHIP & MAINTENANCE PROGRAM:

- ALL STORM WATER FACILITIES WILL BE OWNED BY THE GRANTOR, ASSIGNS. THIS INCLUDES ALL STORM WATER BMP'S AS SHOWN ON THESE PLANS. ALL DRAINAGE COURSES, SWALES, STORM WATER INLETS, PIPES, CONDUITS, DETENTION BASINS AND OTHER STORM WATER MANAGEMENT FACILITIES SHALL BE INSTALLED, CONSTRUCTED AND MAINTAINED BY THE GRANTOR, ITS SUCCESSORS AND ASSIGNS, IN A FIRST-CLASS CONDITION IN CONFORMANCE WITH THE PLAN, AS APPROVED BY THE NORTH LEBANON TOWNSHIP BOARD OF SUPERVISORS, AND IN A MANNER SUFFICIENT TO MEET OR EXCEED THE DESIGN STANDARDS AND SPECIFICATIONS SET FORTH ON THE PLAN. A. LIMING, FERTILIZING, SEEDING AND MULCHING OF VEGETATED CHANNELS AND ALL OTHER UNSTABILIZIED SOILS OR AREAS ACCORDING TO THE SPECIFICATIONS IN THE "EROSION AND
- SEDIMENT POLLUTION CONTROL MANUAL" PUBLISHED BY THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OR SUCH SIMILAR ACCEPTED STANDARD. B. REESTABLISHMENT OF VEGETATION BY SEEDING, MULCHING, AND USE OF EROSION MATTING OR SODDING OF SCOURED AREAS OR AREAS WHERE VEGETATION HAS NOT BEEN SUCCESSFULLY ESTABLISHED . MOWING AS NECESSARY TO MAINTAIN ADEQUATE STANDS OF GRASS AND TO CONTROL
- WEEDS. CHEMICAL WEED CONTROL MAY BE USED IF FEDERAL, STATE AND LOCAL LAWS AND REGULATIONS ARE MET. SELECTION OF SEED MIXTURES SHALL BE SUBJECT TO APPROVAL BY THE NORTH LEBANON TOWNSHIP D. REMOVAL OF SILT FROM ALL PERMANENT STRUCTURES WHICH TRAP SILT OR SEDIMENT IN ORDER TO KEEP THE MATERIAL FROM BUILDING UP IN GRASS WATERWAYS AND THUS
- REDUCING THEIR CAPACITY. E. REGULAR INSPECTION OF THE AREAS IN QUESTION TO ASSURE PROPER MAINTENANCE AND F. ALL PIPES, SWALES, AND DETENTION FACILITIES SHALL BE KEPT FREE OF ANY DEBRIS OR
- OTHER OBSTRUCTION. GRANTOR, ITS SUCCESSORS AND ASSIGNS, SHALL BE RESPONSIBLE FOR PERFORMING THE FOREGOING MAINTENANCE. GRANTOR, FOR ITSELF, ITS SUCCESSORS AND ASSIGNS, AGREES THAT THE FAILURE TO MAINTAIN ALL DRAINAGE COURSES, SWALES, STORM WATER INLETS, PIPES, CONDUITS
- DETENTION BASINS, AND OTHER STORM WATER MANAGEMENT FACILITIES IN A FIRST-CLASS CONDITION IN CONFORMANCE WITH THE AGREEMENT AND THE PLAN SHALL CONSTITUTE A NUISANCE AND SHALL BE ABATABLE BY THE NORTH LEBANON TOWNSHIP AS SUCH . GRANTOR, FOR ITSELF, ITS SUCCESSORS AND ASSIGNS, AUTHORIZES NORTH LEBANON TOWNSHIP, AT ANY TIME AND FROM TIME TO TIME, BY ITS AUTHORIZED REPRESENTATIVES, TO ENTER UPON THE PREMISES TO INSPECT THE STORM WATER MANAGEMENT FACILITIES. 5. THE NORTH LEBANON TOWNSHIP MAY REQUIRE THAT GRANTOR, ITS SUCCESSORS AND ASSIGNS, OR ANY FUTURE OWNER OR OCCUPIER OF THE PREMISES, OR ANY PART THEREOF, TAKE SUCH CORRECTIVE MEASURES AS THE NORTH LEBANON TOWNSHIP MAY DEEM REASONABLY NECESSARY TO BRING THE PREMISES INTO COMPLIANCE WITH THIS AGREEMENT
- AND WITH THE PLAN, AS APPROVED BY THE NORTH LEBANON TOWNSHIP BOARD OF SUPERVISOR 6. UPON THE FAILURE OF THE OWNER OR OCCUPIER OF THE PREMISES TO COMPLY WITH THE TERMS OF THE STORM WATER MANAGEMENT AGREEMENT OR TO TAKE CORRECTIVE MEASURES FOLLOWING THIRTY (30) DAYS' NOTICE FROM THE NORTH LEBANON TOWNSHIP, THE NORTH LEBANON TOWNSHIP, THROUGH ITS AUTHORIZED REPRESENTATIVES, MAY TAKE SUCH CORRECTIVE MEASURES AS IT DEEMS REASONABLY NECESSARY TO BRING THE PREMISES INTO
- COMPLIANCE WITH THE AGREEMENT AND WITH THE PLAN, INCLUDING, BUT NOT LIMITED TO THE REMOVAL OF ANY BLOCKAGE OR OBSTRUCTION FROM DRAINAGE PIPES, SWALES AND DETENTION BASINS, AND MAY CHARGE THE COST THEREOF TO GRANTOR, ITS SUCCESSORS OF ASSIGNS, OR ANY OWNER OF THE PREMISES AND, IN DEFAULT OF SUCH PAYMENT, MAY CAUSE A MUNICIPAL LIEN TO BE IMPOSED UPON THE PREMISES OR ANY PART THEREOF. GRANTOR HEREBY IMPOSES UPON THE PREMISES FOR THE BENEFIT OF ALL PRESENT AND FUTURE OWNERS OF THE PREMISES OR ANY PART OF THE PREMISES, NORTH LEBANON TOWNSHIP AND ALL OTHER PROPERTY OWNERS AFFECTED BY THE STORM WATER MANAGEMENT FACILITIES, THE PERPETUAL NONEXCLUSIVE RIGHT, PRIVILEGE AND EASEMENT FOR THI DRAINING OF STORM WATER IN AND THROUGH THE DRAINAGE COURSES, SWALES, STORM
- WATER INLETS, PIPES, CONDUITS, DETENTION BASINS AND OTHER STORM WATER MANAGEMENT FACILITIES DEPICTED ON THE PLAN OR PLANS SUBMITTED TO NORTH LEBANON TOWNSHIP OF HEREAFTER MADE OF RECORD AND NOW OR HEREAFTER INSTALLED ON OR CONSTRUCTED UPON THE PREMISES AND, IN ADDITION, EASEMENTS OF ACCESS TO THE STORM WATER MANAGEMENT FACILITIES GRANTOR SHALL INCLUDE A SPECIFIC REFERENCE TO THE STORM WATER MANAGEMENT
- AGREEMENT AND DECLARATION OF EASEMENT IN ANY DEED OF CONVEYANCE FOR THE PREMISES OR ANY PART THEREOF . GRANTOR AGREES TO INDEMNIFY NORTH LEBANON TOWNSHIP, LEBANON CO., AND ALL OF IT'S ELECTED AND APPOINTED OFFICIALS; AGENTS AND EMPLOYEES (HEREINAFTER COLLECTIVELY
- REFERRED TO AS THE "INDEMNITEES") AGAINST AND HOLD INDEMNITEES HARMLESS FROM ANY AND ALL LIABILITY, LOSS OR DAMAGE, INCLUDING ATTORNEYS' FEES AND COSTS OF INVESTIGATION AND DEFENSE, AS A RESULT OF CLAIMS, DEMANDS, COSTS OR JUDGMENTS AGAINST INDEMNITEES WHICH ARISE AS A RESULT OF THE DESIGN, INSTALLATION, CONSTRUCTION OR MAINTENANCE OF THE STORM WATER MANAGEMENT FACILITIES. 10. NORTH LEBANON TOWNSHIP MAY. IN ADDITION TO THE REMEDIES PRESCRIBED HEREIN
- PROCEED WITH ANY ACTION AT LAW OR IN EQUITY TO BRING ABOUT COMPLIANCE WITH THE NORTH LEBANON TOWNSHIP STORM WATER MANAGEMENT ORDINANCE AND THE AGREEMENT. 11. GRANTOR'S PERSONAL LIABILITY UNDER THE AGREEMENT SHALL CEASE AT SUCH TIME AS (A) ALL STORM WATER MANAGEMENT FACILITIES HAVE BEEN CONSTRUCTED IN ACCORDANCE
- WITH THE SPECIFICATIONS OF THE NORTH LEBANON TOWNSHIP SUBDIVISION AND LAND DEVELOPMENT ORDINANCE AND THE APPROVED PLANS; (B) THE STORMWATER MANAGEMENT FACILITIES HAVE BEEN INSPECTED AND APPROVED BY THE NORTH LEBANON TOWNSHIP ENGINEER; (C) ALL FINANCIAL SECURITY, INCLUDING ANY MAINTENANCE SECURITY, POSTED BY GRANTOR HAS BEEN RELEASED BY NORTH LEBANON TOWNSHIP; AND (D) GRANTOR HAS
- IRANSFERRED ALL LOTS TO BE CREATED FROM THE PREMISES TO THIRD PARTIES. NOTWITHSTANDING THE FOREGOING, GRANTOR'S PERSONAL LIABILITY SHALL CONTINUE FOR ANY VIOLATIONS OF THIS AGREEMENT AND DECLARATION OF FASEMENT WHICH OCCURRED DURING THE TIME THAT GRANTOR OWNED THE PREMISES OR ANY LOT CREATED FROM THE PREMISES OR IN THE EVENT THE STORM WATER MANAGEMENT FACILITIES WERE NOT COMPLETED,
- INSPECTED OR APPROVED AS SET FORTH HEREIN. IT IS THE INTENT OF THE PARTIES TO THE AGREEMENT THAT PERSONAL LIABILITY AND MAINTENANCE OBLIGATIONS SHALL PASS TO SUBSEQUENT TITLE OWNERS UPON CHANGE IN OWNERSHIP OF THE PREMISES OR ANY LOT CREATED FROM THE PREMISES. AND SUCH SUBSEQUENT OWNERS SHALL ASSUME ALL PERSONAL LIABILITY AND MAINTENANCE OBLIGATIONS FOR THE TIME PERIOD DURING WHICH THEY HOLD TITLE. PERSONAL LIABILIT
- SHALL REMAIN FOR ANY VIOLATIONS OF THE AGREEMENT AND DECLARATION OF EASEMENT, WHICH OCCURRED DURING THE PERIOD IN WHICH AN OWNER HELD TITLE. 13. THIS AGREEMENT AND DECLARATION OF EASEMENT SHALL BE BINDING UPON GRANTOR. THE SUCCESSORS AND ASSIGNS OF GRANTOR, AND ALL PRESENT AND FUTURE OWNERS OF TH PREMISES, OR ANY PART THEREOF, AND IS INTENDED TO BE RECORDED IN ORDER TO GIVE NOTICE TO FUTURE OWNERS OF THE PREMISES, OR ANY PART THEREOF, OF THEIR DUTIES
- AND RESPONSIBILITIES WITH RESPECT TO THE STORM WATER MANAGEMENT FACILITIES.

#### STANDARD WATER NOTES - CITY OF LEBANON AUTHORITY CONTACT INFORMATION FOR THE CITY OF LEBANON AUTHORITY

CITY OF LEBANON AUTHORITY 2311 RIDGEVIEW ROAD

LEBANON, PA 17042 CONTACT: BOB SENTZ, BSENTZ@LEBANONAUTHORITY.ORG, 717-272-2841

- 2. WATER SYSTEMS SHALL BE CONSTRUCTED AND TESTED IN ACCORDANCE WITH THE CITY OF LEBANON AUTHORITY'S "GENERAL SPECIFICATIONS FOR WATER SYSTEM CONSTRUCTION". 3. THE CONSTRUCTION OF WATER MAINS REQUIRES A WATER MAIN EXTENSION AGREEMENT
- BETWEEN THE DEVELOPER AND THE AUTHORITY. 4. EXISTING WATER MAINS ARE SHOWN AT AN APPROXIMATE LOCATION. THE CONTRACTOR SHALL EXCAVATE TEST PITS TO DETERMINE ACTUAL LOCATIONS AND VERIFY WATER MAIN SIZES AT UTILITY CROSSINGS, EXCAVATED AREAS, AND TIE-IN LOCATIONS.
- WATER LATERAL CONNECTION REQUIRES AN APPLICATION AND PAYMENT FOR A CAPACITY FEE WITH THE AUTHORITY PRIOR TO MAKING THE WATER TAPS 6. FIRE SERVICE CONNECTION REQUIRES AN APPLICATION AND PAYMENT FOR A CAPACITY FEE
- WITH THE AUTHORITY PRIOR TO MAKING THE FIRE LINE TAP. 7. ANY WORK WITHIN PENNDOT RIGHT-OF-WAY REQUIRES A PENNDOT HIGHWAY OCCUPANCY PERMIT (HOP). THE PERMIT TYPICALLY IS REQUIRED TO BE IN THE AUTHORITY'S NAME, AND THE AUTHORITY REQUIRES THE CONTRACTOR TO PROVIDE A REFUNDABLE DEPOSIT TO THE AUTHORITY UNTIL PENNDOT SIGNS OFF ON THE PERMIT AFTER CONSTRUCTION IS COMPLETE. 8. ANY WORK WITHIN MUNICIPAL RIGHT-OF-WAY'S MIGHT REQUIRE A MUNICIPAL PERMIT. THE
- PERMIT SHALL BE ACQUIRED IN THE CONTRACTOR'S NAME. 9. THE AUTHORITY SHALL APPROVE ALL MATERIALS PRIOR TO CONSTRUCTION.
- 10. A MANDATORY PRE-CONSTRUCTION MEETING SHALL BE HELD BETWEEN THE AUTHORITY, BUREAU OF WATER, AND WATERLINE CONSTRUCTION CONTRACTOR. 11. THE BUREAU OF WATER WILL INSPECT THE WATER MAIN INSTALLATION AND TESTING. THERE
- ARE FEES CHARGED TO THE DEVELOPER / CONTRACTOR FOR INSPECTION SERVICES. WATER MAIN CONSTRUCTION AND FEES SHALL BE COORDINATED WITH THE AUTHORITY. 12. THE PROPERTY OWNER / DEVELOPER SHALL INSTALL THE WATER TAP AND SERVICE LINE TO THE CURB STOP UNDER THE INSPECTION OF THE BUREAU OF WATER. THE PROPERTY OWNER IS RESPONSIBLE FOR THE WATER SERVICE AFTER THE CURB STOP. THE BUREAU OF WATER
- WILL INSTALL THE WATER METER WITHIN THE BUILDING OR AN APPROVED METER PIT AS INSTRUCTED BY THE BUREAU OF WATER. CONTACT THE BUREAU OF WATER METER DEPARTMENT FOR METER INSTALLATION, 2200 WEST CHESTNUT STREET, 717-273-2506. 13. WATER SERVICE LATERALS OVER 100-FEET FROM THE CURB STOP TO THE ENTRANCE OF THE BUILDING REQUIRES THE INSTALLATION OF A METER PIT WITHIN 10-FEET OF THE CURB STOP. METER PITS SHALL BE APPROVED BY THE METER DEPARTMENT PRIOR TO INSTALLATION.
- 14. SEWER AND WATER MAINS SHALL HAVE A MINIMUM OF AN 18-INCH SEPARATION, OR THE SEWER MAIN SHALL BE CONCRETE ENCASED IN THE AREA WHERE THE 18-INCH SEPARATION CANNOT BE MAINTAINED. 15. WATER MAINS AND LATERALS THAT ARE LESS THAN 18-INCHES FROM A STORM SEWER OR
- CULVERT SHALL BE INSULATED WITH A FOAM WRAP. 16. AT THE CONCLUSION OF THE INSTALLATION OF THE WATER SYSTEM AND SERVICE LINES, AND SUCCESSFUL TESTING THEREOF, THE WATER SYSTEM WILL BE OFFERED FOR DEDICATION TO THE CITY OF LEBANON AUTHORITY.
- 17. ALL EXISTING WATER LATERALS SHALL BE TERMINATED AT THE WATER MAIN BY TURNING OFF THE CORPORATION STOP AT THE MAIN, AND THE SERVICE LINES CUT AND CRIMPED WITHIN ONE FOOT OF THE CORPORATION STOP. ALL WORK, INCLUDING SAW CUTTING, EXCAVATION, LATERAL TERMINATION, BACKFILL, AND PAVING, SHALL BE DONE BY THE CONTRACTOR AND INSPECTED BY THE BUREAU OF WATER.

#### SURVEY NOTES:

1. BENCHMARK: BM1: CAPPED REBAR ON THE NORTH SIDE OF HORIZON BOULEVARD, 61'± WEST OF A CATCH BASON NORTHING: 379370.04

> EASTING: 2334516.76 ELEVATION: 642.95

BM2: CAPPED REBAR ON THE WEST SIDE OF HORIZON BOULEVARD, 42'± NORTH OF A STOP SIGN NORTHING: 378905.13

- EASTING: 2334196.85 ELEVATION: 627.37
- VERTICAL DATUM: NAVD 88
- HORIZONTAL DATUM: NAD83 PA SOUTH ZONE UNDERGROUND UTILITIES ARE SHOWN ACCORDING TO INFORMATION PROVIDED BY OTHERS AND MUST BE FIELD VERIFIED PRIOR TO CONSTRUCTION, EXCAVATION OR BLASTING. THE ACTUAL LOCATIONS OF THESE UTILITIES HAVE NOT BEEN FIELD VERIFIED AND THE LOCATIONS ARE APPROXIMATE. STECKBECK ENGINEERING & SURVEYING, INC. DOES NOT MAKE ANY REPRESENTATION, WARRANTY, ASSURANCE, OR GUARANTEE THAT THE UNDERGROUND UTILITY LOCATION PROVIDED BY OTHERS AND REFLECTED ON THESE DRAWINGS ARE CORRECT AND ACCURATE. STECKBECK ENGINEERING & SURVEYING, INC. ASSUMES NO RESPONSIBILITY FOR ANY DAMAGES
- INCURRED AS A RESULT OF UTILITIES OMITTED OR INACCURATELY SHOWN. 3. IN ACCORDANCE WITH THE FLOOD INSURANCE RATE MAP NUMBER 42075C0252E & 42075C0256E, EFFECTIVE DATE JULY 8, 2012, THE ENTIRE SITE IS IN THE ZONE "X"  $\,$ FLOOD CLASSIFICATION.
- 4. WETLANDS SHOWN HEREON ARE IN ACCORDANCE WITH ... RIGHT-OF-WAY FOR HORIZON BOULEVARD AND JAY STREET ARE SHOWN IN ACCORDANCE WITH NORTH LEBANON TOWNSHIP RECORDS AND PREVIOUSLY RECORDED
- 6. THE SUBJECT PARCEL WAS SURVEYED BY STECKBECK ENGINEERING & SURVEYING ON 2/10/2022-3/4/2022. THE SURVEY WAS PROVIDED USING CONVENTIONAL SURVEY EQUIPMENT COMBINED WITH DRONE TECHNOLOGIES.

#### SCHEDULE OF MUNICIPAL INSPECTIONS - STORMWATER

- A. THE TOWNSHIP ENGINEER SHALL INSPECT ALL PHASES OF CONSTRUCTION OF THE STORMWATER MANAGEMENT IMPROVEMENTS. INSPECTIONS SHALL INCLUDE THE FOLLOWING: a.STORM SEWER PIPE TRENCHING AND INSTALLATION
  - **b.SWALE EXCAVATION AND INSTALLATION** c.BASINS A-G
  - ROUGH GRADING
  - EXCAVATION TO SUBGRADE
  - UNDERDRAIN SYSTEM INSTALLATION (WHERE APPLICABLE)
  - AMENDED SOIL INSTALLATION
  - OUTLET STRUCTURE AND OUTLET PIPE INSTALLATION (INCLUDING ANTI-SEEP COLLARS AND CLAY CORE)
- d.FINAL SITE STABILIZATION B. DURING ANY STAGE OF THE WORK, IF THE TOWNSHIP ENGINEER DETERMINES THAT THE SWM BMPS ARE NOT BEING INSTALLED IN ACCORDANCE WITH THE APPROVED SWM SITE PLAN, NORTH LEBANON TOWNSHIP SHALL PROVIDE WRITTEN NOTIFICATION TO THE LAND OWNER AND/OR DEVELOPER AND THE STIPULATING THE DEFICIENCIES AND REQUIRE THAT THE DEFICIENCIES BE CORRECTED WITHIN 30 DAYS (OR LONGER AS MAY BE REQUIRED). IF THE DEFICIENCIES ARE NOT CORRECTED WITHIN THE SPECIFIED PERIOD OF TIME, NORTH LEBANON TOWNSHIP MAY
  - 1. REVOKE ANY EXISTING PERMITS UNTIL SUCH DEFICIENCIES ARE CORRECTED TO THE SATISFACTION OF THE TOWNSHIP ENGINEER.
  - 2. UTILIZE FINANCIAL SECURITY POSTED BY THE OWNER AND/OR DEVELOPER AS PART OF THE DEVELOPER'S IMPROVEMENT GUARANTEE AGREEMENT TO INSTALL ANY UNFINISHED FACILITIES OR REMEDY ANY IMPROPERLY CONSTRUCTED FACILITIES.
  - 3. PURSUE OTHER LEGAL REMEDIES PURSUANT TO ARTICLE XI OF THIS ORDINANCE. 4. AFTER RECEIPT OF THE CERTIFICATE OF COMPLETION LETTER AND AS-BUILT
  - PLAN BY NORTH LEBANON TOWNSHIP, A FINAL INSPECTION SHALL BE CONDUCTED BY THE TOWNSHIP ENGINEER OR DESIGNATED REPRESENTATIVE TO CERTIFY COMPLIANCE WITH THIS ORDINANCE.
- C. SWM BMPS SHOULD BE INSPECTED BY THE LANDOWNER, OR THE OWNER'S DESIGNEE (INCLUDING THE TOWNSHIP FOR DEDICATED AND OWNED FACILITIES), ACCORDING TO THE FOLLOWING LIST OF MINIMUM FREQUENCIES:
  - 1. ANNUALLY FOR THE FIRST FIVE (5) YEARS FOLLOWING CONSTRUCTION.
  - 2. ONCE EVERY THREE (3) YEARS THEREAFTER.
  - 3. DURING OR IMMEDIATELY FOLLOWING A 10-YEAR OR GREATER STORM. THE 10-YEAR STORM IS 4.6 INCHES OF RAINFALL IN A 24-HOUR PERIOD.

#### **SCHEDULE OF MUNICIPAL INSPECTIONS - STREETS**

- A. THE TOWNSHIP ENGINEER SHALL INSPECT ALL PHASES OF CONSTRUCTION OF THE PROPOSED STREETS INFASTRUCTURE. INSPECTIONS SHALL INCLUDE THE FOLLOWING:
  - a. PROOF ROLL OF ROAD SUBGRADE
  - b. PROOF ROLL OF ROAD SUBBASE c. PRIOR TO PLACEMENT OF WEARING COURSE
  - d. AFTER PLACEMENT OF THE WEARING COURSE

### GENERAL NOTES

- ANY REVISION TO THESE PLANS AFTER THE DATE OF PLAN PREPARATION OR LATEST RE DATE SHALL NOT BE THE RESPONSIBILITY OF STECKBECK ENGINEERING AND SURVEYING, INC . NO ONE SHALL SCALE FROM THESE PLANS FOR CONSTRUCTION PURPOSES THE APPROVED POST-CONSTRUCTION STORMWATER MANAGEMENT REPORT SHALL BE CONSIL A PART OF THIS PLAN AND IS ENFORCEABLE AS IF IT APPEARED IN TOTAL HEREIN.
- 4. NOTHING SHALL BE PLACED, PLANTED, SET, PUT OR MAINTAINED WITHIN THE AREA OF EASEMENT THAT MAY ADVERSELY AFFECT THE FUNCTION OF THE EASEMENT OR CONFLICT HE PURPOSE OR ARRANGEMENT OF THE EASEMENT, WITH THE EXCEPTION OF THE AREA OF EASEMENTS LOCATED WITHIN BUILDING LIMITS.
- THE INFORMATION SHOWN ON THIS DRAWING MAY HAVE ALSO BEEN PROVIDED IN A D DRAWING FORMAT. ONCE A DRAWING IS RELEASED FROM STECKBECK ENGINEERING & SURVE INC. IN A DIGITAL FORMAT, WE HAVE NO CONTROL OVER MANIPULATION OR MISUSE OF DATA CONTAINED IN THAT FILE. THE VIEWER IS THEREFORE CAUTIONED TO COMPARE SUBSEQUENT REPRODUCTIONS OR MANIPULATIONS OF THIS DATA WITH THE ORIGINAL HARD SEALED PLAN PROVIDED BY STECKBECK ENGINEERING & SURVEYING INC. THE USER IS CAUTIONED THAT ANY USE OF THE DATA CONTAINED IN THE DIGITAL FILE THAT IS NOT SI ON THE HARD COPY DRAWING, MUST BE AT THE RISK OF THE USER.
- 6. ALL SITE DEVELOPMENT SHALL BE DONE IN ACCORDANCE WITH FEDERAL, STATE, COUNTY MUNICIPALITY STANDARDS AND REQUIREMENTS. ANY SANITARY SEWER AND WATER MAIN EXTENSIONS AND CONNECTIONS HERETO SHAL CONSTRUCTED PER APPROVED DESIGNS IN ACCORDANCE WITH APPLICABLE REGULATIONS
- APPROVALS. 8. ALL JOINTS WHERE PROPOSED MACADAM MEETS EXISTING MACADAM SHALL BE SAW-CUT SEALED WITH PG 64S-22.
- 9. ALL PROPOSED SIGNS SHALL BE IN ACCORDANCE WITH ALL APPLICABLE MUNICIPALITIES ORDINANCES
- 10. NORTH LEBANON TOWNSHIP SHALL NOT BE RESPONSIBLE FOR THE MAINTENANCE OF ANY THAT IS NOT OFFERED FOR DEDICATION TO PUBLIC USE AND SUCH OFFER ACCEPTED BY N LEBANON TOWNSHIP. NO ALTERATION TO SWALES, BASINS, OR OTHER DRAINAGE STRUCT SHALL BE PERMITTED WITHIN DRAINAGE EASEMENTS. 11. UTILITY TYPE AND LOCATION NOTICE: ALL EXISTING UTILITIES ARE SHOWN AS FOUND IN FIELD AND/OR ILLUSTRATED ON VARIOUS USER DRAWINGS. TO THE BEST OF OUR KNOWL THE LOCATIONS AND TYPES ARE CORRECT AND ACCURATE, BUT STECKBECK ENGINEERI SURVEYING, INC. DOES NOT MAKE ANY REPRESENTATIÓN, WARRANTY, ASSURANCE, GUARANTEE THE INFORMATION RECEIVED AND REFLECTED ON THESE DRAWINGS IS CORREC ACCURATE PURSUANT TO SECTION 5 CLAUSE (1) OF ACT 172 AMENDING ACT 287 IT SHA THE RESPONSIBILITY OF THE CONTRACTOR TO ASCERTAIN THE LOCATION AND TYPE OF LINES AT THE CONSTRUCTION SITE, EITHER BY INSPECTION OF THE DESIGNER'S DRAWING THERE BE NO SUCH DRAWINGS, THEN BY THE SAME MANNER AS THAT PRESCRIBED F DESIGNER IN CLAUSE (1) AND (2) OF SECTION 4. PURSUANT TO SECTION 5 CLAUSE (2) IT THE CONTRACTORS RESPONSIBILITY NOT LESS THAN THREE NOR MORE THAN TEN WOR DAYS PRIOR TO THE DAY OF BEGINNING SUCH WORK, TO NOTIFY EACH USER OF CONTRACTOR'S INTENT TO PERFORM SUCH WORK AT ITS SITE OR SITES AND REQUEST INFORMATION PRESCRIBED BY [ SUBCLAUSES II AND III ] OR CLAUSE
- (5) OF SECTION 2, FROM EACH USER'S OFFICE DESIGNATED ON THE DESIGNERS DRAWING ON THE LIST OF USERS OBTAINED PURSUANT TO CLAUSE (1) OF SECTION 4. 12. ALL UTILITIES SHALL BE INSTALLED UNDERGROUND INCLUDING BUT NOT LIMITED TO TELEPH CABLE, ELECTRIC, GAS, WATER, AND SANITARY SEWER. 13. THE COMMONWEALTH OF PENNSYLVANIA HISTORICAL AND MUSEUM COMMISSION PERFORM SURVEY OF THE SUBJECT SITE IN ACCORDANCE WITH STATE AND FEDERAL LAWS, SPECIFIC SECTION 106 OF THE NATIONAL HISTORIC PRESERVATION ACT OF 1966, AND THE IMPLEME
- REGULATIONS (36 CFR PART 800) OF THE ADVISORY COUNCIL ON HISTORIC PRESERVATION, ENVIRONMENTAL RIGHTS AMENDMENT, ARTICLE 1, SECTION 27 OF THE PENNSYL CONSTITUTION AND THE PENNSYLVANIA HISTORY CODE, 37 PA. CONS. STAT. SECTION 50 SEQ. (1988) AND FOUND THERE ARE NO NATIONAL REGISTER ELIGIBLE OR LISTED HISTORI ARCHAFOLOGICAL PROPERTIES IN THE AREA OF THIS PROJECT SITE. 14. SITE IMPROVEMENTS AND DEVELOPMENTS SHALL BE IN ACCORDANCE WITH THE EROSION SEDIMENT CONTROL DETAILS WITHIN THIS PLAN AND THE APPROVED EROSION SEDIMENT CON
- 15. ALL DRAINAGE AND UTILITY EASEMENTS OTHER THAN THOSE SHOWN WITHIN THE PROP BUILDINGS AS SHOWN ON THIS PLAN SHALL BE MAINTAINED IN GRASSED OR OTHER IMPROVED CONDITION IN ACCORDANCE WITH THE GRADES AND DESIGNS SHOWN ON APPROVED PRELIMINARY/FINAL PLANS. MAINTENANCE OF SUCH EASEMENTS SHALL BE RESPONSIBILITY OF THE INDIVIDUAL LOT OWNER. DRAINAGE EASEMENTS SHALL ALLOW PAS
- OF STORM WATER IN UNDERGROUND STORM WATER SEWER PIPING AND ASSOCIATED STRUCT AND/OR ALLOW PASSAGE OF STORM WATER OVER THE SURFACE OF THE GROUND AND S ALLÓW ACCESS ACROSS THE AREA FOR PURPOSES OF MAINTENANCE OF THE CONVEYANCE SYSTEMS. EXISTING AND PROPOSED ROADSIDE GUTTERS OR SWALES SHALL NO OBSTRUCTED BY DRIVEWAYS, FILL, OR STRUCTURES. ALL DEEDS FOR THE LOT(S) SHALL INC A REFERENCE TO THE EASEMENT(S) THAT ARE LOCATED WITHIN THE LOT ALONG WITH RIGHTS AND RESTRICTIONS OF EACH EASEMENT INCLUDING LOT OWNER RESPONSIBILITY OWNERSHIP AND MAINTENANCE OF THE EASEMENT, PIPES AND STRUCTURES WITHIN EASEMENT. ALL STORMWATER MAINS AND RELATED STRUCTURES WITHIN THE DEVELOF SHALL BE CONSTRUCTED BY THE DEVELOPER. THE STORM WATER MANAGEMENT FACIL (S.W.M.F.) SHALL BE CONSTRUCTED PRIOR TO ANY OTHER CONSTRUCTION ON THE SITE. SEWER MAINS SHALL BE SMOOTH LINED CORRUGATED POLYETHYLENE PIPE (SLCPP) AND BE CONCRETE ENCASED WHEN COVER IS LESS THAN 12" TO SUBGRADE. INLETS HAVE CALCULATED AND SHALL BE MANUFACTURED FOR THE INLET GRATE ELEVATIONS TO BE IN A TWO (2) INCH SUMP CONDITION AND ALL INLETS SHALL BE SUPPLIED WITH BICYCLE SAFE
- GRATES. STORM WATER MAINS WHICH ARE LOCATED WITHIN A PUBLIC RIGHT-OF WAY SHALL BE OWNED AND MAINTAINED BY NORTH LEBANON TOWNSHIP. STORM SEWER MAINS WHICH ARE LOCATED WITHIN ANY LOTS SHALL BE OWNED AND MAINTAINED BY THE INDIVIDUAL LOT OWNER MUNICIPALITY OFFICIALS, INCLUDING THE MUNICIPALITIES BOARD OF SUPERVISORS WILL HAVE THE RIGHT TO INSPECT AND/OR CORRECT ANY DEFICIENCIES IN THE STORM WATER COLLECTION SYSTEM WHICH IS LOCATED IN ANY OPEN SPACE OR EASEMENT WITHIN THE DEVELOPMENT AT ANY TIME IF DEEMED NECESSARY
- 6. ALL STORM SEWER PIPING SHALL BE CONSTRUCTED UTILIZING A LASER TO ENSURE PROPER 17. TREES AND SHRUBS SHALL NOT BE PLANTED IN SWALES OR WITHIN 5 FEET OF BURIED UTILITY LINES. IN DEVELOPMENTS WITH SIDEWALKS, TREES SHALL NOT BE PLANTED WITHIN 8 FEET OF THE SIDEWALK. ANY TREES PLANTED ON LOTS SHALL NOT BE CLOSER THAN 5' TO ANY STREET
- RIGHT-OF-WAY. INDIVIDUAL TREES SHALL BE ESTABLISHED AT 6' OR GREATER IN HEIGHT AND SHALL BE AT LEAST 2 1/2" CALIBER. 18. MATERIALS AND DETAILS SPECIFIED ON THE APPROVED PLAN SHALL NOT BE ALTERED DURING CONSTRUCTION WITHOUT WRITTEN APPROVAL BY NORTH LEBANON TOWNSHIP.
- 19. ALL PROPOSED LIGHTING SHALL COMPLY WITH THE REQUIREMENTS OF THE ILLUMINATING ENGINEERING SOCIETY OF NORTH AMERICA, IES LIGHTING HANDBOOK (NEW YORK, NYIES, 1981, AS AMENDED). ALL LIGHTING SHALL BE DESIGNED AND ARRANGED SUCH THAT THE LUX OR FOOTCANDLE VALUES ARE ZERO AT AND BEYOND THE PROPERTY LINES OF THE PROPERTY BEING DEVELOPED, AND ARE ALSO ZERO IN AN UPWARD DIRECTION.
- 20. AN AS-BUILT DRAWING SHALL BE PROVIDED TO NORTH LEBANON TOWNSHIP UPON COMPLETION OF THE SITE IMPROVEMENTS AND PRIOR TO THE FINAL RELEASE OF FINANCIAL SECURITY HELD BY NORTH LEBANON TOWNSHIP. A PROFESSIONALLY SEALED AS-BUILT CONSTRUCTION REPORT AND PLAN, INCLUDING RELATIVE DATES, NAME(S) OF CONTRACTOR (S), METHODS OF CONSTRUCTION, AND VERIFICATION OF CONFORMANCE TO PLAN SPECIFICATIONS AND GOOD ENGINEERING PRACTICES, SHALL BE PROVIDED TO THE CITY ENGINEER PRIOR TO BOND REDUCTION REQUESTS RELATED TO THE BASIN (S). 21. DRIVEWAY PERMITS WILL BE REQUIRED TO BE OBTAINED FROM NORTH LEBANON TOWNSHIP FOR
- THE PROPOSED DRIVEWAYS. 22.CONNECTION TO THE EXISTING SANITARY SEWER SYSTEM WILL BE BY AN EXISTING MANHOLE LOCATED ON ROLLING MEADOW STARLIGHT LANEPPROXIMATELY 33' NORTHWEST FROM THE NORTHWEST CORNER OF PROPOSED LOT 86
- 23.NO VISION OBSTRUCTING OBJECTS SHALL BE PERMITTED WHICH OBSCURE VISION ABOVE THE HEIGHT OF 30" AND BELOW 10' TO THE SIGHT DISTANCE. 24.IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER TO PURCHASE AND INSTALL FIRE
- HYDRANT MARKERS FOR ALL NEWLY INSTALLED FIRE HYDRANTS. 25.AS-BUILT DRAWINGS ARE REQUIRED FOR ALL STREETLIGHTS, WIRING AND DISCONNECT SWITCHES, STORMWATER PIPE, CATCH BASINS, AND ALL APPURTENANCES ASSOCIATED WITH IMPROVEMENTS LOCATED IN THE DEVELOPMENT. ALL DRAWINGS MUST BE IN A "DWG" FORMAT OR AN FLECTRONIC FILE APPROVED BY THE TOWNSHIP
- 26.THE DEVELOPER SHALL BE FINANCIALLY RESPONSIBLE FOR ANY ATTORNEY FEES WHERF THF ATTORNEY IS ENGAGED ON BEHALF OF THE TOWNSHIP RELATING TO THE REVIEW OF SUBDIVISION PLANS OR LAND DEVELOPMENT PLANS THAT ARE SUBMITTED TO THE TOWNSHIP. THESE FEES ARE IN ADDITION TO SUBMISSION FEES CHARGED BY THE TOWNSHIP. PAYMENT OF ALL INVOICES IS DUE AND PAYABLE WITHIN 30 DAY OF RECEIPT AND PRIOR TO FINAL PLAN APPROVAL BY THE BOARD OF SUPERVISORS. ANY QUESTIONS ON INVOICES MUST BE
- REPORTED TO THE TOWNSHIP WITHIN 10 DAYS OF RECEIPT OF THE BILL 27.ALL SEWER RELATED ISSUES SHALL BE ADDRESSED WITH THE NORTH LEBANON TOWNSHIP MUNICIPAL AUTHORITY. 28.ALL UTILITY/ACCESS EASEMENTS, IF APPLICABLE SHALL INCLUDE THE REQUIRED DEED RESTRICTION'S AND OR COVENANTS AS A CONDITION OF THE SALE OF THE PROPERTIES.
- ALL PROPOSED PROPERTY CORNERS WILL BE SET UPON APPROVAL AND CONSTRUCTION OF FACH PHASE 29. THE PLACEMENT OF TREES, SHRUBS, FENCING AND STRUCTURES WITH IN DRAINAGE EASEMENTS IS PROHIBITED UNLESS APPROVED BY THE TOWNSHIP.
- 30.RESEARCH WAS PERFORMED ON THE EXISTING SANITARY SEWER LINE OFF THE NORTHEAST CORNER OF THE PROPERTY, LOCATED ON THE SCHOOL DISTRICT PROPERTY. NO EASEMENT WAS FOUND FOR THE EXISTING SANITARY SEWER LINE. 31.RESEARCH WAS PERFORMED ON THE EXISTING OVERHEAD UTILITY LINE OFF THE NORTHEAST CORNER OF THE PROPERTY, LOCATED ON THE SCHOOL DISTRICT PROPERTY. NO EASEMENT
- WAS FOUND FOR THE EXISTING OVERHEAD UTILITY LINE 32.CLUSTER MAILBOX LOCATIONS WILL BE PROVIDED ON THE FINAL PLANS, AS APPROVED BY THE
- 33.THE CURRENT ASPHALT SHALL BE REMOVED AND A NEW BINDER AND WEARING COURSE WILL BE PLACED ONCE ALL THE UTILITIES ARE INSTALLED. THE DEVELOPER SHALL COORDINATE WITH THE TOWNSHIP WITH THE OVERLAY AS THE TOWNSHIP INTENDS TO OVERLAY THE ENTIRETY OF HORIZON BOULEVARD.
- 34.DURING CONSTRUCTION OF THE DEVELOPMENT, ALL CONSTRUCTION TRAFFIC SHALL ACCESS THE PROPERTY OFF OF HORIZON BOULEVARD.

<u>U</u> 1.	<b>TILITY NOTES</b> SEWAGE DISPOSAL IS TO BE PROVIDED BY EXTENSION OF THE PUBLIC SEWER SYSTEM BY THE
2.	LAND DEVELOPER, AS SHOWN HEREON. CONNECTION TO THE PUBLIC SEWER SYSTEM IS REQUIRED. ALL WATER SUPPLY FACILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF
3.	LEBANON AUTHORITY SPECIFICATIONS. ALL SANITARY SEWER CONSTRUCTION METHODS AND MATERIALS SHALL CONFORM TO THE LATEST STANDARDS OF THE MUNICIPALITY AND SHALL BE SUBJECT TO APPROVAL BY THE MUNICIPALITY'S
4.	ENGINEER. WATER AND SEWER LINES MUST MAINTAIN A MINIMUM HORIZONTAL SEPARATION OF 5', OTHERWISE A VERTICAL SEPARATION OF 18" SHALL BE PROVIDED. IF NEITHER IS POSSIBLE, THEN A 6'
5.	CONCRETE ENCASEMENT SHALL BE PROVIDED FOR THE SEWER LINE. ALL UTILITIES SHALL BE INSTALLED UNDERGROUND INCLUDING BUT NOT LIMITED TO TELEPHONE
6.	CABLE, ELECTRIC, GAS, WATER AND SANITARY SEWER. ACCESS TO ALL UTILITY FACILITIES SHALL BE GRANTED TO REPRESENTATIVES OF THE
7.	MUNICIPALITY AT ALL TIMES FOR THE PURPOSES OF INSPECTION AND MAINTENANCE. CONSTRUCTION OF SEWER LATERALS SHALL COMPLY WITH THE RULES, REGULATIONS, AND SPECIFICATIONS OF THE NORTH CORNWALL TOWNSHIP AUTHORITY. DO NOT BACKFILL SEWEF LATERAL TRENCHES UNTIL INSPECTED BY A REPRESENTATIVE OF THE AUTHORITY.
8.	CONSTRUCTION OF WATER LATERALS SHALL COMPLY WITH THE RULES, REGULATIONS, AND SPECIFICATIONS OF THE CITY OF LEBANON WATER AUTHORITY.
9. 10.	THE PROPOSED SANITARY SEWER DESIGN IS A PROPOSED GRAVITY FED SYSTEM THAT WILL CONNECT TO AN EXISTING MANHOLE WITHIN ROLLING MEADOWS ROAD. ALL SEWER RELATED ISSUES SHALL BE ADDRESSED TO THE SATISFACTION OF THE NORTH LEBANON TOWNSHIP MUNICIPAL AUTHORITY.
<b>RI</b> 1	ECREATION FEE NOTE A PER LOT FEE SHALL BE PAID TO THE TOWNSHIP IN LIEU OF DEDICATION OF PARK ANI
	RECREATION LAND. FEES SHALL BE PAID PER CURRENT RATE SCHEDULE AND SHALL BE PAID PRIOR TO PLAN RECORDING. PARK AND RECREATION FEES FOR PHASE 1 SHALL BE PAID AT THE TIME OF PLAN APPROVAL FOR PHASE 1.
D	EED RESTRICTION/COVENANT NOTES:
1.	ALL LOTS CONTAINING STORMWATER MANAGEMENT FACILITIES SHALL CONTAIN LANGUAGE REGARDING THE OWNERSHIP AND MAINTENANCE RESPONSIBILITY ASSOCIATED WITH THE STORM WATER FACILITIES ON THEIR RESPECTED LOTS.
2.	ALL LOTS CONTAINING WETLANDS OR FLOODPLAIN SHALL CONTAIN LANGUAGE REGARDING THE PROTECTION OF THE ASSOCIATED WETLANDS AND FLOODPLAIN.
W	AIVER / MODIFICATION REQUESTS:
1.	SALDO, SECTION 5.10.C.8.B.IV. SIDEWALKS – IN RESIDENTIAL DEVELOPMENTS, WHEN A GRASS (BEAUTY STRIP IS PROVIDED, IT SHALL BE A MINIMUM THREE (3) FEET IN WIDTH AND SHALL BE LOCATED BETWEET THE CURB LINE AND THE SIDEWALK.
	JUSTIFICATION FOR THE WAIVER: THE PLAN PROPOSES A GRASS STRIP OF 1.86' IN WIDTH. THE PLAN PROPOSES 5' WIDE SIDEWALKS AND THE USE OF SLANT CURB. WITH A 34' WIDE STREET PROPOSED, TO KEEP THE CONCRETE SIDEWALK WITHIN THE PROPOSED 50' WIDE R.O.W., THE GRASS STRIP NEEDS TO BE REDUCED TO 1.86' IN WIDTH.
2.	SALDO, SECTION 5.10.C.8.D. STREET LIGHTS – STREET LIGHTS SHALL BE DESIGNED AND INSTALLED TO ILLUMINATE ALL MAJOR SUBDIVISIONS AND LAND DEVELOPMENTS, UNLESS WAIVER IS OBTAINED FOR LOW DENSITY DEVELOPMENTS OR SIMILAR SUBDIVISIONS. STREET LIGHTS SHALL BE PLACED AT ALL STREET INTERSECTIONS AND ACCESSES TO LAND DEVELOPMENTS, WITHIN PARKING LOTS AND ALONG STREETS AT INTERVALS OF 250' OR LESS.
	JUSTIFICATION FOR THE WAIVER: THE MINIMUM REQUIRED STREETLIGHTS IS PROVIDED. THE AVERAGE SPACING OF THE STREETLIGHTS IS 250'. ALL INTERSECTIONS ARE PROVIDED WITH A STREET LIGHT HOWEVER, SOME SPACING EXCEEDS THE 250' MINIMUM REQUIREMENT. THIS IS TO AVOID PROPOSED DRIVEWAYS, UTILITIES, ETC.
3.	SALDO, SECTION 5.10.C.8.E.IV. STREET TREES – STREET TREE SPACING REQUIREMENTS FOR MEDIUM TREES SHALL BE SPACED BETWEEN 40–50'.
	SPACING OF THE STREET TREES IS 50'. HOWEVER, TREE SPACING EXCEEDS THE 50' MAXIMUN
4.	SPACING OF THE STREET TREES IS 50'. HOWEVER, TREE SPACING EXCEEDS THE 50' MAXIMUN REQUIREMENT TO AVOID DRIVEWAYS AND KEEP THE TREES OFF PROPERTY LINES TO IDENTIFY CLEAN OWNERSHIP OF THE TREES.
4.	SPACING OF THE STREET TREES IS 50'. HOWEVER, TREE SPACING EXCEEDS THE 50' MAXIMUM REQUIREMENT TO AVOID DRIVEWAYS AND KEEP THE TREES OFF PROPERTY LINES TO IDENTIFY CLEAR OWNERSHIP OF THE TREES. SALDO, SECTION 5.10.C.8. SIDEWALKS – AUXILIARY STREET IMPROVEMENTS SUCH AS GUTTERS, CURBS AND SIDEWALKS SHALL BE DESIGNED AND CONSTRUCTED ON BOTH SIDES OF THE PROPOSED STREETS. JUSTIFICATION FOR THE WAIVER: AT THE ONSET OF THIS PROJECT, IT WAS DISCUSSED WITH THE TOWNSHIF TO DESIGN THIS DEVELOPMENT IN COMPLIANCE WITH THE UPCOMING ORDINANCE. THE PENDING NORTI LEBANON TOWNSHIP SUBDIVISION AND LAND DEVELOPMENT ORDINANCE ONLY REQUIRES SIDEWALKS TO BE
4.	SPACING OF THE STREET TREES IS 50'. HOWEVER, TREE SPACING EXCEEDS THE 50' MAXIMUM REQUIREMENT TO AVOID DRIVEWAYS AND KEEP THE TREES OFF PROPERTY LINES TO IDENTIFY CLEAF OWNERSHIP OF THE TREES. SALDO, SECTION 5.10.C.8. SIDEWALKS – AUXILIARY STREET IMPROVEMENTS SUCH AS GUTTERS, CURBS AND SIDEWALKS SHALL BE DESIGNED AND CONSTRUCTED ON BOTH SIDES OF THE PROPOSED STREETS. JUSTIFICATION FOR THE WAIVER: AT THE ONSET OF THIS PROJECT, IT WAS DISCUSSED WITH THE TOWNSHIF TO DESIGN THIS DEVELOPMENT IN COMPLIANCE WITH THE UPCOMING ORDINANCE. THE PENDING NORTH LEBANON TOWNSHIP SUBDIVISION AND LAND DEVELOPMENT ORDINANCE ONLY REQUIRES SIDEWALKS TO BE PLACED ON ONE SIDE OF THE STREET FOR A DEVELOPMENT OF THIS DENSITY AND PROXIMITY TO A
	<ul> <li>SPACING OF THE STREET TREES IS 50'. HOWEVER, TREE SPACING EXCEEDS THE 50' MAXIMUM REQUIREMENT TO AVOID DRIVEWAYS AND KEEP THE TREES OFF PROPERTY LINES TO IDENTIFY CLEAF OWNERSHIP OF THE TREES.</li> <li>SALDO, SECTION 5.10.C.8. SIDEWALKS – AUXILIARY STREET IMPROVEMENTS SUCH AS GUTTERS, CURBS AND SIDEWALKS SHALL BE DESIGNED AND CONSTRUCTED ON BOTH SIDES OF THE PROPOSED STREETS.</li> <li>JUSTIFICATION FOR THE WAIVER: AT THE ONSET OF THIS PROJECT, IT WAS DISCUSSED WITH THE TOWNSHIF TO DESIGN THIS DEVELOPMENT IN COMPLIANCE WITH THE UPCOMING ORDINANCE. THE PENDING NORTI LEBANON TOWNSHIP SUBDIVISION AND LAND DEVELOPMENT ORDINANCE ONLY REQUIRES SIDEWALKS TO BE PLACED ON ONE SIDE OF THE STREET FOR A DEVELOPMENT OF THIS DENSITY AND PROXIMITY TO A SCHOOL.</li> <li>STORMWATER ORDINANCE, SECTION 309.B.2. STORMWATER PIPING SIZE – PIPES PROPOSED FOR DEDICATION TO THE TOWNSHIP SHALL HAVE A MINIMUM DIAMETER OF EIGHTEEN (18) INCHES. FIFTEEN (15)</li> </ul>

CROSS A STREET SHALL BE PERPENDICULAR TO THE STREET CENTERLINE OR WITHIN THIRTY DEGREES (30°) OF PERPENDICULAR VERTICAL AND HORIZONTAL ISOLATION CONFLICTS WITH OTHER UTILITIES SHALL AVOIDED. STORM SEWERS WITHIN A STREET SHALL NOT CROSS UNDERNEATH A CURB, ESPECIALLY AT CURB RADII LOCATIONS.

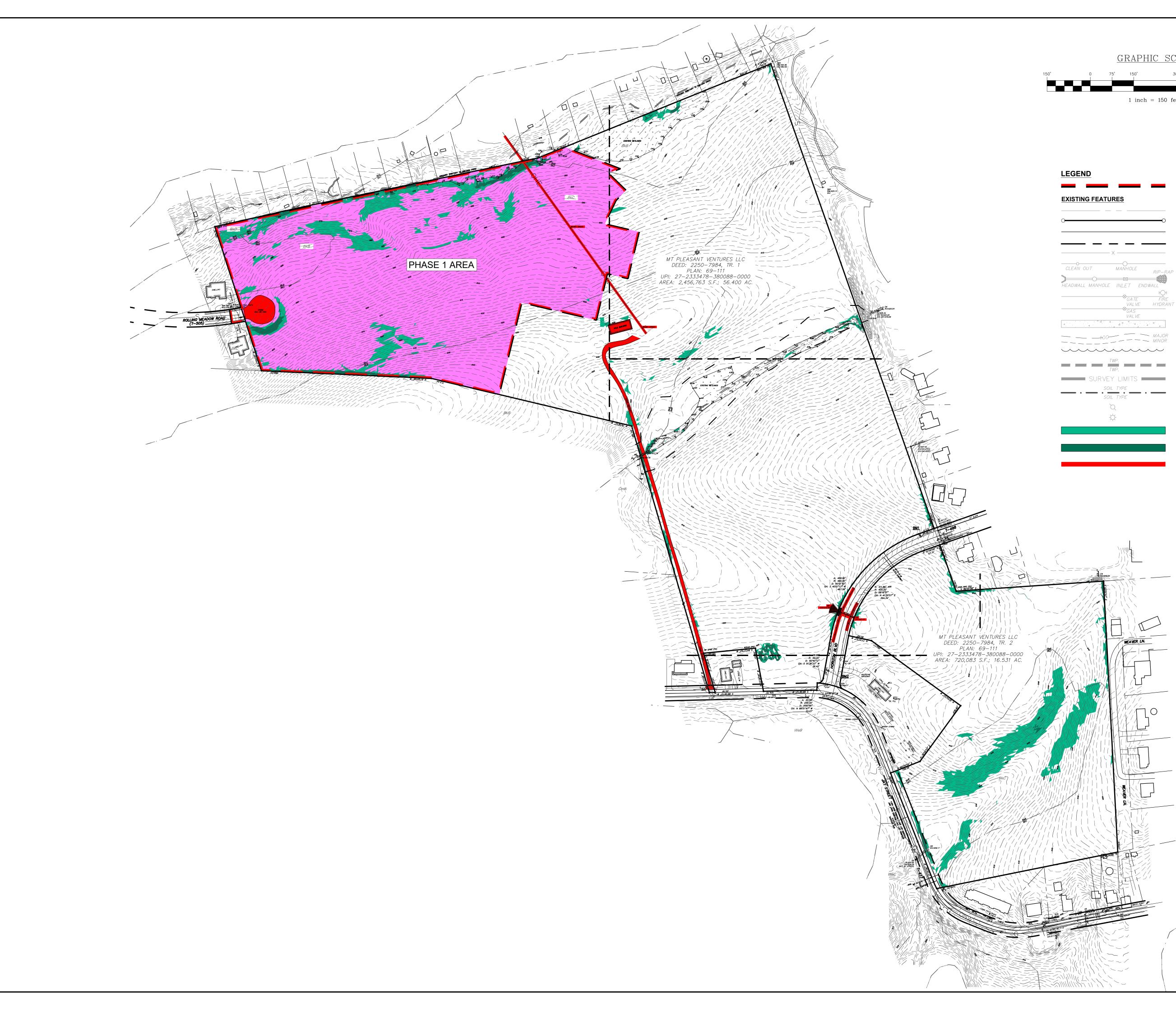
JUSTIFICATION FOR THE WAIVER: THE PROPOSED DESIGN PROPOSED ONE (1) INSTANCE WHERE A STORMWATER PIPE DOES NOT CROSS THE CURB/STREET CENTERLINE WITHIN 30 DEGREES OF PERPENDICULAR. AT THE INTERSECTION OF ROAD B AND ROLLING MEADOW ROAD.

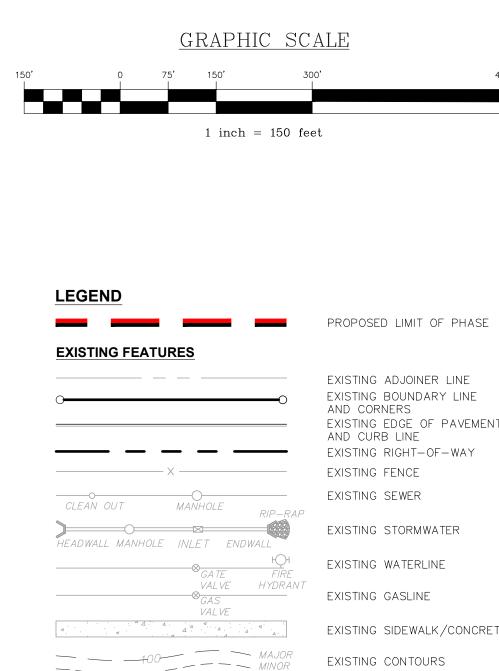
- STORMWATER ORDINANCE, SECTION 309.A.2, PUB 13 SECTION10.3.B.2, STORMWATER PIPE INVERTS A MINIMUM DROP OF 2 INCHES SHALLBE PROVIDED IN THE INLET OR OTHER JUNCTION STRUCTURE BETWEEN THE LOWEST INLET PIPE INVERT ELEVATION AND THE OUTLET PIPE INVERT ELEVATIOI JUSTIFICATION FOR THE WAIVER: IN MANY INSTANCES, THE PIPE DROP IS PROVIDED WHERE CROWNS ARE MATCHED BETWEEN DIFFERING PIPE SIZES. HOWEVER, REQUIRED DESIGN SLOPES AND MANY UTILITIES MAKE DIFFICULT TO PROVIDE THIS 2" DROP IN ALL INSTANCES. THE PCSM REPORT PROVIDES 100-YEAR CONVEYANCE CALCULATIONS WHICH DEMONSTRATES THAT THE PROPOSED STORM SEWER SYSTEM IS CAPABLE OF HANDLING FLOWS AS DESIGNED.
- SALDO. SECTION 5.10. IMPROVEMENTS TO EXISTING STREETS ALL EXISTING STREETS ALONG THE PROPERTY FRONTAGE SHALL BE IMPROVED TO PUBLIC STREET STANDARDS. JUSTIFICATION FOR THE WAIVER HORIZON BOULEVARD WILL BE IMPROVED TO PUBLIC STREET STANDARDS. LIMITED FRONTAGE IS ALONG JAY STREET. A WAIVER IS REQUESTED ALONG JAY STREET DUE TO EXISTING STORMWATER CONVEYANCE ISSUES AND NO OTHER IMPROVEMENTS ALONG JAY STREET EXISTS WITHIN A HALF MILE IN EITHER DIRECTION.

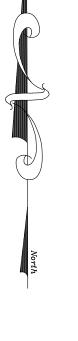
THE ABOVE LISTED WAIVERS WERE APPROVED BY THE NORTH LEBANON TOWNSHIP BOARD OF SUPERVISORS AT THEIR APRIL 22, 2024 SUPERVISORS MEETING, AS PART OF THE PRELIMINARY PLAN APPROVAL.

