

**Shade Tree Commission of Radnor Township
Wayne, Pennsylvania**

AGENDA

**Wednesday, September 21, 2017
6:30pm**

- 1 Call of Order
- 2 Pledge of Allegiance
- 3 Approval of the August 23, 2017 Meeting Minutes

4 New Business

- | | |
|--------------|--|
| A. GP 17-141 | 101 Harvard Lane, Lot 34 Woodlands II
Single Family Dwelling
700 cy fill/cut to be removed from site
18 Trees removed |
| B. GP 17-166 | 836 Paddock Drive
Building, Patio, Walkway, shed, driveway, additions
415cy fill/cut taken off site
1 Tree |
| C. GP 17-155 | 301 S. Wayne Ave
Pool & Deck
164cy taken off site
No trees being removed |

Trees Removed without Approval

None at this time

Clearing Permits

None at this time

5. List of Registered Contractors
6. Old Business
 - 1 Phillipone/Bo Connor/LaMaison Tract – Severe vine infestation and Shade Tree die off in those parks. Remediation progress report
 - 2 Calvarese Lane: Low Tree Branches hitting trucks, possible tree pruning needed
 - 3 Overbrook Golf Club
7. Hazardous Trees

1	524 St Davids Road	1 Chestnut
2	245 Ashwood	38" Red Oak
3	509 Midland Circle	Oak, 45" DBH
4	306 Pine Tree Road	1 Tulip Poplar, Twin Lead 1 28", 1-32"
5	401 Conestoga Road	(2) Red Oak Tree; 880' tall 36 DBH, 42" BDH

**Shade Tree Commission of Radnor Township
Wayne, Pennsylvania**

AGENDA

**Wednesday, September 21, 2017
6:30pm**

8. Tree Removal by Radnor Township

<u>Date</u>	<u>Location</u>	<u>Tree</u>
8/10/2017	Fenimore Woods Park	White Oak
8/10/2017	617 Radnor Valley Drive	Large Gum Tree
8/10/2017	618 Radnor Valley Drive	Gum Tree
9/5/2017	108 Barcladen Rd	Large Pine
9/5/2017	402 Midland Ave	Bradford Pear
9/5/2017	217 Pembroke Ave	Large Oak
9/5/2017	Ithan Valley Park	3 Dead Trees
9/5/2017	Clem Macrone Park	removed large limbs from 6 trees

9. Public Participation

10. Adjournment

**Shade Tree Commission of Radnor Township
Wayne, Pennsylvania
Minutes of the Meeting of August 23, 2017**

The Shade Tree Commission of Radnor Township at 6:30 PM in the Radnorshire Room of the Radnor Township Municipal Building, 301 Iven Avenue, Wayne, PA 19087

Present

*Jack Millerick, Chair
Matt Golas
Jake Abel
Clare Girton*

Absent

*Eileen Brett
2 Vacancies on Commission*

Also Present: *Steve Norcini, Township Engineer; John Hosbach, Township Arborist; Patricia Sherwin, Engineering Clerk.*

Jack Millerick called the meeting to order and led the assembly in the Pledge of Allegiance.

Approval of Minutes

*Minutes of May 2017
Minutes of July 26, 2017*

*Approved
Approved with the condition to add attendance*

New Business

*303 West Ave
2 story Addition
92 cy of dirt (take off site)
2 trees are not shown on drawing*

GP # 17-144

Tabled

*Shade Tree recommends approval with the following conditions:
Need to show 6 foot high tree protection, note species of tree
Arborist to meet with resident*

*304 Edgehill Road
Addition & Patio
280 CY of dirt (keep on site)
No trees over 6" will be removed*

GP #17-148

Approved 4-0

*Shade Tree recommends approval with the following conditions: Arborist to visit site
Plans must reflect the species of trees. Revised plans must be submitted for the grading permit*

*431 Boxwood Road
New Residence
2,500 CY of dirt (taken off site)
25 Trees over 6" to be removed
54 replacement trees*

GP #17-37

Approved 4-0

*Shade Tree recommends approval with the following conditions:
Replacement trees as followed: Willow Oak, Overcup Oak, Red Maple, Hackberry, Hybrid Elms*

539 Woodland Lane GP #17-95 No Show
Outdoor covered patio and boulder
Retaining wall

The applicant has not been to the last two meetings. This topic will no longer be on the agenda until the applicant resubmits.

Trees Removed without Approval-

120 Ashwood – Paid Fine and resolved

219 Sugartown (LaMaison) – was not notified for this meeting. Patricia Sherwin will notify them for the September 21st meeting

801 Godfrey (Overbrook Golf Club) – was not notified for this meeting. Patricia Sherwin will notify them for the September 21st meeting

Sub-Committee Progress Report - Master Street Plan for Radnor

- *Steve to contact Commissioner Rice regarding:*
 - *Do we need a Quorum for Sub-committee*
 - *Do sub-committee meetings need to be advertised*
 - *Is there a limit to how many sub-committee members allowed*
 - *Are there any rules to a sub-committee*
- *Steve to send Arborist GIS information*
- *Jake Abel approved for sub-committee*

Approved 3-0

Fillipone/Bo Connor/LaMaison Tract – Severe vine infestation and Shade Tree die off in those parks. Remediation progress report - unresolved

Calvarese Lane: Low Tree Branches hitting trucks, possible tree pruning needed - Steve will ask Mark Dominick to investigate

Hazardous Tree List approved for removal by Township Arborist

672 Sproul Road Per John, no need to attend, there are no trees present Approved 4-0

32 Orchard Lane 32" Ash Approved 4-0

763 S Valley Forge Road 46" Fraxinus, 40" Quercus, 33" Fraxinus, 39" (3) Acer, Fraxinus, 48" Betula, 30" Picea, 30" Acer Approved 4-0

15 Black Friar Road 75' Oak 30" Approved 4-0

18 Meadowwood Road 600' 30" Norway Spruce Approved 4-0

Meeting Adjourned.

Respectfully Submitted,

Patricia Sherwin

APPLICATION FOR GRADING PERMIT

RADNOR TOWNSHIP ENGINEERING DEPARTMENT

The undersigned hereby makes application for Grading Permit under Chapter 175 and any amendments thereof.

MATH 8920
302-419-8903

LOCATION: 101 HARVARD LANE, LOT 34, WOODSLAND II
36-39-150

WHAT ARE YOU BUILDING: SINGLE FAMILY DWELLING

Five (5) copies of site plan to be submitted with application.

TWELVE (12) COPIES IF PLAN NEEDS TO BE REIVEWD BY SHADE TREE —SEE REQUIREMENTS ENCLOSED

DO PLANS SHOW ALL ITEMS LISTED ON PAGE 3

Plans must be folded and no larger than 24" x 36"

GROSS LOT AREA 21919 SQ. FT. (Fee schedule next sheet)

TOWNSHIP USE ONLY	
PERMIT No. <u>17-141</u>	
SUBMISSION DATE <u>7/26/17</u> <u>9/14/17</u>	
SHADE TREE DATE <u>8/23/17</u> <u>9/21/17</u>	
REVISION DATES _____	
RECEIVED DATES _____	
Zoning Officer _____	
APPROVED BY: _____	
FINAL APPROVAL DATE: _____	
Received from Applicant _____	
Fee schedule on page 2 <u>\$850</u>	
Consolidated Fee Schedule can be found at Radnor.com	

COVER TYPE	EXISTING SQUARE FEET		REMOVED SQUARE FEET	ADDED SQUARE FEET	TOTAL SQUARE FEET	
BUILDINGS	0		- 0	+ 2942	= 2942	
WALKS	0		- 0	+ 338	= 338	
PATIOS	0		- 0	+ 324	= 324	
DRIVES	473		- 473	+ 1189	= 1189	
DECKS	0	EXISTING %	- 0	+ 0	= 0	TOTAL NEW %
OTHER	0	OF LOT	- 0	+ 0	= 0	OF LOT
TOTAL	473	2.2 %	473	4793	4793	21.9 %

Ground Water Recharge and Storm Water Calculations

- No credit for removal of impervious.
- Calculations are based on the total added impervious not the net.

↑ 500 to 1499 sq. ft. Ground Water Recharge Required
1500 sq. ft. and over Storm Water Management Required
(For additional information see Ordinance 05-11)

Estimated cubic yards of dirt involved (Total cut and fill) 700 Will this fill be taken off site Yes No

Number of trees to be removed (over 6" in diameter) 18 Is property in the Historical District? Yes No

Circle Zoning District Applicable

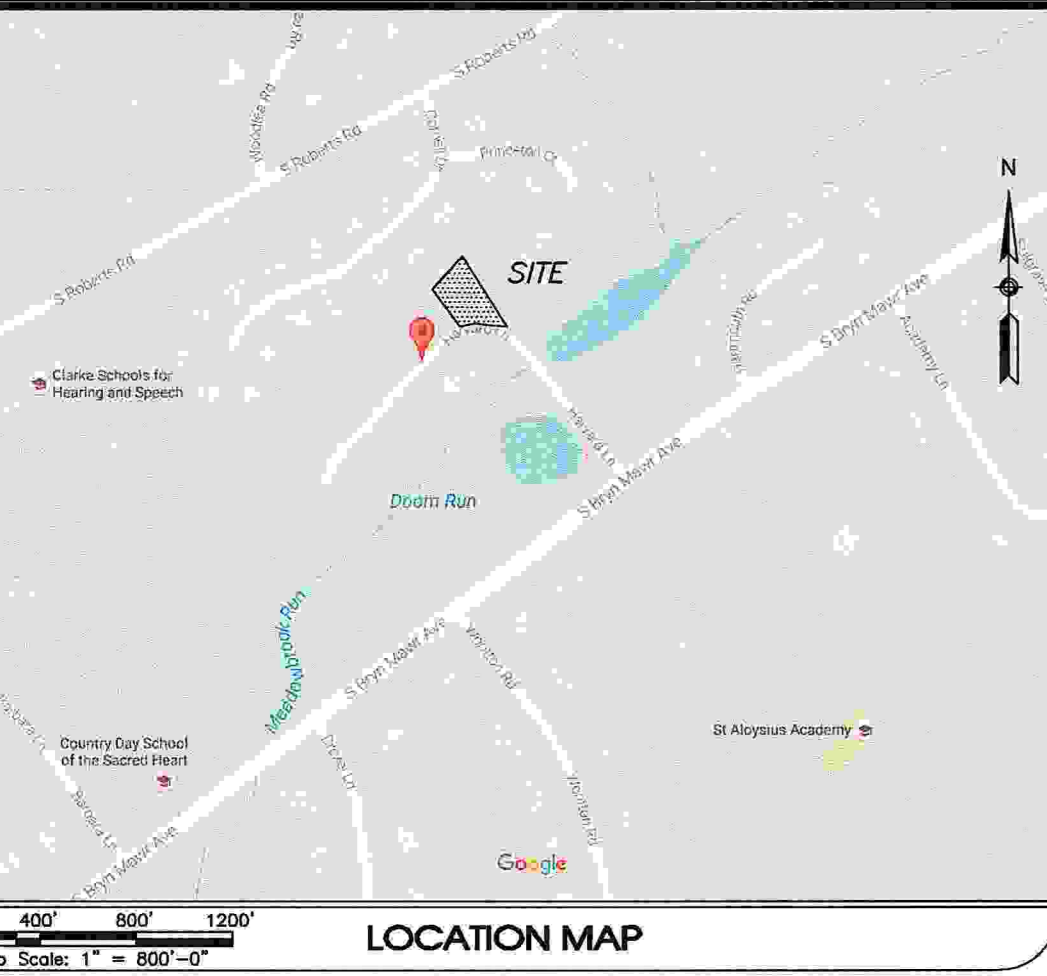
R-1 22%	R-2 30%	R-3 35%	R-4 40%	R-5 40% Semi/ 2 Family Detach	R-5 36% Multi Dwelling	R-6 70%	R-1A 30%	CO 50% (2 + 3 stories)	C-1 60%	C-2 70%	C-3 65%	PI 45%
PA 50%	GH-N 60%	GH- GA 80%	GH- CR 95%	GH-BC 50%	GH-OS 15%	WBOD N/A or 90%	PB 55%	PLO 55%	FC N/A	PLU 45%		

Signature of Owner: [Signature] Applicant: SAME

Date: 1/20/2017 Relation to Owner: _____

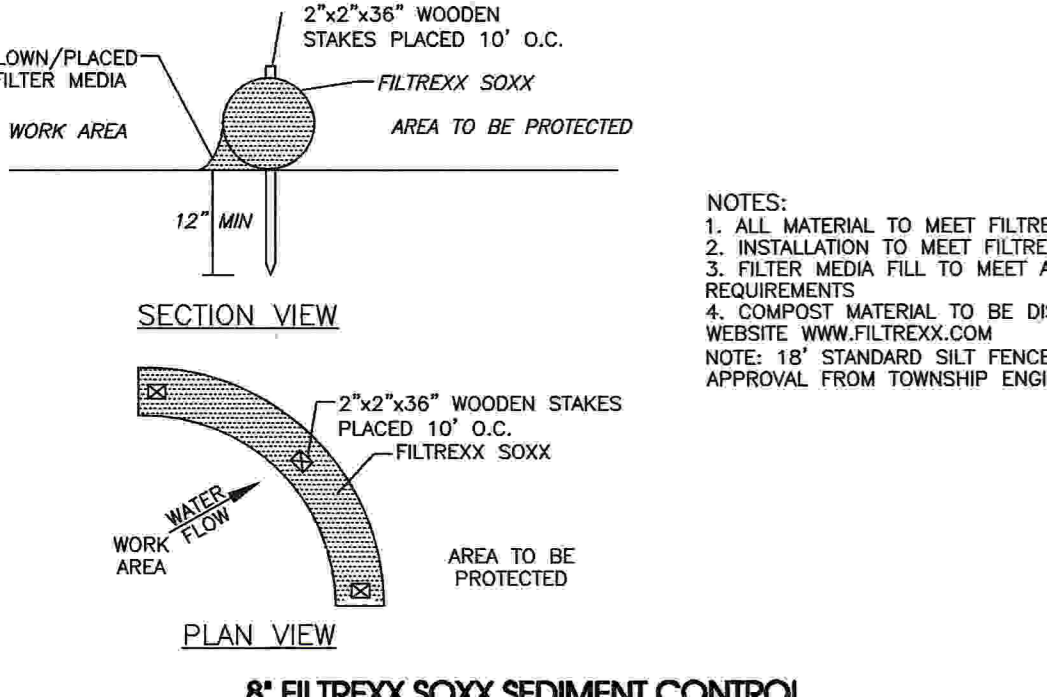
Phone Number: 484-614-5876 Fax Number: _____

Email: CHRISTY@ROCKWELLDEVELOPMENTGROUP.COM



NOTE: THE EXACT LOCATION AND DEPTH OF EXISTING UTILITIES CANNOT BE GUARANTEED. ALL UTILITIES DEPICTED ON THIS PLAN HAVE BEEN DEVELOPED FROM ABOVE GROUND OBSERVATIONS AND/OR EXISTING RECORDS. CONTRACTOR MUST VERIFY THE LOCATION OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. PENNSYLVANIA STATE LAW REQUIRES NOTIFICATION TO 1-800-242-1776 3-10 BUSINESS DAYS PRIOR TO ANY EXCAVATION.

- ### EROSION AND SEDIMENTATION CONTROL NOTES
- EROSION AND SEDIMENT BMPs MUST BE CONSTRUCTED, STABILIZED, AND FUNCTIONAL BEFORE SITE DISTURBANCE BEGINS WITHIN THE TRIBUTARY AREAS OF THOSE BMPs.
 - AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENT BMPs MUST BE REMOVED. AREAS DISTURBED DURING REMOVAL OF THE BMPs MUST BE STABILIZED IMMEDIATELY.
 - CONTRACTOR MUST WASH VEHICLE TIRES PRIOR TO LEAVING SITE. SHOULD WASHING TIRES PROVE INEFFECTIVE, CONTRACTOR MUST INSTALL ROCK CONSTRUCTION ENTRANCE.
 - CONTRACTOR MUST CLEAN DRIVEWAY AND ROAD OF ANY SEDIMENT AT THE END OF EACH WORK DAY.
 - STACKPILE HEIGHTS MUST NOT EXCEED 35 FEET. STACKPILE SLOPES MUST BE 2:1 OR FLATTER.
 - UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENT BMPs MUST BE MAINTAINED PROPERLY. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENT BMPs AFTER EACH RAINFALL EVENT AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, RESETTING, AND RETENING MUST BE PERFORMED IMMEDIATELY. IF EROSION AND SEDIMENT CONTROL BMPs FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPs, OR MODIFICATIONS OF THOSE INSTALLED WILL BE REQUIRED.

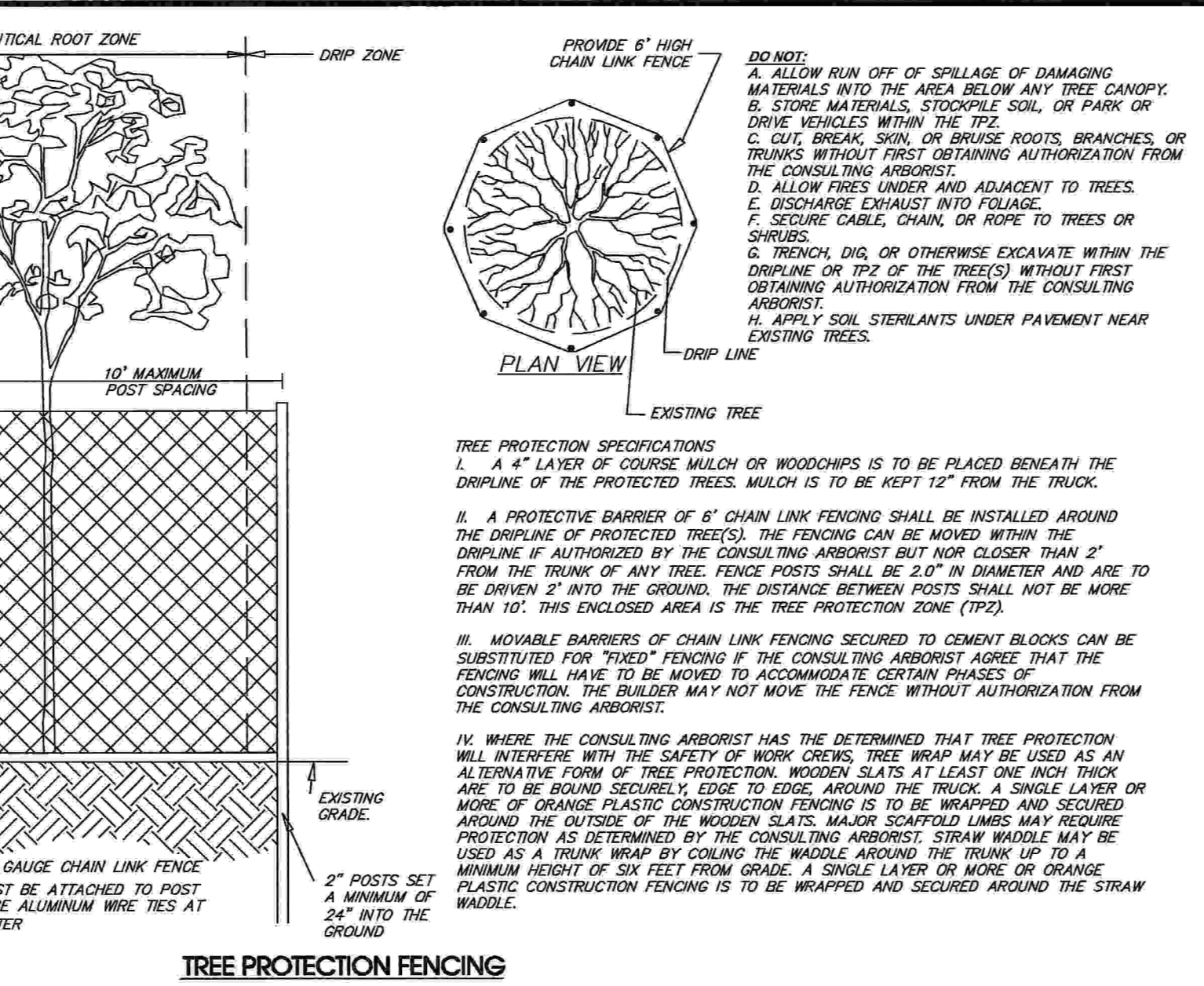
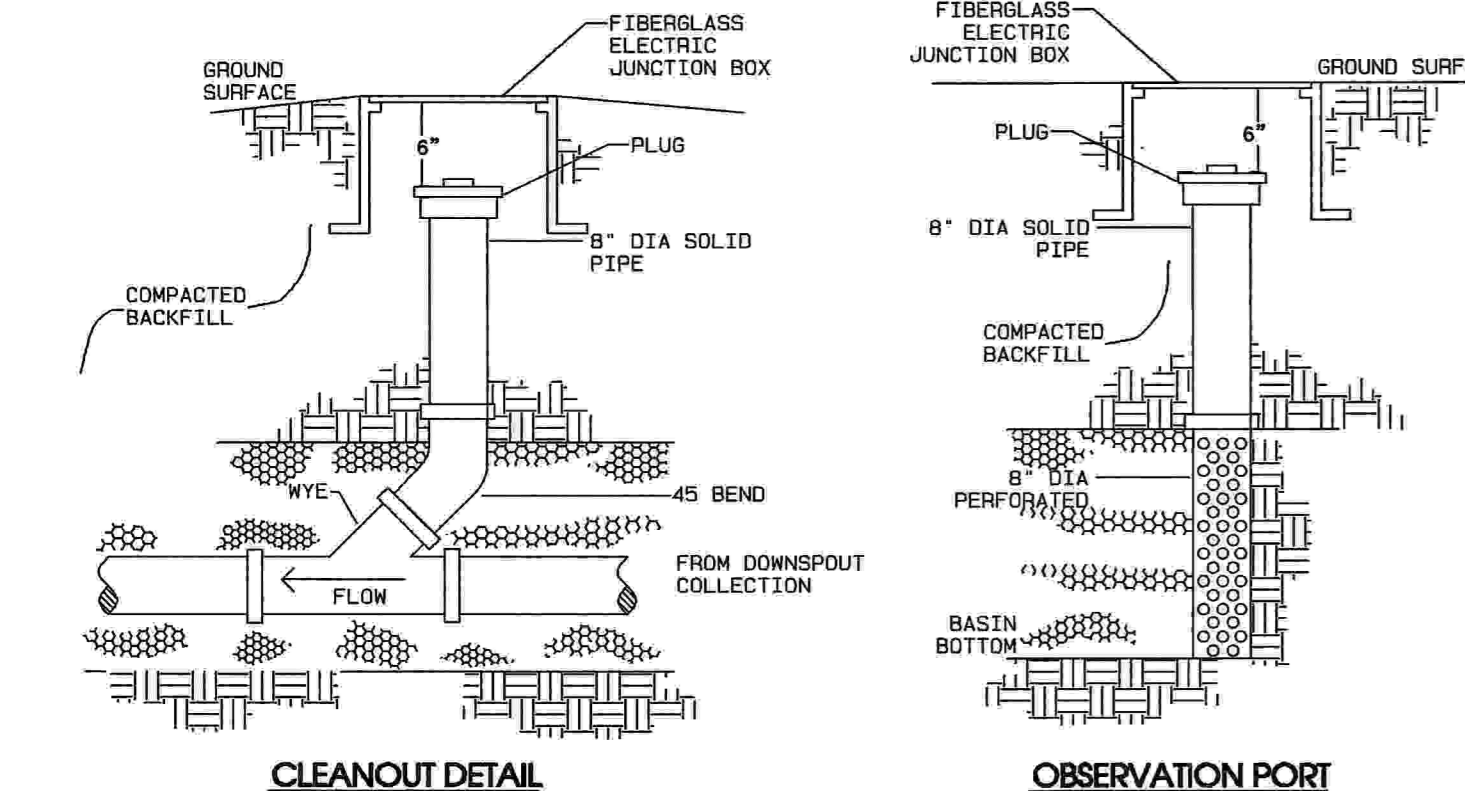


TREE REPLACEMENT CALCULATIONS

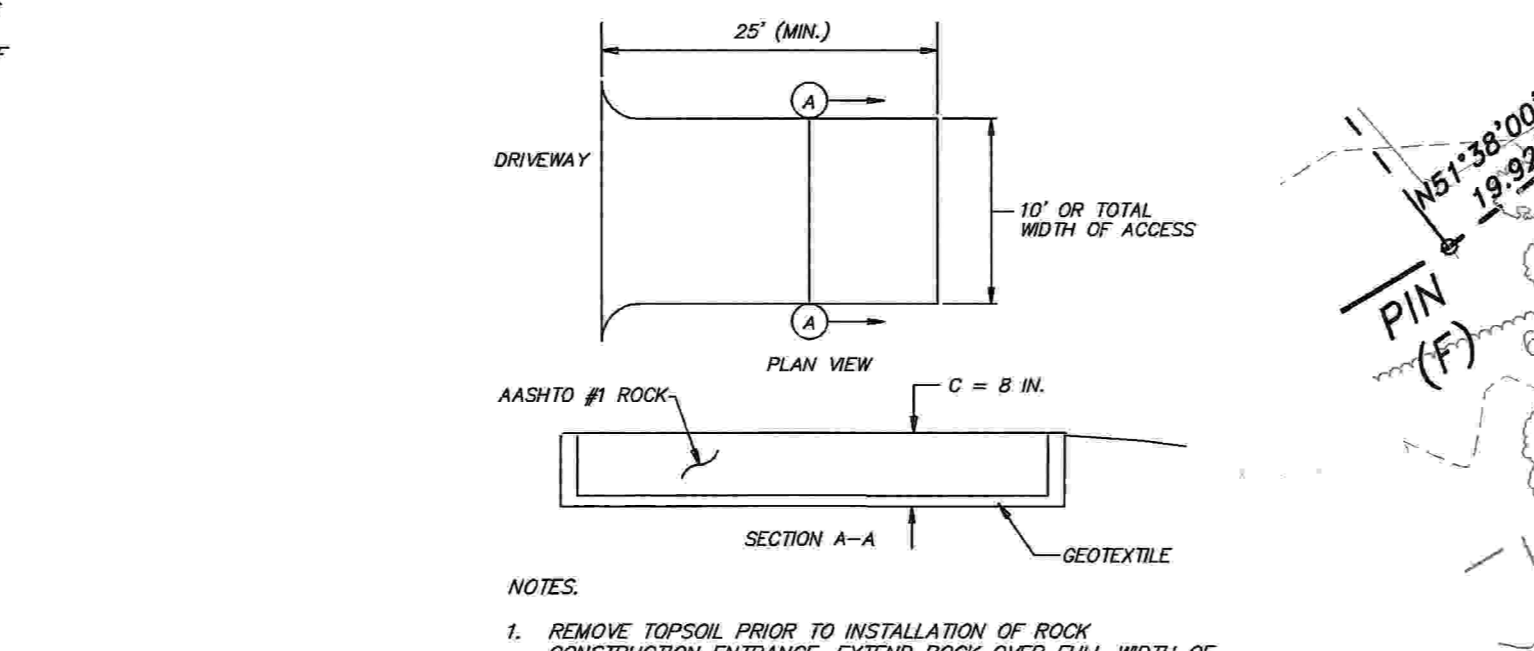
DBH	TREES TO BE REMOVED	REQUIRED REPLACEMENT PER TREE	TREES TO BE ADDED
6" TO 18"	18	1	18
19" TO 29"	2	3	6
30" OR GREATER	0	6	0
TOTAL REPLACEMENT TREES PROVIDED			24

