

# THE DISCOVERY LABS

## 411 SWEDELAND ROAD

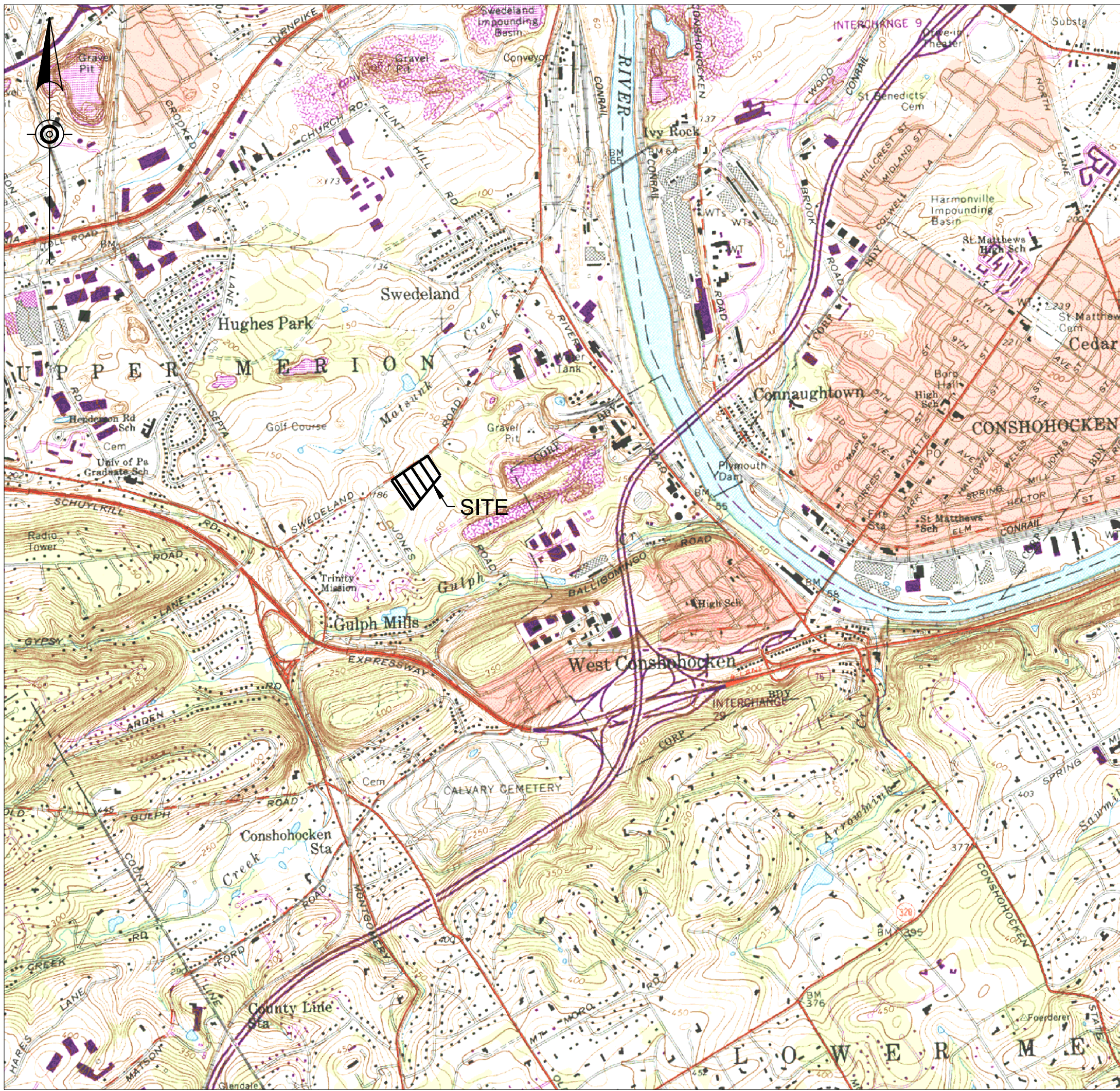
### PARKING GARAGE

#### UPPER MERION TOWNSHIP

#### MONTGOMERY COUNTY, PA

INDEX

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LOCATION MAP  
SCALE: 1" = 2,000'

DESIGNED: M.J.W.	DRAWN: M.J.W.	CHECKED: MMT	TITLE SHEET	
DATE SIGNED:		REVISIONS	THE DISCOVERY LABS, 411 SWEDELAND ROAD PARKING GARAGE UPPER MERION TOWNSHIP MONTGOMERY COUNTY, PENNSYLVANIA	
		NO. DATE		
MARK M. THOMPSON			 <b>Taylor Wiseman &amp; Taylor</b> ENGINEERS / SURVEYORS / SCIENTISTS 5 VALLEY SQUARE, SUITE 100, BLUE BELL, PA 19422 TELEPHONE: (267) 956-1020 FAX: (267) 956-1019 www.taylorwiseman.com	
PA. PROFESSIONAL ENGINEER NO. PE073278	SCALE:	AS NOTED	DATE: MARCH 15, 2020	DRAWING NO. 20-06602-GARAGE SHEET: 1 OF 15





EXISTING

PROPOSED

MANHOLE

INLET

CONCRETE HEADWALL

FLARED END SECTION

UTILITY POLE

PECO MONOPOLE

FIRE HYDRANT

SIGN

EDGE OF WOODS

SANITARY SEWER

STORM DRAIN

WATER MAIN

TELEPHONE LINE

ELECTRIC LINE

GAS LINE

GATE VALVE

CONTOUR LINE

GRADE

MEET EXISTING GRADE

TOP OF CURB ELEVATION

GUTTER ELEVATION

HANDICAP RAMP

CONCRETE CURB

EDGE OF PAVEMENT

CONCRETE

MANHOLE

INLET

CONCRETE HEADWALL

FLARED END SECTION

UTILITY POLE

PECO MONOPOLE

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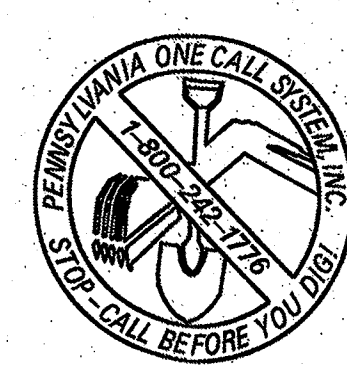
HANDICAP RAMP

CONCRETE CURB

EDGE OF PAVEMENT

CONCRETE

- NOTES:
- OWNER/APPLICANT: MERION INNOVATION I, LLC  
201 KING OF PRUSSIA ROAD  
SUITE 501  
RADNOR, PA 19087  
ATTN: DALE T. STESKO
  - RIGHT-OF-WAY INFORMATION TAKEN FROM DEED BOOK 6096, PG 01835 AND TAX MAP INFORMATION OF UPPER MERION TOWNSHIP.
  - TOPOGRAPHY AND INVERT INFORMATION TAKEN FROM FIELD CREW SURVEY WORK PERFORMED BY TAYLOR WISEMAN AND TAYLOR DATED JANUARY 2019. HORIZONTAL POSITION AND BEARING ORIENTATION SHOWN HEREON ARE BASED UPON THE PA STATE PLANE COORDINATE SYSTEM - SOUTH ZONE, AND ELEVATION ARE BASED ON THE NAVD 88 VERTICAL DATUM; BOTH ARE AS DERIVED BY GNSS/GPS OBSERVATIONS UTILIZING THE KEYNET VR8 SYSTEM.
  - PARCEL NUMBERS SHOWN HEREON REFER TO THE OFFICIAL TAX MAPS OF MONTGOMERY COUNTY, PENNSYLVANIA.
  - CONTACT PENNSYLVANIA ONE CALL SYSTEM INC 1-800-242-1778 BEFORE YOU DIG AND 811 REGARDING PROPOSED EXCAVATION AT LEAST (48) HOURS IN ADVANCE. OF ANY EARTH DISTURBANCE, NOT INCLUDING WEEKENDS AND HOLIDAYS. THE CONTRACTOR SHALL CONTACT UPPER MERION TOWNSHIP DEPARTMENT OF PUBLIC WORKS PRIOR TO DIGGING.
  - VERTICAL DATUM BASED ON NAVD 1988. HORIZONTAL DATUM BASED ON NAD 83, PA STATE PLANE COORDINATE SYSTEM SOUTH ZONE.
  - THE SITE IS NOT LOCATED IN A SPECIAL FLOOD HAZARD ZONE ACCORDING TO THE NATIONAL FLOOD INSURANCE PROGRAM, FLOOD INSURANCE RATE MAP, MONTGOMERY COUNTY, MAP NUMBER 42091C0354G, EFFECTIVE DATE MARCH 2, 2016.



THE CONTRACTOR AND/OR OWNER SHALL BE RESPONSIBLE FOR LOCATING ALL EXISTING STRUCTURES AND UTILITIES, WHICH HE DEEMS NECESSARY, BOTH ABOVE AND BELOW THE GROUND SURFACE BEFORE HEAVY EQUIPMENT ENTERS THE CONSTRUCTION SITE.

FINAL INQUIRIES TO PENNSYLVANIA ONE CALL SYSTEM, INC. (PHONE # 1-800-242-1777) SHALL BE MADE BY THE CONTRACTOR AND/OR OWNER WITHIN SEVEN (7) DAYS OF ENTERING THE SITE. THE CONTRACTOR AND/OR OWNER SHALL COORDINATE AND VERIFY THE METHOD OF UTILITY LOCATION WITH THE APPROPRIATE UTILITY COMPANIES.

IN GENERAL, THE VERTICAL DESIGN OF PROPOSED GRAVITY UTILITIES, AS SHOWN, ARE INFLUENCED BY THE EXISTING GRAVITY UTILITIES ONLY, WHICH MAY NECESSITATE THE RELOCATIONS OF OTHER UTILITIES.

UTILITY LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE, AND BASED ON EXISTING INFORMATION RECEIVED FROM UTILITY COMPANIES.



DESIGNED: MMT  
DATE: 03/14/2020

DRAWN: JAS  
DATE: 03/14/2020

CHECKED: RTM  
DATE: 03/14/2020

REVISIONS:  
NO. DATE

MARK M. THOMPSON  
REGISTERED PROFESSIONAL ENGINEER  
STATE OF PENNSYLVANIA  
LICENSE NO. PE073278

PA PROFESSIONAL ENGINEER NO. PE073278

OVERALL EXISTING RESOURCES & SITE ANALYSIS PLAN

THE DISCOVERY LABS, 411 SWEDELAND ROAD  
PARKING GARAGE  
UPPER MERION TOWNSHIP  
MONTGOMERY COUNTY, PENNSYLVANIA

TWT

Taylor Wiseman & Taylor  
ENGINEERS / SURVEYORS / SCIENTISTS  
5 VALLEY SQUARE, SUITE 100, BLUE BELL, PA 19422  
TELEPHONE: (267) 956-1020 FAX: (267) 956-1019  
www.taylorwiseman.com

SCALE: 1" = 200'

DATE: MARCH 14, 2020

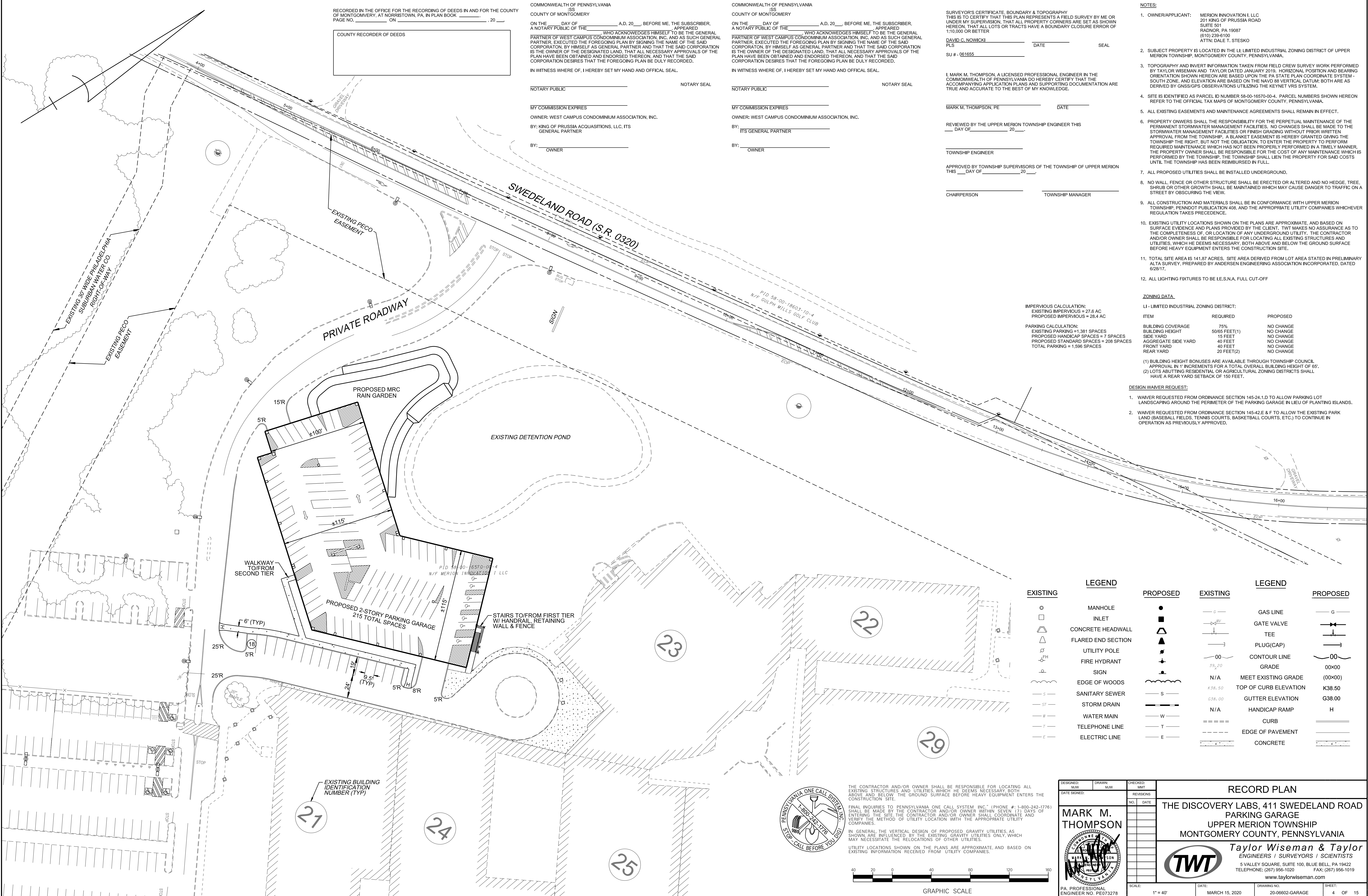
DRAWING NO.: 20-06502-GARAGE

SHEET: 2 OF 15









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\_\_\_\_.

COUNTY RECORDER OF DEEDS

COMMONWEALTH OF PENNSYLVANIA  
COUNTY OF MONTGOMERY  
ON THE \_\_\_\_\_ DAY OF \_\_\_\_\_, A.D. 20\_\_\_\_, BEFORE ME, THE SUBSCRIBER, A NOTARY PUBLIC OF THE \_\_\_\_\_, WHO ACKNOWLEDGES HIMSELF TO BE THE GENERAL PARTNER OF WEST CAMPUS CONDOMINIUM ASSOCIATION, INC. AND AS SUCH GENERAL PARTNER, EXECUTED THE FOREGOING PLAN BY SIGNING THE NAME OF THE SAID CORPORATION, BY HIMSELF AS GENERAL PARTNER AND THAT THE SAID CORPORATION IS THE OWNER OF THE DESIGNATED LAND, THAT ALL NECESSARY APPROVALS OF THE PLAN HAVE BEEN OBTAINED AND ENDORSED THEREON, AND THAT THE SAID CORPORATION DESIRES THAT THE FOREGOING PLAN BE DULY RECORDED.  
IN WITNESS WHERE OF, I HEREBY SET MY HAND AND OFFICIAL SEAL.  
NOTARY PUBLIC  
MY COMMISSION EXPIRES \_\_\_\_\_  
OWNER: WEST CAMPUS CONDOMINIUM ASSOCIATION, INC.  
BY: KING OF PRUSSIA ACQUISITIONS, LLC, ITS GENERAL PARTNER  
BY: \_\_\_\_\_ OWNER

COMMONWEALTH OF PENNSYLVANIA  
COUNTY OF MONTGOMERY  
ON THE \_\_\_\_\_ DAY OF \_\_\_\_\_, A.D. 20\_\_\_\_, BEFORE ME, THE SUBSCRIBER, A NOTARY PUBLIC OF THE \_\_\_\_\_, WHO ACKNOWLEDGES HIMSELF TO BE THE GENERAL PARTNER OF WEST CAMPUS CONDOMINIUM ASSOCIATION, INC. AND AS SUCH GENERAL PARTNER, EXECUTED THE FOREGOING PLAN BY SIGNING THE NAME OF THE SAID CORPORATION, BY HIMSELF AS GENERAL PARTNER AND THAT THE SAID CORPORATION IS THE OWNER OF THE DESIGNATED LAND, THAT ALL NECESSARY APPROVALS OF THE PLAN HAVE BEEN OBTAINED AND ENDORSED THEREON, AND THAT THE SAID CORPORATION DESIRES THAT THE FOREGOING PLAN BE DULY RECORDED.  
IN WITNESS WHERE OF, I HEREBY SET MY HAND AND OFFICIAL SEAL.  
NOTARY PUBLIC  
MY COMMISSION EXPIRES \_\_\_\_\_  
OWNER: WEST CAMPUS CONDOMINIUM ASSOCIATION, INC.  
BY: \_\_\_\_\_ ITS GENERAL PARTNER  
BY: \_\_\_\_\_ OWNER

SURVEYOR'S CERTIFICATE, BOUNDARY & TOPOGRAPHY  
THIS IS TO CERTIFY THAT THIS PLAN REPRESENTS A FIELD SURVEY BY ME OR UNDER MY SUPERVISION, THAT ALL PROPERTY CORNERS ARE SET AS SHOWN HEREON, THAT ALL LOTS OR TRACTS HAVE A BOUNDARY CLOSURE ERROR OF 1:10,000 OR BETTER  
DAVID C. NOWICKI  
PLS \_\_\_\_\_ DATE \_\_\_\_\_ SEAL  
SU # - 051655  
I, MARK M. THOMPSON, A LICENSED PROFESSIONAL ENGINEER IN THE COMMONWEALTH OF PENNSYLVANIA DO HEREBY CERTIFY THAT THE ACCOMPANYING APPLICATION PLANS AND SUPPORTING DOCUMENTATION ARE TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE.  
MARK M. THOMPSON, PE \_\_\_\_\_ DATE \_\_\_\_\_  
REVIEWED BY THE UPPER MERION TOWNSHIP ENGINEER THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_\_\_.  
TOWNSHIP ENGINEER  
APPROVED BY TOWNSHIP SUPERVISORS OF THE TOWNSHIP OF UPPER MERION THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_\_\_.  
CHAIRPERSON \_\_\_\_\_ TOWNSHIP MANAGER \_\_\_\_\_

- NOTES:
- OWNER/APPLICANT: MERION INNOVATION I, LLC  
201 KING OF PRUSSIA ROAD  
SUITE 501  
RADNOR, PA 19087  
(610) 239-6100  
ATTN: DALE T. STESKO
  - SUBJECT PROPERTY IS LOCATED IN THE LI LIMITED INDUSTRIAL ZONING DISTRICT OF UPPER MERION TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA.
  - TOPOGRAPHY AND INVERT INFORMATION TAKEN FROM FIELD CREW SURVEY WORK PERFORMED BY TAYLOR WISEMAN AND TAYLOR DATED JANUARY 2019. HORIZONTAL POSITION AND BEARING ORIENTATION SHOWN HEREON ARE BASED UPON THE PA STATE PLAN COORDINATE SYSTEM - SOUTH ZONE, AND ELEVATION ARE BASED ON THE NAVD 88 VERTICAL DATUM. BOTH ARE AS DERIVED BY GNSS/GPS OBSERVATIONS UTILIZING THE KEYNET VRS SYSTEM.
  - SITE IS IDENTIFIED AS PARCEL ID NUMBER 58-00-16670-00-4. PARCEL NUMBERS SHOWN HEREON REFER TO THE OFFICIAL TAX MAPS OF MONTGOMERY COUNTY, PENNSYLVANIA.
  - ALL EXISTING EASEMENTS AND MAINTENANCE AGREEMENTS SHALL REMAIN IN EFFECT.
  - PROPERTY OWNERS SHALL BE RESPONSIBLE FOR THE PERPETUAL MAINTENANCE OF THE PERMANENT STORMWATER MANAGEMENT FACILITIES. NO CHANGES SHALL BE MADE TO THE STORMWATER MANAGEMENT FACILITIES OR FINISH GRADING WITHOUT PRIOR WRITTEN APPROVAL FROM THE TOWNSHIP. A BLANKET EASEMENT IS HEREBY GRANTED GIVING THE TOWNSHIP THE RIGHT, BUT NOT THE OBLIGATION, TO ENTER THE PROPERTY TO PERFORM REQUIRED MAINTENANCE WHICH HAS NOT BEEN PROPERLY PERFORMED IN A TIMELY MANNER. THE PROPERTY OWNER SHALL BE RESPONSIBLE FOR THE COST OF ANY MAINTENANCE WHICH IS PERFORMED BY THE TOWNSHIP. THE TOWNSHIP SHALL LIEN THE PROPERTY FOR SAID COSTS UNTIL THE TOWNSHIP HAS BEEN REIMBURSED IN FULL.
  - ALL PROPOSED UTILITIES SHALL BE INSTALLED UNDERGROUND.
  - NO WALL, FENCE OR OTHER STRUCTURE SHALL BE ERRECTED OR ALTERED AND NO HEDGE, TREE, SHRUB OR OTHER GROWTH SHALL BE MAINTAINED WHICH MAY CAUSE DANGER TO TRAFFIC ON A STREET BY OBSCURING THE VIEW.
  - ALL CONSTRUCTION AND MATERIALS SHALL BE IN CONFORMANCE WITH UPPER MERION TOWNSHIP, PENNDOT PUBLICATION 408, AND THE APPROPRIATE UTILITY COMPANIES WHICHEVER REGULATION TAKES PRECEDENCE.
  - EXISTING UTILITY LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE, AND BASED ON SURFACE EVIDENCE AND PLANS PROVIDED BY THE CLIENT. TWT MAKES NO ASSURANCE AS TO THE COMPLETENESS OF, OR LOCATION OF ANY UNDERGROUND UTILITY. THE CONTRACTOR AND/OR OWNER SHALL BE RESPONSIBLE FOR LOCATING ALL EXISTING STRUCTURES AND UTILITIES, WHICH HE DEEMS NECESSARY, BOTH ABOVE AND BELOW THE GROUND SURFACE BEFORE HEAVY EQUIPMENT ENTERS THE CONSTRUCTION SITE.
  - TOTAL SITE AREA IS 141.87 ACRES. SITE AREA DERIVED FROM LOT AREA STATED IN PRELIMINARY ALTA SURVEY, PREPARED BY ANDERSEN ENGINEERING ASSOCIATION INCORPORATED, DATED 6/28/17.
  - ALL LIGHTING FIXTURES TO BE I.E.S.N.A. FULL CUT-OFF

ZONING DATA

LI - LIMITED INDUSTRIAL ZONING DISTRICT:

ITEM	REQUIRED	PROPOSED
BUILDING COVERAGE	75%	NO CHANGE
BUILDING HEIGHT	50/65 FEET(1)	NO CHANGE
SIDE YARD	15 FEET	NO CHANGE
AGGREGATE SIDE YARD	40 FEET	NO CHANGE
FRONT YARD	40 FEET	NO CHANGE
REAR YARD	20 FEET(2)	NO CHANGE

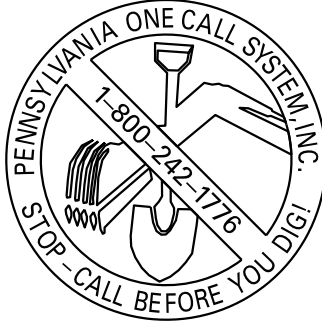
- (1) BUILDING HEIGHT BONUS ARE AVAILABLE THROUGH TOWNSHIP COUNCIL APPROVAL IN 1' INCREMENTS FOR A TOTAL OVERALL BUILDING HEIGHT OF 65'.  
(2) LOTS ABUTTING RESIDENTIAL OR AGRICULTURAL ZONING DISTRICTS SHALL HAVE A REAR YARD SETBACK OF 150 FEET.

DESIGN WAIVER REQUEST:

- WAIVER REQUESTED FROM ORDINANCE SECTION 145-24.1.D TO ALLOW PARKING LOT LANDSCAPING AROUND THE PERIMETER OF THE PARKING GARAGE IN LIEU OF PLANTING ISLANDS.
- WAIVER REQUESTED FROM ORDINANCE SECTION 145-42.E & F TO ALLOW THE EXISTING PARK LAND (BASEBALL FIELDS, TENNIS COURTS, BASKETBALL COURTS, ETC.) TO CONTINUE IN OPERATION AS PREVIOUSLY APPROVED.

EXISTING	LEGEND	PROPOSED	EXISTING	LEGEND	PROPOSED
MANHOLE	INLET	CONCRETE HEADWALL	FLARED END SECTION	UTILITY POLE	FIRE HYDRANT
SIGN	EDGE OF WOODS	SANITARY SEWER	STORM DRAIN	WATER MAIN	TELEPHONE LINE
ELECTRIC LINE					

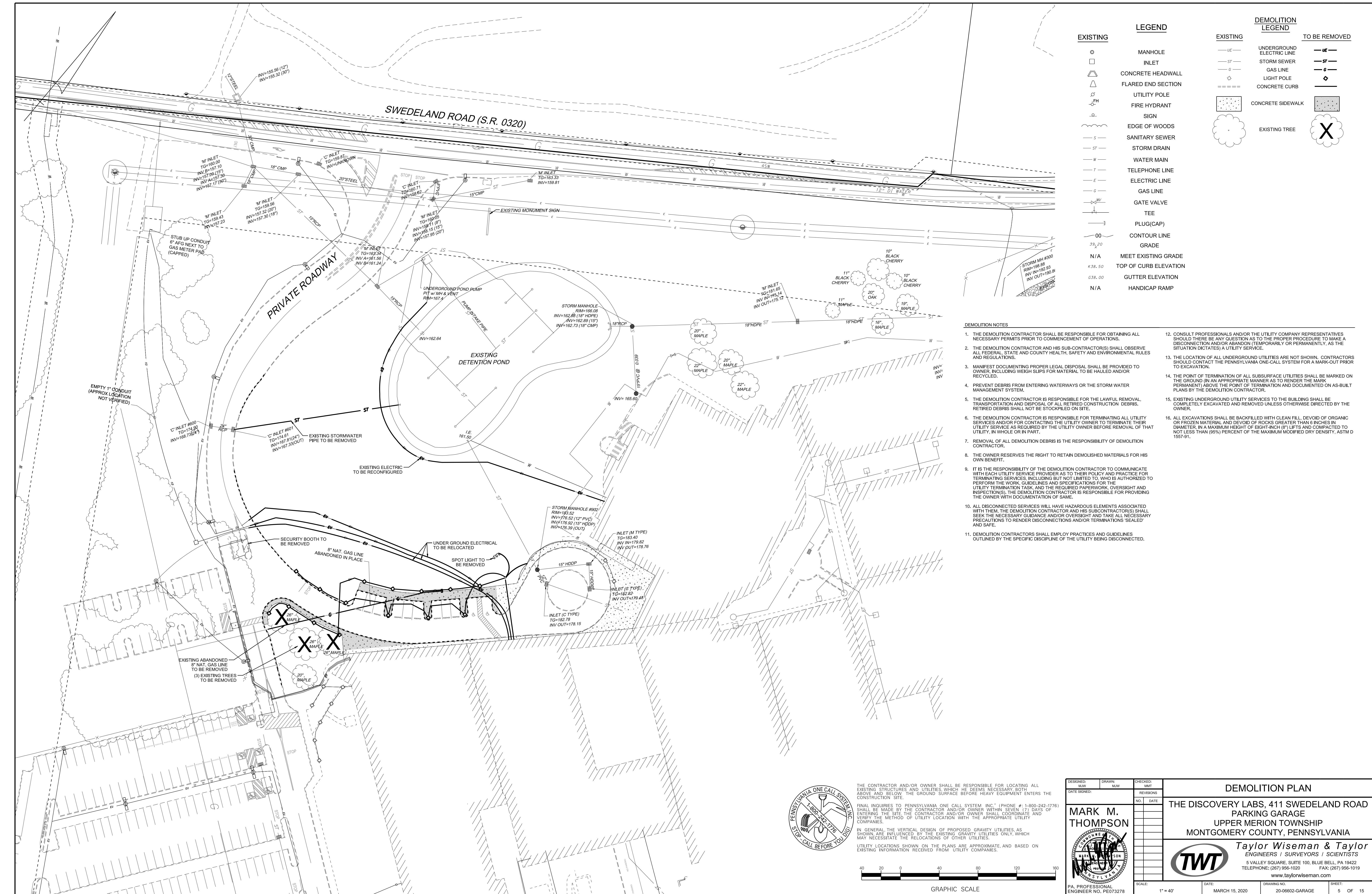
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IN GENERAL, THE VERTICAL DESIGN OF PROPOSED GRAVITY UTILITIES, AS SHOWN, ARE INFLUENCED BY THE EXISTING GRAVITY UTILITIES ONLY, WHICH MAY NECESSITATE THE RELOCATIONS OF OTHER UTILITIES.  
UTILITY LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE, AND BASED ON EXISTING INFORMATION RECEIVED FROM UTILITY COMPANIES.



