THE PURPOSE OF THIS PLAN IS TO CREATE 122 NEW LOTS WHICH WILL BE USED FOR SINGLE FAMILY RESIDENTIAL HOMES. THIS PLAN ALSO PROPOSES STORM WATER MANAGEMENT FACILITIES, AND PUBLIC

#### **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. 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 NORTH LEBANON TOWNSHIP, AS REQUIRED BY THE NORTH LEBANON TOWNSHIP STORMWATER MANAGEMENT ORDINANCE. MAINTENANCE SHALL INCLUDE PERFORMING ROUTINE MAINTENANCE AND REPAIR OR REPLACEMENT C DAMAGED FACILITIES, VEGETATION OR STORM WATER AREAS TO CONDITIONS AS SHOWN ON APPROVED PLAN AND IN ACCORDANCE WITH NORTH LEBANON TOWNSHIP STORM WATER MANAGEMENT
- 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
- 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 THÉ STORM WATER MANAGEMENT
- 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 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
- 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

# NPDES APPROVAL

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

# FLOODPLAIN NOTE

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.

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 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

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.

# PRELIMINARY SUBDIVISION & LAND DEVELOPMENT PLANS

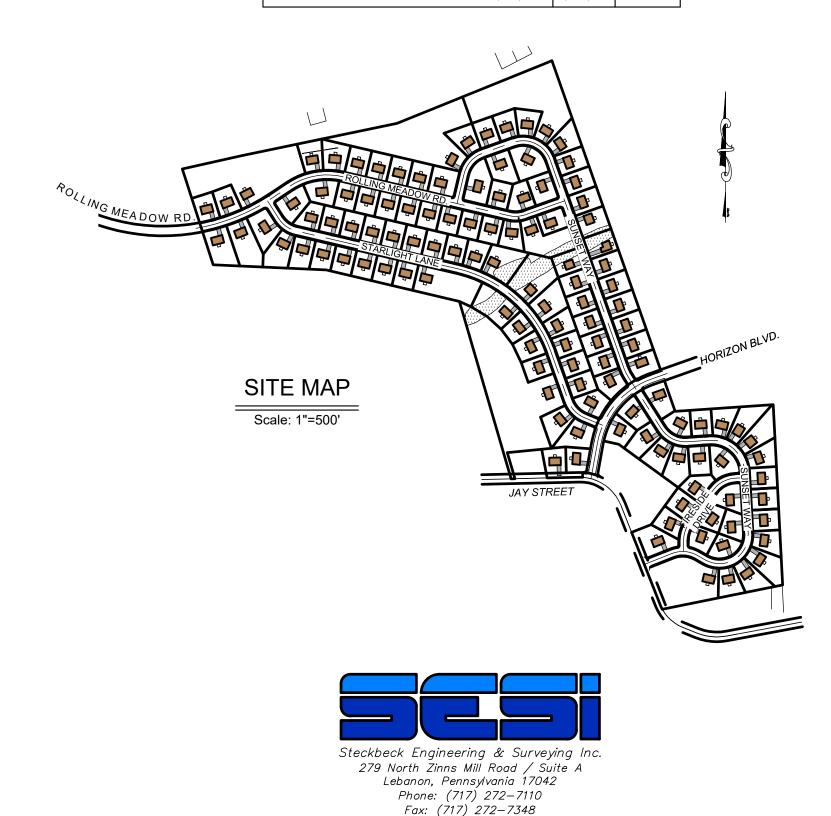
# THE ESTATES AT HEARTHSIDE

OWNER: MT. PLEASANT VENTURES, LLC

# **LOCATED IN**

NORTH LEBANON TOWNSHIP LEBANON COUNTY, PENNSYLVANIA NOVEMBER 4, 2022

REVISION	DATE	BY
REVISED PER ARRO LETTER DATED 12/2/22	3/09/23	CDS
REVISED PER LCPD LETTER DATED 12/15/22	3/09/23	CDS



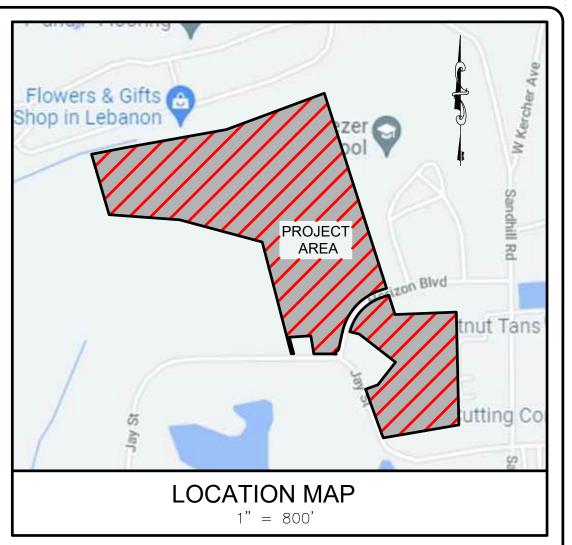
	STREETS (INCLUDING SIDEWALKS	001101	313,078 46.657	,	
PROPOSED	DRIVEWAYS		115,772	S.F.,	2.65
PROPOSED	DWELLINGS		292,800	5.5.,	0.72

# IMPERVIOUS COVER BREAKDOWN

NORTH LEBANON TWE	P PLANNING COMMISSION
NORTH LEBANON TOWNSHIP, LEBAN	_, 2024, THE PLANNING COMMISSION OF NON COUNTY, PENNSYLVANIA RECOMMENDED PMENT PLAN OF THE PROPERTY AS SHOWN
CHAIRPERSON	DATE
NORTH LEBANON TO	OWNSHIP ENGINEER
	ANON TOWNSHIP ENGINEER THIS

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# **OWNERS**

MT. PLEASANT VENTURES, LLC 2021 SOUTH FORGE ROAD PALMYRA, PA 17078 CONTACT: GERALD MUSSER

NORTH LEBANON TOWNSHIP:

# SOURCE OF TITLE

CURRENT DEED BOOK: 2250-7984, TR. 1 PIN: 27-2333478-380088-0000 ACRES: 56.40 AC. (2,456,763 S.F.) CURRENT DEED BOOK: 2250-7984, TR. 2 PIN: 27-2334783-378807-0000 PLAN: 69-111 ACRES: 16.53 AC. (720,083 S.F.)

25' (MIN.)

### ZONING COMPLIANCE CHART

ZONING DISTRICT: "LOW DENSITY RESIDENTIAL (R-1)" MIN. LOT WIDTH 110' 30% MAX. LOT COVERAGE 30% (MAX.) FRONT YARD SETBACK SIDE YARD SETBACK 15' (MIN.)

### SITE DATA

BUILDING HEIGHT

REAR YARD SETBACK

-BUILDING

72.93 Acres SITE ZONING LOW DENSITY RESIDENTIAL (R-1)EXISTING USE AGRICULTURAL SINGLE FAMILY RESIDENTIAL PROPOSED USE SOURCE OF WATER SOURCE OF SEWER 1415 JAY STREET STORMWATER MANAGEMENT DISTRICT LEBANON COUNTY RESIDUAL

# PHASING SCHEDULE

PHASE 1 (ENTIRE DEVELOPMENT)

BMP/OUTFALL LOCATIONS					
BMP	LATITUDE	LONGITUDE			
BASIN A	40°22'13.32"	76*26'38.43"			
BASIN B	40°22'14.54"	76*26'27.93"			
BASIN C	40°22'17.14"	76 <b>°</b> 26'18.94"			
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"			



STECKBECK ENGINEERING & SURVEYING, INC., HEREBY STATES THAT, PURSUANT TO THE PROVISIONS OF ACT NO. 287 OF 1974 AS AMENDED BY ACT 121 of 7108 OF THE PENNSYLVANIA GENERAL ASSEMBLY, IT HAS PERFORMED THE FOLLOWING IN PREPARING THESE DRAWINGS REQUIRING EXCAVATION OR DEMOLITION WORK AT SITES WITHIN THE POLITICAL SUBDIVISION(S) SHOWN ON (1) PURSUANT TO SECTION 4, CLAUSE (2) OF SAID ACT, STECKBECK ENGINEERING & SURVEYING, INC. REQUESTED THE LINE AND FACILITY INFORMATION PRESCRIBED BY SECTION 2, CLAUSE (4) FROM A ONE CALL SYSTEM NOT LESS THAN TEN NOR MORE THAN NINETY WORKING DAYS BEFORE FINAL DESIGN IS TO BE COMPLETED. (2) PURSUANT TO SECTION 4, CLAUSE (3) OF SAID ACT, STECKBECK ENGINEERING & SURVEYING, INC. SHOWN UPON THE DRAWING(S) THE POSITION AND TYPE OF EACH FACILITY OWNERS LINE, DERIVED PURSUANT TO THE REQUEST MADE AS REQUIRED BY SECTION 4, CLAUSE (2), AND THE NAME OF THE FACILITY OWNER, AND THE FACILITY OWNERS DESIGNATED OFFICE ADDRESS AND THE TELEPHONE NUMBER AS SHOWN ON THE LIST REFERRED TO IN (3) PURSUANT TO SECTION 4, CLAUSE (4) OF SAID ACT, STECKBECK (3) PURSUANT TO SECTION 4, CLAUSE (4) OF SAID ACT, STECKBECK ENGINEERING & SURVEYING, INC. MADE A REASONABLE EFFORT TO PREPARE THE CONSTRUCTION DRAWING(S) TO AVOID DAMAGE TO AND MINIMIZE INTERFERENCE WITH A FACILITY OWNERS FACILITIES IN THE CONSTRUCTION AREA BY MAINTAINING AN EIGHTEEN—INCH CLEARANCE OF THE FACILITY OWNERS FACILITIES WHERE POSSIBLE. (4) PURSUANT TO SECTION 4, CLAUSE (5) OF SAID ACT, STECKBECK ENGINEERING & SURVEYING, INC., SHALL BE DEEMED TO HAVE MET THE OBLIGATIONS OF CLAUSE (2) BY CALLING A ONE CALL SYSTEM AND SHOWING AS PROOF THE SERIAL NUMBER OF THE ONE CALL NOTICE ON THE DRAWING(S). NORTH LEBANON TOWNSHIP, LEBANON COUNTY ID NO. 20220671279. AND STECKBECK ENGINEERING & SURVEYING, INC. DOES NOT MAKE ANY REPRESENTATION, WARRANTY, ASSURANCE OR GUARANTEE THAT THE INFORMATION RECEIVED PURSUANT TO SAID REQUEST AND AS REFLECTED ON THESE DRAWINGS IS CORRECT OR ACCURATE, BUT STECKBECK ENGINEERING & SURVEYING, INC. IS REFLECTING SAID INFORMATION ON THESE DRAWINGS ONLY DUE TO THE REQUIREMENTS OF THE SAID ACT 187, DECEMBER 19, 1996. LEBANON AUTHORITY CITY OF COMCAST CABLE LEBANON C/O USIC LOCATING SERVICES INC 13085 HAMILTON CROSSING BLVD STE 200 CARMEL, IN 46032 CONTACT - USIC OFFICE PERSONNEL BSENTZ@LEBANONAUTHORITY.COM FIRSTENERGY PENELEC 21 S MAIN ST 450 CENTER POINT RD AKRON, OH 44308 CONTACT — CARA WARREN HIAWATHA, IA 52233 CONTACT - LOCATE DESK PERSONNEL locate.desk@windstream.com CARAWARREN@FIRSTENERGYCORP.COM

NORTH LEBANON TOWNSHIP 725 KIMMERLINGS ROAD LEBANON, PA 17046 CONTACT - OFFICE PERSONNEL VERIZON PENNSYLVANIA LLC PITTSBURGH, PA 15221 CONTACT — DEBORAH BARUM

deborah.d.delia@verizon.com

UGI UTITIES INC 1301 AIP DR MIDDLETOWN, PA 17057 CONTACT - STEPHEN BATEMAN sbateman@ugi.com

PLAN BY THE TOWNSHIP.

MT. PLEASANT VENTURES, LLC

NOTARY PUBLIC

OWNERS CERTIFICATION AND ACKNOWLEDGMENT

WHO BEING DULY SWORN ACCORDING TO

OF THE PROPERTY SHOWN ON THIS PLAN, THAT

COMMONWEALTH OF PENNSYLVANIA

COUNTY OF \_\_\_\_\_

ON THIS, THE \_\_\_\_\_ DAY OF \_\_\_\_\_, 2024, THE UNDERSIGNED OFFICER, PERSONALLY APPEARED

LAW, DEPOSES AND SAYS THAT THE CORPORATION IS THE

HE IS AUTHORIZED TO EXECUTE SAID PLAN ON BEHALF OF THE

ACKNOWLEDGES ALL STORMWATER MANAGEMENT FACILITIES ARE

PERMANENT FIXTURES THAT CAN BE ALTERED OR REMOVED ONLY

AFTER APPROVAL OF A REVISED STORMWATER MANAGEMENT SITE

PLAN, THÁT IT DESIRES THE SAME TO BE RECORDED, AND THAT I

CORPORATION, THAT THE PLAN THEREOF WAS MADE AT ITS DIRECTION, THAT IT ACKNOWLEDGES THE SAME TO BE ITS ACT AND

**CERTIFICATION OF PLAN ACCURACY** 

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 DEVELOPMENT ORDINANCE AND COMPLIES WITH THE PROVISIONS OF THE NORTH LEBANON TOWNSHIP STORMWATER MANAGEMENT ORDINANCE.

UNDERLAIN BY LIMESTONE.

STEPHEN A. SHERK, P.E. **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 ACCURACY REQUIRED BY THE NORTH LEBANON TOWNSHIP, NORTH LEBANON TOWNSHIP AND THE CITY OF LEBANON SUBDIVISION AND LAND DEVELOPMENT ORDINANCES.

JASON E. CHERNICH, P.L.S DATE

# LEBANON COUNTY PLANNING DEPARTMENT

**PLANNING COMMISSION** AT A MEETING HELD ON\_\_\_\_\_\_, 2024, THE PLANNING COMMISSION OF NORTH LEBANON TOWNSHIP, LEBANON COUNTY, PENNSYLVANIA REVIEWED THIS PLAN AND A COPY OF THE REVIEW COMMENTS IS ON FILE IN THE

NORTH LEBANON TOWNSHIP

CHAIRMAN OR VICE CHAIRMAN

# NORTH LEBANON TOWNSHIP SUPERVISORS SUPERVISORS OF NORTH LEBANON TOWNSHIP, LEBANON COUNTY,

PENNSYLVANIA APPROVED THE FINAL LAND DEVELOPMENT PLAN FOR THE THE PROPOSED STORMWATER MANAGEMENT BMP(S) IS/ARE OR IS/ARE NOT) PROPERTY AS SHOWN HEREON. NO OTHER PLAN OR PLANS SHALL BE RECOGNIZED. APPROVAL INCLUDES ALL DOCUMENTATION, INCLUDING THE COMMENTS OR REQUIREMENTS OF OFFICIAL REVIEWING INDIVIDUALS OR AGENCIES. APPROVAL IS BASED ON COMPLIANCE WITH APPLICABLE ORDINANCES, RULES AND REGULATIONS, AND SHALL NOT BE CONSTRUED AS A GUARANTEE TO ANY PERSON OR ORGANIZATION THAT THE DESIGN OF ANY PART OF THE PLAN WILL FUNCTION AS ANTICIPATED UNDER ANY OR ALL CONDITIONS OR SITUATIONS. ADDITIONALLY, THAT BY REVIEW AND/OR APPROVAL OF THE PLAN. THE TOWNSHIP EXPRESSLY DECLINES THE ASSUMPTION OF LIABILITY ERRORS. OMISSIONS OR MISTAKES IN JUDGEMENT N THE DESIGN, ENGINEERING, CONSTRUCTION, OR EXPECTED FUNCTION OF THE MATTERS REVIEWED AND/OR APPROVED.

> APPROVED APPROVED

APPROVED

#### **NLTMA SANITARY SEWER NOTES**

- EXISTING SEWER WILL NOT BE DISTURBED IN ANY WAY.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE W/NLTMA STANDARDS. . 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
- 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
- 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

### STANDARD WATER SUPPLY NOTE

THE STRONG WASTE MANAGEMENT ORDINANCE.

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:**

- A GEOTECHNICAL ENGINEERING INVESTIGATION WAS CONDUCTED AND PREPARED BY ECS MID-ATLANTIC, LLC, RESULTS ARE PROVIDED IN THE GEOTECHNICAL REPORT DATED AUGUST 2,
- S 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.
- 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.

4. INFILTRATION FACILITIES LOCATED WITHIN 25 FEET OF A BUILDING REQUIRE AN APPROVAL LETTER

# **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 OF WASTE, NOISE POLLUTION, SEWAGE AND OTHER WASTE DISPOSAL, VIBRATION AND WATER

# PRE-CONSTRUCTION / INSPECTION NOTES

- THE 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
- 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
- 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.
- . 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.
- 3. A COPY OF ALL GEOTECHNICAL ENGINEER INSPECTIONS SHALL BE PROVIDED TO THE

# **CONTRACTOR NOTES**

ESCROWED ITEMS:

- 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

- 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.
- 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. 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
- 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 11. 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 UPON RECORDING.

### STORM WATER MANAGEMENT OWNERSHIP & MAINTENANCE PROGRAM:

- 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 C. 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. 4. 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. 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

- SUPERVISORS 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 HE 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. 7. 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, STORI 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
- 8. 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

- 9. 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 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 TRANSFERRED 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.
- INSPECTED OR APPROVED AS SET FORTH HEREIN. 12. 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 LIABILITY SHALL REMAIN FOR ANY VIOLATIONS OF THE AGREEMENT AND DECLARATION OF EASEMENT,

OR IN THE EVENT THE STORM WATER MANAGEMENT FACILITIES WERE NOT COMPLETED,

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 THE 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 1. CONTACT INFORMATION FOR THE CITY OF LEBANON AUTHORITY

CITY OF LEBANON AUTHORITY

2311 RIDGEVIEW ROAD

IFBANON, 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.
- 5. 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:**

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
- FLEVATION: 627.37 VERTICAL DATUM: NAVD 88
- HORIZONTAL DATUM: NAD83 PA SOUTH ZONE 2. 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... 5. 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

- 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.

BY THE TOWNSHIP ENGINEER OR DESIGNATED REPRESENTATIVE TO CERTIFY

- 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
- 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.

- ANY REVISION TO THESE PLANS AFTER THE DATE OF PLAN PREPARATION OR LATEST REVISION DATE SHALL NOT BE THE RESPONSIBILITY OF STECKBECK ENGINEERING AND SURVEYING. INC.
- NO ONE SHALL SCALE FROM THESE PLANS FOR CONSTRUCTION PURPOSES 3. THE APPROVED POST—CONSTRUCTION STORMWATER MANAGEMENT REPORT SHALL BE CONSIDERED 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 ANY
- EASEMENT THAT MAY ADVERSELY AFFECT THE FUNCTION OF THE EASEMENT OR CONFLICT WITH THE PURPOSE OR ARRANGEMENT OF THE EASEMENT, WITH THE EXCEPTION OF THE AREA OF THE EASEMENTS LOCATED WITHIN BUILDING LIMITS. 5. THE INFORMATION SHOWN ON THIS DRAWING MAY HAVE ALSO BEEN PROVIDED IN A DIGITAL DRAWING FORMAT. ONCE A DRAWING IS RELEASED FROM STECKBECK ENGINEERING & SURVEYING,
- INC. IN A DIGITAL FORMAT, WE HAVE NO CONTROL OVER MANIPULATION OR MISUSE OF THE DATA CONTAINED IN THAT FILE. THE VIEWER IS THEREFORE CAUTIONED TO COMPARE ANY SUBSEQUENT REPRODUCTIONS OR MANIPULATIONS OF THIS DATA WITH THE ORIGINAL HARD COPY SEALED PLAN PROVIDED BY STECKBECK ENGINEERING & SURVEYING. INC. THE USER IS ALSO. CAUTIONED THAT ANY USE OF THE DATA CONTAINED IN THE DIGITAL FILE THAT IS NOT SHOWN 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, AND
- MUNICIPALITY STANDARDS AND REQUIREMENTS. 7. ANY SANITARY SEWER AND WATER MAIN EXTENSIONS AND CONNECTIONS HERETO SHALL BE CONSTRUCTED PER APPROVED DESIGNS IN ACCORDANCE WITH APPLICABLE REGULATIONS AND 8. ALL JOINTS WHERE PROPOSED MACADAM MEETS EXISTING MACADAM SHALL BE SAW-CUT AND
- SEALED WITH PG 64S-22. 9. ALL PROPOSED SIGNS SHALL BE IN ACCORDANCE WITH ALL APPLICABLE MUNICIPALITIES 10. NORTH LEBANON TOWNSHIP SHALL NOT BE RESPONSIBLE FOR THE MAINTENANCE OF ANY AREA
- THAT IS NOT OFFERED FOR DEDICATION TO PUBLIC USE AND SUCH OFFER ACCEPTED BY NORTH LEBANON TOWNSHIP. NO ALTERATION TO SWALES, BASINS, OR OTHER DRAINAGE STRUCTURES SHALL BE PERMITTED WITHIN DRAINAGE EASEMENTS. 11. UTILITY TYPE AND LOCATION NOTICE: ALL EXISTING UTILITIES ARE SHOWN AS FOUND IN THE FIELD AND/OR ILLUSTRATED ON VARIOUS USER DRAWINGS. TO THE BEST OF OUR KNOWLEDGE THE LOCATIONS AND TYPES ARE CORRECT AND ACCURATE, BUT STECKBECK ENGINEERING & SURVEYING, INC. DOES NOT MAKE ANY REPRESENTATION, WARRANTY, ASSURANCE, OR GUARANTEE THE INFORMATION RECEIVED AND REFLECTED ON THESE DRAWINGS IS CORRECT OR ACCURATE. PURSUANT TO SECTION 5 CLAUSE (1) OF ACT 172 AMENDING ACT 287 IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ASCERTAIN THE LOCATION AND TYPE OF USERS LINES AT THE CONSTRUCTION SITE, EITHER BY INSPECTION OF THE DESIGNER'S DRAWING OR IF THERE BE NO SUCH DRAWINGS, THEN BY THE SAME MANNER AS THAT PRESCRIBED FOR A DESIGNER IN CLAUSE (1) AND (2) OF SECTION 4. PURSUANT TO SECTION 5 CLAUSE (2) IT WILL BE THE CONTRACTORS RESPONSIBILITY NOT LESS THAN THREE NOR MORE THAN TEN WORKING DAYS PRIOR TO THE DAY OF BEGINNING SUCH WORK, TO NOTIFY EACH USER OF THE
- INFORMATION PRESCRIBED BY [ SUBCLAUSES II AND III ] OR CLAUSE (5) OF SECTION 2, FROM EACH USER'S OFFICE DESIGNATED ON THE DESIGNERS DRAWINGS OR 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 TELEPHONE, CABLE, ELECTRIC, GAS, WATER, AND SANITARY SEWER.

CONTRACTOR'S INTENT TO PERFORM SUCH WORK AT ITS SITE OR SITES AND REQUEST THE

- THE COMMONWEALTH OF PENNSYLVANIA HISTORICAL AND MUSEUM COMMISSION PERFORMED A SURVEY OF THE SUBJECT SITE IN ACCORDANCE WITH STATE AND FEDERAL LAWS, SPECIFICALLY SECTION 106 OF THE NATIONAL HISTORIC PRESERVATION ACT OF 1966, AND THE IMPLEMENTING REGULATIONS (36 CFR PART 800) OF THE ADVISORY COUNCIL ON HISTORIC PRESERVATION, THE ENVIRONMENTAL RIGHTS AMENDMENT, ARTICLE 1, SECTION 27 OF THE PENNSYLVANIA CONSTITUTION AND THE PENNSYLVANIA HISTORY CODE, 37 PA. CONS. STAT. SECTION 500 ET SEQ. (1988) AND FOUND THERE ARE NO NATIONAL REGISTER ELIGIBLE OR LISTED HISTORIC OR ARCHAFOLOGICAL PROPERTIES IN THE AREA OF THIS PROJECT SITE.
- 14. SITE IMPROVEMENTS AND DEVELOPMENTS SHALL BE IN ACCORDANCE WITH THE EROSION AND SEDIMENT CONTROL DETAILS WITHIN THIS PLAN AND THE APPROVED EROSION SEDIMENT CONTROL
- 15. ALL DRAINAGE AND UTILITY EASEMENTS OTHER THAN THOSE SHOWN WITHIN THE PROPOSED BUILDINGS AS SHOWN ON THIS PLAN SHALL BE MAINTAINED IN GRASSED OR OTHERWISE IMPROVED CONDITION IN ACCORDANCE WITH THE GRADES AND DESIGNS SHOWN ON THE APPROVED PRELIMINARY/FINAL PLANS. MAINTENANCE OF SUCH EASEMENTS SHALL BE THE RESPONSIBILITY OF THE INDIVIDUAL LOT OWNER. 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. EXISTING AND PROPOSED ROADSIDE GUTTERS OR SWALES SHALL NOT BE OBSTRUCTED BY DRIVEWAYS, FILL, OR STRUCTURES. 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. 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, STORM SEWER MAINS SHALL BE SMOOTH LINED CORRUGATED POLYETHYLENE PIPE (SLCPP) AND SHALL BE CONCRETE ENCASED WHEN COVER IS LESS THAN 12" TO SUBGRADE. INLETS HAVE BEEN 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 B 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.
- 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
- 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. A SIGN PERMIT SHALL BE OBTAINED FROM NORTH LEBANON TOWNSHIP PRIOR TO THE PLACEMENT OF ANY SIGNS. 22. DRIVEWAY PERMITS WILL BE REQUIRED TO BE OBTAINED FROM NORTH LEBANON TOWNSHIP FOR THE PROPOSED DRIVEWAYS.
- 23. 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 24.NO VISION OBSTRUCTING OBJECTS SHALL BE PERMITTED WHICH OBSCURE VISION ABOVE THE
- HEIGHT OF 30" AND BELOW 10' TO THE SIGHT DISTANCE. 25.IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER TO PURCHASE AND INSTALL FIRE HYDRANT MARKERS FOR ALL NEWLY INSTALLED FIRE HYDRANTS. 26. 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 ELECTRONIC FILE APPROVED BY THE TOWNSHIP. 27. THE DEVELOPER SHALL BE FINANCIALLY RESPONSIBLE FOR ANY ATTORNEY FEES WHERE THE 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 28. ALL SEWER RELATED ISSUES SHALL BE ADDRESSED WITH THE NORTH LEBANON TOWNSHIP
- MUNICIPAL AUTHORITY. 29. ALL UTILITY/ACCESS EASEMENTS, IF APPLICABLE SHALL INCLUDE THE REQUIRED DEED RESTRICTIONS AND OR COVENANTS AS A CONDITION OF THE SALE OF THE PROPERTIES.
- 30. NO LAND IS OFFERED FOR DEDICATION. THE APPLICANT SHALL PAY A PER LOT FEE IN LIEU OF DEDICATION OF LAND PRIOR TO FINAL PLAN APPROVAL FOR EACH PHASE. 31. ALL PROPOSED PROPERTY CORNERS WILL BE SET UPON APPROVAL AND CONSTRUCTION OF FACH PHASE
- 32. THE PLACEMENT OF TREES, SHRUBS, FENCING AND STRUCTURES WITH IN DRAINAGE EASEMENTS IS PROHIBITED UNLESS APPROVED BY THE TOWNSHIP. 33.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.

# **DEED RESTRICTION/COVENANT NOTES:**

LOTS CONTAINING STORMWATER MANAGEMENT FACILITIES SHALL CONTAIN LANGUAGE REGARDING THE OWNERSHIP AND MAINTENANCE RESPONSIBILITY ASSOCIATED WITH THE STORM WATER FACILITIES ON THEIR RESPECTED LOTS ALL LOTS CONTAINING WETLANDS OR FLOODPLAIN SHALL CONTAIN LANGUAGE REGARDING

THE PROTECTION OF THE ASSOCIATED WETLANDS AND FLOODPLAIN.

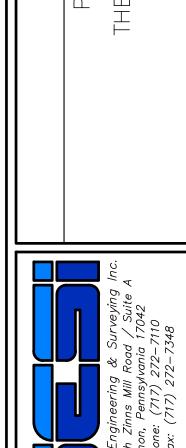
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PHASE	2	23	LOTS	SPRING	202
PHASE	3	14	LOTS	SPRING	202
PHASE	4	26	LOTS	SPRING	2029
PHASE	5	31	LOTS	SPRING	203

### **UTILITY NOTES**

- SEWAGE DISPOSAL IS TO BE PROVIDED BY EXTENSION OF THE PUBLIC SEWER SYSTEM BY THE 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 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 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" CONCRETE ENCASEMENT SHALL BE PROVIDED FOR THE SEWER
- ALL UTILITIES SHALL BE INSTALLED UNDERGROUND INCLUDING BUT NOT LIMITED TO TELEPHONE, CABLE, ELECTRIC, GAS, WATER AND SANITARY SEWER.
  ACCESS TO ALL UTILITY FACILITIES SHALL BE GRANTED TO REPRESENTATIVES OF THE 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. BACKFILL SEWER LATERAL TRENCHES UNTIL INSPECTED BY A REPRESENTATIVE OF
- CONSTRUCTION OF WATER LATERALS SHALL COMPLY WITH THE RULES, REGULATIONS, AND SPECIFICATIONS OF THE CITY OF LEBANON WATER AUTHORITY.
  - THE PROPOSED SANITARY SEWER DESIGN IS A PROPOSED GRAVITY FED SYSTEM THAT WILL CONNECT TO AN EXISTING MANHOLE WITHIN ROLLING MEADOWS ROAD. 10. ALL SEWER RELATED ISSUES SHALL BE ADDRESSED TO THE SATISFACTION OF THE NORTH LEBANON TOWNSHIP MUNICIPAL AUTHORITY.

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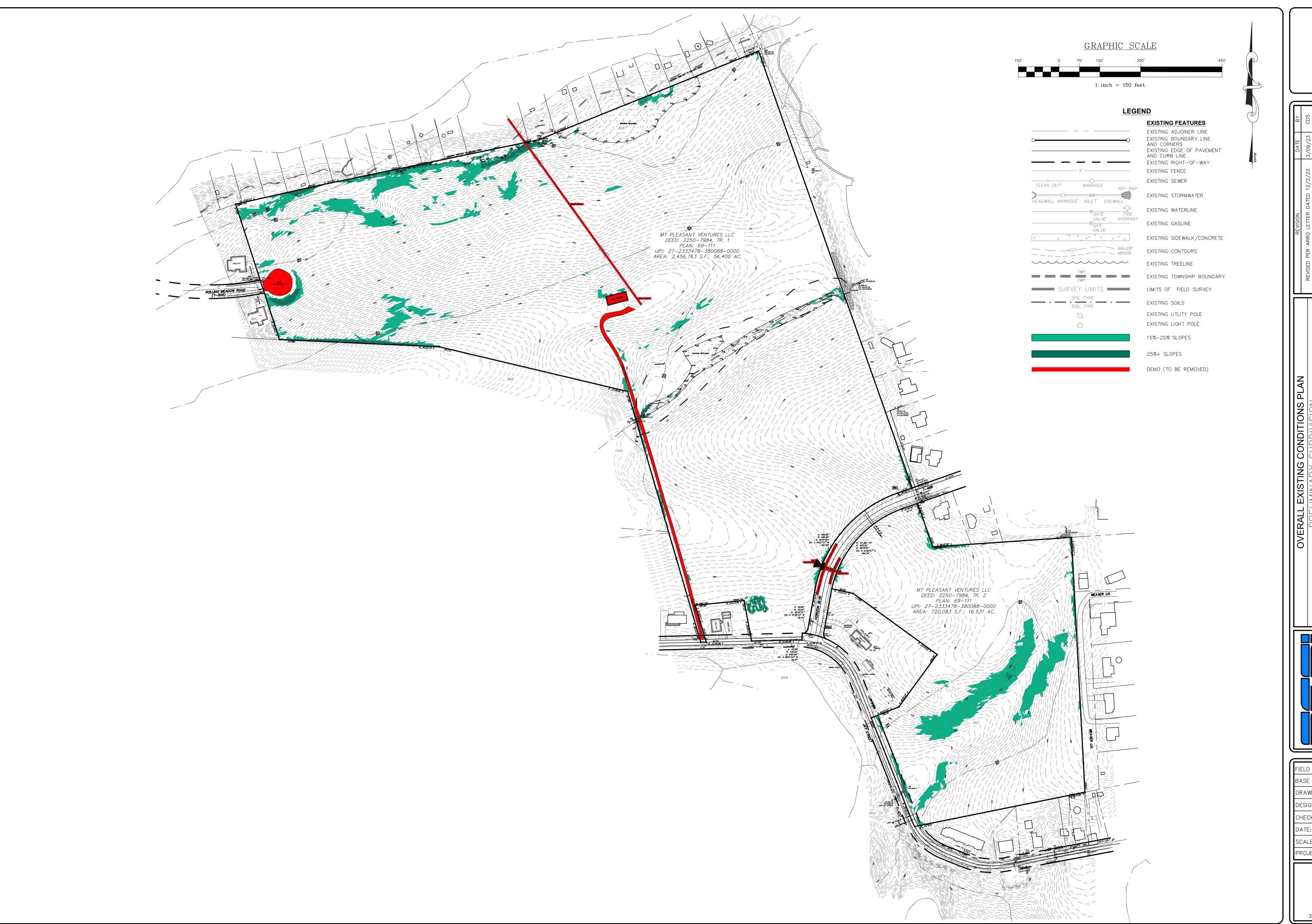
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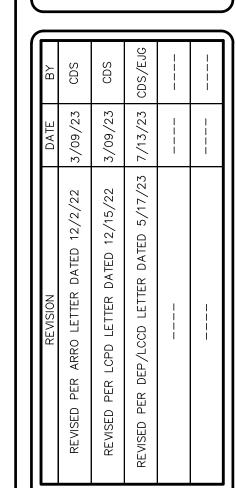
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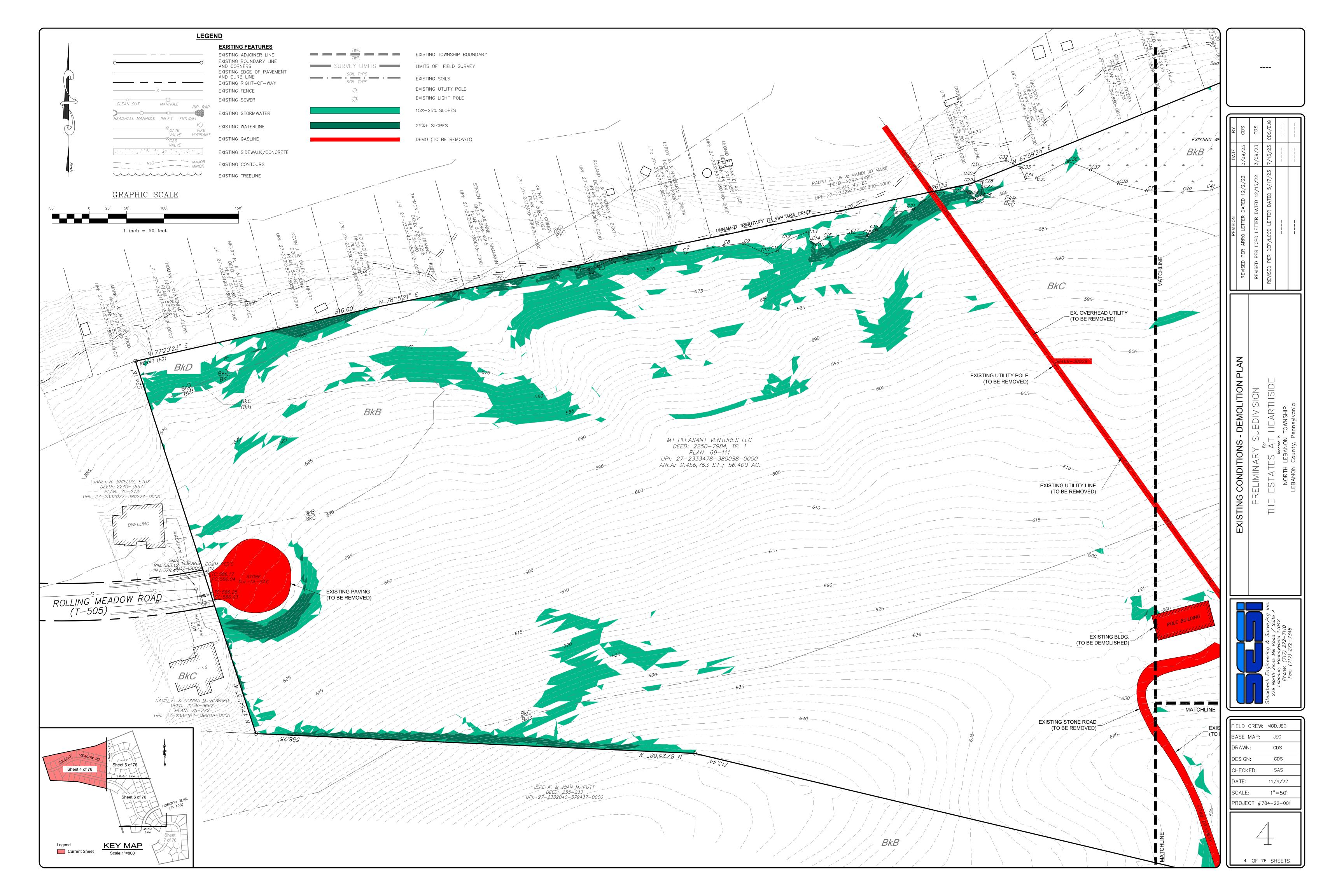