PLANT SCHEDULE

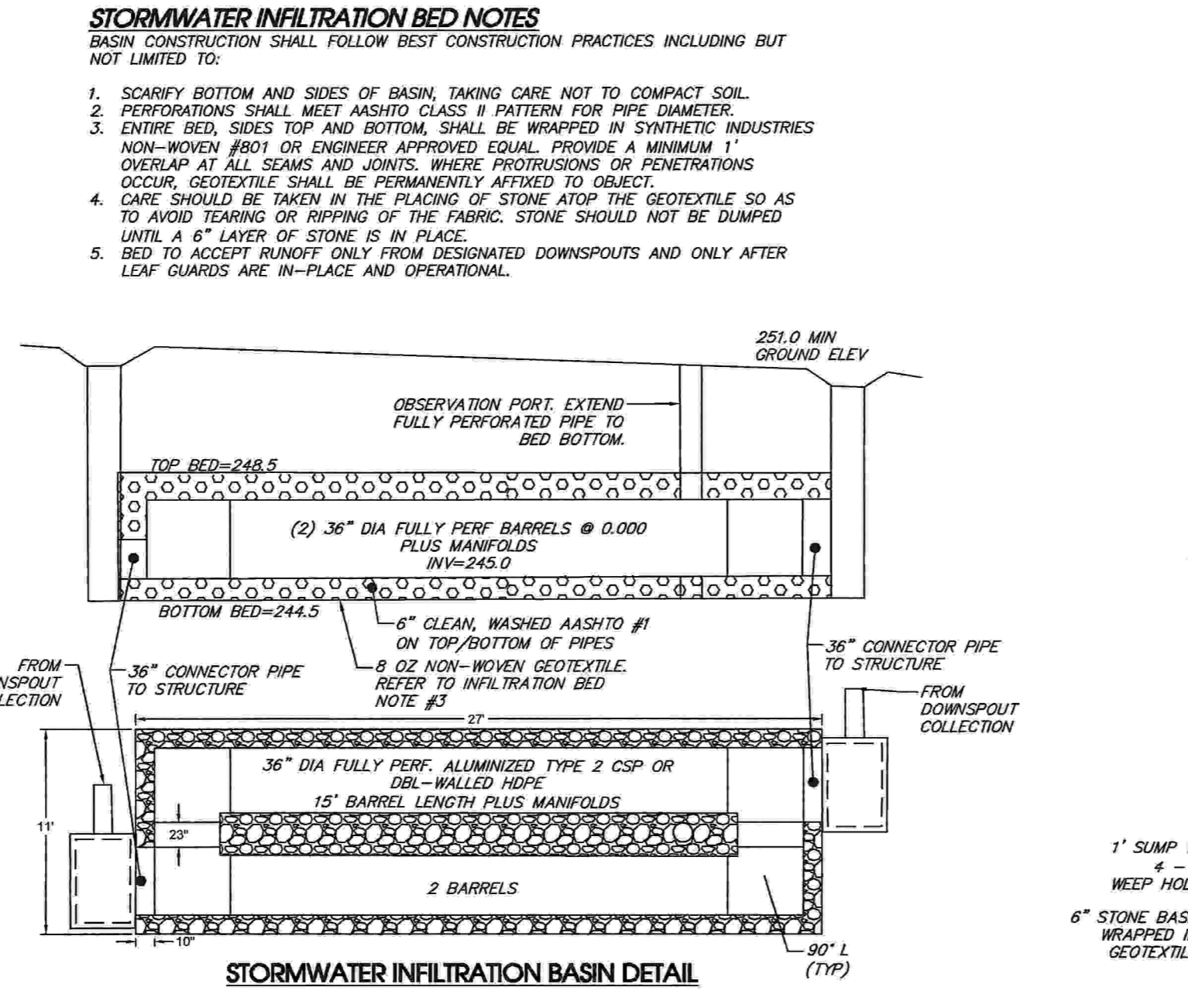
QTY	BOTANICAL NAME	COMMON NAME	SIZE
10	THUJA 'GREEN GIANT'	GREEN GIANT ARBORVITAE	5-8 FT. B&B
7	BETULA PLATYPHYLLA	JAPANESE WHITE BIRCH	2.5-3" CAL. B&B
7	CORNUS KOUSA	KOUSA DOGWOOD	2.5-3" CAL. B&B



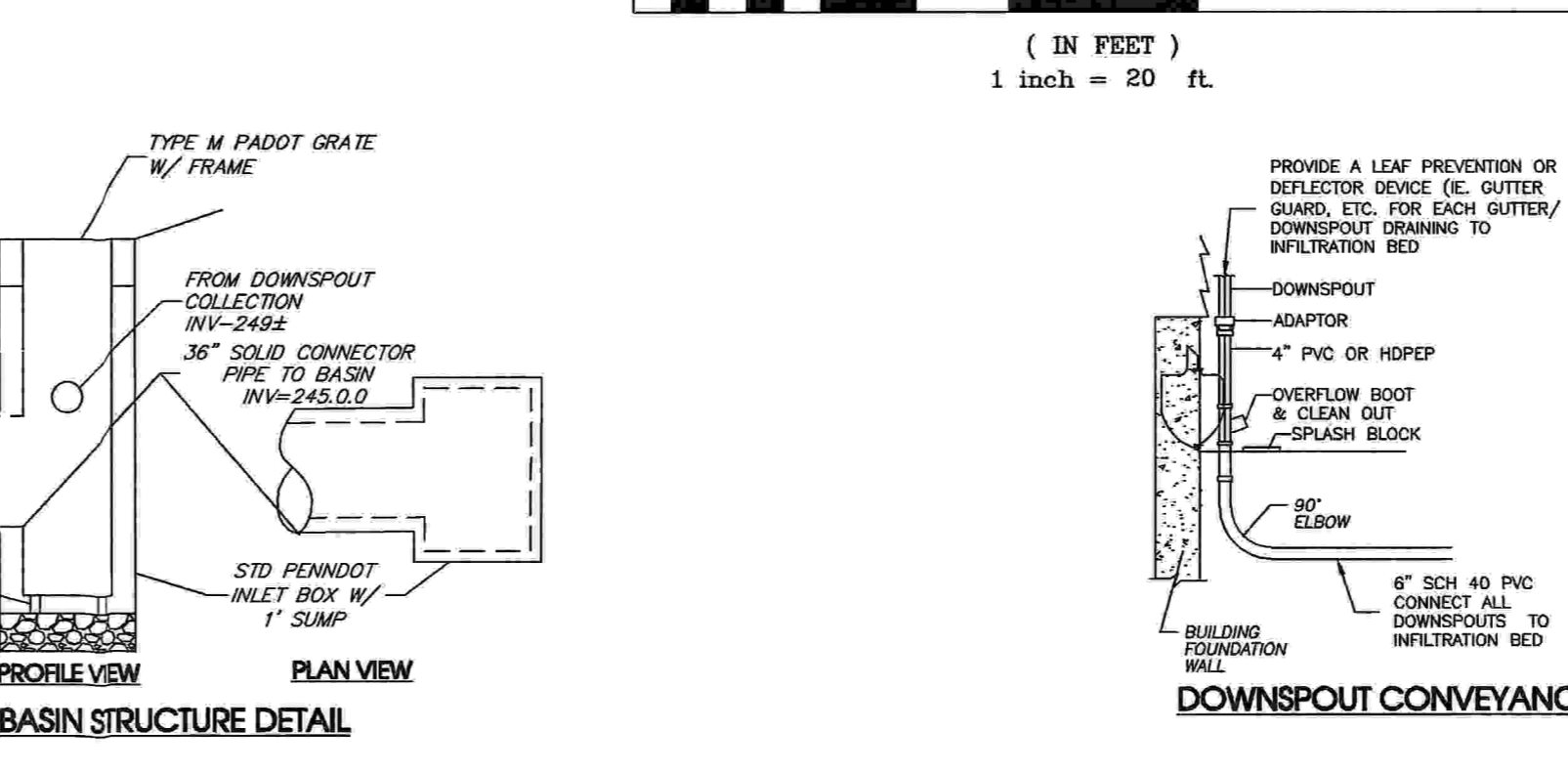
- ### EROSION CONTROL MAINTENANCE REQUIREMENTS
- SILT BARRIER, TREE PROTECTION FENCING, AND THE ROCK CONSTRUCTION ENTRANCE MUST BE CHECKED ON A DAILY BASIS AND AFTER ALL STORM EVENTS TO ENSURE THAT THEY ARE STILL FUNCTIONING PROPERLY. IF NOT, THEY SHALL BE REPLACED OR CLEANED AS NECESSARY.
 - SEDIMENT MUST BE REMOVED FROM SILT BARRIER WHEN ACCUMULATIONS REACH 1/2" OF THE ABOVE GROUND HEIGHT OF THE FENCE.
 - ANY SECTION OF SILT BARRIER WHICH HAS BEEN UNDERMINED OR TOPPED MUST BE IMMEDIATELY REPLACED WITH A ROCK FILTER OUTLET.
 - DIVERSION BERMS, STONED CONSTRUCTION STAGING AREAS, AND INLETS/PIPING SHALL BE PROVIDED AS REQUIRED OR AS DIRECTED BY THE TOWNSHIP SO AS TO ENSURE ACCEPTABLE CONDITIONS DURING THE CONSTRUCTION PHASE.



- ### STORMWATER INFILTRATION BED NOTES
- SCAFFRY BOTTOM AND SIDES OF BASIN, TAKING CARE NOT TO COMPACT SOIL.
 - PERFORATIONS SHALL MEET ASHRAE CLASS 1 PATTERN FOR PIPE DIAMETER.
 - ENTIRE BED, SIDES TOP AND BOTTOM, SHALL BE WRAPPED IN SYNTHETIC INDUSTRIES NON-WOVEN #807 OR ENGINEER APPROVED EQUAL. PROVIDE A MINIMUM 1" OVERLAP AT ALL SEAMS AND JOINTS. WHERE PROTRUSIONS OR PENETRATIONS OCCUR, GEOTEXTILE SHALL BE PERMANENTLY AFFIXED TO OBJECT.
 - CARE SHOULD BE TAKEN IN THE PLACING OF STONE ATOP THE GEOTEXTILE SO AS TO AVOID TEARING OR RIPPING OF THE FABRIC. STONE SHOULD NOT BE LATERAL UNTIL A 6" LAYER OF STONE IS IN PLACE.
 - BED TO ACCEPT RUNOFF ONLY FROM DESIGNATED DOWNSPOUTS AND ONLY AFTER LEAF GUARDS ARE IN-PLACE AND OPERATIONAL.



- ### CONSTRUCTION STAGING
- PERMITEE OR PERMITEE'S DESIGNEE SHALL CONTACT THE TOWNSHIP AT 610-688-5600 TO ARRANGE THE PRE-CONSTRUCTION CONFERENCE AT THE SITE WITH THE TOWNSHIP ENGINEER. THE PRE-CONSTRUCTION CONFERENCE MUST BE HELD PRIOR TO COMMENCEMENT OF ANY WORK ASSOCIATED WITH THE GRADING PERMIT.
- FIELD LOCATE ALL UTILITIES.
 - INSTALL SILT FENCE AND TREE PROTECTION FENCING. INSTALL ROCK CONSTRUCTION ENTRANCE IF CLEANING OF TIRES ON EXISTING DRIVEWAY IS INEFFECTIVE.
 - STRIP TOPSOIL AND ROUGH GRADE AREA OF PROPOSED IMPROVEMENTS. IMMEDIATELY STABILIZE DORMANT DISTURBED AREAS WITH THE APPROPRIATE SEED MIXTURE. TOPSOIL STOCKPILES ARE TO BE LIMITED TO 35 FEET WITH A MAXIMUM SIDE SLOPE OF 2:1. IMMEDIATELY STABILIZE STOCKPILE.
 - CONSTRUCT IMPROVEMENTS. DISTURBANCE SHALL BE KEPT TO A MINIMUM AT ALL TIMES. MAINTAIN ALL EROSION CONTROL FACILITIES AND DEVICES IN PROPER WORKING ORDER AT ALL TIMES. IMMEDIATELY STABILIZE DORMANT DISTURBED AREAS WITH STONE OR WITH TEMPORARY OR PERMANENT SEED MIX AS WARRANTED AND MULCH AT 3 TONS PER ACRES, AND LIME AS SYSTEM REQUIRED.
 - CONSTRUCT THE STORMWATER BASIN AND CONVEYANCE SYSTEM. SUB-GRADE SHALL NOT BE COMPACTED OR SUBJECT TO EXCESSIVE CONSTRUCTION EQUIPMENT TRAFFIC. ANY SEDIMENT THAT ACCUMULATES IN THE BASIN SHALL BE REMOVED. THE CONVEYANCE SYSTEM OF BASIN SHOULD RECEIVE RUNOFF FROM UNSTABILIZED AREAS. ALL AREAS TRIBUTARY TO THE BASIN SHALL ACHIEVE A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER BEFORE RUNOFF IS ALLOWED TO ENTER THE STORMWATER SYSTEM.
 - MINIMUM OF 4 INCHES OF TOPSOIL SHOULD BE PROVIDED OVER ALL DISTURBED AREAS PRIOR TO SEEDING OPERATIONS.
 - ONCE SITE IS STABILIZED WITH 70% COVER, CONTRACTOR MUST REMOVE EROSION AND SEDIMENTATION CONTROL SYSTEMS. AREAS DISTURBED DURING CONSTRUCTION MUST BE STABILIZED IMMEDIATELY.
- ANTICIPATED START OF CONSTRUCTION - FALL 2017
ANTICIPATED COMPLETION OF CONSTRUCTION - WINTER 2017



- ### LEGEND - E & S CONTROL FEATURES
- BCS 6" COMPOST SOCK
 - TP TREE PROTECTION FENCING
 - LIMIT OF DISTURBANCE LINE
 - ROCK CONSTRUCTION ENTRANCE
- ### TREE LEGEND
- AI ALNANTHUS
 - AS ASPEN
 - BE BEECH
 - BH BIRCH
 - CE CEDAR
 - CH CHESTNUT
 - CO COCONUT PALM
 - CG CYPRESS
 - FR FRUIT
 - HB HACKBERRY
 - HK HICKORY
 - HM HEMLOCK
 - HY HOLLY
 - MA MAPLE
 - KD KOUSA DOGWOOD
 - MB MULBERRY
 - MG MAGNOLIA
 - MJ MAPLE
 - OK OAK
 - PA PINE
 - SA SASSAFRAS
 - SA SWEETGUM
 - SC Sycamore
 - SO SOUTHWOOD
 - SW Sycamore
 - SY Sycamore
 - TL TULIP
 - TP TULIP
 - WP WILLOW
 - WP WHITE PINE
- ### PLAN LEGEND
- PROPOSED
 - EXISTING
 - 1' INTERVAL CONTOUR
 - 5' INTERVAL CONTOUR
 - ST STORM SEWER PIPING
 - S SANITARY SEWER PIPING
 - G GAS MAIN
 - W WATER MAIN / SERVICE
 - N UNDERGROUND TELEPHONE
 - E EDGE OF WOODS
 - P EAVEMENT
 - X FENCE LINE
 - PROPERTY LINE
 - BUILDING SETBACK LINE
 - DOOR SILL
 - LANDSCAPE LIGHTING
 - LIGHT STANDARD
 - OIL FILL CAP
 - STORMWATER DRAIN
 - DOWNSPOUT
 - CLEAN OUT
 - CAPTURED DRAINAGE AREAS
 - Moderately steep slopes 14-20%
 - Very steep slopes 20%+
 - WALKS & PADS
 - ASPHALT

- ### SURVEY NOTES
- VERTICAL CONTROL IS BASED ON NAD83/NVD88, PA SOUTH ZONE, WGS84.
 - THIS SURVEY IS NOT TO BE USED FOR TREE REMOVAL ALONG PROPERTY LINES. TREE LOCATIONS ARE APPROXIMATE. FOR TREE REMOVAL PURPOSES, PROPERTY LINES MUST BE FIELD MARKED WITH STAKES SET TO ESTABLISH EXACT TREE OWNERSHIP.
 - THERE IS AN IDENTIFIABLE FLOOD PLAN AREAS WITHIN THE PROJECT SITE AS ILLUSTRATED ON COMMUNITY PANEL NUMBER 420417-0039F OF THE FLOOD INSURANCE RATE MAP AS PREPARED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY FOR THE TOWNSHIP OF RADNOR, PENNSYLVANIA.
 - EXISTING SUBSURFACE UTILITY INFORMATION INDICATED IS BASED UPON VISUAL FIELD INSPECTION BY JEFFREY P. TURNER. PLUS SUCH INFORMATION CONCERNING THE SIZE, LOCATION, DEPTH, QUANTITY, ETC. OF SUBSURFACE UTILITIES IS APPROXIMATE IN NATURE AND HAS BEEN OBTAINED AS A SUPPLEMENT TO THE SITE SURVEY. THE INFORMATION PROVIDED IS REPRESENTATIVE OF SUBSURFACE CONDITIONS ONLY AT LOCATIONS AND DEPTHS WHERE SUCH INFORMATION WAS OBTAINED. THERE IS NO EXPRESSED OR IMPLIED AGREEMENT THAT UTILITY SIZE, LOCATION, DEPTH, QUANTITY, ETC. AS SHOWN EXISTS BETWEEN EXPLORED LOCATIONS. ACCORDINGLY, UTILITY INFORMATION SHOWN SHOULD NOT BE RELIED UPON FOR CONSTRUCTION PURPOSES. IT IS INCUMBENT UPON THE CONTRACTOR TO VERIFY THE SIZE, LOCATION, DEPTH, QUANTITY, ETC. OF ALL UTILITIES BEFORE EXCAVATION.
 - PLANS REFERENCED:
 - THE WOODLAND II, AMENDED FINAL PLAN OF LOTS, PREPARED FOR OAKWOOD HOMES COMPANY, PREPARED BY D.S. WINOKUR ASSOCIATES, DATED 3-28-79, LAST REVISED 12-16-85.
 - THE WOODLAND II, SITE PLAN LOTS 16-31 & 34-48, PREPARED FOR OAKWOOD HOMES COMPANY, PREPARED BY D.S. WINOKUR ASSOCIATES, DATED 3-28-79, LAST REVISED 9-26-90.
 - THE WOODLAND II, SITE PLAN LOTS 16-31 & 34-48, PREPARED FOR OAKWOOD HOMES COMPANY, PREPARED BY D.S. WINOKUR ASSOCIATES, DATED 3-28-79, NO REVISIONS.

ZONING SUMMARY

ORDNANCE ITEM	R-1	D-M	PROPOSED
MIN. LOT AREA	43,660 SF	-	18,492
MIN. LOT WIDTH @ BLDG	120 FT	-	128 FT
MIN. SETBACKS	60 FT	35 FT	35 FT
FRONT**	25 FT/80 FT	25 FT/750 FT	25 FT/750 FT
REAR	40 FT	30 FT	62 FT
MAX. BUILDING HEIGHT	35 FT	35 FT MAX	35 FT MAX
MAX. BUILDING COVERAGE	15%	20%	13.4%
MAX. IMPERVIOUS COVERAGE	22%	27%	21.9%

** D-M FRONT YARD SETBACK MEASURED FROM CURB LINE.

IMPERVIOUS COVERAGE SUMMARY (SQ. FT.)

NET AREA	21,919	TO BE REMOVED		TO BE ADDED		NET	PROPOSED
BUILDINGS	0	0	2,842	2,842	2,842	2,842	2,842
WALKS	0	0	338	338	338	338	338
PATIOS	0	0	324	324	324	324	324
DRIVES	473	473	1,189	716	1,189	716	1,189
LEAKS	0	0	0	0	0	0	0
OTHER	0	0	0	0	0	0	0
TOTAL IMPERVIOUS COVERAGE	473	473	4,783	4,320	4,783	4,320	4,783
TOTAL BUILDING %	0.0%						13.4%
TOTAL IMPERVIOUS %	2.2%						21.9%

FUTURE IMPERVIOUS

THE STORMWATER MANAGEMENT SYSTEM HAS BEEN DESIGNED TO ACCOMMODATE AN ADDITIONAL 30 SF OF PROPOSED IMPERVIOUS NOT SHOWN ON THIS PLAN. A SEPARATE GRADING PERMIT SUBMISSION WILL BE REQUIRED TO CONSTRUCT THE ADDITIONAL IMPERVIOUS AND FOR ANY OTHER FUTURE IMPROVEMENTS AT THE SITE IN ACCORDANCE WITH THE APPLICABLE ORDINANCES IN FORCE AT THAT TIME.

APPLICANT ACKNOWLEDGEMENT:

I, THE APPLICANT, HEREBY ACKNOWLEDGE THAT ANY REVISION TO THE APPROVED DRAINAGE PLAN AND EROSION AND SEDIMENT CONTROL PLAN MUST BE APPROVED BY RADNOR TOWNSHIP.

APPLICANT: _____ DATE: _____

PROJECT NARRATIVE

THE OWNER/APPLICANT, ROCKWELL BRYN MAWR, LP, PROPOSES TO CONSTRUCT A SINGLE FAMILY DWELLING ON A VACANT LOT. THE PROPOSED IMPERVIOUS COVERAGE IS 4,793 SF. THE PROPERTY IS IN THE DARY CREEK WATERSHED, RELEASE DISTRICT 9-2. THE PROPOSED STORMWATER BASIN WILL REDUCE THE POST-CONSTRUCTION STORM PEAK RUNOFF RATE TO THE PRE-CONSTRUCTION STORM PEAK RUNOFF RATES BY TABLE 408.1 AND PROVIDE THE REQUIRED RETENTION AND WATER QUALITY VOLUMES.

THE LIMIT OF DISTURBANCE AND STORMWATER REGULATORY AREA IS 10,439 SF. DURING CONSTRUCTION EROSION AND SEDIMENT CONTROL IS ACCOMPLISHED THROUGH LIMITED DISTURBANCE, IMMEDIATE STABILIZATION, AND SILT BARRIERS.

NUM. DATE REVISION

PLANNED BY: SITE ENGINEERING CONCEPTS, LLC
P.O. BOX 1992
SOUTHEASTERN, PA 19399
P: 610-240-0450 F: 610-240-0451 E: INFO@SITE-ENGINEERS.COM

PLAN PREPARED FOR: ROCKWELL BRYN MAWR, LP
101 HARVARD LANE
BRYN MAWR, PA 19010

RADNOR TOWNSHIP DELAWARE COUNTY PENNSYLVANIA
DATE: 21 JULY 2017

PROPOSED PERMIT PLAN

SHEET 1 of 1

SCALE: 1" = 20'

PATRICK SPELLMAN, P.E.
PE-40021

APPLICATION FOR GRADING PERMIT

RADNOR TOWNSHIP ENGINEERING DEPARTMENT

The undersigned hereby makes application for Grading Permit under Chapter 175 and any amendments thereof.

LOCATION: 836 Paddock Drive, Newtown Square, PA 19073

WHAT ARE YOU BUILDING:: Building, patio, walkway, shed, driveway additions

OWNER OF PROPERTY: Rebecca Winter & Benjamin Rubin

OWNER ADDRESS: 836 Paddock Drive, Newtown Square, PA 19073

Zoning Officer Approval: _____

TOWNSHIP USE ONLY	
PERMIT NO.	<u>17-166</u>
SUBMISSION DATE	<u>9/11/17</u>
SHADE TREE DATE	<u>9/21/17</u>
REVISION DATES	_____
FINAL APPROVAL DATE:	_____
APPROVED BY:	_____

Permit Void: If work not started in six (6) months.

Five (5) copies of site plan to be submitted with application.	* Plans must be folded and no larger than 24" x 34" *
TWELVE (12) COPIES IF PLAN NEEDS TO BE REIVEWD BY SHADE TREE	
PREPARED BY: <u>Momenee, Inc</u>	DATE: <u>08/31/17</u>
	REGISTERED SURVEYOR: <input checked="" type="checkbox"/> REGISTERED ENGINEER <input checked="" type="checkbox"/>
DO PLANS SHOW ALL ITEMS LISTED ON PAGE 2? <u>Yes</u>	GROSS LOT AREA: <u>43,560</u> SQ. FT.

COVER TYPE	EXISTING SQUARE FEET		REMOVED SQUARE FEET	ADDED SQUARE FEET	TOTAL SQUARE FEET	
BUILDINGS	2,720		-0	+1,214	=3,934	
WALKS	597		-94	+147	=650	
PATIOS	260		-260	+406	=406	
DRIVES	2,444		-0	+759	=3,203	
DECKS	0	EXISTING %	-0	+0	=0	TOTAL NEW %
OTHER	103	OF LOT	-64	+343	=382	OF LOT
TOTAL	6,124	14.06 %	418	2,869	8,575	19.69 %

Ground Water Recharge and Storm Water Calculations

- No credit for removal of impervious.
- Calculations are based on the total added impervious not the net.

