LEGEND

- EXISTING INDEX CONTOUR (430)
- EXISTING INTERIOR CONTOUR
- EXISTING SPOT ELEVATION (100.25 x)
- EXISTING FENCE
- EXISTING CURB
- EXISTING PAVING
- EXISTING STORM SEWER PIPE
- EXISTING SANITARY SEWER PIPE
- EXISTING WATER LINE
- EXISTING EDGE OF WOODLANDS/TREES
- EXISTING INLET
- EXISTING SIGN
- EXISTING WATER METER
- EXISTING WATER VALVE
- EXISTING SANITARY MANHOLE
- EXISTING STORM MANHOLE
- EXISTING ENDWALL
- EXISTING BUILDINGS
- EXISTING CONC. SIDEWALK
- TREE PROTECTION FENCE
- EXISTING TREE
- EXISTING TREE TO BE REMOVED
- STEEP SLOPES 15%–25%
- SIGNIFICANT SLOPES >25%

ACT 287 SERIAL NUMBER: 20191291708

EDWARD B. WALSH & ASSOCIATES, INC. DOES NOT GUARANTEE THE ACCURACY OF THE LOCATIONS FOR EXISTING SUBSURFACE UTILITY LINES, STRUCTURES, ETC. SHOWN ON THE PLANS, NOR DOES E. B. WALSH & ASSOC., INC. GUARANTEE THAT ALL SUBSURFACE UTILITY LINES, STRUCTURES, ETC. ARE SHOWN.

CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATIONS OF ALL SUBSURFACE UTILITY LINES, STRUCTURES, ETC. BEFORE THE START OF WORK. BY CALLING THE PENNSYLVANIA ONE CALL SYSTEM AT 1–800–242–1776.

UTILITIES NOTIFIED

UTILITIES	PHONE NO.
ABOVENET COMMUNICATIONS INC.	1–406–367–6666
AQUA PENNSYLVANIA INC	1–877–987–2782
AT&T	1–800–288–2020
COMCAST CABLE	1–800–391–3000
PECO ENERGY	1–800–841–4141
UPPER MERION TOWNSHIP	610–209–8540
UPPER MERION TWP MUNICIPAL UTILITY AUTHORITY	610–265–2600
VERIZON PENNSYLVANIA INC	1–800–837–4966

PENNSYLVANIA ONE CALL SYSTEM, INC. 1–800–242–1776 STOP–CALL BEFORE YOU DIG!

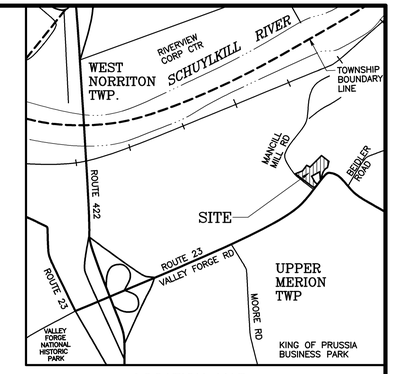
PARCEL NO. 58–0013342–00–1

DEMOLITION NOTES

1. THE EXISTING BUILDINGS, ALL OF ITS WALKWAYS, CONCRETE PADS AND UTILITIES ARE TO BE REMOVED.
2. THE EXISTING PAVING IS TO BE REMOVED.
3. THE STONE WALL LOCATED BETWEEN PARCEL 58–33–8 AND 58–33–7 IS TO REMAIN.
4. ALL ACCESS TO WEST VALLEY FORGE ROAD IS TO BE REMOVED EXCEPT FOR THE SHARED ACCESS TO PARCEL 58–33–7 THAT IS TO REMAIN OPEN AND FUNCTIONAL.
5. ALL CONSTRUCTION DEBRIS SHALL BE REMOVED AND DISPOSED OF OR RECYCLED IN A LICENSED FACILITY.
6. THE CONTRACTOR IS HEREBY ADVISED THAT A 10' GRADING/DISTURBANCE SETBACK HAS BEEN AGREED TO ADJACENT TO PARCEL 58–33–3. NO EQUIPMENT SHALL ENTER OR WORK TAKE PLACE WITHIN SAID SETBACK.

SHEET INDEX

EXISTING FEATURES/DEMO PLAN	1 OF 11
SITE PLAN	2 OF 11
GRADING & UTILITIES PLAN	3 OF 11
EROSION & SEDIMENTATION CONTROL PLAN	4 OF 11
POST CONSTRUCTION STORMWATER MANAGEMENT PLAN	5 OF 11
LIGHTING PLAN	6 OF 11
LANDSCAPE PLAN	7 OF 11
PROFILE SHEET	8 OF 11
EROSION & SEDIMENTATION CONTROL DETAIL SHEET	9 OF 11
DETAIL SHEETS	10–11 OF 11

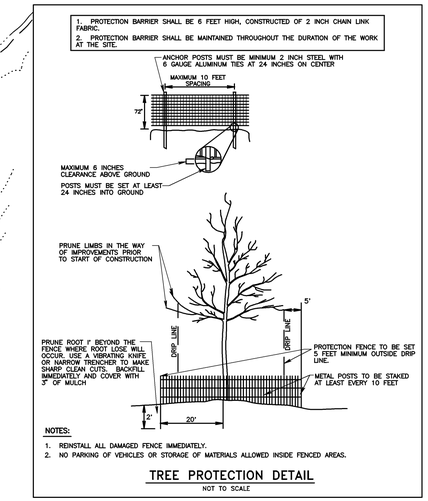


LOCATION MAP

SCALE: 1"=1000'

GENERAL NOTES:

1. BOUNDARY, EXISTING FEATURES AND TOPOGRAPHIC INFORMATION IS FROM A FIELD SURVEY PERFORMED BY EDWARD B. WALSH & ASSOCIATES, INC., ON MAY 16, 2019.
2. BOUNDARY SURVEY AND RIGHT–OF–WAY WERE BASED ON DEEDS OF RECORD. A TITLE REPORT WAS NOT PROVIDED, THEREFORE THIS SURVEY DOES NOT PURPORT TO DEPICT ALL RIGHTS, EASEMENTS, CONDITIONS, COVENANTS, RESTRICTIONS, ETC. WHICH A CURRENT AND COMPLETE TITLE REPORT SHOULD DISCLOSE.
3. OWNER OF RECORD: MALVERN SCHOOL PROPERTIES KING OF PRUSSIA, LLC.
4. OWNER/SITE ADDRESS: 800 MANCILL MILL ROAD, KING OF PRUSSIA, PA 19406
5. DEED REFERENCE: DEED BOOK 6162, PAGE 01585 RECORDED AT THE MONTGOMERY COUNTY RECORDER OF DEEDS. BEING TAX PARCEL NO. 580013342001 AND TAX BLOCK NO. 58–033–008 AT THE MONTGOMERY COUNTY BOARD OF ASSESSMENTS.
6. BEARING BASIS FOR THE SURVEY AS SHOWN ARE REFERENCED TO NAD 83, PA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE AS DERIVED FROM GPS OBSERVATIONS
7. UTILITY LOCATIONS SHOWN HEREON ARE BASED UPON VISIBLE EVIDENCE AND MARKINGS MADE BY UTILITY LOCATORS, SUPPLEMENTED BY INFORMATION SHOWN ON UTILITY COMPANY PLANS. EDWARD B. WALSH & ASSOCIATES, INC. (EBWA) DOES NOT GUARANTEE THE ACCURACY OF THE LOCATIONS OF EXISTING SUBSURFACE UTILITY LINES, STRUCTURES, ETC SHOWN ON THESE PLANS, NOR DOES EBWA GUARANTEE THAT ALL SUBSURFACE UTILITY LINES, STRUCTURES, ETC ARE SHOWN.
8. GROSS AREA: 82,104 S.F. (1.885 ACRES), NET AREA: 79,385 S.F. (1.822 ACRES) (LESS R/W).
9. PROJECT BENCH MARK IS DESIGNATED AS NGS NO. KV 1854, (0.9 MI. EAST ALONG READING COMPANY RAILROAD FROM PORT KENNEDY STATION. BENCH MARK DISC SET IN TOP OF NW CORNER OF CONCRETE BASE OF SIGNAL GANTRY, 24 FT. SOUTH OF THE SOUTH RAIL OF THE SOUTH SET OF MAIN LINE TRACKS.) ELEVATION: 83.57 DATUM: NAVD 88. LOCAL BENCH RIM SAN. M.H. LOCATED S.R. 0023 APPROXIMATELY 150' SOUTHEAST OF INTERSECTION WITH MANCILL MILL RD.
10. THE PROPOSED DEVELOPMENT/USES WILL UTILIZE THE PUBLIC WATER AND SANITARY SEWER SYSTEM.
11. THERE ARE NO WETLANDS OR 100 YEAR FLOODPLAIN LOCATED ON THE TRACT.
12. THE STORMWATER MANAGEMENT FACILITIES PROPOSED FOR THIS PROJECT WILL BE OWNED AND MAINTAINED BY THE PROPERTY OWNER. A DEED RESTRICTION MUST BE RECORDED TO PROHIBIT THE REMOVAL OR ALTERATION OF THE FACILITIES.
13. A BLANKET EASEMENT ON THE PROPERTY SHALL BE GRANTED TO THE TOWNSHIP TO PROVIDE THE RIGHT BUT NOT OBLIGATION TO ENTER AND IMPROVE STORMWATER MANAGEMENT FACILITIES.
14. IT IS REQUESTED THAT FEE IN LIEU OF OPEN SPACE BE PROVIDED AS STIPULATED IN THE TOWNSHIP CODE SECTION 165–217.2.A(1).
15. ALL LIGHTING FIXTURES MUST MEET IESNA FULL CUTOFF REQUIREMENTS.
16. THE ALTERATION OR REMOVAL OF THE STORM WATER MANAGEMENT FACILITIES (INCLUDING THE COLLECTION PIPING SYSTEM) REQUIRES WRITTEN APPROVAL FROM THE UPPER MERION TOWNSHIP SUPERVISORS.
17. ALL CONSTRUCTION AND MATERIALS SHALL BE IN CONFORMANCE WITH PENNDOT PUBLICATION 408.
18. STORMWATER, GRADING AND EARTH DISTURBANCE REQUIRES A CLASS B TOWNSHIP PERMIT.
19. ALL ELECTRIC, TELEPHONE AND COMMUNICATION SERVICES SHALL BE PROVIDED BY UNDERGROUND CABLE.
20. IRON PINS SHALL BE SET AT LOCATIONS DENOTED BY THE SYMBOL "●".
21. ALL CURB RADII ARE TO BE A MINIMUM OF 5 FOOT.
22. ALL HANDICAP RAMPS MUST COMPLY WITH ADA DESIGN REQUIREMENTS.



NOTES:

1. REINSTALL ALL DAMAGED FENCE IMMEDIATELY.
2. NO PARKING OF VEHICLES OR STORAGE OF MATERIALS ALLOWED INSIDE FENCED AREAS.

TREE PROTECTION DETAIL

NOT TO SCALE

TREES TO BE REMOVED

SIZE DBH	QUANTITY
12"	5
17"	1
14"	3
15"	1
16"	2
18"	2
20"	3
21"	1
24"	3

TOTAL TREES ≥ 12" DBH = 21
REPLACEMENT TREES REQUIRED = 21
CREDIT FOR PRESERVED TREES = 36 TREES

CREDIT FOR PRESERVED TREES

PRESERVED TREE SIZE DBH	QUANTITY	NUMBER OF TREES CREDITED
12"	2	8
14"	1	4
15"	2	4
20"	1	6
24"	1	6
48"	1	8

CREDIT FOR PRESERVED TREES = 36 TREES

30 0 30 60 90 120 FEET

GRAPHIC SCALE

11	3–2–2021	NOT THIS SHEET.
10	2–24–2021	NOT THIS SHEET.
9	1–29–2021	REVISED WALL, GRADING AT WALL & NOTES
8	12–3–2020	ADDED FENCE AND NOTE
7	11–6–2020	REVISED PER SC ENGINEERS 11–6–20 COMMENTS
6	11–2–2020	RELOCATED UTILITY TIE–IN LOCATIONS
5	9–25–2020	REVISED GRADES & GRADING SETBACK

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL THEODORE JOSEPH ADAMS ENGINEER NO. 039545-E

PRELIMINARY/FINAL EXISTING FEATURES/DEMOLITION PLAN

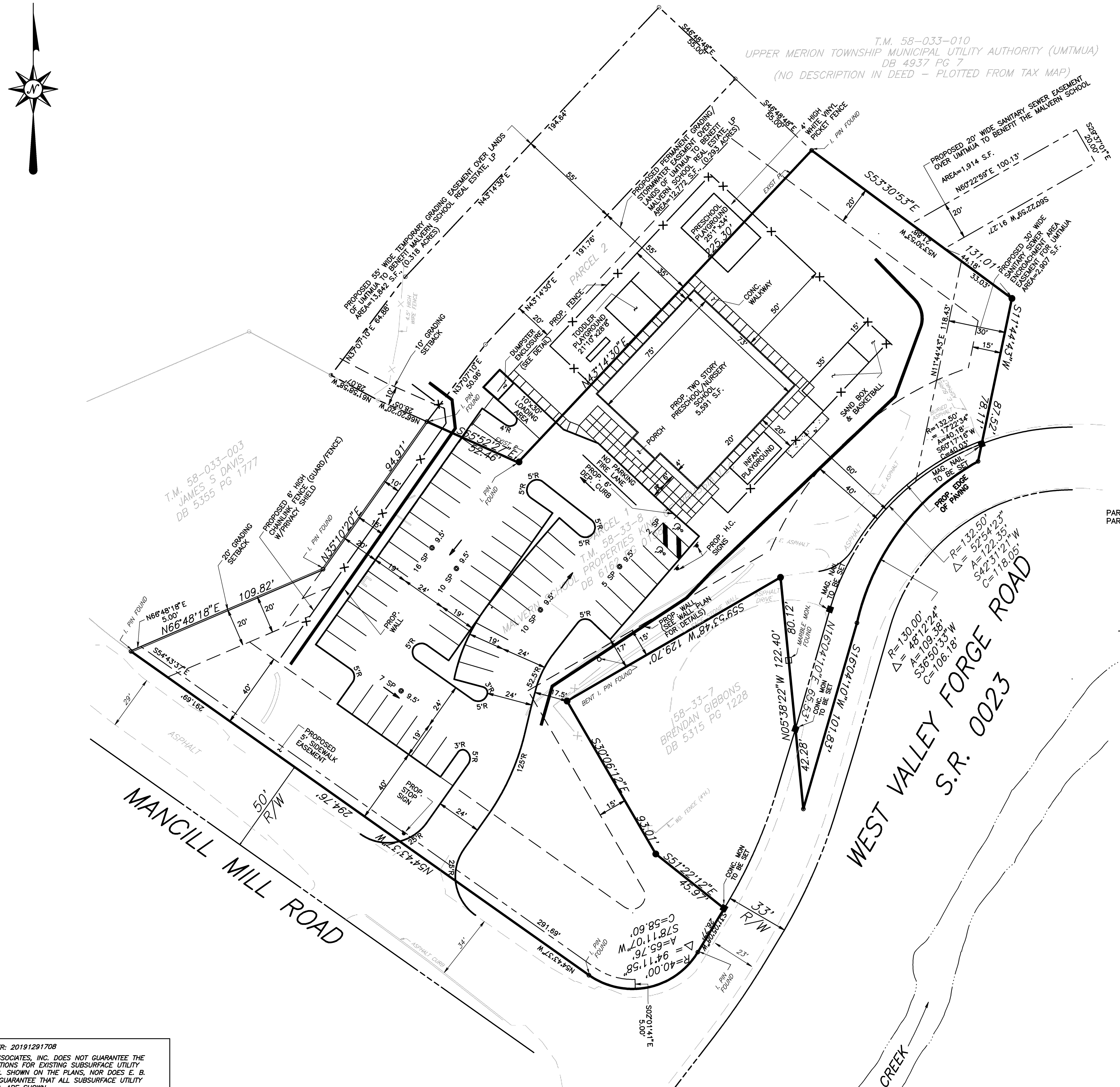
4	6–16–2020	REVISED PER NPDES TECHNICAL REVIEW 5–28–20.
3	3–17–2020	REVISED PER TWP. ENG. COMMENTS 1–14–20 & NPDES LETTER 3–3–20.
2	2–4–2020	REVISED PER NPDES APPLICATION REQUIREMENTS & ADDED BUFFER NOTES
1	1–7–2020	REVISED PER TWP. ENGINEERS COMMENTS

LAND DEVELOPMENT PLAN
FOR
THE MALVERN SCHOOL

UPPER MERION TOWNSHIP — MONTGOMERY COUNTY, PA

Edward B. Walsh & Associates, Inc.
CIVIL ENGINEERS & LAND SURVEYORS
LIONVILLE PROFESSIONAL CENTER
125 Dowlin Forge Rd.
Exton, Pennsylvania 19341
Phone: 610–903–0060
Fax: 610–903–0080

Project–	4524
Date–	5–28–19
Scale–	1"= 30'
Drawn–	RBL
Checked–	AE
Sheet–	1 OF 11
Plotted:	3/3/2021
File:	F:\JB\4524\4524–B8.pro



30 0 30 60 90 120 FEET

GRAPHIC SCALE

WAIVER/DEFERALS GRANTED:

1. SECTION 141-6 & 145-12B – TO NOT PROVIDE A SIDEWALK ALONG THE EXISTING STREETS AT THIS TIME. GRANTED ON THE CONDITION THAT THE APPLICANT OR SUBJECT PROPERTY OWNER, AT THE APPLICABLE TIME, SHALL INSTALL SIDEWALKS WITHIN (1) YEAR OF A REQUEST OF THE TOWNSHIP TO HAVE SUCH SIDEWALKS INSTALLED. SUCH SIDEWALKS SHALL BE INSTALLED TO THE CODE STANDARDS THAT ARE THEN IN EFFECT AT THE TIME OF THE REQUEST. THE CURRENT AND FUTURE PROPERTY OWNERS ARE OBLIGATED TO SAID REQUIREMENTS.

2. SECTION 141-20 – TO NOT PROVIDE CURBING ALONG THE EXISTING STREETS. GRANTED ON THE CONDITION THAT THE APPLICANT OR SUBJECT PROPERTY OWNER, AT THE APPLICABLE TIME, SHALL INSTALL SUCH CURBING WITHIN (1) YEAR OF A REQUEST OF THE TOWNSHIP TO HAVE THE CURBING INSTALLED. SUCH CURBING SHALL BE INSTALLED TO THE CODE STANDARDS THAT ARE THE IN EFFECT AT THE TIME OF THE REQUEST. THE CURRENT AND FUTURE PROPERTY OWNERS ARE HEREBY INFORMED AND OBLIGATED TO SAID REQUIREMENTS.

ZONING DATA
SM-1 SUBURBAN METRO

EXISTING USE – OFFICE

PERMITTED USE – INSTITUTIONAL BY SPECIAL EXCEPTION

PROPOSED USE – PRE-SCHOOL/DAY CARE

PARCEL 1 GROSS AREA– 1.885 AC. (AREA TO TITLELINE)
PARCEL NET AREA– 1.80 AC.

PARCEL 1– 1.80 AC.
PARCEL 2 – .61 AC.

NET PARCEL AREA = 2.41 AC.

	REQUIRED	PROPOSED
MAX BLDG. COVERAGE	50%	3%
FRONT YARD SETBACK	40'	75'
MIN. REAR YARD	20'	N/A
MIN. SIDE YARD	15' (AGG. 40')	N/A
MIN LOT AREA	1 AC.	2.41 AC.
MAX BLDG HEIGHT	50'	+/– 22'
MIN. GREEN AREA	15%	71%

NOTE; THE PARCEL AREA IS COMPRISED OF+/– 1.80 ACRE OF TAX PARCEL 53-38-8 AND .61 ACRES OF EASEMENT LAND TO BE OBTAINED FROM THE SEWER AUTHORITY LANDS.

MAX BLDG HEIGHT	50'	22'
OFF STREET LOADING	1	1

PARKING DATA

REQUIRED = 1.5 SPACES/ EMPLOYEE + 1 SPACE/ 10 STUDENTS
EMPLOYEES = 25 ; MAX STUDENTS = 125
25 X 1.5 = 37.5 ; 125/10 = 12.5
TOTAL REQUIRED = 50 SPACES

PROVIDED = 50 SPACES

NOTE: A SPECIAL EXCEPTION WAS GRANTED ON DECEMBER 4, 2020 BY THE UPPER MERION ZONING BOARD.

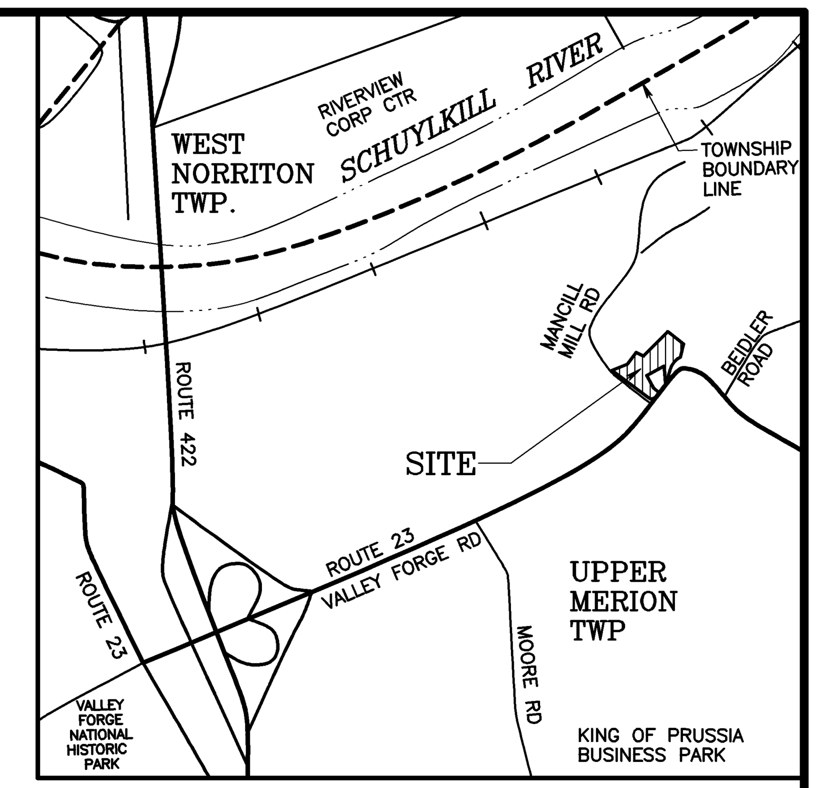
IMPERVIOUS COVER CALCULATIONS

EXISTING		PROPOSED	
PAVING	= 30,187 S.F.	PAVING	= 21,834 S.F.
BUILDING	= 10,302 S.F.	BUILDING	= 5,591 S.F.
CONC.	= 2,246 S.F.	CONC. S'WALK	= 3,042 S.F.
TOTAL	= 42,735 S.F.	TOTAL	= 30,467 S.F.

TOTAL IMPERVIOUS COVER IS REDUCED BY 12,268 S.F.

SANITARY SEWER NOTES

1. NO PLANTINGS OR STRUCTURES SHALL BE LOCATED WITHIN 10' OF THE PROPOSED BUILDING SEWER OR LATERAL.
2. THE PROPERTY OWNER SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF THE LATERAL TO THE CONNECTION TO THE EXISTING SEWER MAIN.



LOCATION MAP
SCALE: 1"=1000'

OWNER CERTIFICATION AND ACKNOWLEDGEMENT OF PLAN

I HEREBY CERTIFY THAT MALVERN SCHOOL PROPERTIES KING OF PRUSSIA, LLC, IS THE REGISTERED OWNER OF THE LAND HEREIN PROPOSED TO BE DEVELOPED AND THAT ALL NECESSARY APPROVALS HAVE BEEN OBTAINED, AND THAT SAID OWNER ADOPTS THIS PLAN AND DESIRES THE SAME TO BE RECORDED.

MALVERN SCHOOL PROPERTIES KING OF PRUSSIA, LLC

By: ______________
Name: Joseph Scandone
Title: Managing Member

COMMONWEALTH OF PENNSYLVANIA :
:SS
COMMONWEALTH OF MONTGOMERY :

ON THE_____DAY OF _____________, 2021, BEFORE ME, THE UNDERSIGNED OFFICER, PERSONALLY APPEARED JOSEPH SCANDONE, WHO ACKNOWLEDGED HIMSELF TO BE THE MANAGING MEMBER OF MALVERN SCHOOL PROPERTIES KING OF PRUSSIA, LLC OF, AND, BEING AUTHORIZED TO DO SO, EXECUTED THE FOREGOING PLAN ON BEHALF OF THE COMPANY FOR THE PURPOSES THEREIN CONTAINED.

IN WITNESS WHEREOF, I HEREUNTO SET MY HAND AND NOTARIAL SEAL.

____
NOTARY PUBLIC

REVIEWED BY THE UPPER MERION TOWNSHIP ENGINEER THIS ____ DAY OF ______________, 20__.

______________ SIGNATURE ________ DATE

APPROVED BY TOWNSHIP SUPERVISORS OF THE TOWNSHIP OF UPPER MERION THIS ____ DAY OF ______________, 20__.

______________ CHAIRPERSON ______________ TOWNSHIP MANAGER

SURVEYOR'S CERTIFICATE, BOUNDARY & TOPOGRAPHY

THIS IS TO CERTIFY THAT THIS PLAN REPRESENTS A FIELD SURVEY BY ME OR UNDER MY SUPERVISION, THAT ALL GEOMETRIC AND GEODETIC DETAILS AS SHOWN ARE CORRECT, AND THAT ALL LOTS OR TRACTS HAVE A BOUNDARY CLOSURE ERROR OF 1:10,000 OR BETTER.

______________ PLS ________ DATE SEAL

SU #-______________

RECORDER OF DEEDS

RECORDED IN THE OFFICE FOR THE RECORDING OF DEEDS IN AND FOR THE COUNTY OF MONTGOMERY, AT NORRISTOWN, PA, IN PLAN BOOK_________, PAGE NO._______ ON ______________, 20__.

MCPC No. ______________

PROCESSED and REVIEWED. A report has been prepared by the Montgomery County Planning Commission in accordance with the Municipalities Planning Codes.

Certified this date______________

____
For The Director
MONTGOMERY COUNTY PLANNING COMMISSION

PRELIMINARY/FINAL SITE PLAN

ACT 287 SERIAL NUMBER: 20191291708

EDWARD B. WALSH & ASSOCIATES, INC. DOES NOT GUARANTEE THE ACCURACY OF THE LOCATIONS FOR EXISTING SUBSURFACE UTILITY LINES, STRUCTURES, ETC. SHOWN ON THE PLANS, NOR DOES E. B. WALSH & ASSOC., INC. GUARANTEE THAT ALL SUBSURFACE UTILITY LINES, STRUCTURES, ETC. ARE SHOWN.

CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATIONS OF ALL SUBSURFACE UTILITY LINES, STRUCTURES, ETC. BEFORE THE START OF WORK, BY CALLING THE PENNSYLVANIA ONE CALL SYSTEM AT 1-800-242-1776.

UTILITIES	PHONE NO.
ABOVENET COMMUNICATIONS INC.	1-406-367-6666
AQUA PENNSYLVANIA INC	1-877-987-2782
AT&T	1-800-288-2020
COMCAST CABLE	1-800-391-3000
PECO ENERGY	1-800-841-4141
UPPER MERION TOWNSHIP	610-209-8540
UPPER MERION TWP MUNICIPAL UTILITY AUTHORITY	610-265-2600
VERIZON PENNSYLVANIA INC	1-800-837-4966

PENNSYLVANIA ONE CALL SYSTEM, INC. 1-800-242-1776 STOP-CALL BEFORE YOU DIG!

