

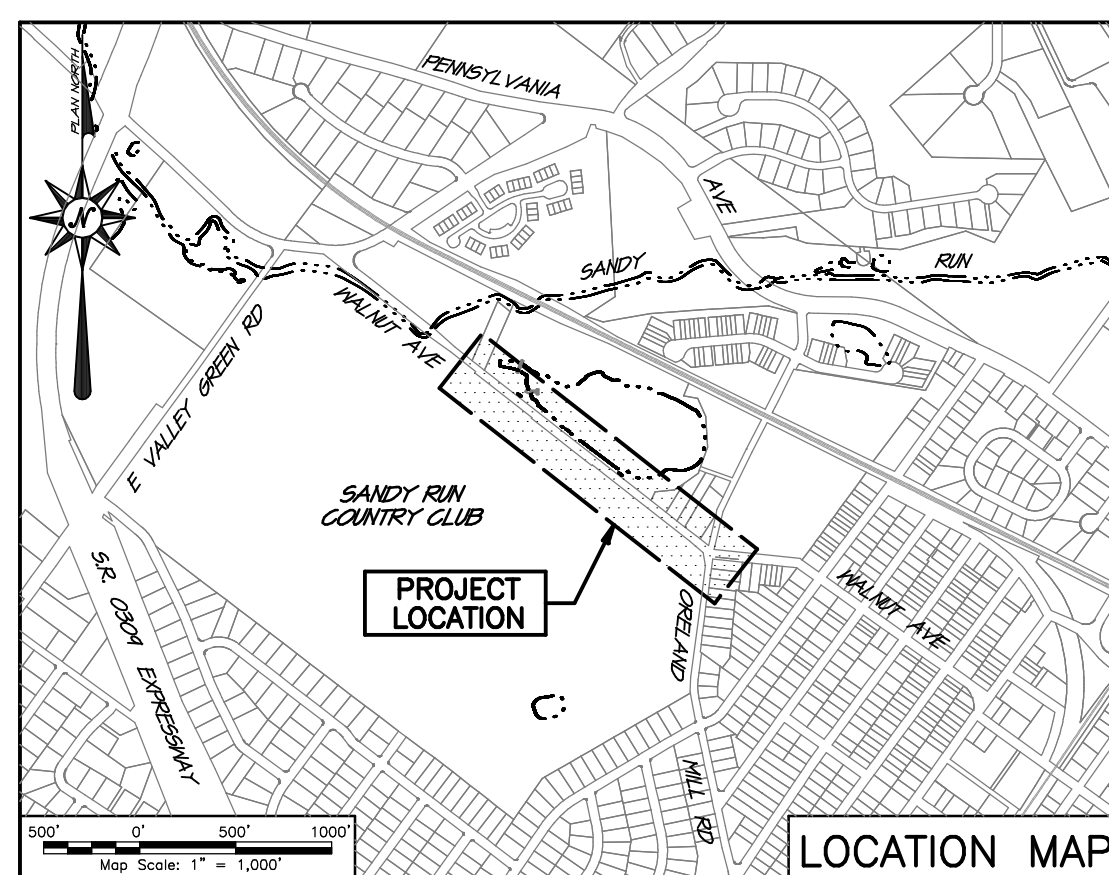
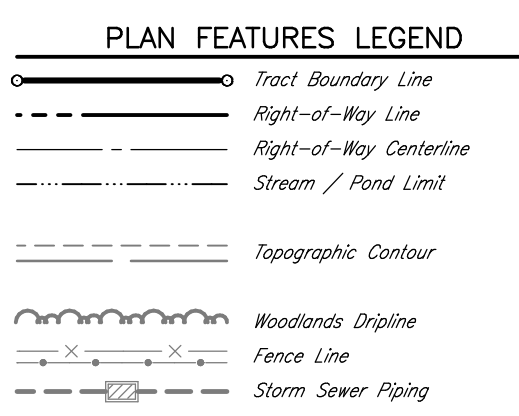
**GENERAL PLAN NOTES**

- EXISTING FEATURES and SURVEY NOTES:**
- This survey was performed without the benefit of a Title Report and was prepared from documents of record. This property may be subject to additional rights of others that might be listed in a Title Report. Bearings shown reflect rotation to match Pennsylvania South Zone 3702 State Plane Coordinate bearing basis. Survey prepared during February of 2022.
  - A topographic and existing features survey was performed for this site by Woodrow & Associates, Inc. Site elevation datum is referenced per note 3 below. Survey prepared during February of 2022.
  - This plan was prepared utilizing the following references:
    - Tax maps and deeds of record as obtained from the Recorder of Deeds online resources.
    - Existing soils classifications and mapping has been plotted from maps obtained from the USDA Web Soil Survey website (<http://websoilsurvey.sc.egov.usda.gov/>) unless otherwise noted.
    - Vertical datum references provided by the PA Spatial Data Access system (PASDA). PAMAP data is based on PA State Plane (South) NAD83 horizontal, NAVD83 vertical datum.
    - Aerial imagery used for base plan reference provided by NearMap, Inc. Imagery from flight dated October 20, 2021.
    - Plans prepared by Boucher & Jones, Inc. for Springfield Township, titled "Right-of-Way Way Acquisition" dated June 12, 2020 (no revision).
    - Deed of Dedication for Walnut Avenue Right-of-Way from Sandy Run Country Club to Springfield Township. Recorded Oct. 07, 2020 in Deed Book 9205 Pg 125-133.
  - There has been no field investigation performed to verify any existence of any wetlands, waters of the U.S. or Commonwealth or Alluvial Soils at the time of the site survey.
  - This site is located within Flood Plain Zone "X" (areas determined to be outside the 0.2% annual chance floodplain) as illustrated on Community Panel Number 42091-C-0377-6, effective date March 2, 2016, as prepared by the Federal Emergency Management Agency. No computational floodplain study has been performed for this plan.
  - All persons digging on this site shall comply with the requirements of Section 5 of PA Act 287 as amended by PA Act 181. State law requires a three (3) business day notice prior to any digging (does not include state holidays or weekends). Dial 8-1-1 or go to [www.paohd.com](http://www.paohd.com).
  - Existing subsurface utility information illustrated on these plans were based upon visual field locations obtained as part of site survey operations. The information provided is representative of subsurface conditions only at locations and depths where such information was available. There is no expressed or implied agreement that subsurface utility connections exist between explored locations. Accordingly, utility information shown should not be relied upon for construction purposes. It is incumbent upon the contractor to verify subsurface utilities prior to excavation.
- BASE DEVELOPMENT NOTES:**
- The contractor shall ensure that all necessary permits and approvals have been obtained prior to commencement of any site construction activities.
  - Erosion and sedimentation control measures shall be in place and functional prior to any earth disturbance or grading work.
  - Contractor to ensure compliance with ADA regulations.
  - Nothing shall be permitted to be set on, placed or planted within, the area of any utility or storm water easement except lawns or suitable low ground cover.
  - Construction materials and procedures shall follow Pennsylvania Department of Transportation Specifications and Standard Drawings (latest edition).
  - Any/all storm water conveyance system(s) and detention facilities shown on these plans are a basic and perpetual part of the storm water management system for this Municipality, and as such, are to be protected, maintained and preserved in accordance with the approved plans. The Municipality and/or its agents may reserve the right and privilege to enter upon such lands from time to time for the purpose of inspection of said storm water management system in order to determine that the structural design and integrity are being maintained.
- DEVELOPMENT and CONSTRUCTION NOTES:**
- A minimum of six (6) inches of clean topsoil shall be provided on all lawn and planting areas.
  - Site grading shall be performed in accordance with these plans. The contractor shall be responsible for removing and replacing all soft, yielding or unsuitable materials and replacing with suitable materials. All excavated or filled areas shall be compacted to 95% of modified proctor maximum density per A.S.T.M. Test D-1557, moisture content at time of placement shall be no more than 2% above nor 3% below optimum, contractor shall submit a compaction report prepared by a qualified soils engineer, registered within the state where the work is performed, verifying that all filled areas and subgrade areas within the building pad area and areas to be paved have been compacted in accordance with these plans.
  - Subbase material for sidewalks, curb, or asphalt shall be free of organics and other unsuitable materials. Should subbase be deemed unsuitable, subbase is to be removed and filled with approved fill material compacted to 95% optimum density (as determined by modified proctor method).
  - The minimum slope in grassed areas shall not be less than 2% and the minimum in paved areas shall not be less than 1%.
  - Erosion control matting shall be provided on all earth slopes at 3:1 or greater.