↑ 500 to 1499 sq. ft. Ground Water Recharge Required
1500 sq. ft. and over Storm Water Management Required
(For additional information see Ordinance 05-11)

Check Zoning District-Applicable

R-1	R-2	R-3	R-4	R-5 Semi/ 2 Family Detach	R-5 Multi Dwelling	R-6	R-1A	CO (2 + 3 stories)	C-1	C-2	C-3	PI
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22%	30%	35%	40%	40%	36%	70%	30%	50%	60%	70%	65%	45%

Estimated cubic yards of dirt involved (Total cut and fill) 415 CY total Will this fill be taken off site Yes No

Number of trees to be removed (over 6" in diameter) 1 Is property in the Historical District? Yes No

Permit Fees:

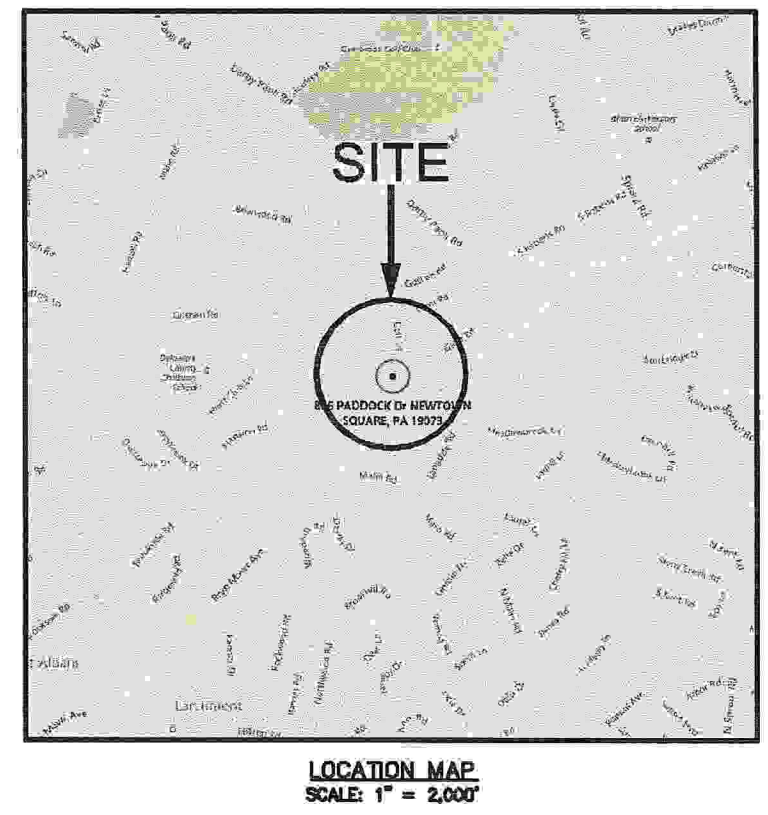
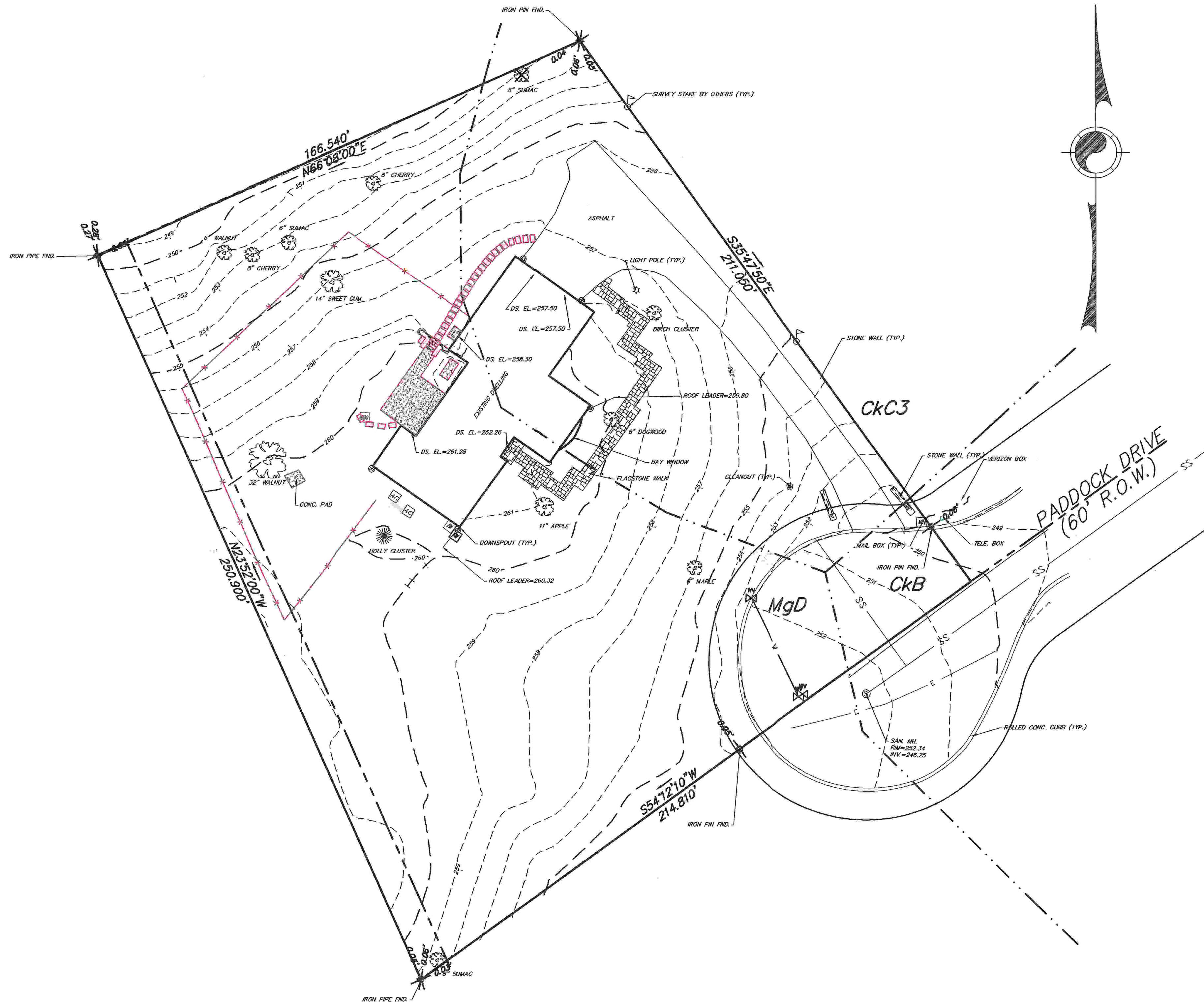
Minor Permit Review	\$75.00
First 50 cubic yards cut and fill	\$150.00
51- 1,000 cubic yards cut and fill	Add \$200.00
Each additional 1,000 cubic yards or portion thereof	Add \$200.00
Permit requiring ground water recharge	\$200.00
Permit requiring storm water management	\$500.00
Received from Applicant	\$ 850.00

Signature of Owner: Rebecca Winter
 Date: 8/31/17
 Applicant: Rebecca Winter
 Relation to Owner: Property Owner
 Phone Number: 610-304-2648
 Fax Number: _____
 Email: Becky@CPRR.org

ALL LOCATIONS OF EXISTING UTILITIES, SHOWN ON THIS PLAN, HAVE BEEN DEVELOPED FROM FIELD LOCATIONS OF VISIBLE ABOVE GROUND UTILITY STRUCTURES AND INFORMATION FURNISHED BY THE UTILITY COMPANIES.

ALL LOCATIONS SHOULD BE CONSIDERED APPROXIMATE. COMPLETENESS OR ACCURACY OF THE LOCATIONS AND DEPTH OF ALL STRUCTURES CANNOT BE GUARANTEED. CONTRACTORS MUST VERIFY ALL LOCATIONS AND DEPTHS OF ALL UNDERGROUND UTILITIES AND FACILITIES BEFORE THE START OF ANY WORK.

AS PER ACT 187 HOUSE BILL 2027, BEFORE THE START OF ANY EXCAVATION WORK THE CONTRACTOR SHALL NOTIFY THE AFFECTED UTILITY COMPANIES THROUGH THE PENNSYLVANIA "ONE CALL SYSTEM" 1-800-242-1776 THREE DAYS PRIOR TO THE START OF ANY EXCAVATION. THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO THE START OF ANY CONSTRUCTION.



ZONING DISTRICT R-1 REGULATIONS

LOT AREA	43,560 S.F. MIN.
LOT WIDTH AT BLDG. LINE	120 FEET MIN.
BLDG. AREA	15% MAX.
FRONT YARD	60 FEET MIN.
SIDE YARD	60 FEET AGG. (25 FEET MIN.)
REAR YARD	40 FEET MIN.
HEIGHT	30 FEET MAX.
IMPERVIOUS SURFACE	22% MAX.
RIPARIAN BUFFER SETBACK	35' MIN.

FOR MORE DETAILED INFORMATION YOUR ATTENTION IS CALLED TO THE ZONING CODE OF RADNOR TOWNSHIP, LATEST EDITION.

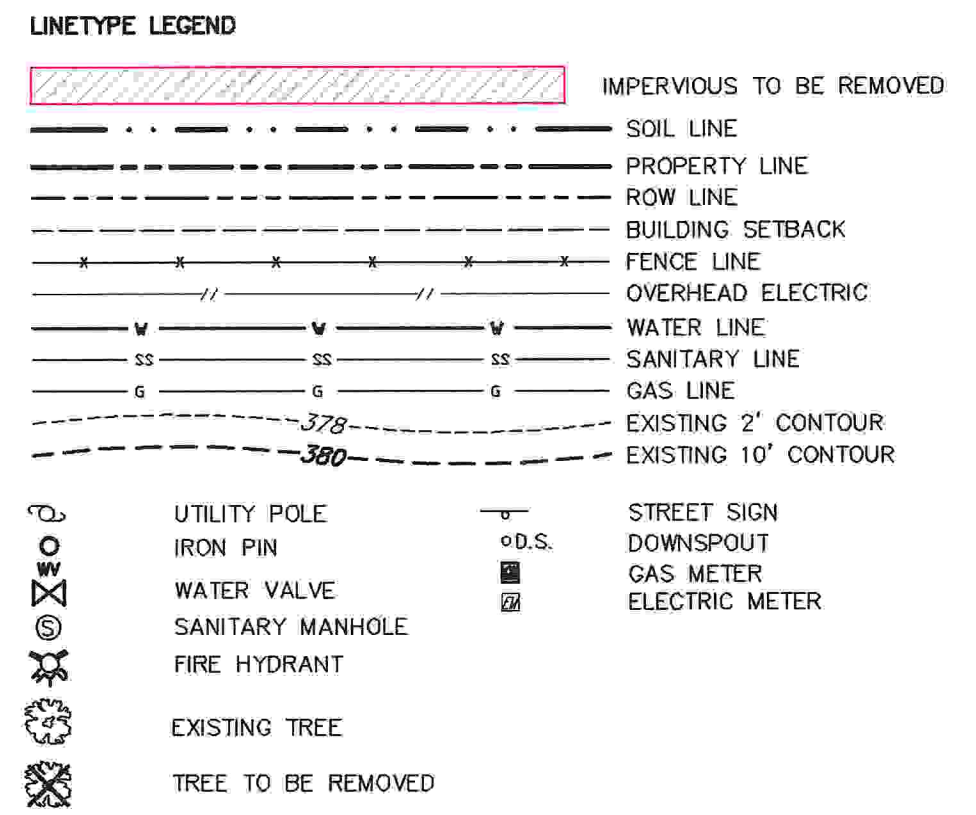
LOT DATA:
LOT AREA = 43,560 S.F. (1.0 ACRES)

EXISTING IMPERVIOUS COVERAGE:

BUILDINGS	2,720 S.F. (6.24%)
WALKS	597 S.F.
PATIOS	260 S.F.
DRIVES	2,444 S.F.
WALLS & CONCRETE	103 S.F.

TOTAL: 6,124 S.F. OR 14.06% OF GROSS LOT AREA

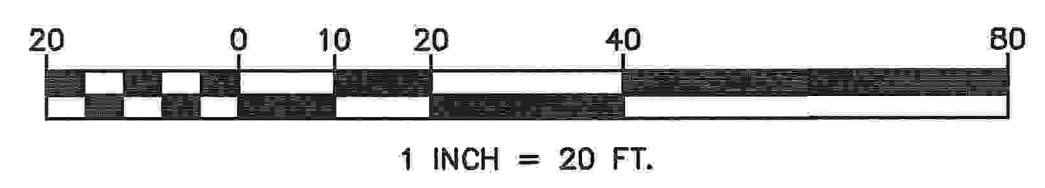
- GENERAL NOTES:**
- EQUITABLE OWNER/APPLICANT: REBECCA WINTER, 836 PADDOCK DRIVE, NEWTOWN SQUARE, PA 19073
 - THIS PLAN IS NOT A BOUNDARY SURVEY. ALL BOUNDARY INFORMATION TAKEN FROM A PLAN ENTITLED "AS BUILT - PLAN OF PROPERTY - ANTHONY N. ALFANO" PREPARED BY HOWARD W. DORAN, DATED JULY 6, 1988.
 - THIS PLAN REPRESENTS AN ACTUAL TOPOGRAPHIC FIELD SURVEY PERFORMED ON THE PREMISES ON JULY 28, 2017 AND DEPICTS CONDITIONS ON THAT DATE.
 - THE VERTICAL DATUM SHOWN ON THIS PLAN IS PER NAVD1988 OBTAINED VIA GPS NETWORK.
 - THIS SURVEY AND PLAN WAS COMPLETED WITHOUT THE AVAILABILITY OF A CURRENT TITLE REPORT AND SUBJECT TO ANY FACTS THAT MAY BE DISCLOSED IN A FULL AND ACCURATE TITLE REPORT.
 - THE INTENT OF THESE PLANS IS TO DEPICT THE CONSTRUCTION OF AN ADDITION TO THE EXISTING SINGLE FAMILY DWELLING, DRIVEWAY ADJUSTMENTS AND THE CONSTRUCTION OF NEW PATIO, SHED, AND WALKWAYS.
 - THIS LOT IS SERVED BY PUBLIC WATER AND SEWER.
 - THE EXISTENCE AND/OR LOCATION OF ALL EXISTING AND PROPOSED SERVICES ARE APPROXIMATE AND MUST BE CONFIRMED INDEPENDENTLY WITH LOCAL UTILITY COMPANIES PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION OR EXCAVATION.
 - THE CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF EXISTING TOPOGRAPHIC INFORMATION AND UTILITY INVERT ELEVATIONS PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION. ANY DISCREPANCIES THAT MAY AFFECT THE PUBLIC SAFETY OR PROJECT COST, MUST BE IDENTIFIED TO THE ENGINEER IN WRITING IMMEDIATELY. PROCEEDING WITH CONSTRUCTION WITH DESIGN DISCREPANCIES IS DONE SO AT THE CONTRACTOR'S OWN RISK.
 - THE STORMWATER MANAGEMENT DETENTION AND COLLECTION SYSTEM ARE TO BE OWNED AND MAINTAINED BY THE PROPERTY OWNER.
 - IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REMOVE ANY DEBRIS AND FLUSH OUT ALL EXISTING AND PROPOSED STORM DRAINAGE FACILITIES WITHIN THE PROJECT LIMITS AT THE COMPLETION OF CONSTRUCTION.
 - THE GROUND IMMEDIATELY ADJACENT TO THE PROPOSED FOUNDATION SHALL BE SLOPED AWAY FROM THE BUILDING AT A SLOPE OF NOT LESS THAN FIVE (5%) PERCENT FOR A MINIMUM DISTANCE OF TEN (10') FEET MEASURED PERPENDICULAR TO THE FACE OF THE WALL. IMPERVIOUS SURFACES WITHIN TEN (10') FEET OF THE BUILDING FOUNDATION SHALL BE SLOPED A MINIMUM OF TWO (2%) PERCENT AWAY FROM THE BUILDING.
 - ALL WOODY VEGETATION TO BE RETAINED WITHIN TWENTY-FIVE FEET OF A BUILDING SITE OR DISTURBED AREA SHALL BE PROTECTED FROM EQUIPMENT DAMAGE BY FENCING PLACED AT THE DRIPLINES.
 - GRADE CHANGES AROUND THE DRIPLINES OF TREES TO BE RETAINED SHALL BE MINIMIZED. TREATMENT OF THE TREES PRIOR TO CONSTRUCTION TO PROTECT THE ROOT SYSTEM SHALL BE PERFORMED.
 - ALL DISTURBED ROOTS MUST BE CUT AS CLEANLY AS POSSIBLE. THE TRENCH MUST BE BACKFILLED AS QUICKLY AS POSSIBLE, AVOIDING COMPACTION. TREE LIMBS MUST BE CUT BACK IN PROPORTION TO THE ROOT AREA LOSS.
 - THE TOWNSHIP ARBORIST SHALL BE ADVISED OF ANY DAMAGE TO THE REMAINING TREES ON THE SITE AS A RESULT OF CONSTRUCTION ACTIVITY DURING THE COURSE OF THE PROJECT.



- CARE OF EXISTING TREES:**
- TREE PROTECTION FENCING SHALL BE INSTALLED TO PROTECT ALL EXISTING TREES FROM DAMAGE DUE TO LANDSCAPE OPERATIONS, OPERATIONS BY OTHER CONTRACTORS AND TRADES, AND OTHERS. MAINTAIN PROTECTION FENCING FOR THE DURATION OF PROJECT.
 - SELECTIVELY PRUNE EXISTING TREES AT THE EDGE OF ALL TREE PROTECTION ZONES, AND OTHER EXISTING TREES AFFECTED BY CONSTRUCTION, UNDER LANDSCAPE ARCHITECT'S DIRECTION. REMOVE SUCKER SHOOTS, DEAD, RUBBING AND DAMAGED BRANCHES.
 - ANY EXCAVATION NEAR ADJACENT ROOT SYSTEMS WILL REQUIRE ROOT PRUNING OF AFFECTED TREE(S).
 - FERTILIZE PRUNED EXISTING TREES WITH 3 TO 4 LBS. OF LIQUID FERTILIZER PER 1,000 SQUARE FEET OF DRIP AREA, OR 5 GALLONS OF LIQUID FERTILIZER PER CALIPER INCH OF TRUNK DIAMETER.
 - FERTILIZE IN EARLY SPRING BEFORE GROWTH BEGINS.
 - FERTILIZE BEGINNING 2' FROM TRUNK AT INTERVALS 2' TO 3' ON CENTER IN A GRID-LIKE PATTERN TO A DEPTH OF 6-18" WITHIN THE DRIPLINE AND BEYOND WHERE POSSIBLE. INJECTION FERTILIZATION METHOD SHALL BE ACCEPTABLE SUBJECT TO LANDSCAPE ARCHITECT'S APPROVAL.

SOILS INFORMATION

SYMBOL	NAME	%SLOPE	HYDROLOGIC GROUP	DEPTH TO SH TO WATER	DEPTH TO BEDROCK
MgD	MANOR LOAM	NOT RATED	B	6.64	7
CKC3	CHROME GRAVELLY SILTY CLAY LOAM	NOT RATED	C	6.64	2.5



AS THE APPLICANT, I HEREBY ACKNOWLEDGE THAT ANY REVISION TO THE APPROVED DRAINAGE PLAN MUST BE APPROVED BY THE TOWNSHIP, AND THAT A REVISED EROSION AND SEDIMENT CONTROL PLAN MUST BE SUBMITTED FOR A DETERMINATION OF ADEQUACY.

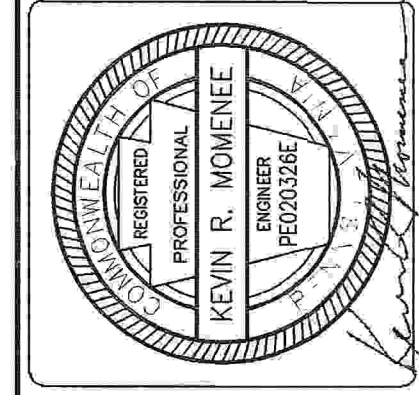
APPLICANT: _____ DATE: _____

I HEREBY CERTIFY THAT TO THE BEST OF MY KNOWLEDGE THE EXISTING CONDITIONS ARE AS SHOWN AND THAT THIS DRAINAGE PLAN COMPLIES WITH ALL THE DESIGN STANDARDS AND CRITERIA OF THE RADNOR TOWNSHIP STORMWATER MANAGEMENT ORDINANCE.

REVIN R. MOMENEE, P.E. *Kevin R. MomenEE* DATE: 8/31/17

Serial Number: _____

CALL BEFORE YOU DIG! PENNSYLVANIA LAW REQUIRES 3 WORKING DAYS NOTICE FOR PROFESSIONAL ENGINEERS AND 5 DAYS IN DESIGN STATE-STOP CALL Pennsylvania One Call System, Inc. 1-800-242-1776



MOMENEE, INC.
a Kahtms Company

ENGINEERING | PLANNING | SURVEYING

924 COUNTY LINE ROAD - BRYN MAWR - PA - 19010

EXISTING CONDITIONS
GRADING PERMIT PLAN

836 PADDOCK DRIVE
RADNOR TOWNSHIP - DELAWARE COUNTY - PENNSYLVANIA

OWNER/APPLICANT: REBECCA WINTER
DRAWN BY: CHD
CHECKED BY: JCM

FILE NO.: 17-224

SEP 11 2017

FILE NO.: 17-224

SHEET 1 OF 4

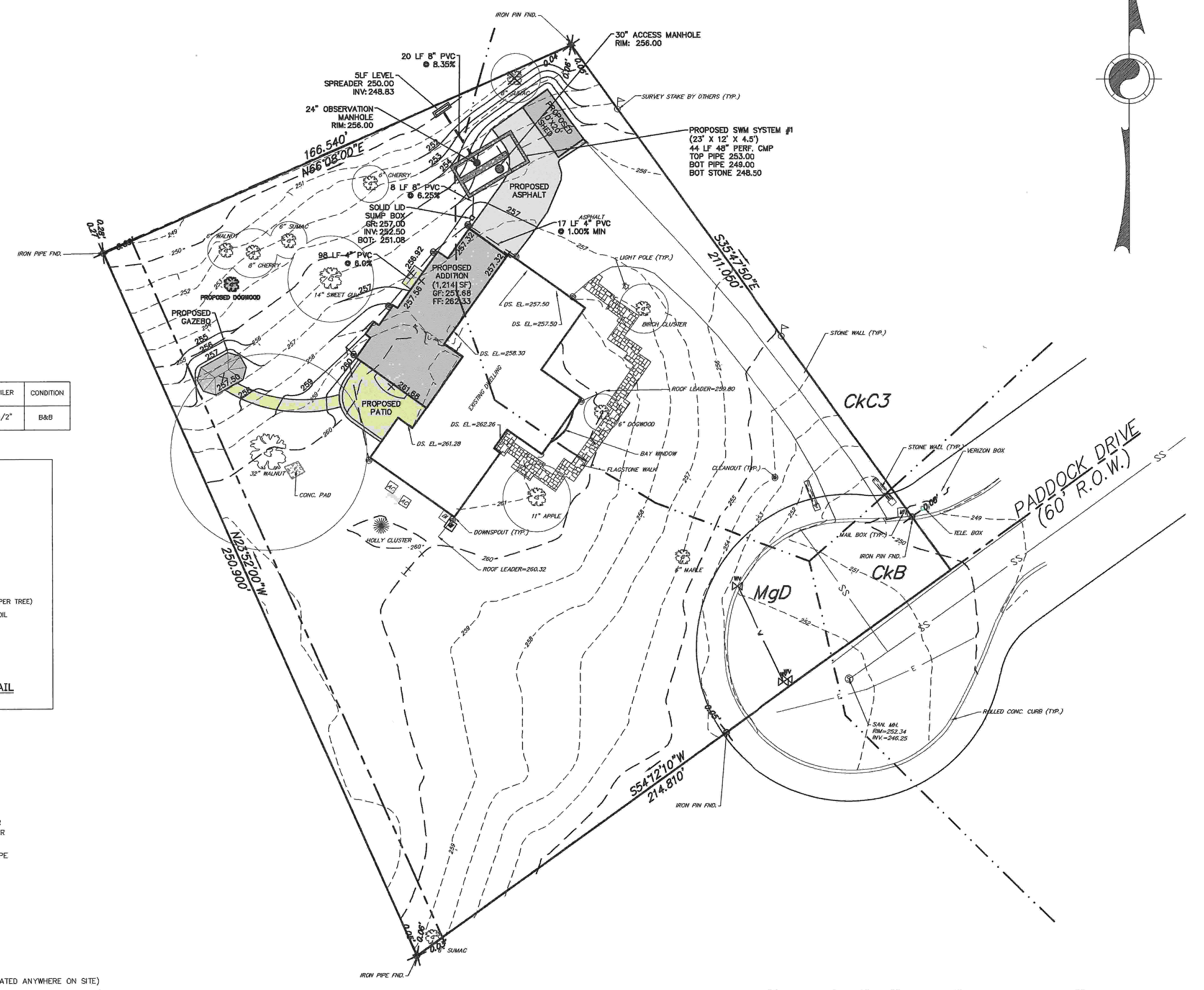
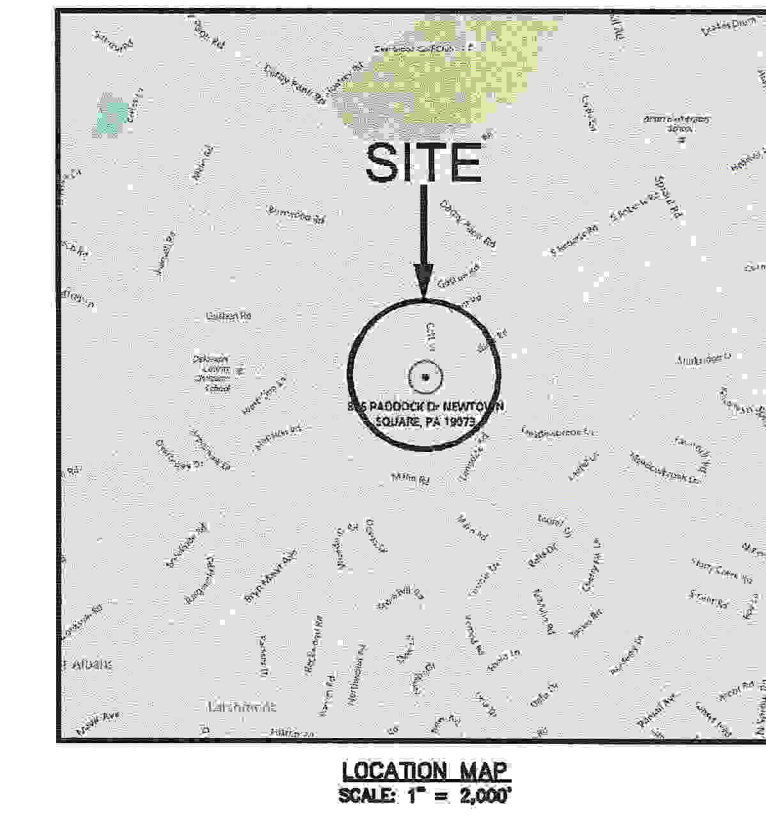
DATE: AUGUST 31, 2017

SCALE: 1" = 20'

ALL LOCATIONS OF EXISTING UTILITIES, SHOWN ON THIS PLAN, HAVE BEEN DEVELOPED FROM FIELD LOCATIONS OF VISIBLE ABOVE GROUND UTILITY STRUCTURES AND INFORMATION FURNISHED BY THE UTILITY COMPANIES.

