C. Also, Refer to the "INTEGRATED ENGINEERING" NOTE ON PLAN SHEET 3.

2.) Topography in this plan set is as per actual field survey completed in August of 2009. Elevations from USGS Datum - NAD 1983. Site benchmark = 127.81 on sanitary sewer manhole rim in south east corner of existing sewer plant lot. 3.) This is outside of the designated 100 year floodplain, zone X, as shown on a FIRM map panel number

42091C0114F, effective date October 19, 2001. 4.) Specific resources, technical reports, design documents, et al related to this project are as follows:

- "Stormwater Management Report" prepared by integrated engineering, dated: September 18, 2009; - Penndot Highway Occupancy Permit plans prepared by Integrated Engineering, dated: September 18,

- "Site Visit Report" prepared by R. Dale Ziegler, Inc; dated 10-5-2009

Contractor is responsible to obtain these documents and familiarize himself with same for application both prior to and during construction.

5.) Applicant/Owner: Schwenksville Investment Properties, LLC P.O. Box 303 1202 N. Gravel Pike Zeiglerville, PA 19492

6.) Parcel Data: Tax Map Block 2 - Unit 32 Tax Map Parcel Number 20-00-00157-003 Deed Book 5714 Page 1119

7.) The site is proposed for multiple uses. All uses shall be as permitted by the Borough Zoning

8.) All A.D.A. accessible parking spaces shall be constructed to meet current A.D.A. requirements, as amended (including but not limited to slope requirements, pavement markings, signs, handrails, etc.). It is the owner and contractors responsibility to comply with these requirements. 9.) Prior to starting construction, the contrator shall be responsible to ensure that all required permits and approvals have been obtained. No construction or fabrication shall begin until the contractor has been received and thoroughly reviewed all plans and other documents by all of the permitting authorities. 10.) The Owner/Contractor shall be familiar with and responsible for any/all certifications, inspections. ETC. required by all covering jurisdictional agencies during and after construction for sign-off and certificate of occupancy issuance, including but not limited to procurement of services, scheduling of field observations and coordination with representatives of the appropriate parties. Contractor is responsible to coordinate certifications, sign-offs, ETC. necessary for job closeout and issuance of certificate of

11.) These plans are based on information provided to our office at the time of plan preparation. Contractor shall field verify existing conditions and notify our office if actual site conditions differ from that shown on the plan, or if the proposed work would be inhibited by any other site features. 12.) All dimensions shown on the plans shall be field verified by the contractors prior to construction. Only

plans stamped "Construction Set" are to be used for construction purposes. 13.) The contractor shall refer to the architectural/building plans for exact locations and dimensions of entry/exit points, elevations, precise building dimensions, exact building utility locations and site lighting electoral design and layout.

14.) Debris shall not be buried on the subject site. All excavated material and debris (solid waste) shall be disposed of in accordance with all Borough, County, State and Federal Laws and applicable codes. 15.) The 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.

16.) The contractor is to excerise extreme care when performing any work activities adjacent to pavement, structure, etc. to remain. 17.) The contractor is responsible for repairing the damage done to any existing item during construction

such as but not limited to drainage, utilities, pavement, striping, curb, etc. Repair shall be equal to or better than, existing conditions. Contractor is responsible to document all existing damage notify construction manager prior to construction start. 18.) The engineer is not responsible for construction methods/means for completion of the work depicted

on these plans nor any conflicts/scope revisions which result from same. 19.) The engineer of record herein is not responsible for job site safety nor has he been retained for such

20.) The proposed site shall be served by public water and sanitary sewer to be provided by Schwenksville Borough Authority.

21.) Topsoil shall not be removed from the site.

22.) All Pavement RADII are 5' unless otherwise stated. 23.) At this time signage is not proposed. The developer shall apply to the Borough Zoning Officer for any and all signs to be erected as part of this land development project. 24.) All proposed utilities shall be underground.

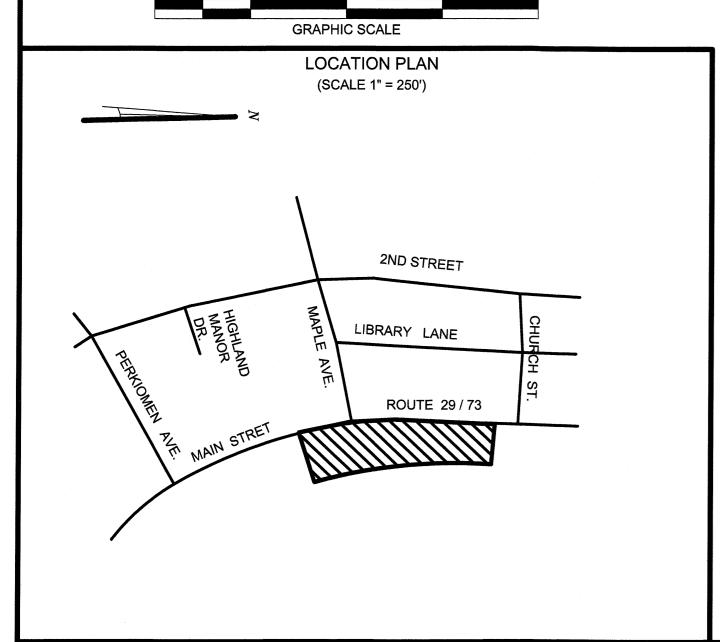
25.) The area between the title line and the proposed ultimate right-of-way of Main Street is offered for dedication the the agency having jurisdiction at the time.

26.) All work shall be done according to the applicable Schwenksville Borough and Schwenksville Borough Authority standards and requirements unless more strict "other agency" standards apply. It is the owner and contractors responsibility to comply with these requirements.

NEW PAVING SPECIFICATION

2" HMA Surface Course Mix I-5

3" HMA Stabilized Base Course Mix I-2 6" Subbase Dense Graded Aggregrate Properly prepared subgrade (compacted to 95% density)



SITE DESIGN REQUIREMENTS

Zoned V.C.2 - Village Commercial - 2 District Intended Use: office/retail space; apartment; restaurant (conditional use received; 176-54.B)

	Required	Exisitng	Proposed
Min. Lot Area:	7,500 SF	44,278 SF(Net)	43,068 SF(Net
Min. Lot Width:	75.0'	>500'	>5@0'
Max. Impervious Coverage:	80%	97.6%	±90%
Min. Front Yard Setback:	0.0'*	0.72'	1.75'
Min. Side Yard Setback:	5.0'	10.23'	8.00'
Min. Rear Yard Setback:	20.0'	19.2'	27,24'
Max Building Height:	35'	<35'	<35'

*Front yard determined by applying an ultimate right-of-way to existing neighbors. The firehouse was not taken into consideration as it is the only building near the site on the East side of Main Street which does not conform.

CONSTRUCTION NOTE:

All users of this plan are referred to and cautioned to comply with Act 187 of 1996 pertaining to the Pennsylvania One-Call System, 73 P.S. 182.1. The PA One-Call system shall be contacted prior to any construction or excavation on the site. The PA One-Call phone number is 1-800-242-1776. SITE SERIAL NO. 20101662769

It is the responsibility of the contractor to verify all utilities prior to beginning any earth moving, excavation, or construction activities.

This is the line showing the limit

PLAN LEGEND

----- Adjoining Property Line

* * Existing Fencing

====== Existing Storm Sewer

----v ---- Existing Water Line

---- GAS ---- Existing Gas Line

-- Proposed Fencing

Proposed Curb

----- Proposed Storm Sewer

──≈─ Proposed SBA Water Main

PWL—— Corporation Stop

Soil Type Boundary

----#--- Existing Contour

——— Proposed SBA Sanitary Sewer Main

----- PSL ----- Proposed Private Sewer Service Line

Existing Curb

Property Boundary

— s — s — Existing Sanitary Sewer Line

for their use of this portion of the land. Recorder

Utility Pole

Fire Hydrant

Existing Inlet

Proposed Inlet

F.F. Finished Floor

G.F. Ground Floor

Existing Elevation

Proposed Elevation

been installed.

CURVE INFO:

△ = 19° 46′ 10″

R = 1348.45'

A = 465.27'

T = 234.97'

CH = 462.96'

 $CB = S 07^{\circ} 48' 37'' E$

Note: The New 6" Water Main

crossing Main Street has

Sanitary Manhole



PARKING CALCULATION:

Building 'A': Proposed/possible uses: First Floor -3,000 SF of retail sales; professional office;

personal services Second Floor- 3 apartments

Most restrictive parking calculations: 3,000 SF of retail = 1 space/200 SF = 15 spaces 3 apartments = 6 spaces Total parking for building 'A' = 21 spaces

Proposed/possible uses: 3,000 SF of retail sales; professional office; personal service

3,000 SF restaurant w/1,500 SF of patron space Most restrictive parking calculations: 3,000 SF of retail = 1 space/200 SF = 15 spaces

1,500 SF of restaurant patron space = 1 space/100 SF = 15 spaces Total Parking for building 'B' = 15 spaces

Building 'C":

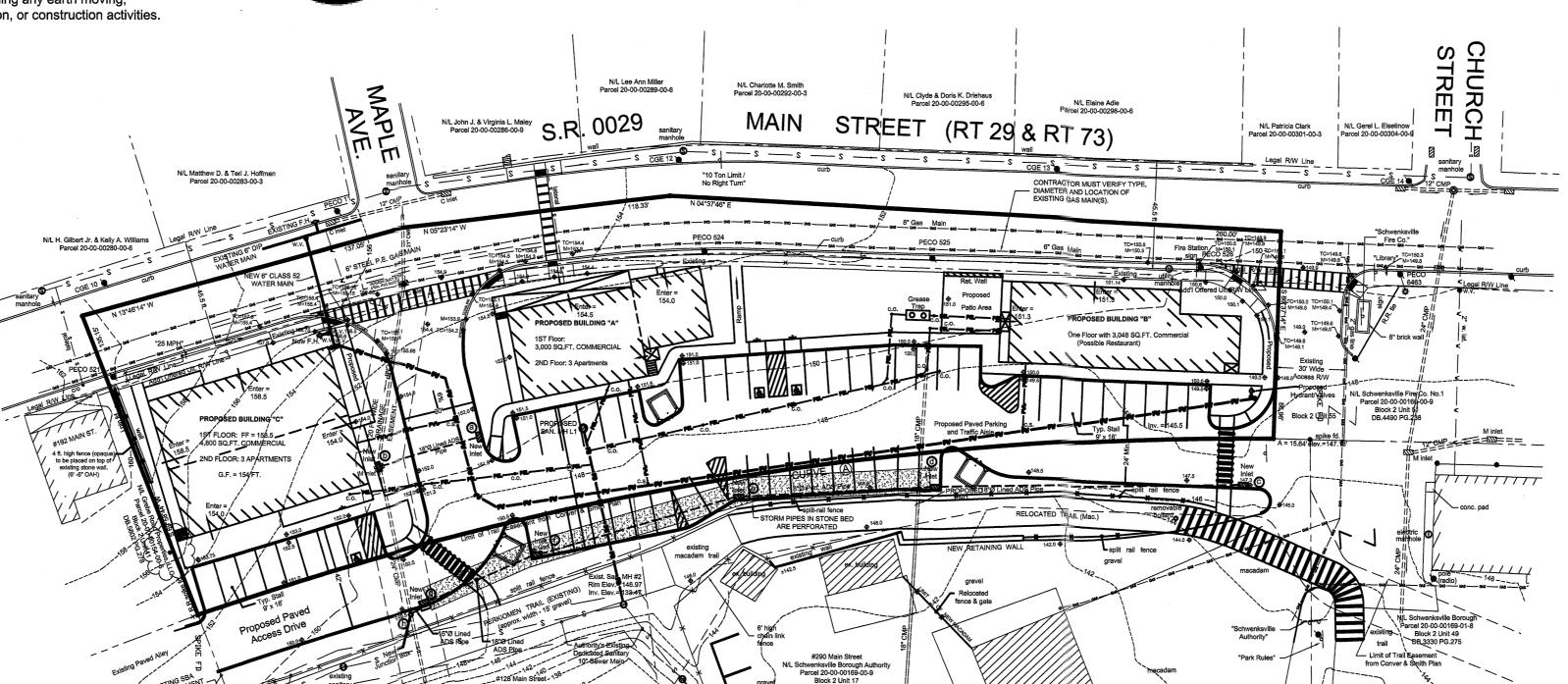
Proposed/possible uses: First Floor -4,800 SF of retail sales; professional office; personal services

Most restrictive parking calculations: 4,800 SF of retail = 1 space/200 SF = 24 spaces 3 apartments = 6 spaces

Second Floor - 3 apartments

Total Parking for building 'C' = 30 spaces

Parking Summary with 25% reduction for shared parking Required = 0.75(21 + 15 + 30) = 50 spaces Provided = 55 spaces



WAIVER NOTE

AT A MEETING HELD ON MARCH 10, 2011, SCHWENKSVILLE BOROUGH COUNCIL GRANTED THE FOLLOWING WAIVERS FROM THE BOROUGH'S SUBDIVISION AND LAND DEVELOPMENT

ORDINANCE: 1.) 147-22.A.(1) A waiver to reduce the ultimate R.O.W along Main Street to 5' off the face of curbing. Justification: this waiver keeps with the spirit of the zoning ordinance

This zoning district defines the front yard setback as the average of the building setback on the adjacent properties this waiver preserves the Main St. streetscape of the adjacent properties. 2.) 147-27 and 147-29.H A waiver from the need to provide clear sight

triangles at the driveway intersections with Main Street. Justification: the clear sight triangles as defined in the ordinance would make the property virtually unbuildable. The triangles are so large that they extend past the rear of the property 3.) 147-30 A partial waiver from providing curbing at the edge of all

pavement. Justification: curbing is proposed as per discussions multiple public meetings during the sketch plan phase of the project. 4.) 147-31.B.(2) A waiver to permit parking within less than 20 FT of a property line and 15 FT of a right-of-way.

Justification: The property is too narrow to permit this setback. 5.) 147-31.B.(4) A waiver to permit parking within less than 20 FT of a Justification: the property is too narrow to permit this setback. 6.) 147-31.D.(2) A waiver from the requirement to provide a 10' planted

buffer around a parking field. Justification: the property is too narrow to permit this setback. 7.) 147-39.A.(1) A waiver from the need to utilize a registered landscape architect for the landscaping plan. Justification: the applicant proposes to institute a landscaping plan above

and beyond compliance. The engineer of record will work with the applicant and the borough engineer to comply with the ordinance. 8.) 147-46.1.D(1) A waiver is requested from considering the existing impervious to be meadow. Justification: as this parcel is currently 97.6% impervious this would

create a significant hardship on the applicant. 9.) **147-39.E** A waiver is requested from the requirement to provide planting islands. Justification: Space is very limited here, also there is a significant amount of landscaping proposed around the parking area.

vegetative BMPs, and in its place utilize structural inlet filters. Inlet screens shall be installed on all open grates. Justification: Again, space is very limited here. Also, the plan as shown is acceptable to the DEP for their NPDES permit.

10.) 147-46.C.3 A waiver is requested from the requirement to utilize

PLAN NOTES

1.) Total Tract Area = 1.284 Acres (55,950 SQ.FT.) (Area to Proposed Ult. R/W = 0.975 Acres (42,494 SQ. FT.)

PLAN SHEET LEGEND

1 OF 16 100 SCALE FINAL PLAN

3 OF 16 20 SCALE PRE-EXISTING SITE PLAN

7 OF 16 SANITARY SEWER PROFILE PLAN

9 OF 16 SBA GENERAL NOTES & DETAILS

MANAGEMENT PLAN

10 OF 16 WATER NOTES & DETAILS

8 OF 16 SANITARY SEWER NOTES & DETAILS

5 OF 16 20 SCALE PROPOSED LANDSCAPE PLAN

6 OF 16 20 SCALE PROPOSED EASEMENT PLAN

11 OF 16 ADDITIONAL WATER NOTES & DETAILS

12 OF 16 EROSION & SEDIMENT CONTROL PLAN

13 OF 16 EROSION & SEDIMENT CONTROL DETAILS

14 OF 16 EROSION & SEDIMENT CONTROL NOTES

15 OF 16 POST CONSTRUCTION STORMWATER

16 OF 16 POST CONSTRUCTION STORMWATER

MANAGEMENT NOTES & DETAILS

4 OF 16 20 SCALE VACANT SITE PLAN

2 OF 16 20 SCALE PROPOSED SITE LAYOUT AND GRADING PLAN

2.) Total number of Lots = 1; Total number of buildings = 3

3.) The space in the buildings is rental space. One ownership will own all three buildings.

4.) All buildings will be served by Public Sewer and Public Water.

5.) A new 76 ft. long Sewer Main will connect directly from the site to the existing Authority Main on the adjacent property.

6.) Each new building will be served by a private individual sewer service line and a private individual water service line.

7.) All new sewer and water service is to be in accordance with Borough Authority requirements, regulations and standards.

8.) Handrails will be provided at ramps where necessary for HC accessibility. All ramps and HC curb/sidewalk depressions shall be detailed for compliance prior to construction. HC stalls are 16 ft. wide.

All new sidewalk is 5 ft. wide min.

CONDITIONAL USES GRANTED 1.) 176-54.A.5 Accessory uses customarily incidental to the listed

conditional uses. 2.) 176-54.B A combination of two or more uses permitted under Section 176-53 and 176-54A of this chapter maybe permitted by borough council as a conditional use, where such use meets the standards of Section 176-56.1 of this chapter.

SOURCE OF TITLE

Being the same Premises as that which the Perkiomen Valley Economic Development Corporation, by a deed dated October 17, 2008 and recorded in deed book 5714 page 1119 of the Montgomery County Records, granted and conveyed unto Schwenksville Investment Properties, LLC. (Instrument No.2008111366 dated Nov. 18, 2008).

UTILITIES LIST

Electric / Gas PECO 2301 Market St. Phildelphia, PA 19103 1-800-494-4000 <peco.com/service>

Water / Sewer Schwenksville Borough Authority 298 Main Street

Schwenksville, PA 19473 610-287-7772 <schwenksvillebaws@gmail.com>

> Municipal Trash / Recycling Whitetail Disposal P.O. Box 700 Frederick, PA 19435 610-754-0103

<whitetaildisposal.com>

SITE INFORMATION:

250 MAIN STREET Tax Parcel No. 20-00-00157-00-3 Tax Block 2 Unit 32 Deed Book 5714 Page 1119

> Schwenksville Investment Properties, LLC c/o Lee Ann Miller, Managing Member 1202 N. Gravel Pike P.O. Box 303 Zieglerville, PA 19492 PH. 610 - 287 - 8000

CERTIFICATION OF OWNERSHIP OWNER OF RECORD: SCHWENKSVILLE INVESTMENT PROPERTIES, LLC

Lee Ann Miller, Managing Member of Schwenksville Investment Properties, LLC

COMMONWEALTH OF PENNSYLVANIA COUNTY OF MONTGOMERY

On the _____ day of

, A.D. 20____ before me, the subscriber, a NOTARY PUBLIC in and for the said County and State, personally appeared Lee Ann Miller, Managing Member of Schwenksville Investment Properties, LLC who being duly sworn according to law says that the said **Schwenksville Investment Properties**, **LLC** is the owner of record of the property shown on this plan.

NOTARY PUBLIC MY COMMISSION EXPIRES

ACKNOWLEGEMENT OF PLAN

Commonwealth of Pennsylvania County of Montgomery

On this, the ___, 20___, before me, the undersigned officer personally appeared, Lee Ann Miller who, being duly sworn according to law, deposes and says that she is the Managing

the property shown on this plan, and that she acknowledges the same to be her act and plan and desires the same be recorded as such according to law.

Member of Schwenksville Investment Properties, LLC, the owner of

Lee Ann Miller, Managing Member of Schwenksville Investment Properties, LLC

My Commission Expires

Notary Public

Witness my hand and seal the day and date above written.

County this _____ day of _____, 20___.

BOROUGH COUNCIL APPROVAL Approved by the Borough Council of Schwenksville Borough Montgomery

Christopher Melville, President

Gail Phillips, Secretary

BOROUGH PLANNING COMMISSION RECOMMENDATION Recommended for approval by the Planning Commission of Schwenksville Borough Montgomery County this

H. Gilbert Williams, Chairpersor

Reviewed by the Schwenksville Borough Enginee

_ day of _

shown and that all dimensional details are correct.

Borough Engineer

SURVEYOR'S CERTIFICATION I hereby certify this plan represents a survey made under my supervision that the monuments shown hereon, except those noted "to be set", exist as

John T. Aston III, PLS

MCPC No. 05-197-006 PROCESSED and REVIEWED. Report prepared by Montgomery County Planning Commission in accordance with the Municipalities Planning Code.

Certified this date _

For the Director Montgomery County Planning Commission

revision no.4 12 - 10 - 2021 revision no.3 10 - 20 - 2021 revision no.2 SHEET 1 OF 16 1 - 27 - 2016

revision no.5

2 - 7 - 2022

revision no.1 FINAL PLAN 10 - 25 - 2015

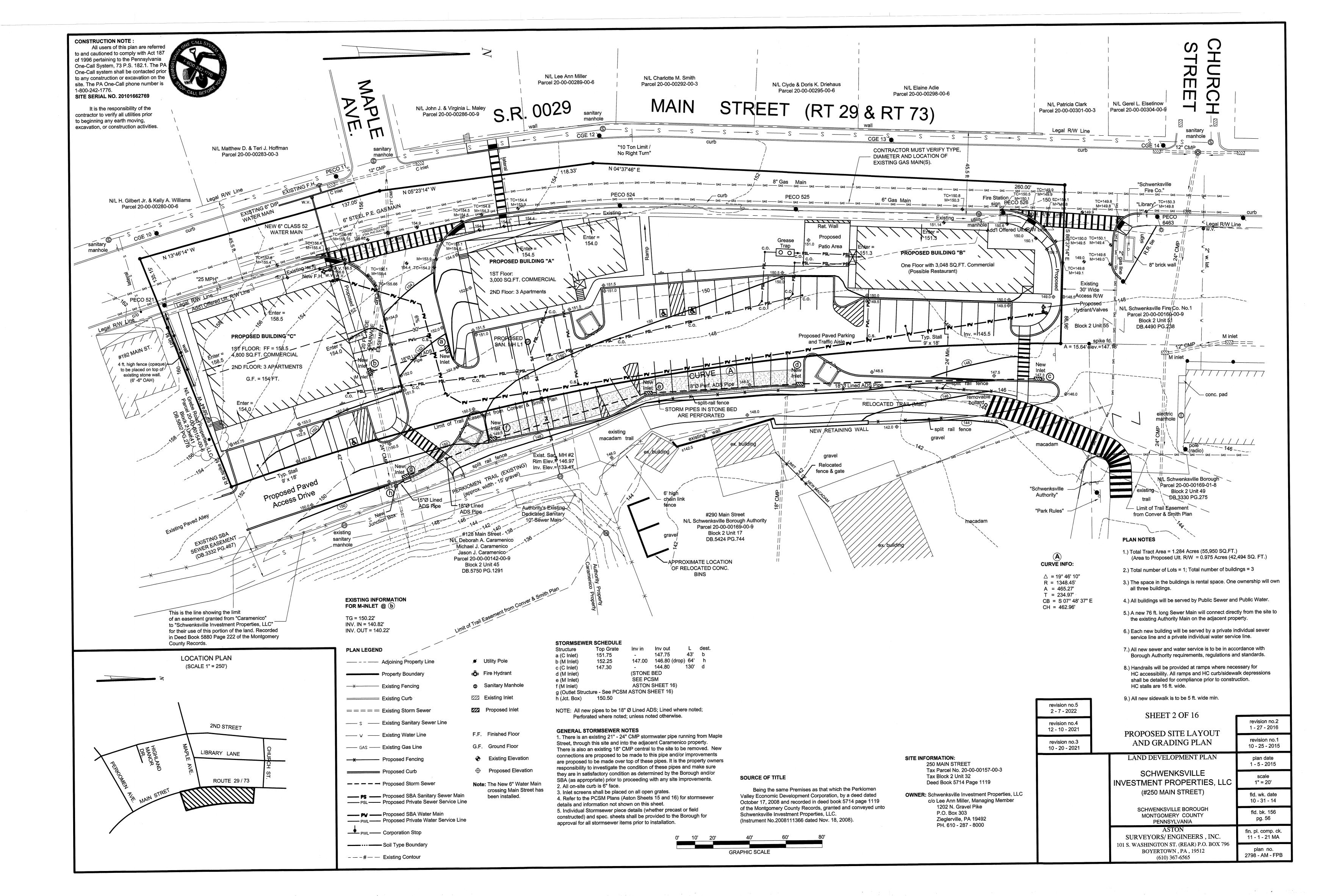
LAND DEVELOPMENT PLAN plan date 1 - 5 - 2015 SCHWENKSVILLE scale INVESTMENT PROPERTIES, LLC 1" = 40'