PARCEL NO. 58-0013342-00-1

SHEET INDEX

EXISTING FEATURES/DEMO PLAN	1 OF 11
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LANDSCAPE PLAN	7 OF 11
PROFILE SHEET	8 OF 11
EROSION & SEDIMENTATION CONTROL DETAIL SHEET	9 OF 11
DETAIL SHEETS	10-11 OF 11

Owner/applicant:
Malvern School Properties King of Prussia, Llc
20 Creek Road
Glen Mills, Pa. 19342

11	3-2-2021	REVISED WALL LOCATION & FENCE
10	2-24-2021	NOT THIS SHEET
9	1-29-2021	REVISED WALL, GRADING AT WALL & NOTES
8	12-3-2020	ADDED FENCE AND NOTE
7	11-6-2020	REVISED PER SC ENGINEERS 11-6-20 COMMENTS
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1	1-7-2020	REVISED PER TWP. ENGINEERS COMMENTS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL THEODORE JOSEPH GACOMIS ENGINEER NO. 031545-E

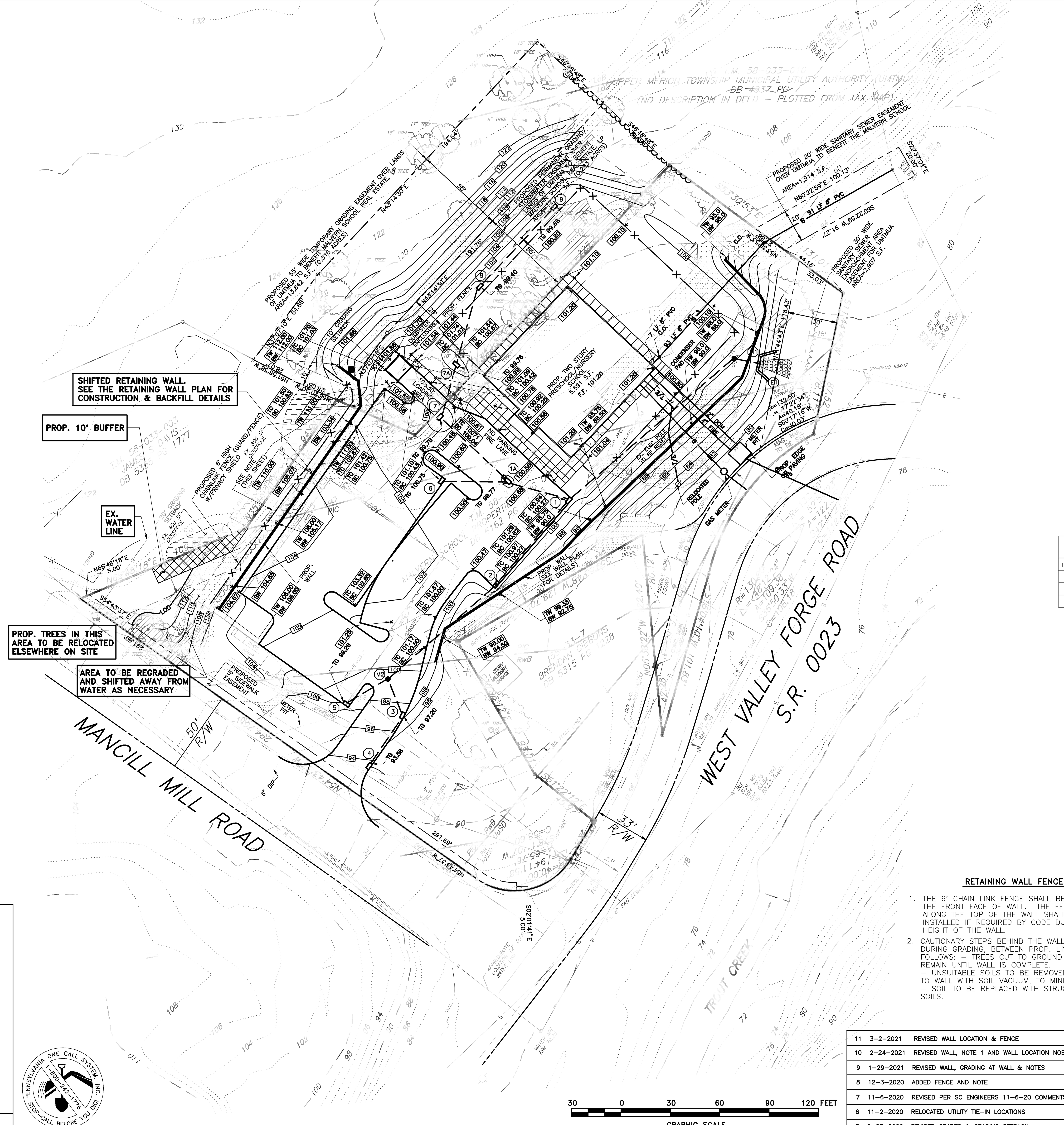
PLAN OF PROPERTY
FOR
THE MALVERN SCHOOL

UPPER MERION TOWNSHIP MONTGOMERY COUNTY, PA.

Edward B. Walsh & Associates, Inc.
CIVIL ENGINEERS & LAND SURVEYORS
LIONVILLE PROFESSIONAL CENTER
125 Dowlin Forge Rd.
Exton, Pennsylvania 19341
Phone: 610-903-0060
Fax: 610-903-0080

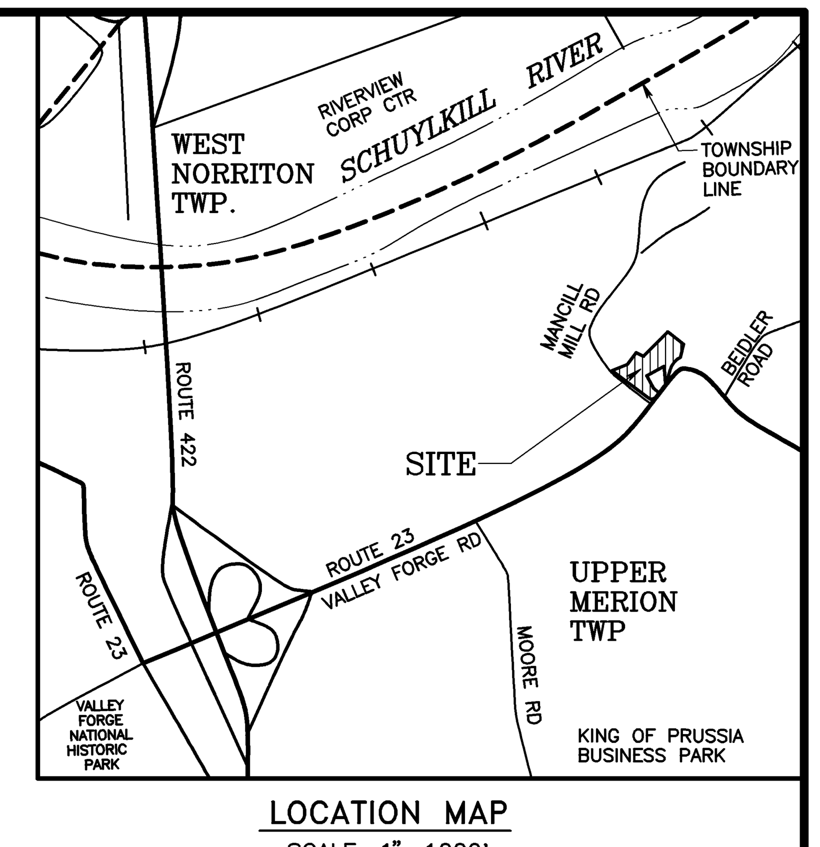
Project–	4524
Date–	5-28-19
Scale–	1"= 30'
Drawn–	DJD
Checked–	AE
Sheet–	2 OF 11

Plotted: 3/3/2021 *File:* F:\JB\4524\4524-B8.pro



LEGEND

Symbol	Description
— — 430 — —	EXISTING INDEX CONTOUR
············	EXISTING INTERIOR CONTOUR
—[432]—	PROPOSED CONTOUR
100.25 x	EXISTING SPOT ELEVATION
	EXISTING INLET
	PROPOSED INLET
(1)	PROPOSED STORMSEWER STRUCTURE DESIGNATION
	EXISTING STORM SEWER PIPE
	PROPOSED STORM SEWER PIPE
○	EXISTING STORM MANHOLE
●	PROPOSED STORM MANHOLE
	EXISTING SANITARY MANHOLE
— S —	EXISTING SANITARY SEWER PIPE
— FM —	SANITARY SEWER FORCE MAIN
— W —	EXISTING WATER LINE
— W —	PROPOSED WATER MAIN
	SOILS LINE
	EXISTING CURB
	PROPOSED CURB
	EXISTING PAVING
	LIGHT POLE & FIXTURE
[94.66] x	PROPOSED SPOT ELEVATION
	EXISTING SIGN
	WATER METER
WV	WATER VALVE
	PROPOSED FIRE HYDRANT
	PROPOSED D-W ENDWALL
	EXISTING ENDWALL
	FEMA FLOODPLAIN BOUNDARY
	EXISTING BUILDINGS
	PROPOSED BUILDINGS
	STEEP SLOPES 15%-25%
	SIGNIFICANT SLOPES >25%
	EXISTING EDGE OF WOODLANDS/TREES



LOCATION MAP
SCALE: 1"=1000'

NOTE: A 20' GRADING/DISTURBANCE SETBACK HAS BEEN CREATED ADJACENT TO PARCEL 58-33-3; EXCEPT FOR BEHIND THE PROPOSED RETAINING WALL. NO GRADING OR DISTURBANCE SHALL OCCUR WITHIN THE FOREGOING SETBACK.

SOIL USE TABLE

SOIL SYMBOL	SOIL TYPE	INFILTRATION POTENTIAL	DEPTH TO SEASONALLY HIGH WATER TABLE	DEPTH TO BEDROCK	HYDROLOGIC SOIL GROUP	LOW STRENGH/ LANDSLIDE PRONE	SOIL ERODIBILITY	POOR SOURCE OF TOPSOIL	HYDRIC SOIL	FROST ACTION
LaB & LaD	LANDSDALE	LOW	6+ FT	3.5 – 5'	B	NO	NO	YES	NO	MOD
PIC	PENN LANSDALE	LOW	5+ FT	2 – 3'	B	NO	NO	YES	NO	MOD
RwB	ROWLAND	LOW	5+ FT	6 – 7'	C	NO	NO	YES	NO	MOD
UuSD	URBAN LAND	HIGH	5+ FT	20" – 99"	B/D	YES	YES	YES	NO	NONE

SOIL RESOLUTION NOTES

1. SLOPES MUST NOT EXCEED 3:1 SLOPES TO ENSURE SLOPE STABILITY AND BE STABILIZED WITH VEGETATION OR EROSION CONTROL BLANKET TO PREVENT EROSION.
2. ALL DISTURBED AREAS MUST BE STABILIZED WITH SEED AND MULCH IF EARTH MOVING ACTIVITIES ARE NOT TO OCCUR IN NON GERMINATING PERIODS.
3. ADEQUATE TOPSOIL MUST BE INSTALLED ON DISTURBED AREAS FOLLOWING GRADING TO ENSURE VEGETATION CAN BE ESTABLISHED. TOPSOIL MUST BE BROUGHT TO SITE TO ENSURE SUFFICIENT TOPSOIL IS INSTALLED.
4. ANY WATER THAT IS ENCOUNTERED DURING CONSTRUCTION MUST BE PUMPED TO A DEWATERING FACILITY.
5. DURING COLD WEATHER THE APPROPRIATE MEASURES MUST BE TAKEN TO AVOID ISSUES CAUSED BY FROST.

SOILS CLASSIFICATION

LaB – LANSDALE LOAM 3 TO 8% SLOPES
LaD – LANSDALE LOAM 15 TO 25% SLOPES
PIC – PENN LANSDALE COMPLEX 8 TO 15% SLOPES
RwB – ROWLAND SILT LOAM 3 TO 8% SLOPES
UuSD – URBAN –LAND–UDORTHENTS, 8 TO 25% SLOPES

SAN. SEWER & WATER NOTES:

1. CONTRACTOR SHALL SOFT DIG AND VERIFY THE DEPTH OF THE EXISTING LATERAL AT THE PROP. TIE IN DEPTH. PLAN ASSUMES MIN. ELEV. OF 85.00.
2. THE SIZE OF THE FIRE LINE AND DOMESTIC WATER SUPPLY SHALL BE CALCULATED BY THE ARCHITECT/MECHANICAL ENGINEER PRIOR TO ITS INSTALLATION.
3. CONTRACTOR SHALL COORDINATE WITH AQUA ON THE METER PIT SIZE AND LOCATION.
4. SANITARY SEWERS AND LATERALS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE UPPER MERION SANITARY AND STORMWATER AUTHORITY STANDARD SPECIFICATIONS.
5. A HORIZONTAL SEPARATION OF 10 FEET AND/OR A VERTICAL CLEARANCE OF 18 INCHES (MEASURED BETWEEN THE OUTER WALLS) SHALL BE MAINTAINED BETWEEN THE SANITARY SEWER AND OTHER UTILITY PIPELINES. WHERE PIPELINES MUST CROSS UNDER A SEWER, THE INSTALLATION MUST ALSO PROVIDE ADEQUATE STRUCTURAL SUPPORT FOR THE SEWER TO PREVENT DEFLECTION AND BREAKING THE SEWER. WHERE PROPER CLEARANCES CAN NOT BE PROVIDED, THE SEWER SHALL BE CONCRETE ENCASED FOR A DISTANCE OF 10 FEET ON EITHER SIDE OF THE CONFLICT.
6. A MINIMUM COVER OF 4 FEET SHOULD BE MAINTAINED.

RETAINING WALL FENCE NOTE:

1. THE 6' CHAIN LINK FENCE SHALL BE PLACED 5' OFF THE FRONT FACE OF WALL. THE FENCE LOCATED ALONG THE TOP OF THE WALL SHALL ONLY BE INSTALLED IF REQUIRED BY CODE DUE TO THE HEIGHT OF THE WALL.
2. CAUTIONARY STEPS BEHIND THE WALL AREA SHIFTED 5', DURING GRADING, BETWEEN PROP. LINE & WALL SHALL BE AS FOLLOWS: – TREES CUT TO GROUND LEVEL WITH STUMP TO REMAIN UNTIL WALL IS COMPLETE.
– UNSUITABLE SOILS TO BE REMOVED FROM PROPERTY LINE TO WALL WITH SOIL VACUUM, TO MINIMIZE EROSION AND DAMAGE
– SOIL TO BE REPLACED WITH STRUCTURALLY APPROPRIATE SOILS.

ACT 287 SERIAL NUMBER: 20191291708

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UTILITIES	PHONE NO.
ABOVENET COMMUNICATIONS INC.	1-406-367-6666
AQUA PENNSYLVANIA INC	1-877-987-2782
AT&T	1-800-288-2020
COMCAST CABLE	1-800-391-3000
PECO ENERGY	1-800-841-4141
UPPER MERION TOWNSHIP	610-209-8540
UPPER MERION TWP MUNICIPAL UTILITY AUTHORITY	610-265-2600
VERIZON PENNSYLVANIA INC	1-800-837-4966

PENNSYLVANIA ONE CALL SYSTEM, INC. 1-800-242-1776 STOP-CALL BEFORE YOU DIG!

PARCEL NO. 58-0013342-00-1

GRAPHIC SCALE: 30 0 30 60 90 120 FEET

PRELIMINARY/FINAL GRADING & UTILITIES PLAN

11	3-2-2021	REVISED WALL LOCATION & FENCE
10	2-24-2021	REVISED WALL, NOTE 1 AND WALL LOCATION NOE.
9	1-29-2021	REVISED WALL, GRADING AT WALL & NOTES
8	12-3-2020	ADDED FENCE AND NOTE
7	11-6-2020	REVISED PER SC ENGINEERS 11-6-20 COMMENTS
6	11-2-2020	RELOCATED UTILITY TIE-IN LOCATIONS
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1	1-7-2020	REVISED PER TWP. ENGINEERS COMMENTS

PLAN OF PROPERTY
FOR
THE MALVERN SCHOOL

UPPER MERION TOWNSHIP — MONTGOMERY COUNTY, PA

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER THEODORE JOSEPH GACOMIS NO. 031545-E

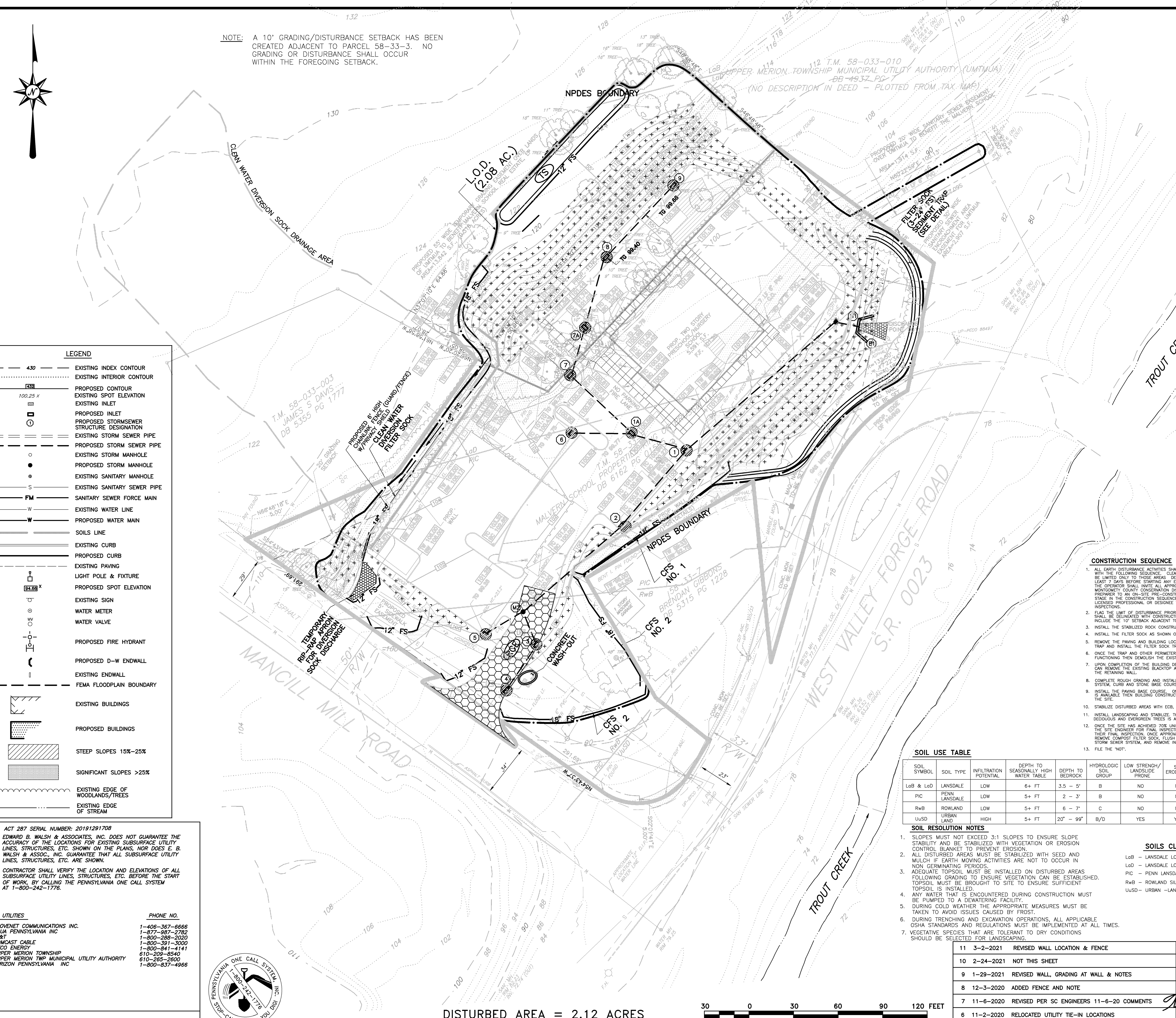
Edward B. Walsh & Associates, Inc.
CIVIL ENGINEERS & LAND SURVEYORS
LIONVILLE PROFESSIONAL CENTER
125 Dowlin Forge Rd.
Exton, Pennsylvania 19341
Phone: 610-903-0060
Fax: 610-903-0080

EBW

Project–	4524
Date–	5-28-19
Scale–	1"= 30'
Drawn–	DJD
Checked–	AE
Sheet–	3 OF 11

Plotted: 3/3/2021 File: F:\JB\4524\4524-B8.pro

NOTE: A 10' GRADING/DISTURBANCE SETBACK HAS BEEN CREATED ADJACENT TO PARCEL 58–33–3. NO GRADING OR DISTURBANCE SHALL OCCUR WITHIN THE FOREGOING SETBACK.



LEGEND

- EXISTING INDEX CONTOUR
- EXISTING INTERIOR CONTOUR
- PROPOSED CONTOUR
- EXISTING SPOT ELEVATION
- EXISTING INLET
- PROPOSED INLET
- PROPOSED STORMSEWER STRUCTURE DESIGNATION
- EXISTING STORM SEWER PIPE
- PROPOSED STORM SEWER PIPE
- EXISTING STORM MANHOLE
- PROPOSED STORM MANHOLE
- EXISTING SANITARY MANHOLE
- EXISTING SANITARY SEWER PIPE
- SANITARY SEWER FORCE MAIN
- EXISTING WATER LINE
- PROPOSED WATER MAIN
- SOILS LINE
- EXISTING CURB
- PROPOSED CURB
- EXISTING PAVING
- LIGHT POLE & FIXTURE
- PROPOSED SPOT ELEVATION
- EXISTING SIGN
- WATER METER
- WATER VALVE
- PROPOSED FIRE HYDRANT
- PROPOSED D–W ENDWALL
- EXISTING ENDWALL
- FEMA FLOODPLAIN BOUNDARY
- EXISTING BUILDINGS
- PROPOSED BUILDINGS
- STEEP SLOPES 15%–25%
- SIGNIFICANT SLOPES >25%
- EXISTING EDGE OF WOODLANDS/TREES
- EXISTING EDGE OF STREAM

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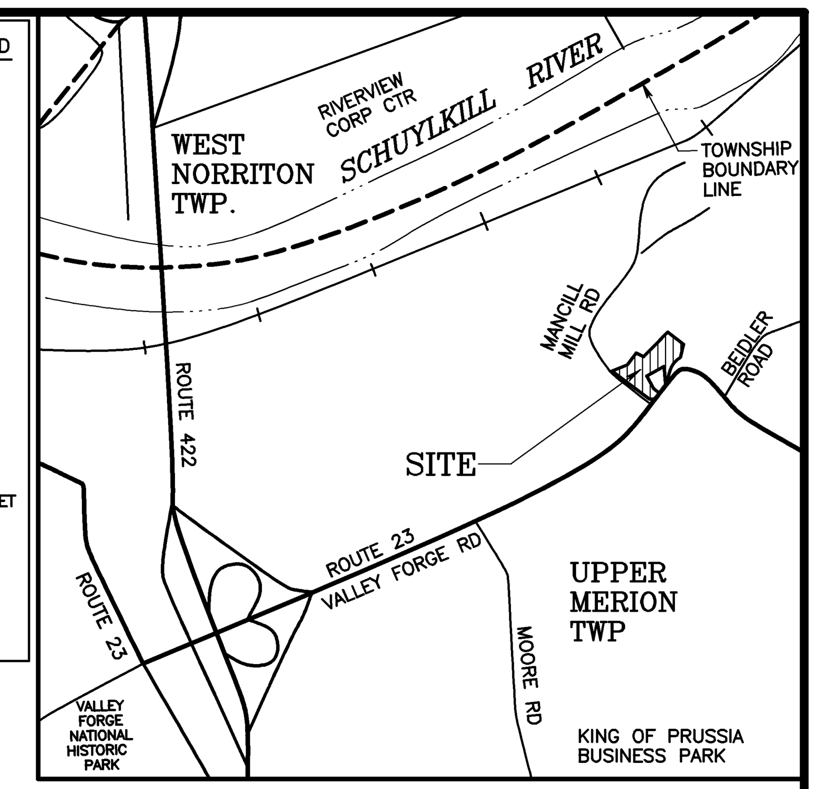
PARCEL NO. 58–0013342–00–1

DISTURBED AREA = 2.12 ACRES

30 0 30 60 90 120 FEET
GRAPHIC SCALE

EROSION & SEDIMENTATION CONTROL LEGEND

- LIMIT OF DISTURBANCE
- NPDES BOUNDARY
- FILTER SOCK SEDIMENT TRAP
- 12" FILTER SOCK
- 18" FILTER SOCK
- TS — TOPSOIL STOCKPILE
- ST — SEDIMENT TRAP
- INLET PROTECTION
- EROSION CONTROL BLANKET
- RCE — ROCK CONSTRUCTION ENTRANCE
- CLEAN WATER DIVERSION SWALE DRAINAGE AREA



LOCATION MAP
SCALE: 1"=1000'

PAST AND PRESENT LAND USES:

THE SITE FOR THE PAST FIVE YEARS HAS BEEN USED AS AN OFFICE BUILDING AND PARKING LOTS. FIFTY YEARS FROM THE CURRENT DAY THE SITE WAS WOODED.

THERE ARE NO GEOLOGIC CONDITIONS FOUND ON THE SITE THAT REQUIRE ATTENTION DURING CONSTRUCTION.

PROJECT WASTES

1. THE PROJECT WASTES INCLUDE CONCRETE AND BUILDING MATERIALS WHICH MUST BE REMOVED AS PART OF THE PROJECT.
2. THE CONCRETE AND BUILDING MATERILAS MUST BE DISPOSED OF BY TAKING IT TO A DEP APPROVED FACILITY.
3. IF DURING CONSTRUCTION ANY CONTAMINATED SOILS ARE EXPOSED, THE SOIL MUST BE STOCKPILED. 12" FILTER SOCK MUST BE INSTALLED AROUND STOCKPILE AND A TARP INSTALLED OVER STOCKPILE. DEP MUST BE CONTACTED TO PROVDE DIRECTION ON FURTHER HANDLING OF MATERIAL. IF THE SOIL IS MIXED WITH WATER, THE MATERIAL MUST BE STORED IN SECURE CANNISTERS AND TAKEN TO A DEP APPROVED FACILITY FOR DISPOSAL.

WATERSHED NOTES:

1. THE RUNOFF FROM THE SITE DISCHARGES TO THE TROUT CREEK WHICH IS CLASSIFIED AS WWF.
   EXTREME CARE SHOULD BE EXERCISED IN ALL DISTURBANCE ACTIVITIES TO PREVENT DEGRADATION TO THE WATERS OF THE COMMONWEALTH.
2. THE LIMIT OF DISTURBANCE MUST BE LIMITED TO THE MINIMUM NECESSARY FOR THE PROPOSED CONSTRUCTION ACTIVITY.
3. UPON COMPLETION OR TEMPORARY CESSATION OF EARTH DISTURBANCE ACTIVITIES, THE PROJECT SITE MUST BE IMMEDIATELY STABILIZED WITH THE APPROPRIATE TEMPORARY OR PERMANENT STABILIZATION.
4. ALL EXISTING DRAINAGE FEATURES MUST BE PROTECTED AND NOT DISTURBED IN ANY WAY.
5. CONSTRUCTION ACTIVITIES MUST BE PERFORMED IN A MANNER TO MINIMIZE COMPACTION OF SOILS IN AREA TO BE DISTURBED.
6. THE PROPOSED E & S BMP'S HAVE BEEN PROVIDED TO PREVENT SEDIMENT DISCHARGE FROM THE SITE AND TO ENSURE AN INCREASE IN THE RATE OF RUNOFF DOES NOT OCCUR DURING CONSTRUCTION.

NOTES:

1. THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL FACILITIES AT THE END OF EACH DAY AND AFTER EACH RAINFALL EVENT. ANY DAMAGED OR BROKEN FACILITY MUST BE REPAIRED OR REPLACED IMMEDIATELY.
2. PRIOR TO THE REMOVAL OF E AND S CONTROLS, THE COUNTY CONSERVATION DISTRICT MUST BE NOTIFIED.
3. ALL SLOPES GREATER THAT 3:1 SHALL BE STABILIZED WITH N.A.G.S–75 EROSION CONTROL BLANKET
4. ALL PUMPING OF SEDIMENT LADEN WATER OR POTENTIALLY SEDIMENT LADEN WATER SHALL BE THROUGH A SEDIMENT CONTROL BMP, SUCH AS A PUMPED WATER FILTER BAG DISCHARGING OVER NON–DISTURBED AREAS.
5. BEFORE INITIATING ANY REVISION TO THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN OR REVISIONS TO OTHER PLANS WHICH MAY AFFECT THE EFFECTIVENESS OF THE APPROVED E&S CONTROL PLAN, THE OPERATOR MUST RECEIVE APPROVAL OF THE REVISIONS FROM THE CHESTER COUNTY CONSERVATION DISTRICT. THE OPERATOR SHALL ASSURE THAT THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN IS PROPERLY AND COMPLETELY IMPLEMENTED. 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 POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION.
6. STOCKPILE HEIGHTS MUST NOT EXCEED 35 FEET. STOCKPILE SLOPES MUST BE 2:1 OR FLATTER.
7. THE E & S PLAN/DESIGN PROVIDES THE FOLLOWING:
   A. MINIMIZES EXTENT AND DURATION OF EARTH DISTURBANCE BY DISTURBING ONLY THE AREAS NECESSARY FOR THE SITE CONSTRUCTION AND COMPLETES THE WORK IN ONE PHASE.
   B. MAXIMIZES PROTECTION OF EXISTING DRAINAGE FEATURES AND VEGETATION BY INSTALLING DIVERSION SWALES TO CONVEY RUNOFF TO A SEDIMENT TRAP FOR TREATMENT. THE SEDIMENT TRAP DISCHARGES TO AN EXSTING DRAINAGE SYSTEM. AREA TO BE DEVELOPED HAS BEEN PREVIOUSLY CLEARED OF VEGETATION.
   C. REDUCES IMPERVIOUS COVER.
   D. UTILIZES A SEDIMENT TRAP AND FILTER SOCKS THAT PREVENT OR MINIMIZE GENERATION OF INCREASED STORMWATER RUNOFF, AND PROVIDE ABACT FOR DISCHARGE. AS THE SITE CURRENTLY DISCHARGES TO AN EXISTING FACILITY, A NON–DISCHARGE SYSTEM IS NOT POSSIBLE.
8. PERMANENT SITE STABILIZATION THAT MUST BE ACHIEVED PRIOR TO REMOVAL OF E&S CONTROLS IS DEFINED AS VEGETATED AREAS MUST PROVIDE A MINIMUM UNIFORM 70% PERENNIAL VEGETATED COVER OVER THE ENTIRE DISTURBED AREA.
9. THE POTENTIAL FOR THERMAL IMPACTS IS CREATED BY THE DETENTION OF RUNOFF IN THE SEDIMENT TRAP. TO AVOID ANY THERMAL IMPACTS THE TRAP HAS BEEN DESIGNED TO DISCHARGE AS SHALLOW CONCENTRATED FLOW TO THICK VEGETATION TO ENSURE IT COOLS PRIOR TO LEAVING THE SITE.

GEOLOGY

THE PROJECT SITE LIES WITHIN THE STOCKTON ROCK FORMATION AND DOES NOT POSE POTENTIAL FOR POLLUTION FROM CONSTRUCTION ACTIVITIES.

