

FINAL SUBDIVISION AND LAND DEVELOPMENT PLANS

OF THE

Allebach Tract

A SINGLE-FAMILY RESIDENTIAL COMMUNITY IN

FRANCONIA TOWNSHIP

MONTGOMERY COUNTY, PENNSYLVANIA

PREPARED FOR

502 Township line Road Lawyers, LLC

P.O. Box 428

Villanova, PA 19085

Plan Sheet Index

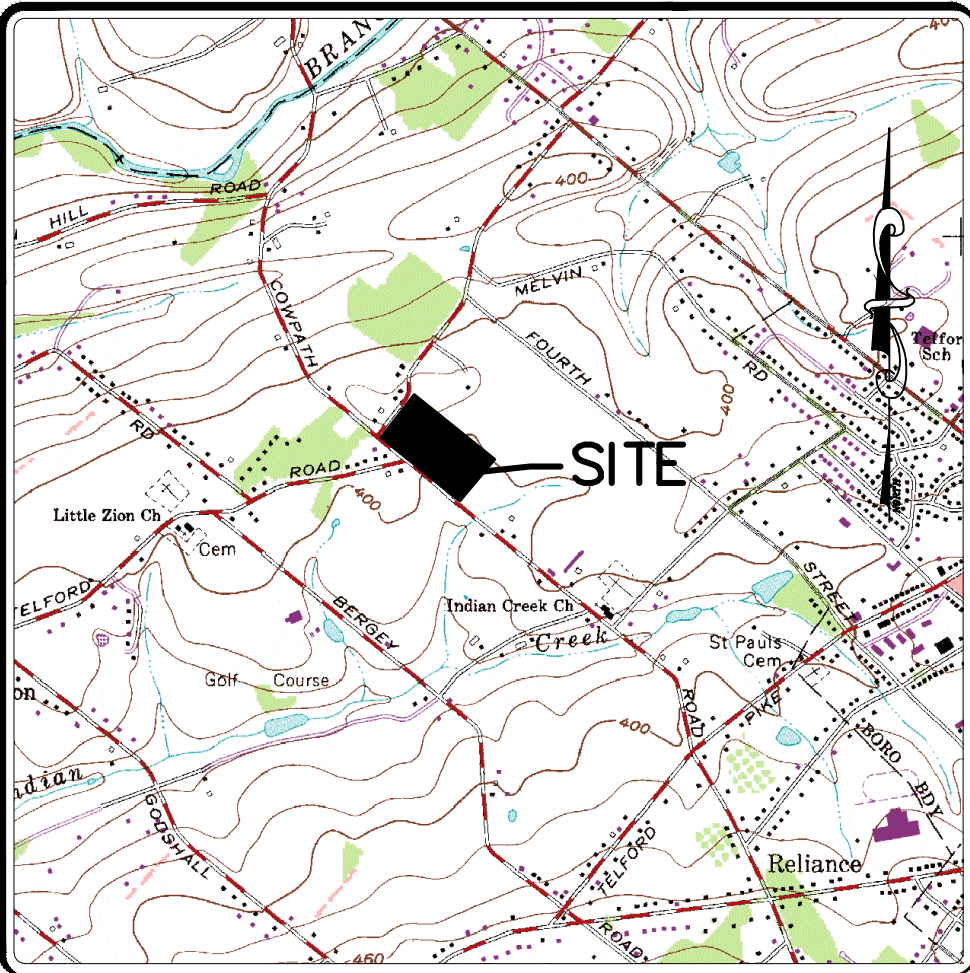
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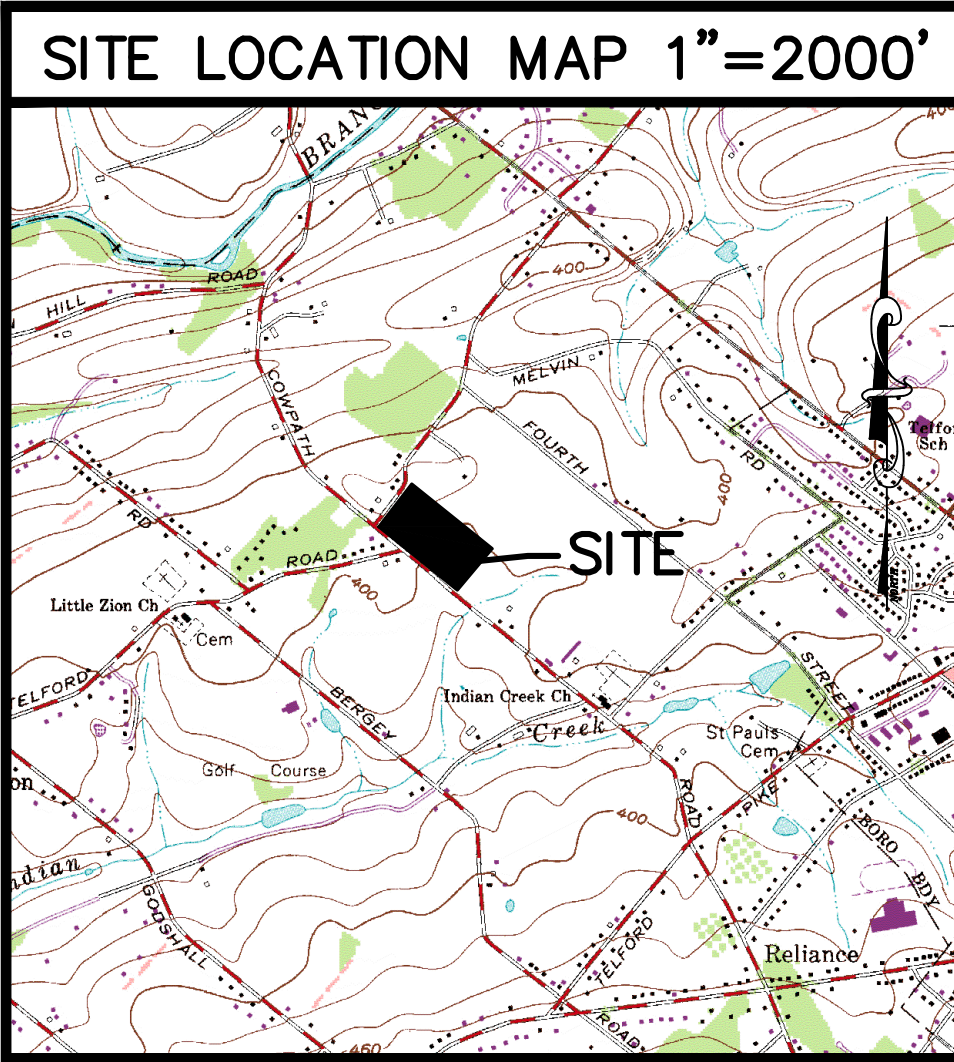


Richard C. Mast Associates, P.C.
Consulting Engineers and Surveyors

The Village at Lederach
658 Harleysville Pike, Suite 150
Harleysville, Pennsylvania 19438
Phone: (215) 513-2100
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Site Location Map 1"=2000'





U.S.G.S. TELFORD QUADRANGLE 7.5' SERIES

GENERAL NOTES

- BOUNDARY LINE INFORMATION SHOWN FOR THE SITE WAS DETERMINED FROM AN ACTUAL FIELD (GROUND) SURVEY PERFORMED BY RICHARD C. MAST ASSOCIATES, P.C., IN AUGUST 2018.

REFERENCE PLAN:

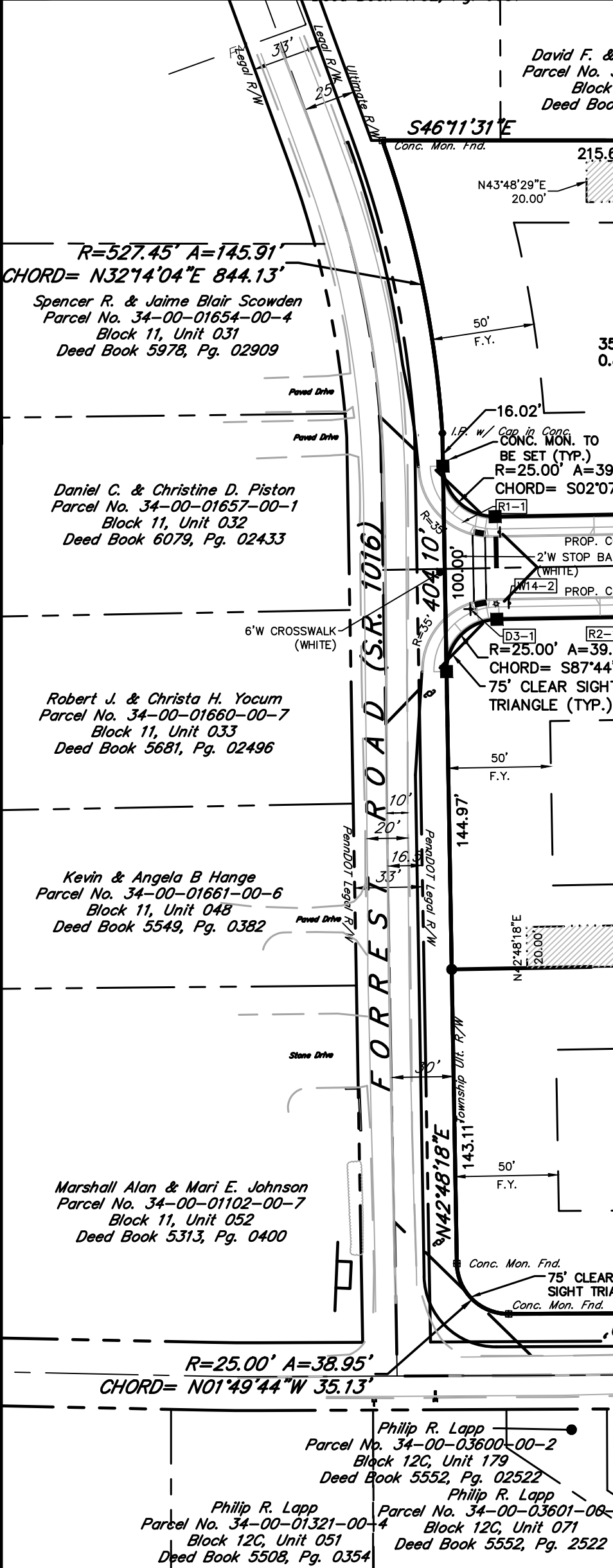
OVERALL SUBDIVISION/DEVELOPMENT PLAN OF INDIAN VALLEY GREENS, PREPARED BY HORIZON ENGINEERING ASSOCIATES, L.L.C., DATED OCTOBER 28, 2002, LAST REVISED APRIL 9, 2004, AND RECORDED IN PLAN BOOK 00026 PAGE 0048 ON FEBRUARY 15, 2006.
- ELEVATION AND TOPOGRAPHIC INFORMATION BASED ON A GROUND SURVEY PERFORMED BY RICHARD C. MAST ASSOCIATES, P.C., COMPLETED IN AUGUST 2018.

BENCHMARK: FRANCONIA TOWNSHIP FR-20 (NAVD 1988)
BENCHMARK ELEVATION: 383.22
BENCHMARK DESCRIPTION: CONCRETE MONUMENT WITH PLASTIC INSERT LABELED "METZ ENGINEERS" LOCATED ON THE NORTHWEST CORNER OF COWPATH AND INDIAN CREEK ROADS.
- WETLAND AND REGULATED WATER AREAS IS BASED ON A FIELD DETERMINATION CONDUCTED BY PENNS TRAIL ENVIRONMENTAL, LLC, IN JUNE 2018. WETLAND FLAGGING WAS SURVEY LOCATED BY RICHARD C. MAST ASSOCIATES, P.C.
- NO PART OF THE SUBJECT TRACT IS LOCATED WITHIN A 100 YEAR FLOOD PLAIN BASED ON THE FLOOD INSURANCE RATE MAP (PANEL NO. 42091C01282 EFFECTIVE DATE MARCH 2, 2016) PUBLISHED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY.
- THE AREA BETWEEN THE TITLE LINE AND ULTIMATE RIGHTS-OF-WAY OF FORREST ROAD (S.R. 1016) AND COWPATH ROAD (S.R. 1011) WAS PREVIOUSLY OFFERED FOR DEDICATION TO THE GOVERNMENTAL AGENCY HAVING JURISDICTION AT THE TIME OF DEDICATION (REFERENCE NOTE 5 ON RECORD PLAN REFERENCED IN NOTE 1). THE OFFER OF DEDICATION IS REAFFIRMED WITH THIS PLAN.
- THE PROPOSED ROAD A IS HEREBY OFFERED FOR DEDICATION TO FRANCONIA TOWNSHIP.
- ALL CONSTRUCTION WORK AND MATERIALS SHALL COMPLY WITH FRANCONIA TOWNSHIP STANDARDS AND SPECIFICATIONS, THE FRANCONIA SEWER AUTHORITY STANDARDS AND SPECIFICATIONS AND WITH PENNDOT SPECIFICATIONS (PUB. 406) AND PENNDOT ROADWAY CONSTRUCTION STANDARDS, AND WITH APPLICABLE FEDERAL, STATE AND LOCAL CODES. IN THE CASE OF CONFLICTING STANDARDS OR SPECIFICATIONS, THE GREATER OR MORE STRINGENT STANDARD OR SPECIFICATION SHALL APPLY.
- PROPOSED LOTS WITHIN THE DEVELOPMENT WILL BE SERVED WITH PUBLIC SANITARY SEWER DISCHARGE THROUGH PRESSURE FORCE MAIN TO BE INSTALLED WITHIN THE PROJECT AND ALONG FORREST ROAD, SEWER SERVICE PROVIDED BY THE FRANCONIA SEWER AUTHORITY. THE SANITARY SEWER FACILITIES SHALL BE DEDICATED TO THE FRANCONIA SEWER AUTHORITY. THE INDIVIDUAL PROPERTY OWNERS SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF THE RESPECTIVE GRINDER PUMP AND PRESSURE LATERAL TO THE CURB STOPS.
- PROPOSED LOTS WITHIN THE DEVELOPMENT WILL BE SERVED WITH PUBLIC POTABLE WATER SERVICE PROVIDED BY NORTH PENN WATER AUTHORITY.
- CONCRETE MONUMENTS SHALL BE SET AT ALL PROPERTY CORNERS AS INDICATED. ALL REMAINING PROPOSED AND EXISTING PROPERTY CORNERS SHALL BE MARKED WITH IRON PINS TO BE SET AFTER COMPLETION OF FINAL GRADING.
- OPEN SPACE A IS TO BE OWNED AND MAINTAINED BY A HOMEOWNERS ASSOCIATION, WHICH SHALL BE RESPONSIBLE FOR THE PERPETUAL MAINTENANCE OF THE PERMANENT STORM WATER DETENTION AREAS (BIOSIN 1 LOCATED ON LOT 11, RAINGARDEN 2 LOCATED ON OPEN SPACE A AND UNDERGROUND SEEPAGE TRENCH 3 LOCATED ON LOT 4), THE BASIN OUTLET STRUCTURES AND PIPES LOCATED OUTSIDE THE PUBLIC RIGHT-OF-WAY.
- THE DETENTION AREAS (BIOSIN A LOCATED ON LOT 11 AND RAINGARDEN B LOCATED ON OPEN SPACE A) ARE A BASIC AND PERPETUAL PART OF THE STORMWATER MANAGEMENT SYSTEM OF FRANCONIA TOWNSHIP, AND AS SUCH ARE TO BE PROTECTED AND PRESERVED, IN ACCORDANCE WITH THE APPROVED FINAL PLANS. FRANCONIA TOWNSHIP SHALL AND/OR ITS AGENTS RESERVES THE RIGHT AND PRIVILEGE TO ENTER UPON OPEN SPACE A AND THE STORMWATER EASEMENTS FROM TIME TO TIME FOR THE PURPOSE OF INSPECTION AND THE DETENTION AREAS AND/OR OTHER STORMSEWER FACILITIES IN ORDER TO DETERMINE THAT THE STRUCTURAL AND DESIGN INTEGRITY ARE BEING MAINTAINED BY THE OWNERS. APPROPRIATE EASEMENTS ARE DELINEATED FOR THE PURPOSE OF SUCH INSPECTION.
- ANY SPRINGS ENCOUNTERED DURING ROADWAY CONSTRUCTION SHALL BE OUTLETTED BY U-DRAIN TO THE NEAREST STORM SEWER FACILITY OR WATER COURSE. U-DRAIN PLACEMENT SHALL BE AT THE DIRECTION OF THE TOWNSHIP ENGINEER.
- LOTS 5, 6, & 7 WILL HAVE DEED RESTRICTIONS INCLUDED IN EACH DEED FOR THE PROTECTION OF THE WETLANDS AND WETLAND MARGIN. A RESOURCE PROTECTION AREA CONSERVATION EASEMENT IS SHOWN FOR THESE LOTS AND A DECLARATION OF EASEMENT SHALL BE RECORDED TO PROVIDE FOR THE CONTINUANCE OF THE RESOURCE PROTECTION AREA.
- A 20 FOOT WIDE CURB DEPRESSION SHALL BE PROVIDED FOR SNOW STORAGE ACCESS WITHIN OPEN SPACE A. THE TOWNSHIP SHALL HAVE THE RIGHT TO UTILIZE OPEN SPACE A FOR THE PURPOSE OF SNOW STORAGE AS NECESSARY.
- THE INTERSECTION IMPROVEMENTS AT COWPATH ROAD AND FORREST ROAD, THE ROAD IMPROVEMENTS ALONG FORREST ROAD AND COWPATH ROAD, AND ALL PROPOSED SITE SIGNAGE SHALL BE INSTALLED PRIOR TO THE ISSUANCE OF THE FIRST OCCUPANCY PERMIT.
- THREE (3) DAYS PRIOR TO THE COMMENCEMENT OF ANY OPERATION IN THE CONSTRUCTION OR INSTALLATION OF STREETS, CURBS, SIDEWALKS, DRAINAGE FACILITIES, STREET SIGNS, MONUMENTS AND CAPPED SEWERS, THE OWNER SHALL NOTIFY THE TOWNSHIP ENGINEER, WHO SHALL INSPECT THE WORK. MATERIALS, CONSTRUCTION AND INSTALLATION TO ASSURE THAT THE SAME ARE IN ACCORDANCE WITH TOWNSHIP REQUIREMENTS.
- THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO PUBLIC FACILITIES, INCLUDING ROADWAYS, CURBING, SIDEWALK, UTILITIES, ETC., AND SHALL REPAIR SUCH DAMAGE IN ACCORDANCE WITH TOWNSHIP STANDARDS.
- NO PLANTINGS OR STRUCTURES SHALL BE LOCATED WITHIN 10 FEET OF THE PROPOSED SEWERS OR LATERALS.
- IF LOT 7 IS FURTHER SUBDIVIDED IN THE FUTURE, EACH DWELLING MUST HAVE ITS OWN INDIVIDUAL SEWER SERVICE LATERAL CONNECTION TO A SEWER MAIN.

UNDERGROUND UTILITY NOTE

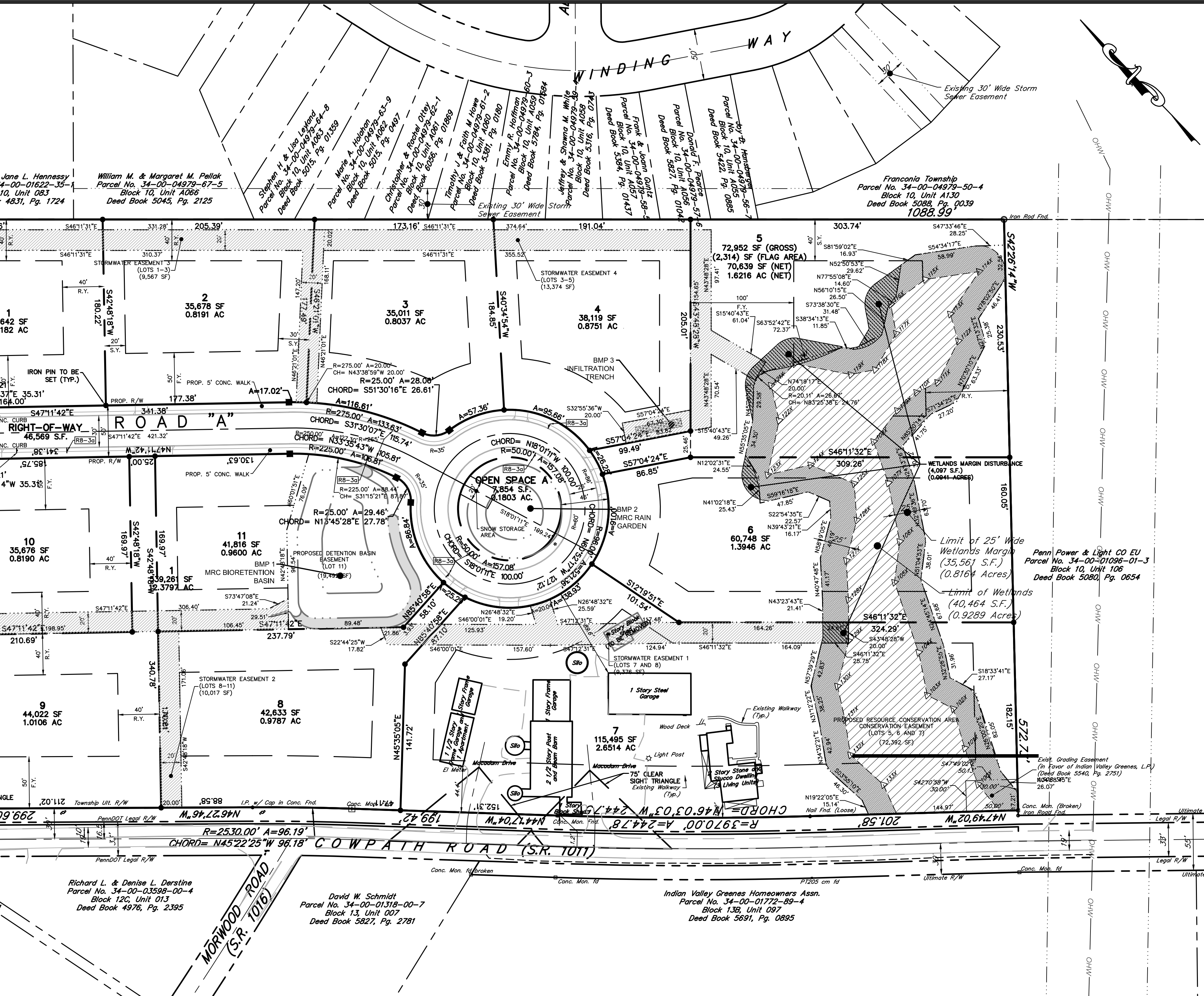
LOCATIONS OF EXISTING UTILITIES SHOWN HEREON ARE BASED ON INFORMATION RECEIVED FROM FACILITY OWNERS FOLLOWING A CALL TO PA ONE CALL SYSTEM, INC. COMPLETENESS OR ACCURACY OF TYPE, SIZE, DEPTH, OR HORIZONTAL LOCATION OF UTILITIES CANNOT BE GUARANTEED. CONTRACTORS MUST VERIFY THE LOCATION AND DEPTH OF UNDERGROUND UTILITIES BEFORE THE START OF WORK BY NOTIFYING FACILITY OWNERS, THROUGH THE PA ONE CALL SYSTEM (1-800-242-1776 OR 811) NOT LESS THAN 3 BUSINESS DAYS NOR MORE THAN 10 BUSINESS DAYS IN ADVANCE OF BEGINNING EXCAVATION OR DEMOLITION WORK PER THE REQUIREMENTS OF 25 P.S. ACTS 287 AND 121, AS AMENDED.

DESIGN SERIAL NO.: 2019181051 (07/05/2019)
SEE SHEET 2 FOR UTILITY AGENCY CONTACT INFORMATION



SITE CAPACITY CALCULATIONS

a. Gross Site Area				14.0546 Ac.
b. Net Site Area				
Gross Site Area (by onsite survey)				14.0546 Ac.
Subtract Permanent Bodies of Water				0.0000 Ac.
Subtract Area Within Public or Private or Required Ultimate Right-of-Way				0.0000 Ac.
Net Site Area:				14.0546 Ac.
c. Land with Resource Restrictions and Resource Protection Land				
RESOURCE PROTECTION LAND	PROTECTION RATIO	ACRES OF LAND IN RESOURCE	RESOURCE PROTECTION LAND (ACRES X PROTECTION RATIO)	
LAKES, PONDS, OR WATERCOURSES	1.00	0.0000 Ac.	0.0000 Ac.	
RIPARIAN BUFFER	1.00	0.0000 Ac.	0.0000 Ac.	
FLOODPLAIN	1.00	0.0000 Ac.	0.0000 Ac.	
FLOODPLAIN (ALLUVIAL) SOILS	1.00	0.0000 Ac.	0.0000 Ac.	
WETLANDS	1.00	0.9289 Ac.	0.9289 Ac.	
WETLANDS MARGIN	0.80	0.9164 Ac.	0.7331 Ac.	
WOODLANDS (WITHIN OTHER RESOURCES)	0.80	0.0000 Ac.	0.0000 Ac.	
WOODLANDS (STEEP SLOPES)	0.50	0.0000 Ac.	0.0000 Ac.	
33% OR MORE	1.00	0.0000 Ac.	0.0000 Ac.	
25-33%	0.75	0.0000 Ac.	0.0000 Ac.	
15-25%	0.50	0.0000 Ac.	0.0000 Ac.	
TOTAL LAND WITH RESOURCE RESTRICTIONS		1.7453 Ac.	1.5820 Ac.	
d. Required Open Space				
Total Land with Resource Restriction				1.5820 Ac.
Required or Proposed Open Space (> of Resource Protection or Min. Open Space)				1.5820 Ac.
e. Developable Acreage				
Net Site Area				14.0546 Ac.
Subtract Open Space				1.5820 Ac.
Developable Acreage				12.4726 Ac.
f. Maximum Number of Dwelling Units				
Developable Acreage				12.4726 Ac.
Divide by Minimum Lot Area (no Density Requirement)				15 Units
Maximum Number of Dwelling Units (Do not Round Up)				15 Units
g. Maximum Impervious Surfaces				
Net Site Area				14.0546 Ac.
Multiply by Maximum Impervious Surface Ratio (Total Site)*				15%
Maximum Permitted Impervious Surface				4.9191 Ac.
h. Site Capacity Summary				
Required Open Space (C)				1.5820 Ac.
Developable Acreage (D)				12.4726 Ac.
Maximum Number of Dwelling Units (E)				15 Units
Maximum Impervious Surfaces (F)				4.9191 Ac.



NATURAL RESOURCES DISTURBANCE TABLE

NATURAL RESOURCE	PROTECTION RATIO	ACERS OF LAND IN RESOURCES (ACRES)	RESOURCE PROTECTION LAND (ACRES X PROTECTION RATIO)	ALLOWED DISTURBANCE (ACRES)	PROPOSED DISTURBANCE (ACRES)
WETLANDS	1.00	0.93	0.93	0.00	0.00
WETLANDS MARGIN	0.80	0.82	0.65	0.16	0.09
TOTAL LAND WITH RESOURCE RESTRICTIONS		1.7453 Ac.	1.5820 Ac.	0.1633 Ac.	0.0941 Ac.
TOTAL RESOURCE PROTECTION LAND					

ZONING DATA

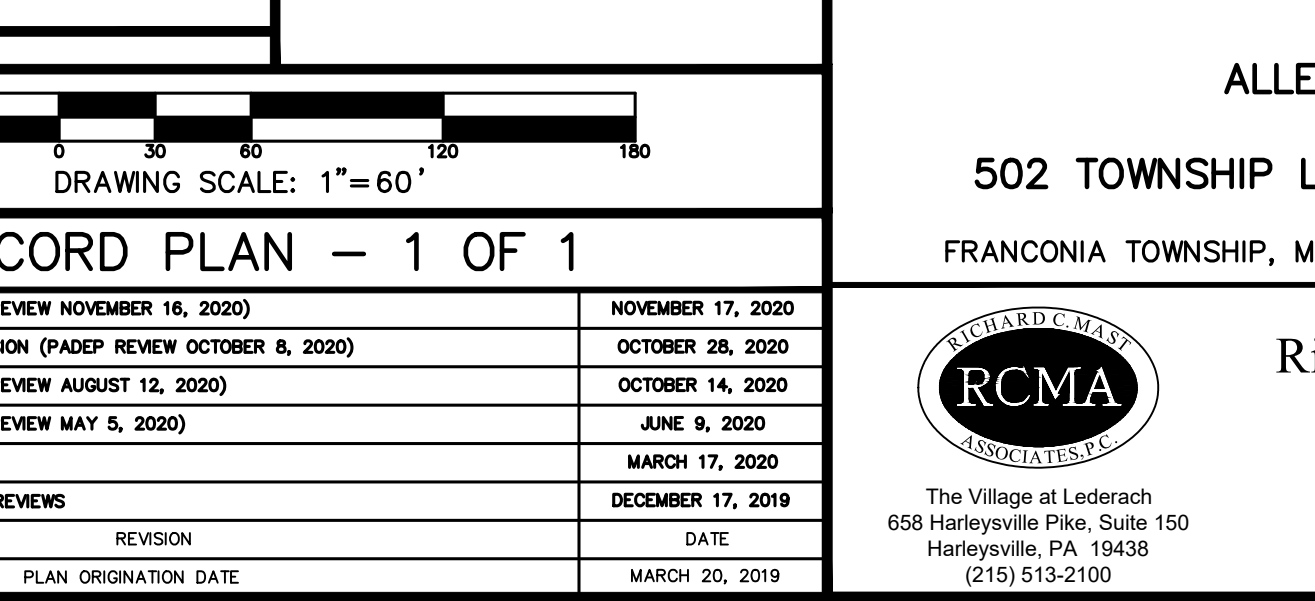
REQUIRED INFORMATION OBTAINED FROM THE FRANCONIA TOWNSHIP ZONING ORDINANCE OF 1953, REVISED					
ZONING DISTRICT: R-130 RESIDENTIAL					
EXISTING USE: AGRICULTURE					
PROPOSED USE: SINGLE-FAMILY DETACHED DWELLING					
CRITERIA	REQUIRED	LOT 1	LOT 2	LOT 3	LOT 4
MIN. LOT AREA	35,000 SF	35,647 SF	35,678 SF	35,011 SF	38,119 SF
MIN. LOT WIDTH @ BUILDING SETBACK LINE	130 FT	189.4 FT	197.5 FT	185.8 FT	168.3 FT
MIN. FRONT YARD SETBACK (1)	50 FT	50 FT	50 FT	50 FT	50 FT
SIDE YARD SETBACK - MINIMUM	20 FT	20 FT	20 FT	20 FT	20 FT
SIDE YARD SETBACK - AGGREGATE	50 FT	50 FT	50 FT	50 FT	50 FT
MINIMUM REAR YARD SETBACK	40 FT	40 FT	40 FT	40 FT	40 FT
MAXIMUM BUILDING COVERAGE	15%	8.7%	8.7%	8.9%	8.2%
MAXIMUM IMPERVIOUS COVERAGE	35%	18.1%	17.1%	17.6%	16.6%
MAXIMUM BUILDING HEIGHT (2)	40 FT	<40 FT	<40 FT	<40 FT	<40 FT
MAXIMUM ACCESSORY BUILDING HEIGHT (3)	14 FT				
(1) FOR CORNER LOTS, THERE SHALL BE A FRONT YARD ON EVERY STREET FRONTAGE AND ALL REMAINING YARDS SHALL BE TREATED AS REAR YARDS.					
(2) 40 FEET OR 2 1/2 STORIES.					
(3) 14 FEET OR ONE STORY.					
(4) THE INDICATED BUILDING AND IMPERVIOUS COVERS FOR THE INDIVIDUAL LOTS ARE BASED ON THE HOUSE, DRIVEWAY, FRONT WALK, AND PATIO FOOTPRINTS SHOWN ON THE PLANS PLUS AN ADDITIONAL 500 SF FOR WALKS, PATIOS, ETC. THE STORMWATER MANAGEMENT SYSTEM WAS DESIGNED FOR THESE COVERAGE AMOUNTS, INCLUDING THE ADDITIONAL FOR WALKS AND PATIOS.					

LIST OF REQUESTED WAIVERS

- §122-10.C.(1) Existing Features**
A Waiver of the above sections is requested from showing all existing features within 200 feet of the subject property.
- §122-17.C.(2)(d) and §122-17.D(5)(a) Street Regulations and §122-21.Curbing (Existing Streets)**
A Waiver of the above sections is requested to provide the public roadway improvements listed below:
- Forest Road. A waiver is requested to permit the improvements to consist of four (4) feet of widening along the frontage (no curbing) and improvement of the intersection radius.
 - Cowpath Road. A waiver is requested to permit the improvements to consist of four (4) feet of widening along the frontage (no curbing) and storm sewer improvements as recommended by the Township engineer and Public Works director.
 - Forest Road/Cowpath Road intersection: Improve the intersection radius and extend and improve the stormsewer to the north side of the intersection.
- §122-20.A.(4) Sidewalk**
A waiver is requested from providing sidewalk along the existing street frontages of Cowpath Road and Forest Road.
- §122-35.A Detention Basin Regulations**
A waiver is requested from providing a 75 foot setback from the detention basin (measured from the inside spillway elevation) to a dwelling. A setback of approximately 70 for Lot 8 and 40 feet for Lot 11 is provided.
- §122-36 Open Space**
A waiver is requested from providing additional Open Space or amenities. Open Space is proposed in the center of the cul-de-sac island, which will be owned and maintained by a Homeowners Association.

LIST OF REQUESTED WAIVERS

- §122-17.D.(3)(a) Landscape Architect**
A waiver is requested from providing the Seal of a Registered Landscape Architect and using the seal of Professional Engineer instead.



RECORDING ACKNOWLEDGMENTS

I, EDWARD M. HUBER, P.L.S., ACKNOWLEDGE MYSELF TO BE A MEMBER OF 502 TOWNSHIP LINE ROAD LAWYERS, LLC, A PENNSYLVANIA LIMITED LIABILITY COMPANY, AND THAT I AS MEMBER, BEING AUTHORIZED TO DO SO, DEPOSE AND SAY THAT 502 TOWNSHIP LINE ROAD LAWYERS, LLC IS THE OWNER OF THE PROPERTY SHOWN ON THIS PLAN, THAT THE PLAN WAS MADE AT ITS DIRECTION, THAT IT ACKNOWLEDGES THE SAME TO BE ITS ACT AND PLAN, AND DESIRES THE SAME TO BE RECORDED, AS SUCH ACCORDING TO LAW.

502 TOWNSHIP LINE ROAD LAWYERS, LLC

MEMBER

COMMONWEALTH OF PENNSYLVANIA) SS:

COUNTY OF)

ON THIS DAY OF , 20 , BEFORE ME, THE UNDERSIGNED OFFICER, PERSONALLY APPEARED , WHO ACKNOWLEDGED HIMSELF TO BE A MEMBER OF 502 TOWNSHIP LINE ROAD LAWYERS, LLC, A PENNSYLVANIA LIMITED LIABILITY COMPANY, AND THAT HE AS SUCH MEMBER, BEING AUTHORIZED TO DO SO, EXECUTED THE WITHIN INSTRUMENT FOR THE PURPOSE THEREIN CONTAINED BY SIGNING THE NAME OF THE COMPANY BY HIMSELF AS MEMBER.

IN WITNESS WHEREOF, I HERETO SET MY HAND AND OFFICIAL SEAL.

NOTARY PUBLIC

COMMISSION EXPIRATION DATE

APPROVED BY THE BOARD OF SUPERVISORS OF FRANCONIA TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA, ON THE DAY OF , 20 .

SECRETARY CHAIRMAN

RECORDED IN THE OFFICE FOR THE RECORDING OF DEEDS IN AND FOR THE COUNTY OF MONTGOMERY AT NORRISTOWN, PENNSYLVANIA, IN PLAN BOOK NUMBER , PAGE NUMBER , ON THE DAY OF , 20 .

(RECORDER)

MCPC No. 19-0080-001

PROCESSED AND REVIEWED. A report has been prepared by the Montgomery County Planning Commission in accordance with the Municipalities Planning Code.

Certified this date

For the Director
Montgomery County Planning Commission

TAX PARCEL DATA

PARCEL NO.: 34-00-01099-0-1
BLOCK, UNIT: BLOCK 10, UNIT 001

DEED: BOOK 6041, PAGE 838

PARCEL ADDRESS: 655 COWPATH ROAD
SOUDERTON, PA 18969
R-130

ZONING DISTRICT:

OWNER OF RECORD AND APPLICANT: 502 TOWNSHIP LINE ROAD LAWYERS, LLC
P.O. BOX 428
VILLANOVA, PA 19085

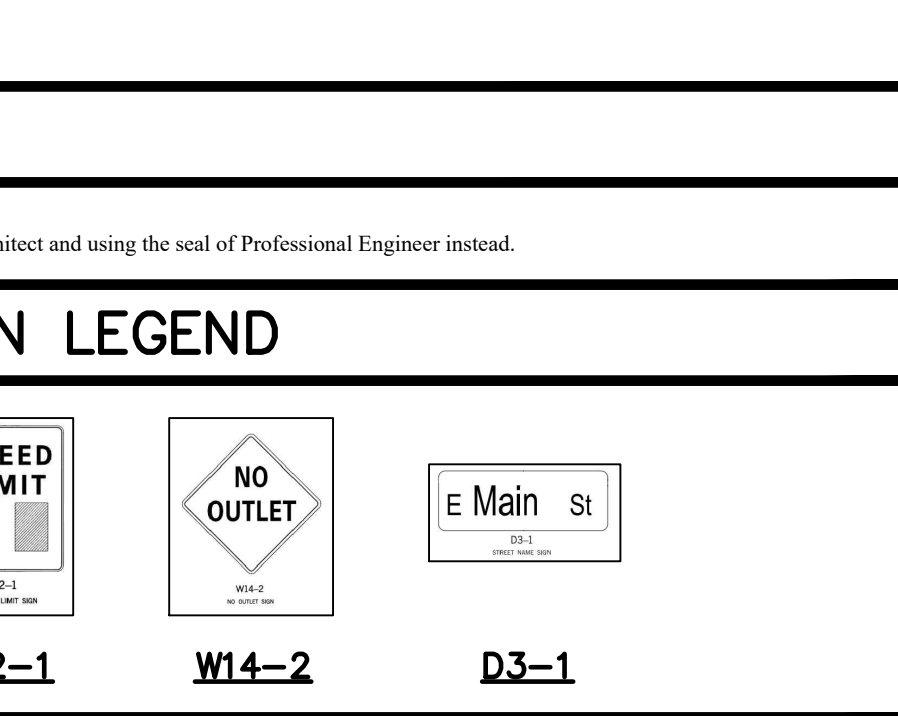
GROSS TRACT AREA (TO TITLE LINE): 14.02 ACRES

SURVEYOR'S CERTIFICATE

I, EDWARD M. HUBER, P.L.S., HEREBY CERTIFY THAT THIS REPRESENTS A SURVEY MADE BY ME, OR UNDER MY DIRECT SUPERVISION AND THAT THE MONUMENTATION SHOWN HEREON EXISTS AS LOCATED, AND THAT ALL DIMENSIONAL AND GEODETIC DETAILS ARE CORRECT.

SU-040378-R
REGISTRATION NO. EDWARD M. HUBER, P.L.S.

SIGN LEGEND

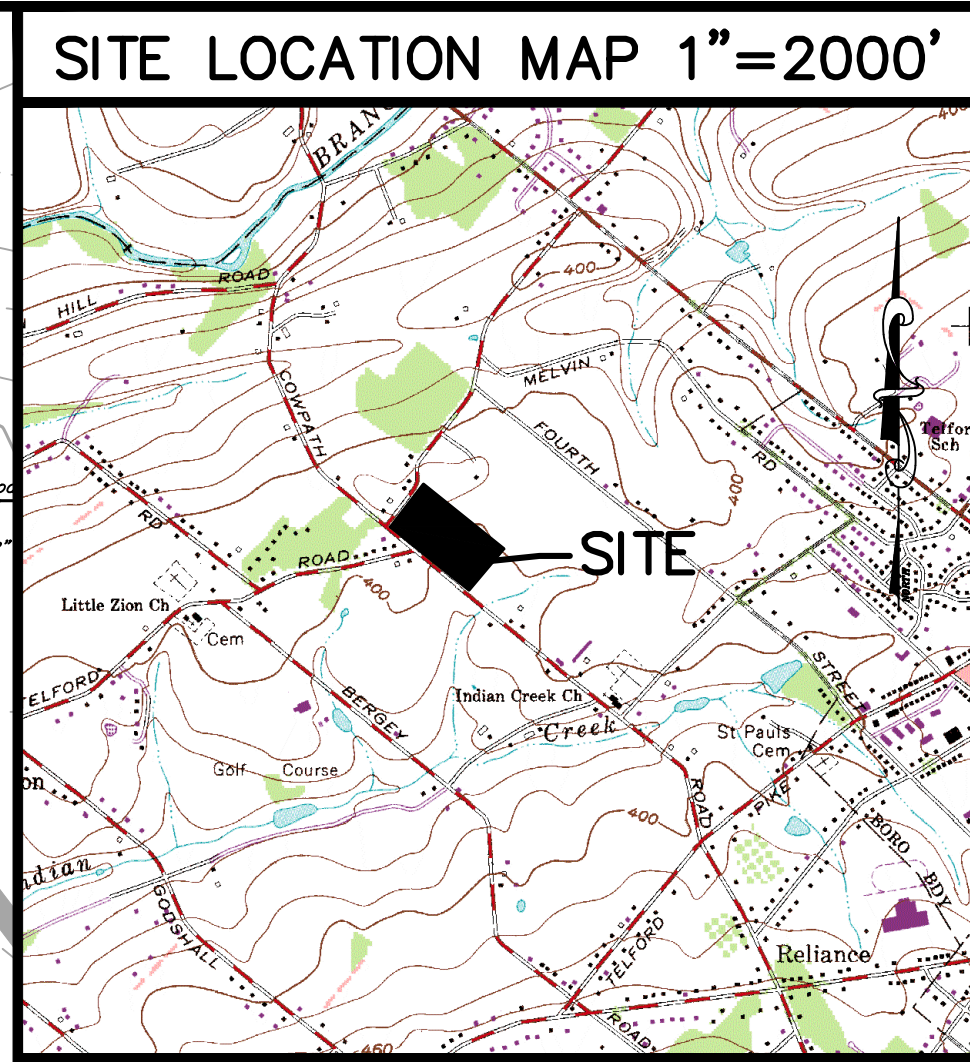
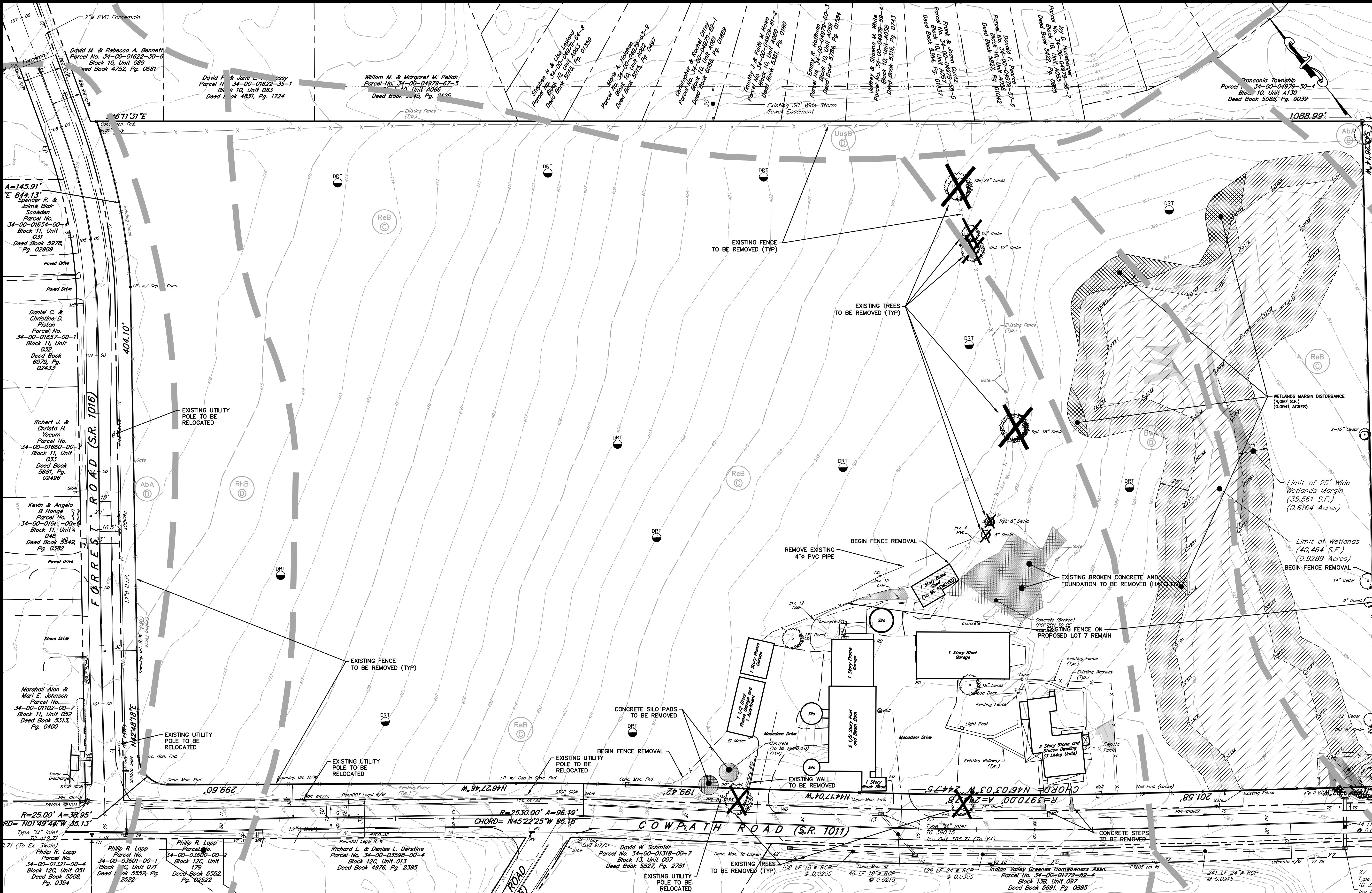


FINAL PLAN OF SUBDIVISION
FOR
ALLEBACH TRACT
PREPARED FOR
502 TOWNSHIP LINE ROAD LAWYERS, LLC
SITE SITUATE IN
FRANCONIA TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

Richard C. Mast Associates, P.C.
Consulting Engineers and Surveyors
www.rcmaonline.com

The Village at Lederach
658 Harleyville Pike, Suite 150
Harleyville, PA 17043
(215) 513-2100

DRAFTED BY: RCMA
PROJ. MNGR: RCM
PROJECT NO: 3071
DRAWING NO: 1 OF 28



U.S.G.S. TELFORD QUADRANGLE 7.5' SERIES

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LEGEND

---	PROPERTY BOUNDARY
---	ADJOINING OWNER
---	EXIST BUILDING
---	EXIST ROAD CENTERLINE
---	EXIST RIGHT-OF-WAY
---	EXIST CURB
---	EXIST EDGE OF ROAD
---	EXIST DRIVEWAY
---	EXIST CONTOUR
---	EXIST INDEX CONTOUR
---	EXIST ELECTRIC LINE
---	EXIST OVER HEAD WIRE
---	EXIST U.G. ELECTRIC
---	EXIST EASEMENT
---	EXIST FENCE

UNDERGROUND UTILITY NOTE

LOCATIONS OF EXISTING UTILITIES SHOWN HEREON ARE BASED ON INFORMATION RECEIVED FROM FACILITY OWNERS FOLLOWING A CALL TO PA ONE CALL SYSTEM, INC. COMPLETENESS OR ACCURACY OF TYPE, SIZE, DEPTH, OR HORIZONTAL LOCATION OF UTILITIES CANNOT BE GUARANTEED. CONTRACTORS MUST VERIFY THE LOCATION AND DEPTH OF UNDERGROUND UTILITIES BEFORE THE START OF WORK BY NOTIFYING FACILITY OWNERS, THROUGH THE PA ONE CALL SYSTEM (1-800-242-1778 OR 811), NOT LESS THAN 3 BUSINESS DAYS NOR MORE THAN 10 BUSINESS DAYS IN ADVANCE OF BEGINNING EXCAVATION OR DEMOLITION WORK PER THE REQUIREMENTS OF PA ACTS 287 AND 121, AS AMENDED.

DESIGN SERIAL NO.: 20191861051 (07/05/2019)
SEE SHEET 2 FOR UTILITY AGENCY CONTACT INFORMATION

LIST OF USERS:

NORTH WALES WATER AUTHORITY
200 WEST WALNUT STREET, P.O. BOX 1339 NORTH WALES, PA 19454
CONTACT: JOSEPH MURPHY
E-MAIL: jmurphy@nwwater.com

PECO ENERGY
450 S. HENDERSON ROAD SUITE B KING OF PRUSSIA, PA 19406
(484) 681-5720

PP&L
450 S. HENDERSON ROAD SUITE B KING OF PRUSSIA, PA 19406
CONTACT: GEORGE MELCH
E-MAIL: gmelch@pp&l.com

FRANCONIA SEWER AUTHORITY
871 ALDERTON ROAD
TELFOORD, PA 18669
CONTACT: GEORGE WITMAYER
E-MAIL: gwitmayer@franconia-township.org

NATURAL RESOURCES DISTURBANCE TABLE

NATURAL RESOURCE	PROTECTION RATIO	ACERS OF LAND IN RESOURCES (ACRES)	LAND RESOURCE PROTECTION LAND DISTURBANCE (ACRES)	ALLOWED DISTURBANCE (ACRES)	PROPOSED DISTURBANCE (ACRES)
WETLANDS	1.00	0.93	0.93	0.00	0.00
WETLANDS MARGIN	0.80	0.82	0.65	0.16	0.09
TOTAL LAND WITH RESOURCE RESTRICTIONS					
TOTAL RESOURCE PROTECTION LAND		1.7453 Ac.	1.5820 Ac.	0.1633 Ac.	0.0941 Ac.
Notes: Resource overlap was not considered for purposes of calculating allowed disturbance.					

SOILS DATA

SOIL INFORMATION FOR THE SITE WAS OBTAINED FROM THE US DEPARTMENT OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE WEB SOIL SURVEY WEBSITE.

ADA - ABBOTTSTOWN SILT LOAM, 0 TO 3 PERCENT SLOPES, SOIL GROUP D
RESTRICTIONS: 18 TO 22 INCHES TO FRAGIPAN, 46 TO 50 INCHES TO LITHIC BEDROCK, DEPTH TO WATER TABLE ABOUT 6 TO 16 INCHES.

BwA - BUCKINGHAM SILT LOAM, 0 TO 3 PERCENT SLOPES, SOIL GROUP B/D
RESTRICTIONS: 20 TO 36 INCHES TO FRAGIPAN, 40 TO 60 INCHES TO LITHIC BEDROCK, DEPTH TO WATER TABLE ABOUT 6 TO 18 INCHES.

ReB - READINGTON SILT LOAM, 3 TO 8 PERCENT SLOPES, SOIL GROUP C
RESTRICTIONS: 20 TO 40 INCHES TO FRAGIPAN, 40 TO 60 INCHES TO LITHIC BEDROCK, DEPTH TO WATER TABLE ABOUT 18 TO 36 INCHES.

RbB - REAVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES, SOIL GROUP D
RESTRICTIONS: 20 TO 40 INCHES TO LITHIC BEDROCK, DEPTH TO WATER TABLE ABOUT 6 TO 36 INCHES.

UuSB - URBAN LAND/UDORTMENTS SHALE AND SANDSTONE COMPLEX, 0 TO 8 PERCENT SLOPES
RESTRICTIONS: 10 TO 99 INCHES TO LITHIC BEDROCK

TAX PARCEL DATA

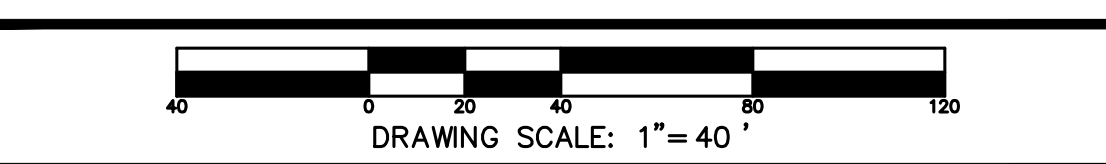
PARCEL NO.: 34-00-01099-00-1
BLOCK, UNIT: BLOCK 10, UNIT 001

DEED: BOOK 6041, PAGE 838

PARCEL ADDRESS: 655 COWPATH ROAD
SOUTDETON, PA 18669
R-130

OWNER OF RECORD AND APPLICANT: 502 TOWNSHIP LINE ROAD LAWYERS, LLC
P.O. BOX 428
VILLANOVA, PA 19085

GROSS TRACT AREA (TO TITLE LINE): 14.02 ACRES



6	MCCD RESUBMISSION (MCCD REVIEW NOVEMBER 16, 2020)	NOVEMBER 17, 2020
5	PLANNING MODULE RESUBMISSION (PADEP REVIEW OCTOBER 8, 2020)	OCTOBER 28, 2020
4	MCCD RESUBMISSION (MCCD REVIEW AUGUST 12, 2020)	OCTOBER 14, 2020
3	MCCD RESUBMISSION (MCCD REVIEW MAY 5, 2020)	JUNE 9, 2020
2	MCCD SUBMISSION	MARCH 17, 2020
1	PER TOWNSHIP CONSULTANT REVIEWS	DECEMBER 17, 2019
No.	REVISION	DATE
	PLAN ORIGINATION DATE	MARCH 20, 2019

EXISTING RESOURCE AND SITE ANALYSIS PLAN

FOR
ALLEBACH TRACT

PREPARED FOR
502 TOWNSHIP LINE ROAD LAWYERS, LLC

SITE SITUATE IN
FRANCONIA TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

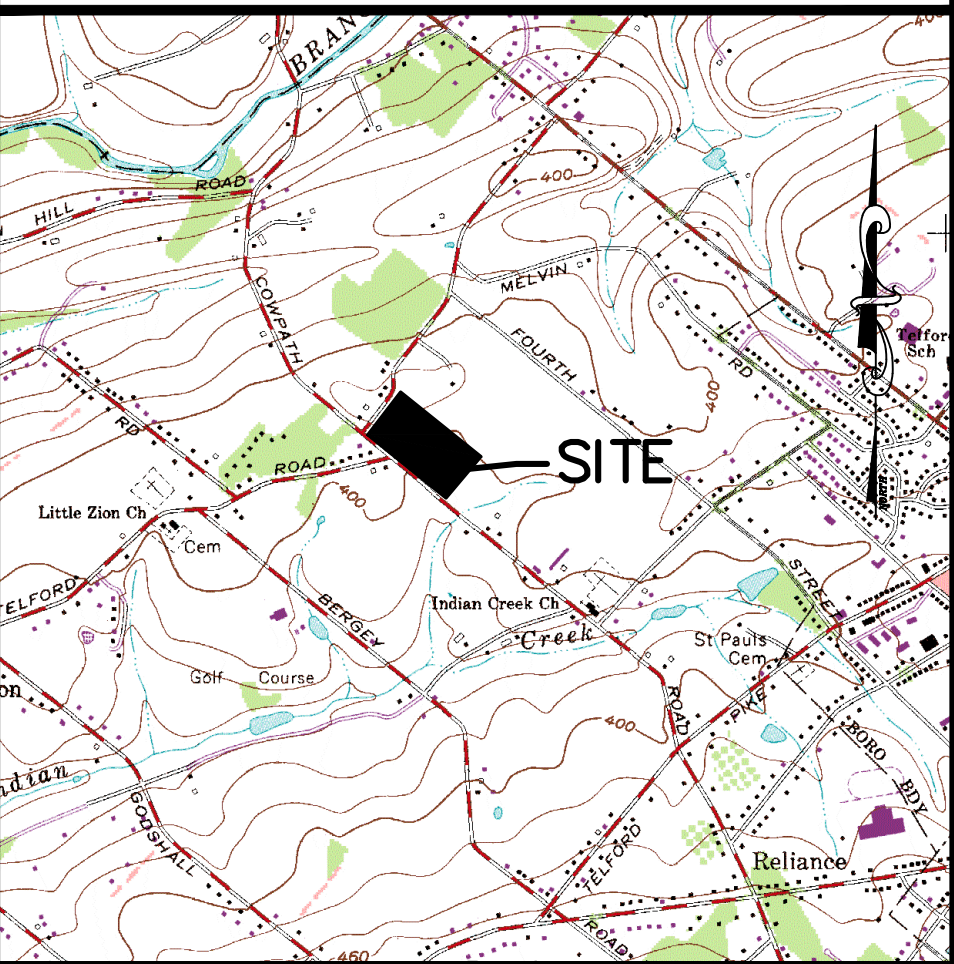
Richard C. Mast Associates, P.C.
Consulting Engineers and Surveyors
www.rcmaonline.com

The Village at Lederach
658 Harleyville Pike, Suite 150
Harleysville, PA 17043
(215) 513-2100

DRAFTED BY: RCMA
PROJ. MNGR: RCM
PROJECT NO.: 3071
DRAWING NO.: 2 OF 28



SITE LOCATION MAP 1"=2000'



U.S.G.S. TELFORD QUADRANGLE 7.5' SERIES

GENERAL NOTES

- BOUNDARY LINE INFORMATION FOR THE SITE WAS DETERMINED FROM AN ACTUAL FIELD (GROUND) SURVEY PERFORMED BY RICHARD C. MAST ASSOCIATES, P.C., IN AUGUST 2018.

REFERENCE PLAN:
OVERALL SUBDIVISION/LAND DEVELOPMENT PLAN OF INDIAN VALLEY GREENES, PREPARED BY HORIZON ENGINEERING ASSOCIATES, LLC, DATED OCTOBER 28, 2002, LAST REVISED APRIL 9, 2004, AND RECORDED IN PLAN BOOK 00026 PAGE 0048 ON FEBRUARY 15, 2006.
- ELEVATION AND TOPOGRAPHIC INFORMATION BASED ON A GROUND SURVEY PERFORMED BY RICHARD C. MAST ASSOCIATES, P.C., COMPLETED IN AUGUST 2018.

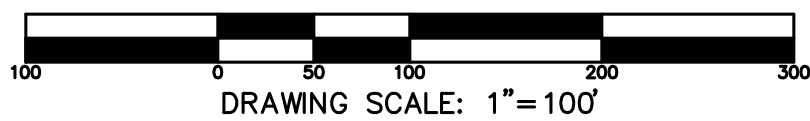
BENCHMARK: FRANCONIA TOWNSHIP FR-20 (NAVD 1988)
BENCHMARK ELEVATION: 383.22
BENCHMARK DESCRIPTION: CONCRETE MONUMENT WITH PLASTIC INSERT LABELED "METZ ENGINEERS" LOCATED ON THE NORTHWEST CORNER OF COWPATH AND INDIAN CREEK ROADS.
- WETLAND AND REGULATED WATER AREAS IS BASED ON A FIELD DETERMINATION CONDUCTED BY PENNS TRAIL ENVIRONMENTAL, LLC, IN JUNE 2018. WETLAND FLAGGING WAS SURVEY LOCATED BY RICHARD C. MAST ASSOCIATES, P.C.
- NO PART OF THE SUBJECT TRACT IS LOCATED WITHIN A 100 YEAR FLOOD PLAIN BASED ON THE FLOOD INSURANCE RATE MAP (PANEL NO. 42091C0128G EFFECTIVE DATE MARCH 2, 2016) PUBLISHED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY.