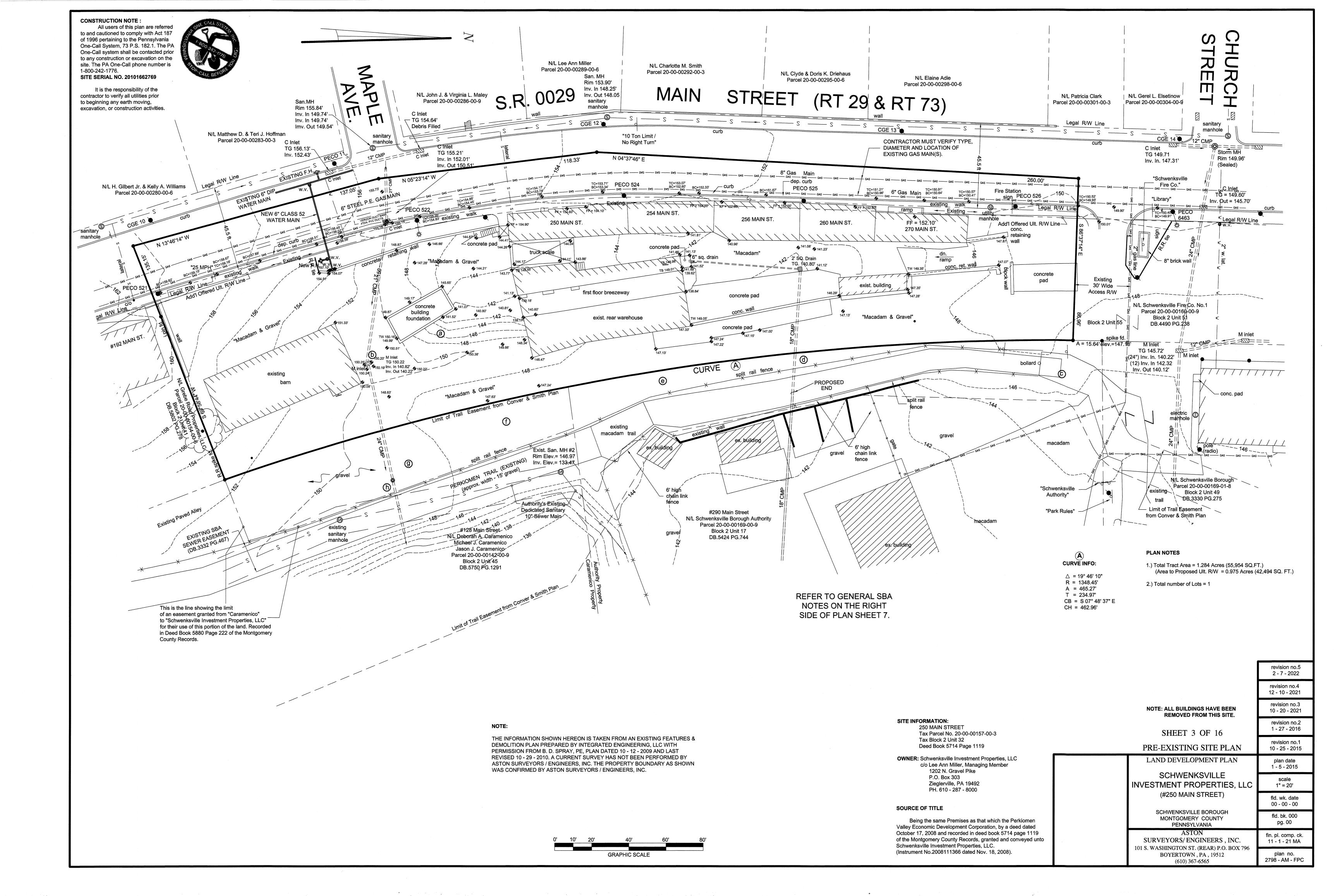
(#250 MAIN STREET) fld. wk. date 10 - 31 - 14 SCHWENKSVILLE BOROUGH fld. bk. 156 MONTGOMERY COUNTY pg. 56 **PENNSYLVANIA**

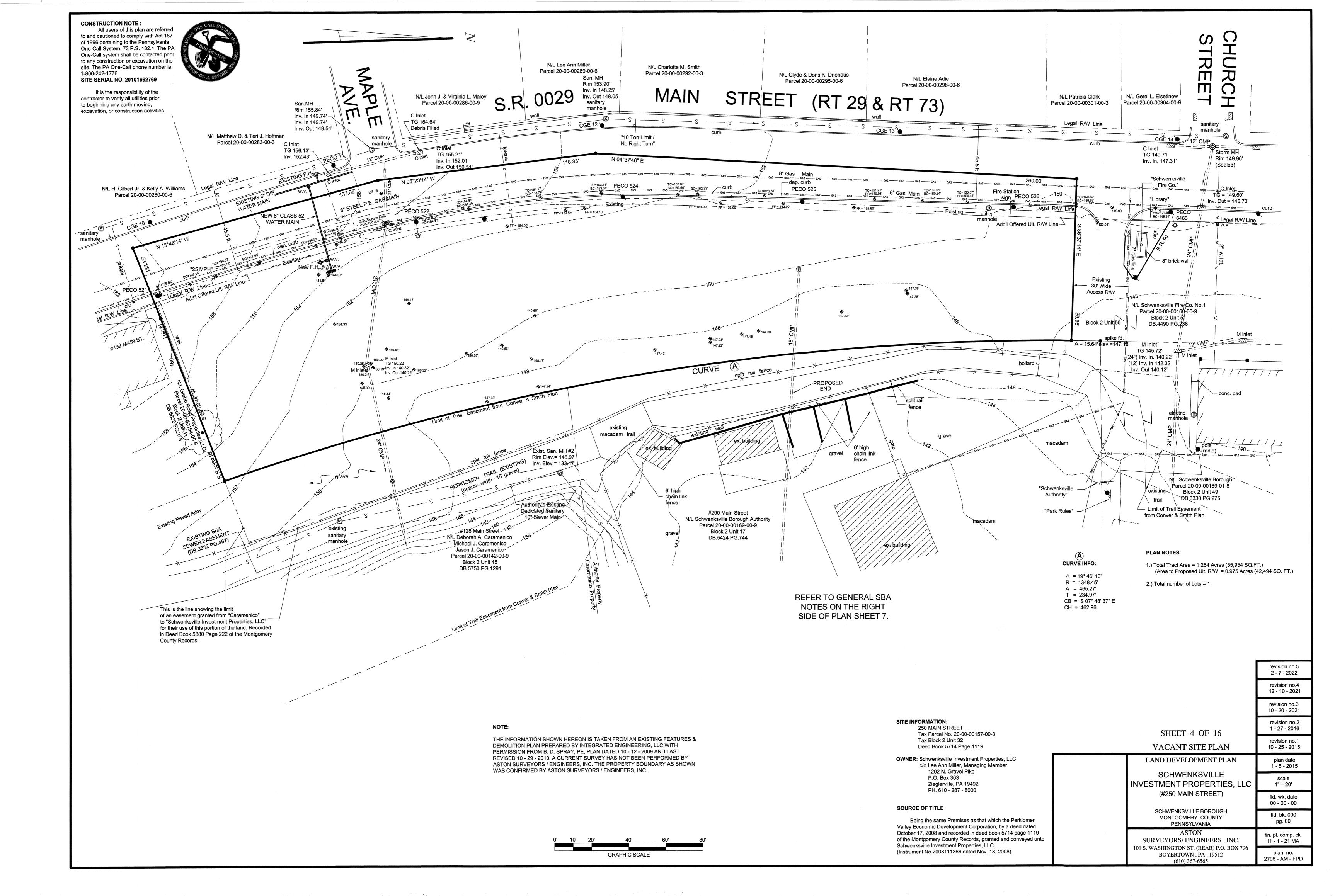
ASTON fin. pl. comp. ck. SURVEYORS/ENGINEERS, INC. 11 - 1 - 21 MA

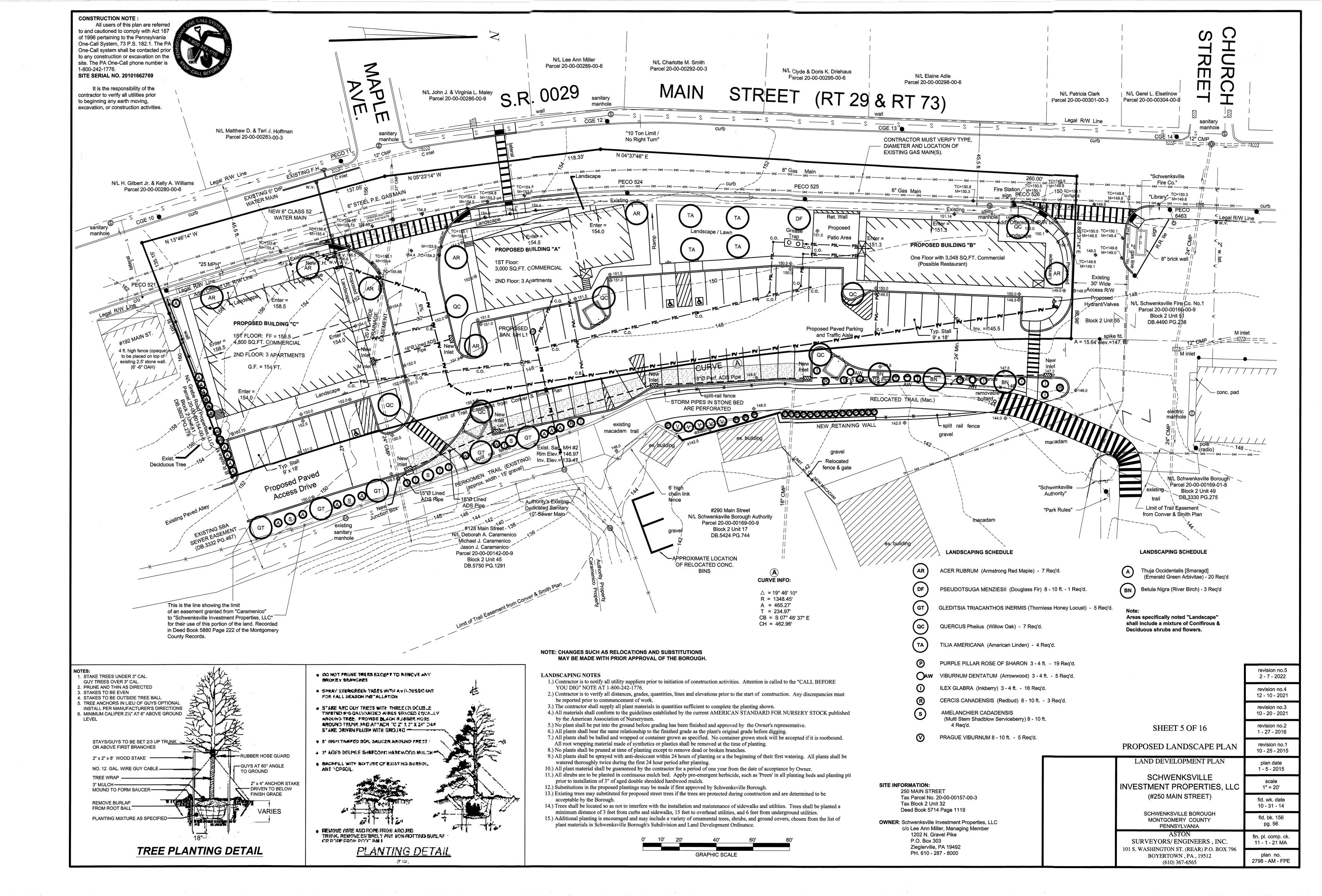
101 S. WASHINGTON ST. (REAR) P.O. BOX 796 plan no.

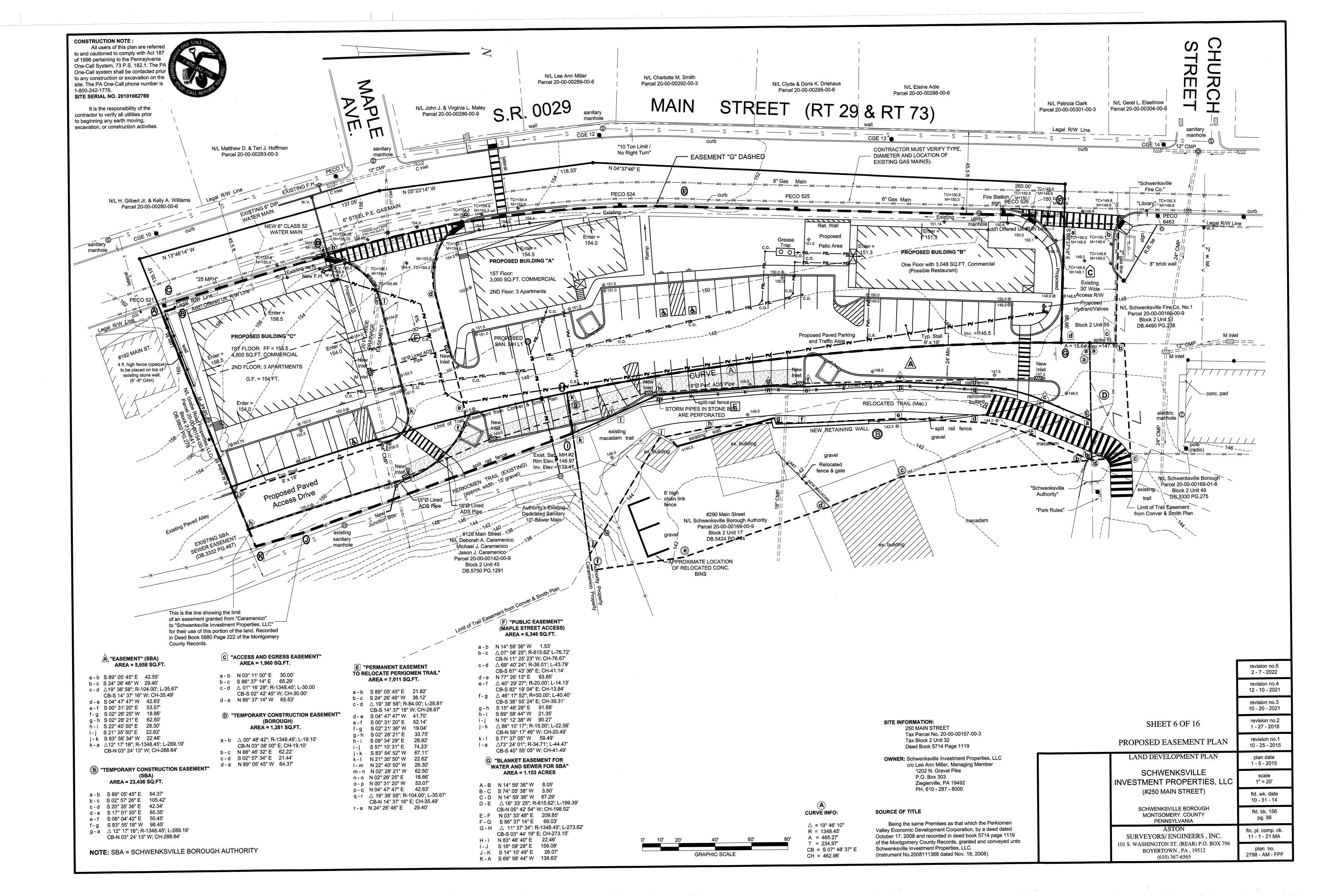
BOYERTOWN, PA, 19512 2798 - AM - FPA

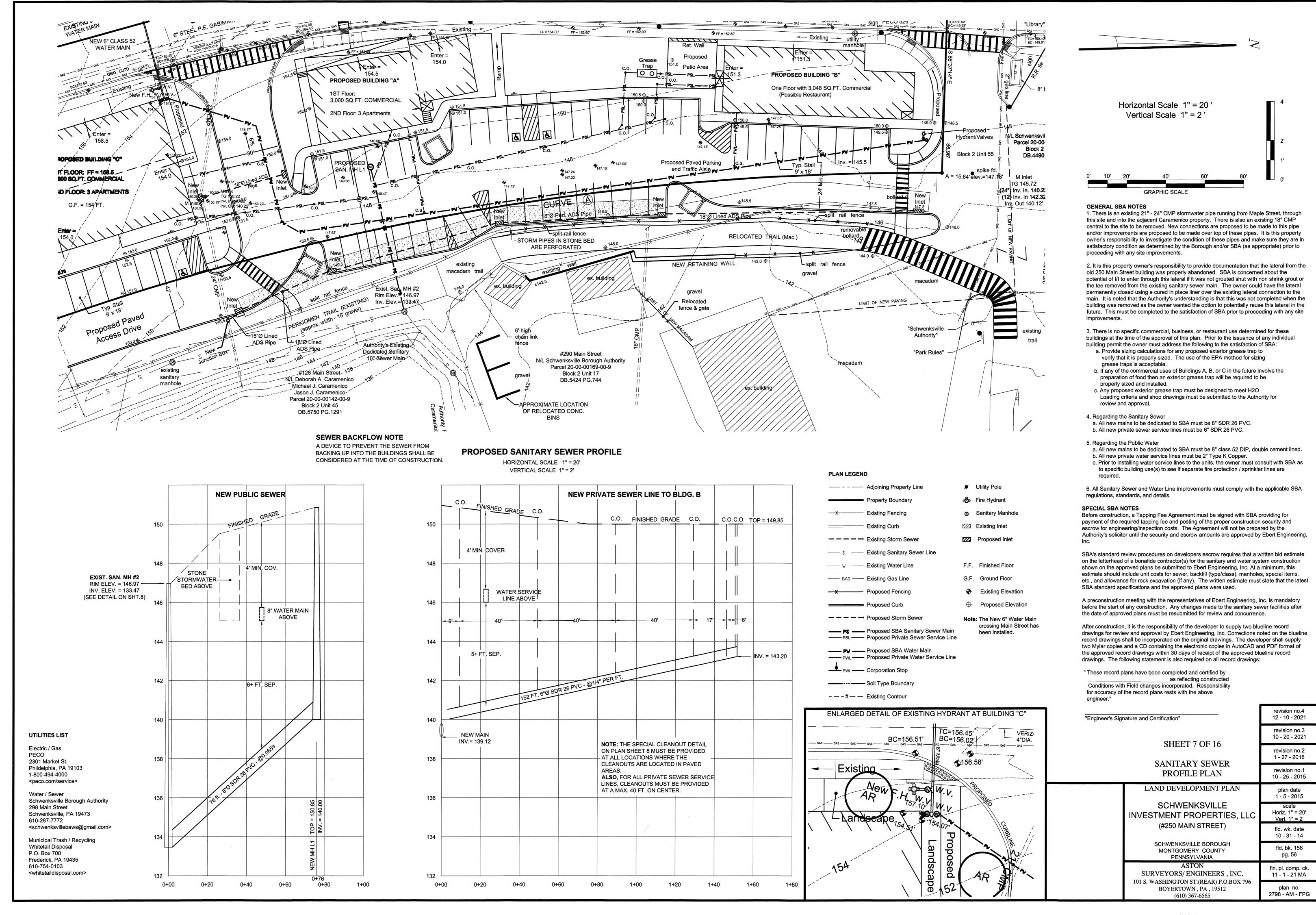


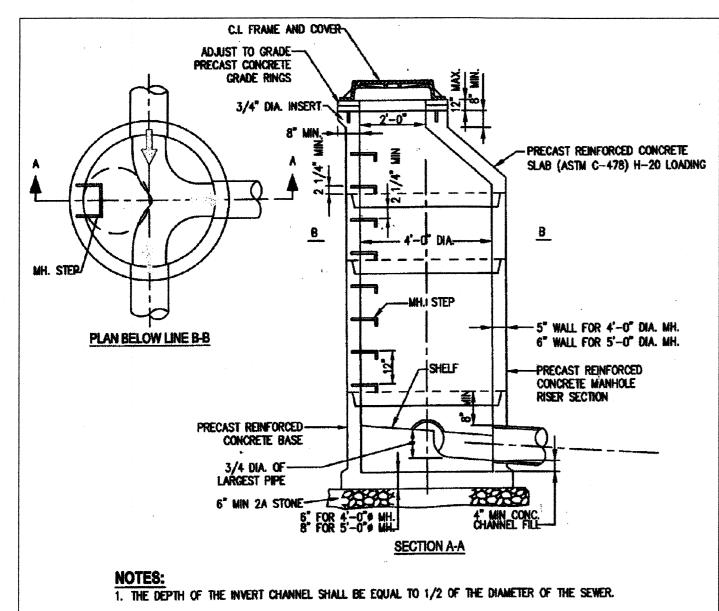








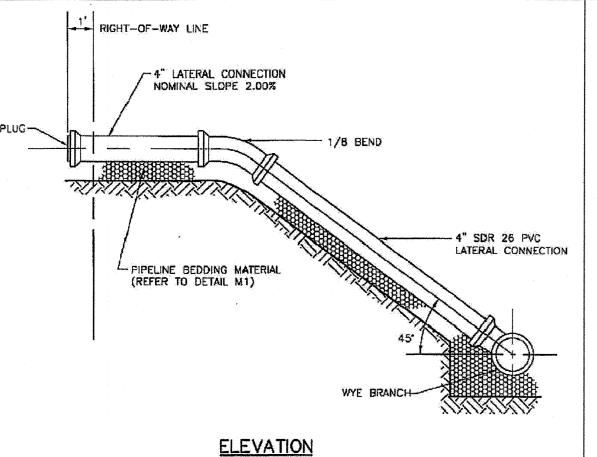




- 2. THE SHELF SHALL SLOPE TOWARD THE INVERT CHANNEL AT A RATE OF 1" PER FOOT. 3. TYPE "B" MANHOLES (SHALLOW TYPE) TO BE PROVIDED WHERE REQUIRED BY DEPTH CONDITIONS.
 ALL OTHER MANHOLES TO BE TYPE "A"
- 4. FOR MANHOLES HAVING 5' DIAMETER BASE, REDUCTION IN DIAMETER TO 4' SHALL START AT THE FIRST JOINT ABOVE THE UPPERMOST PIPE CONNECTION TO WALL WHERE DEPTH IS SUFFICIENT.

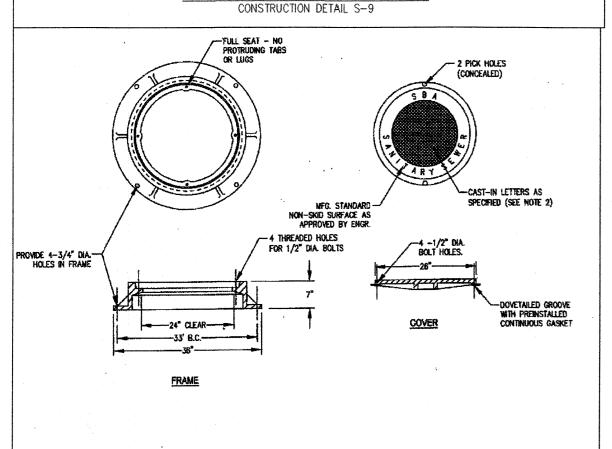
 5. ALL MANHOLE FRAMES SHALL BE BOLTED TO THE COME SECTION OR CONCRETE SLAB WITH 4'—
- 3/4" DIAMETER BOLTS WITH WASHERS AND NUTS. BOLTS TO BE AT 90' ON A 36" DIA. BOLT 6. ALL CONCRETE SHALL BE 4000 P.S.I. MINIMUM.
- 7. ENTIRE OUTSIDE SURFACE OF MANHOLE SHALL RECEIVE TWO COATS OF BITUMINOUS COATING. KOPPERS 300M OR APPROVED EQUAL
- 8. INSTALL DOUBLE RING OF PLASTIC PREFORMED JOINT SEALANT BETWEEN ALL SECTIONS AND
- 9. MANHOLE CONSTRUCTION SHALL BE IN ACCORDANCE WITH ASTM C-478. 10. STEPS TO BE STEEL REINFORCED POLYPROPYLENE. (SEE DETAIL S-7)





PROVIDE 6" LATERAL CONNECTION WHEN SERVICING COMMERCIAL BUILDINGS AND WULTI-FAMILY DWFILING UNITS.

SERVICE CONNECTION DEEP SEWER

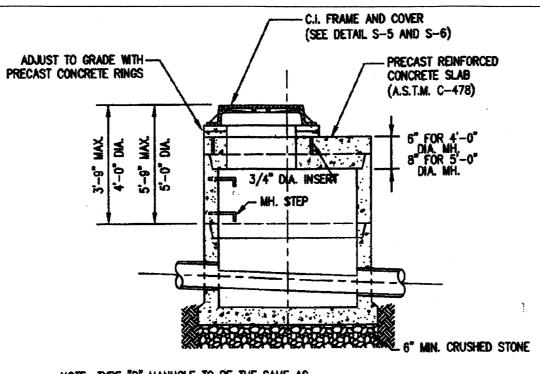


NOTES: 1. ALL MATERIAL CRAY CAST IRON, A.S.T.M. A.-48, CL-30 SUITARIE FOR HIGHWAY LOADING. 2. COVER SHALL HAVE THE WORDS "SBA SEWER" CAST THEREON. FOR WATER CHAMBERS, THE INSCRIPTION SHALL

- BE "WAREN" INSTEAD OF "SEWER".

 3. FRAMES SHALL BE WATERPROOF AND COVER SHALL BE BOLTED WITH FOUR (4) 1/2" COUNTERSUNK STAINLESS
- STEEL BOLTS MAKING A SEAL WITH A RUBBER "O" RING GASKET, OR EQUAL 4. PROVIDE FOUR (4) S.S. ANCHOR BOLT HOLES, 3/4" DIA MINIMUM.

 5. MANUFACTURED BY NEENAH FOUNDRY COMPANY (MODEL R-1915-F) OR APPROVED EQUAL STANDARD MANHOLE FRAME AND COVER WATERTIGHT



NOTE: TYPE "B" MANHOLE TO BE THE SAME AS TYPE "A" EXCEPT AS OTHERWISE NOTED

- 1. THE DEPTH OF THE INVERT CHANNEL SHALL BE EQUAL TO 1/2 OF THE DIAMETER OF THE SEWER.
- 2. THE SHELF SHALL SLOPE TOWARD THE INVERT CHANNEL AT A RATE OF 1" PER FOOT.

 3. TYPE "B" MANHOLES (SHALLOW TYPE) TO BE PROVIDED WHERE REQUIRED BY DEPTH CONDITIONS.
- ALL OTHER MANHOLES TO BE TYPE "A" 4. FOR MANHOLES HAVING 5' DIAMETER BASE, REDUCTION IN DIAMETER TO 4' SHALL START AT THE FIRST JOINT ABOVE THE UPPERMOST PIPE CONNECTION TO WALL WHERE DEPTH IS SUFFICIENT.