NOTES     NOTES     REVISION       FINAL - PHASE 1     PER ARRO LETTER DATED 7/3/24       FINAL - PHASE 1     PER ARRO LETTER DATED 7/3/24       SUBDIVISION & LAND DEVELOPMENT PLAN     For ARRO LETTER DATED 7/3/24       For     PER NLTMA REVISIONS       Incorted in NORTH LEBANON TOWNSHIP     PER LCPD LETTER DATED 7/16/24       LEBANON County, Pennsylvania	DATE BY 8/12/24 CDS	8/12/24 CDS	8/12/24 CDS		
NOTES         FINAL - PHASE 1         FINAL - PHASE 1         SUBDIVISION & LAND DEVELOPMENT PLAN         For         SUBDIVISION & LAND DEVELOPMENT PLAN         For         Image: For <td>REVISION PER ARRO LETTER DATED 7/3/24</td> <td>PER NLTMA REVISIONS</td> <td>PER LCPD LETTER DATED 7/16/24</td> <td></td> <td></td>	REVISION PER ARRO LETTER DATED 7/3/24	PER NLTMA REVISIONS	PER LCPD LETTER DATED 7/16/24		
	NOTES	SUBDIVISION & LAND DEVELOPMENT PLAN	THE ESTATES AT HEARTHSIDE	Iocated in NOPTH IFRANON TOWNSHIP	LEBANON County, Pennsylvania

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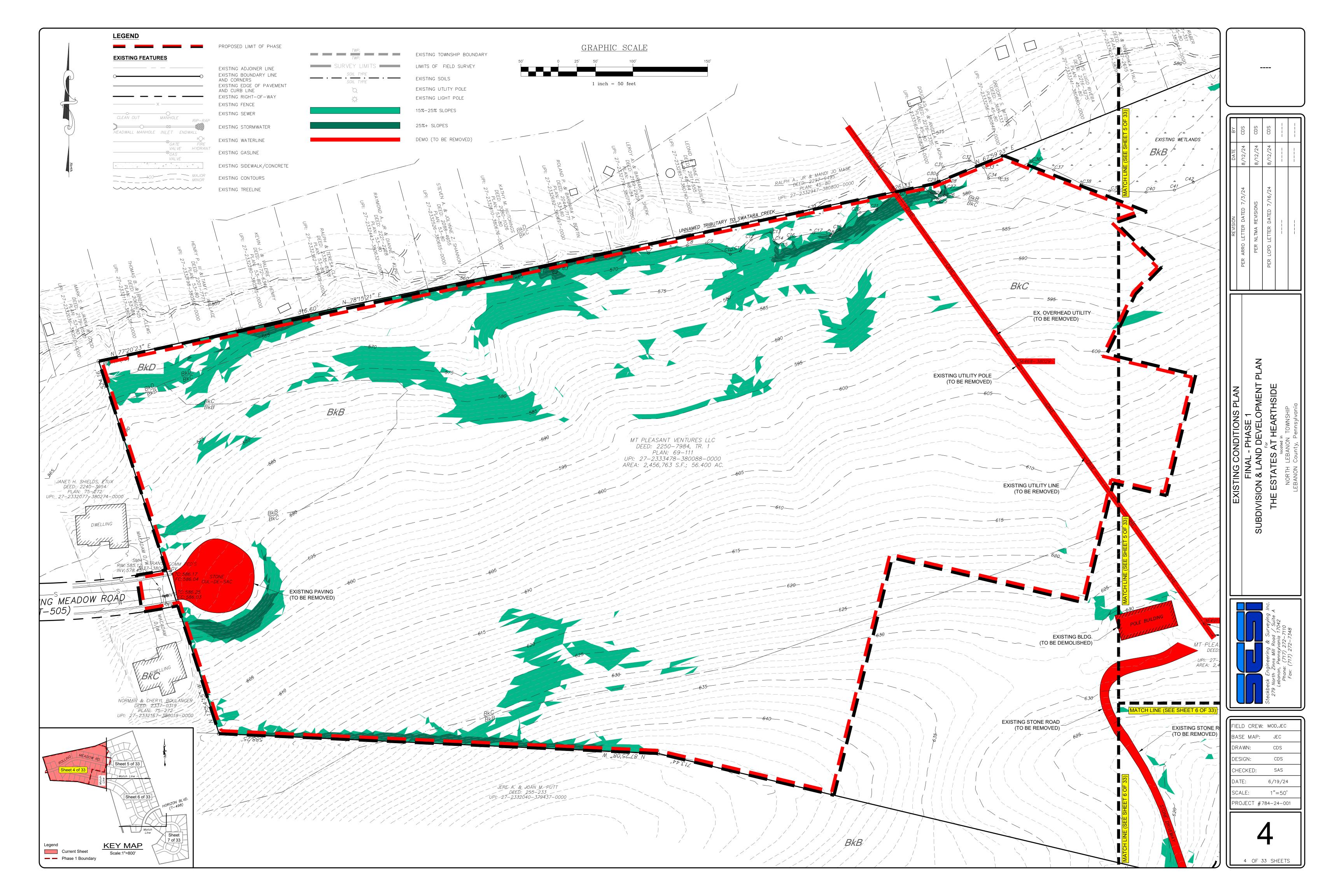
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EXISTING	TREELINE
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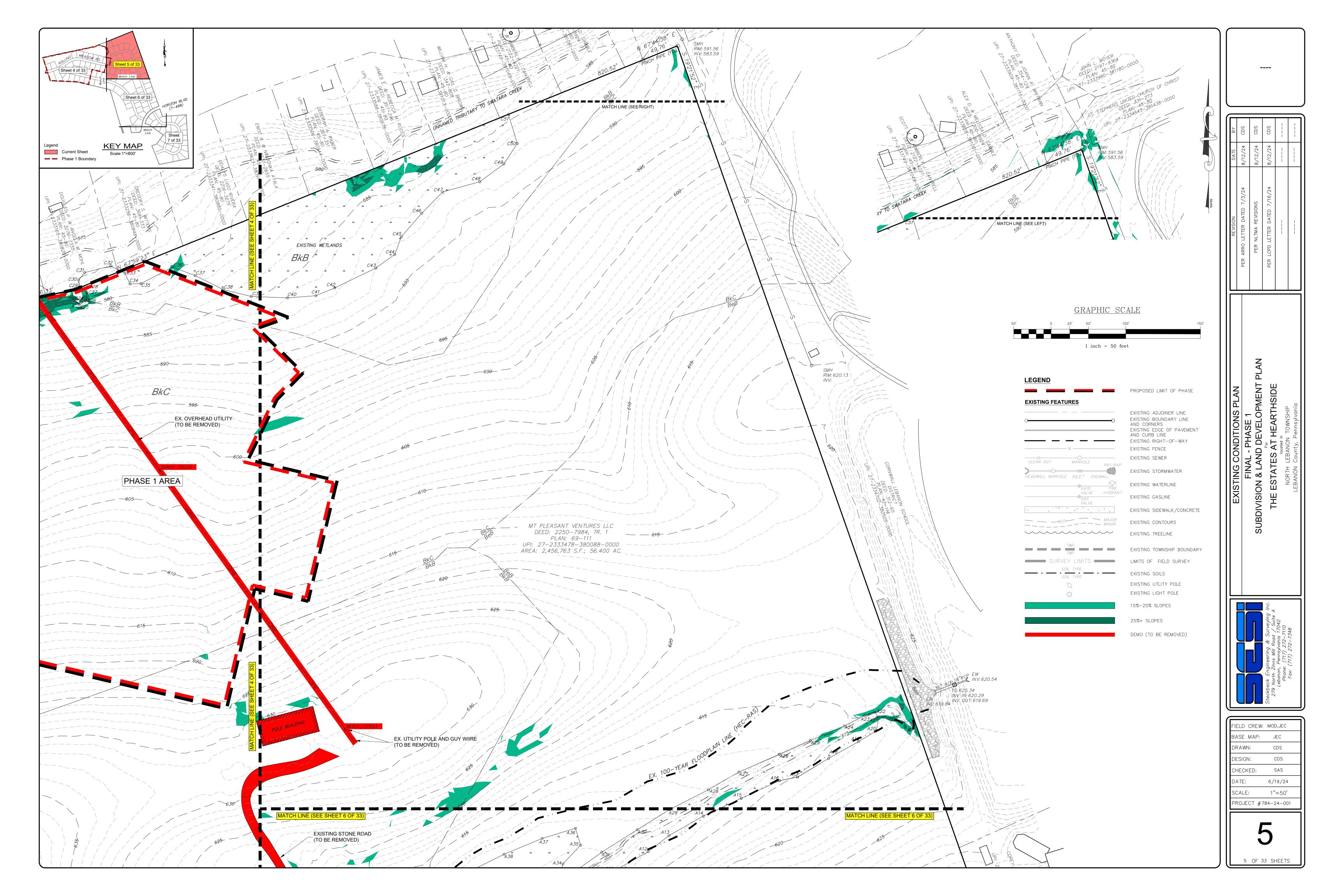
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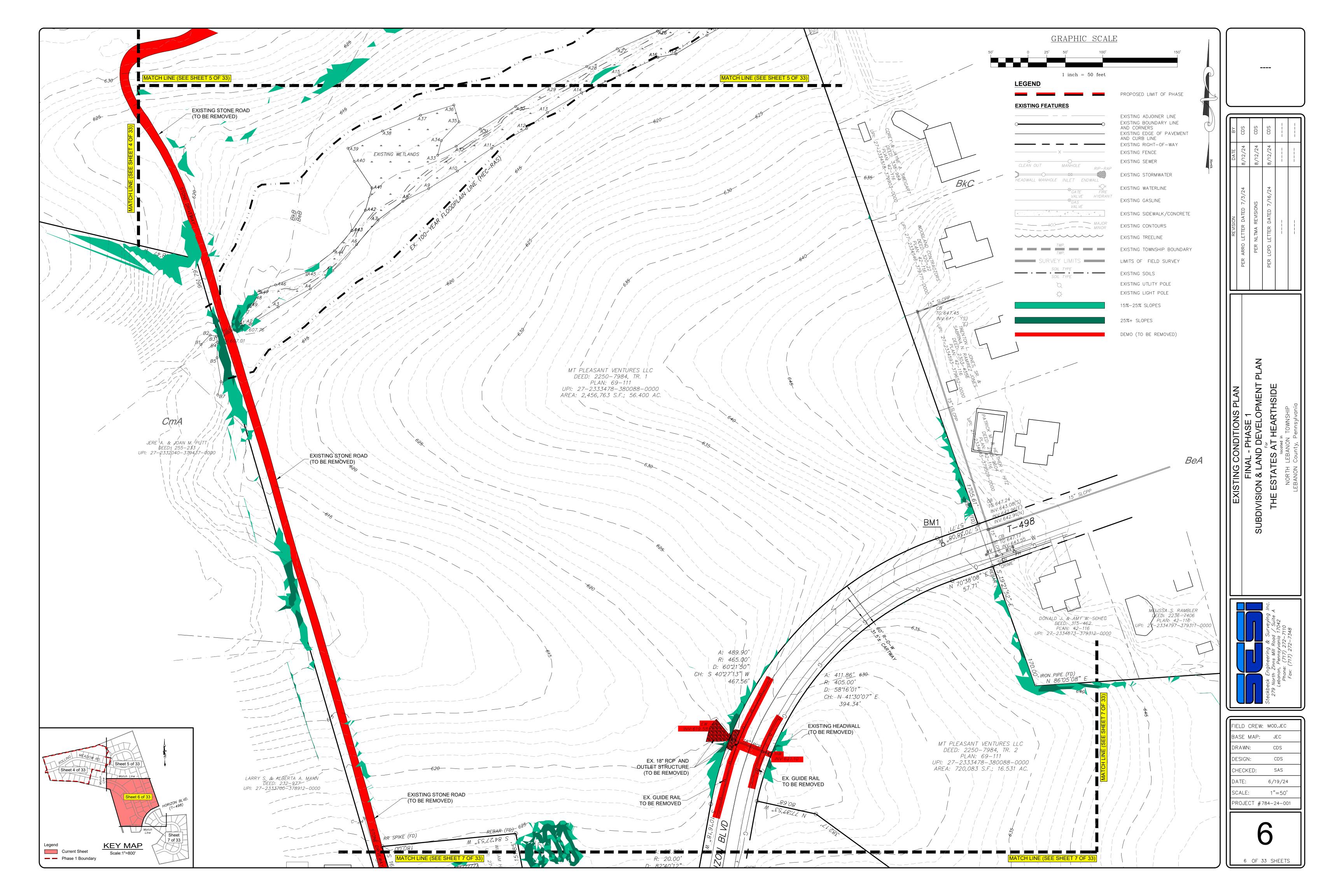
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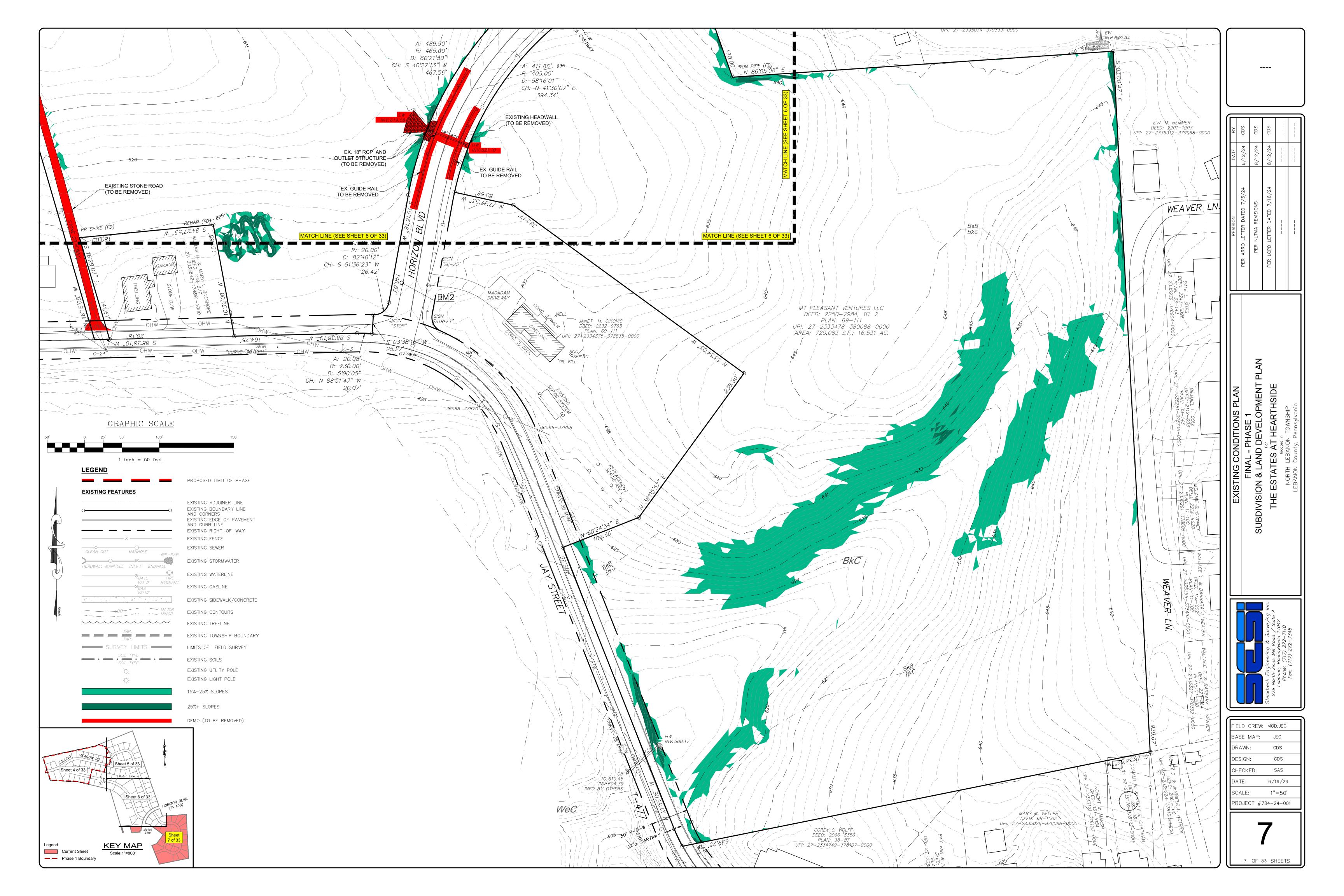
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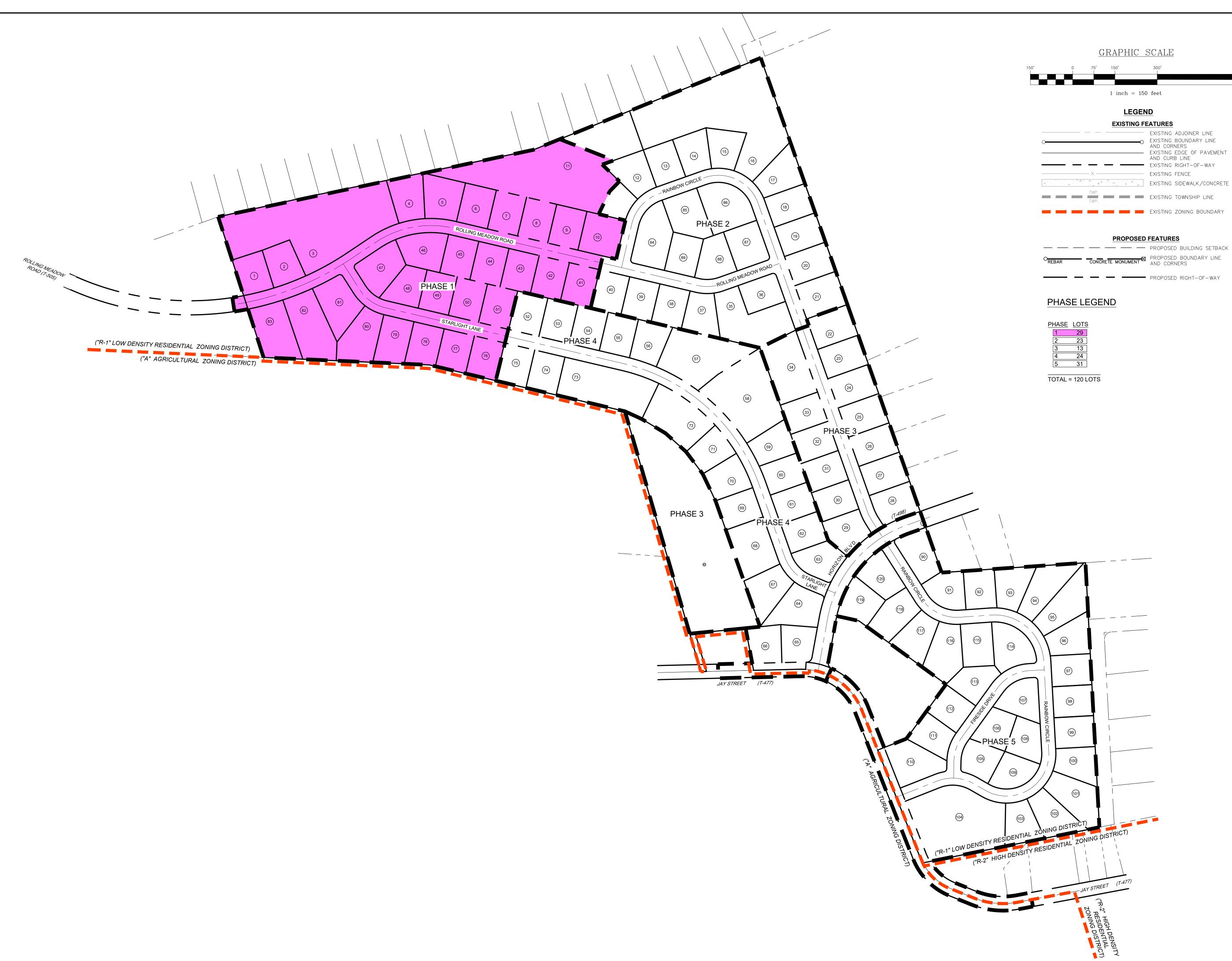
OVERALL EXISTING CONDITIONS PLAN     Revision       Per arron     Revision       FINAL - PHASE 1     Per arron Letter DateD 7/3/24       FINAL - PHASE 1     Per arron Letter DateD 7/3/24       SUBDIVISION & LAND DEVELOPMENT PLAN     Per NLTMA REVISIONS       For     THE ESTATES AT HEARTHSIDE       Income dia la NORTH LEBANON TOWNSHIP     Per LCPD LETTER DATED 7/16/24       Income dia la NORTH LEBANON County, Pennsyvania						
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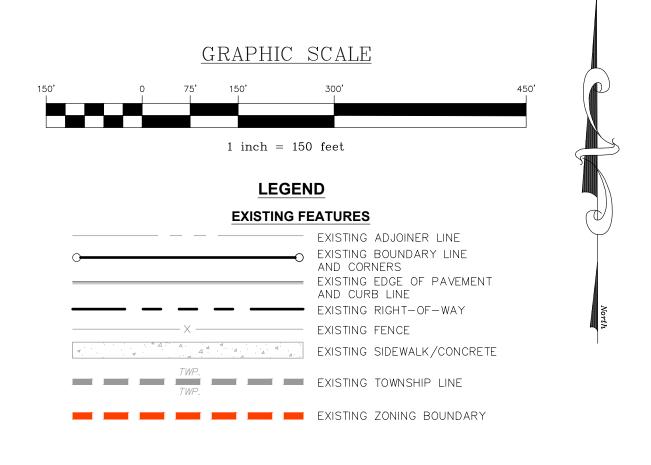












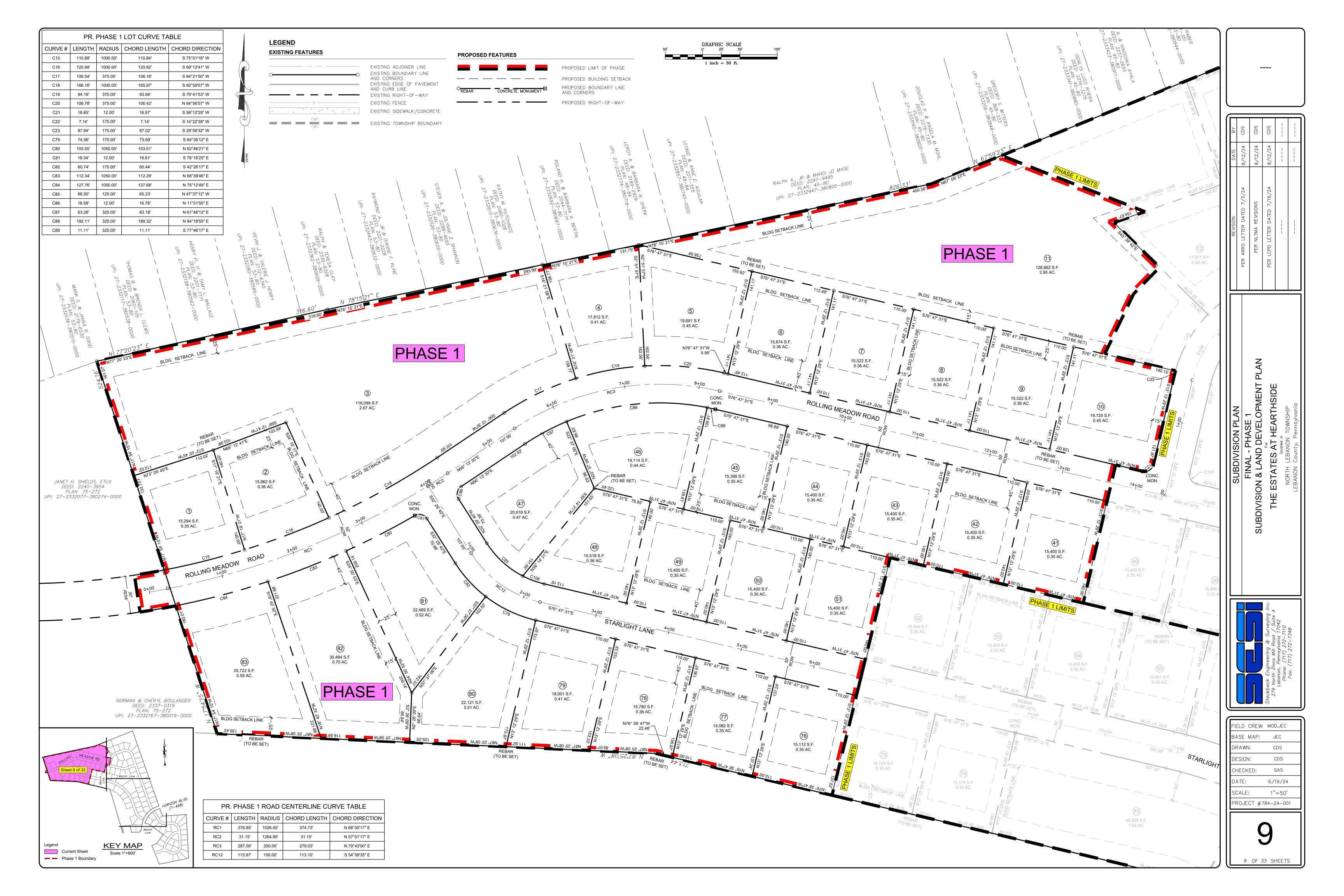
#### PROPOSED FEATURES

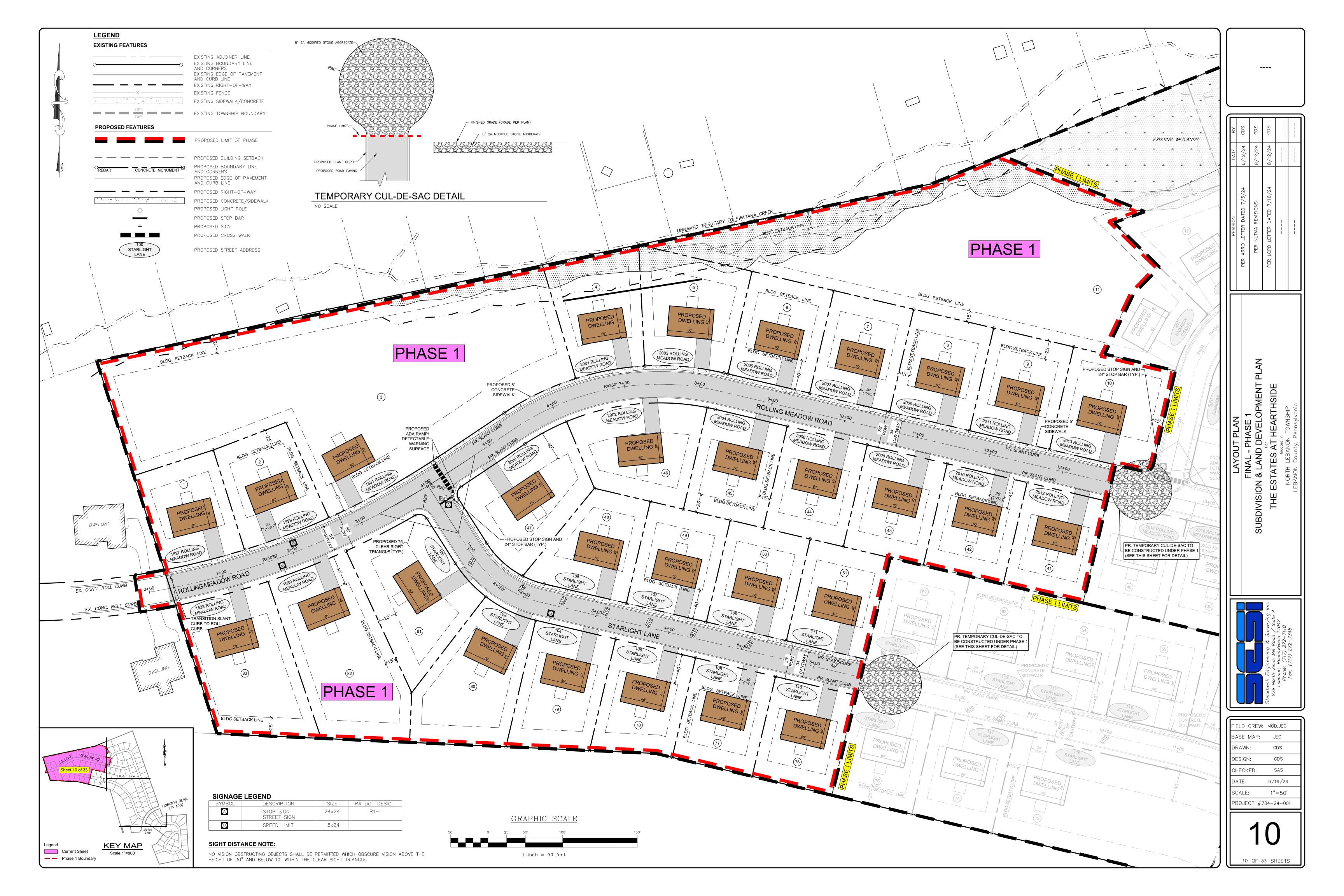
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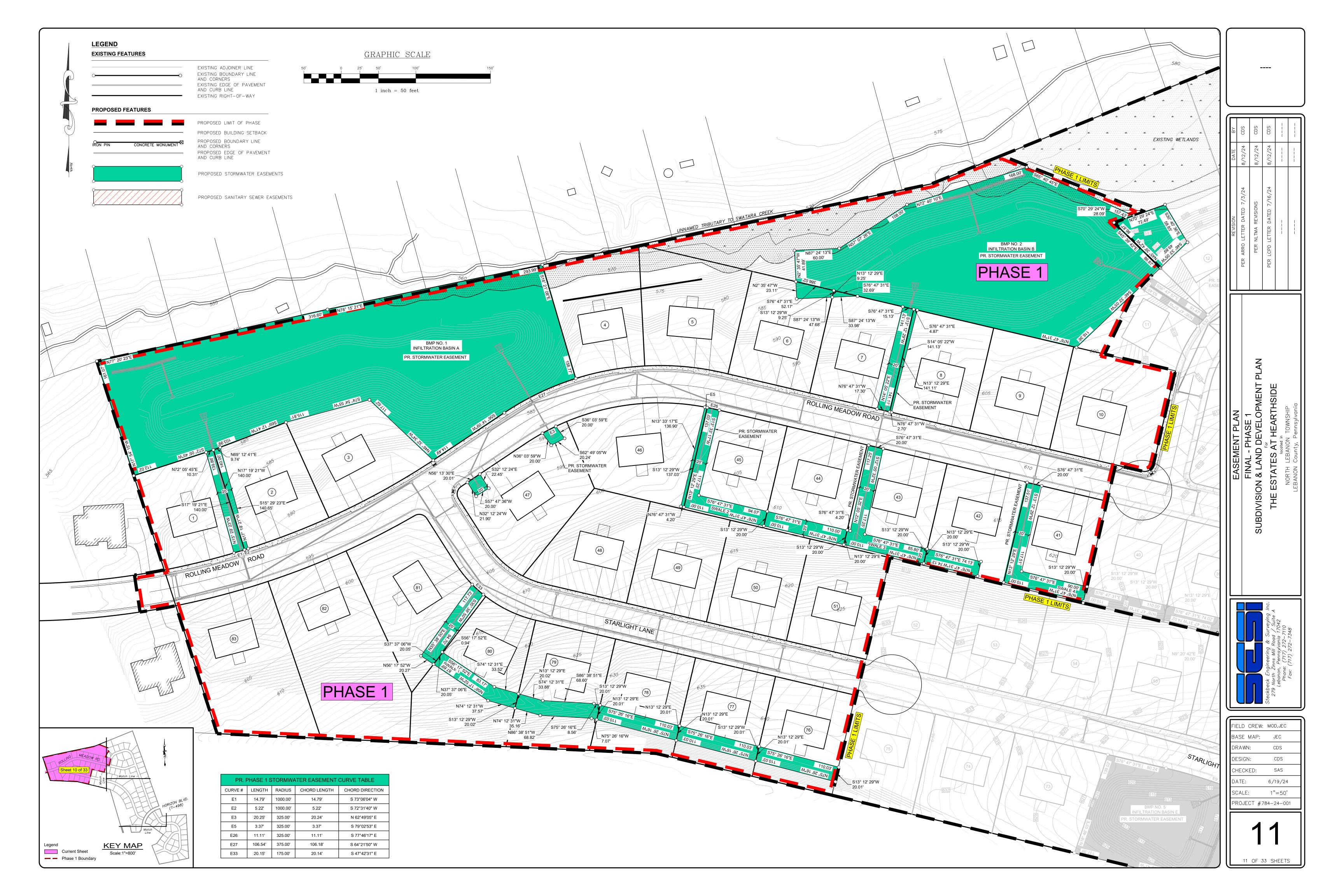
# NUMENT PROPOSED BOUNDARY LINE

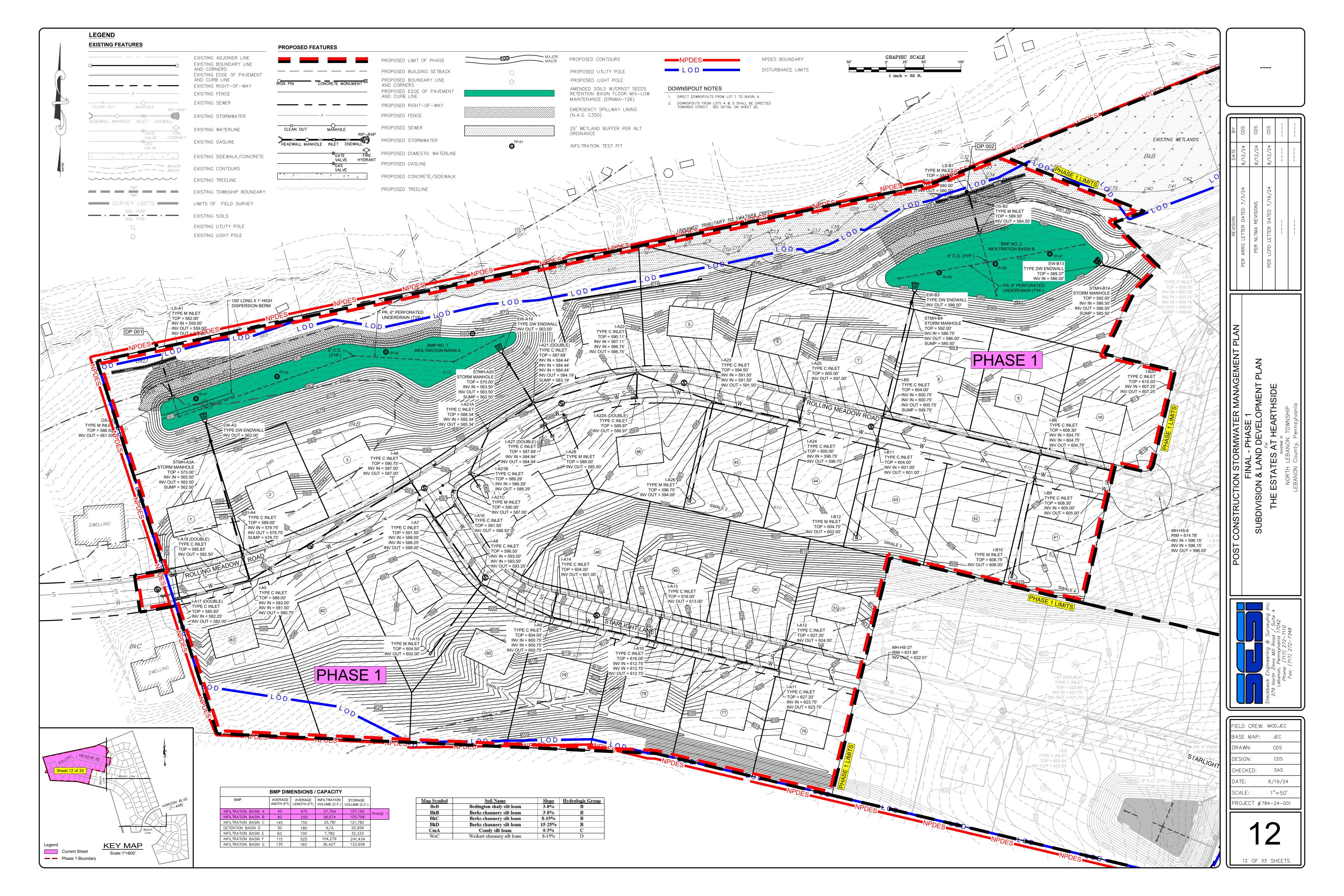


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DATE BY	8/12/24 CDS	8/12/24 CDS	8/12/24 CDS		
REVISION	PER ARRO LETTER DATED 7/3/24	PER NLTMA REVISIONS	PER LCPD LETTER DATED 7/16/24		
			THE ESTATES AT HEARTHSIDE	Increted in NORTH LERANONISHID	LEBANON County, Pennsylvania
			Steckbeck Engineering & Surveying Inc. 279 North Zinns Mill Rood / Suite A	Lebanon, Pennsylvania 17042 Phone: (717) 272–7110	Fax: (717) 272–7348
DF DE CH D/	ASE M RAWN ESIGN HECKI ATE: CALE:	: : ED:	0 ( ( 6/- 1"	D, JEC EC CDS CDS SAS 19/24 =150 24-00	)'
	8	OF 3	<b>3</b> 3 SF	HEETS	6









THIS NARRATIVE IS INTENDED TO ACCOMPANY THE POST CONSTRUCTION STORMWATER MANAGEMENT PLAN FOR THE PROPOSED PRELIMINARY LAND DEVELOPMENT PLAN FOR THE MT. PLEASANT VENTURES SUBDIVISION, LOCATED ON BOTH SIDES OF HORIZON BOULEVARD BETWEEN JAY STREET AND COLONIAL DRIVE IN NORTH LEBANON TOWNSHIP, LEBANON COUNTY. THIS NARRATIVE SHALL BE CONSIDERED A PART OF THE POST CONSTRUCTION STORMWATER MANAGEMENT PLAN. PROJECT DETAILS

THE TOTAL TRACT OF THE TWO PROPERTIES IN QUESTION IS APPROXIMATELY 72.93 ACRES. THE TOTAL SITE AND EARTH DISTURBANCE AS PART OF THIS PROJECT IS APPROXIMATELY 67.58 ACRES. THE CURRENT SITE CONSISTS OF OPEN AGRICULTURAL FIELDS AND ONE EXISTING BARN. BASED ON GOOGLE EARTH HISTORICAL IMAGERY, THE SITE HAS BEEN AGRICULTURAL SINCE THE EARLY 1990'S. BASED ON PENN PILOT HISTORICAL IMAGERY, THE SITE HAS BEEN AGRICULTURAL IN USE SINCE THE 1950'S. THE SITE IS SPLIT BY HORIZON BOULEVARD. THE NORTHERN PORTION OF THE SITE IS BORDERED TO THE EAST BY RESIDENTIAL HOMES AND THE EBENEZER ELEMENTARY SCHOOL, TO THE SOUTH BY HORIZON BOULEVARD, BY AGRICULTURAL AND RESIDENTIAL PROPERTY, AND TO THE NORTH BY RESIDENTIAL PROPERTIES. THE SOUTHERN PORTION OF THE SITE IS BORDERED IE EAST AND SOUTH BY RESIDENTIAL PROPERTIES, TO THE WEST BY JAY STREET, AND TO THE NORTH BY HORIZON BOULEVARD. PROPOSED IMPROVEMENTS INCLUDE THE CONSTRUCTION OF 120 SINGLE-FAMILY HOMES WITH DRIVEWAYS, STREETS, CONNECTION TO PUBLIC SEWER AND WATER, AND ASSOCIATED STORMWATER MANAGEMENT FACILITIES. THE ANTICIPATED SITE DISTURBANCE SHALL INCLUDE GRADING AS WELL AS ADDITIONAL IMPERVIOUS AREA WHICH WILL BE TREATED ON-SITE BY STORMWATER MANAGEMENT BMPS. SIX (6) ABOVE GROUND INFILTRATION BASINS, AND ONE (1) DETENTION BASIN ARE PROPOSED TO MANAGE THE SITE RUNOFF. STORMWATER RUNOFF FROM THE SITE WILL REACH TWO DIFFERENT UNT'S TO SWATARA CREEK AND AN EXISTING QUARRY POND WHICH IS CLOSEST TO THE BRANDYWINE CREEK. THE UNT'S TO SWATARA CREEK ARE DESIGNATED AS WARM WATER FISHES (WWF) AND ARE IMPAIRED ACCORDING TO CATEGORY 4C OF THE PA INTEGRATED WATER QUALITY MONITORING AND ASSESSMENT REPORT FOR AQUATIC LIFE: AGRICULTURE - FLOW REGIME MODIFICATION. THE UNT'S TO SWATARA CREEK ARE ALSO IMPAIRED ACCORDING TO CATEGORY 5 OF THE PA INTEGRATED WATER QUALITY MONITORING AND ASSESSMENT REPORT FOR AQUATIC LIFE: AGRICULTURE -SILTATION. THE BRANDYWINE CREEK IS DESIGNATED AS TROUT STOCKED FISHES (TSF) AND ARE IMPAIRED ACCORDING TO CATEGORY 4C OF THE PA INTEGRATED WATER QUALITY MONITORING AND ASSESSMENT REPORT FOR AQUATIC LIFE: URBAN RUNOFF/STORM SEWERS - FLOW REGIME MODIFICATION. THE BRANDYWINE CREEK IS ALSO IMPAIRED ACCORDING TO CATEGORY 5 OF THE PA INTEGRATED WATER QUALITY MONITORING AND ASSESSMENT REPORT FOR RECREATIONAL: SOURCE UNKNOWN - PATHOGENS.

CALCULATIONS POST CONSTRUCTION STORMWATER MANAGEMENT FACILITIES WERE DESIGNED IN ACCORDANCE WITH THE STANDARDS ESTABLISHED IN THE PENNSYLVANIA STORMWATER MANAGEMENT BMP MANUAL (PA DEP BUREAU OF WATERSHED MANAGEMENT, DECEMBER 2006), PA CODE CHAPTER 102, AND THE NORTH LEBANON TOWNSHIP STORMWATER MANAGEMENT ORDINANCE (ORDINANCE NO. 6-2022).

A STORMWATER MANAGEMENT CONTROL SYSTEM IS PROPOSED TO MINIMIZE THE ADDITIONAL RUNOFF VOLUME GENERATED BY THE PROPOSED IMPROVEMENTS AND TO CONTROL THE FLOW TO A RATE LESSER THAN OR EQUAL TO THE PRE-DEVELOPMENT RUNOFF, FOLLOWING THE REQUIREMENTS OF THE PA CODE CHAPTER 102.8 AND THE NORTH LEBANON TOWNSHIP STORMWATER MANAGEMENT ORDINANCE. IN ORDER TO PROVIDE WATER LITY, VOLUME CONTROL, AND RATE CONTROL, THE SITE WILL BE SERVED BY ONE (1) DETENTION BASIN, AND SIX (6) INFILTRATION BASINS. THE STRUCTURAL BMPS ARE DESIGNED TO MANAGE THE DISCHARGE RATE TO A RATE EQUAL OR LOWER THAN THE PRE-DEVELOPMENT RATE AND TO INFILTRATE THE 2-YR 24-HOUR VOLUME INCREASE. THE CURVE NUMBERS ARE TAKEN FROM THE NORTH LEBANON TOWNSHIP SWM ORDINANCE. OWNERSHIP, OPERATIONS AND MAINTENANCE SUPPORTING CALCULATIONS CAN BE SEEN IN THE DEP PCSM SPREADSHEETS.

PER THE NORTH LEBANON TOWNSHIP STORMWATER MANAGEMENT ORDINANCE, THE SITE IS LOCATED WITHIN THE LEBANON COUNTY RESIDUAL -STORMWATER MANAGEMENT DISTRICT AND AS SUCH, POST-DEVELOPMENT DISCHARGE FLOW RATES MUST MEET THE FOLLOWING CRITERIA.

Pre - Developed	Post Developed
2 - year	< or = to 1-yr Pre
5 - year	< or = to 2-yr Pre
10 - year	< or = to 5-yr Pre
25 - year	< or = to 25-yr Pre
100 - year	< or = to 100-yr Pre

THE SCS METHOD WAS USED TO DETERMINE PEAK FLOW RATES FOR BOTH PRE- AND POST-DEVELOPED CONDITIONS. THE RESULTING POST DEVELOPMENT RUNOFF FLOW RATES HAVE BEEN REDUCED TO REQUIRED PRE-DEVELOPMENT RELEASE RATES AS SHOWN IN THE TABLE ABOVE. THE STORMWATER FACILITIES WILL SATISFY THE APPLICABLE STORMWATER MANAGEMENT RATE REQUIREMENTS, WHICH CAN BE SEEN IN THE FLOW SUMMARY TABLE. HYDROCAD V10.0 SOFTWARE WAS USED TO PERFORM ALL BASIN ROUTING CALCULATIONS

THIS PCSM PLAN IS DESIGNED TO MINIMIZE ANY INCREASE IN STORMWATER RUNOFF VOLUME AND PREVENT AN INCREASE IN THE RATE OF STORMWATER RUNOFF. IN ORDER TO ANALYZE THE EFFECTIVENESS OF THE PROPOSED STORMWATER MANAGEMENT PLAN THE DRAINAGE PATTERN IS ANALYZED AS SIX (6) POINTS OF INTEREST

DISCHARGE POINTS 001-003 (DP 001-003) ARE LOCATED ADJACENT TO THE NORTHERN PROPERTY LINE AND WILL DISCHARGE TO THE UNT TO SWATARA CREEK LOCATED LESS THAN 100' TO THE NORTH. PRE-DEVELOPMENT RUNOFF SHEET FLOWS ALONG THE ENTIRE PROPERTY LINE DOWN TO THE UNT TO SWATARA CREEK. DPS 001-003 HAVE BEEN ESTABLISHED AT THE LOCATION OF THE PROPOSED BASIN OUTLET LEVEL SPREADERS IN ORDER TO PROVIDE AN ACCURATE PRE- TO POST-DEVELOPMENT ANALYSIS.

DISCHARGE POINT 004 (DP 004) IS LOCATED ALONG THE WESTERN PROPERTY LINE WHERE WATERCOURSE 2 LEAVES THE SITE AT THE BOTTOM OF WETLAND 2. RUNOFF WILL DISCHARGE OVERLAND FOR APPROXIMATELY 1,750 FEET PRIOR TO REACHING AN UNT TO SWATARA CREEK. DISCHARGE POINT 005 (DP 005) IS LOCATED ALONG THE WESTERN PROPERTY LINE WHERE AN EXISTING BROAD DRAINAGE WAY LEAVES THE SITE.

RUNOFF WILL DISCHARGE OVERLAND FOR APPROXIMATELY 1,750 FEET PRIOR TO REACHING AN UNT TO SWATARA CREEK. DISCHARGE POINT 006 (DP 006) IS LOCATED AT AN EXISTING 30" STORM PIPE CROSSING JAY STREET AT THE SOUTHWESTERN CORNER OF THE PROPERTY. RUNOFF REACHING THIS PIPE WILL DISCHARGE ACROSS THE STARLIGHT LANEND FLOW DOWN INTO THE EXISTING QUARRY POND.

THERMAL IMPACTS ANALYSIS

ALL EXISTING SITE RUNOFF CURRENTLY LEAVES THE SITE UN-DETAINED WITH NO TREATMENT OF THIS RUNOFF IN ANY WAY. STRUCTURAL BMPS ARE PROPOSED TO TREAT THE MAJORITY OF THE DISTURBED SITE AND PROPOSED IMPERVIOUS AREAS. RUNOFF REACHING THE SIX (6) INFILTRATION BASINS WILL BE COOLED BY THE NATIVE VEGETATION IN THE BASIN BOTTOMS BEFORE BEING INFILTRATED THROUGH THE ENGINEERED SOIL MIX AND INTO THE GROUND. RUNOFF REACHING THE DETENTION BASIN WILL BE COOLED BY THE NATIVE VEGETATION IN THE BASIN BOTTOM BEFORE BEING SLOWLY RELEASED TO THE GROUND SURFACE. TREES ARE ALSO PROPOSED IN AND AROUND THE STREETS TO SHADE A PORTION OF THESE AREAS WHICH WILL PROVIDE TEMPERATURE RELIEF FOR RUNOFF THAT FLOWS OVER THE IMPERVIOUS SURFACES. WATER QUALITY AND NON-DISCHARGE ANALYSIS

THE SITE HAS BEEN DESIGNED TO MEET THE NPDES REQUIREMENTS AS CALCULATED IN THE DEP PCSM SPREADSHEET - QUALITY. THROUGH THE IMPLEMENTATION OF THE STRUCTURAL BMPS THE WATER QUALITY REQUIREMENTS HAVE BEEN MET FOR THIS SITE. PLEASE SEE THE STANDARD DEP PCSM SPREADSHEETS FOR A MORE IN-DEPTH DESCRIPTION OF HOW THE REQUIREMENTS ARE MET FOR THIS SITE.

PROPOSED BEST MANAGEMENT PRACTICES - INFILTRATION BASIN - SIX (6) INFILTRATION BASINS WILL BE UTILIZED TO PROMOTE INFILTRATION, EVAPORATION, AND EVAPOTRANSPIRATION AND CONTROL FLOW AND VOLUME LEAVING THE SITE. - DETENTION BASIN - ONE (1) DETENTION BASIN WILL BE UTILIZED TO PROMOTE EVAPORATION, AND EVAPOTRANSPIRATION AND CONTROL FLOW AND MOWERS.

### VOLUME LEAVING THE SITE.

OFFSITE DISCHARGE ANALYSIS

HYDROLOGY

THE FOLLOWING IS AN EXCERPT FROM THE PA DEP FAQ SHEET LABELED CHAPTER 102 OFF-SITE DISCHARGES OF STORMWATER TO NON-SURFACE WATERS (JANUARY 2, 2019). FAQ #2 STATES, "PERSONS PROPOSING TO DISCHARGE MUST HAVE THE LEGAL AUTHORITY TO DISCHARGE THEIR STORMWATER EITHER THROUGH EITHER A COMMON LAW EASEMENT OR AN EXPRESS EASEMENT. FOR SITES THAT DISCHARGE TO EXISTING SWALES, ITCHES, STORM SEWERS OR SIMILAR STRUCTURES WHERE THE NEW ACTIVITIES WILL NOT RESULT IN A CHANGE IN VOLUME OR RATE OF STORMWATER RUNOFF (FOR ALL STORM EVENTS), THE EXISTING COMMON LAW EASEMENT COULD BE RELIED UPON."

THE SITE DISCHARGES IN A SIMILAR MANNER TO ALL DISCHARGE POINTS AT A RATE THAT IS LESS THAN PRE-DEVELOPMENT.

#### CHAPTER 102.8 (B) ANALYSIS

THE STREAM CHANNEL IS PROTECTED BY THE FLOW REDUCTION PROVIDED FROM THE PROPOSED STORMWATER MANAGEMENT FACILITIES. THE STRUCTURAL BMPS ALLOWS FOR REDUCED FLOW TO ALL DISCHARGE POINTS, AND THEREFORE THE DOWNSTREAM CHANNEL WILL NOT THE SAME FLOW REDUCTION AND WATER QUALITY BENEFITS PROVIDED BY THE STRUCTURAL AND NON-STRUCTURAL BMPS WILL ALSO SERVE TO 12. SHOULD ANY INFILTRATION BASIN FAIL TO DEWATER WITHIN A 72-HOUR TIME PERIOD THE OWNER SHALL INVESTIGATE ALTERNATIVE SOLUTIONS. PROTECT THE EXISTING DRAINAGE FEATURES AND DOWNSTREAM VEGETATION.

### SOIL INFORMATION AND GEOLOGY

THE FOLLOWING SOILS ARE FOUND WITHIN OR ADJACENT TO THE AREA TO BE DISTURBED BY EARTH MOVING ACTIVITIES. THESE SOILS CAN ERODE WHEN DISTURBED. EROSION WILL BE CONTROLLED WITH STANDARD EROSION CONTROLS SUCH AS FILTER SOCK, SLOPE AND SWALE MATTING, RIPRAP OUTLET PROTECTION, INLET PROTECTION, ROCK CONSTRUCTION ENTRANCES, AND SEDIMENT BASINS.

<u>Map Symbol</u>	<u>Soil Name</u>	Slope	<u>Hydrologic Group</u>
BeB	Bedington shaly silt loam	3-8%	В
BkB	Berks channery silt loam	3-8%	В
BkC	Berks channery silt loam	8-15%	В
BkD	Berks channery silt loam	15-25%	В
CmA	Comly silt loam	0-3%	С
WeC	Weikert channery silt loam	8-15%	D

\*IF SOILS ARE BOLD THEY ARE DISTURBED DURING CONSTRUCTION ON THIS PROJECT.

THE PA DEP'S EMAPPA DOES NOT IDENTIFY ANY KNOWN KARST FEATURES ON SITE OR IN THE IMMEDIATE VICINITY OF THE PROJECT. THE ENTIRE SITE IS UNDERLAIN BY THE HAMBURG SEQUENCE ROCKS AND THE GRAYWACKE OF HAMBURG SEQUENCE ROCKS WHICH ARE COMPRISED OF SHALE, SILTSTONE, AND GRAYWACKE. AS SUCH, THE POTENTIAL FOR KARST ACTIVITY IS MINIMAL. SHOULD A GEOTECHNICAL HAZARD BE ENCOUNTERED, THE COUNTY CONSERVATION DISTRICT WILL BE IMMEDIATELY CONTACTED, AND A CERTIFIED GEOTECHNICAL ADVISOR WILL BE REQUIRED TO OVERSEE MITIGATION OF THE HAZARDS.

BEDINGTON SOILS - THE BEDINGTON SERIES CONSISTS OF VERY DEEP, WELL DRAINED SOILS. BEDINGTON SOILS FORMED IN RESIDUUM FROM DARK BROWN, GRAY AND OLIVE ACID, SEDIMENTARY, SILTSTONE AND SHALE, WITH SOME SANDSTONE INTERBEDS. THEY ARE ON NEARLY LEVEL TO STEEF CONVEX UPLANDS AND ON THE SIDESLOPES OF HILLS AND RIDGES. PERMEABILITY IS MODERATE. MEAN ANNUAL PRECIPITATION IS 42 INCHES. MEAN ANNUAL TEMPERATURE IS 52 DEGREES F. BEDINGTON SOILS MAY BE SUSCEPTIBLE TO CUT BANKS AND CAVE INS AND CORROSIVE TO CONCRETE. THIS SOIL MAY ALSO BE SUBJECT TO DROUGHT AND MAY BE EASILY ERODIBLE. BEDINGTON SOILS MAY ALSO BE SUSCEPTIBLE TO HYDRIC INCLUSIONS, SLOW PERCOLATION, FROST ACTION, AND A POOR SOURCE OF TOPSOIL. BERKS SOILS - THE BERKS SERIES CONSISTS OF MODERATELY DEEP, WELL DRAINED SOILS FORMED IN RESIDUUM WEATHERED FROM SHALE, SILTSTONE

AND FINE-GRAINED SANDSTONE ON ROUNDED AND DISSECTED UPLANDS. SLOPE RANGES FROM 0 TO 80 PERCENT. PERMEABILITY IS MODERATE OR MODERATELY RAPID. MEAN ANNUAL PRECIPITATION IS 42 INCHES. MEAN ANNUAL TEMPERATURE IS 52 DEGREES F. BERKS SOILS MAY BE SUSCEPTIBLE CUT BANKS AND CAVE INS, CORROSIVE TO CONCRETE, DROUGHTY, AND EASILY ERODIBLE. THIS SOIL MAY ALSO BE SUBJECT TO HYDR INCLUSIONS, SLOW PERCOLATION, PIPING, AND A POOR SOURCE OF TOPSOIL COMLY SOILS - THE COMLY SERIES CONSISTS OF VERY DEEP, MODERATELY WELL DRAINED. THESE SOILS FORMED COLLUVIUM WEATHERED FROM ACID BROWN AND GRAY SHALE, SANDSTONE, AND SILTSTONE. THEY ARE ON CONCAVE UPLAND SLOPES OF 0 TO 25 PERCENT. PERMEABILITY IS MODERATE ABOVE THE FRAGIPAN AND MODERATELY SLOW IN THE FRAGIPAN. MEAN ANNUAL PRECIPITATION IS 44 INCHES, MEAN ANNUAL TEMPERATURE IS 51

DEGREES F. COMLY SOILS MAY BE SUSCEPTIBLE TO CUT BANKS AND CAVE INS, CORROSIVE TO STEEL AND CONCRETE, DROUGH ERODIBLE. THESE SOILS MAY ALSO BE SUSCEPTIBLE TO A SEASONALLY HIGH WATER TABLE, HYDRIC INCLUSIONS, PIPING, FROST ACTION, AND A POOR SOURCE OF TOPSOIL WEIKERT SOILS - THE WEIKERT SERIES CONSIST OF SHALLOW. WELL DRAINED SOILS FORMED IN MATERIAL THAT WEATHERED FROM INTERBEDDED GRAY AND BROWN ACID SHALE, SILTSTONE, AND FINE-GRAINED SANDSTONE ON GENTLY SLOPING TO VERY STEEP AREAS ON UPLANDS. SLOPE RANGES FROM O TO 100 PERCENT. PERMEABILITY IS MODERATELY RAPID. MEAN ANNUAL PRECIPITATION IS ABOUT 42 INCHES, AND THE MEAN ANNUAL AIR

TEMPERATURE IS ABOUT 52 DEGREES F. WEIKERT SOILS MAY BE SUSCEPTIBLE TO CUT BANKS AND CAVE INS, CORROSIVE TO CONCRETE AND AND DROUGHTY. THIS SOIL MAY ALSO BE SUSCEPTIBLE TO HYDRIC INCLUSIONS, LOW STRENGTH, SLOW PERCOLATION, PIPING, FROST ACTION, AND A 9.INSTALL ANY ANTI-GRAZING MEASURES, IF NECESSARY. POOR SOURCE OF TOPSOIL.

- SOIL USE LIMITATIONS AND RESOLUTIONS • CUT-BANK CAVING: ALL APPLICABLE OSHA STANDARDS AND REGULATIONS SHALL BE IMPLEMENTED AT ALL TIMES DURING TRENCHING AND EXCAVATION OPERATIONS.
- CORROSION OF STEEL AND CONCRETE: ALL UNDERGROUND FOUNDATIONS AND STRUCTURES SHALL BE PROPERLY PROTECTED AGAINST CORROSION, WHICH MAY INCLUDE COATING THESE STRUCTURES WITH CORROSION-RESISTANT MATERIAL
- EASILY ERODIBLE: EROSION AND SEDIMENT POLLUTION CONTROLS WILL BE IMPLEMENTED TO AVOID THE TRANSPORTATION OF SEDIMENT-LADEN WATER OFF-SITE.
- DEPTH TO SATURATED ZONE/SEASONAL HIGH WATER TABLE: THE SITE MAY REQUIRE DEWATERING OF PITS DURING CONSTRUCTION, I.E. WHEN POURING FOOTERS, EXCAVATING TRENCHES, DEWATERING BASINS, ETC. THE GEOTECHNICAL REPORT DID NOT IDENTIFY ANY AREAS OF HIGH GROUNDWATER. IF DEWATERING IS REQUIRED, A SUMP PIT AND FILTER BAG SHALL BE UTILIZED, AND WATER SHALL BE PUMPED TO AN UNDISTURBED AREA UPSTREAM OF A PERIMETER CONTROL BMP SUCH AS A FILTER SOCK. • HYDRIC SOILS/HYDRIC INCLUSIONS: A WETLAND FIELD SURVEY WAS CONDUCTED AND VARIOUS WETLANDS ARE LOCATED ON SITE. MINIMAL
- DISTURBANCE WILL TAKE PLACE IN WETLANDS A FOR THE CONSTRUCTION OF STREETS WITH ASSOCIATED CULVERTS TO MAINTAIN HYDRAULIC CONVEYANCE. • LOW STRENGTH/LANDSLIDE PRONE: THE MAXIMUM PROPOSED SLOPE ON THE SITE IS 3:1. THIS WILL REDUCE THE POTENTIAL FOR EROSION AND
- LAND SLIDE ACTION. ALL PROPOSED BERMS SHALL BE COMPACTED FULLY IN ORDER TO PROTECT AGAINST LANDSLIDES, AND SHALL BE STABILIZED IMMEDIATELY
- SLOW PERCOLATION: ADEQUATE PRECAUTIONS WILL BE TAKEN TO ENSURE THAT THE PCSM BMPS INFILTRATE WITHIN THE REQUIRED TIME PERIOD. INCLUDING INFILTRATION TESTING AND SOIL MODIFICATION/UNDERDRAIN INSTALLATION, IF NECESSARY. INFILTRATION TESTS PREVIOUSLY PERFORMED INDICATED THAT THE INFILTRATION RATE AT THE SITE IS ADEQUATE IN THE PROPOSED INFILTRATION FACILITIES. A DETENTION BASIN IS PROPOSED IN THE AREA WHERE INFILTRATION TESTING YIELDED NEGLIGIBLE RESULTS • PIPING: ANTI-SEEP COLLARS WILL BE PROVIDED AS PART OF THE PCSM AND PIPELINE DESIGNS.
- POOR SOURCE OF TOPSOIL: THE ADEQUACY OF THE TOPSOIL WILL BE EVALUATED UPON THE COMMENCEMENT OF EXCAVATION. AS THE ENTIRE SITE IS AN AGRICULTURAL FIELD. THE TOPSOIL IS EXPECTED TO BE SUFFICIENT. • FROST ACTION: ALL IMPERVIOUS SURFACES SHALL BE GRADED AT A MINIMUM OF 1% IN ONE DIRECTION, SO THAT WATER WILL NOT COLLECT ON

WILL BE REQUIRED TO OVERSEE MITIGATION OF THE HAZARDS.

UPSTREAM OF A PERIMETER CONTROL (FILTER SOCK).

GENERAL SOIL NOTES

APPROVED METHOD.

MT. PLEASANT VENTURES, LLC.

INFILTRATION BASIN

GENERAL OVERALL BMP DESCRIPTION

INFILTRATION TESTING REQUIREMENTS

- SEEDED AND STABILIZED. 2. STRUCTURES INCLUDE BASIN BOTTOMS, TRASH RACKS, OUTLETS STRUCTURES, RIPRAP OR GABION STRUCTURES, AND INLETS.
- REMOVED FROM THE BASIN. 5. VEGETATED AREAS SHOULD BE INSPECTED ANNUALLY FOR EROSION.
- 6. VEGETATED AREAS SHOULD BE INSPECTED ANNUALLY FOR UNWANTED GROWTH OF EXOTIC/INVASIVE SPECIES. 7. VEGETATIVE COVER SHOULD BE MAINTAINED AT A MINIMUM OF 95 PERCENT. IF VEGETATIVE COVER HAS BEEN REDUCED BY 10%, VEGETATION SHOULD BE REESTABLISHED.

UNDISTURBED AREA) WITH RELATIVELY PERMEABLE SOILS.

INDIVIDUAL BMP DESCRIPTION, CONSTRUCTION SEQUENCE, AND MAINTENANCE

### CONSTRUCTION SEQUENCE

- 1. PROTECT INFILTRATION BASIN AREA FROM COMPACTION PRIOR TO INSTALLATION.
- 3.INSTALL AND MAINTAIN PROPER EROSION AND SEDIMENT CONTROL MEASURES DURING CONSTRUCTION. SUBGRADE
- 5. INSTALL OUTLET CONTROL STRUCTURES.

FOR DETAILS, SPECIFICATIONS AND CALCULATIONS.

6. SEED AND STABILIZE TOPSOIL. (VEGETATE IF APPROPRIATE WITH NATIVE PLANTINGS) 7.DO NOT REMOVE INLET PROTECTION OR OTHER EROSION AND SEDIMENT CONTROL MEASURES UNTIL SITE IS FULLY STABILIZED.

#### MAINTENANCE AND INSPECTION

- 1. WHILE VEGETATION IS BEING ESTABLISHED, PRUNING AND WEEDING MAY BE REQUIRED. 3. AREAS SHOULD BE INSPECTED AT LEAST TWO TIMES PER YEAR FOR SEDIMENT BUILDUP, EROSION VEGETATIVE CONDITIONS ETC.
- 4. DURING PERIODS OF EXTENDED DROUGHT, AREAS MAY REQUIRE WATERING
- AFTER MAJOR RUNOFF EVENTS (> 1-INCH RAINFALL DEPTH). 6. THE VEGETATION ALONG THE SURFACE OF THE INFILTRATION FACILITY SHALL BE MAINTAINED IN GOOD CONDITION, AND ANY BARE SPOTS SHAL BE RE-VEGETATED AS SOON AS POSSIBLE.
- LEVELS
- 9. ALSO INSPECT FOR ACCUMULATION OF SEDIMENT, DAMAGE TO OUTLET CONTROL STRUCTURES, EROSION CONTROL MEASURES, SIGNS OF WATEF CONTAMINATION/SPILLS, AND SLOPE STABILITY IN THE BERMS.
- COMPOSTED OR TAKEN TO AN APPROVED YARD WASTE RECYCLING FACILITY.
- 11. REMOVE ACCUMULATED SEDIMENT FROM BASIN AS REQUIRED. RESTORE ORIGINAL CROSS SECTION AND INFILTRATION RATE. ALTERNATIVES INCLUDE:
- SPECIFICATIONS

### DETENTION BASIN

8.PER NPDES REQUIREMENTS, "UPON THE INSTALLATION OR STABILIZATION OF ALL PERIMETER SEDIMENT CONTROL BMPS AND AT LEAST 3 DAYS A DETENTION BASIN IS AN EARTHEN STRUCTURE CONSTRUCTED FITHER BY IMPOUNDMENT OF A NATURAL DEPRESSION OR EXCAVATION OF EXISTIL PRIOR TO PROCEEDING WITH THE BULK EARTH DISTURBANCE ACTIVITIES, THE PERMITTEE OR CO-PERMITTEE SHALL PROVIDE NOTIFICATION TO THE SOIL, THAT PROVIDES TEMPORARY STORAGE OF RUNOFF AND FUNCTIONS HYDRAULICALLY TO ATTENUATE STORMWATER RUNOFF PEAKS. DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT." ONE (1) DETENTION BASIN IS PROPOSED ON SITE. THE PRIMARY FUNCTION OF THIS BMP IS TO MANAGE THE STORMWATER RUNOFF RATE AND VOLUM

PRIOR TO LEAVING THE SITE. PLEASE SEE THE PCSM PLAN AND REPORT FOR DETAILS, SPECIFICATIONS AND CALCULATIONS CONSTRUCTION SEQUENCE 1. INSTALL ALL TEMPORARY EROSION AND SEDIMENTATION CONTROLS.