**EROSION CONTROL NOTES:**

- All denuded soil surfaces including soil stockpiles that are subject to erosion shall be stabilized immediately, either temporarily or permanently. Crushed stone on pavement subgrades is considered adequate protection. Disturbed areas which are not at finished grade and which will be redisturbed within one (1) year may be stabilized with a quick growing, temporary seeding mixture and mulch. During non-germination periods, mulch shall be applied at recommended rates. Germination period shall be from April 1st to 15th and August 15th to October 15th, during non-germination periods mulched areas shall be limed, fertilized, seeded and mulched immediately.
- If any of the measures contained within this plan prove inadequate at removing sediment from flows prior to discharge or stabilizing of the surfaces involved, additional measures must be immediately implemented by the Contractor/Applicant to eliminate all such problems.
- At least 3 days prior to starting any earth disturbance activities, or expending into an area previously unmarked, the Pennsylvania One Call System Inc. shall be notified at 1-800-242-1776 or 811 for the location of existing underground utilities.
- Areas to be filled are to be cleared, grubbed, and stripped of topsoil to remove trees, vegetation, roots and other objectionable material.
- All off-site waste and borrow areas must have an E&S plan approved by the local conservation district or the Department fully implemented prior to being activated.
- 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 on a weekly basis. All preventative and remedial maintenance work, including clean out, repair, replacement, regrading, reseeding, mulching and renetting must be performed immediately, if the E&S BMPs fail to perform as expected, replacement BMPs, or modifications of those installed will be required.
- Sediment tracked onto any public roadway or sidewalk shall be returned to the construction site by the end of each work day and disposed in the manner described in this plan. In no case shall the sediment be washed, shoveled, or swept into any roadside ditch, storm sewer, or surface water.
- Areas which are to be topsoiled shall be scarified to a minimum depth of 3 to 5 inches - 6 to 12 inches on compacted soils - prior to placement of topsoil. Areas to be vegetated shall have a minimum 4 inches of topsoil in place prior to seeding and mulching. Fill outcrops shall have a minimum of 2 inches of topsoil.
- All fills shall be compacted as required to reduce erosion, slippage, settlement, subsidence or other related problems. Fill intended to support buildings, structures and conduits, etc. shall be compacted in accordance with local requirements or codes.
- All earthen fills shall be placed in compacted layers not to exceed 9 inches in thickness.
- Fill materials shall be free of frozen particles, brush, roots, sod, or other foreign or objectionable materials that would interfere with or prevent construction of satisfactory fills.
- Fill shall not be placed on saturated or frozen surfaces.
- Permanent stabilization is defined as a minimum uniform, perennial 70% vegetative cover or other permanent non-vegetative cover with a density sufficient to resist accelerated erosion. Cut and fill slopes shall be capable of resisting failure due to slumping, sliding, or other movements.
- After final site stabilization has been achieved, temporary erosion and sediment BMPs must be removed or converted to a permanent post construction stormwater management BMPs. Areas disturbed during removal or conversion of the BMPs shall be stabilized immediately, in order to ensure rapid revegetation of disturbed areas, such removal/conversions are to be done only during the germinating season.

- EROSION CONTROL DEVICES / MAINTENANCE PROGRAM:**
- TEMPORARY ROCK CONSTRUCTION ENTRANCE: (CONSTANT 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 rock. Washing the roadway or sweeping the deposits into roadway ditches, sewers, culverts, or other drainage courses is not acceptable.
- ROCK FILTER: (WEEKLY MAINTENANCE & AFTER EACH RUNOFF EVENT)**
- Rock filters should be inspected weekly and after each runoff event.
  - Sediment shall be removed when accumulations reach 1/2 the height of the filter.
  - Clogged filter stone (AASHTO #57) or clogged compost layer should be replaced immediately upon discovery.
- SILT FENCE: (WEEKLY MAINTENANCE & AFTER EACH RUNOFF EVENT)**
- Silt fence should be inspected weekly and after each runoff event. Needed repairs should be initiated immediately after the inspection. Sediment shall be removed when accumulations reach half the aboveground height of the fence.
- EROSION CONTROL BLANKET: (WEEKLY MAINTENANCE & AFTER EACH RUNOFF EVENT)**
- 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.
- COMPOST FILTER SOCK: (WEEKLY MAINTENANCE & AFTER EACH RUNOFF EVENT)**
- Compost filter socks shall be inspected weekly and after each runoff event. Damaged socks shall be repaired according to manufacturer's specifications or replaced within 24 hours of inspection. Bio-degradable filter socks shall be replaced after 6 months; photodegradable socks after 1 year. Polypropylene socks shall be replaced according to manufacturer's specifications.
- SEDIMENT DISPOSAL:**
- Silt removed from temporary erosion and sediment control devices shall be disposed of on-site in landscaped areas located outside the 100 year flood plain, wetlands, steep slopes and drainage swales. Areas of sediment disposal shall be considered a critical vegetation area requiring immediate stabilization. Each drainage sub-area will require separate and unique erosion and sediment control measures. The contractor shall follow the specific construction sequence deemed appropriate by the local soil conservation district.
  - All BMP listed above require inspection weekly and after each runoff event. All required repairs and or replacement of BMP's must be done immediately.