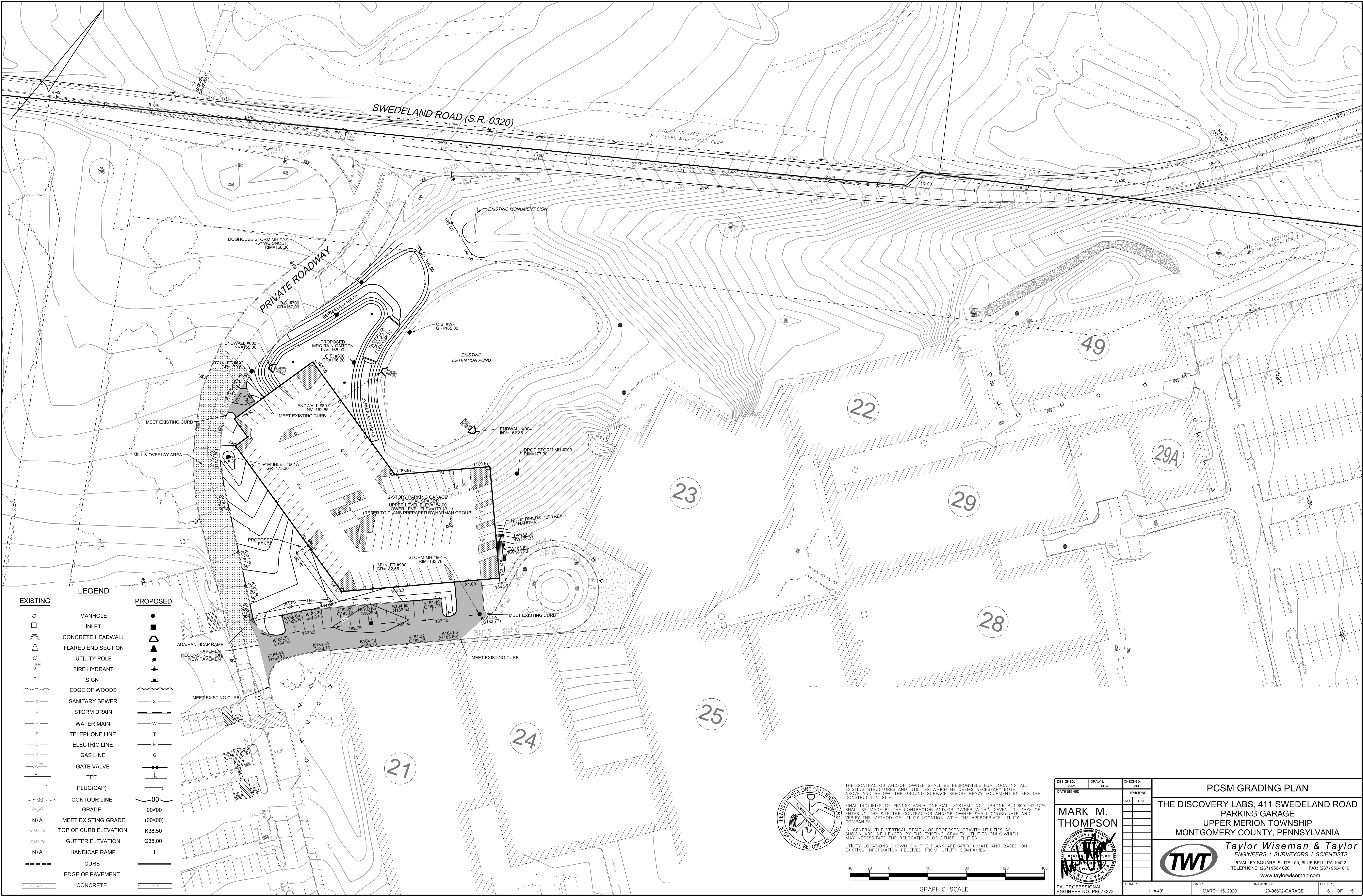
GRAPHIC SCALE

DESIGNED: M.J.W.	DRAWN: M.J.W.	CHECKED: M.M.T.
DATE SIGNED:		REVISIONS
		NO. DATE
MARK M. THOMPSON		
TOWNSHIP ENGINEER		
RECORD PLAN		
THE DISCOVERY LABS, 411 SWEDELAND ROAD PARKING GARAGE UPPER MERION TOWNSHIP MONTGOMERY COUNTY, PENNSYLVANIA		
Taylor Wiseman & Taylor ENGINEERS   SURVEYORS   SCIENTISTS 5 VALLEY SQUARE, SUITE 100, BLUE BELL, PA 19422 TELEPHONE: (267) 956-1020 FAX: (267) 956-1019 www.taylorwiseman.com		
PA. PROFESSIONAL ENGINEER NO. PE073278	DATE: MARCH 15, 2020	SHEET: 4 OF 15

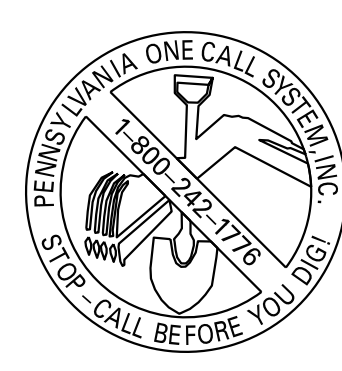








EXISTING		LEGEND		PROPOSED	
	MANHOLE		MANHOLE		INLET
	INLET		CONCRETE HEADWALL		FLARED END SECTION
	UTILITY POLE		FIRE HYDRANT		SIGN
	FIRE HYDRANT		EDGE OF WOODS		SANITARY SEWER
	SIGN		STORM DRAIN		WATER MAIN
	EDGE OF WOODS		TELEPHONE LINE		ELECTRIC LINE
	SANITARY SEWER		GAS LINE		GATE VALVE
	STORM DRAIN		TEE		PLUG(CAP)
	WATER MAIN		CONTOUR LINE		GRADE
	TELEPHONE LINE		MEET EXISTING GRADE		TOP OF CURB ELEVATION
	ELECTRIC LINE		GUTTER ELEVATION		HANDICAP RAMP
	GAS LINE		CURB		EDGE OF PAVEMENT
	GATE VALVE		CONCRETE		
	TEE				
	PLUG(CAP)				
	CONTOUR LINE				
	GRADE				
	MEET EXISTING GRADE				
	TOP OF CURB ELEVATION				
	GUTTER ELEVATION				
	HANDICAP RAMP				
	CURB				
	EDGE OF PAVEMENT				
	CONCRETE				



THE CONTRACTOR AND/OR OWNER SHALL BE RESPONSIBLE FOR LOCATING ALL EXISTING STRUCTURES AND UTILITIES WHICH HE DEEMS NECESSARY BOTH ABOVE AND BELOW THE GROUND SURFACE BEFORE HEAVY EQUIPMENT ENTERS THE CONSTRUCTION SITE.

FINAL INQUIRIES TO PENNSYLVANIA ONE CALL SYSTEM, INC. (PHONE #: 1-800-242-1776) SHALL BE MADE BY THE CONTRACTOR AND/OR OWNER WITHIN SEVEN (7) DAYS OF ENTERING THE SITE. THE CONTRACTOR AND/OR OWNER SHALL COORDINATE AND VERIFY THE METHOD OF UTILITY LOCATION WITH THE APPROPRIATE UTILITY COMPANIES.

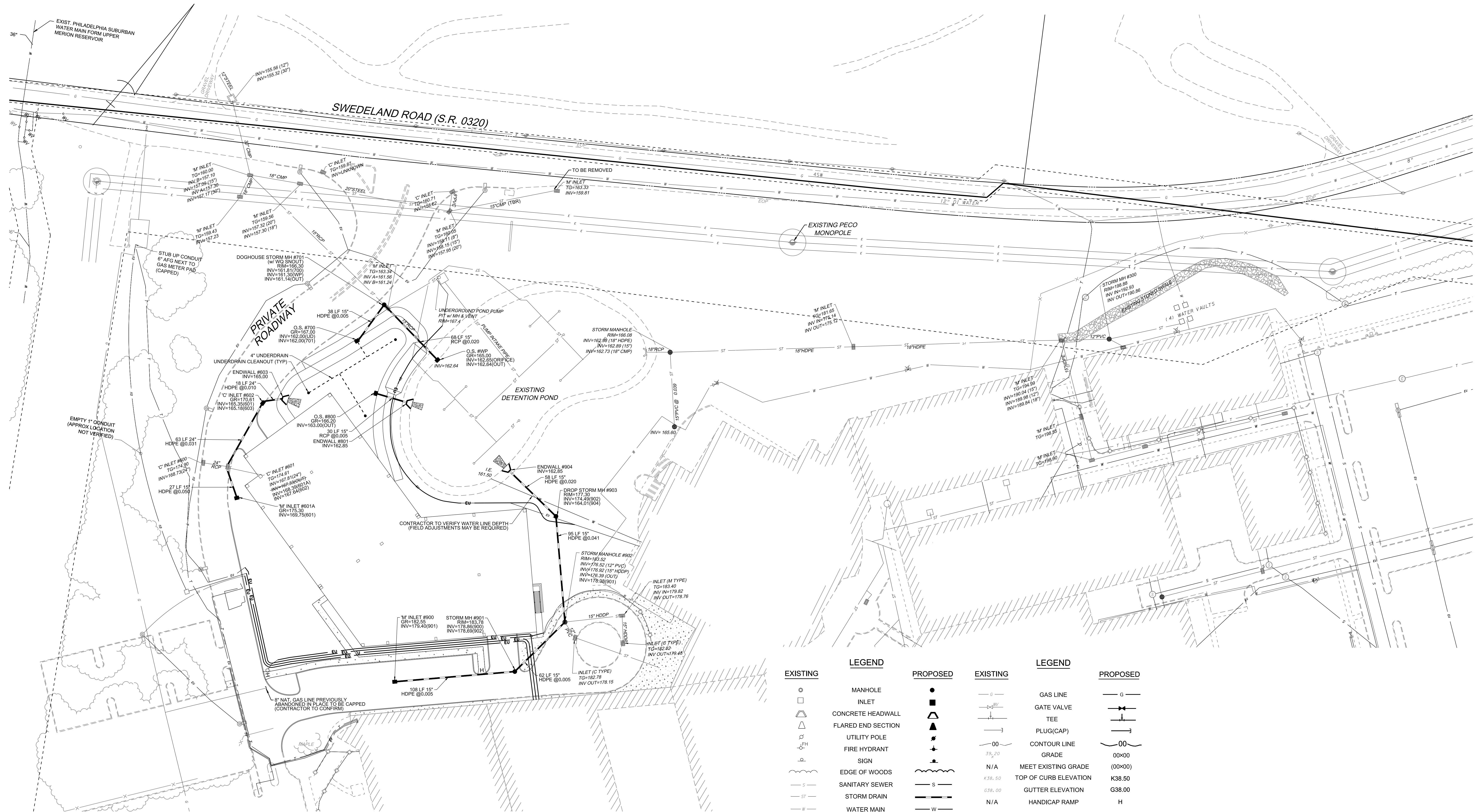
IN GENERAL, THE VERTICAL DESIGN OF PROPOSED GRAVITY UTILITIES, AS SHOWN, ARE INFLUENCED BY THE EXISTING GRAVITY UTILITIES ONLY, WHICH MAY NECESSITATE THE RELOCATIONS OF OTHER UTILITIES.

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DESIGNED: M.J.W.	DRAWN: M.J.W.	CHECKED: M.M.T.	PCSM GRADING PLAN	
DATE SHOWN:		REVISIONS	THE DISCOVERY LABS, 411 SWEDELAND ROAD	
		NO. DATE	PARKING GARAGE	
			UPPER MERION TOWNSHIP	
			MONTGOMERY COUNTY, PENNSYLVANIA	
			Taylor Wiseman & Taylor ENGINEERS / SURVEYORS / SCIENTISTS	
P.A. PROFESSIONAL ENGINEER NO. PE073278			DATE: MARCH 15, 2020	6 OF 15
DRAWING NO. 20-06602-GARAGE			SCALE: 1" = 40'	
SHEET: 6 OF 15				

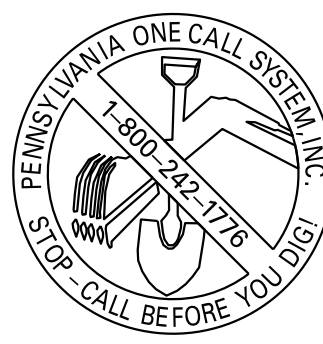




UTILITY NOTES

- CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF EXISTING TOPOGRAPHIC INFORMATION AND UTILITY INVERT ELEVATIONS PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR TO ENSURE 0.75% MIN. SLOPE AGAINST ALL CURBS, ISLANDS AND GUTTERS, AND 1.0% MIN. ON ASPHALT. TO PREVENT PONDING. ANY DISCREPANCIES THAT MAY AFFECT THE PUBLIC SAFETY OR PROJECT COST, MUST BE IDENTIFIED TO THE ENGINEER IN WRITING IMMEDIATELY. PROCEEDING WITH CONSTRUCTION WITH DESIGN DISCREPANCIES IS DONE SO AT THE CONTRACTOR'S OWN RISK.
- LOCATION OF ALL EXISTING AND PROPOSED SERVICES ARE APPROXIMATE AND MUST BE CONFIRMED INDEPENDENTLY WITH LOCAL UTILITY COMPANIES PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION OR EXCAVATION. ALL UTILITY SERVICE CONNECTION POINTS SHALL BE CONFIRMED IN WRITING TO THE ENGINEER. CONTRACTOR IN FIELD PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, ALL DISCREPANCIES SHALL BE REPORTED IMMEDIATELY IN WRITING TO THE ENGINEER. CONSTRUCTION SHALL COMMENCE AT THE LOWEST INVERT (POINT OF CONNECTION) AND PROGRESS UP GRADIENT, INTERFACE POINTS (CROSSINGS) WITH EXISTING UNDERGROUND INSTALLATIONS SHALL BE FIELD VERIFIED BY TEST PIT PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY UTILITY "ONE-CALL" NUMBER 72 HOURS PRIOR TO ANY EXCAVATION ON THIS SITE. CONTRACTOR SHALL ALSO NOTIFY LOCAL WATER & SEWER DEPARTMENTS TO MARK OUT THEIR UTILITIES.
- CONTRACTOR TO CONFIRM THE HORIZONTAL LOCATION AND VERTICAL ELEVATION OF UTILITIES BEING CROSSED OR CONNECTED INTO PRIOR TO CONSTRUCTION. THE ENGINEER SHALL BE INFORMED IN WRITING OF ANY DISCREPANCIES OR CLEARANCE ISSUES PRIOR TO PROCEEDING WITH CONSTRUCTION.
- ALL PROPOSED ELECTRIC, TELEPHONE & GAS UTILITIES SHALL BE INSTALLED UNDERGROUND, IN ACCORDANCE WITH LOCAL UTILITY COMPANY SPECIFICATIONS.
- CONTRACTOR IS RESPONSIBLE FOR ALL SHORING REQUIRED DURING EXCAVATION AND SHALL BE PERFORMED IN ACCORDANCE WITH CURRENT OSHA STANDARDS, AS WELL AS ADDITIONAL PROVISIONS TO ASSURE STABILITY OF CONTIGUOUS STRUCTURES, AS FIELD CONDITIONS DICTATE.
- ALL STORMWATER MANHOLES AND INLETS SHALL BE CONCRETE, AND MEET PENNDOT 72M SPECIFICATIONS.
- ALL HDPE PIPE SHALL BE ADS N-12 SMOOTH INTERIOR, OR APPROVED EQUAL. ALL STORMWATER PIPE JOINTS ARE TO BE WATERTIGHT.

EXISTING		LEGEND	
	MANHOLE		GAS LINE
	INLET		GATE VALVE
	CONCRETE HEADWALL		TEE
	FLARED END SECTION		PLUG(CAP)
	UTILITY POLE		CONTOUR LINE
	FIRE HYDRANT		GRADE
	SIGN		MEET EXISTING GRADE
	EDGE OF WOODS		TOP OF CURB ELEVATION
	SANITARY SEWER		GUTTER ELEVATION
	STORM DRAIN		HANDICAP RAMP
	WATER MAIN		CURB
	TELEPHONE LINE		EDGE OF PAVEMENT
	ELECTRIC LINE		CONCRETE



THE CONTRACTOR AND/OR OWNER SHALL BE RESPONSIBLE FOR LOCATING ALL EXISTING STRUCTURES AND UTILITIES WHICH HE DEEMS NECESSARY BOTH ABOVE AND BELOW THE GROUND SURFACE BEFORE HEAVY EQUIPMENT ENTERS THE CONSTRUCTION SITE.

FINAL INQUIRIES TO PENNSYLVANIA ONE CALL SYSTEM, INC. (PHONE #: 1-800-242-1776) SHALL BE MADE BY THE CONTRACTOR AND/OR OWNER WITHIN SEVEN (7) DAYS OF ENTERING THE SITE. THE CONTRACTOR AND/OR OWNER SHALL COORDINATE AND VERIFY THE METHOD OF UTILITY LOCATION WITH THE APPROPRIATE UTILITY COMPANIES.

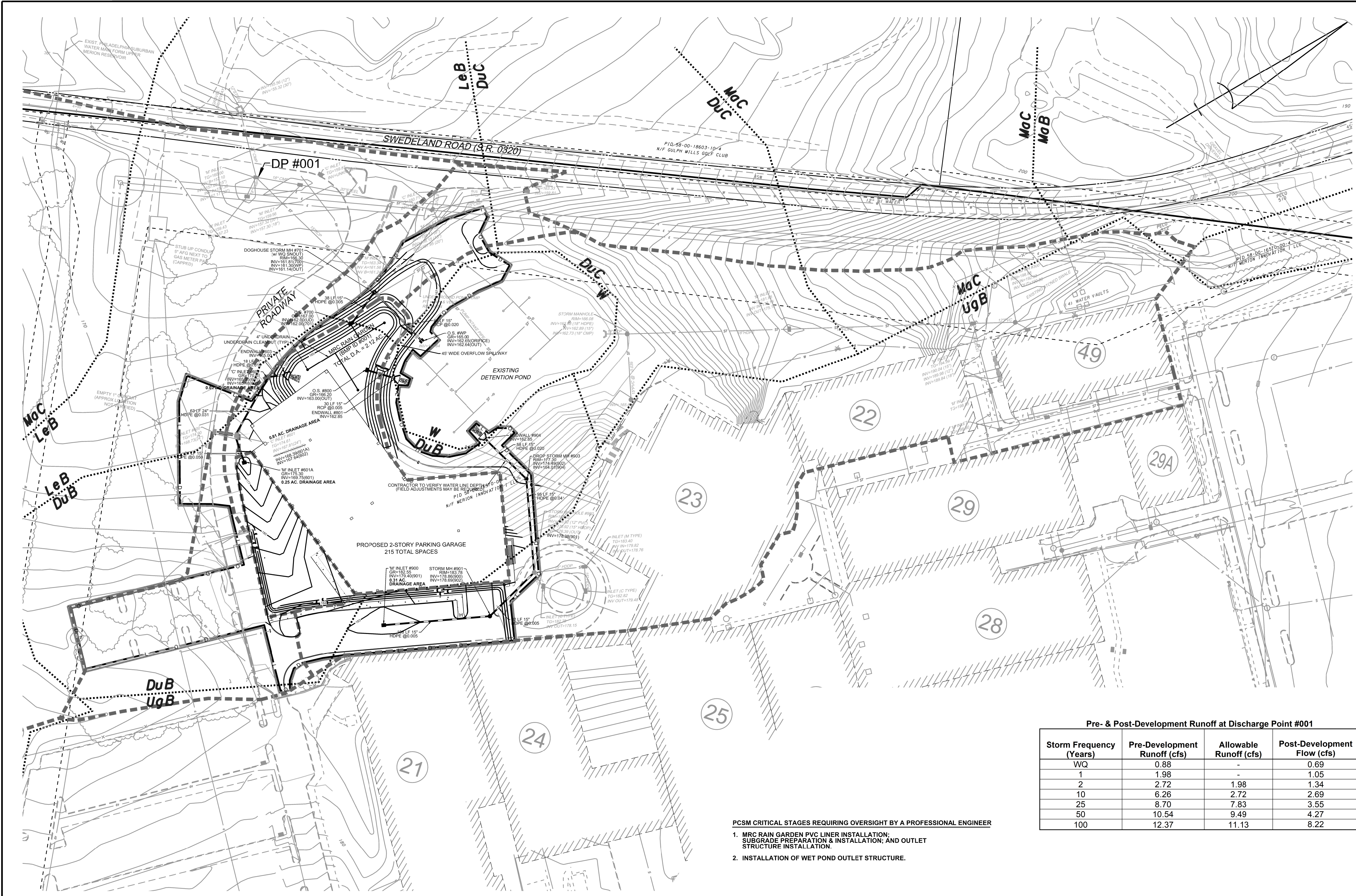
IN GENERAL, THE VERTICAL DESIGN OF PROPOSED GRAVITY UTILITIES, AS SHOWN, ARE INFLUENCED BY THE EXISTING GRAVITY UTILITIES ONLY, WHICH MAY NECESSITATE THE RELOCATIONS OF OTHER UTILITIES.

UTILITY LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE, AND BASED ON EXISTING INFORMATION RECEIVED FROM UTILITY COMPANIES.



DESIGNED: M.J.W.	DRAWN: M.J.W.	CHECKED: M.M.T.	PCSM UTILITY PLAN
DATE SIGNED:		REVISIONS	
		NO. DATE	THE DISCOVERY LABS, 411 SWEDELAND ROAD
			PARKING GARAGE
			UPPER MERION TOWNSHIP
			MONTGOMERY COUNTY, PENNSYLVANIA
			Taylor Wiseman & Taylor
			ENGINEERS / SURVEYORS / SCIENTISTS
			5 VALLEY SQUARE, SUITE 100, BLUE BELL, PA 19422
			TELEPHONE: (267) 956-1020 FAX: (267) 956-1019
			www.taylorwiseman.com
SCALE:	DATE: MARCH 15, 2020	DRAWING NO. 20-06602-GARAGE	SHEET: 7 OF 15
P.A. PROFESSIONAL ENGINEER NO. PE073278			



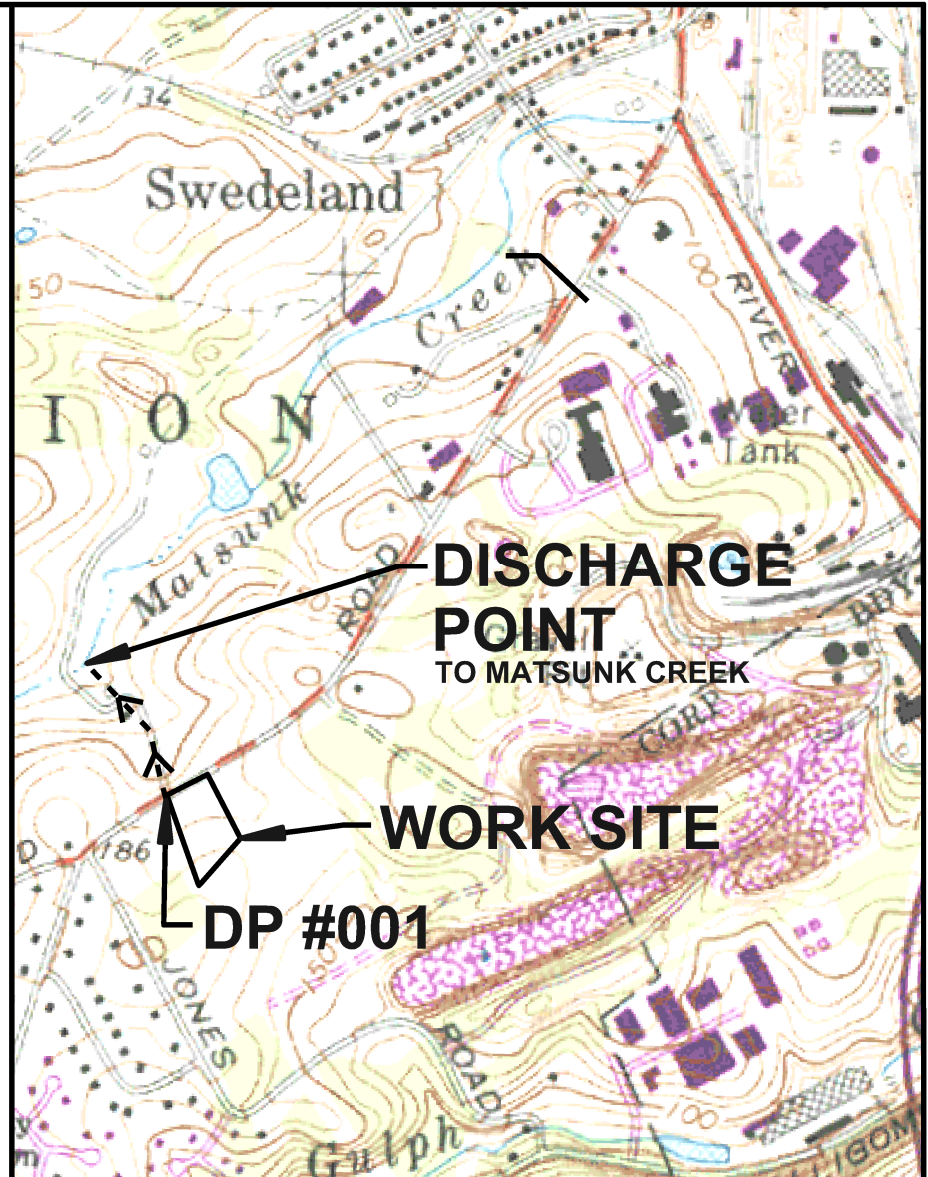


PCSM LEGEND

- L ——— D ——— LIMIT OF DISTURBANCE
- — — — — DRAINAGE LINE
- NPDES PERMIT BOUNDARY

SOIL INFO:

- UgB URBAN LAND, 0-8% SLOPES.
- UdID UDORTHENTS, LIMESTONE, 8-25% SLOPES.
- MaB MANOR LOAM, 3-8% SLOPES
- MaC MANOR LOAM, 8-15% SLOPES
- DuB DUFFIELD SILT LOAM, 3-8% SLOPES
- DuC DUFFIELD SILT LOAM, 8-15% SLOPES
- LeB LAWRENCEVILLE SILT LOAM, 3-8% SLOPES



SOURCE: NORRISTOWN, PA QUADRANGLE

LOCATION MAP

SCALE: 1" = 1000'