LEGEND

	PROPERTY BOUNDARY
	ADJOINING OWNER
	EXIST BUILDING
	EXIST ROAD CENTERLINE
	EXIST RIGHT-OF-WAY
	EXIST CURB
	EXIST EDGE OF ROAD
	EXIST DRIVEWAY
	EXIST CONTOUR
	EXIST INDEX CONTOUR
	EXIST ELECTRIC LINE
	EXIST OVER HEAD WIRE
	EXIST U.G. ELECTRIC
	EXIST EASEMENT
	EXIST FENCE

TAX PARCEL DATA

PARCEL NO.:	34-00-01099-00-1
BLOCK, UNIT:	BLOCK 10, UNIT 001
DEED:	BOOK 6041, PAGE 838
PARCEL ADDRESS:	655 COWPATH ROAD SOUDERTON, PA 18969 R-130
ZONING DISTRICT:	
OWNER OF RECORD AND APPLICANT:	502 TOWNSHIP LINE ROAD LAWYERS, LLC P.O. BOX 428 VILLANOVA, PA 19085
GROSS TRACT AREA (TO TITLE LINE):	14.02 ACRES



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No.	REVISION	DATE
	PLAN ORIGINATION DATE	MARCH 20, 2019

AERIAL IMAGERY PLAN

FOR

ALLEBACH TRACT

PREPARED FOR

502 TOWNSHIP LINE ROAD LAWYERS, LLC

SITE SITUATE IN

FRANCONIA TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA



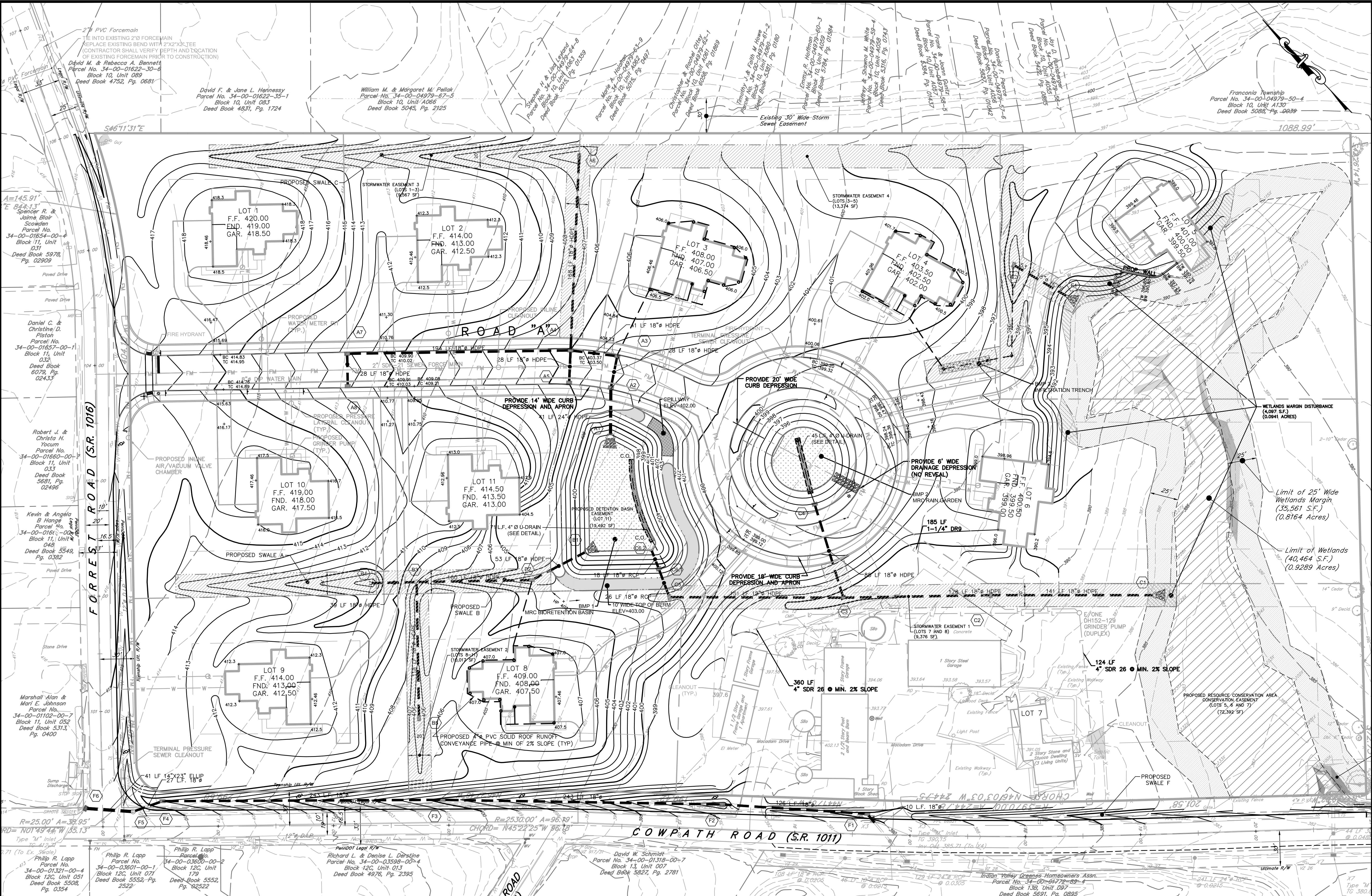
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www.rcmaonline.com

DRAFTED BY	PROJ. MNGR	PROJECT NO.	DRAWING NO.
RCMA	RCM	3071	3 OF 28

CONSTRUCTION NOTES

- ALL MATERIALS AND METHODS OF CONSTRUCTION ARE TO BE IN ACCORDANCE WITH FRANCONIA TOWNSHIP, FRANCONIA TOWNSHIP AUTHORITY STANDARDS AND CURRENT PENN.D.O.T. STANDARDS AND SPECIFICATIONS, WHICHEVER MAY BE GREATER. INTERPRETATION SHALL REST WITH THE TOWNSHIP ENGINEER OR THE TOWNSHIP ENGINEER'S REPRESENTATIVE IN THE FIELD.
- ALL STORM STRUCTURES WITHIN THE STATE HIGHWAY SHALL CONFORM TO PENN.D.O.T. FORM 406(LATEST) EDITION. ALL CURB INLETS SHALL BE PENN.D.O.T. 4" TYPE "C" INLETS WITH BICYCLE SAFE STRUCTURAL STEEL GRATES. ALL LAWN AREA/ROADSIDE SWALE AREA INLETS SHALL BE PENN.D.O.T. 4" TYPE "M" TYPE "M" INLETS WITHIN ROADWAYS SHALL HAVE BICYCLE SAFE STRUCTURAL STEEL GRATES.
- ALL STORM INLETS OUTSIDE OF THE STATE HIGHWAY SHALL BE STANDARD OR MODIFIED BOXES WITH FRANCONIA 4" SPECIAL, 8" SPECIAL, OR TYPE "M" TOPS AS NOTED ON THE PLANS. INLET TOPS SHALL CONFORM TO PENN.D.O.T. FORM 406(LATEST) EDITION AND FRANCONIA TOWNSHIP STANDARD DETAILS (CURRENT EDITION). TOWNSHIP INLETS SHALL HAVE BICYCLE SAFE STRUCTURAL STEEL GRATES.
- A MINIMUM OF 24-INCHES OF COVER MUST BE MAINTAINED OVER ALL STORM SEWER. THE TOP OF GRATE ELEVATION FOR ALL STORM SEWER INLETS IS THE CENTER OF THE INLET AT THE FACE OF CURB. THE CONTRACTOR IS RESPONSIBLE FOR PROJECTING THE ROADWAY GRADE ACROSS THE LENGTH OF THE INLET.
- ALL STORM SEWER PIPING SHALL BE REINFORCED CONCRETE PIPE (R.C.P.) CLASS 3 OR BETTER AND SHALL CONFORM TO PENN.D.O.T. FORM 406(LATEST) EDITION, SECTION 601.
- ALL CONCRETE ENDWALLS SHALL CONFORM TO FRANCONIA TOWNSHIP STANDARD DETAILS (CURRENT EDITION).
- ALL ROOF DRAINS SHALL BE P.V.C. SDR-35 PIPE (SIZE AS SHOWN) OR APPROVED EQUAL.
- ALL SANITARY SEWER CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE FRANCONIA SEWER AUTHORITY STANDARDS AND SPECIFICATIONS. ALL LOW PRESSURE SANITARY SEWER PIPING AND FITTINGS SHALL BE SDR-35 P.V.C. AND SCHEDULE 40 P.V.C. PRESSURE SEWERS SHOULD BE INSTALLED ON A CONTINUAL UPWARD SLOPE FROM THE LOWEST POINT (AS SHOWN) TO PREVENT ACCUMULATION OF AIR ROCKETS IN THE LINE. THE DEVELOPER SHALL INSTALL THE COMMON FORCE MAIN, INCLUDING CLEAN-OUT CHAMBERS, STUBS, AND VALVE CHAMBERS. GRINDER PUMP STATIONS SHALL BE AN E-ONE DH152 DUPLEX GRINDER PUMP STATION OR APPROVED EQUAL.
- ALL GRAVITY SEWER LATERALS (FROM DWELLING TO GRINDER PUMP TANK) SHALL BE 4" INCH SCHEDULE 40 P.V.C. PIPE AND ALL LATERALS SHALL BE JOINED BY GLUING UNLESS NOTED OTHERWISE. SANITARY SEWER LATERALS SHALL BE LAID ON A SLOPE OF NOT LESS THAN 1/4" INCH PER FOOT. GRAVITY SEWER SERVICE SHALL BE LAID TO THE FIRST FLOOR. ELEVATION OF EACH DWELLING. BASEMENT SANITARY SEWER SERVICE WILL NOT BE PROVIDED.
- CONNECTION TO EXISTING FORCE MAIN SHALL BE MADE DURING OFF-HOURS AND SHALL BE PERFORMED IN SUCH A MANNER AS TO MINIMIZE INTERRUPTION OF EXISTING SERVICE.
- NO PLANTINGS OR STRUCTURES SHALL BE LOCATED WITHIN ANY SANITARY SEWER EASEMENT OR WITHIN 10 FEET OF A SEWER LATERAL. PROPERTY OWNERS SHALL MAINTAIN ALL EASEMENTS AS LAWN.
- ALL WATER MAIN MATERIALS AND CONSTRUCTION SHALL BE IN CONFORMANCE WITH NORTH PENN. WATER AUTHORITY STANDARDS AND SPECIFICATIONS. ALL WATER MAINS SHALL BE PRESSURE CLASS 350 PIPE. ALL SERVICE LATERALS SHALL BE D.I.P. AND SHALL INCLUDE A VALVE, VALVE BOX, AND RESIDENTIAL METER PIT.
- A MINIMUM OF 4-FEET OF COVER MUST BE MAINTAINED OVER ALL SANITARY SEWER LINES/MAINS AND WATER LINES/MAINS.
- A MINIMUM VERTICAL SEPARATION OF 18 INCHES SHALL BE PROVIDED AT ALL UTILITY CROSSINGS. A HORIZONTAL SEPARATION OF 10 FEET AND/OR A VERTICAL SEPARATION OF 18 INCHES SHALL BE MAINTAINED BETWEEN THE SANITARY SEWER AND ANY OTHER UTILITY PIPELINES. WHERE PIPELINES MUST CROSS UNDER A SEWER, THE INSTALLATION MUST ALSO PROVIDE ADEQUATE STRUCTURAL SUPPORT FOR THE SEWER TO PREVENT DEFLECTION AND BREAKING OF THE SEWER, WHERE PROPER CLEARANCES CAN NOT BE PROVIDED. THE SEWER SHALL BE CONCRETE ENCASED FOR A DISTANCE OF 10 FEET ON EITHER SIDE OF THE CONFLICT. NO WATERLINE, MAIN OR SERVICES SHALL CROSS UNDER A SANITARY SEWER LINE (MAIN, LATERALS, FORCE MAIN ETC.).
- ALL PROPOSED DRIVEWAYS MUST BE PROVIDED WITH A 20-FOOT MINIMUM LENGTH LEVELING AREA, MEASURED FROM THE ULTIMATE RIGHT-OF-WAY INTO THE LOT SLOPED NOT MORE THAN 6.0%.
- ALL SURFACE AREAS SHALL BE PROPERLY GRADED TO ENSURE PROPER DRAINAGE AWAY FROM BUILDINGS TO NEAREST INLET OR WATERCOURSE WITHOUT PONDING OR OBSTRUCTION. A MINIMUM OF 2% SLOPE SHALL BE PROVIDED ON ALL GRASSED AREAS EXCEPT BASIN BOTTOMS, WHICH ARE DESIGNED TO BE FLAT BOTTOM BMP AREAS.
- ANY SPRING ENCOUNTERED DURING ROADWAY CONSTRUCTION SHALL BE OUTFLLETED BY U-DRAIN TO NEAREST STORM SEWER FACILITY OR WATERCOURSE. U-DRAIN PLACEMENT TO BE BY THE DIRECTION OF THE TOWNSHIP ENGINEER.
- UNDERDRAINS WITHIN DRAINAGE SWALES AND BASINS SHALL BE 4" TO PERFORATED H.D.P.E. PIPE, OR APPROVED EQUAL, SURROUNDED BY MIN. 9" OF CRUSHED STONE.
- NO TOPSOIL SHALL BE REMOVED FROM THE SITE OR USED AS SPOIL. TOPSOIL MUST BE REMOVED FROM AREAS OF CONSTRUCTION AND STORED SEPARATELY. FOLLOWING COMPLETION OF CONSTRUCTION, THE TOPSOIL MUST BE REDISTRIBUTED ON THE SITE UNIFORMLY AT A MINIMUM DEPTH OF EIGHT (8) INCHES. IF APPLICABLE, REFER TO THE "POST-CONSTRUCTION STORMWATER MANAGEMENT PLAN" FOR ADDITIONAL TOPSOIL REQUIREMENTS OR AMENDMENT.
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- ALL NEW UTILITY SERVICES, BOTH MAIN AND SERVICE LINES, SHALL BE BY UNDERGROUND SERVICE.
- PROVIDE SHOP DRAWINGS/LITERATURE SUBMITTALS FOR ALL ITEMS PERTAINING TO THE STORM SEWER SYSTEM: STORM STRUCTURES, PIPE, ETC., CONCRETE, I.E., CURB, SIDEWALK, ETC., ALL AGGREGATES, ALL ASPHALT DESIGN MIXES, RETAINING WALLS, ETC. TO THE TOWNSHIP ENGINEER FOR REVIEW AND APPROVAL PRIOR TO FABRICATION OR CONSTRUCTION.
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- THE MAXIMUM UNPAVED SLOPE IS 3:1 AND THE MINIMUM PAVED SLOPE IS 1%.
- EXISTING RESIDENCES ON LOT 7 WILL BE CONNECTED TO PUBLIC SEWER, AT WHICH TIME EXISTING ONLOT SEWAGE DISPOSAL SYSTEMS SHALL BE ABANDONED IN ACCORDANCE WITH MONTGOMERY COUNTY HEALTH DEPARTMENT REGULATIONS.



LEGEND

<ul style="list-style-type: none"> PROP LOT LINE PROP RIGHT-OF-WAY PROP CENTERLINE PROP CURB PROP SIDEWALK PROP EDGE OF ROAD PROP BUILDING PROP DRIVEWAY PROP EASEMENT PROP FENCE PROP ELECTRIC SERVICE 	<ul style="list-style-type: none"> PROP STORM SEWER PROP ROOF LEADER PROP BASIN HIGH WATER PROP MANHOLE PROP TYPE "C" INLET PROP TYPE "M" INLET PROP SANITARY LATERAL PROP FORCE MAIN PROP MANHOLE PROP CLEAN OUT PROP SEWER VENT 	<ul style="list-style-type: none"> PROP CONTOUR PROP INDEX CONTOUR PROP ALTERED TREE LINE PROP SPILLWAY PROP RIP-RAP PROP RAIN GARDEN PROP WATER MAIN PROP WATER SERVICE PROP FIRE HYDRANT PROP 45° BEND
--	--	--

UNDERGROUND UTILITY NOTE



LOCATIONS OF EXISTING UTILITIES SHOWN HEREON ARE BASED ON INFORMATION RECEIVED FROM FACILITY OWNERS FOLLOWING A CALL TO PA ONE CALL SYSTEM, INC. COMPLETENESS OR ACCURACY OF TYPE, SIZE, DEPTH, OR HORIZONTAL LOCATION OF UTILITIES CANNOT BE GUARANTEED. CONTRACTORS MUST VERIFY THE LOCATION AND DEPTH OF UNDERGROUND UTILITIES BEFORE THE START OF WORK BY NOTIFYING FACILITY OWNERS, THROUGH THE PA ONE CALL SYSTEM (1-800-242-1776 OR 811). NOT LESS THAN 3 BUSINESS DAYS NOR MORE THAN 10 BUSINESS DAYS IN ADVANCE OF BEGINNING EXCAVATION OR DEMOLITION WORK PER THE REQUIREMENTS OF PA ACTS 287 AND 121, AS AMENDED.

DESIGN SERIAL NO.: 20191861051 (07/05/2019)
SEE SHEET 2 FOR UTILITY AGENCY CONTACT INFORMATION



NO.	REVISION	DATE
6	MCD RESUBMISSION (MCD REVIEW NOVEMBER 16, 2020)	NOVEMBER 17, 2020
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NO.	REVISION	DATE
	PLAN ORIGINATION DATE	MARCH 20, 2019

CONSTRUCTION IMPROVEMENT PLAN (STORMSEWER AND GRADING)

ALLEBACH TRACT

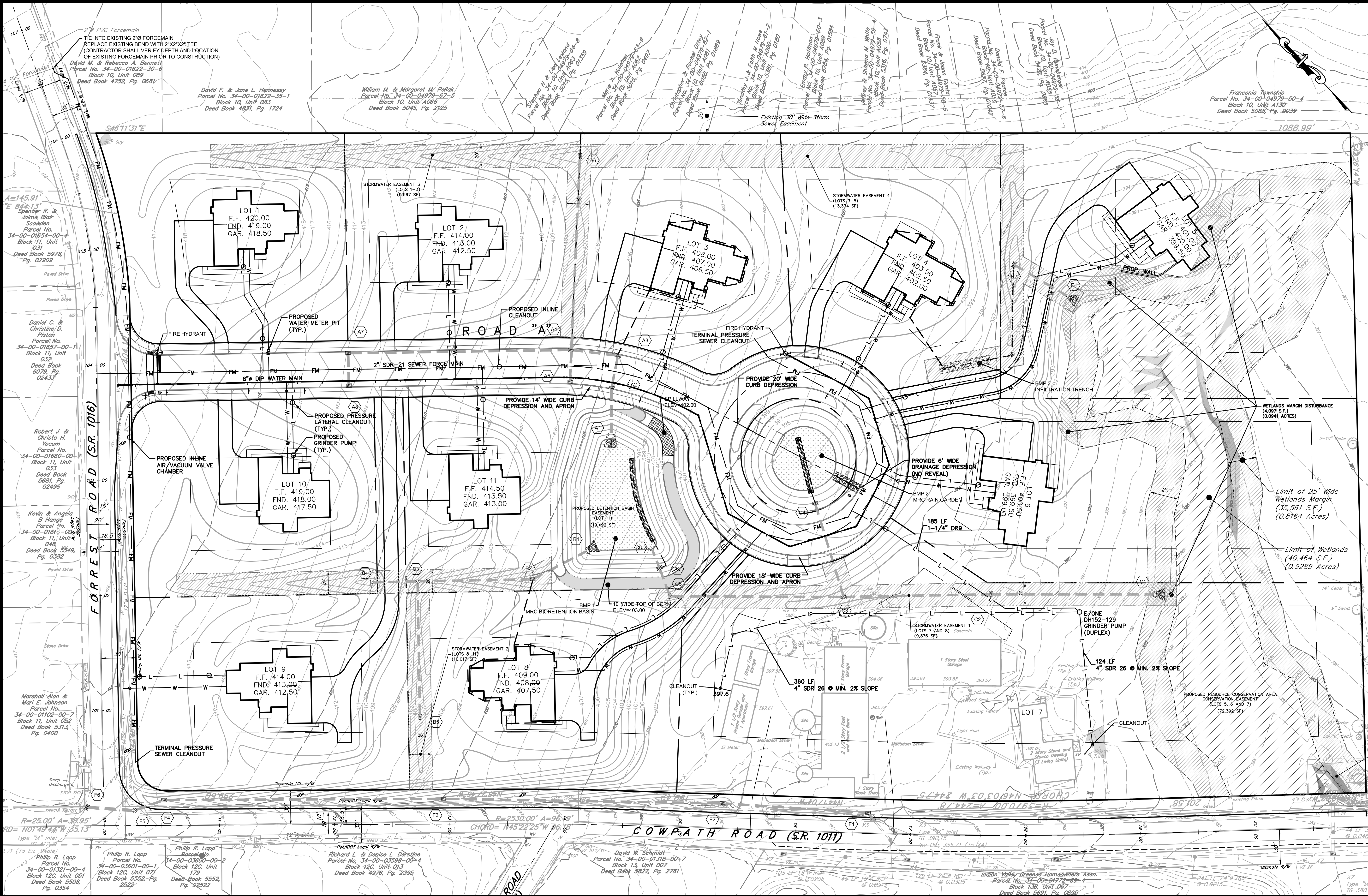
PREPARED FOR
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SITE SITUATE IN
FRANCONIA TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA



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658 Harleysville Pike, Suite 150
Harleysville, PA 17033
(215) 513-2100

DRAFTED BY	PROJ. MNGR.	PROJECT NO.	DRAWING NO.
RCMA	RCM	3071	4 OF 28



- ### CONSTRUCTION NOTES
- ALL MATERIALS AND METHODS OF CONSTRUCTION ARE TO BE IN ACCORDANCE WITH FRANCONIA TOWNSHIP FRANCONIA SEWER AUTHORITY STANDARDS AND CURRENT PENN.D.O.T. STANDARDS AND SPECIFICATIONS, WHICHEVER MAY BE GREATER. INTERPRETATION SHALL REST WITH THE TOWNSHIP ENGINEER OR THE TOWNSHIP ENGINEER'S REPRESENTATIVE IN THE FIELD.
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LEGEND			
	PROP LOT LINE		PROP STORM SEWER
	PROP RIGHT-OF-WAY		PROP ROOF LEADER
	PROP CENTERLINE		PROP BASIN HIGH WATER
	PROP CURB		PROP MANHOLE
	PROP SIDEWALK		PROP TYPE "C" INLET
	PROP EDGE OF ROAD		PROP TYPE "M" INLET
	PROP BUILDING		PROP SANITARY LATERAL
	PROP DRIVEWAY		PROP FORCE MAIN
	PROP EASEMENT		PROP MANHOLE
	PROP FENCE		PROP CLEAN OUT
	PROP ELECTRIC SERVICE		PROP SEWER VENT
	PROP CONTOUR		PROP INDEX CONTOUR
	PROP ALTERED TREE LINE		PROP SPILLWAY
	PROP RIP-RAP		PROP RAIN GARDEN
	PROP WATER MAIN		PROP WATER SERVICE
	PROP FIRE HYDRANT		PROP 45' BEND

UNDERGROUND UTILITY NOTE

LOCATIONS OF EXISTING UTILITIES SHOWN HEREON ARE BASED ON INFORMATION RECEIVED FROM FACILITY OWNERS FOLLOWING A CALL TO PA ONE CALL SYSTEM, INC. COMPLETENESS OR ACCURACY OF TYPE, SIZE, DEPTH, OR HORIZONTAL LOCATION OF UTILITIES CANNOT BE GUARANTEED. CONTRACTORS MUST VERIFY THE LOCATION AND DEPTH OF UNDERGROUND UTILITIES BEFORE THE START OF WORK BY NOTIFYING FACILITY OWNERS, THROUGH THE PA ONE CALL SYSTEM (1-800-242-1776 OR 811), NOT LESS THAN 3 BUSINESS DAYS NOR MORE THAN 10 BUSINESS DAYS IN ADVANCE OF BEGINNING EXCAVATION OR DEMOLITION WORK PER THE REQUIREMENTS OF PA ACTS 287 AND 121, AS AMENDED.

DESIGN SERIAL NO.: 20191861051 (07/05/2019)
SEE SHEET 2 FOR UTILITY AGENCY CONTACT INFORMATION

DRAWING SCALE: 1"= 40'	
6 MCD RESUBMISSION (MCD REVIEW NOVEMBER 16, 2020)	NOVEMBER 17, 2020
5 PLANNING MODULE RESUBMISSION (PADEP REVIEW OCTOBER 8, 2020)	OCTOBER 28, 2020
4 MCD RESUBMISSION (MCD REVIEW AUGUST 12, 2020)	OCTOBER 14, 2020
3 MCD RESUBMISSION (MCD REVIEW MAY 5, 2020)	JUNE 9, 2020
2 MCD SUBMISSION	MARCH 17, 2020
1 PER TOWNSHIP CONSULTANT REVIEWS	DECEMBER 17, 2019
NO. REVISION	DATE
PLAN ORIGINATION DATE	
MARCH 20, 2019	

CONSTRUCTION IMPROVEMENT PLAN (WATER, SEWER AND UTILITIES)

FOR

ALLEBACH TRACT

PREPARED FOR

502 TOWNSHIP LINE ROAD LAWYERS, LLC

SITE SITUATE IN

FRANCONIA TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

Richard C. Mast Associates, P.C.
Consulting Engineers and Surveyors
www.rcmaonline.com

DRAFTED BY	PROJ. MNGR.	PROJECT NO.	DRAWING NO.
RCMA	RCM	3071	5 OF 28

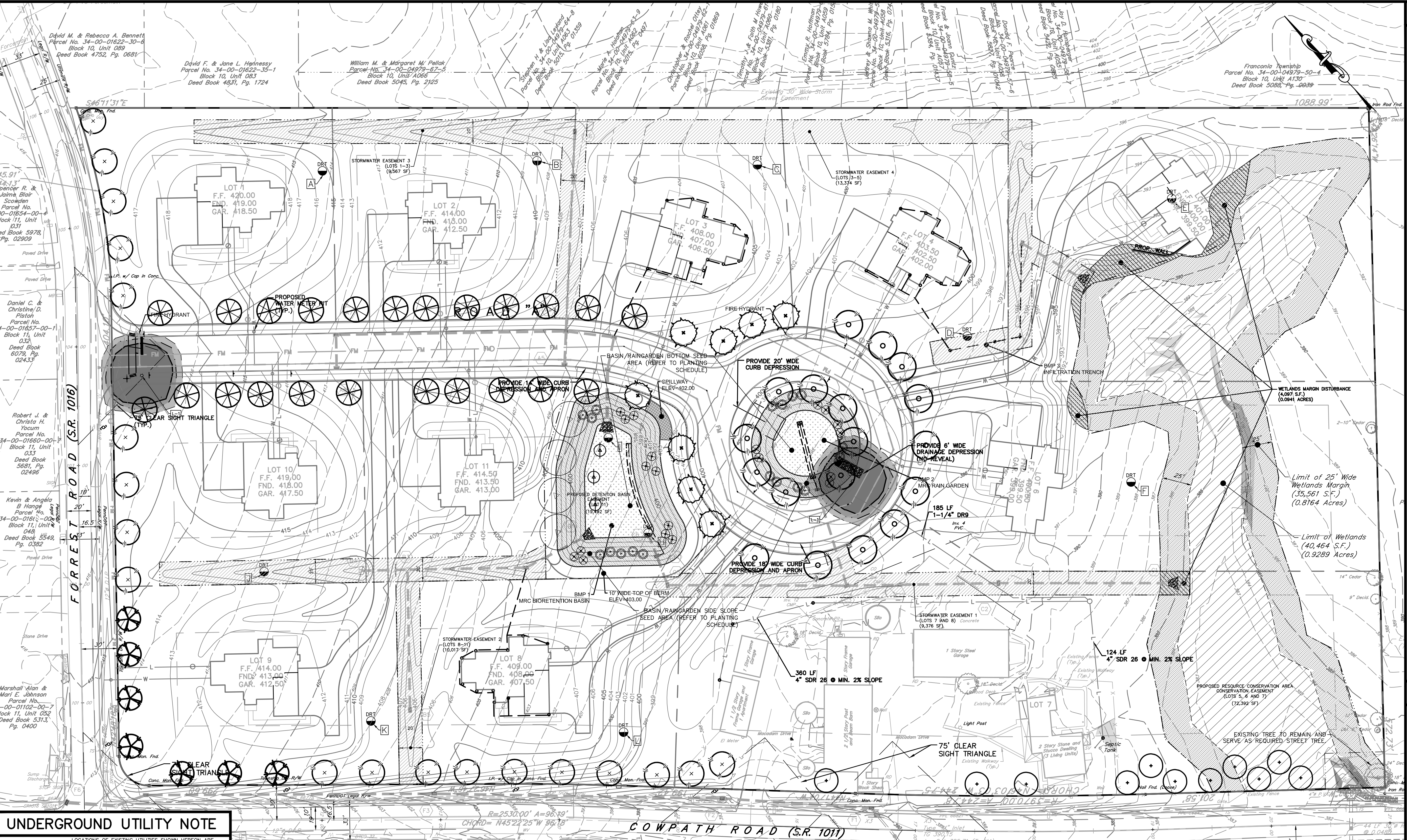
GENERAL LANDSCAPE NOTES

- THE CONTRACTOR SHALL FURNISH AND PLANT ALL PLANTS SHOWN ON THE DRAWINGS, AS SPECIFIED, AND IN QUANTITIES INDICATED ON THE PLANT LIST.
- ALL PLANTS SHALL BE NURSERY GROWN AND FRESHLY DUG.
- ALL PLANTS SHALL BE IN ACCORDANCE WITH THE AMERICAN STANDARD FOR NURSERY STOCK, LATEST EDITION. ALL PLANTS SHALL MEET THE MINIMUM STANDARDS FOR HEALTH, FORM AND ROOT CONDITIONS AS OUTLINED IN THE AMERICAN ASSOCIATION OF NURSERYMEN (AA) STANDARD.
- ALL PLANTS SHALL BE HARDY UNDER CLIMATIC CONDITIONS SIMILAR TO THOSE IN THE LOCALITY OF THE PROJECT. ALL PLANT MATERIAL SHALL BE HARDY WITHIN THE USDA HARDINESS ZONE 6 APPLICABLE TO MONTGOMERY COUNTY, PENNSYLVANIA.
- FALL DIGGING HAZARD: ANY SPECIES LISTED BELOW, IF INCLUDED ON THE PLANT LIST, MUST NOT BE DUG IN THE FALL (OCTOBER THROUGH DECEMBER) BECAUSE OF RISK TO THE TREE'S SURVIVAL. SPECIAL EXCEPTIONS MAY BE GRANTED AND THE OWNER IS NOTIFIED IN WRITING AND AN EXTENDED WARRANTY ON THESE PLANTS IS AGREED UPON PRIOR TO DIGGING. THE FOLLOWING VARIETIES SHOULD NOT BE DUG IN FALL: BETULA, US, CELTIS, CERCIDIPHYLLUM, CRATAEGUS, CRYPTOMERIA, FAGUS, HALESSIA, ILEX (THREE 5M VARIETIES), LIQUIDAMBAR, LIRODENDRON, NYSSA, OSTRYA, PRUNUS, PYRUS, QUERCUS (EXCEPT QUERCUS PALustris), SALIX WEEPING VARIETIES, AND TILIA TOMENTOSA. DIGGING FOR MULCH, TREES, EGGS OR LARVAE. VARIETIES SHOULD BE AVOIDED IN FALL ONLY WHEN IN LEAF.
- ALL PLANTS SHALL BE TYPICAL OF THEIR SPECIES OR VARIETY AND SHALL HAVE A NORMAL HABIT OR GROWTH. THEY SHALL BE SOUND, HEALTHY AND VIGOROUS, WELL BRANCHED AND DENSELY FOLIATED WHEN IN LEAF. THEY SHALL BE CERTIFIED BY APPROPRIATE STATE AND FEDERAL AUTHORITIES TO BE FREE OF DISEASE AND INSECT PESTS, EGGS OR LARVAE. THEY SHALL HAVE HEALTHY, WELL-DEVELOPED ROOT SYSTEMS.
- SUBSTITUTIONS: WHEN PLANTS OF A SPECIFIED KIND OR SIZE ARE NOT AVAILABLE WITHIN A REASONABLE DISTANCE, SUBSTITUTIONS MAY BE MADE UPON REQUEST BY THE CONTRACTOR, IF APPROVED BY THE TOWNSHIP.
- MEASUREMENT: DIMENSIONS OF TREES AND SHRUBS SHALL CONFORM TO THE AMERICAN STANDARD FOR NURSERY STOCK, LATEST EDITION. ALL CANOPY TREES SHALL HAVE A MIN. CALIPER OF 3" AT PLANTING.
- SIZE: ALL PLANTS SHALL CONFORM TO THE MEASUREMENT SPECIFIED ON THE PLANT LIST, UNLESS AUTHORIZED IN WRITING.
- BALLED AND BURLAPPED PLANTS SHALL BE DUG WITH FIRM NATURAL BALLS OF EARTH, OF DIAMETER AND DEPTH TO INCLUDE MOST OF THE FIBROUS ROOTS. CONTAINER-GROWN STOCK SHALL HAVE BEEN GROWN IN A CONTAINER LONG ENOUGH FOR THE ROOT SYSTEM TO HAVE DEVELOPED SUFFICIENTLY TO HOLD ITS SOIL TOGETHER FIRM AND WHOLE. NO PLANTS SHALL BE LOOSE IN THE CONTAINER.
- ROOT BALLS OF ALL PLANTS SHALL BE ADEQUATELY PROTECTED AT ALL TIMES FROM SUN AND DRYING WINDS OR FROST.
- OWNER OR THE OWNER'S REPRESENTATIVE AND THE TOWNSHIP SHALL BE NOTIFIED PRIOR TO BEGINNING PLANTING OPERATIONS.
- PLANTS WITH BROKEN ROOT BALLS OR EXCESSIVE DAMAGE TO THE CROWN SHALL BE REPLACED PRIOR TO PLANTING.
- ALL TREES SHALL BE STAKED AND GUYED ACCORDING TO ACCEPTED INDUSTRY PRACTICE.
- EACH TREE AND SHRUB SHALL BE PRUNED IN ACCORDANCE WITH THE AMERICAN ASSOCIATION OF NURSERYMEN STANDARDS TO PRESERVE THE NATURAL CHARACTER OF THE PLANT. ALL DEAD WOOD OR SUCKERS AND ALL BROKEN OR BADLY BRUISED BRANCHES SHALL BE REMOVED.
- MULCH: IMMEDIATELY AFTER PLANTING OPERATIONS ARE COMPLETED, ALL TREES AND SHRUB PLANTING PITS SHALL BE COVERED WITH A 3" (THREE INCH) LAYER OF LIQUORICE ROOT OR OTHER MATERIAL APPROVED BY THE OWNER OR THE OWNER'S REPRESENTATIVE. A GRANULAR PRE-EMERGENT WEED CONTROL SHALL BE SPREAD PRIOR TO MULCHING. THE LIMIT OF THIS MULCH FOR DECIDUOUS TREES AND SINGLE EVERGREEN TREES SHALL BE THE AREA OF THE PIT. FOR EVERGREEN TREE CLUSTERS, A MULCHED BED SHALL BE CREATED.
- WEED CONTROL: ALL PLANTING AREAS SHALL BE FREE FROM WEEDS PRIOR TO THE BEGINNING OF PLANTING OPERATION. CONTACT HERBICIDE SPRAYS SHOULD ONLY BE USED AS REQUIRED AND ALL MANUFACTURER'S SPECIFICATIONS FOLLOWED.
- TREES IN LEAF: INCLUDING EVERGREENS, WHEN PLANTED SHALL BE TREATED WITH ANTI-DESICCANT SUCH AS WILT-PROOF IF PLANTED DURING THE MONTHS OF JUNE THROUGH SEPTEMBER, NOVEMBER, AND DECEMBER.
- GUARANTEE: REQUIRED SCREENING, SHADE TREES AND PERIMETER LANDSCAPING SHALL BE PERPETUALLY MAINTAINED. THE APPLICANT SHALL BE RESPONSIBLE FOR PLANTINGS FOR A PERIOD OF EIGHTEEN (18) MONTHS MAINTENANCE PERIOD FOLLOWING DEDICATION OF THE IMPROVEMENTS. THE LANDOWNER SHALL BE RESPONSIBLE FOR MAINTENANCE AFTER THIS PERIOD HAS EXPIRED. ANY MATERIAL, DEAD OR MORE SHALL BE CONSIDERED DEAD AND MUST BE REPLACED AT NO CHARGE. A TREE SHALL BE CONSIDERED DEAD WHEN THE MAIN LEADER HAS DIED BACK, OR THERE IS 25% OF THE CROWN DEAD.
- ALL PLANTING SHALL BE AT THE LOCATIONS INDICATED ON THE DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PLANTING AT THE CORRECT GRADES, ALIGNMENT, AND TO THE INDICATED LAYOUT OF THE PLANTING BEDS.
- LAYOUT OF PLANTING: THE CONTRACTOR SHALL LAY OUT WITH IDENTIFIABLE STAKES THE LOCATION OF ALL PLANTING BEDS AS INDICATED ON DRAWING. THE LAYOUT OF PLANTING SHALL BE APPROVED BY THE PROJECT REPRESENTATIVE PRIOR TO ANY EXCAVATION OF PLANT PITS OR PLANT BEDS.
- CONDITIONS DETRIMENTAL TO PLANTS: THE CONTRACTOR SHALL NOTIFY THE PROJECT REPRESENTATIVE IN WRITING OF ALL SOIL OR DRAINAGE CONDITIONS WHICH THE CONTRACTOR CONSIDERS DETRIMENTAL TO THE GROWTH OF PLANTS. THE CONTRACTOR SHALL STATE THE CONDITIONS AND SUBMIT A PLAN FOR CORRECTING THE CONDITIONS, INCLUDING ANY CHANGE IN COST, FOR REVIEW AND ACCEPTANCE BY THE PROJECT REPRESENTATIVE.
- MINOR ADJUSTMENTS TO TREE LOCATIONS MAY BE NECESSARY DUE TO FIELD CONDITIONS AND FINAL GRADING. THE CONTRACTOR SHALL NOTIFY THE OWNER IF ADJUSTMENTS ARE REQUIRED.
- ALL DEBRIS RESULTING FROM LANDSCAPE CONTRACTING OPERATIONS SHALL BE CLEANED UP AND REMOVED FROM THE SITE ON A WEEKLY BASIS.
- WATERING: LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR WATERING SUFFICIENTLY AT THE TIME OF PLANTING AND UNTIL THE JOB IS COMPLETED, ACCEPTED AND TURNED OVER TO THE OWNER.
- NO PLANTINGS OR STRUCTURES SHALL LOCATED WITHIN EASEMENTS, OR WITHIN 10' OF WATER OR SANITARY LATERALS.

MAINTENANCE NOTES

- ANY TREE THAT DIES WITHIN 18 MONTHS OF PLANTING SHALL BE REPLACED BY THE CURRENT LAND OWNER OR DEVELOPER. ANY TREE OR SHRUB THAT WITHIN 18 MONTHS OF PLANTING OR REPLANTING IS DEEMED, IN THE OPINION OF THE TOWNSHIP, NOT TO HAVE SURVIVED OR NOT TO HAVE GROWN IN A MANNER CHARACTERISTIC OF ITS TYPE SHALL BE REPLACED. SUBSTITUTIONS FOR CERTAIN SPECIES OF PLANTS MAY BE MADE ONLY WHEN APPROVED BY THE TOWNSHIP.
- IT IS RECOMMENDED THAT A MINIMUM OF 10 FEET OF SEPARATION BE PROVIDED BETWEEN PROPOSED PLANTINGS AND UNDERGROUND UTILITIES. THE MINIMUM SEPARATION SHALL BE REVIEWED DURING THE PLOT PLAN REVIEW FOR EACH PROPOSED DWELLING.
- REQUIRED PLANT MATERIAL SHALL BE MAINTAINED FOR THE LIFE OF THE PROJECT TO ACHIEVE THE REQUIRED VISUAL EFFECT OF THE BUFFER OR SCREEN. IT SHALL BE THE ULTIMATE RESPONSIBILITY OF SUCCESSIVE PROPERTY OWNERS TO INSURE THAT THE REQUIRED PLANTINGS ARE PROPERLY MAINTAINED. DEAD OR DISEASED PLANT MATERIAL SHALL BE REMOVED OR TREATED PROMPTLY BY THE PROPERTY OWNER AND REPLACED AT THE NEXT GROWING SEASON.
- SAFETY - ALL SIGHT TRIANGLES SHALL REMAIN CLEAR, AND ANY PLANT MATERIAL THAT COULD ENDANGER SAFETY, SUCH AS UNSTABLE LIMBS SHALL BE REMOVED IMMEDIATELY AND REPLANTED IF NECESSARY. IT SHALL BE THE RESPONSIBILITY OF THE PROPERTY OWNER TO MAINTAIN ALL PLANTINGS AND ARCHITECTURAL ELEMENTS TO INSURE A SAFE ENVIRONMENT.

REFER TO COMPLIANCE CHART AND PLANTING SCHEDULE ON THE LANDSCAPING DETAIL SHEET.



UNDERGROUND UTILITY NOTE

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DESIGN SERIAL NO.: 2019181051 (07/05/2019)
SEE SHEET 2 FOR UTILITY AGENCY CONTACT INFORMATION



LEGEND

PROP LOT LINE PROP RIGHT-OF-WAY PROP CENTERLINE PROP CURB PROP SIDEWALK PROP EDGE OF ROAD PROP BUILDING PROP DRIVEWAY PROP EASEMENT PROP FENCE PROP ELECTRIC SERVICE	PROP STORM SEWER PROP ROOF LEADER PROP BASIN HIGH WATER PROP MANHOLE PROP TYPE "C" INLET PROP TYPE "M" INLET PROP SANITARY LATERAL PROP FORCE MAIN PROP MANHOLE PROP CLEAN OUT PROP SEWER VENT	PROP CONTOUR PROP INDEX CONTOUR PROP ALTERED TREE LINE PROP SPILLWAY PROP RIP-RAP PROP RAIN GARDEN PROP WATER MAIN PROP WATER SERVICE PROP FIRE HYDRANT PROP 45° BEND
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SEEDING LEGEND

BASIN/RAINGARDEN BOTTOM SEED AREA (REFER TO PLANTING SCHEDULE)
BASIN/RAINGARDEN SIDE SLOPE SEED AREA (REFER TO PLANTING SCHEDULE)

PCSM LANDSCAPE AND LIGHTING PLAN

FOR

ALLEBACH TRACT

PREPARED FOR

502 TOWNSHIP LINE ROAD LAWYERS, LLC

SITE SITUATE IN
FRANCONIA TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA



Richard C. Mast Associates, P.C.

Consulting Engineers and Surveyors

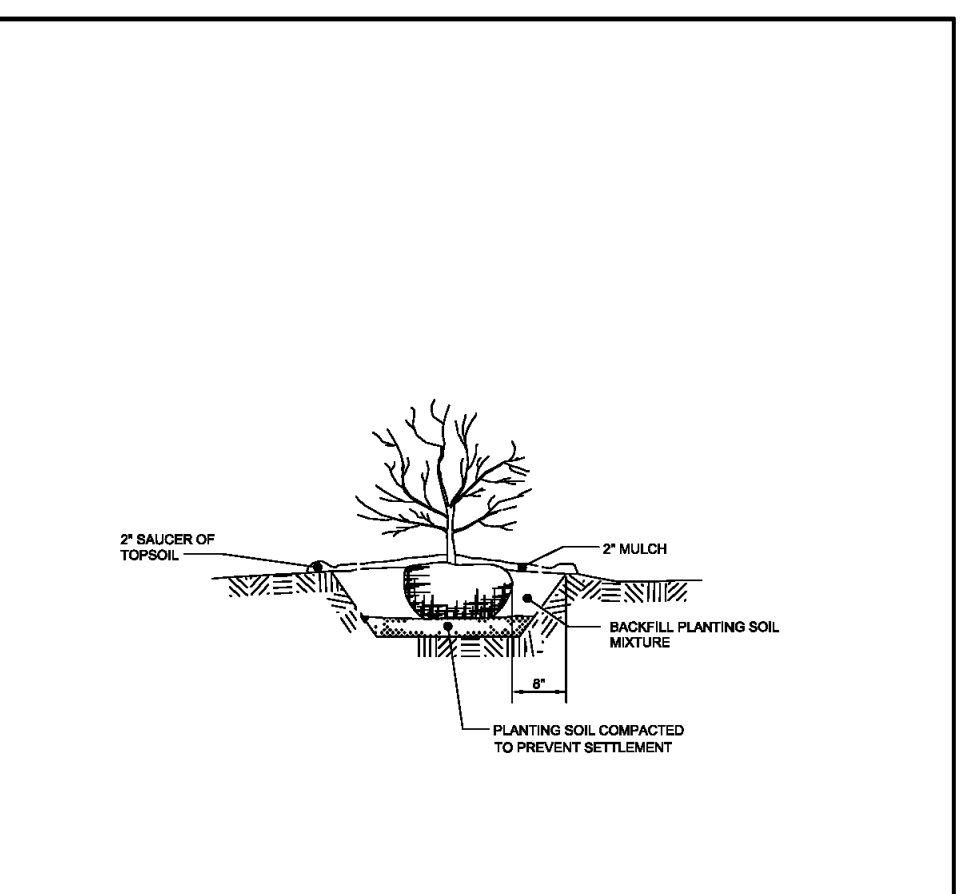
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DRAFTED BY	PROJ. MNGR.	PROJECT NO.	DRAWING NO.
RCMA	RCM	3071	6 OF 28

DRAWING SCALE: 1" = 40'

6	MCCD RESUBMISSION (MCCD REVIEW NOVEMBER 16, 2020)	NOVEMBER 17, 2020
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No.	REVISION	DATE
	PLAN ORIGINATION DATE	MARCH 20, 2019



FRANCONIA TOWNSHIP STANDARD DETAIL			
SHRUB PLANTING DETAIL			
DATE	07-2012	NOT TO SCALE	L5001

CONSTRUCTION NOTES

- ALL MATERIALS AND METHODS OF CONSTRUCTION ARE TO BE IN ACCORDANCE WITH FRANCONIA TOWNSHIP, FRANCONIA SEWER AUTHORITY STANDARDS AND CURRENT PENN.D.O.T. STANDARDS AND SPECIFICATIONS, WHICHEVER MAY BE GREATER. INTERPRETATION SHALL REST WITH THE TOWNSHIP ENGINEER OR THE TOWNSHIP ENGINEER'S REPRESENTATIVE IN THE FIELD.
- ALL STORM STRUCTURES WITHIN THE STATE HIGHWAY SHALL CONFORM TO PENN.D.O.T. FORM 408(LATEST) EDITION. ALL CURB INLETS SHALL BE PENN.D.O.T. 4" TYPE "C" INLETS WITH BICYCLE SAFE STRUCTURAL STEEL GRATES. ALL LAWN AREA/ROADSIDE SWALE AREA INLETS SHALL BE PENN. D.O.T. 4" TYPE "M" TYPE "M" INLETS WITHIN ROADWAYS SHALL HAVE BICYCLE SAFE STRUCTURAL STEEL GRATES.
- ALL STORM INLETS OUTSIDE OF THE STATE HIGHWAY SHALL BE STANDARD OR MODIFIED BOXES WITH FRANCONIA 4" SPECIAL, 6" SPECIAL, OR TYPE "M" TOPS AS NOTED ON THE PLANS. INLET TOPS SHALL CONFORM TO PENN.D.O.T. FORM 408(LATEST EDITION AND FRANCONIA TOWNSHIP STANDARD DETAILS (CURRENT EDITION). TOWNSHIP INLETS SHALL HAVE BICYCLE SAFE STRUCTURAL STEEL GRATES.
- A MINIMUM OF 24-INCHES OF COVER MUST BE MAINTAINED OVER ALL STORM SEWER. THE TOP OF GRATE ELEVATION FOR ALL STORM SEWER INLETS IS THE CENTER OF THE INLET AT THE FACE OF CURB. THE CONTRACTOR IS RESPONSIBLE FOR PROJECTING THE ROADWAY GRADE ACROSS THE LENGTH OF THE INLET.
- ALL STORM SEWER PIPING SHALL BE REINFORCED CONCRETE PIPE (R.C.P.) CLASS 3 OR BETTER AND SHALL CONFORM TO PENN. D.O.T. FORM 408(LATEST EDITION, SECTION 601 (CURRENT EDITION).
- ALL CONCRETE ENDWALLS SHALL CONFORM TO FRANCONIA TOWNSHIP STANDARD DETAILS (CURRENT EDITION).
- ALL ROOF DRAINS SHALL BE P.V.C. SDR-35 PIPE (SIZE AS SHOWN) OR APPROVED EQUAL.
- ALL SANITARY SEWER CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE FRANCONIA SEWER AUTHORITY STANDARDS AND SPECIFICATIONS. ALL LOW PRESSURE SANITARY SEWER PIPING AND FITTINGS SHALL BE SDR-21 P.V.C. AND SCHEDULE 40 P.V.C. PRESSURE SEWERS SHOULD BE INSTALLED ON A CONTINUAL UPWARD SLOPE FROM THE LOWEST POINT (AS SHOWN) TO PREVENT ACCESS TO THE LINE. THE DEAD END OF THE SEWER SHALL BE INSTALLED THE COMMON FORCE MAIN, INCLUDING CLEAN-OUT CHAMBERS, STUBS, AND VALVE CHAMBERS. GRINDER PUMP STATIONS SHALL BE AN E-ONE DH152 DUPLEX GRINDER PUMP STATION (OR APPROVED EQUAL).
- ALL GRAVITY SEWER LATERALS (FROM DWELLING TO GRINDER PUMP TANK) SHALL BE 4 INCH SCHEDULE 40 P.V.C. PIPE AND ALL LATERALS SHALL BE JOINED BY GLUING UNLESS NOTED OTHERWISE. SANITARY SEWER LATERALS SHALL BE LAID ON A SLOPE OF NOT LESS THAN 1/4 INCH PER FOOT. GRAVITY SEWER SERVICE WILL BE PROVIDED TO THE FIRST FLOOR ELEVATION OF EACH DWELLING. BASEMENT SANITARY SEWER SERVICE WILL NOT BE PROVIDED.
- CONNECTION TO EXISTING FORCE MAIN SHALL BE MADE DURING OFF-HOURS AND SHALL BE PERFORMED IN SUCH A MANNER AS TO MINIMIZE INTERRUPTION OF EXISTING SERVICE.
- NO PLANTINGS OR STRUCTURES SHALL BE LOCATED WITHIN ANY SANITARY SEWER EASEMENT OR WITHIN 10 FEET OF A SEWER LATERAL. PROPERTY OWNERS SHALL MAINTAIN ALL EASEMENTS AS LAWN.
- ALL WATER MAIN MATERIALS AND CONSTRUCTION SHALL BE IN CONFORMANCE WITH NORTH PENN. WATER AUTHORITY STANDARDS AND SPECIFICATIONS. ALL WATER MAINS SHALL BE PRESSURE CLASS 350 PIPE. ALL SERVICE LATERAL SHALL BE D.I.P. AND SHALL INCLUDE A VALVE, VALVE BOX, AND RESIDENTIAL METER PIT.
- A MINIMUM OF 4-FEET OF COVER MUST BE MAINTAINED OVER ALL SANITARY SEWER LINES MAINS AND WATER LINES MAINS.
- A MINIMUM VERTICAL SEPARATION OF 18 INCHES SHALL BE PROVIDED AT ALL UTILITY CROSSINGS; A HORIZONTAL SEPARATION OF 10 FEET AND/OR A VERTICAL SEPARATION OF 18 INCHES SHALL BE MAINTAINED BETWEEN THE SANITARY SEWER AND ANY OTHER UTILITY PIPELINES. WHERE PIPELINES MUST CROSS UNDER A SEWER, THE INSTALLATION MUST ALSO PROVIDE ADEQUATE STRUCTURAL SUPPORT FOR THE SEWER TO PREVENT DEFLECTION AND BREAKING OF THE SEWER. WHERE PROPER CLEARANCES CAN NOT BE PROVIDED, THE SEWER SHALL BE CONCRETE ENCASED FOR A DISTANCE OF 10 FEET ON EITHER SIDE OF THE CONFLICT. NO WATERLINE, MAIN OR SERVICES SHALL CROSS UNDER A SANITARY SEWER LINE (MAIN, LATERALS, FORCE MAIN ETC).
- ALL PROPOSED DRIVEWAYS MUST BE PROVIDED WITH A 20-FOOT MINIMUM LENGTH LEVELING AREA, MEASURED FROM THE ULTIMATE RIGHT-OF-WAY INTO THE LOT SLOPED NOT MORE THAN 6.0%.
- ALL SURFACE AREAS SHALL BE PROPERLY GRADED TO ENSURE PROPER DRAINAGE AWAY FROM BUILDINGS TO NEAREST INLET OR WATERCOURSE WITHOUT PONING OR OBSTRUCTION. A MINIMUM OF 2% SLOPE SHALL BE PROVIDED ON ALL GRASSED AREAS EXCEPT BASIN BOTTOMS, WHICH ARE DESIGNED TO BE FLAT BOTTOM BMP AREAS.
- ANY SPRING ENCOUNTERED DURING ROADWAY CONSTRUCTION SHALL BE OULETTED BY U-DRAIN TO NEAREST STORM SEWER FACILITY OR WATERCOURSE. U-DRAIN PLACEMENT TO BE BY THE DIRECTION OF THE TOWNSHIP ENGINEER.
- UNDERDRAINS WITHIN DRAINAGE SWALES AND BASINS SHALL BE 4"Ø PERFORATED H.D.P.E. PIPE, OR APPROVED EQUAL, SURROUNDED BY MIN. 6" OF CRUSHED STONE.
- NO TOPSOIL SHALL BE REMOVED FROM THE SITE OR USED AS SPOIL. TOPSOIL MUST BE REMOVED FROM AREAS OF CONSTRUCTION AND STORED SEPARATELY. FOLLOWING COMPLETION OF CONSTRUCTION, THE TOPSOIL MUST BE REDISTRIBUTED ON THE SITE UNIFORMLY AT A MINIMUM DEPTH OF EIGHT (8) INCHES. IF APPLICABLE, REFER TO THE "POST-CONSTRUCTION STORMWATER MANAGEMENT PLAN" FOR ADDITIONAL TOPSOIL REQUIREMENTS OR AMENDMENT.
- ALL TEMPORARY AND PERMANENT SNALES ARE TO BE STABILIZED IN ACCORDANCE WITH THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN.
- ALL NEW UTILITY SERVICES, BOTH MAIN AND SERVICE LINES, SHALL BE BY UNDERGROUND SERVICE.
- PROVIDE SHOP DRAWINGS/LITERATURE SUBMITTALS FOR ALL ITEMS PERTAINING TO THE STORM SEWER SYSTEM: STORM STRUCTURES, PIPE, ETC., CONCRETE, I.E. CURB, SIDEWALK, ETC., ALL AGGREGATES, ALL ASPHALT DESIGN MIXES, RETAINING WALLS, ETC. TO THE TOWNSHIP ENGINEER FOR REVIEW AND APPROVAL PRIOR TO FABRICATION OR CONSTRUCTION.
- PROVIDE SHOP DRAWINGS/LITERATURE SUBMITTALS FOR ALL ITEMS PERTAINING TO THE SANITARY SEWER SYSTEM, I.E. MANHOLES, PIPE, AGGREGATE, ETC., TO THE SEWER AUTHORITY ENGINEER FOR REVIEW AND APPROVAL PRIOR TO FABRICATION AND CONSTRUCTION.
- THE MAXIMUM UNPAVED SLOPE IS 3:1 AND THE MINIMUM PAVED SLOPE IS 1%.
- EXISTING RESIDENCES ON LOT 7 WILL BE CONNECTED TO PUBLIC SEWER, AT WHICH TIME EXISTING ONLOT SEWAGE DISPOSAL SYSTEMS SHALL BE ABANDONED IN ACCORDANCE WITH MONTGOMERY COUNTY HEALTH DEPARTMENT REGULATIONS.

UNDERGROUND UTILITY NOTE



DESIGN SERIAL NO.: 20191861051 (07/05/2019)
SEE SHEET 2 FOR UTILITY AGENCY CONTACT INFORMATION

SIGHT DISTANCE SUMMARY

Sight Distance Summary - FORREST ROAD

Proposed Low Volume Driveway (Local Road)						
Movement	Direction	Vehicle Speed ¹	Approach Grade	Sight Distance (feet)		
				Min. Allowable ²	Desirable ³	Available ⁴
Exiting	To the Left	35 mph	1.0%	260	440	391
	To the Right	35 mph	1.5%	258	350	551+
1. Assumed Speed Limit (There is No Posted Speed Limit)						
2. PENNDOT Minimum Acceptable Sight Distance ($1.47 \sqrt{V^2.5 + V^3} / 30$ (0.3-g/100))						
3. Based on PENNDOT minimum acceptable sight distance values per PA Code, Title 67, Chapter 441.8.(h)(1), Table 1 Safe Sight Distance						
4. Existing (measured) sight distance						

PLAN AND PROFILE FORREST ROAD (S.R. 1016)

FOR

ALLEBACH TRACT

PREPARED FOR

502 TOWNSHIP LINE ROAD LAWYERS, LLC

SITE SITUATE IN
FRANCONIA TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA



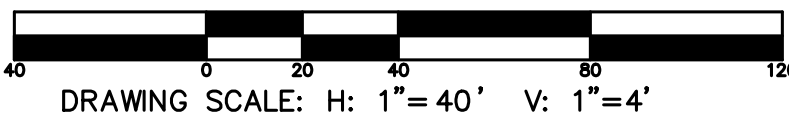
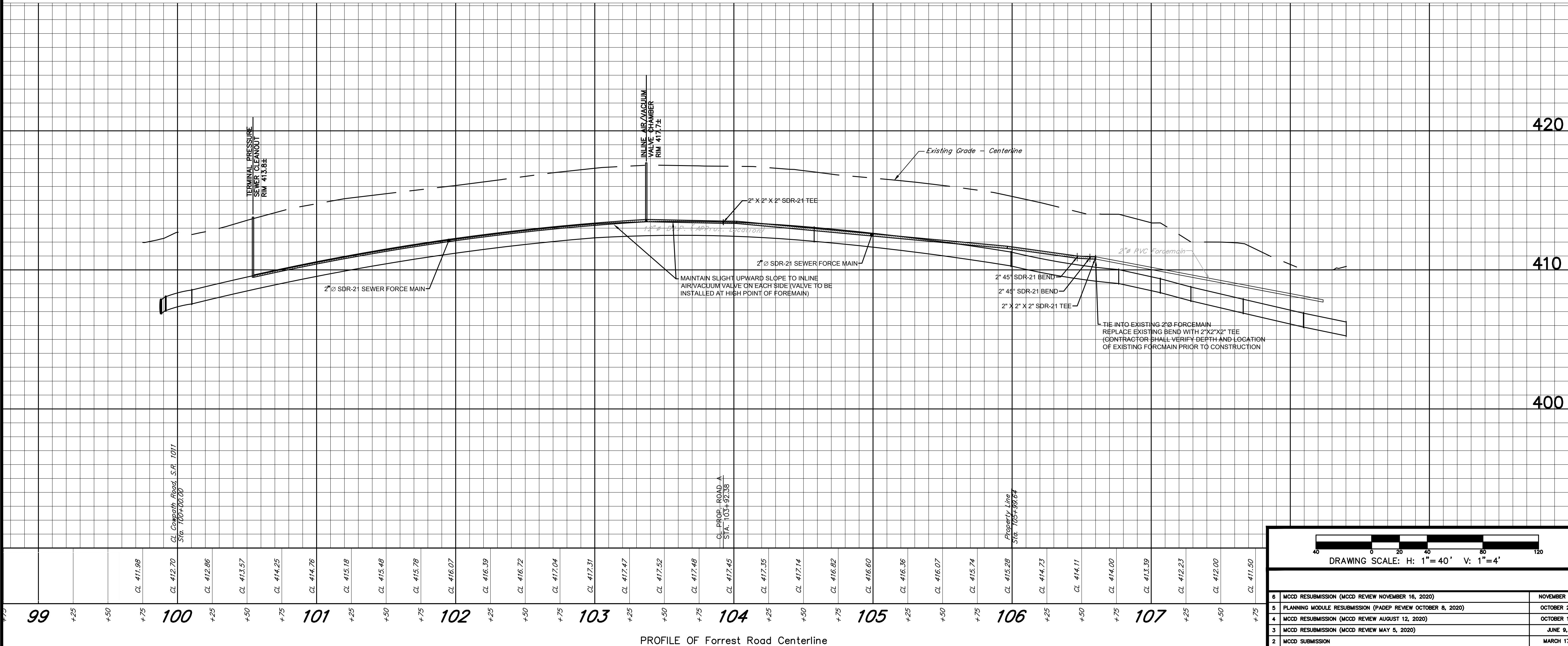
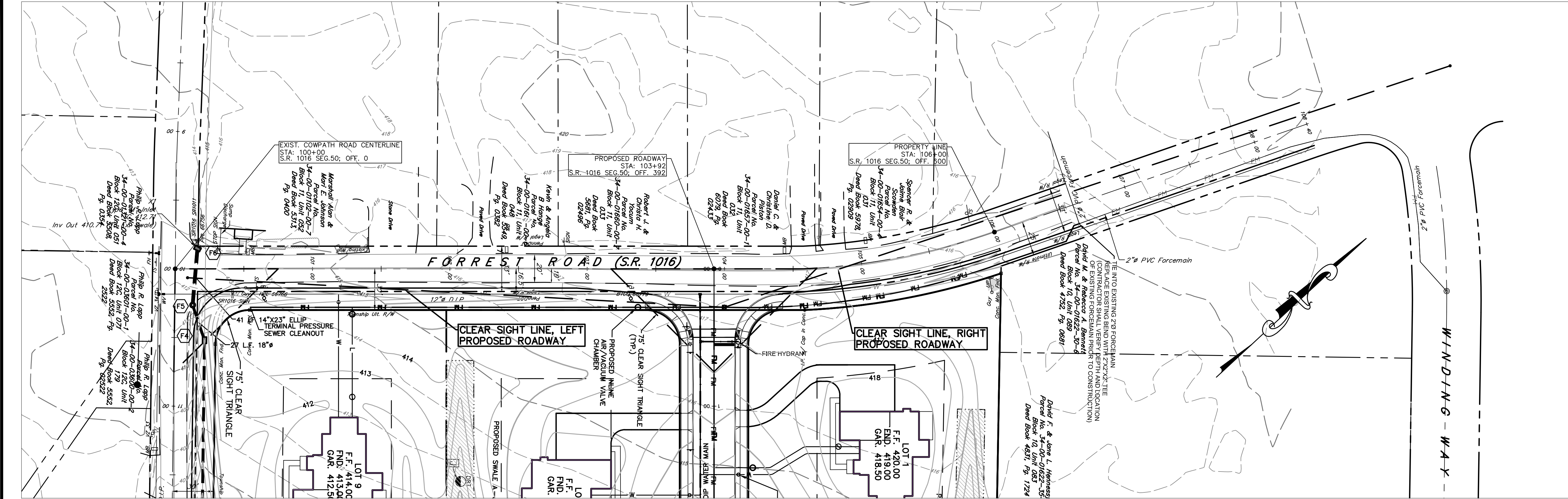
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(215) 513-2100

DRAFTED BY	PROJ. MNGR.	PROJECT NO.	DRAWING NO.
RCMA	RCM	3071	9 OF 28

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6 MCD RESUBMISSION (MCD REVIEW NOVEMBER 16, 2020)		NOVEMBER 17, 2020
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No.	REVISION	DATE
	PLAN ORIGINATION DATE	MARCH 20, 2019

PENNDOT NOTES

PennDOT General Notes:

- HOP Application No: 212392;
Applicant/Property Owner: 502 Township Line Road Lawyers, LLC (P.O. Box 428, Villanova, PA 19085, 610-930-5500)
HOP Application No: TBD (Drainage Facility Maintenance Only);
Applicant/Property Owner: 502 Township Line Road Lawyers, LLC (P.O. Box 428, Villanova, PA 19085, 610-930-5500)
Co-applicant: Franconia Township (671 Allentown Road, Telford, PA 18969, 215-723-1137)
HOP Application No: TBD (Sanitary Sewer Force Main);
Applicant/Property Owner: Franconia Sewer Authority (671 Allentown Road, Telford, PA 18969, 215-723-1137)
- Boundary and topographic information shown for the site was determined from a field (ground) survey performed by Richard C. Mast Associates, P.C., in August 2018. Elevations are based on the NAVD 1988. Local bench mark (B.M.) is a Concrete Monument with Plastic Insert (Franconia Township Monument) labeled "Metz Engineers" located on the Northwest corner of Cowpath Road and Indian Creek Roads. The locations of adjacent property buildings and parking areas shown are approximate and taken from existing aerial imagery.
- The Legal rights-of-way shown for Cowpath Road, S.R. 1011, and Forrest Road, S.R. 1016, are based on deeds of record.
- The developer (Permittee) must transfer the Highway Occupancy Permit (Drainage Facility Maintenance Only) to Franconia Township once the local road has been accepted by the municipality.
- The contractor shall notify the District 6-0 Press Office (King of Prussia, PA) a minimum of 15 days in advance of when the detour or traffic restriction of any kind will occur and the approximate duration of same. Phone: (610) 255-6800.
- Proposed separation distances for the proposed Local Road:
A. The distance to the nearest intersection is: Right 535 feet (Winding Way); Left 392 feet (Cowpath Road).
B. The distance to the nearest opposite driveway is: Right 85 feet, Left 171 feet.
C. There are no driveways between the proposed local road and the existing street intersections on the same side of the Forrest Road, S.R. 1011.

