



UPPER UWCHLAN TOWNSHIP
PLANNING COMMISSION
AGENDA
January 12, 2023

6:00 p.m. – Work Session
7:00 p.m. -- Meeting

LOCATION

Upper Uwchlan Township Building, 140 Pottstown Pike, Chester Springs PA 19425

		Packet Page #
I.	6:00 PM Work Session Discuss Upper Uwchlan's and regional commercial and industrial districts uses.	
II.	7:00 PM Meeting Call To Order	
III.	Reorganization for 2023 Nominate, elect Chair, Vice-Chair, Secretary	
IV.	Eagle Animal Hospital Land Development Plan Accept plan for consultants' review	20
V.	Struble Trail Extension Phase 2 ~ Revised Plans Accept for consultants' review	64
VI.	500 Pottstown Pike – Zoning Amendment Petition	103
VII.	Approval of Minutes: December 8, 2022 Meeting	113
VIII.	Meeting Updates ~ Reports A. Environmental Advisory Council (EAC) B. Historical Commission (HC) C. Active Transportation Plan (ATP)	
IX.	Next Meeting Date: February 9, 2023 7:00 p.m.	
X.	Open Session	
XI.	Adjournment	

12/09/2022

Category	C-1 Zoning District
Purpose	<p>A. Preserve the historical development patterns of the villages of Eagle and Byers <u>Station Historic District</u>, and establish standards for <u>new</u> development and coordinated street, <u>parking</u>, and landscape improvements and pedestrian amenities, so as to complement the village setting and provide for safe and convenient access;</p> <p>B. Provide for a variety of uses in a manner which facilitates and promotes pedestrian travel within the village setting.</p>
By-Right	<p>(1) <u>(1) Business or professional office, bank or other financial institution, <u>provided that no drive-through, outside walk-up ATM or other outside service shall be permitted by right.</u></u></p> <p>(2) Individual retail store, shop or establishment for the sale of drugs, dry goods, clothing, furnishings and other household supplies, variety, electronic goods and supplies, general merchandise, hardware, and garden supplies, provided that no adult-oriented use <u>is provided</u>, and no dispensing of g</p> <p>(2) <u>asoline shall be permitted <u>and no drive-through, outside walk-up, or other outside service shall be permitted by right.</u></u></p> <p>(3) Individual retail store, shop or establishment for the sale of groceries and food without table service, including catering establishment, bakery, or confectionery shop, <u>provided that no drive-through, outside walk-up or other outside service shall be permitted by right.</u></p> <p>(4) Personal service establishment, including but not limited to barbershop, beautician, tailor, dressmaker, shoe repair, repair of small appliances or electronic goods, or dry-cleaning service with a closed-loop system.</p> <p>(5) (Reserved)</p> <p>(6) Medical marijuana dispensary.</p> <p>(7) <u>Restaurant. Including Outdoor Dining in accordance with Section XXXX.</u></p>
Conditional Use	<p>(1) <u>(1) Educational or religious use.</u></p> <p>(2) Cultural studio or facility.</p> <p>(3) Day-care center.</p> <p>(4) <u>Bank or other financial institution with drive-through, walk-up ATM or other outside service, <u>provided that such service shall not be permitted within direct view from any dedicated public street Reserved.</u></u></p> <p>(5) <u>Individual retail store, shop or establishment otherwise permitted as provided in Subsection A(2) or (3) above, with drive-through, walk-up or outside counter or curb service, provided that such service shall not be permitted within direct view from any dedicated public street Reserved.</u></p> <p>(6) Mixed-use dwelling.</p> <p>(7) Bed-and-breakfast inn.</p> <p>(8) <u>Eating and/or drinking establishment with inside and/or outside table service and with or without indoor or outdoor counter service for consumption on or off site but excluding drive-through service.</u></p> <p>(9) On tracts located adjacent to <u>the Route 100 Bypass</u><u>Graphite Mine Road</u> and south of Byers Road only, any use permitted by right, conditional use, or special exception in the C-3 Highway Commercial District and not otherwise permitted in the C-1 Village District. For the purposes of this section, the term "adjacent" shall apply to tracts with direct frontage on <u>the Route 100 Bypass</u><u>Graphite Mine Road</u>, whether or not access to <u>the Bypass</u><u>Graphite Mine Road</u> is provided, as well as tracts contiguous to such tracts, where contiguous tracts are developed together with the tract(s) having direct frontage, under common authority and in accordance with a unified development plan. Contiguous tracts shall share a common boundary and shall not be separated by any public street. Conditional use approval hereunder shall not confer a right of direct access to <u>the Bypass</u><u>Graphite Mine Road</u> where such is not otherwise specifically approved.</p> <p>(10) Any two or more principal uses otherwise permitted by right, conditional use, or special exception as provided herein. As a condition of conditional use approval, the Board of Supervisors may require that any application for a combination of two or more principal uses comply with the</p>

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	provisions of § 200-70 of this chapter, as deemed applicable by the Board. (11) Adaptive reuse for historic preservation where indicated as a use subject to approval by the Board of Supervisors as a conditional use in accordance with § 200-72.1.
Accessory Use	(1) Bed and breakfast establishment as set forth in § 200-62B(5) Reserved. (2) Home occupation as set forth in § 200-62B(4) Reserved. (3) Any other customary residential or commercial accessory use <u>only</u> , subject to all applicable provisions of § 200-62.
Special Exception	(1) Municipal or public uses; governmental or public utility building or uses. (2) Conversion of dwellings as set forth in § 200-63 Reserved.
Other	Adaptive reuse for historic preservation where indicated as a use by right in accordance with § 200-72.1.

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Category	C-2 Zoning District (Merge with PI)
Purpose	In the C-2 Limited Commercial District, the use regulations, area and bulk regulations, community facility provisions, and design standards set forth in Article XII for the PI Planned Industrial/Office District shall apply.
By-Right	
Conditional Use	
Accessory Use	
Special Exception	
Other	

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Category	C-3 Zoning District
Purpose	<p>to provide for retail and service uses in an area of the Township accessible to a regional highway system. The C-3 District establishes standards for a unified and organized arrangement of buildings, service and parking areas, to facilitate access management and provide for safe, convenient and attractive commercial activity in the Township.</p>
By-Right	<p>(1) Business or professional office, bank or other financial institution, passenger station for public transportation.</p> <p>(2) Individual retail store or shop for sale of food, groceries, drugs, dry goods, clothing, furnishings and other household supplies, variety, electronic goods and supplies, automotive supplies, general merchandise, hardware and garden supplies, provided that no sale or dispensing of gasoline or other fuels and no adult-oriented use shall be permitted.</p> <p>(3) Eating and drinking establishment, confectionery shop, bakery, or other place serving food or beverages.</p> <p>(4) Personal service establishment, including but not limited to barbershop, beauty salon, shoe repair, tailor, dressmaker, repair of small appliances or electronic goods, or dry-cleaning service.</p> <p>(5) Retail or wholesale establishment for the sale of plumbing and heating equipment and supplies, lumber yard, including the customary storage and work yards incidental thereto.</p> <p>(6) Educational or religious use.</p> <p>(7) Cultural studio or facility.</p> <p>(8) Medical marijuana dispensary.</p> <p><u>(9) By-Right Uses allowed in the C1 district</u></p> <p><u>(10) Passenger station for public transportation,</u></p>
Conditional Use	<p><u>(1) (1) Any two or more principal uses otherwise permitted by right, conditional use, or special exception as provided herein. As a condition of conditional use approval, the Board of Supervisors may require that any application for a combination of two or more principal uses comply with the provisions of § 200-70 of this chapter, as deemed applicable by the Board.</u></p> <p>(2) Day-care center.</p> <p><u>(3) Hotel or motel.</u></p> <p>(4) Bed-and-breakfast inn.</p> <p><u>(5) Bowling lanes, indoor theater, and other place of indoor amusement or recreation.</u></p> <p><u>(6) Sale or dispensing of gasoline as a principal or accessory use.</u></p> <p>(7) Vehicular sales establishment and sale of farming equipment in operable condition, provided that any used motor vehicle and any used trailer over 1,000 pounds shall bear a current state inspection sticker.</p> <p><u>(8) Sale or bulk storage of coal, petroleum or other fuels, excluding, however, combustible trash or waste Reserved.</u></p> <p>(9) Vehicular service establishment; service and <u>minor</u> repairs to motor-driven vehicles and farming equipment, <u>but not including body or fender repair, painting or major overhauling.</u></p> <p>(10) Car wash.</p> <p>(11) Adaptive reuse for historic preservation where indicated as a use subject to approval by the Board of Supervisors as a conditional use in accordance with Section 200-72.1.</p> <p>(12) Mixed-use dwelling.</p> <p><u>(13) Laboratory for scientific research and development.</u></p> <p><u>(14) Public recreational facilities, not accessory to a residential use, such as swim clubs, tennis courts and similar facilities, excluding however outdoor athletic fields</u></p>
Accessory Use	Accessory uses. In the C-3 Highway Commercial District, a building may be erected, altered or used, and a lot may be used or occupied for any customary <u>commercial</u> accessory use(s) provided that they are incidental to any permitted principal use

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Special Exception	(1) Municipal or public uses; governmental or public utility building or uses. (2) Conversion of dwellings as set forth in § 200-63 Reserved.
Other	Adaptive reuse for historic preservation where indicated as a use by right in accordance with § 200-72.1.

Category	Limited Industrial District
Purpose	to provide for limited industrial and other related intensive activities in the Township, to encourage the establishment of industrial uses which will offer additional employment opportunities and an increased tax base for the Township ; to establish reasonable standards governing industrial development to ensure its compatibility with the character of the area and adjacent land uses, and to locate industrial uses within close proximity to major roads in order to provide safe and efficient access by industrial-related traffic.
By-Right	<p>A. Assembly of office equipment and electrical appliances and supplies; and similar processes not to include the manufacturing of iron, steel, other metals or alloys, or metal processing.</p> <p>B. Manufacture of light industrial products from already prepared materials (such as wood, metal, cloth, leather, paper, plastic, glass); manufacture of professional, scientific, or electronic instruments; jewelry; watches, small appliances, and similar products.</p> <p>B.1. Medical marijuana grower/processor.</p> <p>C. Research, engineering, or testing laboratories.</p> <p>D. Public utility operating facilities.</p> <p>E. Printing or publishing establishment.</p> <p>F. Office building.</p> <p>G. Wholesale warehouse, and distribution.</p> <p>H. Churches/religious uses.</p> <p><u>I. By-Right Uses allowed in the C1 and C3 districts</u></p> <p>(1) (1) Surface mining operations.</p> <p>(2) Sanitary landfills.</p> <p>(3) Junkyard.</p> <p>(4) Recycling collection center, excluding processing or transfer station.</p> <p>(5) Motor vehicle body or fender repair, including painting or major overhauling.</p> <p>(6) A helicopter landing pad as an accessory use to any of the uses permitted by right, by conditional use or by special exception, when such accessory use is authorized by conditional use procedure and providing that any such accessory use shall comply with the following:</p> <p>{(a) – (f) Helicopter specific requirements, not included in this summary}</p> <p>(7) Indoor health spas, fitness centers, indoor bowling lanes, indoor tennis courts and indoor skating rinks subject to all applicable requirements of the L-1 District and all other requirements of the Township's existing ordinances.</p> <p>(8) Tower-based wireless communication facilities.</p> <p>(9) Adult-oriented use, where located not less than 500 feet from any similar use and from any residence, church, or public or private school or day-care facility.</p> <p>(10) Municipal or public uses; governmental or public utility building or uses.</p> <p><u>(11) Laboratory for scientific research and development.</u></p> <p><u>(12) Public recreational facilities, not accessory to a residential use, such as swim clubs, tennis courts and similar facilities, excluding however outdoor athletic fields</u></p>
Conditional Use	<p>the following additional uses shall be permitted when established on a property designated by the Township as a Class I or Class II Historic Resource, where historical building(s) shall be adaptively re-used, and where an economic development license has been issued by the Board of Supervisors for the purpose of local economic</p>

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	<p>development:</p> <p>(1) Bakeries.</p> <p>(2) Retail sales.</p> <p>(3) Restaurants; including tavern, brew pub, confectionary, ice cream stand, diner, sandwich or pizza parlor providing both dining and take-out service.</p> <p>(4) Adaptive reuse for historic preservation where indicated as a use subject to approval by the Board of Supervisors as a conditional use in accordance with Section 200-72.1.</p>
Accessory Use	(1) Customary industrial accessory uses.
Special Exception	<i>Any use similar to the above permitted uses not specifically provided for herein, provided that the use meets the performance requirements of § 200-82 of this chapter Reserved.</i>
Other	Adaptive reuse for historic preservation where indicated as a use by right in accordance with § 200-72.1.

Category	R-1 Zoning District
Purpose	to support the preservation of critical natural resources, such as streams, floodplains, wet soils, variable groundwater yield areas, and conditionally suitable for on-lot sewage disposal systems; to encourage continued agricultural, open space and conservation uses; to provide for continued low density residential development that is compatible with established use patterns; and to encourage and promote phased development throughout the Township by permitting low density residential uses in the R-1 District until other areas of the Township more accessible to adequate services and transportation are fully developed in medium and high density residential uses. The R-1 District establishes maximum density standards which provide for low density residential uses and promote the conservation of surface water and groundwater supplies, soils for on-lot sewage disposal systems, and the control of soil erosion and flooding.
By-Right	<p>A. Single-family detached dwelling and group home.</p> <p>B. Agriculture</p>
Conditional Use	<p>(1) Nursery, excluding retail sales and landscaping business, provided that they are situated no less than 100 feet from an adjoining property line or public right-of-way.</p> <p>(2) Educational or religious use.</p> <p>(3) Recreation uses, provided that no commercial activity or use such as amusement park, driving ranges, pitch and putt or miniature golf course, or similar use customarily carried on as a business, shall be permitted (see § 200-68).</p> <p>(4) Bed-and-breakfast [see § 200-62B(5)].</p> <p>(5) (Reserved)</p> <p>(6) Adaptive reuse for historic preservation where indicated as a use subject to approval by the Board of Supervisors as a conditional use in accordance with § 200-72.1.</p>
Accessory Use	<p>(1) Customary residential accessory uses.</p> <p>(2) Customary agricultural accessory uses.</p> <p>(3) Private swimming pools</p>
Special Exception	<p>(1) Municipal or public uses; governmental or public utility building or uses.</p> <p>(2) Cemetery.</p> <p>(3) Kennels.</p> <p>(4) Home occupations</p>
Other	Adaptive reuse for historic preservation where indicated as a use by right in accordance with § 200-72.1.

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Category	R-2 Zoning District
Purpose	to provide for low to moderate density residential development in areas of the Township which are not generally characterized by steep slopes or floodplains, but which nevertheless contain soils conditional for on-lot sewage disposal systems and variable groundwater yields; to encourage continued agricultural, open space and conservation uses in the R-2 District while also permitting low to moderate density residential development compatible with established use patterns; and to encourage and promote phased development throughout the Township by permitting low to moderate density residential uses in the R-2 District until other areas of the Township more accessible to adequate services and transportation are fully developed in medium and high density residential uses. The R-2 District establishes maximum density standards which provide the conservation of surface water and groundwater supplies, soils for on-lot sewage disposal systems, and the control of soil erosion and flooding.
By-Right	Any use permitted by right in the R-1 District.
Conditional Use	(1) Educational or religious use. (2) Cemetery. (3) Adaptive reuse for historic preservation where indicated as a use subject to approval by the Board of Supervisors as a conditional use in accordance with § 200-72.1.
Accessory Use	Any accessory use permitted in the R-1 District.
Special Exception	None
Other	Adaptive reuse for historic preservation where indicated as a use by right in accordance with § 200-72.1.

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Category	R-3 Zoning District
Purpose	to encourage medium to high density residential development which is compatible with established use patterns; located in areas of the Township which contain environmental features generally suitable for such development; and accessible to transportation systems and community facilities appropriate for such development. The R-3 District is designed: <ul style="list-style-type: none"> (1) To provide a transition between areas of low and high density residential; and (2) To supply additional flexibility and opportunity for accommodating multifamily units at a lower density than permitted in other zoning districts of the Township.
By-Right	In addition to those uses permitted by right in the R-1 District, the following uses shall be permitted: <ul style="list-style-type: none"> (1) Single-family semidetached dwelling (twin). (2) Two-family detached dwelling (duplex).
Conditional Use	<ul style="list-style-type: none"> (1) Multifamily dwellings. (2) Mobile home park. (3) Nursing or convalescent home (see § 200-66). (4) Cemetery. (5) Municipal or public uses; governmental or public utility building or use. (6) Adaptive reuse for historic preservation where indicated as a use subject to approval by the Board of Supervisors as a conditional use in accordance with § 200-72.1.
Accessory Use	Any accessory use permitted in the R-1 District.
Special Exception	None
Other	Adaptive reuse for historic preservation where indicated as a use by right in accordance with § 200-72.1.

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Category	R-4 Zoning District
Purpose	to provide the opportunity for high density residential development to occur in areas which are compatible with established use patterns; located in areas of the Township which contain environmental features generally suitable for such development; and accessible to transportation systems and community facilities appropriate for such development. The R-4 District is designed to provide the opportunity for accommodating multifamily units at a density consistent with the character of the Township.
By-Right	Any use permitted by right in the R-3 District.
Conditional Use	(1) Multifamily dwellings. (2) Adaptive reuse for historic preservation where indicated as a use subject to approval by the Board of Supervisors as a conditional use in accordance with § 200-72.1.
Accessory Use	Any accessory use permitted in the R-1 District.
Special Exception	
Other	Adaptive reuse for historic preservation where indicated as a use by right in accordance with § 200-72.1.

Regional Township Zoning

West Pikeland	No commercial or industrial districts
West Vincent	Planned Commercial / Limited Industrial
West Vincent	Ludwigs Village Center Commercial
West Vincent	Village Center Residential Overlay
West Vincent	Route 100 Overlay
West Vincent	Municipal District
Uwchlan	Planned Commercial
Uwchlan	Planned Commercial 2
Uwchlan	Planned Industrial Commercial
Uwchlan	Planned Commercial Industrial Development
Uwchlan	Planned Industrial
East Nantmeal	Agricultural Preservation District
East Nantmeal	Agricultural Residential District
East Nantmeal	Commercial District
East Nantmeal	Industrial / Agricultural - 1
East Nantmeal	Industrial / Agricultural -2
East Nantmeal	Educational / Institutional

District	Allowed By Right
Commercial	Retail establishment for sale of dry goods, drugs, food, jewelry, variety and general merchandise, hardware, household furnishings and supplies, instruments, electronic appliances, including repair service.
Commercial	Restaurant, tearoom, cafe, confectionery or other place serving food or beverages, provided that no curb service shall be permitted.
Commercial	Personal service shop, including barber, beauty salon, shoe repair, tailor, dressmaking, pickup station for laundry and dry cleaning.
Commercial	Passenger station for public transportation, bank, savings and loan association or other financial institution, business or professional office, offices or office building for administrative, executive and professional activity, and similar activities involving the performance or rendering of professional services, such as mortician, the sale of real estate and business office
Commercial	Automatic self-service laundry and dry-cleaning establishment with certificates of approval by the public health agency having jurisdiction, with regard to waste disposal, and by the Fire Marshall, with regard to compliance with all safety regulations.
Commercial	Churches.
Commercial	Public uses, structures or buildings owned or operated by the Township, a Municipal Authority organized by the Township or an Authority of which the Township is a member.
Commercial	Dispensary, provided that such use shall not be permitted closer than 1,000 linear feet from a school or day-care center, and subject to all applicable requirements of the Medical Marijuana Act.
Commercial - Industrial	Manufacturing, wholesaling, processing, warehousing and distributing, provided that no bulk storage of liquid or gaseous fuels shall be permitted except for consumption on the premises.
Commercial - Industrial	Laboratory for scientific research and development.
Commercial - Industrial	Passenger station for public transportation; electric substations; telephone central office.
Commercial - Industrial	Theater (movie or performing) within a permanent building; library, civic or cultural center.
Commercial	Indoor retail uses for the sale of retail products or services such as restaurants.
Commercial	Small office uses, defined as office buildings or complexes that, in aggregate, provide no more than 10,000 square feet of gross leasable floor area.
Commercial	Bank or financial institutions.
Commercial	Township municipal use
Commercial	Public recreational facilities, not accessory to a residential use, such as golf or country clubs, swim clubs, tennis courts and similar facilities, excluding however athletic fields

Commercial - Industrial	Retail establishment for sale of dry goods, drugs, food, jewelry, variety and general merchandise, hardware, household furnishings and supplies, instruments, electronic appliances, including repair service, job printing.
Commercial - Industrial	Restaurant, tearoom, cafe, confectionery or other place serving food or beverages, provided that no curb service shall be permitted.
Commercial - Industrial	Automobile court or motel, bowling lanes or other similar place of indoor recreation.
Commercial - Industrial	Personal service shop, including barber, beauty salon, shoe repair, tailor, dressmaking, pickup station for laundry and dry cleaning.
Commercial - Industrial	Frozen food lockers, wholesaling, warehousing, distributing, provided that all parking, loading and unloading shall be in the rear of the building and screened from a side street if on a corner lot.
Commercial - Industrial	Offices or office building for administrative, executive and professional activity, and similar activities involving the performance or rendering of professional service, such as a bank, financial institution, mortician, the sale of real estate and business office
Commercial - Industrial	Wholesale establishment for the sale and distribution of dry goods, drugs, foods, variety and general merchandise, hardware, household furnishing, electrical appliances and supplies, job printing.
Commercial - Industrial	Wholesale establishment for the sale of plumbing and heating equipment and supplies, lumberyard, including the customary storage and work yards incidental thereto when screened by a fence, wall or planting screen.
Commercial - Industrial	Automatic self-service laundry and dry-cleaning establishment with certificates of approval by the public health agency having jurisdiction, with regard to waste disposal, and by the Fire Marshal, with regard to compliance with all safety regulations.
Commercial - Industrial	Public uses, structures, or buildings owned or operated by the Township, a Municipal Authority organized by the Township or an Authority of which the Township is a member.
Commercial - Industrial	Manufacturing, assembling and/or servicing electronic equipment.
Commercial - Industrial	Passenger station for public transportation; electric substation; telephone central office.
Commercial - Industrial	Hotel and/or conference center.
Commercial - Industrial	Professional and other business offices.
Commercial - Industrial	Restaurant, cafeteria or recreational facilities designed for the comfort and convenience of employees, provided such facilities are located inside the confines of the building and are not offered for use by the general public.
Commercial - Industrial	Churches.
Commercial - Industrial	Public uses, structures, or buildings owned, operated or subsidized by the Township, a Municipal Authority organized by the Township or an Authority of which the Township is a member.

Commercial - Industrial	Indoor recreational facilities containing amenities such as a swimming pool, spa, indoor track, nautilus equipment, handball courts and facilities typical of a YMCA facility.
Commercial - Industrial	Laboratory for scientific research and development, excluding animal research for cosmetics purposes.
Commercial - Industrial	Day-care centers.
Commercial - Industrial	Wholesaling, warehousing and distributing, provided that there shall be no exterior evidence of such, and, further, no bulk storage of liquid or gaseous fuel or chemicals shall be permitted except for immediate consumption on the premises.

District	Accessory Use
Commercial	off street parking
Commercial	signs
Commercial	incidental to primary use
Commercial	A single dwelling unit constructed over or behind an indoor retail or office use.
Commercial	Wholesale use when accessory to a retail use on the same lot.
Commercial	Other uses accessory to permitted principal uses.
Commercial	Class I or class II home occupation.
Commercial - Industrial	Off-street parking, provided that, where a parking space abuts a grass median of at least two feet in width, or four feet in width where parking spaces are on each side of the median, the minimum length of the parking space may be 18 feet.
Commercial - Industrial	Signs
Commercial - Industrial	Other accessory uses, structures or building, provided such are clearly incidental to the principal use.
Commercial - Industrial	Private parking areas
Commercial - Industrial	Signs
Commercial - Industrial	Other accessory uses, structures or buildings, provided such are clearly incidental to the principal use.

District	Conditional Use
Commercial	Shopping centers, except gas stations
Commercial	Hotel adjacent to arterial hwy
Commercial	Any other use determined by BoS to be of same general character as permitted use
Commercial	Multiple permitted uses on the same lot
Commercial	Passenger transportation terminals.
Commercial	Offices, defined as office buildings or complexes that, in aggregate, provide more than ten thousand (10,000) square feet but less than twenty five thousand (25,000) square feet of gross leasable floor area.
Commercial	Antenna support structures for personal wireless service and public broadcast
Commercial - Industrial	Shopping centers
Commercial - Industrial	Structures over 2 1/2 stories or 35 feet in height up to 65 feet in height may be permitted
Commercial - Industrial	Public and private wireless communication facilities.
Commercial - Industrial	Facilities for outdoor recreation, not including shooting or archery ranges, motor vehicle racing or amusement parks.
Commercial - Industrial	Any other use as determined by the Board of Supervisors to be the same general character as the permitted uses.
Commercial - Industrial	Off-premises outdoor advertising signs
Commercial - Industrial	Hospitals
Commercial - Industrial	Any legitimate use not specifically provided for in any zoning district and which is not inherently objectionable.
Commercial - Industrial	Convenience centers. Principal uses except that no gasoline service stations, garages (private or public) or drive-in food establishments shall be permitted.
Commercial - Industrial	Theater (movie or performing) within a permanent building; library, civic or cultural center.
Commercial - Industrial	Automatic self-service laundry and dry-cleaning establishment.
Commercial - Industrial	Manufacturing and processing, provided that there shall be no bulk storage of liquid or gaseous fuels or chemicals except for immediate consumption on the premises, and no raw materials or finished products shall be permitted on the exterior of the building.
Commercial - Industrial	Restaurant, tearoom, cafe, confectionery or other place serving food or beverages, provided that no curb service shall be permitted.

Commercial - Industrial	Any nonresidential buildings in excess of three stories but not more than five stories or 65 feet in height, provided that:
Commercial - Industrial	Wagering and gambling facilities, provided that no such use shall be located on any lot or parcel of land unless said lot or parcel of land or any part thereof is separated by either (a) a distance of 1,500 feet (except for a hotel) or (b) the right-of-way of a limited access highway, from any lot or parcel of land which is used for residential purposes (except for a hotel) in the Township or an adjoining Township; or which is included in whole or in part within a residential zoning district of the Township or an adjoining Township.
Commercial - Industrial	Hospitals.
Commercial - Industrial	Off-premises outdoor advertising signs
Commercial - Industrial	Any other use as determined by the Board of Supervisors to be the same general character as the permitted uses.
Commercial - Industrial	Planned life care facility

District	Special Exception
Commercial	Automobile court or motel, indoor theater, bowling lanes or other similar place of indoor recreation.
Commercial	Living quarters for a proprietor, building manager, caretaker or watchman, if employed on the premises, as an accessory use within a principal building.
Commercial	A private-use helistop as an accessory use to a permitted principal use subject to Planning Commission review and recommendation and conformance to the general standards prescribed in XXX.
Commercial	Accessory uses, structures, or buildings not located on the same lot with the permitted principal use
Commercial	Outdoor retail uses for the sale of retail products or services such as nurseries and automobile sales. The sale and display of such uses may occur anywhere on the premises except within the buffer area.
Commercial	Drive-in facilities such as fast food restaurants, and public garages, automobile service stations and mechanical repair shops.
Commercial	Hotels, motels or inns
Commercial	Multiple dwelling units over indoor retail or office use
Commercial	Car wash.
Commercial	Self-storage facilities
Commercial - Industrial	A private-use helistop as an accessory use to a permitted principal use subject to Planning Commission review and recommendation and conformance to the general standards prescribed in § 610.
Commercial - Industrial	Accessory uses not located on the same lot with the permitted principal use.
Commercial - Industrial	Gasoline service station, provided that no station be located closer than a five-hundred-foot radius from the next nearest gasoline service station property line.
Commercial - Industrial	Living quarters for a proprietor, building manager, caretaker or watchman, if employed on the premises, as an accessory use within a principal building.
Commercial - Industrial	Commercial uses or activities which are customarily and directly related to the comfort and convenience of the traveling public, including rest facilities designed and operated exclusively for licensed truckers, when maintained in strict accordance with the regulations of the Pennsylvania Department of Labor and Industry, and any other public agency having jurisdiction.
Commercial - Industrial	A private-use helistop as an accessory use to a permitted principal use subject to Planning Commission review and recommendation and conformance to the general standards.

RECEIVED

DEC 13 2022



UPPER UWCHLAN TWP
ADMINISTRATIVE OFFICES

SUBDIVISION / LAND DEVELOPMENT APPLICATION



Preliminary Submittal



Final Submittal

The undersigned hereby applies for review of the Plan submitted herewith and described below:

1. Name of Subdivision / Development: Eagle Animal Hospital
2. Plan Dated: 12/9/22 County Deed Book/Page No. 7355/455
3. Name of property owner(s): G Coffman Associates, LP

Address: 211 Byers Rd Chester Springs

State/Zip: PA 19425 Phone No.: 610-485-8789

Email: kgmatuwise@comcast.net

4. Name of Applicant (If other than owner):

SAME AS ABOVE

Address:

State/Zip: _____ Phone No.: _____

Email: _____

5. Applicant's interest (If other than owner): OWNER

6. Engineer, Architect, Surveyor, or Landscape Architect responsible for Plan.

Linn Architects c/o Adam Powell, PE

Address: 1140 N. Providence Rd Media

State/Zip: PA 19063 Phone No.: 610-566-7044

Email: apowell@yahoo.com

7. Total acreage: 1.40 ACRES Number of Lots: 1

8. Acreage of adjoining land in same ownership: (If any) 0

9. Describe Type of Development Planned: Building addition

To existing veterinary clinic

10. This Application shall be accompanied by: the Application Fee as listed below, an aerial image of the property, and the quantity of plans/supporting information as detailed in the Township Code §162-8.B.(1)(b) and/or §162-8.C.(1)(d).
[One-half of the required plan submissions may be of a reduced size, i.e. 11 x 17]

11. List all subdivision and zoning standards or requirements which have not been met and for which a waiver or change is requested.

Waiver: Section 162-8.B - Preliminary Plan Requirement.
Applicant is requesting a waiver to allow the project to
be reviewed as preliminary/final.

12. The Applicant or his/her agent shall enter into a Subdivision / Land Development Review Escrow Agreement (attached) and place into escrow with the Township at the time of application an amount estimated by the Township to cover all costs of engineering and professional planning reviews (not including County application fee), legal services and other professional services used by the Township in connection with the application.

Signature of Property Owner or Applicant:

By: ✓ Dennis (orante) Matus + David Matus
Date: 12/21/2012

*Development subject to ACT 209 Impact Fee.

*Park & Recreation Fee per residence is levied. Contact Township Offices to determine amount.

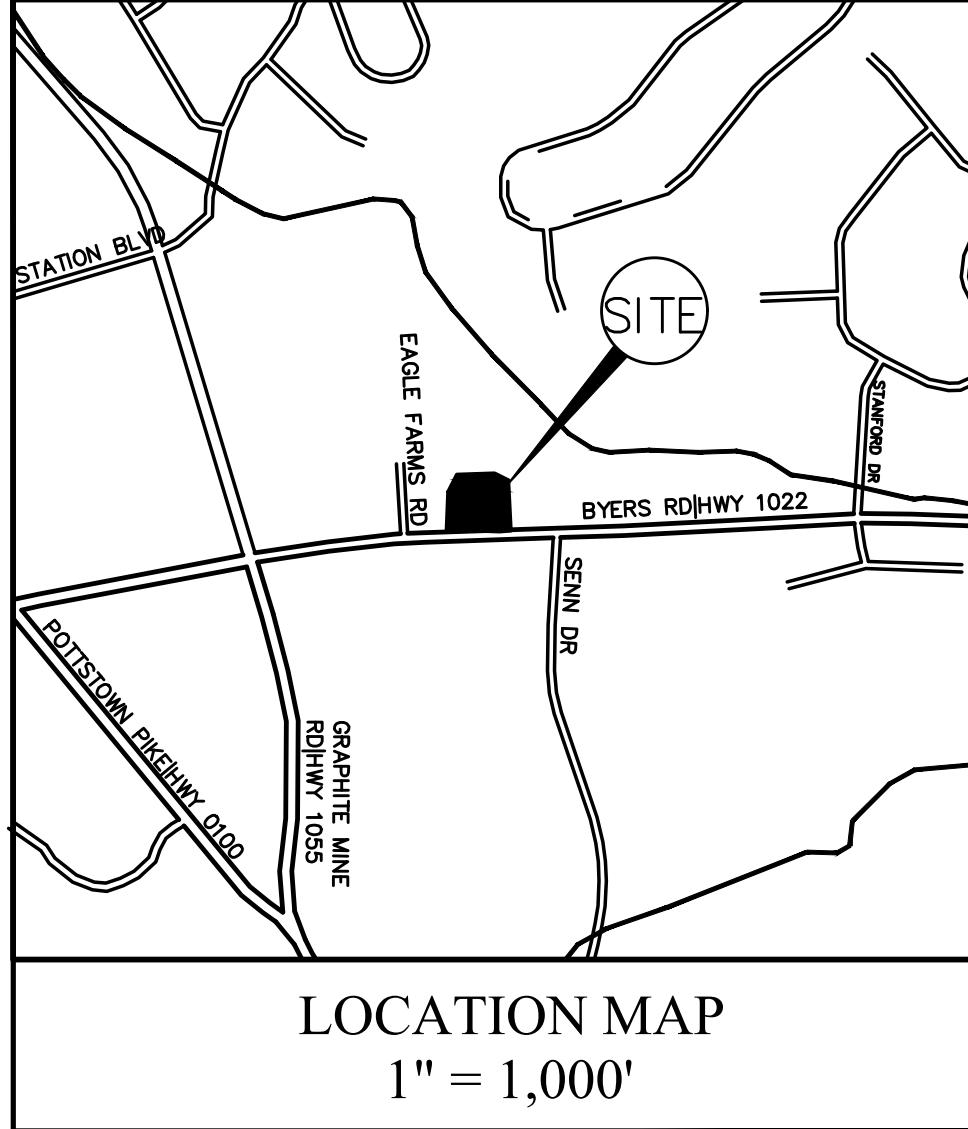
SUBDIVISION / LAND DEVELOPMENT APPLICATION FEE

1-2 Lots \$250

3-5 Lots \$500
Plus \$25 for each Lot over 3

Over 5 Lots \$1000
Plus \$50 for each Lot over 5

Form revised January 2015



ZONING DATA		
C-1 VILLAGE ZONING DISTRICT		
REQUIREMENT - SINGLE	EXISTING	PROPOSED
LOT AREA (GROSS)	61,201 S.F.	61,201 S.F.
LOT AREA (NET)	10,000 S.F.	58,423 S.F.
MAX. BLDG. HEIGHT	>35 FT.	>35 FT.
LOT WIDTH	100 FT.	271.7 FT.
BUILDING SETBACKS		
FRONT YARD:	20 FT. MIN	15.8 FT.*
SIDE YARD:	10 FT. MIN	18.5 FT.
REAR YARD:	40 FT. MIN	39.7 FT.*
IMPERVIOUS COVERAGE	60%	12,037 S.F. (20.6%)
BUILDING COVERAGE	30%	4,344 S.F. (7.4%)
		5,108 S.F. (8.7%)

*EXISTING LEGAL NON-COMFORMITY
**CONTINUATION OF EXISTING LEGAL NON-COMFORMITY

PA. ONE CALL INFORMATION

COMPANY: AQUA PENNSYLVANIA INC
ADDRESS: 762 W LANCASTER AVE
BRYN MAWR, PA 19010
CONTACT: THOMAS WADDY
EMAIL: TBWADDY@AQUAAMERICA.COM

COMPANY: COMCAST
ADDRESS: 1004 CORNERSTONE BLVD
DOWNTOWN, PA. 19335
CONTACT: TOM RUSSO
EMAIL: tom_russo@cable.comcast.com

COMPANY: PECO AN EXELON COMPANY C/O USIC
ADDRESS: 450 S HENDERSON ROAD SUITE B
KING OF PRUSSIA, PA. 19406
CONTACT: NIKKIA SIMPKINS
EMAIL: NIKKIASIMP@USICLCC.COM

COMPANY: UPPER UWCHLAN TOWNSHIP UPPPER
UWCHLAN MUNICIPAL AUTHORITY
ADDRESS: 140 POTTSVILLE PIKE
CHESTER SPRINGS, PA. 19425
CONTACT: JAELEN HECKMAN
EMAIL: MHECKMAN@UPPERUWCHLAN-PA.GOV

COMPANY: VERIZON BUSINESS FORMERLY MCI
ADDRESS: 7000 WESTON PKWY
SUITE 7513
CONTACT: VICTOR WOOD
EMAIL: victor.s.wood@verizon.com

EXISTING TO PROPOSED PARKING
THE EXISTING FACILITY IS SUPPORTED BY 13 UNSTRIPED PARKING
SPACES. THE PROPOSED SITE WILL CONTAIN 22 PARKING SPACES
FOR AN INCREASE OF 9 SPACES.

PARKING ANALYSIS

A) EXISTING FACILITY

TOTAL = 13 SPACES PROVIDED

B) PROPOSED USES

USE AND ASSOCIATE PARKING REQUIREMENTS

1) OFFICE USE
5 SPACE PER 1,000 S.F. GROSS FLOOR AREA OF ADDITION
1,673 S.F. GROSS FLOOR AREA IN ADDITION = 8 SPACES

TOTAL = 21 SPACES REQUIRED

TOTAL PARKING PROVIDED = 22 SPACES

CONCLUSION

THE PARKING REQUIREMENTS FROM PRE-DEVELOPMENT
TO POST DEVELOPMENT HAS A NET INCREASE OF 8
PARKING SPACES, AND WE HAVE ADDED 12 SPACES,
WHICH SATISFIES THE NEW PARKING REQUIREMENT OF 22
SPACES.

PUBLIC SEWER SERVICE NOTE
APPLICANT IS PROPOSING TO CONNECT TO PUBLIC
SEWER LOCATED IN BYERS ROAD AS A PART OF
THIS PROJECT.

DEMOLITION NOTE

BUILDINGS, PAVEMENT, CURBING, TREES, LIGHTS, TRANSFORMERS, POLES,
CONCRETE PADS, DRAINAGE PIPING AND OTHER OBJECTS INTERFERING WITH
THE EXISTING PROPERTIES BE REMOVED AND DISPOSED OF PROPERLY.
ALSO ALL UTILITIES SERVICES THAT ARE ON THE SITE SHALL BE
PERMANENTLY TERMINATED OR TEMPORARILY SHUT OFF IN ACCORDANCE
WITH UTILITY COMPANY OR AUTHORITY REQUIREMENTS. THE CONTRACTOR
IS RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED FOR ANY AND ALL
DEMOLITION, INCLUDING HAZARDOUS MATERIALS ACCORDING WITH PADEP
REQUIREMENTS. ALL MATERIALS AND WASTES SHALL BE DISPOSED OF IN
ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT
REGULATIONS AT 25 PA CODE 260.1 ET. SEQ. AND 267.1 ET. SEQ.

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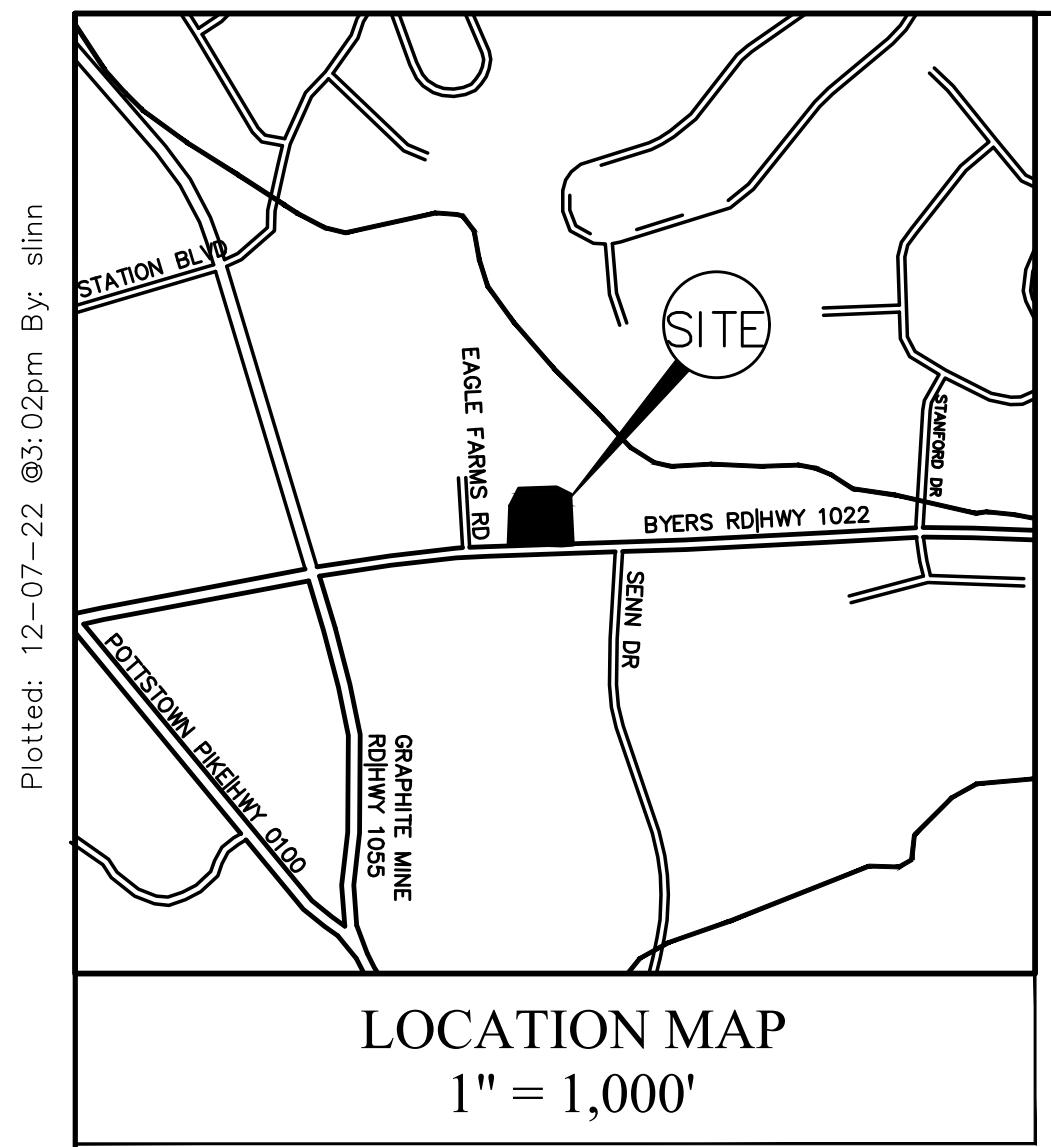
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EXISTING ZONING DATA	
C-1 VILLAGE ZONING DISTRICT	
REQUIREMENT - SINGLE	EXISTING
LOT AREA (GROSS)	61,201 S.F.
LOT AREA (NET)	10,000 S.F.
MAX. BLDG. HEIGHT	35 FT.
MAX. BLDG. HEIGHT	>35 FT.
LOT WIDTH	100 FT.
FRONT YARD:	20 FT. MIN 15.8 FT.*
SIDE YARD:	10 FT. MIN 18.5 FT. MIN
REAR YARD	40 FT. MIN 39.7 FT.*
IMPERVIOUS COVERAGE	60% 12,037 S.F. (20.6%)
BUILDING COVERAGE	30% 4,328 S.F. (7.4%)

*EXISTING LEGAL NON-CONFORMITY

LOCATION MAP

1" = 1,000'

1. THIS PLAN IS BASED ON A PLAN BY HOWELLKLINE SURVEYING, ENTITLED TOPOGRAPHIC AND PHYSICAL IMPROVEMENTS SURVEY, DATED MAY 19, 2022.
2. ELEVATIONS REFER TO CONTOURS FROM FIELD SURVEY BASED ON GPS SYSTEM, NORTH AMERICAN DATUM OF 1988.
3. BOUNDARY FROM A PLAN BY HOWELLKLINE SURVEYING LLC, ENTITLED TOPOGRAPHIC AND PHYSICAL IMPROVEMENTS SURVEY, DATED MAY 19, 2022.
4. PROPERTY IS IDENTIFIED IN THE HISTORIC ORDINANCE AS HRP NO. 057, KEY NO. 065814, CLASS 1.
5. ADJOINER INFORMATION TAKEN FROM CURRENT TAX RECORDS.
6. UTILITY INFORMATION FROM OBSERVED SURFACE EVIDENCE, ALL UTILITY LOCATIONS AND DEPTHS SHALL BE FIELD VERIFIED PRIOR TO CONSTRUCTION.
7. BY GRAPHIC PLOTTING ONLY, THIS PROPERTY IS IN ZONE 'X' OF THE FLOOD INSURANCE RATE MAP, MAP NO. 42029C0095G, COMMUNITY PANEL NO. 95 OF 380, WHICH BEARS AN EFFECTIVE DATE OF SEPTEMBER 29, 2017.
8. SOIL DELINEATION LINES TAKEN FROM USDA NATIONAL COOPERATIVE SOIL SURVEY THROUGH THE NATURAL RESOURCES CONSERVATION SERVICE CUSTOM SOIL RESOURCE REPORT FOR THIS PROJECT DATED JANUARY 14TH, 2022.
9. SITE IS CURRENTLY SERVICED BY PRIVATE SEWER AND PUBLIC WATER.
10. ALL LANDSCAPING SHOWN ON THE PLANS SHALL BE MAINTAINED AND KEPT CLEAN OF ALL DEBRIS, RUBBISH, WEEDS, AND TALL GRASS.
11. A BLANKET EASEMENT IS GRANTED TO UPPER UWCHLAN TOWNSHIP TO ALLOW FOR THE INSPECTION OF THE STORMWATER FACILITY. IN THE EVENT THE HOMEOWNER/PROPERTY OWNER FAILS TO PROPERLY MAINTAIN THOSE FACILITIES, AFTER NOTICE TO THE OWNER OF ITS INTENT TO DO SO (WHICH NOTICE SHALL NOT BE REQUIRED IN ANY EMERGENCY), THE TOWNSHIP MAY (BUT IS NOT OBLIGATED TO) ENTER ONTO THE PROPERTY TO INSPECT AND PERFORM ANY SUCH MAINTENANCE. IN SUCH EVENT, THE TOWNSHIP MAY CHARGE THE COSTS THEREOF, WHETHER DIRECT OR INDIRECT, INCLUDING LABOR, EQUIPMENT, MATERIALS, SUPPLIES AND FEES, TO THE OWNER, AND MAY PLACE A LIEN ON THE PROPERTY TO RECOVER ANY CHARGED COSTS THAT REMAIN UNREIMBURSED AND ANY COSTS OF COLLECTION, FEE AND INTEREST.
12. THERE WAS NO OBSERVED EVIDENCE OF GAS SERVICE ON THE SURVEYED PREMISES.
13. ALL BUILDING MATERIALS AND WASTES MUST BE REMOVED FROM THE SITE AND RECYCLED OR DISPOSED OF IN ACCORDANCE WITH THE DEPARTMENT OF ENVIRONMENTAL PROTECTION'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET SEQ. AND 267.1 ET SEQ. NO BUILDING MATERIAL SHALL BE BURIED, DUMPED OR DISCHARGED FROM THE SITE.
14. AN AS-BUILT SURVEY OF ALL STORMWATER BMP'S AND AN EXPLANATION OF ANY DISCREPANCIES WITH THE OPERATION AND MAINTENANCE PLAN SHALL BE PROVIDED TO UPPER UWCHLAN TOWNSHIP.
15. ALL SANITARY SEWERS MUST BE CONSTRUCTED IN ACCORDANCE WITH THE UPPER UWCHLAN TOWNSHIP MUNICIPAL AUTHORITY SPECIFICATIONS.
16. THE AUTHORITY ENGINEER MUST BE NOTIFIED 48 HOURS PRIOR TO THE BEGINNING OF SANITARY SEWER CONSTRUCTION.
17. A SEWER LATERAL AS-BUILT PLAN MUST BE SUBMITTED TO THE AUTHORITY ENGINEER.

CHAPTER 93 CLASSIFICATION:

THE SITE DRAINS TO PICKERING CREEK. CHAPTER 93 CLASSIFICATION IS HQ-TSF, MF.

SOILS TABLE

(FROM UNITED STATES DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE)

SOIL TYPE: CbB-Calcareous loam
DRAINAGE CLASS: Moderately Well Drained
SLOPE RANGE: 0-3
HYDROLOGIC GROUP: D
FRAGIPAN DEPTH: 20-30 inches
BEDROCK DEPTH: 72-99 inches
SEASONAL WATER TABLE: 6-36 inches
FLOODING POTENTIAL: None
PROFILE PERMEABILITY: Moderately low to moderately high

SOIL TYPE: Ho-Hatboro silt loam
DRAINAGE CLASS: Poorly Drained
SLOPE RANGE: 0-3
HYDROLOGIC GROUP: B/D
BEDROCK DEPTH: 60-99 inches
SEASONAL WATER TABLE: 0-6 inches
FLOODING POTENTIAL: Non-Frequent
PROFILE PERMEABILITY: Moderately high to high

SOIL TYPE: Uug-Urban land-Undrained, schist and gneiss complex
DRAINAGE CLASS: Moderately low to moderately high
SLOPE RANGE: 0-8
HYDROLOGIC GROUP: C
BEDROCK DEPTH: 20-70 inches
SEASONAL WATER TABLE: 60 inches
FLOODING POTENTIAL: None
PROFILE PERMEABILITY: Moderately low to moderately high

LAND DEVELOPMENT STATEMENT OF INTENT
THE PURPOSE OF THIS PLAN IS TO SHOW THE REQUIREMENTS NECESSARY TO CONSTRUCT AN ADDITION FOR AN ANIMAL HOSPITAL. THE PLAN INCLUDES THE IMPROVEMENTS ASSOCIATED WITH THE PROPOSED ADDITION SUCH AS GRADING, LANDSCAPING, AND STORMWATER MANAGEMENT FACILITIES.

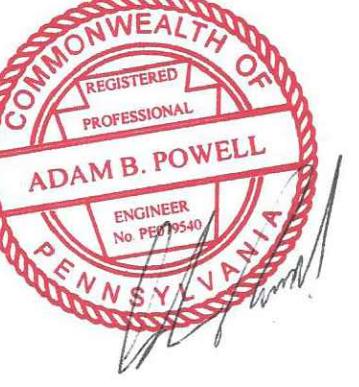
CALL BEFORE YOU DIG!

PENNSYLVANIA LAW REQUIRES THREE (3) WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND TEN (10) WORKING DAYS FOR DESIGN STAGE. UTILIZING THE ONE-CALL PROCESS THROUGH THE ONE-CALL PROCESS IS VALID FOR 90 DAYS FROM THE DATE OF THE CALL.

Pennsylvania One Call System, Inc.