CONSTRUCTION SEQUENCE

1. ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE FOLLOWING SEQUENCE. EACH STAGE SHALL BE COMPLETED BEFORE A FOLLOWING STAGE IS INITIATED. CLEARING AND GRUBBING SHALL BE LIMITED ONLY TO THOSE AREAS DESCRIBED IN EACH STAGE.
2. A PRE-CONSTRUCTION MEETING SHOULD BE HELD ON-SITE BETWEEN THE DEVELOPER, DESIGN PROFESSIONAL ENGINEER, TOWNSHIP REPRESENTATIVES AND THE MONTGOMERY COUNTY CONSERVATION DISTRICT (MCCD). THE MCCD SHOULD BE NOTIFIED 7 DAYS PRIOR TO CONSTRUCTION FOR THE MEETING.
3. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH OSHA GUIDELINES AND SAFETY REQUIREMENTS OF THE OWNER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING EXCAVATIONS DURING THE PERIOD OF CONSTRUCTION. CONTROL OF GROUNDWATER SEEPAGE AND STORMWATER RUNOFF INTO EXCAVATIONS SHALL BE SOLELY THE RESPONSIBILITY OF THE CONTRACTOR.
4. AS SOON AS SLOPES, CHANNELS, DITCHES AND OTHER DRAINAGE FEATURES REACH FINAL GRADE, THEY MUST BE STABILIZED IN ACCORDANCE WITH THE E&S STANDARD NOTES.
5. INSTALL SURVEY STAKES/CONSTRUCTION FENCE AT LIMIT OF DISTURBANCE PRIOR TO DISTURBANCE ACTIVITIES. INITIAL CLEARING AND GRUBBING SHALL BE LIMITED TO THAT WHICH IS NECESSARY TO CONSTRUCT PERIMETER BMPs.
6. INSTALL TREE PROTECTION FENCING AND IDENTIFY TREES TO BE PRESERVED IN THE FIELD. TREE PROTECTION FENCING IS TO REMAIN IN PLACE THROUGHOUT THE CONSTRUCTION ACTIVITIES.
7. INSTALL COMPOST FILTER SOCKS, AND INLET PROTECTION FOR EXISTING INLETS PRIOR TO ANY SITE DISTURBANCE.
8. INSTALL STABILIZED CONSTRUCTION ENTRANCE(S) AND STAGING AREAS, AS SHOWN ON PLAN.
9. UPON THE INSTALLATION OR STABILIZATION OF ALL PERIMETER SEDIMENT CONTROLS BMPs AND AT LEAST 3 DAYS PRIOR TO PROCEEDING WITH THE BULK EARTH DISTURBANCE ACTIVITIES, THE PERMITTEE OR CO-PERMITTEE SHALL PROVIDE NOTIFICATION TO DEP OR AUTHORIZED CONSERVATION DISTRICT.
10. REMOVE EXISTING TREES AS NOTED ON THE APPROVED PLANS.
11. STRIP TOPSOIL IN REMAINING SITE AREAS. ALL REMAINING VEGETATION TO BE PROPERLY PROTECTED AND TO REMAIN IN ITS NATURAL STATE.
12. ROUGH GRADE PROPOSED PARKING AREA. NO MORE THAN 15,000 SQUARE FEET OF DISTURBED AREA, WHICH IS TO BE PERMANENTLY STABILIZED BY VEGETATION, REACH FINAL GRADE BEFORE INITIATING SEEDING AND MULCHING OPERATIONS. THE CESSATION OF ACTIVITY FOR 4 DAYS OR LONGER REQUIRES TEMPORARY STABILIZATION WITH SEED, STRAW, MULCH, STONE, WOOD CHIPS OR OTHERWISE PROTECTED FROM ACCELERATED EROSION AND SEDIMENTATION PENDING FUTURE EARTH DISTURBANCE ACTIVITIES.
13. INSTALL STORM SEWER SYSTEM. NEWLY CONSTRUCTED INLETS ARE TO RECEIVE INLET PROTECTION ONCE INSTALLED.
14. INSTALL WET POND OUTLET STRUCTURE.
15. INSTALL MRC RAIN GARDEN WITH ENDWALLS/HEADWALLS, UNDERDRAIN, OUTLET STRUCTURES, BIOTRETENTION SOIL MEDIA AND PVC LINER. INSTALL EROSION CONTROL MATTING ON DISTURBED GROUND WITH SLOPES OF 3:1 OR GREATER. ALL PUMPING OF SEDIMENT LADEN WATER OR POTENTIALLY SEDIMENT LADEN WATER SHALL FLOW THROUGH A SEDIMENT CONTROL BMP, SUCH AS A PUMPED WATER FILTER BAG DISCHARGING OVER NON-DISTURBED AREAS.
16. CONSTRUCT PARKING GARAGE.
17. STABILIZE PROPOSED ROADWAY WITH STONE SUBBASE.
18. CONSTRUCT CONCRETE CURBS, ROADS AND CONCRETE SIDEWALKS.
19. FINAL GRADING OF SITE. INSTALLATION OF TOP COURSE PAVING AND PLACEMENT OF TOPSOIL. NO MORE THAN 15,000 SQUARE FEET OF DISTURBED AREA, WHICH IS TO BE PERMANENTLY STABILIZED BY VEGETATION, REACH FINAL GRADE BEFORE INITIATING SEEDING AND MULCHING OPERATIONS.
20. STABILIZATION OF SITE WITH PERMANENT VEGETATIVE COVER AND LANDSCAPING.
21. REMOVAL OF TEMPORARY SEDIMENT AND EROSION CONTROL DEVICES ONLY AFTER THE PROPER STABILIZATION OF THE DISTURBED TRIBUTARY AREAS LEADING TO THE CONTROLS HAS BEEN COMPLETED WITH A UNIFORM 70% PERENNIAL GROWTH AND ONLY IF THEIR REMOVAL WILL NOT CONTRIBUTE TO ADDITIONAL SEDIMENT PROBLEMS OUTSIDE THE AREA. STABILIZE AREAS FROM REMOVAL OF TEMPORARY CONTROL MEASURES. THE DISTRICT MAY REQUIRE A SITE INSPECTION PRIOR TO REMOVAL OF SAID FACILITY.
22. AFTER COMPLETION OF EARTH DISTURBANCE ACTIVITIES, INCLUDING PERMANENT STABILIZATION, AND IMPLEMENTATION OF PCSM BMPs PER THE APPROVED PCSM PLAN, THE PERMITTEE SHALL FILE WITH THE AUTHORIZED CONSERVATION DISTRICT FINAL CERTIFICATIONS, VIA THE NOTICE OF TERMINATION DOCUMENT, SIGNED BY A LICENSED PROFESSIONAL AND BY THE PERMITTEE CERTIFYING THAT WORK HAS BEEN PERFORMED IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THE NPDES PERMIT AND THE APPROVED E&S AND PCSM PLANS.

Pre- & Post-Development Runoff at Discharge Point #001

Storm Frequency (Years)	Pre-Development Runoff (cfs)	Allowable Runoff (cfs)	Post-Development Flow (cfs)
1	0.85	-	0.89
2	1.98	-	1.05
10	2.72	1.98	1.34
25	6.26	2.72	2.69
50	8.70	7.83	3.55
100	10.54	9.49	4.27
	12.37	11.13	8.22

PCSM CRITICAL STAGES REQUIRING OVERSIGHT BY A PROFESSIONAL ENGINEER

1. MRC RAIN GARDEN PVC LINER INSTALLATION; SUBGRADE PREPARATION & INSTALLATION; AND OUTLET STRUCTURE INSTALLATION.
2. INSTALLATION OF WET POND OUTLET STRUCTURE.

RECOMMENDED CONSTRUCTION PRACTICES FOR MINIMIZING SINKHOLE DEVELOPMENT IN CARBONATE AREAS

1. UTMOST CARE MUST BE TAKEN TO PREVENT COLLECTION AND DRAINAGE OF SURFACE WATER INTO EXCAVATED OR LOW-LYING AREAS OF THE SITE DURING THE EXCAVATION AND CONSTRUCTION OF ROADWAYS, RAMPS, OR STRUCTURES. THIS MAY BE DONE BY CONSTRUCTING EARTH BERMS, DIKES, OR DIVERSION DITCHES AROUND OPEN EXCAVATIONS OR OTHERWISE PREVENTING THE COLLECTION AND PONDING OF WATER IN LOW-LYING AREAS. TYPICALLY EXCAVATIONS SHOULD NOT BE MADE DURING PREDICTED PERIODS OF PRECIPITATION. EXCAVATIONS SHOULD BE FILLED AS SOON AS PRACTICAL, ESPECIALLY OVER WEEKENDS OR PERIODS OF INACTIVITY. BLASTING WILL NEED TO BE APPROVED IN WRITING BY PADEP AND THE TOWNSHIP.
2. THE SOIL SITUATED ABOVE A ZONE OF SOLUTION ACTIVITY IS USUALLY SOFT AND WET. THEREFORE, IT IS IMPORTANT TO LOCATE AREAS EXHIBITING THESE CONDITIONS, WHEREVER THEY MAY EXIST OR BE ENCOUNTERED. IN AREAS SUSPECTED OF SINKHOLE ACTIVITY, THE SUBGRADE SHOULD BE PROOFROLLED AND INSPECTED BY A QUALIFIED GEOTECHNICAL ENGINEER OR GEOLOGIST. ANY SOFT AREAS SHOULD BE THOROUGHLY EVALUATED FOR POTENTIAL SINKHOLE CONDITIONS. IF SINKHOLE CONDITIONS ARE DETECTED, THEY SHOULD BE REPAIRED UNDER THE DIRECTION OF THE GEOTECHNICAL ENGINEER OR GEOLOGIST. PROOF-ROLLING SHOULD BE CONDUCTED USING EITHER A ROLLER WEIGHING AT LEAST TEN (10) TONS OR OTHER EQUIPMENT WITH SIMILAR WEIGHT.
3. THE BASE OF ALL EXCAVATIONS IN CARBONATE AREAS SHOULD BE INSPECTED FOR SOFT OR UNUSUALLY MOIST CONDITIONS. A VISUAL INSPECTION OF THE EXCAVATED SURFACE, AS WELL AS PROBES OF THE SOIL AT REGULAR INTERVALS, IS RECOMMENDED. ANY SOFT OR UNUSUALLY MOIST SOIL SHOULD BE FURTHER EXCAVATED AND A DETERMINATION OF THE EXTENT OF THE PROBLEM BE MADE. REMEDIAL MEASURES SHOULD THEN BE UNDERTAKEN AS NECESSARY. STABLE DRAINAGE DITCHES AND/OR BASINS ARE PARTICULARLY VULNERABLE TO SINKHOLE DEVELOPMENT DURING PERIODS OF HEAVY RAINFALL. THE SAME IS TRUE OF OUTLET LOCATIONS FOR DRAINAGE PIPES. CONSIDERATION SHOULD BE GIVEN TO LINING THESE AREAS WITH IMPERMEABLE LINERS TO PREVENT INFILTRATION.
4. EXCAVATION SHOULD BE KEPT TO A PRACTICAL MINIMUM IN AREAS OF KNOWN OR SUSPECTED SINKHOLE OR SOLUTION ACTIVITY. IN GENERAL, THE CLOSER EXCAVATIONS GET TO THE ROCK SURFACE, THE GREATER THE POTENTIAL IS FOR SINKHOLE DEVELOPMENT.
5. SINKHOLE REPAIR IS DEPENDENT ON THE LOCATION AND TYPE OF SINKHOLE. THE PROPER STABILIZATION OF SINKHOLES OR OTHER AREAS EXHIBITING SOLUTION ACTIVITY IS CRITICAL AND SHOULD BE PERFORMED UNDER THE DIRECTION OF EXPERIENCED GEOTECHNICAL ENGINEERS, SUCH AS EARTH ENGINEERING INC.
6. IF REQUIRED, BLASTING TO EXCAVATE AND REMOVE ROCK SHOULD BE PERFORMED WITH EXTREME CAUTION AND ONLY WHEN ABSOLUTELY NECESSARY. WHERE BLASTING IS PERFORMED, IT SHOULD BE DONE TO MINIMIZE THE DISTURBANCE TO THE UNDERLYING ROCK AND/OR SOILS.
7. WATERTIGHT SEALS SHOULD BE PROVIDED AT ALL WATER BEARING UTILITY LINE CONNECTIONS.
8. SITE GRADES SHOULD PROVIDE POSITIVE DRAINAGE AWAY FROM AREAS.
9. JOINTS BETWEEN ASPHALT PAVING AND CONCRETE CURBING SHOULD BE SEALED TO REDUCE WATER INFILTRATION IN THESE AREAS.
10. TRENCH PLUGS ARE RECOMMENDED TO STABILIZE UTILITY EXCAVATIONS, ESPECIALLY IN SLOPED AREAS, TO HELP MINIMIZE WATER MIGRATION AND INFILTRATION. PROPER TRENCH PLUGS SHOULD CONSIST OF A SUITABLE MIXTURE OF ON-SITE SOILS AND BENTONITE WITH A MINIMUM CONCENTRATION OF 10% BENTONITE BY WEIGHT. WHERE REQUIRED OR APPLICABLE, TRENCH PLUGS SHOULD BE PLACED APPROXIMATELY 30 FEET APART.

STORMWATER OPERATION AND MAINTENANCE NOTES

1. RIPRAP APRON:
  - (1) EXAMINE RIPRAP APRON FOR SHIFTING OF EXCESSIVE SETTLEMENT.
  - (2) ENSURE THAT RIPRAP APRON IS NOT OVERGROWN WITH UNDERBRUSH AND TREES.
  - (3) LOOK FOR GULLIES OR BARE AREAS DOWNSTREAM FROM THE APRON. THESE AREAS SHOULD NOT BE ERODED OR BARE. REPAIR AS NECESSARY.
  - (4) ENSURE THAT THE AREA DOWNSTREAM FROM THE RIPRAP APRON IS CLEAR OF OBSTRUCTIONS.
  - (5) IF PROBLEMS ARE OBSERVED, TAKE CORRECTIVE ACTION AS NECESSARY.
2. MRC RAIN GARDEN:
  - (1) FOR THE FIRST YEAR OF OPERATION, INSPECTION OF STORMWATER BASIN SHOULD OCCUR ON A QUARTERLY BASIS AND AFTER EACH STORM EVENT EXCEEDING 1 INCH OF RAINFALL. AFTER THE FIRST YEAR, INSPECT BASIN EVERY 12 MONTHS. MAKE NOTE OF ANY OF THE FOLLOWING CONDITIONS:
    - (i) ENSURE THAT ALL INLETS AND OUTFLOWS ARE KEPT CLEAR AND IN GOOD CONDITION. LOOK FOR EROSION AROUND OUTFLOWS.
    - (ii) INSPECT VEGETATION. REPLACE DEAD OR DYING PLANTS. THIN OR PRUNE EXCESSIVE GROWTH.
  - (2) INSPECT EMBANKMENTS, SPILLWAYS, RISERS, AND OUTFALLS EVERY 12 MONTHS. MAKING NOTE OF THE FOLLOWING:
    - (i) LOOK FOR GULLIES OR BARE AREAS ON THE BERM OR EMBANKMENTS. THESE AREAS SHOULD NOT BE ERODED OR BARE.
    - (ii) ENSURE THE DISCHARGE ORIFICE, OR OVERFLOW RISER, AND SPILLWAY ARE CLEAR OF SEDIMENT AND DEBRIS AND IN GOOD CONDITION.
    - (iii) ENSURE THAT THE SPILLWAY, BERM AND EMBANKMENTS ARE NOT OVERGROWN WITH UNDERBRUSH AND TREES.
  - (3) IF PROBLEMS ARE OBSERVED, TAKE IMMEDIATE CORRECTIVE ACTION AS NECESSARY.
  - (4) FAILURE OF THE RAIN GARDENS COULD ENTAIL STANDING WATER OBSERVED 72 HOURS AFTER THE STORM EVENT OR WATER OVERTOPPING THE EMBANKMENT. SHOULD THIS OCCUR, OPEN THE VALVE IN OUTLET STRUCTURE TO DISCHARGE STANDING WATER. CLOSE VALVE ONCE WATER HAS DRAINED FROM RAIN GARDEN. SHOULD WATER NOT EXIT THE RAIN GARDEN, CORRECTIVE ACTIONS SHOULD BE TAKEN AS NECESSARY. (e.g., UNDERRAIN REPLACEMENT).
  - (5) IF THERE IS ANY EVIDENCE THAT LINER MAY NOT BE WATERTIGHT IMMEDIATE ACTION AND SYSTEM REPLACEMENT WILL BE WARRANTED.
4. A WRITTEN MAINTENANCE REPORT MUST BE KEPT AT THE SITE DURING CONSTRUCTION. IT IS THE RESPONSIBILITY OF THE SITE OWNER TO ENSURE THAT THIS OPERATION & MAINTENANCE SCHEDULE BE MAINTAINED AND LOGGED.

SITE OWNER: MERION INNOVATION I, LLC  
201 KING OF PRUSSIA ROAD  
SUITE 501  
RADNOR, PA 19087  
ATTN: DALE T. STESKO

SEQUENCE OF BMP INSTALLATION (MRC RAIN GARDEN):

1. INSTALL ALL TEMPORARY EROSION AND SEDIMENTATION CONTROLS. THE AREA IMMEDIATELY ADJACENT TO THE BASIN MUST BE STABILIZED IN ACCORDANCE WITH THE PADEP'S EROSION & SEDIMENT POLLUTION CONTROL PROGRAM MANUAL PRIOR TO BASIN CONSTRUCTION.
2. EXCAVATE RAIN GARDEN TO PROPOSED INVERT DEPTH.
3. INSTALL GEOTEXTILE FABRIC AND PVC BASIN LINER IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDATIONS. A LINER REPRESENTATIVE SHALL BE PRESENT TO CERTIFY THE INSTALLATION AND SEALING OF SEAMS. A PROFESSIONAL ENGINEER SHALL ALSO BE PRESENT TO WITNESS THE BASIN LINER INSTALLATION.
4. INSTALL E&S MEASURES (TEMPORARY RISER, RISER EXTENSION, SAND, ETC.) PER E&S PLAN AND DETAILS.
5. AFTER REMOVAL OF E&S MEASURES, BACKFILL RAIN GARDEN WITH BIOTRETENTION MEDIA AS SHOWN ON THE PLANS. OVERLAPPING IS RECOMMENDED TO ACCOUNT FOR SETTLEMENT. LIGHT HAND TAMPING IS ACCEPTABLE IF NECESSARY. A LICENSED PROFESSIONAL ENGINEER SHALL BE ON-SITE DURING THE BACKFILLING OF BIOTRETENTION MEDIA.
6. PRE-SOAK THE PLANTING SOIL PRIOR TO PLANTING VEGETATION TO AID IN SETTLEMENT.
7. COMPLETE FINAL GRADING TO ACHIEVE PROPOSED DESIGN ELEVATIONS.
8. PLANT VEGETATION ACCORDING TO THE LANDSCAPE PLANS.

RECYCLING & DISPOSAL OF MATERIALS

1. ANTICIPATED CONSTRUCTION WASTES MAY INCLUDE: BUILDING DEBRIS FROM DEMOLITION, REMOVED ASPHALT, REMOVED CONCRETE AND DEBRIS FROM TREE CLEARING.
2. CONTRACTOR SHALL DEVELOP AND IMPLEMENT PROCEDURES WHICH WILL ENSURE THAT THE PROPER MEASURES FOR DISPOSAL AND RECYCLING OF MATERIALS ASSOCIATED WITH OR FROM THE PROJECT SITE IN ACCORDANCE WITH DEPARTMENT OF ENVIRONMENTAL PROTECTION REGULATIONS. CONSTRUCTION WASTES INCLUDE, BUT ARE NOT LIMITED TO, EXCESS SOIL MATERIALS, BUILDING MATERIALS, CONCRETE WASH WATER, SANITARY WASTES, ETC. THAT COULD ADVERSELY IMPACT WATER QUALITY.
3. THE CONTRACTOR SHALL INSPECT THE PROJECT AREA WEEKLY AND PROPERLY DISPOSE OF ALL CONSTRUCTION WASTES. MEASURES SHOULD BE PLANNED AND IMPLEMENTED FOR HOUSEKEEPING, MATERIALS MANAGEMENT, AND LITTER CONTROL. WHEREVER POSSIBLE, REUSABLE WASTES WILL BE SEGREGATED FROM OTHER WASTE AND STORED SEPARATELY FOR RECYCLING.
4. ALL BUILDING MATERIALS AND WASTES SHALL BE REMOVED FROM THE SITE AND RECYCLED OR DISPOSED OF IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET SEQ. 271.1, AND 287.1 ET SEQ. NO BUILDING MATERIALS OR WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURNED, BURIED, DUMPED, OR DISCHARGED AT THE SITE.
5. IF ANY UNFORESEEN CONDITIONS ARE ENCOUNTERED BY THE CONTRACTOR DURING CONSTRUCTION A LICENSED ENGINEER AND/OR GEOLOGIST QUALIFIED IN HANDLING THESE CONDITIONS MUST BE NOTIFIED.



THE CONTRACTOR AND/OR OWNER SHALL BE RESPONSIBLE FOR LOCATING ALL EXISTING STRUCTURES AND UTILITIES WHICH HE DEEMS NECESSARY ABOVE AND BELOW THE GROUND SURFACE BEFORE HEAVY EQUIPMENT ENTERS THE CONSTRUCTION SITE.

FINAL INQUIRIES TO PENNSYLVANIA ONE CALL SYSTEM, INC.' (PHONE #: 1-800-242-1787) SHALL BE MADE BY THE CONTRACTOR AND/OR OWNER WITHIN SEVEN (7) DAYS OF ENTERING THE SITE. THE CONTRACTOR AND/OR OWNER SHALL COORDINATE AND VERIFY THE METHOD OF UTILITY LOCATION WITH THE APPROPRIATE UTILITY COMPANIES.

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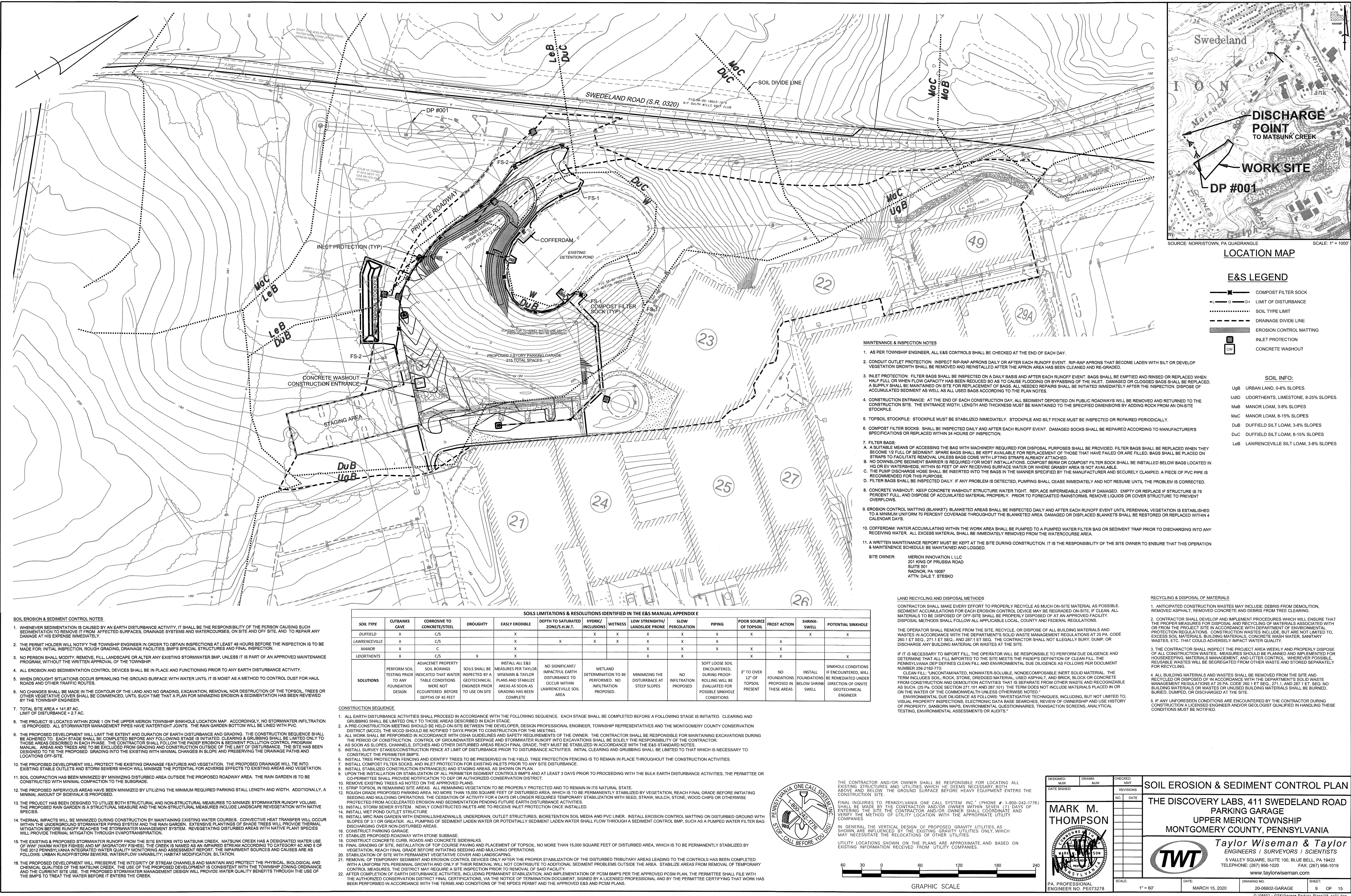


GRAPHIC SCALE

DESIGNED: MAJ	DRAWN: MAJ	CHECKED: MMT
DATE: 03/15/2020		REVISIONS:
		NO. DATE
MARK M. THOMPSON		
SCALE: 1" = 60'		
DATE: MARCH 15, 2020		
DRAWING NO: 20-06602-GARAGE		
SHEET: 8 OF 15		

POST CONSTRUCTION STORMWATER MANAGEMENT PLAN	
THE DISCOVERY LABS, 411 SWEDELAND ROAD	
PARKING GARAGE	
UPPER MERION TOWNSHIP	
MONTGOMERY COUNTY, PENNSYLVANIA	
Taylor Wiseman & Taylor	
ENGINEERS / SURVEYORS / SCIENTISTS	
5 VALLEY SQUARE, SUITE 100, BLUE BELL, PA 19422	
TELEPHONE: (267) 956-1020 FAX: (267) 956-1019	
www.taylorwiseman.com	
PA. PROFESSIONAL ENGINEER NO. PE073278	