REVISIONS

2 02/07/24 MISG UPDATES PER INITIAL BIDDING SUBMISSION  
1 01/16/24 UPDATE FENCE MATERIAL, EX. CENTERLINE LOCATION, MISG. NOTES & DETAILS

SEAL

SEAL

PROJECT SERIAL NUMBER FOR DESIGN: 20220602715 / 20220602676  
Mar 01, 2022

**Pennsylvania 811**

Applicant:  
**SPRINGFIELD TOWNSHIP**  
c/o A. Michael Taylor,  
Township Manager  
1510 Paper Mill Road  
Wyndmoor, PA 19038  
(215) 836 - 7600

**SPRINGFIELD TOWNSHIP**  
Montgomery County, Pennsylvania  
1681

Scale in Feet (1" = 60')

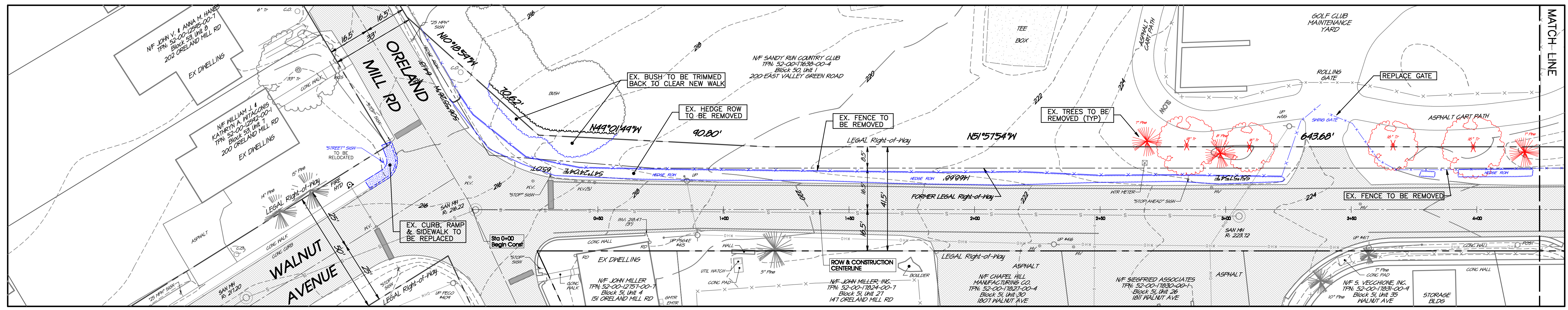
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MUNICIPAL / CIVIL CONSULTING ENGINEERS  
1108 North Bethlehem Pike / Suite 5 - Lower Gwynedd - PA 19002  
Phone: (215) 242-2548 Web: [www.woodrowinc.com](http://www.woodrowinc.com)

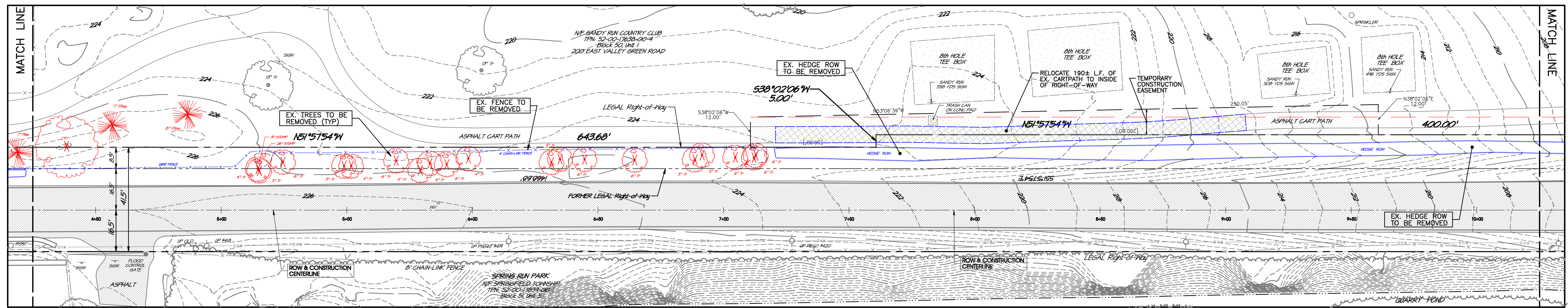
CONSTRUCTION BID PLAN SET  
**PROJECT AREA - MASTER PLAN**  
WALNUT AVENUE SIDEWALK  
SPRINGFIELD TOWNSHIP - MONTGOMERY COUNTY - PENNSYLVANIA

Layer List: BID\_SH01  
Job No: 21-0110 SP  
Plan Date: JULY 12, 2022  
Sheet No: 1 of 4

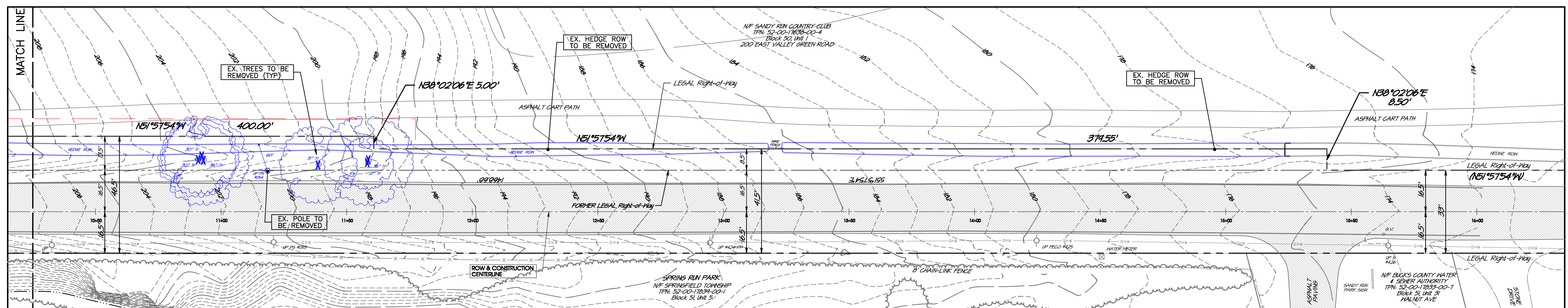




SECTION 'A' - Sta 0+00 to 4+25



SECTION 'B' - Sta 4+25 to 10+25



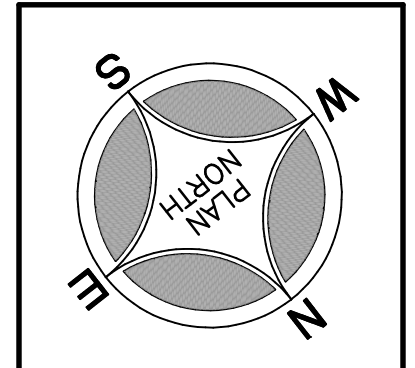
SECTION 'C' - Sta 10+25 to 16+00

**PLAN FEATURES LEGEND**

|  |                         |  |                              |
|--|-------------------------|--|------------------------------|
|  | Tract Boundary Line     |  | Project Limit of Disturbance |
|  | Right-of-Way Line       |  | Temp Compost Silt Sock       |
|  | Right-of-Way Centerline |  |                              |
|  | Stream / Pond Limit     |  |                              |
|  | Topographic Contour     |  |                              |
|  | Woodlands Drpline       |  |                              |
|  | Fence Line              |  |                              |
|  | Storm Sewer Piping      |  |                              |

**REVISIONS**

|   |          |   |
|---|----------|---|
| 1 | 07/16/24 | UPDATE FENCE MATERIAL, EX. CARTPATH RELOCATION, MISC. NOTES & DETAILS |
| 2 | 02/07/24 | MISC. UPDATES PER METAL BEDDING SUBMISSION                            |