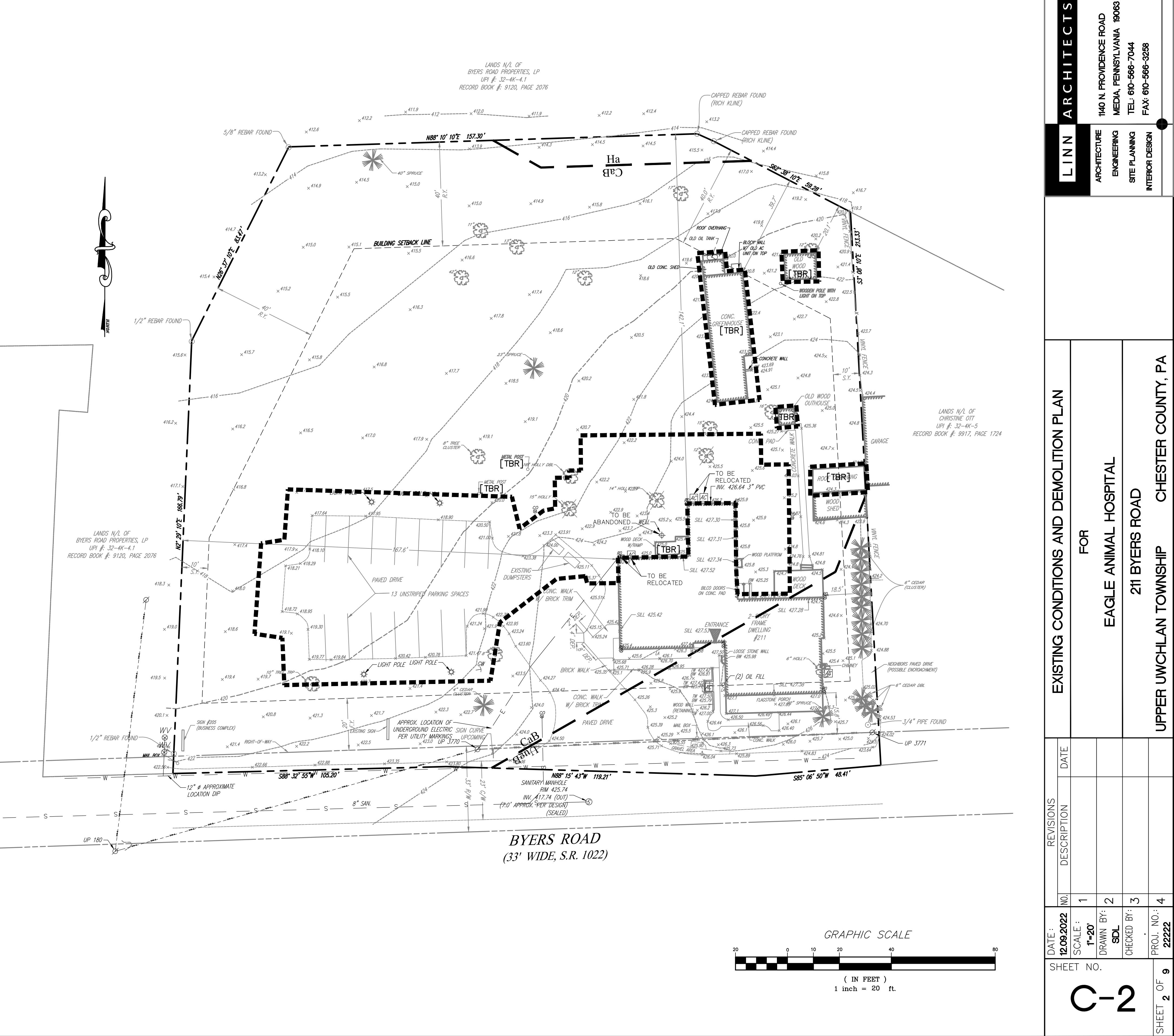
800-242-1776

SERIAL# 2022912121
ONE-CALL DATE: 10/18/2022



OWNER
9 COFFMAN ASSOCIATES, LP
211 BYERS RD
CHESTER SPRINGS, PA 19425

SITE INFORMATION
211 BYERS RD
TAX MAP: 32-4K-4
DB/PG: 7355/455



LANDSCAPE NOTES

- ALL PLANT MATERIAL AND INSTALLATION OF PLANT MATERIAL SHALL BE IN STRICT CONFORMANCE WITH USDA STANDARDS FOR NURSERY STOCK AND THE "AMERICAN NURSERY AND LANDSCAPE ASSOCIATION" LATEST EDITION.
- CONTRACTOR SHALL VERIFY ALL UTILITIES WITHIN WORK AREA AND SHALL BE RESPONSIBLE FOR THEIR PROTECTION.
- THE CONTRACTOR SHALL FURNISH AND PLANT ALL PLANTS SHOWN ON THE DRAWINGS, AS SPECIFIED, AND IN QUANTITIES INDICATED ON THE PLANT LIST.
- ALL PLANTS SHALL BE NURSERY GROWN.
- ALL PLANTS SHALL BE HARDY UNDER CLIMATIC CONDITIONS SIMILAR TO THOSE IN THE LOCALITY OF THE PROJECT.
- ALL PLANTS SHALL BE TYPICAL OF THEIR SPECIES OR VARIETY AND SHALL HAVE A NORMAL HABIT OR GROWTH. THEY SHALL BE SOUND, HEALTHY AND VIGOROUS, WELL BRANCHED AND DENSELY FOLIATED WHEN IN LEAF. THEY SHALL BE FREE OF DISEASE AND INSECT PESTS, EGGS OR LARVAE. THEY SHALL HAVE HEALTHY, WELL-DEVELOPED ROOT SYSTEMS.
- SUBSTITUTIONS: WHEN PLANTS OF A SPECIFIED KIND OR SIZE ARE NOT AVAILABLE WITHIN A REASONABLE DISTANCE, SUBSTITUTIONS MAY BE MADE UPON REQUEST BY THE CONTRACTOR IF APPROVED BY THE LANDSCAPE ARCHITECT AND UPPER UWCHLAN TOWNSHIP.
- ALL AREAS TO BE SHOWN AS LAWN SHALL BE GRASSED, AS SPECIFIED, AND WATERED UNTIL A HEALTHY STAND OF GRASS IS OBTAINED.
- TREE LOCATIONS MAY NEED TO BE ADJUSTED BASED ON LOCATIONS OF PROPOSED UTILITIES.
- ALL PLANTING BEDS TO RECEIVE 3" SHREDDED HARDWOOD MULCH AS SHOWN ON DETAILS.
- ROOT BALLS OF ALL PLANTS SHALL BE ADEQUATELY PROTECTED AT ALL TIMES FROM SUN AND DRYING WINDS OR FROST.
- PLANTS WITH BROKEN ROOT BALLS OR EXCESSIVE DAMAGE TO THE CROWN SHALL BE REPLACED PRIOR TO PLANTING.
- ROPES AT TOP OF BALL SHALL BE CUT. REMOVE TOP 1/3 OF BURLAP. NON-BiodeGRADABLE MATERIAL SHALL BE TOTALLY REMOVED.
- PREPARATION OF PLANTING: CLEAN TOPSOIL OF ROOTS, PLANTS, STONES, CLAY LUMPS, AND OTHER EXTRANEous MATERIALS HARMFUL OR TOXIC TO PLANT GROWTH.
- DO NOT ALLOW AIR POCKETS TO FORM WHEN BACKFILLING.
- NO PLANT SHALL BE PLACED IN THE GROUND BEFORE ROUGH GRADING HAS BEEN COMPLETED AND APPROVED BY THE PROJECT LANDSCAPE ARCHITECT OR HIS/HER EQUAL.
- ALL PLANTS SHALL HAVE THE SAME RELATIONSHIP TO FINISHED GRADE AS THE PLANT'S ORIGINAL GRADE BEFORE DIGGING.
- ALL EXISTING TREES THAT ARE TO BE SAVED AS DETERMINED BY LANDSCAPE ARCHITECT SHALL BE PROTECTED UNTIL CONSTRUCTION HAS BEEN COMPLETED. AREA WITHIN DRIPLINE SHALL NOT BE TRAVELED ACROSS BY CONSTRUCTION TRAFFIC.
- TREES PLANTED ALONG STREETS SHALL HAVE A SINGLE STRAIGHT TRUNK THAT DOES NOT FORK BELOW 6'.
- ALL PLANTS SHALL BE BALLED AND WRAPPED OR CONTAINER GROWN AS SPECIFIED. NO CONTAINER GROW STOCK WILL BE ACCEPTED IF IT IS ROOT BOUND. ALL ROOT WRAPPING MATERIAL MADE OF SYNTHETICS OR PLASTICS SHALL BE REMOVED AT TIME OF PLANTING.
- WITH CONTAINER GROWN STOCK, THE CONTAINER SHALL BE REMOVED AND THE CONTAINER BALL CUT THROUGH THE SURFACE IN TWO VERTICAL LOCATIONS.
- THE CONTRACTOR SHALL LAYOUT WITH IDENTIFIABLE STAKES INDIVIDUAL TREE AND SHRUB LOCATIONS AND AREAS FOR MULTIPLE PLANTING ALONG WITH THE ARRANGEMENTS AND OUTLINE OF PLANTING BEDS AS INDICATED ON DRAWING. THE LAYOUT OF PLANTING MILL THEN BE APPROVED BY LANDSCAPE ARCHITECT PRIOR TO ANY EXCAVATION OF PLANT PITS OR PLANT BEDS.
- AT PLANTING TIME, ALL PLANT MATERIAL SHALL BE THINNED BY REMOVING BROKEN AND/OR DEAD VEGETATIVE MATERIAL.
- ALL PLANTS SHALL BE INSTALLED AS PER DETAIL AND THE CONTRACT SPECIFICATIONS.
- ALL PLANTS SHALL BE STAKED AND PLUMB UNLESS OTHERWISE SPECIFIED.
- ALL PLANTS SHALL BE THOROUGHLY WATERED TWICE DURING THE FIRST 24 HOUR PERIOD AFTER PLANTING. ALL PLANTS SHALL THEN BE WATERED WEEKLY OR MORE OFTEN, IF NECESSARY, DURING THE FIRST GROWING SEASON. WATERING TO THE PLANTS IS THE CONTRACTOR'S RESPONSIBILITY UNTIL THE PROPERTY IS TURNED OVER AND WATERING THE LANDSCAPING IS THE OWNER'S RESPONSIBILITY.
- WARRANT TREES AND SHRUBS FOR A PERIOD OF ONE YEAR AFTER WRITTEN DATE OF ACCEPTANCE BY THE LANDSCAPE ARCHITECT AND/OR CONSTRUCTION MANAGER AGAINST DEFECTS INCLUDING DEATH AND UNSATISFACTORY GROWTH. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MONITOR THE PROJECT DURING THE ONE YEAR WARRANTY PERIOD AND NOTIFY THE OWNER IF PROBLEMS DEVELOP. PLANTS THAT DIE DURING THE WARRANTY PERIOD SHALL BE REMOVED IMMEDIATELY. REPLACEMENTS SHALL BE PLACED UNDER WARRANTY FOR AN ADDITIONAL 12 MONTH PERIOD.
- CONDITIONS DETERMINAL TO PLANTS: THE CONTRACTOR SHALL NOTIFY THE PROJECT REPRESENTATIVE IN WRITING OF ALL SOIL OR DRAINAGE CONDITIONS WHICH THE CONTRACTOR CONSIDERS DETERMINAL TO THE GROWTH OF PLANTS. HE SHALL STATE THE CONDITIONS AND SUBMIT A PROPOSAL FOR CORRECTING THE CONDITIONS INCLUDING ANY CHANGE IN COST FOR REVIEW AND ACCEPTANCE BY THE PROJECT REPRESENTATIVE.
- MINOR ADJUSTMENTS TO TREE LOCATION MAY BE NECESSARY DUE TO FIELD CONDITIONS AND FINAL GRADING. THE CONTRACTOR SHALL NOTIFY THE OWNER IF MAJOR ADJUSTMENTS ARE REQUIRED.

PLANTING NOTES

- ALL LANDSCAPING AS SHOWN ON THE APPROVED PLAN IS THE RESPONSIBILITY OF THE PROPERTY OWNER AND SHALL BE PERPETUALLY MAINTAINED AND REPLACED AS NECESSARY.
- ALL PLANT LOCATIONS SHALL BE STAKED IN THE FIELD AND LOCATIONS APPROVED BY LANDSCAPE ARCHITECT PRIOR TO PLANTING.
- TOPSOIL WITH A QUALITY ORGANIC SOIL AMENDMENT SHALL BE USED FOR ALL PLANTING AND SEEDING OPERATIONS.
- NOTIFY ALL UTILITY COMPANIES AND LOCATE ALL UTILITIES PRIOR TO EXCAVATING PLANT PITS. PLANT LOCATIONS MAY BE ADJUSTED IN THE FIELD TO AVOID INTERFERENCE WITH UNDERGROUND UTILITIES.
- SHOULD ANY DISCREPANCY ARISE BETWEEN THE PLANTING PLAN AND THE PLANTING SCHEDULE, THE PLAN SHALL GOVERN AS TO THE QUANTITY OF PLANT MATERIAL.
- ALL PLANT MATERIAL SHALL BE NURSERY STOCK QUALITY AS DEFINED BY THE AMERICAN STANDARDS FOR NURSERY STOCK AS PUBLISHED BY THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION. ALL PLANT MATERIAL SHALL BE GUARANTEED TO LIVE AT LEAST 12 MONTHS FOLLOWING INSTALLATION. REPLACEMENTS SHALL BE PLACED UNDER WARRANTY FOR AN ADDITIONAL 12 MONTHS PERIOD.
- ALL NON-BiodeGRADABLE ROOT WRAPPING TO BE REMOVED COMPLETELY BEFORE PLANTING.
- ALL SHADE TREES TO BE PRUNED OF SIDE BRANCHES TO A HEIGHT OF 6' ABOVE GRADE EXCEPT.
- ALL PLANT MATERIAL SHALL BE APPROVED UPON ARRIVAL TO THE SITE, UNLESS OTHERWISE NOTIFIED.
- PROPOSED PLANT MATERIAL MAY BE SUBSTITUTED BY SIMILAR PLANTS PRIOR TO INSTALLATION, SUBJECT TO APPROVAL BY THE LANDSCAPE ARCHITECT AND UPPER UWCHLAN TOWNSHIP.
- DISURBANCE OF EXISTING VEGETATION SHALL BE LIMITED TO WORK AREA. CONTRACTOR IS RESPONSIBLE FOR FINE GRADING AND SEEDING OF ALL DISTURBED AREAS.
- ALL PLANTS SPACED 6' O.C. OR CLOSER SHALL BE IN CONTINUOUS MULCHED BEDS.
- SEED ALL DISTURBED AREAS WITH REQUIRED SEED MIX (SEE PLAN & SEEDING NOTES).

SEEDING NOTES

- SEED ALL AREAS DISTURBED BY CONSTRUCTION NOT OTHERWISE CONTAINING PLANTING BEDS, SIDEWALKS, BUILDINGS, ETC.
- BEFORE SEEDING, CONTRACTOR SHALL PROVIDE SOIL TESTS, AND APPLICATIONS OF FERTILIZER AND/Or GROWTH REGULATORS SHALL BE MADE PER SOIL TEST RECOMMENDATIONS. INCORPORATE FERTILIZER OR LIMESTONE INTO TOPSOIL TO A 2" DEPTH.
- MULCH SEDED AREAS WITH CLEAN STRAW, WATER AND MAINTAIN ALL LAWN AREAS.
- SEED MIXES SHALL INSTALLED WITH HYDROSEEDER OR SLIT SEEDER PER MANUFACTURER RECOMMENDATION. MAINTAIN ALL SEED AREAS PER SEED MANUFACTURER'S RECOMMENDATION.

ERNST CONSERVATION SEEDS
9006 MERCER PIKE, MEADVILLE, PA 16335
(800) 873-3321 FAX (814) 336-5191 WWW.ERNSTSEED.COM

SEED MIX:
CONSERVATION MIX (ERNMX-114) OR APPROVED EQUAL
50% KENTUCKY BLUEGRASS
30% CREEPING RED FESCUE
10% PERENNIAL RYEGRASS
10% ANNUAL RYEGRASS

APPLIED 100-200 LB PER ACRE, OR 3-5 LB PER 1000 SF

MAINTENANCE REQUIREMENTS:
ALL LANDSCAPED PLANTING AREAS SHALL BE MAINTAINED AND KEPT FREE OF ALL DEBRIS, RUBBISH, WEEDS, AND TALL GRASS; PROVIDED, HOWEVER, THAT IF SUCH AREA IS PART OF A NATURALLY WOODED AREA ON THE PROPERTY THAT WILL REMAIN AT LEAST 20 FEET WIDE AFTER THE PROPOSED LAND DEVELOPMENT IS COMPLETED, IT MAY CONTINUE IN ITS NATURAL STATE.

UTILITY NOTES

- THE CONTRACTOR MUST CALL CONTACT ALL UTILITY PROVIDERS AND LOCATE UNDERGROUND UTILITIES PRIOR TO ANY EXCAVATION.
- THE CONTRACTOR MUST VERIFY LOCATION, SIZE, DEPTH AND MATERIAL OF ALL UNDERGROUND STRUCTURES WITHIN THE LIMIT OF DISTURBANCE PRIOR TO BEGINNING WORK. NOTIFY PROJECT ENGINEER OF ANY POTENTIAL CONFLICTS OR DISCREPANCIES PRIOR TO BEGINNING WORK.
- THE CONTRACTOR MUST CALL CONTACT ALL UTILITY PROVIDERS AND LOCATE UNDERGROUND UTILITIES AND EXISTING UTILITY COMPANY PLANS. CONTRACTOR IS CAUTIONED THAT OTHER UTILITIES NOT SHOWN MAY EXIST WITHIN THE PROJECT LIMITS. CONTRACTOR IS RESPONSIBLE FOR PROTECTION OF ALL EXISTING UTILITIES.

SOILS TABLE

(FROM UNITED STATES DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE)

SOIL TYPE: CbB-Calfon loam
DRAINAGE CLASS: Moderately Well Drained
SLOPE RANGE: 0-3%
HYDROLOGIC GROUP: D
FRAGIPAN DEPTH: 20-30 inches
BEDROCK DEPTH: 72-99 inches
SEASONAL WATER TABLE: 6-36 inches
FLOODING POTENTIAL: None
PROFILE PERMEABILITY: Moderately low to moderately high

SOIL TYPE: Ho-Hatboro silt loam
DRAINAGE CLASS: Poorly Drained
SLOPE RANGE: 0-8%
HYDROLOGIC GROUP: B/D
BEDROCK DEPTH: 60-99 inches
SEASONAL WATER TABLE: 6-36 inches
FLOODING POTENTIAL: Non-Frequent
PROFILE PERMEABILITY: Moderately high to high

SOIL TYPE: Ugb-Urban land-Udorthents, schist and gneiss complex
DRAINAGE CLASS: Moderately low to moderately high
SLOPE RANGE: 0-8%
HYDROLOGIC GROUP: C
BEDROCK DEPTH: 20-70 inches
SEASONAL WATER TABLE: 60-86 inches
FLOODING POTENTIAL: None
PROFILE PERMEABILITY: Moderately low to moderately high

REQUIRED STREET TREE CALCULATION:

PER UPPER UWCHLAN TOWNSHIP SALDO SECTION 162.57-C(6) ONE STREET TREE SHALL BE PROVIDED FOR EVERY 50 FEET OF FRONTOAGE OR A FRACTION THEREOF.

STREET	FRONTOAGE	TREES REQUIRED	TREES PROVIDED
BYERS RD	272.82	6 TREES	6 TREES
TOTAL	272.82	6 TREES	6 TREES

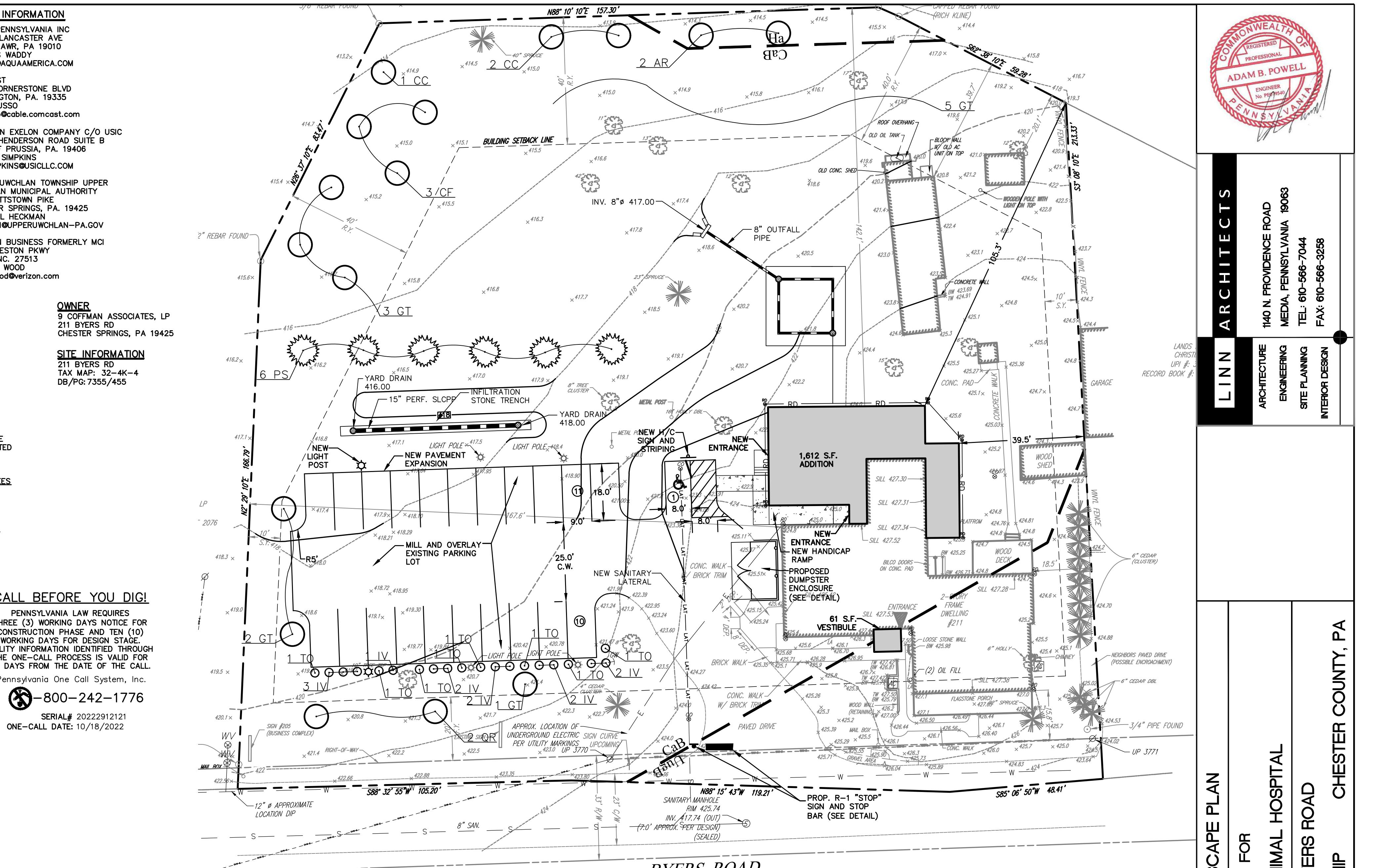
4 EXISTING
2 PROPOSED

REQUIRED TREE REPLACEMENT CALCULATION:

PER UPPER UWCHLAN TOWNSHIP SALDO SECTION 162.55-B(7) REPLACEMENT TREES ARE REQUIRED BASED ON SPECIFIC TREE REMOVAL. THE CALCULATION REQUIRES A DESIGNATED NUMBER OF NEW TREES TO BE PLANTED OF A SPECIFIC CALIPER SIZE BASED ON THE DIAMETER OF THE EXISTING TREE TO BE REMOVED.

TREES REMOVED	DIAMETER	REQUIREMENT	REPLACEMENT TREES
0	6" TO 8"	2 FOR 1	0 - 3.5" TREES
0	8" TO 12"	2 FOR 1	0 - 3.5" TREES
3	12" TO 18"	3 FOR 1	0 - 3.5" TREES
0	18" TO 24"	4 FOR 1	0 - 3.5" TREES
0	24" OR GREATER	5 FOR 1	0 - 3.5" TREES

TOTAL REPLACEMENT REQUIRED: 9 - 3.5" TREES
TOTAL REPLACEMENT PROVIDED: 9 - 3.5" TREES

**CALL BEFORE YOU DIG!**

PENNSYLVANIA LAW REQUIRES THREE (3) WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND TEN (10) WORKING DAYS FOR DESIGN STAGE. UTILITY INFORMATION IDENTIFIED THROUGH THE ONE-CALL PROCESS IS VALID FOR 90 DAYS FROM THE DATE OF THE CALL. Pennsylvania One Call System, Inc.

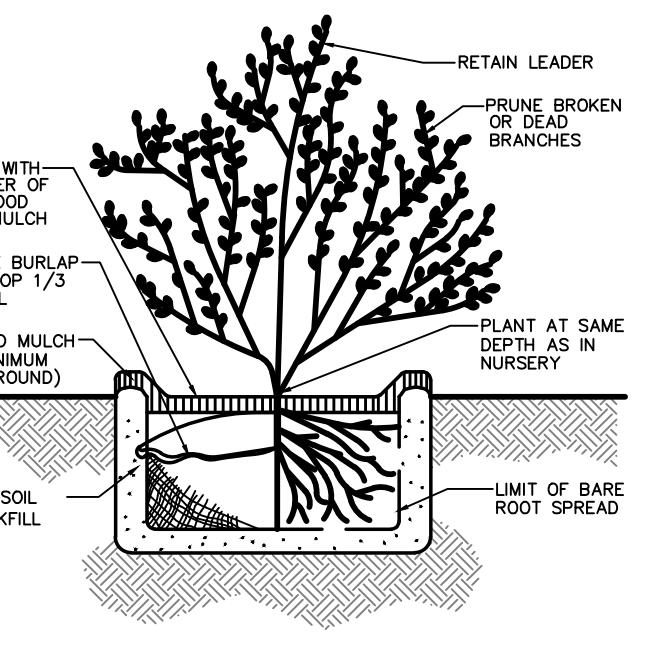
800-242-1776

SERIAL # 2022912121

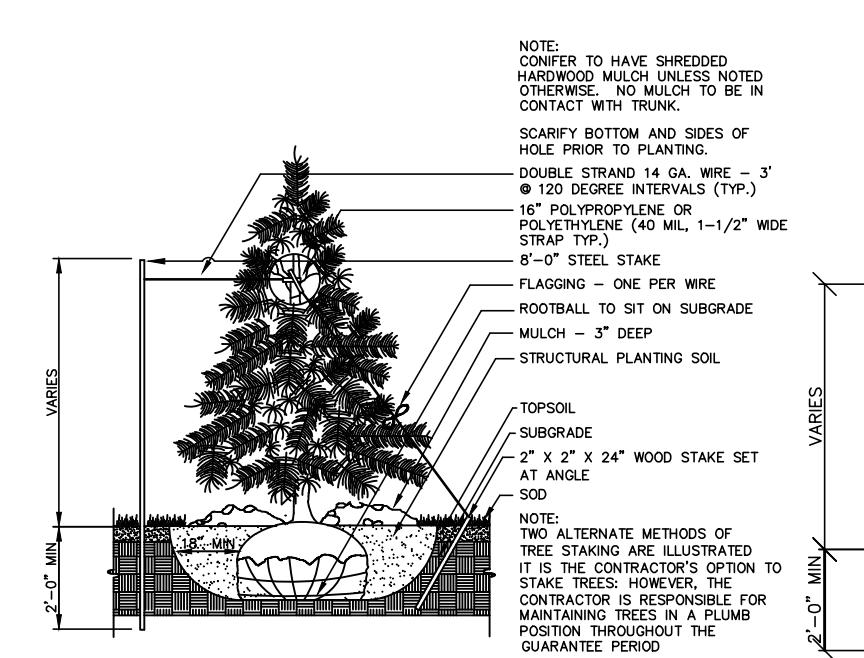
ONE-CALL DATE: 10/18/2022

LEGEND

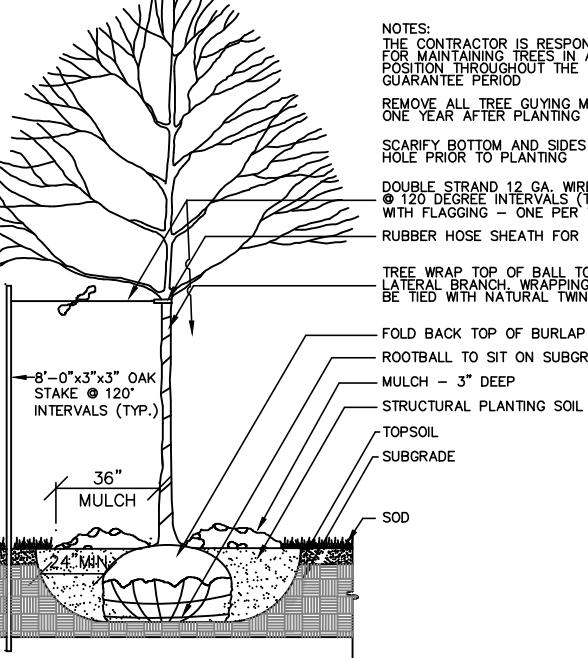
EXISTING	PROPOSED
CONCRETE CURB	CONCRETE CURB
CONC. SIDEWALK	CONC. SIDEWALK
CONC. CROSSWALK	CONC. CROSSWALK
*****	*****
FENCELINE	FENCELINE
RIGHT OF WAY	RIGHT OF WAY
PROPERTY LINE	PROPERTY LINE
IRON PIN	IRON PIN
MONUMENT	MONUMENT
SPOT GRADES	SPOT GRADES
CONTOURS	CONTOURS
-----	-----
SIGN	SIGN
-----	-----
SANITARY SEWER W/M.H.	SANITARY SEWER W/M.H.
ROOFDRAIN PIPE	ROOFDRAIN PIPE
RD	RD
-----	-----
E	E
-----	-----
W	W
-----	-----
G	G
-----	-----
RD	RD
-----	-----
WATER LINE	WATER LINE
-----	-----
GAS LINE	GAS LINE
-----	-----
UTILITY POLE	UTILITY POLE
-----	-----
FIRE HYDRANT	FIRE HYDRANT
-----	-----
GAS VALVE	GAS VALVE
-----	-----
WATER VALVE	WATER VALVE
-----	-----
CLEAN-OUT	CLEAN-OUT
-----	-----
WATER METER	WATER METER
-----	-----
GAS METER	GAS METER
-----	-----
OVERHEAD WIRE	OVERHEAD WIRE
-----	-----
TREE	TREE
-----	-----
EVERGREEN TREE	EVERGREEN TREE



SHRUB PLANTING DETAIL



EVERGREEN TREE DETAIL



DECIDUOUS TREE DETAIL

REQUIRED PARKING TREE CALCULATION:

PER UPPER UWCHLAN TOWNSHIP SALDO SECTION 162.57-C(7) ONE SHADE TREE SHALL BE PROVIDED FOR EVERY 5 PARKING SPACES OR A FRACTION THEREOF.

PARKING SPACES	TREES REQUIRED	TREES PROVIDED
22 SPACES	5 TREES	5 TREES
TOTAL	5 TREES	5 TREES

2 EXISTING
3 PROPOSED

REQUIRED BUILDING/IMPERVIOUS TREE CALCULATION:

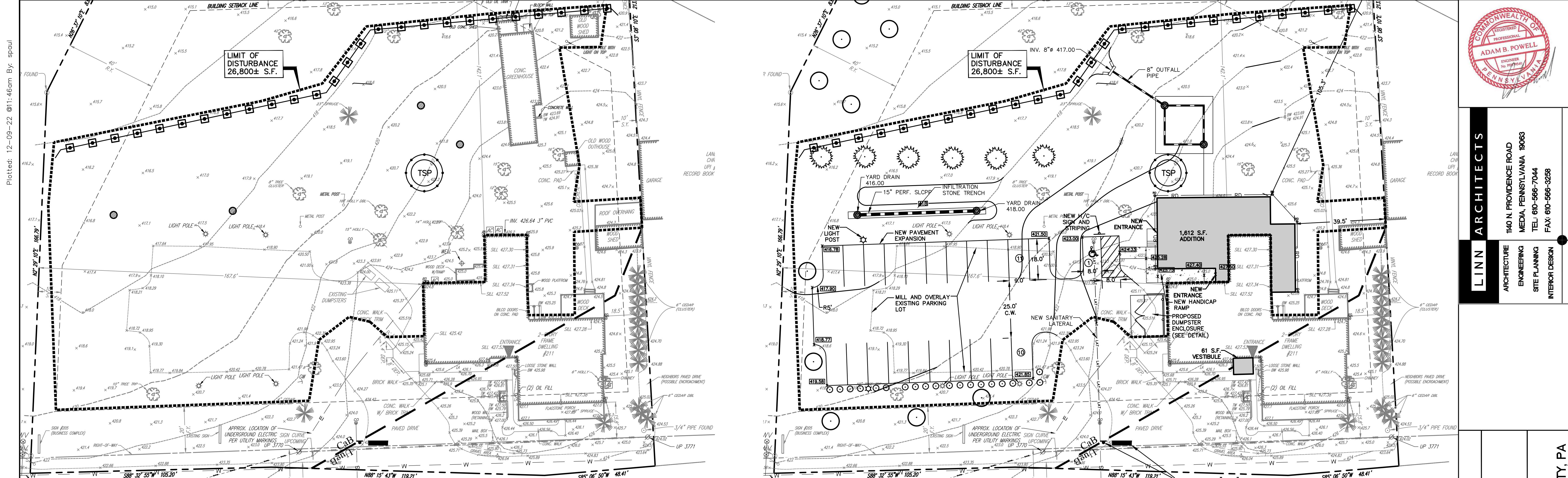
PER UPPER UWCHLAN TOWNSHIP SALDO SECTION 162.57-D(1) 2 DECIDUOUS TREES, 1 EVERGREEN TREE, AND 8 SHRUBS SHALL BE PROVIDED FOR EVERY 2,000 S.F. OF OFF-STREET PARKING AREA OR A FRACTION THEREOF.

1,913 S.F. NEW PARKING AREA	= 1 DECIDUOUS, 1 EVERGREEN, 4 SHRUBS
1,673 S.F. NEW BUILDING AREA	= 4 DECIDUOUS, 2 EVERGREEN, 16 SHRUBS
TOTAL SPACES REQUIRED	= 5 DECIDUOUS, 3 EVERGREEN, 20 SHRUBS

5 DECIDUOUS, 3 EVERGREEN, 20 SHRUBS

PLANT SCHEDULE:

QTY	SYM	BOTANICAL NAME</th



BMP NOTES

AS-BUILT PLAN:
AS-BUILT PLANS AND ALL EXPLANATION OF ANY DISCREPANCIES WITH THE CONSTRUCTIONS PLANS SHALL BE SUBMITTED TO THE MUNICIPALITY WITHIN THREE MONTHS OF THE COMPLETION OF CONSTRUCTION OF THE SWM BMP'S.

UTILITIES NOTES

1. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN AND PROTECT ALL EXISTING UTILITIES (SANITARY, WATER, TELECOMMUNICATIONS, AND ELECTRIC, ETC) WITHIN THE WORK ZONE DURING CONSTRUCTION.

2. CONTRACTOR RESPONSIBLE TO MODIFY EXISTING RIM/GRADE/COVERS/ETC. ELEVATIONS AS REQUIRED TO MEET PROVIDED FIELD CONDITIONS.

LEGEND

EXISTING	PROPOSED
CONCRETE CURB	
CONC SIDEWALK	
FENCELINE	
RIGHT OF WAY	
PROPERTY LINE	
IRON PIN	●
MONUMENT	■
SIGN	■
SPOT GRADES	000000
CONTOURS	07
SANITARY SEWER W/ M.H.	05
STORM SEWER STRUCTURE NO.	12
ROOFDRAIN PIPE	RD
SEWER LATERAL	LAT
ELECTRIC LINE	E
WATER LINE	W
GAS LINE	G
UTILITY POLE	U
FIRE HYDRANT	H
GAS VALVE	GV
WATER VALVE	WV
CLEAN-OUT	CO
WATER METER	WM
GAS METER	GM
ELECTRIC METER	EM
OVERHEAD WIRE	OW
PERCOLATION TEST LOCATION	PTL
UTILITY TEST LOCATION	UTL
12" SILT SOCK	12S
18" SILT SOCK	18S
LIMIT OF DISTURBANCE	
PROJECT AREA	
TREE PROTECTION FENCING	TP
CONSTRUCTION FENCING	CF
INLET PROTECTION	IP
TREE	●
EVERGREEN TREE	●

PRELIMINARY EROSION CONTROLS

SCALE: 1" = 20'

RECEIVING SURFACE WATERS

*THE PENNSYLVANIA TITLE 25, CHAPTER 93, CLASSIFICATION FOR THE RECEIVING WATERBodies OF THE COMMONWEALTH

UNNAMED TRIBUTARY (UNT) TO PICKERING CREEK IN THE PICKERING CREEK WATERSHED; A HIGH QUALITY-TROUT STOCKING FISHERY (HQ-STF) WATER COURSE

1. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN AND PROTECT ALL EXISTING UTILITIES (SANITARY, WATER, TELECOMMUNICATIONS, AND ELECTRIC, ETC) WITHIN THE WORK ZONE DURING CONSTRUCTION.

2. CONTRACTOR RESPONSIBLE TO MODIFY EXISTING RIM/GRADE/COVERS/ETC. ELEVATIONS AS REQUIRED TO MEET PROVIDED FIELD CONDITIONS.

NOTES FOR SEEPAGE BED CONSTRUCTION:

1. EXCAVATION SHALL BE PERFORMED WITH EQUIPMENT THAT WILL NOT COMPACT THE BOTTOM OF THE BED. EQUIPMENT SHALL NOT BE ALLOWED ON EXCAVATED AREAS OF THE SEEPAGE BEDS AT ANY TIME DURING CONSTRUCTION.
2. THE BOTTOM OF THE BED SHALL BE SCARIFIED IMMEDIATELY PRIOR TO THE PLACEMENT OF THE GEOTEXTILE FABRIC ON THE BOTTOM OF THE BED.
3. THE BED SHALL BE PROTECTED DURING CONSTRUCTION. SEDIMENT SHALL NOT BE ALLOWED TO BE WASHED BACK INTO THE BED BOTH DURING THE TIME WHEN THE BOTTOM OF THE BED IS OPEN AND ONCE THE STONE IS IN PLACE.
4. ONLY UNIFORMLY GRADED, CLEAN AGGREGATE, FREE OF FINES, SLATE, SHALE, CLAY, SILT, AND VEGETATIVE MATERIAL, WITH A WASH LOSS OF NO MORE THAN 0.5% AND MEETING SPECIFICATIONS FOR AASHTO NO. 3 STONE SHALL BE USED. THE POROSITY OF THE STONE MUST MEET THAT WHICH IS SPECIFIED ON THE PLAN. THE SUPPLIER OF THE STONE SHALL PROVIDE CERTIFICATION OF THE POROSITY OF THE STONE DELIVERED TO THE SITE. THE DESIGN ENGINEER SHALL VERIFY THAT THE POROSITY MEETS OR EXCEEDS THE REQUIREMENTS OF THE DESIGN AND SUBMIT SUCH VERIFICATION TO THE TOWNSHIP.
5. COMPACTION OF THE INFILTRATION BED SHALL NOT BE PERMITTED. EQUIPMENT AND TRAFFIC SHALL BE PROHIBITED FROM TRAVELING OVER THE PROPOSED LOCATION OF THE INFILTRATION TRENCH. TO AVOID COMPACTION OF THE BED, EXCAVATION OF THE BED SHALL BE COMPLETED FROM OUTSIDE THE BED TO AVOID COMPACTION OF THE BED FLOOR. NO ACCESSORY STRUCTURE SHALL BE PERMITTED OVER THE INFILTRATION BED.
6. LIGHT-TRACKED CONSTRUCTION EQUIPMENT SHALL ONLY BE ALLOWED ON THE TOP OF THE STONE AFTER IT HAS BEEN PLACED TO ITS FULL DEPTH AND TO ALLOW COMPLETION OF THE PLACEMENT OF THE STONE AND BACKFILL.
7. DRAINAGE FILTER FABRIC SHALL BE PLACED IN ACCORDANCE WITH THE MANUFACTURER'S DIRECTIONS, INCLUDING PIPE PENETRATIONS, AND SHALL OVERLAP A MINIMUM OF EIGHTEEN (18) INCHES.
8. IF SEDIMENT DOES ENTER INTO THE SYSTEM, THE CONTRACTOR WILL NEED TO CLEAN OUT THE SEDIMENT TO THE TOWNSHIP'S SATISFACTION, WHICH MAY REQUIRE THE RECONSTRUCTION OF PORTIONS OF OR THE ENTIRE INFILTRATION BED.

SEQUENCE OF CONSTRUCTION

ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE FOLLOWING SEQUENCE. DEVIATION FROM THAT SEQUENCE MUST BE APPROVED BY THE DESIGN ENGINEER. UNLESS SPECIFICALLY INDICATED OTHERWISE, EACH STAGE SHALL BE COMPLETED BEFORE ANY FOLLOWING STAGE IS INITIATED. CLEARING AND GRUBBING SHALL BE LIMITED ONLY TO THOSE AREAS DESCRIBED IN EACH STAGE.

AT LEAST SEVEN (7) DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES (INCLUDING CLEARING, AND GRUBBING), THE OWNER AND/OR OPERATOR SHALL INVITE ALL CONTRACTORS, THE LAND OWNER, APPROPRIATE MUNICIPAL OFFICIALS, THE E&S PLAN PREPARED, THE PCSM PLAN PREPARED TO AN ON SITE PRE-CONSTRUCTION MEETING.

AT LEAST 3 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, OR EXPANDING INTO AN AREA PREVIOUSLY UNMARKED, THE PENNSYLVANIA ONE CALL, SYSTEM INC. SHALL BE NOTIFIED AT 1-800-242-1776 FOR THE LOCATION OF EXISTING UNDERGROUND UTILITIES.

ALL EXCESS MATERIALS AND WASTE GENERATED DURING THE CLEARING AND GRUBBING OF THIS SITE SHALL BE RECYCLED OR PROPERLY DISPOSED. WASTE THAT CANNOT BE BURIED ON SITE, EROSION CONTROL FACILITIES (SILT FENCE, STONE BERM, ETC.) SHOULD BE REMOVED AND REUSED, IF AND WHEN POSSIBLE, OR REMOVED FOR OFF SITE DISPOSAL.

THE PROJECT SITE IS 1.40 ACRES (61,201 SF). THE AREA OF DISTURBANCE IS 0.62 ACRES (26,800 SF), AND THE PROJECT IS TO BE CONSTRUCTED IN ONE PHASE. THE CONTRACTOR IS ADVISED TO BECOME FAMILIAR WITH ALL EROSION CONTROL MEANS AND METHODS OUTLINED IN THE EROSION AND SEDIMENT POLLUTION CONTROL (E&S) PLAN. E&S PLANS PUBLISHED BY THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION (PADEP) MARCH 2000 EDITION OF THESE PLANS MUST BE AVAILABLE ON SITE THROUGHOUT CONSTRUCTION. THE CONTRACTOR SHALL BE AWARE THAT NO SEDIMENT-LADEN RUNOFF SHALL BE ALLOWED TO FLOW TO THE PROPOSED UNDERGROUND INFILTRATION SYSTEM. ALL FLOW INTO THE INFILTRATION SYSTEM SHALL BE BLOCKED UNTIL ALL SITE AREAS ARE STABILIZED.

EROSION AND SEDIMENT CONTROL FACILITIES ARE TO BE CHECKED AND PROPERLY MAINTAINED WEEKLY AND AFTER EACH STORM EVENT. SUFFICIENT QUANTITIES OF SILT FENCING, CRUSHED STONE, STRAW BALES, SEEDING AND MULCHING SHOULD BE READILY AVAILABLE FOR REMEDIAL WORK IF NEEDED.

IT IS REQUIRED THAT THE DESIGN PROFESSIONAL BE PRESENT DURING THE INSTALLATION OF ALL CRITICAL STAGES OF CONSTRUCTION.

EROSION AND SEDIMENT CONTROL NARRATIVE - 102.4(b)(4)
THE PURPOSE OF THIS NARRATIVE AND THE EROSION CONTROL ASPECTS OF THE PLANS ARE TO PREVENT THE ACCELERATED EROSION OF EXPOSED SITE SOILS DURING CONSTRUCTION AND TO RETAIN ON SITE ALL SEDIMENT PRODUCED BY CONSTRUCTION ACTIVITIES. THIS WILL BE ACCOMPLISHED BY STRICT ADHERENCE TO THE FOLLOWING NOTES, SEQUENCE OF CONSTRUCTION, AND EROSION AND SEDIMENT CONTROL DETAILS SHOWN ON THE PLAN. THIS PLAN WILL FURTHER ACT TO PROVIDE THE FOLLOWING:

- MINIMIZE EXTENT AND DURATION OF EARTH DISTURBANCE.
- MAXIMIZE PROTECTION OF EXISTING DRAINAGE FEATURES AND VEGETATION.
- MINIMIZE SOIL COMPACTION
- UTILIZE OTHER MEASURES OR CONTROLS THAT PREVENT OR MINIMIZE GENERATION OF INCREASED STORMWATER RUNOFF

NOTES FOR TREE CONSERVATION PRACTICES:

1. ALL TREES TO BE PRESERVED SHALL BE PROTECTED FROM DAMAGE BY SNOW FENCING OR OTHER EFFECTIVE BARRIERS PLACED OUTSIDE THE CRITICAL ROOT ZONE, UNLESS APPROVED BY THE TOWNSHIP TO BE APPROPRIATE. ANOTHER LOCATION, TREE PROTECTION FENCING MUST BE INSTALLED AND APPROVED BY THE TOWNSHIP. LANDSCAPE PROFESSIONAL PRIOR TO THE START OF ANY CLEARING, DRAGGING, OR OTHER EARTH DISTURBANCE AND MONITORED PERIODICALLY. THE APPLICANT SHALL MAINTAIN THE TREE PROTECTION FENCING, AND IT SHALL BE REMOVED ONLY AFTER ALL EARTH MOVING AND CONSTRUCTION ACTIVITIES THAT MAY IMPACT TREE ROOTS ARE COMPLETED.
2. WHEN DISTURBANCE IN THE CRITICAL ROOT ZONE IS UNAVOIDABLE, APPLICANT SHALL MINIMIZE ENCRUMPTION AND USE THE BEST AVAILABLE METHODS AS APPROVED BY THE TOWNSHIP'S DESIGNATED LANDSCAPE PROFESSIONAL TO MINIMIZE DAMAGE AND PRESERVE TREES.
3. SHOULD ANY MATURE TREES ON THE SITE BE IRREPARABLY DAMAGED DURING SITE PREPARATION ACTIVITIES AND, AS A CONSEQUENCE THEREOF, DIE OR DECLINE AS DETERMINED BY THE TOWNSHIP'S DESIGNATED LANDSCAPE PROFESSIONAL, WITHIN 18 MONTHS OF THE CONCLUSION OF CONSTRUCTION ACTIVITIES, SUCH TREES SHALL BE REPLACED WITH NURSERY GROWN MATERIAL IN ACCORDANCE WITH THE COMPENSATORY PLANTING REQUIREMENTS.
4. THE PROJECT IS IN A HIGH QUALITY-TROUT STOCKING STREAM DESIGNATION. EXTREME CARE SHOULD BE EXERCISED IN ALL DISTURBANCE ACTIVITIES TO PREVENT DEGRADATION TO THE WATERS OF THE COMMONWEALTH.
5. BECAUSE THIS PROJECT IS IN A SPECIALLY PROTECTED HIGH QUALITY OR EXCEPTIONAL VALUE WATERSHED, UPON COMPLETION OR TEMPORARY CESSION OF EARTH DISTURBANCE ACTIVITIES, THE PROJECT SITE MUST BE IMMEDIATELY STABILIZED WITH THE APPROPRIATE TEMPORARY OR PERMANENT STABILIZATION.

INITIATED, CLEARING AND GRUBBING SHALL BE LIMITED ONLY TO THOSE AREAS DESCRIBED IN EACH STAGE.

10. ONCE ALL DISTURBED AREAS OF SITE HAVE BEEN STABILIZED IN ACCORDANCE WITH THE FINAL STABILIZATION REQUIREMENTS, REMOVE ANY REMAINING EROSION CONTROL MEASURES. IMMEDIATELY STABILIZE ALL AREAS DISTURBED BY THIS OPERATION. THE TOWNSHIP ENGINEER MUST BE NOTIFIED FOR A FINAL SITE INSPECTION PRIOR TO REMOVAL OF EROSION CONTROLS.

11. AN AREA SHALL BE CONSIDERED TO HAVE ACHIEVED FINAL STABILIZATION WHEN IT HAS A MINIMUM UNIFORM 30% 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.

12. SEDIMENT MUST BE REMOVED FROM INLET WATER QUALITY INSERTS AFTER EACH RUNOFF EVENT.

13. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENT BMP'S MUST BE MAINTAINED PROPERLY. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENT CONTROL FACILITIES, AND ALL MAINTENANCE WORK, INCLUDING CLEAN-UP, REPAIR, REPLACEMENT, REGRADING, AND RESTABILIZATION SHALL BE PERFORMED IMMEDIATELY.

4. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE OPERATOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO ELIMINATE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION.

5. BEFORE INITIATING ANY REVISIONS 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 FROM THE DESIGN ENGINEER.

6. ALL PUMPING OF SEDIMENT-LADEN WATER SHALL BE THROUGH A SEDIMENT CONTROL BMP, SUCH AS A PUMPED WATER FILTER BAG DISCHARGING OVER NON-DISTURBED AREAS.

7. THE OPERATOR IS ADVISED TO BECOME THOROUGHLY FAMILIAR WITH THE PROVISIONS OF APPENDIX E4, EROSION CONTROL RULES AND REGULATIONS, TITLE 25, PART A, DEPARTMENT OF ENVIRONMENTAL PROTECTION, SUBPART C, PROTECTION OF NATURAL RESOURCES, ARTICLE III, WATER RESOURCES, CHAPTER 102, EROSION CONTROL.

8. EROSION AND SEDIMENT BMP'S MUST BE CONSTRUCTED, STABILIZED, AND FUNCTIONAL BEFORE SITE DISTURBANCE BEGINS WITHIN THE TRIBUTARY AREAS OF THOSE BMP'S.

9. ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE SEQUENCE OF CONSTRUCTION. EACH STAGE SHALL BE COMPLETED BEFORE ANY FOLLOWING STAGE IS

CALL BEFORE YOU DIG!

PENNSYLVANIA LAW REQUIRES THREE (3) WORKING DAYS NOTICE FOR CONSTRUCTION PHASE, AND TEN (10) WORKING DAYS FOR DESIGN STAGE. UTILITY INFORMATION IDENTIFIED THROUGH THE ONE-CALL PROCESS IS VALID FOR 90 DAYS FROM THE DATE OF THE CALL.

Pennsylvania One Call System, Inc.
800-242-1776
SERIAL# 20222912121
ONE-CALL DATE: 10/18/2022

FINAL EROSION CONTROLS

SCALE: 1" = 20'

SITE INFORMATION
OWNER: 211 BYERS RD
TAX MAP: 32-4K-4
DB/PC: 7355/455
CITY: CHESTER SPRINGS, PA 19425

ROCK CONSTRUCTION NOTE:
1. CURRENT DRIVEWAY ENTRANCE WILL REMAIN PAVED. ROCK CONSTRUCTION ENTRANCE WILL NOT BE INSTALLED AT THE TIME OF CONSTRUCTION UNLESS DEEMED NECESSARY BY THE TOWNSHIP.

HIGH-QUALITY-TROUT STOCKING WATERSHED NOTES:

• THE PROJECT IS LOCATED IN A HIGH QUALITY-TROUT STOCKING WATERSHED. THE SPECIAL PROTECTION WATERS IMPLEMENTATION HANDBOOK BEST MANAGEMENT PRACTICES APPLY TO ALL NEW NON-AGRICULTURAL ACTIVITIES/PROJECTS/REVISIONS IN THE WATERSHED. THE TOWNSHIP IS RESPONSIBLE FOR MAINTAINING THE WATERSHED. IMPLEMENTATION OF THESE PRACTICES AND THE ADDITIONAL REQUIREMENTS FOR SPECIFIC ACTIVITIES LISTED IN THE HANDBOOK PLUS SELECTED STORMWATER MANAGEMENT PRACTICES DESCRIBED IN SECTION TWO OF THE HANDBOOK CONSTITUTE APPROPRIATE, REASONABLE AND COST-EFFECTIVE BEST MANAGEMENT PRACTICES FOR NON-POINT SOURCE CONTROL. PERSONS ENGAGED IN THESE LAND DISTURBANCE ACTIVITIES ARE EXPECTED TO COMPLY WITH BOTH THE GENERAL AND PROGRAM SPECIFIC REQUIREMENTS LISTED IN THIS APPENDIX.

• THE PROJECT IS IN A HIGH QUALITY-TROUT STOCKING STREAM DESIGNATION. EXTREME CARE SHOULD BE EXERCISED IN ALL DISTURBANCE ACTIVITIES TO PREVENT DEGRADATION TO THE WATERS OF THE COMMONWEALTH.

PA ONE CALL INFORMATION

COMPANY: AQUA PENNSYLVANIA INC
ADDRESS: 7621 LAMBERTVILLE AVE
CITY: CHESTER SPRINGS, PA 19425
CONTACT: THOMAS WADDY
EMAIL: TWADDY@AQUAAMERICA.COM

COMPANY: COMCAST
ADDRESS: 1094 CORNERSTONE BLVD
CITY: DOWNTOWN, PA 19335
CONTACT: TOM RUSSO
EMAIL: tom_russo@cable.comcast.com

COMPANY: FECO AN EXCON COMPANY C/O USIC
ADDRESS: 450 S HENDERSON ROAD SUITE B
CITY: KING OF PRUSSIA, PA 19406
CONTACT: NIKKI SIMPKINS
EMAIL: NIKKASIMP@KUSCILLCOM

COMPANY: UPPER UWCHLAIN TOWNSHIP UPPER
ADDRESS: 140 POTTSVILLE PIKE
CITY: CHESTER SPRINGS, PA 19425
CONTACT: MICHAEL HECKMAN
EMAIL: MHECKMAN@UPPERUWCHLAIN-PA.GOV

COMPANY: VERIZON BUSINESS FORMERLY MCI
ADDRESS: 7000 WESTON PKWY
CITY: CARY, NC 27513
CONTACT: VICTOR WOOD
EMAIL: VICTOR.S.WOOD@VERIZON.COM

TOPSOIL PLACEMENT DEPTH: 6IN.