GENERAL CONSERVATION NOTES AND SPECIFICATIONS

- ALL EARTH DISTURBANCES, INCLUDING CLEARING AND GRUBBING AS WELL AS CUTS AND FILLS SHALL BE DONE IN ACCORDANCE WITH THE APPROVED E&S PLAN, A COPY OF THE APPROVED DRAWINGS (STAMPED, SIGNED AND DATED BY THE REVIEWING AGENCY) MUST BE AVAILABLE AT THE PROJECT SITE AT ALL TIMES. THE REVIEWING AGENCY SHALL BE NOTIFIED OF ANY CHANGES TO THE APPROVED PLAN PRIOR TO IMPLEMENTATION OF THOSE CHANGES. THE REVIEWING AGENCY MAY REQUEST THE LANDOWNER TO PROVIDE THOSE CHANGES FOR REVIEW AND APPROVAL AT ITS DISCRETION.
- AT LEAST 7 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, INCLUDING CLEARING AND GRUBBING, THE OWNER SHALL NOTIFY ALL CONCERNED PARTIES, INCLUDING THE LANDOWNER, THE APPROPRIATE MUNICIPAL OFFICIALS, THE E&S PLAN PREPARER, THE PCSM PLAN PREPARER, THE LICENSED 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.
- 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.
- ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE SEQUENCE PROVIDED ON THE PLAN DRAWINGS. DEVIATION FROM THAT SEQUENCE MUST BE APPROVED IN WRITING FROM THE LOCAL CONSERVATION DISTRICT OR BY THE DEPARTMENT PRIOR TO IMPLEMENTATION.
- AREAS TO BE FILLED ARE TO BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS AND OTHER OBJECTIONABLE MATERIAL.
- 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 THIS E&S PLAN.
- 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.
- TOPSOIL REQUIRED FOR THE ESTABLISHMENT OF VEGETATION SHALL BE STOCKPILED AT THE LOCATION(S) SHOWN ON THE PLAN MAPS 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 2:1 OR FLATTER.
- IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE OPERATOR SHALL IMPLEMENT APPROPRIATE CORRECTIVE ACTION TO MINIMIZE THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION AND NOTIFY THE LOCAL CONSERVATION DISTRICT AND/OR THE REGIONAL OFFICE OF THE DEPARTMENT.
- ALL OFF-SITE WASTE AND BORROW AREAS MUST HAVE AN E&S PLAN APPROVED BY THE LOCAL CONSERVATION DISTRICT OR THE DEPARTMENT PRIOR TO IMPLEMENTATION OF ANY EARTH DISTURBANCE ACTIVITY. ALL PUMPING AND/OR WORK AREA SHALL BE DONE ACCORDING TO THE PRECEDURE DESCRIBED IN THIS PLAN, OR UNDISTURBED REGULATED AREAS.
- UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENT BMPs SHALL BE MAINTAINED PROPERLY. MAINTENANCE SHALL INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENT BMPs AFTER EACH RUNOFF EVENT AND ON A DAILY BASIS, ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRAIDING, 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.
- SEDIMENT TRACKED ONTO ANY PUBLIC ROADWAY OR SIDEWALK SHALL BE RETURNED TO THE CONSTRUCTION SITE BY THE END OF EACH WORK DAY AND DISPOSED IN THE MANNER DESCRIBED IN THIS PLAN. IN NO CASE SHALL THE SEDIMENT BE WASHED, SHOVELED, OR SWEEP INTO ANY ROADSIDE DITCH, STORM SEWER, OR SURFACE WATER.
- ALL SEDIMENT REMOVED FROM BMPs SHALL BE DISPOSED OF IN THE MANNER DESCRIBED ON THE PLAN DRAWINGS.
- AREAS WHICH ARE TO BE TOPSOILED SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 3 TO 5 INCHES 6 TO 12 INCHES ON COMPACTED SOILS PRIOR TO PLACEMENT OF TOPSOIL. AREAS TO BE VEGETATED SHALL HAVE A MINIMUM 4 INCHES OF TOPSOIL IN PLACE PRIOR TO SEEDING AND MULCHING. FILL OUTCLOSURES SHALL HAVE A MINIMUM OF 2 INCHES OF TOPSOIL.
- 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 TO LOCAL REQUIREMENTS OR CODES.
- ALL EARTHEN FILLS SHALL BE PLACED IN COMPACTED LAYERS NOT TO EXCEED 9 INCHES IN THICKNESS.
- FILL MATERIALS SHALL BE FREE OF FROZEN PARTICLES, BRUSH, ROOTS, ROD, OR OTHER FOREIGN OR OBJECTIONABLE MATERIALS THAT WOULD INTERFERE WITH OR PREVENT CONSTRUCTION OF SATISFACTORY FILLS.
- FROZEN MATERIALS OR SOFT, MUCKY, OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED INTO FILLS. 24. FILL SHALL NOT BE PLACED ON SATURATED OR FROZEN SURFACES.
- SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE HANDLED IN ACCORDANCE WITH THE STANDARD AND SPECIFICATION FOR SUBSURFACE DRAIN OR OTHER APPROVED METHOD.
- ALL GRADED AREAS SHALL BE PERMANENTLY STABILIZED IMMEDIATELY UPON REACHING FINISHED GRADE. CUT SLOPES IN COMPETENT BEDROCK AND ROCK FILLS NEED NOT BE VEGETATED. SEEDING 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.
- IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE IN ANY AREA OR SUBAREA OF THE PROJECT, THE OPERATOR SHALL STOP ALL DISTURBED AREAS, DURING NON-GERMINATING 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 NOT BE REACTIVATED WITHIN 1 YEAR SHALL BE STABILIZED IN ACCORDANCE WITH THE PERMANENT STABILIZATION SPECIFICATIONS.
- PERMANENT STABILIZATION IS DEFINED AS A MINIMUM UPON, PERENNIAL 70% VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED EROSION. CUT AND FILL SLOPES SHALL BE CAPABLE OF RESISTING FAILURE DUE TO SLUMPING, SLIDING, OR OTHER MOVEMENTS.
- 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 DEPARTMENT.
- 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 APPROVAL TO REMOVE ANY OTHER HAVING CONSTRUCTION OF THE E&S BMPs.
- 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 THE REMOVAL OF THE BMPs MUST BE STABILIZED IMMEDIATELY. IN ORDER TO ENSURE RAPID REVEGETATION OF DISTURBED AREAS, SUCH REMOVAL/CONVERSIONS ARE TO BE DONE ONLY DURING THE GERMINATING SEASON.
- FAILURE TO CORRECTLY INSTALL E&S BMPs, FAILURE TO PREVENT SEDIMENT-LADEN RUNOFF FROM LEAVING THE CONSTRUCTION SITE, OR FAILURE TO TAKE CORRECTIVE ACTION TO RESOLVE THE FAILURE OF E&S BMPs MAY RESULT IN ADMINISTRATIVE, CIVIL, AND/OR CRIMINAL PENALTIES BEING INSTITUTED BY THE DEPARTMENT AS DEFINED IN SECTION 802 OF THE PENNSYLVANIA CLEAN STREAMS LAW. THE CLEAN STREAMS LAW PROVIDES FOR UP TO \$10,000 PER DAY FOR CIVIL PENALTIES, UP TO \$10,000 PER DAY FOR CRIMINAL PENALTIES, AND UP TO \$25,000 IN MISDEMEANOR CRIMINAL PENALTIES FOR EACH VIOLATION.

ADDITIONAL NOTES:

- CONCRETE WASH WATER SHALL BE HANDLED IN THE MANNER DESCRIBED ON THE PLAN DRAWINGS. IN NO CASE SHALL IT BE ALLOWED TO ENTER ANY SURFACE WATERS OR GROUNDWATER SYSTEMS.
- ALL CHANNELS SHALL BE KEPT FREE OF OBSTRUCTIONS INCLUDING BUT NOT LIMITED TO FILL, ROCKS, LEAVES, WOODY DEBRIS, ACCUMULATED SEDIMENT, EXCESS VEGETATION, AND CONSTRUCTION MATERIAL/WASTES.
- UNDERGROUND UTILITIES CUTTING THROUGH ANY ACTIVE CHANNEL SHALL BE IMMEDIATELY BACKFILLED AND THE CHANNEL RESTORED TO ITS ORIGINAL CROSS-SECTION AND PROTECTIVE LINING. ANY BASE FILL WITHIN THE CHANNEL SHALL BE CONVEYED PAST THE WORK AREA IN THE MANNER DESCRIBED IN THIS PLAN UNTIL SUCH RESTORATION IS COMPLETE.
- CHANNELS HAVING RIPRAP, RENO MATTRESS, OR GABION LININGS MUST BE SUFFICIENTLY OVER-EXCAVATED SO THAT THE DESIGN DIMENSIONS WILL BE PROVIDED AFTER PLACEMENT OF THE PROTECTIVE LINING.
- SEDIMENT BASINS AND/OR TRAPS SHALL BE KEPT FREE OF ALL CONSTRUCTION WASTE, WASH WATER, AND OTHER DEBRIS HAVING POTENTIAL TO CLOG THE BASIN/TRAP OUTLET STRUCTURES AND/OR POLLUTE THE SURFACE WATERS.
- SEDIMENT BASINS SHALL BE PROTECTED FROM UNAUTHORIZED ACTS BY THIRD PARTIES.
- ANY DAMAGE THAT OCCURS IN WHOLE OR IN PART AS A RESULT OF BASIN OR TRAP DISCHARGE SHALL BE IMMEDIATELY REPAIRED BY THE PERMITTEE IN A PERMANENT MANNER SATISFACTORY TO THE MUNICIPALITY, LOCAL CONSERVATION DISTRICT, AND THE OWNER OF THE DAMAGED PROPERTY.
- UPON REQUEST, THE APPLICANT OR HIS CONTRACTOR SHALL PROVIDE AN AS-BUILT (RECORD DRAWING) FOR ANY SEDIMENT BASIN OR TRAP TO THE MUNICIPAL INSPECTOR, LOCAL CONSERVATION DISTRICT OR THE DEPARTMENT.
- EROSION CONTROL BLANKETING SHALL BE INSTALLED ON ALL SLOPES 3:1V OR STEEPER WITHIN 50 FEET OF A SURFACE WATER AND ON ALL OTHER DISTURBED AREAS SPECIFIED ON THE PLAN MAPS AND/OR DETAIL SHEETS.
- FILL MATERIAL FOR EMBANKMENTS SHALL BE FREE OF ROOTS, OR OTHER WOODY VEGETATION, ORGANIC MATERIAL, LARGE STONES, AND OTHER OBJECTIONABLE MATERIALS. THE EMBANKMENT SHALL BE COMPACTED IN MAXIMUM LAYERED LIFTS AT 8" DENSITY.

CLEAN FILL & ENVIRONMENTAL DUE DILIGENCE

- IF THE SITE WILL NEED TO IMPORT OR EXPORT MATERIAL FROM THE SITE, THE RESPONSIBILITY FOR PERFORMING ENVIRONMENTAL DUE DILIGENCE AND DETERMINATION OF CLEAN FILL WILL REST WITH THE CONTRACTOR.
- CLEAN FILL IS DEFINED AS: UNCONTAMINATED, NON-WATER SOLUBLE, NON-DECOMPOSABLE, INERT, SOLID MATERIAL. THE TERM INCLUDES SOIL, ROCK STONE, DREGGED 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 IN OR ON THE COMMONWEALTH UNLESS OTHERWISE AUTHORIZED. (THE TERM "USED ASPHALT" DOES NOT INCLUDE MILLED ASPHALT OR ASPHALT THAT HAS BEEN PROCESSED FOR RE-USE).
- CLEAN FILL AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE: FILL MATERIALS AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE STILL QUALIFIES AS CLEAN FILL PROVIDED THE TESTING REVEALS THAT THE FILL MATERIAL CONTAINS CONCENTRATIONS OF REGULATED SUBSTANCE THAT ARE BELOW THE RESIDENTIAL LIMITS IN TABLES PP-1a AND PP-1b FOUND IN THE DEPARTMENTS' POLICY "MANAGEMENT OF FILL".
- ANY PERSON PLACING CLEAN FILL THAT HAS BEEN AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE MUST USE FORM PP-001 TO CERTIFY THE ORIGIN OF THE FILL MATERIAL AND THE RESULTS OF THE ANALYTICAL TESTING TO QUALIFY THE MATERIAL AS CLEAN FILL. FORM PP-001 MUST BE RETAINED BY THE OWNER OF THE PROPERTY RECEIVING THE FILL. A COPY OF THE FORM PP-001 CAN BE FOUND AT THE END OF THESE INSTRUCTIONS.

- ENVIRONMENTAL DUE DILIGENCE: THE APPLICANT MUST PERFORM ENVIRONMENTAL DUE DILIGENCE TO DETERMINE IF THE FILL MATERIALS ASSOCIATED WITH THE PROJECT QUALIFY AS CLEAN FILL. ENVIRONMENTAL DUE DILIGENCE IS DEFINED AS: INVESTIGATIVE TECHNIQUES, INCLUDING, BUT NOT LIMITED TO, VISUAL PROPERTY USE HISTORY, SANBORN MAPS, ENVIRONMENTAL QUESTIONNAIRES, TRANSACTION SCREENS, ANALYTICAL TESTING, ENVIRONMENTAL ASSESSMENTS OR AUDITS. ANALYTICAL TESTING IS NOT A REQUIRED PART OF DUE DILIGENCE. UNLESS VISUAL INSPECTION OF THE PAST LAND USE OF THE PROPERTY INDICATES THAT THE FILL MAY HAVE BEEN SUBJECTED TO A SPILL OR RELEASE OF REGULATED SUBSTANCE, IF THE FILL MAY HAVE BEEN AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE, IT MUST BE TESTED TO DETERMINE IF IT QUALIFIES AS CLEAN FILL. TESTING SHOULD BE PERFORMED IN ACCORDANCE WITH APPENDIX A OF THE DEPARTMENTS' 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 DEPARTMENTS' MUNICIPAL OR RESIDUAL WASTE REGULATIONS BASED ON 25 PA. CODE CHAPTER 287 RESIDUAL WASTE MANAGEMENT OR 271 MUNICIPAL WASTE MANAGEMENT, WHICHEVER IS APPLICABLE. THESE REGULATIONS ARE AVAILABLE ON-LINE AT [www.pacode.com](http://www.pacode.com).

MONITORING, INSPECTION, AND REPORTING REQUIREMENTS

- VISUAL INSPECTIONS: THE PERMITTEE AND CO PERMITTEE(S) MUST ENSURE THAT VISUAL SITE INSPECTIONS ARE CONDUCTED DAILY, AND WITHIN 24 HOURS AFTER EACH MEASURABLE RAINFALL EVENT THROUGHOUT THE DURATION OF CONSTRUCTION AND UNTIL THE RECEIPT AND ACKNOWLEDGMENT OF THE NOTING BY THE DEPARTMENT OR AUTHORIZED GRASS CONSERVATION DISTRICT. THE VISUAL SITE INSPECTIONS AND REPORTS SHALL BE COMPLETED IN A FORMAT PROVIDED BY THE DEPARTMENT, AND CONDUCTED BY QUALIFIED PERSONNEL, TRAINED AND EXPERIENCED IN EROSION AND SEDIMENT CONTROL. TO ASCERTAIN THAT E&S BMPs AND PCSM BMPs ARE PROPERLY CONSTRUCTED AND MAINTAINED AND ARE POLLUTANT TO THE WATER OF THIS COMMONWEALTH, A WRITTEN REPORT OF EACH INSPECTION SHALL BE KEPT AND INCLUDE AT A MINIMUM:
- A SUMMARY OF SITE CONDITIONS, E&S BMP AND PCSM BMP IMPLEMENTATION AND MAINTENANCE AND COMPLIANCE ACTIONS; AND
  - THE DATE, TIME, NAME AND SIGNATURE OF THE PERSON CONDUCTING THE INSPECTION.

- NONCOMPLIANCE REPORTING: WHERE E&S, PCSM OR PRG BMPs ARE FOUND TO BE INOPERATIVE OR INEFFECTIVE DURING AN INSPECTION, OR ANY OTHER TIME, THE PERMITTEE AND CO PERMITTEE(S) SHALL, WITHIN 24 HOURS, CONTACT THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT, BY PHONE OR PERSONAL CONTACT, FOLLOWED BY THE SUBMISSION OF A WRITTEN REPORT WITHIN 5 DAYS OF THE INITIAL CONTACT. NONCOMPLIANCE REPORTS SHALL INCLUDE THE FOLLOWING INFORMATION:
- ANY CONDITION ON THE PROJECT SITE WHICH MAY ENDANGER PUBLIC HEALTH, SAFETY, OR THE ENVIRONMENT, OR INVOLVE INCIDENTS WHICH CAUSE OR THREATEN POLLUTION;
  - THE PERIOD OF NONCOMPLIANCE, INCLUDING EXACT DATES AND TIMES AND/OR ANTICIPATED TIME WHEN THE ACTIVITY WILL RETURN TO COMPLIANCE;
  - STEPS BEING TAKEN TO REDUCE, ELIMINATE, AND PREVENT RECURRENCE OF THE NONCOMPLIANCE; AND
  - THE DATE OR SCHEDULE OF DATES, AND IDENTIFYING REMEDIES FOR CORRECTING NONCOMPLIANCE CONDITIONS.

- REDUCTION, LOSS, OR FAILURE OF THE BMPs: UPON REDUCTION, LOSS, OR FAILURE OF THE BMPs, THE PERMITTEE AND CO PERMITTEE SHALL TAKE IMMEDIATE ACTION TO RESTORE THE BMPs OR PROVIDE AN ALTERNATIVE METHOD OF TREATMENT. SUCH RESTORED BMPs OR ALTERNATIVE TREATMENT SHALL BE AT LEAST AS EFFECTIVE AS THE ORIGINAL BMPs.

- TERMINATION OF COVERAGE: UPON PERMANENT STABILIZATION OF EARTH DISTURBANCE ACTIVITIES ASSOCIATED WITH CONSTRUCTION ACTIVITY THAT ARE AUTHORIZED BY THIS PERMIT AND WHEN BMPs IDENTIFIED IN THE PCSM PLAN HAVE BEEN PROPERLY INSTALLED AND MAINTAINED TO MINIMIZE THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE PERMITTEE AND/OR CO PERMITTEE OF THE FACILITY MUST SUBMIT A NOT FORM THAT IS SIGNED IN ACCORDANCE WITH PART B, SECTION 1.C, SIGNATORY REQUIREMENTS, OF THIS PERMIT. ALL LETTERS CERTIFYING DISCHARGE TERMINATION ARE TO BE SENT TO THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT. THE NOT FORM MUST CONTAIN THE FOLLOWING INFORMATION: FACILITY NAME, ADDRESS, AND LOCATION, OPERATOR NAME AND ADDRESS, PERMIT NUMBER, IDENTIFICATION AND PROOF OF ACKNOWLEDGMENT FROM THE PERSON(S) WHO WILL BE RESPONSIBLE FOR OPERATION AND MAINTENANCE OF THE PCSM BMPs IN ACCORDANCE WITH THE APPROVED PCSM PLAN, AND THE REASON FOR PERMIT TERMINATION. UNTIL THE PERMITTEE HAS RECEIVED WRITTEN ACKNOWLEDGMENT OF THE NOT FORM, THE PERMITTEE WILL BE RESPONSIBLE FOR OPERATING AND MAINTAINING ALL E&S BMPs AND PCSM BMPs ON THE PROJECT SITE AND WILL BE RESPONSIBLE FOR VIOLATIONS OCCURRING ON THE PROJECT SITE.

- COMPLETION CERTIFICATE AND FINAL PLANS: WITHIN 30 DAYS AFTER THE COMPLETION OF EARTH DISTURBANCE ACTIVITIES AUTHORIZED BY THIS PERMIT, INCLUDING THE PERMANENT STABILIZATION OF THE SITE AND PROPER INSTALLATION OF PCSM BMPs IN ACCORDANCE WITH THE APPROVED PCSM PLAN, OR UPON SUBMISSION OF THE NOT FORM, THE PERMITTEE SHALL FILE WITH THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT A STATEMENT SIGNED BY A LICENSED PROFESSIONAL AND BY THE PERMITTEE CERTIFYING THAT WORK HAS BEEN PERFORMED IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THIS PERMIT AND THE APPROVED E&S AND PCSM PLANS.

EROSION AND SEDIMENT CONTROL DEVICE NOTES:

- EROSION AND SEDIMENTATION CONTROLS MUST BE CONSTRUCTED, STABILIZED, AND FUNCTIONAL BEFORE SITE ADDITION WITHIN THE TRENCH AREAS OF THOSE CONTROLS.
- 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 IMMEDIATELY.
- STOCKPILE HEIGHTS MUST NOT EXCEED 35 FEET. STOCKPILE SLOPES MUST BE 2:1 OR FLATTER.
- UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENTATION MUST BE MAINTAINED PROPERLY. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENTATION CONTROL AFTER EACH RUNOFF EVENT AND ON A DAILY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRAIDING, RESEEDING, REMULCHING, AND RENETTING, MUST BE PERFORMED IMMEDIATELY.

TRENCH NOTES

- LIMIT ADVANCED CLEARING AND GRUBBING OPERATIONS TO A DISTANCE EQUAL TO TWO TIMES THE LENGTH OF PIPE INSTALLATION THAT CAN BE COMPLETED IN ONE DAY.
- WORK CREWS AND EQUIPMENT FOR TRENCHING, PLACEMENT OF PIPE, PLUG CONSTRUCTION AND BACKFILLING WILL BE SELF CONTAINED AND SEPARATE FROM CLEARING AND GRUBBING AND SITE RESTORATION AND STABILIZATION OPERATIONS.
- ALL SOIL EXCAVATED FROM THE TRENCH WILL BE PLACED ON THE UPHILL SIDE OF THE TRENCH.
- LIMIT DAILY TRENCHING OPERATIONS TO A LENGTH OF PIPE PLACEMENT, PLUG INSTALLATION AND BACKFILLING THAT CAN BE COMPLETED THE SAME DAY.
- WATER WHICH ACCUMULATES IN THE OPEN TRENCH WILL BE COMPLETELY REMOVED BY PUMPING BEFORE PIPE PLACEMENT AND / OR BACKFILLING BEGINS. WATER REMOVED FROM THE TRENCH SHALL BE PUMPED THROUGH A STRAINER.
- ON THE DAY FOLLOWING PIPE PLACEMENT AND TRENCH BACKFILLING, THE DISTURBED AREA WILL BE GRADED TO FINAL CONTOURS AND IMMEDIATELY STABILIZED.
- SOILS EXCAVATED FROM EXISTING SURFACE LAYERS SHOULD BE STOCKPILED SEPARATELY AND RETURNED AS FINAL SURFACE LAYER FOLLOWING TRENCH BACKFILLING.

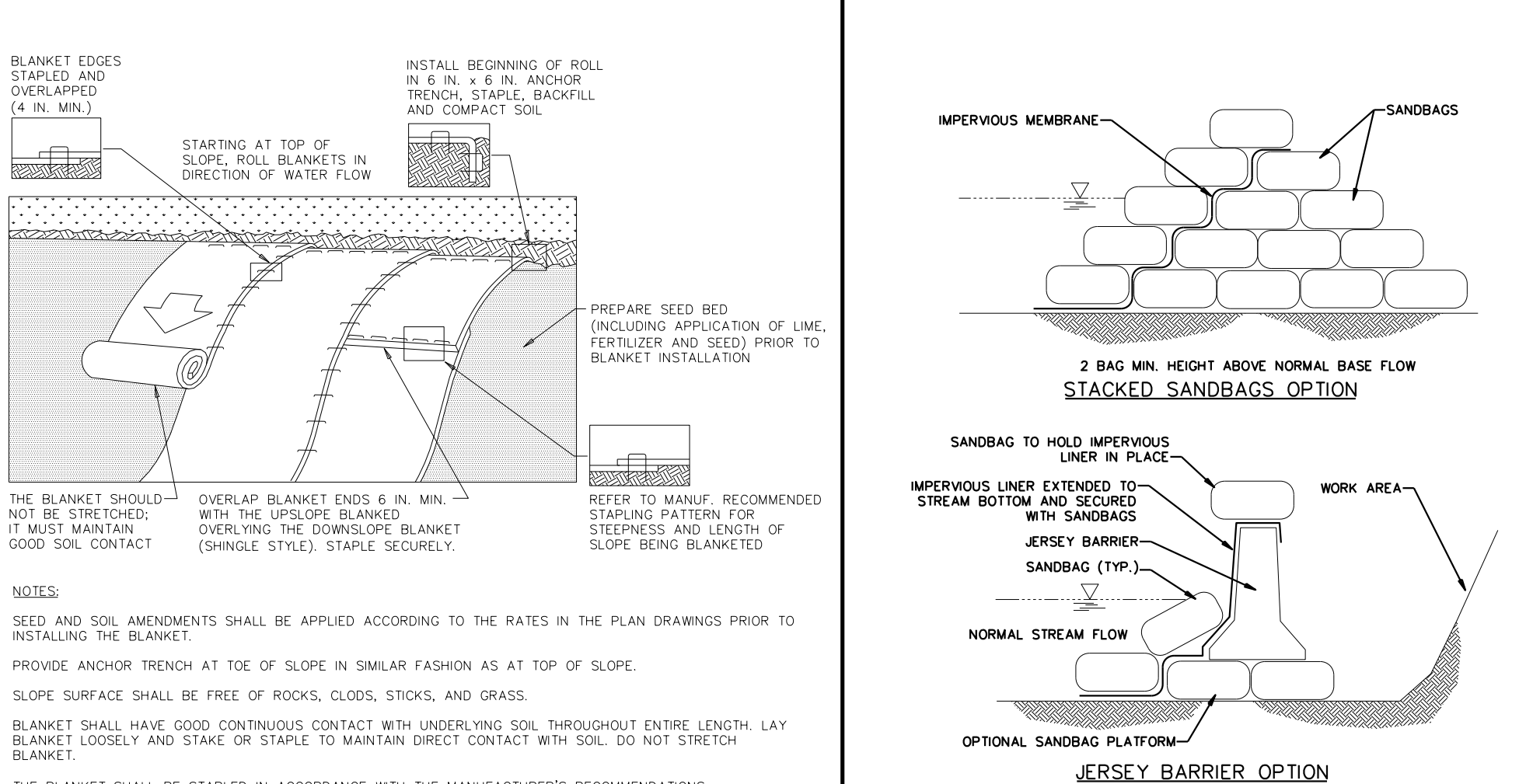
TOPSOIL & SEEDING - SOIL STABILIZATION NOTES

- SEEDBED PREPARATION, SEEDING AND MULCHING: A. WORK APPROVED RATES OF LIME AND FERTILIZER INTO SOIL TO A DEPTH OF APPROXIMATELY 4 INCHES WITH A DISC OR OTHER MEANS OF REMOVAL OF THE E&S BMPs. THE FINAL NARROWING OR DISCING OPERATION MUST BE ON THE GENERAL COUNTER, CONTINUE ULLAGE UNTIL A REASONABLY UNIFORM SEEDBED IS PREPARED. SEED TO BE APPLIED UNIFORMLY BY GRASS DRILL OR GRASS SEEDER TO A DEPTH OF APPROXIMATELY 1/2 - 1 INCH WITH THE SPECIFIED SEED MIXTURE AND APPLICATION RATES. B. AREAS THAT ARE PERMANENTLY SEEDED SHALL BE SEEDED WITH THE FOLLOWING RECOMMENDED SEED MIXTURE AND APPLICATION RATES: APPLICATION RECOMMENDED SEED RATE PLANTING DATES REBEL II TALL FESCUE 208 LBS./AC. 4/1 - 5/31 OR NASSAU KENTUCKY BLUEGRASS 26 LBS./AC. 8/15 - 10/1 PALMER II PERENNIAL RYEGRASS 26 LBS./AC. C. FOR SANDY SOILS APPLY PERENNIAL RYE GRASS AT THE RATE OF 3-4 LBS. PER 1,000 S.F. (135-180 LBS. PER ACRE) IN ADDITION TO THE ABOVE.
- TEMPORARY STABILIZATION SHALL CONSIST OF A QUICK GROWING TEMPORARY SEED MIXTURE (ANNUAL RYEGRASS) AND MULCHED. TEMPORARY SEED MIXTURE IS TO BE APPLIED AT A RATE OF 3-7 LBS. PER 1,000 S.F. (160 LBS. PER ACRE). IF THE INITIAL SEEDING DOES NOT TAKE, AREAS SHALL BE RESEED. TEMPORARY STABILIZATION FOR AREAS NOT IN VEGETATED AREAS MAY CONSIST OF STONE OR WOODCHIPS.
- ANY DISTURBED AREA ON WHICH ACTIVITIES HAVE CEASED AND WHICH WILL REMAIN EXPOSED FOR MORE THAN 4 (4) DAYS 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 WITH A QUICK GROWING TEMPORARY SEED MIXTURE (ANNUAL RYEGRASS) AND MULCHED. IN ACCORDANCE WITH THE STANDARDS, DISTURBED AREAS WHICH ARE EITHER AT FINISHED GRADE OR WILL NOT BE REDISTURBED WITHIN (1) YEAR MUST BE SEEDED WITH A PERMANENT SEED MIXTURE AND MULCHED. STRAW MULCH SHALL BE APPLIED AT A RATE OF THREE (3) TONS PER ACRE.
- AREAS RECEIVING BOTH TEMPORARY AND PERMANENT SEEDING SHALL BE STRAW MULCHED AT A RATE OF (3) TONS PER ACRE. STRAW MULCH MUST BE ANCHORED WITH A BLANKET, NET TACKIFIER OR CRIMPING TO PREVENT IT FROM BEING WIND.
- GRADED AREAS SHOULD BE SCARIFIED OR OTHERWISE LOOSENEED TO A DEPTH OF 3" TO 5" PRIOR TO TOPSOIL PLACEMENT TO PERMIT BONDING OF THE TOPSOIL. ADDITIONALLY, COMPOST SHALL BE ADDED TO THE TOPSOIL AT A RATE OF 2:1 SOIL COMPOST. THE AMENDED SOIL SHALL BE REPLACED EQUAL TO THE PRE-DEVELOPMENT DEPTHS OR AT A MINIMUM DEPTH OF 4".
- SEDIMENTATION TRAPS AND BASINS, INTERCEPTOR CHANNELS AND TOPSOIL STOCKPILES MUST BE SEEDED WITH PERMANENT SEEDING AND MULCHED IMMEDIATELY AFTER GRADING OR CONSTRUCTION OF THESE FACILITIES ARE COMPLETE.
- IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER TO PROVIDE CONFIRMATION OF SEED APPLICATION AND RATE OF APPLICATION AT THE REQUEST OF THE MONTGOMERY COUNTY CONSERVATION DISTRICT (MCCD).