- CONTROL PROGRAM MANUAL (2000 OR LATEST EDITION) PRIOR TO BASIN CONSTRUCTION.
- 2. PREPARE SITE FOR EXCAVATION AND/OR EMBANKMENT CONSTRUCTION. a. ALL EXISTING VEGETATION SHOULD REMAIN IF FEASIBLE AND SHOULD ONLY BE REMOVED IF NECESSARY FOR CONSTRUCTION. b. CARE SHOULD BE TAKEN TO PREVENT COMPACTION OF THE BASIN BOTTOM. ONLY IN THE EXCAVATION AREA.
- 3. EXCAVATE BOTTOM OF BASIN TO DESIRED ELEVATION (IF NECESSARY). 4. INSTALL SURROUNDING EMBANKMENTS AND INLET AND OUTLET CONTROL STRUCTURES.
- AND OUTLET STRUCTURES. 6. APPLY AND GRADE PLANTING SOIL.
- 7. APPLY GEO-TEXTILES AND OTHER EROSION-CONTROL MEASURES. 8. SEED, PLANT AND MULCH ACCORDING TO PLANTING PLAN.
- OPERATION AND MAINTENANCE

- BASIN MAINTENANCE SHALL INCLUDE THE FOLLOWING MEASURES:
- SEDIMENT IS REMOVED, DISTURBED AREAS NEED TO BE IMMEDIATELY STABILIZED AND REVEGETATED.

- OVERALL PCSM CONSTRUCTION SEQUENCE
- STAGING OF EARTHMOVING BELOW.

THE SURFACE AND CAUSE DAMAGE DURING FREEZ/THAW CYCLES. CRACKS WHICH DEVELOP IN THE IMPERVIOUS SURFACES SHALL BE PROMPTLY 1. AT LEAST 7 DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, INCLUDING CLEARING AND GRUBBING, THE OWNER AND/OR OPERATOR • SHRINK/SWELL: ALL SITE GRADING SHALL DIRECT WATER AWAY FROM BUILDINGS AND OTHER IMPERVIOUS SURFACES TO REDUCE THE LIKELIHOOD OF WATER INFILTRATING NEAR OR UNDER THESE STRUCTURES. • SINKHOLE FORMATION: THE PA DEP'S EMAPPA DOES NOT IDENTIFY ANY KNOWN KARST FEATURES ON SITE OR IN THE IMMEDIATE VICINITY OF T PROJECT. THE ENTIRE SITE IS UNDERLAIN BY THE HAMBURG SEQUENCE ROCKS AND THE GRAYWACKE OF HAMBURG SEQUENCE ROCKS WHICH ARE

COMPRISED OF SHALE, SILTSTONE, AND GRAYWACKE. AS SUCH, THE POTENTIAL FOR KARST ACTIVITY IS MINIMAL. SHOULD A GEOTECHNICAL HAZARD BE ENCOUNTERED, THE COUNTY CONSERVATION DISTRICT WILL BE IMMEDIATELY CONTACTED, AND A CERTIFIED GEOTECHNICAL ADVISOR • WETNESS: THE SITE MAY REQUIRE DEWATERING OF PITS DURING CONSTRUCTION, I.E. WHEN POURING FOOTERS, DEWATERING BASINS, ETC. SHOULD DEWATERING BE REQUIRED, A SUMP PIT AND FILTER BAG SHALL BE UTILIZED, AND WATER SHALL BE PUMPED TO AN UNDISTURBED AREA

1. AREAS TO BE FILLED ARE TO BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS, AND OTHER OBJECTIONABLE MATERIAL NEED TO HAVE APPROPRIATE E&S CONTROLS. 2. ALL FILLS SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS. FILL NPDES PERMIT NOTES INTENDED TO SUPPORT BUILDINGS, STRUCTURES, AND CONDUITS, ETC. SHALL BE COMPACTED IN ACCORDANCE WITH LOCAL REQUIREMENTS OR

3. ALL EARTHEN FILLS SHALL BE PLACED IN COMPACTED LAYERS NOT TO EXCEED 9 INCHES IN THICKNESS. 4. FILL MATERIALS SHALL BE FREE OF FROZEN PARTICLES, BRUSH, ROOTS, SOD, OR OTHER FOREIGN OR OBJECTIONABLE MATERIALS THAT WOULD

INTERFERE WITH OR PREVENT CONSTRUCTION OF SATISFACTORY FILLS. 5. FROZEN MATERIALS OR SOFT, MUCKY, OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED INTO FILLS.

6. FILL SHALL NOT BE PLACED ON SATURATED OR FROZEN SURFACES. 7. THE LOCAL CONSERVATION DISTRICT SHALL BE CONTACTED IF SEEPS OR SPRINGS ARE ENCOUNTERED AND THE DESIGNS ARE ALTERED DURING CONSTRUCTION AND THEY SHALL BE HANDLED IN ACCORDANCE WITH THE STANDARD AND SPECIFICATION FOR SUBSURFACE DRAIN OR OTHER

#### INFILTRATION TESTING HAS BEEN CONDUCTED AND HAS YIELDED FAVORABLE RESULTS IN THE PROPOSED INFILTRATION FACILITIES. INFILTRATION RATES WERE NEGLIGIBLE IN THE AREA OF DETENTION BASIN D. AS SUCH, THE BASIN IS NOT DESIGNED FOR INFILTRATION. PLEASE REFER TO THE GEOTECHNICAL ENGINEERING REPORT FOR STORMWATER MANAGEMENT FOUND LATER IN THIS REPORT FOR FURTHER DISCUSSION AND RESULTS.

SHORT-TERM OWNERSHIP, OPERATIONS AND MAINTENANCE OF THE PCSM BMPS IS THE RESPONSIBILITY OF THE CONTRACTOR (UNKNOWN AT THIS TIME), WHO SHALL BE LISTED AS THE CO-PERMITTEE ON THE NPDES PERMIT. LONG-TERM OWNERSHIP, OPERATIONS AND MAINTENANCE OF THE PCSM BMPS IS THE RESPONSIBILITY OF THE PROPERTY OWNER HEREIN IDENTIFIED AS

SIX (6) INFILTRATION BASINS WILL BE LOCATED ON SITE. THE BOTTOMS WILL BE CONSTRUCTED WITH AN ENGINEERED SOIL MIXTURE TO ASSIST IN THE WATER QUALITY BENEFITS OF FILTRATION AS WELL AS TO PROMOTE VEGETATION GROWTH AND INFILTRATION. FACILITIES WILL BE PLANTED WITH ERNST SEEDS RETENTION BASIN FLOOR MIX - LOW MAINTENANCE (ERNMX-126) WHICH WILL PROMOTE POLLUTANT REMOVAL. THE PRIMARY FUNCTION OF THE BMP IS TO MANAGE STORMWATER RUNOFF VOLUME AND CONTROL THE PEAK RATE LEAVING THE SITE. PLEASE SEE THE PCSM PLAN AND REPORT

2.IF POSSIBLE, INSTALL INFILTRATION BASIN DURING THE LATER PHASES OF SITE CONSTRUCTION TO PREVENT SEDIMENTATION AND/OR DAMAGE FROM CONSTRUCTION ACTIVITY. AFTER INSTALLATION, PREVENT SEDIMENT LADEN WATER FROM ENTERING INLETS AND PIPES.

4.IF NECESSARY, EXCAVATE INFILTRATION BASIN BOTTOM TO AN UNCOMPACTED SUBGRADE FREE FROM ROCKS AND DEBRIS. DO NOT COMPACT

2. DETRITUS MAY ALSO NEED TO BE REMOVED EVERY YEAR. PERENNIAL PLANTINGS MAY BE CUT DOWN AT THE END OF THE GROWING SEASON.

5. CATCH BASINS AND INLETS (UPGRADIENT OF INFILTRATION FACILITY) SHOULD BE INSPECTED AND CLEANED AT LEAST TWO TIMES PER YEAR A

7. VEHICLES SHOULD NOT BE PARKED OR DRIVEN OVER AN INFILTRATION AREA, AND CARE SHOULD BE TAKEN TO AVOID EXCESSIVE COMPACTION BY

SDECT THE EACULTY AFTER RUNCEE EVENTS AND MAKE SURE THAT RUNCEE DRAINS DOWN WITHIN 72 HOURS MOSCULTO'S SHOULD NOT RE PROBLEM IF THE WATER DRAINS IN 72 HOURS. MOSQUITOES REQUIRE A CONSIDERABLY LONG BREEDING PERIOD WITH RELATIVELY STATIC WATE

10. THE SEED MIXTURE PLANTED IN THE BOTTOM OF THE BASINS SHALL BE MOWED DOWN TO A HEIGHT OF 8-INCHES WHEN IT REACHES A HEIGH OF 24-INCHES DURING THE FIRST FULL GROWING SEASON ONLY. IN ALL SUBSEQUENT YEARS, ANY MATERIAL STILL STANDING FROM THE PREVIOUS GROWING SEASON SHALL BE MOWED IN EARLY SPRING TO A HEIGHT OF 2-INCHES PRIOR TO THE CURRENT YEAR'S GROWTH REACHING A HEIGHT OF 2-INCHES. THE SEED MIXTURE SHALL NOT BE MOWED AGAIN UNTIL THE FOLLOWING SPRING. IN ALL INSTANCES, CLIPPINGS SHALL BE

- REPLACE THE ENGINEERED SOIL LAYER AND / OR THE UNDERDRAIN SYSTEM. THE ENGINEERED SOIL LAYER SHOULD BE REMOVED. THE SOIL LAYER THE BOTTOM OF THE ENGINEERED SOIL SHALL BE SCARIFIED. THE ENGINEERED SOIL LAYER SHALL BE REPLACED PER THE PCSM PLAN CONDUCT AN INVESTIGATION BY A QUALIFIED INDIVIDUAL IN ORDER TO DETERMINE THE CAUSE OF FAILURE AND MAKE A DETERMINATION AS THE BEST COURSE OF ACTION AS TO RETURN THE SITE TO THE STANDARDS OF THE LOCAL MUNICIPAL AUTHORITY AND THE PA DEP.

G. THE AREA IMMEDIATELY ADJACENT TO THE BASIN MUST BE STABILIZED IN ACCORDANCE WITH THE PADEP'S EROSION AND SEDIMENT POLLUTION

C.IF EXCAVATION IS REQUIRED, CLEAR THE AREA TO BE EXCAVATED OF ALL VEGETATION. REMOVE ALL TREE ROOTS, ROCKS, AND BOULDERS

5. GRADE SUBSOIL IN BOTTOM OF BASIN, TAKING CARE TO PREVENT COMPACTION. COMPACT SURROUNDING EMBANKMENT AREAS AND AROUND INLE

MAINTENANCE IS NECESSARY TO ENSURE PROPER FUNCTIONALITY OF THE DETENTION BASIN AND SHOULD TAKE PLACE ON A QUARTERLY BASI

1. ALL BASIN STRUCTURES EXPECTED TO RECEIVE AND/OR TRAP DEBRIS AND SEDIMENT SHOULD BE INSPECTED FOR CLOGGING AND EXCESSIVE DEBRIS AND SEDIMENT ACCUMULATION ONCE EVERY THREE MONTHS AND AFTER THE CESSATION OF ALL STORM EVENTS OF 0.25-INCH OF GREATER. DEBRIS AND SEDIMENT SHALL BE REMOVED AND DISPOSED OF IN A LEGAL MANNER. UN-VEGETATED AREAS SHALL BE IMMEDIATELY

3. SEDIMENT REMOVAL SHOULD BE CONDUCTED WHEN THE BASIN IS COMPLETELY DRY. SEDIMENT SHOULD BE DISPOSED OF PROPERLY AND ONC

4. MOWING AND/OR TRIMMING OF VEGETATION SHOULD BE PERFORMED AS NECESSARY TO SUSTAIN THE SYSTEM, BUT ALL DETRITUS SHOULD BE

THE PROJECT WILL BE CONSTRUCTED IN PHASES. THE FOLLOWING SEQUENCE CAN BE APPLIED TO THE FACILITIES WITHIN EACH PHASE, AS FURTHER DETAILED IN THE

SHALL INVITE ALL CONTRACTORS, THE LANDOWNER, ALL APPROPRIATE MUNICIPAL OFFICIALS, THE E&S PLAN PREPARER, PCSM PLAN PREPARER, THE LICENSED PROFESSIONAL RESPONSIBLE FOR OVERSIGHT OF CRITICAL STAGES OF IMPLEMENTATION OF THE PCSM PLAN, AND A REPRESENTATIVE OF THE COUNTY CONSERVATION DISTRICT TO AN ON-SITE PRE-CONSTRUCTION MEETING.

2. UPON INSTALLATION OF PERIMETER E&S CONTROLS (SEE CONSTRUCTION SEQUENCE), INSTALL SEDIMENT BASINS. 3. INSTALL ALL SWALES DURING ROUGH GRADING.

4. INSTALL ALL UTILITIES

5. AFTER THE BUILDINGS AND STARLIGHT LANERE CONSTRUCTED ADD TOPSOIL TO THE POST-CONSTRUCTION PERVIOUS AREAS TO BE PERMANENTL'

STABILIZED. 6.AFTER STABILIZATION OF THE SITE AREA, CONVERT SEDIMENT BASINS TO PERMANENT STORMWATER BASINS AS SEEN ON THE PCSM PLAN. CARE SHOULD BE TAKEN TO MINIMIZE SOIL COMPACTION IN THESE AREAS BEFORE AND AFTER CONSTRUCTION. SUCCESS HAS BEEN ACHIEVED WITH MINIMAL COMPACTION UTILIZING A "ROCK SLINGER".

7. APPLY THE SPECIFIED PERMANENT STABILIZATION ACROSS THE SITE.

1. PERMITTEE'S REQUESTING A RENEWAL OF COVERAGE UNDER GENERAL PERMIT MUST SUBMIT TO THE COUNTY CONSERVATION DISTRICT AN ADMINISTRATIVELY COMPLETE AND ACCEPTABLE NOI, AT LEAST 90 DAYS PRIOR TO THE EXPIRATION DATE OF THE COVERAGE.

2.PERMITTEE'S REQUESTING A RENEWAL OF COVERAGE UNDER INDIVIDUAL PERMIT MUST SUBMIT TO THE COUNTY CONSERVATION DISTRICT AN ADMINISTRATIVELY COMPLETE AND ACCEPTABLE NOI, AT LEAST 180 DAYS PRIOR TO THE EXPIRATION DATE OF THE COVERAGE.

3. ALL EARTHMOVING CONTRACTORS MUST BE ADDED AS CO-PERMITTEES TO THE NPDES PERMI

4. SITE INSPECTIONS AND MONITORING REPORTS - THE PERMITTEE AND CO-PERMITTEE(S) SHALL COMPLY WITH ALL OF THE MONITORING AND REPORTING REQUIREMENTS. AS OUTLINED IN PART A.2 OF THE NPDES PERMIT. THE PERMITTEE AND CO-PERMITTEE(S) SHALL ENSURE THAT SITE INSPECTIONS ARE CONDUCTED AT LEAST WEEKLY AND AFTER EACH MEASURABLE PRECIPITATION EVENT BY QUALIFIED PERSONNEL. A WRITTEN REPORT SHALL BE KEPT FOR EACH INSPECTION IN ACCORDANCE WITH THE REQUIREMENTS OF PART A.2.A. 5. THE DEP "VISUAL INSPECTION CHECKLIST" SHOULD BE COMPLETED FOR EACH INSPECTION AND SHOULD BE AVAILABLE ON-SITE FOR INSPECTION

BY DEP OR COUNTY CONSERVATION DISTRICT PERSONNEL 6.AFTER ALL EARTHMOVING ACTIVITY HAS CEASED AND THE ENTIRE PERMITTED AREA IS PERMANENTLY STABILIZED, THE PERMITTEE MUST SUBMIT A NOTICE OF TERMINATION TO THE LOCAL COUNTY CONSERVATION DISTRICT TO CLOSE OUT THE PERMIT. ALLOWING THE NPDES PERMIT TO EXPIRE IS DETERMINED TO BE A VIOLATION OF THE NPDES PERMIT.

BMP CRITICAL STAGES

PER REQUIREMENTS OF THE PA DEP A LICENSED PROFESSIONAL OR DESIGNEE MUST BE PRESENT FOR THE INSTALLATION OF ALL BMP AND STORMWATER CONTROLS. PLEASE CONTACT THE DESIGN PROFESSIONAL OR ENSURE A LICENSED PROFESSIONAL IS PRESENT BEFORE BEGINNING THE FOLLOWING CONSTRUCTION ACTIVITIES: • INFILTRATION BASINS A, B, C, E, F, G

- O EXCAVATION / ROUGH GRADING
- O OUTLET PIPE, ANTI-SEEP COLLAR, CLAY CORE INSTALLATION 0 UNDERDRAIN AND AMENDED SOILS INSTALLATION
- DETENTION BASIN D O EXCAVATION / ROUGH GRADING
- O OUTLET PIPE, ANTI-SEEP COLLAR, CLAY CORE INSTALLATION PERMANENT SITE STABILIZATION

AN INFILTRATION BASIN IS A SHALLOW IMPOUNDMENT THAT STORES AND INFILTRATES RUNOFF OVER A LEVEL, UN-COMPACTED (PREFERABLY PROJECT WASTES NOTES

HE CONTRACTOR SHALL NOT ILLEGALLY BURY, DUMP, OR DISCHARGE ANY BUILDING MATERIAL OR WASTES ON OR OFF THE SITE. THESE BUILDING INCLUDE, BUT ARE NOT LIMITED TO EXCESS SOIL MATERIALS, BUILDING MATERIALS, CONCRETE WASH WATER, SANITARY W ON-SITE REFUSE, ETC. THAT COULD ADVERSELY IMPACT WATER QUALITY. ALL BUILDING MATERIALS AND WASTES SHALL BE REMOVED FROM THE SITE AND RECYCLED OR DISPOSED OF IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET SEQ., 271.1., AND 287.1 ET SEQ. NO BUILDING MATERIALS OR WASTES SHALL BE BURNED, BURIED, DUMPED, OR DISCHARGED AT THE SITE. WASTE MATERIALS WITH OR FROM THE POST CONSTRUCTION STORMWATER MANAGEMENT (PCSM) BEST MANAGEMENT PRACTICES (BMPS): • SEDIMENT DEPOSITED AND ACCUMULATED IN PCSM BMPS SHALL BE REMOVED FROM THE BMP AND DISPOSED OF PROPERLY.

• CUTTINGS AND TRIMMINGS FROM PCSM BMPS SHALL BE DISPOSED OF IN A LOCAL COMPOSTING FACILITY. • LITTER CLEANED FROM PCSM BMPS SHALL BE DISPOSED OF IN A TRASH RECEPTACLE FOR PICK UP BY THE LOCAL REFUSE HAULER. STAGING OF EARTHMOVING

LL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE FOLLOWING STAGING OF EARTHMOVING ACTIVITIES. EACH STAGE SHALL BE COMPLETED BEFORE A SUBSEQUENT STAGE IS INITIATED.

CONSTRUCTION OF THE SITE IMPROVEMENTS IS EXPECTED TO BEGIN IN THE FALL OF 2023. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN MUST BE AVAILABLE AT THE PROJECT SITE AT ALL TIMES. CONSTRUCTION WILL PROCEED IN A TIMELY MANNER IN ORDER TO LIMIT THE POTENTIAL FOR ACCELERATED EROSION AND SEDIMENTATION. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE OPERATOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO ELIMINATE THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION. SHOULD ANY SINKHOLES OR GROUNDWATER SOURCES BE ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL CONTACT THE GEOTECHNICAL ENGINEER IMMEDIATELY. ALL PUMPING OF SEDIMENT LADEN WATER SHALL BE THROUGH A SEDIMENT CONTROL BMP, SUCH AS A PUMPED WATER FILTER BAG OR EQUIVALENT SEDIMENT REMOVAL FACILITY, OVER UNDISTURBED VEGETATED AREAS.

ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE FOLLOWING SEQUENCE. EACH STAGE SHALL BE COMPLETED AND IMMEDIATELY STABILIZED BEFORE ANY FOLLOWING STAGE IS INITIATED. CLEARING, GRUBBING AND TOPSOIL STRIPPING SHALL BE LIMITED ONLY TO THOSE AREAS DESCRIBED IN EACH STAGE. ANY DEVIATION FROM THE FOLLOWING SEQUENCE MUST BE APPROVED IN WRITING FROM THE COUNTY CONSERVATION DISTRICT.

SEQUENCE OF CONSTRUCTION - PHASE 1

AT LEAST 7 DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, INCLUDING CLEARING AND GRUBBING, THE CONTRACTOR SHALL INVITE ALL SUB-CONTRACTORS, THE LANDOWNER, ALL APPROPRIATE MUNICIPAL OFFICIALS, THE CIVIL ENGINEER, AND A REPRESENTATIVE OF THE LOCAL COUNTY CONSERVATION DISTRICT TO AN ON-SITE PRE-CONSTRUCTION MEETING. PERIMETER E&S CONTROLS MAY BE INSTALLED PRIOR TO THE PRE-CONSTRUCTION MEETING

.AT LEAST 3 DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES SHALL NOTIFY THE PENNSYLVANIA ONE CALL SYSTEM INCORPORATED AT 1-800-242-1776 FOR THE LOCATION OF EXISTING UNDERGROUND UTILITIES.

RBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE SEQUENCE PROVIDED ON THE PLAN DRAWINGS. DEVIATION FRO HAT SEQUENCE MUST BE APPROVED IN WRITING FROM THE LOCAL CONSERVATION DISTRICT OR BY DEP PRIOR TO IMPLEMENTATION.

INSTALL EXTENDED ROCK CONSTRUCTION ENTRANCE #1 AS SHOWN ON THE ATTACHED PLAN.

. THE LIMITS OF DISTURBANCE (LOD) SHOULD BE MARKED PRIOR TO DISTURBANCE ACTIVITIES (I.E. SURVEY STAKES, POSTS & ROPE, CONSTRUCTION FENCE, ETC.). INSTALL TEMPORARY ORANGE CONSTRUCTION FENCING AROUND WETLAND 1 AS SHOWN ON THE E&S PLANS.

3. LOCATE, STAKE, AND FLAG AREAS MARKED AS PCSM BMP'S (I.E. INFILTRATION BASINS A & B). REFER TO PCSM PLAN FOR ADDITIONAL INFORMATION AND LOCATION OF PCSM BMP'S. THESE AREAS SHOULD NOT BE COMPACTED DURING CONSTRUCTION. NO CONSTRUCTION TRAFFIC SHALL OCCUR IN THESE AREAS EXCEPT AS NECESSARY FOR EXCAVATION/GRADING.

INSTALL PERIMETER SILT SOCK ON THE SITE AT LOCATIONS 1-20 AND 57-59 AS INDICATED ON THE ATTACHED PLAN. SILT SOCK IS TO BE INSTALLED ALONG THE CONTOUR WHERE POSSIBLE, AT A LEVEL GRADE. THE SILT SOCK SHOULD BE POSITIONED IN SUCH A WAY AS TO PREVENT ANY SEDIMENT FROM LEAVING THE SITE. SEDIMENT ACCUMULATING TO HALF THE HEIGHT OF THE SILT SOCK SHALL BE REMOVED IN ORDER TO RESTORE THE SEDIMENT STORAGE CAPACITY OF THESE AREAS. IN THE CASE OF A FAILURE OF THE SILT SOCK DUE TO HIGH FLOWS, A NEW SECTION OF SILT SOCK SHALL BE INSTALLED ACROSS THE FAILED PORTION OF THE SILT SOCK. AT NO POINT SHALL UN-STABILIZED AREA DRAIN OFFSITE UNCONTROLLED. THE SILT SOCK IN LOCATIONS 60-61 IS TO ENSURE SEDIMENTATION OF THE BASIN BOTTOM AREAS DOES NOT OCCUR AND SHOULD BE INSTALLED ONCE THE CONVERSION TO THE PERMANENT STORMWATER BASINS IS COMPLETE.

INSTALL SEDIMENT BASINS A & B WHICH WILL SERVE AS SEDIMENT BASINS DURING CONSTRUCTION AND BE CONVERTED TO PERMANENT. STORMWATER BASINS UPON TRIBUTARY STABILIZATION. DISTURB ONLY THE MINIMUM AREA NECESSARY TO INSTALL EACH SEDIMENT BASIN. THE SEDIMENT BASINS MUST BE CONSTRUCTED PRIOR TO ANY MAJOR EARTH DISTURBANCE, STRIPPING, OR CLEARING. INSTALL THE OUTLET PIPE FROM EACH BASIN ALONG WITH THE ASSOCIATED OUTLET STRUCTURE. CONSTRUCT IMPERVIOUS CLAY CORES, ANTI-SEEP COLLARS, AND BACKFILL EMBANKMENTS, COMPACTING TO 95% MAX DRY DENSITY. INSTALL NORTH AMERICAN GREEN C350 SLOPE PROTECTION AT EMERGENCY SPILLWAYS. INSTALL TYPE LEVEL SPREADERS AT BASIN OUTLETS. INSTALL SEED IN THE INTERIOR SLOPES AND BERMS OF BASIN. INSTALL TYPE M OUTLET STRUCTURE, CLEAN OUT STAKE, BASIN BAFFLE(S), AND SKIMMER WITHIN EACH SEDIMENT BASIN. PLEASE REFER TO THE E&S SHEETS FOR ADDITIONAL DETAIL. A LICENSED PROFESSIONAL OR DESIGNEE SHALL BE PRESENT ONSITE DURING SEDIMENT BASIN EXCAVATION AND INSTALLATION OF THE OUTLET PIPES, ANTI-SEEP COLLARS, AND CLAY CORES.

0. IF SOIL IS TAKEN TO OR BORROWED FROM ANOTHER CONSTRUCTION SITE, SAID SITE MUST HAVE AN APPROVED E&SPC PLAN. SEE THE "SOIL LIMITATIONS AND RESOLUTIONS" SECTION OF THIS E&S PLAN FOR FURTHER INFORMATION.

1. CLEAR AND STRIP TOPSOIL ACROSS THE AREA OF THE BUILDING PADS AND STREETS WITHIN PHASE 1 AND PLACE ON THE TOPSOIL STOCKPILES AS SHOWN ON THE ATTACHED PLAN AND IN ACCORDANCE WITH PLAN DETAILS. INSTALL SILT SOCK BELOW EACH TOPSOIL STOCKPILE AS SHOWN ON THE ATTACHED PLAN.

2. ROUGH GRADE THE DISTURBED AREA TO CONSTRUCT THE BUILDINGS, DRIVEWAYS, AND STREETS WITHIN PHASE 1. INSTALL SWALES 1–4 DURING ROUGH GRADING. ENSURE THE SWALE LINING IS INSTALLED IN EACH SWALE IN ACCORDANCE WITH THE PLAN DETAILS.

3. INSTALL WATER, SANITARY SEWER, STORM SEWER, AND ALL OTHER UTILITIES AT THIS TIME. DURING AND FOLLOWING STORM EVENTS PROVIDE A MEANS TO DEWATER PITS AND UTILITY TRENCHES. SPOIL MATERIAL FROM EXCAVATION OF THE TRENCHES SHALL BE PLACED ON THE UP-SLOPE SIDE OF THE TRENCH. THE LENGTH OF OPEN TRENCH SHALL BE LIMITED TO THAT WHICH WILL BE BACKFILLED THE SAME DAY. AND ANY AFFECTE BMP'S SHALL BE IMMEDIATELY STABILIZED AND REPAIRED. THE TOPSOIL EXCAVATED FROM THE TRENCH SHALL BE CAREFULLY REMOVED AND STOCKPILED SEPARATELY FROM THE SUBSOIL. THE TOPSOIL SHALL BE RESTORED TO THE GRADED AREAS TO PRE-CONSTRUCTION CONDITIONS. WATER PUMPED FROM PITS AND TRENCHES SHALL BE FILTERED BY MEANS OF A FILTER BAG. IMMEDIATELY AFTER TRENCHES HAVE BEEN BACKFILLED, FINE-GRADE AREA.

4. INSTALL THE STONE SUB-BASE FOR THE STREETS, DRIVEWAYS, AND CONCRETE SLABS AS PER PLAN REQUIREMENTS.

5. CONSTRUCT THE PROPOSED BUILDINGS AND ATTACHED UTILITIES (ROOF DRAINS, SANITARY CONNECTIONS, WATER CONNECTIONS, ETC.) IMMEDIATELY UPON COMPLETION OF EARTH DISTURBANCE ACTIVITIES FINAL GRADE AND STABILIZE THE LOT.

. FINE GRADE ANY REMAINING AREAS AS SHOWN ON THE GRADING PLAN. DURING THIS TIME, FRAME EARTH MOVING EQUIPMENT WILL BE EMPLOYED TO REMOVE TOPSOIL AND EXCESS "FILL" MATERIAL, IF ANY EXISTS. SPREAD A MINIMUM OF 4-8 INCHES OF TOPSOIL ON FRESHLY GRADED AREAS; REFER TO THE TOPSOIL APPLICATION NOTES ON THE PLAN. FINAL PASSES DURING FINE GRADING SHALL BE MADE AT RIGHT ANGLES TO THE SLOPES. PREPARE THE REMAINDER OF THE DISTURBED AREA FOR PERMANENT STABILIZATION. SEEDBED SHALL BE PREPARED IN ACCORDANCE WITH ACCEPTED PRACTICES. EACH SEED MIXTURE SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S RATES AND INSTRUCTIONS.

7. DURING NON-GERMINATING PERIODS, MULCH MUST BE APPLIED AT THE SPECIFIED RATES. DISTURBED AREAS WHICH ARE NOT AT FINISHED GRADE AND WHICH WILL BE RE-DISTURBED WITHIN 1 YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY VEGETATIVE STABILIZATION SPECIFICATIONS. DISTURBED AREAS WHICH ARE AT FINAL GRADE OR WHICH WILL NOT BE RE-DISTURBED WITHIN 1 YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE PERMANENT VEGETATIVE STABILIZATION SPECIFICATIONS.

8. PAVE THE STREETS. DO NOT INSTALL SURFACE (WEARING) COURSE UNTIL THE AREA IS STABILIZED (DEFINED AS A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER, WITH A DENSITY CAPABLE OF RESISTING ACCELERATED EROSION AND SEDIMENTATION IN ALL AREAS TRIBUTARY TO THE CONTROLS). IF EARTHMOVING ACTIVITIES CEASE FOR FOUR (4) DAYS OR MORE TEMPORARY STABILIZATION SHALL BE APPLIED. SEE STABILIZATION SPECIFICATIONS" IN THE E&S PLAN FOR FURTHER DETAILS.

#### COVER, WITH A DENSITY CAPABLE OF RESISTING ACCELERATED EROSION AND SEDIMENTATION IN ALL AREAS TRIBUTARY TO THE CONTROLS) WITI APPROVAL OF THE COUNTY CONSERVATION DISTRICT. ). UPON STABILIZATION OF ALL DISTURBED AREAS MODIFY SEDIMENT BASINS A & B AS REQUIRED TO INSTALL INFILTRATION BASINS A & B A: SHOWN ON THE PCSM PLAN. REMOVE ALL SEDIMENT BASIN BAFFLES, CLEANOUT STAKES, AND SKIMMERS. THE INFILTRATION BASINS SHALL E OVER-EXCAVATED AND SCARIFIED IN ACCORDANCE WITH THE PLAN DETAIL. THE EXCAVATOR SHOULD AVOID EXCAVATING TO THE FINAL DESI-NVERT UNTIL THE ENGINEERED SOIL MIX IS READY TO BE PLACED. THIS WILL MINIMIZE THE EXPOSURE OF SUBGRADE SOIL AND AID IN REDUCIN COMPACTION. WHEN EXCAVATING TO FINAL INVERT SUBGRADES UTILIZE A SMOOTH (TOOTHLESS) BLADE BUCKET TO AVOID LOCALIZED COMPACTION DURING THE EXCAVATION OF THE BASIN BOTTOMS, INSTALL THE UNDERDRAIN SYSTEM IN ACCORDANCE WITH THE PLAN DETAILS. PLACE THE ENGINEERED SOIL MIX TO THE SPECIFIED ELEVATION WITHIN THE BASIN BOTTOMS. ANY SOIL COMPACTION SHOULD BE AVOIDED IN THE BASIN 30TTOMS. IMMEDIATELY AFTER PLACING THE ENGINEERED SOIL MIX, INSTALL THE SILT SOCKS AT LOCATIONS 60 & 61 TO PREVENT SEDIMENTATION OF THE ENGINEERED SOILS. WHEN SEEDING THE BASIN MIXES BE SURE TO HAND RAKE THE SEED INTO THE SOIL. A LICENSED PROFESSIONAL OF DESIGNEE SHALL BE PRESENT ONSITE DURING INSTALLATION OF THE UNDERDRAIN SYSTEM, ENGINEERED SOILS, AND FINAL GRADING/SEEDING OF INFILTRATION BASINS A & B.

9. ALL SEDIMENT DEPOSITED WITHIN STORM SEWER CONVEYANCE PIPES SHALL BE REMOVED PRIOR TO COMPLETION OF THE PROJECT AND PRIOD

CONVERSION OF THE SEDIMENT BASINS TO PERMANENT STORMWATER BASINS. ANY WATER PUMPED FROM THE SEDIMENT BASIN OR OTHER AR

OF THE SITE SHALL BE PUMPED THROUGH A FILTER BAG AND THE COLLECTED SEDIMENT SHALL BE DISPOSED OF PROPERLY. ALL ARE,

DISTURBED DURING THIS PROCESS SHALL BE STABILIZED IMMEDIATELY THROUGH SEEDING AND MULCHING. THE COUNTY CONSERVATION DISTRIC

SHOULD BE CONTACTED PRIOR TO CONVERSION OR REMOVAL OF ANY E&S BMPS AND MAY REQUIRE A SITE INSPECTION. REMOVE ALL TEMPORAR

EROSION AND SEDIMENT CONTROLS ONCE THE SITE IS COMPLETELY STABILIZED (DEFINED AS A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE

. THE OPERATOR SHALL REMOVE FROM THE SITE, RECYCLE OR DISPOSE OF ALL BUILDING MATERIALS AND WASTES IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA CODE 260.1 ET SEQ., 271.1 ET SEQ., AND 287.1 ET SEQ. THE CONTRACTOR SHALL NOT ILLEGALLY BURY DUMP, OR DISCHARGE ANY BUILDING MATERIAL OR WASTES ON OR OFF THE SITE. THESE BUILDING WASTES INCLUDE, BUT ARE NOT LIMITED TO, EXCESS SOIL MATERIALS, BUILDING MATERIALS, CONCRETE WASH WATER, SANITARY WASTES, ETC. THAT COULD ADVERSELY IMPACT WATER QUALITY

2. PER NPDES REQUIREMENTS, "WITHIN 30 DAYS AFTER THE COMPLETION OF EARTH DISTURBANCE ACTIVITIES AUTHORIZED BY THIS PERMIT LUDING THE PERMANENT STABILIZATION OF THE SITE AND PROPER INSTALLATION OF PCSM BMPS IN ACCORDANCE WITH THE APPROVED PCSM PLAN, OR UPON SUBMISSION OF THE NOT IF SOONER, THE PERMITTEE SHALL FILE WITH THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRIC A STATEMENT SIGNED BY A LICENSED PROFESSIONAL AND BY THE PERMITTEE CERTIFYING THAT WORK HAS BEEN PERFORMED IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THIS PERMIT AND THE APPROVED E&S AND PCSM PLANS. COMPLETION CERTIFICATES ARE NEEDED T ENSURE THAT ALL WORK IS PERFORMED IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THE PERMIT AND THE APPROVED E&S AND PCSM

#### SEQUENCE OF CONSTRUCTION - PHASE 2

1. AT LEAST 7 DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, INCLUDING CLEARING AND GRUBBING, THE CONTRACTOR SHALL INVITE ALL SUB-CONTRACTORS, THE LANDOWNER, ALL APPROPRIATE MUNICIPAL OFFICIALS, THE CIVIL ENGINEER, AND A REPRESENTATIVE OF THE LOCAL COUNTY CONSERVATION DISTRICT TO AN ON-SITE PRE-CONSTRUCTION MEETING. PERIMETER E&S CONTROLS MAY BE INSTALLED PRIOR TO THE PRE-CONSTRUCTION MEETING.

2. AT LEAST 3 DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES SHALL NOTIFY THE PENNSYLVANIA ONE CALL SYSTEM INCORPORATED AT 1-800-242-1776 FOR THE LOCATION OF EXISTING UNDERGROUND UTILITIES.

3. ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE SEQUENCE PROVIDED ON THE PLAN DRAWINGS. DEVIATION FROM THAT SEQUENCE MUST BE APPROVED IN WRITING FROM THE LOCAL CONSERVATION DISTRICT OR BY DEP PRIOR TO IMPLEMENTATION.

4. INSTALL EXTENDED ROCK CONSTRUCTION ENTRANCE #2 AS SHOWN ON THE ATTACHED PLAN.

5. THE LIMITS OF DISTURBANCE (LOD) SHOULD BE MARKED PRIOR TO DISTURBANCE ACTIVITIES (I.E. SURVEY STAKES, POSTS & ROPE, CONSTRUCTION FENCE, ETC.). INSTALL TEMPORARY ORANGE CONSTRUCTION FENCING AROUND WETLANDS 1 & 2 AS SHOWN ON THE E&S PLANS.

6.LOCATE, STAKE, AND FLAG AREAS MARKED AS PCSM BMP'S (I.E. INFILTRATION BASIN C & DETENTION BASIN D). REFER TO PCSM PLAN FOR ADDITIONAL INFORMATION AND LOCATION OF PCSM BMP'S. THESE AREAS SHOULD NOT BE COMPACTED DURING CONSTRUCTION. NO CONSTRUCTION TRAFFIC SHALL OCCUR IN THESE AREAS EXCEPT AS NECESSARY FOR EXCAVATION/GRADING.

7. INSTALL PERIMETER SILT SOCK ON THE SITE AT LOCATIONS 20-31 AND 39-40 AS INDICATED ON THE ATTACHED PLAN. SILT SOCK IS TO BE INSTALLED ALONG THE CONTOUR WHERE POSSIBLE, AT A LEVEL GRADE. THE SILT SOCK SHOULD BE POSITIONED IN SUCH A WAY AS TO PREVENT ANY SEDIMENT FROM LEAVING THE SITE. SEDIMENT ACCUMULATING TO HALF THE HEIGHT OF THE SILT SOCK SHALL BE REMOVED IN ORDER TO RESTORE THE SEDIMENT STORAGE CAPACITY OF THESE AREAS. IN THE CASE OF A FAILURE OF THE SILT SOCK DUE TO HIGH FLOWS, A NEW SECTION OF SILT SOCK SHALL BE INSTALLED ACROSS THE FAILED PORTION OF THE SILT SOCK. AT NO POINT SHALL UN-STABILIZED AREA DRAIN OFFSITE UNCONTROLLED. THE SILT SOCK IN LOCATIONS 62-63 IS TO ENSURE SEDIMENTATION OF THE BASIN BOTTOM AREAS DOES NOT OCCUR AND SHOULD BE INSTALLED ONCE THE CONVERSION TO THE PERMANENT STORMWATER BASINS IS COMPLETE.

8.PER NPDES REQUIREMENTS, "UPON THE INSTALLATION OR STABILIZATION OF ALL PERIMETER SEDIMENT CONTROL BMPS AND AT LEAST 3 DAYS PRIOR TO PROCEEDING WITH THE BULK EARTH DISTURBANCE ACTIVITIES, THE PERMITTEE OR CO-PERMITTEE SHALL PROVIDE NOTIFICATION TO THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT."

INSTALL SEDIMENT BASINS C & D WHICH WILL SERVE AS SEDIMENT BASINS DURING CONSTRUCTION AND BE CONVERTED TO PERMANENT. STORMWATER BASINS UPON TRIBUTARY STABILIZATION. DISTURB ONLY THE MINIMUM AREA NECESSARY TO INSTALL EACH SEDIMENT BASIN. THE SEDIMENT BASINS MUST BE CONSTRUCTED PRIOR TO ANY MAJOR EARTH DISTURBANCE, STRIPPING, OR CLEARING. INSTALL THE OUTLET PIPE FROM FACH BASIN ALONG WITH THE ASSOCIATED OUTLET STRUCTURE. CONSTRUCT IMPERVIOUS CLAY CORES, ANTI-SEEP COLLARS, AND BACKEILL EMBANKMENTS, COMPACTING TO 95% MAX DRY DENSITY, INSTALL NORTH AMERICAN GREEN C350 SLOPE PROTECTION AT EMERGENCY SPILLWAYS INSTALL TYPE LEVEL SPREADERS AT BASIN OUTLETS. INSTALL SEED IN THE INTERIOR SLOPES AND BERMS OF BASIN. INSTALL TYPE M OUTLET STRUCTURE, CLEAN OUT STAKE, BASIN BAFFLE(S), AND SKIMMER WITHIN EACH SEDIMENT BASIN. PLEASE REFER TO THE E&S SHEETS FOR ADDITIONAL DETAIL. A LICENSED PROFESSIONAL OR DESIGNEE SHALL BE PRESENT ONSITE DURING SEDIMENT BASIN EXCAVATION AND INSTALLATION OF THE OUTLET PIPES, ANTI-SEEP COLLARS, AND CLAY CORES.

D. IF SOIL IS TAKEN TO OR BORROWED FROM ANOTHER CONSTRUCTION SITE, SAID SITE MUST HAVE AN APPROVED E&SPC PLAN. SEE THE "SOIL LIMITATIONS AND RESOLUTIONS" SECTION OF THIS E&S PLAN FOR FURTHER INFORMATION.

1 CLEAR AND STRIP TOPSOIL ACROSS THE AREA OF THE BUILDING PADS AND STREETS WITHIN PHASE 2 AND PLACE ON THE TOPSOIL STOCKPILES AS SHOWN ON THE ATTACHED PLAN AND IN ACCORDANCE WITH PLAN DETAILS. INSTALL SILT SOCK BELOW EACH TOPSOIL STOCKPILE AS SHOWN ON THE ATTACHED PLAN.

2. ROUGH GRADE THE DISTURBED AREA TO CONSTRUCT THE BUILDINGS, DRIVEWAYS, AND STREETS WITHIN PHASE 2. INSTALL SWALES 11 & 13 DURING ROUGH GRADING. ENSURE THE SWALE LINING IS INSTALLED IN EACH SWALE IN ACCORDANCE WITH THE PLAN DETAILS.

3. INSTALL WATER, SANITARY SEWER, STORM SEWER, AND ALL OTHER UTILITIES AT THIS TIME. ENSURE INLET PROTECTION IS PROVIDED FOR ALL STORM INLETS NOT DISCHARGING TO SEDIMENT BASINS C & D AS DEPICTED ON THE E&S PLAN. DURING AND FOLLOWING STORM EVENTS PROVIDE A MEANS TO DEWATER PITS AND UTILITY TRENCHES. SPOIL MATERIAL FROM EXCAVATION OF THE TRENCHES SHALL BE PLACED ON THE UP-SLOPE SIDE OF THE TRENCH, THE LENGTH OF OPEN TRENCH SHALL BE LIMITED TO THAT WHICH WILL BE BACKFILLED THE SAME DAY, AND ANY AFFECTED BMP'S SHALL BE IMMEDIATELY STABILIZED AND REPAIRED. THE TOPSOIL EXCAVATED FROM THE TRENCH SHALL BE CAREFULLY REMOVED AND STOCKPILED SEPARATELY FROM THE SUBSOIL. THE TOPSOIL SHALL BE RESTORED TO THE GRADED AREAS TO PRE-CONSTRUCTION CONDITIONS. WATER PUMPED FROM PITS AND TRENCHES SHALL BE FILTERED BY MEANS OF A FILTER BAG. IMMEDIATELY AFTER TRENCHES HAVE BEEN BACKFILLED, FINE-GRADE AREA.

4. INSTALL THE STONE SUB-BASE FOR THE STREETS, DRIVEWAYS, AND CONCRETE SLABS AS PER PLAN REQUIREMENTS.

5. CONSTRUCT THE PROPOSED BUILDINGS AND ATTACHED UTILITIES (ROOF DRAINS, SANITARY CONNECTIONS, WATER CONNECTIONS, ETC.) IMMEDIATELY UPON COMPLETION OF EARTH DISTURBANCE ACTIVITIES FINAL GRADE AND STABILIZE THE LOT.

. FINE GRADE ANY REMAINING AREAS AS SHOWN ON THE GRADING PLAN. DURING THIS TIME, FRAME EARTH MOVING EQUIPMENT WILL BE EMPLOYED TO REMOVE TOPSOIL AND EXCESS "FILL" MATERIAL, IF ANY EXISTS, SPREAD A MINIMUM OF 4-8 INCHES OF TOPSOIL ON FRESHLY GRADED AREAS REFER TO THE TOPSOIL APPLICATION NOTES ON THE PLAN. FINAL PASSES DURING FINE GRADING SHALL BE MADE AT RIGHT ANGLES TO THE SLOPES. PREPARE THE REMAINDER OF THE DISTURBED AREA FOR PERMANENT STABILIZATION. SEEDBED SHALL BE PREPARED IN ACCORDANCE WITH ACCEPTED PRACTICES. EACH SEED MIXTURE SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S RATES AND INSTRUCTIONS.

7. DURING NON-GERMINATING PERIODS. MULCH MUST BE APPLIED AT THE SPECIFIED RATES. DISTURBED AREAS WHICH ARE NOT AT FINISHED GRADE AND WHICH WILL BE RE-DISTURBED WITHIN 1 YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY VEGETATIVE STABILIZATION SPECIFICATIONS. DISTURBED AREAS WHICH ARE AT FINAL GRADE OR WHICH WILL NOT BE RE-DISTURBED WITHIN 1 YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE PERMANENT VEGETATIVE STABILIZATION SPECIFICATIONS.

8. PAVE THE STREETS. DO NOT INSTALL SURFACE (WEARING) COURSE UNTIL THE AREA IS STABILIZED (DEFINED AS A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER, WITH A DENSITY CAPABLE OF RESISTING ACCELERATED EROSION AND SEDIMENTATION IN ALL AREAS TRIBUTARY TO THE CONTROLS). IF EARTHMOVING ACTIVITIES CEASE FOR FOUR (4) DAYS OR MORE TEMPORARY STABILIZATION SHALL BE APPLIED. SEE "STABILIZATION SPECIFICATIONS" IN THE E&S PLAN FOR FURTHER DETAILS.

9. ALL SEDIMENT DEPOSITED WITHIN STORM SEWER CONVEYANCE PIPES SHALL BE REMOVED PRIOR TO COMPLETION OF THE PROJECT AND PRIOR TO CONVERSION OF THE SEDIMENT BASINS TO PERMANENT STORMWATER BASINS. ANY WATER PUMPED FROM THE SEDIMENT BASIN OR OTHER AREA OF THE SITE SHALL BE PUMPED THROUGH A FILTER BAG AND THE COLLECTED SEDIMENT SHALL BE DISPOSED OF PROPERLY, ALL AREAS DISTURBED DURING THIS PROCESS SHALL BE STABILIZED IMMEDIATELY THROUGH SEEDING AND MULCHING. THE COUNTY CONSERVATION DISTRICT SHOULD BE CONTACTED PRIOR TO CONVERSION OR REMOVAL OF ANY E&S BMPS AND MAY REQUIRE A SITE INSPECTION. REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROLS ONCE THE SITE IS COMPLETELY STABILIZED (DEFINED AS A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER, WITH A DENSITY CAPABLE OF RESISTING ACCELERATED EROSION AND SEDIMENTATION IN ALL AREAS TRIBUTARY TO THE CONTROLS) WITH APPROVAL OF THE COUNTY CONSERVATION DISTRICT.

20. UPON STABILIZATION OF ALL DISTURBED AREAS MODIFY SEDIMENT BASINS C & D AS REQUIRED TO INSTALL INFILTRATION BASINS C & DETENTION BASIN D AS SHOWN ON THE PCSM PLAN. REMOVE ALL SEDIMENT BASIN BAFFLES, CLEANOUT STAKES, AND SKIMMERS. INFILTRATION BASIN C SHALL BE OVER-EXCAVATED AND SCARIFIED IN ACCORDANCE WITH THE PLAN DETAIL. THE EXCAVATOR SHOULD AVOID EXCAVATING TO THE FINAL DESIGN INVERT UNTIL THE ENGINEERED SOIL MIX IS READY TO BE PLACED. THIS WILL MINIMIZE THE EXPOSURE OF SUBGRADE SOIL AND AID IN REDUCING COMPACTION. WHEN EXCAVATING TO FINAL INVERT SUBGRADES UTILIZE A SMOOTH (TOOTHLESS) BLADE BUCKET TO AVOID LOCALIZED COMPACTION. DURING THE EXCAVATION OF THE INFILTRATION BASIN C BOTTOM, INSTALL THE UNDERDRAIN SYSTEM IN ACCORDANCE WITH THE PLAN DETAILS, PLACE THE ENGINEERED SOIL MIX TO THE SPECIFIED ELEVATION WITHIN THE BASIN BOTTOMS. ANY SOIL COMPACTION SHOULD BE AVOIDED IN THE BASIN BOTTOMS. IMMEDIATELY AFTER PLACING THE ENGINEERED SOIL MIX, INSTALL THE SILT SOCKS AT LOCATIONS 62 & 63 TO PREVENT SEDIMENTATION OF THE ENGINEERED SOILS. WHEN SEEDING THE BASIN MIXES BE SURE TO HAND RAKE THE SEED INTO THE SOIL. A LICENSED PROFESSIONAL OR DESIGNEE SHALL BE PRESENT ONSITE DURING INSTALLATION OF THE UNDERDRAIN SYSTEM, ENGINEERED SOILS, AND FINAL GRADING/SEEDING OF INFILTRATION BASINS C & DETENTION BASIN D.

21. THE OPERATOR SHALL REMOVE FROM THE SITE, RECYCLE OR DISPOSE OF ALL BUILDING MATERIALS AND WASTES IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA CODE 260.1 ET SEQ., 271.1 ET SEQ., AND 287.1 ET SEQ. THE CONTRACTOR SHALL NOT ILLEGALLY BURY DUMP, OR DISCHARGE ANY BUILDING MATERIAL OR WASTES ON OR OFF THE SITE. THESE BUILDING WASTES INCLUDE, BUT ARE NOT LIMITED TO, EXCESS SOIL MATERIALS, BUILDING MATERIALS, CONCRETE WASH WATER, SANITARY WASTES, ETC. THAT COULD ADVERSELY IMPACT WATER QUALITY.

22. PER NPDES REQUIREMENTS, "WITHIN 30 DAYS AFTER THE COMPLETION OF EARTH DISTURBANCE ACTIVITIES AUTHORIZED BY THIS PERMIT, INCLUDING THE PERMANENT STABILIZATION OF THE SITE AND PROPER INSTALLATION OF PCSM BMPS IN ACCORDANCE WITH THE APPROVED PCSM PLAN, OR UPON SUBMISSION OF THE NOT IF SOONER, THE PERMITTEE SHALL FILE WITH THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT A STATEMENT SIGNED BY A LICENSED PROFESSIONAL AND BY THE PERMITTEE CERTIFYING THAT WORK HAS BEEN PERFORMED IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THIS PERMIT AND THE APPROVED E&S AND PCSM PLANS. COMPLETION CERTIFICATES ARE NEEDED TO ENSURE THAT ALL WORK IS PERFORMED IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THE PERMIT AND THE APPROVED E&S AND PCSM PLANS."

POST CONSTRUCTION STORMWATER MANAGEMENT NOTES FINAL - PHASE 1 FINAL - PHASE 1 SUBDIVISION & LAND DEVELOPMENT PLAN THE ESTATES AT HEARTHSIDE Inconted in NORTH LEBANON TOWNSHIP LEBANON County, Pennsylvania
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- SEQUENCE OF CONSTRUCTION PHASE 3
- 1. AT LEAST 7 DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, INCLUDING CLEARING AND GRUBBING, THE CONTRACTOR SHALL INVITE ALL SUB-CONTRACTORS, THE LANDOWNER, ALL APPROPRIATE MUNICIPAL OFFICIALS, THE CIVIL ENGINEER, AND A REPRESENTATIVE OF THE LOCAL COUNTY CONSERVATION DISTRICT TO AN ON-SITE PRE-CONSTRUCTION MEETING. PERIMETER E&S CONTROLS MAY BE INSTALLED PRIOR TO THE PRE-CONSTRUCTION MEETING.
- 2. AT LEAST 3 DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES SHALL NOTIFY THE PENNSYLVANIA ONE CALL SYSTEM INCORPORATED AT 1-800-242-1776 FOR THE LOCATION OF EXISTING UNDERGROUND UTILITIES.
- 3. ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE SEQUENCE PROVIDED ON THE PLAN DRAWINGS. DEVIATION FROM THAT SEQUENCE MUST BE APPROVED IN WRITING FROM THE LOCAL CONSERVATION DISTRICT OR BY DEP PRIOR TO IMPLEMENTATION.
- 4.INSTALL EXTENDED ROCK CONSTRUCTION ENTRANCES #3 & #4 AS SHOWN ON THE ATTACHED PLAN.
- 5. THE LIMITS OF DISTURBANCE (LOD) SHOULD BE MARKED PRIOR TO DISTURBANCE ACTIVITIES (I.E. SURVEY STAKES, POSTS & ROPE, CONSTRUCTION FENCE, ETC.). INSTALL TEMPORARY ORANGE CONSTRUCTION FENCING AROUND WETLAND 2 AS SHOWN ON THE E&S PLANS.
- 6.LOCATE, STAKE, AND FLAG AREAS MARKED AS PCSM BMP'S (I.E. INFILTRATION BASIN F). REFER TO PCSM PLAN FOR ADDITIONAL INFORMATION AND LOCATION OF PCSM BMP'S. THESE AREAS SHOULD NOT BE COMPACTED DURING CONSTRUCTION. NO CONSTRUCTION TRAFFIC SHALL OCCUR IN THESE AREAS EXCEPT AS NECESSARY FOR EXCAVATION/GRADING.
- 7. INSTALL PERIMETER SILT SOCK ON THE SITE AT LOCATIONS 37-42 AND 49-50 AS INDICATED ON THE ATTACHED PLAN. SILT SOCK IS TO BE INSTALLED ALONG THE CONTOUR WHERE POSSIBLE, AT A LEVEL GRADE. THE SILT SOCK SHOULD BE POSITIONED IN SUCH A WAY AS TO PREVENT ANY SEDIMENT FROM LEAVING THE SITE. SEDIMENT ACCUMULATING TO HALF THE HEIGHT OF THE SILT SOCK SHALL BE REMOVED IN ORDER TO RESTORE THE SEDIMENT STORAGE CAPACITY OF THESE AREAS. IN THE CASE OF A FAILURE OF THE SILT SOCK DUE TO HIGH FLOWS, A NEW SECTION OF SILT SOCK SHALL BE INSTALLED ACROSS THE FAILED PORTION OF THE SILT SOCK. AT NO POINT SHALL UN-STABILIZED AREA DRAIN OFFSITE UNCONTROLLED. THE SILT SOCK IN LOCATION 65 IS TO ENSURE SEDIMENTATION OF THE BASIN BOTTOM AREA DOES NOT OCCUR AND SHOULD BE INSTALLED ONCE THE CONVERSION TO THE PERMANENT STORMWATER BASIN IS COMPLETE.
- 8. PER NPDES REQUIREMENTS, "UPON THE INSTALLATION OR STABILIZATION OF ALL PERIMETER SEDIMENT CONTROL BMPS AND AT LEAST 3 DAYS PRIOR TO PROCEEDING WITH THE BULK EARTH DISTURBANCE ACTIVITIES, THE PERMITTEE OR CO-PERMITTEE SHALL PROVIDE NOTIFICATION TO THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT."
- 9.INSTALL SEDIMENT BASIN F WHICH WILL SERVE AS A SEDIMENT BASIN DURING CONSTRUCTION AND BE CONVERTED TO A PERMANENT STORMWATER BASIN UPON TRIBUTARY STABILIZATION. DISTURB ONLY THE MINIMUM AREA NECESSARY TO INSTALL THE SEDIMENT BASIN. THE SEDIMENT BASIN MUST BE CONSTRUCTED PRIOR TO ANY MAJOR EARTH DISTURBANCE, STRIPPING, OR CLEARING. INSTALL THE OUTLET PIPE FROM THE BASIN ALONG WITH THE ASSOCIATED OUTLET STRUCTURE. CONSTRUCT IMPERVIOUS CLAY CORE, ANTI-SEEP COLLARS, AND BACKFILL EMBANKMENT, COMPACTING TO 95% MAX DRY DENSITY. INSTALL NORTH AMERICAN GREEN C350 SLOPE PROTECTION AT EMERGENCY SPILLWAY. INSTALL TYPE LEVEL SPREADER AT BASIN OUTLET. INSTALL SEED IN THE INTERIOR SLOPES AND BERM OF BASIN. INSTALL TYPE M OUTLET STRUCTURE, CLEAN OUT STAKE, BASIN BAFFLE(S), AND SKIMMER WITHIN THE SEDIMENT BASIN. PLEASE REFER TO THE E&S SHEETS FOR ADDITIONAL DETAIL. A LICENSED PROFESSIONAL OR DESIGNEE SHALL BE PRESENT ONSITE DURING SEDIMENT BASIN EXCAVATION AND INSTALLATION OF THE OUTLET PIPE, ANTI-SEEP COLLARS, AND CLAY CORE.
- 10. IF SOIL IS TAKEN TO OR BORROWED FROM ANOTHER CONSTRUCTION SITE, SAID SITE MUST HAVE AN APPROVED E&SPC PLAN. SEE THE "SOIL LIMITATIONS AND RESOLUTIONS" SECTION OF THIS E&S PLAN FOR FURTHER INFORMATION.
- 11. CLEAR AND STRIP TOPSOIL ACROSS THE AREA OF THE BUILDING PADS AND STREETS WITHIN PHASE 3 AND PLACE ON THE TOPSOIL STOCKPILES AS SHOWN ON THE ATTACHED PLAN AND IN ACCORDANCE WITH PLAN DETAILS. INSTALL SILT SOCK BELOW EACH TOPSOIL STOCKPILE AS SHOWN ON THE ATTACHED PLAN.
- 12. ROUGH GRADE THE DISTURBED AREA TO CONSTRUCT THE BUILDINGS, DRIVEWAYS, AND STREETS WITHIN PHASE 3. INSTALL SWALES 5-7 DURING ROUGH GRADING. ENSURE THE SWALE LINING IS INSTALLED IN EACH SWALE IN ACCORDANCE WITH THE PLAN DETAILS.
- 13. INSTALL WATER, SANITARY SEWER, STORM SEWER, AND ALL OTHER UTILITIES AT THIS TIME. ENSURE INLET PROTECTION IS PROVIDED FOR ALL STORM INLETS. DURING AND FOLLOWING STORM EVENTS PROVIDE A MEANS TO DEWATER PITS AND UTILITY TRENCHES. SPOIL MATERIAL FROM EXCAVATION OF THE TRENCHES SHALL BE PLACED ON THE UP-SLOPE SIDE OF THE TRENCH, THE LENGTH OF OPEN TRENCH SHALL BE LIMITED TO THAT WHICH WILL BE BACKFILLED THE SAME DAY, AND ANY AFFECTED BMP'S SHALL BE IMMEDIATELY STABILIZED AND REPAIRED. THE TOPSOIL EXCAVATED FROM THE TRENCH SHALL BE CAREFULLY REMOVED AND STOCKPILED SEPARATELY FROM THE SUBSOIL. THE TOPSOIL SHALL BE RESTORED TO THE GRADED AREAS TO PRE-CONSTRUCTION CONDITIONS. WATER PUMPED FROM PITS AND TRENCHES SHALL BE FILTERED BY MEANS OF A FILTER BAG. IMMEDIATELY AFTER TRENCHES HAVE BEEN BACKFILLED, FINE-GRADE AREA.
- 14. INSTALL THE STONE SUB-BASE FOR THE STREETS, DRIVEWAYS, AND CONCRETE SLABS AS PER PLAN REQUIREMENTS.
- 15. CONSTRUCT THE PROPOSED BUILDINGS AND ATTACHED UTILITIES (ROOF DRAINS, SANITARY CONNECTIONS, WATER CONNECTIONS, ETC.) IMMEDIATELY UPON COMPLETION OF EARTH DISTURBANCE ACTIVITIES FINAL GRADE AND STABILIZE THE LOT.
- 16. FINE GRADE ANY REMAINING AREAS AS SHOWN ON THE GRADING PLAN. DURING THIS TIME, FRAME EARTH MOVING EQUIPMENT WILL BE EMPLOYED TO REMOVE TOPSOIL AND EXCESS "FILL" MATERIAL, IF ANY EXISTS. SPREAD A MINIMUM OF 4-8 INCHES OF TOPSOIL ON FRESHLY GRADED AREAS; REFER TO THE TOPSOIL APPLICATION NOTES ON THE PLAN. FINAL PASSES DURING FINE GRADING SHALL BE MADE AT RIGHT ANGLES TO THE SLOPES. PREPARE THE REMAINDER OF THE DISTURBED AREA FOR PERMANENT STABILIZATION. SEEDBED SHALL BE PREPARED IN ACCORDANCE WITH ACCEPTED PRACTICES. EACH SEED MIXTURE SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S RATES AND INSTRUCTIONS.
- 17. DURING NON-GERMINATING PERIODS, MULCH MUST BE APPLIED AT THE SPECIFIED RATES. DISTURBED AREAS WHICH ARE NOT AT FINISHED GRADE AND WHICH WILL BE RE-DISTURBED WITHIN 1 YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY VEGETATIVE STABILIZATION SPECIFICATIONS. DISTURBED AREAS WHICH ARE AT FINAL GRADE OR WHICH WILL NOT BE RE-DISTURBED WITHIN 1 YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE PERMANENT VEGETATIVE STABILIZATION SPECIFICATIO
- 18. PAVE THE STREETS. DO NOT INSTALL SURFACE (WEARING) COURSE UNTIL THE AREA IS STABILIZED (DEFINED AS A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER, WITH A DENSITY CAPABLE OF RESISTING ACCELERATED EROSION AND SEDIMENTATION IN ALL AREAS TRIBUTARY TO THE CONTROLS). IF EARTHMOVING ACTIVITIES CEASE FOR FOUR (4) DAYS OR MORE TEMPORARY STABILIZATION SHALL BE APPLIED. SEE "STABILIZATION SPECIFICATIONS" IN THE E&S PLAN FOR FURTHER DETAILS.
- 19 ALL SEDIMENT DEPOSITED WITHIN STORM SEWER CONVEYANCE PIPES SHALL BE REMOVED PRIOR TO COMPLETION OF THE PROJECT AND PRIOR TO CONVERSION OF THE SEDIMENT BASINS TO PERMANENT STORMWATER BASINS ANY WATER PUMPED FROM THE SEDIMENT BASIN OR OTHER AREA OF THE SITE SHALL BE PUMPED THROUGH A FILTER BAG AND THE COLLECTED SEDIMENT SHALL BE DISPOSED OF PROPERLY. ALL AREAS DISTURBED DURING THIS PROCESS SHALL BE STABILIZED IMMEDIATELY THROUGH SEEDING AND MULCHING. THE COUNTY CONSERVATION DISTRICT SHOULD BE CONTACTED PRIOR TO CONVERSION OR REMOVAL OF ANY E&S BMPS AND MAY REQUIRE A SITE INSPECTION. REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROLS ONCE THE SITE IS COMPLETELY STABILIZED (DEFINED AS A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER, WITH A DENSITY CAPABLE OF RESISTING ACCELERATED EROSION AND SEDIMENTATION IN ALL AREAS TRIBUTARY TO THE CONTROLS) WITH APPROVAL OF THE COUNTY CONSERVATION DISTRICT.
- 20. UPON STABILIZATION OF ALL DISTURBED AREAS MODIFY SEDIMENT BASIN F AS REQUIRED TO INSTALL INFILTRATION BASIN F AS SHOWN ON THE PCSM PLAN. REMOVE ALL SEDIMENT BASIN BAFFLES, CLEANOUT STAKE, AND SKIMMER. THE INFILTRATION BASIN SHALL BE OVER-EXCAVATED AND SCARIFIED IN ACCORDANCE WITH THE PLAN DETAIL. THE EXCAVATOR SHOULD AVOID EXCAVATING TO THE FINAL DESIGN INVERT UNTIL THE ENGINEERED SOIL MIX IS READY TO BE PLACED. THIS WILL MINIMIZE THE EXPOSURE OF SUBGRADE SOIL AND AID IN REDUCING COMPACTION. WHEN EXCAVATING TO FINAL INVERT SUBGRADES UTILIZE A SMOOTH (TOOTHLESS) BLADE BUCKET TO AVOID LOCALIZED COMPACTION. DURING THE EXCAVATION OF THE BASIN BOTTOM, INSTALL THE UNDERDRAIN SYSTEM IN ACCORDANCE WITH THE PLAN DETAILS, PLACE THE ENGINEERED SOL MIX TO THE SPECIFIED ELEVATION WITHIN THE BASIN BOTTOM. ANY SOIL COMPACTION SHOULD BE AVOIDED IN THE BASIN BOTTOM. IMMEDIATELY AFTER PLACING THE ENGINEERED SOIL MIX. INSTALL THE SILT SOCK AT LOCATION 65 TO PREVENT SEDIMENTATION OF THE ENGINEERED SOILS. WHEN SEEDING THE BASIN MIXES BE SURE TO HAND RAKE THE SEED INTO THE SOIL. A LICENSED PROFESSIONAL OR DESIGNEE SHALL BE PRESENT ONSITE DURING INSTALLATION OF THE UNDERDRAIN SYSTEM, ENGINEERED SOILS, AND FINAL GRADING/SEEDING OF INFILTRATION BASIN
- 21. THE OPERATOR SHALL REMOVE FROM THE SITE, RECYCLE OR DISPOSE OF ALL BUILDING MATERIALS AND WASTES IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA CODE 260.1 ET SEQ., 271.1 ET SEQ., AND 287.1 ET SEQ. THE CONTRACTOR SHALL NOT ILLEGALLY BURY DUMP, OR DISCHARGE ANY BUILDING MATERIAL OR WASTES ON OR OFF THE SITE. THESE BUILDING WASTES INCLUDE, BUT ARE NOT LIMITED TO, EXCESS SOIL MATERIALS, BUILDING MATERIALS, CONCRETE WASH WATER, SANITARY WASTES, ETC. THAT COULD ADVERSELY IMPACT WATER QUALITY.
- 22. PER NPDES REQUIREMENTS, "WITHIN 30 DAYS AFTER THE COMPLETION OF EARTH DISTURBANCE ACTIVITIES AUTHORIZED BY THIS PERMIT, INCLUDING THE PERMANENT STABILIZATION OF THE SITE AND PROPER INSTALLATION OF PCSM BMPS IN ACCORDANCE WITH THE APPROVED PCSM PLAN, OR UPON SUBMISSION OF THE NOT IF SOONER, THE PERMITTEE SHALL FILE WITH THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT A STATEMENT SIGNED BY A LICENSED PROFESSIONAL AND BY THE PERMITTEE CERTIFYING THAT WORK HAS BEEN PERFORMED IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THIS PERMIT AND THE APPROVED E&S AND PCSM PLANS. COMPLETION CERTIFICATES ARE NEEDED TO ENSURE THAT ALL WORK IS PERFORMED IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THE PERMIT AND THE APPROVED E&S AND PCSM PLANS."
- 1. AT LEAST 7 DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, INCLUDING CLEARING AND GRUBBING, THE CONTRACTOR SHALL INVITE ALL SUB-CONTRACTORS, THE LANDOWNER, ALL APPROPRIATE MUNICIPAL OFFICIALS, THE CIVIL ENGINEER, AND A REPRESENTATIVE OF THE LOCAL COUNTY CONSERVATION DISTRICT TO AN ON-SITE PRE-CONSTRUCTION MEETING. PERIMETER E&S CONTROLS MAY BE INSTALLED PRIOR TO THE PRE-CONSTRUCTION MEETING.
- 2. AT LEAST 3 DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES SHALL NOTIFY THE PENNSYLVANIA ONE CALL SYSTEM INCORPORATED AT 1-800-242-1776 FOR THE LOCATION OF EXISTING UNDERGROUND UTILITIES.
- 3. ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE SEQUENCE PROVIDED ON THE PLAN DRAWINGS. DEVIATION FROM THAT SEQUENCE MUST BE APPROVED IN WRITING FROM THE LOCAL CONSERVATION DISTRICT OR BY DEP PRIOR TO IMPLEMENTATION.
- 4. INSTALL EXTENDED ROCK CONSTRUCTION ENTRANCE #4 AS SHOWN ON THE ATTACHED PLAN.

