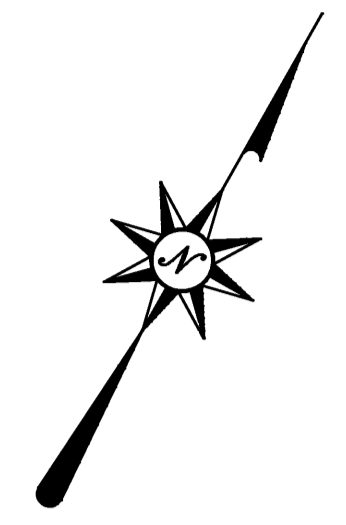
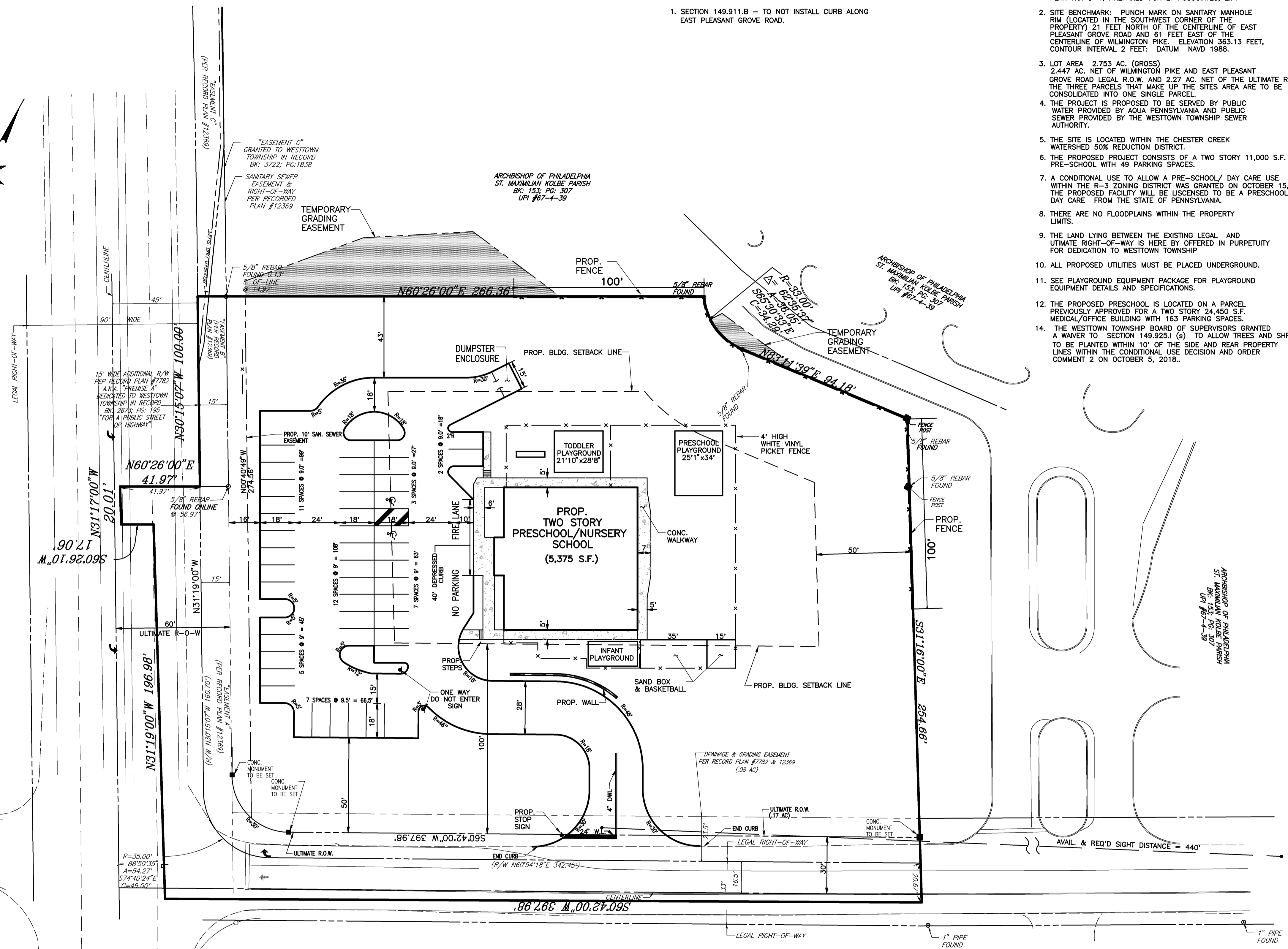


LEGEND

- 430 --- EXISTING INDEX CONTOUR
- EXISTING INTERIOR CONTOUR
- ===== EXISTING STORM SEWER PIPE
- S ----- EXISTING SANITARY SEWER PIPE
- G ----- EXISTING GAS LINE
- E ----- EXISTING ELECTRIC LINE
- EXISTING EDGE OF PAVING
- ===== EXISTING CURB
- ===== PROPOSED CURB
- x-x- PROPOSED FENCE FENCE
- EXISTING INLET
- ⊙ EXISTING SANITARY MANHOLE
- ⊙ EXISTING UTILITY POLE
- ⊙ EXISTING WATER VALVE
- ⊙ EXISTING GATE VALVE
- ⊙ EXISTING SIGN
- ⊙ EXISTING LIGHT POLE
- ⊙ EXISTING LIGHT POLE



**WILMINGTON PIKE
(ROUTE 202)**

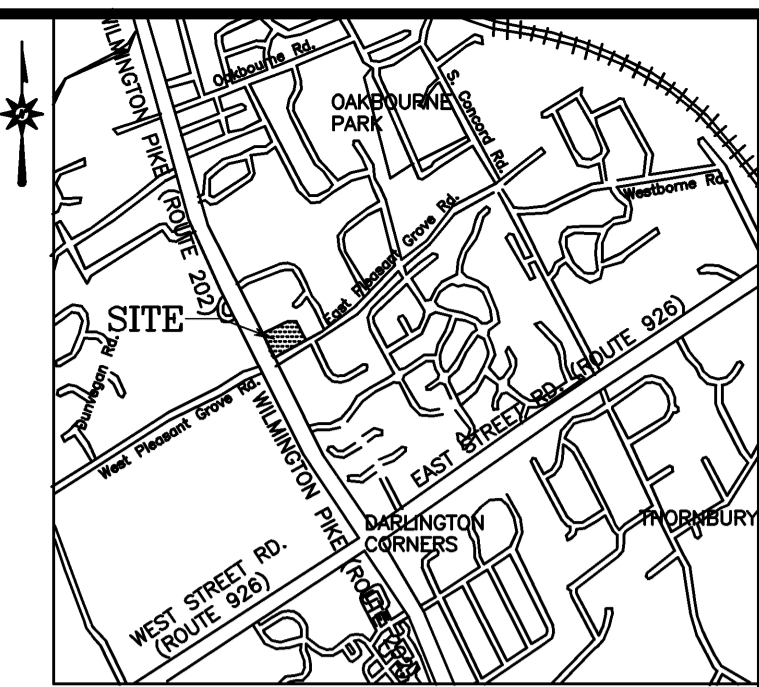


WAIVER REQUESTS

- SECTION 149.911-B -- TO NOT INSTALL CURB ALONG EAST PLEASANT GROVE ROAD.

GENERAL NOTES

- BOUNDARY AND TOPOGRAPHIC SURVEY INFORMATION TAKEN FROM BOUNDARY AND TOPOGRAPHY SURVEY PLAN PREPARED BY HOWELL/KLINE, PLAN DATED 11/30/2008, PLAN NO. S-1, PREPARED FOR LV ASSOCIATES, L.P.
- SITE BENCHMARK: PUNCH MARK ON SANITARY MANHOLE RIM (LOCATED IN THE SOUTHWEST CORNER OF THE PROPERTY) 21 FEET NORTH OF THE CENTERLINE OF EAST PLEASANT GROVE ROAD AND 61 FEET EAST OF THE CENTERLINE OF WILMINGTON PIKE. ELEVATION 363.13 FEET. CONTOUR INTERVAL 2 FEET: DATUM NAVD 1988.
- LOT AREA 2.753 AC. (GROSS) 2.447 AC. NET OF WILMINGTON PIKE AND EAST PLEASANT GROVE ROAD LEGAL R.O.W. AND 2.27 AC. NET OF THE ULTIMATE R.O.W. THE THREE PARCELS THAT MAKE UP THE SITES AREA ARE TO BE CONSOLIDATED INTO ONE SINGLE PARCEL.
- THE PROJECT IS PROPOSED TO BE SERVED BY PUBLIC WATER PROVIDED BY AQUA PENNSYLVANIA AND PUBLIC SEWER PROVIDED BY THE WESTTOWN TOWNSHIP SEWER AUTHORITY.
- THE SITE IS LOCATED WITHIN THE CHESTER CREEK WATERSHED 50% REDUCTION DISTRICT.
- THE PROPOSED PROJECT CONSISTS OF A TWO STORY 11,000 S.F. OF PRE-SCHOOL WITH 49 PARKING SPACES.
- A CONDITIONAL USE TO ALLOW A PRE-SCHOOL/ DAY CARE USE WITHIN THE R-3 ZONING DISTRICT WAS GRANTED ON OCTOBER 15, 2018. THE PROPOSED FACILITY WILL BE LICENSED TO BE A PRESCHOOL AND DAY CARE FROM THE STATE OF PENNSYLVANIA.
- THERE ARE NO FLOODPLAINS WITHIN THE PROPERTY LIMITS.
- THE LAND LYING BETWEEN THE EXISTING LEGAL AND ULTIMATE RIGHT-OF-WAY IS HERE BY OFFERED IN PERPETUITY FOR DEDICATION TO WESTTOWN TOWNSHIP.
- ALL PROPOSED UTILITIES MUST BE PLACED UNDERGROUND.
- SEE PLAYGROUND EQUIPMENT PACKAGE FOR PLAYGROUND EQUIPMENT DETAILS AND SPECIFICATIONS.
- THE PROPOSED PRESCHOOL IS LOCATED ON A PARCEL PREVIOUSLY APPROVED FOR A TWO STORY 24,450 S.F. MEDICAL/OFFICE BUILDING WITH 163 PARKING SPACES.
- THE WESTTOWN TOWNSHIP BOARD OF SUPERVISORS GRANTED A WAIVER TO SECTION 148.9251 (a) TO ALLOW TREES AND SHRUBS TO BE PLANTED WITHIN 10' OF THE SIDE AND REAR PROPERTY LINES WITHIN THE CONDITIONAL USE DECISION AND ORDER COMMENT 2 ON OCTOBER 5, 2018.



COMMONWEALTH OF PENNSYLVANIA SS:
COUNTY OF CHESTER

On this _____ day of _____ A.D. 2019 before me, the subscriber, a Notary Public of the Commonwealth of Pennsylvania, residing in Chester County, Pa., personally appeared Joseph Scandone, who acknowledges himself to be the President of Malvern School Real Estate, L.P. and that as such President, being authorized to do so, he executed the foregoing plan by signing that the said partnership is the equitable owner of the designated land, that all necessary approval of the plan has been obtained and is endorsed thereon, and that the said partnership desires that the foregoing plan may be duly recorded.

Joseph Scandone
Notary Public
My Commission Expires: _____

APPROVED by the Board of Supervisors of Westtown Township, Chester County, Pa., this _____ day of _____, 2019.

_____	Chairperson	_____	Member
_____	Vice-Chairperson	_____	Member
_____	Member	_____	Member
_____	Member	_____	Member

REVIEWED by the Planning Commission of Westtown Township, Chester County, Pa., this _____ day of _____, 2019.

_____	Chairperson	_____	Supervisor
_____	Vice-Chairperson	_____	Supervisor
_____		_____	Supervisor

REVIEWED by the Chester County Planning Commission this _____ day of _____, 2019.

_____ Secretary

REVIEWED by the Westtown Township Engineer:

_____ Date

Recorded in the Office of the Recorder of Deeds of Chester County at West Chester, Pennsylvania in Plan book _____ Page _____ on the _____ day of _____, 2019.

_____ (Deputy) Recorder of Deeds

EAST PLEASANT GROVE ROAD

ZONING DATA
R3 ZONING DISTRICT (COND. USE)

	REQ.	EXIST	PROPOSED
MIN LOT AREA	2 AC.	2.44 AC.	2.05 AC. (NET OF R.O.W.)
MAX IMP. COVERAGE	60%	23%	34.94% (Measured from Net Area)
FRONT YARD SETBACK	100'	60'	100'
MIN. SIDE YARD	50'	50'	50'
MIN. REAR YARD	50'	50'	50'
MAX. FLOOR AREA RATIO	.3	.0896	.11
MAX BLDG HEIGHT	38' (3 STORIES)	<38'	<38'
MIN. VEGETATED COVER	40%	77%	65.06%

IMPERVIOUS COVER CALCULATIONS (FROM NET AREA)

PAVING	= 22,726 S.F.
BUILDING	= 5,375 S.F.
SIDEWALK/CONC. SLAB	= 2,912 S.F.
TOTAL	= 31,013 S.F.

PARKING DATA

PROVIDED = 49 SPACES
10% @ 9.5' WIDE (8 PROVIDED 5 REQUIRED)

LOT AREA CALCULATION

GROSS AREA	= 2,755
R.O.W. (LEGAL)	= .315
R.O.W. ULTIMATE	= .17
EX. EASEMENTS	= .08
75% 25% SLOPE	= .1425
NET AREA	= 2.05 AC.

Owner: LV Associates
55 Country Club Drive
Suite 200
Downtown, Pa. 19335

Equitable Owner/Applicant:
Malvern School Real Estate L.P.
20 Creek Road
Glen Mills, Pa. 19342

**PRELIMINARY/FINAL
SITE PLAN**

1 1-28-19 REVISED PER ENGINEER COMMENTS

SUBDIVISION/LAND DEVELOPMENT FOR
THE MALVERN SCHOOL

WESTTOWN TOWNSHIP CHESTER COUNTY, PA.
Edward B. Walsh & Associates, Inc.
CIVIL ENGINEERS & SURVEYORS

Project- 4432
Date- 11-14-18
Scale- 1" = 30'
Drawn- LR
Checked- A.E.
Sheet- 1 OF 10

125 DOWNTON FORGE RD.
ESTON, PENNSYLVANIA 19341
Phone: 610-903-0060
Fax: 610-903-0080

Plotted: 1/29/2019 File: F:\JW\4432\4432-02.prc

ACT 187 SERIAL NUMBER 1825925

EDWARD B. WALSH & ASSOCIATES, INC. DOES NOT GUARANTEE THE ACCURACY OF THE LOCATIONS FOR EXISTING SUBSURFACE UTILITY LINES, STRUCTURES, ETC. SHOWN ON THE PLANS, NOR DOES E. B. WALSH & ASSOC., INC. GUARANTEE THAT ALL SUBSURFACE UTILITY LINES, STRUCTURES, ETC. ARE SHOWN.

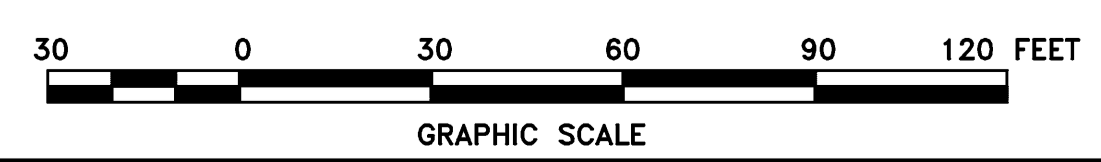
CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATIONS OF ALL SUBSURFACE UTILITY LINES, STRUCTURES, ETC. BEFORE THE START OF WORK, BY CALLING THE PENNSYLVANIA ONE CALL SYSTEM AT 1-800-242-1776.

UTILITIES NOTIFIED

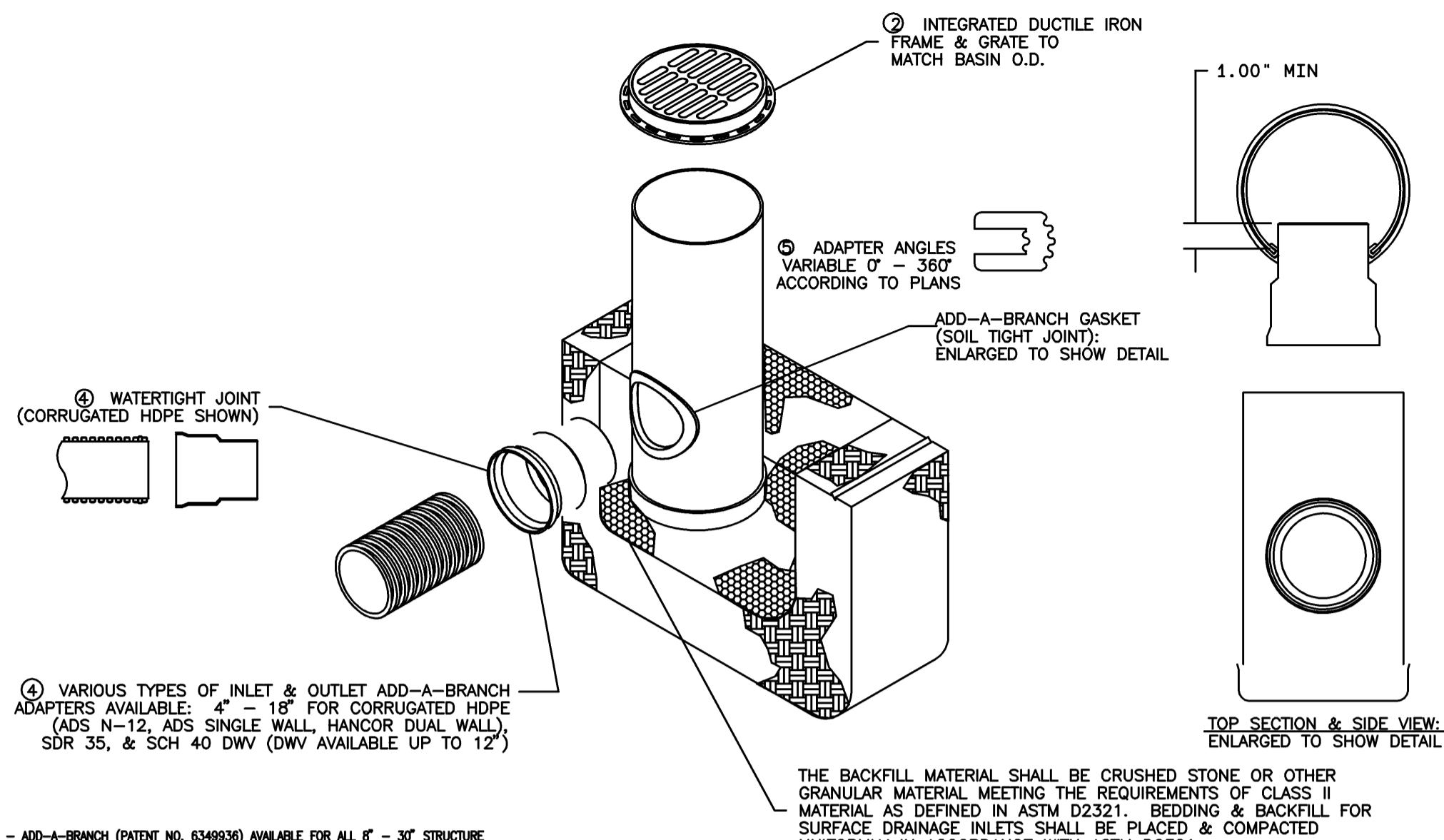
VERIZON
COMCAST CABLE TV
COMCAST COMMUNICATION
TEPPCO
BUCKEYE PIPELINE
AQUA PENNSYLVANIA
PECO ENERGY
TRANSCONTINENTAL GAS PIPELINE
IPII INTERSTATE ENERGY
WESTTOWN TOWNSHIP
SUNOCO PIPELINE

STOP-CALL BEFORE YOU DIG

SERIAL # 1825925



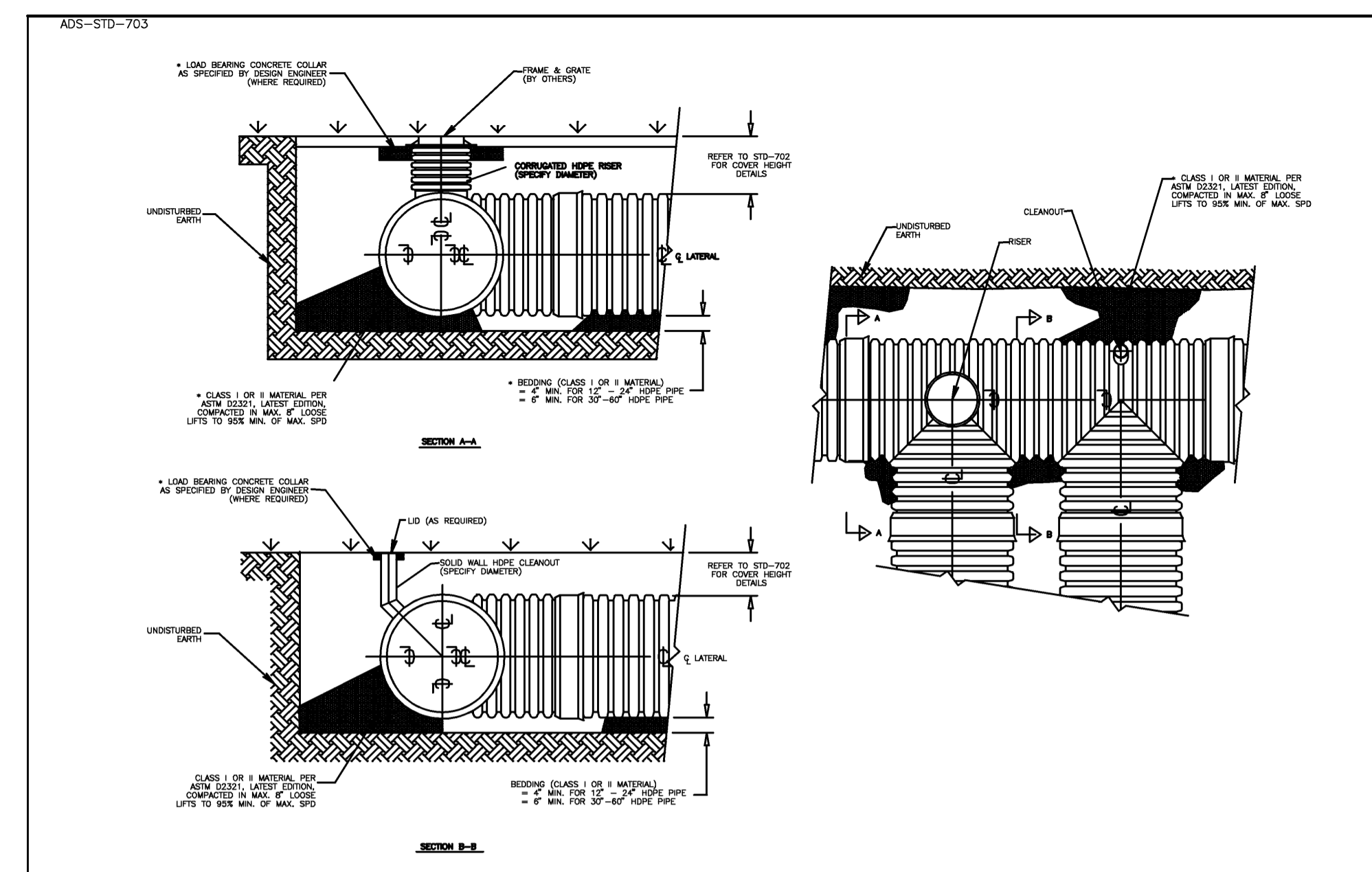
NYLOPLAST DRAIN BASIN WITH ADD-A-BRANCH



1 - ADD-A-BRANCH (PATENT NO. 6349030) AVAILABLE FOR ALL 6" - 30" STRUCTURE OPTIONS (CUSTOM BASIN, ROAD & HIGHWAY, & CURB INLET)
 2 - FRAMES, GRATES, HOODS, & BASE PLATES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-30, WITH THE EXCEPTION OF THE BRIDGE GRATES
 3 - BRASS BUSHES TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS
 4 - BRASS CONNECTOR STUB JOINT THICKNESS SHALL CONFORM TO ASTM D312 FOR CORRUGATED HDPE AND HANOKR DUAL WALL & SIZE 30 PFC
 5 - ADD-A-BRANCH ADAPTERS CAN BE MOUNTED ON ANY ANGLE UP TO 30° TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 0110-110-005, 0110-110-006, 0110-110-007, & 0110-110-008

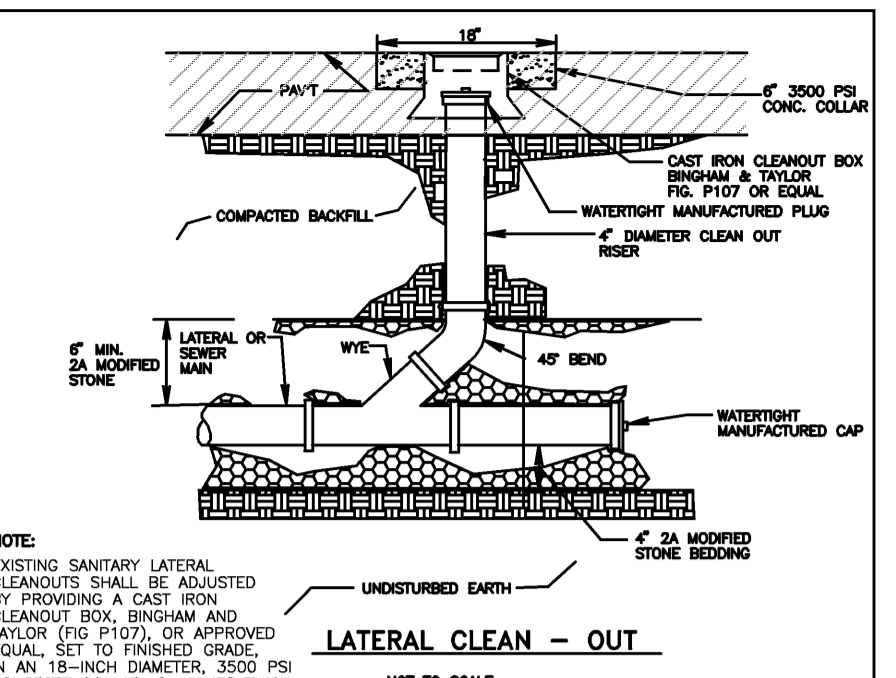
THIS PRINT DISCLOSES SUBJECT MATTER IN WHICH NYLOPLAST HAS PROPRIETARY RIGHTS. THE REPRODUCTION OR POSSESSION OF THIS PRINT DOES NOT CONFER, TRANSFER, OR LICENSE THE USE OF THE DESIGN OR TECHNICAL INFORMATION SHOWN HEREIN. REPRODUCTION OF THIS PRINT OR ANY INFORMATION CONTAINED HEREIN BY MANUFACTURER OF ANY ARTICLE HEREON, FOR THE DISCLOSURE TO OTHERS IS FORBIDDEN, EXCEPT BY SPECIFIC WRITTEN PERMISSION FROM NYLOPLAST.