SEAL

SEAL

PROJECT SERIAL NUMBER FOR DESIGN: 20220602715 / 20220602676  
Mar 01, 2022



Applicant:  
**SPRINGFIELD TOWNSHIP**  
c/o A. Michael Taylor,  
Township Manager  
1510 Paper Mill Road  
Wyndmoor, PA 19038  
(215) 836 - 7600



Scale in Feet (1" = 20')

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**CONSTRUCTION BID PLAN SET**

**SITE SURVEY and DEMOLITION PLAN**

**WALNUT AVENUE SIDEWALK**

SPRINGFIELD TOWNSHIP - MONTGOMERY COUNTY - PENNSYLVANIA

**WOODROW & ASSOCIATES, INC.**  
MUNICIPAL / CIVIL CONSULTING ENGINEERS

1108 North Bethlehem Pike / Suite 5 - Lower Gwynedd - PA 19002  
Phone: (215) 242-2949 Web: www.woodrowinc.com

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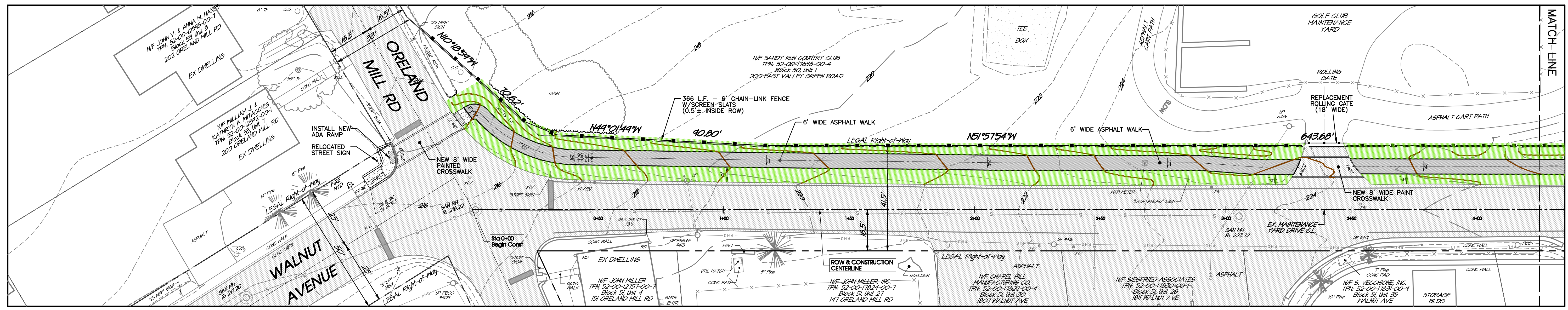
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21-0110 SP

Plan Date:  
JULY 12, 2022

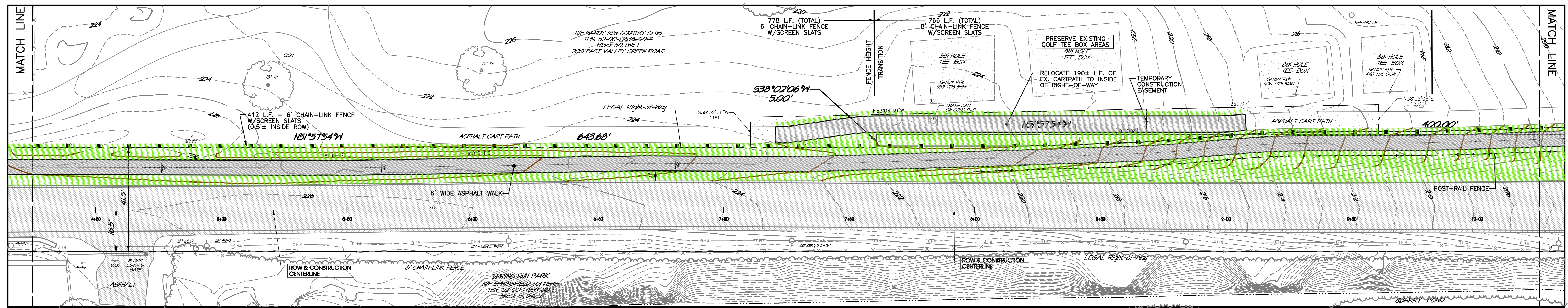
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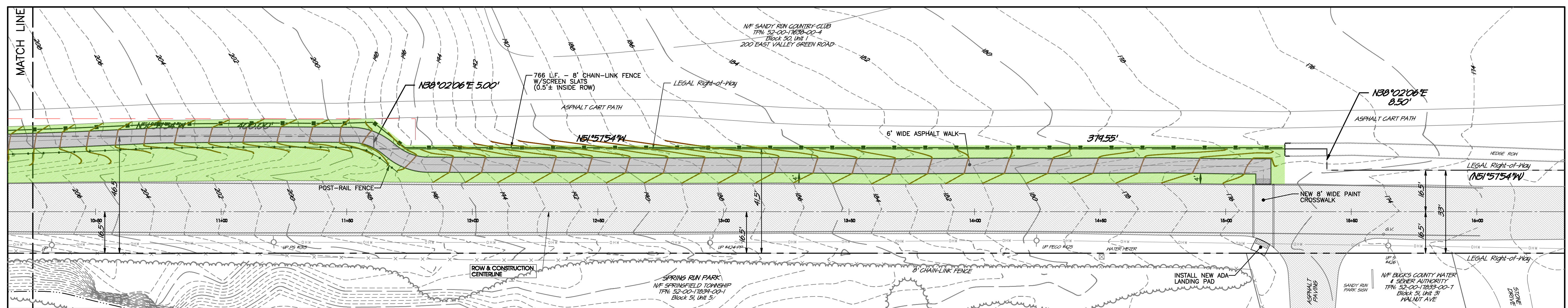




SECTION 'A' - Sta 0+00 to 4+25



SECTION 'B' - Sta 4+25 to 10+25



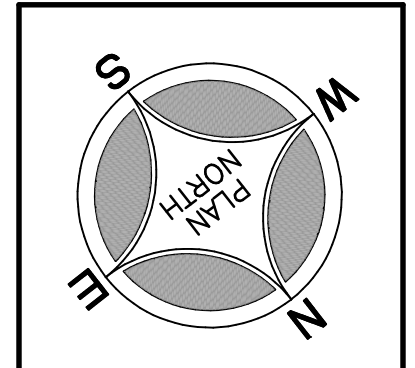
SECTION 'C' - Sta 10+25 to 16+00

**PLAN FEATURES LEGEND**

|  |                         |  |                              |
|--|-------------------------|--|------------------------------|
|  | Foot Boundary Line      |  | Project Limit of Disturbance |
|  | Right-of-Way Line       |  | Temp Compost Silt Sock       |
|  | Right-of-Way Centerline |  | Post-Rail Fence (4-Ft. High) |
|  | Stream / Pond Limit     |  | Proposed Grade Contour       |
|  | Topographic Contour     |  |                              |
|  | Woodlands Driveline     |  |                              |
|  | Fence Line              |  |                              |
|  | Storm Sewer Piping      |  |                              |

**REVISIONS**

|   |          |  |
|---|----------|--|
| 1 | 02/07/24 | MISC UPDATES PER METAL BUILDING SUBMISSION                           |
| 2 | 01/16/24 | UPDATE FENCE MATERIAL, EX CARTPATH RELOCATION, MISC. NOTES & DETAILS |