SEQUENCE OF CONSTRUCTION - PHASE 4

- 5. THE LIMITS OF DISTURBANCE (LOD) SHOULD BE MARKED PRIOR TO DISTURBANCE ACTIVITIES (I.E. SURVEY STAKES, POSTS & ROPE, CONSTRUCTION FENCE, ETC.), INSTALL TEMPORARY ORANGE CONSTRUCTION FENCING AROUND WETLAND 2 AS SHOWN ON THE E&S PLANS.
- 6.LOCATE, STAKE, AND FLAG AREAS MARKED AS PCSM BMP'S (I.E. INFILTRATION BASIN E). REFER TO PCSM PLAN FOR ADDITIONAL INFORMATION AND LOCATION OF PCSM BMP'S. THESE AREAS SHOULD NOT BE COMPACTED DURING CONSTRUCTION. NO CONSTRUCTION TRAFFIC SHALL OCCUR IN THESE AREAS EXCEPT AS NECESSARY FOR EXCAVATION/GRADING.
- 7. INSTALL PERIMETER SILT SOCK ON THE SITE AT LOCATIONS 31-37 AND 50-56 AS INDICATED ON THE ATTACHED PLAN. SILT SOCK IS TO BE INSTALLED ALONG THE CONTOUR WHERE POSSIBLE, AT A LEVEL GRADE. THE SILT SOCK SHOULD BE POSITIONED IN SUCH A WAY AS TO PREVENT ANY SEDIMENT FROM LEAVING THE SITE. SEDIMENT ACCUMULATING TO HALF THE HEIGHT OF THE SILT SOCK SHALL BE REMOVED IN ORDER TO RESTORE THE SEDIMENT STORAGE CAPACITY OF THESE AREAS. IN THE CASE OF A FAILURE OF THE SILT SOCK DUE TO HIGH FLOWS, A NEW SECTION OF SILT SOCK SHALL BE INSTALLED ACROSS THE FAILED PORTION OF THE SILT SOCK. AT NO POINT SHALL UN-STABILIZED AREA DRAIN OFFSITE UNCONTROLLED. THE SILT SOCK IN LOCATION 64 IS TO ENSURE SEDIMENTATION OF THE BASIN BOTTOM AREA DOES NOT OCCUR AND SHOULD BE INSTALLED ONCE THE CONVERSION TO THE PERMANENT STORMWATER BASIN IS COMPLETE.

8.PER NPDES REQUIREMENTS, "UPON THE INSTALLATION OR STABILIZATION OF ALL PERIMETER SEDIMENT CONTROL BMPS AND AT LEAST 3 DAYS

#### DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT."

- INSTALLATION OF THE OUTLET PIPE, ANTI-SEEP COLLARS, AND CLAY CORE.
- LIMITATIONS AND RESOLUTIONS" SECTION OF THIS E&S PLAN FOR FURTHER INFORMATION.
- AS SHOWN ON THE ATTACHED PLAN.
- ROUGH GRADING. ENSURE THE SWALE LINING IS INSTALLED IN EACH SWALE IN ACCORDANCE WITH THE PLAN DETAILS
- BEEN BACKFILLED, FINE-GRADE AREA.
- 14. INSTALL THE STONE SUB-BASE FOR THE STREETS, DRIVEWAYS, AND CONCRETE SLABS AS PER PLAN REQUIREMENTS.
- IMMEDIATELY UPON COMPLETION OF EARTH DISTURBANCE ACTIVITIES FINAL GRADE AND STABILIZE THE LOT.
- INSTRUCTIONS.
- STABILIZED IN ACCORDANCE WITH THE PERMANENT VEGETATIVE STABILIZATION SPECIFICATIONS.
- "STABILIZATION SPECIFICATIONS" IN THE E&S PLAN FOR FURTHER DETAILS.
- 19. ALL SEDIMENT DEPOSITED WITHIN STORM SEWER CONVEYANCE PIPES SHALL BE REMOVED PRIOR TO COMPLETION OF THE PROJECT AND PRIOR CONTROLS) WITH APPROVAL OF THE COUNTY CONSERVATION DISTRICT.
- ADVERSELY IMPACT WATER QUALITY.
- E&S AND PCSM PLANS."
- SEQUENCE OF CONSTRUCTION PHASE 5
- PRE-CONSTRUCTION MEETING.

- CONSTRUCTION FENCE, ETC.)
- IN THESE AREAS EXCEPT AS NECESSARY FOR EXCAVATION/GRADING.

# SHOULD BE INSTALLED ONCE THE CONVERSION TO THE PERMANENT STORMWATER BASIN IS COMPLETE.

- 8. INSTALL ROCK FILTER #1 AT THE CULVERT BENEATH JAY STREET.
- DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT."
- PIPE, ANTI-SEEP COLLARS, AND CLAY CORE.
- LIMITATIONS AND RESOLUTIONS" SECTION OF THIS E&S PLAN FOR FURTHER INFORMATION.
- AS SHOWN ON THE ATTACHED PLAN.
- 14. INSTALL WATER, SANITARY SEWER, STORM SEWER, AND ALL OTHER UTILITIES AT THIS TIME. ENSURE INLET PROTECTION IS PROVIDED FOR ALL

9. INSTALL SEDIMENT BASIN E WHICH WILL SERVE AS A SEDIMENT BASIN DURING CONSTRUCTION AND BE CONVERTED TO A PERMANENT STORMWATER BASIN UPON TRIBUTARY STABILIZATION, DISTURB ONLY THE MINIMUM AREA NECESSARY TO INSTALL THE SEDIMENT BASIN. THE SEDIMENT BASIN MUST BE CONSTRUCTED PRIOR TO ANY MAJOR EARTH DISTURBANCE, STRIPPING, OR CLEARING. INSTALL THE OUTLET PIPE FROM THE BASIN ALONG WITH THE ASSOCIATED OUTLET STRUCTURE. CONSTRUCT IMPERVIOUS CLAY CORE, ANTI-SEEP COLLARS, AND BACKFILL EMBANKMENT, COMPACTING TO 95% MAX DRY DENSITY. INSTALL NORTH AMERICAN GREEN C350 SLOPE PROTECTION AT EMERGENCY SPILLWAY. INSTALL TYPE LEVEL SPREADER AT BASIN OUTLET. INSTALL SEED IN THE INTERIOR SLOPES AND BERM OF BASIN. INSTALL TYPE M OUTLET STRUCTURE, CLEAN OUT STAKE, BASIN BAFFLE(S), AND SKIMMER WITHIN THE SEDIMENT BASIN. PLEASE REFER TO THE E&S SHEETS FOR ADDITIONAL DETAIL. A LICENSED PROFESSIONAL OR DESIGNEE SHALL BE PRESENT ONSITE DURING SEDIMENT BASIN EXCAVATION AND

10. IF SOIL IS TAKEN TO OR BORROWED FROM ANOTHER CONSTRUCTION SITE, SAID SITE MUST HAVE AN APPROVED E&SPC PLAN. SEE THE "SOIL

11. CLEAR AND STRIP TOPSOIL ACROSS THE AREA OF THE BUILDING PADS AND STREETS WITHIN PHASE 4 AND PLACE ON THE TOPSOIL STOCKPILES AS SHOWN ON THE ATTACHED PLAN AND IN ACCORDANCE WITH PLAN DETAILS. INSTALL SILT SOCK BELOW EACH TOPSOIL STOCKPILE

12. ROUGH GRADE THE DISTURBED AREA TO CONSTRUCT THE BUILDINGS, DRIVEWAYS, AND STREETS WITHIN PHASE 4. INSTALL SWALE 12 DURING

13. INSTALL WATER, SANITARY SEWER, STORM SEWER, AND ALL OTHER UTILITIES AT THIS TIME. ENSURE INLET PROTECTION IS PROVIDED FOR ALL STORM INFETS NOT DISCHARGING TO SEDIMENT BASIN F AS SHOWN ON THE F&S PLAN, DURING AND FOLLOWING STORM EVENTS PROVIDE A MEANS TO DEWATER PITS AND UTILITY TRENCHES. SPOIL MATERIAL FROM EXCAVATION OF THE TRENCHES SHALL BE PLACED ON THE UP-SLOPE SIDE OF THE TRENCH. THE LENGTH OF OPEN TRENCH SHALL BE LIMITED TO THAT WHICH WILL BE BACKFILLED THE SAME DAY. AND ANY AFFECTED BMP'S SHALL BE IMMEDIATELY STABILIZED AND REPAIRED. THE TOPSOIL EXCAVATED FROM THE TRENCH SHALL BE CAREFULLY REMOVED AND STOCKPILED SEPARATELY FROM THE SUBSOIL. THE TOPSOIL SHALL BE RESTORED TO THE GRADED AREAS TO PRE-CONSTRUCTION CONDITIONS. WATER PUMPED FROM PITS AND TRENCHES SHALL BE FILTERED BY MEANS OF A FILTER BAG. IMMEDIATELY AFTER TRENCHES HAVE

15. CONSTRUCT THE PROPOSED BUILDINGS AND ATTACHED UTILITIES (ROOF DRAINS, SANITARY CONNECTIONS, WATER CONNECTIONS, ETC.)

16. FINE GRADE ANY REMAINING AREAS AS SHOWN ON THE GRADING PLAN. DURING THIS TIME, FRAME EARTH MOVING EQUIPMENT WILL BE EMPLOYED TO REMOVE TOPSOIL AND EXCESS "FILL" MATERIAL, IF ANY EXISTS. SPREAD A MINIMUM OF 4-8 INCHES OF TOPSOIL ON FRESHLY GRADED AREAS: REFER TO THE TOPSOIL APPLICATION NOTES ON THE PLAN. FINAL PASSES DURING FINE GRADING SHALL BE MADE AT RIGHT ANGLES TO THE SLOPES, PREPARE THE REMAINDER OF THE DISTURBED AREA FOR PERMANENT STABILIZATION. SEEDBED SHALL BE PREPARED IN ACCORDANCE WITH ACCEPTED PRACTICES. EACH SEED MIXTURE SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S RATES AND

17. DURING NON-GERMINATING PERIODS, MULCH MUST BE APPLIED AT THE SPECIFIED RATES. DISTURBED AREAS WHICH ARE NOT AT FINISHED GRADE AND WHICH WILL BE RE-DISTURBED WITHIN 1 YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY VEGETATIVE STABILIZATION SPECIFICATIONS. DISTURBED AREAS WHICH ARE AT FINAL GRADE OR WHICH WILL NOT BE RE-DISTURBED WITHIN 1 YEAR MUST BE

18. PAVE THE STREETS. DO NOT INSTALL SURFACE (WEARING) COURSE UNTIL THE AREA IS STABILIZED (DEFINED AS A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER, WITH A DENSITY CAPABLE OF RESISTING ACCELERATED EROSION AND SEDIMENTATION IN ALL AREAS TRIBUTARY TO THE CONTROLS). IF EARTHMOVING ACTIVITIES CEASE FOR FOUR (4) DAYS OR MORE TEMPORARY STABILIZATION SHALL BE APPLIED. SEE

TO CONVERSION OF THE SEDIMENT BASINS TO PERMANENT STORMWATER BASINS. ANY WATER PUMPED FROM THE SEDIMENT BASIN OR OTHER AREA OF THE SITE SHALL BE PUMPED THROUGH A FILTER BAG AND THE COLLECTED SEDIMENT SHALL BE DISPOSED OF PROPERLY. ALL AREAS DISTURBED DURING THIS PROCESS SHALL BE STABILIZED IMMEDIATELY THROUGH SEEDING AND MULCHING. THE COUNTY CONSERVATION DISTRICT SHOULD BE CONTACTED PRIOR TO CONVERSION OR REMOVAL OF ANY E&S BMPS AND MAY REQUIRE A SITE INSPECTION. REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROLS ONCE THE SITE IS COMPLETELY STABILIZED (DEFINED AS A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER, WITH A DENSITY CAPABLE OF RESISTING ACCELERATED EROSION AND SEDIMENTATION IN ALL AREAS TRIBUTARY TO THE

20. UPON STABILIZATION OF ALL DISTURBED AREAS MODIFY SEDIMENT BASIN E AS REQUIRED TO INSTALL INFILTRATION BASIN E AS SHOWN ON THE PCSM PLAN. REMOVE ALL SEDIMENT BASIN BAFFLES, CLEANOUT STAKE, AND SKIMMER. THE INFILTRATION BASIN SHALL BE OVER-EXCAVATED AND SCARIFIED IN ACCORDANCE WITH THE PLAN DETAIL. THE EXCAVATOR SHOULD AVOID EXCAVATING TO THE FINAL DESIGN INVERT UNTIL THE ENGINEERED SOIL MIX IS READY TO BE PLACED. THIS WILL MINIMIZE THE EXPOSURE OF SUBGRADE SOIL AND AID IN REDUCING COMPACTION. WHEN EXCAVATING TO FINAL INVERT SUBGRADES UTILIZE A SMOOTH (TOOTHLESS) BLADE BUCKET TO AVOID LOCALIZED COMPACTION. DURING THE EXCAVATION OF THE BASIN BOTTOM, INSTALL THE UNDERDRAIN SYSTEM IN ACCORDANCE WITH THE PLAN DETAILS. PLACE THE ENGINEERED SOIL MIX TO THE SPECIFIED ELEVATION WITHIN THE BASIN BOTTOM. ANY SOIL COMPACTION SHOULD BE AVOIDED IN THE BASIN BOTTOM. IMMEDIATELY AFTER PLACING THE ENGINEERED SOIL MIX, INSTALL THE SILT SOCK AT LOCATION 64 TO PREVENT SEDIMENTATION OF THE ENGINEERED SOILS. WHEN SEEDING THE BASIN MIXES BE SURE TO HAND RAKE THE SEED INTO THE SOIL. A LICENSED PROFESSIONAL OR DESIGNEE SHALL BE PRESENT ONSITE DURING INSTALLATION OF THE UNDERDRAIN SYSTEM, ENGINEERED SOILS, AND FINAL GRADING/SEEDING OF INFILTRATION BASIN

21. THE OPERATOR SHALL REMOVE FROM THE SITE, RECYCLE OR DISPOSE OF ALL BUILDING MATERIALS AND WASTES IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA CODE 260.1 ET SEQ., 271.1 ET SEQ., AND 287.1 ET SEQ. THE CONTRACTOR SHALL NOT ILLEGALLY BURY DUMP, OR DISCHARGE ANY BUILDING MATERIAL OR WASTES ON OR OFF THE SITE. THESE BUILDING WASTES INCLUDE, BUT ARE NOT LIMITED TO, EXCESS SOIL MATERIALS, BUILDING MATERIALS, CONCRETE WASH WATER, SANITARY WASTES, ETC. THAT COULD

22. PER NPDES REQUIREMENTS, "WITHIN 30 DAYS AFTER THE COMPLETION OF EARTH DISTURBANCE ACTIVITIES AUTHORIZED BY THIS PERMIT, INCLUDING THE PERMANENT STABILIZATION OF THE SITE AND PROPER INSTALLATION OF PCSM BMPS IN ACCORDANCE WITH THE APPROVED PCSM PLAN, OR UPON SUBMISSION OF THE NOT IF SOONER, THE PERMITTEE SHALL FILE WITH THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT A STATEMENT SIGNED BY A LICENSED PROFESSIONAL AND BY THE PERMITTEE CERTIFYING THAT WORK HAS BEEN PERFORMED IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THIS PERMIT AND THE APPROVED E&S AND PCSM PLANS. COMPLETION CERTIFICATES ARE NEEDED TO ENSURE THAT ALL WORK IS PERFORMED IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THE PERMIT AND THE APPROVED

1. AT LEAST 7 DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, INCLUDING CLEARING AND GRUBBING, THE CONTRACTOR SHALL INVITE ALL SUB-CONTRACTORS, THE LANDOWNER, ALL APPROPRIATE MUNICIPAL OFFICIALS, THE CIVIL ENGINEER, AND A REPRESENTATIVE OF THE LOCAL COUNTY CONSERVATION DISTRICT TO AN ON-SITE PRE-CONSTRUCTION MEETING. PERIMETER E&S CONTROLS MAY BE INSTALLED PRIOR TO THE

2. AT LEAST 3 DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES SHALL NOTIFY THE PENNSYLVANIA ONE CALL SYSTEM INCORPORATED AT 1-800-242-1776 FOR THE LOCATION OF EXISTING UNDERGROUND UTILITIES.

3. ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE SEQUENCE PROVIDED ON THE PLAN DRAWINGS. DEVIATION FROM THAT SEQUENCE MUST BE APPROVED IN WRITING FROM THE LOCAL CONSERVATION DISTRICT OR BY DEP PRIOR TO IMPLEMENTATION.

4. INSTALL EXTENDED ROCK CONSTRUCTION ENTRANCE #5 AS SHOWN ON THE ATTACHED PLAN.

5. THE LIMITS OF DISTURBANCE (LOD) SHOULD BE MARKED PRIOR TO DISTURBANCE ACTIVITIES (I.E. SURVEY STAKES, POSTS & ROPE,

6.LOCATE, STAKE, AND FLAG AREAS MARKED AS PCSM BMP'S (I.E. INFILTRATION BASIN G). REFER TO PCSM PLAN FOR ADDITIONAL INFORMATION AND LOCATION OF PCSM BMP'S. THESE AREAS SHOULD NOT BE COMPACTED DURING CONSTRUCTION. NO CONSTRUCTION TRAFFIC SHALL OCCUR

7.INSTALL PERIMETER SILT SOCK ON THE SITE AT LOCATIONS 44-48 AS INDICATED ON THE ATTACHED PLAN. SILT SOCK IS TO BE INSTALLED ALONG THE CONTOUR WHERE POSSIBLE, AT A LEVEL GRADE. THE SILT SOCK SHOULD BE POSITIONED IN SUCH A WAY AS TO PREVENT ANY SEDIMENT FROM LEAVING THE SITE. SEDIMENT ACCUMULATING TO HALF THE HEIGHT OF THE SILT SOCK SHALL BE REMOVED IN ORDER TO RESTORE THE SEDIMENT STORAGE CAPACITY OF THESE AREAS. IN THE CASE OF A FAILURE OF THE SILT SOCK DUE TO HIGH FLOWS. A NEW SECTION OF SILT SOCK SHALL BE INSTALLED ACROSS THE FAILED PORTION OF THE SILT SOCK. AT NO POINT SHALL UN-STABILIZED AREA DRAIN OFFSITE UNCONTROLLED. THE SILT SOCK IN LOCATION 66 IS TO ENSURE SEDIMENTATION OF THE BASIN BOTTOM AREA DOES NOT OCCUR AND

9. PER NPDES REQUIREMENTS, "UPON THE INSTALLATION OR STABILIZATION OF ALL PERIMETER SEDIMENT CONTROL BMPS AND AT LEAST 3 DAYS PRIOR TO PROCEEDING WITH THE BULK EARTH DISTURBANCE ACTIVITIES, THE PERMITTEE OR CO-PERMITTEE SHALL PROVIDE NOTIFICATION TO THE

10. INSTALL SEDIMENT BASIN G WHICH WILL SERVE AS A SEDIMENT BASIN DURING CONSTRUCTION AND BE CONVERTED TO A PERMANENT STORMWATER BASIN UPON TRIBUTARY STABILIZATION. DISTURB ONLY THE MINIMUM AREA NECESSARY TO INSTALL THE SEDIMENT BASIN. THE SEDIMENT BASIN MUST BE CONSTRUCTED PRIOR TO ANY MAJOR EARTH DISTURBANCE, STRIPPING, OR CLEARING. INSTALL THE OUTLET PIPE FROM THE BASIN ALONG WITH THE ASSOCIATED OUTLET STRUCTURE. CONSTRUCT IMPERVIOUS CLAY CORE, ANTI-SEEP COLLARS, AND BACKFILL EMBANKMENT, COMPACTING TO 95% MAX DRY DENSITY. INSTALL NORTH AMERICAN GREEN C350 SLOPE PROTECTION AT EMERGENCY SPILLWAY. INSTALL ENDWALL WITH RIPRAP APRON. INSTALL SEED IN THE INTERIOR SLOPES AND BERM OF BASIN. INSTALL TYPE M OUTLET STRUCTURE, CLEAN OUT STAKE, BASIN BAFFLE(S), AND SKIMMER WITHIN THE SEDIMENT BASIN. PLEASE REFER TO THE E&S SHEETS FOR ADDITIONAL DETAIL. A LICENSED PROFESSIONAL OR DESIGNEE SHALL BE PRESENT ONSITE DURING SEDIMENT BASIN EXCAVATION AND INSTALLATION OF THE OUTLET

11. IF SOIL IS TAKEN TO OR BORROWED FROM ANOTHER CONSTRUCTION SITE, SAID SITE MUST HAVE AN APPROVED E&SPC PLAN. SEE THE "SOIL

12. CLEAR AND STRIP TOPSOIL ACROSS THE AREA OF THE BUILDING PADS AND STREETS WITHIN PHASE 5 AND PLACE ON THE TOPSOIL STOCKPILES AS SHOWN ON THE ATTACHED PLAN AND IN ACCORDANCE WITH PLAN DETAILS. INSTALL SILT SOCK BELOW EACH TOPSOIL STOCKPILE

13. ROUGH GRADE THE DISTURBED AREA TO CONSTRUCT THE BUILDINGS, DRIVEWAYS, AND STREETS WITHIN PHASE 5. INSTALL SWALES 8-10 DURING ROUGH GRADING. ENSURE THE SWALE LINING IS INSTALLED IN EACH SWALE IN ACCORDANCE WITH THE PLAN DETAILS.

STORM INLETS THAT ARE NOT TRIBUTARY TO SEDIMENT BASIN G AS SHOWN ON THE E&S PLAN. INSTALL ROCK FILTER #2 ABOVE EW-H6. DURING AND FOLLOWING STORM EVENTS PROVIDE A MEANS TO DEWATER PITS AND UTILITY TRENCHES. SPOIL MATERIAL FROM EXCAVATION OF THE TRENCHES SHALL BE PLACED ON THE UP-SLOPE SIDE OF THE TRENCH, THE LENGTH OF OPEN TRENCH SHALL BE LIMITED TO THAT WHICH WILL BE BACKFILLED THE SAME DAY, AND ANY AFFECTED BMP'S SHALL BE IMMEDIATELY STABILIZED AND REPAIRED. THE TOPSOIL EXCAVATED FROM THE TRENCH SHALL BE CAREFULLY REMOVED AND STOCKPILED SEPARATELY FROM THE SUBSOIL. THE TOPSOIL SHALL BE RESTORED TO THE GRADED AREAS TO PRE-CONSTRUCTION CONDITIONS. WATER PUMPED FROM PITS AND TRENCHES SHALL BE FILTERED BY MEANS OF A

PRIOR TO PROCEEDING WITH THE BULK EARTH DISTURBANCE ACTIVITIES, THE PERMITTEE OR CO-PERMITTEE SHALL PROVIDE NOTIFICATION TO THE FILTER BAG. IMMEDIATELY AFTER TRENCHES HAVE BEEN BACKFILLED, FINE-GRADE AREA.

15. INSTALL THE STONE SUB-BASE FOR THE STREETS, DRIVEWAYS, AND CONCRETE SLABS AS PER PLAN REQUIREMENTS.

16. CONSTRUCT THE PROPOSED BUILDINGS AND ATTACHED UTILITIES (ROOF DRAINS, SANITARY CONNECTIONS, WATER CONNECTIONS, ETC.) IMMEDIATELY UPON COMPLETION OF EARTH DISTURBANCE ACTIVITIES FINAL GRADE AND STABILIZE THE LOT.

17. FINE GRADE ANY REMAINING AREAS AS SHOWN ON THE GRADING PLAN. DURING THIS TIME, FRAME EARTH MOVING EQUIPMENT WILL BE EMPLOYED TO REMOVE TOPSOIL AND EXCESS "FILL" MATERIAL, IF ANY EXISTS. SPREAD A MINIMUM OF 4-8 INCHES OF TOPSOIL ON FRESHLY GRADED AREAS: REFER TO THE TOPSOIL APPLICATION NOTES ON THE PLAN. FINAL PASSES DURING FINE GRADING SHALL BE MADE AT RIGHT ANGLES TO THE SLOPES, PREPARE THE REMAINDER OF THE DISTURBED AREA FOR PERMANENT STABILIZATION. SEEDBED SHALL BE PREPARED IN ACCORDANCE WITH ACCEPTED PRACTICES. EACH SEED MIXTURE SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S RATES AND INSTRUCTIONS.

18. DURING NON-GERMINATING PERIODS, MULCH MUST BE APPLIED AT THE SPECIFIED RATES. DISTURBED AREAS WHICH ARE NOT AT FINISHED GRADE AND WHICH WILL BE RE-DISTURBED WITHIN 1 YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY VEGETATIVE STABILIZATION SPECIFICATIONS. DISTURBED AREAS WHICH ARE AT FINAL GRADE OR WHICH WILL NOT BE RE-DISTURBED WITHIN 1 YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE PERMANENT VEGETATIVE STABILIZATION SPECIFICATIONS

19. PAVE THE STREETS. DO NOT INSTALL SURFACE (WEARING) COURSE UNTIL THE AREA IS STABILIZED (DEFINED AS A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER. WITH A DENSITY CAPABLE OF RESISTING ACCELERATED EROSION AND SEDIMENTATION IN ALL AREAS TRIBUTARY TO THE CONTROLS). IF EARTHMOVING ACTIVITIES CEASE FOR FOUR (4) DAYS OR MORE TEMPORARY STABILIZATION SHALL BE APPLIED. SEE "STABILIZATION SPECIFICATIONS" IN THE E&S PLAN FOR FURTHER DETAILS.

20. ALL SEDIMENT DEPOSITED WITHIN STORM SEWER CONVEYANCE PIPES SHALL BE REMOVED PRIOR TO COMPLETION OF THE PROJECT AND PRIOR TO CONVERSION OF THE SEDIMENT BASINS TO PERMANENT STORMWATER BASINS. ANY WATER PUMPED FROM THE SEDIMENT BASIN OR OTHER AREA OF THE SITE SHALL BE PUMPED THROUGH A FILTER BAG AND THE COLLECTED SEDIMENT SHALL BE DISPOSED OF PROPERLY. ALL AREAS DISTURBED DURING THIS PROCESS SHALL BE STABILIZED IMMEDIATELY THROUGH SEEDING AND MULCHING. THE COUNTY CONSERVATION DISTRICT SHOULD BE CONTACTED PRIOR TO CONVERSION OR REMOVAL OF ANY E&S BMPS AND MAY REQUIRE A SITE INSPECTION. REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROLS ONCE THE SITE IS COMPLETELY STABILIZED (DEFINED AS A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER, WITH A DENSITY CAPABLE OF RESISTING ACCELERATED EROSION AND SEDIMENTATION IN ALL AREAS TRIBUTARY TO THE CONTROLS) WITH APPROVAL OF THE COUNTY CONSERVATION DISTRICT.

21. UPON STABILIZATION OF ALL DISTURBED AREAS MODIFY SEDIMENT BASIN G AS REQUIRED TO INSTALL INFILTRATION BASIN G AS SHOWN ON THE PCSM PLAN. REMOVE ALL SEDIMENT BASIN BAFFLES, CLEANOUT STAKE, AND SKIMMER. THE INFILTRATION BASIN SHALL BE OVER-EXCAVATED AND SCARIFIED IN ACCORDANCE WITH THE PLAN DETAIL. THE EXCAVATOR SHOULD AVOID EXCAVATING TO THE FINAL DESIGN INVERT UNTIL THE ENGINEERED SOIL MIX IS READY TO BE PLACED. THIS WILL MINIMIZE THE EXPOSURE OF SUBGRADE SOIL AND AID IN REDUCING COMPACTION. WHEN EXCAVATING TO FINAL INVERT SUBGRADES UTILIZE A SMOOTH (TOOTHLESS) BLADE BUCKET TO AVOID LOCALIZED COMPACTION. DURING THE EXCAVATION OF THE BASIN BOTTOM, INSTALL THE UNDERDRAIN SYSTEM IN ACCORDANCE WITH THE PLAN DETAILS. PLACE THE ENGINEERED SOIL MIX TO THE SPECIFIED ELEVATION WITHIN THE BASIN BOTTOM. ANY SOIL COMPACTION SHOULD BE AVOIDED IN THE BASIN BOTTOM. IMMEDIATELY AFTER PLACING THE ENGINEERED SOIL MIX, INSTALL THE SILT SOCK AT LOCATION 66 TO PREVENT SEDIMENTATION OF THE ENGINEERED SOILS. WHEN SEEDING THE BASIN MIXES BE SURE TO HAND RAKE THE SEED INTO THE SOIL. A LICENSED PROFESSIONAL OR DESIGNEE SHALL BE PRESENT ONSITE DURING INSTALLATION OF THE UNDERDRAIN SYSTEM, ENGINEERED SOILS, AND FINAL GRADING/SEEDING OF INFILTRATION BASIN

22. THE OPERATOR SHALL REMOVE FROM THE SITE, RECYCLE OR DISPOSE OF ALL BUILDING MATERIALS AND WASTES IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA CODE 260.1 ET SEQ., 271.1 ET SEQ., AND 287.1 ET SEQ. THE CONTRACTOR SHALL NOT ILLEGALLY BURY DUMP, OR DISCHARGE ANY BUILDING MATERIAL OR WASTES ON OR OFF THE SITE. THESE BUILDING WASTES INCLUDE, BUT ARE NOT LIMITED TO, EXCESS SOIL MATERIALS, BUILDING MATERIALS, CONCRETE WASH WATER, SANITARY WASTES, ETC. THAT COULD ADVERSELY IMPACT WATER QUALITY.

23. PER NPDES REQUIREMENTS, "WITHIN 30 DAYS AFTER THE COMPLETION OF EARTH DISTURBANCE ACTIVITIES AUTHORIZED BY THIS PERMIT, INCLUDING THE PERMANENT STABILIZATION OF THE SITE AND PROPER INSTALLATION OF PCSM BMPS IN ACCORDANCE WITH THE APPROVED PCSM PLAN, OR UPON SUBMISSION OF THE NOT IF SOONER, THE PERMITTEE SHALL FILE WITH THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT A STATEMENT SIGNED BY A LICENSED PROFESSIONAL AND BY THE PERMITTEE CERTIFYING THAT WORK HAS BEEN PERFORMED IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THIS PERMIT AND THE APPROVED E&S AND PCSM PLANS. COMPLETION CERTIFICATES ARE NEEDED TO ENSURE THAT ALL WORK IS PERFORMED IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THE PERMIT AND THE APPROVED E&S AND PCSM PLANS."

1. ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE SEQUENCE PROVIDED ON THE PLAN DRAWINGS. DEVIATION FROM THAT SEQUENCE MUST BE APPROVED IN WRITING FROM THE LOCAL CONSERVATION DISTRICT OR BY DEP PRIOR TO IMPLEMENTATION.

If material replacement is required in structural areas (Ex: below-grade SWM facilities in paved areas), material 2. PER NPDES REQUIREMENTS, "UPON THE INSTALLATION OR STABILIZATION OF ALL PERIMETER SEDIMENT CONTROL BMPS AND AT LEAST 3 DAYS placement specifications, including materials type, mix ratio, compactive effort and required density should be determined PRIOR TO PROCEEDING WITH THE BULK EARTH DISTURBANCE ACTIVITIES, THE PERMITTEE OR CO-PERMITTEE SHALL PROVIDE NOTIFICATION TO THE by ECS. Suitable soil mixtures can consist of a blend of on-site and/or off-site materials available to the Contractor DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT." generally conforming the table above, with field infiltration rates post placement determined and approved by ECS.

3. IF SOIL IT IS TAKEN TO OR BORROWED FROM ANOTHER CONSTRUCTION SITE, SAID SITE MUST HAVE AN APPROVED E&SPC PLAN. SEE THE "SOIL LIMITATIONS AND RESOLUTIONS" SECTION OF THIS E&S PLAN FOR FURTHER INFORMATION.

CONTRACTOR NOTES

4. DURING NON-GERMINATING PERIODS, MULCH MUST BE APPLIED AT THE SPECIFIED RATES. DISTURBED AREAS WHICH ARE NOT AT FINISHED GRADE AND WHICH WILL BE RE-DISTURBED WITHIN 1 YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY VEGETATIVE STABILIZATION SPECIFICATIONS. DISTURBED AREAS WHICH ARE AT FINAL GRADE OR WHICH WILL NOT BE RE-DISTURBED WITHIN 1 YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE PERMANENT VEGETATIVE STABILIZATION SPECIFICATIONS.

5. ALL SEDIMENT DEPOSITED WITHIN STORM SEWER CONVEYANCE PIPES SHALL BE REMOVED PRIOR TO COMPLETION OF THE PROJECT. ANY WATER PUMPED FROM THE STORMWATER BASIN OR OTHER AREA OF THE SITE SHALL BE PUMPED THROUGH A FILTER BAG AND THE COLLECTED SEDIMENT SHALL BE DISPOSED OF PROPERLY. ALL AREAS DISTURBED DURING THIS PROCESS SHALL BE STABILIZED IMMEDIATELY THROUGH SEEDING AND MULCHING. THE COUNTY CONSERVATION DISTRICT SHOULD BE CONTACTED PRIOR TO CONVERSION OR REMOVAL OF PRIMARY F& BMPS AND MAY REQUIRE A SITE INSPECTION. REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROLS ONCE THE SITE IS COMPLETELY STABILIZED (DEFINED AS A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER, WITH A DENSITY CAPABLE OF RESISTING ACCELERATED EROSION AND SEDIMENTATION IN ALL AREAS TRIBUTARY TO THE CONTROLS).

6. THE OPERATOR SHALL REMOVE FROM THE SITE, RECYCLE OR DISPOSE OF ALL BUILDING MATERIALS AND WASTES IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA CODE 260.1 ET SEQ., 271.1 ET SEQ., AND 287.1 ET SEQ. THE CONTRACTOR SHALL NOT ILLEGALLY BURY DUMP, OR DISCHARGE ANY BUILDING MATERIAL OR WASTES ON OR OFF THE SITE. THESE BUILDING WASTES INCLUDE. BUT ARE NOT LIMITED TO, EXCESS SOIL MATERIALS, BUILDING MATERIALS, CONCRETE WASH WATER, SANITARY WASTES, ETC. THAT COULD ADVERSELY IMPACT WATER QUALITY.

7. PER NPDES REQUIREMENTS, "WITHIN 30 DAYS AFTER THE COMPLETION OF EARTH DISTURBANCE ACTIVITIES AUTHORIZED BY THIS PERMIT. INCLUDING THE PERMANENT STABILIZATION OF THE SITE AND PROPER INSTALLATION OF POSM BMPS IN ACCORDANCE WITH THE APPROVED POSM PLAN, OR UPON SUBMISSION OF THE NOT IF SOONER. THE PERMITTEE SHALL FILE WITH THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT A STATEMENT SIGNED BY A LICENSED PROFESSIONAL AND BY THE PERMITTEE CERTIFYING THAT WORK HAS BEEN PERFORMED IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THIS PERMIT AND THE APPROVED E&S AND PCSM PLANS. COMPLETION CERTIFICATES ARE NEEDED TO ENSURE THAT ALL WORK IS PERFORMED IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THE PERMIT AND THE APPROVED E&S AND PCSM PLANS."

#### STORMWATER MANAGEMENT FEATURE CONSTRUCTION NOTES

A. If redoximorphic features (soil mottling and coloration patterns formed by the reduction of iron and/or manganese from saturated conditions in the soil) are encountered:

A.A. A qualified professional should determine if the features observed are associated with a historic condition (associated with fill, previous site condition, or natural coloration) or are associated with conditions that could presently occur (seasonal variations in the water table).

- Evaluate the elevation of the features relative to the proposed design elevation of the SWM feature and determine if the size and elevation of the SWM feature can be adjusted to alleviate the conflict. A.C. Retain ECS and Civil Engineer to evaluate alternate design concepts. Alternate designs proposed by the Professional should be sealed and submitted to the Township for approval.
- B. If the field verified infiltration rates are excessively high (greater than 6 inches per hour):
- Determine the extent of the materials exhibiting the high infiltration rates through a combination of visual-manual classification, hand probing, density testing, or other suitable methods as determined by ECS.
- B.B. Overexcavate the materials to the depth where the material type changes or a maximum depth of 2 feet, whichever is encountered first. B.C. If excessive rates are associated with weathered or broken rock, the rock surface should be examined by ECS,
- prior to replacement of suitable material. B.D. Replace the excavated material with finer grained materials approved by ECS. Suitable soil mixtures can consist of a blend of on-site and/or off-site materials available to the Contractor generally conforming to the table below, with field infiltration rates post placement determined and approved by ECS.

		RECOMM	IENDED SO	DIL MEDIA I	BLEND			
Permissible Soil Types for Soil Media, based on		Ranges of (	USDA Part	icle Size Pe	rcentages	i	Rates for	nfiltration Permissible ±s (in/hr)*
UDSA Classification	Sa	nd	5	ilt	c	lay	Min	Max
	Min	Max	Min	Max	Min	Max	MIN	Max
Sand, Loamy Sand, Sandy Loam, Loam	50	100	0	50	0	20	0.5	6.0

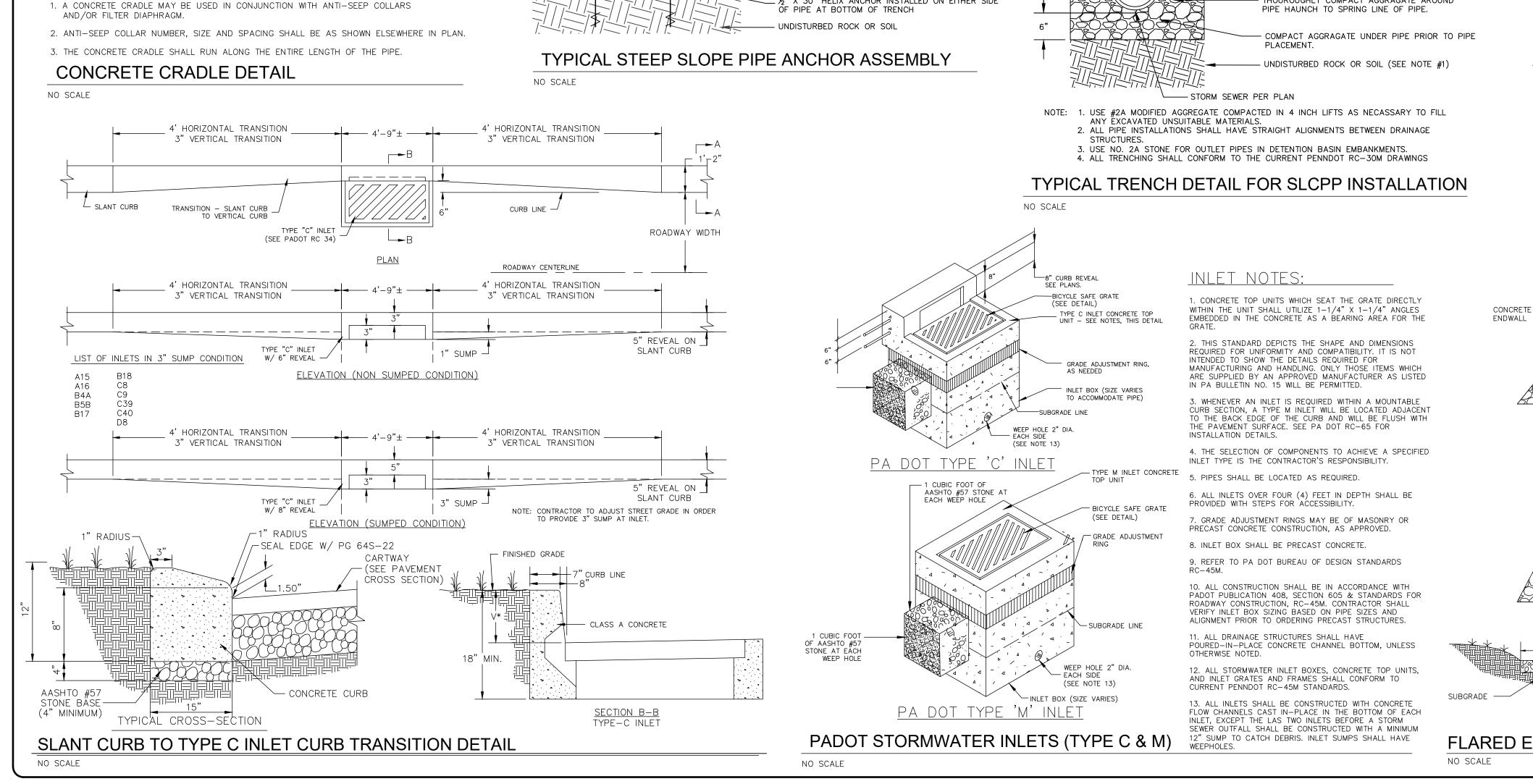
B.E. Materials should be lightly tracked into place in non-structural areas.

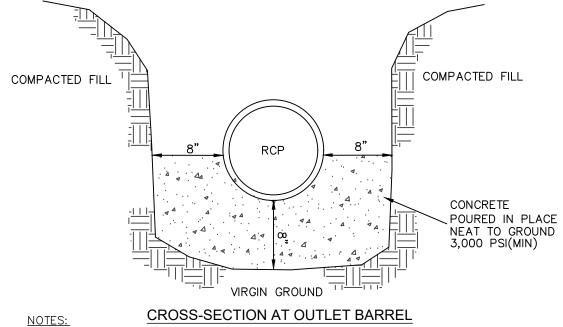
If material replacement is required in structural areas (Ex: below-grade SWM facilities in paved areas), material placement specifications, including materials type, mix ratio, compactive effort and required density should be determined by ECS. Technical recommendations should be sealed by ECS and submitted to the Township for approval.

C. If the field verified infiltration rates are excessively low (less than 0.1 in/hr):

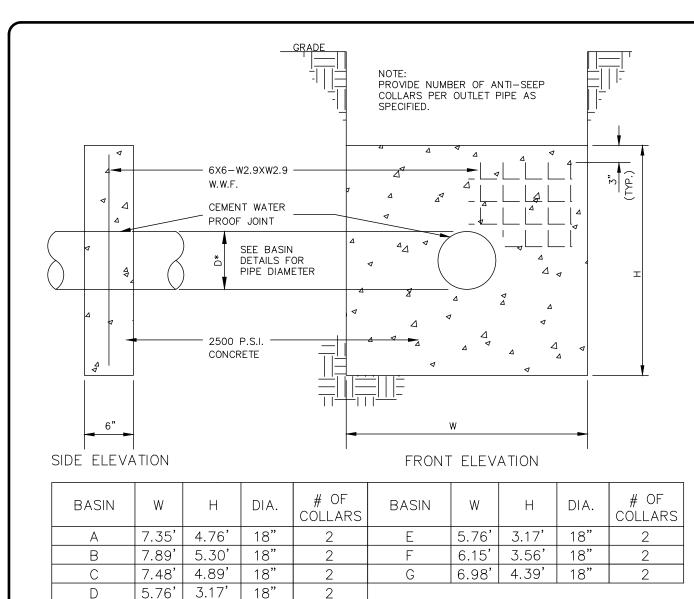
- Determine the extent of the materials exhibiting the low infiltration rates through a combination of visual-manual classification, hand probing, density testing, or other suitable methods as determined by the ECS. C.B. Overexcavate the materials to the depth where the material type changes or a maximum depth of 2 feet,
- whichever is encountered first. C.C. If bedrock is encountered, the rock should be removed to a minimum depth of 2 feet below the bottom of basin
- and should be examined by ECS, prior to replacement of suitable material. Replace the excavated material with more coarsely grained materials approved by ECS. Suitable soil mixtures can consist of a blend of on-site and/or off-site materials available to the Contractor, and subject to testing and approval of ECS.
- C.E. Suitable soil mixtures may consist of materials blended by volume ratios as determined by ECS.
- C.F. Materials should be lightly tracked into place in non-structural areas.

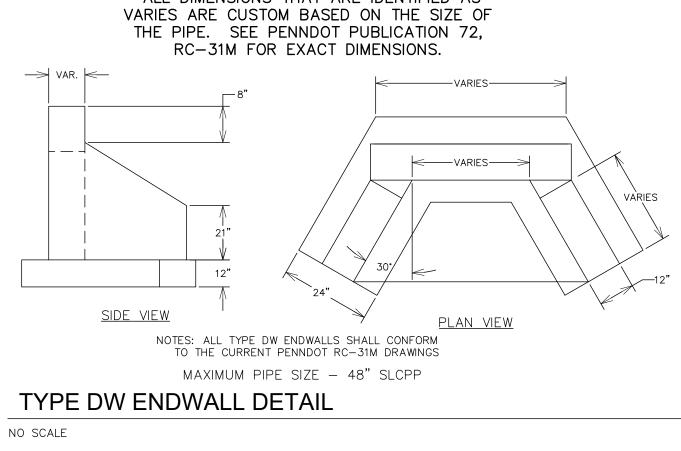
POST CONSTRUCTION STORMWATER MANAGEMENT NOTESREVISIONFINAL - PHASE 1REVISIONFINAL - PHASE 1REVISIONFINAL - PHASE 1REVISIONFINAL - PHASE 1FINAL - PARTHSIDEINCITH LEBANON TOWNSHIPCOLPUT EBANON TOWNSHIPCOLPUT EBANON County, PennsylvaniaCOLPUT EBANON County, Pennsylvania		PER ARRO LETTER DATED 7/3/24	PER NLTMA REVISIONS	PER LCPD LETTER DATED 7/16/24		
POST CONSTRUCTION STORMWATER MANAGEMENT NOTES FINAL - PHASE 1 FINAL - PHASE 1 SUBDIVISION & LAND DEVELOPMENT PLAN For THE ESTATES AT HEARTHSIDE Iocated in NORTH LEBANON TOWNSHIP LEBANON COUNTY, Pennsylvania	ANAGEMENT NOTES					
Steckbeck Engineering & Surveying Inc. 279 North Zinns Mill Road / Suite A Lebanon, Pennsyvania 17042 Phone: (717) 272–7110 Fax: (717) 272–7348	POST CONSTRUCTION STORMWATER M/	FINAL - PHASE 1	SUBDIVISION & LAND DEVELOPMENT PLAN		NORTH LERANON TOWNSHIP	LEBANON County, Pennsylvania





### CONCRETE ANTI-SEEP COLLAR NO SCALE

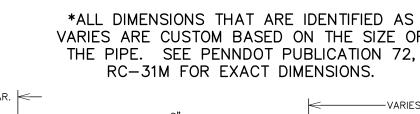




NOTE

SLCPP

PIPE



 $\frac{1}{2}$ " X 30" HELIX ANCHOR INSTALLED ON EITHER SIDE

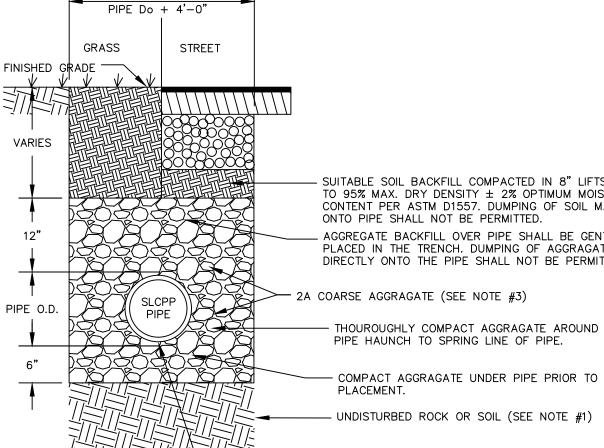
### TO PROTECT PIPE FROM GOUGING BY CABLE - ⅔6" GALVANIZED CABLE CLIPS

 $\frac{3}{16}$ " GALVANIZED CABLE SECURED IN VALLEY BETWEEN CORRUGATIONS, USE RUBBER HOSE OR RUBBER STRIP

AASHTO #8 COARSE AGGRAGATE STORM SEWER PER PLAN

ANCHORED AS SPECIFIED ON THIS DETAIL. PIPE ANCHORS SHALL BE SPACED AT 35' O.C.

ALL PIPES THAT EXCEED 15% IN SLOPE SHALL BE

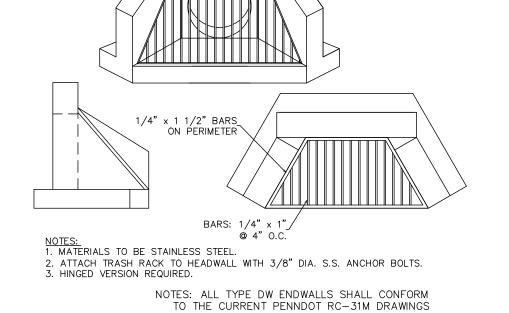


NO SCALE

MIN. TRENCH WIDTH

## SUITABLE SOIL BACKFILL COMPACTED IN 8" LIFTS TO 95% MAX. DRY DENSITY $\pm$ 2% OPTIMUM MOISTURE CONTENT PER ASTM D1557. DUMPING OF SOIL MATERIAL ONTO PIPE SHALL NOT BE PERMITTED. AGGREGATE BACKFILL OVER PIPE SHALL BE GENTLY PLACED IN THE TRENCH. DUMPING OF AGGRAGATE DIRECTLY ONTO THE PIPE SHALL NOT BE PERMITTED. - 2A COARSE AGGRAGATE (SEE NOTE #3)

- TOPSOIL



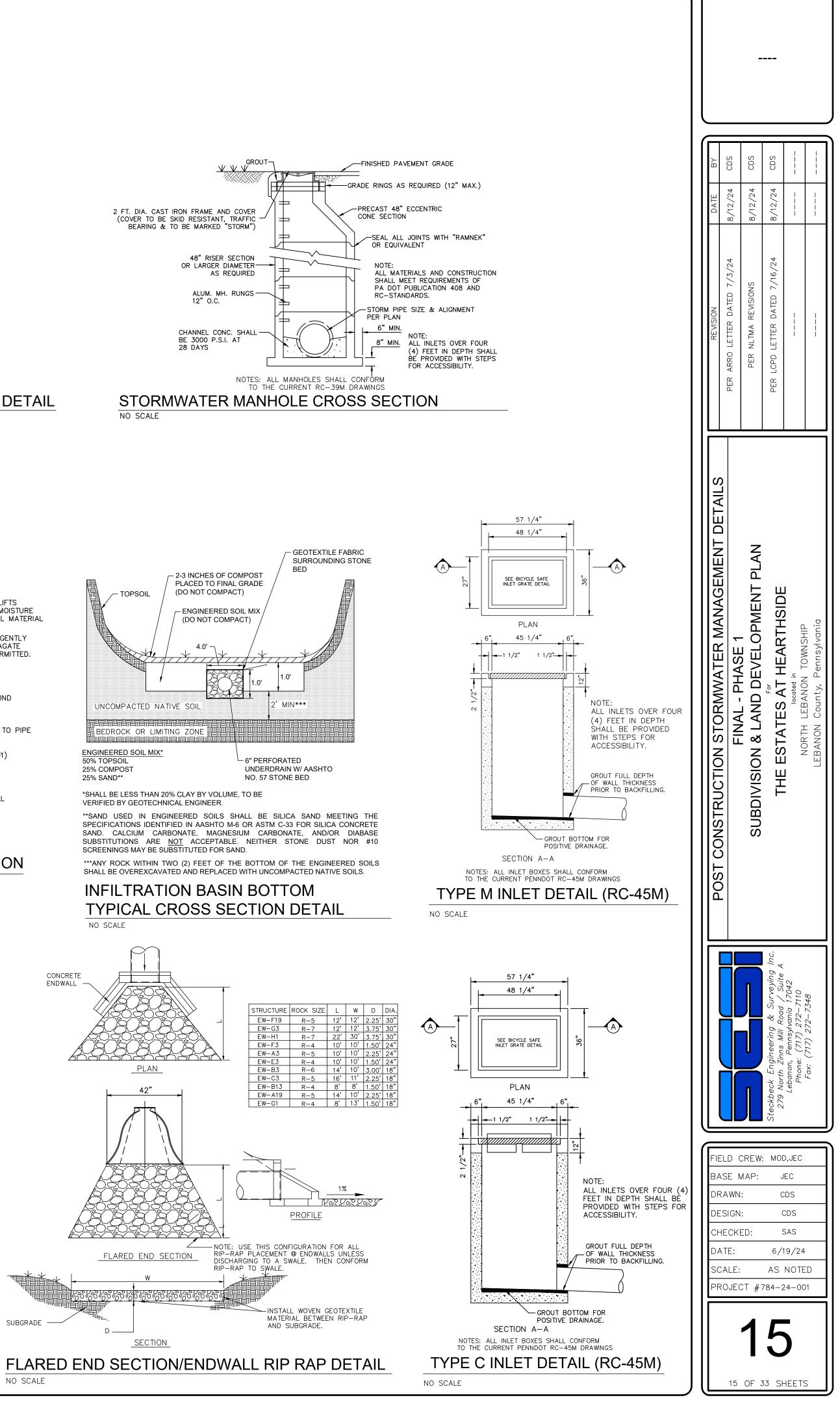
TYPE DW ENDWALL WITH TRASH RACK DETAIL

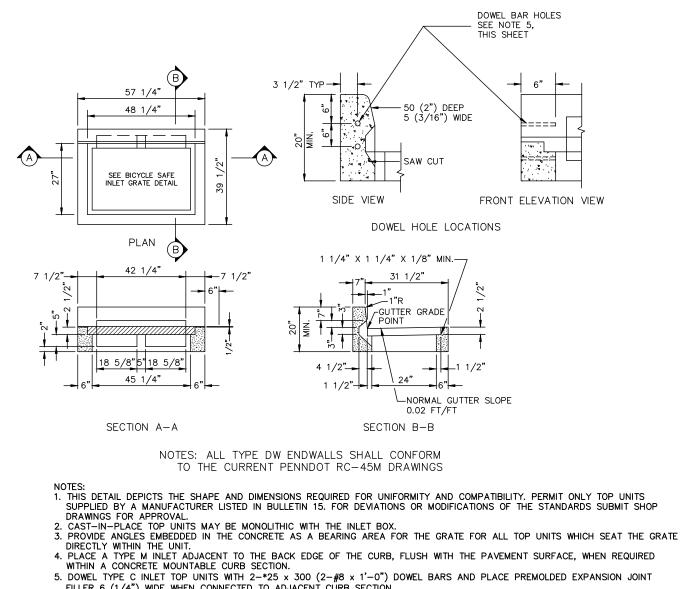
/ DASHED CIRCLE (PIPE

OPENING)

# 28 DAYS

UNCOMPACTED NATIVE SOIL BEDROCK OR LIMITING ZONE ENGINEERED SOIL MIX\* 50% TOPSOIL 25% COMPOST 25% SAND\*\*



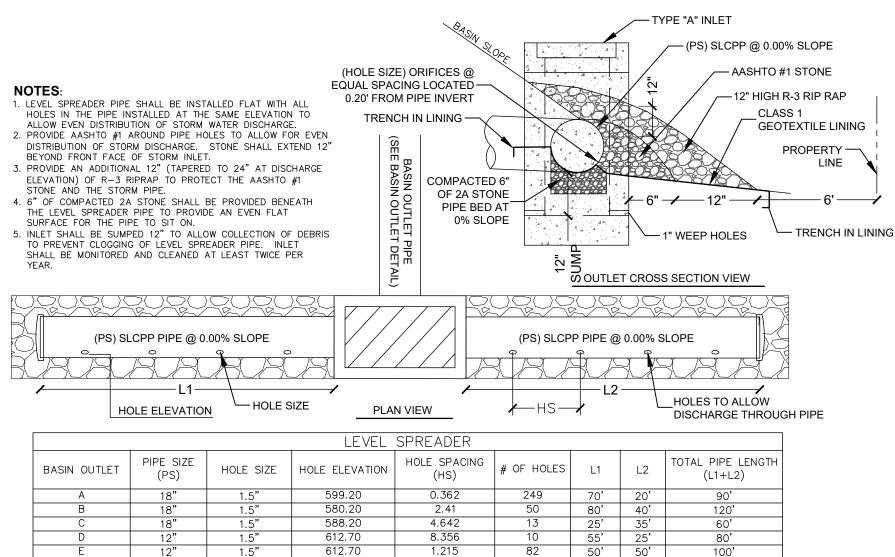


- FILLER 6 (1/4") WIDE WHEN CONNECTED TO ADJACENT CURB SECTION. 6. THE PLACEMENT OF THE TYPE S INLET RELATIVE TO THE GUTTER INVERT IS DEPENDENT ON THE RATE OF BACK SLOPE. FOR BACK SLOPES GREATER THAN 1:2 (2:1), LOCATE THE INLET WHERE THE BACK SLOPE LINE INTERSECTS THE BACK, TOP, OUTSIDE
- CORNER OF THE INLET. FOR BACK SLOPES LESS THAN 1:2 (2:1), LOCATE THE INLET WHERE THE BACK SLOPE LINE INTERSECTS THE EDGE OF THE INLET GRATE. ". TAPERS MAY BE PROVIDED ON INSIDE VERTICAL FACES OF PRECAST INLET TOPS TO FACILITATE FORM STRIPPING. TAPERS WILL RESULT IN INTERNAL BOTTOM DIMENSIONS THAT VERY TO A MAXIMUM OF 25 MM (1").
- PENNDOT TYPE "C" INLET TOP

NO SCALE

### NOTES:

- 3. PROVIDE AN ADDITIONAL 12" (TAPERED TO 24" AT DISCHARGE



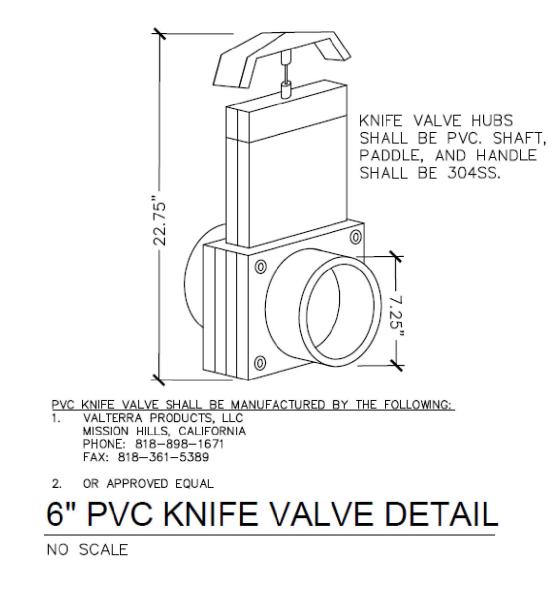
0.842

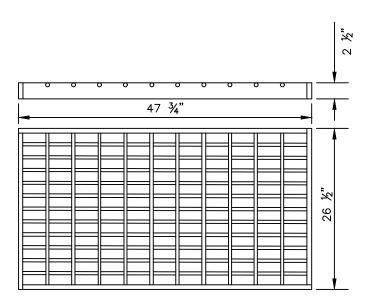
119

BASIN OUTLET	BASIN OUTLET PIPE SIZE (PS)		HOLE ELEVAT	
А	18"	1.5"	599.20	
В	18"	1.5"	580.20	
С	C 18"		588.20	
D	12"	1.5"	612.70	
E	12"	1.5"	612.70	
F	18"	1.5"	611.45	

### LEVEL SPREADER DETAIL

NO SCALE

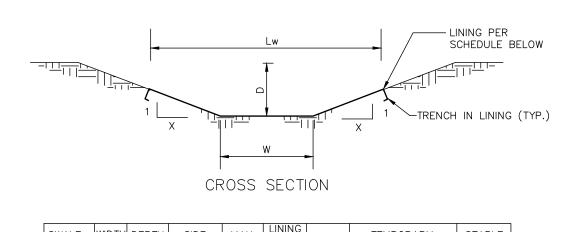




NOTES: 1. GRATES SHOWN FIT 24"X45 1/4" PRECAST TOP UNITS AND TYPES M & C STRUCTURAL STEEL FRAMES. 2. ALL GRATES SHALL CONFORM TO PENNDOT PUB. 72, RC-45M.