DRAWN BY: EBC DATE: 5-9-06 MATERIAL: NYLOPLAST
 APP'D BY: CJA PROJECT NO./NAME: NYLOPLAST
 DATE: 5-9-06 TITLE: DRAIN BASIN WITH ADD-A-BRANCH
 DWG NO.: 0110-110-009 REV B



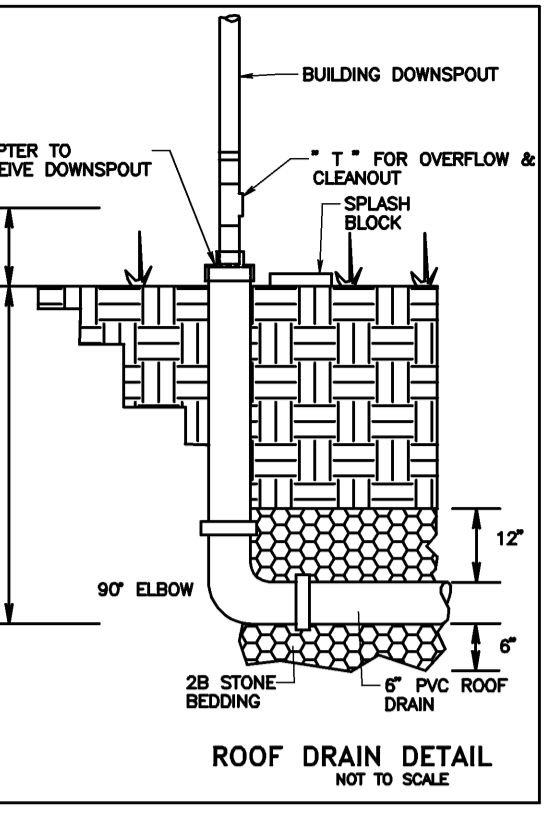
ADVANCED DRAINAGE SYSTEMS, INC. (ADS) HAS PREPARED THIS DETAIL BASED ON INFORMATION PROVIDED TO ADS. THIS DRAWING IS INTENDED TO DETECT THE COMPONENTS FOR REVISIONS AND HAS NOT PERFORMED ANY INVESTIGATION OF DESIGN OR CONSTRUCTION FOR THE PROJECT. THE DESIGN ENGINEER SHALL VERIFY THE INFORMATION PROVIDED FOR REVISIONS AND GENERAL RECOMMENDATIONS AND USE AS SPECIFIC TO THE PROJECT. THE DESIGN ENGINEER SHALL VERIFY THE INFORMATION PROVIDED FOR REVISIONS AND GENERAL RECOMMENDATIONS AND USE AS SPECIFIC TO THE PROJECT. THE DESIGN ENGINEER SHALL VERIFY THE INFORMATION PROVIDED FOR REVISIONS AND GENERAL RECOMMENDATIONS AND USE AS SPECIFIC TO THE PROJECT.

NO.	REV.	DESCRIPTION	DATE	BY	CHK'D	NOTE
1		DESIGN	05/09/06	EBC		
2		REVISED PER COMMENTS	05/09/06	EBC		

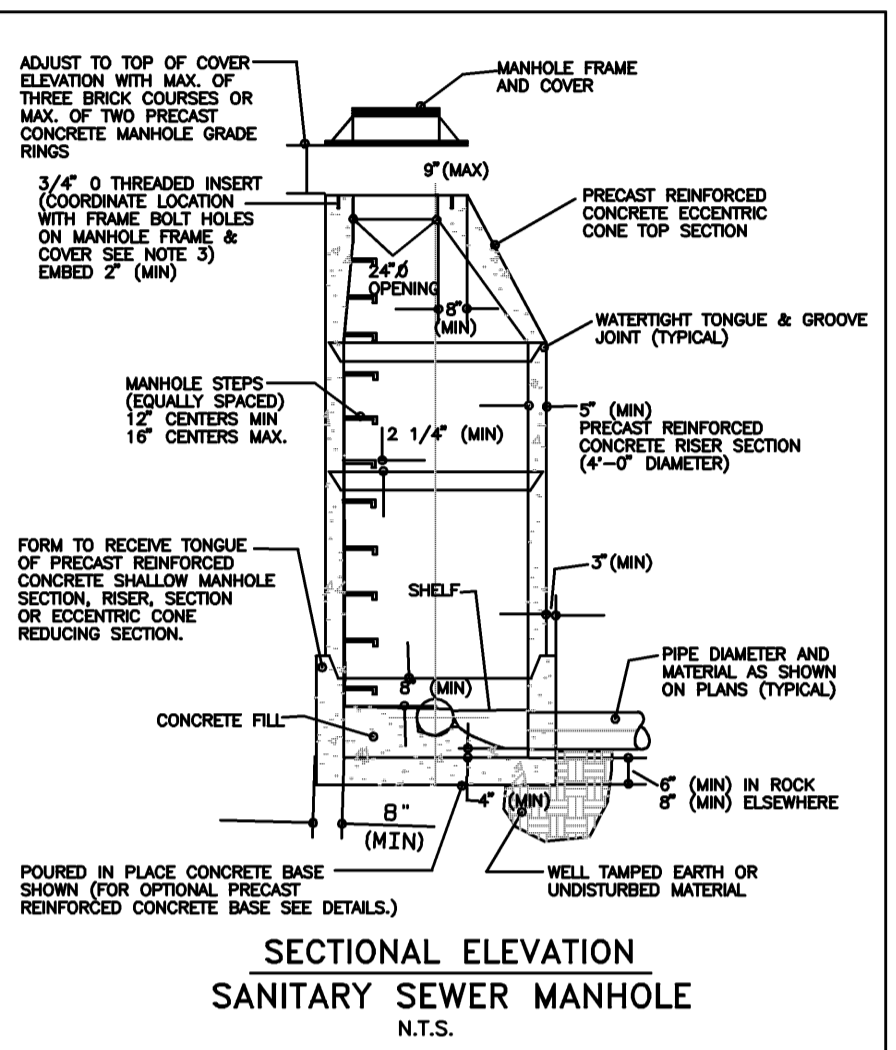
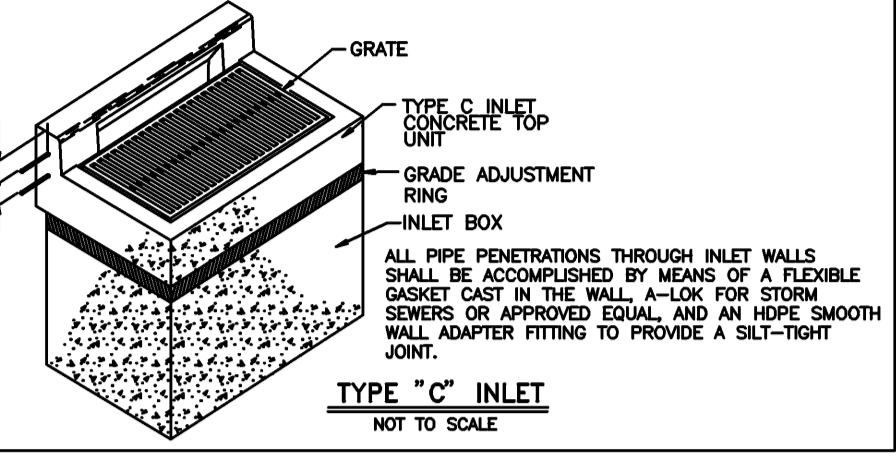
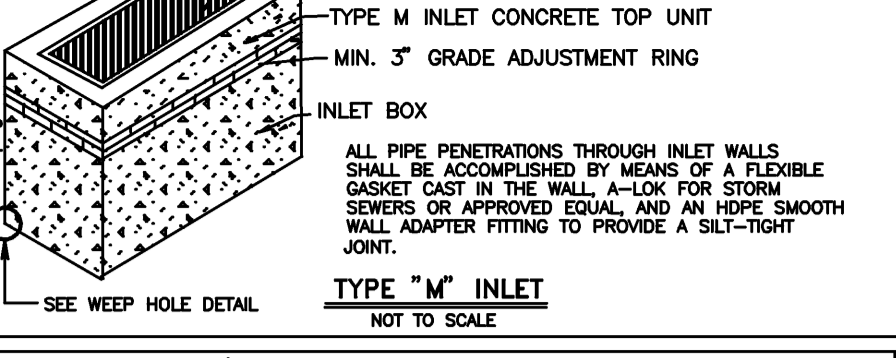


EXISTING SANITARY LATERAL CLEANOUTS SHALL BE ABANDONED BY PROVIDING A CAST IRON CLEANOUT BOX, BRASS AND TAYLOR (P2 P107), OR APPROVED EQUAL, SET TO FINISHED GRADE IN AN 18-INCH DIAMETER, 3500 PSI CONCRETE COLLAR, 6-INCHES THICK.

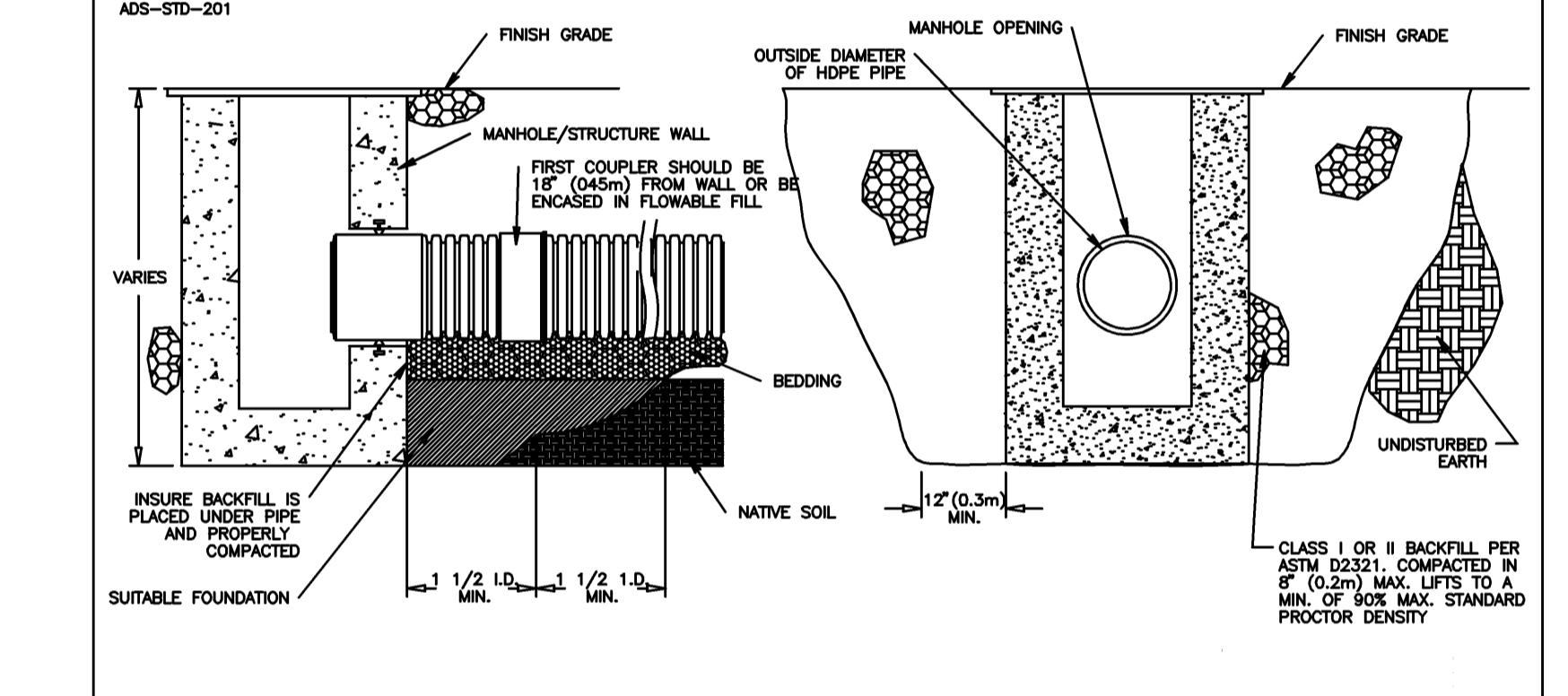
WESTTOWN TOWNSHIP
 TYPICAL TRENCH DETAIL FOR SANITARY LATERAL



ROOF DRAIN DETAIL
 NOT TO SCALE

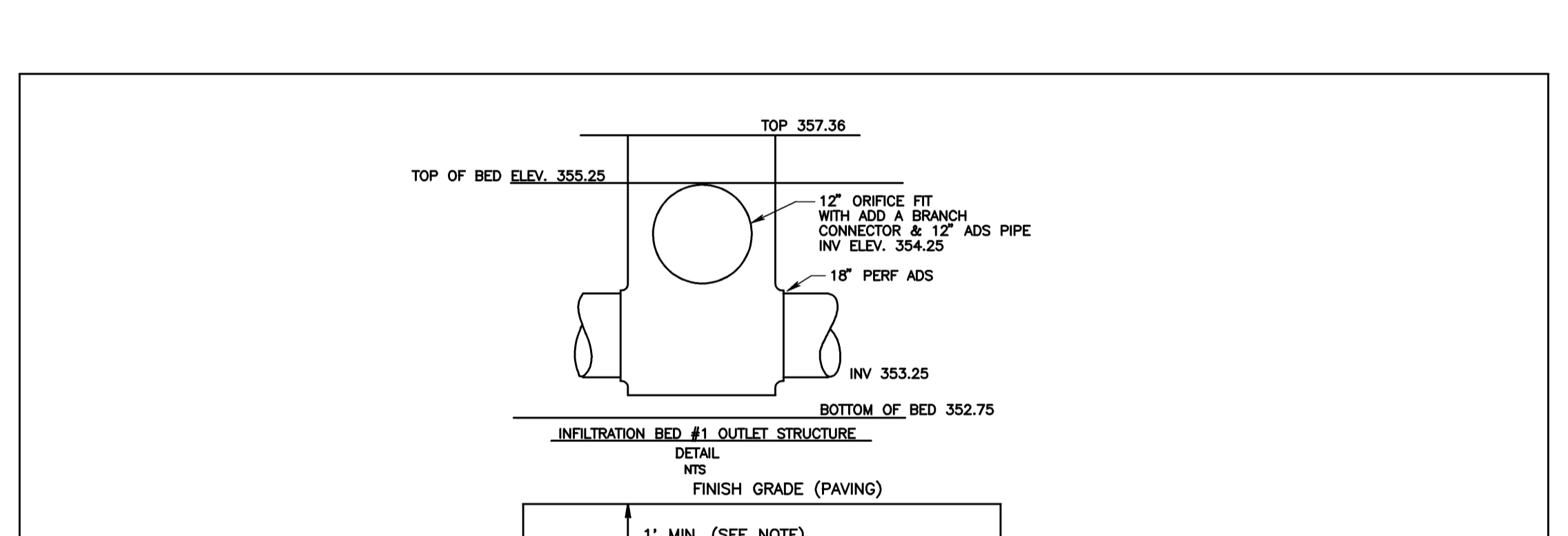


SECTIONAL ELEVATION
 SANITARY SEWER MANHOLE
 N.T.S.



INSURE BACKFILL IS PLACED UNDER PIPE AND PROPERLY COMPACTED.

NOTES:
 1. MAXIMUM INSERTION ANGLE SHALL NOT EXCEED REQUIREMENTS AS SPECIFIED BY THE MANUFACTURER.
 2. SEE STANDARD DETAILS STD-202 (A-B) THROUGH STD-204 (A-E) FOR STRUCTURE CONNECTIONS, PRODUCT INFORMATION AND DIMENSIONAL PIPE DATA. INSTALLATION RECOMMENDATIONS ARE ALSO SPECIFIED IN TECHNICAL NOTE ADS-HR CONNECTIONS TO MANHOLES AND STRUCTURES.
 3. PERFORMANCE HIGHLY DEPENDENT ON INSTALLATION. CONTRACTOR MUST INSURE MANHOLE GASKET IS UNIFORMLY SEATED AROUND STRUCTURE ADAPTER. EXTRA PRECAUTIONS MUST BE TAKEN TO PREVENT DIFFERENTIAL SETTLEMENT BETWEEN THE PIPE AND MANHOLE.



LD & FRAME DESIGNED BY ENGINEER FOR ANTICIPATED LOADS. FIELD ADJUST RISER HEIGHT.

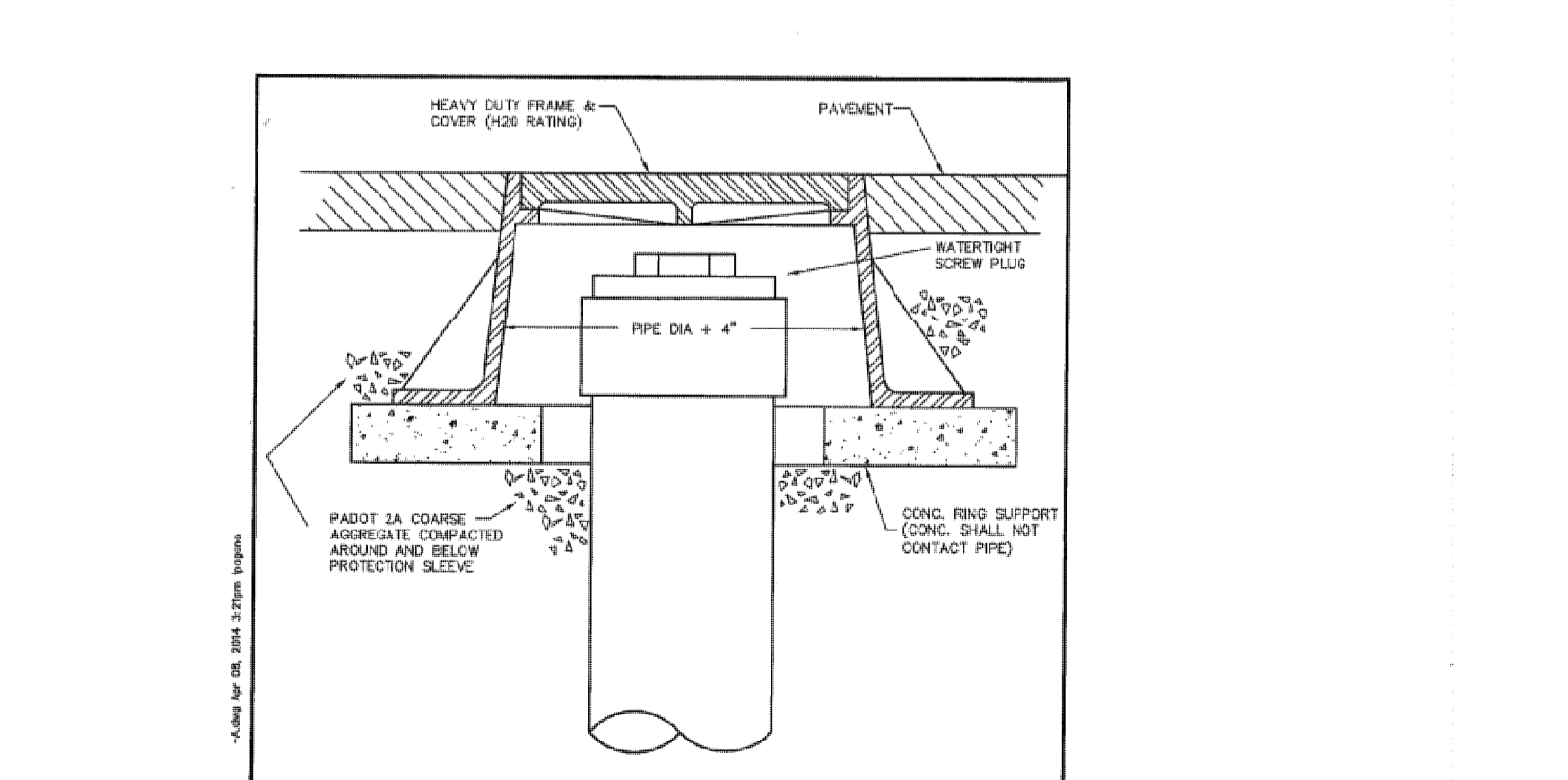
CONCRETE PRECAST RING OR COLLAR (BY OTHERS), REINFORCING AS SPECIFIED BY DESIGN ENGINEER.

MIN. AS SPECIFIED BY OTHERS, BUT NOT LESS THAN 12" (300mm) MINIMUM.

HOPE PIPE STUB SPECIFY DIAMETER & LOCATION.

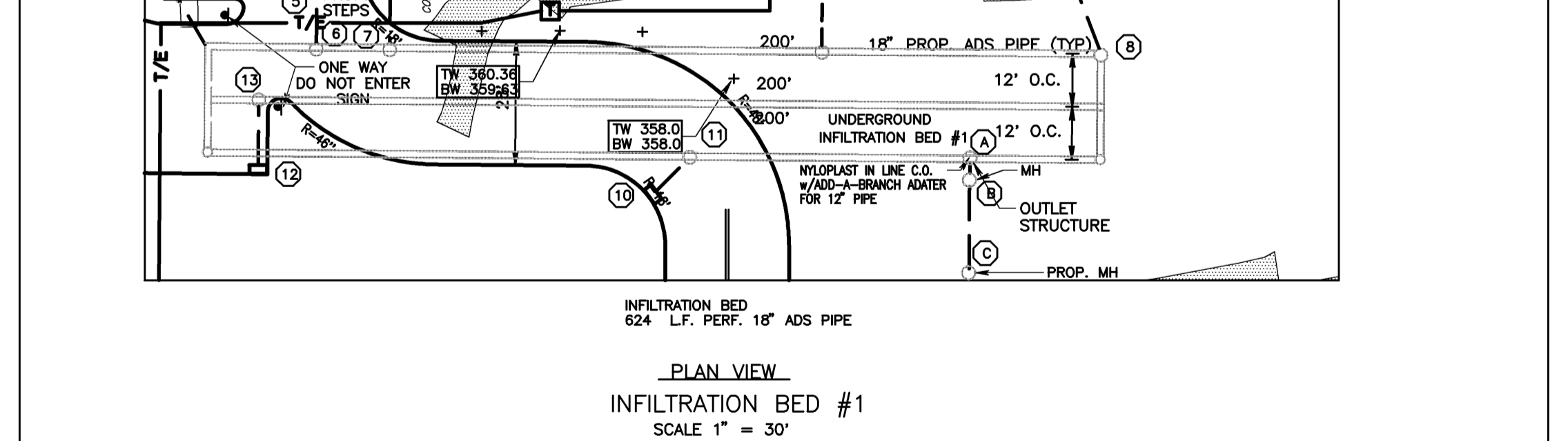
REINFORCED CONCRETE BASE SIZE VARIES (BY OTHERS).