Work and Materials

- All work performed within the state legal right-of-way must be in accordance with:
A. PennDOT Publication 408/2016, "Specifications."
B. PennDOT Publication 35, "Approved Construction Materials" (Bulletin 15)
C. PennDOT Publication 72M, "Standards for Roadway Construction", RC-0M to 100M, as amended.
D. Franconia Township standard specifications and details, whichever is greater.
- No unsuitable material is to be used in any portion of the roadway construction. Remove any subgrade that cannot be properly compacted and that is unsuitable material. Undercutting and/or subgrade stabilization may be required.
- Sawline locations may be adjusted in the field as deemed necessary by a PennDOT representative.
- If directed, either milling or an intermediate 19mm binder leveling course will be required to achieve profile prior to the wearing course overlay.
- All proposed pedestrian facilities reflected on these plans, that are outside of PennDOT legal right-of-way, shall be constructed to comply with the requirements of the U.S. Access Board, Public Right-Of-Way Accessibility Guidelines (PROWAG), and the 2010 ADA standards. PennDOT Design Manual Part 2, Chapter 6, and PennDOT Standards for Roadway Construction (Publication 72M, RC-67M) provide guidance on ADA accessible design for pedestrian facilities and can be utilized for reference.

Utilities

- The responsibility for ensuring that all utility poles within the proposed paving are relocated outside of paved areas and shoulders shall be that of the Permittee. The utility poles must be relocated before the start of any paving operations. Utility poles shall be relocated outside paved areas, a minimum of 4 feet from the edge of travel lane or shoulder paving or as close to the Legal Right-of-Way as possible, and a minimum of 2 feet behind the face of curb.
- All utility relocations must be in accordance with PennDOT Design Manual Part 5. All utility relocation permits take precedence over the utility relocation positions shown on the hop plans.
- A separate Highway Occupancy Permit Application must be submitted to PennDOT for the relocation of any utilities located within the state highway. The developer (Permittee) is responsible for coordinating with the appropriate utility facility and the Department.
- If the proposed improvements require the relocation of PennDOT fiber optic cable(s), the developer (Permittee) is responsible for the relocation of the fiber and the costs associated with the relocation. This work must be done by a communications contractor that is acceptable to the District Traffic Unit. For additional information, please contact John Lynch at 610-205-6577.

Drainage

- It is the Contractor's responsibility to remove any debris and flush out all existing and proposed storm drainage facilities within the project limits at the completion of construction.
- All proposed inlets within the state maintained right-of-way must have structural steel bicycle safe grates.
- Only precast inlet boxes supplied by a manufacturer listed in PennDOT Pub 35, Bulletin 15 will be permitted for use within the state maintained right-of-way.
- All proposed inlets greater than 5 feet in depth must be constructed with steps similar to a manhole. The Contractor must refer to RC-39M for the appropriate details.
- Drainage installed by the Drainage Facilities Highway Occupancy Permit is the primary responsibility of the local government to continually maintain or replace.
- The private co-permittee is responsible for providing funding to the local government to offset future maintenance costs associated with the permitted drainage facilities.

Sight Distance

- There is no posted speed limit on Forrest Road, S.R. 1011. For Sight Distance, a Speed Limit of 35 mph was assumed.
- All sight distance obstructions (including but not limited to embankments and vegetation) shall be removed by the Permittee to provide a minimum of 391 feet of continuous sight distance to the left and 521 feet of continuous sight distance to the right for a driver exiting the proposed local road onto the state highway. The driver must be considered to be positioned 10' from the near edge of the closest highway through travel lane (from the curbline if curbing is present) at an eye height of 3'-6" above the pavement surface. The point sighted by the exiting driver shall be 3'-6" above the pavement surface located in the center of the closest highway travel lane designated for use by approaching traffic. This sight distance shall be maintained by the Permittee.
- The developer (Permittee) shall ensure that the sight distance at the driveways servicing other properties or at other intersections is not reduced as a result of the work performed in accordance with the state Highway Occupancy permit, unless existing and proposed values exceed the desirable values specified in the Pennsylvania Code, Title 67, Transportation, Chapter 441.8.h.1.

UNDERGROUND UTILITY NOTE

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DESIGN SERIAL NO.: 20191861051 (07/05/2019)
SEE SHEET 2 FOR UTILITY AGENCY CONTACT INFORMATION

INTERSECTION AND ROADWAY DETAILS

FOR

ALLEBACH TRACT

PREPARED FOR

502 TOWNSHIP LINE ROAD LAWYERS, LLC

SITE SITUATE IN
FRANCONIA TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA



Richard C. Mast Associates, P.C.
Consulting Engineers and Surveyors

www.rcmaonline.com

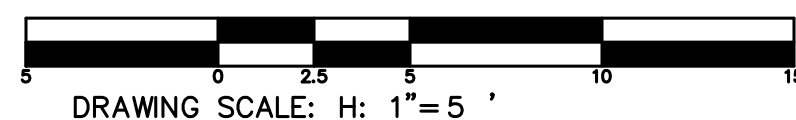
The Village at Lederach
658 Harleysville Pike, Suite 150
Harleysville, PA 17033
(215) 513-2100

DRAFTED BY	PROJ. MNGR	PROJECT NO.	DRAWING NO.
RCMA	RCM	3071	10 OF 28

PENNDOT RC STANDARD DETAILS

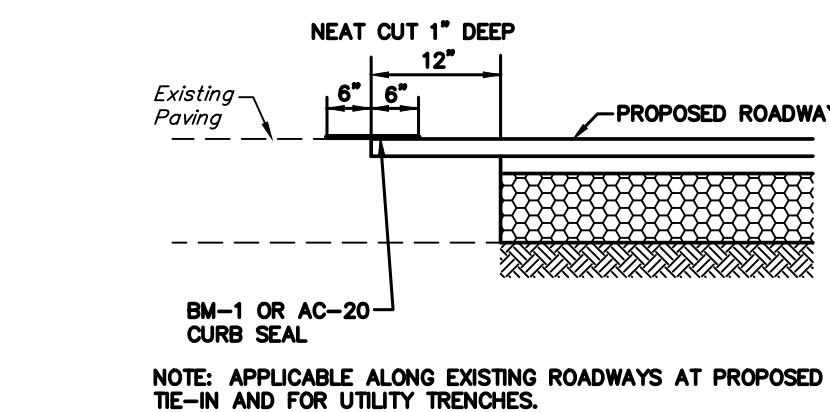
Standard Details from PENNDOT Pub. 72M & Pub. 111M		
Standard Drawing Number	Title	Drawing Date
RC-25M	Shoulders	September 15, 2016
RC-28M	Overlay Transitions and Paving Notches	September 15, 2016
RC-30M	Subsurface Drains	June 1, 2010
RC-31M	Endwalls	June 1, 2010
RC-33M	End Sections for Pipe Culverts	June 1, 2010
RC-35M	Standard Manholes	September 15, 2016
RC-45M	Inlet Tops, Grates and Frames	September 15, 2016
RC-46M	Inlet Boxes	September 15, 2016
RC-64M	Curbs and Gutters	June 1, 2010
RC-67M	Curb Ramps and Sidewalks	June 10, 2013
TC-8600	Pavement Markings	June 13, 2013
TC-8702B	Post-Mounted Signs, Type B	June 13, 2013

The Permittee is required to provide the Contractor with copies of the most current applicable RC drawings from PennDOT Publication 72M and TC drawings from PennDOT Publication 111M.

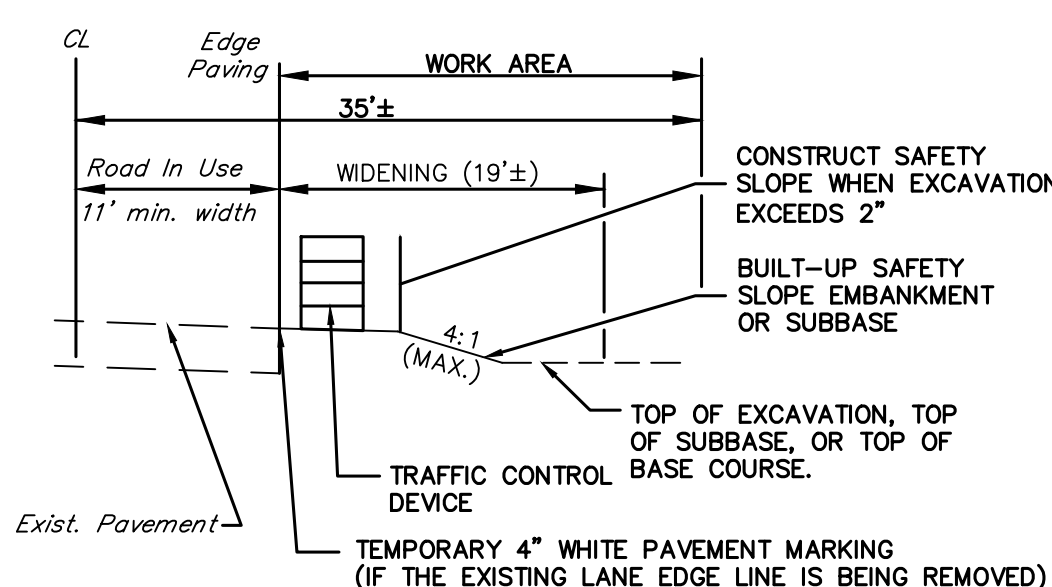


DRAWING SCALE: H: 1"=5'

No.	REVISION	DATE
6	MCD RESUBMISSION (MCD REVIEW NOVEMBER 16, 2020)	NOVEMBER 17, 2020
5	PLANNING MODULE RESUBMISSION (PADEP REVIEW OCTOBER 8, 2020)	OCTOBER 28, 2020
4	MCD RESUBMISSION (MCD REVIEW AUGUST 12, 2020)	OCTOBER 14, 2020
3	MCD RESUBMISSION (MCD REVIEW MAY 5, 2020)	JUNE 9, 2020
2	MCD SUBMISSION	MARCH 17, 2020
1	PER TOWNSHIP CONSULTANT REVIEWS	DECEMBER 17, 2019
PLAN ORIGINATION DATE		MARCH 20, 2019



NEAT CUT DETAIL



DROPOFF TREATMENT FOR MAINTAINING TWO LANES OF TRAFFIC SUMNEYTOWN PIKE (S.R. 0063)

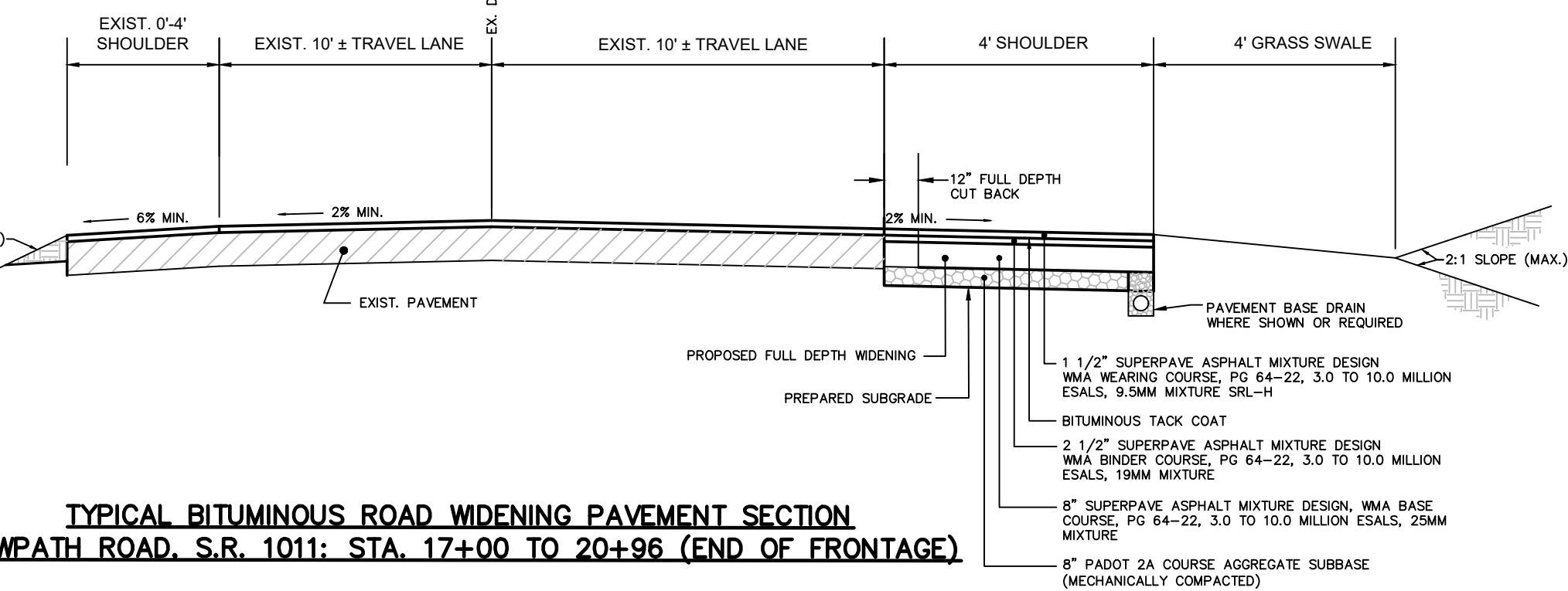
ADA ACCESSIBLE RAMP NOTES:

- ALL CROSSWALKS ARE TO BE 6 FEET WIDE (OR AS NOTED) WITH 6" WHITE EDGE LINES, AND ARE TO BE INSTALLED AS SHOWN ON THE PLAN. STOP BARS MUST BE A MINIMUM OF 4 FEET FROM THE EDGE OF CROSSWALK.
- ALL EXISTING MARKINGS WHICH ARE NO LONGER APPROPRIATE SHALL BE ERADICATED BY THE CONTRACTOR USING AN ERADICATION METHOD APPROVED BY A PENNDOT FIELD REPRESENTATIVE.
- THE UNITS OF ALL SIDEWALK TRANSITION AREAS SHOULD MATCH THE EXISTING SIDEWALK ELEVATION. REPLACE SIDEWALK TO THE NEAREST SIDEWALK JOINT.
- PAVEMENT ADJUSTMENT TO BE CONSTRUCTED AS SHOWN TO ELIMINATE PONDING AND PROVIDE POSITIVE DRAINAGE ALONG THE CURBLINE AT THE PROPOSED RAMP LOCATIONS.
- RESET ALL UTILITY VALVES, COVERS AND MANHOLES TO GRADE, AS NECESSARY.
- IN THE EVENT THAT THERE ARE ANY DISCREPANCIES FOUND BETWEEN PROPOSED GRADES AND PROPOSED SPOT ELEVATIONS/DISTANCES, THE CONTRACTOR MUST CONTACT THE DESIGN ENGINEER BEFORE PROCEEDING WITH CONSTRUCTION.



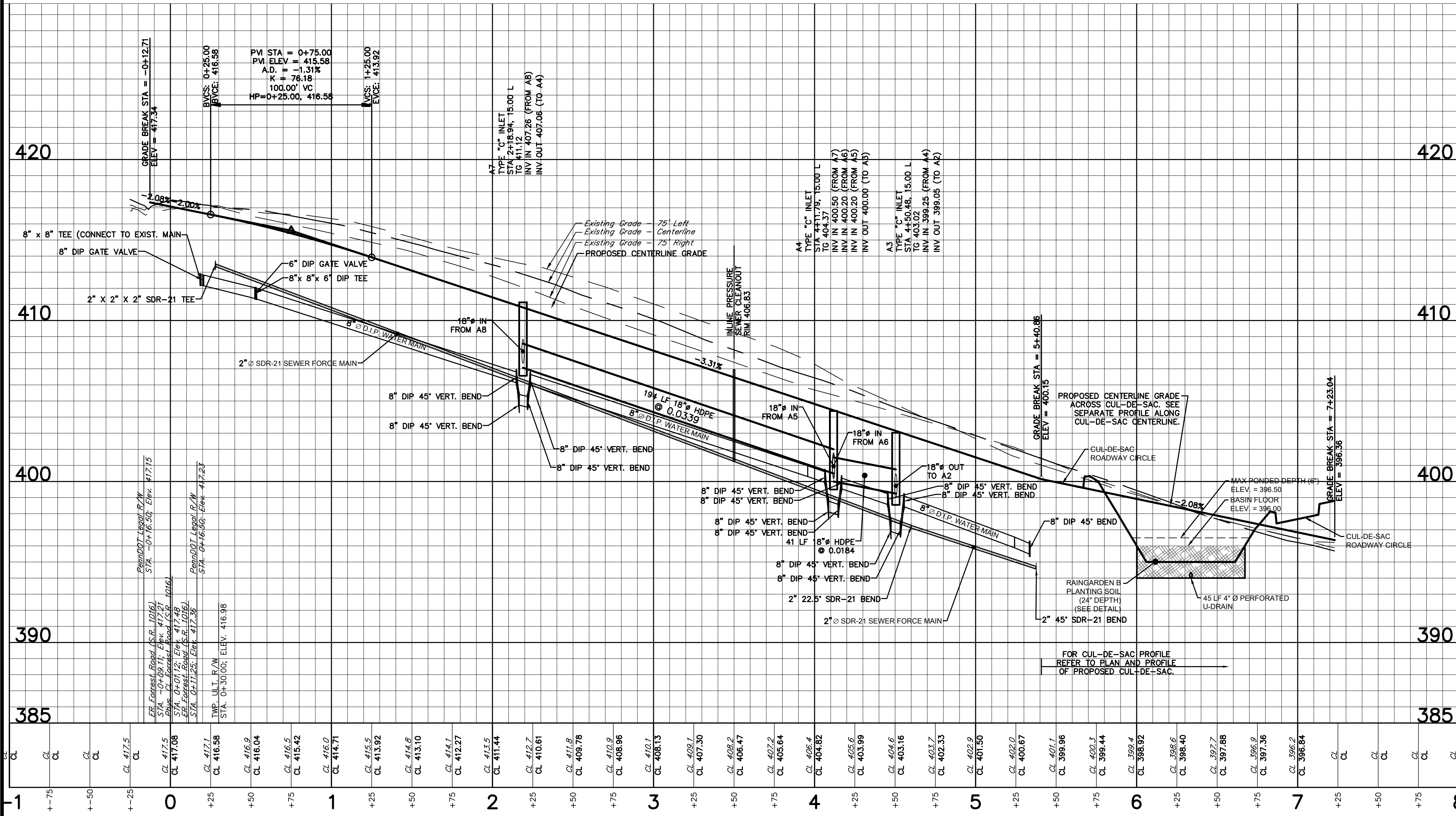
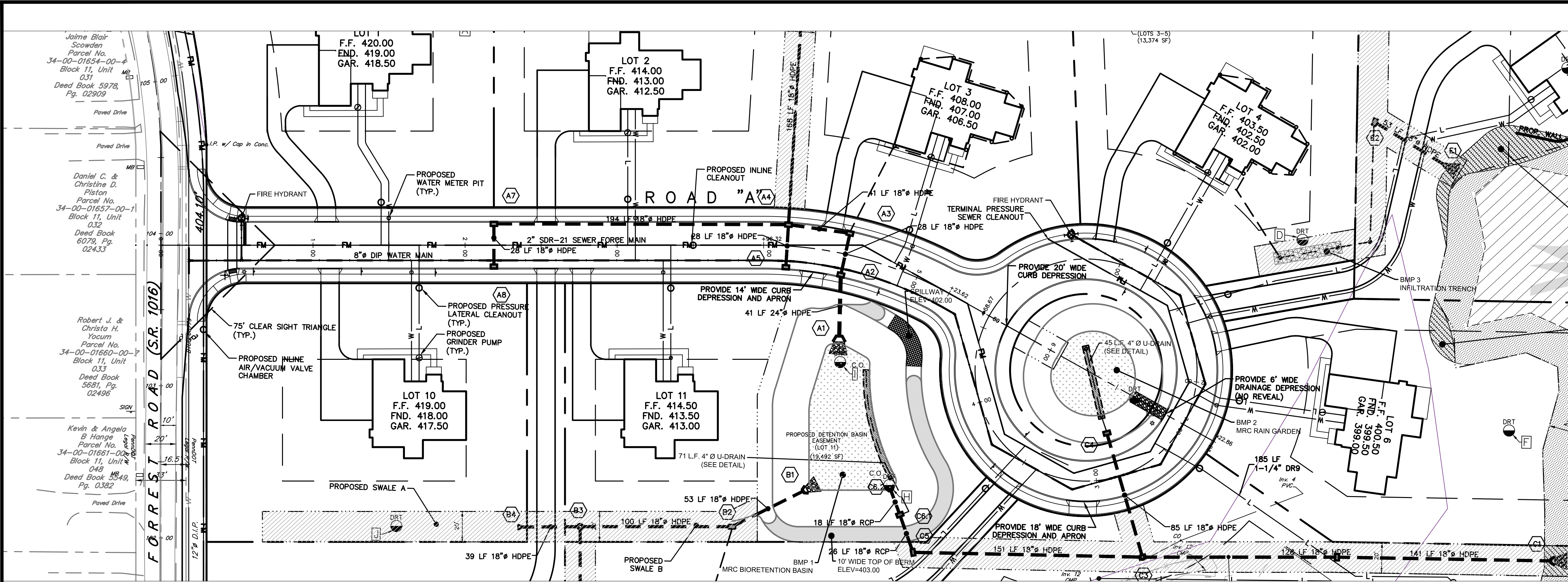
TYPICAL BITUMINOUS ROAD WIDENING PAVEMENT SECTION COWPATH ROAD, S.R. 1011: STA. 10+50 TO STA. 15+37 FORREST ROAD, S.R. 1016: ALONG ENTIRE PROPERTY FRONTAGE

N.T.S.



TYPICAL BITUMINOUS ROAD WIDENING PAVEMENT SECTION COWPATH ROAD, S.R. 1011: STA. 17+00 TO 20+96 (END OF FRONTAGE)

N.T.S.



PROFILE OF PROPOSED ROAD A

CONSTRUCTION NOTES

- ALL MATERIALS AND METHODS OF CONSTRUCTION ARE TO BE IN ACCORDANCE WITH FRANCONIA TOWNSHIP, FRANCONIA TOWNSHIP AUTHORITY STANDARDS AND CURRENT PENN.D.O.T. STANDARDS AND SPECIFICATIONS, WHICHEVER MAY BE GREATER. INTERPRETATION SHALL REST WITH THE TOWNSHIP ENGINEER OR THE TOWNSHIP ENGINEER'S REPRESENTATIVE IN THE FIELD.
- ALL STORM STRUCTURES WITHIN THE STATE HIGHWAY SHALL CONFORM TO PENN.D.O.T. FORM 406LATEST EDITION. ALL CURB INLETS SHALL BE PENN.D.O.T. 4" TYPE "C" INLETS WITH BICYCLE SAFE STRUCTURAL STEEL GRATES. LAWN AREAS AND ROADSIDE SWALE AREA INLETS SHALL BE PENN. D.O.T. 4" TYPE "M" TYPE "M" INLETS WITHIN ROADWAYS SHALL HAVE BICYCLE SAFE STRUCTURAL STEEL GRATES.
- ALL STORM INLETS OUTSIDE OF THE STATE HIGHWAY SHALL BE STANDARD OR MODIFIED BOXES WITH FRANCONIA 4" SPECIAL, 6" SPECIAL, OR TYPE "M" TOPS AS NOTED ON THE PLANS. INLET TOPS SHALL CONFORM TO PENN.D.O.T. FORM 406LATEST EDITION AND FRANCONIA TOWNSHIP STANDARD DETAILS (CURRENT EDITION). TOWNSHIP INLETS SHALL HAVE BICYCLE SAFE STRUCTURAL STEEL GRATES.
- A MINIMUM OF 24-INCHES OF COVER MUST BE MAINTAINED OVER ALL STORM SEWER. THE TOP OF GRATE ELEVATION FOR ALL STORM SEWER INLETS IS THE CENTER OF THE INLET AT THE FACE OF CURB. THE CONTRACTOR IS RESPONSIBLE FOR PROJECTING THE ROADWAY GRADE ACROSS THE LENGTH OF THE INLET.
- ALL STORM SEWER PIPING SHALL BE REINFORCED CONCRETE PIPE (R.C.P.) CLASS 3 OR BETTER AND SHALL CONFORM TO PENN. D.O.T. FORM 406LATEST EDITION, SECTION 601.
- ALL CONCRETE ENDWALLS SHALL CONFORM TO FRANCONIA TOWNSHIP STANDARD DETAILS (CURRENT EDITION).
- ALL ROOF DRAINS SHALL BE P.V.C. SDR-35 PIPE (SIZE AS SHOWN) OR APPROVED EQUAL.
- ALL SANITARY SEWER CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE FRANCONIA SEWER AUTHORITY STANDARDS AND SPECIFICATIONS. ALL LOW PRESSURE SANITARY SEWER PIPING AND FITTINGS SHALL BE SDR-21 P.V.C. AND SCHEDULE 40 P.V.C. PRESSURE SEWERS SHOULD BE INSTALLED ON A CONTINUAL UPWARD SLOPE FROM THE LOWEST POINT (AS SHOWN) TO PREVENT ACCUMULATION OF AIR POCKETS IN THE LINE. THE INSTALLATION MUST ALSO PROVIDE ADEQUATE STRUCTURAL SUPPORT FOR THE SEWER TO PREVENT DEFLECTION AND BREAKING OF THE SEWER. WHERE PROPER CLEARANCES CAN NOT BE PROVIDED, THE SEWER SHALL BE CONCRETE ENCASED FOR A DISTANCE OF 10 FEET ON EITHER SIDE OF THE CONFLICT. NO WATERLINE, MAIN OR SERVICES SHALL CROSS UNDER A SANITARY SEWER LINE (MAIN, LATERALS, FORCE MAIN ETC.).
- ALL GRAVITY SEWER LATERALS (FROM DWELLING TO GRINDER PUMP TANK) SHALL BE 4" INCH SCHEDULE 40 P.V.C. PIPE AND ALL LATERALS SHALL BE JOINED BY GLUING UNLESS NOTED OTHERWISE. SANITARY SEWER LATERALS SHALL BE LAID ON A SLOPE OF NOT LESS THAN 1/4 INCH PER FOOT. GRAVITY SEWER SERVICE WILL BE PROVIDED TO THE FIRST FLOOR ELEVATION OF EACH DWELLING. BASEMENT SANITARY SEWER SERVICE WILL NOT BE PROVIDED.
- CONNECTION TO EXISTING FORCE MAIN SHALL BE MADE DURING OFF-HOURS AND SHALL BE PERFORMED IN SUCH A MANNER AS TO MINIMIZE INTERRUPTION OF EXISTING SERVICE.
- NO PLANTINGS OR STRUCTURES SHALL BE LOCATED WITHIN ANY SANITARY SEWER EASEMENT OR WITHIN 10 FEET OF A SEWER LATERAL. PROPERTY OWNERS SHALL MAINTAIN ALL EASEMENTS AS LAWN.
- ALL WATER MAIN MATERIALS AND CONSTRUCTION SHALL BE IN CONFORMANCE WITH NORTH PENN. WATER AUTHORITY STANDARDS AND SPECIFICATIONS. ALL WATER MAINS SHALL BE PRESSURE CLASS 350 PIPE. ALL SERVICE LATERALS SHALL BE D.I.P. AND SHALL INCLUDE A VALVE, VALVE BOX, AND RESIDENTIAL METER PIT.
- A MINIMUM OF 4-FEET OF COVER MUST BE MAINTAINED OVER ALL SANITARY SEWER LINES MAINS AND WATER LINES MAINS.
- A MINIMUM VERTICAL SEPARATION OF 18 INCHES SHALL BE PROVIDED AT ALL UTILITY CROSSINGS. A HORIZONTAL SEPARATION OF 10 FEET AND/OR A VERTICAL SEPARATION OF 18 INCHES SHALL BE MAINTAINED BETWEEN THE SANITARY SEWER AND ANY OTHER UTILITY PIPELINES. WHERE PIPELINES MUST CROSS UNDER A SEWER, THE INSTALLATION MUST ALSO PROVIDE ADEQUATE STRUCTURAL SUPPORT FOR THE SEWER TO PREVENT DEFLECTION AND BREAKING OF THE SEWER. WHERE PROPER CLEARANCES CAN NOT BE PROVIDED, THE SEWER SHALL BE CONCRETE ENCASED FOR A DISTANCE OF 10 FEET ON EITHER SIDE OF THE CONFLICT. NO WATERLINE, MAIN OR SERVICES SHALL CROSS UNDER A SANITARY SEWER LINE (MAIN, LATERALS, FORCE MAIN ETC.).
- ALL PROPOSED DRIVEWAYS MUST BE PROVIDED WITH A 20-FOOT MINIMUM LENGTH LEVELING AREA, MEASURED FROM THE ULTIMATE RIGHT-OF-WAY INTO THE LOT SLOPED NOT MORE THAN 6.0%.
- ALL SURFACE AREAS SHALL BE PROPERLY GRADED TO ENSURE PROPER DRAINAGE AWAY FROM BUILDINGS TO NEAREST INLET OR WATERCOURSE WITHOUT PONDING OR OBSTRUCTION. A MINIMUM OF 2% SLOPE SHALL BE PROVIDED ON ALL GRASSED AREAS EXCEPT BASIN BOTTOMS, WHICH ARE DESIGNED TO BE FLAT BOTTOM BMP AREAS.
- ANY SPRING ENCOUNTERED DURING ROADWAY CONSTRUCTION SHALL BE OUTLETED BY U-DRAIN TO NEAREST STORM SEWER FACILITY OR WATERCOURSE. U-DRAIN PLACEMENT TO BE BY THE DIRECTION OF THE TOWNSHIP ENGINEER.
- UNDERDRAINS WITHIN DRAINAGE SWALES AND BASINS SHALL BE 4"Ø PERFORATED H.D.P.E. PIPE, OR APPROVED EQUAL, SURROUNDED BY MIN. 9" OF CRUSHED STONE.
- NO TOPSOIL SHALL BE REMOVED FROM THE SITE OR USED AS SPOIL. TOPSOIL MUST BE REMOVED FROM AREAS OF CONSTRUCTION AND STORED SEPARATELY. FOLLOWING COMPLETION OF CONSTRUCTION, THE TOPSOIL MUST BE REDISTRIBUTED ON THE SITE UNIFORMLY AT A MINIMUM DEPTH OF EIGHT (8) INCHES. IF APPLICABLE, REFER TO THE "POST-CONSTRUCTION STORMWATER MANAGEMENT PLAN" FOR ADDITIONAL TOPSOIL REQUIREMENTS OR AMENDMENT.
- ALL TEMPORARY AND PERMANENT SWALES ARE TO BE STABILIZED IN ACCORDANCE WITH THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN.
- ALL NEW UTILITY SERVICES, BOTH MAIN AND SERVICE LINES, SHALL BE BY UNDERGROUND SERVICE.
- PROVIDE SHOP DRAWINGS/LITERATURE SUBMITTALS FOR ALL ITEMS PERTAINING TO THE STORM SEWER SYSTEM: STORM STRUCTURES, PIPE, ETC., CONCRETE, I.E. CURB SIDEWALK, ETC., ALL AGGREGATES, ALL ASPHALT DESIGN MIXES, RETAINING WALLS, ETC. TO THE TOWNSHIP ENGINEER FOR REVIEW AND APPROVAL PRIOR TO FABRICATION OR CONSTRUCTION.
- PROVIDE SHOP DRAWINGS/LITERATURE SUBMITTALS FOR ALL ITEMS PERTAINING TO THE SANITARY SEWER SYSTEM: I.E. MANHOLES, PIPE, AGGREGATE, ETC., TO THE SEWER AUTHORITY ENGINEER FOR REVIEW AND APPROVAL PRIOR TO FABRICATION AND CONSTRUCTION.
- THE MAXIMUM UNPAVED SLOPE IS 3:1 AND THE MINIMUM PAVED SLOPE IS 1%.
- EXISTING RESIDENCES ON LOT 7 WILL BE CONNECTED TO PUBLIC SEWER, AT WHICH TIME EXISTING ONLOT SEWAGE DISPOSAL SYSTEMS SHALL BE ABANDONED IN ACCORDANCE WITH MONTGOMERY COUNTY HEALTH DEPARTMENT REGULATIONS.

UNDERGROUND UTILITY NOTE



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DESIGN SERIAL NO.: 20191861051 (07/05/2019)
SEE SHEET 2 FOR UTILITY AGENCY CONTACT INFORMATION

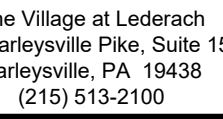
PLAN AND PROFILE PROPOSED ROAD A

FOR ALLEBACH TRACT

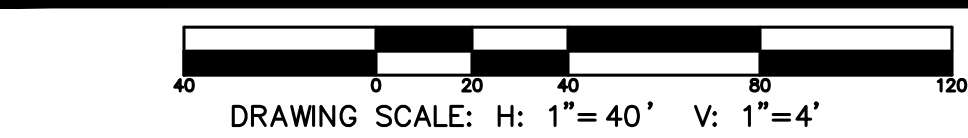
PREPARED FOR
502 TOWNSHIP LINE ROAD LAWYERS, LLC

SITE SITUATE IN
FRANCONIA TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

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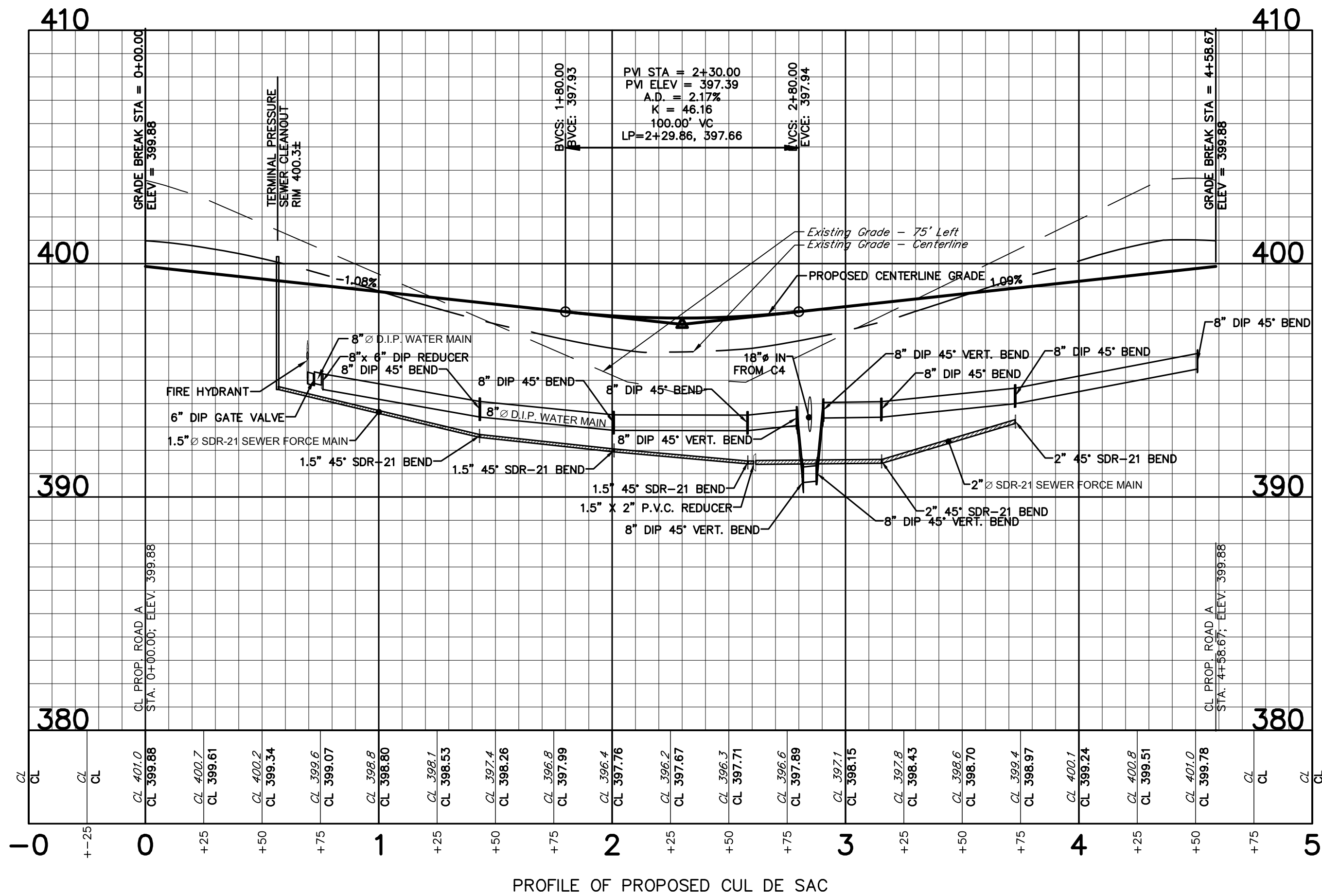
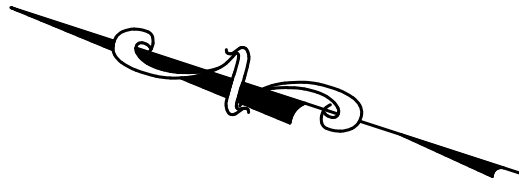
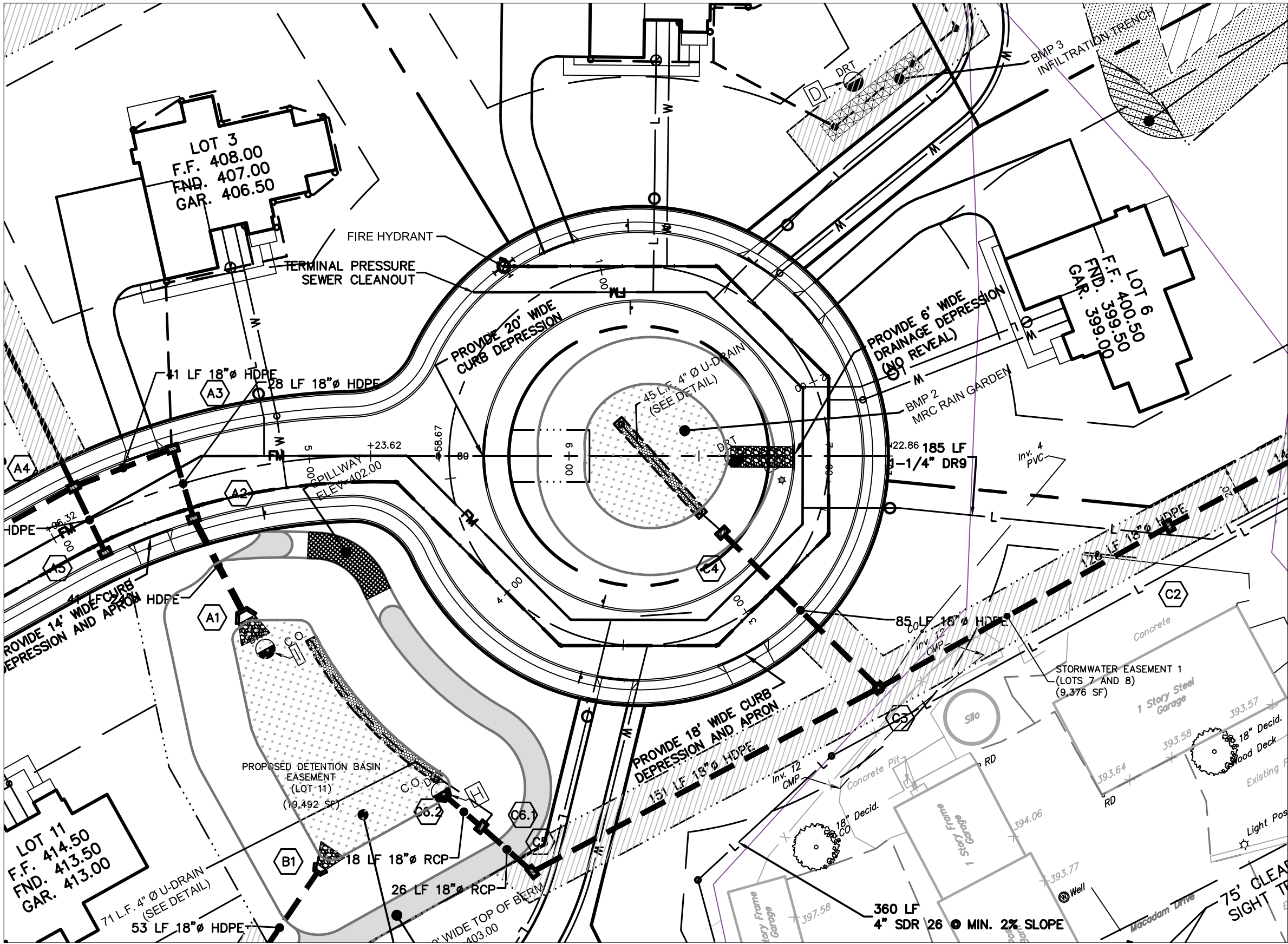


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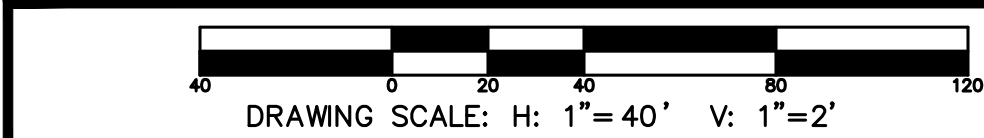


DRAWING SCALE: H: 1"= 40' V: 1"= 4'

No.	REVISION	DATE
6	MCD RESUBMISSION (MCD REVIEW NOVEMBER 16, 2020)	NOVEMBER 17, 2020
5	PLANNING MODULE RESUBMISSION (PADEP REVIEW OCTOBER 8, 2020)	OCTOBER 28, 2020
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1	PER TOWNSHIP CONSULTANT REVIEW	DECEMBER 17, 2019
PLAN ORIGINATION DATE		MARCH 20, 2019



PROFILE OF PROPOSED CUL-DE-SAC

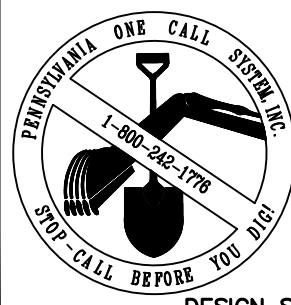


NO.		REVISION	DATE
1		PER TOWNSHIP CONSULTANT REVIEWS	DECEMBER 17, 2019
2		REVISION	DATE
3		PLAN ORIGINATOR DATE	MARCH 20, 2019

CONSTRUCTION NOTES

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- ALL GRAVITY SEWER LATERALS (FROM DWELLING TO GRINDER PUMP TANK) SHALL BE 4 INCH SCHEDULE 40 P.V.C. PIPE AND ALL LATERALS SHALL BE JOINED BY GLUING UNLESS NOTED OTHERWISE. SANITARY SEWER LATERALS SHALL BE LAID ON A SLOPE OF NOT LESS THAN 1/4 INCH PER FOOT. GRAVITY SEWER SERVICE WILL BE PROVIDED TO THE FIRST FLOOR ELEVATION OF EACH DWELLING. BASEMENT SANITARY SEWER SERVICE WILL NOT BE PROVIDED.
- CONNECTION TO EXISTING FORCE MAIN SHALL BE MADE DURING OFF-HOURS AND SHALL BE PERFORMED IN SUCH A MANNER AS TO MINIMIZE INTERRUPTION OF EXISTING SERVICE.
- NO PLANTINGS OR STRUCTURES SHALL BE LOCATED WITHIN ANY SANITARY SEWER EASEMENT OR WITHIN 10 FEET OF A SEWER LATERAL. PROPERTY OWNERS SHALL MAINTAIN ALL EASEMENTS AS LAWN.
- ALL WATER MAIN MATERIALS AND CONSTRUCTION SHALL BE IN CONFORMANCE WITH NORTH PENN. WATER AUTHORITY STANDARDS AND SPECIFICATIONS. ALL WATER MAINS SHALL BE PRESSURE CLASS 350 PIPE. ALL SERVICE LATERALS SHALL BE D.I.P. AND SHALL INCLUDE A VALVE, VALVE BOX, AND RESIDENTIAL METER PIT.
- A MINIMUM OF 4-FEET OF COVER MUST BE MAINTAINED OVER ALL SANITARY SEWER LINES/MAINS AND WATER LINES/MAINS.
- A MINIMUM VERTICAL SEPARATION OF 18 INCHES SHALL BE PROVIDED AT ALL UTILITY CROSSINGS. A HORIZONTAL SEPARATION OF 10 FEET AND/OR A VERTICAL SEPARATION OF 18 INCHES SHALL BE MAINTAINED BETWEEN THE SANITARY SEWER AND ANY OTHER UTILITY PIPELINES. WHERE PIPELINES MUST CROSS UNDER A SEWER, THE INSTALLATION MUST ALSO PROVIDE ADEQUATE STRUCTURAL SUPPORT FOR THE SEWER TO PREVENT DEFLECTION AND BREAKING OF THE SEWER. WHERE PROPER CLEARANCES CAN NOT BE PROVIDED, THE SEWER SHALL BE CONCRETE ENCASED FOR A DISTANCE OF 10 FEET ON EITHER SIDE OF THE CONFLICT. NO WATERLINE, MAIN OR SERVICES SHALL CROSS UNDER A SANITARY SEWER LINE (MAIN, LATERALS, FORCE MAIN ETC.).
- ALL PROPOSED DRIVEWAYS MUST BE PROVIDED WITH A 20-FOOT MINIMUM LENGTH LEVELING AREA, MEASURED FROM THE ULTIMATE RIGHT-OF-WAY INTO THE LOT SLOPED NOT MORE THAN 6.0%.
- ALL SURFACE AREAS SHALL BE PROPERLY GRADED TO ENSURE PROPER DRAINAGE AWAY FROM BUILDINGS TO NEAREST INLET OR WATERCOURSE WITHOUT PONDING OR OBSTRUCTION. A MINIMUM OF 2% SLOPE SHALL BE PROVIDED ON ALL GRASSED AREAS EXCEPT BASIN BOTTOMS, WHICH ARE DESIGNED TO BE FLAT BOTTOM BMP AREAS.
- ANY SPRING ENCOUNTERED DURING ROADWAY CONSTRUCTION SHALL BE OULETTED BY U-DRAIN TO NEAREST STORM SEWER FACILITY OR WATERCOURSE. U-DRAIN PLACEMENT TO BE BY THE DIRECTION OF THE TOWNSHIP ENGINEER.
- UNDERDRAINS WITHIN DRAINAGE SWALES AND BASINS SHALL BE 4"Ø PERFORATED H.D.P.E. PIPE, OR APPROVED EQUAL, SURROUNDED BY MIN. 6" OF CRUSHED STONE.
- NO TOPSOIL SHALL BE REMOVED FROM THE SITE OR USED AS SPOIL. TOPSOIL MUST BE REMOVED FROM AREAS OF CONSTRUCTION AND STORED SEPARATELY. FOLLOWING COMPLETION OF CONSTRUCTION, THE TOPSOIL MUST BE REDISTRIBUTED ON THE SITE UNIFORMLY AT A MINIMUM DEPTH OF EIGHT (8) INCHES. IF APPLICABLE, REFER TO THE "POST-CONSTRUCTION STORMWATER MANAGEMENT PLAN" FOR ADDITIONAL TOPSOIL REQUIREMENTS OR AMENDMENT.
- ALL TEMPORARY AND PERMANENT SWALES ARE TO BE STABILIZED IN ACCORDANCE WITH THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN.
- ALL NEW UTILITY SERVICES, BOTH MAIN AND SERVICE LINES, SHALL BE BY UNDERGROUND SERVICE.
- PROVIDE SHOP DRAWINGS/LITERATURE SUBMITTALS FOR ALL ITEMS PERTAINING TO THE STORM SEWER SYSTEM, STORM STRUCTURES, PIPE, ETC., CONCRETE, I.E. CURB SIDEWALK, ETC., ALL AGGREGATES, ALL ASPHALT DESIGN MIXES, RETAINING WALLS, ETC., TO THE TOWNSHIP ENGINEER FOR REVIEW AND APPROVAL PRIOR TO FABRICATION OR CONSTRUCTION.
- PROVIDE SHOP DRAWINGS/LITERATURE SUBMITTALS FOR ALL ITEMS PERTAINING TO THE SANITARY SEWER SYSTEM, I.E. MANHOLES, PIPE, AGGREGATE, ETC., TO THE SEWER AUTHORITY ENGINEER FOR REVIEW AND APPROVAL PRIOR TO FABRICATION AND CONSTRUCTION.
- THE MAXIMUM UNPAVED SLOPE IS 3:1 AND THE MINIMUM PAVED SLOPE IS 1%.
- EXISTING RESIDENCES ON LOT 7 WILL BE CONNECTED TO PUBLIC SEWER, AT WHICH TIME EXISTING ONLY-OT SEWAGE DISPOSAL SYSTEMS SHALL BE ABANDONED IN ACCORDANCE WITH MONTGOMERY COUNTY HEALTH DEPARTMENT REGULATIONS.

UNDERGROUND UTILITY NOTE



LOCATIONS OF EXISTING UTILITIES SHOWN HEREON ARE BASED ON INFORMATION RECEIVED FROM FACILITY OWNERS FOLLOWING A CALL TO PA ONE CALL SYSTEM, INC. COMPLETENESS OR ACCURACY OF TYPE, SIZE, DEPTH, OR HORIZONTAL LOCATION OF UTILITIES CANNOT BE GUARANTEED. CONTRACTORS MUST VERIFY THE LOCATION AND DEPTH OF UNDERGROUND UTILITIES BEFORE THE START OF WORK BY NOTIFYING FACILITY OWNERS, THROUGH THE PA ONE CALL SYSTEM (1-800-242-7776 OR 811), NOT LESS THAN 3 BUSINESS DAYS NOR MORE THAN 10 BUSINESS DAYS IN ADVANCE OF BEGINNING EXCAVATION OR DEMOLITION WORK PER THE REQUIREMENTS OF PA ACTS 287 AND 121, AS AMENDED.

DESIGN SERIAL NO.: 20191561051 (07/05/2019)
SEE SHEET 2 FOR UTILITY AGENCY CONTACT INFORMATION

PLAN AND PROFILE PROPOSED CUL-DE-SAC

FOR

ALLEBACH TRACT

PREPARED FOR

502 TOWNSHIP LINE ROAD LAWYERS, LLC

SITE SITUATE IN
FRANCONIA TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

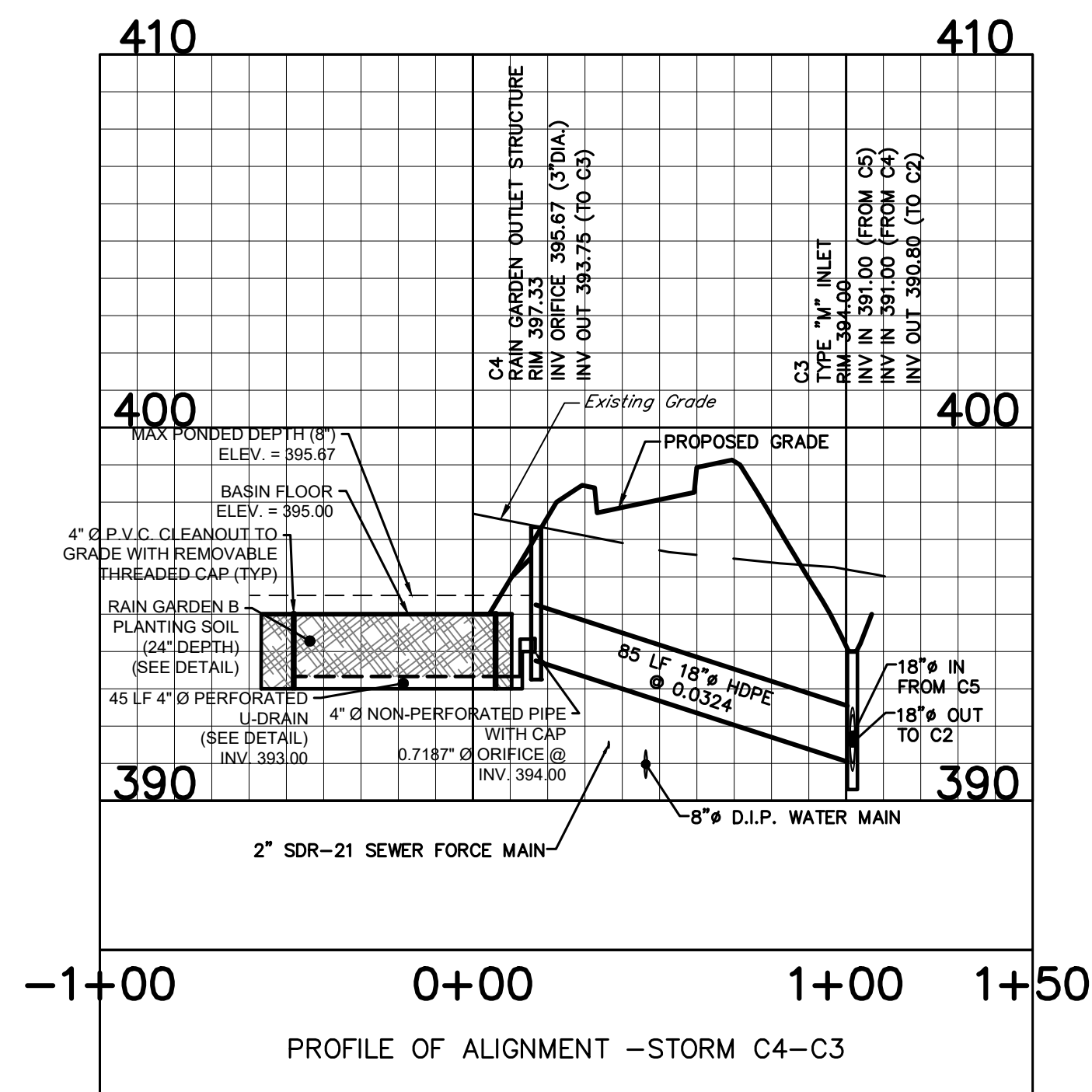
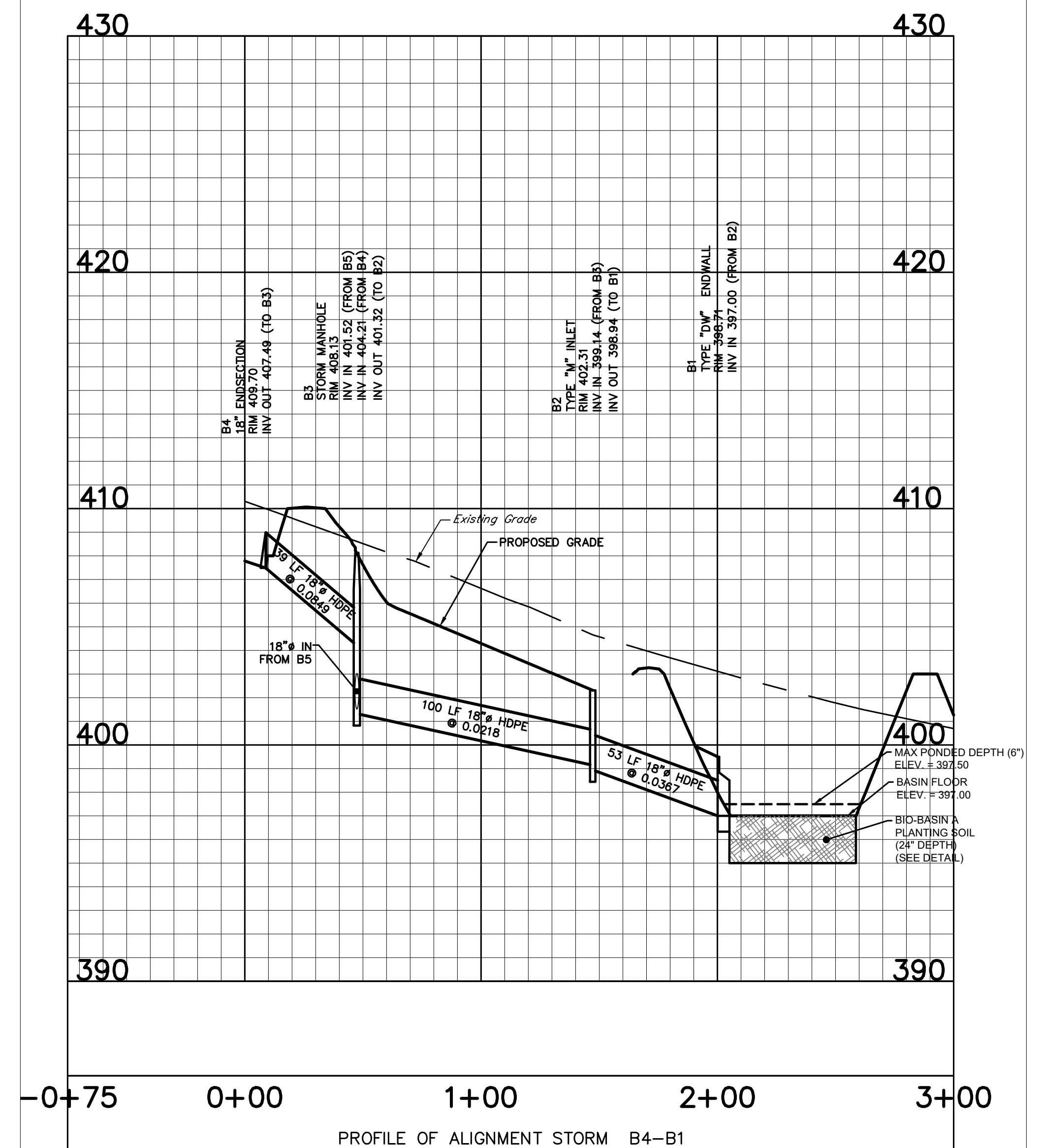


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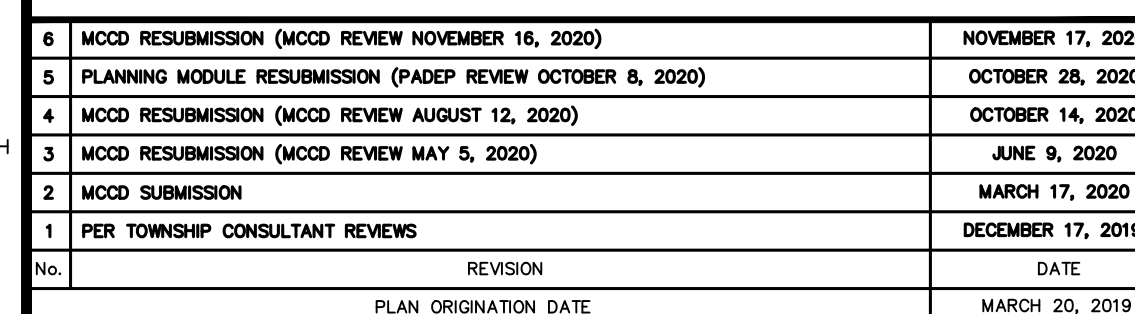
The Village at Lederach
658 Harleyville Pike, Suite 150
Harleysville, PA 17038
(215) 513-2100

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RCMA	RCM	3071	13 OF 28

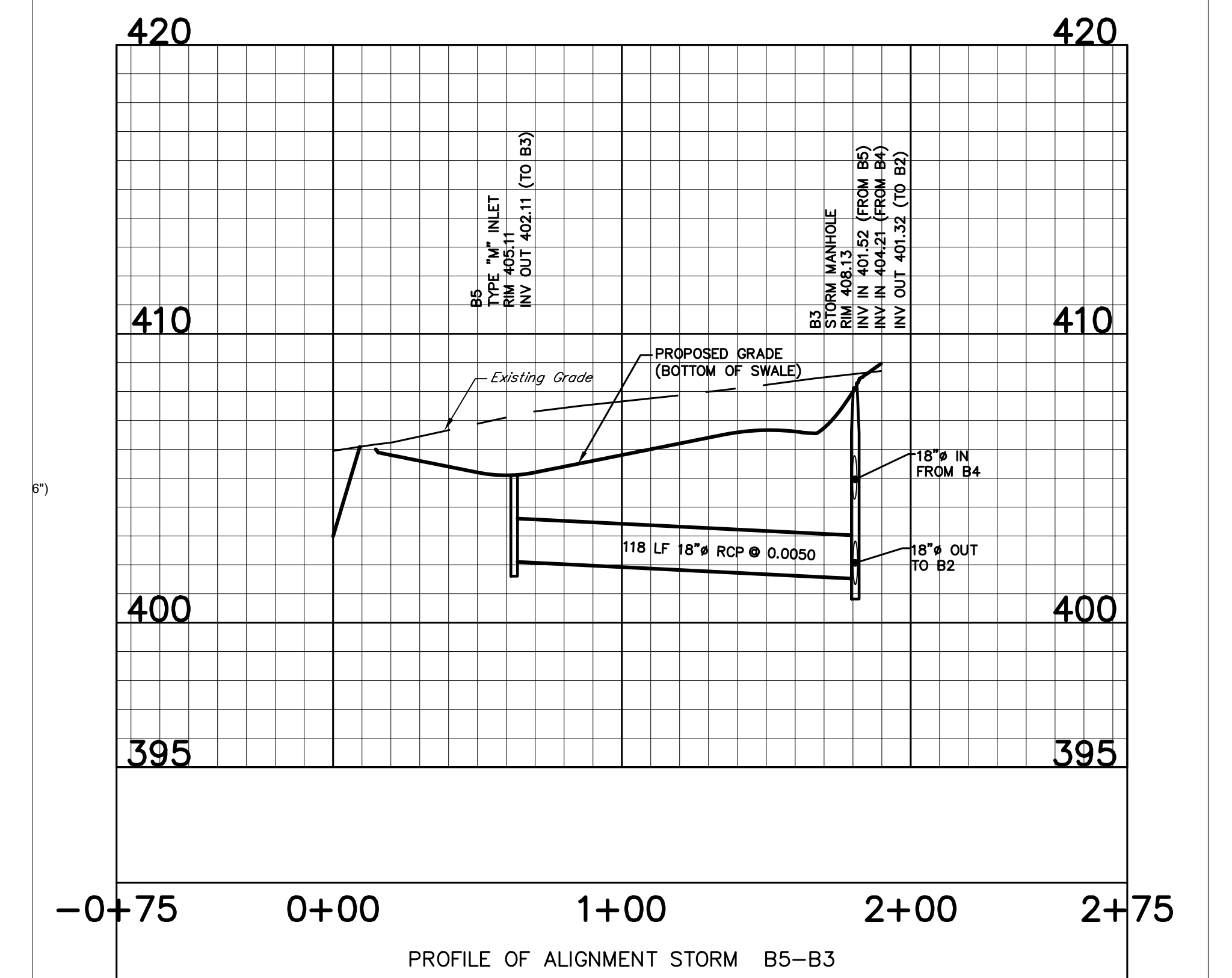
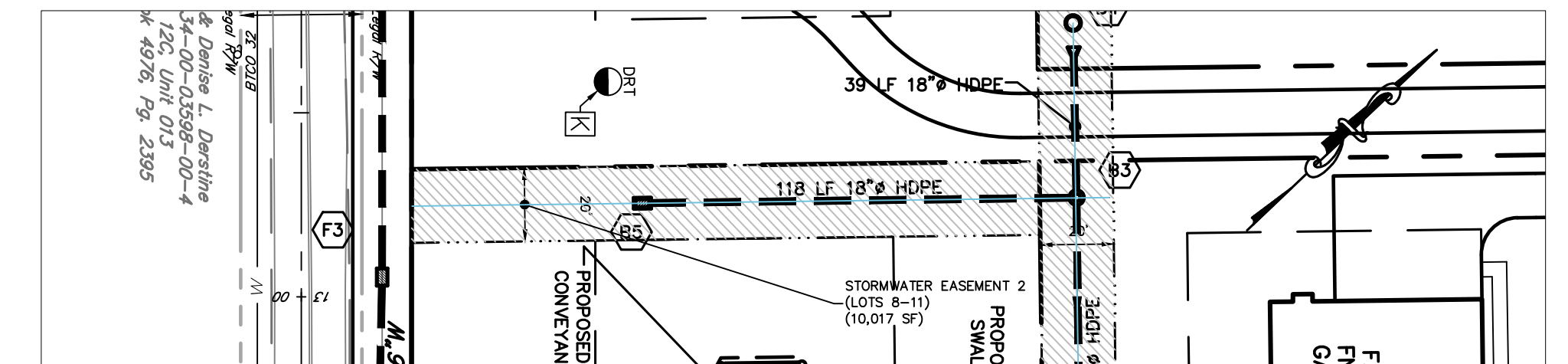


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SERIAL NO.: 2019186105/ 07/05/2019
PA ONE CALL SYSTEM, INC. REGISTRATION

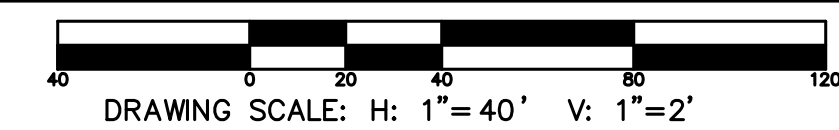


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LOCATIONS OF EXISTING UTILITIES SHOWN HEREON ARE BASED ON INFORMATION RECEIVED FROM UTILITY OWNERS. FOLLOWING A CALL TO PA ONE CALL SYSTEM, ONE'S COMPLETENESS OR ACCURACY OF TYPE, SIZE, DEPTH, OR HORIZONTAL LOCATION OF UTILITIES CANNOT BE GUARANTEED. CONTRACTOR MUST VERIFY THE LOCATION AND DEPTH OF UNDERGROUND UTILITIES BEFORE THE START OF WORK BY NOTIFYING FACILITY OWNERS, THROUGH THE PA ONE CALL SYSTEM (1-800-242-1776 OR 811), NOT LESS THAN 3 BUSINESS DAYS NOR MORE THAN 10 BUSINESS DAYS ADVANCE OF ANY EXCAVATION OR DEMOLITION WORK PER THE REQUIREMENTS OF PA ACTS 287 AND 121, AS AMENDED.