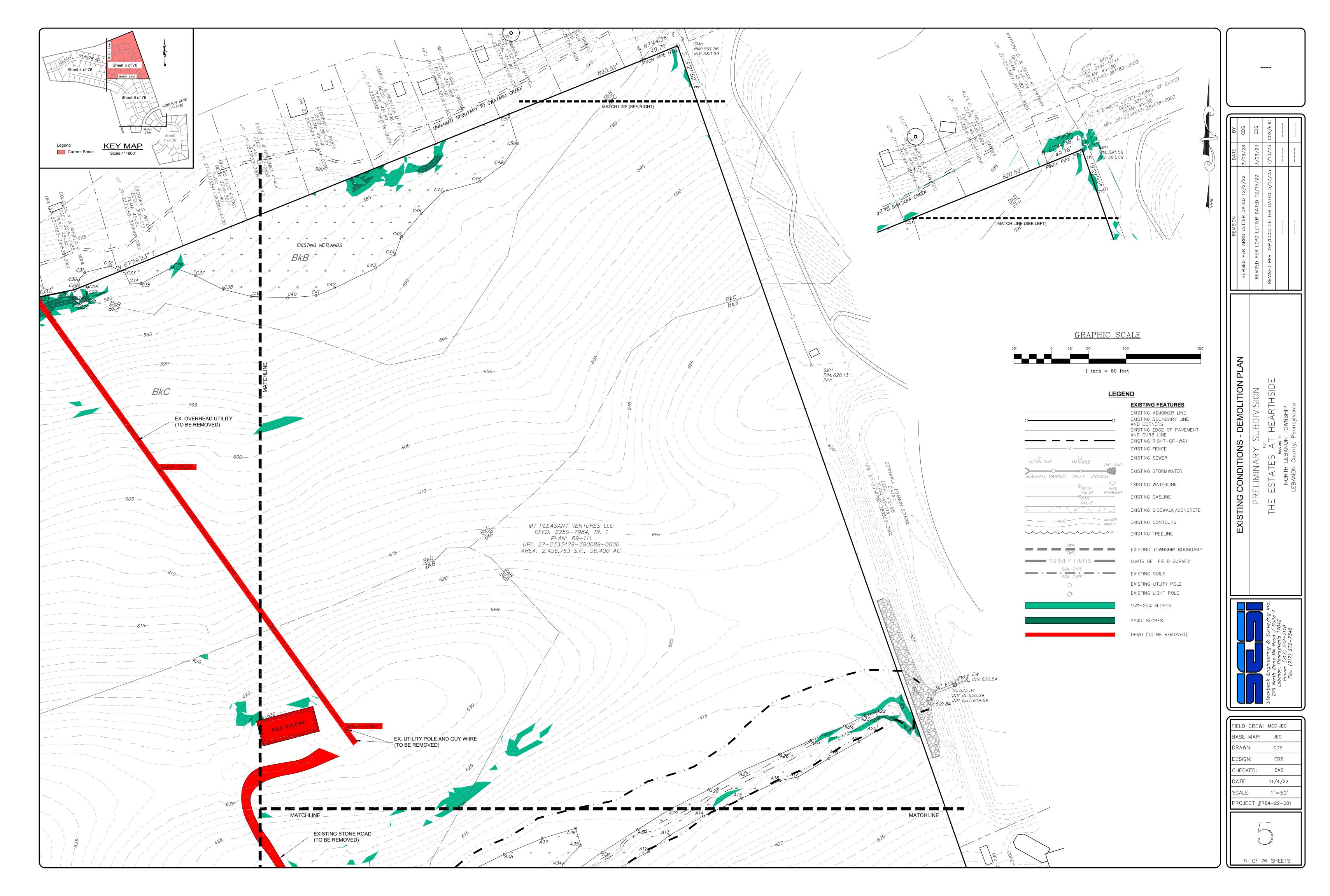


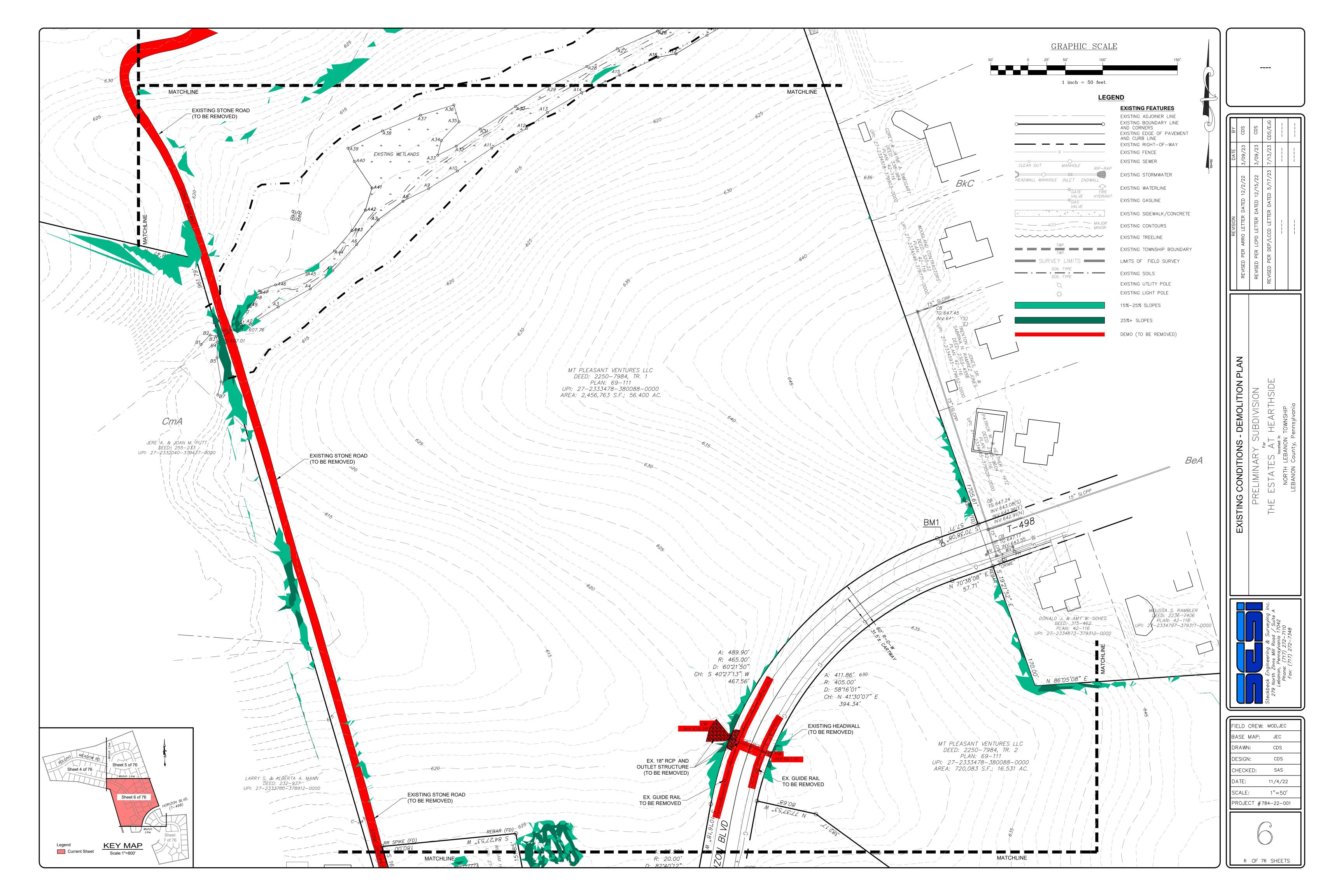


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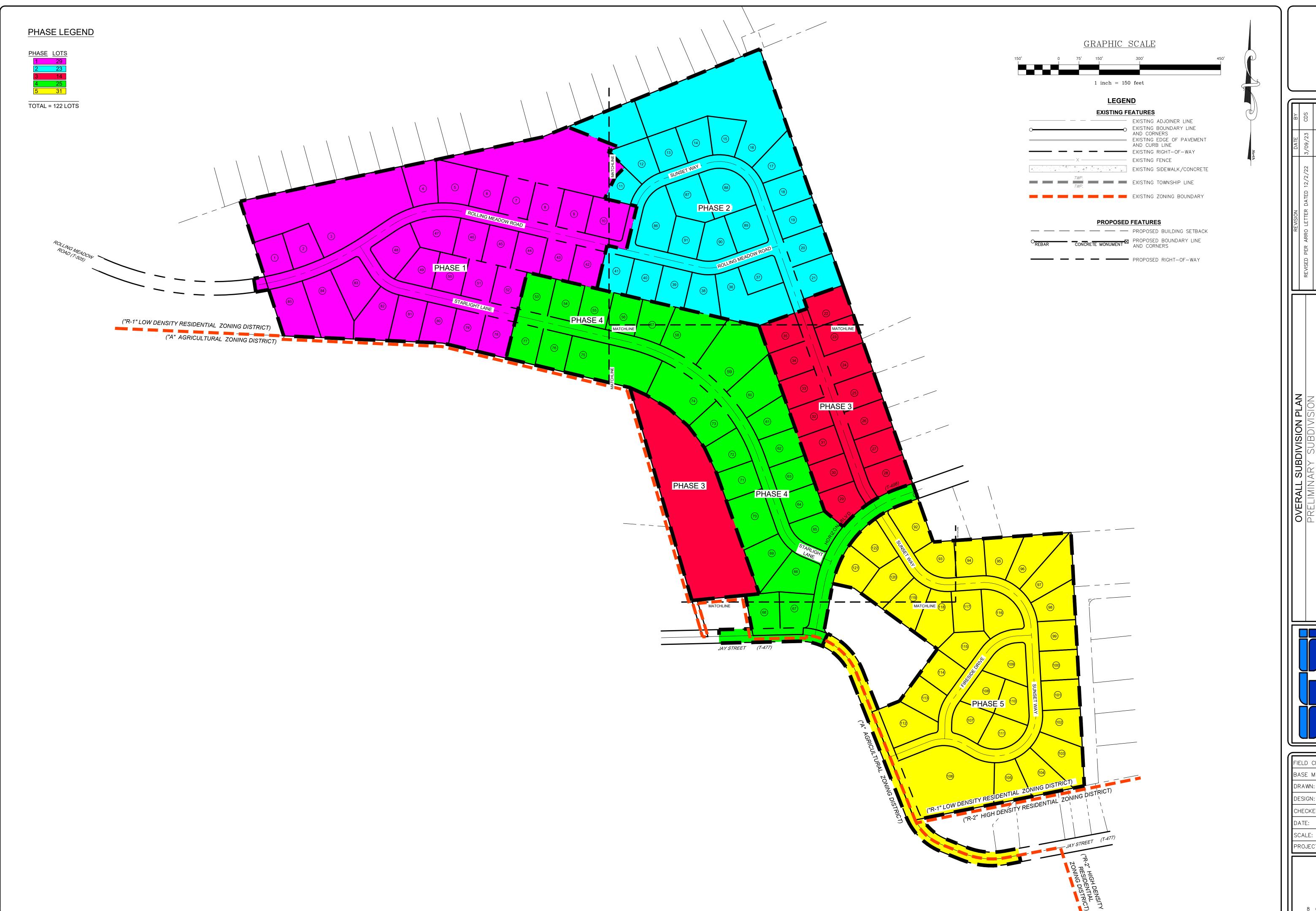
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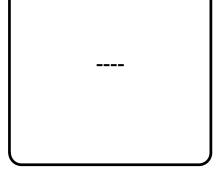






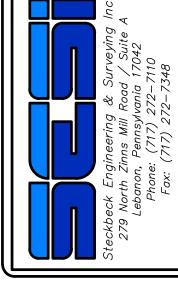




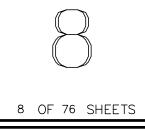


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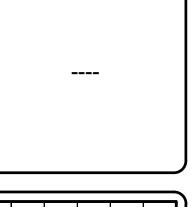


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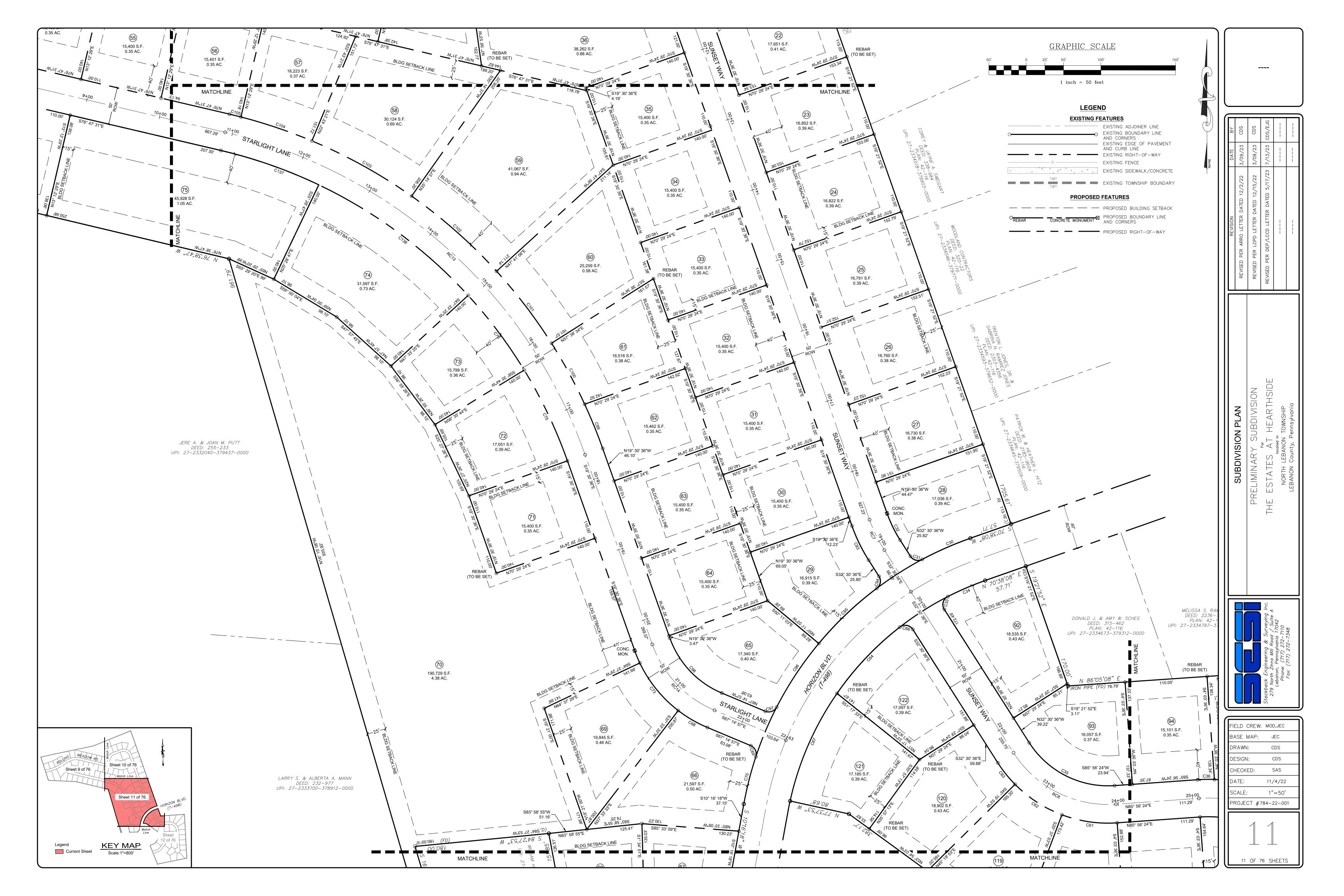


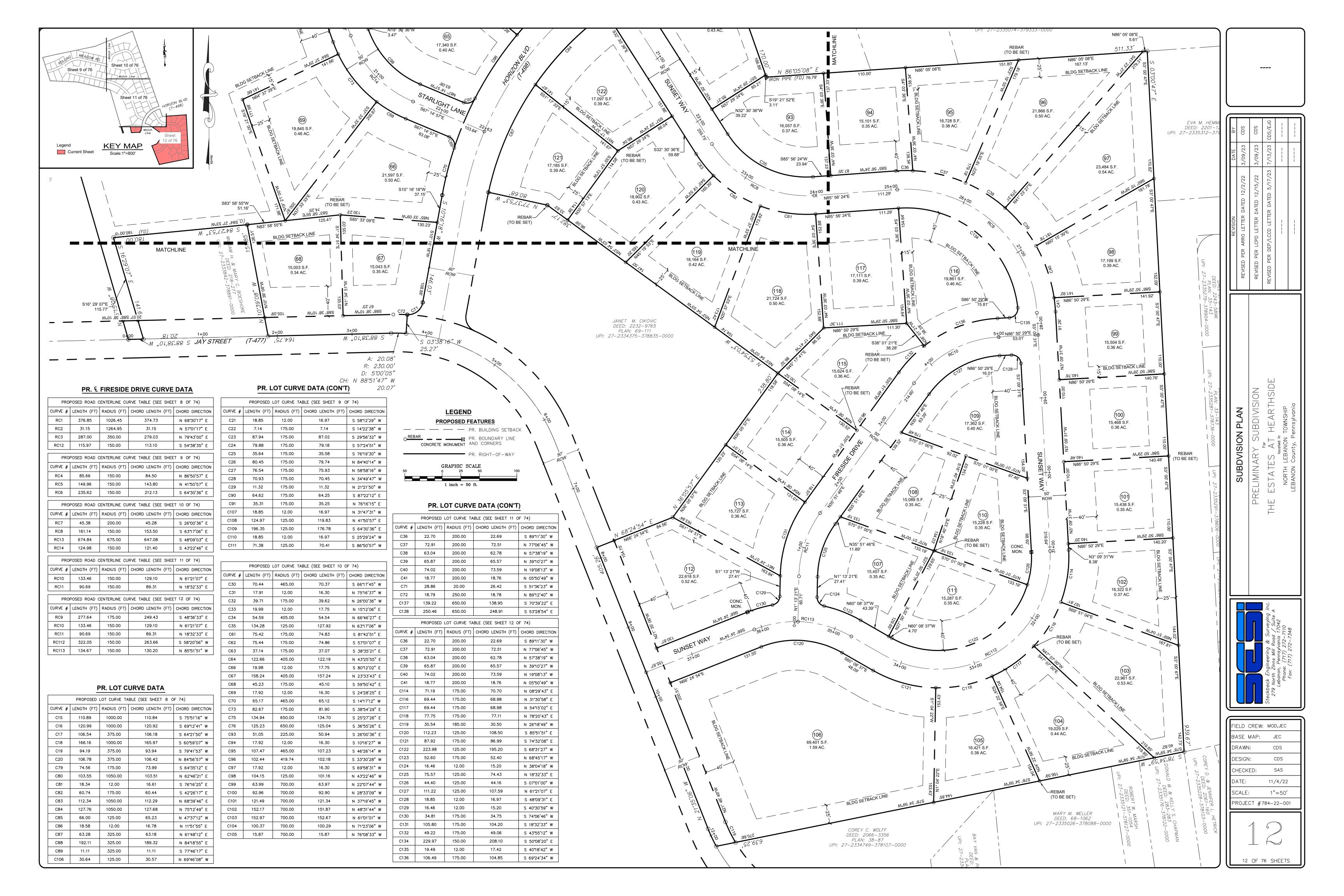


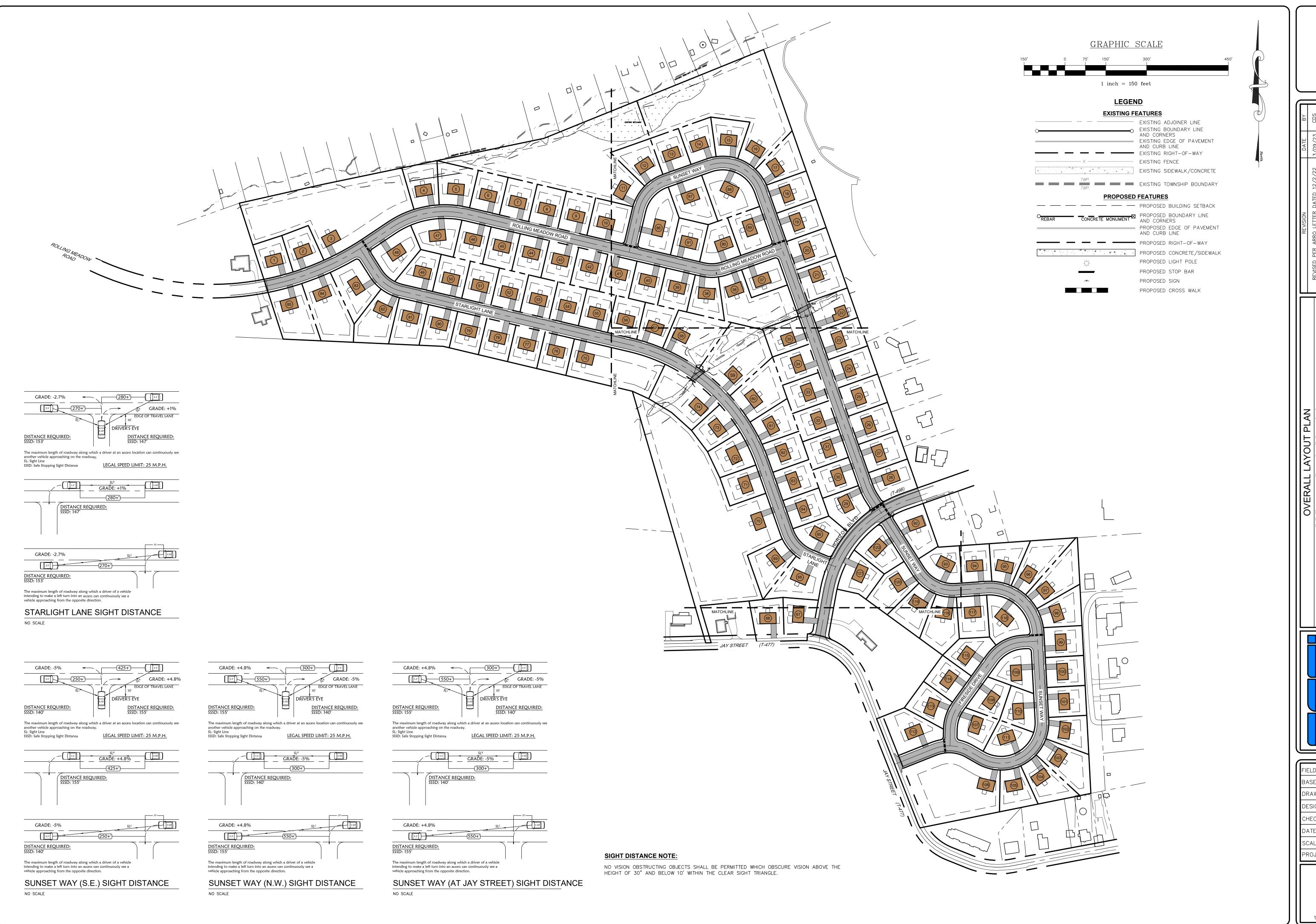


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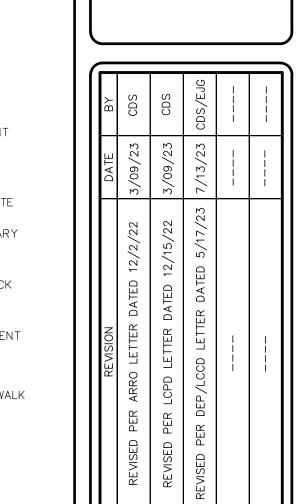
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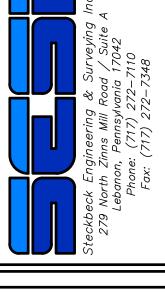
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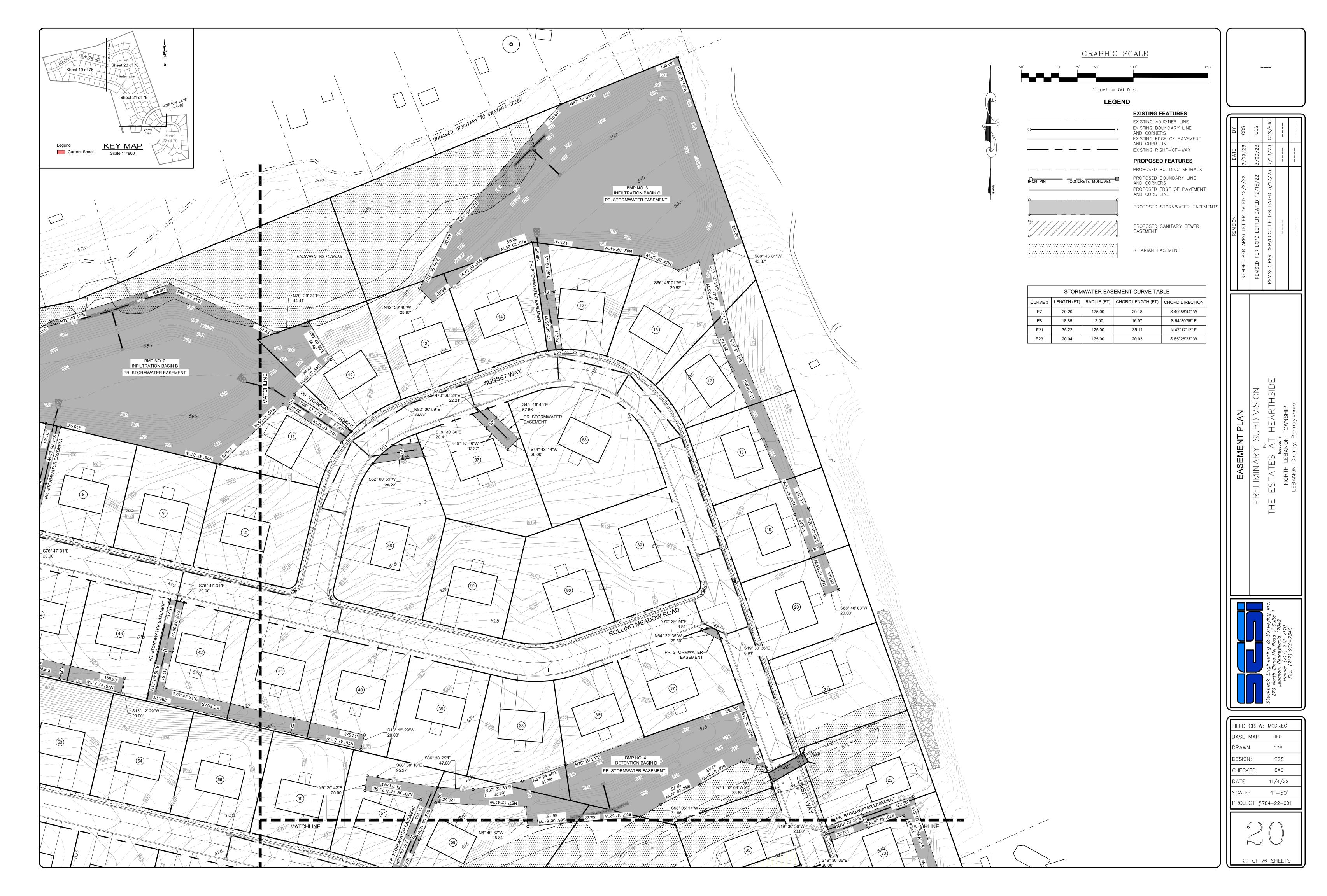


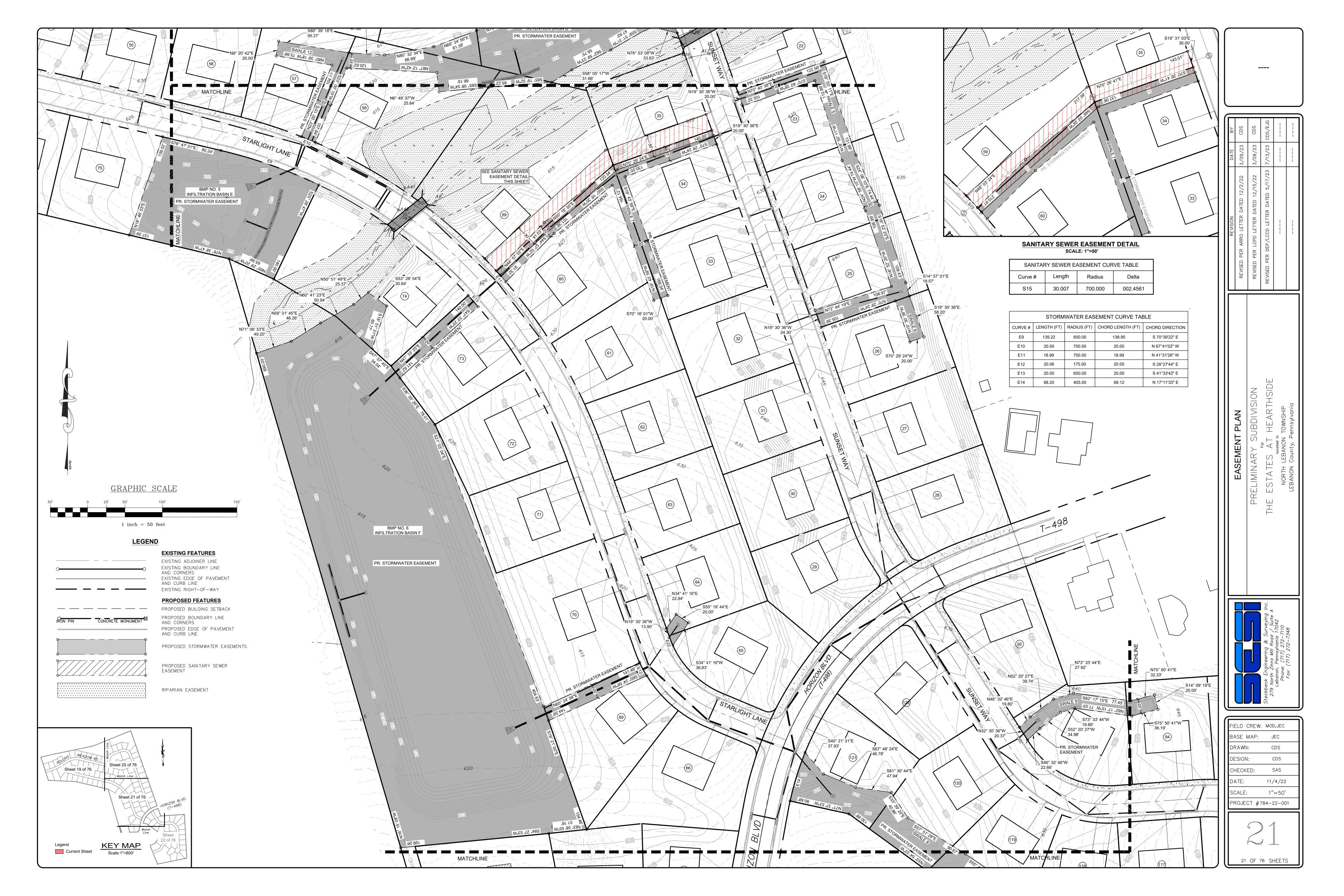
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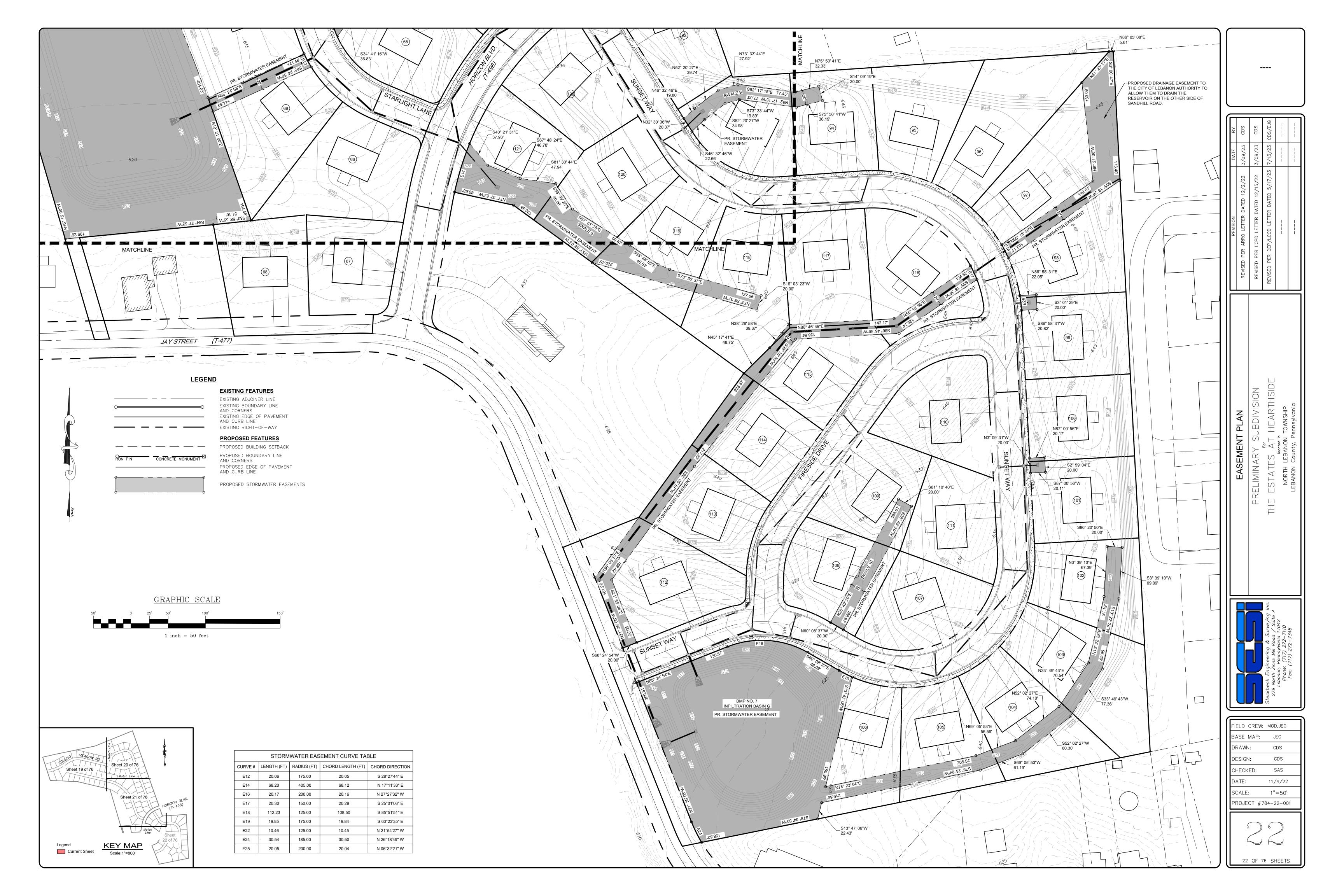
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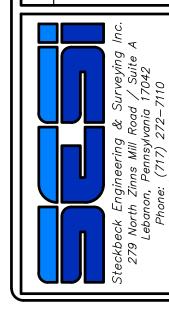