CLASS I OR II BACKFILL PER ASTM 2321, COMPACTED IN 6" (150mm) MAX. LIFTS TO A MIN. OF 90% STANDARD PROCTOR DENSITY.



HEAVY DUTY FRAME & COVER (R15 RATING). PAVEMENT. WATER-TIGHT SCREEN PLUS. CONC. RING SUPPORT (CONC. SHALL NOT CONTACT PIPE). PADDT 2A COARSE AGGREGATE COMPACTED AROUND AND BELOW PROTECTION SLEEVE.

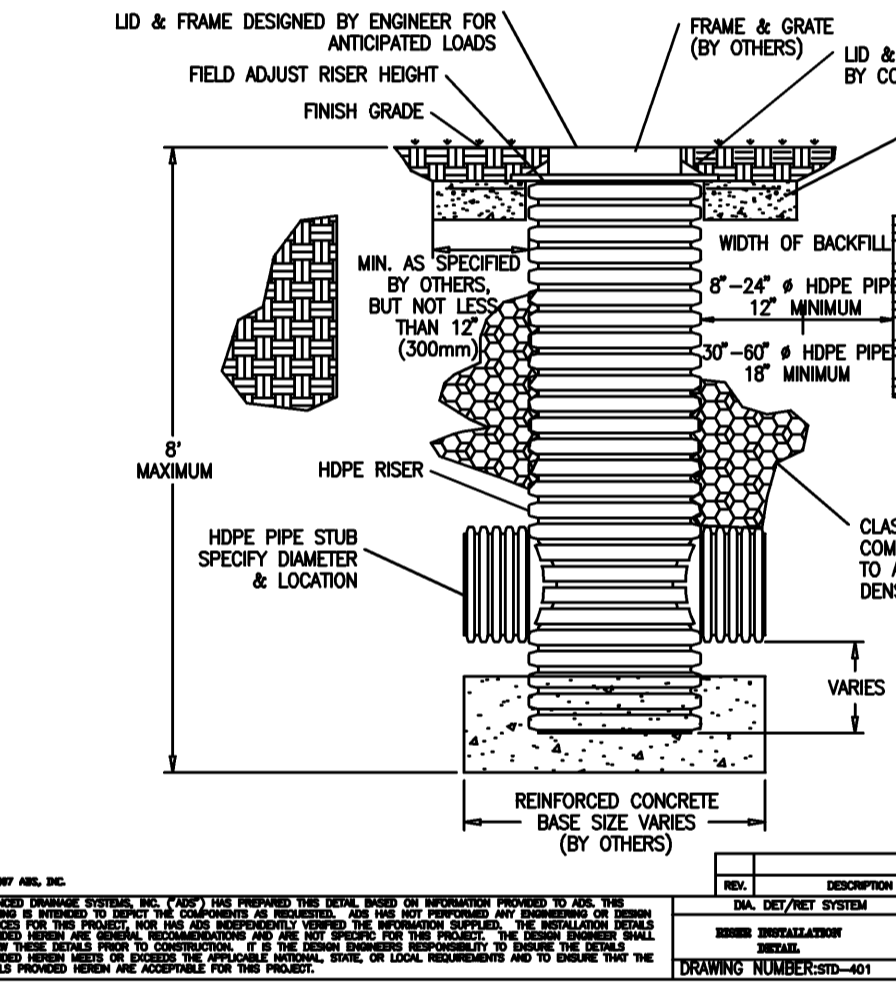
NOTES:
 1. FRAME AND COVER SHALL BE NENAH FOUNDRY COMPANY MODEL R-1576 OR APPROVED EQUAL.
 2. CLEAN-OUT PROTECTION SLEEVES ARE TO BE INSTALLED FOR CLEAN-OUTS LOCATED IN PAVED AREAS, OR LESS THAN 3 FEET FROM A PAVED AREA.



CONSTRUCTION SEQUENCE
 1. EXCAVATION TO BOTTOM OF SYSTEM TO BE PERFORMED WITH EQUIPMENT FROM OUTSIDE BED AREA OR RUBBER TIRE MACHINE TO AVOID COMPACTION.
 2. FINE GRADE BOTTOM OF SYSTEM WITH SMALL MACHINE.
 3. SCARIFY SURFACE AND INSTALL GEOTEXTILE ON BOTTOM AND SIDES OF SYSTEM.
 4. INSTALL INLET, STONE AND PIPE DISTRIBUTION SYSTEM.
 5. INSTALL FABRIC OVER TOP OF STONE AREA ENSURING FABRIC OVERLAY IS PROVIDED.
 6. BACKFILL OVER FABRIC WITH SUBSOIL AND PARKING LOT SUBBASE.
 7. INSTALL PAVING.
 8. INSTALL PLYWOOD SHEET UNDER INLET GRATES. PLYWOOD IS TO REMAIN UNTIL ALL UPSLOPE AREAS ARE STABILIZED WITH VEGETATION. (MINIMUM OF 70% COVER).

INSTALLATION OF INFILTRATION SYSTEMS IS TO BE CHECKED BY THE A LICENSED ENGINEER.

AFTER THE INFILTRATION OR RECHARGE BED IS COMPLETELY INSTALLED, ALL HEAVY CONSTRUCTION EQUIPMENT SHALL BE RESTRICTED FROM THE INFILTRATION OR RECHARGE BED AREA TO ELIMINATE IMPACTS WHICH MAY COMPROMISE IT. IN THE EVENT ANY IMPACTS COMPROMISE THE FUNCTIONALITY OF THE INFILTRATION OR RECHARGE BED, IT MUST BE IMMEDIATELY REPAIRED OR REPLACED TO DESIGN SPECIFICATIONS.



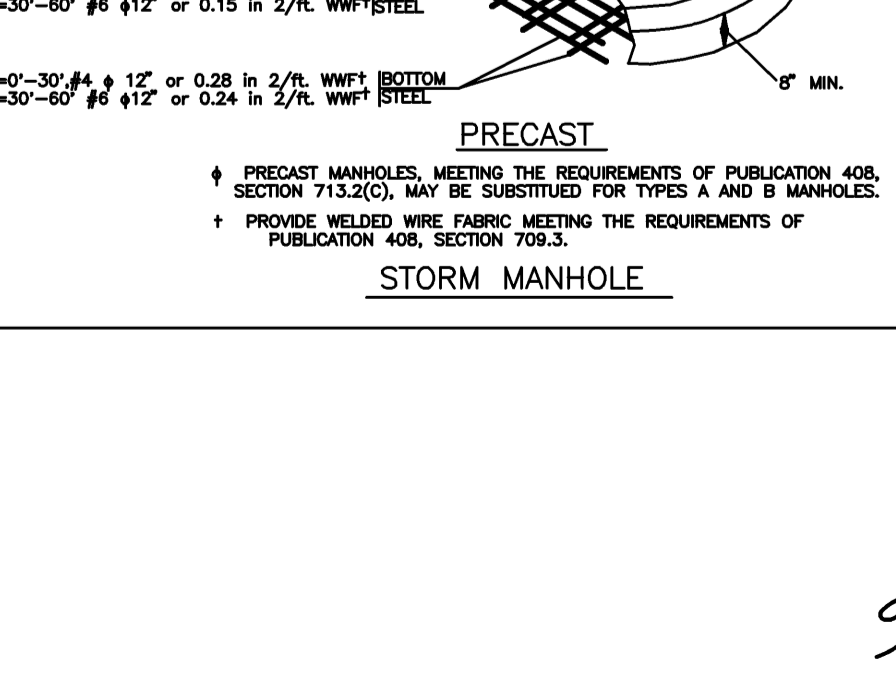
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MIN. AS SPECIFIED BY OTHERS, BUT NOT LESS THAN 12" (300mm) MINIMUM.

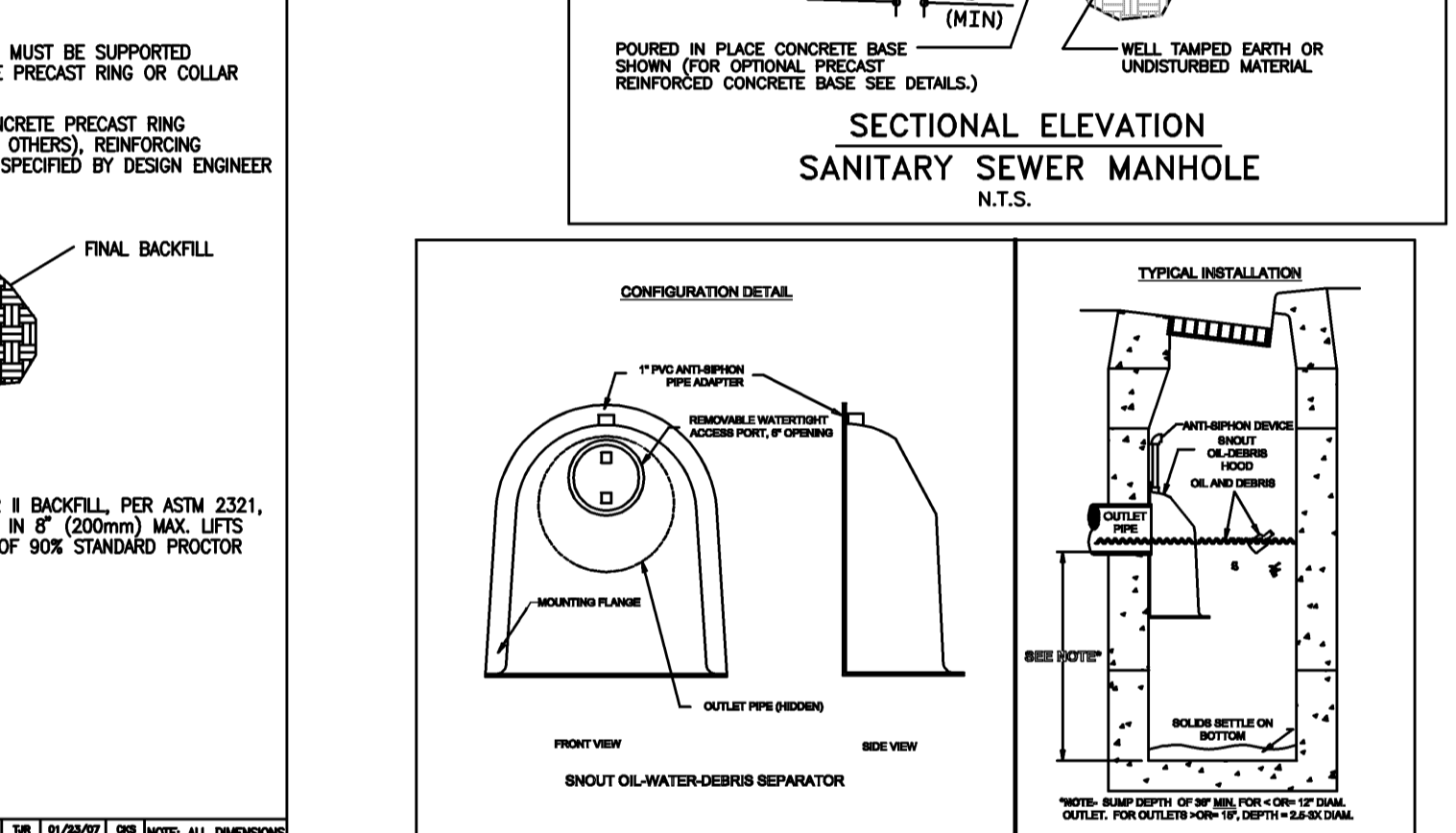
HOPE PIPE STUB SPECIFY DIAMETER & LOCATION.

REINFORCED CONCRETE BASE SIZE VARIES (BY OTHERS).

CLASS I OR II BACKFILL PER ASTM 2321, COMPACTED IN 6" (150mm) MAX. LIFTS TO A MIN. OF 90% STANDARD PROCTOR DENSITY.



PRECAST STORM MANHOLE



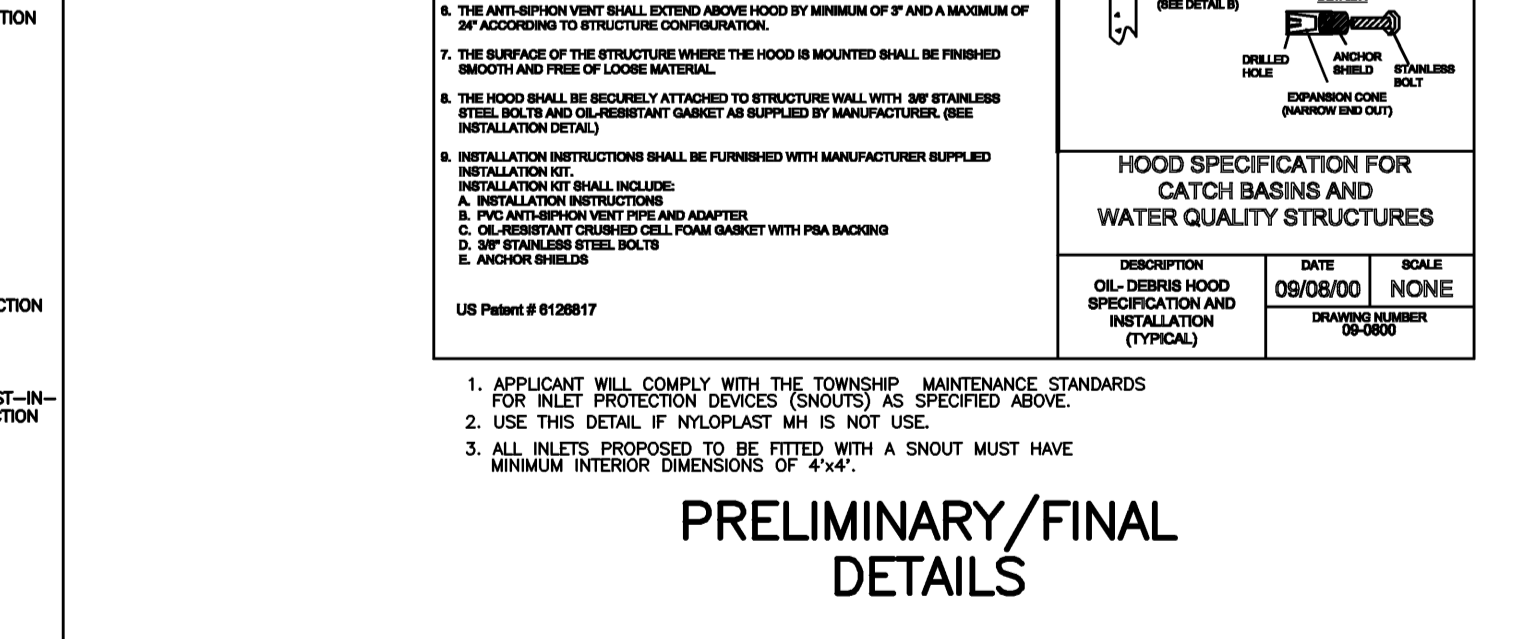
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PRELIMINARY/FINAL DETAILS

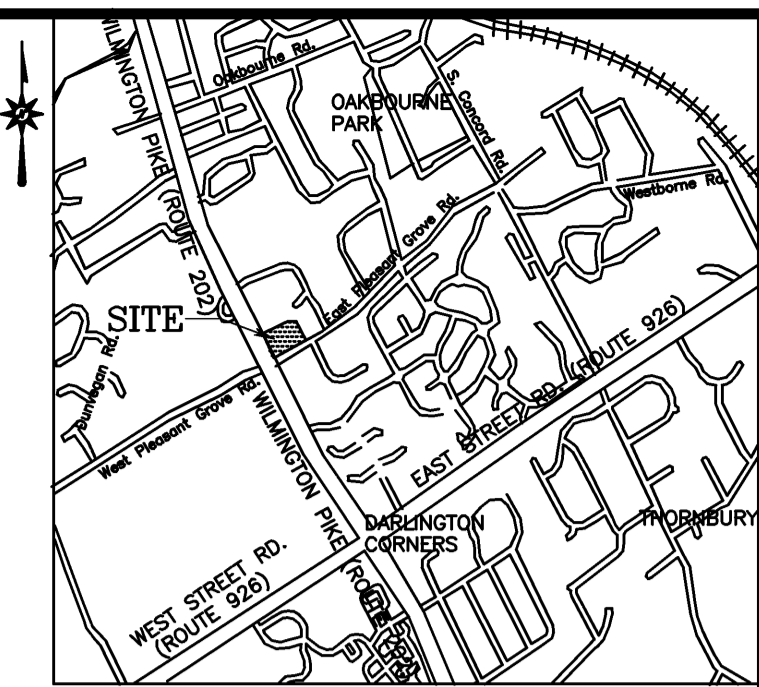
1-28-19 REVISED PER ENGINEER COMMENTS

SUBDIVISION/LAND DEVELOPMENT FOR THE MALVERN SCHOOL

WESTTOWN TOWNSHIP CHESTER COUNTY, PA.
 Edward B. Walsh & Associates, Inc. CIVIL ENGINEERS & SURVEYORS
 125 Dowlin Forge Rd. Eston, Pennsylvania 19341
 Phone: 610-903-0060 Fax: 610-903-0080

Project- 4432 Date- 11-14-18 Scale- 1" = 30' Drawn- LR Checked- A.E. Sheet- 10 OF 10

Plotted: 1/29/2019 File: F:\JB\4432\4432-02.prt



LOCATION MAP
SCALE: 1" = 2000'

LEGEND

---	430	EXISTING INDEX CONTOUR
---	---	EXISTING INTERIOR CONTOUR
---	---	EXISTING STORM SEWER PIPE
S	---	EXISTING SANITARY SEWER PIPE
G	---	EXISTING GAS LINE
E	---	EXISTING ELECTRIC LINE
---	---	EXISTING EDGE OF PAVING
---	---	EXISTING CURB
---	---	PROPOSED CURB
x	x	PROPOSED FENCE
⊗	---	EXISTING INLET
⊙	---	EXISTING SANITARY MANHOLE
⊕	---	EXISTING UTILITY POLE
⊖	---	EXISTING WATER VALVE
⊗	---	EXISTING GATE VALVE
⊘	---	EXISTING SIGN
⊙	---	EXISTING LIGHT POLE
⊕	---	EXISTING LIGHT POLE
▨	---	≥25% SLOPE

NOTE: ALL EXISTING TREES ON SITE ARE TO BE REMOVED.

PRELIMINARY/FINAL
EXISTING FEATURES
& CONSERVATION PLAN

1 1-28-19 REVISED PER ENGINEER COMMENTS

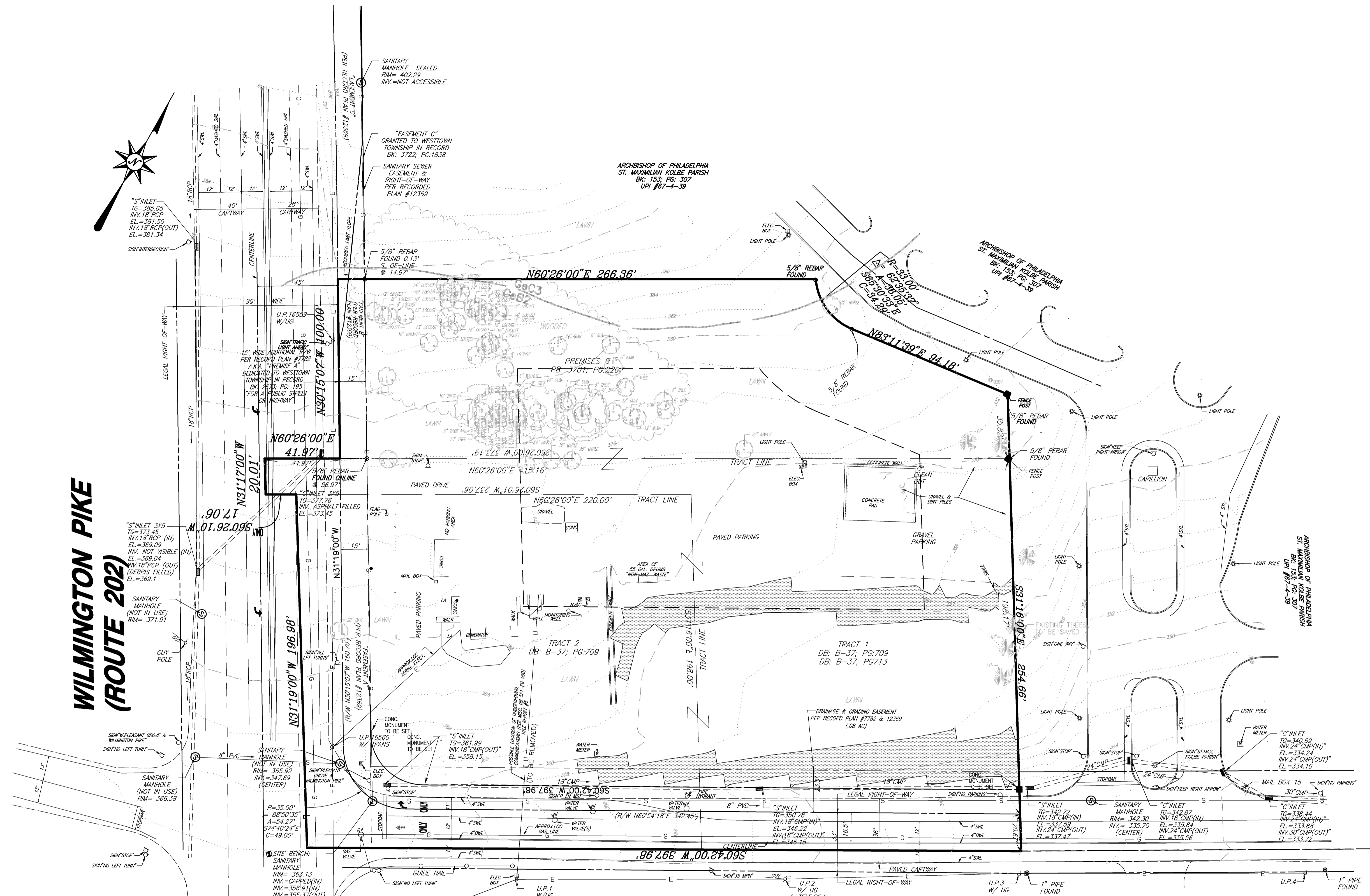
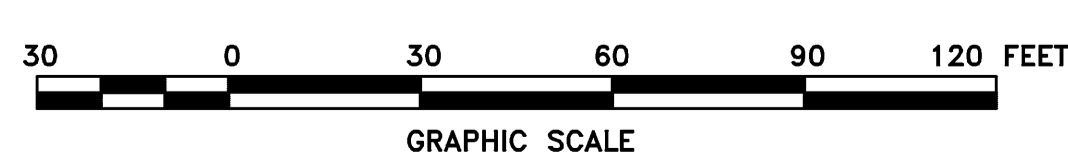
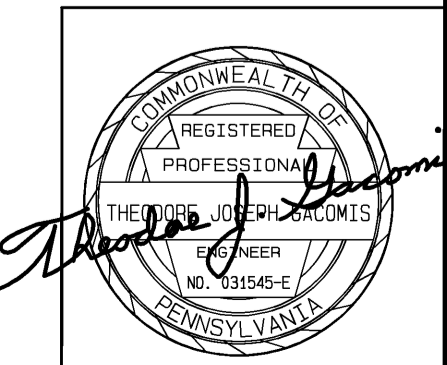
SUBDIVISION/LAND DEVELOPMENT
FOR
THE MALVERN SCHOOL

WESTTOWN TOWNSHIP CHESTER COUNTY, PA.