- 3. GRATES FOR 24"X72" PRECAST TOP UNITS AND STRUCTURAL STEEL FRAMES ARE ALSO AVAILABLE.
- ALL GRATES SHALL SAFELY WITHSTAND HS-25 HIGHWAY LOADING.
   STEEL SHALL BE COMESTIC AND SHALL CONFORM TO ASTM A36; WELDING SHALL BE DONE BY CERTIFIED WELDERS; GRATES SHALL RECEIVE (1) SHOP COAT OF BLACK ASPHALT PAINT.

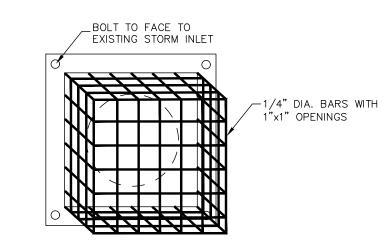
STRUCTURAL STEEL GRATE-BICYCLE SAFE NO SCALE



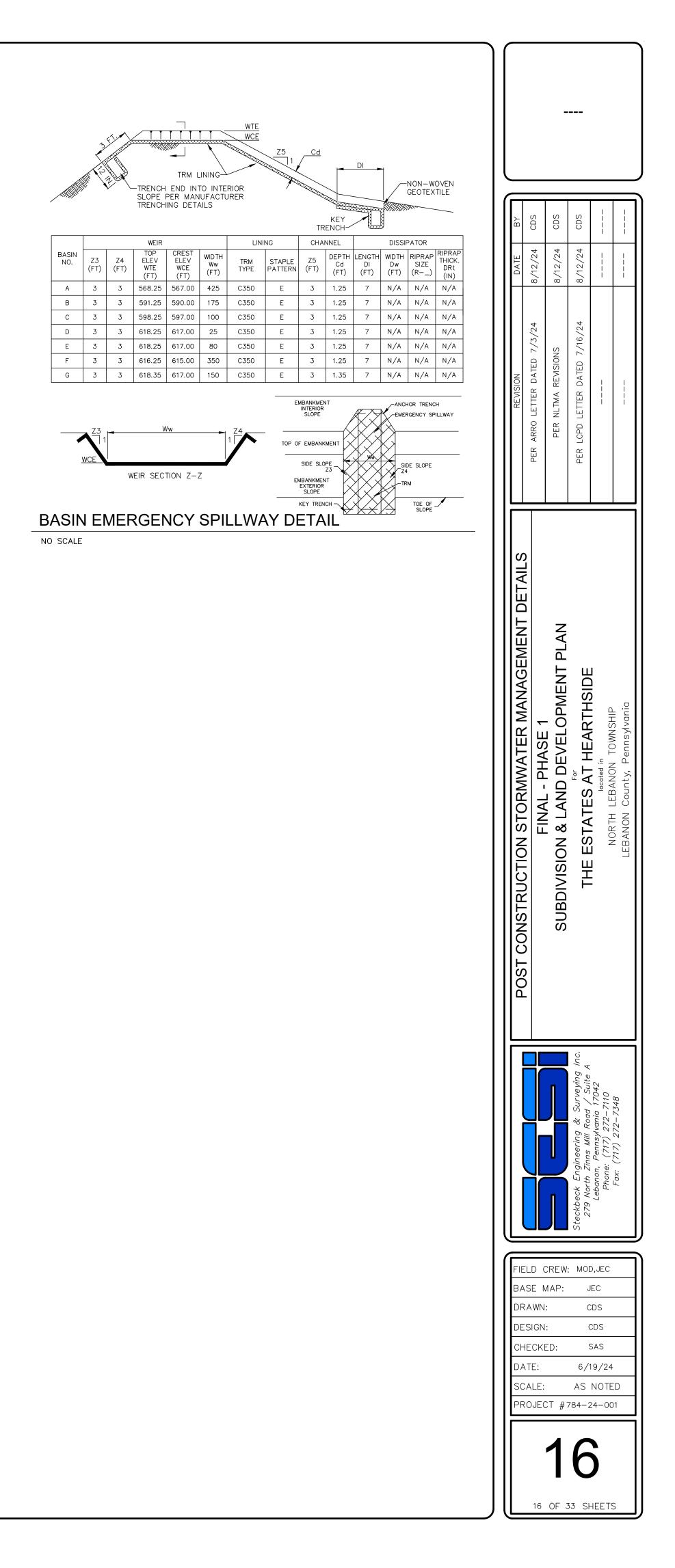
SWALE NO	WIDTH (W)	DEPTH (D)	SIDE SLOPE(X)	MAX. SLOPE	WIDTH (Lw)	LINING	TEMPORARY LINING	STAPLE PATTERN
1	1.5'	1'	4	17%	9.5'	GRASS	N.A.G. C-350	E
2	1.5'	1'	15	8%	31.5'	GRASS	N.A.G. S-75	D
3	1.5'	1'	12.5	5%	26.5'	GRASS	N.A.G. S-75	D
4	1.5'	1'	9	7%	19.5 <b>'</b>	GRASS	N.A.G. P-300	E
5	1.5'	1'	6.5	10%	14.5'	GRASS	N.A.G. P-300	E
6	1'	1'	9	6%	19'	GRASS	N.A.G. S-75	D
7	1'	1'	10	12%	21'	GRASS	N.A.G. P-300	E
8	2'	1'	7.5	6%	17'	GRASS	N.A.G. P-300	E
9	1.5'	1'	7	10%	15.5'	GRASS	N.A.G. P-300	E
10	2'	1'	8	6%	18'	GRASS	N.A.G. P-300	E
11A	1.5'	1'	3	33%	16.5'	RIPRAP	R-5 RIPRAP	-
11B	1.5'	1'	7.5	10%	16.5'	GRASS	N.A.G. P-300	E
12	1'	1'	15	4%	31'	GRASS	N.A.G. S-75	D
13	1'	1'	3	6%	7'	GRASS	N.A.G. S-75	D
14A	2'	1'	3	33%	8'	RIPRAP	R-5 RIPRAP	-
14B	2'	1'	3	4%	8'	GRASS	N.A.G. S-75	D
15	1.5'	1'	8	10%	17.5'	GRASS	N.A.G. P-300	E

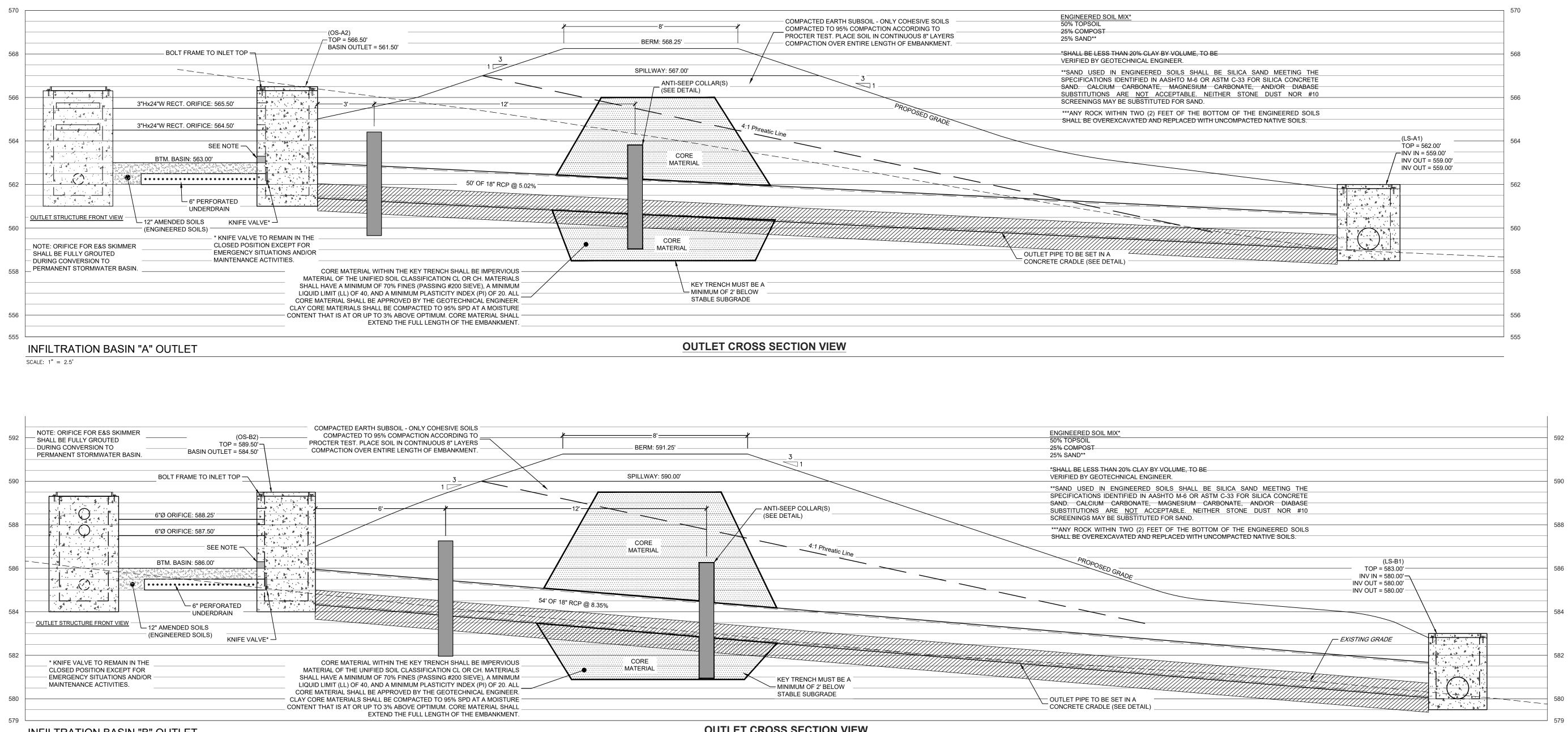
STORMWATER SWALE DETAIL

NO SCALE



STORM INLET TRASH RACK DETAIL NO SCALE



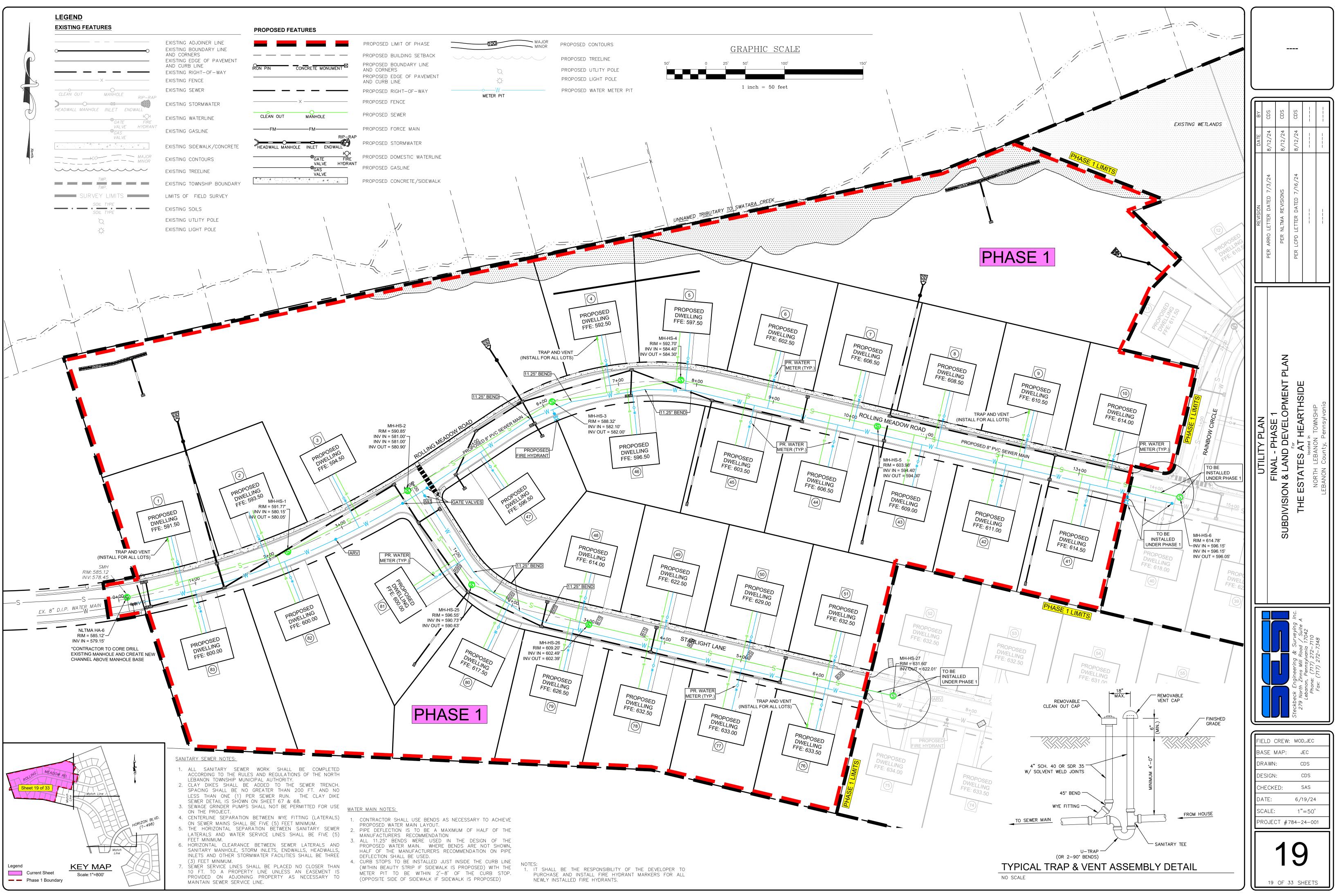


**INFILTRATION BASIN "B" OUTLET** SCALE: 1" = 2.5'

OUTLET CROSS SECTION VIEW

DATE BY	8/12/24 CDS	8/12/24 CDS	8/12/24 CDS				
REVISION	PER ARRO LETTER DATED 7/3/24	PER NLTMA REVISIONS	PER LCPD LETTER DATED 7/16/24				
- CONSTRUCTION STORMWATER MANAGEMENT OUTLET DETAILS			Inc. For THE ESTATES AT HEARTHSIDE		LEBANON County, Pennsylvania		
			Steckbeck Engineering & Surveying Inc. 279 North Zinns Mill Road / Suite A	Lebanon, Pennsylvania 17042 Phone: (717) 272–7110	Fax: (717) 272–7348		
DR DE CH SC	SE N SIGN IECKI TE: ALE:	:	ل ر ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( (	D, JEC EC CDS SAS 19/24 NOTE 24-00	ED		
	17	OF 3	33 SH	HEETS	5		







- MAJOR PROPOSED CONTOURS - MINOR

PROPOSED LIGHT POLE

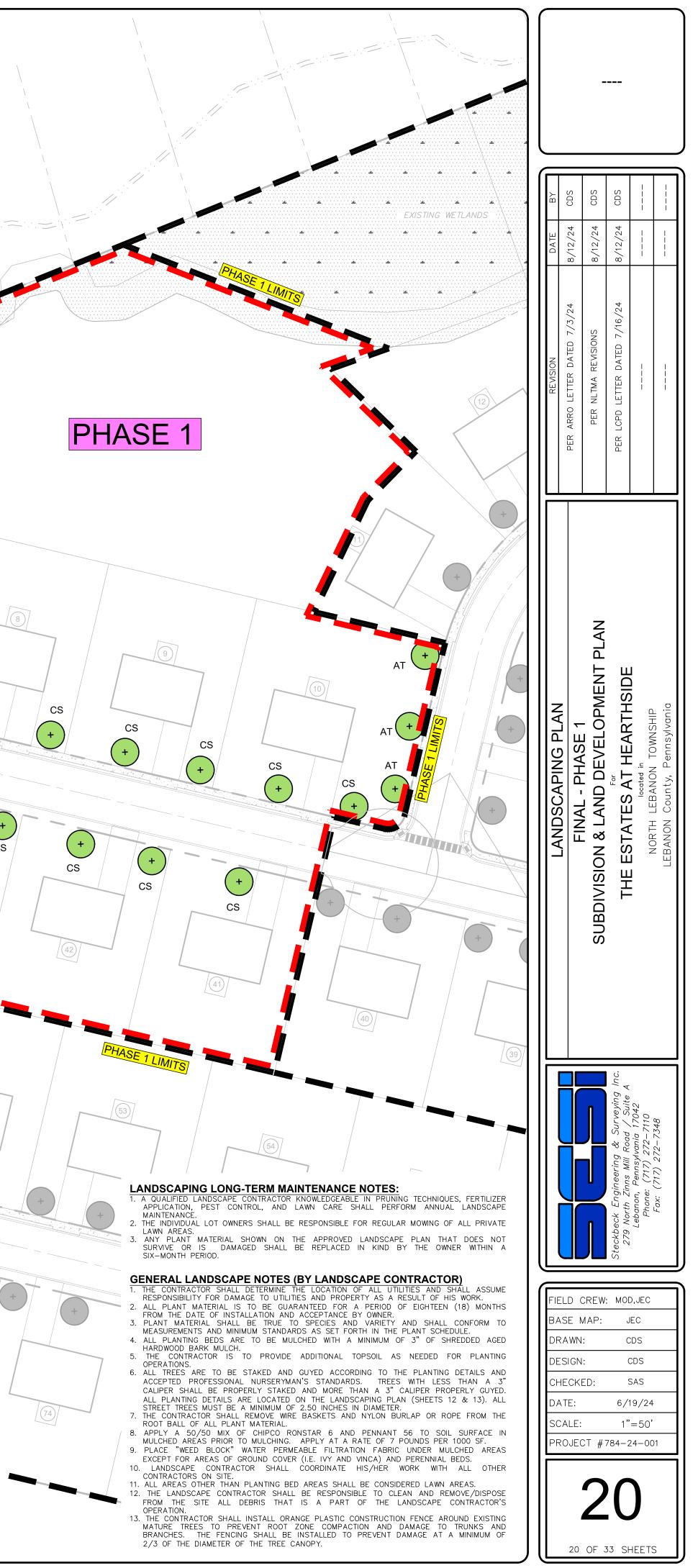
- PROPOSED TREELINE PROPOSED UTLITY POLE
- NOTES: . NO VISION OBSTRUCTING OBJECTS SHALL BE PERMITTED WHICH OBSCURE VISION ABOVE THE HEIGHT OF 30" AND BELOW 10' TO
- THE SIGHT DISTANCE. TREES SHALL NOT BE PLANTED WITHIN 5' OF ANY SIDEWALKS. 2. A MINIMUM OF 15% OF EACH LOT PROPOSED IS PROVIDED WITH GROUND COVER (LANDSCAPING) AS REQUIRED BY ORDINANCE.
- 3. IF ANY OF THE PLANTINGS DIE OR ARE CUT DOWN, REPLACEMENT OF PLANTINGS BIL OK ARE COT DOWN, REPLACEMENT OF PLANTINGS SHALL BE REQUIRED AND SHALL BE OF COMPARABLE SIZE AND TYPE WITHIN 18 MONTHS OF PROJECT COMPLETION.
- CONTRACTOR NOTE: . CONTRACTOR TO VERIFY THE INSTALLATION OF ALL STREET TREES IS NOT WITHIN 10' OF ANY UTILITIES, INCLUDING SEWER LATERALS, WATER LATERALS, ELECTRIC, GAS, ETC. TO ALL HOMES.

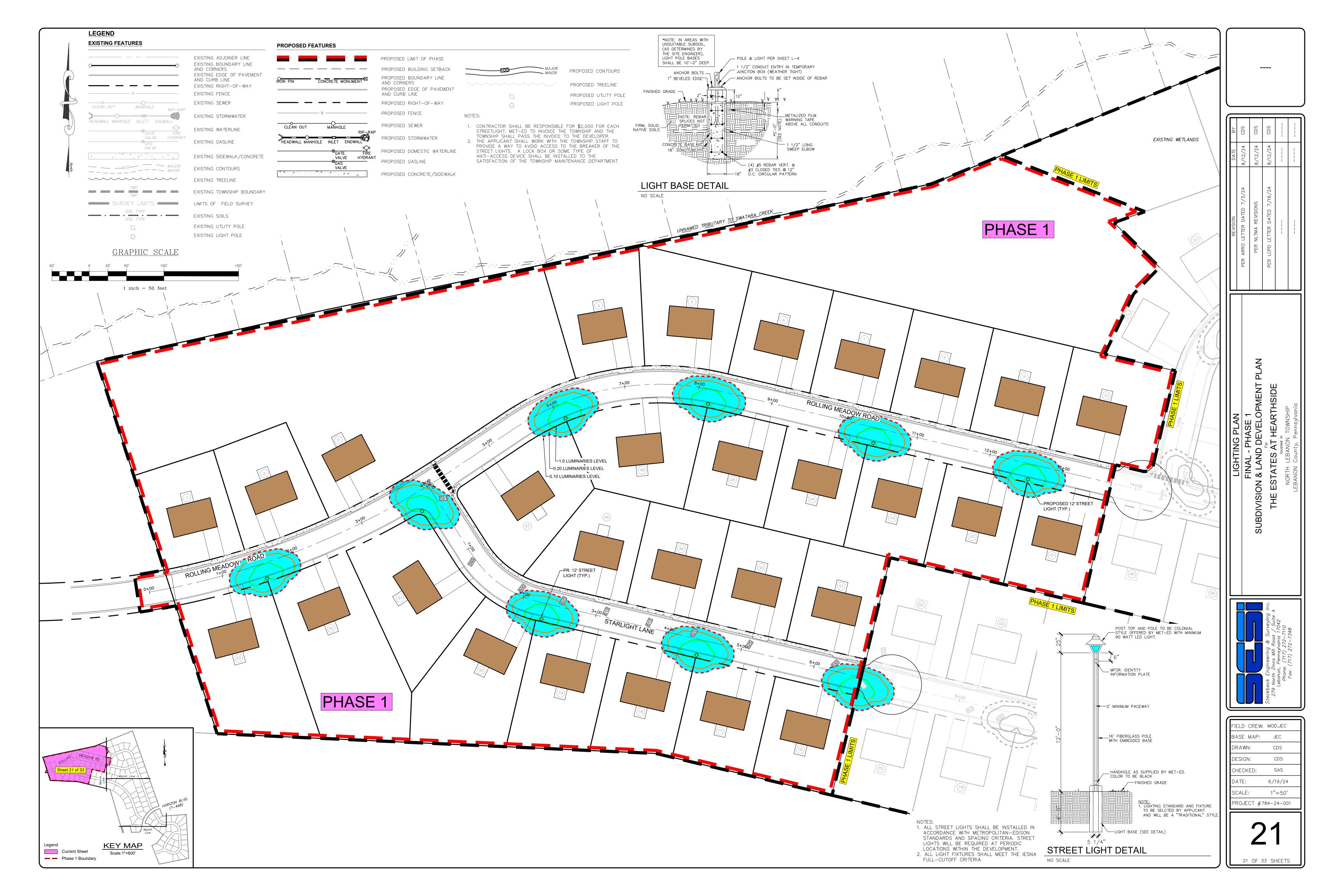
EB

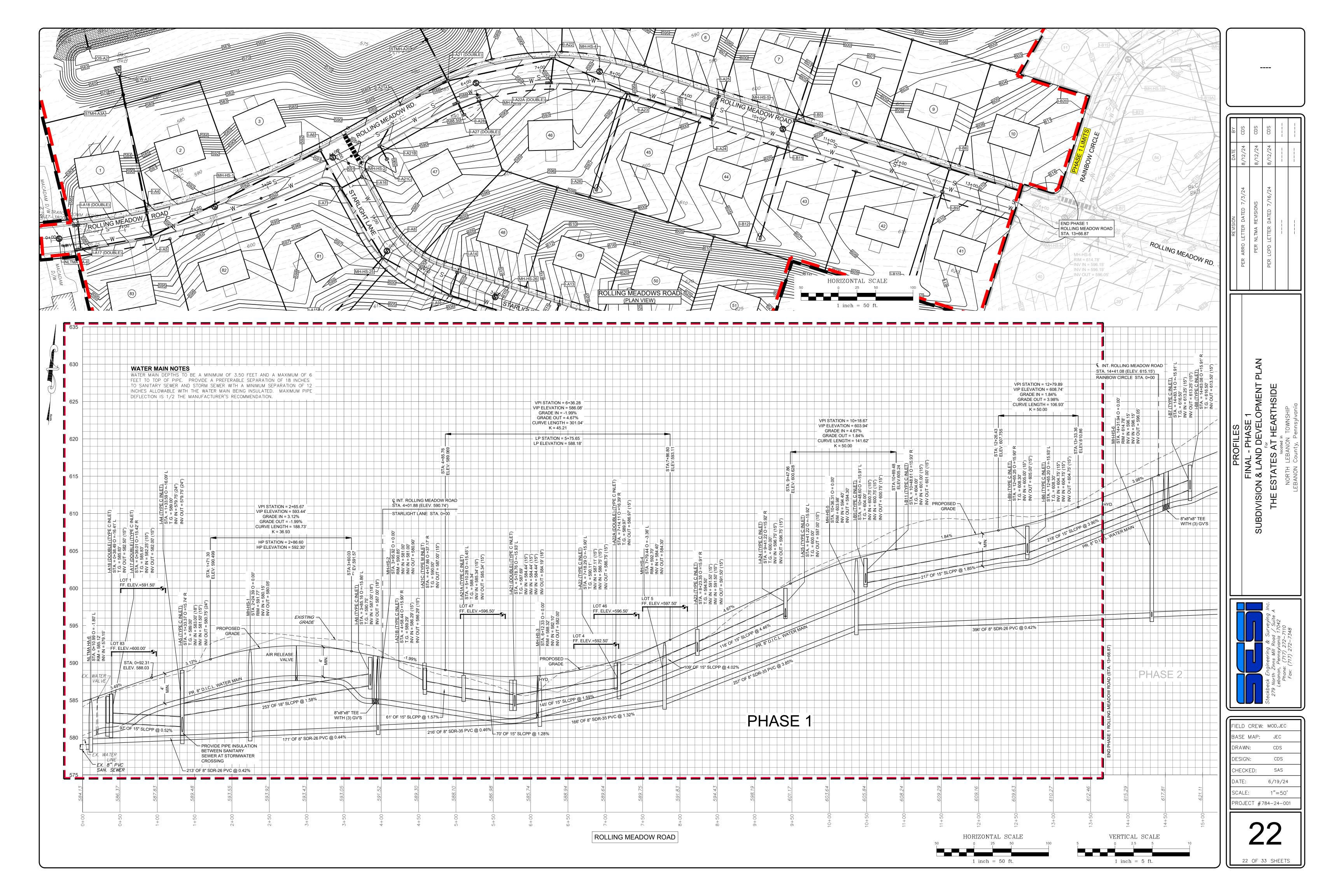
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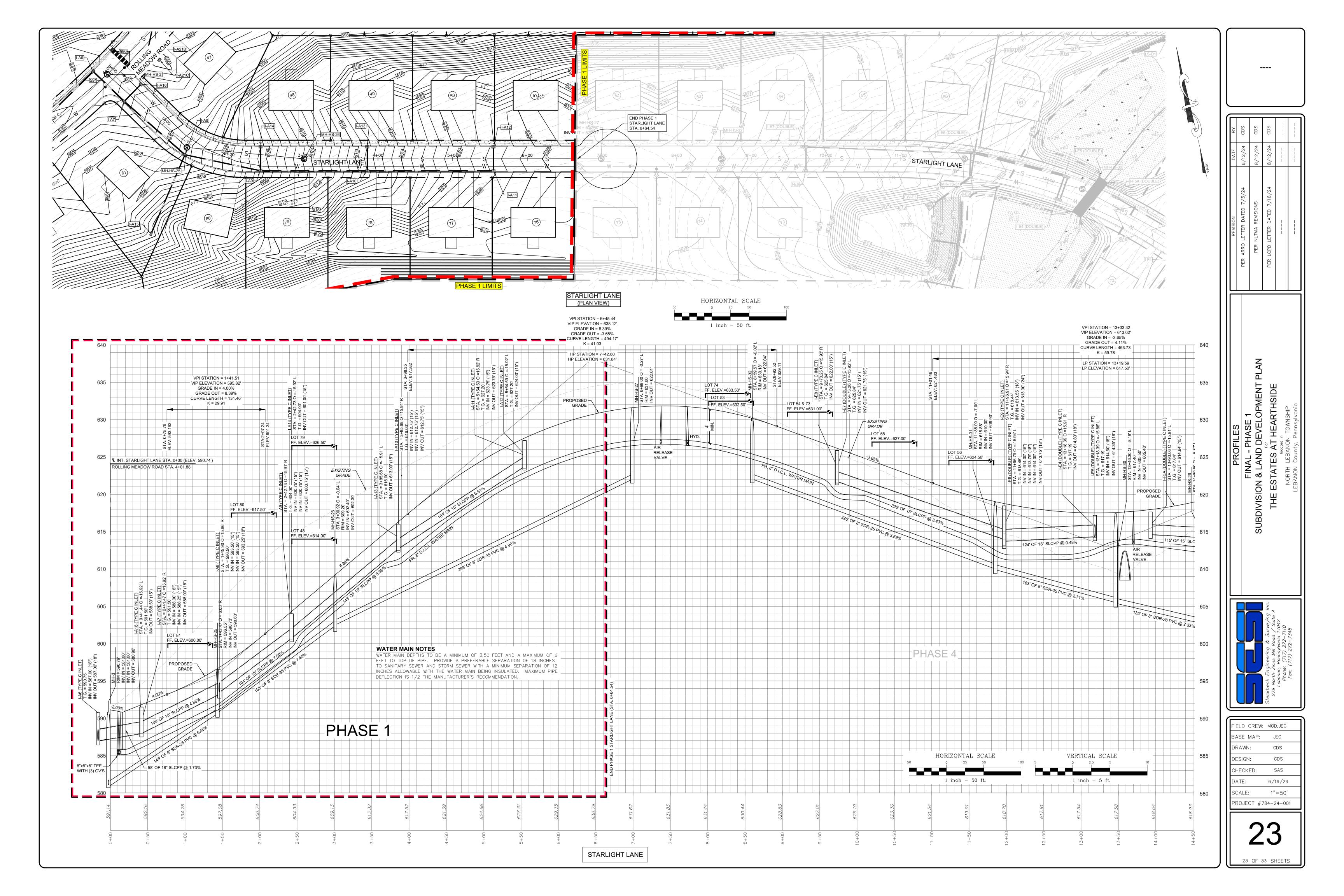
	PROPOSED STREET TREE PLANT SCHEDULE										
	QUANTITY	KEY	BOT. NAME	COMMON NAME	SIZE	CONDITION					
	16	AT	ACER TRUNCATUM	PACIFIC SUNSET MAPLE	2.5"-3" CAL	B&B					
	16	UF	ULMUS 'FRONTIER'	FRONTIER HYBRID ELM	2.5"-3" CAL	B&B					
+	17	EB	CERCIS CANADENSIS	EASTERN REDBUD	2.5"-3" CAL	B&B					
		AC	ACER CAMPESTRE	HEDGE MAPLE	2.5"-3" CAL	B&B					
	6	СК	CORNUS KOUSA	KOUSA DOGWOOD	2.5"-3" CAL	B&B					
	18	CS	CARPINUS BETULUS	EUROPEAN HORNBEAM	2.5"-3" CAL	B&B					

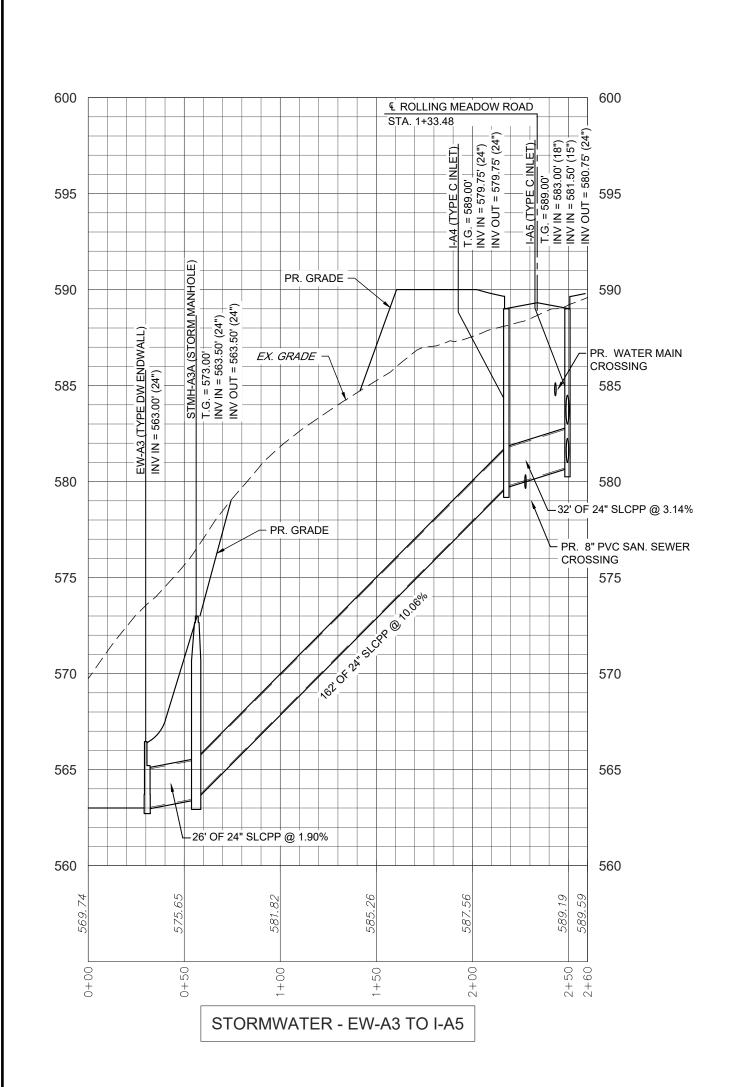
UF UF UF UF ( + ) UF CS CS CS CS + + UF UF UF UF CS CS LITER + EB EB + ) EB EΒ + EB EB (+) + EB CK EB (+ STARLIGHT LANE CK CK EB EB + EB EB  $\smile$ EB CK + CK CK

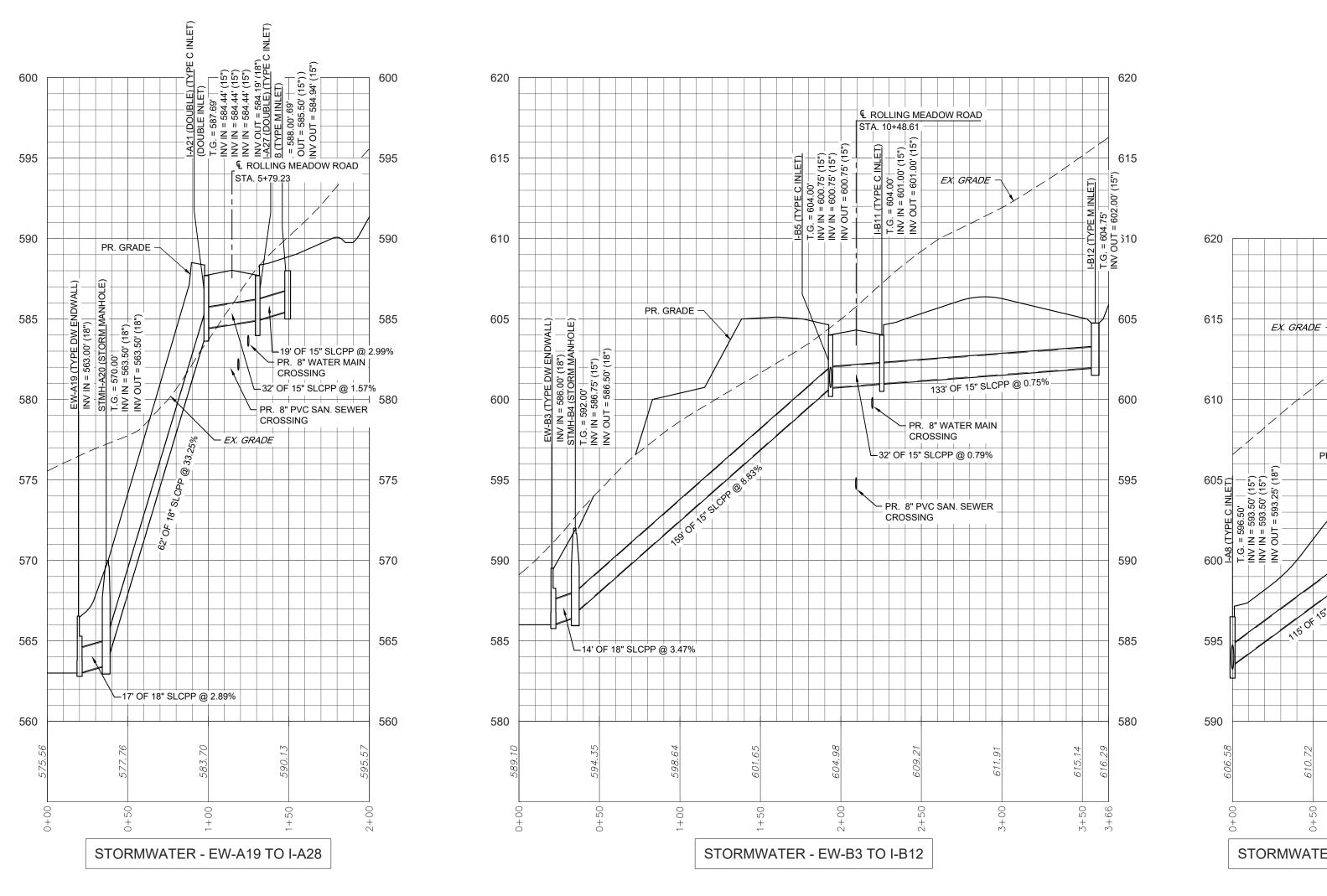


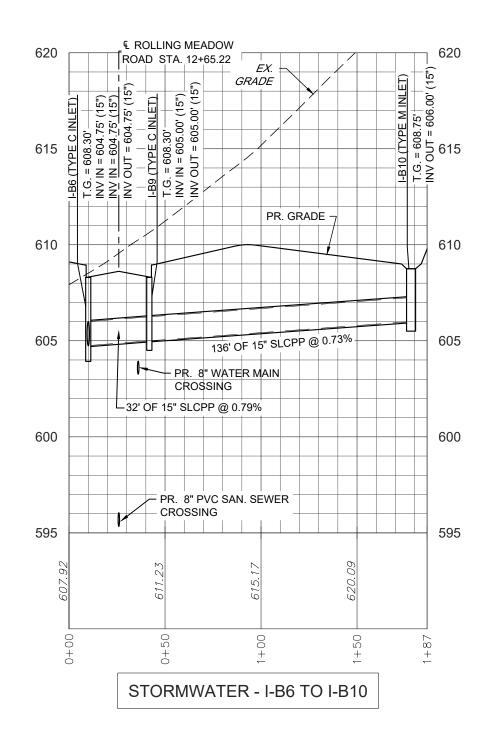


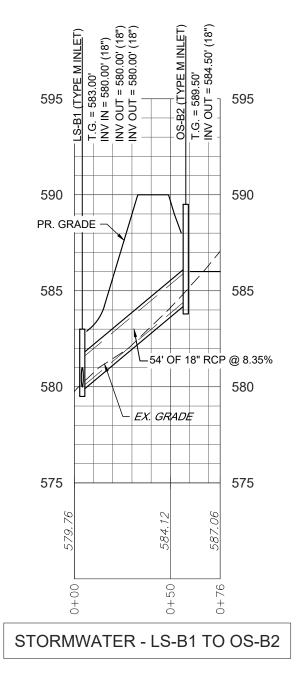


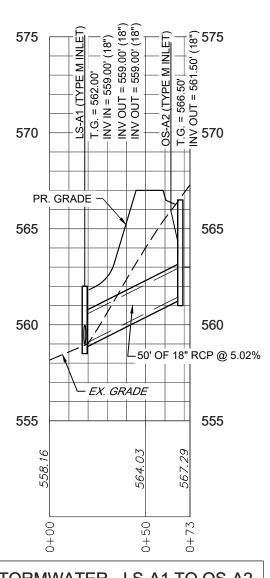




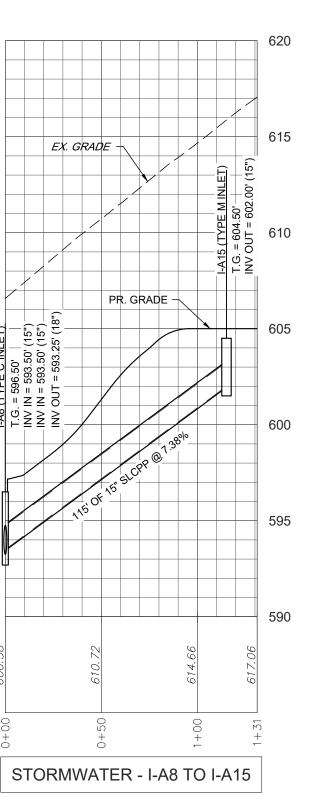








STORMWATER - LS-A1 TO OS-A2



HORIZONTAL SCALE

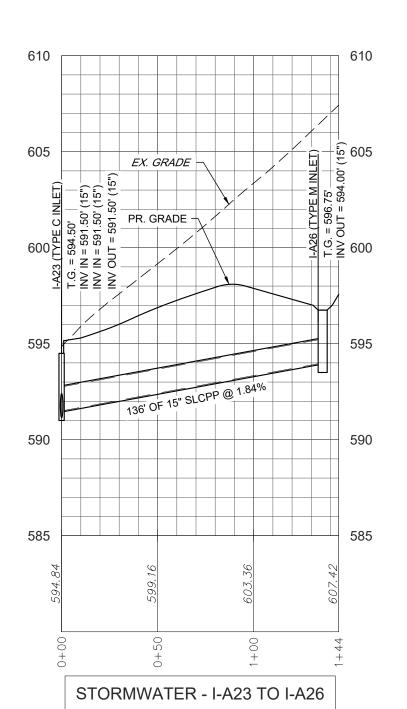
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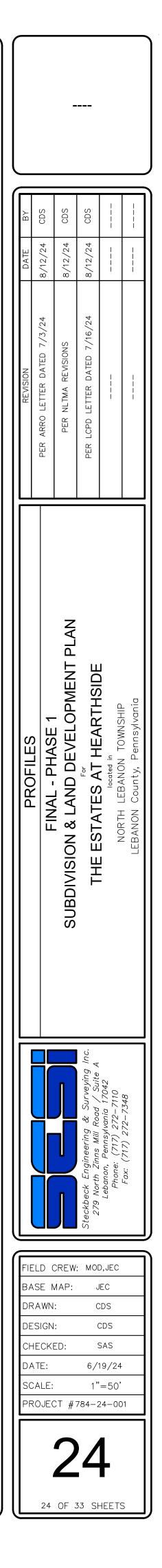
1 inch = 50 ft.

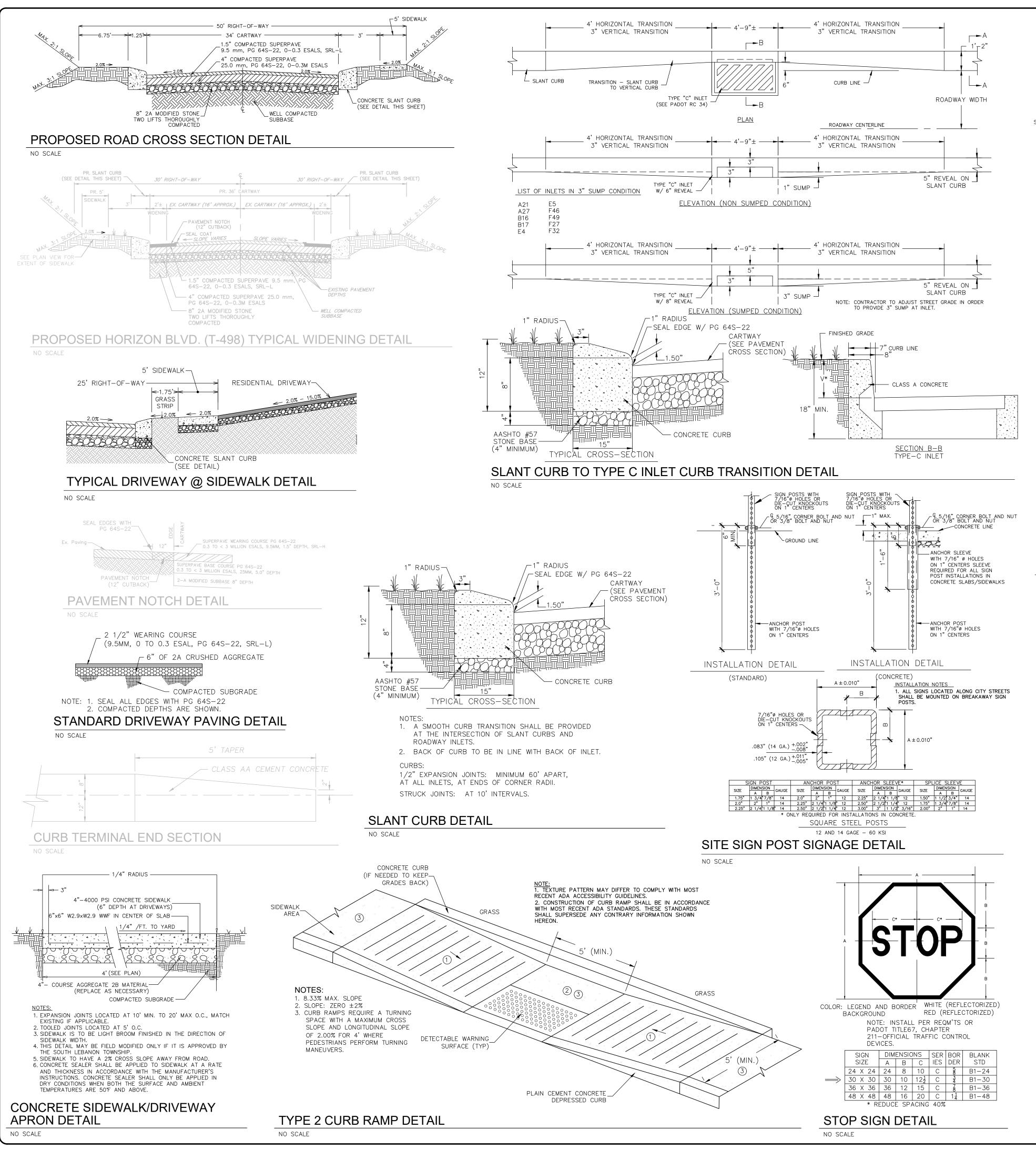
VERTICAL SCALE

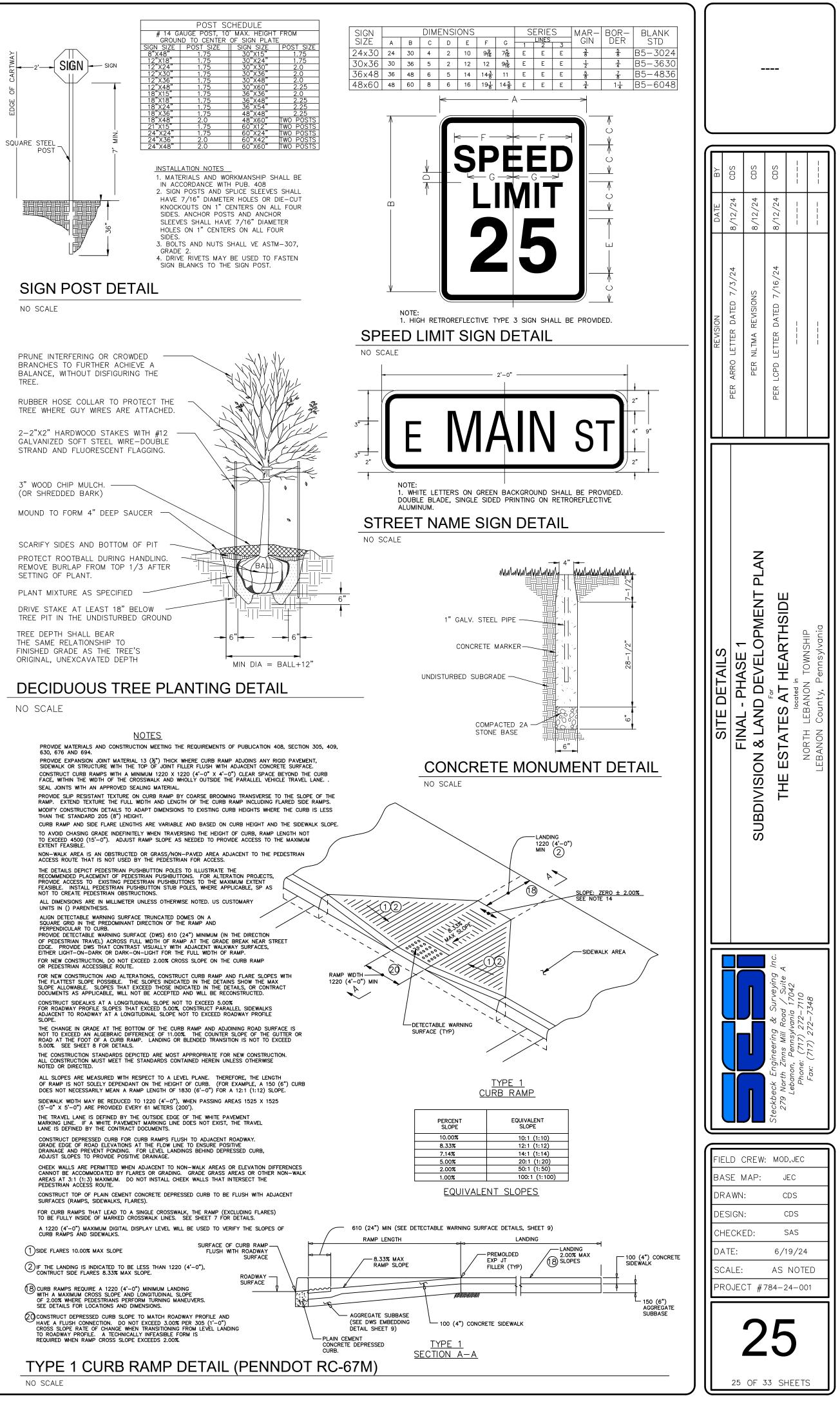
2.5

1 inch = 5 ft.

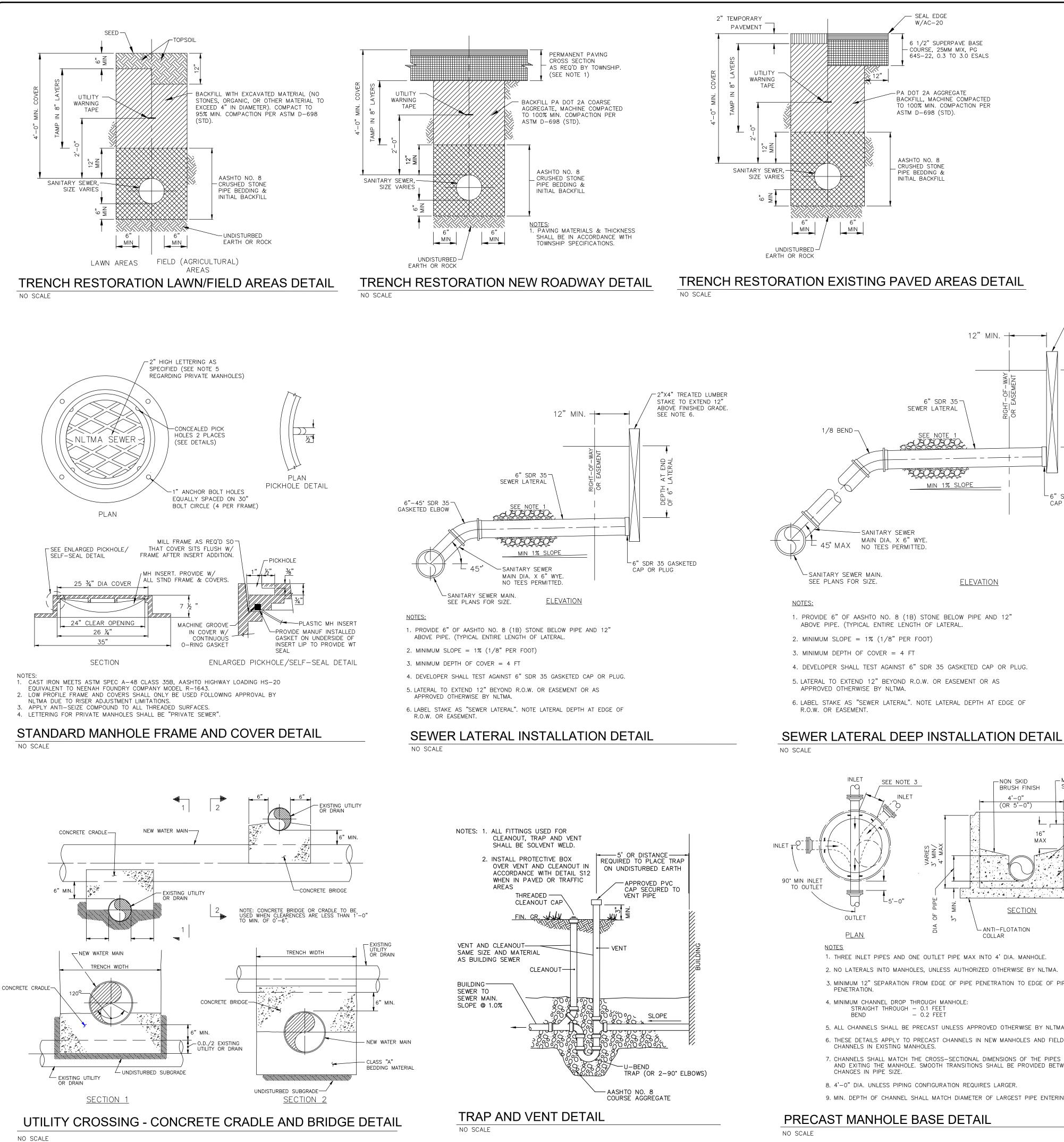








THE SAME RELATIONSHIP TO FINISHED GRADE AS THE TREE'S ORIGINAL, UNEXCAVATED DEPTH

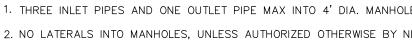


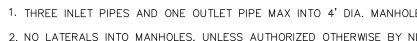


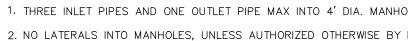
- 8. 4'-0" DIA. UNLESS PIPING CONFIGURATION REQUIRES LARGER. 9. MIN. DEPTH OF CHANNEL SHALL MATCH DIAMETER OF LARGEST PIPE ENTERING MANHOLE.
- AND EXITING THE MANHOLE. SMOOTH TRANSITIONS SHALL BE PROVIDED BETWEEN
- 7. CHANNELS SHALL MATCH THE CROSS-SECTIONAL DIMENSIONS OF THE PIPES ENTERING
- 6. THESE DETAILS APPLY TO PRECAST CHANNELS IN NEW MANHOLES AND FIELD-FORMED
- 5. ALL CHANNELS SHALL BE PRECAST UNLESS APPROVED OTHERWISE BY NLTMA.

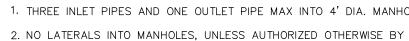
- 3. MINIMUM 12" SEPARATION FROM EDGE OF PIPE PENETRATION TO EDGE OF PIPE
- 1. THREE INLET PIPES AND ONE OUTLET PIPE MAX INTO 4' DIA. MANHOLE

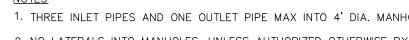
- 2. NO LATERALS INTO MANHOLES, UNLESS AUTHORIZED OTHERWISE BY NLTMA.

