## WILLISTOWN TOWNSHIP UTILITY LIST

COMPANY: WILLISTOWN TOWNSHIP
ADDRESS: 40 LLOYD AVE
SUITE 204/206
MALVERN, PA. 19355 1699
CONTACT: DAVID BURMAN
EMAIL: dburman@willistown.pa.us

COMPANY: COMCAST
ADDRESS: APSS CENTER
1701 JOHN F KENNEDY BLVD
PHILADELPHIA, PA. 19103
CONTACT: LEE MCGARRITY
EMAIL: lee_mcgarrity@cable.comcast.com

COMPANY: AQUA PENNSYLVANIA INC
ADDRESS: 762 W LANCASTER AVE
BRYN MAWR, PA. 19010
CONTACT: STEVE PIZZI
EMAIL: sbpizzi@aquaamerica.com

COMPANY: PECO ENERGY
ADDRESS: C/O USIC
450 S HENDERSON RD SUITE B
KING OF PRUSSIA, PA. 19406
CONTACT: GAVIN HEWITT
EMAIL: gavinhewitt@usicinc.com

COMPANY: TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC
ADDRESS: 99 FARBER RD
PRINCETON, NJ. 08540
CONTACT: DAN SCHWEITZER

COMPANY: VERIZON PENNSYLVANIA LLC
ADDRESS: 180 SHEREE BLVD STE 2100 ROOM N/A
EXTON, PA. 19341
CONTACT: KELLY BLOUNT
EMAIL: kelley.b.blount@verizon.com

## ZONING REQUIREMENTS

*RU – RURAL DISTRICTS*

| | |
|---|---|
| LOT AREA MIN. | 4 ACRES |
| LOT WIDTH MIN. | 300 FEET @ BUILDING LINE |
| BUILDING AREA MAX. | 10 PERCENT |
| IMPERVIOUS COVERAGE MAX. | 13 PERCENT |
| FRONT YARD MIN. | 75 FEET |
| REAR YARD MIN. | 40 FEET |
| SIDE YARDS MIN. | 40 FEET |
| BUILDING HEIGHT MAX. | 35 FEET |

## EXISTING SITE IMPROVEMENTS

UPI #54-6-79.11 1,255,376 SF (GROSS)
1,168,739 SF (NET)

| | |
|---|---|
| GREENHOUSE (LARGE) | 1,440 SF |
| GREENHOUSE (SMALL) | 384 SF |
| FARM SHED | 726 SF |
| BIRD BANDING SHELTER | 192 SF |
| PARKING LOT WITH DRIVEWAY | 4,465 SF |
| RELOCATED BARN | 1,331 SF |
| EXISTING DWELLING | 1,565 SF |
| CONCRETE PADS (3) | 139 SF |
| CONCRETE WALKWAY | 151 SF |
| EXISTING GARAGE | 403 SF |
| EXISTING DRIVEWAY | 2,536 SF |

## EXISTING BUILDING COVERAGE

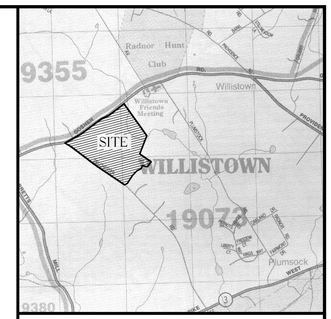
| | |
|---|---|
| GREENHOUSE (LARGE) | 1,440 SF |
| GREENHOUSE (SMALL) | 384 SF |
| FARM SHED | 726 SF |
| BIRD BANDING SHELTER | 192 SF |
| RELOCATED BARN | 1,331 SF |
| EXISTING DWELLING | 1,565 SF |
| EXISTING GARAGE | 403 SF |
| TOTAL | 6,041 SF |
| BUILDING COVERAGE (%) | 0.517 % |
| ALLOWABLE BUILDING COVERAGE | 10 % |

## EXISTING NON-BUILDING COVERAGE

| | |
|---|---|
| PARKING LOT WITH DRIVEWAY | 4,465 SF |
| CONCRETE PADS (3) | 139 SF |
| CONCRETE WALKWAY | 151 SF |
| EXISTING DRIVEWAY | 2,536 SF |