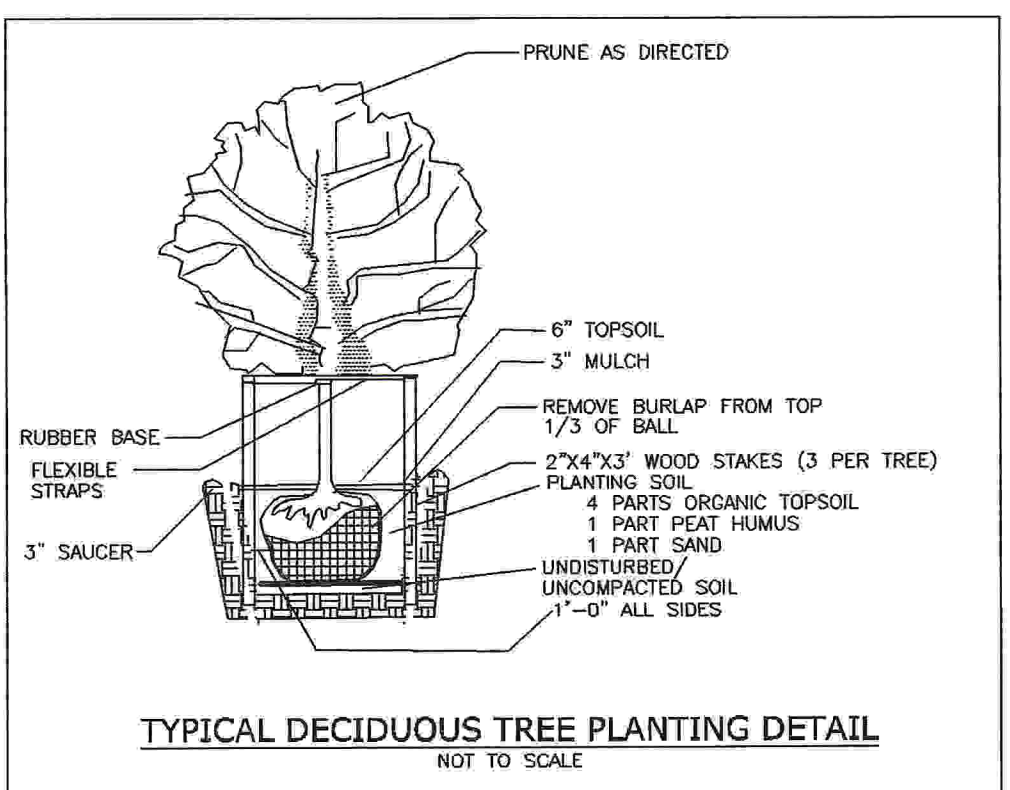
ALL LOCATIONS SHOULD BE CONSIDERED APPROXIMATE. COMPLETENESS OR ACCURACY OF THE LOCATIONS AND DEPTH OF ALL STRUCTURES CANNOT BE GUARANTEED. CONTRACTORS MUST VERIFY ALL LOCATIONS AND DEPTHS OF ALL UNDERGROUND UTILITIES AND FACILITIES BEFORE THE START OF ANY WORK.

AS PER ACT 187 HOUSE BILL 2627, BEFORE THE START OF ANY EXCAVATION WORK THE CONTRACTOR SHALL NOTIFY THE AFFECTED UTILITY COMPANIES THROUGH THE PENNSYLVANIA "ONE CALL SYSTEM" 1-800-242-1776 THREE DAYS PRIOR TO THE START OF ANY EXCAVATION. THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO THE START OF ANY CONSTRUCTION.



PLANT SCHEDULE
DECIDUOUS TREES

QTY.	BOTANICAL NAME	COMMON NAME	SPREAD	CAPILER	CONDITION
1	CORNUS KOUSA	KOUSA DOGWOOD	7'-8"	2 1/2"	B&B



LINE/TYPE LEGEND

	PROPERTY LINE		STREET SIGN
	ROW LINE		DOWNSPOUT
	BUILDING SETBACK		GAS METER
	FENCE LINE		ELECTRIC METER
	OVERHEAD ELECTRIC		FIRE HYDRANT
	WATER LINE		EXISTING TREE
	SANITARY LINE		TREE TO BE REMOVED
	GAS LINE		PROPOSED TREE (LOCATION APPROXIMATE / CAN BE LOCATED ANYWHERE ON SITE)
	EXISTING 2' CONTOUR		
	EXISTING 10' CONTOUR		
	PROPOSED CONTOUR		
	PROPOSED STORM PIPE		

- OPERATION AND MAINTENANCE NOTES:**
- THE RESPONSIBILITY FOR THE CONTINUED MAINTENANCE AND OPERATION OF THE STORMWATER MANAGEMENT SYSTEM AND OTHER DRAINAGE FACILITIES SHALL BE THE OBLIGATION OF THE PROPERTY OWNER.
 - THE PROPERTY OWNER SHALL NOT ALTER OR REMOVE THE STORMWATER FACILITIES ON THE SITE.
 - GENERAL OBJECTIVES OF MAINTENANCE ARE TO PREVENT CLOGGING OF THE INLETS, OUTLETS, PREVENT STANDING WATER, AND PREVENT THE GROWTH OF WEEDS AND NOXIOUS PLANTS.
 - REGULAR INSPECTIONS SHOULD BE MADE OF INFILTRATION FACILITIES ESPECIALLY DURING WET WEATHER TO ENSURE THAT THE FACILITY IS MAINTAINING DESIRABLE RETENTION TIMES.
 - ANNUALLY ASSESS THE VARIOUS SPECIES OF THE PLANT COVER. IT MAY BE NECESSARY TO SUPPLEMENT AND/OR REMOVE VARIOUS SPECIES DUE TO THEIR GROWING PATTERNS.
 - AFTER ANY STORM RAINFALL EVENT OF A 2-YR OR GREATER MAGNITUDE, THE INFILTRATION BED AND ASSOCIATED OUTLET WORKS SHOULD BE INSPECTED. ANY DAMAGE OR BLOCKAGE TO THE OUTLET STRUCTURES SHOULD BE REPAIRED OR REMOVED IMMEDIATELY. ANY ERODED AREAS SHOULD BE TOPSOILED AND PERMANENTLY SEEDED AND MULCHED.

	PROPOSED BUILDING ADDITION/ SHED/ GAZEBO
	PROPOSED IMPERVIOUS WALKWAYS/PATIOS
	PROPOSED PAVING

TREES TO BE REMOVED:
1 - 8" SUMAC

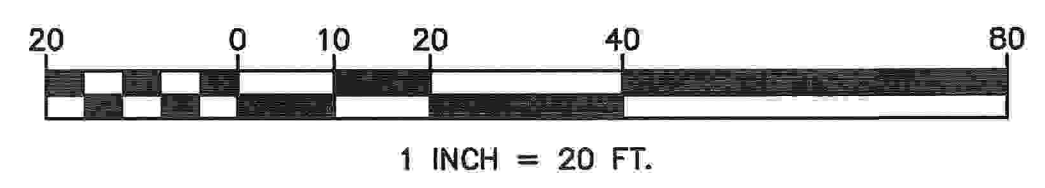
TREE REPLACEMENT FORMULA:
6 - 18 INCH DBH REMOVED = 1 REPLACEMENT TREE
19 - 29 INCH DBH REMOVED = 3 REPLACEMENT TREES, 2 BEING LARGE CANOPY TREES
30 INCH DBH & GREATER REMOVED = 6 REPLACEMENT TREES, 4 BEING LARGE CANOPY TREES

TOTAL TREES BEING REMOVED:
6 - 18 INCH DBH = 1
19 - 29 INCH DBH = 0
30 INCH DBH & GREATER = 0
TOTAL = 1 TREE

REPLACEMENT TREES REQUIRED = 1 TREE

NOTE: SHOULD ANY ADDITIONAL TREES BE REMOVED, ADDITIONAL REPLACEMENT TREES SHALL BE PROVIDED IN ACCORDANCE WITH THE RADNOR TOWNSHIP ORDINANCE NO. 2012-05.

TREE REPLACEMENT NOTES:
1) REPLACEMENT TREES WILL BE SELECTED FROM THE LIST OF TOWNSHIP APPROVED TREES PRIOR TO THE ISSUANCE OF A GRADING PERMIT.
2) TREES TO BE PLANTED OUTSIDE OF REQUIRED SITE LINE.
3) PROPOSED TREE LOCATIONS SUBJECT TO CHANGE. (LOCATION SHOWN APPROXIMATE, CAN BE LOCATED ANYWHERE ON SITE)



SOILS INFORMATION

SYMBOL	NAME	%SLOPE	HYDROLOGIC GROUP	DEPTH TO SH	DEPTH TO WATER BEDROCK
MgD	MANOR LOAM	NOT RATED	B	6.6+	7
CkC3	CHROME GRAVELLY SILTY CLAY LOAM	NOT RATED	C	6.6+	2.5

ZONING DISTRICT R-1 REGULATIONS

LOT AREA 43,560 S.F. MIN.
LOT WIDTH AT BLDG. LINE 120 FEET MIN.
BLDG. AREA 15% MAX.
FRONT YARD 60 FEET MIN.
SIDE YARD 60 FEET AGG. (25 FEET MIN.)
REAR YARD 40 FEET MIN.
HEIGHT 35 FEET MAX.
IMPERVIOUS SURFACE 22% MAX.
RIPARIAN BUFFER SETBACK 35' MIN.

EXISTING IMPERVIOUS COVERAGE:

BUILDINGS 2,720 S.F. (6.24%)
WALKS 597 S.F.
PATIOS 260 S.F.
DRIVES 2,444 S.F.
WALLS & CONCRETE 103 S.F.
TOTAL: 6,124 S.F. OR 14.06% OF GROSS LOT AREA

IMPERVIOUS COVERAGE TO BE REMOVED:

WALKS 94 S.F.
PATIOS 260 S.F.
WALLS & CONCRETE 84 S.F.
TOTAL 418 S.F.

NEW/REPLACEMENT IMPERVIOUS COVERAGE:

BUILDINGS 1,214 S.F.
WALKS 147 S.F.
PATIOS 408 S.F.
DRIVES 759 S.F.
GAZEBO & SHED 343 S.F.
TOTAL 2,859 S.F.

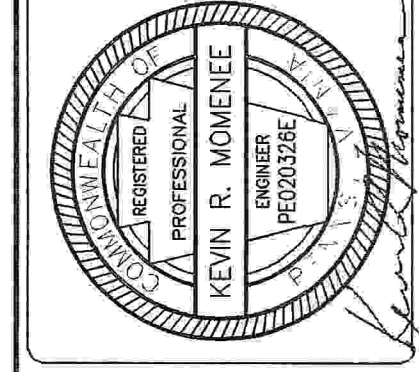
PROPOSED IMPERVIOUS SURFACE CALCULATIONS:

BUILDINGS 3,934 S.F.
WALKS 650 S.F.
PATIOS 408 S.F.
DRIVES 3,203 S.F.
SHED & GAZEBO 343 S.F.
WALLS & CONCRETE 39 S.F.
TOTAL 8,575 S.F. (19.69%)
MAX ALLOW: 9,583 S.F. (22%)
FUTURE ALLOW IMPERVIOUS: 1,008 S.F.

- NOTES:**
- THE STORMWATER MANAGEMENT FACILITIES ARE DESIGNED FOR THE NEW AND/OR REPLACEMENT IMPERVIOUS COVER ON SITE UP TO AND INCLUDING 3,877 SF. THIS INCLUDES THE PROPOSED AMOUNT OF 2,859 SF PLUS AN ADDITIONAL 1,008 SF TO ALLOW FOR POSSIBLE FUTURE DEVELOPMENT. IF THIS IMPERVIOUS COVER IS CONSTRUCTED IN THE FUTURE, 900 SF MAY BE DIRECTED TO THE STORMWATER SYSTEM AND 108 SF MAY REMAIN UNCONTROLLED.
 - THE MAINTENANCE OF THE ON-SITE STORMWATER MANAGEMENT FACILITIES IS THE RESPONSIBILITY OF THE OWNER.
 - THE TOWNSHIP ENGINEER'S OFFICE SHALL BE NOTIFIED 48 HOURS PRIOR TO THE CONSTRUCTION OF THE SEEPAGE BED AND PRIOR TO THE START OF EARTHMOVING ACTIVITIES.
 - ON-SITE TREES ARE TO BE SAVED AND PRESERVED WHEREVER POSSIBLE.
 - ALL WOODY VEGETATION TO BE RETAINED WITHIN TWENTY-FIVE FEET OF A BUILDING SITE OR DISTURBED AREA SHALL BE PROTECTED FROM EQUIPMENT DAMAGE BY FENCING PLACED AT THE DRIPLINES.
 - GRADE CHANGES AROUND THE DRIPLINES OF TREES TO BE RETAINED SHALL BE MINIMIZED. TREATMENT OF THE TREES PRIOR TO CONSTRUCTION TO PROTECT THE ROOT SYSTEM SHALL BE PERFORMED.
 - ALL DISTURBED ROOTS MUST BE CUT AS CLEANLY AS POSSIBLE. THE TRENCH MUST BE BACKFILLED AS QUICKLY AS POSSIBLE, AVOIDING COMPACTION. TREE LIMBS MUST BE CUT BACK IN PROPORTION TO THE ROOT AREA LOSS.
 - ON-SITE TREES TO BE SAVED SHALL BE PREPARED FOR CONSTRUCTION BY APPROPRIATE FERTILIZATION AND PROTECTED BY APPROPRIATE FENCING. ALL TREES ARE TO BE DEEP ROOT FERTILIZED USING 16-32-16 SLOW RELEASE, WATER DISPERSIBLE @ 15 LBS. PER 100 GALLON OR EQUAL.
 - A GENERAL EASEMENT IS HEREBY CREATED OVER THE STORMWATER MANAGEMENT SYSTEM THAT PERMITS INGRESS AND EGRESS BY RADNOR TOWNSHIP.

Serial Number: _____

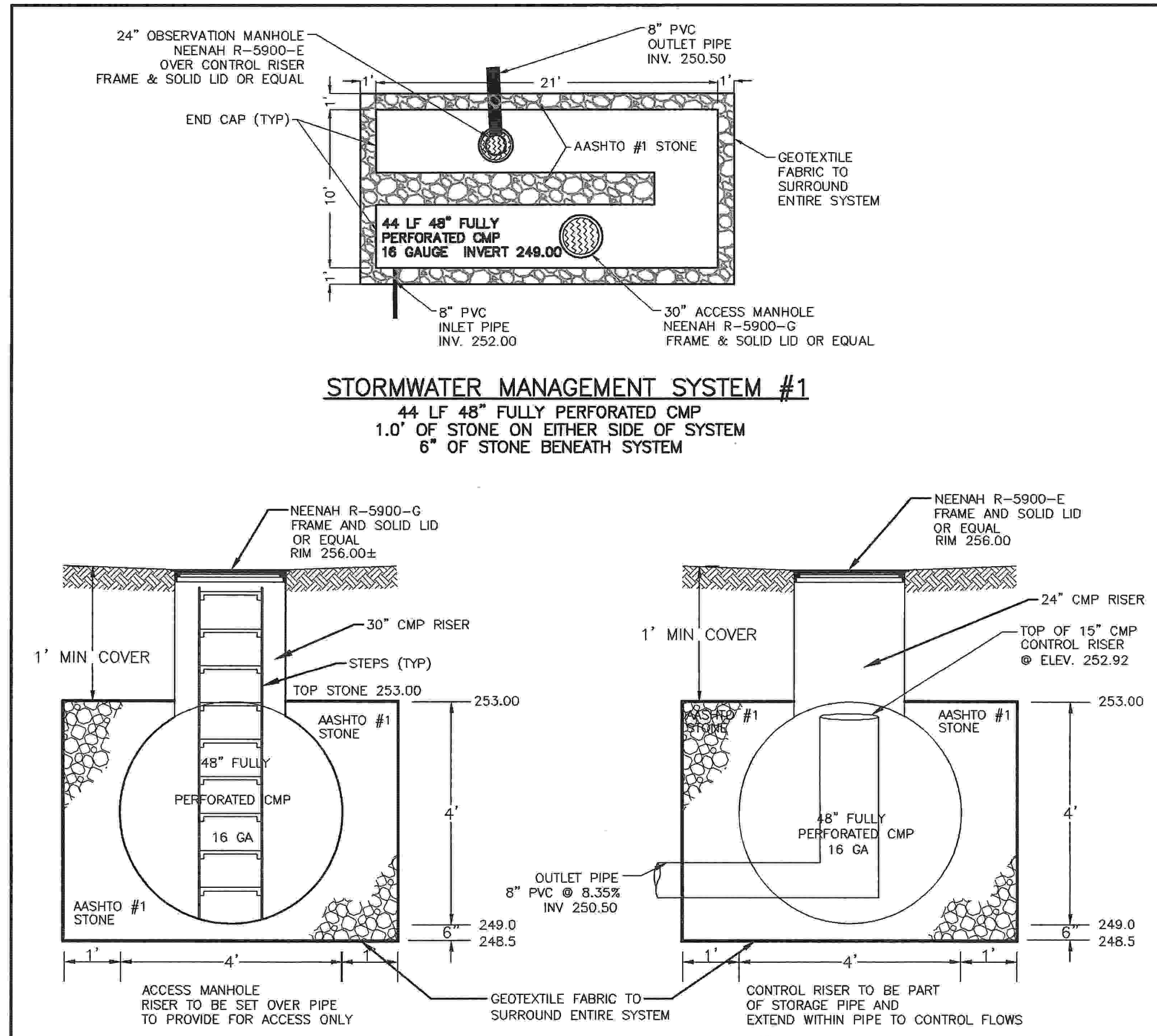
CALL BEFORE YOU DIG!
PENNSYLVANIA LAW REQUIRES
3 WORKING DAYS NOTICE FOR
ALL UTILITIES EXCEPT
DAYS IN RED. STAKE-STOP CALL
Pennsylvania One Call System, Inc.
1-800-242-1776



MIMOMENIE, INC.
a Kahtims Company
ENGINEERING | PLANNING | SURVEYING
924 COUNTY LINE ROAD - BRYN MAWR - PA - 19010

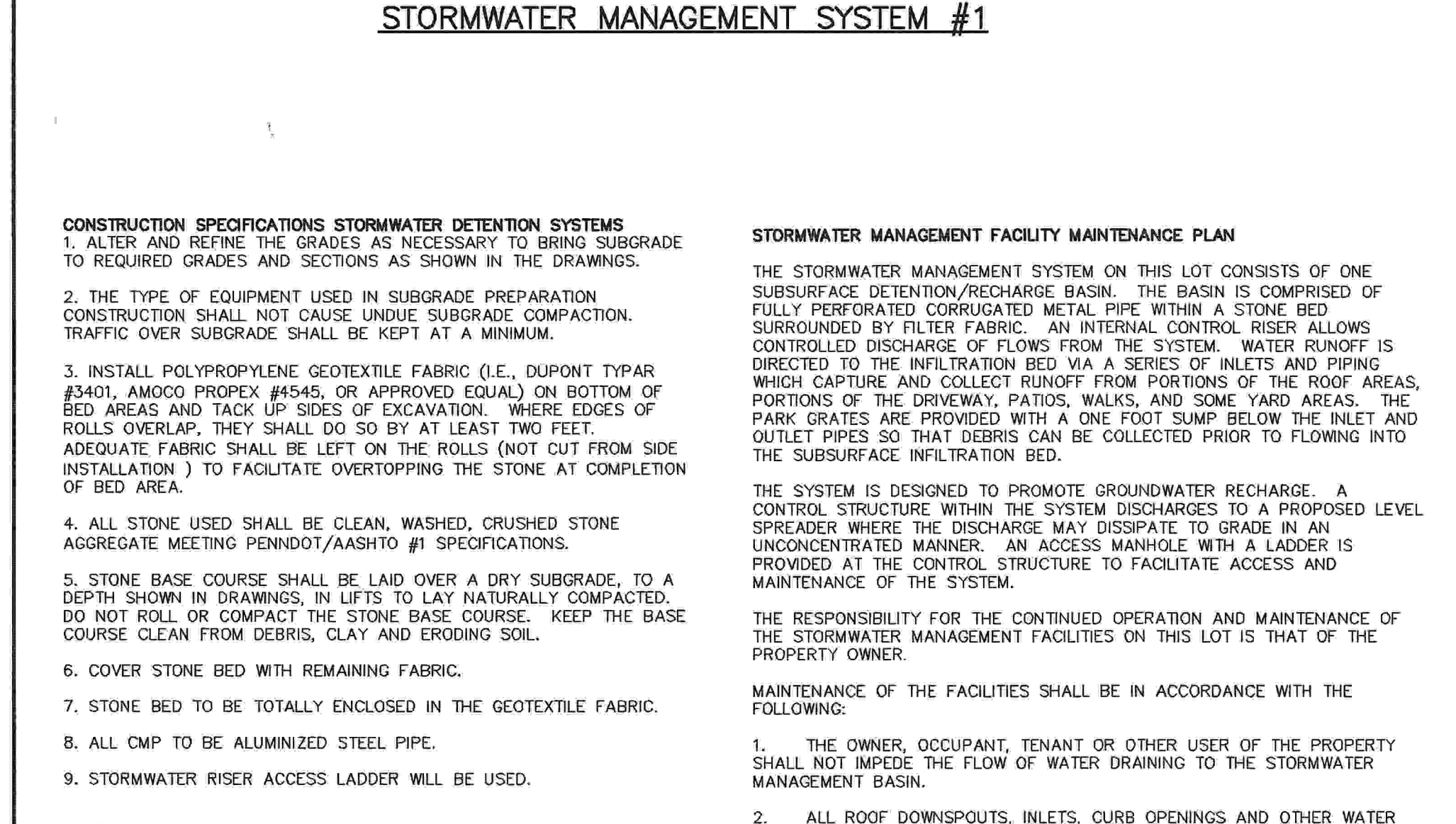
GRADING UTILITY PLAN
GRADING PERMIT PLAN
836 PADDOCK DRIVE
RADNOR TOWNSHIP • DELAWARE COUNTY • PENNSYLVANIA
OWNER/ARCHITECT: REBECCA WINTER
836 PADDOCK DRIVE
NEWTOWN SQUARE, PA 19073
ONE-CALL: CHD
DRAWN BY: JCN
CHECKED BY: JCN

FILE NO.: 17-224
SHEET **2** OF 4
DATE: AUGUST 31, 2017
SCALE: 1" = 20'



STORMWATER MANAGEMENT SYSTEM #1

44 LF 48" FULLY PERFORATED CMP
1.0' OF STONE ON EITHER SIDE OF SYSTEM
6" OF STONE BENEATH SYSTEM



STORMWATER MANAGEMENT SYSTEM #1

CONSTRUCTION SPECIFICATIONS STORMWATER DETENTION SYSTEMS

- ALTER AND REFINISH THE GRADES AS NECESSARY TO BRING SUBGRADE TO REQUIRED GRADES AND SECTIONS AS SHOWN IN THE DRAWINGS.
- THE TYPE OF EQUIPMENT USED IN SUBGRADE PREPARATION CONSTRUCTION SHALL NOT CAUSE UNDUE SUBGRADE COMPACTION. TRAFFIC OVER SUBGRADE SHALL BE KEPT AT A MINIMUM.
- INSTALL POLYPROPYLENE GEOTEXTILE FABRIC (i.e., DUPONT TYPAR #3401, AMOCO PROPEX #4545, OR APPROVED EQUAL) ON BOTTOM OF BED AREAS AND TACK UP SIDES OF EXCAVATION WHERE EDGES OF ROLLS OVERLAP. THEY SHALL DO SO BY AT LEAST TWO FEET. ADEQUATE FABRIC SHALL BE LEFT ON THE ROLLS (NOT CUT FROM SIDE INSTALLATION) TO FACILITATE OVERTOPPING THE STONE AT COMPLETION OF BED AREA.
- ALL STONE USED SHALL BE CLEAN, WASHED, CRUSHED STONE AGGREGATE MEETING PENNDOT/AASHTO #1 SPECIFICATIONS.
- STONE BASE COURSE SHALL BE LAID OVER A DRY SUBGRADE, TO A DEPTH SHOWN IN DRAWINGS, IN LIFTS TO LAY NATURALLY COMPACTED. DO NOT ROLL OR COMPACT THE STONE BASE COURSE. KEEP THE BASE COURSE CLEAN FROM DEBRIS, CLAY AND ERODING SOIL.
- COVER STONE BED WITH REMAINING FABRIC.
- STONE BED TO BE TOTALLY ENCLOSED IN THE GEOTEXTILE FABRIC.
- ALL CMP TO BE ALUMINIZED STEEL PIPE.
- STORMWATER RISER ACCESS LADDER WILL BE USED.