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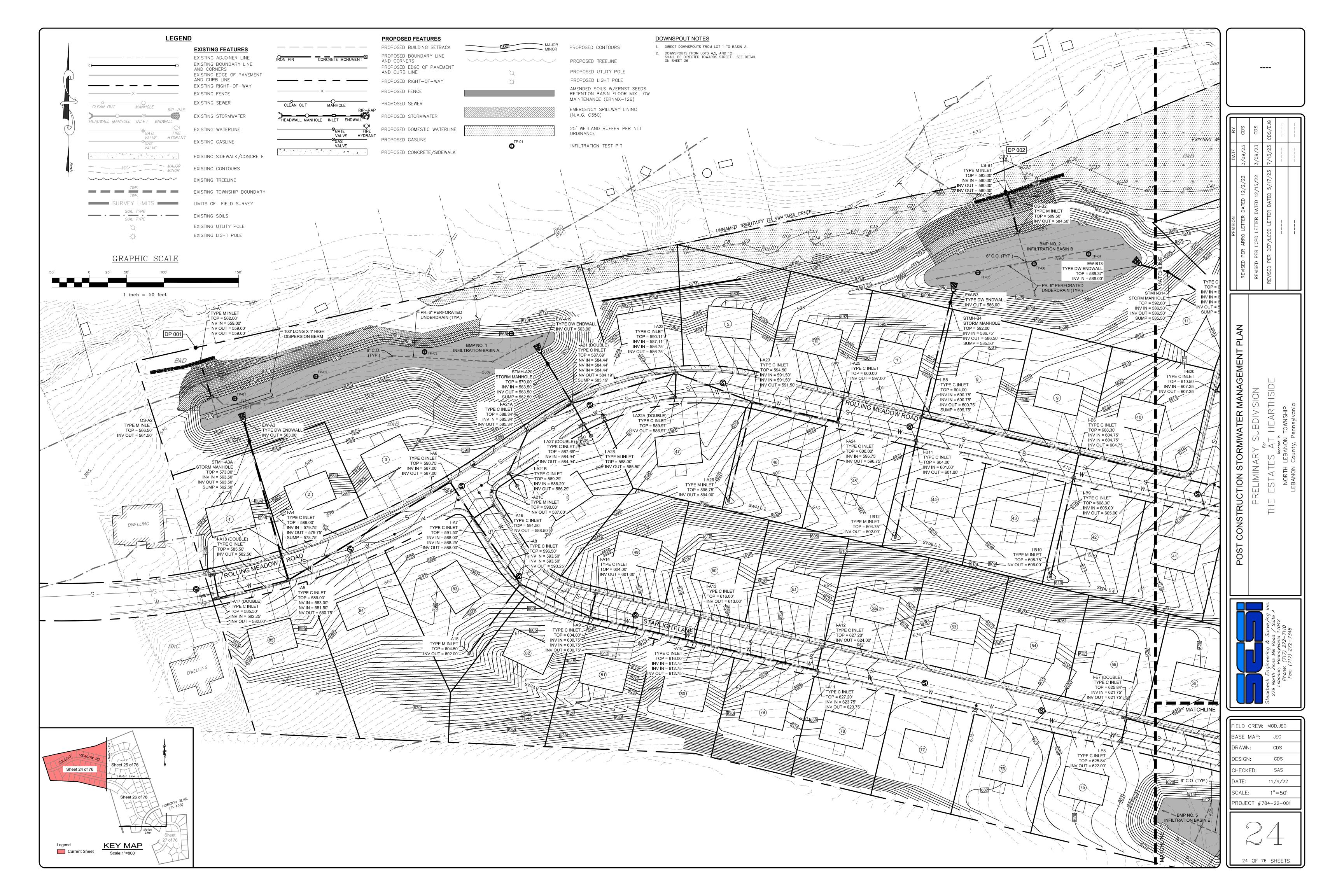
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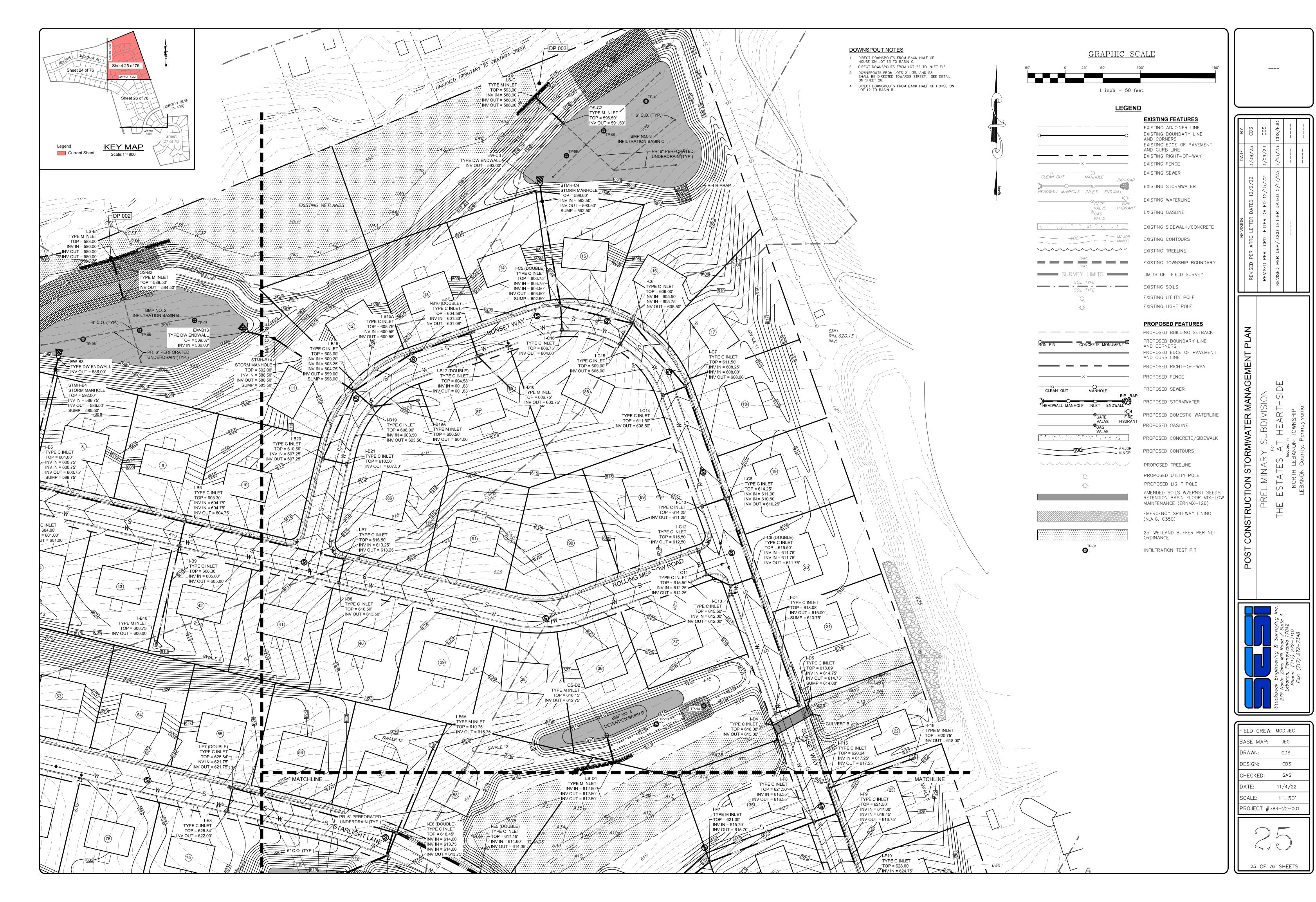
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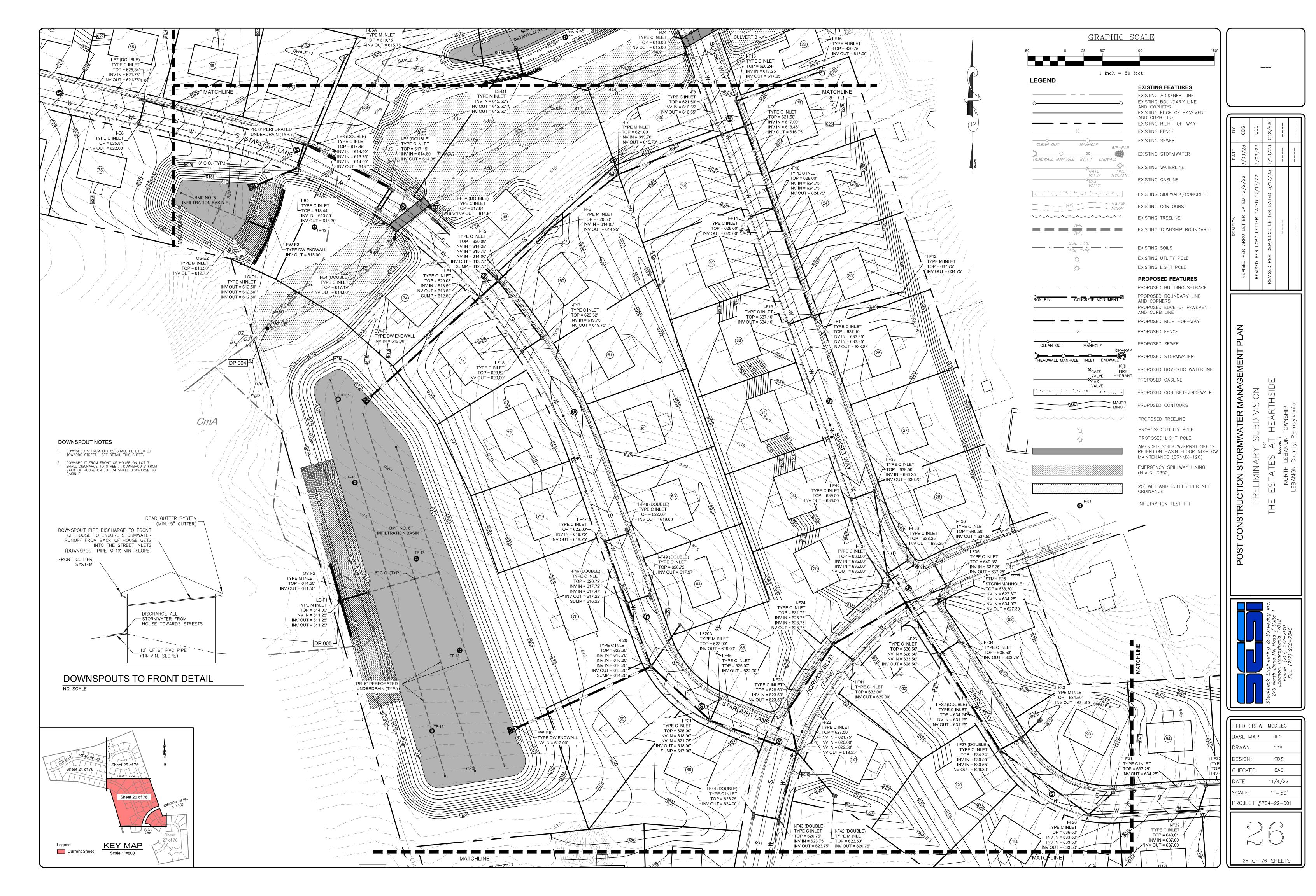
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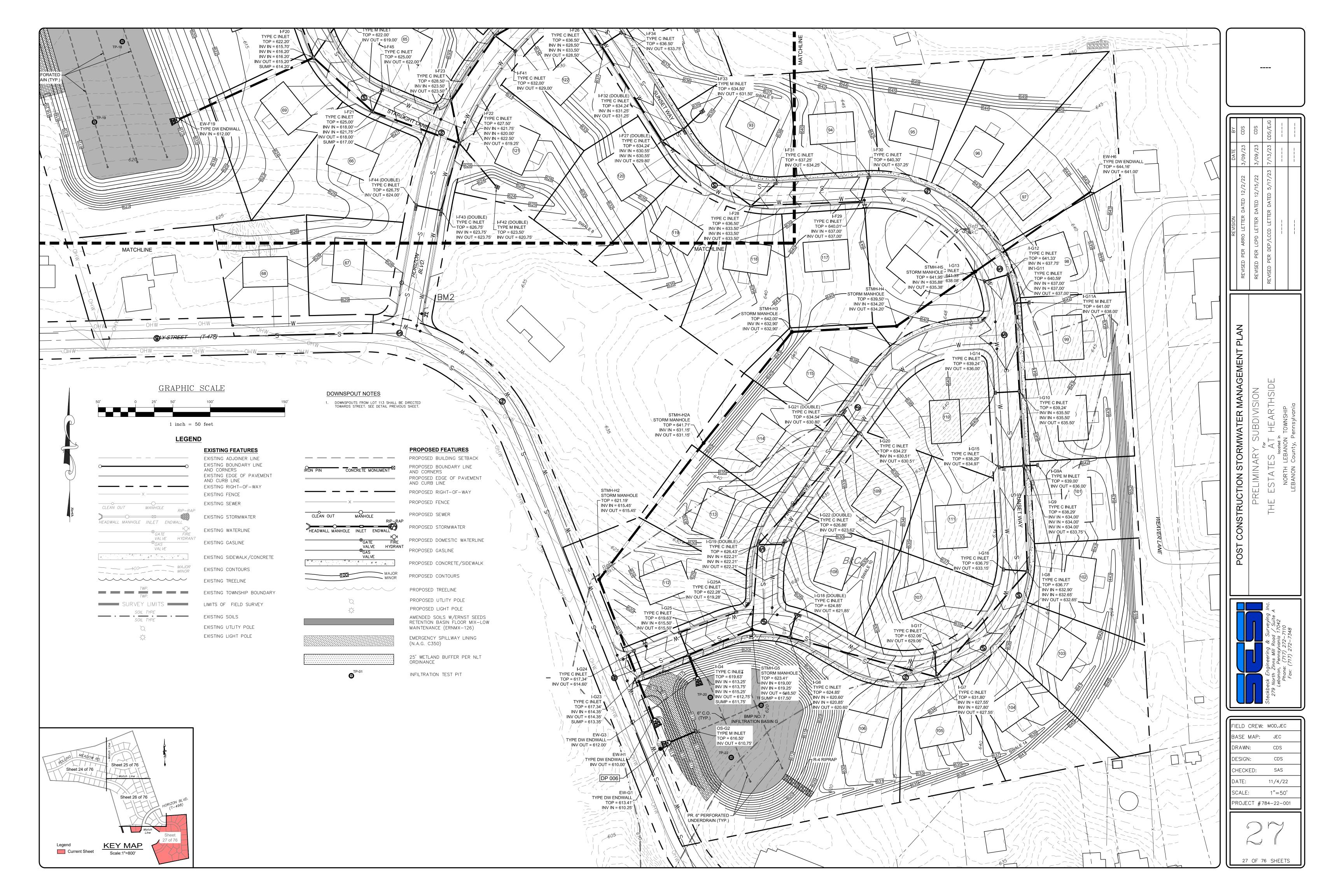


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#### POST CONSTRUCTION STORMWATER MANAGEMENT NARRATIVE MT. PLEASANT VENTURES SUBDIVISION

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

#### 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 HE 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 RUNOFF, STORMWATER RUNOFF FROM THE SITE WILL REACH TWO DIFFERENT UNIT'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.

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 QUALITY, 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.

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

DISCHARGE POINTS 001-003 (DP 001-003) ARE LOCATED ADJACENT TO THE NORTHERN PROPERTY LINE AND WILL DISCHARGE TO THE UNIT 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 UNIT 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.

#### 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 VOLUME LEAVING THE SITE.

### OFFSITE DISCHARGE 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 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 THE SAME FLOW REDUCTION AND WATER QUALITY BENEFITS PROVIDED BY THE STRUCTURAL AND NON-STRUCTURAL BMPS WILL ALSO SERVE TO 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.

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%	C
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 ENCOUNTERE COUNTY CONSERVATION DISTRICT WILL BE IMMEDIATELY CONTACTED, AND A CERTIFIED GEOTECHNICAL ADVISOR WILL BE REQUIRED TO OVERSEE

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

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 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 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 S 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.

# 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 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
- 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
- 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

- 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 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. . 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).
- 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.
- 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 APPROVED METHOD.

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.

#### OWNERSHIP, OPERATIONS AND MAINTENANCE

GENERAL OVERALL BMP DESCRIPTION

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 MT. PLEASANT VENTURES, LLC.

### INDIVIDUAL BMP DESCRIPTION, CONSTRUCTION SEQUENCE, AND MAINTENANCE

6. FILL SHALL NOT BE PLACED ON SATURATED OR FROZEN SURFACES.

<u>INFILTRATION BASIN</u>

AN INFILTRATION BASIN IS A SHALLOW IMPOUNDMENT THAT STORES AND INFILTRATES RUNOFF OVER A LEVEL, UN-COMPACTED (PREFERABLY UNDISTURBED AREA) WITH RELATIVELY PERMEABLE SOILS.

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 FOR DETAILS, SPECIFICATIONS AND CALCULATIONS.

#### CONSTRUCTION SEQUENCE 1. PROTECT INFILTRATION BASIN AREA FROM COMPACTION PRIOR TO INSTALLATION

- 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. 3.INSTALL AND MAINTAIN PROPER EROSION AND SEDIMENT CONTROL MEASURES DURING CONSTRUCTION.
- 4.IF NECESSARY, EXCAVATE INFILTRATION BASIN BOTTOM TO AN UNCOMPACTED SUBGRADE FREE FROM ROCKS AND DEBRIS. DO NOT COMPACT
- 5. INSTALL OUTLET CONTROL STRUCTURES.
- 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.

1. WHILE VEGETATION IS BEING ESTABLISHED, PRUNING AND WEEDING MAY BE REQUIRED.

- 2. DETRITUS MAY ALSO NEED TO BE REMOVED EVERY YEAR. PERENNIAL PLANTINGS MAY BE CUT DOWN AT THE END OF THE GROWING SEASON. 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
- 5. CATCH BASINS AND INLETS (UPGRADIENT OF INFILTRATION FACILITY) SHOULD BE INSPECTED AND CLEANED AT LEAST TWO TIMES PER YEAR AND 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 SHALL BE RE-VEGETATED AS SOON AS POSSIBLE. 7. VEHICLES SHOULD NOT BE PARKED OR DRIVEN OVER AN INFILTRATION AREA, AND CARE SHOULD BE TAKEN TO AVOID EXCESSIVE COMPACTION BY

  PENNSYLVANIA ONE CALL SYSTEM INCORPORATED AT 1-800-242-1776 FOR THE LOCATION OF EXISTING UNDERGROUND UTILITIES.
- PROBLEM IF THE WATER DRAINS IN 72 HOURS. MOSQUITOES REQUIRE A CONSIDERABLY LONG BREEDING PERIOD WITH RELATIVELY STATIC WATER
- 9. ALSO INSPECT FOR ACCUMULATION OF SEDIMENT, DAMAGE TO OUTLET CONTROL STRUCTURES, EROSION CONTROL MEASURES, SIGNS OF WATER CONTAMINATION/SPILLS, AND SLOPE STABILITY IN THE BERMS.
- 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 HEIGHT 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
- 11. REMOVE ACCUMULATED SEDIMENT FROM BASIN AS REQUIRED. RESTORE ORIGINAL CROSS SECTION AND INFILTRATION RATE.
- 12. SHOULD ANY INFILTRATION BASIN FAIL TO DEWATER WITHIN A 72-HOUR TIME PERIOD THE OWNER SHALL INVESTIGATE ALTERNATIVE SOLUTIONS. - REPLACE THE ENGINEERED SOIL LAYER AND / OR THE UNDERDRAIN SYSTEM. THE ENGINEERED SOIL LAYER SHOULD BE REMOVED. THE SOIL LAYER
- BOTTOM OF THE ENGINEERED SOIL SHALL BE SCARIFIED. THE ENGINEERED SOIL LAYER SHALL BE REPLACED PER THE PCSM PLAN SPECIFICATIONS. CONDUCT AN INVESTIGATION BY A QUALIFIED INDIVIDUAL IN ORDER TO DETERMINE THE CAUSE OF FAILURE AND MAKE A DETERMINATION AS TO THE BEST COURSE OF ACTION AS TO RETURN THE SITE TO THE STANDARDS OF THE LOCAL MUNICIPAL AUTHORITY AND THE PA DEP.

# DETENTION BASIN

A DETENTION BASIN IS AN EARTHEN STRUCTURE CONSTRUCTED EITHER BY IMPOUNDMENT OF A NATURAL DEPRESSION OR EXCAVATION OF EXISTING SOIL, THAT PROVIDES TEMPORARY STORAGE OF RUNOFF AND FUNCTIONS HYDRAULICALLY TO ATTENUATE STORMWATER RUNOFF PEAKS.

ONE (1) DETENTION BASIN IS PROPOSED ON SITE. THE PRIMARY FUNCTION OF THIS BMP IS TO MANAGE THE STORMWATER RUNOFF RATE AND VOLUME 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.

- a. THE AREA IMMEDIATELY ADJACENT TO THE BASIN MUST BE STABILIZED IN ACCORDANCE WITH THE PADER'S EROSION AND SEDIMENT POLLUTION 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.
- c.IF EXCAVATION IS REQUIRED, CLEAR THE AREA TO BE EXCAVATED OF ALL VEGETATION. REMOVE ALL TREE ROOTS, ROCKS, AND BOULDERS ONLY IN THE EXCAVATION AREA.

COMPOSTED OR TAKEN TO AN APPROVED YARD WASTE RECYCLING FACILITY.

- 3. EXCAVATE BOTTOM OF BASIN TO DESIRED ELEVATION (IF NECESSARY). 4.INSTALL SURROUNDING EMBANKMENTS AND INLET AND OUTLET CONTROL STRUCTURES.
- 5. GRADE SUBSOIL IN BOTTOM OF BASIN, TAKING CARE TO PREVENT COMPACTION. COMPACT SURROUNDING EMBANKMENT AREAS AND AROUND INLET 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

MAINTENANCE IS NECESSARY TO ENSURE PROPER FUNCTIONALITY OF THE DETENTION BASIN AND SHOULD TAKE PLACE ON A QUARTERLY BASIS. BASIN MAINTENANCE SHALL INCLUDE THE FOLLOWING MEASURES:

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 OR

- GREATER. DEBRIS AND SEDIMENT SHALL BE REMOVED AND DISPOSED OF IN A LEGAL MANNER. UN-VEGETATED AREAS SHALL BE IMMEDIATELY 2. STRUCTURES INCLUDE BASIN BOTTOMS, TRASH RACKS, OUTLETS STRUCTURES, RIPRAP OR GABION STRUCTURES, AND INLETS.
- 3. SEDIMENT REMOVAL SHOULD BE CONDUCTED WHEN THE BASIN IS COMPLETELY DRY. SEDIMENT SHOULD BE DISPOSED OF PROPERLY AND ONCE SEDIMENT IS REMOVED, DISTURBED AREAS NEED TO BE IMMEDIATELY STABILIZED AND REVEGETATED. 4.MOWING AND/OR TRIMMING OF VEGETATION SHOULD BE PERFORMED AS NECESSARY TO SUSTAIN THE SYSTEM, BUT ALL DETRITUS SHOULD BE
- 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.
- OVERALL PCSM CONSTRUCTION SEQUENCE THE PROJECT WILL BE CONSTRUCTED IN PHASES. THE FOLLOWING SEQUENCE CAN BE APPLIED TO THE FACILITIES WITHIN EACH PHASE, AS FURTHER DETAILED IN THE STAGING OF EARTHMOVING BELOW.

- THE SURFACE AND CAUSE DAMAGE DURING FREEZE/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 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.

  - 5. AFTER THE BUILDINGS AND STARLIGHT LANERE CONSTRUCTED ADD TOPSOIL TO THE POST-CONSTRUCTION PERVIOUS AREAS TO BE PERMANENTLY
  - 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.
  - 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.
  - 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
  - O UNDERDRAIN AND AMENDED SOILS INSTALLATION • DETENTION BASIN D
  - O EXCAVATION / ROUGH GRADING O OUTLET PIPE, ANTI-SEEP COLLAR, CLAY CORE INSTALLATION

### PERMANENT SITE STABILIZATION

THE CONTRACTOR SHALL NOT ILLEGALLY BURY, DUMP, OR DISCHARGE ANY BUILDING MATERIAL OR WASTES ON OR OFF THE SITE. THESE BUILDING 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. L 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

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 THOSE AREAS DESCRIBED IN EACH STAGE. ANY DEVIATION FROM THE FOLLOWING SEQUENCE MUST BE APPROVED IN WRITING FROM THE COUNTY

ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL CONTACT THE GEOTECHNICAL ENGINEER IMMEDIATELY. ALL PUMPING OF SEDIMENT

### SEQUENCE OF CONSTRUCTION - PHASE 1

DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT."

OF THE OUTLET PIPES, ANTI-SEEP COLLARS, AND CLAY CORES.

ACCORDANCE WITH THE PERMANENT VEGETATIVE STABILIZATION SPECIFICATIONS.

CONSERVATION DISTRICT.

- 1. AT LEAST 7 DAYS BEFORE STARTING ANY FARTH 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 PRF.-CONSTRUCTION MEETING.
- 2 AT LEAST 3 DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES SHALL NOTIFY THE
- SALL FARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE SECUENCE 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.
- 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 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
- 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 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
- 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 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
- 12. 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.
- 13. 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.
- 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
- 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

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 FROSION AND SEDIMENTATION IN ALL AREAS TRIBUTARY TO THE CONTROLS) IF FARTHMOVING 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 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 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 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 BOTTOMS. 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 OR DESIGNEE SHALL BE PRESENT ONSITE DURING INSTALLATION OF THE UNDERDRAIN SYSTEM, ENGINEERED SOILS, AND FINAL GRADING/SEEDING OF INFILTRATION BASINS A & B.

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.

5. THE DEP "VISUAL INSPECTION CHECKLIST" SHOULD BE COMPLETED FOR EACH INSPECTION AND SHOULD BE AVAILABLE ON-SITE FOR INSPECTION 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

#### 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."

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 FARTH 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

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.

LIMITATIONS AND RESOLUTIONS" SECTION OF THIS E&S PLAN FOR FURTHER INFORMATION.

- 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 FOUIPMENT 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
- 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.

WITH ACCEPTED PRACTICES. EACH SEED MIXTURE SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S RATES AND INSTRUCTIONS.

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

18. PAVE THE STREETS. DO NOT INSTALL SURFACE (WEARING) COURSE UNTIL THE AREA IS STABILIZED (DEFINED AS A MINIMUM UNIFORM 70%

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. ,

LICENSED PROFESSIONAL OR DESIGNEE SHALL BE PRESENT ONSITE DURING INSTALLATION OF THE UNDERDRAIN SYSTEM, ENGINEERED SOILS, AND

21. THE OPERATOR SHALL REMOVE FROM THE SITE, RECYCLE OR DISPOSE OF ALL BUILDING MATERIALS AND WASTES IN ACCORDANCE WITH THE TO REMOVE TOPSOIL AND EXCESS "FILL" MATERIAL, IF ANY EXISTS. SPREAD A MINIMUM OF 4-8 INCHES OF TOPSOIL ON FRESHLY GRADED AREAS: 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 REFER TO THE TOPSOIL APPLICATION NOTES ON THE PLAN. FINAL PASSES DURING FINE GRADING SHALL BE MADE AT RIGHT ANGLES TO THE 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

FINAL GRADING/SEEDING OF INFILTRATION BASINS C & DETENTION BASIN D.

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

 $\square$   $\square$ 



TELD CREW: MOD, JEC BASE MAP: RAWN: CDS CDS HECKED: SAS 11/4/22 SCALE: 1"=50' ROJECT #784-22-001

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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 O 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 FOUIPMENT 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 STABILIZED IN ACCORDANCE WITH THE PERMANENT VEGETATIVE STABILIZATION SPECIFICATION
- 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 (DFFINED AS A MINIMUM UNIFORM 70% PERFINIAL 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 SOIL MIX TO THE SPECIFIED FLEVATION 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
- SEQUENCE OF CONSTRUCTION PHASE 4

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.
- 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 FILTER BAG. IMMEDIATELY AFTER TRENCHES HAVE BEEN BACKFILLED, FINE-GRADE AREA. 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 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 EARTH MOVING EQUIPMENT WILL BE FMPLOYED 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 ANCIES 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 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
- 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 SEO., 271.1 ET SEO., AND 287.1 ET SEO, 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 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.
- 8. INSTALL ROCK FILTER #1 AT THE CULVERT BENEATH JAY STREET.
- 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 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

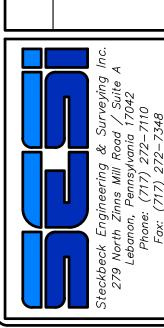
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- 16. CONSTRUCT THE PROPOSED BUILDINGS AND ATTACHED UTILITIES (ROOF DRAINS, SANITARY CONNECTIONS, WATER CONNECTIONS, ETC.) IMMEDIATELY UPON COMPLETION OF EARTH DISTURBANCE ACTIVITIES FINAL GRADE AND STABILIZE THE LOT.
- 17. FINE GRADE ANY REMAINING 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
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- 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.
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- 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
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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.
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(	REVISION	DATE	
ES	REVISED PER ARRO LETTER DATED 12/2/22	3/09/23	
	REVISED PER LCPD LETTER DATED 12/15/22	2/09/23	
	REVISED PER DEP/LCCD LETTER DATED 5/17/23 7/13/23 CD	7/13/23	CD
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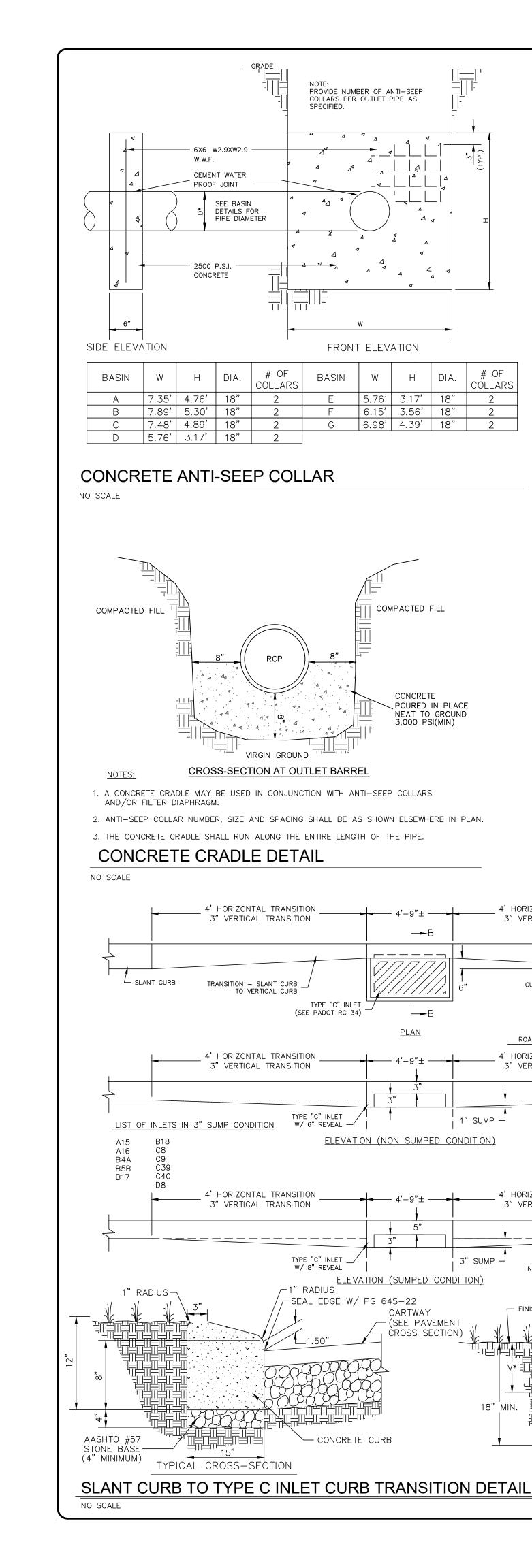
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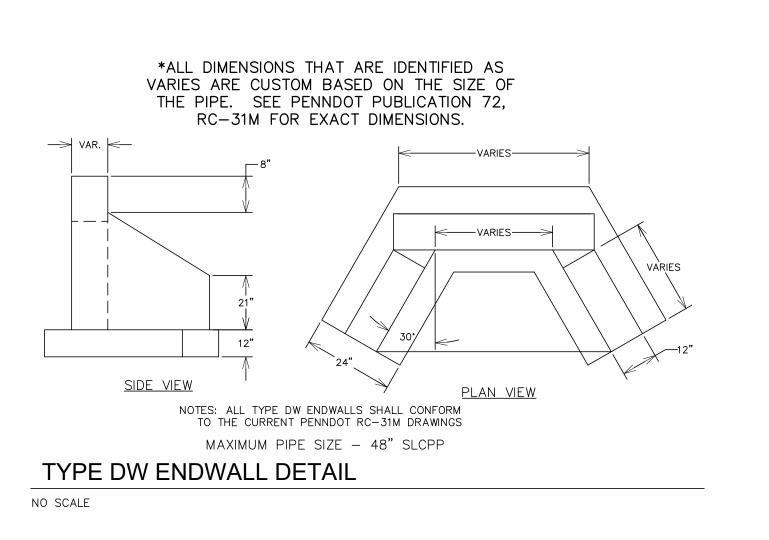


FIELD	CREW:	MOD,JEC
BASE	MAP:	JEC
DRAW	N:	CDS
DESIG	N:	CDS
CHEC	KED:	SAS
DATE:		11/4/22
SCALE	E: 1"=5	0'
PROJE	ECT #78	34-22-001



29 OF 76 SHFF





ALL PIPES THAT EXCEED 15% IN SLOPE SHALL BE

PIPE ANCHORS SHALL BE SPACED AT 35' O.C.

3/6" GALVANIZED CABLE SECURED IN VALLEY BETWEEN

CORRUGATIONS, USE RUBBER HOSE OR RUBBER STRIP

1/2" X 30" HELIX ANCHOR INSTALLED ON EITHER SIDE

NO SCALE

(SEE NOTE 13)

PA DOT TYPE 'C' INLET

- 1 CUBIC FOOT OF
AASHTO #57 STONE AT
EACH WEEP HOLE

PA DOT TYPE 'M' INLET

PADOT STORMWATER INLETS (TYPE C & M)

—8" CURB REVEAL SEE PLANS.

—BICYCLE SAFE GRATE (SEE DETAIL)

AS NEEDED

TYPE C INLET CONCRETE TOP

UNIT - SEE NOTES, THIS DETAIL

GRADE ADJUSTMENT RING,

TYPE M INLET CONCRETE

BICYCLE SAFE GRATE

(SEE DETAIL)

-SUBGRADE LINE

WEEP HOLE 2" DIA.

(SEE NOTE 13)

- EACH SIDE

─ GRADE ADJUSTMENT

INLET BOX (SIZE VARIES

TO ACCOMMODATE PIPE)

TO PROTECT PIPE FROM GOUGING BY CABLE

ANCHORED AS SPECIFIED ON THIS DETAIL.

AASHTO #8 COARSE AGGRAGATE

- ¾6" GALVANIZED CABLE CLIPS

OF PIPE AT BOTTOM OF TRENCH

UNDISTURBED ROCK OR SOIL

OF AASHTO #57 STONE AT EACH

NO SCALE

TYPICAL STEEP SLOPE PIPE ANCHOR ASSEMBLY

ROADWAY WIDTH

5" REVEAL ON

5" REVEAL ON

SLANT CURB

NOTE: CONTRACTOR TO ADJUST STREET GRADE IN ORDER

— CLASS A CONCRETE

SECTION B-B TYPE-C INLET

TO PROVIDE 3" SUMP AT INLET.

SLANT CURB

NO SCALE

4' HORIZONTAL TRANSITION

3" VERTICAL TRANSITION

CURB LINE -

ROADWAY CENTERLINE

4' HORIZONTAL TRANSITION

3" VERTICAL TRANSITION

4' HORIZONTAL TRANSITION

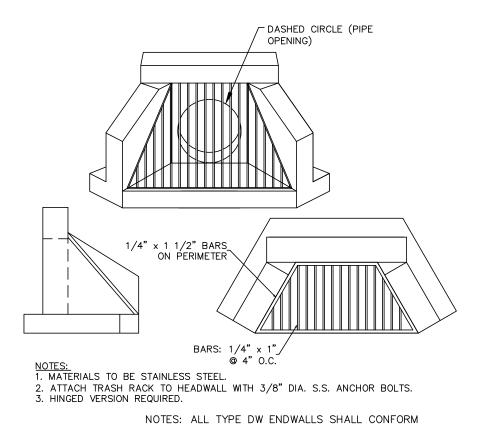
3" VERTICAL TRANSITION

- FINISHED GRADE

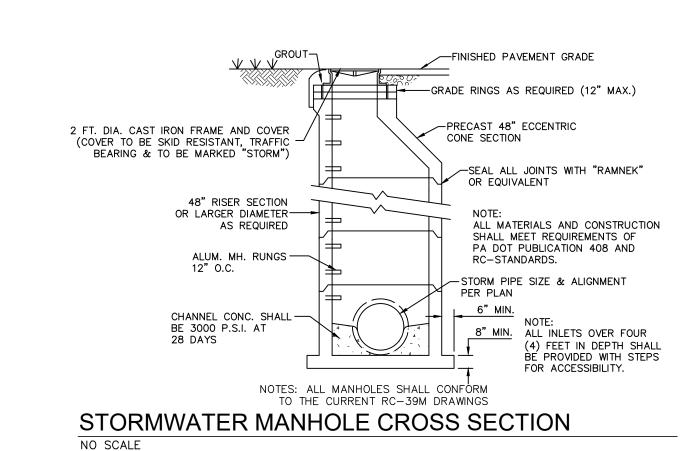
18" MIN.

-STORM SEWER PER PLAN

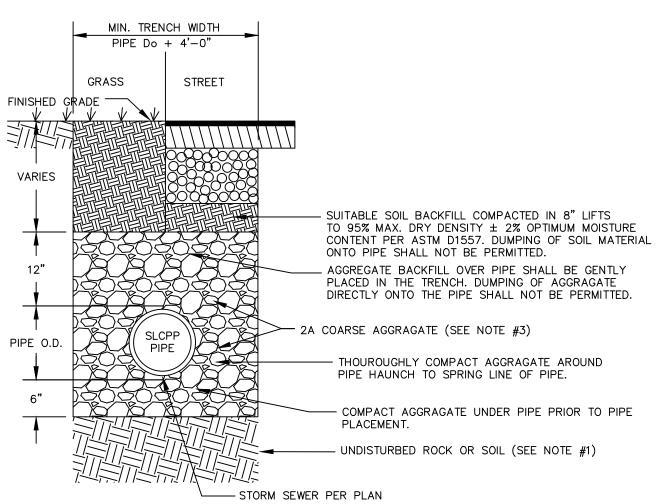
COLLARS



NOTES: ALL TYPE DW ENDWALLS SHALL CONFORM TO THE CURRENT PENNDOT RC-31M DRAWINGS TYPE DW ENDWALL WITH TRASH RACK DETAIL



— GEOTEXTILE FABRIC SURROUNDING STONE



NOTE: 1. USE #2A MODIFIED AGGREGATE COMPACTED IN 4 INCH LIFTS AS NECASSARY TO FILL ANY EXCAVATED UNSUITABLE MATERIALS. 2. ALL PIPE INSTALLATIONS SHALL HAVE STRAIGHT ALIGNMENTS BETWEEN DRAINAGE 3. USE NO. 2A STONE FOR OUTLET PIPES IN DETENTION BASIN EMBANKMENTS. 4. ALL TRENCHING SHALL CONFORM TO THE CURRENT PENNDOT RC-30M DRAWINGS

TYPICAL TRENCH DETAIL FOR SLCPP INSTALLATION

**INLET NOTES:** 

INSTALLATION DETAILS.

RC-45M.

1. CONCRETE TOP UNITS WHICH SEAT THE GRATE DIRECTLY WITHIN THE UNIT SHALL UTILIZE 1-1/4" X 1-1/4" ANGLES EMBEDDED IN THE CONCRETE AS A BEARING AREA FOR THE

2. THIS STANDARD DEPICTS THE SHAPE AND DIMENSIONS REQUIRED FOR UNIFORMITY AND COMPATIBILITY. IT IS NOT INTENDED TO SHOW THE DETAILS REQUIRED FOR

IN PA BULLETIN NO. 15 WILL BE PERMITTED.

MANUFACTURING AND HANDLING. ONLY THOSE ITEMS WHICH ARE SUPPLIED BY AN APPROVED MANUFACTURER AS LISTED

. WHENEVER AN INLET IS REQUIRED WITHIN A MOUNTABLE

CURB SECTION, A TYPE M INLET WILL BE LOCATED ADJACENT TO THE BACK EDGE OF THE CURB AND WILL BE FLUSH WITH

4. THE SELECTION OF COMPONENTS TO ACHIEVE A SPECIFIED

6. ALL INLETS OVER FOUR (4) FEET IN DEPTH SHALL BE PROVIDED WITH STEPS FOR ACCESSIBILITY.

7. GRADE ADJUSTMENT RINGS MAY BE OF MASONRY OR

9. REFER TO PA DOT BUREAU OF DESIGN STANDARDS

10. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH PADOT PUBLICATION 408, SECTION 605 & STANDARDS FOR

ROADWAY CONSTRUCTION, RC-45M. CONTRACTOR SHALL

VERIFY INLET BOX SIZING BASED ON PIPE SIZES AND

AND INLET GRATES AND FRAMES SHALL CONFORM TO CURRENT PENNDOT RC-45M STANDARDS.

ALIGNMENT PRIOR TO ORDERING PRECAST STRUCTURES.

11. ALL DRAINAGE STRUCTURES SHALL HAVE POURED—IN—PLACE CONCRETE CHANNEL BOTTOM, UNLESS

12. ALL STORMWATER INLET BOXES, CONCRETE TOP UNITS,

13. ALL INLETS SHALL BE CONSTRUCTED WITH CONCRETE FLOW CHANNELS CAST IN—PLACE IN THE BOTTOM OF EACH

INLET, EXCEPT THE LAS TWO INLETS BEFORE A STORM SEWER OUTFALL SHALL BE CONSTRUCTED WITH A MINIMUM

12" SUMP TO CATCH DEBRIS. INLET SUMPS SHALL HAVE WEEPHOLES.

PRECAST CONCRETE CONSTRUCTION, AS APPROVED.

8. INLET BOX SHALL BE PRECAST CONCRETE.

THE PAVEMENT SURFACE. SEE PA DOT RC-65 FOR

INLET TYPE IS THE CONTRACTOR'S RESPONSIBILITY.