CONSTRUCTION SEQUENCE

1. ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE FOLLOWING SEQUENCE. CLEARING AND GRUBBING SHALL BE LIMITED ONLY TO THOSE AREAS DESCRIBED IN EACH STAGE. AT LEAST 7 DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, THE OPERATOR SHALL INVITE ALL APPROPRIATE MUNICIPAL OFFICIALS, MONTGOMETY COUNTY CONSERVATION DISTRICT STAFF AND THE PLAN PREPARER TO AN ON–SITE PRE–CONSTRUCTION MEETING. A CRITICAL STAGE IN THE CONSTRUCTION SEQUENCE IS DEFINED AS REQUIRING A LICENSED PROFESSIONAL OR DESIGNEE TO BE CONDUCTING THESE INSPECTIONS.
2. FLAG THE LIMIT OF DISTURBANCE PRIOR TO CONSTRUCTION. THE AREAS SHALL BE DELINEATED WITH CONSTRUCTION FEENCING OR TAPE. THIS SHALL INCLUDE THE 10' SETBACK ADJACENT TO PARCEL 58–33–3.
3. INSTALL THE STABILIZED ROCK CONSTRUCTION ENTRANCE.
4. INSTALL THE FILTER SOCK AS SHOWN ON THE PLAN.
5. REMOVE THE PAVING AND BUILDING LOCATED AT THE FILTER SOCK SEDIMENT TRAP AND INSTALL THE FILTER SOCK TRAP.
6. ONCE THE TRAP AND OTHER PERIMETER CONTROLS ARE INSTALLED AND FUNCTIONING THEN DEMOLISH THE EXISTING BUILDING.
7. UPON COMPLETION OF THE BUILDING DEMOLITION THEN THE CONTRACTOR CAN REMOVE THE EXISTING BLACKTOP AND ROUGH GRADE THE SITE. INSTALL THE RETAINING WALL.
8. COMPLETE ROUGH GRADING AND INSTALL THE STORMWATER CONVEYANCE SYSTEM, CURB AND STONE BASE COURSE IN THE PAVING.
9. INSTALL THE PAVING BASE COURSE. ONCE STONE FOR PAVED ACCESS IS AVAILABLE THEN BUILDING CONSTRUCTION CAN COMMENCE. FINE GRADE THE SITE.
10. STABILIZE DISTURBED AREAS WITH ECB, PERMANENT SEED MIX AND MULCH.
11. INSTALL LANDSCAPING AND STABILIZE. THE INSTALLATION OF THE PROPOSED DECIDUOUS AND EVERGREEN TREES IS A CRITICAL STAGE. INSTALL FINISH PAVING.
12. ONCE THE SITE HAS ACHIEVED 70% UNIFORM STABILIZATION. CONTACT THE SITE ENGINEER FOR FINAL INSPECTION AND THE MCCD STAFF FOR THEIR FINAL INSPECTION. ONCE APPROVAL FROM MCCD IS OBTAINED, REMOVE COMPOST FILTER SOCK, FLUSH SEDIMENT AND SILT FROM STORM SEWER SYSTEM, AND REMOVE INLET PROTECTION.
13. FILE THE 'NOT'.

SOIL USE TABLE

SOIL SYMBOL	SOIL TYPE	INFILTRATION POTENTIAL	DEPTH TO SEASONALLY HIGH WATER TABLE	DEPTH TO BEDROCK	HYDROLOGIC SOIL GROUP	LOW STRENGH/ LANDSLIDE PRONE	SOIL ERODIBILITY	POOR SOURCE OF TOPSOIL	HYDRIC SOIL	FROST ACTION
LaB & LaD	LANSDALE	LOW	6+ FT	3.5 – 5'	B	NO	NO	YES	NO	MOD
PlC	PENN LANSDALE	LOW	5+ FT	2 – 3'	B	NO	NO	YES	NO	MOD
RwB	ROWLAND	LOW	5+ FT	6 – 7'	C	NO	NO	YES	NO	MOD
UuSD	URBAN LAND	HIGH	5+ FT	20" – 99"	B/D	YES	YES	YES	NO	NONE

SOIL RESOLUTION NOTES

1. SLOPES MUST NOT EXCEED 3:1 SLOPES TO ENSURE SLOPE STABILITY AND BE STABILIZED WITH VEGETATION OR EROSION CONTROL BLANKET TO PREVENT EROSION.
2. ALL DISTURBED AREAS MUST BE STABILIZED WITH SEED AND MULCH IF EARTH MOVING ACTIVITIES ARE NOT TO OCCUR IN NON GERMINATING PERIODS.
3. ADEQUATE TOPSOIL MUST BE INSTALLED ON DISTURBED AREAS FOLLOWING GRADING TO ENSURE VEGETATION CAN BE ESTABLISHED. TOPSOIL MUST BE BROUGHT TO SITE TO ENSURE SUFFICIENT TOPSOIL IS INSTALLED.
4. ANY WATER THAT IS ENCOUNTERED DURING CONSTRUCTION MUST BE PUMPED TO A DEWATERING FACILITY.
5. DURING COLD WEATHER THE APPROPRIATE MEASURES MUST BE TAKEN TO AVOID ISSUES CAUSED BY FROST.
6. DURING TRENCHING AND EXCAVATION OPERATIONS, ALL APPLICABLE OSHA STANDARDS AND REGULATIONS MUST BE IMPLEMENTED AT ALL TIMES.
7. VEGETATIVE SPECIES THAT ARE TOLERANT TO DRY CONDITIONS SHOULD BE SELECTED FOR LANDSCAPING.

SOILS CLASSIFICATION

- LaB – LANSDALE LOAM 3 TO 8% SLOPES
- LaD – LANSDALE LOAM 15 TO 25% SLOPES
- PlC – PENN LANSDALE COMPLEX 8 TO 15% SLOPES
- RwB – ROWLAND SILT LOAM 3 TO 8% SLOPES
- UuSD – URBAN –LAND–UDORTHENTS, 8 TO 25% SLOPES

PRELIMINARY/FINAL EROSION & SEDIMENTATION CONTROL PLAN

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10	2–24–2021	NOT THIS SHEET
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COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL THEODORE JOSEPH GACOMIS ENGINEER NO. 031545–E

LAND DEVELOPMENT PLAN FOR

THE MALVERN SCHOOL

UPPER MERION TOWNSHIP — MONTGOMERY COUNTY, PA.

Edward B. Walsh & Associates, Inc.
CIVIL ENGINEERS & SURVEYORS

125 Dowlin Forge Road
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EBW

Project–	4524
Date–	5–28–19
Scale–	1"= 30'
Drawn–	RBL
Checked–	AE
Sheet–	4 OF 11

Plotted: 3/3/2021 *File:* F:\JB\4524\4524–B8.pro

BMP CONSTRUCTION INSPECTIONS

1. INSTALLATION OF THE REQUIRED REPLACEMENT TREES.

THE PROJECT ENGINEER MUST BE NOTIFIED IN ADVANCE FOR INSPECTION OF THE BMP's NOTED ABOVE.

CONSTRUCTION DEBRIS HANDLING:

1. CONSTRUCTION DEBRIS MUST BE STORED IN REFUSE CONTAINERS FOR REMOVAL FROM THE SITE. THE CONTAINERS MUST BE PLACED IN ACCESSIBLE LOCATIONS.
2. NO DEBRIS MAY BE STORED/LEFT IN LOW AREAS OR DEPRESSIONS ON THE SITE.
3. NO FUEL MAY BE STORED ON SITE.

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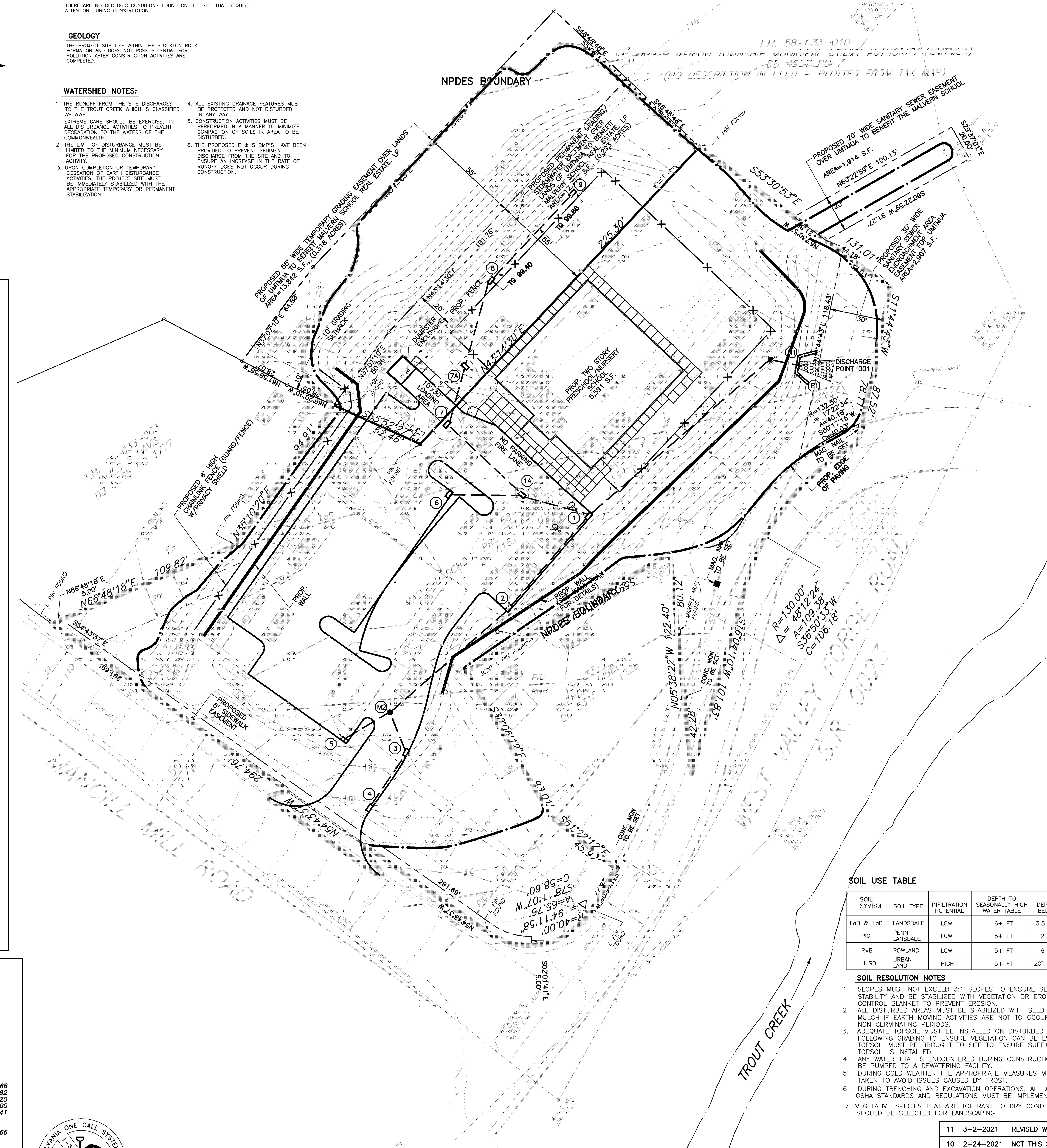

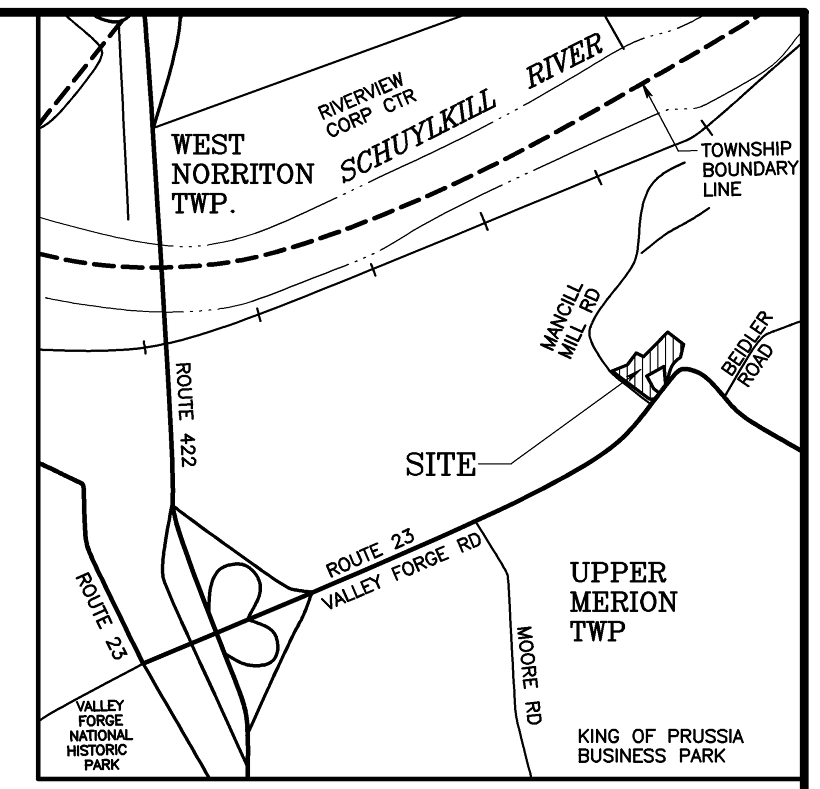

LOCATION MAP

SCALE: 1"=1000'

LEGEND

Symbol	Description
430	EXISTING INDEX CONTOUR
	EXISTING INTERIOR CONTOUR
432	PROPOSED CONTOUR
100.25 x	EXISTING SPOT ELEVATION
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	PROPOSED INLET
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	EXISTING CURB
	PROPOSED CURB
	EXISTING PAVING
	LIGHT POLE & FIXTURE
94.66 x	PROPOSED SPOT ELEVATION
	EXISTING SIGN
	WATER METER
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	EXISTING EDGE OF STREAM
	RAIN GARDEN
	LIMIT OF DISTURBANCE
	NPDES BOUNDARY

ACT 287 SERIAL NUMBER: 20191291708

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PARCEL NO. 58-0013342-00-1

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4. INSTALL THE FILTER SOCK AS SHOWN ON THE PLAN.
5. REMOVE THE PAVING AND BUILDING LOCATED AT THE FILTER SOCK SEDIMENT TRAP AND INSTALL THE FILTER SOCK TRAP.
6. ONCE THE TRAP AND OTHER PERIMETER CONTROLS ARE INSTALLED AND FUNCTIONING THEN DEMOLISH THE EXISTING BUILDING.
7. UPON COMPLETION OF THE BUILDING DEMOLITION THEN THE CONTRACTOR CAN REMOVE THE EXISTING BLACKTOP AND ROUGH GRADE THE SITE. INSTALL THE RETAINING WALL.
8. COMPLETE ROUGH GRADING AND INSTALL THE STORMWATER CONVEYANCE SYSTEM, CURB AND STONE BASE COURSE IN THE PAVING.
9. INSTALL THE PAVING BASE COURSE. ONCE STONE FOR PAVED ACCESS IS AVAILABLE THEN BUILDING CONSTRUCTION CAN COMMENCE. FINE GRADE THE SITE.
10. STABILIZE DISTURBED AREAS WITH ECB, PERMANENT SEED MIX AND MULCH.
11. INSTALL LANDSCAPING AND STABILIZE. THE INSTALLATION OF THE PROPOSED DECIDUOUS AND EVERGREEN TREES IS A CRITICAL STAGE. INSTALL FINISH PAVING.
12. ONCE THE SITE HAS ACHIEVED 70% UNIFORM STABILIZATION. CONTACT THE SITE ENGINEER FOR FINAL INSPECTION AND THE MCCD STAFF FOR THEIR FINAL INSPECTION. ONCE APPROVAL FROM MCCD IS OBTAINED, REMOVE COMPOST FILTER SOCK, FLUSH SEDIMENT AND SILT FROM STORM SEWER SYSTEM, AND REMOVE INLET PROTECTION.
13. FILE THE 'NOT'.

THE PCSWM PLAN/DESIGN PROVIDES THE FOLLOWING:

1. PRESERVE THE INTEGRITY OF STREAM CHANNELS AND MAINTAIN AND PROTECT AND PROTECT THE PHYSICAL, BIOLOGICAL AND CHEMICAL QUALITIES OF THE RECEIVING STREAM BY INSTALLING POST CONSTRUCTION STORMWATER MANAGEMENT BMP'S TO MAINTAIN THE RATE AND VOLUME OF RUNOFF LEAVING THE SITE TO LESS THAN PRE-DEVELOPED CONDITIONS.
2. PREVENT AN INCREASE IN THE RATE OF STORMWATER RUNOFF BY INSTALLING SURFACE AND SUBSURFACE SYSTEMS TO CONTROL THE DISCHARGE FROM THE SITE.
3. MINIMIZE ANY INCREASE IN STORMWATER RUNOFF BY CONSTRUCTING THE MINIMUM IMPERVIOUS SURFACE REQUIRED AND INSTALLING A RAIN GARDEN AND UNDERGROUND SYSTEM TO CONTROL THE VOLUME OF RUNOFF DISCHARGING FROM THE SITE.
4. MINIMIZE IMPERVIOUS AREAS BY CONSTRUCTING ONLY WHAT IS NECESSARY TO MEET CODE REQUIREMENTS.
5. MAXIMIZE THE PROTECTION OF EXISTING DRAINAGE FEATURES AND EXISTING VEGETATION BY DISCHARGING TO THE SWALE BELOW THE TRACT BOUNDARY AND LIMITING THE AMOUNT OF VEGETATION REMOVAL.
6. MINIMIZE LAND CLEARING AND GRADING ONLY DISTURBING THE AREA NECESSARY FOR SITE DEVELOPMENT.
7. MINIMIZE SOIL COMPACTION BY LIMITING THE AREA THAT IS DISTURBED/COMPACTED TO THE NECESSARY AREA.

NOTES:

THE PERMITTEE SHALL PROVIDE ENGINEERING CONSTRUCTION BY A PROFESSIONAL ENGINEER FOR THE PROPOSED STORMWATER BMPs. SHOULD GROUNDWATER OR BEDROCK BE ENCOUNTERED DURING CONSTRUCTION OF THE STORMWATER MANAGEMENT SYSTEM THE OWNER/ENGINEER MUST BE NOTIFIED AND THE SYSTEM SHOULD BE RELOCATED TO A MORE SUITABLE LOCATION.

PCSM REPORTING AND RECORDKEEPING. THE PCSM PLAN, INSPECTION REPORTS AND MONITORING RECORDS SHALL BE AVAILABLE FOR REVIEW AND INSPECTION BY THE DEPARTMENT OR THE CONSERVATION DISTRICT.

POST-CONSTRUCTION STORMWATER VOLUME REQUIRED

349 C.F.

PROPOSED BMP'S

*59 EVERGREEN (10 C.F./TREE) = 590 C.F.
*67 DECIDUOUS TREES (6 C.F./TREE) = 402 C.F.
TOTAL = 992 C.F.

*SEE LANDSCAPE/PCSM PLAN SHEET #7 FOR PROPOSED TREE LOCATIONS.

LANDSCAPING:

1. INSTALLATION OF THE DECIDUOUS AND EVERGREEN TREES IS CONSIDERED A CRITICAL STAGE OF CONSTRUCTION AND MUST BE INSPECTED BY A PROFESSIONAL ENGINEER.
2. THE TREES MUST BE INSPECTED EACH SPRING TO CHECK THE HEALTH OF THE TREE.
3. ANY DEAD LIMBS MUST BE REMOVED.
4. ANY TREE THAT HAS DIED MUST BE REPLACED WITH THE SAME SPECIES TREE.

PARKING LOT SWEEPING:

1. THE PARKING LOT MUST BE SWEPT A MINIMUM OF ONCE PER MONTH WITH A MECHANICAL OR VACUUM STREET SWEEPING DEVICE.
2. THE SWEEPING MUST BE CONDUCTED MID-MORNING OR OTHER TIME OF DAY WHEN THE MINIMUM AMOUNT OF CARS ARE PARKED ON SITE.
3. THE PROPERTY OWNER MUST KEEP A RECORD OF ALL STREET SWEEPING.

NPDES NOTICE OF TERMINATION REQUIREMENTS NOTES

A NOTICE OF TERMINATION (NOT) WILL BE REQUIRED TO BE SUBMITTED. PRIOR TO ACCEPTING THE NOT, THE DEPARTMENT AND/OR CONSERVATION DISTRICT STAFF WILL PERFORM A FINAL INSPECTION TO ENSURE SITE STABILIZATION AND VERIFY ADEQUATE INSTALLATION AND FUNCTION OF STORMWATER BMP's.

FINAL CERTIFICATION. THE PERMITTEE SHALL INCLUDE WITH THE NOTICE OF TEMINATION "RECORD DRAWINGS" WITH A FINAL CERTIFICATION STATEMENT FROM A LICENSED PROFESSIONAL, WHICH READS AS FOLLOWS:
"I (NAME) DO HEREBY CERTIFY PURSUANT TO THE PENALTIES OF 18 PA. C.S.A. 4904 TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF, THAT THE ACCOMPANYING RECORD DRAWINGS ACCURATELY REFLECT THE AS-BUILT CONDITIONS ARE TRUE AND CORRECT, AND ARE IN CONFORMANCE WITH CHAPTER 102 OF THE RULES AND REGULATIONS OF THE DEPARTMENT OF ENVIRONMENTAL PROTECTION AND THAT THE PROJECT SITE WAS CONSTRUCTED IN ACCORDANCE WITH THE APPROVED PCSM PLAN, ALL APPROVED PLAN CHANGES AND ACCEPTED CONSTRUCTION PRACTICES.
(1) THE PERMITTEE SHALL RETAIN A COPY OF THE RECORD DRAWINGS AS PART OF THE APPROVED PCSM PLAN.
(2) THE PERMITTEE SHALL PROVIDE A COPY OF THE RECORD DRAWINGS AS A PART OF THE APPROVED PCSM PLAN TO THE PERSON IDENTIFIED IN THIS SECTION AS BEING RESPONSIBLE FOR THE LONG-TERM OPERATION AND MAINTENANCE OF THE PCSM BMPs.

UPON PERMANENT STABILIZATION OF THE EARTH DISTURBANCE ACTIVITY UNDER § 102.22(a)(2) (RELATING TO PERMANENT STABILIZATION), AND INSTALLATION OF BMPs IN ACCORDANCE WITH AN APPROVED PLAN PREPARED AND IMPLEMENTED IN ACCORDANCE WITH §§102.4 AND 102.8 (RELATING TO EROSION AND SEDIMENT CONTROL REQUIREMENTS; AND PCSM REQUIREMENTS), THE PERMITTEE OR CO-PERMITTEE SHALL SUBMIT A NOTICE OF TERMINATION TO THE DEPARTMENT OR CONSERVATION DISTRICT.

THE NOTICE OF TERMINATION MUST INCLUDE:
(1) THE FACILITY NAME, ADDRESS AND LOCATION.
(2) THE OPERATOR NAME AND ADDRESS.
(3) THE PERMIT NUMBER.
(4) THE REASON FOR PERMIT TERMINATION.
(5) IDENTIFICATION OF THE PERSONS WHO HAVE AGREED TO AND WILL BE RESPONSIBLE FOR LONG-TERM OPERATION AND MAINTENANCE OF THE PCSM BMPs IN ACCORDANCE WITH §102.8(m) AND PROFF OF COMPLIANCE WITH §102.8(m)(2).

PRIOR TO ACCEPTING THE NOT, THE DEPARTMENT AND/OR CONSERVATION DISTRICT STAFF WILL PERFORM A FINAL INSPECTION AND APPROVE OR DENY THE NOTICE OF TERMINATION.

POST CONSTRUCTION STORMWATER MANAGEMENT SHORT TERM OPERATIONS AND MAINTENANCE REQUIREMENTS

UNTIL THE PERMITTEE OR CO-PERMITTEE HAS RECEIVED WRITTEN APPROVAL OF A NOTICE OF TEMINATION, THE PERMITTEE OR CO-PERMITTEE WILL REMAIN RESPONSIBLE FOR COMPLIANCE WITH THE PERMIT TERMS AND CONDITIONS INCLUDING LONG-TERM OPERATION AND MAINTENANCE OF ALL PCSM BMPs ON THE PROJECT SITE AND IS RESPONSIBLE FOR VIOLATIONS OCCURING ON THE PROJECT SITE.

THE PERMITTEE OR CO-PERMITTEE SHALL BE RESPONSIBLE FOR LONG-TERM OPERATION AND MAINTENANCE OF PCSM BMPs UNLESS A DIFFERENT PERSON IS IDENTIFIED IN THE NOTICE OF TERMINATION AND HAS AGREED TO LONG-TERM OPERATION AND MAINTENANCE OF PCSM BMPs.

FOR ANY PROPERTY CONTAINING A PCSM BMP, THE PERMITTEE OR CO-PERMITTEE SHALL RECORD AN INSTRUMENT WITH THE RECORDER OF DEEDS WHICH WILL ASSURE DISCLOSURE OF THE PCSM BMP AND THE RELATED OBLIGATIONS IN THE ORDINARY COURSE OF A TITLE SEARCH OF THE SUBJECT PROPERTY. THE RECORDED INSTRUMENT MUST IDENTIFY THE PCSM BMP, PROVIDE FOR NECESSARY ACCESS RELATED TO LONG-TERM OPERATION AND MAINTENANCE FOR PCSM BMP's AND PROVIDE NOTICE THAT THE RESPONSIBILITY FOR LONG-TERM OPERATION AND MAINTENANCE OF THE PCSM BMP IS A COVENANT THAT RUNS WITH THE LAND THAT IS BINDING UPON AND ENFORCEABLE BY SUBSEQUENT GRANTEES, AND PROVIDE PROOF OF FILING WITH THE NOTICE OF TERMINATION UNDER 102.7(b)(5) (RELATING TO PERMIT TERMINATION).

THE PERSON RESPONSIBLE FOR PERFORMING LONG-TERM OPERATION AND MAINTENANCE MAY ENTER INTO AN AGREEMENT WITH ANOTHER PERSON INCLUDING A CONSERVATION DISTRICT, NONPROFIT ORGANIZATION, MUNICIPALITY, AUTHORITY, PRIVATE CORPORATION OR OTHER PERSON, TO TRANSFER THE RESPONSIBILITY FOR PCSM BMPS OR PERFORM LONG -TERM OPERATION AND MAINTENANCE OF THE PCSM BMPs LOCATED ON THE PROPERTY.

A PERMITTEE OR CO-PERMITTEE THAT FAILS TO TRANSFER LONG-TERM OPERATION AND MAINTENANCE OF THE PCSM BMP OR OTHERWISE FAILS TO COMPLY WITH THIS REQUIREMENT SHALL REMAIN JOINTLY AND SEVERALLY RESPONSIBLE WITH THE LANDOWNER FOR LONG TERM OPERATION AND MAINTENANCE OF THE PCSM BMPs LOCATED ON THE PROPERTY.

POST-CONSTRUCTION LONG TERM OPERATION AND MAINTENANCE OF STORMWATER FACILITIES:

THE OPERATION AND MAINTENANCE OF THE BMP'S IS THE RESPONSIBILITY OF THE PROPERTY OWNER.

I THEODORE GACOMIS, P.E. ON THIS DATE: ________ HEREBY CERTIFY TO THE BEST OF MY KNOWLEDGE THAT THE SWM SITE PLAN MEETS ALL DESIGN STANDARDS AND CRITERIA OF THE UPPER MERION TOWNSHIP ORDINANCE NO. 2014-817, STORMWATER MANAGEMENT ORDINANCE.

SOIL USE TABLE

SOIL SYMBOL	SOIL TYPE	INFILTRATION POTENTIAL	DEPTH TO SEASONALLY HIGH WATER TABLE	DEPTH TO BEDROCK	HYDROLOGIC SOIL GROUP	LOW STRENGH/ LANDSLIDE PRONE	SOIL ERODIBILITY	POOR SOURCE OF TOPSOIL	HYDRIC SOIL	FROST ACTION
LaB & LaD	LANDSDALE	LOW	6+ FT	3.5 - 5'	B	NO	NO	YES	NO	MOD
PlC	PENN LANSDALE	LOW	5+ FT	2 - 3'	B	NO	NO	YES	NO	MOD
RwB	ROWLAND	LOW	5+ FT	6 - 7'	C	NO	NO	YES	NO	MOD
UuSD	URBAN LAND	HIGH	5+ FT	20" - 99"	B/D	YES	YES	YES	NO	NONE

SOIL RESOLUTION NOTES

1. SLOPES MUST NOT EXCEED 3:1 SLOPES TO ENSURE SLOPE STABILITY AND BE STABILIZED WITH VEGETATION OR EROSION CONTROL BLANKET TO PREVENT EROSION.
2. ALL DISTURBED AREAS MUST BE STABILIZED WITH SEED AND MULCH IF EARTH MOVING ACTIVITIES ARE NOT TO OCCUR IN NON GERMINATING PERIODS.
3. ADEQUATE TOPSOIL MUST BE INSTALLED ON DISTURBED AREAS FOLLOWING GRADING TO ENSURE VEGETATION CAN BE ESTABLISHED. TOPSOIL MUST BE BROUGHT TO SITE TO ENSURE SUFFICIENT TOPSOIL IS INSTALLED.
4. ANY WATER THAT IS ENCOUNTERED DURING CONSTRUCTION MUST BE PUMPED TO A DEWATERING FACILITY.
5. DURING COLD WEATHER THE APPROPRIATE MEASURES MUST BE TAKEN TO AVOID ISSUES CAUSED BY FROST.
6. DURING TRENCHING AND EXCAVATION OPERATIONS, ALL APPLICABLE OSHA STANDARDS AND REGULATIONS MUST BE IMPLEMENTED AT ALL TIMES.
7. VEGETATIVE SPECIES THAT ARE TOLERANT TO DRY CONDITIONS SHOULD BE SELECTED FOR LANDSCAPING.