Edward B. Walsh & Associates, Inc.
CIVIL ENGINEERS & SURVEYORS

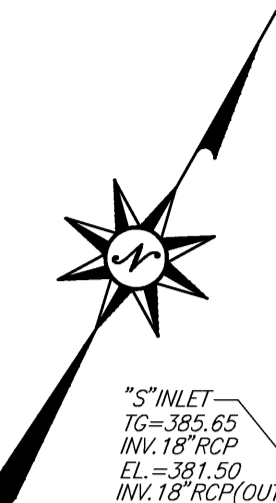
125 Dowlin Forge Rd.
Eaton, Pennsylvania 19341
Phone: 610-903-0060
Fax: 610-903-0080

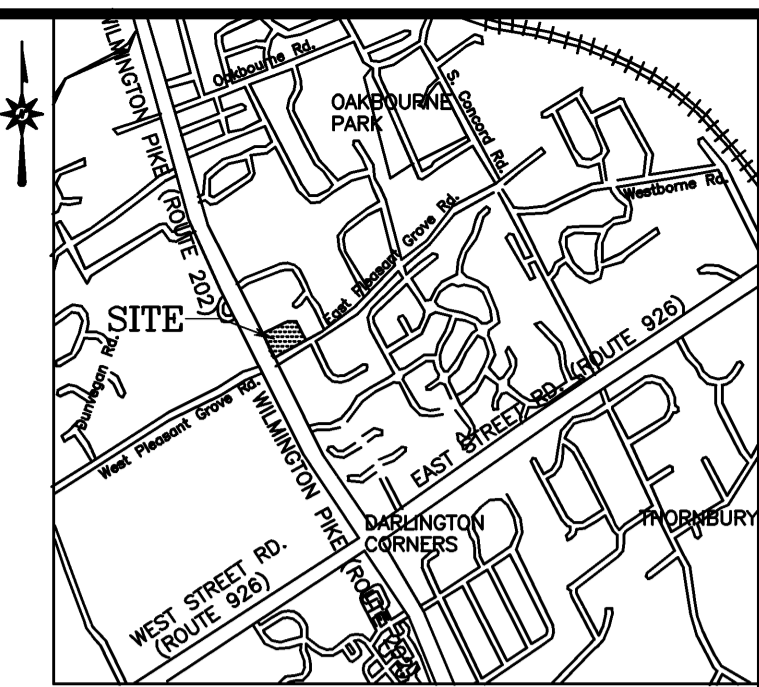
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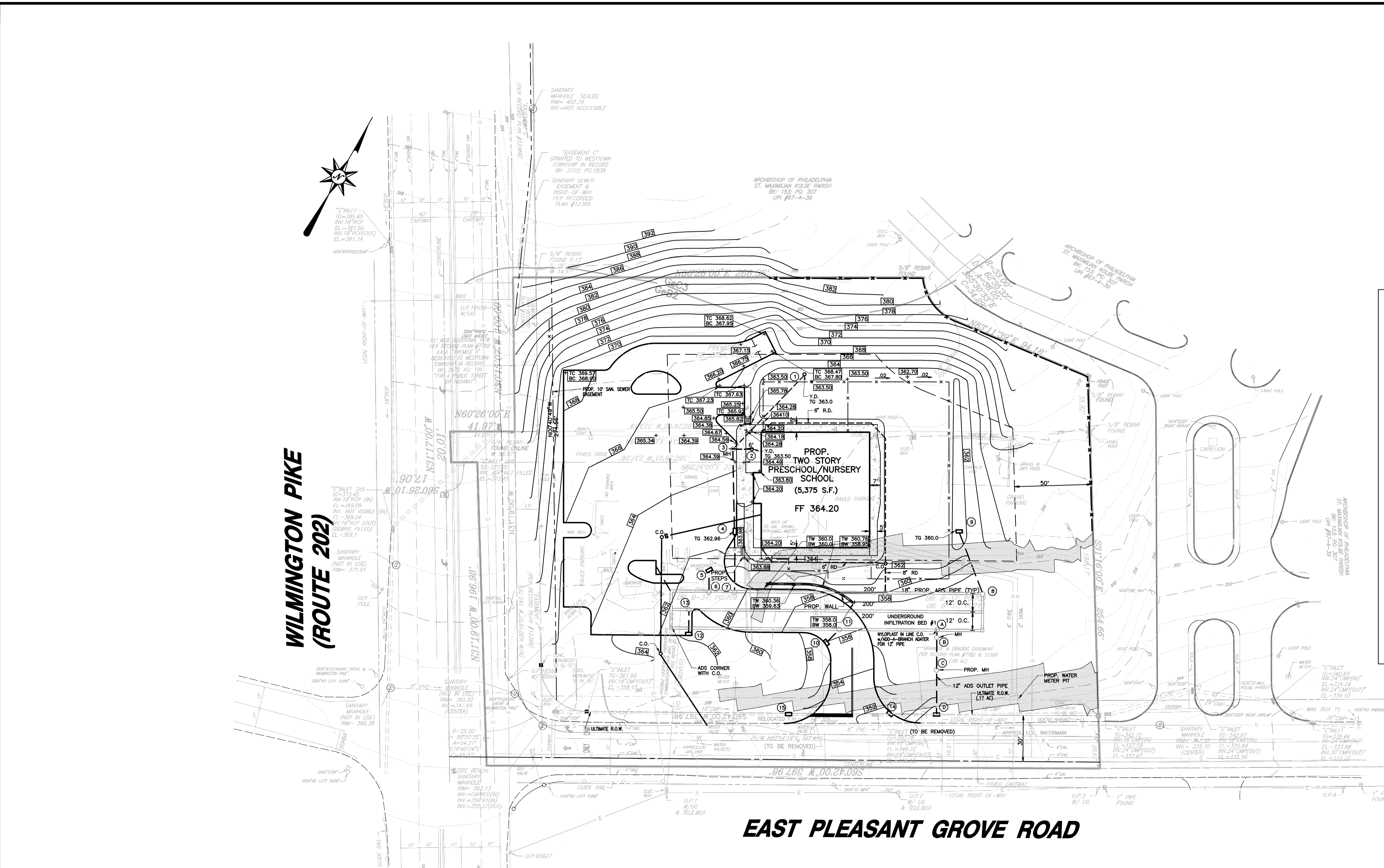
EAST PLEASANT GROVE ROAD

**WILMINGTON PIKE
(ROUTE 202)**





LOCATION MAP
SCALE: 1" = 2000'



**WILMINGTON PIKE
(ROUTE 202)**

EAST PLEASANT GROVE ROAD

LEGEND

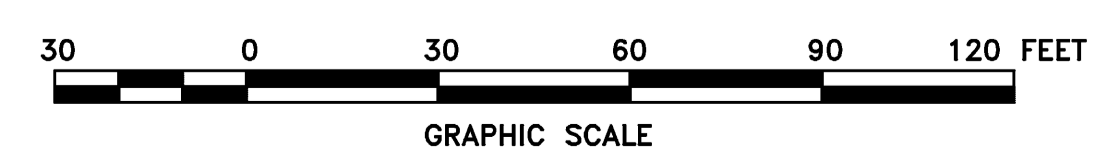
---	430	EXISTING INDEX CONTOUR
---	---	EXISTING INTERIOR CONTOUR
---	---	PROPOSED CONTOUR
---	364.20 +	PROPOSED SPOT ELEVATION
---	---	EXISTING CURB
---	---	PROPOSED CURB
---	---	EXISTING EDGE OF PAVING
---	X	EXISTING FENCE
---	---	EXISTING STORM SEWER PIPE
---	---	PROPOSED STORM SEWER PIPE
---	S	EXISTING SANITARY SEWER PIPE
---	S	PROPOSED SANITARY SEWER PIPE
---	G	EXISTING GAS LINE
---	G	PROPOSED GAS LINE
---	E	EXISTING ELECTRIC LINE
---	E	PROPOSED TELEPHONE/ELECTRIC LINE
---	W	PROPOSED WATER LINE
---	O	PROPOSED YARD DRAIN
---	⊙	EXISTING SANITARY MANHOLE
---	⊙	PROPOSED SANITARY MANHOLE
---	⊙	EXISTING STORM MANHOLE
---	⊙	PROPOSED STORM MANHOLE
---	⊙	EXISTING INLET
---	⊙	PROPOSED INLET
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---	⊙	EXISTING LIGHT POLE
---	⊙	EXISTING LIGHT POLE
---	⊙	EXISTING WATER VALVE
---	⊙	EXISTING GATE VALVE
---	⊙	EXISTING SIGN
---	⊙	PROPOSED SIGN
---	---	≥25% SLOPE

- NOTE: 1) SIGNAGE MUST COMPLY WITH ARTICLE XVIII.
2) THE WATER MAIN SIZES MUST BE DETERMINED BY THE ARCHITECT PRIOR TO CONSTRUCTION. FINAL MAIN TIE-IN POINT AND TIE-IN TO BUILDING TO BE COORDINATED WITH AQUA PENNSYLVANIA.

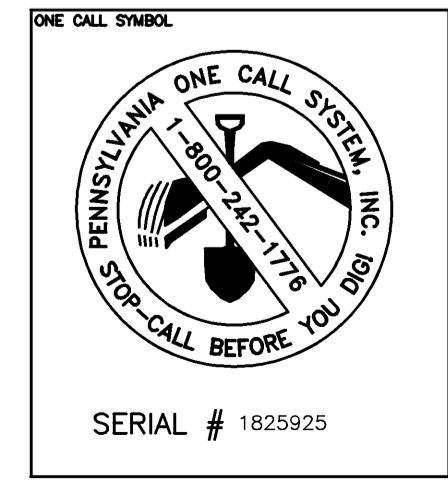
OWNERS AFFIDAVIT OF ACKNOWLEDGMENT
I, JOSEPH SCANDONE, HEREBY ACKNOWLEDGE THAT THE STORMWATER BEST MANAGEMENT PRACTICES (BMP'S) DEPICTED ON THIS PLAN SHALL BE A PERMANENT FIXTURE ON THE PROPERTY AND SHALL NOT BE ALTERED, OR REMOVED, WITHOUT THE APPROVAL OF A REVISED PLAN BY WESTTOWN TOWNSHIP.

OWNER
NOTE: THE OWNER OF THIS PROPERTY KNOWN AS CHESTER COUNTY UPI NO. 67-2-38 SHALL BE RESPONSIBLE FOR OWNING, OPERATING, AND MAINTAINING THE STORMWATER MANAGEMENT BMP (S) DEPICTED ON THIS PLAN IN PERPETUITY.

I, THEODORE GACOMIS P.E., ON THIS DATE _____, HAVE REVIEWED AND HEREBY CERTIFY THAT THE DRAINAGE PLAN MEETS ALL DESIGN STANDARDS AND CRITERIA OF WESTTOWN TOWNSHIP ORDINANCE NO. 8 OF 20004.



ACT 187 SERIAL NUMBER 008-6945
EDWARD B. WALSH & ASSOCIATES, INC. DOES NOT GUARANTEE THE ACCURACY OF THE LOCATIONS FOR EXISTING SUBSURFACE UTILITY LINES, STRUCTURES, ETC. SHOWN ON THE PLANS, NOR DOES E. B. WALSH & ASSOC., INC. GUARANTEE THAT ALL SUBSURFACE UTILITY LINES, STRUCTURES, ETC. ARE SHOWN.
CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATIONS OF ALL SUBSURFACE UTILITY LINES, STRUCTURES, ETC. BEFORE THE START OF WORK, BY CALLING THE PENNSYLVANIA ONE CALL SYSTEM AT 1-800-242-1776.
UTILITIES NOTIFIED
VERIZON
COMCAST CABLE TV
COMCAST COMMUNICATION
TEPPCO
BUCKEYE PIPELINE
AQUA PENNSYLVANIA
PECO ENERGY
TRANSCONTINENTAL GAS PIPELINE
PPL INTERSTATE ENERGY
WESTTOWN TOWNSHIP
SUNOCO PIPELINE



**PRELIMINARY/FINAL
GRADING AND UTILITY PLAN**

1 1-28-19 REVISED PER ENGINEER COMMENTS

SUBDIVISION/ LAND DEVELOPMENT
FOR
THE MALVERN SCHOOL

WESTTOWN TOWNSHIP CHESTER COUNTY, PA.
Edward B. Walsh & Associates, Inc. CIVIL ENGINEERS & SURVEYORS
125 DOWLIN FORGE RD.
ESTON, PENNSYLVANIA 19341
Phone: 610-903-0060
Fax: 610-903-0080

Project- 4432
Date- 11-14-18
Scale- 1" = 30'
Drawn- LR
Checked- A.E.
Sheet- 3 OF 10

Plotted: 1/29/2019 File: F:\JD\4432\4432-B2.prc

EROSION AND SEDIMENTATION CONTROL NOTES

- 1. BEFORE INITIATING ANY REVISION TO THE APPROVED EROSION AND SEDIMENT CONTROL PLAN OR REVISIONS TO OTHER PLANS WHICH MAY AFFECT THE EFFECTIVENESS OF THE APPROVED EAS CONTROL PLAN, THE OPERATOR MUST RECEIVE APPROVAL FROM THE CHESTER COUNTY CONSERVATION DISTRICT...
2. ALL PUMPING OF SEDIMENT LADEN WATER SHALL BE THROUGH A SEDIMENT CONTROL BMP...
3. THE CONTRACTOR IS ADVISED TO BECOME THOROUGHLY FAMILIAR WITH THE PROVISIONS OF THE APPENDIX 64 EROSION CONTROLS, TITLE 25, PART 1...
4. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN MUST BE AVAILABLE AT ALL TIMES...
5. THE OPERATOR SHALL REMOVE FROM THE SITE, RECYCLE, OR DISPOSE OF ALL BUILDING MATERIALS AND WASTES IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS...
6. UNLESS OTHERWISE SPECIFIED, STOCKPILES OF WOOD CHIPS, HAY BALES, CRUSHED STONE AND OTHER MULCHES SHALL BE HELD IN READINESS TO DEAL IMMEDIATELY WITH EMERGENCY PROBLEMS OR EROSION...
7. PROTECTION TO EXISTING TREES AND SHRUBS SHALL BE TAKEN BY THE CONTRACTOR TO ELIMINATE UNNECESSARY DAMAGE...
8. UNTIL THE SITE IS STABILIZED ALL EROSION AND SEDIMENTATION BMP'S MUST BE MAINTAINED PROPERLY...
9. AN AREA SHALL BE CONSIDERED TO HAVE ACHIEVED FINAL STABILIZATION WHEN IT HAS A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER...
10. SEDIMENT TRACKED ONTO ANY ROADWAY OR SIDEWALK SHALL BE RETURNED TO THE CONSTRUCTION SITE BY THE END OF EACH WORKDAY...
11. SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE HANDLED IN ACCORDANCE WITH THE STANDARD AND SPECIFICATION FOR SEWERAGE DRAIN OR OTHER APPROVED METHOD...
12. UPON COMPLETION OR TEMPORARY CESSATION OF THE EARTH DISTURBANCE ACTIVITY THAT WILL EXCEED 4 DAYS, OR ANY STAGE THEREOF, THE PROJECT SITE SHALL BE IMMEDIATELY STABILIZED WITH THE APPROPRIATE TEMPORARY OR PERMANENT STABILIZATION...
13. CONSTRUCTION OF THE SITE MUST BE COMPLETED IN A MANNER TO MINIMIZE SOIL COMPACTION IN PROPOSED GRASS AREAS...
14. ALL EXISTING DRAINAGE FEATURES MUST BE PROTECTED AND NOT DISTURBED IN ANY WAY...
15. THE PROPOSED E & S BMP'S HAVE BEEN PROVIDED TO PREVENT SEDIMENT DISCHARGE FROM THE SITE AND TO ENSURE AN INCREASE IN THE RATE OF RUNOFF DOES NOT OCCUR DURING CONSTRUCTION...
16. THE SITE DEVELOPMENT AND CONSTRUCTION SEQUENCE HAS BEEN GENERATED TO MINIMIZE THE EXTENT AND DURATION OF EARTH DISTURBANCE...
17. THE E&S DESIGN HAS BEEN COMPLETED IN A MANNER TO PREVENT PONING FOR EXTENDED PERIODS OF TIME TO AVOID THERMAL ISSUES.

WILMINGTON PIKE (ROUTE 202)

DRAINAGE LINE TO SEDIMENT TRAP

Table with columns: SOILS SERIES AND MAP SYMBOL, DEPTH TO SEASONAL HIGH WATER TABLE (FT.), BEDROCK (FT.), PERMEABILITY (IN. PER. HR.), AVAILABLE MOISTURE CAPACITY (IN. PER IN. OF SOIL DEPTH), REACTION PH, OPTIMUM MOISTURE FOR COMPACTION PCT, MAXIMUM DRY DENSITY (LB. PER CU. FT.), SHRINK-SWELL POTENTIAL, SULTABILITY AS SOURCE OF TOPSOIL, ROAD FILL.

SOILS
GcB2 - GLENELG CHANNERY SILT LOAM, 3-8% SLOPE, MODERATELY ERODED.
GcC3 - GLENELG CHANNERY SILT LOAM, 8-15% SLOPE, SEVERELY ERODED.

SOIL RESOLUTION NOTES

- 1. ANY WATER THAT IS ENCOUNTERED DURING EXCAVATION MUST BE PUMPED TO AN APPROVED DRAINAGE DEVICE.
2. DISTURBED AREAS MUST BE KEPT TO A MINIMUM AND STABILIZED IMMEDIATELY UPON COMPLETION OF WORK.
3. IF ANY ROCK IS ENCOUNTERED THAT MUST BE BLASTED TO BE REMOVED, THE TOWNSHIP MUST BE NOTIFIED.

SITE GEOLOGY

THE SITE GEOLOGY DOES NOT HAVE CHARACTERISTICS THAT ARE UNUSUAL TO POSSIBLE GROUND WATER POLLUTION.

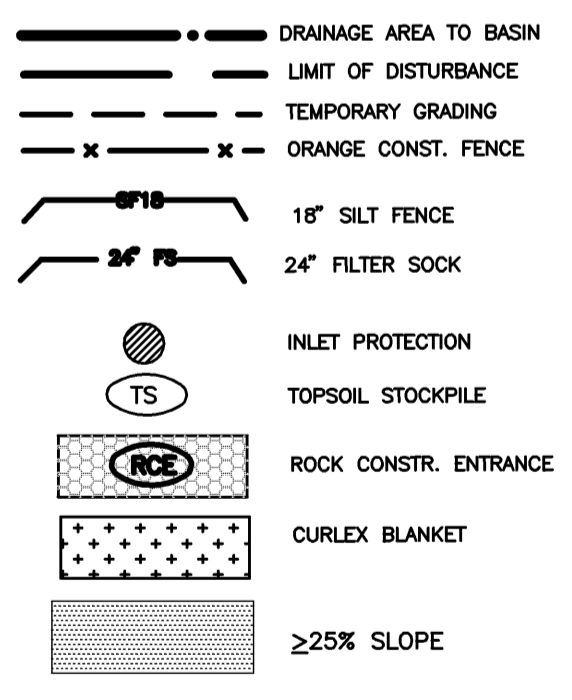
CONSTRUCTION SEQUENCE

ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE FOLLOWING SEQUENCE... EACH STAGE IS INITIATED, CLEARING AND GRUBBING SHALL BE LIMITED ONLY THOSE AREAS DESCRIBED IN EACH STAGE.

AT LEAST 7 DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, THE OPERATOR SHALL NOTIFY ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES, THE LANDOWNER, ALL APPROPRIATE MUNICIPAL OFFICIALS, THE EROSION AND SEDIMENTATION OF THE CHESTER COUNTY CONSERVATION DISTRICT TO AN ON-SITE PRE-CONSTRUCTION MEETING.

- 1. A PRE-CONSTRUCTION MEETING IS REQUIRED ON SITE PRIOR TO THE START OF CONSTRUCTION...
2. DELINEATE THE LIMIT OF DISTURBANCE IN THE FIELD...
3. CONSTRUCT THE STORM SEWER RUN FROM THE NEW INLET TIE-IN...
4. THE SEDIMENT TRAP MUST BE STABILIZED AND FUNCTION PROPERLY PRIOR TO ANY FURTHER EARTH DISTURBANCE...
5. ONCE STEP 1-4 ABOVE ARE COMPLETE THEN DEMOLITION OF THE EXISTING PARKING LOTS, UTILITIES AND STRUCTURES CAN COMMENCE...
6. CONTINUE TO ROUGH GRADE THE SITE...
7. AFTER THE STONE IS INSTALLED FOR THE PARKING LOT AREA EXCEPT WHERE INFILTRATION BED 1 IS LOCATED...
8. COMPLETE BED 1. KEEP ALL SEDIMENT LADEN WATER FROM THIS FACILITY...
9. COMPLETE THE BUILDING CONSTRUCTION...
10. COMPLETE THE PERMANENT LANDSCAPING...
11. ALL SEDIMENT LADEN WATER MUST BE KEPT FROM ENTERING THE INFILTRATION BEDS...
12. ONCE 70% UNIFORM STABILIZATION IS ACHIEVED OPEN THE INLETS TO THE INFILTRATION BEDS...
13. SUBMIT THE N.O.T.

EROSION & SEDIMENTATION CONTROL LEGEND



EAST PLEASANT GROVE ROAD

LIMIT OF DISTURBANCE = 2.49 AC

NOTES:

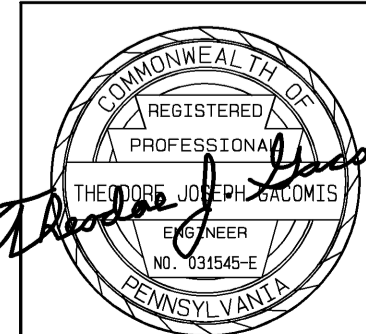
- 1. THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL FACILITIES WEEKLY AND AFTER EACH RAINFALL EVENT...
2. PRIOR TO THE REMOVAL OF E AND S CONTROLS, THE CHESTER COUNTY CONSERVATION DISTRICT MUST BE NOTIFIED...
3. ALL SLOPES GREATER THAN 3:1 SHALL BE STABILIZED WITH N-635-75 EROSION CONTROL BLANKET...
4. ALL PUMPING OF SEDIMENT LADEN WATER OR POTENTIALLY SEDIMENT CONTROL PLAN OR REVISIONS TO OTHER PLANS WHICH MAY AFFECT THE EFFECTIVENESS OF THE APPROVED EAS CONTROL PLAN...
5. BEFORE INITIATING ANY REVISION TO THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN...
6. STOCKPILE HEIGHTS MUST NOT EXCEED 35 FEET...
7. THE E & S PLAN/DESIGN PROVIDES THE FOLLOWING:
A. MINIMIZE EXTENT AND DURATION OF EARTH DISTURBANCE...
B. MAXIMIZE PROTECTION OF EXISTING DRAINAGE FEATURES...
C. MINIMIZE SOIL COMPACTION...
D. UTILIZE OTHER MEASURES OR CONTROLS THAT PREVENT OR MINIMIZE GENERATION OF INCREASED STORMWATER RUNOFF...
8. SITE STABILIZATION THAT MUST BE ACHIEVED PRIOR TO REMOVAL OF EAS CONTROLS IS DEFINED AS VEGETATED AREAS MUST PROVIDE A MINIMUM UNIFORM 70% PERENNIAL VEGETATED COVER OVER THE ENTIRE DISTURBED AREA.

UTILITY LINE TRENCH EXCAVATION NOTES:

- A. LIMIT ADVANCED CLEARING AND GRUBBING OPERATIONS TO A DISTANCE EQUAL TO TWO TIMES THE LENGTH OF PIPE INSTALLATION THAT CAN BE COMPLETED IN ONE DAY...
B. WORK CREWS AND EQUIPMENT FOR TRENCHING, PLACEMENT OF PIPE, PLUG CONSTRUCTION AND BACKFILLING WILL BE SELF CONTAINED...
C. ALL SOIL EXCAVATION FROM THE TRENCH WILL BE PLACED ON THE UPHILL SIDE OF THE TRENCH...
D. LIMIT DAILY TRENCH EXCAVATION TO THE LENGTH OF PIPE PLACEMENT...
E. WATER THAT ACCUMULATES IN THE OPEN TRENCH WILL BE COMPLETELY REMOVED BY PUMPING BEFORE PIPE PLACEMENT AND/OR BACKFILLING BEGINS...
F. ON THE DAY FOLLOWING PIPE PLACEMENT AND TRENCH BACKFILLING, THE DISTURBED AREA WILL BE GRADED TO FINAL CONTOURS AND IMMEDIATELY STABILIZED.