5. PIPES SHALL BE LOCATED AS REQUIRED.

### \*\*\*ANY ROCK WITHIN TWO (2) FEET OF THE BOTTOM OF THE ENGINEERED SOILS SHALL BE OVEREXCAVATED AND REPLACED WITH UNCOMPACTED NATIVE SOILS. **INFILTRATION BASIN BOTTOM** TYPICAL CROSS SECTION DETAIL

\*\*SAND USED IN ENGINEERED SOILS SHALL BE SILICA SAND MEETING THE

SPECIFICATIONS IDENTIFIED IN AASHTO M-6 OR ASTM C-33 FOR SILICA CONCRETE

SAND. CALCIUM CARBONATE, MAGNESIUM CARBONATE, AND/OR DIABASE

SUBSTITUTIONS ARE <u>NOT</u> ACCEPTABLE. NEITHER STONE DUST NOR #10

- 2-3 INCHES OF COMPOST

PLACED TO FINAL GRADE (DO NOT COMPACT)

- ENGINEERED SOIL MIX

- 6" PERFORATED

NO. 57 STONE BED

UNDERDRAIN W/ AASHTO

(DO NOT COMPACT)

UNCOMPACTED NATIVE SOIL

BEDROCK OR LIMITING ZONE

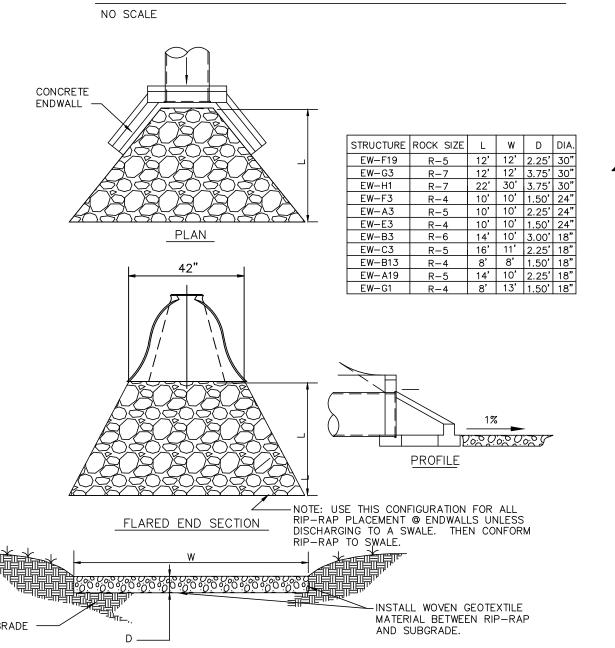
VERIFIED BY GEOTECHNICAL ENGINEER.

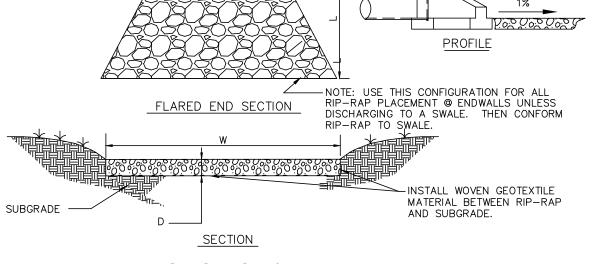
\*SHALL BE LESS THAN 20% CLAY BY VOLUME, TO BE

SCREENINGS MAY BE SUBSTITUTED FOR SAND.

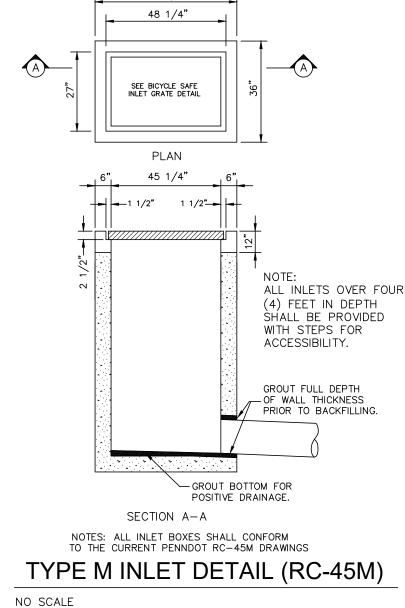
25% COMPOST

25% SAND\*\*

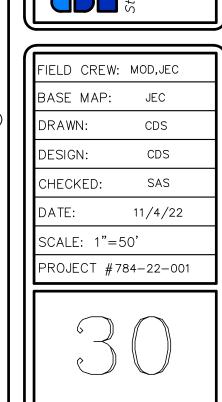




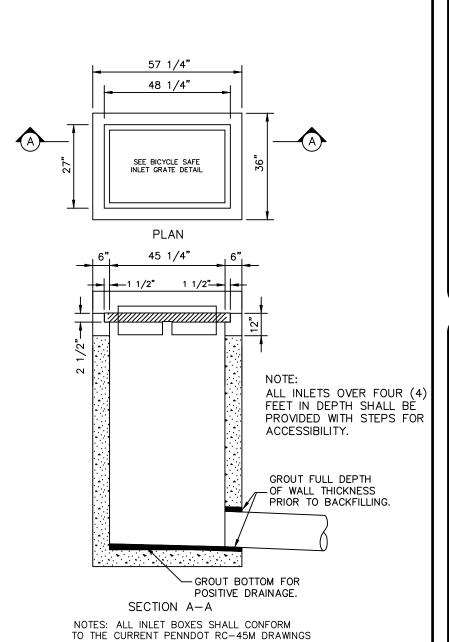
FLARED END SECTION/ENDWALL RIP RAP DETAIL



57 1/4"

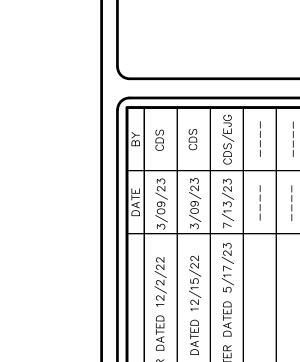


30 OF 76 SHEETS



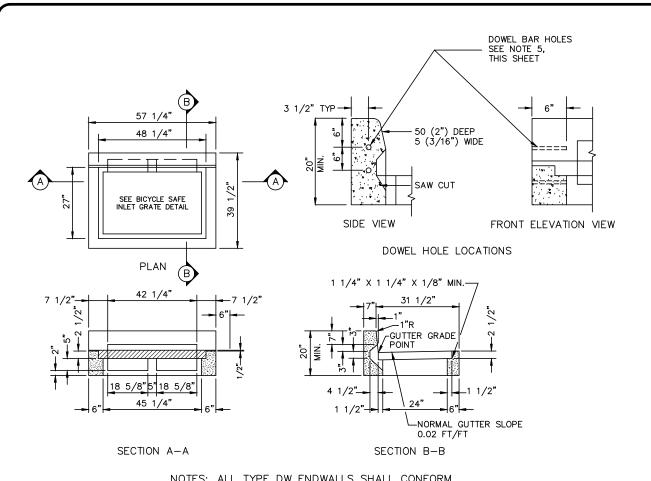
TYPE C INLET DETAIL (RC-45M)

NO SCALE



REVISION	DATE	Β
REVISED PER ARRO LETTER DATED 12/2/22	3/09/23	CDS
REVISED PER LCPD LETTER DATED 12/15/22	3/09/23	CDS
REVISED PER DEP/LCCD LETTER DATED 5/17/23 7/13/23 CDS/EJ	7/13/23	CDS/EJ

POST CONSTRUCTION STORMWATER MANAGEMENT DETAILS	PRELIMINARY SUBDIVISION For THE ESTATES AT HEARTHSIDE NORTH LEBANON TOWNSHIP
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NOTES: ALL TYPE DW ENDWALLS SHALL CONFORM TO THE CURRENT PENNDOT RC-45M DRAWINGS

- 1. THIS DETAIL DEPICTS THE SHAPE AND DIMENSIONS REQUIRED FOR UNIFORMITY AND COMPATIBILITY. PERMIT ONLY TOP UNITS SUPPLIED BY A MANUFACTURER LISTED IN BULLETIN 15. FOR DEVIATIONS OR MODIFICATIONS OF THE STANDARDS SUBMIT SHOP
- CAST-IN-PLACE TOP UNITS MAY BE MONOLITHIC WITH THE INLET BOX. 2. CAST-IN-PLACE TOP UNITS MAY BE MONOCITHIC WITH THE INLET BOX.

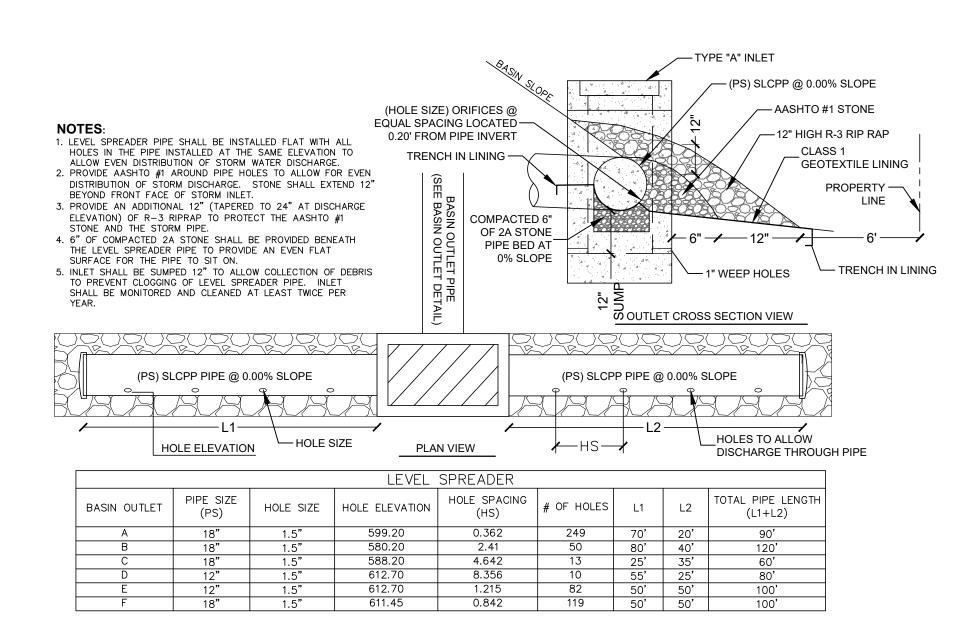
  3. PROVIDE ANGLES EMBEDDED IN THE CONCRETE AS A BEARING AREA FOR THE GRATE FOR ALL TOP UNITS WHICH SEAT THE GRATE DIRECTLY WITHIN THE UNIT.

  4. PLACE A TYPE M INLET ADJACENT TO THE BACK EDGE OF THE CURB, FLUSH WITH THE PAVEMENT SURFACE, WHEN REQUIRED WITHIN A CONCRETE MOUNTABLE CURB SECTION.
- 5. DOWEL TYPE C INLET TOP UNITS WITH 2-\*25 x 300 (2-#8 x 1'-0") DOWEL BARS AND PLACE PREMOLDED EXPANSION JOINT 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
- PENNDOT TYPE "C" INLET TOP

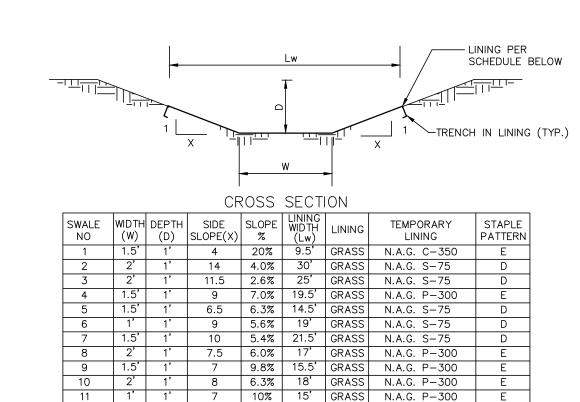
RESULT IN INTERNAL BOTTOM DIMENSIONS THAT VERY TO A MAXIMUM OF 25 MM (1").

NO SCALE



LEVEL SPREADER DETAIL

NO SCALE



12 1' 1' 15 3.0% 31' GRASS N.A.G. S-75

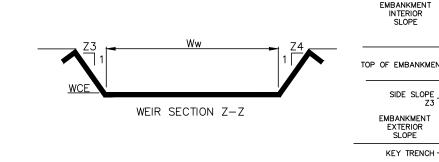
13 1' 1' 3 33% 7' GRASS N.A.G. P-300 14 2' 1' 3 4.0% 8' GRASS N.A.G. S-75

NO SCALE

STORMWATER SWALE DETAIL

NO SCALE

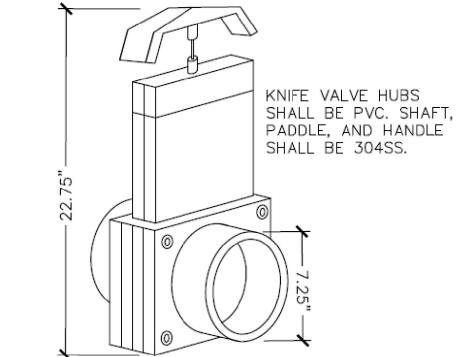
∕-NON-WOVEN TRENCH END INTO INTERIOR GEOTEXTILE SLOPE PER MANUFACTURER TRENCHING DETAILS KEY CHANNEL DEPTH LENGTH WIDTH RIPRAP RIPRAP THICK. WIDTH ELEV WCE 568.25 | 567.00 | 425 | C350 E 3 1.25 7 N/A N/A N/A B 3 3 591.25 590.00 175 C350 C 3 3 598.25 597.00 100 C350 E 3 1.25 7 N/A N/A N/A D | 3 | 3 | 618.25 | 617.00 | 25 | C350 | E | 3 | 1.25 | 7 | N/A | N/A | N/A E | 3 | 3 | 618.25 | 617.00 | 80 | C350 | E | 3 | 1.25 | 7 | N/A | N/A | N/A F | 3 | 3 | 616.25 | 615.00 | 350 | C350 | E | 3 | 1.25 | 7 | N/A | N/A | N/A | G 3 3 618.35 617.00 150 C350 E 3 1.35 7 N/A N/A N/A



-ANCHOR TRENCH -EMERGENCY SPILLWAY

**BASIN EMERGENCY SPILLWAY DETAIL** 

NO SCALE



PVC KNIFE VALVE SHALL BE MANUFACTURED BY THE FOLLOWING:

1. VALTERRA PRODUCTS, LLC MISSION HILLS, CALIFORNIA

PHONE: 818-898-1671 FAX: 818-361-5389

OR APPROVED EQUAL

NO SCALE

6" PVC KNIFE VALVE DETAIL

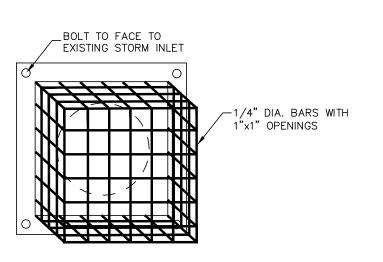
NOTES:
1. GRATES SHOWN FIT 24"X45 1/4" PRECAST TOP UNITS AND TYPES M & C STRUCTURAL

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

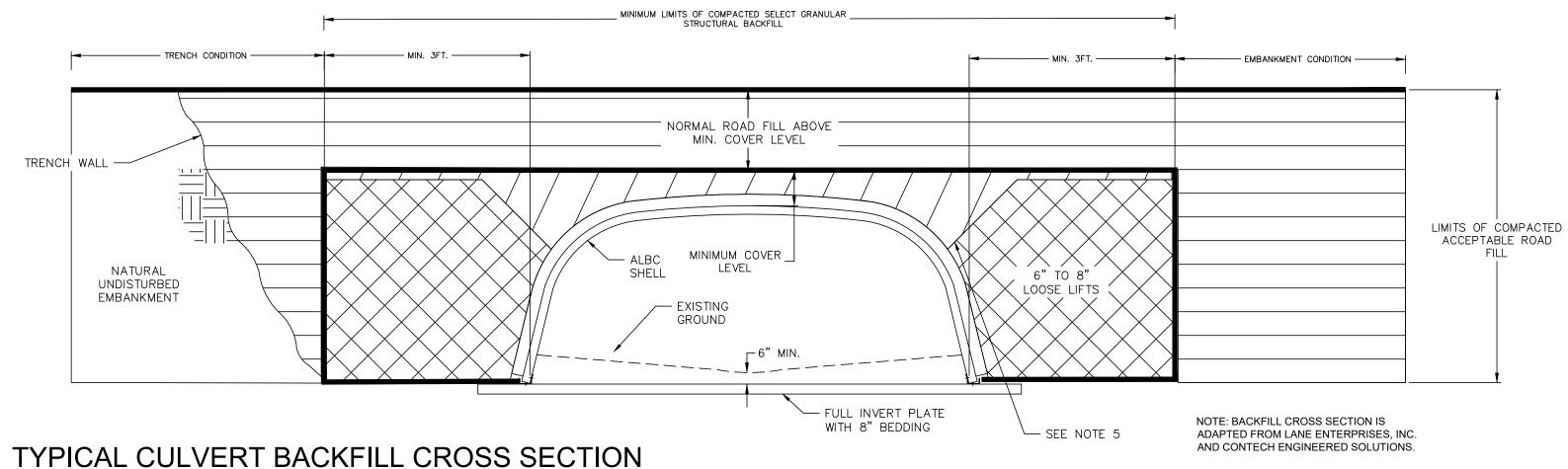
NO SCALE

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

STRUCTURAL STEEL GRATE-BICYCLE SAFE



STORM INLET TRASH RACK DETAIL



NOT TO SCALE

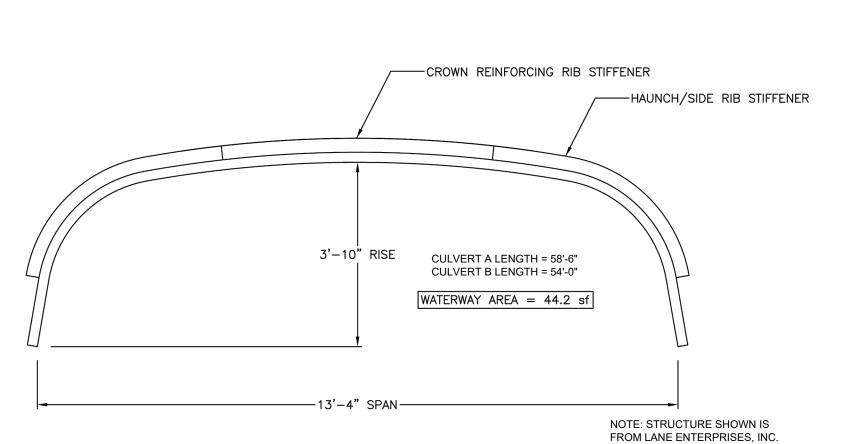
SELECT GRANULAR STRUCTURAL BACKFILL LIMITS. (PENNDOT 2A)

INITIAL LIFTS OVER CROWN OF STRUCTURE AS INDICATED BY SHADED AREA TO BE COMPACTED TO REQUIRED DENSITY WITH HAND OPERATED EQUIPMENT OR WITH SMALL TRACTOR (D-4 OR SMALLER) DRAWN EQUIPMENT.

1. ALL SELECT GRANULAR BACKFILL TO BE PLACED IN A BALANCED FASHION IN THIN LIFTS (6"-8" LOOSE TYPICALLY) AND COMPACTED TO 90 PERCENT DENSITY PER AASHTO T180. 2. COMPLETE AND REGULAR MONITORING OF THE ALUMINUM BOX CULVERT SHAPE IS NECESSARY DURING ALL BACKFILLING OF THE

3. PREVENT DISTORTION OF THE SHAPE AS NECESSARY BY VARYING COMPACTION METHODS AND EQUIPMENT. 4. TRENCH WIDTH OTHER THAN 3FT. AS SHOWN ABOVE SHALL BE BY DIRECTION OF THE ENGINEER OF RECORD

5. SWITCH TO PLACING SELECT GRANULAR BACKFILL IN RADIAL LIFTS AT APPROXIMATELY 75% OF THE RISE OF THE STRUCTURE.



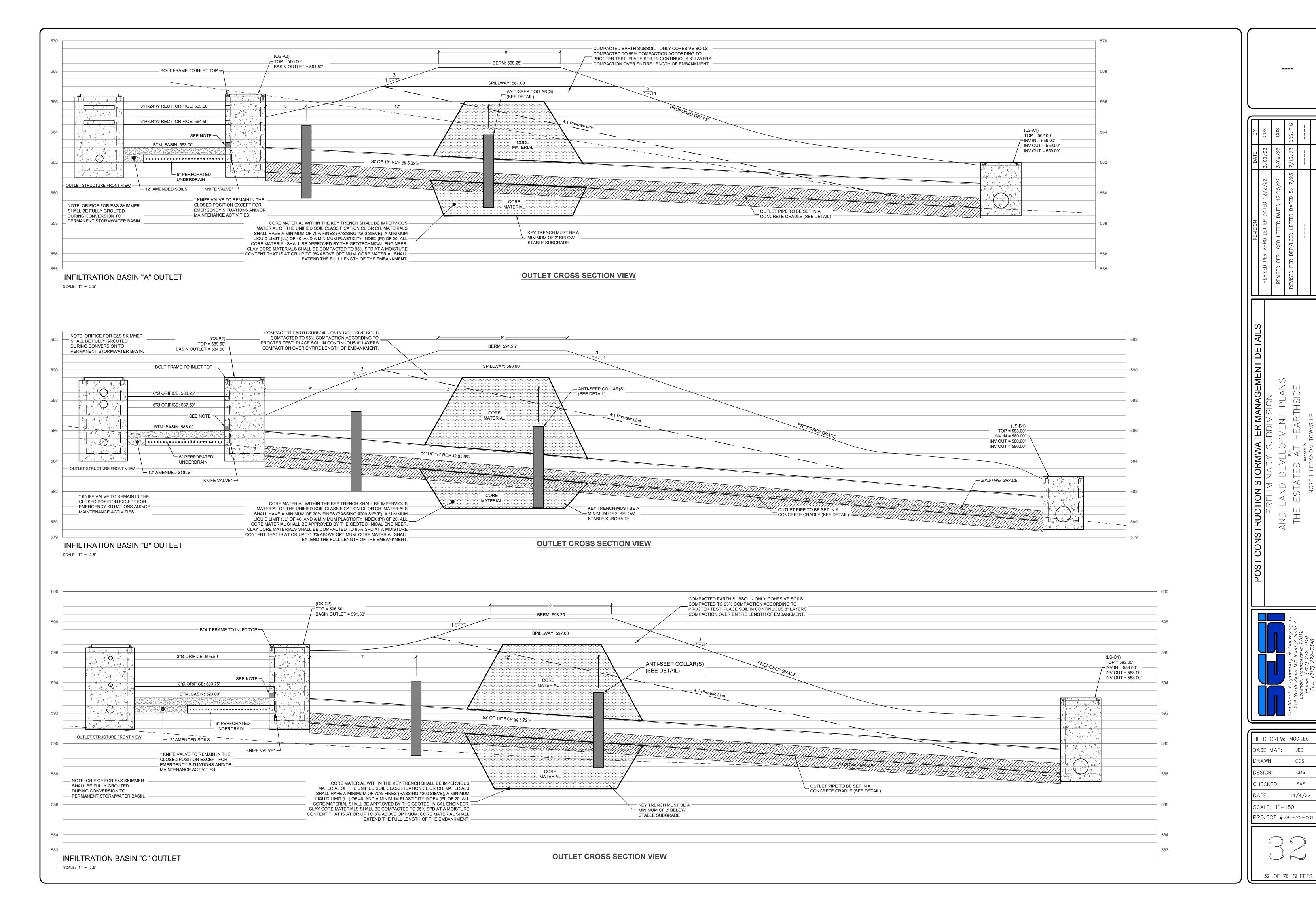
CULVERTS A & B - ALUMINUM STRUCTURAL PLATE BOX CULVERT NO SCALE

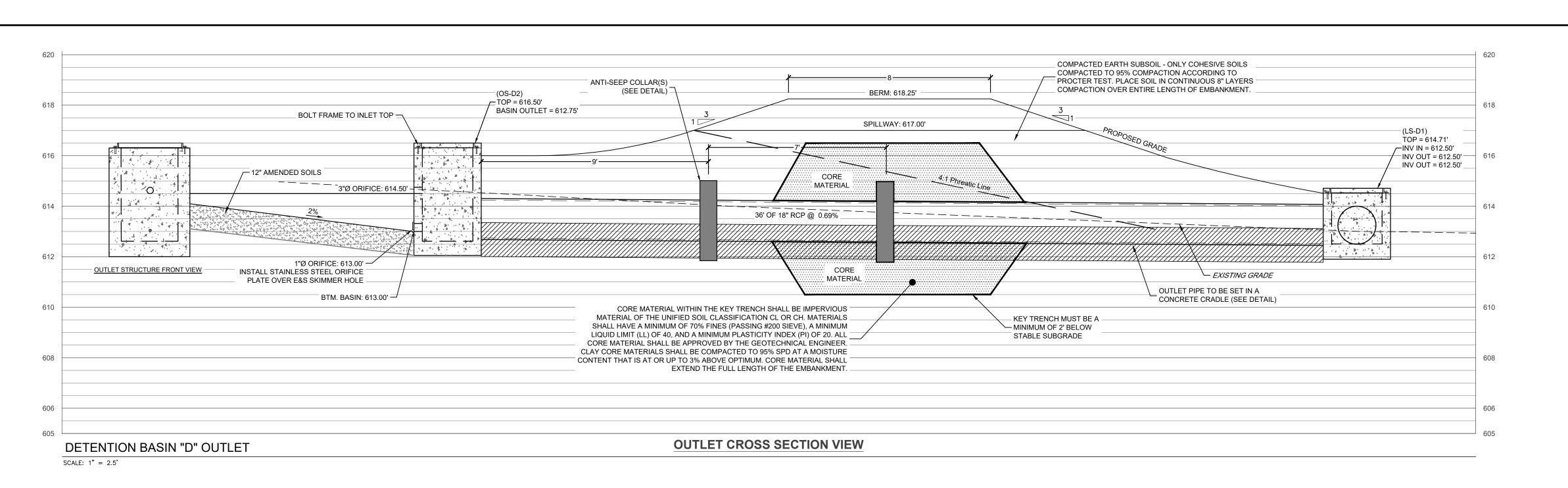
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BASE MAP:	JEC
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DATE:	11/4/22
SCALE: 1"=	50'
PROJECT #7	84-22-001

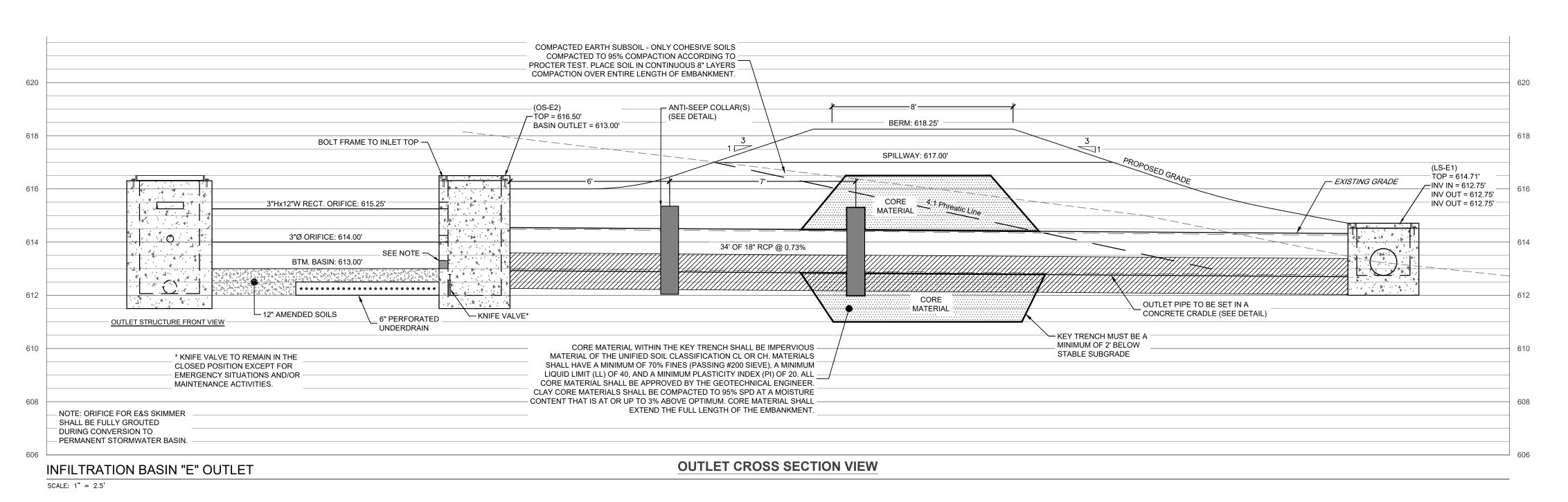
MANAGEMENT

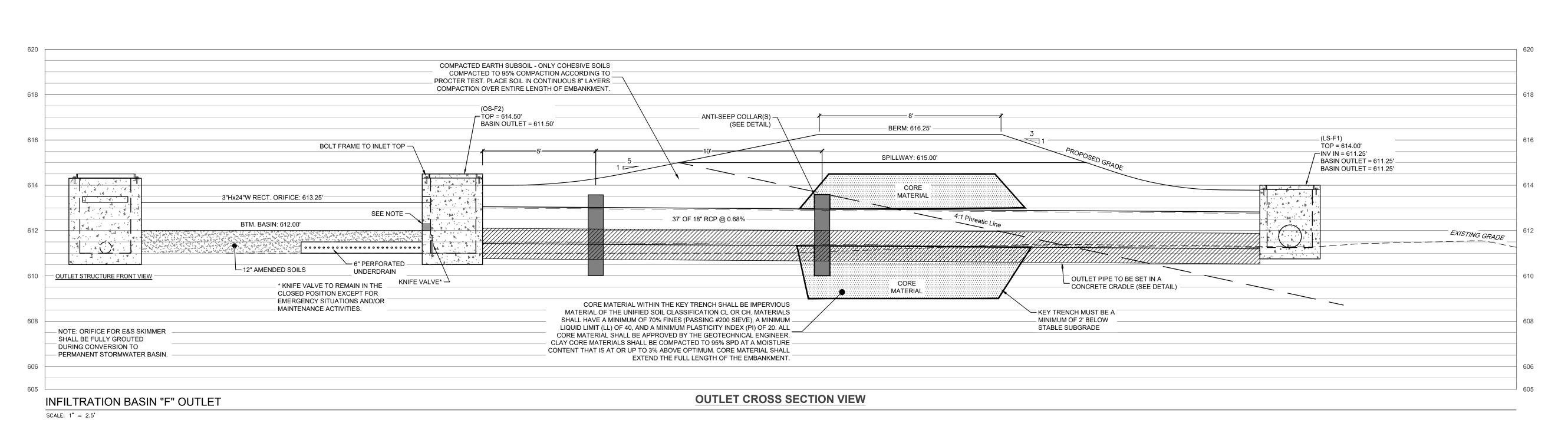
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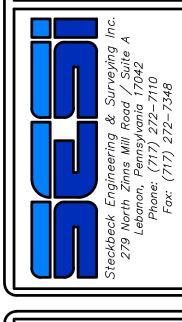




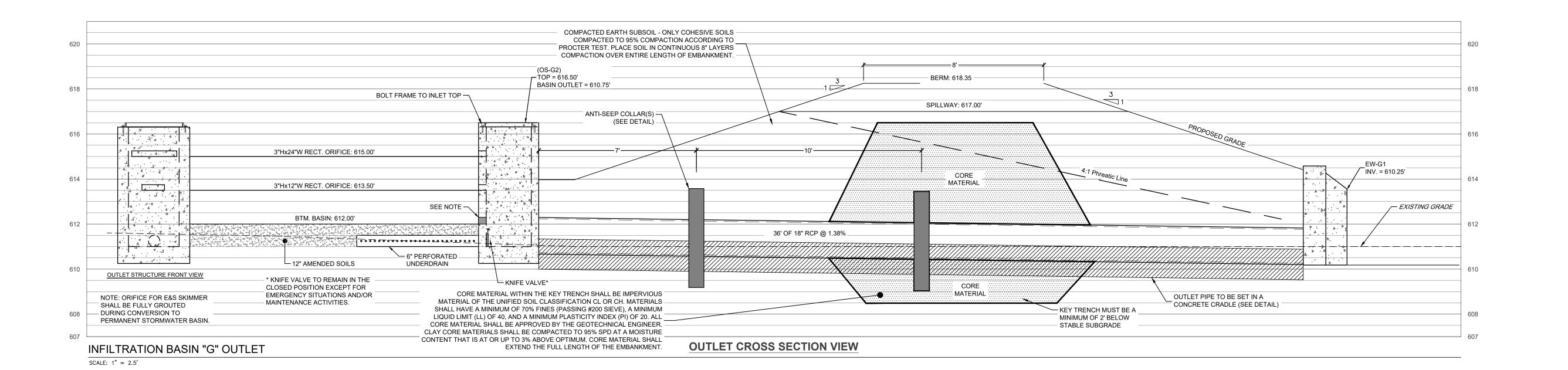


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BY CDS
DATE 3/09/23
REVISION REVISED PER ARRO LETTER DATED 12/2/22

POST CONSTRUCTION STORMWATER MANAGEMENT DETA PRELIMINARY SUBDIVISION AND LAND DEVELOPMENT PLANS For	A HEARTHSIDE	located in
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SCALE: 1"=150'		
PROJECT #78	34-22-001	
33 OF 76	S SHEETS	



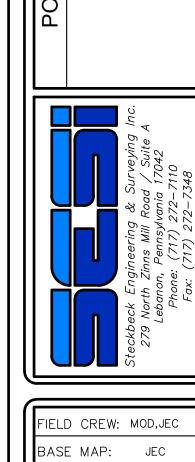
POST CONSTRUCTION STORMWATER MANAGEMENT DETAI

PRELIMINARY SUBDIVISION

AND LAND DEVELOPMENT PLANS

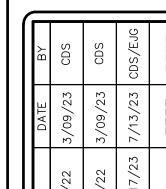
For THE ESTATES AT HEARTHSIDE

located in



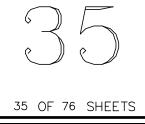
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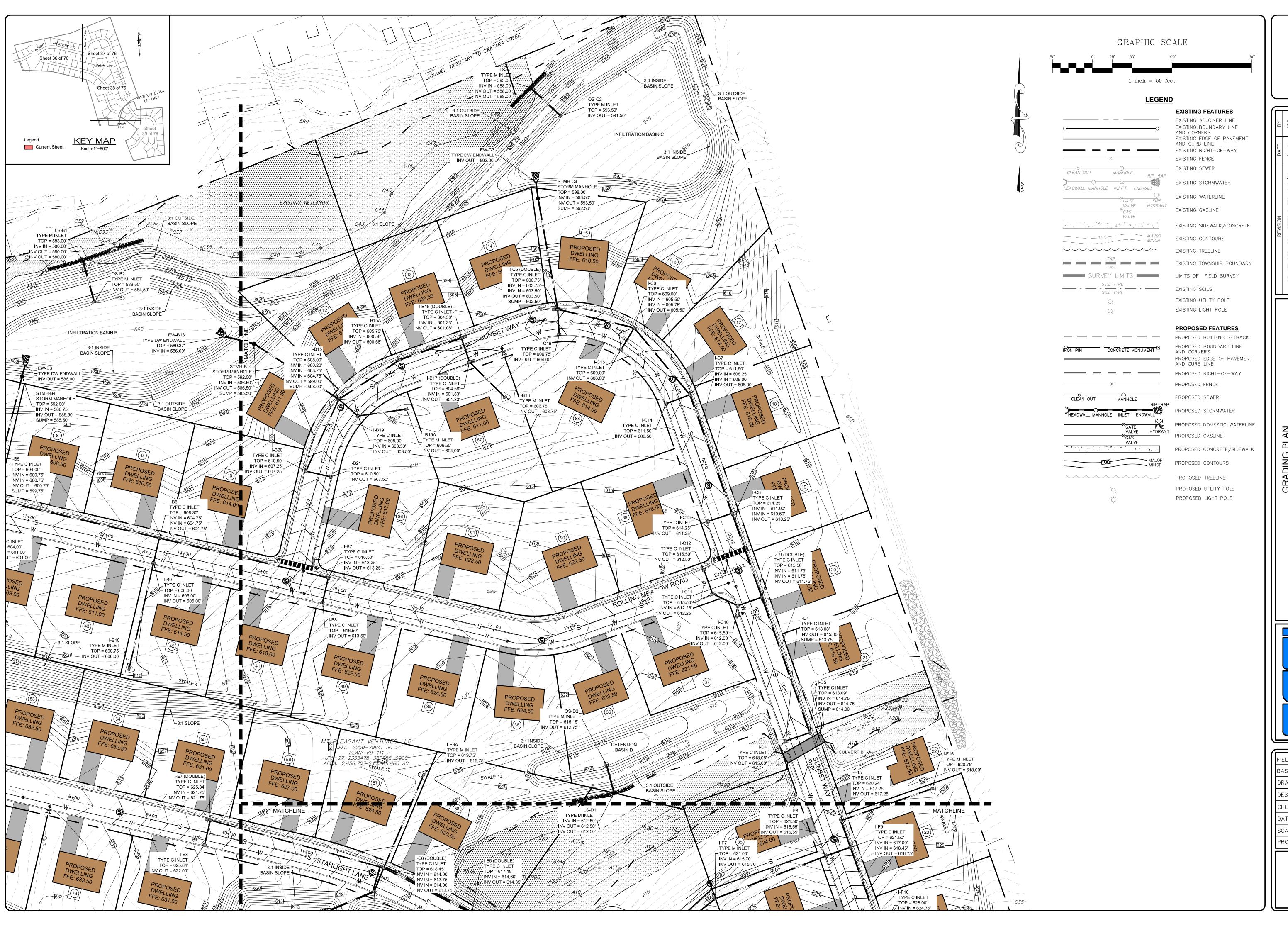