 5. ALL MANHOLE FRAMES SHALL BE BOLTED TO THE CONE SECTION OR CONCRETE SLAB WITH 4 — 3/4" DIAMETER BOLTS WITH WASHERS AND NUTS. BOLTS TO BE AT 90" ON A 36" DIA. BOLT
- 6. ALL CONCRETE SHALL BE 4000 P.S.I. MINIMUM.
 7. ENTIRE OUTSIDE SURFACE OF MANHOLE SHALL RECEIVE TWO COATS OF BITUMINOUS COATING. KOPPERS 300M OR APPROVED EQUAL.
- 8. INSTALL DOUBLE RING OF PLASTIC PREFORMED JOINT SEALANT BETWEEN ALL SECTIONS AND 9. MANHOLE CONSTRUCTION SHALL BE IN ACCORDANCE WITH ASTM C-478.
- 11. 4' DIAMETER MANHOLE FOR 8" TO 15" PIPES, 5' DIAMETER MANHOLE FOR 18" TO 27" PIPES

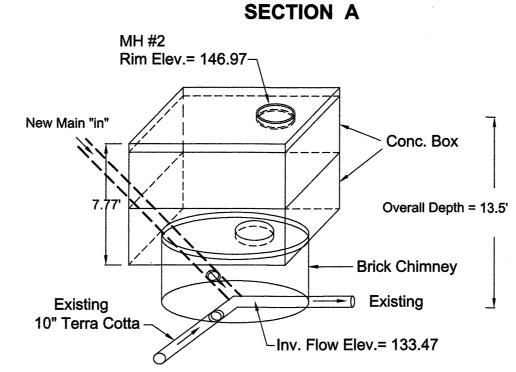
STANDARD MANHOLE TYPE "B" **CONSTRUCTION DETAIL S-2**

10. SEE SECTION 03411 PRECAST CONCRETE, STEEL REINFORCED POLYPROPYLENE IS OPTIONAL. (SEE

STANDARD MANHOLE COATING REQUIREMENT

The interior coating on manholes shall be a white epoxy coating. The standard coating is two coats, each 4 to 6 mils thick of polyamide epoxy coating, Ponamid 65 Series by MAB or approved equal.



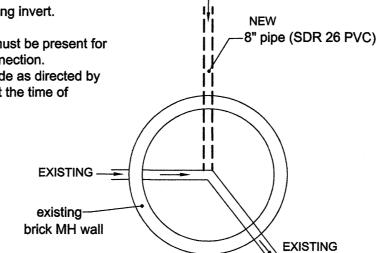


1.) Provide link seal or approved equal and nonshrink grout around all new penetrations through existing concrete.

2.) Outside surface of existing manhole shall receive two coats of bituminous coating 2 ft. around all new penetrations.

3.) New pipe to tie in at existing invert.

4.) Borough representative must be present for work required for this connection. Modifications shall be made as directed by Borough representative at the time of construction.

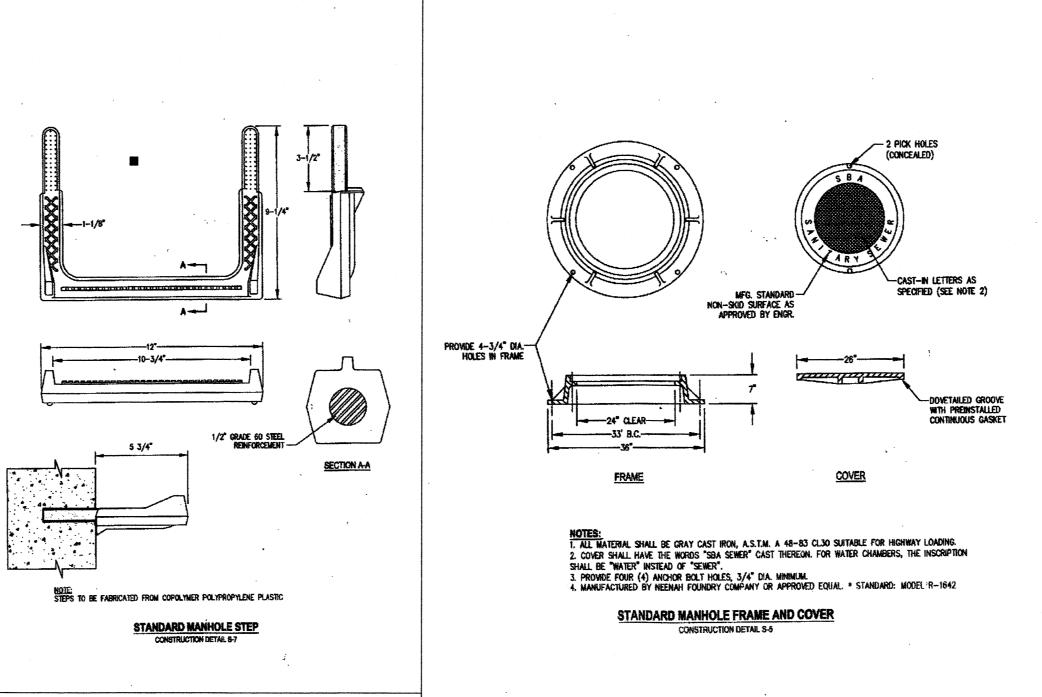


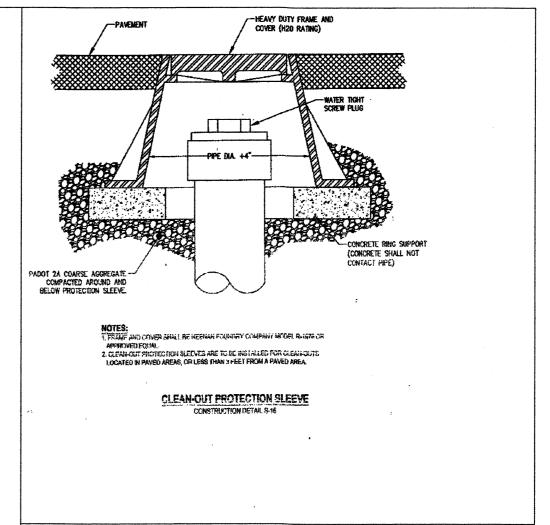
TOP VIEW

RIGHT OF WAY LINE ----PLAN FINISHED GRADE VENTED STACK -CLEAN-OUT TEMPORARY—— PLUG 4° SDR 26 PVC BUILDING ______ ELEVATION 1. BUILDING SEVER FROM RIGHT-OF-WAY UNE TO BUILDING PLUMBING SYSTEM SHALL CONFORM TO THE INTERNATIONAL PLUMBING CODE ADOPTED BY TOWNSHI TEMPORARY PIPE PLUG TO REMAIN IN LATERAL UNTIL CONSTRUCTION OF BUILDING SEWER OCCURS, BUILDING SEWER SHALL BE PLUGED AT TEST TEE UNTIL CONSTRUCTION IS COMPLETED AND TESTED.

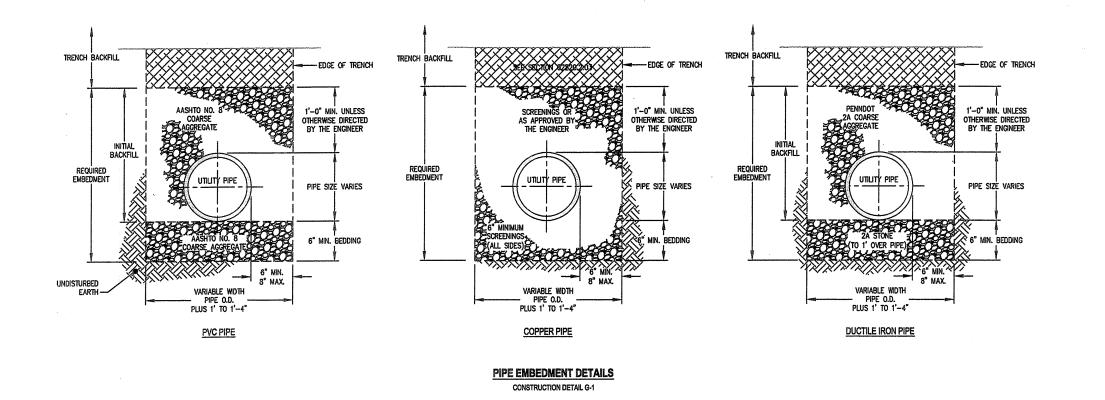
- 3. PIPE TO BE EMBEDED IN 18 STONE OR SCREENINGS AS PER ENGINEER. 4. VENTED TRAP IS NOT REQUIRED ON NEW CONSTRUCTION.
- 5. A VENTED TRAP SHALL BE PROVIDED AT THE RIGHT OF WAY LINE ON EXISTING HOUSES CONNECTING TO THE SANITARY SYSTEM.
- 6, CLEANOUT TO BE LOCATED & R.O.W. THEN AT EVERY 50' INTERVALS FOR 4" PVC PIPE AND & 100' INTERVALS FOR 6" PVC PIPE.

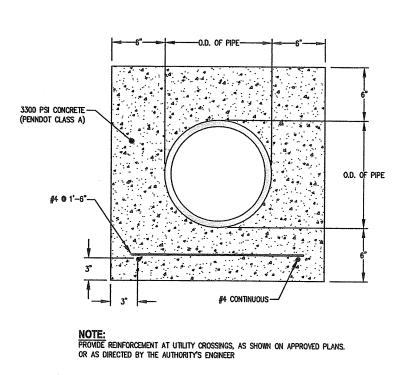
SERVICE CONNECTION SHALLOW SEWER CONSTRUCTION DETAIL S-8



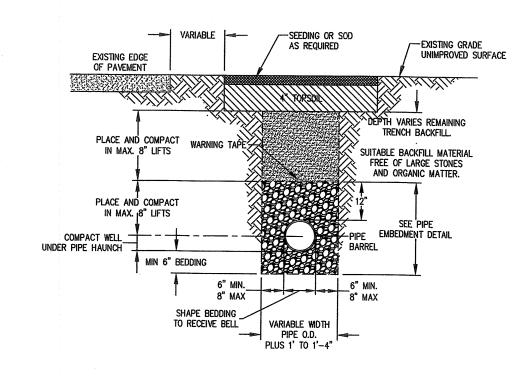


	revision no.3 10 - 20 - 2021
SHEET 8 OF 16	revision no.2 1 - 27 - 2016
SANITARY SEWER NOTES & DETAILS	revision no.1 10 - 25 - 2015
LAND DEVELOPMENT PLAN	plan date 1 - 5 - 2015
SCHWENKSVILLE INVESTMENT PROPERTIES, LLC	scale 1" = 20'
(#250 MAIN STREET)	fld. wk. date 10 - 31 - 14
SCHWENKSVILLE BOROUGH MONTGOMERY COUNTY PENNSYLVANIA	fld. bk. 156 pg. 56
ASTON SURVEYORS/ ENGINEERS, INC.	fin. pl. comp. ck. 11 - 1 - 21 MA
101 S. WASHINGTON ST. (REAR) P.O. BOX 796 BOYERTOWN , PA , 19512 (610) 367-6565	plan no. 2798 - AM - FPH

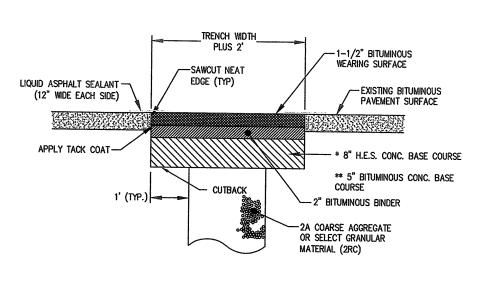




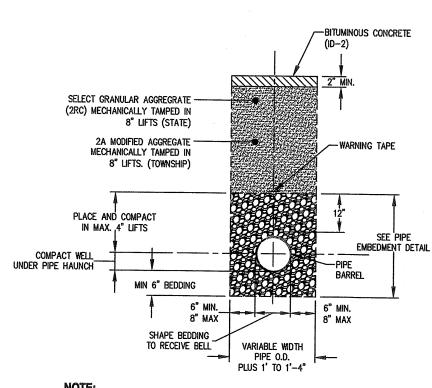
CONCRETE ENCASEMENT DETAIL
CONSTRUCTION DETAIL G-2



TRENCH RESTORATION FOR UNIMPROVED SHOULDER
OF TOWNSHIP ROAD OR EASEMENT
CONSTRUCTION DETAIL G-7



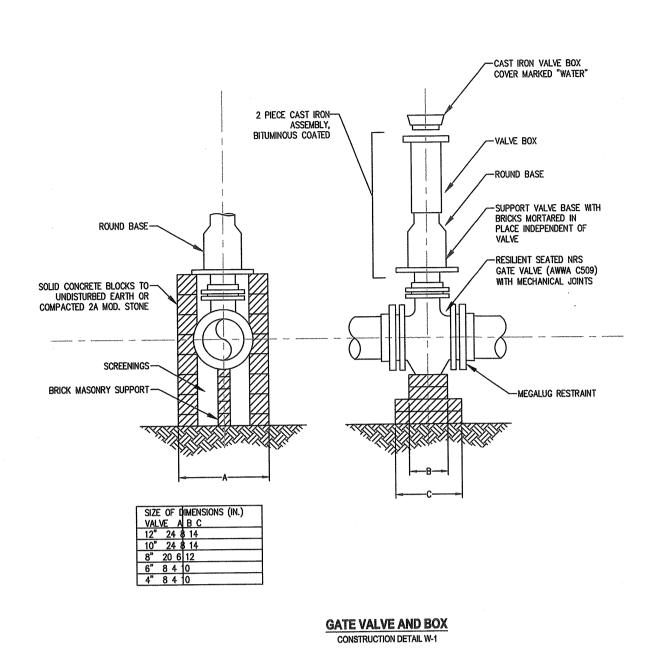
PERMANENT PAVEMENT AND
TRENCH RESTORATION FOR TOWNSHIP ROAD
CONSTRUCTION DETAIL G-6

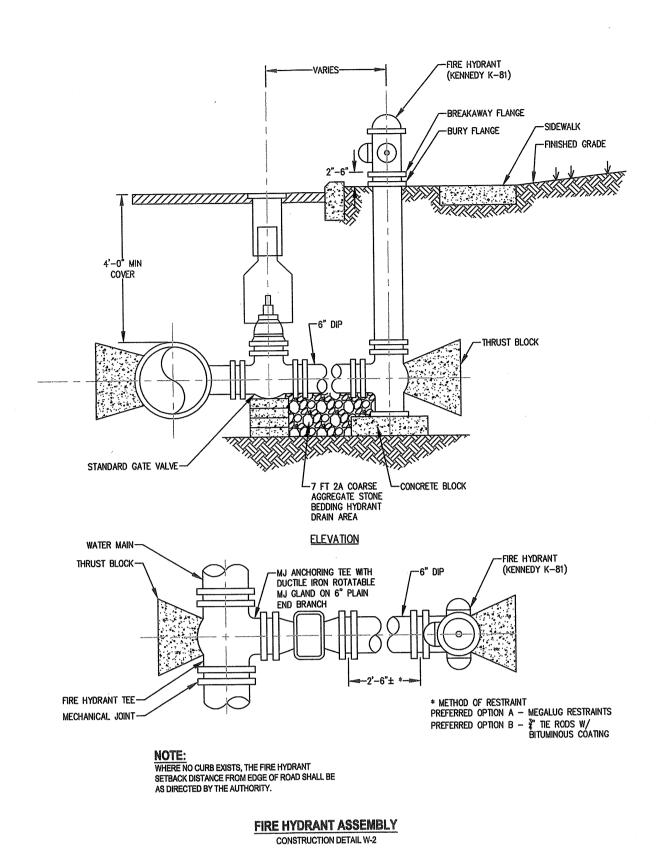


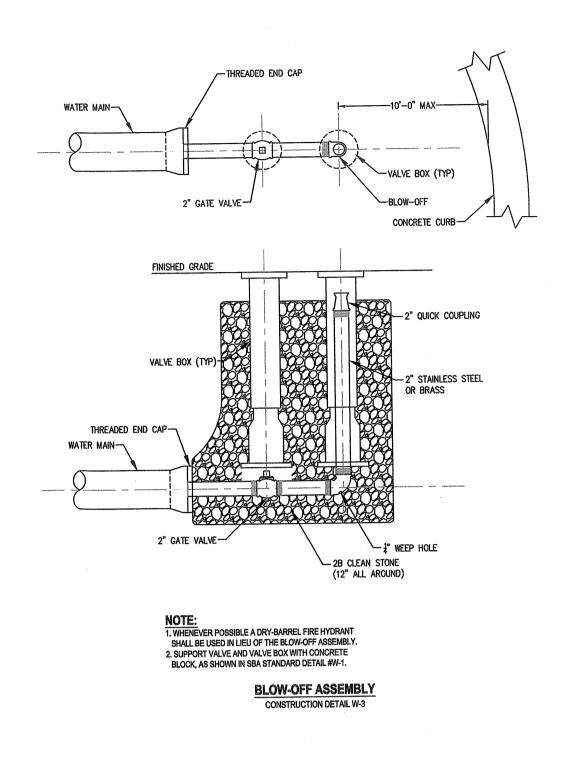
NOTE:
SPECIAL CONDITIONS OF THE HIGHWAY OCCUPANCY PERMIT MAY SUPERSEDE THIS DETAIL CONTRACTOR TO MAINTAIN TEMPORARY PAVING UNTIL PREMANENT PAVING IS COMPLETED.

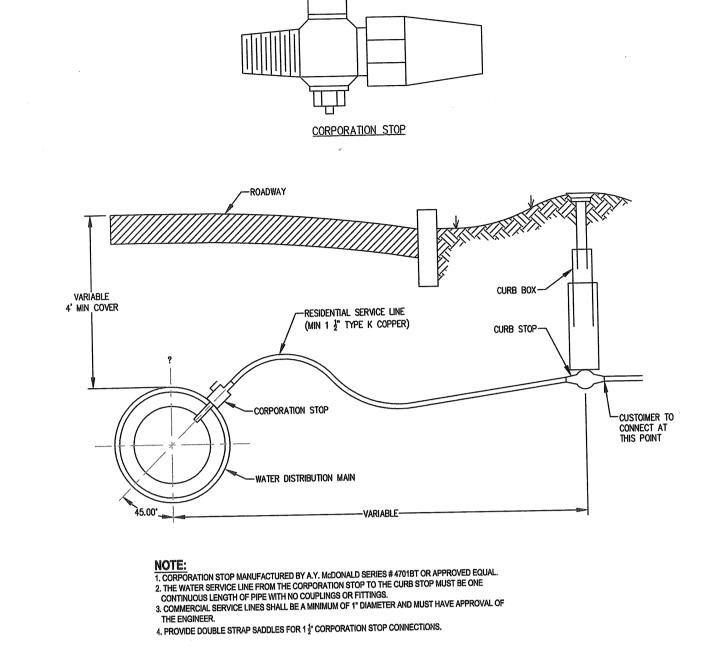
TEMPORARY PAVEMENT FOR TOWNSHIP ROAD AND STATE HIGHWAY

	revision no.3 10 - 20 - 2021
SHEET 9 OF 16	revision no.2 1 - 27 - 2016
SBA GENERAL NOTES & DETAILS	revision no.1 10 - 25 - 2015
LAND DEVELOPMENT PLAN	plan date 1 - 5 - 2015
SCHWENKSVILLE INVESTMENT PROPERTIES, LLC	scale 1" = 20'
(#250 MAIN STREET)	fld. wk. date 10 - 31 - 14
SCHWENKSVILLE BOROUGH MONTGOMERY COUNTY PENNSYLVANIA	fld. bk. 156 pg. 56
ASTON SURVEYORS/ENGINEERS, INC. 101 S. WASHINGTON ST. (REAR) P.O. BOX 796	fin. pl. comp. ck. 11 - 1 - 21 MA
BOYERTOWN, PA, 19512 (610) 367-6565	plan no. 2798 - AM - FPI



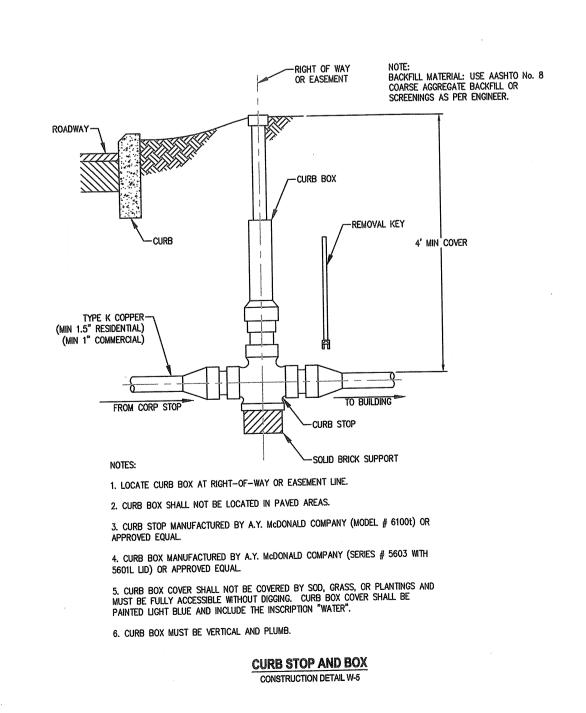


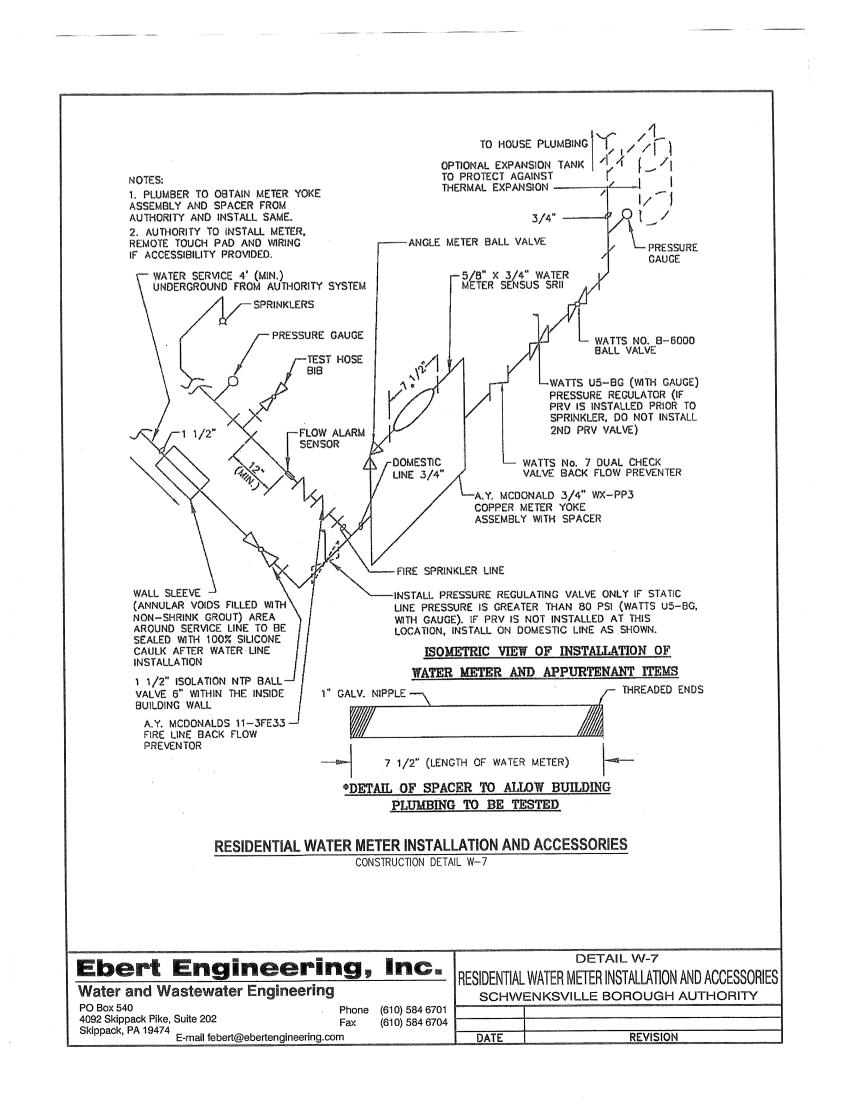


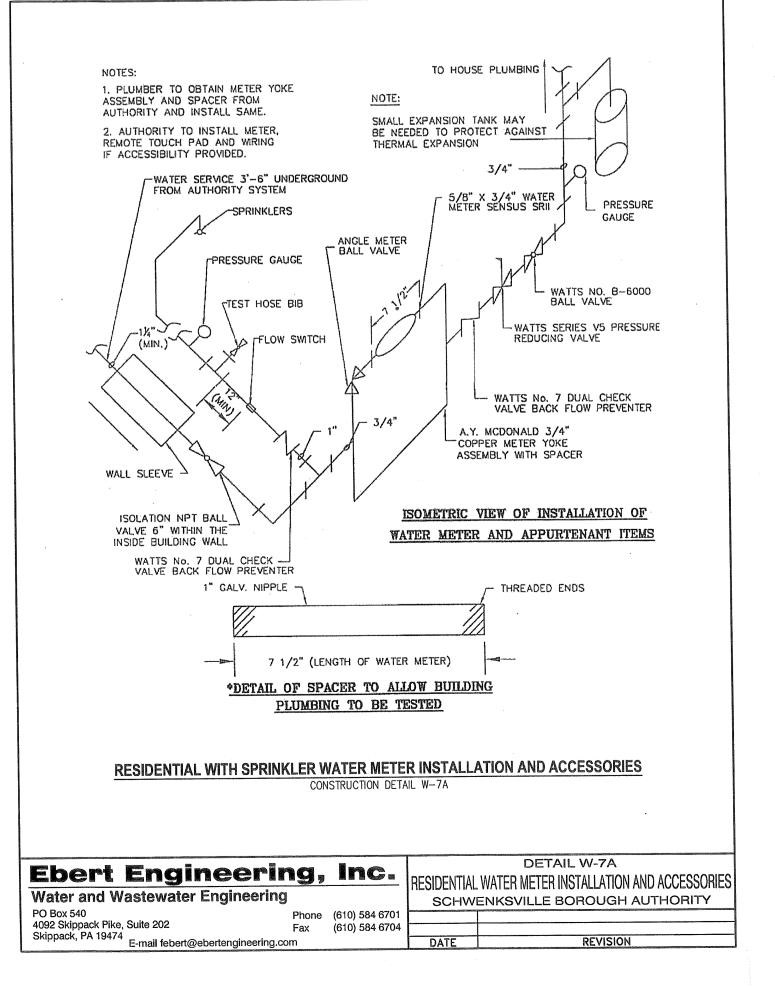


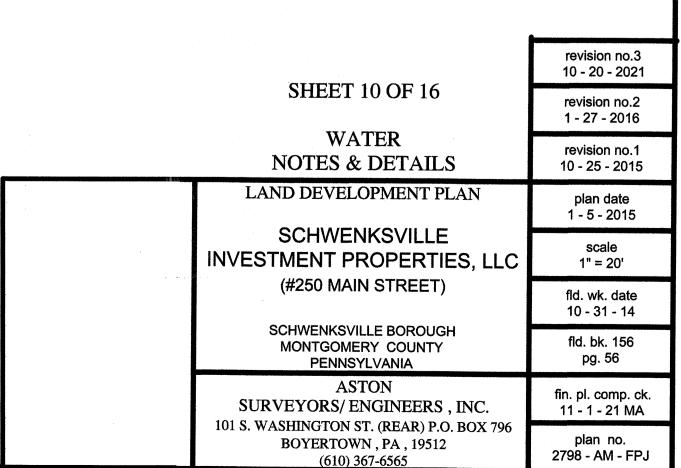
CORPORATION STOP DETAIL

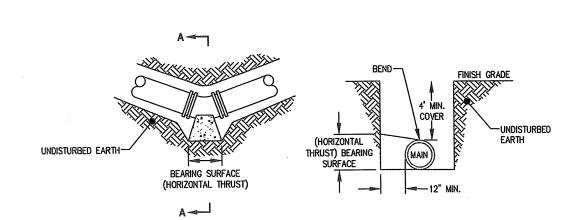
CONSTRUCTION DETAIL W-4







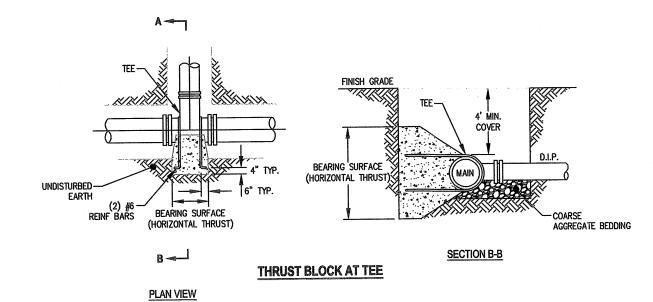




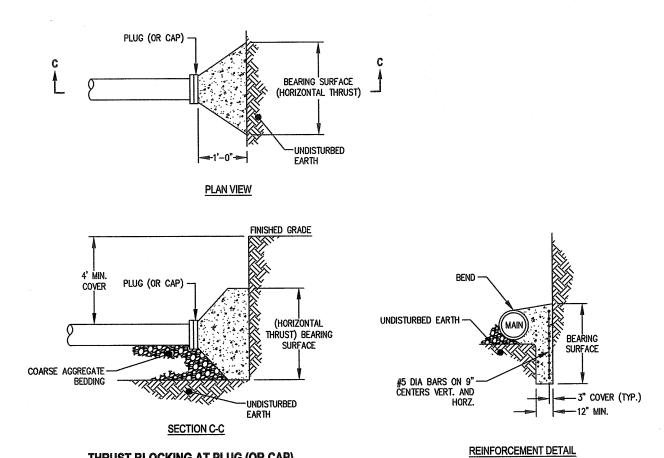
PLAN VIEW

SECTION A-A

THRUST BLOCKING AT HORIZONTAL BEND



HORIZONTAL THRUST BLOCK ARRANGEMENT CONSTRUCTION DETAIL W-8A



THRUST BLOCKING AT PLUG (OR CAP)

NOTES:

1. THE BEARING SURFACE(S) OF THE CONCRETE THRUST BLOCK MUST BEAR AGAINST UNDISTRUBED EARTH. THE BEARING AREA PROVIDED MUST BE IN ACCORDANCE WITH

THE SCHEDULE ON DETAIL W-9.