SERIAL NO: 20198160151 (07/05/2019)



6	MCCD RESUBMISSION (MCCD REVIEW NOVEMBER 16, 2020)	NOVEMBER 17, 2021
5	PLANNING MODULE RESUBMISSION (PAVED REVIEW OCTOBER 8, 2020)	OCTOBER 28, 2021
4	MCCD RESUBMISSION (MCCD REVIEW AUGUST 12, 2020)	AUGUST 14, 2021
3	MCCD RESUBMISSION (MCCD REVIEW MAY 5, 2020)	JUNE 9, 2021
2	MCCD SUBMISSION	MARCH 17, 2020
1	PER TOWNSHIP CONSULTANT REVIEWS	DECEMBER 17, 2011
NO.	REVISION	DATE
	PLAN, COORDINATION, RATE	MARCH 20, 2019

PLAN AND PROFILE MISCELLANEOUS PROFILES

ALLEBACH TRACT

502 TOWNSHIP LINE ROAD LAWYERS, LLC
SITE SITUATE IN
FRANCONIA TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

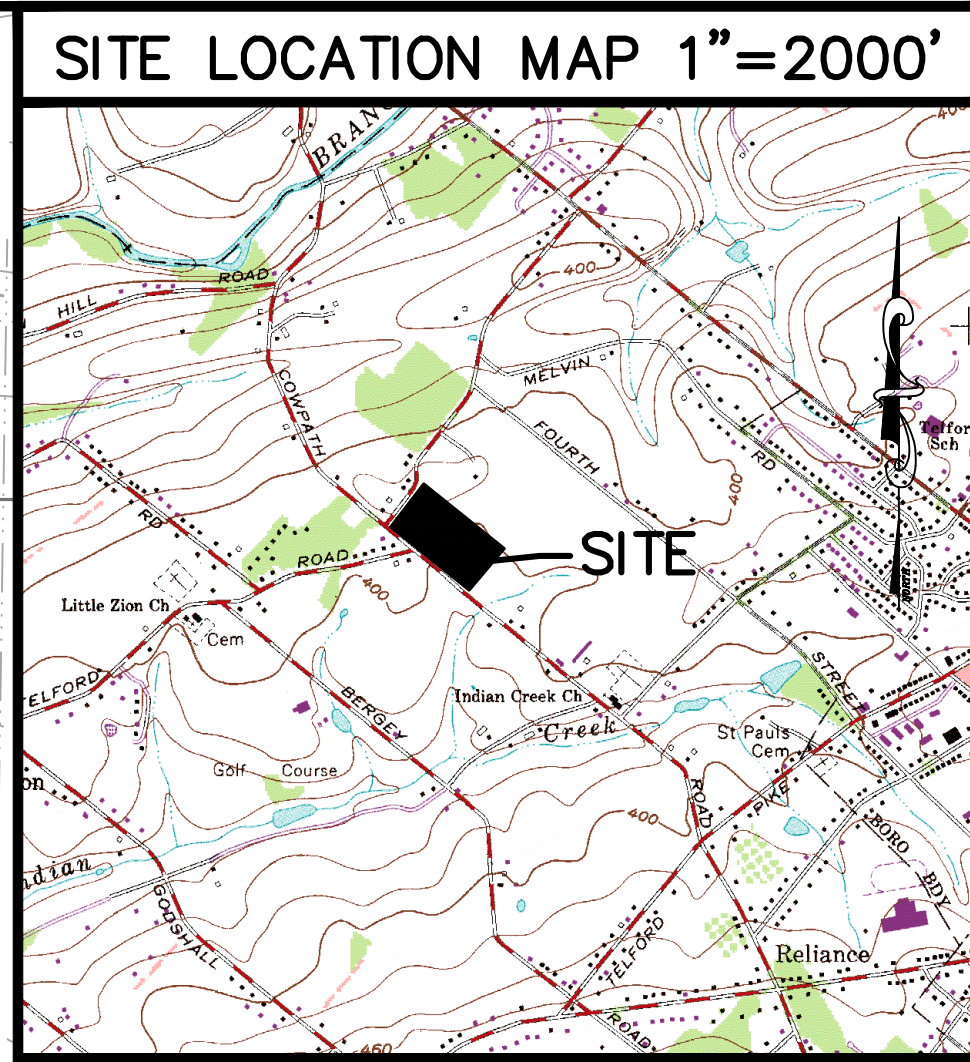
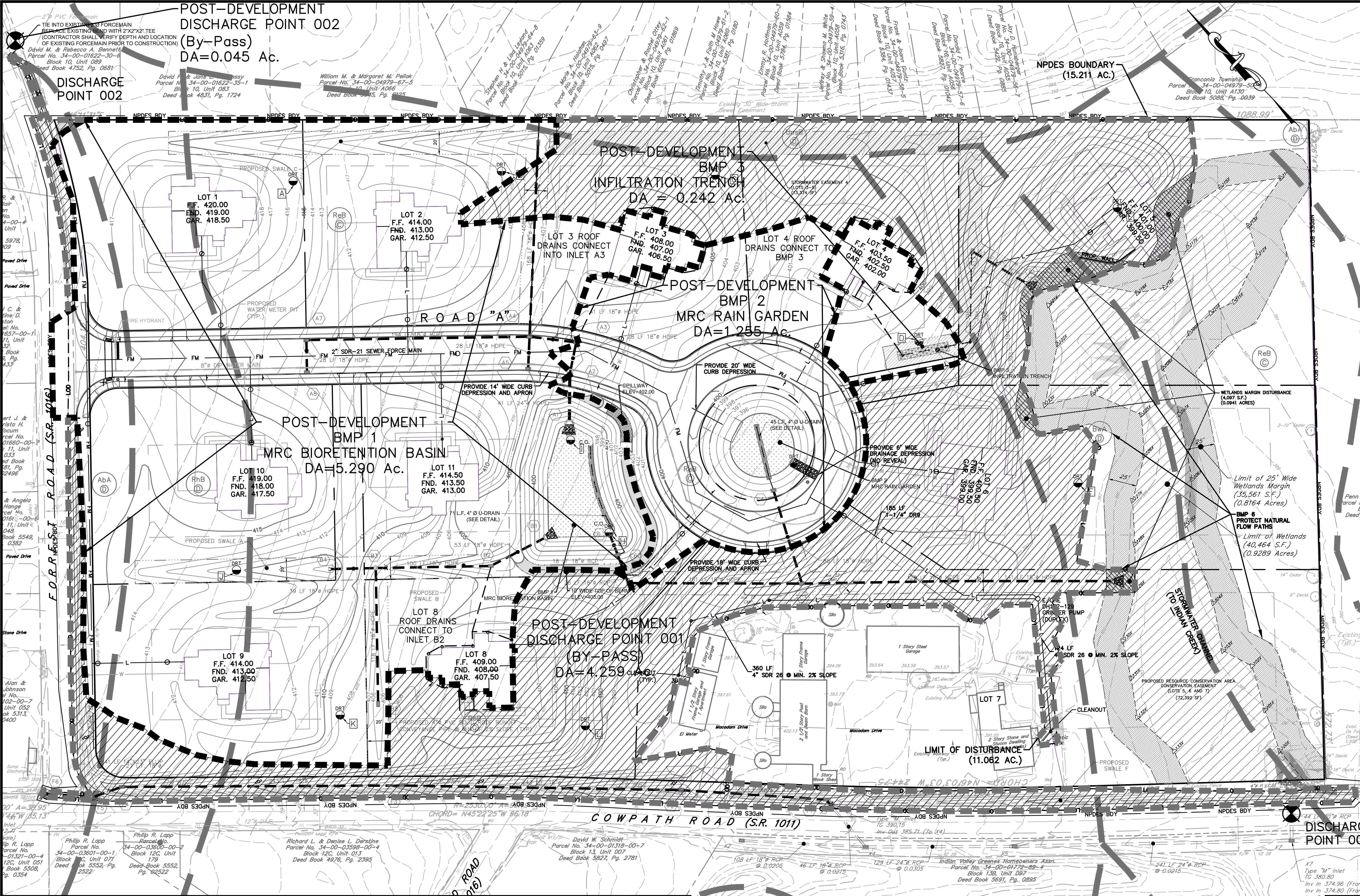
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RCMA	RCM	3071	15 OF 28



The Village at Lederach
658 Harleysville Pike, Suite 150
Harleysville, PA 19438
(215) 513-2100



U.S.G.S. TELFORD QUADRANGLE 7.5' SERIES

EARTHWORK STAGING

- In order to keep erosion and sediment pollution during construction to an absolute minimum, the following procedures and stages shall be followed:
1. Install initial E&S Controls:
 - 1.1. Install Rock Construction Entrance off of Forrest Road as shown.
 - 1.2. (CRITICAL STAGE Contact Licensed Professional) Install construction stakeout for limit of disturbance, safety fencing (Proposed Infiltration BMPs), tree fencing and Filter Barriers.
 - 1.3. (CRITICAL STAGE Contact Licensed Professional) Install tree protection fencing and Filter Barriers.
 - 1.4. Contractor to install, or cause to have installed, location markers for existing underground utilities crossing through the project site, including but not limited to underground electric, water, sewer, and gas lines.
 - 1.5. Install Concrete Washout Station (see Figure 3.18).
 2. Install filter sock below demolition area and remove existing structure and paving as shown.
 3. Site wide clearing/grubbing and construction of proposed improvements may begin ONLY after the sediment trap facility is constructed and fully functional.
 4. Construct Sediment Trap A:
 - 4.1. Ensure filter sock is installed below proposed berm.
 - 4.2. Clear vegetation as necessary to construct the Sediment Trap and associated grading. Strip topsoil over Sediment Trap area and stockpile where shown. Install filter sock barrier below stockpile.
 - 4.3. Rough grade Sediment Trap to design subgrade.
 - 4.4. Install trap and construct outfall storm run C1-C6.1 including specified anti-seep collars.
 - 4.5. Seal all side openings (permanent condition) on outlet structure C6.1 with marine grade plywood and marine grade sealant. (Do not cover/seal top grate). Temporary covers/seals to remain until conversion to the permanent condition. No plywood riser is necessary (top-of-dewatering zone is below T.G. elevation).
 - 4.6. Install Temporary barrel and skimmer to structure C6.1, clean-out stake, stone berm and spillway lining. Permanent orifice plate is not to be installed on outlet structure C6.2 until conversion to the permanent condition.
 - 4.7. (Permanent facility planting soil mixture and underdrain to be installed later).
 5. Bulk grading and construction of proposed underground utilities may be completed concurrently.
 6. Construct roadway widening, associated storm sewer, and swale F.
 7. Perform bulk cuts/fills and rough grade project site:
 - 7.1. Strip and stockpile topsoil over project site. After stockpiling is completed, stabilize stockpiles with temporary seed and mulch. Temporary topsoil stockpile is to be placed to direct surface flows to Temporary Sediment Trap A.
 - 7.2. Perform bulk cuts & fills. Proposed roadway construction is to be completed so as to ensure all intended runoff from the for storm runs A and B are directed into the sediment trap, until such time as storm A1-A8 and storm B1-B4 are constructed. Stub pipe run to Structure B5 with a visual marker.
 - 7.3. Rough grade driveways, parking areas, and building pad to design subgrade.
 8. Begin construction of proposed building and associated improvements.
 9. Construct proposed sanitary sewer lateral and potable water service. If left short of the building wall, demarcate the stub by visual marker.
 10. Install all remaining underground utilities.
 11. Construct all remaining storm sewers and swales.
 12. Complete roadway (to macadam base course):
 - 12.1. Finish grade areas for curb installation and construct curbs.
 - 12.2. Remove site Tire Cleaner and install stone base course and bituminous base courses.
 - 12.3. All construction equipment and vehicles shall now enter all disturbed areas over individual Tire Cleaners.
 13. Complete construction of all proposed improvements and utilities (except construction of those areas containing temporary sediment facilities, construction of permanent BMPs, and placement of Amended Planting Soil in basins and gardens).
 14. An area shall be considered to have achieved final stabilization when it has a minimum uniform 70% (percent) vegetative 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.
 15. (CRITICAL STAGE Contact Licensed Professional) Following final stabilization of Lot 4 construction BMP 3 Infiltration Trench in accordance with BMP Detail on P.C.S.M. Plan Details.
 16. Conservation District approval is required prior to removal of E&S Controls (refer to E&S Notes).
 17. Permanent BMPs (BMP 1-MRC Bioretention Basin and BMP 2-MRC Rain Garden) may be constructed/installed only after all proposed improvements within the contributing drainage area are constructed and all disturbance within the contributing drainage area has achieved final stabilization.
 18. (CRITICAL STAGE Contact Licensed Professional) Following final stabilization of Lots 1-3 and 8-11, convert Sediment Trap A to BMP 1-MRC Bioretention Basin:
 - 18.1. While temporary skimmer remains, remove baffles and c.o. stake. Excavate sediment from trap and distribute around basin.
 - 18.2. Prepare subgrade and install HPDE Liner according to notes and details.
 - 18.3. Finish grade embankments and construct DW Endwall C6.2 and pipe run to Outlet Structure C6.1. Stabilize with erosion slope matting and permanent seed. Install specified matting over spillway and to interior and exterior top of slope.
 - 18.4. From outside the basin bottom area, construct the basin bottom BMP as per BMP Detail and in accordance with the P.C.S.M. Plan.
 - 18.5. Once stabilized, remove temporary skimmer and outlet structure opening covers.
 - 18.6. Install permanent facility control structures and/or orifice plates.
 - 18.7. Install Planting Soil Mixture as depicted on plans.
 - 18.8. Remove remaining temporary erosion control measures and distribute collected sediment area adjacent to controls. All areas disturbed during removal of controls must be stabilized immediately.
 20. Restore and/or repair all paved roadway and driveway base courses as necessary and restore all items affected by construction activities (i.e. signs, mailboxes, etc.). Complete all township inspection / punch-list items. Install all remaining bituminous wearing courses. Install all permanent signage and striping. (CRITICAL STAGE Contact Licensed Professional) Install BMP 4 all remaining landscaping.
 21. Upon permanent stabilization of earth disturbance activity under 25 PA Code § 102.21(a)(2) (relating to permanent stabilization) and installation of BMPs in accordance with the approved plan prepared and implemented in accordance with 25 PA Code § 102.4 and 102.8, the Permittee and/or Co-permittee shall submit a N.O.T. Notice of Termination to the PADEP or authorized Conservation District. The Permittee shall include with the N.O.T. the required record drawings with a final certification statement from a licensed professional.

LEGEND

PROPERTY BOUNDARY	PROP STORM SEWER	DOUBLE-RING INFILTRATION TEST SITE
ADJOINING OWNER	PROP ROOF LEADER	
EXIST BUILDING	PROP CONTOUR	WETLAND BUFFER
EXIST ROAD CENTERLINE	PROP INDEX CONTOUR	WETLAND DISTURBANCE
EXIST RIGHT-OF-WAY	PROP ALTERED TREE LINE	EXIST SOILS IDENTIFIER
EXIST EDGE OF ROAD	PROP SPILLWAY	EXIST WETLAND FLAG & HATCH
EXIST DRIVEWAY	PROP RIP-RAP	EXIST UTILITY POLE
EXIST CONTOUR	PROP RAIN GARDEN	
EXIST INDEX CONTOUR		
EXIST SOILS LINE		
EXIST STORM SEWER		

WETLANDS DETERMINATION & FLOODPLAIN

WETLAND AND REGULATED WATER AREAS IS BASED ON A FIELD DETERMINATION CONDUCTED BY PENNS TRAIL ENVIRONMENT, LLC, IN JUNE 2016. WETLAND FLAGGING WAS SURVEY LOCATED BY RICHARD C. MAST ASSOCIATES, P.C.

NO PART OF THE SUBJECT TRACT IS LOCATED WITHIN A 100 YEAR FLOOD PLAIN BASED ON THE FLOOD INSURANCE RATE MAP (FIRM NO. 42091C01286 EFFECTIVE DATE MARCH 3, 2016) PUBLISHED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY.

POST CONSTRUCTION STORMWATER MANAGEMENT PLAN

FOR ALLEBACH TRACT

PREPARED FOR 502 TOWNSHIP LINE ROAD LAWYERS, LLC

SITE SITUATE IN FRANCONIA TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

Richard C. Mast Associates, P.C.
Consulting Engineers and Surveyors
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6	MCCD RESUBMISSION (MCCD REVIEW NOVEMBER 16, 2020)	NOVEMBER 17, 2020
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1	PER TOWNSHIP CONSULTANT REVIEWS	DECEMBER 17, 2019
No.	REVISION	DATE
	PLAN ORIGINATION DATE	MARCH 20, 2019

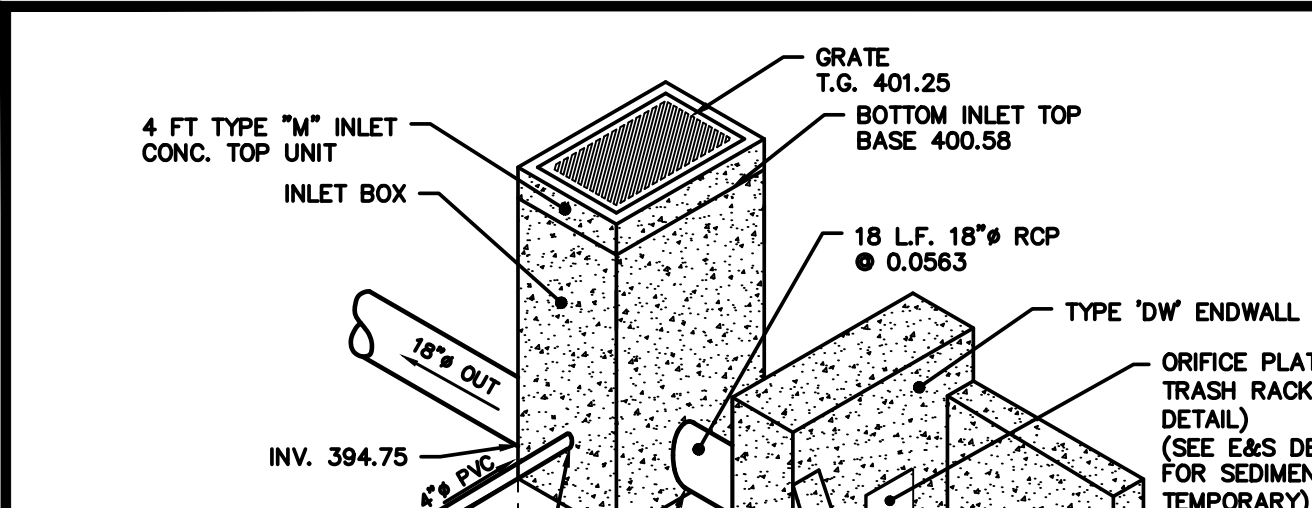
LEGEND

PROPERTY BOUNDARY	PROP STORM SEWER	DOUBLE-RING INFILTRATION TEST SITE
ADJOINING OWNER	PROP ROOF LEADER	
EXIST BUILDING	PROP CONTOUR	WETLAND BUFFER
EXIST ROAD CENTERLINE	PROP INDEX CONTOUR	WETLAND DISTURBANCE
EXIST RIGHT-OF-WAY	PROP ALTERED TREE LINE	EXIST SOILS IDENTIFIER
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EXIST DRIVEWAY	PROP RIP-RAP	EXIST UTILITY POLE
EXIST CONTOUR	PROP RAIN GARDEN	
EXIST INDEX CONTOUR		
EXIST SOILS LINE		
EXIST STORM SEWER		



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**TYPICAL CROSS-SECTION
PERMANENT EMERGENCY SPILLWAY
BMP 1-MRC BIORETENTION BASIN**

CONSTRUCTION NOTES:

- REFER TO THE APPROVED PCSM PLAN FOR ADDITIONAL BMP SPECIFICATIONS, INSTALLATION TESTING REQUIREMENTS, AND MAINTENANCE NOTES.
- MATERIALS AND CONSTRUCTION SHALL MEET REQUIREMENTS OF P.D.T. SPECIFICATIONS, PUB. 408.
- PROPOSED IMPROVEMENTS WITHIN THE CONTRIBUTING DRAINAGE AREA FOR PERMANENT BASIN SHOULD BE COMPLETED, AND THE CONTRIBUTING AREA SHOULD BE COMPLETELY STABILIZED BEFORE EXCAVATION OF THE BMP BOTTOM AND PLACEMENT OF THE PLANTING SOIL MIXTURE.
- INITIAL EXCAVATION CAN BE PERFORMED DURING ROUGH SITE GRADING BUT SHALL NOT BE CARRIED TO WITHIN ONE FEET OF THE BMP BOTTOM SUB-GRADE. FINAL EXCAVATION SHOULD NOT HAVE ANY EXPOSED OR DISTURBED AREAS IN THE RAIN GARDEN DRAINAGE AREA, EXCEPT WITHIN THE BMP AREA, HAVE BEEN STABILIZED.
- SEEPS AND SPRINGS ENCOUNTERED DURING EXCAVATION SHALL BE SAFELY CONFINED AROUND THE RAIN GARDEN TO A SUITABLE DOWNSTREAM DISCHARGE POINT.

MATERIALS:

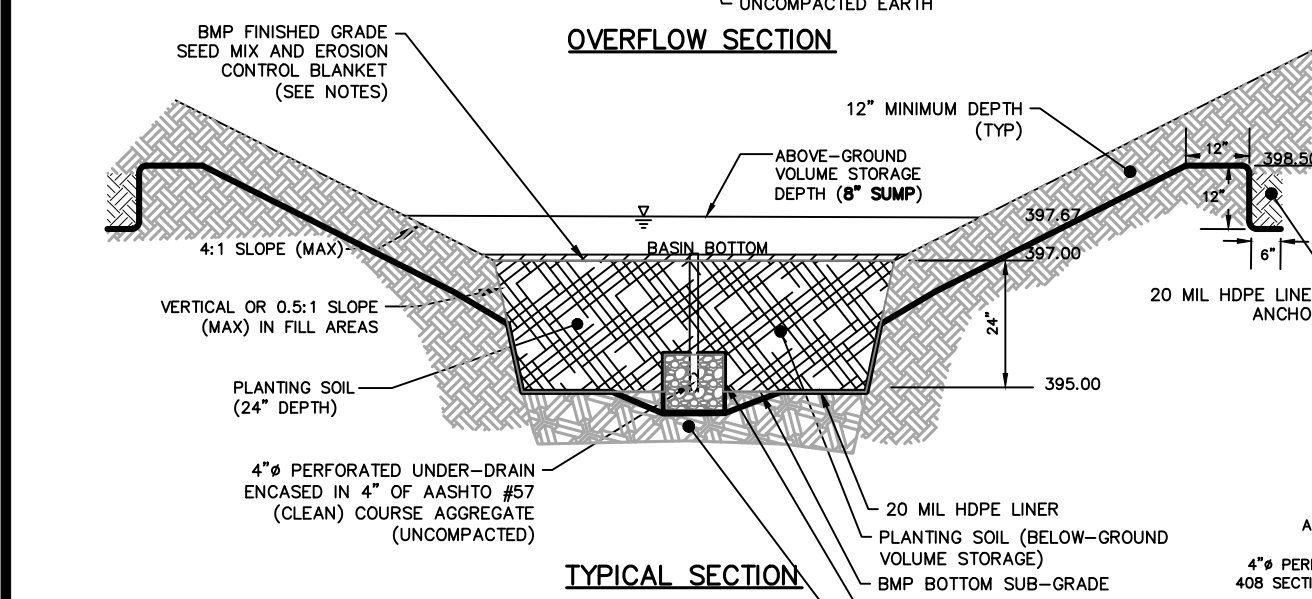
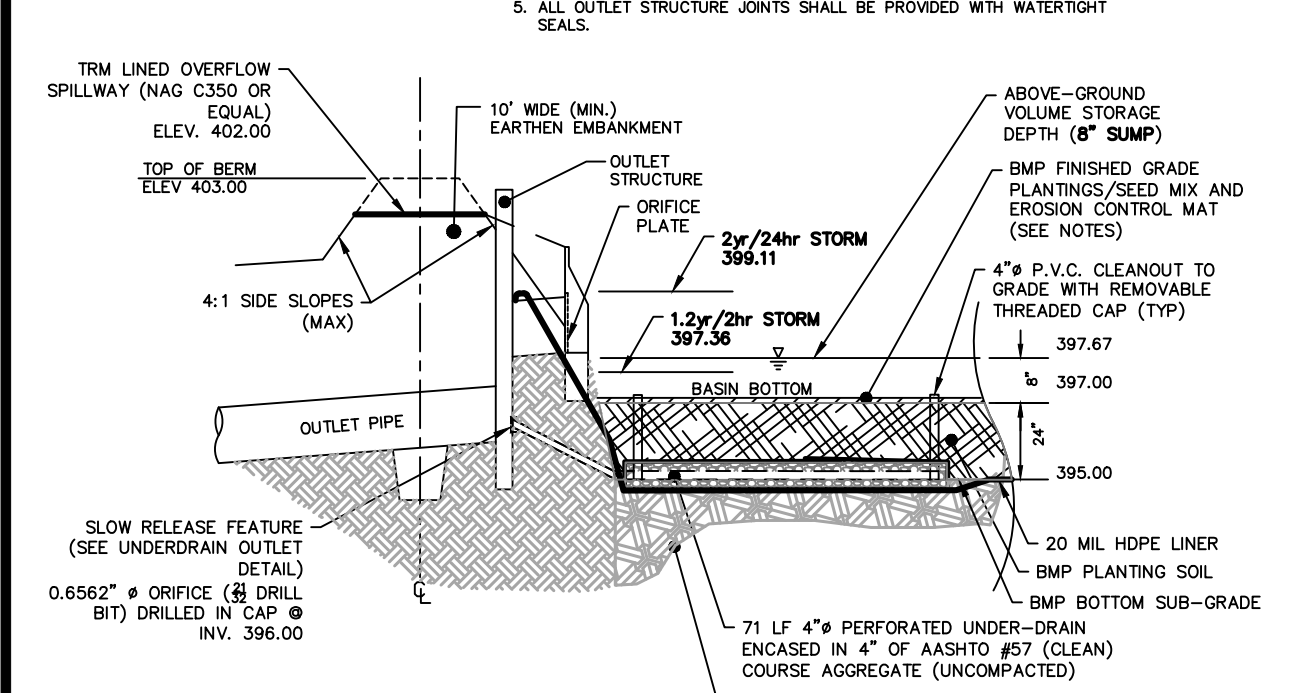
- STONE - AASHTO #57 (CLEAN) COURSE AGGREGATE (UNCOMPACTED) PER AASHTO SPECIFICATIONS, PART 1, 19TH ED., 1998 OR LATER AND SHALL HAVE Voids 40% AS MEASURED BY ASTM-C29.
- NON-WOVEN GEOTEXTILE - CONSIST OF NON-WOVEN POLYPROPYLENE FIBERS AND MEET THE FOLLOWING PROPERTIES:
 - GRAB TENSILE STRENGTH (ASTM-D4632)
 - MULLEN BURST STRENGTH (ASTM-C3786)
 - FLOW RATE (ASTM-D4491)
 - UV RESISTANCE AFTER 500 HRS (ASTM-D4355) 70%
 - HEAT-SET OR HEAT-CALCENDARD FABRICS ARE NOT PERMITTED. ACCEPTABLE TYPES INCLUDE MIRAF 140N, AMOCO 4547, AND GEOTEX 451 (OR APPROVED EQUAL).
- PERFORATED PIPE - ALL PERFORATED PIPE UNDERDRAIN SHALL BE ASTM D3034 GASKETED 4\"/>

- SHALL BE FREE OF TOXIC SUBSTANCE AND UNWANTED PLANT MATERIAL.
- THE PLANTING SOIL MIX SHALL CONSIST OF 40% COARSE SAND, 20% TO 30% COMPOST AND 30% TO 40% TOPSOIL. SEE DETAIL FOR PLANTING SOIL DEPTH.
- SEED MIX - ERNST CONSERVATION SEEDS- ENRMX-180 OR APPROVED EQUAL WITH GRASS RYE SEED FOR COVER CROP.
- EROSION CONTROL MAT - NORTH AMERICAN GREEN NAG S-75 ERONET OR APPROVED EQUAL.

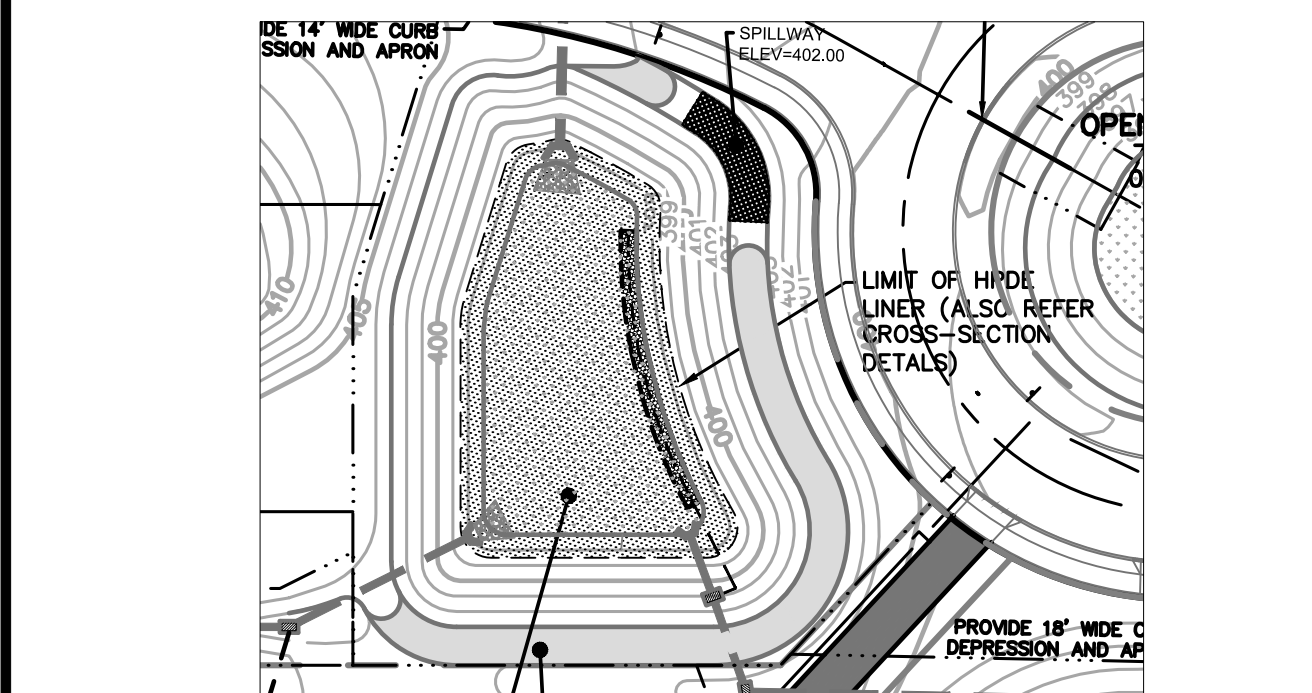
CONSTRUCTION SEQUENCE:

- INSTALL NECESSARY TEMPORARY SEDIMENT CONTROL, BMPs TO PROTECT INFILTRATION AREA FROM SEDIMENT.
- BMP 1 ONLY - INSTALLATION OF LINER TO MANUFACTURES SPECIFICATION AND RECOMMENDATIONS. (SEE BMP 1 CROSS SECTION DETAILS)
- INSTALL - LINER - ACCORDING TO MANUFACTURES RECOMMENDATIONS WITH WATER TIGHT SEALS AT STRUCTURES GOING THOUGH LINER.
- EXCAVATED MRC RAIN GARDEN /BIORETENTION TO THE PROPOSED BOTTOM SUB-GRADE ELEVATION AND SCARIFY THE EXISTING SOIL SURFACES. DO NOT COMPACT THE IN-SITU SOILS.
- INSTALL UNDERDRAIN AND STONE ENCASMENT.
- BACKFILL RAIN GARDEN WITH SPECIFIED PLANTING SOIL MIXTURE. LEAVING SPACE FOR TOP LAYER OF SETTLEMENT. LIGHT HAND TAMPING IS ACCEPTABLE IF NECESSARY. PLANTING SOIL SHALL BE PLACED IMMEDIATELY AFTER APPROVAL OF SUB-GRADE PREPARATION/RED INSTALLATION.
- PREPARE THE MOISTED SOIL MIXTURE PRIOR TO PLANTING VEGETATION TO AID IN SETTLEMENT.
- COMPLETE FINAL GRADING TO ACHIEVE PROPOSED FINISHED GRADE ELEVATION, LEAVING SPACE FOR TOP LAYER OF COMPOST, MULCH OR TOPSOIL AS SPECIFIED. APPLY GRASS SEED MIX TO THE FINISHED GRADE. RECOMMENDED RATES ON THE FLOOR OF THE BASIN AND INSTALLED REMAINING LANDSCAPING AS SHOWN ON PLANS.
- INSTALL ERONET S75 BY NORTH AMERICAN GREEN OR APPROVED EQUAL MAT WITH ANDORS ACCORDING TO THE MANUFACTURES RECOMMENDATIONS AND EROSION CONTROL PROTECTION AS NECESSARY AT SURFACE FLOW ENTRANCES WHERE NECESSARY.

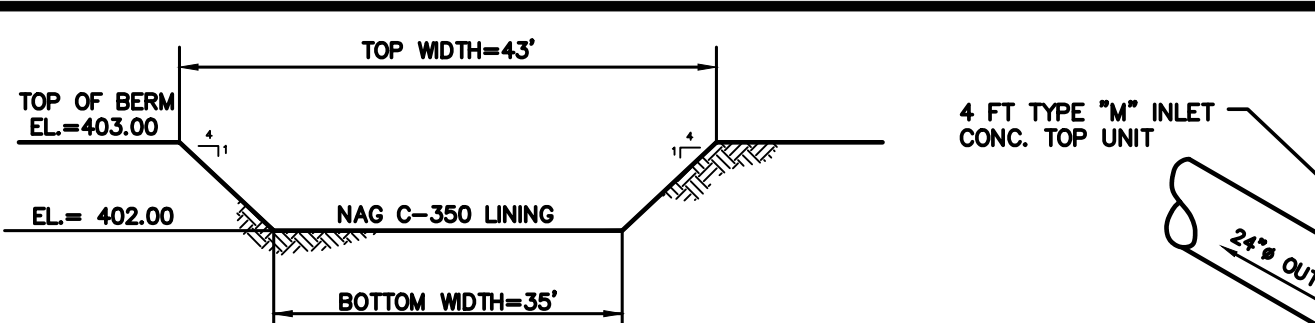
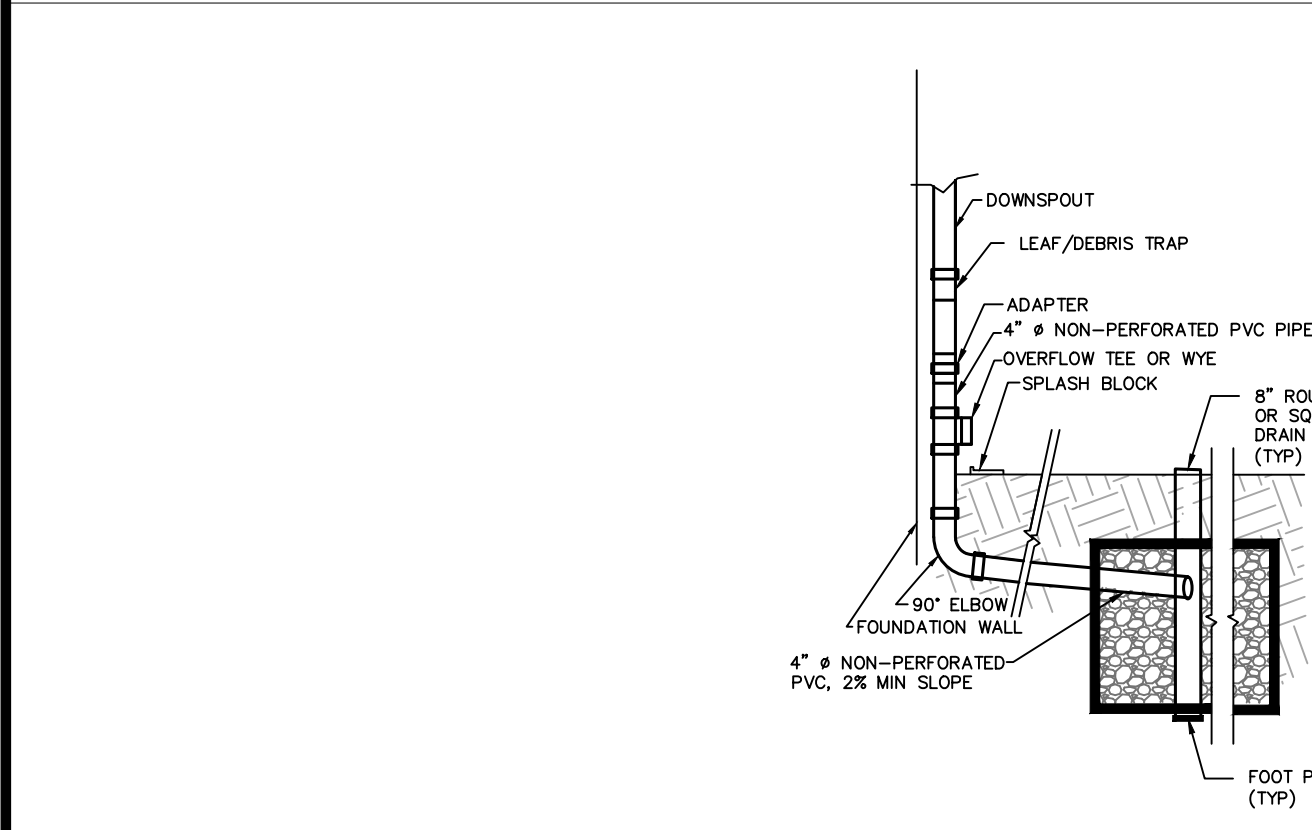
**MRC RAIN GARDEN/MRC BIORETENTION BMP CONSTRUCTION
NOTES AND SEQUENCE (TMP)**



**BIORETENTION BMP DETAIL
(BMP 1-MRC BIORETENTION BASIN)**



**BIORETENTION BMP DETAIL
(BMP 1-MRC BIORETENTION BASIN LINER PLACEMENT)**



**TYPICAL CROSS-SECTION
PERMANENT EMERGENCY SPILLWAY
BMP 1-MRC BIORETENTION BASIN**

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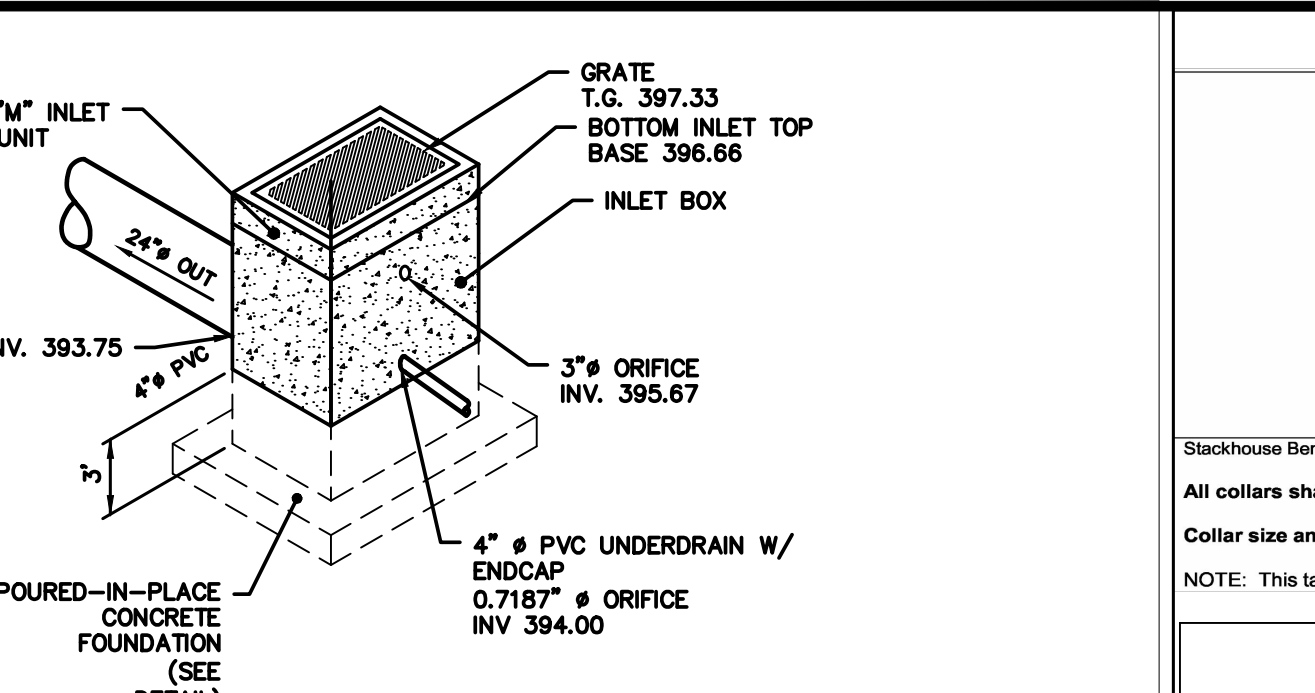
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- SEED MIX - ERNST CONSERVATION SEEDS- ENRMX-180 OR APPROVED EQUAL WITH GRASS RYE SEED FOR COVER CROP.
- EROSION CONTROL MAT - NORTH AMERICAN GREEN NAG S-75 ERONET OR APPROVED EQUAL.

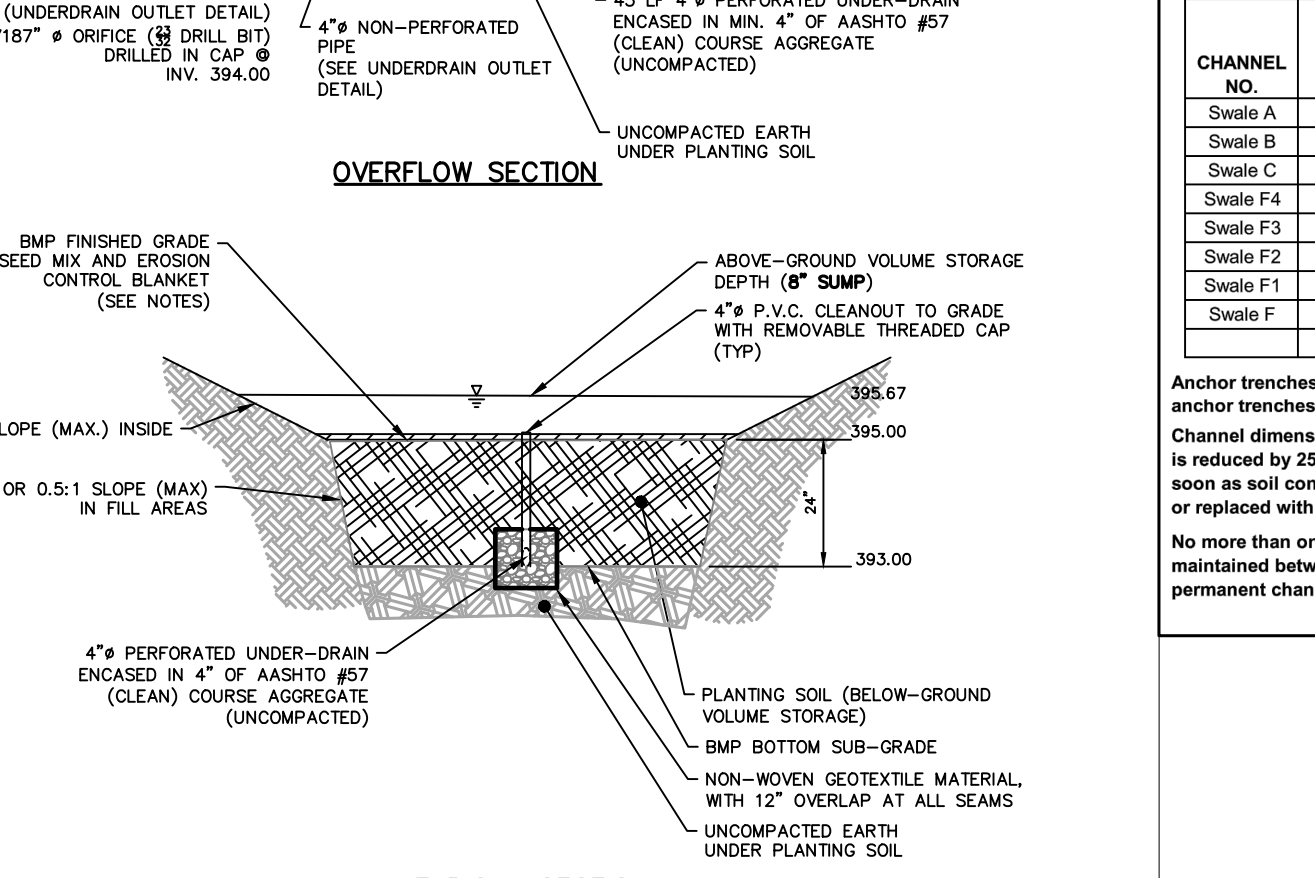
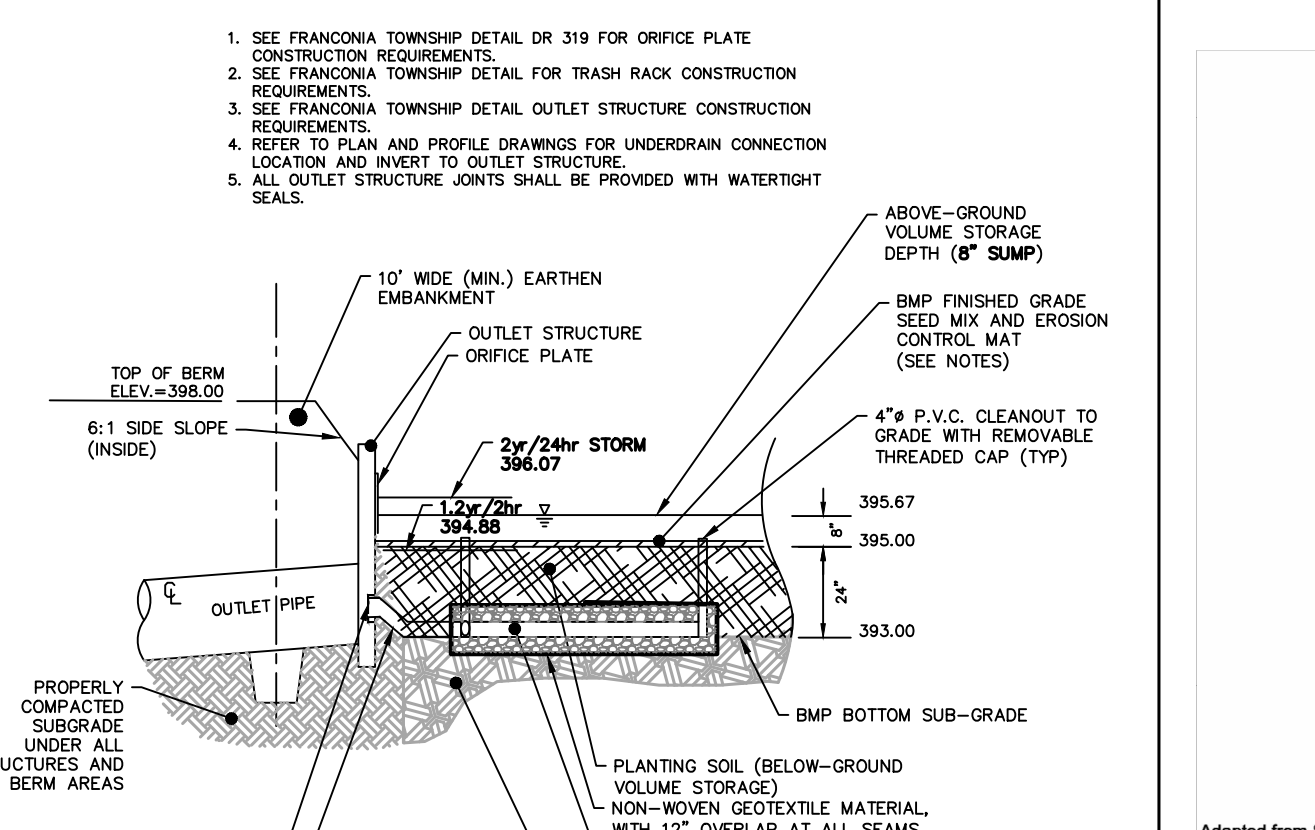
CONSTRUCTION SEQUENCE:

- INSTALL NECESSARY TEMPORARY SEDIMENT CONTROL, BMPs TO PROTECT INFILTRATION AREA FROM SEDIMENT.
- BMP 1 ONLY - INSTALLATION OF LINER TO MANUFACTURES SPECIFICATION AND RECOMMENDATIONS. (SEE BMP 1 CROSS SECTION DETAILS)
- INSTALL - LINER - ACCORDING TO MANUFACTURES RECOMMENDATIONS WITH WATER TIGHT SEALS AT STRUCTURES GOING THOUGH LINER.
- EXCAVATED MRC RAIN GARDEN /BIORETENTION TO THE PROPOSED BOTTOM SUB-GRADE ELEVATION AND SCARIFY THE EXISTING SOIL SURFACES. DO NOT COMPACT THE IN-SITU SOILS.
- INSTALL UNDERDRAIN AND STONE ENCASMENT.
- BACKFILL RAIN GARDEN WITH SPECIFIED PLANTING SOIL MIXTURE. LEAVING SPACE FOR TOP LAYER OF SETTLEMENT. LIGHT HAND TAMPING IS ACCEPTABLE IF NECESSARY. PLANTING SOIL SHALL BE PLACED IMMEDIATELY AFTER APPROVAL OF SUB-GRADE PREPARATION/RED INSTALLATION.
- PREPARE THE MOISTED SOIL MIXTURE PRIOR TO PLANTING VEGETATION TO AID IN SETTLEMENT.
- COMPLETE FINAL GRADING TO ACHIEVE PROPOSED FINISHED GRADE ELEVATION, LEAVING SPACE FOR TOP LAYER OF COMPOST, MULCH OR TOPSOIL AS SPECIFIED. APPLY GRASS SEED MIX TO THE FINISHED GRADE. RECOMMENDED RATES ON THE FLOOR OF THE BASIN AND INSTALLED REMAINING LANDSCAPING AS SHOWN ON PLANS.
- INSTALL ERONET S75 BY NORTH AMERICAN GREEN OR APPROVED EQUAL MAT WITH ANDORS ACCORDING TO THE MANUFACTURES RECOMMENDATIONS AND EROSION CONTROL PROTECTION AS NECESSARY AT SURFACE FLOW ENTRANCES WHERE NECESSARY.

**MRC RAIN GARDEN/MRC BIORETENTION BMP CONSTRUCTION
NOTES AND SEQUENCE (TMP)**



**BMP 2-MRC RAIN GARDEN
OUTLET STRUCTURE DETAIL**



**BIORETENTION BMP DETAIL
(BMP 2-MRC RAIN GARDEN)**

GENERAL NOTES:

- STONE INFILTRATION TRENCH SHALL BE SIZED PER PROPOSED IMPERVIOUS SURFACE DRAINING TO IT.
- STONE SHALL BE AASHTO #3, UNIFORMLY GRADED, CLEAN AND WASHED, WITH 40% VOID RATIO.
- LEAF SCREENS SHALL BE INSTALLED OVER GUTTERS OR LEAF DEFLECTOR GUARDS INSTALLED IN THE DOWNSPOUT, OR OTHER APPROVED LEAF PROTECTION DEVICE. PROPERTY OWNER SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF STORMWATER FACILITIES IN ACCORDANCE WITH THE UPPER SALFORD TOWNSHIP STORMWATER ORDINANCE, CHAPTER 18, AND THE RECORDED OPERATIONS & MAINTENANCE AGREEMENT.

MATERIALS:

- STONE - AASHTO #3 PER AASHTO SPECIFICATIONS, PART 1, 19TH ED., 1998 OR LATER AND SHALL HAVE Voids 40% AS MEASURED BY ASTM-C29.
- NON-WOVEN GEOTEXTILE - CONSIST OF NON-WOVEN POLYPROPYLENE FIBERS AND MEET THE FOLLOWING PROPERTIES:
 - GRAB TENSILE STRENGTH (ASTM-D4632)
 - MULLEN BURST STRENGTH (ASTM-C3786)
 - FLOW RATE (ASTM-D4491)
 - UV RESISTANCE AFTER 500 HRS (ASTM-D4355) 70%
 - HEAT-SET OR HEAT-CALCENDARD FABRICS ARE NOT PERMITTED. ACCEPTABLE TYPES INCLUDE MIRAF 140N, AMOCO 4547, AND GEOTEX 451 (OR APPROVED EQUAL).
- PIPE - CONTINUOUSLY PERFORATED, SMOOTH INTERIOR, WITH A MINIMUM INSIDE DIAMETER OF 4 INCHES.

CONSTRUCTION NOTES:

- INSTALLATION OF STONE INFILTRATION TRENCH SHALL BE INSPECTED BY THE TOWNSHIP ENGINEER OR DESIGNATED REPRESENTATIVE, WITH A MINIMUM 24

HOURS NOTICE.

- REQUIRED INSPECTIONS INCLUDE EXCAVATION - PRIOR TO PLACEMENT OF STONE, STONE/PIPING ROTO TO TOP LAYER OF FABRIC, AND FINAL GRADING AND SEEDING. ADDITIONAL INSPECTIONS MAY BE NECESSARY AS DETERMINED BY TOWNSHIP ENGINEER.
- PRIOR TO PLACEMENT OF STONE IN THE INFILTRATION TRENCH, THE CONTRACTOR OR PROPERTY OWNER SHALL MAKE A TEST PIT 2 FEET BELOW THE BOTTOM OF INFILTRATION TRENCH TO ENSURE THAT BEDROCK AND/OR GROUNDWATER ARE NOT PRESENT IN THIS ZONE. IF GROUNDWATER/BEDROCK IS ENCOUNTERED, IMMEDIATELY CONTACT THE TOWNSHIP ENGINEER TO DISCUSS REDESIGN AND RELOCATION OF THE INFILTRATION TRENCH.
- EXCAVATION FOR THE INFILTRATION TRENCH SHALL BE PERFORMED WITH EQUIPMENT THAT WILL NOT COMPACT THE BOTTOM OF THE BED AREA. INFILTRATION TRENCHES SHALL BE KEPT CLEAN OF SOIL/SEDIMENT DURING THE INSTALLATION PROCESS. IF INSPECTION INDICATES THAT SOIL HAS ENTERED THE INFILTRATION TRENCH, THEN APPROPRIATE MEASURES (IE. CLEANING OF SOIL FROM FABRIC/STONE ETC. AND REPLACEMENT OF FABRIC/STONE) SHALL BE ADDRESSED.
- AFTER INFILTRATION TRENCH IS INSTALLED, ALL HEAVY CONSTRUCTION EQUIPMENT SHALL BE RESTRICTED FROM THE TRENCH AREA TO ELIMINATE IMPACTS THAT MAY COMPROMISE IT. IN THE EVENT ANY IMPACTS COMPRISE THE FUNCTIONALITY OF THE INFILTRATION TRENCH, IT MUST BE IMMEDIATELY REPAIRED OR REPLACED TO DESIGN SPECIFICATIONS.

