

## FINAL LAND DEVELOPMENT PLAN FOR

# THE TOWNES AT MARGARET'S GROVE, PH 3A

LOCATED IN SUSQUEHANNA TOWNSHIP, DAUPHIN COUNTY, PA

## PLAN PURPOSE STATEMENT:

THE PURPOSE OF THIS PLAN IS TO BUILD 26 TOWNHOMES AS PART OF THE PREVIOUSLY APPROVED FINAL LAND DEVELOPMENT PLAN FOR PHASES 2 AND 3 OF THE TOWNES AT MARGARET'S GROVE. THE PHASING LAYOUT HAS BEEN UPDATED IN ORDER TO REFLECT CURRENT HOUSING MARKET DEMANDS.

#### **GENERAL NOTES:**

- A WETLAND DELINEATION WAS PERFORMED BY VORTEX ENVIRONMENTAL, INC. ON OCTOBER 6, 2008.
- NO FLOODPLAIN EXISTS ON THIS SITE, AS SHOWN BY FEMA'S NATIONAL FLOOD HAZARD LAYER FIRMETTE, AREA 42043C0330D,
- THE DEVELOPER SHALL BE RESPONSIBLE FOR THE IMPLEMENTATION OF THE APPROVED EROSION CONTROL PLAN. THE NPDES
- RMIT, PAC220101 ALREADY EXISTS FOR THIS SITE FOR DISCHARGE OF STORMWATER. TOPOGRAPHIC BENCHMARK IS A MAGNETIC NAIL IN THE CURB ON THE EASTERN SIDE OF CONTENTENTAL DRIVE NEAR THE NTERSECTION OF NORTHVIEW LANE (NORTHING 366977.9307/EASTING 2216261.6075), HORIZONTAL DATUM NAD83 (OPUS)
- VERTICAL DATUM NAVD88 (OPUS), ELEVATION 479.77'. 7. EACH LOT SHALL HAVE A MINIMUM OF 2 OFF-STREET PARKING SPACES, IN THE GARAGE AND/OR DRIVEWAY
- 8. THE WATER LINE ON THIS PLAN IS SCHEMATIC ONLY AND FINAL DESIGN WILL BE SUPPLIED FOR BY SUEZ WATER
- CONCRETE MONUMENTS TO BE SET AS SHOWN, ALL OTHER CORNERS SHALL BE MARKED WITH 5/8" REBAR. 10. A SEWAGE FACILITIES PLANNING MODULE WAS APPROVED BY DEP WITH THE PRELIMINARY PLAN; DEP CODE NO.
- 11. ALL CONSTRUCTION SHALL CONFORM TO PENNDOT PUBLICATIONS 408 AND 72 STANDARDS AND THE SUSQUEHANNA TOWNSHIP 12. THIS FINAL PHASE 3A PLAN IS BASED ON THE APPROVED PRELIMINARY SUBDIVISION AND LAND DEVELOPMENT PLAN FOR THE TOWNES AT MARGARET'S GROVE AND THE APPROVED FINAL LAND DEVELOPMENT PLAN FOR PHASES 2 AND 3 OF THE TOWNES
- AT MARGARET'S GROVE, AS APPROVED BY SUSQUEHANNA TOWNSHIP BOARD OF COMMISSIONERS. 13. PRIOR TO THE CONSTRUCTION OF ANY FACILITIES SHOWN ON THESE PLANS, THE CONTRACTOR SHALL VERIFY ALL ELEVATIONS
- AND NOTIFY THE OWNER AND ENGINEER OF ANY DISCREPANCIES. 14. TOWNSHIP STAFF SHALL HAVE PERMISSION TO ACCESS DRAINAGE EASEMENTS FROM THE NEAREST RIGHT-OF-WAY.
- 15. INLET BOX CORNERS SHALL NOT BE KNOCKED OUT FOR PIPE CONNECTION.
- 16. IMPLEMENTATION OF THE EROSION CONTROL PLAN IS THE RESPONSIBILITY OF THE LOT OWNER, AND/OR THE PERSON(S) AUTHORIZED BY COVERGE UNDER THE NPDES PERMIT FOR DISCHARGE OF STORM WATER ASSOCIATED WITH CONSTRUCTION
- 17. THE DEVELOPER/CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE A MINIMUM OF 48 HOURS NOTICE AND TO COORDINATE WITH THE TOWNSHIP AND THE TOWNSHIP ENGINEER IN REGARDS TO ALL MUNICIPAL INSPECTION WORK REQUIRED ON THE
- 18. NOTHING SHALL BE PLANTED OR PLACED WITHIN AN EASEMENT WHICH WOULD ADVERSELY AFFECT THE FUNCTION OF THE EASEMENT, OR CONFLICT WITH ANY CONDITIONS ASSOCIATED WITH SUCH EASEMENT
- 19. STORMWATER MANAGEMENT FACILITIES LOCATED ON AN INDIVIDUAL LOT SHALL BE OWNED BY THE LOT OWNER, BUT SHALL BE MAINTAINED BY THE HOMEOWNERS ASSOCIATION. MAINTENANCE OF STORMWATER MANAGEMENT FACILITIES SHALL BE REQUIRED TO ENSURE THAT THEY ARE PERMANENT AND CONTINUOUSLY FUNCTIONING AS ORIGINALLY DESIGNED.
- 20. THE OPERATION AND MAINTENANCE AGREEMENT IS PART OF THE STORMWATER MANAGEMENT PLAN.
- 21. PREVIOUSLY CONSTRUCTED CULVERTS AND ASSOCIATED FACILITIES OUTSIDE OF THE PUBLIC RIGHT-OF-WAY SHALL BE MAINTAINED BY THE HOMEOWNERS ASSOCIATION.
- 22. THE DEVELOPER WILL PAY A FEE OF \$500.00 PER DWELLING UNIT FOR RECREATION FACILITIES IN LIEU OF DEDICATION OF
- 23. ALL UNITS MUST HAVE A STREET ADDRESS NUMBER DISPLAYED PER THE REQUIREMENTS OF SUSQUEHANNA TOWNSHIP'S SUBDIVISION AND LAND DEVELOPMENT ORDINANCE 22-1112.
- 24. ALL STORMWATER CONVEYANCE PIPING SHALL HAVE WATERTIGHT JOINTS
- 25. SIDEWALKS SHALL BE INSPECTED BY THE MUNICIPAL ENGINEER OR HIS DESIGNATED AGENT AFTER THE FORMS HAVE BEEN
- PLACED, JUST PRIOR TO THE POURING OF CONCRETE AND AFTER THE COMPLETION OF ALL WORK.
- 26. ALL STREETS ARE PROPOSED TO BE PRIVATE AND NOT PROPOSED FOR DEDICATION.

## **SURVEYOR / ENGINEER CERTIFICATIONS:**

I HEREBY CERTIFY THAT, TO THE BEST OF MY KNOWLEDGE, THE SURVEY MCNAUGHTON PROPERTIES, L.P. AND PLAN SHOWN AND DESCRIBED HEREON IS TRUE AND CORRECT TO THE 4400 DEER PATH ROAD, SUITE 201 ACCURACY REQUIRED BY THE SUSQUEHANNA TOWNSHIP SUBDIVISION AND LAND DEVELOPMENT ORDINANCE.

MATTHEW R. FISHER, P.L.S., P.E.

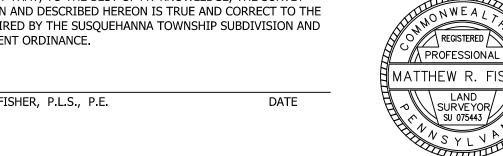
#### **DESIGN ENGINEER:**

HARRISBURG, PA. 17110

PHONE: (717)-234-4000

OWNER / APPLICANT:

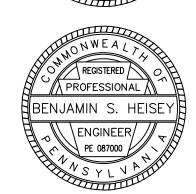
R.J. FISHER & ASSOCIATES, INC. 1546 BRIDGE STREET NEW CUMBERLAND, PA 17070 PHONE: (717) 774-7534 E-MAIL: RJF@RJFISHERENGINEERING.COM



I HEREBY CERTIFY THIS PLAN TO BE CORRECT AS SHOWN.

BENJAMIN S. HEISEY, P.E.





## **ZONING DATA:**

MINIMUM PARKING: 52 SPACES

PROPOSED PARKING: 61 SPACES

ZONE: RESIDENTIAL URBAN ZONING DISTRICT (R-4) (FOR SINGLE FAMILY ATTACHED DWELLINGS ONLY) MINIMUM DEVELOPMENT AREA: 40,000 SQUARE FEET MINIMUM LOT AREA PER DWELLING UNIT: 2,200 SQUARE FEET MINIMUM INDIVIDUAL LOT & STRUCTURE WIDTH: 22 FEET INTERIOR

MAXIMUM BUILDING COVERAGE: 35% PROPOSED BUILDING COVERAGE: 18% PROPOSED NUMBER OF DWELLING UNITS: 92 (PHASES 2 & 3) PROPOSED NUMBER OF DWELLING UNITS IN PHASE 3A: 26 PROPOSED DENSITY: 7.18 UNITS PER ACRE MINIMUM FRONT YARD: 25 FEET MINIMUM SIDE YARD: 10 FEET ONE SIDE, 10 FEET TOTAL SIDES MINIMUM REAR YARD: 25 FEET MAXIMUM PRINCIPAL BUILDING HEIGHT: 30 FEET/3 STORIES

### PA UTILITY ONE - CALL:

SITE DATA:

THE MCNAUGHTON COMPANY

SITE IS TAX PARCEL NUMBER: 62-090-190

HARRISBURG, PA 17110

PHONE: (717) 234-4000

TOTAL LOT AREA: 19.01 ACRES

PROPOSED NUMBER OF LOTS: :

EXISTING WATER SUPPLY: NONE

EXISTING SEWAGE DISPOSAL: NONE

PROPOSED WATER SUPPLY: PUBLIC

PROPOSED SEWAGE DISPOSAL: PUBLIC

4400 DEER PATH ROAD, SUITE 201

E-MAIL: JMCNAUGHTON@MCNAUGHTONCO.COM

TOTAL LAND DEVELOPMENT AREA: 12.82 ACS. (PHASES 2 & 3)

PROPOSED USE: SINGLE FAMILY ATTACHED DWELLINGS

JROMBERGER@MCNAUGHTONHOMES.COM

**RECORD OWNER:** 



PERSON PREPARING TO DISTURB THE EARTH'S SURFACE

ANYWHERE IN THE COMMONWEALTH,

COMPLETED ON FEBRUARY 4, 2021

CONTACT: LOUISE DOLAN COMPANY: VERIZON PENNSYLVANIA LLC ADDRESS: 1026 HAY ST PITTSBURGH, PA. 15221 EMAIL: DEBORAH.D.DELIA@VERIZON.COM COMPANY: PPL ELECTRIC UTILITIES CORPORATION ADDRESS: 503 NEW MARKET ST WILKES BARRE, PA. 18702 CONTACT: MARK SANTAYANA EMAIL: MCSANTAYANA@PPLWEB.COM

LIST OF UTILITIES

ADDRESS: 4601 SMITH STREET HARRISBURG, PA. 17109 CONTACT: MICHAEL SWEIGARD EMAIL: MIKE\_SWEIGARD@CABLE.COMCAST.COM

COMPANY: SUEZ WATER PENNSYLVANIA INC

HUMMELSTOWN, PA. 17036

COMPANY: SUSQUEHANNA TOWNSHIP AUTHORITY ADDRESS: 1900 LINGLESTOWN RD HARRISBURG, PA. 17110 EMAIL: NSPRIGGS@SUSQUEHANNATWP.COM COMPANY: LIGITUTILITIES INC ADDRESS: 1301 AIP DRIVE CONTACT: STEPHEN BATEMAN EMAIL: SBATEMAN@UGI.COM

COMPANY: SUSQUEHANNA TOWNSHIP AUTHORITY SUSQUEHANNA TOWNSHIP ADDRESS: 1900 LINGLESTOWN RD HARRISBURG, PA. 17110 CONTACT: NATHAN SPRIGGS EMAIL: NSPRIGGS@SUSQUEHANNATWP.COM

## **WAIVERS:**

THE FOLLOWING WAIVERS WERE PREVIOUSLY APPROVED WITH THE FINAL LAND DEVELOPMENT PLAN FOR THE TOWNES AT MARGARET'S GROVE, PHASES 2 & 3

WAIVER SECTION	REQUIREMENT
22-407.A.(17)	PERTAINING TO A BUFFER YARDS.
22-407.A.(20)(j)	PERTAINING TO EXISTING RESOURCES AND SITE ANALYSIS PLANS.
22-407.A.(20)(k)	PERTAINING TO RESOURCE IMPACT AND CONSERVATION REPORTS.
22-606.2	PERTAINING TO VERTICAL CURBS ALONG STREETS.
22-502.5.A	PERTAINING TO LOCATION OF DRIVEWAYS.
22-502.6	PERTAINING TO VERTICAL SAG CURVE 'K' VALUE ON MARGARET'S LANE.

#### **DRAWING INDEX:**

	DRAWING INDEX				
SHEET NO.	TITLE				
1	COVER SHEET				
2	EXISTING CONDITIONS PLAN				
3	LAND DEVELOPMENT PLAN				
4	GRADING & PCSM PLAN				
5	LANDSCAPE PLAN				
6	EROSION & SEDIMENT CONTROL PLAN				
7	STREET PROFILES				
8	STREET PROFILES				
9	MISCELLANEOUS DETAILS				
10	MISCELLANEOUS DETAILS				
11	EROSION & SEDIMENT CONTROL DETAILS				

# ACKNOWLEDGMENT OF PLAN, STATEMENT OF OWNERSHIP AND OFFER OF DEDICATION:

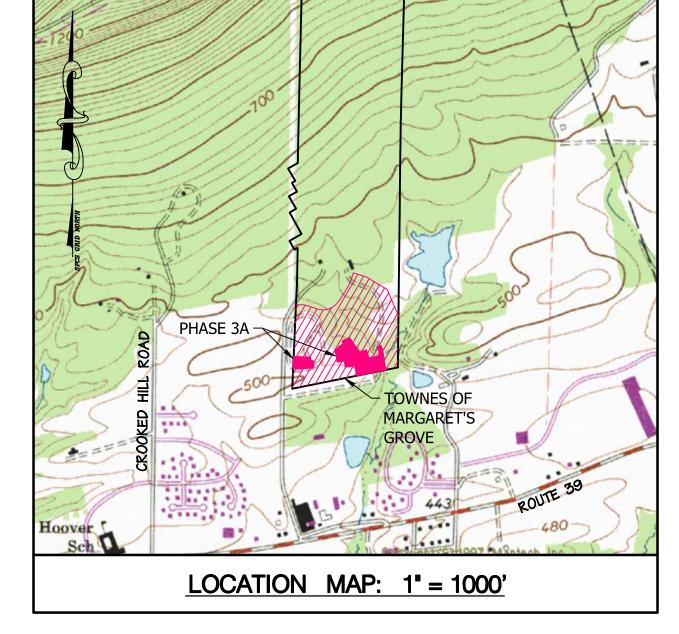
COMMONWEALTH OF PENNSYLVANIA	
COUNTY OF	
ON THIS THE DAY OF UNDERSIGNED PERSONALLY APPEARE	
OWNER(S)	OWNER(S)
OWNER(S)	OWNER(S)
WHO BEING DULY SWORN ACCORDING THEY ARE THE OWNERS OF THE PROPERTY THAT THEY ACKNOWLEDGE THE SAME DESIRE THE SAME TO BE RECORDED	PERTY SHOWN ON THIS PLAN AND E TO BE THEIR ACT AND DEED AND
WITNESS MY HAND AND NOTORIAL S WRITTEN	EAL THE DAY AND THE DATE ABOVE
NOTARY PUBLIC	<del>.</del>
MY COMMISSION EXPIRES	

IT IS HEREBY CERTIFIED THAT THE UNDERSIGNED ARE THE OWNERS OF THE PROPERTY SHOWN ON THIS PLAT AND THAT ALL STREETS OR PARTS THEREOF, IF NOT PREVIOUSLY DEDICATED, ARE HEREBY TENDERED FOR DEDICATION TO PUBLIC USE.