## EXISTING IMPERVIOUS COVERAGE

| | |
|---|---|
| GREENHOUSE (LARGE) | 1,440 SF |
| GREENHOUSE (SMALL) | 384 SF |
| FARM SHED | 726 SF |
| BIRD BANDING SHELTER | 192 SF |
| PARKING LOT WITH DRIVEWAY | 4,465 SF |
| RELOCATED BARN | 1,331 SF |
| EXISTING DWELLING | 1,565 SF |
| CONCRETE PADS (3) | 139 SF |
| CONCRETE WALKWAY | 151 SF |
| EXISTING GARAGE | 403 SF |
| EXISTING DRIVEWAY | 2,536 SF |
| TOTAL | 13,332 SF |
| IMPERVIOUS COVERAGE (%) | 1.141 % |
| ALLOWABLE IMPERVIOUS COVERAGE | 13 % |




LOCATION MAP SCALE: 1"=800'

## PROPOSED SITE IMPROVEMENTS

UPI #54-6-79.11 1,255,376 SF (GROSS)
1,168,739 SF (NET)

| | |
|---|---|
| GREENHOUSE (LARGE) | 1,440 SF |
| GREENHOUSE (SMALL) | 384 SF |
| FARM SHED | 726 SF |
| BIRD BANDING SHELTER | 192 SF |
| PARKING LOT WITH DRIVEWAY | 4,465 SF |
| RELOCATED BARN | 1,331 SF |
| EXISTING DWELLING | 1,565 SF |
| CONCRETE WALKWAY | 80 SF |

## PROPOSED BUILDING COVERAGE

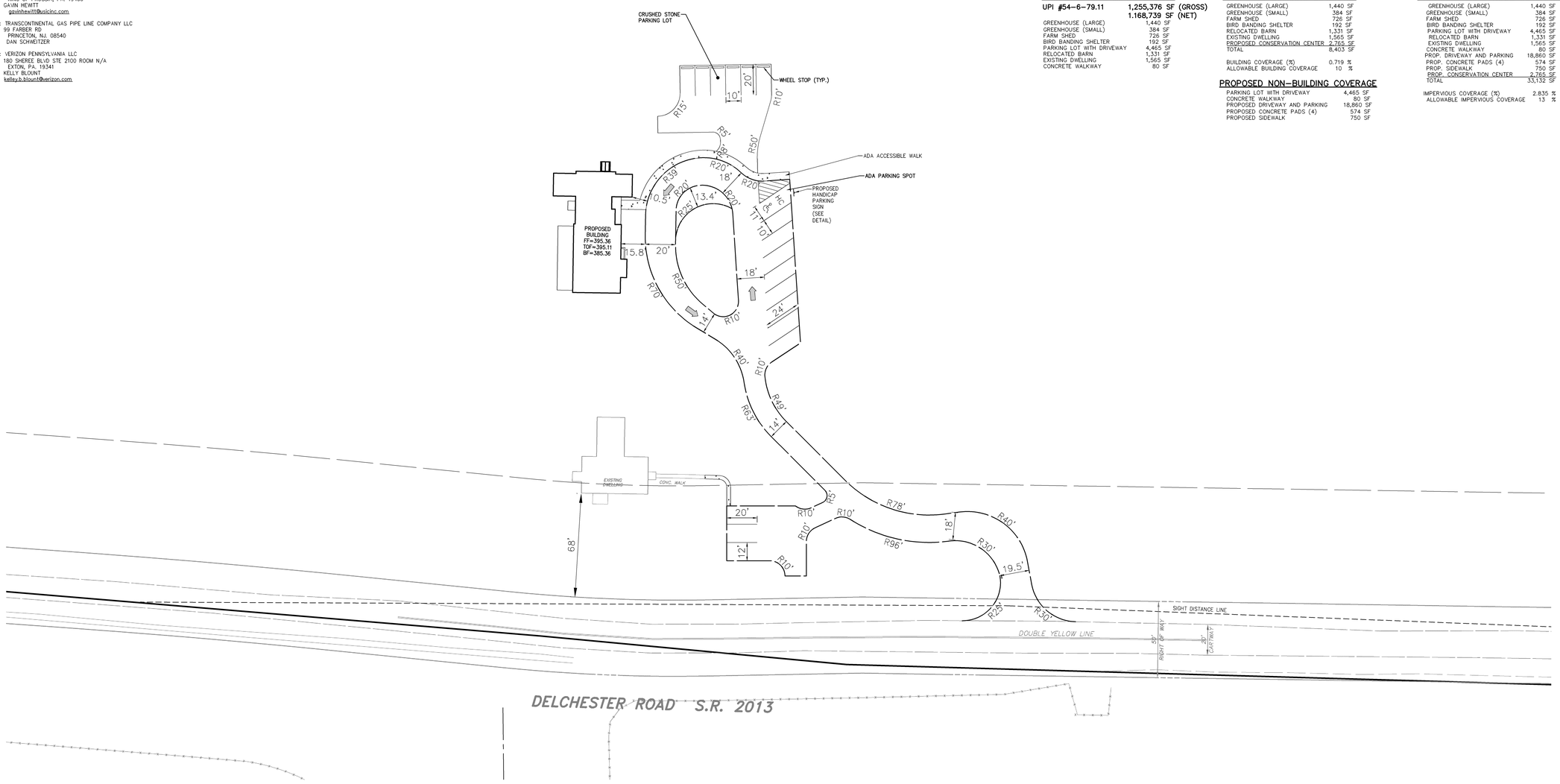
| | |
|---|---|
| GREENHOUSE (LARGE) | 1,440 SF |
| GREENHOUSE (SMALL) | 384 SF |
| FARM SHED | 726 SF |
| BIRD BANDING SHELTER | 192 SF |
| RELOCATED BARN | 1,331 SF |
| EXISTING DWELLING | 1,565 SF |
| PROPOSED CONSERVATION CENTER | 2,765 SF |
| TOTAL | 8,403 SF |
| BUILDING COVERAGE (%) | 0.719 % |
| ALLOWABLE BUILDING COVERAGE | 10 % |