*SPECIES: Perennial Rye (50%) Winter Rye (50%)

% PURE LIVE SEED: 81 / 83 %

APPLICATION RATE: 35 LB./ACRE

FERTILIZER TYPE: 10-10-10 (X-X-X)

FERTILIZER APPL. RATE: 500LB./ACRE

LIMING RATE: 1.0 T./ACRE

MULCHING TYPE: Straw

MULCHING RATE: 3.0 T./ACRE

ANCHOR MATERIAL: Jute Netting

ANCHORING METHOD: Pegs 4ft on center per manufacturer

SEEDING DATE RANGE: March 15th-May 15th during germination periods, as weather permits

CHAPTER 93 CLASSIFICATION:

THE SITE DRAINS TO PICKERING CREEK. CHAPTER 93 CLASSIFICATION IS HQ-1SF, MF.

SOILS TABLE

(FROM UNITED STATES DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE)

SOIL TYPE: Cb-B-Calcareous loam

SLOPE RANGE: 3-8

HYDROLOGIC GROUP: D

EROSION CONTROL AND MAINTENANCE NOTES

- ALL EARTH DISTURBANCES, INCLUDING CLEARING AND GRUBBING AS WELL AS CUTS AND FILLS SHALL BE DONE IN ACCORDANCE WITH THE APPROVED PLAN. A COPY OF THE APPROVED DRAWINGS AND APPROVALS DATED BY THE REVIEWING AGENCY MUST BE AVAILABLE AT THE PROJECT SITE AT ALL TIMES. THE REVIEWING AGENCY SHALL BE NOTIFIED OF ANY CHANGES TO THE APPROVED PLAN PRIOR TO IMPLEMENTATION OF THOSE CHANGES. THE REVIEWING AGENCY MAY REQUIRE A WRITTEN SUBMITTAL THOSE CHANGES FOR REVIEW AND APPROVAL AT ITS DISCRETION.
- AT LEAST 7 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, INCLUDING CLEARING AND GRUBBING, THE OWNER AND/OR OPERATOR SHALL INVITE ALL CONTRACTORS, THE LANDOWNER, APPROPRIATE MUNICIPAL OFFICIALS, THE E&S PLAN PREPARER, THE PCSM PLAN PREPARER, THE LICENSED PROFESSIONAL RESPONSIBLE FOR OVERSIGHT OF CRITICAL STAGES OF IMPLEMENTATION OF THE PCSM PLAN, TO AN ON-SITE PRECONSTRUCTION MEETING.
- AT LEAST 3 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, OR EXPANDING INTO AN AREA PREVIOUSLY UNMARKED, THE PENNSYLVANIA ONE CALL SYSTEM INC. SHALL BE NOTIFIED AT 1-800-242-1776 FOR THE LOCATION OF EXISTING UNDERGROUND UTILITIES.
- ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE SEQUENCE PROVIDED ON THE PLAN DRAWINGS. DEVIATION FROM THAT SEQUENCE MUST BE APPROVED IN WRITING FROM THE DESIGN ENGINEER.
- AREAS TO BE FILLED ARE TO BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS AND OTHER OBJECTIONABLE MATERIAL.
- CLEARING, GRUBBING, AND TOPSOIL STRIPPING SHALL BE LIMITED TO THOSE AREAS DESCRIBED IN EACH STAGE OF THE CONSTRUCTION SEQUENCE. GENERAL SITE CLEARING, GRUBBING AND TOPSOIL STRIPPING MAY NOT COMMENCE IN ANY STAGE OR PHASE OF THE PROJECT UNTIL THE E&S BMPS SPECIFIED BY THE BMP SEQUENCE FOR THAT STAGE OR PHASE HAVE BEEN INSTALLED AND ARE FUNCTIONING AS DESCRIBED IN THE E&S PLAN.
- AT NO TIME SHALL CONSTRUCTION VEHICLES BE ALLOWED TO ENTER AREAS OUTSIDE THE LIMIT OF DISTURBANCE BOUNDARIES SHOWN ON THE PLAN MAPS. THESE AREAS MUST BE CLEARLY MARKED AND FENCED OFF BEFORE CLEARING AND GRUBBING OPERATIONS BEGIN.
- TOPSOIL REQUIRED FOR THE ESTABLISHMENT OF VEGETATION SHALL BE STOCKPILED AT THE LOCATION(S) SHOWN ON THE PLAN MAP(S) IN THE AMOUNT NECESSARY TO COMPLETE THE FINISH GRADING OF ALL EXPOSED AREAS THAT ARE TO BE STABILIZED BY VEGETATION. EACH STOCKPILE SHALL BE PROTECTED IN THE MANNER SHOWN ON THE PLAN DRAWINGS. STOCKPILE HEIGHTS SHALL NOT EXCEED 35 FEET. STOCKPILE SLOPES SHALL BE 2H:1V OR FLATTER.
- IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE OPERATOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO MINIMIZE THE POTENTIAL FOR EROSION AND SEDIMENT POLLUTION AND NOTIFY THE DESIGN ENGINEER.
- ALL BUILDING MATERIALS AND WASTES SHALL BE REMOVED FROM THE SITE AND RECYCLED OR DISPOSED OF IN ACCORDANCE WITH THE DEPARTMENTS SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 2601 ET SEQ., 271.1, AND 287.1 ET. SEQ. NO BUILDING MATERIALS OR WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURNED, BURIED, DUMPED, OR DISCHARGED AT THE SITE.
- THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ANY MATERIAL BROUGHT ON SITE IS CLEAN FILL. FORM FP-001 MUST BE RETAINED BY THE PROPERTY OWNER FOR ANY FILL MATERIAL AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE BUT QUALIFYING AS CLEAN FILL DUE TO ANALYTICAL TESTING.
- THE DEFINITIONS FOR THE FOLLOWING TERMS ARE LISTED AND ARE TAKEN FROM THE DEPARTMENT OF ENVIRONMENTAL PROTECTION PERMIT SUMMARY SHEET ON PAGE 6.

CLEAN FILL: UNCONTAMINATED, NON-WATER SOLUBLE, NON-DECOMPOSABLE, INERT, SOLID MATERIAL. THE TERM INCLUDES SOIL, ROCK, STONE, DREDGED MATERIAL, USED ASPHALT, AND BRICK, BLOCK OR CONCRETE FROM CONSTRUCTION SITES. THE TERM DOES NOT INCLUDE ASH, SLUDGE, 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 THAT HAS BEEN PROCESSED FOR RE-USE.)

ENVIRONMENTAL DUE DILIGENCE: 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.

11. ALL PUMPING OF WATER FROM ANY WORK AREA SHALL BE DONE ACCORDING TO THE PROCEDURE DESCRIBED IN THIS PLAN, OVER UNDISTURBED VEGETATED AREAS.

12. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENT BMPS SHALL BE MAINTAINED PROPERLY. MAINTENANCE SHALL INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENT BMPS AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. EROSION AND SEDIMENT CONTROL MEASURES, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, REPAIRING, RELOCATING AND RETENING MUST BE PERFORMED IMMEDIATELY IF THE E&S BMPS FAIL TO PERFORM AS EXPECTED. REPLACEMENT BMPs, OR MODIFICATIONS OF THOSE INSTALLED WILL BE REQUIRED.

13. A LOG SHOWING DATES THAT E&S BMPs WERE INSPECTED AS WELL AS ANY DEFICIENCIES FOUND AND THE DATES THEY WERE CORRECTED SHALL BE MAINTAINED ON THE SITE AND BE MADE AVAILABLE TO REGULATORY AGENCY OFFICIALS AT THE TIME OF INSPECTION.

14. SEDIMENT TRACKED ONTO ANY PUBLIC ROADWAY OR SIDEWALK SHALL BE RETURNED TO THE CONSTRUCTION SITE BY THE END OF EACH WORK DAY AND DISPOSED IN THE MANNER DESCRIBED IN THIS PLAN. IN NO CASE SHALL THE SEDIMENT BE WASHED, SHOVELLED, OR SWEEP INTO ANY ROADSIDE DITCH, STORM SEWER, OR SURFACE WATER.

15. ALL SEDIMENT REMOVED FROM BMPs SHALL BE DISPOSED OF IN THE MANNER DESCRIBED ON THE PLAN DRAWINGS.

16. AREAS WHICH ARE TO BE TOPSOILED SHALL BE SCARFED TO A MINIMUM THICKNESS OF 6 TO 8 INCHES. COMPACTED FILLS PRIOR TO PLACEMENT OF TOPSOIL ARE TO BE VEGETATED. SHALL HAVE A MINIMUM 4 INCHES OF TOPSOIL IN PLACE PRIOR TO SEEDING AND MULCHING. FILL OUTSLOPES SHALL HAVE A MINIMUM OF 2 INCHES OF TOPSOIL.

17. ALL FILLS SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION, SLIPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS. FILL INTENDED TO SUPPORT BUILDINGS, STRUCTURES AND CONDUITS, ETC. SHALL BE COMPACTED IN ACCORDANCE WITH LOCAL REQUIREMENTS OR CODES.

18. ALL EARTHEN FILLS SHALL BE PLACED IN COMPACTED LAYERS NOT TO EXCEED 9 INCHES IN THICKNESS.

19. FILL MATERIALS SHALL BE FREE OF FROZEN PARTICLES, BRUSH, ROOTS, SOD, OR OTHER FOREIGN OR OBJECTIONABLE MATERIALS THAT WOULD INTERFERE WITH OR PREVENT CONSTRUCTION OF SATISFACTORY FILLS.

20. FROZEN MATERIALS OR SOFT, MUCKY OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED INTO FILLS.

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

22. SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE HANDLED IN ACCORDANCE WITH THE STANDARD AND SPECIFICATION FOR SUBSURFACE DRAIN OR OTHER APPROVED METHOD.

23. ALL GRADED AREAS SHALL BE PERMANENTLY STABILIZED IMMEDIATELY UPON REACHING FINISHED GRADE. CUT SLOPES IN COMPETENT BEDROCK AND ROCK FILLS NEED NOT BE VEGETATED. SEDED AREAS WITHIN 50 FEET OF A SURFACE WATER, OR AS OTHERWISE SHOWN ON THE PLAN DRAWINGS, SHALL BE BLANKETED ACCORDING TO THE STANDARDS OF THIS PLAN.

24. IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE IN ANY AREA OR SUBAREA OF THE PROJECT, THE OPERATOR SHALL STABILIZE ALL DISTURBED AREAS. DURING NON-GERMINATING MONTHS, MULCH OR PROTECTIVE BLANKETING SHALL BE APPLIED AS DESCRIBED IN THE PLAN. AREAS NOT AT FINISHED GRADE, WHICH WILL BE REACTIVATED WITHIN 1 YEAR, MAY BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY STABILIZATION

SPECIFICATIONS. THOSE AREAS WHICH WILL NOT BE REACTIVATED WITHIN 1 YEAR SHALL BE REACTIVATED IN ACCORDANCE WITH THE PERMANENT STABILIZATION SPECIFICATIONS.

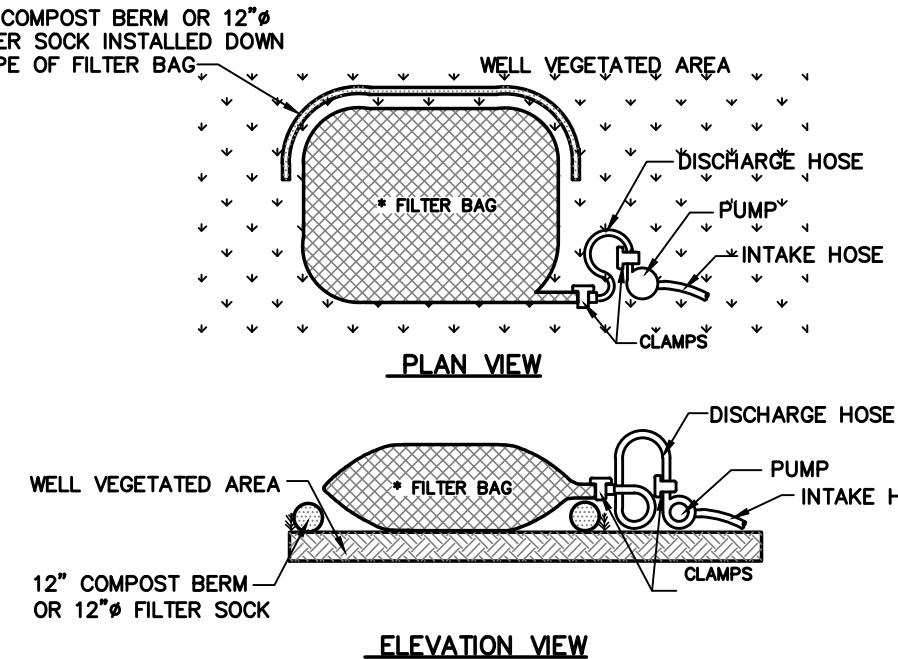
25. PERMANENT STABILIZATION IS DEFINED AS A MINIMUM UNIFORM, PERNENNIAL 70% VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED EROSION. CUT AND FILL SLOPES SHALL BE CAPABLE OF RESISTING FAILURE DUE TO SLUMPING, SLIDING, OR OTHER MOVEMENTS.

26. E&S BMPs SHALL REMAIN FUNCTIONAL AS SUCH UNTIL ALL AREAS TRIBUTARY TO THEM ARE PERMANENTLY STABILIZED OR UNTIL THEY ARE REPLACED BY ANOTHER BMP.

27. AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES OR AREAS DISTURBED DURING REMOVAL OR CONVERSION OF THE BMPs SHALL BE STABILIZED IMMEDIATELY. IN ORDER TO ENSURE RAPID REVEGETATION OF DISTURBED AREAS, SUCH REMOVAL/CONVERSIONS ARE TO BE DONE ONLY DURING THE GERMINATING SEASON.

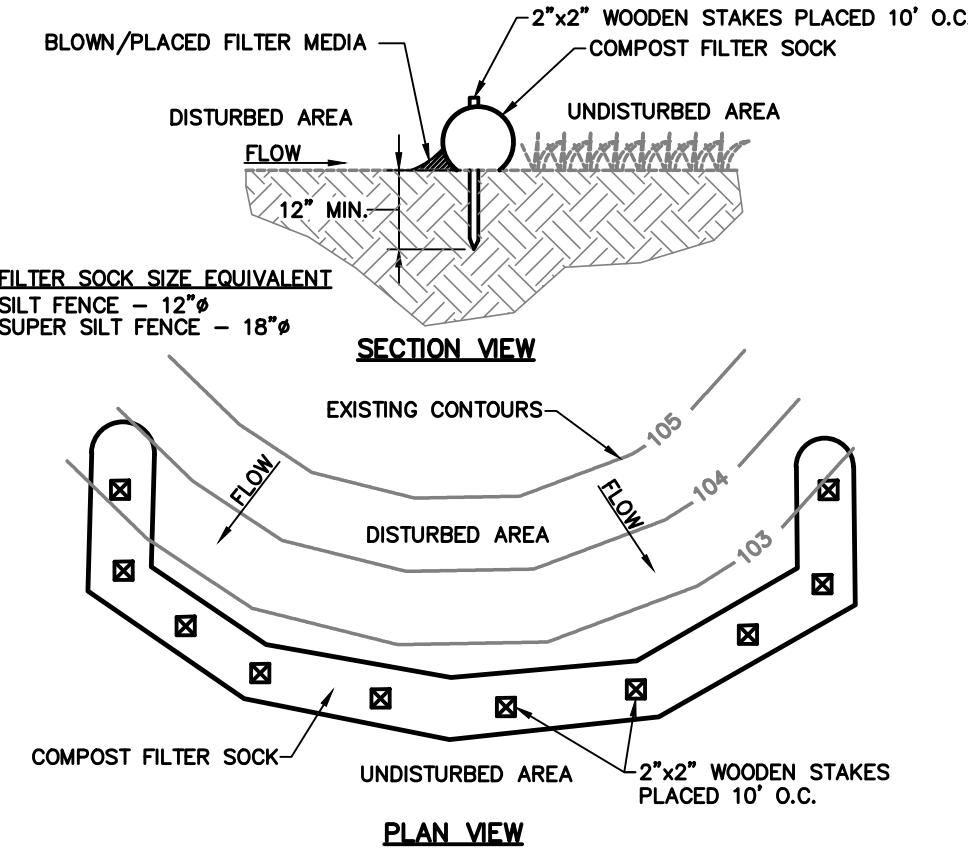
28. FAILURE TO CORRECTLY INSTALL E&S BMPs, FAILURE TO PREVENT SEDIMENT-LADEN RUNOFF FROM LEAVING THE CONSTRUCTION SITE, OR FAILURE TO TAKE IMMEDIATE CORRECTIVE ACTION TO RESOLVE FAILURE OF E&S BMPs MAY RESULT IN ADMINISTRATIVE, CIVIL, AND/OR CRIMINAL PENALTIES BEING INSTITUTED BY THE DEPARTMENT AS DEFINED IN SECTION 602 OF THE PENNSYLVANIA CLEAN STREAMS LAW. PENNSYLVANIA CLEAN STREAMS LAW PROVIDES FOR \$10,000.00 IN CIVIL PENALTIES AND UP TO \$25,000 IN MISDEMEANOR CRIMINAL PENALTIES FOR EACH VIOLATION.

29. THE PROJECT'S RECEIVING WATERCOURSE PICKERING CREEK AND THE CHAPTER 93 CLASSIFICATION IS HQ-TSF, MF.



SEDIMENT FILTER BAG FOR PUMPED WATER DETAIL

1. FILTER BAGS SHALL BE MADE FROM NON-WOVEN GEOTEXTILE MATERIAL SEWN WITH HIGH STRENGTH, DOUBLE STITCHED "U" TYPE SEAMS. THEY SHALL BE CAPABLE OF TRAPPING PARTICLES LARGER THAN 150 MICRONS.
2. A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY REQUIRED FOR DISPOSAL PURPOSES MUST BE PROVIDED. FILTER BAGS SHALL BE REPLACED WHEN THEY BECOME 1/2 FULL. SPARE BAGS SHALL BE KEPT AVAILABLE FOR REPLACEMENT OF THOSE THAT HAVE FAILED OR ARE FILLED.
3. BAGS SHALL BE LOCATED IN WELL-VEGETATED (GRASSY) AREA, AND DISCHARGE ONTO STABLE, EROSION RESISTANT AREAS. WHERE THIS IS NOT POSSIBLE, A GEOTEXTILE FLOW PATH SHALL BE PROVIDED. BAGS SHALL NOT BE PLACED ON SLOPES GREATER THAN 5%.
4. MINIMUM 12" COMPOST BERM OR 12" COMPOST FILTER SOCK SHALL BE INSTALLED DOWNSLOPE OF FILTER BAGS.
5. THE PUMP DISCHARGE HOSE SHALL BE INSERTED INTO THE BAGS IN THE MANNER SPECIFIED BY THE MANUFACTURER AND SECURELY CLAMPED.
6. THE PUMPING RATE SHALL BE NO GREATER THAN 750 GPM OR 1/2 THE MAXIMUM SPECIFIED BY THE MANUFACTURER, WHICHEVER IS LESS. PUMP INTAKES SHOULD BE FLOATING AND SCREENED.
7. FILTER BAGS SHALL BE INSPECTED DAILY, IF ANY PROBLEM IS DETECTED, PUMPING SHALL CEASE IMMEDIATELY AND NOT RESUME UNTIL THE PROBLEM IS CORRECTED.



COMPOST FILTER SOCK DETAIL

NOTES: PER PA DEP EROSION AND SEDIMENT CONTROL PROGRAM MANUAL TECH. GUIDANCE NO. 363-2134-008

1. SOCK FABRIC SHALL MEET STANDARDS OF TABLE 4.1. COMPOST SHALL MEET THE STANDARDS OF TABLE 4.2. COMPOST FILTER SOCK SHALL BE PLACED AT ELEVATION LEVEL GRADE, BUT NOT LOWER THAN THE SOCK STABILIZATION ALIGNMENT (FIGURE 4.1). MAXIMUM SLOPE ABOVE ANY SOCK SHALL NOT EXCEED THAT SHOWN ON FIGURE 4.2. STAKES MAY BE INSTALLED IMMEDIATELY DOWNSLOPE OF THE SOCK IF SO SPECIFIED BY THE MANUFACTURER.
2. TRAFFIC SHALL NOT BE PERMITTED TO CROSS FILTER SOCKS.
3. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES HALF THE ABOVEGROUND HEIGHT OF THE SOCK AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN.
4. SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAVED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.
5. BIODEGRADABLE FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS; PHOTOEGRADABLE SOCKS AFTER 1 YEAR.
6. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
7. UPON STABILIZATION OF THE AREA TRIBUTARY TO THE SOCK, STAKES SHALL BE REMOVED. THE SOCK MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.

30. THE PROJECT'S RECEIVING WATERCOURSE PICKERING CREEK AND THE CHAPTER 93 CLASSIFICATION IS HQ-TSF, MF.

31. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ANY MATERIAL BROUGHT ON SITE IS CLEAN FILL. FORM FP-001 MUST BE RETAINED BY THE PROPERTY OWNER FOR ANY FILL MATERIAL AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE BUT QUALIFYING AS CLEAN FILL DUE TO ANALYTICAL TESTING.

32. THE DEFINITIONS FOR THE FOLLOWING TERMS ARE LISTED AND ARE TAKEN FROM THE DEPARTMENT OF ENVIRONMENTAL PROTECTION PERMIT SUMMARY SHEET ON PAGE 6.

33. CLEAN FILL: UNCONTAMINATED, NON-WATER SOLUBLE, NON-DECOMPOSABLE, INERT, SOLID MATERIAL. THE TERM INCLUDES SOIL, ROCK, STONE, DREDGED MATERIAL, USED ASPHALT, AND BRICK, BLOCK OR CONCRETE FROM CONSTRUCTION SITES. THE TERM DOES NOT INCLUDE ASH, SLUDGE, 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 THAT HAS BEEN PROCESSED FOR RE-USE.)

34. ENVIRONMENTAL DUE DILIGENCE: 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.

35. 11. ALL PUMPING OF WATER FROM ANY WORK AREA SHALL BE DONE ACCORDING TO THE PROCEDURE DESCRIBED IN THIS PLAN, OVER UNDISTURBED VEGETATED AREAS.

36. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENT BMPS SHALL BE MAINTAINED PROPERLY. MAINTENANCE SHALL INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENT BMPS AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. EROSION AND SEDIMENT CONTROL MEASURES, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, REPAIRING, RELOCATING AND RETENING MUST BE PERFORMED IMMEDIATELY IF THE E&S BMPS FAIL TO PERFORM AS EXPECTED. REPLACEMENT BMPs, OR MODIFICATIONS OF THOSE INSTALLED WILL BE REQUIRED.

37. A LOG SHOWING DATES THAT E&S BMPs WERE INSPECTED AS WELL AS ANY DEFICIENCIES FOUND AND THE DATES THEY WERE CORRECTED SHALL BE MAINTAINED ON THE SITE AND BE MADE AVAILABLE TO REGULATORY AGENCY OFFICIALS AT THE TIME OF INSPECTION.

38. SEDIMENT TRACKED ONTO ANY PUBLIC ROADWAY OR SIDEWALK SHALL BE RETURNED TO THE CONSTRUCTION SITE BY THE END OF EACH WORK DAY AND DISPOSED IN THE MANNER DESCRIBED IN THIS PLAN. IN NO CASE SHALL THE SEDIMENT BE WASHED, SHOVELLED, OR SWEEP INTO ANY ROADSIDE DITCH, STORM SEWER, OR SURFACE WATER.

39. ALL SEDIMENT REMOVED FROM BMPs SHALL BE DISPOSED OF IN THE MANNER DESCRIBED ON THE PLAN DRAWINGS.

40. AREAS WHICH ARE TO BE TOPSOILED SHALL BE SCARFED TO A MINIMUM THICKNESS OF 6 TO 8 INCHES. COMPACTED FILLS PRIOR TO PLACEMENT OF TOPSOIL ARE TO BE VEGETATED. SHALL HAVE A MINIMUM 4 INCHES OF TOPSOIL IN PLACE PRIOR TO SEEDING AND MULCHING. FILL OUTSLOPES SHALL HAVE A MINIMUM OF 2 INCHES OF TOPSOIL.

41. ALL FILLS SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION, SLIPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS. FILL INTENDED TO SUPPORT BUILDINGS, STRUCTURES AND CONDUITS, ETC. SHALL BE COMPACTED IN ACCORDANCE WITH LOCAL REQUIREMENTS OR CODES.

42. ALL EARTHEN FILLS SHALL BE PLACED IN COMPACTED LAYERS NOT TO EXCEED 9 INCHES IN THICKNESS.

43. FILL MATERIALS SHALL BE FREE OF FROZEN PARTICLES, BRUSH, ROOTS, SOD, OR OTHER FOREIGN OR OBJECTIONABLE MATERIALS THAT WOULD INTERFERE WITH OR PREVENT CONSTRUCTION OF SATISFACTORY FILLS.

44. FROZEN MATERIALS OR SOFT, MUCKY OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED INTO FILLS.

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

46. SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE HANDLED IN ACCORDANCE WITH THE STANDARD AND SPECIFICATION FOR SUBSURFACE DRAIN OR OTHER APPROVED METHOD.

47. ALL GRADED AREAS SHALL BE PERMANENTLY STABILIZED IMMEDIATELY UPON REACHING FINISHED GRADE. CUT SLOPES IN COMPETENT BEDROCK AND ROCK FILLS NEED NOT BE VEGETATED. SEDED AREAS WITHIN 50 FEET OF A SURFACE WATER, OR AS OTHERWISE SHOWN ON THE PLAN DRAWINGS, SHALL BE BLANKETED ACCORDING TO THE STANDARDS OF THIS PLAN.

48. IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE IN ANY AREA OR SUBAREA OF THE PROJECT, THE OPERATOR SHALL STABILIZE ALL DISTURBED AREAS. DURING NON-GERMINATING MONTHS, MULCH OR PROTECTIVE BLANKETING SHALL BE APPLIED AS DESCRIBED IN THE PLAN. AREAS NOT AT FINISHED GRADE, WHICH WILL BE REACTIVATED WITHIN 1 YEAR, MAY BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY STABILIZATION

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49. 29. THE PROJECT'S RECEIVING WATERCOURSE PICKERING CREEK AND THE CHAPTER 93 CLASSIFICATION IS HQ-TSF, MF.

50. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ANY MATERIAL BROUGHT ON SITE IS CLEAN FILL. FORM FP-001 MUST BE RETAINED BY THE PROPERTY OWNER FOR ANY FILL MATERIAL AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE BUT QUALIFYING AS CLEAN FILL DUE TO ANALYTICAL TESTING.

51. THE DEFINITIONS FOR THE FOLLOWING TERMS ARE LISTED AND ARE TAKEN FROM THE DEPARTMENT OF ENVIRONMENTAL PROTECTION PERMIT SUMMARY SHEET ON PAGE 6.

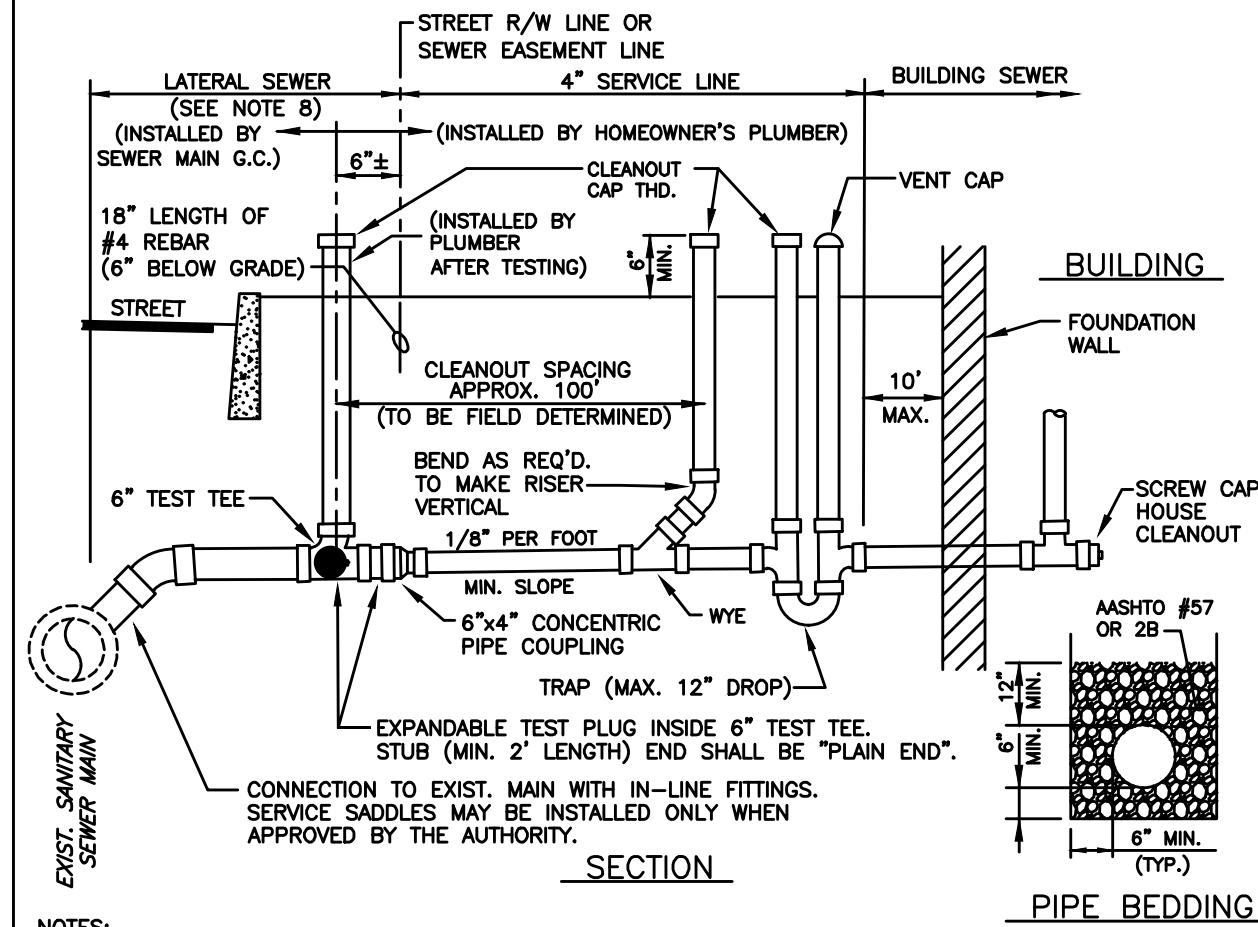
52. CLEAN FILL: UNCONTAMINATED, NON-WATER SOLUBLE, NON-DECOMPOSABLE, INERT, SOLID MATERIAL. THE TERM INCLUDES SOIL, ROCK, STONE, DREDGED MATERIAL, USED ASPHALT, AND BRICK, BLOCK OR CONCRETE FROM CONSTRUCTION SITES. THE TERM DOES NOT INCLUDE ASH, SLUDGE, OTHER WASTE AND IS RECOGNIZABLE AS SUCH. THE TERM 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 THAT HAS BEEN PROCESSED FOR RE-USE.)

53. ENVIRONMENTAL DUE DILIGENCE: 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.

54. 11. ALL PUMPING OF WATER FROM ANY WORK AREA SHALL BE DONE ACCORDING TO THE PROCEDURE DESCRIBED IN THIS PLAN, OVER UNDISTURBED VEGETATED AREAS.

55. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENT BMPS SHALL BE MAINTAINED PROPERLY. MAINTENANCE SHALL INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENT BMPS AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. EROSION AND SEDIMENT CONTROL MEASURES, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, REPAIRING, RELOCATING AND RETENING MUST BE PERFORMED IMMEDIATELY IF THE E&S BMPS FAIL TO PERFORM AS EXPECTED. REPLACEMENT BMPs, OR MODIFICATIONS OF THOSE INSTALLED WILL BE REQUIRED.

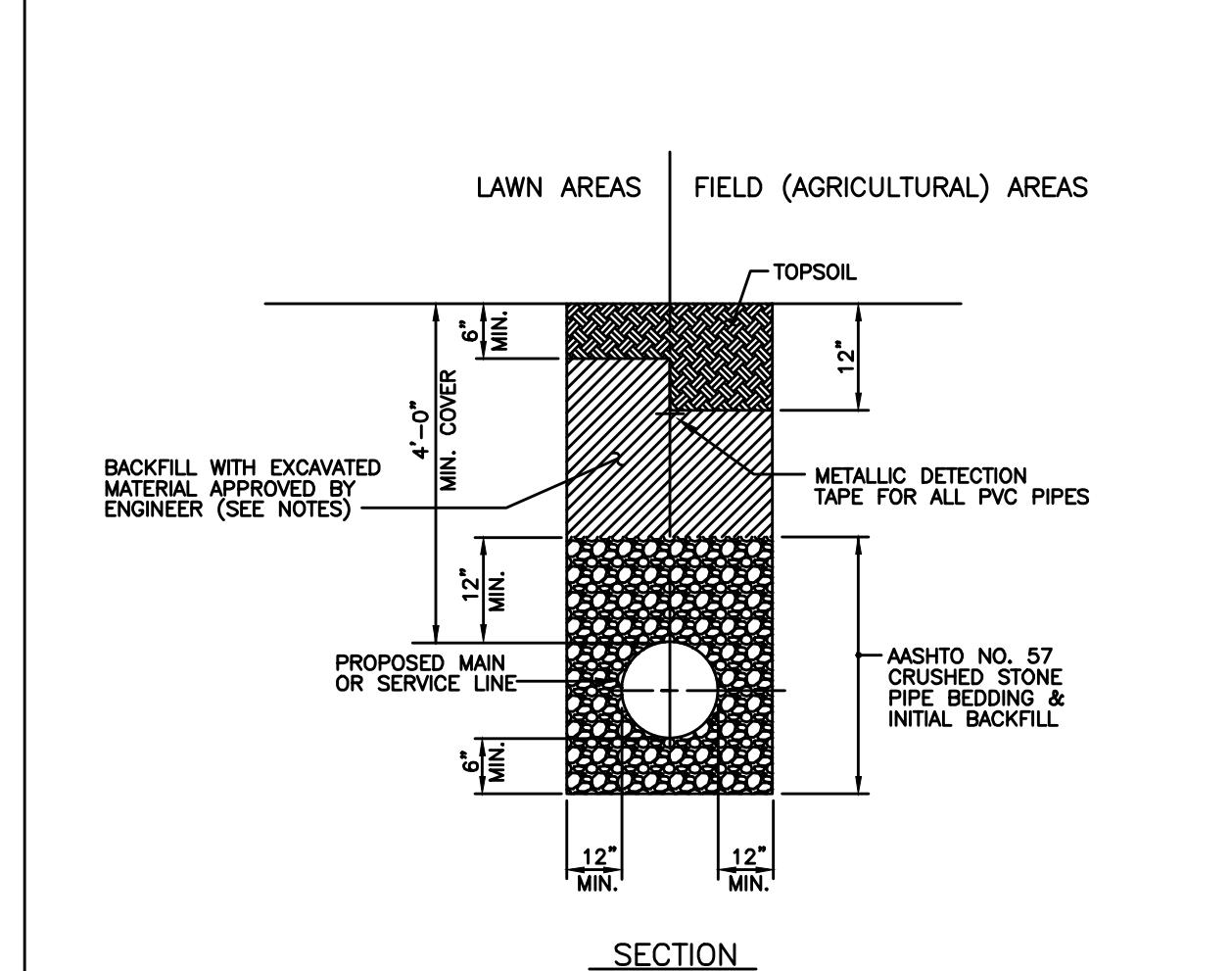
56. A LOG SHOWING DATES THAT E&S BMPs WERE



NOTES:

1. PROVIDE 6" OF AASHTO NO. 57 STONE BELOW PIPE AND 12" ABOVE PIPE (TYPICAL ENTIRE LENGTH OF LATERAL AND SERVICE LINE)
2. MINIMUM SLOPE = 1/8" PER FT.
3. MINIMUM DEPTH OF COVER = 4 FT
4. PIPE MATERIALS: LATERALS - PVC SDR 35 OR DIP CLASS 52 WHEN INSTALLED IN FILM MATERIAL SERVICE LINE - PVC SDR 35 OR SCH. 40
5. TO CONDUCT AIR TESTING OF SERVICE LINE, INSTALL EXPANDABLE PLUGS AT LOCATIONS SHOWN.
6. NO SEWER SERVICE LINE VENT CAPS SHALL BE INSTALLED WITHIN 100'-0" FROM FLOOD PLAIN OR WITHIN FLOOD PRONE AREAS.
7. NO VENT CAPS OR CLEANOUTS SHALL BE INSTALLED IN DRIVEWAYS OR OTHER PAVED AREAS, UNLESS SPECIFICALLY APPROVED BY ULTRA-TECH. VENTS AND CLEANOUTS IN PAVED AREAS MUST BE PROVIDED WITH A FRAME AND COVER IN ACCORDANCE WITH VENT & CLEANOUTS IN PAVED AREAS DETAIL.
8. THE LATERAL SEWER SHALL BE INSTALLED ON THE EDGE OF THE SEWER DITCH OR ON THE EDGE OF AN EASEMENT OR TO THE STREET RIGHT-OF-WAY AS A MINIMUM, OR TO SUCH POINT AS REQUIRED, TO CLEAR STREET SIDEWALKS AND UNDERGROUND UTILITIES.
9. CLEANOUTS AND VENTS IN LAWN AREAS MUST BE 6" MINIMUM ABOVE GRADE.

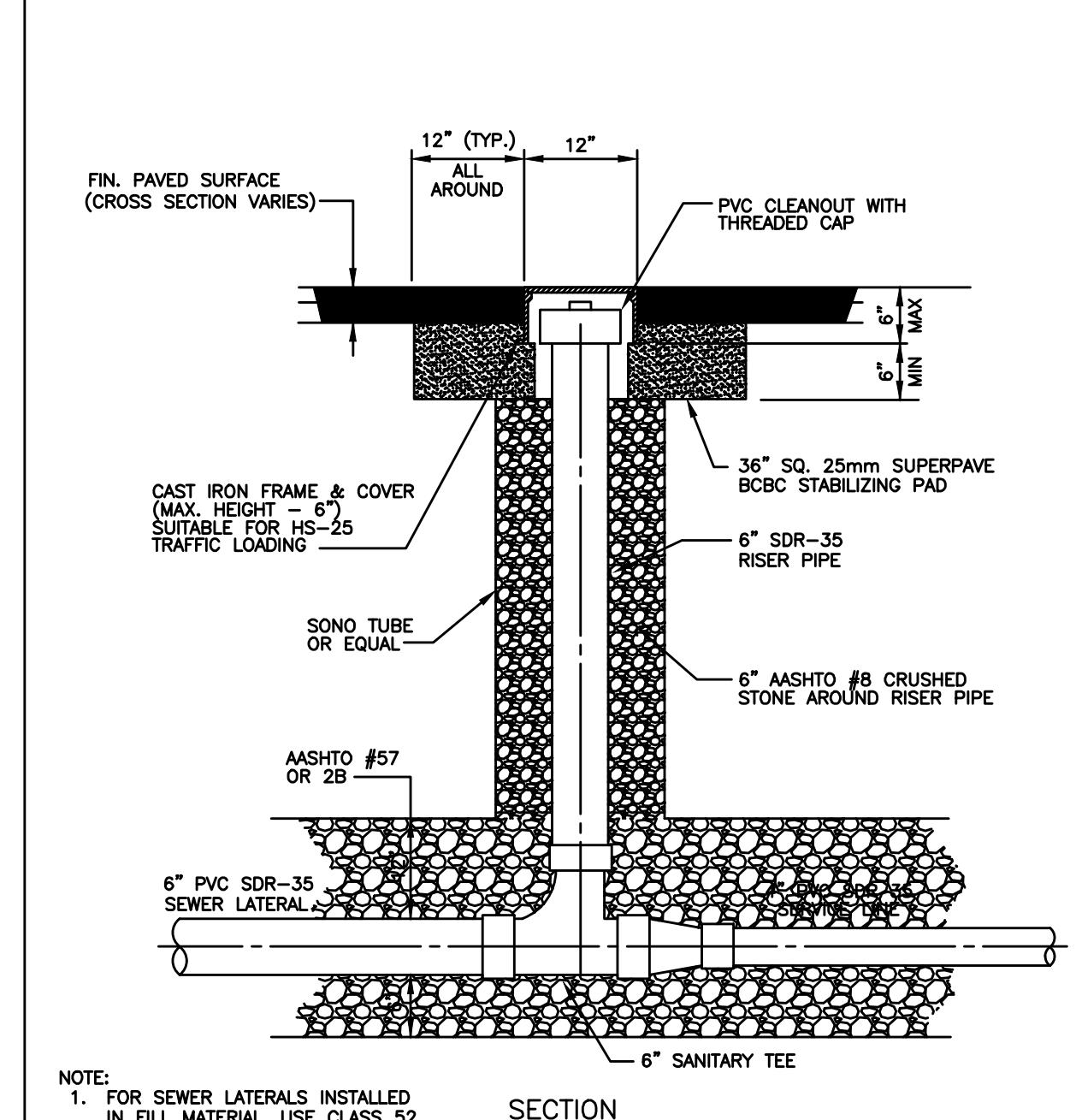
6	4/21	Upper Uwchlan Township Municipal Authority	ARRO
5	9/15		
4	10/14		
3	1/13		
2	6/05		
1	11/04	LATERAL & SERVICE LINE	DATE: APRIL 2021
REVISION	DATE		DETAIL: 7000SD17



NOTES:

1. BACKFILL TRENCHES WITH EXCAVATED MATERIAL CONTAINING NO STONES LARGER THAN FOUR (4) INCHES IN ANY DIMENSION.
2. A MAXIMUM OF 20% OF BACKFILL CAN CONSIST OF STONES (NOTED ABOVE) IF EVENLY DISTRIBUTED THROUGHOUT BACKFILL.
3. BACKFILL MATERIAL SHALL BE FREE OF ORGANIC MATERIAL, DIRT, DUST, AND FROZEN MATERIAL SUBJECT TO LIMITATIONS SPECIFIED.
4. BACKFILL SHALL BE PLACED IN 4" LOOSE LIFTS WITH THE USE OF A MECHANICAL TAMPER AND 8" LOOSE LIFTS WITH THE USE OF A VIBRATORY TAMPER.

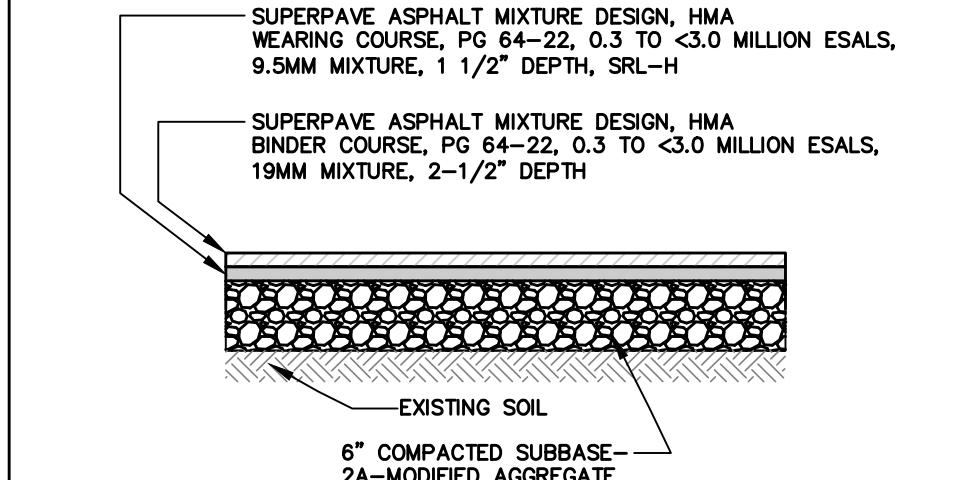
		Upper Uwchlan Township Municipal Authority	ARRO
		Suite 200, 321 N. Furnace St. Birdsboro, PA 19508 Tel 610.374.5287 Fax 610.374.5287	
4	4/21	STANDARD DETAIL - SEWER SYSTEM	
3	1/13		
2	6/05		
1	11/04	TRENCH RESTORATION LAWN/FIELD AREAS	DATE: APRIL 2021
REVISION	DATE		DETAIL: 7000SD29



NOTES:

1. FOR SEWER LATERALS INSTALLED IN FILM MATERIAL USE CLASS 52 DUCTILE IRON PIPE.

SECTION



R1-1
STOP SIGN

NOT TO SCALE (SITE-PAV)

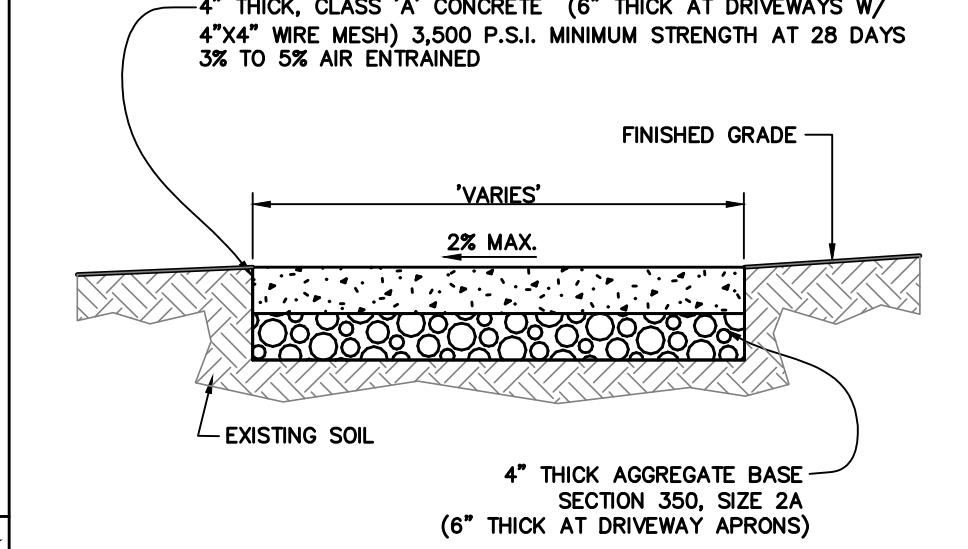
SUPERPAVE ASPHALT MIXTURE DESIGN, HMA WEARING COURSE, PG 64-22, 0.3 TO <3.0 MILLION ESALS, 9.5MM MIXTURE, 1 1/2" DEPTH, SRL-H

SUPERPAVE ASPHALT MIXTURE DESIGN, HMA BINDER COURSE, PG 64-22, 0.3 TO <3.0 MILLION ESALS, 19MM MIXTURE, 2 1/2" DEPTH

NOTE: THE STONE SUBBASE COURSE SHALL CONSIST OF STONE AND SCREENINGS APPROVAL MEETING WITH THE REQUIREMENTS OF PERMANENT STABILIZATION. THE APPROVAL OF THE STONE SUBBASE COURSE SHALL BE MADE TO COMPLETELY FILL Voids WITH FINES. NO LARGE AREAS OF SOLID SCREENINGS OR LOOSE STONE AREAS SHALL BE PERMITTED.

DRIVEWAY
PAVING SECTION DETAIL

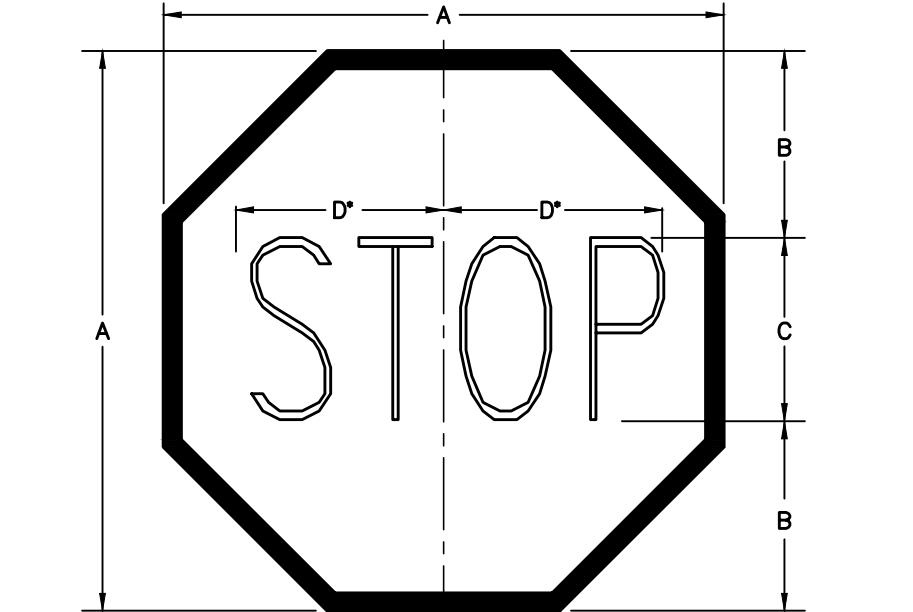
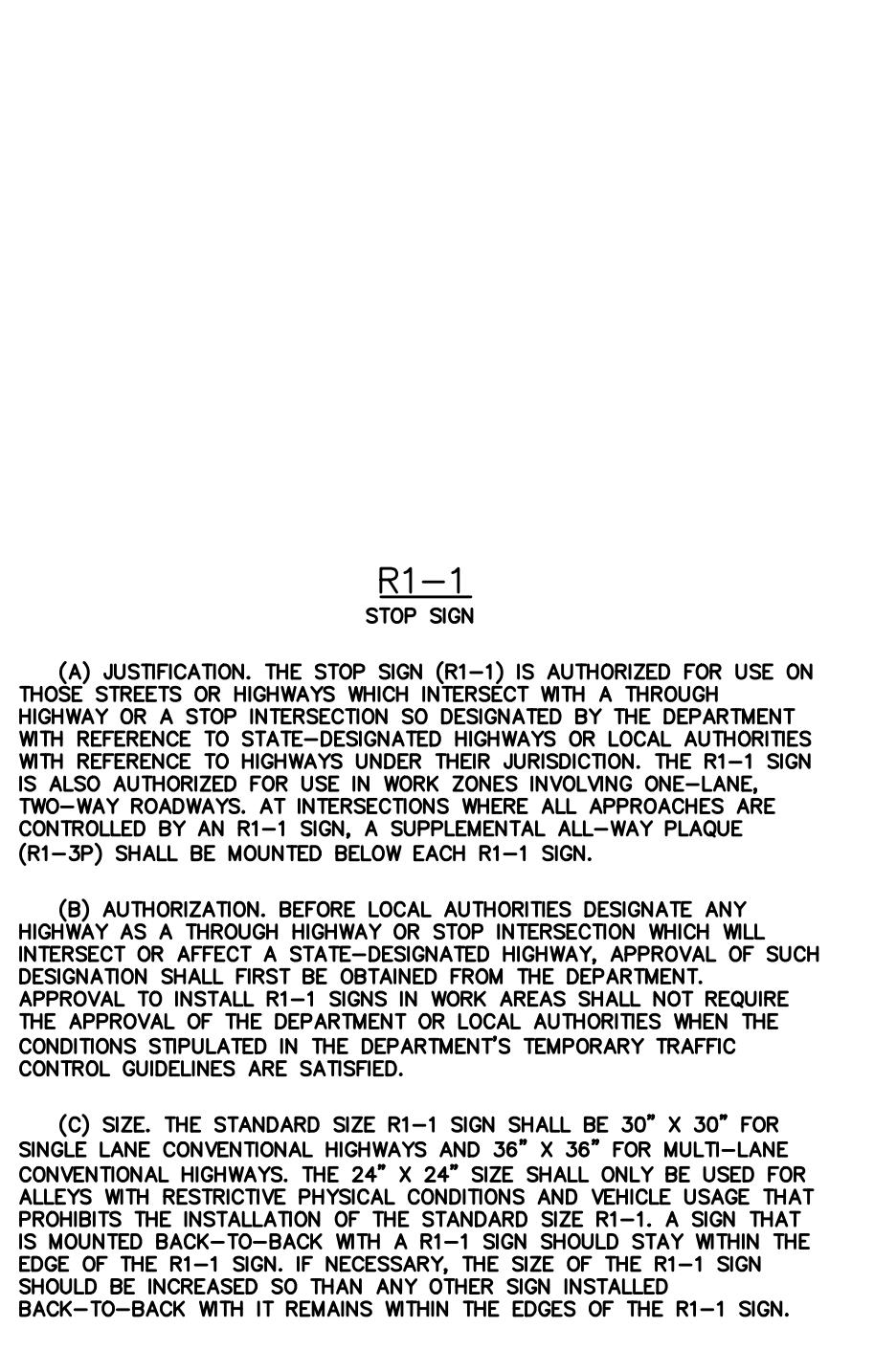
NOT TO SCALE (SITE-PAV)



(A) JUSTIFICATION: THE STOP SIGN (R1-1) IS AUTHORIZED FOR USE ON THOSE STREETS OR HIGHWAYS WHICH INTERSECT WITH A THROUGH HIGHWAY OR A STOP INTERSECTION SO DESIGNATED BY THE DEPARTMENT WITH REFERENCED STANDARDS. THE APPROVAL OF THE SIGN IS ALSO AUTHORIZED FOR USE IN WORK ZONES INVOLVING ONE-LANE, TWO-WAY ROADWAYS. AT INTERSECTIONS WHERE ALL APPROACHES ARE CONTROLLED BY AN R1-1 SIGN, A SUPPLEMENTAL ALL-WAY PLAQUE (R1-3P) SHALL BE MOUNTED BELOW EACH R1-1 SIGN.