OWNER(S)	OWNER(S)
OWNER(S)	OWNER(S)

#### TAX PARCEL NUMBER:

62-090-190



### PLAN APPROVAL BLOCKS:

	DAUPHIN COUNTY PLANNING COMMISSION REVIEW
┪	THIS PLAN REVIEWED BY THE DAUPHIN COUNTY PLANNING COMMISSION THIS DAY
	OF 20
1	CHAIRMAN
7	SECRETARY
1	
7	
1	TOWNSHIP ENGINEER REVIEW
7	THIS PLAN REVIEWED BY THE SUSQUEHANNA TOWNSHIP ENGINEER THIS DAY
┪	OE 20

SUSQUEHANNA TOWNSHIP PLANNING COMMISSION REVIEW	

THIS PLAN RECOMMENDI	ED FOR APPROVAL BY	THE SUSQUEHANNA TOWNSHIP PLANN
COMMISSION THIS	DAY OF	_ 20
CHAIRMAN		<u>.</u>
SECRETARY		<u>.</u>

#### ETNIAL DLANIADDDOVAL

TOWNSHIP ENGINEER

FINAL PLAN APPROVAL								
	THIS PLAN APPROVED BY THE SUSQUEHANNA TOWNSHIP BOARD OF COMMISSIONERS, AND ALL CONDITIONS IMPOSED WITH RESPECT TO SUCH APPROVAL WERE COMPLETED ON							
	THIS DAY OF 20							
	CHAIRMAN							
	SECRETARY							

#### **RECORDING:**

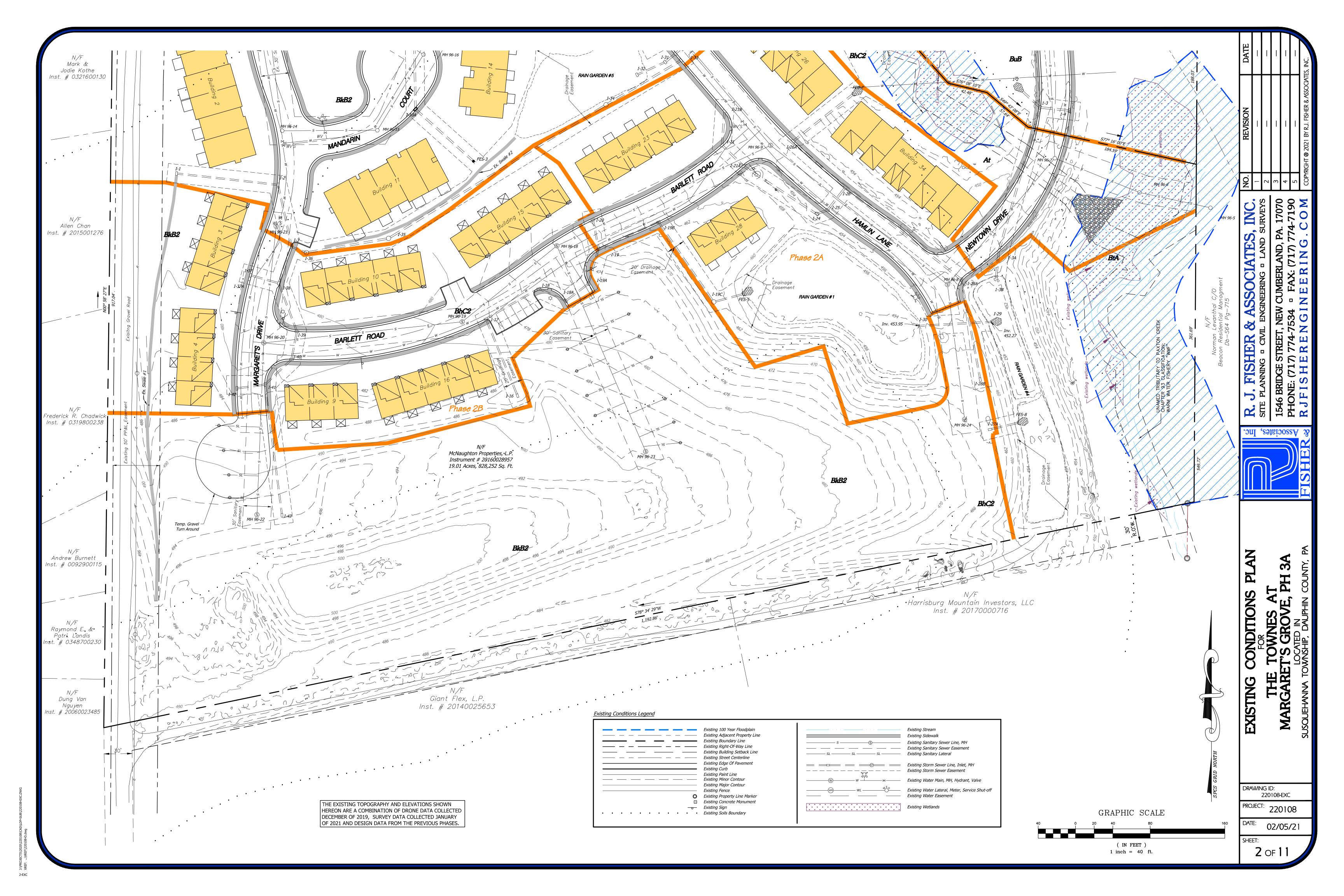
THIS PLAN RECORDED IN THE OFFICE OF THE RECORDER OF DEEDS IN AND FOR
DAUPHIN COUNTY THIS DAY OF 20
PLAN BOOK, PAGE
INSTRUMENT NUMBER