- LIME APPLICATION RATES: A. TEMPORARY SEEDED AREAS SHALL BE LIMED AT THE RATE OF (1) TON PER ACRE. PERMANENT SEEDED AREAS SHALL BE LIMED AT THE RATE OF (6) TONS PER ACRE. B. IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER TO PROVIDE CONFIRMATION OF LIME APPLICATION AND RATE OF APPLICATION AT THE REQUEST OF THE MONTGOMERY COUNTY CONSERVATION DISTRICT (MCCD).
- FERTILIZER APPLICATION RATES: A. TEMPORARY SEEDED AREAS SHALL BE FERTILIZED AT THE RATE OF (500) LBS PER ACRE. PERMANENT SEEDED AREAS SHALL BE FERTILIZED AT THE RATE OF (1,000) LBS PER ACRE. B. IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER TO PROVIDE CONFIRMATION OF FERTILIZER APPLICATION AND RATE OF APPLICATION AT THE REQUEST OF THE MONTGOMERY COUNTY CONSERVATION DISTRICT (MCCD).

TEMPORARY STABILIZATION AND PERMANENT STABILIZATION

- HAY OR STRAW MULCH MUST BE APPLIED AT 3.0 TONS PER ACRE.
- MULCH WITH MULCH CONTROL NETTING OR EROSION CONTROL BLANKETS MUST BE INSTALLED ON ALL SLOPES 3:1 OR STEEPER.
- STRAW MULCH SHALL BE APPLIED IN LONG STRANDS, NOT CHOPPED OR FINELY BROKEN.
- UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENT BMPs MUST BE MAINTAINED PROPERLY. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENTATION CONTROL BMPs AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRAIDING, RESEEDING, REMULCHING, AND RENETTING, MUST BE DONE IMMEDIATELY. IF EROSION AND SEDIMENT CONTROL BMPs FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPs, OR MODIFICATIONS TO THOSE INSTALLED WILL BE REQUIRED. E&S/PCSM 168
- SEDIMENT REMOVED FROM BMPs SHALL BE DISPOSED OF IN LANDSCAPE AREAS OUTSIDE OF STEEP SLOPES, WETLANDS, FLOODPLAINS OR DRAINAGE WASHES AND IMMEDIATELY STABILIZED, OR PLACED IN TOPSOIL STOCKPILES.
- THE OPERATOR SHALL REMOVE FROM THIS SITE, RECYCLE, OR DISPOSE OF ALL BUILDING MATERIALS AND WASTES IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE CHAPTER 271, ET SEQ. THE CONTRACTOR SHALL NOT ILLEGALLY BURY, DUMP, OR DISCHARGE ANY BUILDING MATERIAL OR WASTES AT THIS SITE.
- AN E&S PLAN SHALL BE SUBMITTED TO THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT AND IMPLEMENTED FOR ALL SOIL AND BORROW AREAS, REGARDLESS OF THEIR LOCATION.
- THE NPDES BOUNDARY IS EQUAL TO THE LIMITS OF DISTURBANCE OF THE SITE AND ANY OFF-SITE AREAS WITHIN THE LIMITS OF DISTURBANCE THAT ARE THE RESPONSIBILITY OF THE DEVELOPER TO INSTALL. OFF-SITE FACILITIES SUCH AS: UTILITIES AND ROADWAYS.
- THE PROJECTS RECEIVING WATERCOURSE IS THE MATSUOK CREEK, AND THE CHAPTER 93 CLASSIFICATION IS WWF. MF. UPON COMPLETION OR TEMPORARY CESSATION OF THE EARTH DISTURBANCE ACTIVITY THE PROJECT SITE SHALL BE IMMEDIATELY STABILIZED IN ACCORDANCE WITH THE RECOMMENDATIONS CONTAINED IN THE EROSION AND SEDIMENT POLLUTION CONTROL PROGRAM MANUAL (E&S MANUAL), COMMONWEALTH OF PENNSYLVANIA, DEPARTMENT OF ENVIRONMENTAL PROTECTION NO. 363-2134-008, APRIL 2000, AS AMENDED AND UPDATED. EROSION AND SEDIMENT CONTROL BMPs SHALL BE IMPLEMENTED AND MAINTAINED UNTIL PERMANENT STABILIZATION IS COMPLETED AND PCSM BMPs ARE OPERATIONAL.



STANDARD CONSTRUCTION DETAIL #11-1  
EROSION CONTROL BLANKET  
NOT TO SCALE

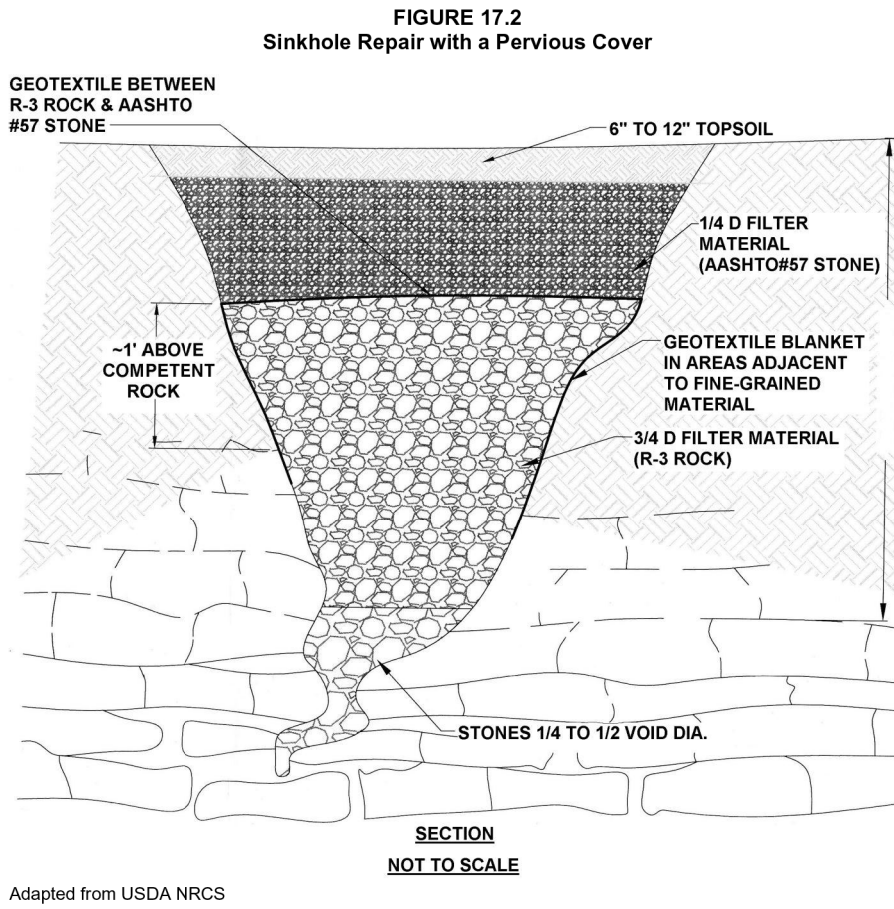
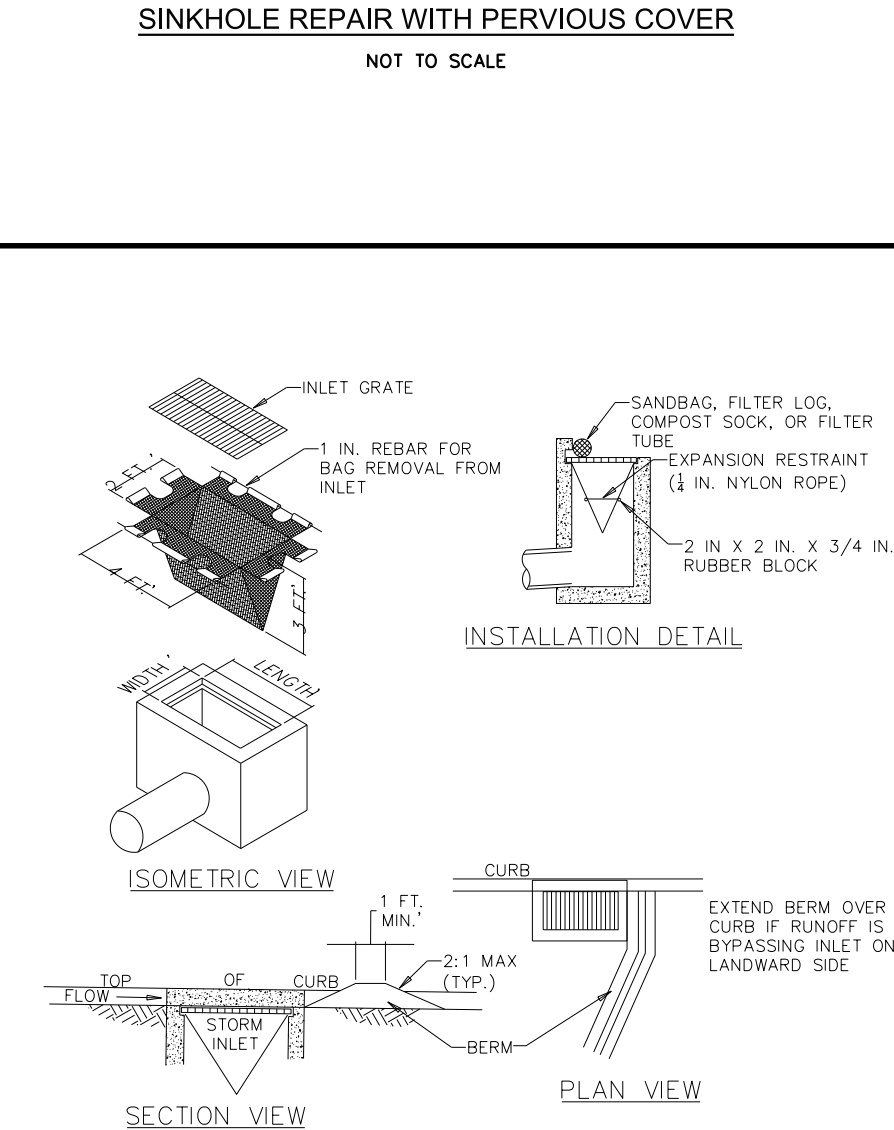
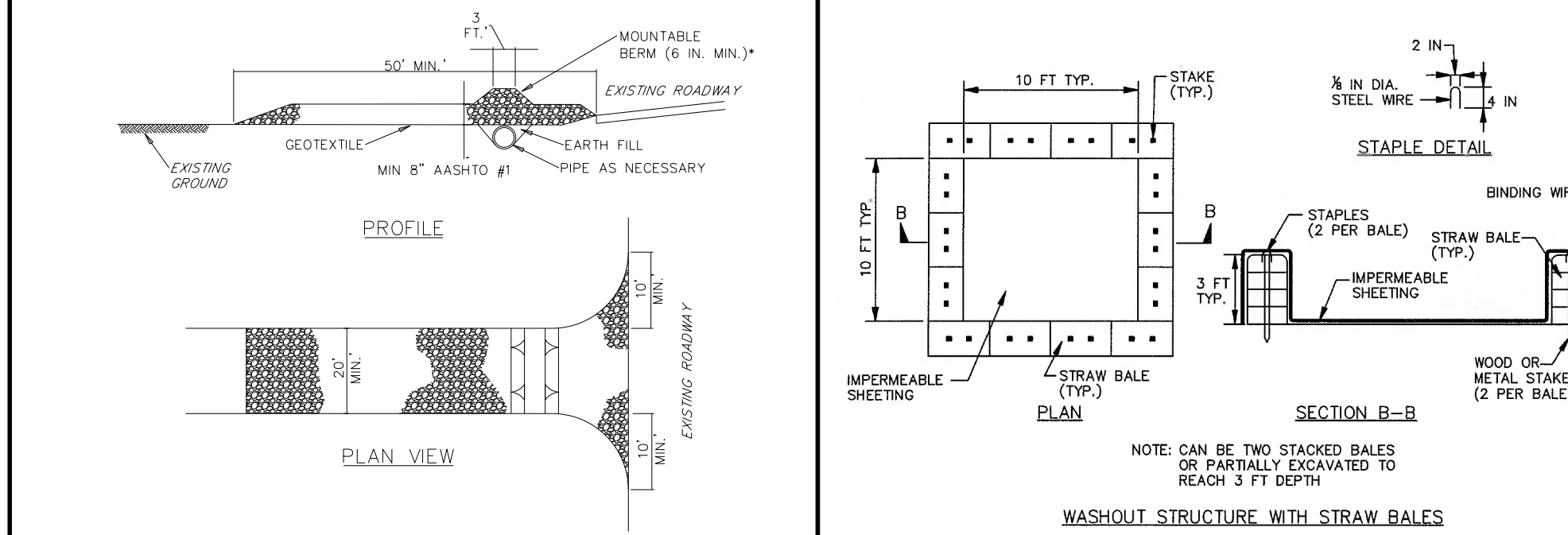


FIGURE 17.2  
Sinkhole Repair with a Pervious Cover  
NOT TO SCALE



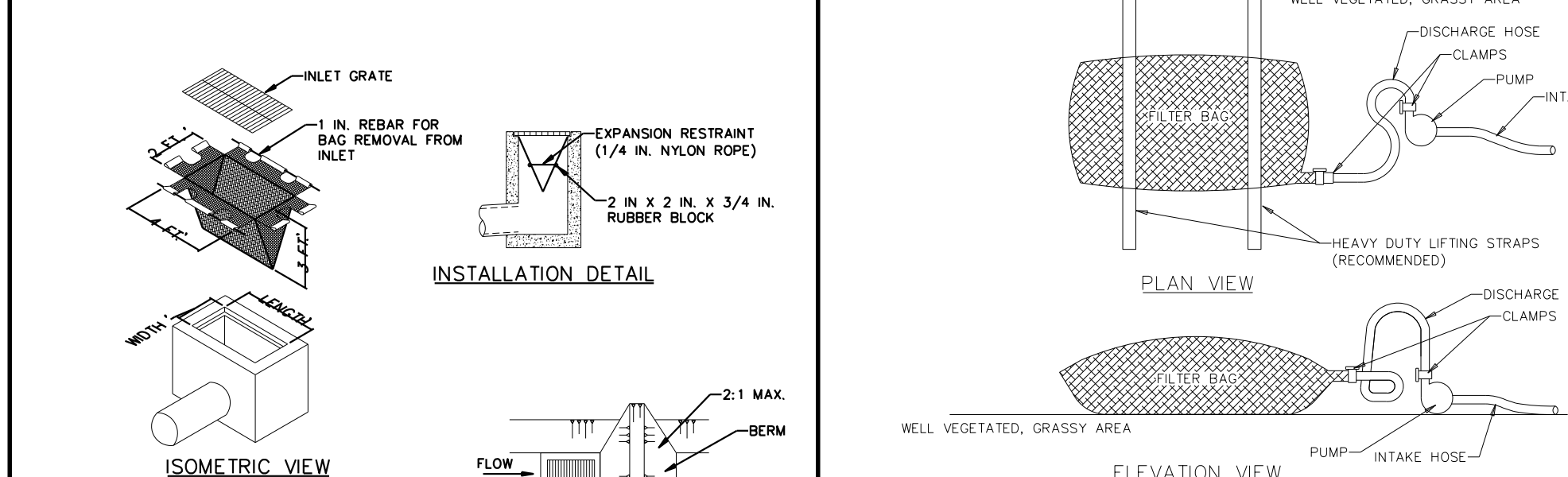
STANDARD CONSTRUCTION DETAIL #4-15  
FILTER BAG INLET PROTECTION - TYPE C INLET  
NOT TO SCALE



WASHOUT STRUCTURE WITH STRAW BALES  
NOT TO SCALE

- CONSTRUCTION SPECIFICATIONS:
- LOCATE WASHOUT STRUCTURE A MINIMUM OF 50 FEET AWAY FROM OPEN CHANNELS, STORM DRAIN INLETS, SENSITIVE AREAS, WETLANDS, BUFFERS AND WATER COURSES AND AWAY FROM CONSTRUCTION TRAFFIC.
  - SIZE WASHOUT STRUCTURE FOR VOLUME NECESSARY TO CONTAIN WASH WATER AND SOLIDS AND MAINTAIN AT LEAST 4 INCHES OF FREEBOARD. TYPICAL DIMENSIONS ARE 10 FEET X 10 FEET X 3 FEET.
  - PREPARE SOIL BASE FREE OF ROCKS OR OTHER DEBRIS THAT MAY CAUSE TEARS OR HOLES IN THE LINER. FOR LINER, USE 10 MIL OR THICKER UV RESISTANT, IMPERMEABLE SHEETING, FREE OF HOLES AND TEARS OR OTHER DEFECTS THAT COMPROMISE IMPERMEABILITY OF THE MATERIAL.
  - PROVIDE A SIGN FOR THE WASHOUT IN CLOSE PROXIMITY TO THE FACILITY.
  - KEEP CONCRETE WASHOUT STRUCTURE WATER TIGHT. REPLACE IMPERMEABLE LINER IF DAMAGED (E.G., PUNCTURED, PIERCED, EMPTY OR COLLAPSED). REMOVE EXCESSIVE AMOUNTS OF SEDIMENT BEING DEPOSITED ON ROADWAY TO LENGTH OF ROCK OR STONE PROTECTION ENTRANCE BY 50 FOOT INCREMENTS UNTIL CONDITION IS ALLEVIATED OR INSTALL WASH BACK. WASHING THE ROADWAY OR SWEEPING THE DEPOSITS FROM ROADWAY DITCHES, SEWERS, CULVERTS, OR OTHER DRAINAGE COURSES IS NOT ACCEPTABLE.

STANDARD CONSTRUCTION DETAIL #3-1  
ROCK CONSTRUCTION ENTRANCE  
NOT TO SCALE



CONCRETE WASHOUT DETAIL  
NOT TO SCALE

TABLE 1: PROPERTY, TEST METHOD, MINIMUM STANDARD

PROPERTY	TEST METHOD	MINIMUM STANDARD
AVG. WIDE WIDTH STRENGTH	ASTM D-4884	60 LB/IN
GRAB TENSILE	ASTM D-4832	205 LB
PUNCTURE	ASTM D-4833	110 LB
MULLEN BURST	ASTM D-3786	350 PSI
UV RESISTANCE	ASTM D-4355	100% RESISTANCE
ACQ. 8 RETAINED	ASTM D-4751	80 SIEVE

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 KEPT ON STRAPS TO FACILITATE REMOVAL UNLESS BAGS COME WITH LIFTING STRAPS ALREADY ATTACHED.

BAGS SHALL BE LOCATED IN WELL-VEGETATED (GRASSY) AREA AND DISCHARGE OUT TO STABLE. EROSION RESISTANT AREAS WHERE THIS IS NOT POSSIBLE, A GEOTEXTILE UNDERLAYER MUST BE PROVIDED. BAGS MAY BE PLACED ON FILTER SOIL TO INCREASE DISCHARGE CAPACITY. BAGS SHALL NOT BE PLACED ON SLOPES GREATER THAN 5:1 FOR SLOPES EXCEEDING 10:1. BAGS SHALL BE EROSION- AND NON-POLLUTING MATERIAL MAY BE PLACED UNDER THE BAG TO REDUCE SLOPE STEEPNESS.

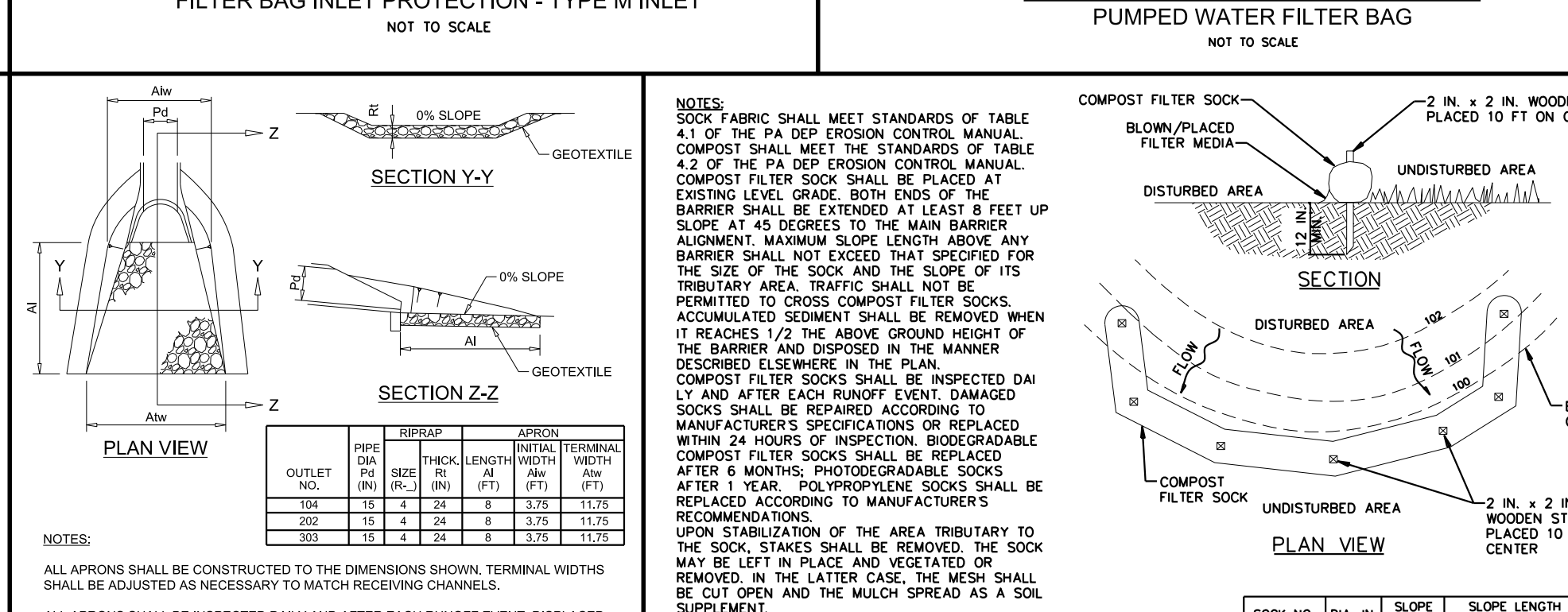
NO DOWNSLOPE SEDIMENT BARRIER IS REQUIRED FOR MOST INSTALLATIONS. COMPOST BERM OR COMPOST FILTER SOCK SHALL BE INSTALLED BELOW BAGS LOCATED IN BGS OR EV WATERSHEDS, WITHIN 50 FEET OF ANY RECEIVING SURFACE WATER OR WHERE GRASSY AREA IS NOT AVAILABLE.

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 SORENEED.

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



STANDARD CONSTRUCTION DETAIL #4-1  
COMPOST FILTER SOCK  
NOT TO SCALE

STANDARD CONSTRUCTION DETAIL #3-1  
RIPRAP APRON AT PIPE OUTLET WITH FLARED END SECTION OR ENDWALL  
NOT TO SCALE

STANDARD CONSTRUCTION DETAIL #3-1  
RIPRAP APRON AT PIPE OUTLET WITH FLARED END SECTION OR ENDWALL  
NOT TO SCALE

DESIGNED: MARK M. THOMPSON  
DRAWN: M.J.W.  
CHECKED: M.J.W.  
REVISIONS: NO DATE

PA. PROFESSIONAL ENGINEER NO. PE073278

SCALE: NOT TO SCALE  
DATE: MARCH 15, 2020  
DRAWING NO: 20-06602-GARAGE  
SHEET: 10 OF 15

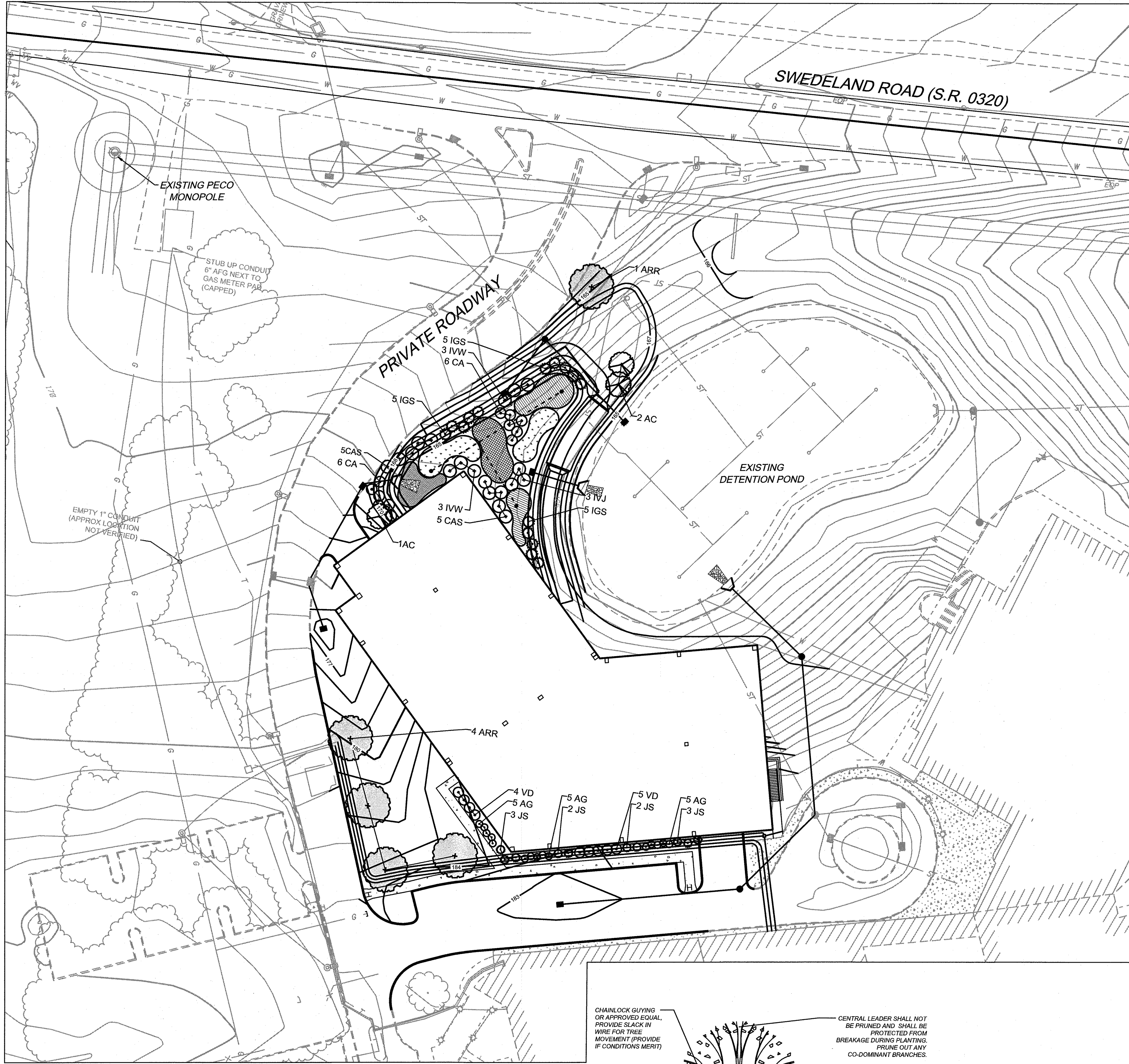
SOIL EROSION, SEDIMENT CONTROL DETAILS & NOTES

THE DISCOVERY LABS, 411 SWEDELAND ROAD  
PARKING GARAGE  
UPPER MERION TOWNSHIP  
MONTGOMERY COUNTY, PENNSYLVANIA

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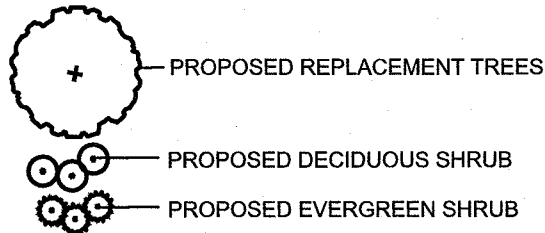




#### LANDSCAPE PLAN NOTES:

- PER SEC. 145-24.1 C(4)a. EACH MATURE TREE HAVING A DIAMETER OF 12 INCHES OR GREATER WHICH IS REMOVED SHALL BE REPLACED WITH A SIMILAR TYPE TREE. 5 TREES (3 MAPLES AND 2 CHERRY) HAVE BEEN REMOVED AND 5 MAPLE TREES (ARR) HAVE BEEN PROVIDED.
- PER SEC. 145-24.1 F(1)a. MINIMUM OF 2 TREES AN 10 SHRUBS PER 100 LINEAR FEET (L.F.) OF BASIN PERIMETER SHALL BE PLANTED IN AND AROUND THE BASIN.
- 330 L.F. OF BASIN (RAIN GARDEN) + 100 L.F. = 3.3 TREES REQUIRED AND 3 PROVIDED
- 330 L.F. OF BASIN (RAIN GARDEN) + 100 L.F. = 3.3 x 10= 33 SHRUBS REQUIRED AND 46 PROVIDED

#### LEGEND



#### HERBACEOUS EMERGENT RAIN GARDEN PLANTS

TOTAL AREA: 615 SF 155 PLUGS - IV	PLUGS PLANTED 2' ON CENTER
TOTAL AREA: 1010 SF 255 PLUGS - HM	PLUGS PLANTED 2' ON CENTER
TOTAL AREA: 1080 SF 270 PLUGS - JE	PLUGS PLANTED 2' ON CENTER

#### TURF GRASS

ALL AREAS DESIGNATED FOR LAWNS SHALL BE SEEDED WITH THE FOLLOWING MIXTURE:

THE SEED MIXTURE % BY WEIGHT	BOTANICAL NAME	COMMON NAME
40%	TALL FESCUE	Festuca arundinacea
25%	CHEWING FESCUE	Festuca rubra
25%	PERENNIAL RYGRASS	Lolium perenne
10%	BLUE GRASS	Poa pratensis/Nassau'

#### APPLICATION RATES

SEED MIXTURE: 6LBS/1000SF  
STRAW/HAY MIXTURE: 1 1/2-2 TONS PER ACRE  
FERTILIZER RATE: 10-8-4

SEED MIXTURE AND APPLICATION RATES MAY BE MODIFIED IN ACCORDANCE WITH THE BEST LOCAL PRACTICES, SUBJECT TO THE LANDSCAPE ARCHITECTS APPROVAL.  
RECOMMENDED SEEDING DATES  
MARCH 15 - MAY 15, AND/OR AUGUST 31-OCTOBER 15

#### BASIN SEEDING:

THE SEED MIXTURE IS THE FOLLOWING:

PROPORTION BY WEIGHT	BOTANICAL NAME	COMMON NAME
50%	Phalaris arundinacea	REED CANARY GRASS
20%	Festuca arundinacea "Clemfine"	CLEMFINE TALL FESCUE
10%	Lolium perenne "Palmer"	PALMER PERENNIAL RYEGRASS
10%	Trifolium hybridum	ALSIKE CLOVER
5%	Agrostis alba	REDTOP
5%	Poa trivialis	POA TRIVIALIS

#### APPLICATION RATES:

SEED MIXTURE: 5lbs/1000 S.F.  
STRAW/HAY MIXTURE: 1 1/2 - 2 TONS/ACRE

SEED MIXTURES AND APPLICATION RATES MAY BE MODIFIED IN ACCORDANCE WITH THE BEST LOCAL PRACTICE SUBJECT TO THE LANDSCAPE ARCHITECTS APPROVAL.

