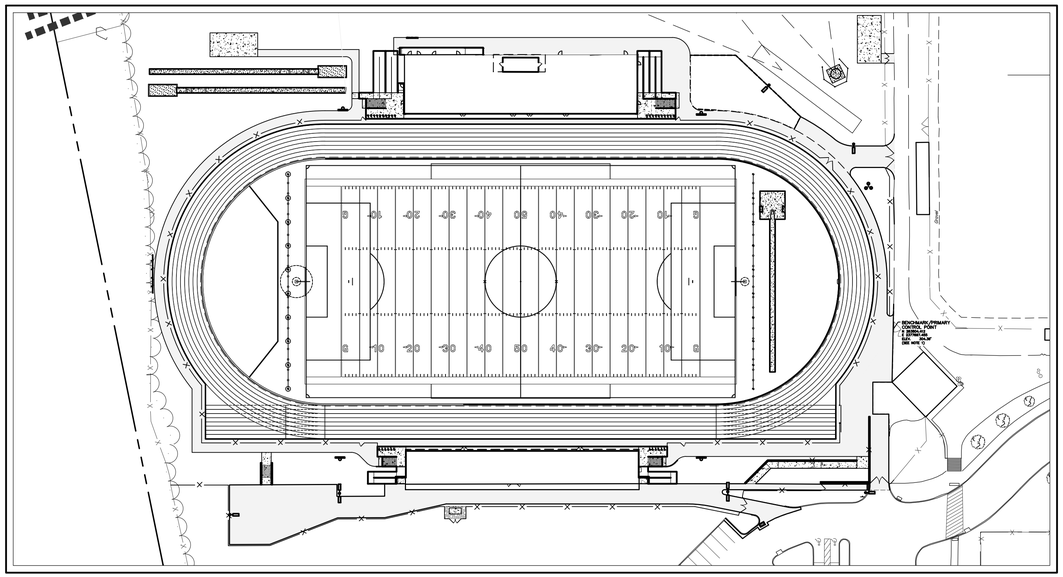
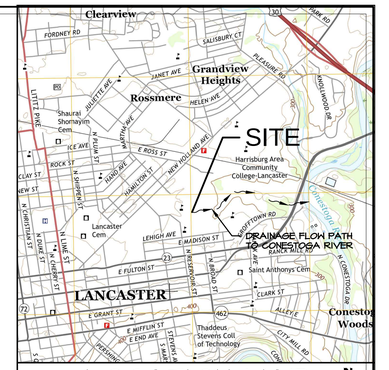
FINAL LAND DEVELOPMENT PLAN

FOR

McCASKEY HIGH SCHOOL STADIUM RENOVATIONS

CITY OF LANCASTER - LANCASTER COUNTY - PENNSYLVANIA





LOCATION MAP

SCALE: 1" = 2000'

CERTIFICATE OF ACCURACY (SURVEY)

I HEREBY CERTIFY THAT, TO THE BEST OF MY KNOWLEDGE, THE SURVEY AND PLAN SHOWN AND DESCRIBED HEREON IS TRUE AND CORRECT TO THE ACCURACY REQUIRED BY THE LANCASTER CITY SUBDIVISION AND LAND DEVELOPMENT ORDINANCE.

_____

_____, 20____

CERTIFICATE OF PLAN ACCURACY

I HEREBY CERTIFY THAT, TO THE BEST OF MY KNOWLEDGE, THE PLAN SHOWN AND DESCRIBED HEREON IS TRUE AND CORRECT TO THE ACCURACY REQUIRED BY THE LANCASTER CITY SUBDIVISION AND LAND DEVELOPMENT ORDINANCE.

_____

_____, 20____

CERTIFICATE OF ACCURACY FOR (STORM WATER MANAGEMENT)

I HEREBY CERTIFY THAT, TO THE BEST OF MY KNOWLEDGE, THE (STORM WATER MANAGEMENT FACILITIES OR OTHER PLAN DETAILS NOT COVERED BY THE CERTIFICATE OF PLAN ACCURACY) SHOWN AND DESCRIBED HEREON ARE DESIGNED IN CONFORMANCE WITH THE LANCASTER CITY SUBDIVISION AND LAND DEVELOPMENT ORDINANCE.

_____

_____, 20____

CERTIFICATE FOR LANCASTER CITY PLANNING COMMISSION APPROVAL

APPROVED BY THE LANCASTER CITY PLANNING COMMISSION THIS _____ DAY OF _____, 20___.

_____

CHAIRPERSON OR VICE-CHAIRPERSON

CERTIFICATE FOR LANCASTER CITY ENGINEER APPROVAL

APPROVED BY THE CITY ENGINEER THIS _____ DAY OF _____, 20___.

_____

CITY ENGINEER

THE CITY OF LANCASTER STORMWATER MANAGEMENT SITE PLAN APPROVAL CERTIFICATION

ON THIS DATE _____, 20____, THE CITY OF LANCASTER APPROVED THIS PROJECT, AND ALL CONDITIONS HAVE BEEN MET. THIS APPROVAL INCLUDES THE COMPLETE SET OF PLANS AND INFORMATION THAT ARE FILED WITH THE CITY OF LANCASTER IN FILE NO._____, BASED UPON ITS CONFORMITY WITH THE STANDARDS OF THE CITY OF LANCASTER STORMWATER MANAGEMENT ORDINANCE.

_____

DIRECTOR

CERTIFICATE FOR LANCASTER COUNTY PLANNING DEPARTMENT'S REVIEW CERTIFICATE

THIS PLAN, BEARING LCPC FILE NO._____, WAS REVIEWED BY STAFF OF THE LANCASTER COUNTY PLANNING DEPARTMENT ON _____, 20____, AS REQUIRED BY THE PENNSYLVANIA MUNICIPALITIES PLANNING CODE, ACT 247, OF 1968, AS AMENDED. THIS CERTIFICATE DOES NOT REPRESENT NOR GUARANTEE THAT THIS PLAN COMPLIES WITH THE VARIOUS ORDINANCES, RULES, REGULATIONS, OR LAWS OF THE LOCAL MUNICIPALITY, THE COMMONWEALTH, OR THE FEDERAL GOVERNMENT.

_____

SIGNATURE OF THE CHAIRPERSON OR THEIR DESIGNEE

CERTIFICATE OF OWNERSHIP, ACKNOWLEDGMENT OF PLAN, AND OFFER OF DEDICATION - THE SCHOOL DISTRICT OF LANCASTER , A PENNSYLVANIA NON-PROFIT CORPORATION

COMMONWEALTH OF PENNSYLVANIA
COUNTY OF LANCASTER

ON THIS THE _____ DAY OF _____ , 20___ , BEFORE ME, THE UNDERSIGNED DESIGNEE, PERSONALLY APPEARED _____ BEING AUTHORIZED BY THE SCHOOL DISTRICT OF LANCASTER , A PENNSYLVANIA NON-PROFIT CORPORATION (THE "SCHOOL"), WHO BEING DULY SWORN ACCORDING TO THE LAW, DEPOSES AND SAYS THAT THE SCHOOL IS THE OWNER OF THE PROPERTY SHOWN ON THIS PLAN, THAT HE IS AUTHORIZED TO EXECUTE SAID PLAN ON BEHALF OF THE SCHOOL, THAT THE PLAN IS ACT AND DEED OF THE SCHOOL , THAT THE SCHOOL DESIRES THE SAME TO BE RECORDED, AND ON BEHALF OF THE SCHOOL DISTRICT FURTHER ACKNOWLEDGES THAT ALL STREETS AND OTHER PROPERTY IDENTIFIED AS PROPOSED PUBLIC PROPERTY ARE HEREBY DEDICATED TO THE PUBLIC USE (EXCEPTING THOSE AREAS LABELED "NOT FOR DEDICATION").

_____

_____

MY COMMISSION EXPIRES _____, 20___

LANDOWNER ACKNOWLEDGEMENT OF PERMANENCE OF STORMWATER FACILITIES

I (WE) THE UNDERSIGNED OWNER(S) OF THE REAL ESTATE SHOWN AND DESCRIBED HEREON, DO ACKNOWLEDGE THE STORMWATER MANAGEMENT FACILITIES SHOWN AND DESCRIBED HEREON ARE TO BE PERMANENT FIXTURES THAT CANNOT BE ALTERED OR REMOVED UNLESS A REVISED PLAN IS APPROVED BY THE CITY OF LANCASTER.

_____ _____

OWNER(S) DATE

SITE DATA

ZONING DATA-R2 DISTRICT

ZONING DISTRICT:	R2 - OTHER PRINCIPAL STRUCTURE/USE
EXISTING LAND USE:	ACCESSORY USE - STADIUM
PROPOSED LAND USE:	ACCESSORY USE - STADIUM
PERMITTED USE:	BY RIGHT
UNITS OF OCCUPANCY:	1

	ORDINANCE REQUIREMENT
MIN. LOT AREA:	8,000 S.F.
MIN. LOT WIDTH:	60'
MIN. LOT DEPTH:	100'
FRONT SETBACK	20'
SIDE SETBACK	10'
SIDE COMBINED SETBACK	25'
REAR SETBACK	25'
MAXIMUM LOT COVERAGE	55%
MAXIMUM BUILDING COVERAGE	40%
MAXIMUM BUILDING HEIGHT	38', 3 STORIES

LOT AREA (CITY OF LANCASTER):	71.06 AC (70.80 AC NET R.O.W.)
LOT AREA (MANHEIM TOWNSHIP):	40.10 AC (39.81 AC NET R.O.W.)
TOTAL LOT AREA:	111.16 AC (110.61 AC NET R.O.W.)
WATER SERVICE:	PUBLIC (CITY)
SEWER SERVICE:	PUBLIC (CITY)
*NO WATER AND SEWER IS PROPOSED	AS PART OF THIS PROJECT
EXISTING LOT COVERAGE (CITY):	40.2% +/- (28.43 AC / 70.80 AC)
PROPOSED LOT COVERAGE (CITY):	
INCLUDING SYNTHETIC TURF:	46.2 % +/- (32.73 AC / 70.80 AC)
NOT INCLUDING SYNTHETIC TURF:	43.2 % +/- (30.58 AC / 70.80 AC)
EARTH DISTURBANCE:	3.31 ACRES

PARKING TABULATIONS - STADIUM

EX. STADIUM SEATING:	6,261 SEATS / NO ADA SEATING
PROPOSED STADIUM SEATING:	3,642 SEATS WITH 32 ADA SEATING
PARKING REQUIREMENTS:	1 PER 4 SEATS
REQUIREMENTS W/ CURRENT SEATING:	1,566 SPACES
REQUIREMENTS W/ REDUCED SEATING:	923 SPACES
NET REDUCTION IN REQUIRED SPACES:	643 SPACES

CURRENT PARKING ON CAMPUS

MCCASKEY HS:	231 SPACES
MCCASKEY EAST:	313 SPACES
HICKERSHAM ELEMENTARY:	59 SPACES
LINCOLN MS:	128 SPACES
SCHEFFEY ADMINISTRATIVE:	36 SPACES
TOTAL PARKING ON CAMPUS:	767 SPACES

LANDOWNER STORMWATER ACKNOWLEDGEMENT

THE LANDOWNER UNDERSTANDS THAT SINKHOLE RISKS HAVE BEEN IDENTIFIED BY THE GEOTECHNICAL PROFESSIONAL FOR THE PROPOSED STORMWATER MANAGEMENT SYSTEMS AS DESIGNED TO ACCOMMODATE THE PROPOSED IMPROVEMENTS. THE LANDOWNER ASSUMES ALL RESPONSIBILITY FOR ANY ADVERSE CONDITIONS THAT MAY DEVELOP AS A RESULT OF THEIR STORMWATER SYSTEMS (INCLUDING INFILTRATION SYSTEMS) IN A CARBONATE GEOLOGY AREA WITHIN THEIR PROPERTY. THE STORMWATER MANAGEMENT SYSTEMS MONITORED FOR PROPER PERFORMANCE AND A GEOTECHNICAL PROFESSIONAL SHALL BE CONSULTED FOR ANY ADVERSE SITUATIONS THAT MAY DEVELOP.

_____ _____

OWNER(S) DATE

	ACRES	SF
EXISTING IMPERVIOUS (SITE)	1.83	79,715
NEW/RECONSTRUCTED IMPERVIOUS (SITE)	4.63	201,683
RIGHT OF WAY IMPERVIOUS - UNCHANGED	N/A	N/A

*NEW/RECONSTRUCTED IMPERVIOUS ASSUMES SYNTHETIC TURF AS IMPERVIOUS SURFACE

CONSTRUCTION ACTIVITIES SHALL NOT BE COMMENCED WITHOUT NOTIFYING THE PLANNING BUREAU, STORMWATER BUREAU, CITY ENGINEER, AND OTHER RELEVANT AGENCIES OF THE CITY.

PENNSYLVANIA ACT 121 (2008) REQUIRES NOTIFICATION OF EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE COMMONWEALTH.

DATE: 3/21/2025 BY: AJB SERIAL NO: 20250802874 - LANCASTER CITY
20250802875 - MANHEIM TOWNSHIP

NOTES: UNDERGROUND UTILITY LINE PROTECTION ACT

IN COMPLIANCE WITH AND PURSUANT TO THE PROVISIONS OF 73 P.S. §176, AS AMENDED BY ACT 121 OF 2008, LAND GRANT SURVEYORS, LLC. HAS PERFORMED THE FOLLOWING REQUIREMENTS IN PREPARING THESE DRAWINGS THAT INCLUDE EXCAVATION OR DEMOLITION WORK AT SITES WITHIN THE POLITICAL SUBDIVISION AND/OR LAND DEVELOPMENT SHOWN ON THE DRAWINGS HEREIN:

1. PURSUANT TO 73 P.S. §176(2), LAND GRANT SURVEYORS, LLC. HAS REQUESTED LINE AND FACILITY INFORMATION FROM THE ONE CALL SYSTEM NOT LESS THAN TEN (10) NOR MORE THAN NINETY (90) BUSINESS DAYS BEFORE FINAL DESIGN IS TO BE COMPLETED. IF SUCH INFORMATION WAS OBTAINED MORE THAN NINETY (90) DAYS BEFORE FINAL DESIGN IS TO BE COMPLETED, LAND GRANT SURVEYORS, LLC. HAS STATED IN THE REQUEST THAT THE WORK IS PRELIMINARY.

2. PURSUANT TO 73 P.S. §176(3), LAND GRANT SURVEYORS, LLC. HAS SHOWN, UPON REQUEST THESE DRAWINGS, THE POSITION AND TYPE OF EACH FACILITY OWNER'S LINE, AS DERIVES PURSUANT TO THE REQUEST MADE AS REQUIRED BY 73 P.S. §176(2), THE NAME OF THE FACILITY OWNER AND THE FACILITY OWNER'S DESIGNATED OFFICE ADDRESS AND TELEPHONE NUMBER.

3. PURSUANT TO 73 P.S. §176(5), LAND GRANT SURVEYORS, LLC. HAS CALLED THE ONE CALL SYSTEM AND SHOWN AS PROOF, THE SERIAL NUMBER OF THE ONE CALL NOTICE AND THE TOLL FREE NUMBER OF THE ONE CALL SYSTEM ON THE DRAWINGS NEAR THE SERIAL NUMBER.

4. IF, PURSUANT TO 73 P.S. §176(2), LAND GRANT SURVEYORS, LLC. HAS REQUESTED LINE AND FACILITY INFORMATION FROM THE ONE CALL SYSTEM MORE THAN NINETY (90) DAYS BEFORE FINAL DESIGN IS TO BE COMPLETED, LAND GRANT SURVEYORS, LLC. HAS INDICATED THAT THE REQUEST IS PRELIMINARY AND THE SERIAL NUMBER OF SAID REQUEST IS SHOWN ON THE DRAWINGS HEREIN.

LAND GRANT SURVEYORS, LLC. DOES NOT REPRESENT, WARRANT, ASSURE OR GUARANTEE THAT THE INFORMATION RECEIVED PURSUANT TO THE ONE CALL SYSTEM REQUEST AND AS REFLECTED ON THESE DRAWINGS IS ACCURATE OR CORRECT. FURTHERMORE, LAND GRANT SURVEYORS, LLC. INCLUDES THE INFORMATION ONLY PURSUANT TO THE REQUIREMENTS OF THE UNDERGROUND UTILITY LINE PROTECTION ACT, AS AMENDED BY ACT 121 OF 2008.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION BY CALLING THE PENNSYLVANIA ONE CALL SYSTEM 1-800-242-1776 A MINIMUM OF THREE (3) DAYS PRIOR TO EXCAVATING OR WITH CAREFUL EXPLORATORY WORK; AT THE CONTRACTOR'S RISK, PRIOR TO CONSTRUCTION FOR THOSE PRIVATE LINES WHICH ARE NOT ABLE TO BE LOCATED THROUGH THE ONE CALL PROCESS. IT MAY BECOME NECESSARY IN THE FIELD TO ADJUST THE PROPOSED UTILITY LOCATION TO RESOLVE AND UTILITY CROSSING CONFLICTS WHICH MAY OCCUR. LAND GRANT SURVEYORS, LLC. SHALL BE NOTIFIED IMMEDIATELY OF ANY SUCH CONFLICTS ARE ENCOUNTERED. THE INFORMATION CONTAINED IN THIS SECTION AS IT RELATES TO THE DUTIES OF CONTRACTORS DOES NOT CONSTITUTE LEGAL ADVICE AND IN NO WAY REPRESENTS THE EXTENT OF THE CONTRACTOR'S DUTIES PURSUANT TO THE UNDERGROUND UTILITY LINE PROTECTION ACT. CONTRACTORS WITH QUESTIONS REGARDING THE UNDERGROUND UTILITY LINE PROTECTION ACT SHOULD CONSULT WITH AN ATTORNEY IMMEDIATELY.

UTILITY LISTING

CONTACT PA ONE CALL AT 1-800-242-1776 FOR INDIVIDUAL UTILITY TELEPHONE NUMBERS.

WINDSTREAM
1450 CENTER POINT RD
HIAWATHA, IA, 52233
LOCATE DESK PERSONNEL
locate.desk@windstream.com
800-289-1901*

U S I G LOCATING SERVICES
4045 N RIVER ROAD ST
E 300
INDIANAPOLIS, IN, 46240
JEFFREY TRUMBOWER
JeffTrumbower@usiglic.com
317-810-8254*

MANHEIM TOWNSHIP
1840 MUNICIPAL DR
LANCASTER, PA. 17601
RICK KANE
rkane@manheimtownship.org
717-569-6406 EXT. 1104*

FRONTIER COMMUNICATIONS OF PA INC
3000E LAIRD ST
WILKES BARRE, PA. 18702
MICHAEL NAVICH
Michael.Navich@FTR.com
570-208-3375*

LANCASTER CITY OF
150 PITNEY ROAD
LANCASTER, PA. 17601
BENJAMIN PERSHEN
BPERSHEN@CITYOFLANCASTERPA.GOV
717-735-0341*

PPL ELECTRIC UTILITIES CORPORATION
497 BLUE CHURCH RD
PAXINOS, PA. 17860
DOUG HAUPT
dlhaupt@pplweb.com
610-247-2461*

UGI UTILITIES INC
1301 AIP DR
MIDDLETOWN, PA. 17057
STEPHEN BATEMAN
sbateman@ugi.com
610-807-3174

VERIZON PENNSYLVANIA LLC
1026 HAY ST
PITTSBURGH, PA. 15221
DEBORAH BARUM
deborah.d.della@verizon.com
412-344-3401*

MODIFICATIONS:

SECTION

ACTION:_____ DATE:_____

Sheet List Table

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04	NPDES NOTES
05	NPDES NOTES
06	O&M NOTES
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08	EXIST. CONDITIONS & DEMOLITION PLAN
09	EXIST. CONDITIONS & DEMOLITION PLAN
10	EASEMENT PLAN
11	LAYOUT PLAN
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13	GRADING PLAN
14	GRADING PLAN
15	SUBGRADE PLAN
16	SUBGRADE PLAN
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35	SITE DETAILS
36	SITE DETAILS
37	SITE DETAILS
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(ALL SHEETS WILL BE RECORDED)

APPROVALS REQUIRED

PLANNING COMMISSION.....APPROVAL _____

NPDES PERMIT.....APPROVAL _____

OWNER

SCHOOL DISTRICT OF LANCASTER, PA
1051 LEHIGH AVENUE
LANCASTER, PA 17602

SOURCE OF TITLE

ACCOUNT NO. 390-31560-0-0000
SOURCE OF TITLE: DEED BK. 4238, PG. 562 (MANHEIM TOWNSHIP)
SUBD. PLAN BK. J-184, PG. 4

PROJECT SITE ADDRESS

445 N. RESERVOIR STREET, LANCASTER, PA 17602

SURVEYOR OF RECORD

LAND GRANT SURVEYORS
3904 ABEL DRIVE
COLUMBIA, PA 17512
(717) 285-1812

WATERSHED

UNT TO CONESTOGA RIVER - WWF-MF

REVISIONS PER:	DATE:	BY:
1. COL/LCCD COMMENTS	3/28/25	EWB
2. -	-	-
3. -	-	-
4. -	-	-
5. -	-	-

ELA SPORT
ATHLETIC FACILITIES DESIGN & CONSULTING
743 SOUTH BROAD STREET
LITITZ, PA 17543
(717) 626-7271 FAX (717) 626-7040
www.elasport.com

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ELIZABETH WERNER BALDWIN
ENGINEER
PE080726

PENNSYLVANIA
CHAD D. CADDICK
REGISTERED LANDSCAPE ARCHITECT

STORMWATER MANAGEMENT PLAN	
SUBJECT:	
COVER	
MCCASKEY HIGH SCHOOL	
MCCASKEY HIGH SCHOOL STADIUM RENOVATIONS	
CITY OF LANCASTER - LANCASTER COUNTY - PENNSYLVANIA	
CLIENT:	
MM ARCHITECTS	
214 NORTH DUKE STREET	
LANCASTER, PA 17602	
(717) 393-3211	

MANAGER:	HDC	DATE:	February 6, 2025
DESIGNER:	EWB	PROJECT NO.	AZ202-015
DRAWN BY:	JMT	SCALE:	AS SHOWN

DRAWING NO.

01 OF 53

DRAWING: C:\Users\jmteeter\DC\ACCDocs\ELA Group\AZ202-015 McCaskey Stadium Renovations\Project Files\CAD Data\Land Development\LD-FRELIMCOVER-CURRENT.dwg - PLOTTED: Apr 02, 2025 2:16 pm

PLAN NOTES

GENERAL NOTES:

1. NO ONE SHALL SCALE FROM THESE PLANS TO CONSTRUCT OR LAYOUT ANY PART OF THIS PROJECT.
2. ELA GROUP, INC. MAKES NO REPRESENTATIONS AS TO THE SUBSURFACE CONDITIONS OF THE PROJECT SITE INCLUDING DEPTH OF BEDROCK, GEOLOGICAL CONDITIONS, SOIL STABILITY, ETC.
3. THE PROPERTY OWNER IS RESPONSIBLE TO KEEP ALL TREES TRIMMED IN ORDER TO OBTAIN/MAINTAIN THE PENNDOT DESIRABLE SAFE STOPPING SIGHT DISTANCES / CLEAR SIGHT TRIANGLES.
4. NOTHING SHALL BE PLACED, PLANTED, SET OR PUT WITHIN THE AREA OF AN EASEMENT THAT WOULD ADVERSELY AFFECT THE FUNCTION OF THE EASEMENT OR CONFLICT WITH THE EASEMENT AGREEMENT.
5. THE OWNER/DEVELOPER SHALL BE RESPONSIBLE FOR AND BEAR THE SOLE COST OF THE INSTALLATION OF ALL IMPROVEMENTS SHOWN ON THIS PLAN. ALL IMPROVEMENTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE MUNICIPAL ZONING ORDINANCE, SUBDIVISION AND LAND DEVELOPMENT ORDINANCE AND STORM WATER MANAGEMENT ORDINANCE.
6. THE OWNER/DEVELOPER SHALL OBTAIN ALL APPROVALS AS NECESSARY FROM THE APPLICABLE BUILDING CODE AGENCY PRIOR TO CONSTRUCTION OF ANY BUILDINGS OR STRUCTURES.
7. ALL SITE CONSTRUCTION SHALL CONFORM TO THE PA BUILDING CODE & THE AMERICANS WITH DISABILITIES ACT (ADA).
8. DURING CONSTRUCTION OR UPON COMPLETION, THE MUNICIPALITY SHALL HAVE THE RIGHT, BUT NOT THE DUTY, OF ACCESS AT ANY TIME, TO INSPECT AND MAINTAIN THE FACILITY AT THE PROPERTY OWNER'S EXPENSE IF THE OWNER SHOULD FAIL TO PROPERLY CONSTRUCT OR MAINTAIN THE FACILITY.
9. ANY REVISIONS TO THESE PLANS AFTER THE DATE OF THE LATEST REVISION SHALL NOT BE THE RESPONSIBILITY OF ELA GROUP, INC. SUBSTITUTIONS FOR ANY MATERIALS, OR CHANGES TO THE PLAN, REQUIRES APPROVAL OF ELA GROUP, INC., THE MUNICIPALITY, OR THE AUTHORITY HAVING JURISDICTION (AS APPLICABLE).
10. ANY NON-STORMWATER CONNECTIONS TO THE PUBLIC STORM SEWER SYSTEM ARE STRICTLY PROHIBITED.

SURVEYING AND BASEMAPPING

1. BENCHMARK: TALL NAIL SET IN GRASS ON TOP OF HILL APPROXIMATELY 74FT WEST OF MANHOLE IN MCGASKEY AVENUE. ELEVATION= 325.24' NAVD 88 DATUM.
2. THIS PROPERTY WAS SURVEYED USING THE CURRENT DEEDS OF RECORD AND WITHOUT THE BENEFIT OF A "TITLE SEARCH". THIS SURVEY DOES NOT GUARANTEE OR IMPLY THAT THE PROPERTY IS NOT AFFECTED BY RIGHT-OF-WAY, EASEMENTS, RESTRICTIONS, ETC. WHICH MAY BE DISCOVERED BY A COMPLETE "TITLE SEARCH".
3. THIS PROPERTY LIES WITHIN A 100 YEAR FLOOD PLAIN (ZONE AE & ZONE X) ACCORDING TO FEMA FLOOD INSURANCE RATE MAPS #42071C0366F AND #42071C0361F DATED APRIL 5, 2016.
4. UNDERGROUND UTILITY LOCATIONS ARE APPROXIMATE AND WERE DETERMINED FROM VISIBLE LOCATION, ACT 121 UTILITY RESPONSES AND/OR BEST AVAILABLE PLAN INFORMATION. (LAND GRANT SURVEYORS, LLC. CANNOT GUARANTEE THE EXACT LOCATION OF UNDERGROUND UTILITIES OR STRUCTURES, AN EXACT LOCATION OR THE EXISTENCE OF OR NONEXISTENCE OF UNDERGROUND UTILITIES CAN ONLY BE OBTAINED BY SUBSURFACE EXPLORATION, WHICH IS NOT PART OF THIS CONTRACT PERFORMANCE).
5. BASIS OF BEARINGS TAKEN FROM A REALIZATION OF THE PENNSYLVANIA STATE PLANE COORDINATE SYSTEM SOUTH ZONE NAD 83.

DEMOLITION NOTES

1. LIMIT OF PAVING, CURB, SIDEWALK, UTILITIES AND OTHER IMPROVEMENTS TO BE REMOVED, OR PARTIALLY REMOVED, IS APPROXIMATE. DEMOLITION OF EXISTING IMPROVEMENTS IS AS REQUIRED TO COMPLETE THE WORK REQUIRED FOR CONSTRUCTION.
2. VERIFY ITEMS SCHEDULED FOR DEMOLITION AND LIMITS OF DEMOLITION PRIOR TO PROCEEDING WITH THE WORK.
3. SAWCUT AT THE LIMIT OF ALL PAVEMENT AND CURB TO BE REMOVED OR REMOVE TO NEAREST EXPANSION JOINT OR CONTROL JOINT ADJACENT TO THE LIMIT OF SCHEDULED REMOVAL.
4. REMOVE FOUNDATIONS OF EXISTING STRUCTURES TO BE DEMOLISHED TO A MINIMUM OF 24" BELOW FINISHED GRADING.
5. BACKFILL BASEMENT, CRAWL SPACES, AND OTHER VOIDS RESULTING FROM STRUCTURE REMOVAL WITH SOIL BACKFILL OR APPROVED STONE BACKFILL.
6. DO NOT REMOVE EXISTING UTILITIES REQUIRED FOR SERVICE UNTIL NEW UTILITIES HAVE BEEN PROVIDED OR TEMPORARY SERVICE CONNECTIONS PROVIDED. PROTECT ALL EXISTING UTILITIES TO REMAIN.
7. CAP/ABANDON EXISTING UTILITIES IN ACCORDANCE WITH UTILITY COMPANIES AND/OR AUTHORITIES HAVING JURISDICTION.
8. EXISTING UTILITIES TO BE ABANDONED MAY REMAIN IN-PLACE WHERE THEY WILL NOT INTERFERE WITH FINISHED WORK. ACCURATELY NOTE ALL UTILITIES ABANDONED IN-PLACE ON CONTRACTOR'S RECORD DRAWINGS.
9. BURNING OF TREES, SHRUBS, BRUSH AND OTHER MATERIALS ON-SITE PERMITTED ONLY WHEN APPROVED BY LOCAL AND OTHER REGULATORY AGENCIES HAVING JURISDICTION. COORDINATE LOCATION OF BURN PITS WITH OWNER.
10. LOCATION AND LIMIT OF TEMPORARY CONSTRUCTION FENCE IS APPROXIMATE. PROVIDE AS REQUIRED FOR THE WORK, TO ACCOMMODATE WORK OF OTHER TRADES, AND AS REQUIRED TO REDUCE POTENTIAL ACCIDENTAL TRESPASS. PROVIDE VEHICULAR ACCESS GATES AND MAN GATES WHERE REQUIRED FOR ACCESS (COORDINATE WITH CONSTRUCTION ENTRANCE LOCATIONS SHOWN ON EROSION AND SEDIMENT CONTROL PLAN).
11. PROVIDE TEMPORARY TRUNK AND ROOT PROTECTION FOR ALL EXISTING SPECIMEN TREES TO REMAIN OR WHERE TREES TO REMAIN COULD BE DAMAGED BY CONSTRUCTION ACTIVITIES.
12. REMOVE AND DISPOSE OF DEBRIS, INCLUDING, BUT NOT LIMITED TO TIRES, GLASS, SHEET METAL, DERELICT AUTOMOBILE(S) AND HOUSEHOLD APPLIANCES. LIMITS, COMPOSITION AND LOCATION OF DEBRIS APPROXIMATE. CONTRACTOR TO VERIFY IN FIELD AND SECURE ALL PERMITS NECESSARY FOR PROPER DISPOSAL.

SANITARY SEWER AND WATER:

1. ALL UTILITIES HAVE BEEN LOCATED BASED ON EXISTING SURFACE APPURTENANCES AND IN ACCORDANCE WITH ACT 38 OF 1991. THE CONTRACTOR SHALL NOTIFY ALL APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS PRIOR TO THE START OF ANY CONSTRUCTION. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF EXISTING UTILITIES AND ALL EFFORTS SHALL BE UNDERTAKEN TO PROTECT EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE TO THE UTILITIES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. RESTORATION OF ALL EXISTING SURFACE IMPROVEMENTS DAMAGED OR ALTERED DURING CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
2. PRIOR TO BEGINNING WORK ON THE SITE, THE CONTRACTOR MUST PROVIDE A ONE CALL TO HAVE ALL UNDERGROUND UTILITIES LOCATED AND MARKED IN THE FIELD.
3. THE SITE IS SERVED BY PUBLIC SEWER. NO NEW PUBLIC SEWER IS PROPOSED.
4. THE SITE IS SERVED BY PUBLIC WATER. NO NEW PUBLIC WATER IS PROPOSED.
5. ALL CONNECTIONS TO THE EXISTING SANITARY MANHOLES SHALL BE CORE DRILLED AND PROPERLY SEALED WITH WATER-TIGHT JOINTS OR CONSTRUCTED PER THE SEWER AUTHORITY STANDARDS.
6. ALL EXISTING MANHOLE INFORMATION SHALL BE VERIFIED IN FIELD BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION.

STORMWATER MANAGEMENT NOTES

1. ALL STORM WATER FACILITIES ARE PERMANENT AND SHALL BE MAINTAINED BY THE OWNER, EXCLUDING THOSE DEDICATED FOR PUBLIC USE, IN THE "DESIGN CONDITION" ESTABLISHED BY THESE PLANS SO THAT THEY ARE PERFORMING THEIR DESIGNED FUNCTION, IN A MANNER ACCEPTABLE TO THE MUNICIPALITY AND AS REQUIRED BY THE MUNICIPAL STORMWATER MANAGEMENT ORDINANCE.
2. NO PERSON SHALL MODIFY, REMOVE, FILL, LANDSCAPE, OR ALTER ANY STORMWATER MANAGEMENT BMP'S, FACILITIES, AREAS, OR STRUCTURES WITHOUT WRITTEN APPROVAL OF THE CITY OF LANCASTER.
3. THE MUNICIPALITY IS NOT RESPONSIBLE FOR INSTALLATION OR MAINTENANCE OF ANY STORM WATER FACILITIES NOT DEDICATED FOR PUBLIC USE.
4. OWNERSHIP AND MAINTENANCE OF ALL STORMWATER MANAGEMENT FACILITIES SHALL BE THE RESPONSIBILITY OF THE LANDOWNER, THEIR SUCCESSORS AND ASSIGNS, UNLESS SPECIFICALLY IDENTIFIED OTHERWISE HEREIN.
5. NOTHING SHALL BE PLACED, PLANTED, SET, OR PUT WITHIN THE AREA OF A DRAINAGE EASEMENT OR STORM DRAINAGE FACILITY THAT COULD ADVERSELY AFFECT THE FUNCTION OF THE EASEMENT, ANY EASEMENT AGREEMENT, OR THE STORM DRAINAGE FACILITY.
6. THE CITY OF LANCASTER SHALL HAVE THE RIGHT OF ENTRY FOR PURPOSES OF INSPECTING ALL STORMWATER CONVEYANCE, TREATMENT, OR STORAGE FACILITIES. THE CITY OF LANCASTER SHALL HAVE THE RIGHT TO REQUIRE THAT THE LANDOWNER TAKE CORRECTIVE ACTION IN A REASONABLE PERIOD OF TIME NOT TO EXCEED 30 DAYS, IF THE LANDOWNER DOES NOT TAKE THE REQUIRED CORRECTIVE ACTION, THE CITY OF LANCASTER MAY EITHER PERFORM THE WORK OR CONTRACT FOR THE PERFORMANCE OF THE WORK AND BILL THE LANDOWNER FOR THE COST OF THE WORK PLUS A PENALTY OF 10% OF THE COST OF THE WORK.
7. MAINTENANCE OF STORMWATER MANAGEMENT FACILITIES SHALL INCLUDE PERFORMING ROUTINE MAINTENANCE, REPAIR AND/OR REPLACEMENT OF DAMAGED FACILITIES, VEGETATION OR STORMWATER AREAS TO CONDITIONS AS SHOWN ON THE APPROVED PLAN AND IN ACCORDANCE WITH THE SPECIFIC OWNERSHIP AND MAINTENANCE REQUIREMENTS NOTES/TABLES CONTAINED WITHIN THIS PLAN SET FOR THE SPECIFIC FACILITIES, THE MUNICIPAL STORMWATER MANAGEMENT ORDINANCE, AND IN ACCORDANCE WITH ALL STORMWATER MANAGEMENT AGREEMENTS EXECUTED WITH THE MUNICIPALITY.
8. THE STORMWATER MANAGEMENT AGREEMENT AND DECLARATION OF EASEMENT RECORDED AT THE RECORDER OF DEEDS OR EXECUTED WITH THE MUNICIPALITY AS PART OF THIS PLAN WOULD FURTHER IDENTIFY THE REQUIRED RESPONSIBILITIES OF OWNERSHIP AND MAINTENANCE OF THE STORMWATER MANAGEMENT FACILITIES.
9. THE MUNICIPALITY MAY REQUIRE ANNUAL INSPECTIONS AND REPORTING DOCUMENTATION REQUIREMENTS FOR CONSTRUCTED STORMWATER MANAGEMENT FACILITIES. IT SHALL BE THE RESPONSIBILITY OF THE LANDOWNER TO REVIEW ALL REQUIREMENTS NOTED ON THESE PLANS AND TO CONTACT THE MUNICIPALITY FOR ANY REQUIRED INSPECTION AND REPORTING REQUIREMENTS.
10. THE PROPOSED STORMWATER MANAGEMENT FACILITIES ARE DESIGNED FOR IMPROVEMENTS AS SHOWN ON THESE PLANS. ANY ADDITIONAL IMPERVIOUS COVERAGE , CHANGE IN LAND COVER, ADDITIONAL DRAINAGE AREA, ETC., BEYOND WHAT IS DOCUMENTED ON THESE PLANS AND THE POST CONSTRUCTION STORMWATER MANAGEMENT REPORT SHALL REQUIRE ADDITIONAL APPROVALS FROM THE MUNICIPALITY.
11. ALL EXISTING MANHOLE INFORMATION SHALL BE VERIFIED IN FIELD BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION.
12. ALL CONVEYANCE AND DETENTION FACILITIES SHALL BE KEPT FREE OF ANY DEBRIS OR OTHER OBSTRUCTION AND IN ORIGINAL DESIGN CONDITION.

STORMWATER MANAGEMENT CONSTRUCTION NOTES

1. CONTACT THE MUNICIPALITY PRIOR TO THE START OF CONSTRUCTION TO SCHEDULE A PRE-CONSTRUCTION MEETING. AT THE TIME OF THE PRE-CONSTRUCTION MEETING, REQUIRED INSPECTIONS OF STORMWATER MANAGEMENT FACILITIES BY THE MUNICIPALITY, MUNICIPAL ENGINEER, AND RESPONSIBLE DESIGN PROFESSIONAL SHALL BE ESTABLISHED. FURTHER INFORMATION REGARDING REQUIRED CRITICAL STAGES OF STORMWATER INSPECTIONS UNDER THE PADEP NPDES PERMIT WILL BE PROVIDED WITHIN THIS PLAN SET.
2. ALL STORM SEWERS AND APPURTENANCES SHALL BE CONSTRUCTED IN ACCORDANCE WITH REQUIREMENTS OF THE MUNICIPALITY, THE PENNSYLVANIA DEPARTMENT OF TRANSPORTATION, AND SPECIFIC REQUIREMENTS AS NOTED.
3. ALL STORMWATER MANAGEMENT FACILITIES SHOWN ON THIS PLAN SHALL BE CONSTRUCTED BY THE DEVELOPER IN ACCORDANCE WITH THE DESIGN, CONDITIONS, AND SPECIFICATIONS IDENTIFIED ON THIS PLAN.
4. THE STORMWATER COLLECTION, CONVEYANCE, AND MANAGEMENT SYSTEMS HAVE BEEN DESIGNED IN ACCORDANCE WITH DESIGN STANDARDS AND SPECIFICATIONS REQUIRED AT THE TIME OF PLAN APPROVALS. ELA GROUP, INC. ASSUMES NO RESPONSIBILITY FOR CHANGES IN SPECIFICATIONS THAT MAY OCCUR AFTER PLAN APPROVAL THAT WOULD REQUIRE ALTERNATE MATERIALS OR INSTALLATION REQUIREMENTS. THE CONTRACTOR SHALL VERIFY ALL CURRENT STANDARDS AND NOTIFY THE OWNER/DEVELOPER AND ELA GROUP, INC. OF ANY DISCREPANCIES THAT MAY EXIST PRIOR TO THE START OF CONSTRUCTION.
5. ALL INLET GRATES MUST BE SHALL BE BICYCLE SAFE. ALL TYPE 'C' INLETS SHALL BE SUMPED 2" WHERE SPECIFIED. THE TOP OF GRATE ELEVATION REFLECTS THE SPECIFIED SUMP.
6. FINAL GRADING AND STORMWATER DISCHARGE FROM SITE IMPROVEMENTS SHALL ENSURE THE APPROVED WATERSHED/DRAINAGE AREAS ARE DIRECTED TO THE COLLECTION, CONVEYANCE, AND STORMWATER MANAGEMENT FACILITIES AS PER THE APPROVED DESIGN. THE APPROVED WATERSHED/DRAINAGE AREAS MAPPING ARE LOCATED WITHIN THE PLAN SET AND/OR WITHIN THE POST CONSTRUCTION STORMWATER MANAGEMENT REPORT. ON-SITE DRAINAGE AREAS FOR EXISTING CONDITIONS HAVE BEEN DETERMINED/DELINEATED BASED UPON TOPOGRAPHIC INFORMATION PROVIDED BY OTHERS. IF ON-SITE DRAINAGE CONDITIONS DIFFER THAN WHAT IS REPRESENTED ON THE PLANS, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE DESIGN ENGINEER.
7. THE CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE AWAY FROM ALL BUILDINGS, INCLUDING OVERLAND FLOWS, DISCHARGE FROM ROOF DOWNSPOUTS, AND OVERFLOW SYSTEMS.
8. FOR ANY FIELD REVISIONS, CHANGES, OR DEVIATIONS FROM THE APPROVED PLANS, THE APPLICANT MUST OBTAIN APPROVAL FROM THE MUNICIPALITY AND RESPONSIBLE PROFESSIONAL SITE CONSULTANT PRIOR TO PROCEEDING WITH SUCH REVISION(S).
9. ALL STORMWATER PIPING ARE TO BE PROVIDED WITH WATER TIGHT JOINTS AND CONNECTIONS. ALL SMOOTH LINED CORRUGATED POLYETHYLENE STORM PIPE (SLCPP) SHALL BE PROVIDED WITH INTEGRAL BELL AND SPIGOT JOINTS FOR A WATERTIGHT (WT) JOINT MEETING THE REQUIREMENTS OF AASHTO M252, AASHTO M294 OR ASTM F2306. THE JOINT SHALL BE WATERTIGHT (WT) ACCORDING TO THE REQUIREMENTS OF ASTM D3212 AND PROVIDE A MINIMUM 10.8 PSI PRESSURE RATING. GASKETS SHALL MEET THE REQUIREMENTS OF ASTM F477 AND SHALL BE INSTALLED BY THE PIPE MANUFACTURER AND COVERED WITH A REMOVABLE, PROTECTIVE WRAP TO ENSURE THE GASKET IS FREE OF DEBRIS. ALL REINFORCED CONCRETE STORM PIPE (RCP) SHALL BE PROVIDED WITH WATERTIGHT "O" RING GASKETS.
10. SUB SURFACE STORMWATER MANAGEMENT FACILITIES SUCH AS INFILTRATION SYSTEMS, UNDERGROUND PIPE SYSTEMS, ETC. THAT ARE NOT ACCESSIBLE POST CONSTRUCTION SHALL BE SURVEYED DURING INSTALLATION TO PROVIDE COMPLETE INFORMATION INCLUDING: LOCATION, INVERTS, DIMENSIONS, STONE LIMITS, DISTRIBUTION PIPING, ETC. THIS INFORMATION SHALL BE PROVIDED AS PART OF THE REQUIRED SURVEYED AS-BUILT PLANS AND REQUIRED ENGINEERING ANALYSIS/CERTIFICATION.

STORMWATER AS BUILT AND CONSTRUCTION CLOSE-OUT NOTES

1. AT THE COMPLETION OF THE PROJECT, AND AS PREREQUISITE FOR THE RELEASE OF FINANCIAL SECURITY, THE CONTRACTOR SHALL PROVIDE CERTIFICATION OF COMPLETION AND AN AS-BUILT PLAN AND ANALYSIS FROM A QUALIFIED PROFESSIONAL VERIFYING THAT ALL PERMANENT SWM FACILITIES HAVE BEEN CONSTRUCTED ACCORDING TO THE PLANS AND SPECIFICATIONS AND APPROVED REVISIONS THERETO TO THE CITY OF LANCASTER FOR REVIEW.
2. THE CONTRACTOR SHALL PROVIDE SURVEYED AS-BUILT PLANS AND PROFESSIONAL AS-BUILT ENGINEERING ANALYSIS/CERTIFICATION OF COMPLETED STORMWATER MANAGEMENT IMPROVEMENTS ARE REQUIRED TO BE SUBMITTED TO THE MUNICIPALITY FOR REVIEW IN ACCORDANCE WITH ALL CITY AND NPDES CRITERIA. THE AS-BUILT PLANS SHOW THE FINAL DESIGN SPECIFICATIONS FOR ALL STORMWATER MANAGEMENT FACILITIES AND BE SEALED BY A REGISTERED PROFESSIONAL ENGINEER. THE AS-BUILT PLANS MUST BE CERTIFIED BY A PROFESSIONAL SURVEYOR AND THE AS-BUILT ENGINEERING ANALYSIS/CERTIFICATION MUST BE CERTIFIED BY A PROFESSIONAL RECOGNIZED BY THE STATE FOR STORMWATER DESIGN. THE AS-BUILT PLANS SHALL SHOW COMPLETE INFORMATION FOR ALL CONSTRUCTED POST CONSTRUCTION STORMWATER MANAGEMENT FACILITIES AND SHALL PROVIDE AND MEET ALL REQUIRED MUNICIPAL AND PADEP NDPES PERMIT NOTICE OF TERMINATION (NOT) REQUIREMENTS (AS APPLICABLE). BOTH AN ELECTRONIC AND PDF FORMAT OF THE COMPLETED AS-BUILT WILL BE REQUIRED.
3. SEE PADEP NPDES PERMIT NOTES FOR ADDITIONAL AS-BUILT REQUIREMENTS.
4. UPON COMPLETION OF THE PLAN IMPROVEMENTS, THE APPLICANT SHALL SUBMIT AN AS-BUILT PLAN FOR THE RECORDATION IN THE OFFICE OF RECORDER OF DEEDS.
5. AS-BUILT PLANS MUST BE PROVIDED TO THE CITY IN HARDCOPY, PDF, AND AUTOCAD 2014. ALL COORDINATES SHALL BE BASED ON THE PA SOUTH ZONE STATE PLAN COORDINATE SYSTEM (NAD83 FOR HORIZONTAL AND NAVD88 FOR VERTICAL).
6. THE LANDOWNER SHALL KEEP ON FILE WITH THE CITY OF LANCASTER THE NAME, ADDRESS, AND TELEPHONE NUMBER OF THE PERSON OR COMPANY RESPONSIBLE FOR MAINTENANCE ACTIVITIES; IN THE EVENT OF A CHANGE, NEW INFORMATION WILL BE SUBMITTED TO THE CITY OF LANCASTER WITHIN 10 DAYS OF THE CHANGE.

EROSION AND SEDIMENT CONTROL NOTES

1. IN ACCORDANCE WITH THE REQUIREMENTS OF CHAPTER 102 OF THE ADMINISTRATIVE CODE, TITLE 25 (PA DEP RULES AND REGULATIONS), A COPY OF THE EROSION AND SEDIMENT CONTROL PLAN MUST BE AVAILABLE ON-SITE DURING CONSTRUCTION UNTIL THE SITE HAS BEEN PERMANENTLY STABILIZED.
2. THE MEASURES AND FACILITIES AS IDENTIFIED ON THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN SHALL BE APPLIED AND INSTALLED PRIOR TO THE COMMENCEMENT OF ANY EARTH MOVING, SITE WORK, OR CONSTRUCTION - AS PER THE CONSTRUCTION SEQUENCE IDENTIFIED ON THE APPROVED EROSION AND SEDIMENT CONTROL PLANS. ALL EROSION AND SEDIMENT CONTROL FACILITIES SHALL MEET THE REQUIREMENTS OF APPROVED EROSION AND SEDIMENT CONTROL PLAN, PADEP NPDES PERMIT (AS APPLICABLE), AND PA DEP CHAPTER 102 REGULATIONS.
3. SOILS INFORMATION SHOWN ON THE PLANS IS BASED UPON MAPPING AND INFORMATION PROVIDED FROM THE WEB SOIL SURVEY (HTTPS://WEBSOILSURVEY.SC.EGOV.USDA.GOV), UNLESS OTHERWISE NOTED. A QUALIFIED GEOTECHNICAL PROFESSIONAL SHALL BE CONSULTED FOR ALL SOIL-RELATED REQUIREMENTS INCLUDING LIMITATIONS, ISSUES, AND RESOLUTIONS INCLUDING UNSUITABLE SOILS, SUB SURFACE SUBSIDENCE, ETC.

PADEP NPDES PERMIT NOTES

1. THE PLANS WILL BE APPROVED UNDER A PADEP NDPES PERMIT. ALL PERMIT CONDITIONS AND REQUIREMENTS OF THE ISSUED/APPROVED NPDES PERMIT MUST BE STRICTLY ADHERED TO INCLUDING PRE CONSTRUCTION MEETINGS, CRITICAL STAGES OF INSPECTION BY A LICENSED PROFESSIONAL, CONSTRUCTION REPORTS, ADHERENCE TO APPROVED LIMITS OF DISTURBANCE, PROFESSIONAL CERTIFICATION OF COMPLETED STORMWATER MANAGEMENT FACILITIES, FILING OF NOTICE OF TERMINATION, ETC. A SUMMARY OF PERMIT CONDITIONS IS PROVIDED ON THE PLANS FOR REFERENCE.
2. THE CONTRACTOR SHALL PROVIDE REQUIRED SURVEYED AS-BUILT DOCUMENTATION OF THE PADEP NOTICE OF TERMINATION (N.O.T.) OF PADEP NPDES PERMIT MUST BE PROVIDED IN AN ELECTRONIC FORMAT TO THE CERTIFYING PROFESSIONAL AND SHALL PROVIDE ALL REQUIREMENTS OF THE PADEP NOTICE OF TERMINATION AS-BUILT CHECKLIST, INCLUDING ALL STORMWATER STRUCTURES, PIPE SYSTEMS, BMP GRADING, OUTLET STRUCTURES, CLEANOUTS, ETC. THE N.O.T. FOR THE PADEP NDPES PERMIT REQUIRES THE APPROVED AS BUILT SURVEY BE RECORDED AT THE RECORDER OF DEEDS.

GEOTECHNICAL STORMWATER NOTES:

1. ELA GROUP, INC. MAKES NO REPRESENTATIONS AS TO THE SUBSURFACE CONDITIONS OF THE PROJECT SITE INCLUDING DEPTH OF BEDROCK, GEOLOGICAL AND/OR ENVIRONMENTAL CONDITIONS, SOIL STABILITY, ETC.
2. WHERE SPECIFIED ON THE PLANS, ENGINEERED STORMWATER MANAGEMENT INFILTRATION SYSTEMS RELY ON PERMEABLE SOIL CONDITIONS TO DENATURE AND FUNCTION PROPERLY. AS PART OF THE DESIGN PROCESS, SOIL TESTING WILL BE PERFORMED TO ASSURE SUB SURFACE CONDITIONS ARE CONDUCIVE TO THE INFILTRATION OF STORMWATER. EVERY PRECAUTION MUST BE MAINTAINED BY THE CONTRACTOR DURING CONSTRUCTION TO ASSURE THAT COMPACTION DOES NOT OCCUR WHICH WOULD COMPROMISE THE PERMEABILITY OF THE SUBGRADE OF THE INFILTRATION FACILITIES. THE INFILTRATION AREAS MUST BE PROTECTED AGAINST COMPACTION FROM CONSTRUCTION ACTIVATES, SEDIMENT LADEN RUN-OFF, AND STOCK PILING. IF AFTER INSTALLATION, THE INFILTRATION FACILITIES DO NOT FUNCTION AS DESIGNED, AND THE CAUSE IS DETERMINED TO BE COMPACTION DURING CONSTRUCTION, THE CONTRACTOR WILL BE RESPONSIBLE TO PERFORM REMEDIATION, OUTLINED BY THE QUALIFIED PROFESSIONAL, TO RESTORE PRE-CONSTRUCTION PERMEABILITY.
3. THE INSTALLATION OF ALL STORMWATER BASINS AND SUBSURFACE STORMWATER MANAGEMENT SYSTEMS SHALL BE OVERSEEN BY A GEOTECHNICAL PROFESSIONAL AND SHALL BE CERTIFIED BY SUBGRADE INSPECTIONS AND IN-SITU INFILTRATION TESTING TO CONFIRM THAT THE SUBSOIL PERMEABILITY HAS BEEN MAINTAINED. IF THE BASINS AND SUBSURFACE SYSTEMS ARE NOT DESIGNED FOR INFILTRATION, THE SUBGRADE AND ANY ASSOCIATED REQUIRED IMPERVIOUS LINERS OR COMPACTED SUBGRADE SHALL ALSO BE CERTIFIED BY INSPECTIONS BY THE GEOTECHNICAL PROFESSIONAL. ALL DOCUMENTATION SHALL BE PROVIDED TO THE CERTIFYING PROFESSIONAL AND MUNICIPALITY.
4. THE MUNICIPALITY AND THE GEOLOGIST/GEOTECHNICAL ENGINEER OF RECORD SHALL BE NOTIFIED IN THE EVENT OF SUBSURFACE SUBSIDENCE ACTIVITY INCLUDING SINKHOLES AND ALL OTHER UNSUITABLE SUBSURFACE CONDITIONS IF ENCOUNTERED DURING THE CONSTRUCTION OF THE STORMWATER MANAGEMENT FACILITIES. A LICENSED PROFESSIONAL GEOLOGIST OR GEOTECHNICAL ENGINEER SHALL BE ENGAGED TO INVESTIGATE ALL UNSTABLE SUBSURFACE CONDITIONS AS IDENTIFIED ABOVE INCLUDING THE PREPARATION OF STABILIZATION PROCEDURES DIRECTING THE STABILIZATION WORK, AND MAKING RECOMMENDATIONS FOR CONSTRUCTION TECHNIQUES/PROCEDURES AND DESIGN MODIFICATIONS THAT WILL REDUCE THE POTENTIAL FOR FURTHER UNSUITABLE CONDITIONS AND POTENTIAL SUB SURFACE SUBSIDENCE.
5. A STORMWATER INFILTRATION AND CARBONATE ASSESSMENT REPORT WAS PERFORMED BY KLEINFELDER DATED DECEMBER 6, 2024. THE RECOMMENDATIONS AND DOCUMENTATION PROVIDED WITHIN THE GEOTECHNICAL REPORTS SHALL BE STRICTLY ADHERED TO, UNLESS OTHERWISE APPROVED BY THE GEOTECHNICAL PROFESSIONAL.

KARST-RELATED SUBSURFACE GEOLOGIC HAZARD NOTES:

1. THE LANDOWNER OF RECORD ACKNOWLEDGES THAT CARBONATE GEOLOGY AND THE ASSOCIATED RISK OF SINKHOLES AND SUBSURFACE SUBSIDENCE HAS BEEN IDENTIFIED ON THE SUBTRACT TRACT BY THE GEOTECHNICAL PROFESSIONAL PERFORMING THE STORMWATER INFILTRATION FEASIBILITY ANALYSIS.
2. BY EXECUTING/SIGNING THESE PLANS, THE LANDOWNER UNDERSTANDS THAT SINKHOLE AND SUBSURFACE SUBSIDENCE RISKS EXIST FOR THE PROPOSED STORMWATER MANAGEMENT SYSTEMS AS DESIGNED TO ACCOMODATE THE PROPOSED IMPROVEMENTS. THE LANDOWNER ASSUMES ALL RESPONSIBILITY FOR ANY ADVERSE CONDITIONS THAT MAY DEVELOP AS A RESULT OF STORMWATER SYSTEMS (INCLUDING INFILTRATION SYSTEMS) IN A CARBONATE GEOLOGY AREA. THE STORMWATER MANAGEMENT SYSTEMS SHALL BE MONITORED FOR PROPER PERFORMANCE AND A GEOTECHNICAL PROFESSIONAL SHALL BE CONSULTED FOR ANY ADVERSE SITUATIONS THAT MAY DEVELOP.
3. THE DESIGN AND LOCATION OF THE STORMWATER SYSTEMS HAVE INCORPORATED PROVISIONS TO MINIMIZE THE POTENTIAL FOR SINKHOLES AND SUBSURFACE SUBSIDENCE. HOWEVER BASED UPON DOCUMENTED SUB SURFACE CONDITIONS AND THE INHERENT RISK OF INFILTRATION IN CARBONATE GEOLOGY, THE CURRENT AND FUTURE LANDOWNER(S) ASSUMES ALL RESPONSIBILITY FOR ANY ADVERSE CONDITIONS THAT MAY DEVELOP AS A RESULT OF DEVELOPING THE INDIVIDUAL LOT(S) AND INSTALLING STORMWATER SYSTEMS IN A CARBONATE GEOLOGY AREA SUCH AS SINKHOLES, SUB-SURFACE SUBSIDENCE, AND ASSOCIATED PROPERTY DAMAGE.
4. THE CURRENT LANDOWNER OF RECORD ASSUMES THE RESPONSIBILITY AND MEANS OF INFORMING ALL SUBSEQUENT PURCHASERS OF PROPOSED LOTS CREATED BY THIS PLAN OF THE INHERENT RISKS OF CARBONATE GEOLOGY AND STORMWATER MANAGEMENT FACILITIES ON THE LOTS AND THAT THE INDIVIDUAL LANDOWNER(S) ASSUMES ALL RESPONSIBILITY FOR ANY ADVERSE CONDITIONS THAT MAY DEVELOP.
5. THE STORMWATER SYSTEMS SHALL BE MONITORED FOR PROPER PERFORMANCE FOLLOWING CONSTRUCTION AND SIGNS OF KARST ACTIVITY.
6. SURFACE WATER IS NOT RECOMMENDED TO COLLECT OR POOL IN LOW LYING AREAS OF THE SITE FRO EXTENDED PERIODS OF TIME AND SHOULD BE DIRECTED TO APPROPRIATE STORMWATER CHANNELS. EXPEDITIOUS BACKFILLING OR GRADING OF LOW-LYING AREAS WILL ALSO HELP MINIMIZE THE POTENTIAL DEVELOPMENT OF SINKHOLES.
7. THE EXTENT OF EXCAVATIONS SHOULD BE KEPT TO A MINIMUM AND THE INFLUX OF SURFACE WATER INTO EXCAVATIONS SHOULD BE MINIMIZED. THE POTENTIAL FOR SINKHOLE DEVELOPMENT GENERALLY INCREASES AS THE BEDROCK SURFACE IS ENCOUNTERED. THEREFORE, THE PROLONGED EXPOSURE OF THE BEDROCK SURFACE SHOULD ALSO BE MINIMIZED.
8. ALL STORM SEWER CONVEYANCE LINES SHOULD BE CONSTRUCTED AS "WATER TIGHT" JOINTS.
9. POSITIVE DRAINAGE AWAY FROM STRUCTURES SHOULD ALWAYS BE MAINTAINED. ROOF DRAINS SHOULD ALSO BE DIRECTED AWAY FROM STRUCTURES AND INTO DESIGNATED STORMWATER CHANNELS.
10. UNPAVED AREAS, SWALES OR SURFACE BASINS SHOULD BE MINIMIZED ADJACENT TO BUILDING/FOUNDATION AREAS.
11. SINKHOLES MAY OCCUR DURING CONSTRUCTION, AND SPECIFICALLY DURING AND SHORTLY FOLLOWING MASS GRADING OF THE PROJECT SITE. ALL SINKHOLES AND UNSTABLE SOIL CONDITIONS SHOULD BE REVIEWED BY KLEINFELDER.
12. CONTRACTOR SHALL BECOME FAMILIAR WITH ALL KLEINFELDER RECOMMENDATIONS IN THE "STORMWATER INFILTRATION AND CARBONATE ASSESSMENT REPORT, MCCASKEY HIGH SCHOOL STADIUM RENOVATIONS, LAST REVISED"

CONTRACTOR NOTES:

1. THE CONTRACTOR SHALL INSPECT THE SITE AND VERIFY EXISTING CONDITIONS, DIMENSIONS AND ELEVATIONS PRIOR TO

PADEP GENERAL NPDES PERMIT REQUIREMENTS

(NOTE: SEE APPROVED & ISSUED PADEP NPDES PERMIT FOR FULL AND COMPLETE REQUIREMENTS)

PART A - EFFLUENT LIMITATIONS, MONITORING, AND REPORTING REQUIREMENTS

1. EFFLUENT LIMITATIONS

a. BMPs

EXCEPT AS REQUIRED BY 25 PA. CODE §102.11(C), THIS PERMIT ESTABLISHES NARRATIVE PERFORMANCE BASED EFFLUENT LIMITATIONS IN THE FORM OF BMPs IDENTIFIED IN E&S PLANS, PCSM PLANS, AND PPC PLANS, WHICH CONTROL THE VOLUME, RATE, AND QUALITY OF STORMWATER RUNOFF AND ASSOCIATED POLLUTANTS FROM BEING DISCHARGED INTO SURFACE WATERS, AND WHICH REPLICATE PRECONSTRUCTION INFILTRATION AND RUNOFF CONDITIONS TO THE MAXIMUM EXTENT PRACTICABLE. SECTION 102.11(C) INCORPORATES BY REFERENCE FEDERAL EFFLUENT LIMITATION GUIDELINES IN 40 CFR PART 450 (RELATING TO THE CONSTRUCTION AND DEVELOPMENT POINT SOURCE CATEGORY).

b. APPLICABLE EFFLUENT LIMITATIONS

ACTIVITIES COVERED UNDER THIS PERMIT MUST COMPLY WITH APPLICABLE EFFLUENT LIMITATIONS ESTABLISHED IN 25 PA. CODE CHAPTERS 91, 92A, 93, 96, 102, AND 105 AND ANY APPLICABLE FEDERAL LAW OR REGULATION, INCLUDING THE EFFLUENT GUIDELINES FOR CONSTRUCTION AT 40 CFR PART 450.

c. WATER QUALITY BASED EFFLUENT LIMITATIONS

WATER QUALITY BASED EFFLUENT LIMITATIONS ARE APPLICABLE TO ACTIVITIES CONDUCTED UNDER THIS PERMIT WHEN REQUIRED UNDER APPLICABLE STATE AND FEDERAL LAW OR REGULATION TO ENSURE THAT THE WATER QUALITY STANDARDS OF THE RECEIVING WATER ARE ATTAINED. ACTIVITIES CONDUCTED UNDER THIS PERMIT SHALL NOT RESULT IN A VIOLATION OF SUCH WATER QUALITY STANDARDS.

2. MONITORING, INSPECTION, AND REPORTING REQUIREMENTS

a. VISUAL INSPECTIONS

THE PERMITTEE AND CO-PERMITTEE(S) MUST ENSURE THAT VISUAL SITE INSPECTIONS ARE CONDUCTED AND DOCUMENTED WEEKLY, AND WITHIN 24 HOURS AFTER EACH MEASURABLE STORMWATER EVENT THROUGHOUT THE DURATION OF CONSTRUCTION AND UNTIL THE RECEIPT AND ACKNOWLEDGEMENT OF THE NOT BY THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT. THE VISUAL SITE INSPECTIONS AND REPORTS SHALL BE COMPLETED ON A FORM DEVELOPED BY THE DEPARTMENT, AND CONDUCTED BY QUALIFIED PERSONNEL, TRAINED AND EXPERIENCED IN EROSION AND SEDIMENT CONTROL, TO ASCERTAIN THAT E&S, PCSM AND PPC BMPS ARE PROPERLY CONSTRUCTED AND MAINTAINED TO EFFECTIVELY MINIMIZE POLLUTION TO THE WATERS OF THIS COMMONWEALTH. A WRITTEN REPORT OF EACH INSPECTION SHALL BE KEPT AND INCLUDE AT A MINIMUM:

(1) A SUMMARY OF SITE CONDITIONS, E&S AND PCSM BMPS, IMPLEMENTATION AND MAINTENANCE AND COMPLIANCE ACTIONS; AND

(2) THE DATE, TIME, NAME AND SIGNATURE OF THE PERSON CONDUCTING THE INSPECTION.

b. LICENSED PROFESSIONAL OVERSIGHT OF CRITICAL STAGES

A LICENSED PROFESSIONAL OR A DESIGNEE SHALL BE PRESENT ONSITE AND BE RESPONSIBLE FOR OVERSIGHT OF CRITICAL STAGES OF IMPLEMENTATION OF THE APPROVED PCSM PLAN. THE CRITICAL STAGES MAY INCLUDE THE INSTALLATION OF UNDERGROUND TREATMENT OR STORAGE BMPS, STRUCTURALLY ENGINEERED BMPS, OR OTHER BMPS AS DEEMED APPROPRIATE BY THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT.

c. NONCOMPLIANCE REPORTING

WHERE E&S, PCSM OR PPC BMPS ARE FOUND TO BE INOPERATIVE OR INEFFECTIVE DURING AN INSPECTION OR ANY OTHER TIME THE PERMITTEE BECOMES AWARE OF ANY INCIDENT CAUSING OR THREATENING POLLUTION AS DESCRIBED IN 25 PA. CODE § 91.33 (RELATING TO INCIDENTS CAUSING OR THREATENING POLLUTION), AS REQUIRED BY 25 PA. CODE § 92A.41(B) (RELATING TO CONDITIONS APPLICABLE TO ALL PERMITS), THE PERMITTEE AND CO-PERMITTEE(S) SHALL, WITHIN 24 HOURS, CONTACT THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT, BY PHONE OR PERSONAL CONTACT, FOLLOWED BY THE SUBMISSION OF A WRITTEN REPORT WITHIN FIVE (5) DAYS OF THE INITIAL CONTACT. NONCOMPLIANCE REPORTS SHALL INCLUDE THE FOLLOWING INFORMATION:

(1) ANY CONDITION ON THE PROJECT SITE WHICH MAY ENDANGER PUBLIC HEALTH, SAFETY, OR THE ENVIRONMENT, OR INVOLVE INCIDENTS WHICH CAUSE OR THREATEN POLLUTION,

(2) THE PERIOD OF NONCOMPLIANCE, INCLUDING EXACT DATES AND TIMES AND/OR ANTICIPATED TIME WHEN THE ACTIVITY WILL RETURN TO COMPLIANCE;

(3) STEPS BEING TAKEN TO REDUCE, ELIMINATE, AND PREVENT RECURRENCE OF THE NONCOMPLIANCE; AND

(4) THE DATE OR SCHEDULE OF DATES, AND IDENTIFYING REMEDIES FOR CORRECTING NONCOMPLIANCE CONDITIONS.

d. SUPPLEMENTAL MONITORING

THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT MAY REQUIRE ADDITIONAL MONITORING WHERE AN INCREASED RISK OF POTENTIAL WATER POLLUTION IS PRESENT, OR WATER POLLUTION IS SUSPECTED TO BE OCCURRING FROM A CONSTRUCTION ACTIVITY SUBJECT TO THIS GENERAL PERMIT, OR FOR ANY REASON IN ACCORDANCE WITH 25 PA. CODE § 92A.61 (RELATING TO MONITORING). THE PERMITTEE OR CO-PERMITTEE SHALL COMMENCE SUCH MONITORING UPON NOTIFICATION FROM THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT.

e. AVAILABILITY OF REPORTS

EXCEPT FOR DATA DETERMINED TO BE CONFIDENTIAL UNDER SECTION 607 OF THE CLEAN STREAMS LAW, ALL REPORTS AND OTHER INFORMATION PREPARED IN ACCORDANCE WITH THE TERMS OF THIS PERMIT SHALL BE AVAILABLE FOR PUBLIC INSPECTION AT THE APPROPRIATE DEPARTMENT REGIONAL OFFICE OR AUTHORIZED CONSERVATION DISTRICT.

3. RECORD KEEPING

a. RETENTION OF RECORDS

THE PERMITTEE AND CO-PERMITTEE(S) SHALL RETAIN RECORDS OF ALL MONITORING INFORMATION INCLUDING COPIES OF ALL MONITORING AND INSPECTION REPORTS REQUIRED BY THIS PERMIT, ALL MONITORING INFORMATION (INCLUDING SITE LOG BOOK, CALIBRATION AND MAINTENANCE RECORDS) AND RECORDS OF DATA USED TO COMPLETE THE NOI FOR THIS PERMIT, FOR A PERIOD OF THREE YEARS FROM THE DATE OF THE TERMINATION OF COVERAGE UNDER THIS PERMIT AS REQUIRED BY 25 PA. CODE § 92A.61(F)(2). THIS PERIOD OF RETENTION MUST BE EXTENDED DURING THE COURSE OF ANY UNRESOLVED COMPLIANCE, ENFORCEMENT, OR LITIGATION OR WHEN REQUESTED BY THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT.

b. REPORTING OF MONITORING RESULTS

VISUAL INSPECTION MONITORING RESULTS SHALL BE SUBMITTED TO THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT UPON REQUEST.

4. DISCHARGES CONSISTENT WITH TERMS AND CONDITIONS OF THE PERMIT

ALL DISCHARGES AUTHORIZED BY THIS NPDES PERMIT SHALL BE CONSISTENT WITH THE TERMS AND CONDITIONS OF THE PERMIT.

PART B - STANDARD CONDITIONS

1. MANAGEMENT REQUIREMENTS

a. PERMIT MODIFICATION, TERMINATION, OR REVOCATION AND REISSUANCE

(1) THE GENERAL PERMIT WILL EXPIRE FIVE (5) YEARS FROM THE DATE OF ITS ISSUANCE. THE AUTHORIZATION PERIOD FOR THE PERMIT WILL BE FIVE (5) YEARS FOR ALL PERMITS FROM THE DATE OF AUTHORIZATION. THE DEPARTMENT WILL PUBLISH A NOTICE IN THE PENNSYLVANIA BULLETIN OF THE DRAFT, RENEWED, OR REISSUED GENERAL PERMIT OR ANY AMENDMENTS TO THIS GENERAL PERMIT, AND AFTER A COMMENT PERIOD, NOTICE OF THE FINAL, RENEWED, REISSUED OR AMENDED GENERAL PERMIT WILL BE PUBLISHED IN THE PENNSYLVANIA BULLETIN. ANY PERSON WITH AN UNEXPIRED APPROVAL OF COVERAGE UNDER THE GENERAL PERMIT, INCLUDING COVERAGE EXTENDED PURSUANT TO SECTION 9(C) OF THIS PERMIT SHALL BE RESPONSIBLE FOR COMPLYING WITH THE FINAL RENEWED, REISSUED OR AMENDED GENERAL PERMIT. SUCH PERSONS SHALL BE COVERED BY THE GENERAL PERMIT EVEN IF THE DISCHARGER HAS NOT SUBMITTED A SEPARATE NOI TO BE COVERED BY SUCH FINAL RENEWED, REISSUED OR AMENDED GENERAL PERMIT. SUCH PERSON MAY REQUEST COVERAGE UNDER AN INDIVIDUAL PERMIT. SEE 40 CFR § 122.28(B)(2)(VI); 25 PA. CODE § 92A.54(C) AND (D) (RELATING TO GENERAL PERMITS).

(2) THIS PERMIT MAY BE MODIFIED, SUSPENDED, REVOKED, REISSUED, OR TERMINATED DURING ITS TERM FOR ANY OF THE CAUSES SPECIFIED IN 25 PA. CODE CHAPTERS 92A AND 102 (RELATING TO EROSION AND SEDIMENT CONTROL), OR TO REQUIRE COMPLIANCE WITH UPDATED EFFLUENT LIMITATION GUIDELINES, WATER QUALITY STANDARDS, IMPAIRED WATER LISTINGS, OR NEWLY APPROVED TMDLS.

(3) THE DEPARTMENT MAY MODIFY, REVOKE, SUSPEND, OR TERMINATE PREVIOUSLY ISSUED COVERAGE UNDER THIS GENERAL NPDES PERMIT AND REQUIRE THE STORMWATER DISCHARGER TO APPLY FOR AND OBTAIN AN INDIVIDUAL NPDES PERMIT IN ACCORDANCE WITH 25 PA. CODE CHAPTERS 92A AND 102.

(4) THE FILING OF A REQUEST BY THE PERMITTEE OR CO-PERMITTEE FOR A PERMIT OR COVERAGE MODIFICATION, REVOCATION, REISSUANCE, OR TERMINATION, OR A NOTIFICATION OF PLANNED CHANGES OR ANTICIPATED NONCOMPLIANCE, DOES NOT ELIMINATE ANY EXISTING PERMIT CONDITIONS.

(5) PERMIT MODIFICATION OR REVOCATION WILL BE CONDUCTED ACCORDING TO 25 PA. CODE CHAPTERS 92A AND 102.

b. DUTY TO PROVIDE INFORMATION

(1) THE PERMITTEE OR CO-PERMITTEE(S) SHALL FURNISH TO THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT WITHIN THIRTY (30) DAYS OF THE DATE OF REQUEST, ANY INFORMATION THAT THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT MAY REQUEST TO DETERMINE WHETHER CAUSE EXISTS FOR MODIFYING, REVOKING, REISSUING, OR TERMINATING THIS PERMIT OR COVERAGE APPROVED UNDER THIS PERMIT OR TO DETERMINE COMPLIANCE WITH THIS PERMIT.

(2) THE PERMITTEE OR CO-PERMITTEE SHALL FURNISH, UPON REQUEST, TO THE DEPARTMENT, EPA OR AUTHORIZED CONSERVATION DISTRICT, COPIES OF RECORDS REQUIRED TO BE KEPT BY THIS PERMIT.

(3) WHEN THE PERMITTEE OR CO-PERMITTEE BECOMES AWARE THAT THEY FAILED TO SUBMIT ANY RELEVANT FACTS OR SUBMITTED INCORRECT INFORMATION IN THE NOI, E&S PLAN, PCSM PLAN, OR PPC PLAN OR IN ANY OTHER REPORT TO THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT, THE PERMITTEE OR CO-PERMITTEE SHALL WITHIN 24 HOURS OF BECOMING AWARE OF THE DEFICIENCY SUBMIT OR CORRECT SUCH FACTS OR INFORMATION.

(4) THE PERMITTEE OR CO-PERMITTEE SHALL GIVE SEVEN (7) CALENDAR DAYS ADVANCE NOTICE TO THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT OF ANY PLANNED PHYSICAL ALTERATIONS OR ADDITIONS TO THE PERMITTED FACILITY WHICH COULD, IN ANY WAY, SUBSTANTIALLY AFFECT THE QUALITY AND/OR QUANTITY OF STORMWATER DISCHARGED FROM THE ACTIVITY.

c. SIGNATORY REQUIREMENTS

DOCUMENTS REQUIRED, SUBMITTED, OR MAINTAINED UNDER THIS PERMIT SHALL BE SIGNED IN ACCORDANCE WITH THE FOLLOWING:

(1) NOTICES OF INTENT, TRANSFEREE/CO-PERMITTEE FORM, AND NOTICES OF TERMINATION.

(a) CORPORATIONS: (1) A PRESIDENT, SECRETARY, TREASURER, OR VICE-PRESIDENT OF THE CORPORATION IN CHARGE OF A PRINCIPAL BUSINESS FUNCTION, OR ANY OTHER PERSON WHO PERFORMS SIMILAR POLICY OR DECISION- MAKING FUNCTIONS FOR THE CORPORATION; OR (2) THE MANAGER OF ONE OR MORE MANUFACTURING, PRODUCTION, OR OPERATING FACILITIES, IF AUTHORITY TO SIGN DOCUMENTS HAS BEEN ASSIGNED OR DELEGATED TO THE MANAGER IN ACCORDANCE WITH CORPORATE PROCEDURES;

(b) PARTNERSHIPS OR SOLE PROPRIETORSHIPS: A GENERAL PARTNER OR THE PROPRIETOR, RESPECTIVELY; OR

(c) MUNICIPALITIES, STATE, FEDERAL, OR OTHER PUBLIC AGENCIES: EITHER A PRINCIPAL EXECUTIVE OFFICER OR RANKING ELECTED OFFICIAL SUCH AS: (1) THE CHIEF EXECUTIVE OFFICER OR SECRETARY OF THE AGENCY, OR (2) A SENIOR EXECUTIVE OFFICER HAVING RESPONSIBILITY FOR THE OVERALL OPERATIONS OF A PRINCIPAL GEOGRAPHIC UNIT OF THE AGENCY (E.G., REGIONAL ADMINISTRATORS OF EPA).

(2) ALL REPORTS, PLANS, DOCUMENTS, AND OTHER INFORMATION REQUIRED BY THE PERMIT OR REQUESTED BY THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT SHALL BE SIGNED BY A DULY AUTHORIZED REPRESENTATIVE OF THE PERMITTEE.

(3) IF THERE IS A CHANGE IN THE DULY AUTHORIZED REPRESENTATIVE OF THE PERMITTEE OR CO-PERMITTEE, RESPECTIVELY, THE PERMITTEE OR CO-PERMITTEE SHALL NOTIFY THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT WITHIN THIRTY (30) DAYS OF THE CHANGE.

d. TRANSFER OF OWNERSHIP OR CONTROL

(1) THIS PERMIT IS NOT TRANSFERABLE TO ANY PERSON EXCEPT AFTER NOTICE AND ACKNOWLEDGMENT BY THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT.

(a) IN THE EVENT OF ANY PENDING CHANGE IN CONTROL OR OWNERSHIP OF FACILITIES FROM WHICH THE AUTHORIZED DISCHARGES EMANATE, THE PERMITTEE OR CO-PERMITTEE SHALL NOTIFY THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT USING THE FORM ENTITLED "TRANSFEREE/CO-PERMITTEE APPLICATION" OF SUCH PENDING CHANGE AT LEAST THIRTY (30) DAYS PRIOR TO THE CHANGE IN OWNERSHIP OR CONTROL.

(b) THE TRANSFEREE/CO-PERMITTEE APPLICATION FORM SHALL BE ACCOMPANIED BY A WRITTEN AGREEMENT BETWEEN THE EXISTING PERMITTEE AND THE NEW OWNER OR OPERATOR STATING THAT THE EXISTING PERMITTEE SHALL BE LIABLE FOR VIOLATIONS OF THE PERMIT UP TO AND UNTIL THE DATE OF COVERAGE TRANSFER AND THAT THE NEW OWNER OR OPERATOR SHALL BE JOINTLY AND INDIVIDUALLY LIABLE FOR PERMIT VIOLATIONS UNDER THE PERMIT FROM THAT DATE ON.

(c) AFTER RECEIPT OF AN ADMINISTRATIVELY COMPLETE AND ACCEPTABLE TRANSFEREE/CO-PERMITTEE APPLICATION FORM, THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT SHALL NOTIFY THE EXISTING PERMITTEE AND THE NEW OWNER OR OPERATOR OF ITS DECISION CONCERNING APPROVAL OF THE TRANSFER OF OWNERSHIP OR CONTROL. SUCH REQUESTS SHALL BE DEEMED APPROVED UNLESS THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT NOTIFIES THE APPLICANT OTHERWISE WITHIN THIRTY (30) DAYS.

(2) THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT MAY REQUIRE THE NEW OWNER OR OPERATOR TO APPLY FOR AND OBTAIN AN INDIVIDUAL NPDES PERMIT.