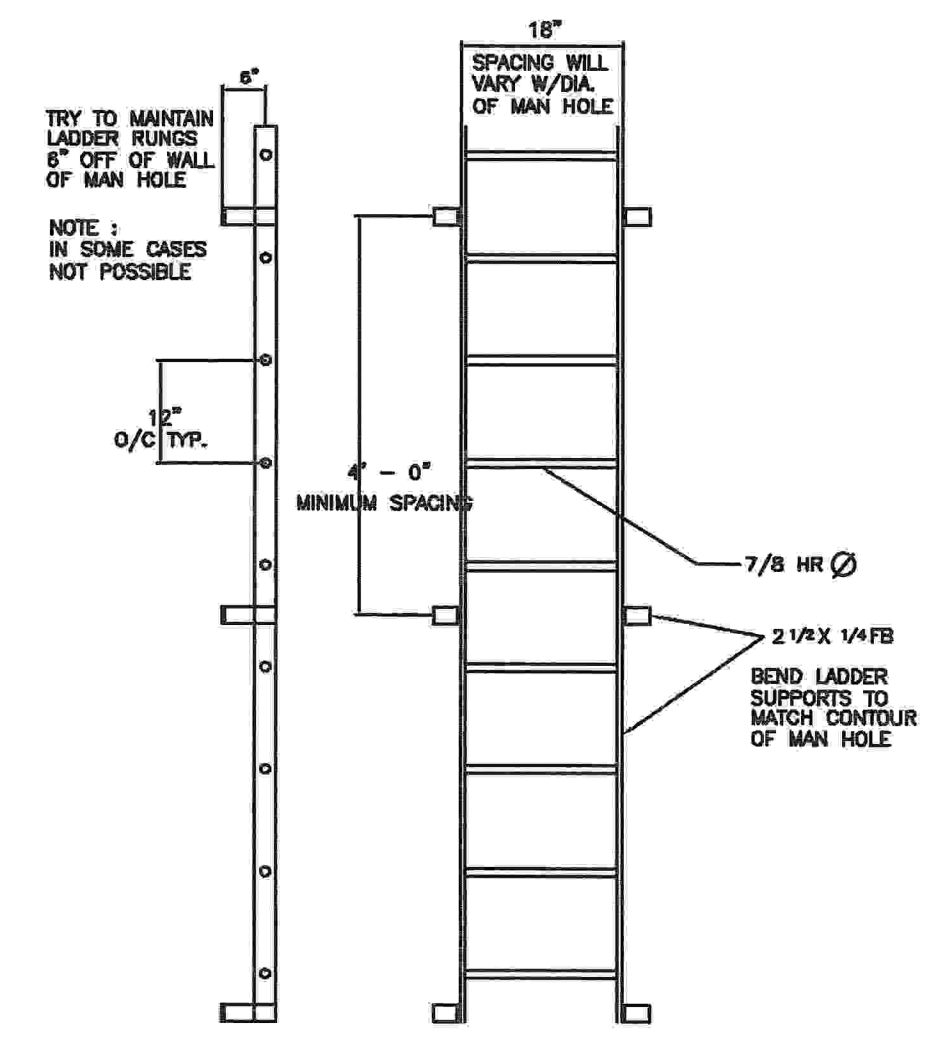
NOTES:

- ALL CMP TO BE ALUMINIZED OR ALUMINIZED STEEL.
- PERFORATIONS FOR 48" CMP SHALL SATISFY AASHTO DESIGNATION M36/M36M-90 FOR CLASS 2 PERFORATIONS. THE PERFORATIONS SHALL BE CIRCULAR HOLES WITH NOMINAL DIAMETERS OF 5/16 TO 3/8 INCH. THE PERFORATIONS SHALL BE UNIFORMLY SPACED AROUND THE FULL PERIPHERY OF THE PIPE. THE PERFORATIONS SHALL PROVIDE AN OPENING AREA OF NOT LESS THAN 3.3 SQ. IN. PER SQ. FT. OF PIPE SURFACE BASED ON NOMINAL DIAMETER AND LENGTH OF PIPE. 30 PERFORATIONS, 3/8 INCH DIAMETER, PER SQUARE FOOT OR 565 PERFORATIONS PER LINEAR FOOT SATISFIES THIS REQUIREMENT.

INFILTRATION BMP NOTES:

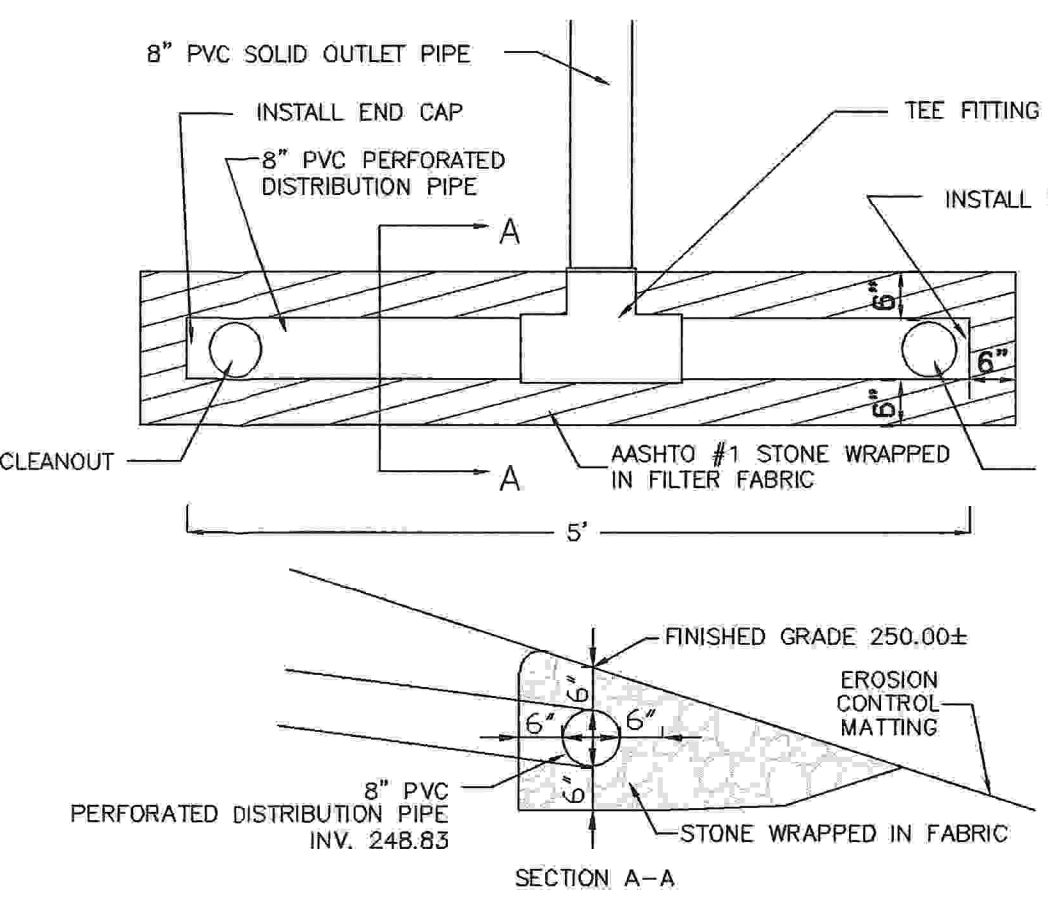
- INFILTRATION BMP FILTER FABRIC AND STONE SHOULD BE KEPT CLEAN OF SOIL/SEDIMENT DURING THE INSTALLATION PROCESS. IF INSPECTION INDICATES THAT SOIL/SEDIMENT HAS ENTERED ANY OF THE INFILTRATION SEPTAGE BEDS, APPROPRIATE MEASURES (i.e. CLEANING THE SOIL/SEDIMENT FROM FABRIC, STONE, BED ETC. AND OR REPLACEMENT OF THE FABRIC AND STONE) SHOULD BE ADDRESSED.
- ALL STONE FOR THE CONSTRUCTION OF THE INFILTRATION BMP SHOULD BE UNIFORMLY GRADED AND CLEAN WASHED AGGREGATE.
- THE BOTTOM OF ALL INFILTRATION BMPs SHALL BE UNDISTURBED OR UNCOMPACTED SUBGRADE.
- INFLOW AND OUTFLOW POINTS INTO THE INDIVIDUAL ON-LOT SYSTEMS SHOULD BE KEPT CLEAR OF LEAVES AND OTHER DEBRIS. ANY LEAVES AND DEBRIS WILL NEGATIVELY IMPACT THE PERFORMANCE OF THESE SYSTEMS. ALL DOWNSPOUTS AND OVERFLOW PIPES SHOULD BE KEPT IN GOOD WORKING ORDER.
- ALL INFILTRATION BMPs SHALL BE LOCATED A MINIMUM OF 10' FROM A BASEMENT WALL.
- AFTER THE INFILTRATION BED IS COMPLETELY INSTALLED, ALL HEAVY CONSTRUCTION EQUIPMENT SHALL BE RESTRICTED FROM THE INFILTRATION BEDS TO ELIMINATE IMPACTS WHICH MAY COMPROMISE IT. IN THE EVENT ANY IMPACTS COMPROMISE THE FUNCTIONALITY OF THE INFILTRATION BEDS, IT MUST BE IMMEDIATELY REPAIRED OR REPLACED TO DESIGN SPECIFICATIONS.

DRIVEWAY CROSS SECTION
N.T.S.



STORMWATER RISER ACCESS LADDER

N.T.S.



5 LF LEVEL SPREADER DETAIL #1

N.T.S.

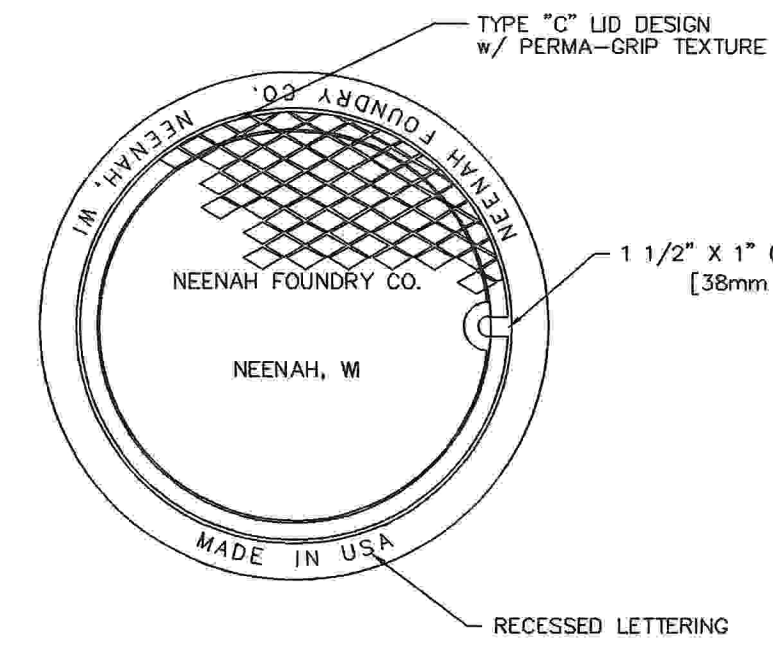
PIPE PERFORMANCES REQUIRED 3.31 SQ. IN./SQ. FT.

FOR 8" dia. DISTRIBUTION PIPE
 $C_8" = 2\pi r^2 = 2(\pi)(.335) = 2.10 \text{ FT}$

FOR 1 LF OF PIPE
 $A_8" = 2.10 \text{ SQ. FT}$
 AREA OF HOLES = $3.31 \times 2.10 = 6.95 \text{ SQ. IN}$

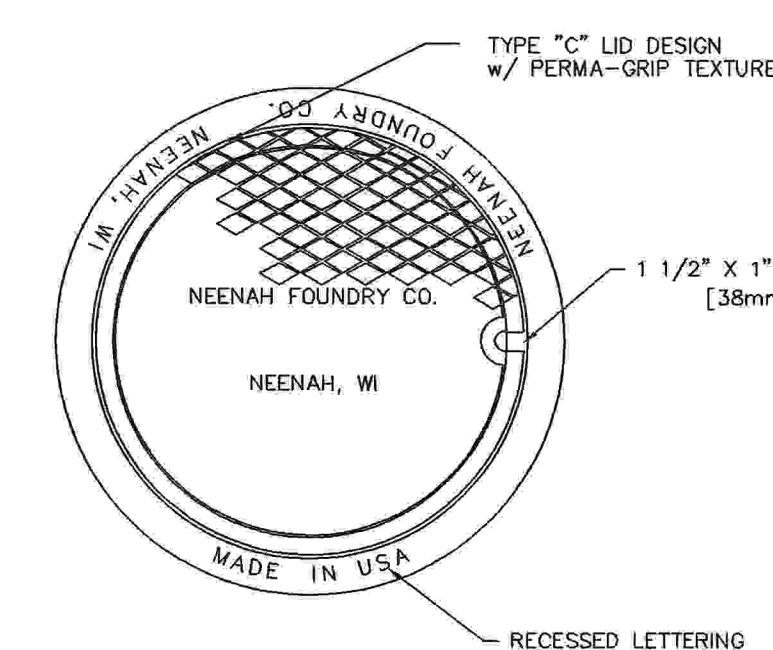
FOR 3/4" dia. HOLES
 $A_{3/4"} = 0.442 \text{ SQ. IN}$
 NO. HOLES NEEDED = $6.95/0.442 = 16 \text{ HOLES}$

USE 4-3/4" dia. HOLES SPACED EQUALLY AROUND THE CIRCUMFERENCE @ 3" o.c. PER LENGTH OF PIPE. STARTING @ 1.5" FROM EITHER END OF PIPE.



30" ACCESS MANHOLE

R-5900-G
FRAME AND LID



24" MANHOLE OVER RISER

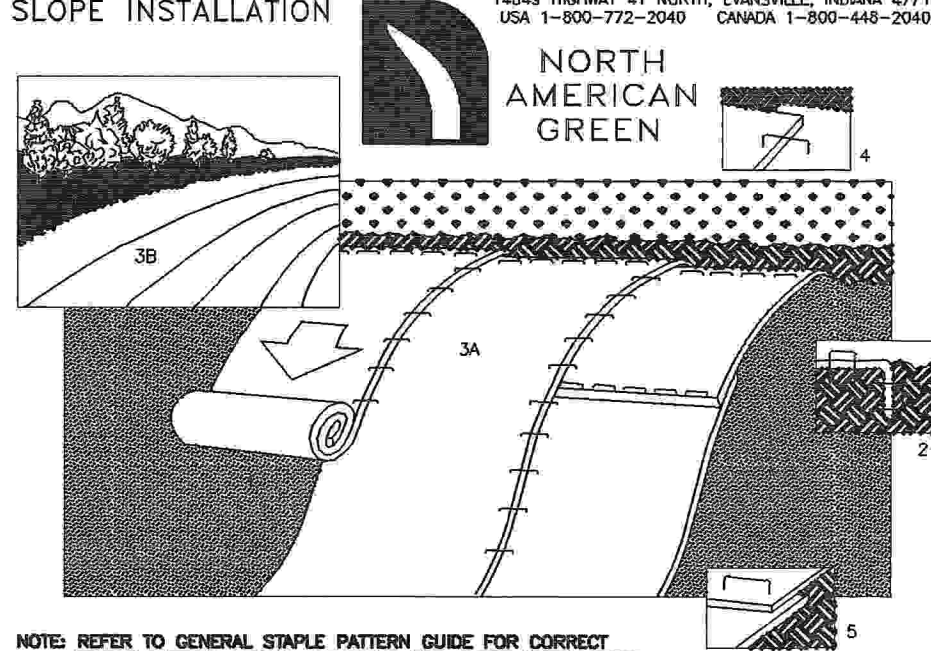
R-5900-E
FRAME AND LID

MATERIAL: CAST GRAY IRON ASTM A-48, CLASS 35B FOR CORRUGATED METAL PIPE SIZED TO FIT SNUGLY INTO OPENING OF CORRUGATED PIPE.

ADDITIONAL ANCHORAGE TO METAL PIPE MAY BE ACCOMPLISHED BY DRILLING HOLES IN THE SLEEVE OR BARREL PORTION OF THE FRAME AND BOLTING THE FRAME IN PLACE. FRAMES CAN BE FURNISHED DRILLED FOR THIS PURPOSE ON SPECIAL ORDER.

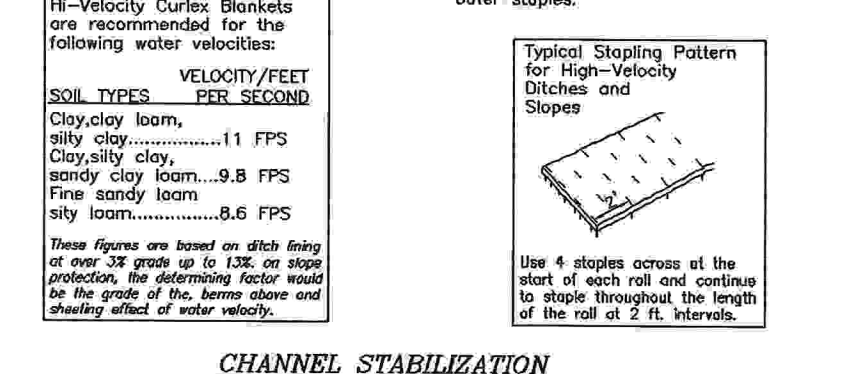
STORMWATER MANHOLE DETAILS

N.T.S.

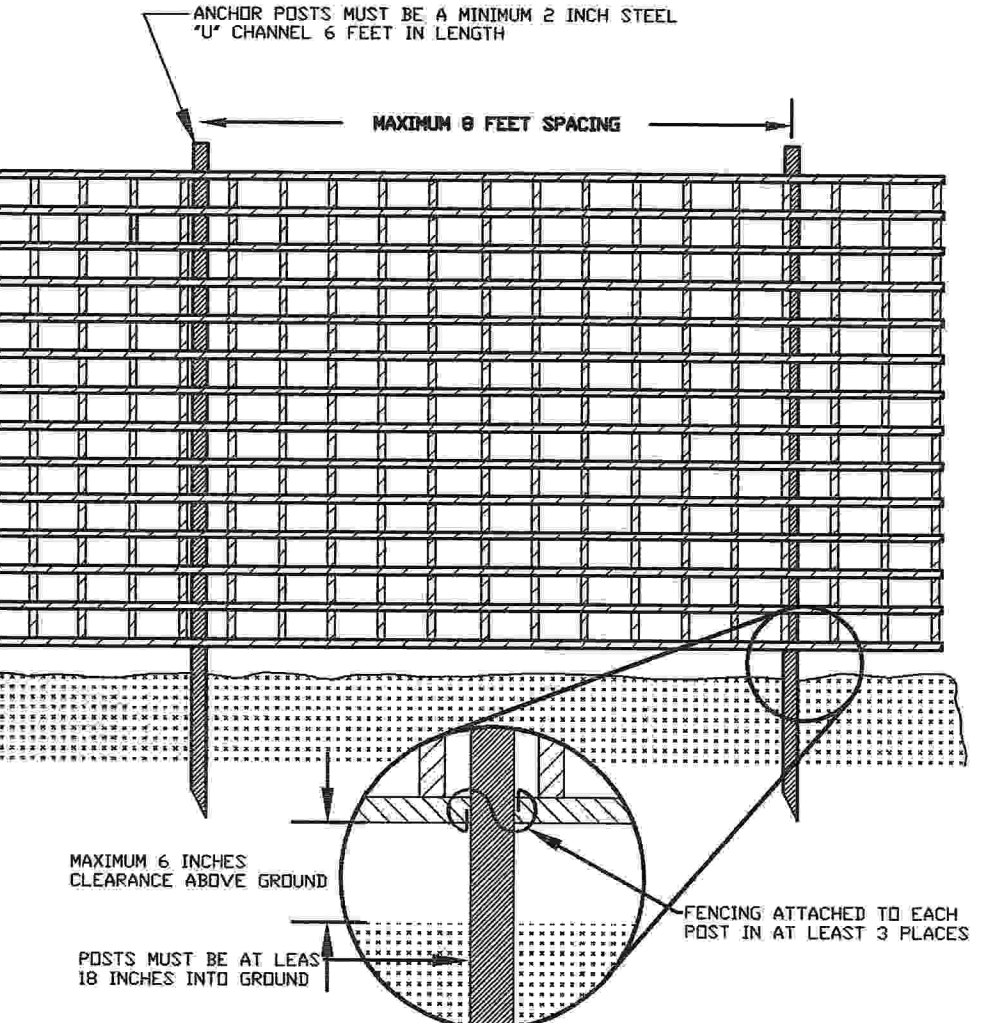


SLOPE INSTALLATION

- PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING APPLICATION OF LIQUID FERTILIZER AND SEED. NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
- BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
- ROLL THE BLANKETS (A) DOWN OR (B) HORIZONTALLY ACROSS THE SLOPE.
- THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2" OVERLAP.
- WHEN BLANKETS MUST BE SPACED DOWN THE SLOPE, PLACE BLANKETS END OVER END (SHINGLE STYLE) WITH APPROXIMATELY 4" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART.



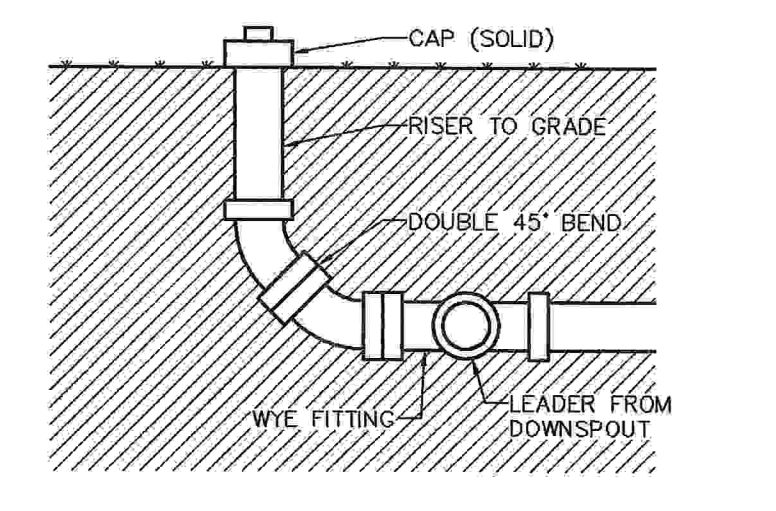
CHANNEL STABILIZATION



- PROTECTION BARRIERS SHALL BE 4 FEET HIGH, CONSTRUCTED OF DURABLE AND HIGHLY VISIBLE MATERIAL. PLASTIC BRACING, CONSTRUCTION FENCE, AND SNOW-FENCE MAY BE USED.
- PROTECTION BARRIERS SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THE WORK AT THE SITE.
- ADDITIONAL WARNING SIGNS SHOULD ALSO BE PLACED ON THE FENCING AND IN APPROPRIATE AREAS NEAR THE WORK ZONE.

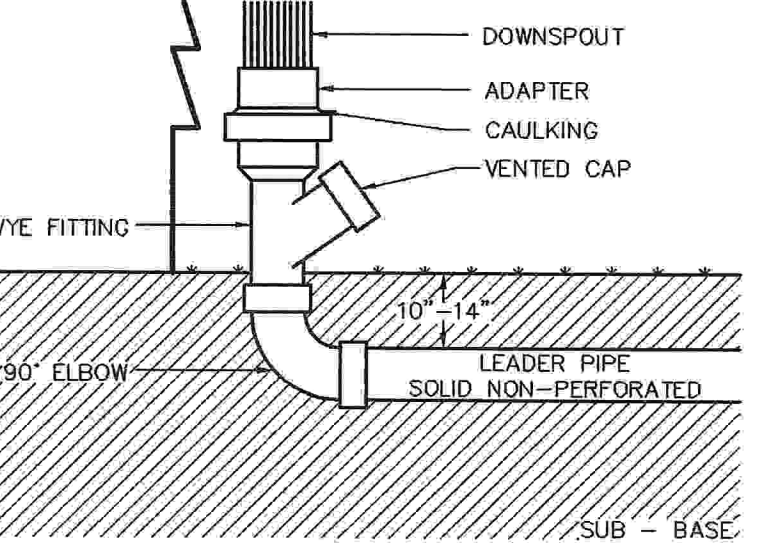
TEMPORARY CONSTRUCTION FENCING BARRIER FENCING

N.T.S.



TERMINAL CLEANOUT (TYPICAL)

N.T.S.



DOWNSPOUT DETAIL

N.T.S.

Hi-Velocity Curlex Blankets
American Excelsior Company

Designed to control erosion in areas of high-velocity water runoff, the Excelsior Hi-Velocity Curlex Blanket is a machine-produced mat of curled wood excelsior of 80% six inch or longer fiber length with consistent thickness and fiber evenly distributed over its entire area. Each side is covered with black, extra heavy-duty extruded plastic mesh netting designed to last for years and reinforce the root system after the excelsior mat has decomposed. They are erosion-resistant-no chemical additives.

INSTALLATION INSTRUCTIONS
This blanket is designed to withstand high-velocity water movements in ditches and on slopes. It is flexible, cannot be washed in direction of water flow. When using two blankets side by side in a ditch, do not put the seams in the center of the ditch. Offset 6" to 1 foot. On slopes, offset blankets 3 feet over crest of slope or dig anchor ditches if specified. Blankets may be installed horizontally or vertically, whichever is easier.

STAPLING INSTRUCTIONS FOR AMXCO HI-VELOCITY CURLEX BLANKETS
Use new staples, 0.011" diameter or greater, 1 1/2" long with legs 8" long or longer and 1" to 2" crown. Size and gauge of staples used will vary with soil types. Use four staples across at the start of each roll and continue to staple along the length of the roll at 2 ft. intervals. When blankets are placed along the edge of each roll, it is critical to staple the edge of the blanket at the appropriate intervals (see drawing), place staples in the center of the blanket halfway between the outer staples.