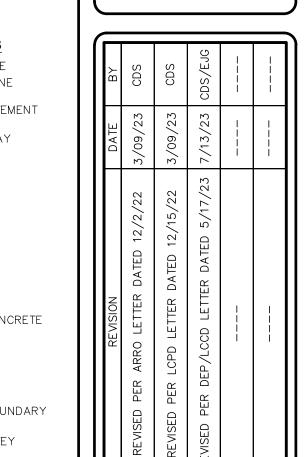


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PROJECT #78	84-22-001



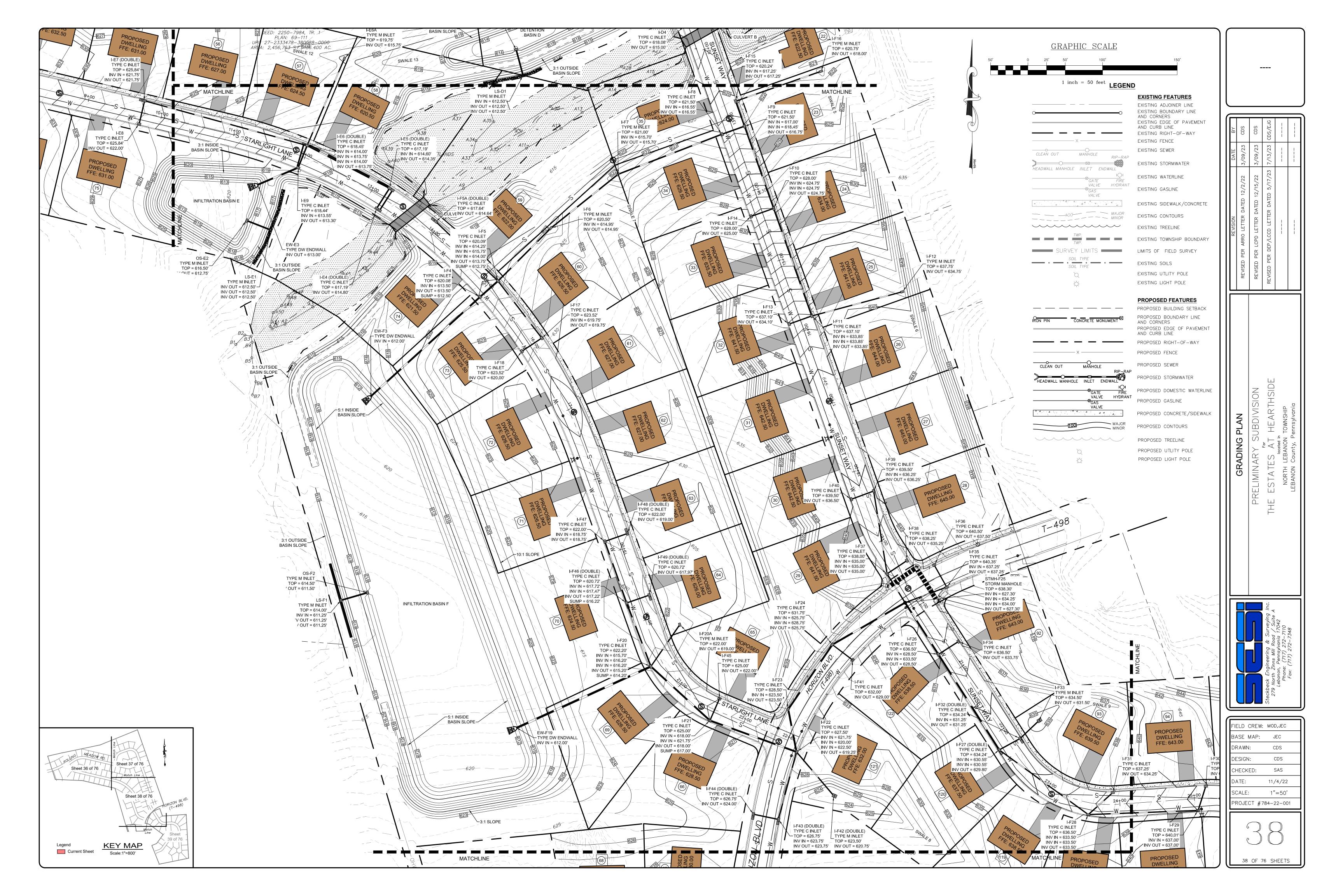






Steckbeck Engineering & Surveying Inc. 279 North Zinns Mill Road / Suite A Lebanon, Pennsylvania 17042
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37 OF 76 SHEETS		







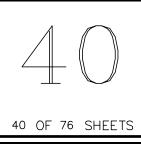
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PROJE	ECT #78	34-22-001



WATER MAIN NOTES:

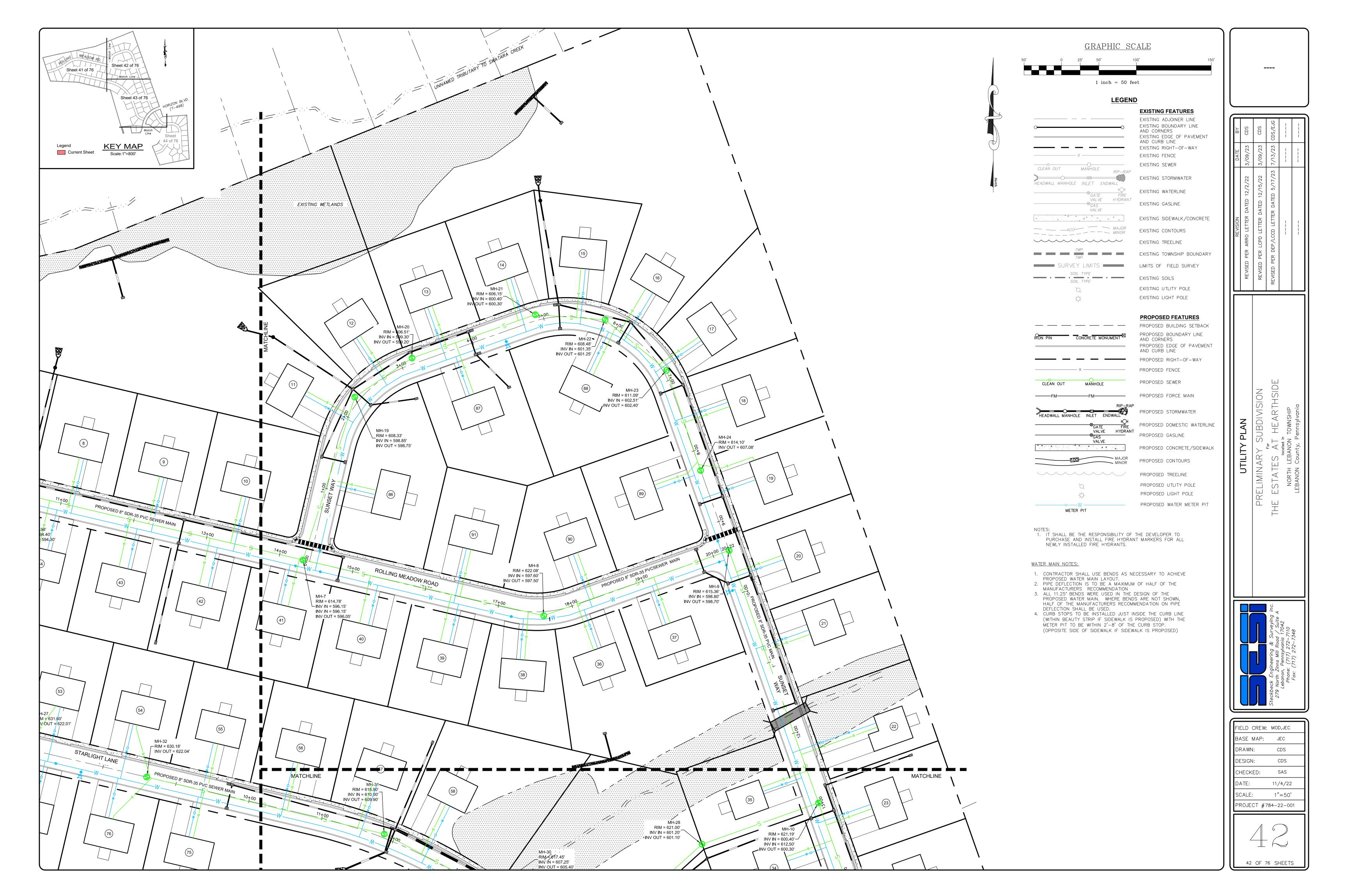
1. CONTRACTOR SHALL USE BENDS AS NECESSARY TO ACHIEVE

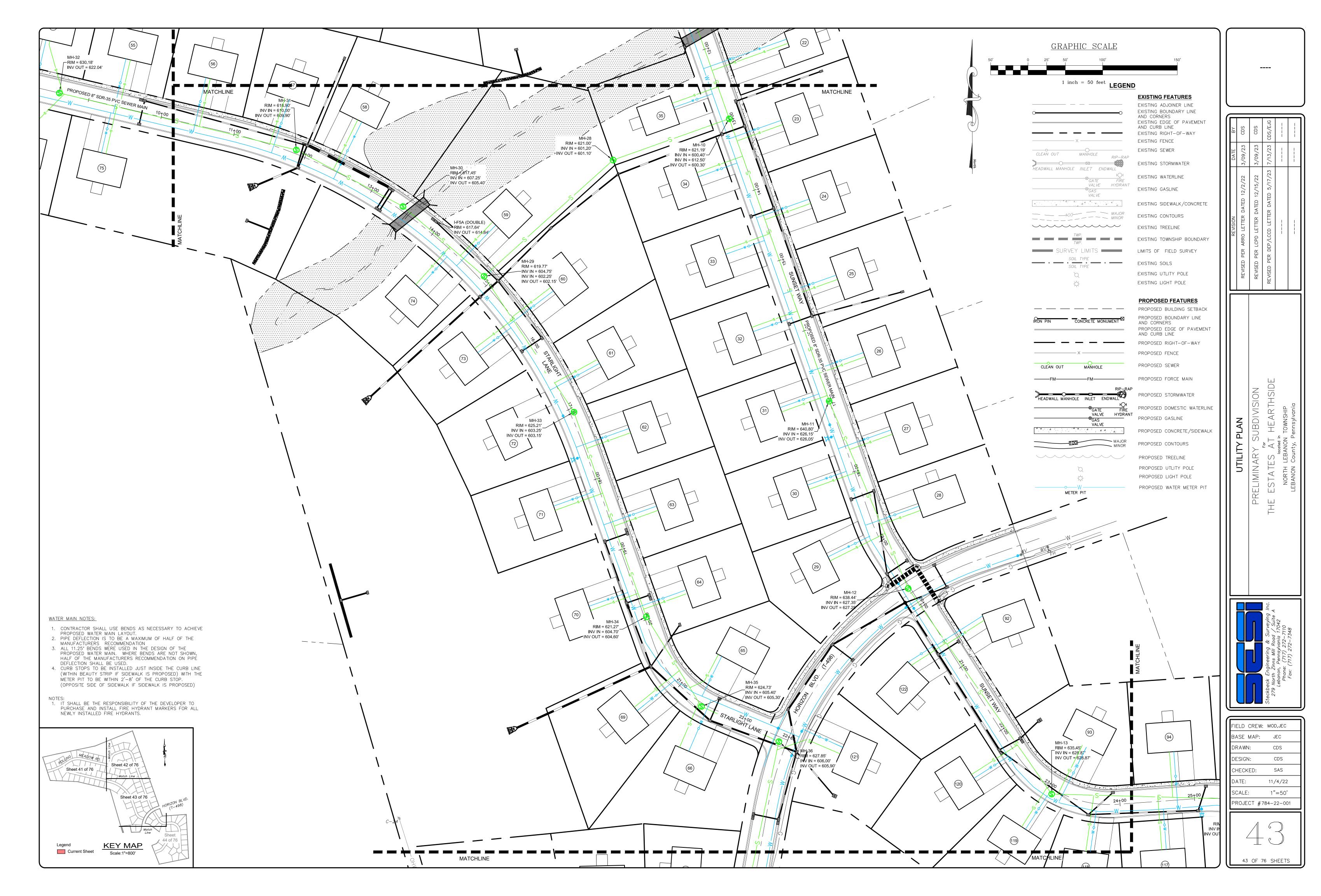
2. PIPE DEFLECTION IS TO BE A MAXIMUM OF HALF OF THE MANUFACTURERS RECOMMENDATION 3. ALL 11.25° BENDS WERE USED IN THE DESIGN OF THE

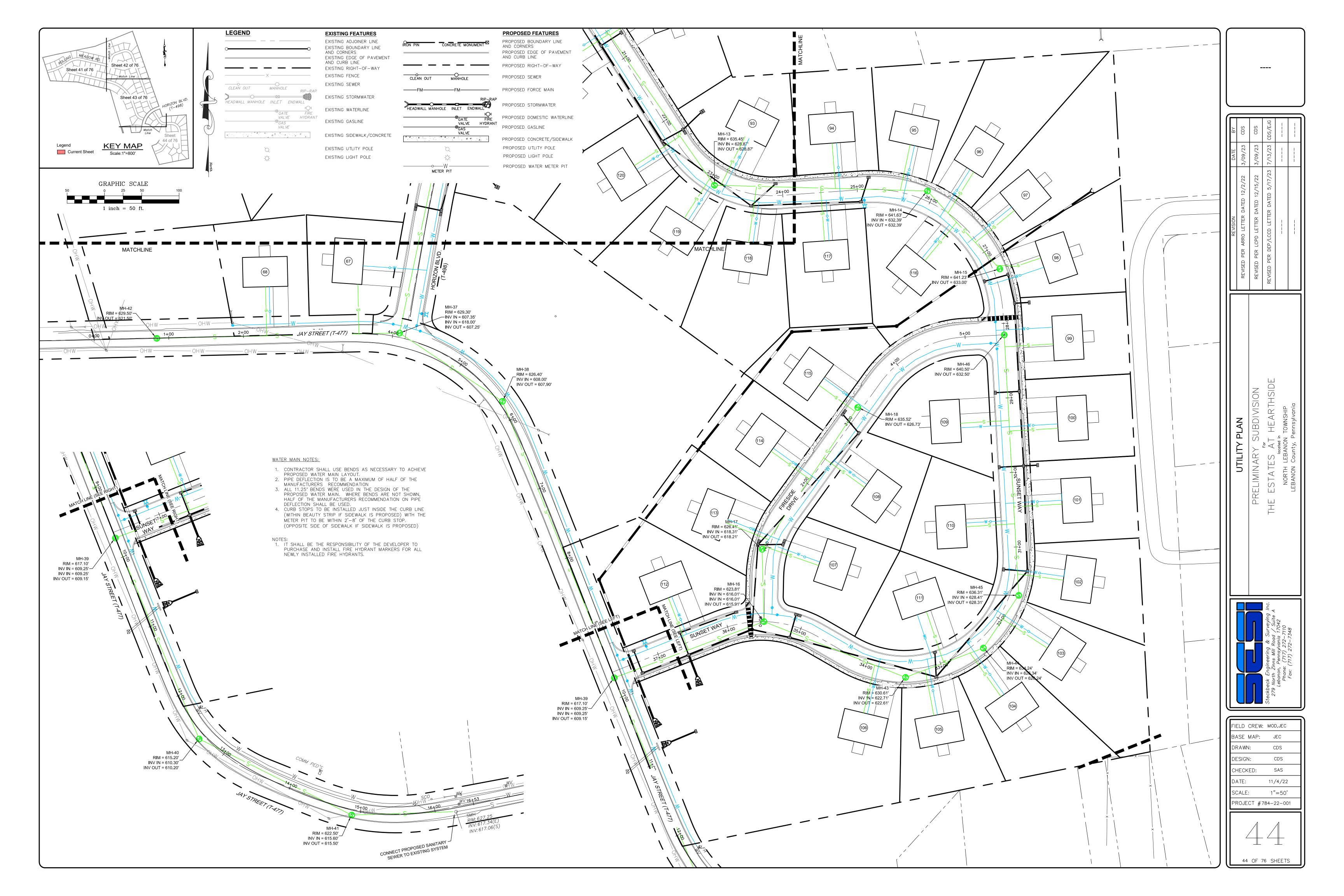
4. CURB STOPS TO BE INSTALLED JUST INSIDE THE CURB LINE (WITHIN BEAUTY STRIP IF SIDEWALK IS PROPOSED) WITH THE METER PIT TO BE WITHIN 2'-8' OF THE CURB STOP.

1. IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER TO PURCHASE AND INSTALL FIRE HYDRANT MARKERS FOR ALL NEWLY INSTALLED FIRE HYDRANTS.

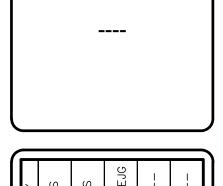












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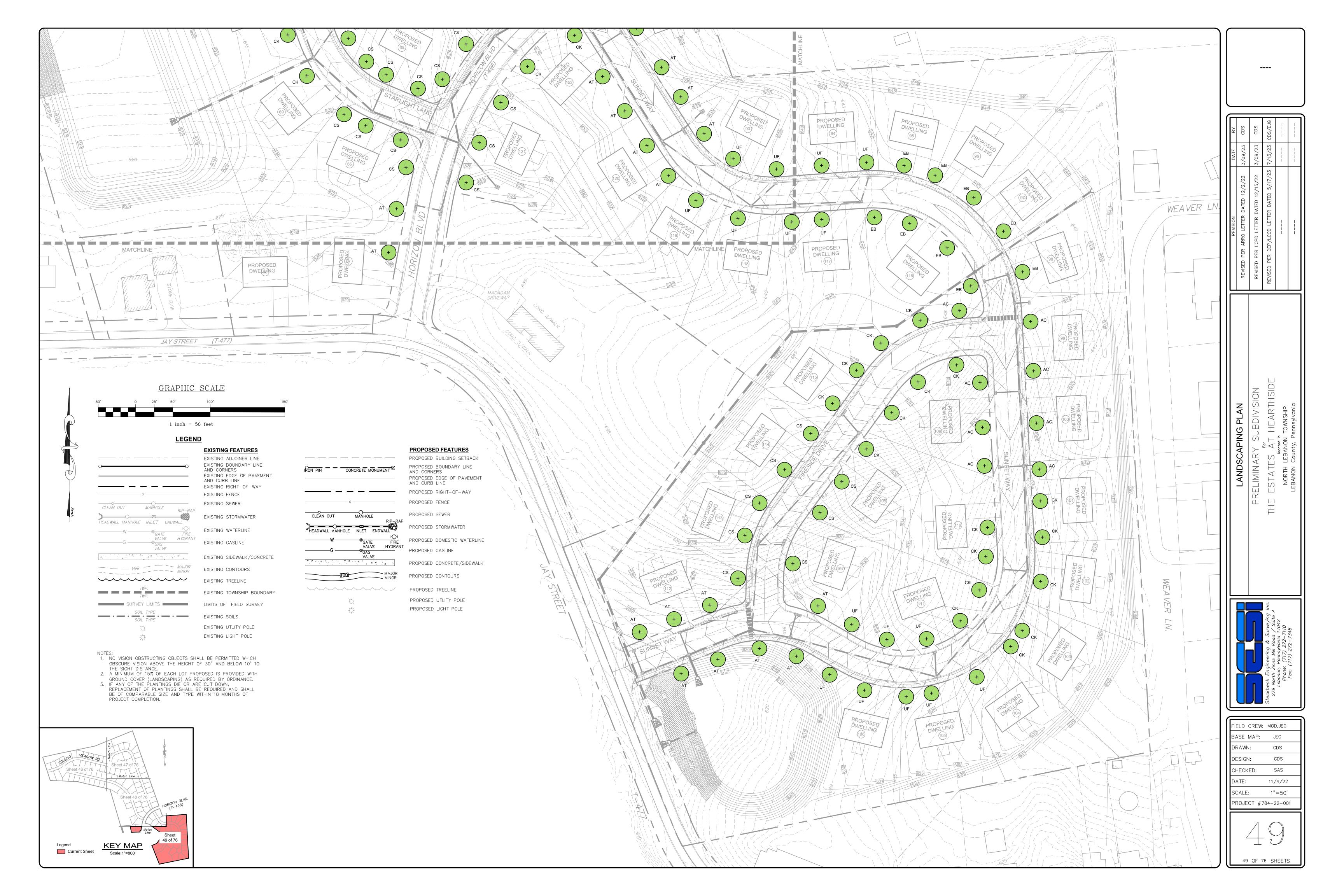
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PROJECT #78	34-22-001

45 OF 76 SHEETS

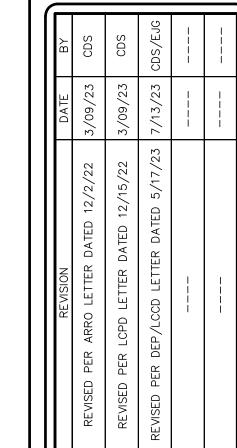










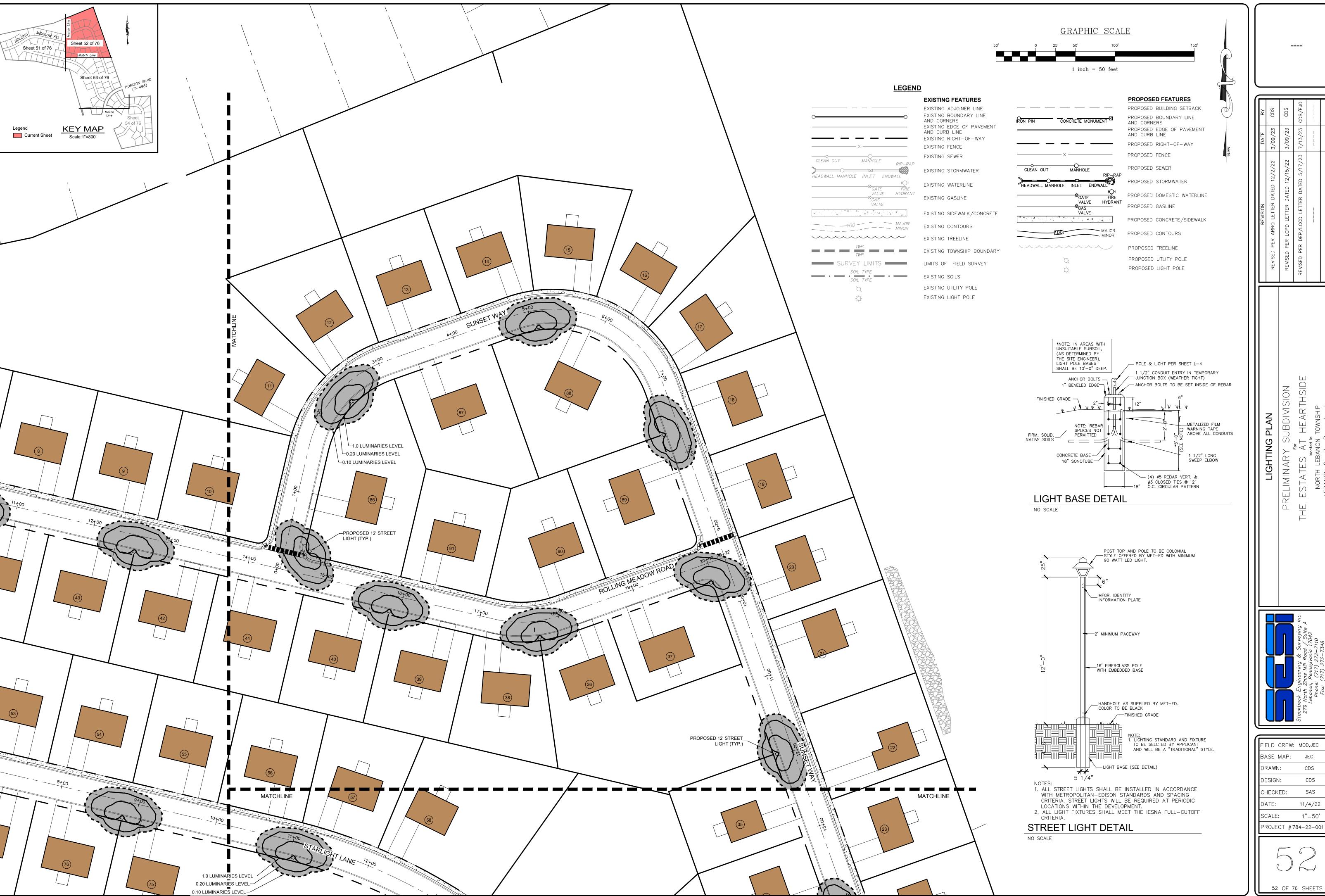


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Phone: (717) 272-7318

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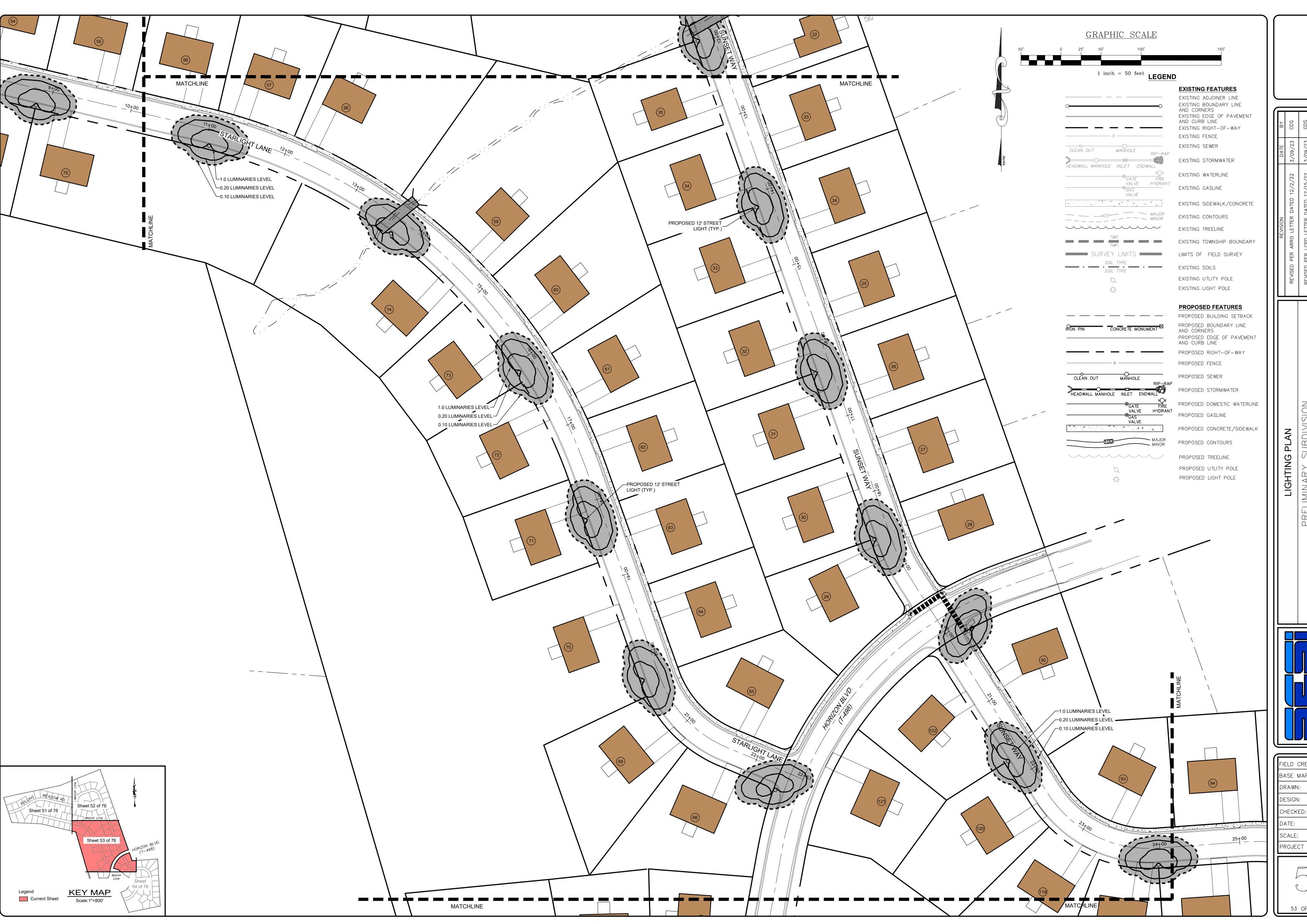


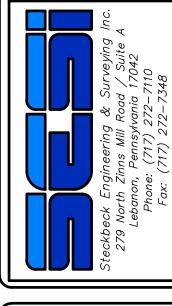


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REVISION	REVISED PER ARRO LETTER DATED 12/2/22	REVISED PER LCPD LETTER DATED 12/15/22	REVISED PER DEP/LCCD LETTER DATED 5/17/23 7/13/23 CDS/EJG	 

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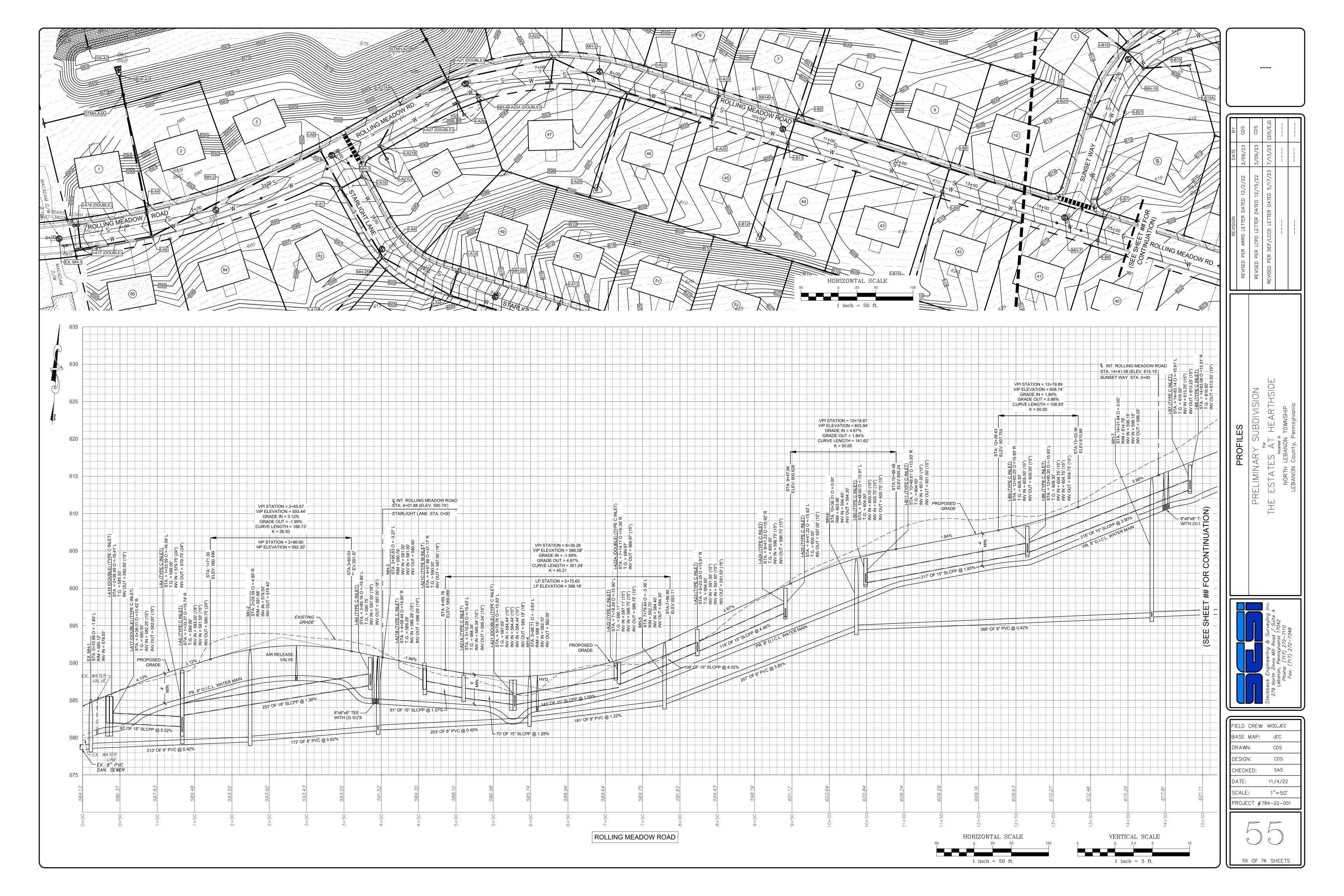
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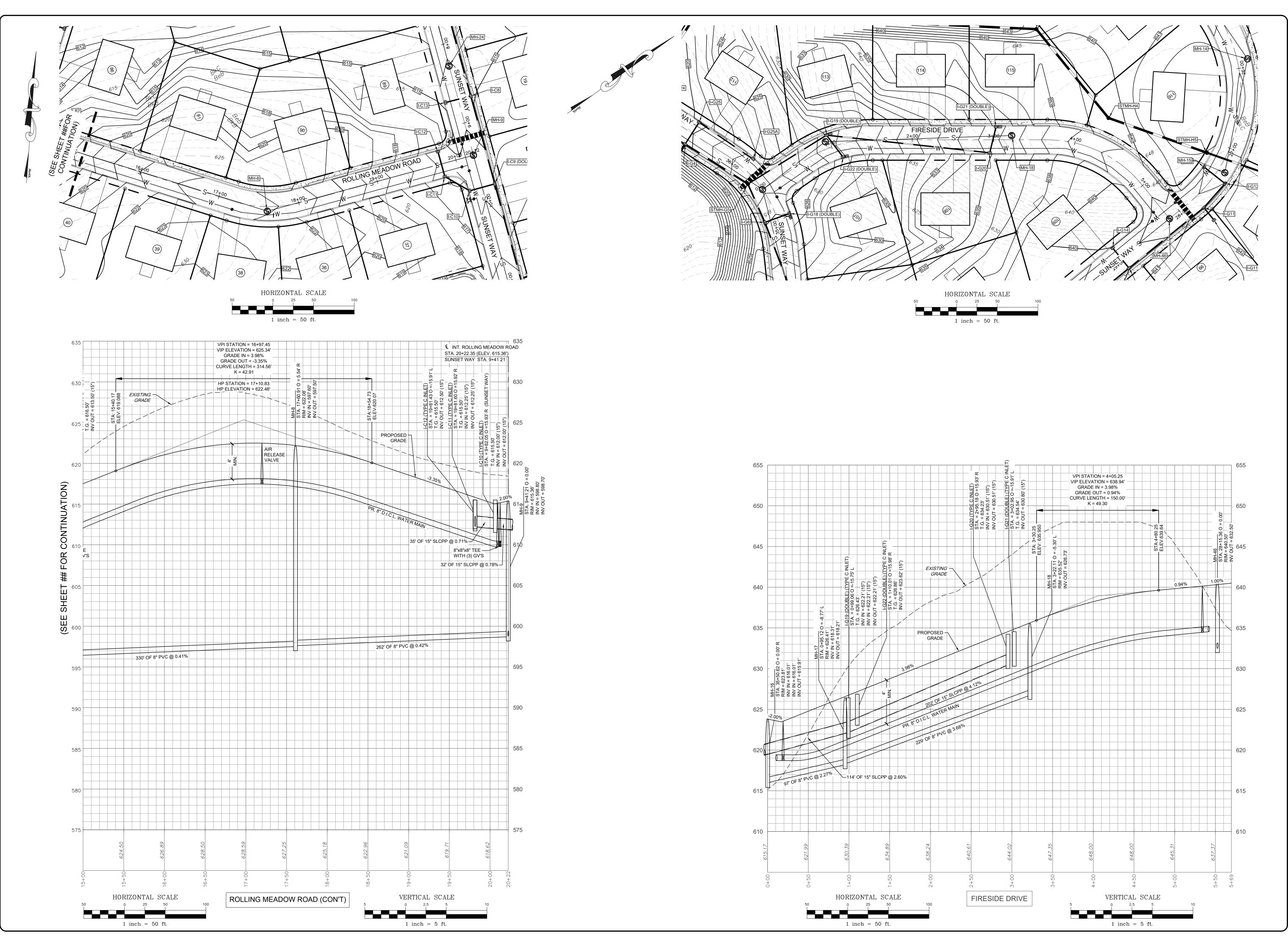


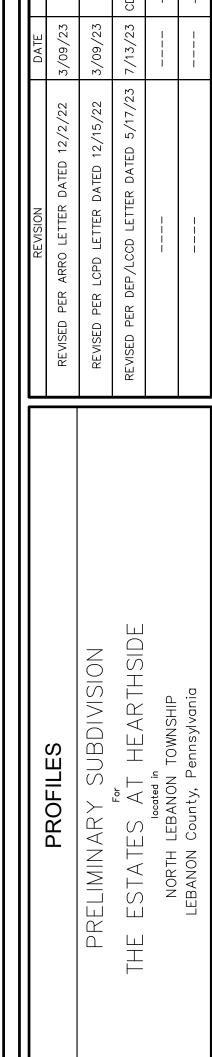


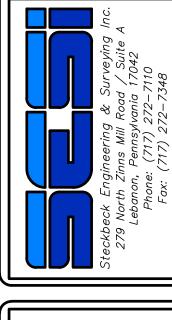
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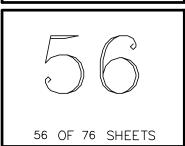


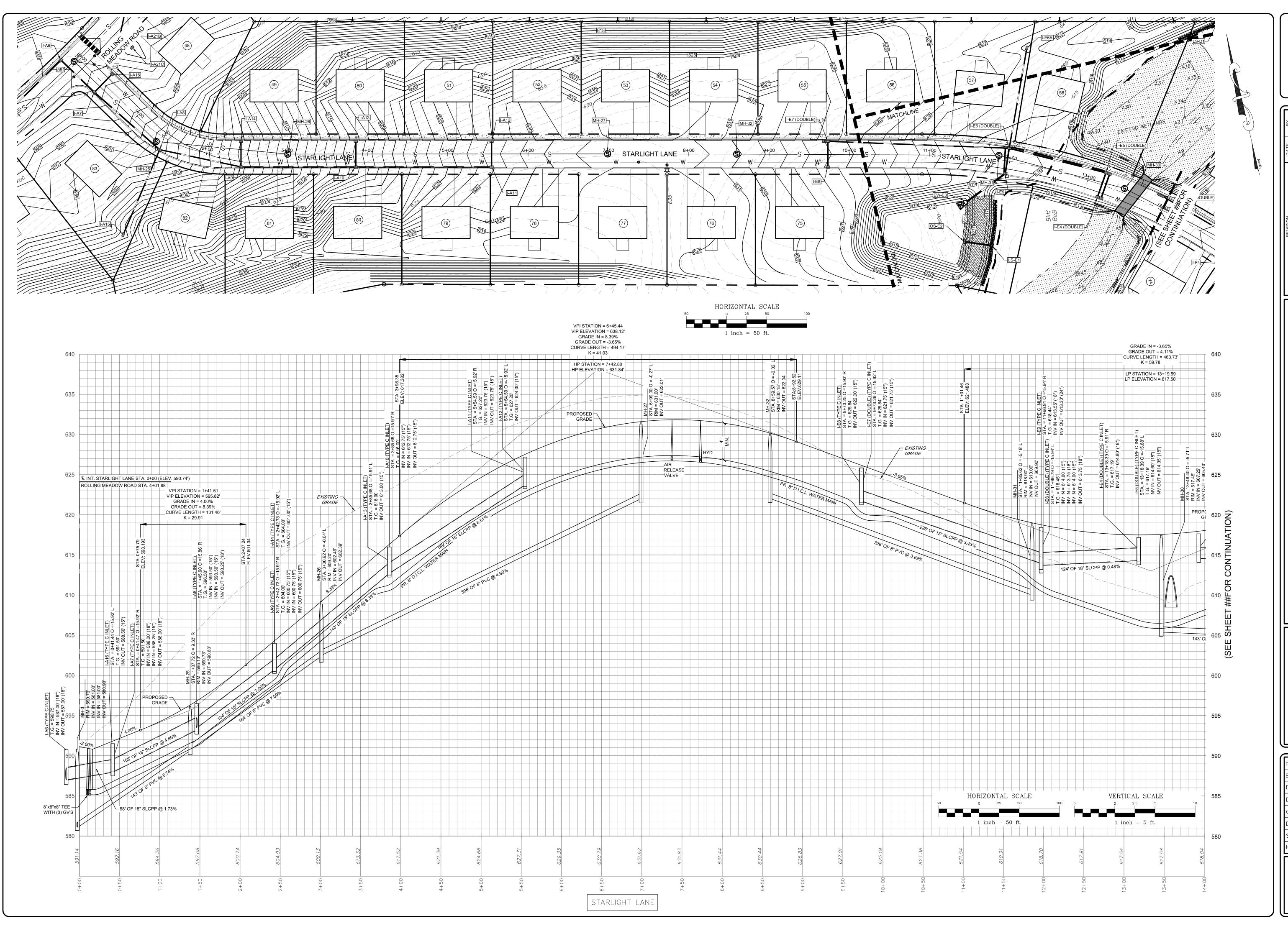






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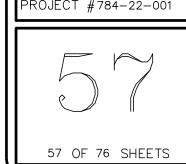