RECOMMENDED SEEDING DATES:  
APRIL 1ST - MAY 31ST, OR AUGUST 16TH - OCTOBER 14TH

#### LANDSCAPE PLANT SCHEDULE

KEY	QTY	BOTANICAL NAME	COMMON NAME	HGT.	CAL.	SIZE	NOTES
<b>SHADE TREES</b>							
ARR	5	ACER RUBRUM 'RED SUNSET'	RED MAPLE	12-14'	2.5-3"	B&B	FULL HEAD, SINGLE LEADER
<b>SHRUBS</b>							
AG	15	ABELIA X GRANDIFLORA	GLOSSY ABELIA	18-24"		3 GAL. CONT.	FULL / WELL BRANCHED
VD	9	VIBURNUM DENTATUM	ARROWWOOD VIBURNUM	24-36"		5 GAL. CONT.	FULL / WELL BRANCHED
<b>GROUND COVER</b>							
JS	10	JUNIPERUS SQUAMATA 'BLUE STAR'	BLUE STAR JUNIPER	18-24"		2 GAL. CONT.	PLANTED 4' O.C.

#### RAIN GARDEN PLANT SCHEDULE

KEY	QTY	BOTANICAL NAME	COMMON NAME	HGT.	ROOT	NOTES
<b>ORNAMENTAL TREES</b>						
AC	3	AMELANCHIER CANADENSIS	SERVICEBERRY	6-7'	B & B	FULL HEAD, SINGLE LEADER
<b>SHRUBS: TOTAL QUANTITY 46</b>						
CA	12	CLETHRA ALINIFOLIA	SWEET PEPPERBUSH	18-24"	3 GAL. CONT.	FULL / WELL BRANCHED
CAS	10	CORNUS ALBA 'SIBIRICA'	RED TWIG DOGWOOD	2-3'	5 GAL. CONT.	FULL / WELL BRANCHED
IGS	15	ILEX GLABRA 'SHAMROCK'	SHAMROCK INKBERY HOLLY	18-24"	3 GAL. CONT.	FULL / WELL BRANCHED
IWW	6	ILEX VERTICILLATA 'WINTER RED'	WINTER RED WINTERBERRY HOLLY	2-3'	5 GAL. CONT.	FULL / WELL BRANCHED
IJJ	3	ILEX VERTICILLATA 'JIM DANDY'	JIM DANDY WINTERBERRY HOLLY	2-3'	5 GAL. CONT.	FULL / WELL BRANCHED
<b>HERBACEOUS EMERGENT PLANTS: TOTAL QUANTITY 571</b>						
HM	255	HIBISCUS MOSCHEUTOS	MARSH HIBISCUS		2" PLUG	TYP. SPECIES HABIT
IV	155	IRIS VERSICOLOR	BLUE FLAG		2" PLUG	TYP. SPECIES HABIT
JE	275	JUNCUS EFFUSUS	SOFT RUSH		2" PLUG	TYP. SPECIES HABIT

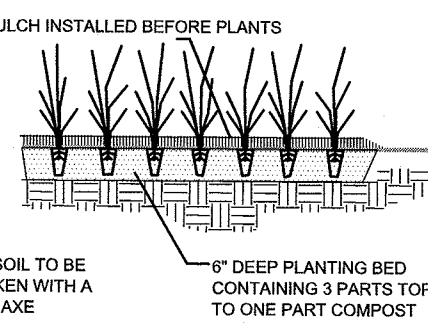
#### RAIN GARDEN NOTES:

- THE PLANTING MIX FOR THE RAIN GARDEN AREA SHALL BE A WELL MIXED COMPOSITION OF TOPSOIL, COMPOST AND SAND WITH THE FOLLOWING RATIOS BY VOLUME: 3 PARTS TOPSOIL, 1 PART COMPOST & 1 PART SAND.  
1a. TOPSOIL SHALL BE CLEAN, FRIABLE, LOAM TOPSOIL, CONTAINING NO ORGANIC MATTER, BRICKBATS, OR OTHER DEBRIS, OR TOXIC MATERIALS. CONTRACTOR SHALL SUBMIT RESULTS OF A TOPSOIL TEST TO THE PROJECT ADMINISTRATOR FOR REVIEW. ADJUST TOPSOIL IN ACCORDANCE WITH ANALYSIS OF TESTING.  
1b. COMPOST SHALL BE MATURE, STABLE AND WEED FREE AND PRODUCED BY AEROBIC DECOMPOSITION OF ORGANIC MATTER. THIS PRODUCT MAY NOT CONTAIN ANY VISIBLE REFUSE OR OTHER PHYSICAL CONTAMINANT SUBSTANCES TOXIC TO PLANTS OR MORE THAN 5% SAND, SILT, CLAY, STONES OR ROCK, MATERIAL BY WEIGHT. THIS PRODUCT SHALL POSSESS NO OBJECTIONABLE ODORS. THIS PRODUCT SHALL MEET ALL APPLICABLE US EPA CFR TITLE 40 PART 503 STANDARDS FOR CLASS A BIO-SOLIDS.  
1c. SAND SHALL BE NATURAL OR RIVER BANK SAND FREE OF ORGANIC MATERIAL, SILT, CLAY, LOAM AND DEBRIS.

PHYSICAL REQUIREMENTS FOR COMPOST:  
PH BETWEEN 5.8-5.8; SOLUBLE SALTS <1000mg; MOISTURE 30-60% WET RATE BASIS; ORGANIC MATTER 30-60% DRY WEIGHT BASIS; PARTICLE PHYSICAL CONTAMINANTS <1% DRY WEIGHT; CHEMICAL CONTAMINANTS MEET OR EXCEED US EPA CLASS A STANDARD, 40 CFR 503.13, TABLES 1 & 3 LEVELS.

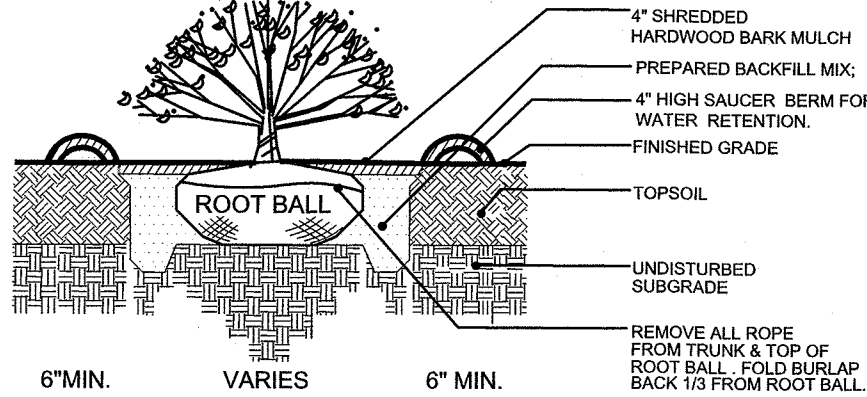
#### RAIN GARDEN HERBACEOUS SPACING

N.T.S.



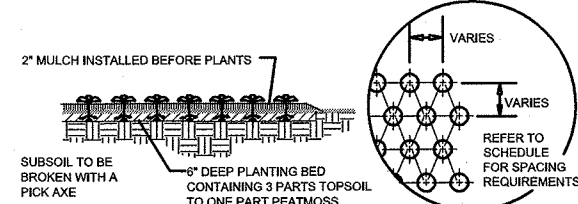
#### RAIN GARDEN PLANTING DETAIL

N.T.S.  
NOTE: PLUGS SHALL BE FROM SOIL CONTAINERS



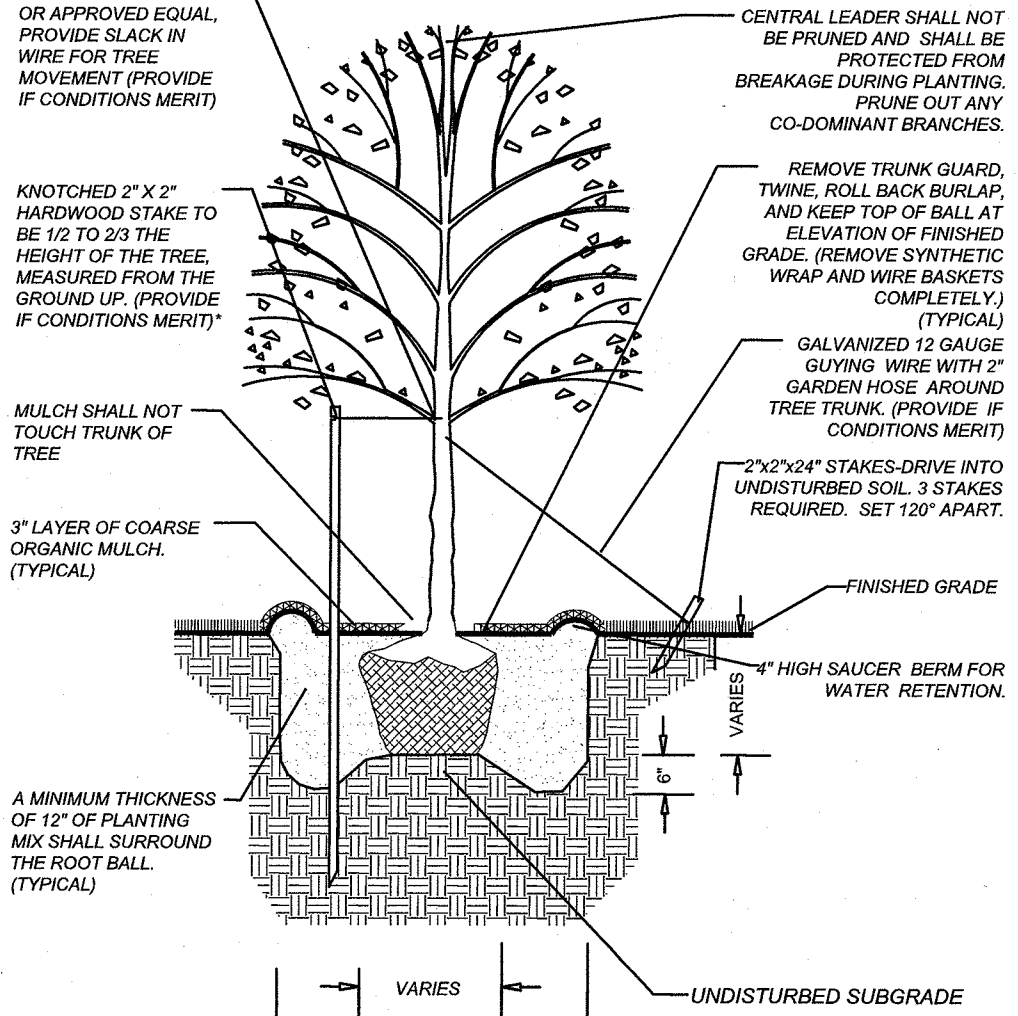
#### SHRUB PLANTING DETAIL

- NO SOIL OR MULCH SHALL BE PLACED AGAINST ROOT COLLAR OF PLANT. N.T.S.
- PLANTING DEPTH SHALL BE THE SAME OR HIGHER AS GROWN IN NURSERY.



#### GROUND COVER PLANTING DETAIL

N.T.S.



NOTE:  
1. TREES ONLY TO BE STAKED OR GUYED IN UNPROTECTED, WINDY AREAS. IN ALL OTHER INSTALLATIONS NO STAKING OR GUY WIRE ARE NECESSARY, UNLESS DIRECTED BY THE LANDSCAPE ARCHITECT.  
2. ALL STREET TREES TO HAVE A STRAIGHT TRUNK TO 8 FT AND LIMBED UP TO 7 FT.  
3. IF PLANTING AREA IS COMPACTED, DIG A WIDER PLANTING HOLE.

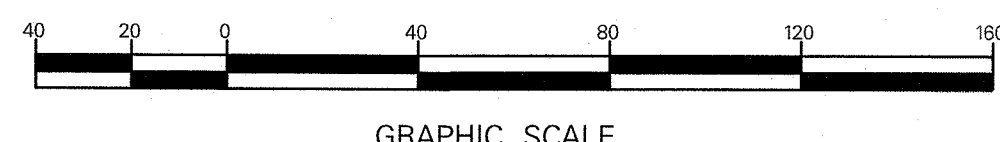
#### SHADE TREE PLANTING DETAIL

- NO SOIL OR MULCH SHALL BE PLACED AGAINST ROOT N.T.S.
- PLANTING DEPTH SHALL BE THE SAME OR HIGHER AS GROWN IN NURSERY.

#### LANDSCAPE NOTE:

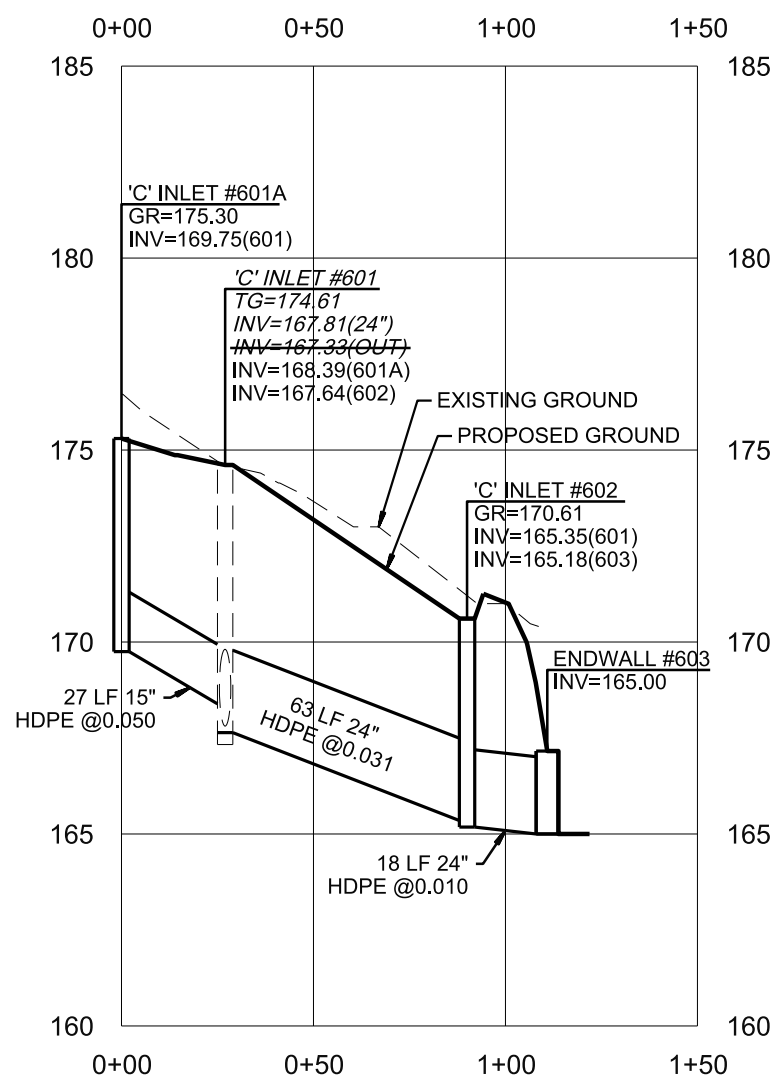
- A COMPLETE LIST OF PLANTS, INCLUDING A SCHEDULE OF QUANTITIES, SIZES, AND OTHER REQUIREMENTS IS SHOWN ON THE PLANT SCHEDULE IN THE EVENT THAT DISCREPANCIES OCCUR BETWEEN THE QUANTITIES OF PLANTS INDICATED IN THE PLANT LIST AND THOSE INDICATED ON THE PLAN, THE PLANT QUANTITIES INDICATED ON THE PLAN SHALL GOVERN.
- ANY PLANT SCHEDULE MODIFICATIONS SHALL BE SUBJECT TO THE APPROVAL BY TOWNSHIP REPRESENTATIVE, PROJECT LANDSCAPE ARCHITECT & CLIENT PRIOR TO THE PRE-CONSTRUCTION MEETING AND REQUEST SHALL BE MADE IN WRITING TO AUTHORITY.
- THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING LOCATIONS OF ALL EXISTING UTILITIES. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES BEFORE EXCAVATING.
- THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING THE SOIL TESTING RESULTS AND A COURSE OF ACTION TO REMEDY ANY TOPSOIL DEFICIENCIES PRIOR TO THE COMMENCEMENT OF WORK.
- IT IS UNDERSTOOD THAT THE OWNER SHALL ASSUME RESPONSIBILITY FOR WATERING ALL PLANT MATERIAL AND LAWN AREAS BEYOND THE GUARANTEE PERIOD COMMENCING WITH THE DATE OF INITIAL ACCEPTANCE. THE CONTRACTOR MUST PROVIDE LANDSCAPE MAINTENANCE INSTRUCTIONS AT THE TIME OF ACCEPTANCE. AT A MINIMUM THESE INSTRUCTIONS SHOULD INCLUDE A SCHEDULE OF FERTILIZING, PRUNING, WEEDING, & MOWING.
- ALL PLANT MATERIALS SHALL CONFORM TO THE AMERICAN ASSOCIATION OF NURSERYMEN STANDARDS AND SHALL BE FIRST QUALITY NURSERY CROWN STOCK, FREE FROM DISEASE OR OBJECTIONABLE DISFIGUREMENTS AND PLANTED IN CONFORMANCE WITH SOUND NURSERY PRACTICE AND APPLICABLE CITY STANDARD.
- ALL PLANTS SHALL BE TYPICAL OF THEIR SPECIES OF VARIETY. ALL PLANTS SHALL HAVE NORMAL, WELL DEVELOPED BRANCHES AND VIGOROUS ROOT SYSTEM. THEY SHALL BE FREE FROM DEFECTS, DISFIGURING KNOTS, ABRASIONS OF BARK, SUN-SCALD INJURIES, PLANT DISEASES, INSECT EGGS, BORERS, AND ALL OTHER FORMS OF INFECTIONS. ALL PLANT MATERIAL SHALL BE THOROUGHLY WETTED WITH AN ANTI-TRANSPARENT UPON DELIVERY OF MATERIAL TO THE SITE. ALL EVERGREEN MATERIAL SHALL BE RE-SPRAYED PRIOR TO THE FIRST WINTER BY OWNER.
- SIZE AND GRADING STANDARDS SHALL CONFORM TO ANSI #1, IN ACCORDANCE WITH THE AMERICAN STANDARD FOR NURSERY STOCK ANSI Z60.1, LATEST EDITION OR BETTER AND SHALL BE GUARANTEED FOR A PERIOD OF 24 MONTHS AFTER ACCEPTANCE BY THE OWNER. MULTITRUNKED TREES SHALL MEAN AT LEAST 3 DISTINCT STEMS WITH BRANCHING AT 1/2 THE HEIGHT OF TREE (AND MAINTAINED AS SUCH) LOW BRANCHING SHALL MEAN BRANCHING OCCURS FROM A SINGLE TRUNK AND SHRUB FORM TREES SHALL MEAN MULTI-STEMMED WITH LOW BRANCHING.
- EXISTING TREES TO BE RELOCATED SHALL BE HANDLED ACCORDING TO ACCEPTANCE HORTICULTURAL PRACTICE.
- ALL PLANTS SHALL BE PACKED, TRANSPORTED AND HANDLED WITH THE UTMOST CARE TO INSURE ADEQUATE PROTECTION AGAINST INJURY AND DEHYDRATION. EACH SHIPMENT SHALL BE CERTIFIED TO BE FREE FROM DISEASES AND INFESTATION. ANY INSPECTION CERTIFICATE REQUIRED BY LAW TO THIS EFFECT SHALL ACCOMPANY EACH SHIPMENT INVOICE OR ORDER OF STOCK AND ON ARRIVAL.
- NO PLANT MATERIAL SHALL BE PLANTED BY THE CONTRACTOR UNTIL IT IS INSPECTED AND APPROVED BY THE LANDSCAPE ARCHITECT OR HIS REPRESENTATIVE SHALL BE THE SOLE JUDGE OF THE QUALITY AND ACCEPTABILITY MATERIAL AT NO ADDITIONAL COST.
- ALL PLANT MATERIAL IS TO BE PLANTED ON THE DAY OF DELIVERY WITHIN THE RECOMMENDED SEASONAL TIME PERIODS AS PRESCRIBED BY ACCEPTED HORTICULTURAL PRACTICE. PLANT MATERIAL WITH FALL PLANTING HAZARDS SHALL BE HANDLED ACCORDINGLY. IF THIS IS NOT FEASIBLE, THE CONTRACTOR MUST PROVIDE MEASURES TO PROPERLY STORE & PROTECT PLANT MATERIAL ON SITE AND AT NO TIME SHALL THE STORAGE AND PROTECTION OF PLANT MATERIAL EXCEED 3 DAYS. A WATERING SCHEDULE MUST BE INITIATED FOR STORAGE OF PLANT MATERIAL. IT IS IMPORTANT THAT SOD BE PLANTED ON THE DAY OF DELIVERY OR WITHIN 24 HOURS. SOD PALLETS ARE TO BE STORED IN A SHADED LOCATION OR COVERED AND WETTED.
- CONTRACTOR SHALL SCALE PLANT LOCATIONS FROM PLANS AND STAKE LOCATIONS ON SITE FOR APPROVAL BY THE LANDSCAPE ARCHITECT OR HIS AGENT. PROPOSED TREES SHALL NOT BE PLANTED WITHIN EASEMENTS, DRIVEWAYS, AND SIGN TRIANGLES. BEFORE THE TREE LOCATIONS SHOWN ARE APPROXIMATE AND SHALL BE ADJUSTED IN THE FIELD.
- A TEMPORARY FENCE, SUCH AS A SNOW FENCE, SHALL BE ERRECTED AT THE PERMETER OR THE DRIPLINE OF ALL EXISTING VEGETATION INDICATED TO REMAIN PRIOR TO ANY EXCAVATION, CONSTRUCTION AND FINAL GRADING.
- SHADE AND EVERGREEN TREES SHALL BE PLANTED AT LEAST TWO (2) FEET FROM ANY CURBING, PAVING OR SIDEWALK. WHENEVER POSSIBLE THIS DIMENSION SHOULD BE INCREASED TO FOUR (4) FEET.
- ALL DISTURBED AREAS NOT SHOWN AS PLANTED OR LAWN ARE TO BE TOPSOILED AND SEEDED OR RETURNED TO THEIR ORIGINAL STATE BEFORE DISTURBANCE AS DIRECTED BY THE CITY ENGINEER. ALL AREAS NOT RELATED TO THE DEVELOPMENT SHALL REMAIN IN THEIR NATURAL STATE.
- ALL PLANTING BEDS SHALL BE ROTOTILLED TO A DEPTH OF TEN (10) INCHES PRIOR TO ANY PLANTING. ALL STONES, WIRE, CONCRETE AND UNSUITABLE MATERIALS IN EXCESS OF 1 INCH DIA. SHALL BE REMOVED.
- PLANTING MIXTURES SHALL CONSIST OF APPROXIMATELY FOUR PARTS OF ACCEPTANCE NATURAL TOPSOIL, ONE PART COMPOSTED WOOD MULCH, 1 PART LEAF MOLD, & 1 PART SAND AND TO EACH CUBIC YARD SHALL BE ADDED AND INCORPORATED BY THOROUGHLY MIXING, FOUR POUNDS OF ORGANIC COMMERCIAL FERTILIZER HAVING AN ANALYSIS OF 8-8-8 BASED ON SOIL TEST RESULTS AND RECOMMENDATIONS TO MODIFY AS REQUIRED. ALSO USE OF MYCARIZAL BACTERIA, BIO-STIMULANTS AND WATER ABSORBENT GEL AS PER MANUFACTURER'S RECOMMENDATIONS. WATER ALL PLANTS AT THE TIME OF PLANTING.
- PLANTING BEDS SHALL BE THOROUGHLY EXCAVATED TO A DEPTH OF 14", AND BACKFILLED WITH THE PLANT MIXTURE DESCRIBED ABOVE. ALL PAVEMENT SUBBASE AND UNSUITABLE MATERIAL SHALL BE REMOVED FROM THE BED AND PLANTING BEDS UNTIL VIRGIN SOIL IS REPLACED.
- IF REQUIRED, PEAT MOSS FOR PLANTING MEDIUM SHALL BE IMPORTED CANADIAN SPHAGNUM PEAT MOSS, BROWN, LOW IN CONTENT OF WOODY MATERIAL AND BE FREE OF MINERAL CONTENT HARMFUL TO PLANT LIFE.
- ALL SEEDED AREAS THAT DO NOT SHOW A PROMPT UNIFORM GERMINATION SHALL BE RE-SEEDED BY THE LANDSCAPE CONTRACTOR AT INTERVALS OF 45-50 DAYS, UNTIL A GOOD GROWTH IS ESTABLISHED OVER THE ENTIRE LAWN AREA. GOOD GROWTH MEANS 95% TOTAL COVERAGE.
- ALL PLANT BEDS SHALL BE MULCHED WITH THREE (3) INCHES OF SHREDDED HARDWOOD MULCH OR OTHER MATERIAL APPROVED BY THE LANDSCAPE ARCHITECT. THE LIMIT OF THIS MULCH FOR TREES SHALL BE THE AREA OF THE PT AND FOR SHRUBS AND BEDS, THE ENTIRE SHRUB OR BED AREAS AS INDICATED ON THE PLAN. DO NOT CREATE MULCH PYRAMIDS; SEE PLANTING DETAIL FOR MULCH APPLICATION.
- THE MULCH BED SHALL BE WEED FREE AT THE TIME OF INSPECTION AND 3 MONTHS AFTER INSTALLATION. HAND WEED PLANTING BEDS PRIOR TO APPLYING MULCH AND APPLYING PRE-EMERGENT HERBICIDE SAFE FOR VEGETABLE GARDENS. DO NOT USE ROUND UP IN PLANTING BEDS.
- ALL IRRIGATION SYSTEMS SHALL CONTAIN A RAIN SENSOR. IT IS RECOMMENDED THAT IF PLANTING BEDS ARE IRRIGATED, BY DRIP IRRIGATION, IRRIGATION SYSTEM DESIGN BY OTHERS.
- ALL EVERGREEN TREES SHALL BE CONICAL IN SHAPE UNLESS OTHERWISE NOTED. CONICAL SHALL MEAN THE PLANT SHALL HAVE A WIDER BASE, (5:3 RATIO AT A MINIMUM AND TAPER TO THE TOP. PLANT LEADER SHALL BE NO LONGER THAN 12 INCHES. CONICAL SHALL ALSO IMPLY A FULL SHAPE FROM THE BOTTOM OF PLANT (6-12" FROM ROOT BALL) TO TOP LEADER. REFER TO ANSI 260-1996 4.1.2.5 TYPE 5 - CONE TYPE.
- SPECIMEN PLANT MATERIAL SHALL MEAN FOR EVERGREEN SPECIES: EXCEPTIONALLY HEALTHY, WELL SHAPED PLANTS WHICH HAVE BEEN TRIMMED TO FORM A PERFECTLY SYMMETRICAL, TIGHTLY KNIT PLANT.
- FOR CONICAL AND EVERGREEN PLANT MATERIAL, AVERAGE HEIGHT SHALL BE MEASURED FROM THE UPPER LIMIT OF BRANCH WHORL AND MIDPOINT OR LEADER.
- ALL EVERGREEN TREES MUST BE SLIGHTLY SHEARED.
- ALL TREES (EXCEPT AS NOTED) SHALL BE BALLED & BURLAPPED NURSERY GROWN STOCK. NO BOX OR CONTAINER ROOTED TREES TO BE ACCEPTED.
- WITHIN SITE TRIANGLES AND IN PEDESTRIAN WALK AREAS, ALL SHADE TREES SHALL BE LIMBED UP TO 7 FEET AND ALL SHRUBS ARE TO BE MAINTAINED 30 INCHES HIGH.
- LANDSCAPE INSPECTION SHALL TAKE PLACE PRIOR TO OWNER ACCEPTANCE. ANY SHADE TREES DEAD OR DYING, WITH BROKEN LEADER OR WITH A COMPROMISED GROWN OF MORE THAN 20% OR DAMAGED BARK WILL NOT BE ACCEPTED. ANY EVERGREEN TREE DEAD OR DYING WITH MORE THAN 20% BROWNING WILL NOT BE ACCEPTED AND ANY SHRUB DEAD OR DYING OR WITH MORE THAN 20% DEADWOOD WILL NOT BE ACCEPTED.