SEAL

SEAL

PROJECT SERIAL NUMBER FOR DESIGN:  
20220602715 / 20220602676  
Mar 01, 2022



Applicant:  
**SPRINGFIELD TOWNSHIP**  
c/o A. Michael Taylor,  
Township Manager  
1510 Paper Mill Road  
Wyndmoor, PA 19038  
(215) 836 - 7600



Scale in Feet (1" = 20')  
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SPRINGFIELD TOWNSHIP - MONTGOMERY COUNTY - PENNSYLVANIA  
1108 North Bethlehem Pike / Suite 5 - Lower Gwynedd - PA 19002  
Phone: (215) 242-2949 Web: www.woodrowinc.com

CONSTRUCTION BID PLAN SET  
PROPOSED SIDEWALK  
IMPROVEMENT'S PLAN  
WALNUT AVENUE SIDEWALK

Layer List:  
BID\_Sh03

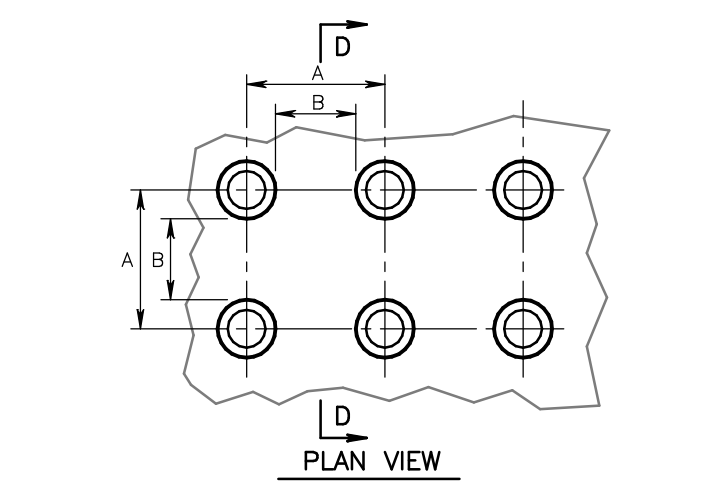
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Plan Date:  
JULY 12, 2022

Sheet No:  
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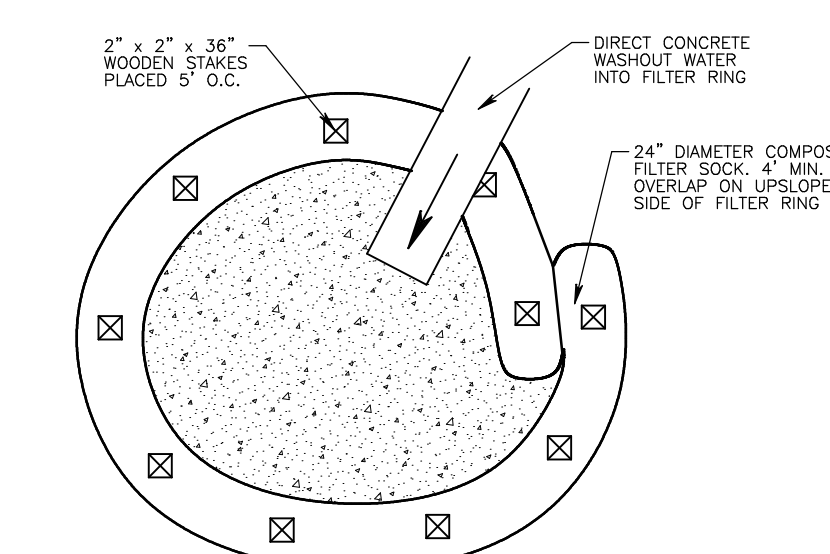
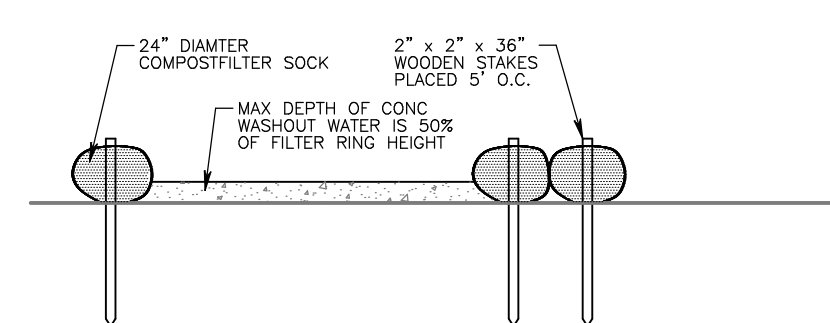




| TRUNCATED DOME DIMENSIONS |               |               |               |
|---------------------------|---------------|---------------|---------------|
| DIM                       | MIN mm (inch) | MAX mm (inch) | MIN mm (inch) |
| A                         | 41 (1.6)      | 61 (2.4)      |               |
| B                         | 17 (0.65)     | 37 (1.5)      |               |
| C                         | 13            | 13            |               |
| D                         | 23 (0.9)      | 36 (1.4)      |               |

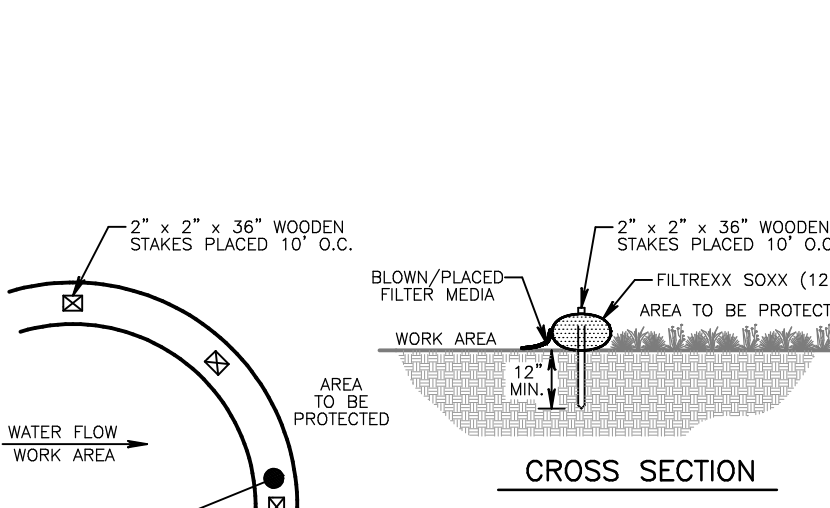
- The C Dimension is 50% to 65% of the D Dimension
- Place adjacent DWS Tiles with Manufactured Surface to Manufactures Surface. Cut Tiles along the perimeter only.
- Locate one corner of the DWS at the back of the curb. No other point on the leading edge of the DWS may be more than 1525 (60") away from the back of the curb.

**DETECTABLE WARNING SURFACE (DWS) TRUNCATED DOME DETAIL**  
Not To Scale



- NOTES:
- Install on flat grade for optimum performance
  - 18" diameter filter sock may be stacked onto double 24" diameter socks in pyramidal configuration for added height.
  - A suitable impervious geomembrane shall be placed at the location of the washout prior to installing the sock.