2. THE CONCRETE THRUST BLOCK MUST EXTEND FROM BELL TO BELL ON FITTING BUT MUST NOT INTERFERE WITH ACCESS TO THE FITTING JOINT.

3. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3300 PSI AT THE END OF 28 DAYS (PENNDOT CLASS A)

4. WHEN BEARING SURFACE IS GREATER THAN 10 SQUARE FEET, THRUST BLOCK SHALL

INCLUDE REINFORCEMENT PARALLEL TO EACH BEARING SURFACE AS SHOWN IN THE DETAIL. ALL REINFORCEMENT BARS SHALL BE DEFORMED BARS.

5. ALL EXPOSED STEEL TO RECEIVE TWO (2) COATS OF BITUMASTIC.

6. MEG—A—LUGS SHALL BE INSTALLED ON ALL FITTINGS.

7. ALL M. J. BOLTS, ETS. TO BE COVERED WITH PLASTIC PRIOR TO CONCRETE PLACEMENT.

HORIZONTAL THRUST BLOCK ARRANGEMENT CONSTRUCTION DETAIL W-8B

BEARING SURFACE REQUIRED — Sq. Ft. HORIZONTAL THRUST BLOCKING AND VERTICAL THRUST DOWNWARD 100 P.S.I. WORKING PRESSURE 4" 6" 8" 10" AND 12" 16" 18" 20" 24"

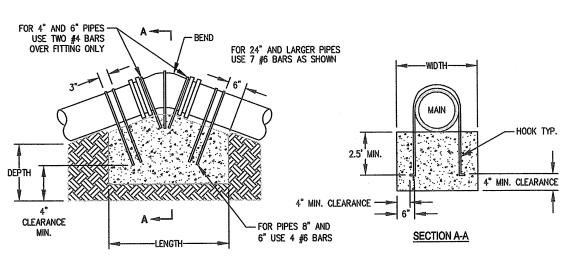
	1				ı				-			i				
TYPE OF BEARING MATERIAL	EARING MATERIAL DEGREE OF BEND OR DEFLECTION															
AND ALLOWABLE LOADS	22.5*	45°	90°	D.E.	22.5°	45°	90.	D.E.	22.5*	45°	80.	D.E.	22.5°	45°	90°	D.E.
SAND 0.75 TON/SQ.FT.	3.4	6.0	11.0	6.4	6.7	12.8	23.4	14.2	14.8	28.8	52.9	34.4	26.1	48.3	89.7	64.0
SOFT CLAY 1 TON/SQ.FT.	2.6	4.6	8.2	4.8	5.0	9.6	17.5	10.7	11.2	21.7	39.7	28.2	19.6	36.3	67.3	48.0
SAND AND GRAVEL 2 TON/SQ.FT.	1.3	2.3	4.1	2.4	2.5	4.8	8.8	5.3	5.6	10.8	20.0	14.1	9.8	13.1	33.6	24.0
CLAY 4 TON/SQ.FT.	1.0	1.2	2.1	1.3	1.3	2.4	4.4	2.7	2.8	5.4	10.0	7.2	4.9	9.1	16.8	12.0
SOFT ROCK 5 TON/SQ.FT.	1.0	1.0	1.6	1.0	1.0	1.9	3.5	2.2	1.6	4.4	8.0	5.7	3.9	7.3	13.5	9.6
ROCK 15 TON/SQ.FT.	1.0	1.0	1.0	0.4	1.0	1.0	1.2	0.8	1.0	1.4	2.6	1.9	1.3	2.4	4.5	3.2
PIPE SIZE		3	0"			3	6"		42"				48"			
TYPE OF BEARING MATERIAL		DEGREE OF BEND OR DEFLECTION														
AND ALLOWABLE LOADS	22.5*	45°	90.	D.E.	22.5*	45°	90.	D.E.	22.5*	45°	90.	D.E.	22.5	45°	90°	D.E.
SAND 0.75 TON/SQ.FT.	40.3	76.5	139	99.1	55.5	107.5	197.5	140.0	74.3	144.7	266.5	188.7	83.2	182.3	336.2	238.0
SOFT CLAY 1 TON/SQ.FT.	30.2	57.4	104.3	74.3	41.6	80.6	148.0	105.0	55.7	108.5	200.0	141.6	70.0	136.7	252.2	178.0
sand and gravel 2 ton/sq.ft.	15.1	28.7	52.1	37.2	20.8	40.3	74.0	52.5	27.9	54.3	100.0	70.8	35.0	68.3	126.1	89.2
CLAY 4 TON/SQ.FT.	7.6	14.6	26.0	18.6	10.4	20.2	37.0	26.3	14.0	27.0	50.0	35.3	17.5	34.2	63.0	44.6
SOFT ROCK 5 TON/SQ.FT.	6.0	11.5	20.9	14.9	8.3	16.1	29.6	21.0	11.2	21.7	40.0	28.3	14.0	27.3	50.4	35.7
	2.0	3.8	7.0	5.0	1.4	2.8	5.4	7.0	3.7	7.2	13.3	9.4	4.7	9.1	16.8	12.0

NOTES:

1. THIS CHART HAS BEEN DEVELOPED FOR D.I.P. WITH 100 P.S.I. WORKING PRESSURE, A 50% SURGE PRESSURE INCREASE, AND A 1.5. SAFETY FACTOR. CASE SPECIFIC CALCULATIONS ARE REQUIRED WHERE WORKING PRESSURE EXCEEDS 100 P.S.I AND/OR SURGE PRESSURE EXCEEDS 50% WORKING

Pressure. 2. d.e. = dead end Minimum Thrust block area is 1.0 sq. feet.
 Megalug restraint shall be installed at all fittings.

> HORIZONTAL AND VERTICAL DOWNWARD THRUST BLOCK **BEARING SURFACE AREA SCHEDULE**



TYPICAL SECTION VERTICAL THRUST UPWARD

NOTES:

1. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3300 P.S.I. AT THE END OF 28 DAYS. (PENNDOT CLASS A)

2. ALL REINFORCING STEEL SHALL BE DEFORMED BARS. (ASTM GRADE 60) AND SHALL BE U-SHAPED

AROUND WATER MAIN.
3. ALL FITTINGS AND JOINTS SHALL BE COVERED WITH POLYETHYLENE FILM BEFORE PLACING CONCRETE. ALL EXPOSED STEEL SHALL BE COVERED WITH 2 COATS OF BITUMASTIC, KOPPER 300M OR APPROVED EQUAL.

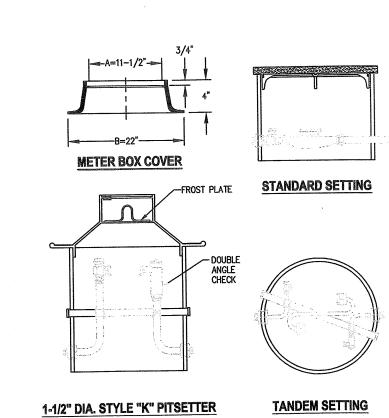
ED EQUAL.	CONCRETE	BI OCKIN	G DIMEN	ISIONS V	ERTICAL T	HRUST I	IPWARD		
	OONONE				PRESSURE		J		
PIPE SIZES		LENGTH			WIDTH			DEPTH	
FIFE SIZES	11.25*	22.5°	45°	11.25*	22.5°	45*	11.25*	22.5*	45°
4", 6" AND 8"	3.5'	4.5'	6'	3'	3'	3'	2'	3'	4'
10" AND 12"	4.5'	7'	8'	3'	3,	4'	3'	4'	5'
14" AND 16"	4.5'	7°	9'	4.5'	4.5'	4.5'	3.5'	4'	5'
18" AND 20"	5'	7°	11.5'	5'	5'	5'	4'	5'	5.5'
24"	5'	9'	12.5	5'	5'	6'	4.5'	5'	6'
30"	5.5'	9'	13.5'	5.5'	6'	7'	5.5'	6'	7'
36"	6.5'	11'	14'	5.5'	6.5'	7'	6'	6.5'	7'
42"	9'	13.5'	15'	6'	7'	7'	6'	7'	7'
48"	10'	14'	16'	6'	7'	7'	6'	7'	7'

NOTES:

1. THIS CHART HAS BEEN DEVELOPED FOR D.I.P. WITH A 100 PSI WORKING PRESSURE. A 50% SURGE PRESSURE INCREASE AND 1.5 SAFETY FACTOR. CASE SPECIFIC CALCULATIONS ARE REQUIRED WHERE THE

WORKING PRESSURE EXCEEDS 100PSI AND/OR SURGE PRESSURE EXCEEDS 50% OF WORKING PRESSURE.
2. FOR VERTICAL THRUST DOWNWARD, SEE DETAIL W-8 AND W-9.
3. INSTALL MEGALUGS ON ALL FITTINGS

VERTICAL THRUST BLOCK ARRANGEMENT AND DIMENSIONS SCHEDULE CONSTRUCTION DETAIL W-10



SPECIFICATIONS:

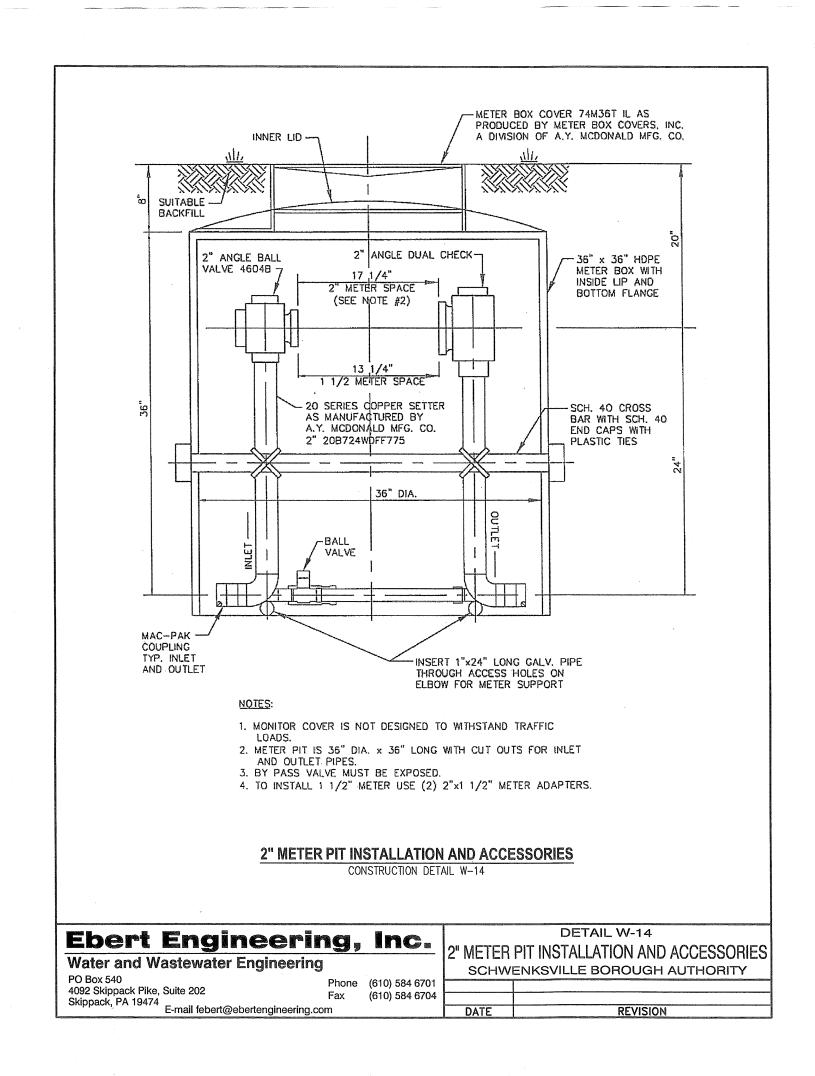
PRE-FABRICATED METER PIT, 20" x 36" METER VAULT W/ McDONALD 1 1/2" TANDEM STYLE METER SETTER, 24" RISER HEIGHT WITH 1 1/2" BALL VALVE INVERT, 1 1/2" DUAL ANGLE CHECK OUTLET, WITH 1 1/2" COM BRACO PRESSURE REDUCING VALVE ON OUTLET SIDE OF TAMDEM SETTER, 1 1/2" MIP INLET AND OUTLET THREADS ON INLET AND OUTLET RISERS.

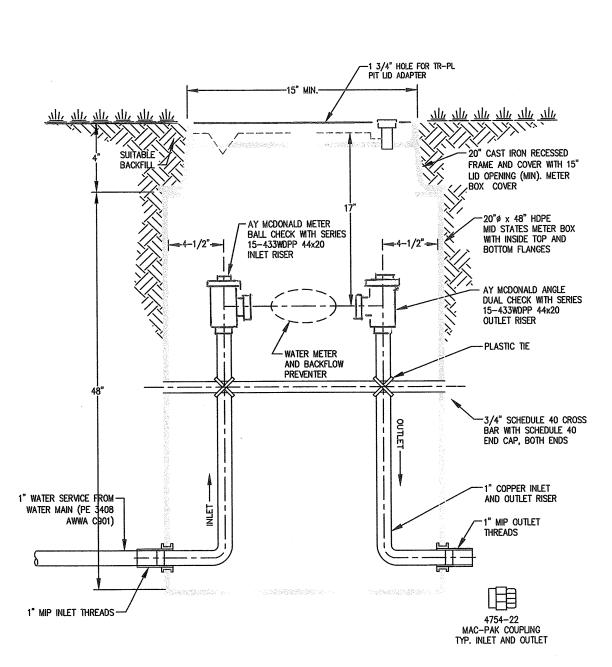
M3A CAST IRON METER BOX COVER AND FRAME, WITH 11 $1/2^\circ$ COVER OPENING. AS MANUFACTURED BY METER BOX COVERS INC.

SOURCE REFERENCES:
METER PRO SERVICES- 302-475-2937
INSTA PIT INC.- 610-869-0470 US FILTER/WATER PRO- 215-822-3301

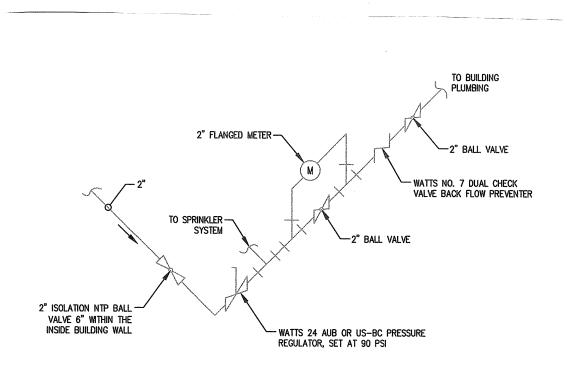
NOTES:
IF A METER PIT IS USED, THE PLACEMENT SHALL BE ON THE PROPERTY LINE OR R-O-W.

1-1/2" PRE-FABRICATED METER PIT CONSTRUCTION DETAIL W-13



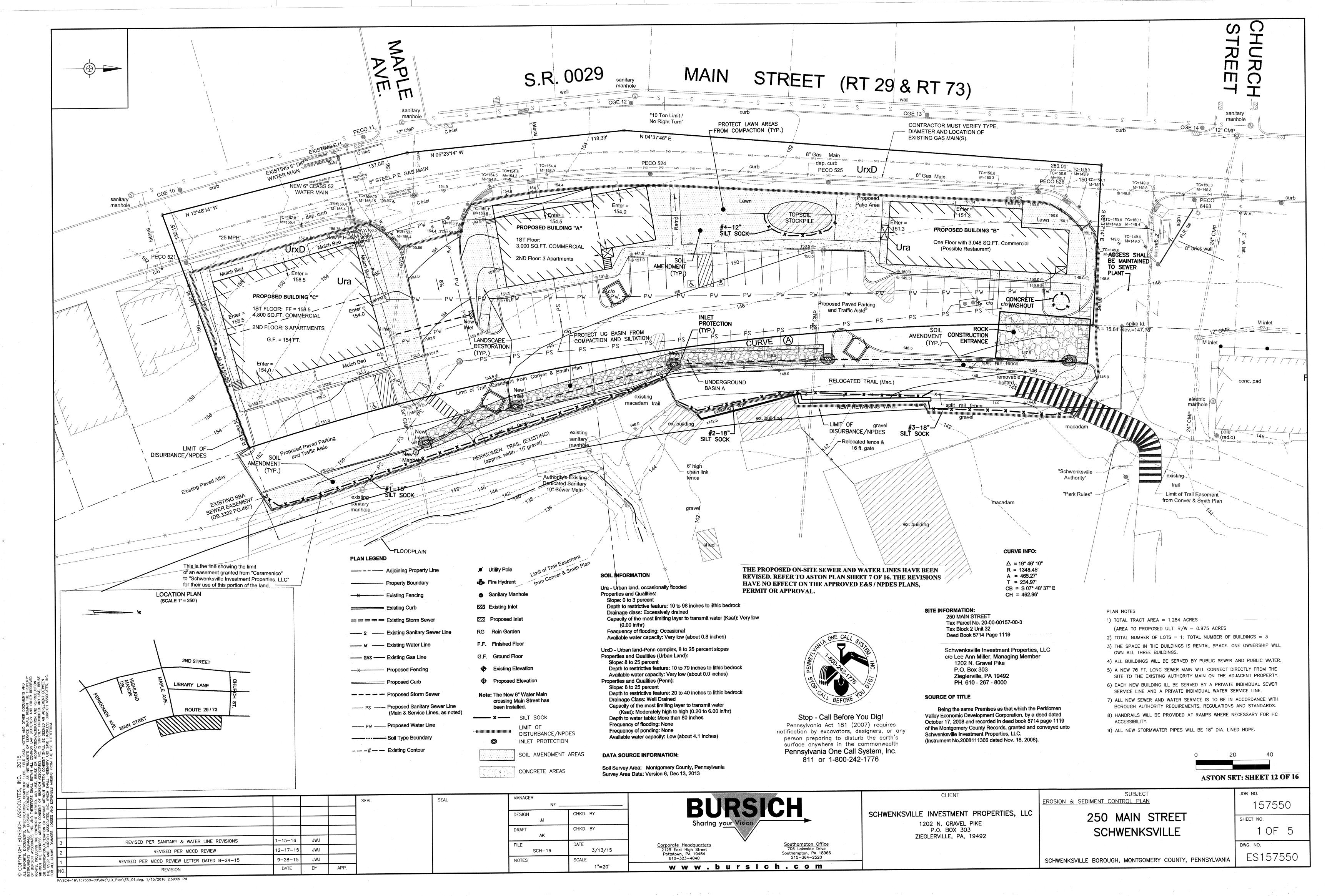


RESIDENTIAL WATER METER PIT INSTALLATION AND ACCESSORIES CONSTRUCTION DETAIL W-15



INSIDE WATER METER PIT (2") INSTALLATION AND ACCESSORIES CONSTRUCTION DETAIL W-16

SHEET 11 OF 16	revision no.3 10 - 20 - 2021
ADDITIONAL WATER	revision no.2 1 - 27 - 2016
NOTES & DETAILS	revision no.1 10 - 25 - 2015
LAND DEVELOPMENT PLAN	plan date 1 - 5 - 2015
SCHWENKSVILLE INVESTMENT PROPERTIES, LLC	scale 1" = 20'
(#250 MAIN STREET)	fld. wk. date 10 - 31 - 14
SCHWENKSVILLE BOROUGH MONTGOMERY COUNTY PENNSYLVANIA	fld. bk. 156 pg. 56
ASTON SURVEYORS/ ENGINEERS, INC.	fin. pl. comp. ck. 11 - 1 - 21 MA
101 S. WASHINGTON ST. (REAR) P.O. BOX 796 BOYERTOWN , PA , 19512 (610) 367-6565	plan no. 2798 - AM - FPK



* MOUNTABLE BERM USED TO PROVIDE PROPER COVER FOR PIPE

NOTES:

REMOVE TOPSOIL PRIOR TO INSTALLATION OF ROCK CONSTRUCTION ENTRANCE. EXTEND ROCK OVER FULL WIDTH OF ENTRANCE.

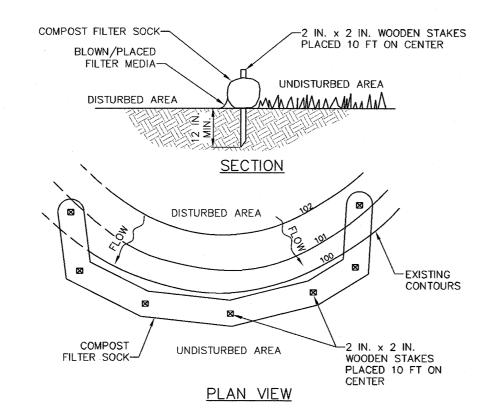
RUNOFF SHALL BE DIVERTED FROM ROADWAY TO A SUITABLE SEDIMENT REMOVAL BMP PRIOR TO ENTERING ROCK CONSTRUCTION ENTRANCE.

MOUNTABLE BERM SHALL BE INSTALLED WHEREVER OPTIONAL CULVERT PIPE IS USED AND PROPER PIPE COVER AS SPECIFIED BY MANUFACTURER IS NOT OTHERWISE PROVIDED. PIPE SHALL BE SIZED APPROPRIATELY FOR SIZE OF DITCH BEING CROSSED.

MAINTENANCE: ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK, A STOCKPILE SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE, ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE IMMEDIATELY. IF EXCESSIVE AMOUNTS OF SEDIMENT ARE BEING DEPOSITED ON ROADWAY, EXTEND LENGTH OF ROCK CONSTRUCTION ENTRANCE BY 50 FOOT INCREMENTS UNTIL CONDITION IS ALLEVIATED OR INSTALL WASH RACK. WASHING THE ROADWAY OR SWEEPING THE DEPOSITS INTO ROADWAY DITCHES, SEWERS, CULVERTS, OR OTHER DRAINAGE COURSES IS NOT ACCEPTABLE.

STANDARD CONSTRUCTION DETAIL #3-1 **ROCK CONSTRUCTION ENTRANCE**

NOT TO SCALE



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

COMPOST FILTER SOCK SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE BARRIER SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE MAIN BARRIER ALIGNMENT, MAXIMUM SLOPE LENGTH ABOVE ANY BARRIER SHALL NOT EXCEED THAT SPECIFIED FOR THE SIZE OF THE SOCK AND THE SLOPE OF ITS TRIBUTARY AREA. TRAFFIC SHALL NOT BE PERMITTED TO CROSS COMPOST FILTER SOCKS. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES 1/2 THE ABOVE GROUND HEIGHT OF THE BARRIER AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN. COMPOST FILTER SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR BIODEGRADABLE COMPOST FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS;

PHOTODEGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED

ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.

SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT STANDARD CONSTRUCTION DETAIL #4-1 COMPOST FILTER SOCK

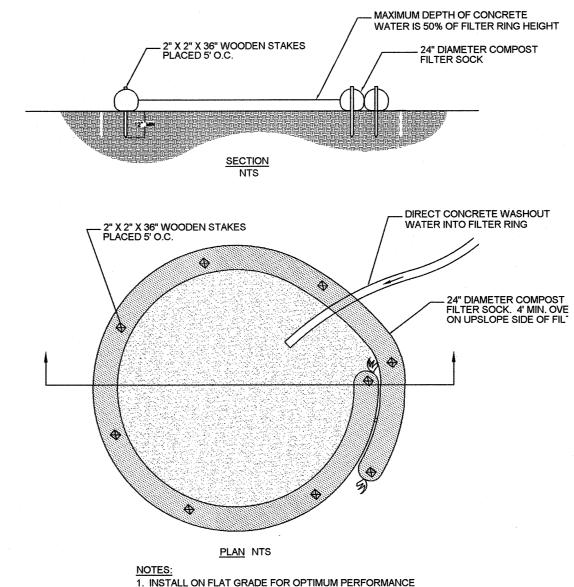
NOT TO SCALE

UPON STABILIZATION OF THE AREA TRIBUTARY TO THE SOCK, STAKES SHALL BE REMOVED. THE

SOCK MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE LATTER CASE, THE MESH

TABLE 4.1 - COMPOST SOCK FABRIC MINIMUM SPECIFICATIONS								
MATERIAL TYPE	3 MIL HDPE	5 MIL HDPE	5 MIL HDPE	MULTI-FILAMENT POLYPROPYLENE (MFPP)	HEAVY DUTY MULTI-FILAMENT POLYPROPYLENE (HDMFPP)			
MATERIAL CHARACTERISTICS	PHOTO- DEGRADABLE	PHOTO- DEGRADABLE	BIO-DEGRADABLE	PHOTO-DEGRADABL	HOTO-DEGRADABLE			
SOCK DIAMETERS	12" 18"	12" 18" 24" 32"	12" 18" 24" 32"	12" 18" 24" 32"	12" 18" 24" 32"			
MESH OPENING	3/8"	3/8"	3/8"	3/8"	1/8"			
TENSILE STRENGTH		26 PSI	26 PSI	44 PSI	202 PSI			
ULTRAVIOLET STABILITY % ORIGINAL STRENGTH (ASTM G-155)	% AT 1000 HR	23% AT 1000 HR		100% AT 1000 HR	100% AT 1000 HR			
MINIMUM FUNCTIONAL LONGEVITY	6 MONTHS	9 MONTHS	6 MONTHS	1 YEAR	2 YEARS			
		TWO-PLY	SYSTEMS					
			HDPE BIAXIAL NET					
			CONTINUOUSLY WOUND					
INNER (CONTAINMENT NET	TING	FUS	SION-WELDED JUNCT	URES			
			3/4" X 3/4" MAX. APERTURE SIZE					
OUTE	R FILTRATION MES	SH	COMPOSITE POLYPROPYLENE FABRIC (WOVEN LAYER & NON-WOVEN FLEECE MECHANICALLY FUSED VIA NEDDLE PUNCH)					
			3/1	6" MAX. APERTURE	SIZE			
SOCK FABRIC	SOCK FABRICS COMPOSED OF BURLAP MAY BE USED ON PROJECTS LASTING 6 MONTHS OR LESS							

TABLE 4.2 -	TABLE 4.2 - COMPOST STANDARDS							
ORGANIC MATTER CONTENT 25% - 100% (DRY WEIGHT								
ORGANIC PORTION	FIBROUS AND ELONGATED							
PH	5.5 - 8.5							
MOISTURE CONTENT	30% - 60%							
PARTICLE SIZE	30%-50% PASS THROUGH 3/8" SIEVE							
SOLUBLE SALT CONCENTRAT	TION 5.0dS/m (mmhos/cm) MAXIMUM							



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

COMPOST SOCK WASHOUT DETAIL

STANDARD WORKSHEET #21 Temporary and Permanent Vegetative Stabilization Specifications

PROJECT NAME: 250 MAIN STREET LOCATION: SCHWENKSVILLE BOROUGH., MONTGOMERY COUNTY, PA PREPARED BY: JWJ DATE: DECEMBER 5, 2014 DATE CHECKED BY:

SPECIFICATIONS: The Department recommends the use of the Penn State publication "Erosion Control & Conservation Plantings on Noncropland" as the standard to use for the selection of species, seed specifications, mixtures, liming and fertilizing, time of seeding, and seeding methods. Specifications for these items may also be obtained from Penn DOT's Publication # 408, Section 804 or by contacting the applicable county conservation district. Upon selection of a reference, that reference should be used to provide all specifications for seeding, mulching, and soil amendments. The following specification will be used for this

(TEMPORARY) *SPECIES: ANNUAL RYEGRASS % PURE LIVE SEED: 88.20 LB./ACRE APPLICATION RATE: 48.4 FERTILIZER TYPE: 10-10-10 (X-X-X)FERTILIZER APPL. RATE: 500 LB./ACRE _T./ACRE LIMING RATE: MULCH TYPE: STRAW OR HAY

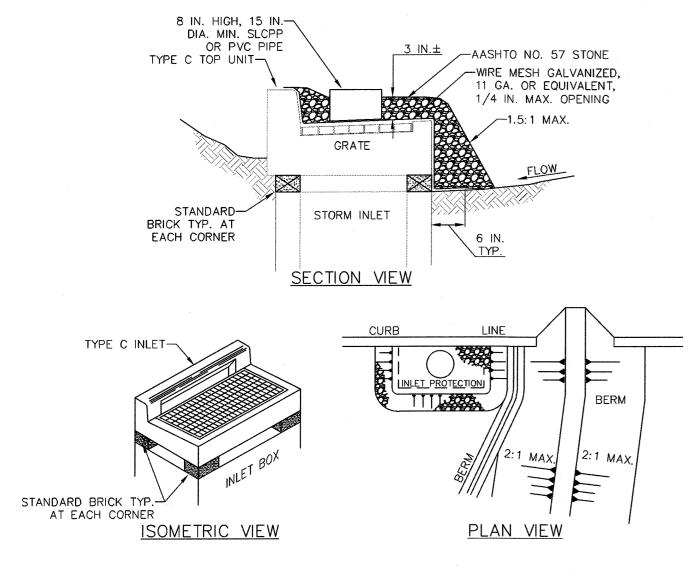
T./ACRE MULCHING RATE: 3 (PERMANENT) TOPSOIL PLACEMENT DEPTH: 4-8 *SPECIES: PERENNAL RYEGRASS MIXTURE/CREEPING FESCUE OR CHEWINGS FESCUE/KENTUCKY BLUEGRASS MIXTURE
% PURE LIVE SEED: 88.2/83.3/78.4 % **APPLICATION RATE** 19.4/29.0/53.2 LB./ACRE FERTILIZER TYPE: (X-X-X) FERTILIZER APPL. RATE: 1000 LB./ACRE LIMING RATE: T./ACRE MULCH TYPE: STRAW OR HAY MULCHING RATE: T./ACRE ANCHOR MATERIAL: CELLULOSE FIBER

ANCHORING METHOD: SPRAYED RATE OF ANCHOR MATERIAL APPL.: 1800 LB./ACRE SEEDING SEASON DATES: (MARCH 15-JUNE 1) & (AUGUST 1-OCTOBER 15) (PERMANENT - STEEP SLOPE) TOPSOIL PLACEMENT DEPTH: 4-8 *SPECIES: TALL FESCUE/CREEPING FESCUE OR CHEWINGS FESCUE/ANNUAL RYEGRASS % PURE LIVE SEED: 83.3/83.3/88.2 APPLICATION RATE: 61.0/30.5/10.2 LB./ACRE FERTILIZER TYPE: (X-X-X FERTILIZER APPL. RATE: 1 LB./ACRE LIMING RATE: T./ACRE MULCH TYPE: STRAW OR HAY MULCHING RATE: T./ACRE ANCHOR MATERIAL: CELLULOSE FIBER

ANCHORING METHOD: SPRAYED RATE OF ANCHOR MATERIAL APPL.: 2000 LB./ACRE SEEDING SEASON DATES: (FESCUE (MARCH 15-JUNE 1) & (AUGUST 1-OCTOBER 15)) (RYE-3/1 - 10/15) *If more than one species is used, indicate application rate for each species. Note: This worksheet should be added to 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 OF 4 INCHES OF TOPSOIL IN PLACE PRIOR TO SEEDING AND MULCHING. IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE, THE OPERATOR SHALL STABILIZE ANY AREAS DISTURBED BY THE ACTIVITIES. DURING NON-GERMINATING PERIODS, MULCH MUST BE APPLIED AT THE SPECIFIED RATES. DISTURBED AREAS WHICH ARE NOT AT FINISHED GRADE AND WHICH WILL BE RE-DISTURBED WITHIN 1 YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY VEGETATIVE STABILIZATION SPECIFICATIONS. DISTURBED AREAS WHICH ARE AT FINISHED GRADE OR WHICH WILL NOT BE RE-DISTURBED WITHIN 1 YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE PERMANENT VEGETATIVE STABILIZATION SPECIFICATIONS.

3. UPON COMPLETION OR TEMPORARY CESSATION OF THE EARTH DISTURBANCE ACTIVITY THAT WILL EXCEED 4 DAYS, OR ANY STAGE THEREOF, THE PROJECT SITE SHALL BE IMMEDIATELY STABILIZED WITH THE APPROPRIATE TEMPORARY OR PERMANENT STABILIZATION. SOIL TESTING SHOULD BE COMPLETED PRIOR TO SEEDING AND MULCHING TO DETERMINE THE PROPER SOIL AMENDMENTS AND APPLICATION RATES FOR THE PROPOSED SEED MIXTURES, IF SOIL TESTS ARE NOT COMPLETED SOIL AMENDMENTS SHOULD BE ADDED AT HE RATES SPECIFIED BY THE SELECTED SEEDING REFERENCE ABOVE. STRAW OR HAY MULCH SHOULD BE ANCHORED OR TACKIFIED IMMEDIATELY AFTER APPLICATION TO PREVENT BEING WINDBLOWN. A TRACTOR DRAWN IMPLEMENT MAY BE USED TO "CRIMP" THE STRAW OR HAY INTO THE SOIL, ABOUT 3 INCHES. THIS METHOD SHOULD BE LIMITED TO SLOPES NO STEEPER THAN 3H:1V. THE MACHINERY SHOULD BE OPERATED ON THE CONTOUR



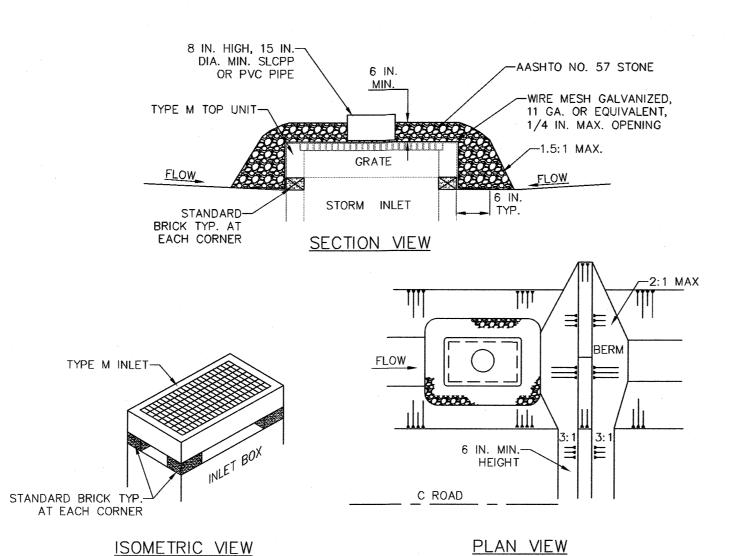
INLET PROTECTION SHALL NOT BE REQUIRED FOR INLETS TRIBUTARY TO SEDIMENT BASINS OR SEDIMENT TRAPS. ALTERNATE TYPE C INLET PROTECTION CAN BE USED ON ONE ACRE MAXIMUM DRAINAGE AREA WITH 15 IN. OVERFLOW PIPE AND 4 IN. HEAD.

BERMS SHALL BE REQUIRED FOR ALL INSTALLATIONS NOT LOCATED AT LOW POINTS. EARTHEN BERMS SHALL BE STABILIZED WITH VEGETATION AND MAINTAINED UNTIL ROADWAY IS STONED OR TRIBUTARY AREA IS PERMANENTLY VEGETATED. ROAD SUBBASE BERMS SHALL BE MAINTAINED UNTIL ROADWAY IS PAVED.

INLETS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES HALF THE HEIGHT OF THE STONE. DAMAGED INSTALLATIONS SHALL BE REPAIRED OR REPLACED WITHIN 24 HOURS OF INSPECTION.

FOR SYSTEMS DISCHARGING TO HQ OR EV SURFACE WATER, A 6 INCH THICK COMPOST LAYER SHALL BE SECURELY ANCHORED ON OUTSIDE AND OVER TOP OF STONE. COMPOST SHALL MEET THE STANDARDS IN TABLE 4.2 OF THE PA DEP EROSION CONTROL MANUAL.

STANDARD CONSTRUCTION DETAIL #4-22 ALTERNATE TYPE C INLET PROTECTION - NOT AT GRADE



SEAL

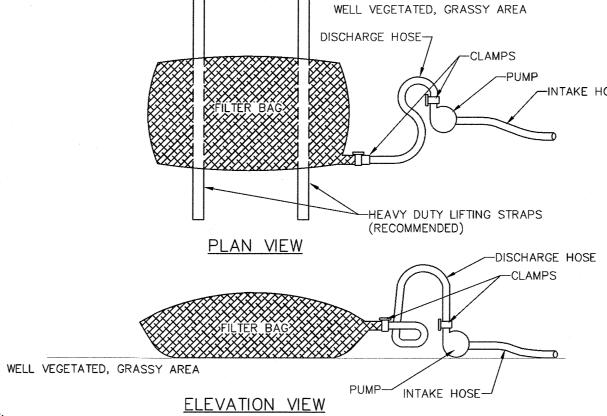
INLET PROTECTION SHALL NOT BE REQUIRED FOR INLETS TRIBUTARY TO SEDIMENT BASINS OR SEDIMENT TRAPS. ALTERNATE TYPE C INLET PROTECTION CAN BE USED ON ONE ACRE MAXIMUM DRAINAGE AREA WITH 15 IN. OVERFLOW PIPE AND 4 IN. HEAD.

BERMS SHALL BE REQUIRED FOR ALL INSTALLATIONS NOT LOCATED AT LOW POINTS. EARTHEN BERMS SHALL BE STABILIZED WITH VEGETATION AND MAINTAINED UNTIL ROADWAY IS STONED OR TRIBUTARY AREA IS PERMANENTLY VEGETATED. ROAD SUBBASE BERMS SHALL BE MAINTAINED UNTIL ROADWAY IS PAVED.

INLETS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES HALF THE HEIGHT OF THE STONE. DAMAGED INSTALLATIONS SHALL BE REPAIRED OR REPLACED WITHIN 24 HOURS OF INSPECTION.

FOR SYSTEMS DISCHARGING TO HQ OR EV SURFACE WATER, A 6 INCH THICK COMPOST LAYER SHALL BE SECURELY ANCHORED ON OUTSIDE AND OVER TOP OF STONE. COMPOST SHALL MEET THE STANDARDS IN TABLE 4.2 OF THE PA DEP EROSION CONTROL MANUAL.

STANDARD CONSTRUCTION DETAIL #4-23 ALTERNATE TYPE M INLET PROTECTION - NOT AT GRADE



NOTES:

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

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

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

BAGS SHALL BE LOCATED IN WELL-VEGETATED (GRASSY) AREA, AND DISCHARGE ONTO STABLE, EROSION RESISTANT AREAS. WHERE THIS IS NOT POSSIBLE, A GEÓTEXTILE UNDERLAYMENT AND FLOW PATH SHALL BE PROVIDED, BAGS MAY BE PLACED ON FILTER STONE TO INCREASE DISCHARGE CAPACITY. BAGS SHALL NOT BE PLACED ON SLOPES GREATER THAN 5%. FOR SLOPES EXCEEDING 5%, CLEAN ROCK OR OTHER NON-ERODIBLE AND NON-POLLUTING MATERIAL MAY BE PLACED UNDER THE BAG TO REDUCE SLOPE STEEPNESS.

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

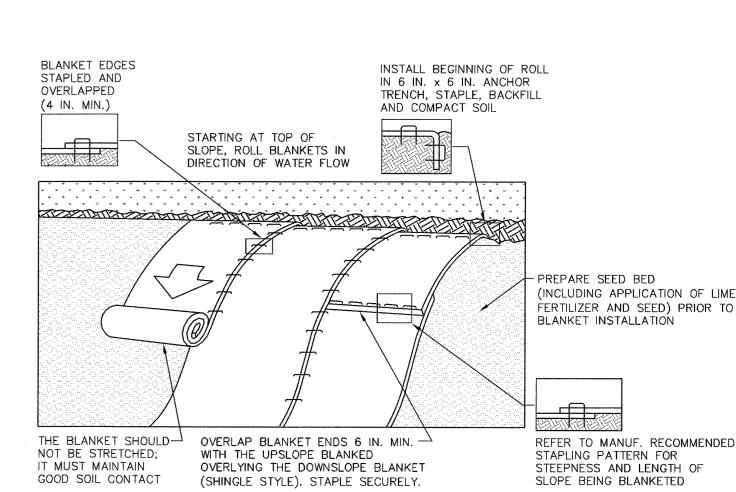
THE PUMP DISCHARGE HOSE SHALL BE INSERTED INTO THE BAGS IN THE MANNER SPECIFIED BY THE MANUFACTURER AND SECURELY CLAMPED. A PIECE OF PVC PIPE IS RECOMMENDED FOR THIS PURPOSE.

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

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

NOT TO SCALE

STANDARD CONSTRUCTION DETAIL #3-16 PUMPED WATER FILTER BAG



SEED AND SOIL AMENDMENTS SHALL BE APPLIED ACCORDING TO THE RATES IN THE PLAN DRAWINGS PRIOR TO INSTALLING THE BLANKET.

PROVIDE ANCHOR TRENCH AT TOE OF SLOPE IN SIMILAR FASHION AS AT TOP OF SLOPE.

SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS, AND GRASS

BLANKET SHALL HAVE GOOD CONTINUOUS CONTACT WITH UNDERLYING SOIL THROUGHOUT ENTIRE LENGTH. LAY BLANKET LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH SOIL. DO NOT STRETCH

THE BLANKET SHALL BE STAPLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. BLANKETED AREAS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT UNTIL PERENNIAL VEGETATION IS ESTABLISHED TO A MINIMUM UNIFORM 70% COVERAGE THROUGHOUT THE BLANKETED AREA. DAMAGED OR DISPLACED BLANKETS SHALL BE RESTORED OR REPLACED WITHIN 4 CALENDAR DAYS.

STANDARD CONSTRUCTION DETAIL #11-1 EROSION CONTROL BLANKET INSTALLATION

ASTON SET: SHEET 13 OF 16

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			,		
3	REVISED PER SANITARY & WATER LINE REVISIONS	1-15-16	JWJ	-	
2	REVISED PER MCCD REVIEW	12-17-15	JWJ		
1	REVISED PER MCCD REVIEW LETTER DATED 8-24-15	9-28-15	JWJ	·	
NO.	REVISION	DATE	BY	APP.	
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	SCH-16	3/13/15	
	NOTES	SCALE	
		1"=20'	

Southampton, PA 18966 215-364-2520

SCHWENKSVILLE INVESTMENT PROPERTIES, LLC 1202 N. GRAVEL PIKE P.O. BOX 303 ZIEGLERVILLE, PA, 19492

CLIENT

EROSION & SEDIMENT CONTROL DETAILS 250 MAIN STREET **SCHWENKSVILLE**

157550 SHEET NO. DWG. NO. ES257550

www.bursich.com

2129 East High Street Pottstown, PA 19464

SCHWENKSVILLE BOROUGH, MONTGOMERY COUNTY, PENNSYLVANIA

The plan indicates the necessary erosion control facilities which will be implemented during the construction of the project. These controls include but are not limited to rock construction entrances, erosion control blankets, sediment filter sock and fencing, inlet protection, concrete washouts and temporary and permanent seeding.

These controls along with the sequence of construction minimizes the extent and duration of earth disturbance, maximizes the protection of existing drainage features and vegetation and prevents the generation of increased Stormwater runoff. The contractor should also minimize soil compaction throughout the site, except for building pad envelopes.

The potential for thermal impacts exists from the development of this site, in order to mitigate this the existing trees and buffers, proposed plantings and proposed trees spread throughout the site will provide shading thus decreasing the temperature of runoff. An underground stone seepage pit is proposed to allow for infiltration and protect the stormwater from the sun, thus decreasing the temperature of the water leaving the site. Soil amendment areas are propposed in all lawn areas which will treat stormwater, allow the soil to retain moisture to provide a lush lawn and provide significant water quality benefits which will limit the thermal impacts leaving the site. All of these measures together will serve to mitigate any potential increase in thermal impacts to the receiving watercourse from the project.

SITE DATA

The site is currently lawn areas and has been for the last 1 year. Previously the site consisted of a lumber yard for over 50 years prior. Information relative to topography, soils, existing topographical features, utilities and grading are shown on the attached plans. The site drains to the Perkiomen Creek, a designated use of WWF - Warm Water Fishery Watershed per Chapter 93 classifications. There is no existing use for the watercourse.

Information pertaining to soils of the tract are shown on the attached plans and were interpolated from the National Resource Conservation Service Soil Survey. The following descriptions pertain to the individual soil types found in the construction areas of the site: There are no naturally occurring geologic formation or soil conditions that have the potential to cause pollution.

Ura——Urban land, occasionally flooded Map Unit Setting

National map unit symbol: 2dtvs Mean annual precipitation: 40 to 46 inches Mean annual air temperature: 48 to 57 degrees F Frost-free period: 161 to 215 days

Farmland classification: Not prime farmland Map Unit Composition Urban land, occasionally flooded: 99 percent

Estimates are based on observations, descriptions, and transects of the mapunit. Description of Urban Land, Occasionally Flooded

Landform: Flood plains

Parent material: Pavement, buildings and other artifically covered areas C - 0 to 6 inches: variable

Properties and auglities Slope: 0 to 3 percent Depth to restrictive feature: 10 to 98 inches to lithic bedrock

Natural drainage class: Excessively drained Runoff class: Very high Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 in/hr)

Frequency of flooding: Occasion Available water storage in profile: Very low (about 0.8 inches) Interpretive aroups

Land capability classification (irrigated): None specified Land capability classification (nonirrigated): 8s

UrxD--Urban land-Penn complex, 8 to 25 percent slopes Map Unit Setting

National map unit symbol: 2dtz4 Elevation: 200 to 1,000 feet Mean annual precipitation: 36 to 55 inches

Mean annual air temperature: 44 to 57 degrees Frost-free period: 130 to 200 days Farmland classification: Not prime farmland

Map Unit Composition Urban land: 65 percent Penn and similar soils: 25 percent

Minor components: 10 percent Estimates are based on observations, descriptions, and transects of the mapunit. Description of Urban Land

Landform: Hills

Down-slope shape: Linear Parent material: Pavement, buildings and other artifically covered areas

C - 0 to 6 inches: variable

Custom Soil Resource Report

Properties and qualities Depth to restrictive feature: 10 to 79 inches to lithic bedrock

Available water storage in profile: Very low (about 0.0 inches) Land capability classification (irrigated): None specified

and capability classification (nonirrigated): 8s Description of Penn

Landform: Hillslopes

Landform position (two-dimensional): Shoulder, backslope Landform position (three-dimensional): Side slope, nose slope

Down-slope shape: Linear, convex Across-slope shape: Convex, linear

Parent material: Residuum weathered from shale and siltstone

An - 0 to 8 inches: channery silt loar Bt - 8 to 21 inches: channery silt loam

C - 21 to 34 inches: very channery silt loam R - 34 to 44 inches: bedrock

Properties and qualities Slope: 8 to 25 percent

Depth to restrictive feature: 20 to 40 inches to lithic bedrock Natural drainage class: Well drained

Runoff class: Low Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high

(0.20 to 6.00 in/hr) Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Available water storage in profile: Low (about 4.1 inches) Interpretive groups

Land capability classification (irrigated): None specified Land capability classification (nonirrigated): 4e

Hydrologic Soil Group: B Minor Components

Percent of map unit: 4 percent Landform: Depressions

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Base slope Down-slope shape: Concave, linear Across-slope shape: Linear, concave

Percent of map unit: 4 percent Landform: Hillslopes

Landform position (three-dimensional): Base slope, head slope, side slope Custom Soil Resource Report

Down-slope shape: Concave, linear Across-slope shape: Concave, linea

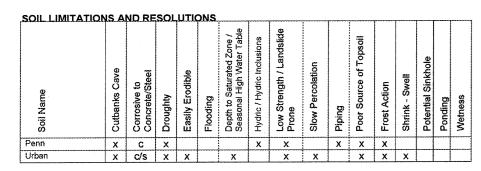
Percent of map unit: 2 percent Landform: Hillslopes

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Landform position (two-dimensional): Footslope, summit Landform position (three-dimensional): Interfluve, base slope

Landform position (two-dimensional): Footslope, backslope

Down-slope shape: Concave, linear Across-slope shape: Concave, linea



Cutbanks Cave - Slope lay-backs or shore/trench box shall be utilized for all trench excavations to meet OSHA regulations.

REVISION

Corrosive to Concrete Steel - Pipe alternatives have been provided.

Droughty - Seeding and soil supplements shall be applied at the recommended rates to ensure proper vegetative cover, mulching shall also be applied at the recommended rates to retain moisture

Easily Erodible- Rolled erosion control products shall be provided on all seeded and mulched slopes 3H: 1V or steeper. Depth to Saturated Zone/ Seasonal High Water TablePumped water filter bags shall be used to dewater excavation areas

Hydric / Hydric Inclusions - Wetlands, if present, have been identified, protected and/or mitigated where necessary

Low Strength / Landslide Prone - All slopes (cut or fill) shall be constructed in accordance with the specifications; geotechnical

Slow Percolation - Infiltration testing has been performed as infiltration BMP locations.