TRENCH DIMENSIONS:

- FINAL TRENCH DIMENSIONS MAY VARY ACCORDING TO SITE CONDITIONS BUT FINAL DIMENSIONS MUST PROVIDE THE REQUIRED TRENCH VOLUME (LENGTH * WIDTH * DEPTH) AND BE APPROVED BY THE TOWNSHIP.

IMPERVIOUS COVER FOR STORMWATER MANAGEMENT

Impervious on Lots	1	2	3	4	5	6	7	8	9	10	11
Walk/Patio	3,115 SF	3,115 SF	510 SF	3,115 SF	3,115 SF	3,115 SF	12,236 SF	3,115 SF	3,115 SF	3,115 SF	3,115 SF
Future Impervious	500 SF	500 SF	500 SF	500 SF	500 SF	500 SF	0 SF	500 SF	500 SF	500 SF	500 SF
Driveway	2,326 SF	1,993 SF	2,050 SF	2,193 SF	4,893 SF	2,246 SF	0 SF	3,693 SF	4,704 SF	1,993 SF	1,993 SF
Total Lot Impervious	6,451 SF	6,118 SF	6,175 SF	6,318 SF	8,939 SF	6,371 SF	30,568 SF	7,818 SF	8,829 SF	6,118 SF	6,118 SF

Lot 7 Impervious is existing and included in the LOD (not included in Stormwater Management except for small prtion that is included within LOD)

Non-Roof for Lot 7 is listed under Walk/Patio for simplicity - it is all existing

Total Overall Impervious from Lots 99,813 SF

Proposed NEW Impervious Within ROW 35,368 SF

Total Impervious 135,181 SF

Less Lot 7 Existing to Remain Inside LOD (not in ROW) 756 SF

Less Lot 7 (outside LOD) 29,802 SF

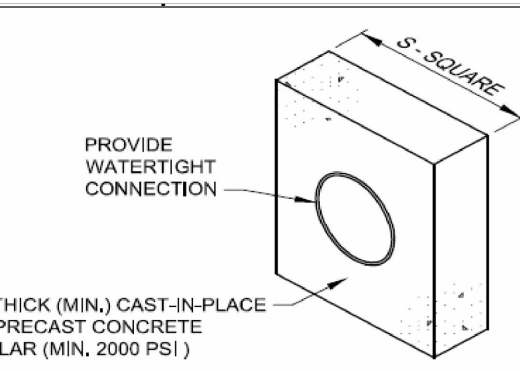
Total Proposed New Impervious within LOD (not in ROW) 104,623 SF

Plus NEW roadway widening on Forrest Road and Coppath Road 6,570 SF

Total Impervious within LOD 111,193 SF

STANDARD CONSTRUCTION DETAIL #7-16

Concrete Anti-seep Collar for Permanent Basin or Traps



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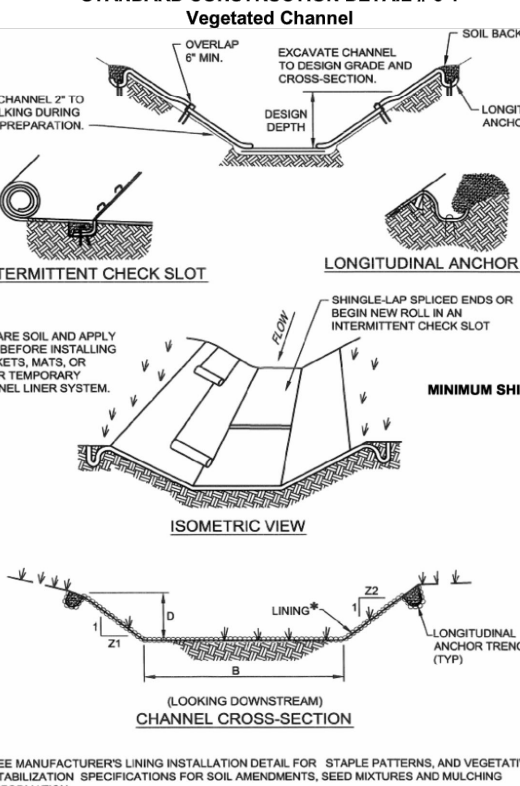
Color collars shall be installed so as to be watertight.

Collar size and spacing shall be as indicated below.

NOTE: This table is intentionally blank and should be filled in by the plan preparer.

Basin or Trap No.	Pipe Size (in)	S (in)	No. of Collars	Distance to 1st Collar (ft)	Collar Spacing (ft)
Trap A / BMP 1	18	42	2	9	9

STANDARD CONSTRUCTION DETAIL # 6-1



Adapted from Satic Applied Earthcare - Erosion Drape 5.0

CHANNEL NO.	STATIONS	BOTTOM WIDTH B (FT)	DEPTH D (FT)	TOP WIDTH W (FT)	Z1	Z2	LINING*
Swale A	2	1	10	4	4	4	S75 Ivg
Swale B	2	1	12	6	6	6	S75 Ivg
Swale C	2	1	12	6	6	6	S75 Ivg
Swale F4	0.5	1	9.5	6	3	3	S75 Ivg
Swale F3	0.5	1	9.5	6	3	3	S75 Ivg
Swale F2	0.5	1	9.5	6	3	3	S75 Ivg
Swale F1	0.5	1	8.5	6	2	2	S75 Ivg
Swale E	0.5	1	8.5	6	2	2	S75 Ivg

Anchor trenches shall be installed at beginning and end of channel in the same manner as longitudinal anchor trenches.

Channel dimensions shall be constantly maintained. Channel shall be cleaned whenever total channel depth is reduced by 25% at any location. Sediment deposits shall be removed within 24 hours of discovery or as soon as soil conditions permit access to channel without further damage. Damaged lining shall be repaired or replaced within 48 hours of discovery.

No more than one third of the sheet (grass leaf) shall be removed in any mowing. Grass height shall be maintained between 2 and 3 inches unless otherwise specified. Excess vegetation shall be removed from permanent channels to ensure sufficient channel capacity.

P.C.S.M. NOTES

GENERAL:

- The management of post construction stormwater for the project site has been planned and designed, to the extent practicable, in order to accomplish the following:
 - The PCSM Plan will, to the extent practicable, preserve the integrity of stream channels and maintain and protect the physical, biological and chemical qualities of the receiving stream by the implementation of the preventive and mitigative BMPs, as described in the PCSM Plan, to minimize potential impacts caused by the planned development of the site to the flow rate, volume and quality of stormwater.
 - The PCSM Plan will, to the extent practicable, prevent an increase in the rate of stormwater runoff by the implementation of proposed rate reduction BMPs, as described in the PCSM Plan, to offset the increase in runoff rate caused by the planned development of the site.
 - The PCSM Plan will, to the extent practicable, minimize any increase in stormwater runoff volume by the implementation of proposed volume reduction BMPs, as described in the PCSM Plan, to offset the increase in runoff volume caused by the planned development of the site.
 - The PCSM Plan will, to the extent practicable, minimize impervious area by minimizing the proposed impervious area to only those areas required for the planned development of the site.
 - The PCSM Plan will, to the extent practicable, maximize the protection of existing drainage features and existing vegetation by minimizing the limit of disturbance and by minimizing the limit of disturbance of the site and by minimizing disturbance of areas that may adversely affect existing site drainage features.
 - The PCSM Plan will, to the extent practicable, limit clearing and grading by minimizing the limit of disturbance and proposed impervious areas to only those areas required for the planned development of the site.
 - The PCSM Plan will, to the extent practicable, minimize soil compaction by minimizing the limit of disturbance, and restricting construction activities and vehicles to within the limit of disturbance, to only those areas required for the planned development of the site.
 - The PCSM Plan will, to the extent practicable, utilize structural and nonstructural BMPs that prevent or minimize changes in stormwater runoff by applying the guidelines presented in the Pennsylvania Stormwater Best Management Practices Manual for the design of the proposed BMPs described in the PCSM Plan.

- The following Non-Structural BMPs and Structural BMPs are shown on the PCSM plan:
 - 5.4.3 Protected/Utilize Natural Flow Pathways
 - 5.6.1 Minimize Total Disturbed Area - Grading
 - 5.6.2 Re-Vegetate and Re-Construct Disturbed Areas, Part 2 Re-Vegetate (BMP 4)
 - 5.8.1 Disconnected Roof Leaders to Vegetated Areas (BMP 5)
 - 5.8.2 Disconnected Non-Roof Impervious to Vegetated Areas (BMP 5)
 - 6.4.2 Infiltration Trench (BMP 3)
 - 6.4.3 MRC Rain Garden/Bioretenion (BMP 1 & BMP 2)

- Refer to the PCSM Module 2 for "Allebach Tract" prepared by RCMA that is part of the PCSM Plan.

- The Permittee/owner shall record (or cause the recording of) the PCSM Plan with the recorder of deeds.

SEQUENCE OF PCSM BMP INSTALLATION:

- PCSM BMP shall be installed in conjunction with earthmoving activities as described in the "Earthmoving/BMP Construction Sequence" notes, also shown on this plan.

CRITICAL STAGES OF IMPLEMENTATION:

- A licensed professional or their designee shall be present onsite and be responsible during the following critical stages of implementation of the approved PCSM Plan:
 - Prior to commencement of construction activities: Verify tree protection fence is installed to prevent unintended or accidental tree removal or removal of tree protection areas. Verify infiltration BMPs and protection areas have been staked and surrounded with safety fence to prevent accidental/undesirable disturbance.
 - During construction of BMP 1-MRC Bioretention Basin and BMP 2-MRC Rain Garden: Verify depth to sub-grade and sub-grade is scarified. Verify planting soil mixture is correct and installed at specified depths within bioretention areas.
 - During construction of the BMP 3-Infiltration Trench: Verify depth to sub-grade and sub-grade is scarified.
 - Following construction activities and installation of PCSM BMPs: confirm roof drains discharge to intended contributing watershed and/or rain gardens/infiltration trench, verify proposed plantings are installed in Rain Gardens, confirm specified quantity and species of proposed landscaping is installed and in the locations shown. Confirm detention basins/catchment plates are installed at specified elevation above finish basin bottom to provide intended volume storage depth.
- The licensed professional will be responsible to provide a final certificate, pursuant to 25 Pa. Code § 102.8(f) along with the required DOT and record drawings, indicating that the project site was constructed in accordance with the approved or modified PCSM Plan.

- All PCSM BMPs shall be installed by the developer or his designee (contractor) in accordance with the approved land development plans and PCSM plan.

CONSTRUCTION:

- In addition to the information below, refer to the "Construction Notes" shown on the Construction Improvement Plan.

5.4.2 Minimize Total Disturbed Area - Grading, Protected/Utilize Natural Flow Pathways (BMP 6):

- Install tree protection fencing (as shown) immediately upon completion of Temporary Construction Entrance to ensure tree protection areas remain undisturbed (protected) during construction.

5.6.3 Part 2 Re-Vegetate (proposed landscaping) (BMP 4):

- Refer to complete "General Landscaping Notes" provided on the Landscaping Plan for installation of proposed landscaping.

- Plant operations shall be performed during periods within the planting season when weather and soil conditions are suitable. Seasons for planting are: Spring: Deciduous Material- March 25 to May 15. Evergreen Material- April 1 to June 1. Fall: Deciduous Material- Oct. 1 to December 1. Evergreen Material- August 15 to November 15.

- Set all plants plumb and straight. Set at such level that, after settlement, a normal or natural relationship to the crown of the plant with the ground surface will be established. Locate plants in the center of the planting pit. Do not cut the leader of deciduous trees.

- Trees shall be supported immediately after planting in accordance with the planting details.

5.8.1 Roofing Disconnection (BMP 5):

- Disconnected rooftop areas are designated on the PCSM Plan.

- Disconnected rooftop leaders shall be installed to discharge runoff outward toward downspouts vegetated areas. Disconnected rooftop leaders shall not be directed toward or connected to underground storm sewers.

6.4.4 Subsurface Infiltration Trench (BMP 3):

Materials:

- Refer to the "BMP 3-Infiltration Trench Detail" for additional construction and material specifications.

Installation Sequence:

- Refer to the "Infiltration Trench Detail" for additional installation notes.

- The area for subsurface infiltration must be physically marked as heavy equipment exclusion zones to avoid soil disturbance and compaction during construction.

- Erosion and sediment control BMPs should be installed to direct construction runoff away from the subsurface infiltration areas. All stone that makes up the infiltration BMP must remain free of sediment. If sediment enters the stone, remove the sediment and replace with clean stone.

- The bottom of the infiltration bed is to be excavated to grade and scarified prior to placement of the geotextile and stone bed. The existing subgrade must not be compacted and construction equipment traffic must be minimized prior to placement of the geotextile and stone bed.

6.4.5 (Modified) MRC Rain Garden/Bioretenion (BMP 1 & BMP 2):

- This BMP applies to BMP1-MRC Bioretention Basin and BMP 2-MRC Rain Garden.

Material:

- Refer to the "MRC Rain Garden/Bioretenion BMP" Details.

Installation:

- Refer to the "MRC Rain Garden/Bioretenion BMP" Details.

- Where erosion of sub-grade has caused accumulation of fine materials and/or surface ponding in the graded bottom, remove with light equipment and scarify underlying soils to a minimum depth of 6 inches with a York rake or equivalent light tractor.

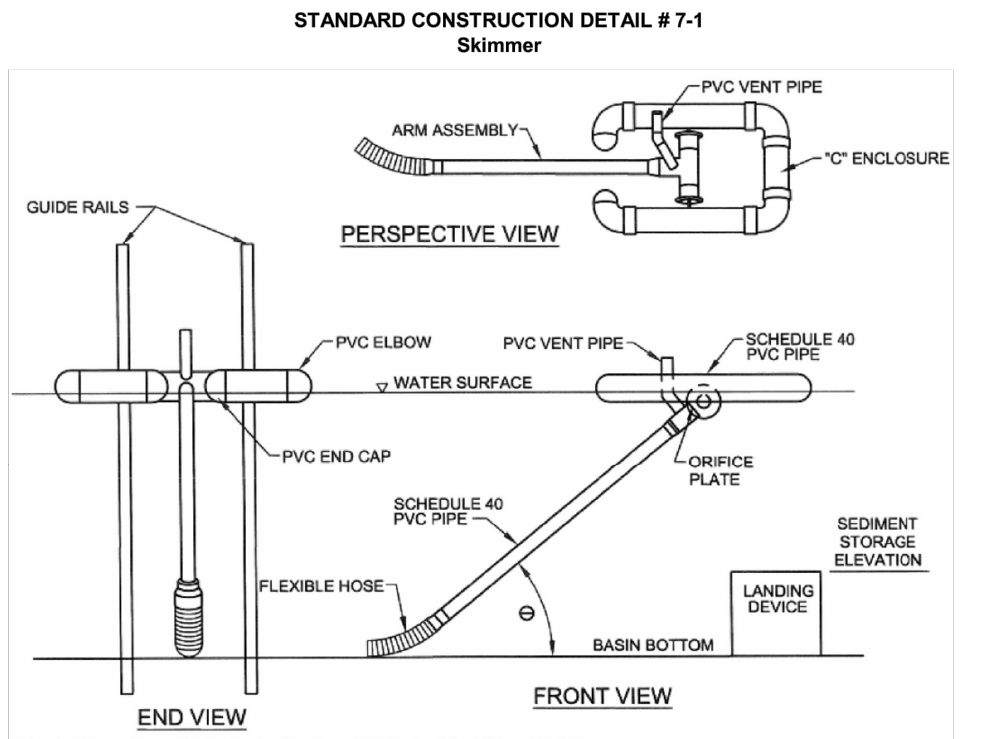
- Protect Rain Garden from sediment at all times during construction. Appropriate measures shall be used at the toe of the slopes that are adjacent to the Rain Garden to prevent sediment from washing into these areas during construction.

- Planting soil shall be placed immediately after approval of sub-grade preparation/bed installation.

- After completion, gardens are to be planted with the specified type and quantity of trees, shrubs, and phugigrasses (or equal approved by local Conservation District).

Vegetated Swales:

- Before topsoil is equal over swale areas, the subsoil shall be in a loose, friable condition to a depth of 6 to 8 inches below final subgrade and there shall be no erosion rills or washouts in the sub

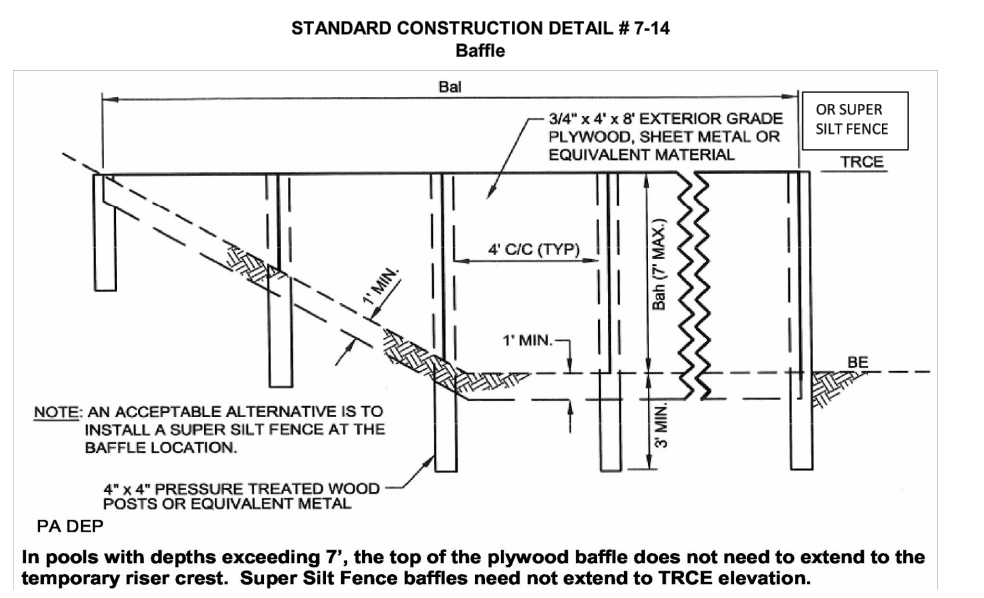


Adapted from Penn State Agricultural and Biological fact Sheet F-253

Basin No.	Water Surface Elevation (ft)	Arm Length (ft)	Arm Dia. (in)	Orifice Size* (in)	Top of Landing Device Elevation (ft)	Flexible Hose Length (in)	Flexible Hose Attachment Elevation (ft)
A	399.75	6	1.5	2.0	398.00	24	397.88

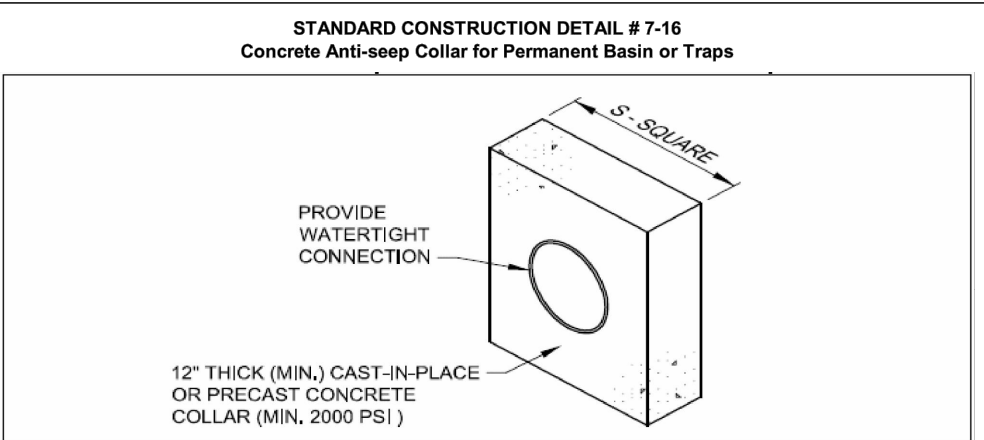
* Must be equal to or less than arm diameter
 A rope shall be attached to the skimmer arm to facilitate access to the skimmer once installed.
 Skimmer shall be inspected weekly and after each runoff event.
 Any malfunctioning skimmer shall be repaired or replaced within 24 hours of inspection.
 Ice or sediment buildup around the principal spillway shall be removed so as to allow the skimmer to respond to fluctuating water elevations.
 Sediment shall be removed from the basin when it reaches the level marked on the sediment clean-out stake or the top of the landing device.
 A semi-circular landing zone may be substituted for the guide rails (Standard Construction Detail #7-3).

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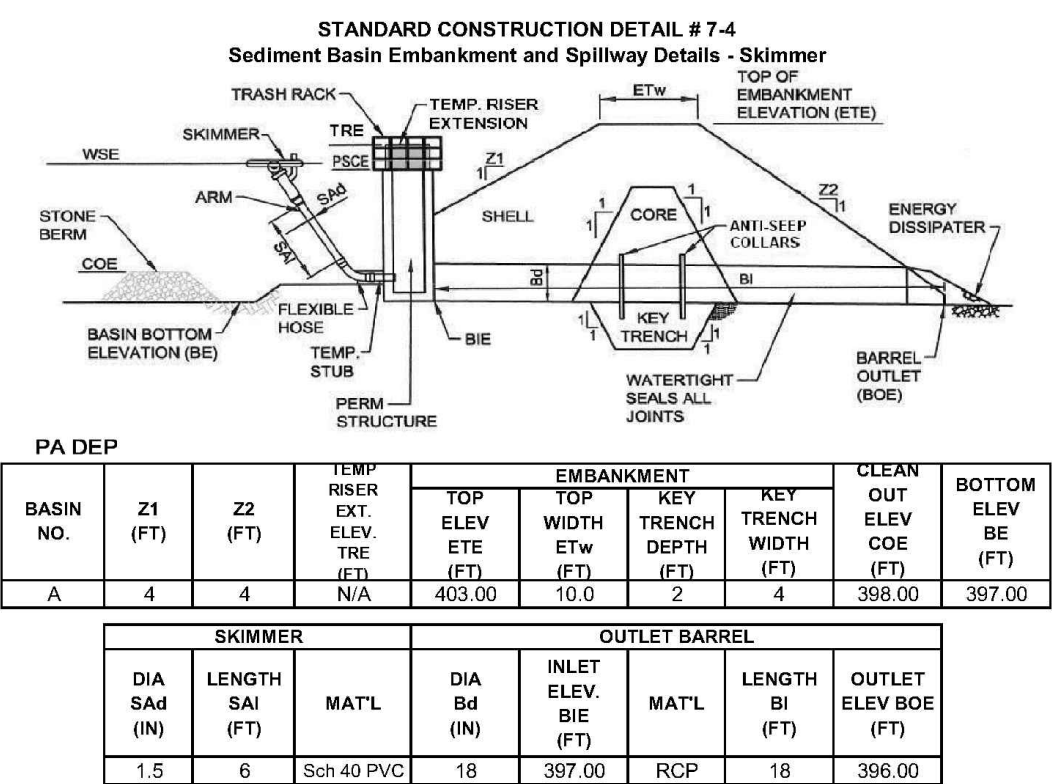
BASIN OR TRAP NO.	BAFFLE		TEMPORARY RISER		BOTTOM	
	LENGTH (FT)	HEIGHT (FT)	CREST ELEV. (FT)	TRICE (FT)	BOTTOM ELEV. (FT)	TRICE (FT)
A	61	2.75	399.75	397.00	397.00	397.00
A	48	2.75	399.75	397.00	397.00	397.00
A	35	2.75	399.75	397.00	397.00	397.00

See appropriate basin detail for proper location and orientation.
 Baffles shall be tied into one side of the basin unless otherwise shown on the plan drawings.
 Substitution of materials not specified in this detail shall be approved by the Department or the local conservation district before installation.
 Damaged or warped baffles shall be replaced within 7 days of inspection.
 Baffles requiring support posts shall not be installed in basins requiring impervious liners.

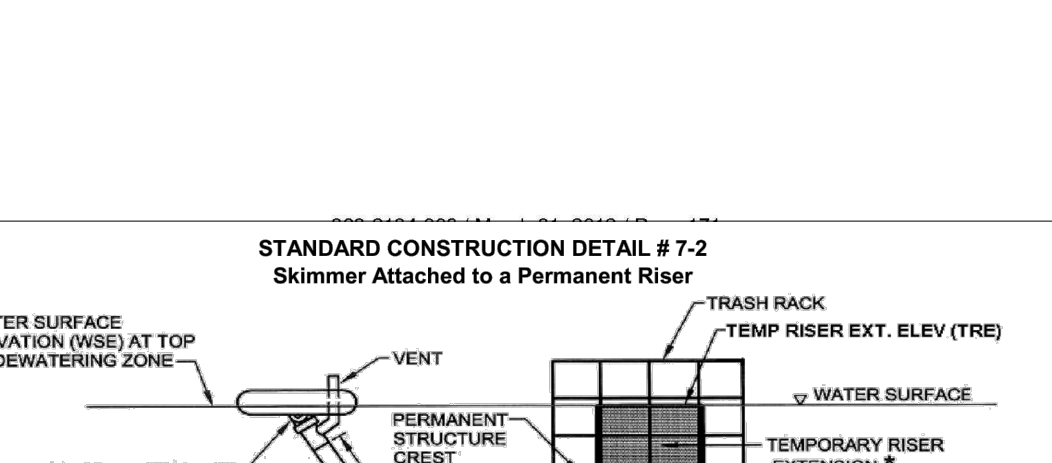


All collars shall be installed so as to be watertight.
 Collar size and spacing shall be as indicated below.
 NOTE: This table is intentionally blank and should be filled in by the plan preparer.

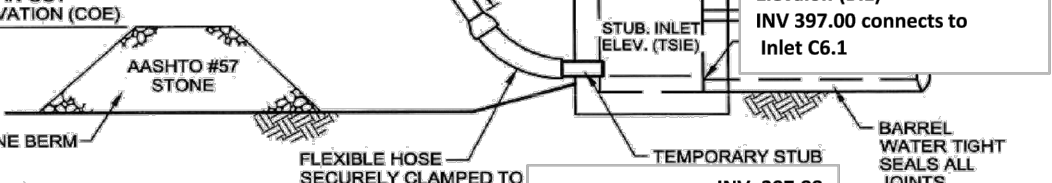
Basin or Trap No.	Pipe Size (in)	S (in)	No. of Collars	Distance to 1st Collar (ft)	Collar Spacing (ft)
Trap A/BMP 1	18	42	2	9	9



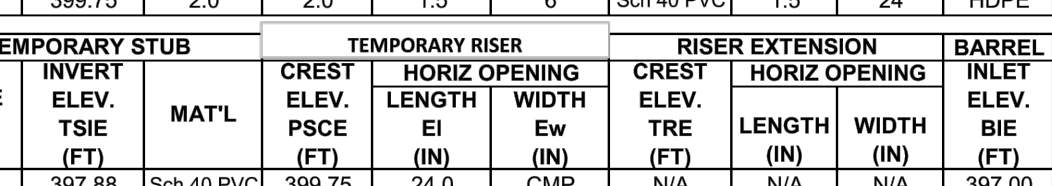
BASIN NO.	Z1 (FT)	Z2 (FT)	TEMP. RISER EXT. ELEV. (TRE)	EMBANKMENT		KEY TRENCH DEPTH (FT)	KEY TRENCH WIDTH (FT)	CLEAN OUT ELEV. CODE (FT)	BOTTOM ELEV. BE (FT)
				TOP ELEV. ETE (FT)	TOP ELEV. ETW (FT)				
A	4	4	N/A	403.00	10.0	2	4	398.00	397.00



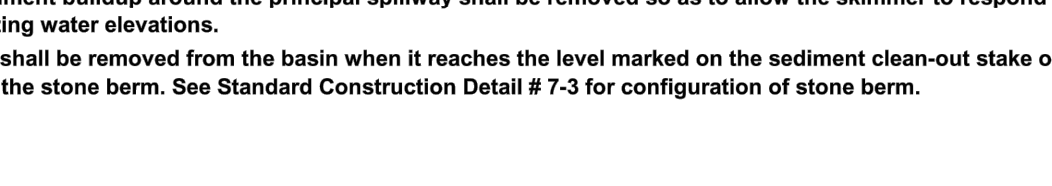
BASIN NO.	WATER SURFACE ELEV. (WSE)	ORIFICE DIA. (IN)	HEAD (FT)	SKIMMER		FLEXIBLE HOSE	
				DIA SA4 (IN)	LENGTH (FT)	DIA (IN)	LENGTH (FT)
A	399.75	2.0	2.0	1.5	6	Sch 40 PVC	1.5



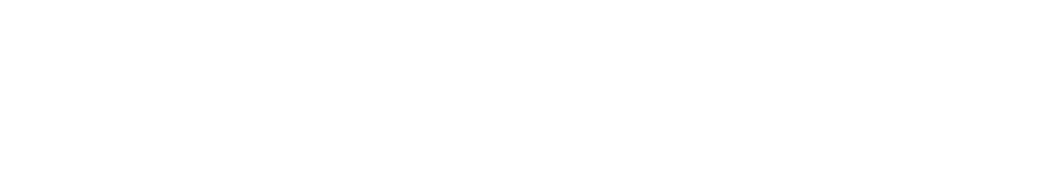
BASIN NO.	WATER SURFACE ELEV. (WSE)	ORIFICE DIA. (IN)	HEAD (FT)	SKIMMER		FLEXIBLE HOSE	
				DIA SA4 (IN)	LENGTH (FT)	DIA (IN)	LENGTH (FT)
A	399.75	2.0	2.0	1.5	6	Sch 40 PVC	1.5



BASIN NO.	WATER SURFACE ELEV. (WSE)	ORIFICE DIA. (IN)	HEAD (FT)	SKIMMER		FLEXIBLE HOSE	
				DIA SA4 (IN)	LENGTH (FT)	DIA (IN)	LENGTH (FT)
A	399.75	2.0	2.0	1.5	6	Sch 40 PVC	1.5



BASIN NO.	WATER SURFACE ELEV. (WSE)	ORIFICE DIA. (IN)	HEAD (FT)	SKIMMER		FLEXIBLE HOSE	
				DIA SA4 (IN)	LENGTH (FT)	DIA (IN)	LENGTH (FT)
A	399.75	2.0	2.0	1.5	6	Sch 40 PVC	1.5



BASIN NO.	WATER SURFACE ELEV. (WSE)	ORIFICE DIA. (IN)	HEAD (FT)	SKIMMER		FLEXIBLE HOSE	
				DIA SA4 (IN)	LENGTH (FT)	DIA (IN)	LENGTH (FT)
A	399.75	2.0	2.0	1.5	6	Sch 40 PVC	1.5



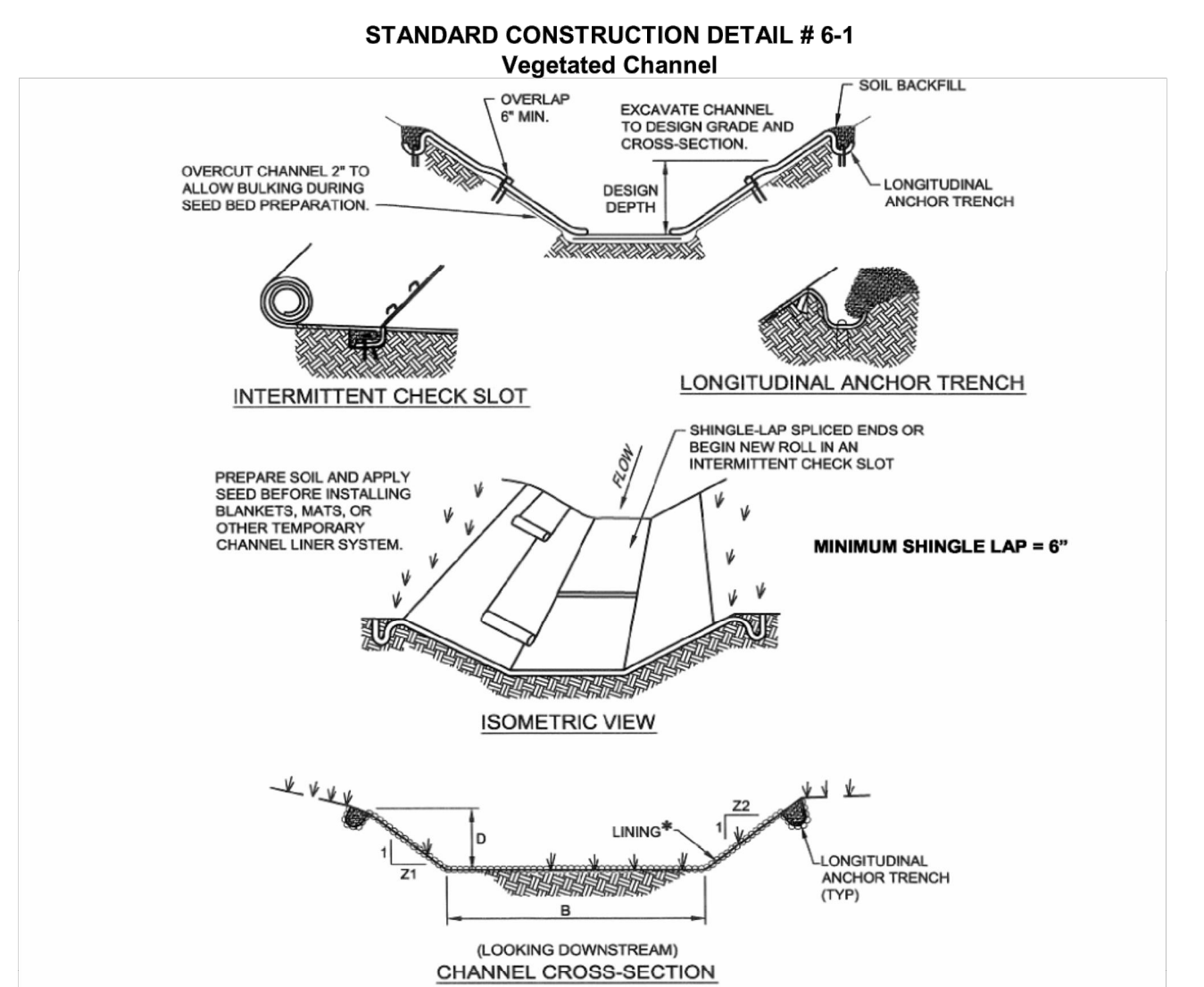
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				DIA SA4 (IN)	LENGTH (FT)	DIA (IN)	LENGTH (FT)
A	399.75	2.0	2.0	1.5	6	Sch 40 PVC	1.5



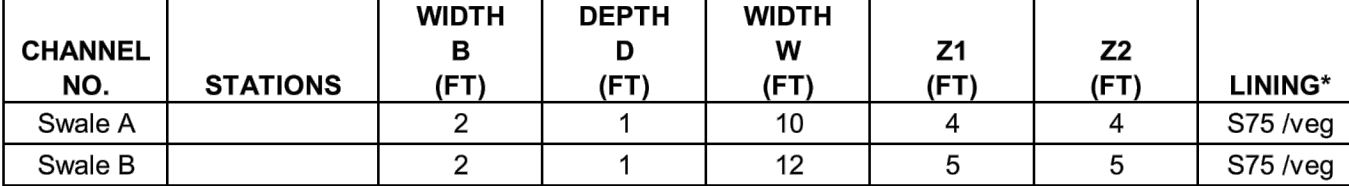
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				DIA SA4 (IN)	LENGTH (FT)	DIA (IN)	LENGTH (FT)
A	399.75	2.0	2.0	1.5	6	Sch 40 PVC	1.5



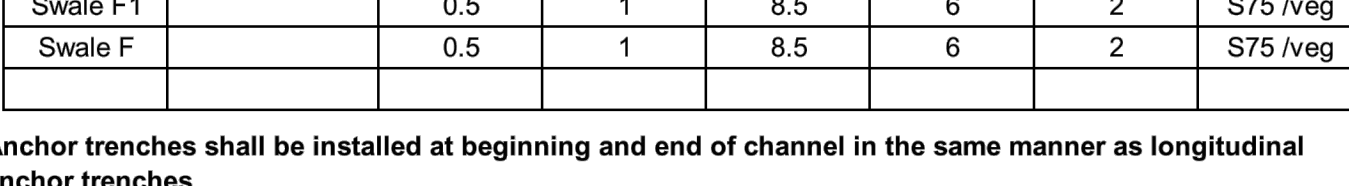
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				DIA SA4 (IN)	LENGTH (FT)	DIA (IN)	LENGTH (FT)
A	399.75	2.0	2.0	1.5	6	Sch 40 PVC	1.5



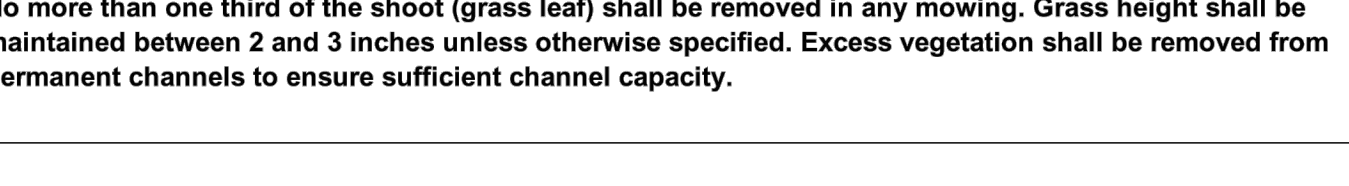
BASIN NO.	WATER SURFACE ELEV. (WSE)	ORIFICE DIA. (IN)	HEAD (FT)	SKIMMER		FLEXIBLE HOSE	
				DIA SA4 (IN)	LENGTH (FT)	DIA (IN)	LENGTH (FT)
A	399.75	2.0	2.0	1.5	6	Sch 40 PVC	1.5



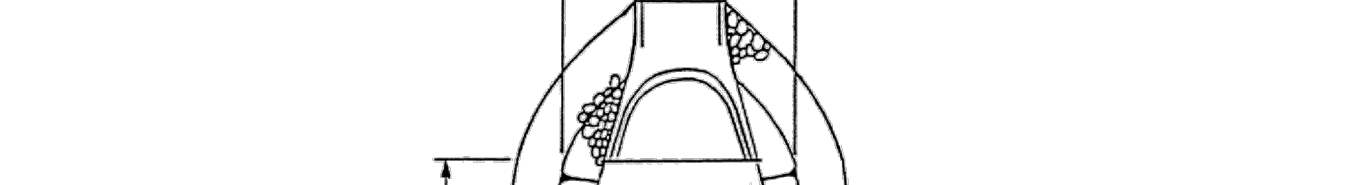
BASIN NO.	WATER SURFACE ELEV. (WSE)	ORIFICE DIA. (IN)	HEAD (FT)	SKIMMER		FLEXIBLE HOSE	
				DIA SA4 (IN)	LENGTH (FT)	DIA (IN)	LENGTH (FT)
A	399.75	2.0	2.0	1.5	6	Sch 40 PVC	1.5



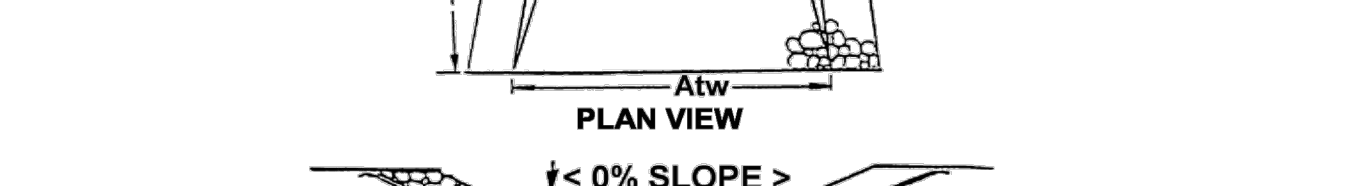
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A	399.75	2.0	2.0	1.5	6	Sch 40 PVC	1.5



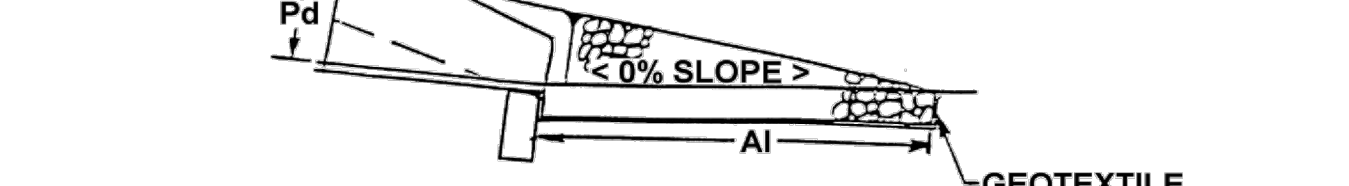
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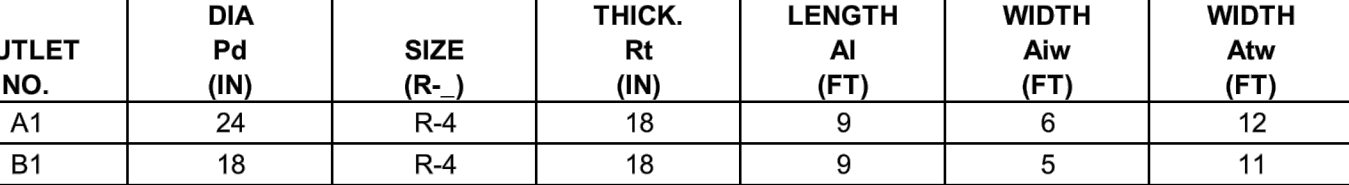
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BASIN NO.	WATER SURFACE ELEV. (WSE)	ORIFICE DIA. (IN)	HEAD (FT)	SKIMMER		FLEXIBLE HOSE	
				DIA SA4 (IN)	LENGTH (FT)	DIA (IN)	LENGTH (FT)
A	399.75	2.0	2.0	1.5	6	Sch 40 PVC	1.5

EROSION CONTROL NOTES

- General:
- Earth disturbance activities for the project site has been planned and designed, to the extent practicable, in order to accomplish the following:
 - The E&S Plan will, to the extent practicable, minimize the extent and duration of the earth disturbance by minimizing the limit of disturbance to only those areas required for the planned development of the site and by sequencing construction activities, as specified in the E&S Plan, to minimize the duration of construction activities.
 - The E&S Plan will, to the extent practicable, maximize protection of existing drainage features and vegetation by minimizing the limit of disturbance to only those areas required for the planned development of the site and by minimizing disturbance of areas that may adversely affect existing uses of the E&S Plan.
 - The E&S Plan will, to the extent practicable, minimize soil compaction by minimizing the limit of disturbance, and restricting construction activities and vehicles to within the limit of disturbance, to only those areas required for the planned development of the site.
 - The E&S Plan will, to the extent practicable, utilize measures to control that prevent or minimize the generation of increased stormwater runoff by applying the guidelines presented in the PADEP Erosion and Sediment Pollution Control Program Manual for the design of the proposed BMP's described in the E&S Plan.

- All earth disturbances, including clearing and grubbing as well as cuts and fills shall be done in accordance with the approved E&S plan. A copy of the approved drawings (stamped, signed and dated by the reviewing agency) must be available at the project site at all times. The reviewing agency will be notified of any changes to the approved plan prior to implementation of those changes. The reviewing agency may require a written submittal of those changes for review and approval at its discretion.
- At least 7 days prior to starting any earthmoving activities, including clearing and grubbing, the owner and/or operator shall invite all contractors, the landowner, appropriate municipal officials, the E&S plan preparer, the PCSM plan preparer, the licensed professional responsible for oversight of critical stages of implementation of the PCSM plan, and a representative from the local conservation district to the project site for a preconstruction meeting.
- At least 3 days prior to starting any earth disturbance activities, or expanding into an area previously unmarked, the Pennsylvania One Call System, Inc. shall be notified at 1-800-242-1776 for the location of existing underground utilities.
- All earth disturbance activities shall proceed in accordance with the sequence provided on the plan drawings. Deviation from the sequence must be approved by the Township Engineer prior to implementation. Each step of the sequence shall be completed before proceeding to the next step, except where noted.
- Clearing, grubbing, and topsoil stripping shall be limited to those areas described in each phase of the construction sequence. General site clearing, grubbing and topsoil stripping may not commence in any stage or phase of the project until E&S BMPs specified by the BMP sequence for that stage or phase have been installed and are functioning as described in this E&S plan. These areas must be clearly marked and fenced off before clearing and grubbing operation begin.
- Topsoil required for the establishment of vegetation shall be stockpiled at the location(s) shown on the plan map(s) in the amount necessary to complete the final grading of all exposed areas that are to be stabilized by vegetation. Each stockpile shall be protected in the manner shown on the plan drawings. Stockpile height shall not exceed 35 feet. Stockpile slopes shall be 2H:1V or flatter.

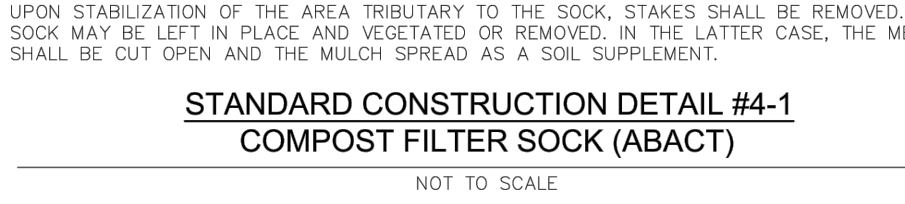
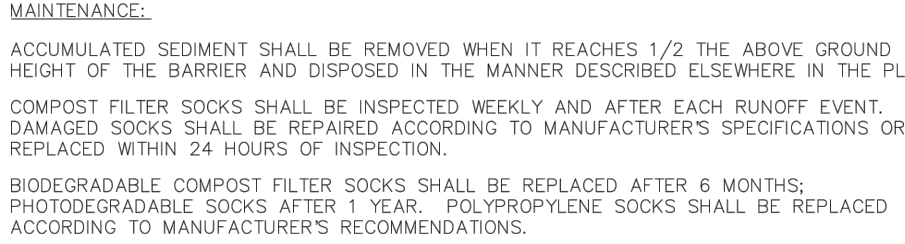
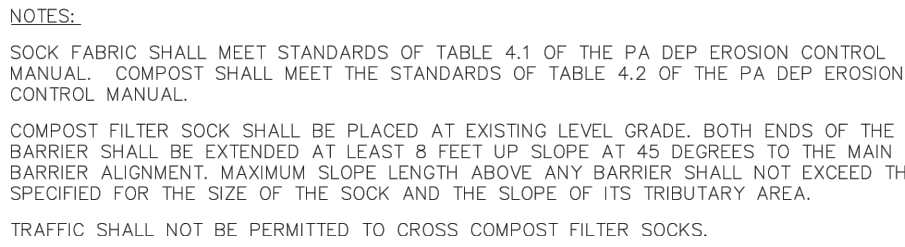
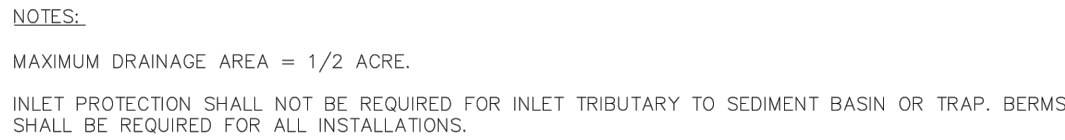
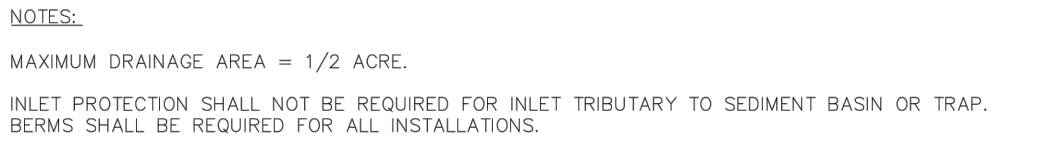
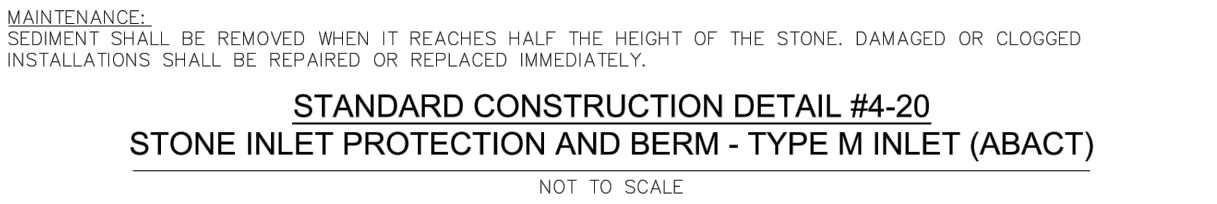
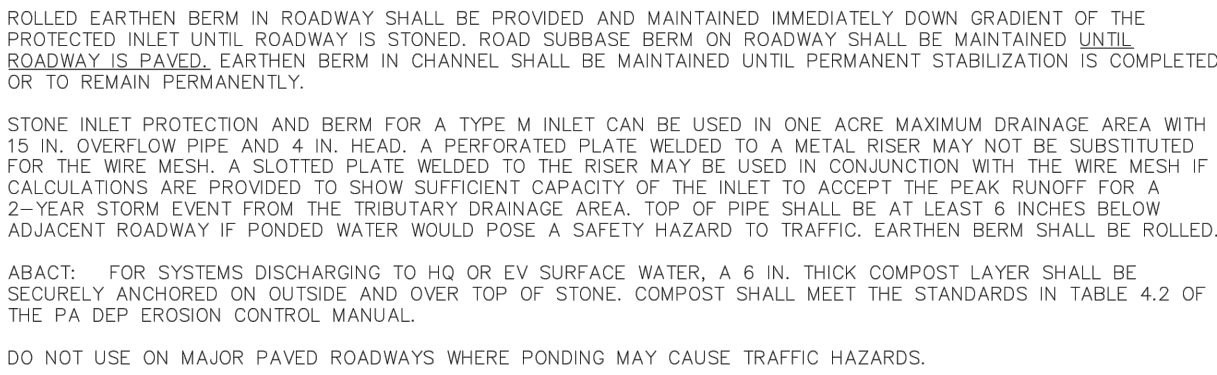
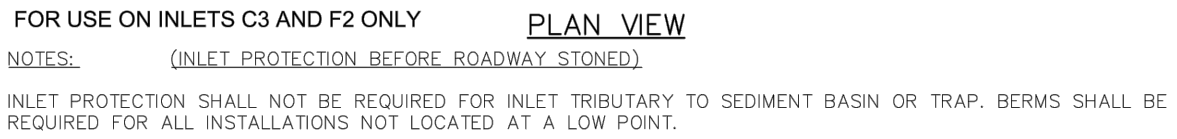
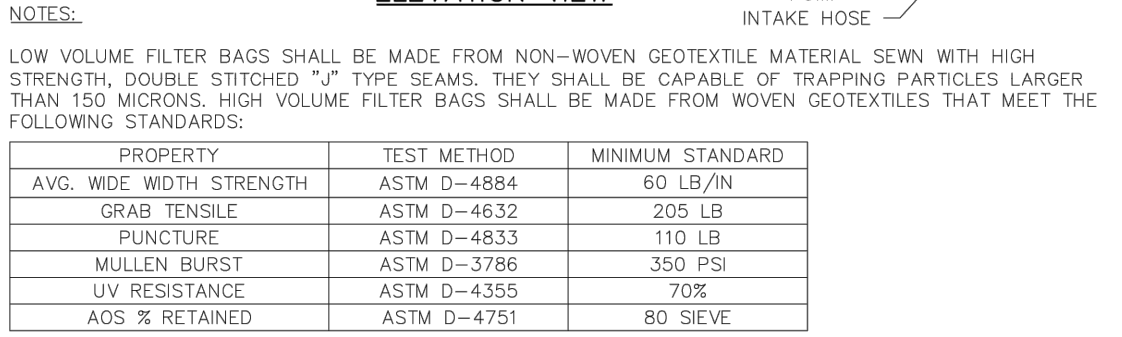
- Immediately upon discovering unforeseen circumstances posing the potential for accelerated erosion and/or sediment pollution, the operator shall implement appropriate best management practices to minimize the potential for erosion and sediment pollution.
- All off-site waste and borrow areas must have an E&S plan approved by the local conservation district or the PADEP fully implemented prior to being activated.
- All pumping of water from any water area shall be done according to the procedure described in this plan, over undisturbed vegetated areas. All water pumped from a disturbed area must be treated for sediment removal prior to discharging to a surface water. Pumped water may be discharged through a properly functioning sediment trap or sediment basin or through a sediment control BMP such as a pumped water filter bag.
- A Rock Construction Entrance shall be installed wherever it is known that construction vehicles will be exiting onto a roadway (public or private).
- Sediment tracked onto any public roadway or sidewalk shall be returned to the construction site immediately and disposed of in the manner described in this plan. In no case shall the sediment be washed, shoveled, or swept into any roadside ditch, storm sewer, or surface water.
- Areas which are to be topsoiled shall be scarified to a minimum depth of 3 to 5 inches, 6 to 12 inches on compacted soils, prior to placement of topsoil. Areas to be vegetated shall have a minimum 6 inches of topsoil in place prior to seeding and mulching. Fill outcrops shall have a minimum of 2 inches of topsoil.
- Seeds or springs encountered during construction shall be handled in accordance with the standard and specification for subsurface drain off approved method.
- E&S BMPs shall remain functional as such until all areas tributary to them are permanently stabilized or until they are replaced by another BMP approved by the local conservation district or the PADEP.
- Upon completion of all earth disturbance activities and permanent stabilization of all disturbed areas, the owner and/or operator shall contact the local conservation district for an inspection prior to removal/conversion of primary E&S BMPs.
- After final site stabilization has been achieved, temporary E&S BMPs must be removed or converted to PCSM BMPs. Areas disturbed during removal or conversion of the BMPs shall be stabilized immediately. In order to ensure rapid revegetation of disturbed areas, such removal/conversions are to be done only during the germinating season.
- Upon completion of all earth disturbance activities and permanent stabilization of all disturbed areas, the owner and/or operator shall contact the local conservation district to schedule a final inspection.
- 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 PADEP as defined in Section 602 of the Pennsylvania Clean Streams Law. The Clean Streams Law provides for up to \$10,000 per civil penalties, up to \$10,000 in summary criminal penalties, and up to \$25,000 in misdemeanor criminal penalties for each violation.

- Receiving Surface Waters:
 - The project site drains to an unnamed tributary of the Indian Creek, which is in the East Branch of the Perkiomen Creek Watershed and an unnamed tributary of East Branch Perkiomen Creek. The classification pursuant to Chapter 93 and the Statewide Existing Use Listing is T5, MF for both watersheds.
- Construction Vehicles:
 - At no time shall construction vehicles be allowed to enter the areas outside the limit of disturbance boundaries shown on the plan maps. These areas must be clearly marked and fenced off before clearing and grubbing operations begin.
 - Construction vehicles must exit the site through an installed Rock Construction Entrance. Construction vehicles are prohibited from exiting the site through any other access way.
 - Recycling and Disposal of Waste Materials:
 - All building materials and wastes must be removed from the site and recycled or disposed of in accordance with the Department's Solid Waste Management Regulations at 25 Pa. Code Ch. 260a (relating to hazardous waste management system - general), Ch. 271 (relating to municipal waste management system - general provisions), and Ch. 287 (relating to residual waste management system - general provisions). No building materials or wastes or unused building materials shall be burned, buried, dumped, or discharged at the site.
 - Anticipated construction/demolition waste materials from the project include the following: E&S BMP materials, wood, plaster, metals, asphaltic substances, bricks, block and unsegregated concrete.
 - Under no circumstances may E&S BMPs be used for temporary storage of demolition materials or construction wastes.
 - All sediment removed from BMPs shall be disposed of in the manner described on the plan drawings.
 - Trash is to be disposed of properly and recycled when possible.
 - Concrete Washout: A suitable washout facility must be provided for the cleaning of chutes, mixers, and hoppers of the concrete delivery vehicles. Under no circumstances may wash water from these vehicles be allowed to enter any surface waters.

- Fill Material:
 - The contractor is responsible for ensuring that any material brought on the site is clean fill. Form FP-001 must be completed by the property owner for any fill material affected by a spill or release of a regulated substance but qualified as clean fill due to analytical testing.
 - Clean fill is defined as: uncontaminated, non-water soluble, non-decomposable, inert, solid material including 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. Contractor to install, or cause to have installed, location markers for existing underground utilities crossing through the project site, including but not limited to underground electric, water, sewer, and gas lines.
 - Install Concrete Washout Station (see Figure 3.18).
 - Install filter sock below demolition area and remove existing structure and paving as shown.
 - Site wide clearing/grubbing and construction of proposed improvements may begin ONLY after the sediment trap facility is constructed and fully functional.
 - Construct Sediment Trap A:
 - Ensure filter sock is installed below proposed berm.
 - Clear vegetation as necessary to construct the Sediment Trap and associated grading. Strip topsoil over Sediment Trap area and stockpile where shown. Install filter sock barrier below stockpile.
 - Rough grade Sediment Trap to design subgrade.
 - Install riprap and construct outfall storm run C1-C3 including specified anti-seep collars.
 - Construct swale around existing buildings on Lot 7 to Inlet C3.
 - Seal all side openings (permanent condition) on outlet structure C5.1 with marine grade plywood and marine grade sealant. (Do not cover/seal top grate). Temporary cover/seals to remain until conversion to the permanent condition. No plywood riser is necessary (top-of-dewatering grade is below T.O. elevation).
 - Install Temporary barrel and skimmer to structure C6.1, clean out stake, stone berm and spillway lining. Permanent orifice plate is not to be installed on outlet structure C6.2 until conversion to the permanent condition.
 - Complete roadway stabilization.
 - Complete riprap planting soil mixture and underdrain to be installed later.
 - Bulk grading and construction of proposed underground utilities may be completed concurrently.
 - Construct roadway widening, associated storm sewer, and swale F.
 - Perform bulk cuts/fills and rough grade project site.
 - Strip and stockpile topsoil over project site. After stockpiling is completed, stabilize stockpiles with temporary seed and mulch. Temporary topsoil stockpile is to be placed to direct surface flow to Temporary Sediment Trap A.
 - Perform bulk cuts & fills. Proposed roadway construction is to be completed so as to ensure all intended runoff from the storm runs A and B are directed into the sediment trap, until such time as storm A1-A8 and storm B1-B4 are constructed. Stub pipe run to Structure B5 with a visual marker.
 - Rough grade driveways, parking areas, and building pad to design subgrade.
 - Begin construction of proposed building and associated improvements.
 - Construct proposed sanitary sewer lateral and potable water service. If left short of the building wall, demarcate the stub by visual marker.
 - Install all remaining underground utilities.
 - Construct all remaining storm sewers and swales.
 - Complete roadway stabilization.
 - Final grade areas for curb installation and construct curbs.
 - Remove site Tire Cleaner and install stone base and bituminous base courses.
 - All construction equipment and vehicles shall now enter all disturbed areas over individual Tire Cleaners.

- Complete construction of all proposed improvements and utilities (except construction of those areas containing temporary sediment facilities, construction of permanent BMPs, and placement of Amended Planting Soil in basins and gardens).
- An area shall be considered to have achieved final stabilization when it has a minimum uniform 70% (percent) 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 movement.
- (CRITICAL STAGE Contact Licensed Professional) Following final stabilization of Lot 4 construction BMP 3 infiltration Trench in accordance with BMP Detail on P.C.S.M. Plan Details.
- Conservation District approval is required prior to removal of E&S Controls (refer to E&S Notes).
- Permanent BMPs (BMP 1-BMP 2-MRC Bioretention Basin and BMP 2-MRC Rain Garden) may be constructed/installed only after all proposed improvements within the contributing drainage area are constructed and all disturbance within the contributing drainage area has achieved final stabilization.
- (CRITICAL STAGE Contact Licensed Professional) Following final stabilization of Lots 1-3 and 8-11, convert Sediment Trap A to BMP 1-MRC Bioretention Basin.
- While temporary skimmer remains, remove baffles and c.o. stake. Excavate sediment from trap and distribute around basin.
- Prepare subgrade and install HDPE Liner according to notes and details.
- Final grade embankments and construct DW Endwall C6.2 and pipe run to Outlet Structure C6.1. Stabilize with erosion slope planting and permanent seed. Install specified mulch over spillway and to interior and exterior top of pipe.
- From outside the basin bottom area, construct the basin bottom BMP as per BMP Detail and in accordance with the P.C.S.M. Plan.
- Once stabilized, remove temporary skimmer and outlet structure opening covers.
- Install permanent skimmer control structures and/or orifice plates.
- Install Planting Soil Mixture as depicted on plans.
- Remove remaining temporary erosion control measures and distribute collected sediment area adjacent to controls. All areas disturbed during removal of controls must be stabilized immediately.
- Restore and/or repair all paved roadway and driveway base courses as necessary and restore all items affected by construction activities (e.g., mailboxes, etc.). Complete all township inspection punch-list items. Install all remaining bio-retention structures. Install all permanent signage and signage.
- (CRITICAL STAGE Contact Licensed Professional) Install BMP A1 remaining landscaping. Immediately after construction is completed, submit a N.O.T. to the PADEP or authorized conservation district. The Permittee shall include with the N.O.T. the required record drawings with a final certification statement from a licensed professional.

- Utility Line Trench Excavation:
 - Limit advance clearing and grubbing operations to a distance equal to two times the length of pipe between and immediately stabilized.
 - Work crews and equipment for trenching, placement of pipe, plug construction and backfilling will be self contained and separate from clearing and grubbing and site restoration and stabilization operations.
 - All soil excavated from the trench will be placed on the uphill side of the trench.
 - Limit daily trench excavation to the length of pipe placement, plug installation and backfilling that can be completed the same day. Daily backfilling of the trench may be delayed for a maximum of six days for certain cases requiring testing of the installed pipe.
 - Water that accumulates in the open trench will be completely removed by pumping before pipe placement and/or backfilling begins.