## PROPOSED NON-BUILDING COVERAGE

| | |
|---|---|
| PARKING LOT WITH DRIVEWAY | 4,465 SF |
| CONCRETE WALKWAY | 80 SF |
| PROPOSED DRIVEWAY AND PARKING | 18,860 SF |
| PROPOSED CONCRETE PADS (4) | 574 SF |
| PROPOSED SIDEWALK | 750 SF |

## PROPOSED IMPERVIOUS COVERAGE

| | |
|---|---|
| GREENHOUSE (LARGE) | 1,440 SF |
| GREENHOUSE (SMALL) | 384 SF |
| FARM SHED | 726 SF |
| BIRD BANDING SHELTER | 192 SF |
| PARKING LOT WITH DRIVEWAY | 4,465 SF |
| RELOCATED BARN | 1,331 SF |
| EXISTING DWELLING | 1,565 SF |
| CONCRETE WALKWAY | 80 SF |
| PROP. DRIVEWAY AND PARKING | 18,860 SF |
| PROP. CONCRETE PADS (4) | 574 SF |
| PROP. SIDEWALK | 750 SF |
| PROP. CONSERVATION CENTER | 2,765 SF |
| TOTAL | 33,132 SF |
| IMPERVIOUS COVERAGE (%) | 2.835 % |
| ALLOWABLE IMPERVIOUS COVERAGE | 13 % |