HI-Velocity Curlex Blankets are recommended for the following water velocities:

SOIL TYPES	VELOCITY/FEET PER SECOND
Clay/loam loam	1.1 FFS
Clay/silt clay	0.8 FFS
Silt/silt clay loam	0.6 FFS
Very sandy loam	0.5 FFS

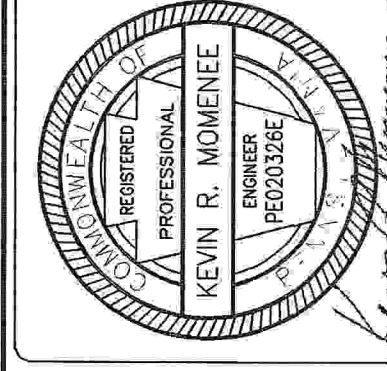
These figures are based on 48" rolls of 24" or 30" gage up to 132" or slope protection. An alternative figure must be used for slopes over 132" or slope protection of 132" gage or steeper.

Typical Stapling Pattern for High-Velocity Ditches and Slopes

Use 4 staples across at the start of each roll and continue to staple throughout the length of the roll at 2 ft. intervals.

CALL BEFORE YOU DIG!
PENNSYLVANIA LAW REQUIRES 3 WORKING DAYS NOTICE FOR ANY EXCAVATION WORK. CALL 800-488-2040 FOR A FREE COPY OF THE PENNSYLVANIA UNDERGROUND UTILITY LOCATING ACT. PENNSYLVANIA UNDERGROUND UTILITY LOCATING ACT. PENNSYLVANIA UNDERGROUND UTILITY LOCATING ACT.

Serial Number:
CALL BEFORE YOU DIG!
PENNSYLVANIA LAW REQUIRES 3 WORKING DAYS NOTICE FOR ANY EXCAVATION WORK. CALL 800-488-2040 FOR A FREE COPY OF THE PENNSYLVANIA UNDERGROUND UTILITY LOCATING ACT. PENNSYLVANIA UNDERGROUND UTILITY LOCATING ACT. PENNSYLVANIA UNDERGROUND UTILITY LOCATING ACT.



MOMENE, INC.
a Karins Company
ENGINEERING | PLANNING | SURVEYING
824 COUNTY LINE ROAD - BRYN MAWR - PA - 19010

CONSTRUCTION DETAILS
GRADING PERMIT PLAN
836 PADDOCK DRIVE
RADNOR TOWNSHIP - DELAWARE COUNTY - PENNSYLVANIA
OWNER/APPLICANT: REBECCA WINTER
836 PADDOCK DRIVE
NEWTOWN SQUARE, PA 19073

ONE-CALL: CHD
DRAWN BY: JCM
CHECKED BY: JCM
COMMENTS

FILE NO.: 17-224
SHEET 4 OF 4
DATE: AUGUST 31, 2017
SCALE: AS NOTED

APPLICATION FOR GRADING PERMIT

RADNOR TOWNSHIP ENGINEERING DEPARTMENT

The undersigned hereby makes application for Grading Permit under Chapter 175 and any amendments thereto

LOCATION: 301 S. Wayne Ave. Wayne, Pa 19087

WHAT ARE YOU BUILDING: in ground pool

Five (5) copies of site plan to be submitted with application.

TWELVE (12) COPIES IF PLAN NEEDS TO BE REVEWD BY SHADE TREE —SEE REQUIREMENTS ENCLOSED

DO PLANS SHOW ALL ITEMS LISTED ON PAGE 3

Plans must be folded and no larger than 24" x 36"

GROSS LOT AREA 32,834 SQ. FT. (Fee schedule next sheet)

TOWNSHIP USE ONLY

PERMIT NO. 17-155

SUBMISSION DATE _____

SHADE TREE DATE 9-21-17

REVISION DATES RECEIVED DATES 8/23-17

Zoning Officer _____

APPROVED BY: _____

FINAL APPROVAL DATE: _____

Received from Applicant _____

Fee schedule on page 2 350

Consolidated Fee Schedule can be found at Radnor.com

COVER TYPE	EXISTING SQUARE FEET		REMOVED SQUARE FEET	ADDED SQUARE FEET	TOTAL SQUARE FEET	
BUILDINGS	1,370	EXISTING % OF LOT	-	+	=	TOTAL NEW % OF LOT
WALKS	756		0	0	1,370	
PATIO'S	636		0	0	756	
DRIVES	2,715		418	0	218	
DECKS (Porch)	327		0	0	2,715	
OTHER	440		0	885	1,212	
TOTAL	6,244		19.02 %	418	1,115	

Ground Water Recharge and Storm Water Calculations

- No credit for removal of impervious.
- Calculations are based on the total added impervious not the net.

↑ 500 to 1499 sq. ft. Ground Water Recharge Required
1500 sq. ft. and over Storm Water Management Required
(For additional information see Ordinance 05-11)

Estimated cubic yards of dirt involved (Total cut and fill) 1164cy Will this fill be taken off site Yes No

Number of trees to be removed (over 6" in diameter) 0 Is property in the Historical District? Yes No

Circle Zoning District Applicable

R-1 22%	R-2 30%	R-3 35%	R-4 40%	R-5 40% Semi/ 2 Family Detach	R-5 36% Multi Dwelling	R-6 70%	R-1A 30%	CO 50% (2 + 3 stories)	C-1 60%	C-2 70%	C-3 65%	P1 45%
PA 50%	GH-N 60%	GH-GA 80%	GH-CR 95%	GH-BC 50%	GH-OS 15%	WBOD N/A or 90%	PB 55%	PLO 55%	FC N/A	PLU 45%		

Signature of Owner: *****see contract*****

Applicant: Dave Lowery

Date: 9/15/17

Relation to Owner: Agent

Phone Number: 267-261-7042

Fax Number: 610-748-7047

NOTES:

- 1- TOPOGRAPHIC INFORMATION OBTAINED FROM MEA SURVEY CONDUCTED ON 7/25/17.
- 2- CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL UTILITY LOCATIONS PRIOR TO CONSTRUCTION.
- 3- THE BOUNDARY SHOWN HEREON HAS BEEN ESTABLISHED FROM PHYSICAL FEATURES ONLY AND IS NOT TO BE CONSIDERED A BOUNDARY SURVEY BY THIS OFFICE.
- 4- A SILT FENCE MUST BE PLACED AROUND ALL EROSION PRONE & EARTH DISTURBED AREAS BY THE CONTRACTOR BEFORE CONSTRUCTION.
- 5- HAIL ALL EXCESS EXCAVATION OFF THE LOT. CLEAN ALL SILT OFF THE CONSTRUCTION VEHICLES BEFORE ENTERING THE PUBLIC ROAD. IF THE WASHING OF THE SILT FROM THE CONSTRUCTION VEHICLES IS FOUND INSUFFICIENT IN KEEPING SEDIMENT FROM ENTERING THE ROADWAY, THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING A CONSTRUCTION ENTRANCE.
- 6- THE RESPONSIBILITY OF THE CONTINUED MAINTENANCE AND OPERATION OF THE DETENTION BASIN AND OTHER FACILITIES SHALL BE THE OBLIGATION OF THE HOMEOWNER.
- 7- NEWLY GRADED SLOPES IN EXCESS OF 25% SHALL BE STABILIZED WITH SOD OR JUTE NETTING AND SEED. THE SWALE AROUND THE POOL SHALL BE STABILIZED WITH SOD.
- 8- THE DOWNSPOUT AND LATERAL LOCATIONS SHOWN ON THIS PLAN IS FOR COMPLIANCE PURPOSES ONLY. THESE LOCATIONS SHALL BE FIELD ADJUSTED TO ENSURE THE ENTIRE ROOF AREA IS DIRECTED TO THE DRYWELL.

PROHIBITION OF ALTERATION OR REMOVAL. THE OWNER SHALL NOT ALTER OR REMOVE ANY STORMWATER MANAGEMENT FACILITIES DEPICTED ON THE PLAN UNLESS PRIOR WRITTEN APPROVAL IS OBTAINED FROM THE TOWNSHIP.

ALL STORMWATER CONVEYANCE AND MANAGEMENT FACILITIES SHOWN ON THIS PLAN ARE PERMANENT AND ARE NOT TO BE REMOVED OR FILLED. THE INDIVIDUAL LOT OWNER, HIS/HER HEIRS, ASSIGNS OR SUCCESSORS SHALL BE RESPONSIBLE FOR THE PERPETUAL MAINTENANCE OF THE SAID FACILITIES. THE TOWNSHIP MAINTAINS THE RIGHT, BUT NOT THE RESPONSIBILITY, TO ENTER SAID PREMISES TO OBSERVE OR INSPECT THE FUNCTIONING OF THESE FACILITIES. IF THE PROPERTY OWNER, HIS/HER HEIRS, ASSIGNS OR SUCCESSORS FAILS IN ANY WAY TO MAINTAIN THE SAID FACILITIES OR CAUSES THESE FACILITIES TO BE ALTERED OR REMOVED, UPON WRITTEN NOTIFICATION BY THE TOWNSHIP, THE DEFECTS SHALL PROMPTLY BE CORRECTED BY THE PROPERTY OWNER. UPON THE OWNER'S FAILURE TO CORRECT THE DEFECTS WITHIN TIME SPECIFIED BY THE TOWNSHIP, THE OWNER, HIS/HER HEIRS, ASSIGNS, OR SUCCESSORS DO HEREBY AUTHORIZE THE TOWNSHIP AND/OR THEIR CONTRACTOR TO ENTER UPON THE SAID PROPERTY AND CAUSE THE REPAIR, MAINTENANCE, AND/OR CORRECTIONS TO BE MADE. A LIEN MAY BE FILED AGAINST THE PROPERTY FOR THE COSTS OF ALL CORRECTIONS INCLUDING APPLICABLE ENGINEERING AND/OR ATTORNEY'S FEES. THE TOWNSHIP IS UNDER NO OBLIGATION TO TAKE ANY ACTION.

I/WE ACKNOWLEDGE THAT ALL SITE WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PLAN, THAT THE STORMWATER MANAGEMENT FACILITIES CONTAINED IN THIS PLAN ARE A PERMANENT FIXTURE THAT CAN BE ALTERED OR REMOVED ONLY AFTER APPROVAL OF A REVISED PLAN BY THE TOWNSHIP OR ITS DESIGNER, AND THAT WE ARE RESPONSIBLE FOR THE PROPER MAINTENANCE AND INSPECTION OF THESE STORMWATER MANAGEMENT FACILITIES, BOTH DURING AND AFTER CONSTRUCTION. PER THE MAINTENANCE SCHEDULES CONTAINED IN THIS PLAN, I/WE FURTHER ACKNOWLEDGE THAT DURING ALL SUBSEQUENT REAL ESTATE TRANSACTIONS THE EXISTENCE OF THESE STORMWATER MANAGEMENT FACILITIES AND THEIR MAINTENANCE RESPONSIBILITIES SHALL BE DISCLOSED TO THE NEW OWNERS.

DATE

THE OWNER AGREES TO GRANT A BLANKET EASEMENT TO THE TOWNSHIP FOR THE PURPOSE OF INSPECTION AND MAINTENANCE OF THE STORMWATER MANAGEMENT SYSTEM DEPICTED ON THESE PLANS.

ZONING REQUIREMENTS

R2 RESIDENTIAL DISTRICT

MINIMUM LOT SIZE
20,000 SQ. FEET

MINIMUM LOT WIDTH
100 FEET

MINIMUM FRONT YARD
40 FEET

MINIMUM SIDE YARD
20 FEET

MINIMUM REAR YARD
40 FEET

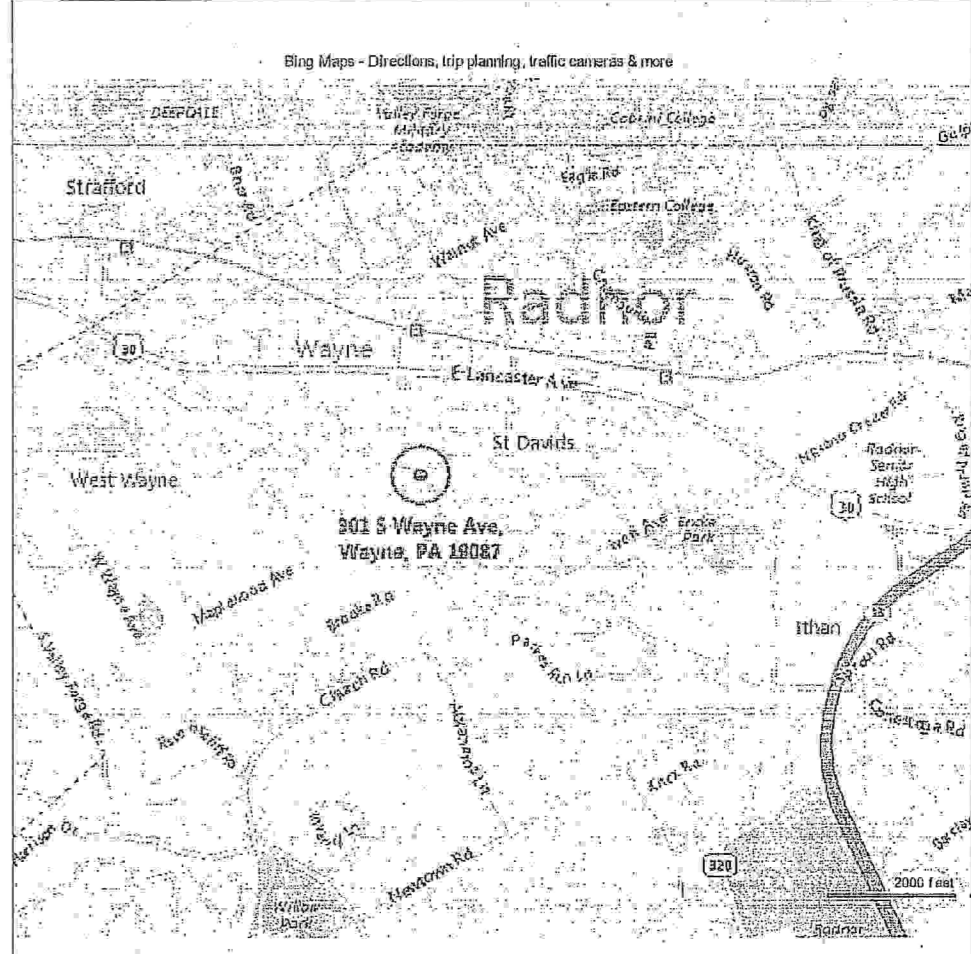
MAXIMUM BUILDING AREA COVERAGE
18 PERCENT

MAXIMUM BUILDING HEIGHT
35 FEET

MAXIMUM ACCESSORY BLDG HEIGHT
20 FEET

MAXIMUM IMPERVIOUS SURFACES
30 PERCENT

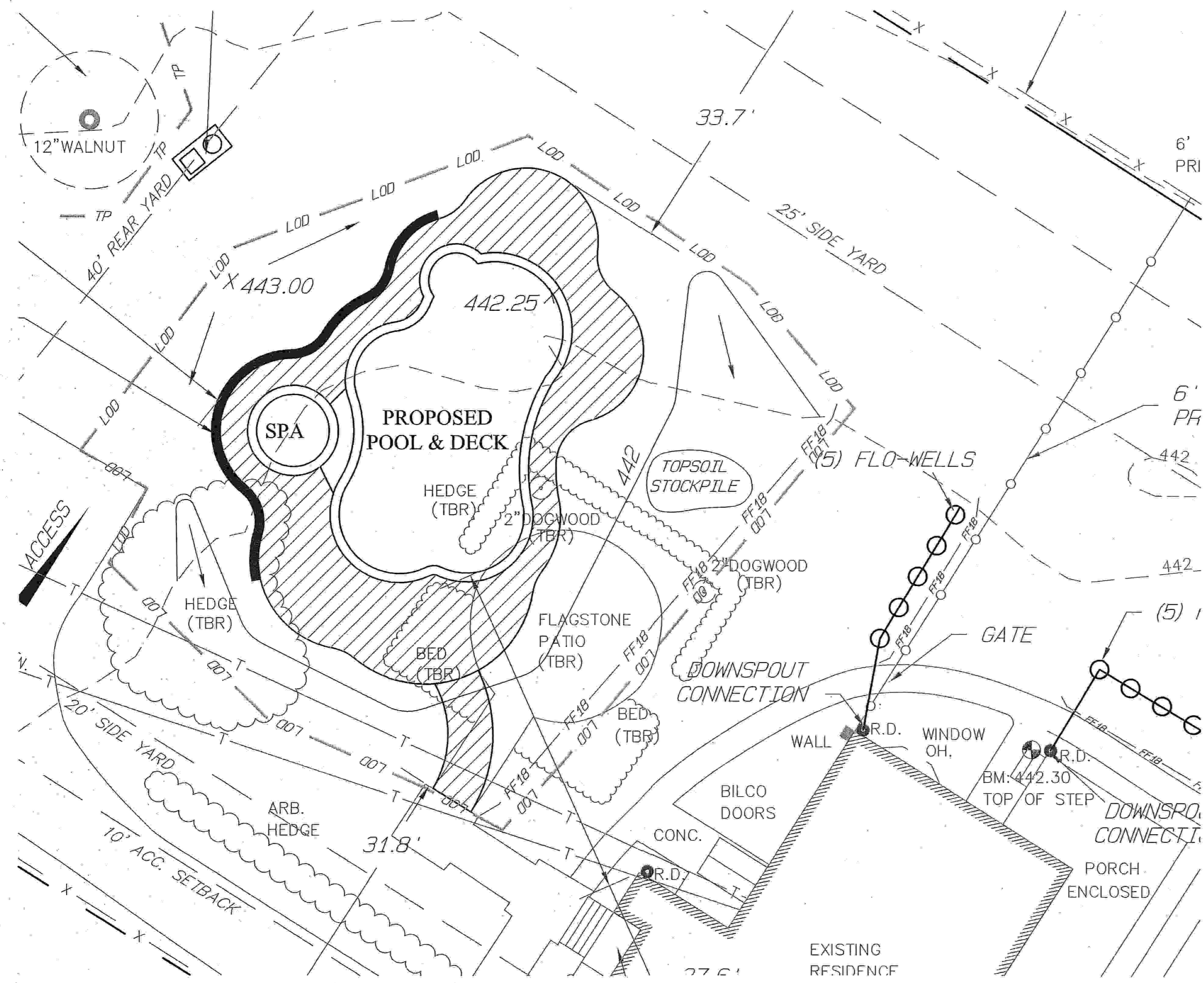
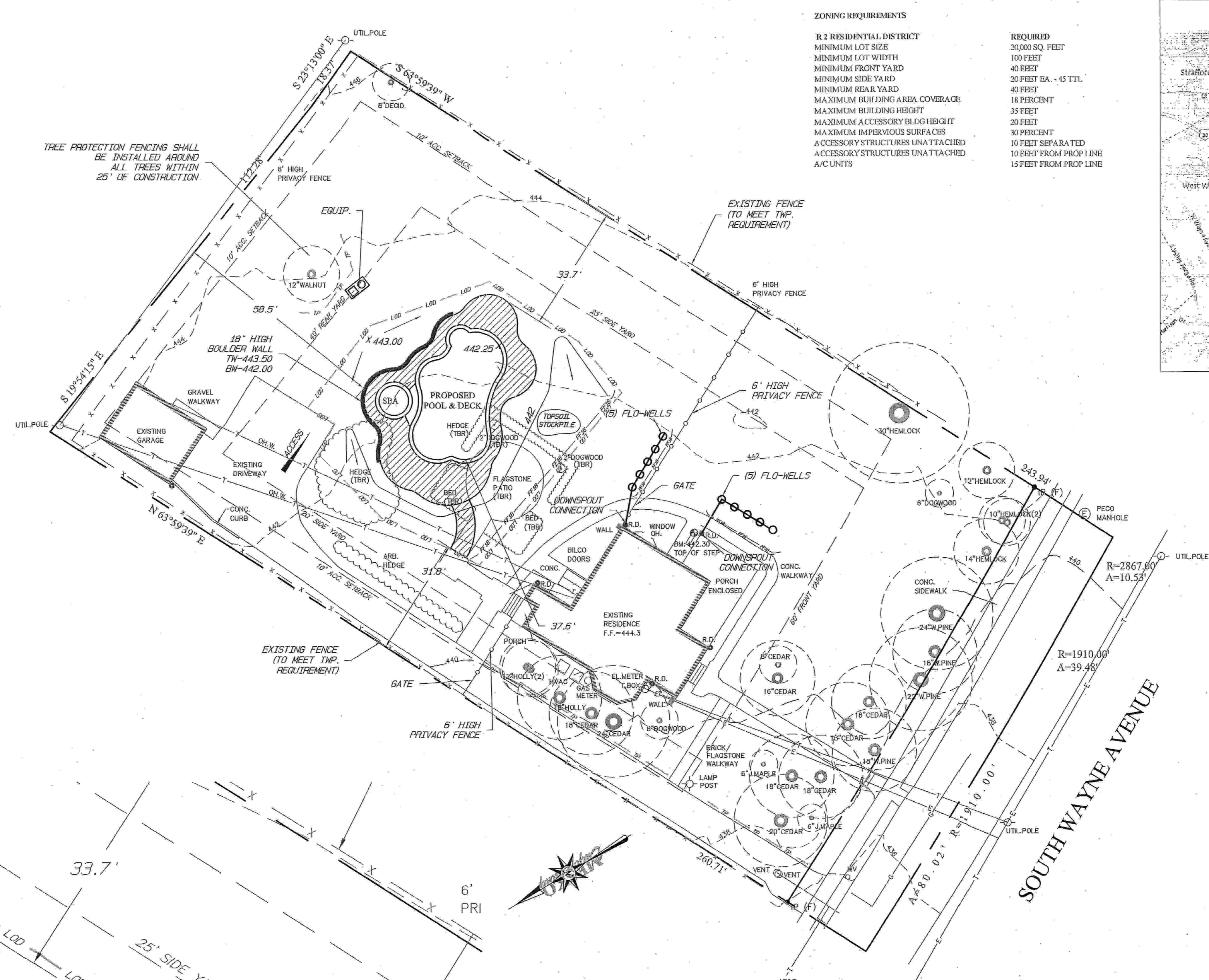
ACCESSORY STRUCTURES UNATTACHED
10 FEET SEPARATED
10 FEET FROM PROP LINE
15 FEET FROM PROP LINE



LOCATION MAP

IMPERVIOUS COVER COMPUTATION

Net Lot Area	32,834 sq
Existing:	
Residence	1,370.00 sq
Driveway	2,715.00 sq
Conc. Walkway	677.00 sq
Flagstone Walkway	79.00 sq
Porch	327.00 sq
Garage	412.00 sq
Bilco Doors	28.00 sq
Flagstone Patio	636.00 sq
Subtotal:	6,244.00 sq
	19.02%
Proposed:	
Pool & Spa	650.00 sq - not included
Coping	143.00 sq
Docking	885.00 sq
Wall	55.00 sq
Equipment	32.00 sq
Ex. Flagstone Patio (TBR)	(418.00) SF
Subtotal:	697.00 sq
TOTAL:	6,941.00 sq
	21.14%



POOL PERMIT PLAN

Scale: 1" = 20'

SOIL FROM POOL EXCAVATION SHALL REMAIN ON SITE AND BE GRADED FOR POSITIVE FLOW AROUND THE POOL. ANY EXCESS SOIL SHALL BE TAKEN OFF SITE AND DISPOSED AT A LEGAL DUMPING AREA.