Piping - Anti-seep collars have been provided for the basin outlet to prevent embankment failure.

Poor Source of Topsoil - Topsoil shall be applied at the recommended rate. If the project site does not meet the required amount, topsoil shall be supplied from an outside source, seeding and soil supplements shall be applied at the recommended

Frost Action - Roadway subbase shall drain to a slope or shall be drained with pavement base drain, also, the bulk of struction activities shall be performed during the construction season

Wetness - Pumped water filter bags shall be used to dewater excavation areas where standing water occurs during

PROPOSED GRADING

The attached Soil Erosion Control Plans indicate the proposed grading for the entire site to be developed. All permanent grading shall be graded at slopes not steeper than 3 foot horizontal to 1 foot vertical. Temporary grading can be graded at slopes not steeper than 2 foot horizontal to 1 foot vertical.

HYDROLOGIC INFORMATION

The design of the facilities within this development are consistent with the Township's and DEP's requirements for storm drainage design, which mitigate any increase in Stormwater rate or volume, ultimately resulting in no negative impacts to the downstream watercourses

STABILIZATION

The development will be considered to be permanently stabilized when all permanent control measures/facilities have been completed and are operational, temporary control measures/facilities removed, and uniform erosion resistant perennial vegetation is established to the point where the surface soil is capable of resisting erosion during runoff events. The standard for this vegetative cover will be uniform coverage or density of 70 percent across the disturbed area

GENERAL EROSION CONTROL NOTES

- 1. Erosion and sediment control measures must be in compliance with the "Erosion and Sediment Pollution Control Program Manual". The Developer or its authorized representative will be responsible for the proper construction, stabilization and maintenance of all erosion and sedimentation controls and related items included within the Erosion and Sedimentation Control Plan. The Contractor is advised to become thoroughly familiar with the provisions of Appendix B-4, Erosion Control Rules and Regulations, Title 24, Part 1, Department of Environmental Resources, Subpart C, Water Resources, Chapter 102, Erosion Control.
- 2. The Contractor shall notify the Township Engineer at least 48 hours prior to the start of construction
- 3. A copy of the approved erosion and sediment control plan must be available at the project site at all times. dditionally, the operator shall assure that erosion and sediment control plan has been prepared, and has been approved by the Montgomery County Conservation District and/or local municipality in Compliance with Chapter 102 Rules & Regulations, and is being implemented and maintained for all offsite soil and/or rock spoil and/or borrow
- 4. Before grading or general site construction begins, the Developer or its authorized representative is to construct and complete sediment control measures and devices as shown on the Erosion and Sediment Control Plans.
- 5. Should additional erosion or sedimentation occur during construction or should questions regarding the maintenance of control practices arise, contact the Montgomery County Conservation District or appropriate agency immediately

Should any measures contained within this plan prove incapable of adequately removing sediment from on-site flows prior to discharge or of stabilizing the surfaces involved, additional measures must be immediately implemented by the Developer of its authorized representative to eliminate all such problems. The Conservation District must be notified of any additional measures taken to abate the pollution of waters of the Commonwealth not shown on the plans. Stockpiles of wood chips, hay bales, crushed stone and other mulches shall be held in readiness to deal immediately with emergency problems with erosion.

The Township has reviewed the storm drainage system, the storm water management system and the Erosion and Sedimentation Control Plan; however, site conditions may dictate that during construction additional silt fences, other methods of sediment control, storm water management or storm drainage measures may be required. The Township may, therefore, direct the installation of additional measures as required.

- 6. The Developer or its authorized representative must develop and have approved by the Bureau of Soil and Water Conservation, a separate Erosion and Sedimentation Control Plan for each spoil, borrow or other work area not detailed in the approved plan whether located within or outside of the construction limits
- 7. The Developer or its authorized representative shall be responsible for supervising debris disposal from other trades during all phases of construction. Debris shall not be disposed of in any woodland areas or detention basins. The Developer or its authorized representative shall bear the expense of any clean-up operations initiated by the Engineer or Owner.
- 8. The stone subbase for parking areas, roads and driveways shall be installed immediately after grading is completed and utilities are installed.
- 9. Locate erosion and sediment control structures in a manner that will cause minimal disturbance to existing
- 10. The Developer or its authorized representative is responsible for the continued inspection, maintenance or repair of all erosion and sediment problems that might occur due to the development of this project, until the site is completely

11. The Developer or its authorized representative shall install silt socks or temporary diversion berms upslope of all

watercourses as required to prevent sediment from entering the watercourses during construction 12. An area shall be considered to have achieved final stabilization when it has a minimum uniform 70% perennial vegetative cover or other permanent non-vegetative cover with a density sufficient to resist accelerated surface erosion and subsurface characteristics sufficient to resist sliding and other movements. Immediately after earth disturbance activities cease, the operator shall stabilize any areas disturbed by the activities. During non-germinatir periods, mulch must be applied at the specified rates. Disturbed areas which are not at finished grade and which will be re-disturbed within 1 year must be stabilized in accordance with the temporary vegetative stabilization

specifications. Disturbed areas which are at finished grade or which will not be re-disturbed within 1 year must be

Hay or straw mulch must be applied at 3.0 tons per acre. 13. Winter grading shall be handled with special care. Detention basins, sediment basins and traps constructed from

stabilized in accordance with the permanent vegetative stabilization specifications.

Borrow areas used for sediment basin and trap construction shall have silt fence placed below it (prior to grading) and

soils with poor winter grading characteristics shall not be compacted if frozen or wet (plastic). These soils should be

Should any measures contained within this plan prove incapable of adequately removing sediment from on-site flows prior to discharge or of stabilizing the surfaces involved, additional measures must be immediately implemented by the Developer to eliminate all such problems. 15. Maintenance must include inspections of all erosion and sedimentation controls after each runoff event and on a

weekly basis. All preventative and remedial maintenance work, including clean out, repair, replacement, regrading,

reseeding, remulching and renetting must be performed immediately. An extra supply of stone, seed, mulch and silt

- fence shall be kept on site for emergency purposes. (See the Maintenance Section of the Report). 16. The operator shall remove from the site, recycle, or properly dispose of all building material and wastes in accordance with the Department's Solid Waste Management Regulations at 25 Pa. Code 260.1 et seq., 271.1 et seq., and 287.1 et seq. The contractor shall not bury, dump, or discharge any building material wastes at the site. Anticipated construction wastes include excess soils materials, building materials, concrete wash water, sanitary
- wastes and any material that could impact water quality. 17. All slopes steeper than 3:1 shall be lined with Curlex or equal.

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- 18. Upon request, the permit holder and/or his contractor shall provide an as-built for any sediment basin or trap to the municipal inspector, local conservation district or DEP.
- 19. Until the site is stabilized, all erosion and sedimentation BMP's must be maintained properly. Maintenance must include inspections of all erosion and sedimentation BMP's after each runoff event and on a weekly basis. All site inspections will be documented in an inspection log, utilize DEP form 3150-FM-BWEW0083 dated 2/2012, kept for this purpose. The compliance actions and date, time and name of the person conducting the inspection. The inspection log will be kept on site at all times and made available to the District upon reques

b. All steps take to, reduce, eliminate and prevent the recurrence of the non-compliance

All preventative and remedial maintenance work, including clean out, repair, replacement, regrading, reseeding remulching and renetting, must be performed immediately. If erosion and sedimentation BMP's fail to perform as expected, replacement BMP's or modifications of those installed will be needed

Where BMP's are found to fail to alleviate erosion or sediment pollution, the permittee or co-permittee shall include the following information a. The location and severity of the BMP's failure and any pollution events.

After final site stabilization has been achieved, temporary erosion and sediment BMP's must be removed. Areas

SEAL

c. The time frame to correct the non-compliance, including the exact dates when the activity will return to

disturbed during removal of the BMP's must be stabilized immediately.

- 20. Before initiating any revision to the approved erosion and sediment control plan or revisions to other plans which may affect the effectiveness of the approved E&S control plan, the operator must receive approval of the revisions from the Montgomery County Conservation District. The operator shall assure that the approved erosion and sediment control plan is properly and completely implemented. Immediately upon discovering unforeseen circumstances posing the potential for accelerated erosion and/or sediment pollution, the operator shall implement appropriate best anagement practices to eliminate potential for accelerated erosion and/or sediment pollution
- 21. All pumping of sediment laden water or potentially sediment laden water shall be through a sediment control BMP, such as a pumped water filter bag discharging over non-disturbed areas
- 22. Upon completion or temporary cessation of the earth disturbance activitiy that will exceed 4 days, or any stage thereof, the project site shall be immediately stabilized with the appropriate temporary or permanent stabilization. Hydroseeding is not considered stabilization until it germinates
- 23. 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 of 4 inches of topsoil in place prior
- 24. All sediment deposited on paved roadways shall be removed and returned to the construction site immediately. excessive amounts of sediment are being deposited on the roadway, extend length of rock construction entrance by 50 foot increments until condition is alleviated or install wash rack. Washing the roadway or sweeping the deposits into roadway ditches, sewers, culverts, or other drainage courses is not acceptable
- 25. Seeps or springs encountered during construction shall be handled in accordance with the standard and specification for subsurface drain or other approved method.

SEQUENCE OF CONSTRUCTION

to seeding and mulching.

Prior to any work the Contractor and/or Developer shall notify the Montgomery County Conservation District of the date of the pre-construction meeting. The Township shall also be notified so that the field delineated limit of clearing can be verified.

The Developer and/or Contractor shall notify the Montgomery County Conservation District at least three (3) days prior to the commencement of earthmoving activities, and setup a preconstruction meeting with representatives of, but not limited to the County Conservation District, Municipality, Contractor, Developer and the designated licensed professional who will oversee the critical stages of construction.

The Developer and/or Contractor shall notify the Montgomery County Conservation District for a site inspection prior to removal/conversion of a sediment trap or basin.

Montgomery County Conservation District 143 Level Road Collegeville, PA 19426 610 489 4506 ~ Fax 610 489 9795

All earth disturbance activities shall proceed in accordance with the following sequence. Each stage must be completed prior to initiation of following stages. Clearing and grubbing is considered ground disturbance and shall only occur in areas described in

Recharge areas shall not be converted until upstream tributary area has been stabilized. See Recharge Area Construction

Extreme care should be taken to avoid compaction and siltation in proposed infiltration facilities.

Upon completion or temporary cessation of the earth disturbance activity that will exceed 4 days, or any stage thereof, the project site shall be immediately stabilized with the appropriate temporary or permanent stabilization. Hydroseeding is not considered stabilization until it germinates.

The project will be constructed in one phase.

- Phase 1 1. After the pre-construction meeting, install rock construction entrances at the proposed access drives as shown on the plans. Construction access for construction of the sediment facilities and other site work should only use these
- Stake out limits of disturbance as shown on the plans
- 3. Install silt socks #1, 2, 3 & 4 as shown on the plans. Install concrete washout area as shown on the plans. Immediately temporarily stabilize all disturbed areas that will not be re-disturbed within 4 days. Silt socks must be maintained throughout the site until all areas tributary to the silt sock are permanently stabilized per the stabilization criteria outlined in this plan.
- 4. Install inlet protection on all existing inlets as shown on the plans

No earth disturbance beyond the areas necessary to install sediment controls shall commence until the sediment facilities are installed, stabilized and functioning properly.

Upon completion or temporary cessation of the earth disturbance activity that will exceed 4 days, or any stage thereof, the project site shall be immediately stabilized with the appropriate temporary or permanent stabilizati

- 5. After steps 1-4 are installed and functioning properly, clear, grub and rough grade areas necessary for construction of the access road, parking areas and building pads. Strip and stockpile topsoil in area indicated on the plan or at other locations approved by Montgomery County Conservation District. Maximum height is thirty-five (35) feet and side slopes shall be 2:1 or flatter. Place 12 inch silt sock below the stockpiles prior to stockpile operations. Immediately stone disturbed areas in the roadway once final grades have been achieved. Immediately temporarily stabilize all disturbed areas which will not be re-disturbed within 4 days.
- 6. Begin construction of curbing, sidewalks and utilities including waterlines, sewer lines, storm sewers and Underground Basin A following the Utility Line Trench Excavation Notes below. Installation of Underground Basin A is a critical stage of construction and requires oversight. All inlets shall have inlet protection installed immediately. Extreme care should be taken to ensure no sediment laden water is allowed to enter Underground Basin A.
- 7. Begin rough grading lawn areas, padding building areas and construct buildings. It is anticipated that all the buildings will not be constructed at the same time; all building pads that will not immediately constructed shall be immediately stabilized. Contractor should use extreme caution to ensure all sediment laden Stormwater is routed into a sediment facility. Immediately temporarily stabilize all disturbed areas which will not be re-disturbed within 4 days.
- 8. Begin fine grading of stone base in preparation for paving. Pave the roads and parking areas with the binder course and immediately stabilize any disturbed areas.
- 9. Final grading of all disturbed lawn areas shall be done with extreme care to avoid compaction in lawn and landscaped areas. Refer to the Post Construction Stormwater Management plans to determine areas that require amended soils, these areas require soil supplements and are a critical stage of construction and needs a licensed professional onsite during construction. Follow the soil amendment installation procedure on the Post Construction Stormwater Management plans. All lawn and landscaped areas shall be dressed with at least 4" of topsoil. If lawn and landscaped areas are compacted, the contractor should scarify the subsoil 6 to 12 inches along the contour before placement of topsoil. If the lawn and landscaped areas are not compacted, the contractor should scarify the subsoil 3 to 5 inches to permit the bonding of topsoil and prevent topsoil from sliding down the slope. Immediately after topsoil placement seed areas and place erosion control blanket over 3:1 slopes. Extreme caution should be used to ensure the soils are not compacted. No more than 15,000 square feet of disturbed area at final grade should be left without seeding and mulching. Immediately temporarily stabilize all disturbed areas that will not be re-disturbed within 4 days.
- 10. After final site stabilization has been achieved (see stabilization definition), contact Montgomery County Conservation District to perform a site inspection and obtain their approval before conversion of Underground Basin A may commence. After approval is obtained the inlets must be converted to their final condition following the recharge area construction notes below. This is a critical stage of the PCSM plan and needs a licensed professional onsite during construction. All lawn and landscaped areas shall be dressed with at least 4" of topsoil. If lawn and landscaped areas are compacted, the contractor should scarify the subsoil 6 to 12 inches along the contour before placement of topsoil. If the lawn and landscaped areas are not compacted, the contractor should scarify the subsoil 3 to 5 inches to permit the bonding of topsoil and prevent topsoil from sliding down the slope. Immediately after topsoil placement seed areas and place erosion control blanket over 3:1 slopes. Extreme caution should be used to ensure the soils are not compacted. No more than 15,000 square feet of disturbed area at final grade should be left without seeding and mulching. Immediately temporarily stabilize all disturbed areas that will not be re-disturbed within 4
- 11. After final site stabilization has been achieved (see stabilization definition), all temporary erosion and sediment BMP's must be removed. Areas disturbed during removal of the BMP's must be immediately permanently stabilized. A notice of termination (NOT) is also required to be filed to the Department or authorized conservation district to terminate the permit

RECHARGE AREA CONSTRUCTION

areas to verify stabilization of the property.

- Recharge areas shall not be constructed until the watershed to them has been stabilized with a minimum 70% uniform vegetative cover. The Conservation District shall inspect the property prior to the installation of recharge
- 2. Heavy construction equipment is to be kept off of the recharge areas to prevent compaction. 3. Recharge areas shall be fenced off with orange construction fencing to prevent compaction of the soil.
- 4. Construction of the recharge areas shall be from the side of the basins to prevent compaction of the soil. 5. If unfavorable conditions are encountered during the construction of the recharge areas, such as shallow bedrock or
- suitable location on the site. 6. When a soil erosion control facility, such as a basin or trap, is converted to a stormwater management BMP, then the following conditions shall be implemented: a. Soil at the bottom of the basin or trap and sediment forebay shall be scraped off to a depth of 2 feet below the

bottom of the basin so that fine silt, which might impede the flow of water into the ground, is removed.

b. The modification of the facilities shall be from the sides of the basins or traps to prevent compaction of the basin

groundwater, the Township, Conservation District, Owner or design engineer shall be contacted to determine a more

c. Additional soil percolation testing shall be made prior to the installation of the recharge areas to insure that the basins will percolate. **UTILITY LINE TRENCH EXCAVATION NOTES**

1"=20"

MANAGER

1. 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.

- 2. 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
- 3. All soil excavated from the trench will be placed on the uphill side of the trench. 4. Limit daily trench excavation to the length of pipe placement, plug installation and backfilling that can be completed
- 5. Water that 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 filtration device. 6. On the day following pipe placement and trench backfilling, the disturbed area will be graded to final contours and

TEMPORARY CONTROL MEASURES

Temporary control measures which were previously discussed are as follows:

5. Sediment basins to settle the sediment out of stormwater runoff.

- Silt socks barriers shall be provided to retard runoff and collect sediment
- 2. Temporary seeding of topsoil stockpile area and bare earth shall be provided for areas which will remain unstabilized.
- 3. Temporary stone ballast tire cleaners shall be provided at construction entrances.
- 4. Should work be extended into winter months, and if temporary seeding is not feasible, erosion may be controlled by placing straw mulch over disturbed areas. This mulch will be maintained until weather conditions permit seeding.
- 6. Erosion control blankets and spillway matting are provided to mitigate erosion while vegetation is established.
- 7. Inlet protection is provided to protect permanent Stormwater facilities during conversion activities. 8. Concrete washout areas are provided for concrete trucks to empty there loads.
- 9. Sediment forebay's are proposed to pre-treat stormwater and allow sediment to drop out before the stormwater is routed into the sediment tran

10. Swales are provided to route stormwater from disturbed areas into sediments facilities

Permanent control measures which are designed to control sediment and erosion and runoff from the site are as follows:

Paved streets, and parking lots

determine if they still function.

PERMANENT CONTROL MEASURES

- 2. All lawn areas shall be adequately seeded and stabilized to provide permanent control of erosion after completion of construction. 70% uniform vegetative stabilization is required.
- 3. Permanent stormwater infiltration basin/pond shall control the rate and volume of discharge from the site at better than pre-developed conditions
- 4. Permanent underground stormwater stone bed shall control the rate and volume of discharge from the site at better than pre-developed conditions

MAINTENANCE OF EROSION CONTROL FACILITIES

The General Contractor, or in the absence of a General Contractor, the Owner, shall be responsible for implementing and maintaining all Soil Erosion Controls

The Contractor shall, at the end of each week as well as each runoff event, inspect all drainage and erosion control facilities to

Rock construction entrances thickness shall be constantly maintained to the specified dimensions by adding rock. A stockpile shall be maintained on site for this purpose. At the end of each construction day, all sediment deposited on paved roadways shall be removed and returned to the construction site.

Silt socks shall be cleared of silt when silt reaches half the aboveground height of the sock. Silt socks shall be inspected weekly and after each runoff event. Damaged socks shall be repaired according to manufacturer's specifications or replaced within 24 hours of inspection. Biodegradable filter socks shall be replaced after 6 months; photodegradable socks after 1 year. Polypropylene socks shall be replaced according to manufacturer recommendations.

Rocks filters shall be cleared of silt when accumulations reach 1/3 the height of the outlet

Concrete washout areas shall be cleared of concrete debris when it reaches half-way up sock. Concrete must be removed by following proper recycling and disposal of materials specifications in the general notes section

Filter bags shall be inspected daily, if any problem is detected pumping shall cease immediately and not resume until the

problem is corrected Erosion control blanketed areas shall be inspected weekly and after each runoff event until perennial vegetation is established to a minimum uniform 70% coverage throughout the blanketed area. Damaged or displaced blankets shall be restored or replaced within 4 calendar days.

Inlet filter bags shall be inspected on a weekly basis and after each runoff event. Bags shall be emptied and rinsed or replaced

when half full or when flow capacity has been reduced so as to cause flooding or bypassing of the inlet. Damaged or clogged

bags shall be replaced. A supply shall be maintained on site for replacement of bags. All needed repairs shall be initiated immediately after the inspection. Dispose of accumulated sediment as well as all used bags according to the general notes. Sediment basins shall be inspected on at least a weekly basis and after each runoff event. A clean out stake shall be placed near the center of each basin; accumulated sediment shall be removed when it has reached the clean out level marked on the stake and the basin restored to its original dimensions. Dispose of materials removed from the basin in the manner described in the general notes. Basin embankments, spillways, and outlets shall be checked for erosion, piping and settlement. Necessary repairs shall be made immediately, displaced riprap within the outlet energy dissipater shall be replaced immediately accumulated sediment shall be removed and disturbed areas inside the basin stabilized before conversion to a stormwater

Channels dimensions shall be constantly maintained. Channel shall be cleaned whenever total channel depth is reduced by 25% at any location. Sediment deposites shall be removed within 24 hours of discovery or as soon as soil conditions permit access to channel without further damage. Damaged linings shall be repaired or replaced within 48 hours of discovery.

management facility. Clogged or damaged spillways shall be repaired immediately, trash and other debris shall be removed

behind silt barriers, and the sediment basins shall be removed and incorporated into the final grading operations on the site. It

If additional silt sock, sediment traps, sediment basins, or swale diversions are necessary, they shall be provided as directed by

the Township Engineer. All changes must be reviewed by the Montgomery County Conservation District. Sediment deposited

When the entire project has become stabilized, any temporary sediment and erosion controls shall be removed and the areas

NPDES PERMIT NOTES

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 Developer.

Clean Fill is defined as: Uncontaminated, non-water soluble, non-decomposable, inert, solid material. The term includes soil, rock, stone, dredged material, used asphalt, and brick, block or concrete from construction and demolition activities that is separate from other waste and is recognizable as such. The term does not include materials placed in or on the waters of the Commonwealth unless otherwise authorized. (The term "used asphalt" does not include milled asphalt or asphalt that has been processed for re-use). 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 substances that are below the residential limits in Tables FP-1a and FP-1b found in the Department's policy

Any person placing clean fill that has been affected by a spill or release of a regulated substance must use form FP-001 to certify the origin of the fill material and the results of the analytical testing to qualify the material as clean fill. Form FP-001 must be retained by the owner of the property receiving the fill. A copy of Form FP-001 can be found at the end of these 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 inspections, electronic data base searches, review of property ownership, review of property use history, Sanborn maps, environmental questionnaires, transaction screens, analytical testing, environmental assessments or audits. Analytical testing is not a required part of due diligence unless visual

it must be tested to determine if it qualifies as clean fill. Testing should be performed in accordance with Appendix A of the Fill material that does not qualify as clean fill is regulated fill. Regulated fill is waste and must be managed in accordance with the Department's municipal or residual waste regulations based on 25 Pa. Code Chapters 287 Residual Waste Management or

271 Municipal Waste Management, whichever is applicable. These regulations are available on-line at www.pacode.com.

inspection and/or review of the past land use of the property indicates that the fill may have been subjected to a

spill or release of regulated substance. If the fill may have been affected by a spill or release of a regulated substance,

CLIENT

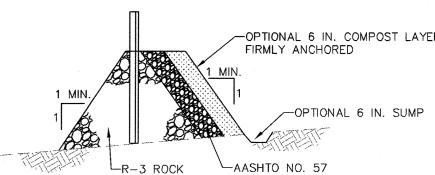
This narrative shall hang on a peg above or along side the drawing/sheet board so that it will be a ready reference to all parcel

This report accompanies plans entitled "Sedimentation and Erosion Control Plans" as prepared by Bursich Associates, Inc.

If any changes are to be made to the limits of disturbance or to the Erosion and Sediment Control Plan, the builder or landowner will contact the Montgomery County Conservation District at 610-489-4506 for the adequacy of these changes.

www.bursich.com

This plan was prepared by a person with over 9 years' experience preparing soil erosion control plans of smaller, similar and larger sizes. If there are any questions regarding the E&S plans contact Jason Jenkins of Bursich Associates Inc., at 484-941-0438



STRAW BALES-OR FILTER FABRIC -WOOD POSTS HEIGHT OF ROCK --AASHTO NO. 57

FILTER FABRIC FENCE

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

UP-SLOPE FACE

SEDIMENT SHALL BE REMOVED WHEN ACCUMULATIONS REACH 1/3 THE HEIGHT OF THE OUTLET. STANDARD CONSTRUCTION DETAIL #4-6 ROCK FILTER OUTLET

SCHWENKSVILLE BOROUGH, MONTGOMERY COUNTY, PENNSYLVANIA

NOT TO SCALE

ASTON SET: SHEET 14 OF 16

JOB NO.

SHEET NO.