## GENERAL NOTES:

1. OWNER / APPLICANT: WILLISTOWN CONSERVATION TRUST
925 PROVIDENCE ROAD
NEWTOWN SQUARE, PA 19073
2. TOTAL TRACT SIZE: 85.87 ACRES, UPI# 54-6-79.7, 54-6-79.7B, 54-6-79.7C, 54-6-79.11, AND 54-6-81.
3. SOILS LINE TAKEN FROM SOIL SURVEY OF CHESTER AND DELAWARE COUNTIES, PA ISSUED MAY 1963 BY THE SOIL CONSERVATION SERVICE OF THE U.S. DEPARTMENT OF AGRICULTURE.
4. BY GRAPHIC PLOTTING ONLY, THE PREMISES SHOWN HEREON DOES NOT LIE IN A SPECIAL FLOOD HAZARD. THE LIES IN AN AREA DESIGNATED "ZONE X", AREAS DETERMINED TO BE OUTSIDE THE 500-YEAR FLOOD, AS SHOWN ON FLOOD INSURANCE RATE MAP (FIRM) 42029C0220 F, EFFECTIVE DATE: SEPTEMBER 29, 2006.
5. THE FOLLOWING PENNDOT ROADWAY CONSTRUCTION STANDARD DETAILS SHALL BE UTILIZED FOR THIS PROJECT:
   - RC-39M STANDARD MANHOLES
   - RC-45M INLET TOPS, GRATES, AND FRAME
   - RC-46M INLET BOXES
   - RC-67M CURB RAMPS AND SIDEWALKS
6. ALL UTILITY TRENCHES SHALL BE MECHANICALLY BACKFILLED IN EIGHT INCH (8) LAYERS AND COMPACTED TO NINETY FIVE PERCENT (95%) OF THE MAXIMUM DRY WEIGHT DENSITY OF THE FILL OR BACKFILL MATERIAL.
7. ALL DETAILS AND SPECIFICATIONS NOT SHOWN ON THESE PLANS SHALL BE IN ACCORDANCE WITH WILLISTOWN TOWNSHIP STANDARDS AND SPECIFICATIONS AND/OR PADOT PUBL. 408.
8. ALL HDPE STORM SEWER PIPE SHALL BE ADS N-12 SMOOTH-BORE PIPE OR EQUIVALENT, UNLESS OTHERWISE NOTED.
9. ALL EXISTING IMPROVEMENTS WITHIN OR ADJACENT TO THE PROJECT AREA THAT MAY BE DISTURBED DURING CONSTRUCTION ARE TO BE MAINTAINED AND/OR REMOVED/RELOCATED BY THE SITE CONTRACTOR PER THE OWNER'S DISCRETION.
10. SPOT ELEVATIONS NOT SHOWN ALONG CURB EDGE SIGNIFY FINISHED GRADE OR PAVEMENT ELEVATIONS.
11. SPOT ELEVATIONS SHOWN AT DRAINAGE STRUCTURES REPRESENT THE TOP OF UNIT ELEVATION AT THE CENTER OF THE STRUCTURE.
12. TOP OF UNIT ELEVATION = TOP OF GRATE OR RIM ELEVATION.
13. FOR ALL EXISTING STORM PIPE CONNECTIONS TO PROPOSED STRUCTURES (MANHOLES AND/OR INLETS), THE CONTRACTOR IS TO PROVIDE A CLEAN, SEALED AND WATERTIGHT CONNECTION. IF A PIPE EXTENSION OF EXISTING STORM PIPE IS REQUIRED FOR PROPER CONNECTION, THE CONTRACTOR IS TO PROVIDE AS REQUIRED.
14. CONTRACTOR SHALL BE RESPONSIBLE FOR CONFIRMING THE LOCATION AND ELEVATION OF ALL EXISTING UTILITIES WITHIN THE WORK AREA BEFORE THE START OF CONSTRUCTION. IF A CONFLICT EXISTS, CONTRACTOR IS TO NOTIFY THE ENGINEER IMMEDIATELY.
15. IF REQUIRED, CONTRACTOR IS RESPONSIBLE FOR GRADE ADJUSTMENT OF ALL SURFACE UTILITIES, INCLUDING BUT NOT LIMITED TO VALVES, LIDS, GRATES, RIMS, CAPS, STORM AND SANITARY STRUCTURES WITHIN THE LIMITS OF WORK. GRADE ADJUSTMENTS SHALL BE MADE PRIOR TO THE INSTALLATION OF PAVEMENT WEARING COURSE OR PLACEMENT OF TOPSOIL IN UNPAVED AREAS.
16. WHERE PROPOSED CURB, SIDEWALK/PATH ARE TO MATCH EXISTING, THE CONTRACTOR IS TO PROVIDE A CLEAN TRANSITION AND REMOVE/REPLACE ANY EXISTING CURB AND/OR SIDEWALK THAT IS DAMAGED AT THE OWNER'S DISCRETION.
17. BITUMINOUS PAVING SHALL BE SAWCUT PRIOR TO APPLICATION OF NEW PAVING, INCLUDING PATCHING IN AREAS OF CURB REPLACEMENT, IF REQUIRED.
18. CONTRACTOR IS RESPONSIBLE FOR ALL TREE AND/OR SHRUB REMOVAL WITHIN THE PROPOSED LIMITS OF WORK, PER THE OWNER'S DISCRETION.
19. ALL STORM DRAINAGE STRUCTURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH CURRENT PENNDOT STANDARDS, DETAILS AND SPECIFICATIONS.
20. WATERTIGHT PIPE CONNECTIONS ARE REQUIRED FOR ALL STORM DRAINAGE PIPING.