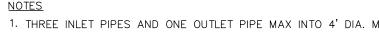


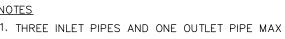


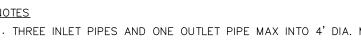


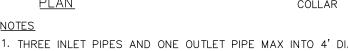


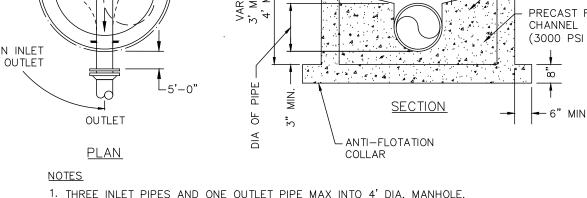


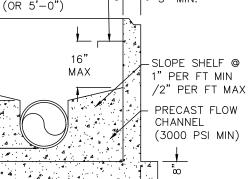












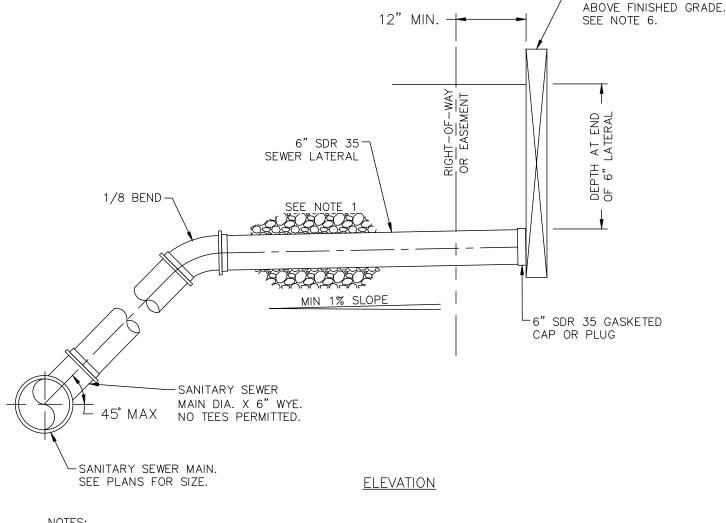
-NON SKID

4' - 0''

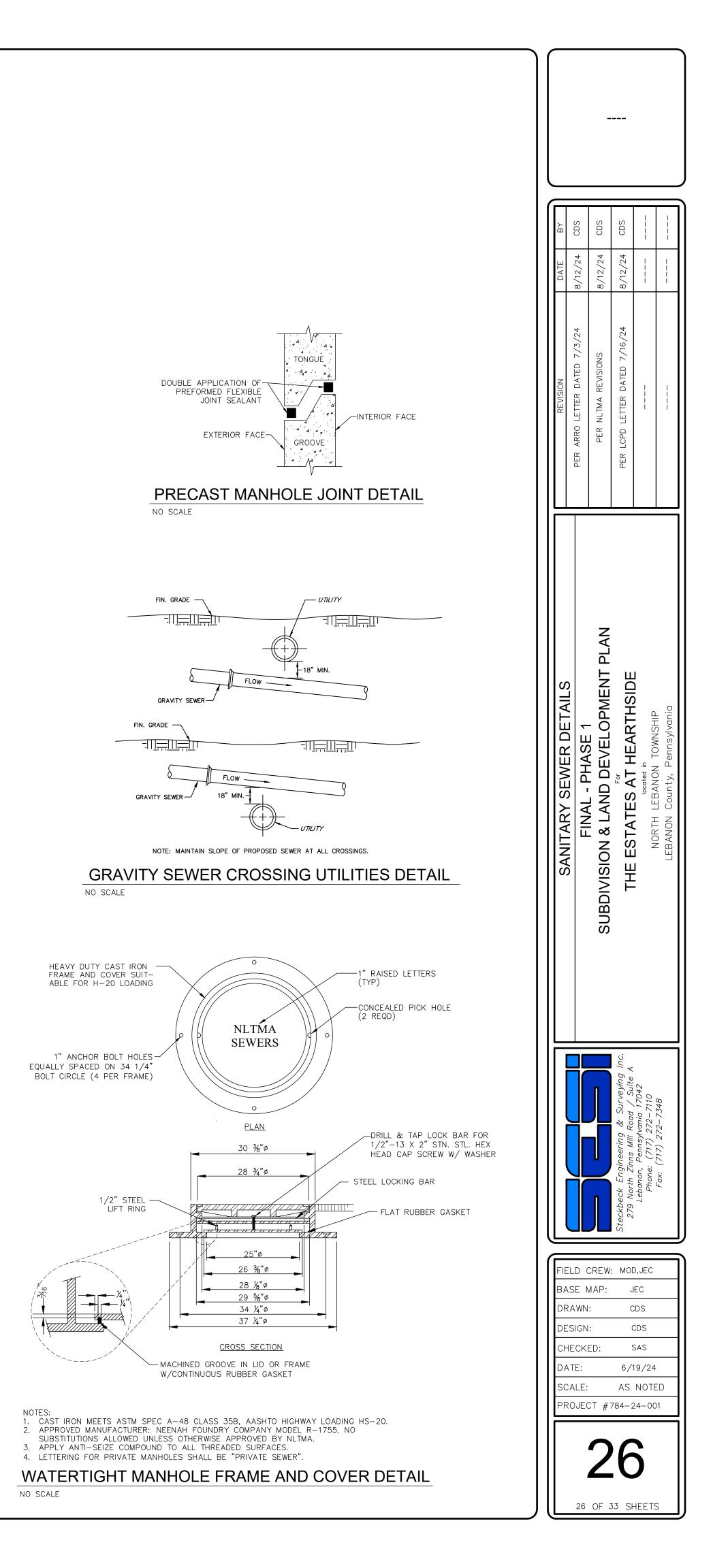
BRUSH FINISH

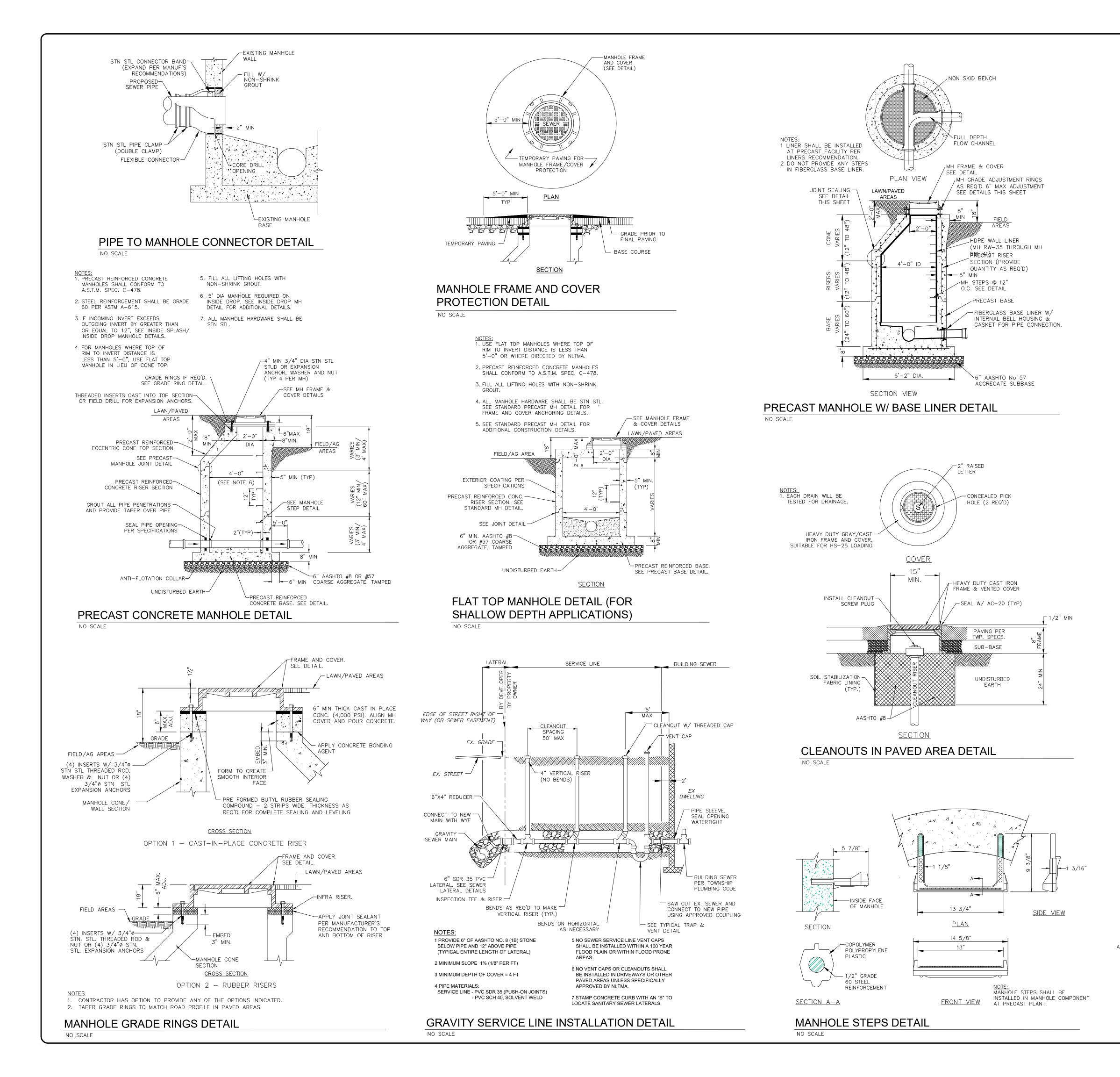
- MANHOLE STEP SEE DETAIL. MIN

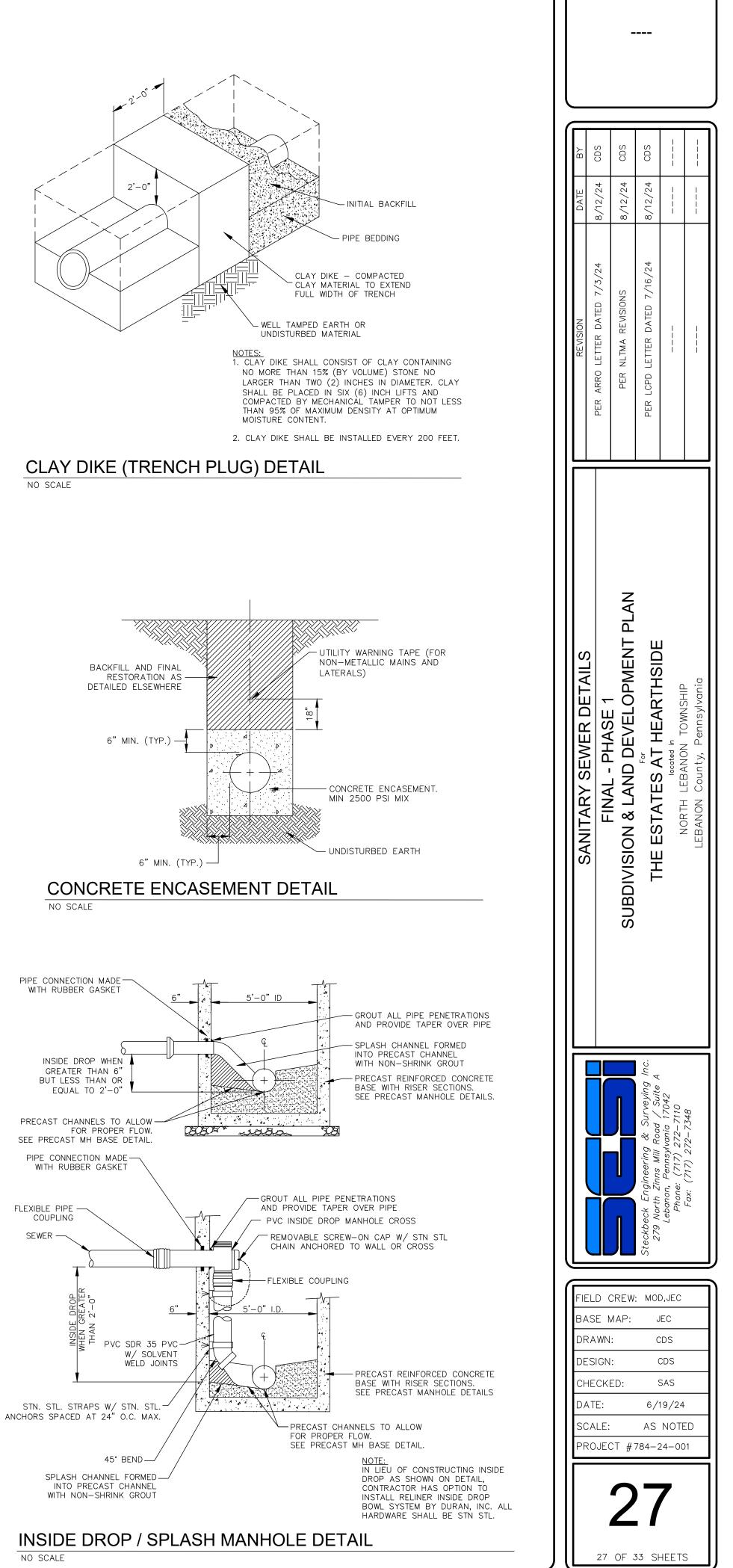
/ 2"X4" TREATED LUMBER STAKE TO EXTEND 12"

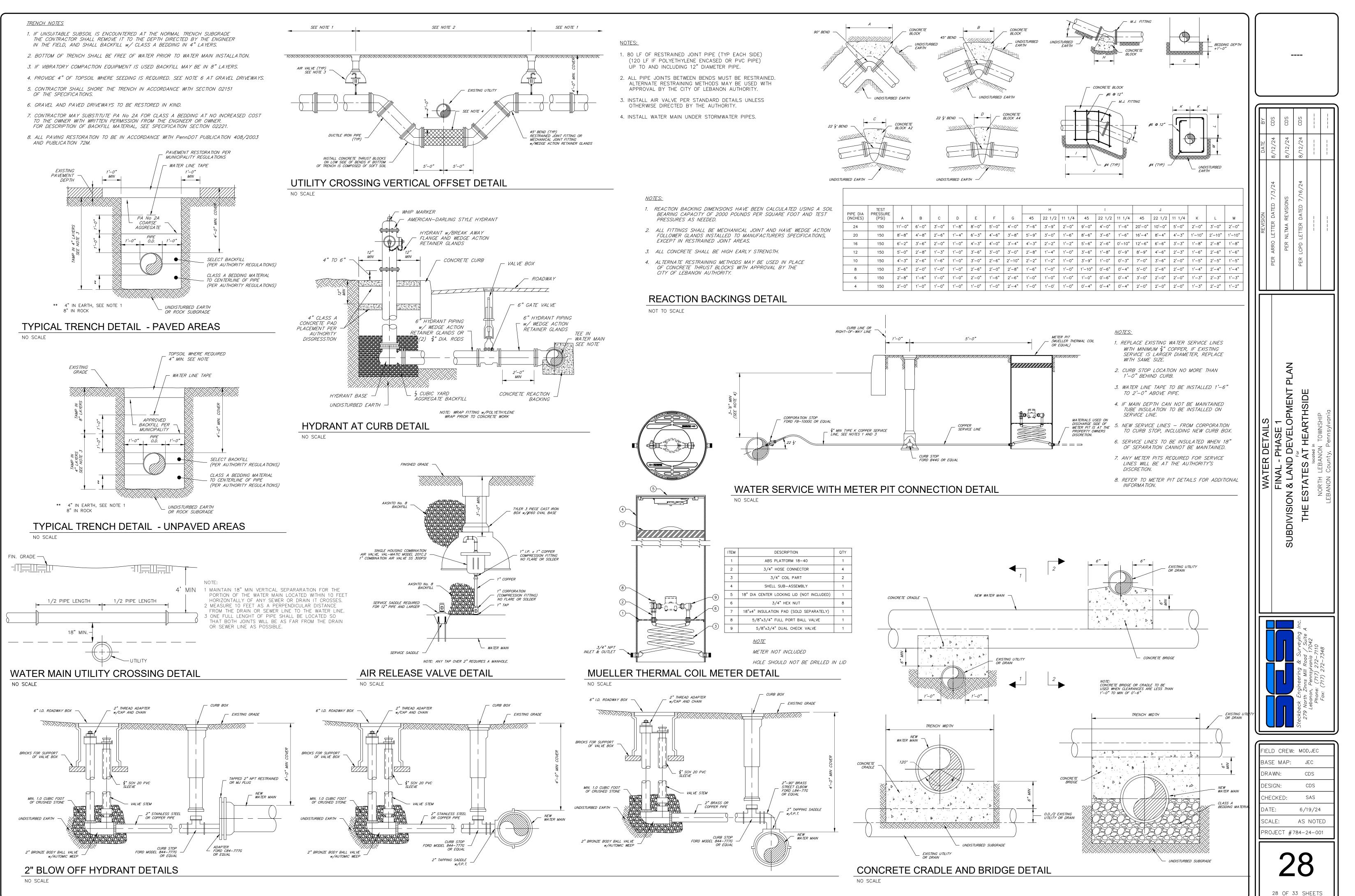


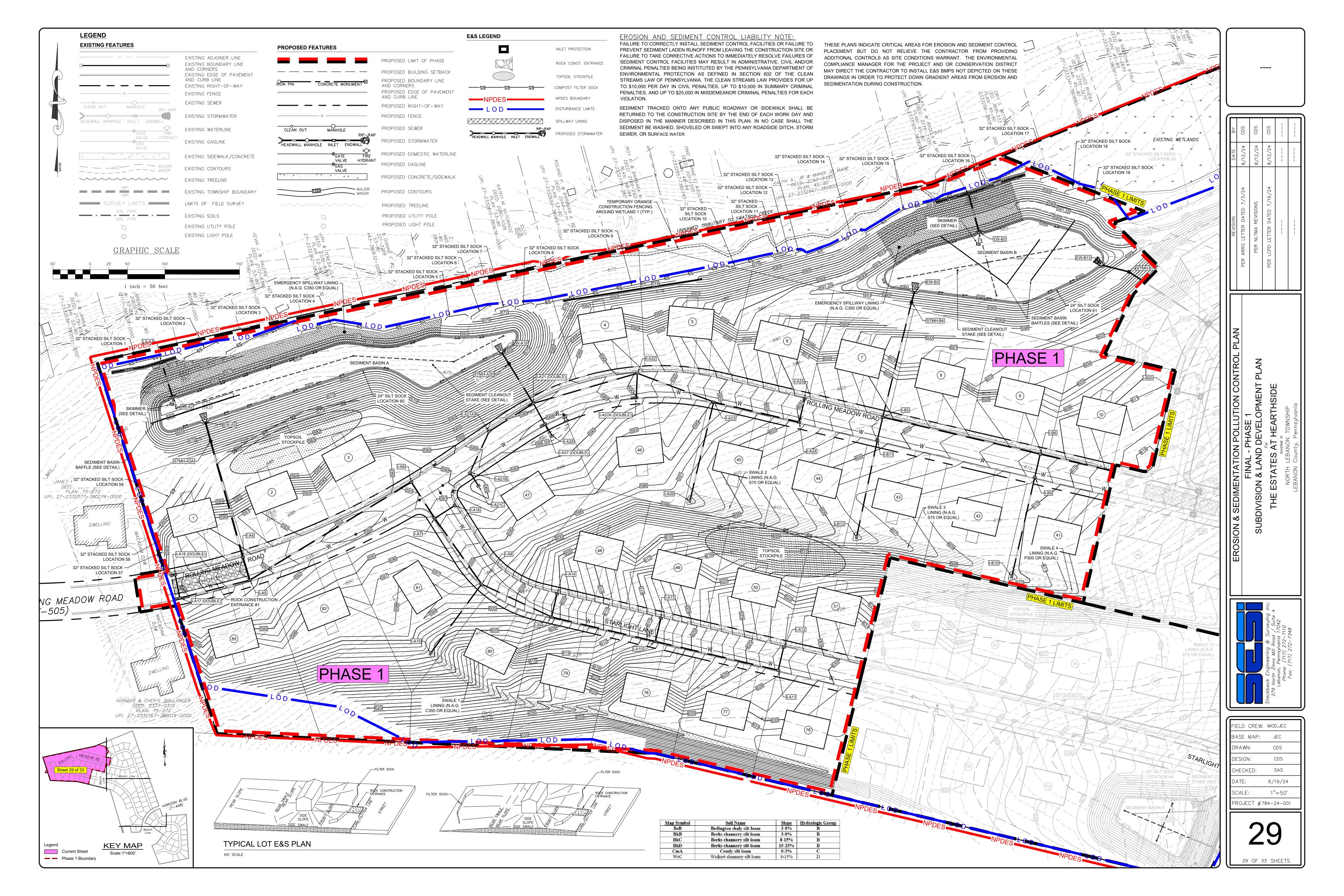
# TRENCH RESTORATION EXISTING PAVED AREAS DETAIL











THIS NARRATIVE IS INTENDED TO ACCOMPANY THE EROSION AND SEDIMENT POLLUTION CONTROL PLAN FOR THE PROPOSED PRELIMINARY LAND DEVELOPMENT PLAN FOR THE MT. PLEASANT VENTURES SUBDIVISION, LOCATED ON BOTH SIDES OF HORIZON BOULEVARD BETWEEN JAY STREET AND COLONIAL DRIVE IN NORTH LEBANON TOWNSHIP, LEBANON COUNTY. THIS NARRATIVE SHALL BE CONSIDERED A PART OF THE EROSION AND SEDIMENT POLLUTION CONTROL PLAN. PROJECT DESCRIPTION

THE TOTAL TRACT OF THE TWO PROPERTIES IN QUESTION IS APPROXIMATELY 72.93 ACRES. THE TOTAL SITE AND EARTH DISTURBANCE AS PART OF THIS PROJECT IS APPROXIMATELY 67.58 ACRES. THE CURRENT SITE CONSISTS OF OPEN AGRICULTURAL FIELDS AND ONE EXISTING BARN. BASED ON GOOGLE EARTH HISTORICAL IMAGERY, THE SITE HAS BEEN AGRICULTURAL SINCE THE EARLY 1990'S. BASED ON PENN PILOT HISTORICAL IMAGERY, THE SITE HAS BEEN AGRICULTURAL IN USE SINCE THE 1950'S. THE SITE IS SPLIT BY HORIZON BOULEVARD. THE NORTHERN PORTION OF THE SITE IS BORDERED TO THE EAST BY RESIDENTIAL HOMES AND THE EBENEZER ELEMENTARY SCHOOL, TO THE SOUTH BY HORIZON BOULEVARD, TO THE WEST BY AGRICULTURAL AND RESIDENTIAL PROPERTY, AND TO THE NORTH BY RESIDENTIAL PROPERTIES. THE SOUTHERN PORTION OF THE SITE I BORDERED TO THE EAST AND SOUTH BY RESIDENTIAL PROPERTIES, TO THE WEST BY JAY STREET, AND TO THE NORTH BY HORIZON BOULEVARD. PROPOSED IMPROVEMENTS INCLUDE THE CONSTRUCTION OF 122 SINGLE-FAMILY HOMES WITH DRIVEWAYS, STREETS, CONNECTION TO PUBLIC SEWER AND WATER, AND ASSOCIATED STORMWATER MANAGEMENT FACILITIES. THE ANTICIPATED SITE DISTURBANCE SHALL INCLUDE GRADING AS WELL AS ADDITIONAL IMPERVIOUS AREA WHICH WILL BE TREATED ON-SITE BY STORMWATER MANAGEMENT BMPS. SIX (6) ABOVE GROUND INFILTRATION BASINS, AND ONE (1) DETENTION BASIN ARE PROPOSED TO MANAGE THE SITE RUNOFE, STORMWATER RUNOFE FROM THE SITE WILL REACH TWO DIFFERENT UNT'S TO SWATARA CREEK AND AN EXISTING QUARRY POND WHICH IS CLOSEST TO THE BRANDYWINE CREEK. THE UNT'S TO SWATARA CREEK ARE DESIGNATED AS WARM WATER FISHES (WWF) AND ARE IMPAIRED ACCORDING TO CATEGORY 4C OF THE PA INTEGRATED WATER QUALITY MONITORING AND ASSESSMENT REPORT FOR AQUATIC LIFE: AGRICULTURE - FLOW REGIME MODIFICATION. THE UNT'S TO SWATARA CREEK ARE ALSO IMPAIRED ACCORDING TO CATEGORY 5 OF THE PA INTEGRATED WATER QUALITY MONITORING AND ASSESSMENT REPORT FOR AQUATIC LIFE. AGRICULTURE - SILTATION. THE BRANDYWINE CREEK IS DESIGNATED AS TROUT STOCKED FISHES (TSF) AND ARE IMPAIRED ACCORDING TO CATEGORY 4C OF THE PA INTEGRATED WATER QUALITY MONITORING AND ASSESSMENT REPORT FOR AQUATIC LIFE URBAN RUNOFF/STORM SEWERS FLOW REGIME MODIFICATION. THE BRANDYWINE CREEK IS ALSO IMPAIRED ACCORDING TO CATEGORY 5 OF THE PA INTEGRATED WATER QUALITY MONITORING AND ASSESSMENT REPORT FOR RECREATIONAL: SOURCE UNKNOWN - PATHOGENS.

ALL EXISTING SITE RUNOFF CURRENTLY LEAVES THE SITE UN-DETAINED WITH NO TREATMENT OF THIS RUNOFF IN ANY WAY STRUCTURAL RMPS ARE PROPOSED TO TREAT THE MAJORITY OF THE DISTURBED SITE AND PROPOSED IMPERVIOUS AREAS. RUNOFE REACHING THE SIX (6) INFILTRATION BASINS WILL BE COOLED BY THE NATIVE VEGETATION IN THE BASIN BOTTOMS BEFORE BEING INFILTRATED THROUGH THE ENGINEERED SOIL MIX AND INTO THE GROUND. RUNOFF REACHING THE DETENTION BASIN WILL BE COOLED BY THE NATIVE VEGETATION IN THE BASIN BOTTOM BEFORE BEING SLOWLY RELEASED TO THE GROUND SURFACE. TREES ARE ALSO PROPOSED IN AND AROUND THE STREETS TO SHADE A PORTION OF THESE AREAS WHICH WILL PROVIDE TEMPERATURE RELIEF FOR RUNOFF THAT FLOWS OVER THE IMPERVIOUS SURFACES.

DOWNSTREAM WATERCOURSE ANALYSIS THE FOLLOWING IS AN EXCERPT FROM THE PA DEP FAQ SHEET LABELED CHAPTER 102 OFF-SITE DISCHARGES OF STORMWATER TO NON-SURFACE WATERS (JANUARY 2, 2019). FAQ #2 STATES, "PERSONS PROPOSING TO DISCHARGE MUST HAVE THE LEGAL AUTHORITY TO DISCHARGE THEIR STORMWATER EITHER THROUGH EITHER A COMMON LAW EASEMENT OR AN EXPRESS EASEMENT. FOR SITES THAT DISCHARGE TO EXISTING SWALES, DITCHES, STORM SEWERS OR SIMILAR STRUCTURES WHERE THE NEW ACTIVITIES WILL NOT RESULT IN A CHANGE IN VOLUME OR RATE OF STORMWATER RUNOFF (FOR ALL STORM EVENTS), THE EXISTING COMMON LAW EASEMENT COULD BE RELIED UPON."

THE SITE DISCHARGES TO ALL DISCHARGE POINTS IN A SIMILAR MANNER AT A RATE THAT IS LESS THAN PRE-DEVELOPMENT FOR ALL STORM DISCHARGE POINTS 001-003 (DP 001-003) ARE LOCATED ADJACENT TO THE NORTHERN PROPERTY LINE AND WILL DISCHARGE TO THE UNT TO SWATARA CREEK LOCATED LESS THAN 100' TO THE NORTH. PRE-DEVELOPMENT RUNOFF SHEET FLOWS ALONG THE ENTIRE PROPERTY LINE DOWN TO

THE UNT TO SWATARA CREEK. DPS 001-003 HAVE BEEN ESTABLISHED AT THE LOCATION OF THE PROPOSED BASIN OUTLET LEVEL SPREADERS IN ORDER TO PROVIDE AN ACCURATE PRE- TO POST-DEVELOPMENT ANALYSIS. DISCHARGE POINT 004 (DP 004) IS LOCATED ALONG THE WESTERN PROPERTY LINE WHERE WATERCOURSE 2 LEAVES THE SITE AT THE BOTTOM OF WETLAND 2. RUNOFF WILL DISCHARGE OVERLAND FOR APPROXIMATELY 1,750 FEET PRIOR TO REACHING AN UNT TO SWATARA CREEK.

DISCHARGE POINT 005 (DP 005) IS LOCATED ALONG THE WESTERN PROPERTY LINE WHERE AN EXISTING BROAD DRAINAGE WAY LEAVES THE SITE. RUNOFF WILL DISCHARGE OVERLAND FOR APPROXIMATELY 1,750 FEET PRIOR TO REACHING AN UNT TO SWATARA CREEK. DISCHARGE POINT 006 (DP 006) IS LOCATED AT AN EXISTING 30" STORM PIPE CROSSING JAY STREET AT THE SOUTHWESTERN CORNER OF THE

PROPERTY. RUNOFF REACHING THIS PIPE WILL DISCHARGE ACROSS THE STARLIGHT LANEND FLOW DOWN INTO THE EXISTING QUARRY POND. SOIL INFORMATION AND GEOLOGY

THE FOLLOWING SOILS ARE FOUND WITHIN OR ADJACENT TO THE AREA TO BE DISTURBED BY EARTH MOVING ACTIVITIES. THESE SOILS CAN ERODE WHEN DISTURBED. EROSION WILL BE CONTROLLED WITH STANDARD EROSION CONTROLS SUCH AS FILTER SOCK, SLOPE AND SWALE MATTING, RIPRAF OUTLET PROTECTION, INLET PROTECTION, ROCK CONSTRUCTION ENTRANCES, AND SEDIMENT BASINS.

Map Symbol	Soil Name	Slope	Hydrologic Group
BeB	Bedington shaly silt loam	3-8%	В
BkB	Berks channery silt loam	3-8%	В
BkC	Berks channery silt loam	8-15%	В
BkD	Berks channery silt loam	15-25%	В
CmA	Comly silt loam	0-3%	С
WeC	Weikert channery silt loam	8-15%	D

THE PA DEP'S EMAPPA DOES NOT IDENTIFY ANY KNOWN KARST FEATURES ON SITE OR IN THE IMMEDIATE VICINITY OF THE PROJECT. THE ENTIR SITE IS UNDERLAIN BY THE HAMBURG SEQUENCE ROCKS AND THE GRAYWACKE OF HAMBURG SEQUENCE ROCKS WHICH ARE COMPRISED OF SHALE SILTSTONE, AND GRAYWACKE. AS SUCH, THE POTENTIAL FOR KARST ACTIVITY IS MINIMAL. SHOULD A GEOTECHNICAL HAZARD BE ENCOUNTERED, THE COUNTY CONSERVATION DISTRICT WILL BE IMMEDIATELY CONTACTED, AND A CERTIFIED GEOTECHNICAL ADVISOR WILL BE REQUIRED TO OVERSEE MITIGATION OF THE HAZARDS.

\*IF SOILS ARE BOLD THEY ARE DISTURBED DURING CONSTRUCTION ON THIS PROJECT.

BEDINGTON SOILS - THE BEDINGTON SERIES CONSISTS OF VERY DEEP, WELL DRAINED SOILS. BEDINGTON SOILS FORMED IN RESIDUUM FROM DARK BROWN, GRAY AND OLIVE ACID, SEDIMENTARY, SILTSTONE AND SHALE, WITH SOME SANDSTONE INTERBEDS. THEY ARE ON NEARLY LEVEL TO STEEP CONVEX UPLANDS AND ON THE SIDESLOPES OF HILLS AND RIDGES. PERMEABILITY IS MODERATE. MEAN ANNUAL PRECIPITATION IS 42 INCHES. MEAN ANNUAL TEMPERATURE IS 52 DEGREES F. BEDINGTON SOILS MAY BE SUSCEPTIBLE TO CUT BANKS AND CAVE INS AND CORROSIVE TO CONCRETE. THIS SOIL MAY ALSO BE SUBJECT TO DROUGHT AND MAY BE EASILY ERODIBLE. BEDINGTON SOILS MAY ALSO BE SUSCEPTIBLE TO HYDRIC INCLUSIONS, SLOW PERCOLATION, FROST ACTION, AND A POOR SOURCE OF TOPSOIL.

BERKS SOILS – THE BERKS SERIES CONSISTS OF MODERATELY DEEP, WELL DRAINED SOILS FORMED IN RESIDUUM WEATHERED FROM SHALE, SILTSTONE AND FINE-GRAINED SANDSTONE ON ROUNDED AND DISSECTED UPLANDS. SLOPE RANGES FROM 0 TO 80 PERCENT. PERMEABILITY IS MODERATE OR MODERATELY RAPID. MEAN ANNUAL PRECIPITATION IS 42 INCHES. MEAN ANNUAL TEMPERATURE IS 52 DEGREES F. BERKS SOILS MAY BE SUSCEPTIBLE TO CUT BANKS AND CAVE INS, CORROSIVE TO CONCRETE, DROUGHTY, AND EASILY ERODIBLE. THIS SOIL MAY ALSO BE SUBJECT TO HYDRIC INCLUSIONS, SLOW PERCOLATION, PIPING, AND A POOR SOURCE OF TOPSOIL. COMLY SOILS - THE COMLY SERIES CONSISTS OF VERY DEEP, MODERATELY WELL DRAINED. THESE SOILS FORMED COLLUVIUM WEATHERED FROM ACID BROWN AND GRAY SHALE, SANDSTONE, AND SILTSTONE. THEY ARE ON CONCAVE UPLAND SLOPES OF O TO 25 PERCENT. PERMEABILITY IS MODERATE ABOVE THE FRAGIPAN AND MODERATELY SLOW IN THE FRAGIPAN. MEAN ANNUAL PRECIPITATION IS 44 INCHES, MEAN ANNUAL TEMPERATURE IS 51 DEGREES F. COMLY SOILS MAY BE SUSCEPTIBLE TO CUT BANKS AND CAVE INS, CORROSIVE TO STEEL AND CONCRETE, PROUGHTY, AND EASILY ERODIBLE. THESE SOILS MAY ALSO BE SUSCEPTIBLE TO A SEASONALLY HIGH WATER TABLE, HYDRIC INCLUSIONS, PIPING, FROST ACTION AND A POOR SOURCE OF TOPSOIL WEIKERT SOILS - THE WEIKERT SERIES CONSIST OF SHALLOW, WELL DRAINED SOILS FORMED IN MATERIAL THAT WEATHERED FROM INTERBEDDED GRAY AND BROWN ACID SHALE, SILTSTONE, AND FINE-GRAINED SANDSTONE ON GENTLY SLOPING TO VERY STEEP AREAS ON UPLANDS. SLOPE RANGES FROM 0 TO 100 PERCENT. PERMEABILITY IS MODERATELY RAPID. MEAN ANNUAL PRECIPITATION IS ABOUT 42 INCHES, AND THE MEAN ANNUAL AIR TEMPERATURE IS ABOUT 52 DEGREES F. WEIKERT SOILS MAY BE SUSCEPTIBLE TO CUT BANKS AND CAVE INS, CORROSIVE TO CONCRETE AND STEEL, AND DROUGHTY. THIS SOIL MAY ALSO BE SUSCEPTIBLE TO HYDRIC INCLUSIONS, LOW STRENGTH, SLOW PERCOLATION, PIPING, FROST ACTION, AND A POOR SOURCE OF TOPSOIL.

SOIL USE LIMITATIONS AND RESOLUTIONS

- CUT-BANK CAVING: ALL APPLICABLE OSHA STANDARDS AND REGULATIONS SHALL BE IMPLEMENTED AT ALL TIMES DURING TRENCHING AND EXCAVATION OPERATIONS. • CORROSION OF STEEL AND CONCRETE: ALL UNDERGROUND FOUNDATIONS AND STRUCTURES SHALL BE PROPERLY PROTECTED AGAINST CORROSION, WHICH MAY INCLUDE COATING THESE STRUCTURES WITH CORROSION-RESISTANT MATERIAL.
- EASILY ERODIBLE: EROSION AND SEDIMENT POLLUTION CONTROLS WILL BE IMPLEMENTED TO AVOID THE TRANSPORTATION OF SEDIMENT-LADEN WATER OFF-SITE.
- DEPTH TO SATURATED ZONE/SEASONAL HIGH WATER TABLE: THE SITE MAY REQUIRE DEWATERING OF PITS DURING CONSTRUCTION, I.E. WHEN POURING FOOTERS, EXCAVATING TRENCHES, DEWATERING BASINS, ETC. THE GEOTECHNICAL REPORT DID NOT IDENTIFY ANY AREAS OF HIGH GROUNDWATER. IF DEWATERING IS REQUIRED, A SUMP PIT AND FILTER BAG SHALL BE UTILIZED, AND WATER SHALL BE PUMPED TO AN UNDISTURBED AREA UPSTREAM OF A PERIMETER CONTROL BMP SUCH AS A FILTER SOCK. • HYDRIC SOILS/HYDRIC INCLUSIONS: A WETLAND FIELD SURVEY WAS CONDUCTED AND VARIOUS WETLANDS ARE LOCATED ON SITE. MINIMAL DISTURBANCE WILL TAKE PLACE IN WETLANDS A FOR THE CONSTRUCTION OF STREETS WITH ASSOCIATED CULVERTS TO MAINTAIN HYDRAULIC
- CONVEYANCE. • LOW STRENGTH/LANDSLIDE PRONE: THE MAXIMUM PROPOSED SLOPE ON THE SITE IS 3:1. THIS WILL REDUCE THE POTENTIAL FOR EROSION AND LAND SLIDE ACTION. ALL PROPOSED BERMS SHALL BE COMPACTED FULLY IN ORDER TO PROTECT AGAINST LANDSLIDES, AND SHALL BE STABILIZED IMMEDIATELY.
- SLOW PERCOLATION: ADEQUATE PRECAUTIONS WILL BE TAKEN TO ENSURE THAT THE PCSM BMPS INFILTRATE WITHIN THE REQUIRED TIME PERIOD, INCLUDING INFILTRATION TESTING AND SOIL MODIFICATION/UNDERDRAIN INSTALLATION, IF NECESSARY, INFILTRATION TESTS PREVIOUSLY PERFORMED INDICATED THAT THE INFILTRATION RATE AT THE SITE IS ADEQUATE IN THE PROPOSED INFILTRATION FACILITIES. A DETENTION BASIN IS PROPOSED IN THE AREA WHERE INFILTRATION TESTING YIELDED NEGLIGIBLE RESULTS.
- PIPING: ANTI-SEEP COLLARS WILL BE PROVIDED AS PART OF THE PCSM AND PIPELINE DESIGNS. • POOR SOURCE OF TOPSOIL: THE ADEQUACY OF THE TOPSOIL WILL BE EVALUATED UPON THE COMMENCEMENT OF EXCAVATION. AS THE ENTIRE SITE IS AN AGRICULTURAL FIELD, THE TOPSOIL IS EXPECTED TO BE SUFFICIENT. • FROST ACTION: ALL IMPERVIOUS SURFACES SHALL BE GRADED AT A MINIMUM OF 1% IN ONE DIRECTION, SO THAT WATER WILL NOT COLLECT ON THE SURFACE AND CAUSE DAMAGE DURING FREEZE/THAW CYCLES. CRACKS WHICH DEVELOP IN THE IMPERVIOUS SURFACES SHALL BE
- PROMPTLY SEALED. • SHRINK/SWELL: ALL SITE GRADING SHALL DIRECT WATER AWAY FROM BUILDINGS AND OTHER IMPERVIOUS SURFACES TO REDUCE THE LIKELIHOOD OF WATER INFILTRATING NEAR OR UNDER THESE STRUCTURES. • SINKHOLE FORMATION: THE PA DEP'S EMAPPA DOES NOT IDENTIFY ANY KNOWN KARST FEATURES ON SITE OR IN THE IMMEDIATE VICINITY OF
- E PROJECT. THE ENTIRE SITE IS UNDERLAIN BY THE HAMBURG SEQUENCE ROCKS AND THE GRAYWACKE OF HAMBURG SEQUENCE ROCKS WHICH ARE COMPRISED OF SHALE, SILTSTONE, AND GRAYWACKE. AS SUCH, THE POTENTIAL FOR KARST ACTIVITY IS MINIMAL. SHOULD A GEOTECHNICAL HAZARD BE ENCOUNTERED, THE COUNTY CONSERVATION DISTRICT WILL BE IMMEDIATELY CONTACTED, AND A CERTIFIED GEOTECHNICAL ADVISOR WILL BE REQUIRED TO OVERSEE MITIGATION OF THE HAZARDS. • WETNESS: THE SITE MAY REQUIRE DEWATERING OF PITS DURING CONSTRUCTION, I.E. WHEN POURING FOOTERS, DEWATERING BASINS, ETC. SHOULD DEWATERING BE REQUIRED, A SUMP PIT AND FILTER BAG SHALL BE UTILIZED, AND WATER SHALL BE PUMPED TO AN UNDISTURBED
- AREA UPSTREAM OF A PERIMETER CONTROL (FILTER SOCK). GENERAL SOIL NOTES
- 1. AREAS TO BE FILLED ARE TO BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS, AND OTHER OBJECTIONABLE MATERIAL NEED TO HAVE APPROPRIATE E&S CONTROLS. 2. ALL FILLS SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS. FILL
- INTENDED TO SUPPORT BUILDINGS, STRUCTURES, AND CONDUITS, ETC. SHALL BE COMPACTED IN ACCORDANCE WITH LOCAL REQUIREMENTS OR CODES. 3. ALL EARTHEN FILLS SHALL BE PLACED IN COMPACTED LAYERS NOT TO EXCEED 9 INCHES IN THICKNESS.
- 4. FILL MATERIALS SHALL BE FREE OF FROZEN PARTICLES, BRUSH, ROOTS, SOD, OR OTHER FOREIGN OR OBJECTIONABLE MATERIALS THAT WOULD INTERFERE WITH OR PREVENT CONSTRUCTION OF SATISFACTORY FILLS.
- 5. FROZEN MATERIALS OR SOFT, MUCKY, OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED INTO FILLS. 6. FILL SHALL NOT BE PLACED ON SATURATED OR FROZEN SURFACES.
- 7. THE LEBANON COUNTY CONSERVATION DISTRICT SHALL BE CONTACTED IF SEEPS OR SPRINGS ARE ENCOUNTERED AND THE DESIGNS ARE ALTERED DURING CONSTRUCTION AND THEY SHALL BE HANDLED IN ACCORDANCE WITH THE STANDARD AND SPECIFICATION FOR SUBSURFACE DRAIN OR OTHER APPROVED METHOD.

CALCULATIONS TEMPORARY AND PERMANENT EROSION CONTROL FACILITIES WERE DESIGNED IN ACCORDANCE WITH THE STANDARDS ESTABLISHED IN THE EROSION AND SEDIMENT POLLUTION CONTROL PROGRAM MANUAL (PA DEP BUREAU OF WATERWAYS ENGINEERING AND WETLANDS, MARCH 2012).

- CONSERVATION DISTRICT GENERAL E&S NOTES 1. A COPY OF THE APPROVED FROSION AND SEDIMENT CONTROL PLAN MUST BE AVAILABLE AT THE PROJECT SITE AT ALL TIMES. THE COUNTY CONSERVATION DISTRICT SHALL BE NOTIFIED OF ANY CHANGES TO THE APPROVED PLAN PRIOR TO IMPLEMENTATION OF THOSE CHANGES. THE DISTRICT MAY REQUIRE A WRITTEN SUBMITTAL OF THOSE CHANGES FOR REVIEW AND APPROVAL AT ITS DISCRETION.
- 2. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE OPERATOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO MINIMIZE THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION AND NOTIFY THE COUNTY CONSERVATION DISTRICT.

3. ALL PUMPING OF SEDIMENT LADEN WATER SHALL BE THROUGH A SEDIMENT CONTROL BMP, SUCH AS A PUMPED WATER FILTER BAG OR EQUIVALENT SEDIMENT REMOVAL FACILITY, OVER UNDISTURBED VEGETATED AREAS.

4. FAILURE TO CORRECTLY INSTALL E&S BMPS, FAILURE TO PREVENT SEDIMENT-LADEN RUNOFF FROM LEAVING THE EARTH DISTURBANCE ACTIVITY, OR FAILURE TO TAKE IMMEDIATE CORRECTIVE ACTION TO RESOLVE FAILURE OF E&S BMPS MAY RESULT IN ADMINISTRATIVE, CIVIL, AND/OR CRIMINAL PENALTIES BEING INSTITUTED BY THE DEPARTMENT AS DEFINED IN SECTION 602 OF THE PENNSYLVANIA CLEAN STREAMS LAW. THE

- CLEAN STREAMS LAW PROVIDES FOR UP TO \$10,000 PER DAY IN CIVIL PENALTIES.
- OR WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURNED, BURIED, DUMPED, OR DISCHARGED AT THE SITE.
- OTHER STATE OR FEDERAL REGULATIONS.
- ASPHALT THAT HAS BEEN PROCESSED FOR RE-USE.)
- FORM FP-001 MUST BE RETAINED BY THE OWNER OF THE PROPERTY RECEIVING THE FILL.
- 9. ENVIRONMENTAL DUE DILIGENCE MUST BE PERFORMED TO DETERMINE IF THE FILL MATERIALS ASSOCIATED WITH THE PROJECT QUALIFY AS CLEAN

TEMPORARY CONTROL MEASURES

- 1. TOPSOIL STOCKPILE
- C. STOCKPILES SHALL BE LOCATED SO THAT ALL SWALES CAN FUNCTION AS DESIGNED d. STOCKPILE HEIGHTS MUST NOT EXCEED 35' IN HEIGHT. SIDE SLOPES SHALL BE 2:1 OR FLATTER.
- 2. SEDIMENT BASINS
- 3. SILT SOCK
- a. SILT SOCK SHALL BE USED TO INTERCEPT SEDIMENT-LADEN RUNOFF FROM SMALL WATERSHEDS. THE MAIN FENCE/SOCK ALIGNMENT. C. SEDIMENT MUST BE REMOVED WHEN ACCUMULATIONS REACH ½ THE ABOVE GROUND HEIGHT OF SOCK.
- A NEW SECTION OF SOCK SHALL BE INSTALLED.
- 4. ROCK FILTER WITH COMPOST
- b. A 6" LAYER OF COMPOST SHALL BE ANCHORED TO THE UPSLOPE SIDE OF THE ROCK FILTER. C. SEDIMENT SHALL BE REMOVED WHEN ACCUMULATIONS REACH 1/3 THE HEIGHT OF THE FILTER. SHALL BE USED TO REBUILD THE FILTER.
- 5. INTERIM STABILIZATION / TEMPORARY EROSION CONTROL MATTING
- ACCORDANCE WITH THE PERMANENT SEEDING SPECIFICATIONS CONTAINED HEREON.
- 6. ALTERNATIVE ROCK CONSTRUCTION ENTRANCE b.ROCK CONSTRUCTION ENTRANCE SHALL BE A MINIMUM 100'L AND 20'W. REFER TO THE PLAN DETAIL.
- 7. SEDIMENT SKIMMER g. A ROPE SHALL BE ATTACHED TO THE SKIMMER ARM TO FACILITATE ACCESS TO THE SKIMMER ONCE INSTALLED. b. SKIMMER SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. C. ANY MALFUNCTIONING SKIMMER SHALL BE REPAIRED OR REPLACED WITHIN 24 HOURS OF INSPECTION.
- WATER ELEVATIONS. OF THE LANDING DEVICE.
- f. A SEMI-CIRCULAR LANDING ZONE MAY BE SUBSTITUTED FOR THE GUIDE RAILS
- 8. STONE INLET PROTECTION WITH COMPOST
- GRADIENT OF THE PROTECTED INLET UNTIL ROADWAY IS STONED. b. SEDIMENT SHALL BE REMOVED WHEN IT REACHES HALF THE HEIGHT OF THE STONE.
- C. DAMAGED OR CLOGGED INSTALLATIONS SHALL BE REPAIRED OR REPLACED IMMEDIATELY. d. ANY MALFUNCTIONING SKIMMER SHALL BE REPAIRED OR REPLACED WITHIN 24 HOURS OF INSPECTION. e. A 6 INCH THICK COMPOST LAYER SHALL BE SECURELY ANCHORED ON OUTSIDE AND OVER TOP OF STONE.

PFRMANENT CONTROL MEASURES

- 1. PERMANENT GRASS / LEGUME COVER ATTACHED E&SPC PLAN.
- 2. RIP RAP OUTLET PROTECTION
- b.RIP-RAP SHALL BE INSTALLED IN ACCORDANCE WITH THE DIMENSIONS AND MATERIALS SHOWN ON THE ATTACHED PLAN. 3. CHANNEL LINING INSTALLATION
- b.BEGIN AT THE TOP OF THE CHANNEL BY ANCHORING THE BLANKET IN A 6" DEEP X 6" WIDE TRENCH, BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
- c. ROLL CENTER BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. BLANKETS.
- TRENCH AFTER STAPLING.

STABILIZATION SPECIFICATIONS

STAPLING.

ACCELERATED EROSION AND SEDIMENTATION PENDING FUTURE EARTH DISTURBANCE ACTIVITIES.

2. PERMANENT STABILIZATION IS DEFINED AS A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED SURFACE EROSION AND SUBSURFACE CHARACTERISTICS SUFFICIENT TO RESIST SLIDING AND OTHER MOVEMENTS.

- STOCKPILE SIDE SLOPES MUST BE 2:1 OR FLATTER.

- BE DONE WITH THE CORRECT EQUIPMENT OR BY PROFESSIONALS.
- BE SCARIFIED 6 TO 12 INCHES ALONG CONTOUR WHENEVER POSSIBLE PRIOR TO SEEDING.

#### 5. ALL BUILDING MATERIALS AND WASTES SHALL BE REMOVED FROM THE SITE AND RECYCLED OR DISPOSED OF IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET SEQ., 271.1., AND 287.1 ET SEQ. NO BUILDING MATERIALS

6. THE CONTRACTOR WILL BE RESPONSIBLE FOR THE REMOVAL OF ANY EXCESS MATERIAL AND MAKE SURE THE SITE(S) RECEIVING THE EXCESS HAS AN APPROVED AND FULLY IMPLEMENTED EROSION AND SEDIMENT CONTROL PLAN THAT MEETS THE CONDITIONS OF CHAPTER 102 AND/OR

7. CLEAN FILL IS DEFINED AS: UNCONTAMINATED, NON-WATER SOLUBLE, NON-DECOMPOSABLE, INERT, SOLID MATERIAL. THE TERM INCLUDES SOIL, ROCK, STONE, DREDGED MATERIAL, USED ASPHALT, AND BRICK, BLOCK OR CONCRETE FROM CONSTRUCTION AND DEMOLITION ACTIVITIES THAT IS SEPARATE FROM OTHER WASTE AND IS RECOGNIZABLE AS SUCH. THE TERM DOES NOT INCLUDE MATERIALS PLACED IN OR ON THE WATERS OF THE COMMONWEALTH UNLESS OTHERWISE AUTHORIZED. (THE TERM "USED ASPHALT" DOES NOT INCLUDE MILLED ASPHALT OR

8. ANY PLACEMENT OF CLEAN FILL THAT HAS BEEN AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE MUST USE FORM FP-001 TO CERTIFY THE ORIGIN OF THE FILL MATERIAL AND THE RESULTS OF THE ANALYTICAL TESTING TO QUALIFY THE MATERIAL AS CLEAN FILL.

FILL. ENVIRONMENTAL DUE DILIGENCE IS DEFINED AS: INVESTIGATIVE TECHNIQUES, INCLUDING, BUT NOT LIMITED TO: VISUAL PROPERTY INSPECTIONS, ELECTRONIC DATA BASE SEARCHES, REVIEW OF PROPERTY OWNERSHIP, REVIEW OF PROPERTY USE HISTORY, SANBORN MAPS, ENVIRONMENTAL QUESTIONNAIRES, TRANSACTION SCREENS, ANALYTICAL TESTING, ENVIRONMENTAL ASSESSMENTS OR AUDITS. ANALYTICAL TESTING IS NOT A REQUIRED PART OF DUE DILIGENCE UNLESS VISUAL INSPECTION AND/OR REVIEW OF THE PAST LAND USE OF THE PROPERTY INDICATES THAT THE FILL MAY HAVE BEEN SUBJECTED TO A SPILL OR RELEASE OF A REGULATED SUBSTANCE. IF THE FILL MAY HAVE BEEN AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE, IT MUST BE TESTED TO DETERMINE IF IT QUALIFIES AS CLEAN FILL. TESTING SHOULD BE PERFORMED IN ACCORDANCE WITH APPENDIX A OF THE DEPARTMENT'S POLICY "MANAGEMENT OF CLEAN FILL".

a. A STOCKPILE SHALL BE USED TO CONTAIN ALL STRIPPED TOPSOIL IN A LIMITED AREA IN ORDER TO KEEP DISTURBANCE TO A MINIMUM. b. STOCKPILES SHALL BE STABILIZED IMMEDIATELY IN ACCORDANCE WITH THE TEMPORARY SEEDING SPECIFICATION CONTAINED HEREON.

a. THE PROPOSED PERMANENT STORMWATER BASINS A-G WILL SERVE AS SEDIMENT BASINS A-G DURING THE CONSTRUCTION PHASE. REQUIRED SEDIMENT STORAGE AND DEWATERING VOLUMES ARE SPECIFIED ON THE STANDARD E&S WORKSHEETS PRESENTED LATER IN THIS REPORT. b.ACCUMULATED SEDIMENT SHALL BE REMOVED FROM EACH BASIN WHEN IT HAS REACHED THE CLEAN OUT ELEVATION NOTED ON THE CLEANOUT STAKE FOR THAT BASIN. ALL SEDIMENT REMOVED FROM THE BASIN SHALL BE DISPOSED WITHIN THE LIMITS OF DISTURBANCE, AWAY FROM STEEP SLOPES, AND IN A MANNER THAT WILL NOT CAUSE EROSION OR SEDIMENTATION. ALL AREAS DISTURBED DURING THIS PROCESS SHALL BE MULCHED AND PERMANENTLY STABILIZED WITH SEED.

b.SILT SOCK MUST BE INSTALLED AT LEVEL GRADE. BOTH ENDS OF THE SILT SOCK SHALL EXTEND UP-SLOPE AT A 45-DEGREE ANGLE TO

d. ALL AREAS OF CONCENTRATED FLOW AND AT ALL AREAS WHERE THE SILT SOCK HAS COLLAPSED OR UNDERCUT DUE TO EXCESSIVE FLOWS,

a. A RIPRAP BERM SHALL BE PROVIDED WHERE SHOWN ON THE PLAN AND AT ALL LOCATIONS OF CONCENTRATED FLOWS.

d.ROCK FILTERS WILL BE REMOVED WHEN CLOGGED WITH SEDIMENT. THE STONE SHALL BE WASHED FREE OF ALL SEDIMENT OR NEW STONE

g. TEMPORARY SEEDING/MATTING AND MULCHING SHALL BE APPLIED WHERE INDICATED TO PROVIDE INTERIM STABILIZATION TO EXPOSED AREAS. b. TEMPORARY SEEDING/MULCHING/MATTING SHALL BE AS APPLIED AS SPECIFIED ON THE SEEDING SCHEDULE CONTAINED ON THE E&SPC PLAN. C. ANY DISTURBED AREA ON WHICH ACTIVITY HAS CEASED AND WHICH WILL REMAIN EXPOSED MUST BE STABILIZED IMMEDIATELY. DURING NON-GERMINATING PERIODS, MULCH MUST BE APPLIED AT THE RECOMMENDED RATES. DISTURBED AREAS THAT ARE NOT AT FINISHED GRADE AND WILL BE RE-DISTURBED WITHIN 1 YEAR MAY BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY SEEDING SPECIFICATION CONTAINED HEREON. DISTURBED AREAS THAT ARE AT FINISHED GRADE OR WILL NOT BE RE-DISTURBED WITHIN 1 YEAR MUST BE STABILIZED IN

a.A STABILIZED PAD OF CRUSHED STONE SHALL BE LOCATED WHERE CONSTRUCTION TRAFFIC WILL BE ENTERING AND LEAVING THE SITE. THE ROCK CONSTRUCTION ENTRANCE IS USED TO ELIMINATE THE TRACKING OR FLOWING OF SEDIMENT ONTO THE EXISTING ROADWAY

d.ICE OR SEDIMENT BUILDUP AROUND THE PRINCIPAL SPILLWAY SHALL BE REMOVED TO ALLOW THE SKIMMER TO RESPOND TO FLUCTUATING e. SEDIMENT SHALL BE REMOVED FROM THE BASIN WHEN IT REACHES THE LEVEL MARKED ON THE SEDIMENT CLEAN-OUT STAKE OR THE TOP

a. BERMS SHALL BE REQUIRED FOR ALL INSTALLATIONS. ROLLED EARTHEN BERMS SHALL BE PROVIDED AND MAINTAINED IMMEDIATELY DOWN

a. ALL DISTURBED AREAS THAT ARE NOT PAVED SHALL BE PERMANENTLY STABILIZED WITH GRASS TO MINIMIZE EROSION. ALL SWALES SHALL BE PERMANENTLY SEEDED AS REQUIRED IN ACCORDANCE WITH THE SEEDING SPECIFICATION SHOWN ON THE ATTACHED E&SPC PLAN. b.PERMANENT GRASS COVER SHALL BE APPLIED AS SPECIFIED IN ACCORDANCE WITH THE SEEDING SCHEDULE AND NOTES CONTAINED ON THE

a.RIP-RAP SHALL BE USED AT ALL PIPE OUTLETS TO REDUCE THE OUTFLOW VELOCITY AND MINIMIZE EROSION POTENTIAL AT THE OUTLET PIPE.

a. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING APPLICATION OF LIME, FERTILIZER, AND SEED.

d.PLACE BLANKETS END OVER END (SHINGLE STYLE) WITH A 6" OVERLAP, USE A DOUBLE ROW OF STAGGERED STAPLES 4" APART TO SECURE e.FULL LENGTH EDGE OF BLANKETS AT TOP OF SIDE SLOPES MUST BE ANCHORED DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE

f. BLANKETS ON SIDE SLOPES MUST BE OVERLAPPED 4" OVER THE CENTER BLANKET AND STAPLED (2" FOR C350 MATTING). g.IN HIGH FLOW CHANNEL APPLICATIONS, A STAPLE CHECK SLOT IS RECOMMENDED AT 30 TO 40-FOOT INTERVALS. USE A ROW OF STAPLES 4" APART OVER ENTIRE WIDTH OF THE CHANNEL. PLACE A SECOND ROW 4" BELOW THE FIRST ROW IN A STAGGERED PATTERN. h. THE TERMINAL END OF THE BLANKETS MUST BE ANCHORED IN A 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER

1. UPON TEMPORARY CESSATION OF AN EARTH DISTURBANCE ACTIVITY OR ANY STAGE OR PHASE OF AN ACTIVITY WHERE A CESSATION OF EARTH DISTURBANCE ACTIVITIES WILL EXCEED 4 DAYS, THE SITE SHALL BE IMMEDIATELY SEEDED, MULCHED, OR OTHERWISE PROTECTED FROM

3. TOPSOIL REQUIRED FOR THE ESTABLISHMENT OF VEGETATION SHALL BE STOCKPILED AT THE LOCATION(S) SHOWN ON THE PLAN DRAWINGS IN THE AMOUNT NECESSARY TO COMPLETE THE FINISH GRADING OF ALL EXPOSED AREAS THAT ARE TO BE STABILIZED BY VEGETATION. EACH STOCKPILE SHALL BE PROTECTED IN THE MANNER SHOWN ON THE PLAN DRAWINGS. TOPSOIL STOCKPILE HEIGHTS SHALL NOT EXCEED 35 FEET.

4. AREAS WHICH ARE TO BE TOP-SOILED SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 3 TO 5 INCHES - 6 TO 12 INCHES ON COMPACTED SOILS - PRIOR TO PLACEMENT OF TOPSOIL. AREAS TO BE VEGETATED SHALL HAVE A MINIMUM 4 INCHES OF TOPSOIL IN PLACE PRIOR TO SEEDING AND MULCHING. FILL OUT-SLOPES SHALL HAVE A MINIMUM OF 2 INCHES OF TOPSOIL.

5. LIME AND FERTILIZER SHOULD BE APPLIED IN ACCORDANCE WITH SOIL TEST RECOMMENDATIONS. IF SOIL TEST RESULTS ARE NOT AVAILABLE, APPLY AT LEAST 6 TONS OF AGRICULTURAL GRADE LIMESTONE AND 1000 POUNDS OF 10-20-20 FERTILIZER PER ACRE.

6. APPLY SEED AT REQUIRED RATES. IF LEGUMES ARE PLANTED, BE SURE TO INOCULATE THE SEED WITH THE CORRECT LEGUME INOCULANT. SEED MAY BE BROADCAST ON THE SURFACE AND A LAYER OF MULCH APPLIED AT THE NECESSARY RATES. HYDROSEEDING IS ANOTHER METHOD OF SEEDING, WHERE THE SEED, FERTILIZER, AND MULCH ARE MIXED WITH WATER TO FORM AN EMULSION. THIS METHOD SHOULD ONLY

7. TOPSOIL SHOULD NOT BE PLACED WHILE THE TOPSOIL OR SUBSOIL IS IN A FROZEN OR MUDDY CONDITION, WHEN THE SUBSOIL IS EXCESSIVELY WET, OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING AND SEEDBED PREPARATION. COMPACTED SOILS SHOULD

8. IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE, THE OPERATOR SHALL STABILIZE THE DISTURBED AREAS. DURING NON-GERMINATING PERIODS, MULCH MUST BE APPLIED AT THE SPECIFIED RATES. DISTURBED AREAS WHICH ARE NOT AT FINISHED GRADE AND WHICH WILL BE RE-DISTURBED WITHIN 1 YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY VEGETATIVE STABILIZATION SPECIFICATIONS. DISTURBED AREAS WHICH ARE AT FINAL GRADE OR WHICH WILL NOT BE RE-DISTURBED WITHIN 1 YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE PERMANENT VEGETATIVE STABILIZATION SPECIFICATIONS.

9. AN EROSION CONTROL BLANKET WILL BE INSTALLED ON ALL DISTURBED SLOPES STEEPER THAN 3:1, ALL AREAS OF CONCENTRATED FLOWS, AND DISTURBED AREAS WITHIN 50' OF A SURFACE WATER.

#### MAINTENANCE

1. THE APPLICANT/OR HIS DESIGNEE SHALL BE RESPONSIBLE FOR MAINTAINING ALL FACILITATES SHOWN ON THIS PLAN.

2. DIVERSIONS, CHANNELS, AND STOCKPILES MUST BE STABILIZED IMMEDIATELY.

3. ANY PERMANENTLY SEEDED AREA THAT BECOMES ERODED OR DISTURBED SHALL HAVE THE TOPSOIL REPLACED, THE GRASS RE-SOWN AND MULCH REAPPLIED, OR, AT THE DISCRETION OF THE OWNER, SOD INSTALLED.

4. SILT SOCK MUST BE INSTALLED AT LEVEL GRADE ALONG THE CONTOURS. BOTH ENDS OF EACH SILT SOCK SECTION MUST EXTEND AT LEAST 8 FEET UP-SLOPE AT 45-DEGREE ANGLES TO THE MAIN ALIGNMENT. SEDIMENT MUST BE REMOVED WHEN ACCUMULATIONS REACH ½ THE ABOVE GROUND HEIGHT OF THE SILT SOCK.

5. ANY SILT SOCK SECTION THAT HAS BEEN UNDERMINED OR TOPPED MUST BE IMMEDIATELY REPLACED WITH A NEW SECTION OF SILT SOCK.

6.STOCKPILE HEIGHTS MUST NOT EXCEED 35 FEET. STOCKPILE SLOPES MUST BE 2:1 OR FLATTER.

7. ANY DISTURBED AREA ON WHICH ACTIVITY HAS CEASED AND WHICH WILL REMAIN EXPOSED MUST BE STABILIZED IMMEDIATELY. DURING NON-GERMINATING PERIODS, MULCH MUST BE APPLIED AT THE RECOMMENDED RATES. DISTURBED AREAS WHICH ARE NOT AT FINISHED GRADE AND WHICH WILL BE RE-DISTURBED WITHIN ONE (1) YEAR MAY BE STABILIZED IN ACCORDANCE WITH TEMPORARY SEEDING SPECIFICATIONS. DISTURBED AREAS WHICH ARE EITHER AT FINISHED GRADE OR WILL NOT BE RE-DISTURBED WITHIN ONE (1) YEAR MUST BE STABILIZED IN ACCORDANCE WITH PERMANENT SEEDING SPECIFICATIONS.

8. AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED (DEFINED AS A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER, WITH A DENSITY CAPABLE OF RESISTING ACCELERATED FROSION AND SEDIMENTATION IN ALL AREAS TRIBUTARY TO THE CONTROLS). TEMPORARY FROSION AND SEDIMENTATION CONTROLS MUST BE REMOVED. AREAS DISTURBED DURING REMOVAL OF THE CONTROLS MUST BE STABILIZED IMMEDIATELY.

9. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENT CONTROL BMPS MUST BE MAINTAINED PROPERLY. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENT CONTROL BMPS AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEANOUT, REPAIR, REPLACEMENT, RE-GRADING, RESEDING, RE-MULCHING AND RE-NETTING MUST BE PERFORMED IMMEDIATELY. IF EROSION AND SEDIMENT CONTROL BMPS FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPS OR MODIFICATIONS OF THOSE INSTALLED WILL BE REQUIRED.