(3) FOR PURPOSES OF THIS PERMIT, OPERATORS SHALL INCLUDE GENERAL CONTRACTORS. IF PRIOR TO CONSTRUCTION ACTIVITIES, THE OWNER IS THE PERMITTEE AND AN OPERATOR/GENERAL CONTRACTOR IS LATER IDENTIFIED TO BECOME A CO-PERMITTEE, THE OWNER SHALL:

(a) NOTIFY THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT BY SUBMITTING AN ADMINISTRATIVELY COMPLETE AND ACCEPTABLE TRANSFEREE/CO-PERMITTEE APPLICATION FORM; AND

(b) ENSURE THAT MONITORING REPORTS AND ANY OTHER INFORMATION REQUESTED UNDER THIS PERMIT SHALL REFLECT ALL CHANGES TO THE PERMITTEE AND THE CO-PERMITTEE NAME.

(4) AFTER RECEIPT OF THE DOCUMENTATION DESCRIBED IN (3) ABOVE, THE PERMIT WILL BE CONSIDERED MODIFIED BY THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT. FOR THE PURPOSES OF THIS PERMIT, THIS MODIFICATION IS CONSIDERED TO BE A MINOR PERMIT MODIFICATION.

(5) UPON AUTHORIZATION OF A CHANGE IN OWNERSHIP OR CONTROL, THE EXISTING PERMITTEE SHALL PROVIDE A COPY OF THE PERMIT AND APPROVED PLANS TO THE NEW OWNER AND/OR CO-PERMITTEE.

e. REMOVED SUBSTANCES

SOLIDS, SEDIMENTS, AND OTHER POLLUTANTS REMOVED IN THE COURSE OF TREATMENT OR CONTROL OF STORMWATER SHALL BE DISPOSED IN ACCORDANCE WITH FEDERAL AND STATE LAW AND REGULATIONS, IN ORDER TO PREVENT ANY POLLUTANT IN SUCH MATERIALS FROM ADVERSELY AFFECTING THE ENVIRONMENT.

f. BMP CONSTRUCTION, OPERATION AND MAINTENANCE

THE PERMITTEE AND CO-PERMITTEE(S) ARE RESPONSIBLE FOR THE DESIGN, INSTALLATION, OPERATION, AND MAINTENANCE OF THE BMPS IDENTIFIED IN THE E&S PLAN, PCSM PLAN, AND PPC PLAN.

g. ADVERSE IMPACT

THE PERMITTEE AND CO-PERMITTEE(S) SHALL TAKE ALL REASONABLE STEPS TO PREVENT, MINIMIZE, OR CEASE ANY DISCHARGE IN VIOLATION OF THIS PERMIT.

h. REDUCTION, LOSS, OR FAILURE OF BMP

UPON REDUCTION, LOSS, OR FAILURE OF ANY BMP, THE PERMITTEE AND CO-PERMITTEE SHALL TAKE IMMEDIATE ACTION TO RESTORE, REPAIR, OR REPLACE THE BMP OR PROVIDE AN ALTERNATIVE METHOD OF TREATMENT. SUCH RESTORED BMP OR ALTERNATIVE TREATMENT SHALL BE AT LEAST AS EFFECTIVE AS THE ORIGINAL BMP WHEN PROPERLY INSTALLED. THESE ACTIONS SHOULD BE UNDERTAKEN TO ENSURE THAT THERE ARE NO POLLUTANTS OR POLLUTION DISCHARGED TO THE WATERS OF THE COMMONWEALTH. THIS REQUIREMENT IS APPLICABLE IN SITUATIONS WHERE THE BMP IS RENDERED INEFFECTIVE, WHETHER THE CAUSE OR SOURCE OF THE REDUCTION, LOSS OR FAILURE IS WITHIN OR BEYOND THE CONTROL OF THE PERMITTEE OR CO-PERMITTEE.

2. COMPLIANCE RESPONSIBILITIES

a. DUTY TO COMPLY

THE PERMITTEE AND CO-PERMITTEE MUST COMPLY WITH ALL TERMS AND CONDITIONS OF THIS GENERAL PERMIT. ANY PERMIT NONCOMPLIANCE CONSTITUTES A VIOLATION OF THE PENNSYLVANIA CLEAN STREAMS LAW AND THE FEDERAL CLEAN WATER ACT AND IS GROUNDS FOR ENFORCEMENT ACTION; FOR PERMIT TERMINATION, REVOCATION, REISSUANCE, OR MODIFICATION; OR FOR DENIAL OF A PERMIT OR PERMIT RENEWAL.

b. PENALTIES FOR VIOLATIONS OF PERMIT CONDITIONS

ANY PERSON WHO VIOLATES A PERMIT CONDITION, FAILS TO TAKE CORRECTIVE ACTION TO ABATE VIOLATIONS OR FALSIFIES REPORT OR OTHER DOCUMENTS MAY BE SUBJECT TO CRIMINAL AND/OR CIVIL PENALTIES OR OTHER APPROPRIATE ACTION FOR VIOLATIONS OF THE TERMS AND CONDITIONS OF THIS GENERAL PERMIT UNDER SECTIONS 602 AND 605 OF THE CLEAN STREAMS LAW (35 P.S. § 691.602 AND 691.605), AND UNDER THE CLEAN WATER ACT AS SPECIFIED IN 40 CFR § 122.41(A) (2) AND (3), WHICH ARE INCORPORATED BY REFERENCE.

c. NEED TO HALT OR REDUCE ACTIVITY NOT A DEFENSE

THE PERMITTEE AND/OR CO-PERMITTEE MAY NOT USE AS A DEFENSE IN AN ENFORCEMENT ACTION THAT IT WOULD HAVE BEEN NECESSARY TO HALT OR REDUCE THE PERMITTED ACTIVITY TO MAINTAIN COMPLIANCE WITH THE CONDITIONS OF THIS PERMIT.

d. PENALTIES AND LIABILITY

NOTHING IN THIS PERMIT SHALL BE CONSTRUED TO PRECLUDE THE INSTITUTION OF ANY LEGAL ACTION OR RELIEVE THE PERMITTEE OR CO-PERMITTEE FROM ANY RESPONSIBILITIES, LIABILITIES, OR PENALTIES TO WHICH THE PERMITTEE IS OR MAY BE SUBJECT UNDER SECTION 311 OF THE CLEAN WATER ACT (33 U.S.C. §1321) OR SECTION 106 OF COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT (ACT 42 U.S.C. § 9601).

e. PROPERTY RIGHTS

THIS PERMIT DOES NOT CONVEY ANY PROPERTY RIGHTS OF ANY SORT, NOR ANY EXCLUSIVE PRIVILEGES, NOR DOES IT AUTHORIZE ANY INJURY TO PRIVATE PROPERTY NOR ANY INVASION OF PERSONAL RIGHTS, NOR ANY INFRINGEMENT OF FEDERAL, STATE, OR LOCAL LAWS OR REGULATIONS.

f. SEVERABILITY

THE PROVISIONS OF THIS PERMIT ARE SEVERABLE; AND IF ANY PROVISION OF THIS PERMIT, OR THE APPLICATION OF ANY PROVISION OF THIS PERMIT TO ANY CIRCUMSTANCE, IS HELD INVALID, THE APPLICATION OF SUCH PROVISION TO OTHER CIRCUMSTANCES AND THE REMAINDER OF THIS PERMIT SHALL NOT BE AFFECTED THEREBY.

g. OTHER LAWS

NOTHING IN THIS PERMIT SHALL BE CONSTRUED TO PRECLUDE THE INSTITUTION OF ANY LEGAL ACTION OR RELIEVE THE PERMITTEE OR CO-PERMITTEE FROM ANY RESPONSIBILITIES, LIABILITIES, OR PENALTIES ESTABLISHED PURSUANT TO ANY APPLICABLE STATE LAW OR REGULATION UNDER AUTHORITY PRESERVED BY SECTION 510 OF THE CLEAN WATER ACT.

h. RIGHT OF ENTRY

PURSUANT TO SECTIONS 5(B) AND 305 OF THE PENNSYLVANIA CLEAN STREAMS LAW (35 P.S. §§691.5(B) AND 691.305), 25 PA. CODE CHAPTER 92A, AND SWITA OF THE ADMINISTRATIVE CODE OF 1929, THE PERMITTEE AND CO-PERMITTEE SHALL ALLOW THE DIRECTOR OF THE DEPARTMENT, THE EPA REGIONAL ADMINISTRATOR, AND/OR AN AUTHORIZED REPRESENTATIVE OF EPA, OR THE DEPARTMENT, CONSERVATION DISTRICT OR, IN THE CASE OF A FACILITY WHICH DISCHARGES TO A MUNICIPAL SEPARATE STORM SEWER, AN AUTHORIZED REPRESENTATIVE OF THE MUNICIPAL OPERATOR OR THE SEPARATE STORM SEWER RECEIVING THE DISCHARGE, UPON THE PRESENTATION OF CREDENTIALS AND OTHER DOCUMENTS, AS MAY BE REQUIRED BY LAW, TO:

(1) ENTER UPON THE PERMITTEE'S OR CO-PERMITTEE'S PREMISES WHERE A REGULATED FACILITY OR ACTIVITY IS LOCATED OR CONDUCTED OR WHERE RECORDS MUST BE KEPT UNDER THE CONDITIONS OF THIS PERMIT;

(2) HAVE ACCESS TO AND COPY, AT REASONABLE TIMES, ANY RECORDS THAT MUST BE KEPT UNDER THE TERMS AND CONDITIONS OF THIS PERMIT;

(3) INSPECT ANY FACILITIES OR EQUIPMENT (INCLUDING MONITORING AND CONTROL EQUIPMENT); AND

(4) OBSERVE OR SAMPLE ANY DISCHARGE OF STORMWATER.

i. AVAILABILITY OF REPORTS

EXCEPT FOR DATA DETERMINED TO BE CONFIDENTIAL UNDER SECTION 607 OF THE CLEAN STREAMS LAW (35 P.S. §691.607), ALL REPORTS PREPARED IN ACCORDANCE WITH THE TERMS OF THIS PERMIT SHALL BE AVAILABLE FOR PUBLIC INSPECTION AT THE OFFICES OF THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT. AS REQUIRED BY THE CLEAN WATER ACT, THE CLEAN STREAMS LAW, AND THE DEPARTMENT'S REGULATIONS AT 25 PA. CODE § 92A.9 (RELATING TO CONFIDENTIALITY OF INFORMATION), PERMIT APPLICATIONS, PERMITS, AND OTHER DOCUMENTS RELATED TO THIS PERMIT SHALL NOT BE CONSIDERED CONFIDENTIAL.

j. PENALTIES FOR FALSIFICATION OF REPORTS

SECTION 309(C)(4) OF THE CLEAN WATER ACT PROVIDES THAT ANY PERSON WHO KNOWINGLY MAKES ANY FALSE MATERIAL STATEMENT, REPRESENTATION, OR CERTIFICATION IN ANY RECORD OR OTHER DOCUMENT SUBMITTED OR REQUIRED TO BE MAINTAINED UNDER THIS PERMIT, INCLUDING REPORTS OF COMPLIANCE OR NONCOMPLIANCE SHALL, UPON CONVICTION, BE PUNISHED BY A FINE OF NOT MORE THAN $10,000 OR BY IMPRISONMENT FOR NOT MORE THAN TWO YEARS OR BY BOTH. IN ADDITION, CRIMINAL SANCTIONS ARE SET FORTH FOR FALSE SWEARING AND UNSWORN FALSIFICATION AT 18 PA.C.S. §§ 4903-4904.

PART C - OTHER CONDITIONS

1. PROHIBITION OF NONSTORMWATER DISCHARGES

ALL DISCHARGES COVERED BY THIS PERMIT SHALL BE COMPOSED ENTIRELY OF STORMWATER. DISCHARGES OF MATERIAL OTHER THAN STORMWATER THAT MUST BE IN COMPLIANCE, WHETHER REQUIRED WITH AN NPDES PERMIT (OTHER THAN THIS PERMIT) ISSUED FOR THE DISCHARGE. DISCHARGE OF SEWAGE OR INDUSTRIAL WASTE (OTHER THAN SEDIMENT UNDER THIS PERMIT) TO AN E&S BMP IS NOT PERMITTED.

THE PERMITTEE/CO-PERMITTEE MAY NOT DISCHARGE FLOATING MATERIALS, OIL, GREASE, SCUM, FOAM, SHEEN, AND SUBSTANCES WHICH PRODUCE ODOR, TASTE, OR TURBIDITY OR SETTLE TO FORM DEPOSITS IN CONCENTRATIONS OR AMOUNTS SUFFICIENT TO BE, OR CREATE A DANGER OF BEING, INIMICAL TO THE WATER USES TO BE PROTECTED OR HUMAN, ANIMAL, PLANT, OR AQUATIC LIFE.

2. EROSION AND SEDIMENT CONTROL PLANS

a. UNLESS OTHERWISE AUTHORIZED BY THE DEPARTMENT OR CONSERVATION DISTRICT AFTER CONSULTATION WITH THE DEPARTMENT, EARTH DISTURBANCE ACTIVITIES SHALL BE PLANNED AND IMPLEMENTED TO THE EXTENT PRACTICABLE IN ACCORDANCE WITH THE FOLLOWING:

(i) MINIMIZE THE EXTENT AND DURATION OF EARTH DISTURBANCE.

(ii) MAXIMIZE PROTECTION OF EXISTING DRAINAGE FEATURES AND VEGETATION.

(iii) MINIMIZE SOIL COMPACTION.

(iv) UTILIZE OTHER MEASURES OR CONTROLS THAT PREVENT OR MINIMIZE THE GENERATION OF INCREASED STORMWATER RUNOFF.

b. AN E&S PLAN SHALL BE PREPARED AND IMPLEMENTED IN ACCORDANCE WITH THE REQUIREMENTS OF 25 PA. CODE CHAPTER 102 AND BY A PERSON TRAINED AND EXPERIENCED IN EROSION AND SEDIMENT CONTROL METHODS AND TECHNIQUES APPLICABLE TO THE SIZE AND SCOPE OF THE PROJECT BEING DESIGNED. EACH E&S PLAN MUST BE SUBMITTED TO AND APPROVED BY THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT. THE E&S PLANS SHALL BE DESIGNED TO MINIMIZE THE POTENTIAL FOR ACCELERATED EROSION AND SEDIMENTATION IN ORDER TO PROTECT, MAINTAIN, RECLAIM, AND RESTORE WATER QUALITY AND EXISTING AND DESIGNATED USES. VARIOUS BMPS AND THEIR DESIGN STANDARDS ARE LISTED IN THE EROSION AND SEDIMENT POLLUTION CONTROL PROGRAM MANUAL, NO. 363-2134-008, AS AMENDED AND UPDATED. THE MANUAL IS AVAILABLE FROM THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT OR CAN BE DOWNLOADED FROM THE DEPARTMENT'S WEBSITE AT WWW.DEP.STATE.PA.US. E&S PLANS AND BMPS, AND REVISIONS THERETO, WHICH MEET THE REQUIREMENTS OF 25 PA. CODE CHAPTERS 93, 96 (RELATING TO WATER QUALITY STANDARDS IMPLEMENTATION), AND 102, ARE CONDITIONS OF THIS PERMIT AND ARE INCORPORATED BY REFERENCE.

c. E&S CONTROL PLANS REQUIRED UNDER THIS PERMIT ARE CONSIDERED REPORTS THAT SHALL BE AVAILABLE TO THE PUBLIC UNDER SECTION 607 OF THE CLEAN STREAMS LAW AND 25 PA. CODE CHAPTER 92A OF THE DEPARTMENT'S REGULATIONS. THE OWNER OR OPERATOR OF A FACILITY WITH STORMWATER DISCHARGES COVERED BY THIS PERMIT SHALL MAKE E&S PLANS AVAILABLE TO THE PUBLIC UPON REQUEST. E&S PLANS MUST BE MADE AVAILABLE AT THE SITE OF THE CONSTRUCTION ACTIVITY AT ALL TIMES.

d. THE APPROVED E&S PLAN, INCLUDING THE STAGING OF EARTH DISTURBANCE ACTIVITIES AND MAINTENANCE REQUIREMENTS, MUST BE FOLLOWED.

e. UPON THE INSTALLATION OR STABILIZATION OF ALL PERIMETER SEDIMENT CONTROL BMPS AND AT LEAST THREE (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.

f. THE E&S PLAN MUST BE CONSISTENT WITH THE ASSUMPTIONS AND REQUIREMENTS OF ANY ASSIGNED WASTELOAD ALLOCATIONS (WLAS) AS SET FORTH IN ANY APPLICABLE TOTAL MAXIMUM DAILY LOADS (TMDLS) ESTABLISHED FOR THE RECEIVING WATERS.

3. RECYCLING AND DISPOSAL OF BUILDING MATERIALS AND WASTES

ALL BUILDING MATERIALS AND WASTES MUST BE REMOVED FROM THE SITE AND RECYCLED OR DISPOSED IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE CH. 260A (RELATING TO HAZARDOUS WASTE MANAGEMENT SYSTEM: GENERAL); CH. 271 (RELATED TO MUNICIPAL WASTE MANAGEMENT SYSTEM - GENERAL PROVISIONS); AND CH.287 (RELATING TO RESIDUAL WASTE MANAGEMENT SYSTEM - GENERAL PROVISIONS). NO BUILDING MATERIAL OR WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURNED, BURIED, DUMPED, OR DISCHARGED AT THE SITE.

4. PREPAREDNESS,

TEMPORARY CONTROL MEASURES

1. STABILIZED CONSTRUCTION ENTRANCE
   a. A STABILIZED PAD OF CRUSHED STONE (AASHTO NO. 1) SHALL BE LOCATED WHERE CONSTRUCTION TRAFFIC WILL BE ENTERING AND EXISTING THE SITE. THE STABILIZED CONSTRUCTION ENTRANCE IS USED TO REDUCE OR ELIMINATE THE TRACKING OR FLOWING OF SEDIMENT INTO THE EXISTING TRAVELWAYS AND STREETS BORDERING THE SITE.
   b. ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK AS NEEDED. A STOCKPILE OF ROCK MATERIAL SHALL BE MAINTAINED ON THE SITE FOR THIS PURPOSE. AT THE END OF EACH CONSTRUCTION DAY, ALL SEDIMENT DEPOSITED ON PUBLIC ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE. WATER SHALL NOT BE USED TO REMOVE SEDIMENT.

2. TOPSOIL STOCKPILE
   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 IMMEDIATELY STABILIZED WITH A TEMPORARY COVER CROP OF ANNUAL RYEGRASS (1 LB. / 1,000 SQUARE FEET) OF WINTER RYE (3.5 LBS. / 1,000 SQUARE FEET) IN ACCORDANCE WITH ACCEPTED SEEDING PRACTICES.
   c. STOCKPILE HEIGHTS MUST NOT EXCEED 35'. STOCKPILE SLOPES MUST BE 2:1 OR FLATTER.
   d. STOCKPILES SHALL BE LOCATED WHERE SHOWN ON THE PLANS OR AT AN ALTERNATE LOCATIONS APPROVED BY THE CONSERVATION DISTRICT.
   e. BEFORE DISPOSING OF SOIL, OR RECEIVING BORROW FOR THE SITE, THE OPERATOR MUST ASSURE THAT EACH SPOIL OR BORROW AREA HAS AN EROSION AND SEDIMENT CONTROL PLAN APPROVED BY THE COUNTY CONSERVATION DISTRICT, AND WHICH IS BEING IMPLEMENTED AND MAINTAINED ACCORDING TO CHAPTER 102 REGULATIONS.

3. FILTER SOCK
   a. FILTER SOCKS SHALL BE USED TO INTERCEPT SEDIMENT-LADEN RUNOFF FOR SMALL WATERSHEDS.
   b. FILTER SOCKS SHALL BE INSTALLED IN ACCORDANCE WITH THE MAXIMUM SLOPE TO LENGTH RELATIONSHIPS AS PER MANUFACTURER, PADEP, AND CONSERVATION DISTRICT RECOMMENDATIONS.
   c. THE CONTRACTOR SHALL MAINTAIN THE SOCK IN A FUNCTIONAL CONDITION AT ALL TIMES, AND IT SHALL BE ROUTINELY INSPECTED.
   d. THE SOCK SHALL BE ROUTINELY MAINTAINED THROUGHOUT CONSTRUCTION AND REPAIRED WHEN NECESSARY.
   e. THE CONTRACTOR SHALL REMOVE SEDIMENT COLLECTED AT THE BASE OF THE SOCK WHEN SEDIMENT DEPTHS REACH ONE HALF OF THE EXPOSED HEIGHT OF THE SOCK, OR AS DIRECTED BY INSPECTION AUTHORITIES.

4. INLET SEDIMENT PROTECTION
   a. INLET SEDIMENT PROTECTION SHALL BE UTILIZED AT ALL STORM SEWER INLETS SUSCEPTIBLE TO RECEIVING SEDIMENT LADEN RUNOFF, AND WHICH DO NOT DISCHARGE TO A DESIGNATED SEDIMENT TRAP OR SEDIMENT BASIN.
   b. THE CONTRACTOR SHALL UTILIZE THE TYPE OF INLET PROTECTION SHOWN ON THE EROSION CONTROL PLANS AND DETAILS. AT THE CONTRACTOR'S DISCRETION, A @BAG TYPE-A INLET INSERT MAY BE USED FOR INLET PROTECTION IN ALL PROPOSED PAVED AREAS.
   c. THE INLET SEDIMENT PROTECTION SHALL BE CHECKED AND FLUSHED, AS REQUIRED, AFTER EACH RAINFALL/RUNOFF EVENT. IF NECESSARY, THE INLET SEDIMENT PROTECTION SHALL BE REPLACED TO ENSURE SEDIMENTS DO NOT ENTER THE STORM SEWER SYSTEM.
   d. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE INLET SEDIMENT PROTECTION TO MAINTAIN STORM WATER DRAINAGE, AND TO PREVENT SEDIMENT FROM COLLECTING AROUND THE INLET.
   e. SEDIMENT MUST BE REMOVED FROM INLET PROTECTION AFTER EACH STORM EVENT, OR WHEN THE DISTANCE BETWEEN THE GRATE AND THE SEDIMENT LEVEL IS REDUCED TO 1/8".
   f. STORM WATER INLETS, WHICH DO NOT DISCHARGE TO SEDIMENT TRAPS OR BASINS, MUST BE PROTECTED UNTIL THE TRIBUTARY AREAS ARE STABILIZED.

5. TEMPORARY SEEDING/MULCHING
   a. TEMPORARY SEEDING AND MULCHING SHALL BE APPLIED WHERE INDICATED IN THE NARRATIVE TO PROVIDE STABILIZATION TO EXPOSED AREAS. ALL AREAS WHERE CONSTRUCTION ACTIVITY HAS CEASED SHALL IMMEDIATELY BE SEEDED WITH THE SPECIFIED TEMPORARY SEED MIX.
   b. STRAW OR HAY MULCH SHALL BE APPLIED AT A MINIMUM RATE OF 3.0 TONS PER ACRE (ENOUGH TO LIGHTLY COVER 75% TO 90% OF THE DESIGNATED AREAS).
   c. THE TEMPORARY SEEDING/MULCHING SHALL BE AS INDICATED ON THE EROSION AND SEDIMENT CONTROL PLANS, AND AS OUTLINED IN THE SEEDING/MULCHING SECTION OF THIS NARRATIVE.
   d. MULCH CONTROL NETTING, OR EROSION CONTROL BLANKETS, MUST BE INSTALLED ON ALL SLOPES GREATER THAN 3:1.

PERMANENT CONTROL MEASURES AND FACILITIES

1. PERMANENT GRASS
   a. ALL DISTURBED AREAS THAT ARE NOT TO BE PAVED SHALL BE COVERED WITH GRASS IN ORDER TO MINIMIZE EROSION. THE SEED MIXTURE SHALL BE APPLIED AS SPECIFIED OR IT MAY BE HYDRO-SEEDED BY A PERSON EXPERIENCED IN SUCH APPLICATIONS. SEED SHALL BE APPLIED DURING THE REGULAR GROWING SEASON OF THE SPECIES SPECIFIED.
   b. PERMANENT SEEDING SHALL NOT OCCUR BEFORE APRIL 1 OR AFTER OCTOBER 15. DURING SUMMER APPLICATIONS, THE PERCENTAGE OF HARD SEED IN THE MIX, AND THE RATE OF APPLICATION, SHALL BE INCREASED. IF SEEDING CANNOT OCCUR DURING THE REGULAR GERMINATION PERIOD, THE EXPOSED AREAS SHALL BE MULCHED AS INDICATED PREVIOUSLY, AND THEN SEEDED WHEN THE GERMINATION PERIOD OCCURS.
   c. SEED MIXTURE FOR PERMANENT SEEDING BY THE CONTRACTOR SHALL BE IN ACCORDANCE WITH SEEDING SCHEDULE ON THE DRAWINGS.
   d. SOIL AMENDMENTS, SUCH AS LIME AND FERTILIZER, SHALL BE APPLIED IN ACCORDANCE WITH A SOIL TEST FOR THE TYPE OF SEED PROPOSED. IN LIEU OF A SOIL TEST, AMENDMENTS SHALL BE APPLIED AT THE RATES SPECIFIED IN THE SEEDING/MULCHING SECTION OF THIS NARRATIVE.

2. MULCH
   a. STRAW MULCH SHALL BE APPLIED TO SEEDING AREAS TO HELP ESTABLISH A PERMANENT GRASS COVER AND TO PREVENT EROSION.
   b. STRAW OR HAY MULCH SHALL BE APPLIED AT A MINIMUM RATE OF 3.0 TONS PER ACRE (ENOUGH TO LIGHTLY COVER 75% TO 90% OF THE DESIGNATED AREA).
   c. AREAS MAY BE HYDRO-MULCHED AS AN ALTERNATIVE TO STRAW MULCH, IF DESIRED.

3. SOD
   a. IN AREAS WHERE THE SLOPE IS 2:1 OR GREATER, THE DEVELOPER WILL INSTALL SOD. SOD MATERIAL AND INSTALLATION SHALL CONFORM TO THE GUIDELINE SPECIFICATIONS TO SODDING, BY THE AMERICAN SOD PRODUCERS ASSOCIATION.
   b. SOD SHALL BE INSTALLED DURING THE REGULAR GROWING SEASON OF THE SEED SPECIES OF WHICH THE SOD IS COMPRISED, OR GENERALLY NOT BEFORE APRIL 1 OR AFTER OCTOBER 15.

4. EROSION CONTROL MATTING AND WATERCOURSE PROTECTION
   a. EROSION CONTROL MATTING SHALL BE USED WHERE INDICATED ON THE PLAN AND AT THE OWNER'S/CONTRACTOR'S DISCRETION AT ALL AREAS WHERE STABILIZATION APPEARS TO BE DIFFICULT.
   b. EROSION CONTROL MATTING/WATERCOURSE PROTECTION SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS, AND IN ACCORDANCE WITH THE PLAN DETAILS.
   c. EROSION CONTROL MATTING MAY BE USED ON STEEP SLOPE AREAS IF DISTURBANCE IS TO OCCUR DURING NO-GERMINATING PERIODS AND STABILIZATION APPEARS DIFFICULT.
   d. EROSION CONTROL BLANKETS MUST BE INSTALLED ON ALL SLOPES GREATER THAN 3:1.

GENERAL EROSION AND SEDIMENT CONTROL NOTES

1. ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE ACCOMPANYING CONSTRUCTION SEQUENCE/STAGING OF EARTHMOVING ACTIVITIES. EACH STAGE SHALL BE COMPLETED BEFORE A SUBSEQUENT STAGE IS INITIATED. BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES AT LEAST 7 DAYS PRIOR TO CONSTRUCTION, THE GENERAL CONTRACTOR SHALL INVITE ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES, (THE LANDOWNER, THE EROSION AND SEDIMENTATION CONTROL PLAN DESIGNER, AND A REPRESENTATIVE OF THE COUNTY CONSERVATION DISTRICT FOR AN ONSITE PRE-CONSTRUCTION MEETING, ALSO 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 800-242-1776 TO LOCATE BURIED UTILITIES.
2. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENTATION BMP'S MUST BE MAINTAINED PROPERLY. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENTATION BMP'S AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ALL SITE INSPECTIONS WILL BE DOCUMENTED IN AN INSPECTION LOG KEPT FOR THIS PURPOSE. THE COMPLIANCE ACTIONS AND THE DATE, TIME, AND NAME OF THE PERSON CONDUCTING THE INSPECTION MUST BE NOTED IN THE LOG FOLLOWING EACH INSPECTION. THE INSPECTION LOG WILL BE KEPT ON THE SITE AT ALL TIMES AND MADE AVAILABLE TO THE COUNTY CONSERVATION DISTRICT UPON REQUEST.
3. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN-OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING, AND RENETTING MUST BE PERFORMED IMMEDIATELY. IF EROSION AND SEDIMENTATION BMP'S FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMP'S OR MODIFICATIONS OF THOSE INSTALLED WILL BE NEEDED.
4. WHERE BMP'S ARE FOUND TO FAIL TO ALLEVIATE EROSION OR SEDIMENT POLLUTION, THE PERMITTEE OR CO-PERMITEE SHALL INCLUDE THE FOLLOWING INFORMATION:
   A. THE LOCATION AND SEVERITY OF THE BMP'S FAILURE AND POLLUTION EVENTS.
   B. ALL STEPS TAKEN TO REDUCE, ELIMINATE, AND PREVENT THE RECURRENCE OF THE NON-COMPLIANCE.
   C. THE TIME FRAME TO CORRECT THE NON-COMPLIANT, INCLUDING THE EXACT DATES WHEN THE ACTIVITY WILL RETURN TO COMPLIANCE.
5. ONLY LIMITED UP-SLOPE DISTURBANCE WILL BE PERMITTED TO PROVIDE ACCESS TO THE SEDIMENT TRAPS, CONVEYANCE CHANNELS, DIVERSION CHANNELS, AND INTERCEPTOR CHANNELS FOR GRADING AND ACQUIRING BORROW TO CONSTRUCT THOSE CONTROLS AS REQUIRED.
6. EROSION AND SEDIMENTATION CONTROLS MUST BE CONSTRUCTED, STABILIZED, AND FUNCTIONAL BEFORE GENERAL SITE DISTURBANCE WITHIN THE TRIBUTARY AREAS OF THOSE CONTROLS.
7. AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENTATION CONTROLS MUST BE REMOVED. AREAS DISTURBED DURING REMOVAL OF THE CONTROLS MUST BE STABILIZED.
8. VEHICLES MAY ONLY ENTER AND EXIT AT THE LOCATION OF APPROVED CONSTRUCTION ENTRANCE(S).
9. STOCK PILE HEIGHTS MUST NOT EXCEED 35 FEET NOR SHALL THE SIDE SLOPE EXCEED 2:1.
10. SEDIMENT BASINS/TRAPS MUST BE PROTECTED FROM UNAUTHORIZED ACTS OF THIRD PARTIES.
11. CLEANOUT STAKES SHALL BE PLACED AT HALF DISTANCES FROM POINTS OF CONCENTRATED INFLOWS INTO BASINS/TRAPS TO OUTLET STRUCTURES. SEDIMENT SHALL BE REMOVED WHEN SEDIMENT ACCUMULATED TO THE CLEAN OUT ELEVATION ON THE STAKES.
12. SILT FENCING MUST BE INSTALLED PARALLEL TO EXISTING CONTOURS OR CONSTRUCTED LEVEL ALIGNMENTS. ENDS OF SILT FENCING MUST EXTEND 8', TRAVELING UP-SLOPE AT 45 DEGREES TO THE ALIGNMENT OF THE MAIN FENCING SECTION.
13. SEDIMENT MUST BE REMOVED WHERE ACCUMULATIONS REACH ONE-HALF THE ABOVE GROUND HEIGHT OF THE SILT FENCING.
14. ANY FENCING THAT HAS BEEN UNDERMINED OR TOPPED MUST BE REPLACED WITH FILTER OUTLETS IMMEDIATELY.
15. STORM WATER INLETS MUST BE PROTECTED UNTIL THE TRIBUTARY ACRES ARE STABILIZED.
16. SEDIMENT MUST BE REMOVED FROM INLET PROTECTION AFTER EACH STORM.
17. ANY DISTURBED AREA ON WHICH ACTIVITY HAS CEASED MUST BE SEEDED AND MULCHED 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 REDISTURBED WITHIN ONE YEAR MAY BE SEEDED AND MULCHED WITH A QUICK GROWING TEMPORARY SEEDING MIXTURE AND MULCH AS SPECIFIED.
18. DIVERSIONS, CHANNELS, SEDIMENT TRAPS, AND STOCKPILES MUST BE SEEDED AND MULCHED IMMEDIATELY. THEY SHALL BE CONSTRUCTED FREE OF ROCKS, TREE ROOTS, STUMPS, OR OTHER PROJECTIONS THAT IMPEDE NORMAL CHANNEL FLOW AND/OR PREVENT GOOD LINING TO SOILS CONTACT. CHANNEL SHALL BE INITIALLY OVER EXCAVATED TO ALLOW FOR THE PLACEMENT OF TOPSOIL.
19. THE APPLICANT WILL BE RESPONSIBLE FOR THE PROPER CONSTRUCTION, STABILIZATION, AND MAINTENANCE OF ALL EROSION AND SEDIMENTATION CONTROLS AND RELATED ITEMS INCLUDED ON THIS PLAN.
20. THE APPLICANT MUST DEVELOP, AND HAVE APPROVED BY THE COUNTY CONSERVATION DISTRICT, A SEPARATE EROSION AND SEDIMENTATION CONTROL PLAN FOR EACH SPOIL, BORROW, OR OTHER WORK AREA NOT DETAILED ON THE APPROVED PLAN, WHETHER LOCATED WITHIN OR OUTSIDE THE CONSTRUCTION LIMITS. PLAN MUST BE IN COMPLIANCE WITH CHAPTER 102 AND/OR OTHER STATE OR FEDERAL REGULATIONS.
21. UNLESS OTHERWISE NOTED, THE LIMITS OF GRADING SHALL BE CONSIDERED THE LIMITS OF DISTURBANCE.
22. SHOULD ANY MEASURES CONTAINED WITHIN THIS PLAN PROVE INCAPABLE OF ADEQUATELY REMOVING SEDIMENT FROM ON-SITE FLOWS PRIOR TO DISCHARGE OR STABILIZING THE SURFACES INVOLVED, ADDITIONAL MEASURES MUST BE IMMEDIATELY IMPLEMENTED BY THE APPLICANT TO ELIMINATE ALL SUCH PROBLEMS.
23. SHOULD UNFORESEEN EROSIVE CONDITIONS DEVELOP DURING CONSTRUCTION, THE CONTRACTOR SHALL TAKE ACTION TO REMEDY SUCH CONDITIONS AND TO PREVENT DAMAGE TO ADJACENT PROPERTIES AS A RESULT OF INCREASED RUNOFF AND/OR SEDIMENT DISPLACEMENT. STOCKPILES OF WOOD CHIPS, HAY BALES, CRUSHED STONE AND OTHER MULCHES SHALL BE HELD IN READINESS TO DEAL IMMEDIATELY WITH EMERGENCY PROBLEMS OF EROSION.
24. THE CONTRACTOR IS ADVISED TO BECOME THOROUGHLY FAMILIAR WITH THE PROVISIONS OF APPENDIX 64, EROSION CONTROL RULES AND REGULATIONS, TITLE 25, PART I, DEPARTMENT OF ENVIRONMENTAL RESOURCES, SUB-PART C, PROTECTION OF NATURAL RESOURCES, ARTICLE III, WATER RESOURCES, CHAPTER 102, EROSION CONTROL.
25. PROTECTION TO EXISTING TREES AND SHRUBS SHALL BE TAKEN BY THE CONTRACTOR TO ELIMINATE UNNECESSARY DAMAGE.
26. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN MUST BE AVAILABLE AT THE PROJECT SITE AT ALL TIMES.
27. BEFORE INITIATING ANY REVISION TO THE APPROVED EROSION AND SEDIMENT CONTROL PLAN OR REVISIONS TO OTHER PLANS WHICH MAY AFFECT THE EFFECTIVENESS OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN, THE OPERATOR MUST RECEIVE APPROVAL OF THE REVISIONS FROM THE COUNTY CONSERVATION DISTRICT.
28. ALL PUMPING OF SEDIMENT LADEN WATER SHALL BE THROUGH A SEDIMENT CONTROL BMP, SUCH AS A PUMPED WATER FILTER BAG DISCHARGING OVER NON-DISTURBED AREAS.
29. THE OPERATOR SHALL REMOVE FROM THE SITE, RECYCLE, OR DISPOSE OF ALL BUILDING MATERIALS AND WASTE IN ACCORDANCE WITH THE DEPARTMENTS SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ER SEQ., AND 287.1 ER SEQ. THE CONTRACTOR SHALL NOT ILLEGALLY BURY, DUMP, OR DISCHARGE ANY BUILDING MATERIAL OR WASTES AT THE SITE.
30. ALL SLOPES 3:1 OR GREATER SHALL BE STABILIZED WITH EROSION CONTROL BLANKETING (ECB).
31. SEDIMENT REMOVED FROM BMPS DURING CONSTRUCTION WILL BE RETURNED TO UPLAND AREAS ON SITE WITH EXISTING SEDIMENT PROTECTION MEASURES IN PLACE AND INCORPORATED INTO THE SITE GRADING.
32. IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES, PERMANENT STABILIZATION OF ALL DISTURBED AREAS SHALL BE CARRIED OUT. 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.
33. UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, THE OWNER AND/OR OPERATORS SHALL CONTACT THE COUNTY CONSERVATION DISTRICT FOR A FINAL INSPECTION PRIOR TO REMOVAL OF THE BMPS.
34. SEDIMENT BASINS/TRAPS SHALL BE KEPT FREE OF ALL TRASH, CONCRETE WASH WATER AND OTHER DEBRIS THAT POSE THE POTENTIAL FOR CLOGGING THE BASIN/TRAP OUTLET STRUCTURES AND/OR POSE THE POTENTIAL FOR POLLUTION TO WATERS OF THE COMMONWEALTH.
35. WHEN SEDIMENT HAS ACCUMULATED TO THE CLEAN OUT ELEVATION ON ANY STAKE, ALL ACCUMULATED SEDIMENT SHALL BE REMOVED FROM THE ENTIRE TRAP/BASIN BOTTOM.
36. APPROVAL OF THE USE OF SKIMMER(S) DOES NOT APPROVE USE OF ANY SKIMMER(S) IN VIOLATION OF ANY PATENT, PATENT RIGHTS, AND/OR PATENT LAWS.
37. FILL MATERIAL FOR THE EMBANKMENTS SHALL BE FREE OF ROOTS, OR OTHER WOODY VEGETATION, ORGANIC MATERIAL, LARGE STONES, AND OTHER OBJECTIONABLE MATERIALS. THE EMBANKMENT SHALL BE COMPACTED IN MAXIMUM 6" LAYERED LIFTS AT 95% DENSITY.
38. A MINIMUM 6" LAYER OF TOPSOIL SHALL BE PLACED ON ALL DISTURBED AREAS PRIOR TO PERMANENT STABILIZATION AND RE VEGETATION.
39. AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENT BMPS MUST BE REMOVED. AREAS DISTURBED DURING REMOVAL OF THE BMPS MUST BE STABILIZED IMMEDIATELY.

FILL DETERMINATION

1. TO DETERMINE WHETHER FILL IS CLEAN OR REGULATED, THE CONTRACTOR MUST PERFORM ENVIRONMENTAL DUE DILIGENCE.

   ENVIRONMENTAL DUE DILIGENCE IS DEFINED AS INVESTIGATIVE TECHNIQUES, INCLUDING, BUT NOT LIMITED TO, VISUAL PROPERTY INSPECTIONS, ELECTRONIC DATABASE SEARCHES, REVIEW OF OWNERSHIP AND USE HISTORY OF PROPERTY, SANBORN MAPS, ENVIRONMENTAL QUESTIONNAIRES, TRANSACTION SCREENS, ANALYTICAL TESTING, ENVIRONMENTAL ASSESSMENTS OR AUDITS.

   A) IF DUE DILIGENCE SHOWS NO EVIDENCE OF A RELEASE OF A REGULATED SUBSTANCE, THE MATERIAL MAY BE MANAGED AS CLEAN FILL UNDER DEP'S MANAGEMENT OF FILL POLICY.

   B) IF DUE DILIGENCE SHOWS EVIDENCE OF A RELEASE, THE MATERIAL MUST BE TESTED TO DETERMINE IF IT QUALIFIES AS CLEAN FILL. TESTING MUST BE PERFORMED IN ACCORDANCE WITH THE PENNSYLVANIA DEP, BUREAU OF LAND RECYCLING AND WASTE MANAGEMENT'S "MANAGEMENT OF FILL POLICY."

      I. IF TESTING REVEALS THAT THE MATERIAL CONTAINS CONCENTRATIONS OF REGULATED SUBSTANCES THAT ARE BELOW THE RESIDENTIAL LIMITS ESTABLISHED IN DEP'S MANAGEMENT OF FILL POLICY, THE MATERIAL MUST BE MANAGED AS CLEAN FILL.

      II. IF TESTING REVEALS THAT THE MATERIAL CONTAINS CONCENTRATIONS OF REGULATED SUBSTANCES THAT EXCEED THE LIMITS ESTABLISHED IN DEP'S MANAGEMENT OF FILL POLICY, THE MATERIAL MUST BE MANAGED AS REGULATED FILL.

   CLEAN FILL IS DEFINED AS, UNCONTAMINATED, NONWATER-SOLUBLE, NONDECOMPOSABLE 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 RECOGNIZABLE AS SUCH (25 PA CODE SECTIONS 271.101 AND 287.101). THE TERM DOES NOT INCLUDE MATERIALS PLACED IN OR ON THE WATERS OF THE COMMONWEALTH UNLESS OTHERWISE NOTED.

2. THE CONTRACTOR MAY NOT BLEND OR MIX MATERIALS TO BECOME CLEAN FILL. MATERIALS THAT CONTAIN REGULATED SUBSTANCES THAT ARE INTENTIONALLY RELEASED MAY NOT BE MANAGED UNDER DEP'S MANAGEMENT OF FILL POLICY.

RECYCLING OR DISPOSAL OF MATERIALS

1. PROCEDURES WHICH ENSURE THAT THE PROPER MEASURES FOR THE RECYCLING OR DISPOSAL OF MATERIALS ASSOCIATED WITH OR FROM THE PROJECT SITE WILL BE UNDERTAKEN IN ACCORDANCE WITH DEPARTMENT REGULATIONS.
2. INDIVIDUALS RESPONSIBLE FOR EARTH DISTURBANCE ACTIVITIES MUST ENSURE THAT PROPER MECHANISMS ARE IN PLACE TO CONTROL WASTE MATERIALS.
3. CONSTRUCTION WASTES INCLUDE, BUT ARE NOT LIMITED TO, EXCESS SOIL MATERIALS, BUILDING MATERIALS, CONCRETE WASH WATER, SANITARY WASTES, ETC. THAT COULD ADVERSELY IMPACT WATER QUALITY.
4. THE CONTRACTOR SHALL PLAN AND IMPLEMENT MEASURES FOR HOUSEKEEPING, MATERIALS MANAGEMENT, AND LITTER CONTROL DURING CONSTRUCTION.
5. WHEREVER POSSIBLE, RECYCLING OF EXCESS MATERIALS IS PREFERRED, RATHER THAN DISPOSAL. DISPOSAL OF CONSTRUCTION WASTES SHALL BE IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL GUIDELINES AND REGULATIONS (25 PA CODE 260.1 ET SEQ., 271.1E. SEQ. AND 287.1 ET SEQ).

MAINTENANCE

1. ALL SEDIMENT AND EROSION CONTROL FACILITIES SHALL BE CHECKED FOR DAMAGE WEEKLY AND/OR AFTER EACH PRECIPITATION EVENT. ALL FACILITIES THAT ARE DAMAGED, CLOGGED, OR CAN NO LONGER EFFECTIVELY PERFORM THE JOB IN WHICH THEY ARE DESIGNED, SHALL BE REPLACED.
2. ALL SEDIMENT REMOVED FROM SEDIMENT TRAPPING DEVICES SHALL BE DISPOSED OF IN A MANNER THAT WILL NOT CAUSE EROSION OR SEDIMENTATION, AND SHALL BE PLACED IN AN AREAS WITHIN THE DEFINED LIMITS OF DISTURBANCE.
3. ANY PERMANENTLY SEEDED AREAS THAT BECOME ERODED OR DISTURBED SHALL HAVE THE TOPSOIL REPLACED, THE GRASS RESEEDED, AND THE MULCH REAPPLIED, OR, AT THE DISCRETION OF THE OWNER, SOD MAY BE INSTALLED.
4. UNTIL THE SITE HAS ACHIEVED FINAL STABILIZATION, THE OWNER AND OR CONTRACTOR SHALL PROPERLY IMPLEMENT, OPERATE AND MAINTAIN, ALL THE BEST MANAGEMENT PRACTICES AND EROSION AND SEDIMENT CONTROL FEATURES. MAINTENANCE SHALL INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENTATION CONTROLS AFTER EACH RUNOFF EVENT, AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING, AND RENETTING, MUST BE PERFORMED IMMEDIATELY.
5. 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 AS INDICATED IN CHAPTER 25 OF THE PENNSYLVANIA CODE.

SITE STABILIZATION

1. UPON COMPLETION OF AN EARTH DISTURBANCE ACTIVITY, OR ANY STAGE OR PHASE OF AN ACTIVITY, THE OPERATOR SHALL IMMEDIATELY STABILIZE THE DISTURBED AREAS TO PROTECT FROM ACCELERATED EROSION. DURING NON-GERMINATING PERIODS, MULCH MUST BE APPLIED AT THE SPECIFIED RATES. DISTURBED AREAS WHICH ARE NOT AT FINISHED GRADE AND WHICH WILL BE REDISTURBED WITHIN 1-YEAR MAY BE STABILIZED IN ACCORDANCE WITH TEMPORARY SEEDING SPECIFICATIONS. DISTURBED AREAS WHICH ARE EITHER AT FINISHED GRADE OR WILL NOT BE REDISTURBED WITHIN 1-YEAR, MUST BE STABILIZED IN ACCORDANCE WITH PERMANENT SEEDING SPECIFICATIONS.
2. SPREAD TOPSOIL (6") OVER ALL AREAS WHICH HAVE NOT BEEN PAVED (OR WILL NOT BE PAVED) AND ALL AREAS WHICH WERE NOT SEEDED. FINAL PASSES DURING FINE GRADING SHALL BE MADE AT RIGHT ANGLES TO THE SLOPES. SEED ALL AREAS WITH A PERMANENT SEED MIX AS SPECIFIED, AND PROVIDE MULCH OVER ALL FRESHLY SEEDED AREAS. ALL SEEDED AREAS MUST BE MULCHED IMMEDIATELY AFTER SEEDING HAS BEEN COMPLETED.
3. ASSURE SITE STABILIZATION OF ALL AREAS OF THE SITE PRIOR TO REMOVING EROSION AND SEDIMENT CONTROLS. SEED AND MULCH ANY AREAS OF MINIMAL DISTURBANCE RESULTING FROM THE REMOVAL OF EROSION AND SEDIMENT CONTROLS.
4. UNTIL THE SITE HAS ACHIEVED FINAL STABILIZATION, THE OWNER AND/OR CONTRACTOR SHALL PROPERLY IMPLEMENT, OPERATE, AND MAINTAIN ALL THE BEST MANAGEMENT PRACTICES. MAINTENANCE SHALL INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENTATION CONTROL AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN-OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING, AND RENETTING, MUST BE PERFORMED IMMEDIATELY.
5. AN AREA SHALL BE CONSIDERED TO HAVE ACHIEVED FINAL STABILIZATION WHEN IT HAS A MINIMUM OF 70% UNIFORM PERENNIAL VEGETATIVE COVER OF OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED SURFACE EROSION AND SUBSURFACE CHARACTERISTICS SUFFICIENT TO RESIST SLIDING OR OTHER MOVEMENTS.

102.4(b)(4) E&S PLANNING AND DESIGN NOTES

1. ALL TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROL FACILITIES HAVE BEEN DESIGNED TO THE STANDARDS ESTABLISHED IN THE EROSION AND SEDIMENT POLLUTION CONTROL PROGRAM MANUAL (PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, BUREAU OF WATERWAYS ENGINEERING AND WETLANDS, DIVISION OF WETLANDS, ENCROACHMENT AND TRAINING) FINAL - MARCH 2012 (TECHNICAL GUIDANCE NUMBER 363-2134-008).
2. THIS E&S PLAN MINIMIZES THE EXTENT AND DURATION OF EARTH DISTURBANCES THROUGH THE THOUGHTFUL AND INTENTIONAL SEQUENCING OF CONSTRUCTION ACTIVITIES. THE SEQUENCE OF CONSTRUCTION ATTEMPTS TO MINIMIZE AREA(S) OF THE SITE THAT ARE OPEN/DISTURBED AT ANY GIVEN TIME AND ENDEAVORS TO PROMOTE THE IMMEDIATE STABILIZATION OF DISTURBED AREAS THROUGH SEEDING/MULCHING AND/OR OTHER STABILIZATION METHODS.
3. THIS E&S PLAN MAXIMIZES THE PROTECTION OF EXISTING DRAINAGE FEATURES AND VEGETATION THROUGH THE INSTALLATION OF TREE PROTECTION FENCING AND OTHER PHYSICAL BARRIERS SUCH AS FILTER SOCKS TO HELP DELINEATE CONSTRUCTION AREAS AND TO PREVENT UNNECESSARY OR UNINTENTIONAL ENCROACHMENT.
4. THIS E&S PLAN MINIMIZES SOIL COMPACTION BY PROVIDING UNDISTURBED/SCARIFIED SUBGRADE FOR THE INFILTRATION FACILITY BOTTOM FIELDS AND ALSO THROUGH MINIMIZING DISTURBANCES OUTSIDE OF PROPOSED IMPERVIOUS AREAS.
5. THIS E&S PLAN UTILIZES OTHER MEASURES OR CONTROLS THAT PREVENT OR MINIMIZE THE GENERATION OF INCREASED STORMWATER. THE MAIN MEASURE IS BY PRESERVING EXISTING FLOW PATHS AND ENSURING ALL RUNOFF IS CLEANED USING E&S BMPS PRIOR TO DISCHARGING TO EXISTING NATURAL DRAINAGE WAYS. SLOPE AND CHANNEL STABILIZATION ALSO HELP MINIMIZE THE GENERATION OF INCREASED STORMWATER AND EROSION.

REVISIONS PER:	DATE:	BY:
1. COL/LCCD COMMENTS	3/28/25	EWB
2. -	-	-
3. -	-	-
4. -	-	-
5. -	-	-

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CONSTRUCTION SEQUENCE (CRITICAL STAGES OF IMPLEMENTATION IN RED BELOW)

CONSTRUCTION IS EXPECTED TO BEGIN SPRING 2025, AFTER ALL MUNICIPAL AND STATE APPROVALS HAVE BEEN RECEIVED. CONSTRUCTION WILL PROCEED IN A TIMELY MANNER IN ORDER TO LIMIT THE POTENTIAL FOR ACCELERATED EROSION AND SEDIMENTATION. CONTRACTORS SHALL FAMILIARIZE THEMSELVES WITH THE CONSTRUCTION SEQUENCE PRIOR TO BREAKING GROUND TO MINIMIZE THE POTENTIAL FOR ANY SCHEDULING CONFLICTS. THE SEQUENCE OF EARTH MOVING ACTIVITIES SHALL BE APPROXIMATED AS FOLLOWS:

GENERAL CONSTRUCTION STAGING:

1. 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. BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, THE GENERAL CONTRACTOR SHALL INVITE ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES, THE LAND OWNER, THE EROSION AND SEDIMENTATION CONTROL PLAN DESIGNER AND A REPRESENTATIVE OF THE COUNTY CONSERVATION DISTRICT AND A REPRESENTATIVE OF THE CITY OF LANCASTER (CONTACT ANGELA BRACKBILL AT (717)234-4296 OR ABRACKBILL@CITYOFLANCASTERPA.GOV FOR AN ONSITE PRE-CONSTRUCTION MEETING. ALSO, 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 TO LOCATE BURIED UTILITIES.
2. THE CONTRACTOR IS ADVISED TO BECOME THOROUGHLY FAMILIAR WITH THE PROVISIONS OF APPENDIX 64, EROSION AND SEDIMENT CONTROL RULES AND REGULATIONS, TITLE 25, PART I, DEPARTMENT OF ENVIRONMENTAL RESOURCES, SUB-PART C, PROTECTION OF NATURAL RESOURCES, ARTICLE III, WATER RESOURCES, CHAPTER 102 - EROSION CONTROL.
3. PROCEDURES ENSURING THAT THE PROPER MEASURES FOR THE RECYCLING OR DISPOSAL OF MATERIALS ASSOCIATED WITH OR FROM THE PROJECT SITE WILL BE UNDERTAKEN IN ACCORDANCE WITH DEP/COUNTY CONSERVATION DISTRICT REGULATIONS. THE INDIVIDUAL RESPONSIBLE FOR EARTH DISTURBANCE ACTIVITIES MUST ENSURE THAT PROPER MECHANISMS ARE IN PLACE TO CONTROL WASTE MATERIALS. CONSTRUCTION WASTES INCLUDE BUT ARE NOT LIMITED TO, EXCESS SOIL MATERIALS, BUILDING MATERIALS, CONCRETE WASH WATER, AND SANITARY WASTES, ETC. THAT COULD ADVERSELY IMPACT WATER QUALITY. MEASURES SHOULD BE PLANNED AND IMPLEMENTED FOR HOUSEKEEPING, MATERIALS MANAGEMENT, AND LITTER CONTROL. WHEREVER POSSIBLE, RECYCLING OF EXCESS MATERIALS IS PREFERRED TO DISPOSAL.
4. 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.
5. UPON COMPLETION OF AN EARTH DISTURBANCE ACTIVITY OR ANY STAGE OR PHASE OF AN ACTIVITY, DISTURBED AREAS OF THE SITE SHALL BE IMMEDIATELY SEEDED, MULCHED, OR OTHERWISE PROTECTED FROM ACCELERATED EROSION AND SEDIMENTATION. EROSION AND SEDIMENT CONTROL BMP'S SHALL BE IMPLEMENTED AND MAINTAINED UNTIL PERMANENT STABILIZATION IS ACHIEVED. IN ORDER FOR AN EARTH DISTURBANCE ACTIVITY TO BE CONSIDERED PERMANENTLY STABILIZED, THE DISTURBED AREAS SHALL BE COVERED WITH ONE OF THE FOLLOWING: (1) A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER, WITH A DENSITY CAPABLE OF RESISTING ACCELERATED EROSION AND SEDIMENTATION. (2) AN ACCEPTABLE BMP, WHICH PERMANENTLY MINIMIZES ACCELERATED EROSION AND SEDIMENTATION.
6. NOTE THAT THE PADEP NPDES PERMITS REQUIRE INSPECTION OF THE POST CONSTRUCTION STORMWATER MANAGEMENT FACILITIES BY A LICENSED PROFESSIONAL. SEE REQUIREMENTS AS HIGHLIGHTED IN THE SEQUENCE BELOW.
7. NO SEDIMENT LADEN RUNOFF SHALL LEAVE THE PROJECT SITE AND/OR BE RECEIVED BY THE UNT TO CONESTOGA RIVER AT ANY TIME. CONTRACTOR MUST PROVIDE, AS NECESSARY, ANY ADDITIONAL EROSION AND SEDIMENTATION CONTROL MEASURES.
8. ALL TRENCH EXCAVATION SHOULD BE LIMITED TO THE LENGTH OF PIPE THAT CAN BE PLACED AND BACK-FILLED BY THE END OF EACH WORKDAY. PROVIDE INLET PROTECTION OR CAPPED INLETS, IMMEDIATELY AFTER INSTALLATION, AS INDICATED ON THE PLANS.
9. IF PUMPING IS REQUIRED DURING CONSTRUCTION, IT SHALL BE IN ACCORDANCE WITH THE PA DEP EROSION AND SEDIMENT CONTROL MANUAL.

SITE SPECIFIC SEQUENCE OF CONSTRUCTION:

1. DELINEATE LIMITS OF DISTURBANCE AND NPDES PERMIT BOUNDARIES AS PART OF THE GRADING/STAKING PROCESS. LIMITS OF DISTURBANCE SHALL BE DEFINED BY THE LIMITS OF PROPOSED GRADING OR AS INDICATED ON THE PLANS. PROVIDE TREE PROTECTION FENCING PRIOR TO ANY CONSTRUCTION ACTIVITIES AND MAINTAIN IN THIS LOCATION UNTIL CONSTRUCTION IS COMPLETED. TREE PROTECTION SHALL BE INSTALLED PRIOR TO ANY CONSTRUCTION OR DEMOLITION ACTIVITIES.
2. INSTALL INLET PROTECTION ON EXISTING INLETS PRIOR TO CLEARING AND GRUBBING FOR THE ROCK CONSTRUCTION ENTRANCE.
3. ROUGH GRADE AT THE PROPOSED ROCK CONSTRUCTION ENTRANCE AND INSTALL THE STABILIZED CONSTRUCTION ENTRANCE AS INDICATED ON THE PLAN. THE CONSTRUCTION ENTRANCE SHALL BE INSTALLED IN ACCORDANCE WITH THE DETAILS PROVIDED ON PLANS, OR AS DIRECTED BY THE COUNTY CONSERVATION DISTRICT. CONTRACTOR IS TO UTILIZE A WASH RACK AS DETAILED.
4. DELINEATE THE CONSTRUCTION STAGING AREA FOR CONTRACTORS. THE CONSTRUCTION STAGING AREA MUST BE IMMEDIATELY STABILIZED AND/OR MAINTAINED IN ORDER TO PREVENT ANY SEDIMENT LADEN RUNOFF AND AT ALL TIMES REMAIN WITHIN THE LIMIT OF DISTURBANCE. STONE/PAVING OR OTHER SUITABLE STABILIZATION FOR THE STAGING AREA SHALL BE PROVIDED AND MAINTAINED AT ALL TIMES. SEDIMENT LADEN RUNOFF IS NOT PERMITTED FROM THE CONSTRUCTION STAGING AREAS.
5. CLEAR AND GRUB ONLY THE AREAS NECESSARY TO INSTALL FILTER SOCKS AS SHOWN ON THE PLAN AND IN ACCORDANCE WITH THE DETAILS PROVIDED. SOCKS SHALL BE INSTALLED PARALLEL TO THE CONTOURS OR CONSTRUCTED AT LEVEL ALIGNMENTS. BOTH ENDS OF THE SOCK SECTIONS MUST EXTEND AT LEAST 8 FEET UP-SLOPE AT 45 DEGREES TO THE MAIN FILTER SOCK ALIGNMENT. SEDIMENT MUST BE REMOVED WHEN ACCUMULATIONS REACH ONE-HALF OF THE HEIGHT OF THE EXPOSED FILTER SOCK OR AS DIRECTED BY THE ENGINEER. ANY SECTION THAT BECOMES COMPROMISED MUST IMMEDIATELY BE REPLACED OR REPAIRED.
6. PROVIDE ALL PERIMETER COMPOST FILTER SOCKS, COMPOST FILTER BERMS, AND ANY REMAINING INLET PROTECTION ON EXISTING INLETS, AS PER PLAN. DURING CONSTRUCTION, COMPOST FILTER SOCKS MAY NEED TO BE ADJUSTED THROUGHOUT CONSTRUCTION.
7. AS EARTH MOVING PROGRESSES, SEED ALL AREAS WITH A PERMANENT SEED MIX AS SPECIFIED, ONCE COMPLETED AND PROVIDE MULCH OVER ALL FRESHLY SEEDED AREAS. ALL SEEDED AREAS MUST BE MULCHED WITHIN 48 HOURS AFTER SEEDING HAS BEEN COMPLETED.
8. STRIP TOPSOIL FROM AREAS TO BE TURFED. TOPSOIL SHOULD BE PLACED OR STOCKPILED IN AN AREA APPROVED BY THE LANCASTER COUNTY CONSERVATION DISTRICT. ALL FILL AND EXCESS TOPSOIL BEYOND WHAT IS NECESSARY TO DRESS LAWN AREAS FOLLOWING CONSTRUCTION IS TO BE REMOVED FROM SITE AND DISPOSED OF AT AN AUTHORIZED LOCATION WITH AND APPROVED EROSION SEDIMENT CONTROL PLAN/NPDES PERMIT.
9. E&S MATTING SHOULD BE APPLIED TO ALL AREAS WITH EQUAL OR GREATER THAN 3:1 SLOPES. AREAS ARE TO BE SEEDED AND MULCHED IMMEDIATELY.
10. CONTRACTOR SHALL COORDINATE UTILITY REPLACEMENT, INSTALLATION, AND RECONFIGURATION DURING CONSTRUCTION AS NECESSARY.
11. CONTRACTOR IS TO ENSURE THERE IS NO EQUIPMENT STORAGE, MATERIAL STOCKPILING, OR VIBRATORY ROLLING / COMPACTION WITHIN THE CITY'S SEWER EASEMENT(S).
12. CONTRACTOR SHALL ENSURE THAT THE EXISTING SEWERS THROUGH THE SITE REMAIN PROTECTED AT ALL TIMES DURING CONSTRUCTION.
13. AS NEW INLETS ARE INSTALLED, IMMEDIATELY PROVIDE INLET PROTECTION OR CAPS AS REQUIRED PER PLAN.
14. AREAS PROPOSED FOR INFILTRATION SCM'S SHALL BE PROTECTED FROM SEDIMENTATION AND COMPACTION DURING THE CONSTRUCTION PHASE TO MAINTAIN MAXIMUM INFILTRATION CAPACITY.
15. INSTALL SCM-I; CONTRACTOR IS TO ENSURE THE INFILTRATION AREA SUBGRADE OF THE FACILITY REMAINS UNCOMPACTED AND PREPARED FOR INFILTRATION. A GEOTECHNICAL ENGINEER SHALL VERIFY THE SUBGRADE CONDITIONS PRESENT DURING CONSTRUCTION OF THE FACILITY. THE CONTRACTOR AND GEOTECHNICAL SHALL WORK TOGETHER TO ENSURE THAT 2 FEET BELOW THE INFILTRATION OF THE BMP (ELEVATIONS 291-299.00) IS FREE OF ROCK. IF ROCK IS ENCOUNTERED, THE GEOTECHNICAL ENGINEER IS TO ADVISE ON PRECAUTIONARY MEASURE TO ENSURE ADEQUATE INFILTRATION. THE DRAINAGE TO THE FACILITIES SHALL BE DIVERTED AND BLOCKED UNTIL THE TERMINATION OF CONSTRUCTION, OR UNTIL THE UPSTREAM DRAINAGE AREA IS FULLY STABILIZED. A GEOTECHNICAL ENGINEER SHALL VERIFY, DESIGN, AND PREPARE THE SURFACE ABOVE SCM-I TO HANDLE CONSTRUCTION LOADING. AT NO TIME SHALL CONSTRUCTION ACTIVITY COMPROMISE THE INSTALLED FACILITY. THIS IS A CRITICAL STAGE. A LICENSED PROFESSIONAL OR DESIGNEE SHALL BE PRESENT DURING THIS STAGE OF CONSTRUCTION.
16. SCM-I SHALL NOT BE CONSTRUCTED NOR RECEIVE RUNOFF FROM DISTURBED AREAS UNTIL THE ENTIRE CONTRIBUTORY DRAINAGE ARE TO THE SCM HAS ACHIEVED FINAL STABILIZATION, UNLESS OTHERWISE AUTHORIZED BY THE CITY AS DESCRIBED IN THE CITY 61 MANUAL.
17. SCM-I SITE SPECIFIC SEQUENCING IS AS FOLLOWS:
    a. ONCE INSTALLATION OF FACILITIES BEGINS, CONTRACTOR SHALL ENSURE AREA OF FACILITY IS MARKED CLEARLY WHERE HEAVY CONSTRUCTION TRAFFIC DOES NOT IMPACT THE SUBGRADE.
    b. INSTALL AND MAINTAIN ADEQUATE EROSION AND SEDIMENT CONTROL MEASURES DURING CONSTRUCTION.
    c. THE EXISTING SUBGRADE UNDER THE BED AREA SHOULD NOT BE COMPACTED OR SUBJECT TO EXCESSIVE CONSTRUCTION EQUIPMENT TRAFFIC PRIOR TO GEOTEXTILE AND STONE BED PLACEMENT.
    d. ENSURE THE SUBGRADE 2 FEET BELOW THE SCM-I INFILTRATION ZONE IS FREE OF ROCK. CONTRACTOR IS TO WORK WITH GEOTECHNICAL ENGINEER TO ENSURE SUFFICIENT INFILTRATION IS ACHIEVED.
    e. WHERE EROSION OF SUBGRADE HAS CAUSED ACCUMULATION OF FINE MATERIALS AND/OR SURFACE PONDING, THIS MATERIAL SHOULD BE REMOVED WITH LIGHT EQUIPMENT AND THE UNDERLYING SOILS SCARIFIED TO A MINIMUM DEPTH OF 6 INCHES WITH A YORK RAKE (OR EQUIVALENT) AND LIGHT TRACTOR, ALL FINE GRADING SHOULD BE DONE BY HAND. ALL BED BOTTOMS SHOULD BE AT LEVEL GRADE.
    f. INSTALL UPSTREAM AND DOWNSTREAM CONTROL STRUCTURES, CLEANOUTS, PERFORATED PIPING AND OTHER NECESSARY STORMWATER STRUCTURES.
    g. GEOTEXTILE/GEOGRID AND BED AGGREGATE SHOULD BE PLACED IMMEDIATELY AFTER APPROVAL OF SUBGRADE PREPARATION AND INSTALLATION OF STRUCTURES. GEOTEXTILE/GEOGRID SHOULD BE PLACED IN ACCORDANCE WITH MANUFACTURER'S STANDARDS AND RECOMMENDATIONS. ADJACENT STRIPS OF MATERIAL SHOULD OVERLAP A MINIMUM OF 16 INCHES. IT SHOULD ALSO BE SECURED AT LEAST 4 FEET OUTSIDE OF BED IN ORDER TO PREVENT ANY RUNOFF OR SEDIMENT FROM ENTERING THE STORAGE BED. THIS EDGE STRIP SHOULD REMAIN IN PLACE UNTIL ALL BARE SOILS CONTIGUOUS TO BEDS ARE STABILIZED. AS THE SITE IS FULLY STABILIZED, EXCESS GEOTEXTILE ALONG BED EDGES CAN BE CUT BACK TO THE EDGE OF THE BED.
    h. CLEAN-WASHED, UNIFORMLY GRADED AGGREGATE SHOULD BE PLACED IN THE BED IN MAXIMUM 8-INCH LIFTS. EACH LAYER SHOULD BE LIGHTLY COMPACTED, WITH CONSTRUCTION EQUIPMENT KEPT OFF THE BED BOTTOM AS MUCH AS POSSIBLE.
    i. APPROVED MEDIA SHOULD BE PLACED OVER INFILTRATION BED IN MAXIMUM 6-INCH LIFTS.
    j. STABILIZE MATERIAL OVER FACILITY.
    k. DO NOT REMOVE INLET PROTECTION/CAPS, OR OTHER EROSION SEDIMENT CONTROL MEASURES UNTIL THE SITE IS FULLY STABILIZED.
18. INSTALL REMAINING DRAINAGE STRUCTURES THROUGHOUT THE SITE. CAP ALL STRUCTURES THAT ARE INFLOWING TO SCM-I.
19. CONNECT OCS-1 TO INFLOW AND OUTLET STRUCTURES. CONTRACTOR SHALL ENSURE THAT NO RUNOFF REACHES THIS STRUCTURE UNTIL THE ENTIRE DRAINAGE AREA IS STABILIZED.
20. CONTRACTOR IS TO AVOID MOVING HEAVY EQUIPMENT OVER THE PROPOSED INFILTRATION AREA WITHOUT APPROPRIATE MEASURES DESIGNED BY A GEOTECHNICAL ENGINEER AND APPROVED BY THE MANUFACTURER TO ENSURE THAT STORMWATER FACILITY IS SAFE AND CAN HANDLE CONSTRUCTION LOADS PROPOSED. SUBGRADE OF INFILTRATION AREA IS TO REMAIN UNCOMPACTED AT ALL TIMES.
21. INSTALL ALL REMAINING IMPROVEMENTS. CONTRACTOR IS TO ENSURE NO SEDIMENT LADEN RUNOFF IS RECEIVED BY CITY STORM NETWORK AT ANY TIME. CONTRACTOR IS TO PROVIDE ADDITIONAL SITE CONTROLS AS DEEMED NECESSARY DURING CONSTRUCTION.
22. FINE GRADE REMAINING SITE AREAS AND INSTALL WALKS AS SHOWN ON THE PLANS. SPREAD TOPSOIL (6" MINIMUM) OVER ALL AREAS WHICH HAVE NOT BEEN PAVED (OR WILL NOT BE PAVED) AND ALL AREAS WHICH WERE NOT SEEDED DURING PREVIOUS CONSTRUCTION STAGES COMPLETED EARLIER DURING THE PROJECT. FINAL PASSES DURING FINE GRADING SHALL BE MADE AT RIGHT ANGLES TO THE SLOPES. SEED ALL AREAS WITH A PERMANENT SEED MIX AS SPECIFIED AND PROVIDE MULCH OVER ALL FRESHLY SEEDED AREAS. ALL SEEDED AREAS MUST BE MULCHED WITHIN 48 HOURS AFTER SEEDING HAS BEEN COMPLETED.
23. INSTALL ALL TREES IN ACCORDANCE WITH DETAILS AND CITY OF LANCASTER TREE MANUAL. PERFORM SOIL TEST ANALYSIS AND APPLY SOIL AMENDMENTS / FERTILIZER, MULCH, WATERING AND MAINTENANCE IN ACCORDANCE WITH ANSI STANDARDS (A300 AND Z60.1).
24. ONCE THE SITE IS STABILIZED AND APPROVED BY THE DESIGN PROFESSIONAL, CONTRACTOR IS TO PREPARE SCM-I FOR FINAL CONFIGURATION.
25. WATER QUALITY DEVICES SUCH AS SNOUTS SHALL BE INSTALLED TO THE PER THE PLAN. COORDINATE WITH MANUFACTURER ON INSTALLATION. CONTRACTOR SHALL ENSURE THAT NO SEDIMENT LADEN RUNOFF REACHES THE PROPOSED BEST MANAGEMENT PRACTICES, AND IS CLEANED PRIOR TO FINAL CONFIGURATION.
26. ANY DISTURBANCE CREATED DURING THE PREVIOUS STEPS, INCLUDING RE-GRADING AS NECESSARY TO ACHIEVE THE FINISHED GRADES AS DEPICTED ON THE APPROVED GRADING/DRAINAGE PLANS, SHALL BE STABILIZED IMMEDIATELY THROUGH SEEDING AND MULCHING.
27. THE REMAINING TEMPORARY SITE EROSION CONTROLS (SUCH AS FILTER SOCKS, INLET PROTECTION, ROCK FILTERS ETC.) SHALL BE REMOVED. ANY DISTURBANCE CREATED DURING THIS PROCEDURE SHALL BE STABILIZED IMMEDIATELY THROUGH SEEDING AND MULCHING.
28. ONCE PROJECT WORK IS COMPLETED AND FULLY STABILIZED , CONTRACTOR IS TO PROVIDE A COMPLETE AS BUILT SURVEY, IN ACCORDANCE WITH THE NPDES NOTICE OF TERMINATION CHECKLIST TO THE ENGINEER FOR ANALYSIS AND SUBMISSION OF THE NPDES NOTICE OF TERMINATION.

GENERAL WASTE MANAGEMENT NOTES

1. PROCEDURES, WHICH ENSURE THAT THE PROPER MEASURES FOR THE RECYCLING OR DISPOSAL OF MATERIALS ASSOCIATED WITH OR FROM THE PROJECT SITE, WILL BE UNDERTAKEN IN ACCORDANCE WITH DEPARTMENT REGULATIONS. INDIVIDUALS RESPONSIBLE FOR EARTH DISTURBANCE ACTIVITIES MUST ENSURE THAT PROPER MECHANISMS ARE IN PLACE TO CONTROL WASTE MATERIALS. CONSTRUCTION WASTES INCLUDE, BUT ARE NOT LIMITED TO, EXCESS SOIL MATERIALS, BUILDING MATERIALS, CONCRETE WASH WATER, SANITARY WASTES, ETC. THAT COULD ADVERSELY IMPACT WATER QUALITY. THE CONTRACTOR SHALL PLAN AND IMPLEMENT MEASURES FOR HOUSEKEEPING, MATERIALS MANAGEMENT, AND LITTER CONTROL DURING CONSTRUCTION. WHEREVER POSSIBLE, RECYCLING OF EXCESS MATERIALS IS PREFERRED, RATHER THAN DISPOSAL. DISPOSAL OF CONSTRUCTION WASTES SHALL BE IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL GUIDELINES AND REGULATIONS (CHAPTER 25 OF THE PENNSYLVANIA CODE).
2. ALL BUILDING MATERIALS AND WASTES THAT ARE REMOVED FROM THE SITE SHALL BE RECYCLED OR DISPOSED OF 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. NO BUILDING MATERIAL OR WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURNED, BURIED, DUMPED, OR DISCHARGED AT THE SITE.
3. IF THE SITE WILL NEED TO HAVE FILL IMPORTED FROM AN OFF SITE LOCATION, THE RESPONSIBILITY FOR PERFORMING ENVIRONMENTAL DUE DILIGENCE AND THE DETERMINATION OF CLEAN FILL WILL RESIDE WITH THE CONTRACTOR, AND SUBJECT TO THE APPROVAL OF THE GEOTECHNICAL ENGINEER. IF THE SITE WILL HAVE EXCESS FILL THAT WILL NEED TO BE EXPORTED TO AN OFF SITE LOCATION, THE RESPONSIBILITY OF CLEAN FILL DETERMINATION AND ENVIRONMENTAL DUE DILIGENCE WILL BE ON THE GEOTECHNICAL ENGINEER, ON BEHALF OF THE APPLICANT.
4. DEFINITIONS AND ENVIRONMENTAL DUE DILIGENCE
    4.1. CLEAN FILL: 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 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.)
        4.1.1. FILL MATERIAL THAT DOES NOT QUALIFY AS CLEAN FILL IS REGULATED FILL. REGULATED FILL IS WASTE AND MUST BE MANAGED IN ACCORDANCE WITH THE DEPARTMENT'S MUNICIPAL OR RESIDUAL WASTE REGULATIONS BASED ON PA CODE CHAPTERS 287 RESIDUAL WASTE MANAGEMENT OR 271 MUNICIPAL WASTE MANAGEMENT, WHICHEVER IS APPLICABLE.
        4.1.2. ANY PERSON PLACING 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.
    4.2. ENVIRONMENTAL DUE DILIGENCE: ACCEPTABLE INVESTIGATIVE TECHNIQUES INCLUDE, BUT ARE 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 REGULATED SUBSTANCES. 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 FILL". ENVIRONMENTAL DUE DILIGENCE, INCLUDING ANY SAMPLING, WILL BE CONDUCTED BY THE GEOTECHNICAL ENGINEER, ON BEHALF OF THE APPLICANT.