30 0 30 60 90 120 FEET

GRAPHIC SCALE



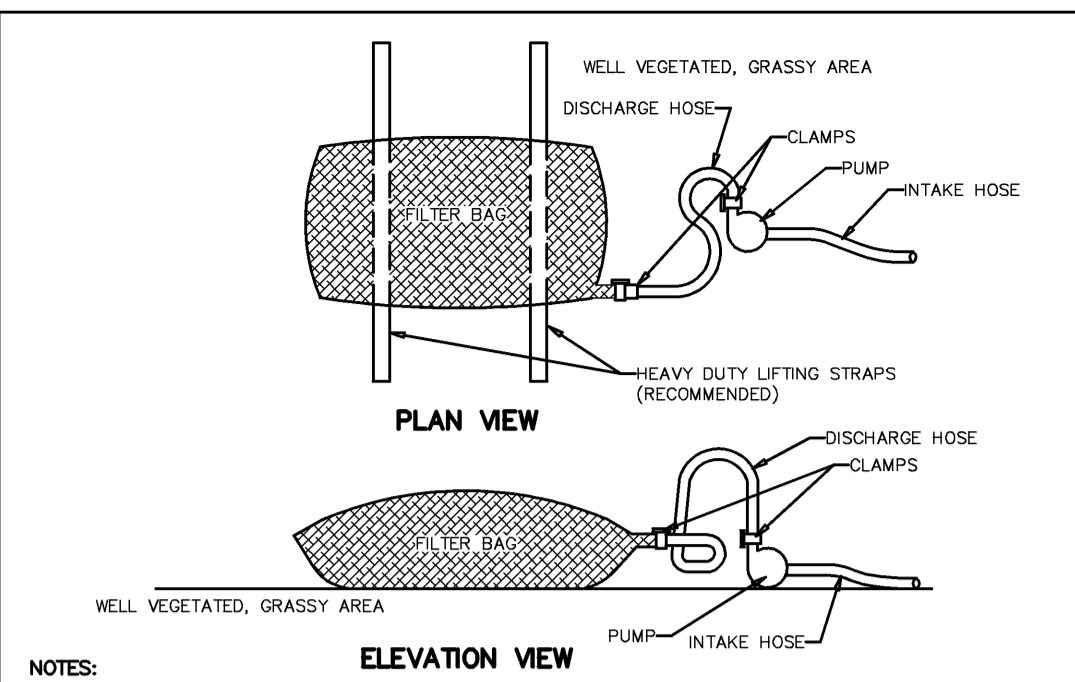
PRELIMINARY/FINAL EROSION AND SEDIMENTATION CONTROL PLAN

Project information including: 1 1-28-19 REVISED PER ENGINEER COMMENTS, SUBDIVISION/LAND DEVELOPMENT FOR THE MALVERN SCHOOL, WESTTOWN TOWNSHIP, CHESTER COUNTY, PA., Edward B. Walsh & Associates, Inc., CIVIL ENGINEERS & SURVEYORS, 125 Dowlin Forge Rd., Easton, Pennsylvania 19341, Phone: 610-903-0060, Fax: 610-903-0080, Project- 4432, Date- 11-14-18, Scale- 1"= 30', Drawn- LR, Checked- A.E., Sheet- 4 OF 10, Plotted: 1/29/2019, File: F:\JD\4432\4432-92.pro

ACT 187 SERIAL NUMBER 1825925

EDWARD B. WALSH & ASSOCIATES, INC. DOES NOT GUARANTEE THE ACCURACY OF THE LOCATIONS FOR EXISTING SUBSURFACE UTILITY LINES, STRUCTURES, ETC. SHOWN ON THE PLANS, NOR DOES E. B. WALSH & ASSOC., INC. GUARANTEE THAT ALL SUBSURFACE UTILITY LINES, STRUCTURES, ETC. ARE SHOWN... UTILITIES NOTIFIED: VERIZON, COMCAST CABLE TV, COMCAST COMMUNICATION, TEPSCO, BUCKEYE PIPELINE, AQUA PENNSYLVANIA, PECO ENERGY, TRANSCONTINENTAL GAS PIPELINE, PPL INTERSTATE ENERGY, WESTTOWN TOWNSHIP, SUNOCO PIPELINE.





NOTES:

LOW VOLUME FILTER BAGS SHALL BE MADE FROM NON-WOVEN GEOTEXTILE MATERIAL SEWN WITH HIGH STRENGTH, DOUBLE STITCHED "T" TYPE SEAMS. THEY SHALL BE CAPABLE OF TRAPPING PARTICLES LARGER THAN 150 MICRONS. HIGH VOLUME FILTER BAGS SHALL BE MADE FROM WOVEN GEOTEXTILES THAT MEET THE FOLLOWING STANDARDS:

PROPERTY	TEST METHOD	MINIMUM STANDARD
AVG. WIDE WIDTH STRENGTH	ASTM D-4884	60 LB/IN
GRAB TENSILE	ASTM D-4632	200 LB
PUNCTURE	ASTM D-4833	110 LB
MULLEN BURST	ASTM D-3786	350 PSI
UV RESISTANCE	ASTM D-4355	70%
AGE IS RETAINED	ASTM D-4721	80 SIZE

BAGS SHALL BE LOCATED IN WELL-VEGETATED (GRASSY) AREA, AND DISCHARGE INTO STABLE, EROSION RESISTANT AREAS. WHERE THIS IS NOT POSSIBLE, A GEOTEXTILE UNDERLAYMENT AND FLOW PATH SHALL BE PROVIDED. BAGS MAY BE PLACED ON STONE OR INCREASED DISCHARGE CAPACITY. BAGS SHALL NOT BE PLACED ON SLOPES GREATER THAN 5% FOR SLOPES EXCEEDING 5%. CLEAN ROCK OR OTHER NON-ERODIBLE AND NON-POLLUTING MATERIAL MAY BE PLACED UNDER THE BAG TO REDUCE SLOPE STEEPNESS.

NO DOWNSLOPE SEDIMENT BARRIER IS REQUIRED FOR MOST INSTALLATIONS. COMPOST BERM OR COMPOST FILTER SOCK SHALL BE INSTALLED BELOW BAGS LOCATED IN HQ OR EV WATERSHEDS, WITHIN 50 FEET OF ANY RECEIVING SURFACE WATER OR WHERE GRASSY AREA IS NOT AVAILABLE.

THE PUMP DISCHARGE HOSE SHALL BE INSERTED INTO THE BAGS IN THE MANNER SPECIFIED BY THE MANUFACTURER AND SECURELY CLAMPED. A PIECE OF PVC PIPE IS RECOMMENDED FOR THIS PURPOSE.

THE PUMPING RATE SHALL BE NO GREATER THAN 750 GPM OR 1/2 THE MAXIMUM SPECIFIED BY THE MANUFACTURER, WHICHEVER IS LESS. PUMP INTAKES SHALL BE FLOATING AND SCREENED.

INSTALLATION SEQUENCE:

- PREPARE SURFACE BY REMOVING ANY DEBRIS AND ENSURING A SMOOTH CONSISTENT AND WELL-VEGETATED SURFACE IS PROVIDED.
- UPON COMPLETION OF USE, THE FILTER BAG MUST BE REMOVED. ACCUMULATED SEDIMENT MUST BE PROPERLY PLACED IN PROTECTED AREA ON SITE AND STABILIZED WITH TEMPORARY SEED MIX AND MULCH.

MAINTENANCE NOTES:

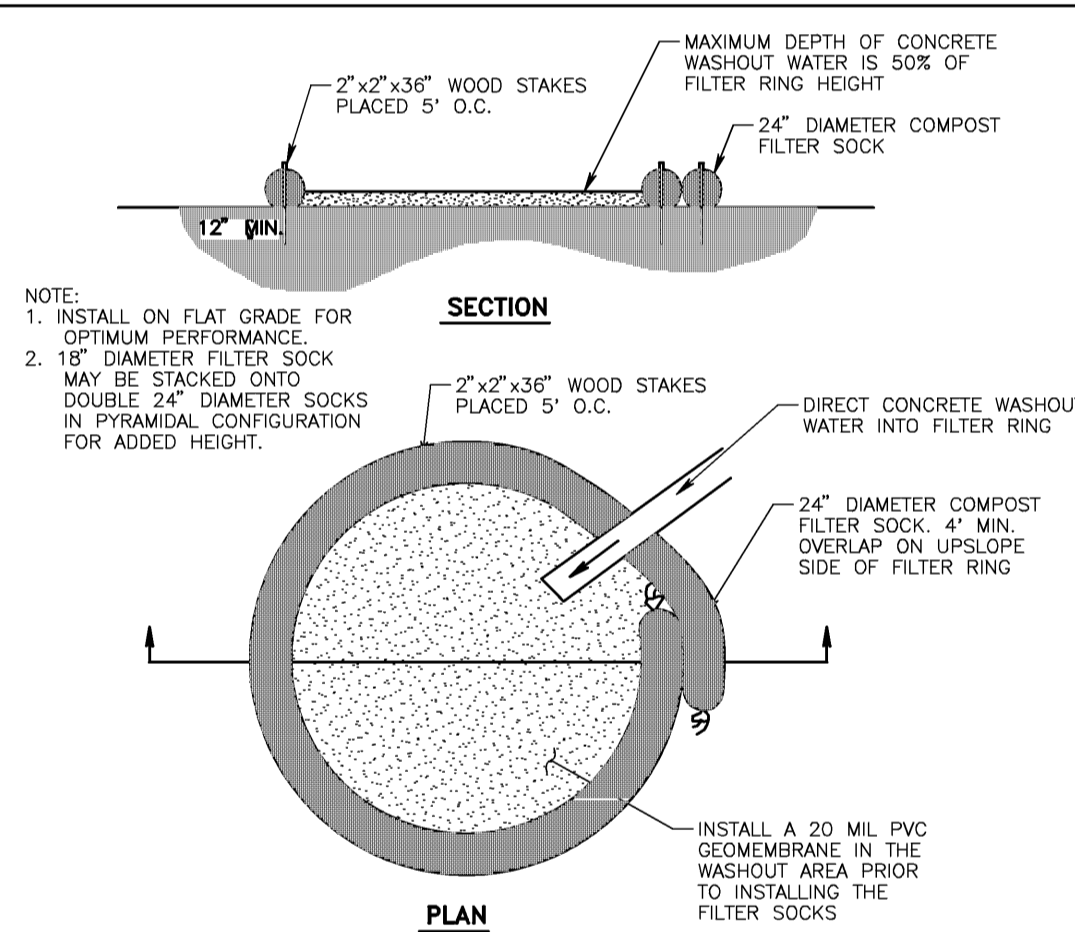
A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY REQUIRED FOR DISPOSAL PURPOSES SHALL BE PROVIDED. FILTER BAGS SHALL BE REPLACED WHEN THEY BECOME 1/2 FULL OF SEDIMENT. STAKE BAGS SHALL BE KEPT AVAILABLE FOR REPLACEMENT OF THOSE THAT HAVE FAILED OR ARE FILLED. BAGS SHALL BE PLACED ON STRAPS TO FACILITATE REMOVAL UNLESS BAGS COME WITH LIFTING STRIPS ALREADY ATTACHED.

INSPECTIONS:

FILTER BAGS SHALL BE INSPECTED DAILY. IF ANY PROBLEM IS DETECTED, PUMPING SHALL CEASE IMMEDIATELY AND NOT RESUME UNTIL THE PROBLEM IS CORRECTED.

**STANDARD CONSTRUCTION DETAIL #3-16
PUMPED WATER FILTER BAG**

NOT TO SCALE



INSTALLATION SEQUENCE:

- PREPARE SURFACE BY REMOVING ANY DEBRIS AND ENSURING A SMOOTH CONSISTENT SURFACE IS PROVIDED.
- INSTALL PVC GEOMEMBRANE IN WASHOUT AREA.
- COMPOST FILTER SOCK SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE BARRIER SHALL OVERLAP TO FORM A CIRCLE AS SHOWN.
- UPON REMOVAL OF THE WASHOUT AREA STAKES SHALL BE REMOVED. THE SOCK MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.
- ALL CONCRETE AND THE GEOMEMBRANE MUST BE REMOVED FROM THE SITE AND DISPOSED OF AT AN APPROVED DEP FACILITY.

MAINTENANCE NOTES:

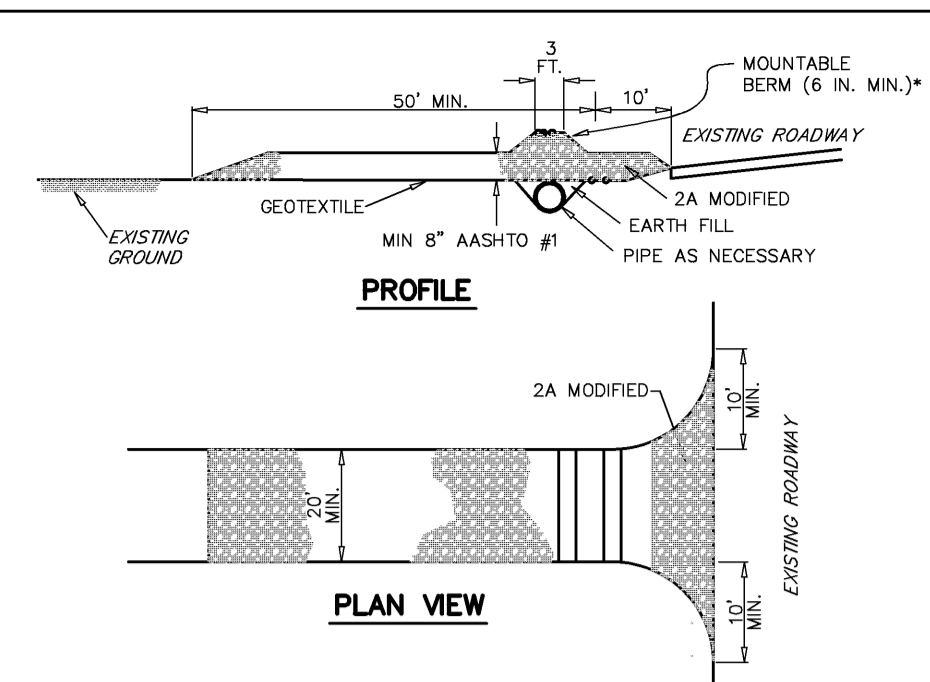
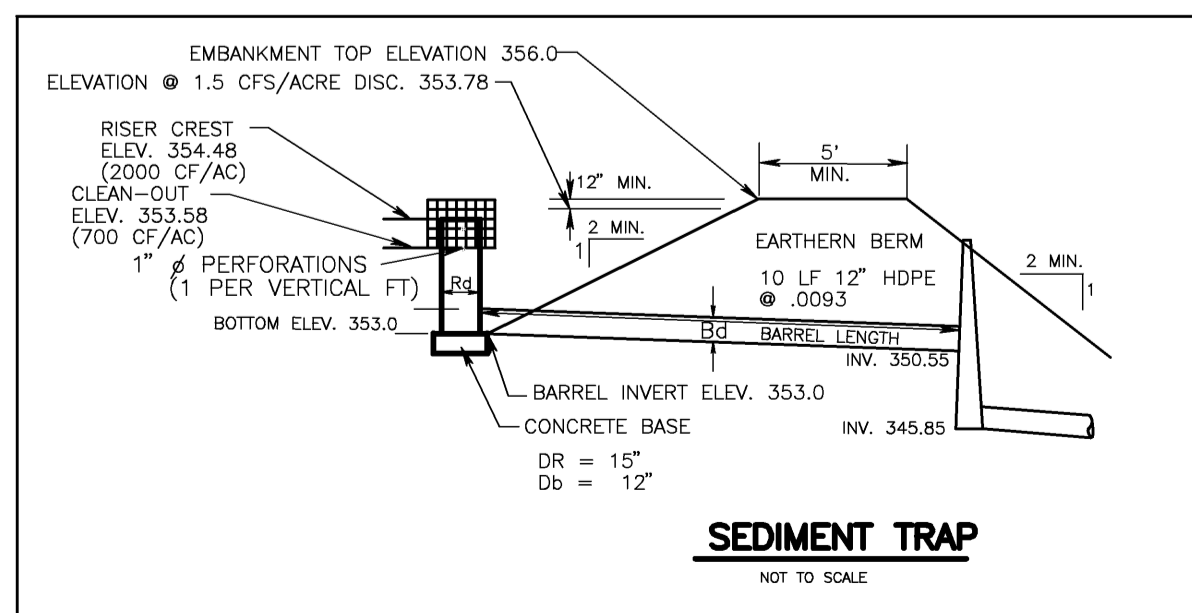
WASHOUT AREA SHALL BE INSPECTED WEEKLY. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.

INSPECTIONS:

INSPECTIONS MUST BE PERFORMED ON A WEEKLY BASIS. ALL SITE INSPECTIONS WILL BE DOCUMENTED IN AN INSPECTION LOG KEPT FOR THIS PURPOSE. THE COMPLIANCE ACTIONS AND THE DATE, TIME AND NAME OF THE PERSON CONDUCTING THE INSPECTION, THE INSPECTION LOG WILL BE KEPT ON SITE AT ALL TIMES AND MADE AVAILABLE TO THE DISTRICT UPON REQUEST.

CONCRETE WASHOUT AREA DETAIL

N.T.S.



* MOUNTABLE BERM USED TO PROVIDE PROPER COVER FOR PIPE

NOTES:

- REMOVE TOPSOIL PRIOR TO INSTALLATION OF ROCK CONSTRUCTION ENTRANCE.
- RUNOFF SHALL BE DIVERTED FROM ROADWAY TO A SUITABLE SEDIMENT REMOVAL BMP PRIOR TO ENTERING ROCK CONSTRUCTION ENTRANCE.
- MOUNTABLE BERM SHALL BE INSTALLED WHEREVER OPTIONAL CULVERT PIPE IS USED AND PROPER PIPE COVER AS SPECIFIED BY MANUFACTURER IS NOT OTHERWISE PROVIDED. PIPE SHALL BE SIZED APPROPRIATELY FOR SIZE OF DITCH BEING CROSSED.

INSTALLATION SEQUENCE:

- PREPARE SURFACE BY REMOVING ANY DEBRIS AND TOPSOIL.
- EXTEND ROCK OVER FULL WIDTH OF ENTRANCE.
- UPON REMOVAL OF CONSTRUCTION ENTRANCE, REMOVE SOIL AS NEEDED AND STABILIZE ACCORDINGLY DEPENDENT ON THE PERMANENT USE OF THE AREA.

MAINTENANCE NOTES:

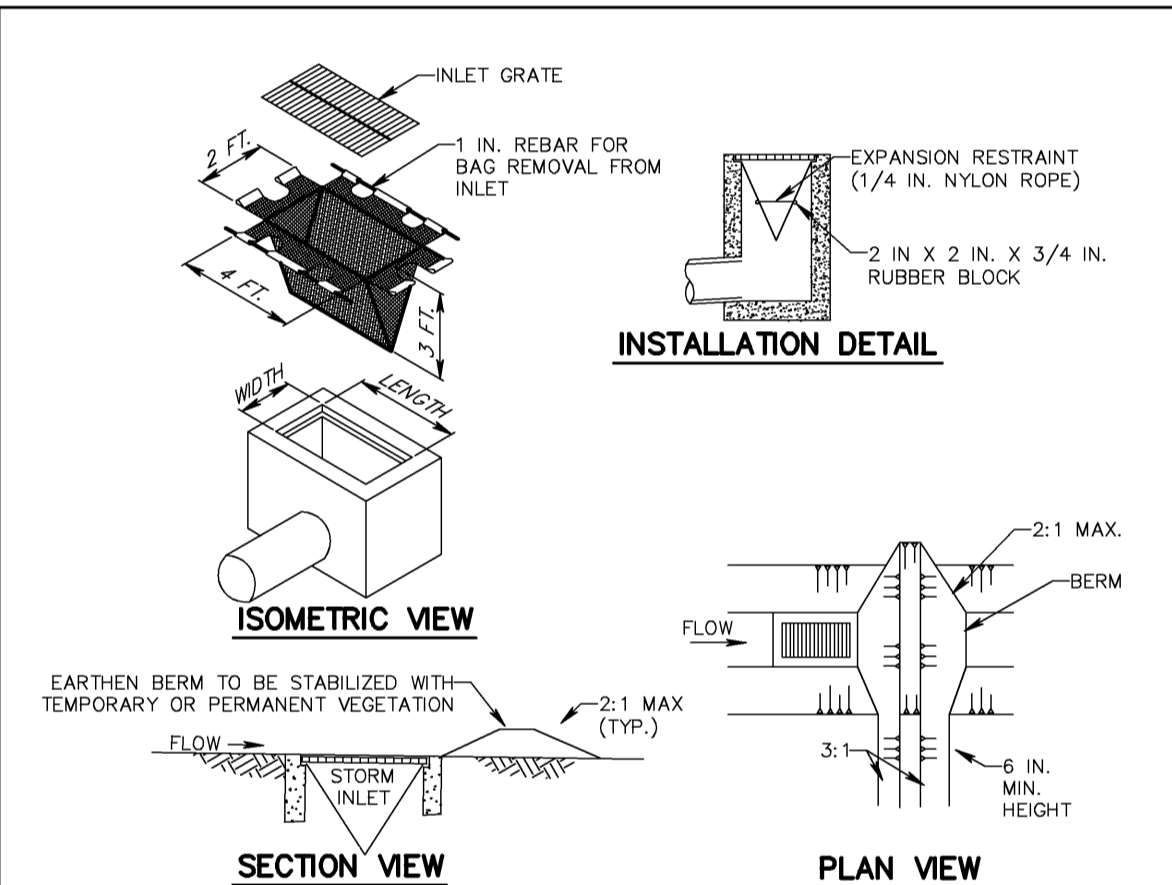
MAINTENANCE: ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE. ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE IMMEDIATELY. IF EXCESSIVE 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 SHEEPING THE DEPOSITS INTO ROADWAY DITCHES, SEWERS, CULVERTS, OR OTHER DRAINAGE COURSES IS NOT ACCEPTABLE.

INSPECTIONS:

INSPECTIONS MUST BE PERFORMED AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ALL SITE INSPECTIONS WILL BE DOCUMENTED IN AN INSPECTION LOG KEPT FOR THIS PURPOSE. THE COMPLIANCE ACTIONS AND THE DATE, TIME AND NAME OF THE PERSON CONDUCTING THE INSPECTION, THE INSPECTION LOG WILL BE KEPT ON SITE AT ALL TIMES AND MADE AVAILABLE TO THE DISTRICT UPON REQUEST.

**STANDARD CONSTRUCTION DETAIL #3-1
ROCK CONSTRUCTION ENTRANCE**

NOT TO SCALE



NOTES:

MAXIMUM DRAINAGE AREA = 1/2 ACRE.

INLET PROTECTION SHALL NOT BE REQUIRED FOR INLET TRIBUTARY TO SEDIMENT BASIN OR TRAP. BERMS SHALL BE REQUIRED FOR ALL INSTALLATIONS.

ROLLED EARTHEN BERM IN ROADWAY SHALL BE MAINTAINED UNTIL ROADWAY IS STONED. ROAD SURFACE BERM ON ROADWAY SHALL BE MAINTAINED UNTIL ROADWAY IS PAVED. EARTHEN BERM IN CHANNEL SHALL BE MAINTAINED UNTIL PERMANENT STABILIZATION IS COMPLETED OR REMAIN PERMANENTLY.

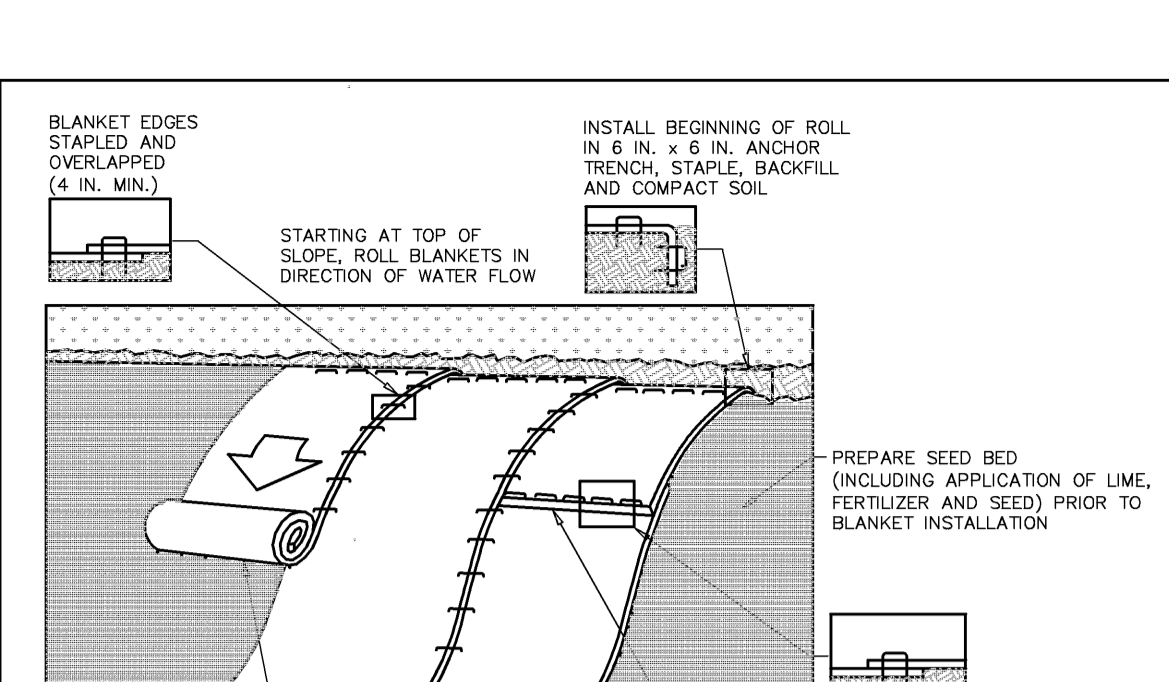
AT A MINIMUM, THE FABRIC SHALL HAVE A MINIMUM GRAB TENSILE STRENGTH OF 120 LBS., A MINIMUM BURST STRENGTH OF 200 PSI, AND A MINIMUM TRIANGULAR TEAR STRENGTH OF 50 LBS. FILTER BAGS SHALL BE CAPABLE OF TRAPPING ALL PARTICLES NOT PASSING A NO. 40 SIEVE.