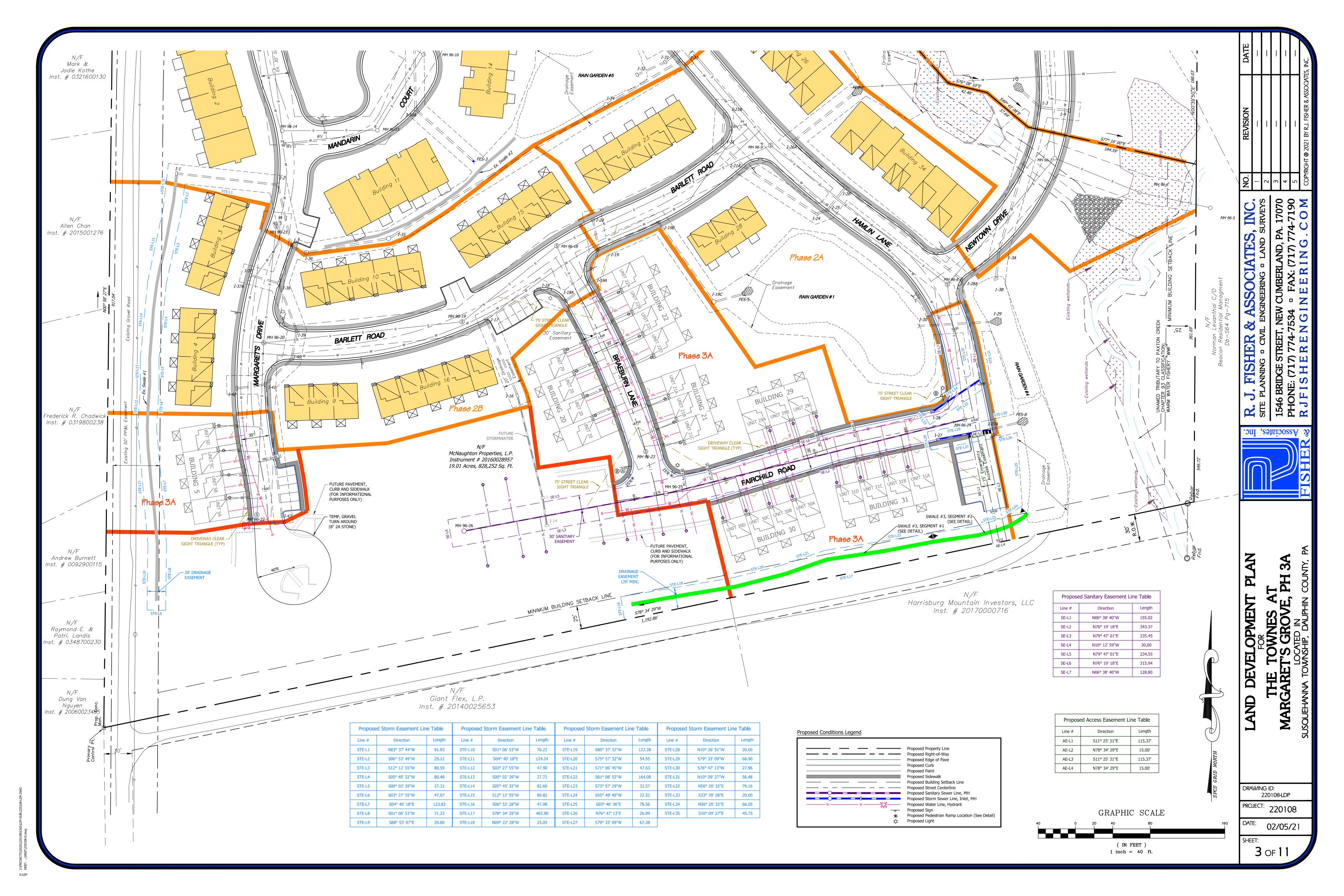
DRAWING ID: 220108-COV

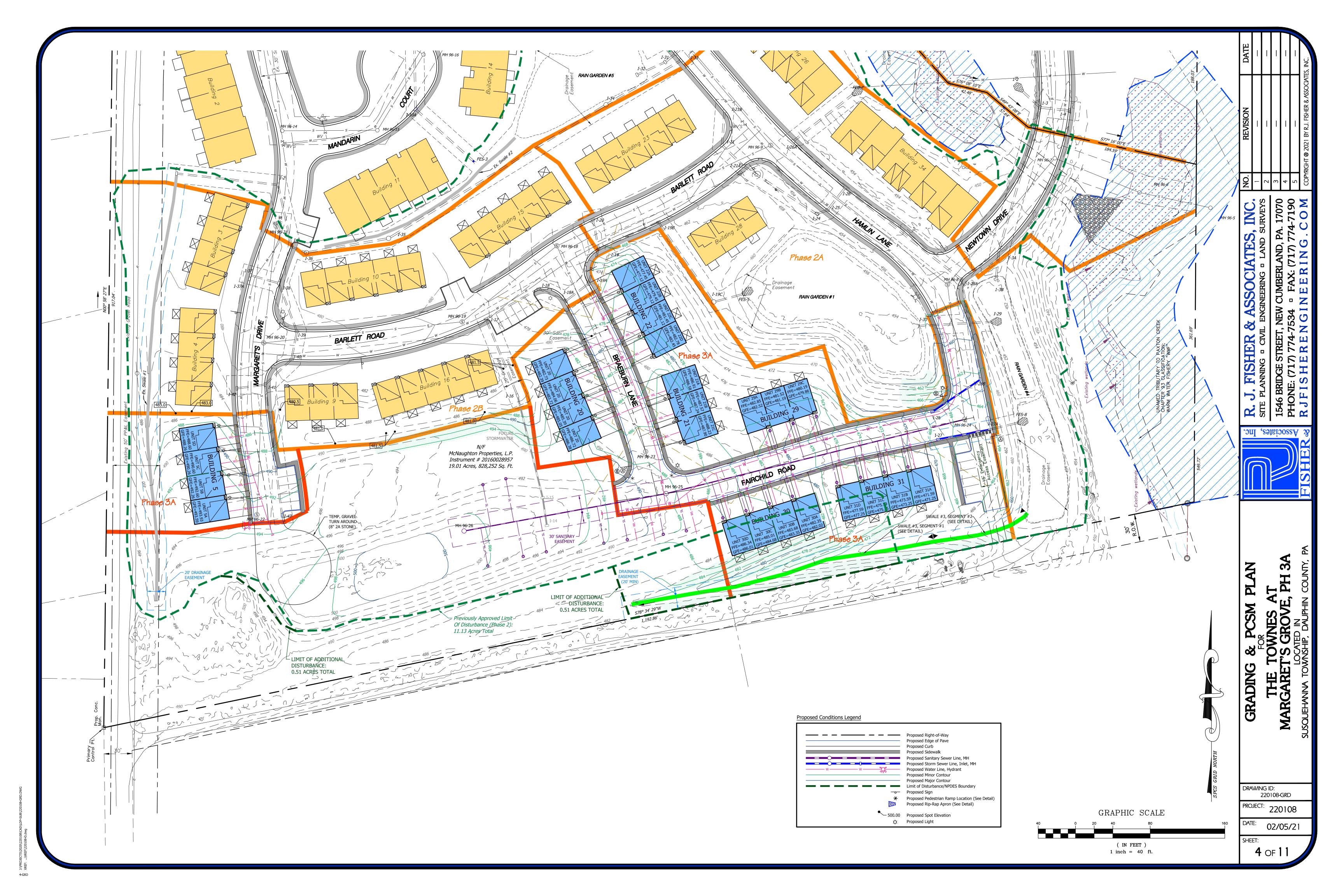
02/05/21

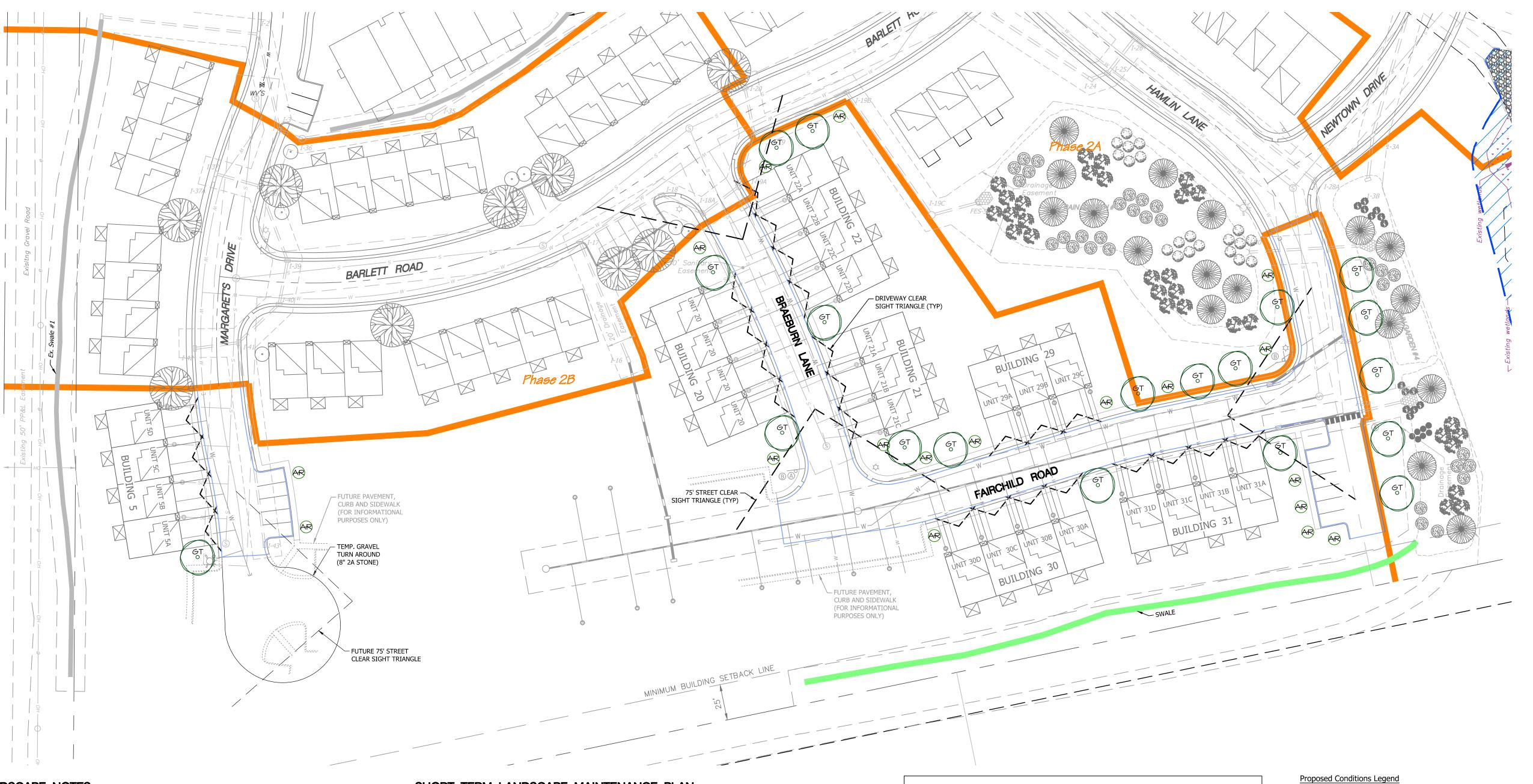
THE MARGARE

SHEET: 1 OF 1









#### **GENERAL LANDSCAPE NOTES:**

- 1. All disturbed soil areas not indicated to be covered with buildings, paving or planting beds shall be permanently seeded and maintained
- 2. If there is a planting conflict with adjacent improvements (buildings, pavements, lights, etc.) utilities, bedrock, existing tree roots, poor drainage area, or other obstacle to planting, the contractor shall adjust the tree spacing and/or arrangement to complete the planting in
- accordance with the landscape design intent. 3. All planting areas, including turfgrass areas, shall receive a minimum of 4" topsoil before planting.
- 4. No trees shall be planted within 10 feet of any sanitary sewer main. 5. During construction, no clearing should be permitted on a site beyond the minimal necessary for the specific construction activity to be
- 6. No construction activity, grading or disturbance shall be permitted beyond the limit of disturbance line. 7. Limit of disturbance lines shall be clearly noted in the field prior to the start of construction activities. The lines may be indicated by use

of snow fencing, flagged stakes or other means acceptable to the Township for the specific condition or feature to be protected. The lines

### **CONSTRUCTION NOTES:**

shall be maintained throughout the period of construction activity.

- 1. During construction, no clearing shall be permitted beyond that minimally necessary for the specific construction activity to be undertaken. 2. No construction activity, grading or disturbance shall be permitted beyond the limit of the disturbance line. The limit of disturbance lines shall be clearly marked in the field prior to the start of construction activities, by use of snow fencing, silt fence, or plastic orange
- construction fence. The limit of disturbance fence lines shall be maintained throughout the period of construction activity. 3. All new plants shall be healthy, free of disease and pest infestation, sized and rooted in accordance with the American Standard for
- Nursery Stock, ANSI Z60.1, latest edition.
- 4. If quantities of trees or shrubs shown on the plan differ from those listed in planting schedule, quantities shown on the plan shall govern.

#### SHORT TERM LANDSCAPE MAINTENANCE PLAN:

(FOR 18 MONTHS FOLLOWING INSTALLATION or MAINTENANCE BOND ISSUANCE WHICHEVER IS LONGER)

- 1. The landscape contractor and/or lot owner shall be responsible for watering plant material and lawn areas before, during and after installation for the duration of the warranty period.
- 2. Lawn areas shall be watered once weekly during dry periods of the first growing season to establish a healthy turfgrass. Watering should occur during the early part of the day and shall provide to an even saturation depth of one inch per week by rain event or irrigation. 3. Newly planted trees and shrubs shall be watered regularly during the dry periods to completely dampen the root ball during the first growing season.
- 4. Disease, insect and weed control and prevention should be performed in accordance with manufacturers recommendations for newly
- planted landscapes during the first season. 5. Newly installed plantings shall be selectively pruned if necessary to provide a neat, uniform appearance. Any dead or broken branches shall be removed. All noticeably diseased or damaged plant material shall be removed and replaced prior to final acceptance. 6. All guying and staking shall be maintained regularly to assure plant stabilization and straight, uniform growth for at least the first 18
- months following the date of planting. 7. All plant material shall be true to species and variety and shall conform to measurements and minimum standards as set forth in the plant schedule.
- 8. All plant materials and lawn areas are to be warranted by the contractor for a period of 18 months from date when Maintenance Bond is issued/ effective. Any plants found dead, dying, or diseased during said period should be replaced in-kind during that period.
- 9. Tree branches overhanging vehicular and pedestrian routes (drives, walks, etc.) shall be maintained at a height 8 ft. min. from adjacent

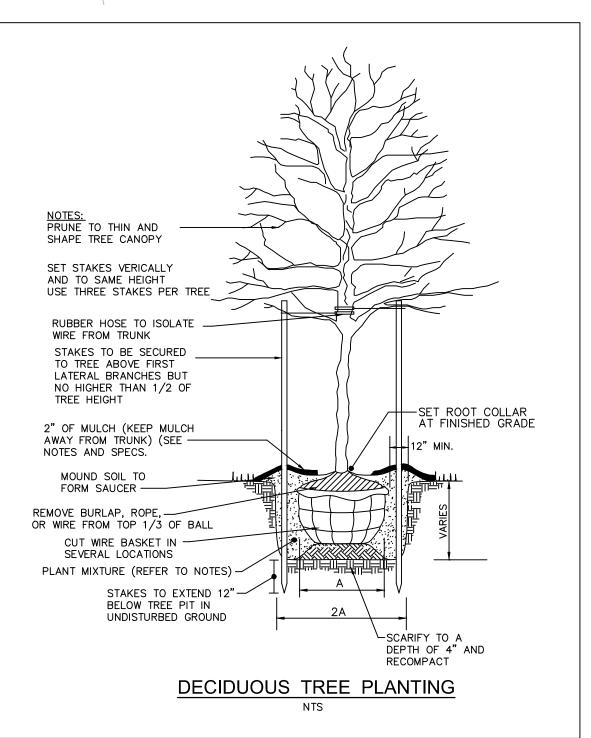
#### LONG TERM MAINTENANCE PLAN FOR LANDSCAPING:

- 1. Maintenance of trees, shrubs and turfgrass shall be the responsibility of the homeowners association.
- 2. The lot owner shall be responsible for regular mowing, clean-up, and grooming of all lawn and planted areas. 3. Any specific plant material shown on this approved landscape plan which does not survive or is damaged shall be replaced in kind by the
- lot owner within a six month period , in perpetuity.
- 4. Trash and tree debris shall be removed and disposed of properly. 5. Patrol natural areas and remove man-made debris and dispose of properly.

#### PHASE 3A SITE - SCHEDULE FOR REQUIRED PLANTINGS

				<u> </u>	<u>риг</u> ,			<u> ANTINGO</u>
<u>SYMBOL</u>	<u>QTY.</u>	<u>ID</u>	COMMON NAME	BOTANICAL NAME	NATIVE (if X)	MIN. PLANTING SIZE & CONDITONS (see plan for location)	MATURE SIZE & GENERAL TYPE	APPLICABLE LANDSCAPE REQUIREMENTS WITH PERSMISSION FROM THE TOWNSHIP
(GT o	19	GT	IMPERIAL HONEYLOCUST	GLEDITSIA TRICANTHOS VAR. INERMIS 'impcole'	×	2.5" CALIPER, 28" B&B	30'w. x 35'h DECIDUOUS TREE	STREET TREES PER S&LDO SEC. 22-1009.3., 22-1109 & ZO SEC. 27-2106.5.E
(A)	16	AR	SUPSZAM RED MAPLE	ACER RUBRUM 'SUPSZAM' OR SIMILAR NARROW PYRAMIDAL FORN		2.5" CALIPER, 28" B&B	IO'w. x 40'h DECIDUOUS TREE	STREET TREES PER S&LDO SEC. 22-1009.3., 22-1109 & ZO SEC. 27-2106.5.E

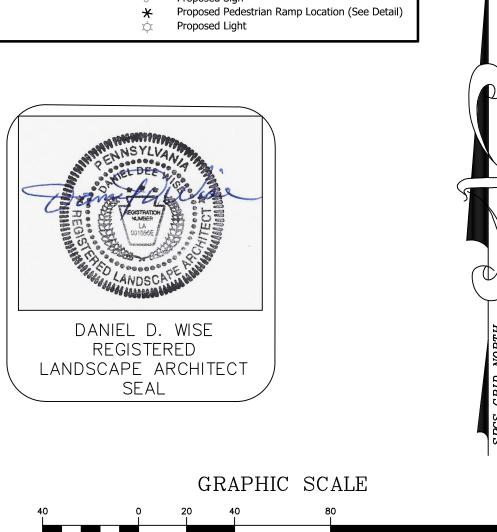
CAL.- CALIPER 6" ABOVE ROOT FLARE B&B- BALLED & BURLAPPED CONT. - CONTAINER





Proposed Property Line

Proposed Right-of-Way



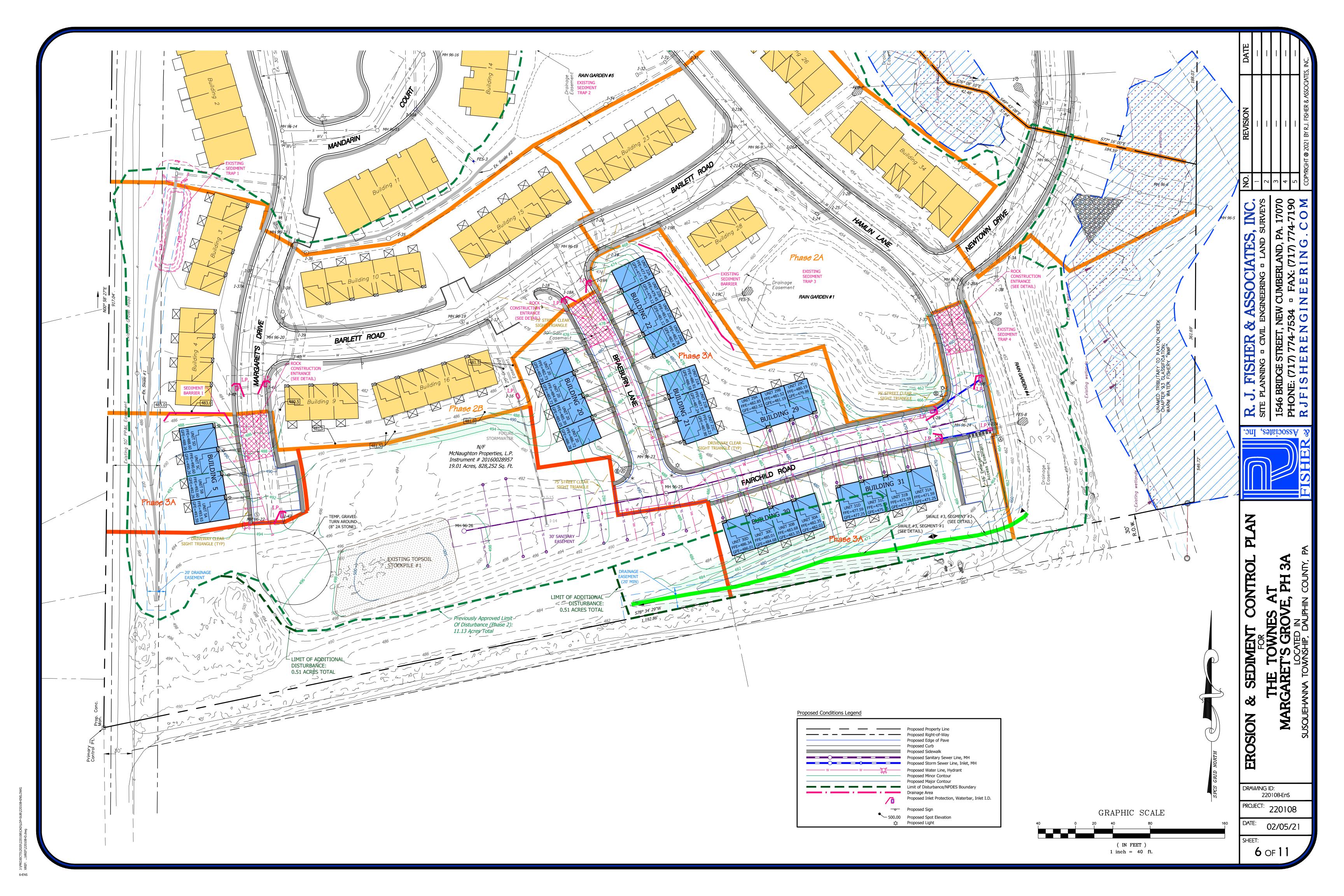
( IN FEET )