SOILS CLASSIFICATION

LaB - LANSDALE LOAM 3 TO 8% SLOPES
LaD - LANSDALE LOAM 15 TO 25% SLOPES
PlC - PENN LANSDALE COMPLEX 8 TO 15% SLOPES
RwB - ROWLAND SILT LOAM 3 TO 8% SLOPES
UuSD - URBAN -LAND-UDORTHENTS, 8 TO 25% SLOPES

GRAPHIC SCALE: 30 0 30 60 90 120 FEET

11	3-2-2021	REVISED WALL LOCATION & FENCE
10	2-24-2021	NOT THIS SHEET
9	1-29-2021	REVISED WALL, GRADING AT WALL & NOTES
8	12-3-2020	ADDED FENCE AND NOTE
7	11-6-2020	REVISED PER SC ENGINEERS 11-6-20 COMMENTS
6	11-2-2020	RELOCATED UTILITY TIE-IN LOCATIONS
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4	6-16-2020	REVISED PER NPDES TECHNICAL REVIEW 5-28-20.
3	3-17-2020	REVISED PER TWP. ENG. COMMENTS 1-14-20 & NPDES LETTER 3-3-20.
2	2-4-2020	REVISED PER NPDES APPLICATION REQUIREMENTS & ADDED BUFFER NOTES
1	1-7-2020	REVISED PER TWP. ENGINEERS COMMENTS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL THEODORE JOSEPH GACOMIS ENGINEER NO. 031545-E

PRELIMINARY/FINAL POST CONSTRUCTION STORMWATER MANAGEMENT PLAN

LAND DEVELOPMENT PLAN FOR

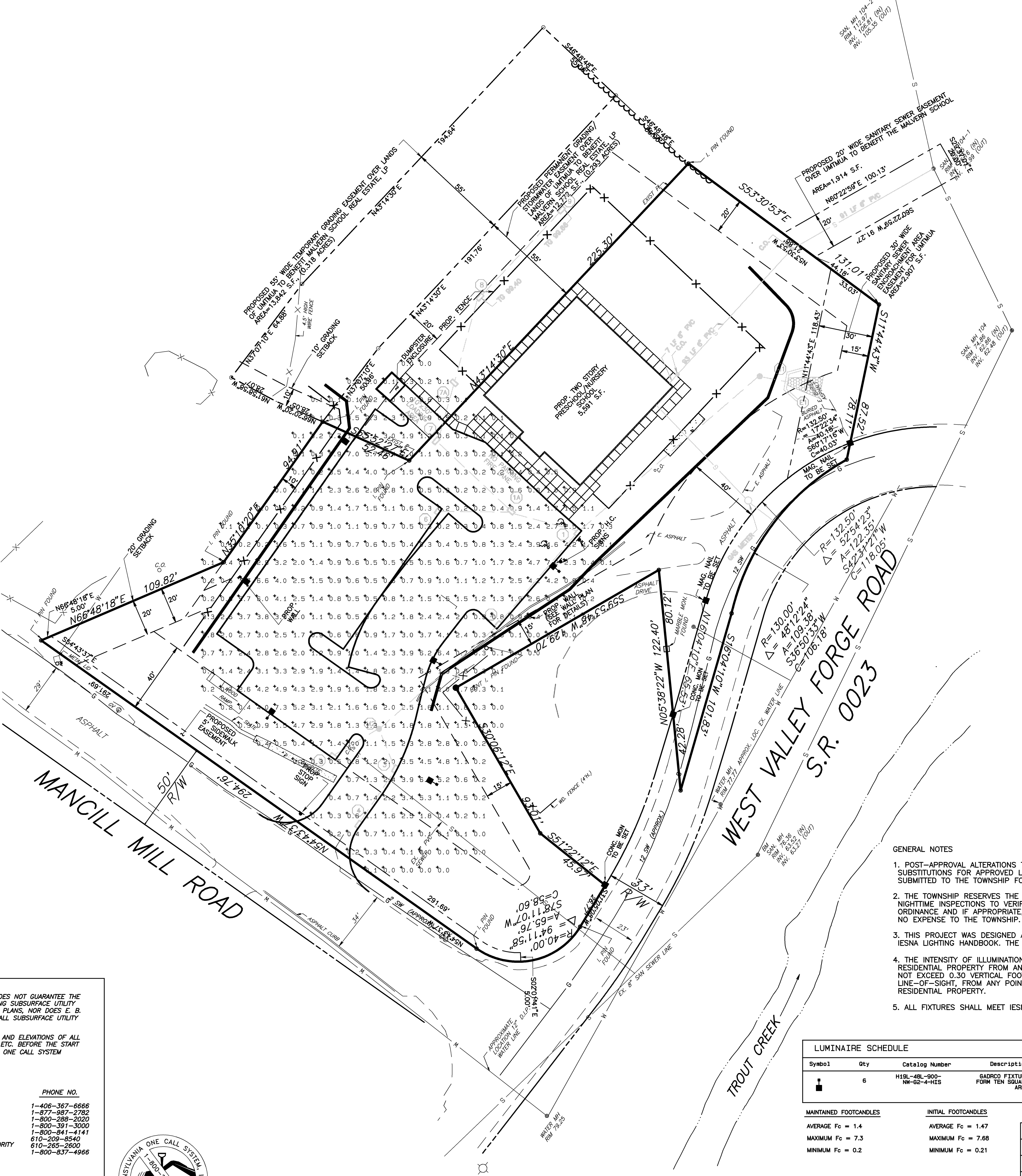
THE MALVERN SCHOOL

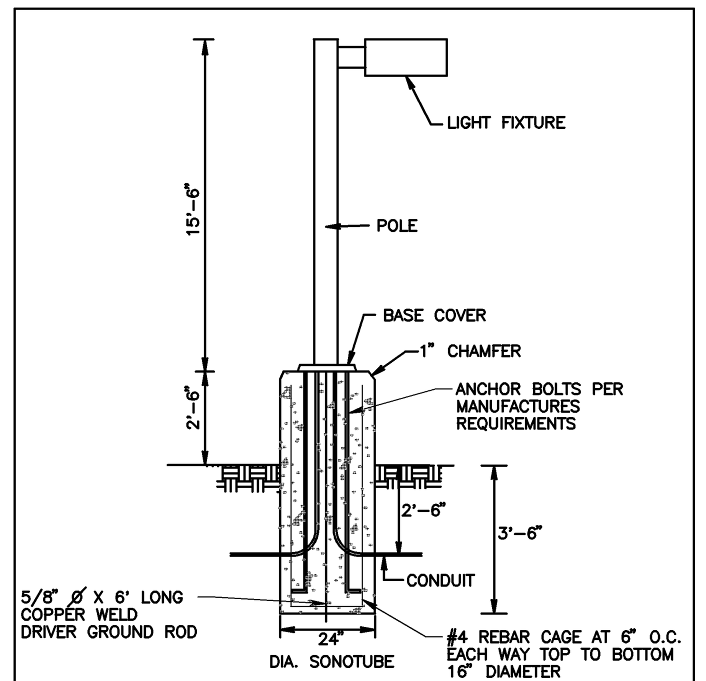
UPPER MERION TOWNSHIP — MONTGOMERY COUNTY, PA.

Edward B. Walsh & Associates, Inc.
CIVIL ENGINEERS & SURVEYORS
125 Dowlin Forge Road
Exton, Pennsylvania 19341
Phone (610) 903-0060
Fax (610) 903-0080

Project- 4524
Date- 12-19-17
Scale- 1"= 30'
Drawn- RBL
Checked- AE
Sheet- 5 OF 11

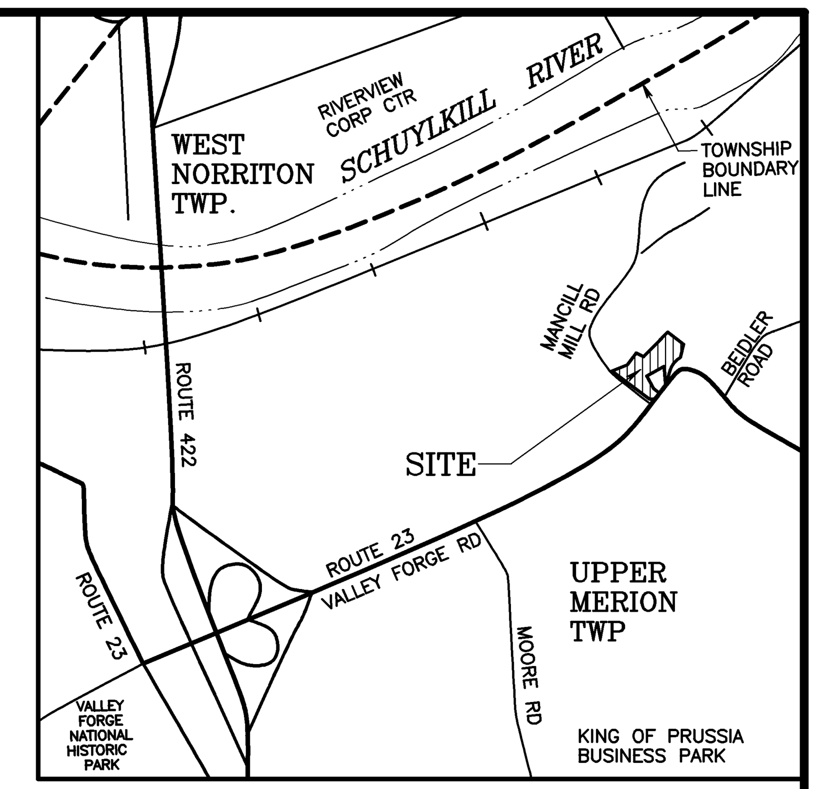
Plotted: 3/3/2021 File: F:\JB\4524\4524-B8.pro





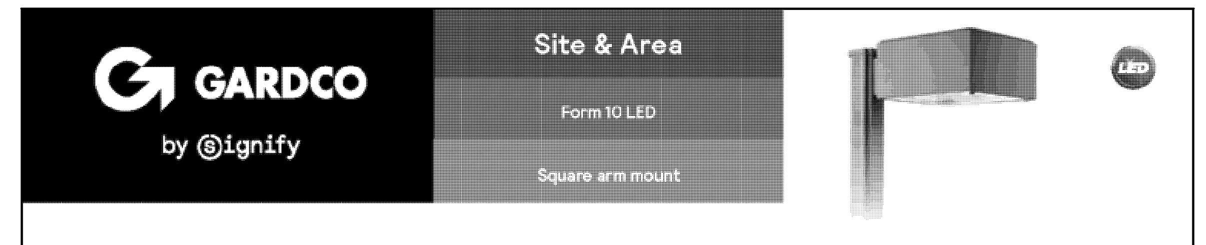
DETAIL LIGHT POLE FOUNDATION

N.T.S.



LOCATION MAP

SCALE: 1"=1000'



Gardco Form 10 LED square arm mount luminaires are cutoff area luminaires featuring LED arrays. These products provide performance excellence and feature advanced Gardco LED thermal management technology. High performance Class 1 LED systems offer the potential for energy savings up to 50 % when compared to HID systems. The EH units are manufactured from mitered extruded aluminum and finished in an Architectural Class 1 anodizing. Form 10 LED square luminaires provide full cutoff performance and feature a flat glass lens.

Project / Location / Cat. No / Type / Lamps / Qty / Notes

Ordering guide — example: EH14L-32L-450-NW-G2-AR1-2-120-DD-BK

Prefix	Number of LEDs	Drive Current	LED Color - Generation	Mounting	Distr.	Voltage	Controls	Electrical	Luminaire	Finish
EH14L 14" Square Extruded Luminaire LED	32L 32 LEDs	450 450mA; 900 900mA	NW-G2 Neutral White 4000K, 70CRI Generation 2	Arm mounts: AR1 for 3"-4.5" round pole[1]; AR2 for 4.5"+ round pole[1]; AR3 for square pole[1]	2 Type 2	120 120V	DD 0-10V Dimming Driver	Fusing: F1 Single (120, 277, 347VAC)[3]; F2 Double (208, 240, 480VAC)[3]; F3 Canadian Double Pull (208, 240, 480VAC)[3]	HIS	BRA Bronze Anodized; BLA Black Anodized; NA Natural Anodized
	48L 48 LEDs	700 700mA	WW-G2 Warm White 3000K, 70CRI Generation 2		3 Type 3; 4 Type 4; 5 Type 5	208 208V; 240 240V; 277 277V	Photoelectric/ Receptacle Systems (Twist Lock Receptacle): TLRD5 Twist Lock Receptacle 5 Pin[4]; TLRPC Twist Lock Receptacle with Photocell[3,4]	Pole Mount Fusing: FP1 Single (120, 277, 347VAC)[3]; FP2 Double (208, 240, 480VAC)[3]; FP3 Canadian Double Pull (208, 240, 480VAC)[3]	Internal House Side Shield[1]	BK Black paint; BZ Bronze paint; WH White paint
EH19L 19" Square Extruded Luminaire LED	48L 48 LEDs	900 900mA	CW-G2 Cool White 5700K, 70CRI Generation 2	Wall mount: WM1 with arm[1]; WM2 without arm[1]		347 347V; 480 480V		Surge Protection: SP1 Standard 10KVA; SP2 Increased 20KVA		MGY Medium Gray paint; RAL Specify optional color (ex: RAL7024)
	96L 96 LEDs	560 560mA; 650 650mA		Mast Arm Fitter: MA Mounts to a 2-3/8" O.D. mast arm[1]		UNV 120-277V 50hz/60hz; HVU 347-480V 50hz/60hz				CC Custom color (Must supply color chip for required factory quote)

Retrofit kit ordering guide

Prefix	Number of LEDs	Drive Current	LED Color - Generation	Distr.[2]	Voltage	Controls	Electrical
EH/H14L-RK 14" Square Retrofit Kit	32L 32 LEDs	450 450mA; 900 900mA	NW-G2 Neutral White 4000K, 70CRI Generation 2	2 Type 2; 3 Type 3	120 120V; 347 347V; 208 208V; 480 480V	DD 0-10V Dimming Driver	Surge Protection: SP1 Standard 10KVA; SP2 Increased 20KVA
EH/H19L-RK 19" Square Retrofit Kit	48L 48 LEDs	900 900mA	WW-G2 Warm White 3000K, 70CRI Generation 2	4 Type 4; 5 Type 5	240 240V; UNV 120-277V 50hz/60hz; 277 277V; HVU 347-480V 50hz/60hz		
	96L 96 LEDs	560 560mA	CW-G2 Cool White 5700K, 70CRI Generation 2				

1. Shipped as a separate accessory.
2. Types 2,3, and 4 optics are field rotatable; Type 5 optics feature unitized lens.
3. Must specify input voltage.
4. Works with 3-pin or 5-pin NEMA photocell/dimming device.
5. Not available in Type 5.

Form_10_EH_LED 02/19 page 1 of 3

GENERAL NOTES

1. POST-APPROVAL ALTERATIONS TO LIGHTING PLANS OR INTENTED SUBSTITUTIONS FOR APPROVED LIGHTING EQUIPMENT SHALL BE SUBMITTED TO THE TOWNSHIP FOR REVIEW AND APPROVAL.
2. THE TOWNSHIP RESERVES THE RIGHT TO CONDUCT POST-INSTALLATION NIGHTTIME INSPECTIONS TO VERIFY COMPLIANCE WITH THE ZONING ORDINANCE AND IF APPROPRIATE, TO REQUIRE REMEDIAL ACTION AT NO EXPENSE TO THE TOWNSHIP.
3. THIS PROJECT WAS DESIGNED ACCORDING TO THE 9th EDITION OF THE IESNA LIGHTING HANDBOOK. THE FOLLOWING CRITERIA WAS HELD.
4. THE INTENSITY OF ILLUMINATION PROJECTED ONTO A RESIDENTIAL PROPERTY FROM ANOTHER PROPERTY SHALL NOT EXCEED 0.30 VERTICAL FOOTCANDLE MEASURED LINE-OF-SIGHT, FROM ANY POINT ON THE ADJACENT RESIDENTIAL PROPERTY.
5. ALL FIXTURES SHALL MEET IESNA FULL CUTOFF CRITERIA.

LUMINAIRE SCHEDULE

Symbol	Qty	Catalog Number	Description	Lamp	Mounting Height	File	Lumens	LLF
■	6	H19L-48L-900-NW-G2-4-HIS	GADRCO FIXTURE FORM TEN SQUARE AREA	48 LED's 4000K	18'	H19L-48L-900 NW-G2-4-HIS.IES	ABSLOUTE	0.95

MAINTAINED FOOTCANDLES	INITIAL FOOTCANDLES
AVERAGE Fc = 1.4	AVERAGE Fc = 1.47
MAXIMUM Fc = 7.3	MAXIMUM Fc = 7.68
MINIMUM Fc = 0.2	MINIMUM Fc = 0.21

30 0 30 60 90 120 FEET

GRAPHIC SCALE

ACT 287 SERIAL NUMBER: 20191291708

EDWARD B. WALSH & ASSOCIATES, INC. DOES NOT GUARANTEE THE ACCURACY OF THE LOCATIONS FOR EXISTING SUBSURFACE UTILITY LINES, STRUCTURES, ETC. SHOWN ON THE PLANS, NOR DOES E. B. WALSH & ASSOC., INC. GUARANTEE THAT ALL SUBSURFACE UTILITY LINES, STRUCTURES, ETC. ARE SHOWN.

CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATIONS OF ALL SUBSURFACE UTILITY LINES, STRUCTURES, ETC. BEFORE THE START OF WORK, BY CALLING THE PENNSYLVANIA ONE CALL SYSTEM AT 1-800-242-1776.

UTILITIES	PHONE NO.
ABOVENET COMMUNICATIONS INC.	1-406-367-6666
AQUA PENNSYLVANIA INC	1-877-987-2782
AT&T	1-800-288-2020
COMCAST CABLE	1-800-391-3000
PECO ENERGY	1-800-841-4141
UPPER MERION TOWNSHIP	610-209-8540
UPPER MERION TWP MUNICIPAL UTILITY AUTHORITY	610-265-2600
VERIZON PENNSYLVANIA INC	1-800-837-4966

PENNSYLVANIA ONE CALL SYSTEM, INC. 1-800-242-1776 STOP-CALL BEFORE YOU DIG!

PARCEL NO. 58-0013342-00-1

PRELIMINARY/FINAL LIGHTING PLAN

No.	Date	Revision
11	3-2-2021	REVISED WALL LOCATION & FENCE
10	2-24-2021	NOT THIS SHEET
9	1-29-2021	REVISED WALL, GRADING AT WALL & NOTES
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LAND DEVELOPMENT PLAN
FOR
THE MALVERN SCHOOL

UPPER MERION TOWNSHIP — MONTGOMERY COUNTY, PA.

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL THEODORE JOSEPH GACOMIS ENGINEER NO. 031545-E

Edward B. Walsh & Associates, Inc.
CIVIL ENGINEERS & SURVEYORS
125 Dowlin Forge Road
Exton, Pennsylvania 19341
Phone (610) 903-0060
Fax (610) 903-0080

EBW

Project–	4524
Date–	5-28-19
Scale–	1"= 30'
Drawn–	RBL
Checked–	AE
Sheet–	6 OF 11

Plotted: 3/3/2021 File: F:\JB\4524\4524-B8.pro

LANDSCAPE NOTES:

1. PLANT LOCATIONS ARE APPROXIMATE. CONTRACTOR SHALL STAKE LOCATIONS FOR APPROVALS BY THE LANDSCAPE ARCHITECT PRIOR TO THE INSTALLATION OF ANY PLANT MATERIAL.
2. PROVIDE CONTINUOUS MULCH (3" THICK) IN ALL BEDDING AND GROUND COVER AREAS AND AT THE BASE OF SPECIMEN TREES.
3. SIZES OF PLANT MATERIAL GIVEN ARE TO BE CONSIDERED MINIMUM.
4. NO SUBSTITUTIONS FOR PLANT MATERIAL ARE ACCEPTABLE UNLESS APPROVED BY THE TOWNSHIP.
5. CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE, INCLUDING WATERING OF PLANT MATERIAL UNTIL JOB IS TURNED OVER TO OWNER.
6. CONTRACTOR SHALL LOOSEN SUBGRADE OF PLANTING BED AREAS TO A MINIMUM DEPTH OF TWENTY-FOUR INCHES (24") USING A CULTIMULCHER OR SIMILAR EQUIPMENT. REMOVE STONES ONE TO ONE AND A HALF INCHES (1 – 1 +") IN ANY DIMENSIONS AND STICKS, RUBBISH AND OTHER EXTRANEOUS MATTER.
7. WHEN CONDITIONS DETRIMENTAL TO PLANT GROWTH ARE ENCOUNTERED OR SUSPECTED, SUCH AS RUBBLE FILL, UNACCEPTABLE TOPSOIL, ADVERSE DRAINAGE CONDITIONS OR OTHER OBSTRUCTIONS, THE LANDSCAPE CONTRACTOR SHALL NOTIFY THE OWNER AND THE LANDSCAPE ARCHITECT IN WRITING BEFORE PLANTING ANY TREES, SHRUBS OR LAWN AREAS.
8. TREES AND SHRUBS SHALL BE TYPICAL OF THEIR SPECIES AND VARIETY; HAVE NORMAL GROWTH HABITS, WELL DEVELOPED, DENSELY FOLIATED BRANCHES, AND VIGOROUS, FIBROUS ROOT SYSTEMS.
9. TREES AND SHRUBS SHALL BE FREE FROM DEFECTS AND INJURIES AND CERTIFIED BY APPROPRIATE FEDERAL AND STATE AUTHORITIES TO BE FREE FROM DISEASES AND INSECT INFESTATIONS.
10. TREES AND SHRUBS SHALL BE FRESHLY DUG AND NURSERY GROWN. THEY SHALL HAVE BEEN GROWN UNDER CLIMATIC CONDITIONS SIMILAR TO THOSE IN LOCALITY OF THE PROJECT OR PROPERLY ACCLIMATED TO CONDITIONS OF THE LOCALITY OF THE PROJECT.
11. ALL PLANTING BEDS SHALL BE MULCHED WITH DOUBLE GROUND HARDWOOD MULCH INSTALLED AT A MINIMUM DEPTH OF THREE INCHES (3").
12. ALL CANOPY TREES MUST HAVE A SPREAD EQUAL TO FIFTY PERCENT (50%) OF THE HEIGHT.
13. ALL PLANTING BEDS WITHOUT SHRUB OR GROUND COVER PLANT MATERIAL SHALL BE PLANTED WITH A BLUE GRASS SEED MIX.
14. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL EXACT LOCATIONS AND ELEVATIONS OF ALL UNDERGROUND UTILITIES AND OTHER STRUCTURES BEFORE THE START OF CONSTRUCTION ON THIS PLAN.
15. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN THE FIELD PRIOR TO CONSTRUCTION AND REPORT ANY DISCREPANCIES TO THE OWNER AND/OR LANDSCAPE ARCHITECT.
16. THIS PLAN IS INTENDED FOR LANDSCAPE PURPOSES ONLY.
17. NO MORE THAN FIVE INCHES (5") OF SOIL SHALL BE PLACED AROUND THE TRUNKS OF TREES WHICH ARE TO REMAIN. FOR THOSE TREES WHICH ARE TO REMAIN, WHERE MORE THAN FIVE INCHES (5") OF SOIL ARE TO BE PLACED, TREE WELLS SHALL BE CONSTRUCTED TO PRESERVE SUCH TREES.
18. ALL SIZES AND GRADING STANDARD FOR PLANT MATERIALS SHALL CONFORM WITH THE LATEST EDITION OF AMERICAN STANDARD OF NURSERY STOCK AS SPONSORED BY THE AMERICAN ASSOCIATES OF NURSERYMEN, INC., AND APPROVED MAY 2, 1986 BY THE AMERICAN NATIONAL STANDARDS INSTITUTE, INC., OR THE LATEST REVISED EDITION OF THIS STANDARD.
19. TOPSOIL REMOVED BY GRADING OPERATIONS SHALL BE REDISTRIBUTED AND STABILIZED AS SOON AS POSSIBLE FOLLOWING THE COMPLETION OF A PHASE OF WORK OR THE ENTIRE PROJECT. ALL EXPOSED EARTH SURFACES SHALL BE STABILIZED BY THE FOLLOWING METHODS OR APPROVED EQUAL:
(A) SEEDING OR PLANTING OF SLOPES WITH A GRADIENT OF THIRTY PERCENT (30%) OR LESS STEEP.
(B) SODDING OR HYDRO SEEDING OF SLOPES WITH A GRADIENT OF THIRTY PERCENT (30%) OR MORE STEEP.
20. ALL TREES TO BE RETAINED SHALL BE PROTECTED DURING CONSTRUCTION FROM EQUIPMENT DAMAGE BY SNOW FENCING OR OTHER EFFECTIVE BARRIERS.
21. THE CONTRACTOR SHALL LABEL EACH TREE AND SHRUB WITH SECURELY ATTACHED WATERPROOF TAG BEARING LEGIBLE DESIGNATION OF BOTANICAL AND COMMON NAME.
22. ALL DISTURBED AREAS ARE TO BE SEEDED TO ESTABLISH A VIABLE LAWN.
23. ANY TREE OR SHRUB WITH DIES WITHIN EIGHTEEN (18) MONTHS OF THE DEDICATION OF PUBLIC IMPROVEMENTS OF OCCUPANCY SHALL BE REPLACED. ANY TREE OR SHRUB WHICH, WITHIN THE AFOREMENTIONED TIME PERIOD IS DEEMED, IN THE OPINION OF AN AGENT AUTHORIZED BY THE TOWNSHIP, NOT TO HAVE SURVIVED OR GROWN IN A MANNER CHARACTERISTIC OF ITS TYPE SHALL BE REPLACED. ANY SUBSTITUTIONS SHALL BE APPROVED BY THE TOWNSHIP.
24. CLEAR SIGHT TRIANGLES SHALL BE PROVIDED AT ALL STREET INTERSECTIONS. WITHIN SUCH TRIANGLES, NO VISION-OBSTRUCTING OBJECT SHALL BE PERMITTED WHICH OBSCURES VISION ABOVE THE HEIGHT OF 24 INCHES AND BELOW 10 FEET, MEASURED FROM THE CENTERLINE GRADE OF INTERSECTING STREETS. EACH SIDE OF THE SIGHT TRIANGLE SHALL BE A MINIMUM OF 75 FEET, MEASURED FROM THE POINT OF INTERSECTION ALONG EACH ROAD CENTERLINE.
25. TREES ARE TO BE LOCATED OUTSIDE THE R-O-W. (MIN. DISTANCE = 2 FT)
26. ALL SHRUBS ARE TO BE PLANTED MASSED TOGETHER IN MULCHED PLANTING BED.
27. ALL STAKES AND STRAPS AT THE TREES MUST BE REMOVED AFTER ONE YEAR.
28. ALL PLANTS SHALL CONFORM WITH THE STANDARDS FOR NURSERY STOCK OF AMERICAN ASSOCIATION OF NURSERYMEN.
29. PLANTING SOIL SHALL CONSIST OF 4 PARTS ORGANIC TOPSOIL, 1 PART PEAT HUMUS, 1 PART WASHED SAND.
30. TOPSOIL SHALL HAVE THE FOLLOWING COMPOSITION AND MAKE UP:
    - BE FRIABLE
    - SHALL CONTAIN ORGANIC MATTER SUITABLE TO SUPPORT PLANT LIFE, INCLUDING A COMPOSITION OF APPROXIMATELY 5–10% SAND, 7–16% ORGANIC MATERIAL, NO MORE THAN 30% WEIGHT OF CLAY.
    - SHALL BE WEED FREE (ABSENCE OF LIVING/DYING WEED CONTAMINANT)
    - SHALL HAVE LESS THAN 2% BY WEIGHT OF UNWANTED MATERIALS SUCH AS STONES (NO LARGER THAN 12mm IN DIAMETER IN THE TOP 50mm, CONCRETE, STEEL, CLAY LUMPS, TREE ROOTS, STICKS OR OTHER INORGANIC MATERIAL.
31. NO TREES SHALL BE PLANTED CLOSER THAN FIFTEEN (15) FEET FROM THE FIRE HYDRANTS OR STOP SIGNS.
32. NO TREES SHALL BE PLACED WITH THEIR CENTERS LESS THAN FIVE (5) FEET FROM ANY PROPERTY LINE AND NO SHRUBS WITH THEIR CENTERS LESS THAN THREE (3) FEET FROM ANY PROPERTY LINE.
33. EXISTING TREES AND SHRUBS AT THE CORNER OF AN INTERSECTION OF STREETS AND/OR DRIVEWAYS, SHALL BE CUT TO THE HEIGHT OF TWENTY-FOUR INCHES (24") FROM POINT OF INTERSECTION OF CORNER PROPERTY LINES BACK SEVENTY-FIVE FEET (75') TO AVOID BLOCKING SIGHT DISTANCE TO ONCOMING TRAFFIC; AND SHRUBS OR GROUNDCOVERS TO BE PLANTED SHALL BE OF THE DWARF VARIETY AND SHALL NOT EXCEED TWENTY-FOUR INCHES (24") IN HEIGHT AT MATURITY.
34. ALL TREES ALONG THE RIGHT-OF-WAY OF ANY PROPERTY SHALL BE KEPT TRIMMED NINE FEET (9') ABOVE ANY SIDEWALK AND ELEVEN FEET (11') ABOVE ALL STREETS.
35. PROPER SIGHT LINES SHALL BE MAINTAINED AT ALL INTERSECTIONS OF STREETS. THERE SHALL BE A CLEAR SIGHT TRIANGLE MEASURING SEVENTY-FIVE FEET (75') ALONG THE INTERSECTING STREET LINES FROM THE POINT OF INTERSECTION INDICATING ON THE PLAN, THAT IS MAINTAINED FREE AND CLEAR OF STRUCTURES, SIGNS AND OTHER VISUAL OBSTRUCTIONS.
36. ALL TREES TO BE RETAINED WITHIN TWENTY-FIVE FEET (25') OF A BUILDING, PARKING OR OTHER PROPOSED IMPROVEMENTS SHALL BE PROTECTED DURING CONSTRUCTION FROM EQUIPMENT DAMAGE BY SNOW FENCING OR OTHER EFFECTIVE BARRIERS.
37. ALL PLANTING BEDS, LAWN AREAS AND TREE BASES ARE TO BE TOP DRESSED WITH 4" OF ORGANIC TOPSOIL.