SOIL LIMITATIONS AND RESOLUTIONS

THE FOLLOWING RESOLUTIONS ADDRESS TYPICAL ON-SITE SOIL USE LIMITATIONS THAT MAY BE ENCOUNTERED AND GENERIC RESOLUTIONS. **A QUALIFIED GEOTECHNICAL PROFESSIONAL SHALL BE CONSULTED DURING APPROPRIATE STAGES/PHASES OF CONSTRUCTION TO EVALUATE, MAKE RECOMMENDATIONS, AND PROVIDE RESOLUTIONS FOR ALL SOIL USE LIMITATIONS, CONSTRUCTION TECHNIQUES, AND OTHER SOILS-RELATED ITEMS.**

1. CAVING OF CUTBANKS: EXCAVATIONS SHOULD BE ADEQUATELY SLOPED, BENCHED, OR SUPPORTED TO MINIMIZE COLLAPSE AND TO PROTECT PERSONNEL. ALL EXCAVATIONS SHOULD BE COMPLETED IN ACCORDANCE WITH OSHA REQUIREMENTS.
2. CORROSION OF CONCRETE: GENERALLY NOT WITNESSED DURING CONSTRUCTION AS THIS OCCURS OVER EXTENDED PERIODS OF TIME. WHERE SULFATES OF SODIUM, POTASSIUM, CALCIUM OR MAGNESIUM ARE NATURALLY OCCURRING IN THE SOIL OR GROUNDWATER, LOSS OF CONCRETE CONSISTENCY, COHESION AND STRENGTH CAN OCCUR DUE TO REACTIONS WITH HYDRATED COMPOUNDS WITHIN THE HARDENED CEMENT. IF SOILS OR GROUNDWATER ARE FOUND TO CONTAIN SIGNIFICANT AMOUNTS OF THE ABOVE SULFATES, CONCRETE MIXTURES WITH A LOW WATER-TO-CEMENT RATIO AND CEMENT WITH LIMITED AMOUNTS OF TRICALCIUM ALUMINATES SHOULD BE USED. FLY ASH MEETING THE REQUIREMENTS OF ASTM C 618 AND SLAGS MEETING THE REQUIREMENTS OF ASTM C 989 CAN INCREASE THE LIFE EXPECTANCY OF CONCRETE EXPOSED TO SULFATES. CALCIUM CHLORIDE REDUCES SULFATE RESISTANCE, SO IT SHOULD NOT BE USED AS AN ACCELERATING ADMIXTURE.
3. CORROSION OF STEEL: GENERALLY NOT WITNESSED DURING CONSTRUCTION AS THIS OCCURS OVER EXTENDED PERIODS OF TIME. WHERE SOILS ARE HIGH IN CHLORIDES, LOW IN PH, OR WHERE SOILS HAVE HIGH MOISTURE CONTENT, CORROSION OF STEEL IS ACCELERATED. IF ONSITE SOILS ARE FOUND TO BE HIGH IN CHLORIDES, LOW IN PH, OR HIGH IN MOISTURE AS IS TYPICAL IN CLAYEY SOILS, THE THICKNESS OF THE COATINGS (E.G. HOT-DIPPED GALVANIZED) SHOULD BE INCREASED ACCORDING TO THE RECOMMENDATIONS OF THE AMERICAN IRON AND STEEL INSTITUTE (AISI). SOILS WHERE STEEL IS BURIED OR PRESENT SHOULD BE KEPT DRY, IDEALLY WITH LESS THAN 17.5% MOISTURE CONTENT. MAINTAINING DRY SOILS ALSO PREVENTS CHLORIDES FROM BECOMING CORROSIVE TO STEEL. FINALLY, LIMING THE SOIL CAN RAISE THE PH TO >7.0, WHICH IS NOT CONSIDERED CORROSIVE TO STEEL.
4. DROUGHTY: DROUGHT VULNERABLE SOILS HAVE AVAILABLE WATER STORAGE WITHIN THE ROOT ZONE FOR COMMODITY CROPS LESS THAN OR EQUAL TO 6". SOIL AMENDMENT/RESTORATION TECHNIQUES MAY BE EMPLOYEDT TO INCREASE WATER HOLDING CAPACITY. IRRIGATION PRACTICES MAY BE NECESSARY FOR CERTAIN LANDSCAPING APPLICATIONS. PROVIDE DUST SUPPRESSION TECHNIQUES AS NECESSARY OR WHERE REQUIRED.
5. EASILY ERODIBLE SOILS: SITES WITH EASILY ERODIBLE SOILS SHOULD BE SLOPED TO PROMOTE DRAINAGE AWAY FROM WORK AREAS. DISTURBED SOILS SHOULD BE SEALED WITH A SMOOTH DRUM ROLLER EACH DAY AND PRIOR TO PRECIPITATION. NETWORKS OF HAUL/CONSTRUCTION ROADS SHOULD BE ESTABLISHED AND CONSTRUCTION TRAFFIC RESTRICTED TO USING THEM IN ORDER TO KEEP DISTURBANCE MINIMAL. DISTURBED AREAS SHOULD BE SEEDED AND MULCHED IMMEDIATELY.
6. DEPTH TO SATURATED ZONE/SEASONAL HIGH WATER TABLE: IF GROUNDWATER IS ENCOUNTERED DURING TRENCHING PROCEDURES, THE SEDIMENT-LADEN WATER SHALL BE PUMPED TO AN APPROVED SEDIMENT-REMOVAL FACILITY SUCH AS A SILT FILTER BAG AND DISCHARGED AT A STABILIZED POINT OF DISCHARGE.
7. FROST ACTION: FILL AND/OR BACKFILL SHALL NOT BE PLACED ON FROZEN OR SATURATED GROUND.
8. HYDRIC/HYDRIC INCLUSIONS: REFER TO THE SITE PLANS FOR LOCATION(S) OF WETLANDS AND THE APPLICABLE WETLANDS DELINEATION REPORT FOR DETAILED DESCRIPTION OF WETLANDS PRESENT ON SITE. DISTURBANCE WITHIN WETLAND AREAS IS STRICTLY PROHIBITED WITHOUT PADEP AND/OR ARMY CORP AUTHORIZATION.
9. LOW STRENGTH/LANDSLIDE PRONE: STRUCTURAL FILL SHOULD BE PLACED IN LIFTS NOT EXCEEDING 10 INCHES IN LOOSE THICKNESS AND COMPACTED WITH A VIBRATORY ROLLER HAVING A MINIMUM STATIC WEIGHT OF 10 TONS. A MINIMUM OF 5 OVERLAPPING PASSES OF THE ROLLER SHOULD BE COMPLETED ACROSS THE ENTIRETY OF THE BUILDING PAD AND OTHER STRUCTURAL AREAS. IN AREAS WHERE STRUCTURAL FILL IS PLACED AND COMPACTED WITH HAND-OPERATED COMPACTION EQUIPMENT, A MAXIMUM LOOSE LIFT THICKNESS OF 4 INCHES IS RECOMMENDED. FOLLOWING COMPACTION PROCEDURES, PROOF-ROLLING SHOULD BE PERFORMED USING A LOADED, TANDEM-AXLE DUMP TRUCK. ANY LOOSE OR UNSTABLE AREAS ENCOUNTERED DURING PROOF-ROLLING AND COMPACTION SHOULD BE COMPACTED IN PLACE OR REMOVED AND REPLACED WITH STRUCTURAL FILL (AS DEFINED). THE NATIVE ONSITE STRATUM II SOILS ARE WELL-SUITED FOR USE AS STRUCTURAL FILL AND SHOULD BE USED WHEREVER POSSIBLE, THOUGH QUANTITIES ARE EXPECTED TO BE LIMITED. STRATUM I SOILS MAY BE USED AS STRUCTURAL FILL BUT ARE EXPECTED TO BE MOISTURE SENSITIVE WITH HIGH SILT AND CLAY CONTENT. ALL FILL SHOULD BE PLACED AT, OR DEVIATE NOMINALLY FROM (+/- 2%) THE OPTIMUM MOISTURE CONTENT AS DETERMINED IN ACCORDANCE WITH ASTM D1557 AND COMPACTED TO THE MINIMUM PERCENTAGE OF THE SOIL'S MAXIMUM DRY DENSITY, WHICH IS 95%. CAUTION SHOULD BE EXERCISED TO NOT DISTURB FOUNDATION SUBGRADE SOILS. SHOULD THE SUBGRADE BE DISTURBED, THE SOIL SHOULD BE COMPACTED IN PLACE OR REMOVED UNTIL FIRM SOIL IS ENCOUNTERED AND THE RESULTING EXCAVATION BACKFILLED WITH CONCRETE OR CONTROLLED STRUCTURAL FILL. EVERY EFFORT SHOULD BE MADE TO PREVENT WATER FROM ENTERING OPEN EXCAVATIONS. IT IS RECOMMENDED THAT FOOTING EXCAVATION AND PLACEMENT OF FOUNDATION CONCRETE BE PERFORMED ON THE SAME DAY AND DURING FAIR WEATHER CONDITIONS.
10. SLOW PERCOLATION: MAINTAIN POSITIVE GRADES ON SIDE AND SLOPE AWAY FROM BUILDINGS TO REDUCE PONDING OF WATER. IN-SITU INFILTRATION TESTING WITHIN INFILTRATION BMPS IS REQUIRED AS PART OF THE CRITICAL STAGES OF PCSM IMPLEMENTATION.
11. PIPING: INCORPORATE ANTI-SEEP COLLARS IN SEDIMENT TRAPS AND BASINS AND ON PCSM BASIN DISCHARGE PIPES. INSTALL TRENCH PLUGS (CLAY DIKES) WITHIN STORM DRAINAGE AND UTILITY TRENCHING.
12. POOR SOURCE OF TOPSOIL: PERFORM SOIL TESTING TO DETERMINE APPROPRIATE SUPPLEMENTATION. SOIL AMENDMENTS AND/OR RESTORATION PRACTICES MAY BE NECESSARY IN ORDER TO ESTABLISH PERMANENT VEGETATIVE STABILIZATION.
13. SHRINK-SWELL POTENTIAL: THE SHRINK-SWELL POTENTIAL IS THE EXTENT TO WH

OPERATION AND MAINTENANCE

THE SCHOOL DISTRICT OF LANCASTER IS RESPONSIBLE FOR ALL OWNERSHIP AND MAINTENANCE OF THE PROPOSED PERMANENT STORMWATER MANAGEMENT FACILITIES AS SHOWN ON THIS PLAN.

OVERVIEW OF BEST MANAGEMENT PRACTICE (BMP) FACILITY - MAINTENANCE & INSPECTION GUIDELINES

THE OPERATION AND MAINTENANCE OF PCSM BMP FACILITIES IS VERY SIMILAR TO THE OPERATION AND MAINTENANCE TRADITIONAL STORMWATER MANAGEMENT FACILITIES, LIKE TRADITIONAL FACILITIES, SOME TURF GRASS SHALL BE UTILIZED ON THE TERRESTRIAL (UPLAND) AREAS OF THE BMP FACILITIES. THE EXCEPTION WOULD BE SPECIALIZED MAINTENANCE INVOLVED WITH THE NATIVE HERBACEOUS PLANT SPECIES ESTABLISHED WITHIN THE AQUATIC AREAS OF BMP FACILITIES, BECAUSE OF THE PERIODIC INUNDATION OF STORMWATER AND THE ATTEMPT TO PROMOTE BIORETENTION, IT IS CRITICAL THAT SPECIALIZED PLANTS BE ESTABLISHED TO ENSURE THE FACILITIES DESIGNED INTENTION. THE FIRST TWO YEARS OF VEGETATIVE ESTABLISHMENT IN THE BMP IS THE MOST IMPORTANT TO THE FUNCTION OF THE BMP. AFTER THIS TIME, MAINTENANCE WILL BE MINIMIZED TO THE REGULAR WEEKLY OPERATION INSPECTIONS AND THE OCCASIONAL NEED TO REMOVE WEEDS AND EXOTIC PLANTS.

DURING EARTH MOVING ACTIVITIES, MAINTENANCE SHALL INCLUDE DAILY INSPECTIONS OF ALL STORMWATER & BMP FACILITIES AND THEIR STRUCTURAL COMPONENTS TO ASSURE THEY ARE FUNCTIONING PROPERLY. ALL PIPES, SWALES, BASINS AND OUTLET STRUCTURES SHALL BE KEPT FREE OF ANY SEDIMENT OR DEBRIS THAT WOULD IMPAIR THE FUNCTION OF THE FACILITY. CAREFUL ATTENTION SHALL BE TAKEN AFTER MAJOR STORM EVENTS AS TO THE AMOUNT OF SEDIMENT NEAR THE OUTLET STRUCTURES. PERIODIC REMOVAL OF SEDIMENT IS ESSENTIAL IN THE ESTABLISHMENT OF NEWLY SOWED OR PLANTED VEGETATION.

AFTER CONSTRUCTION HAS CEASED AND THE BMP IS STABILIZED TO ITS DESIGNED CONDITION, CAREFUL MONITORING DURING INSPECTIONS SHALL VERIFY IF THE FILTRATION/INFILTRATION BASINS ARE FUNCTIONING PROPERLY. IF INFILTRATION OF WATER IS NOT TAKING PLACE AFTER A PERIOD OF USE, THE SEDIMENT MUST BE REMOVED FROM THE BASIN BOTTOM, DISPOSED OF PROPERLY AND THE AREA NEEDS TO BE IMMEDIATELY REESTABLISHED TO ITS ORIGINAL SPECIFIED DESIGN INCLUDING THE SOIL MIX AND PLANTINGS. THE USE OF STRAW MULCH OR SECURING APPROVED BIODEGRADABLE EROSION CONTROL MATTING AS NEEDED IS RECOMMENDED WHEN NEW SEEDING IS PERFORMED.

WEEKLY MAINTENANCE WILL INCLUDE SCHEDULED INSPECTIONS AND TURF MOWING AS APPROPRIATE IN AND AROUND THE BMP FACILITIES. REGULAR TURF MOWING TO A HEIGHT OF NOT LESS THAN THREE (3) INCHES INVOLVES MAINLY THE FACILITY BERMS AND SIDE SLOPES AND PREVENTING THE GROWTH OF WEEDS. AFTER TWO YEARS, REGULAR TURF MOWING AND OPERATION INSPECTIONS WILL GOVERN MOST OF THE MAINTENANCE INVOLVED WITH THE BMP'S. CAREFUL OBSERVATION IS NECESSARY TO ENSURE UNWANTED PLANTS DO NOT ESTABLISH THEMSELVES AND DOMINATE THE DESIRED VEGETATIVE COMMUNITY, ESPECIALLY IN THE DESIGNATED BMP PLANTING AREAS. MOST OF THE BMP AREAS THAT HAVE BEEN DESIGNED TO BE PERIODICALLY INUNDATED WITH WATER DURING STORM EVENTS. THESE ZONES ARE ESPECIALLY IMPORTANT TO THE ESTABLISHMENT AND MAINTENANCE OF THE BIO-RETENTION PLANTINGS. THESE ZONES ARE NOT MOWED REGULARLY. HOWEVER, THEY NEED TO BE MOWED AT LEAST ONCE ANNUALLY IN THE EARLY SPRING AT A HEIGHT LESS THEN THREE (3) INCHES. THE CONTROL OF WEEDS AND EXOTIC PLANTS IN THESE ZONES ARE OF THE UTMOST IMPORTANCE. THE MANUAL REMOVAL OF INVASIVE WEEDS AND EXOTIC VEGETATION MOST ADEQUATELY ACHIEVE THIS TASK. THIS IS ESPECIALLY CRITICAL IN THE FIRST TWO YEARS FOR PLANT ESTABLISHMENT AND WILL ENSURE THE EFFECTIVENESS OF THE FACILITY AND REDUCE MAINTENANCE COSTS IN THE LONG RUN. IF MANUAL REMOVAL IS NOT PRACTICAL, THEN "HIGH MOWING" IS ADVISABLE. WHEN WEEDS DOMINATE THE "ZONE" AND BECOME TWELVE TO EIGHTEEN INCHES (12"-18") HIGH, IT IS RECOMMENDED THAT THE "ZONES" BE MOWED DOWN TO SIX TO EIGHT INCHES (6"-8"). THIS WILL HELP WARM UP THE SOIL AND WEAKEN THE COOL SEASON WEEDS TO DETER EXCESSIVE GROWTH AND WILL ENCOURAGE THE SPECIFIED PLANTS IN THE BIO-RETENTION AREA TO BECOME PROPERLY ESTABLISHED. CHEMICAL WEED CONTROL IS NOT RECOMMENDED BUT MAY BE USED IF FEDERAL, STATE AND LOCAL REGULATIONS ARE MET.

DURING AND AFTER CONSTRUCTION ALL BMP FACILITIES SHALL BE MONITORED FOR ESTABLISHMENT PROGRESS AND VERIFY THEIR FUNCTIONALITY ON A DAILY BASIS. WHEN VEGETATION HAS ESTABLISHED ITSELF, WEEKLY INSPECTIONS SHALL BE ADEQUATE. A REGULAR PROGRAM OF INSPECTING THE TERRESTRIAL (UPPER) AND AQUATIC (LOWER) BENCHES OF THE BMP FACILITIES SHALL BE ESTABLISHED. ADDITIONAL INSPECTIONS SHALL OCCUR AFTER ANY MAJOR STORM EVENT TO ENSURE THE INTEGRITY OF THE STORMWATER & BMP FACILITIES. THE PURPOSES FOR THE INSPECTIONS ARE NOT ONLY TO ENSURE THE FACILITIES ARE FUNCTIONING PROPERLY BUT MORE IMPORTANTLY THAT THE FACILITIES ARE OPERATING SAFELY.

BEST MANAGEMENT PRACTICE (BMP) FACILITY NON- STRUCTURAL - REPAIR/REPLACEMENT GUIDELINES

NON-STRUCTURAL ITEMS, WHICH COMPRISE THE BMP'S, ARE NATURAL COMPONENTS SUCH AS VEGETATION, MULCHES AND SOIL. IF NON-STRUCTURAL DAMAGE OCCURS TO ANY PORTION OF THE BMP FACILITIES, THE FOLLOWING GUIDELINES CAN BE UTILIZED.

MULCHES

WHERE APPROPRIATE AND SPECIFIED, MULCH LAYERS SHALL BE PROVIDED TO COVER THE SOIL MEDIUM OF THE PLANTING AREAS. ACCEPTABLE MULCH TYPES WOULD INCLUDE ANY NATURAL SHREDDED AGED WOOD CHIP OR HARDWOOD/BARK MULCH FREE OF FOREIGN MATERIALS. MULCH LAYERS SHOULD BE AT A MINIMUM OF TWO INCHES (2") IN DEPTH BUT NOT MORE THAN FOUR INCHES (4").

SOIL

SOIL MEDIUM WITHIN BMP FACILITIES IS AN ESSENTIAL COMPONENT TO THE EFFECTIVENESS OF THE FACILITIES PURPOSE AND FUNCTIONALITY, SPECIFICALLY IN REGARD TO THE FILTRATION/INFILTRATION OF THE STORMWATER. A SPECIFIC SOIL MEDIUM MIX HAS BEEN SPECIFIED.

THE TOPSOIL MUST BE OF GOOD QUALITY. GOOD TOPSOIL WOULD CONSIST OF A LOAM OR SANDY LOAM SOIL OF UNIFORM COMPOSITION, CONTAINING NO MORE THAN FIVE PERCENT (5%) CLAY, BE LOOSE AND FREE OF OBJECTS SUCH AS ROCKS, ROOTS, ETC. OF LESS THAN TWO INCHES (2") IN DIAMETER. CAREFUL SELECTION OF TOPSOIL SHALL BE DONE SO THAT NO FOREIGN SUBSTANCES, INCLUDING NOXIOUS WEEDS AND GRASSES, ARE WITHIN THE SOIL THAT WOULD HINDER THE GROWTH OF NEW PLANTINGS. ALSO, CHEMICAL SUBSTANCES SHALL NOT BE IN THE SOIL THAT WOULD PROVE TO BE TOXIC TO THE ENVIRONMENT.

PLANTING SPECIFICATIONS

TURF

ANY TURF THAT NEEDS TO BE REPAIRED OR REPLACED BEYOND ITS NORMAL MAINTENANCE CARE SHALL BE CAREFULLY INVESTIGATED PRIOR TO OVER-SEEDING OR APPLYING FERTILIZERS. SEEDING SPECIFICATIONS ARE AVAILABLE ACCORDING TO THE APPROVED EROSION AND SEDIMENTATION CONTROL PLANS. THE USE OF LOW-GROWING, STOLONIFEROUS, TURF TYPE COOL SEASON GRASSES IS RECOMMENDED. FERTILIZATION OF THE TURF AREA SHALL BE IN LIMITED AMOUNTS AND BE APPLIED ONLY AS NECESSARY TO AVOID CONTRIBUTING TO STORM AND GROUND WATER POLLUTION.

SHRUBS, PERENNIALS & ORNAMENTAL GRASSES

IN ADDITION TO THE PLANTING SPECIFICATIONS PROVIDED IN THE APPROVED PLANS, THE FOLLOWING GUIDELINES MUST ALSO BE UTILIZED FOR THE REPLACEMENT OF PLANTING MATERIALS:

1. ALL PLANT MATERIAL SHALL BE INSTALLED IN CONFORMANCE WITH AND MEET THE SPECIFICATIONS OF "THE AMERICAN NURSERY ASSOCIATION" GUIDELINES.
2. ROOTSTOCK OF THE PLANT MATERIAL SHALL BE KEPT MOIST DURING TRANSPORTATION FROM NURSERY TO JOB SITE AND UNTIL PLANTING.
3. WALLS OF THE PLANTING HOLE SHALL BE DUG VERTICAL.
4. THE DIAMETER OF THE PLANTING HOLE SHALL BE SIX INCHES (6") LARGER ON ALL SIDES THAN THAT OF THE PLANT'S ROOT BALL.
5. THE ROOT BALL CROWN SHALL BE PLANTED FLUSH IF NOT SLIGHTLY ABOVE ADJACENT GRADE.
6. BACKFILL AROUND ROOT BALL BY HAND WITH SPECIFIED AMENDED SOIL MEDIUM. BACKFILL IN FOUR INCH (4") LIFTS AND TAMP BY HAND TO ENSURE PROPER COMPACTION.
7. NEVER COVER THE TOP OF THE ROOT BALL WITH SOIL. MOUND SOIL SLIGHTLY AROUND HOLE TO CREATE A WATERING BOWL.
8. COVER PLANTING AREA WITH TWO TO THREE INCHES (2"-3") OF AGED WOOD MULCH AS SPECIFIED.
9. WATER THOROUGHLY.
10. PLANTS IN GENERAL RECEIVE NEEDED NUTRIENTS FROM GOOD SOIL MEDIUM AND DO NOT REQUIRE ADDITIONAL FERTILIZATION. IF FERTILIZER IS USED, ONLY A NATURAL BIODEGRADABLE FERTILIZER IS RECOMMENDED SUCH AS PROCESSED COW MANURE.

CATCH BASINS AND INLETS

CATCH BASINS TRAP SEDIMENT AND SOME OILS THAT CAN POLLUTE WATER BODIES. THEY NEED TO BE INSPECTED AND CLEANED ANNUALLY TO REMOVE ACCUMULATED SEDIMENT, FLUIDS, AND TRASH.

- AVOID OR MINIMIZE SEDIMENT AND POLLUTANT DISCHARGES FROM THE WORK AREA.
- PREVENT PARKING AREAS, ROADS, DRAINAGE SYSTEMS, FACILITIES AND PROPERTY FROM BECOMING POLLUTANT SOURCES
- INSPECT CATCH BASINS AT LEAST ONCE PER YEAR.
- PERIODICALLY INSPECT THE CATCH BASIN AND SURROUNDING AREAS FOR POLLUTANTS SUCH AS LEAKS FROM DUMPSTERS, MINOR SPILLS, AND OIL DUMPING. ACT TO HAVE THE POLLUTANT SOURCE REMOVED.
- CLEAN CATCH BASINS WHEN THEY BECOME ONE THIRD FULL TO MAINTAIN SEDIMENT-TRAPPING CAPACITY.
- CATCH BASIN AND MANHOLE CLEANING SHALL BE PERFORMED IN A MANNER THAT KEEPS REMOVED SEDIMENT AND WATER FROM BEING DISCHARGED BACK INTO THE STORM SEWER.
- CLEAN FILTH MATERIALS FROM CATCH BASINS WHEN DISCOVERED OR REPORTED.
- KEEP THE INLET CLEARED OF DEBRIS AND LITTER.
- WORK INSIDE UNDERGROUND STRUCTURES REQUIRES SPECIAL OSHA-REQUIRED CONFINED SPACE EQUIPMENT AND PROCEDURES. THE MOST PRACTICAL OPTION MAY BE TO CONTRACT WITH A SEWER- CLEANING CONTRACTOR.
- DISPOSAL OF WASTE FROM MAINTENANCE OF DRAINAGE FACILITIES SHALL BE CONDUCTED IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS.
- REMOVED SEDIMENT MUST BE DISPOSED OF IN THE GARBAGE AS SOLID WASTE. WATER SHALL BE DISPOSED OF IN A SANITARY SEWER AFTER OILS ARE REMOVED USING OIL ABSORBENT MATERIALS OR OTHER MECHANICAL MEANS. USED OIL ABSORBENTS SHALL BE RECYCLED OR DISPOSED ACCORDING THE MANUFACTURE'S INSTRUCTIONS.
- REPAIR ANY DAMAGES THAT PREVENT THE CATCH BASIN FROM FUNCTIONING AS DESIGNED.

MANHOLES

MANHOLES ARE LARGE CYLINDRICAL VAULTS USUALLY SET AT STORM SEWER PIPE CONNECTIONS. UNLESS YOU HAVE OSHA APPROVED TRAINING AND EQUIPMENT, NEVER ENTER A MANHOLE. THERE IS A CONSIDERABLE RISK OF POISONOUS GAS AND INJURY.

- INSPECT THE MANHOLE ONCE PER YEAR. CHECK THE FRAME AND LID FOR CRACKS AND WEAR, SUCH AS ROCKING LIDS OR LIDS MOVED BY TRAFFIC.
- PERIODICALLY INSPECT THE MANHOLE AND SURROUNDING AREAS FOR POLLUTANTS SUCH AS LEAKS FROM DUMPSTERS, MINOR SPILLS, AND OIL DUMPING. TAKE ACTION TO HAVE THE POLLUTANT SOURCE REMOVED.
- CLEAN MANHOLES WHEN THERE IS A BLOCKAGE OF A WATER FLOW PATH. CLEANING SHALL BE PERFORMED IN A WAY THAT ENSURES REMOVED SEDIMENT AND WATER IS NOT DISCHARGED BACK INTO THE STORM SEWER.
- WORK INSIDE UNDERGROUND STRUCTURES REQUIRES SPECIAL OSHA-REQUIRED CONFINED SPACE EQUIPMENT AND PROCEDURES. THE MOST PRACTICAL OPTION MAY BE TO CONTRACT WITH A SEWER- CLEANING CONTRACTOR.
- DISPOSAL OF WASTE FROM MAINTENANCE OF DRAINAGE FACILITIES SHALL BE CONDUCTED IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS.
- REMOVED SEDIMENT MUST BE DISPOSED IN THE GARBAGE AS SOLID WASTE. WATER SHALL BE DISPOSED OF IN A SANITARY SEWER AFTER OILS ARE REMOVED USING OIL ABSORBENT MATERIALS OR OTHER MECHANICAL MEANS. USED OIL ABSORBENTS SHALL BE RECYCLED OR DISPOSED ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS.
- REPAIR ALL SECURITY AND ACCESS FEATURES SO THEY ARE FULLY FUNCTIONAL. THIS INCLUDES LOCKING LIDS, COVERS, AND LADDER RUNGS.
- REPLACE BROKEN PARTS OR LIDS THAT ROCK OR ARE MOVED BY TRAFFIC.
- SHOULD BE RECYCLED OR DISPOSED ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS.

STORM PIPE

STORM SEWER PIPES CONVEY STORMWATER. PIPES ARE BUILT FROM MANY MATERIALS AND ARE SOMETIMES PERFORATED TO ALLOW STORMWATER TO INFILTRATE INTO THE GROUND. STORM PIPES ARE CLEANED TO REMOVE SEDIMENT OR BLOCKAGES WHEN PROBLEMS ARE IDENTIFIED. STORM PIPES MUST BE CLEAR OF OBSTRUCTIONS AND BREAKS TO PREVENT LOCALIZED FLOODING.

PIPES ARE DIFFICULT TO INSPECT REQUIRING SPECIAL EQUIPMENT AND TRAINING. USUALLY, IF A PROBLEM OCCURS THE OWNER NEEDS TO CALL A SEWER OR PLUMBING CONTRACTOR TO INSPECT, REPAIR OR CLEAN PIPELINES.

- CLEAN PIPES WHEN SEDIMENT DEPTH IS GREATER THAN 20 PERCENT OF PIPE DIAMETER. WHEN CLEANING A PIPE, MINIMIZE SEDIMENT AND DEBRIS DISCHARGES FROM PIPES TO THE STORM SEWER. INSTALL DOWNSTREAM DEBRIS TRAPS (WHERE APPLICABLE) BEFORE CLEANING AND THEN REMOVE MATERIAL.
- GENERALLY, USE MECHANICAL METHODS TO REMOVE ROOT OBSTRUCTIONS FROM INSIDE STORM SEWER PIPES. DO NOT PUT ROOT-DISSOLVING CHEMICALS IN STORM SEWER PIPES. IF THERE IS A PROBLEM, REMOVE THE VEGETATION OVER THE LINE.
- WORK INSIDE UNDERGROUND STRUCTURES REQUIRES SPECIAL OSHA-REQUIRED CONFINED SPACE EQUIPMENT AND PROCEDURES. THE MOST PRACTICAL OPTION MAY BE TO CONTRACT WITH A SEWER-- CLEANING CONTRACTOR.
- SEDIMENT AND DEBRIS FROM PIPES SHALL BE DISPOSED IN THE GARBAGE AS SOLID WASTE. PICK OUT ANY ROCKS FIRST.
- REPAIR OR REPLACE PIPES WHEN A DENT OR BREAK CLOSES MORE THAN 20 PERCENT OF THE PIPE DIAMETER.
- REPAIR OR REPLACE PIPES DAMAGED BY RUST OR DETERIORATION.

TRASH RACKS

- INSPECT TRASH RACKS FOR DAMAGED OR BROKEN SECTIONS. REPAIR AS NEEDED.
- INSPECT AND REMOVE TRASH AND DEBRIS BEFORE, DURING, AND AFTER STORM EVENTS TO ENSURE IT IS FUNCTIONING PROPERLY.

GENERAL NOTES:

1. THE POST CONSTRUCTION STORMWATER PLAN FOR THE SUBJECT TRACT AS APPROVED BY THE MUNICIPALITY, PROVIDES FOR DETENTION, RETENTION, INFILTRATION AND/OR TREATMENT OF STORMWATER WITHIN THE CONFINES OF THE PROPERTY.
2. THE MUNICIPALITY REQUIRES THAT STORMWATER MANAGEMENT FACILITIES AND BMPs AS SHOWN ON THE PLAN BE CONSTRUCTED AND ADEQUATELY MAINTAINED BY THE OWNER, THEIR SUCCESSORS, HEIRS AND/OR ASSIGNS.
3. THE ON-SITE STORMWATER MANAGEMENT FACILITIES AND BMPs SHALL BE CONSTRUCTED BY THE OWNER, THEIR SUCCESSORS, HEIRS AND/OR ASSIGNS IN ACCORDANCE WITH THE TERMS, CONDITIONS, DETAILS, AND SPECIFICATIONS IDENTIFIED IN THE PLAN.
4. THE OWNER, THEIR SUCCESSORS, HEIRS AND/OR ASSIGNS SHALL MAINTAIN THE STORMWATER MANAGEMENT FACILITIES AND BMPs IN GOOD WORKING CONDITION, ACCEPTABLE TO THE MUNICIPALITY SO THAT THEY ARE PERFORMING THEIR DESIGN FUNCTIONS.
5. THE OWNER, THEIR SUCCESSORS, HEIRS AND/OR ASSIGNS HEREBY GRANT PERMISSION TO THE MUNICIPALITY, ITS AUTHORIZED AGENTS AND EMPLOYEES, UPON PRESENTATION OF PROPER IDENTIFICATION, TO ENTER UPON THE PROPERTY AT REASONABLE TIMES, AND TO INSPECT THE STORMWATER MANAGEMENT FACILITIES AND BMPs WHENEVER THE MUNICIPALITY DEEMS NECESSARY. THE PURPOSE OF THE INSPECTION IS TO ASSURE SAFE AND PROPER FUNCTIONING OF THE FACILITIES.
6. AT A MINIMUM, MAINTENANCE INSPECTIONS SHALL BE PERFORMED IN ACCORDANCE WITH THE SCHEDULE SPECIFIED IN THE BMP OPERATIONS AND MAINTENANCE PLAN.
7. IN THE EVENT THE OWNER, THEIR SUCCESSORS, HEIRS AND/OR ASSIGNS FAIL TO MAINTAIN THE STORMWATER MANAGEMENT FACILITIES AND BMPs IN GOOD WORKING CONDITION ACCEPTABLE TO THE MUNICIPALITY, THE MUNICIPALITY SHALL GIVE PROPER NOTICE TO OWNER SETTING FORTH THE SPECIFICS OF SUCH FAILURE TO MAINTAIN, THE REMEDIATION REQUIRED, AND DEADLINE TO COMPLETE ANY SUCH REMEDIAL ACTION.
8. THE OWNER, THEIR SUCCESSORS, HEIRS AND/OR ASSIGNS WILL PERFORM MAINTENANCE IN ACCORDANCE WITH THE BMP OPERATIONS AND MAINTENANCE PLAN FOR THE STORMWATER MANAGEMENT FACILITIES AND BMPs, INCLUDING SEDIMENT REMOVAL AS OUTLINED ON THE APPROVED PLAN.
9. ALL CONVEYANCE AND DETENTION FACILITIES SHALL BE KEPT FREE FROM ANY DEBRIS OR OTHER OBSTRUCTION AND IN ORIGINAL DESIGN CONDITION.

BMP OPERATION AND MAINTENANCE SCHEDULE

*REFER TO THE PCSM PLAN FOR A GRAPHIC DEPICTION OF THE LOCATION OF ALL BELOW FACILITIES.

PRE TREATMENT/GNOUT -WATER QUALITY STRUCTURES, MAINTENANCE SCHEDULE (I I-3, MH I-5, I I-7, I I-9, I I-11, I I-13, I I-14, I I-16).

INSPECTION ACTIVITIES

- INSPECT AFTER EVERY RAIN EVENT GREATER THAN 0.50" OF RAINFALL BUT NO LESS THAN MONTHLY FROM MARCH TO OCTOBER

MAINTENANCE ACTIVITIES

- CLEAN OUT AND LEGALLY DISPOSE OF WASTE AT A MINIMUM OF EVERY MARCH.
- MAINTAIN PER MANUFACTURER'S REQUIREMENTS AND DETERMINE SCHEDULE ONCE INSTALLED.

SCM-1, SUBSURFACE INFILTRATION BASIN MAINTENANCE SCHEDULE:

INSPECTION & MAINTENANCE ACTIVITIES

- INSPECTIONS SHOULD OCCUR AT REGULAR INTERVALS AND MAINTAINED WHEN NECESSARY TO ENSURE OPTIMUM PERFORMANCE. THE RATE AT WHICH THE SYSTEM COLLECTS POLLUTANTS WILL DEPEND MORE HEAVILY ON SITE ACTIVITIES.
- ONGOING QUARTERLY INSPECTIONS OF THE ACCUMULATED SEDIMENT ARE RECOMMENDED AT A MINIMUM. SEDIMENT DEPOSITION AND TRANSPORT MAY VARY FROM YEAR TO YEAR AND QUARTERLY INSPECTIONS WILL HELP INSURE THAT SYSTEMS ARE CLEANED OUT AT THE APPROPRIATE TIME.
- INSPECTIONS SHOULD BE PERFORMED MORE OFTEN IN THE WINTER MONTHS IN CLIMATES WHERE SANDING OPERATIONS MAY LEAD TO RAPID ACCUMULATIONS OR IN EQUIPMENT WASH DOWN AREAS.
- INSPECT AND MAINTAIN ALL PRETREATMENT / WATER QUALITY STRUCTURES FOR SEDIMENT AND DEBRIS AFTER ALL RAIN EVENTS, AND PERIODICALLY TO ENSURE THEY REMAIN CLEAN AND FREE OF DEBRIS.
- SYSTEM SHOULD BE CLEANED WHEN INSPECTION REVEALS THAT ACCUMULATED SEDIMENT OR TRASH IS CLOGGING THE DISCHARGE ORIFICE.
- ACCUMULATED SEDIMENT AND TRASH CAN BE EVACUATED THROUGH THE CLEANOUTS, PRETREATEMENT STRUCTURES OR OUTLET CONTROL STRUCTURE.
- DEWATERING OF THE FACILITY SHOULD OCCUR WITH 72 HOURS OF A RAIN EVENT. IF STANDING WATER IS OBSERVED IN THE FACILITY FOR MORE THAN 72 HOURS AFTER A RAIN EVENT AN ENGINEER OR QUALIFIED PROFESSIONAL SHALL BE CONSULTED TO DISCUSS FURTHER MAINTENANCE ACTIVITIES.
- INSPECT AND ENSURE THAT THE VALVE IN OCS-1 REMAINS CLOSED AT ALL TIMES UNLESS DIRECTED BY THE CITY OF LANCASTER, LANCASTER COUNTY CONSERVATION DISTRICT IN COORDINATION WITH THE ENGINEER OF RECORD FOR THE SCHOOL DISTRICT OF LANCASTER.
- GATE VALVES ARE TO REMAIN CLOSED. IF THE CITY OF LANCASTER INSPECTS THE FACILITIES AND THE GATE VALVES ARE OPEN OUTSIDE OF SPECIFIED TIMES, THE PROPERTY OWNER WILL BE CONSIDERED NON-COMPLIANT.

LONG TERM MAINTENANCE

- FACILITY RENOVATION - DEPENDING ON CONDITION AND PERFORMANCE OF FACILITY, REPLACE AS NEEDED AND/OR DETERMINED BY THE CITY ENGINEER.

NOTES:

1. ALL NON-REUSABLE DEBRIS THAT IS REMOVED FROM THE ABOVE BMP'S AS A RESULT OF MAINTENANCE ACTIVITIES SHOULD BE DISPOSED OF IN A LANDFILL OR IN ACCORDANCE WITH THE RECYCLING OR DISPOSAL OF MATERIALS NOTES ON THIS SHEET. INSPECTIONS SHALL BE DOCUMENTED IN INSPECTION REPORTS OUTLINING MAINTENANCE COMPLETED, MAINTENANCE NEEDED, PHOTOS, ETC. UPON REQUEST, INSPECTION REPORTS SHALL BE SUBMITTED TO THE CITY WITHIN 30 DAYS. WHERE AN NPDES PERMIT FOR THE PROJECT REQUIRES THAT SWM FACILITIES BE INSTALLED, THE O&M PLAN SHALL REQUIRE ANNUAL WRITTEN REPORTING OF THE INSPECTION AND MAINTENANCE OF THOSE FACILITIES AND THE ANNUAL REPORTS SHALL BE PROVIDED TO THE CITY. LID PRACTICES SHALL BE INCLUDED IN THE ANNUAL WRITTEN REPORT. FAILURE TO PROVIDE SUCH REPORTS MAY RESULT IN ENFORCEMENT AND PENALTIES BY THE CITY.
2. REGULAR INSPECTION OF THE SWM FACILITIES SHOULD OCCUR TO ASSURE PROPER IMPLEMENTATION OF BMP'S MAINTENANCE AND CARE. BMP'S SHOULD BE INSPECTED BY A QUALIFIED PERSON. COMPLETE PAPERWORK OF O&M PROCEDURES PERFORMED, INCLUDING DATE STAMPED PHOTOS, WHICH MAY INCLUDE THE LANDOWNER, OR THE OWNER'S DESIGNEE ACCORDING TO THE FOLLOWING MINIMUM FREQUENCIES:
   - 2.1. ANNUALLY FOR THE FIRST FIVE YEARS
   - 2.2. ONCE EVERY THREE YEARS THEREAFTER
   - 2.3. DURING OR IMMEDIATELY AFTER THE CESSATION OF A TEN-YEAR OR GREATER STORM.
3. SEE RECORDED STORMWATER OPERATION AND MAINTENANCE (O&M) AGREEMENT FOR ADDITIONAL REQUIREMENTS.
4. AS SPECIFIED IN THE O&M AGREEMENT PURSUANT TO SECTION 206-602. IN THE INSTANCE THAT THE O&M AGREEMENT AND THE SCHEDULE SET FORTH IN 2.1., 2.2., AND 2.3., ABOVE, ARE INCONSISTENT, THE O&M AGREEMENT SHALL CONTROL.
5. INSPECTIONS SHALL BE DOCUMENTED IN INSPECTION REPORTS OUTLINING THE MAINTENANCE COMPLETED, MAINTENANCE NEEDED, PHOTOS, ETC. UPON REQUEST, INSPECTION REPORTS SHALL BE SUBMITTED TO THE CITY WITHIN 30 DAYS. AN NPDES PERMIT FOR THE PROJECT REQUIRES STORMWATER MANAGEMENT FACILITIES ARE INSTALLED, THE O&M PLAN REQUIRES ANNUAL WRITTEN REPORTING OF THE INSPECTION AND MAINTENANCE OF THOSE FACILITIES AND THE ANNUAL WRITTEN REPORT SHALL BE PROVIDED TO THE CITY. LID PRACTICES SHALL BE INCLUDED IN THE ANNUAL WRITTEN REPORT. FAILURE TO PROVIDE SUCH REPORTS MAY RESULT IN ENFORCEMENT AND PENALTIES BY THE CITY.

REVISIONS PER:	DATE:	BY:
1. COL/LCCD COMMENTS	3/28/25	EWB
2. -	-	-
3. -	-	-
4. -	-	-
5. -	-	-

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COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — ELIZABETH WERNER BALDWIN — ENGINEER — PE080729

PENNSYLVANIA — REGISTERED LANDSCAPE ARCHITECT

STORMWATER MANAGEMENT PLAN

SUBJECT:
O&M NOTES
MCCASKEY HIGH SCHOOL
MCCASKEY HIGH SCHOOL STADIUM RENOVATIONS
CITY OF LANCASTER - LANCASTER COUNTY - PENNSYLVANIA

CLIENT:
MM ARCHITECTS
214 NORTH DUKE STREET
LANCASTER, PA 17602
(717) 393-3211

MANAGER:	HDC	DATE:	February 6, 2025
DESIGNER:	EWB	PROJECT NO.	AZ202-015
DRAWN BY:	JMT	SCALE:	AS SHOWN

DRAWING NO.
06 OF 53

DRAWING: C:\Users\jmtoedter\DC\ACCDocs\ELA Group\AZ202-015 McCaskey Stadium Renovations\Project Files\CAD Data\Land Development\LD-PRELIMCOVER-CURRENT.dwg - PLOTTED: Apr 02, 2025 2:16 pm

ADJACENT PROPERTY OWNERS

#1 511 N. FRANKLIN ST
N/F: TREASURES MARKETS PROPERTIES
ACCT #: 3361786200000
PIN #: 336-17862
DEED DOC #: 6511865

#2 1231 GROFFTOWN ROAD
N/F: MARIA I. CARCAMO
ACCT #: 3366686000000
PIN #: 336-66860
DEED DOC #: 6246409

#3 1014 LEHIGH AVE
N/F: EMILIO J. LOPEZ COLLADO
ACCT #: 3364352300000
PIN #: 336-43523
DEED DOC #: 6498223

#4 1012 LEHIGH AVE
N/F: HARRISON Q. VU
ACCT #: 3363782400000
PIN #: 336-37824
DEED DOC #: 6011369

#5 1008 LEHIGH AVE
N/F: HUYNH T. NGUYEN
ACCT #: 3363511900000
PIN #: 336-35119
DEED DOC #: 6028616

#6 1006 LEHIGH AVE
N/F: LINH KIM TRAN
ACCT #: 3363231500000
PIN #: 336-32315
DEED DOC #: 6026501

#7 1002 LEHIGH AVE
N/F: THOMAS M. LYMAN
ACCT #: 3363691800000
PIN #: 336-36918
DEED DOC #: 6091499

#8 950 LEHIGH AVE
N/F: QUILVIO POLANCO
ACCT #: 3362129500000
PIN #: 336-21295
DEED DOC #: 2024679463

#9 948 LEHIGH AVE
N/F: MIGUEL A RODRIGUEZ GUZMAN
ACCT #: 3361829100000
PIN #: 336-18291
DEED DOC #: 6301070

#10 944 LEHIGH AVE
N/F: QUANG M TRAN
ACCT #: 3361558700000
PIN #: 336-15587
DEED DOC #: 5825187

#11 942 LEHIGH AVE
N/F: QUANG DUY DO
ACCT #: 3361298300000
PIN #: 336-12983
DEED DOC #: 6218896

#12 938 LEHIGH AVE
N/F: NGOC HANG NGUYEN
ACCT #: 3361027900000
PIN #: 336-10279
DEED DOC #: 5803095

#13 936 LEHIGH AVE
N/F: ARATI D. CORSO-JONES
ACCT #: 3360757500000
PIN #: 336-07575
DEED DOC #: 05716977

#14 932 LEHIGH AVE
N/F: THI HUE TU
ACCT #: 3360497100000
PIN #: 336-04971
DEED DOC #: 6134972

#15 930 LEHIGH AVE
N/F: RAFAEL MALDONADO
ACCT #: 3361408400000
PIN #: 336-14084
DEED DOC #: 05632305

#16 924 LEHIGH AVE
N/F: HUONG NHAM THUAT
ACCT #: 3369605800000
PIN #: 336-96058
DEED DOC #: 5277697

#17 335 N. BROAD STREET
N/F: JEREMY D. SAUDER
ACCT #: 3367866700000
PIN #: 336-78667
DEED DOC #: 6754621

#18 860 LEHIGH AVE
N/F: RUSSELL L. CARL
ACCT #: 3366520500000
PIN #: 336-65205
DEED DOC #: 5225695

#19 858 LEHIGH AVE
N/F: TUAN BUI
ACCT #: 3366270100000
PIN #: 336-62701
DEED DOC #: 6225702

#20 854 LEHIGH AVE
N/F: DEBRA A. & MICHAEL H. MCKINNEY
ACCT #: 3366029800000
PIN #: 336-60298
DEED DOC #: 5144375

#21 852 LEHIGH AVE
N/F TARA L. SCHLEY
ACCT #: 3365789400000
PIN #: 336-57894
DEED DOC #: 05510939

#22 848 LEHIGH AVE
N/F ELIZABETH YOUNG
ACCT #: 3365539000000
PIN #: 336-55390
DEED DOC #: 20246806714

#23 846 LEHIGH AVE
N/F TRI TRAN
ACCT #: 3365298700000
PIN #: 336-52987
DEED DOC#: 05784147

#24 842 LEHIGH AVE
N/F ANDRE J. JOHNSON
ACCT #: 3365048300000
PIN #: 336-50483
DEED DOC#: 05483750

#25 840 LEHIGH AVE
N/F ERIC M. FENSTERMAKER
ACCT #: 3364807900000
PIN #: 336-48079
DEED DOC#: 05704256

#26 836 LEHIGH AVE
N/F JUDITH A. & BRUCE T. MCCLOUD
ACCT #: 3364567500000
PIN #: 336-45675
DEED DOC#: 3619282

#27 834 LEHIGH AVE
N/F GUILLERMO R. RODRIGUEZ
ACCT #: 3364317200000
PIN #: 336-43172
DEED DOC#: 68330292

#28 830 LEHIGH AVE
N/F MEGAN A. BLACKMON
ACCT #: 3364076800000
PIN #: 336-40768
DEED DOC#: 6193084

#29 828 LEHIGH AVE
N/F RAQUEL J. Y. RODRIGUEZ PABLO
ACCT #: 3363826400000
PIN #: 336-38264
DEED DOC#: 5367060

#30 824 LEHIGH AVE
N/F LINA THAI
ACCT #: 3363586000000
PIN #: 336-35860
DEED DOC#: 6534551

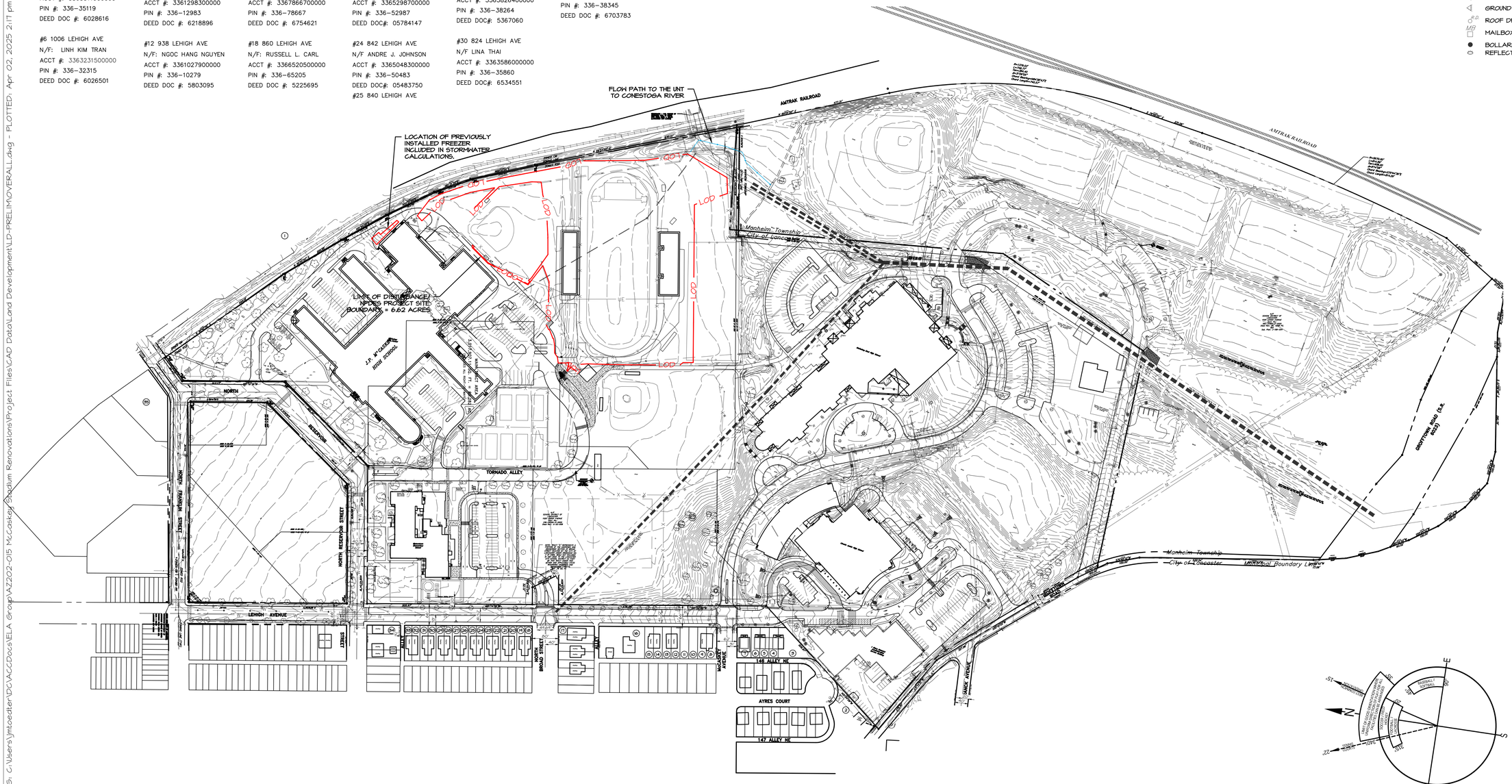
#31 822 LEHIGH AVE
N/F RAY D. FREDERICK
ACCT #: 3363345700000
PIN #: 336-33457
DEED DOC#: 5132562

#32 818 LEHIGH AVE
N/F REMONA J. NELSON
ACCT #: 3363095300000
PIN #: 336-30953
DEED DOC#: 5319767

#33 816 LEHIGH AVE
N/F PATRICIA A. BOOKS
ACCT #: 3362854900000
PIN #: 336-28549
DEED DOC#: 6097885

#34 347 N. RESERVOIR ST
N/F: JOHN R. MOORE, JR
ACCT #: 3362057800000
PIN #: 336-20578
DEED DOC #:20250005475

#35 470 N. FRANKLIN ST
N/F: PATRIOT ELECTRONICS, LLC
ACCT #: 3363834500000
PIN #: 336-38345
DEED DOC #: 6703783



EXISTING LEGEND

- ADJOINER PROPERTY LINE
- PROPERTY LINE (Iron Pin, Rebar / Concrete Monument)
- RIGHT-OF-WAY LINE
- CENTERLINE
- EASEMENTS
- 355 INDEX CONTOUR
- 352 INTERMEDIATE CONTOUR
- X 391.0 SPOT ELEVATION
- CURB LINE
- EDGE OF PAVEMENT (E.O.P.)
- MIN. BLDG SETBACK LINE
- OVERHEAD ELECTRIC (Utility Pole OH; Electric Meter EM)
- UNDERGROUND ELECTRIC (Utility Pole UE; Electric Transformer ET)
- UNDERGROUND TELEPHONE (Utility Pole UT; Manhole T; Telephone Box)
- GAS LINE (Gas Valve GV; Gas Meter G)
- SANITARY SEWER LINE (Clean Out C.O.; S Manhole)
- SANITARY FORCE MAIN (FM Manhole)
- WATER LINE (WM Water Meter; W Water Valve; WV Fire Hydrant)
- STORM DRAINAGE PIPING (Headwall; D Manhole; Inlet; Endwall; Rip Rap)
- FENCE
- ZONING LINE
- GUIDE RAIL
- EDGE OF WATER (STREAM)
- FEMA 100 YEAR FLOODPLAIN
- LOD LIMIT OF DISTURBANCE
- TREE LINE
- SIGN
- WELL
- LIGHT POLE
- GROUND LIGHT
- R.D. ROOF DRAIN
- MB MAILBOX
- BOLLARD
- REFLECTOR POST
- DECIDUOUS TREES
- CONIFEROUS TREE
- TRAFFIC SIGNAL BOX
- TRAFFIC SIGNAL POLE
- TRAFFIC SIGNAL MAST

SCALE IN FEET: 1" = 150'
0 15 30 60 90

REVISIONS PER:	DATE:	BY:
1. COL/LCCD COMMENTS	3/28/25	EWB
2. -	-	-
3. -	-	-
4. -	-	-
5. -	-	-

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COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — ELIZABETH WERNER BALDWIN — ENGINEER — PE080726

PENNSYLVANIA — REGISTERED LANDSCAPE ARCHITECT — REGISTRATION NUMBER LA001 EXP. 12

STORMWATER MANAGEMENT PLAN
SUBJECT:
OVERALL & EXISTING CONDITIONS PLAN
MCCASKEY HIGH SCHOOL
MCCASKEY HIGH SCHOOL STADIUM RENOVATIONS
CITY OF LANCASTER - LANCASTER COUNTY - PENNSYLVANIA
CLIENT:
MM ARCHITECTS
214 NORTH DUKE STREET
LANCASTER, PA 17602
(717) 393-3211

MANAGER:	HDC	DATE:	February 6, 2025
DESIGNER:	EWB	PROJECT NO.	AZ202-015
DRAWN BY:	JMT	SCALE:	1" = 150'

DRAWING NO.
07 OF 53

DRAWING: C:\Users\ntoaster\DC\ACCDocs\ELA Group\AZ202-015 McCaskey Stadium Renovations\Project Files\CAD Data\Land Development\LD-PRELIM\OVERALL.dwg - PLOTTED: Apr 02, 2025 2:17 pm

DEMOLITION LEGEND

- LOD — LIMIT OF DISTURBANCE
- TPF — TREE PROTECTION FENCING
- TP-1 — TEST PIT

SOILS LEGEND

- Uc — URBAN LAND

DEMOLITION NOTES

1. EXISTING PIPING SYSTEM MAY REMAIN IN PLACE WHERE IT DOES NOT AFFECT THE NEW WORK / SYNTHETIC TURF FIELD AGGREGATE BASE AND UNDERDRAIN SYSTEM. ALL EXISTING STORM SEWERS ABANDONED IN PLACE SHALL BE CAPPED / PLUGGED AND SHOWN ON THE CONTRACTOR'S RECORD AS-BUILT DRAWINGS.
2. PROVIDE CLEAN FILL AND BACKFILL ALL VOIDS RESULTING FROM DEMOLITION / REMOVAL TO NEW SYNTHETIC TURF FIELD SUBGRADE ELEVATION. BACKFILL IN LIFTS AND THOROUGHLY COMPACT EACH LIFT TO PREVENT FUTURE SETTLEMENT.
3. STRIP TOPSOIL LAYER SEPARATE FROM UNDERLYING TOPSOIL AND STOCKPILE ON SITE AT A LOCATION OR LOCATIONS, DIRECTED BY OWNER OR AS DESIGNATED ELSEWHERE ON THESE DRAWINGS. REMOVE ALL EXCESS SUBSOIL MATERIALS FROM SITE NOT REQUIRED AS PART OF THE WORK.
4. CONSTRUCTION TRAFFIC MUST ENTER AND EXIT THROUGH THE APPROVED ROCK CONSTRUCTION ENTRANCE. CONTRACTOR SHALL REMOVE (AND REPLACE) EXISTING GATES, GATE POSTS, AND FENCING AS REQUIRED TO GAIN ACCESS FOR CONSTRUCTION EQUIPMENT. RESTORE EXISTING PAVEMENTS DAMAGED BY CONSTRUCTION ACTIVITIES, INCLUDING COMPLETE REPLACEMENT WHEN REQUIRED, AND RESTORE / REPLACE EXISTING LAWN AREAS AND OTHER IMPROVEMENTS DAMAGED BY CONSTRUCTION ACTIVITIES.
5. LIMIT OF FENCE / FENCE POST FOUNDATION REMOVAL SHOWN ON THIS DRAWING IS "GRAPHIC" APPROXIMATE. REMOVE FENCE TO NEAREST POST BEYOND THE LIMIT OF NEW CONSTRUCTION AS PRACTICAL TO MEET THE INTENT AND SCOPE OF THE NEW PAVING WORK.

EXISTING LEGEND

- ADJOINER PROPERTY LINE
- PROPERTY LINE (Iron Pin, Rebar / Concrete Monument)
- RIGHT-OF-WAY LINE
- CENTERLINE
- EASEMENTS
- INDEX CONTOUR (355)
- INTERMEDIATE CONTOUR (352)
- SPOT ELEVATION (X 391.0)
- CURB LINE
- EDGE OF PAVEMENT (E.O.P.)
- MIN. BLDG SETBACK LINE
- OVERHEAD ELECTRIC (Utility Pole, OH, Electric Meter, EM)
- UNDERGROUND ELECTRIC (Utility Pole, UE, Electric Transformer, ET)
- UNDERGROUND TELEPHONE (Utility Pole, UT, Manhole, T, Telephone Box, TB)
- GAS LINE (GV, Gas Valve, G, Gas Meter)
- SANITARY SEWER LINE (C.O., Clean Out, S, Manhole)
- SANITARY FORCE MAIN (S, Manhole, FM, AV)
- WATER LINE (WM, Water Meter, W, Water Valve, FH, Fire Hydrant)
- STORM DRAINAGE PIPING (Headwall, Manhole, Inlet, Endwall, Rip Rap)
- FENCE
- ZONING LINE
- GUIDE RAIL
- EDGE OF WATER (STREAM)
- FEMA 100 YEAR FLOODPLAIN
- TREE LINE
- SIGN
- WELL
- LIGHT POLE
- GROUND LIGHT
- ROOF DRAIN (R.D.)
- MAILBOX (MB)
- BOLLARD
- REFLECTOR POST
- DECIDUOUS TREES
- CONIFEROUS TREE
- TRAFFIC SIGNAL BOX
- TRAFFIC SIGNAL POLE
- TRAFFIC SIGNAL MAST

SURVEYOR'S NOTES:

1. BENCHMARK/ PRIMARY CONTROL POINT: MAG NAIL SET NEAR EDGE OF PAVEMENT NEAR SOUTH WEST OF FIELD TRACK AND NORTH OF CONCESSIONS STAND A DISTANCE OF 25.08' AS SHOWN. ELEVATION= 304.36' NAVD 88 DATUM.

SCALE IN FEET: 1" = 30'

0 15 30 60 90

REVISIONS PER:	DATE:	BY:
1. COL/LCCD COMMENTS	3/28/25	EWB
2. -	-	-
3. -	-	-
4. -	-	-
5. -	-	-

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COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — ELIZABETH WERNER BALDWIN — ENGINEER — PE080729 — COMMONWEALTH OF PENNSYLVANIA

PENNSYLVANIA — HIGH PERFORMANCE — REGISTERED LANDSCAPE ARCHITECT — LICENSURE NUMBER RA-PE-E — EXPIRATION DATE

STORMWATER MANAGEMENT PLAN

SUBJECT:

EXIST. CONDITIONS & DEMOLITION PLAN

MCCASKEY HIGH SCHOOL

MCCASKEY HIGH SCHOOL STADIUM RENOVATIONS

CITY OF LANCASTER - LANCASTER COUNTY - PENNSYLVANIA

CLIENT:

MM ARCHITECTS

214 NORTH DUKE STREET

LANCASTER, PA 17602

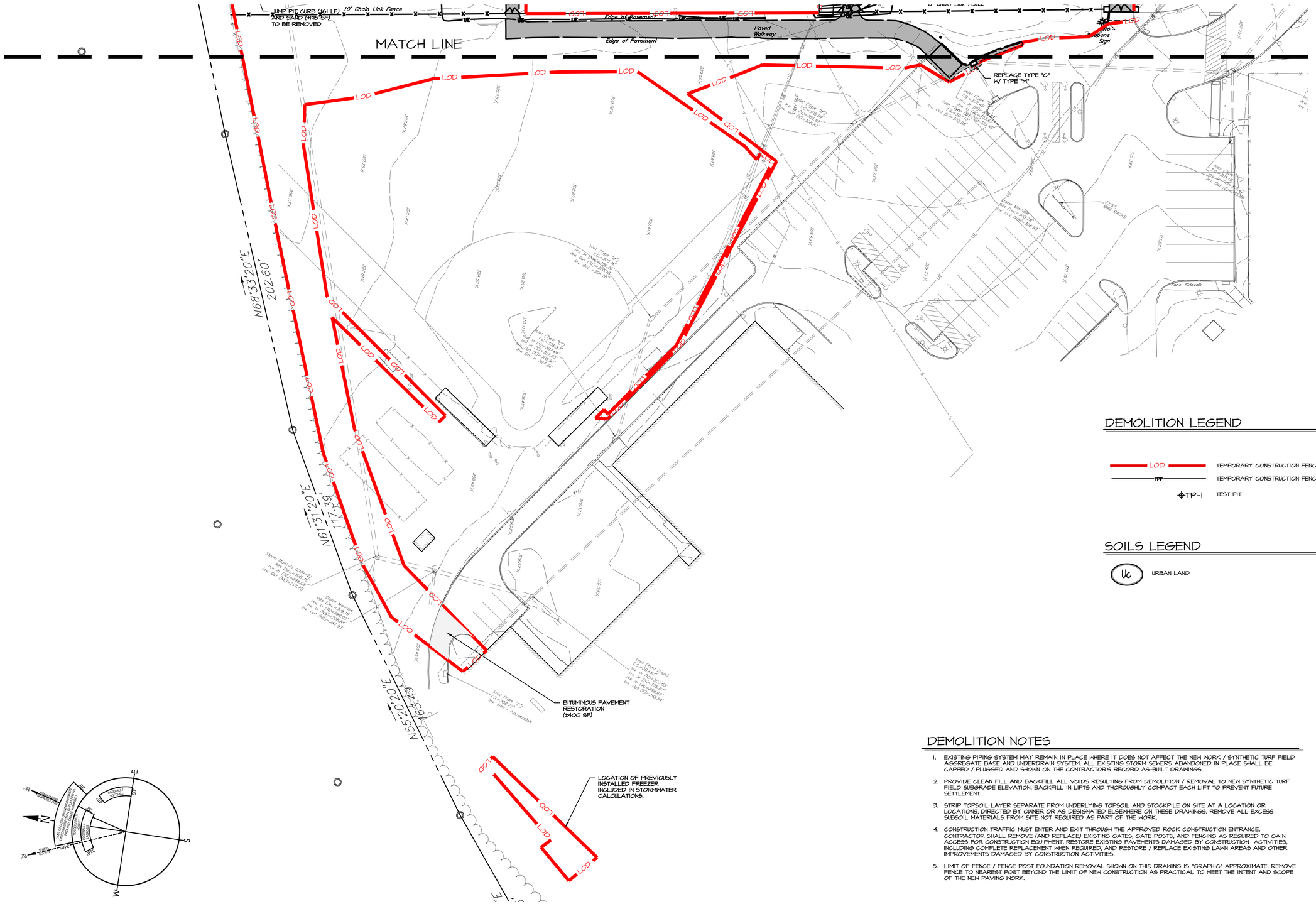
(717) 393-3211

MANAGER:	HDC	DATE:	January 27, 2025
DESIGNER:	EWB	PROJECT NO.	AZ202-015
DRAWN BY:	JMT	SCALE:	1" = 30'

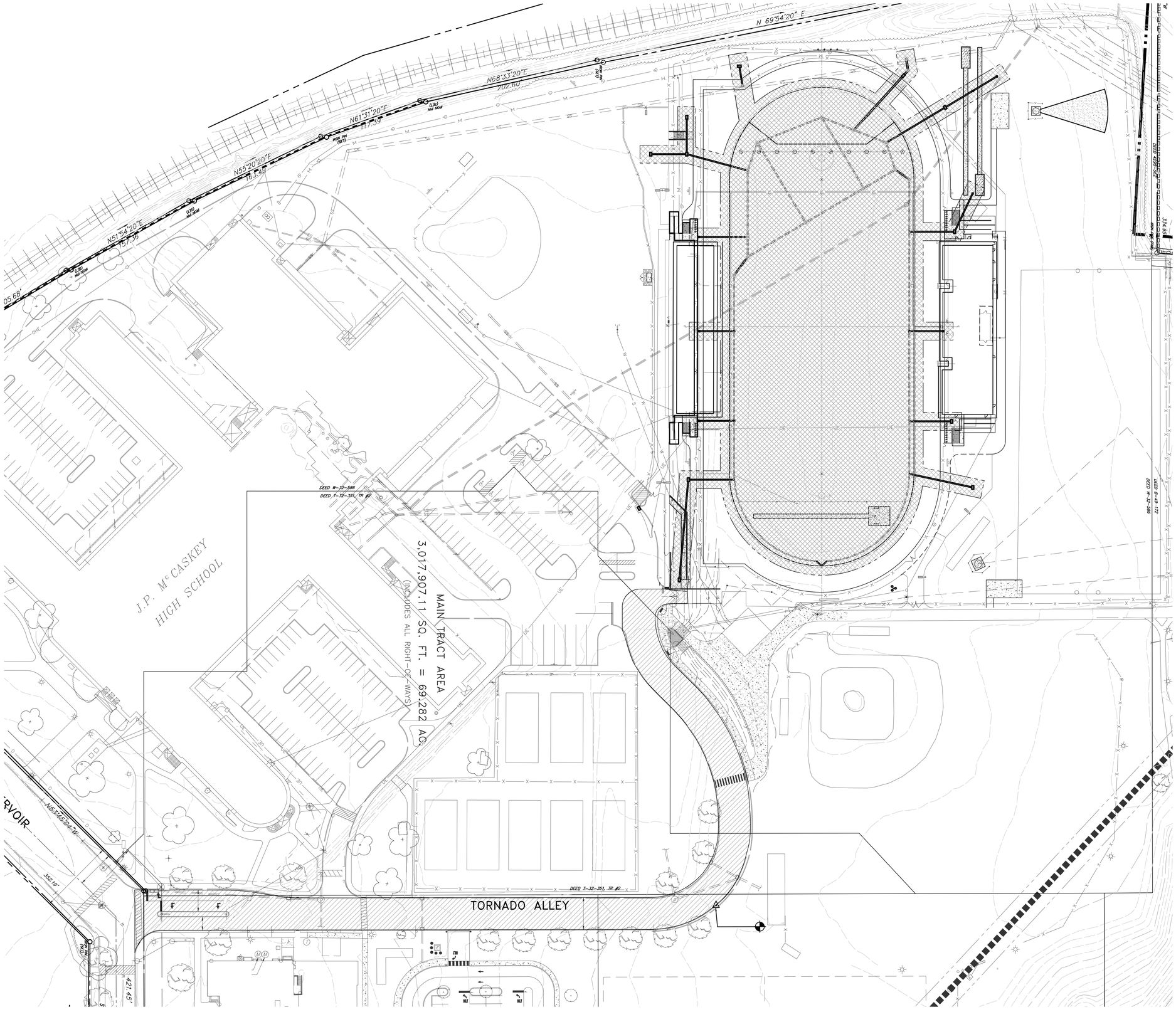
DRAWING NO.

08 OF 53

DRAWING: C:\Users\ewawerner\DC\ACCDocs\ELA Group\AZ202-015 McCaskey Stadium Renovations\Project Files\CAD Data\Land Development\LD-PRELIMDEMO.dwg - PLOTTED: Apr 02, 2025 3:32 pm


MATCH LINE
JMP PIT CURB (461 LF) AND SAND (4185 SF) TO BE REMOVED
10' Chain Link Fence
Edge of Pavement
Paved Walkway
No Outlet Sign
REPLACE TYPE "C" W/ TYPE "M"
LOD
N68°33'20"E 202.60'
N61°31'20"E 117.39'
N55°20'20"E 63.46'
BITUMINOUS PAVEMENT RESTORATION (1400 SF)
LOCATION OF PREVIOUSLY INSTALLED FREEZER INCLUDED IN STORMWATER CALCULATIONS.
Conc. Sidewalk
EXIST. BIKE RACKS
Storm Manhole (Dia.=2') Rim Elev.=308.58' Inv. In (16")=299.08' Inv. Out (16")=299.08'
Storm Manhole Rim Elev.=309.15' Inv. In (16")=299.05' Inv. In (16")=299.58' Inv. Out (16")=299.18'
Inlet (Type "M") T.C.=309.72' Inv. In (16")=300.82' Inv. Out (16")=300.82'
Inlet (Type "M") T.C.=309.53' Inv. In (16")=300.63' Inv. Out (16")=300.63'
Inlet (Type "M") T.C.=309.72' Inv. In (16")=300.82' Inv. Out (16")=300.82'
Inlet (Type "C") T.C.=309.72' Inv. Elev.= inaccessible
Inlet (Type "M") T.C.=309.53' Inv. In (16")=301.83' Inv. In (12")=301.87' Inv. In (16")=298.54' Inv. Out (12")=298.54'
Inlet (Type "M") T.C.=309.72' Inv. In (16")=300.82' Inv. Out (16")=300.82

DRAWING: C:\Users\jmoedter\DC\ACCDocs\ELA Group\AZ202-015 McCaskey Stadium Renovations\Project Files\CAD Data\Land Development\LD-PRELIMEASEMENT.dwg - PLOTTED: Apr 02, 2025 2:17 pm



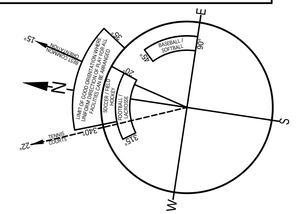
EASEMENT PLAN LEGEND

- PROPERTY LINE
- EASEMENT LINE
- CENTERLINE
- RIGHT OF WAY LINE
- BUILDING SETBACK LINE
- FENCE LINE
- CONCRETE CURB
- PROPOSED STORMWATER BASIN
- TREE LINE

STORMWATER EASEMENT

ACCESS EASEMENT

LIMIT OF DISTURBANCE/ PROJECT SITE BOUNDARY = 6.82 AC., 288,367 S.F.



SCALE IN FEET: 1" = 50'

0 25 50 100 150

REVISIONS PER:		DATE:	BY:
1.	COL/LCCD COMMENTS	3/28/25	EWB
2.	-	-	-
3.	-	-	-
4.	-	-	-
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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ELIZABETH WERNER BALDWIN
ENGINEER
PE080726

PENNSYLVANIA
DAVID D. RADCLIFF
REGISTRATION NUMBER RA-14
REGISTERED LANDSCAPE ARCHITECT

STORMWATER MANAGEMENT PLAN

SUBJECT:

EASEMENT PLAN

MCCASKEY HIGH SCHOOL

MCCASKEY HIGH SCHOOL STADIUM RENOVATIONS

CITY OF LANCASTER - LANCASTER COUNTY - PENNSYLVANIA

CLIENT:

MM ARCHITECTS

214 NORTH DUKE STREET

LANCASTER, PA 17602

(717) 393-3211

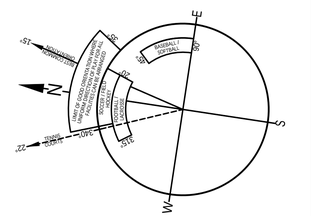
MANAGER:	HDC	DATE:	February 6, 2025
DESIGNER:	EWB	PROJECT NO.	AZ202-015
DRAWN BY:	JMT	SCALE:	########

DRAWING NO.

10 OF 53

SITE LAYOUT LEGEND

- PROPERTY LINE
- EASEMENT LINE
- CENTERLINE
- RIGHT OF WAY LINE
- BUILDING SETBACK LINE
- FENCE LINE
- CONCRETE CURB
- CLEAR SIGHT TRIANGLE
- PROPOSED STORMWATER BASIN
- TREE LINE
- CONCRETE PAVING
- BITUMINOUS PAVING
- PROPOSED SANITARY SEWER MANHOLE
- CONCRETE MONUMENT
- PROPOSED STORM WATER INLET
- IRON PIN
- PROPOSED YARD DRAIN
- SIGNAGE
- PROPOSED STORM WATER MANHOLE
- PROPOSED FIRE HYDRANT
- HEADWALL/ENDWALL
- HANDICAP ACCESSIBLE PARKING
- NEW SITE LIGHT-SINGLE FIXTURE
- NEW SITE LIGHT-DOUBLE FIXTURE



SCALE IN FEET: 1" = 30'

0 15 30 60 90

REVISIONS PER:	DATE:	BY:
1. COL/LCCD COMMENTS	3/28/25	EWB
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3. -	-	-
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COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — ELIZABETH WERNER BALDWIN — ENGINEER — PE080724

PENNSYLVANIA — REGISTERED LANDSCAPE ARCHITECT

STORMWATER MANAGEMENT PLAN

SUBJECT:

LAYOUT PLAN

MCCASKEY HIGH SCHOOL

MCCASKEY HIGH SCHOOL STADIUM RENOVATIONS

CITY OF LANCASTER - LANCASTER COUNTY - PENNSYLVANIA

CLIENT:

MM ARCHITECTS

214 NORTH DUKE STREET

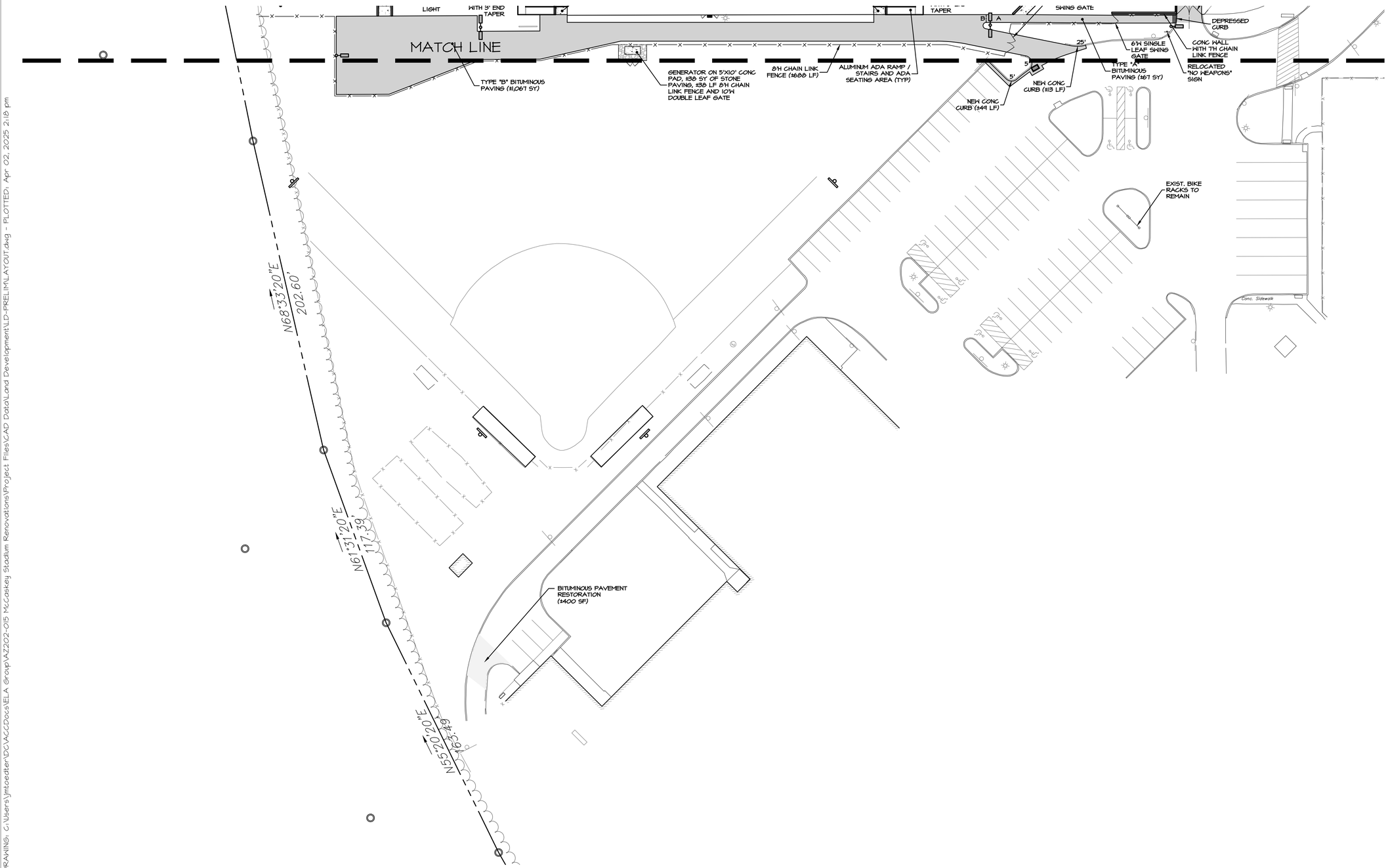
LANCASTER, PA 17602

(717) 393-3211

MANAGER:	HDC	DATE:	March 28, 2025
DESIGNER:	EWB	PROJECT NO.	AZ202-015
DRAWN BY:	JMT	SCALE:	1" = 30'

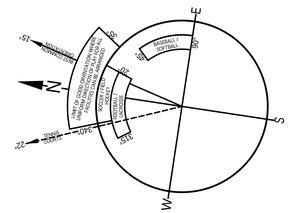
DRAWING NO.