Material Type	3 mil HDPE	5 mil HDPE	5 mil HDPE	Multi-Filament Polypropylene (MFPF)	Heavy Duty Multi-Filament Polypropylene (HDMFPF)
Material Characteristics	Photo-degradable	Photo-degradable	Bio-degradable	Photo-degradable	Photo-degradable
Sock Diameters	12" 18"	12" 18" 24"	12" 18" 24"	12" 18" 24"	12" 18" 24"
Mesh Opening	3/8"	3/8"	3/8"	3/8"	1/8"
Tensile Strength		26 psi	26 psi	44 psi	202 psi
Ultraviolet Stability % Original Strength (ASTM G-155)	23% at 1000 hr.	23% at 1000 hr.		100% at 1000 hr.	100% at 1000 hr.
Minimum Functional Longevity	6 months	9 months	6 months	1 year	2 years

	Two-ply systems	
Inner Containment Netting		HDPE biaxial net
		Continuously wound
		Fusion-welded junctures
		3/4" X 3/4" Max. aperture size
Outer Filtration Mesh		Composite Polypropylene Fabric (Woven larer and non-woven fleec mechanically fused via needle punch)
		3/16" Max. aperture size
Sock fabrics composed of burlap may be used on projects lasting 6 months or less.		

Compost should be a well-decomposed, weed-free organic matter derived from agriculture, food, stump grindings, and yard or wood/bark organic matter sources. The compost should be aerobically composted. The compost should possess no objectionable odors and should be reasonably free (<1% by dry weight) of man-made foreign material. The compost product should not resemble the raw material from which it was derived. Wood and bark chips, ground construction debris or reprocessed wood products are not acceptable as the organic component of the mix.

The physical parameters of the compost should comply with the standards in Table 4.2. The standards contained in the PennDOT Publication 408 are an acceptable alternative.

Organic Matter Content	25% - 100% (dry weight basis)
Organic Portion	Fibrous and elongated
pH	5.5 - 8.5
Moisture Content	30% - 60%
Particle Size	30% - 50% pass through 3/8" screen
Soluble Salt Concentration	5.0 dS/m (mmhos/cm) Maximum

Filtrex



MOUNTABLE BERM SHALL BE INSTALLED WHEREVER OPTIONAL CULVERT PIPE IS USED AND PROPER PIPE COVER AS SPECIFIED BY MANUFACTURER IS NOT OTHERWISE PROVIDED. PIPE SHALL BE SIZED APPROPRIATELY FOR SIZE OF DITCH BEING CROSSED.

MAINTENANCE: ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE. ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE IMMEDIATELY. IF EXCESSIVE AMOUNTS OF SEDIMENT ARE BEING DEPOSITED ON ROADWAY, EXTEND LENGTH OF ROCK CONSTRUCTION ENTRANCE BY 50 FOOT INCREMENTS UNTIL CONDITION IS ALLEVIATED OR INSTALL WASH RACK. WASHING THE ROADWAY OR SWEEPING THE DEPOSITS INTO ROADWAY DITCHES, SEWERS, CULVERTS, OR OTHER DRAINAGE COURSES IS NOT ACCEPTABLE.



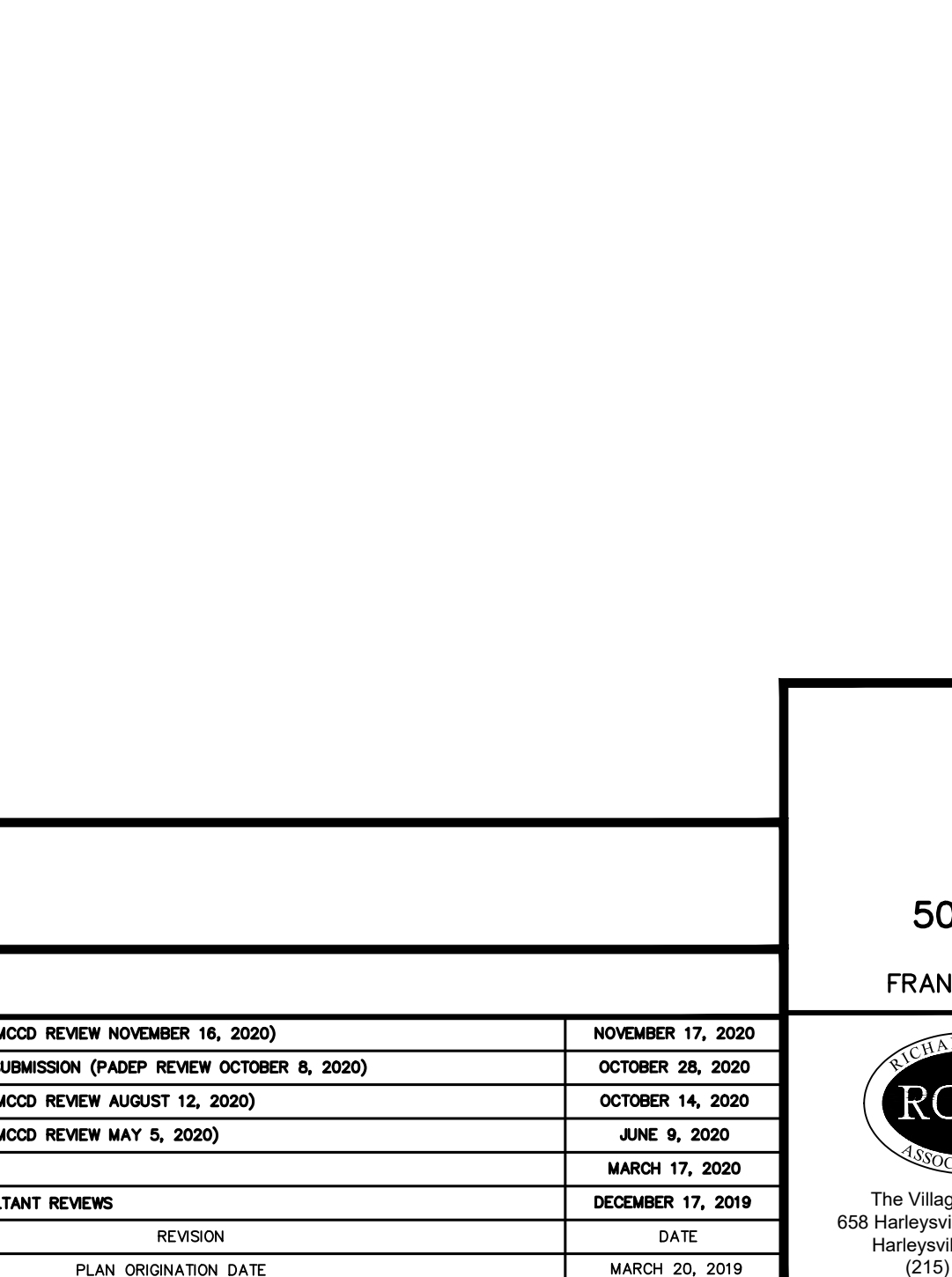
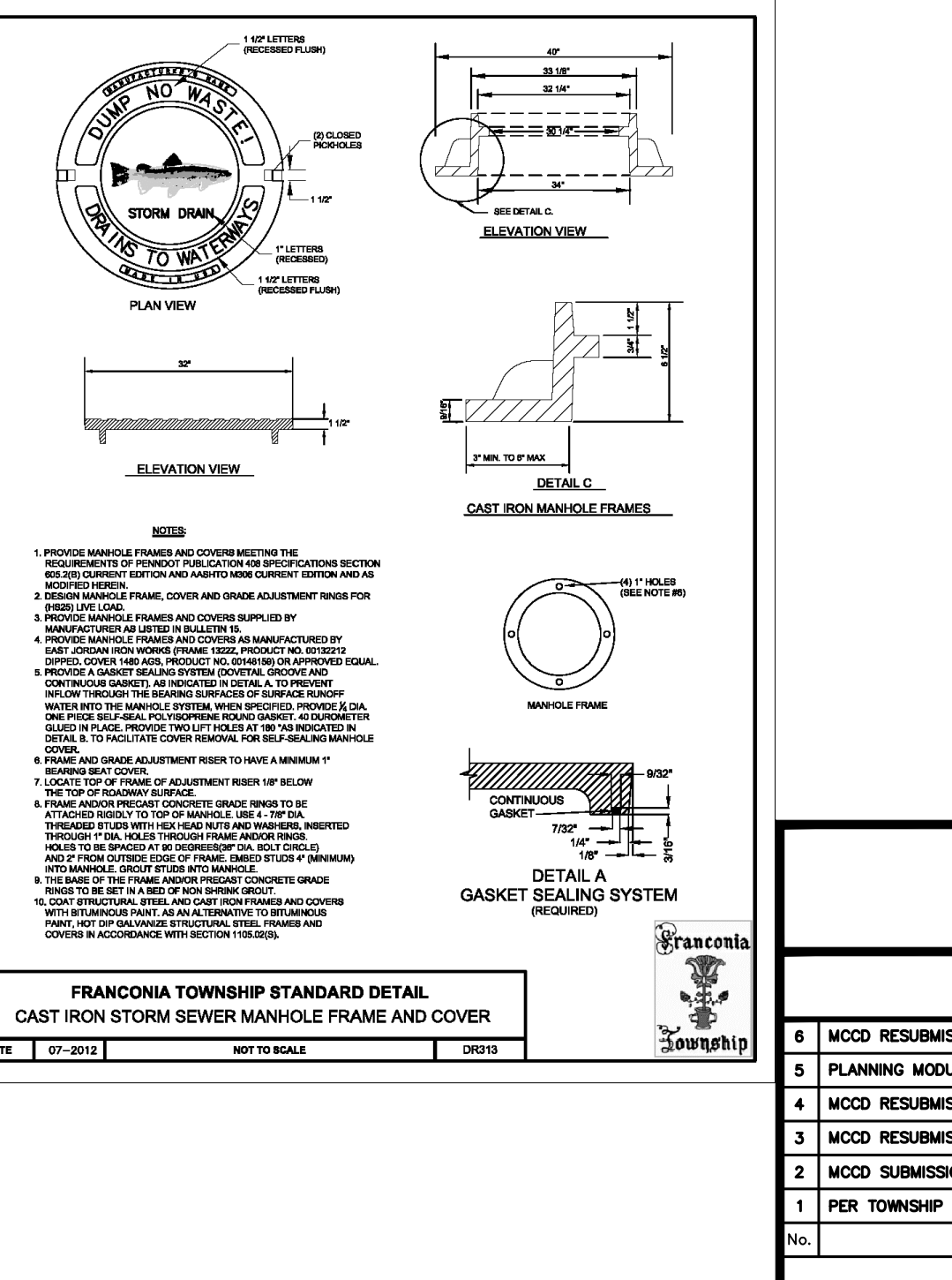
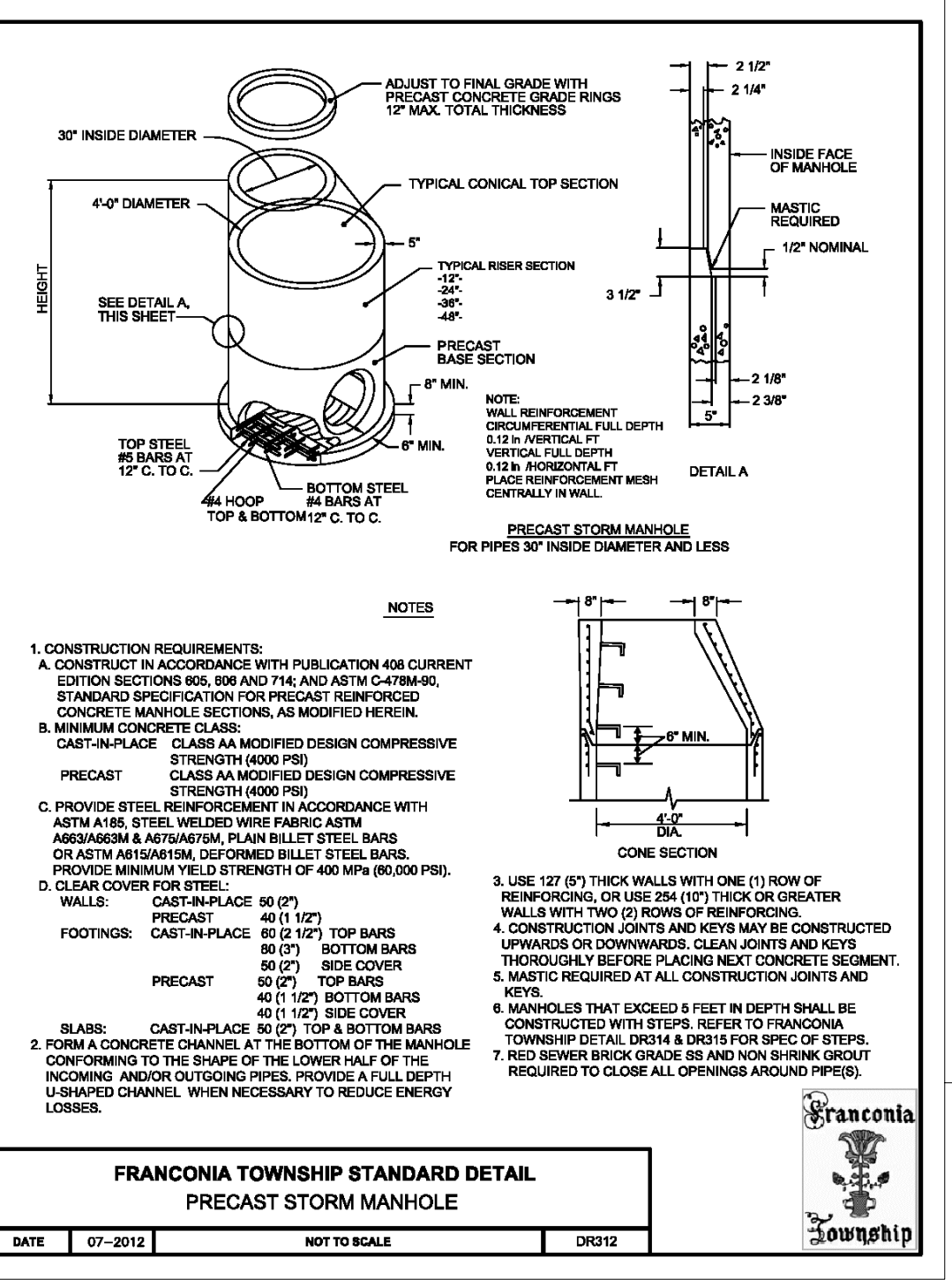
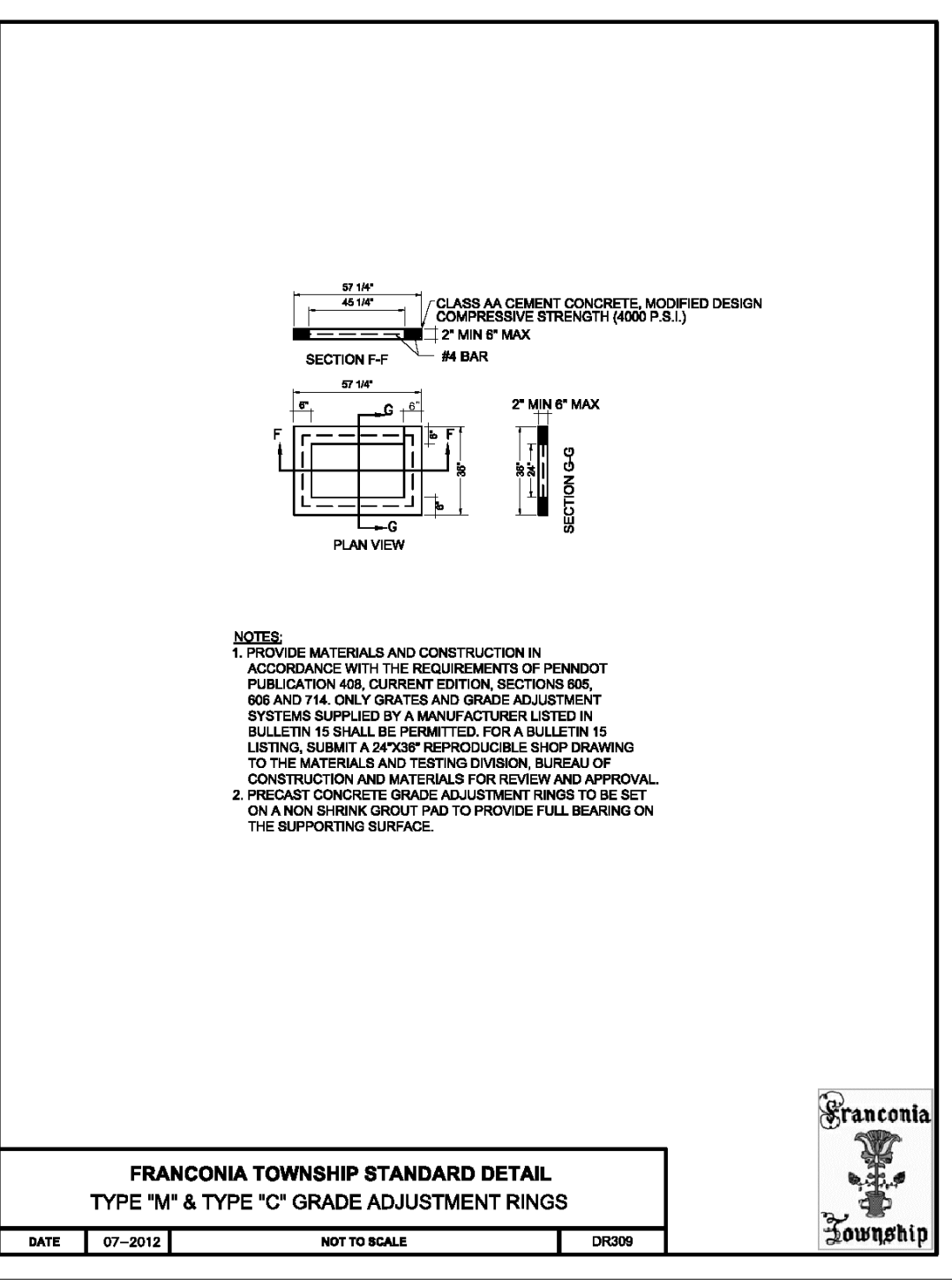
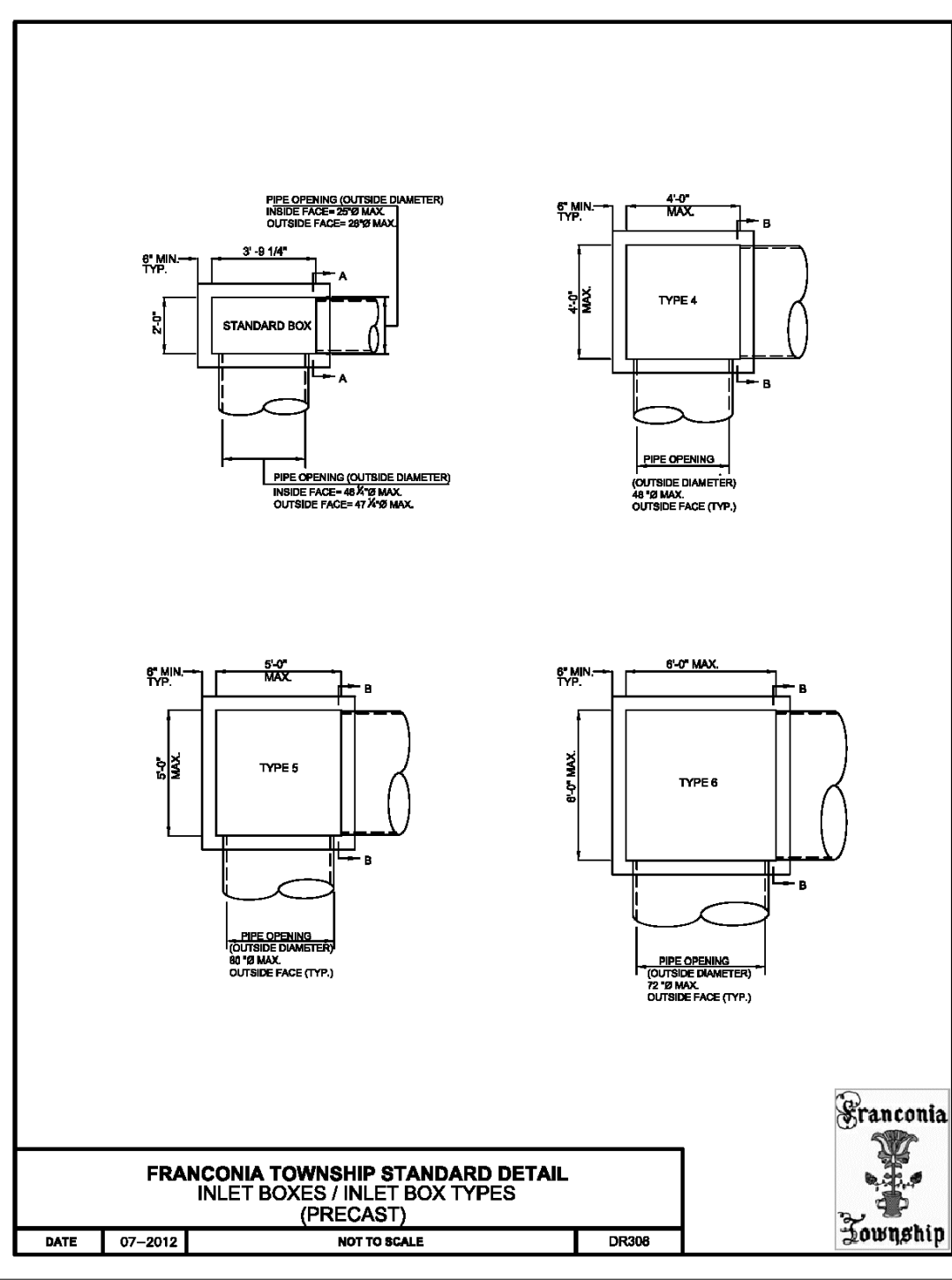
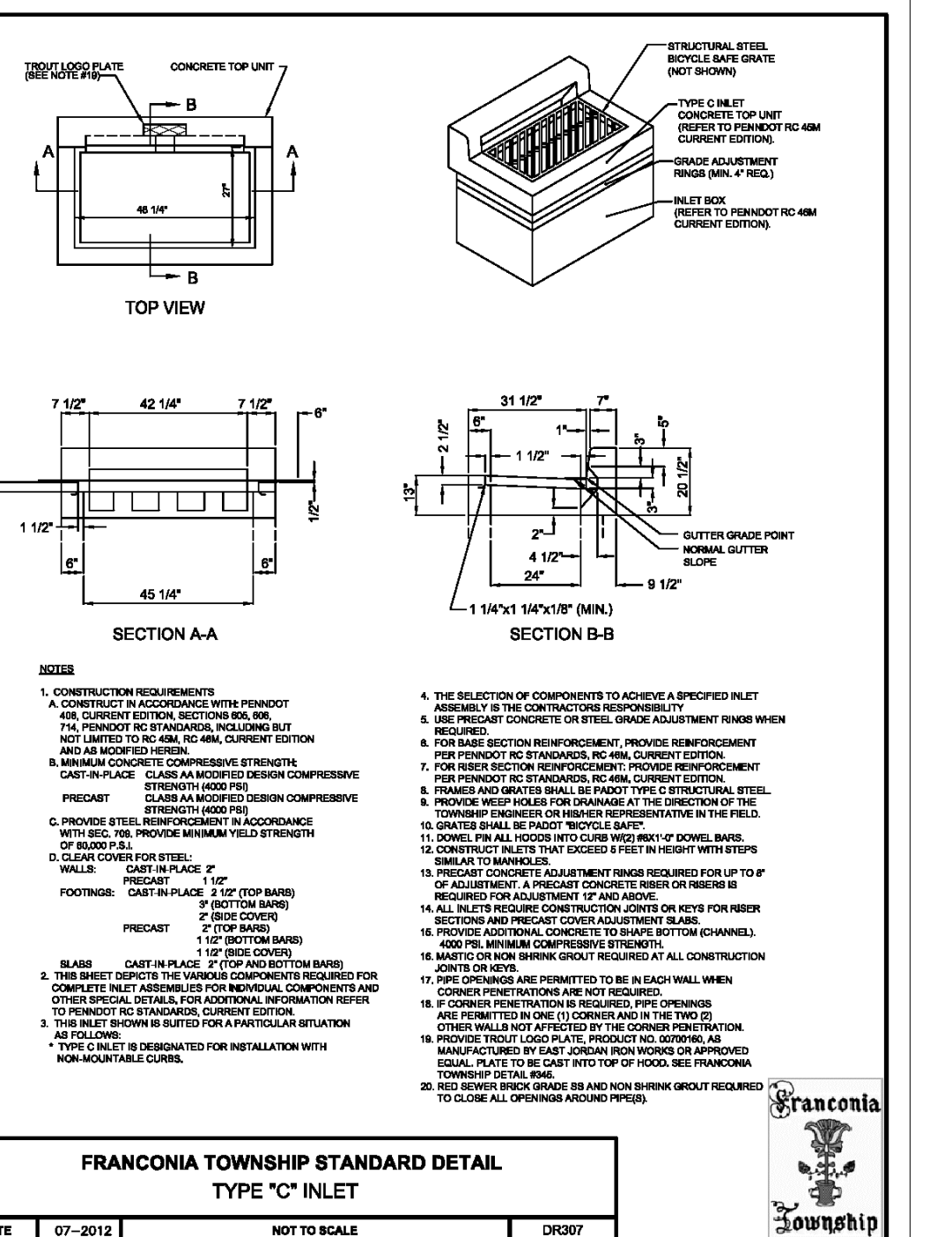
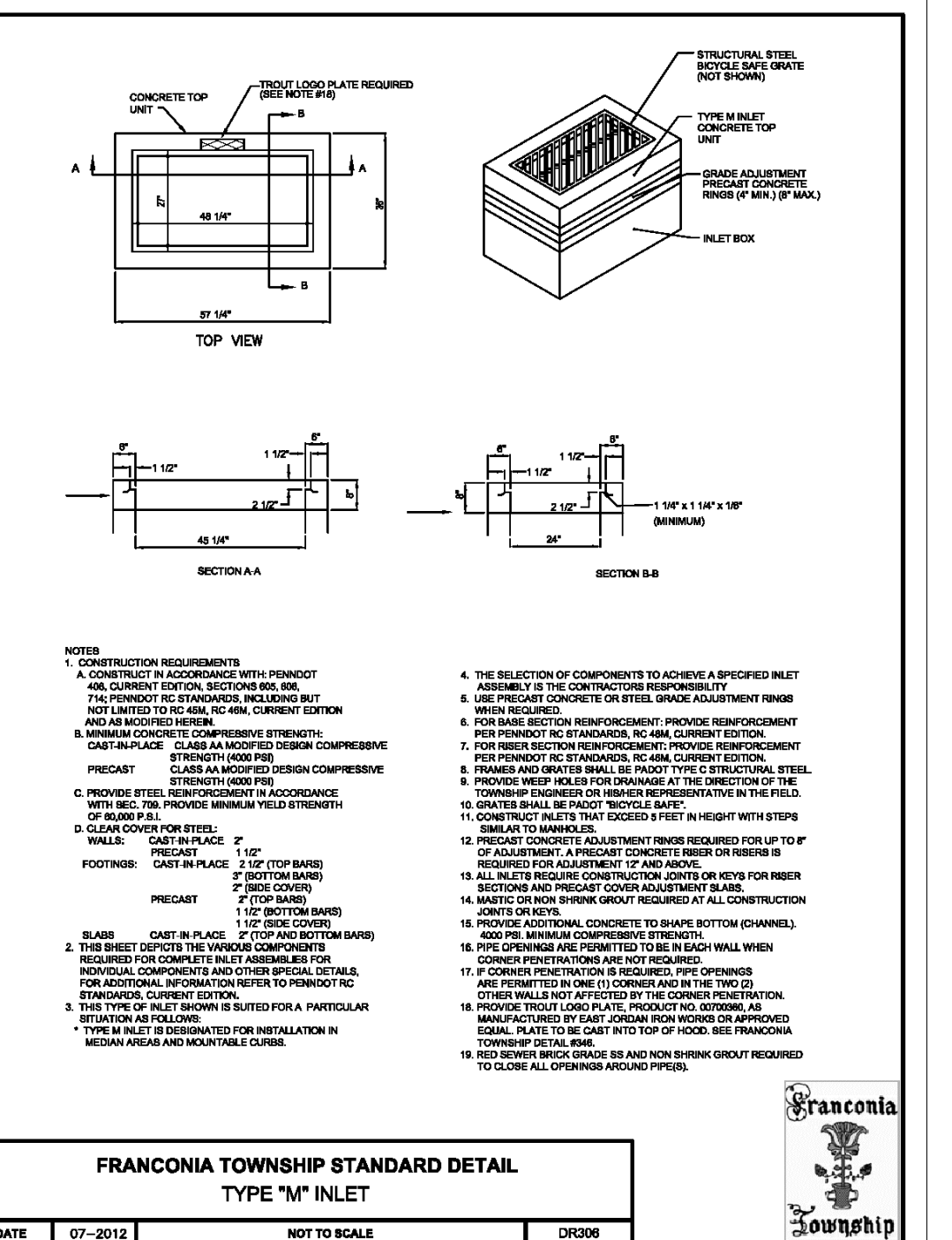
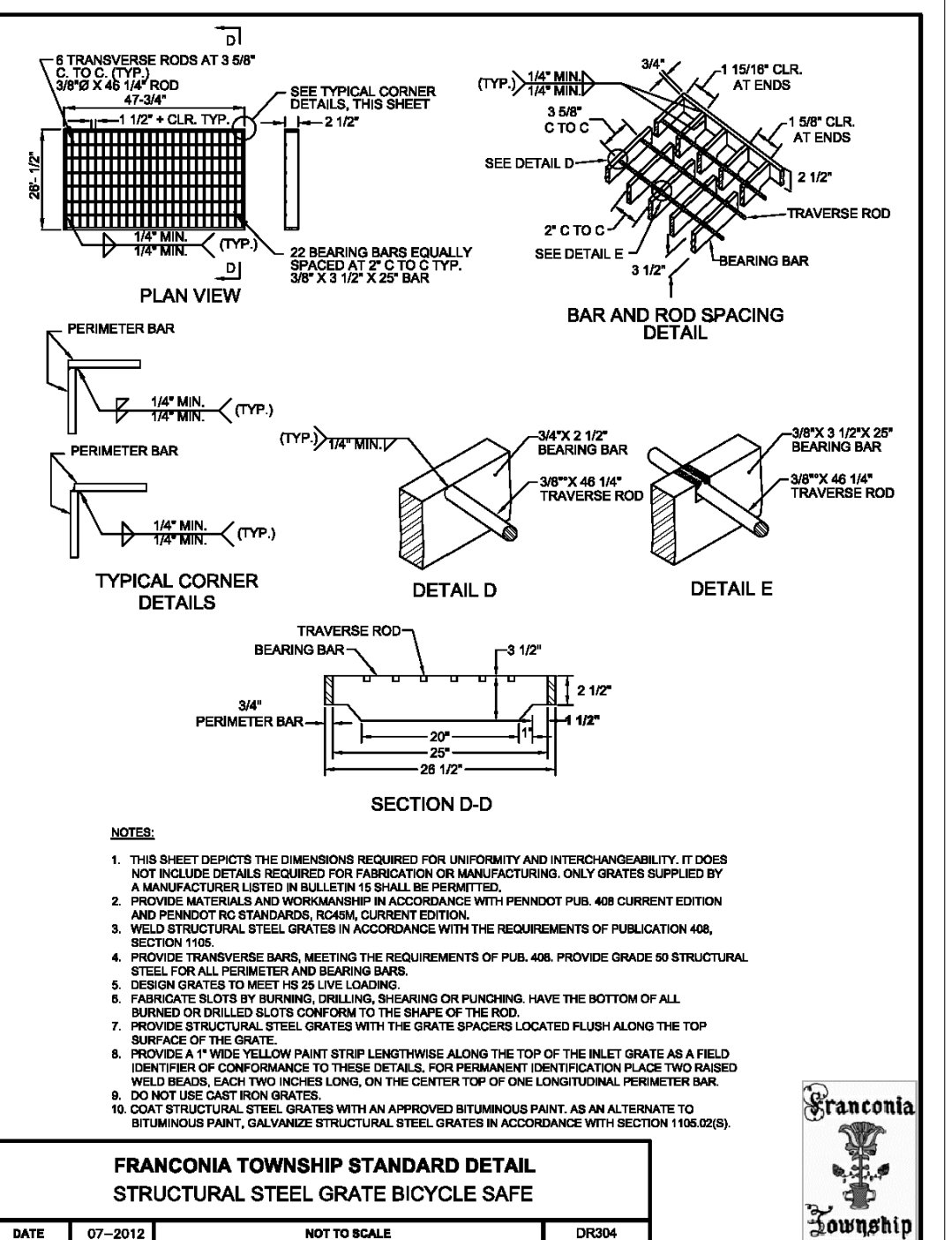
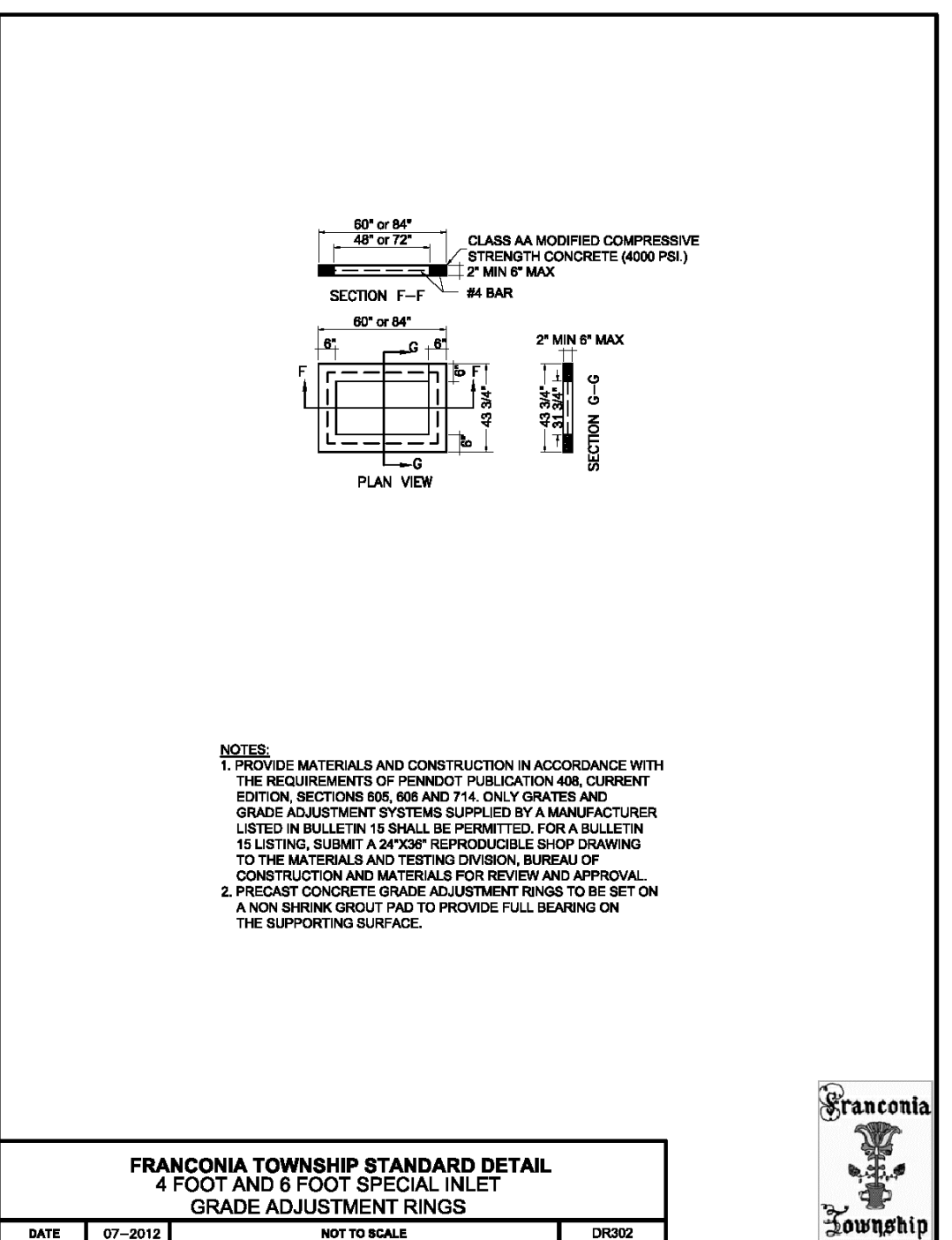
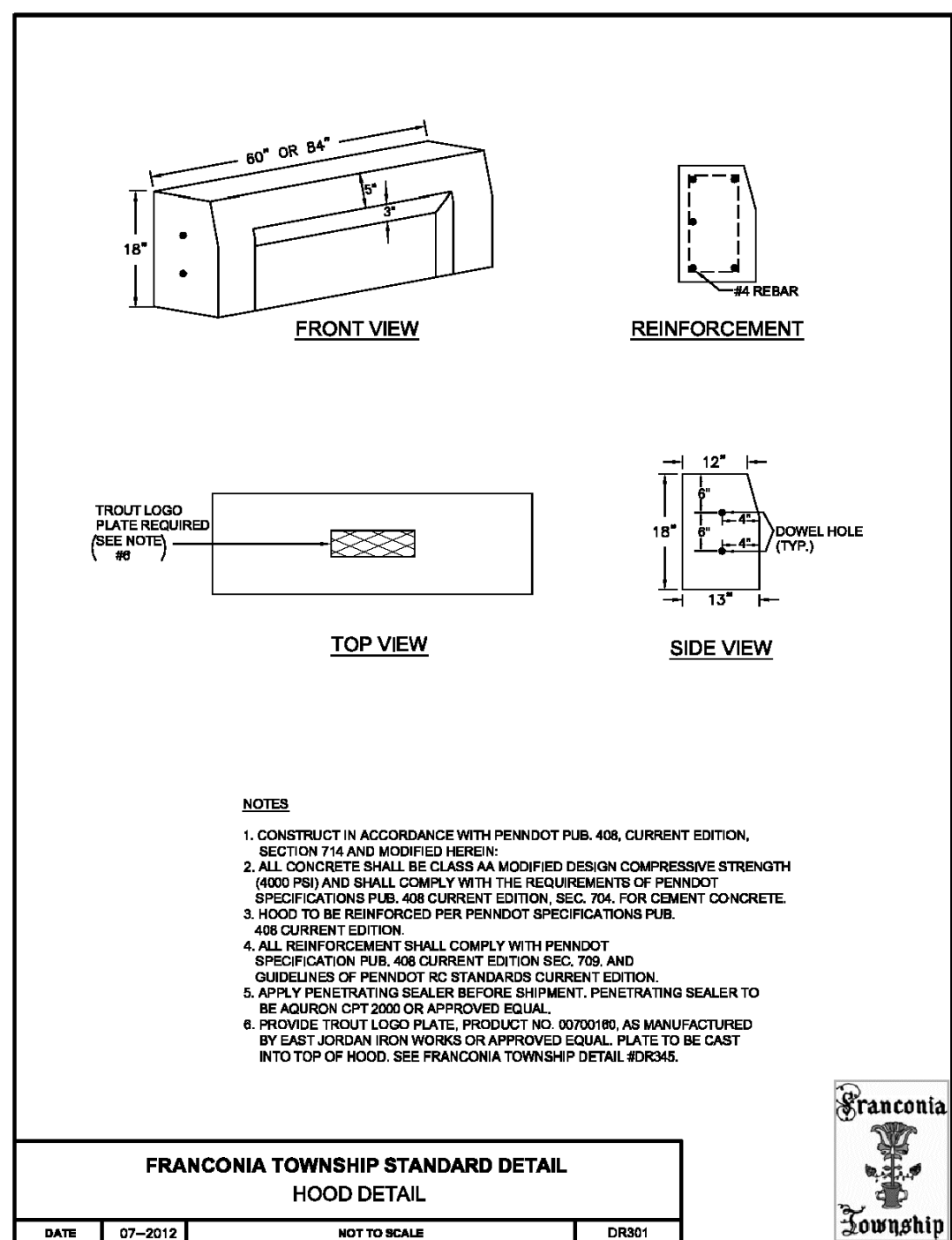
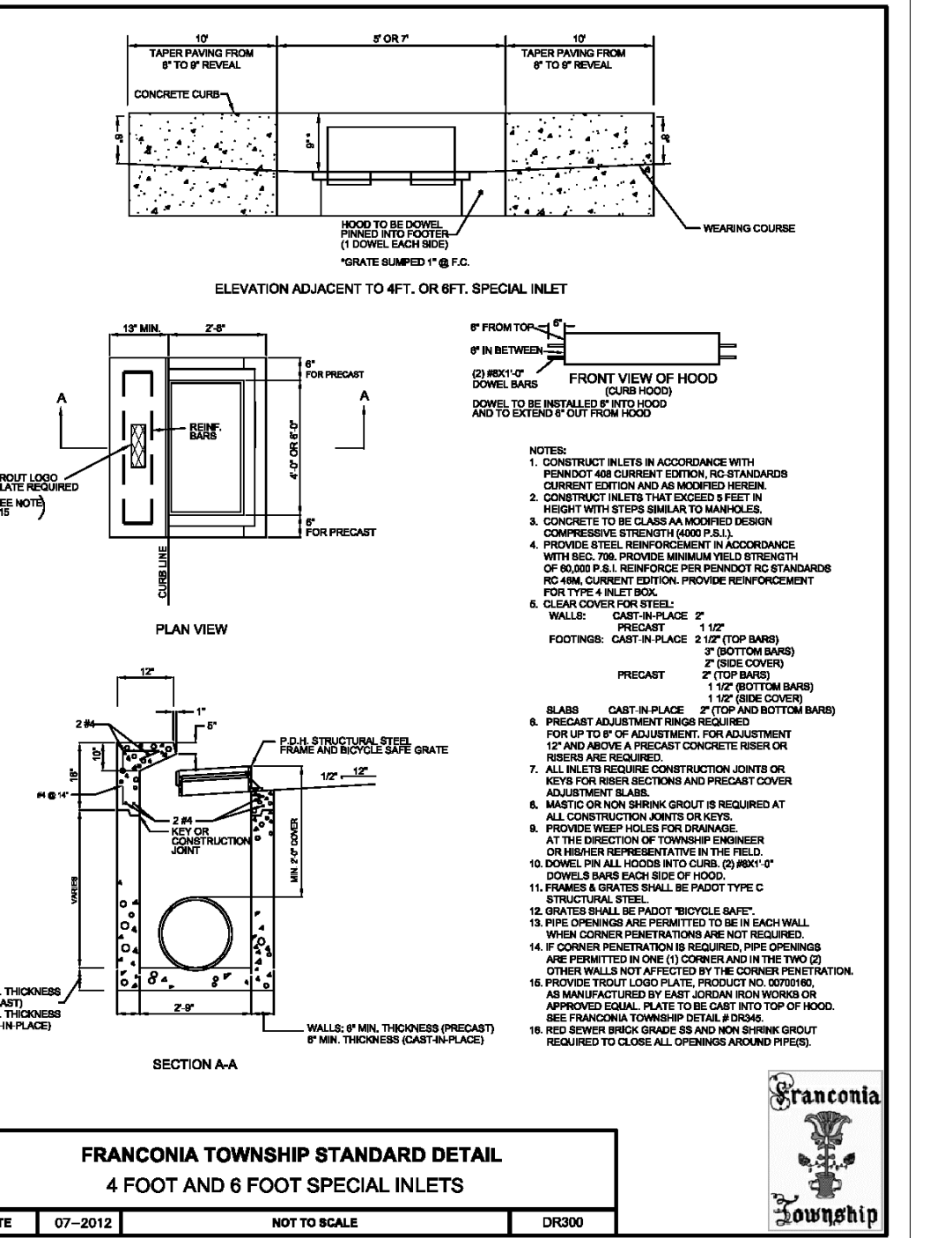
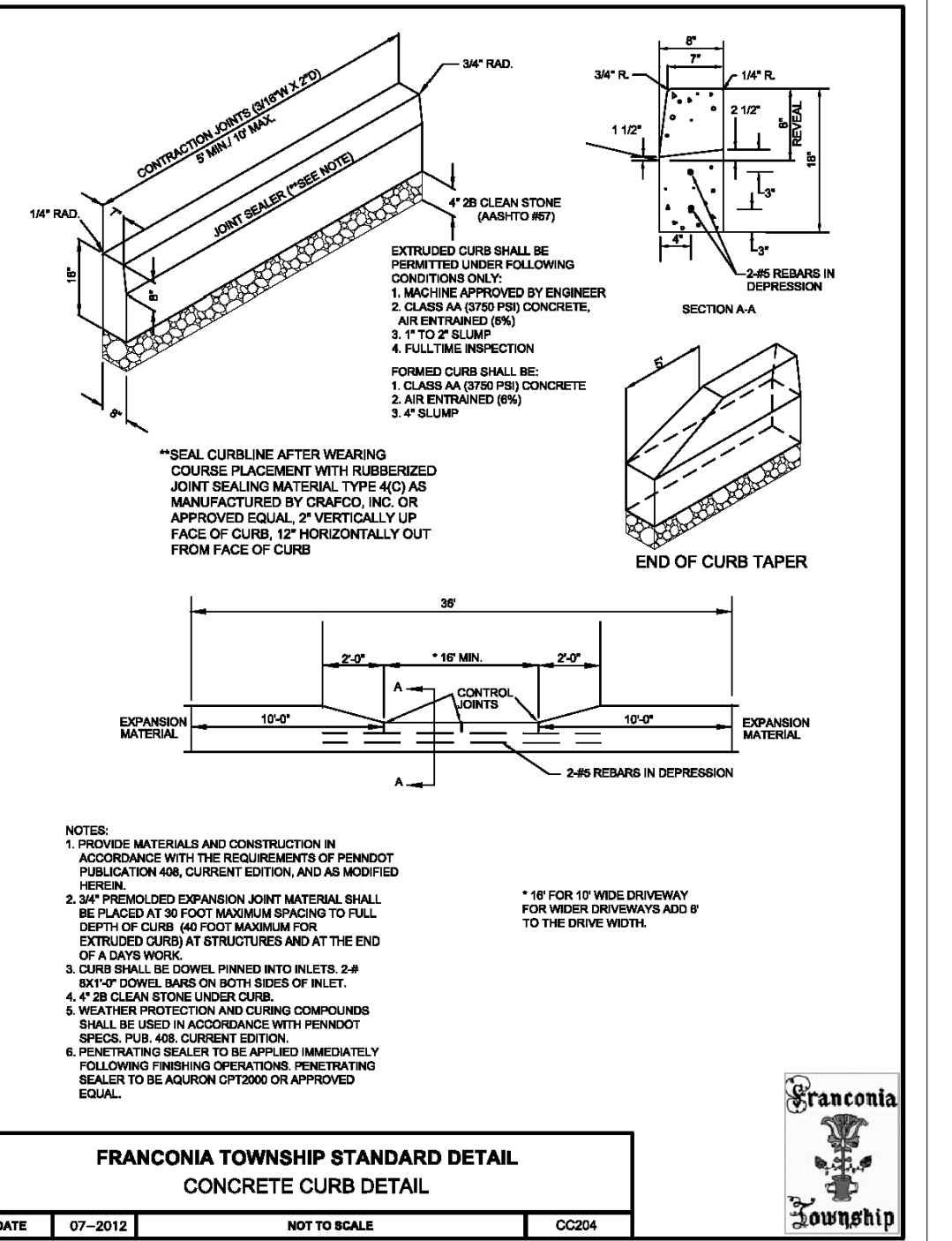
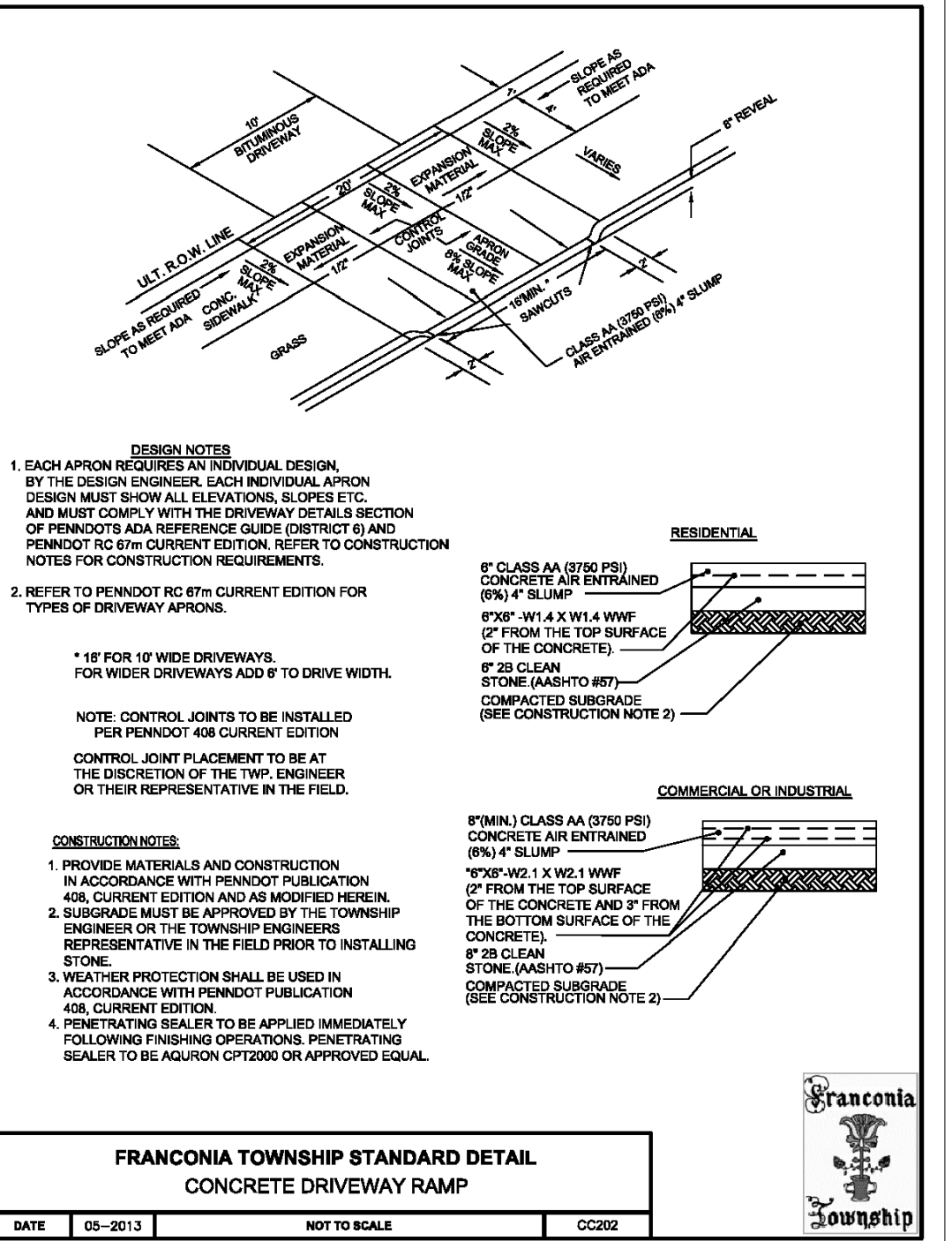
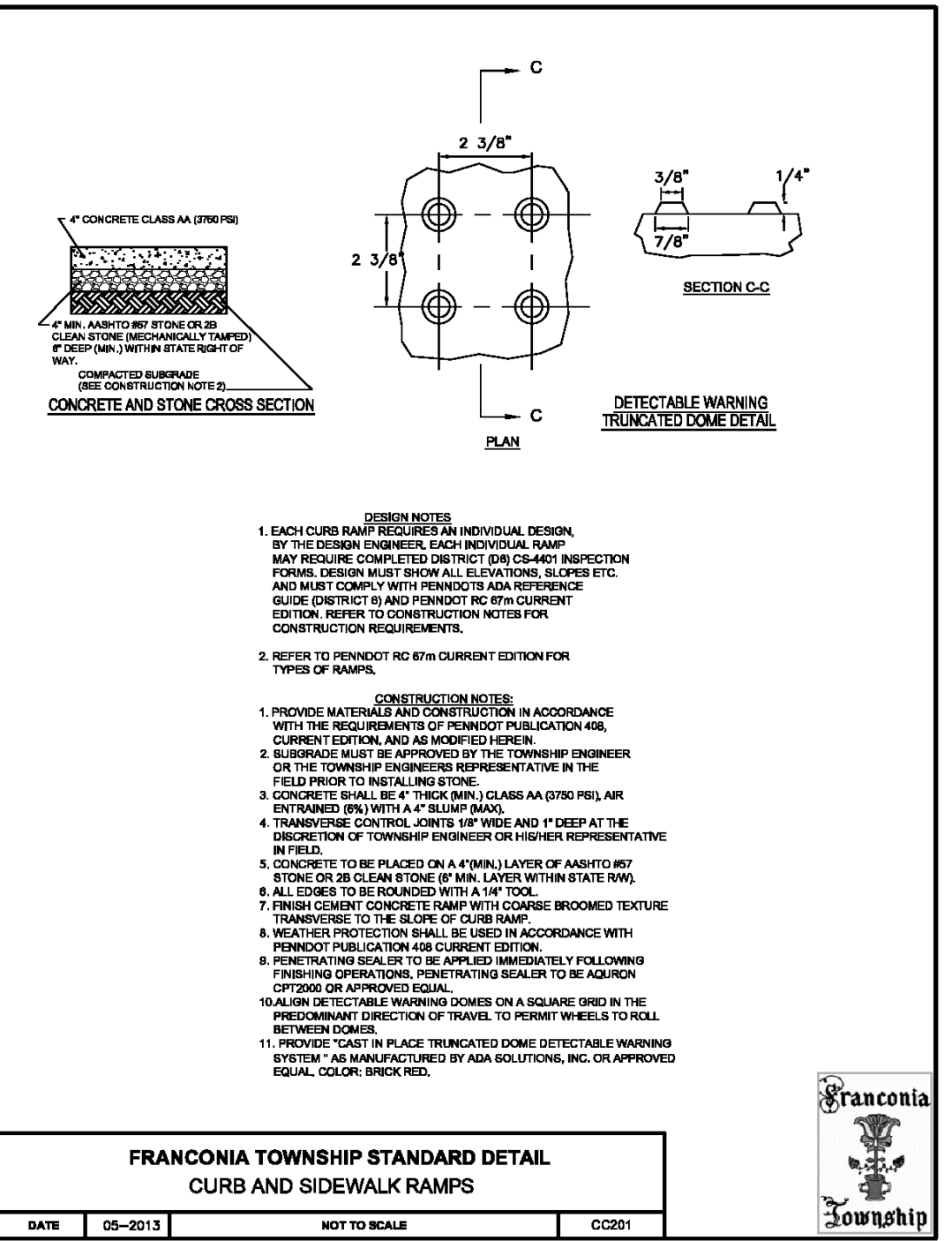
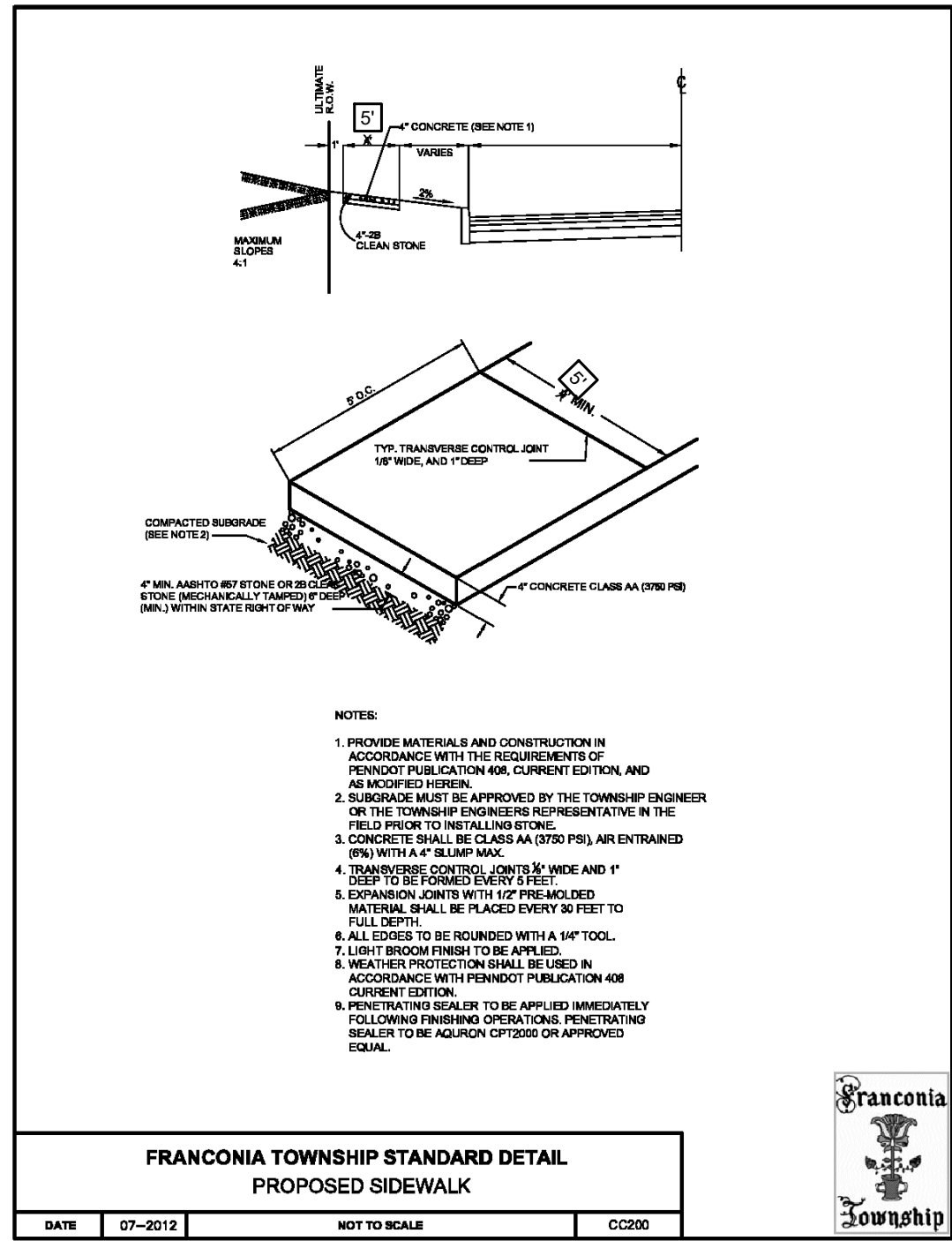
FOR
ALLEBACH TRACT
PREPARED FOR

502 TOWNSHIP LINE ROAD LAWYERS, LLC
SITE SITUATE IN
FRANCONIA TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

Richard C. Mast Associates, P.C.
Consulting Engineers and Surveyors

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RCMA	RCM	3071	20 OF 28



STORMSEWER AND SITE DETAILS

FOR
ALLEBACH TRACT

PREPARED FOR
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Harleysville, PA 19438
(215) 513-2100

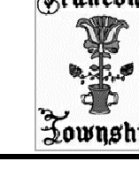
RCMA
ASSOCIATES, P.C.