10. ANY SEDIMENT REMOVED FROM BMPS DURING CONSTRUCTION WILL BE RETURNED TO UPLAND AREAS ON SITE AND INCORPORATED INTO THE SITE GRADING IN A MANNER THAT WILL NOT CAUSE EROSION OR SEDIMENTATION. ALL AREAS DISTURBED DURING THIS PROCESS WILL BE MULCHED AND PERMANENTLY STABILIZED WITH SEED.

11. E&S BMPS SHALL BE INSPECTED FOLLOWING EACH MEASURABLE RAINFALL THROUGH THE DURATION OF THE PROJECT. INSPECTIONS SHALL BE LOGGED ON DEP FORM 3800-FM-BCW0271D (DATED 12/2019) AND SHALL SHOW THE DATES THAT E&S BMPS WERE INSPECTED AS WELL AS ANY DEFICIENCIES FOUND AND THE DATE THAT THEY WERE CORRECTED SHALL BE MAINTAINED ON THE SITE AND BE MADE AVAILABLE TO THE COUNTY CONSERVATION DISTRICT OR OTHER REGULATORY AGENCY OFFICIALS AT THE TIME OF INSPECTION.

STAGING OF EARTHMOVING

CONSERVATION DISTRICT.

ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE FOLLOWING STAGING OF EARTHMOVING ACTIVITIES. EACH STAGE SHALL BE COMPLETED BEFORE A SUBSEQUENT STAGE IS INITIATED. CONSTRUCTION OF THE SITE IMPROVEMENTS IS EXPECTED TO BEGIN IN THE SPRING OF 2023. A COPY OF THE APPROVED EROSION AND SEDIMEN CONTROL PLAN MUST BE AVAILABLE AT THE PROJECT SITE AT ALL TIMES. CONSTRUCTION WILL PROCEED IN A TIMELY MANNER IN ORDER TO LIMIT THE POTENTIAL FOR ACCELERATED EROSION AND SEDIMENTATION. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION. THE OPERATOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO ELIMINATE THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION. SHOULD ANY SINKHOLES OR GROUNDWATER SOURCES BE ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL CONTACT THE GEOTECHNICAL ENGINEER IMMEDIATELY. ALL PUMPING OF SEDIMENT LADEN WATER SHALL BE THROUGH A SEDIMENT CONTROL BMP, SUCH AS A PUMPED WATER FILTER BAG OR EQUIVALENT SEDIMENT REMOVAL FACILITY, OVER UNDISTURBED VEGETATED AREAS. ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE FOLLOWING SEQUENCE. EACH STAGE SHALL BE COMPLETED AND IMMEDIATELY STABILIZED BEFORE ANY FOLLOWING STAGE IS INITIATED. CLEARING, GRUBBING AND TOPSOIL STRIPPING SHALL BE LIMITED ONLY TO THOSE AREAS DESCRIBED IN EACH STAGE. ANY DEVIATION FROM THE FOLLOWING SEQUENCE MUST BE APPROVED IN WRITING FROM THE COUNTY

SEQUENCE OF CONSTRUCTION - PHASE 1

- AT LEAST 7 DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, INCLUDING CLEARING AND GRUBBING, THE CONTRACTOR SHALL INVITE ALL SUB-CONTRACTORS, THE LANDOWNER, ALL APPROPRIATE MUNICIPAL OFFICIALS, THE CIVIL ENGINEER, AND A REPRESENTATIVE OF THE LOCAL COUNTY CONSERVATION DISTRICT TO AN ON-SITE PRE-CONSTRUCTION MEETING. PERIMETER E&S CONTROLS MAY BE INSTALLED PRIOR TO THE PRE-CONSTRUCTION MEETING.
- 2.AT LEAST 3 DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES SHALL NOTIFY THE PENNSYLVANIA ONE CALL SYSTEM INCORPORATED AT 1-800-242-1776 FOR THE LOCATION OF EXISTING UNDERGROUND UTILITIES.
- 3. ALL FARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE SEQUENCE PROVIDED ON THE PLAN DRAWINGS. DEVIATION FROM THAT SEQUENCE MUST BE APPROVED IN WRITING FROM THE LOCAL CONSERVATION DISTRICT OR BY DEP PRIOR TO IMPLEMENTATION.
- 4.INSTALL EXTENDED ROCK CONSTRUCTION ENTRANCE #1 AS SHOWN ON THE ATTACHED PLAN.
- THE LIMITS OF DISTURBANCE (LOD) SHOULD BE MARKED PRIOR TO DISTURBANCE ACTIVITIES (I.E. SURVEY STAKES, POSTS & ROPI CONSTRUCTION FENCE, ETC.). INSTALL TEMPORARY ORANGE CONSTRUCTION FENCING AROUND WETLAND 1 AS SHOWN ON THE E&S PLANS.
- 6.LOCATE, STAKE, AND FLAG AREAS MARKED AS PCSM BMP'S (I.E. INFILTRATION BASINS A & B). REFER TO PCSM PLAN FOR ADDITIONAL INFORMATION AND LOCATION OF PCSM BMP'S. THESE AREAS SHOULD NOT BE COMPACTED DURING CONSTRUCTION. NO CONSTRUCTION TRAFFIC SHALL OCCUR IN THESE AREAS EXCEPT AS NECESSARY FOR EXCAVATION/GRADING.
- 7. INSTALL PERIMETER SILT SOCK ON THE SITE AT LOCATIONS 1–20 AND 57–59 AS INDICATED ON THE ATTACHED PLAN. SILT SOCK IS TO BE INSTALLED ALONG THE CONTOUR WHERE POSSIBLE, AT A LEVEL GRADE. THE SILT SOCK SHOULD BE POSITIONED IN SUCH A WAY AS TO PREVENT ANY SEDIMENT FROM LEAVING THE SITE. SEDIMENT ACCUMULATING TO HALF THE HEIGHT OF THE SILT SOCK SHALL BE REMOVED IN ORDER TO RESTORE THE SEDIMENT STORAGE CAPACITY OF THESE AREAS. IN THE CASE OF A FAILURE OF THE SILT SOCK DUE TO HIGH FLOWS, A NEW SECTION OF SILT SOCK SHALL BE INSTALLED ACROSS THE FAILED PORTION OF THE SILT SOCK. AT NO POINT SHALL UN-STABILIZED AREA DRAIN OFFSITE UNCONTROLLED. THE SILT SOCK IN LOCATIONS 60-61 IS TO ENSURE SEDIMENTATION OF THE BASIN BOTTOM AREAS DOES NOT OCCUR AND SHOULD BE INSTALLED ONCE THE CONVERSION TO THE PERMANENT STORMWATER BASINS IS COMPLETE.

8.PER NPDES REQUIREMENTS, "UPON THE INSTALLATION OR STABILIZATION OF ALL PERIMETER SEDIMENT CONTROL BMPS AND AT LEAST 3 DAYS PRIOR TO PROCEEDING WITH THE BULK EARTH DISTURBANCE ACTIVITIES, THE PERMITTEE OR CO-PERMITTEE SHALL PROVIDE NOTIFICATION TO THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT."

9. INSTALL SEDIMENT BASINS A & B WHICH WILL SERVE AS SEDIMENT BASINS DURING CONSTRUCTION AND BE CONVERTED TO PERMANENT STORMWATER BASINS UPON TRIBUTARY STABILIZATION. DISTURB ONLY THE MINIMUM AREA NECESSARY TO INSTALL EACH SEDIMENT BASIN. THE SEDIMENT BASINS MUST BE CONSTRUCTED PRIOR TO ANY MAJOR EARTH DISTURBANCE, STRIPPING, OR CLEARING, INSTALL THE OUTLET PIPE FROM EACH BASIN ALONG WITH THE ASSOCIATED OUTLET STRUCTURE. CONSTRUCT IMPERVIOUS CLAY CORES, ANTI-SEEP COLLARS, AND BACKFILL EMBANKMENTS, COMPACTING TO 95% MAX DRY DENSITY. INSTALL NORTH AMERICAN GREEN C350 SLOPE PROTECTION AT EMERGENCY SPILLWAYS. INSTALL TYPE LEVEL SPREADERS AT BASIN OUTLETS. INSTALL SEED IN THE INTERIOR SLOPES AND BERMS OF BASIN. INSTALL TYPI M OUTLET STRUCTURE, CLEAN OUT STAKE, BASIN BAFFLE(S), AND SKIMMER WITHIN EACH SEDIMENT BASIN. PLEASE REFER TO THE E&S SHEETS FOR ADDITIONAL DETAIL. A LICENSED PROFESSIONAL OR DESIGNEE SHALL BE PRESENT ONSITE DURING SEDIMENT BASIN EXCAVATION AND INSTALLATION OF THE OUTLET PIPES. ANTI-SEEP COLLARS. AND CLAY CORES.

10. IF SOIL IS TAKEN TO OR BORROWED FROM ANOTHER CONSTRUCTION SITE, SAID SITE MUST HAVE AN APPROVED E&SPC PLAN. SEE THE "SOIL LIMITATIONS AND RESOLUTIONS" SECTION OF THIS E&S PLAN FOR FURTHER INFORMATION.

. CLEAR AND STRIP TOPSOIL ACROSS THE AREA OF THE BUILDING PADS AND STREETS WITHIN PHASE 1 AND PLACE ON THE TOPSOIL STOCKPILES AS SHOWN ON THE ATTACHED PLAN AND IN ACCORDANCE WITH PLAN DETAILS. INSTALL SILT SOCK BELOW EACH TOPSOIL STOCKPILE AS SHOWN ON THE ATTACHED PLAN.

2. ROUGH GRADE THE DISTURBED AREA TO CONSTRUCT THE BUILDINGS, DRIVEWAYS, AND STREETS WITHIN PHASE 1. INSTALL SWALES 1-4 DURING ROUGH GRADING. ENSURE THE SWALE LINING IS INSTALLED IN EACH SWALE IN ACCORDANCE WITH THE PLAN DETAILS.

3. INSTALL WATER, SANITARY SEWER, STORM SEWER, AND ALL OTHER UTILITIES AT THIS TIME. DURING AND FOLLOWING STORM EVENTS PROVIDE A MEANS TO DEWATER PITS AND UTILITY TRENCHES. SPOIL MATERIAL FROM EXCAVATION OF THE TRENCHES SHALL BE PLACED ON THE UP-SLOPE SIDE OF THE TRENCH, THE LENGTH OF OPEN TRENCH SHALL BE LIMITED TO THAT WHICH WILL BE BACKFILLED THE SAME DAY, AND ANY AFFECTED BMP'S SHALL BE IMMEDIATELY STABILIZED AND REPAIRED. THE TOPSOIL EXCAVATED FROM THE TRENCH SHALL BE CAREFULLY REMOVED AND STOCKPILED SEPARATELY FROM THE SUBSOIL. THE TOPSOIL SHALL BE RESTORED TO THE GRADED AREAS TO PRE-CONSTRUCTION CONDITIONS. WATER PUMPED FROM PITS AND TRENCHES SHALL BE FILTERED BY MEANS OF A FILTER BAG. IMMEDIATELY AFTER TRENCHES HAVE BEEN BACKFILLED, FINE-GRADE AREA.

14. INSTALL THE STONE SUB-BASE FOR THE STREETS, DRIVEWAYS, AND CONCRETE SLABS AS PER PLAN REQUIREMENTS.

5. CONSTRUCT THE PROPOSED BUILDINGS AND ATTACHED UTILITIES (ROOF DRAINS, SANITARY CONNECTIONS, WATER CONNECTIONS, ETC.) IMMEDIATELY UPON COMPLETION OF EARTH DISTURBANCE ACTIVITIES FINAL GRADE AND STABILIZE THE LOT.

- 6. FINE GRADE ANY REMAINING AREAS AS SHOWN ON THE GRADING PLAN. DURING THIS TIME, FRAME EARTH MOVING EQUIPMENT WILL BE EMPLOYED TO REMOVE TOPSOIL AND EXCESS "FILL" MATERIAL, IF ANY EXISTS. SPREAD A MINIMUM OF 4-8 INCHES OF TOPSOIL ON FRESHLY GRADED AREAS; REFER TO THE TOPSOIL APPLICATION NOTES ON THE PLAN. FINAL PASSES DURING FINE GRADING SHALL BE MADE AT RIGH ANGLES TO THE SLOPES. PREPARE THE REMAINDER OF THE DISTURBED AREA FOR PERMANENT STABILIZATION. SEEDBED SHALL BE PREPARED IN ACCORDANCE WITH ACCEPTED PRACTICES. EACH SEED MIXTURE SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S RATES AND INSTRUCTIONS.
- 7. DURING NON-GERMINATING PERIODS, MULCH MUST BE APPLIED AT THE SPECIFIED RATES. DISTURBED AREAS WHICH ARE NOT AT FINISHED GRADE AND WHICH WILL BE RE-DISTURBED WITHIN 1 YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY VEGETATIVE STABILIZATION SPECIFICATIONS. DISTURBED AREAS WHICH ARE AT FINAL GRADE OR WHICH WILL NOT BE RE-DISTURBED WITHIN 1 YEAR MUST BI STABILIZED IN ACCORDANCE WITH THE PERMANENT VEGETATIVE STABILIZATION SPECIFICATIONS.
- 18. PAVE THE STREETS. DO NOT INSTALL SURFACE (WEARING) COURSE UNTIL THE AREA IS STABILIZED (DEFINED AS A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER, WITH A DENSITY CAPABLE OF RESISTING ACCELERATED EROSION AND SEDIMENTATION IN ALL AREAS TRIBUTARY TO THE CONTROLS). IF EARTHMOVING ACTIVITIES CEASE FOR FOUR (4) DAYS OR MORE TEMPORARY STABILIZATION SHALL BE APPLIED. SEE "STABILIZATION SPECIFICATIONS" IN THE E&S PLAN FOR FURTHER DETAILS.

9. ALL SEDIMENT DEPOSITED WITHIN STORM SEWER CONVEYANCE PIPES SHALL BE REMOVED PRIOR TO COMPLETION OF THE PROJECT AND PRIOR TO CONVERSION OF THE SEDIMENT BASINS TO PERMANENT STORMWATER BASINS. ANY WATER PUMPED FROM THE SEDIMENT BASIN OR OTHER AREA OF THE SITE SHALL BE PUMPED THROUGH A FILTER BAG AND THE COLLECTED SEDIMENT SHALL BE DISPOSED OF PROPERLY. ALL AREAS DISTURBED DURING THIS PROCESS SHALL BE STABILIZED IMMEDIATELY THROUGH SEEDING AND MULCHING. THE COUNTY CONSERVATION DISTRIC

#### IOULD BE CONTACTED PRIOR TO CONVERSION OR REMOVAL OF ANY E&S BMPS AND MAY REQUIRE A SITE INSPECTION. REMOVE ALL EMPORARY EROSION AND SEDIMENT CONTROLS ONCE THE SITE IS COMPLETELY STABILIZED (DEFINED AS A MINIMUM UNIFORM 70% PERENNIAL FEGETATIVE COVER, WITH A DENSITY CAPABLE OF RESISTING ACCELERATED EROSION AND SEDIMENTATION IN ALL AREAS TRIBUTARY TO THE CONTROLS) WITH APPROVAL OF THE COUNTY CONSERVATION DISTRICT.

.0. UPON STABILIZATION OF ALL DISTURBED AREAS MODIFY SEDIMENT BASINS A & B AS REQUIRED TO INSTALL INFILTRATION BASINS A & B AS SHOWN ON THE PCSM PLAN. REMOVE ALL SEDIMENT BASIN BAFFLES, CLEANOUT STAKES, AND SKIMMERS. THE INFILTRATION BASINS SHALL BE DVER-EXCAVATED AND SCARIFIED IN ACCORDANCE WITH THE PLAN DETAIL. THE EXCAVATOR SHOULD AVOID EXCAVATING TO THE FINAL DESIGN NVERT UNTIL THE ENGINEERED SOIL MIX IS READY TO BE PLACED. THIS WILL MINIMIZE THE EXPOSURE OF SUBGRADE SOIL AND AID IN REDUCING COMPACTION. WHEN EXCAVATING TO FINAL INVERT SUBGRADES UTILIZE A SMOOTH (TOOTHLESS) BLADE BUCKET TO AVOID LOCALIZED COMPACTION. DURING THE EXCAVATION OF THE BASIN BOTTOMS, INSTALL THE UNDERDRAIN SYSTEM IN ACCORDANCE WITH THE PLAN DETAILS. PLACE THE ENGINEERED SOIL MIX TO THE SPECIFIED ELEVATION WITHIN THE BASIN BOTTOMS. ANY SOIL COMPACTION SHOULD BE AVOIDED IN HE BASIN BOTTOMS. IMMEDIATELY AFTER PLACING THE ENGINEERED SOIL MIX, INSTALL THE SILT SOCKS AT LOCATIONS 60 & 61 TO PREVENT EDIMENTATION OF THE ENGINEERED SOILS. WHEN SEEDING THE BASIN MIXES BE SURE TO HAND RAKE THE SEED INTO THE SOIL. A LICENSED ROFESSIONAL OR DESIGNEE SHALL BE PRESENT ONSITE DURING INSTALLATION OF THE UNDERDRAIN SYSTEM, ENGINEERED SOILS, AND FINAL GRADING/SEEDING OF INFILTRATION BASINS A & B.

THE OPERATOR SHALL REMOVE FROM THE SITE, RECYCLE OR DISPOSE OF ALL BUILDING MATERIALS AND WASTES IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA CODE 260.1 ET SEQ., 271.1 ET SEQ., AND 287.1 ET SEQ. THE CONTRACTOR HALL NOT ILLEGALLY BURY DUMP, OR DISCHARGE ANY BUILDING MATERIAL OR WASTES ON OR OFF THE SITE. THESE BUILDING WASTES NCLUDE, BUT ARE NOT LIMITED TO, EXCESS SOIL MATERIALS, BUILDING MATERIALS, CONCRETE WASH WATER, SANITARY WASTES, ETC. THAT COULD ADVERSELY IMPACT WATER QUALITY.

22. PER NPDES REQUIREMENTS, "WITHIN 30 DAYS AFTER THE COMPLETION OF EARTH DISTURBANCE ACTIVITIES AUTHORIZED BY THIS PERMIT, NCLUDING THE PERMANENT STABILIZATION OF THE SITE AND PROPER INSTALLATION OF PCSM BMPS IN ACCORDANCE WITH THE APPROVED PCSM LAN, OR UPON SUBMISSION OF THE NOT IF SOONER, THE PERMITTEE SHALL FILE WITH THE DEPARTMENT OR AUTHORIZED CONSERVATION STRICT A STATEMENT SIGNED BY A LICENSED PROFESSIONAL AND BY THE PERMITTEE CERTIFYING THAT WORK HAS BEEN PERFORMED IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THIS PERMIT AND THE APPROVED E&S AND PCSM PLANS. COMPLETION CERTIFICATES AR NEEDED TO ENSURE THAT ALL WORK IS PERFORMED IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THE PERMIT AND THE APPROVED

SEQUENCE OF CONSTRUCTION - PHASE 2

E&S AND PCSM PLANS."

- 1. AT LEAST 7 DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, INCLUDING CLEARING AND GRUBBING, THE CONTRACTOR SHALL INVITE ALL SUB-CONTRACTORS, THE LANDOWNER, ALL APPROPRIATE MUNICIPAL OFFICIALS, THE CIVIL ENGINEER, AND A REPRESENTATIVE OF THE LOCAL COUNTY CONSERVATION DISTRICT TO AN ON-SITE PRE-CONSTRUCTION MEETING. PERIMETER E&S CONTROLS MAY BE INSTALLED PRIOR TO THE PRE-CONSTRUCTION MEETING.
- 2. AT LEAST 3 DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES SHALL NOTIFY THE PENNSYLVANIA ONE CALL SYSTEM INCORPORATED AT 1-800-242-1776 FOR THE LOCATION OF EXISTING UNDERGROUND UTILITIES.
- 3. ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE SEQUENCE PROVIDED ON THE PLAN DRAWINGS. DEVIATION FROM THAT SEQUENCE MUST BE APPROVED IN WRITING FROM THE LOCAL CONSERVATION DISTRICT OR BY DEP PRIOR TO IMPLEMENTATION.
- 4. INSTALL EXTENDED ROCK CONSTRUCTION ENTRANCE #2 AS SHOWN ON THE ATTACHED PLAN.
- 5. THE LIMITS OF DISTURBANCE (LOD) SHOULD BE MARKED PRIOR TO DISTURBANCE ACTIVITIES (I.E. SURVEY STAKES, POSTS & ROPE, CONSTRUCTION FENCE, ETC.). INSTALL TEMPORARY ORANGE CONSTRUCTION FENCING AROUND WETLANDS 1 & 2 AS SHOWN ON THE E&S PLANS.
- 6.LOCATE, STAKE, AND FLAG AREAS MARKED AS PCSM BMP'S (I.E. INFILTRATION BASIN C & DETENTION BASIN D). REFER TO PCSM PLAN FOR ADDITIONAL INFORMATION AND LOCATION OF PCSM BMP'S. THESE AREAS SHOULD NOT BE COMPACTED DURING CONSTRUCTION. NO CONSTRUCTION TRAFFIC SHALL OCCUR IN THESE AREAS EXCEPT AS NECESSARY FOR EXCAVATION/GRADING.
- 7. INSTALL PERIMETER SILT SOCK ON THE SITE AT LOCATIONS 20-31 AND 39-40 AS INDICATED ON THE ATTACHED PLAN. SILT SOCK IS TO BE INSTALLED ALONG THE CONTOUR WHERE POSSIBLE, AT A LEVEL GRADE. THE SILT SOCK SHOULD BE POSITIONED IN SUCH A WAY AS TO PREVENT ANY SEDIMENT FROM LEAVING THE SITE. SEDIMENT ACCUMULATING TO HALF THE HEIGHT OF THE SILT SOCK SHALL BE REMOVED IN ORDER TO RESTORE THE SEDIMENT STORAGE CAPACITY OF THESE AREAS. IN THE CASE OF A FAILURE OF THE SILT SOCK DUE TO HIGH FLOWS, A NEW SECTION OF SILT SOCK SHALL BE INSTALLED ACROSS THE FAILED PORTION OF THE SILT SOCK. AT NO POINT SHALL UN-STABILIZED AREA DRAIN OFFSITE UNCONTROLLED. THE SILT SOCK IN LOCATIONS 62-63 IS TO ENSURE SEDIMENTATION OF THE BASIN BOTTOM AREAS DOES NOT OCCUR AND SHOULD BE INSTALLED ONCE THE CONVERSION TO THE PERMANENT STORMWATER BASINS IS COMPLETE.
- 8. PER NPDES REQUIREMENTS, "UPON THE INSTALLATION OR STABILIZATION OF ALL PERIMETER SEDIMENT CONTROL BMPS AND AT LEAST 3 DAYS PRIOR TO PROCEEDING WITH THE BULK EARTH DISTURBANCE ACTIVITIES, THE PERMITTEE OR CO-PERMITTEE SHALL PROVIDE NOTIFICATION TO THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT."
- 9. INSTALL SEDIMENT BASINS C & D WHICH WILL SERVE AS SEDIMENT BASINS DURING CONSTRUCTION AND BE CONVERTED TO PERMANENT STORMWATER BASINS UPON TRIBUTARY STABILIZATION. DISTURB ONLY THE MINIMUM AREA NECESSARY TO INSTALL EACH SEDIMENT BASIN. THE SEDIMENT BASINS MUST BE CONSTRUCTED PRIOR TO ANY MAJOR EARTH DISTURBANCE, STRIPPING, OR CLEARING. INSTALL THE OUTLET PIPE FROM EACH BASIN ALONG WITH THE ASSOCIATED OUTLET STRUCTURE. CONSTRUCT IMPERVIOUS CLAY CORES, ANTI-SEEP COLLARS, AND BACKFILL EMBANKMENTS, COMPACTING TO 95% MAX DRY DENSITY. INSTALL NORTH AMERICAN GREEN C350 SLOPE PROTECTION AT EMERGENCY SPILLWAYS. INSTALL TYPE LEVEL SPREADERS AT BASIN OUTLETS. INSTALL SEED IN THE INTERIOR SLOPES AND BERMS OF BASIN. INSTALL TYPE M OUTLET STRUCTURE, CLEAN OUT STAKE, BASIN BAFFLE(S), AND SKIMMER WITHIN EACH SEDIMENT BASIN. PLEASE REFER TO THE E&S SHEETS FOR ADDITIONAL DETAIL. A LICENSED PROFESSIONAL OR DESIGNEE SHALL BE PRESENT ONSITE DURING SEDIMENT BASIN EXCAVATION AND INSTALLATION OF THE OUTLET PIPES, ANTI-SEEP COLLARS, AND CLAY CORES.
- 10. IF SOIL IS TAKEN TO OR BORROWED FROM ANOTHER CONSTRUCTION SITE, SAID SITE MUST HAVE AN APPROVED E&SPC PLAN. SEE THE "SOIL LIMITATIONS AND RESOLUTIONS" SECTION OF THIS E&S PLAN FOR FURTHER INFORMATION.
- 11. CLEAR AND STRIP TOPSOIL ACROSS THE AREA OF THE BUILDING PADS AND STREETS WITHIN PHASE 2 AND PLACE ON THE TOPSOIL STOCKPILES AS SHOWN ON THE ATTACHED PLAN AND IN ACCORDANCE WITH PLAN DETAILS. INSTALL SILT SOCK BELOW EACH TOPSOIL STOCKPILE AS SHOWN ON THE ATTACHED PLAN.
- 12. ROUGH GRADE THE DISTURBED AREA TO CONSTRUCT THE BUILDINGS, DRIVEWAYS, AND STREETS WITHIN PHASE 2, INSTALL SWALES 11 & 13 DURING ROUGH GRADING. ENSURE THE SWALE LINING IS INSTALLED IN EACH SWALE IN ACCORDANCE WITH THE PLAN DETAILS.
- 13. INSTALL WATER, SANITARY SEWER, STORM SEWER, AND ALL OTHER UTILITIES AT THIS TIME. ENSURE INLET PROTECTION IS PROVIDED FOR ALL STORM INLETS NOT DISCHARGING TO SEDIMENT BASINS C & D AS DEPICTED ON THE E&S PLAN. DURING AND FOLLOWING STORM EVENTS PROVIDE A MEANS TO DEWATER PITS AND UTILITY TRENCHES. SPOIL MATERIAL FROM EXCAVATION OF THE TRENCHES SHALL BE PLACED ON THE UP-SLOPE SIDE OF THE TRENCH, THE LENGTH OF OPEN TRENCH SHALL BE LIMITED TO THAT WHICH WILL BE BACKFILLED THE SAME DAY, AND ANY AFFECTED BMP'S SHALL BE IMMEDIATELY STABILIZED AND REPAIRED. THE TOPSOIL EXCAVATED FROM THE TRENCH SHALL BE CAREFULLY REMOVED AND STOCKPILED SEPARATELY FROM THE SUBSOIL. THE TOPSOIL SHALL BE RESTORED TO THE GRADED AREAS TO PRE-CONSTRUCTION CONDITIONS. WATER PUMPED FROM PITS AND TRENCHES SHALL BE FILTERED BY MEANS OF A FILTER BAG. IMMEDIATELY AFTER TRENCHES HAVE BEEN BACKFILLED, FINE-GRADE AREA.
- 14. INSTALL THE STONE SUB-BASE FOR THE STREETS, DRIVEWAYS, AND CONCRETE SLABS AS PER PLAN REQUIREMENTS.
- 15. CONSTRUCT THE PROPOSED BUILDINGS AND ATTACHED UTILITIES (ROOF DRAINS, SANITARY CONNECTIONS, WATER CONNECTIONS, ETC.) IMMEDIATELY UPON COMPLETION OF EARTH DISTURBANCE ACTIVITIES FINAL GRADE AND STABILIZE THE LOT.
- 16. FINE GRADE ANY REMAINING AREAS AS SHOWN ON THE GRADING PLAN. DURING THIS TIME, FRAME EARTH MOVING EQUIPMENT WILL BE EMPLOYED TO REMOVE TOPSOIL AND EXCESS "FILL" MATERIAL, IF ANY EXISTS. SPREAD A MINIMUM OF 4-8 INCHES OF TOPSOIL ON FRESHLY GRADED AREAS; REFER TO THE TOPSOIL APPLICATION NOTES ON THE PLAN. FINAL PASSES DURING FINE GRADING SHALL BE MADE AT RIGHT ANGLES TO THE SLOPES. PREPARE THE REMAINDER OF THE DISTURBED AREA FOR PERMANENT STABILIZATION. SEEDBED SHALL BE PREPARED IN ACCORDANCE WITH ACCEPTED PRACTICES. EACH SEED MIXTURE SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S RATES AND INSTRUCTIONS.
- 17. DURING NON-GERMINATING PERIODS, MULCH MUST BE APPLIED AT THE SPECIFIED RATES. DISTURBED AREAS WHICH ARE NOT AT FINISHED GRADE AND WHICH WILL BE RE-DISTURBED WITHIN 1 YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY VEGETATIVE STABILIZATION SPECIFICATIONS. DISTURBED AREAS WHICH ARE AT FINAL GRADE OR WHICH WILL NOT BE RE-DISTURBED WITHIN 1 YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE PERMANENT VEGETATIVE STABILIZATION SPECIFICATIONS.
- 18. PAVE THE STREETS. DO NOT INSTALL SURFACE (WEARING) COURSE UNTIL THE AREA IS STABILIZED (DEFINED AS A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER, WITH A DENSITY CAPABLE OF RESISTING ACCELERATED EROSION AND SEDIMENTATION IN ALL AREAS TRIBUTARY TO THE CONTROLS). IF EARTHMOVING ACTIVITIES CEASE FOR FOUR (4) DAYS OR MORE TEMPORARY STABILIZATION SHALL BE APPLIED. SEE "STABILIZATION SPECIFICATIONS" IN THE E&S PLAN FOR FURTHER DETAILS.

19. ALL SEDIMENT DEPOSITED WITHIN STORM SEWER CONVEYANCE PIPES SHALL BE REMOVED PRIOR TO COMPLETION OF THE PROJECT AND PRIOR TO CONVERSION OF THE SEDIMENT BASINS TO PERMANENT STORMWATER BASINS. ANY WATER PUMPED FROM THE SEDIMENT BASIN OR OTHER AREA OF THE SITE SHALL BE PUMPED THROUGH A FILTER BAG AND THE COLLECTED SEDIMENT SHALL BE DISPOSED OF PROPERLY. ALL AREAS DISTURBED DURING THIS PROCESS SHALL BE STABILIZED IMMEDIATELY THROUGH SEEDING AND MULCHING. THE COUNTY CONSERVATION DISTRICT SHOULD BE CONTACTED PRIOR TO CONVERSION OR REMOVAL OF ANY E&S BMPS AND MAY REQUIRE A SITE INSPECTION. REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROLS ONCE THE SITE IS COMPLETELY STABILIZED (DEFINED AS A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER. WITH A DENSITY CAPABLE OF RESISTING ACCELERATED EROSION AND SEDIMENTATION IN ALL AREAS TRIBUTARY TO THE CONTROLS) WITH APPROVAL OF THE COUNTY CONSERVATION DISTRICT.

20. UPON STABILIZATION OF ALL DISTURBED AREAS MODIFY SEDIMENT BASINS C & D AS REQUIRED TO INSTALL INFILTRATION BASINS C & DETENTION BASIN D AS SHOWN ON THE PCSM PLAN. REMOVE ALL SEDIMENT BASIN BAFFLES, CLEANOUT STAKES, AND SKIMMERS. INFILTRATION BASIN C SHALL BE OVER-EXCAVATED AND SCARIFIED IN ACCORDANCE WITH THE PLAN DETAIL. THE EXCAVATOR SHOULD AVOID EXCAVATING TO THE FINAL DESIGN INVERT UNTIL THE ENGINEERED SOIL MIX IS READY TO BE PLACED. THIS WILL MINIMIZE THE EXPOSURE OF SUBGRADE SOIL AND AID IN REDUCING COMPACTION. WHEN EXCAVATING TO FINAL INVERT SUBGRADES UTILIZE A SMOOTH (TOOTHLESS) BLADE BUCKET TO AVOID LOCALIZED COMPACTION. DURING THE EXCAVATION OF THE INFILTRATION BASIN C BOTTOM, INSTALL THE UNDERDRAIN SYSTEM IN ACCORDANCE WITH THE PLAN DETAILS. PLACE THE ENGINEERED SOIL MIX TO THE SPECIFIED ELEVATION WITHIN THE BASIN BOTTOMS. ANY SOIL COMPACTION SHOULD BE AVOIDED IN THE BASIN BOTTOMS. IMMEDIATELY AFTER PLACING THE ENGINEERED SOIL MIX, INSTALL THE SILT SOCKS AT LOCATIONS 62 & 63 TO PREVENT SEDIMENTATION OF THE ENGINEERED SOILS. WHEN SEEDING THE BASIN MIXES BE SURE TO HAND RAKE THE SEED INTO THE SOIL. A LICENSED PROFESSIONAL OR DESIGNEE SHALL BE PRESENT ONSITE DURING INSTALLATION OF THE UNDERDRAIN SYSTEM, ENGINEERED SOILS, AND FINAL GRADING/SEEDING OF INFILTRATION BASINS C & DETENTION BASIN D.

21. THE OPERATOR SHALL REMOVE FROM THE SITE, RECYCLE OR DISPOSE OF ALL BUILDING MATERIALS AND WASTES IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA CODE 260.1 ET SEQ., 271.1 ET SEQ., AND 287.1 ET SEQ. THE CONTRACTOR SHALL NOT ILLEGALLY BURY DUMP, OR DISCHARGE ANY BUILDING MATERIAL OR WASTES ON OR OFF THE SITE. THESE BUILDING WASTES INCLUDE, BUT ARE NOT LIMITED TO, EXCESS SOIL MATERIALS, BUILDING MATERIALS, CONCRETE WASH WATER, SANITARY WASTES, ETC. THAT COULD ADVERSELY IMPACT WATER QUALITY.

22. PER NPDES REQUIREMENTS, "WITHIN 30 DAYS AFTER THE COMPLETION OF EARTH DISTURBANCE ACTIVITIES AUTHORIZED BY THIS PERMIT, INCLUDING THE PERMANENT STABILIZATION OF THE SITE AND PROPER INSTALLATION OF PCSM BMPS IN ACCORDANCE WITH THE APPROVED PCSM PLAN, OR UPON SUBMISSION OF THE NOT IF SOONER, THE PERMITTEE SHALL FILE WITH THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT A STATEMENT SIGNED BY A LICENSED PROFESSIONAL AND BY THE PERMITTEE CERTIFYING THAT WORK HAS BEEN PERFORMED IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THIS PERMIT AND THE APPROVED E&S AND PCSM PLANS. COMPLETION CERTIFICATES ARE NEEDED TO ENSURE THAT ALL WORK IS PERFORMED IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THE PERMIT AND THE APPROVED E&S AND PCSM PLANS."

EROSION & SEDIMENTATION POLLUTION CONTROL NOTESREVISIONFINAL - PHASE 1PER ARRO LETTER DATED 7/3/24FINAL - PHASE 1PER ARRO LETTER DATED 7/3/24SUBDIVISION & LAND DEVELOPMENT PLANPER NLTMA REVISIONTHE ESTATES AT HEARTHSIDEPER LCPD LETTER DATED 7/16/24Incomted in NORTH LEBANON TOWNSHIPPER LCPD LETTER DATED 7/16/24Incomted in LEBANON County, PennsyvoniaIncomted in LEBANON County, Pennsyvonia
EROSION & SEDIMENTATION POLLUTION CONTROL NOTES FINAL - PHASE 1 BINAL - PHASE 1 SUBDIVISION & LAND DEVELOPMENT PLAN For THE ESTATES AT HEARTHSIDE Iocated in NORTH LEBANON TOWNSHIP LEBANON County, Pennsylvania

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SEQUENCE OF CONSTRUCTION - PHASE 3

1. AT LEAST 7 DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, INCLUDING CLEARING AND GRUBBING, THE CONTRACTOR SHALL INVITE ALL SUB-CONTRACTORS, THE LANDOWNER, ALL APPROPRIATE MUNICIPAL OFFICIALS, THE CIVIL ENGINEER, AND A REPRESENTATIVE OF THE LOCAL COUNTY CONSERVATION DISTRICT TO AN ON-SITE PRE-CONSTRUCTION MEETING. PERIMETER E&S CONTROLS MAY BE INSTALLED PRIOR TO THE PRE-CONSTRUCTION MEETING.

2. AT LEAST 3 DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES SHALL NOTIFY THE PENNSYLVANIA ONE CALL SYSTEM INCORPORATED AT 1-800-242-1776 FOR THE LOCATION OF EXISTING UNDERGROUND UTILITIES.

3. ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE SEQUENCE PROVIDED ON THE PLAN DRAWINGS. DEVIATION FROM THAT SEQUENCE MUST BE APPROVED IN WRITING FROM THE LOCAL CONSERVATION DISTRICT OR BY DEP PRIOR TO IMPLEMENTATION.

4. INSTALL EXTENDED ROCK CONSTRUCTION ENTRANCES #3 & #4 AS SHOWN ON THE ATTACHED PLAN.

5. THE LIMITS OF DISTURBANCE (LOD) SHOULD BE MARKED PRIOR TO DISTURBANCE ACTIVITIES (I.E. SURVEY STAKES, POSTS & ROPE, CONSTRUCTION FENCE, ETC.). INSTALL TEMPORARY ORANGE CONSTRUCTION FENCING AROUND WETLAND 2 AS SHOWN ON THE E&S PLANS.

6. LOCATE, STAKE, AND FLAG AREAS MARKED AS PCSM BMP'S (I.E. INFILTRATION BASIN F). REFER TO PCSM PLAN FOR ADDITIONAL INFORMATION AND LOCATION OF PCSM BMP'S. THESE AREAS SHOULD NOT BE COMPACTED DURING CONSTRUCTION. NO CONSTRUCTION TRAFFIC SHALL OCCUR IN THESE AREAS EXCEPT AS NECESSARY FOR EXCAVATION/GRADING.

7. INSTALL PERIMETER SILT SOCK ON THE SITE AT LOCATIONS 37-42 AND 49-50 AS INDICATED ON THE ATTACHED PLAN. SILT SOCK IS TO BE INSTALLED ALONG THE CONTOUR WHERE POSSIBLE. AT A LEVEL GRADE. THE SILT SOCK SHOULD BE POSITIONED IN SUCH A WAY AS TO PREVENT ANY SEDIMENT FROM LEAVING THE SITE. SEDIMENT ACCUMULATING TO HALF THE HEIGHT OF THE SILT SOCK SHALL BE REMOVED IN ORDER TO RESTORE THE SEDIMENT STORAGE CAPACITY OF THESE AREAS. IN THE CASE OF A FAILURE OF THE SILT SOCK DUE TO HIGH FLOWS. A NEW SECTION OF SILT SOCK SHALL BE INSTALLED ACROSS THE FAILED PORTION OF THE SILT SOCK. AT NO POINT SHALL UN-STABILIZED AREA DRAIN OFFSITE UNCONTROLLED. THE SILT SOCK IN LOCATION 65 IS TO ENSURE SEDIMENTATION OF THE BASIN BOTTOM AREA DOES NOT OCCUR AND SHOULD BE INSTALLED ONCE THE CONVERSION TO THE PERMANENT STORMWATER BASIN IS COMPLETE.

8. PER NPDES REQUIREMENTS. "UPON THE INSTALLATION OR STABILIZATION OF ALL PERIMETER SEDIMENT CONTROL BMPS AND AT LEAST 3 DAYS PRIOR TO PROCEEDING WITH THE BULK EARTH DISTURBANCE ACTIVITIES, THE PERMITTEE OR CO-PERMITTEE SHALL PROVIDE NOTIFICATION TO THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT."

9. INSTALL SEDIMENT BASIN F WHICH WILL SERVE AS A SEDIMENT BASIN DURING CONSTRUCTION AND BE CONVERTED TO A PERMANENT STORMWATER BASIN UPON TRIBUTARY STABILIZATION. DISTURB ONLY THE MINIMUM AREA NECESSARY TO INSTALL THE SEDIMENT BASIN. THE SEDIMENT BASIN MUST BE CONSTRUCTED PRIOR TO ANY MAJOR EARTH DISTURBANCE, STRIPPING, OR CLEARING, INSTALL THE OUTLET PIPE FROM THE BASIN ALONG WITH THE ASSOCIATED OUTLET STRUCTURE CONSTRUCT IMPERVIOUS CLAY CORE ANTI-SEEP COLLARS AND BACKEUL EMBANKMENT COMPACTING TO 95% MAX DRY DENSITY INSTALL NORTH AMERICAN GREEN C350 SLOPE PROTECTION AT EMERGENCY SPILLWAY INSTALL TYPE LEVEL SPREADER AT BASIN OUTLET. INSTALL SEED IN THE INTERIOR SLOPES AND BERM OF BASIN. INSTALL TYPE M OUTLET STRUCTURE, CLEAN OUT STAKE, BASIN BAFFLE(S), AND SKIMMER WITHIN THE SEDIMENT BASIN. PLEASE REFER TO THE E&S SHEETS FOR ADDITIONAL DETAIL. A LICENSED PROFESSIONAL OR DESIGNEE SHALL BE PRESENT ONSITE DURING SEDIMENT BASIN EXCAVATION AND INSTALLATION OF THE OUTLET PIPE, ANTI-SEEP COLLARS, AND CLAY CORE.

10. IF SOIL IS TAKEN TO OR BORROWED FROM ANOTHER CONSTRUCTION SITE, SAID SITE MUST HAVE AN APPROVED E&SPC PLAN. SEE THE "SOIL LIMITATIONS AND RESOLUTIONS" SECTION OF THIS E&S PLAN FOR FURTHER INFORMATION.

11. CLEAR AND STRIP TOPSOIL ACROSS THE AREA OF THE BUILDING PADS AND STREETS WITHIN PHASE 3 AND PLACE ON THE TOPSOIL STOCKPILES AS SHOWN ON THE ATTACHED PLAN AND IN ACCORDANCE WITH PLAN DETAILS. INSTALL SILT SOCK BELOW EACH TOPSOIL STOCKPILE AS SHOWN ON THE ATTACHED PLAN.

12. ROUGH GRADE THE DISTURBED AREA TO CONSTRUCT THE BUILDINGS, DRIVEWAYS, AND STREETS WITHIN PHASE 3. INSTALL SWALES 5-7 DURING ROUGH GRADING. ENSURE THE SWALE LINING IS INSTALLED IN EACH SWALE IN ACCORDANCE WITH THE PLAN DETAILS.

13. INSTALL WATER, SANITARY SEWER, STORM SEWER, AND ALL OTHER UTILITIES AT THIS TIME, ENSURE INLET PROTECTION IS PROVIDED FOR ALL STORM INLETS, DURING AND FOLLOWING STORM EVENTS PROVIDE A MEANS TO DEWATER PITS AND UTILITY TRENCHES, SPOIL MATERIAL FROM EXCAVATION OF THE TRENCHES SHALL BE PLACED ON THE UP-SLOPE SIDE OF THE TRENCH. THE LENGTH OF OPEN TRENCH SHALL BE LIMITED TO THAT WHICH WILL BE BACKFILLED THE SAME DAY, AND ANY AFFECTED BMP'S SHALL BE IMMEDIATELY STABILIZED AND REPAIRED. THE TOPSOIL EXCAVATED FROM THE TRENCH SHALL BE CAREFULLY REMOVED AND STOCKPILED SEPARATELY FROM THE SUBSOIL. THE TOPSOIL SHALL BE RESTORED TO THE GRADED AREAS TO PRE-CONSTRUCTION CONDITIONS. WATER PUMPED FROM PITS AND TRENCHES SHALL BE FILTERED BY MEANS OF A FILTER BAG. IMMEDIATELY AFTER TRENCHES HAVE BEEN BACKFILLED, FINE-GRADE AREA.

14. INSTALL THE STONE SUB-BASE FOR THE STREETS, DRIVEWAYS, AND CONCRETE SLABS AS PER PLAN REQUIREMENTS.

15. CONSTRUCT THE PROPOSED BUILDINGS AND ATTACHED UTILITIES (ROOF DRAINS, SANITARY CONNECTIONS, WATER CONNECTIONS, ETC.) IMMEDIATELY UPON COMPLETION OF EARTH DISTURBANCE ACTIVITIES FINAL GRADE AND STABILIZE THE LOT.

16. FINE GRADE ANY REMAINING AREAS AS SHOWN ON THE GRADING PLAN. DURING THIS TIME, FRAME EARTH MOVING EQUIPMENT WILL BE EMPLOYED TO REMOVE TOPSOIL AND EXCESS "FILL" MATERIAL. IF ANY EXISTS SPREAD A MINIMUM OF 4-8 INCHES OF TOPSOIL ON FRESHLY GRADED AREAS: REFER TO THE TOPSOIL APPLICATION NOTES ON THE PLAN. FINAL PASSES DURING FINE GRADING SHALL BE MADE AT RIGHT ANGLES TO THE SLOPES, PREPARE THE REMAINDER OF THE DISTURBED AREA FOR PERMANENT STABILIZATION. SEEDBED SHALL BE PREPARED IN ACCORDANCE WITH ACCEPTED PRACTICES. EACH SEED MIXTURE SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S RATES AND INSTRUCTIONS.

17. DURING NON-GERMINATING PERIODS, MULCH MUST BE APPLIED AT THE SPECIFIED RATES. DISTURBED AREAS WHICH ARE NOT AT FINISHED GRADE AND WHICH WILL BE RE-DISTURBED WITHIN 1 YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY VEGETATIVE STABILIZATION SPECIFICATIONS. DISTURBED AREAS WHICH ARE AT FINAL GRADE OR WHICH WILL NOT BE RE-DISTURBED WITHIN 1 YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE PERMANENT VEGETATIVE STABILIZATION SPECIFICATIONS.

18. PAVE THE STREETS, DO NOT INSTALL SURFACE (WEARING) COURSE UNTIL THE AREA IS STABILIZED (DEFINED AS A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER, WITH A DENSITY CAPABLE OF RESISTING ACCELERATED EROSION AND SEDIMENTATION IN ALL AREAS TRIBUTARY TO THE CONTROLS). IF EARTHMOVING ACTIVITIES CEASE FOR FOUR (4) DAYS OR MORE TEMPORARY STABILIZATION SHALL BE APPLIED. SEE "STABILIZATION SPECIFICATIONS" IN THE E&S PLAN FOR FURTHER DETAILS.

19. ALL SEDIMENT DEPOSITED WITHIN STORM SEWER CONVEYANCE PIPES SHALL BE REMOVED PRIOR TO COMPLETION OF THE PROJECT AND PRIOR TO CONVERSION OF THE SEDIMENT BASINS TO PERMANENT STORMWATER BASINS, ANY WATER PUMPED FROM THE SEDIMENT BASIN OR OTHER AREA OF THE SITE SHALL BE PUMPED THROUGH A FILTER BAG AND THE COLLECTED SEDIMENT SHALL BE DISPOSED OF PROPERLY. ALL AREAS DISTURBED DURING THIS PROCESS SHALL BE STABILIZED IMMEDIATELY THROUGH SEEDING AND MULCHING. THE COUNTY CONSERVATION DISTRICT SHOULD BE CONTACTED PRIOR TO CONVERSION OR REMOVAL OF ANY E&S BMPS AND MAY REQUIRE A SITE INSPECTION. REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROLS ONCE THE SITE IS COMPLETELY STABILIZED (DEFINED AS A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER, WITH A DENSITY CAPABLE OF RESISTING ACCELERATED EROSION AND SEDIMENTATION IN ALL AREAS TRIBUTARY TO THE CONTROLS) WITH APPROVAL OF THE COUNTY CONSERVATION DISTRICT.

20. UPON STABILIZATION OF ALL DISTURBED AREAS MODIFY SEDIMENT BASIN F AS REQUIRED TO INSTALL INFILTRATION BASIN F AS SHOWN ON THE PCSM PLAN. REMOVE ALL SEDIMENT BASIN BAFFLES, CLEANOUT STAKE, AND SKIMMER. THE INFILTRATION BASIN SHALL E OVER-EXCAVATED AND SCARIFIED IN ACCORDANCE WITH THE PLAN DETAIL. THE EXCAVATOR SHOULD AVOID EXCAVATING TO THE FINAL DESIGN INVERT UNTIL THE ENGINEERED SOIL MIX IS READY TO BE PLACED. THIS WILL MINIMIZE THE EXPOSURE OF SUBGRADE SOIL AND AID IN REDUCING COMPACTION. WHEN EXCAVATING TO FINAL INVERT SUBGRADES UTILIZE A SMOOTH (TOOTHLESS) BLADE BUCKET TO AVOID LOCALIZED COMPACTION. DURING THE EXCAVATION OF THE BASIN BOTTOM, INSTALL THE UNDERDRAIN SYSTEM IN ACCORDANCE WITH THE PLAN DETAILS. PLACE THE ENGINEERED SOIL MIX TO THE SPECIFIED ELEVATION WITHIN THE BASIN BOTTOM. ANY SOIL COMPACTION SHOULD BE AVOIDED IN THE BASIN BOTTOM. IMMEDIATELY AFTER PLACING THE ENGINEERED SOIL MIX, INSTALL THE SILT SOCK AT LOCATION 65 TO PREVENT SEDIMENTATION OF THE ENGINEERED SOILS. WHEN SEEDING THE BASIN MIXES BE SURE TO HAND RAKE THE SEED INTO THE SOIL. A LICENSED PROFESSIONAL OR DESIGNEE SHALL BE PRESENT ONSITE DURING INSTALLATION OF THE UNDERDRAIN SYSTEM, ENGINEERED SOILS, AND FINAL GRADING/SEEDING OF INFILTRATION BASIN F.

21. THE OPERATOR SHALL REMOVE FROM THE SITE, RECYCLE OR DISPOSE OF ALL BUILDING MATERIALS AND WASTES IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA CODE 260.1 ET SEQ., 271.1 ET SEQ., AND 287.1 ET SEQ. THE CONTRACTOR SHALL NOT ILLEGALLY BURY DUMP, OR DISCHARGE ANY BUILDING MATERIAL OR WASTES ON OR OFF THE SITE. THESE BUILDING WASTES INCLUDE, BUT ARE NOT LIMITED TO, EXCESS SOIL MATERIALS, BUILDING MATERIALS, CONCRETE WASH WATER, SANITARY WASTES, ETC. THAT COULD ADVERSELY IMPACT WATER QUALITY.

22. PER NPDES REQUIREMENTS, "WITHIN 30 DAYS AFTER THE COMPLETION OF EARTH DISTURBANCE ACTIVITIES AUTHORIZED BY THIS PERMIT, INCLUDING THE PERMANENT STABILIZATION OF THE SITE AND PROPER INSTALLATION OF PCSM BMPS IN ACCORDANCE WITH THE APPROVED PCSM PLAN, OR UPON SUBMISSION OF THE NOT IF SOONER, THE PERMITTEE SHALL FILE WITH THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT A STATEMENT SIGNED BY A LICENSED PROFESSIONAL AND BY THE PERMITTEE CERTIFYING THAT WORK HAS BEEN PERFORMED IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THIS PERMIT AND THE APPROVED E&S AND PCSM PLANS. COMPLETION CERTIFICATES ARE NEEDED TO ENSURE THAT ALL WORK IS PERFORMED IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THE PERMIT AND THE APPROVED E&S AND PCSM PLANS."

#### SEQUENCE OF CONSTRUCTION - PHASE 4

1. AT LEAST 7 DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, INCLUDING CLEARING AND GRUBBING, THE CONTRACTOR SHALL INVITE ALL SUB-CONTRACTORS, THE LANDOWNER, ALL APPROPRIATE MUNICIPAL OFFICIALS, THE CIVIL ENGINEER, AND A REPRESENTATIVE OF THE LOCAL COUNTY CONSERVATION DISTRICT TO AN ON-SITE PRE-CONSTRUCTION MEETING. PERIMETER E&S CONTROLS MAY BE INSTALLED PRIOR TO THE PRE-CONSTRUCTION MEETING.

2. AT LEAST 3 DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES SHALL NOTIFY THE PENNSYLVANIA ONE CALL SYSTEM INCORPORATED AT 1-800-242-1776 FOR THE LOCATION OF EXISTING UNDERGROUND UTILITIES.

3. ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE SEQUENCE PROVIDED ON THE PLAN DRAWINGS. DEVIATION FROM THAT SEQUENCE MUST BE APPROVED IN WRITING FROM THE LOCAL CONSERVATION DISTRICT OR BY DEP PRIOR TO IMPLEMENTATION.

4. INSTALL EXTENDED ROCK CONSTRUCTION ENTRANCE #4 AS SHOWN ON THE ATTACHED PLAN.

5. THE LIMITS OF DISTURBANCE (LOD) SHOULD BE MARKED PRIOR TO DISTURBANCE ACTIVITIES (I.E. SURVEY STAKES, POSTS & ROPE, CONSTRUCTION FENCE, ETC.). INSTALL TEMPORARY ORANGE CONSTRUCTION FENCING AROUND WETLAND 2 AS SHOWN ON THE E&S PLANS.

6.LOCATE, STAKE, AND FLAG AREAS MARKED AS PCSM BMP'S (I.E. INFILTRATION BASIN E). REFER TO PCSM PLAN FOR ADDITIONAL INFORMATION AND LOCATION OF PCSM BMP'S. THESE AREAS SHOULD NOT BE COMPACTED DURING CONSTRUCTION. NO CONSTRUCTION TRAFFIC SHALL OCCUR IN THESE AREAS EXCEPT AS NECESSARY FOR EXCAVATION/GRADING.

7. INSTALL PERIMETER SILT SOCK ON THE SITE AT LOCATIONS 31-37 AND 50-56 AS INDICATED ON THE ATTACHED PLAN. SILT SOCK IS TO BE INSTALLED ALONG THE CONTOUR WHERE POSSIBLE, AT A LEVEL GRADE. THE SILT SOCK SHOULD BE POSITIONED IN SUCH A WAY AS TO PREVENT ANY SEDIMENT FROM LEAVING THE SITE. SEDIMENT ACCUMULATING TO HALF THE HEIGHT OF THE SILT SOCK SHALL BE REMOVED IN ORDER TO RESTORE THE SEDIMENT STORAGE CAPACITY OF THESE AREAS. IN THE CASE OF A FAILURE OF THE SILT SOCK DUE TO HIGH FLOWS. A NEW SECTION OF SILT SOCK SHALL BE INSTALLED ACROSS THE FAILED PORTION OF THE SILT SOCK. AT NO POINT SHALL UN-STABILIZED AREA DRAIN OFFSITE UNCONTROLLED. THE SILT SOCK IN LOCATION 64 IS TO ENSURE SEDIMENTATION OF THE BASIN BOTTOM AREA DOES NOT OCCUR AND SHOULD BE INSTALLED ONCE THE CONVERSION TO THE PERMANENT STORMWATER BASIN IS COMPLETE.

8. PER NPDES REQUIREMENTS, "UPON THE INSTALLATION OR STABILIZATION OF ALL PERIMETER SEDIMENT CONTROL BMPS AND AT LEAST 3 DAYS PRIOR TO PROCEEDING WITH THE BULK EARTH DISTURBANCE ACTIVITIES, THE PERMITTEE OR CO-PERMITTEE SHALL PROVIDE NOTIFICATION TO THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT."

9.INSTALL SEDIMENT BASIN E WHICH WILL SERVE AS A SEDIMENT BASIN DURING CONSTRUCTION AND BE CONVERTED TO A PERMANENT STORMWATER BASIN UPON TRIBUTARY STABILIZATION. DISTURB ONLY THE MINIMUM AREA NECESSARY TO INSTALL THE SEDIMENT BASIN. THE SEDIMENT BASIN MUST BE CONSTRUCTED PRIOR TO ANY MAJOR FARTH DISTURBANCE, STRIPPING, OR CLEARING, INSTALL THE OUTLET PIPE FROM THE BASIN ALONG WITH THE ASSOCIATED OUTLET STRUCTURE. CONSTRUCT IMPERVIOUS CLAY CORE, ANTI-SEEP COLLARS, AND BACKFILL EMBANKMENT, COMPACTING TO 95% MAX DRY DENSITY. INSTALL NORTH AMERICAN GREEN C350 SLOPE PROTECTION AT EMERGENCY SPILLWAY. INSTALL TYPE LEVEL SPREADER AT BASIN OUTLET, INSTALL SEED IN THE INTERIOR SLOPES AND BERM OF BASIN, INSTALL TYPE M OUTLET STRUCTURE, CLEAN OUT STAKE, BASIN BAFFLE(S), AND SKIMMER WITHIN THE SEDIMENT BASIN. PLEASE REFER TO THE E&S SHEETS FOR ADDITIONAL DETAIL. A LICENSED PROFESSIONAL OR DESIGNEE SHALL BE PRESENT ONSITE DURING SEDIMENT BASIN EXCAVATION AND INSTALLATION OF THE OUTLET PIPE, ANTI-SEEP COLLARS, AND CLAY CORE.

10. IF SOIL IS TAKEN TO OR BORROWED FROM ANOTHER CONSTRUCTION SITE, SAID SITE MUST HAVE AN APPROVED E&SPC PLAN. SEE THE "SOIL LIMITATIONS AND RESOLUTIONS" SECTION OF THIS E&S PLAN FOR FURTHER INFORMATION.

11. CLEAR AND STRIP TOPSOIL ACROSS THE AREA OF THE BUILDING PADS AND STREETS WITHIN PHASE 4 AND PLACE ON THE TOPSOIL STOCKPILES AS SHOWN ON THE ATTACHED PLAN AND IN ACCORDANCE WITH PLAN DETAILS. INSTALL SILT SOCK BELOW EACH TOPSOIL STOCKPILE AS SHOWN ON THE ATTACHED PLAN.

12. ROUGH GRADE THE DISTURBED AREA TO CONSTRUCT THE BUILDINGS, DRIVEWAYS, AND STREETS WITHIN PHASE 4. INSTALL SWALE 12 DURING ROUGH GRADING. ENSURE THE SWALE LINING IS INSTALLED IN EACH SWALE IN ACCORDANCE WITH THE PLAN DETAILS.

13. INSTALL WATER, SANITARY SEWER, STORM SEWER, AND ALL OTHER UTILITIES AT THIS TIME. ENSURE INLET PROTECTION IS PROVIDED FOR ALL STORM INLETS NOT DISCHARGING TO SEDIMENT BASIN E AS SHOWN ON THE E&S PLAN. DURING AND FOLLOWING STORM EVENTS PROVIDE A MEANS TO DEWATER PITS AND UTILITY TRENCHES. SPOIL MATERIAL FROM EXCAVATION OF THE TRENCHES SHALL BE PLACED ON THE UP-SLOPE SIDE OF THE TRENCH, THE LENGTH OF OPEN TRENCH SHALL BE LIMITED TO THAT WHICH WILL BE BACKFILLED THE SAME DAY, AND ANY AFFECTED BMP'S SHALL BE IMMEDIATELY STABILIZED AND REPAIRED. THE TOPSOIL EXCAVATED FROM THE TRENCH SHALL BE CAREFULLY REMOVED AND STOCKPILED SEPARATELY FROM THE SUBSOIL. THE TOPSOIL SHALL BE RESTORED TO THE GRADED AREAS TO PRE-CONSTRUCTION CONDITIONS. WATER PUMPED FROM PITS AND TRENCHES SHALL BE FILTERED BY MEANS OF A FILTER BAG. IMMEDIATELY AFTER TRENCHES HAVE BEEN BACKFILLED, FINE-GRADE AREA.

14. INSTALL THE STONE SUB-BASE FOR THE STREETS, DRIVEWAYS, AND CONCRETE SLABS AS PER PLAN REQUIREMENTS.

15. CONSTRUCT THE PROPOSED BUILDINGS AND ATTACHED UTILITIES (ROOF DRAINS, SANITARY CONNECTIONS, WATER CONNECTIONS, ETC.) IMMEDIATELY UPON COMPLETION OF EARTH DISTURBANCE ACTIVITIES FINAL GRADE AND STABILIZE THE LOT.

16. FINE GRADE ANY REMAINING AREAS AS SHOWN ON THE GRADING PLAN, DURING THIS TIME, FRAME FARTH MOVING EQUIPMENT WILL BE EMPLOYED TO REMOVE TOPSOIL AND EXCESS "FILL" MATERIAL, IF ANY EXISTS. SPREAD A MINIMUM OF 4-8 INCHES OF TOPSOIL ON FRESHLY GRADED AREAS; REFER TO THE TOPSOIL APPLICATION NOTES ON THE PLAN. FINAL PASSES DURING FINE GRADING SHALL BE MADE AT RIGHT ANGLES TO THE SLOPES. PREPARE THE REMAINDER OF THE DISTURBED AREA FOR PERMANENT STABILIZATION. SEEDBED SHALL BE PREPARED IN ACCORDANCE WITH ACCEPTED PRACTICES. EACH SEED MIXTURE SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S RATES AND INSTRUCTIONS.

17. DURING NON-GERMINATING PERIODS, MULCH MUST BE APPLIED AT THE SPECIFIED RATES, DISTURBED AREAS WHICH ARE NOT AT FINISHED GRADE AND WHICH WILL BE RE-DISTURBED WITHIN 1 YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY VEGETATIVE STABILIZATION SPECIFICATIONS. DISTURBED AREAS WHICH ARE AT FINAL GRADE OR WHICH WILL NOT BE RE-DISTURBED WITHIN 1 YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE PERMANENT VEGETATIVE STABILIZATION SPECIFICATIONS.

18. PAVE THE STREETS. DO NOT INSTALL SURFACE (WEARING) COURSE UNTIL THE AREA IS STABILIZED (DEFINED AS A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER, WITH A DENSITY CAPABLE OF RESISTING ACCELERATED EROSION AND SEDIMENTATION IN ALL AREAS TRIBUTARY TO THE CONTROLS). IF EARTHMOVING ACTIVITIES CEASE FOR FOUR (4) DAYS OR MORE TEMPORARY STABILIZATION SHALL BE APPLIED. SEE "STABILIZATION SPECIFICATIONS" IN THE E&S PLAN FOR FURTHER DETAILS.