11 OF 53



SITE LAYOUT LEGEND

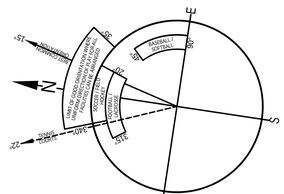
- PROPERTY LINE
- EASEMENT LINE
- CENTERLINE
- RIGHT OF WAY LINE
- BUILDING SETBACK LINE
- FENCE LINE
- CONCRETE CURB
- CLEAR SIGHT TRIANGLE
- PROPOSED STORMWATER BASIN
- TREE LINE
- CONCRETE PAVING
- BITUMINOUS PAVING
- PROPOSED SANITARY SEWER MANHOLE
- CONCRETE MONUMENT
- PROPOSED STORM WATER INLET
- IRON PIN
- PROPOSED YARD DRAIN
- SIGNAGE
- PROPOSED STORM WATER MANHOLE
- PROPOSED FIRE HYDRANT
- HEADWALL/ENDWALL
- HANDICAP ACCESSIBLE PARKING
- NEW SITE LIGHT-SINGLE FIXTURE
- NEW SITE LIGHT-DOUBLE FIXTURE


N
E
S
W
BASEBALL / SOFTBALL
SOCCER / FIELD HOCKEY
SOCCER / LACROSSE
SOCCER / LACROSSE
SOCCER / LACROSSE

DRAWING: G:\Users\jmteadter\DCVACCDocs\ELA Group\AZ202-015 McCaskey Stadium Renovations\Project Files\CAD Data\Land Development\LD-PRELIM\GRADING.dwg - PLOTTED: Apr 02, 2025 2:18 pm

GRADING LEGEND

- PROPOSED CONTOUR
- EXISTING CONTOUR
- EXISTING STORM DRAINAGE PIPING (Headwall, Manhole, Inlet, Endwall, R/P Rip Rap)
- PROPOSED STORM DRAINAGE PIPING (HEADWALL, MANHOLE, INLET, ENDWALL, R/P RAP)
- PROPOSED PERIMETER DRAIN
- PROPOSED FULLY PERFORATED DRAINAGE PIPING
- EXISTING OVERHEAD ELECTRIC (Utility Pole OH, Electric Meter EM)
- EXISTING UNDERGROUND ELECTRIC (Utility Pole UE, Electric Transformer ET)
- EXISTING UNDERGROUND TELEPHONE (Utility Pole UT, Manhole T, Telephone Box GR)
- EXISTING GAS LINE (Gas Valve G, Gas Meter GM)
- EXISTING SANITARY SEWER LINE (Clean Out C.O., S, Manhole S)
- EXISTING SANITARY FORCE MAIN (FM, Manhole S, WV Water Valve, WM Water Meter W, Fire Hydrant FH)
- EXISTING WATER LINE
- EXISTING SPOT GRADE (× 354.05)
- PROPOSED SPOT GRADE (+ 352.50)
- SLOPE GRADIENT AND DIRECTION (5%)
- LOD — LIMIT OF DISTURBANCE
- SCM-1 INFILTRATION & DETENTION
- SCM-1 DETENTION


N
S
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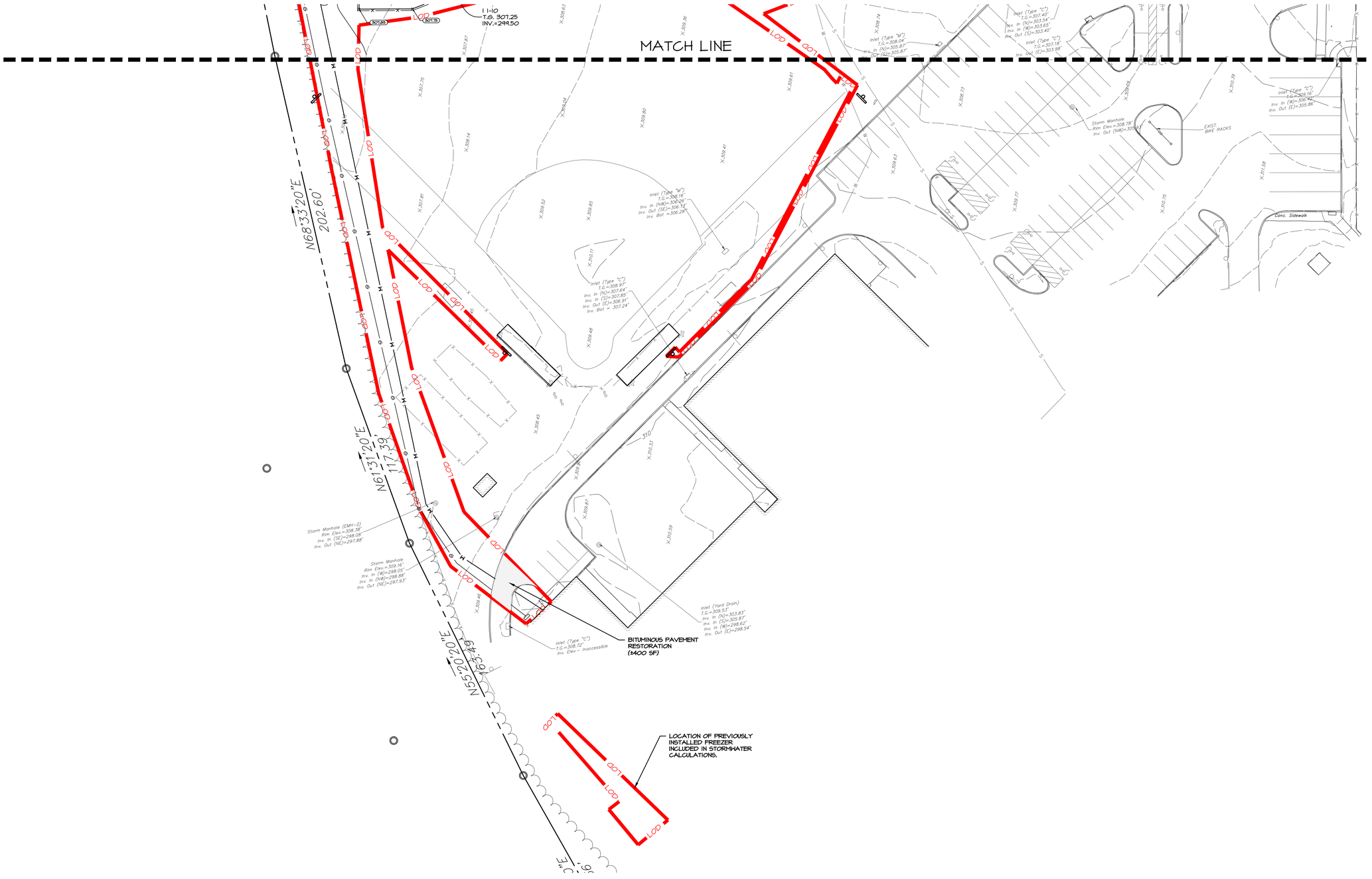
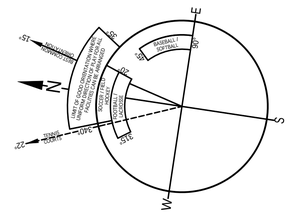
BASEBALL
SOFTBALL
SOCCER
FIELD
SOCCER
FIELD
SOCCER
FIELD



GRADING LEGEND

- PROPOSED CONTOUR (355)
- EXISTING CONTOUR (355)
- EXISTING STORM DRAINAGE PIPING (Headwall, Manhole, Inlet, Endwall, Rip Rap)
- PROPOSED STORM DRAINAGE PIPING (HEADWALL, MANHOLE, INLET, ENDWALL, RIP RAP)
- PROPOSED PERIMETER DRAIN
- PROPOSED FULLY PERFORATED DRAINAGE PIPING
- EXISTING OVERHEAD ELECTRIC (OH)
- EXISTING UNDERGROUND ELECTRIC (UE)
- EXISTING UNDERGROUND TELEPHONE (UT)
- EXISTING GAS LINE (G)
- EXISTING SANITARY SEWER LINE (S)
- EXISTING SANITARY FORCE MAIN (FM)
- EXISTING WATER LINE (W)
- X 354.05 EXISTING SPOT GRADE
- + 352.50 PROPOSED SPOT GRADE
- 5% SLOPE GRADIENT AND DIRECTION
- LOD LIMIT OF DISTURBANCE
- SCM-1 INFILTRATION & DETENTION
- SCM-1 DETENTION



SCALE IN FEET: 1" = 30'

0 15 30 60 90

REVISIONS PER:	DATE:	BY:
1. COL/LCCD COMMENTS	3/28/25	EWB
2. -	-	-
3. -	-	-
4. -	-	-
5. -	-	-

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COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL ELIZABETH WERNER BALMAN ENGINEER PE080724

PENNSYLVANIA JOSEPH D. CARPENTER REGISTERED LANDSCAPE ARCHITECT

STORMWATER MANAGEMENT PLAN

SUBJECT:

GRADING PLAN

MCCASKEY HIGH SCHOOL

MCCASKEY HIGH SCHOOL STADIUM RENOVATIONS

CITY OF LANCASTER - LANCASTER COUNTY - PENNSYLVANIA

CLIENT:

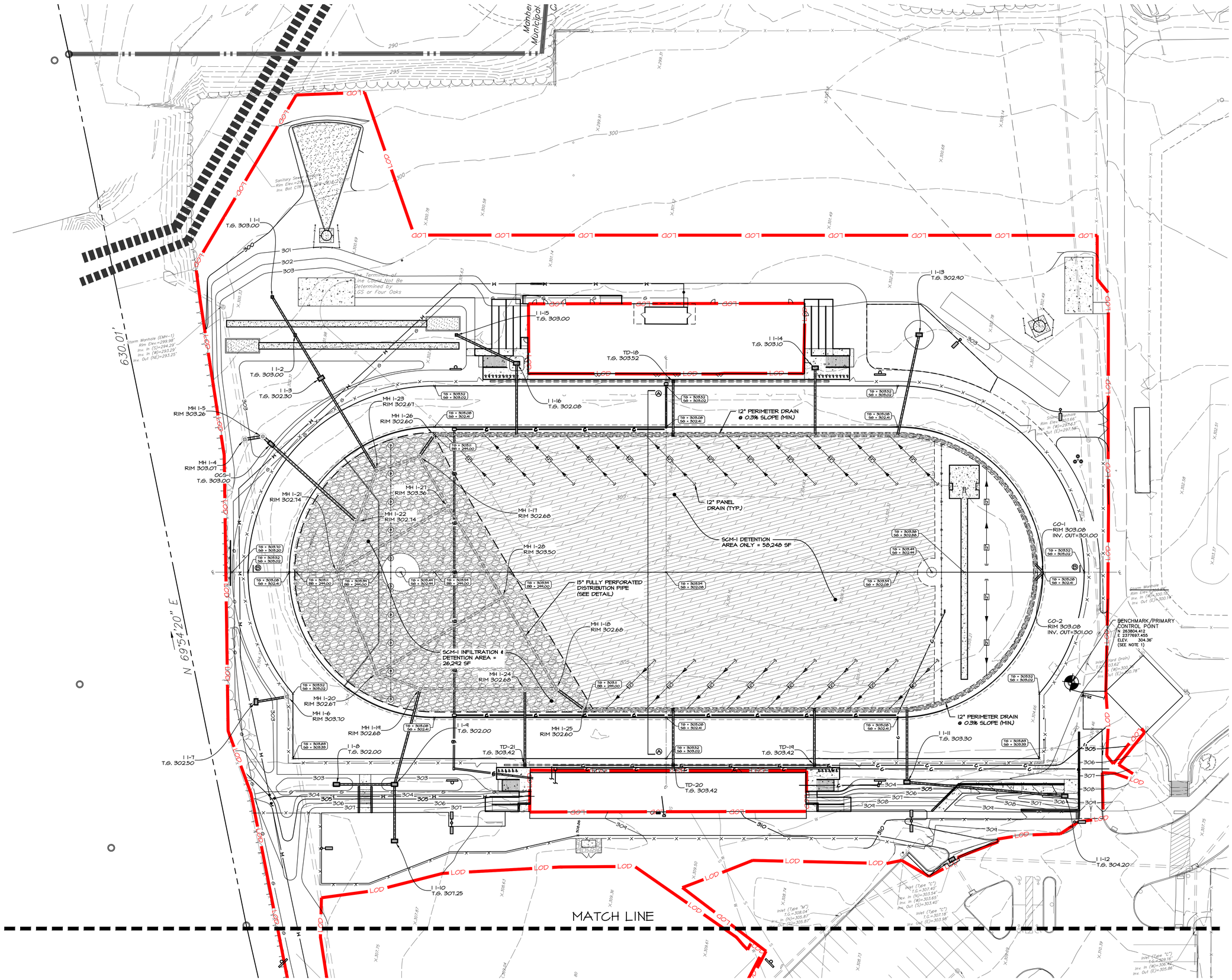
MM ARCHITECTS
214 NORTH DUKE STREET
LANCASTER, PA 17602
(717) 393-3211

MANAGER:	HDC	DATE:	April 2, 2025
DESIGNER:	EWB	PROJECT NO.	AZ202-015
DRAWN BY:	JMT	SCALE:	1" = 30'

DRAWING NO.

14 OF 53

DRAWING: C:\Users\jmtoedter\DC\ACCDocs\ELA Group\AZ202-015 McCaskey Stadium Renovations\Project Files\CAD Data\Land Development\LD-PRELIM\GRADING.dwg - PLOTTED: Apr 02, 2025 2:18 pm



REVISIONS PER:	DATE:	BY:
1. COL/LCCD COMMENTS	3/28/25	EWB
2. -	-	-
3. -	-	-
4. -	-	-
5. -	-	-

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ATHLETIC FACILITIES DESIGN & CONSULTING
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COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — ELIZABETH WERNER BALDWIN — ENGINEER — PE080726

PENNSYLVANIA REGISTERED LANDSCAPE PROJECT — NUMBER RP-1

STORMWATER MANAGEMENT PLAN

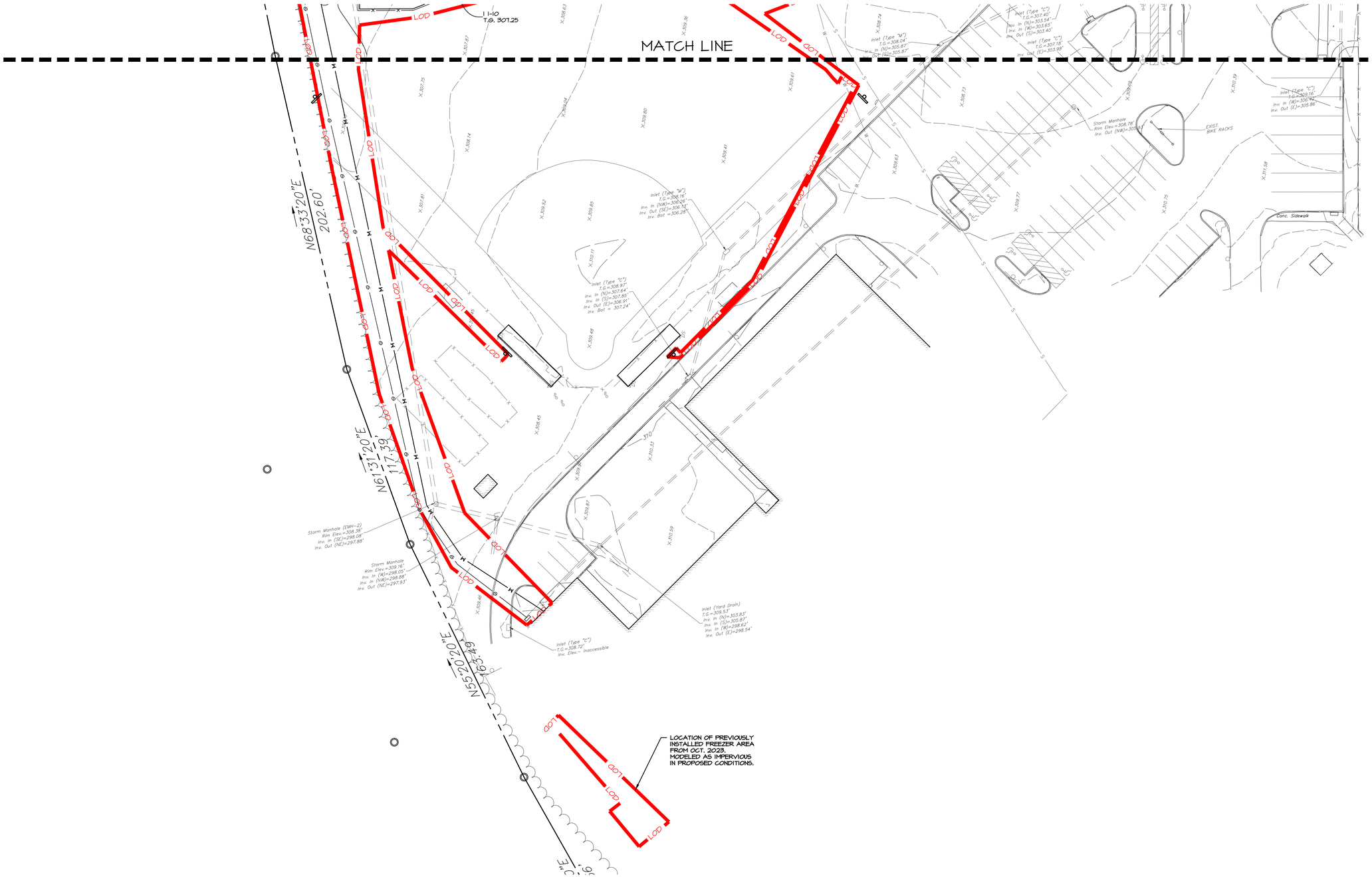
SUBJECT:
SUBGRADE PLAN
MCCASKEY HIGH SCHOOL
MCCASKEY HIGH SCHOOL STADIUM RENOVATIONS
CITY OF LANCASTER - LANCASTER COUNTY - PENNSYLVANIA

CLIENT:
MM ARCHITECTS
214 NORTH DUKE STREET
LANCASTER, PA 17602
(717) 393-3211

MANAGER:	HDC	DATE:	April 2, 2025
DESIGNER:	EWB	PROJECT NO.	AZ202-015
DRAWN BY:	JMT	SCALE:	1" = 30'

DRAWING NO.
15 OF 53

DRAWING: G:\Users\mtoedter\DCVACADDocs\ELA Group\AZ202-015 McCaskey Stadium Renovations\Project Files\CAD Data\Land Development\LD-PRELIM\SUBGRADE.dwg - PLOTTED: Apr 02, 2025 2:18 pm



GRADING LEGEND

- PROPOSED CONTOUR
- EXISTING CONTOUR
- EXISTING STORM DRAINAGE PIPING
- PROPOSED STORM DRAINAGE PIPING
- PROPOSED PERIMETER DRAIN
- PROPOSED FULLY PERFORATED DRAINAGE PIPING
- PROPOSED PANEL DRAIN
- EXISTING OVERHEAD ELECTRIC
- EXISTING UNDERGROUND ELECTRIC
- EXISTING UNDERGROUND TELEPHONE
- EXISTING GAS LINE
- EXISTING SANITARY SEWER LINE
- EXISTING SANITARY FORCE MAIN
- EXISTING WATER LINE
- EXISTING SPOT GRADE
- PROPOSED SPOT GRADE
- SLOPE GRADIENT AND DIRECTION
- LIMIT OF DISTURBANCE
- SCM-1 INFILTRATION & DETENTION
- SCM-1 DETENTION

SCALE IN FEET: 1" = 30'

0 15 30 60 90

REVISIONS PER:	DATE:	BY:
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3. -	-	-
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5. -	-	-

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ELIZABETH WERNER BALDWIN
ENGINEER
#E080726

PENNSYLVANIA
REGISTERED LANDSCAPE ARCHITECT
REGISTRATION NUMBER RA-015

STORMWATER MANAGEMENT PLAN

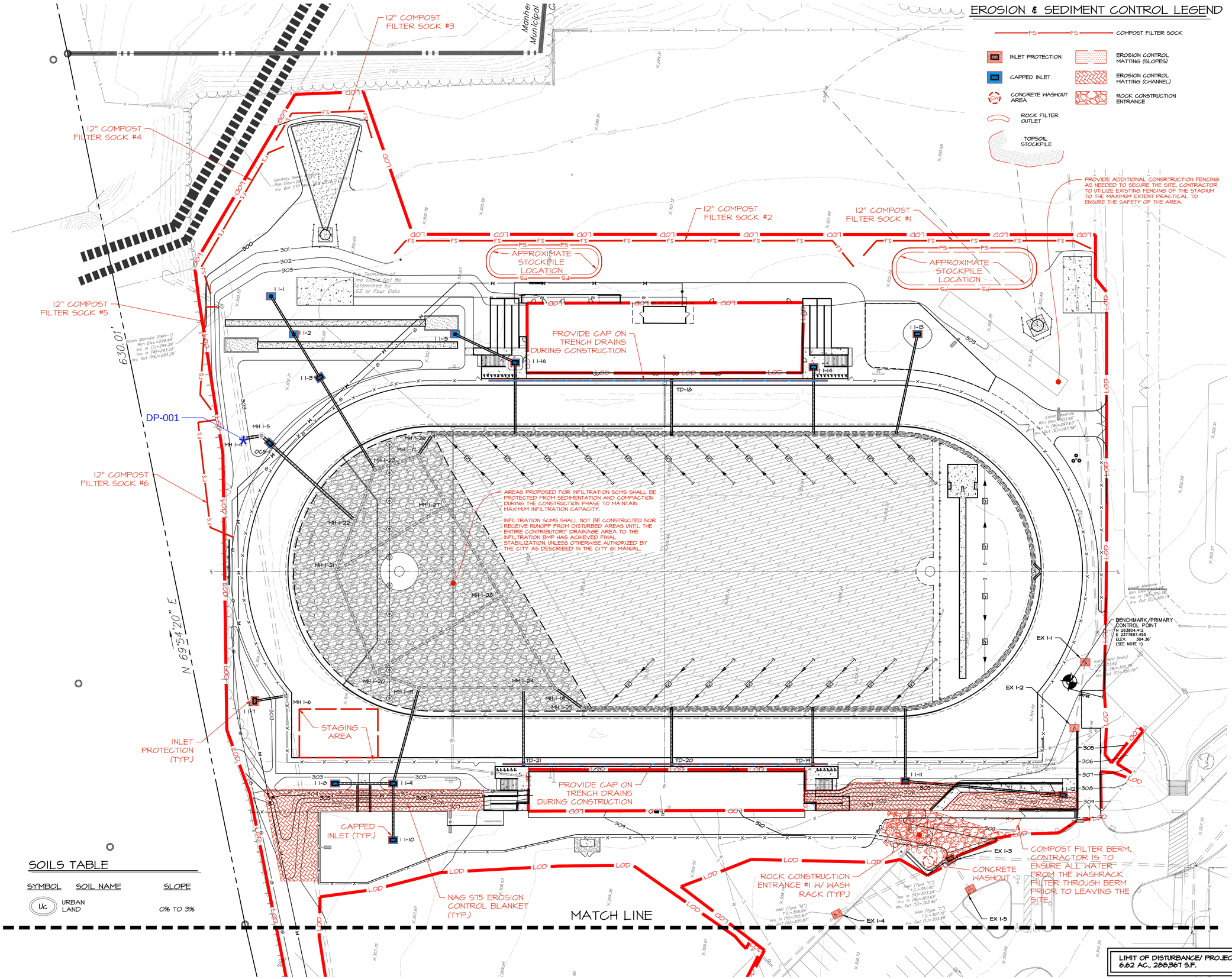
SUBJECT:
SUBGRADE PLAN
MCCASKEY HIGH SCHOOL
MCCASKEY HIGH SCHOOL STADIUM RENOVATIONS
CITY OF LANCASTER - LANCASTER COUNTY - PENNSYLVANIA

CLIENT:
MM ARCHITECTS
214 NORTH DUKE STREET
LANCASTER, PA 17602
(717) 393-3211

MANAGER:	HDC	DATE:	April 2, 2025
DESIGNER:	EWB	PROJECT NO.	AZ202-015
DRAWN BY:	JMT	SCALE:	1" = 30'

DRAWING NO.
16 OF 53

DRAWING: C:\Users\jmtoedter\DC\ACCDocs\ELA Group\AZ202-015 McCaskey Stadium Renovations\Project Files\CAD Data\Land Development\LD-PRELIMSUBGRADE.dwg - PLOTTED: Apr 02, 2025 2:18 pm

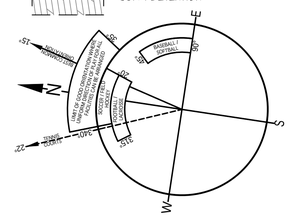


EROSION & SEDIMENT CONTROL LEGEND

- COMPOST FILTER SOCK
- INLET PROTECTION
- CAPPED INLET
- CONCRETE WASHOUT AREA
- ROCK FILTER OUTLET
- TOPSOIL STOCKPILE
- EROSION CONTROL MATTING (SLOPES)
- EROSION CONTROL MATTING (CHANNEL)
- ROCK CONSTRUCTION ENTRANCE

GRADING LEGEND

- PROPOSED CONTOUR
- EXISTING CONTOUR
- EXISTING STORM DRAINAGE PIPING
- PROPOSED STORM DRAINAGE PIPING
- PROPOSED PERIMETER DRAIN
- PROPOSED FULLY PERFORATED DRAINAGE PIPING
- PROPOSED PANEL DRAIN
- EXISTING OVERHEAD ELECTRIC
- EXISTING UNDERGROUND ELECTRIC
- EXISTING UNDERGROUND TELEPHONE
- EXISTING GAS LINE
- EXISTING SANITARY SEWER LINE
- EXISTING SANITARY FORCE MAIN
- EXISTING WATER LINE
- EXISTING SPOT GRADE
- PROPOSED SPOT GRADE
- SLOPE GRADIENT AND DIRECTION
- LIMIT OF DISTURBANCE
- SCM-1 INFILTRATION & DETENTION
- SCM-1 DETENTION

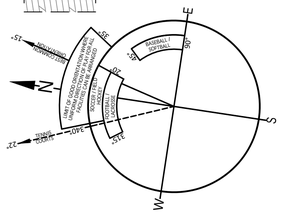

N
S
E
W
BASEBALL
SOFTBALL
SOCCER
FIELD
SOCCER
FIELD
SOCCER
FIELD

EROSION & SEDIMENT CONTROL LEGEND

- FS — FS — COMPOST FILTER SOCK
- INLET PROTECTION
- CAPPED INLET
- CONCRETE WASHOUT AREA
- ROCK FILTER OUTLET
- TOPSOIL STOCKPILE
- EROSION CONTROL MATTING (SLOPES)
- EROSION CONTROL MATTING (CHANNEL)
- ROCK CONSTRUCTION ENTRANCE

GRADING LEGEND

- 355 — PROPOSED CONTOUR
- 355 — EXISTING CONTOUR
- Headwall, Manhole, Inlet, Endwall, R/P Rip Rap — EXISTING STORM DRAINAGE PIPING
- HEADWALL, MANHOLE, INLET, ENDWALL, R/P RIP RAP — PROPOSED STORM DRAINAGE PIPING
- PROPOSED PERIMETER DRAIN
- PROPOSED FULLY PERFORATED DRAINAGE PIPING
- PROPOSED PANEL DRAIN
- Utility Pole, OH, Electric Meter, EM — EXISTING OVERHEAD ELECTRIC
- Utility Pole, UE, Electric Transformer, ET — EXISTING UNDERGROUND ELECTRIC
- Utility Pole, UT, Manhole, T, Telephone Box, TP — EXISTING UNDERGROUND TELEPHONE
- BV, Gas Valve, G, GM, Gas Meter — EXISTING GAS LINE
- C.O., Clean Out, S, Manhole — EXISTING SANITARY SEWER LINE
- FM, Manhole — EXISTING SANITARY FORCE MAIN
- WM, Water Meter, W, Water Valve, BV, Fire Hydrant — EXISTING WATER LINE
- X 354.05 — EXISTING SPOT GRADE
- + 352.50 — PROPOSED SPOT GRADE
- 5% — SLOPE GRADIENT AND DIRECTION
- LOD — LIMIT OF DISTURBANCE
- SCM-1 INFILTRATION & DETENTION
- SCM-1 DETENTION



SCALE IN FEET: 1" = 30'

0 15 30 60 90

MATCH LINE

NAG S75 EROSION CONTROL BLANKET (TYP.)

ROCK CONSTRUCTION ENTRANCE #1 W/ WASH RACK (TYP.)

FILTER THROUGH BERM PRIOR TO LEAVING THE SITE

EX 1-4

EX 1-5

N68°33'20"E 202.60'

N61°31'20"E 117.39'

N55°20'00"E 163.48'

Storm Manhole (EMH-2) Rim Elev.=308.58' Inv. In (SE)=298.08' Inv. Out (NE)=297.88'

Storm Manhole Rim Elev.=309.16' Inv. In (W)=298.05' Inv. In (NW)=298.88' Inv. Out (NE)=297.93'

Storm Manhole Rim Elev.=308.78' Inv. Out (NW)=305.63'

Inlet (Type "M") T.G.=308.04' Inv. In (N)=305.84' Inv. Out (S)=305.64'

Inlet (Type "M") T.G.=308.16' Inv. In (NW)=306.06' Inv. Out (SE)=306.14' Inv. Bot =306.28'

Inlet (Type "C") T.G.=308.97' Inv. In (N)=307.64' Inv. In (S)=307.85' Inv. Out (E)=306.91' Inv. Bot = 307.24'

Inlet (Type "C") T.G.=308.72' Inv. Elev.= inaccessible

Inlet (Yard Drain) T.G.=309.53' Inv. In (N)=303.83' Inv. In (S)=305.87' Inv. In (W)=298.62' Inv. Out (E)=298.54'

Inlet (Type "C") T.G.=307.40' Inv. In (N)=303.54' Inv. In (W)=303.65' Inv. Out (S)=303.40'

Inlet (Type "C") T.G.=307.18' Inv. Out (E)=303.98'

Inlet (Type "C") T.G.=309.16' Inv. In (W)=306.42' Inv. Out (E)=305.86'

EXIST. BIKE RACKS

Conc. Sidewalk

TRENCH RESTORATION. CONTRACTOR SHALL ONLY INSTALL LENGTH OF TRENCH THAT CAN BE BACKFILLED WITHIN THE DAY. CONTRACTOR TO PROVIDE ANY NECESSARY EROSION AND CONTROL MEASURES IF AREAS MILL NOT BE STABILIZED IMMEDIATELY.

PREVIOUSLY INSTALLED FREEZER AREA FROM OCT 2023. MODELED AS IMPERVIOUS IN PROPOSED CONDITIONS. NO DISTURBANCE OCCURS HERE, AND SHALL BE PROTECTED DURING CONSTRUCTION FROM SEDIMENT LADEN RUNOFF. AREA IS SHOWN FOR CALCULATION PURPOSES ONLY AS PART OF AN AGREEMENT WITH THE CITY OF LANCASTER.

LIMIT OF DISTURBANCE/ PROJECT SITE BOUNDARY = 6.62 AC., 288,367 S.F.

REVISIONS PER:		DATE:	BY:
1.	COL/LCCD COMMENTS	3/28/25	EWB
2.	-	-	-
3.	-	-	-
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5.	-	-	-

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COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — ELIZABETH WERNER BALDWIN — ENGINEER — PE090729

COMMONWEALTH OF PENNSYLVANIA — ELIZABETH D. CARLSON — REGISTERED LANDSCAPE ARCHITECT

STORMWATER MANAGEMENT PLAN

SUBJECT:
ESC PLAN
MCCASKEY HIGH SCHOOL
MCCASKEY HIGH SCHOOL STADIUM RENOVATIONS
CITY OF LANCASTER - LANCASTER COUNTY - PENNSYLVANIA

CLIENT:
MM ARCHITECTS
214 NORTH DUKE STREET
LANCASTER, PA 17602
(717) 393-3211

MANAGER:	HDC	DATE:	February 6, 2025
DESIGNER:	EWB	PROJECT NO.	AZ202-015
DRAWN BY:	JMT	SCALE:	1" = 30'

DRAWING NO.
18 OF 53

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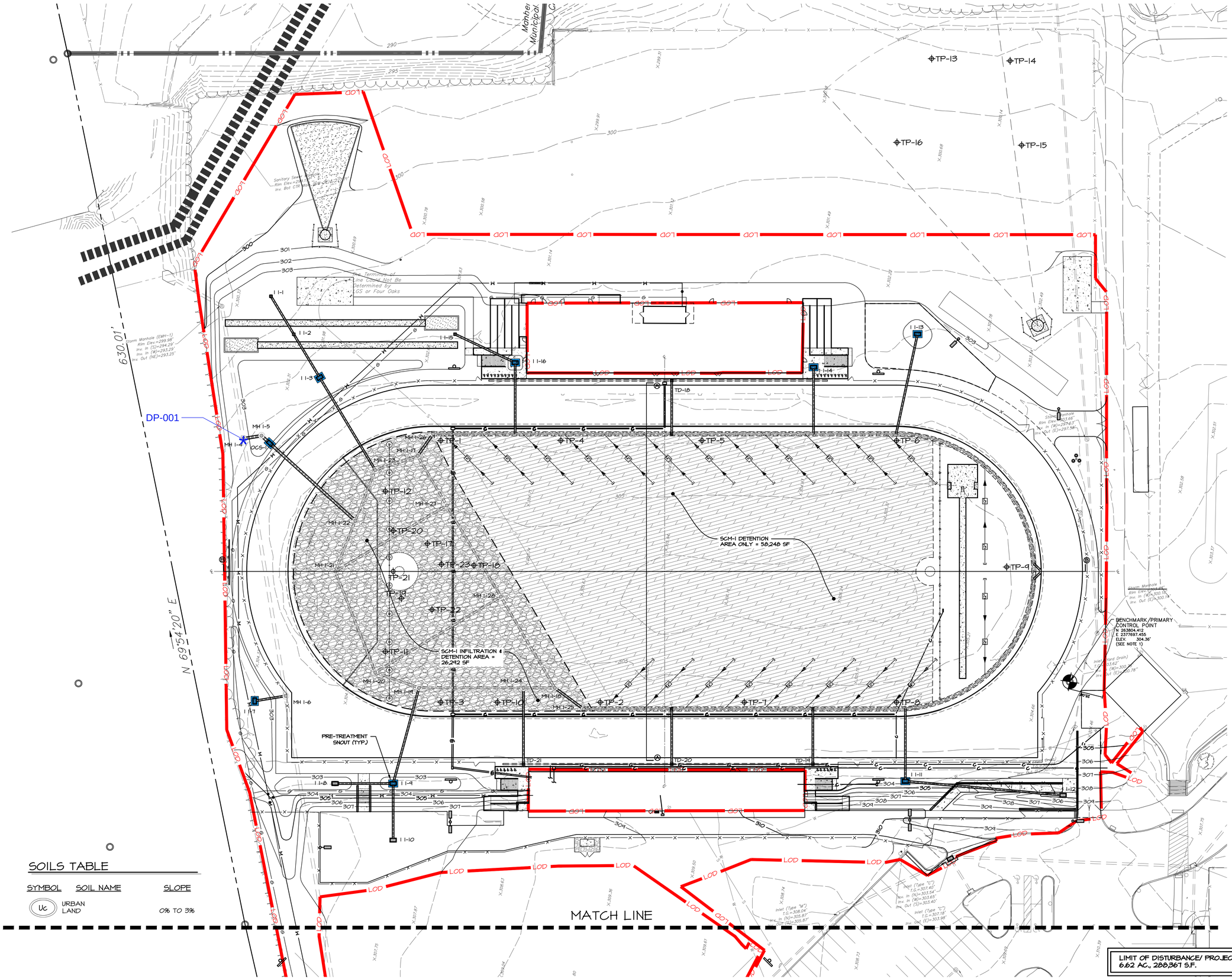

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5. -	-	-

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COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL ELIZABETH WERNER BALDWIN ENGINEER PE080726

PENNSYLVANIA REGISTERED LANDSCAPE ARCHITECT

STORMWATER MANAGEMENT PLAN

SUBJECT:
PCSM PLAN
MCCASKEY HIGH SCHOOL
MCCASKEY HIGH SCHOOL STADIUM RENOVATIONS
CITY OF LANCASTER - LANCASTER COUNTY - PENNSYLVANIA

CLIENT:
MM ARCHITECTS
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LANCASTER, PA 17602
(717) 393-3211

MANAGER:	HDC	DATE:	February 6, 2025
DESIGNER:	EWB	PROJECT NO.	AZ202-015
DRAWN BY:	JMT	SCALE:	1" = 30'

DRAWING NO.
19 OF 53

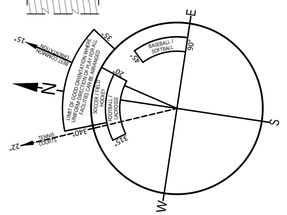
DRAWING: C:\Users\jmloedler\DCVAC\Docs\ELA Group\AZ202-015 McCaskey Stadium Renovations\Project Files\CAD Data\Land Development\LD-PRELIM\PCSM.dwg - PLOTTED: Apr 02, 2025 2:19 pm

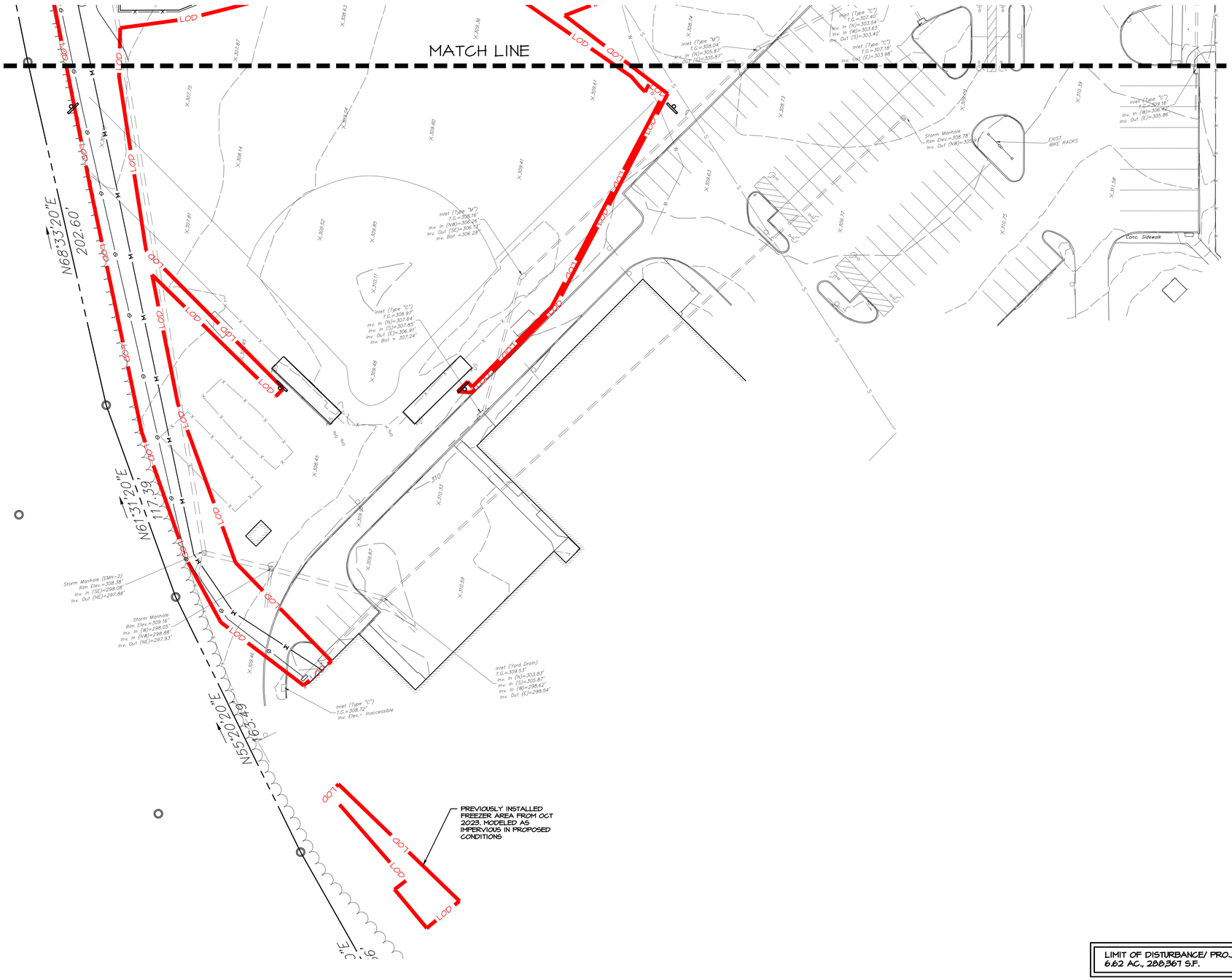
SOILS TABLE

SYMBOL	SOIL NAME	SLOPE
Uc	URBAN LAND	0% TO 3%

GRADING LEGEND

- 355 — PROPOSED CONTOUR
- 355 — EXISTING CONTOUR
- Headwall, Manhole, Inlet, Endwall, R-P Rip Rap — EXISTING STORM DRAINAGE PIPING
- HEADWALL, MANHOLE, INLET, ENDWALL, R-P RIP RAP — PROPOSED STORM DRAINAGE PIPING
- PROPOSED PERIMETER DRAIN
- PROPOSED FULLY PERFORATED DRAINAGE PIPING
- PROPOSED PANEL DRAIN
- Utility Pole, OH, Electric Meter, EM — EXISTING OVERHEAD ELECTRIC
- Utility Pole, UE, Electric Transformer, ET — EXISTING UNDERGROUND ELECTRIC
- Utility Pole, UT, Manhole, Telephone Box, TP — EXISTING UNDERGROUND TELEPHONE
- Gas Valve, GV, G, Gas Meter, GM — EXISTING GAS LINE
- Clean Out, C.O., S, Manhole, S — EXISTING SANITARY SEWER LINE
- FM, Manhole, S — EXISTING SANITARY FORCE MAIN
- Water Meter, WM, W, Water Valve, WV, Fire Hydrant, FH — EXISTING WATER LINE
- × 354.05 — EXISTING SPOT GRADE
- + 352.50 — PROPOSED SPOT GRADE
- 5% — SLOPE GRADIENT AND DIRECTION
- LOD — LIMIT OF DISTURBANCE
- PRE-TREATMENT SNOUT
- TP-1 TEST PIT
- SCM-1 INFILTRATION & DETENTION
- SCM-1 DETENTION





LIMIT OF DISTURBANCE/ PROJECT SITE BOUNDARY = 6.62 AC., 288,367 S.F.

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COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL ENGINEER — ELIZABETH WERNER BALDWIN — PE080726

PENNSYLVANIA — REGISTERED LANDSCAPE ARCHITECT

STORMWATER MANAGEMENT PLAN

SUBJECT:
PCSM PLAN
MCCASKEY HIGH SCHOOL
MCCASKEY HIGH SCHOOL STADIUM RENOVATIONS
CITY OF LANCASTER - LANCASTER COUNTY - PENNSYLVANIA

CLIENT:
MM ARCHITECTS
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MANAGER:	HDC	DATE:	February 6, 2025
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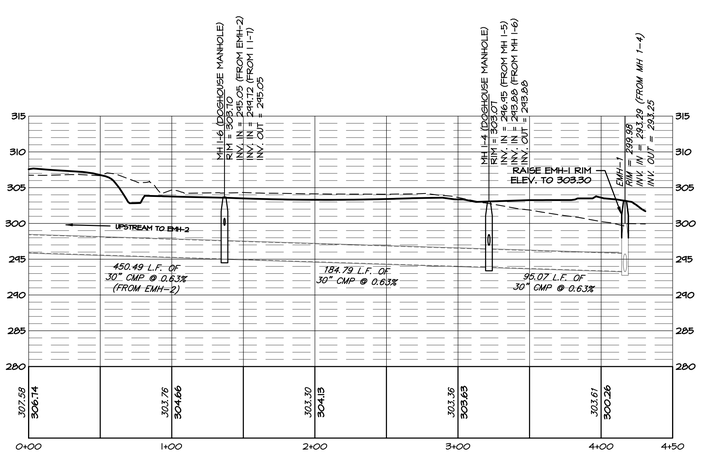
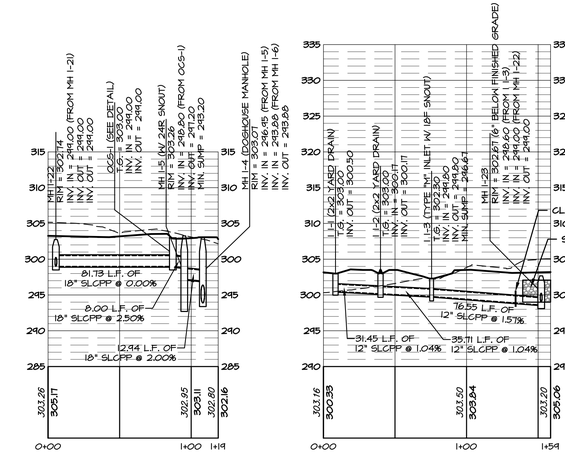
DRAWN BY:	JMT	SCALE:	1" = 30'

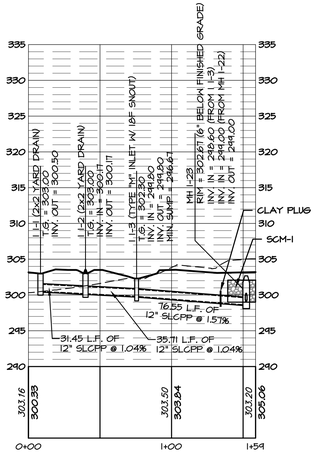
DRAWING NO.
20 OF 53



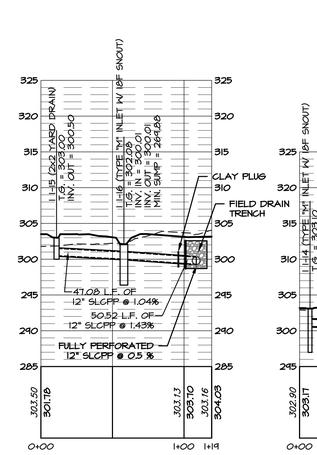
EMH-2 TO EMH-1
HORZ. SCALE: 1"=50'
VERT. SCALE: 1"= 10'



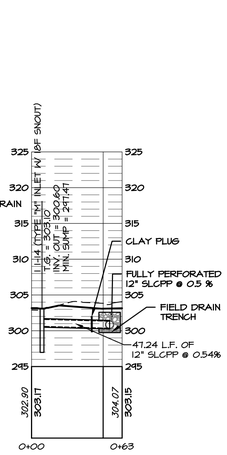
MH 1-22 TO MH 1-4
HORZ. SCALE: 1"=50'
VERT. SCALE: 1"= 10'



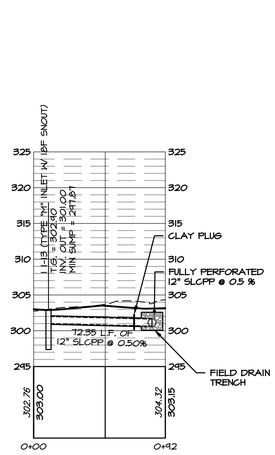
I 1-1 TO MH 1-23
HORZ. SCALE: 1"=50'
VERT. SCALE: 1"= 10'



I 1-15 TO PERIMETER DRAIN
HORZ. SCALE: 1"=50'
VERT. SCALE: 1"= 10'



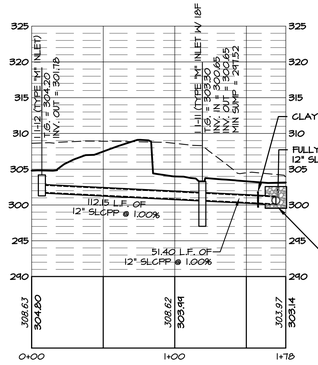
I 1-14 TO PERIMETER DRAIN
HORZ. SCALE: 1"=50'
VERT. SCALE: 1"= 10'



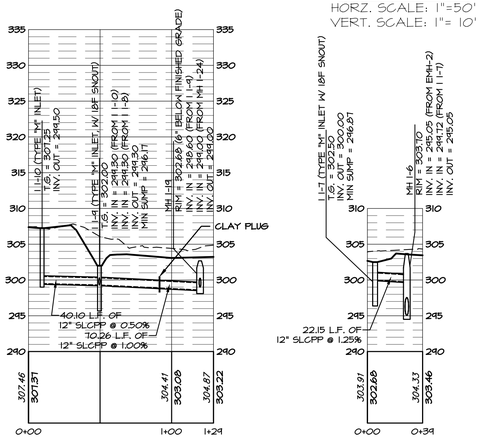
I 1-13 TO PERIMETER DRAIN
HORZ. SCALE: 1"=50'
VERT. SCALE: 1"= 10'

NOTES:

1. CLAY PLUGS SHALL BE PROVIDED ON ALL PIPES ENTERING AND LEAVING THE SCM.

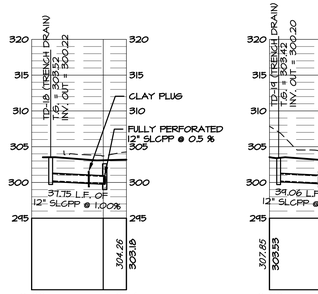


I 1-12 TO PERIMETER DRAIN
HORZ. SCALE: 1"=50'
VERT. SCALE: 1"= 10'

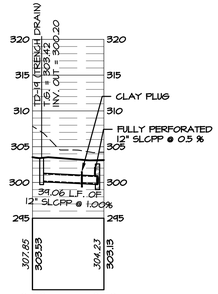


I 1-10 TO PERIMETER DRAIN
HORZ. SCALE: 1"=50'
VERT. SCALE: 1"= 10'

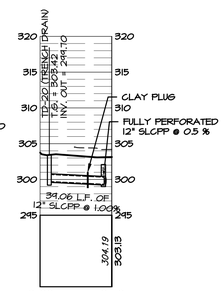
I 1-7 TO MH 1-6
HORZ. SCALE: 1"=50'
VERT. SCALE: 1"= 10'



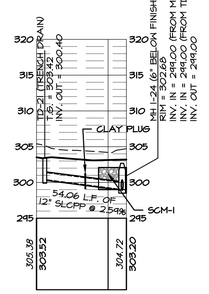
TD 18 TO PERIMETER DRAIN
HORZ. SCALE: 1"=50'
VERT. SCALE: 1"= 10'



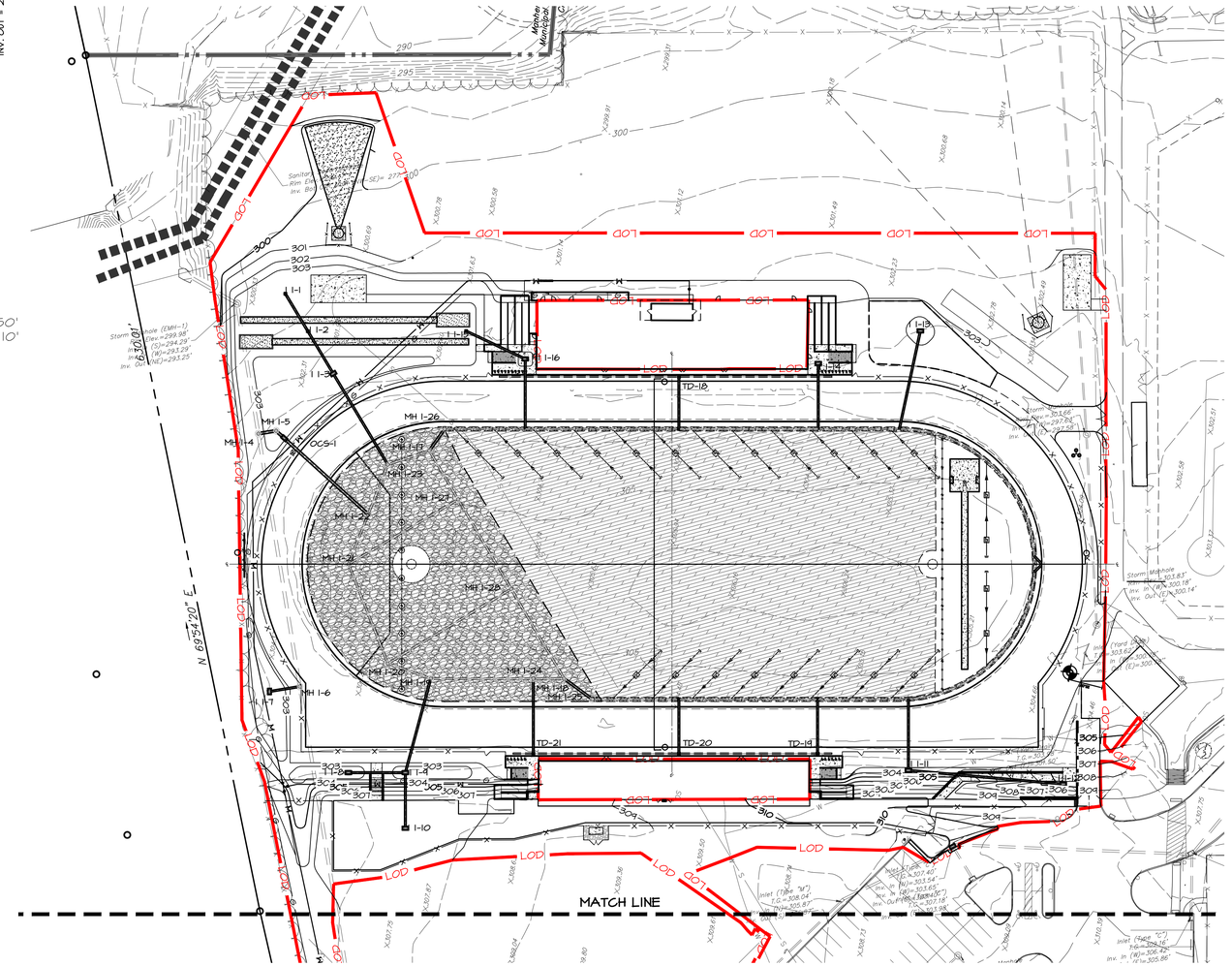
TD 19 TO PERIMETER DRAIN
HORZ. SCALE: 1"=50'
VERT. SCALE: 1"= 10'

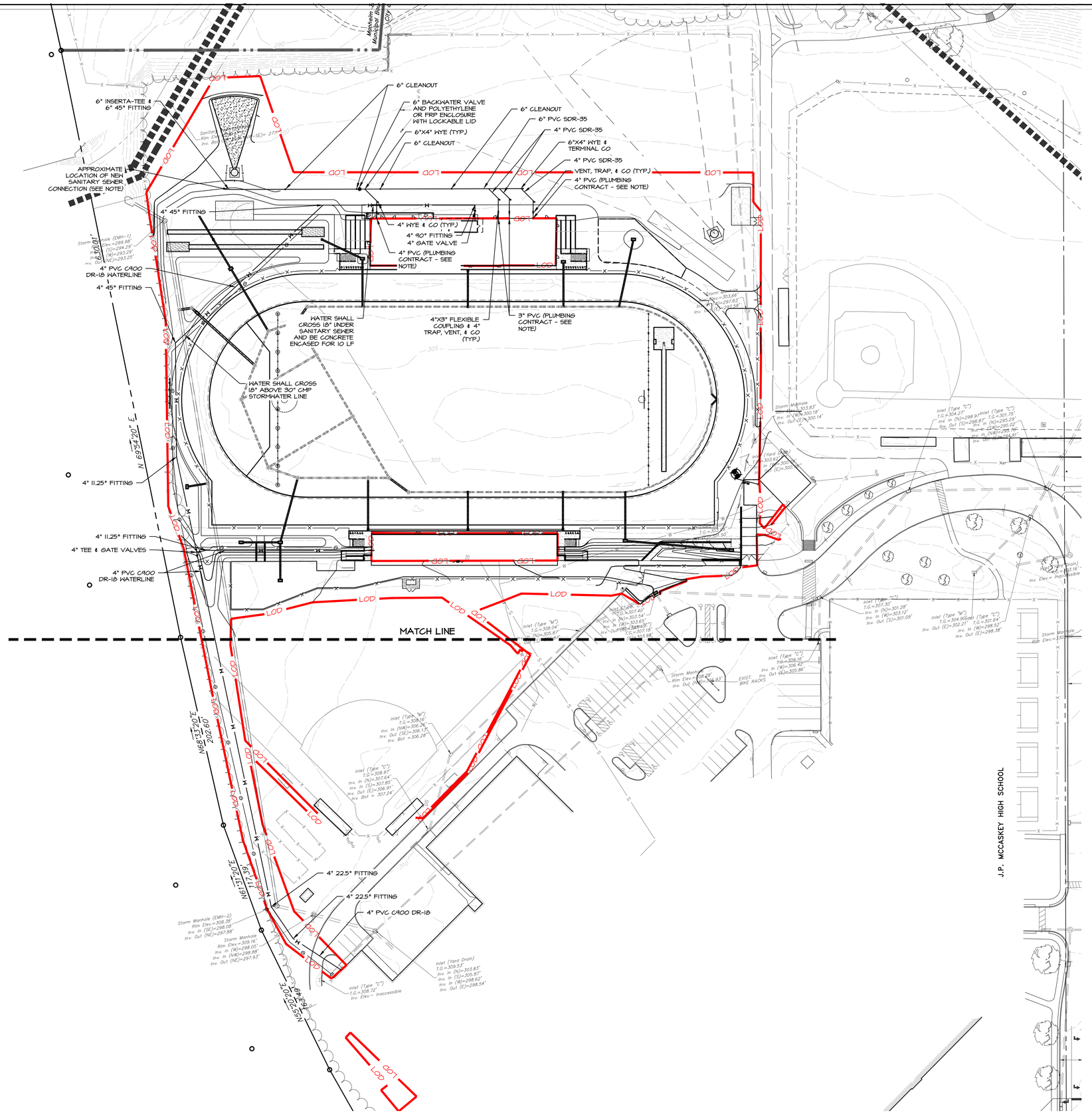


TD 20 TO PERIMETER DRAIN
HORZ. SCALE: 1"=50'
VERT. SCALE: 1"= 10'



TD 21 MH 1-24
HORZ. SCALE: 1"=50'
VERT. SCALE: 1"= 10'


LOD
MATCH LINE
N 63°54'20" E
277.00'
Storm Manhole (EMH-1) Rim Elev.=299.98' Inv. In (S)=294.28' (W)=293.29' (NE)=293.25'
Storm Manhole Rim Elev.=303.66' Inv. In (W)=297.86' Inv. Out (E)=297.76'
Storm Manhole Rim Elev.=303.87' Inv. In (W)=300.18' Inv. Out (E)=300.14'
Inlet (Type 'M') T.G.=308.04' Inv. In (E)=305.87'
Inlet (Type 'C') T.G.=306.76' Inv. In (E)=305.86'
Inlet (Type 'M') T.G.=307.40' Inv. In (N)=303.54' Inv. In (W)=303.45' Inv. In (SW)=303.45' Inv. Out (E)=303.18'
Inlet (Type 'M') T.G.=307.08' Inv. In (W)=303.18' Inv. Out (E)=303.08'
Sanitary Manhole Rim Elev.=308.69' Inv. In (E)=277.00'
Storm Manhole Rim Elev.=308.69' Inv. In (E)=300.00'
Storm Manhole Rim Elev.=308.36' Inv. In (E)=300.00'
Storm Manhole Rim Elev.=308.78' Inv. In (E)=300.00'
Storm Manhole Rim Elev.=308.50' Inv. In (E)=300.00'
Storm Manhole Rim Elev.=308.67' Inv. In (E)=300.00'
Storm Manhole Rim Elev.=308.75' Inv. In (E)=300.00'
Storm Manhole Rim Elev.=308.24' Inv. In (E)=300.00'
Storm Manhole Rim Elev.=308.73' Inv. In (E)=300.00'
Storm Manhole Rim Elev.=309.59' Inv. In (E)=300.00'
Storm Manhole Rim Elev.=309.24

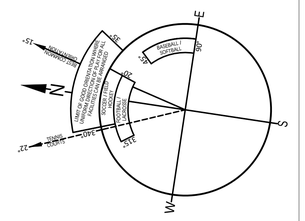


NOTES:

1. NO EQUIPMENT STORAGE, MATERIAL STOCKPILING, OR VIBRATORY ROLLING/COMPACTION WITHIN THE CITY'S SEWER EASEMENT(S).
2. LIMIT OF THE PLUMBING CONTRACT IS WITHIN 5' OF THE BUILDING ENVELOPES. CONTRACTOR RESPONSIBLE FOR SITE WORK SHALL BE RESPONSIBLE FOR WATER AND SANITARY SEWER DEPICTED ON THE PLAN STARTING AT 5' BEYOND THE BUILDING ENVELOPES.
3. CONTRACTOR SHALL FIELD VERIFY DEPTH OF EXISTING SANITARY SEWER MAIN AT PROPOSED POINT OF CONNECTION AND SHALL FIELD ADJUST THE SLOPE OF THE SANITARY SEWER FROM THE MAIN TO THE CLEANOUT ADJACENT TO THE BACKWATER VALVE ACCORDINGLY.

UTILITY LEGEND

- EXISTING STORM DRAINAGE PIPING (Headwall, Manhole, Inlet, Endwall, Rip Rap)
- PROPOSED STORM DRAINAGE PIPING (HEADWALL, MANHOLE, INLET, ENDWALL, RIP RAP)
- EXISTING OVERHEAD ELECTRIC (Utility Pole, OH, Electric Meter)
- PROPOSED OVERHEAD ELECTRIC (UTILITY POLE, OHE, TRANSFORMER)
- EXISTING UNDERGROUND ELECTRIC (Utility Pole, UE, Electric Transformer)
- PROPOSED UNDERGROUND ELECTRIC (UTILITY POLE, UE, TRANSFORMER)
- EXISTING UNDERGROUND TELEPHONE (Utility Pole, UT, Manhole, Telephone Box)
- EXISTING GAS LINE (Gas Valve, G, Gas Meter)
- PROPOSED GAS LINE (GAS VALVE, G, GAS METER)
- EXISTING SANITARY SEWER LINE (Clean Out, CO, S, Manhole)
- PROPOSED SANITARY SEWER LINE (MANHOLE, SAN, CLEANOUT, CO)
- EXISTING SANITARY FORCE MAIN (FM, Manhole)
- PROPOSED SANITARY FORCE MAIN (MANHOLE, FM)
- EXISTING WATER LINE (WV, Water Meter, W, Water Valve, Fire Hydrant)
- PROPOSED WATER LINE (WATER VALVE, W, FIRE HYDRANT)
- LIMIT OF DISTURBANCE (LOD)



SCALE IN FEET: 1" = 50'

0 25 50 100 150

REVISIONS PER:	DATE:	BY:
1. COL/LCCD COMMENTS	3/28/25	EWB
2. -	-	-
3. -	-	-
4. -	-	-
5. -	-	-

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COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — ELIZABETH WERNER BALDWIN — ENGINEER — PE080729 — PENNSYLVANIA

COMMONWEALTH OF PENNSYLVANIA — HUGH D. CARTER — REGISTRATION NUMBER RA-414 — REGISTERED LANDSCAPE ARCHITECT

STORMWATER MANAGEMENT PLAN

SUBJECT:

UTILITY PLAN

MCCASKEY HIGH SCHOOL

MCCASKEY HIGH SCHOOL STADIUM RENOVATIONS

CITY OF LANCASTER - LANCASTER COUNTY - PENNSYLVANIA

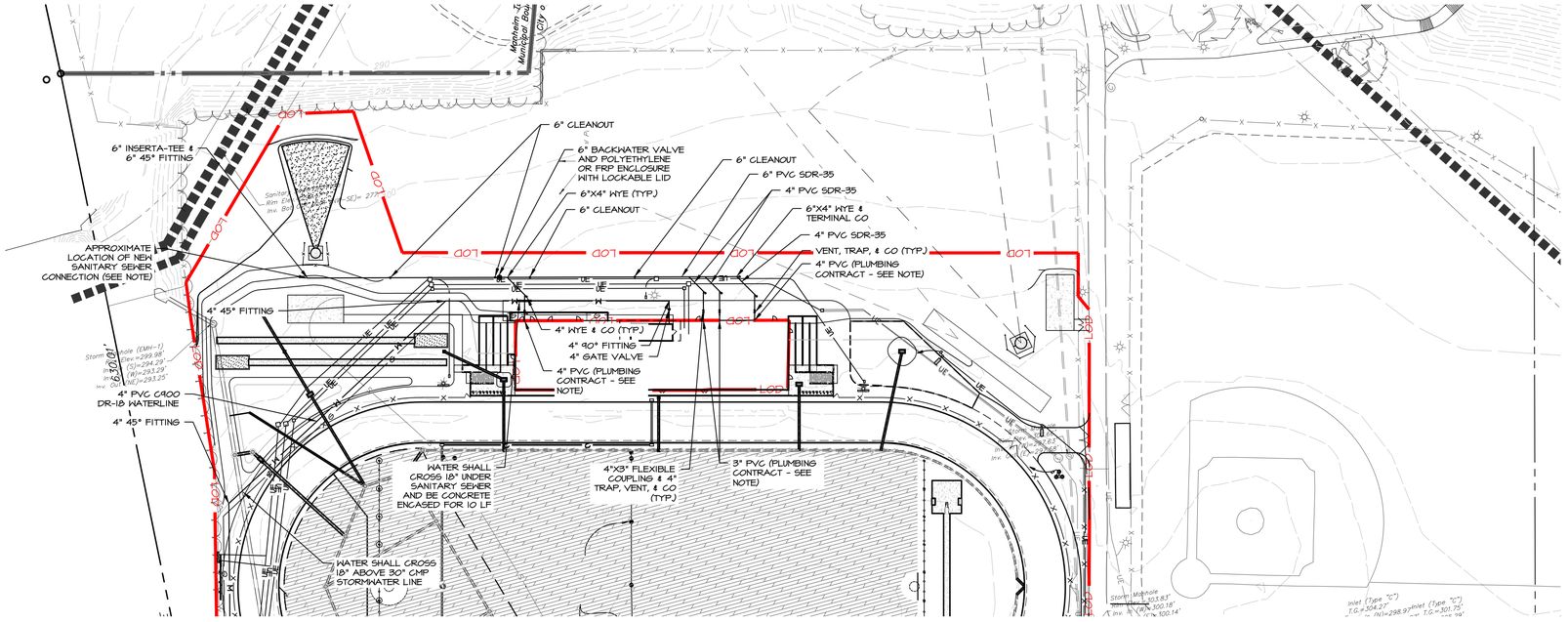
CLIENT:

MM ARCHITECTS
214 NORTH DUKE STREET
LANCASTER, PA 17602
(717) 393-3211

MANAGER:	HDC	DATE:	February 6, 2025
DESIGNER:	EWB	PROJECT NO.	AZ202-015
DRAWN BY:	JMT	SCALE:	1" = 50'

DRAWING NO.

22 OF 53



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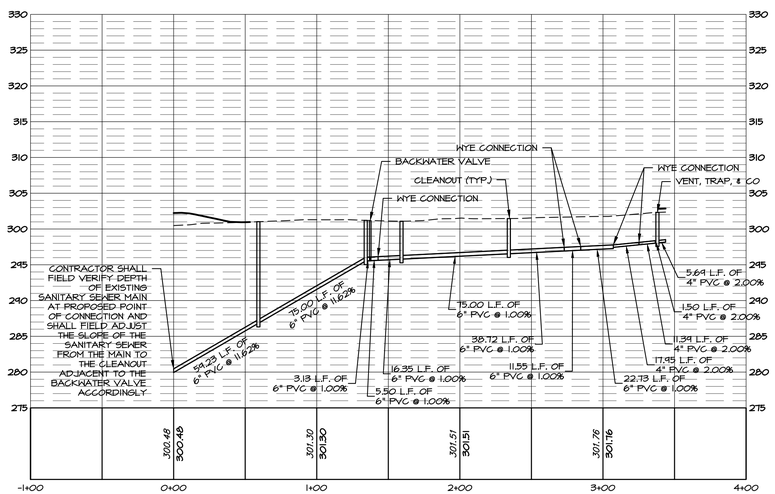
- PROPOSED SANITARY SEWER LINE (MANHOLE, CLEANOUT)
- EXISTING SANITARY FORCE MAIN (Manhole)
- PROPOSED SANITARY FORCE MAIN (MANHOLE, Manhole)
- EXISTING WATER LINE (Water Meter, Water Valve, Fire Hydrant)
- PROPOSED WATER LINE (WATER VALVE, FIRE HYDRANT)
- LIMIT OF DISTURBANCE

NORTH

SCALE IN FEET: 1" = 50'

0 25 50 100 150



SANITARY SEWER
HORZ. SCALE: 1"=50'
VERT. SCALE: 1"= 10'

REVISIONS PER:		DATE:	BY:
1.	COL/LCCD COMMENTS	3/28/25	EWB
2.	-	-	-
3.	-	-	-
4.	-	-	-
5.	-	-	-

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COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — ELIZABETH WERNER BALDWIN — ENGINEER — PE080726

PENNSYLVANIA — WASHINGTON D.C. — REGISTERED LANDSCAPE ARCHITECT — REGISTRATION NUMBER RA-015

STORMWATER MANAGEMENT PLAN

SUBJECT:

UTILITY PLAN & PROFILE

MCCASKEY HIGH SCHOOL

MCCASKEY HIGH SCHOOL STADIUM RENOVATIONS

CITY OF LANCASTER - LANCASTER COUNTY - PENNSYLVANIA

CLIENT:

MM ARCHITECTS

214 NORTH DUKE STREET

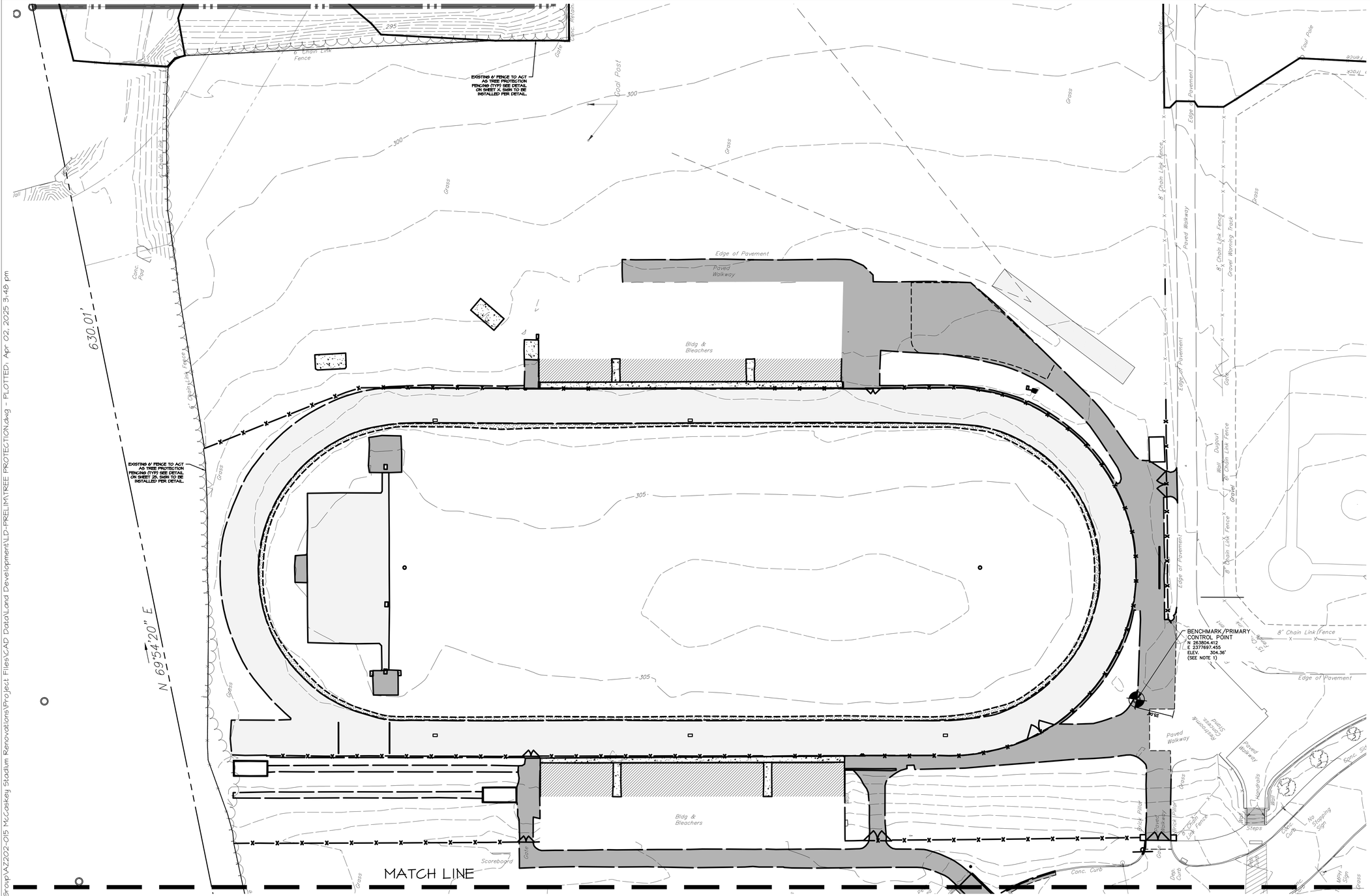
LANCASTER, PA 17602

(717) 393-3211

MANAGER:	HDC	DATE:	February 6, 2025
DESIGNER:	EWB	PROJECT NO.	AZ202-015
DRAWN BY:	JMT	SCALE:	1" = 50'

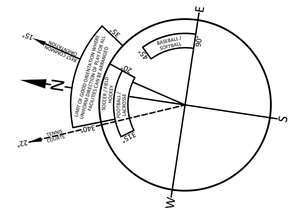
DRAWING NO.

23 OF 53



SITE LAYOUT LEGEND

- PROPERTY LINE
- EASEMENT LINE
- CENTERLINE
- RIGHT OF WAY LINE
- BUILDING SETBACK LINE
- FENCE LINE
- CONCRETE CURB
- CLEAR SIGHT TRIANGLE
- PROPOSED STORMWATER BASIN
- TREE LINE
- CONCRETE PAVING
- BITUMINOUS PAVING
- PROPOSED SANITARY SEWER MANHOLE
- CONCRETE MONUMENT
- PROPOSED STORM WATER INLET
- IRON PIN
- PROPOSED YARD DRAIN
- SIGNAGE
- PROPOSED STORM WATER MANHOLE
- PROPOSED FIRE HYDRANT
- HEADWALL/ENDWALL
- HANDICAP ACCESSIBLE PARKING
- NEW SITE LIGHT-SINGLE FIXTURE
- NEW SITE LIGHT-DOUBLE FIXTURE



SCALE IN FEET: 1" = 30'

0 15 30 60 90

REVISIONS PER:	DATE:	BY:
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COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — ELIZABETH WERNER BALDWIN — ENGINEER — 062080234

COMMONWEALTH OF PENNSYLVANIA — REGISTERED LANDSCAPE ARCHITECT

TREE PROTECTION NOTES

TREE PROTECTION NOTES:

(SEE TREE PROTECTION SHEET FOR DETAIL)

1. CONTRACTOR SHALL INSTALL ALL TREE PROTECTION FENCING AS INDICATED ON THE DRAWINGS AND DETAILS PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITIES ON THE PROJECT SITE.
2. EQUIPMENT SHALL NOT BE PERMITTED TO TRAVEL WITHIN A TREE PROTECTION ZONE, NOR ANY CONSTRUCTION MATERIALS/EQUIPMENT STORED WITHIN THE PROTECTION ZONE.
3. CUT AND FILL, GRADE CHANGE OR SOIL COMPACTION WITHIN A PROTECTION ZONE SHALL BE AVOIDED.
4. ALL UNDERGROUND UTILITIES SHALL BE ROUTED AROUND AND AWAY FROM ALL TREE PROTECTION ZONES. IF APPROVED BY THE PUBLIC WORKS DEPARTMENT, THE CITY ARBORIST OR THE URBAN FORESTER, TUNNELING, BORING OR OTHER METHOD OF PROJECT MODIFICATION UNDER OR AROUND THE TREE SHALL BE USED WHEN NEEDED TO PROTECT THE CONDITION AND SURVIVABILITY OF THE TREE.
5. NO TREE ROOTS OVER 2 INCHES IN DIAMETER SHALL BE PRUNED WITHOUT A SIGNED PERMIT FROM THE CITY. IF DURING EXCAVATION, ROOTS OVER 2 INCHES ARE ENCOUNTERED, CONTACT THE CITY ARBORIST / URBAN FORESTER IMMEDIATELY AT 717-823-7172. UNDER THEIR DIRECTION, ROOTS MAY BE CLEANLY CUT WITH A SHARP PRUNING TOOL. PROTECT EXPOSED ROOTS FROM DESICCATION BY THE USE OF GEOTEXTILE OR STRAW, AND BACKFILLING SHALL BE COMPLETED AS SOON AS POSSIBLE. WATER IMMEDIATELY AFTER BACKFILLING.
6. IF THE ANY TREE IMPACTED BY CONSTRUCTION OCCURS WHEN IN FULL LEAF, CONTACT THE URBAN FORESTER FOR DIRECTION ON THE AMOUNT OF IRRIGATION REQUIRED TO MAINTAIN THE CONDITION OF THE TREE.
7. ANY DAMAGE SUSTAINED BY TREES DURING CONSTRUCTION, SUCH AS BROKEN LIMBS, SEVERED ROOTS, OR SCARRED BARK SHALL BE REPORTED IMMEDIATELY TO THE URBAN FORESTER AND TREATED ACCORDING TO THEIR RECOMMENDATION.
8. ALL MEASURES TAKEN TO FURTHER PROTECT OR TREAT SUCH DAMAGED TREE SHALL BE DONE UNDER THE SUPERVISION OF THE URBAN FORESTER.

YOUNG TREE PRUNING TO ESTABLISH TREE STRUCTURE:

1. PRUNE COMPETING BRANCHES ON NEWLY PLANTED TREES TO REDUCE CO-DOMINANT STEMS AND ESTABLISH A DOMINANT LEADER. OTHER PRUNING OF ALL NEWLY PLANTED TREES SHALL INCLUDE: 1) REMOVAL OF MALFORMED BRANCHES, B) REMOVAL OF CROSSING OR RUBBING BRANCHES, C) REMOVAL OF BRANCHES GROWING AT SHARP/UNUSUAL ANGLES, D) REMOVAL OF BADLY BROKEN BRANCHES, E) REMOVAL OF SUCKERS AND WATER SPROUTS. DO NOT REMOVE MORE THAN 25% OF A YOUNG TREE CANOPY IN ANY GIVEN YEAR WITHOUT APPROVAL OF THE CITY ARBORIST OR URBAN FORESTER.
2. TO REDUCE SUNSCALD, FORMATION OF INTERIOR TRUNK AND LIMB DECAY COLUMNS AND TREE RISK, THE ESTABLISHMENT OF PROPER TREE STRUCTURE INCLUDING THE USE OF PRUNING FOR THE ELIMINATION OF CO-DOMINANT STEMS, PROPER SPACING OF LATERAL BRANCHES, PROPER DEVELOPMENT OF ASPECT RATIO (RATIO OF THE DIAMETER OF A LATERAL BRANCH TO ITS STEM) AND LIFTING CANOPY FOR VIEWS AND TRAFFIC SHOULD BE ESTABLISHED OVER THE FIRST 25 YEARS OF A TREE'S LIFE.
3. TREE PRUNING SHALL FOLLOW THE LATEST VERSION OF THE AMERICAN NATIONAL STANDARDS INSTITUTE PRUNING STANDARDS (ANSI A300) AND/OR THE INTERNATIONAL SOCIETY OF ARBORICULTURE TREE PRUNING BEST MANAGEMENT PRACTICES.

TREE PRESERVATION NOTES

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2. ALL LAND DEVELOPMENT PLANS OR LANDSCAPE PLANS SHALL SHOW ALL EXISTING TREES, CLEARLY LABELING ALL TREES PROPOSED TO BE PROTECTED AND THOSE SLATED FOR REMOVAL. ALL SHADE TREES ABUTTING SAID PROJECTS SHALL ALSO BE SHOWN ON THE PLANS ALONG WITH THE REQUIRED TREE PROTECTION ZONE.
3. A PROTECTED TREE ON PRIVATE PROPERTY SHALL INCLUDE ANY TREE WITH A DBH OF 12 INCHES OR MORE LOCATED ON ANY LOT WITHIN 20 FEET OF A STREET RIGHT-OF-WAY (INCLUDING AN APPROVED PRIVATE STREET OR OTHER ACCESS EASEMENT) OR ANY TREE WITH A DBH OF 24 INCHES OR MORE LOCATED ELSEWHERE ON THE LOT.

NOTE:

EXISTING 6' FENCE ALONG THE TREE LINE TO ACT AS THE TREE PROTECTION FENCING. SIGN WILL BE INSTALLED PER DETAIL. L.O.D. RUNS ALONG THE EXISTING FENCE.

STORMWATER MANAGEMENT PLAN

SUBJECT:

TREE PROTECTION PLAN

MCCASKEY HIGH SCHOOL

MCCASKEY HIGH SCHOOL STADIUM RENOVATIONS

CITY OF LANCASTER - LANCASTER COUNTY - PENNSYLVANIA

CLIENT:

MM ARCHITECTS

214 NORTH DUKE STREET

LANCASTER, PA 17602

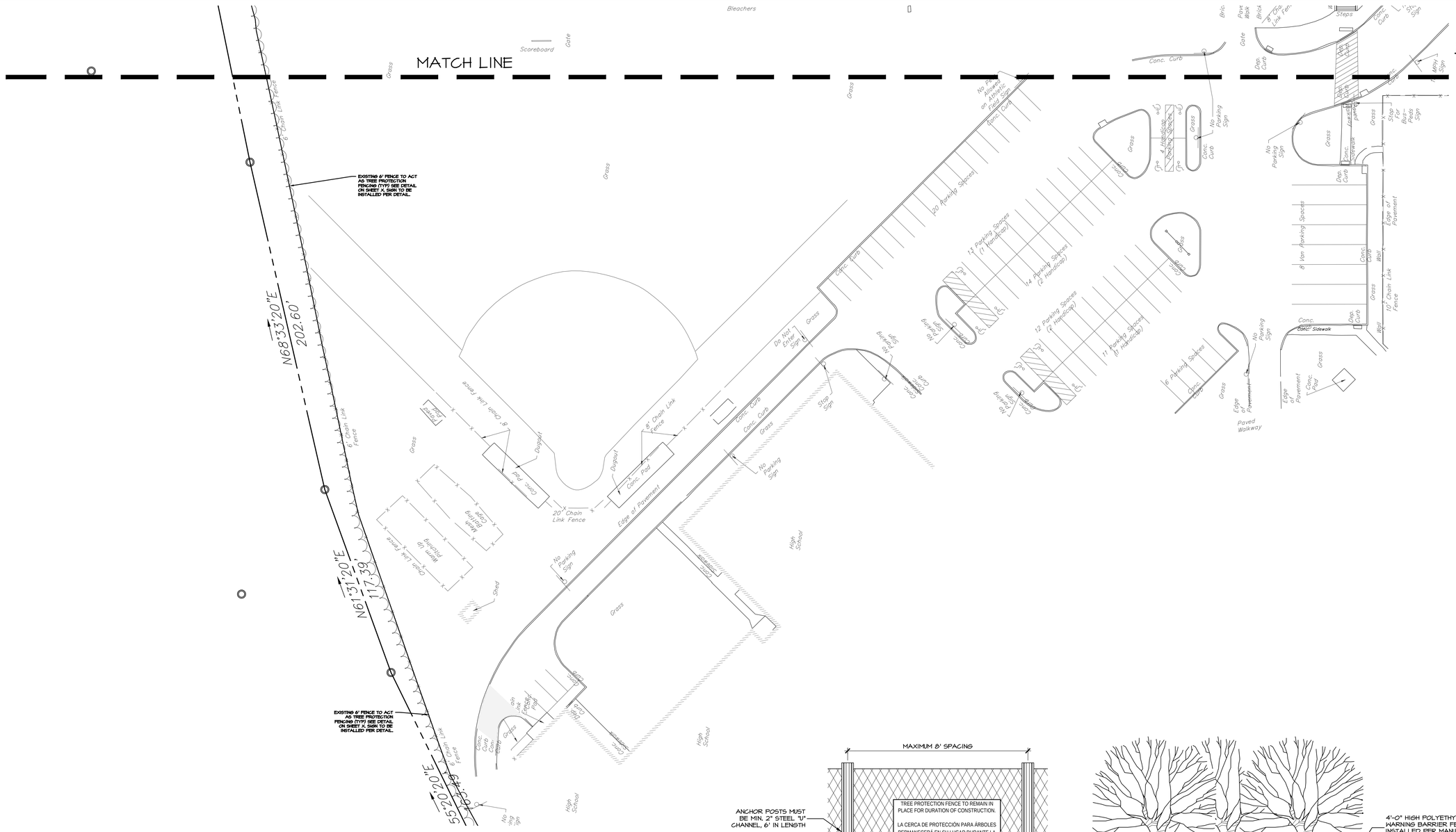
(717) 393-3211

MANAGER:	HDC	DATE:	March 28, 2025
DESIGNER:	EWB	PROJECT NO.	AZ202-015
DRAWN BY:	JMT	SCALE:	########

DRAWING NO.