(B) AUTHORIZATION: BEFORE LOCAL AUTHORITIES DESIGNATE ANY HIGHWAY AS A THROUGH HIGHWAY OR STOP INTERSECTION WHICH WILL INTERSECT WITH A STOP SIGN, THE DEPARTMENT SHALL APPROVE THE DESIGN AND SIGN. THIS APPROVAL IS NOT REQUIRED FOR APPROVAL TO INSTALL R1-1 SIGNS IN WORK AREAS SHALL NOT REQUIRE THE APPROVAL OF THE DEPARTMENT OR LOCAL AUTHORITIES WHEN THE CONDITIONS STIPULATED IN THE DEPARTMENT'S TEMPORARY TRAFFIC CONTROL GUIDELINES ARE SATISFIED.

(C) SIZE: THE STANDARD SIZE R1-1 SIGN SHALL BE 30" X 30" FOR SINGLE LANE CONVENTIONAL HIGHWAYS AND 36" X 36" FOR MULTI-LANE CONVENTIONAL HIGHWAYS. THE 24" X 24" SIZE SHALL ONLY BE USED FOR ALLEYS WITH RESTRICTIVE PHYSICAL CONDITIONS AND VEHICLE USAGE THAT PROHIBITS THE USE OF THE 30" X 30" SIGN. THE SIGN SHALL BE MOUNTED BACK-TO-BACK WITH A R1-1 SIGN SHOULD STAY WITHIN THE EDGE OF THE R1-1 SIGN. IF NECESSARY, THE SIZE OF THE R1-1 SIGN SHOULD BE INCREASED SO THAN ANY OTHER SIGN INSTALLED BACK-TO-BACK WITH IT REMAINS WITHIN THE EDGES OF THE R1-1 SIGN.



COLORS: LETTERS & BORDER = WHITE (REFLECTORIZED)
BACKGROUND = RED (REFLECTORIZED)

DIMENSIONS - IN					
SIGN SIZE A X A	B	C	D	BORDER BLANK STD.	
18" X 18"	6	6C	8	0.4	---
24" X 24"	8	8C	10	0.6	B1-24
30" X 30"	10	10C	12.6	0.8	B1-30
36" X 36"	12	12C	15	0.8	B1-36
18" X 18"	16	16C	20	1.2	---

* REDUCE SPACING 40%

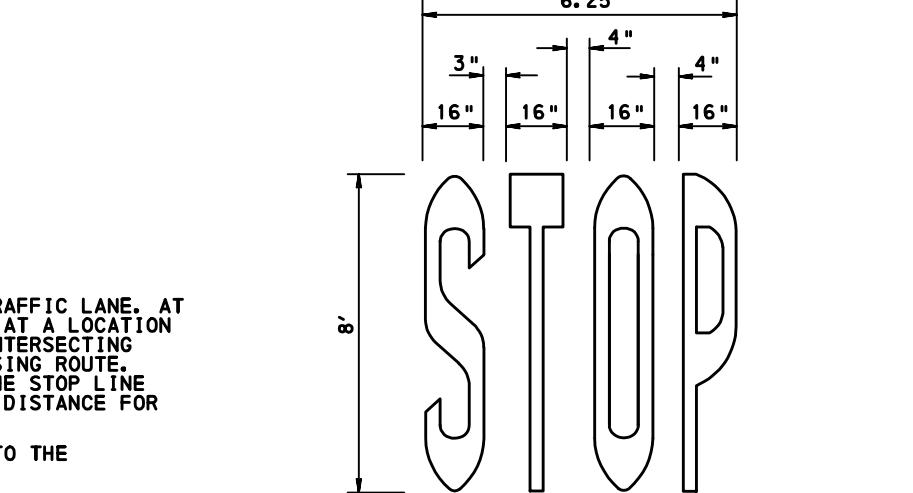
COLOR:

LEGEND AND BORDER: WHITE (REFLECTORIZED)

BACKGROUND: RED (REFLECTORIZED)

R1-1 SIGN DETAIL

NOT TO SCALE (R1-1)



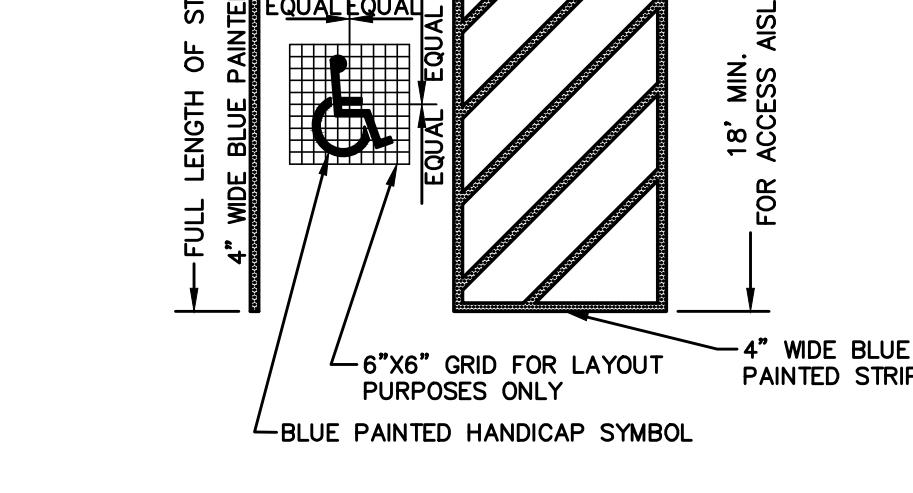
STOP LINE

9. STOP LINES ARE SOLID WHITE LINES THAT COMPLETELY TRAVERSE EACH TRAFFIC LANE, AT NO LESS THAN 12", OR MORE THAN 30", FROM THE NEAREST EDGE OF THE INTERSECTING ROADWAY. THE LENGTH OF THE STOP LINE IS DETERMINED BY THE APPROXIMATE LENGTH OF THE APPROACHED TRAFFIC LANE. WHEN USED ON MULTI-LANE APPROACH TO A SIGNALIZED INTERSECTION, THE STOP LINE MAY BE LOCATED ON THE APPROACHED TRAFFIC LANE, IN THE MANNER DESTROYING A TURN ON THE ROAD.

0. LOCATE STOP LINES AT A MINIMUM OF 4' IN ADVANCE OF AND PARALLEL TO THE CROSSWALK LINES UNLESS OTHERWISE NOTED.

STOP BAR DETAIL

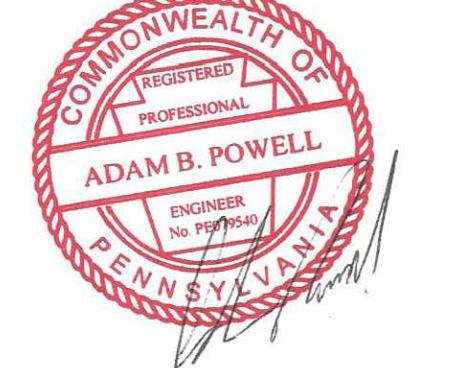
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VAN ACCESSIBLE
HANDICAPPED PARKING SIGN

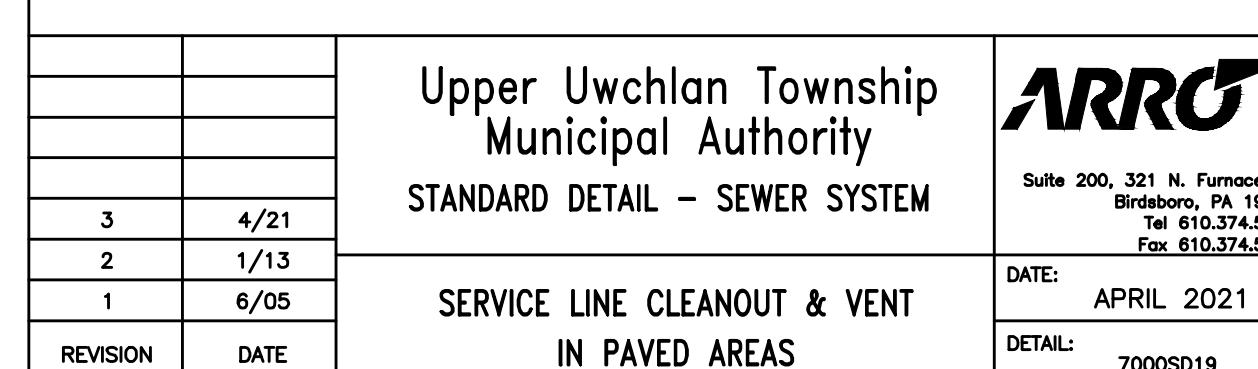
NOT TO SCALE (HANDBAR)

C-7



LINN ARCHITECTS
ARCHITECTURE
ENGINEERING
SITE PLANNING
INTERIOR DESIGN
1140 N PROVIDENCE ROAD
MEDIA, PENNSYLVANIA 19063
TEL: 610-566-7044
FAX: 610-566-3258

CONSTRUCTION DETAILS
FOR
EAGLE ANIMAL HOSPITAL
211 BYERS ROAD
UPPER UWCHLAN TOWNSHIP CHESTER COUNTY, PA



SECTION

NOTES:

1. FOR CLEANOUTS LOCATED IN YARDS, CAPS SHALL BE REMOVED ABOVE GRADE AT ALL TIMES DURING & AFTER INSTALLATION.

2. CLEANOUTS LOCATED IN PAVED AREAS MUST BE PROVIDED WITH FRAME AND COVER SIMILAR TO CAPS SHOWN ON DETAIL 7000SD19.

SECTION

NOTES:

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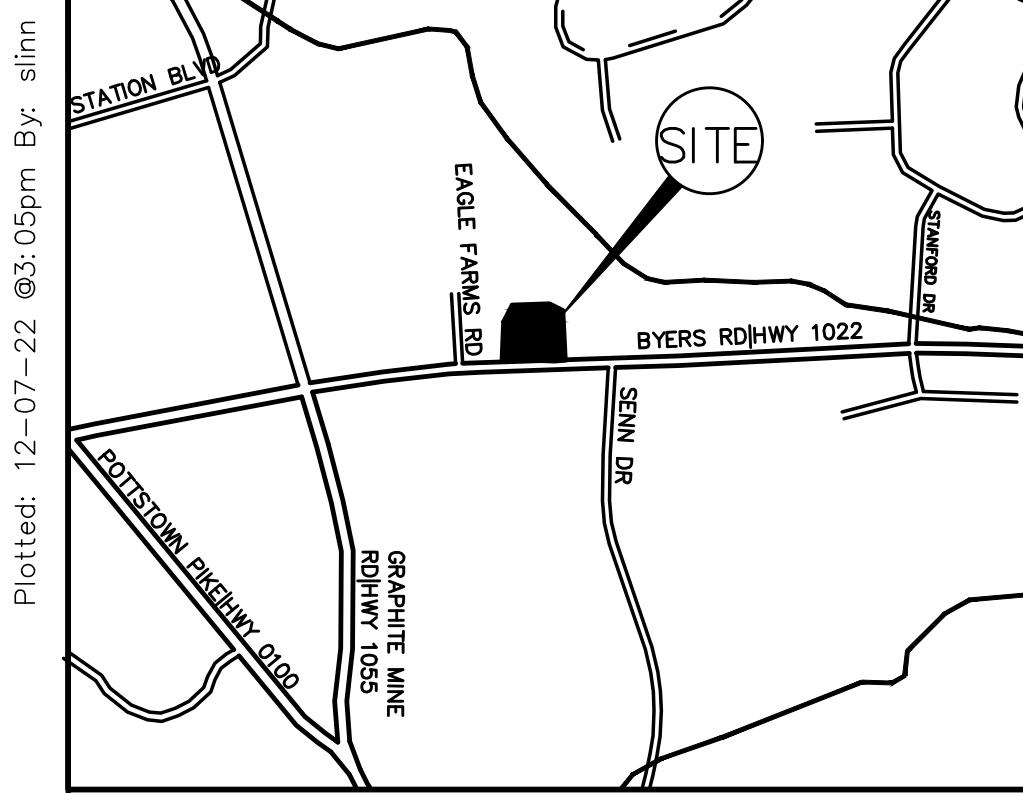
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SECTION

NOTES:

1. FOR CLEANOUTS LOCATED IN YARDS



LOCATION MAP

1" = 1,000'

NOTES

1. THIS PLAN IS BASED ON A PLAN BY HOWELLKLINE SURVEYING, ENTITLED TOPOGRAPHIC AND PHYSICAL IMPROVEMENTS SURVEY, DATED MAY 19, 2022.
2. ELEVATIONS REFER TO CONTOURS FROM FIELD SURVEY BASED ON GPS SYSTEM, NORTH AMERICAN DATUM OF 1988.
3. BOUNDARY FROM A PLAN BY HOWELLKLINE SURVEYING LLC, ENTITLED TOPOGRAPHIC AND PHYSICAL IMPROVEMENTS SURVEY, DATED MAY 19, 2022.
4. PROPERTY IS IDENTIFIED IN THE HISTORIC ORDINANCE AS HRP NO. 057, KEY NO. 065814, CLASS 1.
5. ADJOINER INFORMATION TAKEN FROM CURRENT TAX RECORDS.
6. UTILITY INFORMATION FROM OBSERVED SURFACE EVIDENCE. ALL UTILITY LOCATIONS AND DEPTHS SHALL BE FIELD VERIFIED PRIOR TO CONSTRUCTION.
7. BY GRAPHIC PLOTTING ONLY, THIS PROPERTY IS IN ZONE 'X' OF THE FLOOD INSURANCE RATE MAP, MAP NO. 4202900095G, COMMUNITY PANEL NO. 95 OF 380, WHICH BEARS AN EFFECTIVE DATE OF SEPTEMBER 29, 2017.
8. SOIL DELINEATION LINES TAKEN FROM USDA NATIONAL COOPERATIVE SOIL SURVEY THROUGH THE NATURAL RESOURCES CONSERVATION SERVICE, CUSTOM SOIL RESOURCE REPORT FOR THIS PROJECT DATED JANUARY 14TH, 2022.
9. SITE IS CURRENTLY SERVICED BY PRIVATE SEWER AND PUBLIC WATER.
10. ALL LANDSCAPING SHOWN ON THE PLANS SHALL BE MAINTAINED AND KEPT CLEAN OF ALL DEBRIS, RUBBISH, WEEDS, AND TALL GRASS.
11. A BLANKET EASEMENT IS GRANTED TO UPPER UWCHLAN TOWNSHIP TO ALLOW FOR THE INSPECTION OF THE STORMWATER FACILITY. IN THE EVENT THE HOMEOWNER/PROPERTY OWNER FAILS TO PROPERLY MAINTAIN THOSE FACILITIES, AFTER NOTICE TO THE OWNER OF ITS INTENT TO DO SO (WHICH NOTICE SHALL NOT BE REQUIRED IN ANY EMERGENCY), THE TOWNSHIP MAY (BUT IS NOT OBLIGATED TO) ENTER ONTO THE PROPERTY TO INSPECT AND PERFORM ANY SUCH MAINTENANCE, IN SUCH EVENT THE TOWNSHIP MAY CHARGE THE COSTS THEREOF, WHETHER DIRECT OR INDIRECT, INCLUDING, BUT NOT LIMITED TO, LABOR, EQUIPMENT, AND EXPENSES TO THE OWNER, AND MAY PLACE A LIEN ON THE PROPERTY TO RECOVER ANY CHARGED COSTS THAT REMAIN UNREIMBURSED AND ANY COSTS OF COLLECTION, LITIGATION, AND ATTORNEY'S FEES.
12. THERE WAS NO OBSERVED EVIDENCE OF GAS SERVICE ON THE SURVEYED PREMISES.
13. ALL BUILDING MATERIALS AND WASTES MUST BE REMOVED FROM THE SITE AND RECYCLED OR DISPOSED OF IN ACCORDANCE WITH THE DEPARTMENT OF ENVIRONMENTAL PROTECTION'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET SEQ. AND 287.1 ET SEQ. NO BUILDING MATERIAL SHALL BE BURIED, DUMPED, OR DISCHARGED FROM THE SITE.
14. AN AS-BUILT SURVEY OF ALL STORMWATER BMP'S AND AN EXPLANATION OF ANY DISCREPANCIES WITH THE OPERATION AND MAINTENANCE PLAN SHALL BE PROVIDED TO UPPER UWCHLAN TOWNSHIP.
15. ALL SANITARY SEWERS MUST BE CONSTRUCTED IN ACCORDANCE WITH THE UPPER UWCHLAN TOWNSHIP MUNICIPAL AUTHORITY SPECIFICATIONS.
16. THE AUTHORITY ENGINEER MUST BE NOTIFIED 48 HOURS PRIOR TO THE BEGINNING OF SANITARY SEWER CONSTRUCTION.
17. A SEWER LATERAL AS-BUILT PLAN MUST BE SUBMITTED TO THE AUTHORITY ENGINEER.

PA ONE CALL INFORMATION

COMPANY: AQUA PENNSYLVANIA INC
ADDRESS: 762 W LANCASTER AVE
BRYN MAWR, PA 19010
CONTACT: THOMAS WADDY
EMAIL: TBWADDY@AQUAAMERICA.COM

COMPANY: COMCAST
ADDRESS: 1000 CORNERSTONE BLVD
DOWNTOWN, PA, 19335
CONTACT: TOM RUSSO
EMAIL: tom_russo@comcast.com

COMPANY: PEPCO AN EXELON COMPANY C/O USIC
ADDRESS: 450 S HENDERSON ROAD SUITE B
KING OF PRUSSIA, PA, 19406
CONTACT: NIKKASIMPRUN@USICLLC.COM

COMPANY: UPPER UWCHLAN TOWNSHIP
ADDRESS: 140 PINEWOOD DRIVE
CHESTER SPRINGS, PA, 19425
CONTACT: MICHAEL HECKMAN
EMAIL: MHECKMAN@UPPERUWCHLAN-PA.GOV

COMPANY: VERIZON BUSINESS FORMERLY MCI
ADDRESS: 7000 WESTON PKWY
CARY, NC, 27513
CONTACT: VICTOR WOOD
EMAIL: victor.s.wood@verizon.com

CHAPTER 93. CLASSIFICATION:

THE SITE DRAINS TO PICKERING CREEK. CHAPTER 93 CLASSIFICATION IS HQ-TSF, MF.

SOILS TABLE

(FROM UNITED STATES DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE)

SOIL TYPE: Cb-B-Calforn loam

DRAINAGE CLASS: Moderately Well Drained

SLOPE RANGE: 3-8

HYDROLOGIC GROUP: D

FLOOD DEPTH: 20-30 inches

BEDROCK DEPTH: 72-99 inches

SEASONAL WATER TABLE: 6-36 inches

FLOODING POTENTIAL: None

PROFILE PERMEABILITY: Moderately low to moderately high

SOIL TYPE: Ha-Hatboro silt loam

DRAINAGE CLASS: Poorly Drained

SLOPE RANGE: 0-3

HYDROLOGIC GROUP: B/D

BEDROCK DEPTH: 60-99 inches

SEASONAL WATER TABLE: 5.0-0 inches

FLOODING POTENTIAL: Non-Frequent

PROFILE PERMEABILITY: Moderately high to high

SOIL TYPE: UugB-Urban loam-Undertowths, schist and gneiss

DRAINAGE CLASS: Moderately low to moderately high

SLOPE RANGE: 0-8

HYDROLOGIC GROUP: C

FLOOD DEPTH: 20-70 inches

SEASONAL WATER TABLE: 60 inches

FLOODING POTENTIAL: Non-Frequent

PROFILE PERMEABILITY: Moderately low to moderately high

MAINTENANCE NOTES STORMWATER MANAGEMENT:

1. THE OWNER AND/OR OPERATOR OF THE PROPERTY IS RESPONSIBLE FOR THE MAINTENANCE OF THE STORMWATER MANAGEMENT SYSTEM.

2. STORMWATER FACILITIES SHALL BE INSPECTED BY A REGISTERED PROFESSIONAL ENGINEER LICENSED IN THE COMMONWEALTH OF PENNSYLVANIA ON BEHALF OF THE APPLICANT OR RESPONSIBLE ENTITY (INCLUDING THE TOWNSHIP ENGINEER FOR DEDICATED FACILITIES) ON THE FOLLOWING BASIS:

- (1) ANNUALLY FOR THE FIRST FIVE YEARS.
- (2) ONCE EVERY THREE YEARS THEREAFTER.
- (3) DURING OR IMMEDIATELY AFTER THE CESSION OF A ONE-HUNDRED-YEAR OR GREATER STORM EVENT.

THE PROFESSIONAL ENGINEER CONDUCTING THE INSPECTION SHALL BE REQUIRED TO SUBMIT A WRITTEN REPORT TO THE TOWNSHIP WITHIN ONE MONTH FOLLOWING COMPLETION OF THE INSPECTION. THE REPORT WILL PRESENT DOCUMENTATION AND INCLUDE PICTURES REGARDING THE CONDITION OF THE FACILITY AND RECOMMEND NECESSARY REPAIRS. IF NEEDED, ANY NEEDED REPAIRS SHALL BE IMPLEMENTED BY THE OWNER WITHIN ONE MONTH OF THE REPORT ISSUANCE DATE.

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TABLE OF CONTENTS

LINN ARCHITECTS

1140 N. PROVIDENCE ROAD
MEDIA, PENNSYLVANIA 19063
TEL: 610.566.7044
FAX: 610.566.3258

PRELIMINARY STORMWATER MANAGEMENT REPORT

211 Byers Road, Upper Uwchlan Twp.

Section 1	■ Narrative	1
	■ Location Map	3
	■ Stormwater Summary Table	4
	■ Precipitation Data	5
	■ Act 167	6

Section 2 Runoff and Routing Calculations

**STORMWATER MANAGEMENT REPORT
for
211 Byers Road**

BACKGROUND

The SUBJECT property is a 1.34-acre parcel located off the northern side of Byers Road, in Upper Uwchlan Twp., Chester County, Pennsylvania. The parcel is located in the C-1 Village zoning district and currently contains a two story building, 2 detached wooden sheds, a concrete greenhouse, and a wood outhouse. The Applicant is proposing to construct an addition for the existing two story building. The site drains to Pickering Creek (Chapter 93 classification: HQ-TSF, MF). The USDA Soil Conservation Service Soil Survey classifies soils on-site as Califon Loam (CaB), Hatboro Silt Loam (Ha), and Urban Land-Udorthents, Schist and Gneiss (UugB).

METHODOLOGY

The stormwater computations contained in this report were completed following the guidelines outlined in Technical Release No. 55 (TR-55) *Urban Hydrology for Small Watersheds*, issued by the Soil Conservation Service. The computer program *HydroCAD 8.5* was utilized to generate the Pre-Developed and Post-Developed hydrographs.

In the pre-developed condition, the site was analyzed as one drainage area. As permitted by the Ordinance, the area was modeled in the Pre-Developed Condition as reflecting the existing surface conditions – impervious driveway paved area and lawn area 50-75% grass cover. With the project consisting of spot construction, a building addition, graded areas, and new pavement the existing and proposed stormwater management only took into account the areas which were disturbed or otherwise modified.

The Upper Uwchlan Twp. Stormwater Management Ordinance requires that stormwater volume controls be utilized to limit the post-development volume of runoff for the 10-year storm to not exceed the same for the Pre-developed 2-year storm.

In the Post-developed condition, drainage was analyzed as one area, which was broken down into Uncontrolled Area, Stormwater bed area, and Infiltration trench area.

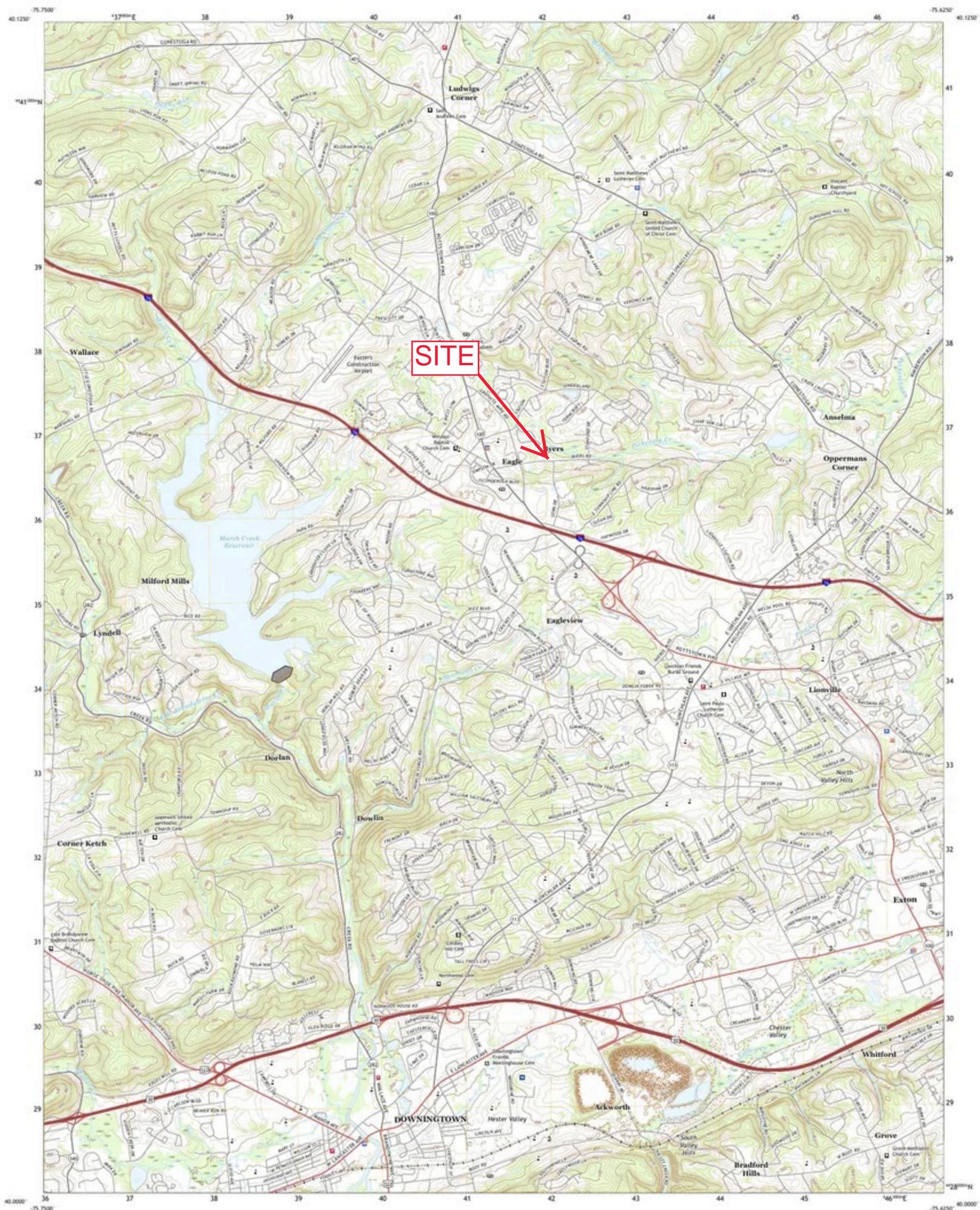
The Stormwater Model assumes a conservative infiltration rate of 0.5 inch per hour. Soil testing will be performed during construction and, if required, this will be modified accordingly and submitted to the Township of review and approval. Double ring infiltrometer tests will be performed under each bed location to determine infiltration rates of the soil. A design infiltration rate will be deduced from the values found.

The proposed bed consists of 8 inch diameter perforated pipe set in a bed of stone, and the proposed storm trench consists of 15 inch diameter perforated pipe set in a bed of stone. Both systems are designed to control the runoff from the proposed site and are

capable of capturing and infiltrating part of the runoff for all design storms and are able to safely release that runoff as to not negatively impact any neighbors.

CONCLUSION

This analysis confirms that the Stormwater Management System proposed for this site is capable of meeting the intent of the requirements contained in the Upper Uwchlan Township Stormwater Management Ordinance.



Produced by the United States Geological Survey

Produced by the United States Geological Survey
North American Datum of 1983 (NAD83)
World Geodetic System of 1984 (WGS84). Projection and
1:000-meter grid-based Universal Transverse Mercator, Zone 18T:18S
This map is not a legal document. Boundaries may be
generalized for this map scale. Private lands within government
reservations may not be shown. Obtain permission before
reproducing this map.

impressions may not be shown. Obtain permission before entering private lands.	
Imagery	NAIP, June 2017 - December 2018
Roads	U.S. Census Bureau, 2018
Rivers	USGS, 1979
Hydrography	National Hydrography Dataset, 2001 - 2018
Contours	National Elevation Dataset, 2018
Boundaries	Multiple sources; see metadata file 2017 - 2018

Wetlands, FWS National Wetlands Inventory 1981 - 1982

A scale bar for a 1:24,000 map. It features three horizontal lines. The top line is labeled 'KILOMETERS' with tick marks at 0, 5, 10, and 15. The middle line is labeled '(METERS)' with tick marks at 0, 500, and 1000. The bottom line is labeled 'MILES' with tick marks at 0, 1000, 2000, 3000, 4000, 5000, 6000, 7000, 8000, 9000, and 10000. The scale is 1:24,000.

FEET
CONTOUR INTERVAL 10 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988

PERIODICO

quadrant 1 cities		
1	2	3
4	5	
6	7	8

ADJACENT QUADRANTS

DOWNINGTOWN, PA
2019



STORMWATER RATE SUMMARY - Pickering Creek

		Existing Condition To Creek	Proposed Condition to Creek								ACT 167 REQUIREMENTS
			Uncontrolled Runoff		Infiltration Trench			Infiltration Bed			
Storm Event (year)	Rainfall (in/event)	Rate (cfs)	Rate (cfs)	Rate In (year)	Elevation (ft)	Rate out (cfs)	Rate In (cfs)	Elevation (ft)	Rate out (cfs)	Total Release (cfs)	
1	2.69	1.64	0.98	0.54	415.01	0.00	0.25	417.08	0.00	0.98	<= 2-yr Post <1-yr Pre
2	3.24	2.15	1.29	0.68	415.51	0.00	0.31	417.44	0.00	1.29	
5	4.06	2.91	1.75	0.88	416.33	0.00	0.41	418.07	0.00	1.75	
10	4.74	3.56	2.13	1.05	417.13	0.00	0.49	418.54	0.00	2.13	
25	5.72	4.49	2.69	1.30	418.00	0.01	0.61	418.63	0.06	2.69	
50	6.54	5.26	3.16	1.50	418.01	0.06	0.71	418.80	0.28	3.16	
100	7.42	6.10	3.67	1.72	418.05	0.21	0.82	418.94	0.55	3.84	
		Area (sf)	26,799	16,130	7,187		3,482			26,799	
		Tc	5	5.0 min	5 min.		5 min.			5 min.	
		CN	87	87	93		90			77	

STORMWATER VOLUME SUMMARY - Pickering Creek

		Existing Condition Stormwater Runoff	Proposed Condition								Total Release (cf)
			Uncontrolled Runoff		Infiltration Trench			Infiltration Bed			
Storm Event (year)	Rainfall (in/event)	Volume (cf)	Volume (cf)	Volume	Volume Infiltrated (cf)	Volume Released (cf)	Volume	Volume Infiltrated (cf)	Volume Released (cf)	Total Release (cf)	
1	2.68	3,377	2,018	1,193	1,193	0	528	528	0	2,018	
2	3.24	4,428	2,649	1,499	1,499	0	671	671	0	2,649	
5	4.12	6,060	3,630	1,690	1,690	0	892	892	0	3,630	
10	4.85	7,453	4,467	2,353	2,353	0	1,078	1,041	37	4,504	
25	5.94	9,502	5,700	2,921	2,764	157	1,350	1,088	262	6,119	
50	6.87	11,243	6,747	3,400	2,776	624	1,580	1,121	459	7,830	
100	7.89	13,129	7,882	3,916	2,785	1,131	1,828	1,150	678	9,691	

ACT 167 VOLUME CONTROL

2-yr Pre Volume: 3,539 cf*
 2-yr Post Volume: 4,819 cf
 2-yr Net Increase: 1,280 cf
 Total 2-yr Infiltration Volume: 2,170 cf

$$WQv = [(P)(Rv)(A)]/12$$

$$WQv = [(1)(0.79)(2.71)]/12$$

$$WQv = 0.178 \text{ acre-ft}$$

$$WQv = 7,771 \text{ cf}$$

Provided 2-yr Infiltration Volume: 2,170 cf

* The calculated 2-yr Predeveloped Volume accounts for the 20% reduction of the Existing Impervious Surface and all Pervious Surfaces are considered Meadow.

ACT 167 WATER QUALITY CONTROL

$$P = 1 \text{ inch}$$

$$A = 118,236 \text{ sf}/43,560 \text{ sf} = 2.71 \text{ Acre}$$

$$I = 97,534 \text{ sf}/43,560 \text{ sf} = 2.23 \text{ Acre}$$

$$Rv = 0.05+0.009(2.23/2.71 \times 100)$$

$$Rv = 0.79$$

DEWATERING TIME

Structure	Storage Volume (cft)	Bottom Surface Area (square feet)	Design Infiltration Rate (inches/hour)	Storage Depth (feet)	Dewatering Time (hours)
Trench Bed	2,466 763	602 625	0.500 0.500	4.10 1.22	98.31 29.30

Dewatering Calculations

- (1) Storage Volume = Storage capacity below lowflow outlet
- (2) Storage Depth = (Storage Volume) / (Bottom Surface Area)
- (3) Dewatering Time = (Storage Depth) / (Design Infiltration Rate)

**NOAA Atlas 14, Volume 2, Version 3**

Location name: Chester Springs, Pennsylvania,

USA*

Latitude: 40.0785°, Longitude: -75.6804°

Elevation: 419.82 ft**

* source: ESRI Maps

** source: USGS

**POINT PRECIPITATION FREQUENCY ESTIMATES**

G.M. Bonnin, D. Martin, B. Lin, T. Parzybok, M. Yekta, and D. Riley

NOAA, National Weather Service, Silver Spring, Maryland

[PF_tabular](#) | [PF_graphical](#) | [Maps_&_aerials](#)**PF tabular**

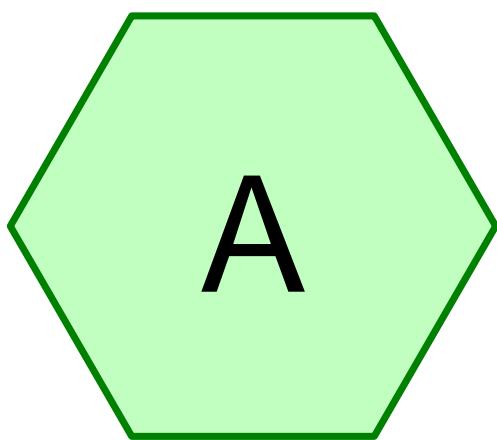
Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	0.347 (0.318-0.381)	0.414 (0.378-0.454)	0.483 (0.440-0.529)	0.531 (0.484-0.582)	0.586 (0.531-0.642)	0.623 (0.561-0.682)	0.659 (0.590-0.721)	0.689 (0.615-0.755)	0.722 (0.639-0.792)	0.745 (0.656-0.820)
10-min	0.555 (0.507-0.609)	0.662 (0.605-0.727)	0.773 (0.705-0.848)	0.850 (0.773-0.931)	0.934 (0.846-1.02)	0.992 (0.894-1.09)	1.05 (0.938-1.15)	1.09 (0.975-1.20)	1.14 (1.01-1.25)	1.17 (1.03-1.29)
15-min	0.694 (0.634-0.761)	0.832 (0.760-0.913)	0.978 (0.892-1.07)	1.08 (0.978-1.18)	1.18 (1.07-1.30)	1.26 (1.13-1.38)	1.32 (1.19-1.45)	1.38 (1.23-1.51)	1.44 (1.27-1.58)	1.47 (1.30-1.62)
30-min	0.951 (0.869-1.04)	1.15 (1.05-1.26)	1.39 (1.27-1.52)	1.56 (1.42-1.71)	1.75 (1.59-1.92)	1.89 (1.70-2.07)	2.03 (1.82-2.22)	2.14 (1.92-2.35)	2.29 (2.03-2.51)	2.38 (2.10-2.63)
60-min	1.19 (1.08-1.30)	1.44 (1.32-1.58)	1.78 (1.62-1.95)	2.03 (1.85-2.22)	2.34 (2.12-2.56)	2.56 (2.31-2.81)	2.79 (2.50-3.06)	3.01 (2.69-3.30)	3.28 (2.91-3.60)	3.48 (3.07-3.83)
2-hr	1.42 (1.28-1.57)	1.72 (1.55-1.90)	2.13 (1.93-2.37)	2.45 (2.21-2.72)	2.87 (2.57-3.18)	3.20 (2.85-3.54)	3.53 (3.12-3.90)	3.86 (3.39-4.27)	4.30 (3.74-4.76)	4.64 (3.99-5.14)
3-hr	1.54 (1.39-1.71)	1.87 (1.69-2.07)	2.32 (2.10-2.58)	2.67 (2.40-2.96)	3.13 (2.80-3.47)	3.49 (3.10-3.86)	3.85 (3.41-4.25)	4.22 (3.70-4.66)	4.70 (4.07-5.20)	5.07 (4.36-5.62)
6-hr	1.91 (1.72-2.12)	2.30 (2.09-2.56)	2.86 (2.58-3.18)	3.31 (2.98-3.67)	3.92 (3.51-4.34)	4.42 (3.92-4.88)	4.94 (4.35-5.45)	5.48 (4.78-6.05)	6.23 (5.35-6.89)	6.82 (5.78-7.55)
12-hr	2.31 (2.09-2.60)	2.79 (2.52-3.13)	3.48 (3.14-3.90)	4.06 (3.64-4.53)	4.88 (4.34-5.42)	5.57 (4.90-6.17)	6.31 (5.49-7.00)	7.10 (6.11-7.87)	8.24 (6.96-9.14)	9.18 (7.62-10.2)
24-hr	2.69 (2.47-2.96)	3.24 (2.97-3.56)	4.06 (3.71-4.45)	4.74 (4.32-5.19)	5.72 (5.19-6.25)	6.54 (5.91-7.14)	7.42 (6.67-8.09)	8.37 (7.48-9.12)	9.75 (8.62-10.6)	10.9 (9.54-11.9)
2-day	3.12 (2.85-3.45)	3.77 (3.44-4.16)	4.73 (4.30-5.21)	5.50 (5.00-6.06)	6.60 (5.97-7.26)	7.51 (6.76-8.25)	8.47 (7.59-9.31)	9.49 (8.45-10.4)	11.0 (9.66-12.0)	12.1 (10.6-13.3)
3-day	3.29 (3.00-3.64)	3.97 (3.62-4.39)	4.97 (4.52-5.48)	5.77 (5.24-6.37)	6.92 (6.25-7.61)	7.86 (7.07-8.64)	8.85 (7.93-9.73)	9.91 (8.82-10.9)	11.4 (10.1-12.6)	12.6 (11.1-13.9)
4-day	3.46 (3.16-3.83)	4.17 (3.80-4.62)	5.21 (4.74-5.76)	6.05 (5.49-6.67)	7.23 (6.54-7.97)	8.21 (7.39-9.03)	9.24 (8.27-10.2)	10.3 (9.20-11.4)	11.9 (10.5-13.1)	13.1 (11.5-14.5)
7-day	4.05 (3.72-4.43)	4.86 (4.46-5.32)	6.00 (5.50-6.57)	6.94 (6.35-7.59)	8.27 (7.54-9.03)	9.37 (8.50-10.2)	10.5 (9.51-11.5)	11.8 (10.6-12.8)	13.5 (12.1-14.8)	15.0 (13.2-16.3)
10-day	4.62 (4.27-5.02)	5.52 (5.09-6.00)	6.73 (6.20-7.31)	7.69 (7.07-8.35)	9.04 (8.28-9.79)	10.1 (9.24-11.0)	11.2 (10.2-12.2)	12.4 (11.2-13.4)	14.0 (12.6-15.2)	15.3 (13.7-16.6)
20-day	6.25 (5.81-6.73)	7.41 (6.89-7.98)	8.84 (8.21-9.51)	9.95 (9.24-10.7)	11.5 (10.6-12.3)	12.6 (11.7-13.6)	13.8 (12.7-14.8)	15.0 (13.8-16.1)	16.6 (15.2-17.9)	17.8 (16.2-19.2)
30-day	7.77 (7.30-8.28)	9.16 (8.60-9.75)	10.7 (10.0-11.4)	11.8 (11.1-12.6)	13.4 (12.5-14.2)	14.5 (13.6-15.5)	15.7 (14.6-16.7)	16.8 (15.6-17.9)	18.2 (16.9-19.5)	19.3 (17.8-20.6)
45-day	9.86 (9.33-10.4)	11.6 (10.9-12.3)	13.3 (12.6-14.1)	14.6 (13.8-15.5)	16.2 (15.3-17.2)	17.4 (16.5-18.5)	18.6 (17.5-19.7)	19.7 (18.5-20.8)	21.0 (19.7-22.3)	22.0 (20.5-23.3)
60-day	11.8 (11.2-12.5)	13.8 (13.1-14.6)	15.8 (15.0-16.7)	17.2 (16.3-18.2)	19.0 (18.1-20.1)	20.4 (19.3-21.5)	21.6 (20.4-22.8)	22.7 (21.4-24.0)	24.1 (22.7-25.5)	25.1 (23.6-26.5)

¹ Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

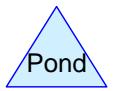
Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

[Back to Top](#)**PF graphical**



Act 167 - Existing Conditions



Routing Diagram for 22222 Eagle Vet

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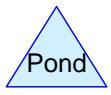
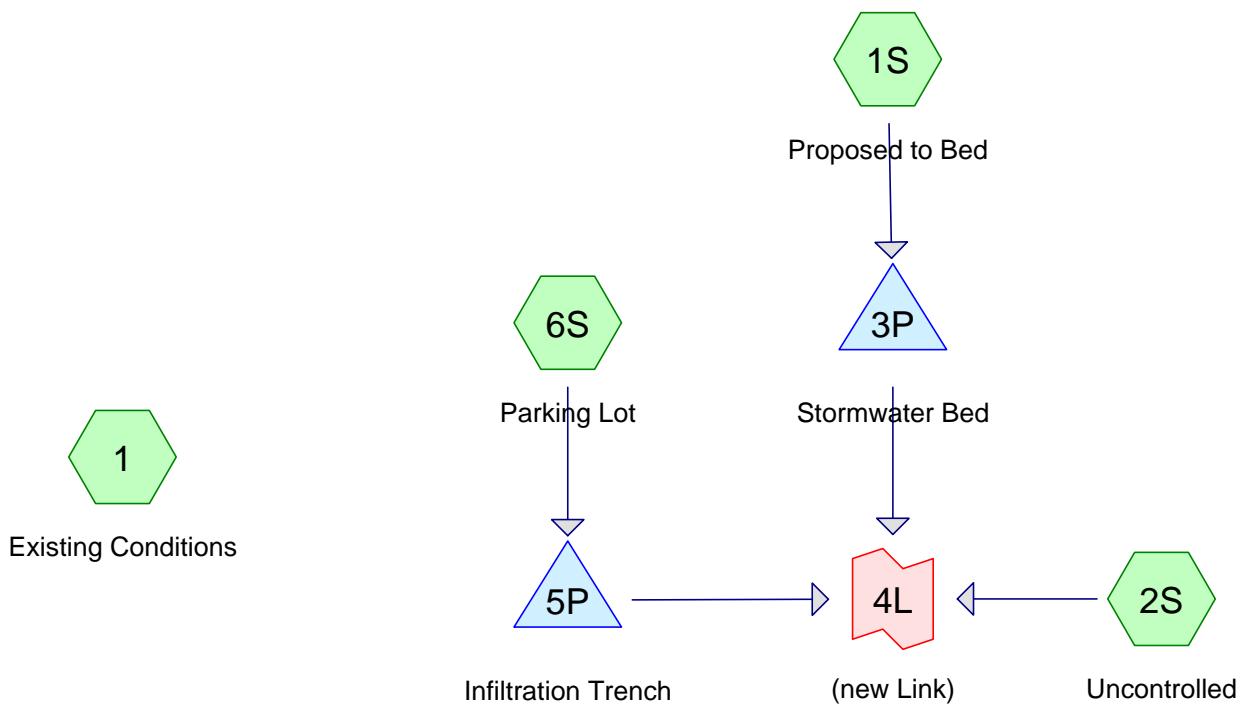
Summary for Subcatchment A: Act 167 - Existing Conditions

Runoff = 1.72 cfs @ 11.96 hrs, Volume= 3,539 cf, Depth= 1.58"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
Type II 24-hr 2-YEAR Rainfall=3.24"

Area (sf)	CN	Description
*		
4,430	98	Paved parking, HSG B (80%)
22,369	78	Meadow, non-grazed, HSG D
26,799	81	Weighted Average
22,369		83.47% Pervious Area
4,430		16.53% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,



Routing Diagram for 22222 Eagle Vet

Prepared by {enter your company name here}, Printed 12/6/2022
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Summary for Subcatchment 1: Existing Conditions

Runoff = 1.64 cfs @ 11.96 hrs, Volume= 3,377 cf, Depth= 1.51"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-YEAR Rainfall=2.69"

Area (sf)	CN	Description
19,398	84	50-75% Grass cover, Fair, HSG D
4,623	98	Paved parking, HSG D
914	98	Paved parking, HSG B
1,864	84	50-75% Grass cover, Fair, HSG D
26,799	87	Weighted Average
21,262		79.34% Pervious Area
5,537		20.66% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Summary for Subcatchment 1S: Proposed to Bed

Runoff = 0.25 cfs @ 11.96 hrs, Volume= 528 cf, Depth= 1.82"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-YEAR Rainfall=2.69"

Area (sf)	CN	Description
*		
1,612	98	Paved parking, HSG B (Roof)
1,870	84	50-75% Grass cover, Fair, HSG D
3,482	90	Weighted Average
1,870		53.70% Pervious Area
1,612		46.30% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Summary for Subcatchment 2S: Uncontrolled

Runoff = 0.98 cfs @ 11.96 hrs, Volume= 2,018 cf, Depth= 1.50"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-YEAR Rainfall=2.69"

Area (sf)	CN	Description			
3,183	98	Paved parking, HSG D			
10,837	84	50-75% Grass cover, Fair, HSG D			
2,110	84	50-75% Grass cover, Fair, HSG D			
16,130	87	Weighted Average			
12,947		80.27% Pervious Area			
3,183		19.73% Impervious Area			
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Summary for Subcatchment 6S: Parking Lot

Runoff = 0.54 cfs @ 11.96 hrs, Volume= 1,193 cf, Depth= 1.99"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-YEAR Rainfall=2.69"

Area (sf)	CN	Description			
1,603	84	50-75% Grass cover, Fair, HSG D			
4,377	98	Paved parking, HSG B			
1,207	84	50-75% Grass cover, Fair, HSG D			
7,187	93	Weighted Average			
2,810		39.10% Pervious Area			
4,377		60.90% Impervious Area			
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Summary for Pond 3P: Stormwater Bed

Inflow Area = 3,482 sf, 46.30% Impervious, Inflow Depth = 1.82" for 1-YEAR event
 Inflow = 0.25 cfs @ 11.96 hrs, Volume= 528 cf
 Outflow = 0.01 cfs @ 11.12 hrs, Volume= 528 cf, Atten= 97%, Lag= 0.0 min
 Discarded = 0.01 cfs @ 11.12 hrs, Volume= 528 cf
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
 Peak Elev= 417.08' @ 13.98 hrs Surf.Area= 625 sf Storage= 271 cf

Plug-Flow detention time= 349.3 min calculated for 528 cf (100% of inflow)
 Center-of-Mass det. time= 349.3 min (1,134.0 - 784.7)

Volume	Invert	Avail.Storage	Storage Description
#1	416.00'	742 cf	25.00'W x 25.00'L x 3.00'H Prismatoid 1,875 cf Overall - 21 cf Embedded = 1,854 cf x 40.0% Voids
#2	417.00'	21 cf	8.0" Round Pipe Storage Inside #1 L= 60.0'
		763 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Discarded	416.00'	0.500 in/hr Exfiltration over Surface area
#2	Primary	418.50'	8.0" Vert. Orifice/Grate C= 0.600

Discarded OutFlow Max=0.01 cfs @ 11.12 hrs HW=416.03' (Free Discharge)
 ↑ 1=Exfiltration (Exfiltration Controls 0.01 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=416.00' (Free Discharge)
 ↑ 2=Orifice/Grate (Controls 0.00 cfs)

Summary for Pond 5P: Infiltration Trench

Inflow Area = 7,187 sf, 60.90% Impervious, Inflow Depth = 1.99" for 1-YEAR event
 Inflow = 0.54 cfs @ 11.96 hrs, Volume= 1,193 cf
 Outflow = 0.01 cfs @ 9.84 hrs, Volume= 1,193 cf, Atten= 99%, Lag= 0.0 min
 Discarded = 0.01 cfs @ 9.84 hrs, Volume= 1,193 cf
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
 Peak Elev= 415.01' @ 18.42 hrs Surf.Area= 602 sf Storage= 792 cf

Plug-Flow detention time= 1,050.7 min calculated for 1,193 cf (100% of inflow)
 Center-of-Mass det. time= 1,050.8 min (1,825.7 - 774.9)

Volume	Invert	Avail.Storage	Storage Description
#1	413.50'	164 cf	2.50'W x 60.00'L x 3.00'H Prismatoid 450 cf Overall - 39 cf Embedded = 411 cf x 40.0% Voids
#2	414.25'	39 cf	12.0" Round Pipe Storage Inside #1 L= 50.0'
#3	413.50'	2,262 cf	24.00'D x 5.00'H Vertical Cone/Cylinder
			2,466 cf Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Discarded	413.50'	0.500 in/hr Exfiltration over Surface area
#2	Primary	418.00'	24.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.01 cfs @ 9.84 hrs HW=413.55' (Free Discharge)
 ↑ 1=Exfiltration (Exfiltration Controls 0.01 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=413.50' (Free Discharge)
 ↑ 2=Orifice/Grate (Controls 0.00 cfs)

Summary for Link 4L: (new Link)

Inflow Area = 26,799 sf, 34.23% Impervious, Inflow Depth = 0.90" for 1-YEAR event
 Inflow = 0.98 cfs @ 11.96 hrs, Volume= 2,018 cf
 Primary = 0.98 cfs @ 11.96 hrs, Volume= 2,018 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs

Summary for Subcatchment 1: Existing Conditions

Runoff = 2.15 cfs @ 11.96 hrs, Volume= 4,428 cf, Depth= 1.98"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
Type II 24-hr 2-YEAR Rainfall=3.24"

Area (sf)	CN	Description
19,398	84	50-75% Grass cover, Fair, HSG D
4,623	98	Paved parking, HSG D
914	98	Paved parking, HSG B
1,864	84	50-75% Grass cover, Fair, HSG D
26,799	87	Weighted Average
21,262		79.34% Pervious Area
5,537		20.66% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Summary for Subcatchment 1S: Proposed to Bed

Runoff = 0.31 cfs @ 11.96 hrs, Volume= 671 cf, Depth= 2.31"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
Type II 24-hr 2-YEAR Rainfall=3.24"

Area (sf)	CN	Description
*		
1,612	98	Paved parking, HSG B (Roof)
1,870	84	50-75% Grass cover, Fair, HSG D
3,482	90	Weighted Average
1,870		53.70% Pervious Area
1,612		46.30% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Summary for Subcatchment 2S: Uncontrolled

Runoff = 1.29 cfs @ 11.96 hrs, Volume= 2,649 cf, Depth= 1.97"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
Type II 24-hr 2-YEAR Rainfall=3.24"

Area (sf)	CN	Description			
3,183	98	Paved parking, HSG D			
10,837	84	50-75% Grass cover, Fair, HSG D			
2,110	84	50-75% Grass cover, Fair, HSG D			
16,130	87	Weighted Average			
12,947		80.27% Pervious Area			
3,183		19.73% Impervious Area			
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Summary for Subcatchment 6S: Parking Lot