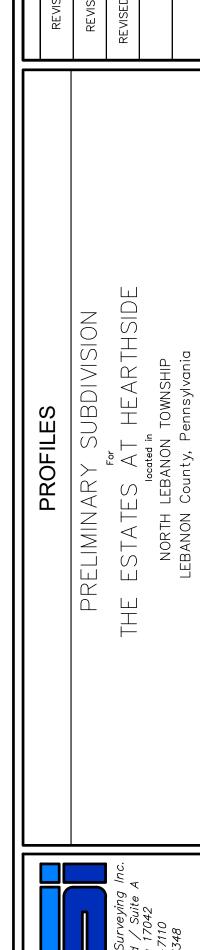


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TELD CREW: MOD,JEC

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BASE I	MAP:	JEC	
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FIELD CREW: MOD,JEC

BASE MAP: JEC

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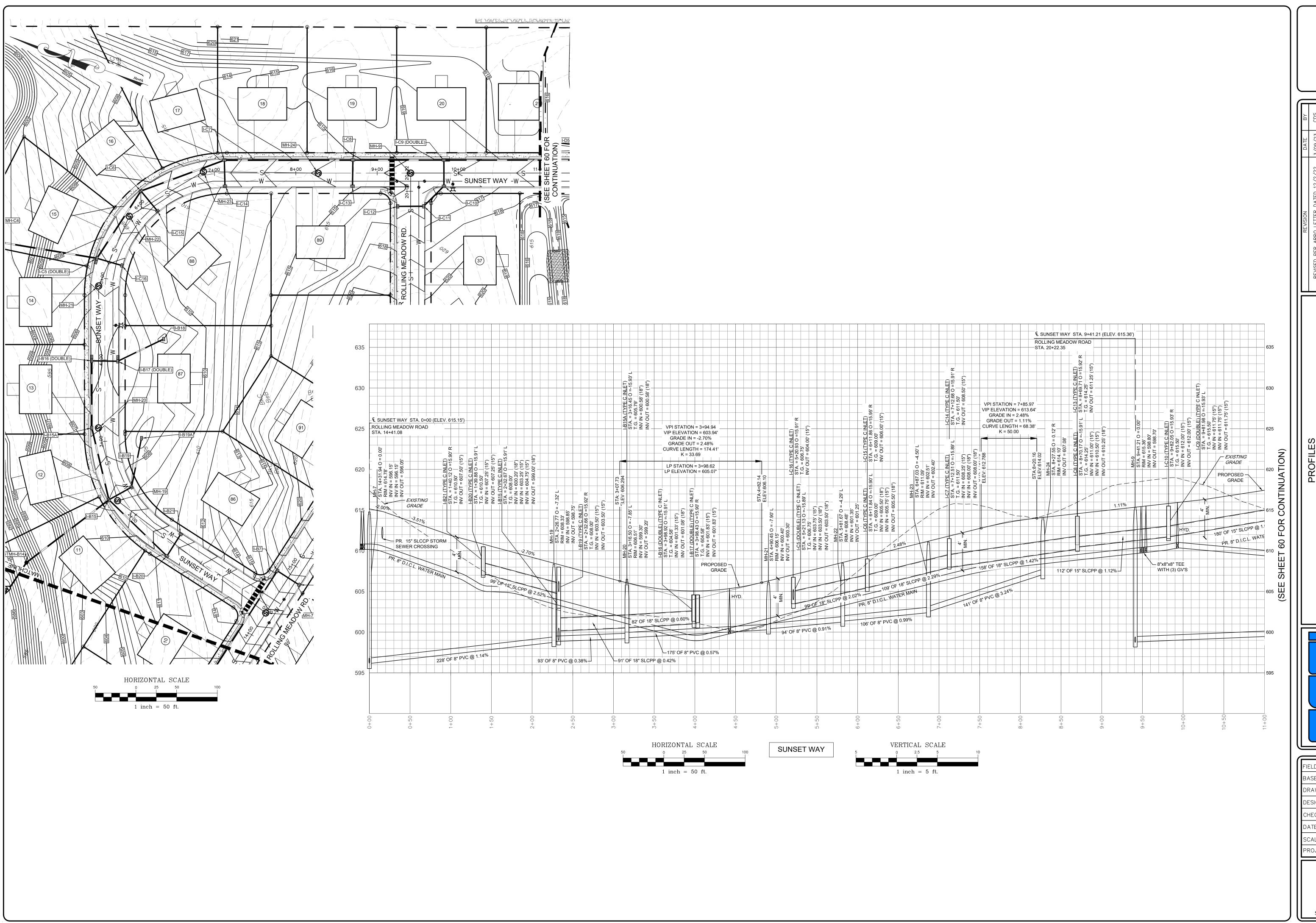
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SCALE: 1"=50'

PROJECT #784-22-001

58 OF 76 SHEETS

DATE:



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	REVISION
	REVISED PER ARRO LETTER DATED 12/2/22
	REVISED PER LCPD LETTER DATED 12/15/22
)E	REVISED PER DEP/LCCD LETTER DATED 5/17/23

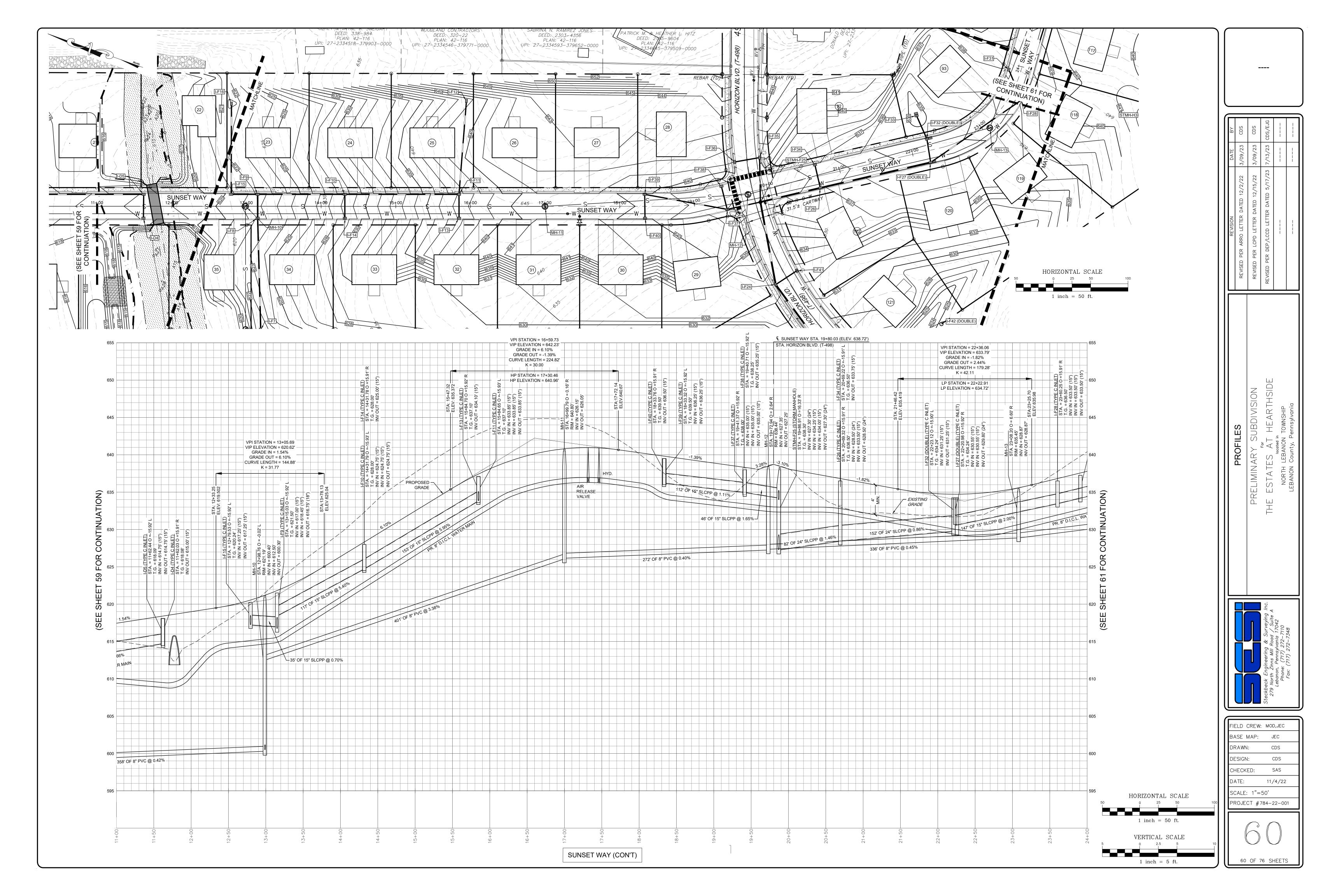
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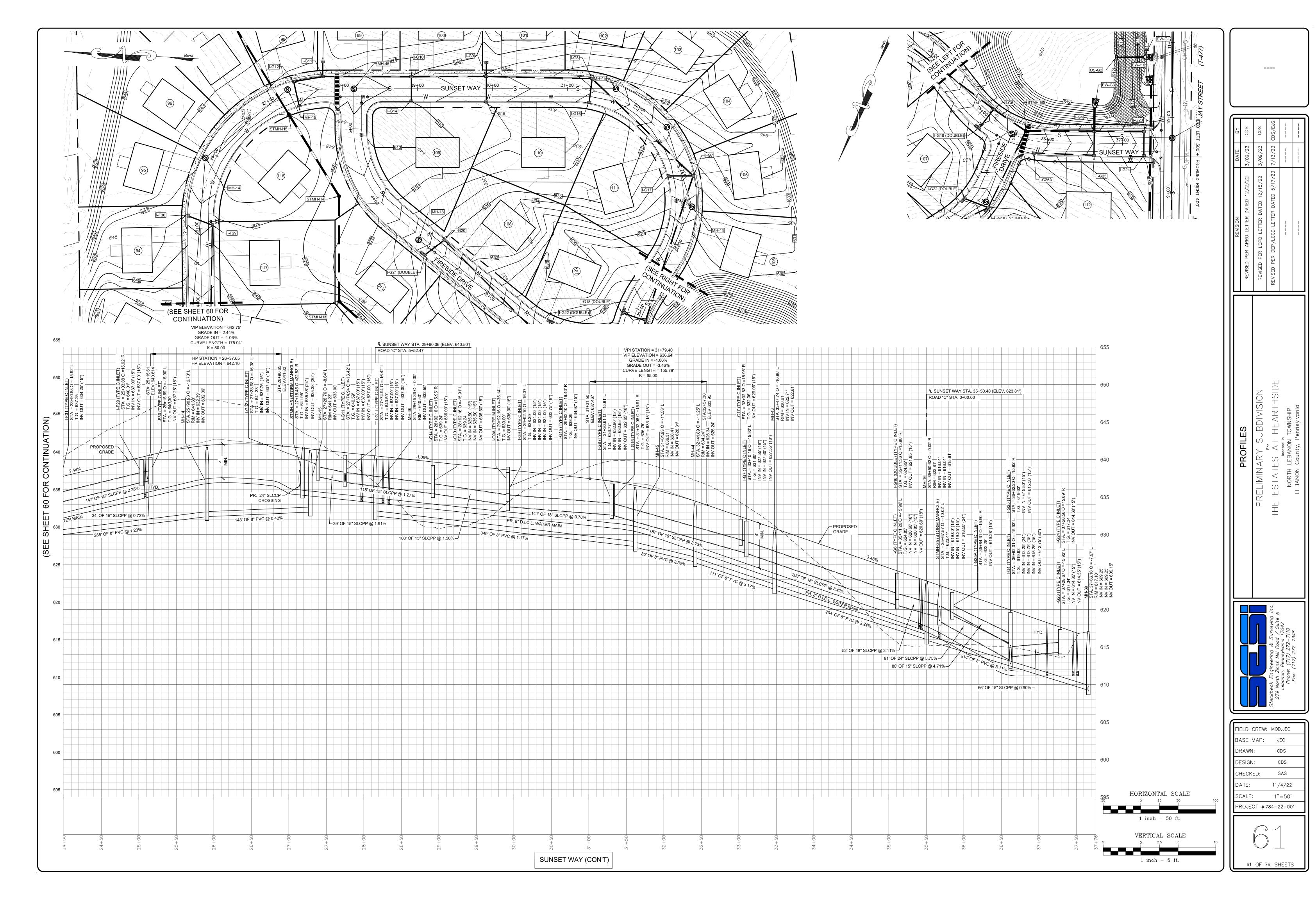
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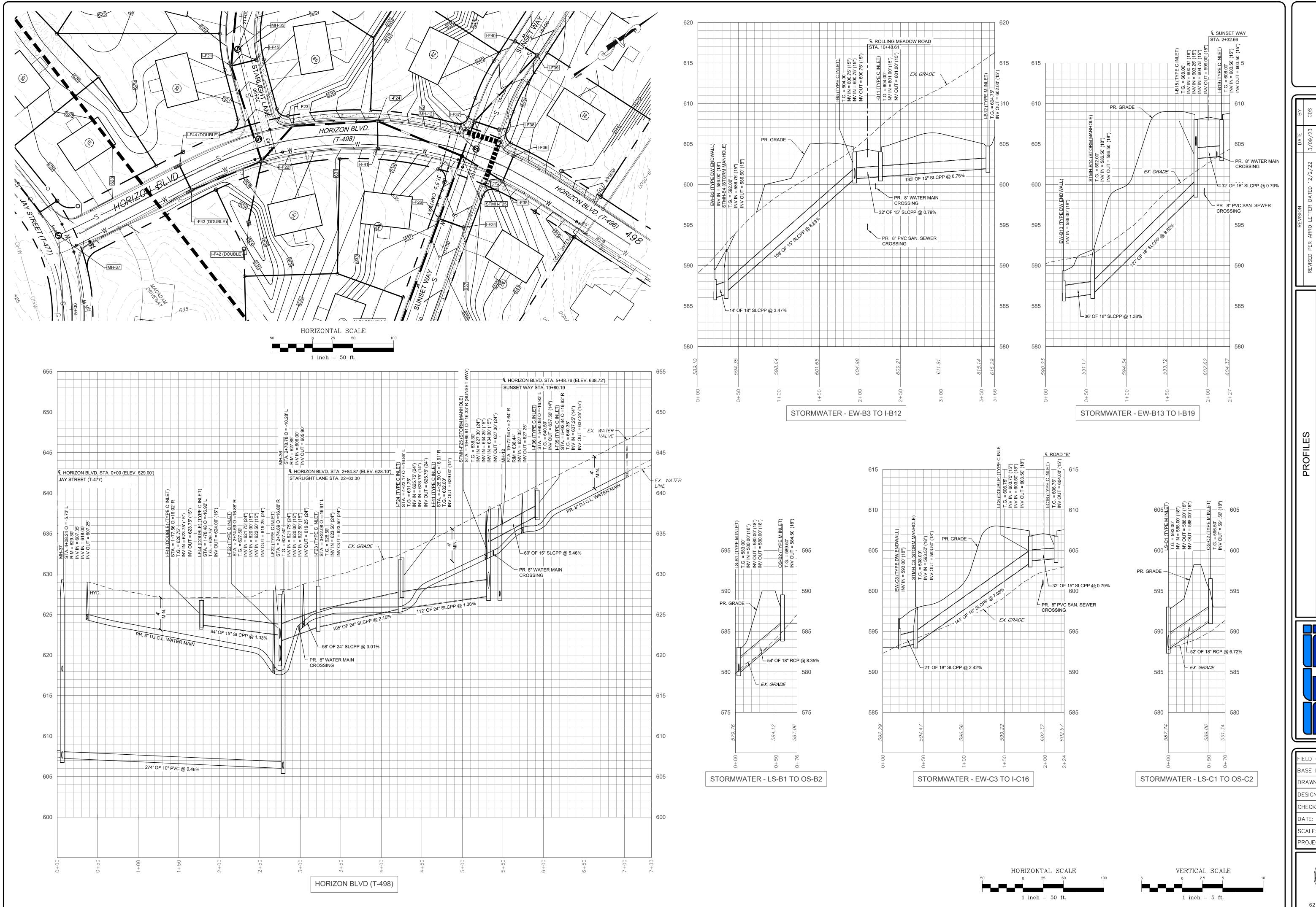
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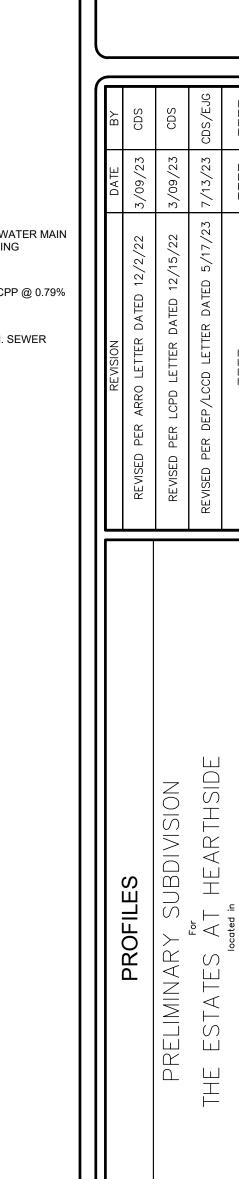
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PROJECT #7	84-22-001

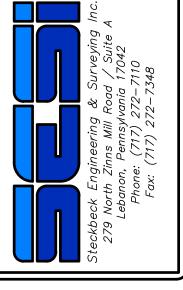




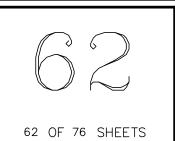


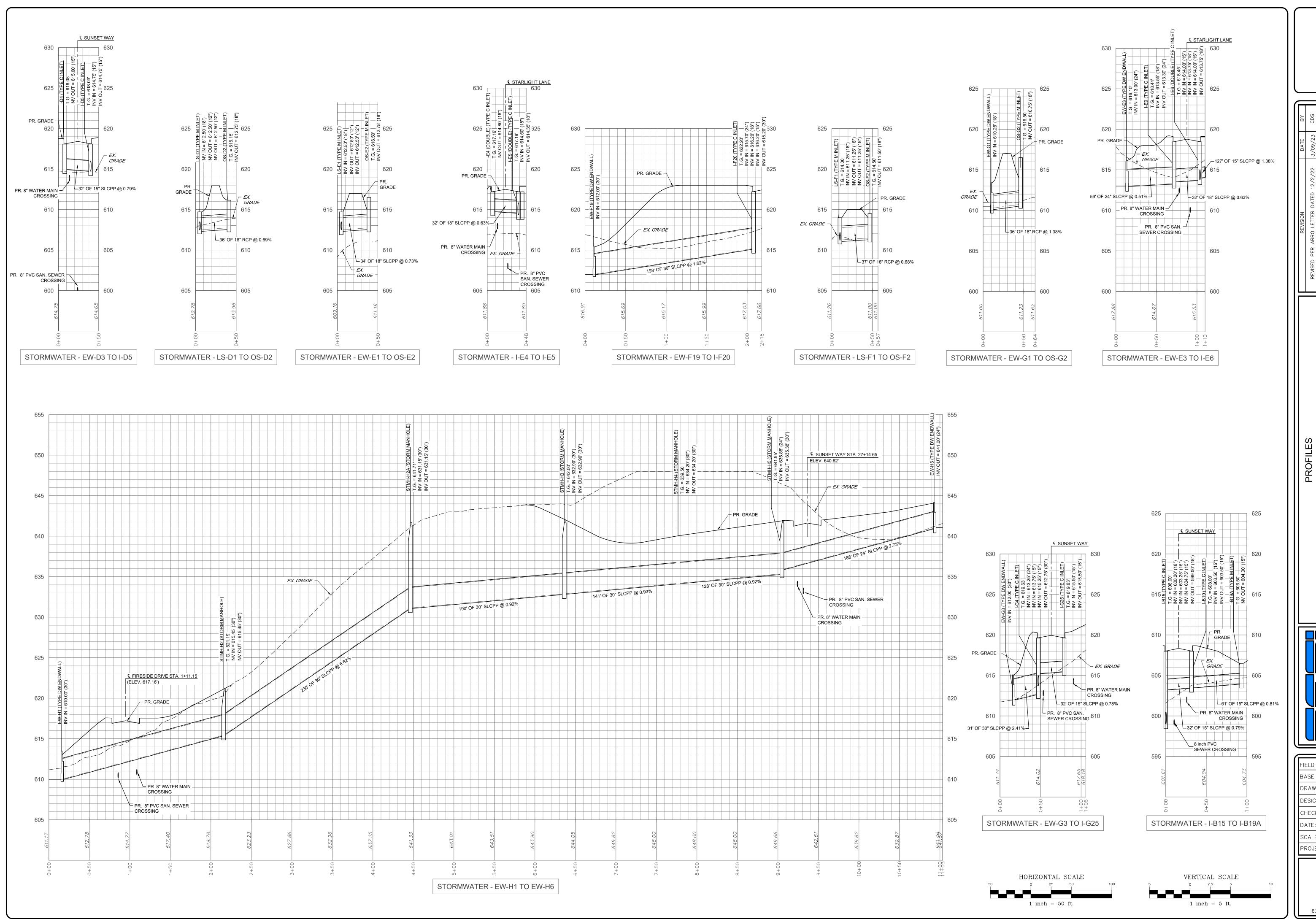


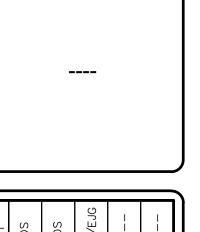




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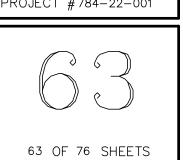


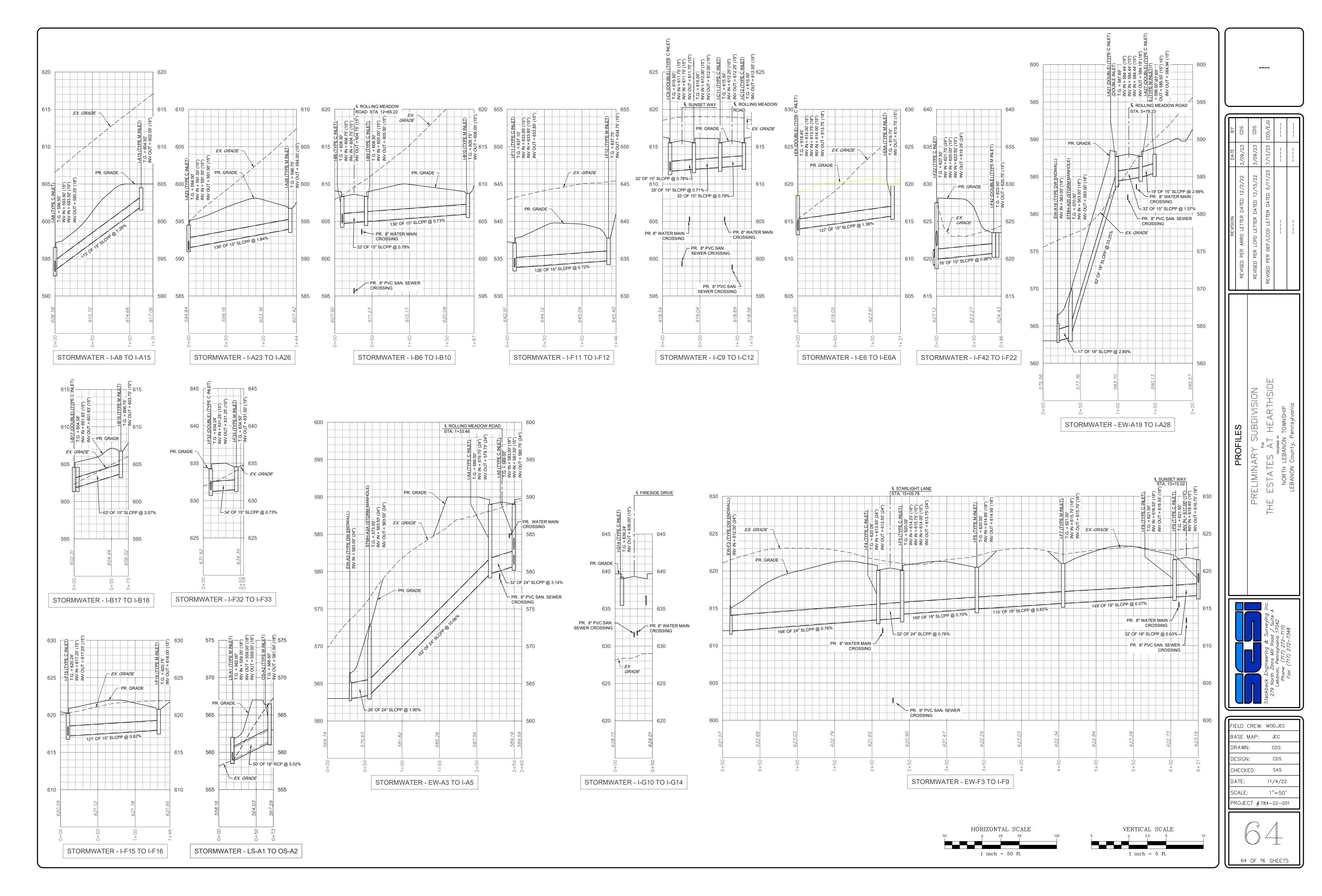
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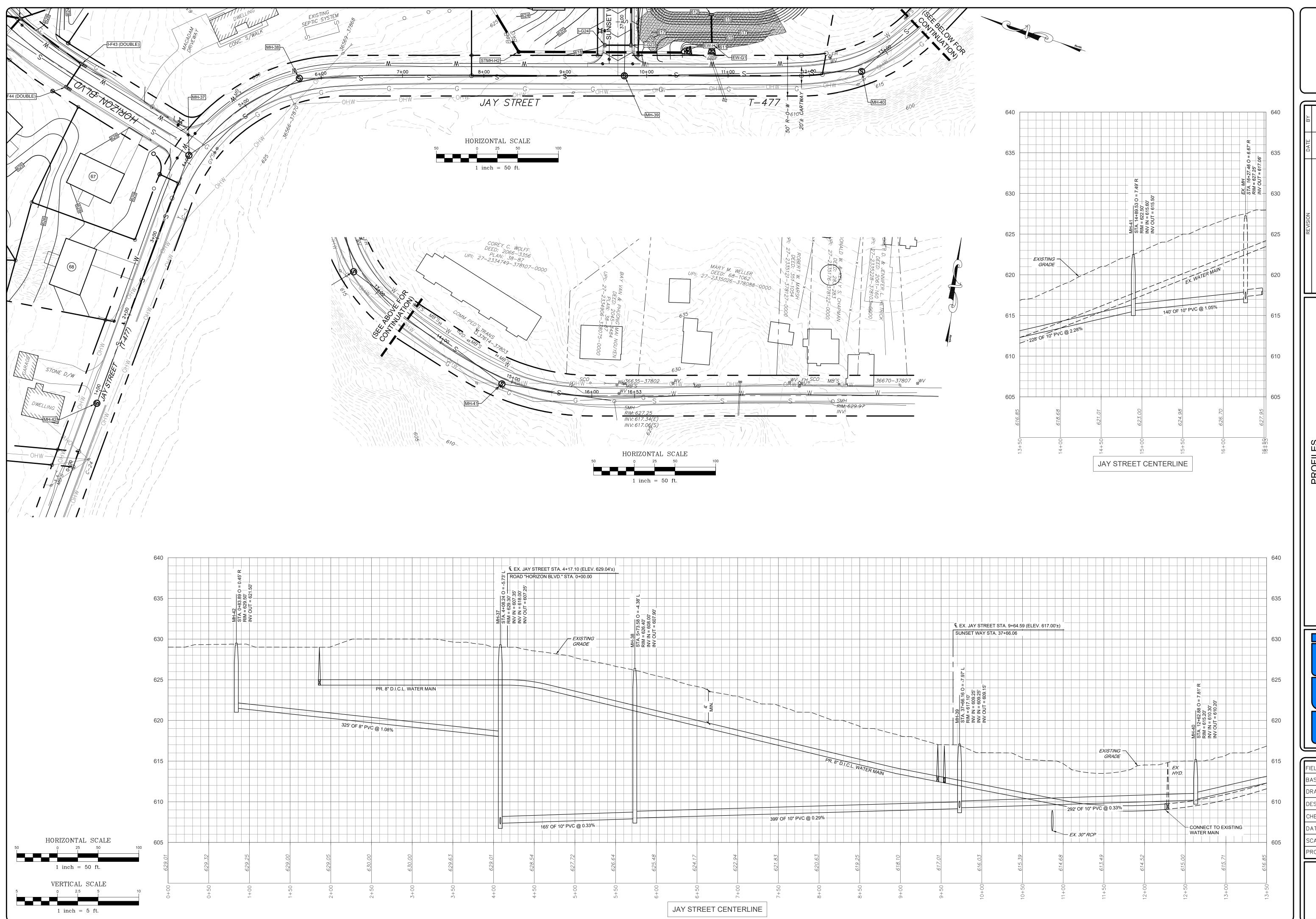
	ckbeck Engineering & Surveying Inc. 279 North Zinns Mill Road / Suite A Lebanon, Pennsylvania 17042 Phone: (717) 272–7110 Fax: (717) 272–7348

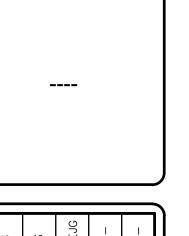
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PROJECT #7	84-22-001



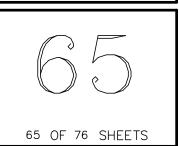


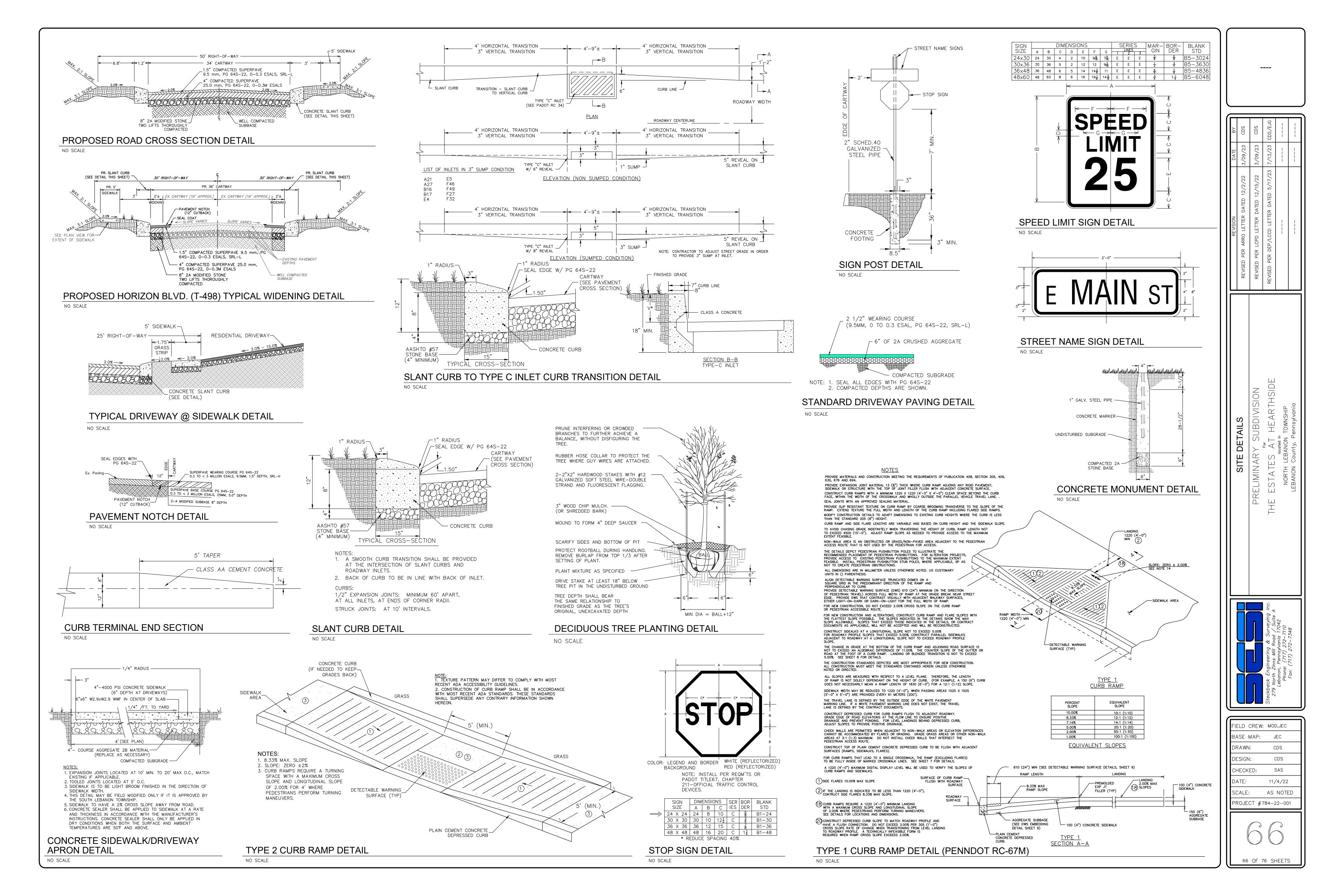


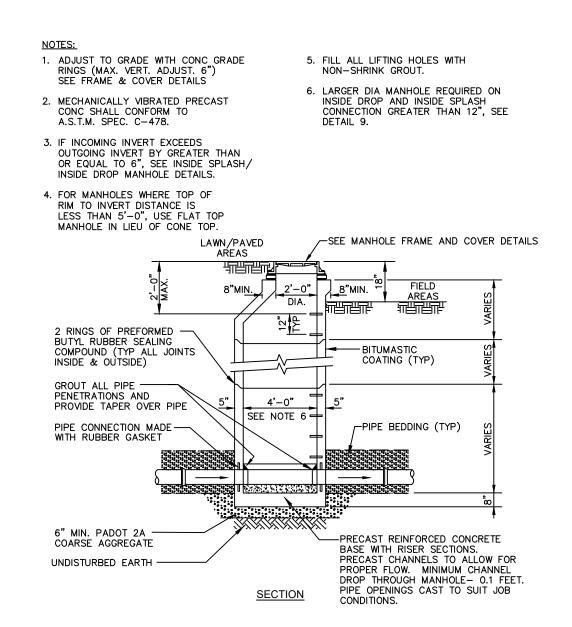


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	Steckbeck Engineering & Surveying Inc. 279 North Zinns Mill Road / Suite A Lebanon, Pennsylvania 17042 Phone: (717) 272-7110 Fax: (717) 272-7348
BASE MAP: JEC	FIELD CREW: MOD,JEC
	BASE MAP: JEC

FIELD CREW:	MOD,JEC
BASE MAP:	JEC
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PROJECT #7	84-22-001

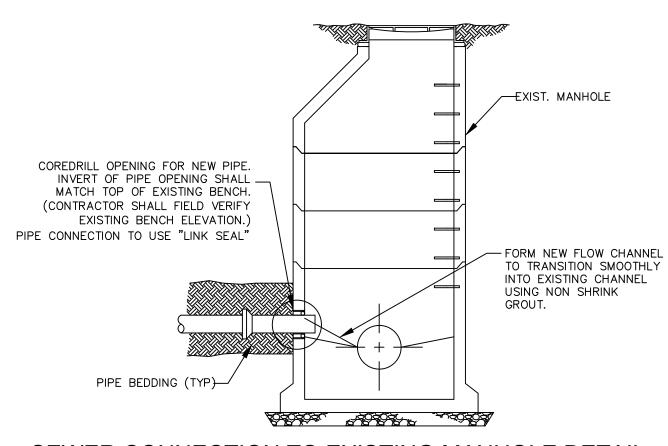






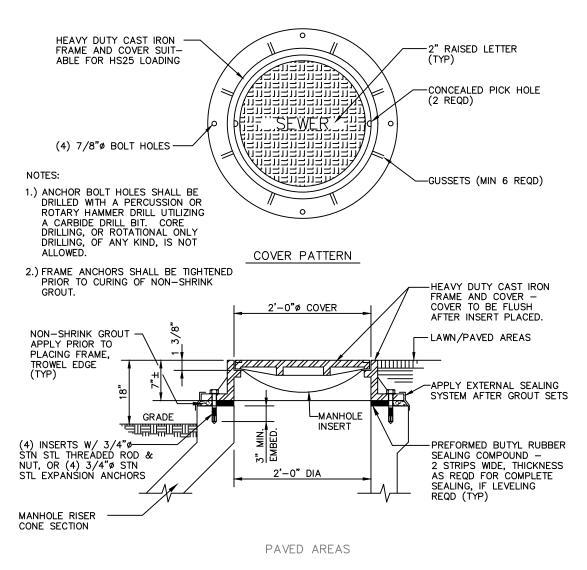
#### PRECAST MANHOLE DETAIL 8" THRU 24" SEWERS

NO SCALE



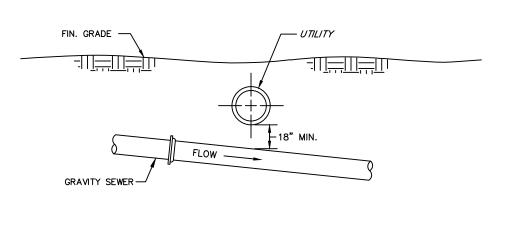
SEWER CONNECTION TO EXISTING MANHOLE DETAIL

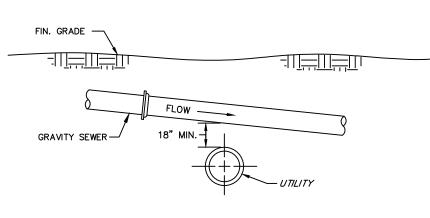
NO SCALE



STANDARD MANHOLE FRAME & COVER WITHOUT GRADE RINGS DETAIL

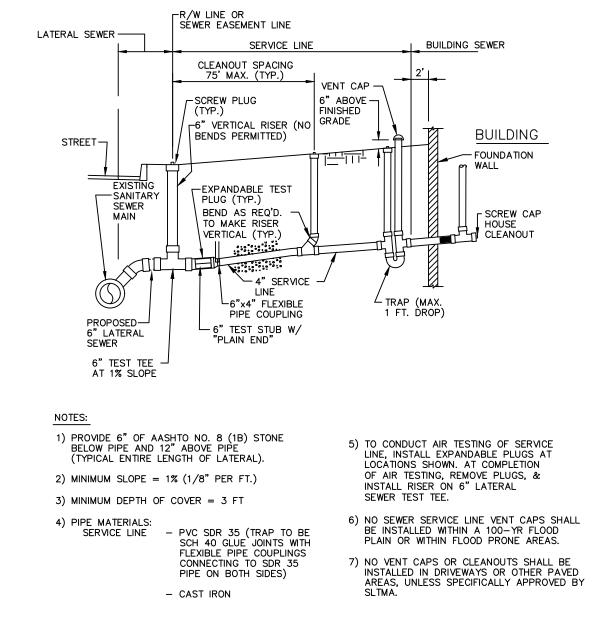
NO SCALE





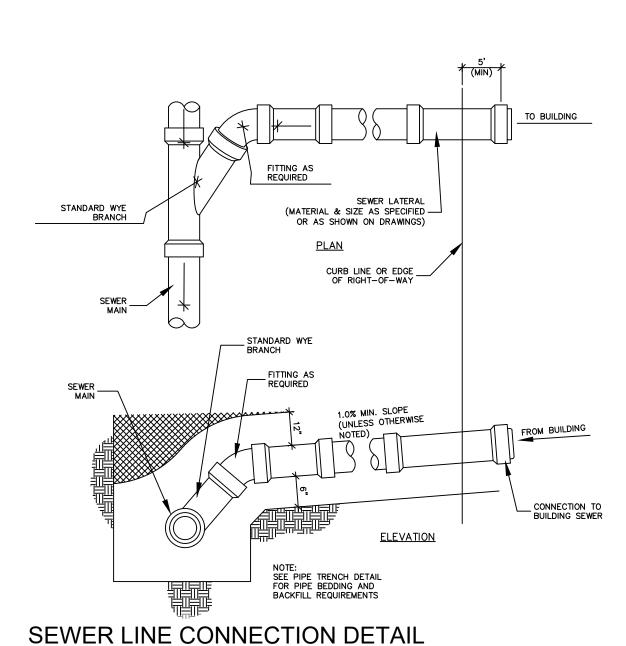
NOTE: MAINTAIN SLOPE OF PROPOSED SEWER AT ALL CROSSINGS.