24 OF 53

DRAWING: C:\Users\jmtoedter\DC\ACCDocs\ELA Group\AZ202-015 McCaskey Stadium Renovations\Project Files\CAD Data\Land Development\LD-PRELIM\TREE PROTECTION.dwg - PLOTTED: Apr 02, 2025 3:48 pm



SITE LAYOUT LEGEND

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- CENTERLINE
- RIGHT OF WAY LINE
- BUILDING SETBACK LINE
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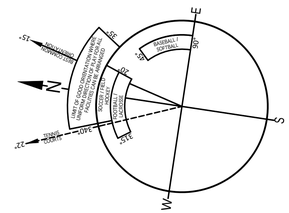

SCALE IN FEET: 1" = 30'

0 15 30 60 90

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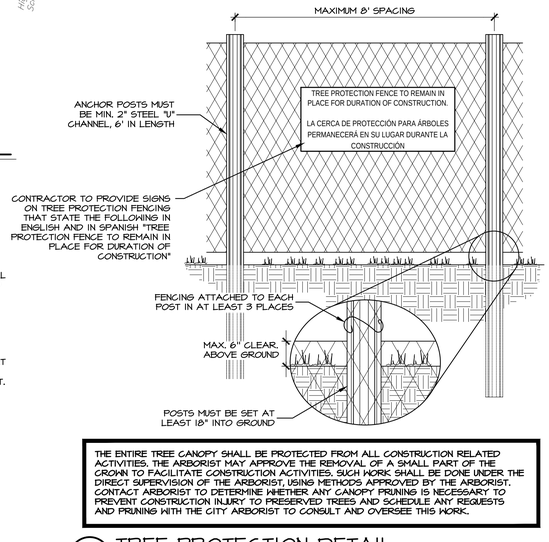
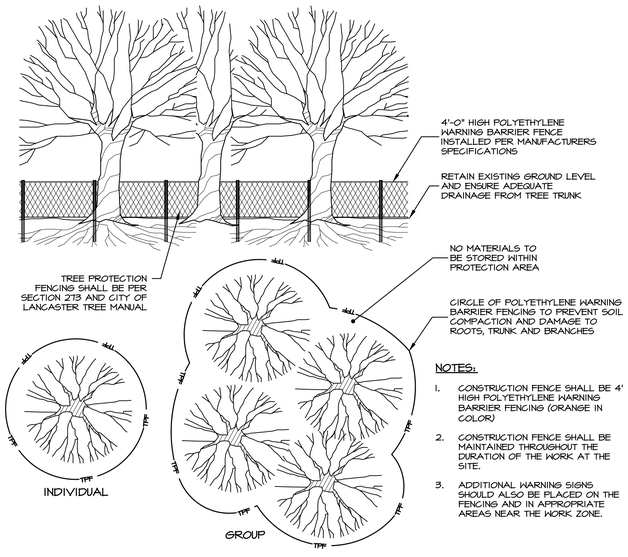
3. A PROTECTED TREE ON PRIVATE PROPERTY SHALL INCLUDE ANY TREE WITH A DBH OF 12 INCHES OR MORE LOCATED ON ANY LOT WITHIN 20 FEET OF A STREET RIGHT-OF-WAY (INCLUDING AN APPROVED PRIVATE STREET OR OTHER ACCESS EASEMENT) OR ANY TREE WITH A DBH OF 24 INCHES OR MORE LOCATED ELSEWHERE ON THE LOT.



THE ENTIRE TREE CANOPY SHALL BE PROTECTED FROM ALL CONSTRUCTION RELATED ACTIVITIES. THE ARBORIST MAY APPROVE THE REMOVAL OF A SMALL PART OF THE CROWN TO FACILITATE CONSTRUCTION ACTIVITIES. SUCH WORK SHALL BE DONE UNDER THE DIRECT SUPERVISION OF THE ARBORIST, USING METHODS APPROVED BY THE ARBORIST. CONTACT ARBORIST TO DETERMINE WHETHER ANY CANOPY PRUNING IS NECESSARY TO PREVENT CONSTRUCTION INJURY TO PRESERVED TREES AND SCHEDULE ANY REQUESTS AND PRUNING WITH THE CITY ARBORIST TO CONSULT AND OVERSEE THIS WORK.

A TREE PROTECTION DETAIL
NO SCALE



NOTES:

1. CONSTRUCTION FENCE SHALL BE 4' HIGH POLYETHYLENE WARNING BARRIER FENCING (ORANGE IN COLOR)
2. CONSTRUCTION FENCE SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THE WORK AT THE SITE.
3. ADDITIONAL WARNING SIGNS SHOULD ALSO BE PLACED ON THE FENCING AND IN APPROPRIATE AREAS NEAR THE WORK ZONE.

REVISIONS PER:		DATE:	BY:
1.	COL/LCCD COMMENTS	3/28/25	EWB
2.	-	-	-
3.	-	-	-
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COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL ENGINEER — ELIZABETH WERNER BALDWIN — PE080726

COMMONWEALTH OF PENNSYLVANIA — ELIZABETH D. BALDWIN — REGISTERED LANDSCAPE ARCHITECT

STORMWATER MANAGEMENT PLAN

SUBJECT:
TREE PROTECTION PLAN
MCCASKEY HIGH SCHOOL
MCCASKEY HIGH SCHOOL STADIUM RENOVATIONS
CITY OF LANCASTER - LANCASTER COUNTY - PENNSYLVANIA

CLIENT:
MM ARCHITECTS
214 NORTH DUKE STREET
LANCASTER, PA 17602
(717) 393-3211

MANAGER:	HDC	DATE:	March 28, 2025
DESIGNER:	EWB	PROJECT NO.	AZ202-015
DRAWN BY:	JMT	SCALE:	########

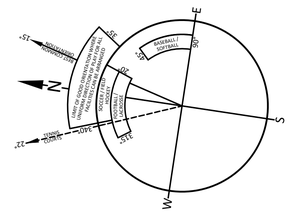
DRAWING NO.
25 OF 53

DRAWING: C:\Users\jmoedter\DC\ACCDocs\ELA Group\AZ202-015 McCaskey Stadium Renovations\Project Files\CAD Data\Land Development\LD-PRELIMTREE PROTECTION.dwg - PLOTTED: Apr 02, 2025 2:21 pm

DRAWING: G:\Users\jmloadter\DCVAC\Docs\ELA Group\AZ202-015 McCaskey Stadium Renovations\Project Files\CAD Data\Land Development\LD-PRELIM\LANDSCAPE.dwg - PLOTTED: Apr 02, 2025 3:50 pm

SITE LAYOUT LEGEND

- PROPERTY LINE
- EASEMENT LINE
- CENTERLINE
- RIGHT OF WAY LINE
- BUILDING SETBACK LINE
- FENCE LINE
- CONCRETE CURB
- CLEAR SIGHT TRIANGLE
- PROPOSED STORMWATER BASIN
- TREE LINE
- CONCRETE PAVING
- BITUMINOUS PAVING
- PROPOSED SANITARY SEWER MANHOLE
- CONCRETE MONUMENT
- PROPOSED STORM WATER INLET
- IRON PIN
- PROPOSED YARD DRAIN
- SIGNAGE
- PROPOSED STORM WATER MANHOLE
- PROPOSED FIRE HYDRANT
- HEADWALL/ENDWALL
- HANDICAP ACCESSIBLE PARKING
- NEW SITE LIGHT-SINGLE FIXTURE
- NEW SITE LIGHT-DOUBLE FIXTURE



SCALE IN FEET: 1" = 30'

0 15 30 60 90

BENCHMARK/PRIMARY CONTROL POINT
N 283804.412
E 2377697.455
ELEV. 304.36'
(SEE NOTE 1)

MATCH LINE

PLANT SCHEDULE

TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS
LM	2	Liriodendron tulipifera 'Aureo-marginatum'	Majestic Beauty® Tulip Poplar	2-1/2" to 3" Cal.	NATIVE
NW	3	Nyssa sylvatica 'Wildfire'	Wildfire Tupelo	2-1/2" to 3" Cal.	NATIVE

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5. -	-	-

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COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — ELIZABETH WERNER BALDWIN — ENGINEER — 060807 — PENNSYLVANIA

PENNSYLVANIA — ELIZABETH KIMBER BALDWIN — REGISTERED LANDSCAPE ARCHITECT

STORMWATER MANAGEMENT PLAN

SUBJECT:

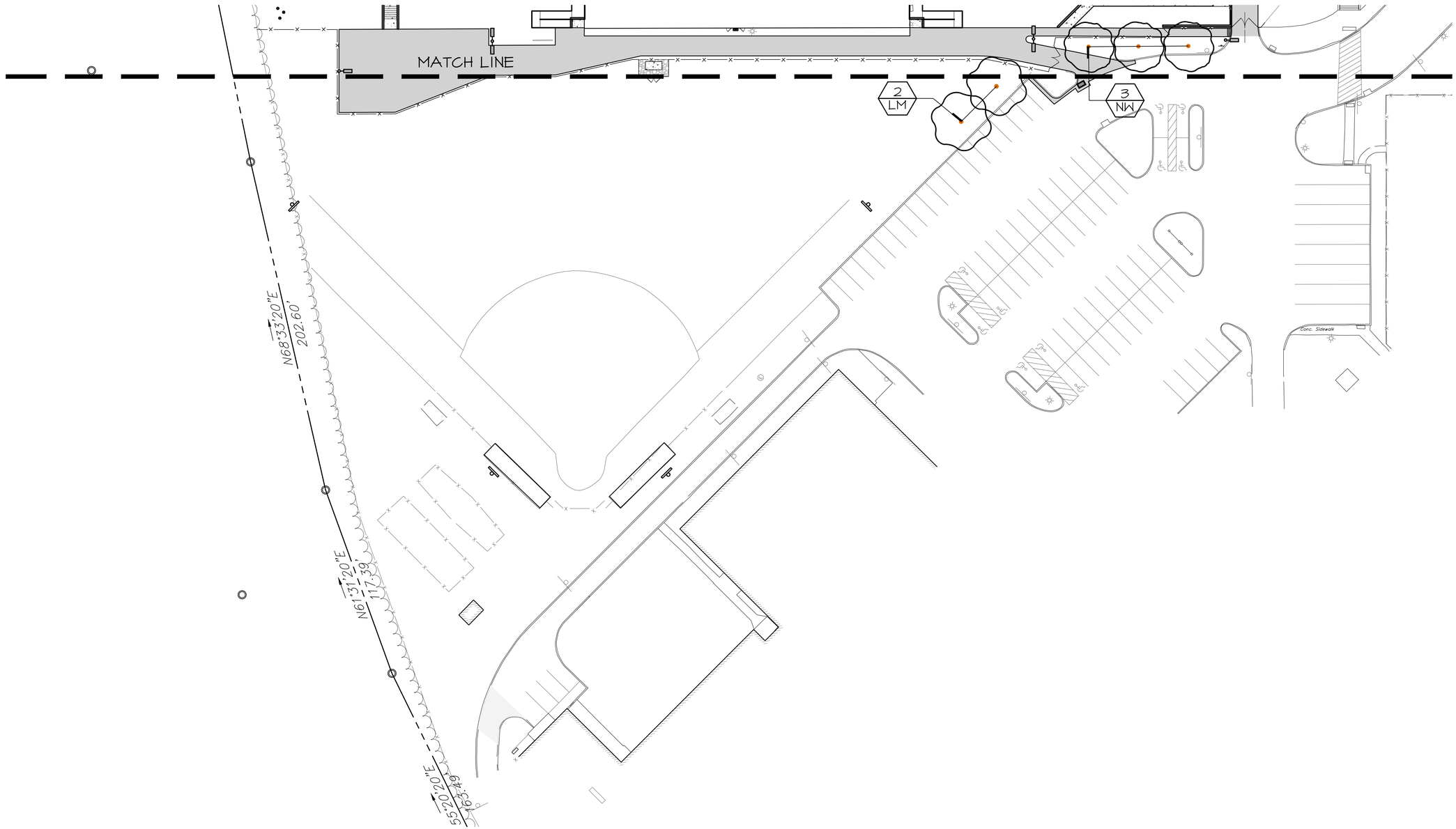
LANDSCAPE PLAN
MCCASKEY HIGH SCHOOL
MCCASKEY HIGH SCHOOL STADIUM RENOVATIONS
CITY OF LANCASTER - LANCASTER COUNTY - PENNSYLVANIA

CLIENT:

MM ARCHITECTS
214 NORTH DUKE STREET
LANCASTER, PA 17602
(717) 393-3211

MANAGER:	HDC	DATE:	March 27, 2025
DESIGNER:	EWB	PROJECT NO.	AZ202-015
DRAWN BY:	JMT	SCALE:	1" = 30'

DRAWING NO.



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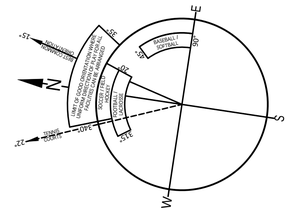

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0 15 30 60 90

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COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — ELIZABETH WERNER BALDWIN — ENGINEER — PE080728

PENNSYLVANIA — REGISTERED LANDSCAPE ARCHITECT

CITY OF LANCASTER LANDSCAPE NOTES

LANDSCAPE CONTRACTOR NOTES:

1. CONTRACTOR SHALL CONTACT PA ONE CALL (8-1-1), AND SHALL VERIFY THE LOCATION OF ALL UNDERGROUND UTILITIES WITHIN THE PROJECT AREA PRIOR TO INSTALLATION OF PLANT MATERIALS.
2. THE LANDSCAPE CONTRACTOR SHALL LOCATE AND VERIFY ALL UNDERGROUND UTILITIES PRIOR TO ANY PLANTING, AND SHALL FIELD-ADJUST THE LOCATIONS OF TREES AND SHRUBS, IF NECESSARY, TO AVOID CONFLICT WITH THESE UTILITIES. CONTACT THE LANDSCAPE ARCHITECT FOR APPROVAL OF ANY PROPOSED DESIGN CHANGES.
3. THIS PLAN IS FOR PLANTING INFORMATION ONLY. REFER TO GRADING, UTILITY, SITE LAYOUT AND SEDIMENT EROSION CONTROL PLANS FOR ALL RELATED INFORMATION.
4. ALL PLANTS AND SHRUBS SHALL BE AS SPECIFIED AND INSTALLED IN ACCORDANCE WITH THE DETAILS AND COMMENTS NOTED ON THESE DRAWINGS.
5. ALL PLANT MATERIALS SHALL BE SUBJECT TO APPROVAL OR REJECTION BY THE LANDSCAPE ARCHITECT OR THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION. PLANT MATERIALS INSTALLED WITHOUT PRIOR APPROVAL ARE SUBJECT TO REPLACEMENT BY THE CONTRACTOR AS HIS/HER EXPENSE IF DETERMINED TO BE UNSATISFACTORY. REJECTED PLANT MATERIALS SHALL BE REMOVED IMMEDIATELY FROM PROJECT SITE.
6. PROPOSED LOCATIONS OF ALL NON-HERBACEOUS PLANT MATERIALS AND PLANTING BED OUTLINES SHALL BE STAKED AND OUTLINED IN THE FIELD BY THE CONTRACTOR FOR APPROVAL BY THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE PRIOR TO PLANTING.
7. THE LANDSCAPE CONTRACTOR SHALL VERIFY ALL GRADES, DIMENSIONS AND EXISTING CONDITIONS, AND SHALL REPORT ANY IDENTIFIED DISCREPANCIES TO THE LANDSCAPE ARCHITECT. IF SITE WORK HAS BEEN MODIFIED AND DIFFERS FROM INFORMATION SHOWN ON THE APPROVED PLANS, AND POTENTIAL CHANGES TO THE PLANTING DESIGN ARE NECESSARY, THE CONTRACTOR SHALL CONTACT THE LANDSCAPE ARCHITECT FOR INSTRUCTIONS.
8. PROCEED WITH WORK ONLY WHEN PRESENT AND FORECASTED WEATHER CONDITIONS PERMIT PLANTING WITHOUT EXCESSIVE SOIL COMPACTION AND/OR UNNECESSARY PLANT DAMAGE.
9. PLANTING, SHRUBBERY AND OTHER PLANT MATERIALS AFTER FINISHED GRADES ARE ESTABLISHED, AND BEFORE PLANTING ANY TURF AREAS UNLESS OTHERWISE INDICATED.
10. THE CONTRACTOR SHALL INSPECT ALL PLANTING AREAS BEFORE ANY TOPSOIL IS PLACED OR PLANTING BEGINS TO ENSURE ADEQUATE DRAINAGE EXISTS. IF ANY AREAS TO BE PLANTED SHOW EVIDENCE OF POOR DRAINAGE, THE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT IMMEDIATELY FOR CORRECTIVE ACTION. ANY PLANT MATERIAL THAT DIES DUE TO POOR OR INADEQUATE DRAINAGE SHALL BE THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR.
11. REMOVE ANY EXCESS SOIL FROM PLANT ROOT FLARES, IF PRESENT.
12. LANDSCAPE CONTRACTOR SHALL EXERCISE EXTREME CARE WHEN WORKING IN AREAS OF EXISTING VEGETATION THAT IS TO REMAIN AND TO BE PROTECTED. IF SUCH VEGETATION IS INJURED OR DESTROYED DURING CONSTRUCTION, IT SHALL BE REPLACED BY THE LANDSCAPE CONTRACTOR WITH PLANTS OF A SIZE AND SPECIES AS DETERMINED BY THE LANDSCAPE ARCHITECT, AND SUCH REPLACEMENT SHALL BE MADE AT NO ADDITIONAL COST TO THE OWNER.
13. PLANT QUANTITIES NOTED ON THE PLANT LIST SHOULD MATCH THE PLANT SYMBOL LABELS SHOWN ON THE DRAWINGS. CONTRACTOR SHALL PROVIDE AND INSTALL ALL PLANT MATERIAL BASED UPON THE LABEL FOR THAT PLANT AND SHALL CONTACT THE LANDSCAPE ARCHITECT IF A DIFFERENCE IS FOUND BETWEEN THE QUANTITIES NOTED IN THE PLANT LIST AND THE DRAWING LABELS.
14. ALL AREAS DISTURBED BY PLANTING OPERATIONS SHALL BE REPAIRED BY THE CONTRACTOR AT HIS/HER EXPENSE, AND TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE.

SOIL PREPARATION:

1. PRIOR TO PLANTING, THE LANDSCAPE CONTRACTOR SHALL OBTAIN, AND FORWARD TO THE LANDSCAPE ARCHITECT, SOIL AGRONOMY TESTING REPORTS FROM AN APPROVED SOILS LABORATORY, SUCH AS PENNSYLVANIA STATE UNIVERSITY'S AGRICULTURAL ANALYTICAL SERVICES LABORATORY. TESTS SHALL BE COMPLETED FOR EACH EXISTING SOIL TYPE AND FOR EACH BATCH OF IMPORTED TOPSOIL. TESTS TO INCLUDE SOIL FERTILITY, PARTICLE SIZE, SAND SIEVE ANALYSIS, ORGANIC MATTER AND SOLUBLE SALTS. CONTRACTOR TO REQUEST SOIL AMENDMENT RECOMMENDATIONS FOR EACH CATEGORY OF TURF, PERENNIAL AND GROUNDCOVER TO BE INSTALLED IN THE SUBJECT SOIL. ALL SOIL AMENDMENTS SHALL BE INSTALLED FOR THE SOIL AGRONOMY REPORT IN AREAS OF LAWN, PERENNIAL AND GROUNDCOVER PLANTINGS ONLY, AND SHALL BE PROVIDED BY THE LANDSCAPE CONTRACTOR.
2. PERENNIAL AND BULB PLANTING AREAS SHALL HAVE AMENDED SOILS AS FOLLOWS:
   FOR EACH 100 SF AREA: 6 CU FT OF CLEAN COMPOST
   5-6 LBS HILORGANITE OR EQUAL
   2-3 LBS OF 0-20-20 FERTILIZER
3. NO FERTILIZERS TO BE PROVIDED FOR TREE OR SHRUB PLANTINGS.
4. APPLY AMENDMENTS ON-SITE, AND MIX SOIL TO FULLY ADDRESS ALL EXISTING SOIL DEFICIENCIES. DO NOT APPLY AMENDMENTS, NOR TILL IF EXISTING SOIL OR SUBGRADE IS FROZEN, MUDDY, OR EXCESSIVELY WET.
5. LANDSCAPE PLANTING AREAS SHALL BE FREE OF ANY DELETERIOUS MATERIALS OR LIQUID SUCH AS PAINT, PAINT WASHOUT, CONCRETE SLURRY, CONCRETE RUBBLE, CEMENT, PLASTER, OILS, GASOLINE, DIESEL FUEL, PAINT THINNER, TURPENTINE TAR, ROOFING COMPOUND, ACID, AND STONES LARGER THAN 3" IN ANY DIRECTION.
6. TOPSOIL SHALL BE PLACED AT A MINIMUM DEPTH OF 6".
7. IN ALL PLANTING AREAS, IF INSUFFICIENT TOPSOIL IS PRESENT PRIOR TO PLANTING, THE SITE CONTRACTOR SHALL PROVIDE AND PLACE THE REQUIRED TOPSOIL AT THE LANDSCAPE CONTRACTOR'S REQUEST. THE TOPSOIL SHALL BE ROUGH GRADED BY THE SITE CONTRACTOR AND FINISHED GRADED BY THE LANDSCAPE CONTRACTOR.
8. CONTRACTOR SHALL KILL OFF ANY EXISTING TURF AND UNWANTED VEGETATION WITHIN PROPOSED BED LIMITS. COMPLETE REMOVAL OF TURF BY MEANS OF A SOD CUTTER OR SCUFFING IS AN ACCEPTABLE ALTERNATIVE METHOD TO HERBICIDE APPLICATION. IF HERBICIDE IS NOT USED, THE CONTRACTOR SHALL COMPLETELY REMOVE ALL EXISTING PLANT ROOTS.

MULCH:

1. THE CONTRACTOR MAY APPLY A PRE-EMERGENT HERBICIDE PER THE MANUFACTURERS SPECIFICATIONS TO THE ENTIRE PLANTING BED FOR CONTROL OF WEED GERMINATION.
2. A LAYER OF NATURAL, NON-COLORED ORGANIC MULCH SHALL BE APPLIED ACROSS THE ENTIRE PLANTING BED AREA UNLESS OTHERWISE INDICATED ON THE PLAN. MULCH DEPTH SHALL NOT BE GREATER THAN 3" NOR LESS THAN 2".
3. MULCH SHALL BE ORGANIC, DOUBLE-CUT, NATURAL, UN-DYED AND FREE FROM DELETERIOUS MATERIALS.
4. MULCH SHALL NOT COVER THE CROWNS OF ANY HERBACEOUS PLANTS, NOR THE ROOT FLARES OF ANY WOODY PLANTS.
5. NO MULCH SHALL BE USED IN ANY BIORETENTION AREAS, IF THESE STORMWATER FACILITIES ARE INDICATED ON THE PLANS.

SEED ESTABLISHMENT NOTES:

1. GRASS SEED SHALL BE FRESH, CLEAN, DRY, NEW-CROP SEED COMPLYING WITH APSA'S "RULING FOR TESTING SEEDS" FOR PURITY AND GERMINATION TOLERANCES.
2. RECOMMENDED TIME FOR TURFGRASS SEEDING IS SEPTEMBER 1ST TO OCTOBER 15TH. WHERE SPRING SEEDINGS ARE NECESSARY, SEED NO LATER THAN APRIL 1ST FOR BEST RESULTS.
3. SOW RECOMMENDED SEED MIXTURE ADAPTED TO USE IN CLIMATIC CONDITIONS OF THE SPECIFIC SITE AREA.
4. PRIOR TO SEEDING, REMOVE ANY EXISTING VEGETATION FROM PROPOSED LAWN AREAS.
5. EXCESS DEAD VEGETATION SHOULD BE TURNED UNDER, IF THE SITE IS NOT TOO WET FOR TILLING WITHOUT EXCESSIVE SOIL COMPACTION.
6. IF TOPSOIL HAS BEEN DEPLETED OR REMOVED IN THE AREA TO BE SEEDED, PROVIDE SOIL AMENDMENTS PER THE AGRONOMY REPORT.
7. DIVIDE TOTAL SEED QUANTITY INTO TWO EQUAL LOTS, SOWING ONE LOT IN ONE DIRECTION, AND THE SECOND LOT AT RIGHT ANGLES TO THE REST WITH A MECHANICAL SEEDER OR SPREADER.
8. EXTRA CARE SHALL BE TAKEN TO ELIMINATE DEPRESSIONS OR AIR POCKETS BY ROLLING OR TAMPING LAWN BASE BEFORE INSTALLATION. ALL SOD MUST BE DELIVERED AND INSTALLED WITHIN 36 HOURS OF BEING CUT. SOD SHALL BE LAID SMOOTHLY, EDGE TO EDGE WITH STAGGERED JOINTS. IMMEDIATELY AFTER INSTALLATION, THE SOD SHALL BE WATERED TO A DEPTH OF 4" INTO THE SOIL.
9. MULCHING WITH STRAW, HYDROMULCH, OR FIBER MATS IS RECOMMENDED TO PROTECT SEED FROM DRYING OUT OR WASHING AWAY. HEAVY MULCHES SHOULD BE REMOVED FROM THE AREA WITHIN A FEW DAYS AFTER SEED GERMINATION.
10. BOUNDARIES OF NEWLY SEEDED AREAS SHALL BE WELL DEFINED WITH SIGNS OR OTHER MARKERS TO DETER INTRUSION UNTIL AREAS ARE FULLY ESTABLISHED.
11. CONTRACTOR IS RESPONSIBLE FOR TURF MAINTENANCE UNTIL SATISFACTORY TURF IS ESTABLISHED, AS DETERMINED BY THE LANDSCAPE ARCHITECT. MAINTENANCE TO INCLUDE WATERING, FERTILIZING, WEEDING, MOWING, TRIMMING, REPLANTING, AND PERFORMING OTHER OPERATIONS AS REQUIRED TO ESTABLISH HEALTHY, VIABLE TURF. ROLL, REGRADE, AND REPLANT BARE OR ERODED AREAS AND REMULCH TO PRODUCE A UNIFORMLY SMOOTH TURF. PROVIDE MATERIALS AND INSTALLATION THE SAME AS THOSE USED IN THE ORIGINAL INSTALLATION.
    A. FILL IN AS NECESSARY SOIL SUBSIDENCE THAT MAY OCCUR BECAUSE OF SETTLING OR OTHER PROCESSES. REPLACE MATERIALS AND TURF DAMAGED OR LOST IN AREAS OF SUBSIDENCE.
    B. IN AREAS WHERE MULCH HAS BEEN DISTURBED BY WIND OR MAINTENANCE OPERATIONS, ADD NEW MULCH AND ANCHOR AS REQUIRED TO PREVENT DISPLACEMENT.
    C. APPLY TREATMENTS AS REQUIRED TO KEEP TURF AND SOIL FREE OF PESTS AND PATHOGENS OR DISEASE. USE INTEGRATED PEST MANAGEMENT PRACTICES WHENEVER POSSIBLE TO MINIMIZE THE USE OF PESTICIDES AND REDUCE HAZARDS.
12. WATERING: INSTALL AND MAINTAIN TEMPORARY PIPING, HOSES, AND TURF-WATERING EQUIPMENT TO CONVEY WATER FROM SOURCES AND TO KEEP TURF UNIFORMLY MOIST TO A DEPTH OF 4 INCHES.
    A. SCHEDULE WATERING TO PREVENT WILTING, PUDDLING, EROSION, AND DISPLACEMENT OF SEED OR MULCH. LAY OUT TEMPORARY WATERING SYSTEM TO AVOID WALKING OVER MUDDY OR NEWLY PLANTED AREAS.
    B. WATER TURF WITH FINE SPRAY AT A MINIMUM RATE OF 1 INCH PER WEEK UNLESS RAINFALL PRECIPITATION IS ADEQUATE.
13. MOW TURF AS SOON AS TOP GROWTH IS TALL ENOUGH TO CUT. REPEAT MOWING TO MAINTAIN SPECIFIED HEIGHT WITHOUT CUTTING MORE THAN ONE-THIRD OF GRASS HEIGHT. REMOVE NO MORE THAN ONE-THIRD OF GRASS-LEAF GROWTH IN INITIAL OR SUBSEQUENT MOWINGS. DO NOT DELAY MOWING UNTIL GRASS BLADES BEND OVER AND BECOME MATTED. DO NOT MOW WHEN GRASS IS WET.
14. TURF POST-FERTILIZATION. APPLY FERTILIZER AFTER INITIAL MOWING AND WHEN GRASS IS DRY. USE FERTILIZER THAT PROVIDES ACTUAL NITROGEN OF AT LEAST 1 LB/1000 SF OF TURF AREA.
15. SATISFACTORY TURF – TURF INSTALLATIONS SHALL MEET THE FOLLOWING CRITERIA AS DETERMINED BY LANDSCAPE ARCHITECT/ENGINEER. AT END OF MAINTENANCE PERIOD, A HEALTHY, UNIFORM, CLOSE STAND OF GRASS HAS BEEN ESTABLISHED, FREE OF WEEDS AND SURFACE IRREGULARITIES, WITH COVERAGE EXCEEDING 90 PERCENT OVER ANY 1- SF AREA AND BARE SPOTS NOT EXCEEDING 5 BY 5 INCHES.
16. CONTRACTOR TO USE SPECIFIED MATERIALS TO REESTABLISH TURF THAT DOES NOT COMPLY WITH REQUIREMENTS, AND CONTINUE MAINTENANCE UNTIL TURF IS SATISFACTORY.

PLANT STANDARDS:

1. ALL TREES SHALL HAVE BEEN NURSERY GROWN IN A CLIMATE SIMILAR TO THAT OF THE FINAL PLANTING SITE.
2. ALL PLANTS SHALL HAVE A NORMAL GROWTH HABIT AND SHALL BE SOUND, HEALTHY, AND VIGOROUS. THEY SHALL BE FREE FROM DISEASE, INSECTS, INSECT EGGS, LARVAE, AND DEFECTS SUCH AS KNOTS, SUN SCALE, INJURIES, ABRASIONS AND DISFIGUREMENT.
3. ALL PLANTING SHALL BE PERFORMED IN CONFORMANCE WITH GOOD NURSERY AND LANDSCAPE PRACTICE.
4. REQUIREMENTS FOR PLANT MEASUREMENTS, BRANCHING, GRADING, QUALITY, AND BALLING AND BURLAPPING SHALL FOLLOW THE CODE OF STANDARDS AS RECOMMENDED BY THE AMERICAN ASSOCIATION OF NURSERYMEN, INC., IN THE AMERICAN STANDARD FOR NURSERY STOCK, ANSI Z60.1, CURRENT EDITION, AS AMENDED AND A300 RESPECTIVELY. DO NOT PRUNE TO ATTAIN REQUIRED SIZES.
5. IF FORMAL PLANTING ARRANGEMENTS OR A CONSISTENT ORDER OF PLANTS IS INDICATED ON THE DRAWINGS, SELECT STOCK FOR UNIFORM HEIGHT AND SPREAD.
6. TREE PLANTING SHALL NOT COMMENCE UNTIL ALL CONSTRUCTION AND DISTURBANCE ACTIVITIES HAVE BEEN COMPLETED AND IN PROPER PLANTING SEASONS, WITH PRIOR APPROVAL BY THE CITY ARBORIST.
7. THE CONTRACTOR SHALL MAINTAIN ALL PLANTINGS PRIOR TO THE BEGINNING OF THE GUARANTEE PERIOD BY WATERING, DISEASE CONTROL, PRUNING AND WEEDING TO KEEP THE COMPLETED WORK AND/OR UNCOMPLETED WORK IN A CLEAN AND NEAT CONDITION AT ALL TIMES.

PLANT GUARANTEE:

1. ALL MATERIAL SHALL BE GUARANTEED FOR A PERIOD OF TWO FULL GROWING SEASONS AFTER INSTALLATION. FOLLOWING FINAL INSPECTION AND ACCEPTANCE OF THE WORK. PLANTS SHALL BE ALIVE AND IN SATISFACTORY GROWING CONDITION AT THE END OF THE GUARANTEE PERIOD.
2. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING GATOR BAGS FOR ALL NEWLY PLANTED TREES WITH A MINIMUM OF 10 GALLONS OF WATER PER INCH OF TRUNK DIAMETER PER WEEK. CONTRACTOR IS RESPONSIBLE FOR WATERING ALL SHRUB AND PERENNIAL PLANTINGS FOR THE DURATION OF THE GUARANTEE PERIOD (TWO FULL GROWING SEASONS) OR UNTIL WELL ESTABLISHED AND TO REMAIN HEALTHY, WHICHEVER IS GREATER.
3. THE CONTRACTOR SHALL GUARANTEE THAT PLANTS SHALL BE IN VIGOROUS AND THRIVING CONDITION AT THE END OF THE GUARANTEE PERIOD. SHOULD ANY PLANTS APPEAR TO BE IN POOR HEALTH OR LACK NORMAL GROWTH HABIT, AS DETERMINED BY THE LANDSCAPE ARCHITECT, THEY SHALL BE REMOVED AT ONCE AND REPLACED.
4. DURING THE TIME BETWEEN THE INSTALLATION OF PLANTS AND THE BEGINNING OF THE GUARANTEE PERIOD, THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR THE SUPERINTENDENCE OF THE PLANTINGS. SHOULD ANY PLANT BE STOLEN OR OTHERWISE REMOVED, ANY SUCH PLANT SHALL BE REPLACED BY THE CONTRACTOR. THE GUARANTEE PERIOD WILL BEGIN WHEN ALL PLANS ARE INSTALLED AS SHOWN AND SPECIFIED IN THESE PLANS.
5. WITHIN THE GUARANTEE PERIOD, THE CONTRACTOR SHALL NOTIFY THE OWNER OF ANY MAINTENANCE PRACTICES BEING FOLLOWED OR OMITTED WHICH WOULD BE DETRIMENTAL TO THE HEALTHY VIGOROUS GROWING CONDITIONS OF THE PLANTS.
6. INSPECTION TO DETERMINE WORK COMPLETION FOR BEGINNING OF THE TWO FULL GROWING SEASONS PERIOD WILL BE MADE BY THE OWNER, LANDSCAPE ARCHITECT AND THE CITY ARBORIST/URBAN FORESTER UPON WRITTEN NOTICE OF REQUESTING SUCH INSPECTION SUBMITTED BY THE CONTRACTOR AT LEAST 5 BUSINESS DAYS PRIOR TO THE ANTICIPATED INSPECTION DATE.
7. ONCE ANY AND ALL DEFICIENCIES ARE ADDRESSED, THE CONTRACTOR WILL BE NOTIFIED OF THE DATE THAT WORK HAS BEEN APPROVED FOR BEGINNING OF THE GUARANTEE PERIOD. DURING THIS GUARANTEE PERIOD, THE CONTRACTOR IS RESPONSIBLE FOR PROPER WATERING THROUGH USE OF WATERING BAGS OR OTHER METHODS ACCEPTABLE TO THE CITY ARBORIST.
8. TWO FULL GROWING SEASONS FROM THE START OF THE PLANT GUARANTEE PERIOD, THE CONTRACTOR, OWNER, LANDSCAPE ARCHITECT AND CITY ARBORIST/URBAN FORESTER WILL INSPECT THE SITE TO LOCATE ANY PLANTS THAT ARE NOT IN VIGOROUS AND THRIVING CONDITION. A SITE INSPECTION REPORT WILL BE ISSUED TO THE CONTRACTOR. THE CONTRACTOR WILL HAVE 30 DAYS TO REPLACE ANY PLANTS IDENTIFIED AS FAILING THE GUARANTEE STANDARD.

STORMWATER MANAGEMENT PLAN

SUBJECT:

LANDSCAPE PLAN

MCCASKEY HIGH SCHOOL

MCCASKEY HIGH SCHOOL STADIUM RENOVATIONS

CITY OF LANCASTER - LANCASTER COUNTY - PENNSYLVANIA

CLIENT:

MM ARCHITECTS

214 NORTH DUKE STREET

LANCASTER, PA 17602

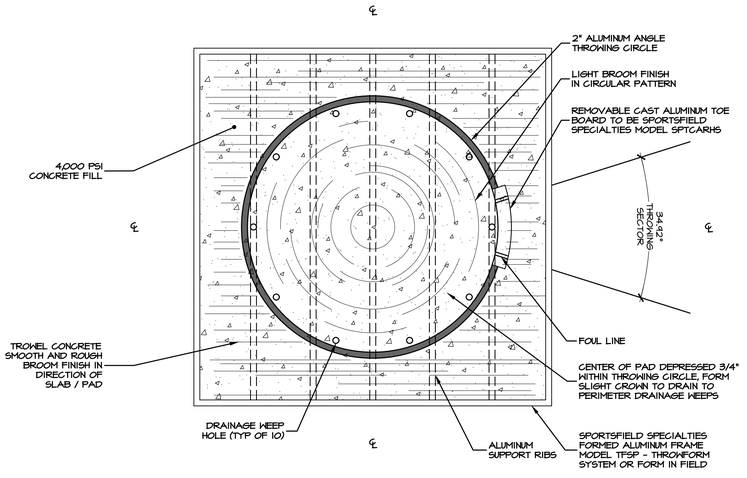
(717) 393-3211

MANAGER:	HDC	DATE:	March 27, 2025
DESIGNER:	EWB	PROJECT NO.	AZ202-015
DRAWN BY:	JMT	SCALE:	1" = 30'

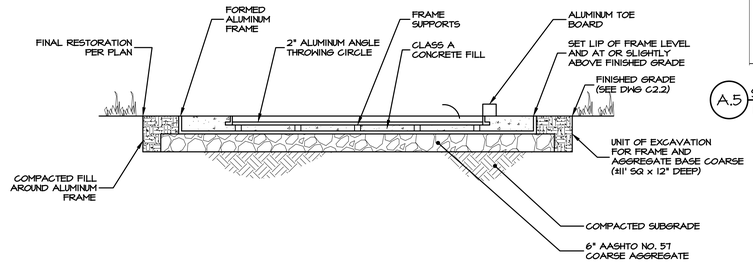
DRAWING NO.

27 OF 53

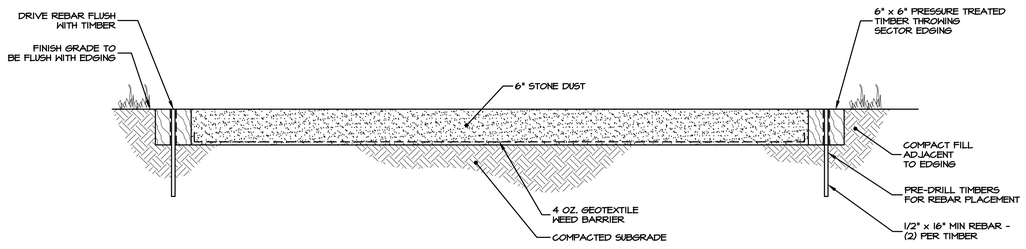
DRAWING: C:\Users\jmtoedter\DCACCDocs\ELA Group\AZ202-015 McCaskey Stadium Renovations\Project Files\CAD Data\Land Development\LD-PRELIMLANDSCAPE.dwg - PLOTTED: Apr 02, 2025 2:21 pm



A.1 SHOT PUT PLAN
SCALE: 1/2" = 1'-0"

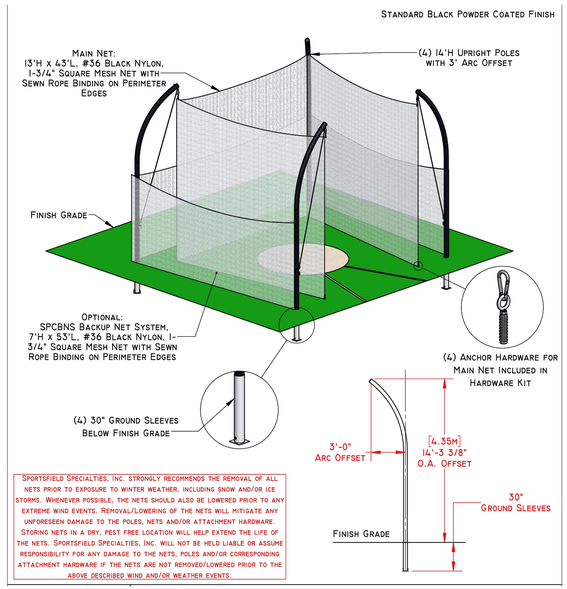


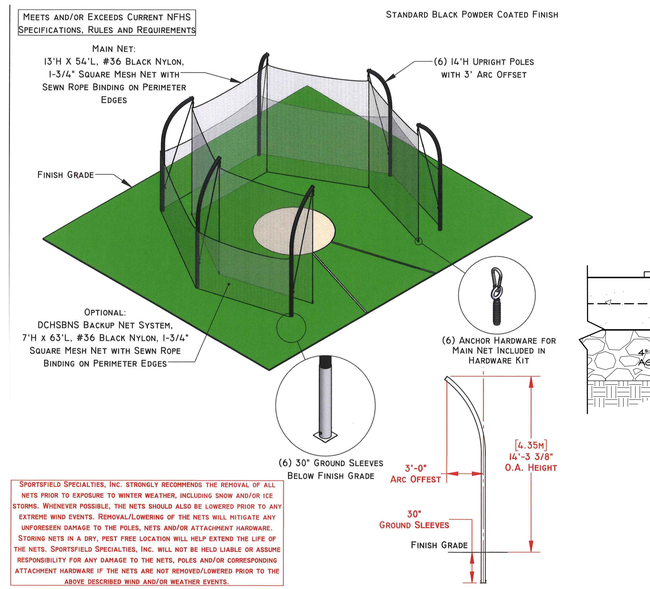
A.2 SHOT PUT SECTION
SCALE: 1/2" = 1'-0"



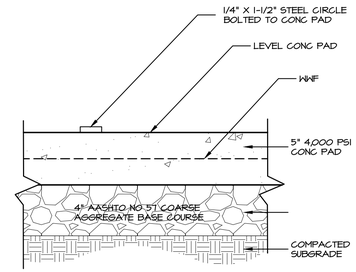
A.3 SHOT PUT THROWING SECTOR - TYPICAL SECTION
SCALE: 1" = 1'-0"

A/28 SHOT PUT PAD AND THROWING SECTOR
SCALE: AS NOTED

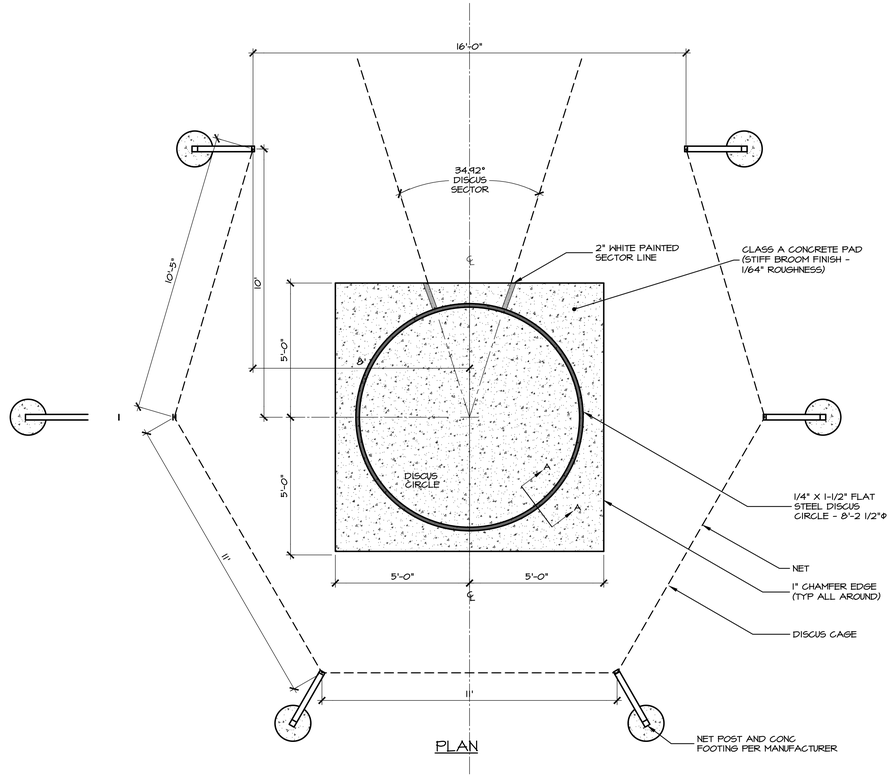




A.5 SHOT PUT THROWING CAGE - SPORTSFIELD SPECIALTIES CUT SHEET (SPC)
NOT TO SCALE



SECTION A-A



PLAN

B/28 34.92-DEGREE DISCUS PAD AND HIGH SCHOOL DISCUS CAGE
SCALE: 3/8" = 1'-0"

REVISIONS PER:		DATE:	BY:
1.	COL/LCCD COMMENTS	3/28/25	EWB
2.	-	-	-
3.	-	-	-
4.	-	-	-
5.	-	-	-

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COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL ELIZABETH WERNER BALDWIN ENGINEER PE080758

PENNSYLVANIA REGISTERED LANDSCAPE ARCHITECT

STORMWATER MANAGEMENT PLAN

SUBJECT:
SITE DETAILS
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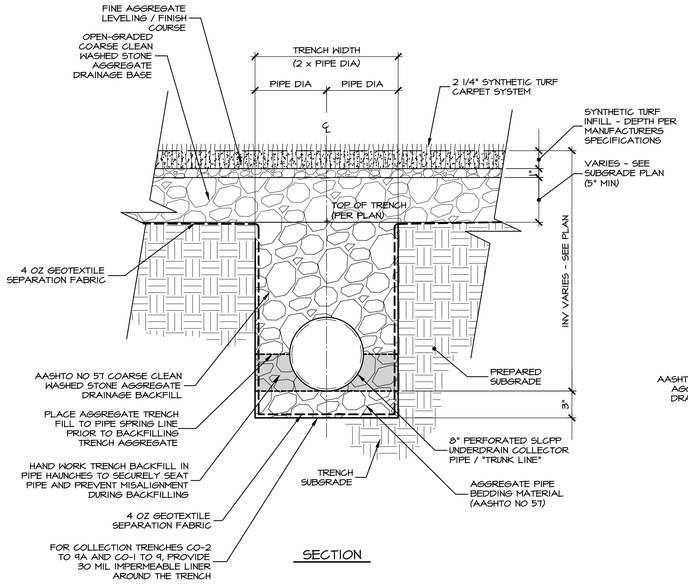
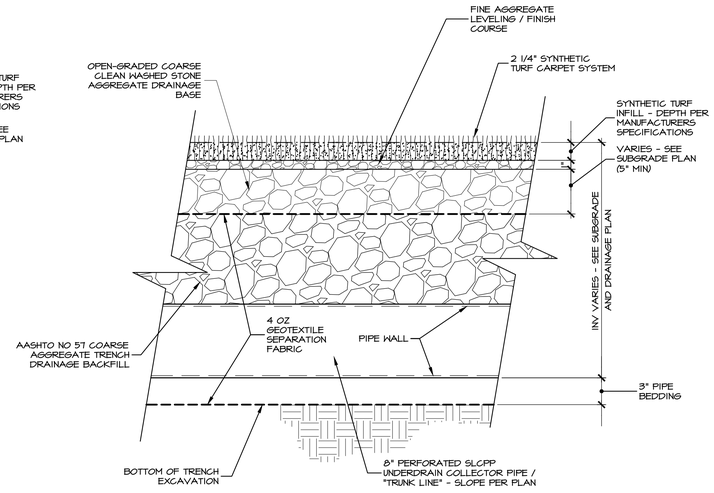


SECTION



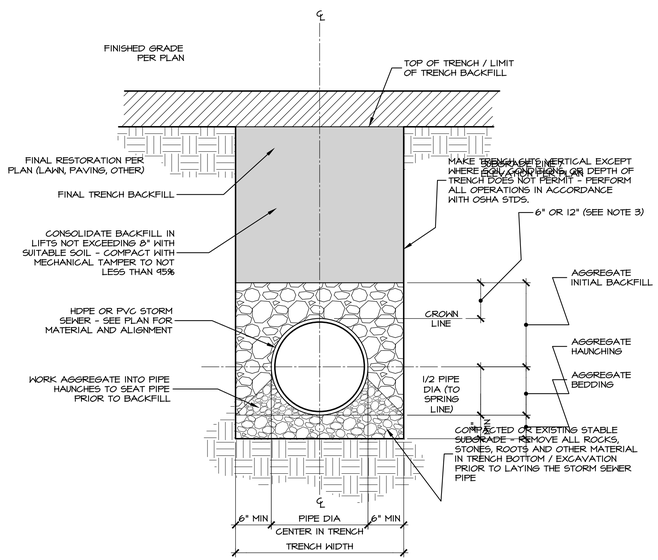
ELEVATION

A/29 TYPICAL SYNTHETIC TURF FIELD COLLECTION TRENCH

SCALE: 1 1/2" = 1'-0"

TRENCHING AND BACKFILL NOTES:

1. REMOVE UNSUITABLE SUBGRADE TO A MINIMUM DEPTH OF 2-FEET BELOW THE TRENCH INVERT ELEVATION. BACKFILL AND COMPACT TO THE REQUIRED DENSITY USING COARSE AGGREGATE AS APPROVED BY THE ENGINEER.
2. HAND TRIM EXCAVATIONS WHERE REQUIRED TO REMOVE ROCK PROTRUSIONS, LARGE STONES, ROOTS, AND OTHER IRREGULARITIES THAT COULD AFFECT PLACEMENT AND BACKFILLING OF THE DRAINAGE PIPE.
3. CONFORM TO OSHA EXCAVATION STANDARDS, 29 CFR, PART 1926, SUBPART B. PROTECT ALL OPEN TRENCH EXCAVATIONS FROM ACCIDENTAL ENCROACHMENT.
4. BEGIN EXCAVATION FOR TRENCHES AT THE LOWER INVERT AND PROCEED UPGRADE.
5. SEPARATE AND STORE SOIL MATERIALS SUITABLE FOR FINAL TRENCH BACKFILL. REMOVE UNSUITABLE MATERIALS FROM PROJECT SITE OR PLACE WHERE PERMITTED AS PART OF GENERAL FILLING PROCEDURES.
6. ALL TRENCH EXCAVATIONS SHALL BE COMPLETELY FREE OF STANDING WATER PRIOR TO BACKFILLING. DEWATER TRENCHES WHEN REQUIRED.
7. REMOVE ALL SLOUGHED AND LOOSE MATERIALS FROM THE TRENCH EXCAVATION PRIOR TO PLACEMENT OF ANY BACKFILL MATERIAL.
8. DO NOT BACKFILL TRENCHES WITH WET OR FROZEN MATERIAL.
9. PLACE EMBEDMENT AND BACKFILL MATERIALS IN LIFTS AND IN A MANNER THAT WILL NOT DISTURB OR DAMAGE THE DRAINAGE PIPE OF JOINTS. USE COMPACTION EQUIPMENT APPROPRIATE FOR THE TRENCH WIDTH AND TYPE OF BACKFILL MATERIAL. DO NOT PERMIT HEAVY EQUIPMENT TO OPERATE DIRECTLY OVER THE DRAINAGE PIPE UNTIL SUITABLE COVER IS ESTABLISHED.
10. COMPACT ALL TRENCH BACKFILL IN LIFTS TO ACHIEVE A UNIFORM MINIMUM DENSITY OF NOT LESS THE 95-PERCENT OF THE MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D1557, MODIFIED PROCTOR.



B/29 TYPICAL HDPE STORM SEWER TRENCH AND BACKFILL - NON FIELD AREAS

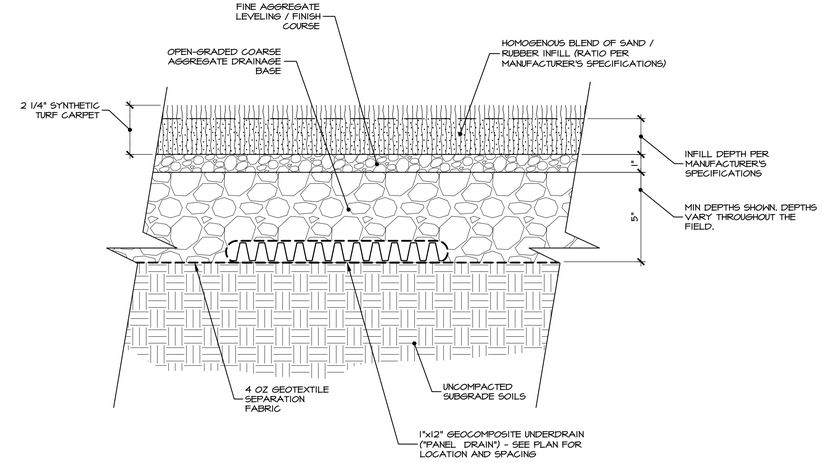
SCALE: 1" = 1'-0"

GENERAL NOTES:

1. MINIMUM AGGREGATE INITIAL BACK FILL COVER SHALL BE A MINIMUM OF 6" FOR POLYETHYLENE PIPE AND 12" FOR POLYVINYL CHLORIDE PIPE. COVER MAY BE INCREASED TO PROTECT PIPE DURING CONSTRUCTION LOADING CONDITIONS.
2. PROVIDE 6" BEDDING MATERIAL WHERE ROCK OR OTHER UNYIELDING MATERIAL IS PRESENT AT THE TRENCH SUBGRADE.

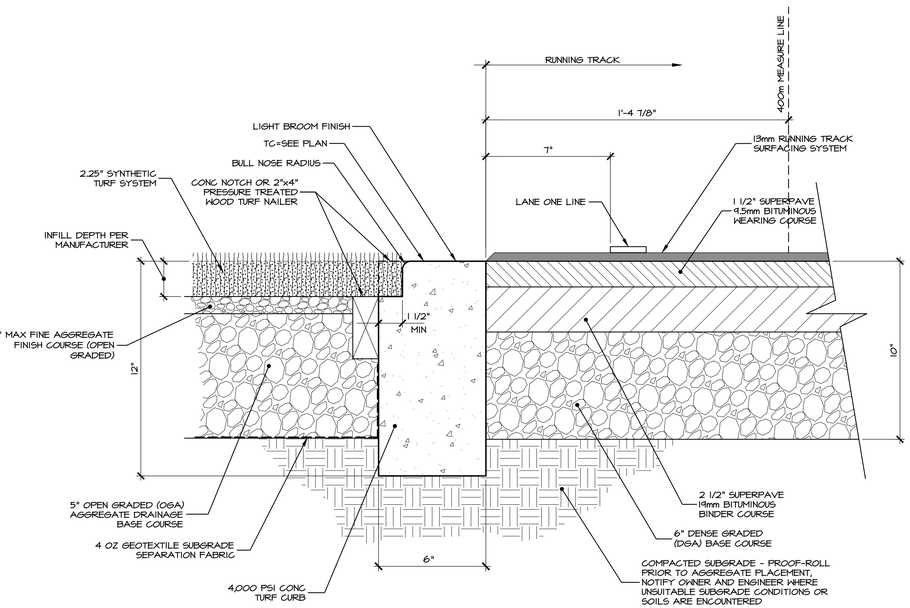
BEDDING, HAUNCHING, AND BACKFILL MATERIAL NOTES

1. BEDDING: BEDDING MATERIAL, MEASURED FROM THE TRENCH SUBGRADE TO BOTTOM OF DRAINAGE PIPE, SHALL BE OPEN-GRADED, CLEAN AGGREGATE CLASS-1A MATERIAL IN ACCORDANCE WITH ASTM-D2321. CLASS-1A BEDDING IS NOT RECOMMENDED FOR TRENCHES CONSTRUCTED IN SOILS SUBJECT TO GROUND WATER INFILTRATION DUE TO MIGRATION OF FINES FROM ADJACENT SOILS.
2. HAUNCHING: HAUNCHING MATERIAL, MEASURED FROM THE TOP OF THE BEDDING MATERIAL TO THE SPRING-LINE OF THE DRAINAGE PIPE, SHALL BE OPEN-GRADED, CLEAN AGGREGATE CLASS-1A MATERIAL IN ACCORDANCE WITH ASTM-D2321, OR DENSE-GRADED MANUFACTURED OR PROCESSED AGGREGATE CLASS-1B MATERIAL IN ACCORDANCE WITH ASTM-D2321.
3. INITIAL BACKFILL: INITIAL BACKFILL MATERIAL, MEASURED FROM THE TOP OF THE HAUNCHING MATERIAL TO SIX-INCHES ABOVE THE CROWN OF THE POLYETHYLENE DRAINAGE PIPE OR 12-INCHES ABOVE THE CROWN OF THE DRAINAGE PIPE FOR PVC MATERIAL, SHALL BE OPEN-GRADED, CLEAN AGGREGATE CLASS-1A MATERIAL IN ACCORDANCE WITH ASTM-D2321, OR DENSE-GRADED MANUFACTURED OR PROCESSED AGGREGATE CLASS-1B MATERIAL IN ACCORDANCE WITH ASTM-D2321.
4. FINAL TRENCH BACKFILL: FINAL BACKFILL MATERIAL, MEASURED FROM THE TOP OF THE INITIAL BACKFILL TO THE SUBGRADE ELEVATION, IN PAVED OR STRUCTURAL AREAS SHALL MEET THE REQUIREMENTS OF CLASS II OF III MATERIAL IN ACCORDANCE WITH ASTM-D2321 MEETING THE SOIL CLASSIFICATIONS OF GW, GP, SW, SP, GM, GC, SM, OR SC, PER ASTM-D2487; SELECT TRENCH EARTH FILL, CLASS IV MATERIALS AS DESCRIBED IN ASTM-D2321; GENERAL FILL MAY BE USED FOR FINAL TRENCH BACKFILL IN PAVED AREAS WHEN APPROVED FOR USE BY A REGISTERED GEOTECHNICAL ENGINEER RETAINED BY THE CONTRACTOR.



C/29 TYPICAL SYNTHETIC TURF FIELD AND AGGREGATE BASE CROSS-SECTION

SCALE: 3" = 1'-0"



D/29 TYPICAL SECTION AT CONC TURF CURB AND RUNNING TRACK

SCALE: 3" = 1'-0"

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COMMONWEALTH OF PENNSYLVANIA - REGISTERED PROFESSIONAL ENGINEER - ELIZABETH WERNER BALDWIN - COMMONWEALTH OF PENNSYLVANIA

PENNSYLVANIA - JAMES D. PARSONS - REGISTERED LANDSCAPE ARCHITECT

STORMWATER MANAGEMENT PLAN

SUBJECT:

SITE DETAILS

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MCCASKEY HIGH SCHOOL STADIUM RENOVATIONS

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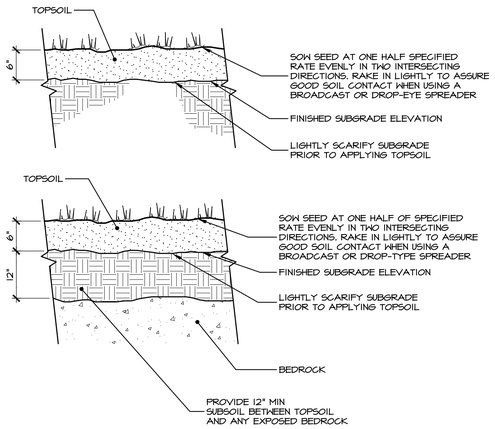
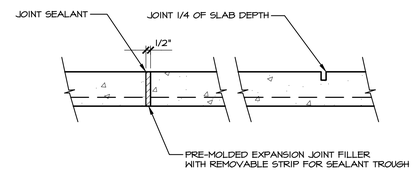
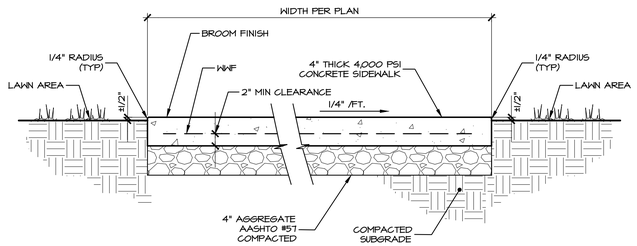


A 30 LAWN PLANTING DETAIL

NO SCALE

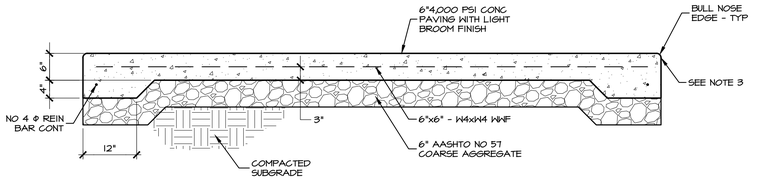


TYPICAL EXPANSION & CONTRACTION JOINTS



C 30 CONCRETE SIDEWALK DETAIL

NOT TO SCALE

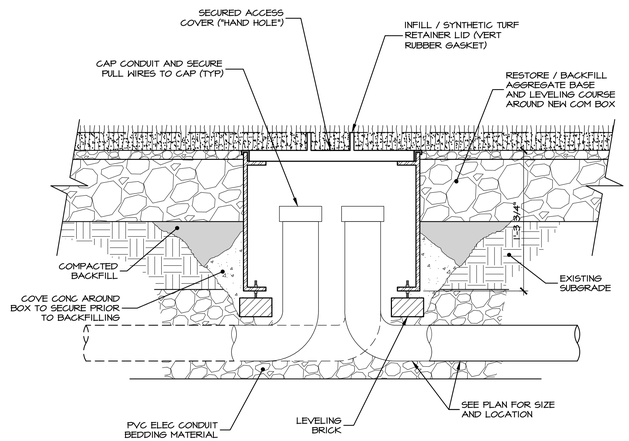


NOTES:

1. PROVIDE EJ WITH FILLER WHERE SLAB EXCEEDS 30' IN ANY DIMENSION. PLACE EJ AT MIDPOINT OF SLAB.
2. DIMENSIONS AS NOTED ON DRAWINGS. VERIFY SLAB DIMENSIONS WITH PORTABLE BLEACHER DIMENSIONS PRIOR TO CONSTRUCTION.
3. SEAL JOINT WITH AC-20 WHERE BITUMINOUS PAVING IS ADJACENT. PROVIDE EJ WITH SEALANT WHERE ADJACENT TO CONC PAVING.
4. SLOPE PAD TO DRAIN IN ONE DIRECTION AT 0.5% MIN TO 1.0% MAX.

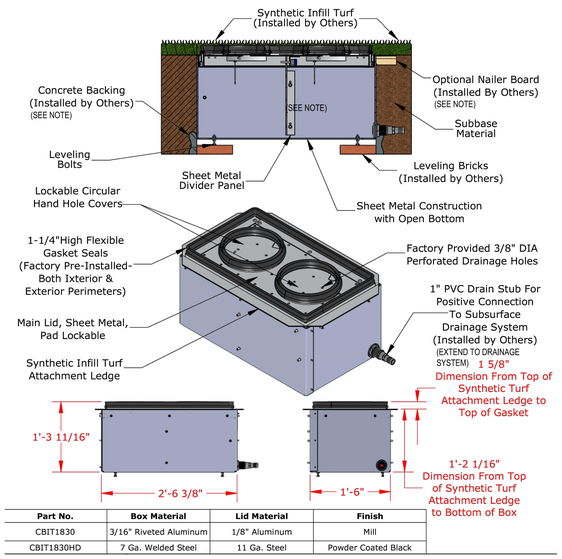
D 30 CONCRETE BLEACHER PAD

SCALE: 3/4" = 1' - 0"



B.1 TYPICAL SECTION - COMMUNICATION (COM) BOX

SCALE: 1 1/2" = 1'-0"



Part No.	Box Material	Lid Material	Finish
CBIT1830	3/16" Riveted Aluminum	1/8" Aluminum	Mill
CBIT1830HD	7 Ga. Welded Steel	11 Ga. Steel	Powder Coated Black

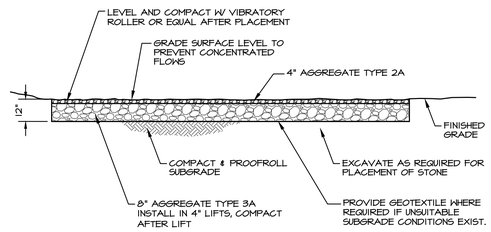
NOTE: "BY OTHERS" ON MANUFACTURER CUT SHEET MEANS FIELD INSTALL / PROVIDE UNDER THE WORK OF THIS CONTRACT.

B.2 MANUFACTURER CUT SHEET (CBIT1830)

NOT TO SCALE

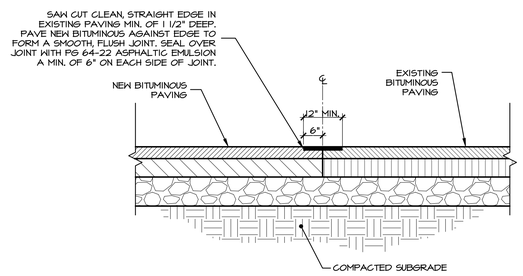
B 30 COMMUNICATION (COM) BOX - SYNTHETIC TURF INSTALLATION

SCALE: AS NOTED



E 30 STONE PAVING SECTION

NO SCALE



F 30 SAWCUT/BITUMINOUS PAVING JOINT

NOT TO SCALE

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COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL ELIZABETH WERNER BALDWIN ENGINEER 082607 PENNSYLVANIA

PENNSYLVANIA HUGH D. BARNES REGISTRATION NUMBER RA-015 REGISTERED LANDSCAPE ARCHITECT

STORMWATER MANAGEMENT PLAN

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MCCASKEY HIGH SCHOOL STADIUM RENOVATIONS

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CHAIN LINK FENCE NOTES AND SPECIFICATIONS

GENERAL

A. ALL FENCE MATERIALS SHALL BE MANUFACTURED OF STEEL PRODUCED IN THE U.S.A., EXCEPT POST TOPS, RAIL ENDS, AND TIES MAY BE MANUFACTURED OF ALUMINUM. ALL MATERIALS AND FABRICATION SHALL BE IN ACCORDANCE WITH THE STANDARDS LISTED HEREIN.

B. ALL DIMENSIONS INDICATED ON THE DRAWINGS ARE NOMINAL. VERIFY ACTUAL DIMENSIONS, GATE OPENINGS, AND INSTALLATION REQUIREMENTS IN FIELD.

C. DETAILS PROVIDED ON DRAWINGS ARE TYPICAL AND MAY REQUIRE MODIFICATION FOR FIELD INSTALLATION OR MAY NOT DIRECTLY APPLY. PROVIDE FENCING AND GATES OF DIMENSIONS, MATERIALS, AND GENERAL CONFIGURATION AS INDICATED ON THE DRAWINGS. FINAL FENCING AND GATE COMPONENTS FABRICATION AND INSTALLATION SHALL BE IN ACCORDANCE WITH APPROVED SHOP DRAWINGS.

D. REVIEW ALL GATE INSTALLATIONS, SWING, AND EXTENT OF OPERATION WITH OWNER IN FIELD PRIOR TO INSTALLATION.

REFERENCES

A. ASTM F567 PRACTICE FOR INSTALLATION OF CHAIN LINK FENCE

B. ASTM F626 SPECIFICATION FOR FENCE FITTINGS

C. ASTM F668 SPECIFICATION FOR POLYVINYL CHLORIDE (PVC) AND OTHER ORGANIC POLYMER-COATED STEEL CHAIN LINK FENCE FABRIC

D. ASTM F900 SPECIFICATION FOR INDUSTRIAL AND COMMERCIAL SWING GATES

E. ASTM F1043 SPECIFICATION FOR STRENGTH AND PROTECTIVE COATINGS ON STEEL INDUSTRIAL CHAIN LINK FENCE FABRIC

F. ASTM F1083 SPECIFICATION FOR PIPE, STEEL, HOT-DIP ZINC COATED (GALVANIZED) WELDED, FOR FENCE STRUCTURES

G. ASTM F1184 SPECIFICATION FOR INDUSTRIAL AND COMMERCIAL HORIZONTAL SLIDE GATES

H. RR-F-191/3E FEDERAL SPECIFICATION FOR FENCING, WIRE AND POST METAL (AND GATES, CHAIN LINK, FENCE FABRIC AND ACCESSORIES) POSTS, TOP RAIL, BRACES

MATERIALS

A. CHAIN LINK FENCE FABRIC:

1. 1 3/4-INCH DIAMOND MESH WITH MINIMUM 9-GAUGE WIRE (0.148") DIAMETER. FABRIC FOR CHAIN LINK BACKSTOP SHALL BE 1 3/4" DIAMOND MESH WITH MINIMUM 6-GAUGE WIRE.
2. SELVAGE FINISH AT TOP AND BOTTOM SHALL BE KNUCKLED.
3. FABRIC HEIGHT AS SCHEDULED ON DRAWINGS AND AS VERIFIED IN FIELD BASED UPON EXISTING FENCE HEIGHT.
4. COATING: POLYMER-COATED CLASS 2B IN ACCORDANCE WITH ASTM F668, BLACK IN COLOR.

B. CHAIN LINK FENCE POSTS:

1. ASTM F1043 GROUP IA, ASTM 1083 STANDARD WEIGHT SCHEDULE 40 HOT-DIP GALVANIZED PIPE HAVING A ZINC COATING OF 1.8 OZ/SF ON THE OUTSIDE AND INSIDE SURFACE OF THE PIPE.
2. EXTERIOR OF FENCE POST PIPE TO HAVE THERMALLY FUSED POLYMER-COATING (ELECTROSTATIC POWDER COAT), 15 YEAR NO MAR WARRANTY, BLACK IN COLOR.
3. POST SIZE: BASED UPON THE HEIGHT OF THE FENCE AND DIAMETER NOT LESS THAN FEDERAL SPECIFICATION RR-F-191/3E, OR GUIDELINES OF THE CLFMI, EXCEPT AS NOTED FOR DUGOUT FOUL LINE FENCING WHICH SHALL UTILIZE LARGER POSTS AS NOTED.

C. HORIZONTAL AND BRACE RAILS:

1. PROVIDE HORIZONTAL BRACE RAILS AT TOP AND BOTTOM OF FENCE. USE OF TENSION WIRE IS NOT PERMITTED. PROVIDE IN ACCORDANCE WITH ASTM F1043, TABLE 3, HEAVY INDUSTRIAL, OR SPECIFICATION F1083.
2. EXTERIOR OF HORIZONTAL AND BRACE RAILS TO HAVE THERMALLY FUSED POLYMER-COATING IN ACCORDANCE WITH ASTM F1043, BLACK IN COLOR.

D. FITTINGS:

1. CONFIRM TO ASTM F626.
2. FITTINGS SHALL BE POLYMER COATED TO MATCH FABRIC AND FENCE FRAMEWORK.
3. WIRE TIES FOR AND HORIZONTAL RAIL SHALL BE MINIMUM 11-GUAGE STEEL AND POLYMER COATED TO MATCH FABRIC.

E. GATES:

1. GATES SHALL BE FABRICATED IN ACCORDANCE WITH SPECIFICATION ASTM F900 FOR SWING GATES OR ASTM F1184 FOR SLIDE GATES.
2. GATE FRAMES AND ACCESSORIES SHALL BE POLYMER-COATED AFTER WELDING / FABRICATION. "TOUCHED-UP" GATE FRAMES ARE NOT PERMITTED.
3. CHAIN LINK FABRIC SHALL BE POLY-VINYL COATED TO MATCH FENCE FABRIC AND SHALL BE MIN 11 GAUGE WIRE.
4. SWING GATES SHALL ME MANUFACTURED AND INSTALLED TO SWING OUTWARD (AWAY) FROM FIELD LINES, COURT AREAS, AND RUNNING TRACKS.

INSTALLATION

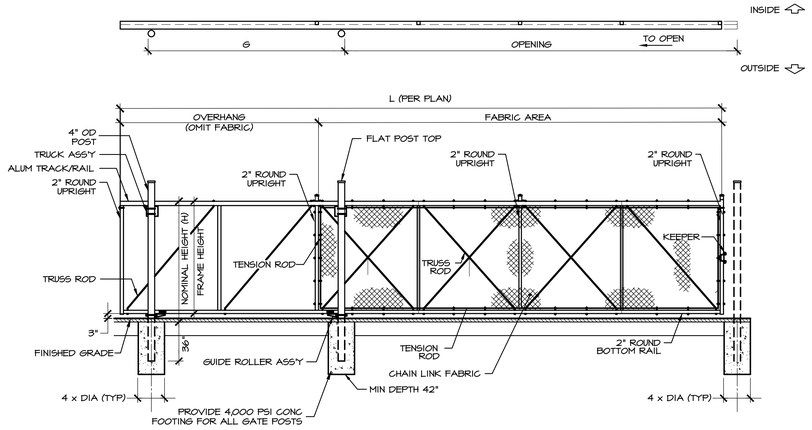
A. INSTALL CHAIN LINK FENCE IN ACCORDANCE WITH ASTM F567 AND DETAILS/DIAGRAMS AS INCLUDED ON DRAWINGS.

B. INSTALL FENCE FABRIC ON THE PLAYING SIDE OF THE FENCE FOR ALL ATHLETIC FIELDS, COURTS, AND RUNNING TRACKS.

C. BOTTOM OF FENCE FABRIC SHALL BE NO HIGHER THAN 1-INCH ABOVE FINISHED GRADE OR PAVED SURFACE OF COURT AREAS. TOP OF FENCE FABRIC SHALL NOT EXTEND ABOVE THE TOP RAIL. MAX DEVIATION OF 1/2 OF MESH DIMENSION TOLERANCE.

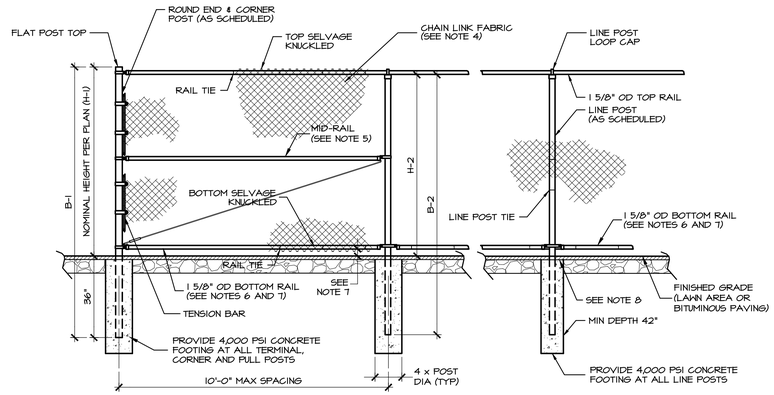
D. FENCES SHALL NOT HAVE ANY BARBS, SELVAGE ENDS, OR TIES EXPOSED OVER THE TOP RAIL OR WITHIN THE AREA OF THE FENCE.

E. FENCE AND GATE POST FOOTINGS SHALL BE PLACED BELOW FINISHED PAVING (OR AT SUBGRADE) FOR PAVED AREAS AND A MINIMUM OF 2-INCHES BELOW FINISHED GRADE FOR GRASS/LAWN AREAS. SAW CUTTING OR CORING FOR FOOTING PLACEMENT IN NEW ASPHALT PAVING IS NOT PERMITTED.