ACT 287 SERIAL NUMBER: 20191291708

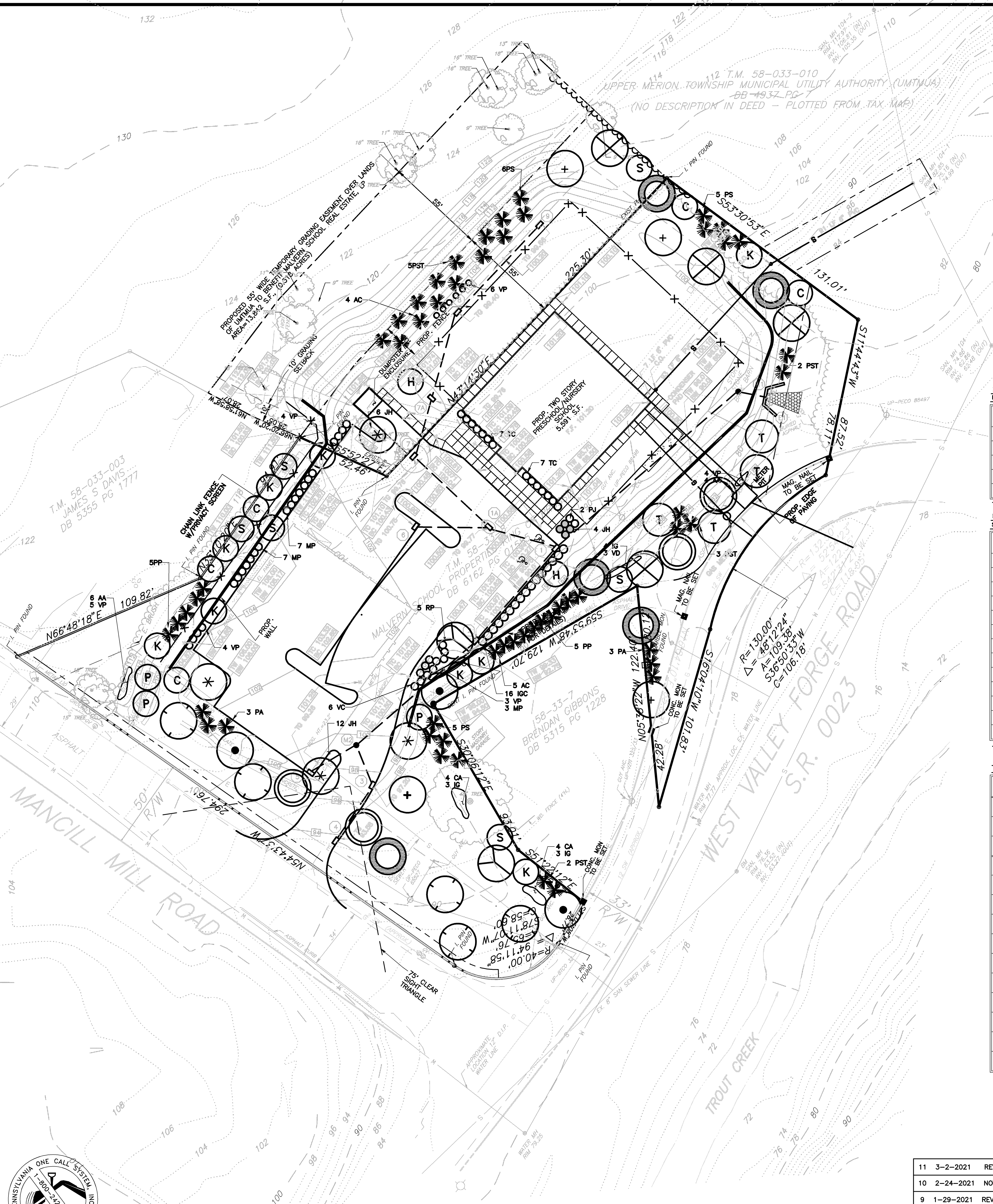
EDWARD B. WALSH & ASSOCIATES, INC. DOES NOT GUARANTEE THE ACCURACY OF THE LOCATIONS FOR EXISTING SUBSURFACE UTILITY LINES, STRUCTURES, ETC. SHOWN ON THE PLANS, NOR DOES E. B. WALSH & ASSOC., INC. GUARANTEE THAT ALL SUBSURFACE UTILITY LINES, STRUCTURES, ETC. ARE SHOWN.

CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATIONS OF ALL SUBSURFACE UTILITY LINES, STRUCTURES, ETC. BEFORE THE START OF WORK, BY CALLING THE PENNSYLVANIA ONE CALL SYSTEM AT 1-800-242-1776.

UTILITIES	PHONE NO.
ABOVENET COMMUNICATIONS INC.	1-406-367-6666
AQUA PENNSYLVANIA INC	1-877-987-2782
AT&T	1-800-288-2020
COMCAST CABLE	1-800-391-3000
PECO ENERGY	1-800-841-4141
UPPER MERION TOWNSHIP	610-209-8540
UPPER MERION TWP MUNICIPAL UTILITY AUTHORITY	610-265-2600
VERIZON PENNSYLVANIA INC	1-800-837-4966

PENNSYLVANIA ONE CALL SYSTEM, INC. 1-800-242-1776 STOP-CALL BEFORE YOU DIG!

PARCEL NO. 58-0013342-00-1



30 0 30 60 90 120 FEET

GRAPHIC SCALE

LANDSCAPE REQUIREMENTS

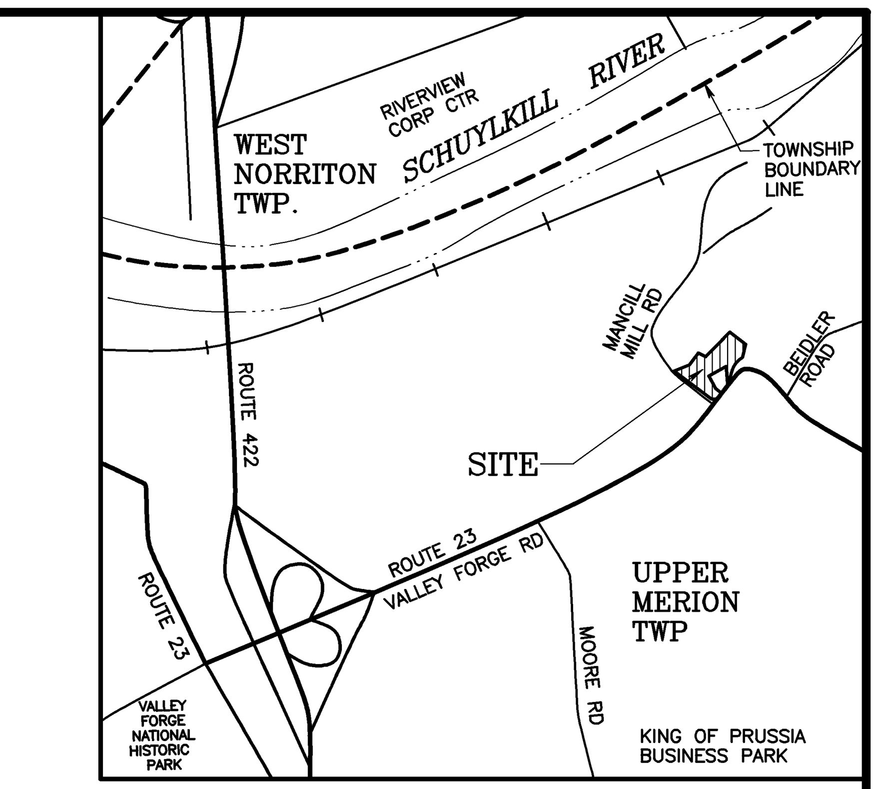
1. PARKING LOT LANDSCAPING
   1 TREE/10 PS
   50 PS = 5 TREES
2. STREET TREES
   1 TREE/40 LF OF FRONTAGE
   WEST VALLEY FORGE ROAD = 255 LF = 6 TREES
   MANCILL ROAD = 330 LF = 8 TREES
3. BUILDING LANDSCAPING
   1 CANOPY TREE/50' BUILDING PERIMETER
   BUILDING PERIMETER = 320'/50 = 6 TREES
   5 DECIDUOUS OR EVERGREEN SHRUBS/20' BUILDING
   BUILDING PERIMETER = 320'/20 x (5) = 80 SHRUBS

SCREENING BUFFER

	EVERGREEN TREES	UNDERSTORY TREES	CANOPY TREES	SHRUBS
1. GIBBONS LOT				
140' LOT LINE	11	3	3	14
130' LOT LINE	10	3	3	13
80' LOT LINE	6	2	2	8
2. DAVIS LOT				
110' LOT LINE	9	2	2	11
60' LOT LINE	5	1	1	6

SOFTENING BUFFER

	EVERGREEN TREES	UNDERSTORY TREES	CANOPY TREES	SHRUBS
260' LOT LINE	5	5	5	3
240' LOT LINE	5	5	5	2
80' LOT LINE	2	2	2	1



LOCATION MAP

SCALE: 1"=1000'

PLANT SCHEDULE EVERGREEN

SYMBOL	QTY.	BOTANICAL NAME	COMMON NAME	HEIGHT	CONDITION
AC	9	Abies Concolor	White Fir	6'	B & B
PA	6	Picea Abies	Norway Spruce	6'	B & B
PP	10	Picea Pungens Glauca	Colorado Blue Spruce	6'	B & B
PS	16	Pinus Strobus	Eastern White Pine	6'	B & B
PST	12	Pseudotsuga Taxifolia	Douglas Fir	6'	B & B

TOTAL = 53

PLANT SCHEDULE SHRUBS

SYMBOL	QTY.	BOTANICAL NAME	COMMON NAME	HEIGHT	CONDITION
AA	10	Aronia Arbutifolia Brillantissima	Red Chokeberry	2 1/2'–3'	B & B
CA	8	Cornus Alba Elegantissima	Silver Variegated Dogwood	2 1/2'–3'	B & B
IGC	15	Ilex Glabra Compacta	Dwarf Inkberry	2–2 1/2'	B & B
IG	10	Ilex Glabra	Inkberry	2 1/2'–3'	B & B
JH	22	Juniperus Horizontalis Plumosa Compacta	Compact Andorra Juniper	24"–30"	B & B
MP	17	Myrica Pennsylvania	Northern Bayberry	2 1/2'–3'	B & B
PJ	2	Pieris Japonica Mountain Fire	Mountain Fire Andromeda	2'–2 1/2'	B & B
RP	5	Rhododendron P.J.M. Compactum	Compact P.J.M. Rhododendron	2'–2 1'/2'	B & B
TC	14	Taxus Cuspidata Densiformis	Dense Yew	2'–2 1'/2'	B & B
VC	6	Viburnum Carlessi	Korean Spice Viburnum	2'–2 1'/2'	B & B
VD	3	Viburnum Dentatum	Arrowwood	2 1/2'–3'	B & B
VP	20	Viburnum Pragense	Prague Viburnum	2 1/2'–3'	B & B
VR	6	Viburnum Rhytidophyllum	Leather Leaf Viburnum	2 1/2'–3'	B & B

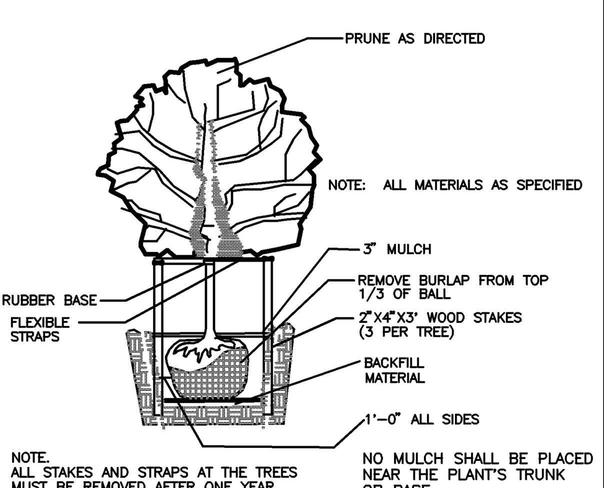
TOTAL = 138

PLANT SCHEDULE DECIDUOUS TREES

SYMBOL	QTY.	BOTANICAL NAME	COMMON NAME	HEIGHT	CALIPER	CONDITION
(double circle)	4	Acer Rubrum Red Sunset	Red Sunset Maple	10'–12'	2 1/2"	B & B
(circle with dot)	3	Platanus X Acerifolia Bloodgood	Bloodgood London Planetree	10'–12'	2 1/2"	B & B
(circle with +)	4	Quercus Coccinea	Scarlet Oak	10'–12'	2 1/2"	B & B
(shaded ring)	5	Quercus Palustris	Pin Oak	10'–12'	2 1/2"	B & B
(circle with cross)	4	Liriodendron Tulipifera	Tuliptree	10'–12'	2 1/2"	B & B
(circle with *)	4	Gleditsia Tria Inermis Shademaster	Shademaster Honeylocust	10'–12'	2 1/2"	B & B
(circle with Y)	2	Acer Rubrum October Glory	October Glory Red Maple	10'–12'	2 1/2"	B & B
(circle with ticks)	5	Acer Campestre	Hedge Maple	10'–12'	2 1/2"	B & B
C	5	Cercis Canadensis	American Redbud	6'–8'	1 1/2"	B & B
H	2	Halesia Carolina	Carolina Silverbell	10'–12'	2 1/2"	B & B
K	9	Cornus Kousa	Kousa Dogwood	6'–8'	1 1/2"	B & B
P	3	Prunus Sargentii Columnaris	Columnar Sargent Cherry	6'–8'	1 1/2"	B & B
S	6	Oxydendrum Arboreum	Sourwood	6'–8'	1 1/2"	B & B
T	4	Tilia Cordata Greenspire	Greenspire Littleleaf Linden	10'–12'	2 1/2"	B & B

TOTAL = 61

TOTAL REQUIRED DECIDUOUS TREES = 71
DECIDUOUS TREES PROVIDED = 61
CREDIT FOR 10 EXISTING TREES TO BE SAVED
NUMBER OF TREES = 61
NUMBER OF SPECIES = 11 (MAXIMUM PERMITTED = 20%)
MAXIMUM NUMBER OF ANY ONE SPECIES = 11 MAPLES = 18%



NOTE.
ALL STAKES AND STRAPS AT THE TREES MUST BE REMOVED AFTER ONE YEAR.

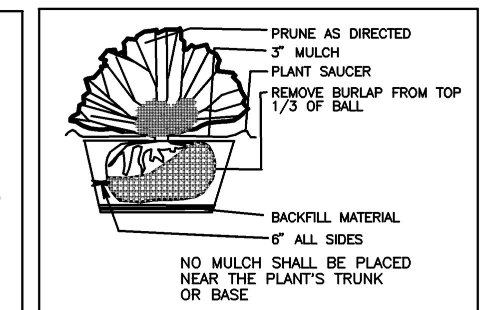
NO MULCH SHALL BE PLACED NEAR THE PLANT'S TRUNK OR BASE

TYPICAL DECIDUOUS TREE PLANTING DETAIL

NOT TO SCALE

BACKFILL MIXTURE

CONSIST OF FOUR PARTS BY VOLUME OF ORGANIC TOPSOIL MIXED WITH ONE PART PEAT HUMUS.



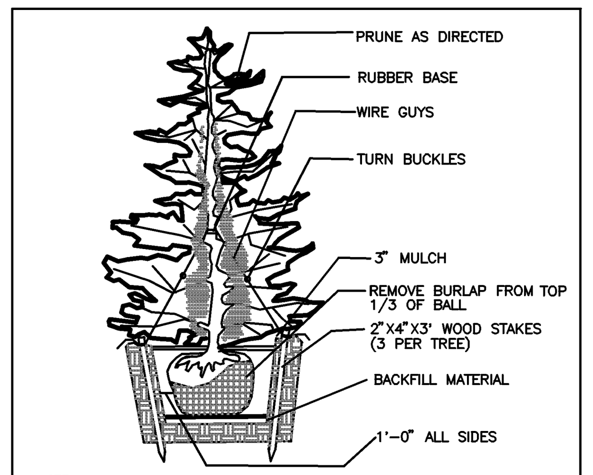
NO MULCH SHALL BE PLACED NEAR THE PLANT'S TRUNK OR BASE

TYPICAL SHRUB PLANTING DETAIL

NOT TO SCALE

BACKFILL MIXTURE

CONSIST OF FOUR PARTS BY VOLUME OF ORGANIC TOPSOIL MIXED WITH ONE PART PEAT HUMUS.



NOTE.
ALL STAKES AND STRAPS AT THE TREES MUST BE REMOVED AFTER ONE YEAR.

TYPICAL EVERGREEN TREE PLANTING DETAIL

NOT TO SCALE

BACKFILL MIXTURE

CONSIST OF FOUR PARTS BY VOLUME OF ORGANIC TOPSOIL MIXED WITH ONE PART PEAT HUMUS.

LANDSCAPE MAINTENANCE GUIDELINES

1. ALL PLANTING AREAS, INCLUDING LAWNS, BUFFERS, AND PARKING LOTS SHALL BE PERIODICALLY INSPECTED A MINIMUM OF ONCE PER MONTH. A FALL CLEANUP SHALL BE PERFORMED EACH YEAR.
2. REMOVE ALL LITTER, DEBRIS, AND WEEDS.
3. MAINTAIN A MINIMUM OF A 2 INCH DEPTH OF ORGANIC HARDWOOD MULCH OR EQUIVALENT IN ALL PLANTING BEDS
4. PRUNING: ALL PRUNING SHALL BE DONE IN ACCORDANCE WITH ANSI PRUNING STANDARDS. REMOVAL OF DEAD, DISEASED, INSECT INFESTED OR WEAK WOOD SHALL TAKE PLACE WHEN APPROPRIATE FOR THE SPECIES. EXCESSIVE SHOOTS AND SUCKERS SHALL BE REMOVED.
5. INSECT AND DISEASE CONTROL: THE CONTROL OF INSECTS AND DISEASE ASSOCIATED WITH ALL PLANTING AREAS SHALL BE A MAINTENANCE PRIORITY. ALL PLANTINGS, INCLUDING EXISTING MATURE TREES, SHALL BE PERIODICALLY INSPECTED FOR INSECT OR DISEASE INFESTATION. METHODS USED TO CONTROL INSECTS OR DISEASE MAY RANGE FROM SPRAYING AND PRUNING TO PLANT REMOVAL. SAFETY AND CONTROL SHALL BE OF PRIME CONCERN. TRAINED AND CERTIFIED PERSONNEL SHALL PERFORM THESE TASK.
6. RENOVATION:
   a. RENOVATION INCLUDES THE RESEEDING OR REPLANTING OF LANDSCAPE AREAS DAMAGED, DESTROYED OR FAILING DUE TO INSECTS, DISEASE, WEATHER OR PHYSICAL DAMAGE.
   b. ALL LAWN AREAS WHERE SOIL HAS BEEN EXPOSED SHALL BE RENOVATED DURING THE NEXT PLANTING SEASON, PROPER HORTICULTURAL AND SOIL EROSION PREVENTION METHODS SHALL BE USED. IF SOIL EROSION HAS OCCURED, THE AREA SHALL BE REPAIRED WITH A SEED MIXTURE COMPATIBLE WITH EXISTING SOIL.
   c. ALL PLANTINGS WHICH ARE DAMAGED OR DESTROYED SHALL BE REPLACED DURING OR BEFORE THE NEXT GROWING SEASON.
   d. CARE SHALL BE TAKEN TO AVOID DAMAGE TO ESTABLISHED TREE ROOTS DURING RENOVATION OF LANDSCAPING.

PRELIMINARY/FINAL LANDSCAPE/PCSM PLAN

11	3-2-2021	REVISED WALL LOCATION & FENCE
10	2-24-2021	NOT THIS SHEET
9	1-29-2021	REVISED WALL, GRADING AT WALL & NOTES
8	12-3-2020	ADDED FENCE AND NOTE
7	11-6-2020	REVISED PER SC ENGINEERS 11-6-20 COMMENTS
6	11-2-2020	RELOCATED UTILITY TIE-IN LOCATIONS
5	9-25-2020	REVISED GRADES & GRADING SETBACK
4	6-16-2020	REVISED PER NPDES TECHNICAL REVIEW 5-28-20.
3	3-17-2020	REVISED PER TWP. ENG. COMMENTS 1-14-20 & NPDES LETTER 3-3-20.
2	2-4-2020	REVISED PER NPDES APPLICATION REQUIREMENTS & ADDED BUFFER NOTES
1	1-7-2020	REVISED PER TWP. ENGINEERS COMMENTS

LAND DEVELOPMENT PLAN
FOR
THE MALVERN SCHOOL

UPPER MERION TOWNSHIP — MONTGOMERY COUNTY, PA.

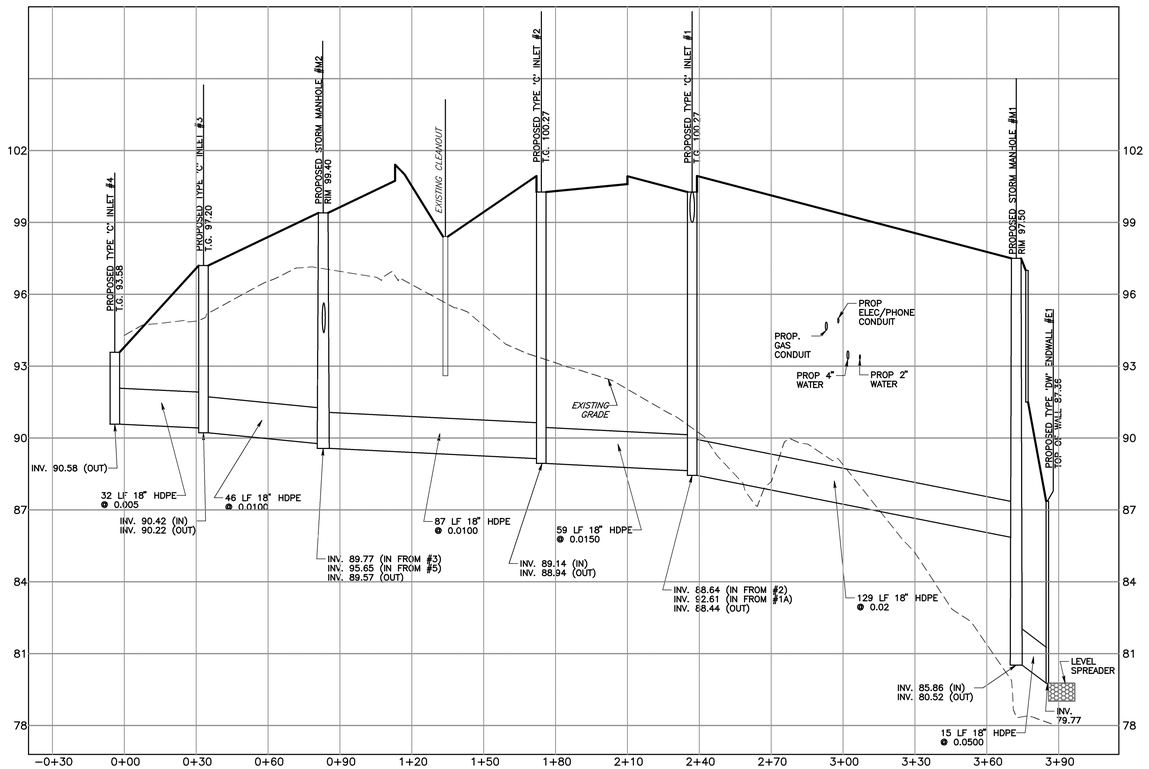
PENNSYLVANIA REGISTERED LANDSCAPE ARCHITECT FRANCIS X. DIGIAN REGISTRATION NUMBER 749-R

Edward B. Walsh & Associates, Inc.
CIVIL ENGINEERS & SURVEYORS

125 Dowlin Forge Road
Exton, Pennsylvania 19341
Phone (610) 903-0060
Fax (610) 903-0080

Project– 4524
Date– 12-19-17
Scale– 1"= 30'
Drawn– RBL
Checked– AE
Sheet–7 OF 11

Plotted: 3/3/2021 *File:* F:\JB\4524\4524-B8.pro



STORM SEWER PROFILE
INLET #4 TO ENDWALL #E1

SCALE
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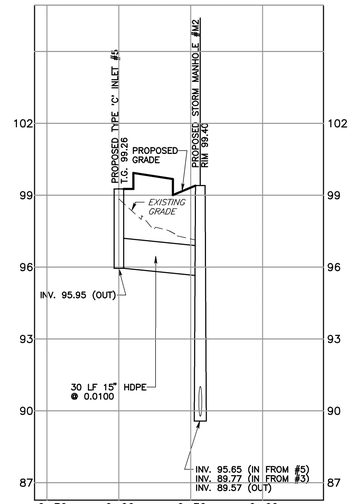

STORM SEWER PROFILE
INLET #5 TO MANHOLE #M2

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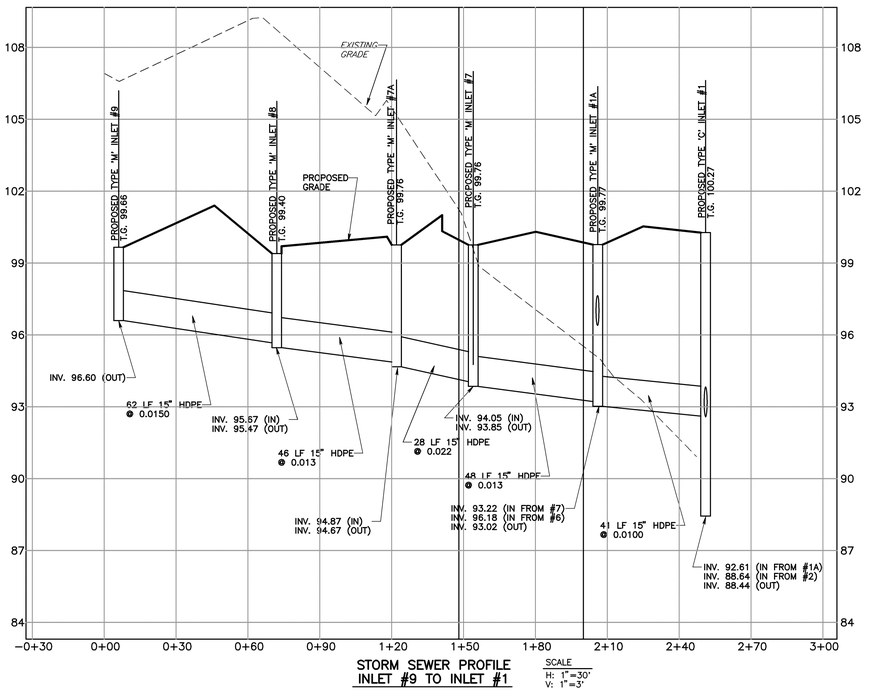

STORM SEWER PROFILE
INLET #9 TO INLET #1

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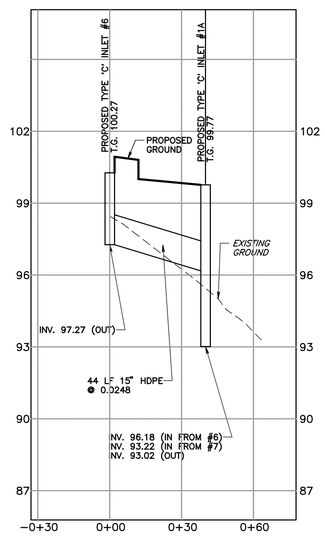


STORM SEWER PROFILE
INLET #6 TO MANHOLE #M3

SCALE
H: 1"=30'
V: 1"=3'

PRELIMINARY/FINAL PROFILES

4	6-16-2020	REVISED PER NPDES TECHNICAL REVIEW 5-28-20.
3	3-17-2020	REVISED PER TWP. ENG. COMMENTS 1-14-20 & NPDES LETTER 3-3-20.
2	2-4-2020	REVISED PER NPDES APPLICATION REQUIREMENTS & ADDED BUFFER NOTES
1	1-7-2020	REVISED PER TWP. ENGINEERS COMMENTS

11	3-2-2021	NOT THIS SHEET
10	2-24-2021	NOT THIS SHEET
9	1-29-2021	REVISED WALL, GRADING AT WALL & NOTES
8	12-3-2020	ADDED FENCE AND NOTE
7	11-6-2020	REVISED PER SC ENGINEERS 11-6-20 COMMENTS
6	11-2-2020	RELOCATED UTILITY TIE-IN LOCATIONS
5	9-25-2020	REVISED GRADES & GRADING SETBACK

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
THEODORE JOSEPH SIKOMIS
ENGINEER
NO. 031545-E

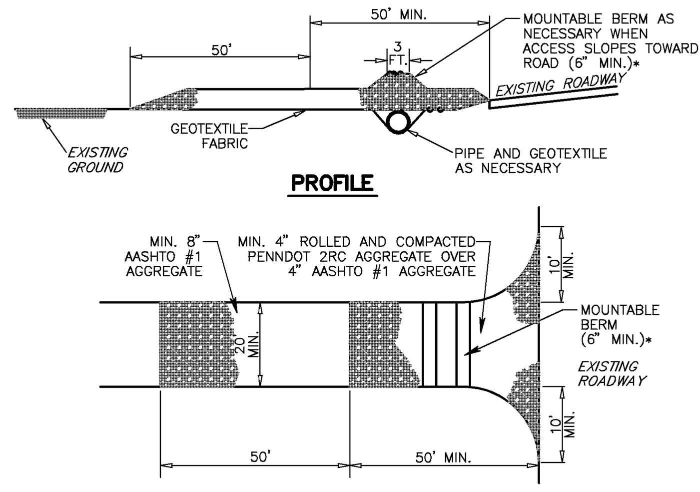
PLAN OF PROPERTY
FOR
THE MALVERN SCHOOL

UPPER MERION TOWNSHIP — MONTGOMERY COUNTY, PA.