Runoff = 0.68 cfs @ 11.96 hrs, Volume= 1,499 cf, Depth= 2.50"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
Type II 24-hr 2-YEAR Rainfall=3.24"

Area (sf)	CN	Description			
1,603	84	50-75% Grass cover, Fair, HSG D			
4,377	98	Paved parking, HSG B			
1,207	84	50-75% Grass cover, Fair, HSG D			
7,187	93	Weighted Average			
2,810		39.10% Pervious Area			
4,377		60.90% Impervious Area			
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Summary for Pond 3P: Stormwater Bed

Inflow Area = 3,482 sf, 46.30% Impervious, Inflow Depth = 2.31" for 2-YEAR event
 Inflow = 0.31 cfs @ 11.96 hrs, Volume= 671 cf
 Outflow = 0.01 cfs @ 10.75 hrs, Volume= 671 cf, Atten= 98%, Lag= 0.0 min
 Discarded = 0.01 cfs @ 10.75 hrs, Volume= 671 cf
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
 Peak Elev= 417.44' @ 14.92 hrs Surf.Area= 625 sf Storage= 369 cf

Plug-Flow detention time= 478.7 min calculated for 671 cf (100% of inflow)
 Center-of-Mass det. time= 478.8 min (1,259.4 - 780.6)

Volume	Invert	Avail.Storage	Storage Description
#1	416.00'	742 cf	25.00'W x 25.00'L x 3.00'H Prismatoid 1,875 cf Overall - 21 cf Embedded = 1,854 cf x 40.0% Voids
#2	417.00'	21 cf	8.0" Round Pipe Storage Inside #1 L= 60.0'
		763 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Discarded	416.00'	0.500 in/hr Exfiltration over Surface area
#2	Primary	418.50'	8.0" Vert. Orifice/Grate C= 0.600

Discarded OutFlow Max=0.01 cfs @ 10.75 hrs HW=416.03' (Free Discharge)
 ↑ 1=Exfiltration (Exfiltration Controls 0.01 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=416.00' (Free Discharge)
 ↑ 2=Orifice/Grate (Controls 0.00 cfs)

Summary for Pond 5P: Infiltration Trench

Inflow Area = 7,187 sf, 60.90% Impervious, Inflow Depth = 2.50" for 2-YEAR event
 Inflow = 0.68 cfs @ 11.96 hrs, Volume= 1,499 cf
 Outflow = 0.01 cfs @ 8.97 hrs, Volume= 1,499 cf, Atten= 99%, Lag= 0.0 min
 Discarded = 0.01 cfs @ 8.97 hrs, Volume= 1,499 cf
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
 Peak Elev= 415.51' @ 19.72 hrs Surf.Area= 602 sf Storage= 1,054 cf

Plug-Flow detention time= 1,365.8 min calculated for 1,499 cf (100% of inflow)
 Center-of-Mass det. time= 1,365.9 min (2,137.0 - 771.0)

Volume	Invert	Avail.Storage	Storage Description
#1	413.50'	164 cf	2.50'W x 60.00'L x 3.00'H Prismatoid 450 cf Overall - 39 cf Embedded = 411 cf x 40.0% Voids
#2	414.25'	39 cf	12.0" Round Pipe Storage Inside #1 L= 50.0'
#3	413.50'	2,262 cf	24.00'D x 5.00'H Vertical Cone/Cylinder
			2,466 cf Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Discarded	413.50'	0.500 in/hr Exfiltration over Surface area
#2	Primary	418.00'	24.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.01 cfs @ 8.97 hrs HW=413.55' (Free Discharge)
 ↑ 1=Exfiltration (Exfiltration Controls 0.01 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=413.50' (Free Discharge)
 ↑ 2=Orifice/Grate (Controls 0.00 cfs)

Summary for Link 4L: (new Link)

Inflow Area = 26,799 sf, 34.23% Impervious, Inflow Depth = 1.19" for 2-YEAR event
 Inflow = 1.29 cfs @ 11.96 hrs, Volume= 2,649 cf
 Primary = 1.29 cfs @ 11.96 hrs, Volume= 2,649 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs

Summary for Subcatchment 1: Existing Conditions

Runoff = 2.91 cfs @ 11.96 hrs, Volume= 6,060 cf, Depth= 2.71"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
Type II 24-hr 5-YEAR Rainfall=4.06"

Area (sf)	CN	Description
19,398	84	50-75% Grass cover, Fair, HSG D
4,623	98	Paved parking, HSG D
914	98	Paved parking, HSG B
1,864	84	50-75% Grass cover, Fair, HSG D
26,799	87	Weighted Average
21,262		79.34% Pervious Area
5,537		20.66% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Summary for Subcatchment 1S: Proposed to Bed

Runoff = 0.41 cfs @ 11.96 hrs, Volume= 892 cf, Depth= 3.07"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
Type II 24-hr 5-YEAR Rainfall=4.06"

Area (sf)	CN	Description
*		
1,612	98	Paved parking, HSG B (Roof)
1,870	84	50-75% Grass cover, Fair, HSG D
3,482	90	Weighted Average
1,870		53.70% Pervious Area
1,612		46.30% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Summary for Subcatchment 2S: Uncontrolled

Runoff = 1.75 cfs @ 11.96 hrs, Volume= 3,630 cf, Depth= 2.70"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
Type II 24-hr 5-YEAR Rainfall=4.06"

Area (sf)	CN	Description			
3,183	98	Paved parking, HSG D			
10,837	84	50-75% Grass cover, Fair, HSG D			
2,110	84	50-75% Grass cover, Fair, HSG D			
16,130	87	Weighted Average			
12,947		80.27% Pervious Area			
3,183		19.73% Impervious Area			
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Summary for Subcatchment 6S: Parking Lot

Runoff = 0.88 cfs @ 11.96 hrs, Volume= 1,963 cf, Depth= 3.28"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
Type II 24-hr 5-YEAR Rainfall=4.06"

Area (sf)	CN	Description			
1,603	84	50-75% Grass cover, Fair, HSG D			
4,377	98	Paved parking, HSG B			
1,207	84	50-75% Grass cover, Fair, HSG D			
7,187	93	Weighted Average			
2,810		39.10% Pervious Area			
4,377		60.90% Impervious Area			
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Summary for Pond 3P: Stormwater Bed

Inflow Area = 3,482 sf, 46.30% Impervious, Inflow Depth = 3.07" for 5-YEAR event
 Inflow = 0.41 cfs @ 11.96 hrs, Volume= 892 cf
 Outflow = 0.01 cfs @ 10.20 hrs, Volume= 892 cf, Atten= 98%, Lag= 0.0 min
 Discarded = 0.01 cfs @ 10.20 hrs, Volume= 892 cf
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
 Peak Elev= 418.07' @ 15.94 hrs Surf.Area= 625 sf Storage= 531 cf

Plug-Flow detention time= 681.1 min calculated for 892 cf (100% of inflow)
 Center-of-Mass det. time= 681.1 min (1,456.8 - 775.7)

Volume	Invert	Avail.Storage	Storage Description
#1	416.00'	742 cf	25.00'W x 25.00'L x 3.00'H Prismatoid 1,875 cf Overall - 21 cf Embedded = 1,854 cf x 40.0% Voids
#2	417.00'	21 cf	8.0" Round Pipe Storage Inside #1 L= 60.0'
		763 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Discarded	416.00'	0.500 in/hr Exfiltration over Surface area
#2	Primary	418.50'	8.0" Vert. Orifice/Grate C= 0.600

Discarded OutFlow Max=0.01 cfs @ 10.20 hrs HW=416.03' (Free Discharge)
 ↑ 1=Exfiltration (Exfiltration Controls 0.01 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=416.00' (Free Discharge)
 ↑ 2=Orifice/Grate (Controls 0.00 cfs)

Summary for Pond 5P: Infiltration Trench

Inflow Area = 7,187 sf, 60.90% Impervious, Inflow Depth = 3.28" for 5-YEAR event
 Inflow = 0.88 cfs @ 11.96 hrs, Volume= 1,963 cf
 Outflow = 0.01 cfs @ 7.79 hrs, Volume= 1,963 cf, Atten= 99%, Lag= 0.0 min
 Discarded = 0.01 cfs @ 7.79 hrs, Volume= 1,963 cf
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
 Peak Elev= 416.33' @ 24.02 hrs Surf.Area= 602 sf Storage= 1,475 cf

Plug-Flow detention time= 1,858.0 min calculated for 1,963 cf (100% of inflow)
 Center-of-Mass det. time= 1,858.1 min (2,624.6 - 766.5)

Volume	Invert	Avail.Storage	Storage Description
#1	413.50'	164 cf	2.50'W x 60.00'L x 3.00'H Prismatoid 450 cf Overall - 39 cf Embedded = 411 cf x 40.0% Voids
#2	414.25'	39 cf	12.0" Round Pipe Storage Inside #1 L= 50.0'
#3	413.50'	2,262 cf	24.00'D x 5.00'H Vertical Cone/Cylinder
			2,466 cf Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Discarded	413.50'	0.500 in/hr Exfiltration over Surface area
#2	Primary	418.00'	24.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.01 cfs @ 7.79 hrs HW=413.55' (Free Discharge)
 ↑ 1=Exfiltration (Exfiltration Controls 0.01 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=413.50' (Free Discharge)
 ↑ 2=Orifice/Grate (Controls 0.00 cfs)

Summary for Link 4L: (new Link)

Inflow Area = 26,799 sf, 34.23% Impervious, Inflow Depth = 1.63" for 5-YEAR event
 Inflow = 1.75 cfs @ 11.96 hrs, Volume= 3,630 cf
 Primary = 1.75 cfs @ 11.96 hrs, Volume= 3,630 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs

Summary for Subcatchment 1: Existing Conditions

Runoff = 3.56 cfs @ 11.96 hrs, Volume= 7,453 cf, Depth= 3.34"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-YEAR Rainfall=4.74"

Area (sf)	CN	Description
19,398	84	50-75% Grass cover, Fair, HSG D
4,623	98	Paved parking, HSG D
914	98	Paved parking, HSG B
1,864	84	50-75% Grass cover, Fair, HSG D
26,799	87	Weighted Average
21,262		79.34% Pervious Area
5,537		20.66% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Summary for Subcatchment 1S: Proposed to Bed

Runoff = 0.49 cfs @ 11.96 hrs, Volume= 1,078 cf, Depth= 3.71"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-YEAR Rainfall=4.74"

Area (sf)	CN	Description
*		
1,612	98	Paved parking, HSG B (Roof)
1,870	84	50-75% Grass cover, Fair, HSG D
3,482	90	Weighted Average
1,870		53.70% Pervious Area
1,612		46.30% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Summary for Subcatchment 2S: Uncontrolled

Runoff = 2.13 cfs @ 11.96 hrs, Volume= 4,467 cf, Depth= 3.32"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-YEAR Rainfall=4.74"

Area (sf)	CN	Description	
3,183	98	Paved parking, HSG D	
10,837	84	50-75% Grass cover, Fair, HSG D	
2,110	84	50-75% Grass cover, Fair, HSG D	
16,130	87	Weighted Average	
12,947		80.27% Pervious Area	
3,183		19.73% Impervious Area	
Tc (min)	Length (feet)	Slope (ft/ft)	
Velocity (ft/sec)	Capacity (cfs)	Description	
5.0			Direct Entry,

Summary for Subcatchment 6S: Parking Lot

Runoff = 1.05 cfs @ 11.96 hrs, Volume= 2,353 cf, Depth= 3.93"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-YEAR Rainfall=4.74"

Area (sf)	CN	Description	
1,603	84	50-75% Grass cover, Fair, HSG D	
4,377	98	Paved parking, HSG B	
1,207	84	50-75% Grass cover, Fair, HSG D	
7,187	93	Weighted Average	
2,810		39.10% Pervious Area	
4,377		60.90% Impervious Area	
Tc (min)	Length (feet)	Slope (ft/ft)	
Velocity (ft/sec)	Capacity (cfs)	Description	
5.0			Direct Entry,

Summary for Pond 3P: Stormwater Bed

Inflow Area = 3,482 sf, 46.30% Impervious, Inflow Depth = 3.71" for 10-YEAR event

Inflow = 0.49 cfs @ 11.96 hrs, Volume= 1,078 cf

Outflow = 0.01 cfs @ 14.49 hrs, Volume= 1,078 cf, Atten= 98%, Lag= 152.1 min

Discarded = 0.01 cfs @ 9.67 hrs, Volume= 1,041 cf

Primary = 0.00 cfs @ 14.49 hrs, Volume= 37 cf

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs

Peak Elev= 418.54' @ 14.49 hrs Surf.Area= 625 sf Storage= 647 cf

Plug-Flow detention time= 790.2 min calculated for 1,078 cf (100% of inflow)

Center-of-Mass det. time= 790.2 min (1,562.6 - 772.3)

Volume	Invert	Avail.Storage	Storage Description
#1	416.00'	742 cf	25.00'W x 25.00'L x 3.00'H Prismatoid 1,875 cf Overall - 21 cf Embedded = 1,854 cf x 40.0% Voids
#2	417.00'	21 cf	8.0" Round Pipe Storage Inside #1 L= 60.0'
763 cf			Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Discarded	416.00'	0.500 in/hr Exfiltration over Surface area
#2	Primary	418.50'	8.0" Vert. Orifice/Grate C= 0.600

Discarded OutFlow Max=0.01 cfs @ 9.67 hrs HW=416.03' (Free Discharge)
 ↑ 1=Exfiltration (Exfiltration Controls 0.01 cfs)

Primary OutFlow Max=0.00 cfs @ 14.49 hrs HW=418.54' (Free Discharge)
 ↑ 2=Orifice/Grate (Orifice Controls 0.00 cfs @ 0.64 fps)

Summary for Pond 5P: Infiltration Trench

Inflow Area = 7,187 sf, 60.90% Impervious, Inflow Depth = 3.93" for 10-YEAR event
 Inflow = 1.05 cfs @ 11.96 hrs, Volume= 2,353 cf
 Outflow = 0.01 cfs @ 6.69 hrs, Volume= 2,353 cf, Atten= 99%, Lag= 0.0 min
 Discarded = 0.01 cfs @ 6.69 hrs, Volume= 2,353 cf
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
 Peak Elev= 417.13' @ 24.04 hrs Surf.Area= 602 sf Storage= 1,848 cf

Plug-Flow detention time= 2,285.1 min calculated for 2,353 cf (100% of inflow)
 Center-of-Mass det. time= 2,285.4 min (3,048.8 - 763.5)

Volume	Invert	Avail.Storage	Storage Description
#1	413.50'	164 cf	2.50'W x 60.00'L x 3.00'H Prismatoid 450 cf Overall - 39 cf Embedded = 411 cf x 40.0% Voids
#2	414.25'	39 cf	12.0" Round Pipe Storage Inside #1 L= 50.0'
#3	413.50'	2,262 cf	24.00'D x 5.00'H Vertical Cone/Cylinder
			2,466 cf Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Discarded	413.50'	0.500 in/hr Exfiltration over Surface area
#2	Primary	418.00'	24.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.01 cfs @ 6.69 hrs HW=413.55' (Free Discharge)
 ↑ 1=Exfiltration (Exfiltration Controls 0.01 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=413.50' (Free Discharge)
 ↑ 2=Orifice/Grate (Controls 0.00 cfs)

Summary for Link 4L: (new Link)

Inflow Area = 26,799 sf, 34.23% Impervious, Inflow Depth = 2.02" for 10-YEAR event
 Inflow = 2.13 cfs @ 11.96 hrs, Volume= 4,504 cf
 Primary = 2.13 cfs @ 11.96 hrs, Volume= 4,504 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs

Summary for Subcatchment 1: Existing Conditions

Runoff = 4.49 cfs @ 11.96 hrs, Volume= 9,502 cf, Depth= 4.25"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
Type II 24-hr 25-YEAR Rainfall=5.72"

Area (sf)	CN	Description
19,398	84	50-75% Grass cover, Fair, HSG D
4,623	98	Paved parking, HSG D
914	98	Paved parking, HSG B
1,864	84	50-75% Grass cover, Fair, HSG D
26,799	87	Weighted Average
21,262		79.34% Pervious Area
5,537		20.66% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Summary for Subcatchment 1S: Proposed to Bed

Runoff = 0.61 cfs @ 11.96 hrs, Volume= 1,350 cf, Depth= 4.65"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
Type II 24-hr 25-YEAR Rainfall=5.72"

Area (sf)	CN	Description
*		
1,612	98	Paved parking, HSG B (Roof)
1,870	84	50-75% Grass cover, Fair, HSG D
3,482	90	Weighted Average
1,870		53.70% Pervious Area
1,612		46.30% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Summary for Subcatchment 2S: Uncontrolled

Runoff = 2.69 cfs @ 11.96 hrs, Volume= 5,700 cf, Depth= 4.24"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
Type II 24-hr 25-YEAR Rainfall=5.72"

Area (sf)	CN	Description			
3,183	98	Paved parking, HSG D			
10,837	84	50-75% Grass cover, Fair, HSG D			
2,110	84	50-75% Grass cover, Fair, HSG D			
16,130	87	Weighted Average			
12,947		80.27% Pervious Area			
3,183		19.73% Impervious Area			
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Summary for Subcatchment 6S: Parking Lot

Runoff = 1.30 cfs @ 11.96 hrs, Volume= 2,921 cf, Depth= 4.88"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
Type II 24-hr 25-YEAR Rainfall=5.72"

Area (sf)	CN	Description			
1,603	84	50-75% Grass cover, Fair, HSG D			
4,377	98	Paved parking, HSG B			
1,207	84	50-75% Grass cover, Fair, HSG D			
7,187	93	Weighted Average			
2,810		39.10% Pervious Area			
4,377		60.90% Impervious Area			
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Summary for Pond 3P: Stormwater Bed

Inflow Area = 3,482 sf, 46.30% Impervious, Inflow Depth = 4.65" for 25-YEAR event
 Inflow = 0.61 cfs @ 11.96 hrs, Volume= 1,350 cf
 Outflow = 0.07 cfs @ 12.28 hrs, Volume= 1,350 cf, Atten= 89%, Lag= 19.1 min
 Discarded = 0.01 cfs @ 8.78 hrs, Volume= 1,088 cf
 Primary = 0.06 cfs @ 12.28 hrs, Volume= 262 cf

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
 Peak Elev= 418.63' @ 12.28 hrs Surf.Area= 625 sf Storage= 670 cf

Plug-Flow detention time= 667.6 min calculated for 1,350 cf (100% of inflow)
 Center-of-Mass det. time= 667.6 min (1,435.9 - 768.3)

Volume	Invert	Avail.Storage	Storage Description
#1	416.00'	742 cf	25.00'W x 25.00'L x 3.00'H Prismatoid 1,875 cf Overall - 21 cf Embedded = 1,854 cf x 40.0% Voids
#2	417.00'	21 cf	8.0" Round Pipe Storage Inside #1 L= 60.0'
		763 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Discarded	416.00'	0.500 in/hr Exfiltration over Surface area
#2	Primary	418.50'	8.0" Vert. Orifice/Grate C= 0.600

Discarded OutFlow Max=0.01 cfs @ 8.78 hrs HW=416.03' (Free Discharge)
 ↑ 1=Exfiltration (Exfiltration Controls 0.01 cfs)

Primary OutFlow Max=0.06 cfs @ 12.28 hrs HW=418.63' (Free Discharge)
 ↑ 2=Orifice/Grate (Orifice Controls 0.06 cfs @ 1.23 fps)

Summary for Pond 5P: Infiltration Trench

Inflow Area = 7,187 sf, 60.90% Impervious, Inflow Depth = 4.88" for 25-YEAR event
 Inflow = 1.30 cfs @ 11.96 hrs, Volume= 2,921 cf
 Outflow = 0.02 cfs @ 17.06 hrs, Volume= 2,921 cf, Atten= 99%, Lag= 306.4 min
 Discarded = 0.01 cfs @ 5.48 hrs, Volume= 2,764 cf
 Primary = 0.01 cfs @ 17.06 hrs, Volume= 157 cf

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
 Peak Elev= 418.00' @ 17.06 hrs Surf.Area= 602 sf Storage= 2,240 cf

Plug-Flow detention time= 2,610.5 min calculated for 2,921 cf (100% of inflow)
 Center-of-Mass det. time= 2,610.7 min (3,370.6 - 759.9)

Volume	Invert	Avail.Storage	Storage Description
#1	413.50'	164 cf	2.50'W x 60.00'L x 3.00'H Prismatoid 450 cf Overall - 39 cf Embedded = 411 cf x 40.0% Voids
#2	414.25'	39 cf	12.0" Round Pipe Storage Inside #1 L= 50.0'
#3	413.50'	2,262 cf	24.00'D x 5.00'H Vertical Cone/Cylinder
			2,466 cf Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Discarded	413.50'	0.500 in/hr Exfiltration over Surface area
#2	Primary	418.00'	24.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.01 cfs @ 5.48 hrs HW=413.55' (Free Discharge)
 ↑ 1=Exfiltration (Exfiltration Controls 0.01 cfs)

Primary OutFlow Max=0.00 cfs @ 17.06 hrs HW=418.00' (Free Discharge)
 ↑ 2=Orifice/Grate (Weir Controls 0.00 cfs @ 0.17 fps)

Summary for Link 4L: (new Link)

Inflow Area = 26,799 sf, 34.23% Impervious, Inflow Depth = 2.74" for 25-YEAR event
 Inflow = 2.69 cfs @ 11.96 hrs, Volume= 6,119 cf
 Primary = 2.69 cfs @ 11.96 hrs, Volume= 6,119 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs

Summary for Subcatchment 1: Existing Conditions

Runoff = 5.26 cfs @ 11.96 hrs, Volume= 11,243 cf, Depth= 5.03"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
Type II 24-hr 50-YEAR Rainfall=6.54"

Area (sf)	CN	Description
19,398	84	50-75% Grass cover, Fair, HSG D
4,623	98	Paved parking, HSG D
914	98	Paved parking, HSG B
1,864	84	50-75% Grass cover, Fair, HSG D
26,799	87	Weighted Average
21,262		79.34% Pervious Area
5,537		20.66% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Summary for Subcatchment 1S: Proposed to Bed

Runoff = 0.71 cfs @ 11.96 hrs, Volume= 1,580 cf, Depth= 5.44"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
Type II 24-hr 50-YEAR Rainfall=6.54"

Area (sf)	CN	Description
*		
1,612	98	Paved parking, HSG B (Roof)
1,870	84	50-75% Grass cover, Fair, HSG D
3,482	90	Weighted Average
1,870		53.70% Pervious Area
1,612		46.30% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Summary for Subcatchment 2S: Uncontrolled

Runoff = 3.16 cfs @ 11.96 hrs, Volume= 6,747 cf, Depth= 5.02"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
Type II 24-hr 50-YEAR Rainfall=6.54"

Area (sf)	CN	Description			
3,183	98	Paved parking, HSG D			
10,837	84	50-75% Grass cover, Fair, HSG D			
2,110	84	50-75% Grass cover, Fair, HSG D			
16,130	87	Weighted Average			
12,947		80.27% Pervious Area			
3,183		19.73% Impervious Area			
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Summary for Subcatchment 6S: Parking Lot

Runoff = 1.50 cfs @ 11.96 hrs, Volume= 3,400 cf, Depth= 5.68"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
Type II 24-hr 50-YEAR Rainfall=6.54"

Area (sf)	CN	Description			
1,603	84	50-75% Grass cover, Fair, HSG D			
4,377	98	Paved parking, HSG B			
1,207	84	50-75% Grass cover, Fair, HSG D			
7,187	93	Weighted Average			
2,810		39.10% Pervious Area			
4,377		60.90% Impervious Area			
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Summary for Pond 3P: Stormwater Bed

Inflow Area = 3,482 sf, 46.30% Impervious, Inflow Depth = 5.44" for 50-YEAR event
 Inflow = 0.71 cfs @ 11.96 hrs, Volume= 1,580 cf
 Outflow = 0.28 cfs @ 12.06 hrs, Volume= 1,580 cf, Atten= 60%, Lag= 5.9 min
 Discarded = 0.01 cfs @ 8.32 hrs, Volume= 1,121 cf
 Primary = 0.28 cfs @ 12.06 hrs, Volume= 459 cf

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
 Peak Elev= 418.80' @ 12.06 hrs Surf.Area= 625 sf Storage= 711 cf

Plug-Flow detention time= 589.0 min calculated for 1,579 cf (100% of inflow)
 Center-of-Mass det. time= 589.1 min (1,354.6 - 765.4)

Volume	Invert	Avail.Storage	Storage Description
#1	416.00'	742 cf	25.00'W x 25.00'L x 3.00'H Prismatoid 1,875 cf Overall - 21 cf Embedded = 1,854 cf x 40.0% Voids
#2	417.00'	21 cf	8.0" Round Pipe Storage Inside #1 L= 60.0'
		763 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Discarded	416.00'	0.500 in/hr Exfiltration over Surface area
#2	Primary	418.50'	8.0" Vert. Orifice/Grate C= 0.600

Discarded OutFlow Max=0.01 cfs @ 8.32 hrs HW=416.03' (Free Discharge)
 ↑ 1=Exfiltration (Exfiltration Controls 0.01 cfs)

Primary OutFlow Max=0.27 cfs @ 12.06 hrs HW=418.79' (Free Discharge)
 ↑ 2=Orifice/Grate (Orifice Controls 0.27 cfs @ 1.85 fps)

Summary for Pond 5P: Infiltration Trench

Inflow Area = 7,187 sf, 60.90% Impervious, Inflow Depth = 5.68" for 50-YEAR event
 Inflow = 1.50 cfs @ 11.96 hrs, Volume= 3,400 cf
 Outflow = 0.07 cfs @ 13.03 hrs, Volume= 3,400 cf, Atten= 96%, Lag= 64.7 min
 Discarded = 0.01 cfs @ 4.69 hrs, Volume= 2,776 cf
 Primary = 0.06 cfs @ 13.03 hrs, Volume= 624 cf

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
 Peak Elev= 418.01' @ 13.03 hrs Surf.Area= 602 sf Storage= 2,245 cf

Plug-Flow detention time= 2,263.9 min calculated for 3,400 cf (100% of inflow)
 Center-of-Mass det. time= 2,263.9 min (3,021.3 - 757.4)

Volume	Invert	Avail.Storage	Storage Description
#1	413.50'	164 cf	2.50'W x 60.00'L x 3.00'H Prismatoid 450 cf Overall - 39 cf Embedded = 411 cf x 40.0% Voids
#2	414.25'	39 cf	12.0" Round Pipe Storage Inside #1 L= 50.0'
#3	413.50'	2,262 cf	24.00'D x 5.00'H Vertical Cone/Cylinder
			2,466 cf Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Discarded	413.50'	0.500 in/hr Exfiltration over Surface area
#2	Primary	418.00'	24.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.01 cfs @ 4.69 hrs HW=413.55' (Free Discharge)
 ↑ 1=Exfiltration (Exfiltration Controls 0.01 cfs)

Primary OutFlow Max=0.03 cfs @ 13.03 hrs HW=418.01' (Free Discharge)
 ↑ 2=Orifice/Grate (Weir Controls 0.03 cfs @ 0.37 fps)

Summary for Link 4L: (new Link)

Inflow Area = 26,799 sf, 34.23% Impervious, Inflow Depth = 3.51" for 50-YEAR event
 Inflow = 3.16 cfs @ 11.96 hrs, Volume= 7,830 cf
 Primary = 3.16 cfs @ 11.96 hrs, Volume= 7,830 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs

Summary for Subcatchment 1: Existing Conditions

Runoff = 6.10 cfs @ 11.96 hrs, Volume= 13,129 cf, Depth= 5.88"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-YEAR Rainfall=7.42"

Area (sf)	CN	Description
19,398	84	50-75% Grass cover, Fair, HSG D
4,623	98	Paved parking, HSG D
914	98	Paved parking, HSG B
1,864	84	50-75% Grass cover, Fair, HSG D
26,799	87	Weighted Average
21,262		79.34% Pervious Area
5,537		20.66% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Summary for Subcatchment 1S: Proposed to Bed

Runoff = 0.82 cfs @ 11.96 hrs, Volume= 1,828 cf, Depth= 6.30"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-YEAR Rainfall=7.42"

Area (sf)	CN	Description
*		
1,612	98	Paved parking, HSG B (Roof)
1,870	84	50-75% Grass cover, Fair, HSG D
3,482	90	Weighted Average
1,870		53.70% Pervious Area
1,612		46.30% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Summary for Subcatchment 2S: Uncontrolled

Runoff = 3.67 cfs @ 11.96 hrs, Volume= 7,882 cf, Depth= 5.86"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-YEAR Rainfall=7.42"

Area (sf)	CN	Description			
3,183	98	Paved parking, HSG D			
10,837	84	50-75% Grass cover, Fair, HSG D			
2,110	84	50-75% Grass cover, Fair, HSG D			
16,130	87	Weighted Average			
12,947		80.27% Pervious Area			
3,183		19.73% Impervious Area			
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Summary for Subcatchment 6S: Parking Lot

Runoff = 1.72 cfs @ 11.96 hrs, Volume= 3,916 cf, Depth= 6.54"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-YEAR Rainfall=7.42"

Area (sf)	CN	Description			
1,603	84	50-75% Grass cover, Fair, HSG D			
4,377	98	Paved parking, HSG B			
1,207	84	50-75% Grass cover, Fair, HSG D			
7,187	93	Weighted Average			
2,810		39.10% Pervious Area			
4,377		60.90% Impervious Area			
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Summary for Pond 3P: Stormwater Bed

Inflow Area = 3,482 sf, 46.30% Impervious, Inflow Depth = 6.30" for 100-YEAR event
 Inflow = 0.82 cfs @ 11.96 hrs, Volume= 1,828 cf
 Outflow = 0.56 cfs @ 12.02 hrs, Volume= 1,828 cf, Atten= 32%, Lag= 3.8 min
 Discarded = 0.01 cfs @ 7.48 hrs, Volume= 1,150 cf
 Primary = 0.55 cfs @ 12.02 hrs, Volume= 678 cf

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
 Peak Elev= 418.94' @ 12.02 hrs Surf.Area= 625 sf Storage= 747 cf

Plug-Flow detention time= 523.0 min calculated for 1,828 cf (100% of inflow)
 Center-of-Mass det. time= 522.9 min (1,285.8 - 762.8)

Volume	Invert	Avail.Storage	Storage Description
#1	416.00'	742 cf	25.00'W x 25.00'L x 3.00'H Prismatoid 1,875 cf Overall - 21 cf Embedded = 1,854 cf x 40.0% Voids
#2	417.00'	21 cf	8.0" Round Pipe Storage Inside #1 L= 60.0'
		763 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Discarded	416.00'	0.500 in/hr Exfiltration over Surface area
#2	Primary	418.50'	8.0" Vert. Orifice/Grate C= 0.600

Discarded OutFlow Max=0.01 cfs @ 7.48 hrs HW=416.03' (Free Discharge)
 ↑ 1=Exfiltration (Exfiltration Controls 0.01 cfs)

Primary OutFlow Max=0.55 cfs @ 12.02 hrs HW=418.94' (Free Discharge)
 ↑ 2=Orifice/Grate (Orifice Controls 0.55 cfs @ 2.26 fps)

Summary for Pond 5P: Infiltration Trench

Inflow Area = 7,187 sf, 60.90% Impervious, Inflow Depth = 6.54" for 100-YEAR event
 Inflow = 1.72 cfs @ 11.96 hrs, Volume= 3,916 cf
 Outflow = 0.22 cfs @ 12.19 hrs, Volume= 3,916 cf, Atten= 88%, Lag= 14.1 min
 Discarded = 0.01 cfs @ 3.96 hrs, Volume= 2,786 cf
 Primary = 0.21 cfs @ 12.19 hrs, Volume= 1,131 cf

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
 Peak Elev= 418.05' @ 12.19 hrs Surf.Area= 602 sf Storage= 2,260 cf

Plug-Flow detention time= 1,973.6 min calculated for 3,916 cf (100% of inflow)
 Center-of-Mass det. time= 1,973.9 min (2,729.1 - 755.1)

Volume	Invert	Avail.Storage	Storage Description
#1	413.50'	164 cf	2.50'W x 60.00'L x 3.00'H Prismatoid 450 cf Overall - 39 cf Embedded = 411 cf x 40.0% Voids
#2	414.25'	39 cf	12.0" Round Pipe Storage Inside #1 L= 50.0'
#3	413.50'	2,262 cf	24.00'D x 5.00'H Vertical Cone/Cylinder
			2,466 cf Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Discarded	413.50'	0.500 in/hr Exfiltration over Surface area
#2	Primary	418.00'	24.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

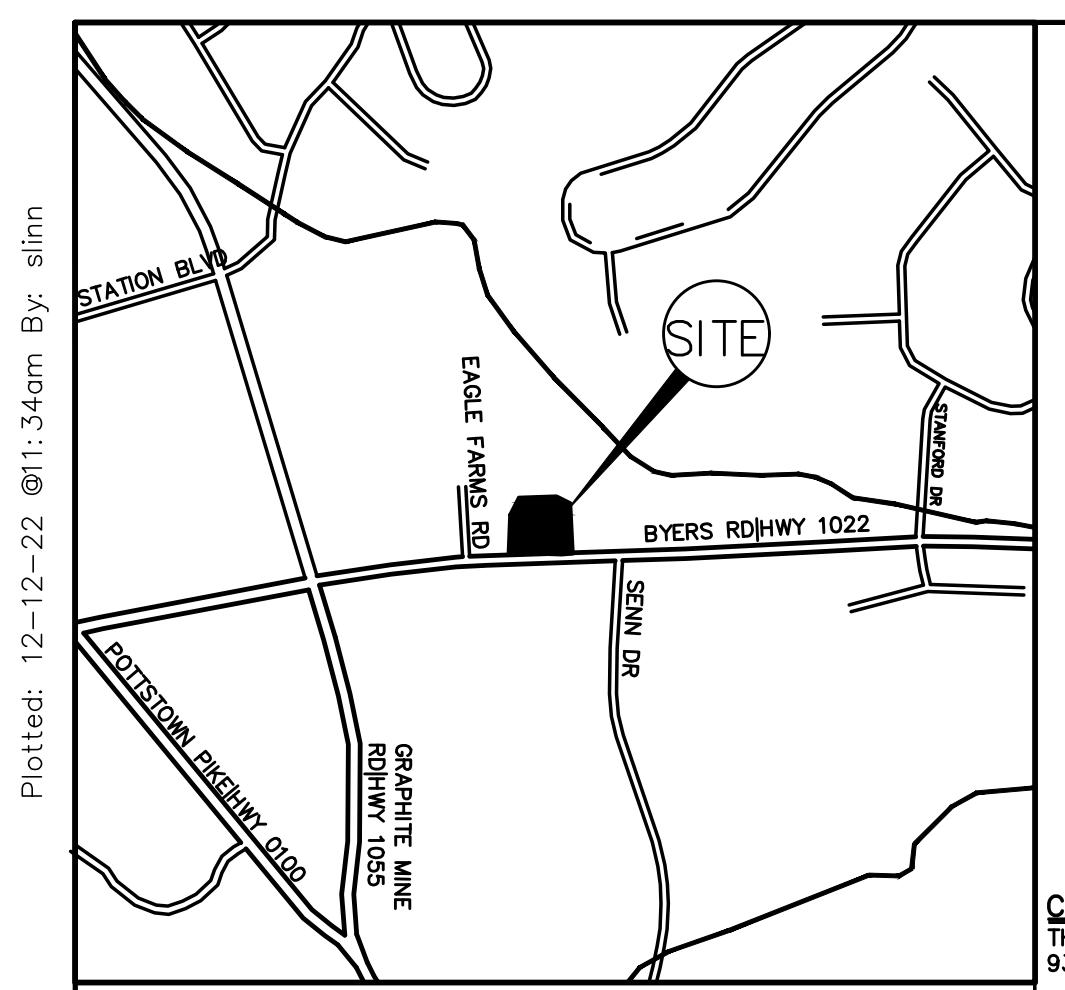
Discarded OutFlow Max=0.01 cfs @ 3.96 hrs HW=413.55' (Free Discharge)
 ↑ 1=Exfiltration (Exfiltration Controls 0.01 cfs)

Primary OutFlow Max=0.20 cfs @ 12.19 hrs HW=418.05' (Free Discharge)
 ↑ 2=Orifice/Grate (Weir Controls 0.20 cfs @ 0.70 fps)

Summary for Link 4L: (new Link)

Inflow Area = 26,799 sf, 34.23% Impervious, Inflow Depth = 4.34" for 100-YEAR event
 Inflow = 3.84 cfs @ 11.97 hrs, Volume= 9,691 cf
 Primary = 3.84 cfs @ 11.97 hrs, Volume= 9,691 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs



PA ONE CALL INFORMATION
 COMPANY: AQUA PENNSYLVANIA INC
 ADDRESS: 762 W LANCASTER AVE
 BRYN MAWR, PA 19010
 CONTACT: THOMAS WADDY
 EMAIL: TBWADDY@AQUAAMERICA.COM
 COMPANY: COMCAST
 ADDRESS: 1000 CORNERSTONE BLVD
 DOWNTOWN, PA, 19335
 CONTACT: TOM RUSSO
 EMAIL: tom_russo@comcast.com
 COMPANY: PECO AN EXELON COMPANY C/O USIC
 KING OF PRUSSIA, PA, 19406
 CONTACT: NIKKASIMPRINCIPALLLC.COM
 COMPANY: UPPER UWCHLAN TOWNSHIP
 UWCHLAN MUNICIPAL AUTHORITY
 ADDRESS: 140 PINE TOWNE
 CHESTER SPRINGS, PA, 19425
 CONTACT: MICHAEL HECKMAN
 EMAIL: MHECKMAN@UPPERUWCHLAN-PA.GOV
 COMPANY: VERIZON BUSINESS FORMERLY MCI
 ADDRESS: 7000 WESTON PKWY
 CARY, NC, 27513
 CONTACT: VICTOR WOOD
 EMAIL: victor.s.wood@verizon.com

CALL BEFORE YOU DIG!
 PENNSYLVANIA LAW REQUIRES
 THREE (3) WORKING DAYS NOTICE FOR
 CONSTRUCTION, USE AND (10)
 WORKING DAYS FOR DESIGN STAGE
 UTILITY INFORMATION IDENTIFIED THROUGH
 THE ONE-CALL PROCESS IS VALID FOR
 90 DAYS FROM THE DATE OF THE CALL.
 Pennsylvania One Call System, Inc.
 1-800-242-1776
 SERIAL# 20222912121
 ONE-CALL DATE: 10/18/2022

LOCATION MAP

1" = 1,000'

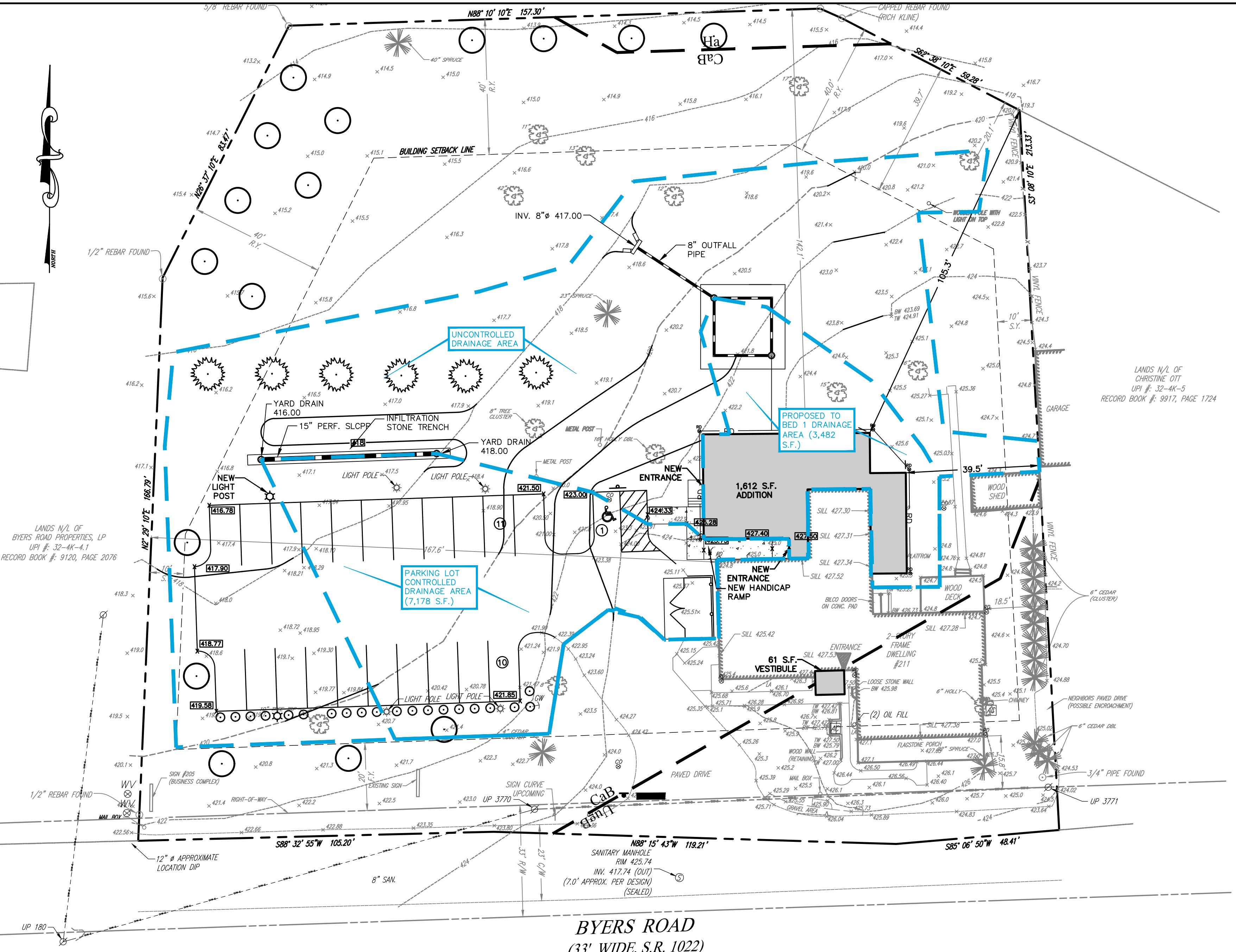
NOTES

1. THIS PLAN IS BASED ON A PLAN BY HOWELLKLINE SURVEYING, ENTITLED TOPOGRAPHIC AND PHYSICAL IMPROVEMENTS SURVEY, DATED MAY 19, 2022.
2. ELEVATIONS REFER TO CONTOURS FROM FIELD SURVEY BASED ON GPS SYSTEM, NORTH AMERICAN DATUM OF 1988.
3. BOUNDARY FROM A PLAN BY HOWELLKLINE SURVEYING LLC, ENTITLED TOPOGRAPHIC AND PHYSICAL IMPROVEMENTS SURVEY, DATED MAY 19, 2022.
4. PROPERTY IS IDENTIFIED IN THE HISTORIC ORDINANCE AS HRP NO. 057, KEY NO. 065814, CLASS 1.
5. ADJOINER INFORMATION TAKEN FROM CURRENT TAX RECORDS.
6. UTILITY INFORMATION FROM OBSERVED SURFACE EVIDENCE. ALL UTILITY LOCATIONS AND DEPTHS SHALL BE FIELD VERIFIED PRIOR TO CONSTRUCTION.
7. BY GRAPHIC PLOTTING ONLY, THIS PROPERTY IS IN ZONE 'X' OF THE FLOOD INSURANCE RATE MAP, MAP No. 4202900095G, COMMUNITY PANEL No. 95 OF 380, WHICH BEARS AN EFFECTIVE DATE OF SEPTEMBER 29, 2017.
8. SOIL DELINEATION LINES TAKEN FROM USDA NATIONAL COOPERATIVE SOIL SURVEY THROUGH THE NATURAL RESOURCES CONSERVATION SERVICE, CUSTOM SOIL RESOURCE REPORT FOR THIS PROJECT DATED JANUARY 14TH, 2022.
9. SITE IS CURRENTLY SERVICED BY PRIVATE SEWER AND PUBLIC WATER.
10. ALL LANDSCAPING SHOWN ON THE PLANS SHALL BE MAINTAINED AND KEPT CLEAN OF ALL DEBRIS, RUBBISH, WEEDS, AND TALL GRASS.
11. A BLANKET EASEMENT IS GRANTED TO UPPER UWCHLAN TOWNSHIP TO ALLOW FOR THE INSPECTION OF THE STORMWATER FACILITY. IN THE EVENT THE HOMEOWNER/PROPERTY OWNER FAILS TO PROPERLY MAINTAIN THOSE FACILITIES, AFTER NOTICE TO THE OWNER OF ITS INTENT TO DO SO (WHICH NOTICE SHALL NOT BE REQUIRED IN ANY EMERGENCY), THE TOWNSHIP MAY (BUT IS NOT OBLIGATED TO) ENTER ONTO THE PROPERTY TO INSPECT AND PERFORM ANY SUCH MAINTENANCE. IN SUCH EVENT, THE TOWNSHIP MAY CHARGE THE COSTS THEREOF, WHETHER DIRECT OR INDIRECT, INCLUDING LEGAL FEES, ATTORNEY FEES, EXPENSES, AND COSTS TO THE OWNER, AND MAY PLACE A LIEN ON THE PROPERTY TO RECOVER THE COSTS OF COLLECTION, FEES AND INTEREST.

OWNER
 9 COFFMAN ASSOCIATES, LP
 211 BYERS RD
 CHESTER SPRINGS, PA 19425

SITE INFORMATION
 211 BYERS RD
 TAX MAP: 32-4K-4
 DB/PG: 7355/455

LAND DEVELOPMENT STATEMENT OF INTENT
 THE PURPOSE OF THIS PLAN IS TO SHOW THE REQUIREMENTS NECESSARY TO CONSTRUCT AN ADDITION FOR AN ANIMAL HOSPITAL. THE PLAN INCLUDES THE IMPROVEMENTS ASSOCIATED WITH THE PROPOSED ADDITION SUCH AS GRADING, LANDSCAPING, AND STORMWATER MANAGEMENT FACILITIES.



BYERS ROAD
 (33' WIDE, S.R. 1022)

EXISTING	PROPOSED
CONCRETE CURB	
CONC. SIDEWALK	
CONC. CROSSWALK	
FENCELINE	
RIGHT OF WAY	
PROPERTY LINE	
IRON PIN	
MONUMENT	
SPOT GRADES	
CONTOURS	
SIGN	
SANITARY SEWER W/ M.H.	
SANITARY SEWER STRUCTURE NO.	
ROOFDRAIN PIPE	
ELECTRIC LINE	
WATER LINE	
GAS LINE	
UTILITY POLE	
FIRE HYDRANT	
GAS VALVE	
WATER VALVE	
CLEAN-OUT	
WATER METER	
GAS METER	
ELECTRIC METER	
OVERHEAD WIRE	

GRAPHIC SCALE
 (IN FEET)
 1 inch = 20 ft.

PROPOSED DRAINAGE AREA PLAN
 FOR
 EAGLE ANIMAL HOSPITAL
 211 BYERS RD
 UPPER UWCHLAN TOWNSHIP
 CHESTER COUNTY, PA

LINN ARCHITECTS
 1140 N PROVIDENCE ROAD
 MEDIA, PENNSYLVANIA 19063
 TEL: 610-566-7044
 FAX: 610-566-3258
 ARCHITECTURE
 ENGINEERING
 SITE PLANNING
 INTERIOR DESIGN

COMMONWEALTH OF PENNSYLVANIA
 REGISTERED PROFESSIONAL
 ADAM B. POWELL
 ENGINEER IN PRACTICE
 PENNSYLVANIA

DATE:	REVISIONS	DESCRIPTION	DATE
12.09.2022	1		
SCALE:	1'-0"		
DRAWN BY:	2		
SDL			
CHECKED BY:	3		
SHEET NO.			
PROJ. NO.:	4		
SHEET OF	D-2		



January 5, 2023

Upper Uwchlan Township
140 Pottstown Pike
Chester Springs, PA 19425

Attention: Mr. Tony Scheivert
Township Manager

RE: Struble Trail Extension II
Revised Plans for Conditional Use
Bursich Job No.: CHE-22 / 137340.01

Dear Mr. Scheivert:

With regard to the above referenced project and active conditional use application, please find enclosed the following updated documents for review:

- Twenty (20) paper sets of Preliminary/Final Land Development Plans, prepared by Bursich Associates, Inc., Sheets 1, and 3 through 10, revised December 21, 2022;
- USB drive containing PDF's of Plans.

Since the original plan submission in May, 2019, some updates have occurred to the Shryock Brothers, Inc. parcel (UPI 32-6-49) the County's existing trail easement traverses through. A simple lot line adjustment plan was approved by the Township in July, 2022 that annexed 2.70 acres from this parcel intended to be ultimately joined with the Commonwealth of PA's UPI 32-6-49.1. The existing trail easement will now be located withing the latter's lands. This allowed the County to relocate a portion of the proposed trail further north to eliminate the need for the prior retaining walls proposed and to provide some additional clearance from an existing water service line. A Public Trail Easement is provided for the trail and improvements located outside of the County's existing trail easement, as well as a Temporary Construction Easement to allow the County access to the existing water tower, which will be demolished.

Updated preliminary/final land development plans and supporting documents are being submitted to the Township concurrently for review under separate cover. Should you have any questions or need further information, please feel free to contact me at 484-941-0427 or nick.feola@bursich.com.