19. ALL SEDIMENT DEPOSITED WITHIN STORM SEWER CONVEYANCE PIPES SHALL BE REMOVED PRIOR TO COMPLETION OF THE PROJECT AND PRIOR TO CONVERSION OF THE SEDIMENT BASINS TO PERMANENT STORMWATER BASINS, ANY WATER PUMPED FROM THE SEDIMENT BASIN OR OTHER AREA OF THE SITE SHALL BE PUMPED THROUGH A FILTER BAG AND THE COLLECTED SEDIMENT SHALL BE DISPOSED OF PROPERLY. ALL AREAS DISTURBED DURING THIS PROCESS SHALL BE STABILIZED IMMEDIATELY THROUGH SEEDING AND MULCHING. THE COUNTY CONSERVATION DISTRICT SHOULD BE CONTACTED PRIOR TO CONVERSION OR REMOVAL OF ANY E&S BMPS AND MAY REQUIRE A SITE INSPECTION. REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROLS ONCE THE SITE IS COMPLETELY STABILIZED (DEFINED AS A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER, WITH A DENSITY CAPABLE OF RESISTING ACCELERATED EROSION AND SEDIMENTATION IN ALL AREAS TRIBUTARY TO THE CONTROLS) WITH APPROVAL OF THE COUNTY CONSERVATION DISTRICT.

20. UPON STABILIZATION OF ALL DISTURBED AREAS MODIFY SEDIMENT BASIN E AS REQUIRED TO INSTALL INFILTRATION BASIN E AS SHOWN ON THE PCSM PLAN. REMOVE ALL SEDIMENT BASIN BAFFLES, CLEANOUT STAKE, AND SKIMMER. THE INFILTRATION BASIN SHALL BE OVER-EXCAVATED AND SCARIFIED IN ACCORDANCE WITH THE PLAN DETAIL. THE EXCAVATOR SHOULD AVOID EXCAVATING TO THE FINAL DESIGN INVERT UNTIL THE ENGINEERED SOIL MIX IS READY TO BE PLACED. THIS WILL MINIMIZE THE EXPOSURE OF SUBGRADE SOIL AND AID IN REDUCING COMPACTION. WHEN EXCAVATING TO FINAL INVERT SUBGRADES UTILIZE A SMOOTH (TOOTHLESS) BLADE BUCKET TO AVOID LOCALIZED COMPACTION. DURING THE EXCAVATION OF THE BASIN BOTTOM, INSTALL THE UNDERDRAIN SYSTEM IN ACCORDANCE WITH THE PLAN DETAILS. PLACE THE ENGINEERED SOIL MIX TO THE SPECIFIED ELEVATION WITHIN THE BASIN BOTTOM. ANY SOIL COMPACTION SHOULD BE AVOIDED IN THE BASIN BOTTOM. IMMEDIATELY AFTER PLACING THE ENGINEERED SOIL MIX, INSTALL THE SILT SOCK AT LOCATION 64 TO PREVENT SEDIMENTATION OF THE ENGINEERED SOILS. WHEN SEEDING THE BASIN MIXES BE SURE TO HAND RAKE THE SEED INTO THE SOIL. A LICENSED PROFESSIONAL OR DESIGNEE SHALL BE PRESENT ONSITE DURING INSTALLATION OF THE UNDERDRAIN SYSTEM, ENGINEERED SOILS, AND FINAL GRADING/SEEDING OF INFILTRATION BASIN E.

21. THE OPERATOR SHALL REMOVE FROM THE SITE, RECYCLE OR DISPOSE OF ALL BUILDING MATERIALS AND WASTES IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA CODE 260.1 ET SEQ., 271.1 ET SEQ., AND 287.1 ET SEQ. THE CONTRACTOR SHALL NOT ILLEGALLY BURY DUMP. OR DISCHARGE ANY BUILDING MATERIAL OR WASTES ON OR OFF THE SITE. THESE BUILDING WASTES INCLUDE, BUT ARE NOT LIMITED TO, EXCESS SOIL MATERIALS, BUILDING MATERIALS, CONCRETE WASH WATER, SANITARY WASTES, ETC. THAT COULD ADVERSELY IMPACT WATER QUALITY.

22. PER NPDES REQUIREMENTS, "WITHIN 30 DAYS AFTER THE COMPLETION OF EARTH DISTURBANCE ACTIVITIES AUTHORIZED BY THIS PERMIT, INCLUDING THE PERMANENT STABILIZATION OF THE SITE AND PROPER INSTALLATION OF PCSM BMPS IN ACCORDANCE WITH THE APPROVED PCSM N. OR UPON SUBMISSION OF THE NOT IF SOONER. THE PERMITTEE SHALL FILE WITH THE DEPARTMENT OR AUTHORIZ. DISTRICT A STATEMENT SIGNED BY A LICENSED PROFESSIONAL AND BY THE PERMITTEE CERTIFYING THAT WORK HAS BEEN PERFORMED IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THIS PERMIT AND THE APPROVED E&S AND PCSM PLANS. COMPLETION CERTIFICATES ARE NEEDED TO ENSURE THAT ALL WORK IS PERFORMED IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THE PERMIT AND THE APPROVED E&S AND PCSM PLANS."

SEQUENCE OF CONSTRUCTION - PHASE 5

1. AT LEAST 7 DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, INCLUDING CLEARING AND GRUBBING, THE CONTRACTOR SHALL INVITE ALL SUB-CONTRACTORS, THE LANDOWNER, ALL APPROPRIATE MUNICIPAL OFFICIALS, THE CIVIL ENGINEER, AND A REPRESENTATIVE OF THE LOCAL COUNTY CONSERVATION DISTRICT TO AN ON-SITE PRE-CONSTRUCTION MEETING. PERIMETER E&S CONTROLS MAY BE INSTALLED PRIOR TO THE PRE-CONSTRUCTION MEETING.

2.AT LEAST 3 DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES SHALL NOTIFY THE PENNSYLVANIA ONE CALL SYSTEM INCORPORATED AT 1-800-242-1776 FOR THE LOCATION OF EXISTING UNDERGROUND UTILITIES.

3. ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE SEQUENCE PROVIDED ON THE PLAN DRAWINGS. DEVIATION FROM THAT SEQUENCE MUST BE APPROVED IN WRITING FROM THE LOCAL CONSERVATION DISTRICT OR BY DEP PRIOR TO IMPLEMENTATION.

4. INSTALL EXTENDED ROCK CONSTRUCTION ENTRANCE #5 AS SHOWN ON THE ATTACHED PLAN.

5. THE LIMITS OF DISTURBANCE (LOD) SHOULD BE MARKED PRIOR TO DISTURBANCE ACTIVITIES (I.E. SURVEY STAKES, POSTS & ROPE, CONSTRUCTION FENCE. ETC.)

6.LOCATE, STAKE, AND FLAG AREAS MARKED AS PCSM BMP'S (I.E. INFILTRATION BASIN G). REFER TO PCSM PLAN FOR ADDITIONAL INFORMATION AND LOCATION OF PCSM BMP'S. THESE AREAS SHOULD NOT BE COMPACTED DURING CONSTRUCTION. NO CONSTRUCTION TRAFFIC SHALL OCCUR IN THESE AREAS EXCEPT AS NECESSARY FOR EXCAVATION/GRADING

7.INSTALL PERIMETER SILT SOCK ON THE SITE AT LOCATIONS 44-48 AS INDICATED ON THE ATTACHED PLAN. SILT SOCK IS TO BE INSTALLED ALONG THE CONTOUR WHERE POSSIBLE, AT A LEVEL GRADE. THE SILT SOCK SHOULD BE POSITIONED IN SUCH A WAY AS TO PREVENT ANY SEDIMENT FROM LEAVING THE SITE. SEDIMENT ACCUMULATING TO HALF THE HEIGHT OF THE SILT SOCK SHALL BE REMOVED IN ORDER TO RESTORE THE SEDIMENT STORAGE CAPACITY OF THESE AREAS. IN THE CASE OF A FAILURE OF THE SILT SOCK DUE TO HIGH FLOWS, A NEW SECTION OF SILT SOCK SHALL BE INSTALLED ACROSS THE FAILED PORTION OF THE SILT SOCK. AT NO POINT SHALL UN-STABILIZED AREA DRAIN OFFSITE UNCONTROLLED. THE SILT SOCK IN LOCATION 66 IS TO ENSURE SEDIMENTATION OF THE BASIN BOTTOM AREA DOES NOT OCCUR AND SHOULD BE INSTALLED ONCE THE CONVERSION TO THE PERMANENT STORMWATER BASIN IS COMPLETE.

9.PER NPDES REQUIREMENTS, "UPON THE INSTALLATION OR STABILIZATION OF ALL PERIMETER SEDIMENT CONTROL BMPS AND AT LEAST 3 DAYS PRIOR TO PROCEEDING WITH THE BULK EARTH DISTURBANCE ACTIVITIES, THE PERMITTEE OR CO-PERMITTEE SHALL PROVIDE NOTIFICATION TO THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT."

10. INSTALL SEDIMENT BASIN G WHICH WILL SERVE AS A SEDIMENT BASIN DURING CONSTRUCTION AND BE CONVERTED TO A PERMANENT STORMWATER BASIN UPON TRIBUTARY STABILIZATION. DISTURB ONLY THE MINIMUM AREA NECESSARY TO INSTALL THE SEDIMENT BASIN. THE SEDIMENT BASIN MUST BE CONSTRUCTED PRIOR TO ANY MAJOR EARTH DISTURBANCE, STRIPPING, OR CLEARING, INSTALL THE OUTLET PIPE FROM THE BASIN ALONG WITH THE ASSOCIATED OUTLET STRUCTURE. CONSTRUCT IMPERVIOUS CLAY CORE, ANTI-SEEP COLLARS, AND BACKFILL EMBANKMENT, COMPACTING TO 95% MAX DRY DENSITY. INSTALL NORTH AMERICAN GREEN C350 SLOPE PROTECTION AT EMERGENCY SPILLWAY. INSTALL ENDWALL WITH RIPRAP APRON. INSTALL SEED IN THE INTERIOR SLOPES AND BERM OF BASIN. INSTALL TYPE M OUTLET STRUCTURE, CLEAN OUT STAKE, BASIN BAFFLE(S), AND SKIMMER WITHIN THE SEDIMENT BASIN. PLEASE REFER TO THE E&S SHEETS FOR ADDITIONAL DETAIL. A LICENSED PROFESSIONAL OR DESIGNEE SHALL BE PRESENT ONSITE DURING SEDIMENT BASIN EXCAVATION AND INSTALLATION OF THE OUTLET PIPE, ANTI-SEEP COLLARS, AND CLAY CORE.

11. IF SOIL IS TAKEN TO OR BORROWED FROM ANOTHER CONSTRUCTION SITE, SAID SITE MUST HAVE AN APPROVED E&SPC PLAN. SEE THE "SOIL LIMITATIONS AND RESOLUTIONS" SECTION OF THIS E&S PLAN FOR FURTHER INFORMATION.

12. CLEAR AND STRIP TOPSOIL ACROSS THE AREA OF THE BUILDING PADS AND STREETS WITHIN PHASE 5 AND PLACE ON THE TOPSOIL STOCKPILES AS SHOWN ON THE ATTACHED PLAN AND IN ACCORDANCE WITH PLAN DETAILS. INSTALL SILT SOCK BELOW EACH TOPSOIL STOCKPILE AS SHOWN ON THE ATTACHED PLAN.

13. ROUGH GRADE THE DISTURBED AREA TO CONSTRUCT THE BUILDINGS, DRIVEWAYS, AND STREETS WITHIN PHASE 5. INSTALL SWALES 8-10 DURING ROUGH GRADING. ENSURE THE SWALE LINING IS INSTALLED IN EACH SWALE IN ACCORDANCE WITH THE PLAN DETAILS.

14. INSTALL WATER, SANITARY SEWER, STORM SEWER, AND ALL OTHER UTILITIES AT THIS TIME. ENSURE INLET PROTECTION IS PROVIDED FOR ALL STORM INFERS THAT ARE NOT TRIBUTARY TO SEDIMENT BASIN & AS SHOWN ON THE F&S PLAN INSTALL ROCK FILTER #2 ABOVE FW-H6 DURING AND FOLLOWING STORM EVENTS PROVIDE A MEANS TO DEWATER PITS AND UTILITY TRENCHES. SPOIL MATERIAL FROM EXCAVATION OF THE TRENCHES SHALL BE PLACED ON THE UP-SLOPE SIDE OF THE TRENCH, THE LENGTH OF OPEN TRENCH SHALL BE LIMITED TO THAT WHICH WILL BE BACKFILLED THE SAME DAY, AND ANY AFFECTED BMP'S SHALL BE IMMEDIATELY STABILIZED AND REPAIRED. THE TOPSOIL EXCAVATED FROM THE TRENCH SHALL BE CAREFULLY REMOVED AND STOCKPILED SEPARATELY FROM THE SUBSOIL. THE TOPSOIL SHALL BE RESTORED TO THE GRADED AREAS TO PRE-CONSTRUCTION CONDITIONS. WATER PUMPED FROM PITS AND TRENCHES SHALL BE FILTERED BY MEANS OF A FILTER BAG. IMMEDIATELY AFTER TRENCHES HAVE BEEN BACKFILLED, FINE-GRADE AREA.

15. INSTALL THE STORE SUB-BASE FOR THE STREETS, DRIVEWAYS, AND CONCRETE SLABS AS PER PLAN REQUIREMENTS.

8. INSTALL ROCK FILTER #1 AT THE CULVERT BENEATH JAY STREET.

16. CONSTRUCT THE PROPOSED BUILDINGS AND ATTACHED UTILITIES (ROOF DRAINS, SANITARY CONNECTIONS, WATER CONNECTIONS, ETC.) IMMEDIATELY UPON COMPLETION OF EARTH DISTURBANCE ACTIVITIES FINAL GRADE AND STABILIZE THE LOT.

17. FINE GRADE ANY REMAINING AREAS AS SHOWN ON THE GRADING PLAN. DURING THIS TIME, FRAME EARTH MOVING EQUIPMENT WILL BE EMPLOYED TO REMOVE TOPSOIL AND EXCESS "FILL" MATERIAL, IF ANY EXISTS. SPREAD A MINIMUM OF 4-8 INCHES OF TOPSOIL ON FRESHLY GRADED AREAS; REFER TO THE TOPSOIL APPLICATION NOTES ON THE PLAN. FINAL PASSES DURING FINE GRADING SHALL BE MADE AT RIGHT ANGLES TO THE SLOPES. PREPARE THE REMAINDER OF THE DISTURBED AREA FOR PERMANENT STABILIZATION. SEEDBED SHALL BE PREPARED IN ACCORDANCE WITH ACCEPTED PRACTICES FACH SEED MIXTURE SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S RATES AND INSTRUCTIONS.

18. DURING NON-GERMINATING PERIODS, MULCH MUST BE APPLIED AT THE SPECIFIED RATES. DISTURBED AREAS WHICH ARE NOT AT FINISHED GRADE AND WHICH WILL BE RE-DISTURBED WITHIN 1 YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY VEGETATIVE STABILIZATION SPECIFICATIONS. DISTURBED AREAS WHICH ARE AT FINAL GRADE OR WHICH WILL NOT BE RE-DISTURBED WITHIN 1 YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE PERMANENT VEGETATIVE STABILIZATION SPECIFICATIONS.

19. PAVE THE STREETS. DO NOT INSTALL SURFACE (WEARING) COURSE UNTIL THE AREA IS STABILIZED (DEFINED AS A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER, WITH A DENSITY CAPABLE OF RESISTING ACCELERATED EROSION AND SEDIMENTATION IN ALL AREAS TRIBUTARY TO THE CONTROLS). IF EARTHMOVING ACTIVITIES CEASE FOR FOUR (4) DAYS OR MORE TEMPORARY STABILIZATION SHALL BE APPLIED. SEE "STABILIZATION SPECIFICATIONS" IN THE E&S PLAN FOR FURTHER DETAILS

20. ALL SEDIMENT DEPOSITED WITHIN STORM SEWER CONVEYANCE PIPES SHALL BE REMOVED PRIOR TO COMPLETION OF THE PROJECT AND PRIOR TO CONVERSION OF THE SEDIMENT BASINS TO PERMANENT STORMWATER BASINS. ANY WATER PUMPED FROM THE SEDIMENT BASIN OR OTHER AREA OF THE SITE SHALL BE PUMPED THROUGH A FILTER BAG AND THE COLLECTED SEDIMENT SHALL BE DISPOSED OF PROPERLY. ALL AREAS DISTURBED DURING THIS PROCESS SHALL BE STABILIZED IMMEDIATELY THROUGH SEEDING AND MULCHING. THE COUNTY CONSERVATION DISTRICT SHOULD BE CONTACTED PRIOR TO CONVERSION OR REMOVAL OF ANY E&S BMPS AND MAY REQUIRE A SITE INSPECTION. REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROLS ONCE THE SITE IS COMPLETELY STABILIZED (DEFINED AS A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER, WITH A DENSITY CAPABLE OF RESISTING ACCELERATED EROSION AND SEDIMENTATION IN ALL AREAS TRIBUTARY TO THE CONTROLS) WITH APPROVAL OF THE COUNTY CONSERVATION DISTRICT.

21. UPON STABILIZATION OF ALL DISTURBED AREAS MODIFY SEDIMENT BASIN G AS REQUIRED TO INSTALL INFILTRATION BASIN G AS SHOWN ON THE PCSM PLAN. REMOVE ALL SEDIMENT BASIN BAFFLES. CLEANOUT STAKE, AND SKIMMER, THE INFILTRATION BASIN SHALL BE OVER-EXCAVATED AND SCARIFIED IN ACCORDANCE WITH THE PLAN DETAIL. THE EXCAVATOR SHOULD AVOID EXCAVATING TO THE FINAL DESIGN INVERT UNTIL THE ENGINEERED SOIL MIX IS READY TO BE PLACED. THIS WILL MINIMIZE THE EXPOSURE OF SUBGRADE SOIL AND AID IN REDUCING COMPACTION. WHEN EXCAVATING TO FINAL INVERT SUBGRADES UTILIZE A SMOOTH (TOOTHLESS) BLADE BUCKET TO AVOID LOCALIZED COMPACTION. DURING THE EXCAVATION OF THE BASIN BOTTOM. INSTALL THE UNDERDRAIN SYSTEM IN ACCORDANCE WITH THE PLAN DETAILS. PLACE THE ENGINEERED SOIL MIX TO THE SPECIFIED ELEVATION WITHIN THE BASIN BOTTOM. ANY SOIL COMPACTION SHOULD BE AVOIDED IN THE BASIN BOTTOM, IMMEDIATELY AFTER PLACING THE ENGINEERED SOIL MIX. INSTALL THE SILT SOCK AT LOCATION 66 TO PREVENT SEDIMENTATION OF THE ENGINEERED SOILS. WHEN SEEDING THE BASIN MIXES BE SURE TO HAND RAKE THE SEED INTO THE SOIL. A LICENSED PROFESSIONAL OR DESIGNEE SHALL BE PRESENT ONSITE DURING INSTALLATION OF THE UNDERDRAIN SYSTEM, ENGINEERED SOILS, AND FINAL GRADING/SEEDING OF INFILTRATION BASIN G.

22. THE OPERATOR SHALL REMOVE FROM THE SITE, RECYCLE OR DISPOSE OF ALL BUILDING MATERIALS AND WASTES IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA CODE 260.1 ET SEQ., 271.1 ET SEQ., AND 287.1 ET SEQ. THE CONTRACTOR SHALL NOT ILLEGALLY BURY DUMP, OR DISCHARGE ANY BUILDING MATERIAL OR WASTES ON OR OFF THE SITE. THESE BUILDING WASTES INCLUDE, BUT ARE NOT LIMITED TO, EXCESS SOIL MATERIALS, BUILDING MATERIALS, CONCRETE WASH WATER, SANITARY WASTES, ETC. THAT COULD ADVERSELY IMPACT WATER QUALITY.

23. PER NPDES REQUIREMENTS. "WITHIN 30 DAYS AFTER THE COMPLETION OF EARTH DISTURBANCE ACTIVITIES AUTHORIZED BY THIS PERMIT. INCLUDING THE PERMANENT STABILIZATION OF THE SITE AND PROPER INSTALLATION OF PCSM BMPS IN ACCORDANCE WITH THE APPROVED PCSM PLAN. OR UPON SUBMISSION OF THE NOT IF SOONER. THE PERMITTEE SHALL FILE WITH THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT A STATEMENT SIGNED BY A LICENSED PROFESSIONAL AND BY THE PERMITTEE CERTIFYING THAT WORK HAS BEEN PERFORMED IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THIS PERMIT AND THE APPROVED E&S AND PCSM PLANS. COMPLETION CERTIFICATES ARE NEEDED TO ENSURE THAT ALL WORK IS PERFORMED IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THE PERMIT AND THE APPROVED E&S AND PCSM PLANS."

CONTRACTOR NOTES

1. ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE SEQUENCE PROVIDED ON THE PLAN DRAWINGS. DEVIATION FROM THAT SEQUENCE MUST BE APPROVED IN WRITING FROM THE LOCAL CONSERVATION DISTRICT OR BY DEP PRIOR TO IMPLEMENTATION.

2. PER NPDES REQUIREMENTS, "UPON THE INSTALLATION OR STABILIZATION OF ALL PERIMETER SEDIMENT CONTROL BMPS AND AT LEAST 3 DAYS PRIOR TO PROCEEDING WITH THE BULK EARTH DISTURBANCE ACTIVITIES, THE PERMITTEE OR CO-PERMITTEE SHALL PROVIDE NOTIFICATION TO THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT."

3. IF SOIL IT IS TAKEN TO OR BORROWED FROM ANOTHER CONSTRUCTION SITE, SAID SITE MUST HAVE AN APPROVED E&SPC PLAN. SEE THE "SOIL LIMITATIONS AND RESOLUTIONS" SECTION OF THIS E&S PLAN FOR FURTHER INFORMATION.

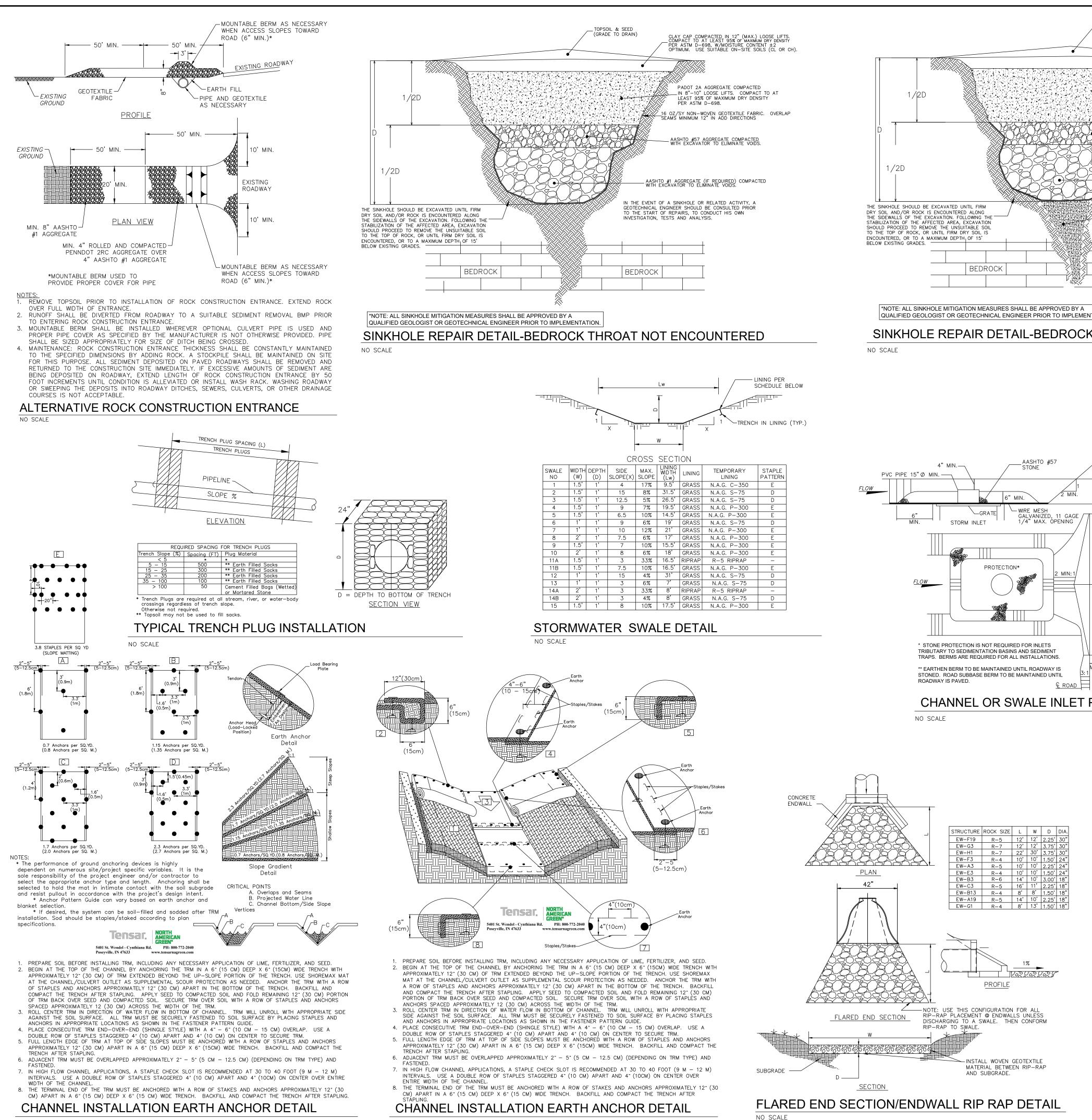
4. DURING NON-GERMINATING PERIODS, MULCH MUST BE APPLIED AT THE SPECIFIED RATES. DISTURBED AREAS WHICH ARE NOT AT FINISHED GRADE AND WHICH WILL BE RE-DISTURBED WITHIN 1 YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY VEGETATIVE STABILIZATION SPECIFICATIONS. DISTURBED AREAS WHICH ARE AT FINAL GRADE OR WHICH WILL NOT BE RE-DISTURBED WITHIN 1 YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE PERMANENT VEGETATIVE STABILIZATION SPECIFICATIONS.

5. ALL SEDIMENT DEPOSITED WITHIN STORM SEWER CONVEYANCE PIPES SHALL BE REMOVED PRIOR TO COMPLETION OF THE PROJECT. ANY WATER PUMPED FROM THE STORMWATER BASIN OR OTHER AREA OF THE SITE SHALL BE PUMPED THROUGH A FILTER BAG AND THE COLLECTED SEDIMENT SHALL BE DISPOSED OF PROPERLY. ALL AREAS DISTURBED DURING THIS PROCESS SHALL BE STABILIZED IMMEDIATELY THROUGH SEEDING AND MULCHING. THE COUNTY CONSERVATION DISTRICT SHOULD BE CONTACTED PRIOR TO CONVERSION OR REMOVAL OF PRIMARY E&S BMPS AND MAY REQUIRE A SITE INSPECTION. REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROLS ONCE THE SITE IS COMPLETELY STABILIZED (DEFINED AS A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER, WITH A DENSITY CAPABLE OF RESISTING ACCELERATED EROSION AND SEDIMENTATION IN ALL AREAS TRIBUTARY TO THE CONTROLS).

6. THE OPERATOR SHALL REMOVE FROM THE SITE, RECYCLE OR DISPOSE OF ALL BUILDING MATERIALS AND WASTES IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA CODE 260.1 ET SEQ., 271.1 ET SEQ., AND 287.1 ET SEQ. THE CONTRACTOR SHALL NOT ILLEGALLY BURY DUMP, OR DISCHARGE ANY BUILDING MATERIAL OR WASTES ON OR OFF THE SITE. THESE BUILDING WASTES INCLUDE, BUT ARE NOT LIMITED TO, EXCESS SOIL MATERIALS, BUILDING MATERIALS, CONCRETE WASH WATER, SANITARY WASTES, ETC. THAT COULD ADVERSELY IMPACT WATER QUALITY.

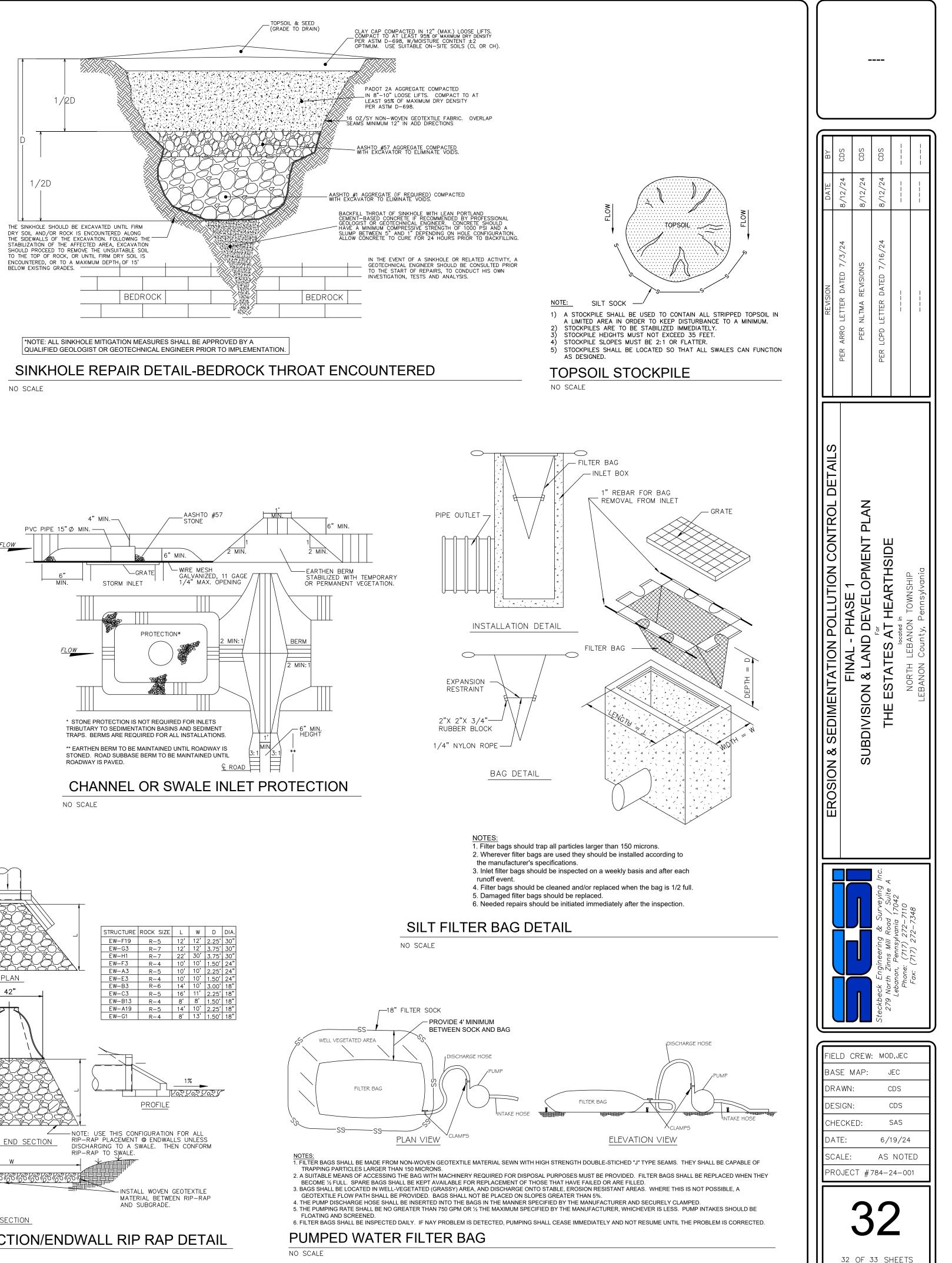
7.PER NPDES REQUIREMENTS, "WITHIN 30 DAYS AFTER THE COMPLETION OF EARTH DISTURBANCE ACTIVITIES AUTHORIZED BY THIS PERMIT, INCLUDING THE PERMANENT STABILIZATION OF THE SITE AND PROPER INSTALLATION OF PCSM BMPS IN ACCORDANCE WITH THE APPROVED PCSM PLAN, OR UPON SUBMISSION OF THE NOT IF SOONER, THE PERMITTEE SHALL FILE WITH THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT A STATEMENT SIGNED BY A LICENSED PROFESSIONAL AND BY THE PERMITTEE CERTIFYING THAT WORK HAS BEEN PERFORMED IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THIS PERMIT AND THE APPROVED E&S AND PCSM PLANS. COMPLETION CERTIFICATES ARE NEEDED TO ENSURE THAT ALL WORK IS PERFORMED IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THE PERMIT AND THE APPROVED E&S AND PCSM PLANS."

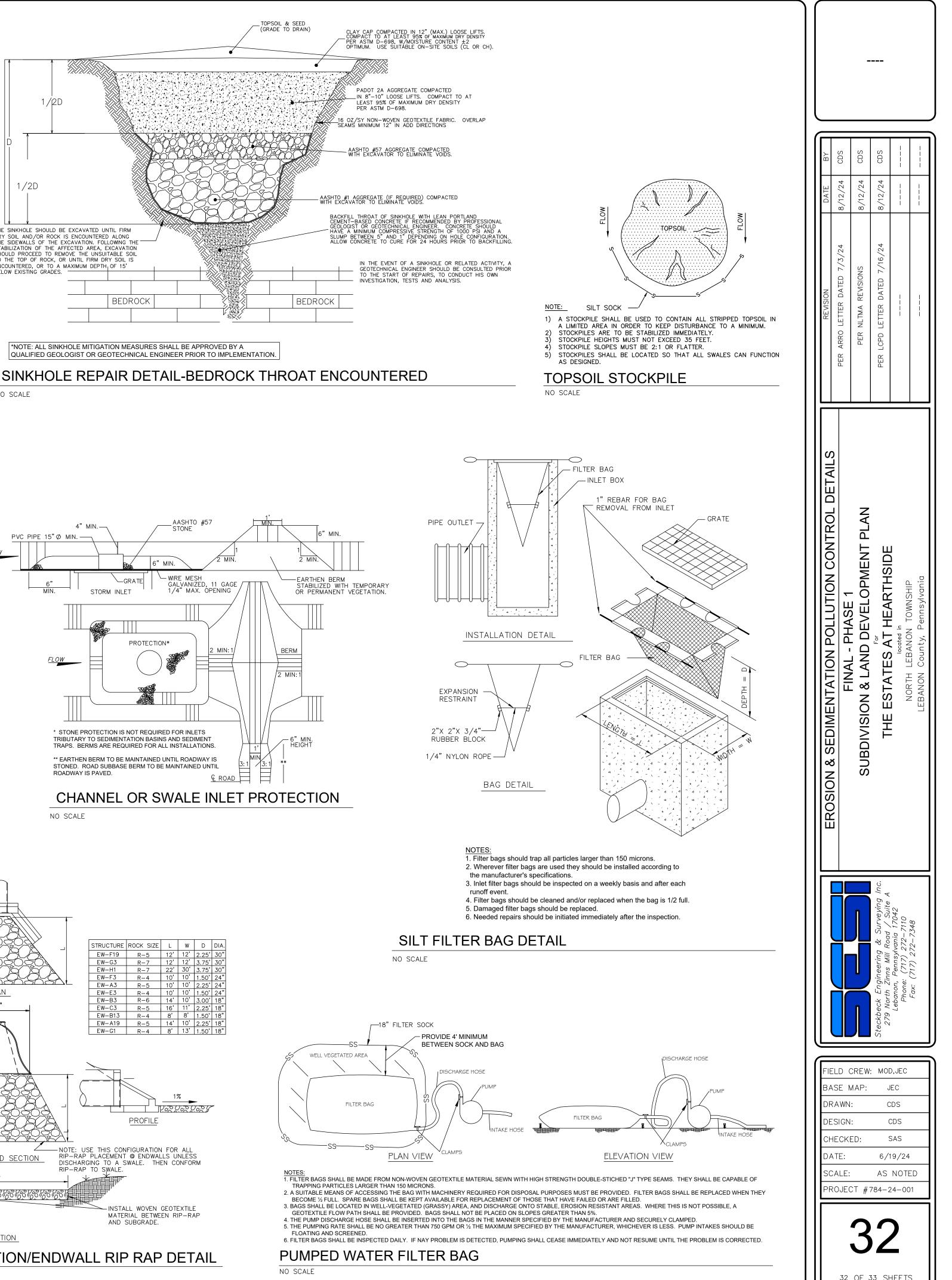
BY	CDS	CDS	CDS						
DATE	8/12/24	8/12/24	8/12/24						
REVISION	PER ARRO LETTER DATED 7/3/24	PER NLTMA REVISIONS	PER LCPD LETTER DATED 7/16/24						
EROSION & SEDIMENTATION POLITITION CONTROL NOTES	EROSION & SEDIMENTATION POLLUTION CONTROL NOTES FINAL - PHASE 1 FINAL - PHASE 1 SUBDIVISION & LAND DEVELOPMENT PLAN For THE ESTATES AT HEARTHSIDE I octed in NORTH LEBANON TOWNSHIP LEBANON County, Pennsylvania								
			Steckbeck Engineering & Surveying Inc. 279 North Zinns Mill Road / Suite A	Lebanon, Pennsylvania 17042 Phone: (717) 272–7110	Fax: (717) 272–7348				
DF DE CH SC	FIELD CREW: MOD, JEC BASE MAP: JEC DRAWN: CDS DESIGN: CDS CHECKED: SAS DATE: 6/19/24 SCALE: AS NOTED PROJECT #784-24-001								
	31	OF 3	33 SH	HEETS	6				

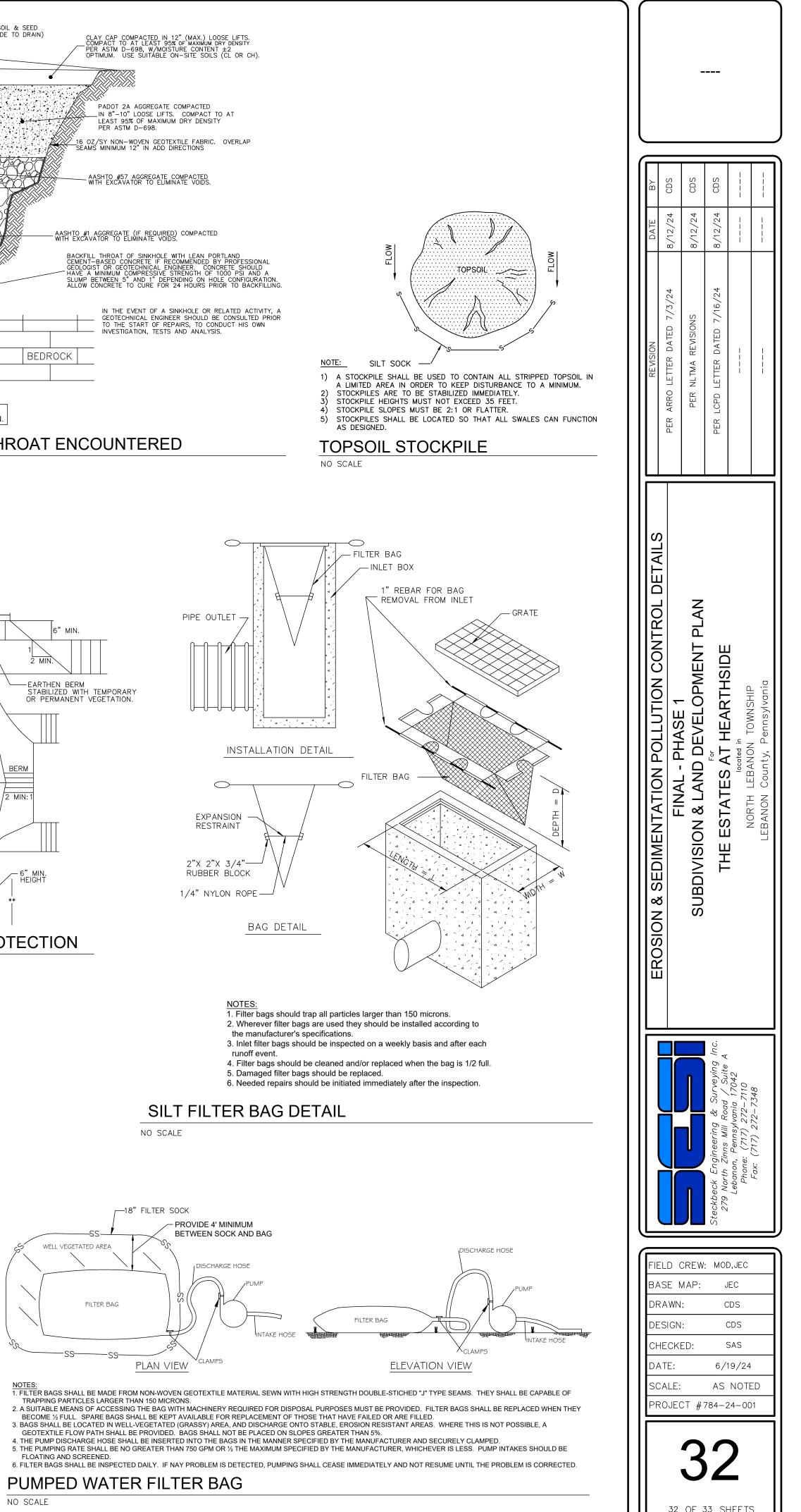


NO SCALE

NO SCALE









NO SCALE

WATER FLOW

DISTURBED

AREA

TEMPORARY APP. RATE\* FERTILIZER SPECIES PERCENTAGE SEED DATES ANNUAL RYEGRASS MARCH 15-JUNE 15 & AUGUST 30-OCTOBER 1 N-P<sub>2</sub>0<sub>5</sub>-K<sub>2</sub>0 LBS PER ACRE

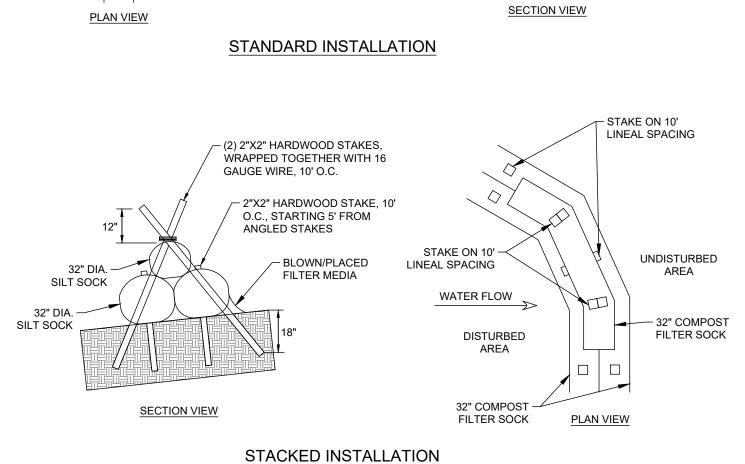
1. APPLY LIME IN ACCORDANCE WITH SOIL TEST RESULTS. APPLY 1 TON OF AGRICULTURAL GRADE LIMESTONE/ACRE. 2. APPLY FERTILIZER AT A RATE OF 500 LB./ACRE. 3. ALL SEEDED AREAS SHALL BE MULCHED WITH HAY OR STRAW APPLIED AT A RATE OF 3 TONS/ACRE. MULCH TO

BE ANCHORED WITH WOOD CELLULOSE FIBER @ 750 LBS/AC. 4. ALL DIVERSIONS, CHANNELS, SED TRAPS AND STOCKPILES MUST BE STABILIZED IMMEDIATELY.

BE ANCHORED WITH WOOD CELLUOSE FIBER @ 750 LBS/AC. 4. ALL DIVERSIONS, CHANNELS, SED TRAPS AND STOCKPILES MUST BE STABILIZED IMMEDIATELY

STEEP SLOPE SEEDING SPECIFICATIONS

**TEMPORARY SEEDING SPECIFICATIONS** NOT TO SCALE



- STAKE ON 10' LINEAL SPACING	2" X 2" \ COMPOST FILT (12" I
	BLOWN/I FILTEF
	DIS

UNDISTURBED

AREA

- COMPOST FILTER SOCK

(12" MINIMUM)

А

В

С

D

Е

F

G

7

7

7

7

7

7

PO BOX 789 HILLSBOROUGH, NORTH CAROLINA

PHONE: 919-732-1244 FAX: 919-732-1266

2. OR APPROVED EQUAL

NO SCALE

# NO SCALE

## SEDIMENT BASIN BAFFLE DETAIL

OPEN, SUNNY LOCATIONS AND WELL-DRAINED SOILS

PERCENTAGE

100%

80-90% 10-20%

40-60%

30-40% 10-20%

100%

100%

PERCENTAGE

40-50%

40-50% 10-20%

100%

PERCENTAGE

100%

PERCENTAGE

100%

MANUFACTURER

PERCENTAGE

SPECIES

KENTUCKY BLUEGRASS

KENTUCKY BLUEGRASS PERENNIAL RYEGRASS

FINE FESCUES

KENTUCKY BLUEGRASS

TURF-TYPE TALL FESCUE

URF-TYPE PERENN. RYEGRASS

SPECIES

FINE FESCUES

KENTUCKY BLUEGRASS PERENNIAL RYEGRASS

FINE FESCUES

SPECIES

FINE FESCUES

SPECIES

ROUGH BLUEGRASS

MIX

LBS PER 1,000 S.F.

NOT TO SCALE

NOT TO SCALE

STEEP SLOPES

SPECIES

BIRDSFOOT TREFOI

LBS PER 1,000 S.F.

CROWN VETCH TALL FESCUE

INFILTRATION BASIN BOTTOM

MIX RETENTION BASIN FLOOR MIX – LOW MAINTENANCE (ERNMX-126) MIX – LOW MAINTENANCE (ERNMX-126) MIX – LOW MAINTENANCE 8884 MERCER PIKE MEADVILLE, PA 16335

2. APPLY FERTILIZER AT 1,000 LB./ACRE.

SEEDING SPECIFICATIONS

2. APPLY FERTILIZER AT A RATE OF 1,000 LB./ACRE.

MODERATE TO PARTIAL SHADE

TURF-TYPE TALL FESCUE 100%

HEAVY SHADE, WELL-DRAINED SOILS

HEAVY SHADE, POORLY-DRAINED SOILS

DAMAGED OR WARPED BAFFLES SHALL BE REPLACED WITHIN 7 DAYS OF INSPECTION. BAFFLES REQUIRING SUPPORT POSTS SHALL NOT BE INSTALLED IN BASINS REQUIRING IMPERVIOUS LINERS.

THE LOCAL CONSERVATION DISTRICT BEFORE INSTALLATION.

BAFFLES SHALL BE TIED INTO ONE SIDE OF THE BASIN UNLESS OTHERWISE SHOWN ON THE PLAN DRAWINGS. SUBSTITUTION OF MATERIALS NOT SPECIFIED IN THIS DETAIL SHALL BE APPROVED BY THE DEPARTMENT OR

FERTILIZER

N-P<sub>2</sub>0<sub>5</sub>-K<sub>2</sub>0

FERTILIZER

10 - 10 - 20N-P<sub>2</sub>0<sub>5</sub>-K<sub>2</sub>0

FERTILIZER

N-P<sub>2</sub>0<sub>5</sub>-K<sub>2</sub>0

FERTILIZER

10 - 10 - 20

N-P205-K20

FERTILIZER

N-P205-K20

PER MANUFACTURER'S SPECIFICATIONS & RECOMMENDATIONS

APP. RATE FERTILIZER

TEMPORARY RISER CREST. SUPER SILT FENCE BAFFLES NEED NOT EXTEND TO TRCE ELEVATION.

IN POOLS WITH DEPTHS EXCEEDING 7', THE TOP OF THE PLYWOOD BAFFLE DOES NOT NEED TO EXTEND TO THE

AN ACCEPTABLE ALTERNATIVE IS TO INSTALL THE SAME HEIGHT WITH SUPER SILT FENCE OR COMPOST FILTER SOCK AT THE BAFFLE LOCATION

∕−4 FT X 8 FT X 3/4 IN.

PLYWOOD, SHEET METAL

EXTERIOR GRADE

BOTTOM

BOTTOM

ELEV

ΒE

(FT)

SEED DATES

MARCH 15-JUNE 15 & AUGUST 30-OCTOBER 15

SEED DATES

MARCH 15-JUNE 15 & AUGUST 30-OCTOBER 1

SEED DATES

SEED DATES

MARCH 15-JUNE 15 & AUGUST 30-OCTOBER

SEED DATES

SEED DATES

MARCH 15-JUNE 15 & AUGUST 30-OCTOBER 1

MARCH 15-JUNE 15 & AUGUST 30-OCTOBER 1

4 FT

ON CENTER

(TYP.)

1 FT.

MIN.

RISER

RCE

(FT)

OR EQUIV. MATERIAL

SEE APPROPRIATE BASIN DETAIL FOR PROPER LOCATION AND ORIENTATION.

APP. RATE\*

2-3

3-4

3-4

6-8

4-5

APP. RATE\*

4-5

6-8

APP. RATE\*

4-5

APP. RATE\*

1. APPLY LIME IN ACCORDANCE WITH SOIL TEST RESULTS. APPLY 6 TONS OF AGRICULTURAL GRADE LIMESTONE/ACRE.

ALL SEEDED AREAS SHALL BE MULCHED WITH HAY OR STRAW APPLIED AT A RATE OF 3 TONS/ACRE. MULCH TO BE ANCHORED WITH WOOD CELLULOSE FIBER © 750 LBS/AC.
 ALL DIVERSIONS, CHANNELS, SED TRAPS AND STOCKPILES MUST BE STABILIZED IMMEDIATELY.

APP. RATE\*

1. APPLY LIME IN ACCORDANCE WITH SOIL TEST RESULTS. APPLY 6 TONS OF AGRICULTURAL GRADE LIMESTONE/ACRE.

3. ALL SEEDED AREAS SHALL BE MULCHED WITH HAY OR STRAW APPLIED AT A RATE OF 3 TONS/ACRE. MULCH TO

2-3

\*VARIES (SEE PLAN VIEW FOR LAYOUT OF BAFFLES)

4 IN. X 4 IN. PRESSURE TREATED-

BASIN OR

TRAP NO.

WOOD POSTS OR EQUIV. METAL

 SEDIMENT BASIN F
 75(X2)
 2.50'
 614.50
 612.00

 SEDIMENT BASIN G
 \*
 4.50'
 616.50
 612.00

 SEDIMENT BASIN A
 125
 3.50
 566.50
 563.00

 SEDIMENT BASIN B
 \*
 3.50
 589.50
 586.00

 SEDIMENT BASIN C
 \*
 3.50
 596.50
 593.00

 SEDIMENT BASIN C
 \*
 3.50
 596.50
 593.00

 SEDIMENT BASIN D
 150
 3.50
 616.50
 613.00

 SEDIMENT BASIN E
 100
 3.50
 616.50
 613.00

 SEDIMENT BASIN E
 100
 3.50
 616.50
 613.00

BAFFLE

| (FT) | (FT)

LENGTH HEIGHT CREST ELEV.

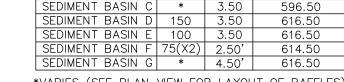
Bah

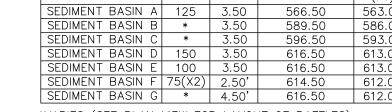
1 FT

MIN.

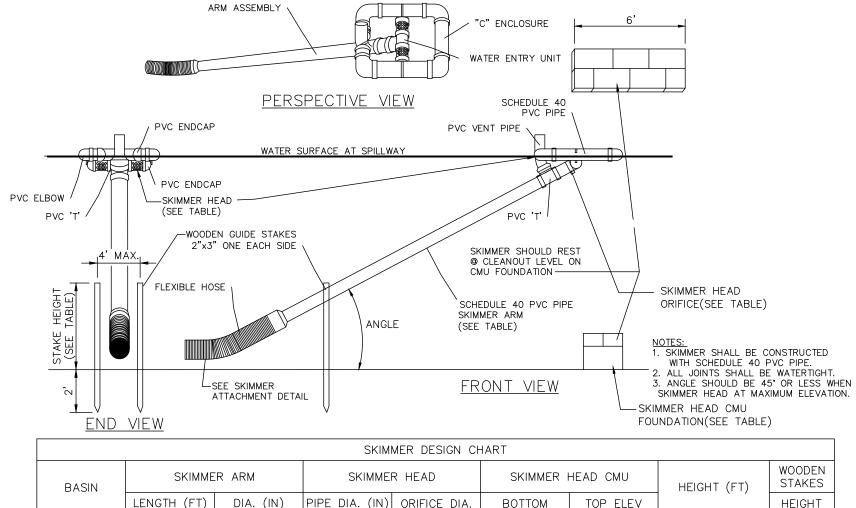


<u>NOTES:</u>





Bal



	SKIMMEI	R HEAD	HEAD CMU	HEIGHT (FT)	STAKES	
)	PIPE DIA. (IN)	ORIFICE DIA.	воттом	TOP ELEV		HEIGHT
	4	3.6	563.00	564.00	1	4
	4	3.6	586.00	587.00	1	4
	4	2.9	593.00	594.00	1	4
	2	1.7	613.00	614.50	1.5	4
	2.5	2.2	613.00	614.00	1	4
	5	4.6	612.00	613.00	1	4
	5	4.0	612.00	613.00	1	5

SKIMMER SHALL BE MANUFACTURED BY THE FOLLOWING: 1. J.W. FAIRCLOTH & SON, INC.

4

4

4

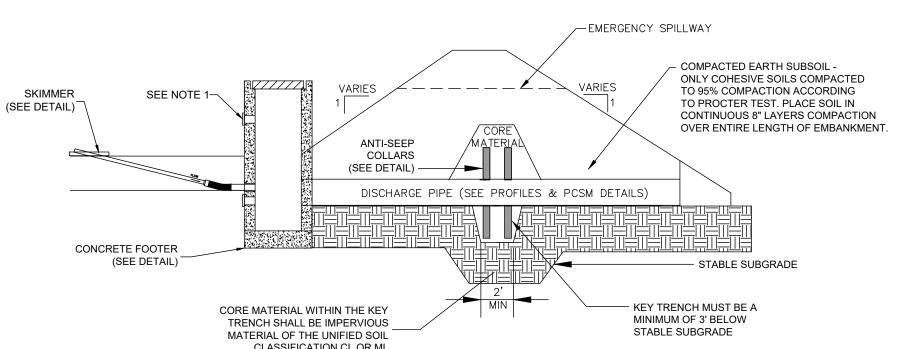
2

2.5

5

5

# **E&S SKIMMER OUTLET DETAIL**

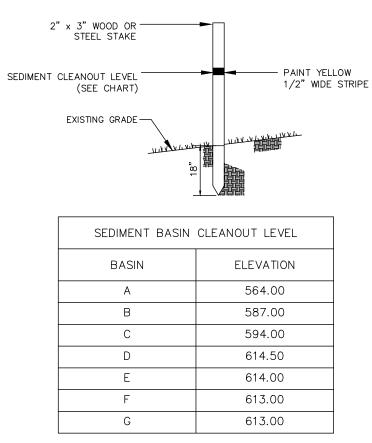


### CLASSIFICATION CL OR ML EXTENDING THE FULL LENGTH OF THE EMBANKMENT.

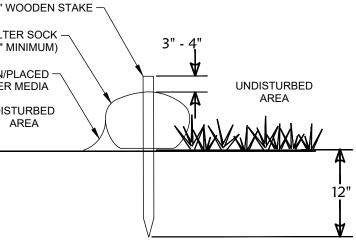
	SEDIMENT BASIN DESIGN CHART										
BASIN	BASIN BOTTOM (FT)	INVERT OF SKIMMER ARM (FT)	TOP OF GRATE (FT)	SPILLWAY ELEVATION (FT)	SIZE OF DISCHARGE PIPE (IN)	(UPSTREAM) INV OF DISCHARGE PIPE (FT)	(DOWNSTREAM) INV OF DISCHARGE PIPE (FT)	PIPE LENGTH (FT)	HEIGHT OF RISER EXT.(FT)	SKIMMER	SILT SOCK BARRIER
А	563.00	563.00	566.50	567.00	18	561.50	559.00	50		YES	NO
В	586.00	586.00	589.50	590.00	18	584.50	580.00	54		YES	NO
С	593.00	593.00	596.50	597.00	18	591.50	588.00	52		YES	NO
D	613.00	613.00	616.50	617.00	18	612.75	612.50	36		YES	NO
E	613.00	613.00	616.50	617.00	18	613.00	612.75	34		YES	NO
F	612.00	612.00	614.50	615.00	18	611.50	611.25	37		YES	NO
G	612.00	612.00	616.50	617.00	18	610.75	610.25	36		YES	NO
FS	1		1						•	1	

1. ALL ORIFICES IN THE OUTLET STRUCTURE (WITH THE EXCEPTION OF THE SKIMMER PENETRATION) SHALL BE TEMPORARILY SEALED WITH A SOLID STAINLESS STEEL PLATE DURING THE E&S PHASE. SEDIMENT BASIN W/ SKIMMER DETAIL

NO SCALE

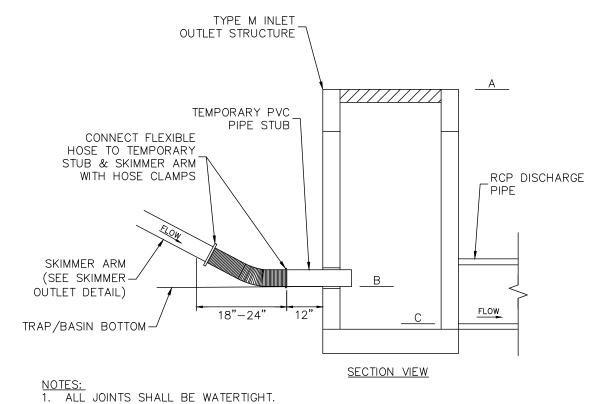


**CLEANOUT STAKE DETAIL** NO SCALE



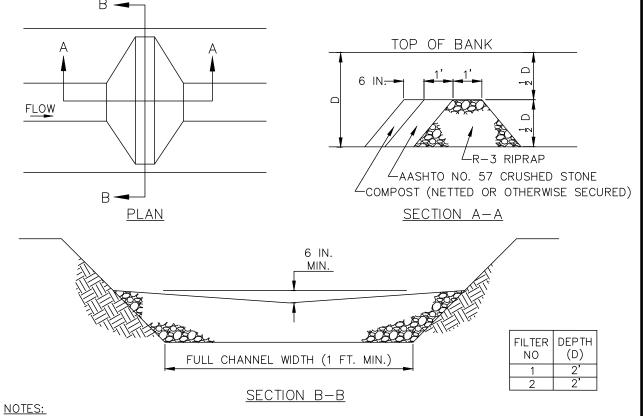
- GENERAL NOTES
- ALL MATERIAL TO MEET FILTREXX SPECIFICATIONS. FILTER SOCK COMPOST/SOIL/ROCK/SEED FILL TO MEET APPLICATION
- REQUIREMENTS 3. COMPOST MATERIAL TO BE DISPERSED ON SITE, AS DETERMINED BY THE ENGINEER.
- **OPERATION AND MAINTENANCE NOTES** THE CONTRACTOR SHALL MAINTAIN THE FILTER SOCK IN A FUNCTIONAL
- CONDITION AT ALL TIMES AND IT SHALL BE ROUTINELY INSPECTED. 2. IF THE FILTER SOCK HAS BEEN DAMAGED, IT SHALL BE REPAIRED. IF BEYOND REPAIR, A NEW SECTION OF FILTER SOCK SHALL BE INSTALLED IMMEDIATELY ON
- THE UPSLOPE SIDE OF THE DAMAGED SOCK. 3. THE CONTRACTOR SHALL REMOVE SEDIMENT AT THE BASE OF THE UPSLOPE SIDE OF THE FILTER SOCK WHEN ACCUMULATION HAS REACHED 1/2 OF THE EFFECTIVE HEIGHT OF THE FILTER SOCK, OR AS DIRECTED BY THE LEBANON COUNTY CONSERVATION DISTRICT. ALTERNATIVELY, A NEW FILTER SOCK CAN BE PLACED ON TOP OF AND SLIGHTLY BEHIND THE ORIGINAL ONE CREATING MORE SEDIMENT
- STORAGE CAPACITY WITHOUT SOIL DISTURBANCE. 4. FILTER SOCK SHALL BE MAINTAINED UNTIL DISTURBED AREA ABOVE THE DEVICE HAS BEEN PERMANENTLY STABILIZED AND CONSTRUCTION ACTIVITY HAS CEASED.
- 5. THE FILTERMEDIA WILL BE DISPERSED ON SITE ONCE DISTURBED AREA HAS BEEN PERMANENTLY STABILIZED, CONSTRUCTION ACTIVITY HAS CEASED, OR AS DETERMINED BY THE LEBANON COUNTY CONSERVATION DISTRICT.
- 6. FOR LONG-TERM SEDIMENT AND POLLUTION CONTROL APPLICATION, FILTER SOCK CAN BE SEEDED AT THE TIME OF INSTALLATION TO CREATE A VEGETATIVE FILTERING SYSTEM FOR PROLONGED AND INCREASED FILTRATION OF SEDIMENT AND SOLUBLE POLLUTANTS (CONTAINED VEGETATIVE FILTER STRIP). THE APPROPRIATE SEED MIX SHALL BE DETERMINED BY THE DESIGN PROFESSIONAL.

	SEDIMENT BASIN/TRAP OUTLET STRUCTURE									
BASIN /TRAP	BASIN /TRAP BOTTOM ELEV	ELEV A	ELEV B	TEMPORARY STUB PIPE DIA. (IN)	ELEV C	DISCHARGE PIPE DIA. (IN)				
А	563.00	566.50	563.00	4.0	561.50	18				
В	586.00	589.50	586.00	4.0	584.50	18				
С	593.00	596.50	593.00	4.0	591.50	18				
D	613.00	616.50	613.00	2.0	612.75	18				
E	613.00	616.50	613.00	2.5	613.00	18				
F	612.00	614.50	612.00	5.0	611.50	18				
G	612.00	616.50	612.00	5.0	610.75	18				



2. TEMPORARY STUB PIPE PENETRATION TO BE FULLY GROUTED OR SEALED WITH A STAINLESS STEEL PLATE DURING CONVERSION TO PERMANENT STORMWATER BASIN.





SEDIMENT MUST BE REMOVED WHEN ACCUMULATIONS REACH 1/2 THE HEIGHT OF THE FILTERS. IMMEDIATELY UPON STABILIZATION OF EACH CHANNEL, REMOVE ACCUMULATED SEDIMENT, REMOVE ROCK FILTER, AND STABILIZE DISTURBED AREAS. **ROCK FILTER** 



\_\_\_\_

NO SCALE