#### GRAVITY SEWER CROSSING UTILITIES DETAIL NO SCALE



SERVICE LINE INSTALLATION DETAIL

NO SCALE



NEW WATER MAIN-CONCRETE CRADLE— CONCRETE BRIDGE TRENCH WIDTH NEW WATER MAIN TRENCH WIDTH CONCRETE CRADLE-CONCRETE BRIDGE-NEW WATER MAIN – CLASS "A" BEDDING MATERIAL UNDISTURBED SUBGRADE , — EXISTING UTILITY OR DRAIN UNDISTURBED SUBGRADE-SECTION 1 SECTION 2

UTILITY CROSSING - CONCRETE CRADLE AND BRIDGE DETAIL NO SCALE

5' OR DISTANCE REQUIRED TO PLACE TRAP

- VENT

ON UNDISTURBED EARTH

-APPROVED PVC

CAP SECURED TO VENT PIPE

TRAP (OR 2-90° ELBOWS)

— AASHTO NO. 8 COURSE AGGREGATE

NOTES: 1. ALL FITTINGS USED FOR

VENT AND CLEANOUT-

AS BUILDING SEWER

BUILDING -

SEWER TO

NO SCALE

SEWER MAIN.

SLOPE @ 1.0%

SAME SIZE AND MATERIAL

CLEANOUT, TRAP AND VENT SHALL BE SOLVENT WELD.

OVER VENT AND CLEANOUT IN

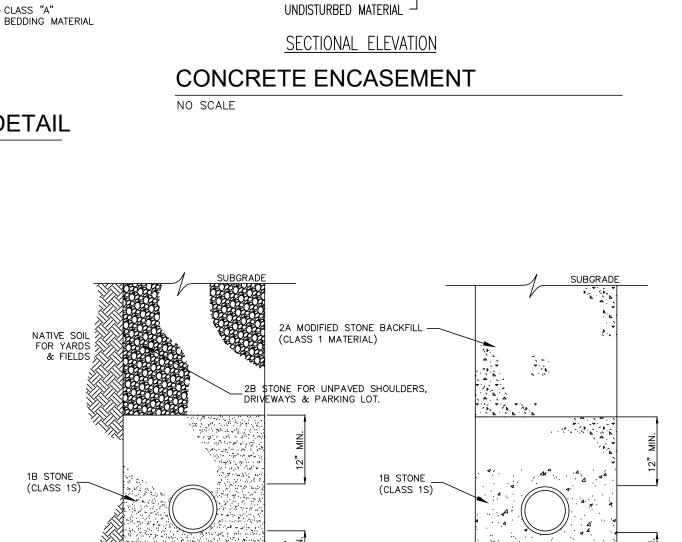
ACCORDANCE WITH DETAIL S12 WHEN IN PAVED OR TRAFFIC

CLEANOUT CAP

CLEANOUT-

TRAP AND VENT DETAIL

2. INSTALL PROTECTIVE BOX



WELL TAMPED EARTH OR

(MINIMUM - TYPICAL)

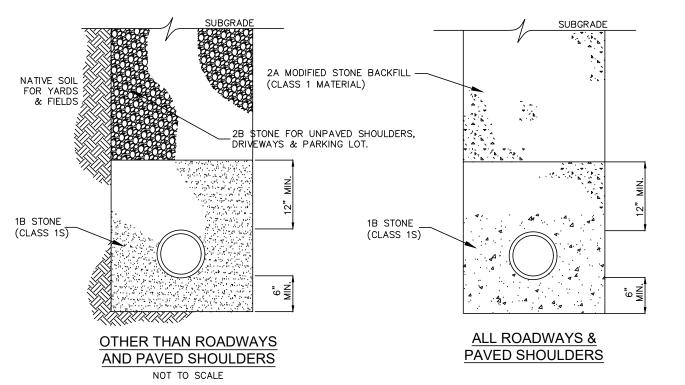
CONCRETE

NOTES

THE TRENCHES SHALL BE EXCAVATED TRUE TO LINE SO THAT A CLEAR SPACE NOT LESS THAN 6" NOR MORE THAN 8" IN WIDTH IS PROVIDED ON EACH SIDE OF THE BARREL OF THE PIPE. IF SHEETING IS REQUIRED, THE FORGOING DIMINSIONS SHALL BE APPLICABLE TO THE INSIDE FACES OF THE SHEETING. FOR MORE DETAIL ON TRENCHING, BACKFILLING & COMPACTING SEE SECTION 022210F PUCA.

# TYPICAL TRENCH BACKFILL FOR SANITARY SEWER

NO SCALE



(NORTH LEBANON TOWNSHIP)

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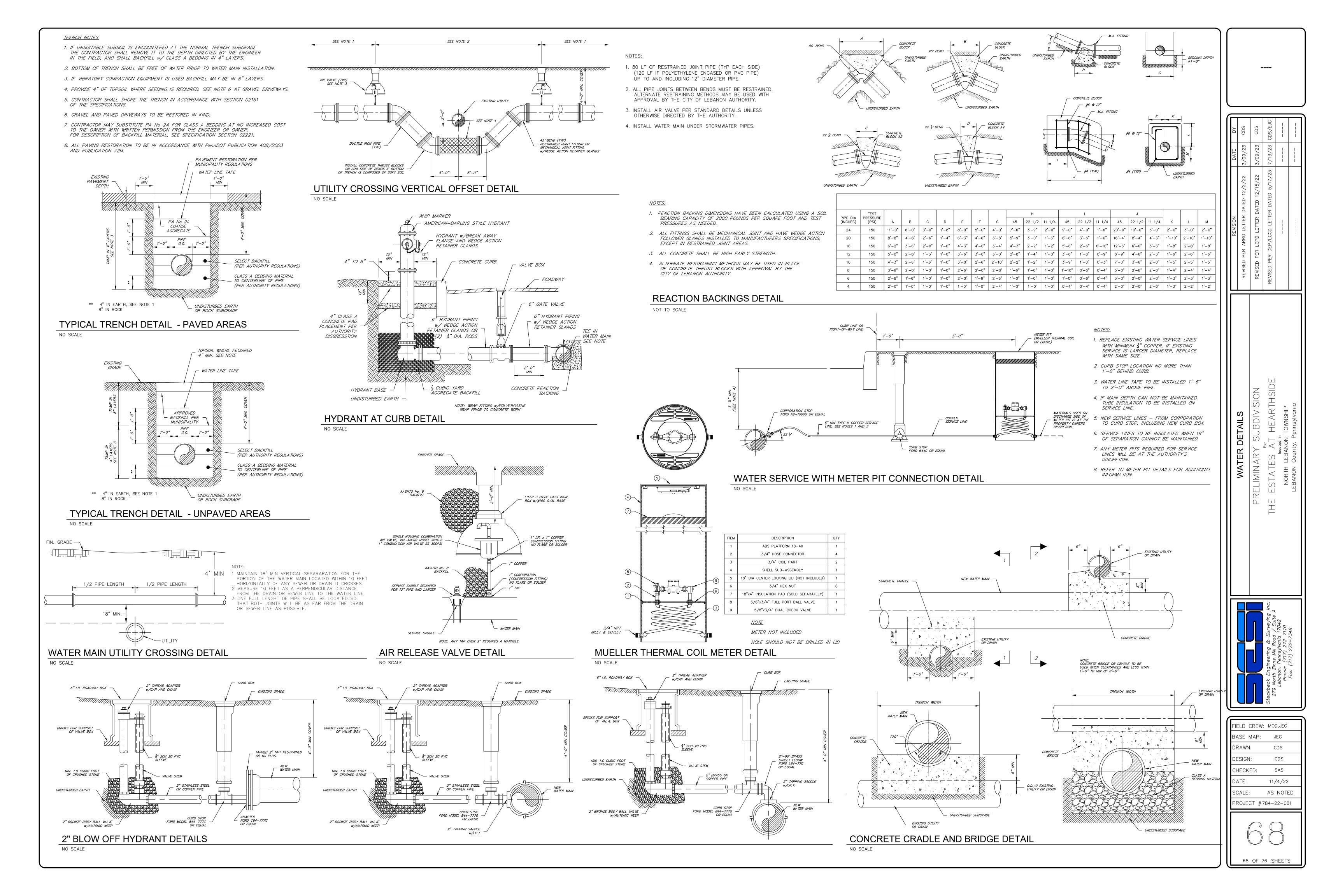
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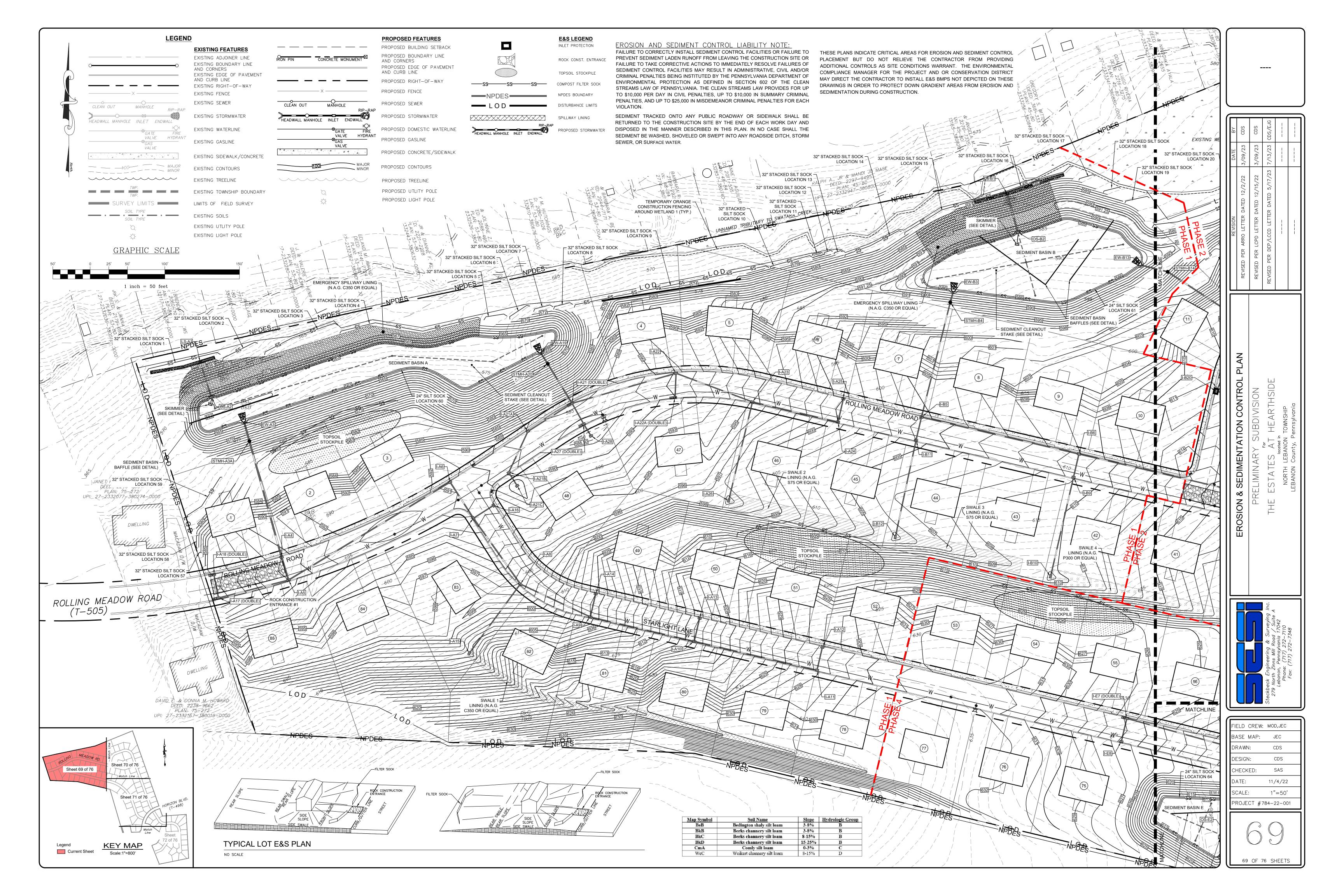
SEWER

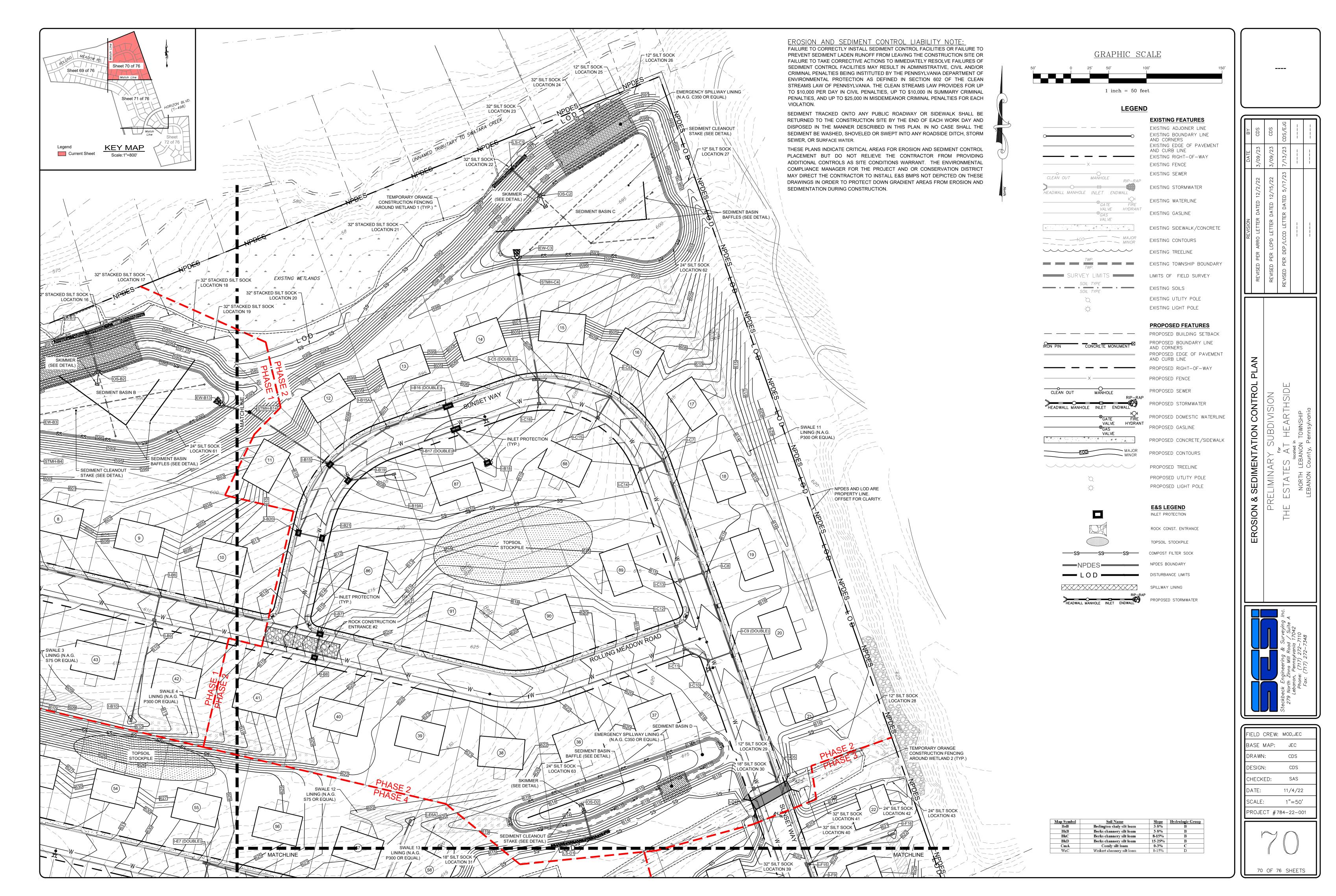
SANITARY

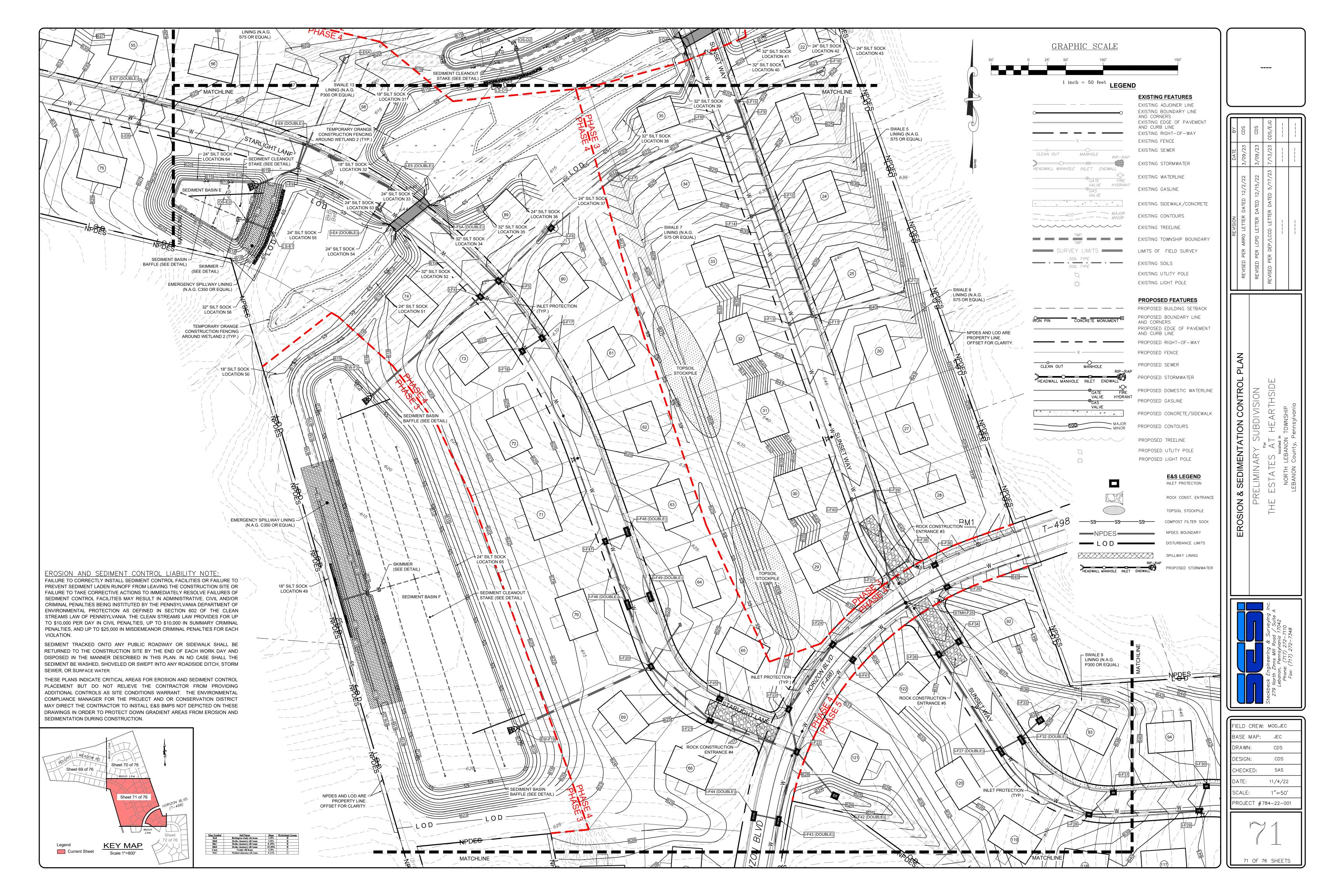
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BASE MAP:	JEC
DRAWN:	CDS
DESIGN:	CDS
CHECKED:	SAS
DATE:	11/4/22
SCALE:	AS NOTED
PROJECT #7	84-22-001
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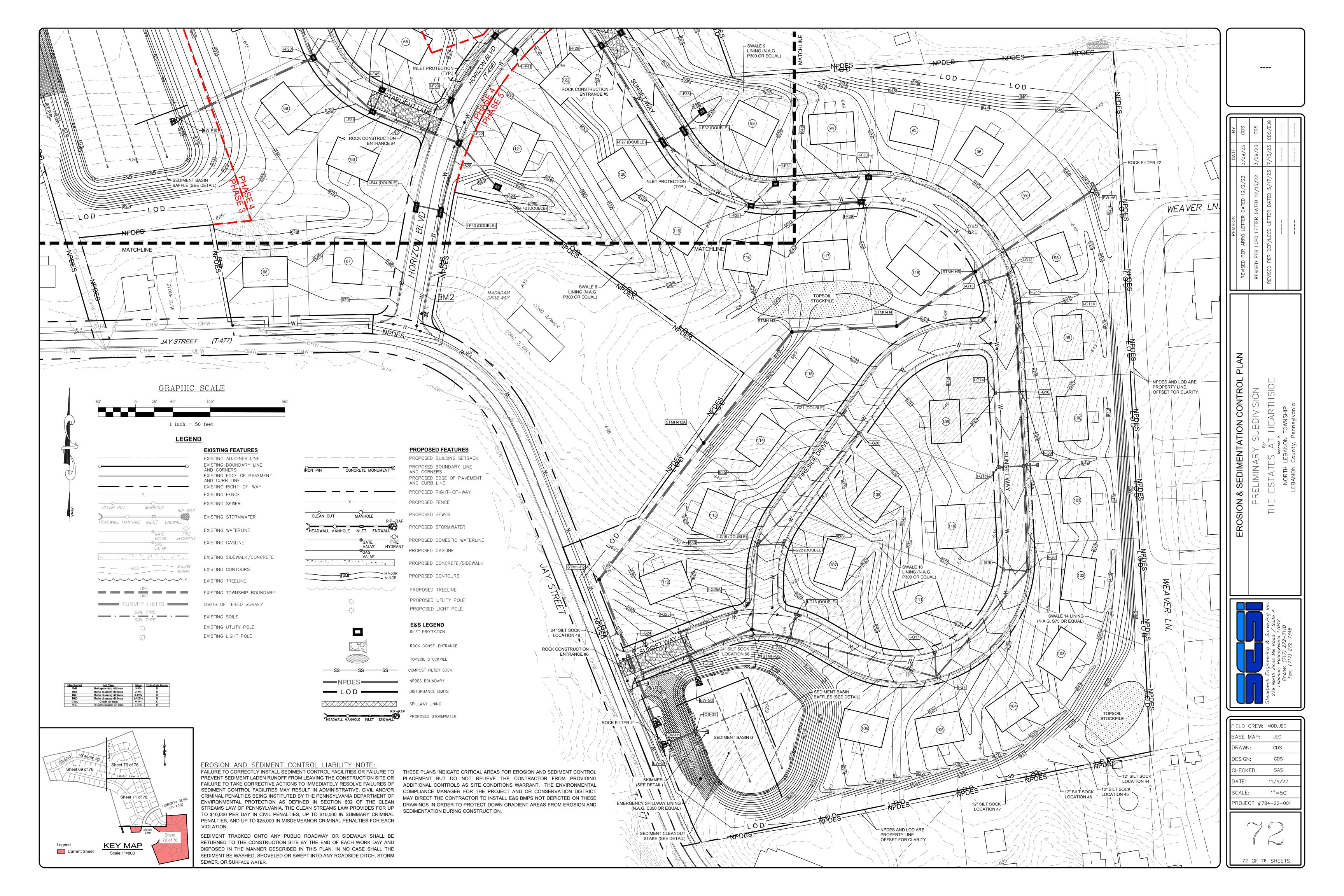












#### EROSION AND SEDIMENT POLLUTION CONTROL NARRATIVE MT. PLEASANT VENTURES SUBDIVISION

THIS NARRATIVE IS INTENDED TO ACCOMPANY THE EROSION AND SEDIMENT POLLUTION CONTROL PLAN FOR THE PROPOSED PRELIMINARY LANG 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 BOULEVARI 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 BOULEVAR 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 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 PAINTEGRATED 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. RUNOFF REACHING THE SIX (6) INFILTRATION BASINS WILL BE COOLED BY THE NATIVE VEGETATION IN THE BASIN BOTTOMS BEFORE BEING INFILTRATED THROUGH THE ENGINÈÉRED 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.

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.

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.

RUNOFF WILL DISCHARGE OVERLAND FOR APPROXIMATELY 1,750 FEET PRIOR TO REACHING AN UNT TO SWATARA CREEK.

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

#### \*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 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. 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 DISSECTÉD 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 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, DROUGHTY, 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. SLOP 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 • 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 IE PROJECT. THE ENTIRE SITE IS UNDERLAIN BY THE HAMBURG SEQUENCE ROCKS AND THE GRAYWACKE OF HAMBURG SEQUENCE ROCKS WHICH ARE COMPRISED OF SHALF, 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
- 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

DISTRICT MAY REQUIRE A WRITTEN SUBMITTAL OF THOSE CHANGES FOR REVIEW AND APPROVAL AT ITS DISCRETION.

EQUIVALENT SEDIMENT REMOVAL FACILITY, OVER UNDISTURBED VEGETATED AREAS.

ALTERED DURING CONSTRUCTION AND THEY SHALL BE HANDLED IN ACCORDANCE WITH THE STANDARD AND SPECIFICATION FOR SUBSURFACE DRAIN OR OTHER APPROVED METHOD.

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

- 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
- 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.

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 OR WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURNED, BURIED, DUMPED, OR DISCHARGED AT THE SITE.

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 OTHER STATE OR FEDERAL REGULATIONS.

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 ASPHALT THAT HAS BEEN PROCESSED FOR RE-USE.)

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. 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 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".

#### TEMPORARY CONTROL MEASURES

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. c. STOCKPILES SHALL BE LOCATED SO THAT ALL SWALES CAN FUNCTION AS DESIGNED

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.

a. SILT SOCK SHALL BE USED TO INTERCEPT SEDIMENT-LADEN RUNOFF FROM SMALL WATERSHEDS.

d. STOCKPILE HEIGHTS MUST NOT EXCEED 35' IN HEIGHT. SIDE SLOPES SHALL BE 2:1 OR FLATTER.

- 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 THE MAIN FENCE/SOCK ALIGNMENT.
- c. SEDIMENT MUST BE REMOVED WHEN ACCUMULATIONS REACH ½ THE ABOVE GROUND HEIGHT OF SOCK. d.ALL AREAS OF CONCENTRATED FLOW AND AT ALL AREAS WHERE THE SILT SOCK HAS COLLAPSED OR UNDERCUT DUE TO EXCESSIVE FLOWS, A NEW SECTION OF SOCK SHALL BE INSTALLED.

#### 4. ROCK FILTER WITH COMPOST

- a. A RIPRAP BERM SHALL BE PROVIDED WHERE SHOWN ON THE PLAN AND AT ALL LOCATIONS OF CONCENTRATED FLOWS. 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. d.ROCK FILTERS WILL BE REMOVED WHEN CLOGGED WITH SEDIMENT. THE STONE SHALL BE WASHED FREE OF ALL SEDIMENT OR NEW STONE SHALL BE USED TO REBUILD THE FILTER.

#### 5. INTERIM STABILIZATION / TEMPORARY EROSION CONTROL MATTING

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 ACCORDANCE WITH THE PERMANENT SEEDING SPECIFICATIONS CONTAINED HEREON.

#### 6. ALTERNATIVE ROCK CONSTRUCTION ENTRANCE

g. 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 b.ROCK CONSTRUCTION ENTRANCE SHALL BE A MINIMUM 100'L AND 20'W. REFER TO THE PLAN DETAIL.

- a. 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. d.ICE OR SEDIMENT BUILDUP AROUND THE PRINCIPAL SPILLWAY SHALL BE REMOVED TO ALLOW THE SKIMMER TO RESPOND TO FLUCTUATING WATER ELEVATIONS.
- e. SEDIMENT SHALL BE REMOVED FROM THE BASIN WHEN IT REACHES THE LEVEL MARKED ON THE SEDIMENT CLEAN-OUT STAKE OR THE TOP OF THE LANDING DEVICE. f. A SEMI-CIRCULAR LANDING ZONE MAY BE SUBSTITUTED FOR THE GUIDE RAILS

## 8. STONE INLET PROTECTION WITH COMPOST

- a.BERMS SHALL BE REQUIRED FOR ALL INSTALLATIONS. ROLLED EARTHEN BERMS SHALL BE PROVIDED AND MAINTAINED IMMEDIATELY DOWN GRADIENT OF THE PROTECTED INLET UNTIL ROADWAY IS STONED.
- 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.

b. SEDIMENT SHALL BE REMOVED WHEN IT REACHES HALF THE HEIGHT OF THE STONE.

e. A 6 INCH THICK COMPOST LAYER SHALL BE SECURELY ANCHORED ON OUTSIDE AND OVER TOP OF STONE.

## 1. PERMANENT GRASS / LEGUME COVER

- 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 ATTACHED E&SPC PLAN. 2. RIP - RAP OUTLET PROTECTION
- a.RIP-RAP SHALL BE USED AT ALL PIPE OUTLETS TO REDUCE THE OUTFLOW VELOCITY AND MINIMIZE EROSION POTENTIAL AT THE OUTLET PIPE. b.RIP-RAP SHALL BE INSTALLED IN ACCORDANCE WITH THE DIMENSIONS AND MATERIALS SHOWN ON THE ATTACHED PLAN. 3. CHANNEL LINING INSTALLATION
- a.PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING APPLICATION OF LIME, FERTILIZER, AND SEED. 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 c. ROLL CENTER BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
- 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
- TRENCH AFTER STAPLING. f. BLANKETS ON SIDE SLOPES MUST BE OVERLAPPED 4" OVER THE CENTER BLANKET AND STAPLED (2" FOR C350 MATTING) q.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

## STABILIZATION SPECIFICATIONS

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 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

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

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 BE DONE WITH THE CORRECT EQUIPMENT OR BY PROFESSIONALS.

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 BE SCARIFIED 6 TO 12 INCHES ALONG CONTOUR WHENEVER POSSIBLE PRIOR TO SEEDING.

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 EROSION AND SEDIMENTATION IN ALL AREAS TRIBUTARY TO THE CONTROLS). TEMPORARY EROSION 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, RESEEDING, RE-MULCHING AND RE-NETTING MUST BE PERFORMED IMMEDIATELY. IF EROSION AND SEDIMENT CONTROL BMPS FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPS OR

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.

MODIFICATIONS OF THOSE INSTALLED WILL BE REQUIRED.

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 ANI

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

CONSERVATION DISTRICT

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.

THAT SEQUENCE MUST BE APPROVED IN WRITING FROM THE LOCAL CONSERVATION DISTRICT OR BY DEP PRIOR TO IMPLEMENTATION.

3.ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE SEQUENCE PROVIDED ON THE PLAN DRAWINGS. DEVIATION FROM

4.INSTALL EXTENDED ROCK CONSTRUCTION ENTRANCE #1 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,

SHALL OCCUR IN THESE AREAS EXCEPT AS NECESSARY FOR EXCAVATION/GRADING.

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

CONSTRUCTION FENCE, ETC.). INSTALL TEMPORARY ORANGE CONSTRUCTION FENCING AROUND WETLAND 1 AS SHOWN ON THE E&S PLANS.

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 FACH BASIN ALONG WITH THE ASSOCIATED OUTLIET 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 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.

12. 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.

13. 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.

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

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 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 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 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 BOTTOMS. 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 OR DESIGNEE SHALL BE PRESENT ONSITE DURING INSTALLATION OF THE UNDERDRAIN SYSTEM, ENGINEERED SOILS, AND FINAL GRADING/SEEDING OF INFILTRATION BASINS A & B.

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 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."

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."

# ENT $\supset$

FIELD CREW: MOD, JEC BASE MAP: CDS RAWN: CDS HECKED: SAS ATF: 11/4/22 CALE: AS NOTED PROJECT #784-22-001

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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 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 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 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 MEFTING.
- 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 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 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 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 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 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 5

CONSTRUCTION FENCE, ETC.)

- 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.
- 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.

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

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.

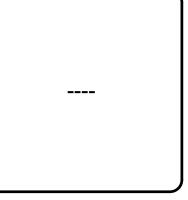
## 8. INSTALL ROCK FILTER #1 AT THE CULVERT BENEATH JAY STREET.

- 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 IMPERIOUS 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 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 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
- 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 SIT 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 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 F&S AND PCSM PLANS."