INLET FILTER BAGS SHALL BE INSPECTED ON A WEEKLY BASIS AND AFTER EACH RUNOFF EVENT. BAGS SHALL BE EMPTIED AND RINSED OR REPLACED WHEN HALF FULL OR WHEN FLOW CAPACITY HAS BEEN REDUCED SO AS TO CAUSE FLOODING OR BYPASSING OF THE INLET. DAMAGED OR CLOGGED BAGS SHALL BE REPLACED. A SUPPLY SHALL BE MAINTAINED ON SITE FOR REPLACEMENT OF BAGS. ALL NEEDED REPAIRS SHALL BE INITIATED IMMEDIATELY AFTER THE INSPECTION. DISPOSE ACCUMULATED SEDIMENT AS WELL AS ALL USED BAGS ACCORDING TO THE PLAN NOTES.

DO NOT USE ON MAJOR PAVED ROADWAYS WHERE PONDING MAY CAUSE TRAFFIC HAZARDS.

**STANDARD CONSTRUCTION DETAIL #4-16
FILTER BAG INLET PROTECTION - TYPE M INLET**

NOT TO SCALE



NOTES:

SEED AND SOIL AMENDMENTS SHALL BE APPLIED ACCORDING TO THE RATES IN THE PLAN DRAWINGS PRIOR TO INSTALLING THE BLANKET.

PROVIDE ANCHOR TRENCH AT TOE OF SLOPE IN SIMILAR FASHION AS AT TOP OF SLOPE.

SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS, AND GRASS.

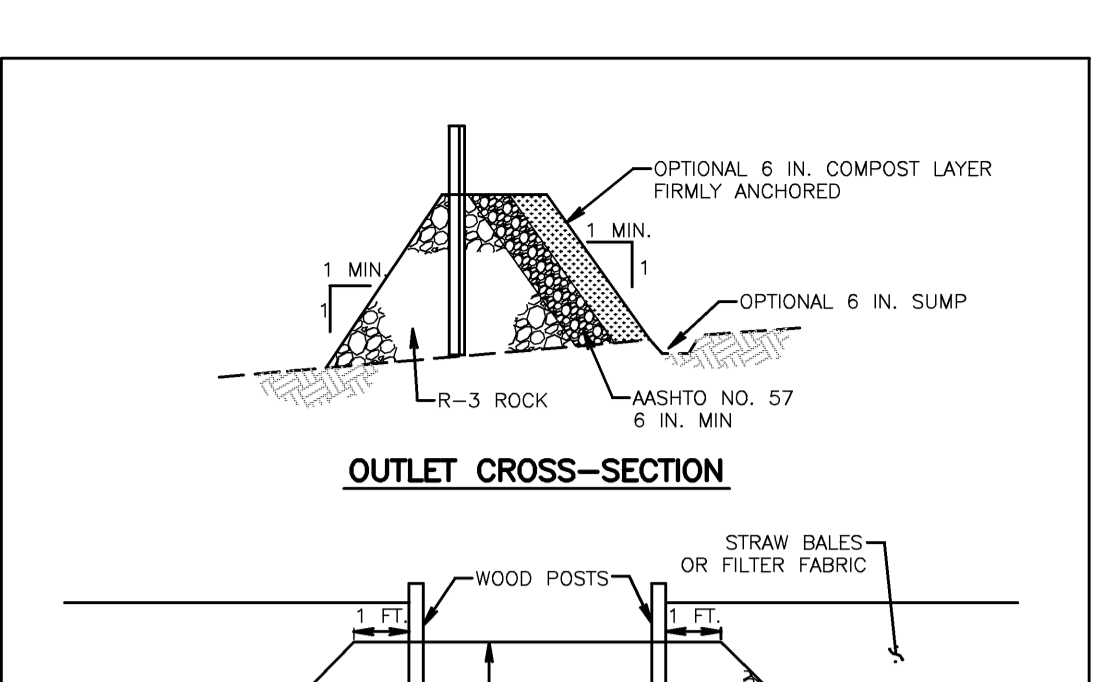
BLANKET SHALL HAVE GOOD CONTINUOUS CONTACT WITH UNDERLYING SOIL THROUGHOUT ENTIRE LENGTH. LAY BLANKET LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH SOIL. DO NOT STRETCH BLANKET.

THE BLANKET SHALL BE STAPLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

BLANKETED AREAS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT UNTIL PERENNIAL VEGETATION IS ESTABLISHED TO A MINIMUM UNIFORM 70% COVERAGE THROUGHOUT THE BLANKETED AREA. DAMAGED OR WEAR BLANKETS SHALL BE RESTORED OR REPLACED WITHIN 4 CALENDAR DAYS.

**STANDARD CONSTRUCTION DETAIL #11-1
EROSION CONTROL BLANKET INSTALLATION**

NOT TO SCALE



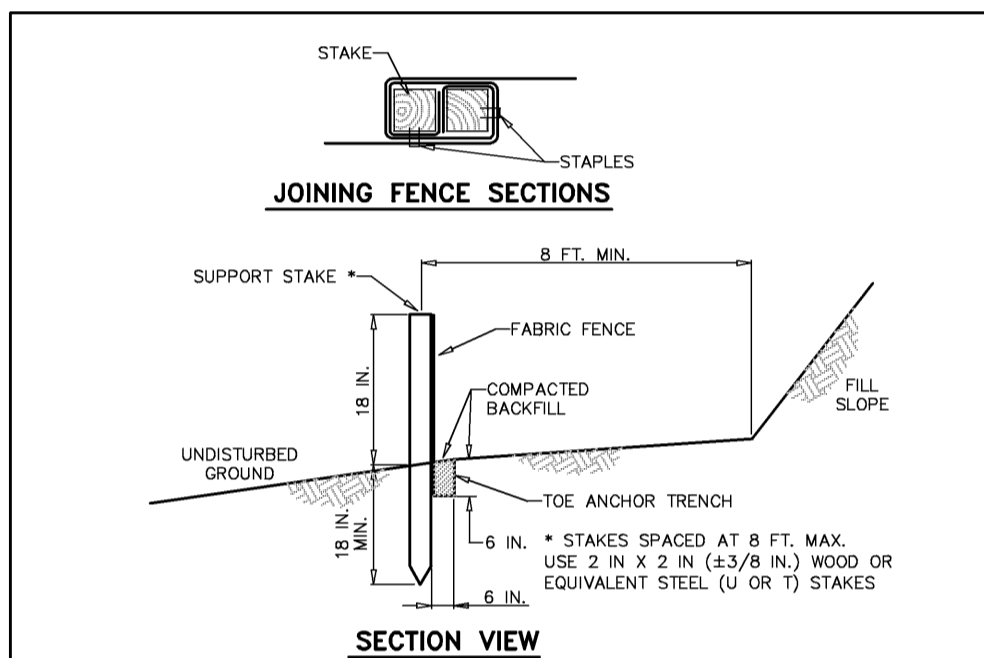
NOTES:

A ROCK FILTER OUTLET SHALL BE INSTALLED WHERE FAILURE OF A SILT FENCE OR STRAW BALE BARRIER HAS OCCURRED DUE TO CONCENTRATED FLOW. ANCHORED COMPOST LAYER SHALL BE USED ON UPSLOPE FACE IN HQ AND EV WATERSHEDS.

SEDIMENT SHALL BE REMOVED WHEN ACCUMULATIONS REACH 1/3 THE HEIGHT OF THE OUTLET.

**STANDARD CONSTRUCTION DETAIL #4-6
ROCK FILTER OUTLET**

NOT TO SCALE



NOTES:

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

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

FABRIC SHALL NOT BE PERMITTED TO CROSS COMPOST FILTER SOCKS.

ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES 1/2 THE ABOVE GROUND HEIGHT OF THE BARRIER AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN.

COMPOST FILTER SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.

BIODEGRADABLE COMPOST FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS. PHOTOGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.

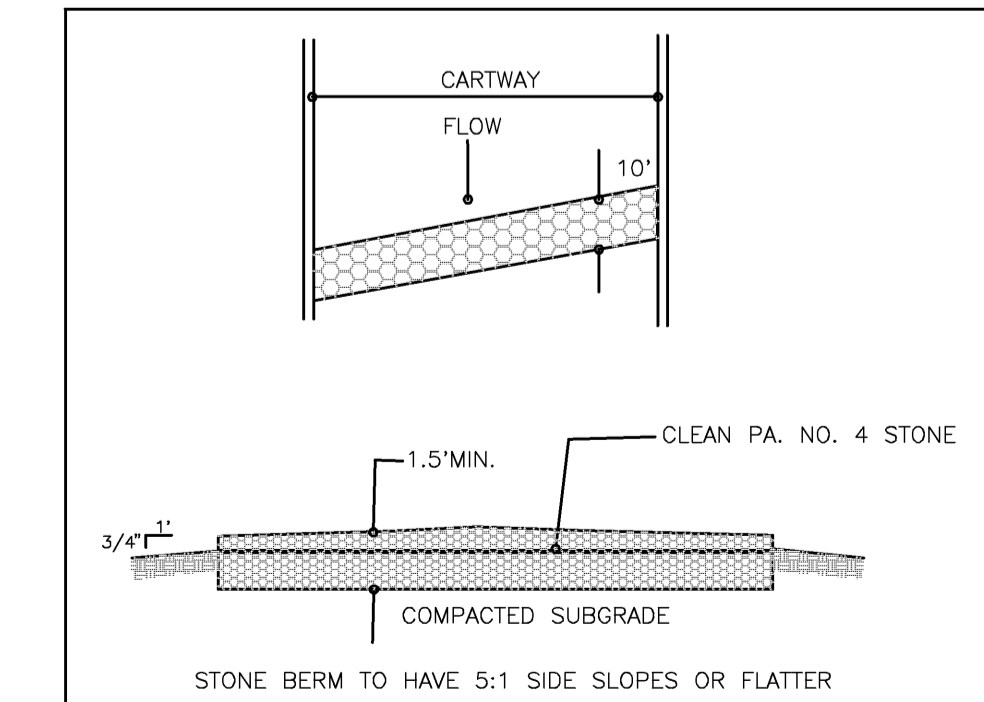
UPON STABILIZATION OF THE AREA TRIBUTARY TO THE SOCK, STAKES SHALL BE REMOVED. THE SOCK MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.

**STANDARD CONSTRUCTION DETAIL #4-1
COMPOST FILTER SOCK**

NOT TO SCALE

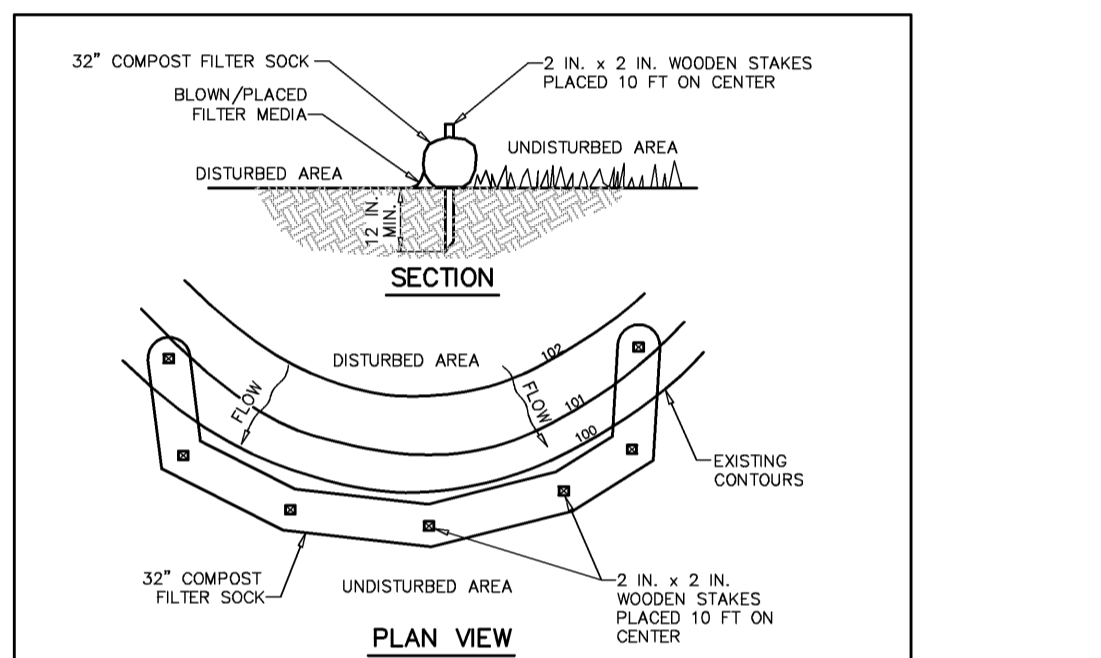
**STANDARD CONSTRUCTION DETAIL #4-7
STANDARD SILT FENCE (18" HIGH)**

NOT TO SCALE



NOTES:

BERM MUST BE INSTALLED IMMEDIATELY FOLLOWING GRADING FOR THE SUBGRADE AND MUST REMAIN UNTIL THE INSTALLATION OF THE STONE BALE COURSE.



NOTES:

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

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

FABRIC SHALL NOT BE PERMITTED TO CROSS COMPOST FILTER SOCKS.

ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES 1/2 THE ABOVE GROUND HEIGHT OF THE BARRIER AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN.

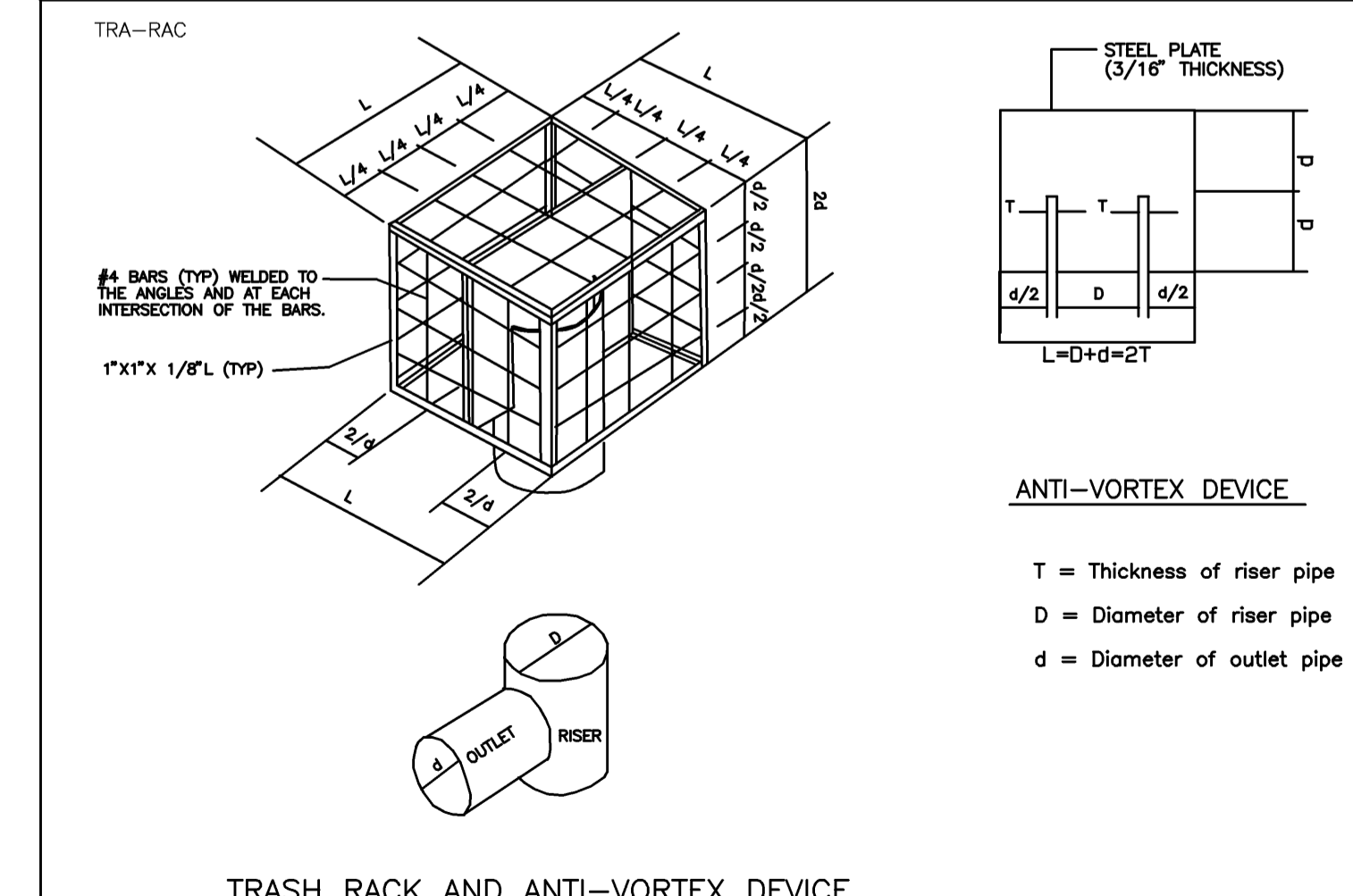
COMPOST FILTER SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.

BIODEGRADABLE COMPOST FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS. PHOTOGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.

UPON STABILIZATION OF THE AREA TRIBUTARY TO THE SOCK, STAKES SHALL BE REMOVED. THE SOCK MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.

**STANDARD CONSTRUCTION DETAIL #4-1
COMPOST FILTER SOCK**

NOT TO SCALE



SEDIMENTATION BASIN MAINTENANCE NOTES:

- Sediment must be removed from basins when storage capacities are reduced to 5000 cubic feet per tributary acre.
- Sedimentation basins must be protected from unauthorized acts of third parties.

SEED MIX SPECIFICATIONS

Grass Seed: All seed shall be fresh, and new crop seed shall be labeled in accordance with the U.S. Department of Agriculture's Rules and Regulations under the Federal Seed Act in effect on the date of invitation for bids. All seed shall be furnished in sealed standard containers, bearing the warranty of the supplier and certifying as to the kind, percent by weight, purity and germination. The grass seed shall contain the percentages of purity and germination indicated on the list furnished with the applicable plan. Seed mix shall be as specified. Spread at the rate of 4 lbs. per 1000 sq. ft. minimum for slopes $1:1$ or greater, use 5 lbs. per 1000 sq. ft.

PERMANENT SEEDING DATES: MARCH 1 TO JUNE 1, AUGUST 1 TO OCTOBER 1

NAME	GRASS SEED	PARTS BY WEIGHT	%PURITY	GERMINATION
Kentucky Blue Grass Varieties		35%	95%	85%
Pennator or Pennfine Perennial Ryegrass		35%	95%	90%
Pennlawn Fescue Annual Ryegrass		15%	95%	85%
		15%	90%	80%

Mulch: Shall be hay which is free of weeds and seeds, not moldy or rotten, and shall be applied at all disturbed areas at a rate of 3 tons per acre.

Kentucky Bluegrass Sod (if called for) Sod shall be graded under supervision of the Bureau of Plant Industry Pennsylvania Department of Agriculture or shall be composed of only Blue Tag Certified Seed.

Temporary Seeding Dates: Anytime

Temporary Seeding: Shall be annual ryegrass at 40 lbs. per acre. Site preparation - apply 1 ton of agricultural grade limestone per acre plus 50-50 fertilizer applied at rate of 25 lbs/1000 sq. ft. and work in where possible. After seeding, mulch with hay or straw at a rate of 3 tons per acre.

Hydroseeding: Shall be lime, fertilizer, grass seeds, legume seeds and inoculant mixed with water and applied as slurry, at a rate of 1,000 gallons per acre. Fertilizer: mix at a rate of 50-100-100 per acre. Inoculant: use 3 times rate recommended on the package when seeding with a hydroseeder.

PERMANENT SEEDING:

For permanent seeding, soil supplements shall be applied to areas to be seeded as follows: 10-20-20 fertilizer shall be applied to 25 LBS/1000 Sq. Ft. pulverized dolomite limestone at 90 LBS/1000 Sq. Ft.

SEEDING AND MULCH NOTES

- Any undisturbed area on which activity has ceased must be seeded and mulched immediately. During non-germinating periods, mulch must be applied at the recommended rates. Disturbed areas which are not at finished grade and which will be redistributed within 1 year may be seeded and mulched with a quick growing temporary seeding mixture and mulch. Disturbed areas which are either at finished grade or will not be redistributed within 1 year must be seeded and mulched with a permanent seed mixture and mulch.
- Diversions, channels, sedimentation basins, sediment trap must be stabilized immediately with erosion control blanket. Stockpiles must be seeded and mulched immediately.
- Hay or straw mulch must be applied at rates of at least 3.0 tons per acre.
- Graded areas are to be temporarily seeded and mulched immediately following earth moving procedures. Seed shall be annual rye grass applied at the rate of 3 lbs. per 1000 sq. ft.
- Establish permanent seeding as soon as possible after final grading is complete. Permanent seeding shall be 15% Pennlawn Red Fescue, 35% Pennfine Perennial Ryegrass, 35% Kentucky Bluegrass and 15% annual Ryegrass applied at the rate of 4 lbs. per 1000 sq. ft.
- Soils testing should be performed with recommendations provided for appropriate seed mixes and rates based on the soils at the site.

TOPSOIL PLACEMENT NOTES

Areas which are to top-soiled shall be compacted to a minimum depth of 3 to 5 inches (6 to 12 inches on compacted soils) prior to placement of topsoil. Areas to be vegetated shall have a minimum 4 inches of topsoil in place prior to seeding and mulching, i.e. yards.

**PRELIMINARY/FINAL
EROSION & SEDIMENTATION
CONTROL DETAILS**

1 1-28-19 REVISED PER ENGINEER COMMENTS

SUBDIVISION/LAND DEVELOPMENT PLAN FOR THE MALVERN SCHOOL

WEST WHITELAND TOWNSHIP CHESTER COUNTY, PA.

Edward B. Walsh & Associates, Inc. CIVIL ENGINEERS & LAND SURVEYORS

LIONVILLE PROFESSIONAL CENTER
125 Dowlin Forge Rd.
Eaton, Pennsylvania 19341
Phone: 610-903-0060
Fax: 610-903-0080

Project- 4432
Date- 1114-18
Scale- AS NOTED
Drawn- LR
Checked- AE
Sheet- 5 OF 10

Plotted: 1/29/2019 File: F:\JB\4432\4432-82.pro

POST-CONSTRUCTION MAINTENANCE OF STORMWATER FACILITIES AND OVERALL SITE

THE OPERATION AND MAINTENANCE OF THE BMP'S ON THE SITE ARE THE RESPONSIBILITY OF THE OWNER.

- STORMWATER MANAGEMENT FACILITY DETENTION BASIN
1. SEDIMENT MUST BE REMOVED WHEN SEDIMENT IS THREE INCHES DEEP. SEDIMENT REMOVAL MUST BE PERFORMED WHEN IT HAS NO STANDING WATER...

- RECHARGE BED
1. SEDIMENT MUST BE REMOVED WHEN SEDIMENT IS THREE INCHES DEEP IN ANY STRUCTURE IN THE SYSTEM. SEDIMENT REMOVAL MUST BE PERFORMED WHEN IT HAS NO STANDING WATER...