**COMPOST SOCK CONCRETE WASHOUT AREA**  
Not To Scale



- NOTES:
- ALL MATERIAL TO MEET FILTREXX SPECIFICATIONS
  - FILTER MEDIA FILL TO MEET APPLICATION REQUIREMENTS.
  - COMPOST MATERIAL TO BE DISPERSED ON SITE, AS DETERMINED BY ENGINEER.

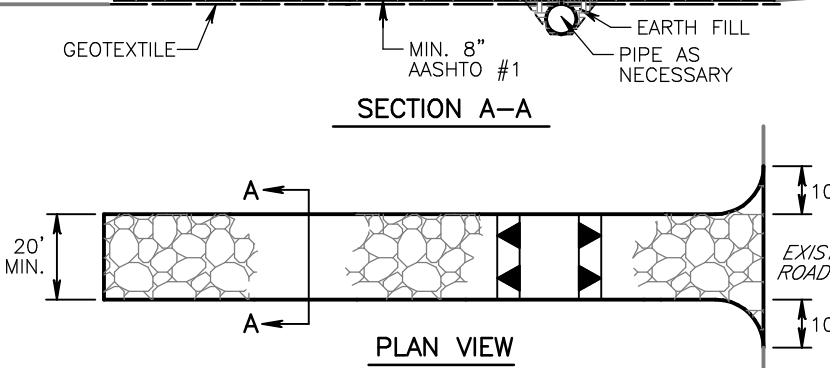
| SLOPE PERCENT | Maximum Slope Length Above Sediment Control in Feet (meters) * |                              |                              |                              |                              |
|---------------|--|------------------------------|------------------------------|------------------------------|------------------------------|
|               | 8" (200mm) SEDIMENT CONTROL                                    | 12" (300mm) SEDIMENT CONTROL | 18" (450mm) SEDIMENT CONTROL | 24" (600mm) SEDIMENT CONTROL | 32" (800mm) SEDIMENT CONTROL |
| 2 (or less)   | 600 (180)  | 750 (225)                    | 1000 (300)                   | 1300 (400)                   | 1650 (500)                   |
| 5             | 400 (120)  | 500 (150)                    | 550 (165)                    | 650 (200)                    | 750 (225)                    |
| 10            | 200 (60)   | 250 (75)                     | 300 (90)                     | 400 (120)                    | 500 (150)                    |
| 15            | 140 (40)   | 170 (50)                     | 200 (60)                     | 325 (100)                    | 450 (140)                    |
| 20            | 100 (30)   | 125 (38)                     | 140 (42)                     | 260 (80)                     | 400 (120)                    |
| 25            | 80 (24)  | 100 (30)                     | 110 (33)                     | 200 (60)                     | 275 (85)                     |
| 30            | 60 (18)  | 75 (23)                      | 90 (27)                      | 130 (40)                     | 200 (60)                     |
| 35            | 60 (18)  | 75 (23)                      | 80 (24)                      | 115 (35)                     | 150 (45)                     |
| 40            | 60 (18)  | 75 (23)                      | 80 (24)                      | 100 (30)                     | 125 (38)                     |
| 45            | 40 (12)  | 50 (15)                      | 60 (18)                      | 80 (24)                      | 100 (30)                     |
| 50            | 40 (12)  | 50 (15)                      | 55 (17)                      | 65 (20)                      | 75 (23)                      |

- \* BASED ON A FAILURE POINT OF 36" (0.9 m) SUPER SILT FENCE (WIRE REINFORCED) AT 1000 FT. (303 m) OF SLOPE, WATERED WITH EQUIVALENT TO RECEIVING LENGTH OF SEDIMENT CONTROL DEVICE, 1.724 in (25 mm/24 hr) RAIN EVENT.
- \*\* EFFECTIVE HEIGHT OF SEDIMENT CONTROL AFTER INSTALLATION AND WITH CONSTANT HEAD FROM RUNOFF AS DETERMINED BY OHIO STATE UNIVERSITY.

**FILTREXX SOXX BRAND OR APPROVED EQUAL COMPOSITE FILTER SOCK**  
Not To Scale

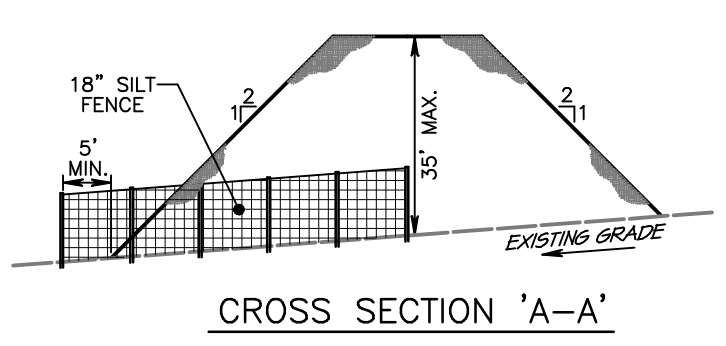
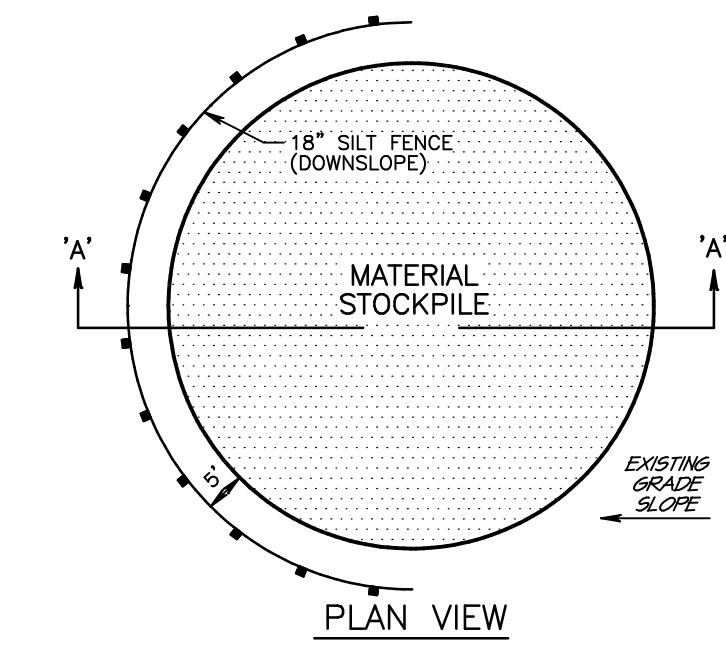