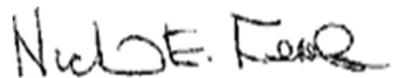
ENGINEERS, LAND SURVEYORS, LANDSCAPE ARCHITECTS



2129 E. High Street | Pottstown, PA 19464
N 40° 14' 40.2" W 075° 36' 09.6"

610.323.4040
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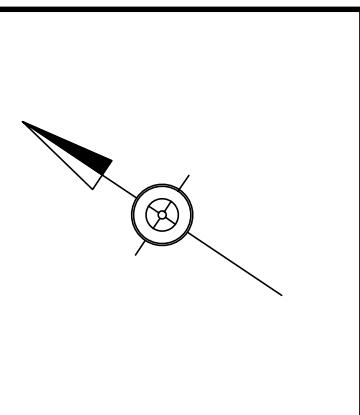
Very truly yours,



Nicholas E. Feola, P.E.
Vice President
Bursich Associates, Inc., Pottstown Office

Enclosures

pc: Jan Bowers, County of Chester (via email only)
Shaun Meredith, County of Chester (via email only)
Dave Stauffer, County of Chester (via email only)
Joeseph Brion, Esq., Buckley Brion McGuire & Morris, LLP (via email only)



PROPOSED FEATURES LEGEND:

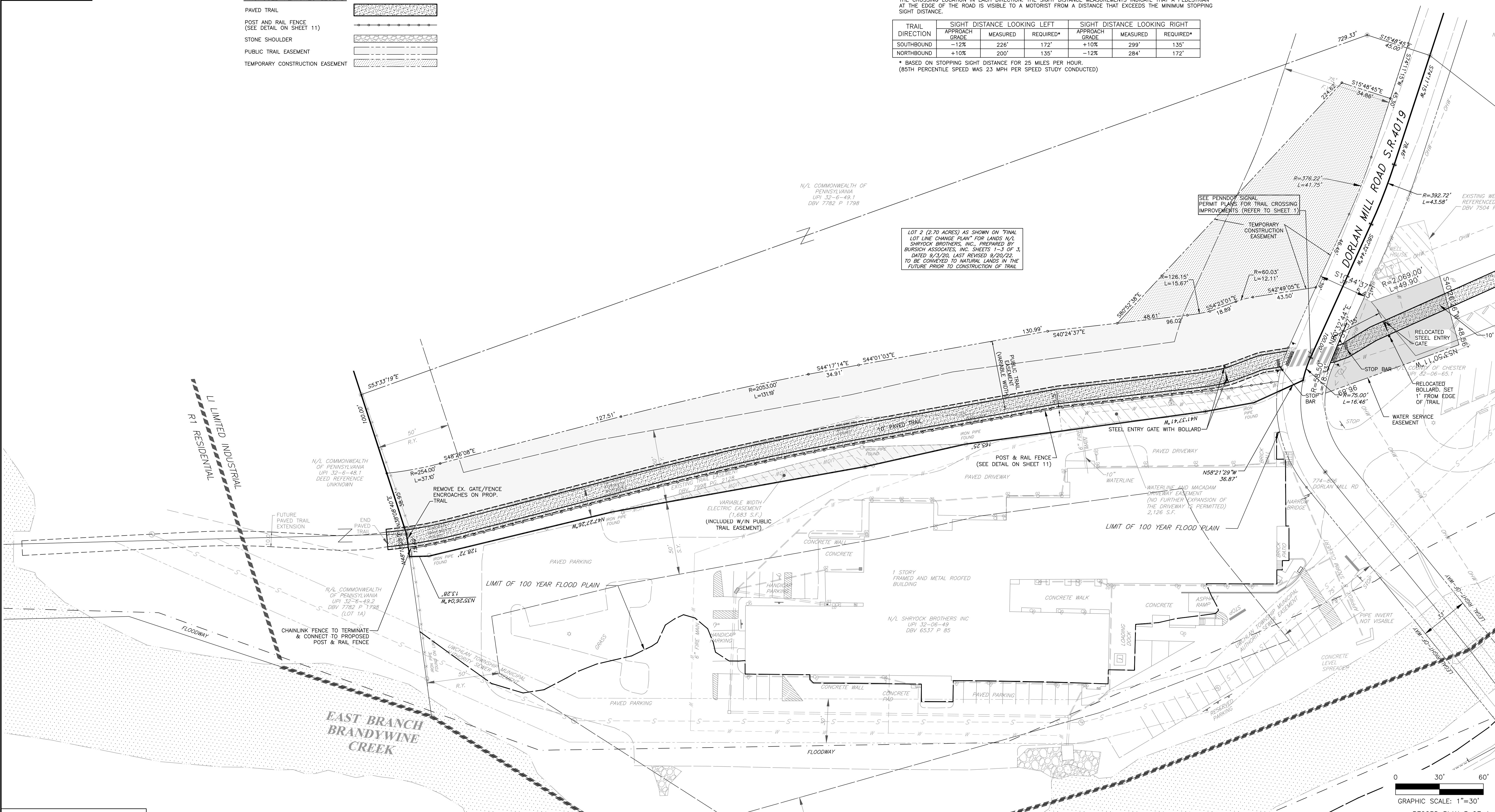
- PAVED TRAIL
- POST AND RAIL FENCE (SEE DETAIL ON SHEET 11)
- STONE SHOULDER
- PUBLIC TRAIL EASEMENT
- TEMPORARY CONSTRUCTION EASEMENT

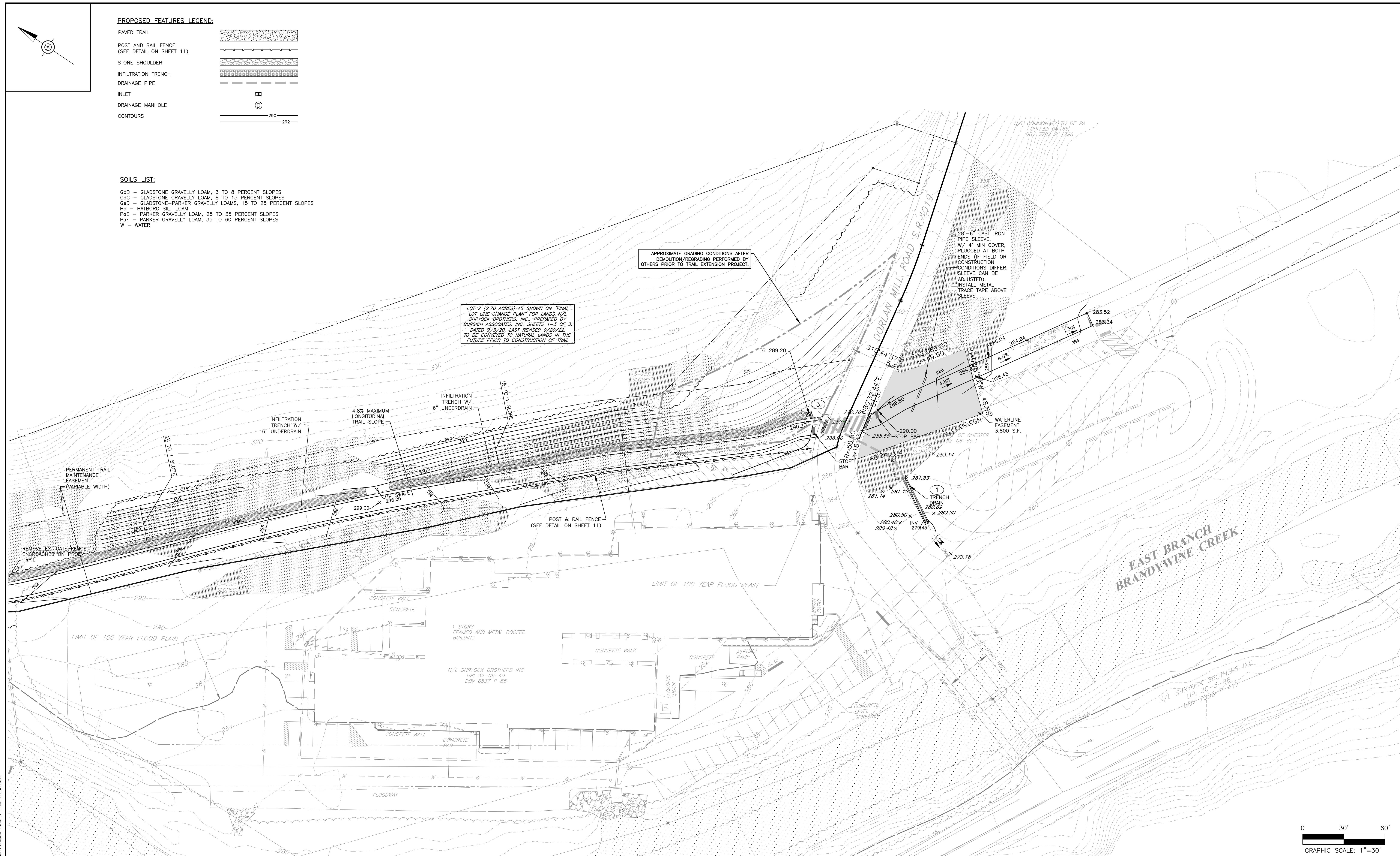
TRAIL SIGHT DISTANCE TABLE:

SIGHT DISTANCE MEASURED FROM THE EDGE OF THE ROAD, BASED ON THE EDGE LINE PAVEMENT MARKINGS, AT THE CROSSING LOCATION IN EACH DIRECTION. THE SIGHT DISTANCE MEASUREMENTS INDICATE THAT A PEDESTRIAN AT THE EDGE OF THE ROAD IS VISIBLE TO A MOTORIST FROM A DISTANCE THAT EXCEEDS THE MINIMUM STOPPING SIGHT DISTANCE.

TRAIL DIRECTION	SIGHT DISTANCE LOOKING LEFT			SIGHT DISTANCE LOOKING RIGHT		
	APPROACH GRADE	MEASURED	REQUIRED*	APPROACH GRADE	MEASURED	REQUIRED*
SOUTHBOUND	-12%	226'	172'	+10%	299'	135'
NORTHBOUND	+10%	200'	135'	-12%	284'	172'

* BASED ON STOPPING SIGHT DISTANCE FOR 25 MILES PER HOUR.
(85TH PERCENTILE SPEED WAS 23 MPH PER SPEED STUDY CONDUCTED)





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BETWEEN THE USER AND BURSICH ASSOCIATES, INC. AND ENFORCED AS A TRADE SECRET BY BURSICH ASSOCIATES,
INC.

				SEAL	SEAL	MANAGER NEF _____ DESIGN KK CHKD. BY DRAFT AJK CHKD. BY FILE CHE-22 DATE MAY 1, 2019 NOTES _____ SCALE 1"=30'	BURSICH Sharing your Vision	CLIENT CHESTER COUNTY, DEPARTMENT OF FACILITIES 313 W. MARKET STREET SUITE 5402 P.O. BOX 2748 WEST CHESTER, PA 19380 Corporate Headquarters 2129 East High Street Pottstown, PA 19464 610-323-4040 Southampton Office 708 Lakeside Drive Southampton, PA 18966	SUBJECT GRADING PLAN STRUBLE TRAIL EXTENSION II UPPER UWCHLAN TOWNSHIP, CHESTER COUNTY, PENNSYLVANIA	JOB NO. 137340.01A SHEET NO. 8 OF 18 DWG. NO. GR237340-1A	
1. REVISIONS PER OWNER AND TOWNSHIP CONSULTANTS REVIEWS NO.	12/21/22	AJK	REVISION DATE	BY	APP.						



January 5, 2023

Upper Uwchlan Township
140 Pottstown Pike
Chester Springs, PA 19425

Attention: Mr. Tony Scheivert
Township Manager

RE: Struble Trail Extension II
Revised Preliminary/Final Land Development Plans
Bursich Job No.: CHE-22 / 137340.01

Dear Mr. Scheivert:

With regard to the above referenced project, please find enclosed the following documents for review:

- Four (4) paper sets of Preliminary/Final Land Development Plans, prepared by Bursich Associates, Inc., Sheets 1 – 18 of 18, revised December 21, 2022;
- Four copies of Waiver Request Letter dated December 21, 2022;
- Two (2) copies of Stormwater Management Report, prepared by Bursich Associates, Inc., revised December, 2022;
- USB drive containing PDF's of Plans and Stormwater Management Report.

Since the original plan submission in May, 2019, some updates have occurred to the Shryock Brothers, Inc. parcel (UPI 32-6-49) the County's existing trail easement traverses through. A simple lot line adjustment plan was approved by the Township in July, 2022 that annexed 2.70 acres from this parcel intended to be ultimately joined with the Commonwealth of PA's UPI 32-6-49.1. The existing trail easement will now be located within the latter's lands. This allowed the County to relocate a portion of the proposed trail further north to eliminate the need for the prior retaining walls proposed and to provide some additional clearance from an existing water service line. A Public Trail Easement is provided for the trail and improvements located outside of the County's existing trail easement, as well as a Temporary Construction Easement to allow the County access to the existing water tower, which will be demolished.

The above documents have been updated to address comments suggested in the Gilmore & Associates, Inc. review letter dated June 11, 2019, as well as modifications made as mentioned above. The following is an itemized response to each of the comments contained therein. The original comment is listed in italics and our responses are noted below each comment in bold.

ENGINEERS, LAND SURVEYORS, LANDSCAPE ARCHITECTS

 2129 E. High Street | Pottstown, PA 19464
N 40° 14' 40.2" W 075° 36' 09.6"

610.323.4040
www.bursich.com

II ZONING ORDINANCE REVIEW

1. §200-44.1.(10) - The Applicant is requesting a conditional use to allow a governmental use for the site.

Response: Acknowledged. The Applicant will granted an extension for scheduling and conducting the subject conditional use hearing, and will coordinate a hearing date with the Township.

III SUBDIVISION & LAND DEVELOPMENT ORDINANCE REVIEW

1. §162-8.B. - The Applicant is requesting a waiver to allow a combined preliminary/final plan submission. For reference, this waiver was requested and granted for the previous phase of this project.

Response: For informational purposes. No response necessary.

2. §162-9.B.(1)(b) - Curves shall be described with the radius, central angle, chord bearing, and distance. Please label the chord bearing and distance for the part of the 20' wide trail easement abutting Dorian Mill Road right-of-way.

Response: The chord information was added. See Sheet 3.

3. §162-9.B.(2)(b)[6] - Please revise the scale on sheets 13 and 14 (Erosion and Sediment Control Plan) to state 1" = 30'. It is currently listed as 1" = 40'.

Response: The scale labels were coordinated (refer to current Sheets 16 & 17).

4. §162-9.C.(2)(a)[11] - Please clearly state the waivers being requested to the first sheet (title plan) of the plan submission.

Response: The requested waivers were added to Sheet 1.

5. Add the following note to the General Notes Sheet:

"Upon completion of other construction, the entire amount of topsoil stripped shall be replaced on the site. No topsoil shall be disposed of, by sale or otherwise, off the site of the construction."

Response: The topsoil note was added to Sheet 2. See Note 22.

IV STORMWATER ORDINANCE REVIEW

1. §152-303.B. - Add a note to the Erosion and Sediment Control Plan Sheets stating "a copy of the erosion and sediment control plan and any required permit(s), as required by PADEP regulations, shall be available on the site at all times."

Response: Note 1 has been added to the ESPC plans, Sheets 16 and 17.

2. §152-306.C. - Please provide calculations which show that either (1) the volume of a minimum of one inch of runoff from all proposed impervious surfaces or (2) the total water quality and runoff volume required in §152-305 is infiltrated, whichever is less. The required water quality and runoff volume required needs to be provided under the invert of the conveyance pipe in the infiltration trenches.

Response: A partial waiver is requested from this section for infiltrating water quality and runoff volume due to the location and nature of the existing railroad bed. Infiltration and/or deep excavation into the existing railroad bed is discouraged due to the presence of arsenic content.

3. §152-306.1.(2) - The Applicant shall provide infiltration testing to determine an appropriate infiltration rate for the site. Infiltration requirements shall be based off of this section, §152-306.

Response: A partial waiver is requested from this section for infiltrating testing due to the location and nature of the existing railroad bed. Infiltration and/or deep excavation into the existing railroad bed is discouraged due to the presence of arsenic content.

4. §152-402.A.(3) - A statement, signed by the applicant, shall be provided on the plans, acknowledging that any revision to the approved SWM site plan shall be submitted to and approved by the municipality, and that a revised erosion and sediment control plan shall be submitted to, and approved by, the Conservation District or municipality (as applicable) for determination of adequacy prior to construction of the revised features.

Response: The requested statement has been added to the Stormwater Management Site Plan and Operation & Maintenance Plan, Sheet 12 of 18.

5. §152-402.A.(4) - The following signature block signed and sealed by the qualified licensed professional responsible for the preparation of the SWM site plan shall be provided:

"I (name), on this date (date of signature), hereby certify to the best of my knowledge that the SWM site plan meets all design standards and criteria of the Upper Uwchlan Township Ordinance No. 2013-05, Stormwater Management Ordinance."

Response: The requested statement and signature block has been added to the Stormwater Management Site Plan and Operation & Maintenance Plan, Sheet 12 of 18 to be signed and sealed by the qualified licensed professional responsible for the plan.

6. §152-402.B. - Provide a separate plan sheet(s) titled Stormwater Management Site Plan, showing the requirements of this section.

Response: Sheets 12 through 15 of the plans have been provided as a Stormwater Management Site Plan to address the requirements of this section.

7. §152-402.F. - The Applicant shall provide an O&M plan and O&M agreement to the Township.

Response: Sheets 12 through 15 of the plans have been provided as an Operations & Maintenance Plan to address the requirements of this section. An O&M agreement will be provided by the applicant.

8. §152-804 - The Applicant shall provide the Alteration of BMPs notes listed in §152-804.A. and §152-804.B. to the Stormwater Management Site Plan.

Response: The requested notes have been added as Notes #8 and #9 on Sheets 12 and 13.

9. On P.1 of the Post Construction Stormwater Management Report, there is a mention of "trees will be located throughout the project area," yet no trees are proposed on the plans.

Response: The tree reference in the PCSM Report has been removed.

10. On P.14 of the Post Construction Stormwater Management Report, there is a mention of "the post development condition assumed all areas that were not impervious were lawn or wooded". However, meadow was used in the Hydrograph calculations and the volume calculations. Please clarify this sentence or revise the Hydrograph calculations.

Response: Clarification of the post-development conditions has been added to the PCSM Narrative.

11. The outlet pipe information for the Stone Trench West on P.155 of the Post Construction Stormwater Management Report does not match the plans, and no 2" orifice is shown on the plans. Please show a detail of the 2" orifice on the plans. The detail shall also show how the 2" orifice is to be maintained due to potential clogging. Also, the slope of the pipe provided on P.157 of the Post Construction Stormwater Management Report does not match what is shown on the plans.

Response: A detail of the subsurface stone trench outlet structure has been added to Sheet 15 of the plan set. Operation and maintenance notes indicate that the facility and outlet structure must be inspected on a regular basis to ensure that the orifice is not blocked with debris and is functioning properly. The PCSM Report has been revised for consistency between the calculations and the details shown on the plans.

12. The outlet pipe information for the Stone Trench East on P.161 of the Post Construction Stormwater Management Report does not match the plans, and no 2" orifice is shown on the plans. Please show a detail of the 2" orifice on the plans. The detail shall also show how the 2" orifice is to be maintained due to potential clogging. Also, the lengths and slope of the pipes provided on P.163 of the Post Construction Storm water Management Report does not match what is shown on the plans.

Response: A detail of the subsurface stone trench outlet structure has been added to Sheet 15 of the plan set. Operation and maintenance notes indicate that the facility and outlet structure must be inspected on a regular basis to ensure that the orifice is not blocked with debris and is functioning properly. The PCSM Report has been revised for consistency between the calculations and the details shown on the plans.

13. The bed bottom area indicated on P.172 of the Post Construction Stormwater Management Report does not match the area listed on P.161 or the plans. Please clarify.

Response: The PCSM Report has been revised for consistency between the calculations and the details shown on the plans.

14. Please revise the Inlet 1, MH 2, Trench Drain 3 Profile on Sheet 12 to show a 15" RCP pipe from Inlet 1 to MH 2 as shown in the stormwater report calculations. Also, please revise the graphical image of the Trench Drain in the profile view. It appears to be shown as a 24" pipe.

Response: The stormwater report was revised to show an 18" RCP since PennDOT prefers 18" pipes as a minimum. The graphics for the trench drain were revised to look like a trench drain.

15. *Swale calculations shall be provided to confirm the upslope runoff can be conveyed without overtopping the proposed retaining wall.*

Response: The retaining walls have been removed from the plans.

16. *It appears based on the grading there is a location where a gap in the proposed retaining walls upside of the trail will create a concentrated flow across the trail and down towards the neighboring property. Please revise this area to prevent this concentrated flow.*

Response: The retaining walls have been deleted.

17. *An HOP permit will be required for the proposed 18" RCP pipe crossing Dorian Mill Road.*

Response: The Applicant acknowledges that a PennDOT HOP permit will be required for the proposed storm pipe installation within the State Right of Way of Dorlan Mill Road.

18. *Please clarify how the existing headwall can be replaced with a Type M inlet (Inlet 5), as the existing 15" CIP pipe appears to flow from the "end of pipe block by boulder" at around elevation 288 towards the headwall invert at 285.96. The profile on Sheet 12 appears to show the existing 15" GIP pipe in the opposite direction.*

Response: The profile has been revised. The existing headwall will be removed and replaced with a manhole to connect the existing 15" CIP with the new trail stormwater collection system that goes to a level spreader.

V GENERAL COMMENTS

1. *Additional information is needed regarding the proposed retaining walls, including:*
 - *Top and bottom of wall information for the wall on the low side of the trail*
 - *Bottom of wall information for the wall on the high side of the trail*

Any walls greater than 4' in height will require a structural design to be provided

Response: No longer applicable, as the proposed retaining walls were removed.

2. *There is a proposed 286 contour southeast of Dorian Mill Road which does not appear to tie in to existing grade shown on Sheet 8.*

Response: The proposed 286 contour was revised on Sheet 8 to tie into existing grade.

3. *The pipe size of 8" listed in Specifications note 3 on Sheet 7 does not match the 6" min pipe size listed in the Infiltration Trench Detail on Sheet 11. The applicant shall specify a pipe diameter.*

Response: Note 3 has been revised to reflect a 6" pipe.

4. *Add a scale to the title bar of the Pre and Post Development Drainage Area Plan Sheets.*

Response: The scales on the drainage plans were revised.

VI. TOWNSHIP TRAFFIC CONSULTANT COMMENTS
McMAHON ASSOCIATES, INC.

1. ZO Section 200-75.H(3) - *It appears the available sight distances dimensioned in plan view on sheet 2 of the Conditional Use plans and sheet 3 of the Land Development plans for southbound pedestrians crossing Dorian Mill Road from the north side to the south side do not match the trail sight distance table. The applicant's engineer should verify the available sight distances shown on the plan for the pedestrian crossing, and revise the dimensions shown in plan view and on the table, as appropriate.*

Response: The sight distance dimensions in the plan views of the Conditional Use Plan and Land Development Plan were adjusted to match the chart.

2. *The pedestrian crossing of Dorian Mill Road (S.R. 4019) was previously approved by PennDOT for a Highway Occupancy Permit (HOP), as well as a Traffic Signal Permit for the flasher. If additional coordination with PennDOT is required due to the passage of time, please copy the Township on all plan submissions and correspondence with PennDOT.*

Response: The Township will be copied on correspondences with PennDOT.

VI. TOWNSHIP PLANNING CONSULTANT COMMENTS
BRANDYWINE CONSERVANCY

Conditional Use Review

1. *This project is consistent with Upper Uwchlan Township's Comprehensive PlanUpdate, adopted April 2014. Map 6-3 (Ray Ott & Associates, 9/14/05) shows the planned Struble Trail along the east side of the Brandywine Creek in Upper Uwchlan Township*

Response: For informational purposes. No response necessary.

2. *This project is consistent with Upper Uwchlan Township's Open Space, Recreation, and Environmental Resources Plan, adopted October 19, 2009. The Plan shows the existing Struble Trail south of Dorian Mill Road and a future Struble Trail that continues north of Dorian Mill Road. The existing Brandywine Trail overlaps with the Struble Trail at the project site, enters Marsh Creek State Park, and crosses the Marsh Creek dam before continuing north to Ludwigs Corner.*

Response: For informational purposes. No response necessary.

3. *We concur with the Applicant's Fiscal Impact Statement that the proposed extension of the Struble Trail will not impact the Township's tax revenue and expenditures, will not generate any new residents, will not generate any new persons entering the public school system, or increase use of municipal government services.*

Response: For informational purposes. No response necessary.

4. *The retaining walls and fencing should be designed with materials that are aesthetically compatible with the character of the Class II historic structures in the area. In keeping with the historic character of the area, we recommend as a condition of approval that the Applicant provide samples of the materials to be used for the retaining walls and fencing at the time of Preliminary Land Development and that the materials and colors be subject to Township approval.*

Response: No longer applicable since the previously proposed retaining walls have been deleted.

5. We recommend as a condition of approval that to the extent feasible, and as permitted by PennDOT, the flashing beacon signal at the Dorian Mill Road pedestrian crossing should be designed and placed in a manner (height, distance, brightness, color, timing) that will minimize/shield impact on the adjacent historic structure. Although the building is currently in disrepair, it is possible that it could be restored for future adaptive reuse as a bakery, retail shop, or small restaurant along the trail. Every effort should be made to preserve the appeal of adaptive reuse of the existing structure.

Response: This comment is not applicable as the noted dwelling will be removed by others per the Lot Line Adjustment Plan for the Shryock Brothers, Inc. approved by the Township in July, 2022.

Preliminary/Final Land Development Review

6. The Applicant has submitted a waiver request to allow a combined preliminary/final plan, as the project is minor and does not involve improvements that are to be dedicated to the Township. We agree that this project is minor in nature and are in support of this waiver request.

Response: For informational purposes. No response necessary.

7. We recommend that the retaining walls and fencing should be designed with materials that are aesthetically compatible with the historic character of the area. We recommend that the Applicant provide samples of the materials to be used for the retaining walls and fencing and that the materials be subject to Township approval.

Response: No longer applicable since the previously proposed retaining walls have been deleted.

8. We recommend that the Applicant provide the Township with PennDOT drawings/details for the flashing beacon signal and pedestrian crossing at Dorian Mill Road. To the extent feasible, the flashing beacon signal should be designed and placed in a manner (height, distance, brightness, color, timing) that will be compatible with the historic character of the area.

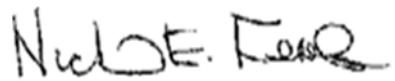
Response: The flashing warning beacon plans were approved by PennDOT, and the Township was provided copies of the plans.

9. Sheet 7, Long Term Operation and Maintenance Schedule - The first sentence states that the maintenance and protection of the stormwater BMP's shall be the responsibility of the property owner. However, Chester County intends to be responsible for the maintenance of the trail corridor where portions of the trail are owned by others. The note should be revised accordingly to say that Chester County will be responsible for all maintenance along all trail sections, and that should Chester County fail to repair a problem or maintain a stormwater facility for which it is responsible, the Township shall make the repairs at the expense of Chester County.

Response: The note in the Long Term Operation and Maintenance Schedule on current Sheet 15 was revised to designate the County of Chester as the party responsible for the operation and maintenance of the stormwater BMP's.

Should you have any questions or need further information, please feel free to contact me at 484-941-0427 or nick.feola@bursich.com.

Very truly yours,



Nicholas E. Feola, P.E.
Vice President
Bursich Associates, Inc., Pottstown Office

Enclosures

pc: Jan Bowers, County of Chester (via email only)
Shaun Meredith, County of Chester (via email only)
Dave Stauffer, County of Chester (via email only)
Joeseph Brion, Esq., Buckley Brion McGuire & Morris, LLP (via email only)



December 21, 2022

Upper Uwchlan Township
140 Pottstown Pike
Chester Springs, PA 19425

Attention: Mr. Tony Scheivert
Township Manager

RE: Struble Trail – Extension II - Waivers
Preliminary/Final Land Development Plans
Bursich Project No.: CHE-22 / B137340.01

Dear Mr. Scheivert

This letter is offered in coordination with the revised preliminary/final land development plans filed for the above referenced project. The following are the formal written modification (i.e. "waiver" or "deferral") requests from the requirements of the Upper Uwchlan Township Subdivision and Land Development Ordinance (Chapter 142) and Stormwater Management Ordinance (Chapter 152):

- §162-8.b. – to allow the plan to be processed as a combined preliminary & final plan, as the project in minor in nature, does not involve any public improvements to be dedicated to the Township, or new streets, utility main extensions, etc.
- §152-306.C – from infiltrating the volume of one inch of runoff from the proposed impervious surfaces or the total water quality and runoff volume required in §152-305 as the proposed trail is being constructed within a prior railroad bed. Infiltration and/or deep excavation into the prior railroad bed is discouraged to minimize disturbance and exposure of the soils and fill materials from the original railroad construction.
- §152-306.1.(2). –from performing infiltration testing as the proposed trail is being constructed within a prior railroad bed. Infiltration and/or deep excavation into the prior railroad bed is discouraged to minimize disturbance and exposure of the soils and fill materials from the original railroad construction.

ENGINEERS, LAND SURVEYORS, LANDSCAPE ARCHITECTS

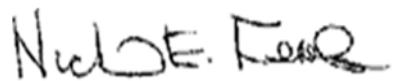


2129 E. High Street | Pottstown, PA 19464
N 40° 14' 40.2" W 075° 36' 09.6"

610.323.4040
www.bursich.com

Should you have any questions or require additional information, please contact me at 484-941-0427 or nick.feola@bursich.com.

Very truly yours,



Nicholas E. Feola, P.E.
Vice President
Bursich Associates, Inc., Pottstown Office

Enclosures

cc: Jan Bowers, County of Chester (via email only)
Shaun Meredith, County of Chester (via email only)
Dave Stauffer, County of Chester (via email only)
Joeseph Brion, Esq., Buckley Brio McGuire & Morris, LLP (via email only)

PURPOSE OF PLAN NOTE:

THE PURPOSE OF THIS PLAN IS TO EXTEND THE STRUBLE TRAIL TO THE LANDS OF THE COMMONWEALTH OF PENNSYLVANIA. THE CHESTER COUNTY, DEPARTMENT OF FACILITIES PROPOSES TO EXTEND THE TRAIL FROM DORLAN MILL ROAD APPROXIMATELY 650 FEET TO THE NORTH. THIS SECTION OF TRAIL IS NOT LOCATED IN THE 100 YEAR FLOODPLAIN FOR EAST BRANCH OF THE BRANDYWINE CREEK OR MARSH CREEK.

GENERAL NOTES:

1. SITE AREA: THE PROPOSED AREA CONSISTS OF A 20' TRAIL EASEMENT THROUGH PARCEL 32-6-49 (OWNED BY SHRYOCK BROTHERS, INC.) BY DECLARATION OF TAKING FILED ON SEPTEMBER 22, 2010, AND EXTENDING INTO LANDS OF THE COMMONWEALTH OF PENNSYLVANIA. PARCELS 32-6-48.1 AND 32-6-49.2 PARCEL 32-6-49.2 HAS AN EASEMENT IN FAVOR OF CHESTER COUNTY FOR THE EXTENSION OF STRUBLE TRAIL.
2. ANYONE USING THIS DRAWING FOR CONSTRUCTION IS ADVISED TO CALL 1-800-242-1776 FOR UNDERGROUND UTILITIES PRIOR TO EXCAVATION IN ACCORDANCE WITH PENNSYLVANIA ACT NO. 37.
3. ALL UTILITIES ARE SHOWN PURVIS FIELD SURFACE INVESTIGATIONS, PLANS BY OTHERS, AND PLANS FROM UTILITY COMPANIES ACCORDING THROUGH A PA ONE CALL DESIGN NOTIFICATION, SERIAL NUMBER 20132890184.
- SHRYOCK BROTHERS, INC. (SHRYOCK) HAS AN EXISTING, UNMARKED PRIVATE WATER SERVICE LINE IN THE PROJECT VICINITY. THE SERVICE RUNS IN GENERAL FROM THE EXISTING WELL HOUSE ON THE EAST SIDE OF DORLAN MILL ROAD TO THEIR EXISTING BUILDING ON UPI 32-06-49. SHRYOCK HAS INDICATED THE SERVICE IS 2" POLY (INCLUDING 100'+/- OF 10" C900DR18PVCG). THIS SERVICE LINE WAS LOCATED BY GROUND PENETRATING RADAR SYSTEMS, INC. (GPRS) ON MARCH 15, 2022 AND PLOTTED BY BURSICH ASSOCIATES, INC. CONTRACTOR SHALL FIELD LOCATE/MARK OUT THIS WATER SERVICE PRIOR TO CONSTRUCTION AND TAKE APPROPRIATE PRECAUTIONS TO PROTECT DURING CONSTRUCTION.
4. SOILS SHOWN ARE TAKEN FROM UNITED STATES DEPARTMENT OF AGRICULTURE SOILS SURVEY WEBSITE.
5. A HIGHWAY OCCUPANCY PERMIT IS REQUIRED PURSUANT TO SECTION 420 OF THE ACT OF JUNE 1, 1945 (P.L. 1242, NO. 428) KNOWN AS THE "STATE HIGHWAY LAW" BEFORE DRIVEWAY ACCESS TO A STATE HIGHWAY IS PERMITTED. PERMIT W-6256-03 FROM THE PA DEPARTMENT OF TRANSPORTATION FOR THE INSTALLATION OF THE TRAIL CROSSING OF DORLAN MILL ROAD WITH FLASHING WARNING DEVICES WAS ISSUED ON AUGUST 3, 2017.

CONSTRUCTION AND DETAIL NOTES:

1. ALL STORM SEWER, PAVEMENT, GRADING AND OTHER RELATED SITE CONSTRUCTION TO BE COMPLETED IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF THE TOWNSHIP OF UPPER UWCHLAN AND THE COMMONWEALTH OF PENNSYLVANIA, DEPARTMENT OF TRANSPORTATION, PUBLICATION 408, LATEST REVISION.
2. CONTRACTOR IS SOLELY RESPONSIBLE FOR DISPOSAL OF ALL EXCESS AND WASTE MATERIALS IN ACCORDANCE WITH STATE, LOCAL AND FEDERAL REGULATIONS.
3. CONTRACTOR SHALL COMPLY WITH THE PROVISIONS OF ALL STATE AND/OR LOCAL REGULATIONS RELATING TO EXCAVATION AND DEMOLITION WORK IN THE VICINITY OF UNDERGROUND UTILITIES.
4. WORK SHALL BE IN ACCORDANCE WITH PENNDOT PUBLICATION 408, APRIL 2011, LATEST REVISION.
5. TRAFFIC CONTROL PAVEMENT MARKINGS AND SIGNING STANDARDS (TC-8600 AND TC-8700 SERIES), PUB 11M, MAY 2007, LATEST REVISION.
6. MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, US DEPARTMENT OF TRANSPORTATION, FHWA, 2009.
7. WORK ZONE TRAFFIC CONTROL GUIDELINES, PUBLICATION 213, APRIL 2010 (67 PA CODE, CHAPTER 212).
8. STANDARDS FOR ROADWAY CONSTRUCTION (SERIES RC 1M TO 100M), PENNDOT PUBLICATION 72M, JUNE 2010, OR AS AMENDED.
9. OFFICIAL TRAFFIC CONTROL DEVICES, PUBLICATION 212, MARCH 2006.
10. DETAILS OTHER THAN THOSE INDICATED HEREIN, ARE SHOWN ON THE FOLLOWING STANDARD PENNDOT DRAWINGS (PUBLICATION 72M):
CLASSIFICATION OF CROWNS
PAY LIMIT OR SUBGRADE RC-10M
PIPE EXCAVATION, BEDDING & BACKFILL RC-13M
CURBS AND GUTTERS RC-30M
CURB RAMPS AND SIDEWALKS RC-64M
PERIMETER DRAINAGE DEVICES RC-67M
INLET AND OUTLET PROTECTION RC-72M
CHANNEL AND SLOPE PROTECTION RC-73M
DEWATERING DEVICES RC-75M
ROCK CONSTRUCTION ENTRANCE RC-77M
PAVEMENT MARKINGS TC-8600
POST MOUNTED SIGNS, TYPE B TC-8702B
11. THE CONTRACTOR IS RESPONSIBLE FOR REPAIR OF ANY DAMAGE CAUSED BY CONSTRUCTION TO THE EXISTING PAVED PORTION OF THE STRUBLE TRAIL. REPAIR TO BE COMPLETED AT NO ADDITIONAL COST TO THE COUNTY.
12. ALL PROPOSED PEDESTRIAN FACILITIES REFLECTED ON THESE PLANS SHALL BE CONSTRUCTED TO COMPLY WITH THE FOLLOWING STANDARDS:
- 12.1. PENNDOT DESIGN MANUAL 2, CHAPTER 6.
- 12.2. PENNDOT STANDARDS FOR ROADWAY CONSTRUCTION, PUBLICATION 72M, RC-67M.
- 12.3. U.S. ACCESS BOARD, ADA ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES (ADAAG) AND ALL APPLICABLE US ACCESS BOARD STANDARDS AND GUIDELINES IN PLACE AT THE TIME OF CONSTRUCTION.

CONSTRUCTION NOTES:

1. IF THE CONTRACTOR DEVIATES FROM THE PLANS AND SPECIFICATION, INCLUDING THE NOTES CONTAINED THEREON, WITHOUT FIRST OBTAINING PRIOR WRITTEN AUTHORIZATION FOR SUCH DEVIATIONS FROM THE OWNER AND ENGINEER, IT SHALL BE RESPONSIBLE FOR THE PAYMENT OF ALL COSTS TO CORRECT ANY WORK DONE. ALL FINES OR PENALTIES ASSESSED WITH RESPECT THERETO AND ALL COMPENSATORY OR PUNITIVE DAMAGES RESULTING THEREFROM AND IT SHALL INDEMNIFY AND HOLD THE OWNER AND ENGINEER HARMLESS FROM ALL SUCH COSTS TO CORRECT ANY SUCH WORK AND FROM ALL SUCH FINES AND PENALTIES, COMPENSATION AND PUNITIVE DAMAGES AND COSTS OF ANY NATURE RESULTING THEREFROM.
2. FEATURES TO BE REMOVED ARE NOTED ON THE EXISTING FEATURES PLAN, THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION OR FABRICATION SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWED ALL PLANS AND OTHER DOCUMENTS PROVIDED BY ALL OF THE PERMITTING AUTHORITIES.
3. THE OWNER/CONTRACTOR SHALL BE FAMILIAR WITH AND RESPONSIBLE FOR ANY/ALL CERTIFICATIONS, INSPECTIONS, ETC. REQUIRED BY ALL GOVERNING 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 REPORTING ACTIVITIES OF GOVERNING JURISDICTIONAL AGENCIES. CONTRACTOR IS RESPONSIBLE TO OBTAIN CERTIFICATIONS, SIGN-OFFS, ETC. NECESSARY FOR JOB CLOSE-OUT AND ISSUANCE OF CERTIFICATE OF OCCUPANCY. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS, SPECIFICATIONS, REFERENCED DOCUMENTS, AND THE REQUIREMENTS AND STANDARDS OF THE LOCAL GOVERNING AUTHORITY.
4. THE SOILS REPORT AND RECOMMENDATIONS SET FORTH THEREIN ARE A PART OF THE REQUIRED PERMITTING CONSTRUCTION DOCUMENTS AND IN CASE OF CONFLICT SHALL TAKE PRECEDENCE UNLESS SPECIFICALLY NOTED OTHERWISE ON THE PLANS. THE CONTRACTOR SHALL NOTIFY THE TOWNSHIP ENGINEER IN WRITING OF ANY SUCH DISCREPANCY BETWEEN SOILS REPORT AND PLANS, ETC. THESE PLANS ARE BASED ON INFORMATION PROVIDED TO OUR OFFICE AT THE TIME OF PLAN PREPARATION. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND NOTIFY THE TOWNSHIP ENGINEER IF ACTUAL SITE CONDITIONS DIFFER FROM, THAT SHOWN ON THE PLAN, OR IF THE PROPOSED WORK WOULD BE INHIBITED BY ANY OTHER SITE FEATURES.
5. ALL DIMENSIONS SHOWN ON THE PLANS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY THE TOWNSHIP ENGINEER IN WRITING IF ANY DISCREPANCIES EXIST. PRIOR TO COMMENCEMENT OF CONSTRUCTION, EXCESS COMPENSATION SHALL BE PAID TO THE CONTRACTOR FOR WORK HAVING TO BE DONE DUE TO DIMENSIONS OR GRADES SHOWN INCORRECTLY ON THESE PLANS IF SUCH NOTIFICATIONS HAVE NOT BEEN PROVIDED.
6. THE CONTRACTOR IS TO EXERCISE EXTREME CARE WHEN PERFORMING ANY WORK ACTIVITIES ADJACENT TO PREVIOUSLY EXISTING FEATURES. CONTRACTOR SHALL BE RESPONSIBLE FOR TAKING THE APPROPRIATE MEASURES AS NECESSARY TO ENSURE THE STRUCTURAL STABILITY OF SIDEWALKS AND PAVEMENT TO REMAIN AND PROVIDE A SAFE WORK AREA. THE CONTRACTOR SHALL BE RESPONSIBLE FOR AND SHALL REPLACE ANY SIGNAL INTERCONNECT CABLE, CONDUITS, AND ANY UNDERGROUND ACCESSORY EQUIPMENT DAMAGED DURING CONSTRUCTION.
7. 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, CURBS, ETC. REPAIR SHALL BE EQUAL TO OR BETTER THAN EXISTING CONDITIONS. THE CONTRACTOR IS RESPONSIBLE FOR DOCUMENTING ALL EXISTING DAMAGES OF THE SITE PRIOR TO CONSTRUCTION.
8. ALL CONCRETE SHALL HAVE THE MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS AS INDICATED IN SPECIFICATIONS AND REFERENCED DOCUMENTS UNLESS OTHERWISE NOTED ON THE PLANS, DETAILS.
9. THE ENGINEER IS NOT RESPONSIBLE FOR CONSTRUCTION MEANS AND METHODS FOR COMPLETION OF THE WORK DEPICTED ON THESE PLANS NOR ANY CONFLICTS/SCOPE REVISIONS WHICH RESULT FROM SAME. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE MEANS AND METHODS FOR COMPLETION OF THE WORK PRIOR TO THE COMMENCEMENT OF CONSTRUCTION AND NOTIFICATION OF OWNER AND ENGINEER OR RECORD WHEN A CONFLICT IS IDENTIFIED.
10. THE ENGINEER OF RECORD IS NOT RESPONSIBLE FOR JOB SAFETY NOR HAS HE OR SHE BEEN RETAINED FOR SUCH PURPOSES.
11. SIGNAGE AND STRIPING FOR THIS PROJECT SHALL BE INSTALLED IN ACCORDANCE WITH PENNDOT AND THE TOWNSHIP'S REQUIREMENTS.
12. ALL CONTRACTORS MUST CARRY STATUTORY WORKERS COMPENSATION, EMPLOYERS LIABILITY INSURANCE, AND APPROPRIATE LIMITS OF COMMERCIAL GENERAL LIABILITY INSURANCE (COL). ALL CONTRACTORS MUST HAVE PENNSYLVANIA ENDORSED CHESTER COUNTY AUTOMOBILE INSURANCE(S) AND COMMERCIAL INSURED AND TO PROVIDE CONTRACTUAL LIABILITY COVERAGE SUFFICIENT TO ENSURE THE HOLD HARMLESS AND INDEMNITY OBLIGATIONS ASSUMED BY THE CONTRACTORS. ALL CONTRACTORS MUST FURNISH CHESTER COUNTY WITH CERTIFICATIONS OF INSURANCE AS EVIDENCE OF THE REQUIRED INSURANCE PRIOR TO COMMENCING WORK AND UPON RENEWAL OF EACH POLICE DURING THE ENTIRE PERIOD OF CONSTRUCTION. IN ADDITION, ALL CONTRACTORS WILL TO THE FULLEST EXTENT PERMITTED BY LAW, INDEMNIFY AND HOLD HARMLESS THE COUNTY AND THE TOWNSHIP OF UPPER UWCHLAN AGAINST ANY AND ALL LIABILITIES OR COSTS, INCLUDING REASONABLE ATTORNEYS' FEES AND DEFENSE COSTS, ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE PROJECT, INCLUDING ALL CLAIMS BY EMPLOYEES OF THE CONTRACTORS.
13. ALL STORM SEWER, PAVEMENT, GRADING AND OTHER RELATED SITE CONSTRUCTION TO BE COMPLETED IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF THE TOWNSHIP OF UPPER UWCHLAN AND THE COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF TRANSPORTATION PUBLICATION 408, LATEST VERSION.
14. ALL SHEETING AND SHORING FOR EXCAVATION SHALL MEET OSHA SAFETY STANDARDS. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ADEQUATELY BRACE, SUPPORT, PROTECT ANY AND ALL EXCAVATION STRUCTURES OR CONCRETE THROUOUT CONSTRUCTION UNTIL IT IS COMPLETE IN ITS FINISHED STATE. COSTS FOR DAMAGES TO ANY STRUCTURE OR EXCAVATION DUE TO IMPROPER BRACING OR PROTECTION SHALL BE SOLELY BORNE BY THE CONTRACTOR.
15. CONTRACTOR SHALL SECURE HIS WORK (BEFORE HE LEAVES THE SITE UNATTENDED) ON A DAILY BASIS AND SHALL FILL OR PLATE ALL EXCAVATION AND PROVIDE BARRICADES AND WARNING SIGNS AROUND ALL STRUCTURES BEING ERECTED.
16. ALL BUILDING STRUCTURES SHALL MEET LOCAL BUILDING CODE REQUIREMENTS. ALL STRUCTURAL ELEMENTS OF BUILDING STRUCTURES SHALL BE DESIGNED BY A STRUCTURAL ENGINEER REGISTERED IN THE STATE OF PENNSYLVANIA. SEALED STRUCTURAL DRAWINGS SHALL BE SUBMITTED WITH ALL OTHER SHOP DRAWINGS REQUIRED.
17. CONTRACTOR IS SOLELY RESPONSIBLE FOR DISPOSAL OF ALL EXCESS AND WASTE MATERIALS IN ACCORDANCE WITH STATE, LOCAL AND FEDERAL REGULATIONS.
18. CONTRACTOR SHALL COMPLY WITH THE PROVISIONS OF ALL STATE AND/OR LOCAL ONE CALL REGULATIONS RELATING TO EXCAVATION AND DEMOLITION WORK IN THE VICINITY OF UNDERGROUND UTILITIES.
19. UPON FINAL APPROVAL, THE CERTIFICATE OF COMPLIANCE AND CERTIFICATE OF OWNERSHIP WILL BE COMPLETED.
20. UPON COMPLETION OF OTHER CONSTRUCTION, THE ENTIRE AMOUNT OF TOPSOIL STRIPPED SHALL BE REPLACED ON THE SITE (IF POSSIBLE). NO TOPSOIL SHALL BE DISPOSED OF, BY SALE OR OTHERWISE, OFF THE SITE OF CONSTRUCTION WITHOUT TOWNSHIP APPROVAL.

DEDICATION NOTE:

NO IMPROVEMENTS AT THE SITE ARE BEING OFFERED FOR DEDICATION TO THE TOWNSHIP.

BRANDYWINE CREEK HQ-TSF, MF WATERSHED NOTE

BRANDYWINE CREEK IS HIGH QUALITY TROUT STOCKING, MIGRATORY FISHES (HQ-TSF, MF) AS LISTED BY THE PADEP CHAPTER 93 STREAM DESIGNATION LIST.

EXISTING SOIL TYPES:

GD—GLADSTONE—PARKER GRAVELLY LOAM, 15–25% SLOPES, WELL DRAINED, 80" TO WATER TABLE
HO—HATBRO SILT LOAM, POORLY DRAINED, 0–6" TO WATER TABLE
PGE—PARKER GRAVELLY LOAM, 25–35% SLOPES, EXCESSIVELY DRAINED, +80" TO WATER TABLE

WETLANDS:

WETLANDS WERE NOT EVALUATED SINCE THE SOILS IN THE AREA OF THE TRAIL CONSTRUCTION ARE WELL DRAINED WITH A WATER TABLE AT 80 INCHES.

STEEP SLOPES:

2,269 SF OF 15–25% PRECAUTIONARY STEEP SLOPES ARE WITHIN THE TRAIL EASEMENT AND WILL BE DISTURBED NORTH OF DORLAN MILL ROAD AND 2,800 SF OF 15–25% PRECAUTIONARY STEEP SLOPES WILL BE DISTURBED SOUTH OF DORLAN MILL ROAD.

11,120 SF OF +25% PROHIBITIVE STEEP SLOPES ARE WITHIN THE TRAIL EASEMENT AND WILL BE DISTURBED NORTH OF DORLAN MILL ROAD. NO PROHIBITIVE STEEP SLOPES WILL BE DISTURBED SOUTH OF DORLAN MILL ROAD.

ZONING ORDINANCE SECTION 200-107.D(2)(g) LISTS PASSIVE RECREATION (DEFINED TO INCLUDE HIKING AND BIKING) AS A PERMITTED USE IN PROHIBITIVE SLOPES AND SECTION 200-107.D(3)(g)[1] LISTS PASSIVE RECREATION AS A PERMITTED USE IN PRECAUTIONARY SLOPES.

SURVEY NOTES:

1. SITE INFORMATION:

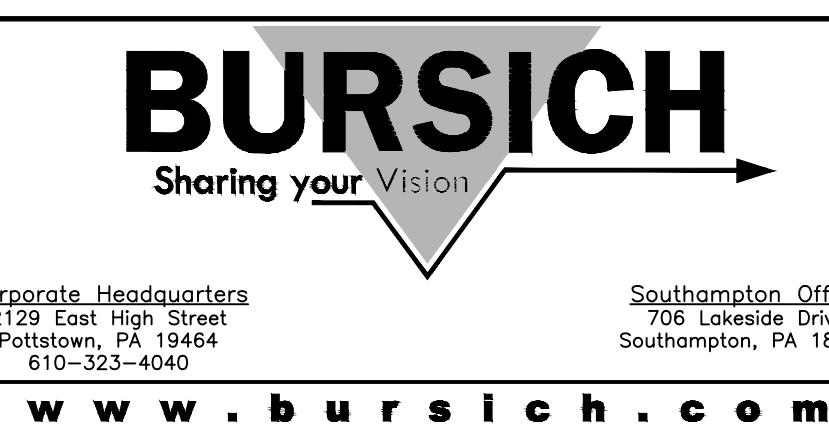
ZONING: LI – LIMITED INDUSTRIAL DISTRICT
TAX PARCELS: #32-6-48.1, #32-6-49, #32-6-49.2, #32-6-65.1, AND #32-6-66

2. THIS DRAWING REFERENCES THE FOLLOWING PLANS BY:
LAKE ROEDER HILLARD & BEERS
ENTITLED: STRUBLE TRAIL, BOUNDARY SURVEY, CHESTER COUNTY PARKS & RECREATION DEPARTMENT.
DATED: SEPTEMBER 2, 2013
TRACT BOUNDARY INFORMATION TAKEN FROM "FINAL MINOR SUBDIVISION PLAN OF LANDS N/L SHRYOCK BROTHERS, INC, DORLAN MILL ROAD" PREPARED BY JAMES W. MACCOMBIE, JUNE 20, 2008.

3. BOUNDARY, PHYSICAL FEATURES, TOPOGRAPHY, AND UTILITY INFORMATION TAKEN FROM FIELD SURVEY.

BENCH MARK LOCATION:

PROJECT BENCH MARK: EXISTING SANITARY MANHOLE RIM 147' EAST OF DORLAN MILL ROAD 4' SOUTH OF EXISTING GRAVEL TRAIL. RIM ELEVATION = 282.57' DATUM SHIFT TO NGVD 29 – 0.66'. NGVD 29 ELEVATION OF MANHOLE = 281.91' PER GPS OBSERVATION AND OPUS SOLUTION. CONVERTED TO NGVD 29 USING VERTCON.

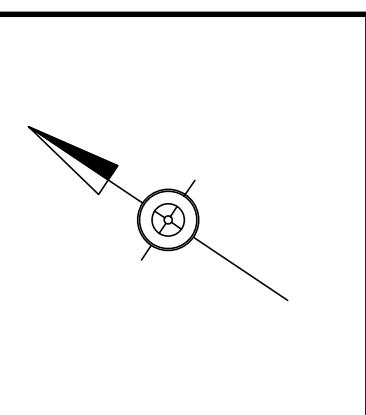


CLIENT
CHESTER COUNTY, DEPARTMENT OF FACILITIES
313 W. MARKET STREET
SUITE 5402
P.O. BOX 2748
WEST CHESTER, PA 19380

SUBJECT
GENERAL NOTES
RECORD PLAN 2 OF 8
STRUBLE TRAIL
EXTENSION II
UPPER UWCHLAN TOWNSHIP, CHESTER COUNTY, PENNSYLVANIA

RECORD PLAN 2 OF 4
JOB NO. 137340.01A
SHEET NO. 2 OF 18
DWG. NO. GN137340-1A

1. REVISIONS PER OWNER AND TOWNSHIP CONSULTANTS REVIEWS	12/21/22	AJK
NO.	REVISION	DATE BY APP.



EXISTING EASEMENTS LINE TABLE		
Line #	Length	Direction
L1	71.23	S35° 25' 29"E
L2	70.43	N46° 30' 34"W
L3	175.23	N44° 02' 14"W
L4	175.70	S48° 30' 39"E
L5	17.31	N58° 21' 29"W
L6	33.59	N44° 08' 07"W
L7	99.05	N41° 37' 41"W
L8	14.28	N48° 55' 11"E
L9	117.98	S40° 24' 37"E
L10	25.32	S60° 30' 42"E
L11	11.30	S42° 49' 05"E

EXISTING EASEMENTS CURVE TABLE				
Curve #	Length	Radius	Chord Bearing	Distance
C1	14.38	91.50	S65° 11' 45"W	14.37

SOILS LIST

GdB - GLADSTONE GRAVELLY LOAM, 3 TO 8 PERCENT SLOPES
Gdc - GLADSTONE GRAVELLY LOAM, 8 TO 15 PERCENT SLOPES
GeD - GLADSTONE-PARKER GRAVELLY LOAMS, 15 TO 25 PERCENT SLOPES
Ha - HATBORO SILT LOAM
PaE - PARKER GRAVELLY LOAM, 25 TO 35 PERCENT SLOPES
PaF - PARKER GRAVELLY LOAM, 35 TO 60 PERCENT SLOPES
W - WATER

AREA OF WOODLANDS TO BE REMOVED FOR TRAIL PROJECT: 0.41 ACRES

CLIENT

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SUBJECT

EXISTING FEATURES/SITE ANALYSIS AND IMPACT PLAN

STRUBLE TRAIL EXTENSION II

JOB NO.	137340.01A
SHEET NO.	5 OF 18
DWG. NO.	EF137340-1A

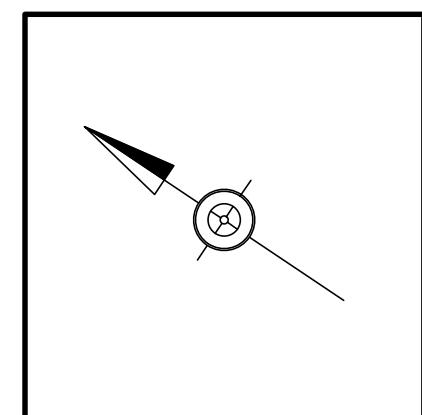
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THE USER AND BURSICH ASSOCIATES, INC. WHICH SHALL INDEMNIFY AND SAVE HARMLESS BURSICH ASSOCIATES, INC.