OVERALL SITE
REGULAR REMOVAL OF LITTER AND DEBRIS WITHIN THE PROPERTY SHALL BE PERFORMED. ANY TRASH, DEBRIS, SEDIMENT, ETC., SHALL BE REMOVED AND PROPERLY DISPOSED OF...

REMEDY FOR LACK OF MAINTENANCE AND NECESSARY REPAIRS
THE STORMWATER MANAGEMENT FACILITIES SHOWN ON THESE PLANS, INCLUDING INLETS, STORM DRAIN PIPES, DETENTION SYSTEMS AND THE RECHARGE...

PCSM SHORT AND LONG TERM OPERATIONS AND MAINTENANCE REQUIREMENTS
THE SHORT TERM OPERATION REFERS TO THE TIME PERIOD WHEN THE NPDES PERMIT IS ACTIVE FOR THE SITE.

NO VEHICLES MAY PARK OR DRIVE OVER THE SYSTEMS, NO STRUCTURES THAT ARE NOT COMPONENTS OF AN APPROVED BMP SHALL BE PERMITTED WITHIN OR ON TOP OF AN AREA DESIGNATED FOR STORMWATER INFILTRATION...

POST-CONSTRUCTION STORMWATER MANAGEMENT FACILITIES INSPECTIONS:
THE HOMEOWNERS ASSOC. IS RESPONSIBLE FOR ENSURING INSPECTIONS OF THE SUBDIVISION BMP SYSTEMS ARE PERFORMED BY A PROFESSIONAL ENGINEER.

THE PCSWM PLAN/DESIGN PROVIDES THE FOLLOWING:
1. PRESERVE THE INTEGRITY OF STREAM CHANNELS AND MAINTAIN AND PROTECT THE PHYSICAL, BIOLOGICAL AND CHEMICAL QUALITIES OF THE RECEIVING STREAM.

CONSTRUCTION DEBRIS HANDLING:
1. CONSTRUCTION DEBRIS MUST BE STORED IN REFUSE CONTAINERS FOR REMOVAL FROM THE SITE. THE CONTAINERS MUST BE PLACED IN ACCESSIBLE LOCATIONS.

ACT 187 SERIAL NUMBER 008-6945
EDWARD B. WALSH & ASSOCIATES, INC. DOES NOT GUARANTEE THE ACCURACY OF THE LOCATIONS FOR EXISTING SUBSURFACE UTILITY LINES, STRUCTURES, ETC. SHOWN ON THE PLANS...

UTILITIES NOTIFIED
VERIZON
COMCAST CABLE TV
COMCAST COMMUNICATION
PEPCO

SOIL RESOLUTION NOTES
1. ANY WATER THAT IS ENCOUNTERED DURING EXCAVATION MUST BE PUMPED TO AN APPROVED DRAINAGE DEVICE.

SITE GEOLOGY
THE SITE GEOLOGY DOES NOT HAVE CHARACTERISTICS THAT ARE PRONE TO POSSIBLE GROUND WATER POLLUTION.

ASSESSMENT MAP 67-4, PARCEL 38 (UPI NO. 67-4-38)

POST CONSTRUCTION
SNOUT BMP MAINTENANCE NOTES:
MONTHLY MONITORING FOR THE FIRST YEAR OF A NEW INSTALLATION. RECOMMENDED AFTER THE SITE HAS BEEN STABILIZED...

POST CONSTRUCTION STORM WATER NOTES
1. AS-BUILT PLANS OF THE STORMWATER BMP'S FOR EACH PROJECT PHASE SHALL BE PROVIDED WITHIN SIX MONTHS FOLLOWING THE COMPLETION OF EACH FACILITY AND/OR PHASE...

LEGEND
430 EXISTING INDEX CONTOUR
EXISTING INTERIOR CONTOUR
PROPOSED CONTOUR
PROPOSED SPOT ELEVATION

BMP CONSTRUCTION OVERSIGHT AND NPDES NOTICE OF TERMINATION REQUIREMENTS NOTES
THE PERMITTEE SHALL PROVIDE ENGINEERING CONSTRUCTION OVERSIGHT FOR THE PROPOSED STORMWATER BMP'S. A LICENSED PROFESSIONAL ENGINEER...

STORMWATER MANAGEMENT FACILITY CONSTRUCTION NOTES
1. AREAS TO BE USED FOR STORMWATER INFILTRATION (HEREAFTER "SUBJECT AREAS") SHALL BE DELIMITED WITH ORANGE SAFETY FENCE PRIOR TO START OF CONSTRUCTION.

CRITICAL STAGES
1. INSTALLATION OF THE INFILTRATION BED.

POST CONSTRUCTION STORMWATER MANAGEMENT

THE PERMITTEE SHALL INCLUDE WITH THE NOTICE OF TERMINATION "RECORD DRAWINGS" WITH A FINAL CERTIFICATION STATEMENT FROM A LICENSED PROFESSIONAL, WHICH READS AS FOLLOWS:

OWNERS AFFIDAVIT OF ACKNOWLEDGMENT
I, JOSEPH SCANDONE, HEREBY ACKNOWLEDGE THAT THE STORMWATER BEST MANAGEMENT PRACTICES (BMP'S) DEPICTED ON THIS PLAN SHALL BE A PERMANENT FIXTURE ON THE PROPERTY AND SHALL NOT BE ALTERED, OR REMOVED, WITHOUT THE APPROVAL OF A REVISED PLAN BY WESTTOWN TOWNSHIP.

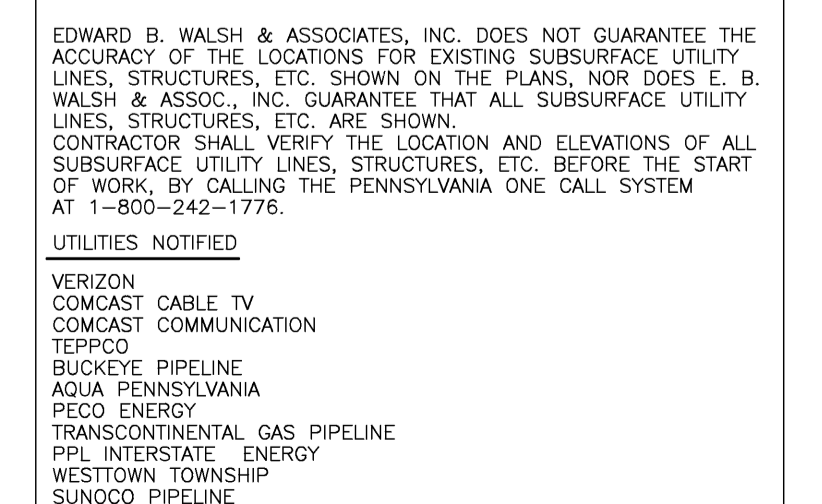
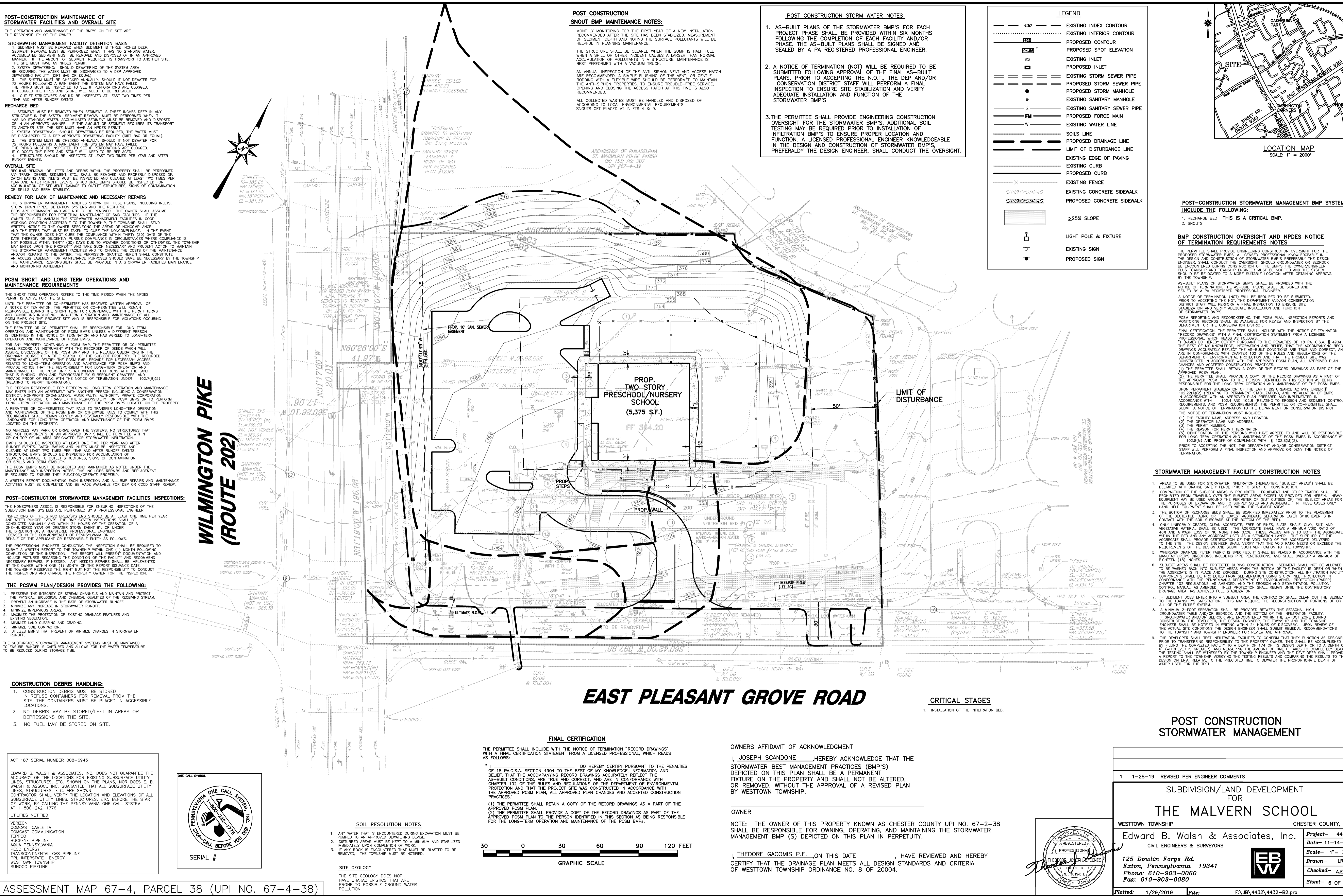
OWNER
NOTE: THE OWNER OF THIS PROPERTY KNOWN AS CHESTER COUNTY UPI NO. 67-2-38 SHALL BE RESPONSIBLE FOR OWNING, OPERATING, AND MAINTAINING THE STORMWATER MANAGEMENT BMP (S) DEPICTED ON THIS PLAN IN PERPETUITY.

I, THEODORE GACOMIS P.E., ON THIS DATE, HAVE REVIEWED AND HEREBY CERTIFY THAT THE DRAINAGE PLAN MEETS ALL DESIGN STANDARDS AND CRITERIA OF WESTTOWN TOWNSHIP ORDINANCE NO. 8 OF 20004.

THE PERMITTEE SHALL INCLUDE WITH THE NOTICE OF TERMINATION "RECORD DRAWINGS" WITH A FINAL CERTIFICATION STATEMENT FROM A LICENSED PROFESSIONAL, WHICH READS AS FOLLOWS:

DO HEREBY CERTIFY PURSUANT TO THE PENALTIES OF 18 P.S. SECTION 4804 TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF, THAT THE ACCOMPANYING RECORD DRAWINGS ACCURATELY REFLECT THE AS-BUILT CONDITIONS, ARE TRUE AND CORRECT, AND ARE IN CONFORMANCE WITH CHAPTER 102 OF THE RULES AND REGULATIONS OF THE DEPARTMENT OF ENVIRONMENTAL PROTECTION AND THAT THE PROJECT SITE WAS CONSTRUCTED IN ACCORDANCE WITH THE APPROVED PCSWM PLAN, ALL APPROVED PLAN CHANGES AND ACCEPTED CONSTRUCTION PRACTICES.

GRAPHIC SCALE
30 0 30 60 90 120 FEET



WESTTOWN TOWNSHIP CHESTER COUNTY, PA. Edward B. Walsh & Associates, Inc. CIVIL ENGINEERS & SURVEYORS

1 1-28-19 REVISED PER ENGINEER COMMENTS

SUBDIVISION/LAND DEVELOPMENT FOR THE MALVERN SCHOOL

125 Dowlin Forge Rd. Easton, Pennsylvania 19341 Phone: 610-903-0060 Fax: 610-903-0080

Plotted: 1/29/2019 File: F:\JWB\4432\4432-92.pro

Project- 4432 Date- 11-14-18 Scale- 1"= 30' Drawn- LR Checked- A.E. Sheet- 6 OF 10

PLANT SCHEDULE
DECIDUOUS TREES - CANOPY TREES AND ORNAMENTAL TREES

SYMBOL	QTY.	BOTANICAL NAME	COMMON NAME	HEIGHT	CALIPER	CONDITION
⊙	13	Acer Rubrum Red Sunset	Red Sunset Maple	13'-15'	3 1/2"	B & B
⊙	7	Quercus Phellos	Willow Oak	13'-15'	3 1/2"	B & B
⊙	6	Platanus Acerifolia Bloodgood	Bloodgood London Plane Tree	13'-15'	3 1/2"	B & B
⊙	7	Cedrelia Tril. Inermis True Shade	True Shade Honeylocust	13'-15'	3 1/2"	B & B
⊙	6	Prunus Sargentii	Sargent Cherry	10'-12'	3 1/2"	B & B
⊙	10	Molus Floribunda	Flowering Crapeppole	10'-12'	3 1/2"	B & B
⊙	3	Acer Griseum	Paper Bark Maple	10'-12'	3 1/2"	B & B

DECIDUOUS TREES 52

LANDSCAPE REQUIREMENTS

STREET FRONTAGE	CANOPY TREES	ORNAMENTAL TREES	SHRUBS
363' PLEASANT GROVE RD	8	6	23
282' WILMINGTON PIKE	6	5	18

PROPERTY LINES

NE 60'	NE 83'	NE 130'	SE 01'
=252'	3	3	8
ARC =130'	2	2	4
=220'	3	3	7

PARKING LOT

TOTAL	29	19	70

MINIMUM PLANTING SIZE

REQUIRED

DECIDUOUS TREES	SHRUBS, HEDGES	EVERGREEN TREES
3 1/2" CAL	2' HT	8' HT

PLANT SCHEDULE
SHRUBS

SYMBOL	QTY.	BOTANICAL NAME	COMMON NAME	HEIGHT	CONDITION
IG	50	Ilex Glabra Densa	Densa Inkberry	2'-2 1/2'	B & B
JS	58	Juniperus Chinensis Sargentii	Sargent Juniper	18"-24"	B & B
MP	17	Myrica Pennsylvanica	Northern Bayberry	2'-2 1/2'	B & B
VP	28	Viburnum Pragnense	Prague Viburnum	2'-2 1/2'	B & B
VR	26	Viburnum Rhytidophyllum	Lutherboer Viburnum	2'-2 1/2'	B & B
FG	17	Fothergilla Gardenii	Dwarf Fothergilla	2'-2 1/2'	B & B

TOTAL SHRUBS = 196

PLANT SCHEDULE
EVERGREEN TREES

SYMBOL	QTY.	BOTANICAL NAME	COMMON NAME	HEIGHT	CONDITION
TO	12	Thuja Occidentalis Nigra	Dark American Arborvitae	8'	B & B
AB	10	Abies Concolor	White Fir	8'	B & B
PA	10	Picea Abies	Norway Spruce	8'	B & B
PST	7	Pseudotsuga Taxifolia	Douglas Fir	8'	B & B

TOTAL EVERGREEN TREES = 39

PLANT SCHEDULE
COMPENSATORY TREES

SYMBOL	QTY.	BOTANICAL NAME	COMMON NAME	HEIGHT	CALIPER	CONDITION
Z	4	Zelkova Serrata Village Green	Village Green Zelkova	10'-12'	3 1/2"	B & B
H	3	Halesia Carolina	Carolina Silverbell	10'-12'	3 1/2"	B & B
U	2	Liriodendron Tulipifera	Tulip Tree	10'-12'	3 1/2"	B & B
PK	10	Prunus Serrulata Kwanon	Kwanon Cherry	10'-12'	3 1/2"	B & B
CL	4	Cupressus X Leylandii	Leyland Cypress	8'	3 1/2"	B & B
PT	6	Pinus Strobus	Eastern White Pine	8'	3 1/2"	B & B Sheared
MF	7	Molus Floribunda	Japanese Flowering Cherry	8'-10'	3 1/2"	B & B
AC	5	Acer Campestre	Hedge Maple	8'-10'	3 1/2"	B & B
BN	3	Betula Nigra Heritage	Heritage Birch	10'-12'	3 1/2"	B & B

TOTAL COMPENSATORY TREES = 44

PARKING LOT

PLANTER ISLAND >20' = 2 TREES + 20 SHRUBS ● 2 ISLANDS = 4 TREES + 40 SHRUBS
<20' = 1 TREE + 10 SHRUBS ● 3 ISLANDS = 3 TREES + 30 SHRUBS

TOTAL PARKING LOT PLANTER ISLAND = 7 TREES + 70 SHRUBS

LEGEND

- PROPOSED SHRUBS
- PROPOSED DECIDUOUS TREE
- EXISTING TREE TO BE PROTECTED
- TREE PROTECTION FENCE
- PROPOSED EVERGREEN TREES

COMPENSATORY TREES PROVIDED

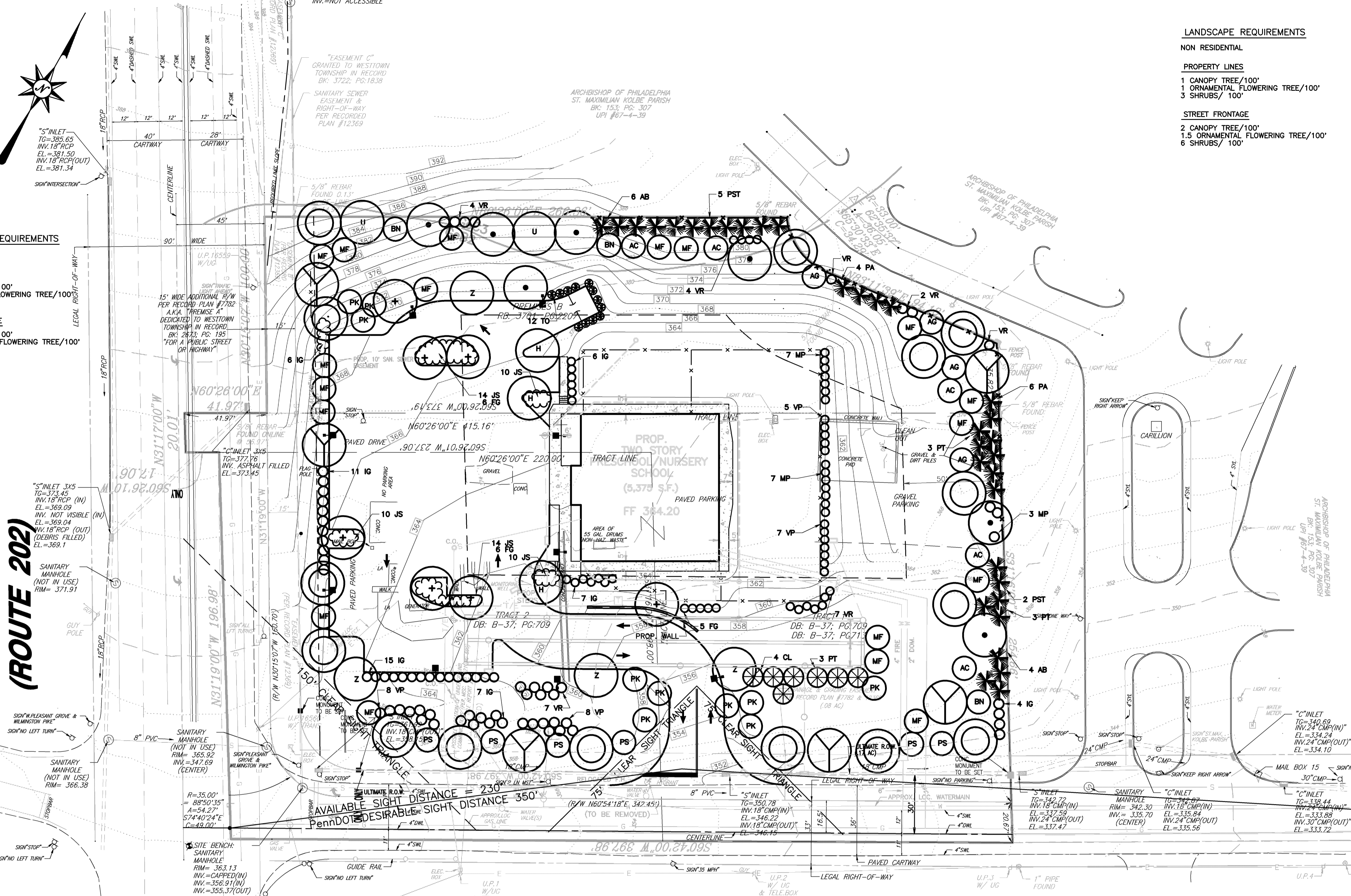
84 COMPENSATORY TREES

COMPENSATORY TREE CALCULATION

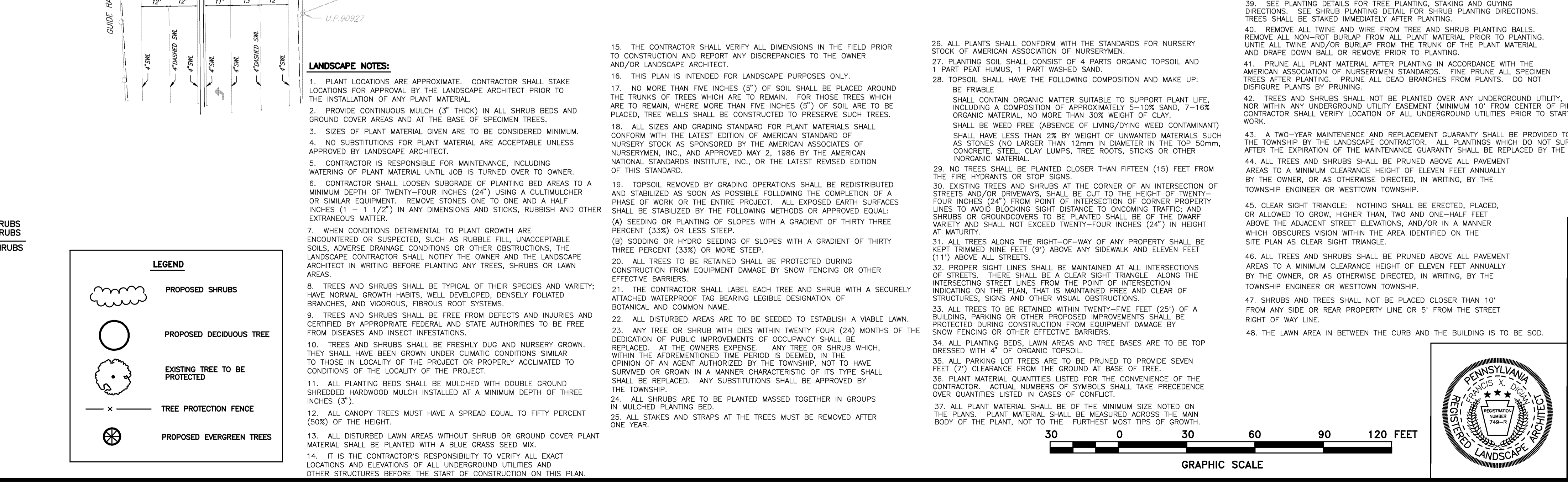
TOTAL CALIPER INCHES TO BE REMOVED = 608"