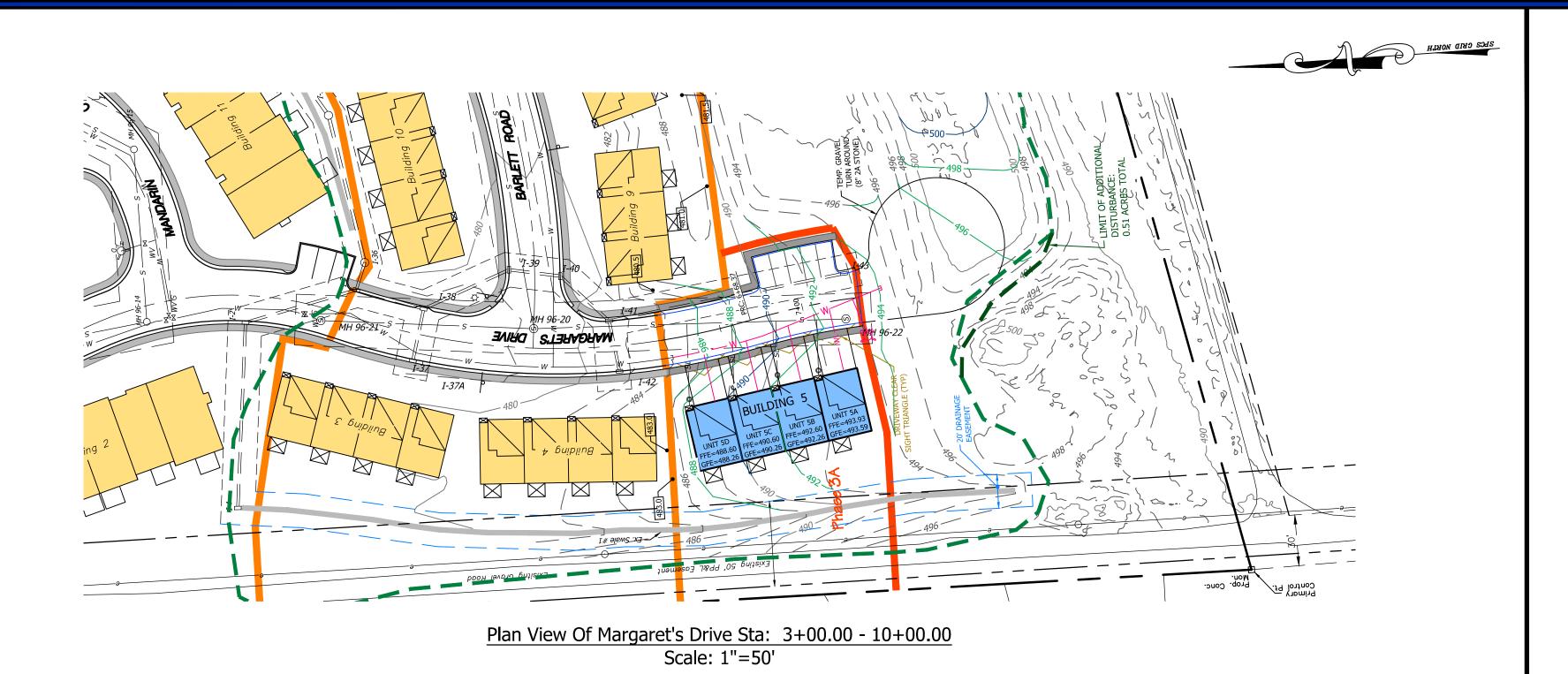
1 inch = 40 ft.

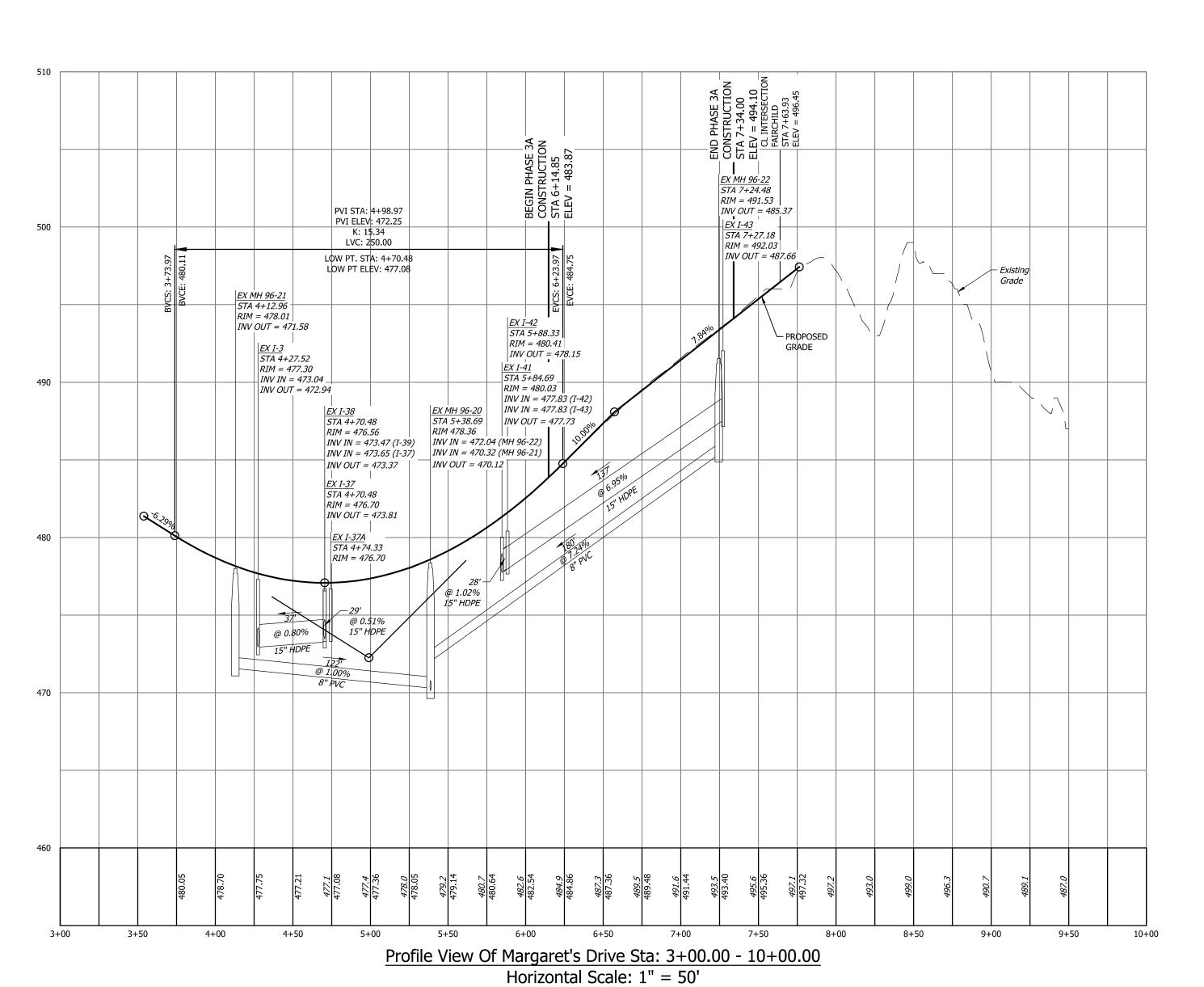
DRAWING ID: 220108-LSCP PROJECT: 220108

02/05/21 SHEET:

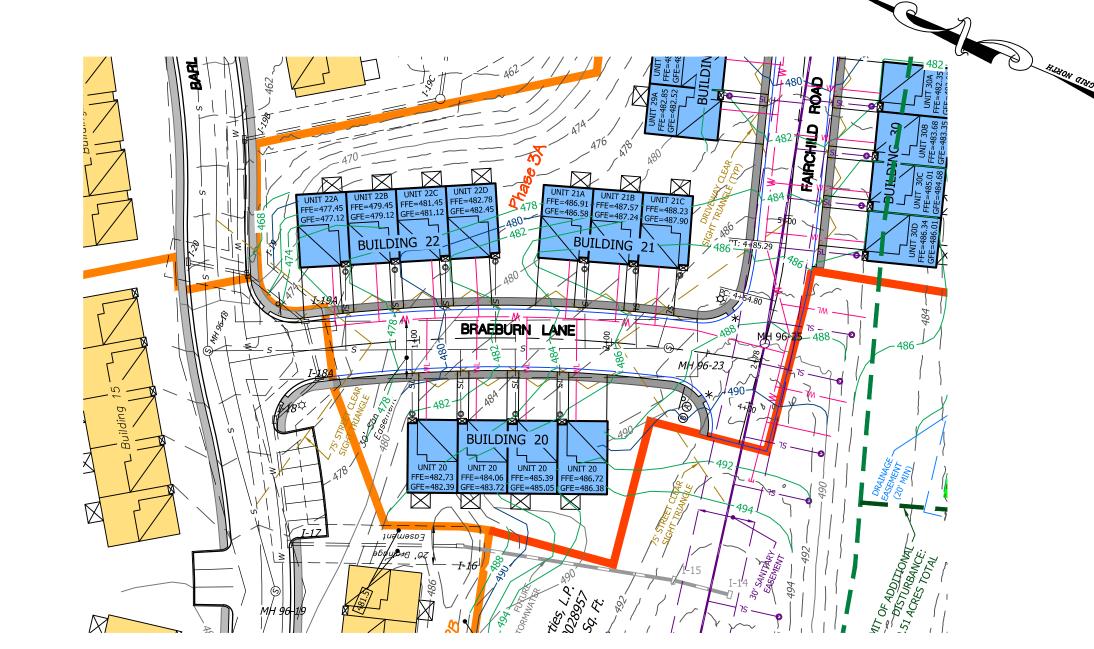
5 OF 11



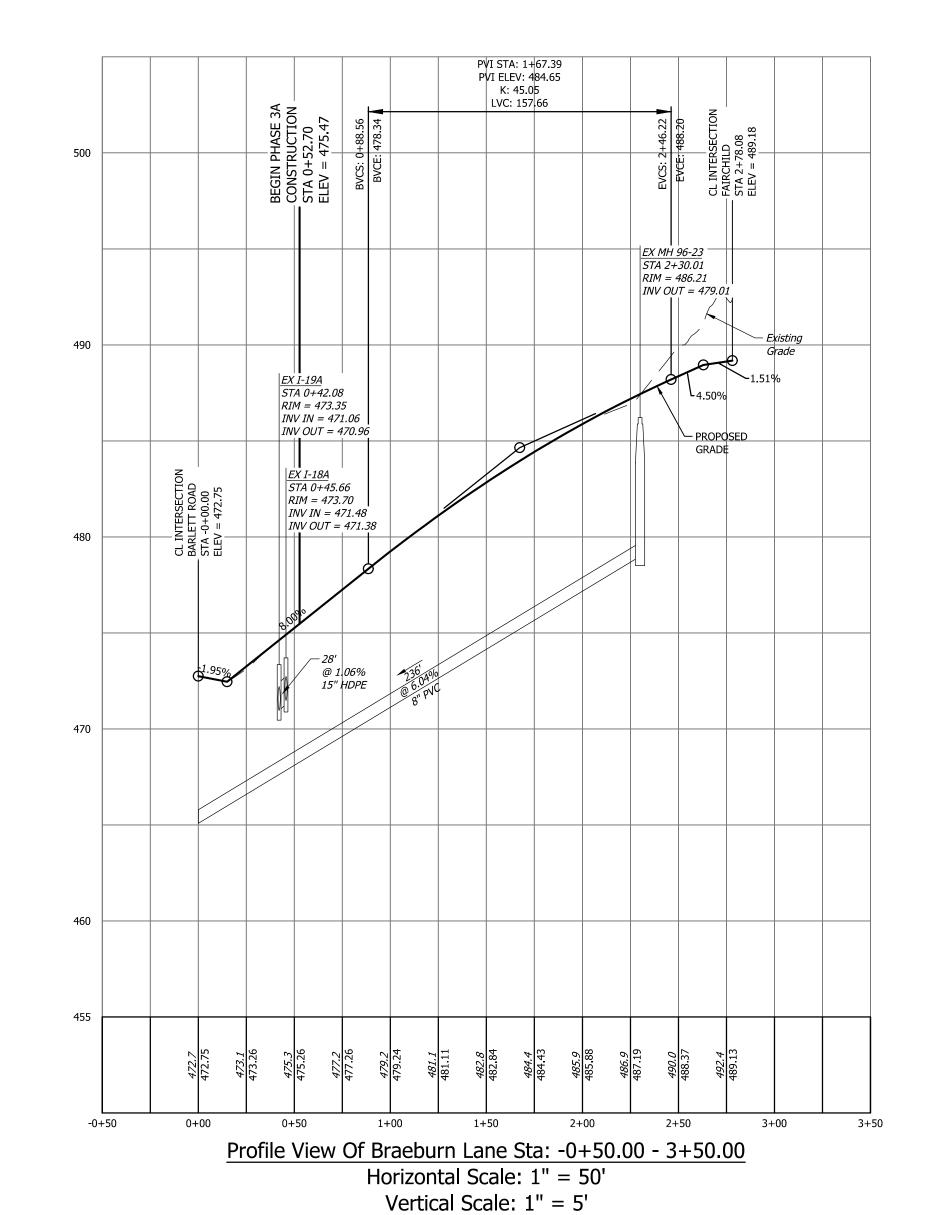




Vertical Scale: 1" = 5'



Plan View Of Braeburn Lane Sta: -0+50.00 - 3+50.00 Scale: 1"=50'



( IN FEET ) 1 inch = 5 ft.

GRAPHIC SCALES

( IN FEET ) 1 inch = 50 ft.