SEAL	MANAGER	NEF _____
	DESIGN KK	CHKD. BY
	DRAFT AJK	CHKD. BY
	FILE CHE-22	DATE MAY 1, 2019
	NOTES	SCALE 1"=30'

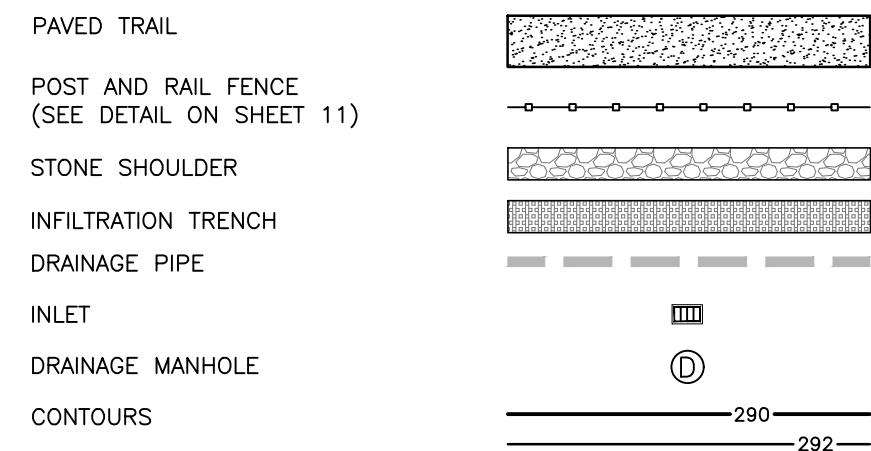
Corporate Headquarters

Southampton Office

010-525-4040 www.silch.com

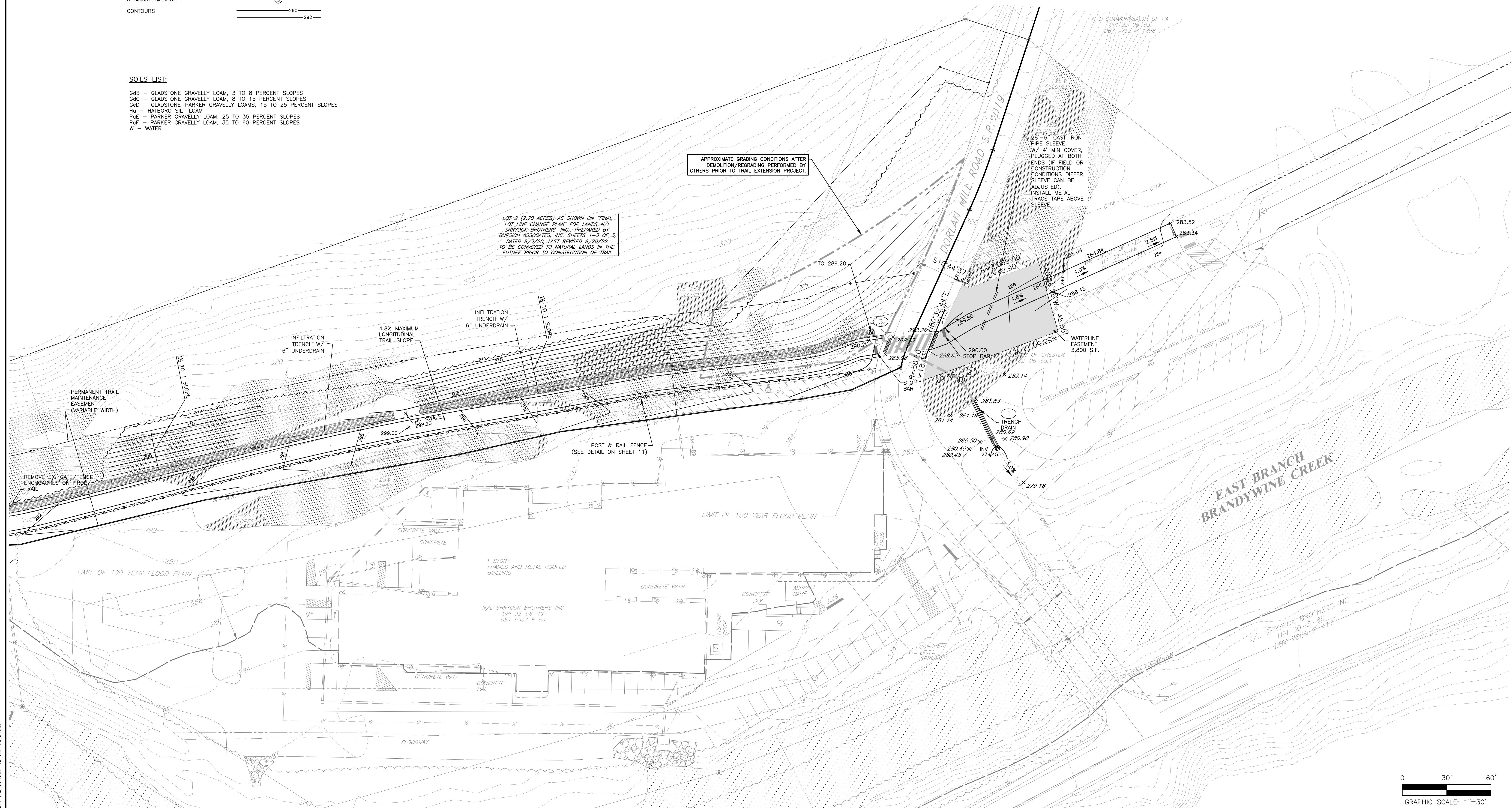


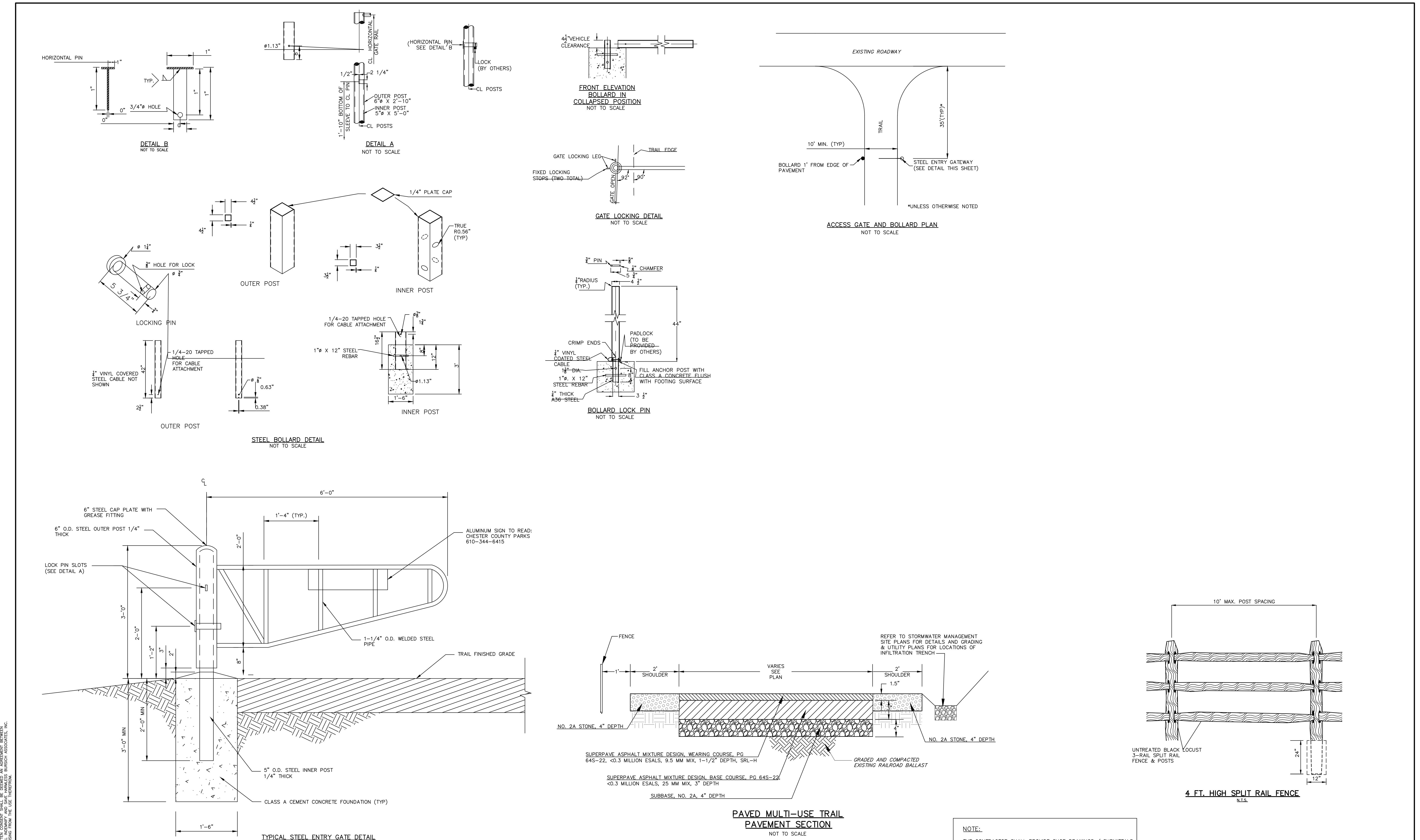
PROPOSED FEATURES LEGEND:



SOILS LIST:

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 GdC - GLADSTONE GRAVELLY LOAM, 8 TO 15 PERCENT SLOPES
 GeD - GLADSTONE-PARKER GRAVELLY LOAMS, 15 TO 25 PERCENT SLOPES
 Ho - HATBORO SILT LOAM
 PaE - PARKER GRAVELLY LOAM, 25 TO 35 PERCENT SLOPES
 PaF - PARKER GRAVELLY LOAM, 35 TO 60 PERCENT SLOPES
 W - WATER





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1.	REVISIONS PER OWNER AND TOWNSHIP CONSULTANTS REVIEWS	12/21/22	
NO.	REVISION	DATE	

		SEAL
AJK		
BY	APP.	

SEAL

	MANAGER
	DESIGN
	DRAFT
	FILE
	NOTES

NEF _____	
KK	CHKD. BY
AJK	CHKD. BY
CHE-22	DATE MAY 1
	SCALE

BUR

Sharing your

CLIENT

SUBJECT
CONSTRUCTION DETAILS

**STRUBLE TRAIL
EXTENSION II**

UPPER UWCHLAN TOWNSHIP, CHESTER COUNTY, PENNSYLVANIA

JOB NO. 137340.01A
SHEET NO. 11 OF 18
DWG. NO. CD237340-1

APPROVALS REQUIRED FOR THIS PROJECT INCLUDE THE FOLLOWING:

- 1) EROSION AND SEDIMENT CONTROL PLAN APPROVAL
- 2) PENNDOT HIGHWAY OCCUPANCY PERMIT

APPLICANT STORMWATER ACKNOWLEDGEMENT

THE APPLICANT HEREBY ACKNOWLEDGES THAT ANY REVISION TO THE APPROVED SWM SITE PLAN SHALL BE SUBMITTED TO AND APPROVED BY THE TOWNSHIP OF UPPER UWCHLAN. A REVISED EROSION AND SEDIMENT CONTROL PLAN MUST BE SUBMITTED TO, AND APPROVED BY, THE CONSERVATION DISTRICT OR MUNICIPALITY (AS APPLICABLE) FOR A DETERMINATION OF ADEQUACY PRIOR TO CONSTRUCTION OF THE REVISED FEATURES.

APPLICANT _____ DATE _____

DESIGN ENGINEER STORMWATER CERTIFICATION

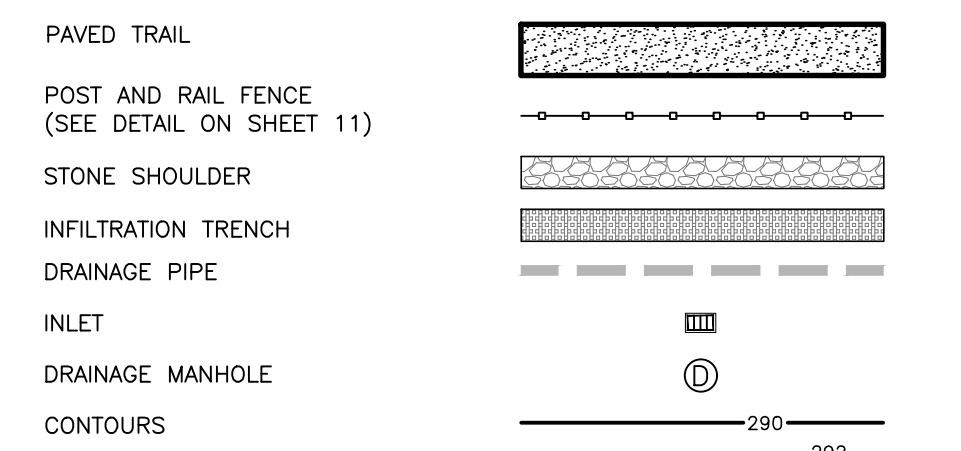
I, _____, ON THIS DATE, HEREBY CERTIFY TO THE BEST OF MY KNOWLEDGE THAT THE SWM SITE PLAN MEETS ALL DESIGN STANDARDS AND CRITERIA OF CHAPTER 152, OF THE TOWNSHIP OF UPPER UWCHLAN STORMWATER MANAGEMENT ORDINANCE.

ENGINEER _____ DATE _____

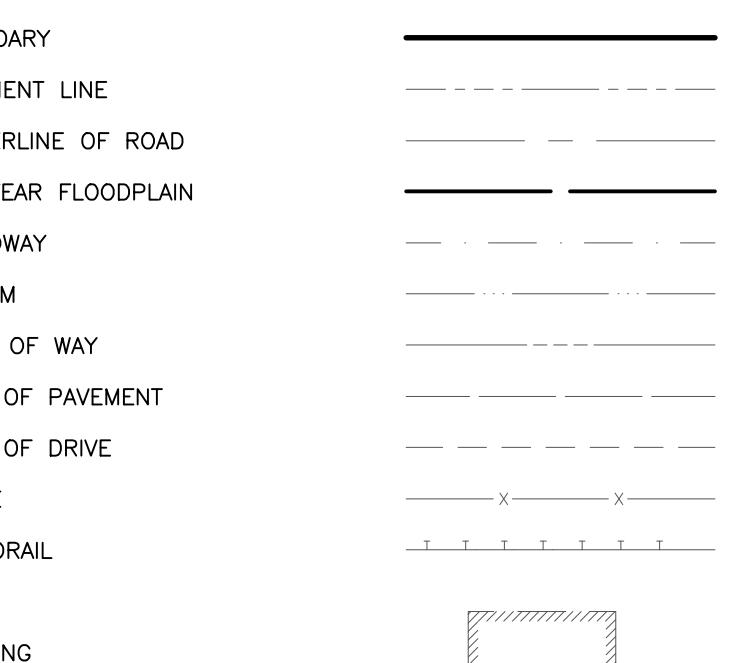
NOTES:

1. PER SECTION 402.B.8.C OF THE STORMWATER MANAGEMENT ORDINANCE - A BLANKET EASEMENT SHALL BE PROVIDED FOR UPTER UWCHLAN TOWNSHIP ACCESS TO THE STORMWATER MANAGEMENT FACILITIES, SHOULD MAINTENANCE BE REQUIRED.
2. PER SECTION 152-702.B.4 OF THE STORMWATER MANAGEMENT ORDINANCE - THE LANDOWNER ACKNOWLEDGES THAT, PER THE PROVISIONS OF THE MUNICIPALITY'S STORMWATER MANAGEMENT ORDINANCE, IT IS UNLAWFUL TO MODIFY, REMOVE, FILL, LANDSCAPE, PLANT OR OTHERWISE ALTER, DESTROY, OR REMOVE ANY PLANT, FLOWERING, OTHER VEGETATION, YARD WASTE, BRUSH CUTTINGS, OR OTHER WASTE OR DEBRIS, INTO ANY PERMANENT STORMWATER MANAGEMENT BMP OR CONVEYANCE DESCRIBED IN THIS O&M PLAN OR TO ALLOW THE BMP OR CONVEYANCE TO EXIST IN A CONDITION WHICH DOES NOT CONFORM TO THE O&M PLAN WITHOUT WRITTEN APPROVAL FROM THE MUNICIPALITY.
3. PER SECTION 152-702.C OF THE STORMWATER MANAGEMENT ORDINANCE - NO BMP OR MAN-MADE CONVEYANCE MAY BE USED BY THE OWNER OR OTHERS FOR ANY PURPOSE OTHER THAN ITS INTENDED STORMWATER CONTROL FUNCTION.
4. PER SECTION 152-703.C OF THE STORMWATER MANAGEMENT ORDINANCE - AFTER APPROVAL OF THE FINAL AS-BUILT PLANS PER THE REQUIREMENTS OF ARTICLE V, THE APPLICANT SHALL REVIEW AND, IF NECESSARY AND IF REQUIRED BY THE MUNICIPALITY, REVISE AND RE-RECORD THE O&M PLAN AND O&M AGREEMENT TO REFLECT THE FINAL AS-BUILT CONDITIONS OF EACH BMP AND CONVEYANCE IF DIFFERENT FROM THE INFORMATION INCLUDED IN THE ORIGINAL RECORDED DOCUMENTS.
5. PER SECTION 152-705.B OF THE STORMWATER MANAGEMENT ORDINANCE - NO PERSON SHALL MAKE RECORDS OF THE OPERATION AND MAINTENANCE OF A BMP OR CONVEYANCE, SHALL MAKE RECORDS OF THE INSTALLATION AND OF ALL MAINTENANCE AND REPAIRS, AND SHALL RETAIN THE RECORDS FOR AT LEAST 10 YEARS. THESE RECORDS SHALL BE SUBMITTED TO THE MUNICIPALITY, IF REQUESTED.
6. PER SECTION 152-705.C OF THE STORMWATER MANAGEMENT ORDINANCE - UPON FINAL INSPECTION, THE MUNICIPALITY SHALL INFORM THE PERSON RESPONSIBLE FOR THE OPERATION AND MAINTENANCE WHETHER THE SUBMISSION OF PERIODIC (ANNUAL OR OTHER FREQUENCY) INSPECTION AND MAINTENANCE REPORTS WILL BE REQUIRED.
7. PER SECTION 152-705.D OF THE STORMWATER MANAGEMENT ORDINANCE - THE OWNER OF EACH BMP AND CONVEYANCE SHALL KEEP ON FILE WITH THE MUNICIPALITY THE NAME, ADDRESS AND TELEPHONE NUMBER OF THE PERSON RESPONSIBLE FOR MAINTENANCE ACTIVITIES AND IMPLEMENTATION OF THE O&M PLAN. IN THE EVENT OF A CHANGE, NEW INFORMATION SHALL BE SUBMITTED BY THE BMP OR CONVEYANCE OWNER TO THE MUNICIPALITY WITHIN 30 DAYS OF THE CHANGE.
8. PER SECTION 152-804A NO PERSON SHALL MODIFY, REMOVE, FILL, LANDSCAPE, PLANT OR OTHERWISE ALTER, DESTROY, OR REMOVE ANY PLANT, FLOWERING, OTHER VEGETATION, YARD WASTE, BRUSH CUTTINGS, OR OTHER WASTE OR DEBRIS, INTO ANY PERMANENT STORMWATER MANAGEMENT BMP OR CONVEYANCE, UNLESS THE ACTIVITY IS PART OF AN APPROVED MAINTENANCE PROGRAM, WITHOUT THE WRITTEN APPROVAL OF THE MUNICIPALITY.
9. PER SECTION 152-804B NO PERSON SHALL PLACE ANY STRUCTURE, FILL LANDSCAPING, ADDITIONAL VEGETATION, YARD WASTE, BRUSH CUTTINGS, OR OTHER WASTE OR DEBRIS INTO A BMP OR CONVEYANCE, OR WITHIN A STORMWATER EASEMENT, THAT WOULD LIMIT OR ALTER THE FUNCTIONING OF THE STORMWATER BMP OR CONVEYANCE, WITHOUT THE WRITTEN APPROVAL OF THE MUNICIPALITY.
10. REFER TO THE POST CONSTRUCTION STORMWATER MANAGEMENT REPORT DATED OCTOBER 2022 FOR SUPPORTING INFORMATION.
11. RAIN GARDEN HAS BEEN DESIGNED TO INCLUDE FUTURE IMPERVIOUS AREA FOR TRAIL EXTENSION FROM PROPOSED TERMINUS AT PARKING LOT TO DORLAN MILL ROAD.

PROPOSED FEATURES LEGEND:



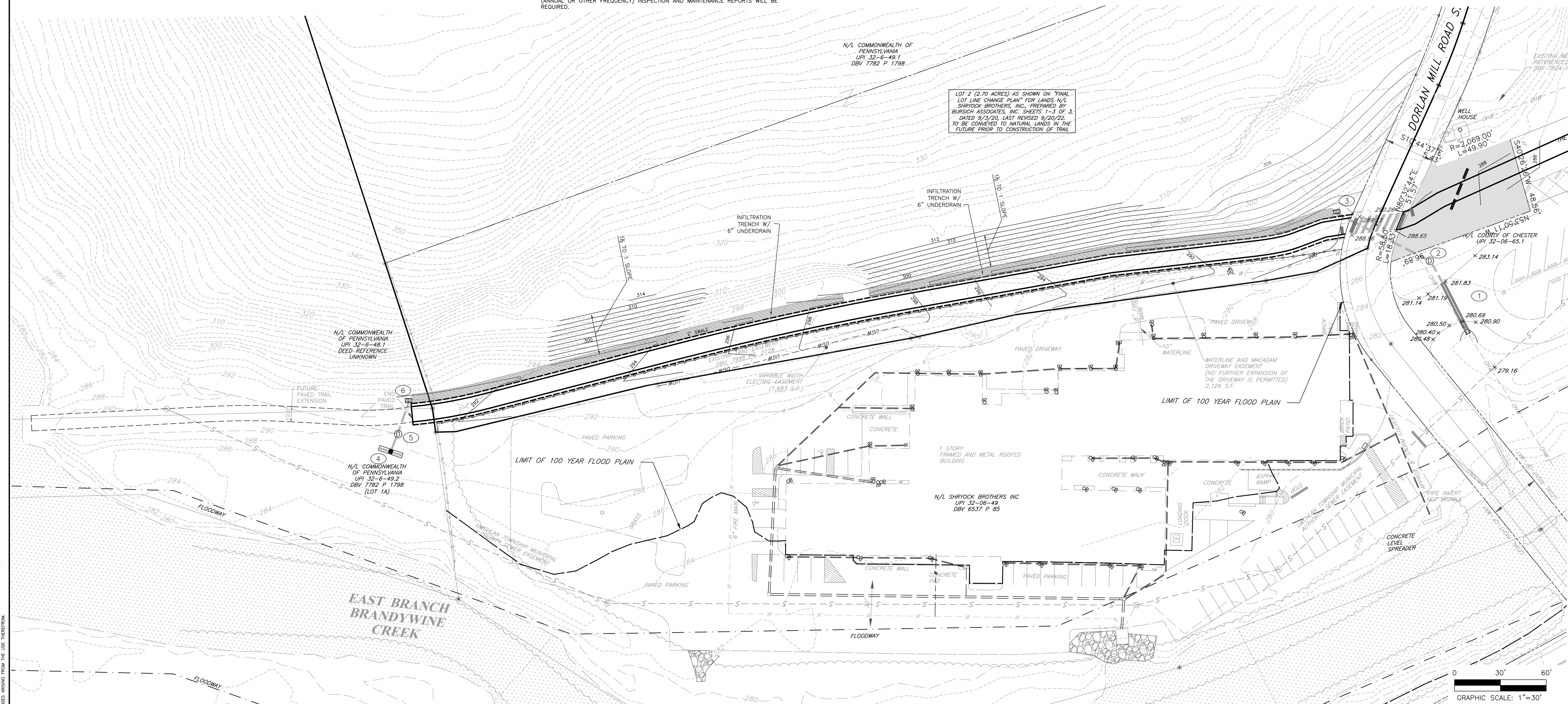
EXISTING FEATURES LEGEND:



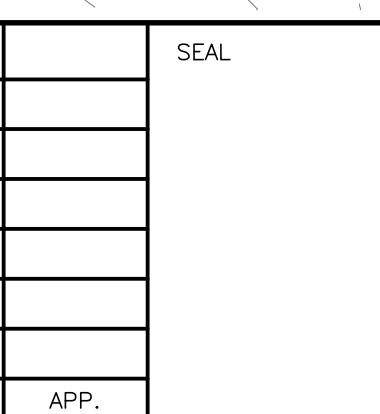
••• H_a •••
W

SOILS:

GdB - GLADSTONE GRAVELLY LOAM, 3 TO 8 PERCENT SLOPES
Gdc - GLADSTONE GRAVELLY LOAM, 8 TO 15 PERCENT SLOPES
Gcb - GLADSTONE GRAVELLY LOAM, 15 TO 25 PERCENT SLOPES
Pd_c - HATBORO SILT LOAM
Pd_e - PARKER GRAVELLY LOAM, 25 TO 35 PERCENT SLOPES
Pof - PARKER GRAVELLY LOAM, 35 TO 60 PERCENT SLOPES
W - WATER



1. REVISIONS PER OWNER AND TOWNSHIP CONSULTANTS REVIEWS	12/21/22	AJK
NO.	REVISION	DATE BY APP.



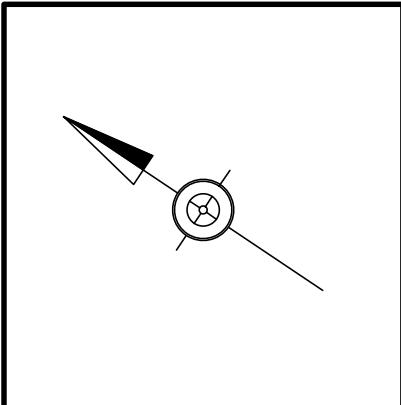
MANAGER
NEF _____
DESIGN KK CHKD. BY _____
DRAFT AJK CHKD. BY _____
FILE CHE-22 DATE MAY 1, 2019
NOTES SCALE 1"=30'

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Corporate Headquarters
2129 East High Street
Pottstown, PA 19464
610-323-4040
Southampton Office
708 Lakeside Drive
Southampton, PA 18966
www.bursich.com

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CHESTER COUNTY, DEPARTMENT OF FACILITIES
313 W. MARKET STREET
SUITE 5402
P.O. BOX 2748
WEST CHESTER, PA 19380

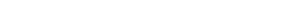
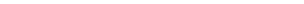
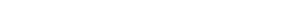
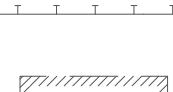
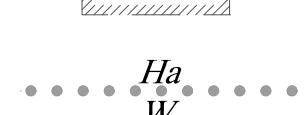
SUBJECT
STORMWATER MANAGEMENT SITE PLAN
AND OPERATION & MAINTENANCE PLAN
RECORD PLAN 5 OF 8
**STRUBLE TRAIL
EXTENSION II**
UPPER UWCHLAN TOWNSHIP, CHESTER COUNTY, PENNSYLVANIA

JOB NO.
137340.01A
SHEET NO.
12 OF 18
DWG. NO.
PC137340-1A



PROPOSED FEATURES LEGEND:

EXISTING FEATURES LEGEND:

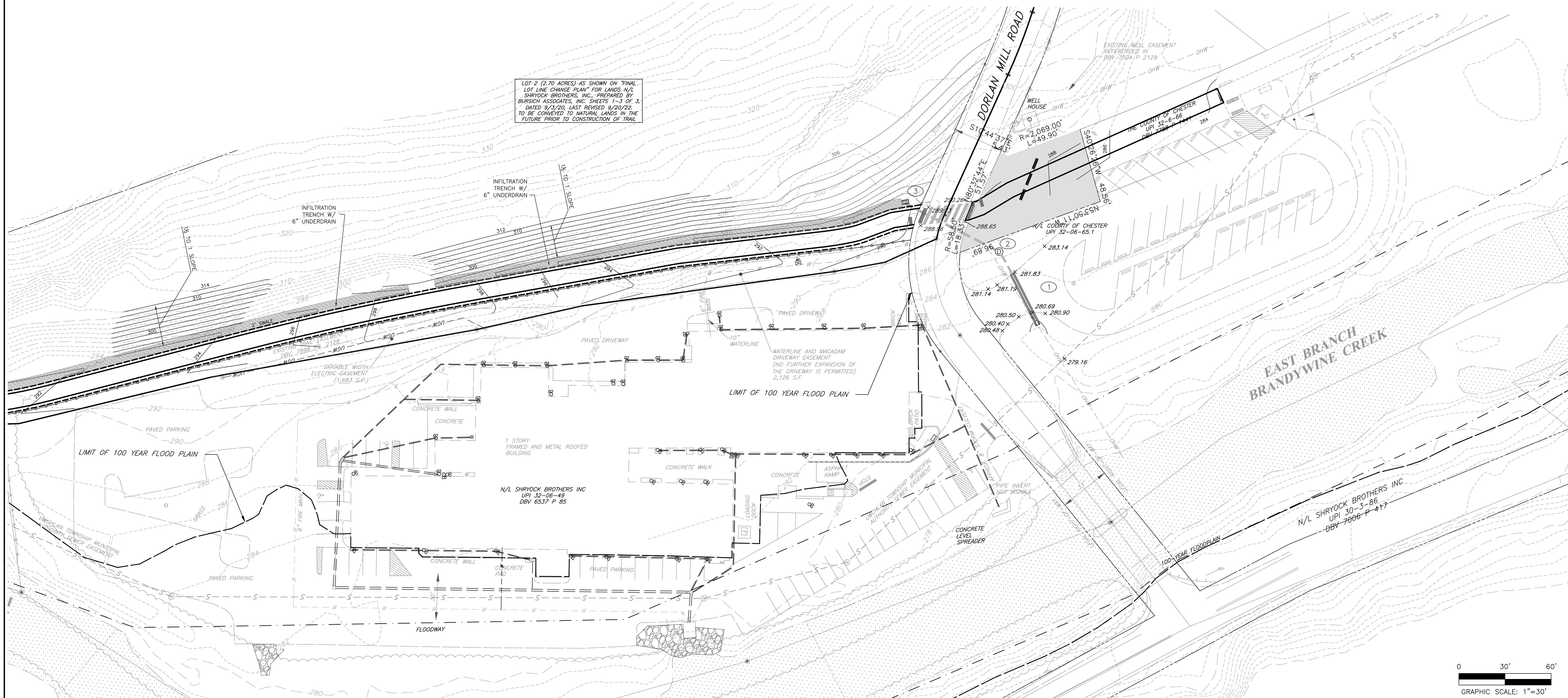
BOUNDARY	
EASEMENT LINE	
CENTERLINE OF ROAD	
100 YEAR FLOODPLAIN	
FLOODWAY	
STREAM	
RIGHT OF WAY	
EDGE OF PAVEMENT	
EDGE OF DRIVE	
FENCE	
GUARDRAIL	
BUILDING	
SOILS TYPE & BOUNDARY LINE	

SOILS:

GdB - GLADSTONE GRAVELLY LOAM, 3 TO 8 PERCENT SLOPES
GdC - GLADSTONE GRAVELLY LOAM, 8 TO 15 PERCENT SLOPES
GeD - GLADSTONE-PARKER GRAVELLY LOAMS, 15 TO 25 PERCENT SLOPES
Ha - HATBORO SILT LOAM
PaE - PARKER GRAVELLY LOAM, 25 TO 35 PERCENT SLOPES
PaF - PARKER GRAVELLY LOAM, 35 TO 60 PERCENT SLOPES
W - WATER

NO

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11. RAIN GARDEN HAS BEEN DESIGNED TO INCLUDE FUTURE IMPERVIOUS AREA FOR TRAIL EXTENSION FROM PROPOSED TERMINUS AT PARKING LOT TO DORLAN MILL ROAD.



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THE USER AND BURSICH ASSOCIATES, INC. WHICH SHALL INDEMNIFY AND SAVE HARMLESS BURSICH ASSOCIATES, INC.

FOR ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES			
1.	REVISIONS PER OWNER AND TOWNSHIP CONSULTANTS REVIEWS	12/21/22	AJ
NO.	REVISION	DATE	B

SEAL

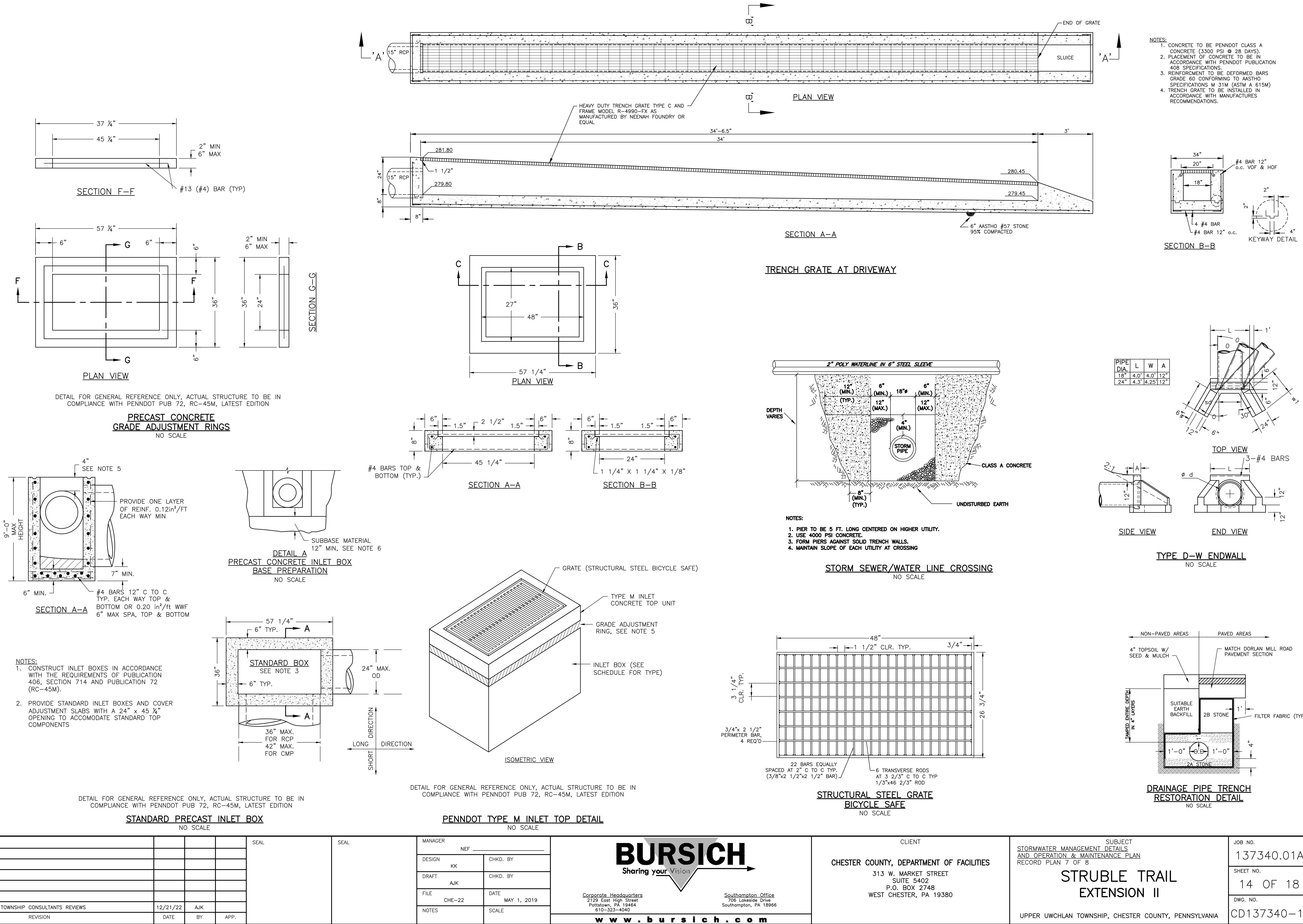
MANAGER	NEF _____
DESIGN KK	CHKD. BY
DRAFT AJK	CHKD. BY
FILE CHE-22	DATE MAY 1, 201
NOTES	SCALE 1"=30'

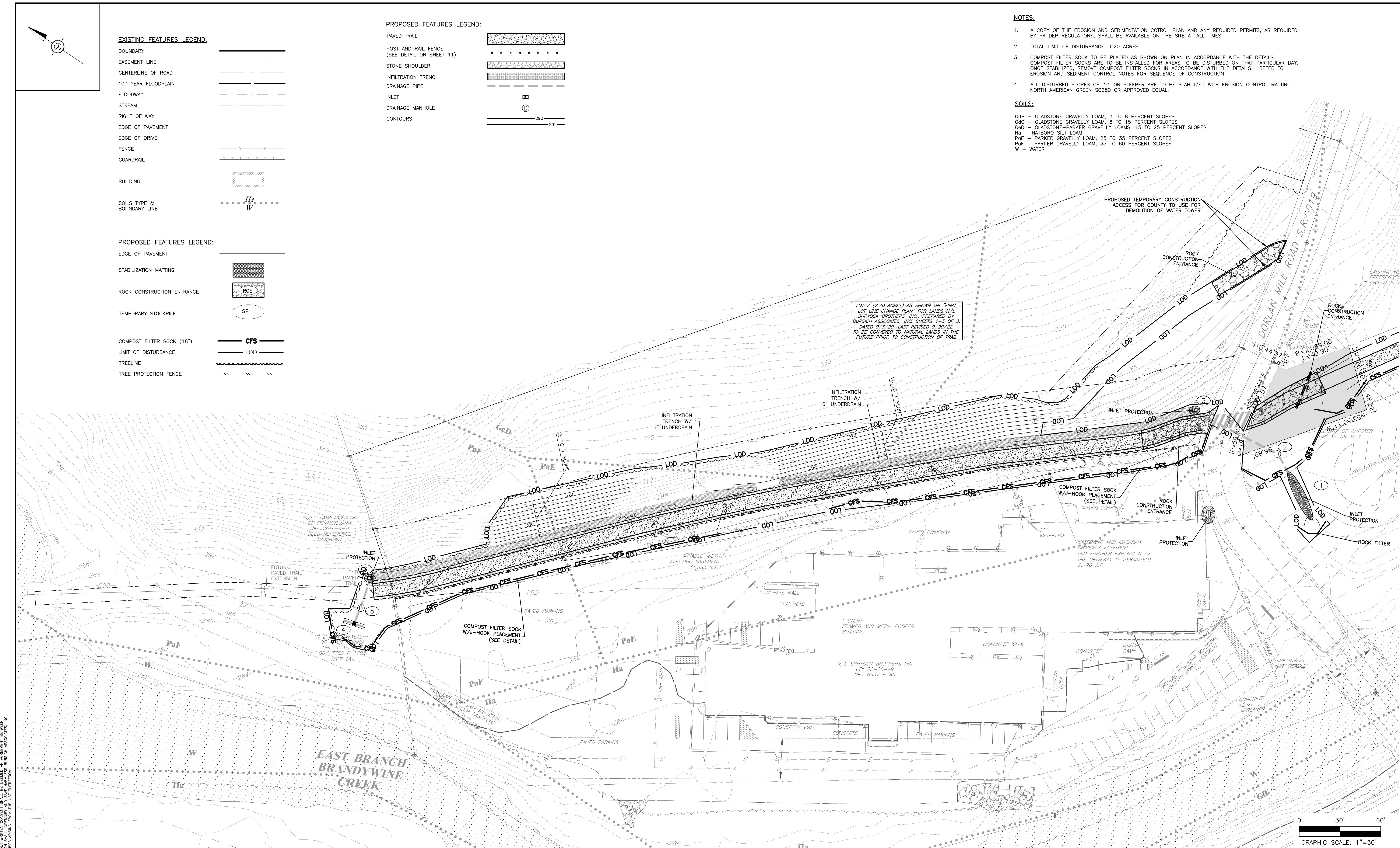
CLIENT
CHESTER COUNTY, DEPARTMENT OF FACILITIES
313 W. MARKET STREET
SUITE 5402
P.O. BOX 2748
WEST CHESTER, PA 19380

SUBJECT
STORMWATER MANAGEMENT SITE PLAN
AND OPERATION & MAINTENANCE PLAN
RECORD PLAN 6 OF 8

STRUBLE TRAIL EXTENSION II

JOB NO.	137340.01A
SHEET NO.	13 OF 18
DWG. NO.	PC237340-1A





NOTES:

1. A COPY OF THE EROSION AND SEDIMENTATION CONTROL PLAN AND ANY REQUIRED PERMITS, AS REQUIRED BY PA DEP REGULATIONS, SHALL BE AVAILABLE ON THE SITE AT ALL TIMES.
2. TOTAL LIMIT OF DISTURBANCE: 1.20 ACRES
3. COMPOST FILTER SOCKS ARE TO BE PLACED AS SHOWN ON PLAN IN ACCORDANCE WITH THE DETAILS. COMPOST FILTER SOCKS ARE TO BE INSTALLED FOR AREAS TO BE DISTURBED ON THAT PARTICULAR DAY. ONCE STABILIZED, REMOVE COMPOST FILTER SOCKS IN ACCORDANCE WITH THE DETAILS. REFER TO EROSION AND SEDIMENT CONTROL NOTES FOR SEQUENCE OF CONSTRUCTION.
4. ALL DISTURBED SLOPES OF 3:1 OR STEEPER ARE TO BE STABILIZED WITH EROSION CONTROL MATTING NORTH AMERICAN GREEN SC250 OR APPROVED EQUAL.

SOILS:

GdB - GLADSTONE GRAVELLY LOAM, 3 TO 8 PERCENT SLOPES
 GdC - GLADSTONE GRAVELLY LOAM, 8 TO 15 PERCENT SLOPES
 GdD - GLADSTONE-PARKER GRAVELLY LOAMS, 15 TO 25 PERCENT SLOPES
 Ho - HATBORO SILT LOAM
 PoE - PARKER GRAVELLY LOAM, 25 TO 35 PERCENT SLOPES
 PoF - PARKER GRAVELLY LOAM, 35 TO 60 PERCENT SLOPES
 W - WATER

1. REVISIONS PER OWNER AND TOWNSHIP CONSULTANTS REVIEWS	12/21/22	AKJ	SEAL	SEAL	MANAGER NEF KK CHKD. BY AJK	DRAFT AJK CHKD. BY AJK	FILE CHE-22 DATE MAY 1, 2019	NOTES SCALE 1"=30'	BURSICH Sharing your Vision	Corporate Headquarters 2129 East High Street Pottstown, PA 19464 610-323-4040	Southampton Office 708 Lakeside Drive Southampton, PA 18966	CLIENT CHESTER COUNTY, DEPARTMENT OF FACILITIES 313 W. MARKET STREET SUITE 5402 P.O. BOX 2748 WEST CHESTER, PA 19380	SUBJECT EROSION AND SEDIMENT CONTROL PLAN STRUBLE TRAIL EXTENSION II	JOB NO. 137340.01A
NO. REVISION	DATE	BY APP.												

SEQUENCE OF CONSTRUCTION

- ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE FOLLOWING SEQUENCE. EACH STAGE SHALL BE COMPLETED BEFORE ANY FOLLOWING STAGE IS INITIATED. CLEARING AND GRUBBING SHALL BE LIMITED ONLY TO THOSE AREAS DESCRIBED IN EACH STAGE.
- AT LEAST 7 DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, THE OWNER SHALL INVITE ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES INCLUDING BUT NOT LIMITED TO: THE LANDOWNER AND ALL APPROPRIATE MUNICIPAL OFFICIALS FOR AN ON SITE PRE-CONSTRUCTION MEETING.
- DELINEATE "LIMITS OF DISTURBANCE" IN THE FIELD AND INSTANT TREE PROTECTION MEASURES PRIOR TO ANY EARTH DISTURBANCE.
- INSTALL ROCK CONSTRUCTION ENTRANCE(S).
- INSTALL COMPOST FILTER SOCKS AS SHOWN ON THE EROSION AND SEDIMENT CONTROL PLAN AND IN ACCORDANCE WITH THE DETAILS AND NOTES PROVIDED.
- REMOVE ALL EXISTING SITE FEATURES THAT ARE TO BE RELOCATED AND STORE IN A SAFE PLACE. NO ON SITE BURNING IS ALLOWED.
- REMOVE TREES AND BRUSH AS NECESSARY. MINIMIZE DISTURBANCE WHERE POSSIBLE. REMOVED TREES ARE THE PROPERTY OF THE CONTRACTOR.
- PLACE EROSION AND SEDIMENT CONTROL MEASURES ABOVE AND BELOW THE AREA OF THE TRENCH DRAIN INSTALLATION ON THE SOUTH SIDE OF DORLAN MILL ROAD AS SHOWN.
- CONSTRUCT TRENCH DRAIN WITHIN THE EXISTING DRIVEWAY AS SHOWN ON THE PLANS. IMMEDIATELY PLACE PERMANENT STABILIZATION ON ALL DISTURBED AREAS. PLACE INLET PROTECTION ON TRENCH DRAIN UNTIL ALL AREAS TRIBUTARY TO THE DRAIN HAVE BEEN COMPLETELY STABILIZED.
- EXCAVATE AND ROUGH GRADE FOR TRAIL CONSTRUCTION ON BOTH NORTH AND SOUTH SIDE OF DORLAN MILL ROAD AS SHOWN ON PLANS.
- INSTALL PROPOSED STONE TRENCH INCLUDING INLETS AND DISCHARGE PIPES IN ACCORDANCE WITH THE PLANS AND PROVIDED DETAILS. WRAP STONE TRENCH AND EXTEND GEOTEXTILE FABRIC OVER TOP OF 18" WIDE OPEN RIVER ROCK BED UNTIL THE TRAIL HAS BEEN PAVED AND ALL AREAS ADJACENT TO THE BED HAVE PERMANENTLY STABILIZED.
- CONSTRUCT TRAIL IN ACCORDANCE WITH THE DETAILS PROVIDED ON THE PLANS.
- INSTALL ALL OTHER SITE FEATURES INCLUDING BENCH, STEEL GATES, BOLLARDS SIGNING AND PAVEMENT MARKINGS ALONG TRAIL AND TRAILHEAD.
- UPON COMPLETION OF TEMPORARY STABILIZATION 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. HYDROSEED IS NOT CONSIDERED STABILIZATION UNTIL IT GERMINATES.
- PRIOR TO REMOVING ANY EROSION AND SEDIMENTATION CONTROLS THE CONTRACTOR SHALL CONSULT WITH THE MUNICIPALITY.
- REMOVE EROSION AND SEDIMENT CONTROL MEASURES ONCE THE DISTURBED AREA IS STABILIZED.
- PLACE TOPSOIL, SEED, AND MULCH AS NECESSARY.
- CLEAN SITE SO THAT NO MATERIALS ARE LEFT BEHIND.