Edward B. Walsh & Associates, Inc.
CIVIL ENGINEERS & SURVEYORS
125 Dowlin Forge Road
Exton, Pennsylvania 19341
Phone (610) 903-0060
Fax (610) 903-0080

Project-	4524
Date-	5-28-19
Scale-	AS NOTED
Drawn-	RBL
Checked-	AE
Sheet-	8 OF 11

Plotted: 3/3/2021 — File: F:\JB\4524\4524-B8.pro



NOTES:

REMOVE TOPSOIL PRIOR TO INSTALLATION OF ROCK CONSTRUCTION ENTRANCE.

RUNOFF SHALL BE DIVERTED FROM ROADWAY TO A SUITABLE SEDIMENT REMOVAL BMP PRIOR TO ENTERING ROCK CONSTRUCTION ENTRANCE.

MOUNTABLE 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.

INSTALLATION SEQUENCE:

1. PREPARE SURFACE BY REMOVING ANY DEBRIS AND TOPSOIL.
2. EXTEND ROCK OVER FULL WIDTH OF ENTRANCE.
3. UPON REMOVAL OF CONSTRUCTION ENTRANCE, REMOVE STONE AS NEEDED AND STABILIZE ACCORDINGLY DEPENDENT ON THE PERMANENT USE OF THE AREA.

MAINTENANCE NOTES:

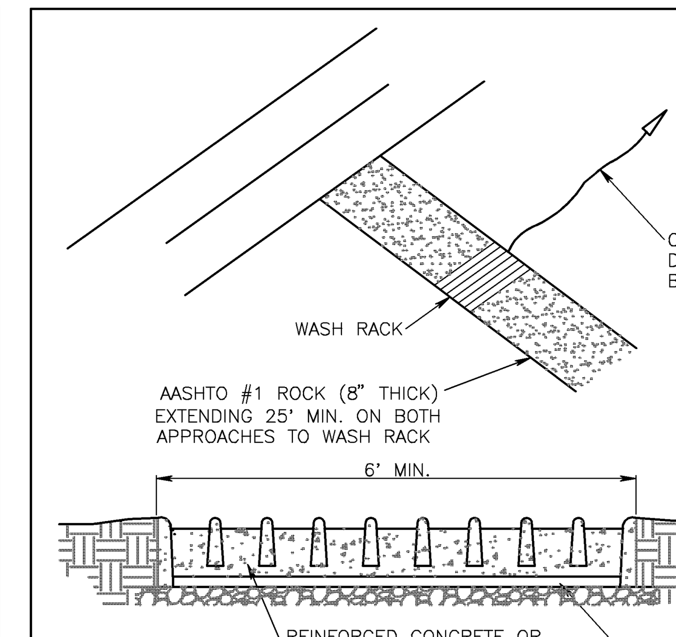
MAINTENANCE: ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE. ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE IMMEDIATELY. IF EXCESSIVE 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.

INSPECTIONS:

INSPECTIONS MUST BE PERFORMED AFTER EACH RUNOFF EVENT AND ON A DAILY 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. THE INSPECTION LOG WILL BE KEPT ON SITE AT ALL TIMES AND MADE AVAILABLE TO THE DISTRICT UPON REQUEST.

STANDARD CONSTRUCTION DETAIL #3-1 ROCK CONSTRUCTION ENTRANCE

NOT TO SCALE



NOTES:

WASH RACK SHALL BE 20 FEET (MIN.) WIDE OR TOTAL WIDTH OF ACCESS.

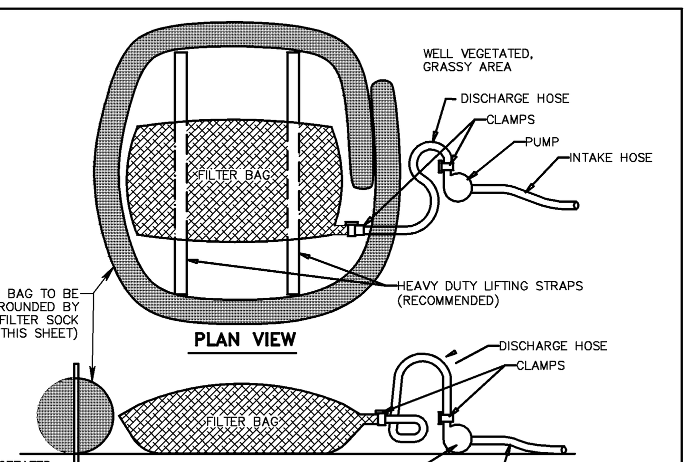
WASH RACK SHALL BE DESIGNED AND CONSTRUCTED TO ACCOMMODATE ANTICIPATED CONSTRUCTION VEHICULAR TRAFFIC.

A WATER SUPPLY SHALL BE MADE AVAILABLE TO WASH THE WHEELS OF ALL VEHICLES EXITING THE SITE.

MAINTENANCE: ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE OF ROCK MATERIAL SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE. DRAIN SPACE UNDER WASH RACK SHALL BE KEPT OPEN AT ALL TIMES. DAMAGE TO THE WASH RACK SHALL BE REPAIRED PRIOR TO FURTHER USE OF THE RACK. ALL SEDIMENT DEPOSITED ON ROADWAYS SHALL 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.

STANDARD CONSTRUCTION DETAIL #3-2 ROCK CONSTRUCTION ACCESS WITH WASH RACK

NOT TO SCALE



NOTES:

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

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.

NO DOWNSLOPE SEDIMENT BARRIER IS REQUIRED FOR MOST INSTALLATIONS. COMPOST BERM OR COMPOST FILTER SOCK SHALL BE INSTALLED BELOW BAGS LOCATED IN HQ OR EV WATERSHEDS, WITHIN 50 FEET OF ANY RECEIVING SURFACE WATER OR WHERE GRASSY AREA IS NOT AVAILABLE.

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.

THE PUMPING RATE SHALL BE NO GREATER THAN 750 GPM OR 1/2 THE MAXIMUM SPECIFIED BY THE MANUFACTURER, WHICHEVER IS LESS. PUMP INTAKES SHALL BE FLOATING AND SCREENED.

INSTALLATION SEQUENCE:

1. PREPARE SURFACE BY REMOVING ANY DEBRIS AND ENSURING A SMOOTH CONSISTENT AND WELL VEGETATED SURFACE IS PROVIDED.
2. UPON COMPLETION OF USE, THE FILTER BAG MUST BE REMOVED. ACCUMULATED SEDIMENT MUST BE PROPERLY PLACED IN PROTECTED AREA ON SITE AND STABILIZED WITH TEMPORARY SEED MIX AND MULCH.

MAINTENANCE NOTES:

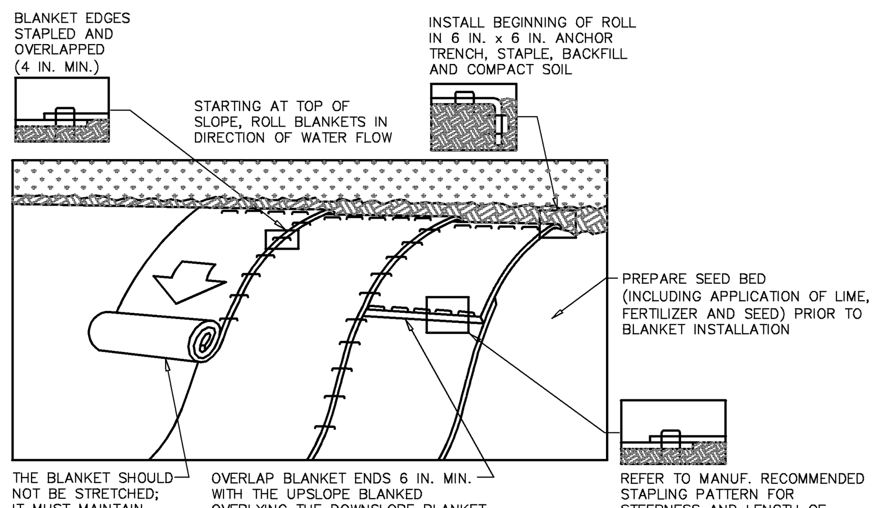
A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY REQUIRED FOR DISPOSAL PURPOSES SHALL BE PROVIDED. FILTER BAGS SHALL BE REPLACED WHEN THEY BECOME 1/2 FULL OF SEDIMENT. SPARE BAGS SHALL BE KEPT AVAILABLE FOR REPLACEMENT OF THOSE THAT HAVE FAILED OR ARE FILLED. BAGS SHALL BE PLACED ON STRAPS TO FACILITATE REMOVAL UNLESS BAGS COME WITH LIFTING STRAPS ALREADY ATTACHED.

INSPECTIONS:

FILTER BAGS SHALL BE INSPECTED DAILY. IF ANY PROBLEM IS DETECTED, PUMPING SHALL CEASE IMMEDIATELY AND NOT RESUME UNTIL THE PROBLEM IS CORRECTED.

STANDARD CONSTRUCTION DETAIL #3-16 PUMPED WATER FILTER BAG

NOT TO SCALE



INSTALLATION SEQUENCE:

1. SEED AND SOIL AMENDMENTS SHALL BE APPLIED ACCORDING TO THE RATES IN THE PLAN DRAWINGS PRIOR TO INSTALLING THE BLANKET.
2. PROVIDE ANCHOR TRENCH AT TOE OF SLOPE IN SIMILAR FASHION AS AT TOP OF SLOPE.
3. SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS, AND GRASS.
4. BLANKET SHALL HAVE GOOD CONTINUOUS CONTACT WITH UNDERLYING SOIL THROUGHOUT ENTIRE LENGTH. LAY BLANKET LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH SOIL. DO NOT STRETCH BLANKET.
5. THE BLANKET SHALL BE STAPLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

MAINTENANCE NOTES:

ANY AREA WHERE THE BLANKET HAS SHIFTED MUST BE REINSTALLED AND REINFORCED WITH ADDITIONAL STAPLES. SHOULD EROSION OCCUR UNDER THE BLANKET THAT AREA MUST BE REGRADED FOLLOWED BY REINSTALLATION OF THE BLANKET.

INSPECTIONS:

BLANKETED AREAS SHALL BE INSPECTED DAILY AND AFTER EACH RUNOFF EVENT UNTIL PERENNIAL VEGETATION IS ESTABLISHED TO A MINIMUM UNIFORM 70% COVERAGE THROUGHOUT THE BLANKETED AREA. DAMAGED OR DISPLACED BLANKETS SHALL BE RESTORED OR REPLACED WITHIN 4 CALENDAR DAYS.

STANDARD CONSTRUCTION DETAIL #11-1 EROSION CONTROL BLANKET INSTALLATION

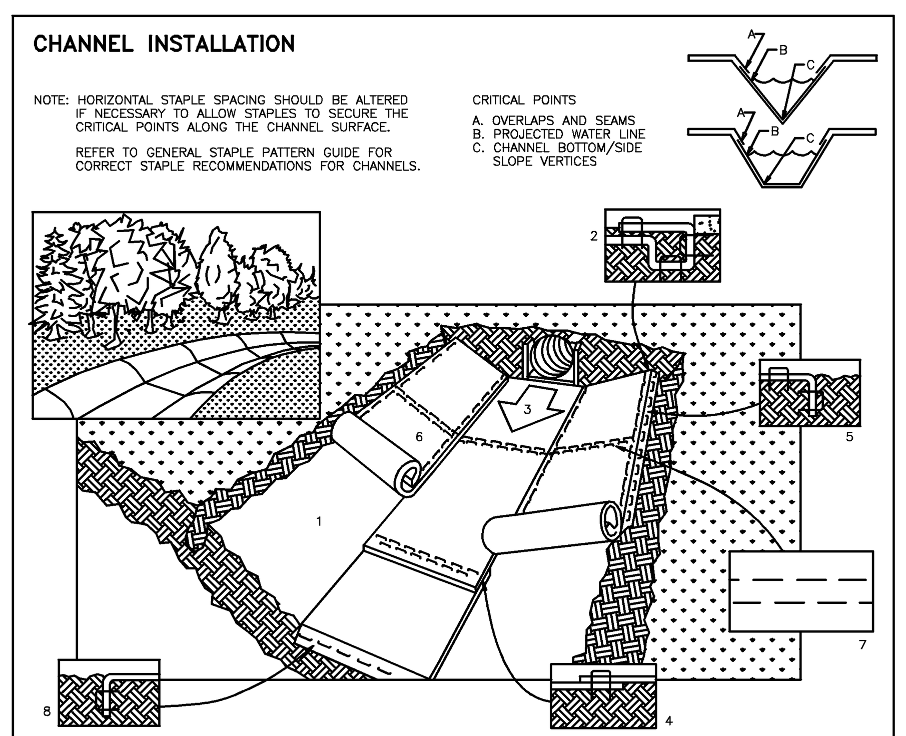
NOT TO SCALE

CHANNEL INSTALLATION

NOTE: HORIZONTAL STAPLE SPACING SHOULD BE ALTERED IF NECESSARY TO ALLOW STAPLES TO SECURE THE CRITICAL POINTS ALONG THE CHANNEL SURFACE.

REFER TO GENERAL STAPLE PATTERN GUIDE FOR CORRECT STAPLE RECOMMENDATIONS FOR CHANNELS.

CRITICAL POINTS
A. OVERLAPS AND SEAMS
B. PROJECTED WATER LINE
C. CHANNEL BOTTOM/SIDE SLOPE VERTICES



1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING APPLICATION OF LIME, FERTILIZER, AND SEED.
2. BEGIN AT THE TOP OF THE CHANNEL BY ANCHORING THE BLANKET IN A 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
3. ROLL CENTER BLANKET IN DIRECTION OF WATER FLOW ON BOTTOM OF CHANNEL.
4. PLACE BLANKETS END OVER END (SHINGLE STYLE) WITH A 6" OVERLAP. USE A DOUBLE ROW OF' STAGGERED STAPLES 4" APART TO SECURE BLANKETS.
5. FULL LENGTH EDGE OF BLANKETS AT TOP OF SIDE SLOPES MUST BE ANCHORED IN 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
6. BLANKETS ON SIDE SLOPES MUST BE OVERLAPPED 4" OVER THE CENTER BLANKET AND STAPLED (2" FOR C350 MATTING).
7. IN HIGH FLOW CHANNEL APPLICATIONS, A STAPLE CHECK SLOT IS RECOMMENDED AT 30 TO 40 FOOT INTERVALS. USE A ROW OF STAPLES 4" APART OVER ENTIRE WIDTH OF THE CHANNEL. PLACE A SECOND ROW 4" BELOW THE FIRST ROW IN A STAGGERED PATTERN.
8. THE TERMINAL END OF THE BLANKETS MUST BE ANCHORED IN A 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.

NORTH AMERICAN GREEN

14649 HIGHWAY 41 NORTH, EVANSVILLE, INDIANA 47711
USA 1-800-772-2040 CANADA 1-800-448-2040

EROSION AND SEDIMENTATION CONTROL NOTES

1. 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.
2. THE CONTRACTOR IS ADVISED TO BECOME THOROUGHLY FAMILIAR WITH THE PROVISIONS OF THE APPENDIX 64, EROSION CONTROL RULES AND REGULATIONS, TITLE 25, PART 1, DEPARTMENT OF ENVIRONMENTAL PROTECTION, SUBPART C, PROTECTION OF NATURAL RESOURCES, ARTICLE III, WATER RESOURCES, CHAPTER 102, EROSION CONTROL.
3. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN MUST BE AVAILABLE AT ALL TIMES. THE OPERATOR SHALL ASSURE THAT AN EROSION AND SEDIMENT CONTROL PLAN HAS BEEN PREPARED, APPROVED BY THE COUNTY CONSERVATION DISTRICT, AND IS BEING IMPLEMENTED AND MAINTAINED FOR ALL SOIL AND/OR ROCK SPOIL AND BORROW AREAS, REGARDLESS OF THEIR LOCATIONS.
4. THE OPERATOR SHALL REMOVE FROM THE SITE, RECYCLE, OR DISPOSE OF ALL BUILDING MATERIALS AND WASTES IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET SEQ., 271.1 ET SEQ., AND 287.1 ET SEQ. THE CONTRACTOR SHALL NOT ILLEGALLY BURY, BURN, DUMP OR DISCHARGE ANY BUILDING MATERIAL OR WASTES AT THE SITE.
5. 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 OR EROSION. THE CONTRACTOR SHALL NOTIFY THE LOCAL CONSERVATION DISTRICT AND/OR THE REGINAL OFFICE OF THE DEPT.
6. PROTECTION TO EXISTING TREES AND SHRUBS SHALL BE TAKEN BY THE CONTRACTOR TO ELIMINATE UNNECESSARY DAMAGE
7. 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 DAILY BASIS. ALL PREVENTIVE AND REMEDIAL MAINTENANCE WORKING, INCLUDING CLEANOUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING AND RENETTING MUST BE PERFORMED IMMEDIATELY. IF THE E & S BMPs FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPs, OR MODIFICATIONS OF THOSE INSTALLED WILL BE REQUIRED. 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. THE INSPECTION LOG WILL BE KEPT ON SITE AT ALL TIMES AND MADE AVAILABLE TO THE DISTRICT UPON REQUEST. ALL SEDIMENT REMOVED FROM BMPs SHALL BE DIDPODED OF IN A MANNER DESCRIBED ON THE PLAN DRAWINGS.
   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 OF MODIFICATIONS OF THOSE INSTALLED WILL BE NEEDED.
   WHERE BMP'S ARE FOUND TO FAIL TO ALLEVIATE EROSION OR SEDIMENT POLLUTION THE PERMITTEE OR CO-PERMITTEE SHALL INCLUDE THE FOLLOWING INFORMATION:
   A. THE LOCATION AND SEVERITY OF THE BMP'S FAILURE AND ANY 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-COMPLIANCE, INCLUDING THE EXACT DATES WHEN THE ACTIVITY WILL RETURN TO COMPLIANCE.
8. 3:1 SLOPES TO BE STABILIZED W/ EROSION CONTROL BLANKET NORTH AMERICAN S-75.
9. AN AREA SHALL BE CONSIDERED TO HAVE ACHIEVED FINAL STABILIZATION WHEN IT HAS A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED SURFACE EROSION AND SUBSURFACE CHARACTERISTICS SUFFICIENT TO RESIST SLIDING AND OTHER MOVEMENTS.
10. BEFORE INITIATING ANY REVISION TO THE APPROVED EROSION AND SEDIMENT CONTROL PLAN OR REVISIONS TO OTHER PLANS WHICH MAY AFFECT THE EFFECTIVENESS OF THE APPROVAL E & S CONTROL PLAN, THE OPERATOR MUST RECEIVE APPROVAL OF THE REVISIONS FROM THE MONTGOMERY COUNTY CONSERVATION DISTRICT. THE OPERATOR SHALL ASSURE THAT THE APPROVED EROSION AND SEDIMENT CONTROL PLAN IS PROPERLY AND COMPLETELY IMPLEMENTED. 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 POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION.
11. THE CONTRACTOR IS RESPONSIBLE TO PERFORM ENVIRONMENTAL DUE DILIGENCE TO DETERMINE THAT IMPORTED FILL MATERIAL MEETS THE PADEP QUALIFICATIONS FOR 'CLEAN FILL'.
    CLEAN FILL IS DEFINED AS: UNCONTAMINATED, NON-WATER SOLUBLE, NON-DECOMPOSABLE, INERT, SOLID MATERIAL. THE TERM INCLUDES SOIL, ROCK, STONE, DREDGED MATERIAL, USED ASPHALT, AND BRICK, BLOCK OR CONCRETE FROM CONSTRUCTION AND DEMOLITION ACTIVITIES THAT IS SEPARATE FROM OTHER WASTE AND IS RECOGNIZABLE AS SUCH. THE TERM DOES NOT INCLUDE MATERIALS PLACED IN OR ON THE WATERS OF THE COMMONWEALTH UNLESS OTHERWISE AUTHORIZED. (THE TERM "USED ASPHALT" DOES NOT INCLUDE MILLED ASPHALT OR ASPHALT THAT HAS BEEN PROCESSED FOR RE-USE.)
    ENVIRONMENTAL DUE DILIGENCE IS DEFINED AS: INVESTIGATIVE TECHNIQUES, INCLUDING, BUT NOT LIMITED TO, VISUAL PROPERTY INSPECTIONS, ELECTRONIC DATA BASE SEARCHES, REVIEW OF PROPERTY OWNERSHIP, REVIEW OF PROPERTY 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 SUBSTANCE IT MUST BE RESTED TO DETERMINE IF IT QUALIFIES AS CLEAN FILL. TESTING SHOULD BE PERFORMED IN ACCORDANCE WITH APPENDIX A OF THE PA DEP'S POLICY "MANAGEMENT OF FILL."
    FILL MATERIAL THAT DOES NOT QUALIFY AS CLEAN FILL IS REGULATED FILL. REGULATED FILL IS WASTE AND MUST BE MANAGED IN ACCORDANCE WITH THE PADEP'S MUNICIPAL OR RESIDUAL WASTE REGULATIONS BASED ON 25 PA CODE CHAPTERS 287 RESIDUAL WASTE MANAGEMENT OR 271 MUNICIPAL WASTE MANAGEMENT, WHICHEVER IS APPLICABLE. FORM FP-001 MUST BE RETAINED BY THE PROPERTY OWNER FOR ANY FILL MATERIAL AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE BUT QUALIFYING AS CLEAN FILL DUE TO ANALYTICAL TESTING. ALL OFFSITE WASTE AND BORROW AREAS MUST HAVE AN E & S PLAN APPROVED BY THE LOCAL CONSERVATION DISTRICT OR THE DEPARTMENT FULLY IMPLEMENTED PRIOR TO BEING ACTIVATED .
12. SEDIMENT TRACKED ONTO ANY ROADWAY OR SIDEWALK SHALL BE RETURNED TO THE CONSTRUCTION SITE BY THE END OF EACH WORKDAY AND DISPOSED IN A MANNER DESCRIBED IN THIS PLAN. IN NO CASE SHALL THE SEDIMENT BE WASHED, SHOVELED OR SWEPT INTO ANY ROAD SIDE DITCH, STORM SEWER OR SURFACE WATER.
13. ALL SEDIMENT REMOVED FROM BMPs SHALL BE DISPOSED OF IN THE MANNER DESCRIBED ON THE PLAN DRAWINGS.
14. SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE HANDLED IN ACCORDANCE WITH THE STANDARD AND SPECIFICATION FOR SUBSURFACE DRAIN OR OTHER APPROVED METHOD.
15. UPON REQUEST, THE PERMIT HOLDER AND/OR HIS CONTRACTOR SHALL PROVIDE AN AS-BUILT FOR ANY SEDIMENT BASIN OR TRAP TO THE MUNICIPAL INSPECTOR, LOCAL CONSERVATION DISTRICT OR DEP.
16. UPON COMPLETION OR TEMPORARY CESSATION OF THE EARTH DISTURBANCE ACTIVITY THAT WILL EXCEED 4 DAYS, OR ANY STAGE THEREOF, THE PROJECT SITE SHALL BE IMMEDIATELY STABILIZED WITH THE APPROPRIATE TEMPORARY OR PERMANENT STABILZATION. DURING NON-GERMINATION MONTHS, MULCH OR PROTECTIVE BLANKETING SHALL BE APPLIED AS DESCRIBED IN THE PLAN. AREAS NOT AT FINISHED GRADE, WHICH WILL BE REACTIVATED WITHIN 1 YEAR, MAY BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY STABILIZATION SPECIFICATIONS. THOSE AREAS WHICH WILL BE REACTIVATED WITHIN 1 YEAR SHALL BE STABILIZED IN ACCORDANCE WITH THE PERMANENT STABILIZATION SPECIFICATIONS. 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. SUT AND FILL SLOPES SHALL BE CAPABLE OF RESISTING FAILURE DUE TO SLUMPING, SLIDING OR OTHER MOVEMENTS.
17. CONSTRUCTION OF THE SITE MUST BE COMPLETED IN A MANNER TO MINIMIZE SOIL COMPACTION IN PROPOSED GRASS AREAS.
18. ALL EXISTING DRAINAGE FEATURES MUST BE PROTECTED AND NOT DISTURBED IN ANY WAY.
19. THE PROPOSED E & S BMP'S HAVE BEEN PROVIDED TO PREVENT SEDIMENT DISCHARGE FROM THE SITE AND TO ENSURE AN INCREASE IN THE RATE OF RUNOFF DOES NOT OCCUR DURING CONSTRUCTION.
20. THE SITE DEVELOPMENT AND CONSTRUCTION SEQUENCE HAS BEEN GENERATED TO MINIMIZE THE EXTENT AND DURATION OF EARTH DISTURBANCE.
21. AT LEAST 7 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES INCLUDING CLEARING AND GRUBBING, THE OWNER AND/OR OPERATOR SHALL INVITE ALL CONTRACTORS, THE LAND OWNER, APPROPRIATE MUNICIPAL OFFICIALS, THE E & S PLAN PREPARER, THE PCSM PLAN PREPARER, THE LISCENSED PROFESSIONAL RESPONSIBLE FOR OVERSIGHT OF CRITICAL STAGES OF IMPLEMENTATION OF THE PCSM PLAN, AND A REPRESENTATIVE FROM THE LOCAL CONSERVATION DISTRICT TO AN ON-SITE PRECONSTRUCTION MEETING.
22. AT LEAST 3 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, OR EXPANDING INTO AN AREA PREVIOUSLY UNMARKED, THE PENNSYLVANIA ONE CALL SYSTEM INC. SHALL BE NOTIFIED AT 1-800-242-1776 FOR THE LOCATION OF EXISTING UNDERGROUND UTILITIES.
23. ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE SEQUENCE PROVIDED ON THE PLAN DRAWINGS. DEVIATION FROM THAT SEQUENCE MUST BE APPROVED IN IN WRITING FROM THE LOCAL CONSERVATION DISTRICT OR BY THE DEPT. PRIOR TO IMPLEMENTATION.
24. AREAS TO BE FILLED ARE TO BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS AND OTHER OBJECTIONABLE MATERIAL.
25. CLEARING, GRUBBING, AND TOPSOIL STRIPPING SHALL BE LIMITED TO THOSE AREAS DESCRIBED IN EACH STAGE OF THE CONSTRUCTION SEQUENCE. GENERAL SITE CLEARING, GRUBBING AND TOPSOIL STRIPPING MAY NOT COMMENCE IN ANY STAGE OR PHASE OF THE PROJECT UNTIL THE E & S BMPs SPECIFIED BY THE BMP SEQUENCE FOR THAT STAGE OR PHASE HAVE BEEN INSTALLED AND ARE FUNCTIONING AS DESCRIBED IN THE E & S PLAN.
26. AT NO TIME SHALL CONSTRUCTION VEHICLES BE ALLOWED TO ENTER AREAS OUTSIDE THE LIMIT OF DISTURBANCE BOUNDARIES SHOWN ON THE PLAN MAPS. THESE AREAS MUST BE CLEARLY MARKED AND FENCED OFF BEFORE CLEARING AND GRUBBING OPERATIONS BEGIN.
27. TOPSOIL REQUIRED FOR THE ESTABLISHMENT OF VEGETATION SHALL BE STOCKPILED AT THE LOCATION(S) SHOWN ON THE PLAN MAP(S) IN THE AMOUNT NECESSARY TO COMPLETE THE FINISH GRADING OF ALL EXPOSED AREAS THAT ARE TO BE STABILIZED BY VEGETATION. EACH STOCKPILE SHALL BE PROTECTED IN THE MANNER SHOWN ON THE PLAN DRAWINGS. STOCKPILE HEIGHTS SHALL NOT EXCEED 35 FEET. STOCKPILE SLOPES SHALL BE 2H:1V OR FLATTER.
28. AREAS WHICH ARE TO BE TOPSOILED SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 3 TO 5 INCHES-6 TO 12 ON COMPACTED SOILS-PRIOR TO PLACEMENT OF TOPSOIL. AREAS TO BE VEGETATED SHALL HAVE A MINIMUM 4 INCHES OF TOPSOIL IN PLACE PRIOR TO SEEDING AND MULCHING. FILL OUTSLOPES SHALL HAVE A MINIMUM 2 INCHES OF TOPSOIL.
29. ALL FILLS SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS. FILL INTENDED TO SUPPORT BUILDINGS, STRUCTURES AND CONDUITS, ETC SHALL BE COMPACTED IN ACCORDANCE WITH LOCAL REQUIREMENTS OR CODES.
30. ALL EARTHERN FILLS SHALL BE PLACED IN COMPACTED LAYERS NOT TO EXCEED 9 INCHES THICKNESS.
31. FILL MATERIALS SHALL BE FREE OF FROZEN PARTICLES, BRUSH, ROOTS, SOD, OR OTHER FOREIGN OR OBJECTIONABLE MATERIALS WHAT WOULD INTEFERE WITH OR PREVENT CONSTRUCTION OF SATISFATORY FILLS.
32. FROZEN MATERIALS OR SOFT, MUCKY, OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED INTO FILLS.
33. FILL SHALL NOT BE PLACED ON SATURATED OR FROZEN SURFACES.
34. ALL GRADED AREAS SHALL BE PERMANENTLY STABILIZED IMMEDIATELY UPON REACHING FINISH GRADE. CUT SLOPES IN COMPETENT BEDROCK AND ROCK FILLS NEED NO BE VEGETATED. SEEDED AREAS WITHIN 50 FEET OF A SURFACE WATER, OR AS OTHERWISE SHOWN ON THE PLAN DRAWINGS, SHALL BE BLANKETED ACCORDING TO THE STANDARDS OF THIS PLAN.
35. E & S BMPs SHALL REMAIN FUNCTIONAL AS SUCH UNTIL ALL AREAS TRIBUTARY TO THEM ARE PERMANENTLY STABILIZED OR UNTIL THEY ARE REPLACED BY ANOTHER BMP APPROVED BY THE LOCAL CONSERVATION DISTRICT OR THE DEPT.
36. UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, THE OWNER AND/OR OPERATOR SHALL CONTACT THE LOCAL CONSERVATION DISTRICT FOR AN INSPECTION PRIOR TO REMOVAL/CONVERSION OF THE E & S BMPs.
37. AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENT BMPs MUST BE REMOVED OR CONVERTED TO PERMANENT POST CONSTRUCTION STORMWATER MANAGEMENT BMPs. AREAS DISTURBED DURING REMOVAL OR CONVERSION OF THE BMPs SHALL BE STABILIZED IMMEDIATELY. IN ORDER TO ENSURE RAPID REVEGETATION OF DISTURBED AREAS, SUCH REMOVAL/CONVERSIONS ARE TO BE DONE ONLY DURING THE GERMINATING SEASON.
38. UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, THE OWNER AND/OR OPERATOR SHALL CONTACT THE LOCAL CONSERVATION DISTRICT TO SCHEDULE A FINAL INSPECTION.
39. FAILURE TO CORRECTLY INSTALL E&S BMPs, FAILURE TO PREVENT SEDIMENT-LADEN RUNOFF FROM LEAVING THE CONSTRUCTION SITE OR FAILURE TO TAKE IMMEDIATE CORRECTIVE ACTION TO RESOLVE FAILURE OF E & S BMPs MAY RESULT IN ADMINSTRATIVE, CIVIL, AND/OR CRIMINAL PENALTIES BEING INSTITUTED BY THE DEP. AS DEFINED IN SECTION 602 OF THE PENNSYLVANIA CLEAN STREAMS LAW. THE CLEAN STREAMS LAW PROVIDES FOR UP TO $10,000 PER DAY IN CIVIL PENALITIES, UP TO $10,000 IN SUMMARY CRIMINAL PENALTIES, AND UP TO $25,000 IN MISDEMEANOR CRIMINAL PENALTIES FOR EACH VIOLATION.