CANTILEVERED SLIDE GATE ELEVATION - (2) BAYS SHOWN

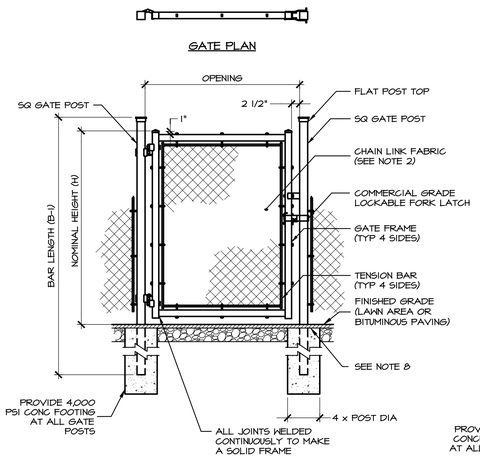
A/31 CHAIN LINK CANTILEVER SLIDE GATE
NOT TO SCALE



CHAIN LINK FENCE ELEVATION

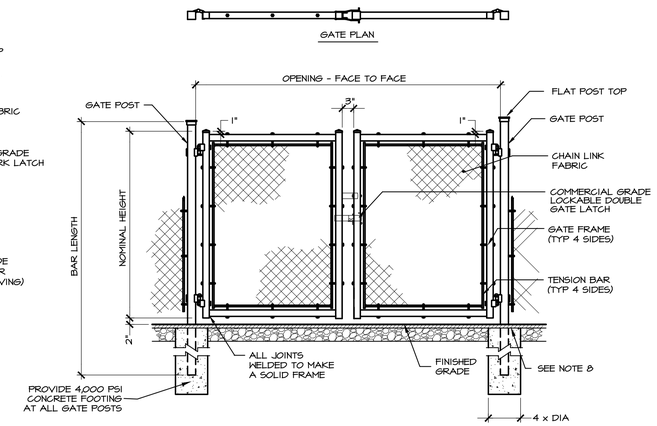
FENCE HEIGHT	END & CORNER POSTS			LINE POSTS		
NOMINAL HEIGHT	B-1 BAR LENGTH	H-1 HEIGHT ABOVE GRADE	ROUND PIPE (OD)	B-2 BAR LENGTH	H-2 HEIGHT ABOVE GRADE	ROUND PIPE (OD)
3'-6"	6'-6"	3'-6 5/8"	2 1/2"	6'-2"	3'-2 7/8"	2"
6'-0"	9'-0"	6'-0 5/8"	2 1/2"	8'-8"	5'-8 7/8"	2"
8'-0"	11'-0"	8'-0 5/8"	3"	10'-8"	7'-8 7/8"	2 1/2"

C/31 CHAIN LINK FENCE
NOT TO SCALE



SINGLE SWING CHAIN LINK GATE ELEVATION

SINGLE LEAF SWING GATE		
NOMINAL HEIGHT (H)	UPRIGHT HEIGHT (U)	FRAME HEIGHT (F)
3'-6"	3'-4"	3'-2 1/2"
6'-0"	5'-10"	5'-8 1/2"
8'-0"	7'-10"	7'-8 1/2"
OPENING	GATE POSTS (SEE NOTE 2)	HINGE SPACE (S)
3' TO 6'	2 1/2" SQ	2 1/4"



DOUBLE SWING CHAIN LINK GATE ELEVATION

DOUBLE LEAF SWING GATE		
NOMINAL HEIGHT (H)	UPRIGHT HEIGHT (U)	FRAME HEIGHT (F)
3'-6"	3'-4"	3'-2 1/2"
6'-0"	5'-10"	5'-8 1/2"
8'-0"	7'-10"	7'-8 1/2"
OPENING	GATE POSTS	HINGE SPACE (S)
8'-12'	2 7/8" OD	2 1/4"
14'-24'	4" OD	2 1/4"

B/31 CHAIN LINK SWING GATES
NOT TO SCALE

CHAIN LINK FENCE AND GATE NOTES

1. ALL FENCE MATERIALS SHALL BE STEEL AND PRODUCED AND MANUFACTURED IN THE U.S.A. EXCEPT FENCE POST TOPS, RAIL ENDS, AND TIES MAY BE ALUMINUM. ALL MATERIALS AND FABRICATION SHALL CONFORM TO THE CHAIN LINK FENCE MANUFACTURERS INSTITUTE (CLFMI) PRODUCT MANUAL, LATEST EDITION.
2. PROVIDE MANUALLY OPERATED SWING GATES OR CANTILEVER SLIDE GATES AS DESIGNATED ON DRAWINGS.
3. ALL DIMENSIONS ARE NOMINAL. VERIFY ACTUAL FENCE DIMENSIONS AND GATE OPENINGS IN FIELD.
4. ALL FENCE FABRIC, POSTS, RAILS, GATE FRAMES, STRETCHER BARS, AND OTHER PARTS SHALL BE PVC COATED, MEETING THE REQUIREMENTS OF CLFMI STANDARD GUIDE FOR POLYVINYL CHLORIDE (PVC). ALL COATINGS SHALL CONFORM TO CLASS 2b (FUSED), BLACK, PER ASTM 934.
5. PROVIDE MID-RAIL AND TRUSS ROD AT ALL CORNERS OF FENCE, ADJOINING ALL GATES, AND AT ALL TERMINAL ENDS OF FENCE GREATER THAN FOUR (4) FEET IN HEIGHT.
6. PROVIDE BOTTOM RAIL AND TOP RAIL CONTINUOUS FOR ALL FENCE.
7. POSITION BOTTOM OF FABRIC 2" ABOVE FINISHED GRADE FOR PERIMETER FENCING. POSITION BOTTOM OF FABRIC 1" ABOVE FINISHED GRADE FOR ATHLETIC FIELD FENCING.
8. SET TOP OF FOOTING 3" MIN BELOW FINISHED GRADE IN GRASS/LAWN AREAS. SET TOP OF FOOTING AT FINISHED GRADE OF PAVEMENT AT BITUMINOUS PAVED AREAS.
9. DETAILS ARE TYPICAL - ALL DETAILS FOR FENCE AND GATES MAY NOT APPLY. PROVIDE FENCE AND GATES AS SCHEDULED ON THE DRAWINGS, IN ACCORDANCE WITH THE APPLICABLE DETAILS ON THIS SHEET, AND PER SUBMITTALS AS APPROVED BY THE OWNER.
10. COMPLY WITH ASTM F900 FOR FABRICATION OF ALL GATE FRAMES. FABRICATE USING RECTANGULAR TUBULAR MEMBERS, WELDED AT ALL CORNERS TO FORM A RIGID ONE-PIECE UNIT. POLYMER COAT ALL GATE FRAMES TO MATCH ADJOINING FENCE FRAMEWORK IN ACCORDANCE WITH ASTM F900.
11. USE SQUARE GATE POSTS FOR ALL GATES - WHERE A CONFLICT EXISTS BETWEEN THE SCHEDULE AND APPLICABLE STANDARDS, CONFORM TO ASTM F900 FOR FRAMING AND GATE POSTS.

REVISIONS PER:	DATE:	BY:
1. COL/LCCD COMMENTS	3/28/25	EWB
2. -	-	-
3. -	-	-
4. -	-	-
5. -	-	-

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COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — ELIZABETH WERNER BALDWIN — ENGINEER — PE080726

PENNSYLVANIA — REGISTERED LANDSCAPE ARCHITECT — REGISTRATION NUMBER 001715

STORMWATER MANAGEMENT PLAN

SUBJECT:

SITE DETAILS

MCCASKEY HIGH SCHOOL

MCCASKEY HIGH SCHOOL STADIUM RENOVATIONS

CITY OF LANCASTER - LANCASTER COUNTY - PENNSYLVANIA

CLIENT:

MM ARCHITECTS
214 NORTH DUKE STREET
LANCASTER, PA 17602
(717) 393-3211

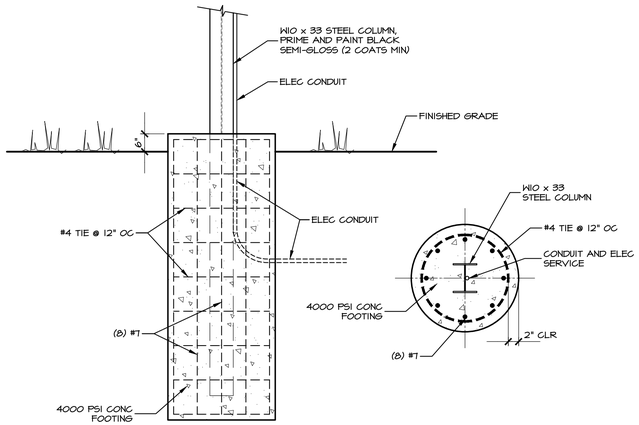
MANAGER:	HDC	DATE:	January 30, 2025
DESIGNER:	EWB	PROJECT NO.	AZ202-015
DRAWN BY:	JMT	SCALE:	AS SHOWN

DRAWING NO.

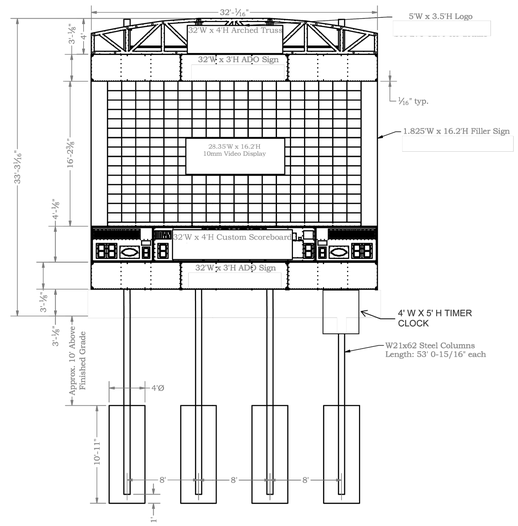
31 OF 53

NOTES:

1. COLUMN STEEL TO BE GRADE A992 (50 KSI STEEL MIN).
2. BRACING STEEL TO BE ASTM A500 GRADE B MIN.
3. MINIMUM BOLT GRADE: A307.
4. PER IBC STANDARDS, WELDS TO CONFORM TO AWS STANDARDS.
5. SCOREBOARD TO BE PROVIDED BY OWNER, INSTALLATION BY CONTRACTOR.



A.1 FOOTER
SCALE: 1/2" = 1'-0"



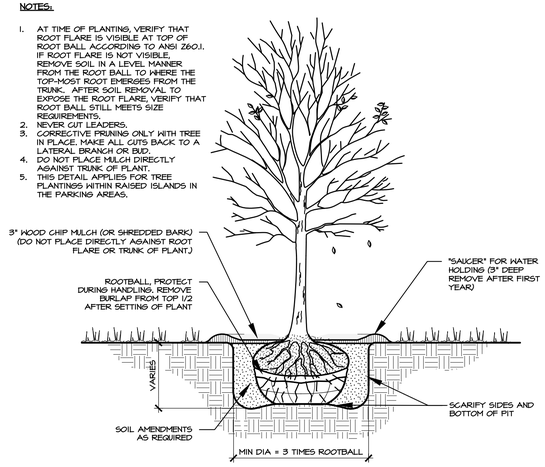
A.2 ELEVATION
NOT TO SCALE

A/32 SCOREBOARD INSTALLATION

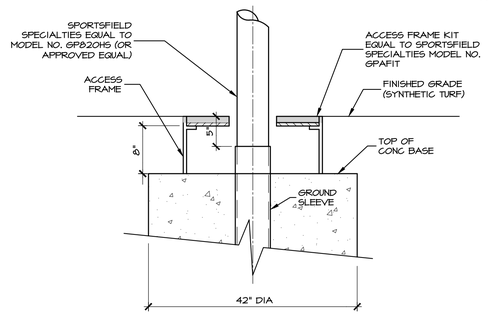
SCALE: AS NOTED

NOTES:

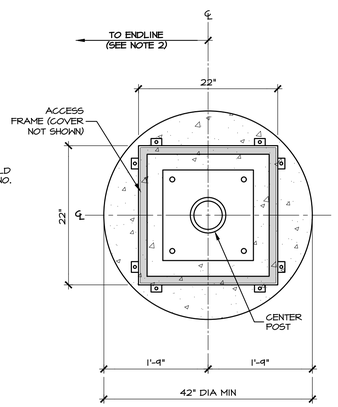
1. AT TIME OF PLANTING, VERIFY THAT ROOT FLARE IS VISIBLE AT TOP OF ROOT BALL ACCORDING TO ANSI Z60.1. IF ROOT FLARE IS NOT VISIBLE, REMOVE SOIL IN A LEVEL MANNER FROM THE ROOT BALL TO WHERE THE TOP-MOST ROOT EMERGES FROM THE TRUNK. AFTER SOIL REMOVAL TO EXPOSE THE ROOT FLARE, VERIFY THAT ROOT BALL STILL MEETS SIZE REQUIREMENTS.
2. NEVER CUT LEADERS.
3. CORRECTIVE PRUNING ONLY WITH TREE IN PLACE. MAKE ALL CUTS BACK TO A LATERAL BRANCH OR BUD.
4. DO NOT PLACE MULCH DIRECTLY AGAINST TRUNK OF PLANT.
5. THIS DETAIL APPLIES FOR TREE PLANTINGS WITHIN RAISED ISLANDS IN THE PARKING AREAS.



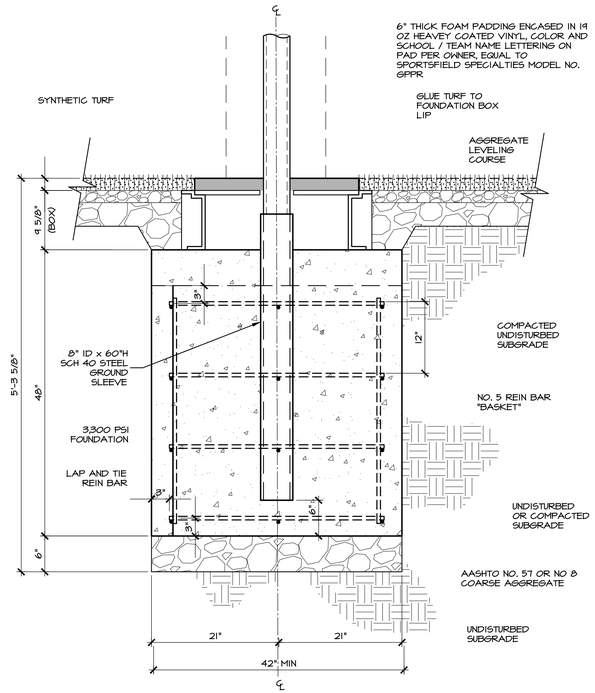
C/32 DECIDUOUS TREE PLANTING DETAIL
NOT TO SCALE



B.1 BASE SECTION
NOT TO SCALE



B.2 BASE / FOOTING PLAN
NOT TO SCALE



B.3 FOUNDATION AND BOX SECTION

NOTES:

1. PROVIDE A TWO-PIECE REMOVABLE ACCESS FRAME COVER AND A ONE-PIECE COVER (FOR USE WHEN THE GOAL IS REMOVED) AT EACH ACCESS FRAME. INSTALL APPROVED RESILIENT MATERIAL, ON THE ACCESS FRAME COVERS. THE COVERS SHALL FIT SNUG WHEN INSTALLED AND SHALL BE LEVEL WITH THE ADJOINING FIELD SURFACES.
2. VERIFY REQUIRED MOUNTING DISTANCE WITH MANUFACTURER'S DRAWINGS. THE GOAL POST SHALL BE LOCATED SO THAT THE "FACE" OF THE CROSSBAR ALIGNS WITH, AND IS PARALLEL TO, THE INSIDE EDGE OF THE END ZONE END LINE.
3. INSTALL GOAL IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS, SPECIFICATIONS AND SHOP DRAWINGS (AS REVIEWED AND APPROVED BY ENGINEER).

B/32 8' OFFSET GOAL POST BASE / FOOTING

NOT TO SCALE

D/32 PLAY CLOCK INSTALLATION
SCALE: 1/2" = 1'-0"

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COMMONWEALTH OF PENNSYLVANIA — JOHN D. PAPOW — REGISTERED LANDSCAPE ARCHITECT

STORMWATER MANAGEMENT PLAN

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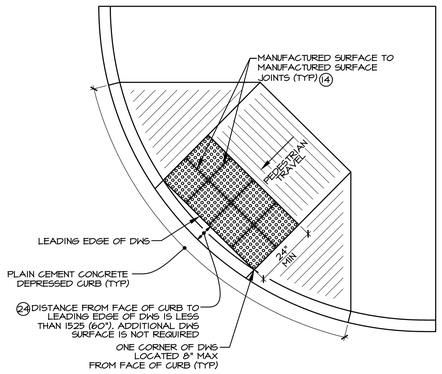
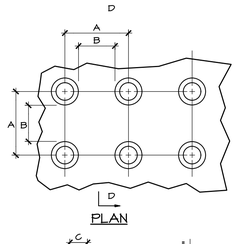
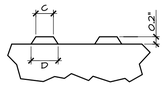
DRAWING NO.
32 OF 53





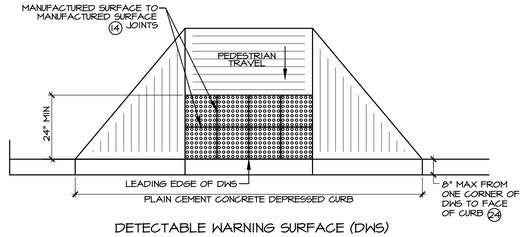
PLAN



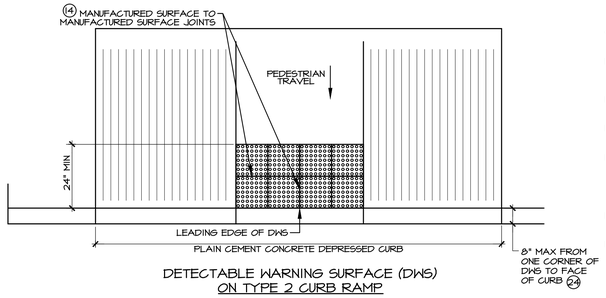
SECTION D-D

TRUNCATED DOME DIMENSIONS		
DIM	MIN inch	MAX inch
A	1.6"	2.4"
B	0.65"	1.5"
C	(13)	(13)
D	0.9"	1.4"

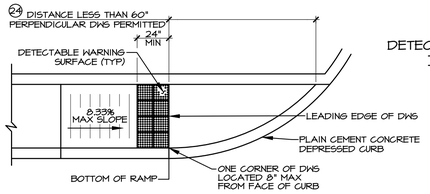
DETECTABLE WARNING SURFACE (DWS)
TRUNCATED DOME DETAILS

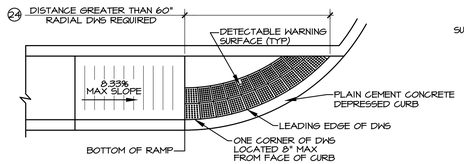


DETECTABLE WARNING SURFACE (DWS)
ON TYPE 1 CURB RAMP

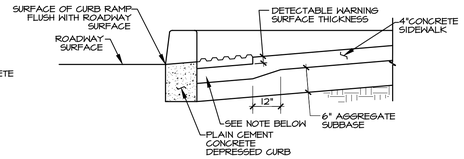


DETECTABLE WARNING SURFACE (DWS)
ON TYPE 2 CURB RAMP





DETECTABLE WARNING SURFACE
(DWS) ON CURVED SURFACES



NOTE: CONSTRUCT NOTCH AS SHOWN TO PROVIDE FULL THICKNESS SIDEWALK UNDER DETECTABLE WARNING SURFACE.

DETECTABLE WARNING SURFACE
EMBEDDING DETAIL

(13) THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION.

(14) CONSTRUCTION JOINTS ARE SHOWN TO DEPICT A 90 DEGREE GRID. ACTUAL SIZE AND SHAPE MAY VARY.

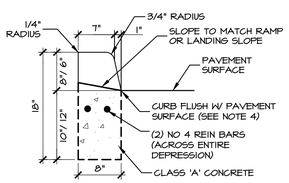
(24) ONE CORNER OF THE DWS MUST BE WITHIN 8" OF THE FACE OF CURB. NO OTHER POINT ON THE LEADING EDGE OF THE DWS MAY BE MORE THAN 60" AWAY FROM THE FACE OF CURB.

NOTES:

1. PROVIDE MATERIALS AND CONSTRUCTION MEETING THE REQUIREMENTS OF PUBLICATION 408, SECTIONS 350, 409, 630, 676 AND 694.
2. PROVIDE EXPANSION JOINT MATERIAL 1/2" THICK WHERE CURB RAMP ADJOINS ANY RIGID PAVEMENT, SIDEWALK OR STRUCTURE WITH THE TOP OF JOINT FILLER FLUSH WITH ADJACENT CONCRETE SURFACE.
3. CONSTRUCT DIAGONAL CURB RAMPS WITH A 4'-0" CLEARSPACE OUTSIDE OF TRAVEL LANES AT THE BOTTOM OF THE RAMP. IF DIAGONAL CURB RAMPS ARE PROVIDED AT MARKED CROSSINGS, THE 4'-0" CLEAR SPACE IS LOCATED WITHIN THE MARKINGS AND OUTSIDE OF THE TRAVEL LANES. SEE SHEET 7 FOR CROSSWALK DETAILS.
4. SEAL JOINTS WITH AN APPROVED SEALING MATERIAL.
5. PROVIDE SLIP RESISTANT TEXTURE ON CURB RAMP BY COARSE BROOMING TRANSVERSE TO THE SLOPE OF THE RAMP. EXTEND TEXTURE THE FULL WIDTH AND LENGTH OF THE CURB RAMP INCLUDING FLARED SIDE RAMPS.
6. MODIFY CONSTRUCTION DETAILS TO ADAPT DIMENSIONS TO EXISTING CURB HEIGHTS WHERE THE CURB IS LESS THAN THE STANDARD 8" HEIGHT.
7. CURB RAMP AND SIDE FLARE LENGTHS ARE VARIABLE AND BASED ON CURB HEIGHT AND THE SIDEWALK SLOPE.
8. IT MAY BE NECESSARY TO LIMIT THE RUN OF A PARALLEL OR PERPENDICULAR CURB RAMP IN ORDER TO AVOID CHASING GRADE INDEFINITELY WHEN TRAVERSING THE HEIGHT OF CURB. RAMP LENGTH NOT TO EXCEED 15'-0", ADJUST RAMP SLOPE AS NEEDED TO PROVIDE ACCESS TO THE MAXIMUM EXTENT POSSIBLE.
9. MEASURE AND PAY FOR DEPRESSED CURB IN ACCORDANCE WITH SECTION 630.4.
10. THE DETAILS DEPICT PEDESTRIAN PUSH BUTTON POLES TO ILLUSTRATE THE PREFERRED PLACEMENT OF PEDESTRIAN PUSH BUTTONS. PEDESTRIAN PUSH BUTTONS ARE TO BE INSTALLED WHERE APPLICABLE.
11. CONSTRUCT BUILT-UP CURB RAMP OF BITUMINOUS MATERIAL AS INDICATED, INCLUDING SURFACE PREPARATION AND TACK COAT, AS REQUIRED.
12. ALIGN DETECTABLE WARNING DOMES ON A SQUARE GRID IN THE PREDOMINANT DIRECTION OF THE RAMP AND PERPENDICULAR TO CURB.
13. PROVIDE DETECTABLE WARNING SURFACES (DWS) 24" MINIMUM (IN THE DIRECTION OF PEDESTRIAN TRAVEL) ACROSS FULL WIDTH OF RAMP AT THE GRADE BREAK NEAR STREET EDGE. PROVIDE DWS THAT CONTRAST VISUALLY WITH ADJACENT WALKWAY SURFACES, EITHER LIGHT-ON-DARK OR DARK-ON-LIGHT FOR THE FULL WIDTH OF RAMP.
14. FOR NEW CONSTRUCTION, DO NOT EXCEED 2.00% CROSS SLOPE ON THE CURB RAMP OR ACCESSIBLE ROUTE.
15. FOR NEW CONSTRUCTION AND ALTERATIONS, CONSTRUCT CURB RAMP AND FLARE SLOPES WITH THE FLATTEST SLOPE POSSIBLE. THE SLOPES INDICATED IN THE DETAILS SHOW THE MAX SLOPE ALLOWABLE. SLOPES THAT EXCEED THOSE INDICATED IN THE DETAILS, OR CONTRACT DOCUMENTS AS APPLICABLE, WILL NOT BE ACCEPTED AND WILL BE RECONSTRUCTED.
16. THE IMMEDIATE ADJOINING SURFACE AT THE BOTTOM AND TOP OF CURB RAMPS IS NOT TO EXCEED ROADWAY PROFILE SLOPE WHEN LOCATED ADJACENT TO THE ROADWAY. IN AREAS WHERE THE ADJOINING SURFACE IS NOT ADJACENT TO THE ROADWAY, THE LONGITUDINAL SLOPE IS NOT TO EXCEED 5.00%. FOR ALL LOCATIONS DO NOT EXCEED 2.00% CROSS SLOPE. FOR LOCATIONS THAT REQUIRE A TURNING MANEUVER, THE MAXIMUM SLOPE IS 2.00% IN ALL DIRECTIONS. THE CHANGE IN GRADE AT THE BOTTOM OF THE CURB RAMP AND ADJOINING ROAD SURFACE IS NOT TO EXCEED AN ALGEBRAIC DIFFERENCE OF 11.00%.
17. THE CONSTRUCTION STANDARDS DEPICTED ARE MOST APPROPRIATE FOR NEW CONSTRUCTION. ALL CONSTRUCTION MUST MEET THE STANDARDS CONTAINED HEREIN UNLESS OTHERWISE NOTED OR DIRECTED.
18. ALL SLOPES ARE MEASURED WITH RESPECT TO A LEVEL PLANE. THEREFORE, THE LENGTH OF RAMP IS NOT SOLELY DEPENDANT ON THE HEIGHT OF CURB. (FOR EXAMPLE, A 6" CURB DOES NOT NECESSARILY MEAN A RAMP LENGTH OF 6-0" FOR A 1:12 SLOPE.
19. SIDEWALK WIDTH MAY BE REDUCED TO 4'-0", WHEN PASSING AREAS 5'-0" X 5'-0" ARE PROVIDED EVERY 200'.
20. THE TRAVEL LANE IS DEFINED BY THE OUTSIDE EDGE OF THE WHITE PAVEMENT MARKING LINE. IF A WHITE PAVEMENT MARKING LINE DOES NOT EXIST, THE TRAVEL LANE IS DEFINED BY THE CONTRACT DOCUMENTS.
21. DEPRESSED CURB FOR CURB RAMPS MUST BE FLUSH TO ADJACENT ROADWAY. EDGE OF ROAD ELEVATIONS AT THE FLOW LINE SHALL BE GRADED TO ENSURE POSITIVE DRAINAGE AND PREVENT PONDING.

A 33 CURB RAMPS AND SIDEWALKS - NEW CONSTRUCTION OR ALTERATION DETAILS

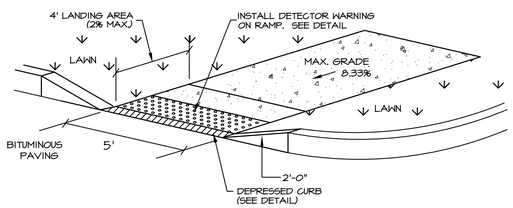
NOT TO SCALE



DEPRESSED CURB FOR CURB RAMPS

NOTES:

1. PROVIDE MATERIALS AND CONSTRUCTION MEETING THE REQUIREMENTS OF PUBLICATION 408, SECTIONS 350, 409, 630, 676 AND 694.
2. PROVIDE EXPANSION JOINT MATERIAL ½" THICK WHERE CURB RAMP ADJOINS ANY RIGID PAVEMENT, SIDEWALK OR STRUCTURE WITH THE TOP OF JOINT FILLER FLUSH WITH ADJACENT CONCRETE SURFACE.
3. SEAL JOINTS WITH AN APPROVED SEALING MATERIAL.
4. CONSTRUCT DEPRESSED CURB FOR CURB RAMPS FLUSH TO ADJACENT ROADWAY. GRADE EDGE OF ROAD ELEVATIONS AT THE FLOW LINE TO ENSURE POSITIVE DRAINAGE AND PREVENT PONDING. FOR LEVEL LANDINGS BEHIND DEPRESSED CURB, ADJUST SLOPES TO PROVIDE POSITIVE DRAINAGE.
5. CONSTRUCT TOP OF PLAIN CEMENT CONCRETE DEPRESSED CURB TO BE FLUSH WITH ADJACENT SURFACES (RAMPS, SIDEWALKS, FLARES).



B 33 ACCESSIBLE RAMP DETAIL

NO SCALE

PAV-516

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2. -	-	-
3. -	-	-
4. -	-	-
5. -	-	-

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MM ARCHITECTS

214 NORTH DUKE STREET

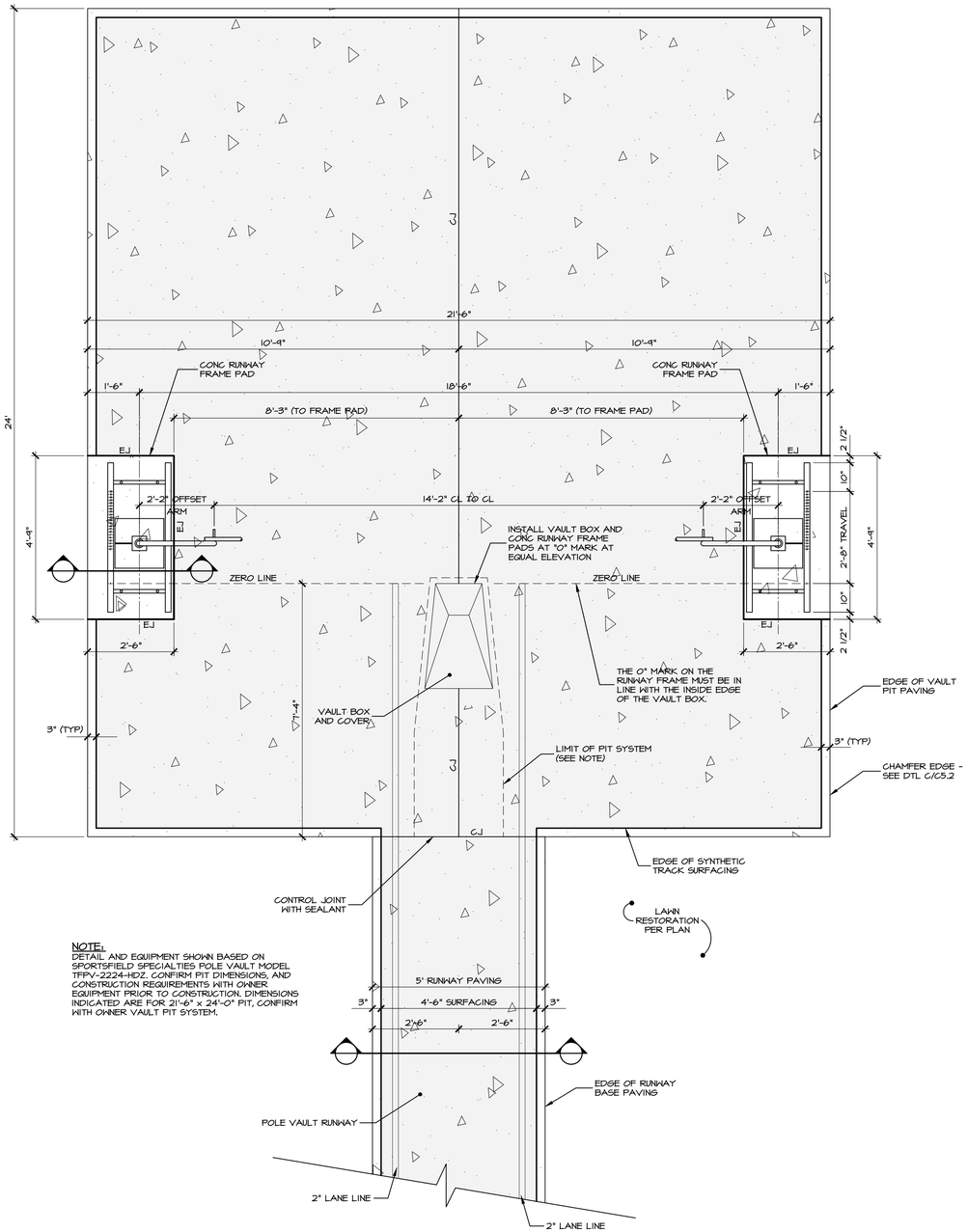
LANCASTER, PA 17602

(717) 393-3211

MANAGER:	HDC	DATE:	January 30, 2025
DESIGNER:	EWB	PROJECT NO.	AZ202-015
DRAWN BY:	JMT	SCALE:	AS SHOWN

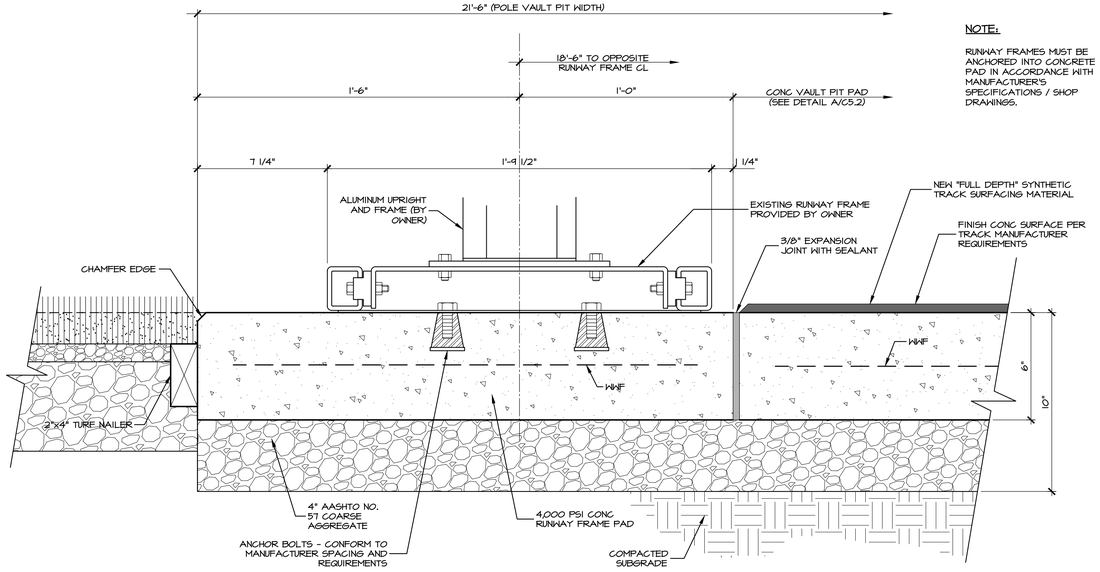
DRAWING NO.

33 OF 53



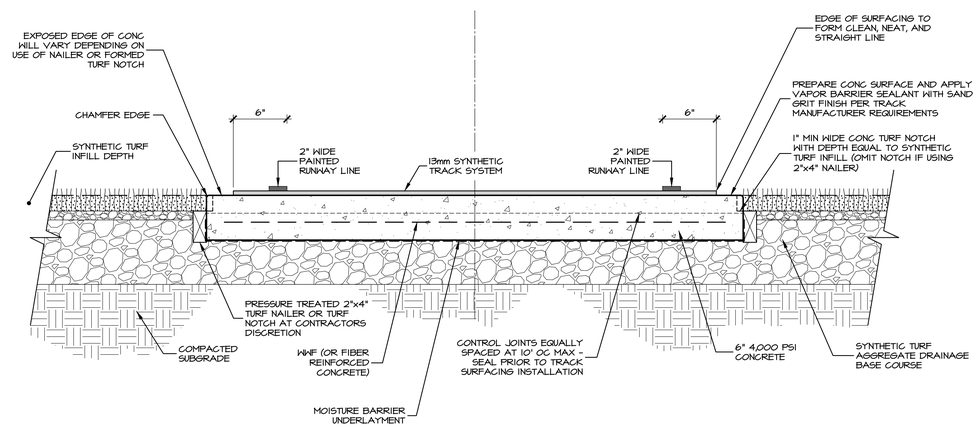
NOTE:
DETAIL AND EQUIPMENT SHOWN BASED ON SPORTSFIELD SPECIALTIES POLE VAULT MODEL TFPV-2224-HDZ. CONFIRM PIT DIMENSIONS, AND CONSTRUCTION REQUIREMENTS WITH OWNER EQUIPMENT PRIOR TO CONSTRUCTION. DIMENSIONS INDICATED ARE FOR 21'-6" x 24'-0" PIT, CONFIRM WITH OWNER VAULT PIT SYSTEM.

A/34 POLE VAULT PIT / PAD AREA LAYOUT
SCALE: 1/2" = 1'-0"



NOTE:
RUNWAY FRAMES MUST BE ANCHORED INTO CONCRETE PAD IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS / SHOP DRAWINGS.

B/34 POLE VAULT FRAME AND PIT AREA SECTION "A-A"
SCALE: 3" = 1'-0"



C/34 POLE VAULT RUNWAY CROSS-SECTION
SCALE: 1 1/2" = 1'-0"

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1.	COL/LCCD COMMENTS	3/28/25	EWB
2.	-	-	-
3.	-	-	-
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REGISTERED PROFESSIONAL
ELIZABETH WERNER BALDWIN
ENGINEER
PE060756

PENNSYLVANIA
REGISTERED LANDSCAPE ARCHITECT

STORMWATER MANAGEMENT PLAN

SUBJECT:
SITE DETAILS
MCCASKEY HIGH SCHOOL
MCCASKEY HIGH SCHOOL STADIUM RENOVATIONS
CITY OF LANCASTER - LANCASTER COUNTY - PENNSYLVANIA

CLIENT:
MM ARCHITECTS
214 NORTH DUKE STREET
LANCASTER, PA 17602
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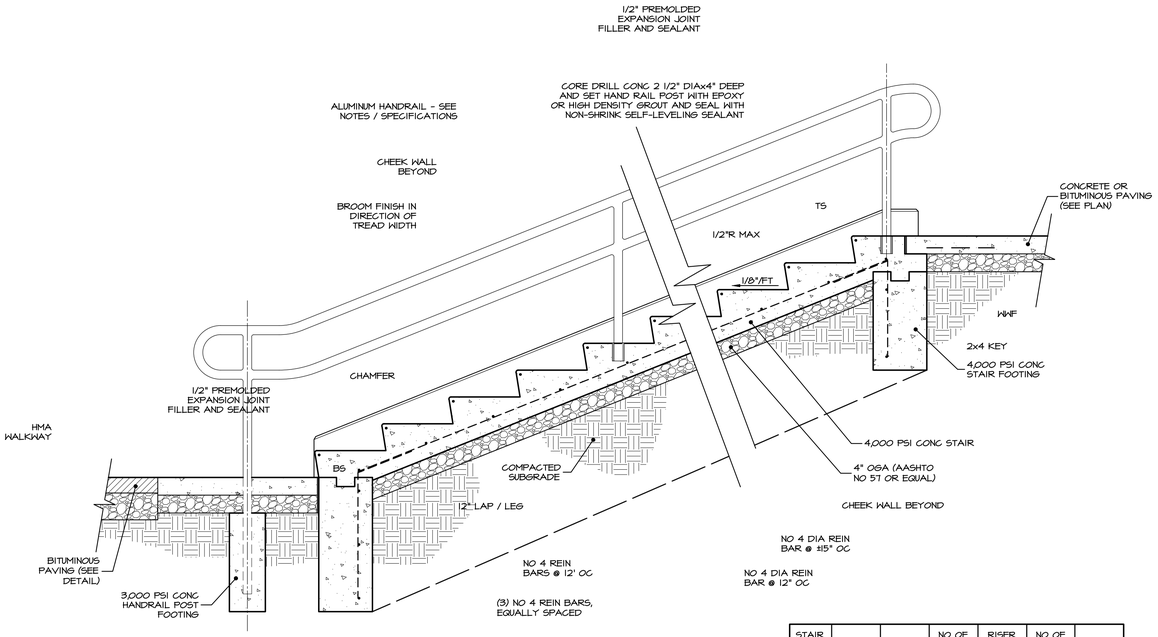
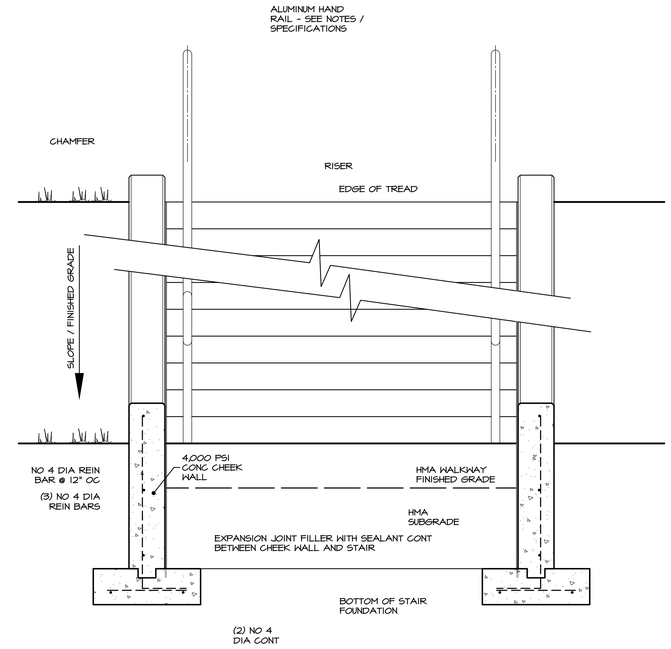


STAIR RUN	T5 ELEV	B5 ELEV	NO OF RISERS	RISER HEIGHT	NO OF TREADS	WIDTH
A	307.60	303.60	8	6"	7	8'

A.1 STAIR SECTION
SCALE: 3/4" = 1'-0"

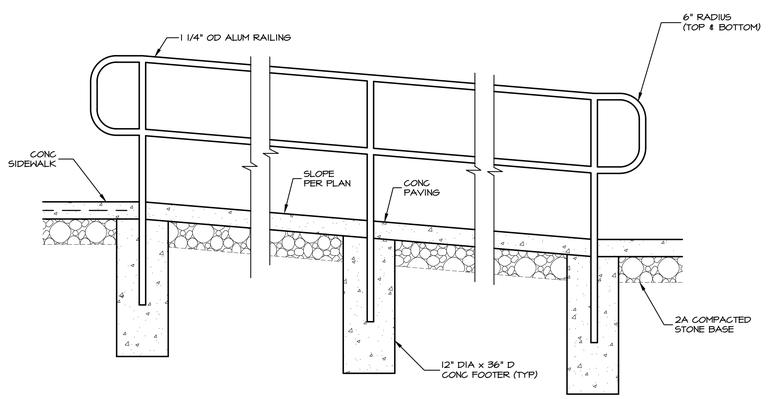


A.2 CHEEK WALL SECTION
SCALE: 3/4" = 1'-0"

HANDRAIL NOTES / SPECIFICATIONS

1. DESIGN, FABRICATE, AND INSTALL STAIR RAILINGS TO WITHSTAND A UNIFORMLY DISTRIBUTED LOAD OF 50 LBS/LF APPLIED IN ANY DIRECTION AND A CONCENTRATED LOAD OF 200 LBS APPLIED AT ANY POINT IN ANY DIRECTION. LOADS SHALL BE APPLIED SEPARATELY.
2. SHOP DRAWINGS: PROVIDE SUBMITTAL INDICATING SIZES, SHAPES, CONFIGURATION, SECTIONS, FABRICATION AND INSTALLATION DETAILS. CERTIFY RAILINGS MEET CODE REQUIREMENTS, ARE ADA COMPLIANT, AND MEET LOADING REQUIREMENTS (SEE NOTE 1).
3. SHOP ASSEMBLED MECHANICAL JOINTS SHALL FIT WITHIN 1/16". EACH ELEMENT OF AN ASSEMBLY SHALL BE CORRECT WITHIN 1/8" AND TOTAL SIZE OF A FREE-STANDING ASSEMBLY SHALL BE CORRECT TO WITHIN 1/2". INSTALL RAILINGS PLUMB AND ALIGNED WITHIN 1/4" IN 12-FEET AND PARALLEL WITH ADJACENT SURFACES TO WITHIN 1/4".
4. FIELD MEASUREMENTS: TAKE FIELD MEASUREMENTS PRIOR TO PREPARATION OF SHOP DRAWINGS AND FABRICATION.
5. MATERIALS:
   a. RAILS AND POSTS: 1 1/2-INCH MINIMUM TO 2-INCH MAXIMUM DIAMETER, EXTRUDED ALUMINUM TUBING, 6063 ALLOY, T5 OR T6, CONFORMING TO ASTM B221.
   b. FITTINGS: CAST OR MACHINED ALUMINUM.
   c. SPLICE CONNECTORS: CAST OR MACHINED ALUMINUM.
   d. EXPOSED FASTENERS: FLUSH COUNTERSUNK SCREWS OR BOLTS; CONSISTENT WITH DESIGN OF RAILING.
   e. FINISH: MILL FINISH.

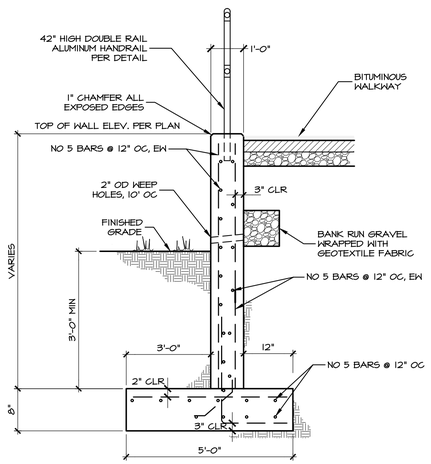
A 35 EXTERIOR CONC STAIR
SCALE: 3/4" = 1'-0"



B 35 ACCESSIBLE RAMP RAIL DETAIL
NOT TO SCALE

CONSTRUCTION NOTES:

1. ALL CONCRETE SHALL BE f'c = 4000 p.s.i. @ 28 DAYS.
2. ALL STEEL REINFORCING BARS SHALL BE GRADE 60 (fy = 60,000p.s.i.) AND SHALL CONFORM TO A.S.T.M.. A-615.
3. MINIMUM LAP SPLICE FOR REINFORCING BARS SHALL BE 24 INCHES- UNLESS OTHERWISE NOTED.
4. CONTRACTOR MAY USE #2 BARS FOR VERTICAL TIES TO FACILITATE POURING OF VERTICAL WALLS, HOLD STEEL SPACING & CLEARANCE.
5. THE CLASS SURFACE FINISH FOR ALL CONCRETE SURFACES SHALL BE A GENERAL SURFACE FINISH.



C 35 TYPICAL WALL AT WALL AND ENTRY DRIVE
NO SCALE

CONSTRUCTION NOTES:

1. ALL CONCRETE SHALL BE f'c = 4000 p.s.i. @ 28 DAYS.
2. ALL STEEL REINFORCING BARS SHALL BE GRADE 60 (fy = 60,000p.s.i.) AND SHALL CONFORM TO A.S.T.M.. A-615.
3. MINIMUM LAP SPLICE FOR REINFORCING BARS SHALL BE 24 INCHES- UNLESS OTHERWISE NOTED.
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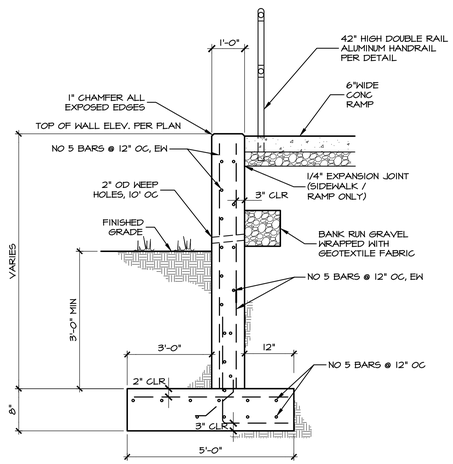

D 35 TYPICAL WALL AT ACCESSIBLE RAMP
NO SCALE

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COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL ELIZABETH WERNER BALDWIN ENGINEER 076703 PENNSYLVANIA

PENNSYLVANIA HUGH D. PARKER REGISTRATION NUMBER RA-015 REGISTERED LANDSCAPE ARCHITECT

STORMWATER MANAGEMENT PLAN

SUBJECT:

SITE DETAILS

MCCASKEY HIGH SCHOOL

MCCASKEY HIGH SCHOOL STADIUM RENOVATIONS

CITY OF LANCASTER - LANCASTER COUNTY - PENNSYLVANIA

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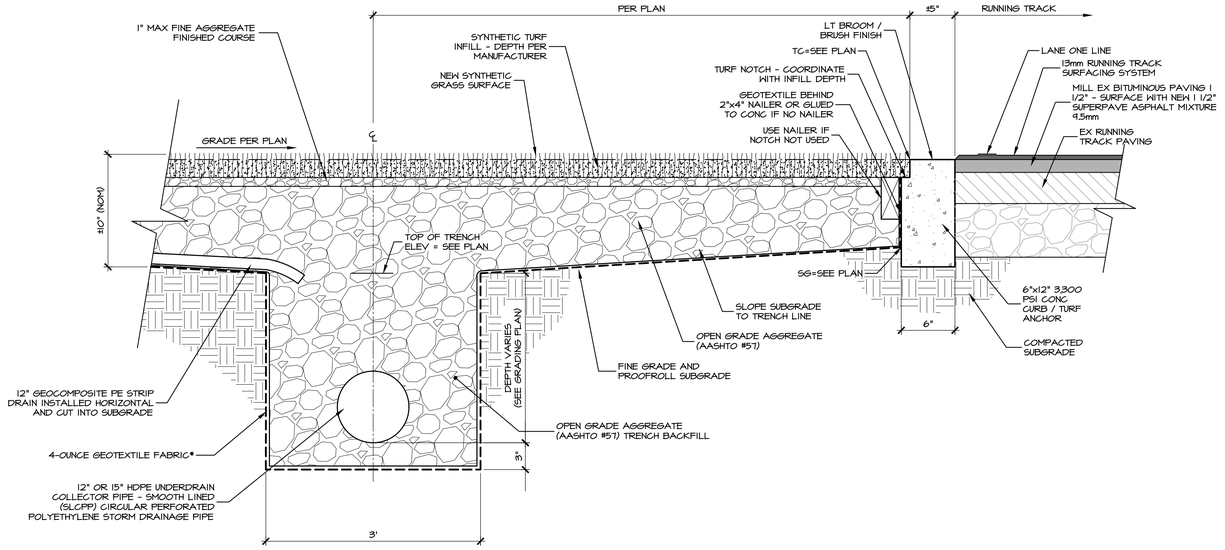
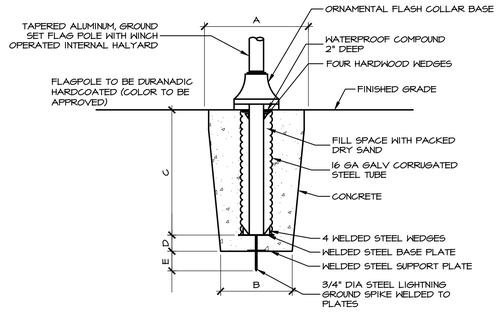


* SEE GEOTEXTILE FABRIC SPECIFICATIONS

A/36 TYPICAL SYNTHETIC TURF PERIMETER UNDERDRAIN COLLECTOR AND CURB CROSS-SECTION - STADIUM FIELD

SCALE: 1 1/2" = 1'-0"



NOTES:

A1 - CONCRETE BASE DIAMETER AT LEAST FIVE TIMES THE OUTSIDE DIAMETER OF BUTT AND NEVER LESS THAN 30" DIAMETER.

B1 - CONCRETE BASE DIAMETER AT LEAST FOUR TIMES THE OUTSIDE DIAMETER OF BUTT AND NEVER LESS THAN THREE FEET.

C1 - POLE SHOULD BE SET IN FOUNDATION TEN PERCENT (10%) OF POLE HEIGHT ABOVE GRADE AND NEVER LESS THAN THREE FEET.

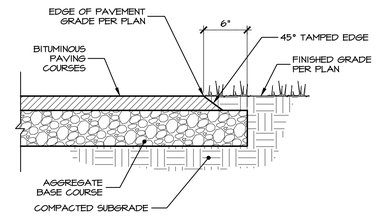
D1 - CONCRETE BASE FOOTING THICKNESS SHOULD BE 0.15 INCHES FOR EACH FOOT OF POLE HEIGHT ABOVE GRADE AND NEVER LESS THAN 4" THICK.

E1 - LIGHTNING ROD GROUND SPIKE SHOULD EXTEND INTO SOLID GROUND FOR THE SAME DISTANCE AS FOOTING THICKNESS.

NOTE: THE ABOVE DIMENSIONS ARE MINIMUM FOR DRY SOIL ONLY. WHERE HEAVY FROST CONDITIONS EXIST, INVERT DIMENSIONS A AND B. DIMENSIONS ARE BASED ON BAARTOL COMPANY INC. RECOMMENDATIONS. APPROVED ALTERNATE MANUFACTURERS MAY REQUIRE ALTERNATE FOUNDATION DESIGN/DIMENSIONS.

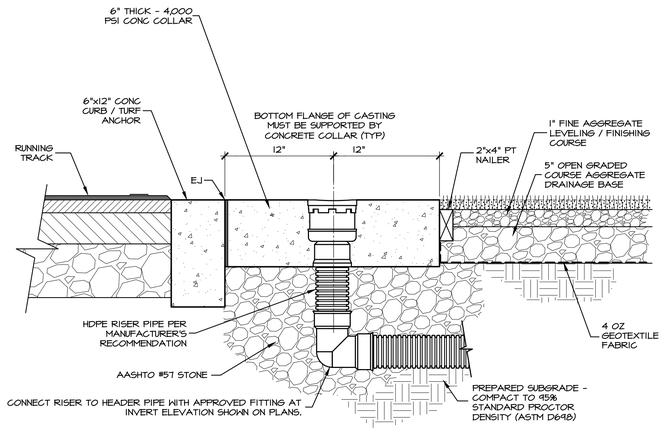
BUTT DIAMETER OF POLE	FOUNDATION TUBE DIAMETER	BASE PLATE SIZE	SUPPORT PLATE SIZE
UP TO 5-1/2" O.D.	8" I.D. X #16 GA.	14" X 14" X 3/16" OR 1/4"	6" X 6" X 3/16" OR 1/4"

C/36 FLAG POLE FOUNDATION DETAIL FOR 30'H POLE



E/31 PAVEMENT EDGE TREATMENT (NO CURB)

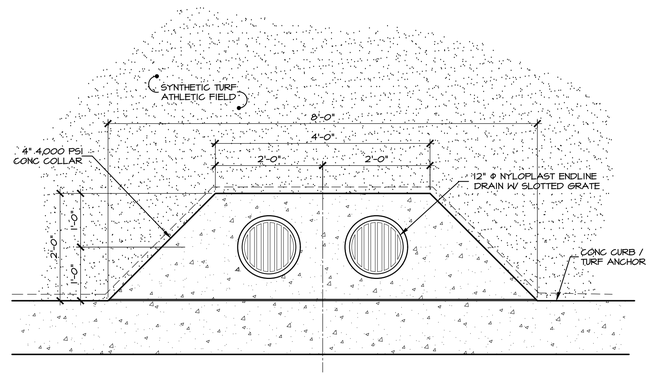
NOT TO SCALE



** THE BACKFILL MATERIAL SHALL BE CRUSHED STONE OR OTHER GRANULAR MATERIAL MEETING THE REQUIREMENTS OF CLASS II MATERIAL AS DEFINED IN ASTM D2321, OR AS DETERMINED BY LOCAL STANDARDS & SITE ENGINEER. BEDDING & BACKFILL FOR SURFACE DRAINAGE INLETS SHALL BE PLACED & COMPACTED UNIFORMLY IN ACCORDANCE WITH ASTM D2321.

B.1/36 UNDERDRAIN CLEANOUT TYP SECTION

SCALE: 1 1/2" = 1'-0"



B.2/36 DOUBLE CLEANOUT / COLLAR PLAN VIEW

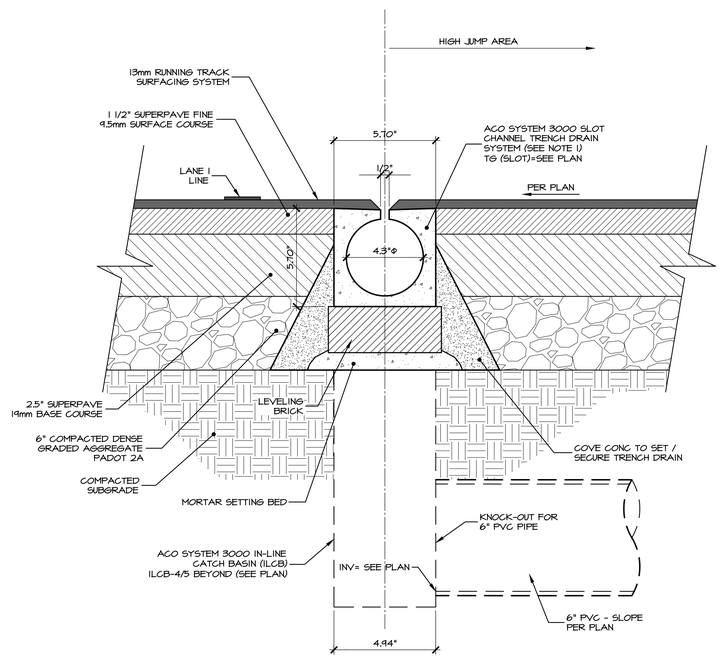
SCALE: 3/4" = 1'-0"

B/36 FIELD UNDERDRAIN CLEANOUT DETAIL IN SYNTHETIC TURF AREA

SCALE AS NOTED

NOTES:

1. TRENCH DRAIN DIMENSIONS ARE NOMINAL. VERIFY DIMENSIONS OF SELECTED TRENCH DRAIN SYSTEM. TRENCH DRAIN SHALL BE EQUAL TO ACO SPORT SYSTEM 3000.



NOTE

SEE ILCB DETAIL A ON SHEET 19 OF 32

D/36 SLOTTED TRENCH DRAIN AND IN-LINE CATCH BASIN

SCALE: 3" = 1'-0"

REVISIONS PER:	DATE:	BY:
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3. -	-	-
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COMMONWEALTH OF PENNSYLVANIA HUGH D. CAUSEY REGISTERED LANDSCAPE ARCHITECT

CONSTRUCTION DOCUMENTS

SUBJECT:

SITE DETAILS

MCCASKEY HIGH SCHOOL
MCCASKEY HIGH SCHOOL STADIUM RENOVATIONS
CITY OF LANCASTER - LANCASTER COUNTY - PENNSYLVANIA

CLIENT:

MM ARCHITECTS
214 NORTH DUKE STREET
LANCASTER, PA 17602
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MANAGER:	HDC	DATE:	February 6, 2025
DESIGNER:	EWB	PROJECT NO.	AZ202-015
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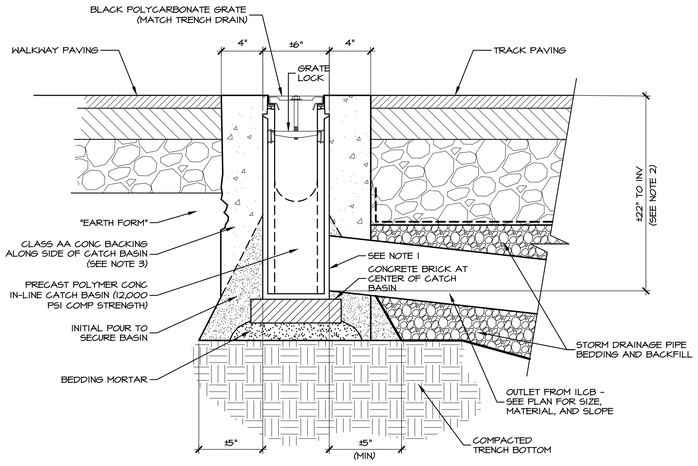
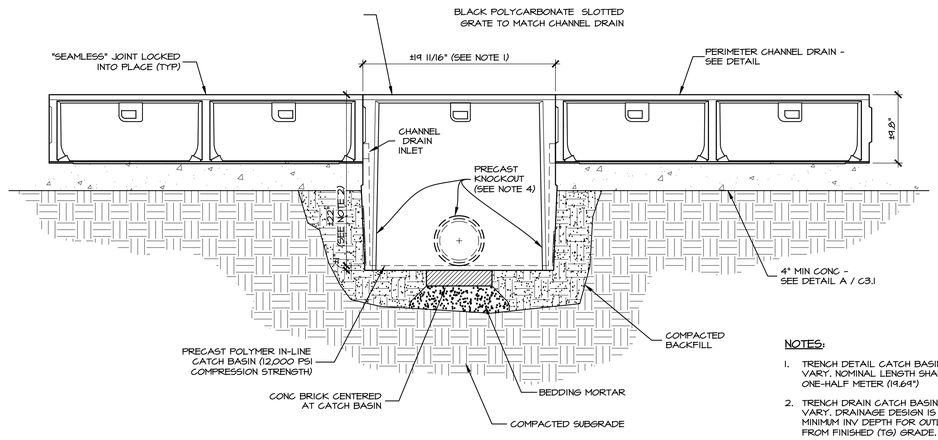
DRAWING: C:\Users\jmtoedter\DC\ACCDocs\ELA Group\AZ202-015 McCaskey Stadium Renovations\Project Files\CAD Data\Land Development\LD-PRELIM\DETAILS.dwg - PLOTTED: Apr 02, 2025 2:22 pm

NOTES:

1. IN-LINE CATCH BASIN DIMENSIONS ARE NOMINAL. VERIFY DIMENSIONS OF SELECTED CATCH BASIN AND OUTLET CONFIGURATION PRIOR TO CONSTRUCTION.
2. TOP OF GRATE TO INVERT OF CATCH BASIN / OUTLET IS APPROXIMATELY 22", OVERALL DEPTH IS APPROXIMATELY 24", VERIFY OUTLET ELEV AND CONFIGURATION TO MEET DRAINAGE SYSTEM REQUIREMENTS PRIOR TO CONSTRUCTION.
3. COORDINATE DEPTH OF "NOTCH" FOR TURF ANCHOR WITH SYNTHETIC TURF INSTALLER. DEPTH OF NOTCH TO BE EQUAL TO DEPTH OF TURF INFILL MATERIAL. A 2"X4" TREATED LUMBER NAILER MAY USED IN LIEU OF A NOTCH. DEPTH OF NAILER SHALL BE EQUAL TO DEPTH OF TURF INFILL MATERIAL.
4. PRIME TOP OF CURB/CONC. PRIOR TO PLACEMENT OF TRACK MATERIAL, BY OTHERS UNDER AEPA CONTRACT.



A.1 TYPICAL IN-LINE CATCH BASIN SECTION
NOT TO SCALE



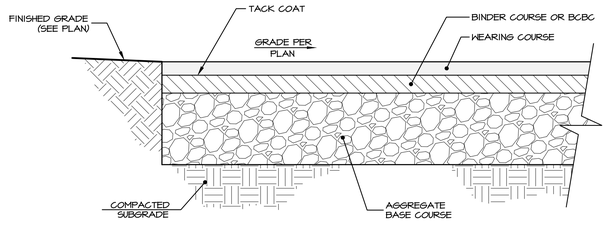
NOTES:

1. TRENCH DETAIL CATCH BASIN LENGTH MAY VARY. NOMINAL LENGTH SHALL BE ONE-HALF METER (19.69")
2. TRENCH DRAIN CATCH BASIN DEPTH MAY VARY. DRAINAGE DESIGN IS BASED ON A MINIMUM INV DEPTH FOR OUTLET OF 1.84' FROM FINISHED (TG) GRADE.
3. ALL CATCH BASINS (ILCB) SHALL INCLUDE A TRASH BUCKET AND REMOVABLE GRATING.
4. OUTLET CONFIGURATION PER PLAN. PROVIDE ACCESSORY OUTLET PIPE CONNECTORS FOR CONNECTION OF ILCB TO FIELD UNDERDRAIN OR SITE STORM SEWER SYSTEM.
5. IN-LINE CATCH BASIN DETAIL APPLIES TO SLOTTED TRENCH DRAIN AS WELL.

A.2 TYPICAL IN-LINE CATCH BASIN AND TRENCH / CHANNEL DRAIN SECTION / ELEVATION
NOT TO SCALE

A 37 TRENCH DRAIN ALONG GRANDSTANDS - IN-LINE CATCH BASIN ELEVATION AND SECTION

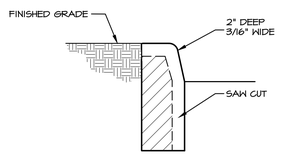
SCALE: 1 1/2" = 1'-0"



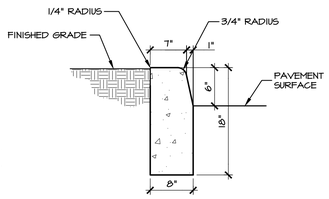
1. BITUMINOUS PAVEMENT MATERIALS ARE LISTED PER PENNSYLVANIA DEPARTMENT OF TRANSPORTATION, PUBLICATION 408 STANDARDS, LATEST REVISIONS.
2. RECLAIMED AGGREGATE MATERIAL SHALL MEET THE REQUIREMENTS OF PA DOT PUBLICATION 408, SECTION 703.1, TABLE A, OR 703.2, TABLE B.

HOT MIX ASPHALT PAVING SCHEDULE							
SYM	WEARING COURSE		BINDER COURSE		AGGREGATE BASE COURSE		LOCATION
	TYPE	COMPACTED THICKNESS	TYPE	COMPACTED THICKNESS	TYPE	COMPACTED THICKNESS	
A	SUPERPAVE ASPHALT MIXTURE DESIGN, 9.5mm, PG 64-22, HMA	2.5"	--	-	2A MODIFIED	6"	WALKWAYS
B	SUPERPAVE ASPHALT MIXTURE DESIGN, 9.5mm, PG 64-22, HMA	1.5"	SUPERPAVE ASPHALT MIXTURE DESIGN, 19mm, PG 64-22, HMA	2.5"	2A MODIFIED	6"	TRACK PAVING, PARKING AREA, DRIVES

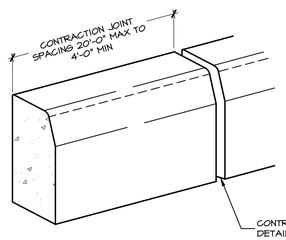
B 37 HOT MIX ASPHALT PAVEMENT SECTION / SCHEDULE
NOT TO SCALE



DETAIL 'A' CONTRACTION JOINT



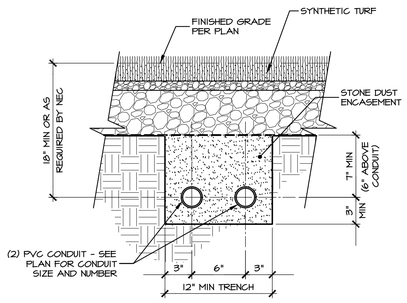
TYPICAL CROSS-SECTION



NOTES:

1. PROVIDE MATERIALS AND CONSTRUCTION MEETING THE REQUIREMENTS OF PADOT PUBLICATION 408, SECTION 630 FOR PLAIN CEMENT CONC CURB.
2. SPACE CONTRACTION JOINTS IN UNIFORM LENGTHS OR SECTIONS.
3. PLACE 3/4" THICK PRE-MOLDED EXPANSION JOINT MATERIAL AT STRUCTURES AND AT THE END OF THE WORK DAY. CUT MATERIAL TO CONFORM TO CROSS-SECTIONAL AREA OF CURB.
4. PROVIDE 6" MIN REVEAL AS INDICATED ON PLAN.
5. SEAL PAVEMENT JOINT AT CURB LINE WITH PG 64-22.

C 37 PADOT TYPE CONCRETE VERTICAL CURB
NOT TO SCALE



NOTES:

1. CONDUIT MAY BE STACKED VERTICALLY IN TRENCH WITH 6" MIN SEPARATION BETWEEN CONDUIT.
2. REFER TO PLAN FOR LOCATIONS OF MULTIPLE CONDUIT INSTALLATION AND SINGLE CONDUIT TRENCH. MIN TRENCH WIDTH FOR SINGLE CONDUIT IS PIPE DIA x 4.

D 37 ATHLETIC FIELD CONDUIT TRENCH
SCALE: 1 1/2" = 1'-0"

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COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL ELIZABETH WERNER BALDWIN ENGINEER PE080728

PENNSYLVANIA REGISTERED LANDSCAPE ARCHITECT

CONSTRUCTION DOCUMENTS

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MCCASKEY HIGH SCHOOL STADIUM RENOVATIONS
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DRAWING NO.
37 OF 33

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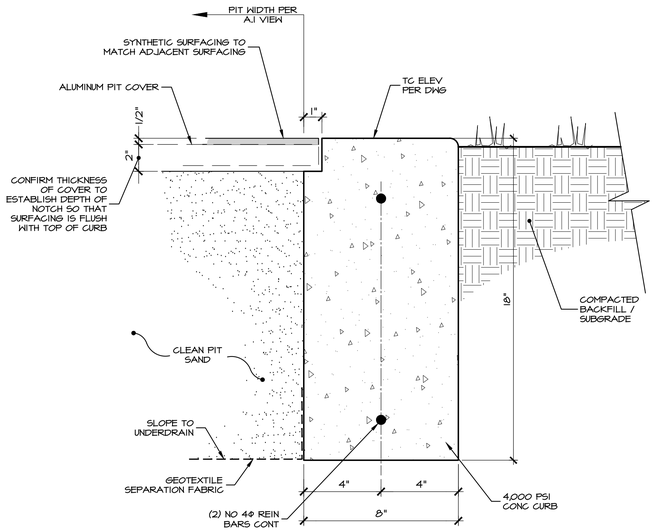
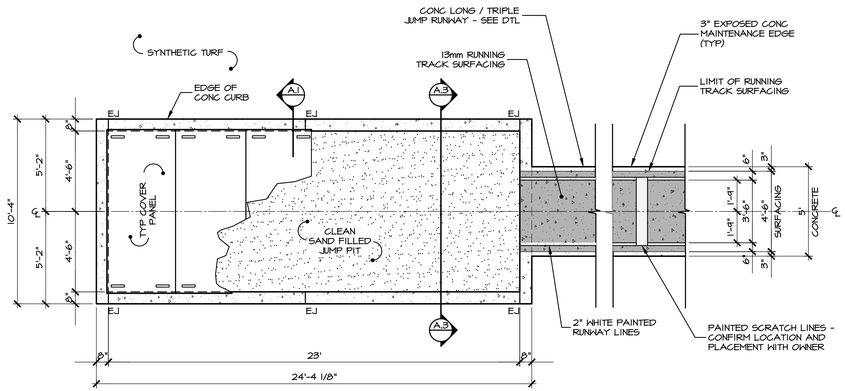
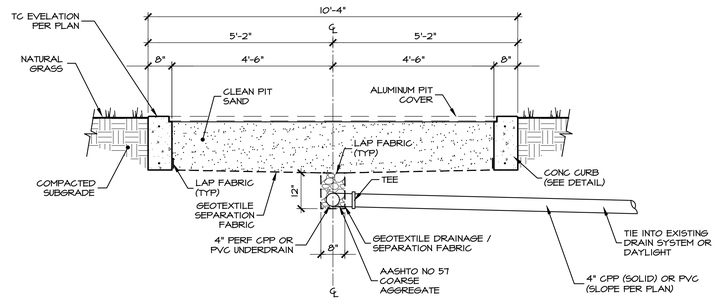


A.1 JUMP PIT CURB SECTION
SCALE: 3" = 1'-0"

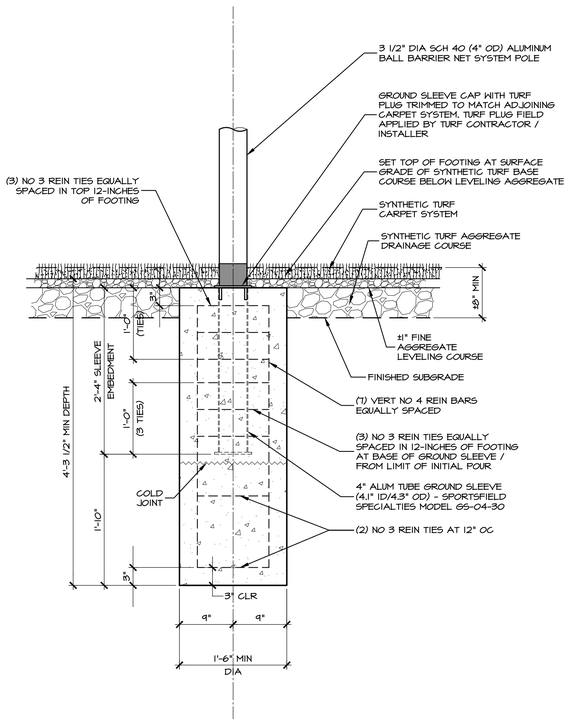


A.2 JUMP PIT PLAN
SCALE: 1/4" = 1'-0"

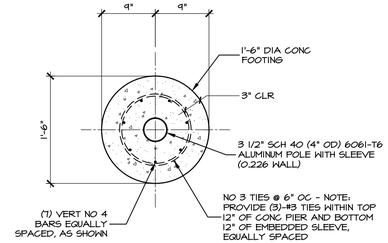


A.3 JUMP PIT SECTION
SCALE: 1/2" = 1'-0"

A 38 CONC JUMP PIT WITH ALUMINUM COVER
SCALE: AS NOTED



SECTION VIEW
SCALE: 1" = 1'-0"



PLAN VIEW
SCALE: 1" = 1'-0"

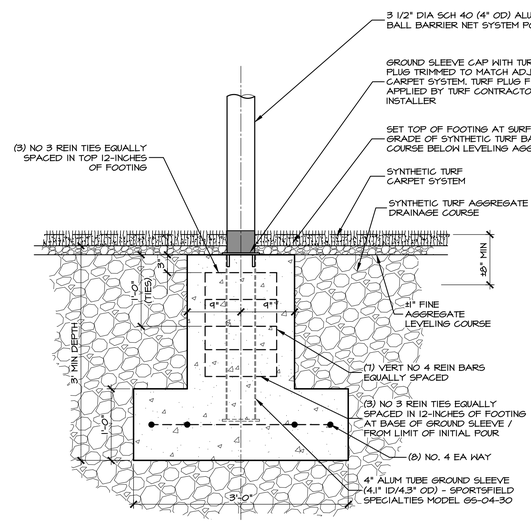
NOTES:

1. DESIGN PER ASCE 7-10 - 105 MPH (EXP B)
2. CONC SHALL MEET THE FOLLOWING
   a. 28 DAY STRENGTH = 4,000 PSI
   b. W/C RATIO = 0.46
   c. AIR ENTRAINMENT = 5.5 +/- 1%
3. REINFORCING BAR SHALL MEET ASTM A615, GRADE 60
4. UNIT WEIGHT OF SOIL = 115 PCF
5. SOIL INTERNAL ANGLE OF FRICTION USED FOR DESIGN = 28 DEGREES
6. MAX POLE HEIGHT / SPACING = 20'/20'
7. WATER TABLE ASSUMED TO BE 3'-6" BELOW GRADE FOR FOOTING DESIGN
8. PROVIDE BITUMINOUS OR ASPHALT COATING ON ALL BARE SURFACES OF EMBEDDED ALUMINUM
9. COMPACT SOIL SURROUNDING FOOTING TO 95% MODIFIED PROCTOR
10. CONTRACTOR SHALL NOTIFY ENGINEER WHERE SOIL CONDITIONS NOT MEETING THE ABOVE OR GROUND WATER IS ENCOUNTERED DURING EXCAVATION

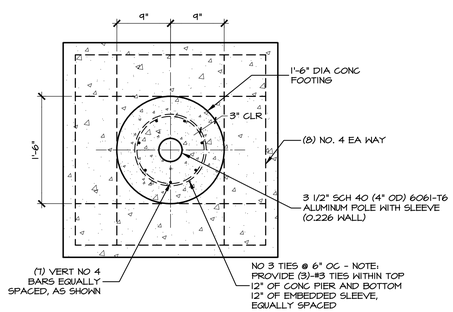
SYSTEM NOTES:

1. FOOTING FOR USE WITH #36 NYLON 1 3/4" SQUARE MESH NETTING
2. FOUNDATION TO BE UTILIZED WITH SPORTSFIELD SPECIALTIES "STORMGUARD" PRE-ENGINEERED BREAKAWAY SYSTEM ONLY
3. DESIGN WIND SPEED AT PIN FAILURE = 70 MPH
4. DESIGN WIND SPEED ON BARE POLE = 105 MPH

B 38 BALL BARRIER GROUND SLEEVE FOUNDATION
SCALE: 1" = 1'-0"



SECTION VIEW
SCALE: 1" = 1'-0"



PLAN VIEW
SCALE: 1" = 1'-0"

C 38 BALL BARRIER GROUND SLEEVE FOUNDATION - WITHIN BMP
SCALE: 1" = 1'-0"

REVISIONS PER:		DATE:	BY:
1.	COL/LCCD COMMENTS	3/28/25	EWB
2.	-	-	-
3.	-	-	-
4.	-	-	-
5.	-	-	-

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REGISTERED LANDSCAPE ARCHITECT

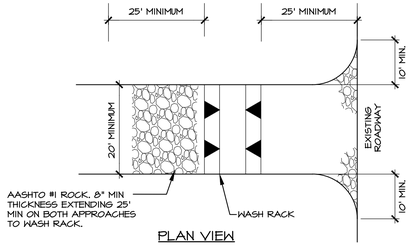
STORMWATER MANAGEMENT PLAN

SUBJECT:
SITE DETAILS
MCCASKEY HIGH SCHOOL
MCCASKEY HIGH SCHOOL STADIUM RENOVATIONS
CITY OF LANCASTER - LANCASTER COUNTY - PENNSYLVANIA

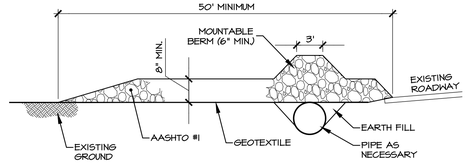
CLIENT:
MM ARCHITECTS
214 NORTH DUKE STREET
LANCASTER, PA 17602
(717) 393-3211

MANAGER:	HDC	DATE:	January 30, 2025
DESIGNER:	EWB	PROJECT NO.	AZ202-015
DRAWN BY:	JMT	SCALE:	AS SHOWN

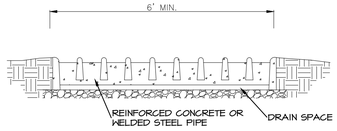
DRAWING NO.
38 OF 53



PLAN VIEW



PROFILE



WASH RACK SECTION

NOTES:

1. SEDIMENT DEPOSITED ON PUBLIC ROADWAYS SHOULD BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE IMMEDIATELY. WASHING THE ROADWAY OR SWEEPING THE DEPOSITS INTO ROADWAY DITCHES, SEWERS, CULVERTS, OR OTHER DRAINAGE COURSES IS NOT ACCEPTABLE.
2. REMOVE TOPSOIL PRIOR TO INSTALLATION OF ROCK CONSTRUCTION ENTRANCE. EXTEND ROCK OVER FULL WIDTH OF ENTRANCE.
3. RUNOFF SHALL BE DIVERTED FROM ROADWAY TO A SUITABLE SEDIMENT REMOVAL BMP PRIOR TO ENTERING ROCK CONSTRUCTION ENTRANCE.
4. MAINTABLE BERM SHALL BE INSTALLED WHEREVER OPTIONAL CULVERT PIPE IS USED AND PROPER PIPE COVER AS SPECIFIED BY MANUFACTURER IS NOT OTHERWISE PROVIDED. PIPE SHALL BE SIZED APPROPRIATELY FOR SIZE OF DITCH BEING CROSSED.
5. WASH RACK SHALL BE 20 FEET (MIN.) WIDE OR TOTAL WIDTH OF ACCESS.
6. WASH RACK SHALL BE DESIGNED AND CONSTRUCTED TO ACCOMMODATE ANTICIPATED CONSTRUCTION VEHICULAR TRAFFIC.
7. A WATER SUPPLY SHALL BE MADE AVAILABLE TO WASH THE WHEELS OF ALL VEHICLES EXITING THE SITE.
8. WASH RACK SUBSTITUTE: PUBLIC STREET SWEEPING WITH A VACUUM SWEEPER AND ROLLING OF DIRT AND GRAVEL ROADS AT THE END OF EACH WORK DAY (OR MORE FREQUENTLY AS NEEDED); MANUAL CLEANING OF TIRES PRIOR TO SITE EGRESS IS PERMITTED. TOPOGRAPHY OR THE ABSENCE OF ELECTRICITY AND WATER CAN MAKE WASH RACKS UNFEASIBLE IN SOME LOCATIONS. VACUUM SWEEPERS CAN REMOVE ACCUMULATED SEDIMENT FROM STREETS BEFORE IT IS WASHED INTO SURFACE WATERS. TIRES CAN BE CLEANED OFF MANUALLY WITH A BROOM PRIOR TO EXITING. ROLLING OF DIRT ROADS CAN STABILIZE AREAS AFFECTED BY TRACKED MUD. REQUIRES CONTINUOUS MAINTENANCE.