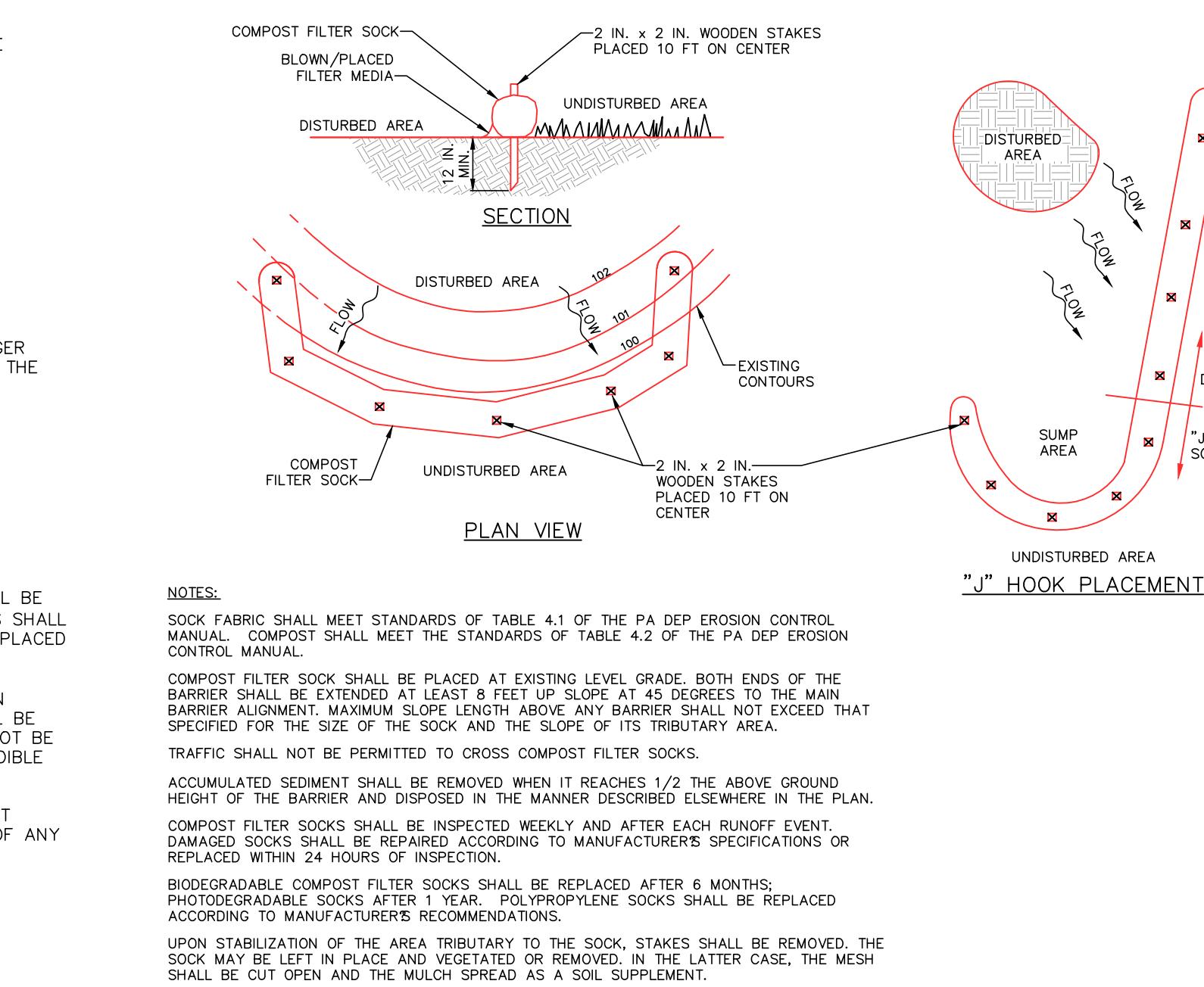
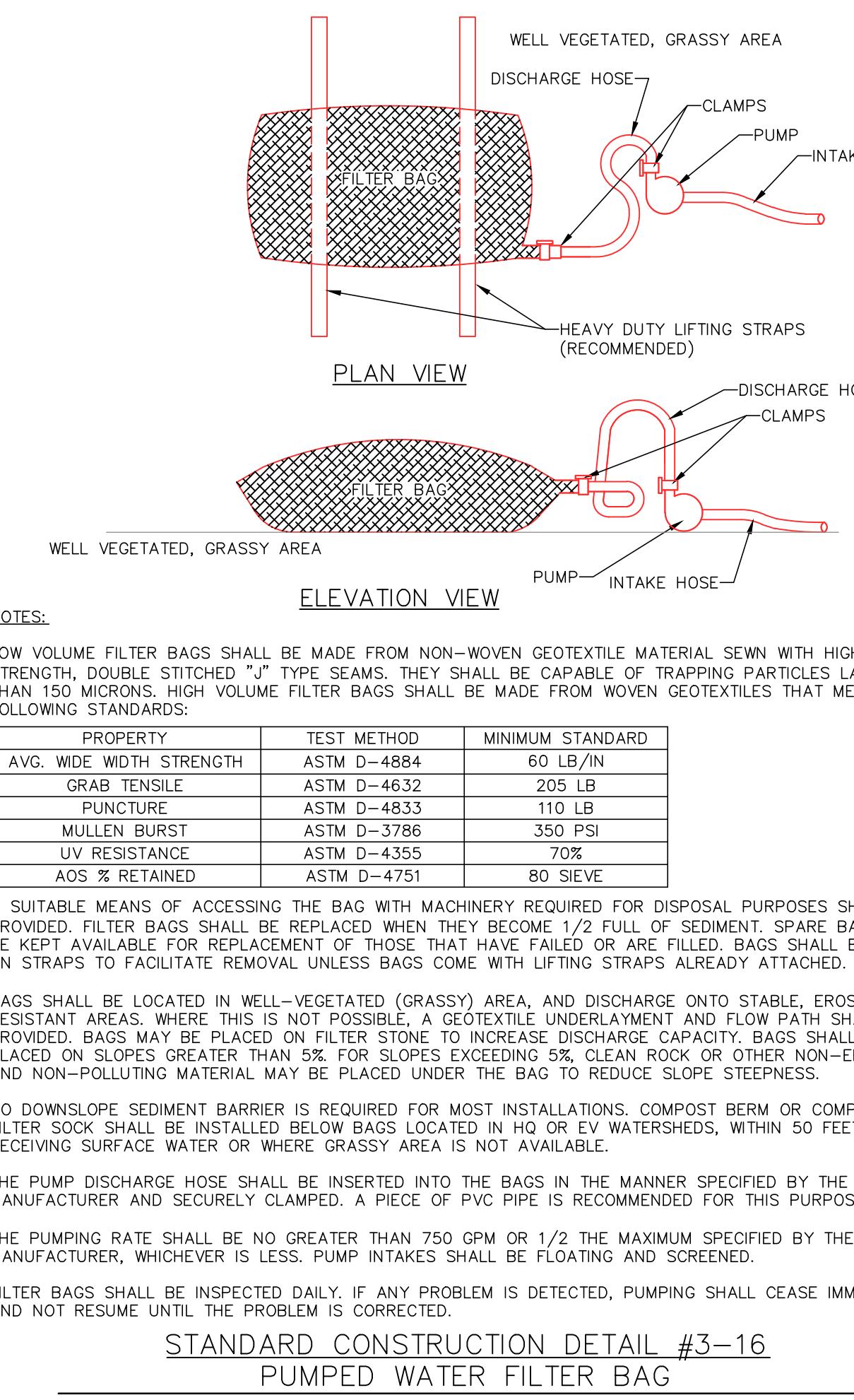
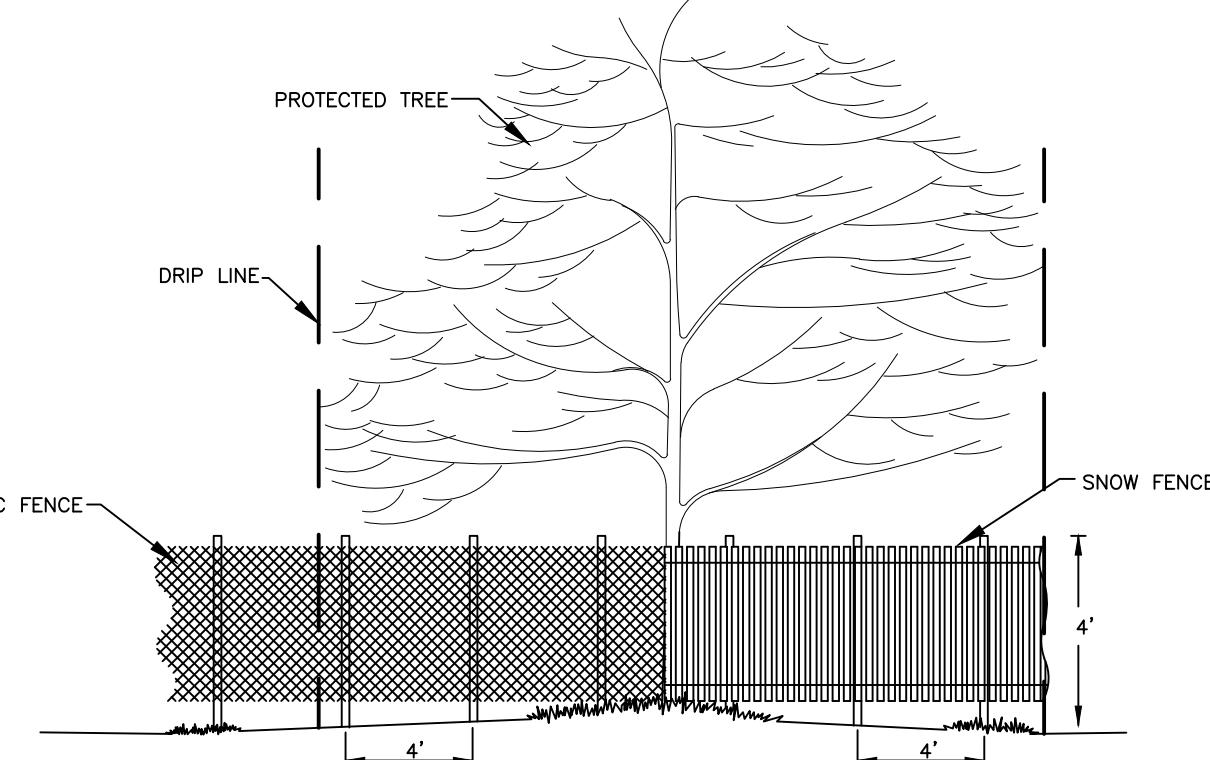


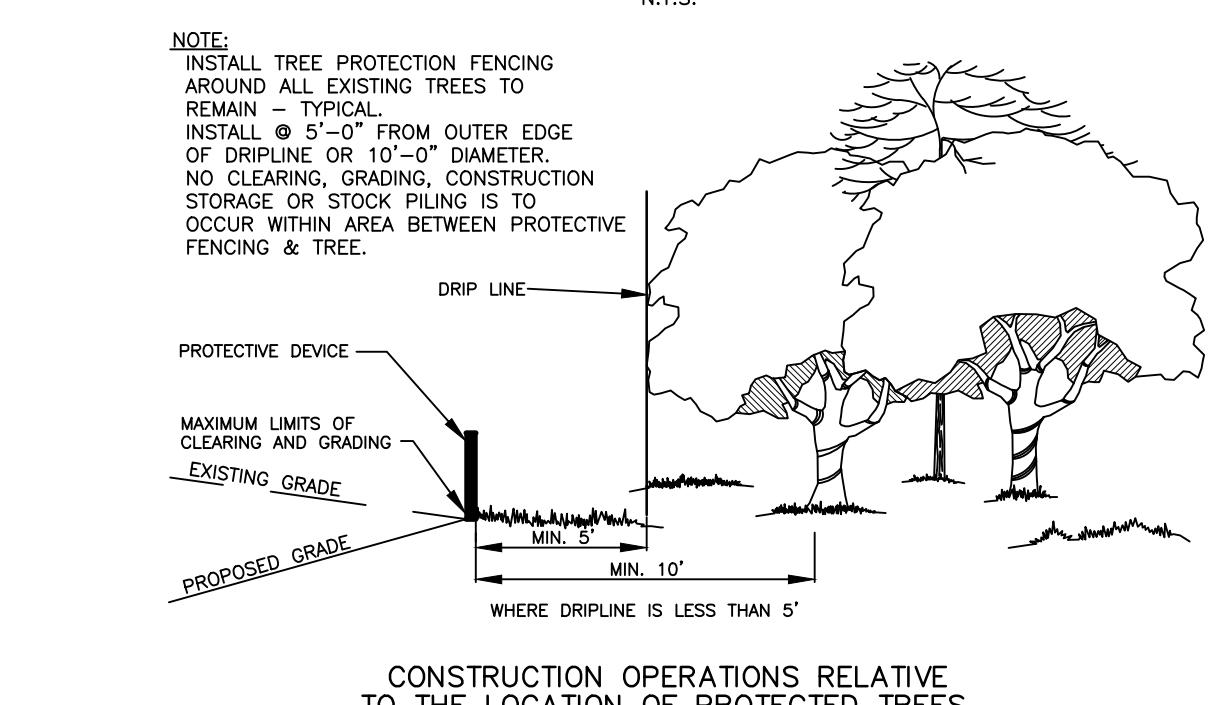
TABLE 4.1 - COMPOST SOCK FABRIC MINIMUM SPECIFICATIONS					
MATERIAL TYPE	3 MIL HDPE	5 MIL HDPE	5 MIL HDPE	MULTI-FILAMENT POLYPROPYLENE (MFPP)	HEAVY DUTY MULTI-FILAMENT POLYPROPYLENE (HDMFP)
MATERIAL CHARACTERISTICS	PHOTO-DEGRADABLE	PHOTO-DEGRADABLE	BIO-DEGRADABLE	PHOTO-DEGRADABLE	PHOTO-DEGRADABLE
SOCK DIAMETERS	12" 18"	18" 24"	18" 24"	12" 18"	18" 24"
MESH OPENING	3/8"	3/8"	3/8"	3/8"	1/8"
TENSILE STRENGTH	26 PSI	26 PSI	44 PSI	202 PSI	
ULTRAVIOLET STABILITY % ORIGINAL STRENGTH (ASTM G-155)	23% AT 1000 HR	23% AT 1000 HR		100% AT 1000 HR	100% AT 1000 HR
MINIMUM FUNCTIONAL LONGEVITY	6 MONTHS	9 MONTHS	6 MONTHS	1 YEAR	2 YEARS

TABLE 4.2 - COMPOST STANDARDS	
ORGANIC MATTER CONTENT	25% - 100% (DRY WEIGHT BASIS)
ORGANIC PORTION	FIBROUS & ELONGATED
PH	5.5 - 8.5
MOISTURE CONTENT	30% - 60%
PARTICLE SIZE	30% - 50% PASS THROUGH 3/8" SIEVE
SOLUBLE SALT CONCENTRATION	5.065/m (mmhos/cm) MAXIMUM

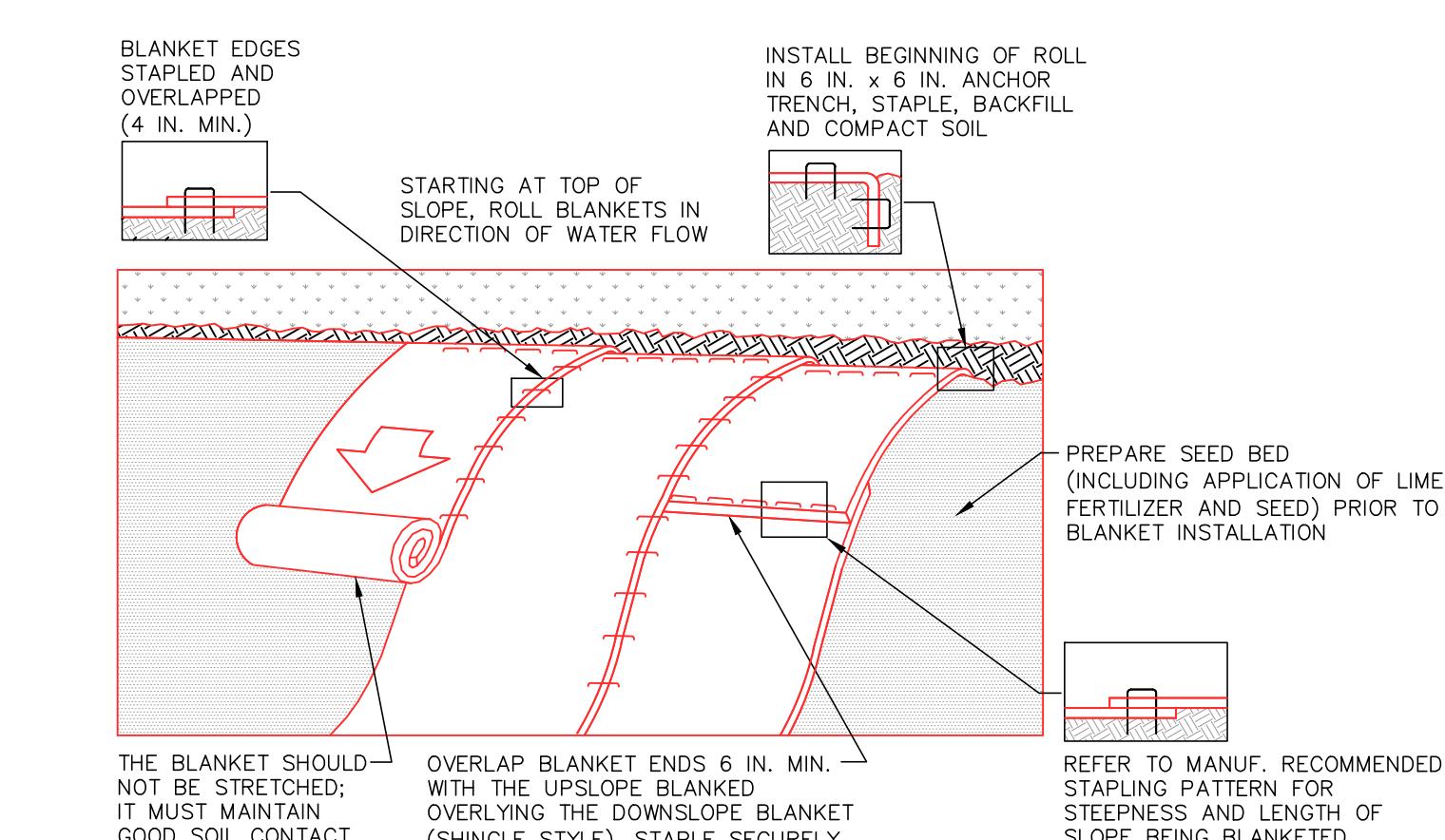


NOTES:
1. MARK TREE TO BE PROTECTED WITH RIBBON PRIOR TO CONSTRUCTION.
2. INSTALL CONSTRUCTION FENCE 1 FT OUTSIDE THE PERIMETER OF THE DRIP LINE OF THE MARKED TREES.(FOR TREE CLUSTERS INSTALL ALONG COMBID PERIMETER.)
3. WHEN CONSTRUCTION IS COMPLETED, REMOVE FENCING.
4. ANY DAMAGE, DESTRUCTION OR FALLING OF A TREE SLATED FOR PROTECTION SHALL REQUIRE REPLACEMENT WITH A TREE OF SIMILAR CALIPER OR SUCH NUMBER OF TREES AS ARE REQUIRED TO EQUAL THE CIRCUMFERENCE OF THE AFFECTED TREE.

TREE PROTECTION FENCING



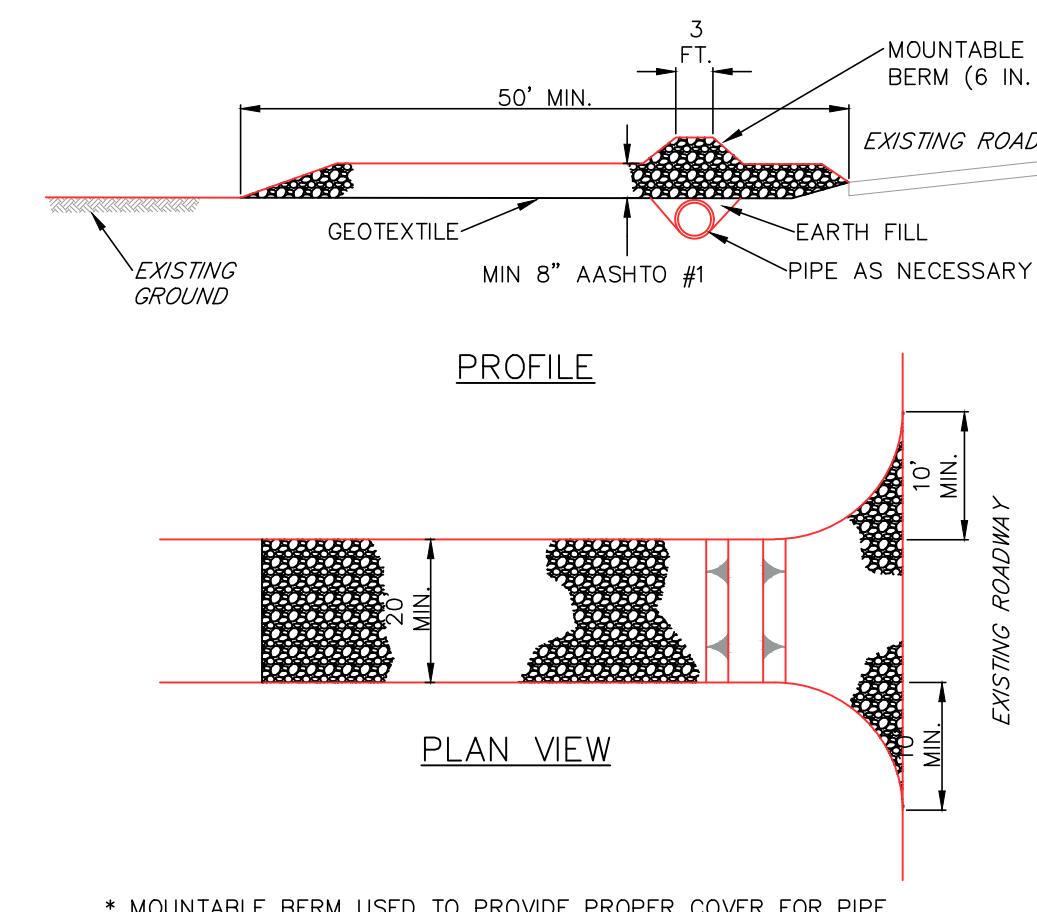
CONSTRUCTION OPERATIONS RELATIVE TO THE LOCATION OF PROTECTED TREES



NOTES:
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 STAPLE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH SOIL. DO NOT STRETCH BLANKET.
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

NOT TO SCALE



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

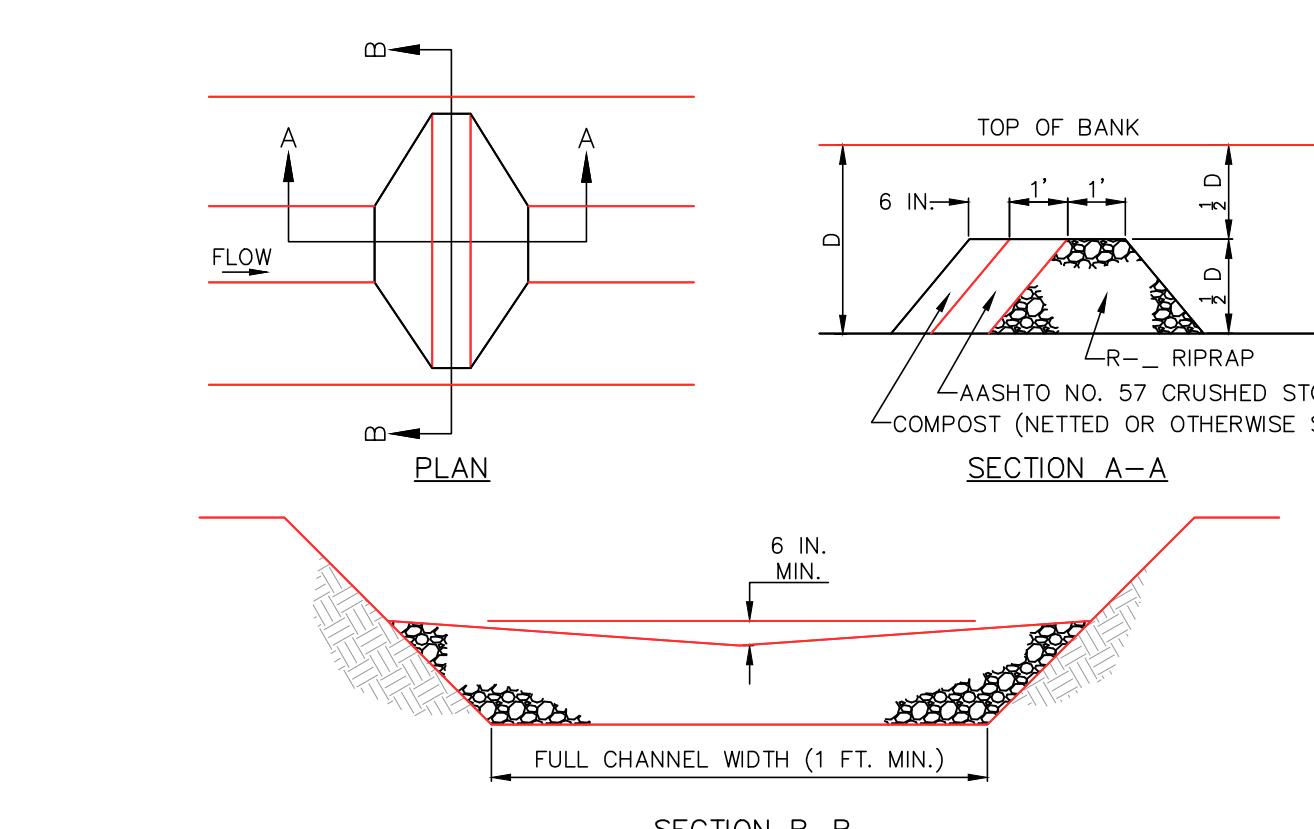
RUNOFF SHALL BE DIVERTED FROM ROADWAY TO A SUITABLE SEDIMENT REMOVAL BMP PRIOR TO ENTERING ROCK CONSTRUCTION ENTRANCE.

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 deposit into roadway ditches, sewers, culverts, or other drainage courses is not acceptable.

STANDARD CONSTRUCTION DETAIL #3-1 ROCK CONSTRUCTION ENTRANCE

NOT TO SCALE

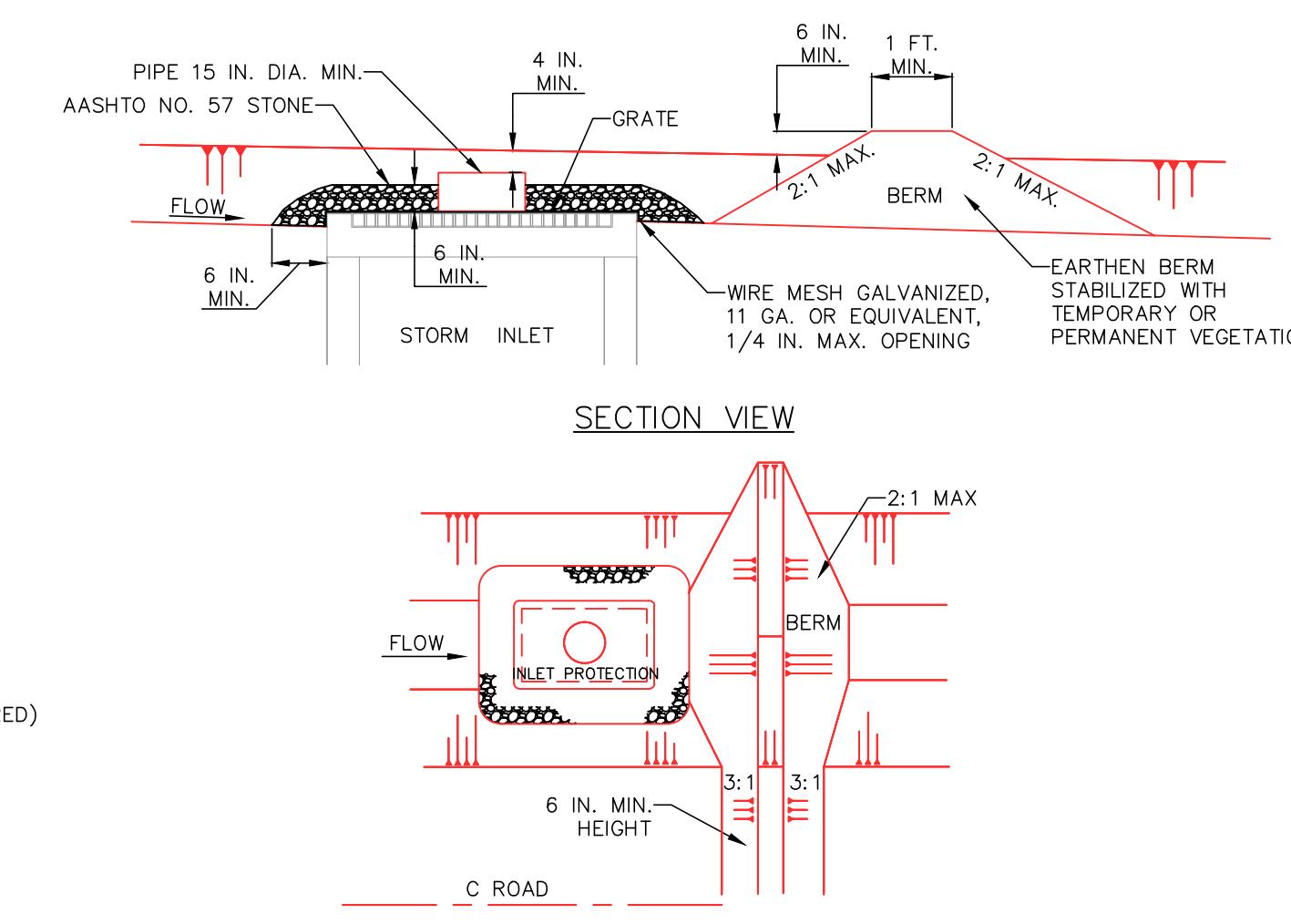


NOTES:
SEDIMENT MUST BE REMOVED WHEN ACCUMULATIONS REACH 1/2 THE HEIGHT OF THE FILTERS.

IMMEDIATELY UPON STABILIZATION OF EACH CHANNEL, REMOVE ACCUMULATED SEDIMENT, REMOVE ROCK FILTER, AND STABILIZE DISTURBED AREAS.

STANDARD CONSTRUCTION DETAIL #4-14 ROCK FILTER

NOT TO SCALE



NOTES:
INLET PROTECTION SHALL NOT BE REQUIRED FOR INLET TRIBUTARY TO SEDIMENT BASIN OR TRAP. BEMPS SHALL BE REQUIRED FOR ALL INSTALLATIONS NOT LOCATED AT A LOW POINT.

ROLLED EARTHEN BERM IN ROADWAY SHALL BE PROVIDED AND MAINTAINED IMMEDIATELY DOWN GRADIENT OF THE PROTECTED INLET UNTIL ROADWAY IS STONED. ROAD SUB-BEAM BERM ON ROADWAY SHALL BE MAINTAINED UNTIL ROADWAY IS PAVED. EARTHEN BERM IN CHANNEL SHALL BE MAINTAINED UNTIL PERMANENT STABILIZATION IS COMPLETED OR TO REMAIN PERMANENTLY.

STONE INLET PROTECTION AND BERM FOR A TYPE M INLET CAN BE USED IN ONE ACRE MAXIMUM DRAINAGE AREA WITH 15 IN. OVERFLOW PIPE AND 4 IN. HEAD. A PERFORATED PLATE WELDED TO A STONE INLET PROTECTION AND BERM IS USED. A PERFORATED PLATE IS USED AS A RISER. THE RISER MAY BE USED IN CONJUNCTION WITH THE WIRE MESH IF CALCULATIONS ARE PROVIDED TO SHOW SUFFICIENT CAPACITY OF THE INLET TO ACCEPT THE PEAK RUNOFF FOR A 2-YEAR STORM EVENT FROM THE TRIBUTARY DRAINAGE AREA. TOP OF PIPE SHALL BE AT LEAST 6 INCHES BELOW ADJACENT ROADWAY IF PONDED WATER WOULD POSE A SAFETY HAZARD TO TRAFFIC. EARTHEN BERM SHALL BE ROLLED.

SEDIMENT SHALL BE REMOVED WHEN IT REACHES HALF THE HEIGHT OF THE STONE. DAMAGED OR CLOGGED INSTALLATIONS SHALL BE REPAIRED OR REPLACED IMMEDIATELY.

FOR SYSTEMS DISCHARGING TO HQ OR EV SURFACE WATER, A 6 IN. 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.

DO NOT USE ON MAJOR PAVED ROADWAYS WHERE PONDING MAY CAUSE TRAFFIC HAZARDS.

STANDARD CONSTRUCTION DETAIL #4-20 STONE INLET PROTECTION AND BERM - TYPE M INLET

NOT TO SCALE

SUBJECT	JOB NO.
EROSION AND SEDIMENT CONTROL DETAILS	137340.01A
STRUBLE TRAIL EXTENSION II	18 OF 18
UPPER UWCHLAN TOWNSHIP, CHESTER COUNTY, PENNSYLVANIA	ES337340-1A

ALYSON M. ZARRO
alyson@rrhc.com
extension 202



January 5, 2023

Via hand delivery and email

Tony Scheivert, Township Manager
Upper Uwchlan Township
140 Pottstown Pike
Chester Springs, PA 19425
tscheivert@upperuwchlan-pa.gov

Re: 500 Pottstown Pike Petition for Zoning Ordinance Amendment

Dear Tony:

As you know, I represent Rockhill Real Estate Enterprises XVII LP (“Petitioner”), the equitable owner of 500 Pottstown Pike, more specifically identified as UPI No. 32-1-34.1C (the “Property”). The Property is presently split zoned LI District and C-3 District. Petitioner is proposing an amendment to the Upper Uwchlan Township Zoning Ordinance and Map, to rezone the portion of the Property zoned LI District to C-3 District (the “Petition”).

Enclosed for filing in connection with the Petition are the following materials:

- 1) Twelve (12) copies of a Petition to Amend the Upper Uwchlan Township Zoning Ordinance and Map, with proposed Amendment;
- 2) Twelve (12) copies of a Proposed Zoning Reclassification Exhibit prepared by T&M Associates dated December 23, 2022;
- 3) One (1) Chester County Act 247 County Referral Form; and
- 4) A check made payable to “Upper Uwchlan Township” in the amount of \$2,500 to establish an escrow account for Township Consultant review fees.

An electronic version of the above materials is included with the email of this submission.

We request that the materials be forwarded to the Township Planning Commission for formal review.

Tony Scheivert, Township Manager
Upper Uwchlan Township
January 5, 2023

Please feel free to contact me with any questions, or if you need additional information.

Very truly yours,

Alyson M. Zarro

ALYSON M. ZARRO

AMZ/rmf
Enclosures

cc: Gwen Jonik, Township Secretary (*via email w/enclosures*)
 Kristin Camp, Esq., Township Solicitor (*via email w/enclosures*)
 Robert DiStanislao (*via email w/enclosures*)
 Michael G. Menkowitz, Esq. (*via email w/enclosures*)
 Daniel Mattson, P.E. (*via email w/enclosures*)
 Ryan Furlong, Esq. (*via email w/enclosures*)

BEFORE THE BOARD OF SUPERVISORS OF UPPER UWCHLAN TOWNSHIP,
CHESTER COUNTY, PENNSYLVANIA

IN RE: Rockhill Real Estate Enterprises XVII LP
Petition to Amend the Upper Uwchlan Township Zoning Ordinance and Map

**PETITION TO AMEND THE UPPER UWCHLAN TOWNSHIP
ZONING ORDINANCE AND MAP**

Rockhill Real Estate Enterprises XVII LP (“Petitioner”), by and through its counsel, Riley Riper Hollin & Colagreco, hereby petitions to amend the Upper Uwchlan Township Zoning Ordinance, as amended (“Zoning Ordinance”) and the Upper Uwchlan Township Zoning Map (“Zoning Map”) to rezone a portion of Chester County UPI No. 32-1-34.1C from LI Limited Industrial District to C-3 Highway Commercial District such that the entire property would be zoned C-3 Highway Commercial District, and in support thereof avers as follows:

1. Petitioner is the equitable owner of a property located at 500 Pottstown Pike, more specifically identified as Chester County UPI No. 32-1-34.1C (the “Property”).
2. The Property is currently split zoned. The eastern portion of the Property is zoned LI Limited Industrial District and western portion of the Property, including the frontage on Pottstown Pike, is zoned C-3 Highway Commercial District.
3. The Property is bounded to the north, south, and west by properties zoned C-3 Highway Commercial District and to the east are properties zoned LI Limited Industrial District.
4. Pursuant to §§ 200-133 and 200-134 of the Zoning Ordinance, “[t]he Board of Supervisors may from time to time amend, supplement, change, modify or repeal [the Zoning Ordinance] including the Zoning Map” in response to a petition by a landowner.

5. Petitioner, as the equitable owner of the Property, hereby files this Petition to amend the Zoning Ordinance and Zoning Map to rezone the eastern portion of the Property from LI Limited Industrial District to C-3 Highway Commercial District.

6. This requested amendment is necessary to resolve disparate processes applicable to the uses permitted on the Property, to provide for consistency of the uses permitted on entire the Property, and to ensure the health, safety, and welfare of the citizens of the Township.

7. A copy of Petitioner's proposed Ordinance is attached hereto as Exhibit "A".

WHEREFORE, Petitioner hereby requests that the Board of Supervisors of Upper Uwchlan Township amend the Upper Uwchlan Zoning Ordinance and Zoning Map, as amended, as set forth in the proposed Ordinance Amendment attached hereto as Exhibit "A".

Respectfully submitted,



Alyson M. Zarro, Esquire
Attorney for Petitioner

Date: January 5, 2022

EXHIBIT "A"

**UPPER UWCHLAN TOWNSHIP
CHESTER COUNTY, PENNSYLVANIA
ORDINANCE NO. _____**

AN ORDINANCE OF UPPER UWCHLAN TOWNSHIP, CHESTER COUNTY, PENNSYLVANIA, AMENDING THE UPPER UWCHLAN TOWNSHIP CODE OF ORDINANCES, CHAPTER 200, ENTITLED "ZONING", AS AMENDED, BY AMENDING SECTION 200-9 AND THE UPPER UWCHLAN TOWNSHIP ZONING MAP TO REZONE A PORTION OF CHESTER COUNTY UPI NO. 32-1-34.1C FROM LI LIMITED INDUSTRIAL DISTRICT TO C-3 HIGHWAY COMMERCIAL DISTRICT.

WHEREAS, the Second Class Township Code authorizes the Upper Uwchlan Board of Supervisors to make, amend, and adopt the Ordinances that are consistent with the Constitution and the laws of the Commonwealth that it deems necessary for the proper management and control of the Township and the health, safety, and welfare of its citizens;

WHEREAS, pursuant to Article VI of the Municipalities Planning Code, Upper Uwchlan Township is authorized to amend the Zoning Map for all or a portion of the Township;

WHEREAS, the Board of Supervisors has determined that amending the Township Zoning Ordinance and Map to change the zoning designation of Chester County UPI No. 32-1-34.1C, which is currently partially located in the LI Limited Industrial District and partially located in the C-3 Highway Commercial District, to C-3 Highway Commercial District only, is necessary for the proper management and control of the Township and for the health, safety, and welfare of its citizens.

NOW THEREFORE, BE IT ENACTED AND ORDAINED, by the Board of Supervisors of Upper Uwchlan Township, that the Upper Uwchlan Township Zoning Ordinance, as amended, shall hereby be further amended as follows:

SECTION 1. ZONING MAP AMENDMENT. Section 200-9 (entitled "Zoning Map") and the Upper Uwchlan Zoning Map, which is adopted as part of the Upper Uwchlan Zoning Ordinance, as amended, shall be amended as shown on the Zoning Map, which is attached hereto as Exhibit "A", which hereby rezones a portion of Chester County UPI No. 32-1-34.1C to C-3 Highway Commercial District such that the entirety of said parcel is zoned C-3 Highway Commercial District.

SECTION 2. SEVERABILITY. If any sentence, clause, section or part of this Ordinance is for any reason found to be unconstitutional, illegal or invalid, such unconstitutionality, illegality or invalidity shall not affect or impair any of the remaining provisions, sentences, clauses, sections, or parts hereof. It is hereby declared as the intent of the Board of Supervisors that this Ordinance would have been adopted had such unconstitutional, illegal or invalid sentence, clause, section or part thereof not been included herein.

SECTION 3. REPEALER. All ordinances or parts of ordinances conflicting with any provision of this Ordinance are hereby repealed insofar as the same affects this Ordinance.

SECTION 4. EFFECTIVE DATE. This Ordinance shall become effective five (5) days following enactment as provided by law.

ENACTED AND ORDAINED this ____ day of _____, 20__.

ATTEST:

**BOARD OF SUPERVISORS
UPPER UWCHLAN TOWNSHIP**

Gwen Jonik, Township Secretary

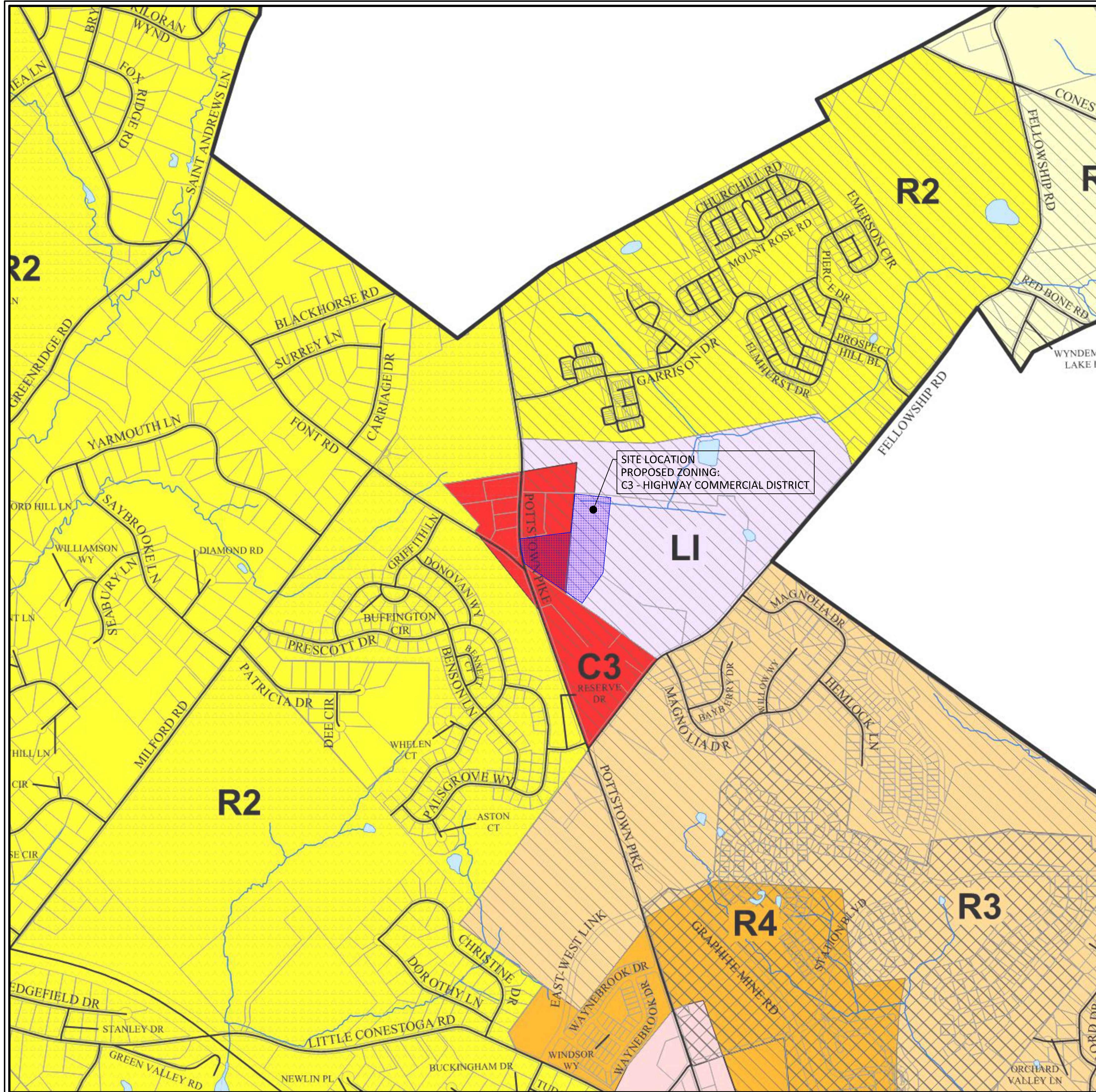
BY:

Sandra M. D'Amico, Chairperson

Jennifer Baxter, Vice-Chairperson

Andrew Durkin, Supervisor

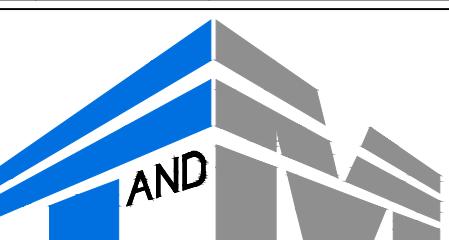
EXHIBIT “A”



LEGEND

Township Boundaries		Current Zoning
		R1 - Residential District (1 dwelling unit/2 acres) - 2442.339 ac.
		R2 - Residential District (1 dwelling unit/acre) - 3336.734 ac.
		R3 - Residential District (1.5 dwelling units/acre) - 780.521 ac.
		R4 - Residential District (2-4 dwelling units/acre) - 239.419 ac.
		C1 - Village Commercial District - 124.493 ac.
		C2 - Limited Commercial District - 12.734 ac.
		C3 - Highway Commercial District - 116.433 ac.
		LI - Limited Industrial District - 259.015 ac.
		PI - Planned Industrial/Office District - 193.536 ac.
		Water Bodies
Overlay Districts		
		F1 - Flexible Development Overlay
		F2 - Flexible Development Overlay
		PRD - Planned Residential Development (also part of F2 Overlay)

PROPOSED ZONING MAP REVISION EXHIBIT



1700 MARKET STREET, SUITE 3100
PHILADELPHIA, PA 19103
TEL 215-627-3450
FAX 215-627-3459
www.tandassociates.com

OFFICES LOCATED IN:
DELAWARE, INDIANA, KENTUCKY,
MASSACHUSETTS, MICHIGAN, NEW JERSEY,
OHIO AND PENNSYLVANIA

DESIGNED BY	JDT	DRAWING	ZNE-2
CHECKED BY	DM	SH	
DRAWN BY	JDT		
DATE	12/23/2022		
SCALE	AS NOTED		
PROJ. NO.	PORS00016		

500' 250' 0 500' 1000'
1' = 500'

2
OF 2



EXISTING ZONING DATA:

ZONING REQUIREMENTS: C3 - HIGHWAY COMMERCIAL DISTRICT	
EXISTING USES: VACANT	
ZONING REQUIREMENTS TABLE:	
	C3 ZONE REQUIREMENTS (CODE SECTION)
MINIMUM LOT AREA	30,000 SF (200-40.B)
MINIMUM WIDTH	100 FEET (200-40.C)
MAXIMUM BUILDING AREA	30% (200-40.E.1)
MAXIMUM IMPERVIOUS SURFACE RATIO	60% (200-40.E.2)
MINIMUM FRONT YARD SETBACK	50 FEET (200-40.D.1)
MINIMUM SIDE YARD SETBACK	25 FEET / 50 FEET ABUTTING RESIDENTIAL PROPERTY, PUBLIC STREET OR HIGHWAY (200-40.D.2)
MINIMUM REAR YARD SETBACK	50 FEET (200-40.D.3)
SPECIAL SETBACK FROM ROUTE 100	N/A
MAXIMUM HEIGHT OF BUILDING	35 FEET (200-40.F)

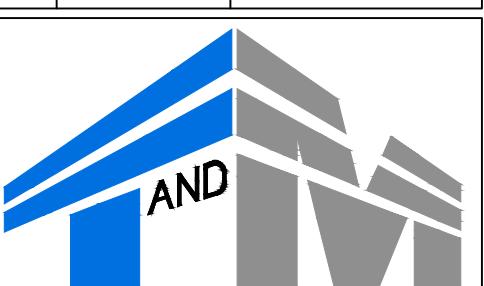
ZONING REQUIREMENTS: LI - LIMITED INDUSTRIAL DISTRICT	
EXISTING USES: VACANT	
ZONING REQUIREMENTS TABLE:	
	LI ZONE REQUIREMENTS (CODE SECTION)
MINIMUM LOT AREA	3 ACRES (130,680 SF) (200-45.A)
MINIMUM WIDTH	300 FEET (200-45.B)
MAXIMUM BUILDING AREA	35% (200-45.D)
MAXIMUM IMPERVIOUS SURFACE RATIO	60% (200-45.D)
MINIMUM FRONT YARD SETBACK	75 FEET (200-45.C.1)
MINIMUM SIDE YARD SETBACK	50 FEET / 100 FEET ABUTTING RESIDENTIAL DISTRICT (200-45.C.2)
MINIMUM REAR YARD SETBACK	50 FEET / 100 FEET ABUTTING RESIDENTIAL DISTRICT (200-45.C.2)
SPECIAL SETBACK FROM ROUTE 100	100 FEET (200-45.C.3)
MAXIMUM HEIGHT OF BUILDING	35 FEET (200-45.D)

PROPOSED ZONING DATA:

ZONING REQUIREMENTS: C3 - HIGHWAY COMMERCIAL DISTRICT	
ZONING REQUIREMENTS TABLE:	
C3 ZONE REQUIREMENTS (CODE SECTION)	
MINIMUM LOT AREA	30,000 SF (200-40.B)
MINIMUM WIDTH	100 FEET (200-40.C)
MAXIMUM BUILDING AREA	30% (200-40.E.1)
MAXIMUM IMPERVIOUS SURFACE RATIO	60% (200-40.E.2)
MINIMUM FRONT YARD SETBACK	50 FEET (200-40.D.1)
MINIMUM SIDE YARD SETBACK	25 FEET / 50 FEET ABUTTING RESIDENTIAL PROPERTY, PUBLIC STREET OR HIGHWAY (200-40.D.2)
MINIMUM REAR YARD SETBACK	50 FEET (200-40.D.3)
SPECIAL SETBACK FROM ROUTE 100	N/A
MAXIMUM HEIGHT OF BUILDING	35 FEET (200-40.F)

PROPOSED ZONING RECLASSIFICATION EXHIBIT

RDS AUTOMATIVE GROUP	500 POTTSTOWN PIKE
	UPI 32-1-34-1C
	UPPER UCHIAN TOWNSHIP, CHESTER COUNTY, PA



OFFICES LOCATED IN:
DELAWARE, INDIANA, KENTUCKY,
MASSACHUSETTS, MICHIGAN, NEW JERSEY,
OHIO AND PENNSYLVANIA

DESIGNED BY JDT
CHECKED BY DM
DRAWN BY JDT
DATE 12/23/2022
SCALE AS NOTED
PROJ. NO. PORS00016
DRAWING ZNE-1
SHEET 1
OF 2



UPPER UWCHLAN TOWNSHIP

Planning Commission Meeting

December 8, 2022

6:00 p.m. Workshop,

7:00 p.m. Meeting

Minutes

Draft

LOCATION: Township Building Conference Room, 140 Pottstown Pike, Chester Springs PA 19425

In attendance:

Sally Winterton, Chair; Joe Stoyack, Vice-Chair; Chad Adams, David Colajezzi, Jim Dewees, Stephen Fean

Invited Guest: Neal Fisher, P.E., Hankin Group

Mary Lou Lowrie, P.E., Gilmore & Associates (Meeting)

Gwen Jonik, Planning Commission Secretary

Absent: Ravi Mayreddy, Jim Shrimp, Jeff Smith

6:00 p.m. Workshop

Sally Winterton called the Workshop to order at 6:07 p.m.

Joe Stoyack asked Neal Fisher for information on how the market is changing for the Planned Industrial/Office District -- Eagleview Corporate Center – and do our current ordinances hinder the development of new market possibilities. Mr. Fisher noted the office space market has been changing for years. Following covid, office space isn't as in-demand as people are working from home parttime or fulltime and Hankin's tenants are downsizing their square footage. Companies want to attract the best talent and Hankin's vision is to build a community around their 'office' – folks can live near work, walk or bike to work, or during lunch or go get lunch nearby. They're changing office buildings into residential, intermixing uses and interconnectivity. Research and Development, biomedical facilities are interested in the area. Storage tank are a necessary component of those businesses and if Upper Uwchlan doesn't allow the tools they need to do their jobs, they'll go elsewhere. Manufacturing is prohibited in Eagleview (in Upper Uwchlan) except electrical equipment by right; other types of manufacturing need conditional use; companies from foreign countries do not like conditional use because in their countries, theirs are much more restrictive. Neal would like to see a more manufacturing options by right. They're trying to figure out how to re-use existing office buildings; find new uses or demolish and build something more feasible.

Neal noted a few national hot topics: affordable housing; a floodplain restoration project – widening a stream channel for environmental benefit and stormwater management. It slows the flow, sediment drops out and allows for in-stream infiltration.

The Workshop ended at 6:56 p.m.

7:00 p.m. Meeting

Sally Winterton called the Meeting to order at 7:00 p.m. There were 2 citizens in attendance. Sally adjusted the agenda order and Eagleview Lot 1A Sketch Plan Introduction went first.

Eagleview Corporate Center Lot 1A Sketch Plan Introduction

Neal Fisher introduced a sketch plan proposing a 60,000 SF flexible building, associated parking, stormwater management, etc. on Lot 1A on Arrowhead Drive in Eagleview. Lot 1 is 72 acres which had previously been subdivided into 4 parcels - A, B, C, and D. Lot 1A is 13+ acres; would most likely be a Research & Development tenant; the building architecture would be compatible with all other Eagleview buildings. Gilmore and Associates had reviewed the sketch December 8, 2022 Planning Commission Meeting

plan and provided comments dated December 6, 2022. Mr. Fisher said they'd prepare a land development plan for February submission.

301 Park Road – Preliminary Plan

Monica Sweeney, P.E., Wilkinson & Associates, Inc., was in attendance seeking preliminary plan approval for 301 Park Road, a proposed office building, garage, parking, and materials storage area for P.J. Reilly Contracting. Ms. Sweeney said they would comply with most of the consultants' comments in Gilmore & Associates' December 2, 2022 review letter, however there were several items to discuss.

They may need a variance regarding parking within 25 feet of the ultimate road right-of-way.

They've shown more parking than what might be needed, and if so, they'll remove the 8 parking spaces along the front.

They will seek a variance regarding storage in the front yard. Due to the shape of the lot, there are many constrictions and they've proposed a gravel area (@ 3500 SF) for storage of building materials and possible construction vehicles. They would screen the area from the road.

They'll seek a waiver regarding providing sidewalks. The Park Road trail and pedestrian bridge are across the road.

They'll seek a waiver regarding the stormwater basins ('accessory structures') located within the front and rear setbacks. Due to the shape of the site, there are not alternate locations for the 1 above ground and 3 underground basins.

A stormwater easement was to be established when the Eaglepointe Shopping Center was constructed. Whether it exists or not is to be investigated.

A retaining wall might be needed around a portion of the parking area. Once PennDOT completes the Turnpike overpass, they'll re-survey to see if a retaining wall is needed.

Brandywine Conservancy mentioned this 1950s ranch house is classified as a historic resource. This will be investigated.

Planning Commission members suggested that the driveway could be relocated, perhaps across from Heather Hill Drive, and noted the site lighting will be a sensitive issue.

While the Planning Commission members would like to see the parcel used for a viable business, there are many details to work out and they are not comfortable recommending preliminary plan approval.

No action was taken and Ms. Sweeney noted they'll continue to work through the consultants' comments.

Approval of Minutes

Jim Dewees moved, seconded by David Colajezzi, to approve as presented the Planning Commission's November 10, 2022, meeting minutes. The motion carried unanimously.

Meeting Updates / Reports

Jeff Smith was absent; there was no Environmental Advisory Council meeting report.

David Colajezzi is considering becoming the liaison to the Historical Commission. Gerry Stein, Historical Commission member, was in attendance and mentioned the Dorlan Mill miller's house may have the potential for stabilized ruins. Sally Winterton reported that she and Vivian McCardell, Historical Commission Chair, visited the Methodist Society Cemetery on old Township Line Road

and there's a plaque circa 1925 referencing a Mr. Jones. They're going to connect with Hopewell Church regarding a chapel that might've gotten moved from the cemetery property to the Church.

Active Transportation Plan. Sally Winterton reported the committee is looking at ways to reduce vehicular traffic, enhance pedestrian / bicycling amenities, trail connections, throughout the Village of Eagle and larger community; they're also looking at dangerous intersections.

Open Session

Gerry Stein inquired of the P.J. Reilly project.

Sally Winterton announced Jim Shrimp's resignation from the Commission due to time constraints.

Sally wished everyone happy holidays and announced the next meeting is January 12, 2023.

Ordinance Amendment ~ Eliminate C2 Limited Commercial District

The Commission had requested Kristin Camp, Esq., draft an ordinance to eliminate the C2 Limited Commercial District, which would involve revising the Official Zoning Map. They reviewed the prepared draft. The C2 District is a fairly small area at the intersection of Route 100, Pennsylvania Drive and Old Township Line Road, and is mainly residential properties. Uses in the C2 Limited Commercial District are the same as the adjacent PI/O Planned Industrial/Office District. Joe Stoyack would like to make a recommendation to the Board. Discussion also included adding current C1 Village Commercial District and C3 Highway Commercial District by-right uses to the LI Limited Industrial District.

Jim Dewees moved, seconded by David Colajezzi, to recommend to the Board of Supervisors approval of the Ordinance eliminating the C2 Limited Commercial District. The motion carried unanimously.

Sally Winterton was curious if Gwen Jonik heard whether the Authority was awarded a Grant to extend public sewer service to the Meadow Creek community, the expansion of the Greenridge facility, and to take the Eaglepointe facility offline. Gwen had no news.

Gerry Stein made comment that Marsh Creek Lake is polluted.

Adjournment ~ Meeting

Jim Dewees moved, seconded by David Colajezzi, to adjourn the Meeting and continue with the Workshop. All were in favor.

Joe Stoyack had drafted amendments to the Alternative Energy Ordinance. The State is proposing solar access laws and solar easement laws which can override local laws. Our ordinance includes solar easements between neighbors but doesn't address solar access. Solar access can't be prohibited with these new laws. Joe's ordinance draft will be distributed for review.

Joe Stoyack walked through proposed changes to uses in the C1, C3, and LI Districts, which will be distributed so members can review them prior to the January meeting. This will be thoroughly discussed at the January meeting and then move on to residential uses, followed by Planned Industrial/Office.

Adjournment ~ Evening

The Workshop adjourned at 8:48 p.m.

Respectfully submitted,

Gwen A. Jonik
Planning Commission Secretary