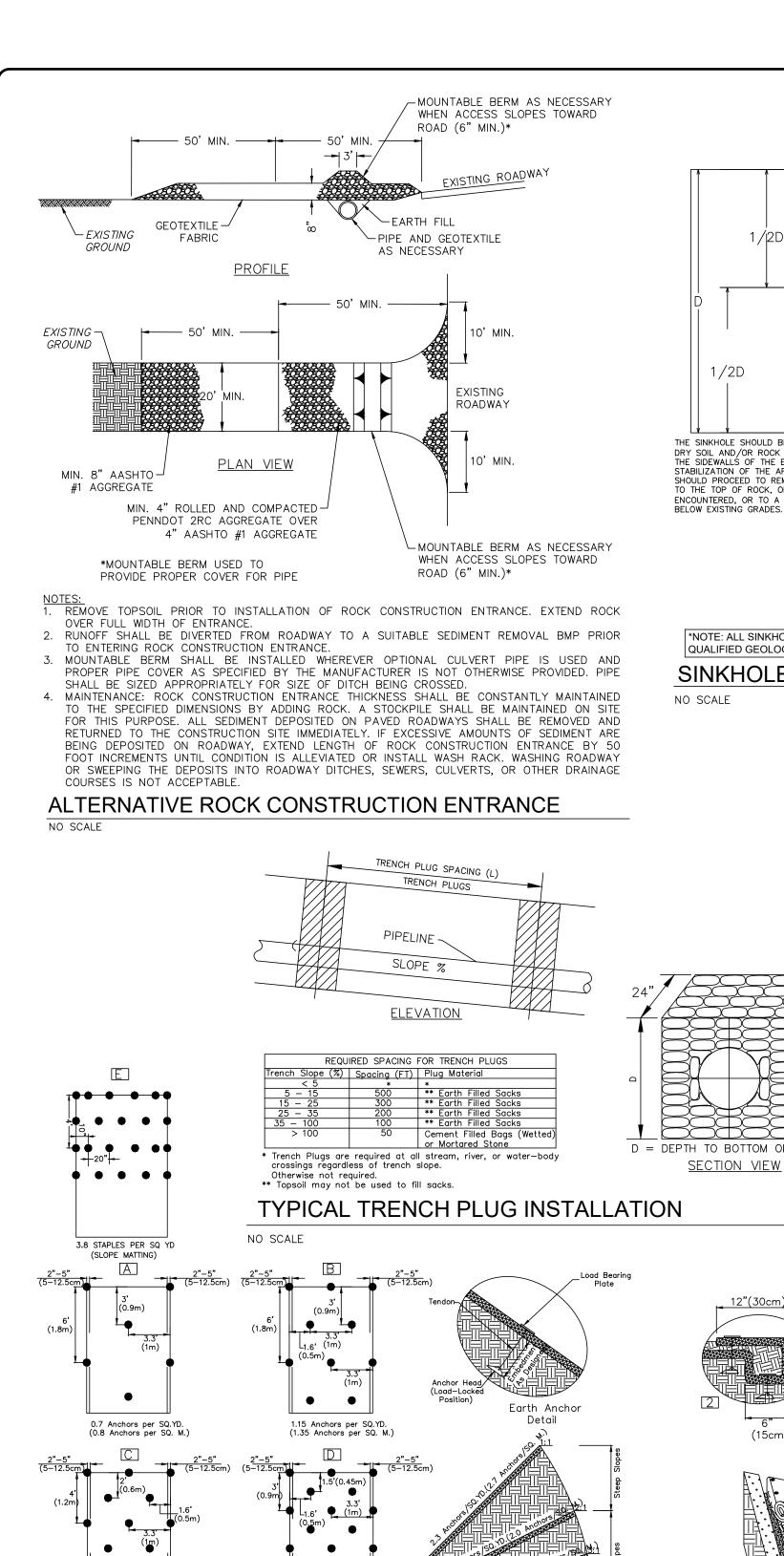
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	ВҮ	CDS	CDS	CDS/EJG		
	DATE	3/09/23	3/09/23	7/13/23		
	REVISION	REVISED PER ARRO LETTER DATED 12/2/22	REVISED PER LCPD LETTER DATED 12/15/22	REVISED PER DEP/LCCD LETTER DATED 5/17/23 7/13/23 CDS/EJG		

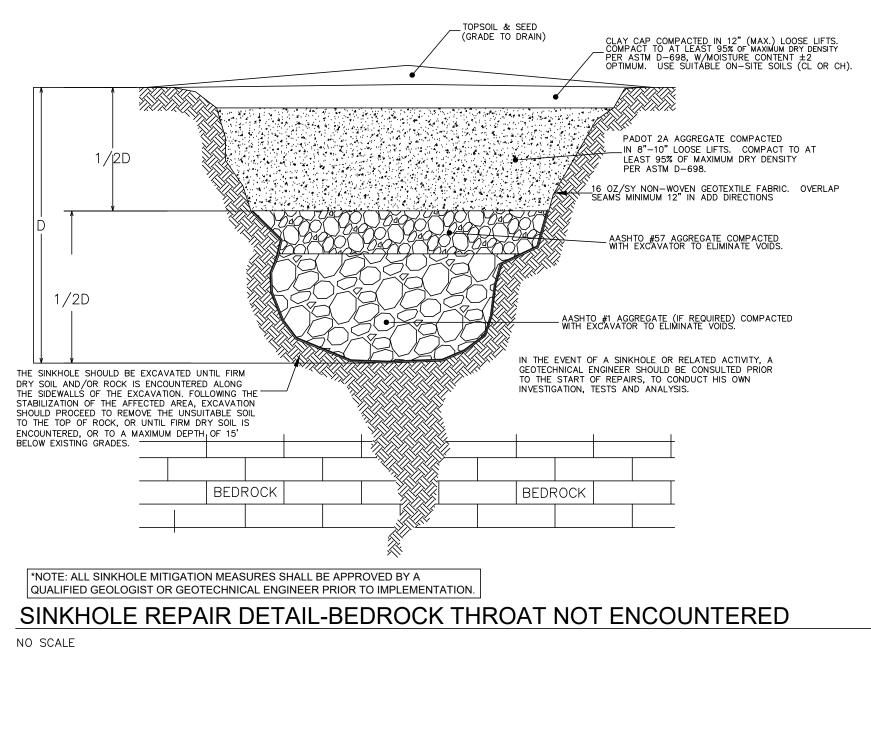
PRELIMINARY SUBDIVISION	THE ESTATES AT HEARTHSIDE	located in	NORTH LEBANON TOWNSHIP
	PRELIMINARY SUBDIVISION	PRELIMINARY SUBDIVISION For HEARTHSIDE	PRELIMINARY SUBDIVISION For THE ESTATES AT HEARTHSIDE

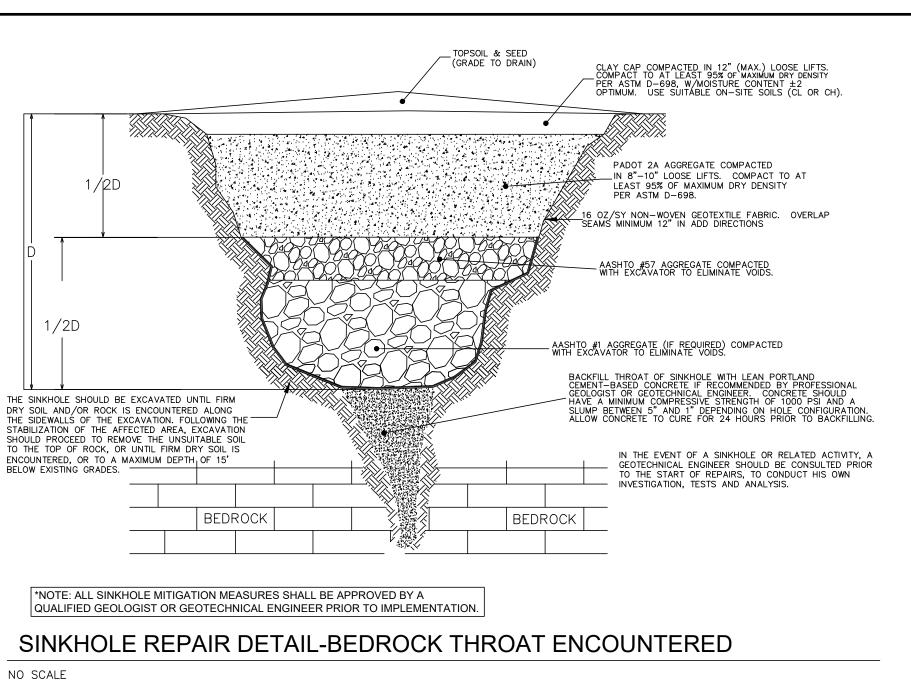


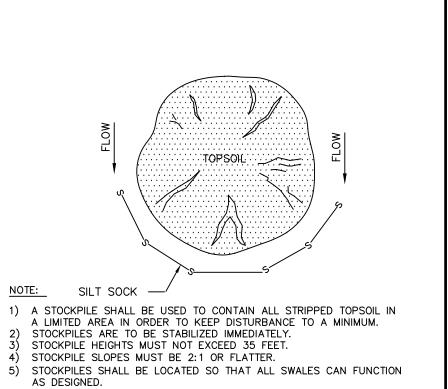
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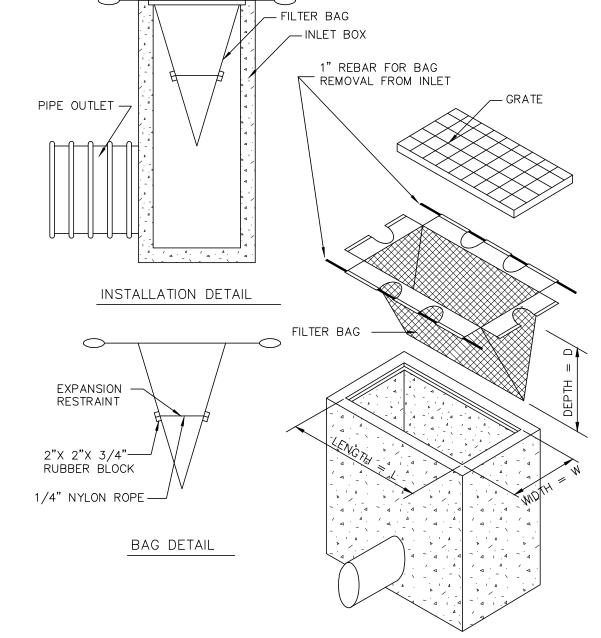




TOPSOIL STOCKPILE

NO SCALE

4" MIN.— PVC PIPE 15" Ø MIN. -— EARTHEN BERM STABILIZED WITH TEMPORARY GALVANIZED, 11 GAGE 1/4" MAX. OPENING / OR PERMANENT VEGETATION. PROTECTION\* \* STONE PROTECTION IS NOT REQUIRED FOR INLETS TRIBUTARY TO SEDIMENTATION BASINS AND SEDIMENT TRAPS. BERMS ARE REQUIRED FOR ALL INSTALLATIONS. \*\* EARTHEN BERM TO BE MAINTAINED UNTIL ROADWAY IS STONED. ROAD SUBBASE BERM TO BE MAINTAINED UNTIL ROADWAY IS PAVED. CHANNEL OR SWALE INLET PROTECTION



1. Filter bags should trap all particles larger than 150 microns. 2. Wherever filter bags are used they should be installed according to

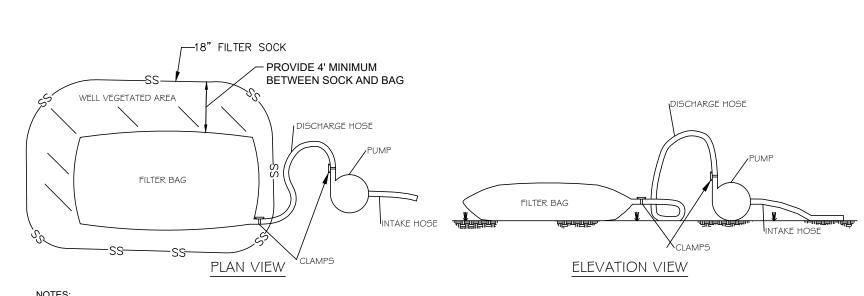
the manufacturer's specifications. 3. Inlet filter bags should be inspected on a weekly basis and after each

runoff event. 4. Filter bags should be cleaned and/or replaced when the bag is 1/2 full. 5. Damaged filter bags should be replaced.

6. Needed repairs should be initiated immediately after the inspection.

SILT FILTER BAG DETAIL

NO SCALE

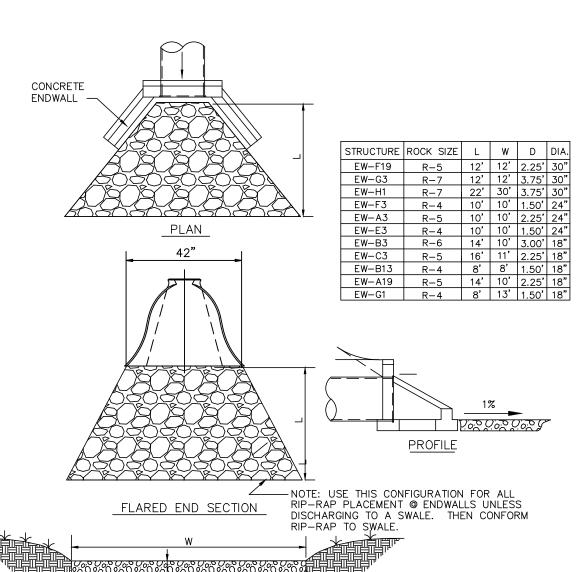


- NOTES:

  1. FILTER BAGS SHALL BE MADE FROM NON-WOVEN GEOTEXTILE MATERIAL SEWN WITH HIGH STRENGTH DOUBLE-STICHED "J" TYPE SEAMS. THEY SHALL BE CAPABLE OF TRAPPING PARTICLES LARGER THAN 150 MICRONS. 2. A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY REQUIRED FOR DISPOSAL PURPOSES MUST BE PROVIDED. FILTER BAGS SHALL BE REPLACED WHEN THEY BECOME ½ FULL. SPARE BAGS SHALL BE KEPT AVAILABLE FOR REPLACEMENT OF THOSE THAT HAVE FAILED OR ARE FILLED.
- 3. BAGS SHALL BE LOCATED IN WELL-VEGETATED (GRASSY) AREA, AND DISCHARGE ONTO STABLE, EROSION RESISTANT AREAS. WHERE THIS IS NOT POSSIBLE, A GEOTEXTILE FLOW PATH SHALL BE PROVIDED. BAGS SHALL NOT BE PLACED ON SLOPES GREATER THAN 5%. 4. THE PUMP DISCHARGE HOSE SHALL BE INSERTED INTO THE BAGS IN THE MANNER SPECIFIED BY THE MANUFACTURER AND SECURELY CLAMPED.
- 6. FILTER BAGS SHALL BE INSPECTED DAILY. IF NAY PROBLEM IS DETECTED, PUMPING SHALL CEASE IMMEDIATELY AND NOT RESUME UNTIL THE PROBLEM IS CORRECTED.

PUMPED WATER FILTER BAG

NO SCALE



NO SCALE

-INSTALL WOVEN GEOTEXTILE MATERIAL BETWEEN RIP-RAP AND SUBGRADE.

SCHEDULE BELOW

TRENCH IN LINING (TYP.)

CROSS SECTION

1.5' 1' 4 20% 9.5' GRASS N.A.G. C-350

 1'
 9
 5.6%
 19'
 GRASS
 N.A.G. S-75

 1'
 10
 5.4%
 21.5'
 GRASS
 N.A.G. S-75

9 1.5' 1' 7 9.8% 15.5' GRASS N.A.G. P-300 E

13 1' 1' 3 33% 7' GRASS N.A.G. P-300 E
14 2' 1' 3 4.0% 8' GRASS N.A.G. S-75 D

10 2' 1' 8 6.3% 18' GRASS N.A.G. P-300
11 1' 1' 7 10% 15' GRASS N.A.G. P-300
12 1' 1' 15 3.0% 31' GRASS N.A.G. S-75

1' 7.5 6.0% 17' GRASS N.A.G. P-300

14 4.0% 30' GRASS N.A.G. S-75

11.5 2.6% 25' GRASS N.A.G. S-75

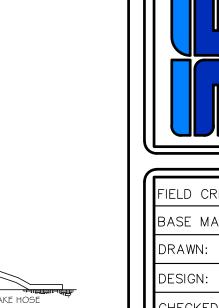
SWALE WIDTH DEPTH SIDE SLOPE WIDTH LINING TEMPORARY

4 1.5' 1' 9 7.0% 19.5' GRASS N.A.G. P-300

5 1.5' 1' 6.5 6.3% 14.5' GRASS N.A.G. S-75

(W) | (D) |SLOPE(X) | % | (Lw) | -

STORMWATER SWALE DETAIL



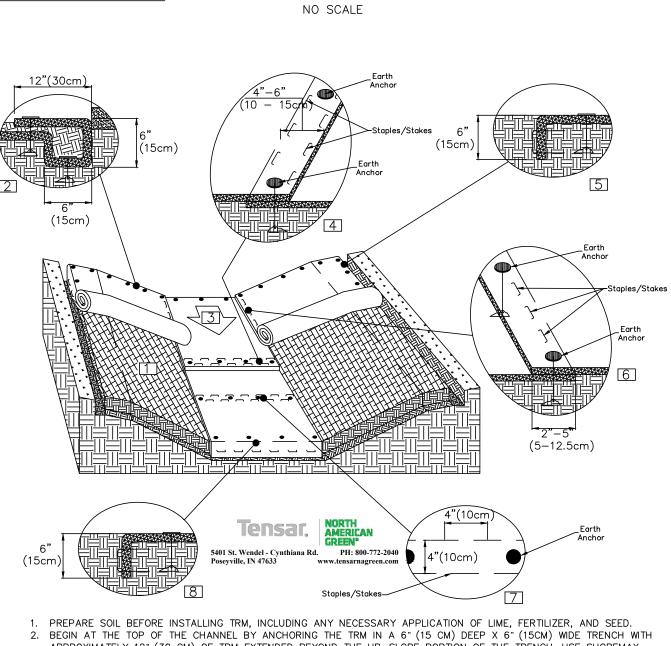
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Ш	FIELD CREW: MOD,JEC
Ш	BASE MAP: JEC
Ш	DRAWN: CDS
Ш	DESIGN: CDS
Ш	CHECKED: SAS
Ш	DATE: 11/4/22
Ш	SCALE: AS NOTED
Ш	PROJECT #784-22-001
П	

75 OF 76 SHEETS



5401 St. Wendel - Cynthiana Rd. PH: 800-772-2040 Poseyville, IN 47633 www.tensarnagreen.com 1. PREPARE SOIL BEFORE INSTALLING TRM, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. 2. BEGIN AT THE TOP OF THE CHANNEL BY ANCHORING THE TRM IN A 6" (15 CM) DEEP X 6" (15CM) WIDE TRENCH WITH APPROXIMATELY 12" (30 CM) OF TRM EXTENDED BEYOND THE UP-SLOPE PORTÍON OF THE TRENCH. USE SHOREMAX APPROXIMATELY 12" (30 CM) OF TRM EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. USE SHOREMAX MAT MAT AT THE CHANNEL/CULVERT OUTLET AS SUPPLEMENTAL SCOUR PROTECTION AS NEEDED. ANCHOR THE TRM WITH AT THE CHANNEL/CULVERT OUTLET AS SUPPLEMENTAL SCOUR PROTECTION AS NEEDED. ANCHOR THE TRM WITH A ROW A ROW OF STAPLES AND ANCHORS APPROXIMATELY 12" (30 CM) APART IN THE BOTTOM OF THE TRENCH. BACKFILL OF STAPLES AND ANCHORS APPROXIMATELY 12" (30 CM) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND OF STAPLES AND ANCHORS APPROXIMATELY 12" (30 CM) APART IN THE BUTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30 CM) PORTION OF TRM BACK OVER SEED AND COMPACTED SOIL. SECURE TRM OVER SOIL WITH A ROW OF STAPLES AND ANCHORS SPACED APPROXIMATELY 12 (30 CM) ACROSS THE WIDTH OF THE TRM.

ROLL CENTER TRM IN DIRECTION OF WATER FLOW IN BOTTOM OF CHANNEL. TRM WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL TRM MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES AND AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30 CM) PORTION OF TRM BACK OVER SEED AND COMPACTED SOIL. SECURE TRM OVER SOIL WITH A ROW OF STAPLES AND ANCHORS SPACED APPROXIMATELY 12 (30 CM) ACROSS THE WIDTH OF THE TRM.

7 Anchors/SQ.YD.(0.8 Anchors/SQ.

A. Overlaps and Seams

. Projec'ted Water Line

C. Channel Bottom/Side Slope

Slope Gradient

CRITICAL POINTS

3. ROLL CENTER TRM IN DIRECTION OF WATER FLOW IN BOTTOM OF CHANNEL. TRM WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL TRM MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES AND ANCHORS IN APPROPRIATE LOCATIONS AS SHOWN IN THE FASTENER PATTERN GUIDE. 4. PLACE CONSECUTIVE TRM END-OVER-END (SHINGLE STYLE) WITH A 4" - 6" (10 CM - 15 CM) OVERLAP. USE A DOUBLE ROW OF STAPLES STAGGERED 4" (10 CM) APART AND 4" (10 CM) ON CENTER TO SECURE TRM. 5. FULL LENGTH EDGE OF TRM AT TOP OF SIDE SLOPES MUST BE ANCHORED WITH A ROW OF STAPLES AND ANCHORS

6. ADJACENT TRM MUST BE OVERLAPPED APPROXIMATELY 2" - 5" (5 CM - 12.5 CM) (DEPENDING ON TRM TYPE) AND 7. IN HIGH FLOW CHANNEL APPLICATIONS, A STAPLE CHECK SLOT IS RECOMMENDED AT 30 TO 40 FOOT (9 M - 12 M) INTERVALS. USE A DOUBLE ROW OF STAPLES STAGGERED 4" (10 CM) APART AND 4" (10CM) ON CENTER OVER

APPROXIMATELY 12" (30 CM) APART IN A 6" (15 CM) DEEP X 6" (15CM) WIDE TRENCH. BACKFILL AND COMPACT THE

8. THE TERMINAL END OF THE TRM MUST BE ANCHORED WITH A ROW OF STAKES AND ANCHORS APPROXIMATELY 12" (30 CM) APART IN A 6" (15 CM) DEEP X 6" (15 CM) WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER

CHANNEL INSTALLATION EARTH ANCHOR DETAIL

INTERVALS. USE A DOUBLE ROW OF STAPLES STAGGERED 4" (10 CM) APART AND 4" (10CM) ON CENTER OVER ENTIRE

8. THE TERMINAL END OF THE TRM MUST BE ANCHORED WITH A ROW OF STAKES AND ANCHORS APPROXIMATELY 12" (30

4. PLACE CONSECUTIVE TRM END-OVER-END (SHINGLE STYLE) WITH A 4" - 6" (10 CM - 15 CM) OVERLAP. USE A

DOUBLE ROW OF STAPLES STAGGERED 4" (10 CM) APART AND 4" (10 CM) ON CENTER TO SECURE TRM.

5. FULL LENGTH EDGE OF TRM AT TOP OF SIDE SLOPES MUST BE ANCHORED WITH A ROW OF STAPLES AND ANCHORS

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APPROXIMATELY 12" (30 CM) APART IN A 6" (15 CM) DEEP X 6" (15CM) WIDE TRENCH. BACKFILL AND COMPACT THE

2.3 Anchors per SQ.YD

NO SCALE

specifications.

1.7 Anchors per SQ.YE (2.0 Anchors per SQ. M.)

\* The performance of ground anchoring devices is highly

dependent on numerous site/project specific variables. It is the

and resist pullout in accordance with the project's design intent.

installation. Sod should be staples/staked according to plan

selected to hold the mat in intimate contact with the soil subgrade

\* Anchor Pattern Guide can vary based on earth anchor and

\* If desired, the system can be soil—filled and sodded after TRM

lensar.

ANCHORS IN APPROPRIATE LOCATIONS AS SHOWN IN THE FASTENER PATTERN GUIDE.

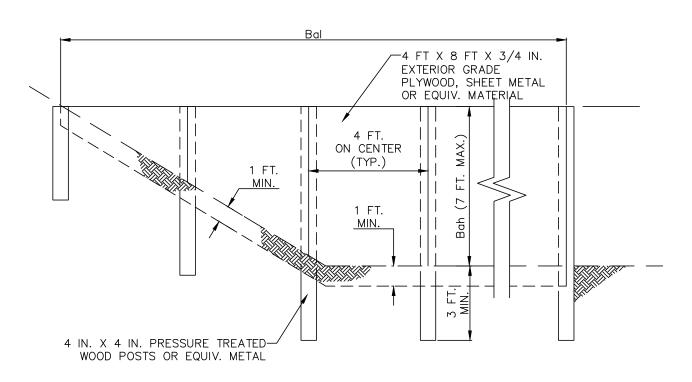
sole responsibility of the project engineer and/or contractor to select the appropriate anchor type and length. Anchoring shall be

NO SCALE

CHANNEL INSTALLATION EARTH ANCHOR DETAIL

5. THE PUMPING RATE SHALL BE NO GREATER THAN 750 GPM OR ½ THE MAXIMUM SPECIFIED BY THE MANUFACTURER, WHICHEVER IS LESS. PUMP INTAKES SHOULD BE

FLARED END SECTION/ENDWALL RIP RAP DETAIL



	BAFFLE		RISER	воттом			
BASIN OR TRAP NO.	LENGTH Bal (FT)	HEIGHT Bah (FT)	CREST ELEV. RCE (FT)	BOTTOM ELEV BE (FT)			
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 D	150	3.50	616.50	613.00			
SEDIMENT BASIN E	100	3.50	616.50	613.00			
SEDIMENT BASIN F	75(X2)	2.50'	614.50	612.00			
SEDIMENT BASIN G	*	4.50'	616.50	612.00			
*VARIES (SEE PLAN VIEW FOR LAYOUT OF BAFFLES)							

SEE APPROPRIATE BASIN DETAIL FOR PROPER LOCATION AND ORIENTATION.

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

IN POOLS WITH DEPTHS EXCEEDING 7', THE TOP OF THE PLYWOOD BAFFLE DOES NOT NEED TO EXTEND TO THE TEMPORARY RISER CREST. SUPER SILT FENCE BAFFLES NEED NOT EXTEND TO TRCE ELEVATION. 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 THE LOCAL CONSERVATION DISTRICT BEFORE INSTALLATION.

DAMAGED OR WARPED BAFFLES SHALL BE REPLACED WITHIN 7 DAYS OF INSPECTION.

APP. RATE\*

BAFFLES REQUIRING SUPPORT POSTS SHALL NOT BE INSTALLED IN BASINS REQUIRING IMPERVIOUS LINERS.

FERTILIZER

SEED DATES

#### SEDIMENT BASIN BAFFLE DETAIL

OPEN, SUNNY LOCATIONS AND WELL-DRAINED SOILS

PERCENTAGE

NO SCALE

SPECIES

		ARM ASSEMBLY		"C" ENCLOSURE WATER ENTRY UNIT	6'
		PVC ENDCAP	PECTIVE VIEW  URFACE AT SPILLWAY	SCHEDULE 40 PVC PIPE PVC VENT PIPE	
PVC E		PVC ENDCAP —SKIMMER HEAD —(SEE TABLE)	ONLY OF THE WAY	PVC 'T'	
	-	-WOODEN GUIDE STAKES 2"x3" ONE EACH SIDE		SKIMMER SHOULD REST  © CLEANOUT LEVEL ON CMU FOUNDATION	
	STAKE HEIGHT (SEE TABLE)		ANGLE	SCHEDULE 40 PVC PIPE SKIMMER ARM (SEE TABLE)	SKIMMER HEAD ORIFICE(SEE TABLE)  NOTES:  1. SKIMMER SHALL BE CONSTRUCTED WITH SCHEDULE 40 PVC PIPE.
	END	SEE SKIMMER ATTACHMENT DETAI	L	FRONT VIEW	2. ALL JOINTS SHALL BE WATERTIGHT. 3. ANGLE SHOULD BE 45° OR LESS WHEN SKIMMER HEAD AT MAXIMUM ELEVATION.  SKIMMER HEAD CMU FOUNDATION(SEE TABLE)
			SKIMMER DE	SIGN CHART	
					- WOODEN

SKIMMER DESIGN CHART								
BASIN	SKIMME	SKIMMER ARM SKIMMER HEAD SKIMMER HEAD CMU			HEIGHT (FT)	WOODEN STAKES		
	LENGTH (FT)	DIA. (IN)	PIPE DIA. (IN)	ORIFICE DIA.	воттом	TOP ELEV	, ,	HEIGHT
А	7	4	4	3.6	563.00	564.00	1	4
В	7	4	4	3.6	586.00	587.00	1	4
С	7	4	4	2.9	593.00	594.00	1	4
D	7	2	2	1.7	613.00	614.50	1.5	4
E	7	2.5	2.5	2.2	613.00	614.00	1	4
F	7	5	5	4.6	612.00	613.00	1	4
G	7	5	5	4.0	612.00	613.00	1	5

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

PO BOX 789 HILLSBOROUGH, NORTH CAROLINA PHONE: 919-732-1244 FAX: 919-732-1266

2. OR APPROVED EQUAL

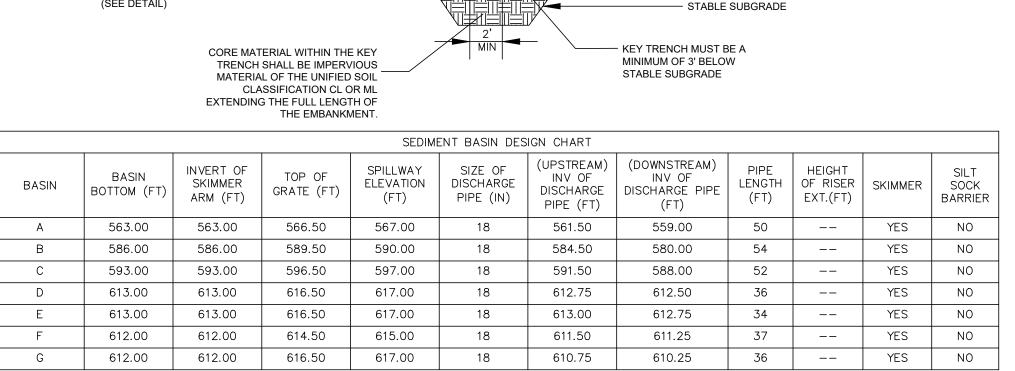
## **E&S SKIMMER OUTLET DETAIL**

NO SCALE

2" x 3" WOOD OR — STEEL STAKE	
SEDIMENT CLEANOUT LEVEL (SEE CHART)	PAINT YELLOW 1/2" WIDE STRIPE
EXISTING GRADE—	- MANAGEMENT - MAN

SEDIMENT BASIN CLEANOUT LEVEL					
BASIN	ELEVATION				
Α	564.00				
В	587.00				
С	594.00				
D	614.50				
E	614.00				
F	613.00				
G	613.00				





DISCHARGE PIPE (SEE PROFILES & PCSM DETAILS)

ANTI-SEEP

COLLARS

(SEE DETAIL)

- EMERGENCY SPILLWAY

- COMPACTED EARTH SUBSOIL -

ONLY COHESIVE SOILS COMPACTED

TO 95% COMPACTION ACCORDING

TO PROCTER TEST. PLACE SOIL IN

CONTINUOUS 8" LAYERS COMPACTION OVER ENTIRE LENGTH OF EMBANKMENT.

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

ALL MATERIAL TO MEET FILTREXX SPECIFICATIONS.

THE UPSLOPE SIDE OF THE DAMAGED SOCK.

STORAGE CAPACITY WITHOUT SOIL DISTURBANCE.

REQUIREMENTS.

**OPERATION AND MAINTENANCE NOTES** 

ENGINEER.

FILTER SOCK COMPOST/SOIL/ROCK/SEED FILL TO MEET APPLICATION

3. COMPOST MATERIAL TO BE DISPERSED ON SITE, AS DETERMINED BY THE

THE CONTRACTOR SHALL MAINTAIN THE FILTER SOCK IN A FUNCTIONAL

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

CONSERVATION DISTRICT. ALTERNATIVELY, A NEW FILTER SOCK CAN BE PLACED ON TOP OF AND SLIGHTLY BEHIND THE ORIGINAL ONE CREATING MORE SEDIMENT

HAS BEEN PERMANENTLY STABILIZED AND CONSTRUCTION ACTIVITY HAS CEASED. 5. THE FILTERMEDIA WILL BE DISPERSED ON SITE ONCE DISTURBED AREA HAS BEEN

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

4. FILTER SOCK SHALL BE MAINTAINED UNTIL DISTURBED AREA ABOVE THE DEVICE

PERMANENTLY STABILIZED, CONSTRUCTION ACTIVITY HAS CEASED, OR AS

CAN BE SEEDED AT THE TIME OF INSTALLATION TO CREATE A VEGETATIVE

AND SOLUBLE POLLUTANTS (CONTAINED VEGETATIVE FILTER STRIP). THE

6. FOR LONG-TERM SEDIMENT AND POLLUTION CONTROL APPLICATION, FILTER SOCK

FILTERING SYSTEM FOR PROLONGED AND INCREASED FILTRATION OF SEDIMENT

APPROPRIATE SEED MIX SHALL BE DETERMINED BY THE DESIGN PROFESSIONAL

DETERMINED BY THE LEBANON COUNTY CONSERVATION DISTRICT.

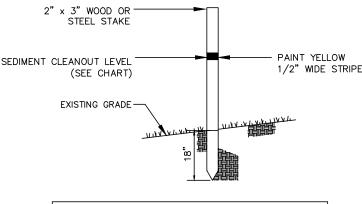
CONDITION AT ALL TIMES AND IT SHALL BE ROUTINELY INSPECTED.

SKIMMER

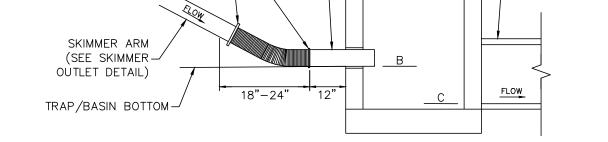
(SEE DETAIL)

SEE NOTE 1-

CONCRETE FOOTER (SEE DETAIL)



SEDIMENT BASIN	CLEANOUT LEVEL
BASIN	ELEVATION
А	564.00
В	587.00
С	594.00
D	614.50
E	614.00
F	613.00
G	613.00



SEDIMENT BASIN/TRAP OUTLET STRUCTURE

DIA. (IN)

4.0

4.0

2.5

5.0

ELEV A | ELEV B |

TYPE M INLET

OUTLET STRUCTURE

TEMPORARY PVC

PIPE STUB

STUB PIPE | ELEV C | PIPE DIA. (IN)

584.50

591.50

613.00

611.50

18

18

18

18

18

18

RCP DISCHARGE

4.0 | 561.50 |

2.0 | 612.75 |

5.0 | 610.75 |

SECTION VIEW

BASIN

ELEV

A | 563.00 | 566.50 | 563.00 |

B | 586.00 | 589.50 | 586.00

C | 593.00 | 596.50 | 593.00 |

D | 613.00 | 616.50 | 613.00 |

E | 613.00 | 616.50 | 613.00 |

F | 612.00 | 614.50 | 612.00 |

G | 612.00 | 616.50 | 612.00 |

BASIN /TRAP

TRAP BOTTOM

CONNECT FLEXIBLE

WITH HOSE CLAMPS

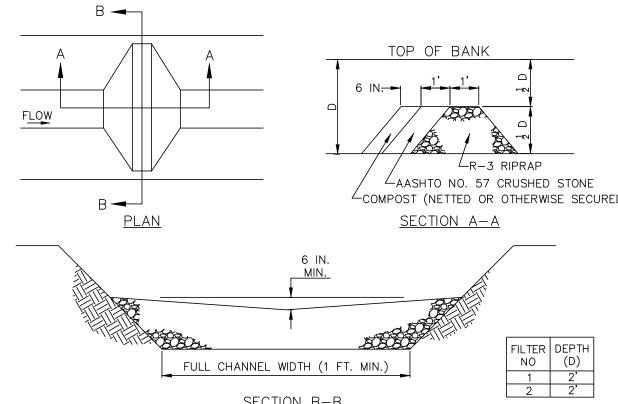
HOSE TO TEMPORARY

STUB & SKIMMER ARM

NOTES:
1. ALL JOINTS SHALL BE WATERTIGHT. 2. TEMPORARY STUB PIPE PENETRATION TO BE FULLY GROUTED OR SEALED WITH A STAINLESS STEEL PLATE DURING CONVERSION TO PERMANENT STORMWATER BASIN.

# SKIMMER ATTACHMENT - SEDIMENT BASIN/TRAP OUTLET STRUCTURE DETAIL

NO SCALE



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** 

#### KENTUCKY BLUEGRASS KENTUCKY BLUEGRASS PERENNIAL RYEGRASS 3-4 KENTUCKY BLUEGRASS 3-4 PERENNIAL RYEGRASS TURF-TYPE TALL FESCUE 100% 6-8 URF-TYPE PERENN. RYEGRASS MODERATE TO PARTIAL SHADE FERTILIZER APP. RATE\* SPECIES PERCENTAGE SEED DATES KENTUCKY BLUEGRASS PERENNIAL RYEGRASS MARCH 15-JUNE 15 & AUGUST 30-OCTOBER 1 FINE FESCUES 100% TURF-TYPE TALL FESCUE 100% HEAVY SHADE, WELL-DRAINED SOILS SPECIES PERCENTAGE FERTILIZER SEED DATES MARCH 15-JUNE 15 & AUGUST 30-OCTOBER 1 FINE FESCUES $N-P_2^{}0_5^{}-K_2^{}0$ HEAVY SHADE, POORLY-DRAINED SOILS FERTILIZER SPECIES PERCENTAGE APP. RATE\* SEED DATES MARCH 15-JUNE 15 & AUGUST 30-OCTOBER 1 ROUGH BLUEGRASS INFILTRATION BASIN BOTTOM MANUFACTURER APP. RATE FERTILIZER MIX RETENTION BASIN FLOOR MIX – LOW MAINTENANCE (ERNMX—126) MIX ERNST CONSERVATION SEEDS, INC. 8884 MERCER PIKE MEADVILLE, PA 16335 PER MANUFACTURER'S SPECIFICATIONS & RECOMMENDATIONS LBS PER 1,000 S.F.

1. APPLY LIME IN ACCORDANCE WITH SOIL TEST RESULTS. APPLY 6 TONS OF AGRICULTURAL GRADE LIMESTONE/ACRE. 2. APPLY FERTILIZER AT 1,000 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.

## SEEDING SPECIFICATIONS

SPECIES	PERCENTAGE	APP. RATE*	FERTILIZER	SEED DATES
BIRDSFOOT TREFOIL CROWN VETCH TALL FESCUE	98% 1-2% 1-2%	10 20 30	10-10-20 N-P <sub>2</sub> 0 <sub>5</sub> -K <sub>2</sub> 0	MARCH 15-JUNE 15 & AUGUST 30-OCTOBER 1

1. APPLY LIME IN ACCORDANCE WITH SOIL TEST RESULTS. APPLY 6 TONS OF AGRICULTURAL GRADE LIMESTONE/ACRE. 2. APPLY FERTILIZER AT A RATE OF 1,000 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 STEEP SLOPE SEEDING SPECIFICATIONS

NOT TO SCALE

NOT TO SCALE

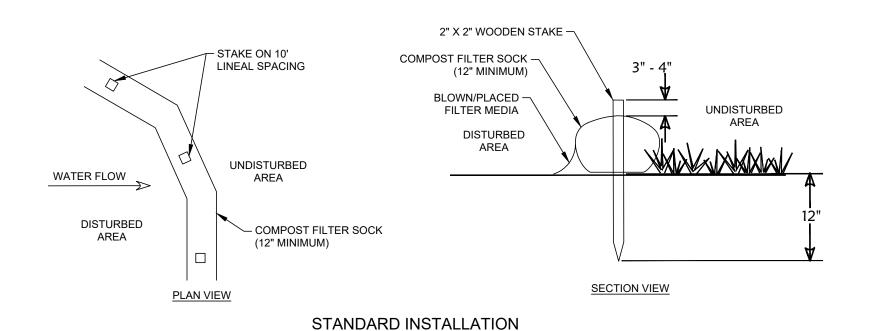
TEMPORARY				
SPECIES	PERCENTAGE	APP. RATE*	FERTILIZER	SEED DATES
ANNUAL RYEGRASS	98%	40	10-10-10 N-P <sub>2</sub> 0 <sub>5</sub> -K <sub>2</sub> 0	MARCH 15-JUNE 15 & AUGUST 30-OCTOBER 15
* LBS PER ACRE				

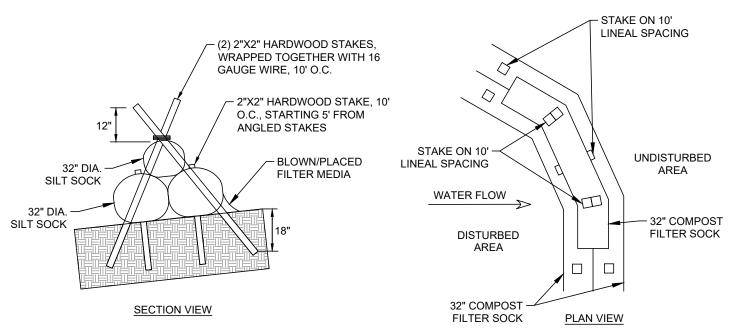
1. APPLY LIME IN ACCORDANCE WITH SOIL TEST RESULTS. APPLY 1 TON OF AGRICULTURAL GRADE LIMESTONE/ACRE. 2. APPLY FERTILIZER AT A RATE OF 500 LB./ACRE.
3. ALL SEEDED AREAS SHALL BE MULCHED WITH HAY OR STRAW APPLIED AT A RATE OF 3 TONS/ACRE. MULCH TO BE ANCHORED WITH WOOD CELLULOSE FIBER © 750 LBS/AC.

4. ALL DIVERSIONS, CHANNELS, SED TRAPS AND STOCKPILES MUST BE STABILIZED IMMEDIATELY.

TEMPORARY SEEDING SPECIFICATIONS

NOT TO SCALE

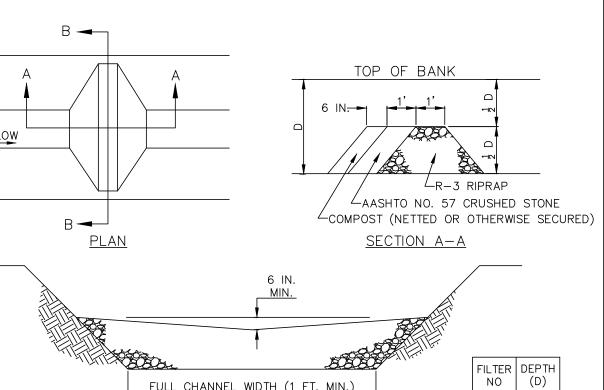




STACKED INSTALLATION

# COMPOST FILTER SOCK DETAIL

NO SCALE



SECTION B-B

ONTROL Ö ENTATION ( SEDIME ∞ర

DE.



	FIELD	CREW:	MOD,JEC	•
	BASE	MAP:	JEC	_
	DRAW	۷:	CDS	_
	DESIGN	۷:	CDS	
	CHECK	(ED:	SAS	
	DATE:		11/4/22	
	SCALE	:	AS NOTED	
	PROJECT #784-22-001			
1				_

76 OF 76 SHEETS