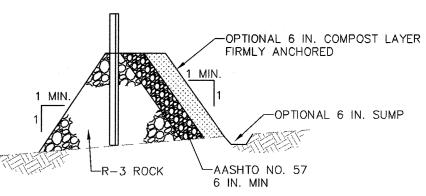
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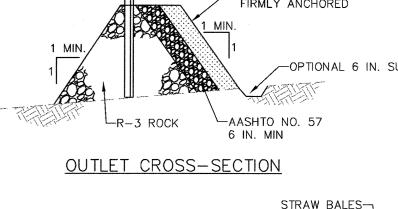
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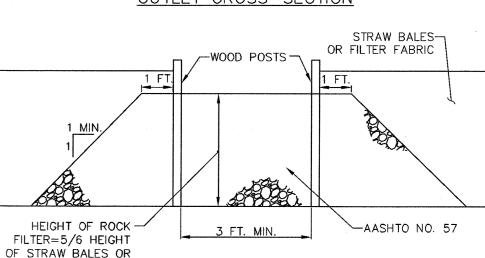
3 OF

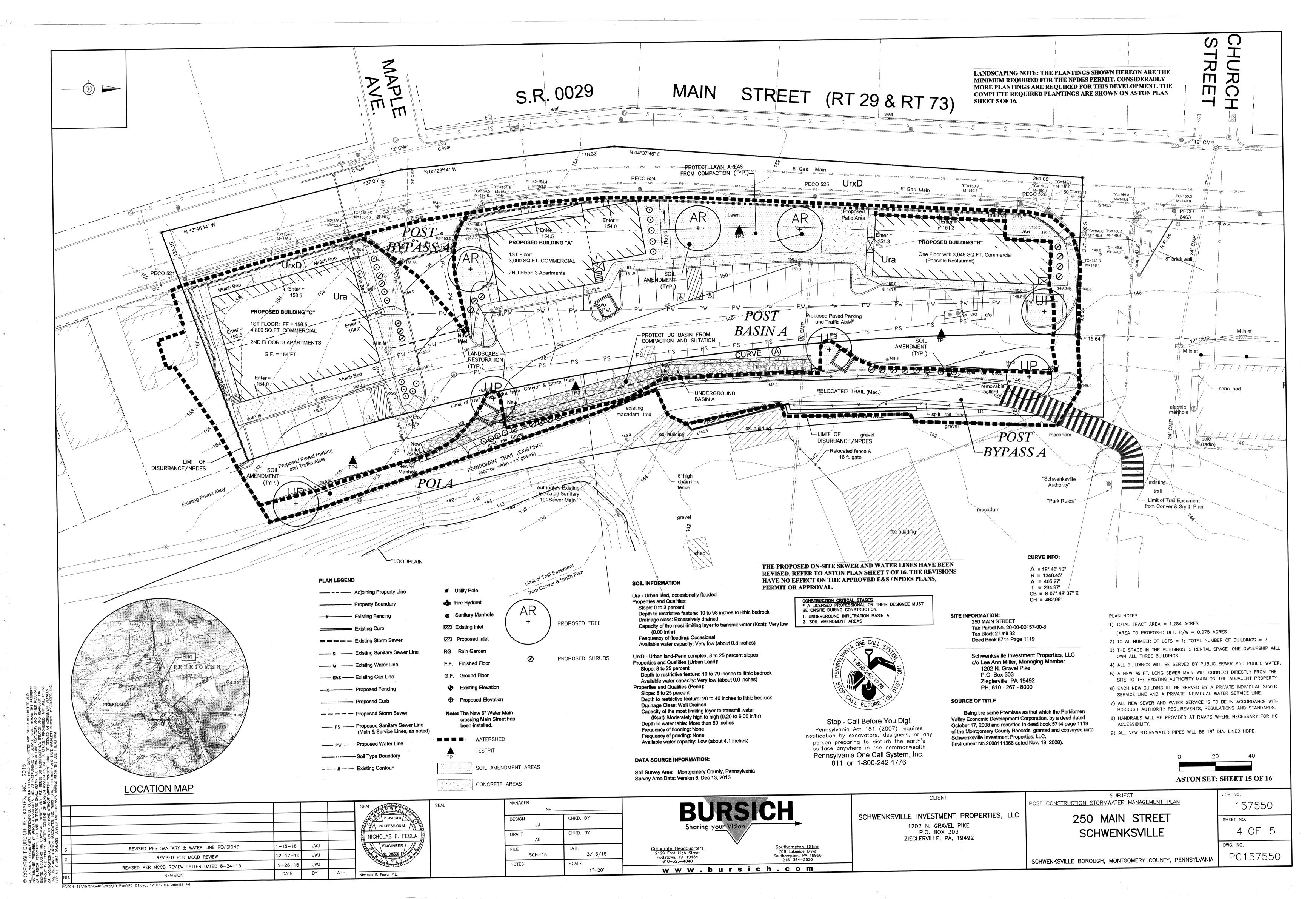
ES357550

EROSION & SEDIMENT CONTROL NOTES DESIGN CHKD. BY SCHWENKSVILLE INVESTMENT PROPERTIES. LLC 250 MAIN STREET 1202 N. GRAVEL PIKE DRAFT CHKD. BY P.O. BOX 303 **SCHWENKSVILLE** REVISED PER SANITARY & WATER LINE REVISIONS 1-15-16 JWJ ZIEGLERVILLE, PA, 19492 DATE REVISED PER MCCD REVIEW 12-17-15 Southampton Office JWJ 3/13/15 2129 East High Street Pottstown, PA 19464 SCH-16 Southampton, PA 18966 215-364-2520 REVISED PER MCCD REVIEW LETTER DATED 8-24-15 9-28-15 JWJ SCALE NOTES









OPERATION & MAINTENANCE NOTES:

* SCHWENKSVILLE INVESTMENT PROPERTIES, LLC SHALL BE RESPONSIBLE FOR THE OPERATION AND MAINTENANCE OF THE PROPOSED BMP'S ON THE SITE IN PERPETUITY PER DEED RESTRICTIONS RECORDED AT THE COUNTY. SCHWENKSVILLE BOROUGH SHALL HAVE THE RIGHT. BUT NOT THE RESPONSIBILITY. TO INSPECT, MAINTAIN AND REPAIR ANY BMP ON THE SITE AT THE EXPENSE OF THE PROPERTY OWNER. IF IT IS DETERMINED THAT THE OWNER HAS NEGLECTED SAID STRUCTURES TO THE PUBLIC DETRIMENT.

LAWN AREAS (GRASS)
ALL LAWN AREAS SHOULD HAVE A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER IN ORDER TO PREVENT ACCELERATED EROSION AND ALLOW STORMWATER TO PERCOLATE INTO THE GROUND.

INSPECTION SCHEDULE

• THE PROPERTY OWNER OR THEIR DESIGNEE SHALL VISUALLY INSPECT ALL LAWN AREAS A MINIMUM OF TWICE A YEAR, IN THE SPRING AND FALL, TO ENSURE THE AREA IS COVERED BY AT LEAST 70% COVER. • THE PROPERTY OWNER OR THEIR DESIGNEE SHALL ALSO VISUALLY INSPECT ALL LAWN AREAS AFTER ALL HEAVY

OPERATION & MAINTENANCE PROCEDURES

• THE PROPERTY OWNER OR THEIR DESIGNEE SHOULD MOW THE LAWN ON A REGULAR BASIS THROUGHOUT THE GROWING SEASON: IT SHOULD BE MAINTAINED AT A HEIGHT OF 2 TO 3.5 INCHES. • THE PROPERTY OWNER OR THEIR DESIGNEE SHOULD WATER THE LAWN AS NECESSARY BASED ON WEATHER CONDITIONS DURING THE SUMMER WHEN RAIN IS SPARSE THE LAWN SHOULD BE WATERED EVERY OTHER DAY. DURING THE SPRING AND FALL WHEN RAIN IS ABUNDANT THE LAWN WILL NOT NEED TO BE WATERED. THE LAWN SHOULD BE WATERED TO ENSURE THE GRASS IS NOT ALLOWED TO BURN OR TURN BROWN. THE PROPERTY OWNER OR THEIR DESIGNEE SHOULD FERTILIZE THE LAWN USING A 10-10-20 FERTILIZER, AT 1000 POUNDS PER ACRE. A MINIMUM OF 2 TIMES PER GROWING SEASON, ONCE IN THE SPRING AND ONCE IN THE FALL IT IS POSSIBLE TO OVER FERTILIZE SO THE MAXIMUM NUMBER OF FERTILIZER APPLICATIONS SHOULD BE 4 TIMES PER YEAR. IF THE FERTILIZER DOES NOT WORK A SOILS TEST SHOULD BE PERFORMED AND THE FERTILIZER TYPE

IF THE REQUIRED 70% VEGETATIVE COVER IS NOT MET THE PROPERTY OWNER OR THEIR DESIGNEE SHOULD PERFORM A SOILS TEST AND REEVALUATE THE SEED SELECTION USED ON THE PROPERTY. THE SPARSE AREAS SHOULD BE IMMEDIATELY SEEDED AND MULCHED. IF THE SEASON PREVENTS RESEEDING, MULCH OR EROSION NETTING IS AN EFFECTIVE TEMPORARY COVER.

INLETS/STORM SEWERS/ROOF DRAINS
INLETS, STORM SEWERS AND ROOF DRAINS SHOULD BE KEPT CLEAN FROM DEBRIS AND SEDIMENT TO ALLOW

DRAINS A MINIMUM OF TWICE A YEAR, IN THE SPRING AND FALL, TO ENSURE THEY ARE NOT CLOGGED FROM THE PROPERTY OWNER OR THEIR DESIGNEE SHALL ALSO VISUALLY INSPECT ALL INLETS, STORM SEWERS AND ROOF

THIS CAN BE ACCOMPLISHED BY HAND OR WITH THE USE OF A HIGH PRESSURE WATER STREAM OR EQUIVALENT MEANS TO ALLOW CLEAN STORMWATER TO REACH THE STORMWATER FACILITIES. • THE PROPERTY OWNER OR THEIR DESIGNEE SHOULD REMOVE ALL TRASH AND DEBRIS FROM THE ROOF DRAINS

TO THE FACILITIES, AND THE UNDERGROUND BASIN A MINIMUM OF TWICE A YEAR, IN THE SPRING AND FALL. TO THE FACILITIES, AND THE UNDERGROUND BASIN AFTER HEAVY RAIN EVENTS • THE PROPERTY OWNER OR THEIR DESIGNEE SHALL VISUALLY INSPECT ALL OVERLYING VEGETATION ABOVE THE INFILTRATION FACILITY A MINIMUM OF TWICE A YEAR, IN THE SPRING AND FALL, AND AFTER HEAVY RAIN EVENTS. THE PROPERTY OWNER OR THEIR DESIGNEE SHALL VISUALLY INSPECT THE FACILITY BY LOOKING INTO THE INLETS
AND OUTLET STRUCTURE TO DETERMINE IF THERE IS STANDING WATER SITTING IN THE PERFORATED PIPES FOR

• THE PROPERTY OWNER OR THEIR DESIGNEE SHOULD REMOVE ALL TRASH AND DEBRIS FROM THE INLET GRATE AND SUMP AND OUTLET STRUCTURE, FOLLOWING CURRENT RECYCLING PROCEDURES, A MINIMUM OF 2 TIMES PER YEAR AND AFTER HEAVY RAIN EVENTS. THIS CAN BE ACCOMPLISHED BY HAND OR WITH THE USE OF A COMMERCIAL

MEANS TO ALLOW CLEAN STORMWATER TO REACH THE STORMWATER FACILITIES.

THE PROPERTY OWNER OR THEIR DESIGNEE SHOULD REMOVE ALL TRASH AND DEBRIS FROM THE UNDERGROUND BASIN THROUGH THE CLEANOUTS, FOLLOWING CURRENT RECYCLING PROCEDURES, A MINIMUM OF 2 TIMES PER YEAR AND AFTER HEAVY RAIN EVENTS. THIS CAN BE ACCOMPLISHED BY HAND OR WITH THE USE OF A HIGH

AREAS, AND CARE SHOULD BE TAKEN TO AVOID EXCESSIVE COMPACTION BY MOWERS. IF ACCESS IS NEEDED, USE OF PERMEABLE, TURF REINFORCEMENT SHOULD BE CONSIDERED.

NO LONGER INFILTRATING WATER IT IS PROBABLE THAT THE GROUND BENEATH THE FACILITY HAS BEEN CLOGGE WITH SILT OR COMPACTED AND THE FACILITY WILL NEED TO BE REMOVED AND THE SOILS BENEATH THE FACILITY SHOULD BE AMENDED, AND THE FACILITY RE-INSTALLED TAKING SPECIAL CARE TO AVOID COMPACTION AND

SPACE IS PROVIDED. VEGETATION SHALL BE MAINTAINED ON AMENDED SOILS AREAS.

• THE PROPERTY OWNER OR THEIR DESIGNEE SHALL VISUALLY INSPECT ALL AMENDED SOILS A MINIMUM OF TWICE A

OPERATION & MAINTENANCE PROCEDURES

• THE PROPERTY OWNER OR THEIR DESIGNEE SHOULD REMOVE ALL DEBRIS AND SEDIMENT FROM THE AMENDED EVENTS. THIS CAN BE ACCOMPLISHED BY HAND OR WITH THE USE OF A COMMERCIAL VACUUM.

THE PROPERTY OWNER OR THEIR DESIGNEE SHOULD REPLACE ANY ERODED AREAS WITH EROSION CONTROL MATTING AND AMENDED SOILS TO STOP THE EROSION FROM CONTINUING. ALL TOPSOILED AREAS SHOULD BE IMMEDIATELY STABILIZED WITH GRASS SEED AND MULCH.

IMMEDIATELY SHOULD THEY FIND ANY ILLEGAL DISTURBANCE.

CONSTRUCTION SEQUENCE (UNDERGROUND INFILTRATION BED)

. DUE TO THE NATURE OF CONSTRUCTION SITES, SUBSURFACE INFILTRATION SHOULD BE INSTALLED TOWARD INSTALL AND MAINTAIN ADEQUATE EROSION AND SEDIMENT CONTROL MEASURES (AS PER THE PENNSYLVANIA

MINIMUM OF 16 INCHES. IT SHOULD ALSO BE SECURED AT LEAST 4 FEET OUTSIDE OF BED IN ORDER TO PREVENT ANY RUNOFF OR SEDIMENT FROM ENTERING THE STORAGE BED. THIS EDGE STRIP SHOULD REMAIN IN PLACE UNTIL ALL BARE SOILS CONTGUOUS TO BEDS ARE STABILIZED AND VEGETATED. AS THE SITE IS FULLY STABILIZED, EXCESS GEOTEXTILE ALONG BED EDGES CAN BE CUT BACK TO THE EDGE OF THE BED. 8. CLEAN-WASHED, UNIFORMLY GRADED AGGREGATE SHOULD BE PLACED IN THE BED IN MAXIMUM 8-INCH

BOTTOM AS MUCH AS POSSIBLE

10. SEED AND STABILIZE TOPSOIL 11. DO NOT REMOVE INLET PROTECTION OR OTHER EROSION AND SEDIMENT CONTROL MEASURES UNTIL SITE IS FULLY STABILIZED.

GENERAL NOTES:

1. THE OPERATOR SHALL REMOVE FROM THE SITE, RECYCLE, OR PROPERLY DISPOSE OF ALL BUILDING MATERIAL AND WASTES IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 T SEQ., 271.1 ET SEQ., AND 287.1 ET SEQ. THE CONTRACTOR SHALL NOT BURY, DUMP, OR DISCHARGE ANY BUILDING MATERIAL WASTES AT THE SITE. EXPECTED CONSTRUCTION WASTE INCLUDE EXCESS SOIL MATERIALS, BUILDING MATERIALS, CONCRETE WASH WATER, SANITARY WASTES OR ANY MATERIAL THAT COULD IMPACT WATER QUALITY.

THERE ARE NO KNOWN GEOLOGIC FORMATIONS OR SOIL CONDITIONS THAT HAVE THE POTENTIAL TO CAUSE POLLUTION. IF ANY GEOLOGIC OR SOIL CONDITIONS ARE ENCOUNTERED THEY SHOULD CONTACT THE PLAN PREPARER AND MONTGOMERY COUNTY CONSERVATION DISTRICT TO DETERMINE A ENVIRONMENTALLY SAFE METHOD TO DISPOSE OF THE MATERIALS.

3. ALL THE PROPOSED BMP'S ON THE SITE RESULT IN NO INCREASE IN THE RATE OR VOLUME OF RUNOFF FROM THE PROPOSED DEVELOPMENT. THEREFORE THE INTEGRITY OF THE DOWNSTREAM STREAM CHANNELS WILL NOT BE NEGATIVELY IMPACTED. AN UNDERGROUND INFILTRATION BASIN IS PROPOSED TO PREVENT CHANGES OR INCREASES IN STORMWATER RUNOFF FROM THE SITE. WATER QUALITY BMP'S WERE ALSO INCORPORATED INTO THE PCSM DESIGN, THEREFORE THE PHYSICAL, BIOLOGICAL AND CHEMICAL QUALITIES OF THE RECEIVING STREAMS WILL NOT BE NEGATIVELY IMPACTED. THE SITE WAS LAID OUT TO REQUIRE THE SMALLEST AMOUNT OF LAND CLEARING, GRADING AND IMPERVIOUS SURFACES TO ACHIEVE THE REQUIRED BUILDING YIELD NECESSARY TO MAKE THE PROJECT FINANCIALLY FEASIBLE WHILE MEETING TOWNSHIP ORDINANCES, THE PROPOSED IMPERVIOUS SURFACES ARE ACTUALLY LOWER THAN THE PRE DEVELOPMENT CONDITION. THE ROADS AND SIDEWALKS WERE MINIMIZED IN WIDTH AND LENGTH TO THE GREATEST EXTENT ALLOWED BY THE TOWNSHIP. THE LAYOUT AND GRADING AROUND THE SITE WAS DESIGNED TO SAVE EXISTING DRAINAGE FEATURES AND EXISTING VEGETATION AT ALL POSSIBLE LOCATIONS, ALONG WITH PROTECTING AND UTILIZING EXISTING DRAINAGE FEATURES. DIRECTION IS GIVEN ON THE E&S PLANS TO MINIMIZE SOIL COMPACTION THROUGHOUT THE

SITE, EXCEPT FOR BUILDING ENVELOPES.

4. NPDES PERMIT NOTES
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 DEVELOPER. CLEAN FILL IS DEFINED AS: UNCONTAMINATED, NON-WATER SOLUBLE NON-DECOMPOSABLE, INERT, SOLID MATERIAL. THE TERM INCLUDES SOIL, ROCK, STONE DREDGED MATERIAL LISED ASPHALT AND BRICK BLOCK OR CONCRETE FROM CONSTRUCTION AND DEMOLITION ACTIVITIES THAT IS SEPARATE FROM OTHER WASTE AND IS RECOGNIZABLE AS SUCH. THE TERM DOES NOT INCLUDE MATERIALS PLACED IN OR ON THE WATERS OF THE COMMONWEALTH UNLESS OTHERWISE AUTHORIZED. (THE TERM "USED ASPHALT" DOES NOT INCLUDE MILLED ASPHALT OR ASPHALT THAT HAS BEEN PROCESSED FOR RE-USE). 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 HAT THE FILL MATERIAL CONTAINS CONCENTRATIONS OF REGULATED SUBSTANCES THAT ARE BELOW THE RESIDENTIAL LIMITS IN TABLES FP-1A AND FP-1B FOUND IN THE DEPARTMENT'S 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 FP-001 TO CERTIF) THE ORIGIN OF THE FILL MATERIAL AND THE RESULTS OF THE ANALYTICAL TESTING TO QUALIFY THE MATERIAL AS CLEAN FILL. FORM FP-001 MUST BI RETAINED BY THE OWNER OF THE PROPERTY RECEIVING THE FILL. A COPY OF FORM FP-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 INSPECTIONS, ELECTRONIC DATA BASE SEARCHES. REVIEW OF PROPERTY OWNERSHIP, REVIEW OF PROPERTY USE HISTORY SANBORN MAPS, ENVIRONMENTAL QUESTIONNAIRES, TRANSACTION SCREENS, ANALYTICAL TESTING, ENVIRONMENTAL ASSESSMENTS OR AUDITS. ANALYTICAL TESTING IS NOT A REQUIRED PART OF DUE DILIGENCE UNLESS VISUAL INSPECTION AND/OR REVIEW OF THE PAST LAND USE OF THE PROPERTY INDICATES THAT THE FILL MAY HAVE BEEN SUBJECTED TO A SPILL OR RELEASE OF REGULATED SUBSTANCE. IF THE FILL MAY HAVE BEEN AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE, IT MUST BE TESTED TO DETERMINE IF IT QUALIFIES AS CLEAN FILL. TESTING SHOULD BE PERFORMED IN ACCORDANCE WITH APPENDIX A OF THE DEPARTMENT'S POLICY "MANAGEMENT OF 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 DEPARTMENT'S MUNICIPAL OR RESIDUAL WASTE REGULATIONS BASED ON 25 PA.

CODE CHAPTERS 287 RESIDUAL WASTE MANAGEMENT OR 271 MUNICIPAL WASTE

INFILTRATION GROUND INFIL

TP-4

OUTLET NOTES:

4" MAXIMUM LIFTS.

TEST # | ELEV. | TEST

DEPTH

151.0 3'

147.0 5'

147.0 | 5' | SILT LOAM

| 150.0 | 5' | SILT LOAM

CATCH BASIN DOES NOT FLOW DIRECTLY OUT THE OUTLET PIPE.

SUBGRADE

. A 12" 2A STONE SUBBASE SHALL BE PLACED BELOW THE OUTLET STRUCTURE IN

ENSURE 2X4 TYPE M TOP UNIT IS INSTALLED SO ANY WATER ROUTED INTO THE

-CONC.

WALL

-18" DIA. PERFORATED

UNDERGROUND BASIN)

ADS PIPE (FROM

SILT LOAM

SILT LOAM

MATERIAL

11.25

4.5

7.5

18.75

TYPE 1 MODIFIED

TOP UNIT

15" DIA. ADS

(OUTLET PIPE)

BASIN A OUTLET STRUCTURE DETAIL

MANAGER

INLET BOX W/2'x4'

ON-LINE AT WWW.PACODE.COM

MANAGEMENT, WHICHEVER IS APPLICABLE. THESE REGULATIONS ARE AVAILABLE

(CONSTRUCTION SEQUENCE) SOIL AMENDMENT & RESTORATION

PROTECTED BY GRASS OR OTHER PLANTS

1. CONSTRUCTION SEQUENCE **CRITICAL STAGE - A DESIGNATED REPRESENTATIVE SHALL BE PRESENT TO ENSURE THAT THE SOIL AMENDMENTS ARE PLACED AT THE LOCATIONS AND PER THE SPECIFICATIONS AS NOTED.

2. MAINTENANCE ISSUES a. THE SOIL RESTORATION PROCESS MAY NEED TO BE REPEATED OVER TIME, DUE TO COMPACTION BY USE AND/OR SETTLING.

a.ALL CONSTRUCTION SHOULD BE COMPLETED AND STABILIZED BEFORE BEGINNING SOIL RESTORATION.

3. SPECIFICATIONS a. SCOPE i. THIS SPECIFICATION COVERS THE USE OF COMPOST FOR SOIL AMENDMENT AND THE MECHANICAL RESTORATION OF

COMPACTED, ERODED AND NON-VEGETATED SOILS. SOIL AMENDMENT AND RESTORATION IS NECESSARY WHERE EXISTING SOIL HAS BEEN DEEMED UNHEALTHY IN ORDER TO RESTORE SOIL STRUCTURE AND FUNCTION, INCREASE INFILTRATION POTENTIAL AND SUPPORT HEALTHY VEGETATIVE COMMUNITIES. SOIL AMENDMENT PREVENTS AND CONTROLS EROSION BY ENHANCING THE SOIL SURFACE TO PREVENT THE INITIAL DETACHMENT AND TRANSPORT OF SOIL PARTICLES.

4. COMPOST MATERIALS a. COMPOST PRODUCTS SPECIFIED FOR USE IN THIS APPLICATION ARE DESCRIBED IN TABLE 1. THE PRODUCT'S PARAMETERS

WILL VARY BASED ON WHETHER VEGETATION WILL BE ESTABLISHED ON THE TREATED SLOPE b. ONLY COMPOST PRODUCTS THAT MEET ALL APPLICABLE STATE AND FEDERAL REGULATIONS PERTAINING TO ITS PRODUCTION AND DISTRIBUTION MAY BE USED IN THIS APPLICATION. APPROVED COMPOST PRODUCTS MUST MEET RELATED STATE AND FEDERAL CHEMICAL CONTAMINANT (E.G., HEAVY METALS, PESTICIDES, ETC.) AND PATHOGEN LIMIT STANDARDS PERTAINING TO THE FEEDSTOCKS (SOURCE MATERIALS) IN WHICH IT IS DERIVED.

c. VERY COARSE COMPOST SHOULD BE AVOIDED FOR SOIL AMENDMENT AS IT WILL MAKE PLANTING AND CROP ESTABLISHMENT MORE DIFFICULT. SPECIFYING THE USE OF COMPOST PRODUCTS THAT ARE CERTIFIED BY THE U.S. COMPOSTING COUNCIL'S SEAL OF TESTING (STA) PROGRAM (WWW.COMPOSTINGCOUNCIL.ORG) WILL ALLOW FOR THE ACQUISITION OF PRODUCTS THAT ARE ANALYZED ON A ROUTINE BASIS, USING THE SPECIFIED TEST METHODS. STA PARTICIPANTS ARE ALSO REQUIRED TO PROVIDE A STANDARD PRODUCT LABEL TO ALL CUSTOMERS, ALLOWING EASY COMPARISON TO OTHER PRODUCTS. 5. SUB-SOILING TO RELIEVE COMPACTION

a. BEFORE THE TIME THE COMPOST IS PLACED AND PREFERABLY WHEN EXCAVATION IS COMPLETED. THE SUBSOIL SHALL BE IN A LOOSE, FRIABLE CONDITION TO A DEPTH OF 20 INCHES BELOW FINAL TOPSOIL GRADE AND THERE SHALL BE NO EROSION RILLS OR WASHOUTS IN THE SUBSOIL SURFACE EXCEEDING 3 INCHES IN DEPTH

b. TO ACHIEVE THIS CONDITION, SUBSOILING, RIPPING, OR SCARIFICATION OF THE SUBSOIL WILL BE REQUIRED AS DIRECTED BY THE OWNER'S REPRESENTATIVE, WHEREVER THE SUBSOIL HAS BEEN COMPACTED BY EQUIPMENT OPERATION OR HAS BECOME DRIED OUT AND CRUSTED, AND WHERE NECESSARY TO OBLITERATE EROSION RILLS. SUB-SOILING SHALL BE REQUIRED TO REDUCE SOIL COMPACTION IN ALL AREAS WHERE PLANT ESTABLISHMENT IS PLANNED. SUB-SOILING SHALL BE PERFORMED BY THE PRIME OR EXCAVATING CONTRACTOR AND SHALL OCCUR BEFORE COMPOST PLACEMENT.

c. SUBSOILED AREAS SHALL BE LOOSENED TO LESS THAN 1400 KPA (200 PSI) TO A DEPTH OF 20 INCHES BELOW FINAL TOPSOIL GRADE. WHEN DIRECTED BY THE OWNER'S REPRESENTATIVE, THE CONTRACTOR SHALL VERIFY THAT THE SUB-SOILING WORK CONFORMS TO THE SPECIFIED DEPTH.

d.SUB-SOILING SHALL FORM A TWO-DIRECTIONAL GRID. CHANNELS SHALL BE CREATED BY A COMMERCIALLY AVAILABLE, MILITI-SHANKED PARALLELOGRAM IMPLEMENT (SOLID SHANK RIPPER) THE FOLLIPMENT SHALL BE CAPARLE OF EXERTING A PENETRATION FORCE NECESSARY FOR THE SITE, NO DISC CULTIVATORS CHISEL PLOWS, OR SPRING-LOADED EQUIPMENT WILL BE ALLOWED. THE GRID CHANNELS SHALL BE SPACED A MINIMUM OF 12 INCHES TO A MAXIMUM OF 36 INCHES APART. DEPENDING ON EQUIPMENT, SITE CONDITIONS, AND THE SOIL MANAGEMENT PLAN. THE CHANNEL DEPTH SHALL BE A MINIMUM OF 20 INCHES. IF SOILS ARE SATURATED, THE CONTRACTOR SHALL DELAY OPERATIONS UNTIL THE SOIL WILL NOT HOLD A BALL WHEN SQUEEZED. ONLY ONE PASS SHALL BE PERFORMED ON ERODIBLE SLOPES GREATER THAN 1 VERTICAL TO 3 HORIZONTAL. WHEN ONLY ONE PASS IS USED, WORK SHOULD BE AT RIGHT ANGLES TO THE DIRECTION OF SURFACE

DRAINAGE, WHENEVER PRACTICAL e. EXCEPTIONS TO SUB-SOILING INCLUDE AREAS WITHIN THE DRIP LINE OF ANY EXISTING TREES, OVER UTILITY INSTALLATIONS WITHIN 30 INCHES OF THE SURFACE, WHERE TRENCHING/DRAINAGE LINES ARE INSTALLED, WHERE COMPACTION IS BY DESIGN (ABUTMENTS, FOOTINGS, OR IN SLOPES), AND ON INACCESSIBLE SLOPES, AS APPROVED BY THE OWNER'S REPRESENTATIVE. IN CASES WHERE EXCEPTIONS OCCUR, THE CONTRACTOR SHALL OBSERVE A MINIMUM SETBACK OF 20 FEET OR AS DIRECTED BY THE OWNER'S REPRESENTATIVE. ARCHEOLOGICAL CLEARANCES MAY BE REQUIRED IN SOME INSTANCES. 6. COMPOST SOIL AMENDMENT QUALITY

a. THE FINAL, RESULTING COMPOST SOIL AMENDMENT MUST MEET ALL OF THE MANDATORY CRITERIA AS OUTLINED IN TABLE 4. 7. COMPOST SOIL AMENDMENT INSTALLATION

a. SPREAD 2" INCHES OF APPROVED COMPOST, LEAF LITTER OR MANURE AND 4" OF APPROVED TOPSOIL ON EXISTING SOIL. TILL ADDED SOILS WITH A ROTARY TILLER THAT IS SET TO A DEPTH OF 6 INCHES. b. AFTER PERMANENT PLANTING/ SEEDING, 2"-3" INCHES OF COMPOST BLANKET WILL BE APPLIED TO ALL AREAS NOT

-AMENDED SOILS ----

SCARIFIED

SOILS

ROUGH GRADE ELEVATION -

TOP EL. 146.00

3" DIA.