**CONCRETE PAD**  
Not To Scale



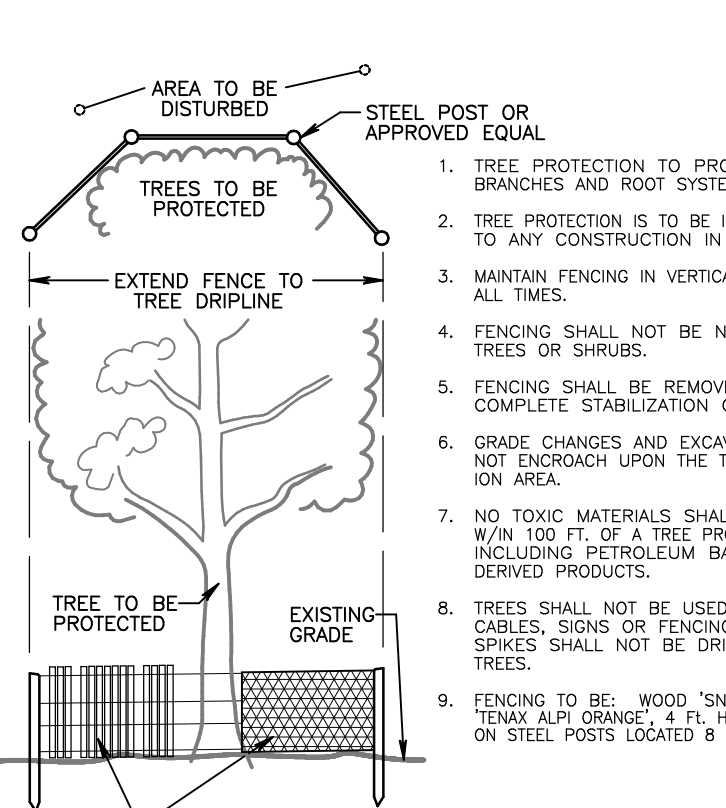
- REMOVE TOPSOIL PRIOR TO INSTALLATION OF ROCK CONSTRUCTION ENTRANCE. EXTEND ROCK OVER FULL WIDTH OF ENTRANCE.
- RUNOFF SHALL BE DIVERTED FROM ROADWAY TO A SUITABLE SEDIMENT REMOVAL BMP PRIOR TO ENTERING ROCK CONSTRUCTION ENTRANCE.
- MOUNTABLE BERM SHALL BE INSTALLED WHEREVER OPTIONAL CULVERT PIPE IS USED AND PROPER PIPE COVER AS SPECIFIED BY MANUFACTURER IS NOT OTHERWISE PROVIDED. PIPE SHALL BE SIZED APPROPRIATELY FOR SIZE OF DITCH BEING CROSSED.
- MAINTENANCE:**
- ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE. ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE IMMEDIATELY. IF EXCESSIVE AMOUNTS OF SEDIMENT ARE BEING DEPOSITED ON ROADWAY, EXTEND LENGTH OF ROCK CONSTRUCTION ENTRANCE BY 50 FOOT INCREMENTS UNTIL CONDITION IS ALLEVIATED OR INSTALL WASH RACK, WASHING THE ROADWAY OR SWEEPING THE DEPOSITS INTO ROADWAY DITCHES, SEWERS, CULVERTS, OR OTHER DRAINAGE COURSES IS NOT ACCEPTABLE.

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

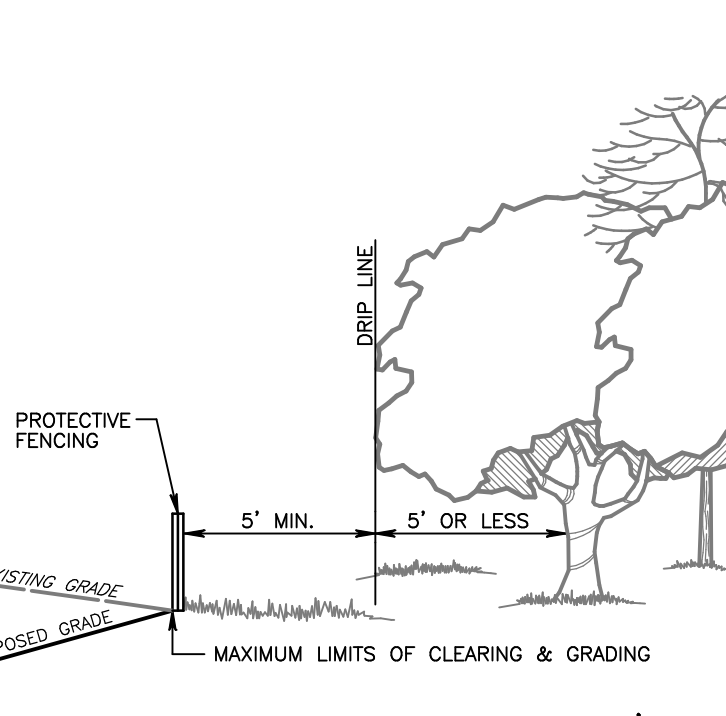


**TEMPORARY STOCKPILE AREA**  
Not To Scale

- STOCKPILE HEIGHTS MUST NOT EXCEED 35 FEET.
- SIDE SLOPES MUST BE NO GREATER THAN 2:1. 2 FEET HORIZONTALLY TO ONE FOOT VERTICALLY.
- 18" SILT FENCE SHALL BE INSTALLED ON THE DOWN SLOPE SIDE OF THE STOCKPILE AT A MINIMUM OF 5 FEET FROM THE TOE OF SLOPE.
- SHOULD THE NEED ARISE WHERE ADDITIONAL STOCKPILE AREAS ARE REQUIRED, THOSE AREAS MUST BE APPROVED BY THE LOCAL AUTHORITY OR COUNTY CONSERVATION DISTRICT.
- STOCKPILE AREA MUST BE SEEDED AND MULCHED IMMEDIATELY AFTER THE PLACEMENT OF ANY STOCKPILE MATERIAL.



**TREE PROTECTION FENCING**  
NOT TO SCALE



**WHERE DRIPLINE IS LESS THAN 5' CONSTRUCTION OPERATIONS RELATIVE TO THE LOCATION OF PROTECTED TREES**  
Not To Scale

**CONSTRUCTION SEQUENCE**

At least 7 days before starting any earth disturbance activities, the operator shall invite all contractors involved in those activities, all appropriate municipal officials, the erosion and sediment control plan preparer, the designated Licensed Professional, and the local Conservation District to an on-site meeting.

At least 3 days before starting any earth disturbance activities, all contractors involved in those activities shall notify the Pennsylvania One Call Inc. System at 811 or 1-800-242-1776.

All earth disturbance activities shall proceed in accordance with the outlined sequence on these plans. 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. General site clearing, grubbing, and topsoil stripping may not commence in any stage or phase of the project until the EAS BMPs specified by the Construction Sequence for that stage or phase have been installed and are functioning as described in this document.

Upon temporary cessation of an earth disturbance or any stage or phase of an activity where a cessation of earth disturbance activities exceed 4 days, the site shall be immediately seeded, mulched or otherwise protected from accelerated erosion and sedimentation pending future earth disturbance activities.

**PHASE ONE CONSTRUCTION:**

- Stakeout and flag Limit of Disturbance.

Vegetated areas shall be considered permanently stabilized when a uniform 70% vegetative cover or erosion resistant perennial species have been achieved, or the disturbed area is covered with an acceptable BMP which permanently minimizes accelerated erosion and sedimentation. Until such time as this standard is achieved, interim stabilization measures and temporary erosion and sediment control BMPs that are used to treat project runoff may not be removed.

**FERTILIZATION, SEEDING AND MULCHING:**

**TEMPORARY COVER ON DISTURBED AREAS:**

Upon temporary cessation of an earth disturbance or any stage or phase of an activity where a cessation of earth disturbance activities exceed 4 days, the site shall be immediately seeded, mulched or otherwise protected from accelerated erosion and sedimentation pending future earth disturbance activities.