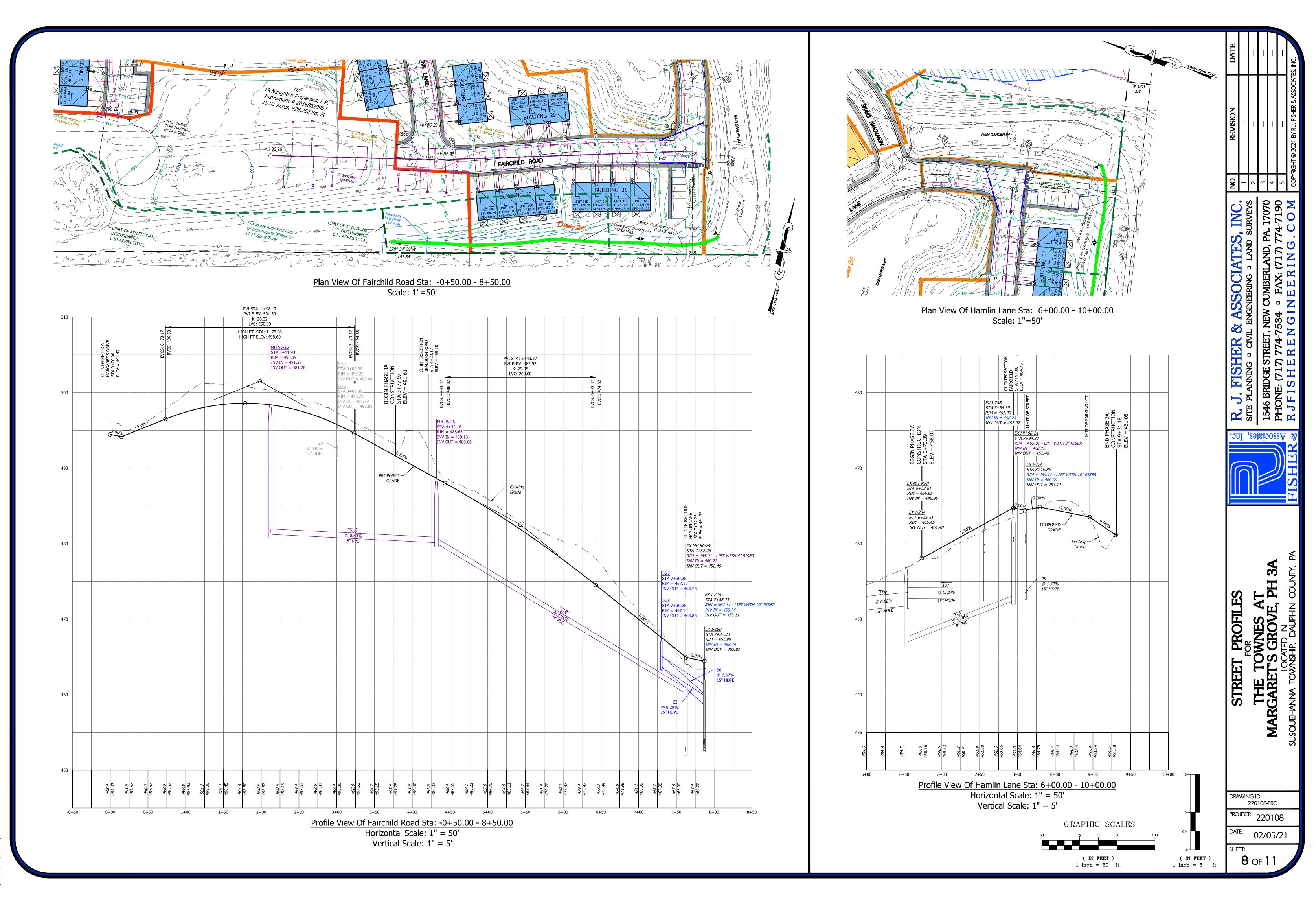
DRAWING ID: 220108-PRO PROJECT: 220108

02/05/21 SHEET: 7 OF 11

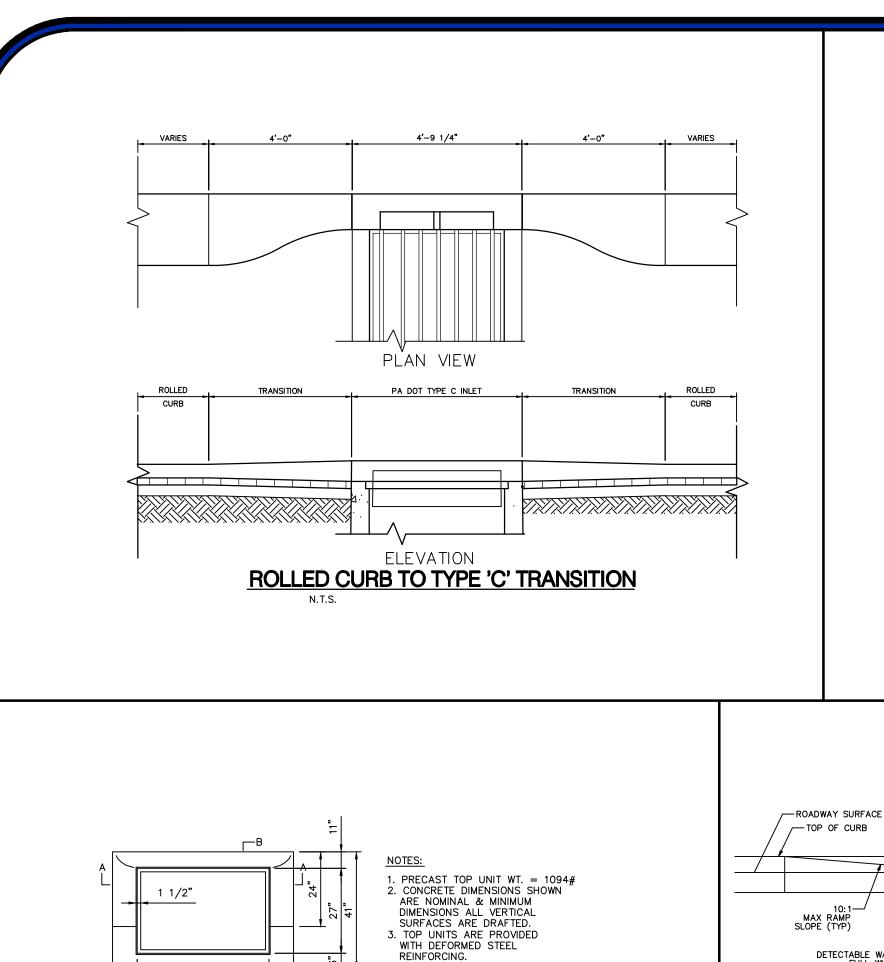
THE TOWNES AT
MARGARET'S GROVE, PH
LOCATED IN
JSOUEHANNA TOXYNISHIP DAI IPHIN COLIN

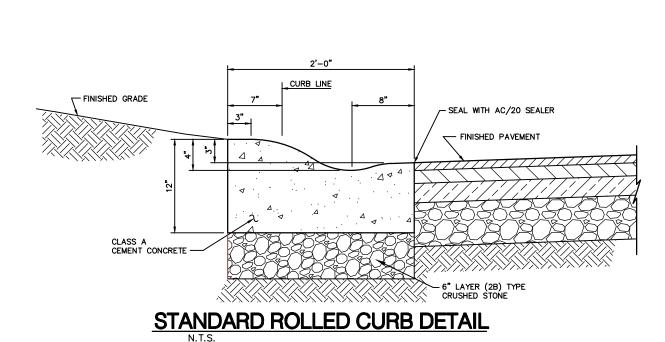
PROFILES

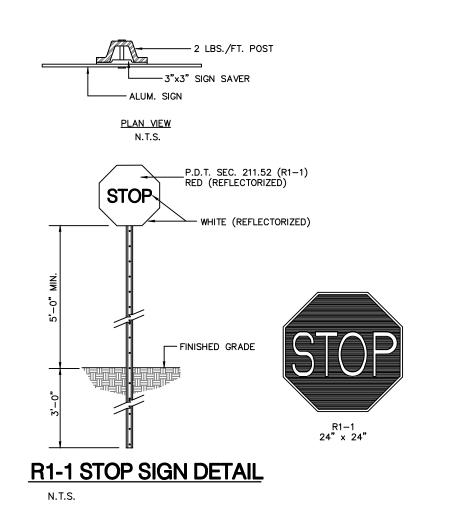
STREET



9 J:\PROJECTS\2020\220108\CAD\LDP-SUB\220108-PRO.DWG 2 XRFF: ..XRFF\2701\IR-D.dwd



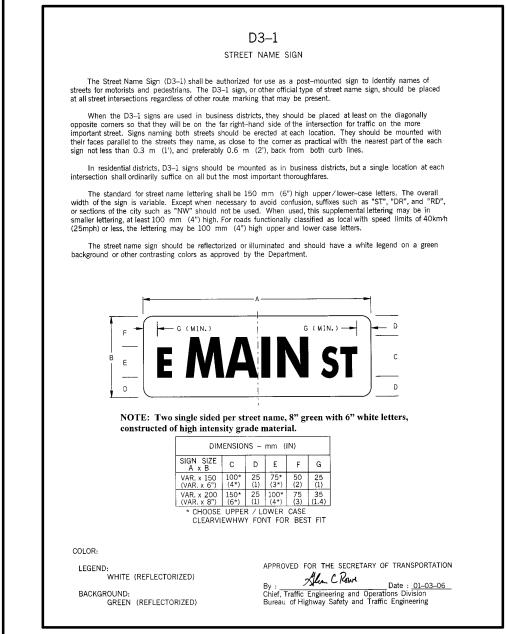




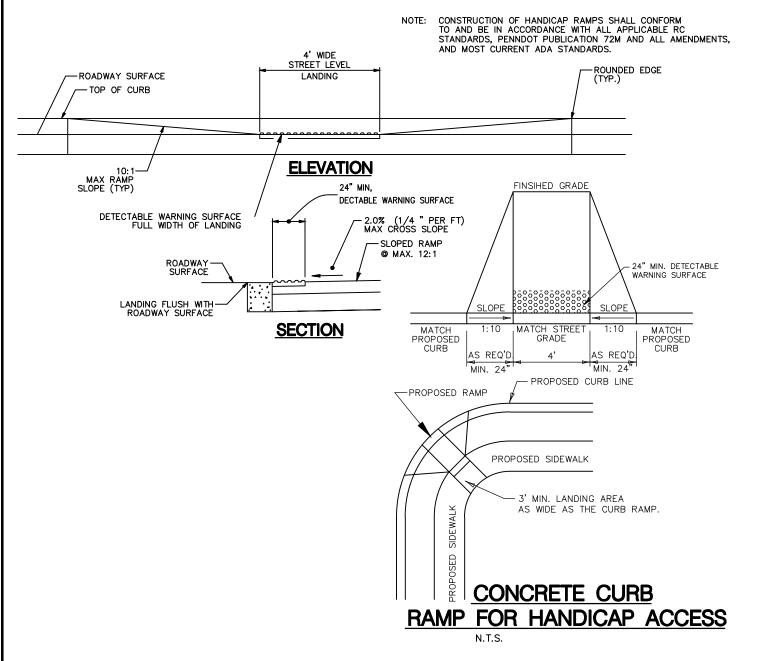


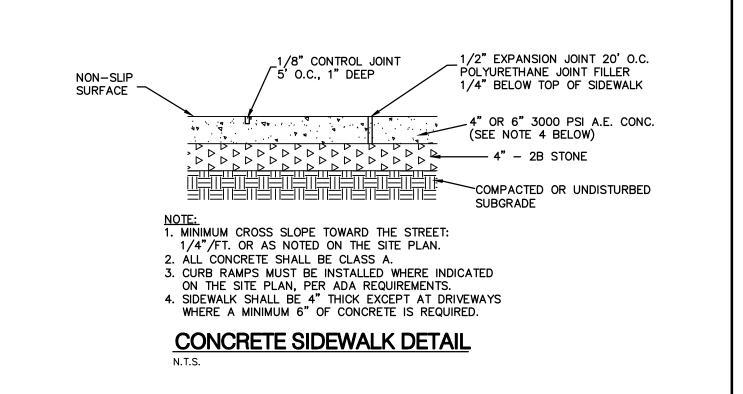
## **R2-1 SPEED LIMIT SIGN DETAIL**

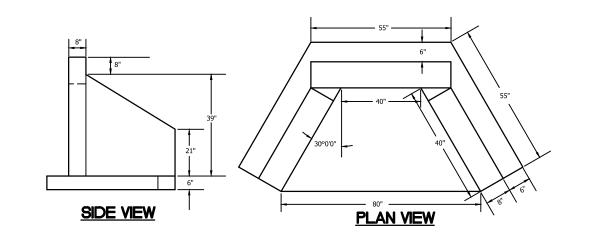
NOTE: SPEED LIMIT POST SIZE IS THE SAME AS THE ADJOINING STOP SIGN DETAIL.