ORIFICE-

ORIFICE WALL DETAIL

NO SCALE

6" CONC. WALL TOP

OF WALL EL. 146.00

INV. 145.00

6" MIN.

(NO TOPSOIL)

	PLANTING SCHEDULE							
SYM	QUAN	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS			
DECIDUOUS	TREES							
(AR)	3	ACER RUBRUM	ARMSTRONG RED MAPLE	2-1/2" C	B&B			
(iè)	. 5	ULMUS AMERICANA 'PRINCETON'	AMERICAN ELM	2-1/2" C	B&B			
SHRUBS								
\oslash	21	ILEX GLABRA	INKBERRY	3,	B&B			
\odot	22	ILEX VERTICILLATA	WINTERBERRY	3'	B&B			

TABLE 1 (BMP 6.7.3 SOIL AMENDMENT & RESTORATION, PENNSYLVANIA STORMWATER BEST MANAGEMENT PRACTICES MANUAL, DECEMBER 2006)

	1		· ·
SOIL TEXTURE	IDEAL BULK DENSITIES	BULK DENSITIES THAT MAY AFFECT ROOT GROWTH	BULK DENSITIES THAT RESTRICT ROOT GROWTH
	g/cm3	g/cm3	g/cm3
SANDS, LOAMY SANDS	<1.60	1.69	1.8
SANDY LOAMS, LOAMS	<1.40	1.63	1.8
SANDY CLAY LOAMS, LOAMS, CLAY LOAMS	<1.40	1.6	1.75
SILT, SILT LOAMS	<1.30	1.6	1.75
SILT LOAMS, SILTY CLAY LOAMS	<1.10	1.55	1.65
SANDY CLAYS, SILTY CLAYS, SOME CLAY LOAMS (35-45% CLAY)	<1.10	1.49	1.58
CLAYS (>45% CLAY)	<1.10	1.39	1.47
SOURCE: PROTECTING			L

TABLE 4 (BMP 6.7.3 SOIL AMENDMENT & RESTORATION, PENNSYLVANIA STORMWATER BEST MANAGEMENT PRACTICES MANUAL, DECEMBER 2006)

ADCORDED MACC OF MUTDIENITE AND METALS IN LINUSCETATED DLOT DUNGE

FROM 30-MINUTE, HIGH-INTENSITY (100-mm/hr) RAINSTORM						
	COMPOST TREATMENTS			CONVENTIONAL TREATMEN		
	BIOSOLIDS	YARDWASTE	BIOINDUSTRIAL COMPOST	COMPACTED SUBSOIL	TOPSOIL	
ELEMENT	GEOMETRIC MEAN (mg)					
	MEDIUM	LOWEST	MEDIUM	HIGHEST	HIGHEST	
CHROMIUM	0.01b	<0.01a	<0.01b	0.92c	0.75c	
COPPER	0.02b	<0.01a	0.01b	1.03c	0.66c	
NICKEL	<0.01b	<0.01a	<0.01b	0.96c	0.67c	
LEAD	0.01b	<0.01a	<0.01b	1.82c	0.95c	
ZINC	0.10b	<0.01a	0.03b	6.55c	3.99c	
NITROGEN	0.47b	<0.01a	0.09a,b	266.65c	211.87c	
PHOSPHORUS	0.45b	<0.01a	0.09a,b	36.47c	29.07c	
POTASSIUM	0.17b	<0.01a	0.09a,b	103.94c	71.57c	

MEANS WITHIN THE SAME ROW WITH DIFFERENT LETTER DESIGNATIONS ARE SIGNIFICANTLY DIFFERENT (p<0.05)

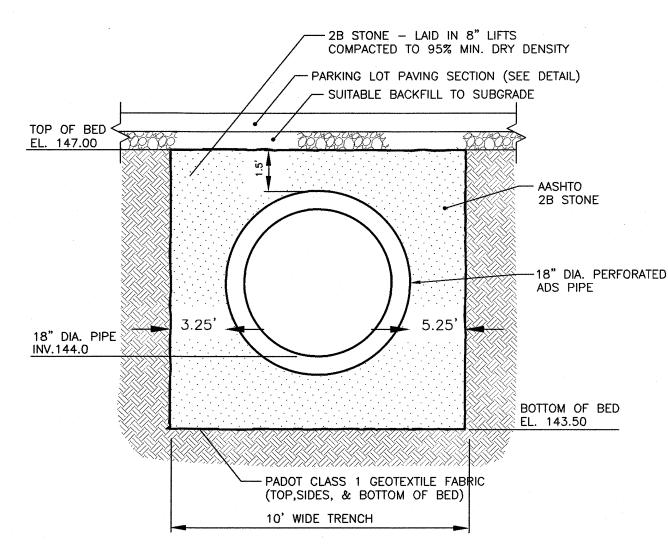
- ADD 2" OF COMPOST, LEAF LITTER OR MANURE AND 4" OF TOPSOIL - FINAL GRADE ELEVATION AND TILL TOGETHER AND PERMANENTLY SEED (WITH TOPSOIL) FINAL GRADE ELEVATION T (WITH TOPSOIL) MIN AMENDED SOILS SCARIFIED SOILS ← SCARIFY SOILS AS SPECIFIED STEP 2

<u>SOIL AMENDMENT INSTALLATION DETAIL</u>

IN SOIL AMENDMENT NOTES, THEN

EQUIPMENT TO AVOID COMPACTION

GRADE SOIL WITH LIGHT WEIGHT



UNDERGROUND INFILTRATION BASIN A 18" DIA PERFORATED PIPE)

BLANKET EDGES STAPLED AND OVERLAPPED (4 IN. MIN.)		IN 6 IN TRENCH	BEGINNING OF I . x 6 IN. ANCHO I, STAPLE, BACKI DMPACT SOIL	R
	STARTING AT TOP OF SLOPE, ROLL BLANKET DIRECTION OF WATER I	S IN FLOW		
7				PREPARE SEED BED (INCLUDING APPLICATION FERTILIZER AND SEED) F
Karata (@# 7/		/	BLANKET INSTALLATION

STANDARD WORKSHEET #21

Temporary and Permanent Vegetative Stabilization Specifications

SPECIFICATIONS: The Department recommends the use of the Penn State publication

"Erosion Control & Conservation Plantings on Noncropland" as the standard to use for the

seeding methods. Specifications for these items may also be obtained from Penn DOT's

Publication # 408, Section 804 or by contacting the applicable county conservation district.

seeding, mulching, and soil amendments. The following specification will be used for this

Upon selection of a reference, that reference should be used to provide all specifications for

% PURE LIVE SEED: 88.20

FERTILIZER TYPE: 10-10-10

APPLICATION RATE: 48.4

LIMING RATE

MULCHING RATE:

FERTILIZER TYPE:

MULCHING RATE:

RATE OF ANCHOR MATERIAL APPL.: 1800

RATE OF ANCHOR MATERIAL APPL.: 200

Note: This worksheet should be added to the plan drawings.

JUST BE STABILIZED IN ACCORDANCE WITH THE PERMANENT VEGETATIVE STABILIZATION SPECIFICATIONS.

*If more than one species is used, indicate application rate for each species.

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 OF 4 INCHES OF TOPSOIL IN

IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE, THE OPERATOR SHALL STABILIZE ANY AREAS DISTURBED BY THE ACTIVITIES.

DURING NON-GERMINATING PERIODS, MULCH MUST BE APPLIED AT THE SPECIFIED RATES. DISTURBED AREAS WHICH ARE NOT AT FINISHED

GRADE AND WHICH WILL BE RE-DISTURBED WITHIN 1 YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY VEGETATIVE STABILIZATION SPECIFICATIONS. DISTURBED AREAS WHICH ARE AT FINISHED GRADE OR WHICH WILL NOT BE RE-DISTURBED WITHIN 1 YEAR

UPON COMPLETION OR TEMPORARY CESSATION OF THE EARTH DISTURBANCE ACTIVITY THAT WILL EXCEED 4 DAYS, OR ANY STAGE

APPLICATION RATES FOR THE PROPOSED SEED MIXTURES, IF SOIL TESTS ARE NOT COMPLETED SOIL AMENDMENTS SHOULD BE ADDED AT

STRAW OR HAY MULCH SHOULD BE ANCHORED OR TACKIFIED IMMEDIATELY AFTER APPLICATION TO PREVENT BEING WINDBLOWN. A

TRACTOR DRAWN IMPLEMENT MAY BE USED TO "CRIMP" THE STRAW OR HAY INTO THE SOIL, ABOUT 3 INCHES. THIS METHOD SHOULD BE LIMITED TO SLOPES NO STEEPER THAN 3H:1V. THE MACHINERY SHOULD BE OPERATED ON THE CONTOUR

THEREOF, THE PROJECT SITE SHALL BE IMMEDIATELY STABILIZED WITH THE APPROPRIATE TEMPORARY OR PERMANENT STABILIZATION.

SOIL TESTING SHOULD BE COMPLETED PRIOR TO SEEDING AND MULCHING TO DETERMINE THE PROPER SOIL AMENDMENTS AND

TOPSOIL PLACEMENT DEPTH: 4-8

FERTILIZER TYPE:

MULCHING RATE:

LIMING RATE: 6

ANCHORING METHOD: SPRAYED

FERTILIZER APPL. RATE: 1000

LIMING RATE: 6

ANCHORING METHOD: SPRAYED

FERTILIZER APPL. RATE: 1000

FERTILIZER APPL. RATE:

(PERMANENT) TOPSOIL PLACEMENT DEPTH: 4-8

(PERMANENT - STEEP SLOPE)

PLACE PRIOR TO SEEDING AND MULCHING.

THE RATES SPECIFIED BY THE SELECTED SEEDING REFERENCE ABOVE.

*SPECIES: ANNUAL RYEGRASS

MULCH TYPE: STRAW OR HAY

% PURE LIVE SEED: 88.2/83.3/78.4

APPLICATION RATE 19.4/29.0/53.2

MULCH TYPE: STRAW OR HAY

SEEDING SEASON DATES: (MARCH 15-JUNE 1) & (AUGUST 1-OCTOBER 15)

SEEDING SEASON DATES: (FESCUE (MARCH 15-JUNE 1) & (AUGUST 1-OCTOBER 15)) (RYE-3/1 - 10/15)

ANCHOR MATERIAL: CELLULOSE FIBER

% PURE LIVE SEED: 83.3/83.3/88.2

APPLICATION RATE: 61.0/30.5/10.2

ANCHOR MATERIAL: CELLULOSE FIBER

MULCH TYPE: STRAW OR HAY

selection of species, seed specifications, mixtures, liming and fertilizing, time of seeding, and

DATE: DECEMBER 5, 2014

*SPECIES: PERENNAL RYEGRASS MIXTURE/CREEPING FESCUE OR CHEWINGS FESCUE/KENTUCKY BLUEGRASS MIXTURE

*SPECIES: TALL FESCUE/CREEPING FESCUE OR CHEWINGS FESCUE/ANNUAL RYEGRASS

LB./ACRE

LB./ACRE

T./ACRE

T./ACRE

LB./ACRE

(X-X-X)

LB./ACRE

_T./ACRE

T./ACRE

LB./ACRE

LB./ACRE

LB./ACRE

T./ACRE

T./ACRE

LB./ACRE

(X-X-X)

(X-X-X)

DATE:

LOCATION: SCHWENKSVILLE BOROUGH., MONTGOMERY COUNTY, PA

PROJECT NAME: 250 MAIN STREET

PREPARED BY: JWJ

CHECKED BY:

(TEMPORARY)

THE RIANKET SHOULD-OVERLAP BLANKET ENDS 6 IN. MIN. REFER TO MANUF. RECOMMENDED NOT BE STRETCHED; WITH THE UPSLOPE BLANKED STAPLING PATTERN FOR IT MUST MAINTAIN OVERLYING THE DOWNSLOPE BLANKET STEEPNESS AND LENGTH OF

GOOD SOIL CONTACT

SEED AND SOIL AMENDMENTS SHALL BE APPLIED ACCORDING TO THE RATES IN THE PLAN DRAWINGS PRIOR TO INSTALLING THE BLANKET

PROVIDE ANCHOR TRENCH AT TOE OF SLOPE IN SIMILAR FASHION AS AT TOP OF SLOPE. SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS, AND GRASS.

(SHINGLE STYLE). STAPLE SECURELY.

BLANKET SHALL HAVE GOOD CONTINUOUS CONTACT WITH UNDERLYING SOIL THROUGHOUT ENTIRE LENGTH. LAY BLANKET LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH SOIL. DO NOT STRETCH

THE BLANKET SHALL BE STAPLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

BLANKETED AREAS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT UNTIL PERENNIAL VEGETATION IS ESTABLISHED TO A MINIMUM UNIFORM 70% COVERAGE THROUGHOUT THE BLANKETED AREA. DAMAGED OR DISPLACED BLANKETS SHALL BE RESTORED OR REPLACED WITHIN 4 CALENDAR DAYS. <u>STANDARD CONSTRUCTION DETAIL #11-1</u>

EROSION CONTROL BLANKET INSTALLATION

SUBJECT

ASTON SET: SHEET 16 OF 16

SLOPE BEING BLANKETED

				SEAL
				NIC
	REVISED PER SANITARY & WATER LINE REVISIONS	1-15-16	JWJ	
	REVISED PER MCCD REVIEW	12-17-15	JWJ	
	REVISED PER MCCD REVIEW LETTER DATED 8-24-15	9-28-15	JWJ] ~
_				 1

PROFESSIONAL CHOLAS E. FEOL ENGINEER /

Nicholas E. Feola, P.E.

CHKD. BY DESIGN DRAFT CHKD. BY SCH-16 3/13/15 NOTES SCALE 1"=20"

Sharing y<u>our</u> Visi Corporate Headquarters 2129 East High Street Southampton Office

SCHWENKSVILLE INVESTMENT PROPERTIES, LLC 1202 N. GRAVEL PIKE P.O. BOX 303 ZIEGLERVILLE, PA, 19492

CLIENT

250 MAIN STREET **SCHWENKSVILLE**

JOB NO. SHEET NO. DWG. NO.

SCHWENKSVILLE BOROUGH, MONTGOMERY COUNTY, PENNSYLVANIA

REVISION P:\SCH-16\157550-00\dwg\LD_Plan\PC_01.dwg, 1/15/2016 3:00:02 PM POST CONSTRUCTION STORMWATER MANAGEMENT NOTES & DETAILS

STORMWATER FLOWS THE FULL CAPACITY OF THE INLET GRATE AND STORM SEWER. • THE PROPERTY OWNER OR THEIR DESIGNEE SHALL VISUALLY INSPECT ALL INLETS, STORM SEWERS AND ROOF

DRAINS AFTER HEAVY RAIN EVENTS.

OPERATION & MAINTENANCE PROCEDURES THE PROPERTY OWNER OR THEIR DESIGNEE SHOULD REMOVE ALL TRASH AND DEBRIS FROM THE GRATE AND INLET BOTTOM, FOLLOWING CURRENT RECYCLING PROCEDURES. A MINIMUM OF 2 TIMES PER YEAR AND AFTER HEAVY RAIN EVENTS. THIS CAN BE ACCOMPLISHED BY HAND OR WITH THE USE OF A COMMERCIAL VACUUM. . THE PROPERTY OWNER OR THEIR DESIGNEE SHOULD REMOVE ALL TRASH AND DEBRIS FROM THE STORM SEWERS, FOLLOWING CURRENT RECYCLING PROCEDURES, A MINIMUM OF 2 TIMES PER YEAR AND AFTER HEAVY RAIN EVENTS.

AND GUTTERS • THE PROPERTY OWNER OR THEIR DESIGNEE SHOULD INSPECT THE INLETS, STORM SEWERS AND ROOF DRAINS FOR STRUCTURAL INTEGRITY A MINIMUM OF ONCE A YEAR, SHOULD ANYTHING OUT OF THE ORDINARY BE FOUND A PROFESSIONAL SHOULD BE BROUGHT IN TO ANALYZE THE SYSTEM AND DETERMINE WHETHER REPLACEMENT IS

UNDERGROUND INFILTRATION BASIN. UNDERGROUND INFILTRATION BASINS SHOULD BE KEPT CLEAN FROM DEBRIS AND SEDIMENT TO ENSURE THE SOILS BENEATH ARE NOT ALLOWED TO BE SILTED UP OR COMPACTED AND TO ENSURE THEY DRAIN WITHIN A 72 HOUR PERIOD AND MAINTAIN THE REQUIRED STORAGE VOLUME.

• THE PROPERTY OWNER OR THEIR DESIGNEE SHALL VISUALLY INSPECT ALL INLETS AND STORM SEWERS TRIBUTARY . THE PROPERTY OWNER OR THEIR DESIGNEE SHALL VISUALLY INSPECT ALL INLETS AND STORM SEWERS TRIBUTARY

PERIODS LONGER THAN 72 HOURS.

THE PROPERTY OWNER OR THEIR DESIGNEE SHOULD REMOVE ALL TRASH AND DEBRIS FROM THE STORM SEWERS, FOLLOWING CURRENT RECYCLING PROCEDURES, A MINIMUM OF 2 TIMES PER YEAR AND AFTER HEAVY RAIN EVENTS. THIS CAN BE ACCOMPLISHED BY HAND OR WITH THE USE OF A HIGH PRESSURE WATER STREAM OR EQUIVALENT

PRESSURE WATER STREAM OR EQUIVALENT MEANS TO ALLOW CLEAN STORMWATER TO REACH THE STORMWATER THE PROPERTY OWNER OR THEIR DESIGNEE SHOULD MAINTAIN THE OVERLYING VEGETATION IN GOOD CONDITION, AND ANY BARE SPOTS RE-VEGETATED AS SOON AS POSSIBLE. THE PROPERTY OWNER OR THEIR DESIGNEE SHOULD PROHIBIT VEHICULAR ACCESS ON SUBSURFACE INFILTRATION

THE PROPERTY OWNER OR THEIR DESIGNEE SHOULD ENSURE ALL INFLOW AND OUTFLOW POINTS INTO THE INDIVIDUAL ON-LOT SYSTEMS SHOULD BE KEPT CLEAR OF LEAVES AND OTHER DEBRIS. ANY LEAVES OR DEBRIS WILL NEGATIVELY IMPACT THE PERFORMANCE OF THESE SYSTEMS. ALL DOWNSPOUTS AND OVERFLOW PIPES THE PROPERTY OWNER OR THEIR DESIGNEE SHOULD ENSURE THE FACILITY IS FUNCTIONING PROPERLY AND THE WATER IS INFILTRATING INTO THE GROUND WITHIN 72 HOURS. IF THE FACILITY IS NOT INFILTRATING STORMWATE WITHIN 72 HOURS OF A STORM EVENT IT SHALL BE DEEMED A FAILURE OF THE SYSTEM. . IF THE FACILITY IS

AMENDED SOILS SHOULD BE KEPT CLEAN FROM DEBRIS, SEDIMENT AND COMPACTION TO ENSURE ADEQUATE VOID

YEAR, IN THE SPRING AND FALL, TO ENSURE THEY ARE NOT CLOGGED FROM DEBRIS OR SEDIMENT, NOT COMPACTED AND ARE WELL VEGETATED. THE PROPERTY OWNER OR THEIR DESIGNEE SHALL ALSO VISUALLY INSPECT ALL AMENDED SOILS AFTER HEAVY

SOILS, FOLLOWING CURRENT RECYCLING PROCEDURES, A MINIMUM OF 2 TIMES PER YEAR AND AFTER HEAVY RAIN THE PROPERTY OWNER OR THEIR DESIGNEE SHOULD REPLACE ALL AMENDED SOILS THAT HAVE BEEN COMPACTED

NATURAL AREA CONSERVATION AREAS TO REMAIN IN THEIR NATURAL STATE SHALL NOT BE DISTURBED WITHOUT THE PROPER PERMITS.

INSPECTION SCHEDULE

• THE PROPERTY OWNER OR THEIR DESIGNEE SHALL VISUALLY INSPECT ALL NATURAL AREAS A MINIMUM OF TWICE A YEAR, IN THE SPRING AND FALL, TO ENSURE NO PROHIBITED ACTIVITIES ARE OCCURRING.

OPERATION & MAINTENANCE PROCEDURES • THE PROPERTY OWNER OR THEIR DESIGNEE SHOULD RETURN ANY NATURAL AREAS TO THEIR NATURAL CONDITION

THE END OF THE CONSTRUCTION PERIOD, IF POSSIBLE. EROSION AND SEDIMENTATION CONTROL PROGRAM MANUAL) DURING CONSTRUCTION. 3. THE EXISTING SUBGRADE UNDER THE BED AREAS SHOULD NOT BE COMPACTED OR SUBJECT TO EXCESSIVE CONSTRUCTION EQUIPMENT TRAFFIC PRIOR TO GEOTEXTILE OR STONE BED PLACEMENT. 4. WHERE EROSION OF SUBGRADE HAS CAUSED ACCUMULATION OF FINE MATERIALS AND/OR SURFACE PONDING, THIS MATERIAL SHOULD BE REMOVED WITH LIGHT EQUIPMENT AND THE UNDERLYING SOILS SCARIFIED TO A MINIUM DEPTH OF 6 INCHES WITH A YORK RAKE (OR EQUIVALENT) AND LIGHT TRACTOR. ALL FINE GRADING SHOULD BE DONE BY HAND. ALL BED BOTTOMS SHOULD BE AT LEVEL GRADE. 5. EARTHEN BERMS (IF USED) BETWEEN INFILTRATION BEDS SHOULD BE LEFT IN PLACE DURING EXCAVATION THESE BERMS DO NOT REQUIRE COMPACTION IF PROVEN STABLE DURING CONSTRUCTION. 6. INSTALL UPSTREAM AND DOWNSTREAM CONTROL STRUCTURES, CLEANOUTS, PERFORATED PIPING, AND ALL OTHER NECESSARY STORMWATER STRUCTURES. . GEOTEXTILE AND BED AGGREGATE SHOULD BE PLACED IMMEDIATELY AFTER APPROVAL OF SUBGRADE PREPARATION AND INSTALLATION OF STRUCTURES. GEOTEXTILE SHOULD BE PLACED IN ACCORDANCE WITH MANUFACTURER'S STANDARDS AND RECOMMENDATIONS. ADJACENT STRIPS OF GEOTEXTILE SHOULD OVERLAP A

LIFTS. EACH LAYER SHOULD BE LIGHTLY COMPACTED, WITH CONSTRUCTION EQUIPMENT KEPT OFF THE BED 9. APPROVED SOIL MEDIA SHOULD BE PLACED OVER INFILTRATION BED IN MAXIMUM 6—INCH LIFTS.

SEAL

2'x4' TOP UNIT

GRATE EL. 149.40-

12"-2A STONE MIN.

SEE WALL DETAIL-

706 Lakeside Drive Southampton, PA 18966

OUTLET PIPE

@ 2.00%

OUTLET PIPE

INV. 143.00

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