**PERMANENT COVER ON DISTURBED AREAS:**

Disturbed areas which are either at finish grade or will not be redistributed a within one (1) year period must be seeded and mulched with a permanent seed mixture.

All disturbed areas shall be stabilized immediately with a temporary seed and mulch mixture applied at the recommended rates. Site preparation of mulch and maintenance shall be performed in accordance with the Penn State University's Erosion Control & Conservation Plantings on Noncropland manual and Pennsylvania Department of Transportation publication form 408 specifications (latest edition). During nongermination periods, mulch must be applied at the recommended rates.

Graded areas shall be scarified or otherwise loosened to a depth of 3" to 5" prior to topsoil placement to permit the bonding of new topsoil.

**MULCHING:**

All seeded areas should be mulched or blanketed to minimize the potential for failure to establish adequate vegetative cover. Mulching may also be used as a temporary stabilization of disturbed areas in non-germinating seasons. Mulch shall be applied immediately after seeding or at the termination of grading operations during non-germinating seasons.

Straw and hay mulch should be anchored or tacked immediately after application to prevent being windblown. A tractor-drawn implement may be used to "crimp" the straw or hay into the soil about 3 inches deep. This method should be limited to slopes no steeper than 3H:1V. The machinery shall be operated on the contour.

Polymeric and gum tackifiers mixed and applied according to manufacturer's recommendations may be used to tack mulch. Avoid application during rain and on windy days. A 24-hour curing period and a soil temperature of 45 degrees F are typically required. Application should generally be heaviest at edges of seeded areas and in crests of ridges and banks to prevent loss. The remainder of the area shall have binder applied uniformly. Binders may only be applied after mulch is spread or sprayed onto the mulch as it is being blown onto the soil.

Synthetic binders, or chemical binders, may be used as recommended by the manufacturer to anchor mulch provided that sufficient documentation is provided to show they are non-toxic to native plant and animal species.

Mulch on slopes of 8% or steeper should be held in place with netting. Light-weight plastic, fiber, or paper nets may be stapled over the mulch according to manufacturer's recommendations.

Strawed paper hydromulch should not be used on slopes steeper than 5%. Wood fiber hydromulch may be applied on steeper slopes provided a tackifier is used. The application for any hydromulch should be 2000 lb/acre at a minimum.

**MULCH APPLICATION RATES**

| Mulch Type: | Application Rate (Min.) |                 |                 | Notes:  |
|-------------|-------------------------|-----------------|-----------------|---|
|             | Per Acre:               | Per 1,000 S.F.: | Per 1,000 S.Y.: |   |
| Straw       | 3 tons                  | 140 lbs.        | 1,240 lbs.      | Either wheat or oat straw, free of weeds, not chipped or finely broken. |
| Hay         | 3 tons                  | 140 lbs.        | 1,240 lbs.      | Timothy, mixed clover and timothy, or other native forage grasses.      |
| Wood Chips  | 4-6 tons                | 185-275 lbs.    | 1,650-2500 lbs. | May prevent germination of grasses and legumes.                         |
| Hydromulch  | 1 ton                   | 47 lbs.         | 415             | See limitations above.  |

**SEEDING SCHEDULE:**

Seeding to conform to specifications outlined in Section 804 - Seeding and Soil Supplements of PADOT Publication 408/2003 (latest revision).

A soils test should be performed in order to determine actual time and fertilizer needs of the project site instead of using the generic application rates listed below.

**TEMPORARY SEEDING SPECIFICATION - FORMULA E:**

100% ANNUAL RYEGRASS (LOLIUM MULTIFLORUM): 10.0 lbs./1,000 s.y.

**PERMANENT SEEDING SPECIFICATION - FORMULA B:**

70% Tall Fescue (Festuca Arundinacea var., Kentucky 31): 15.0 lbs./1,000 s.y.

30% Creeping Red Fescue or Chewings Fescue: 6.0 lbs./1,000 s.y.

**SEEDING RATES FOR THE ABOVE MIXTURES:**

Spread seeds where indicated and at the rates specified above (and Table A, Pub 408, Section 804). Spread seeds within the following dates, or as otherwise indicated or directed:

- Formula B: - March 15 to June 01
- August 01 to October 15
- Formula E: - March 15 to October 15

Extend seeding dates where project conditions warrant. Apply full treatment or apply only 50% of the permanent seeding and soil supplements and apply the remaining 50% within the next seeding dates.

Place mulch, hay or straw immediately after seeding or within 48 hours after seeding is completed. Place hay or straw uniformly in a continuous blanket until seeding is complete. If directed, increase the rate of application, depending upon the material used, season, soil conditions or method of application.

**SOIL SUPPLEMENTS:**

Powderized agricultural lime and commercial fertilizer shall be applied to all disturbed areas which are to be seeded in both temporary and permanent conditions at the following rates:

| Soil Amendment                            | Permanent Seeding Application Rate |                 |                 | Notes  |
|---|------------------------------------|-----------------|-----------------|--|
|   | Per Acre:                          | Per 1,000 S.F.: | Per 1,000 S.Y.: |  |
| Agricultural Lime                         | 6 tons                             | 240 lb.         | 2,480 lb.       | Or as per soil test; may not be required in agricultural fields. |
| 10-10-20 Fertilizer                       | 1,000 lb.                          | 25 lb.          | 210 lb.         | Or as per soil test; may not be required in agricultural fields. |
| <b>Temporary Seeding Application Rate</b> |                                    |                 |                 |  |
| Agricultural Lime                         | 1 ton                              | 40 lb.          | 410 lb.         | Typically not required for topsoil stockpiles.                   |
| 10-10-10 Fertilizer                       | 500 lb.                            | 12.5 lb.        | 100 lb.         | Typically not required for topsoil stockpiles.                   |

Adapted from Penn State, "Erosion Control and Conservation Plantings on Noncropland"

Print Date: 05/11/2024 10:58 AM Plot Scale: 1" = 20.00'

| REVISIONS |             |
|-----------|-------------|
| NO.       | DESCRIPTION |
| 2         | 02/07/24    |
| 1         | 01/16/24    |

| SEAL |  |
|------|--|
| SEAL |  |

PROJECT SERIAL NUMBER FOR DESIGN: 20220602715 / 20220602676  
Mar 01, 2022



Applicant: **SPRINGFIELD TOWNSHIP**  
c/o A. Michael Taylor,  
Township Manager  
1510 Paper Mill Road  
Wyndmoor, PA 19038  
(215) 836 - 1600



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**WOODROW & ASSOCIATES, INC.**  
MUNICIPAL / CIVIL CONSULTING ENGINEERS  
1108 North Bethlehem Pike / Suite 5 - Lower Gwynedd - PA 19002  
Phone: (215) 242-2646 Web: www.woodrowinc.com

CONSTRUCTION BID PLAN SET  
CONSTRUCTION DETAILS and SPECIFICATIONS  
WALNUT AVENUE SIDEWALK  
SPRINGFIELD TOWNSHIP - MONTGOMERY COUNTY - PENNSYLVANIA

Layer List: BID\_SH04

Job No: 21-0110 SP

Plan Date: JULY 12, 2022

Sheet No: 4 of 4