## EXISTING FEATURES LEGEND

- EXISTING TRACT BOUNDARY LINE
- EXISTING ADJACENT PROPERTY LINE
- EXISTING LOT LINE
- EXISTING RIGHT-OF-WAY LINE
- EXISTING EASEMENT LINE
- BUILDING SETBACK LINE
- FLOOD PLAIN
- STREAM LINE
- EcB2 / BdA — SOILS LINE AND DESCRIPTION
- EXISTING EDGE OF PAVING
- EXISTING CURB
- 252 — EXISTING 2' CONTOURS
- 250 — EXISTING 10' CONTOURS
- × 250.50 — EXISTING SPOT ELEVATION
- EXISTING FENCE LINE
- EXISTING GUIDE RAIL
- EXISTING SIGN

## PROPOSED FEATURES LEGEND

- PROPOSED EDGE OF PAVING
- PROPOSED WALKWAY
- PROPOSED RETAINING WALL
- PROPOSED SIGN
- PROPOSED TREELINE
- × 254.50 — PROPOSED SPOT ELEVATION
- 252 — PROPOSED 2' CONTOURS
- 250 — PROPOSED 10' CONTOURS
- PROPOSED STORM PIPE W/ TYPE M TOP UNIT
- PROPOSED STORM MANHOLE AND PIPE
- SW 103 / × T/G 246.83 — PROPOSED STORMWATER STRUCTURE W/ LABEL
- CO — PROPOSED CLEANOUT
- E — PROPOSED ELECTRIC LINE
- T — PROPOSED TELEPHONE LINE
- INFILTRATION TEST LOCATION
- TP 3-27-A — TEST PIT
- W — PROPOSED WELL
- G — PROPOSED GEOTHERMAL WELL

Scale in Feet
0 10 20 30 60 90 120
1" = 30'


**COPYRIGHT**

CHESTER VALLEY ENGINEERS, INC., CIVIL ENGINEERS & SURVEYORS, EXPRESSLY RESERVES ITS COMMON LAW COPYRIGHT AND ALL OTHER PROPRIETARY RIGHTS IN THESE PLANS. ALL DRAWINGS, SPECIFICATIONS AND COPIES THEREOF ARE AND SHALL REMAIN THE PROPERTY OF CHESTER VALLEY ENGINEERS, INC. THEY ARE TO BE USED ONLY IN RESPECT TO THIS PROJECT AND ARE NEITHER TO BE USED ON ANY OTHER PROJECT, NOR ARE THEY TO BE ASSIGNED TO ANY THIRD PARTY WITHOUT FIRST OBTAINING THE EXPRESSED WRITTEN PERMISSION AND CONSENT OF CHESTER VALLEY ENGINEERS, INC. ANY RE-USE WITHOUT WRITTEN PERMISSION, VERIFICATION, SYNCENT OF ADAPTATION BY CHESTER VALLEY ENGINEERS, INC. FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO CHESTER VALLEY ENGINEERS, INC. THE THIRD PARTY SHALL FURTHER INDEMNIFY AND HOLD HARMLESS CHESTER VALLEY ENGINEERS, INC., FROM ALL CLAIMS, DAMAGES, LOSSES, AND EXPENSES ARISING THERETO OR RESULTING THEREFROM.


**NOTE TO USER OF THESE PLANS:**

INFORMED THE INFORMATION CONTAINED ON THIS PLAN MAY NOT BE CONSISTENT WITH CONDITIONS IN THE FIELD. ANY PERSON OR ORGANIZATION USING OR RELYING ON THESE PLANS MUST CONTACT CVE FOR VERIFICATION OF ANY APPARENT DISCREPANCY BEFORE PROCEEDING OR RELYING UPON THOSE PLANS FOR ANY PURPOSE. NO CONSTRUCTION OR INSTALLATION OF IMPROVEMENTS SHOULD OCCUR UNTIL ALL DISCREPANCIES HAVE BEEN VERIFIED WITH CHESTER VALLEY ENGINEERS. CHESTER VALLEY ENGINEERS, THEIR OFFICERS, EMPLOYEES AND REPRESENTATIVES SHALL NOT BE LIABLE FOR DAMAGES OF ANY KIND RESULTING FROM THE USERS FAILURE TO OBTAIN CURRENT VERIFICATION OF THE INFORMATION CONTAINED IN THESE PLANS, OR ANY OTHER LOSS OR ANY THIRD PARTY. THE USER ASSUMES ANY RISK OF ANY AND ALL PROPERTY OR FINANCIAL LOSS OR DAMAGES OF ANY KIND RESULTING FROM THE USE OF THIS DOCUMENT WITHOUT FIRST OBTAINING FULL VERIFICATION AND VALIDATION OF THE INFORMATION CONTAINED IN THIS FILE.