ROCK CONSTRUCTION ENTRANCE MAINTENANCE PROGRAM

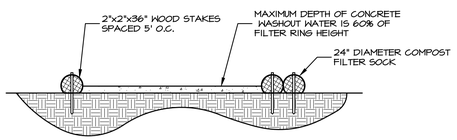
1. ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE SHALL BE MAINTAINED ONSITE FOR THIS PURPOSE.
2. ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE IMMEDIATELY. IF EXCESSIVE AMOUNTS OF SEDIMENT ARE BEING DEPOSITED ON ROADWAY, EXTEND LENGTH OF ROCK CONSTRUCTION ENTRANCE BY 50 FOOT INCREMENTS UNTIL CONDITION IS ALLEVIATED OR INSTALL WASH RACK. WASHING THE ROADWAY OR SWEEPING THE DEPOSITS INTO ROADWAY DITCHES, SEWERS, CULVERTS, OR OTHER DRAINAGE COURSES IS NOT ACCEPTABLE.
3. DRAIN SPACE UNDER WASH RACK SHALL BE KEPT OPEN AT ALL TIMES.
4. DAMAGE TO THE WASH RACK SHALL BE REPAIRED PRIOR TO FURTHER USE OF THE WASH RACK.

ROCK CONSTRUCTION ENTRANCE INSPECTION SCHEDULE AND REPORTING

1. INSPECTION OF ROCK CONSTRUCTION ENTRANCES SHALL OCCUR AS FOLLOWS:
   - WEEKLY
   - AFTER EACH RUNOFF EVENT (THIS IS REQUIRED IN ADDITION TO THE REQUIRED WEEKLY INSPECTION)
2. A WRITTEN REPORT DOCUMENTING EACH INSPECTION AND ANY REPAIRS MADE SHALL BE KEPT AND SHALL INCLUDE, AT A MINIMUM, THE FOLLOWING:
   (1) A SUMMARY OF SITE CONDITIONS, E&S BMP AND PCSM BMP, IMPLEMENTATION AND MAINTENANCE AND COMPLIANCE ACTIONS; AND
   (2) THE DATE, TIME, NAME AND SIGNATURE OF THE PERSON CONDUCTING THE INSPECTION.

A 39 ROCK CONSTRUCTION ENTRANCE WITH WASH RACK

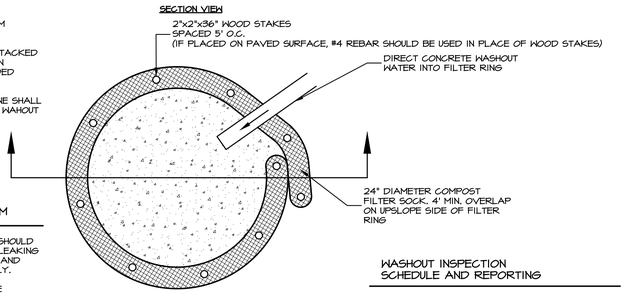
NOT TO SCALE



SECTION VIEW

NOTES

1. INSTALL ON FLAT GRADE FOR OPTIMUM PERFORMANCE.
2. 18" DIAMETER FILTER SOCK MAY BE STACKED ONTO DOUBLE 24" DIAMETER SOCKS IN PYRAMIDAL CONFIGURATION FOR ADDED HEIGHT.
3. A SUITABLE IMPERVIOUS GEOMEMBRANE SHALL BE PLACED AT THE LOCATION OF THE WAHOUT PRIOR TO INSTALLING THE SOCKS.



PLAN VIEW

WASHOUT MAINTENANCE PROGRAM

1. ALL CONCRETE WASHOUT FACILITIES SHOULD BE INSPECTED DAILY. DAMAGED OR LEAKING WASHOUTS SHOULD BE DEACTIVATED AND REPAIRED OR REPLACED IMMEDIATELY.
2. ACCUMULATED MATERIALS SHOULD BE REMOVED WHEN THEY REACH 75% CAPACITY.
3. PLASTIC LINERS SHOULD BE REPLACED WITH EACH CLEANING OF THE WASHOUT FACILITY.

WASHOUT INSPECTION SCHEDULE AND REPORTING

1. INSPECTION OF COMPOST FILTER SOCK WASHOUT AREA SHALL OCCUR AS FOLLOWS:
   - DAILY
   - AFTER EACH RUNOFF EVENT (THIS IS REQUIRED IN ADDITION TO THE REQUIRED WEEKLY INSPECTION)
2. A WRITTEN REPORT DOCUMENTING EACH INSPECTION AND ANY REPAIRS MADE SHALL BE KEPT AND SHALL INCLUDE, AT A MINIMUM, THE FOLLOWING:
   (1) A SUMMARY OF SITE CONDITIONS, E&S BMP AND PCSM BMP, IMPLEMENTATION AND MAINTENANCE AND COMPLIANCE ACTIONS; AND
   (2) THE DATE, TIME, NAME AND SIGNATURE OF THE PERSON CONDUCTING THE INSPECTION.
3. FOR ADDITIONAL INSPECTION AND REPORTING REQUIREMENTS AND INFORMATION, SEE THE NPDES PERMIT CONDITIONS, EFFLUENT LIMITATIONS, MONITORING, AND REPORTING REQUIREMENTS.

CONCRETE WASHOUT - FOR ANY PROJECT ON WHICH CONCRETE WILL BE POURED OR OTHERWISE FORMED ON SITE, A SUITABLE WASHOUT FACILITY MUST BE PROVIDED FOR THE CLEANING OF CHUTES, MIXERS, AND HOPPERS OF THE DELIVERY VEHICLES UNLESS SUCH A FACILITY WILL BE USED AT THE SOURCE OF THE CONCRETE. UNDER NO CIRCUMSTANCES MAY WASH WATER FROM THESE VEHICLES BE ALLOWED TO ENTER ANY SURFACE WATERS. MAKE SURE THAT PROPER SIGNAGE IS PROVIDED TO RIVERS SO THAT THEY ARE AWARE OF THE PRESENCE OF WASHOUT FACILITIES.

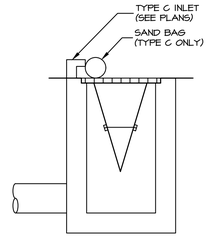
WASHOUT FACILITIES SHOULD NOT BE PLACED WITHIN 50 FEET OF STORM DRAINS, OPEN DITCHES OR SURFACE WATERS. THEY SHOULD BE IN A CONVENIENT LOCATION FOR THE TRUCKS, PREFERABLE NEAR THE PLACE WHERE THE CONCRETE IS BEING POURED, BUT FAR ENOUGH FROM OTHER VEHICLAR TRAFFIC TO MINIMIZE THE POTENTIAL FOR ACCIDENTAL DAMAGE OR SPILLS. WHEREVER POSSIBLE, THEY SHOULD BE LOCATED ON SLOPES NOT EXCEEDING A 2% GRADE. ADDITIONAL INFORMATION ON WASHOUTS MAY BE OBTAINED FROM EPA'S STORMWATER WEBSITE.

COMPOST SOCK WASHOUT

WHEREVER COMPOST SOCK WASHOUTS ARE USED, A SUITABLE IMPERVIOUS GEOMEMBRANE SHOULD BE PLACED AT THE LOCATION OF THE WASHOUT. COMPOST SOCKS SHOULD BE STAKED IN THE MANNER RECOMMENDED BY THE MANUFACTURER AROUND PERIMETER OF THE GEOMEMBRANCE SO AS TO FORM A RING WITH ENDS OF THE SOCK LOCATED A THE UPSLOPE CORNER. CARE SHOULD BE TAKEN TO ENSURE CONTINUOUS CONTACT OF THE SOCK WITH THE GEOMEMBRANCE AT ALL LOCATIONS. WHERE NECESSARY, SOCKS MAY BE STACKED AND STAKED SO AS TO FOR A TRIANGULAR CROSS-SECTION.

B 39 FILTER SOCK CONCRETE WASHOUT

NOT TO SCALE



INSTALLATION DETAIL

NOTES:

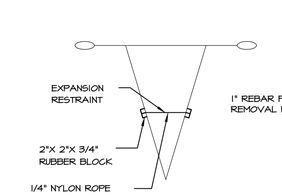
1. MAXIMUM DRAINAGE AREA= .5 ACRE
2. BERMS REQUIRED FOR ALL INSTALLATIONS. EARTHEN BERM TO BE MAINTAINED UNTIL ROADWAY IS STONED. ROAD SUBBASE BERM SHALL BE MAINTAINED UNTIL ROADWAY IS PAVED. SIX-INCH MINIMUM HEIGHT ASPHALT BERM SHALL BE MAINTAINED UNTILL ROADWAY SURFACE RECEIVES FINAL COAT.

INLET PROTECTION MAINTENANCE PROGRAM:

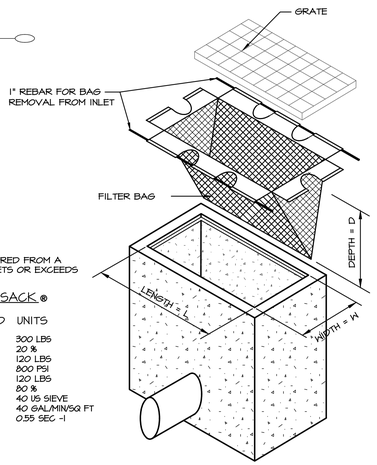
1. BAGS AHLL BE EMPTIED AND RINSED OR REPLACED WHEN HALF FULL OR WHEN FLOW CAPACITY HAS BEEN REDUCED SO AS TO CAUSE FLOODING OR BYPASSING OF THE INLET.
2. DAMAGED OR CLOGGED BAGS SHOULD BE REPLACED.
3. ALL NEEDED REPAIRS SHALL BE INITIATED IMMEDIATELY AFTER INSPECTION.

INLET FILTER BAG INSPECTION SCHEDULE AND REPORTING

1. INSPECTION OF THE INLET FILTER BAGS SHOULD OCCUR AS FOLLOWS:
   - WEEKLY
   - AFTER EACH RUNOFF EVENT
2. A WRITTEN REPORT DOCUMENTING EACH INSPECTION AND ANY REPAIRS MADE SHALL BE KEPT AND SHALL INCLUDE, AT A MINIMUM, THE FOLLOWING:
   (1) A SUMMARY OF SITE CONDITIONS, E&S BMP AND PCSM BMP, IMPLEMENTATION AND MAINTENANCE AND COMPLIANCE ACTIONS;
   (2) THE DATE, TIME, NAME AND SIGNATURE OF THE PERSON CONDUCTING THE INSPECTION.
3. FOR ADDITIONAL INSPECTION AND REPORTING REQUIREMENTS AND INFORMATION, SEE THE NPDES PERMIT CONDITIONS, EFFLUENT LIMITATIONS, MONITORING, AND REPORTING REQUIREMENTS.



BAG DETAIL



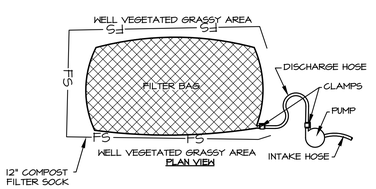
NOTE: THE SILT SACK WILL BE MANUFACTURED FROM A WOVEN POLYPROPYLENE FABRIC THAT MEETS OR EXCEEDS THE FOLLOWING SPECIFICATIONS.

REGULAR FLOW SILT SACK ®

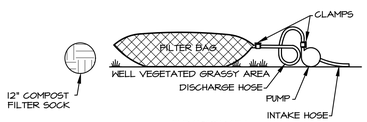
PROPERTIES	TEST METHOD	UNITS
GRAB TENSILE STRENGTH	ASTM D-4632	300 LBS
GRAB TENSILE ELONGATION	ASTM D-4632	20 %
PUNCTURE	ASTM D-4833	120 LBS
MULLEN BURST	ASTM D-3786	800 PSI
TRAPEZOID TEAR	ASTM D-4533	120 LBS
UV RESISTANCE	ASTM D-4355	80 %
APPARENT OPENING SIZE	ASTM D-4751	40 US SIEVE
FLOW RATE	ASTM D-4491	40 GAL/MIN/SQ FT
PERMITTIVITY	ASTM D-4491	0.55 SEC -1

C 39 INLET PROTECTION - INLET FILTER BAG

NOT TO SCALE



PLAN VIEW



ELEVATION VIEW

1. LOW VOLUME FILTER BAGS SHALL BE MADE FROM NON-WOVEN GEOTEXTILE MATERIAL SEWN WITH HIGH STRENGTH, DOUBLE STITCHED "J" TYPE SEAMS, THEY SHALL BE CAPABLE OF TRAPPING PARTICLES LARGER THAN 150 MICRONS. HIGH VOLUME FILTER BAGS SHALL BE MADE FROM WOVEN GEOTEXTILES THAT MEET THE FOLLOWING STANDARDS:

PROPERTY	TEST METHOD	MINIMUM STANDARD
AVG. WIDE WIDTH STRENGTH	ASTM D-4884	60 LB/IN
GRAB TENSILE	ASTM D-4632	205 LB
PUNCTURE	ASTM D-4833	110 LB
MULLEN BURST	ASTM D-3786	350 PSI
UV RESISTANCE	ASTM D-4355	70%
AOS % RETAINED	ASTM D-4751	80 SIEVE

2. A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY REQUIRED FOR DISPOSAL PURPOSES SHALL BE PROVIDED. FILTER BAGS SHALL BE REPLACED WHEN THEY BECOME ½ FULL OF SEDIMENT. SPARE BAGS SHALL BE KEPT AVAILABLE FOR REPLACEMENT OF THOSE THAT HAVE FAILED OR ARE FILLED. BAGS SHALL BE PLACED ON STRAPS TO FACILITATE REMOVAL UNLESS BAGS COME WITH LIFTING STRAPS ALREADY ATTACHED.
3. BAGS SHALL BE LOCATED IN WELL-VEGETATED (GRASSY) AREA, AND DISCHARGE ONTO STABLE, EROSION RESISTANT AREAS. WHERE THIS IS NOT POSSIBLE, A GEOTEXTILE UNDERLAYMENT AND FLOW PATH SHALL BE PROVIDED. BAGS MAY BE PLACED ON FILTER STONE TO INCREASE DISCHARGE CAPACITY. BAGS SHALL NOT BE PLACED ON SLOPES GREATER THAN 5%. FOR SLOPES EXCEEDING 5%, CLEAN ROCK OR OTHER NON-ERODIBLE AND NON-POLLUTING MATERIAL MAY BE PLACED UNDER THE BAG TO REDUCE SLOPE STEEPNESS.
4. THE PUMP DISCHARGE HOSE SHALL BE INSERTED INTO THE BAGS IN THE MANNER SPECIFIED BY THE MANUFACTURER AND SECURELY CLAMPED. A PIECE OF PVC PIPE IS RECOMMENDED FOR THIS PURPOSE.
5. THE PUMPING RATE SHALL BE NO GREATER THAN 750 GPM OR ½ THE MAXIMUM SPECIFIED BY THE MANUFACTURER, WHICHEVER IS LESS. PUMP INTAKES SHALL BE FLOATING AND SCREENED.
6. FILTER BAGS SHALL BE INSPECTED DAILY. IF ANY PROBLEM IS DETECTED, PUMPING SHALL CEASE IMMEDIATELY AND NOT RESUME UNTIL THE PROBLEM IS CORRECTED.

PUMPED WATER FILTER BAG MAINTENANCE PROGRAM

1. FILTER BAGS SHALL BE REPLACED WHEN THEY BECOME 1/2 FULL OF SEDIMENT. SPARE BAGS SHALL BE KEPT AVAILABLE FOR REPLACEMENT OF THOSE THAT HAVE FAILED OR ARE FILLED.
2. DISPOSE OF SEDIMENT REMOVED FROM FILTER BAGS IN AREAS WITHIN THE LIMIT OF DISTURBANCE REQUIRING FILL MATERIAL OR LEGALLY DISPOSE OFFSITE. USED/EMPTIED FILTER BAGS SHALL BE LEGALLY DISPOSED OFFSITE.

PUMPED WATER FILTER BAG INSPECTION SCHEDULE AND REPORTING

1. INSPECTION OF PUMPED WATER FILTER BAGS SHALL OCCUR AS FOLLOWS:
   - DAILY
2. A WRITTEN REPORT DOCUMENTING EACH INSPECTION AND ANY REPAIRS MADE SHALL BE KEPT AND SHALL INCLUDE, AT A MINIMUM, THE FOLLOWING:
   (1) A SUMMARY OF SITE CONDITIONS, E&S BMP AND PCSM BMP, IMPLEMENTATION AND MAINTENANCE AND COMPLIANCE ACTIONS; AND
   (2) THE DATE, TIME, NAME AND SIGNATURE OF THE PERSON CONDUCTING THE INSPECTION.
3. FOR ADDITIONAL INSPECTION AND REPORTING REQUIREMENTS AND INFORMATION, SEE THE NPDES PERMIT CONDITIONS, EFFLUENT LIMITATIONS, MONITORING, AND REPORTING REQUIREMENTS, ITEM NO. 2.A (VISUAL INSPECTIONS) FOUND ON SHEET ESC 1.0.

D 39 PUMPED WATER FILTER BAG DETAIL

NOT TO SCALE

REVISIONS PER:		DATE:	BY:
1.	COL/LCCD COMMENTS	3/28/25	EWB
2.	-	-	-
3.	-	-	-
4.	-	-	-
5.	-	-	-

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PENNSYLVANIA — REGISTERED LANDSCAPE ARCHITECT

STORMWATER MANAGEMENT PLAN

SUBJECT:

ESC DETAILS

MCCASKEY HIGH SCHOOL

MCCASKEY HIGH SCHOOL STADIUM RENOVATIONS

CITY OF LANCASTER - LANCASTER COUNTY - PENNSYLVANIA

CLIENT:

MM ARCHITECTS

214 NORTH DUKE STREET

LANCASTER, PA 17602

(717) 393-3211

MANAGER:	HDC	DATE:	January 30, 2025
DESIGNER:	EWB	PROJECT NO.	AZ202-015
DRAWN BY:	JMT	SCALE:	AS SHOWN

DRAWING NO.

39 OF 53

TEMPORARY VEGETATIVE STABILIZATION

SPECIES	ANNUAL RYE (SPRING) OR WINTER RYE (FALL)
% PURE LIVE SEED	95%
APPLICATION RATE	200 LB/ACRE
FERTILIZER TYPE	10-10-10
FERTILIZER APPL. RATE	500 LB/ACRE
LIMING RATE	1 TON/ACRE
MULCH TYPE	HAY OR STRAW
MULCHING RATE	3 TONS/ACRE

PERMANENT VEGETATIVE STABILIZATION

TOPSOIL PLACEMENT DEPTH	4-8 IN.
SPECIES	KENTUCKY BLUEGRASS AND PERENNIAL RYEGRASS (1)
% PURE LIVE SEED	95%
APPLICATION RATE	87 LB/ACRE (BLUEGRASS); 240 LB/ACRE (RYEGRASS)
FERTILIZER TYPE	PER SOIL TEST (10-10-20 IF NO TEST DATA)
FERTILIZER APPL. RATE	PER SOIL TEST (1,000 LB/ACRE IF NO TEST DATA)
LIMING RATE	PER SOIL TEST (6 TONS/ACRE IF NO TEST DATA)
MULCH TYPE	HAY OR STRAW
MULCHING RATE	3 TONS/ACRE
ANCHOR MATERIAL	POLYMERIC TACKIFIER
ANCHORING METHOD	SPRAY APPLY W/ A HYDRO-SEEDER OR SIMILAR
RATE OF ANCHOR MATERIAL APPL.	20 LB/ACRE
SEEDING SEASON DATES	APRIL 1 - OCTOBER 15

PERMANENT VEGETATIVE STABILIZATION (SLOPES ≥ 8%)

TOPSOIL PLACEMENT DEPTH	4-8 IN.
SPECIES	KENTUCKY BLUEGRASS AND PERENNIAL RYEGRASS (1)
% PURE LIVE SEED	95%
APPLICATION RATE	87 LB/ACRE (BLUEGRASS); 240 LB/ACRE (RYEGRASS)
FERTILIZER TYPE	PER SOIL TEST (10-10-20 IF NO TEST DATA)
FERTILIZER APPL. RATE	PER SOIL TEST (1,000 LB/ACRE IF NO TEST DATA)
LIMING RATE	PER SOIL TEST (6 TONS/ACRE IF NO TEST DATA)
MULCH TYPE	HAY OR STRAW
MULCHING RATE	3 TONS/ACRE
ANCHOR MATERIAL	LIGHTWEIGHT PLASTIC, FIBER, OR PAPER NETTING
ANCHORING METHOD	APPLY/STAPLE TO MANUFACTURER'S SPECS
RATE OF ANCHOR MATERIAL APPL.	REFER TO MANUFACTURER'S SPECIFICATIONS
SEEDING SEASON DATES	APRIL 1 - OCTOBER 15

TEMPORARY SEEDING NOTES:

1. TOPSOIL STOCKPILES AND/OR ROUGH GRADED AREAS SHALL BE SEEDED AND MULCHED IMMEDIATELY IN ACCORDANCE WITH THE SEEDING/MULCHING SCHEDULE.
2. USE HAY OR STRAW MULCH AT THE SPECIFIED RATE FOR AREAS THAT HAVE BEEN SEEDED WITH A TEMPORARY SEED MIXTURE.
3. DURING NON-GERMINATING PERIODS, MULCH MUST BE APPLIED AT THE SPECIFIED RATES.

PERMANENT VEGETATIVE STABILIZATION SPECIFICATIONS:

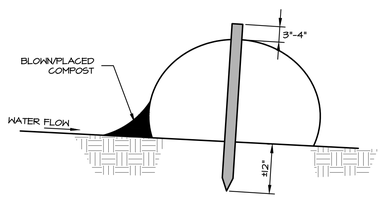
PERMANENT SEEDING/VEGETATIVE STABILIZATION WILL BE IN ACCORDANCE WITH THE SEEDING SCHEDULE AND THE FOLLOWING PROCEDURES:

1. ROUGH GRADE AND REMOVE ALL DEBRIS, LARGE STONES, AND CONSTRUCTION MATERIALS.
2. APPLY AGRICULTURAL GRADE LIME AS SPECIFIED BY THE SOIL TEST OR AT A MINIMUM RATE OF 6 TONS/ACRE.
3. APPLY FERTILIZER IN ACCORDANCE WITH THE SOIL TEST. IN THE ABSENCE OF A SOIL TEST, APPLY 10-10-20 FERTILIZER AT A RATE OF 1,000 lbs/ACRE.
4. TILL ALL ABOVE MATERIALS THOROUGHLY INTO A 4"-6" SOIL DEPTH.
5. FINISH GRADE FOR SEEDING.
6. APPLY SEED AT THE SPECIFIED APPLICATION RATE AS INDICATED ON THE SEEDING SCHEDULE(S) - SEE GENERAL SEEDING NOTE 2.
7. RAKE OR DRAG TO COVER SEED LIGHTLY.
8. ROLL LIGHTLY TO PLACE SEED IN CONTACT WITH THE SOIL.
9. APPLY HAY OR STRAW MULCH AT A RATE OF 3 TONS/ACRE.
10. MULCH SHALL BE ANCHORED AS SPECIFIED OR IN ACCORDANCE WITH THE CURRENT PENN STATE UNIVERSITY AGRONOMY GUIDE.

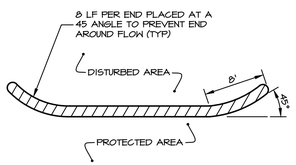
GENERAL SEEDING NOTES:

1. USE TWO (2) VARIETIES OF KENTUCKY BLUEGRASS AND TWO (2) VARIETIES OF PERENNIAL RYEGRASS IN THE PERMANENT/PERMANENT STEEP SLOPE MIXTURES, ALL IN EQUAL PARTS (I.E. 25% EACH).
2. IF PERMANENT SEEDING IS NOT PRACTICAL DUE TO THE TIME OF YEAR, DISTURBED AREA SHALL BE SEEDED WITH ANNUAL RYE (SPRING) OR WINTER RYE (FALL) GRASS AT A RATE OF 200 lbs/ACRE AND MULCHED WITH STRAW AT A RATE OF 3 TONS PER ACRE.
3. THE DEPARTMENT RECOMMENDS THAT SOIL TESTING BE DONE PRIOR TO SEEDING AND MULCHING TO DETERMINE THE PROPER SOIL AMENDMENTS AND APPLICATION RATES FOR THE PROPOSED SEED MIXTURE(S). SOIL TEST KITS ARE INEXPENSIVE AND MAY BE OBTAINED FROM THE COUNTY COOPERATIVE EXTENSION SERVICE OFFICES. WHEN DONE PROPERLY, SOIL TESTS CAN ACTUALLY SAVE MONEY THAT WOULD OTHERWISE BE LOST ON IMPROPER SOIL AMENDMENTS, UNSUCCESSFUL SEEDINGS, AND DAMAGE CAUSED BY EROSION OF UNSTABILIZED AREAS. IN THE ABSENCE OF A SOIL TEST, SOIL AMENDMENTS SHOULD BE ADDED AT THE RATES SPECIFIED BY THE SELECTED SEEDING REFERENCE.
4. FILL SLOPES SHOULD BE SEEDED AND MULCHED AT REGULAR VERTICAL INCREMENTS - 15 TO 25 FEET MAXIMUM - AS THE FILL IS BEING CONSTRUCTED. THIS WILL ALLOW THE BOTTOM OF THE FILL TO PROGRESS TOWARD STABILIZATION WHILE WORK CONTINUES ON THE UPPER PORTION, MAKING FINAL STABILIZATION EASIER TO ACHIEVE AND PROVIDING SOME VEGETATIVE BUFFERING AT THE BOTTOM OF THE SLOPE.
5. WHEREVER SEED AND MULCH IS APPLIED BY HYDROSEEDING METHODS, THE SEED AND MULCH SHOULD BE APPLIED IN SEPARATE APPLICATIONS WITH THE SEED BEING APPLIED FIRST AND THE MULCH SPRAYED ON TOP OF THE SEED. THIS IS TO ENSURE THAT THE SEED MAKES CONTACT WITH THE UNDERLYING SOIL. SOIL PREPARATION SHOULD BE COMPLETED PRIOR TO ADDING SEED TO THE HYDROSEEDING EQUIPMENT. RUNNING SEED THROUGH THE PUMPING SYSTEM CAN RESULT IN EXCESSIVE ABRASION OF THE SEED AND REDUCE THE PERCENTAGE OF PURE LIVE SEED IN THE APPLICATION. THEREFORE ALL SITE PREPARATION SHOULD BE COMPLETED PRIOR TO THE ARRIVAL OF THE HYDROSEEDER.
6. IN CRITICAL AREAS (E.G. ADJACENT TO OR WITHIN 50 FEET OF STREAMS, PONDS, OR WETLANDS) A PROTECTIVE BLANKET SHOULD BE PROVIDED FOR ALL SEEDED AREAS. CONSIDERATION SHOULD BE GIVEN TO USE OF MULCH WITH NETTING OR PROTECTIVE BLANKETS FOR ALL SEEDED AREAS ON SLOPES 3H:1V OR STEEPER.
7. NO WETLAND AREAS ARE APPROVED FOR DISTURBANCE BY THIS PERMIT APPLICATION.
8. VEHICULAR TRAFFIC SHOULD BE RESTRICTED FROM AREAS TO BE SEEDED TO PREVENT SOIL COMPACTION.
9. PERMANENT STABILIZATION IS DEFINED AS A MINIMUM UNIFORM, PERENNIAL 70% VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED EROSION. CUT AND FILL SLOPES SHALL BE CAPABLE OF RESISTING FAILURE DUE TO SLUMPING, SLIDING, OR OTHER MOVEMENTS.
10. IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE, THE OPERATOR SHALL STABILIZE ANY AREAS DISTURBED BY THE ACTIVITIES.
11. DURING NON-GERMINATING PERIODS, MULCH MUST BE APPLIED AT THE SPECIFIED RATES. DISTURBED AREAS WHICH ARE NOT AT FINISHED GRADE AND WHICH WILL BE REDISTURBED WITHIN 1 YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY VEGETATIVE STABILIZATION SPECIFICATIONS.
12. DISTURBED AREAS WHICH ARE AT FINISHED GRADE OR WHICH WILL NOT BE REDISTURBED WITHIN 1 YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE PERMANENT VEGETATIVE STABILIZATION SPECIFICATIONS.

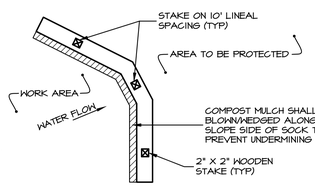
A 40 SEEDING SCHEDULE & NOTES
NO SCALE



FILTER SOCK COMPOST MATERIAL AS PER SPECIFICATIONS.



B 40 COMPOST FILTER SOCK
NOT TO SCALE



GENERAL NOTES:

1. WHERE SOCKS ARE PLACED ON PAVED SURFACES, CONCRETE BLOCKS SHOULD BE USED IMMEDIATELY DOWNSLOPE OF THE SOCKS (AT THE SAME INTERVALS RECOMMENDED FOR THE STAKES) TO HELP HOLD THE SOCK IN PLACE.
2. COMPOST FILTER SOCK SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE SOCK SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE MAIN SOCK ALIGNMENT. STAKES MAY BE INSTALLED IMMEDIATELY DOWNSLOPE OF THE SOCK IF SO SPECIFIED BY THE MANUFACTURER.
3. TRAFFIC SHALL NOT BE PERMITTED TO CROSS SOCKS.
4. BIODEGRADABLE FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS; PHOTODEGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
5. UPON STABILIZATION OF THE AREA TRIBUTARY TO THE SOCK, STAKES SHALL BE REMOVED. THE SOCK MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.

FILTER SOCK FABRIC MINIMUM SPECIFICATIONS

MATERIAL TYPE	3 mil HDPE	5 mil HDPE	5 mil HDPE	MULTI-FILAMENT POLYPROPYLENE (MFPP)	HEAVY DUTY MULTI-FILAMENT POLYPROPYLENE (HDMFPP)
MATERIAL CHARACTERISTICS	PHOTO-DEGRADABLE	PHOTO-DEGRADABLE	BIO-DEGRADABLE	PHOTO-DEGRADABLE	PHOTO-DEGRADABLE
SOCK DIAMETERS	12" 18"	12" 18" 24" 32"	12" 18" 24" 32"	12" 18" 24" 32"	12" 18" 24" 32"
MESH OPENING	3/8"	3/8"	3/8"	3/8"	1/8"
TENSILE STRENGTH		26 psi	26 psi	44 psi	202 psi
ULTRAVIOLET STABILITY % ORIGINAL STRENGTH (ASTM G-155)	23% AT 1000 hr.	23% AT 1000 hr.		100% AT 1000 hr.	100% AT 1000 hr.
MINIMUM FUNCTIONAL LONGEVITY	6 MONTHS	9 MONTHS	6 MONTHS	1 YEAR	2 YEARS
TWO-PLY SYSTEMS					
INNER CONTAINMENT NETTING	HDPE BIAXIAL NET				
	CONTINUOUSLY WOUND				
	FUSION-WELDED JUNCTURES				
	3/4" X 3/4" MAX. APERTURE SIZE				
OUTER FILTRATION MESH	COMPOSITE POLYPROPYLENE FABRIC (WOVEN LAYER AND NON-WOVEN FLEECE MECHANICALLY FUSED VIA NEEDLE PUNCH)				
	3/16" MAX. APERTURE SIZE				
SOCK FABRICS COMPOSED OF BURLAP MAY BE USED ON PROJECTS LASTING 6 MONTHS OR LESS.					

NOTES:

1. GRADED AREAS SHOULD BE SCARIFIED OR OTHERWISE LOOSENED TO A DEPTH OF 3 TO 5 INCHES TO PERMIT BONDING OF THE TOPSOIL TO THE SURFACE AREAS AND TO PREVENT TOPSOIL FROM SLIDING DOWN SLOPE.
2. TOPSOIL SHOULD BE UNIFORMLY DISTRIBUTED ACROSS THE DISTURBED AREA TO A DEPTH OF 4 TO 8 INCHES MINIMUM - 2 INCHES ON FILL OUTSLOPES. SPREADING SHOULD BE DONE IN SUCH A MANNER THAT SODDING OR SEEDING CAN PROCEED WITH A MINIMUM OF ADDITIONAL PREPARATION OR TILLAGE. IRREGULARITIES IN THE SURFACE RESULTING FROM TOPSOIL PLACEMENT SHOULD BE CORRECTED IN ORDER TO PREVENT FORMATION OF DEPRESSIONS UNLESS SUCH DEPRESSIONS ARE PART OF THE PCSM PLAN.
3. 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 WHEREVER POSSIBLE PRIOR TO SEEDING.

C 40 TOPSOIL APPLICATION / REPLACEMENT NOTES
NO SCALE

MULCH TYPE	APPLICATION RATES (MIN.) PER ACRE	PER 1,000 sq.ft.	PER 1,000 sq.yd.	NOTES
STRAW	3 TONS	140 lb.	1,240 lb.	EITHER WHEAT OR OAT STRAW, FREE OF WEEDS, NOT CHOPPED OR FINELY BROKEN
HAY	3 TONS	140 lb.	1,240 lb.	TIMOTHY, MIXED CLOVER AND TIMOTHY OR OTHER NATIVE FORAGE GRASSES
WOOD CHIPS	4-6 TONS	185-275 lb.	1,650-2,500 lb.	MAY PREVENT GERMINATION OF GRASSES AND LEGUMES
HYDROMULCH	1 TON	47 lb.	415 lb.	SEE NOTE 5 FOR LIMITATIONS

NOTES:

1. STRAW AND HAY MULCH SHOULD BE ANCHORED OR TACKIFIED IMMEDIATELY AFTER APPLICATION TO PREVENT BEING WINDBLOWN.
2. POLYMERIC AND GUM TACKIFIERS MIXED AND APPLIED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS MAY BE USED TO TACK MULCH. AVOID APPLICATION DURING RAIN AND ON WINDY DAYS. A 24-HR CURING PERIOD AND A SOIL TEMPERATURE OF 45° F ARE TYPICALLY REQUIRED.
3. SYNTHETIC BINDERS, OR CHEMICAL BINDERS, MAY BE USED AS RECOMMENDED BY THE MANUFACTURER TO ANCHOR MULCH PROVIDED SUFFICIENT DOCUMENTATION IS PROVIDED TO SHOW THEY ARE NON-TOXIC TO NATIVE PLANT AND ANIMAL SPECIES.
4. MULCH ON SLOPES OF 8% OR STEEPER SHOULD BE HELD IN PLACE WITH NETTING. LIGHTWEIGHT PLASTIC, FIBER, OR PAPER NETS MAY BE STAPLED OVER THE MULCH ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
5. SHREDDED PAPER HYDROMULCH SHOULD NOT BE USED ON SLOPES STEEPER THAN 5%. WOOD FIBER HYDROMULCH MAY BE APPLIED ON STEEPER SLOPES PROVIDED A TACKIFIER IS USED. THE APPLICATION RATE FOR ANY HYDROMULCH SHOULD BE 2,000 LB/ACRE AT A MINIMUM.

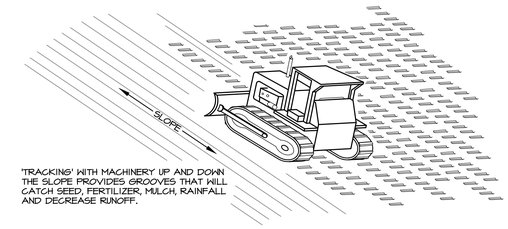
D 40 MULCH APPLICATION RATES
NO SCALE

COMPOST NOTES:

1. COMPOST SHOULD BE A WELL DECOMPOSED, WEED-FREE ORGANIC MATTER DERIVED FROM AGRICULTURE, FOOD, STUMP GRINDINGS, AND YARD OR WORK/BARK ORGANIC MATTER SOURCES. THE COMPOST SHOULD BE AEROBICALLY COMPOSTED. THE COMPOST SHOULD POSSESS NO OBJECTIONABLE ODORS AND SHOULD BE REASONABLY FREE (1% BY DRY WEIGHT) OF MAN-MADE FOREIGN MATTER. THE COMPOST PRODUCT SHOULD NOT RESEMBLE THE RAW MATERIAL FROM WHICH IT WAS DERIVED. WOOD AND BARK CHIPS, GROUND CONSTRUCTION DEBRIS, OR REPROCESSED WOOD PRODUCTS ARE NOT ACCEPTABLE AS THE ORGANIC COMPOST OF THE MIX.
2. USE ONLY MATURE COMPOST THAT MEETS THE FOLLOWING SPECIFICATIONS. THE STANDARDS CONTAINED IN THE PENNDOT PUBLICATION 408 ARE AN ACCEPTABLE ALTERNATIVE.

COMPOST STANDARDS

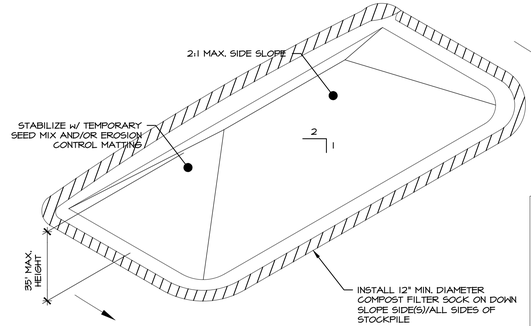
ORGANIC MATTER CONTENT	25% - 100% (DRY WEIGHT BASIS)
ORGANIC PORTION	FIBROUS AND ELONGATED
pH	5.5 - 8.5
MOISTURE CONTENT	30% - 60%
PARTICLE SIZE	30%-50% PASS THROUGH 3/8" SIEVE
SOLUBLE SALT CONCENTRATION	5.0 dS/m (mmhos/cm) MAXIMUM



'TRACKING' WITH MACHINERY UP AND DOWN THE SLOPE PROVIDES GROOVES THAT WILL CATCH SEED, FERTILIZER, MULCH, RAINFALL AND DECREASE RUNOFF.

TRACKING

E 40 SLOPE TRACKING
NO SCALE



F 40 TOPSOIL STOCKPILE DETAIL
NO SCALE

FILTER SOCK MAINTENANCE PROGRAM

1. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.
2. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES HALF OF THE ABOVEGROUND HEIGHT OF THE SOCK. DISPOSE OF SEDIMENT REMOVED FROM THE FILTER SOCK IN AREAS WITHIN THE LIMIT OF DISTURBANCE REQUIRING FILL MATERIAL OR LEGALLY DISPOSE OFFSITE.

FILTER SOCK INSPECTION SCHEDULE AND REPORTING

1. INSPECTION OF COMPOST FILTER SOCKS SHALL OCCUR AS FOLLOWS:
   - WEEKLY
   - AFTER EACH RUNOFF EVENT (THIS IS REQUIRED IN ADDITION TO THE REQUIRED WEEKLY INSPECTION)
2. A WRITTEN REPORT DOCUMENTING EACH INSPECTION AND ANY REPAIRS MADE SHALL BE KEPT AND SHALL INCLUDE, AT A MINIMUM, THE FOLLOWING:
   (1) A SUMMARY OF SITE CONDITIONS, E&S BMP AND PCSM BMP, IMPLEMENTATION AND MAINTENANCE AND COMPLIANCE ACTIONS; AND
   (2) THE DATE, TIME, NAME AND SIGNATURE OF THE PERSON CONDUCTING THE INSPECTION.

REVISIONS PER:	DATE:	BY:
1. COU/LCCD COMMENTS	3/28/25	EWB
2. -	-	-
3. -	-	-
4. -	-	-
5. -	-	-

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COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — ELIZABETH WERNER BALDWIN — ENGINEER — 069029 — PENNSYLVANIA

PENNSYLVANIA — REGISTERED LANDSCAPE ARCHITECT

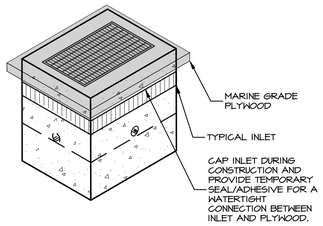
STORMWATER MANAGEMENT PLAN

SUBJECT:
ESC DETAILS
MCCASKEY HIGH SCHOOL
MCCASKEY HIGH SCHOOL STADIUM RENOVATIONS
CITY OF LANCASTER - LANCASTER COUNTY - PENNSYLVANIA

CLIENT:
MM ARCHITECTS
214 NORTH DUKE STREET
LANCASTER, PA 17602
(717) 393-3211

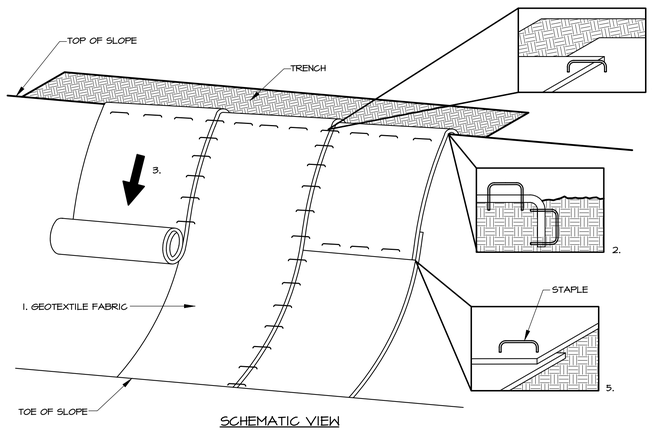
MANAGER:	HDC	DATE:	January 30, 2025
DESIGNER:	EWB	PROJECT NO.	AZ202-015
DRAWN BY:	JMT	SCALE:	AS SHOWN

DRAWING NO.
40 OF 53



A 41 CAPPED INLET

NO SCALE



SCHEMATIC VIEW

B 41 EROSION CONTROL FABRIC INSTALLATION (SLOPES)

NOT TO SCALE

EROSION CONTROL MATTING MAINTENANCE PROGRAM

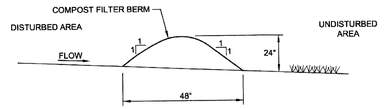
1. DAMAGED OR DISPLACED BLANKETS SHALL BE RESTORED OR REPLACED WITHIN 4 CALENDAR DAYS.

EROSION CONTROL BLANKET INSPECTION SCHEDULE AND REPORTING

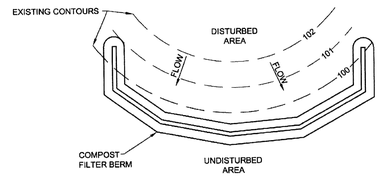
1. INSPECTION OF THE EROSION CONTROL BLANKET SHALL OCCUR AS FOLLOWS:
   - WEEKLY
   - AFTER EACH RUNOFF EVENT UNTIL PERENNIAL VEGETATION IS ESTABLISHED TO A MINIMUM OF 70% COVERAGE THROUGHOUT THE BLANKETED AREA.
2. A WRITTEN REPORT DOCUMENTING EACH INSPECTION AND ANY REPAIRS MADE SHALL BE KEPT AND SHALL INCLUDE, AT A MINIMUM, THE FOLLOWING:
   (1) A SUMMARY OF SITE CONDITIONS, E&S BMP AND PCSM BMP, IMPLEMENTATION AND MAINTENANCE AND COMPLIANCE ACTIONS;
   (2) THE DATE, TIME, NAME AND SIGNATURE OF THE PERSON CONDUCTING THE INSPECTION.
3. FOR ADDITIONAL INSPECTION AND REPORTING REQUIREMENTS AND INFORMATION, SEE THE NPDES PERMIT CONDITIONS, EFFLUENT LIMITATIONS, MONITORING, AND REPORTING REQUIREMENTS.

NOTES:

1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING APPLICATION OF LIME, FERTILIZER AND SEED.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
3. ROLL THE BLANKETS DOWN THE SLOPE IN THE DIRECTION OF THE WATER FLOW.
4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2" OVERLAP.
5. WHEN BLANKETS MUST BE SPLICED DOWN THE SLOPE, PLACE BLANKETS END OVER END (SHINGLE STYLE) WITH APPROXIMATELY 6" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART.
6. REFER TO MANUFACTURER'S SPECIFICATIONS FOR STAPLE PATTERN AND SPECIFIC INSTALLATION REQUIREMENTS.



SECTION VIEW



PLAN VIEW

Adapted from PennDOT

Compost shall meet the standards in Table 4.2.

Compost filter berms shall be placed at existing level grade. Both ends of the berm shall be extended at least 8 feet up slope at 45 degrees to the main berm alignment (see Figure 4.1).

The maximum slope length above a compost filter berm shall not exceed that shown in Table 4.4 for the standard silt fence (18" high fence).

Tall grass shall be cut prior to installation to minimize potential for undercutting. Berm shall be netted or otherwise anchored after installation.

Sediment shall be removed when accumulations reach 1/3 the aboveground height of the berm.

Any section compost filter berm which has been undermined or topped shall be immediately replaced. Concentrated flows shall not be directed toward any compost filter berm.

B 41 COMPOST FILTER BERM

NO SCALE

REVISIONS PER:		DATE:	BY:
1.	COL/LCCD COMMENTS	3/28/25	EWB
2.	-	-	-
3.	-	-	-
4.	-	-	-
5.	-	-	-

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PENNSYLVANIA REGISTERED LANDSCAPE ARCHITECT

STORMWATER MANAGEMENT PLAN

SUBJECT:

ESC DETAILS

MCCASKEY HIGH SCHOOL

MCCASKEY HIGH SCHOOL STADIUM RENOVATIONS

CITY OF LANCASTER - LANCASTER COUNTY - PENNSYLVANIA

CLIENT:

MM ARCHITECTS

214 NORTH DUKE STREET

LANCASTER, PA 17602

(717) 393-3211

MANAGER:	HDC	DATE:	January 30, 2025
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DRAWN BY:	JMT	SCALE:	AS SHOWN

DRAWING NO.

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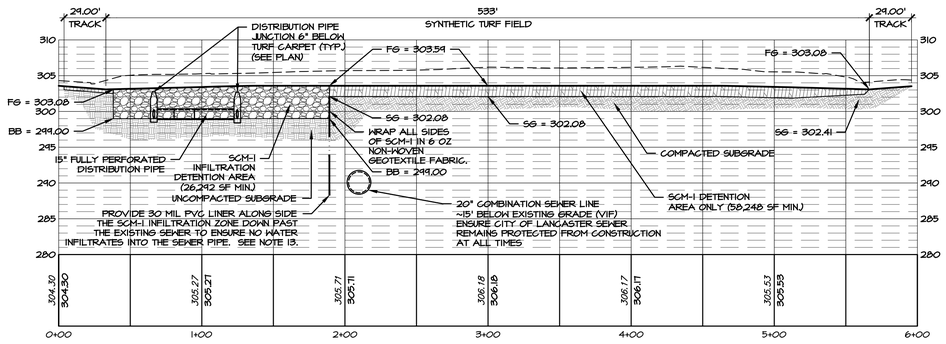
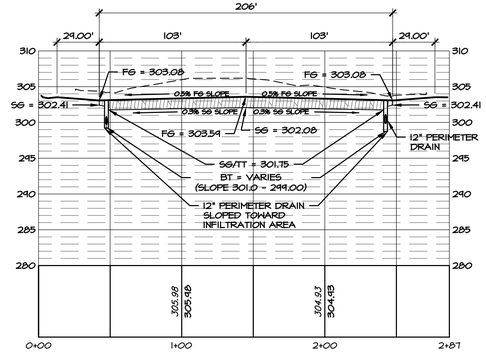


SECTION A-A

HORZ. SCALE: 1"=50'
VERT. SCALE: 1"= 10'

(SEE GRADING PLAN FOR PLAN VIEW)



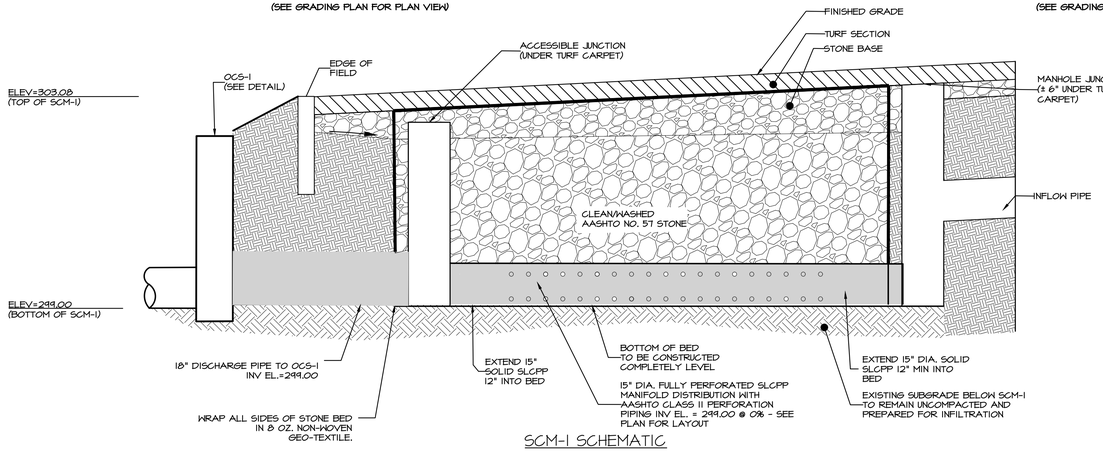
SECTION B-B

HORZ. SCALE: 1"=50'
VERT. SCALE: 1"= 10'

(SEE GRADING PLAN FOR PLAN VIEW)

SCM-1 NOTES:

1. ALL STORMWATER PIPES, JOINTS, AND CONNECTIONS TO STRUCTURES SHALL BE CONSIDERED WATERTIGHT.
2. THE STORMWATER SYSTEM IS NOT DESIGNED TO RECEIVE OR ACCOMMODATE CONSTRUCTION TRAFFIC OR LOADING. THE CONTRACTOR SHALL ENSURE PROTECTION OF ALL COMPONENTS OF THE STORMWATER SYSTEM DURING CONSTRUCTION.
3. THE STORMWATER SYSTEM SHALL BE CONSTRUCTED IN THE APPROVED LOCATION UNLESS OTHERWISE APPROVED.
4. FULL TIME OBSERVATION OF THE EXCAVATION OF THE BASINS BY AN AUTHORIZED GETECHNICAL REPRESENTATIVE TO VERIFY SUITABLE CONDITIONS ARE PRESENT IS REQUIRED. HAND PROBING SHOULD OCCUR TO ENSURE THERE ARE NO LIMITING ZONES WITHIN 24" BELOW THE BOTTOM OF THE SCM.
5. CONTRACTOR TO PROVIDE VERIFICATION OF 24" PROBING TO ELA GROUP AND THE CITY OF LANCASTER.
6. THE PROPOSED INFILTRATION FACILITY REPLY ON PERMEABLE SOIL CONDITIONS TO DEWATER AND FUNCTION PROPERLY. AS PART OF THE DESIGN PROCESS, GEOLOGIC INFILTRATION AND/OR SOIL TESTING WAS CONDUCTED BY A QUALIFIED PROFESSIONAL, SOIL SCIENTIST, OR LICENSED GEOLOGIST TO ASSURE CONDITIONS ARE CONDUCIVE TO INFILTRATION. EVERY PRECAUTION MUST BE MAINTAINED BY THE CONTRACTOR DURING CONSTRUCTION TO ASSURE THAT COMPACTION DOES NOT OCCUR WHICH WOULD COMPROMISE THE PERMEABILITY OF THE FLOOR OF THE INFILTRATION FACILITIES. IF AFTER INSTALLATION, THE INFILTRATION FACILITIES DO NOT FUNCTION AS DESIGNED, AND THE CAUSE IS DETERMINED, BY A QUALIFIED PROFESSIONAL, TO BE COMPACTION DURING CONSTRUCTION, THE CONTRACTOR WILL BE RESPONSIBLE TO PERFORM REMEDIATION, OUTLINED BY THE QUALIFIED PROFESSIONAL, TO RESTORE PRE-CONSTRUCTION PERMEABILITY.
7. APPROPRIATE EARTH MOVING TECHNIQUES MUST BE SELECTED AND UTILIZED TO ELIMINATE POTENTIAL COMPACTION OF SOIL IN AREAS RESERVED FOR INFILTRATION BMPS DURING ALL PHASES OF CONSTRUCTION.
8. THE BOTTOM OF THE SCM SHALL BE PREPARED FOR INFILTRATION BY SCARIFYING OR OTHER APPROPRIATE TECHNIQUES.
9. CONFIRMATORY INFILTRATION TESTING BY THE GEOTECHNICAL ENGINEER OF RECORD IS REQUIRED FOR SCM-1 PRIOR TO PLACING BACKFILL. TESTING AND RESULTS SHALL BE COORDINATED WITH ELA GROUP.
10. ALL STRUCTURES WITHIN THE TURF FIELD, UNDER THE TURF CARPET SHOULD BE MARKED IN THE FIELD FOR MAINTENANCE AND INSPECTION AS NEEDED.
11. SEE INFILTRATION SYSTEM CONSTRUCTION NOTES ON THIS SHEET.
12. IF IT CAN BE VERIFIED THAT SEWER IS WATERTIGHT, NO LINER IS NEEDED. CONTRACTOR TO WORK WITH GEOTECHNICAL ENGINEER TO PROVIDE VERIFICATION TO ELA GROUP AND CITY OF LANCASTER DURING CONSTRUCTION IF ACHIEVED. CONTRACTOR TO VERIFY IN FILED SEWER LOCATION AND DEPTH.
13. ALL PIPES WITHIN THE BMPS ARE TO BE CORRUGATED HDPE.
14. ALL PERFORATED DISTRIBUTION PIPING ARE TO BE AASHTO CLASS II PERFORATIONS WITH THE PERFORATIONS PROVIDED ON THE OUTSIDE VALLEYS OF THE CORRUGATIONS.
15. CLAY PLUGS SHALL BE PROVIDED ON ALL PIPES ENTERING AND LEAVING THE SCM.
16. ALL STONE WITHIN SCM-1 SHOULD BE CLEAN WASHED ASSHTO NO. 57.
17. THE GEOTEXTILE FABRIC WRAPPING THE INFILTRATION SCM IS TO BE NON-WOVEN AND IN ACCORDANCE WITH CHAPTER 5 OF THE CITY OF LANCASTER GREEN INFRASTRUCTURE MANUAL, CHAPTER 5, GEOTEXTILE FABRIC AND IMPERMEABLE LINERS, PARAGRAPH BF.



SCM-1 SCHEMATIC

INFILTRATION FACILITY INFORMATION

BED NO.	INFILTRATION FOOTPRINT (SF/AC)	IMPERVIOUS AREA (SF/AC)	OVERALL AREA (SF/AC)	LOADING RATIO (I)	LOADING RATIO (O)	INFILTRATION RATE (MIN.)	INFIL. ELEV.
SCM-1	26,242/0.60	200,812/4.61 (INCLUDES TURF)	235,224/5.44	7.6 : 1	8.9 : 1	0.50 INCHES/HR	299.00

A 42 SCM-1 SECTIONS, SCHEMATIC, NOTES AND DETAILS

AS NOTED

PERFORMANCE GUARANTEE:

1. SEE GRADING PLAN FOR SPECIFIC GRADING OF INFILTRATION FACILITIES.
2. ABOVE-GROUND INFILTRATION FACILITY BOTTOMS SHALL BE STABILIZED WITH THE SPECIFIED SEED MIX. SEE BMP PLANTINGS SPECIFICATIONS FOR SEED MIX. ALTERNATIVE SEED MIXES MAY BE USED WITH APPROVAL OF THE DESIGN AND MUNICIPAL ENGINEERS.
3. THE PROPOSED STORMWATER INFILTRATION SYSTEMS, AS SHOWN, RELY ON PERMEABLE SOIL CONDITIONS TO DEWATER AND FUNCTION PROPERLY. AS PART OF THE DESIGN PROCESS, GEOLOGIC, INFILTRATION, AND/OR SOIL TESTING WAS CONDUCTED BY A QUALIFIED PROFESSIONAL, SOIL SCIENTIST, OR LICENSED GEOLOGIST TO ASSURE CONDITIONS ARE CONDUCIVE TO INFILTRATION. EVERY PRECAUTION MUST BE MAINTAINED BY THE CONTRACTOR DURING CONSTRUCTION TO ASSURE THAT COMPACTION DOES NOT OCCUR WHICH WOULD COMPROMISE THE PERMEABILITY OF THE FLOOR OF THE INFILTRATION FACILITIES. IF AFTER INSTALLATION, THE INFILTRATION FACILITIES DO NOT FUNCTION AS DESIGNED, AND THE CAUSE IS DETERMINED, BY A QUALIFIED PROFESSIONAL, TO BE COMPACTION DURING CONSTRUCTION, THE CONTRACTOR WILL BE RESPONSIBLE TO PERFORM REMEDIATION, OUTLINED BY THE QUALIFIED PROFESSIONAL, TO RESTORE PRE-CONSTRUCTION PERMEABILITY.
4. THE ONSITE SOILS CONTAIN HIGH PERCENTAGES OF FINE SOIL PARTICLES (SILT AND CLAY) AND ARE THUS SUSCEPTIBLE TO LOSS OF PERMEABILITY DURING THE CONSTRUCTION PROCESS THROUGH EXCAVATION, PONDING OF WATER, AND REMOVAL OF VEGETATION. A GEOTECHNICAL PROFESSIONAL SHALL BE PRESENT DURING CONSTRUCTION TO APPROVE THE SUBGRADE AND CONFIRM IN-SITU INFILTRATION RATES PRIOR TO PLACEMENT OF AMENDED SOILS. INFILTRATION SYSTEM SHOULD BE CONSTRUCTED DURING PERIODS OF DRY WEATHER. SUBGRADES SHALL NOT REMAIN EXPOSED FOR MORE THAN 72 HOURS AND EVERY EFFORT SHOULD BE MADE TO IMMEDIATELY BACKFILL WITH AMENDED SOILS/STONE BACKFILL, AS SPECIFIED FOR THE SPECIFIC SYSTEM, FOLLOWING EXCAVATION/EXPOSURE OF SUBGRADE. IF THE INFILTRATIVE CAPACITY OF THE SUBGRADE MATERIAL HAS BEEN COMPROMISED THE GEOTECHNICAL PROFESSIONAL SHALL PROVIDE RECOMMENDATIONS FOR REMEDIATION TO ENSURE INFILTRATION RATES OF AT LEAST 0.10 IN/HR BUT NOT MORE THAN 6.0 IN/HR.
5. IN-PLACE INFILTRATION TESTS OF THE AMENDED SOIL IS REQUIRED IN ALL INFILTRATION BMPS WHERE AMENDED SOILS OTHER THAN A SPECIFIED, PRE-BLENDED MIX ARE USED. THE GEOTECHNICAL ENGINEER OVERSEEING BASIN CONSTRUCTION SHALL SPECIFY THE LOCATIONS AND MINIMUM NUMBER OF TESTS TO BE PERFORMED UTILIZING ACCEPTABLE METHODS AS DESCRIBED IN THE PADEP BMP MANUAL IN ORDER TO CONFIRM THAT ACCEPTABLE INFILTRATION RATES HAVE BEEN ACHIEVED.

INFILTRATION SYSTEM CONSTRUCTION NOTES

1. ENTIRE BOTTOM OF INFILTRATION SYSTEM SHALL BE CONSTRUCTED ON UNDISTURBED GROUND. THE AREAS FOR THE INFILTRATION SYSTEMS SHALL BE FIELD STAKED AND FENCED OFF WITH HIGH VISIBILITY CONSTRUCTION FENCING PRIOR TO CONSTRUCTION.
2. SEE INFILTRATION SYSTEM DETAILS.
3. BASIN EXCAVATION, CONVERSION FROM SEDIMENT REMOVAL FACILITY (IF APPLICABLE) AND SUBGRADE PREPARATION SHALL BE OVERSEEN BY A QUALIFIED GEOTECHNICAL PROFESSIONAL.
4. THE INFILTRATION AREAS (HEREAFTER, "SUBJECT AREA(S)") MUST REMAIN UNDISTURBED PRIOR TO CONSTRUCTION TO PREVENT COMPACTION OF THE UNDERLYING SOILS. THE INFILTRATION AREAS MUST BE PROTECTED AT ALL TIMES FROM ANY SILTATION AND COMPACTION BOTH DURING AND FOLLOWING CONSTRUCTION. INSTALL AND MAINTAIN EROSION AND SEDIMENTATION CONTROL MEASURES IMMEDIATELY.
5. THE CONTRACTOR MUST UTILIZE APPROPRIATE EARTHMOVING EQUIPMENT AND TECHNIQUES IN THE CONSTRUCTION OF THE INFILTRATION SYSTEMS TO ELIMINATE POTENTIAL COMPACTION OF THE SOIL WITHIN THE SUBJECT AREA RESERVED FOR THE INFILTRATION SYSTEMS. EARTHMOVING EQUIPMENT SHALL NOT BE PERMITTED DIRECTLY ON THE SUBJECT AREA OF THE INFILTRATION FACILITIES DURING OR AFTER CONSTRUCTION.
6. HANDHELD EQUIPMENT SHALL BE UTILIZED WITHIN THE SUBJECT AREA. OTHER EQUIPMENT MAY BE USED AROUND THE PERIMETER - BUT OUTSIDE OF - SUBJECT AREAS FOR PURPOSES OF EXCAVATION AND TO SUPPLY SOILS.
7. HEAVY EQUIPMENT, OTHER THAN THAT WHICH IS NECESSARY FOR INFILTRATION FACILITY CONSTRUCTION, AND CONSTRUCTION TRAFFIC SHALL BE RESTRICTED FROM TRAVELING OVER THE PROPOSED LOCATION OF THE INFILTRATIONS SYSTEMS TO MINIMIZE POTENTIAL FOR COMPACTION OF THE SOIL.
8. WHERE THE CONFIGURATION OF THE FACILITY DICTATES THAT ANYTHING OTHER THAN HAND HELD EQUIPMENT MUST OPERATE WITHIN A SUBJECT AREA, EXCAVATION AND FILL PLACEMENT SHALL BE ACCOMPLISHED SUCH THAT THE HEAVY EQUIPMENT IS NEVER WITHIN THE SUBJECT AREA UNLESS THE SURFACE THAT SAID EQUIPMENT OCCUPIES IS AT LEAST TWO (2) FEET ABOVE THE PROPOSED FINISHED SUBGRADE FOR THAT LOCATION FOR EXCAVATION OPERATIONS, THE EXCAVATOR SHALL WORK FROM HIGHER GROUND AND PROCEED IN A BACKWARDS DIRECTION, MOVING AWAY FROM THE FINISHED EXCAVATION AREA. FOR FILL OPERATIONS/AMENDED SOIL PLACEMENT, AMENDED SOILS SHALL BE PLACED STARTING AT THE PERIMETER OF THE SUBJECT AREA AND PUSHED FORWARD, SUCH THAT EQUIPMENT IS NEVER WITHIN THE SUBJECT AREA UNLESS IT IS ON TOP OF AT LEAST TWO (2) FEET OF SOIL. AVOID USING THE SAME ENTRANCE/EXIT POINTS TO MINIMIZE THE RISK OF SUBGRADE COMPACTION. TRACKED EQUIPMENT ONLY IS PERMITTED ON THE AMENDED SOILS. NO DUMP TRUCKS OR OTHER WHEELED EQUIPMENT IS PERMITTED IN THE SUBJECT AREAS UNLESS AT LEAST 2' OF SEPARATION IS PRESENT ABOVE THE SUBGRADE. IF TRACKED EQUIPMENT IS USED FOR AMENDED SOIL PLACEMENT, MECHANICAL DE-COMPACTION OF THE AMENDED SOILS SHALL BE CARRIED OUT USING A FROST HOOK/RIPPER OR OTHER TILLING IMPLEMENT SET TO A DEPTH OF 12".
9. IF MAINTAINING TWO FEET OF COVER OVER SUBGRADE ELEVATION IS NOT PRACTICAL AND THE CONTRACTOR INTENDS TO UTILIZE ANYTHING OTHER THAN HAND HELD EQUIPMENT WITHIN TWO (2) VERTICAL FEET OF THE SUBGRADE ELEVATION IN A SUBJECT AREA, THE CONTRACTOR SHALL TWO (2) WEEKS PRIOR TO SUCH USE, PROVIDE THE CITY ENGINEER WITH A LIST OF EQUIPMENT TO BE USED WITHIN THE SUBJECT AREA. THE LIST SHALL INCLUDE EQUIPMENT SPECIFICATIONS AND SHALL BE ACCOMPANIED BY ENGINEERING CALCULATIONS CERTIFYING THAT THE EQUIPMENT WILL EXERT A PRESSURE OF 5 PSI OR LESS ON THE SUBGRADE OF THE INFILTRATION FACILITY.
10. EXCAVATE THE INFILTRATION SYSTEMS TO DESIGN DIMENSIONS.
11. THE SUBGRADE MATERIAL SHALL UNDERGO IN-SITU INFILTRATION TESTING TO ENSURE APPROPRIATE INFILTRATION RATES HAVE BEEN ACHIEVED. MECHANICALLY DE-COMPACTED AND/OR BLEND MORE COARSELY GRAINED MATERIAL AS RECOMMENDED BY AND UNDER THE SUPERVISION OF A QUALIFIED GEOTECHNICAL PROFESSIONAL PRIOR TO THE PLACEMENT OF AMENDED SOIL OR GEOTEXTILE FABRIC TO ENSURE LONG TERM FUNCTIONALITY OF THE BMPS.
12. INFILTRATION AREA SUBGRADES SHALL BE PROTECTED FROM SEDIMENT LADEN RUNOFF / SEDIMENTATION DURING CONSTRUCTION. PRIOR TO EXPOSURE OF SUBGRADE/PLACEMENT OF AMENDED SOILS, ENSURE THAT ALL CONTRIBUTING AREAS ARE STABILIZED AND INSTALL ADDITIONAL CONTROL MEASURES (I.E. INLET PROTECT, EROSION CONTROL MATTING, ETC.). AMENDED SOILS / SUBSURFACE INFILTRATION BED COMPONENTS SHOULD BE INSTALLED IMMEDIATELY FOLLOWING EXPOSURE/PREPARATION OF SUBGRADE AND CONFIRMATION OF FIELD-VERIFIED INFILTRAITON RATES. INFILTRATION TESTING SHALL BE COORDINATED ACCORDINGLY.
13. IF SEDIMENT DOES ENTER INTO A SUBJECT AREA, THE CONTRACTOR SHALL CLEAN OUT THE SEDIMENT TO THE MUNICIPALITIES SATISFACTION. THIS MAY REQUIRE THE RECONSTRUCTION OF PORTIONS OF OR THE ENTIRETY OF THE SYSTEM.
14. A MINIMUM TWO (2)-FOOT SEPARATION SHALL BE PROVIDED BETWEEN THE SEASONAL HIGH GROUNDWATER TABLE OR BEDROCK (WHICHEVER IS HIGHER) AND THE BOTTOM OF THE INFILTRATION FACILITY. IF GROUNDWATER AND/OR BEDROCK ARE ENCOUNTERED WITHIN AND/OR ABOVE THIS 2-FOOT ZONE DURING CONSTRUCTION, THE DEVELOPER, THE DESIGN ENGINEER, THE CITY, AND THE CITY ENGINEER SHALL BE NOTIFIED IN WRITING WITHIN TWENTY-FOUR (24) HOURS OF SUCH DISCOVERY. UPON REVIEW OF THE ACTUAL SITE CONDITIONS THE DESIGN ENGINEER SHALL SUBMIT REMEDIAL RECOMMENDATIONS TO THE MUNICIPALITY AND THE MUNICIPAL ENGINEER FOR REVIEW AND APPROVAL.

INFILTRATION VERIFICATION NOTES.

1. INFIELD VERIFICATION OF INFILTRATION RATES ARE REQUIRED FOR ALL INFILTRATION FACILITIES AND SHALL BE CONDUCTED AT THE INFILTRATION ELEVATION (IE SUBGRADE ELEVATION). INFILTRATION TEST SHALL UTILIZE A DOUBLE RING INFILTOMETER TEST AND IN ACCORDANCE WITH PROCEDURES IN APPENDIX C OF THE PENNSYLVANIA STORMWATER BEST MANAGEMENT PRACTICES MANUAL. NO FACTOR OF SAFETY SHOULD BE CONSIDERED IN DETERMINING IF POST-DEVELOPMENT INFILTRATION RATES ARE WITHIN THE ACCEPTABLE RANGE. THE GEOTECHNICAL ENGINEER OVERSEEING BASIN CONSTRUCTION SHALL SPECIFY THE LOCATIONS AND MINIMUM NUMBER OF TESTS TO BE PERFORMED.
2. THE PRESENCE/ABSENCE OF A LIMITING LAYER WITHIN 2 FEET OF THE BOTTOM OF THE BASIN SHALL BE VERIFIED WITH THE USE OF A HAND-PROBE HAVING AN APPROXIMATE DIAMETER OF ¾" OR GREATER BY EXTENDING THE PROBE INTO THE GROUND A MINIMUM OF 2 FEET ON AN APPROXIMATELY 20-25 FT GRID PATTERN ACROSS THE BOTTOM OF THE BASINS. THE CITY SHALL BE NOTIFIED IF A LIMITING LAYER IS ENCOUNTERED WITHIN 2 FEET OF THE PROPOSED BASIN SUBGRADE ELEVATION.
3. IF BEDROCK IS PRESENT, A GEO-TECHINCAL PROFESSIONAL SHALL INSPECT THE EXPOSED ROCK IN ORDER TO DETERMINE THE MOST APPROPRIATE COURSES OF ACTION. IN GENERAL, OVER-EXCAVATE A MINIMUM OF 2' BELOW INFILTRATION ELEVATION AND BACKFILL WITH SUITABLE ON SITE SOIL LIGHTLY TAMPED IN PLACE. THE SUITABILITY OF ONSITE SOILS IS TO BE DETERMINED BY THE OVERSEEING ENGINEER/GEOTECHNICAL PROFESSIONAL. INFILTRATION TESTING SHALL BE PERFORMED IN BACKFILLED AREAS IF THE AREA EXCEEDS 100 SF OR AS DEEMED APPROPRIATE BY THE OVERSEEING ENGINEER/GEOTECHNICAL PROFESSIONAL. ROCK REMOVAL SHOULD BE HANDLED ON A CASE-BY-CASE BASIS AND UNDER THE SUPERVISION OF A GEOTECHNICAL PROFESSIONAL. FLOATING BOULDERS AND/OR FRAGMENTED ROCKS WHICH CAN READILY BE REMOVED AND WHICH ARE DEEMED NOT TO NEGATIVELY IMPACT THE FUNCTIONALITY OF THE FACILITY MAY PROVIDE STABILITY WITHIN THE SOIL/BEDROCK INTERFACE, REDUCE THE LIKELIHOOD OF SUBSIDENCE, AND MAY BE LEFT IN PLACE.
4. IF OTHER LIMITING LAYERS, SUCH AS GROUNDWATER, OR REDOXIMORPHIC FEATURES INDICATIVE OF A SEASONALLY HIGH WATER TABLE ARE ENCOUNTERED THE GEOTECHNICAL ENGINEER, STORMWATER DESIGN ENGINEER, AND CITY ENGINEER SHALL BE NOTIFIED IMMEDIATELY IN ORDER TO DETERMINE AN APPROPRIATE COURSE OF ACTION. ADDITIONAL MEASURES AND/OR AN ALTERNATE DESIGN MAY BE REQUIRED.
5. IF FIELD VERIFIED RATES ARE LESS THAN 0.20 IN/HR OR GREATER THAN 6.0 IN/HR, THE FOLLOWING STEPS SHOULD BE TAKEN:

IF THE FIELD VERIFIED INFILTRATION RATES ARE EXCESSIVELY HIGH (>6.0 IN/HR).

1. DETERMINE THE EXTENT OF THE MATERIALS EXHIBITING THE HIGH INFILTRATION RATES THROUGH A COMBINATION OF VISUAL-MANUAL CLASSIFICATION, HAND PROBING, DENSITY TESTING, OR OTHER SUITABLE METHODS AS DETERMINED BY THE GEOTECHNICAL ENGINEER.
2. OVER EXCAVATE THE MATERIALS TO THE DEPTH WHERE THE MATERIAL TYPE CHANGES OR A MAXIMUM DEPTH OF 2 FEET, WHICHEVER IS ENCOUNTERED FIRST.
3. IN-PLACE INFILTRATION TESTING (MIN. TWO TEST PITS) OF THE NATURAL SOIL MATERIAL MUST BE PERFORMED AFTER THE UNSUITABLE MATERIAL IS EXCAVATED TO CONFIRM ACCEPTABLE INFILTRATION RATES PRIOR TO PLACEMENT OF THE SUITABLE SOIL. SOIL TESTING SHALL UTILIZE A DOUBLE RING INFILTROMETER TEST AND BE IN ACCORDANCE WITH PROCEDURES IN APPENDIX C OF THE PENNSYLVANIA STORMWATER BEST MANAGEMENT PRACTICES MANUAL.
4. IF EXCESSIVE RATES ARE ASSOCIATED WITH WEATHERED OR BROKEN ROCK, THE ROCK SURFACE SHOULD BE EXAMINED BY THE GEOTECHNICAL ENGINEER PRIOR TO REPLACEMENT OF SUITABLE MATERIAL TO EVALUATE KARST POTENTIAL.
5. REPLACE THE EXCAVATED MATERIAL WITH FINER GRAINED MATERIALS APPROVED BY THE GEOTECHNICAL ENGINEER. SUITABLE SOIL MIXTURES CAN CONSIST OF A BLEND OF ON-SITE AND/OR OFF-SITE MATERIALS AVAILABLE TO THE CONTRACTOR, AND SUBJECT TO TESTING AND APPROVAL OF THE GEOTECHNICAL ENGINEER, OR SHOULD BE CONSISTENT WITH THE INFILTRATION BASIN AMENDED SOIL SPECIFICATIONS. IN-SITU INFILTRATION TESTING (MIN. 2 TESTS) OF THE BACKFILLED MATERIAL IS REQUIRED FOR ALL BACKFILLED AREAS EXCEEDING 100 SF.
6. SUITABLE SOIL MIXTURES MAY CONSIST OF MATERIALS BLENDED BY VOLUME RATIOS AS DETERMINED BY THE GEOTECHNICAL ENGINEER.
7. MATERIALS SHOULD BE LIGHTLY TRACKED INTO PLACE IN NON-STRUCTURAL AREAS.
8. IF MATERIAL REPLACEMENT IS LOCATED OUTSIDE OF STRUCTURAL AREAS, SOIL SHOULD BE PLACED IN ACCORDANCE WITH THE RECOMMENDED METHODS DESCRIBED FOR AMENDED SOIL PLACEMENT IN THE CONSTRUCTION SEQUENCE.
9. IF MATERIAL REPLACEMENT IS REQUIRED IN STRUCTURAL AREAS (EX: BELOW GRADE SWM FACILITIES IN PAVED AREAS), MATERIAL PLACEMENT SPECIFICATIONS, INCLUDING MATERIALS TYPE, MIX RATIO, COMPACTIVE EFFORT AND REQUIRED DENSITY SHOULD BE DETERMINED BY THE GEOTECHNICAL ENGINEER.

IF THE FIELD VERIFIED INFILTRATION RATES ARE EXCESSIVELY LOW (<0.20 IN/HR).

1. DETERMINE THE EXTENT OF THE MATERIALS EXHIBITING THE LOW INFILTRATION RATES THROUGH A COMBINATION OF VISUAL-MANUAL CLASSIFICATION, HAND PROBING, DENSITY TESTING, OR OTHER SUITABLE METHODS AS DETERMINED BY THE GEOTECHNICAL ENGINEER.
2. OVER EXCAVATE THE MATERIALS TO THE DEPTH WHERE THE MATERIAL TYPE CHANGES OR A MAXIMUM DEPTH OF 2 FEET, WHICHEVER IS ENCOUNTERED FIRST. IF SUFFICIENTLY PERMEABLE SOIL IS NOT ENCOUNTERED WITHIN TWO FEET OF THE INSUFFICIENTLY PERMEABLE MATERIAL, IT IS NOT SUITABLE TO MERELY REPLACE THE UNSUITABLE MATERIAL WITH MORE PERMEABLE MATERIAL, AS THIS SIMPLY CREATES A "BATH TUB."
3. IN-PLACE INFILTRATION TESTING (MIN. 4 TEST PITS PER ACRE OF BMP) OF THE NATURAL SOIL MATERIAL MUST BE PERFORMED AFTER THE UNSUITABLE MATERIAL IS EXCAVATED TO CONFIRM ACCEPTABLE INFILTRATION RATES PRIOR TO PLACEMENT OF THE SUITABLE SOIL. SOIL TESTING SHALL UTILIZE A DOUBLE RING INFILTROMETER TEST AND BE IN ACCORDANCE WITH PROCEDURES IN APPENDIX C OF THE PENNSYLVANIA STORMWATER BEST MANAGEMENT PRACTICES MANUAL.
4. IF ROCK IS ENCOUNTERED, THE ROCK SHOULD BE REMOVED TO A MINIMUM DEPTH OF 2 FEET BELOW THE BOTTOM OF BASIN AND SHOULD BE EXAMINED BY THE GEOTECHNICAL ENGINEER PRIOR TO REPLACEMENT OF SUITABLE MATERIAL TO EVALUATE KARST POTENTIAL AND ENSURE THE ROCK HAS SUFFICIENT INFILTRATION ABILITY TO MEET THE MINIMUM CRITERIA (>0.20IN/HR).
5. REPLACE THE EXCAVATED MATERIAL WITH MORE COARSELY GRAINED MATERIALS APPROVED BY THE GEOTECHNICAL ENGINEER. SUITABLE SOIL MIXTURES CAN CONSIST OF A BLEND OF ON-SITE AND/OR OFFSITE MATERIALS AVAILABLE TO THE CONTRACTOR, AND SUBJECT TO TESTING AND APPROVAL OF THE GEOTECHNICAL ENGINEER OR SHOULD BE CONSISTENT WITH THE INFILTRATION BASIN AMENDED SOIL SPECIFICATIONS.
6. SUITABLE SOIL MIXTURES MAY CONSIST OF MATERIALS BLENDED BY VOLUME RATIOS AS DETERMINED BY THE GEOTECHNICAL ENGINEER.
7. MATERIALS SHOULD BE LIGHTLY TRACKED INTO PLACE IN NON-STRUCTURAL AREAS.
8. IF MATERIAL REPLACEMENT IS LOCATED OUTSIDE OF STRUCTURAL AREAS, SOIL SHOULD BE PLACED IN ACCORDANCE WITH THE RECOMMENDED METHODS DESCRIBED FOR AMENDED SOIL PLACEMENT IN THE CONSTRUCTION SEQUENCE.
9. IF MATERIAL REPLACEMENT IS REQUIRED IN STRUCTURAL AREAS (EX: BELOW GRADE SWM FACILITIES IN PAVED AREAS), MATERIAL PLACEMENT SPECIFICATIONS, INCLUDING MATERIALS TYPE, MIX RATIO, COMPACTIVE EFFORT AND REQUIRED DENSITY SHOULD BE DETERMINED BY THE GEOTECHNICAL ENGINEER.
10. IF, THROUGH REMEDIATION, EXCESSIVELY LOW INFILTRATION RATES CANNOT BE MADE TO MATCH THE MINIMUM ACCEPTABLE INFILTRATION RATE AT THE LOCATION OF THE PROPOSED FACILITY(AS DETERMINED BY THE REQUIRED INFILTRATION TESTS DURING CONSTRUCTION), WORK MUST CEASE AND THE APPLICANT MUST SUBMIT FOR REVIEW AND APPROVAL A REVISED COURSE OF ACTION.