THE CONTRACTOR AND/OR OWNER SHALL BE RESPONSIBLE FOR LOCATING ALL EXISTING STRUCTURES AND UTILITIES. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UTILITIES ABOVE AND BELOW THE GROUND SURFACE BEFORE HEAVY EQUIPMENT ENTERS THE CONSTRUCTION SITE.  
FINAL INQUIRIES TO PENNSYLVANIA ONE CALL SYSTEM INC. (PHONE # 1-800-242-1776) SHALL BE MADE BY THE CONTRACTOR AND/OR OWNER WITHIN SEVEN (7) DAYS OF ENTERING THE SITE. THE CONTRACTOR AND/OR OWNER SHALL COORDINATE AND VERIFY THE METHOD OF UTILITY LOCATION WITH THE APPROPRIATE UTILITY COMPANIES.  
IN GENERAL, THE VERTICAL DESIGN OF PROPOSED GRAVITY UTILITIES, AS SHOWN, ARE INFLUENCED BY THE EXISTING GRAVITY UTILITIES ONLY, WHICH MAY NECESSITATE THE RELOCATIONS OF OTHER UTILITIES.  
UTILITY LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE, AND BASED ON EXISTING INFORMATION RECEIVED FROM UTILITY COMPANIES.

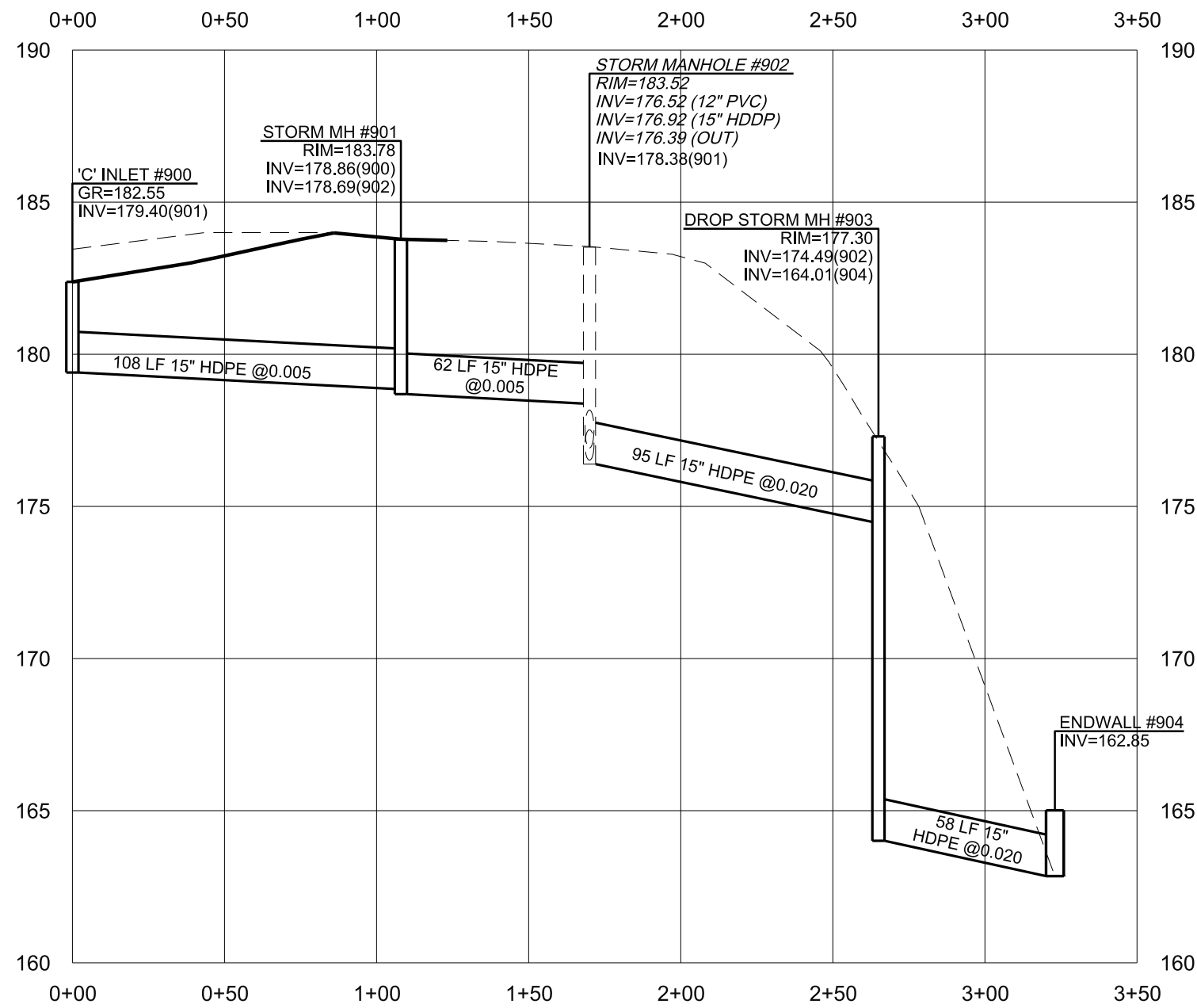


DESIGNED: JEB	DRAWN: AMH	CHECKED: JEB
DATE SIGNED:		REVISIONS
		NO. DATE
JILL E. BARBER		
PCSM LANDSCAPING PLAN		
THE DISCOVERY LABS, 411 SWEDELAND ROAD		
PARKING GARAGE		
UPPER MERION TOWNSHIP		
MONTGOMERY COUNTY, PENNSYLVANIA		
TWT Taylor Wiseman & Taylor		
ENGINEERS / SURVEYORS / SCIENTISTS		
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TELEPHONE: (267) 956-1020 FAX: (267) 956-1019		
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PA REGISTERED LANDSCAPE ARCHITECT NO. LA003265	DRAWING NO. 20-06602-GARAGE	SHEET 11 OF 15
SCALE: 1" = 40'	DATE: MARCH 15, 2020	







'C' INLET #601A TO ENDWALL #603



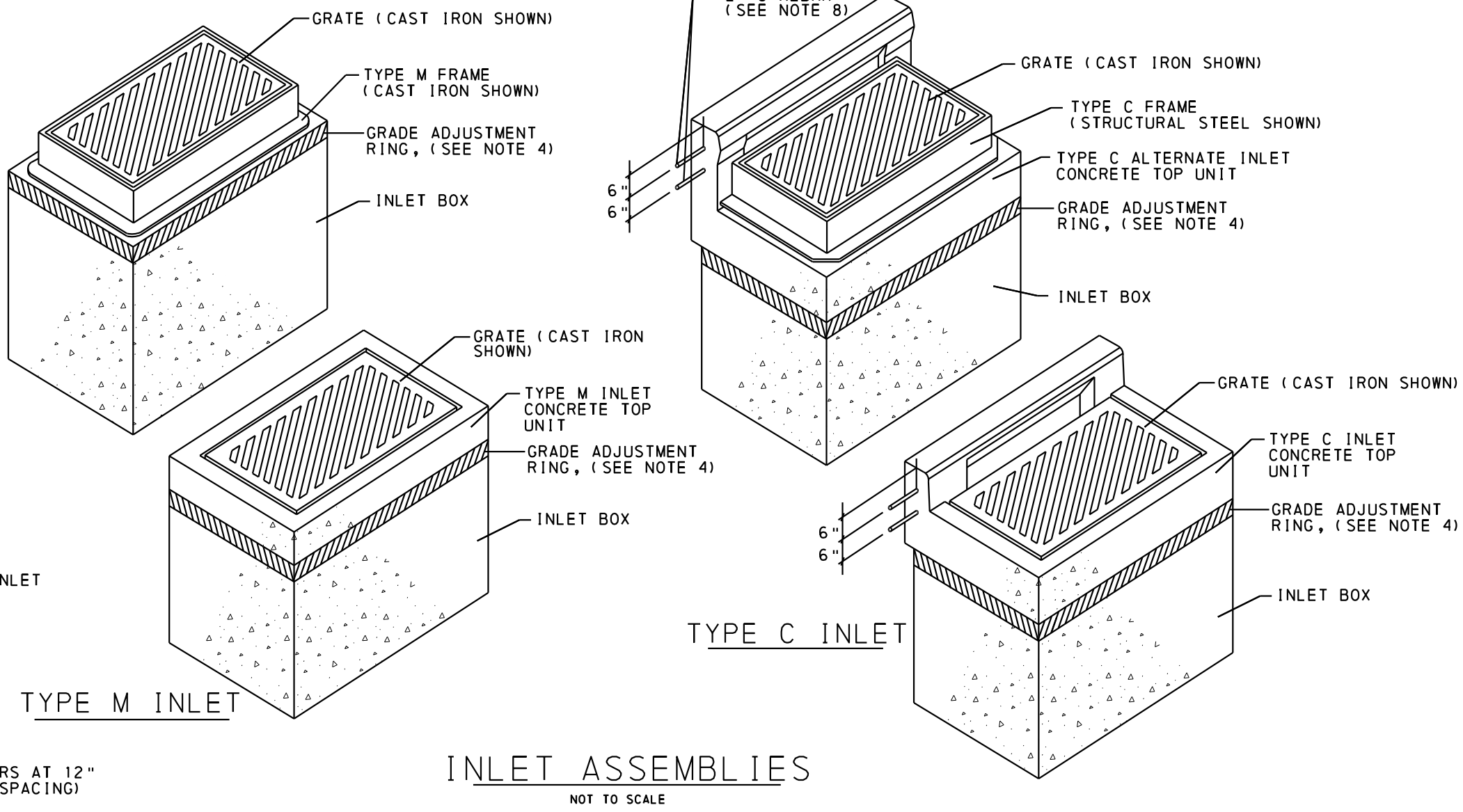
'C' INLET #100 TO ENDWALL #104



DESIGNED: M/JW	DRAWN: M/JW	CHECKED: MMT	PROFILES	
DATE SIGNED:			THE DISCOVERY LABS, 411 SWEDELAND ROAD PARKING GARAGE UPPER MERION TOWNSHIP MONTGOMERY COUNTY, PENNSYLVANIA	
MARK M. THOMPSON 			 <b>Taylor Wiseman &amp; Taylor</b> ENGINEERS / SURVEYORS / SCIENTISTS 5 VALLEY SQUARE, SUITE 100, BLUE BELL, PA 19422 TELEPHONE: (267) 956-1020 FAX: (267) 956-1019 www.taylorwiseman.com	
P.A. PROFESSIONAL ENGINEER NO. PE073278	SCALE: HORIZONTAL: 1"=50' VERTICAL: 1"=5'	DATE: MARCH 15, 2020	DRAWING NO. 20-06602-GARAGE	SHEET: 12 OF 15



- INLET NOTES:
- CONSTRUCTION REQUIREMENTS
    - CONSTRUCT IN ACCORDANCE WITH PENNDOT PUBLICATION 408 SPECIFICATIONS, SECTIONS 605, 606, 714; AND AS MODIFIED HEREIN.
    - MINIMUM CONCRETE CLASS: PRECAST CLASS AA
    - PROVIDE STEEL REINFORCEMENT IN ACCORDANCE WITH SEC. 709. PROVIDE MINIMUM YIELD STRENGTH OF 60,000 P.S.I.
    - CLEAR COVER FOR STEEL WALLS: CAST-IN-PLACE 2" PRECAST 1-1/2" (TOP BARS) 2" (SIDE COVER) 2" (TOP BARS) 1-1/2" (BOTTOM BARS) 1-1/2" (SIDE COVER) 2" (TOP & BOTTOM BARS)
    - SLABS: CAST-IN-PLACE
  - EACH TYPE OF INLET SHOWN IS SUITED FOR A PARTICULAR SITUATION AS FOLLOWS:
    - TYPE C INLET IS DESIGNATED FOR INSTALLATION WITH NON-MOUNTABLE CURBS.
    - TYPE M INLET IS DESIGNATED FOR INSTALLATION IN MEDIAN AREAS AND MOUNTABLE CURBS.
  - THE SELECTION OF COMPONENTS TO ACHIEVE A SPECIFIED INLET ASSEMBLY IS THE CONTRACTOR'S RESPONSIBILITY.
  - CONSTRUCT IN ACCORDANCE WITH THE REQUIREMENTS OF PUBLICATION 408, SECTION 605, FOR INLET ASSEMBLIES.
  - USE PRECAST CONCRETE OR STEEL GRADE ADJUSTMENT RINGS WHEN REQUIRED.
  - FOR WALL REINFORCEMENT, BOTH DIRECTIONS, USE 0.12 (SQ IN)/FT MIN. EACH WAY, EACH FACE.
  - FOR FOOTING REINFORCEMENT, TOP AND BOTTOM, USE #4 BARS AT 12" CENTERS EACH WAY OR 0.20 (SQ IN)/FT W.W.F. (6" MAX. SPACING)
  - EXTEND REBAR 6" MIN. FROM SIDE OF INLET HOOD INTO PROPOSED CURB



## INLET ASSEMBLIES

NOT TO SCALE

NOTES:

- CONSTRUCT INLET BOXES IN ACCORDANCE WITH THE REQUIREMENTS OF PUBLICATION 408, SECTION 714.
- ONLY PRECAST INLET BOXES SUPPLIED BY A MANUFACTURER LISTED IN BULLETIN 15 SHALL BE PERMITTED. FOR A BULLETIN 15 LISTING, SUBMIT A 22" X 36" REPRODUCTION DRAWING TO THE BUREAU OF CONSTRUCTION AND MATERIALS, MATERIALS AND TESTING DIVISION FOR REVIEW AND APPROVAL. USE CLASS AA CEMENT CONC. FOR PRECAST BOXES.
- PROVIDE STANDARD INLET BOXES AND COVER ADJUSTMENT SLABS WITH A 24" X 45 1/4" OPENING TO ACCOMMODATE STANDARD TOP COMPONENTS.
- INLETS THAT EXCEED THE MAXIMUM HEIGHT SHOWN SHALL REQUIRE SPECIAL DETAILS AND DESIGN FOR THE INLET WALLS AND BASE. CONSTRUCT INLETS THAT EXCEED 5 FEET IN HEIGHT WITH STEPS SIMILAR TO MANHOLES.
- LOCATE PIPE OR PIPES, AS INDICATED, WITH THE INLET BOTTOM SHAPED TO CHANNEL THE FLOW TOWARD THE OUTLET PIPE.
- PLACE SUBBASE MATERIAL MEETING THE REQUIREMENTS OF PUBLICATION 408, SECTION 350.2, IN 4 INCH LAYERS, COMPACTED TO A DENSITY SATISFACTORY TO THE ENGINEER AND IDENTICAL TO THE INLET PAY ITEM.
- FOR PIPE DIAMETERS LARGER THAN 48" R.C.C.P. OR 54" C.W.P. USE A MODIFIED INLET BOX. SUCH BOXES TO BE AS PER PENNDOT PUBLICATION 408, SECTION 350.2.
- FOR PIPE DIAMETERS LARGER THAN 48" R.C.C.P. OR 54" C.W.P. IN THE LONG DIRECTION OR LARGER THAN 30" IN THE SHORT DIRECTION, A SPECIAL DETAIL IS REQUIRED. SUCH DESIGN TO BE REVIEWED AND APPROVED BY THE ENGINEER.
- INLET BOXES THAT ARE NOT MONOLITHIC SHALL HAVE CONSTRUCTION JOINTS AS REQUIRED.
- FOR INLETS OTHER THAN AS SHOWN HEREIN, PROVIDE REINFORCEMENT BASED ON HS25 LOADING AND IN ACCORDANCE WITH 408 SPECIFICATIONS.

DETAIL A  
PRECAST CONCRETE INLET BOX  
BASE PREPARATION

COVER ADJUSTMENT SLAB  
TYPE 3

PROVIDE ONE LAYER OF REINFORCING BARS (0.12 IN<sup>2</sup>/FT) EACH WAY MIN.

9'-0" MAX. HEIGHT

7'-0" MIN. HEIGHT

6" MIN.

57 1/4"

71 1/4"

36"

24" DIA. MAX.

48" DIA. MAX. FOR R.C.C.P. OR 54" DIA. MAX. FOR C.W.P.

LONG DIRECTION

SHORT DIRECTION

6" TYP.

57 1/4"

71 1/4"

36"

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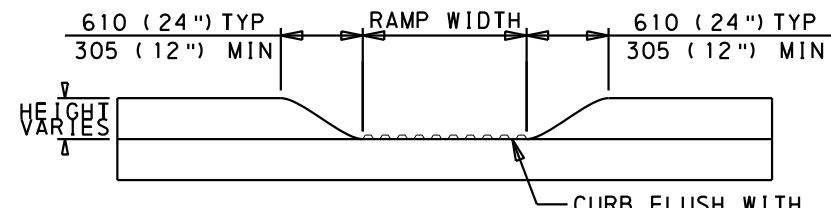
36"

24" DIA. MAX.

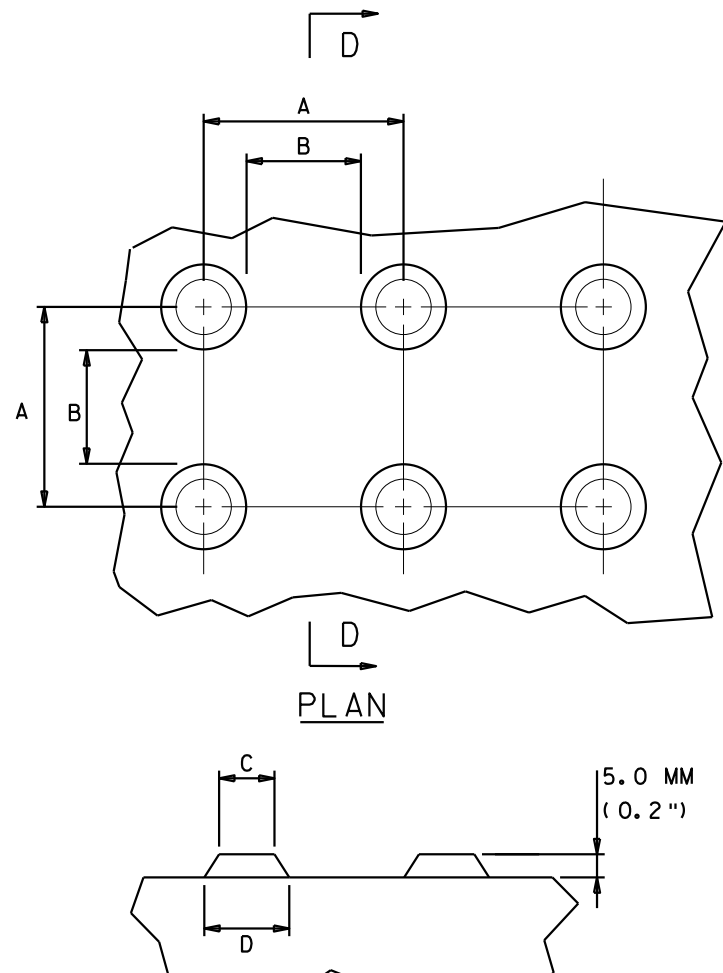


NOTES

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 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 CURB RAMP WITH A MINIMUM 1220 X 1220 (4'-0" X 4'-0") CLEAR SPACE BEYOND THE CURB FACE, WITHIN THE WIDTH OF THE CROSSWALK AND WHOLLY OUTSIDE THE PARALLEL VEHICLE TRAVEL LANE. 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 RAMP.
6. MODIFY CONSTRUCTION DETAILS TO ADAPT DIMENSIONS TO EXISTING CURB HEIGHTS WHERE THE CURB IS LESS THAN THE STANDARD 205 (8") HEIGHT.
7. CURB RAMP AND SIDE FLARE LENGTHS ARE VARIABLE AND BASED ON CURB HEIGHT AND THE SIDEWALK SLOPE.
8. 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 FEASIBLE.
9. NON-WALK AREA IS AN OBSTRUCTED OR GRASS/NON-PAVED AREA ADJACENT TO THE PEDESTRIAN ACCESS ROUTE THAT IS NOT USED BY THE PEDESTRIAN FOR ACCESS.
10. THE DETAILS DEPICT PEDESTRIAN PUSHBUTTON POLES TO ILLUSTRATE THE RECOMMENDED PLACEMENT OF PEDESTRIAN PUSHBUTTONS. FOR ALTERATION PROJECTS, PROVIDE ACCESS TO EXISTING PEDESTRIAN PUSHBUTTONS TO THE MAXIMUM EXTENT FEASIBLE. INSTALL PEDESTRIAN PUSHBUTTON STUB POLES, WHERE APPLICABLE, SO AS NOT TO CREATE PEDESTRIAN OBSTRUCTIONS.
11. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED. US CUSTOMARY UNITS IN ( ) PARENTHESIS.
12. ALIGN DETECTABLE WARNING SURFACE TRUNCATED DOMES ON A SQUARE GRID IN THE PREDOMINANT DIRECTION OF THE RAMP AND PERPENDICULAR TO CURB.
13. 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.
14. FOR NEW CONSTRUCTION, DO NOT EXCEED 2.00% CROSS SLOPE ON THE CURB RAMP OR PEDESTRIAN ACCESSIBLE ROUTE.
15. FOR NEW CONSTRUCTION AND ALTERATIONS, CONSTRUCT CURB RAMP AND FLARE SLOPES WITH THE FLATTEST SLOPE POSSIBLE. THE SLOPES INDICATED IN THE DETAILS SHOW THE MAX SLOPE ALLOWABLE. SLOPES THAT EXCEED THOSE INDICATED IN THE DETAILS, OR CONTRACT DOCUMENTS AS APPLICABLE, WILL NOT BE ACCEPTED AND WILL BE RECONSTRUCTED.
16. CONSTRUCT SIDEWALKS AT A LONGITUDINAL SLOPE NOT TO EXCEED 5.00%. FOR ROADWAY PROFILE SLOPES THAT EXCEED 5.00%, CONSTRUCT PARALLEL SIDEWALKS ADJACENT TO ROADWAY AT A LONGITUDINAL SLOPE NOT TO EXCEED ROADWAY PROFILE SLOPE.
17. 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%. THE COUNTER SLOPE OF THE GUTTER OR ROAD AT THE FOOT OF A CURB RAMP, LANDING OR BLENDED TRANSITION IS NOT TO EXCEED 5.00%. 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 1830 (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. CONSTRUCT DEPRESSED CURB FOR CURB RAMP FLUSH TO ADJACENT ROADWAY. GRADE EDGE OF ROAD ELEVATIONS AT THE FLOW LINE TO ENSURE POSITIVE DRAINAGE AND PREVENT PONDING. FOR LEVEL LANDINGS BEHIND DEPRESSED CURB, ADJUST SLOPES TO PROVIDE POSITIVE DRAINAGE.
23. CHEEK WALLS ARE PERMITTED WHEN ADJACENT TO NON-WALK AREAS OR ELEVATION DIFFERENCES CANNOT BE ACCOMMODATED BY FLARES OR GRADING. GRADE GRASS AREAS OR OTHER NON-WALK AREAS AT 3:1 (1:3) MAXIMUM. DO NOT INSTALL CHEEK WALLS THAT INTERSECT THE PEDESTRIAN ACCESS ROUTE.
24. CONSTRUCT TOP OF PLAIN CEMENT CONCRETE DEPRESSED CURB TO BE FLUSH WITH ADJACENT SURFACES (RAMPS, SIDEWALKS, FLARES).
25. FOR CURB RAMPS THAT LEAD TO A SINGLE CROSSWALK, THE RAMP (EXCLUDING FLARES) TO BE FULLY INSIDE OF MARKED CROSSWALK LINES. SEE SHEET 7 FOR DETAILS.
26. A 1220 (4'-0") MAXIMUM DIGITAL DISPLAY LEVEL WILL BE USED TO VERIFY THE SLOPES OF CURB RAMPS AND SIDEWALKS.