UPI NOS.: 54-6-79.7, 54-6-79.7B, 54-6-79.C, 54-6-79.11, & 54-6-81

**PENNSYLVANIA ACT 187 REQUIREMENTS**

UNDERGROUND UTILITIES SERIAL NO.: 20142111409

CHESTER VALLEY ENGINEERS, INC. DOES NOT GUARANTEE THE ACCURACY OF THE LOCATIONS FOR EXISTING SUBSURFACE UTILITY STRUCTURES SHOWN ON THE PLANS, NOR DOES CHESTER VALLEY ENGINEERS, INC. GUARANTEE THAT ALL SUBSURFACE STRUCTURES ARE SHOWN. THE CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF ALL UNDERGROUND UTILITIES AND STRUCTURES BEFORE THE START OF WORK.

**EXCAVATIONS, TRENCHING, AND SHORING**

ALL EXCAVATIONS, TRENCHING, AND SHORING OPERATIONS SHALL COMPLY WITH THE REQUIREMENTS OF THE FOLLOWING UNITED STATES DEPARTMENT OF LABOR OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION PUBLICATIONS OR THE LATEST REVISIONS THERETO:

(1) CONSTRUCTION INDUSTRY STANDARDS AND INTERPRETATIONS (OSHA 2207) SUBPART "P", PART 1926/1910 – "EXCAVATIONS, TRENCHING AND SHORING".

(2) "EXCAVATIONS AND TRENCHING OPERATIONS" (OSHA 2226) (ATED 1985 (REVISED).

SEE SHEET 1 FOR FACILITY OWNER'S DESIGNATED OFFICE ADDRESS AND TELEPHONE NUMBER.

PENNSYLVANIA ONE CALL SYSTEM, INC.
CALL 3 WORKING DAYS BEFORE YOU DIG
1-800-242-1776
**POCS SERIAL NUMBER: 20142111409**

## SOILS LIST

| SYMBOL | DESCRIPTION | DEPTH TO SEASONALLY HIGH WATER TABLE | DEPTH TO BEDROCK | SUITABILITY FOR: WATER GRADING | ROAD SUBGRADE | ROAD FILL | TOPSOIL | CHARACTERISTICS THAT AFFECT: FARM POND EMBANKMENTS |
|---|---|---|---|---|---|---|---|---|
| GLADSTONE GRAVELLY LOAM | | | | | | | | |
| GdB | 3% TO 8% SLOPES | 6" PLUS | 5' TO 6' | GOOD | FAIR | FAIR | GOOD | PERMEABILITY |

OVERALL SITE PLAN

| NO. | DATE | REVISION |
|---|---|---|

**PRELIMINARY/FINAL LAND DEVELOPMENT PLAN**
FOR
**RUSHTON CONSERVATION CENTER**
**RUSHTON WOODS PRESERVE**
**WILLISTOWN TWP - CHESTER COUNTY - PENNSYLVANIA**


Chester Valley Engineers
civil engineers & land surveyors
Chester Valley Engineers, Inc.
Main Office: 83 Chestnut Road
P.O. Box 447, Paoli, PA 19301
(610) 644-4623
(610) 889-3143 Fax
cve@chestervy.com
http://www.chestervy.com


PROJECT NO. 19960-3000
F.B.

| SCALE | DATE | DRAWN BY | CHECKED BY | DRAWING |
|---|---|---|---|---|
| 1" = 30' | 2/24/16 | DMS | NJC | |



J:\CVE 19000\19960\Dwg\Drawings\Dir 02 Site Plan - 30 Scale.dwg 3/24/2016 4:40:25 PM.