POOL DETAIL

Scale: 1" = 10'

LEGEND

- EXISTING**
- 100 INDEX CONTOURS
 - NORMAL CONTOURS
 - X 100.00 SPOT ELEVATION
 - TREELINE
 - 15-25% SLOPES
 - >25% SLOPES
- PROPOSED**
- 100 INDEX CONTOURS
 - NORMAL CONTOURS
 - X 100.00 SPOT ELEVATION
 - TREELINE
 - 18" SILT FENCE 18"
 - 30" SILT FENCE 30"
 - SSP SUPER SILT FENCE
 - STABILIZED CONSTRUCTION ENTRANCE
 - ROCK FILTER
 - EROSION CONTROL BLANKET
 - LIMIT OF DISTURBANCE 3,850 S.F. PROPOSED
 - TP TREE PROTECTION

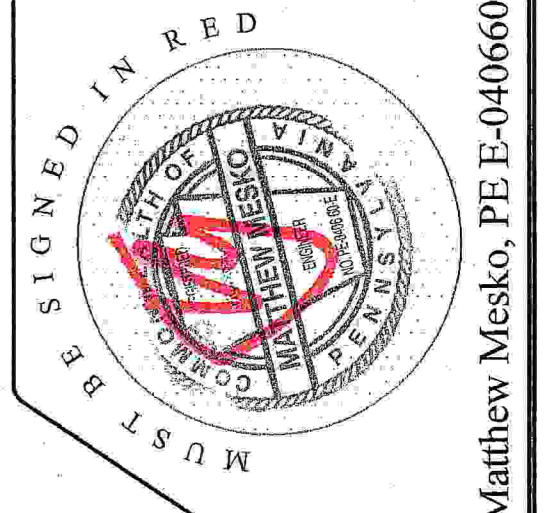
REV	BY	DATE	DESCRIPTION
1	MM	09/15/17	PER REVIEW 09/13/17

SERIAL NO: 2017-1021658

CALL BEFORE YOU DIG

PENNSYLVANIA LAW REQUIRES 3 WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND 10 WORKING DAYS IN DESIGN PHASE - *FOR CALL

Pennsylvania One Call System, Inc
1-800-242-1776



MESKO ASSOCIATES, INC.
Architectural, Civil / Structural
Engineering and Surveying
672 Exton Commons
Exton, PA 19341
(610) 280-9541

Applicant:
Project:

POOL PERMIT PLAN

30-03-01939-00
ANTHONY & SYLVAN POOLS
3739 EASTON ROAD
DOYLESTOWN, PA. 18901
215-489-5600

DAVID & DIANE CHARLTON
301 S. WAYNE AVENUE
WAYNE, PA 19087

Date: 08/14/17 AS NOTED
Drawn: CS
Checked: MM
PROJECT NO: 07032017-116

SHEET 1

OF: 2

EROSION & SEDIMENTATION CONTROL NOTES

1. EROSION AND SEDIMENTATION CONTROL MEASURES MUST BE CONSTRUCTED, STABILIZED AND FUNCTIONAL BEFORE SITE DISTURBANCE WITHIN THE TRIBUTARY AREAS OF THESE CONTROLS.
2. AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENTATION CONTROLS MUST BE REMOVED. AREAS DISTURBED DURING REMOVAL OF THE CONTROLS MUST BE STABILIZED IMMEDIATELY.
3. FILTER FABRIC FENCE MUST BE INSTALLED AT LEVEL GRADE. BOTH ENDS OF EACH FENCE SECTION MUST EXTEND AT LEAST TEN FEET UPSLOPE AT 45 DEGREES TO THE MAIN FENCE ALIGNMENT.
4. SEDIMENT MUST BE REMOVED WHEN ACCUMULATIONS REACH HALF THE ABOVE GROUND HEIGHT OF THE FENCE.
5. ANY FENCE SECTION WHICH HAS BEEN UNDERMINED OR TOPPED MUST BE IMMEDIATELY REPLACED WITH A ROCK FILTER FILTER OUTLET DETAIL.
6. STOCKPILE HEIGHTS MUST NOT EXCEED 35 FEET. STOCKPILE SLOPES MUST BE 2:1 OR FLATTER.
7. ANY DISTURBED AREA, ON WHICH ACTIVITY HAS CEASED, MUST BE STABILIZED IMMEDIATELY IN ACCORDANCE WITH PERMANENT SEEDING SPECIFICATION. DURING NON-GERMINATING PERIODS, MULCH MUST BE APPLIED AT THE RECOMMENDED RATES.
8. DIVERSIONS, CHANNELS, SEDIMENTATION BASINS, SEDIMENTATION TRAPS AND STOCKPILES MUST BE STABILIZED IMMEDIATELY.
9. HAY OR STRAW MULCH MUST BE APPLIED AT RATES OF AT LEAST 3.0 TONS PER ACRE.
10. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENTATION CONTROLS MUST BE MAINTAINED PROPERLY. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENTATION CONTROLS AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING, AND RESETTING, MUST BE PERFORMED IMMEDIATELY.
11. SHOULD UNFORESEEN EROSION CONDITIONS DEVELOP DURING CONSTRUCTION, THE CONTRACTOR SHALL TAKE ACTION TO REMEDY SUCH CONDITIONS AND TO PREVENT DAMAGE TO ADJACENT PROPERTIES AS A RESULT OF INCREASED RUNOFF AND SEDIMENT DISPLACEMENT. STOCKPILES OF WOODCHIPS, HAY BALES, CRUSHED STONE AND OTHER MULCHES SHALL BE HELD IN READINESS TO DEAL IMMEDIATELY WITH EMERGENCY PROBLEMS OF EROSION.
12. THE CONTRACTOR IS ADVISED TO BECOME THOROUGHLY FAMILIAR WITH THE PROVISIONS OF APPENDIX 54, EROSION CONTROL RULES AND REGULATIONS, TITLE 25, PART 1, DEPARTMENT OF ENVIRONMENTAL PROTECTION.
13. PROTECTION TO EXISTING TREES AND SHRUBS SHALL BE TAKEN BY THE CONTRACTOR TO ELIMINATE UNNECESSARY DAMAGE. EXISTING TREES AND SHRUBS SHALL BE HELD IN READINESS TO DEAL IMMEDIATELY WITH EMERGENCY PROBLEMS OF EROSION.
14. ANY BARE-EARTH AREAS WHERE EARTH MOVING HAS CEASED MUST BE PERMANENTLY STABILIZED IMMEDIATELY.
15. ALL SWALE SHALL BE PROTECTED WITH EROSION CONTROL BLANKETS.

TEMPORARY SEEDING

- LIME:** 190 LBS/1000 SF
GROUND LIMESTONE INCORPORATED 4 INCHES INTO SOIL
- FERTILIZER:** 25 LBS/1000 SF
10-20-20 INCORPORATED 4 INCHES INTO SOIL
- SEED:** 1.0 LBS/1000 SF
ANNUAL RYEGRASS
- MULCH:** 140 LBS/1000 SF
STRAW MULCH

- MINIMUM STANDARD FOR LIMESTONE AND FERTILIZER**
- LIMESTONE SHALL BE APPLIED AT A RATE OF 1 TON PER ACRE.
- FERTILIZER SHALL BE APPLIED AT A RATE OR
- NITRITR NITROGEN: 30 LBS/ACRE AVERAGE
 - PHOSPHOROUS: 100 LBS/ACRE AVERAGE
 - POTASSIUM: 120 LBS/ACRE AVERAGE

PERMANENT SEEDING

- LIME:** 190 LBS/1000 SF
GROUND LIMESTONE INCORPORATED 4 INCHES INTO SOIL
- FERTILIZER:** 25 LBS/1000 SF
10-20-20 INCORPORATED 4 INCHES INTO SOIL
- SEEDING:** LAWN AND MOWED AREAS - KENTUCKY BLUEGRASS - 30 LBS/AC
REDFEST - 3 LBS/AC
PERENNIAL RYEGRASS - 20 LBS/AC
TOTAL SEEDING = 53 LBS/AC
- OR
- PENNSYLVANIA FINE FESCUE - 40 LBS/AC
 - REDFEST - 3 LBS/AC
 - PERENNIAL RYEGRASS - 20 LBS/AC
 - TOTAL SEEDING = 63 LBS/AC
- SLOPES OR UNMOWED AREAS - CROWN VETCH - 25 LBS/AC
PERENNIAL RYEGRASS - 25 LBS/AC
TOTAL SEEDING = 50 LBS/AC

PLANTING DATE: MARCH 1ST TO MAY 15TH, AND AUGUST 15TH TO OCTOBER 1ST.
MULCH: STRAW AT A RATE OF 140 LBS/1000 SF. MULCH SHALL BE SECURED BY CONSTRUCTION METHODS

CONSTRUCTION SEQUENCE

THE TOWNSHIP ENGINEER SHALL BE NOTIFIED 48 HOURS IN ADVANCE AND AFTER THE INSTALLATION OF PROTECTIVE BARRIERS AND EARTH MOVING.

THE MAXIMUM EXPOSURE FOR BARE SOIL AREAS SHALL BE 30 DAYS.

THERE SHALL NO PARKING OF EQUIPMENT, STOCKPILING OF MATERIALS OR DEBRIS WITHIN A SANITARY SEWER EASEMENT

1. INSTALL TREE PROTECTION AND SILT FENCE WHERE INDICATED ON PLAN. TREE SCRUBBER CONTINGENT AS NEEDED SHOULD WASHING OF TIRES PROVE INEFFECTIVE. INSTALL PROTECTIVE FENCING AT LIMIT OF DISTURBANCE.
2. CONSTRUCT DIVERSION SWALE TO ENSURE ACCEPTABLE CONDITIONS.
3. STRIP TOPSOIL AND STOCKPILE AT DESIGNATED AREA SURROUND WITH SILT FENCE.
4. ROLL-GRADE SITE AREA.
5. REMOVE EXISTING IMPERVIOUS PROPOSED AND CONSTRUCT PROPOSED IMPROVEMENTS. INSTALL FLO-WELLS.
6. FINISH GRADE DISTURBED AREAS AND STABILIZE IMMEDIATELY. SLOPES IN EXCESS OF 25% SHALL BE PROTECTED WITH JUTE NETTING. GRADING AND EARTH MOVING ACTIVITIES SHALL BE MINIMIZED DURING THE PERIOD OF NOVEMBER 15 TO APRIL 1 WHEN REVEGETATION OF EXPOSED GROUND SURFACES IS DIFFICULT. MULCH, STRAW, STONE AND/OR SOD SHALL BE USED TO STABILIZE ALL AREAS DENuded DURING THIS TIME. INSTALL SEEPAGE PIT.
7. UPON STABILIZATION OF DISTURBED AREAS REMOVE EROSION CONTROL MEASURES.
8. AREAS REDISTURBED SHALL BE STABILIZED IMMEDIATELY.
9. EROSION CONTROL MEASURES SHALL BE ADDED OR MODIFIED AS REQUIRED OR AS DIRECTED BY THE TOWNSHIP.
10. GRADING MAY BE FIELD ADJUSTED SO AS NOT TO DIRECT RUNOFF ONTO THE ADJOINING PROPERTIES. NO GRADING IS PERMITTED WITHIN THREE FEET OF THE PROPERTY BOUNDARY.
11. SHOULD ANY TREE NOT SCHEDULED OR PERMITTED TO BE REMOVED BE IRREPARABLY DAMAGED DURING CONSTRUCTION AND DIE WITHIN 18 MONTHS OF THE CONCLUSION OF CONSTRUCTION ACTIVITIES, THOSE TREES WILL BE REQUIRED TO BE REPLACED.
12. ALL EROSION CONTROL MEASURES SHALL BE INSPECTED AT THE END-OF-DAY AND FOLLOWING STORMS IN ORDER TO ENSURE THE MEASURES ARE WORKING PROPERLY.

ALL WOODY VEGETATION WITHIN 25 FT FROM THE BUILDING SITE SHALL BE PROTECTED.

SOIL CLASSIFICATION - MADE LAND

STORMWATER MANAGEMENT CONSTRUCTION - GENERAL

1. THE DISTURBED SITE AREA, TRIBUTARY TO THE ACF D-RAINTANKS, SHALL BE STABILIZED PRIOR TO THE COMMENCEMENT OF ACF D-RAINTANKS CONSTRUCTION. THE SITE SHALL BE CONSIDERED STABILIZED WHEN 80% GROUND COVER HAS BEEN ESTABLISHED.
2. EXCAVATION OF THE ACF D-RAINTANKS SHALL BE SCHEDULED DURING A PERIOD WHEN NO PRECIPITATION IS ANTICIPATED. ONCE CONSTRUCTION COMMENCES IT SHALL CONTINUE UNTIL THE PIT IS COMPLETED, GRADED AND STABILIZED. DURING THE STABILIZATION PERIOD INLET PROTECTION SHALL BE REQUIRED TO ENSURE THAT SEDIMENT LAIDEN RUNOFF DOES NOT ENTER THE ACF D-RAINTANKS.
3. PRIOR TO THE INSTALLATION OF THE STONE BALLAST IT SHALL BE INSPECTED BY A SITE ENGINEER TO ENSURE THAT IT IS CLEAN AND FREE OF DELETERIOUS MATERIAL.
4. AREAS TRIBUTARY TO THE ACF D-RAINTANKS DISTURBED AFTER THE PIT IS CONSTRUCTED SHALL BE MULCHED AND STABILIZED IMMEDIATELY.
5. INFLOW AND OUTFLOW POINTS INTO THE INDIVIDUAL ON-LOT SYSTEM SHOULD BE KEPT CLEAR OF LEAVES AND OTHER DEBRIS. ANY LEAVES OR DEBRIS WILL NEGATIVELY IMPACT THE PERFORMANCE OF THESE SYSTEMS. ALL DOWNSPOUTS AND OVERFLOW PIPES SHOULD BE KEPT IN GOOD WORKING ORDER.
6. THE HOMEOWNER SHALL BE RESPONSIBLE FOR THE CONTINUOUS MAINTENANCE OF THE ON-LOT ACF D-RAINTANKS. MAINTENANCE RESPONSIBILITIES TO INCLUDE THE FOLLOWING: GRASS CUTTING, REMOVAL OF LEAVES AND OTHER TRANSPORTED VEGETATION, AND KEEPING THE INLET CLEAR OF OBSTRUCTION. DURING GRASS MAINTENANCE, CUT GRASS MUST BE REMOVED FROM THE SEEPAGE PIT AREA IMMEDIATELY AFTER EACH EVENT.
7. SHOULD UNFORESEEN UNFAVORABLE CONDITIONS BE ENCOUNTERED DURING THE CONSTRUCTION OF THE DRYWELL (IE. HIGH WATER TABLE, ROCK) THE DESIGN ENGINEER SHALL BE NOTIFIED IMMEDIATELY FOR A SITE INSPECTION AND POSSIBLE MODIFICATIONS.
8. ALL PROPOSED STORMWATER SEEPAGE BMP'S SHOULD HAVE A MINIMUM ISOLATION DISTANCE OF 10 FEET FROM ANY PROPOSED STRUCTURES WITH BELOW GRADE SPACES (IE. BASEMENTS, CRAWL SPACES, ETC). GREATER SEPARATION MAY BE NECESSARY IF ACF D-RAINTANKS ARE LOCATED UPWARDMENT OF ANY PROPOSED STRUCTURES.
9. THE CURRENT OR FUTURE HOMEOWNER CANNOT MODIFY THE STORMWATER SYSTEM WITHOUT PRIOR APPROVAL FROM THE TOWNSHIP.
10. NO TREES AND/OR SHRUBBERY MAY BE PLACED OVER THE LOCATION OF THE ACF D-RAINTANKS AND NO CHANGES MAY BE MADE TO THE SYSTEM WITHOUT APPROVAL FROM THE TOWNSHIP.

STORMWATER FACILITY MAINTENANCE NOTES

- MAINTENANCE AND REPLACEMENT. OWNER SHALL CONTINUOUSLY AND PERPETUALLY MAINTAIN AND/OR REPLACE THE STORM WATER MANAGEMENT FACILITIES IN ACCORDANCE WITH THE CONDITIONS OF APPROVAL, THE PLAN, AND WITH MAINTENANCE CALCULATIONS ON NDS/PRO.COM
- MAINTENANCE SHALL BE PERFORMED AFTER A MAJOR RAINFALL EVENT OF 4 INCHES OF RAINFALL OR MORE IN A 24 HOUR PERIOD (AS REPORTED BY THE LOCAL WEATHER REPORTS FOR THE SOUTHEASTERN PENNSYLVANIA REGION) AS FOLLOWS:
1. INLET DRAINS, GUTTERS AND DOWNSPOUTS SHALL BE KEPT CLEAR OF ACCUMULATED DEBRIS SUCH AS LEAVES, GRASS CLIPPINGS, STICKS AND TRASH. ROOF RUNOFF EXTING THE DOWNSPOUT/EMERGENCY TRIP IS A POTENTIAL INDICATOR THAT THERE IS A CLOG IN THE SYSTEM.
 2. INSPECT ALL OUTLET DEVICES THAT ARE LOCATED WITHIN THE BASIN TO ENSURE THEY ARE FREE AND CLEAR OF DEBRIS AND ARE STRUCTURALLY INTACT. IF DEBRIS EXISTS, IT MUST BE CLEARED IMMEDIATELY. IF THE STRUCTURAL FAILURES OR LEAKS EXIST, THE HOMEOWNER SHALL CONTACT THE TOWNSHIP IMMEDIATELY TO REPORT THE PROBLEM, RECEIVE INITIAL INSTRUCTIONS ON THE TYPE OF PERSONNEL TO CONTACT TO CORRECT THE PROBLEM AND SCHEDULE AN INSPECTION FOR THE NECESSARY REPAIR WORK.
 3. THE BASIN IMPOUNDMENT DEVICE (EARTHEN BERM OR RETAINING WALL) MUST BE INSPECTED FOR STRUCTURAL INTEGRITY, LEAKS AND PROPER STABILIZATION (ADEQUATE VEGETATION IN THE CASE OF AN EARTHEN BERM). IF THE STRUCTURAL FAILURES OR LEAKS EXIST, THE HOMEOWNER SHALL CONTACT THE TOWNSHIP IMMEDIATELY TO REPORT THE PROBLEM, RECEIVE INITIAL INSTRUCTIONS ON THE TYPE OF PERSONNEL TO CONTACT TO CORRECT THE PROBLEM AND SCHEDULE AN INSPECTION FOR THE NECESSARY REPAIR WORK.

SHOULD A STORM WATER MANAGEMENT FACILITY NOT FUNCTION PROPERLY, THE TOWNSHIP SHALL BE NOTIFIED IN WRITING WITHIN 10 DAYS OF THE DISCOVERY OF THE MALFUNCTION AND THE PROPOSED MAINTENANCE, REPAIRS OR MODIFICATIONS NECESSARY TO RESOLVE THE MALFUNCTION. ALL MAINTENANCE, REPAIRS OR MODIFICATIONS SHALL BE MADE IN ACCORDANCE WITH THE SPECIFICATIONS OF THE MANUFACTURER OR DESIGNER OF THE DEVICE. IF A REPAIR OR MODIFICATION IS MADE NOT WITHIN MANUFACTURER OR DESIGNER'S SPECIFICATIONS, SAID REPAIR OR MODIFICATION SHALL BE APPROVED IN WRITING BY THE MANUFACTURER OR DESIGNER, AND A COPY OF THE APPROVAL SHALL BE FILED WITH THE TOWNSHIP. THE MAINTENANCE, REPAIR, OR MODIFICATION MAINTENANCE MUST BE COMPLETED WITHIN 30 DAYS OF DISCOVERY OF THE MALFUNCTION, OR IMMEDIATELY UPON DISCOVERY IF THE MALFUNCTION POSSES A THREAT TO THE PUBLIC HEALTH OR SAFETY.

THE TOWNSHIP RESERVES THE RIGHT TO REQUIRE ADDITIONAL DEVICES IF THE FACILITIES AS DESIGNED DO NOT FUNCTION PROPERLY, TO ASSURE THE APPROPRIATE QUANTITY AND QUALITY OF THE STORMWATER LEAVING THE STORMWATER MANAGEMENT FACILITY MEETS THE INTENT OF THE ORIGINAL DESIGN APPROVED BY THE TOWNSHIP.

PROHIBITION OF ALTERATION OR REMOVAL. THE OWNER SHALL NOT ALTER OR REMOVE ANY STORMWATER MANAGEMENT FACILITIES DEPICTED ON THE PLAN UNLESS PRIOR WRITTEN APPROVAL IS OBTAINED FROM THE TOWNSHIP.

ALL STORMWATER CONVEYANCE AND MANAGEMENT FACILITIES SHOWN ON THIS PLAN ARE PERMANENT AND ARE NOT TO BE REMOVED OR FILLED. THE INDIVIDUAL LOT OWNER, HIS/HER HEIRS, ASSIGNS OR SUCCESSORS SHALL BE RESPONSIBLE FOR THE PERPETUAL MAINTENANCE OF THE SAID FACILITIES. THE TOWNSHIP MAINTAINS THE RIGHT, BUT NOT THE RESPONSIBILITY, TO ENTER SAID PREMISES TO OBSERVE OR INSPECT THE FUNCTIONING OF THESE FACILITIES. IF THE PROPERTY OWNER, HIS/HER HEIRS, ASSIGNS OR SUCCESSORS FAILS IN ANY WAY TO MAINTAIN THE SAID FACILITIES OR CAUSES THESE FACILITIES TO BE ALTERED OR REMOVED, UPON WRITTEN NOTIFICATION BY THE TOWNSHIP, THE DEFECTS SHALL PROMPTLY BE CORRECTED BY THE PROPERTY OWNER. UPON THE OWNER'S FAILURE TO CORRECT THE DEFECTS WITHIN THE TIME SPECIFIED BY THE TOWNSHIP, THE OWNER, HIS/HER HEIRS, ASSIGNS, OR SUCCESSORS DO HEREBY AUTHORIZE THE TOWNSHIP AND/OR THEIR CONTRACTOR TO ENTER UPON THE SAID PROPERTY AND CAUSE THE REPAIR, MAINTENANCE, AND/OR CORRECTIONS TO BE MADE. A LIEB MAY BE FILED AGAINST THE PROPERTY FOR THE COSTS OF ALL CORRECTIONS INCLUDING APPLICABLE ENGINEERING AND/OR ATTORNEY'S FEES. THE TOWNSHIP IS UNDER NO OBLIGATION TO TAKE ANY ACTION.