B 42 INFILTRATION SCM-1 SYSTEM CONSTRUCTION NOTES

NO SCALE

REVISIONS PER:		DATE:	BY:
1.	COL/LCCD COMMENTS	3/28/25	EWB
2.	-	-	-
3.	-	-	-
4.	-	-	-
5.	-	-	-

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COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — ELIZABETH WERNER BALDWIN — ENGINEER — PE080729

PENNSYLVANIA — REGISTERED LANDSCAPE ARCHITECT

STORMWATER MANAGEMENT PLAN

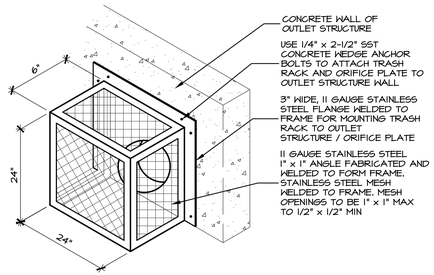
SUBJECT:
STORMWATER DETAILS
MCCASKEY HIGH SCHOOL
MCCASKEY HIGH SCHOOL STADIUM RENOVATIONS
CITY OF LANCASTER - LANCASTER COUNTY - PENNSYLVANIA

CLIENT:
MM ARCHITECTS
214 NORTH DUKE STREET
LANCASTER, PA 17602
(717) 393-3211

MANAGER:	HDC	DATE:	February 6, 2025
DESIGNER:	EWB	PROJECT NO.	AZ202-015
DRAWN BY:	JMT	SCALE:	AS SHOWN

DRAWING NO.
42 OF 53

DRAWING: C:\Users\mtoedter\DC\ACCDocs\ELA Group\AZ202-015 McCaskey Stadium Renovations\Project Files\CAD Data\Land Development\LD-FRELIM\6 STORMWATER DETAILS.dwg - PLOTTED: Apr 02, 2025 2:22 pm



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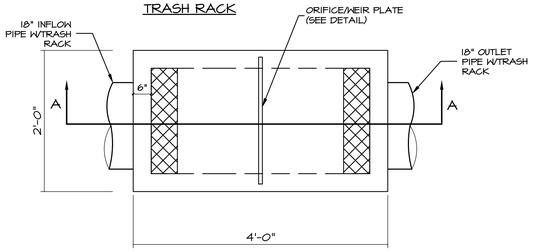
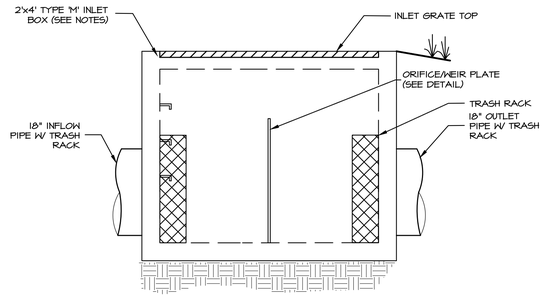


PLAN

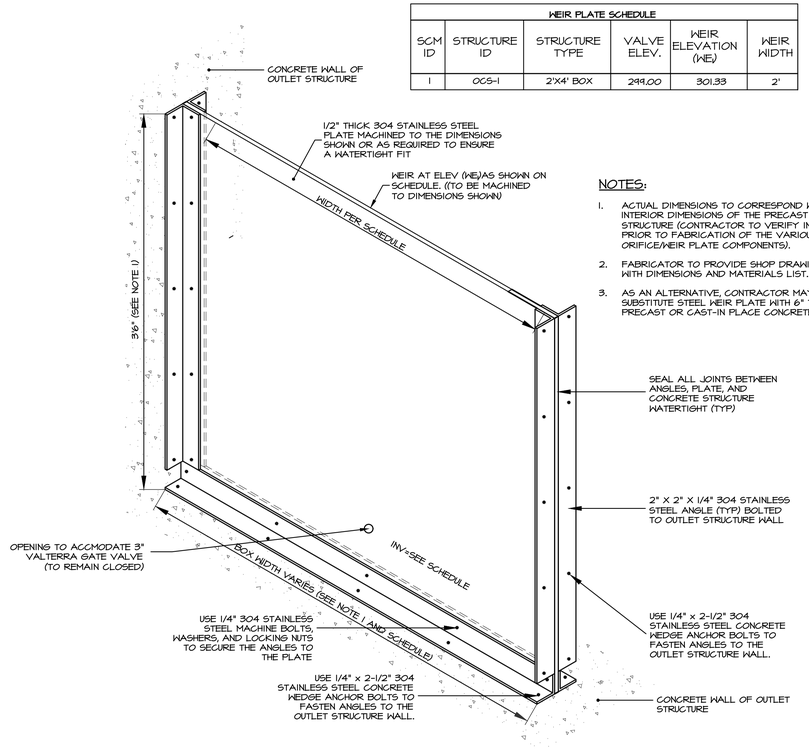


SECTION A-A

NOTES:

1. ALL CONNECTIONS TO OUTLET STRUCTURE MUST BE WATERTIGHT. WEEP HOLES ARE NOT TO BE PROVIDED IN CONTROL STRUCTURES.
2. CONTRACTOR SHALL VERIFY BOX SIZING BASED ON PIPE SIZES & ALIGNMENT PRIOR TO ORDERING STRUCTURES.
3. STRUCTURES SHALL BE PRE-CAST.
4. DRAINAGE STRUCTURES THAT ARE FIVE FOOT OR GREATER IN DEPTH SHALL HAVE POLYPROPYLENE ENCASED MANHOLE STEPS INSTALLED ARE PER CURRENT STANDARDS.
5. MATERIAL AND CONSTRUCTION SHALL COMPLY WITH PENN D.O.T. PUB. 408.
6. CLASS AA CONCRETE 4,000 PSI AT 28 DAYS.
7. REINFORCEMENT - ASTM A185/A615 GRADE 60, MIN. 1 1/2" COVER.

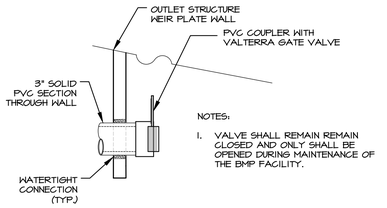
OUTLET CONTROL STRUCTURE SCHEDULE									
BASIN NO.	STRUCTURE ID	INFLOW PIPE		WEIR		GRATE INLET		OUTLET PIPE	
		SIZE (IN)	INVERT ELEV.	SIZE (IN)	ELEV.	TYPE	TOP OF GRATE ELEV.	SIZE (IN)	INVERT ELEV.
SCM-1	OCS-1	18"	299.00	SEE DETAIL		GRATE	303.00	18"	299.00



WEIR PLATE SCHEDULE					
SCM ID	STRUCTURE ID	STRUCTURE TYPE	VALVE ELEV.	WEIR ELEVATION (WE)	WEIR WIDTH
1	OCS-1	2'X4' BOX	299.00	301.33	2'

NOTES:

1. ACTUAL DIMENSIONS TO CORRESPOND WITH THE INTERIOR DIMENSIONS OF THE PRECAST OUTLET STRUCTURE (CONTRACTOR TO VERIFY IN FIELD PRIOR TO FABRICATION OF THE VARIOUS ORIFICE/WEIR PLATE COMPONENTS).
2. FABRICATOR TO PROVIDE SHOP DRAWINGS WITH DIMENSIONS AND MATERIALS LIST.
3. AS AN ALTERNATIVE, CONTRACTOR MAY SUBSTITUTE STEEL WEIR PLATE WITH 6" THICK PRECAST OR CAST-IN PLACE CONCRETE WEIR.



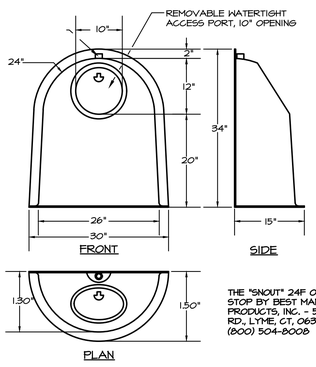
NOTES:

1. VALVE SHALL REMAIN REMAIN CLOSED AND ONLY SHALL BE OPENED DURING MAINTENANCE OF THE BMP FACILITY.

C / 43 GATE VALVE CONNECTION DETAIL
NO SCALE

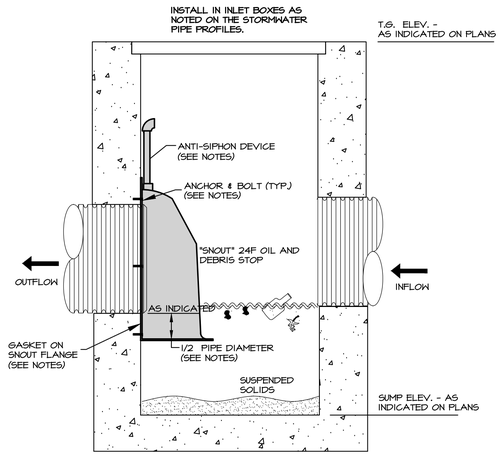
A / 43 OCS-1 : BASIN OUTLET STRUCTURE W/ ORIFICE/WEIR PLATE
NO SCALE

B / 43 ORIFICE/WEIR PLATE W/ BACKUP GATE VALVE FOR INFILTRATION BEDS
NO SCALE



PLAN

THE "SNOUT" 24F OIL & DEBRIS STOP BY BEST MANAGEMENT PRODUCTS, INC. - 53 MT. ARCHER RD., LYME, CT, 06371 (800) 504-8008



INSTALLATION DIAGRAM

INSTALL ON INLETS: (1 I-3, MH 1-5, 1 I-7, 1 I-9, 1 I-11, 1 I-13, 1 I-14, 1 I-16)

NOTE: THIS DETAIL IS FOR GENERAL INFORMATION ONLY. CONTRACTOR SHALL VERIFY ALL SIZES AND SNOUTS WITH THE PROFILES IN THIS PLAN SET, AND MANUFACTURER.

NOTES:

1. STRIP ALL SOFT OR UNSUITABLE MATERIALS EXTENDING HORIZONTALLY 5 FEET BEYOND THE PERIMETER OF THE EXISTING SINKHOLE TO A DEPTH OF COMPETENT BEDROCK OR TO 3 FEET BELOW PLAN SUBGRADE, WHICHEVER IS LESS.
2. FILL SINKHOLE WITH R-3 ROCK TO 18 INCHES BELOW THE LEVEL OF THE STRIPPED SURFACE. USE LARGER ROCK IF NECESSARY TO FILL VOIDS. FILL THE REMAINING 18 INCHES WITH AASHTO #57 CRUSHED STONE AND 9 INCHES OF THE TYPE 'A' SAND AS SHOWN. COMPACT TO AN UNYIELDING CONDITION.
3. FILL AREA WITH CONTROLLED MATERIAL TO PLAN SUBGRADE, AND REPLACE TOPSOIL.
4. HEAVY CONSTRUCTION EQUIPMENT SHALL NOT TRAVERSE THE CORRECTED AREA.
5. THE MUNICIPALITY AND/OR MUNICIPALITY ENGINEER SHALL BE CONTACTED PRIOR TO ANY SINKHOLE REPAIR.

MUNICIPALITY SINKHOLE REPAIR NOTES:

1. ANY SINKHOLE ENCOUNTERED PRECEDING, OR DURING SITE DEVELOPMENT ON ANY AREA THAT IS INTENDED TO BE OFFERED TO THE MUNICIPALITY FOR DEDICATION (BE IT FOR SANITARY SEWER EASEMENT, STREET RIGHT-OF-WAY, STORM SEWER EASEMENT, OR ANY OTHER PUBLIC USE) SHALL BE REPAIRED USING THE FOLLOWING METHODS:

A. REMOVE ALL UNSUITABLE SOIL IN THE LOCATION OF THE SINKHOLE IN ORDER TO LOCATED AN OPENING (SINKHOLE "THROAT") IN THE BEDROCK, IF POSSIBLE.

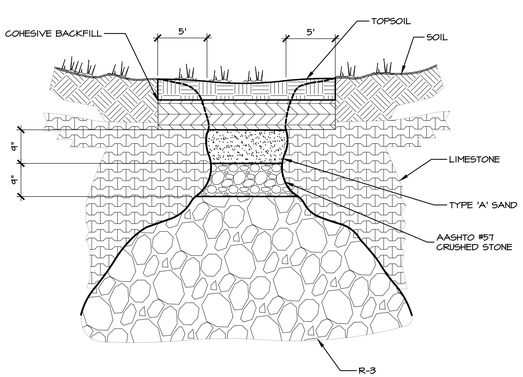
B. "THROAT" SHOULD BE FLUSHED WITH WATER TO CLEAR, OPENING, TO BE IMMEDIATELY FILLED WITH A FLOWABLE FILL OR CONCRETE SLURRY UNTIL MATERIAL BACKS UP IN TO EXCAVATED HOLE. ALLOW CONCRETE TO SETUP FOR TWENTY-FOUR HOURS.

C. FILL HOLE WITH LIMESTONE "DUST", COMPACTED IN LIFTS OF TWO FEET MAXIMUM DEPTH.

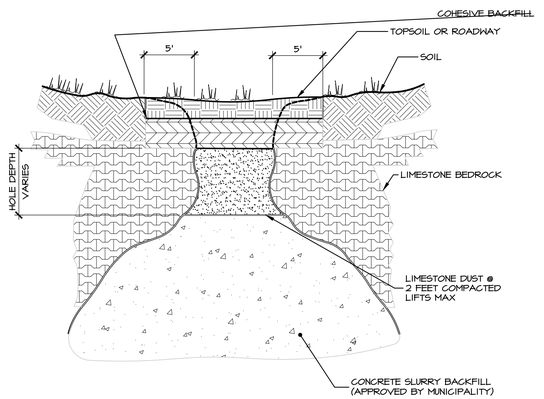
D. REPLACE SUBSOIL IMMEDIATELY BELOW SURFACE AND RESTORE SURFACE AS PER INTENDED USE, I.E., GRASSED AREA, ROADWAY, DRIVEWAY, ETC.

2. THE MUNICIPALITY AND/OR MUNICIPAL ENGINEER SHALL BE CONTACTED PRIOR TO ANY SINKHOLE REPAIR.

D / 43 WATER QUALITY INLET - SNOUT
NO SCALE



E / 43 'ROCK FILL' SINKHOLE REPAIR DETAIL
NO SCALE



F / 43 'CONCRETE FILL' SINKHOLE REPAIR DETAIL
NO SCALE

REVISIONS PER:	DATE:	BY:
1. COL/LCCD COMMENTS	3/28/25	EWB
2. -	-	-
3. -	-	-
4. -	-	-
5. -	-	-

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COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL ELIZABETH WERNER BALDWIN ENGINEER 069705 PENNSYLVANIA

PENNSYLVANIA JOHN D. PARTYKA REGISTERED LANDSCAPE ARCHITECT REGISTRATION NUMBER 1001-E

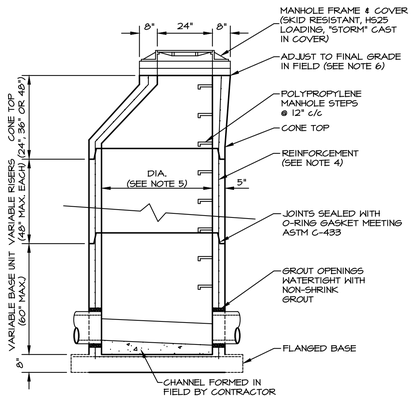
STORMWATER MANAGEMENT PLAN

SUBJECT:
STORMWATER DETAILS
MCCASKEY HIGH SCHOOL
MCCASKEY HIGH SCHOOL STADIUM RENOVATIONS
CITY OF LANCASTER - LANCASTER COUNTY - PENNSYLVANIA

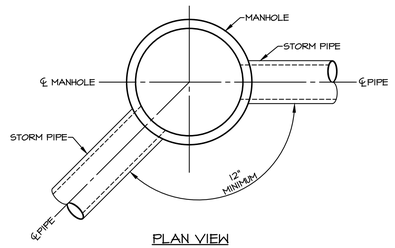
CLIENT:
MM ARCHITECTS
214 NORTH DUKE STREET
LANCASTER, PA 17602
(717) 393-3211

MANAGER:	HDC	DATE:	January 30, 2025
DESIGNER:	EWB	PROJECT NO.	AZ202-015
DRAWN BY:	JMT	SCALE:	AS SHOWN

DRAWING NO.
43 OF 53



SECTION VIEW



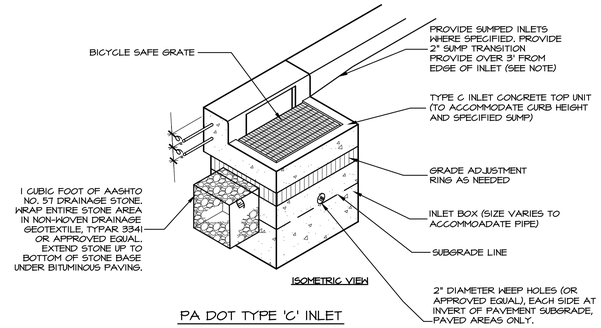
PLAN VIEW

NOTES:

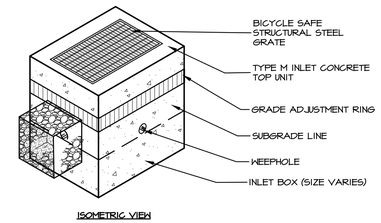
1. MANHOLE BASED UPON TERRE HILL CONCRETE PRODUCTS, TERRE HILL, PA (800-242-1509). USE ONLY PADOT MANHOLES CONSTRUCTED IN ACCORDANCE WITH PADOT PUBLICATION 72, RC-34 STANDARD, WHERE PERFORMING WORK IN PADOT RIGHTS-OF-WAY.
2. ALL PRECAST MANHOLES SHALL MEET THE REQUIREMENTS OF ASTM-C478.
3. ALL CONCRETE SHALL CONFORM TO PADOT PUBLICATION 408, SECTION 714, CLASS AA.
4. PROVIDE REINFORCEMENT IN ACCORDANCE WITH PADOT PUBLICATION 72, RC-34 STANDARD.
5. THE DIAMETER OF THE MANHOLES PROVIDED SHALL BE BASED UPON PROVIDING A MINIMUM OF 12-INCHES OF HORIZONTAL SEPARATION BETWEEN OPENINGS LOCATED AT THE SAME DEPTH. PIPES NOT LOCATED AT THE SAME DEPTH MUST BE LOCATED VERTICALLY AT LEAST ONE TIMES THE MAXIMUM OPENING DIAMETER APART WHERE THE HORIZONTAL SEPARATION IS NOT PROVIDED. IN ALL CASES, THE MAXIMUM PIPE SIZE AND OPENING IN PRECAST MANHOLES SHALL BE AS FOLLOWS:
6. ADJUST MANHOLE TO FINAL GRADE WITH PRECAST CONCRETE GRADING RINGS. MAXIMUM ADJUSTMENT IS 12-INCHES.
7. PROVIDE GRADE ADJUSTMENT RISERS OF ADJUSTABLE INSERTS IN ACCORDANCE WITH PADOT PUBLICATION 72, RC-34 STANDARD. LOCATE TOP OF FRAME OF ADJUSTMENT RISER 1/8" BELOW THE TOP OF THE ROADWAY SURFACE.
8. FRAME AND/OR PRECAST CONCRETE GRADE RINGS TO BE ATTACHED RIGIDLY TO THE TOP OF THE MANHOLE WITH THREADED STUDS IN ACCORDANCE WITH PADOT PUBLICATION 72, RC-34 STANDARD. THE BASE OF THE FRAME AND/OR PRECAST CONCRETE GRADE RINGS TO BE SET IN A BED OF CEMENT MORTAR.
9. SEAL ALL JOINTS BETWEEN MANHOLE SECTIONS WITH "RAMNEK" OR EQUAL SEALANT.
10. ALL PROPOSED AND EXISTING ROOF LEADER DRAINAGE CONNECTIONS TO BE CORE-BORED INTO THE MANHOLE AT THE REQUIRED ELEVATION AND LOCATION AND ATTACHED WITH A WATERTIGHT CONNECTION.
11. CONTRACTOR SHALL VERIFY MANHOLE SIZING BASED ON PIPE SIZES, MATERIAL, AND ALIGNMENT PRIOR TO ORDERING PRECAST STRUCTURES.
12. THIS STANDARD DEPICTS THE SHAPE AND DIMENSIONS REQUIRED FOR UNIFORMITY AND COMPATIBILITY. IT IS NOT INTENDED TO SHOW THE DETAILS REQUIRED FOR MANUFACTURING AND HANDLING. ONLY THOSE ITEMS WHICH ARE SUPPLIED BY AN APPROVED MANUFACTURER AS LISTED IN PA BULLETIN NO. 15 WILL BE PERMITTED.

A 44 PRECAST STORM SEWER MANHOLE

NO SCALE



PA DOT TYPE 'C' INLET



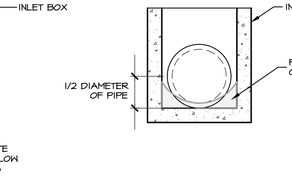
PA DOT TYPE 'M' INLET

INLET NOTES:

1. MATERIAL AND CONSTRUCTION BASED UPON PENNDOT STANDARDS AND SPECIFICATIONS. ALL CONSTRUCTION SHALL BE IN GENERAL ACCORDANCE WITH PA DOT PUBLICATION 408, SECTION 605 & APPLICABLE PENNDOT STANDARDS FOR ROADWAY CONSTRUCTION PERTAINING TO INLET STRUCTURES.
2. THIS DETAIL DEPICTS THE SHAPE AND DIMENSIONS REQUIRED FOR UNIFORMITY AND COMPATIBILITY. IT IS NOT INTENDED TO SHOW THE DETAILS REQUIRED FOR MANUFACTURING AND HANDLING. ONLY THOSE ITEMS WHICH ARE SUPPLIED BY AN APPROVED MANUFACTURER AS LISTED IN PA BULLETIN NO 15 WILL BE PERMITTED.
3. INLETS WITHIN THE PENNDOT RIGHT OF WAY SHALL BE IN ACCORDANCE WITH PENNDOT ROADWAY CONSTRUCTION STANDARDS, LATEST REVISION, AND AS PER APPROVED PENNDOT HIGHWAY OCCUPANCY PERMIT PLANS.
4. INLETS WITHIN A MUNICIPAL ROADWAY/RIGHT OF WAY SHALL BE APPROVED BY THE MUNICIPALITY PRIOR TO CONSTRUCTION.
5. CONTRACTOR SHALL VERIFY INLET BOX SIZING BASED ON PIPE SIZES, MATERIAL AND ALIGNMENT PRIOR TO ORDERING PRE CAST STRUCTURES.
6. 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 GRATE.
7. 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 THE PAVEMENT SURFACE. SEE PA DOT RC-65 FOR INSTALLATION DETAILS.
8. THE SELECTION OF COMPONENTS TO ACHIEVE A SPECIFIED INLET TYPE IS THE CONTRACTOR'S RESPONSIBILITY.
9. PIPES SHALL BE LOCATED AS REQUIRED.
10. WEEP HOLES SHALL BE INSTALLED IN INLET BOXES WITHIN PAVED AREAS TO PERMIT DRAINAGE OF THE PAVEMENT SUBBASE, UNLESS OTHERWISE APPROVED.
11. USE PRE CAST CONCRETE GRADE ADJUSTMENT RINGS FOR FINAL GRADE. BRICKS, BLOCKS, MORTAR, ETC. ARE NOT PERMITTED AS GRADE ADJUSTMENTS.
12. INLET BOX SHALL BE PRE CAST CONCRETE, UNLESS OTHERWISE SPECIFIED OR APPROVED.
13. ALL ON-SITE INLETS SHALL HAVE TOP UNITS TO MATCH CURB REVEAL AND SPECIFIED SUMP.
14. INLETS THAT ARE FIVE FOOT OR GREATER IN DEPTH SHALL HAVE POLYPROPYLENE ENGASED MANHOLE STEPS INSTALLED.
15. ALL DRAINAGE STRUCTURES SHALL HAVE POURED-IN-PLACE CONCRETE CHANNEL BOTTOM, UNLESS OTHERWISE NOTED (SUCH AS SNOUTS, WATER QUALITY INLETS, DESIGNATED SEDIMENT STORAGE, ETC.) ON THE PLANS.
16. PROVIDE PRECAST OPENING IN THE INLET BOX FOR ALL ROOF LEADER DRAINAGE CONNECTIONS, UNLESS OTHERWISE APPROVED. PROVIDE OPENINGS TO THE INLET BOX AT THE REQUIRED ELEVATIONS AND LOCATION. ALL CONNECTIONS SHALL BE WATERTIGHT.
17. PROVIDE PRE-CAST OPENINGS IN THE INLET BOX TO ACCOMMODATE ROADWAY, PARKING, AND BUILDING UNDERDRAINS WHERE SPECIFIED ON THE PLANS.
18. A 2" SUMP ON TYPE 'C' INLETS SHALL BE PROVIDED WHERE NOTED ON THE STORMWATER PIPE PROFILES. THE 2" SUMP TRANSITION ALONG CURB GUTTER LINE SHALL BE ADJUSTED ACCORDINGLY FOR FIELD CONDITIONS, ADA REQUIREMENTS, AND/OR AS SPECIFIED/DETAILED ON THE PLANS.
19. FINAL INLET TOP OF GRATE ELEVATION SHALL BE ADJUSTED TO ACCOUNT FOR SPECIFIED ROAD GRADE.
20. GROUT OPENINGS AROUND PIPE CONNECTIONS TO PROVIDE A WATERTIGHT JOINT. USE NON-SHRINK GROUT ON INSIDE & OUTSIDE OF STRUCTURE.
21. ALL JOINTS ADJACENT TO BITUMINOUS PAVING SHALL BE SEALED WITH P664-22.
22. PROVIDE 2'X6' INLET BOXES, DOUBLE 2'X4' BOXES, ETC. WHERE NOTED ON THE PLAN.
23. CONSULT THE PLANS FOR ANY SPECIFIC SUMP REQUIREMENTS FOR TYPE 'M' INLETS LOCATED IN A SAG CONDITION.

E 44 PA DOT TYPE STORMWATER INLETS (TYPE 'C' & 'M')

NO SCALE

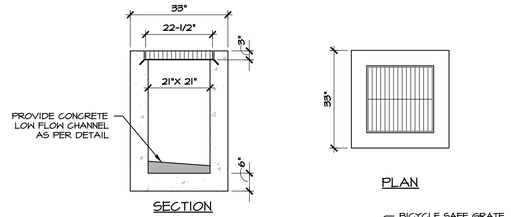


NOTES:

1. FORMED FLOW CHANNEL TO HAVE SEMICIRCULAR GEOMETRY AND BE CONSTRUCTED TO PROVIDE SELF CLEANING OF INLET.
2. CONTRACTOR SHALL PROVIDE A SMOOTH, UNIFORM ELEVATION CHANGE FROM THE INVERT IN TO THE INVERT OUT ALONG THE FLOW CHANNEL FOR ALL STRUCTURES, IN ACCORDANCE WITH THE ELEVATIONS AS IDENTIFIED ON THE STORM WATER PROFILES SHEETS.
3. FLOW CHANNEL TO BE CONSTRUCTED WITH CONCRETE (3000 PSI) OR OTHER SUITABLE, COUNTY APPROVED MATERIAL.

B 44 CATCH BASIN FLOW CHANNEL

NO SCALE

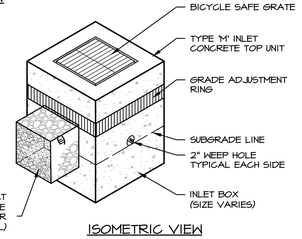


SECTION

PLAN

NOTES:

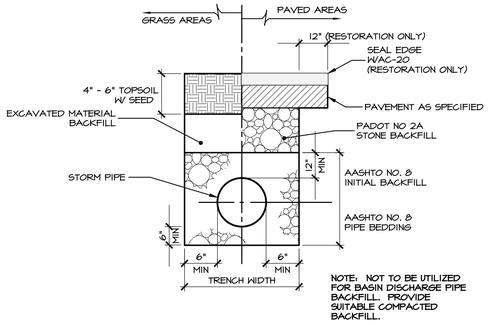
1. REFER TO "PADOT TYPE STORMWATER INLET" DETAIL FOR STANDARD INLET NOTES.
2. ALL GRATES TO BE BICYCLE SAFE.
3. USE RISER SECTIONS AND PRECAST GRADE RINGS AS REQUIRED TO PROVIDE INDICATED INVERT AND TOP OF GRATE ELEVATIONS.
4. PROVIDE PRE-CAST OPENINGS TO ACCOMMODATE UNDERDRAIN WHERE SPECIFIED.



ISOMETRIC VIEW

C 44 2' X 2' PRECAST INLET

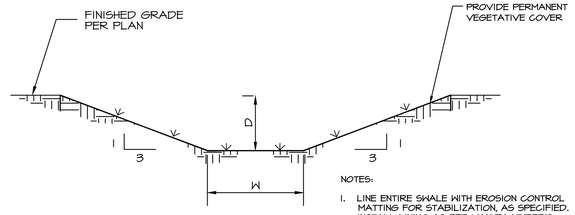
NO SCALE



NOTE: NOT TO BE UTILIZED FOR BASIN DISCHARGE PIPE BACKFILL. PROVIDE SUITABLE COMPACTED BACKFILL.

D 44 STORM PIPE TRENCH DETAIL

NO SCALE



CROSS SECTION

NOTES:

1. LINE ENTIRE SWALE WITH EROSION CONTROL MATTING FOR STABILIZATION, AS SPECIFIED. INSTALL LINING AS PER MANUFACTURER'S SPECIFICATIONS.
2. SWALE SIZE INDICATED IN SCHEDULE REPRESENTS MINIMUM SIZE. SEE APPROVED GRADING PLAN.

SWALE NO	WIDTH (W)	DEPTH (D)	SLOPE	LINING*
1	8	2	6%	GRASS
2	3	1	6%	GRASS

* OR APPROVED EQUAL

F 44 TYPICAL TRAPEZOIDAL SWALE & SCHEDULE

NO SCALE

REVISIONS PER:		DATE:	BY:
1.	COL/LCCD COMMENTS	3/28/25	EWB
2.	-	-	-
3.	-	-	-
4.	-	-	-
5.	-	-	-

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COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL ELIZABETH WERNER BALDWIN ENGINEER 082107 PENNSYLVANIA

PENNSYLVANIA REGISTERED LANDSCAPE ARCHITECT

STORMWATER MANAGEMENT PLAN

SUBJECT:

STORMWATER DETAILS

MCCASKEY HIGH SCHOOL

MCCASKEY HIGH SCHOOL STADIUM RENOVATIONS

CITY OF LANCASTER - LANCASTER COUNTY - PENNSYLVANIA

CLIENT:

MM ARCHITECTS

214 NORTH DUKE STREET

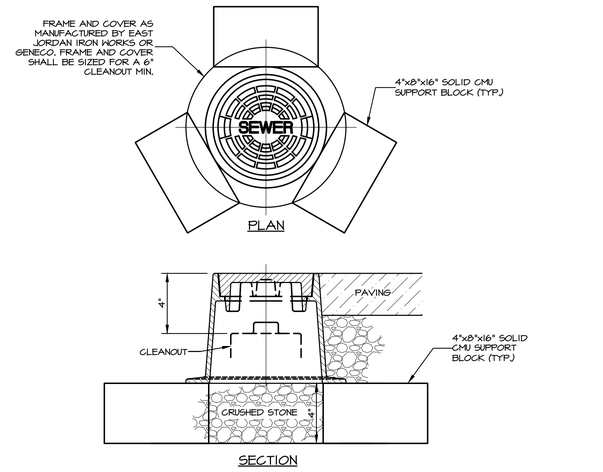
LANCASTER, PA 17602

(717) 393-3211

MANAGER:	HDC	DATE:	January 30, 2025
DESIGNER:	EWB	PROJECT NO.	AZ202-015
DRAWN BY:	JMT	SCALE:	AS SHOWN

DRAWING NO.

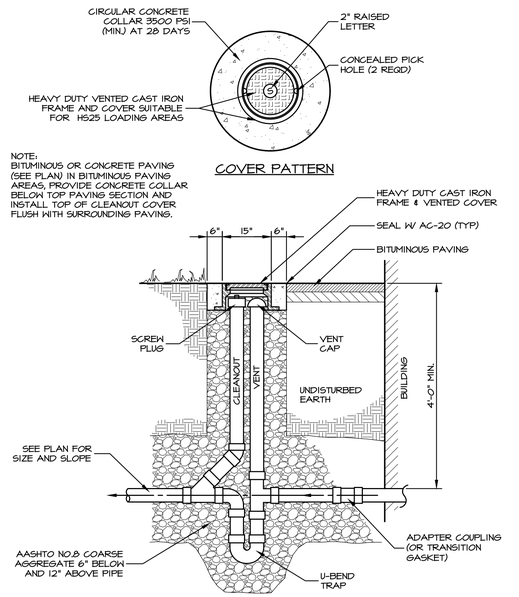
44 OF 53



A/45 CLEANOUT FRAME AND COVER IN PAVED AREA

NO SCALE

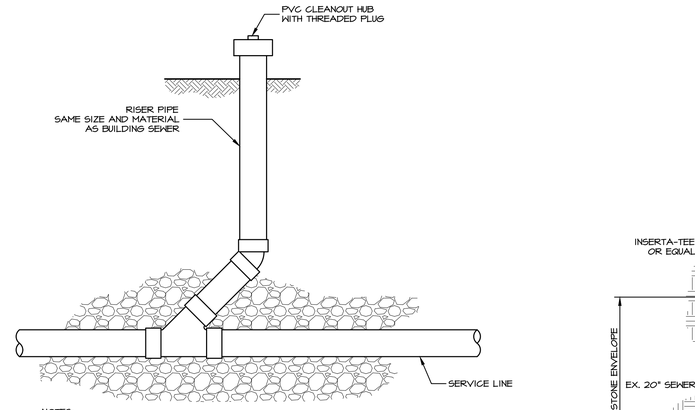
SAN-206



C/45 TRAP AND VENT DETAIL

NO SCALE

SAN-207



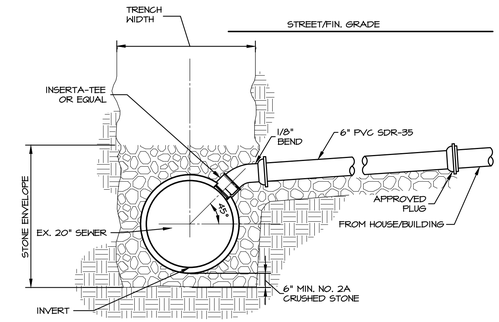
NOTES:

1. CLEANOUTS SHALL BE INSTALLED ON ALL GRAVITY SERVICE LINE AND LATERAL BENDS AND SHALL BE A MAXIMUM OF 75' APART ON STRAIGHT RUNS.
2. TOPS OF CLEANOUTS SHALL BE SET 3"-6" ABOVE GRADE UNLESS OTHERWISE DIRECTED BY THE AUTHORITY.

E/45 NEW CLEANOUT IN LAWN AREAS

NO SCALE

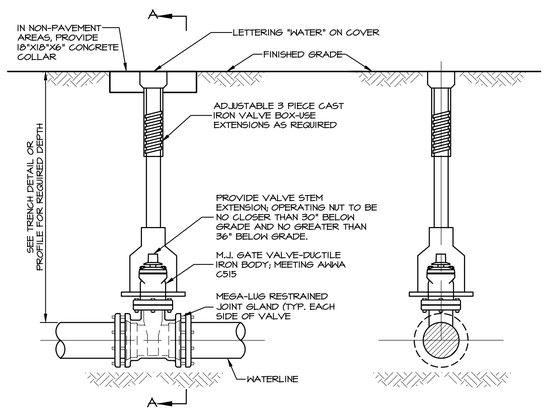
SAN-212



G/45 STANDARD LATERAL CONNECTION

NO SCALE

SAN-300



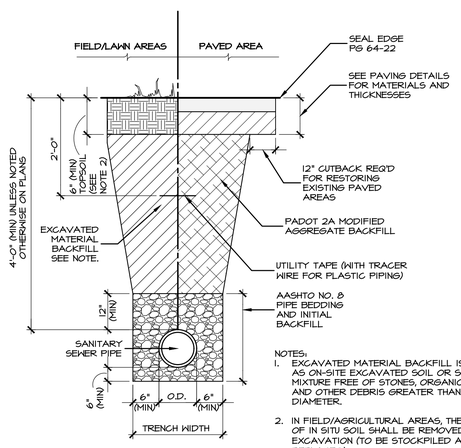
NOTES:

1. IF EXTENSIONS ARE NECESSARY CONTRACTOR SHALL SET "PLUMB" AND ALIGN PROPERLY FOR ACCESS TO OPERATING NUT.
2. VALVES SHALL OPEN LEFT AND RIGHT CLOSE UNLESS OTHERWISE SPECIFIED.
3. GATE VALVES SHALL BE USED ON WATERLINES 12 INCHES AND SMALLER.

B/45 GATE VALVE AND VALVE BOX

NO SCALE

VAL-101



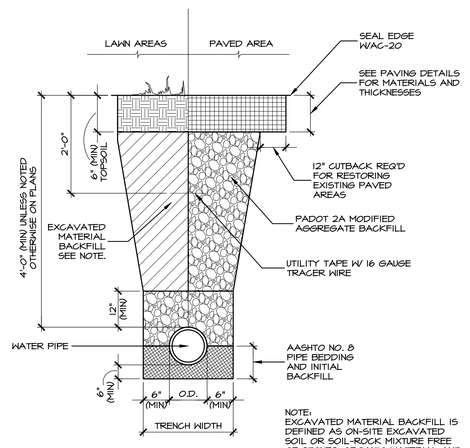
NOTES:

1. EXCAVATED MATERIAL BACKFILL IS DEFINED AS ON-SITE EXCAVATED SOIL OR SOIL-ROCK MIXTURE FREE OF STONES, ORGANIC MATERIAL AND OTHER DEBRIS GREATER THAN 6" IN DIAMETER.
2. IN FIELD/AGRICULTURAL AREAS, THE TOP 18" OF IN SITU SOIL SHALL BE REMOVED DURING EXCAVATION (TO BE STOCKPILED AND REPLACED).

D/45 GRAVITY SANITARY SEWER PIPE INSTALLATION

NO SCALE

GIV-214



NOTE:
EXCAVATED MATERIAL BACKFILL IS DEFINED AS ON-SITE EXCAVATED SOIL OR SOIL-ROCK MIXTURE FREE OF STONES, ORGANIC MATERIAL AND OTHER DEBRIS GREATER THAN 6" IN DIAMETER.

F/45 WATER PIPE INSTALLATION

NO SCALE

GIV-215

REVISIONS PER:		DATE:	BY:
1.	COL/LCCD COMMENTS	3/28/25	EWB
2.	-	-	-
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4.	-	-	-
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COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL ENGINEER — ELIZABETH WERNER BALDWIN — PENNSYLVANIA

PENNSYLVANIA — REGISTERED LANDSCAPE ARCHITECT — REGISTRATION NUMBER RA-015

STORMWATER MANAGEMENT PLAN

SUBJECT:

UTILITY DETAILS

MCCASKEY HIGH SCHOOL

MCCASKEY HIGH SCHOOL STADIUM RENOVATIONS

CITY OF LANCASTER - LANCASTER COUNTY - PENNSYLVANIA

CLIENT:

MM ARCHITECTS

214 NORTH DUKE STREET

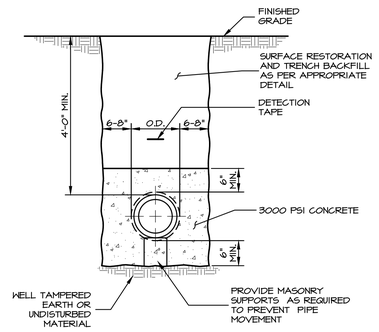
LANCASTER, PA 17602

(717) 393-3211

MANAGER:	HDC	DATE:	January 30, 2025
DESIGNER:	EWB	PROJECT NO.	AZ202-015
DRAWN BY:	JMT	SCALE:	AS SHOWN

DRAWING NO.

45 OF 53

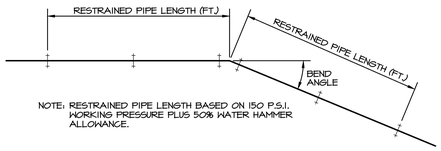


NOTES:

1. CONCRETE ENCASEMENT TO BE USED WHERE MINIMUM CLEARANCE CANNOT BE OBTAINED BETWEEN WATER LINE AND SANITARY SEWERS AND STORM SEWER. ENCASEMENT SHALL BE INSTALLED AS DIRECTED BY THE ENGINEER IN THE FIELD.
2. THE CONTRACTOR SHALL BE RESPONSIBLE TO PREVENT FLOATATION OF THE PIPE WHEN CONCRETE IS POURED.

A/46 CONCRETE ENCASEMENT

NO SCALE — CIV-305



NOTE: RESTRAINED PIPE LENGTH BASED ON 150 P.S.I. WORKING PRESSURE PLUS 50% WATER HAMMER ALLOWANCE.

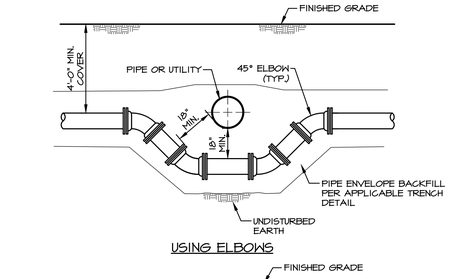
HORIZONTAL RESTRAINED PIPE LENGTH SCHEDULE (PVC PIPE)				
PIPE DIAMETER	HORIZONTAL ELBOW DEFLECTION ANGLE			
	90°	45°	22 1/2°	11 1/4°
1 1/2" THRU 4"	27'	11'	6'	3'
6"	38'	15'	10'	4'
8"	49'	20'	11'	6'
10"	59'	24'	12'	7'
12"	69'	28'	14'	8'

VERTICAL RESTRAINED PIPE LENGTH SCHEDULE (PVC PIPE)			
PIPE DIAMETER	VERTICAL ELBOW DEFLECTION ANGLE		
	45°	22 1/2°	11 1/4°
1 1/2" THRU 4"	28'	14'	7'
6"	34'	20'	10'
8"	52'	25'	13'
10"	62'	29'	15'
12"	73'	35'	17'

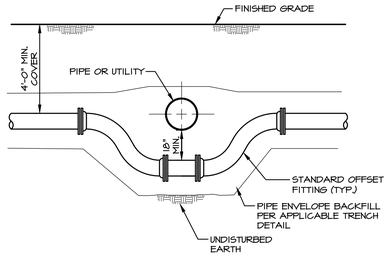
NOTE: FOR PIPE SIZES GREATER THAN 12", SUBMIT ENGINEERING CALCULATIONS TO VERIFY PROPOSED RESTRAINED PIPE LENGTHS.

C/46 PVC RESTRAINED PIPE LENGTH SCHEDULE

NO SCALE — CIV-312



USING ELBOWS



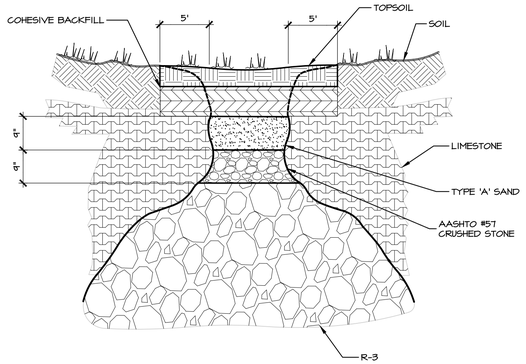
USING STANDARD OFFSETS

NOTES:

1. BENDS SHALL BE RESTRAINED AS SHOW ON THE RESTRAINED PIPE LENGTH SCHEDULE DETAIL OR THE THRUST BLOCKING FOR HORIZONTAL AND VERTICAL DOWNWARD THRUSTS AND THE THRUST BLOCKING FOR VERTICAL UPWARD THRUSTS DETAILS.
2. REGARDLESS OF THE THRUST RESTRAINT USED, THE FOUR BENDS OR TWO OFFSETS SHOWN ON THIS DETAIL SHALL BE RESTRAINED JOINT.

E/46 WATER LINE CROSSING PIPE OR UTILITY USING FITTINGS

NO SCALE — CIV-406

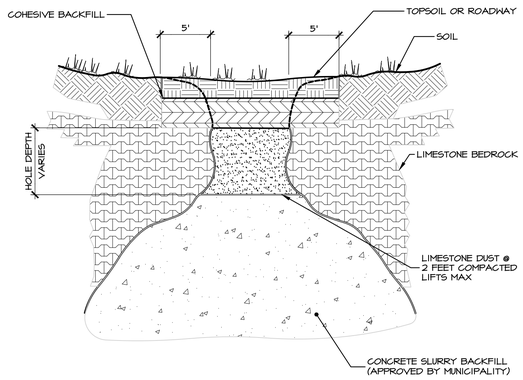


NOTES:

1. STRIP ALL SOFT OR UNSUITABLE MATERIALS EXTENDING HORIZONTALLY 5 FEET BEYOND THE PERIMETER OF THE EXISTING SINKHOLE TO A DEPTH OF COMPETENT BEDROCK OR TO 3 FEET BELOW PLAN SUBGRADE, WHICHEVER IS LESS.
2. FILL SINKHOLE WITH R-3 ROCK TO 18 INCHES BELOW THE LEVEL OF THE STRIPPED SURFACE. USE LARGER ROCK IF NECESSARY TO FILL VOIDS. FILL THE REMAINING 18 INCHES WITH AASHTO #57 CRUSHED STONE AND 9 INCHES OF THE TYPE 'A' SAND AS SHOWN. COMPACT TO AN UNYIELDING CONDITION.
3. FILL AREA WITH CONTROLLED MATERIAL TO PLAN SUBGRADE, AND REPLACE TOPSOIL.
4. HEAVY CONSTRUCTION EQUIPMENT SHALL NOT TRAVERSE THE CORRECTED AREA.
5. THE MUNICIPALITY AND/OR MUNICIPALITY ENGINEER SHALL BE CONTACTED PRIOR TO ANY SINKHOLE REPAIR.

B/46 'ROCK FILL' SINKHOLE REPAIR DETAIL

NO SCALE



MUNICIPALITY SINKHOLE REPAIR NOTES:

1. ANY SINKHOLE ENCOUNTERED PRECEDING, OR DURING SITE DEVELOPMENT ON ANY AREA THAT IS INTENDED TO BE OFFERED TO THE MUNICIPALITY FOR DEDICATION (BE IT FOR SANITARY SEWER EASEMENT, STREET RIGHT-OF-WAY, STORM SEWER EASEMENT, OR ANY OTHER PUBLIC USE) SHALL BE REPAIRED USING THE FOLLOWING METHODS:
   A. REMOVE ALL UNSUITABLE SOIL IN THE LOCATION OF THE SINKHOLE IN ORDER TO LOCATED AN OPENING (SINKHOLE "THROAT") IN THE BEDROCK, IF POSSIBLE.
   B. "THROAT" SHOULD BE FLUSHED WITH WATER TO CLEAR, OPENING, TO BE IMMEDIATELY FILLED WITH A FLOWABLE FILL OR CONCRETE SLURRY UNTIL MATERIAL BACKS UP IN TO EXCAVATED HOLE. ALLOW CONCRETE TO SETUP FOR TWENTY-FOUR HOURS.
   C. FILL HOLE WITH LIMESTONE "DUST", COMPACTED IN LIFTS OF TWO FEET MAXIMUM DEPTH.
   D. REPLACE SUBSOIL IMMEDIATELY BELOW SURFACE AND RESTORE SURFACE AS PER INTENDED USE, I.E., GRASSED AREA, ROADWAY, DRIVEWAY, ETC.
2. THE MUNICIPALITY AND/OR MUNICIPAL ENGINEER SHALL BE CONTACTED PRIOR TO ANY SINKHOLE REPAIR.

D/46 'CONCRETE FILL' SINKHOLE REPAIR DETAIL

NO SCALE

REVISIONS PER:		DATE:	BY:
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COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — ELIZABETH WERNER BALDWIN — ENGINEER — 082070 — PENNSYLVANIA

PENNSYLVANIA — REGISTRATION NUMBER RA-015 — REGISTERED LANDSCAPE ARCHITECT

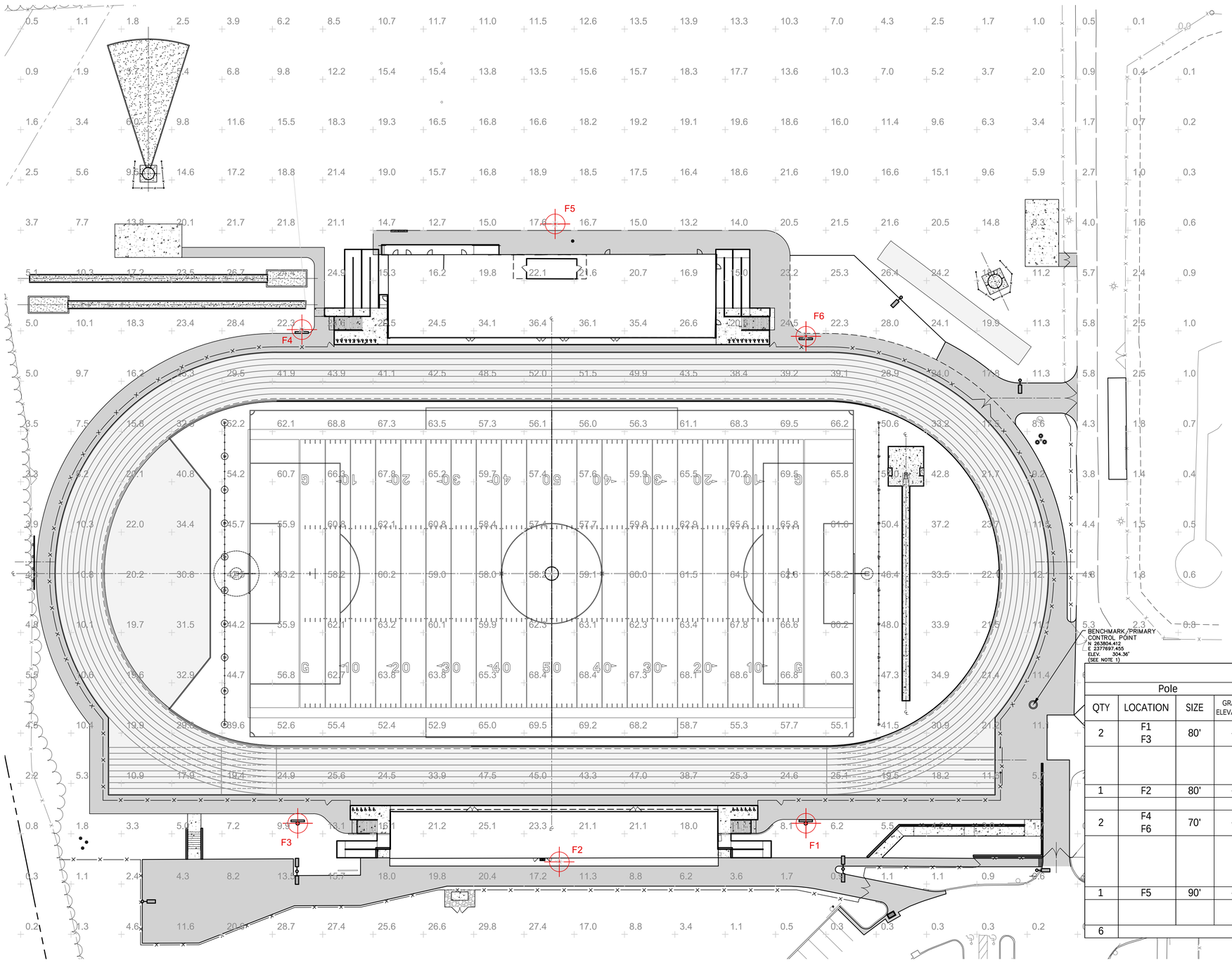
STORMWATER MANAGEMENT PLAN

SUBJECT:
UTILITY DETAILS
MCCASKEY HIGH SCHOOL
MCCASKEY HIGH SCHOOL STADIUM RENOVATIONS
CITY OF LANCASTER - LANCASTER COUNTY - PENNSYLVANIA

CLIENT:
MM ARCHITECTS
214 NORTH DUKE STREET
LANCASTER, PA 17602
(717) 393-3211

MANAGER:	HDC	DATE:	January 30, 2025
DESIGNER:	EWB	PROJECT NO.	AZ202-015
DRAWN BY:	JMT	SCALE:	AS SHOWN

DRAWING NO.
46 OF 53



Illumination Summary

	MAINTAINED HORIZONTAL FOOTCANDLES
	Entire Grid
Guaranteed Average	50
Scan Average	52.09
Maximum	59
Minimum	45
Avg/Min	1.16
Guaranteed Max/Min	2
Max/Min	1.31
UG (adjacent pts)	1.12
CU	0.50
No. of Points	72
LUMINAIRE INFORMATION	
Applied Circuits	A
No. of Luminaires	42
Total Load	52.54 kW

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document and includes a 0.95 dirt depreciation factor.

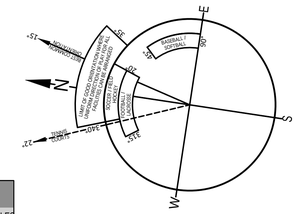
Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: R 3 nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	ABOVE GRADE LEVEL	LUMINAIRE TYPE	QTY/POLE	THIS GRID	OTHER GRIDS
2	F1 F3	80'	-	80'	TLC-LED-1500	5	5	0
				80'	TLC-RGBW	1*	0	1
				19'	TLC-BT-575	2	2	0
				19'	TLC-RGB-U	1	0	1
1	F2	80'	-	80'	TLC-LED-1500	7	7	0
				80'	TLC-RGBW	3	0	3
2	F4 F6	70'	-	70'	TLC-LED-1200	3*	0	3
				70'	TLC-LED-1500	5	5	0
				70'	TLC-RGBW	1*	0	1
				19'	TLC-BT-575	2	2	0
				19'	TLC-RGB-U	1	0	1
1	F5	90'	-	90'	TLC-LED-1200	4*	0	4
				90'	TLC-LED-1500	7	7	0
				90'	TLC-RGBW	3	0	3
6	Totals					66	42	24

*Above Grade level relative to the field
*This structure utilizes a back-to-back mounting configuration



REVISIONS PER:		DATE:	BY:
1.	COL/LCCD COMMENTS	3/28/25	EWB
2.	-	-	-
3.	-	-	-
4.	-	-	-
5.	-	-	-

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ELIZABETH WERNER BALDWIN
ENGINEER
PE080724

PENNSYLVANIA
REGISTERED LANDSCAPE ARCHITECT

STORMWATER MANAGEMENT PLAN

SUBJECT:
FIELD LIGHTING PLAN
MCCASKEY HIGH SCHOOL
MCCASKEY HIGH SCHOOL STADIUM RENOVATIONS
CITY OF LANCASTER - LANCASTER COUNTY - PENNSYLVANIA

CLIENT:
MM ARCHITECTS
214 NORTH DUKE STREET
LANCASTER, PA 17602
(717) 393-3211

MANAGER:	HDC	DATE:	April 1, 2025
DESIGNER:	EWB	PROJECT NO.	AZ202-015
DRAWN BY:	JMT	SCALE:	1" = 30'

DRAWING NO.
47 OF 53

Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	ABOVE GRADE LEVEL	LUMINAIRE TYPE	QTY/POLE	THIS GRID	OTHER GRIDS
1	A1	70'	-	70'	TLC-LED-1200	2	2	0
				70'	TLC-LED-900	1/2*	1	2
				15.5'	TLC-BT-575	1	1	0
				15.5'	TLC-RGB-U	1	0	1
1	A2	70'	-	70'	TLC-LED-1200	2	2	0
				70'	TLC-LED-900	1	1	0
				15.5'	TLC-BT-575	1	1	0
				15.5'	TLC-RGB-U	1	0	1
2	B1-B2	80'	-	80'	TLC-LED-1200	1	1	0
				80'	TLC-LED-1500	4	4	0
				15.5'	TLC-BT-575	1	1	0
				15.5'	TLC-RGB-U	1	0	1
4	Totals					26	20	6

Grid Summary

Name	Softball
Size	230'/230'/230' - basepath 60'
Spacing	20.0' x 20.0'
Height	3.0' above grade

Illumination Summary

MAINTAINED HORIZONTAL FOOTCANDLES

	Infield	Outfield
Guaranteed Average	50	30
Scan Average	51.37	33.58
Maximum	58	49
Minimum	40	23
Avg/Min	1.30	1.49
Guaranteed Max/Min	2	2.5
Max/Min	1.46	2.17
UG (adjacent pts)	1.19	1.29
CU	0.64	
No. of Points	25	94
LUMINAIRE INFORMATION		
Applied Circuits	D	
No. of Luminaires	20	
Total Load	22.36 kW	

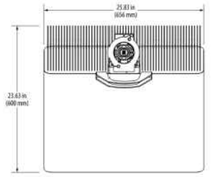
Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document and includes a 0.95 dirt depreciation factor.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: R 3 nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

Datasheet: TLC-LED-1200 Luminaire and Driver



Luminaire Data

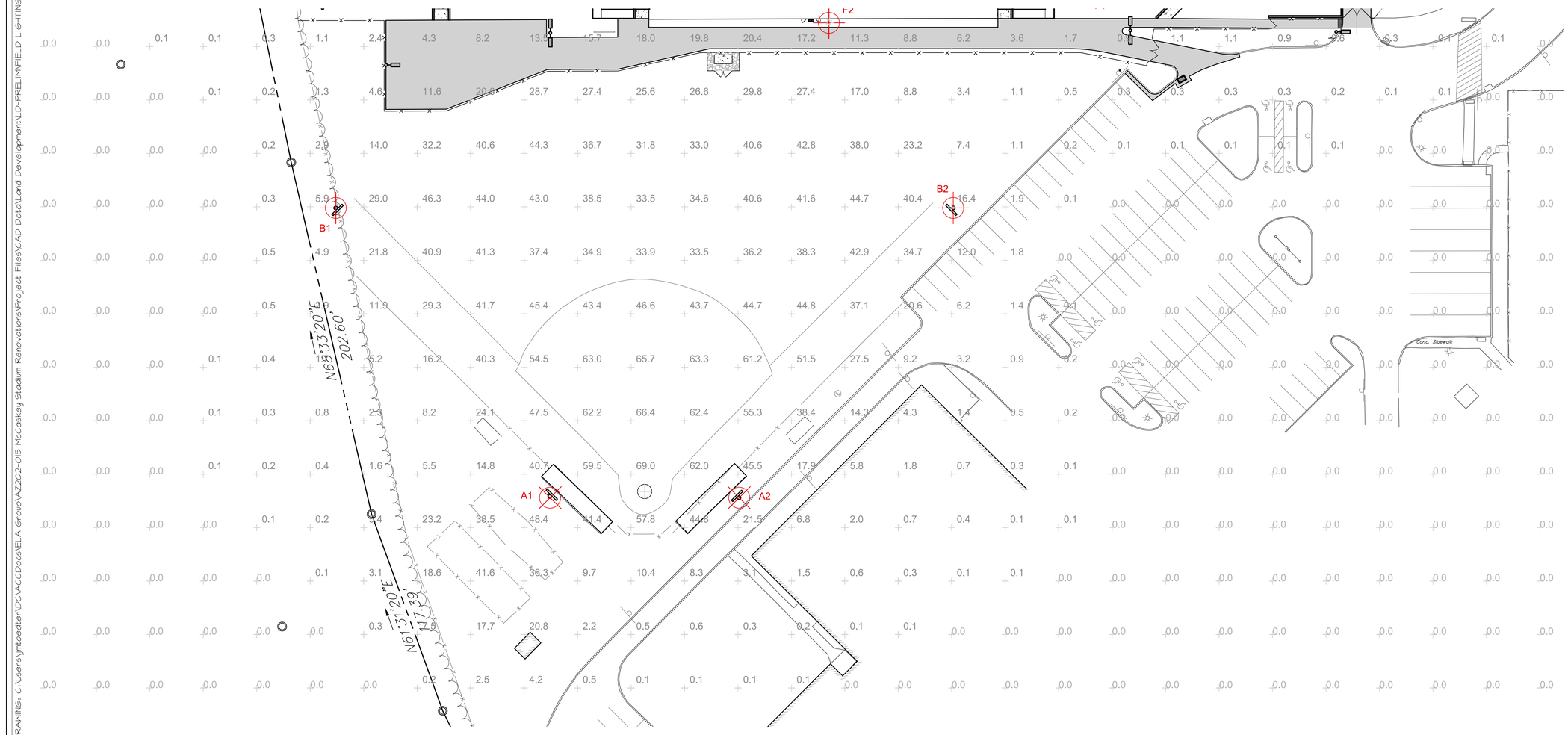
Weight (luminaire)	45 lb (20 kg)
UL listing number	E338094
UL listed for USA/Canada	UL1598 CSA-C22.2 No.250.0
CE Declaration	LVD, EMC, RoHS
Ingress protection (luminaire)	IP66
Impact rating	IK07
Material and finish	Aluminum, powder-coat painted
Wind speed rating (aiming only)	150 mi/h (67 m/s)
UL, IEC ambient temperature rating (luminaire)	50°C (122°F)

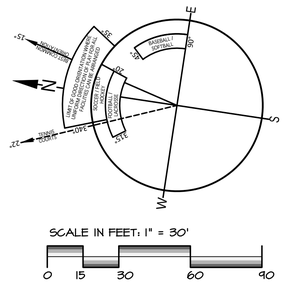
Photometric Characteristics

Projected lumen maintenance per IES TM-21-11	
L90 (20k)	>120,000 h
L80 (20k)	>120,000 h
L70 (20k)	>120,000 h
Lumens[1]	150,000
CIE correlated color temperature	5700 K
Color rendering index (CRI)	75 typ, 70 min
LED binning tolerance	5-step MacAdam Ellipse

Footnotes:

1) Value represents most common optical variation. Incorporates appropriate dirt depreciation factor for life of luminaire.





SCALE IN FEET: 1" = 30'

0 15 30 60 90

REVISIONS PER:		DATE:	BY:
1.	COL/LCCD COMMENTS	3/28/25	EWB
2.	-	-	-
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COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL ELIZABETH WERNER BALDWIN ENGINEER PE080726

PENNSYLVANIA REGISTERED LANDSCAPE ARCHITECT

STORMWATER MANAGEMENT PLAN

SUBJECT:

FIELD LIGHTING PLAN

MCCASKEY HIGH SCHOOL

MCCASKEY HIGH SCHOOL STADIUM RENOVATIONS

CITY OF LANCASTER - LANCASTER COUNTY - PENNSYLVANIA

CLIENT:

MM ARCHITECTS

214 NORTH DUKE STREET

LANCASTER, PA 17602

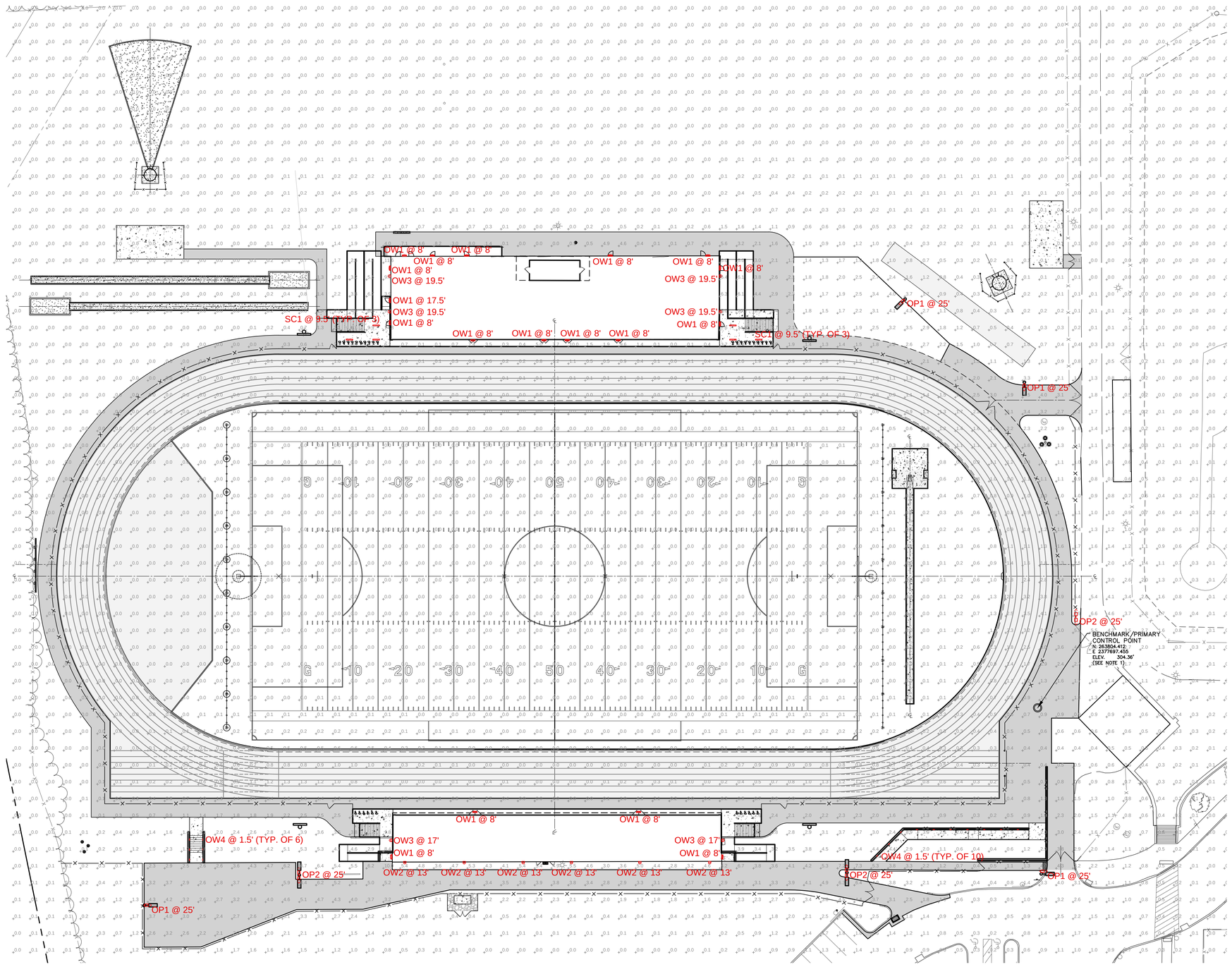
(717) 393-3211

MANAGER:	HDC	DATE:	April 1, 2025
DESIGNER:	EWB	PROJECT NO.	AZ202-015
DRAWN BY:	JMT	SCALE:	1" = 30'

DRAWING NO.

48 OF 53

DRAWING: G:\Users\jmteeter\DC\ACCDocs\ELA Group\AZ202-015 McCaskey Stadium Renovations\Project Files\CAD Data\Land Development\LD-PRELIM\FIELD LIGHTING.dwg - PLOTTED: Apr 02, 2025 2:23 pm



Luminaire Schedule

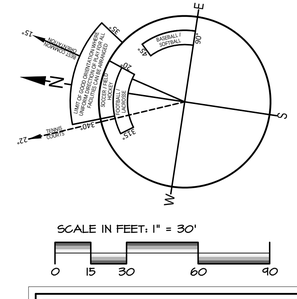
Symbol	Label	Quantity	Manufacturer	Catalog Number	Description	Number Lamps	Total Lamp Lumens	Light Loss Factor	Wattage
	OP1	4	NLS Lighting	NV-2-T4-80L-7-30K-UNV-ASA-FSP-40	LED Single Head Pole Mounted Site Lighting w/ Integral Motion Sensor - - Type 4 Distribution - Full Cut-off / Dark Sky Compliant	1	18995	0.9	168.99
	OP2	3	NLS Lighting	(2) NV-2-T4-80L-7-30K-UNV-ASA-FSP-40	LED Dual Head Pole Mounted Site Lighting w/ Integral Motion Sensor - - (2) Type 4 Distribution Mounted @ 180-Degrees Apart - Full Cut-off / Dark Sky Compliant	1	37990	0.9	337.98
	OW1	18	Luminaire LED	AEL-24IN-MIN10-20W-30K-MVOLT-DP	LED Low-Profile Wall Pack - Full Cut-off / Dark Sky Compliant	28	1452	0.9	17.6
	OW2	6	Signify Gardco	121-16L-1000-WW-G4-3-UNV-DD	LED Wall-Mounted Fixture - Type 3 Distribution - Full Cut-off / Dark Sky Compliant	1	4915	0.9	54.8
	OW3	6	Signify Gardco	121-16L-700-WW-G4-4-UNV-DD	LED Wall-Mounted Fixture - Type 4 Distribution - Full Cut-off / Dark Sky Compliant	1	7732	0.9	70.2
	OW4	16	Targetti	ZEL-41-FW-XX-L2-30	Exterior LED Steplight - Full Cut-off / Dark Sky Compliant	1	1054	0.9	9.1
	SC1	6	Luminaire LED	VPF8-4FT-MIN1-25W-30K-MVOLT-OP	4' Ceiling Mounted Vandal-Resistant Fixture	1	2961	0.9	26.6

NOTES:

1. ALL SITE LIGHTING LUMINAIRES ARE LISTED DARK SKY COMPLIANT; WITH THE FOLLOWING EXCEPTIONS:
   a. TYPE SC1 - LUMINAIRES HAVE 2.5% LIGHT DISTRIBUTION ABOVE 90-DEGREES AND ARE CEILING SURFACE MOUNTED BELOW THE BLEACHER PLATFORMS.
   b. MUSCO STADIUM LIGHTING - SEE STADIUM LIGHTING PHOTOMETRICS PLAN FOR ADDITIONAL INFORMATION.

Statistics

Description	Avg	Max	Min	Max/Min	Avg/Min
Property Line - North	0.0 fc	0.1 fc	0.0 fc	N/A	N/A
Site	0.3 fc	14.8 fc	0.0 fc	N/A	N/A



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COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — ELIZABETH WERNER BALDWIN — ENGINEER — PE080726 — PENNSYLVANIA

COMMONWEALTH OF PENNSYLVANIA — REGISTERED LANDSCAPE ARCHITECT

STORMWATER MANAGEMENT PLAN

SUBJECT:

SITE LIGHTING PLAN

MCCASKEY HIGH SCHOOL

MCCASKEY HIGH SCHOOL STADIUM RENOVATIONS

CITY OF LANCASTER - LANCASTER COUNTY - PENNSYLVANIA

CLIENT:

MM ARCHITECTS

214 NORTH DUKE STREET

LANCASTER, PA 17602

(717) 393-3211

MANAGER:	HDC	DATE:	April 1, 2025
DESIGNER:	EWB	PROJECT NO.	AZ202-015
DRAWN BY:	JMT	SCALE:	1" = 30'

DRAWING NO.

49 OF 53

Luminaire Schedule

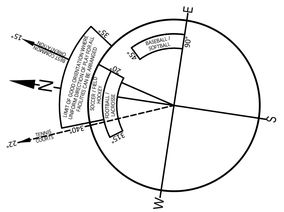
Symbol	Label	Quantity	Manufacturer	Catalog Number	Description	Number Lamps	Total Lamp Lumens	Light Loss Factor	Wattage
	OP1	4	NLS Lighting	NV-2-T4-80L-7-30K-UNV-ASA-FSP-40	LED Single Head Pole Mounted Site Lighting w/ Integral Motion Sensor - - Type 4 Distribution - Full Cut-off / Dark Sky Compliant	1	18995	0.9	168.99
	OP2	3	NLS Lighting	(2) NV-2-T4-80L-7-30K-UNV-ASA-FSP-40	LED Dual Head Pole Mounted Site Lighting w/ Integral Motion Sensor - - (2) Type 4 Distribution Mounted @ 180-Degrees Apart - Full Cut-off / Dark Sky Compliant	1	37990	0.9	337.98
	OW1	18	Luminaire LED	AEL-24IN-MIN10-20W-30K-MVOLT-DP	LED Low-Profile Wall Pack - Full Cut-off / Dark Sky Compliant	28	1452	0.9	17.6
	OW2	6	Signify Gardco	121-16L-1000-WW-G4-3-UNV-DD	LED Wall-Mounted Fixture - Type 3 Distribution - Full Cut-off / Dark Sky Compliant	1	4915	0.9	54.8
	OW3	6	Signify Gardco	121-16L-700-WW-G4-4-UNV-DD	LED Wall-Mounted Fixture - Type 4 Distribution - Full Cut-off / Dark Sky Compliant	1	7732	0.9	70.2
	OW4	16	Targetti	ZEL-41-FW-XX-L2-30	Exterior LED Steplight - Full Cut-off / Dark Sky Compliant	1	1054	0.9	9.1
	SC1	6	Luminaire LED	VPF8-4FT-MIN1-25W-30K-MVOLT-OP	4' Ceiling Mounted Vandal-Resistant Fixture	1	2961	0.9	26.6

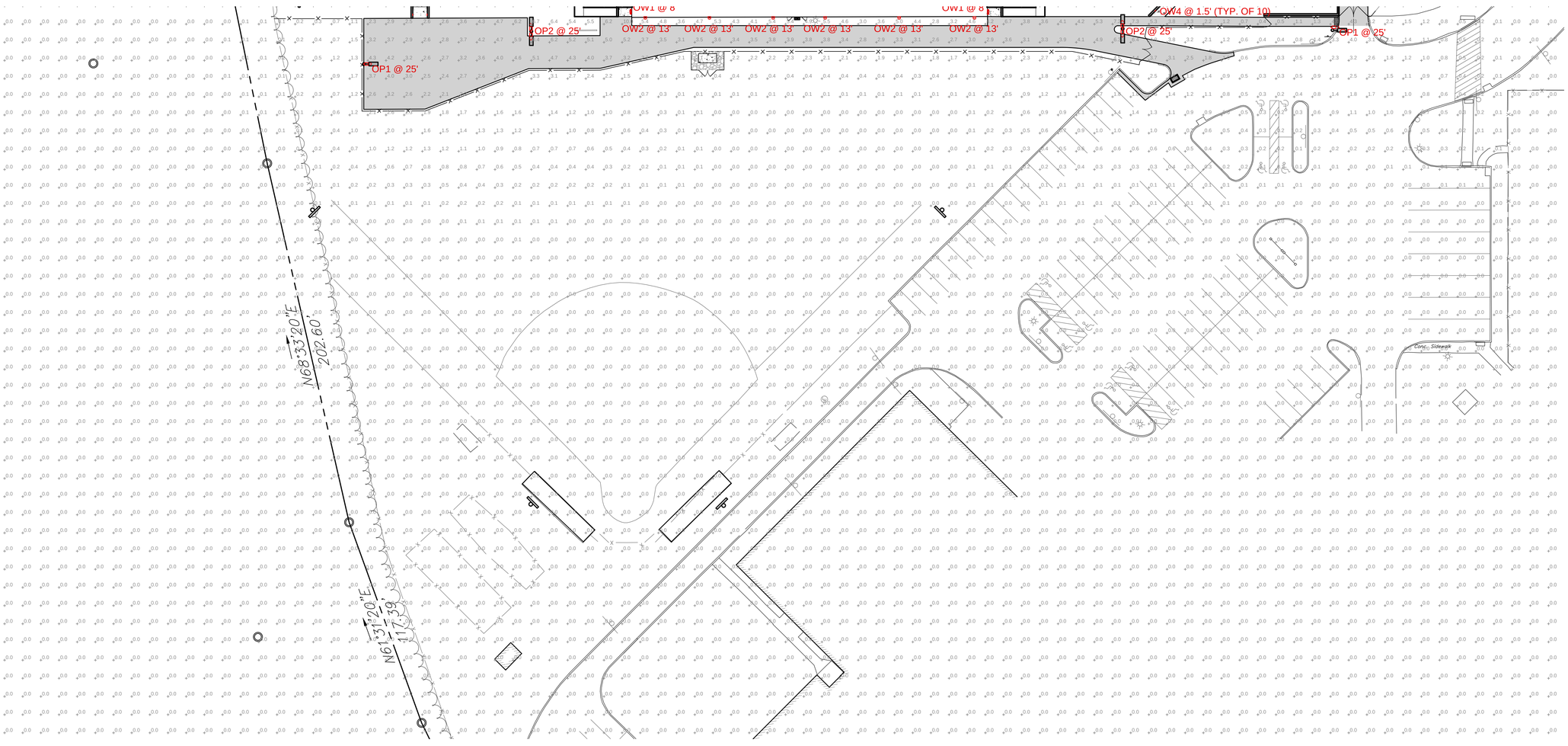
NOTES:

1. ALL SITE LIGHTING LUMINAIRES ARE LISTED DARK SKY COMPLIANT; WITH THE FOLLOWING EXCEPTIONS:
   a. TYPE SC1 - LUMINAIRES HAVE 2.5% LIGHT DISTRIBUTION ABOVE 90-DEGREES AND ARE CEILING SURFACE MOUNTED BELOW THE BLEACHER PLATFORMS.
   b. MUSCO STADIUM LIGHTING - SEE STADIUM LIGHTING PHOTOMETRICS PLAN FOR ADDITIONAL INFORMATION.

Statistics

Description	Avg	Max	Min	Max/Min	Avg/Min
Property Line - North	0.0 fc	0.1 fc	0.0 fc	N/A	N/A
Site	0.3 fc	14.8 fc	0.0 fc	N/A	N/A





SCALE IN FEET: 1" = 30'

0 15 30 60 90

REVISIONS PER:		DATE:	BY:
1.	COL/LCCD COMMENTS	3/28/25	EWB
2.	-	-	-
3.	-	-	-
4.	-	-	-
5.	-	-	-

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COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — ELIZABETH WERNER BALDWIN — ENGINEER — PE080729

PENNSYLVANIA — REGISTERED LANDSCAPE ARCHITECT

STORMWATER MANAGEMENT PLAN

SUBJECT:
SITE LIGHTING PLAN
MCCASKEY HIGH SCHOOL
MCCASKEY HIGH SCHOOL STADIUM RENOVATIONS
CITY OF LANCASTER - LANCASTER COUNTY - PENNSYLVANIA

CLIENT:
MM ARCHITECTS
214 NORTH DUKE STREET
LANCASTER, PA 17602
(717) 393-3211

MANAGER:	HDC	DATE:	April 1, 2025
DESIGNER:	EWB	PROJECT NO.	AZ202-015
DRAWN BY:	JMT	SCALE:	1" = 30'

DRAWING NO.
50 OF 53

DRAWING: G:\Users\jmteadter\DC\ACCDocs\ELA Group\AZ202-015 McCaskey Stadium Renovations\Project Files\CAD Data\Land Development\LD-PRELIM\SITE LIGHTING.dwg - PLOTTED: Apr 02, 2025 2:24 pm