SEED MIX SPECIFICATIONS

Grass Seed: All seed shall be fresh, and new crop seed shall be labeled in accordance with the U.S. Department of Agriculture's Rules and Regulations under the Federal Seed Act in effect on the date of invitation for bids. All seed shall be furnished in scaled standard containers, bearing the warranty of the supplier and certifying as to the kind, percent by weight, purity and germination. The grass seed shall contain the percentages of varieties and shall be of the quality indicated by the percentages of purity and germination indicated on the list furnished with the applicable plan. Seed mix shall be as specified. Spread at the rate of 4 lbs. per 1000 sq. ft. minimum for slopes 3:1 if greater, use 5 lbs. per 1000 sq. feet.

PERMANENT SEEDING DATES MARCH 1 TO JUNE 1, AUGUST 1 TO OCTOBER 1

NAME GRASS SEED	PARTS BY WEIGHT	%PURITY	GERMINATION
Kentucky Blue Grass Varieties	35%	95%	85%
Pennstar or Pennfine Perennial Ryegrass	35%	95%	90%
Pennlawn Fescue	15%	95%	85%
Annual Ryegrass	15%	90%	80%

Mulch: Shall be hay which is free of weeds and seeds, not moldy or rotten, and shall be applied at all disturbed areas at a rate of 3 tons per acre.

Kentucky Bluegrass Sod (if called for)
Sod shall be grown under supervision of the Bureau of Plant Industry Pennsylvania Department of Agriculture or shall be composed of only Blue Tag Certified Seed.

Temporary Seeding Dates: Anytime

Temporary Seeding: Shall be annual ryegrass at 40 lbs. per acre. Site preparation — apply 1 ton of agricultural grade limestone per acre plus 50-50-50 fertilizer applied at a rate of 25 lbs/1000 sq. ft. and work in where possible. After seeding, mulch with hay or straw at a rate of 3 tons per acre.

Hydroseeding: Shall be lime, fertilizer, grass seeds, legume seeds and inculant mixed with water and applied as slurry, at a rate of 1,000 gallons per acre.
Fertilizer: mix at a rate of 50-100-100 per acre.
Inoculant: use 5 times rate recommended on the package when seeding with a hydroseeder.

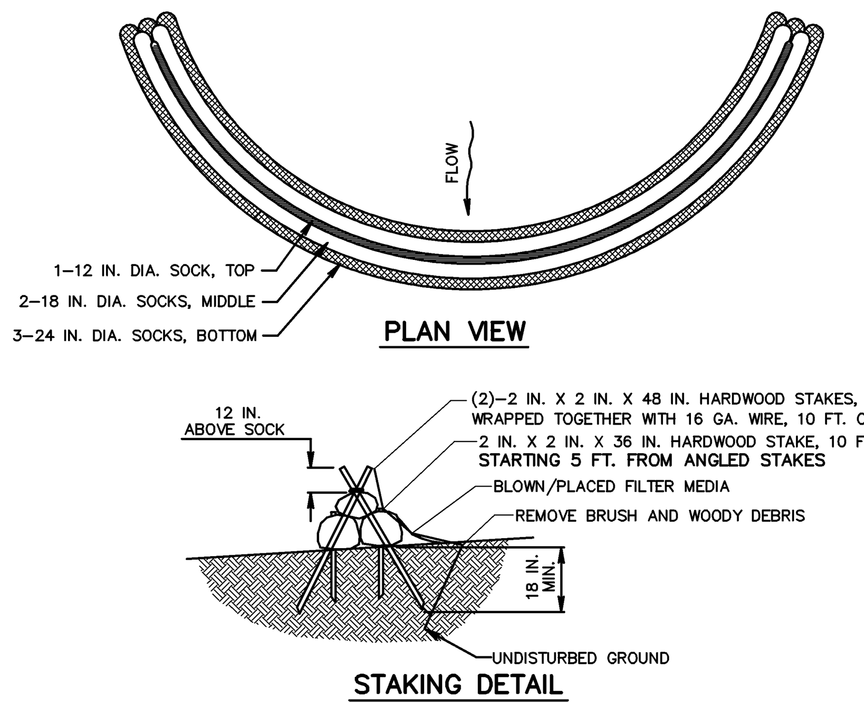
PERMANENT SEEDING:
For permanent seeding, soil supplements shall be applied to areas to be seeded as follows: 10-20-20 fertilizer shall be applied to 25 LBS/1000 Sq. Ft. pulverized dolomite limestone at 90 LBS/1000 Sq. Ft.

SEEDING AND MULCH NOTES

1. Any undisturbed 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 1 year may be seeded and mulched with a quick growing temporary seeding mixture and mulch. Disturbed areas which are either at finished grade or will not be redisturbed within 1 year must be seeded and mulched with a permanent seed mixture and mulch.
2. Diversions, channels, sedimentation basins, sediment trap must be stabilized immediately with erosion control blanket. Stockpiles must be seeded and mulched immediately.
3. Hay or straw mulch must be applied at rates of at least 3.0 tons per acre.
4. Graded areas are to be temporarily seeded and mulched immediately following earth moving procedures. Seed shall be annual rye grass applied at the rate of 3 lbs. per 1000 sq. ft.
5. Establish permanent seeding as soon as possible after final grading is complete. Permanent seeding shall be 15% Pennlawn Red Fescue, 35% Pennfind Perennial Ryegrass, 35% Kentucky Bluegrass and 15% annual Ryegrass applied at the rate of 4 lbs. per 1000 sq. ft.
6. Soils testing should be performed with recommendations provided for appropriate seed mixes and rates based on the soils at the site.

TOPSOIL PLACEMENT NOTES

Areas which are to top-soiled shall be scarified to a minimum depth of 3 to 5 inches (6 to 12 inches on compacted soils) prior to placement of topsoil. Areas to be vegetated shall have a minimum 4 inches of topsoil in place prior to seeding and mulching, i.e. yards.



DESIGN NOTES:

1. COMPOST SOCK SEDIMENT TRAP SHALL BE SIZED TO PROVIDE 2000 CUBIC FEET OF STORAGE CAPACITY FOR EACH ACRE TRIBUTARY TO THE TRAP.
2. MINIMUM BASE WIDTH IS EQUAL TO THE HEIGHT.
3. SEDIMENT ACCUMULATION SHALL NOT EXCEED 1/3 THE TOTAL HEIGHT OF THE TRAP.
4. SOCKS SHALL BE OF LARGER DIAMETER AT THE BASE OF THE TRAP AND DECREASE IN DIAMETER FOR SUCCESSIVE LAYERS AS SHOWN ON THE PLAN VIEW.
5. ENDS OF THE TRAP SHALL BE A MINIMUM OF 1 FOOT HIGHER IN ELEVATION THAN THE MID-SECTION, WHICH SHALL BE LOCATED AT THE POINT OF DISCHARGE.

NOTES:

SOCK MATERIAL SHALL MEET THE STANDARDS OF TABLE 4.1 OF THE PA DEP EROSION CONTROL MANUAL. COMPOST SHALL MEET THE STANDARDS OF TABLE 4.2 OF THE PA DEP EROSION CONTROL MANUAL.

COMPOST SOCK SEDIMENT TRAPS SHALL NOT EXCEED THREE SOCKS IN HEIGHT AND SHALL BE STACKED IN PYRAMIDAL FORM AS SHOWN ABOVE. MINIMUM TRAP HEIGHT IS ONE 24" DIAMETER SOCK. ADDITIONAL STORAGE MAY BE PROVIDED BY MEANS OF AN EXCAVATED SUMP 12" DEEP EXTENDING 1 TO 3 FEET UPSLOPE OF THE SOCKS ALONG THE LOWER SIDE OF THE TRAP.

COMPOST SOCK SEDIMENT TRAPS SHALL PROVIDE 2,000 CUBIC FEET STORAGE CAPACITY WITH 12" FREEBOARD FOR EACH TRIBUTARY DRAINAGE ACRE. (SEE MANUFACTURER FOR ANTICIPATED SETTLEMENT.)

THE MAXIMUM TRIBUTARY DRAINAGE AREA IS 5.0 ACRES. SINCE COMPOST SOCKS ARE "FLOW-THROUGH," NO SPILLWAY IS REQUIRED.

INSPECTION

COMPOST SOCK SEDIMENT TRAPS SHALL BE INSPECTED DAILY AND AFTER EACH RUNOFF EVENT. SEDIMENT SHALL BE REMOVED WHEN IT REACHES 1/3 THE HEIGHT OF THE SOCKS.

PHOTODEGRADABLE AND BIODEGRADABLE SOCKS SHALL NOT BE USED FOR MORE THAN 1 YEAR.

INSTALLATION NOTES

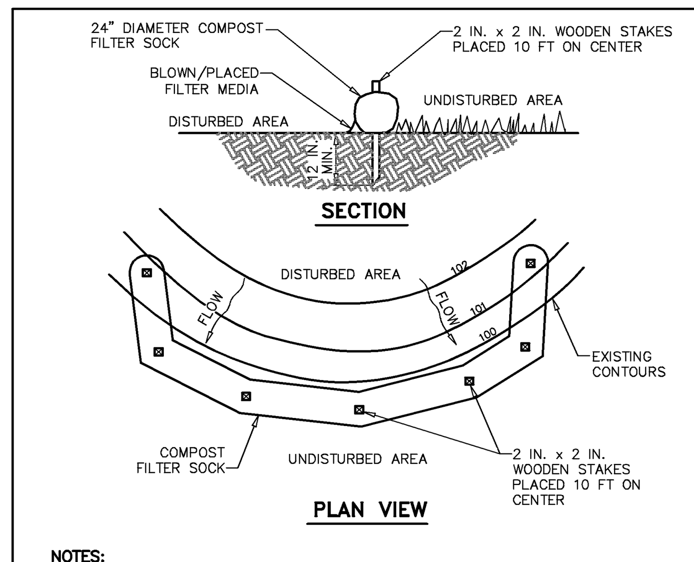
1. AREA TO BE PREPARED BY REMOVAL OF ALL DEBRIS AND VEGETATION.
2. ENSURE AREA FOR INSTALLATION IS LEVEL.
3. INSTALL FILTER SOCKS TO ELEVATIONS NOTED IN TABLE AND PER GUIDELINES NOTED ABOVE.

STANDARD CONSTRUCTION DETAIL #3-11 SILT SOCK SEDIMENT TRAP

NOT TO SCALE

SILT SOCK SEDIMENT TRAP TABLE

TRAP NUMBER	BOTTOM ELEVATION	DRAINAGE AREA	STORAGE REQUIRED	2000 CF/AC STORAGE ELEV.	CLEAN OUT STORAGE ELEV.	TOP OF BERM ELEV.	SOCK SIZES
1	79.00	1.92 AC	3,840 CF	81.62	80.34	83.50	1-12" TOP 2-18" MIDDLE 3-24" BOTTOM



NOTES:

SOCK FABRIC SHALL MEET STANDARDS OF TABLE 4.1 OF THE PA DEP EROSION CONTROL MANUAL. COMPOST SHALL MEET THE STANDARDS OF TABLE 4.2 OF THE PA DEP EROSION CONTROL MANUAL.

TRAFFIC SHALL NOT BE PERMITTED TO CROSS COMPOST FILTER SOCKS.

BIODEGRADABLE COMPOST FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS; PHOTODEGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.

INSTALLATION SEQUENCE:

1. PREPARE SURFACE BY REMOVING ANY DEBRIS AND ENSURING A SMOOTH CONSISTENT SURFACE IS PROVIDED.
2. COMPOST FILTER SOCK SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE BARRIER SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE MAIN BARRIER ALIGNMENT. MAXIMUM SLOPE LENGTH ABOVE ANY BARRIER SHALL NOT EXCEED THAT SPECIFIED FOR THE SIZE OF THE SOCK AND THE SLOPE OF ITS TRIBUTARY AREA.
3. 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.

MAINTENANCE NOTES:

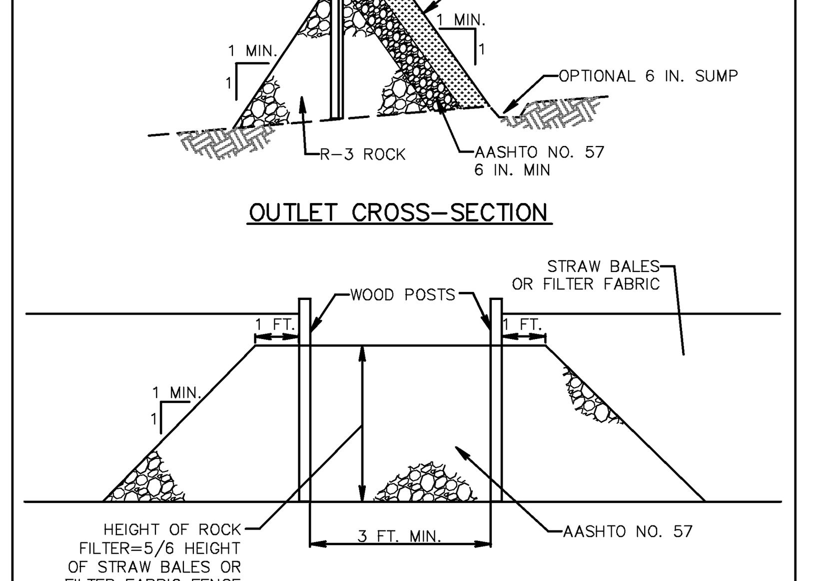
1. COMPOST FILTER SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.
2. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES 1/2 THE ABOVE GROUND HEIGHT OF THE BARRIER AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN.

INSPECTIONS:

INSPECTIONS MUST BE PERFORMED AFTER EACH RUNOFF EVENT AND ON A DAILY 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. THE INSPECTION LOG WILL BE KEPT ON SITE AT ALL TIMES AND MADE AVAILABLE TO THE DISTRICT UPON REQUEST.

STANDARD CONSTRUCTION DETAIL #4-1 COMPOST FILTER SOCK

NOT TO SCALE



INSTALLATION SEQUENCE

1. PREPARE SURFACE BY REMOVING DEBRIS AND ENSURING A CONSISTENT SURFACE IS PROVIDED.
2. REMOVE FAILED SILT FENCE UP TO POSTS OF FENCE THAT IS STANDING.
3. INSTALL STONE AND COMPOST IF NOTED.

NOTES:

A ROCK FILTER OUTLET SHALL BE INSTALLED WHERE FAILURE OF A SILT FENCE OR STRAW BALE BARRIER HAS OCCURRED DUE TO CONCENTRATED FLOW. ANCHORED COMPOST LAYER SHALL BE USED ON UPSLOPE FACE. IN HQ AND EV WATERSHEDS.

MAINTENANCE NOTES:

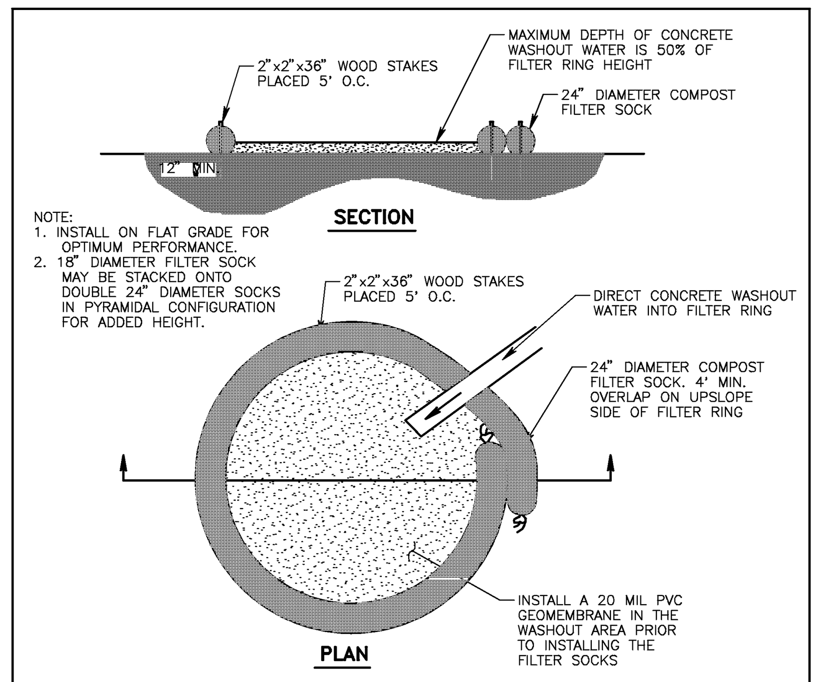
SEDIMENT SHALL BE REMOVED WHEN ACCUMULATIONS REACH 1/3 THE HEIGHT OF THE OUTLET.

INSPECTIONS

INSPECTIONS MUST BE PERFORMED AFTER EACH RUNOFF EVENT AND ON A DAILY 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. THE INSPECTION LOG WILL BE KEPT ON SITE AT ALL TIMES AND MADE AVAILABLE TO THE DISTRICT UPON REQUEST.

STANDARD CONSTRUCTION DETAIL #4-6 ROCK FILTER OUTLET

NOT TO SCALE



NOTE:
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.

INSTALLATION SEQUENCE:

1. PREPARE SURFACE BY REMOVING ANY DEBRIS AND ENSURING A SMOOTH CONSISTENT SURFACE IS PROVIDED.
2. INSTALL PVC GEOMEMBRANE IN WASHOUT AREA.
3. COMPOST FILTER SOCK SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE BARRIER SHALL OVERLAP TO FORM A CIRCLE AS SHOWN.
4. UPON REMOVAL OF THE WASHOUT AREA, 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.
5. ALL CONCRETE AND THE GEOMEMBRANE MUST BE REMOVED FROM THE SITE AND DISPOSED OF AT AN APPROVED DEP FACILITY.

MAINTENANCE NOTES:

WASHOUT AREA SHALL BE INSPECTED DAILY . DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.

INSPECTIONS:

INSPECTIONS MUST BE PERFORMED ON A DAILY 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. THE INSPECTION LOG WILL BE KEPT ON SITE AT ALL TIMES AND MADE AVAILABLE TO THE DISTRICT UPON REQUEST.

CONCRETE WASHOUT AREA DETAIL

NOT TO SCALE

SOIL USE LIMITATIONS AND RESOLUTIONS

ACID SOIL TYPES: pHs LOWER THAN 5.5

THE ABOVE CHART LISTS THE TYPICAL SOIL pH. SOIL TESTS SHOULD BE TAKEN TO DETERMINE THE ACTUAL SOIL pH REACTION. A pH OF 5.5 SHOULD BE ACHIEVED. TO RESOLVE THIS LIMITATION THE SOIL pH SHOULD BE ADJUSTED BY APPLYING LIME RATES IN ACCORDANCE WITH THE PENN STATE AGRONOMY GUIDE AND THE RECOMMENDATIONS FROM A REPUTABLE LABORATORY.

WET SOIL TYPES

TO RESOLVE THIS LIMITATION VEGETATIVE SPECIES THAT ARE TOLERANT TO WET CONDITIONS SHOULD BE SELECTED FOR LANDSCAPING.

POOR TOPSOIL

SOIL SHOULD BE IMPORTED FROM OTHER AREAS ON SITE. THE MONTGOMERY COUNTY CONSERVATION DISTRICT, (610) 489-4506, MUST APPROVE ANY DEVIATION FROM THE E&SC SEQUENCE.

SOLUTION CHAMBERS / SINKHOLES

IF SOLUTION CHAMBERS OR SINKHOLES APPEAR DURING CONSTRUCTION ACTIVITIES, A GEOLOGIST SHOULD BE CONTACTED FOR RECOMMENDATIONS.
CONTACT: A QUALIFIED GEOTECHNICAL ENGINEER

WET SOIL TYPES / HIGH WATER TABLE DURING EXCAVATION ACTIVITIES

WATER TO BE PUMPED TO A DEWATERING STRUCTURE, (SEE DETAIL).

POOR SUITABILITY FOR WINTER GRADING / FROST ACTION

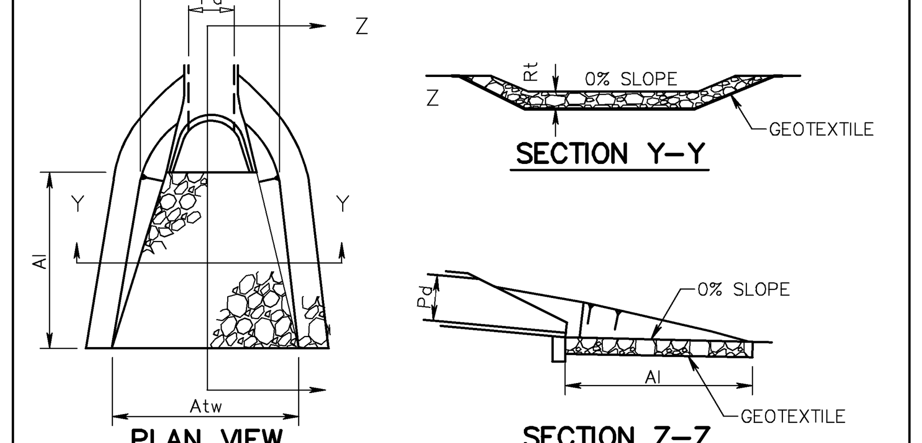
ADEQUATE COMPACTION OF SOIL IS REQUIRED FOR THE EMBANKMENTS, PIPE BACKFILL, ROAD CONSTRUCTION AND THE BUILDING PADS. IF ADEQUATE COMPACTION CANNOT BE ACHIEVED DUE TO FROST ACTION OR WET SOIL TYPE, EITHER SOIL SHOULD BE IMPORTED FROM OTHER AREAS ON SITE OR CONSTRUCTION OF THESE FACILITIES SHOULD NOT BE WORKED ON DURING PERIODS PRONE TO FROST. THE MONTGOMERY COUNTY CONSERVATION DISTRICT, (610) 489-4506, MUST APPROVE ANY DEVIATION FROM THE E&SC SEQUENCE.

PERMEABLE SOIL FOR EMBANKMENT CONSTRUCTION

SOIL SHOULD BE IMPORTED FROM OTHER AREAS ON SITE. THE MONTGOMERY COUNTY CONSERVATION DISTRICT, MUST APPROVE ANY DEVIATION FROM THE E&SC SEQUENCE.

GENERAL NOTES

1. Should any measures contained within this plan prove incapable of adequately removing sediment from on-site flows prior to discharge or of stabilizing the surfaces involved, additional measures must be immediately implemented by the developer to eliminate all such problems.
2. Only limited upslope disturbance will be permitted to provide access to sediment traps and interceptor channels for grading and acquiring borrow to construct these controls.
3. Erosion and sedimentation controls must be constructed, stabilized, and functional before general site disturbance within the tributary areas of those controls.
4. 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.
5. Limits of disturbance must be clearly marked in the field prior to disturbance. Any change or encroachment into these areas without Conservation District review and approval may require the developer to cease disturbance.
6. The developer 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 in the approved plan, whether located within or outside the construction limits.
7. Sediment must be removed when accumulations reach 1/2 above ground heights of silt fencing.
8. All areas requiring interim or final stabilization must be addressed upon completion of disturbance. Areas utilizing vegetative stabilization must be seeded/planted and mulched in sufficient time to germinate by October 15 of each year. Seeding will be accomplished through the use of hydro-seeding techniques or conventional seeding and mulching at a rate of 3.0 tons per acre as recommended in the Penn State Agronomy Guide.



OUTLET NO.	PIPE DIA Pd (IN)	RIPRAP SIZE R-_	RIPRAP THICK. Rt (IN)	APRON LENGTH Al (FT)	APRON INITIAL WIDTH Aiw (FT)	APRON TERMINAL WIDTH Atw (FT)
E1	15	R-5	27	18.5	4	12
DIVERSION SOCK DISCHARGE	18" SOCK	R-4	18	17	0	23

NOTES:

ALL APRONS SHALL BE CONSTRUCTED TO THE DIMENSIONS SHOWN. TERMINAL WIDTHS SHALL BE ADJUSTED AS NECESSARY TO MATCH RECEIVING CHANNELS.

ALL APRONS SHALL BE INSPECTED AT LEAST WEEKLY AND AFTER EACH RUNOFF EVENT. DISPLACED RIPRAP WITHIN THE APRON SHALL BE REPLACED IMMEDIATELY.

STANDARD CONSTRUCTION DETAIL #9-1 RIPRAP APRON AT PIPE OUTLET WITH FLARED END SECTION OR ENDWALL

NOT TO SCALE

PRELIMINARY/FINAL EROSION & SEDIMENTATION CONTROL DETAIL SHEET

No.	Date	Revision
11	3-2-2021	NOT THIS SHEET
10	2-24-2021	NOT THIS SHEET.
9	1-29-2021	REVISED WALL, GRADING AT WALL & NOTES
8	12-3-2020	ADDED FENCE AND NOTE
7	11-6-2020	REVISED PER SC ENGINEERS 11-6-20 COMMENTS
6	11-2-2020	RELOCATED UTILITY TIE-IN LOCATIONS
5	9-25-2020	REVISED GRADES & GRADING SETBACK
4	6-16-2020	REVISED PER NPDES TECHNICAL REVIEW 5-28-20.
3	3-17-2020	REVISED PER TWP. ENG. COMMENTS 1-14-20 & NPDES LETTER 3-3-20.
2	2-4-2020	REVISED PER NPDES APPLICATION REQUIREMENTS & ADDED BUFFER NOTES
1	1-7-2020	REVISED PER TWP. ENGINEERS COMMENTS

LAND DEVELOPMENT PLAN FOR

THE MALVERN SCHOOL

UPPER MERION TOWNSHIP — MONTGOMERY COUNTY, PA.