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PROJ. MNGR: RCM
PROJECT NO: 3071
DRAWING NO: 21 OF 28

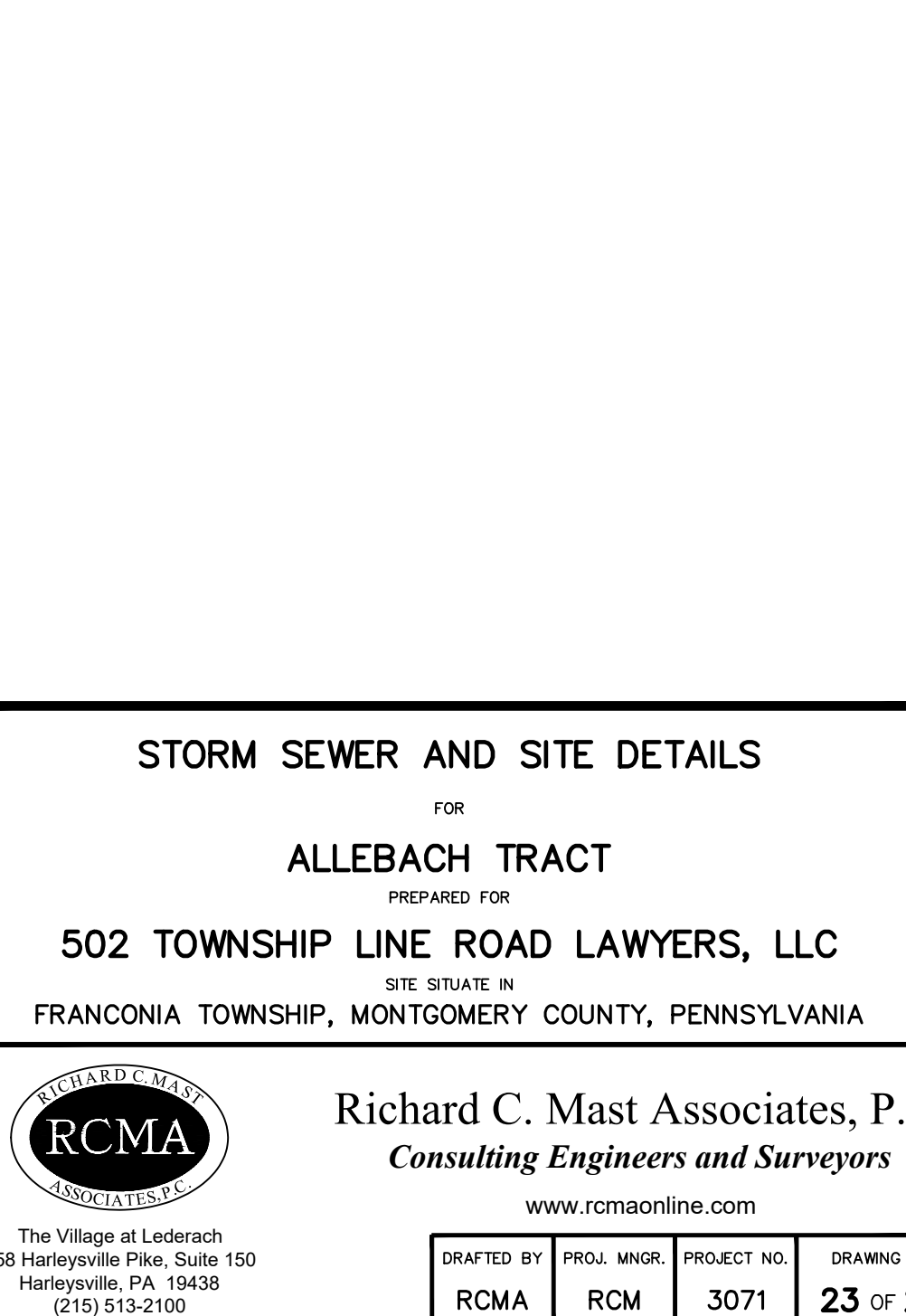
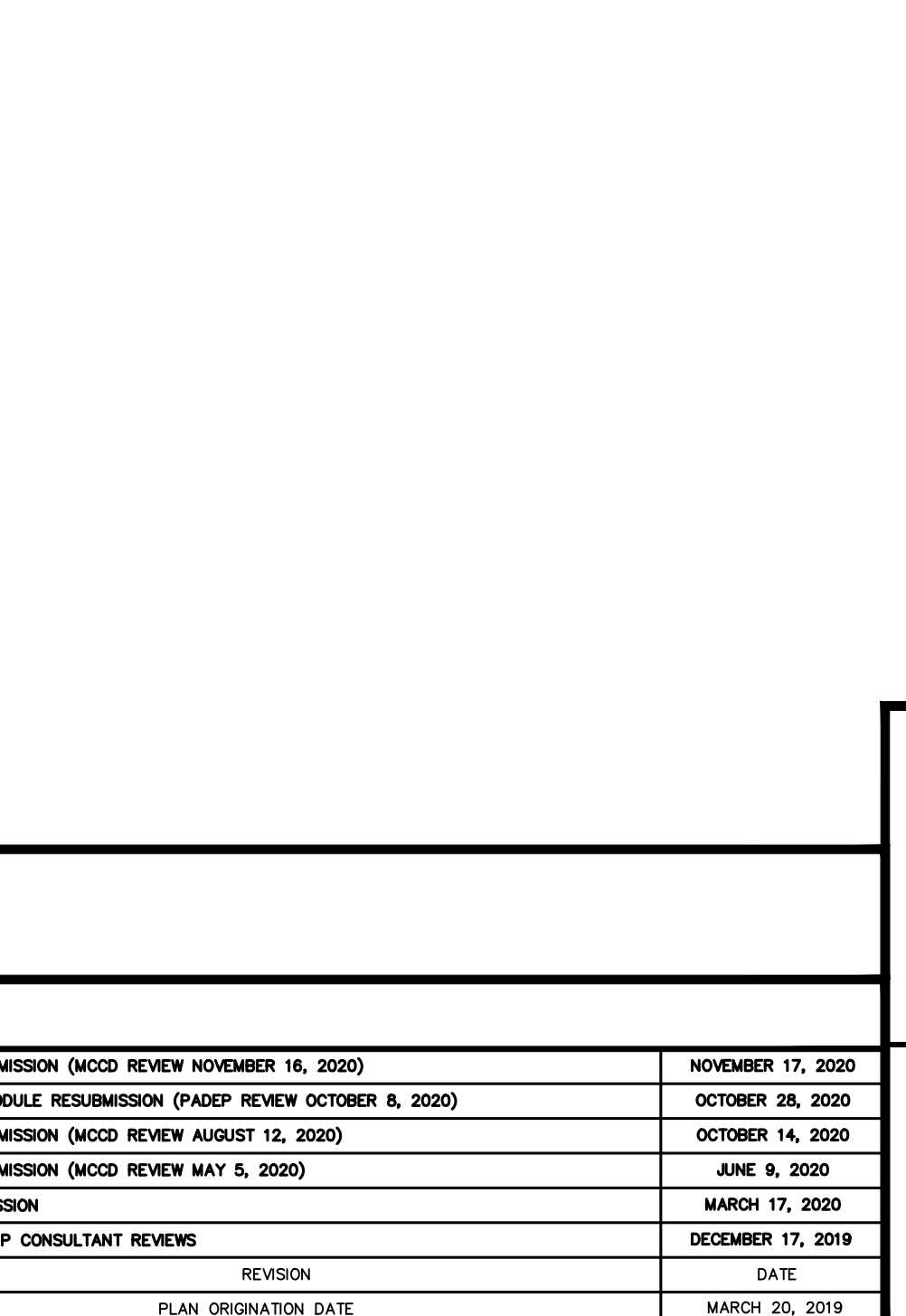
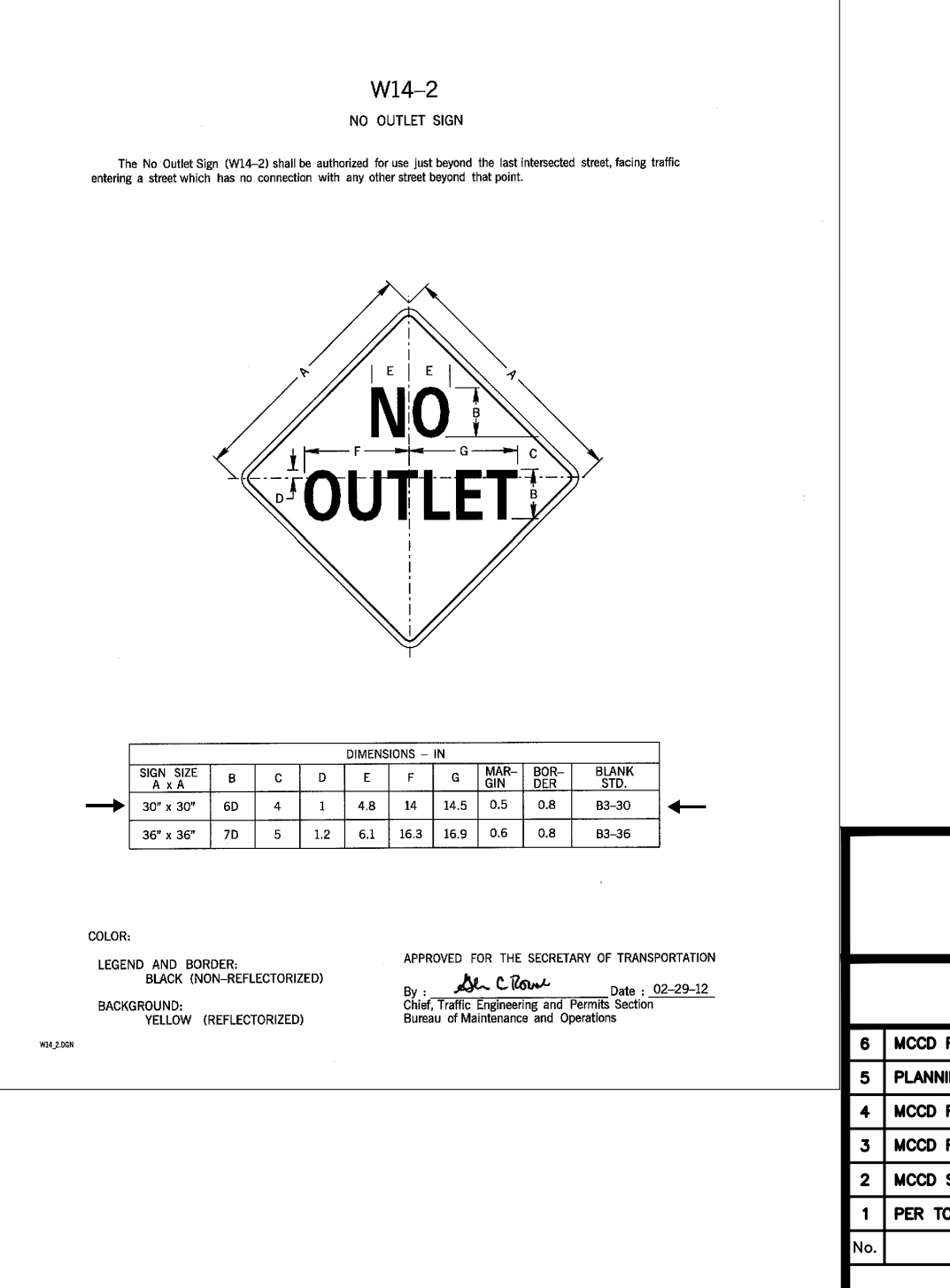
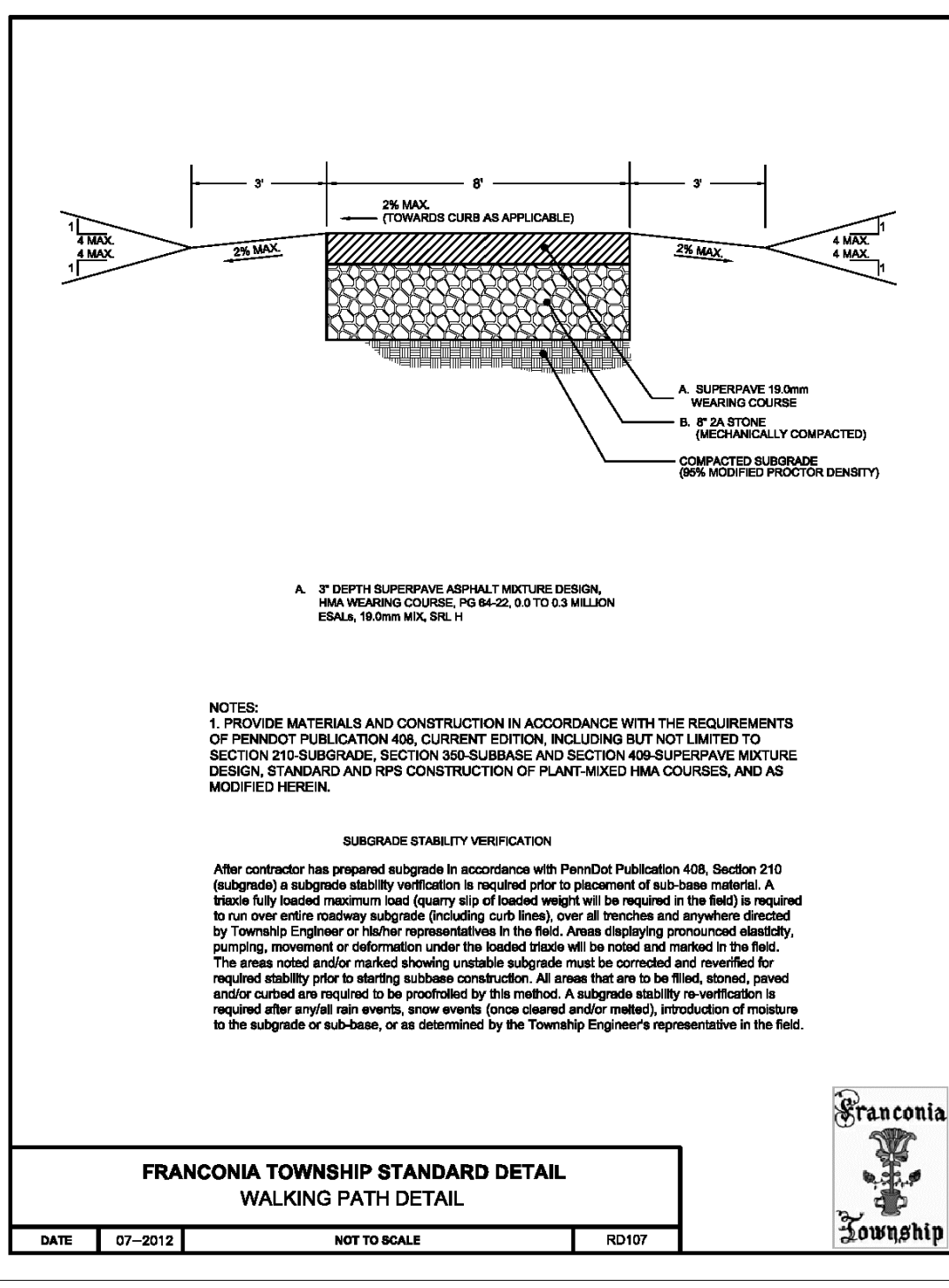
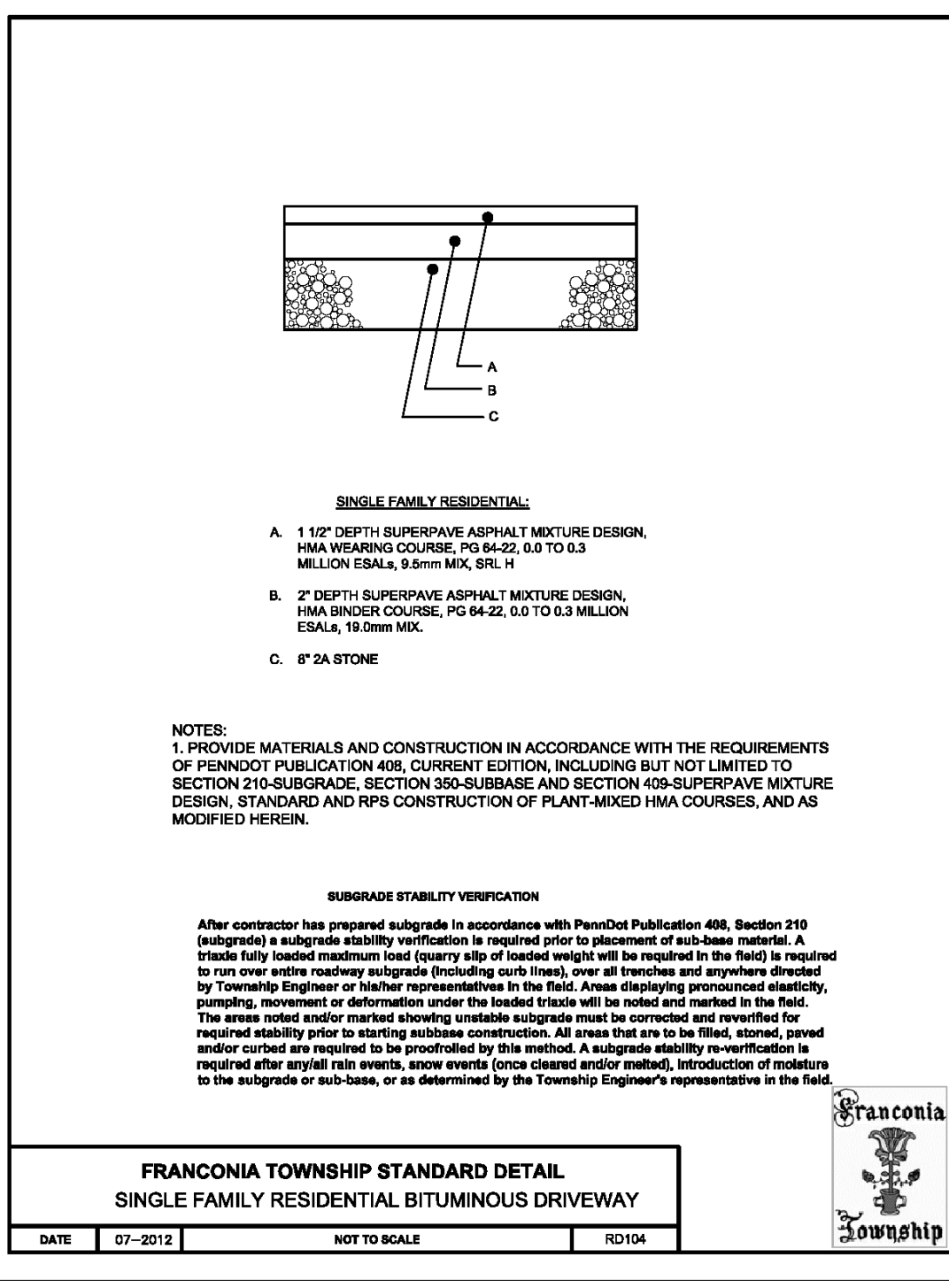
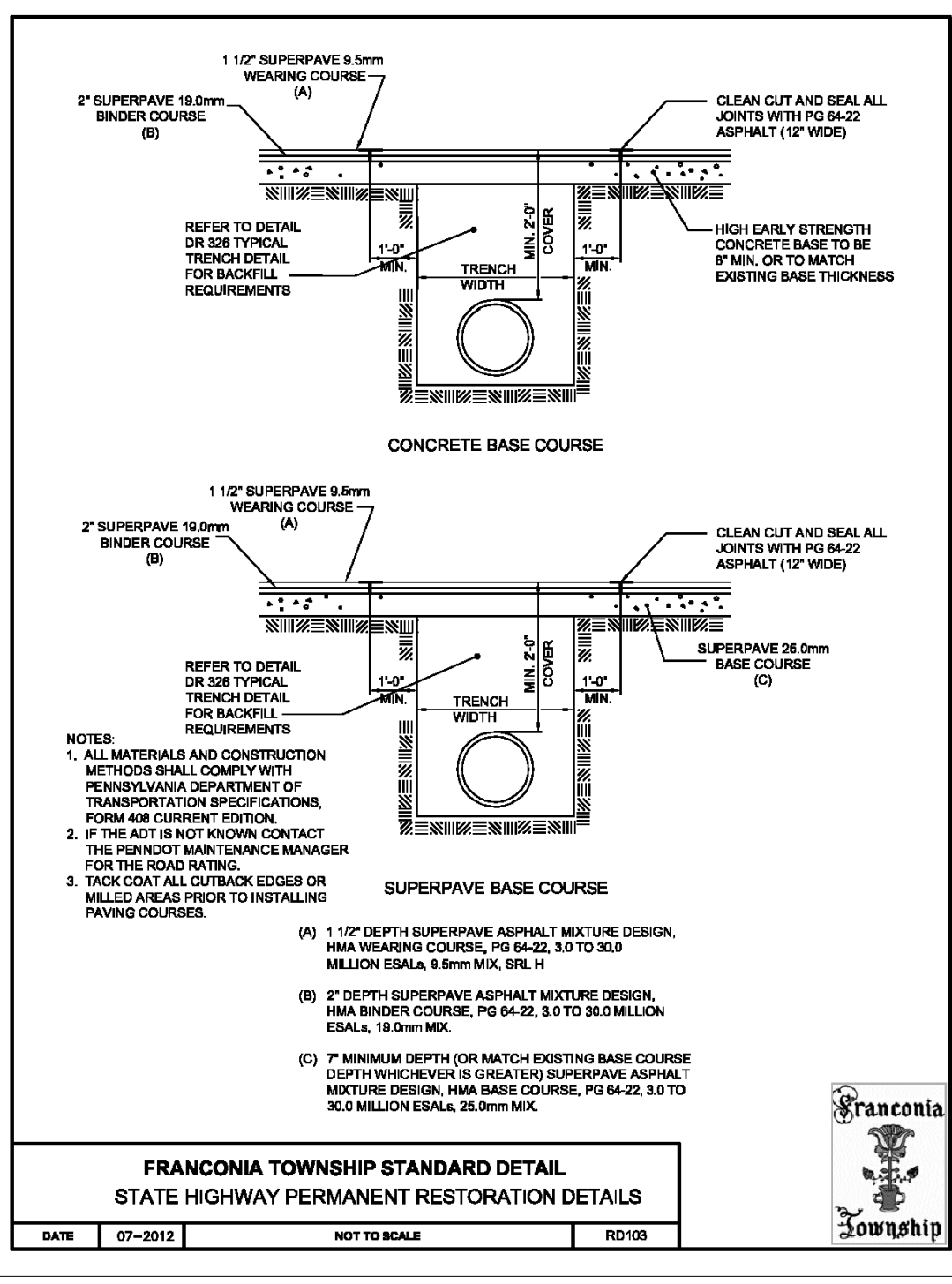
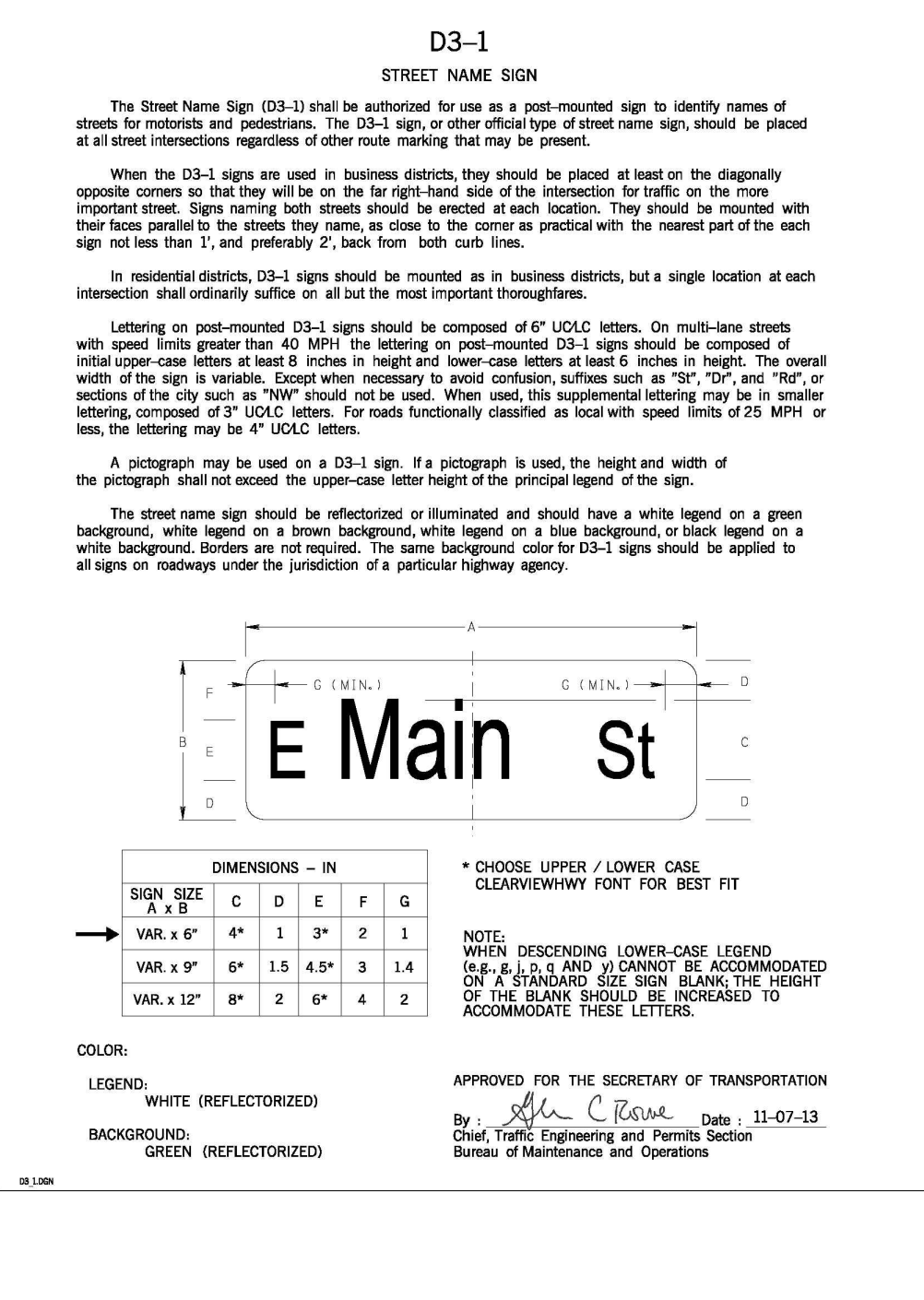
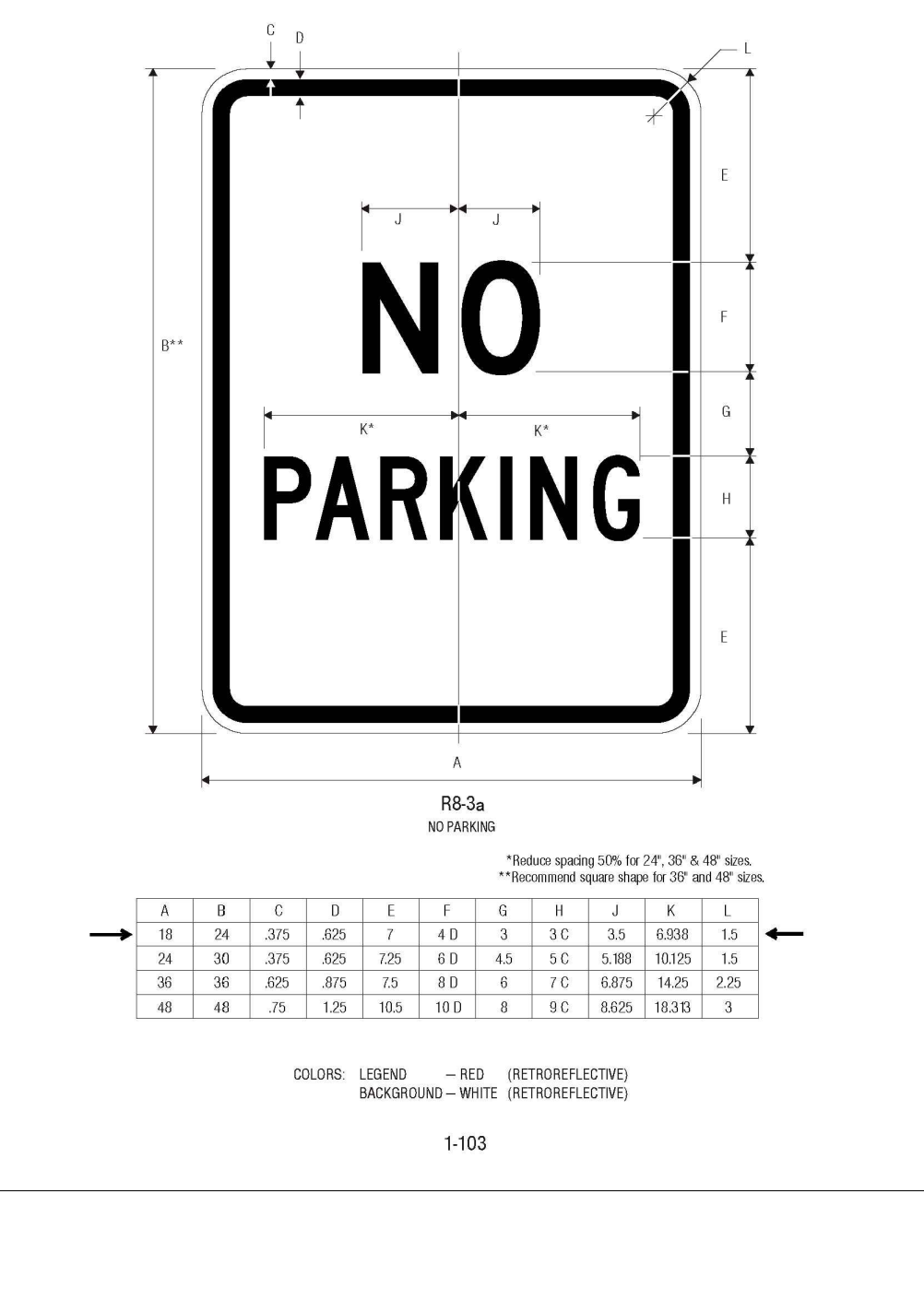
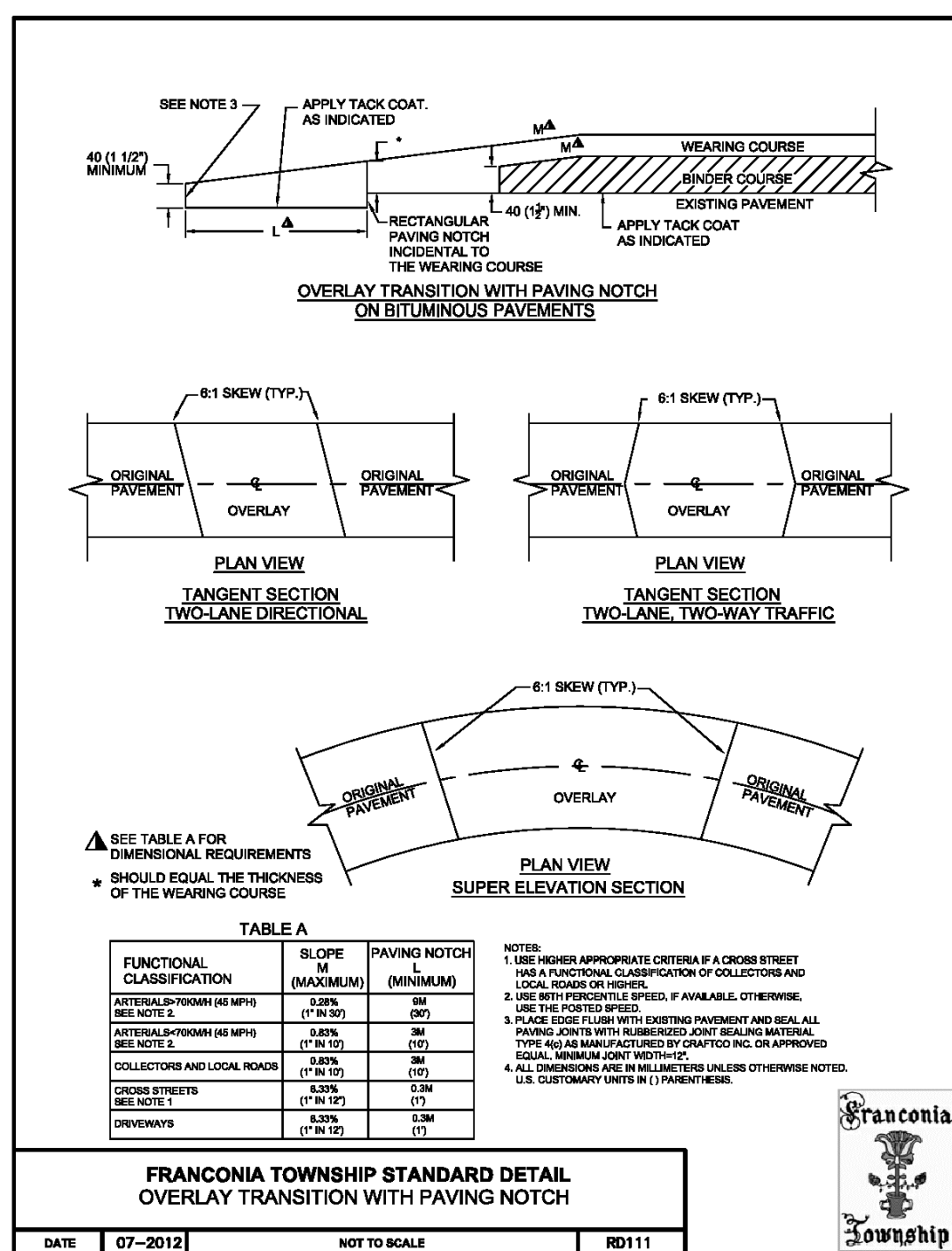
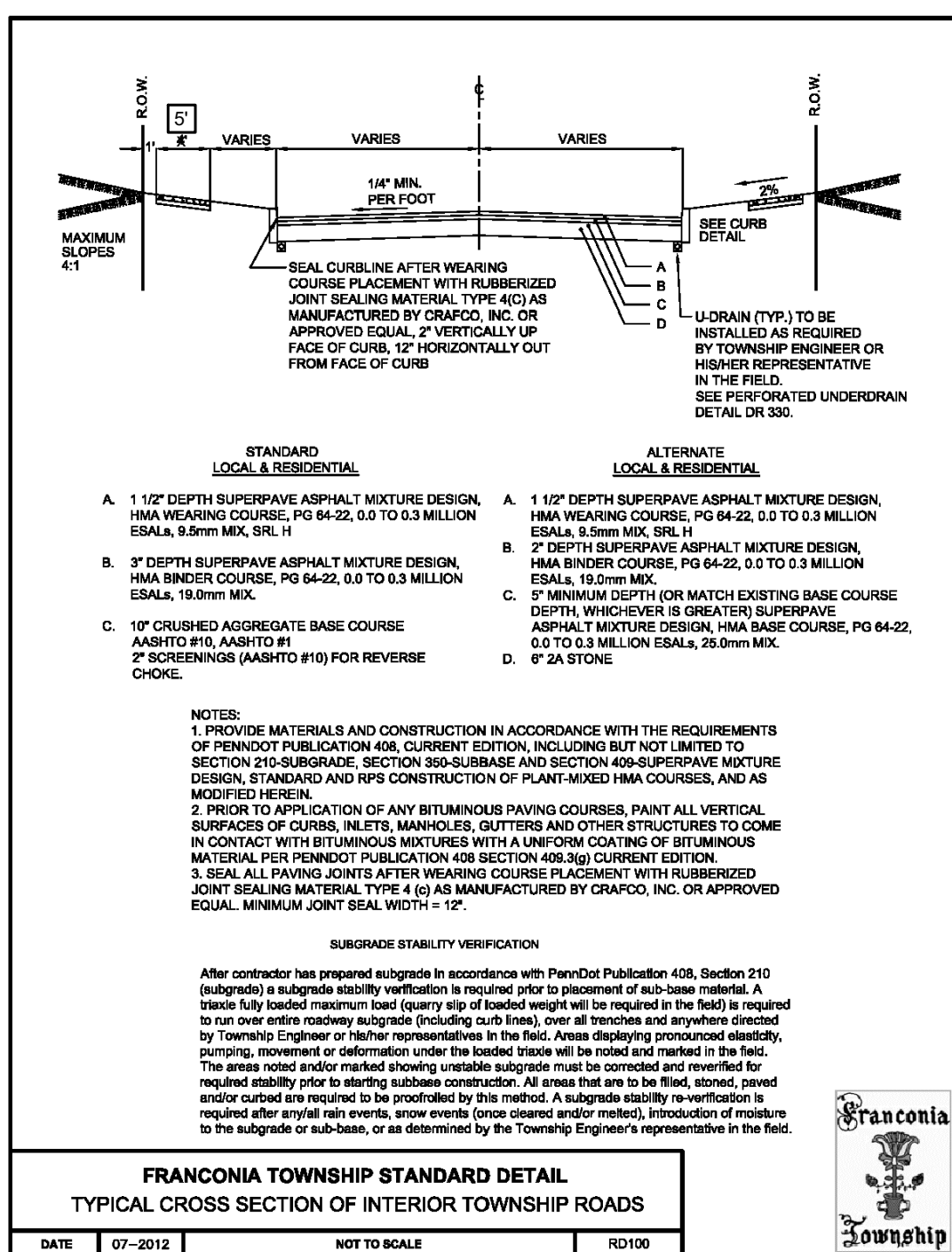
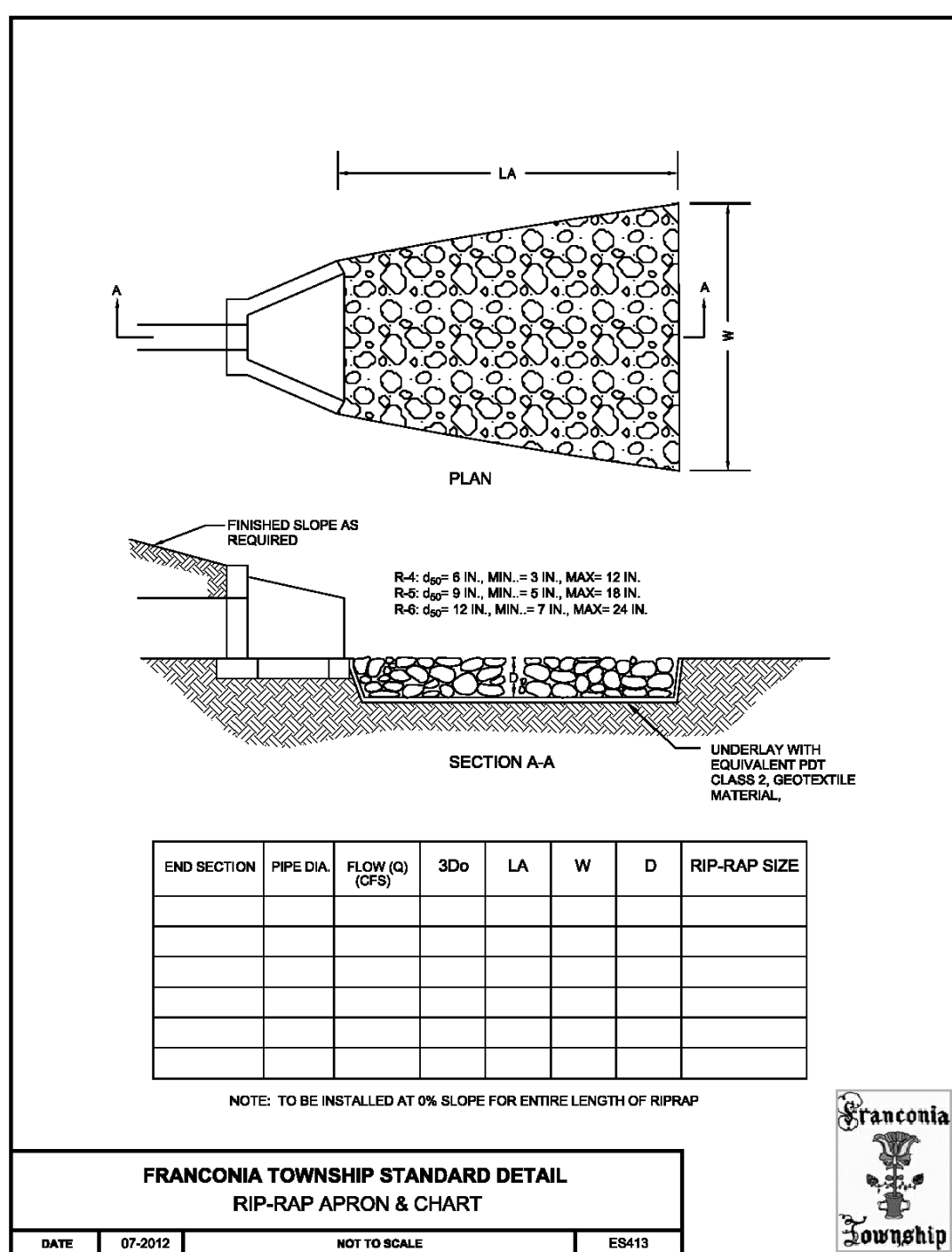
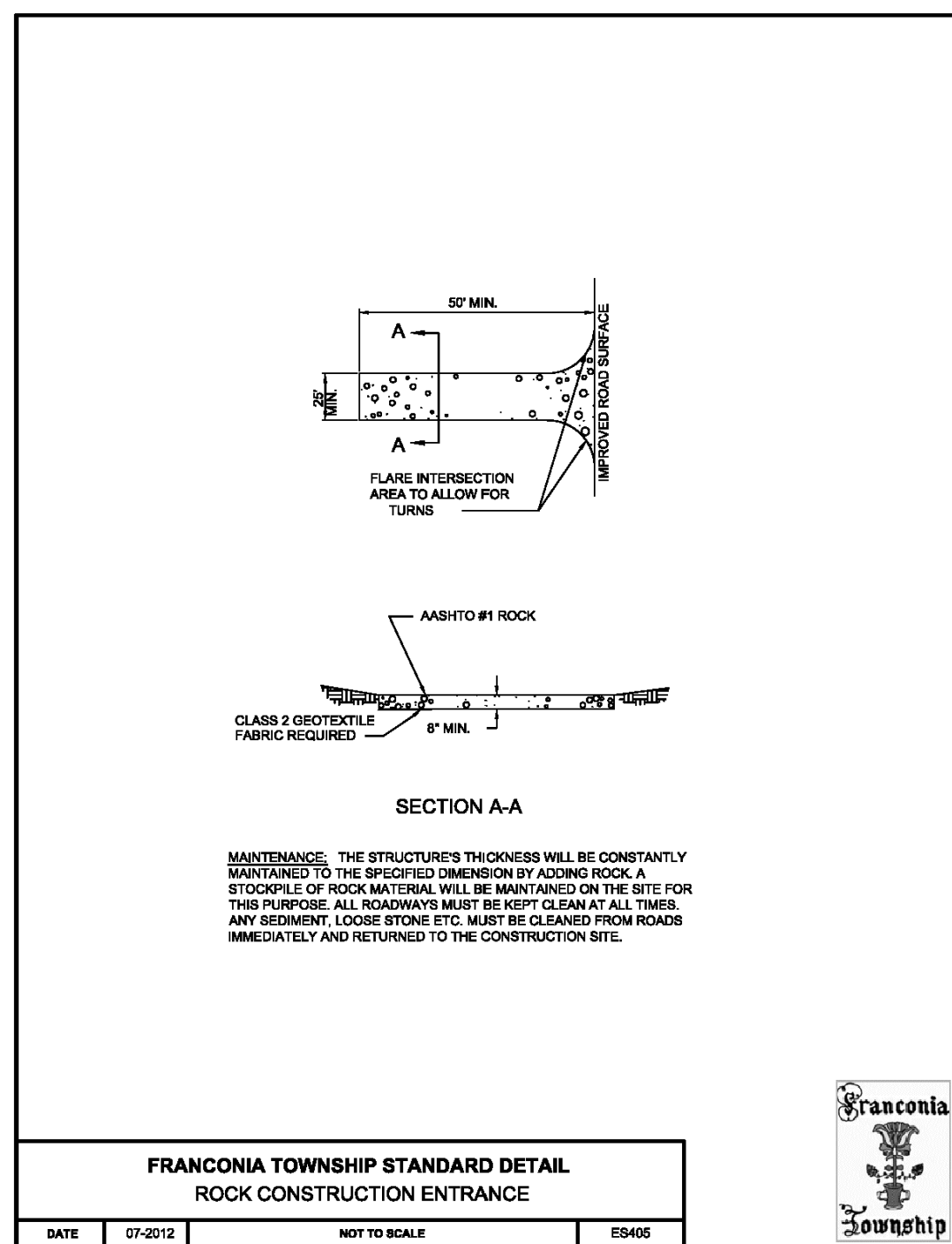
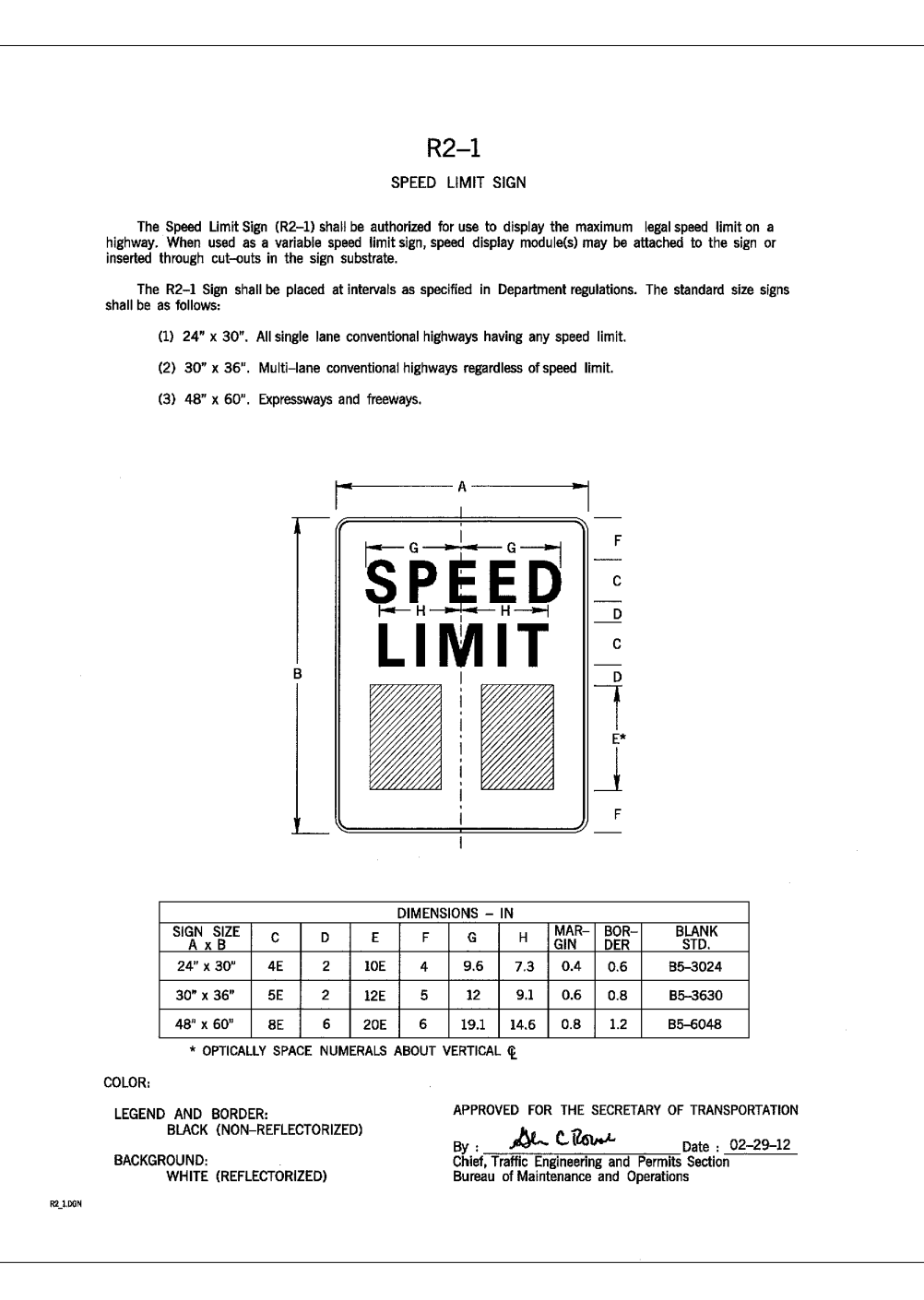
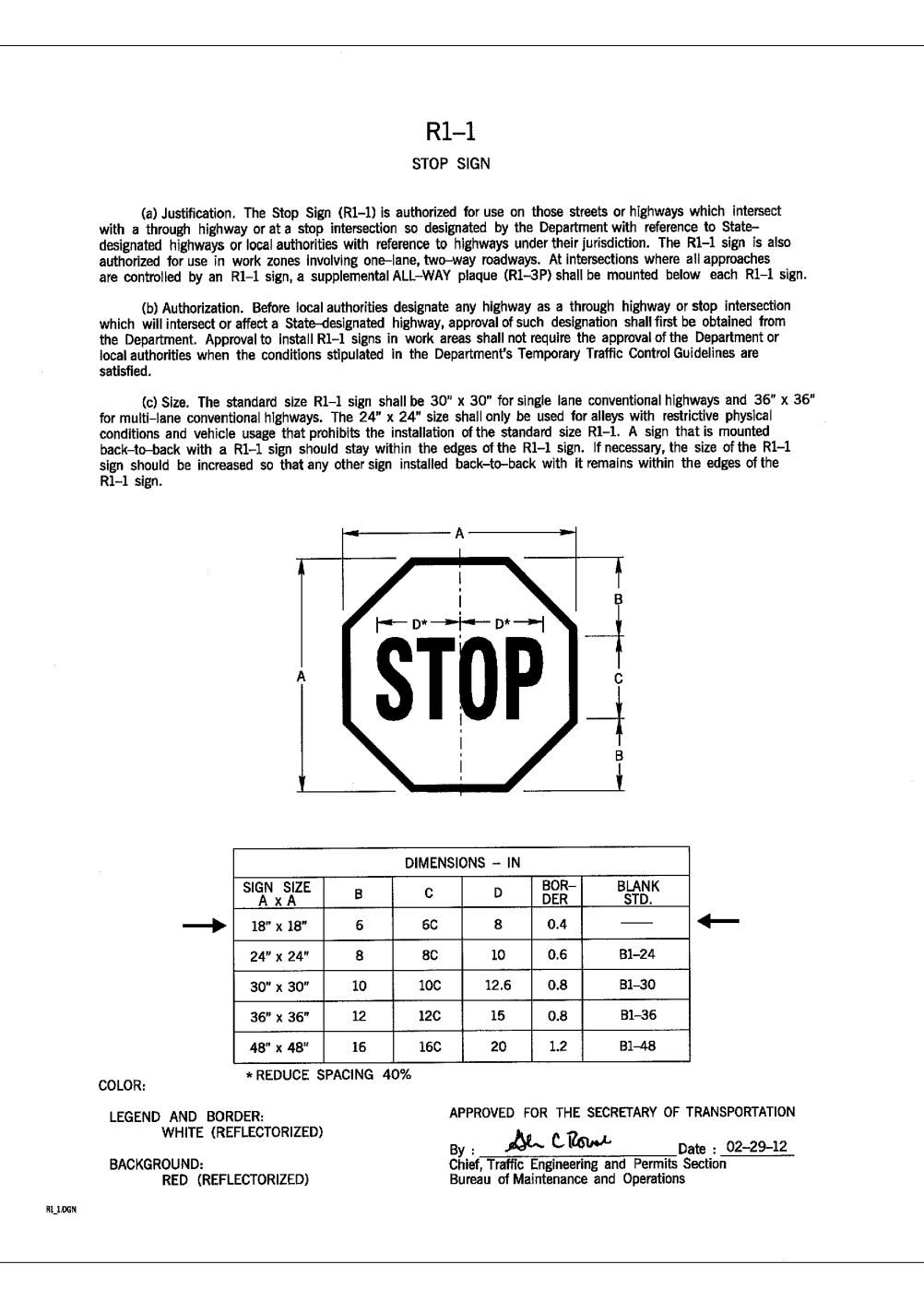
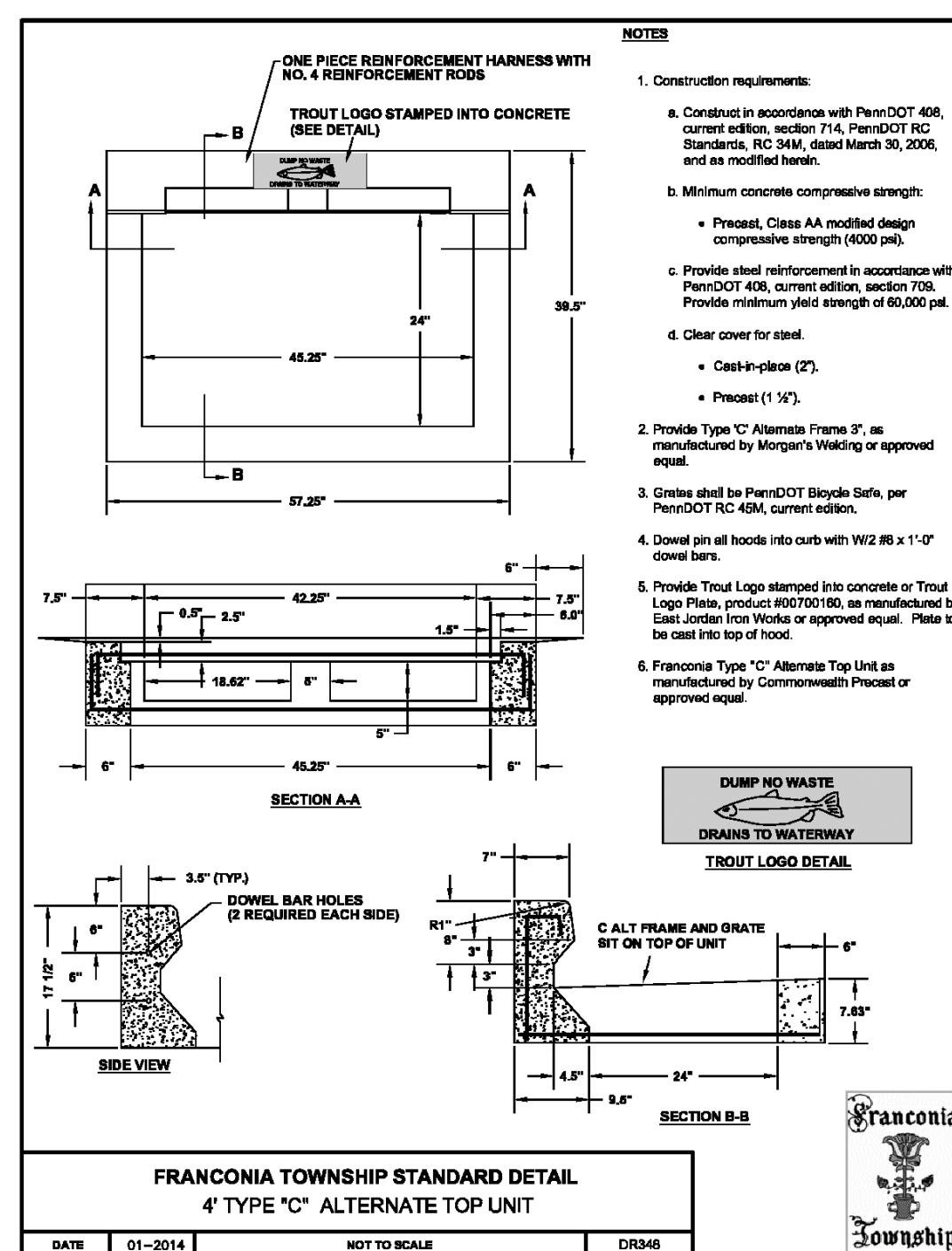
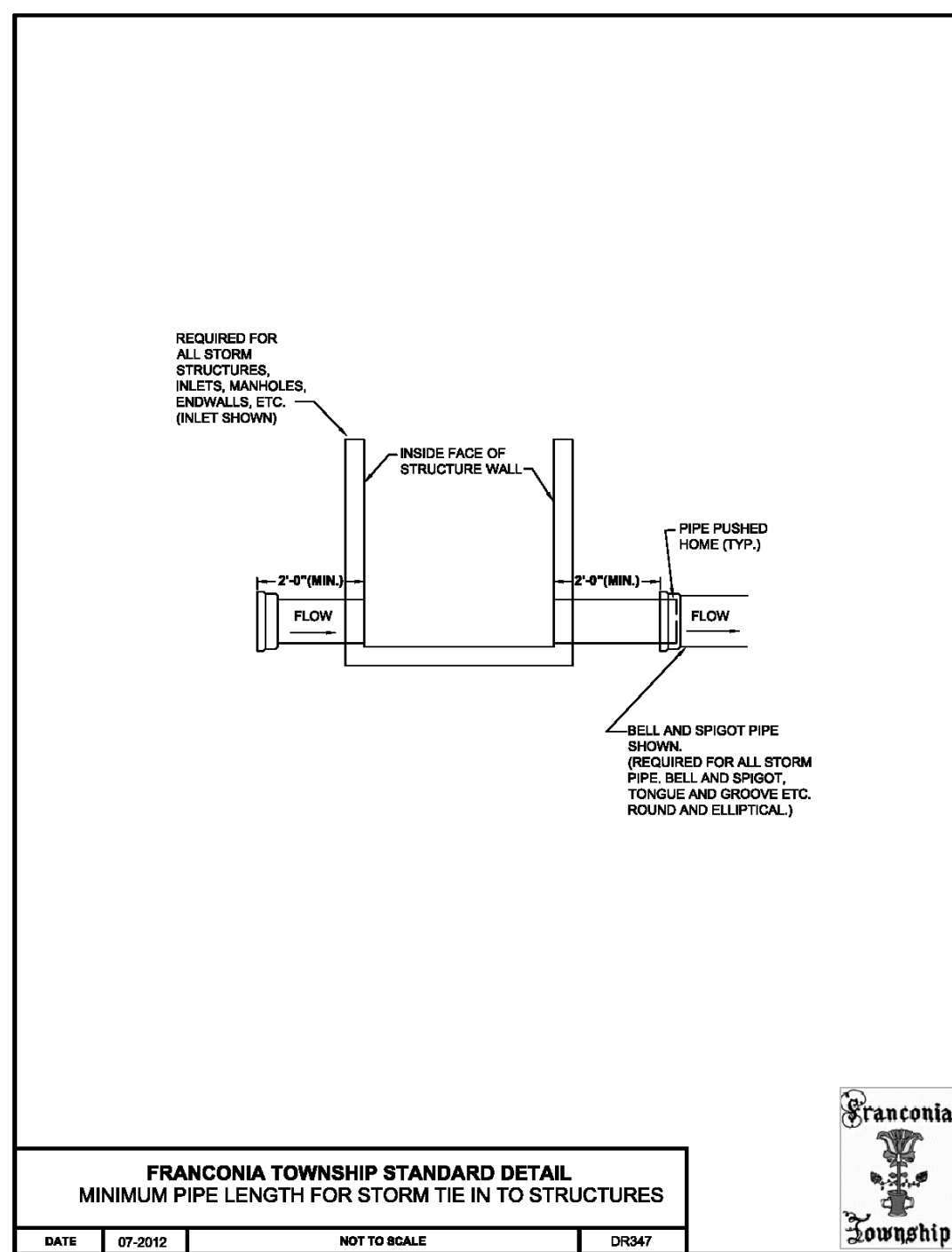
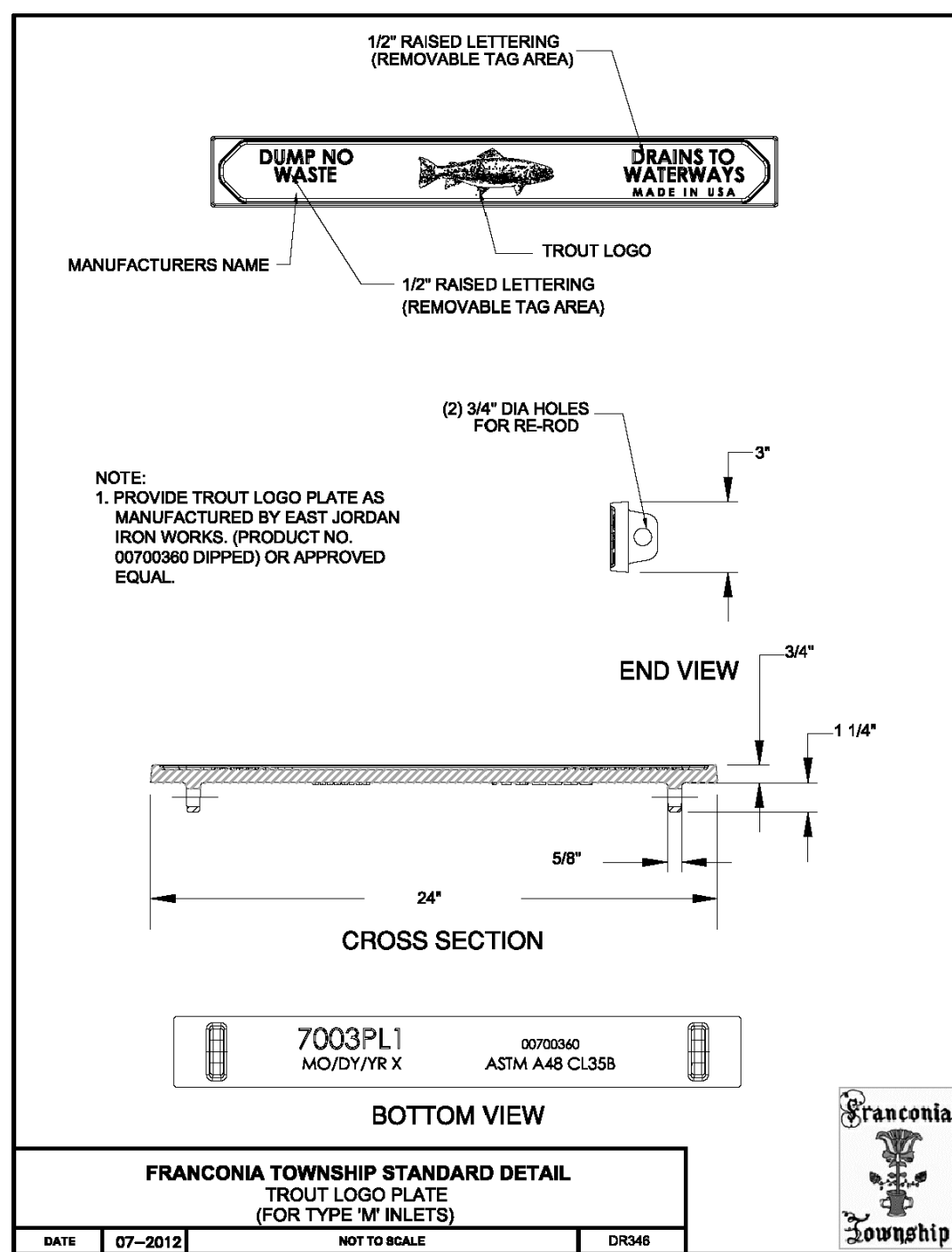
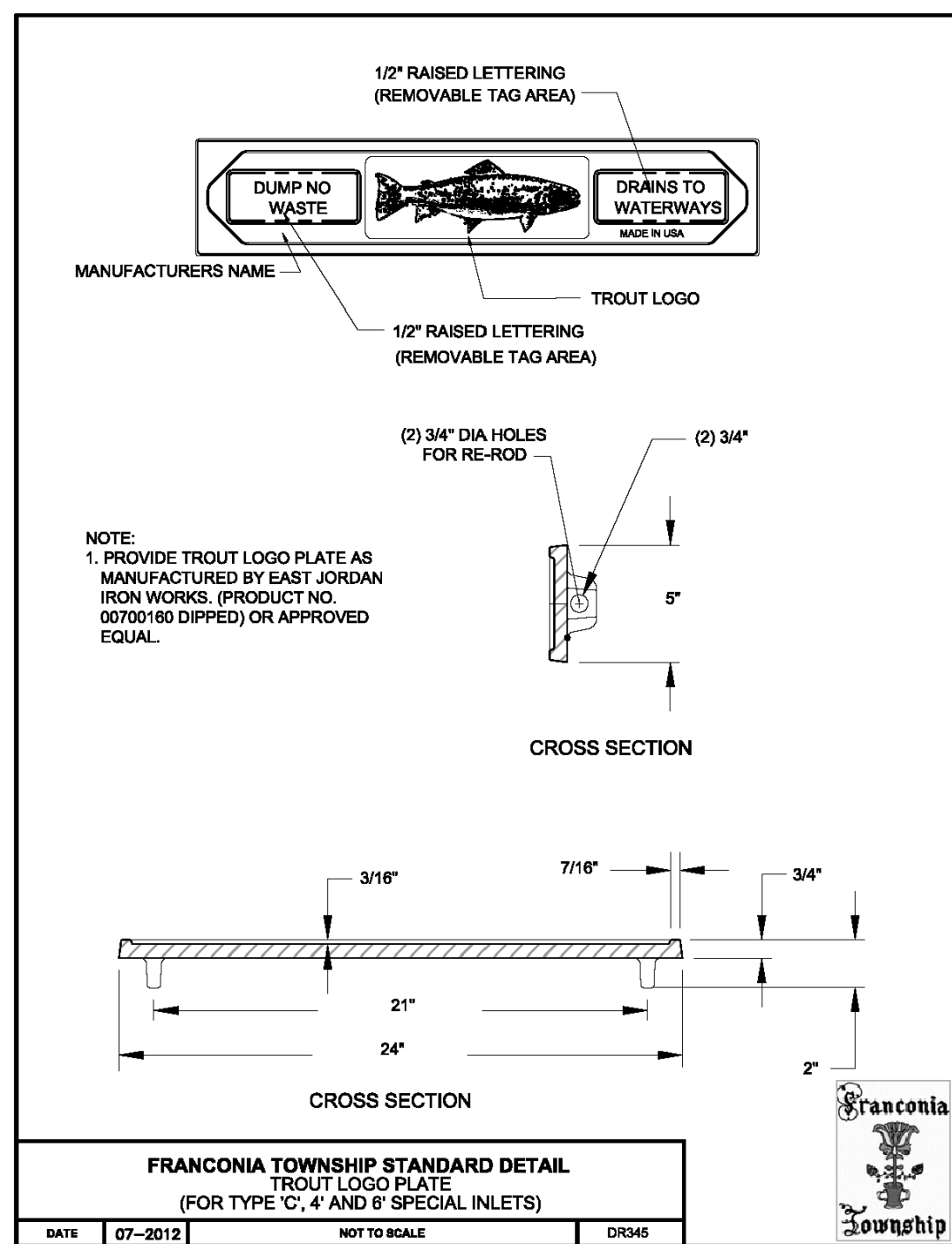
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1	PER TOWNSHIP CONSULTANT REVIEWS	DECEMBER 17, 2019