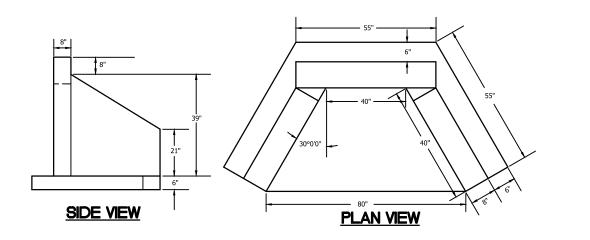


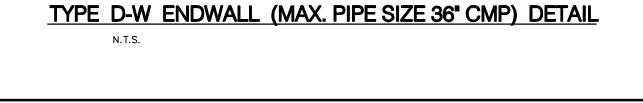
**D3-1 STREET SIGN DETAIL** 

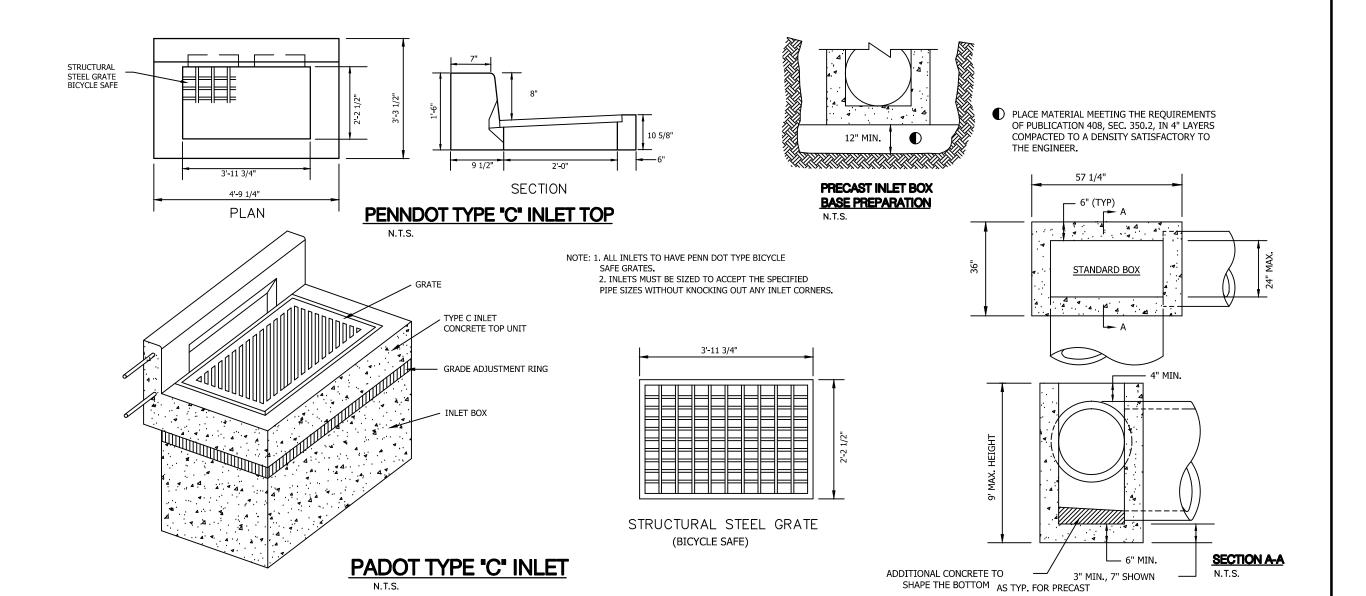


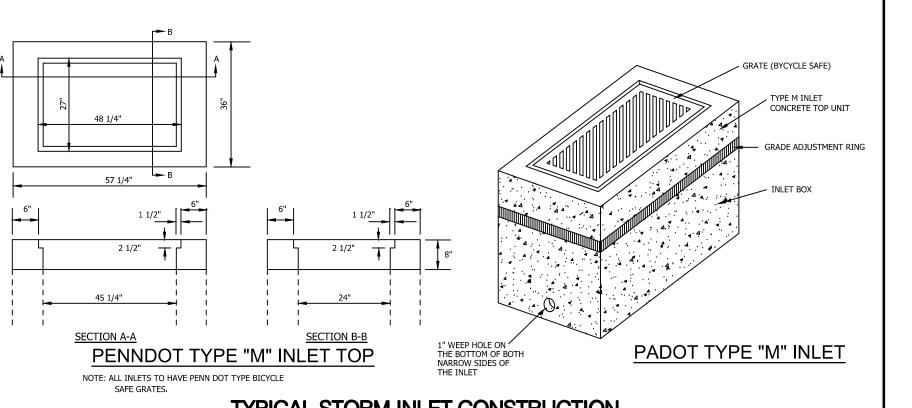




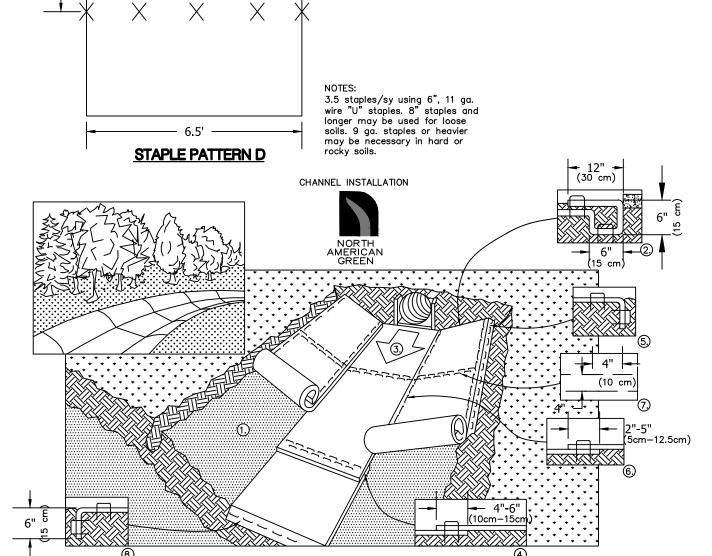




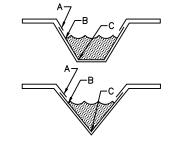




TYPICAL STORM INLET CONSTRUCTION



- 1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN. 2. BEGIN AT THE TOP OF THE CHANNEL BY ANCHORING THE BLANKET IN A 6" (15cm) DEEP X 6" (15cm) WDE TRENCH
  WITH APPROXIMATELY 12" (30cm) OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE
  BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30cm) APART IN THE BOTTOM OF THE TRENCH. BACKFILL
  AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30cm) PORTION
  OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES
  SPACED APPROXIMATELY 12" (30cm) APART ACROSS THE WIDTH OF THE BLANKET.
- 3. ROLL CENTER BLANKET IN DIRECTION OF WATER FLOW IN BOTTOM OF CHANNEL. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING OPTIONAL DOT SYSTEM™, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN. 4. PLACE CONSECUTIVE BLANKETS END OVER END (SHINGLE STYLE) WITH A 4"-6" (10cm-15cm) OVERLAP. USE A DOUBLE ROW OF STAPLES STAGGERED 4" (10cm) APART AND 4" (10cm) ON CENTER TO SECURE BLANKETS. 5. FULL LENGTH EDGE OF BLANKETS AT TOP OF SIDE SLOPES MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30cm) APART IN A 6" (15cm) DEEP X 6" (15cm) WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
- 6. ADJACENT BLANKETS MUST BE OVERLAPPED APPROXIMATELY 2"-5" (5cm-12.5cm) (DEPENDING ON BLANKET TYPE) AND STAPLED.
  TO ENSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN
  WITH THE COLORED SEAM STITCH ON THE BLANKET BEING OVERLAPPED.
- 7. IN HIGH FLOW CHANNEL APPLICATIONS, A STAPLE CHECK SLOT IS RECOMMENDED AT 30 TO 40 FOOT (9m-12m) INTERVALS. USE A DOUBLE ROW OF STAPLES STAGGERED 4" (10cm) APART AND 4" (10cm) ON CENTER OVER ENTIRE WIDTH OF THE CHANNEL. 8. THE TERMINAL END OF THE BLANKETS MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30cm) APART IN A 6" (15cm) DEEP X 6" (15cm) WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.



CRITICAL POINTS A. OVERLAPS AND SEAMS
B. PROJECTED WATER LINE
C. CHANNEL BOTTOM/SIDE SLOPE VERTICES

\* HORIZONTAL STAPLE SPACING SHOULD BE ALTERED IF NECESSARY TO ALLOW STAPLES TO SECURE THE CRITICAL POINTS ALONG THE CHANNEL SURFACE. \*\* IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15 cm) MAY BE NECESSARY TO PROPERLY ANCHOR THE BLANKETS.

14649 HIGHWAY 41 NORTH, EVANSVILLE, INDIANA 47725 USA 1-800-772-2040 CANADA 1-800-448-2040

**CHANNEL LINING INSTALLATION DETAIL** 

DETAIL ANEOUS THE 1

FISHER

DRAWING ID: 220108-DET PROJECT: 220108

SHEET:

02/05/21

9 OF 1

4 1/8"

57 1/4"

<u>PLAN</u>

6 1/2"

1 1/2"

44 1/4"

57 1/4**"** 

SECTION A-A

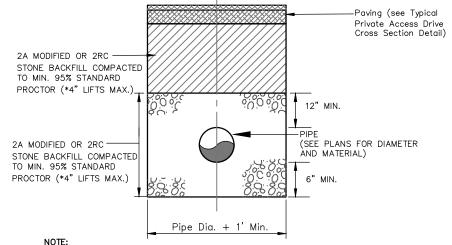
! 6 1/2"

ROLLED CURB INLET TOP DETAIL

 USE THIS DETAIL FOR TRENCH RESTORATION OUTSIDE THE SHOULDER OR
 PAVEMENT OF A PENN DOT STATE RIGHT-OF-WAY.
 ALL MATERIALS AND INSTALLATION PROCEDURES SHALL CONFORM TO PENN DOT PUBLICATION 408, MOST RECENT AMENDMENT.

\*3. BACKFILL MAY COMPACTED IN 8" LIFTS IF VIBRATORY EQUIPMENT IS USED.

## DETAIL FOR TRENCHS OUTSIDE OF PAVEMENT



1. USE THIS DETAIL FOR TRENCH RESTORATION WITHIN THE SHOULDER OR PAVEMENT OF A PENN DOT STATE RIGHT-OF-WAY.
2. ALL PAVING MATERIALS AND INSTALLATION PROCEDURES SHALL CONFORM TO PENN DOT PUBLICATION 408, MOST RECENT AMENDMENT.
\*3. BACKFILL MAY COMPACTED IN 8" LIFTS IF VIBRATORY EQUIPMENT IS USED.

#### POST-CONSTRUCTION STORMWATER MANAGEMENT (PSCM) PLAN

The storm water volume and quality control Best Management Practices (BMPs) constructed for Margaret's Grove Phases 2, 3 and 4 will be maintained to function as designed, and shall implement the procedures described below; this shall be in the homeowners association documents. The owner of the lot on which facilities are located shall own the facility, but the homeowners association for the development will be responsible for the maintenance of facilities as shown on the drawings. The facilities are to be permanent, and can only be removed or altered after approval by PA D.E.P. The tasks outlined herein shall be accomplished by the homeowners association, possibly via a contractor, once the homeowners ssociation is in effect. Until such time, the developer shall be responsible for all maintenance.

The following physical facilities outside of the dedicated and accepted street right-of-way shall be maintained to the original design and dimensions shown on the design plans until such time as an amended plan is approved by the Township and/or PA D.E.P:

--stormwater pipes

--drain inlets, manholes and open pipe ends.

--drainage easements associated with the above.

——the natural stream (an unnamed tributary to Paxton Creek). -—designated numbered permanent swales shown on the grading plan.

For any structural facility (pipe, inlet, manhole), it must be repaired or replaced if damaged more than superficially, in a way that is a safety hazard, if structurally unsound, or if not substantially performing as it is intended per the original design. The homeowners association shall keep a record of any repaired or replaced facility, including costs, dates, materials removed, materials placed, and the contractor(s) information. Rain Garden inspection and maintenance tasks

——open, sunny areas can be maintained as mowed grass, maintained meadow, or natural brush succession, per the aesthetic and budget desires -—Remove grit if it accumulates to a depth of 3" or more, so that storage volume is maintained. Removal of sediment/debris shall take place when the area has dried, if possible, and shall be done without the use of heavy equipment that would compact the soil (unless the soil is dried hard or frozen hard). Man—made trash shall be disposed of properly in containers collected by a licensed commercial trash hauler. Grit and gravel can be stockpiled and re—used for winter traction, or for other uses such as walks. Organic debris can be spread discreetly into the woods and brush that remain in common areas on the site. Soil sediments can be placed in flower, garden or landscape beds.

--trim planted shrubs for visual, aesthetic appeal. -- Undesirable weeds and growth can be removed to the homeowners association's aesthetic and budget needs. These areas shall not be fertilized --Per the landscape plan, specified trees or shrubs that die shall be replaced, in kind or with something similar in character and function in the landscape.

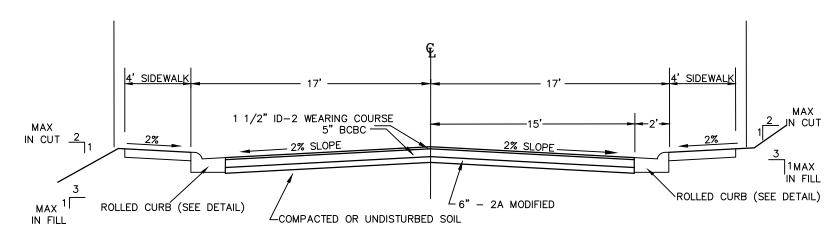
The natural stream (an unnamed tributary to Paxton Creek) inspection and maintenance tasks

-Inspect annually àt a minimum. -—Remove man—made trash and dispose of properly. -—Remove logs or other significant obstructions to free flow of the stream.

Remove any accumulated debris and trash, and dispose of properly. Dislodged rock should be reset in place. Any scouring of earth at or below the apron should be re—stabilized with rock, or seeding (seed, mulch and matting), or sod that is watered until established; rock should be placed in non-growing seasons, even if temporary.

Stormwater pipes and inlets, and designated swales inspection and maintenance tasks

——Remove man—made trash and dispose of properly. ——Examine inlet bottoms via grates, for accumulated debris. Remove accumulated grit and other debris that would cause disruption of water flow in a manner not designed for the facility, such as sediment, vegetation, wood, sand, and debris. Such facilities shall also be kept cleansed of spent liquids such as oils, fuels, petroleum products, antifreeze, and grease. Man—made trash shall be disposed of properly in containers collected ——Examine swales for obstructions and erosion. Any scouring of earth should be re—stabilized with rock, or seeding (seed, mulch and matting), or sod that is watered until established; rock should be placed in non—growing seasons, even if temporary. Any erosion shall be corrected with an



TYPICAL PRIVATE ACCESS DRIVE CROSS SECTION

#### **OUTDOOR LIGHTING**



ACORN

Acorn, black or green

5,800 lumen (70 watt) or 9,500 lumen (100 watt)

High-pressure sodium

11 or 13 foot black or green fiberglass,

boulevard style, mounted on a concrete foundation

ALTERNATE POLE: 14 foot round black steel or

spun aluminum

**ELECTRIC SUPPLY: Underground** 

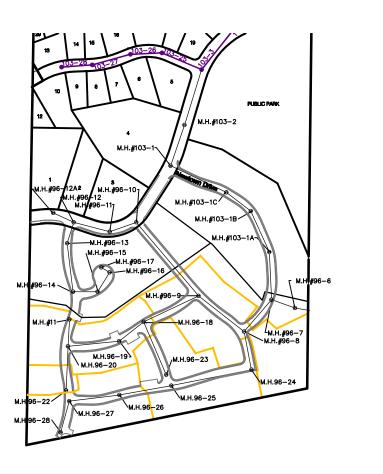
hours 8 a.m. to 5 p.m.