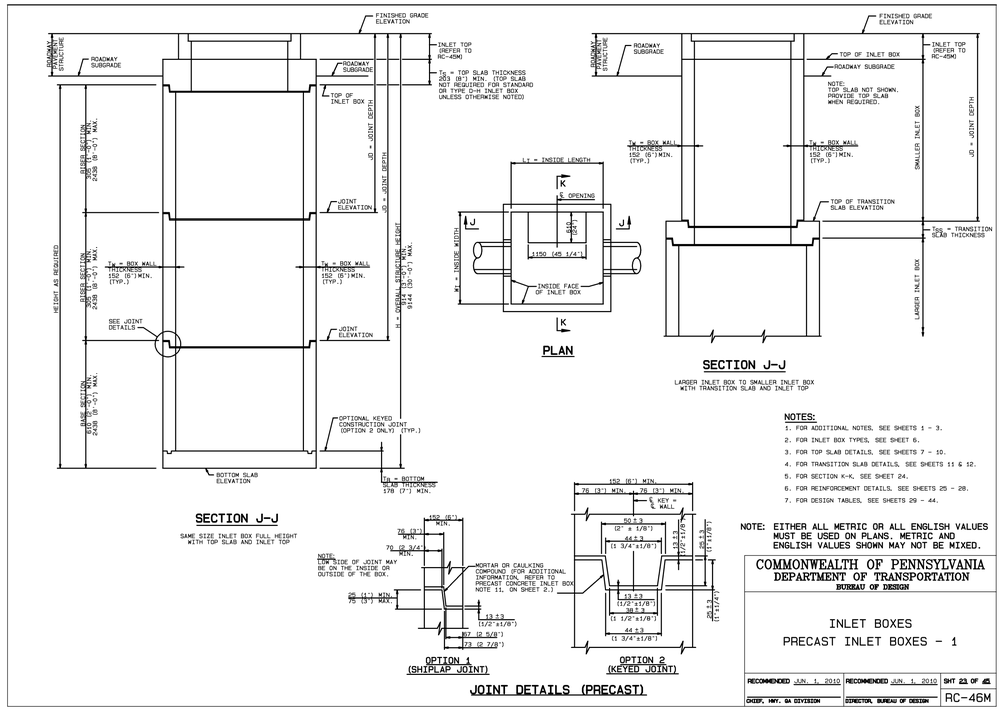
COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL ENGINEER — THEODORE JOSEPH GACOMIS — NO. 031545-E

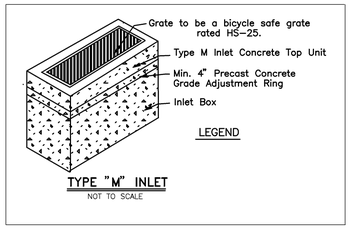
Edward B. Walsh & Associates, Inc.
CIVIL ENGINEERS & SURVEYORS
125 Dowlin Forge Road
Exton, Pennsylvania 19341
Phone (610) 903-0060
Fax (610) 903-0080

EBW

Project-	4524
Date-	5-28-19
Scale-	N/A
Drawn-	RBL
Checked-	AE
Sheet-	9 OF 11

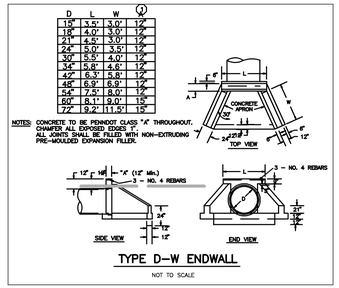
Plotted: 3/3/2021 File: F:\JB\4524\4524-B8.pro





TYPE "M" INLET

NOT TO SCALE



D	L	W	Q
15"	3.5'	3.0'	12"
18"	4.0'	3.0'	12"
21"	4.5'	3.0'	12"
24"	5.0'	3.5'	12"
30"	5.5'	4.0'	12"
36"	5.8'	4.6'	12"
42"	6.3'	5.8'	12"
48"	6.9'	6.8'	12"
54"	7.5'	8.0'	12"
60"	8.1'	9.0'	12"
72"	9.2'	11.9'	12"

NOTES: CONCRETE TO BE PENNDOT CLASS "A" THROUGHOUT. CHAMFER ALL EXPOSED EDGES 3". ALL JOINTS SHALL BE FILLED WITH NON-EXTRUDING PRE-MOLDED EXPANSION FILLER.

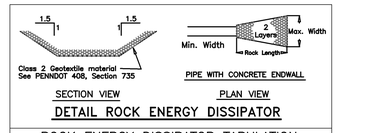
TOP VIEW

SIDE VIEW

END VIEW

TYPE D-W ENDWALL

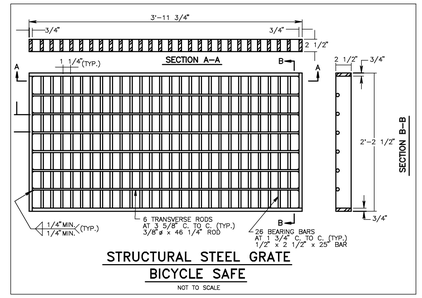
NOT TO SCALE



DETAIL ROCK ENERGY DISSIPATOR

ROCK ENERGY DISSIPATOR TABULATION

ENDWALL NO.	LENGTH	MIN. WIDTH	MAX. WIDTH	AVE. SIZE ROCK	GRADATION (N.S.A. NO.)	PLACEMENT THICKNESS
E1	19'	3.75'	11.4'	6"	R-4	18"



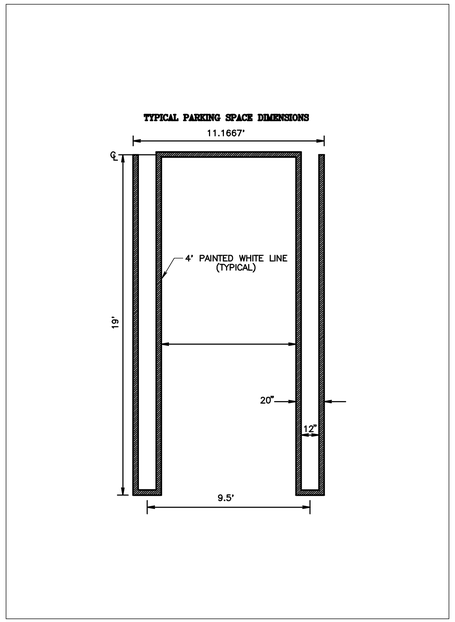
STRUCTURAL STEEL GRATE

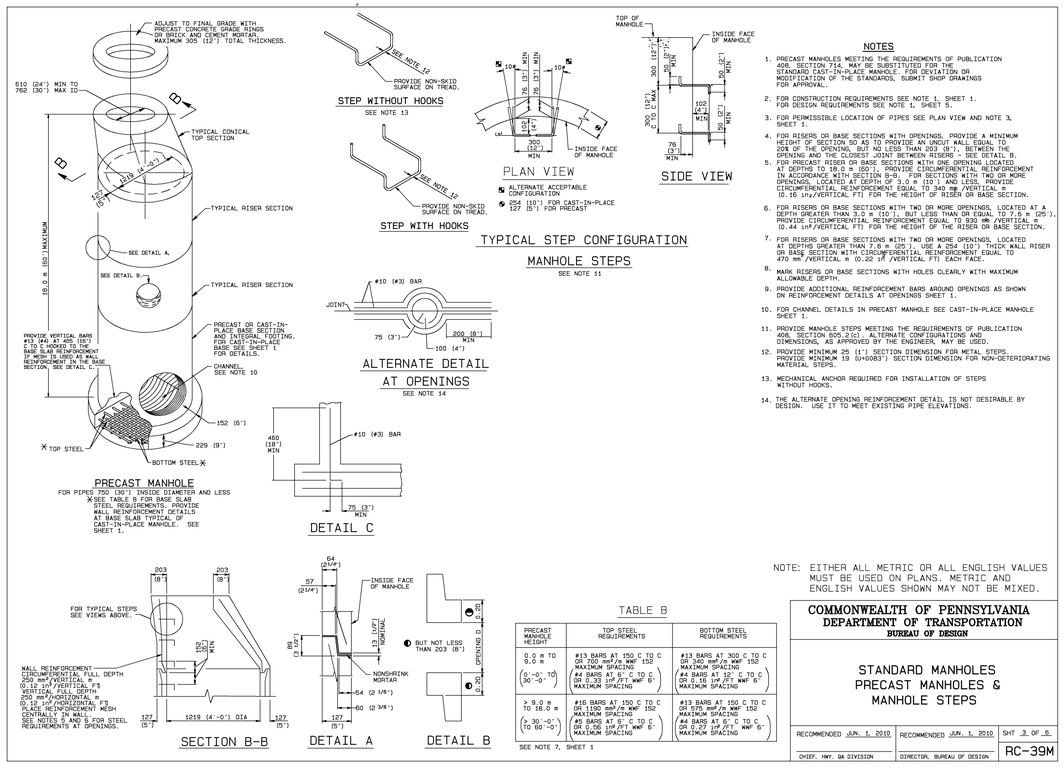
BICYCLE SAFE

NOT TO SCALE

MONUMENTATION NOTES

1. MONUMENTS SHALL BE STONE OR CONCRETE.
2. IRON PINS SHALL BE 3/4" IRON ROD.





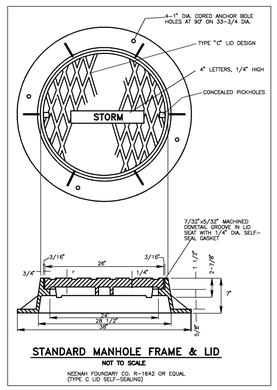
PRECAST MANHOLE HEIGHT	TOP STEEL REQUIREMENTS	BOTTOM STEEL REQUIREMENTS
0.0 m TO 9.0 m (0'-0" TO 30'-0")	#13 BARS AT 150 C TO C OR 700 mm²/m WWF 152 MAXIMUM SPACING (#4 BARS AT 6" C TO C OR 0.33 in²/FT WWF 6" MAXIMUM SPACING)	#13 BARS AT 300 C TO C OR 340 mm²/m WWF 152 MAXIMUM SPACING (#4 BARS AT 12" C TO C OR 0.16 in²/FT WWF 6" MAXIMUM SPACING)
> 9.0 m TO 18.0 m (> 30'-0" TO 60'-0")	#16 BARS AT 150 C TO C OR 1190 mm²/m WWF 152 MAXIMUM SPACING (#5 BARS AT 6" C TO C OR 0.59 in²/FT WWF 6" MAXIMUM SPACING)	#13 BARS AT 150 C TO C OR 575 mm²/m WWF 152 MAXIMUM SPACING (#4 BARS AT 6" C TO C OR 0.27 in²/FT WWF 6" MAXIMUM SPACING)

NOTE: EITHER ALL METRIC OR ALL ENGLISH VALUES MUST BE USED ON PLANS. METRIC AND ENGLISH VALUES SHOWN MAY NOT BE MIXED.

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

STANDARD MANHOLES
PRECAST MANHOLES & MANHOLE STEPS

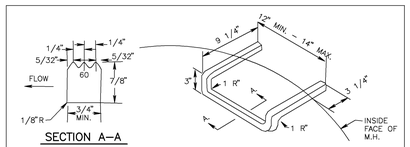
RECOMMENDED JUN. 1, 2010
CHIEF, HWY. GA DIVISION
RECOMMENDED JUN. 1, 2010
DIRECTOR, BUREAU OF DESIGN
SHT 3 OF 6
RC-39M



STANDARD MANHOLE FRAME & LID

NOT TO SCALE

NEENAH FOUNDRY CO. R-1642 OR EQUAL (TYPE C LID SELF-SEALING)



MANHOLE STEP NOTES:

1. STEPS TO BE FABRICATED OF ALUMINUM ALLOY 6061-T6 PORTIONS OF STEPS TO BE EMBEDDED IN WALLS OF MANHOLES OR CHAMBERS TO BE DIPPED IN HEAVY BODIED BITUMINOUS PAINT, OR ELSE PROVIDED WITH PLASTIC INSERT.
2. STEEL REINFORCED POLYPROPYLENE STEPS ARE AN OPTIONAL STYLE.

PRELIMINARY/FINAL
DETAIL SHEET

5	9-25-2020	REVISED GRADES & GRADING SETBACK
4	6-16-2020	REVISED PER NPDES TECHNICAL REVIEW 5-28-20.
3	3-17-2020	REVISED PER TWP. ENG. COMMENTS 1-14-20 & NPDES LETTER 3-3-20.
2	2-4-2020	REVISED PER NPDES APPLICATION REQUIREMENTS & ADDED BUFFER NOTES
1	1-7-2020	REVISED PER TWP. ENGINEERS COMMENTS

PLAN OF PROPERTY
FOR
THE MALVERN SCHOOL

UPPER MERION TOWNSHIP — MONTGOMERY COUNTY, PA.

11	3-2-2021	NOT THIS SHEET
10	2-24-2021	NOT THIS SHEET.
9	1-29-2021	REVISED WALL, GRADING AT WALL & NOTES
8	12-3-2020	ADDED FENCE AND NOTE
7	11-6-2020	REVISED PER SC ENGINEERS 11-6-20 COMMENTS
6	11-2-2020	RELOCATED UTILITY TIE-IN LOCATIONS
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COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — THEODORE JOSEPH DOMIS — ENGINEER — NO. 031545-E

Project-	4524
Date-	5-28-19
Scale-	N/A
Drawn-	RBL
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Sheet-	10 OF 11
Plotted:	3/3/2021
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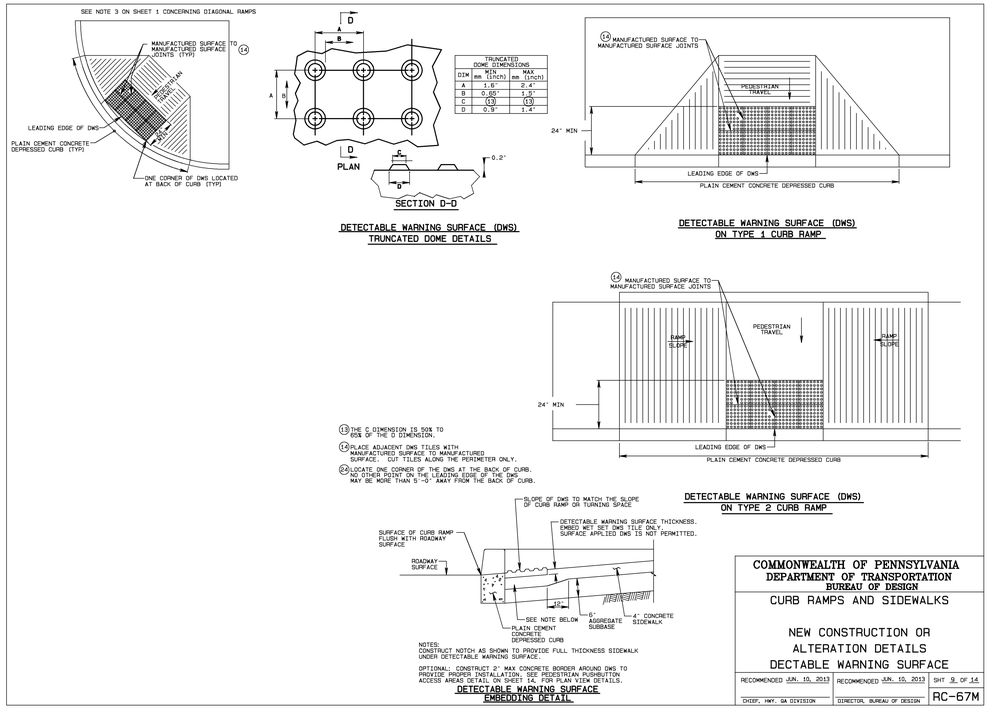
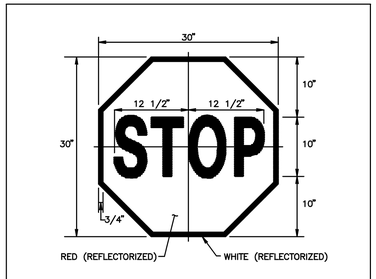


COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

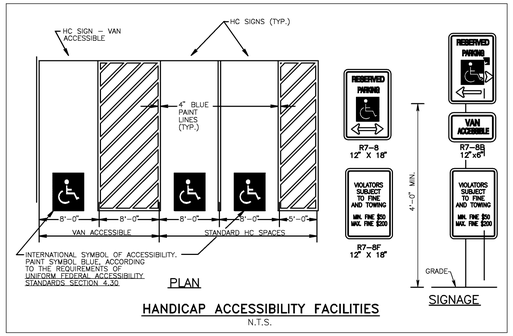
CURB RAMPS AND SIDEWALKS

NEW CONSTRUCTION OR ALTERATION DETAILS
DECTABLE WARNING SURFACE

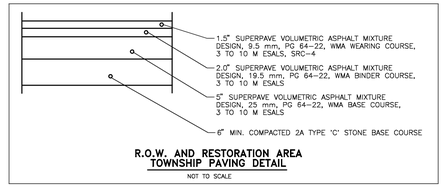
RECOMMENDED JAN. 10, 2013	RECOMMENDED JAN. 10, 2013	SHT 9 OF 14
CHIEF, HWY. QA DIVISION	DIRECTOR, BUREAU OF DESIGN	RC-67M



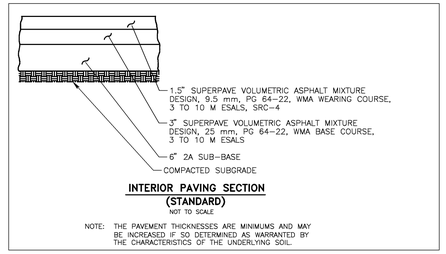
DETAIL OF STOP SIGN (R1-1)
Not to Scale



HANDICAP ACCESSIBILITY FACILITIES
N.T.S.

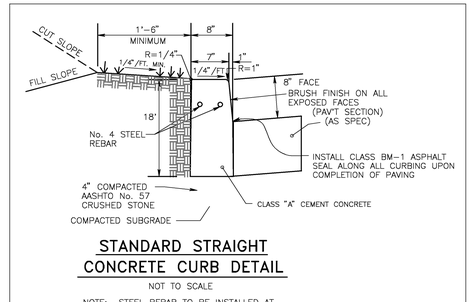


R.O.W. AND RESTORATION AREA
TOWNSHIP PAVING DETAIL
NOT TO SCALE



INTERIOR PAVING SECTION
(STANDARD)
NOT TO SCALE

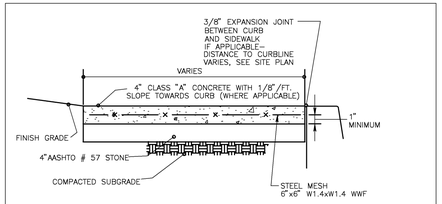
NOTE: THE PAVEMENT THICKNESSES ARE MINIMUMS AND MAY BE INCREASED IF SO DETERMINED AS WARRANTED BY THE CHARACTERISTICS OF THE UNDERLYING SOIL.



STANDARD STRAIGHT
CONCRETE CURB DETAIL
NOT TO SCALE

NOTE: STEEL REBAR TO BE INSTALLED AT STORM INLET CONNECTIONS, SHARP RADII AND DEPRESSED CURB LOCATIONS. CURB TO HAVE AN EXPANSION JOINT EVERY 10 FEET AND A JOINT FILLER EVERY 50 FEET.

CONCRETE SPECIFICATIONS:
SHALL BE CONSTRUCTED OF MONOLITHIC CONCRETE. SAID CONCRETE SHALL HAVE A LOW SLUMP WITH A MAXIMUM SLUMP OF FOUR INCHES, A COMPRESSIVE STRENGTH OF 3,000 POUNDS PER SQUARE INCH (PSI) MINIMUM IN 28 DAYS, A LOW WATER-CEMENT RATIO OF 0.45 OR LESS, ENTRAINED AIR OF 5% TO 8% TOTAL AIR CONTENT AND A MINIMUM CEMENTITIOUS MATERIALS CONTENT OF 564 POUNDS PER CUBIC YARD (lb/cu yd) OF CONCRETE. CERTIFICATION FOR THE CONCRETE MIX SHALL BE FURNISHED IF REQUIRED BY THE ENGINEER.

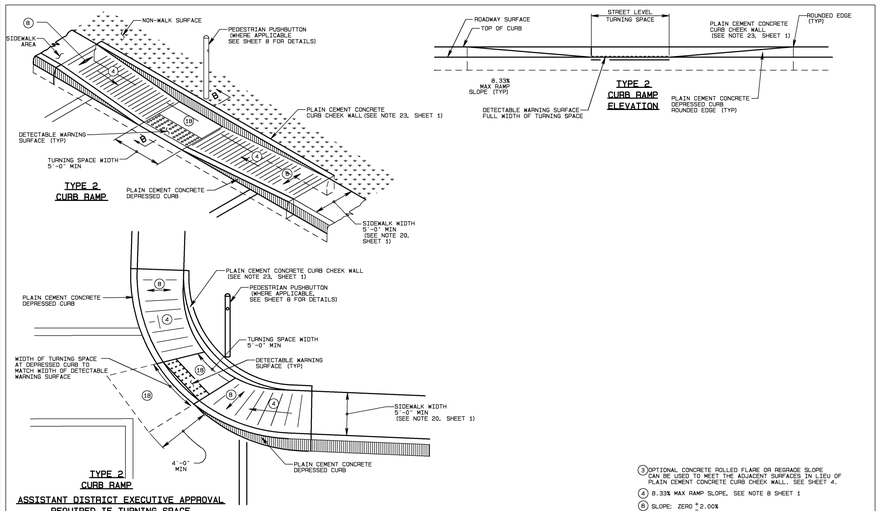


TYPICAL SIDEWALK DETAIL
NOT TO SCALE

NOTE:
1/2" EXPANSION JOINTS MUST BE PROVIDED AT 20' C. TO C. (MAX) AND THAT TRANSVERSE CONTROL SCORE JOINTS MUST BE PROVIDED AT 5' C. TO C. (MAX.)

THE SUBGRADE SHALL BE THOROUGHLY COMPACTED TO NOT LESS THAN 100% OF THE NAXIMUM MODIFIED PROCTOR DENSITY.

CONCRETE SPECIFICATIONS:
SHALL BE CONSTRUCTED OF MONOLITHIC CONCRETE. SAID CONCRETE SHALL HAVE A LOW SLUMP WITH A MAXIMUM SLUMP OF FOUR INCHES, A COMPRESSIVE STRENGTH OF 4,000 POUNDS PER SQUARE INCH (PSI) IN 28 DAYS, A LOW WATER-CEMENT RATIO OF 0.45 OR LESS, ENTRAINED AIR OF 5% TO 8% TOTAL AIR CONTENT AND A MINIMUM CEMENTITIOUS MATERIALS CONTENT OF 564 POUNDS PER CUBIC YARD (lb/cu yd) OF CONCRETE. CERTIFICATION FOR THE CONCRETE MIX SHALL BE FURNISHED IF REQUIRED BY THE ENGINEER.



(3) OPTIONAL CONCRETE ROLLED FLARE OR REGRADE SLOPE CAN BE USED TO MEET THE ADJACENT SURFACES IN LIEU OF PLAIN CEMENT CONCRETE CURB CHECK WALL. SEE SHEET 4.
(4) 8.33% MAX RAMP SLOPE, SEE NOTE 8 SHEET 1
(5) SLOPE: ZERO " 2.00%
(10) CURB RAMPS REQUIRE A TURNING SPACE WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SEE DETAILS FOR LOCATIONS AND DIMENSIONS.

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

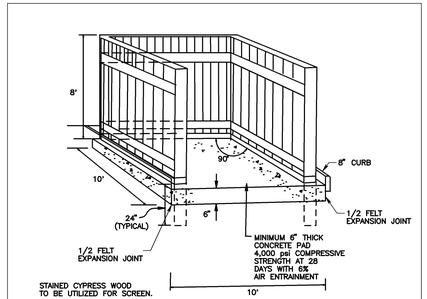
CURB RAMPS AND SIDEWALKS

NEW CONSTRUCTION OR ALTERATION
TYPE 1A AND TYPE 2 CURB RAMPS

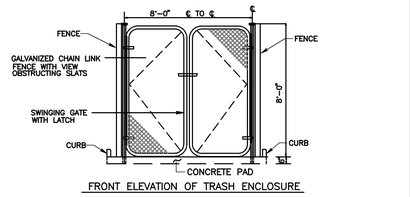
RECOMMENDED JAN. 10, 2013	RECOMMENDED JAN. 10, 2013	SHT 3 OF 14
CHIEF, HWY. QA DIVISION	DIRECTOR, BUREAU OF DESIGN	RC-67M

NOTES

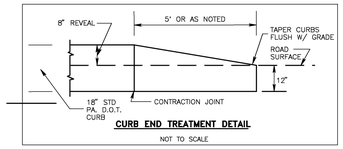
1. PROVIDE MATERIALS AND CONSTRUCTION MEETING THE REQUIREMENTS OF PUBLICATION 408, SECTIONS 350, 409, 630, 676 AND 694.
2. PROVIDE EXPANSION JOINT MATERIAL 13 (1/2") THICK WHERE CURB RAMP ADJOINS ANY RIGID PAVEMENT, SIDEWALK OR STRUCTURE WITH THE TOP OF JOINT FILLER FLUSH WITH ADJACENT CONCRETE SURFACE.
3. CONSTRUCT DIAGONAL CURB RAMPS WITH A 1220 (4'-0") CLEARSPACE OUTSIDE OF TRAVEL LANES AT THE BOTTOM OF THE RAMP. IF DIAGONAL CURB RAMPS ARE PROVIDED AT MARKED CROSSINGS, THE 1220 (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 200 (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 4500 (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. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED. US CUSTOMARY UNITS IN () PARENTHESIS.
13. ALIGN DETECTABLE WARNING DOMES ON A SQUARE GRID IN THE PREDOMINANT DIRECTION OF THE RAMP AND PERPENDICULAR TO CURB.
14. PROVIDE DETECTABLE WARNING SURFACES (DWS) 610 (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.
15. FOR NEW CONSTRUCTION, DO NOT EXCEED 2.00% CROSS SLOPE ON THE CURB RAMP OR ACCESSIBLE ROUTE.
16. 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 APPLICIABLE, WILL NOT BE ACCEPTED AND WILL BE RECONSTRUCTED.
17. 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% CROSSSLOPE. 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%. SEE SHEET 8 FOR DETAILS.
18. THE CONSTRUCTION STANDARDS DEPICTED ARE MOST APPROPRIATE FOR NEW CONSTRUCTION. ALL CONSTRUCTION MUST MEET THE STANDARDS CONTAINED HEREIN UNLESS OTHERWISE NOTED OR DIRECTED.
19. 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 150 (6") CURB DOES NOT NECESSARILY MEAN A RAMP LENGTH OF 1800 (6'-0") FOR A 12:1 (1:12) SLOPE.
20. SIDEWALK WIDTH MAY BE REDUCED TO 1220 (4'-0"), WHEN PASSING AREAS 1525 X 1525 (5'-0" X 5'-0") ARE PROVIDED EVERY 61 METERS (200').
21. 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.
22. DEPRESSED CURB FOR CURB RAMPS MUST BE FLUSH TO ADJACENT ROADWAY. EDGE OF ROAD ELEVATIONS AT THE FLOW LINE SHALL BE GRADEDTO ENSURE POSITIVE DRAINAGE AND PREVENT PONDING.



TRASH ENCLOSURE SCREEN DETAIL
OR APPROVED EQUAL
N.T.S.



FRONT ELEVATION OF TRASH ENCLOSURE

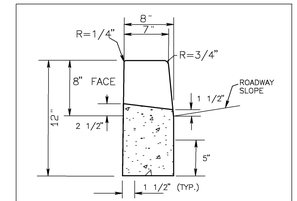


CURB END TREATMENT DETAIL
NOT TO SCALE

MONUMENT & LOT PIN SPECIFICATIONS

MONUMENTS
1. SHALL BE MADE OF STONE OR CONCRETE; PLACED AT STREET INTERSECTIONS, ANGLE POINTS, BEGINNING AND ENDING OF ALL CURVES AND AT SUCH OTHER LOCATIONS ALONG THE RIGHT-OF-WAY LINES AS THE TOWNSHIP ENGINEER SHALL DESIGNATE.
2. MONUMENTS SHALL BE 4"x4" AND BE INSTALLED WITH 1/2" REVEAL ABOVE GRADE.

LOT PINS
1. SHALL BE 3/4" IRON ROD AND SHALL BE PLACED AT ALL CORNERS.



A-A

DEPRESSED
CONCRETE CURB DETAIL
NOT TO SCALE

PRELIMINARY/FINAL DETAIL SHEET

4	6-16-2020	REVISED PER NPDES TECHNICAL REVIEW 5-28-20.
3	3-17-2020	REVISED PER TWP. ENG. COMMENTS 1-14-20 & NPDES LETTER 3-3-20.
2	2-4-2020	REVISED PER NPDES APPLICATION REQUIREMENTS & ADDED BUFFER NOTES
1	1-7-2020	REVISED PER TWP. ENGINEERS COMMENTS
11	3-2-2021	NOT THIS SHEET
10	2-24-2021	NOT THIS SHEET
9	1-29-2021	REVISED WALL, GRADING AT WALL & NOTES
8	12-3-2020	ADDED FENCE AND NOTE
7	11-6-2020	REVISED PER SC ENGINEERS 11-6-20 COMMENTS
6	11-2-2020	RELOCATED UTILITY TIE-IN LOCATIONS
5	9-25-2020	REVISED GRADES & GRADING SETBACK

PLAN OF PROPERTY
FOR
THE MALVERN SCHOOL

UPPER MERION TOWNSHIP — MONTGOMERY COUNTY, PA.

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — THEODORE JOSEPH SIMMONS — ENGINEER — NO. 031545-E — PENNSYLVANIA

Edward B. Walsh & Associates, Inc.
CIVIL ENGINEERS & SURVEYORS
125 Dowlin Forge Road
Exton, Pennsylvania 19341
Phone (610) 903-0060
Fax (610) 903-0080

Project-	4524
Date-	5-28-19
Scale-	N/A
Drawn-	RBL
Checked-	AE
Sheet-	11 OF 11

Plotted: 3/3/2021 | File: F:\JB\4524\4524-B8.pro