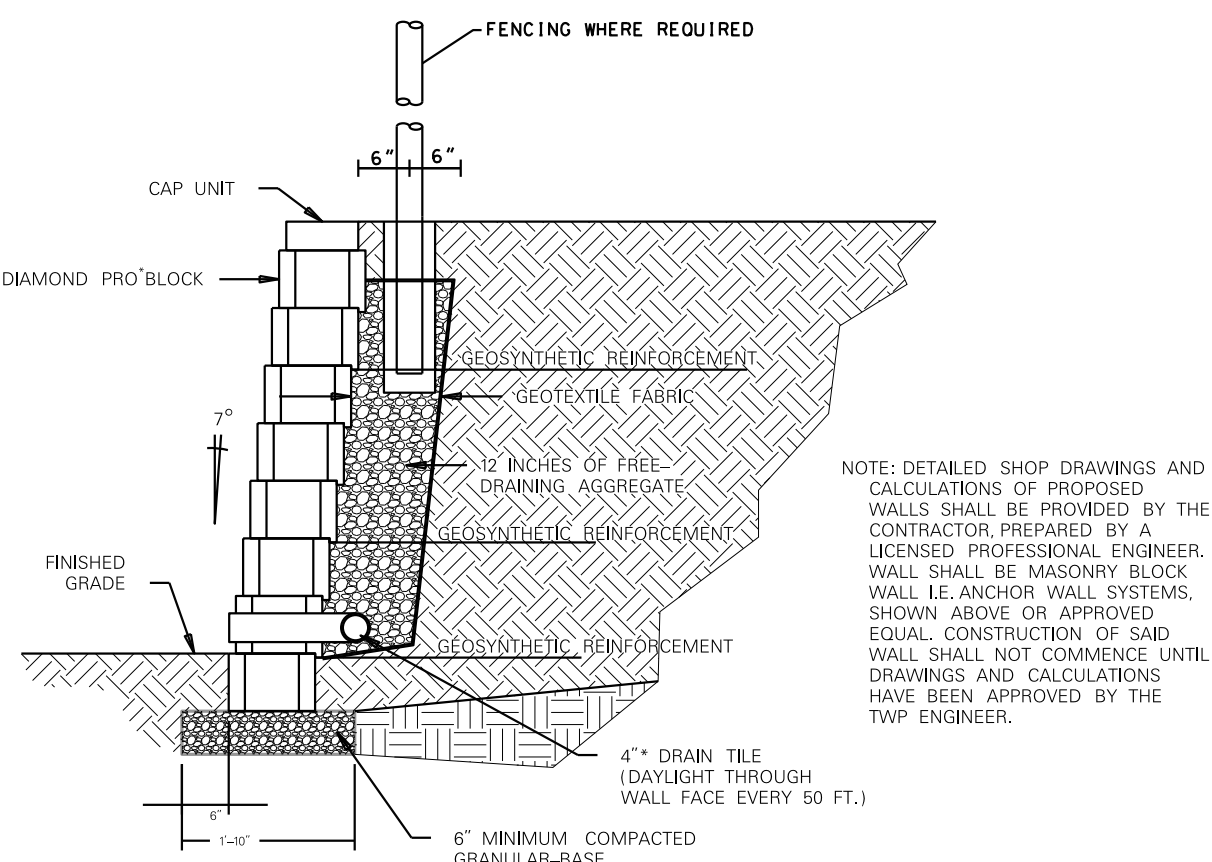
TYPE 4A NON-TRAVERSABLE  
ROLLED FLARE TRANSITION  
TYPICAL ELEVATIONS  
FOR DEPRESSED CURBS



SECTION D-D

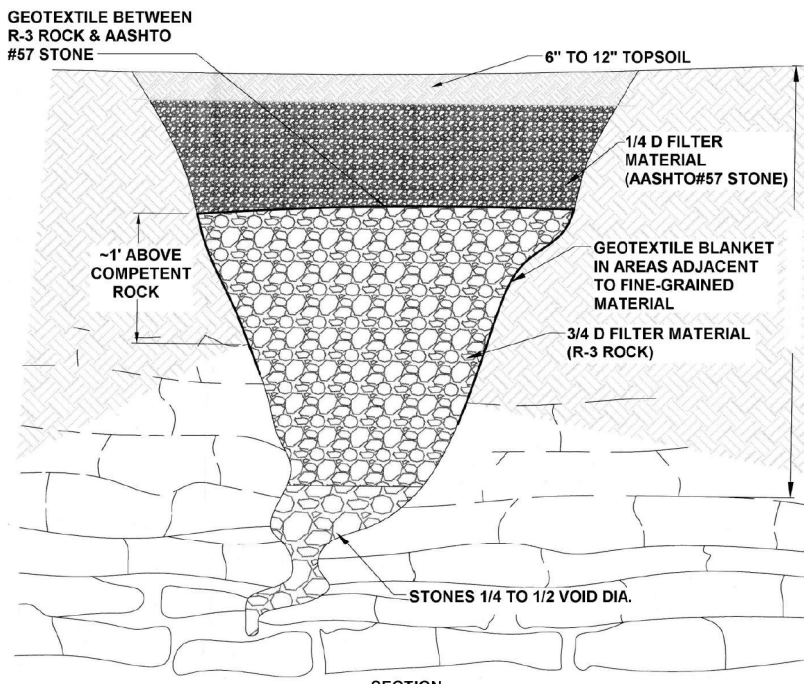
TRUNCATED DOME DIMENSIONS		
DIM	MIN	MAX
	mm (1 inch)	mm (1 inch)
A	41 (1.6")	61 (2.4")
B	17 (0.65")	37 (1.5")
C	(3)	(3)
D	23 (0.9")	36 (1.4")

DETECTABLE WARNING SURFACE (DWS)  
TRUNCATED DOME DETAILS



ANCHOR DIAMOND PRO SYSTEM

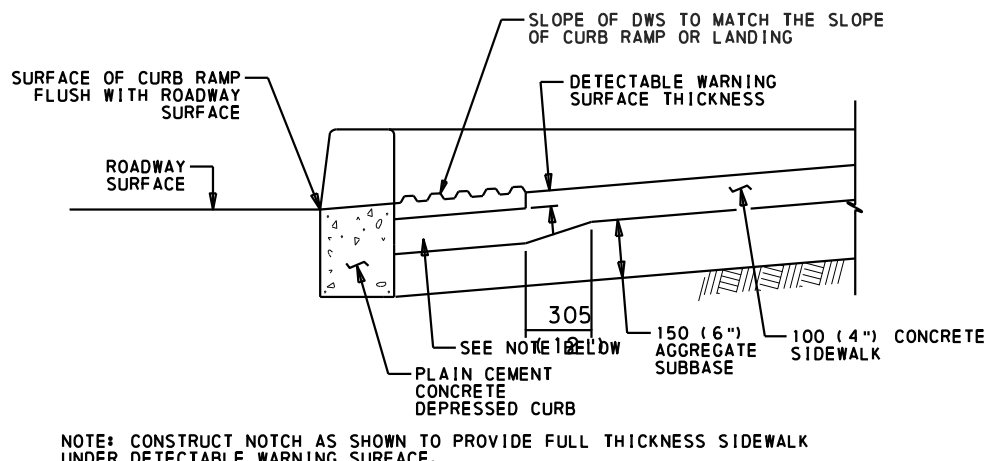
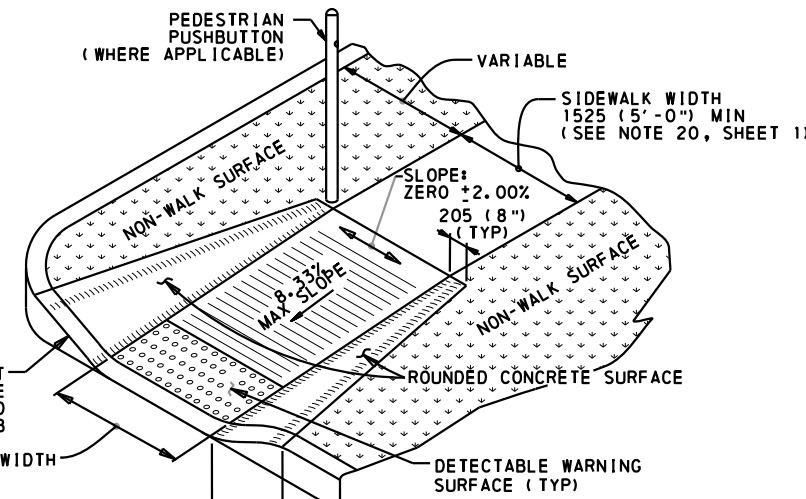
DETAIL, SUPPLIED BY ANCHOR WALL SYSTEMS.



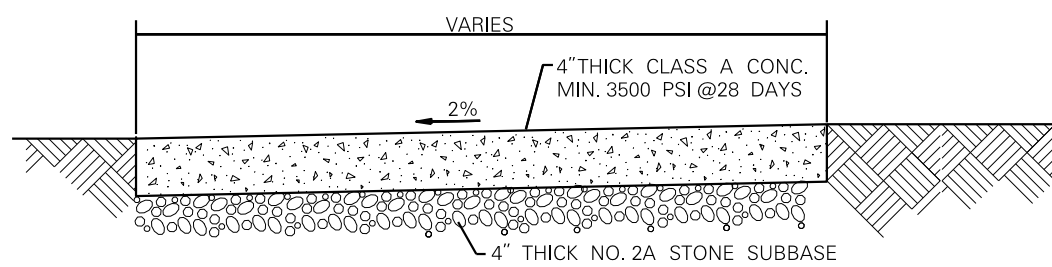
- NOTES:
1. DUE TO THE VARIABLE NATURE OF SINKHOLES, THEY SHOULD BE REPAIRED UNDER THE DIRECT OBSERVATION AND SUPERVISION OF A PROFESSIONAL GEOLOGIST OR LICENSED GEOTECHNICAL ENGINEER.
  2. LOOSE MATERIAL SHALL BE EXCAVATED FROM THE SINKHOLE AND EXPOSE SOLUTION VOID(S) IS POSSIBLE. ENLARGE SINKHOLE IF NECESSARY TO ALLOW FOR INSTALLATION OF FILTER MATERIALS. OSHA REGULATIONS MUST BE FOLLOWED AT ALL TIMES DURING EXCAVATION.
  3. STONES USED FOR THE "BRIDGE" AND FILTERS SHALL HAVE A MODERATELY HARD ROCK STRENGTH AND BE RESISTANT TO ABRASION AND DEGRADATION. SHALE AND SIMILAR SOFT AND/OR NON-DURABLE ROCK ARE NOT ACCEPTABLE.

SINKHOLE REPAIR WITH A PERVIOUS COVER

NOT TO SCALE



DETECTABLE WARNING SURFACE  
EMBEDDING DETAIL



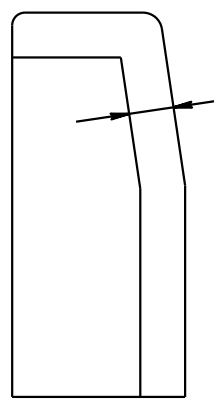
CONCRETE SIDEWALK DETAIL

- NOTE:
1. 1/2" PREMOULDED EXPANSION JOINTS TO BE PLACED EVERY 24 FEET OR 25 FEET (MAXIMUM) WHERE SIDEWALKS ARE REQUIRED TO BE 5 FEET WIDE AND AT ALL LOCATIONS WHERE EXISTING PAVEMENT OR SIDEWALK MEETS PROPOSED SIDEWALK WHERE SIDEWALK ABUTS CURB OR OTHER SIMILAR STRUCTURES, AND WHERE SIDEWALK TRANSITIONS FROM 4" THICK TO 6" THICK (DRIVEWAY APRONS, ETC.).
  2. WITH ALL PROPOSED SIDEWALK A NON-SLIP SURFACE TEXTURE SHALL BE BROOMED TRAVERSE TO THE SLOPE OF THE SIDEWALK. ALL EDGES SHALL BE FINISHED WITH AN APPROVED EDGING TOOL.

PLAIN CEMENT CONCRETE CURB

TO BE INSTALLED ALONG STUMP ROAD

TYPICAL  
CROSS SECTION



DETAIL A  
CONTRACTION JOINT

- NOTES
1. PROVIDE MATERIALS AND CONSTRUCTION MEETING THE REQUIREMENTS OF PUBLICATION 408, SECTION 630 FOR PLAIN CEMENT CONCRETE CURB AND DEPRESSED CURB, SECTION 640 FOR PLAIN CEMENT CONCRETE GUTTER AND SECTION 641 FOR PLAIN CEMENT CONCRETE CURB GUTTER.
  2. SPACE CONTRACTION JOINTS IN UNIFORM LENGTHS OR SECTIONS.
  3. PLACE 20 (3/4") THICK PREMOULDED EXPANSION JOINT FILLER MATERIAL AT STRUCTURES AND AT THE END OF THE WORK DAY. CUT MATERIAL TO CONFORM TO AREA ADJACENT TO CURB OR TO CONFORM TO CROSS SECTIONAL AREA OF CURB.

DETAIL A  
CONTRACTION JOINT

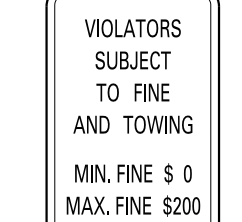
RC-64M



R7-8  
12"x18"



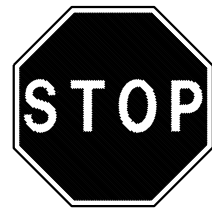
R7-8A  
6"x12"



R7-8F  
12"x18"

FIRE LANE SIGN NOTES:

1. TOP OF SIGN SHALL BE 7'-8" ABOVE CURB.
2. HEIGHT OF LETTERS SHALL BE 3".
3. SIGN SHALL CONSIST OF RED LETTERS AND BORDER ON WHITE BACKGROUND.
4. ALUMINUM SIGN/BAKED ENAMEL FINISH.



24"x 24"  
R1-1  
STOP SIGN



12"x18"  
LR7-13



W11A-2  
30" x 30"



W11A-2P  
24" x 18"

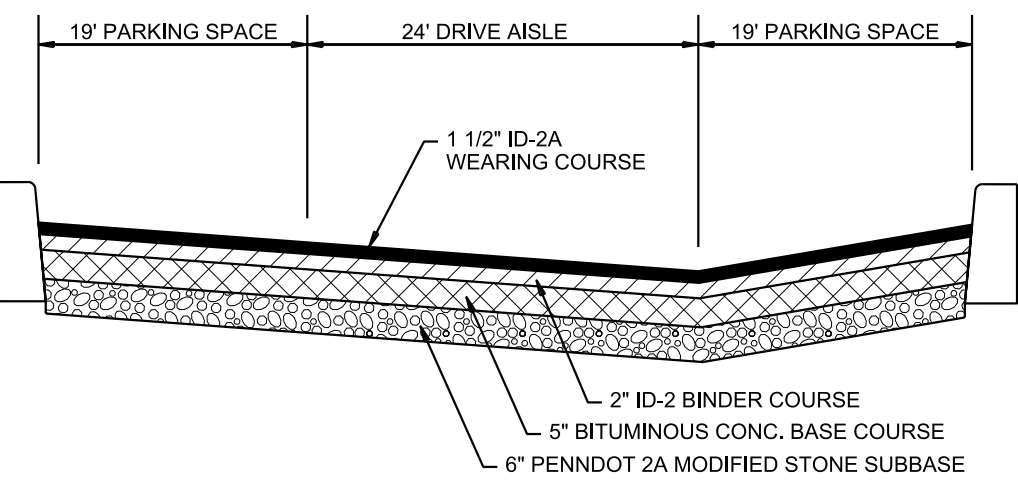


W11-2  
30" x 30"

"YIELD TO PEDESTRIAN"  
CROSSING SIGN

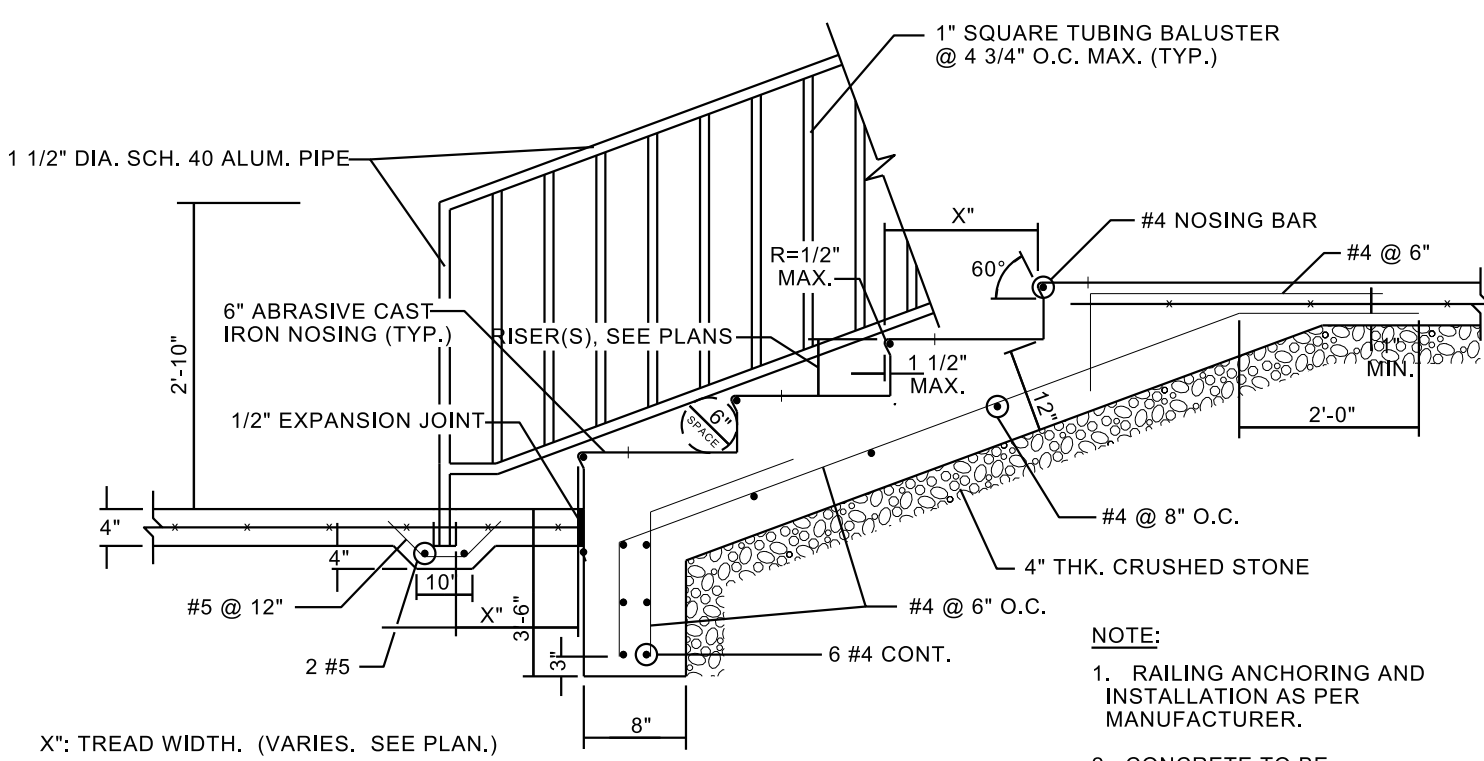
SIGN DETAILS

NOT TO SCALE



PARKING LOT PAVING SECTION

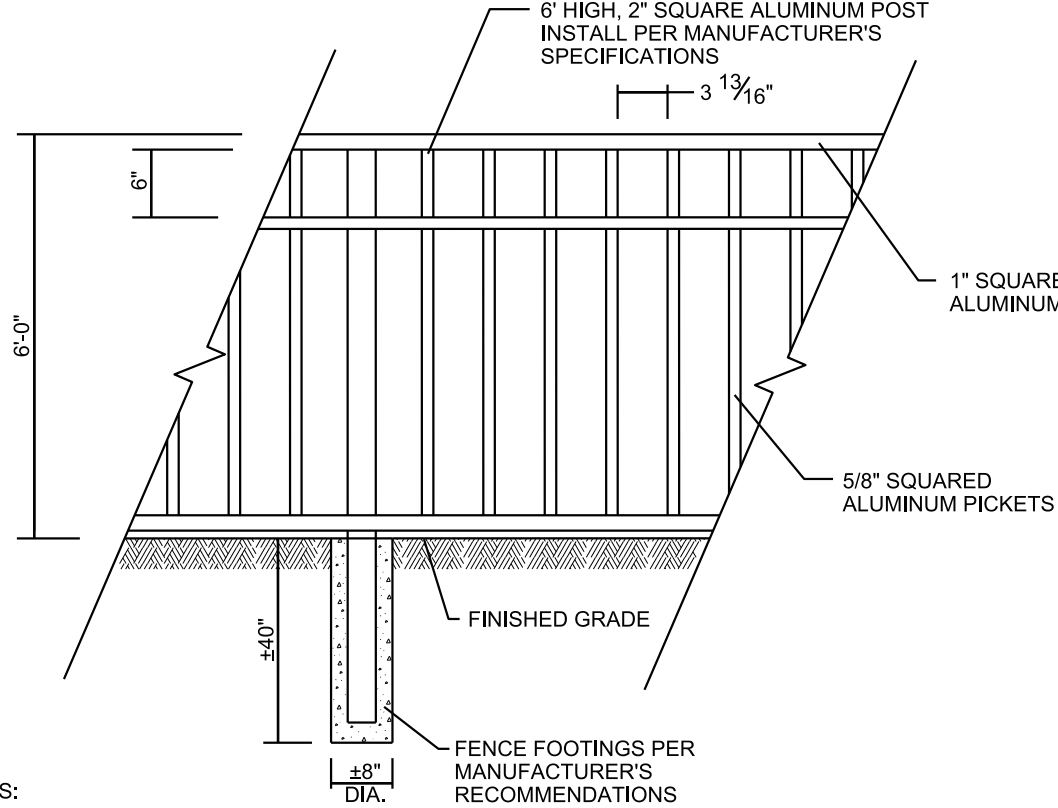
NOT TO SCALE



SECTION

TYPICAL CONCRETE STEPS AND RAILING DETAIL

NOT TO SCALE

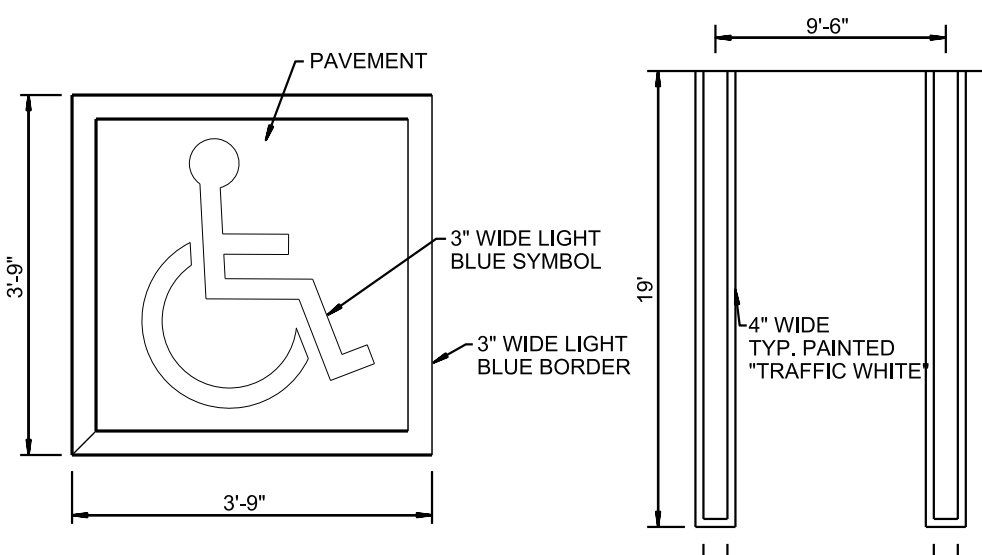
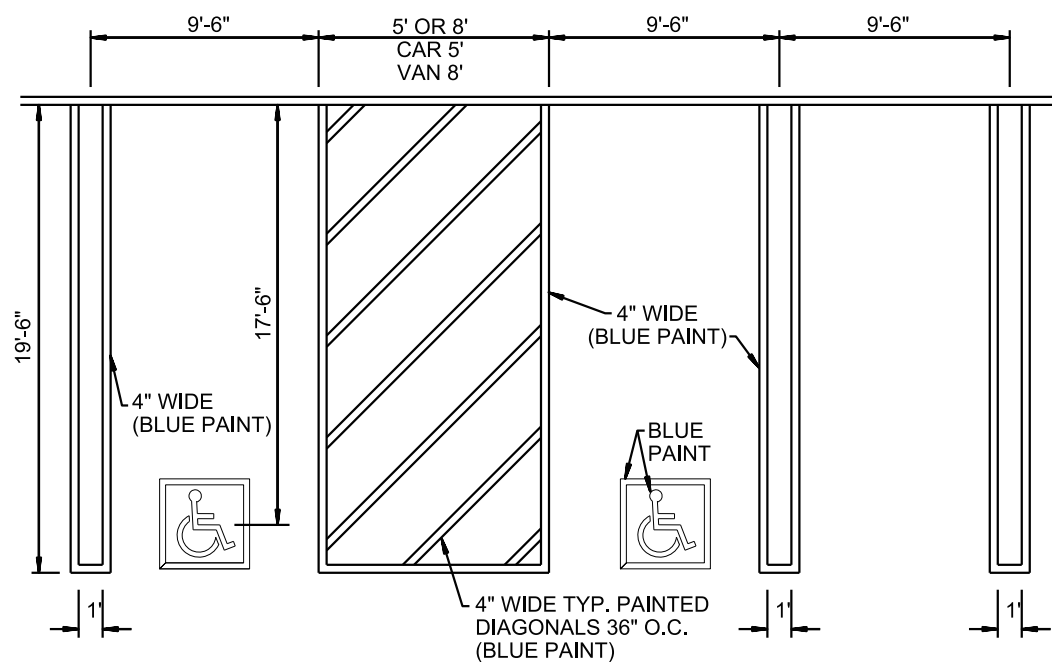
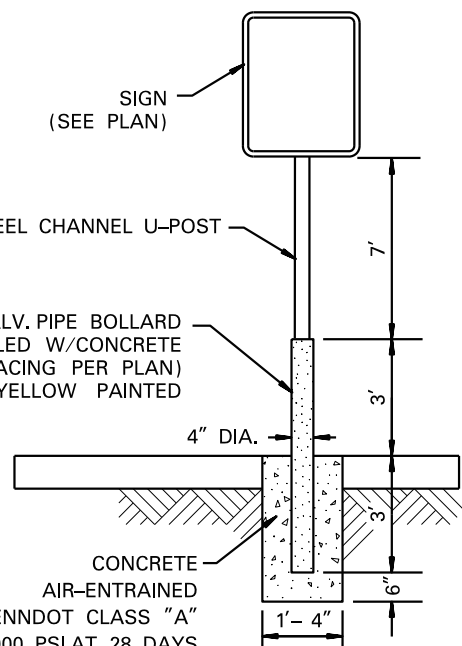
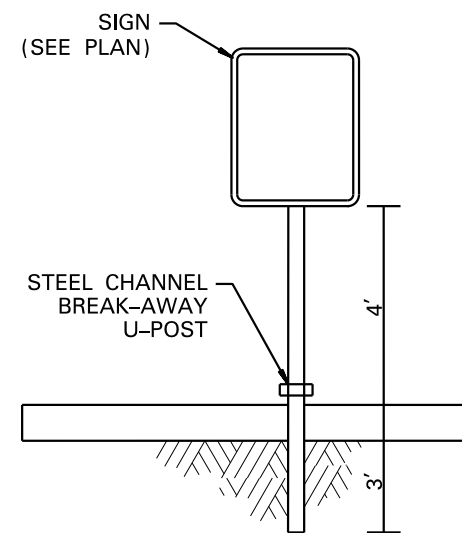


NOTES:

1. SURFACE SHALL BE PRE-HEATED WITH CHROME-PHOSPHATE CONVERSION COATING. A FLEXIBLE ACRYLIC FINISH SHALL BE ELECTROSTATICALLY APPLIED.
2. STAINLESS STEEL FASTENERS WITH ZINC DICHROMATE COATING PHILLIPS HEAD SCREWS SHALL BE USED TO ATTACH THE PICKETS TO THE RAILS, WHILE SELF DRILLING, SELF TAPPING PHILLIPS HEAD SCREWS SHALL BE USED TO CONNECT RAILS TO POSTS. ALL SCREW HEADS SHALL BE PAINTED TO MATCH.
3. GATES SHALL BE SELF CLOSING AND SELF LATCHING.
4. FENCE MUST BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S STANDARD PROCEDURES.

ALUMINUM FENCE - 6 FT. HIGH

NOT TO SCALE



NOTE:  
EACH HANDICAP SPACE SHALL BE PROVIDED WITH SURFACE AND POLE MOUNTED SIGNAGE

HANDICAPPED/STANDARD PARKING STALL

NOT TO SCALE

DESIGNED: M/JW

DATE SIGNED: M/JW

MARK M. THOMPSON

PA, PROFESSIONAL ENGINEER NO. PE073278



CHECKED: MMT

REVISIONS

NO DATE

NO DATE

NO DATE

NO DATE

NO DATE

NO DATE

NO DATE

NO DATE

NO DATE

NO DATE

NO DATE

NO DATE

NO DATE

NO DATE

NO DATE

NO DATE

NO DATE

NO DATE

NO DATE

PCSM CONSTRUCTION DETAILS

THE DISCOVERY LABS, 411 SWEDELAND ROAD  
PARKING GARAGE  
UPPER MERION TOWNSHIP  
MONTGOMERY COUNTY, PENNSYLVANIA



Taylor Wiseman & Taylor

ENGINEERS / SURVEYORS / SCIENTISTS

5 VALLEY SQUARE, SUITE 100, BLUE BELL, PA 19422

TELEPHONE: (267) 956-1020 FAX: (267) 956-1019

www.taylorwiseman.com

SCALE:

AS SHOWN

DATE:

MARCH 15, 2020

DRAWING NO.

20-06602-GARAGE

SHEET:

14 OF 15