Low-mount underground,

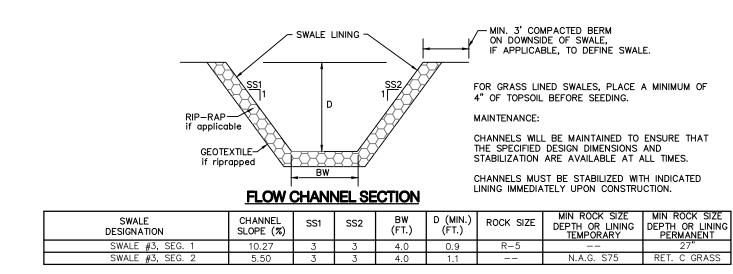
high-pressure sodium (SHS)

Want to know more about the PPL Electric Utilities Outdoor Lighting Program? Call your PPL Electric Utilities representative or PPL Electric Utilities Customer Service Answer Line at 800-342-5775 (DIALPPL) during business

**ACORN** 



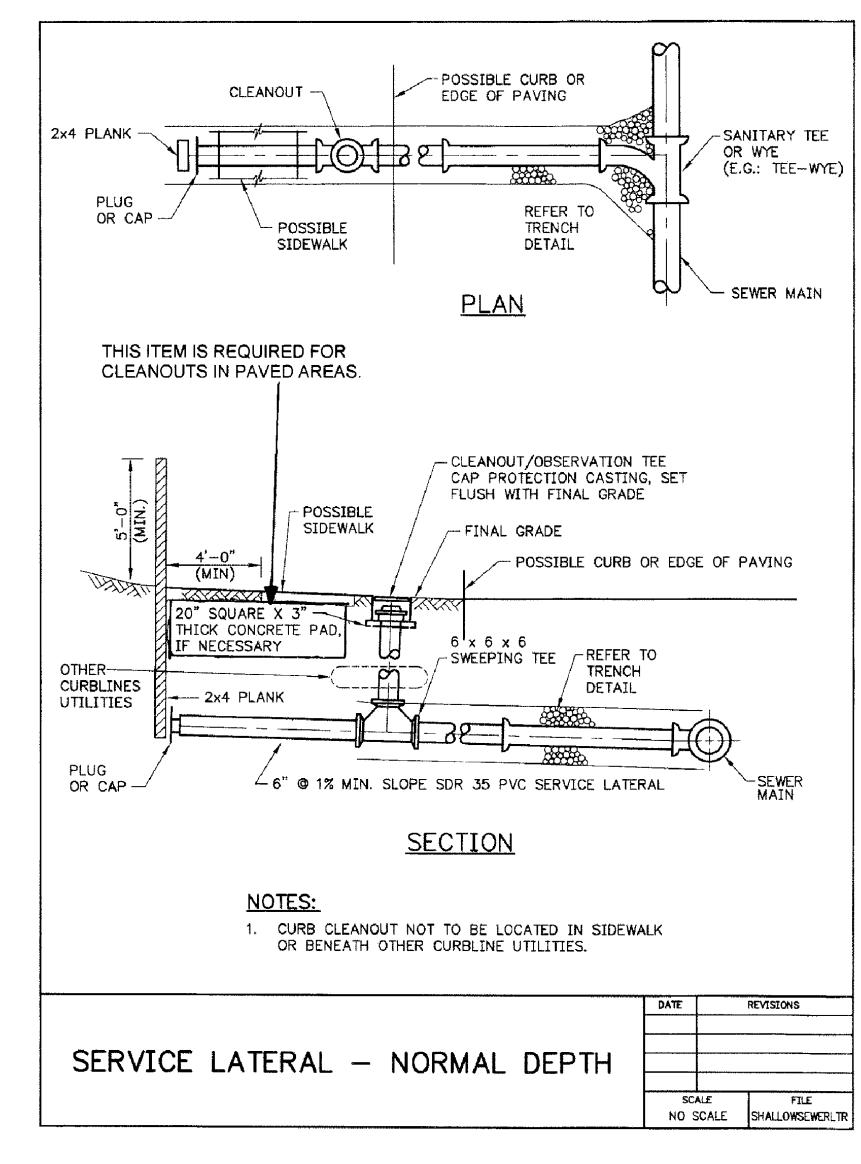
**SEWER SANITARY INDEX MAP** 



NOTE: S75 = NORTH AMERICAN GREEN S75 MAT. BW OF 0.0 MEANS A TRIANGULAR SHAPE SWALE. N.A.G. INDICATES NORTH AMERICAN GREEN PRODUCT, WITH PRODUCT #. SEEDED SWALES SHALL RECEIVE MINIMUM OF TOPSOIL BEFORE SEEDING.

#### SANITARY SEWER LATERAL NOTES

- THE EXISTING LATERALS (TO BE ABANDONED) SHOULD BE EXCAVATED AND CAPPED AT THE MAIN LINE TEE. 2. THE NEW LATERALS SHALL BE INSTALLED USING SOLID SLEEVES AND 8x6x8 TEES AT THE MAIN LINE.
- 3. ALL LATERALS SHALL BE 6—INCH SDR—35 PIPE.
- F. THE EXISTING SANITARY SEWER BETWEEN MH96-8 AND MH96-9 SHALL BE AIR TESTED AFTER THE LATERALS HAVE BEEN ABANDONED AND THE NEW LATERAL INSTALLED.



SANITARY SEWER LATERAL DETAIL

SHEET: 10 of 11

220108-DET

220108

02/05/21

DRAWING ID:

PROJECT:

FISHER

DETAILS

**MISCELLANEOUS** 

T PH

THE 1

GENERAL NOTES

- The site contractor and their designees shall familiarize themselves with this Erosion Control Plan. The site contractor shall be responsible for implementation of this Erosion Control Plan. 2. The site contractor shall not disturb more area than is necessary for the task to be done, so
- that potential for erosion is minimized. 3. The site contractor shall ensure that earth disturbance activities are planned and implemented to the extent practicable in accordance with the following:
- a. Minimize the extent and duration of the earth disturbance. b. Maximize protection of existing drainage features and vegetation.
- c. Minimize soil compaction.
- d. Utilize other measures or controls that prevent or minimize the generation of increased stormwater runoff.
- 4. Erosion and sedimentation controls must be constructed, stabilized, and functional before site disturbance within the tributary areas to the controls.
- 5. A copy of the approved Erosion and Sediment Control Plan / Drawings (stamped, signed and dated by the reviewing agency) must be available at the project site at all times. 6. 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 Construction Sequence for that stage or phase have been installed and are functioning as described in this document.
- 7. 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 operation begin.
- Topsoil stockpile heights shall not exceed 35 feet. Stockpile side slopes must be 2:1 or flatter. . Solids, trash and other pollutants shall be disposed in accordance with federal and state regulations in order to prevent any pollutant in such materials from adversely affecting the environment. All building materials and wastes must be removed from the site and recycled or disposed in accordance with the Department of Environmental Protection's Solid Waste Management regulations at 25 Pa. Code 260, 260.1 et seg., 271.1, and 287.1 et seg. No building materials or wastes or unused building materials shall be burned, buried, dumped, or discharged
- at the site. 10. All off-site waste and borrow areas must have an E & S Plan approved by the Conservation
- District or DEP, and fully implemented prior to being activated. 11. The contractor will be responsible for the removal of any excess material and make sure the site(s) receiving the excess has an approved and fully implemented erosion and sediment control
- plan that meets the conditions of Chapter 102 and/or other State or Federal regulations. 12. The contractor is responsible for ensuring that any material brought onto the 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. 13. Areas which are to be topsoiled shall be scarified to a minimum depth of 4 inches 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 outslopes shall have a minimum of 2 inches of topsoil. 14. All graded areas shall be permanently stabilized immediately upon reaching finished grade. Cut
- slopes in competent bedrock and rock fills need not be vegetated. 15. Cut and fill slopes shall be capable of resisting failure due to slumping, sliding, or other
- 16. All E & S BMPs must remain functional as such until all areas tributary to them are permanently stabilized or until they are replaced by another BMP approved by the Conservation District or PA
- 17. After final site stabilization has been achieved, temporary E & S BMPs must be removed or converted to permanent post construction stormwater management BMPs. Ares disturbed during removal or conversion of the BMPs must be stabilized immediately. In order to ensure rapid revegetation of disturbed areas, such removal / conversions should be done only during the aerminatina season.
- 18. 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 Pennsylvania Department of Environmental Protection as defined in Section 602 of the Pennsylvania Clean Streams law. The Clean Streams law provides for up to \$10,000 per day in civil penalties, up to \$10,000 in summary criminal penalties, and up to \$25,000 in misdemeanor criminal penalties for 19. Only limited disturbance will be permitted to initially access and acquire borrow to construct
- control facilities, before general site alteration begins. 20. If fuel or other dangerous chemicals are stored on site, then a Preparedness, Prevention and Contingency (PPC) Plan must be developed and kept on site.
- 21. Underground utilities cutting through any active channel shall be immediately backfilled and the channel restored to its original cross—section and protective lining. Any base flow within the channel shall be conveyed past the work in the manner described in this plan until such restoration is complete.
- 22. All channels must be kept free of obstructions such as fill ground, fallen leaves & woody debris, accumulated sediment, and construction materials/wastes. Channels should be kept mowed and/or free of all weedy, brushy or woody growth. Any underground utilities running across/through the channel(s) shall be immediately backfilled and the channel(s) repaired and stabilized per the channel cross—section detail.
- 23. Vegetated channels shall be constructed free of rocks, tree roots, stumps or other projections that will impede normal channel flow and/or prevent good lining to soil contact. The channel shall be initially over—excavated to allow for the placement of topsoil.
- 24. Sediment basins/traps shall be kept free of all trash, concrete wash water and other debris that pose the potential for clogging the basin/trap outlet structures and/or pose the potential for pollution to waters of the Commonwealth.
- 25. All building materials and wastes shall be removed from the site and recycled or disposed of in accordance with the Department's Solid Waste Management Regulations at 25 Pa. Code 260.1 et sea., 271.1., and 287.1 et sea. No building materials or wastes or unused building materials shall be burned, buried, dumped, or discharged at the site. 26. Fill Materials:
- a. The NPDES Permit covers the "moving, depositing, stockpiling, or storing of soil rock or earth materials." If the site will need to have fill imported from an off site location, the responsibility for performing environmental due diligence and the determination of clean fill will in most cases reside with the Operator. If the site will have excess fill that will need to be exported to an off site location, the responsibility of clean fill determination and the environmental due diligence rests on the applicant. If all cut and fill materials will be used on the site, a clean fill determination is not required by the operator unless there is a belief that a spill or release of a regulated substance occurred on site. The contractor is responsible for ensuring that any material brought onto the 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.
- material associated with this project qualifies as Clean Fill. Definitions of Clean Fill and Environmental Due Diligence are provided below. All fill material must be used in accordance with the Department's policy "Management of Fill", document number 258-2182-773. A copy of this policy is available online at www.depweb.state.pa.us. Under the heading Quick Access on the left side of the screen, click on "Forms and Publications." On the left side of the screen click on "Technical Guidance Documents— Final." Then type the document number 258-2182-773 into the search window and conduct the search. Click on "Management of Fill." c. Clean Fill is defined as: Uncontaminated, non-water soluble, non-decomposable, inert, solid material. The term includes soil, rock, stone, dredged material, used asphalt, and brick, block or concrete from construction and demolition activities that is separate from other waste and is recognizable as such. The term does not include materials placed in or on the waters of the

b. Applicants and/or operators must use environmental due diligence to ensure that the fill

asphalt or asphalt that has been processed for re—use.) d. Clean Fill affected by a spill or release of a regulated substance: Fill materials affected by a spill or release of a regulated substance still qualifies as clean fill provided the testing reveals that the fill material contains concentrations of regulated substances that are below the residential limits in Tables FP-1a and FP-1b found in the Department's policy "Management of

Commonwealth unless otherwise authorized. (The term "used asphalt" does not include milled

- e. 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. Analytical testing is not a required part of due diligence unless visual inspection and/or review of the past land use of the property indicates that the fill may have been subjected to a spill or release of regulated substance. If the fill may have been affected by a spill or release of a regulated substance, it must be tested to determine if it qualifies as clean fill. Testing should be performed in accordance with Appendix
- A of the Department's policy "Management of Fill." f. Fill material that does not qualify as clean fill is regulated fill. Regulated fill is waste and must be managed in accordance with the Department's municipal or residual waste regulations based on 25 Pa. Code Chapters 287 Residual Waste Management or 271 Municipal Waste Management, whichever is applicable.
- 27. The potential for thermal impacts exists in the temporary condition as the existing vegetation on the site is disturbed, and un-shaded water will sit in the sediment traps. The thermal impacts will be minimized by infiltrating a portion of the runoff and temporary seeding disturbed areas as soon as possible.

- STABILIZATION SPECIFICATIONS
- 1. Upon temporary cessation of an earth disturbance activity or any stage or phase of an activity where a cessation of earth disturbance activities will exceed 4 days, the site shall be immediately seeded, mulched, or otherwise protected from accelerated erosion and sedimentation pending future earth disturbance activities.
- 2. Permanent stabilization is defined as a minimum uniform 70% perennial vegetative cover or other permanent non-vegetative cover with a density sufficient to resist accelerated surface erosion and subsurface characteristics sufficient to resist sliding and other movements.
- 3. Topsoil required for the establishment of vegetation shall be stockpiled at the location(s) shown on the plan drawings 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. Topsoil stockpile heights shall not exceed 35 feet. Stockpile side slopes must be
- 4. 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 outslopes shall have a
- 5. Topsoil should not be placed while the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet, or in a condition that may otherwise be detrimental to proper grading and seedbed preparation. Compacted soils should be scarified 6 to 12 inches along contour whenever possible prior to seeding.
- 6. An erosion control blanket will be installed on all disturbed slopes 3:1 or steeper, all areas of concentrated flows, and disturbed areas within 50' of a surface water.

#### TEMPORARY SEEDING SCHEDULE

minimum of 2 inches of topsoil.

The contractor shall immediately temporarily stabilize any rough graded area, topsoil stockpile or unused excavated fill material that will be left idle for less than 1 year. The grass will provide interim protection against the impact of precipitation, running water and wind. Permanently seed any area that will be idle for more than 1 year.

#### Temporary seeding schedule is as follows:

Species: annual rye grass % Live Seed: Application rate: 10 lbs./1,000 sq. yds. Fertilizer type: general purpose granular, 10-20-20 Fertilizer application rate: 11 lbs./l,000 sq. yds.

Powdered Liming rate: per soil test; minimum of 4 tons per acre. Strawbale mulch rate: 1,200 lbs/1,000 sq. yds. Seeding dates: no seeding between 11/1 and 3/15

Mulch anchoring: Asphalt, either emulsified or cut—back, containing no solvents or other diluting agents toxic to plant or animal life, uniformly applied at the rate of 31 gallons per 1,000 square yards. Synthetic binders (chemical binders) may be used per manufacturer's recommendation provided they are non-toxic to plant and animal species.

When seeding is not possible due to the time of year or other limitations, disturbed area shall be mulched with strawbales at the rate above. An erosion control blanket must be installed on all disturbed slopes steeper than 3:1, and all areas with concentrated flows. Matting can be North American Green 'S75' or approved equal.

#### PERMANENT SEEDING SCHEDULE --

All disturbed soil not to be covered with impervious surfaces, riprap or landscaping mulch shall be permanently seeded to provide protection against the impact of precipitation, running water and wind. Permanent seeding schedule for the general project area is as follows:

30% Kentucky bluegrass 40% Pennlawn Creeping Red Fescue 20% Norlea Perennial ryegrass

10% annual ryegrass % Pure live seed: 98%

Application rate: 6 lbs./1,000 sq. ft. Fertilizer type: general purpose granular, 10-20-20

Fertilizer application rate: 11 lbs./1,000 sq. yds. Powdered Liming rate: per soil test; minimum of 6 tons per acre

Seeding dates: between 4/1 and 10/15 Strawbale mulching rate: 3 tons per acre

Mulch anchoring: Asphalt, either emulsified or cut—back, containing no solvents or other diluting agents toxic to plant or animal life, uniformly applied at the rate of 31 gallons per 1,000 square yards. Synthetic binders (chemical binders) may be used per manufacturer's recommendation provided they are non-toxic to plant and animal species.

An erosion control blanket must be installed on all disturbed slopes steeper than 3:1, and all areas with concentrated flows. Matting can be North American Green "\$75" or approved equivalent.