PLAN ORIGINATION DATE: MARCH 20, 2019


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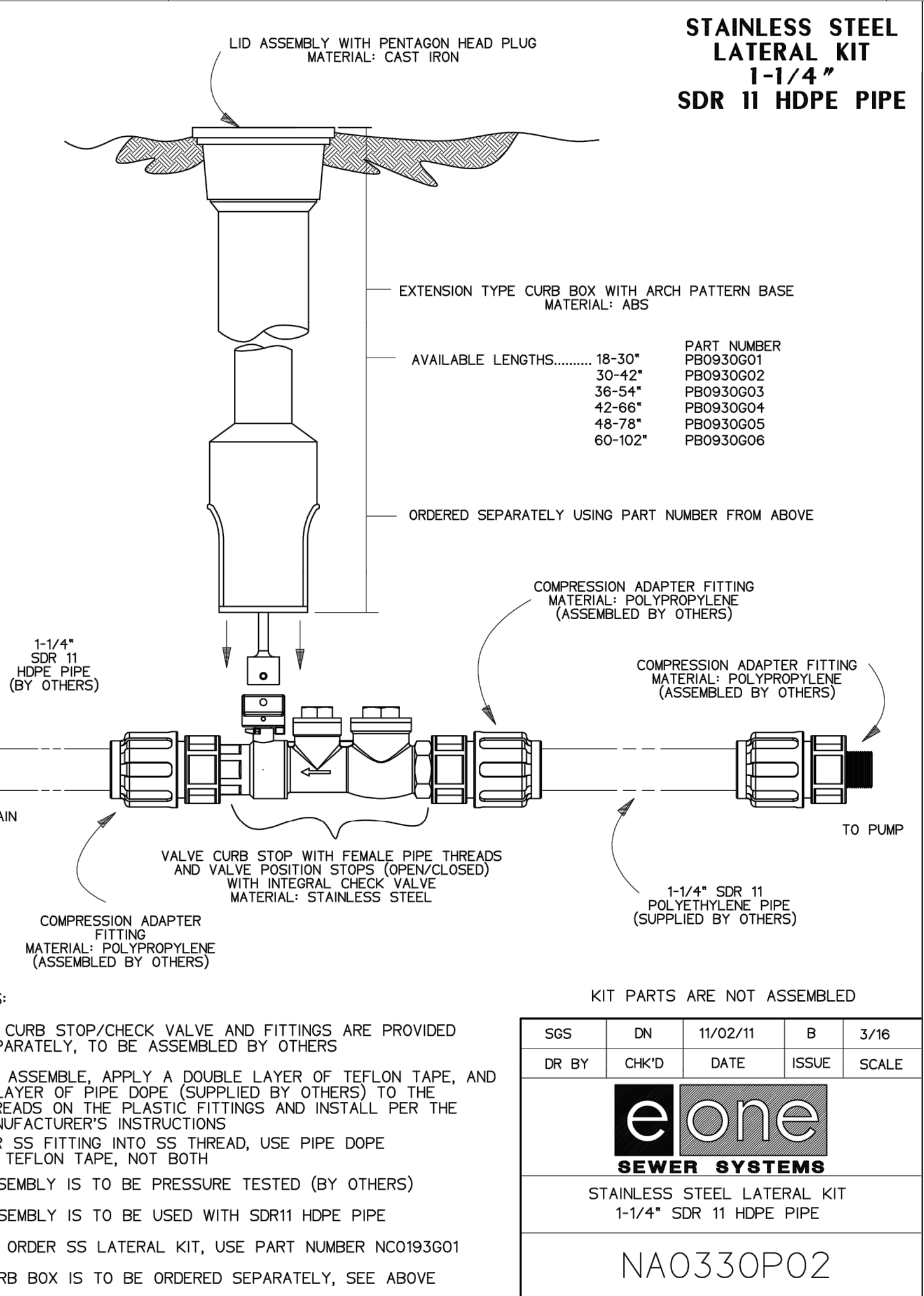
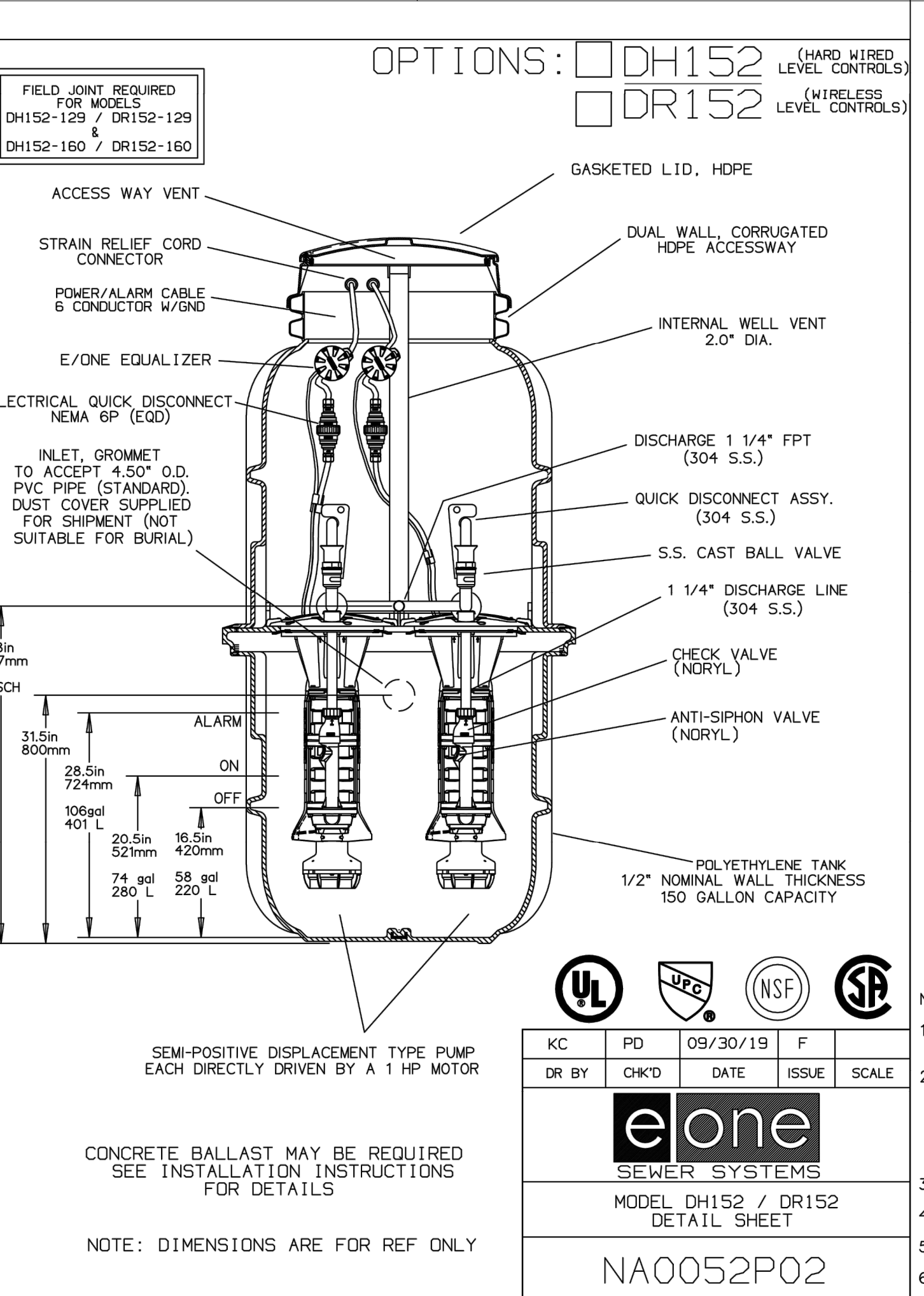
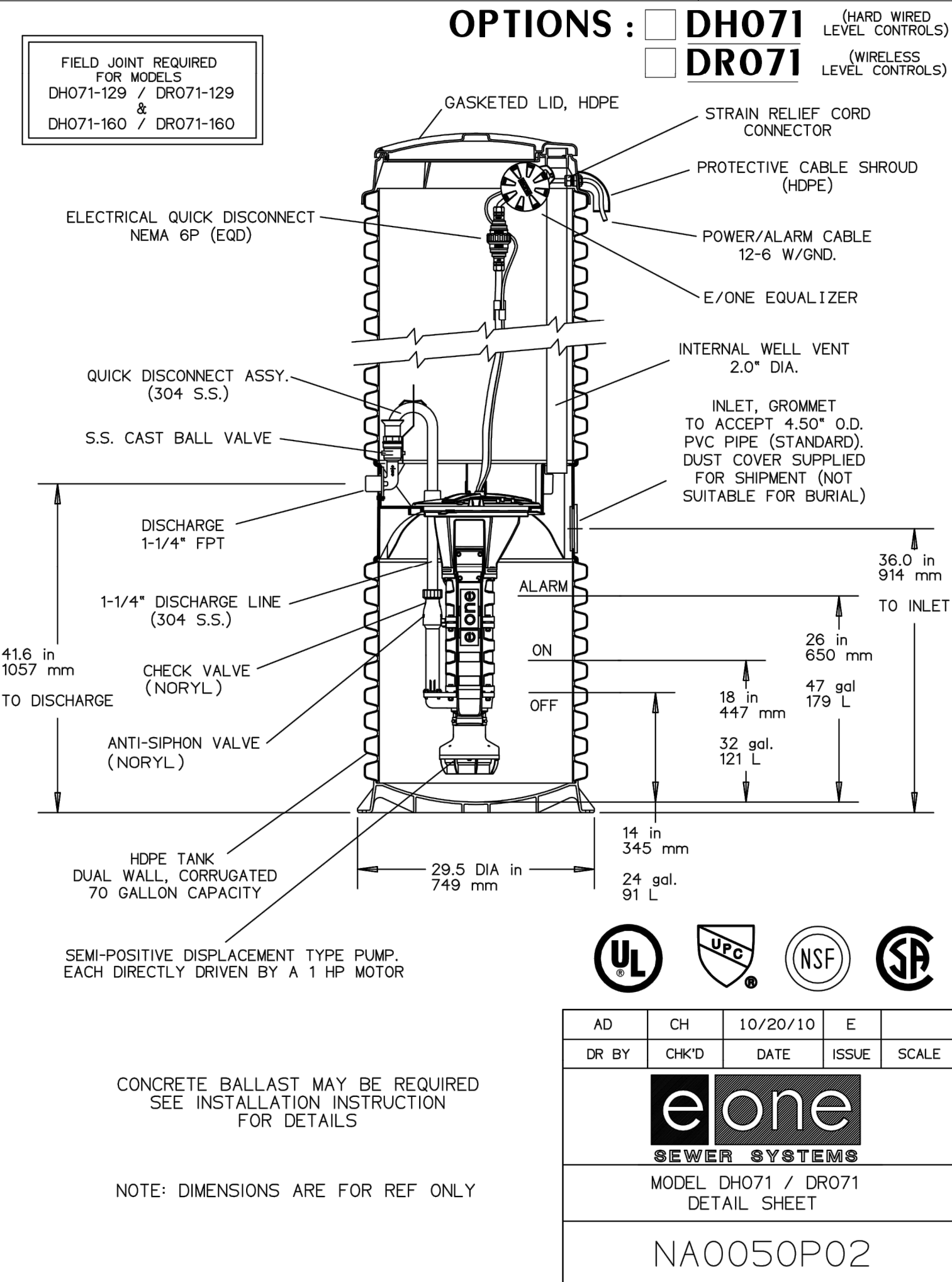
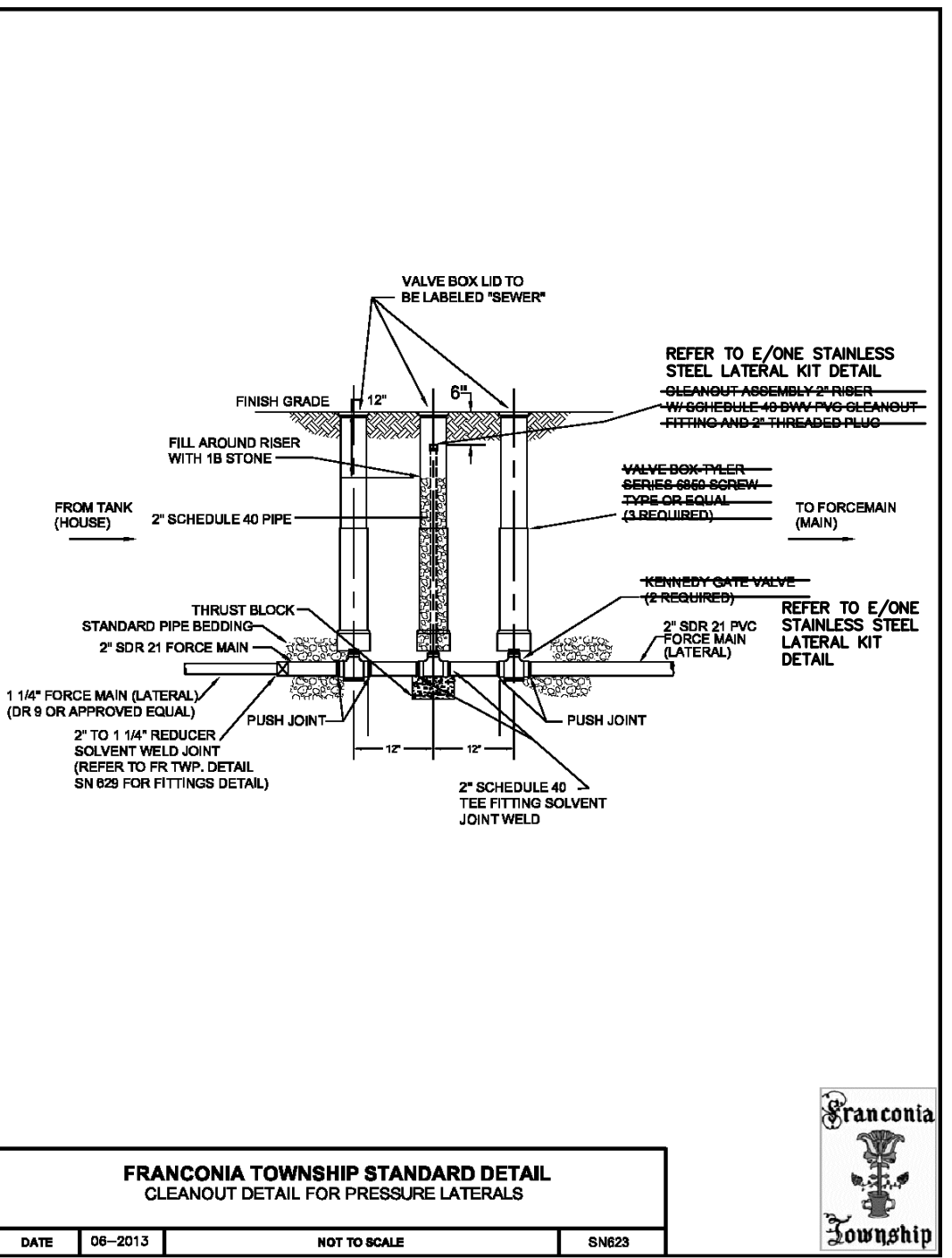
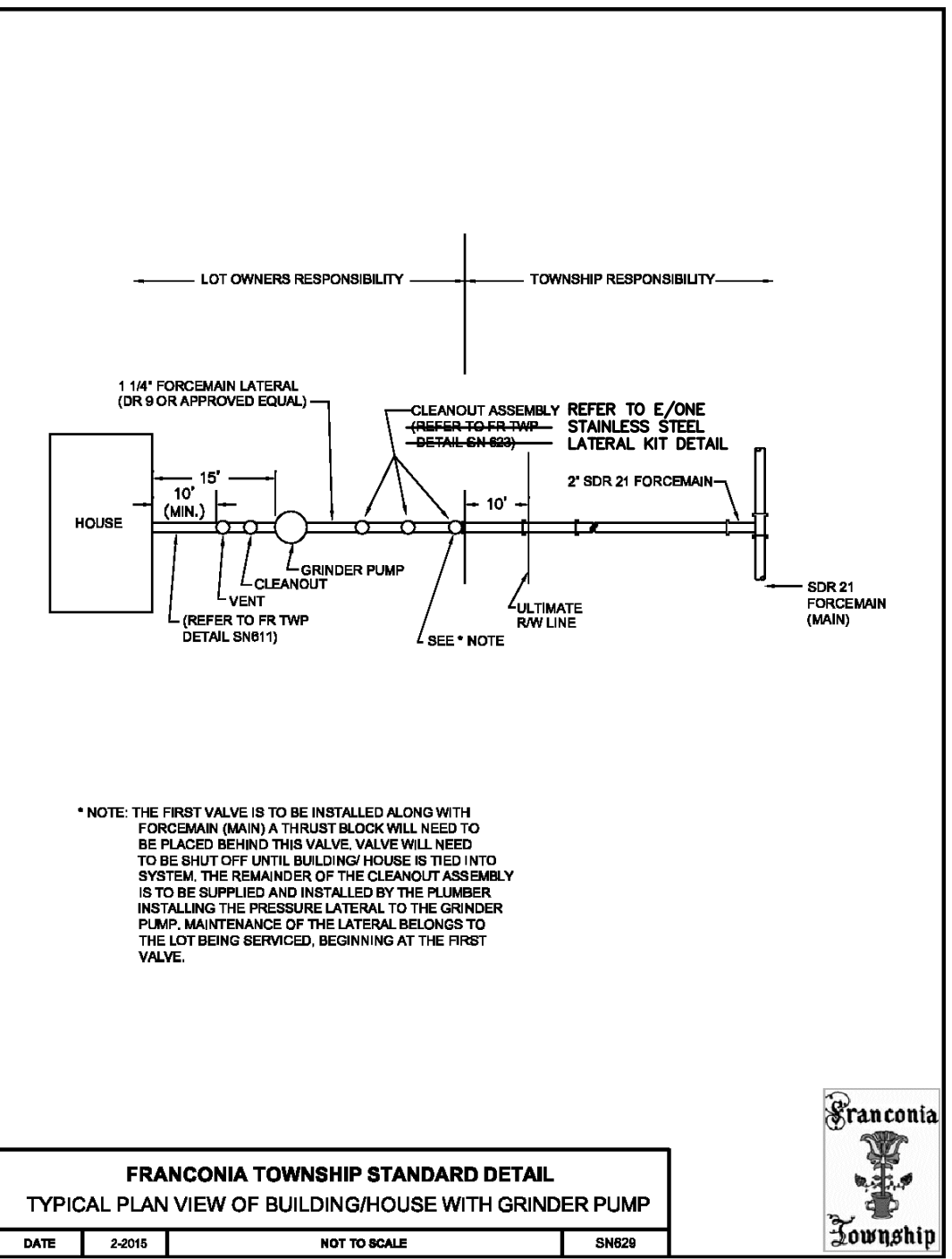
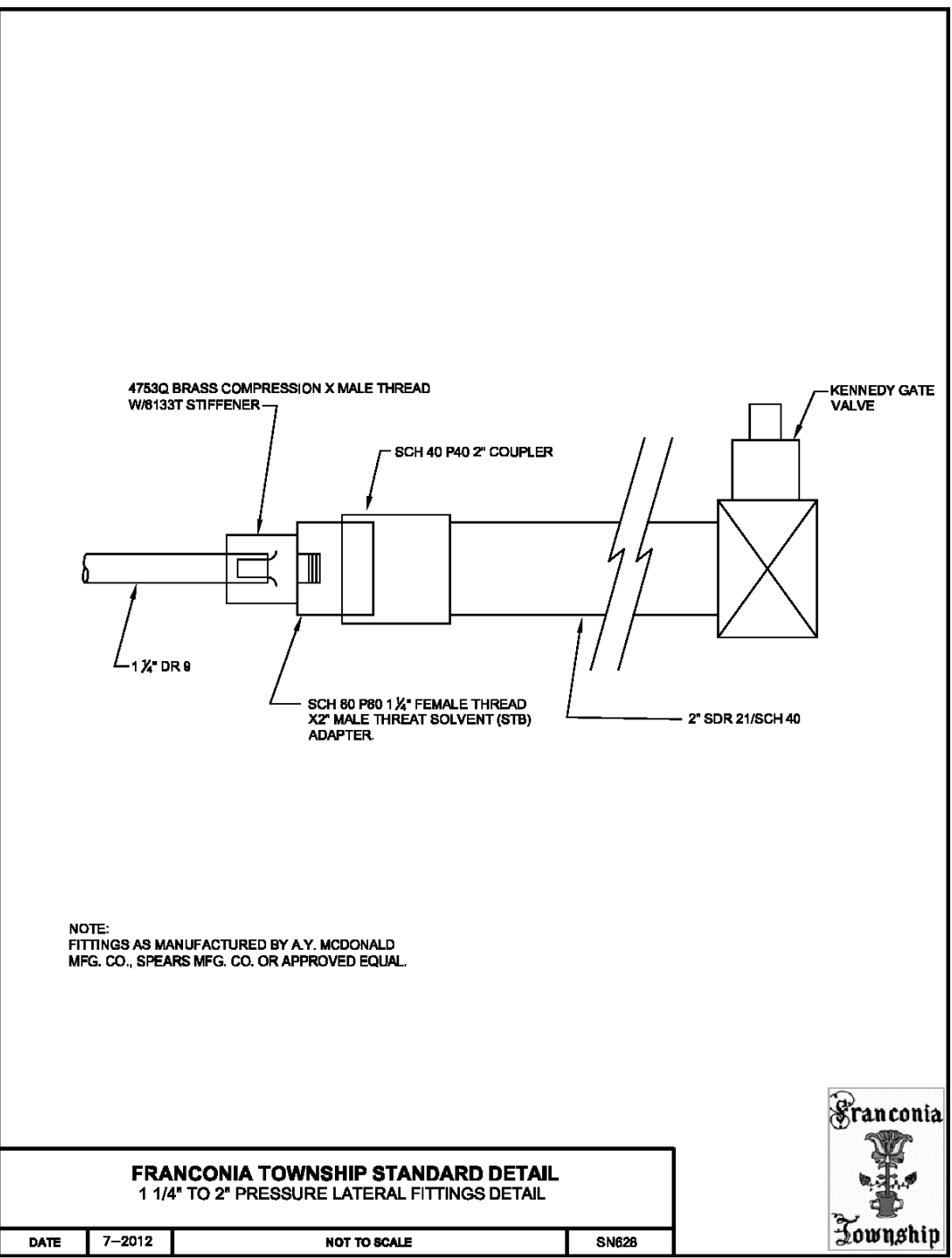
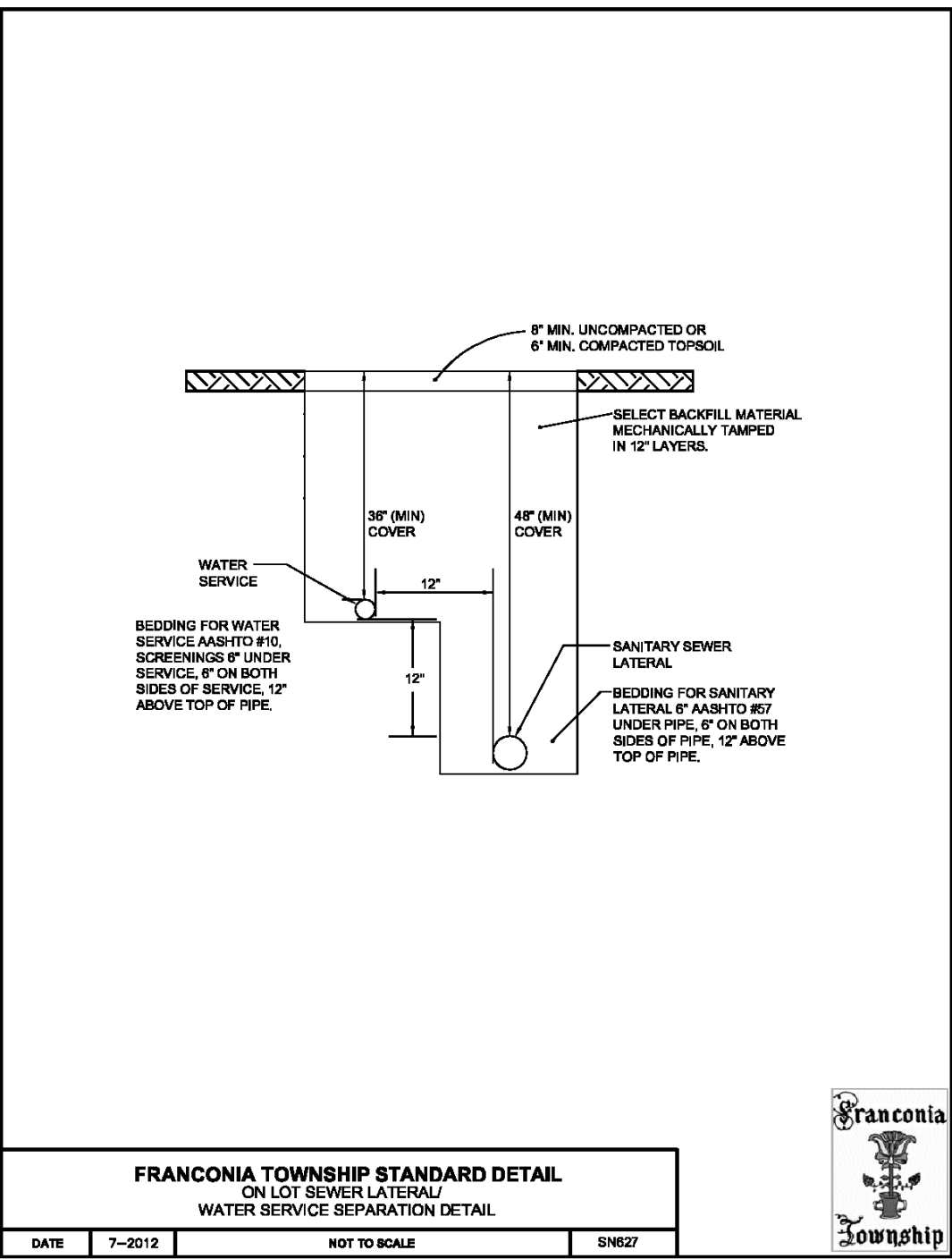
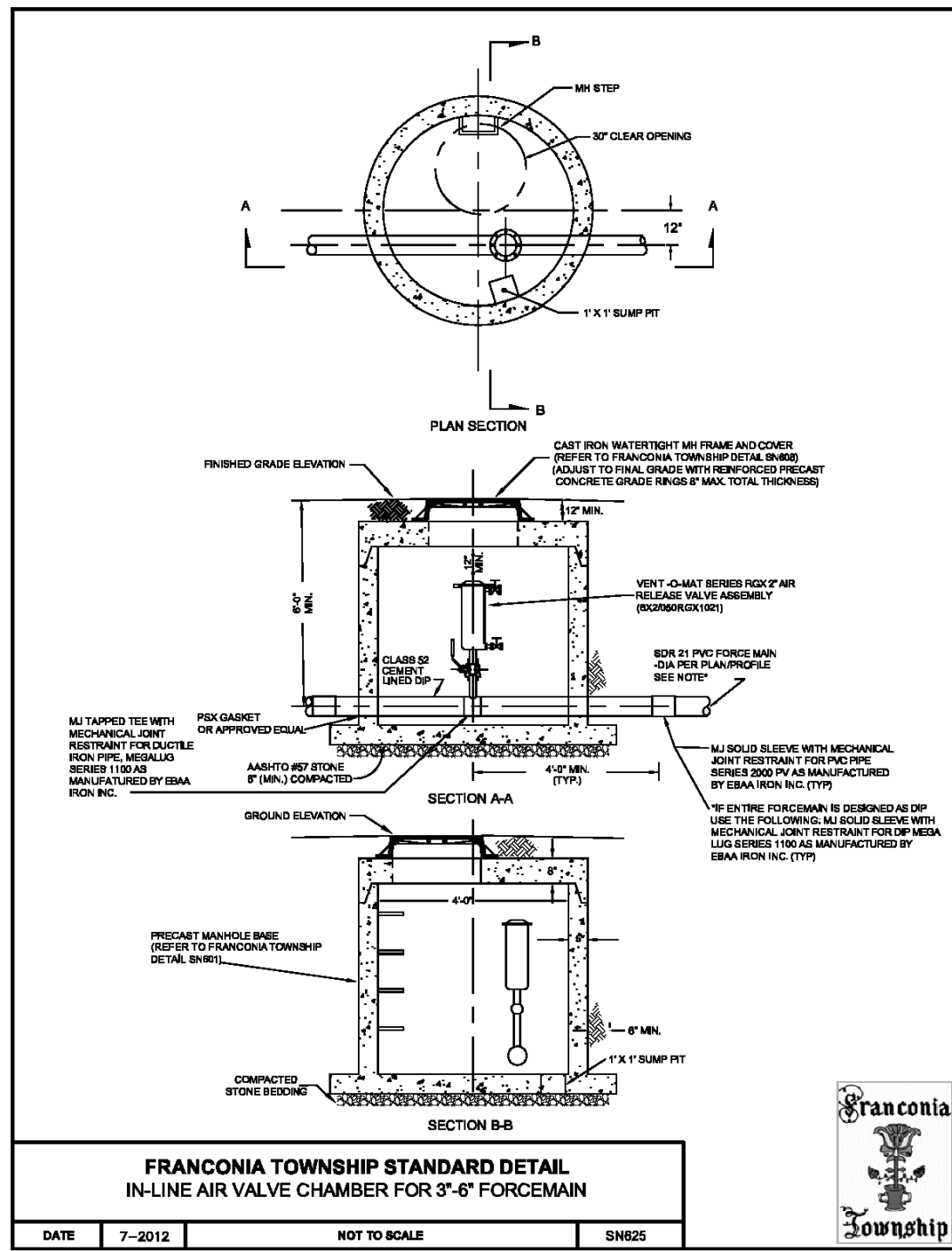
The Village at Lederach
56 Harleyville Pike, Suite 150
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RCMA	RCM	3071	24 OF 28



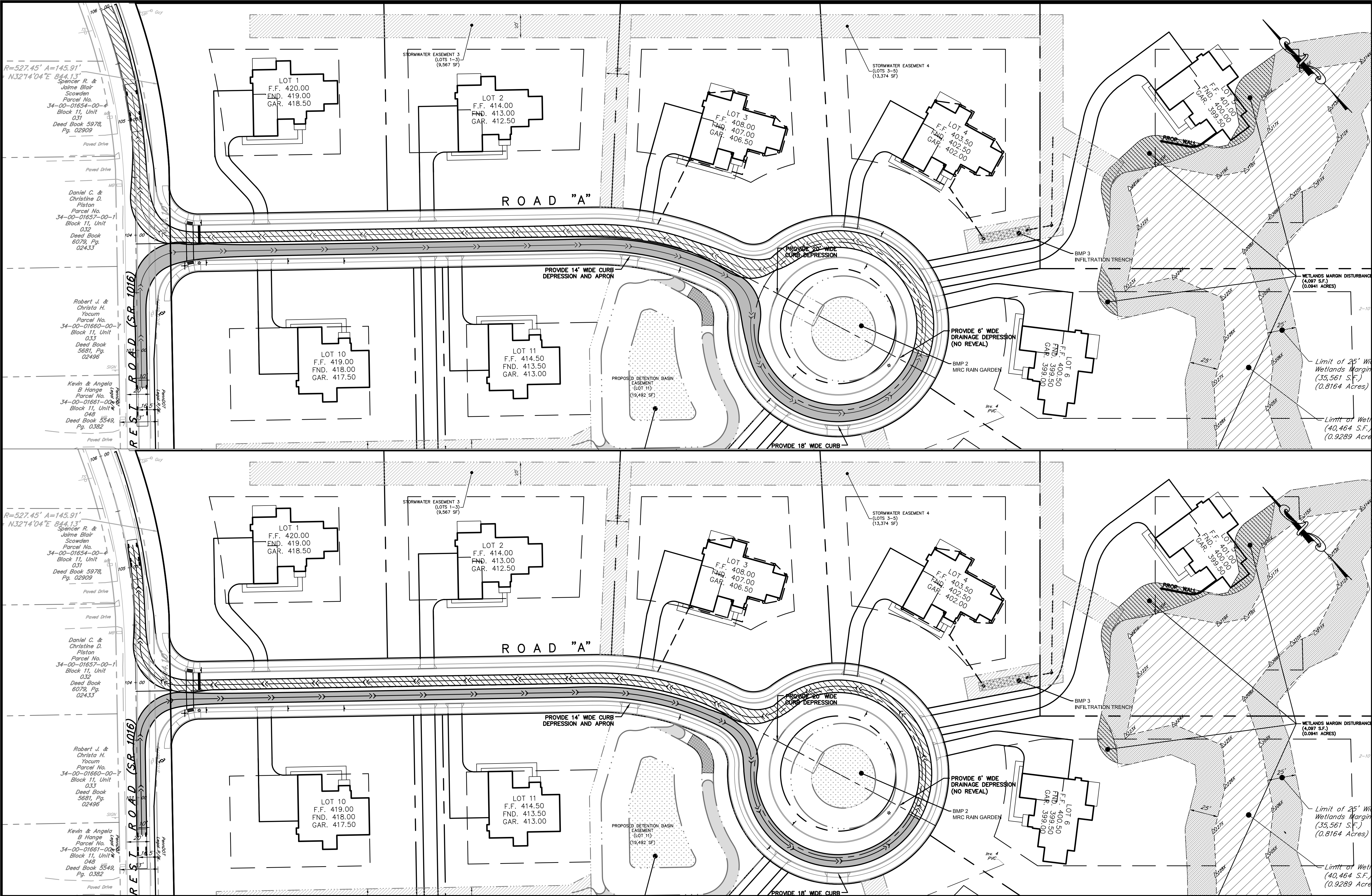
SANITARY SEWER AND WATER DETAILS
FOR
ALLEBACH TRACT
PREPARED FOR
502 TOWNSHIP LINE ROAD LAWYERS, LLC
SITE SITUATE IN
FRANCONIA TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

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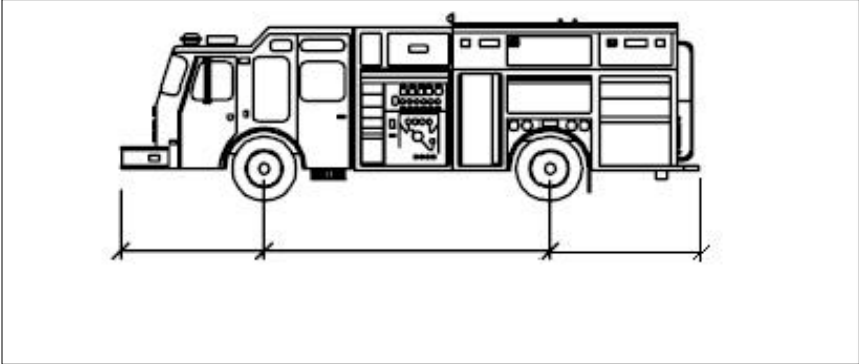
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PROJ. MNGR: RCM
PROJECT NO.: 3071
DRAWING NO.: 25 OF 28

6	MCCD RESUBMISSION (MCCD REVIEW NOVEMBER 16, 2020)	NOVEMBER 17, 2020
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No.	REVISION	DATE
	PLAN ORIGINATION DATE	MARCH 20, 2019



VEHICLE TURNING NOTES

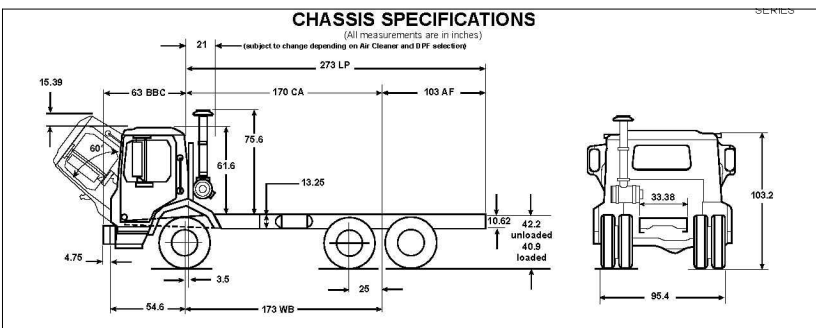
- THE PROPOSED SITE DRIVEWAYS WERE DESIGNED TO ACCOMMODATE THE FOLLOWING LARGEST VEHICLES:
 - 1.1. SOUDERTON PERSEVERANCE FIRE COMPANY TRUCK
 - 1.2. TYPICAL TRASH TRUCK
- ALL FRANCONIA TOWNSHIP FIRE TRUCK TURNING MOVEMENTS SHOWN ON THIS PLAN WERE DEVELOPED USING THE SOUDERTON PERSEVERANCE FIRE COMPANY TRUCK.
- THE PATH INDICATED IS THE MAXIMUM SWEEP PATH OF THE VEHICLE, INCLUDING OVERHANGS.
- THE DIMENSIONS OF THE FIRE TRUCK DESIGN VEHICLE AND THE TRASH TRUCK DESIGN VEHICLES USED ARE SHOWN BELOW.



TOTAL LENGTH: 41.8'
F: 7.9'
WB: 20.6'
B: 13.3'
VEHICLE WIDTH: 9.5'
WHEEL WIDTH: 9.1'
LOCK TO LOCK TIME: 6.0 SEC.
MAX. WHEEL TURNING ANGLE: 40°

FIRE ENGINE DIMENSIONS

N.T.S.

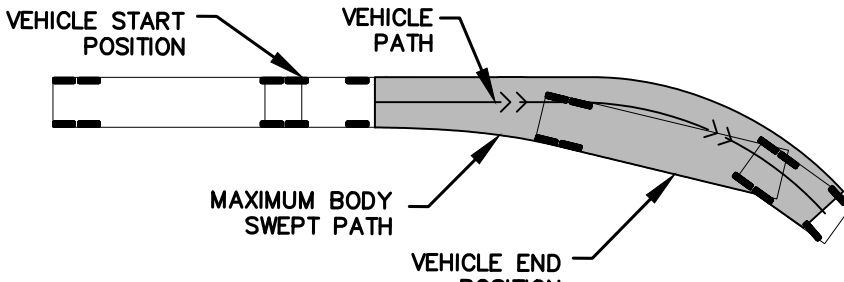


TOTAL LENGTH: 34.7'
F= (INCLUDES FRONT LOAD) 4.95'
WB= 14.42'
B= (INCLUDES BODY) 15.0'
VEHICLE WIDTH: 8.0'
WHEEL WIDTH: 7.95'
LOCK TO LOCK TIME: 6.0 SEC.
MAX. WHEEL TURNING ANGLE: 40°

TRASH TRUCK VEHICLE DIMENSIONS

N.T.S.

LEGEND



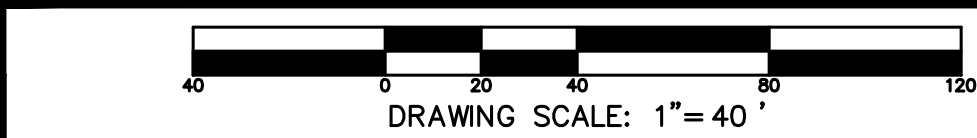
LEGEND

PROP LOT LINE	PROP STORM SEWER	PROP CONTOUR
PROP RIGHT-OF-WAY	PROP ROOF LEADER	PROP INDEX CONTOUR
PROP CENTERLINE	PROP BASIN HIGH WATER	PROP ALTERED TREE LINE
PROP CURB	PROP MANHOLE	PROP SPILLWAY
PROP SIDEWALK	PROP TYPE "C" INLET	PROP RIP-RAP
PROP EDGE OF ROAD	PROP TYPE "M" INLET	PROP RAIN GARDEN
PROP BUILDING	PROP SANITARY LATERAL	PROP WATER MAIN
PROP DRIVEWAY	PROP FORCE MAIN	PROP WATER SERVICE
PROP EASEMENT	PROP MANHOLE	PROP FIRE HYDRANT
PROP FENCE	PROP CLEAN OUT	PROP 45° BEND
PROP ELECTRIC SERVICE	PROP SEWER VENT	

UNDERGROUND UTILITY NOTE



LOCATIONS OF EXISTING UTILITIES SHOWN HEREON ARE BASED ON INFORMATION RECEIVED FROM FACILITY OWNERS FOLLOWING A CALL TO PA ONE CALL SYSTEM, INC. COMPLETENESS OR ACCURACY OF TYPE, SIZE, DEPTH, OR HORIZONTAL LOCATION OF UTILITIES CANNOT BE GUARANTEED. CONTRACTORS MUST VERIFY THE LOCATION AND DEPTH OF UNDERGROUND UTILITIES BEFORE THE START OF WORK BY NOTIFYING FACILITY OWNERS, THROUGH THE PA ONE CALL SYSTEM (1-800-242-1776 OR 811), NOT LESS THAN 3 BUSINESS DAYS NOR MORE THAN 10 BUSINESS DAYS IN ADVANCE OF BEGINNING EXCAVATION OR DEMOLITION WORK PER THE REQUIREMENTS OF PA ACTS 287 AND 121, AS AMENDED.
DESIGN SERIAL NO.: 20191861051 (07/05/2019)
SEE SHEET 2 FOR UTILITY AGENCY CONTACT INFORMATION



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VEHICLE ACCESS AND SIGNAGE PLAN

FOR

ALLEBACH TRACT

PREPARED FOR

502 TOWNSHIP LINE ROAD LAWYERS, LLC

SITE SITUATE IN

FRANCONIA TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

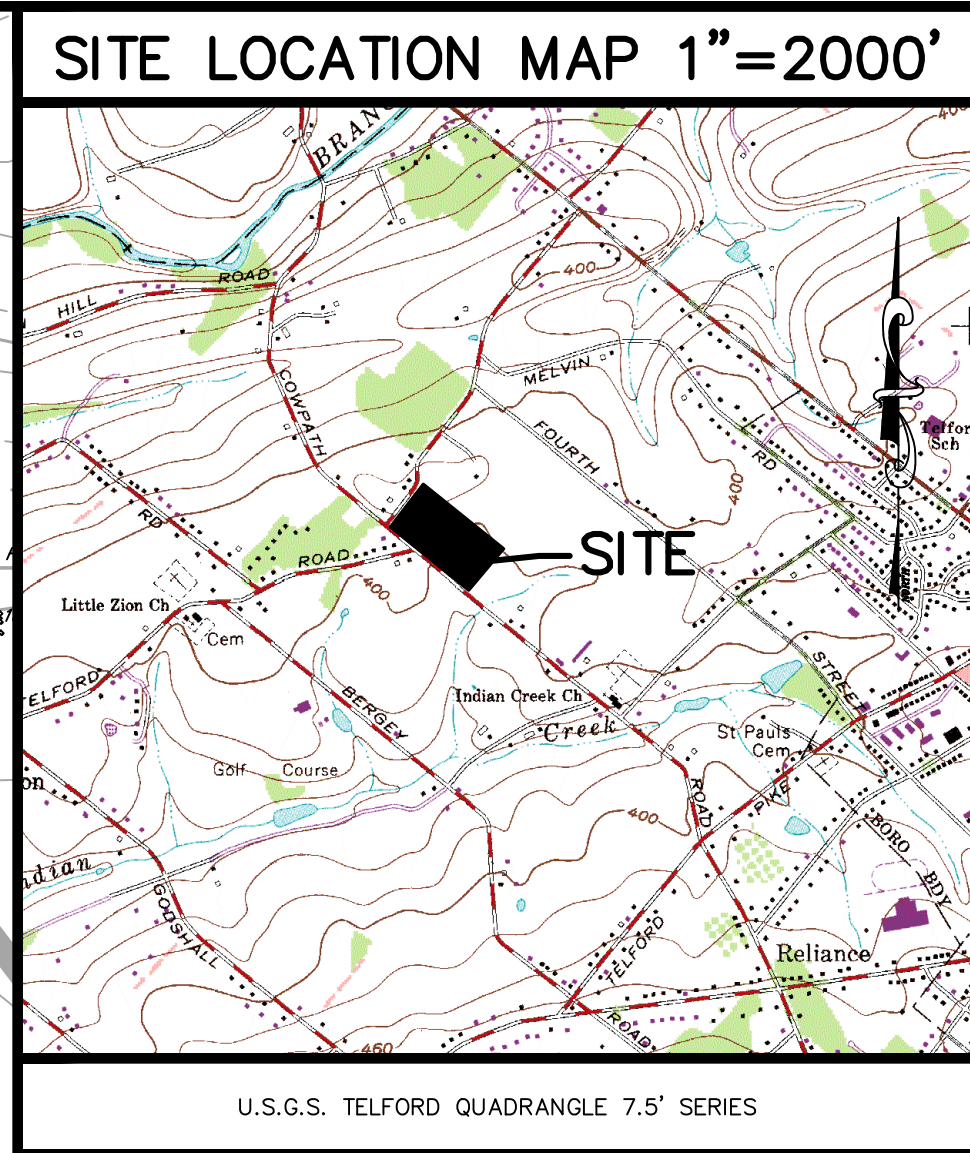
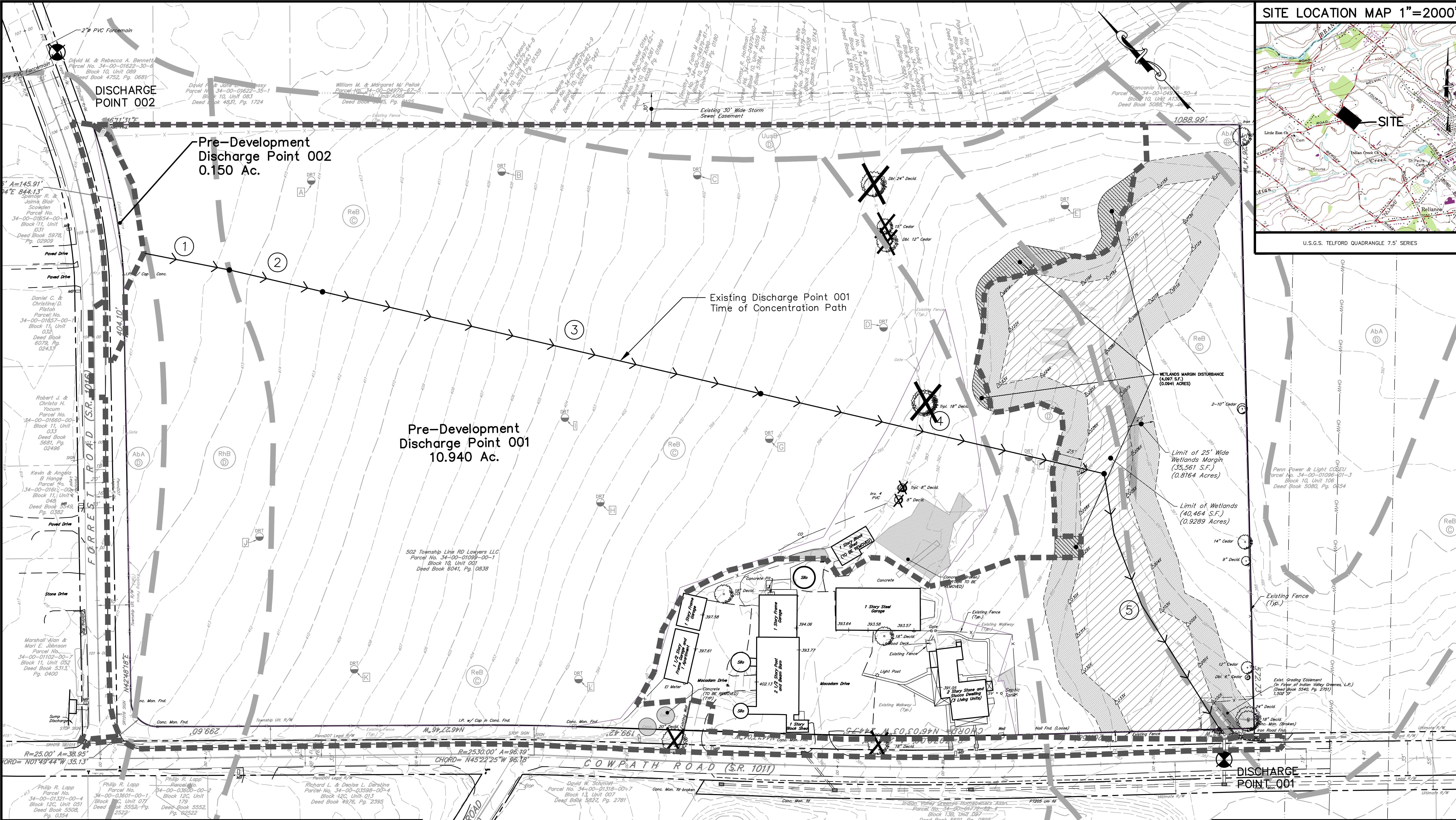


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LEGEND	
	EXIST DRAINAGE SHED
	FLOWPATH
	DRAINAGE SHED G
	EXIST TO FLOW PATH
	PROPERTY BOUNDARY
	ADJOINING OWNER
	EXIST BUILDING
	EXIST ROAD CENTERLINE
	EXIST RIGHT-OF-WAY
	EXIST DRIVEWAY
	EXIST CONTOUR
	EXIST INDEX CONTOUR
	EXIST ELECTRIC LINE
	EXIST OVER HEAD WIRE



DRAWING SCALE: 1"=40'	
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DATE	
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PRE-DEVELOPMENT DRAINAGE SHED PLAN

FOR

ALLEBACH TRACT

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SITE SITUATE IN

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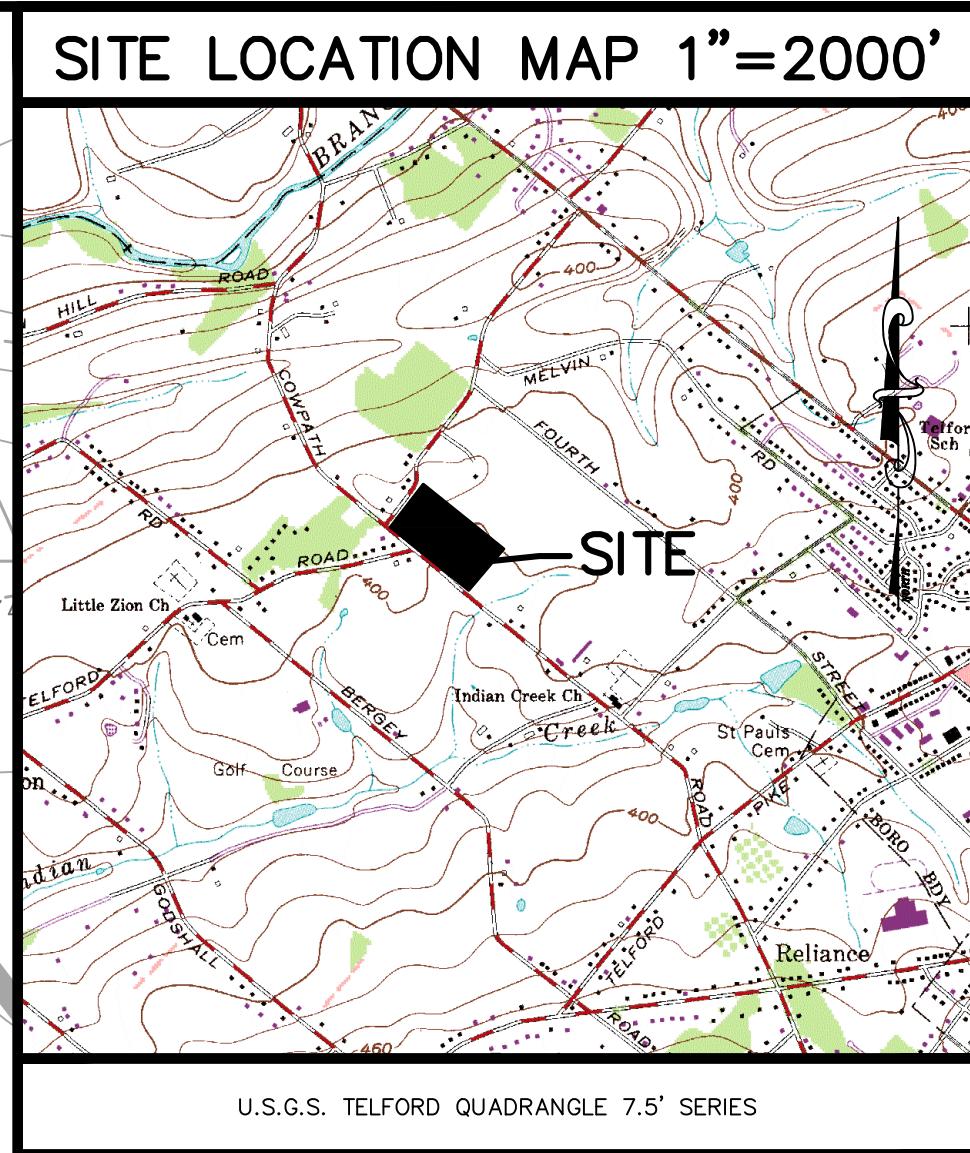
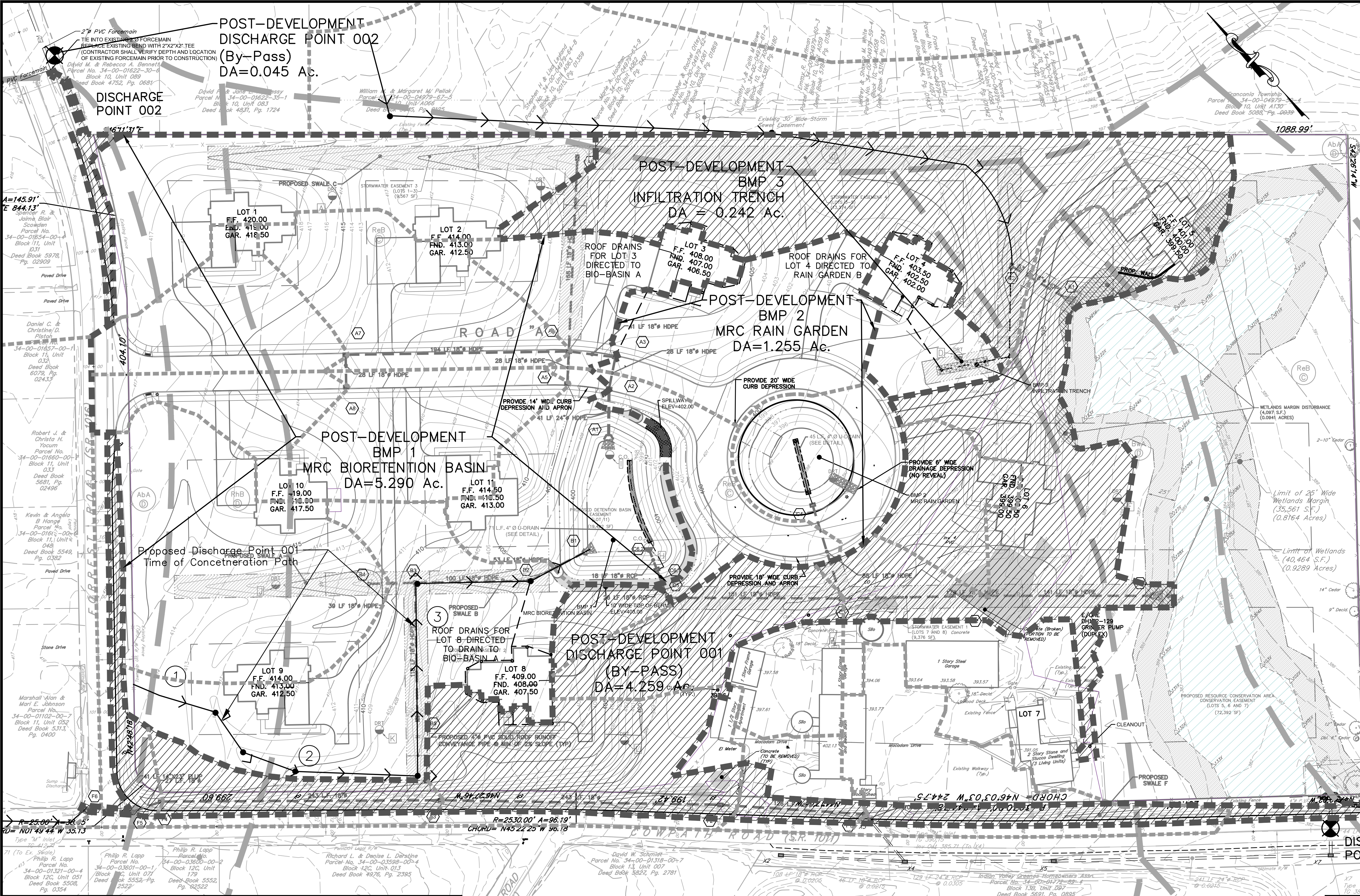
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LEGEND

PROPERTY BOUNDARY	PROPOSED LOT LINE
ADJOINING OWNER	PROPOSED RIGHT-OF-WAY
EXIST BUILDING	PROPOSED CENTERLINE
EXIST ROAD CENTERLINE	PROPOSED CURB
EXIST RIGHT-OF-WAY	PROPOSED SIDEWALK
EXIST CURB	PROPOSED EDGE OF ROAD
EXIST EDGE OF ROAD	PROPOSED DRIVEWAY
	PROPOSED EASEMENT
	PROPOSED FENCE
	PROPOSED ELECTRIC SERVICE

IMPERVIOUS COVER FOR STORMWATER MANAGEMENT											
Impervious on Lots	1	2	3	4	5	6	7	8	9	10	11
Roof	3,115 SF	3,115 SF	3,115 SF	3,115 SF	3,115 SF	3,115 SF	3,115 SF	3,115 SF	3,115 SF	3,115 SF	3,115 SF
Walk/Patio	510 SF	510 SF	510 SF	510 SF	510 SF	510 SF	510 SF	510 SF	510 SF	510 SF	510 SF
Future Impervious	500 SF	500 SF	500 SF	500 SF	500 SF	500 SF	500 SF	500 SF	500 SF	500 SF	500 SF
Driveway	2,326 SF	1,993 SF	2,050 SF	2,193 SF	4,814 SF	2,246 SF	0 SF	3,693 SF	4,704 SF	1,993 SF	1,993 SF
Total Lot Impervious	6,451 SF	6,118 SF	6,175 SF	6,318 SF	8,939 SF	6,371 SF	30,558 SF	7,818 SF	8,829 SF	6,118 SF	6,118 SF
Total Overall Impervious from Lots 99,813 SF											
Proposed NEW Impervious within ROW 35,368 SF											
Total Impervious 135,181 SF											
Less Lot 7 Existing to Remain inside LOD (not in ROW) 756 SF											
Less Lot 7 (outside LOD) 29,802 SF											
Total Proposed New Impervious within LOD (not in ROW) 104,623 SF											
Plus NEW roadway widening on Forest Road and Cowpath Road 6,570 SF											
Total Impervious within LOD 111,193 SF											

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POST-DEVELOPMENT DRAINAGE SHED PLAN

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