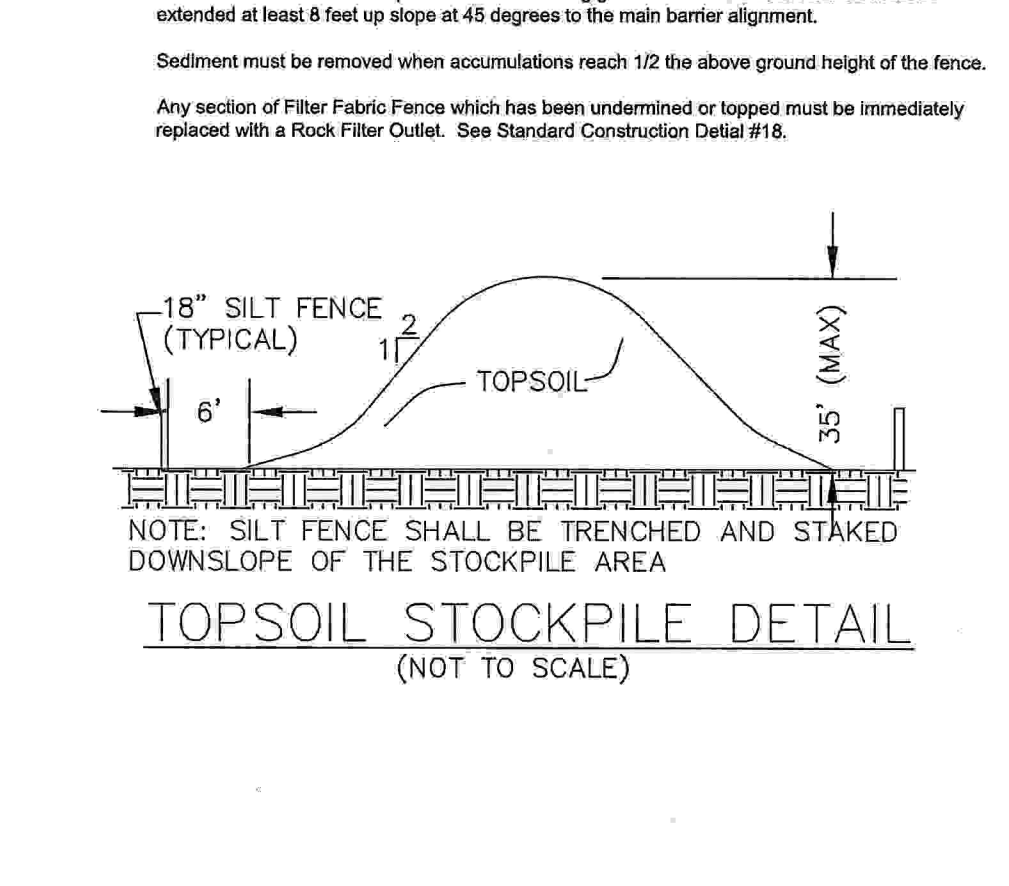
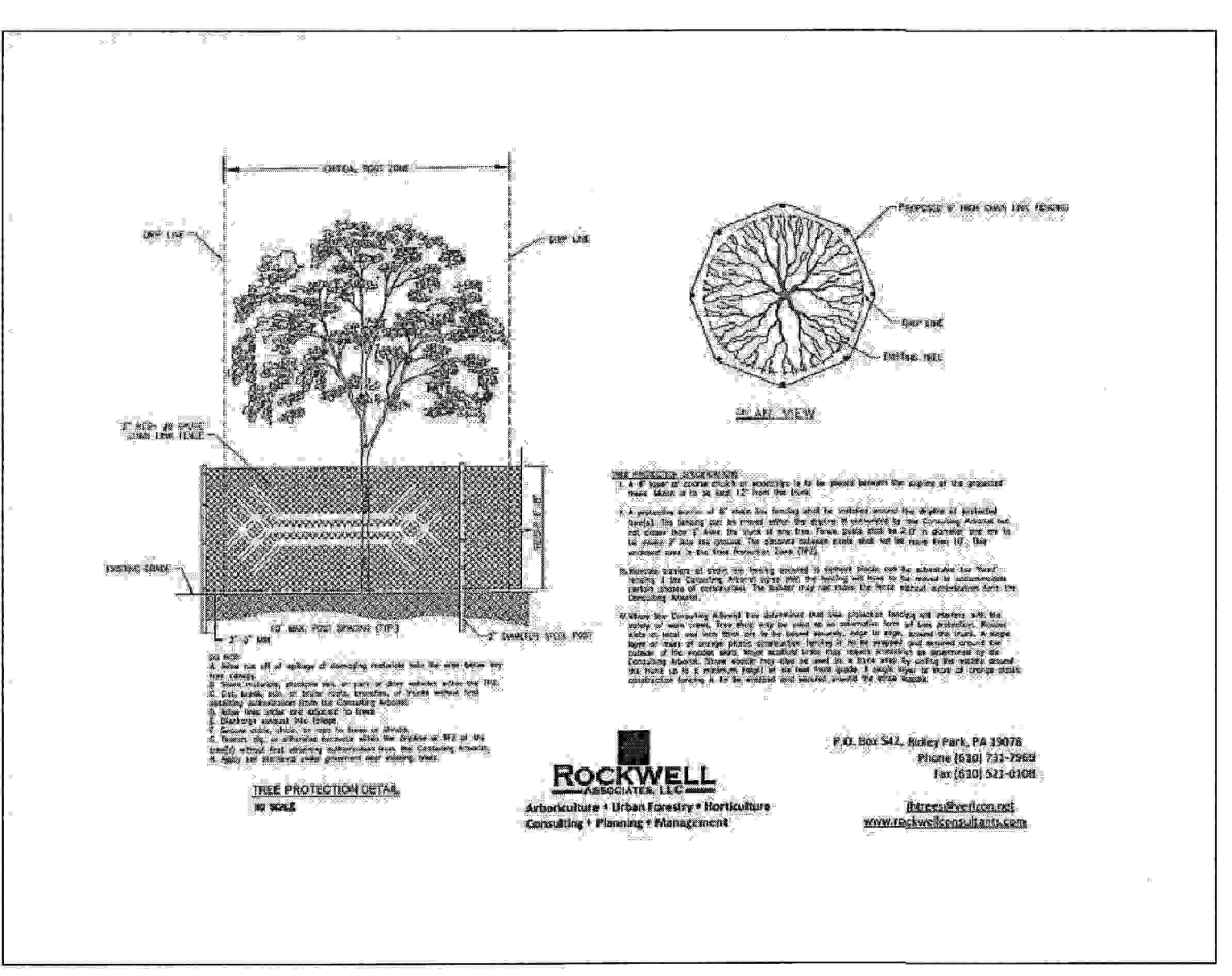
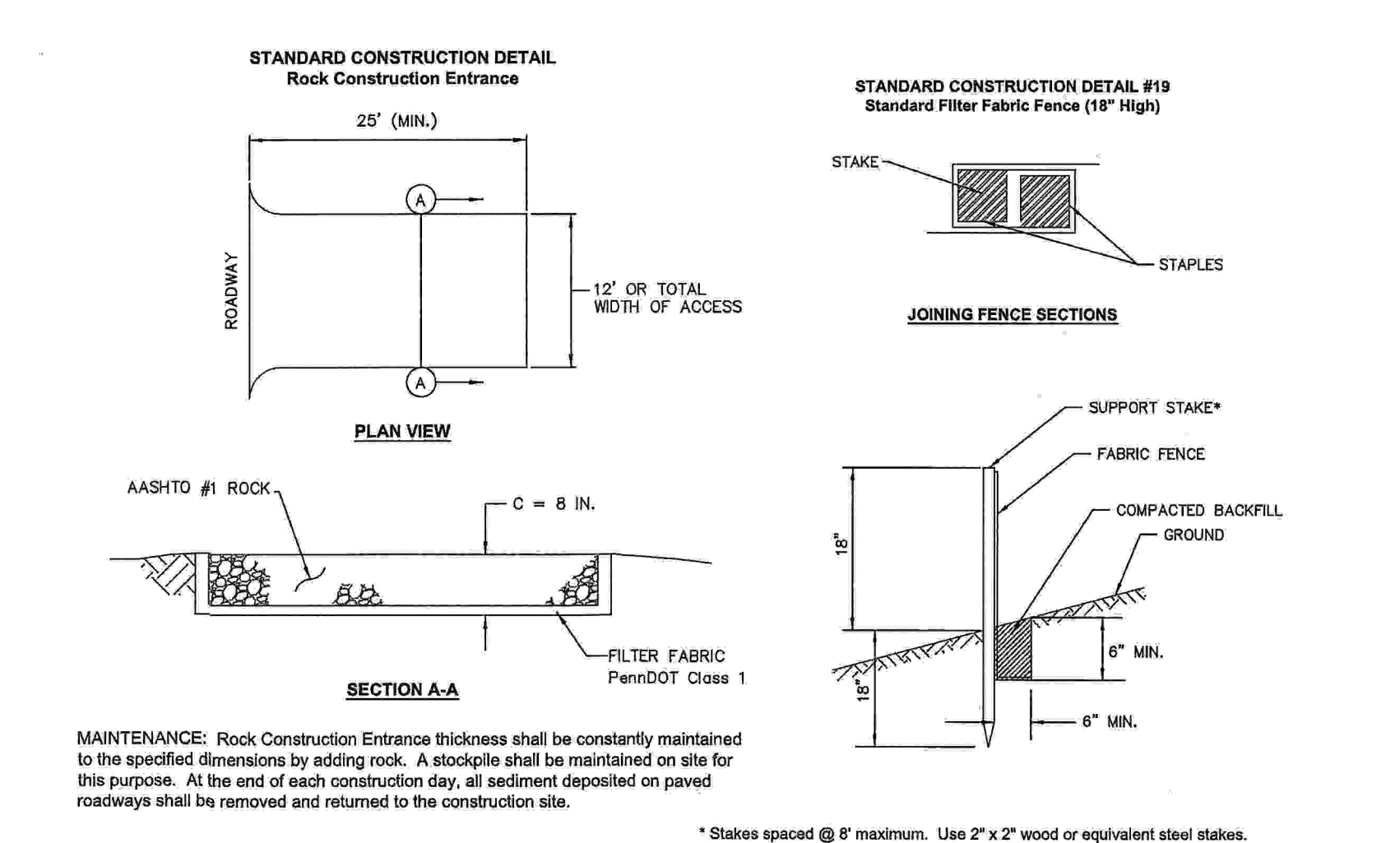
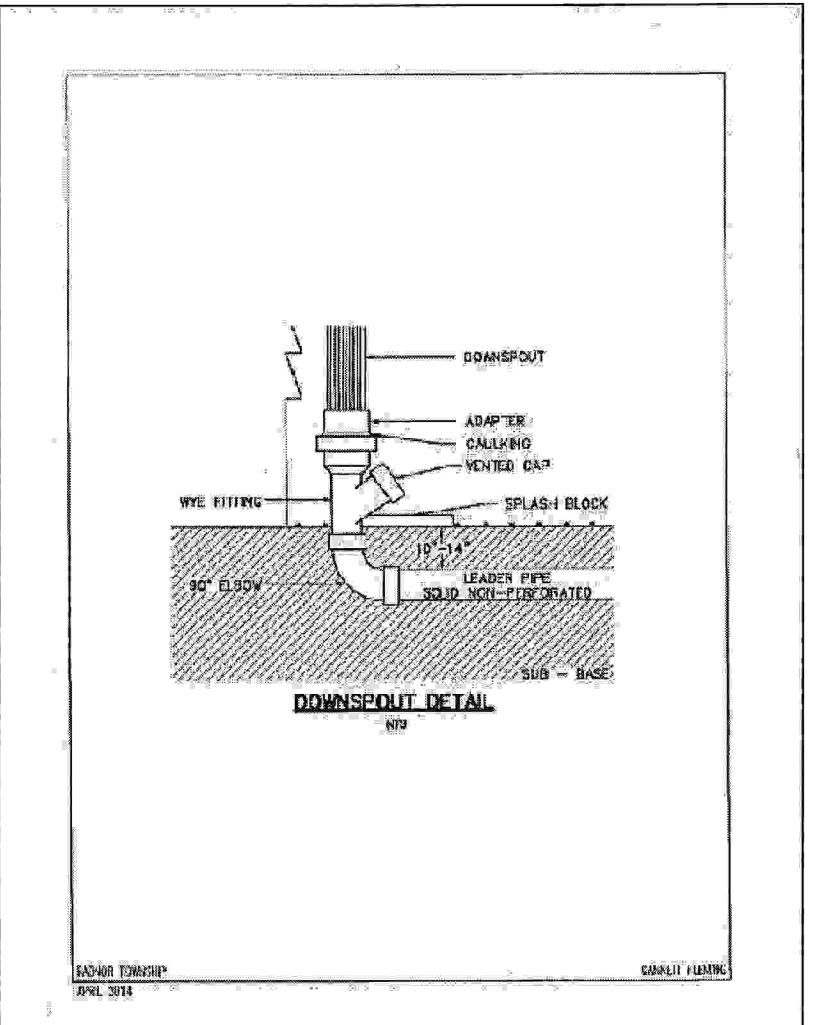
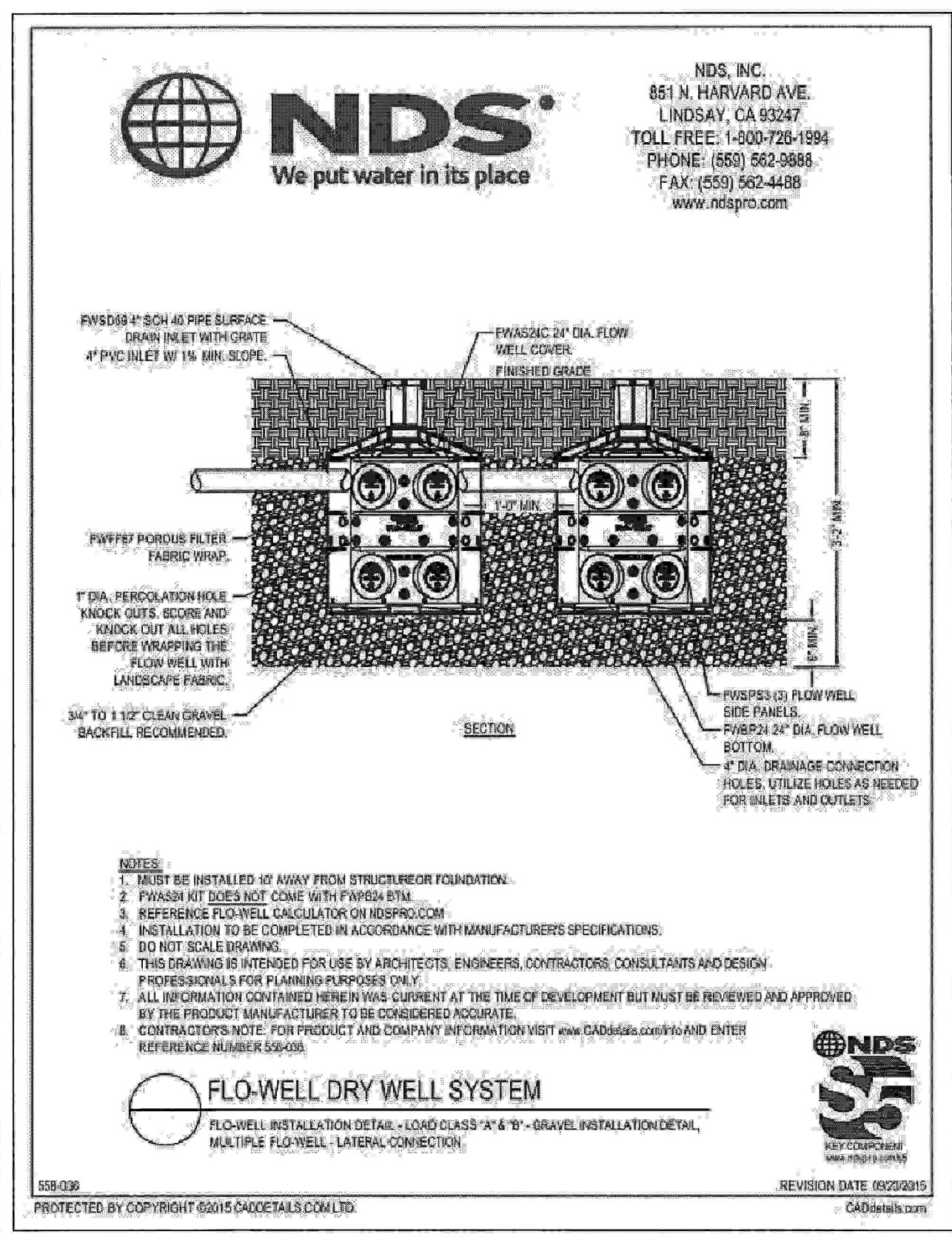
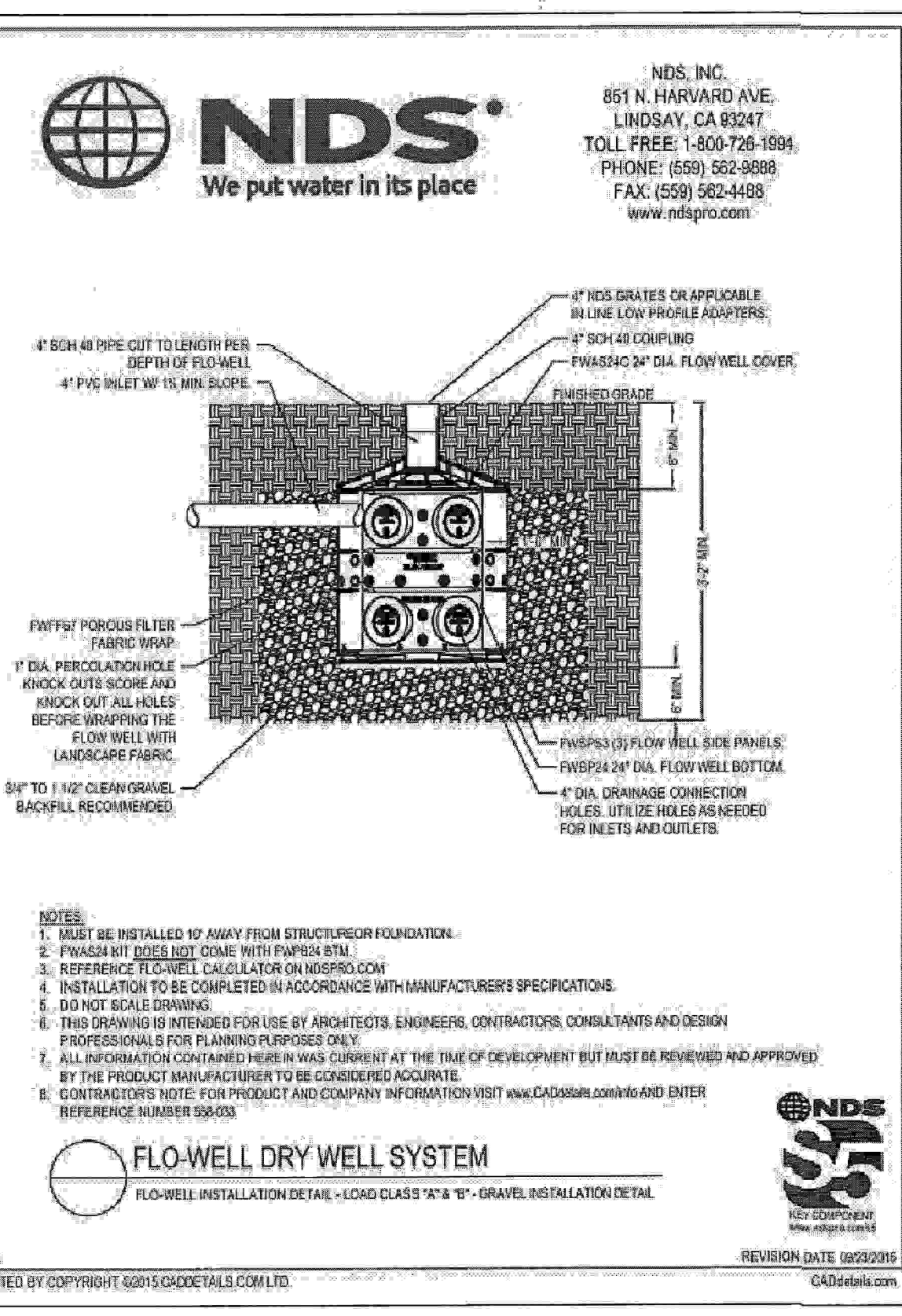
Groundwater recharge (Section 245-22.4.2.02)

Rev = $I \times \text{Impervious}(sf) / 12 (\text{inches}) = \text{cubic feet}$

I	1.00 in
Impervious Area:	697.00 sf
Rev =	58.08 cf
	434.46 gal

NDS Flo-Wells FWAS24 24-INCH

Capacity	50.00 gal
Required	8.69
Provided	10.00



REV	BY	DATE	DESCRIPTION
1	MM	09/15/17	PER REVIEW 09/13/17

MESKO ENGINEERING ASSOCIATES, INC.
Architectural, Civil / Structural Engineering and Surveying
672 Exton Commons
Exton, PA 19341
(610) 280-9541

APPLICANT:
STORMWATER DETAILS
Project: 30-03-01939-00
30-03-01939-00
ANTHONY & SYLVAN POOLS
3739 EASTON ROAD
DOYLESTOWN, PA. 18901
215-489-5600

DAVID & DIANE CHARLTON
301 S. WAYNE AVENUE
WAYNE, PA 19087

Date: 08/14/17 AS NOTED
Drawn: GS
Checked: MM
PROJECT NO: 0702017-116

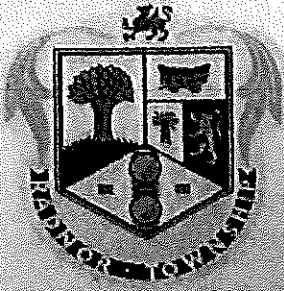
ROCKWELL
Arboretum • Urban Forestry • Horticulture
Consulting • Planning • Management
P.O. Box 541, Berwyn Park, Pa. 19008
Phone (610) 332-7992
Fax (610) 332-6006
www.rockwellinc.com

SHEET 2 OF 2

tree

CONTRACTORS LIST

<u>CONTRACTOR NAME</u>	<u>ADDRESS</u>	<u>CITY</u>	<u>STATE</u>	<u>ZIP</u>	<u>PHONE</u>
ACTION TREE & LANDSCAPE SERVICE INC	2418 CLOVER LA	HAVERTOWN	PA	19083	(610) 446-0780
ARADER TREE SERVICE	10 BALLIGOMINGO RD - A2	CONSHOCKEN	PA	19428	(610) 277-8733
DAN MOORE TREE SERVICE	3013 N WHITEHALL ROAD	EAST NORRITON	PA	19403	(484) 432-2130
DELAWARE VALLEY TREE AND LANDSCAPING,	PO BOX 88	BROOMMALL	PA	19008	(610) 353-1182
HAGNER TREE CARE	P O BOX 2271	FRAZER	PA	19355	(610) 960-2837
JOHN B WARD & CO	P O BOX 280	BRYN MAWR	PA	19010	(610) 293-9430
MG TREE LLC	701 PARKWAY BLVD	BROOMMALL	PA	19008	(610) 359-9970
PARKWAY TREE & LANDSCAPE SERVICE LLC	4000 OREGON PIKE	EPRATA	PA	17522	(610) 888-5845
PENNSYLVANIA TREE SERVICE INC	140 DAVIS ROAD	PHOENIXVILLE	PA	19460	(610) 783-7909
SHREINER TREE CARE	334 S HENDERSON RD	KING OF PRUSSIA	PA	19406	(610) 527-3637
STARKE TREE CARE	P O BOX 1231	FRAZIER	PA	19355	(610) 496-6030
WILLOW TREE SERVICE, INC.	411 S WARMINSTER RD	HATBORO	PA	19040	(215) 956-9990



RADNOR TOWNSHIP SHADE TREE COMMISSION

Hazardous Tree Report

Resident Ken Lin

Address 524 St Davids Rd Wayne PA

Tree (Type, species, size, diameter at breast height) Chestnut

Certified arborist's narrative report (attach separate sheet if required)
Chestnut's root flare is growing into the houses foundation. Customer is removing tree due to water in basement

Certified arborist's name, address and # Jason Tyler PD-2488A

Pictures attached _____ Plot plan drawing attached _____

Township arborist's report (attach separate sheet if required)

Shade Tree Commission removal recommended yes / no

The General Powers and Duties of the Shade Tree Commission section of the Ordinance (126.5 B) stipulates: In case of immediate necessity for the protection of life or property. Any shade or street tree described in this ordinance may be removed without first obtaining a permit, after inspection by a member(s) of the Shade Tree Commission or its designee.



RADNOR TOWNSHIP SHADE TREE COMMISSION
Hazardous Tree Report

Resident James Averill

Address 245 Ashwood Road, Villanova

Tree (Type, species, size, diameter at breast height) 38" Red oak

Certified arborist's narrative report (attach separate sheet if required) _____

The oak has dropped (3) major limbs in the last 6 months. Trunk has major structural defect.

Recommend immediate removal.

Certified arborist's name, address and # James B. Ward, PD-0053

John B. Ward Tree Care, Bryn Mawr

Pictures attached Y

Plot plan drawing attached _____

Township arborist's report (attach separate sheet if required) _____

Shade Tree Commission removal recommended yes / no

The General Powers and Duties of the Shade Tree Commission section of the Ordinance (126.5 B) stipulates: In case of immediate necessity for the protection of life or property. Any shade or street tree described in this ordinance may be removed without first obtaining a permit, after inspection by a member(s) of the Shade Tree Commission or its designee.



RADNOR TOWNSHIP SHADE TREE COMMISSION
Hazardous Tree Report

Resident Ms. Claudia Muller
Address 509 Midland Cir Wayne PA 19087
Tree (Type, species, size, diameter at breast height) Oak, 45" DBH

Certified arborist's narrative report (attach separate sheet if required) Large decay around the entire root flare, Hazardous

Certified arborist's name, address and # Tyler Beatty - Shreiner
PA-1592A

Pictures attached _____ Plot plan drawing attached _____

Township arborist's report (attach separate sheet if required) _____

Shade Tree Commission removal recommended yes / no

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RADNOR TOWNSHIP SHADE TREE COMMISSION
Hazardous Tree Report

Resident Mr. + Mrs. Spears

Address 306 Pine Tree Rd Wayne, PA

Tree (Type, species, size, diameter at breast height) ① Tulip Poplar
twin lead 1-28" 1-32"

Certified arborist's narrative report (attach separate sheet if required)

This twin lead tree is in close proximity to the house. The leads are poorly attached close to the ground. There is a large cavity in the base of the ① lead. This tree is hazardous to the home.

Certified arborist's name, address and # John A. Verbrugge RCA#621
Arader Tree Service
10 Balligomings Rd, West Conshohocken

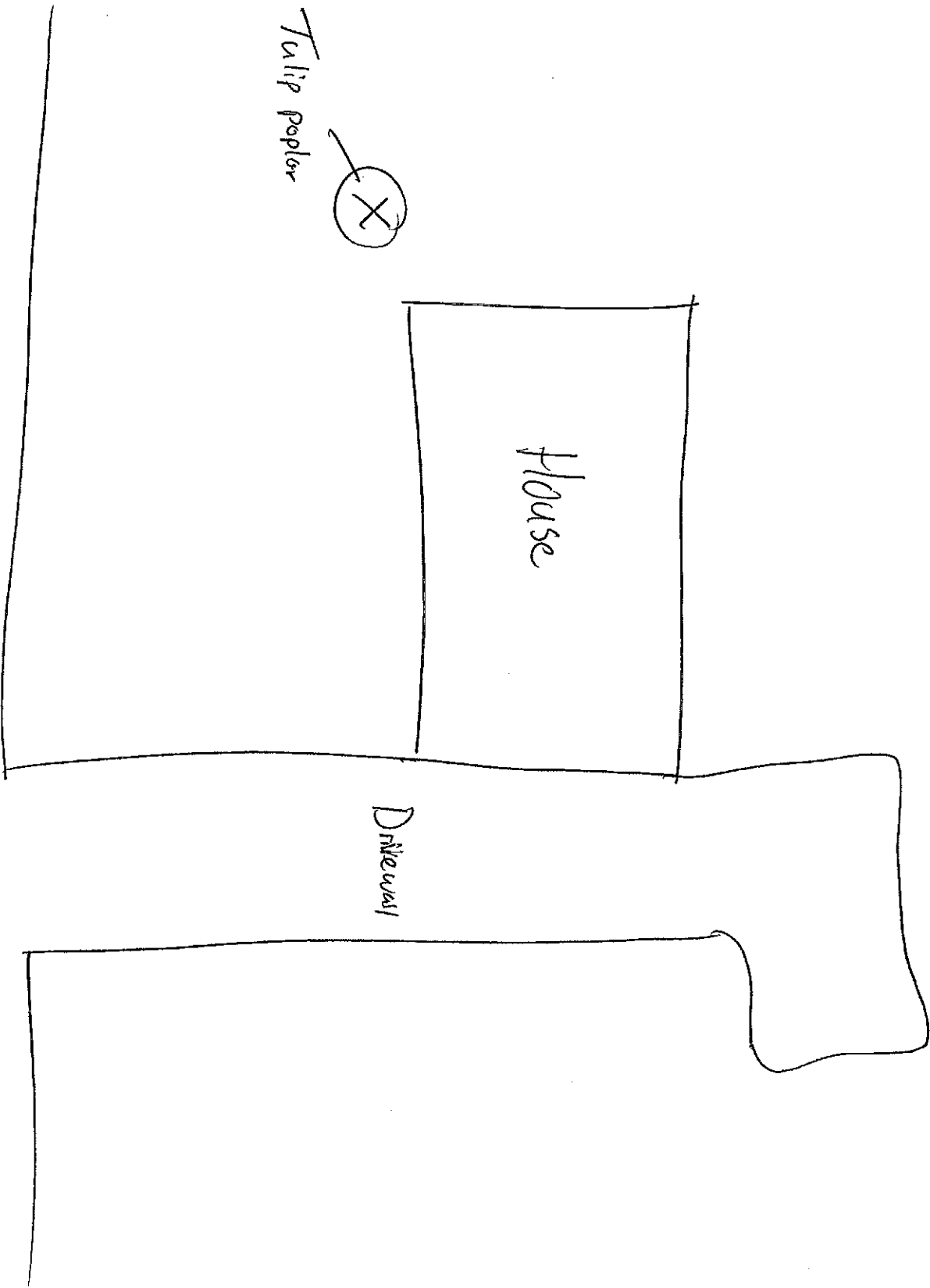
Pictures attached X

Plot plan drawing attached X

Township arborist's report (attach separate sheet if required) _____

Shade Tree Commission removal recommended yes / no

The General Powers and Duties of the Shade Tree Commission section of the Ordinance (126.5 B) stipulates: In case of immediate necessity for the protection of life or property. Any shade or street tree described in this ordinance may be removed without first obtaining a permit, after inspection by a member(s) of the Shade Tree Commission or its designee.



Tulip poplar



Hause

Dinerway







RADNOR TOWNSHIP SHADE TREE COMMISSION
Hazardous Tree Report

Resident JOSEPH TORO

Address 401 Conestoga Rd Wayne PA 19087

Tree (Type, species, size, diameter at breast height) (2) Red oak trees, 80' tall, 36" DBH + 42" DBH

Certified arborist's narrative report (attach separate sheet if required) Client has 2 oak trees on his property with severe dieback. One is in the yard + has a significant lean. The other is between his driveway + IVEN Rd and could drop branches in the road. I have recommended both trees be removed for safety since they have both lost over 90% of their canopies.

Certified arborist's name, address and # Thomas McCarthy
Bartlett Tree Experts 152 Montgomery Ave Bala Cynwyd PA 19004
PD 2228A

Pictures attached Plot plan drawing attached

Township arborist's report (attach separate sheet if required) _____

Shade Tree Commission removal recommended yes / no

The General Powers and Duties of the Shade Tree Commission section of the Ordinance (126.5 B) stipulates: In case of immediate necessity for the protection of life or property. Any shade or street tree described in this ordinance may be removed without first obtaining a permit, after inspection by a member(s) of the Shade Tree Commission or its designee.