#### A minimum of 6" of topsoil shall be placed prior to seeding.

#### MAINTENANCE PLAN

- 1. Until the site is stabilized, all erosion and sediment control BMPs must be maintained properly. Responsibility for implementing and maintaining erosion and sedimentation control measures shall be designated to a minimum of one individual who will be present at the project site each working day. Maintenance must include inspections of all erosion and sediment control BMPs after each runoff event and on a weekly basis, to ensure that they are in place, stable, and functioning properly. All preventative and remedial maintenance work, including clean out, repair, replacement, re—grading, reseeding, re—mulching, and re—netting must be performed immediately, to restore the control measure to the original design. If erosion and sediment control BMPs fail to perform as expected, replacement BMPs, or modifications of those installed, will be required.
- 2. A log showing dates that E & S BMPs were inspected as well as any deficiencies found and the date they were corrected shall be maintained on the site and be made available to regulatory agency officials at the time of inspection.
- 3. Any sediment removed from BMPs during construction shall be returned to upland areas within the project area, and incorporated into the site grading, or in the manner described on the plan
- 4. See the construction details and seeding specifications for maintenance procedures for the various control measures.
- 5. Mud must be removed from vehicle tires before they exit the site. Sediment or mud tracked onto any public roadway or sidewalk shall be returned to the construction site immediately 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.

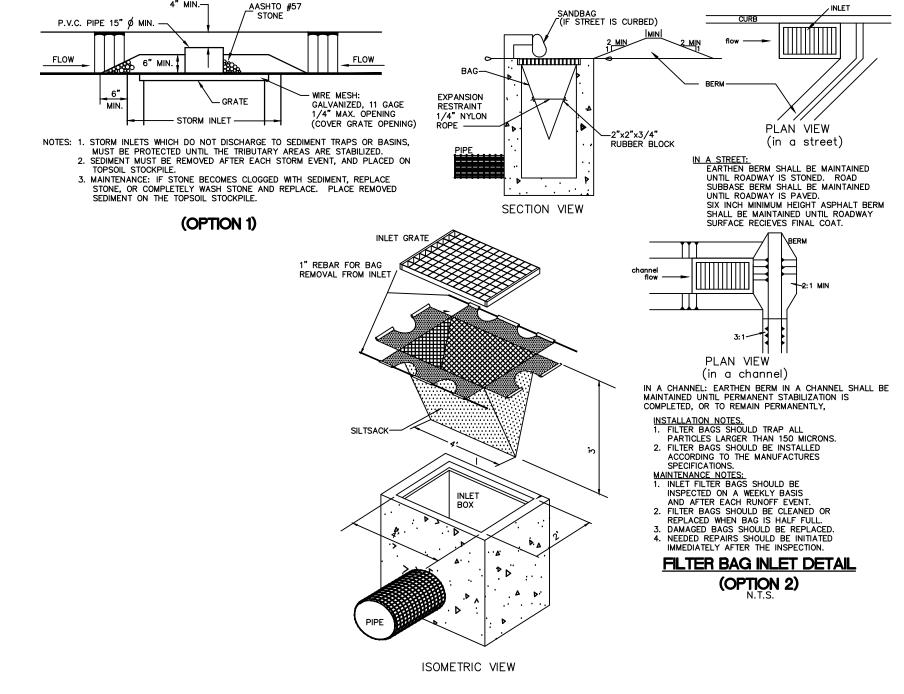
#### STAGING OF EARTH MOVING ACTIVITIES

- 1. There are no critical stages of implementation on site during the construction of this phase. 2. At least 3 days before starting any earth disturbance activities, all contractors involved in those activities shall notify the Pennsylvania One Call system Incorporated at 1-800-242-1776 for the location of existing underground utilities.
- 3. All earth disturbance activities shall proceed in accordance with the following specific sequencing Each stage shall be completed and immediately stabilized before any following stage is initiated. Clearing, grubbing and topsoil stripping shall be limited only to those areas described in each stage. Any deviation from the following sequence must be approved in writing from the County Conservation District.
- 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 the potential for accelerated erosion and/or sediment pollution.
- 5. At least 7 days before starting any earth disturbance activities, the owner and/or operator shall invite all contractors involved in those activities, the landowner, all appropriate municipal officials, and a representative of the County Conservation District to an on—site pre—construction meeting. 6. Immediately after earth disturbance activities cease, the operator shall stabilize the disturbed
- areas. During non-germinating periods, mulch must be applied at the specified rates. Disturbed areas which are not at finished grade and which will be re-disturbed within 1 year must be stabilized in accordance with the temporary seeding vegetative stabilization specifications. Disturbed areas which are not at final grade or which will not be re—disturbed within 1 year must
- be stabilized in accordance with the permanent seeding vegetative stabilization specifications. 7. All pumping of sediment laden water shall be through a sediment control BMP, such as a pumped water filter bag or equivalent sediment removal facility, over undisturbed vegetated areas.

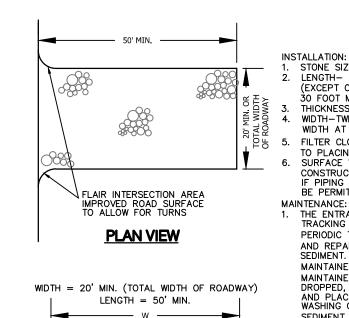
- SPECIFIC STAGING OF EARTHMOVING ACTIVITIES FOR MASS GRADING AND INSTALLATION OF COMMON IMPROVEMENTS
- 1. No earth disturbance should be started until the E&S BMP's treating the disturbed area are
- installed and functioning. 2. Clearly field mark the limits of disturbance. Install the rock construction entrances. The rock construction entrances shall be continually maintained to the specified dimensions. A stockpile of AASHTO #1 coarse aggregate shall be on the site for this purpose. At the end of each workday, any sediment deposited on paved roadways shall be removed and returned to the construction site. Field mark the topsoil stockpile locations. Topsoil stockpiles shall be stabilized utilizing the temporary seeding schedule and shall have sediment barriers located downstream to capture any sediment laden runoff. Stockpiles shall not exceed 35' in height and side slopes must be 2:1 or flatter. Field mark the locations of the Waters of the Commonwealth located within the NPDES boundary including wetland boundaries and streams. Field mark the location of the infiltration
- 3. Install Sediment Barrier 1 at the location shown on the E&S Plan. Disturbance shall be restricted to that which is only necessary to access and install the designated sediment barriers.
- . Strip the topsoil within the remaining areas that will be graded. Clear and arub as necessary. 5. Complete the mass grading. Minimize soil compaction within the undisturbed areas. Stabilize soil immediately and install temporary seeding as soon as possible. Permanent slopes of 3:1 or greater require temporary N.A.G. S75 matting or equivalent, as shown on the E&S plan. Install the portion of Permanent Swale 3 that falls behind Buildings 30 & 31, stabilizing with matting as soon as possible.
- 6. Install the sanitary sewer system. Backfill pipe trenches as soon as possible. Work shall be limited to that which can be excavated, installed and backfilled in one working day. 7. Install Storm Sewer networks I-28B to I-28 and I-27A to I-27. Backfill pipe trenches as soon
- as possible. All appropriate inlet protection must be installed as soon as the inlets are installed to ensure that only clean water is entering the system. 8. Install water line and services. Install underground electric, telephone, cable and any other
- necessary utilities. Work shall be limited to that which can be excavated, installed and backfilled in one working day.
- 9. Install street subbase and binder course. Construction entrances may be removed with approval from Dauphin County Conservation District.
- 10. Install curb. 1. Permanently seed and mulch as required.
- 12. Complete construction of buildings and site improvements as necessary.

#### CONVERSION TO PCSM

- 1. Temporary control measures can only be removed when the watershed draining to the measure is permanently stabilized and removal is authorized by the County Conservation District. Permanently stabilized is defined as a minimum uniform 70% perennial vegetative cover or other permanent non-vegetative cover with a density capable to resist accelerated surface erosion, and subsurface characteristics sufficient to resist sliding and other movements. The location of the control measure must be immediately permanently stabilized upon its removal. All areas to be permanently seeded shall have a minimum depth of 6" of topsoil before seeding.
- 2. Upon completion of all earth disturbance activities and permanent stabilization of all disturbed areas, the owner and/or operators shall contact the County Conservation District for an inspection prior to the removal/conversion of the E&S BMP's.
- 3. Any areas disturbed during the removal of the temporary BMPs shall be immediately repaired and permanently stabilized 4. Upon approval from the County Conservation District, existing Sediment Traps 1, 2, 3 & 4 shall
- be removed. The sediment traps shall be dewatered and the cleanout stakes shall be removed. Construct the remaining portion of Permanent Swale 1 that conflicted with Sediment Trap 1. A temporary erosion control blanket shall be installed with the permanent seed over the area disturbed by the removal of the sediment trap.
- Upon approval from the County Conservation District, all silt barriers shall be properly removed. 6. Upon completion of all earth disturbance activities, removal of all temporary BMPs, installation of all permanent BMPs and permanent stabilization of all disturbed areas, the owner/operators shall contact the County Conservation District for a final inspection.



TEMPORARY STORM INLET PROTECTION DETAIL

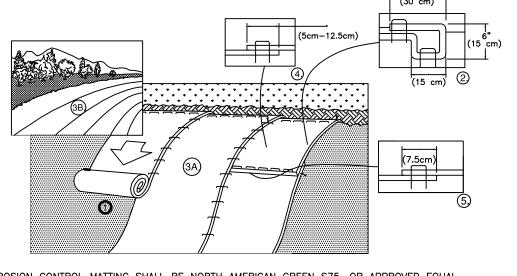


∠AASHTO NO. 1 ROCK\ 8"──

STONE SIZE-AASHTO #1 ROCK LENGTH- AS REQUIRED, BUT NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY) THICKNESS-NOT LESS THAN EIGHT (8) INCHES WIDTH-TWENTY (20) FOOT MIN., BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED

THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PAVEMENT. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. THE SPECIFIED STONE THICKNESS SHALL BE CONSTANTLY MAINTAINED BY ADDING ROCK. A STOCK PILE OF STONE SHALL BE MAINTAINED ON THE SITE FOR THIS PURPOSE. ALL SEDIMENT SPILLED, DROPPED, OR TRACKED ONTO PUBLIC RIGHTS—OF—WAY MUST BE REMOVED AND PLACED ON A TOPSOIL STOCKPILE AT THE END OF EACH WORKING DAY WASHING OF PAVEMENT IS NOT PERMITTED UNLESS RUNOFF GOES TO A SEDIMENT TRAPPING MEASURE. 2. WASHING - WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO EXITING CONSTRUCTION SITE. WHEN WASHING IS REQUIRED, SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH PRECIPITATION EVENT.

### STABILIZED CONSTRUCTION ENTRANCE

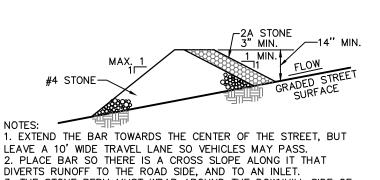


NOTE: EROSION CONTROL MATTING SHALL BE NORTH AMERICAN GREEN \$75, OR APPROVED EQUAL.

- PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
   NOTE: WHEN USING CELL—O—SEED DO NOT SEED PREPARED AREA. CELL—O—SEED MUST BE INSTALLED WITH PAPER SIDE DOWN 2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6" (15cm) DEEP X 6" (15cm) WIDE TRENCH WITH APPROXIMATELY 12" (30cm) OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30cm) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30cm) PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (30cm) APART ACROSS THE WIDTH OF THE BLANKET.
- 3. ROLL THE BLANKETS (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING OPTIONAL DOT SYSTEM \*\* STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
- 4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2"-5" (5cm-12.5cm) OVERLAP DEPENDING ON BLANKET TYPE. TO ENSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE COLORED SEAM STITCH™ON THE PREVIOUSLY INSTALLED BLANKET. 5. CONSECUTIVE BLANKETS SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" (7.5cm) OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" (30cm) APART ACROSS ENTIRE

\*IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15cm) MAY BE NECESSARY TO PROPERLY SECURE THE BLANKETS.

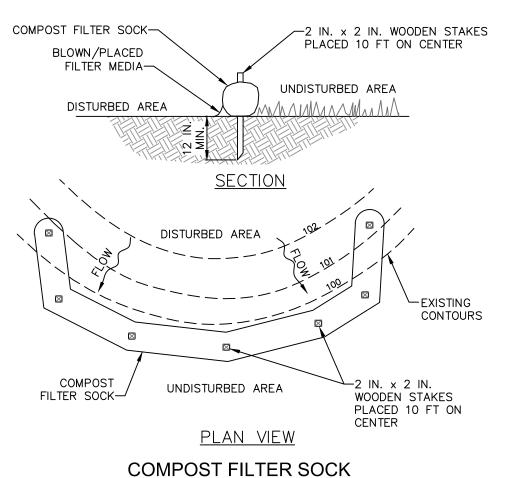
## **EROSION CONTROL MATTING ON SLOPE**



. THE STONE BERM MUST WRAP AROUND THE DOWNHILL SIDE OF THE INLET SO RUN-OFF IS TRAPPED AT THE INLET GRATE. 4 MAINTENANCE: a) MAINTAIN THE BAR HEIGHT AND STONE TYPES CONTINUOUSLY KEEP STONE SUPPLIES ON THE SITE FOR SUCH REPAIRS.

b) REPAIR TIRE RUTS OR STONE DISPLACEMENT BY TIRES.

c) MAINTAIN BAR CONFIGURATION AND HEIGHT SO RUNOFF DOES NOT BYPASS OR INFILTRATE THE WATER BAR. d) INSPECT AND REPAIR AT THE END OF EACH WORKING DAY. 5. BARS MAY BE ELIMINATED AT THE TIME OF ROAD PAVING. **TEMPORARY WATER BAR DETAIL** 



NOT TO SCALE

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

COMPOST FILTER SOCK SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE BARRIER SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE MAIN BARRIER ALIGNMENT. MAXIMUM SLOPE LENGTH ABOVE ANY BARRIER SHALL NOT EXCEED THAT SPECIFIED FOR THE SIZE OF THE SOCK AND THE SLOPE OF ITS TRIBUTARY AREA.

TRAFFIC SHALL NOT BE PERMITTED TO CROSS COMPOST FILTER SOCKS.

ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES 1/2 THE ABOVE GROUND HEIGHT OF THE BARRIER AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN. COMPOST FILTER SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION. BIODEGRADABLE COMPOST FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS; PHOTODEGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S

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.

COMPOST FILTER SOCK TABLE								
SOCK NO. DIA. (IN) LOCATION		SLOPE PERCENT	SLOPE LENGTH ABOVE BARRIER (FT)					
1	18	AS LABELED ON E&S PLAN	6.2	219				

DRAWING ID:

Project:

SHEET:

220108-DET

220108

02/05/21

FISHER

46 BRIDGE HONE: (717 JFISH]

sociates. Inc

WNE

THE