1" REPLACEMENT/4" REMOVED = 152" NEW TREE CALIPER REQUIRED
152"/3 1/2" = 44 COMPENSATORY TREES REQUIRED

44 COMPENSATORY TREES PROVIDED



EAST PLEASANT GROVE ROAD



LANDSCAPE REQUIREMENTS

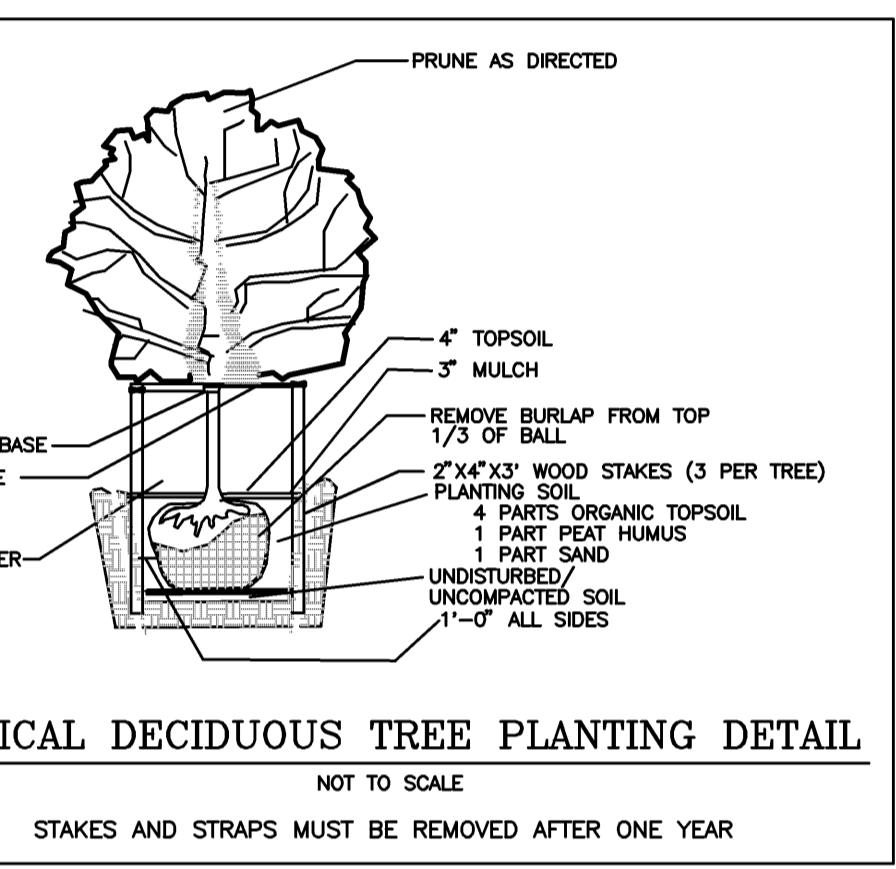
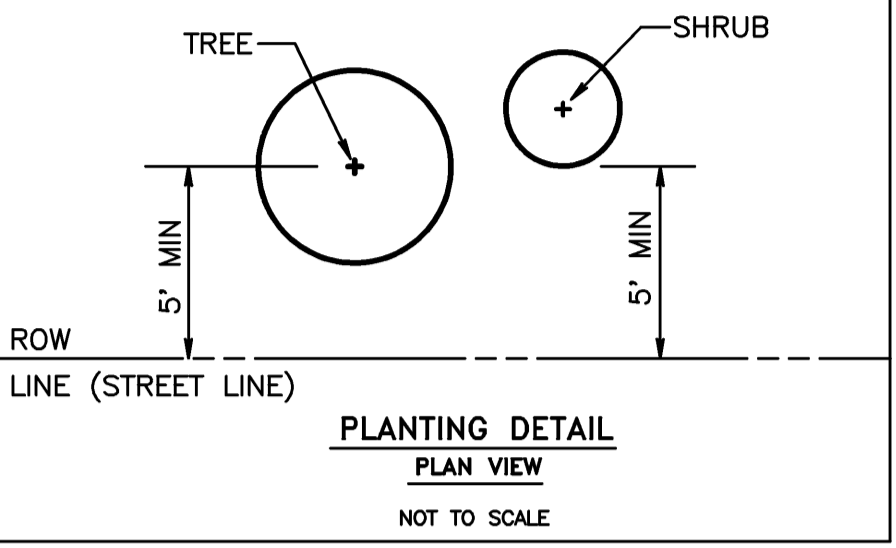
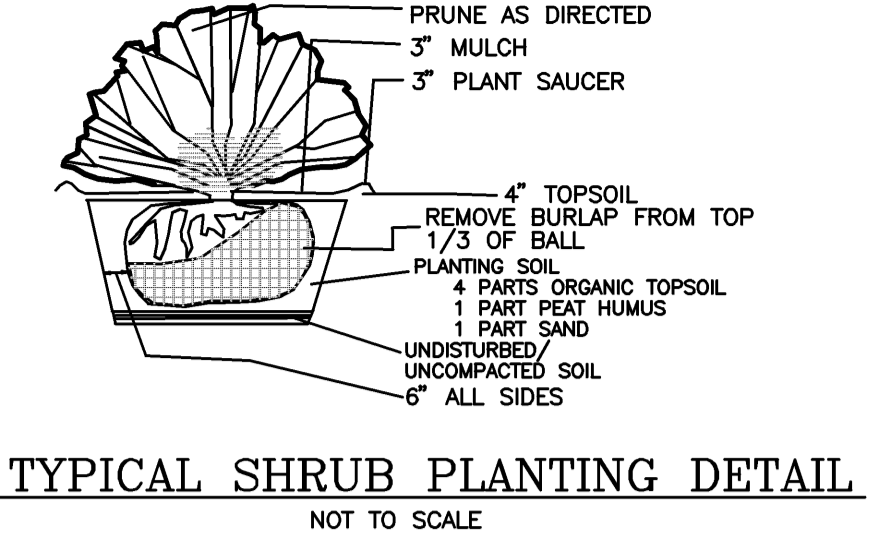
NON RESIDENTIAL

PROPERTY LINES

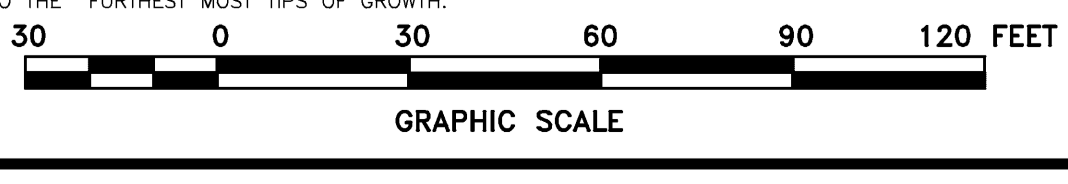
1 CANOPY TREE/100'
1 ORNAMENTAL FLOWERING TREE/100'
3 SHRUBS/ 100'

STREET FRONTAGE

2 CANOPY TREE/100'
1.5 ORNAMENTAL FLOWERING TREE/100'
6 SHRUBS/ 100'



- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN THE FIELD PRIOR TO CONSTRUCTION AND REPORT ANY DISCREPANCIES TO THE OWNER AND/OR LANDSCAPE ARCHITECT.
- THIS PLAN IS INTENDED FOR LANDSCAPE PURPOSES ONLY.
- NO MORE THAN FIVE INCHES (5") OF SOIL SHALL BE PLACED AROUND THE TRUNKS OF TREES WHICH ARE TO REMAIN. FOR THOSE TREES WHICH ARE TO REMAIN, WHERE MORE THAN FIVE INCHES (5") OF SOIL ARE TO BE PLACED, TREE WELLS SHALL BE CONSTRUCTED TO PRESERVE SUCH TREES.
- ALL SIZES AND GRADING STANDARD FOR PLANT MATERIALS SHALL CONFORM WITH THE LATEST EDITION OF AMERICAN STANDARD OF NURSERY STOCK AS SPONSORED BY THE AMERICAN ASSOCIATES OF NURSERYMEN, INC., AND APPROVED MAY 2, 1986 BY THE AMERICAN NATIONAL STANDARDS INSTITUTE, INC., OR THE LATEST REVISED EDITION OF THIS STANDARD.
- TOPSOIL REMOVED BY GRADING OPERATIONS SHALL BE REDISTRIBUTED AND STABILIZED AS SOON AS POSSIBLE FOLLOWING THE COMPLETION OF A PHASE OF WORK OR THE ENTIRE PROJECT. ALL EXPOSED EARTH SURFACES SHALL BE STABILIZED BY THE FOLLOWING METHODS OR APPROVED EQUAL: (A) SEEDING OR PLANTING OF SLOPES WITH A GRADIENT OF THIRTY THREE PERCENT (33%) OR LESS STEEP. (B) SODDING OR HYDRO SEEDING OF SLOPES WITH A GRADIENT OF THIRTY THREE PERCENT (33%) OR MORE STEEP.
- ALL TREES TO BE RETAINED SHALL BE PROTECTED DURING CONSTRUCTION FROM EQUIPMENT DAMAGE BY SNOW FENCING OR OTHER EFFECTIVE BARRIERS.
- THE CONTRACTOR SHALL LABEL EACH TREE AND SHRUB WITH A SECURELY ATTACHED WATERPROOF TAG BEARING LEGIBLE DESIGNATION OF BOTANICAL AND COMMON NAME.
- ALL DISTURBED AREAS ARE TO BE SEED TO ESTABLISH A VIBBLE LAWN.
- ANY TREE OR SHRUB WITH DIES WITHIN TWENTY FOUR (24) MONTHS OF THE DEDICATION OF PUBLIC IMPROVEMENTS OF OCCUPANCY SHALL BE REPLACED AT THE OWNER'S EXPENSE. ANY TREE OR SHRUB WHICH, WITHIN THE AFORESAIDED TIME PERIOD IS DEEMED, IN THE OPINION OF AN AGENT AUTHORIZED BY THE TOWNSHIP, NOT TO HAVE SURVIVED OR GROWN IN A MANNER CHARACTERISTIC OF ITS TYPE SHALL BE REPLACED. ANY SUBSTITUTIONS SHALL BE APPROVED BY THE TOWNSHIP.
- ALL SHRUBS ARE TO BE PLANTED MASSSED TOGETHER IN GROUPS IN MULCHED PLANTING BED.
- ALL STAKES AND STRAPS AT THE TREES MUST BE REMOVED AFTER ONE YEAR.
- ALL AREAS TO BE LANDSCAPED, ESPECIALLY NEXT TO BUILDING AREAS, SHALL BE EXCAVATED OF ALL BUILDING MATERIALS AND ROCK SOILS AND BACKFILLED WITH A GOOD, MEDIUM TEXTURED PLANTING SOIL. ALL LAWN AREAS SHALL HAVE A MINIMUM OF 4" OF TOPSOIL.
- SEE PLANTING DETAILS FOR TREE PLANTING, STAKING AND GUYING DIRECTIONS. SEE SHRUB PLANTING DETAIL FOR SHRUB PLANTING DIRECTIONS. TREES SHALL BE STAKED IMMEDIATELY AFTER PLANTING.
- REMOVE ALL TWINE AND WIRE FROM TREE AND SHRUB PLANTING BALLS. REMOVE ALL NON-ROT BURLAP FROM ALL PLANT MATERIAL PRIOR TO PLANTING. UNTIL ALL TWINE AND/OR BURLAP FROM THE TRUNK OF THE PLANT MATERIAL AND DRAPE DOWN BALL OR REMOVE PRIOR TO PLANTING.
- PRUNE ALL PLANT MATERIAL AFTER PLANTING IN ACCORDANCE WITH THE AMERICAN ASSOCIATION OF NURSERYMEN STANDARDS. PRUNE ALL SPECIMEN TREES AFTER PLANTING. PRUNE ALL DEAD BRANCHES FROM PLANTS. DO NOT DISFIGURE PLANTS BY PRUNING.
- TREES AND SHRUBS SHALL NOT BE PLANTED OVER ANY UNDERGROUND UTILITY, NOR WITHIN ANY UNDERGROUND UTILITY EASEMENT (MINIMUM 10' FROM CENTER OF PIPE). CONTRACTOR SHALL VERIFY LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO STARTING WORK.
- A TWO-YEAR MAINTENANCE AND REPLACEMENT GUARANTY SHALL BE PROVIDED TO THE TOWNSHIP BY THE LANDSCAPE CONTRACTOR. ALL PLANTINGS WHICH DO NOT SURVIVE AFTER THE EXPIRATION OF THE MAINTENANCE GUARANTY SHALL BE REPLACED BY THE OWNER.
- ALL TREES AND SHRUBS SHALL BE PRUNED ABOVE ALL PAVEMENT AREAS TO A MINIMUM CLEARANCE HEIGHT OF ELEVEN FEET ANNUALLY BY THE OWNER, OR AS OTHERWISE DIRECTED, IN WRITING, BY THE TOWNSHIP ENGINEER OR WESTTOWN TOWNSHIP.
- CLEAR SIGHT TRIANGLE: NOTHING SHALL BE ERRECTED, PLACED, OR ALLOWED TO GROW, HIGHER THAN, TWO AND ONE-HALF FEET ABOVE THE ADJACENT STREET ELEVATIONS, AND/OR IN A MANNER WHICH OBSCURES VISION WITHIN THE AREA IDENTIFIED ON THE SITE PLAN AS CLEAR SIGHT TRIANGLE.
- ALL TREES AND SHRUBS SHALL BE PRUNED ABOVE ALL PAVEMENT AREAS TO A MINIMUM CLEARANCE HEIGHT OF ELEVEN FEET ANNUALLY BY THE OWNER, OR AS OTHERWISE DIRECTED, IN WRITING, BY THE TOWNSHIP ENGINEER OR WESTTOWN TOWNSHIP.
- SHRUBS AND TREES SHALL NOT BE PLACED CLOSER THAN 10' FROM ANY SIDE OR REAR PROPERTY LINE OR 5' FROM THE STREET RIGHT-OF-WAY LINE.
- THE LAWN AREA IN BETWEEN THE CURB AND THE BUILDING IS TO BE SOD.



NOTE: DESIRABLE SIGHT DISTANCES TAKEN FROM PennDOT 441-8 DRIVEWAY DESIGN TABLE 1.

PRELIMINARY/FINAL LANDSCAPE PLAN

1 1-28-19 REVISED PER ENGINEER COMMENTS

SUBDIVISION/LAND DEVELOPMENT FOR
THE MALVERN SCHOOL

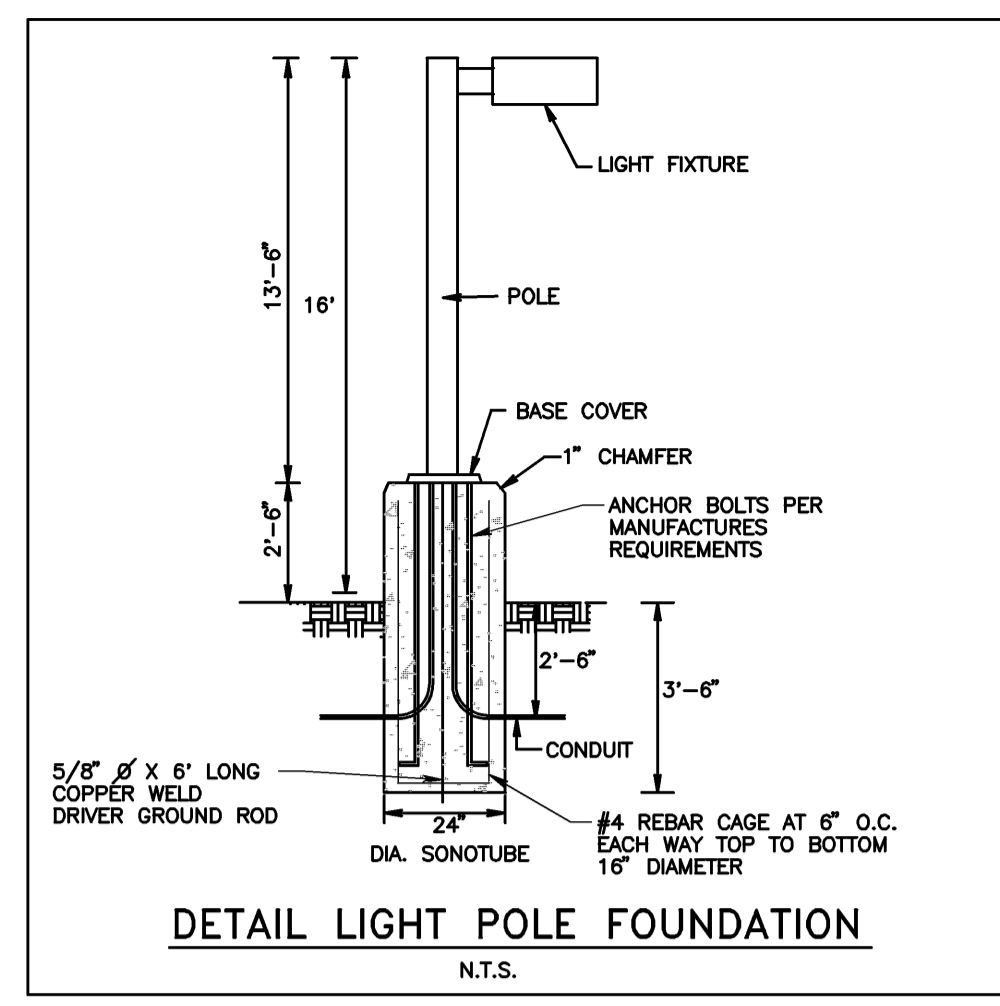
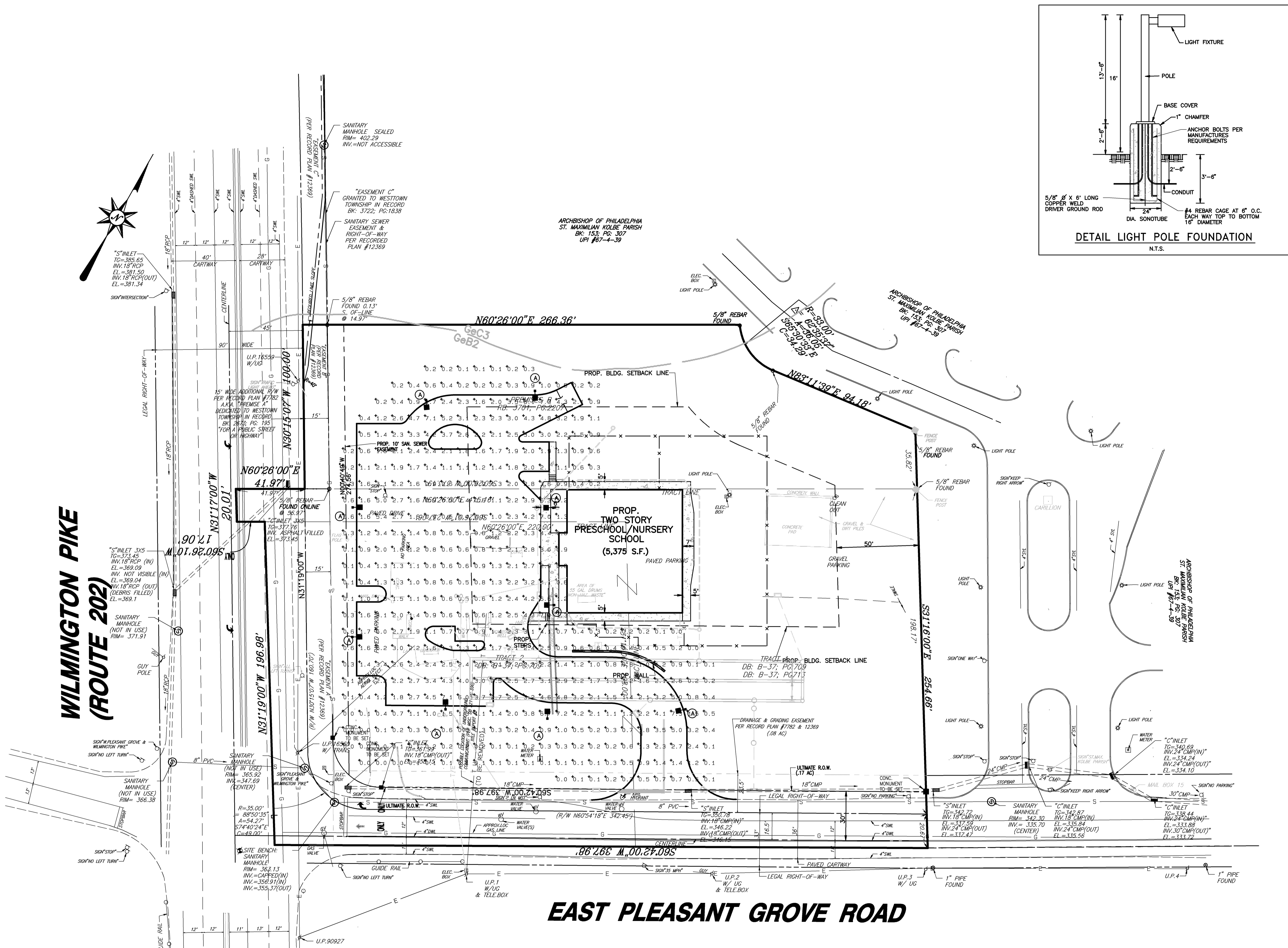
WESTTOWN TOWNSHIP CHESTER COUNTY, PA.

Edward B. Walsh & Associates, Inc.
CIVIL ENGINEERS & SURVEYORS

125 DOWLIN FORGE RD.
ESTON, PENNSYLVANIA 19341
Phone: 610-903-0060
Fax: 610-903-0080

Project- 4432
Date- 11-14-18
Scale- 1" = 30'
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Sheet- 7 OF 10

Plotted: 1/29/2019 File: F:\J\B\4432\4432-B2.prc



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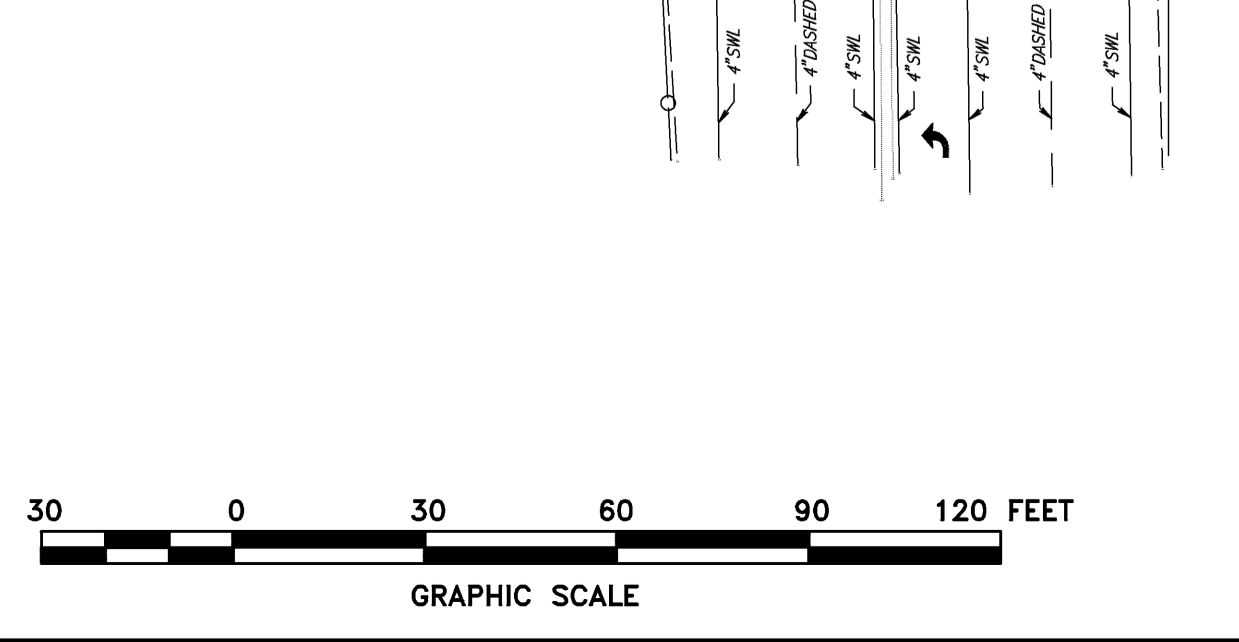
Site & Area
Form 10 LED
Square foot mount

Product: Form 10 LED
Color: White
Type: LED
Size: 10" x 10"

Ordering guide

Part	Quantity	Order	LED Color	Mounting	Height	Control	Electrical	Notes
DHLL	32	400	4000K	Form 10	16'	00	00	1. 10' Pole
DRIVER	32	400	4000K	Form 10	16'	00	00	1. 10' Pole
ANCHOR	32	400	4000K	Form 10	16'	00	00	1. 10' Pole
SONOTUBE	32	400	4000K	Form 10	16'	00	00	1. 10' Pole
REBAR	32	400	4000K	Form 10	16'	00	00	1. 10' Pole
CONCRETE	32	400	4000K	Form 10	16'	00	00	1. 10' Pole
CHAMFER	32	400	4000K	Form 10	16'	00	00	1. 10' Pole
CONDUIT	32	400	4000K	Form 10	16'	00	00	1. 10' Pole
GROUND ROD	32	400	4000K	Form 10	16'	00	00	1. 10' Pole

Return to ordering guide



- GENERAL NOTES**
- POST-APPROVAL ALTERATIONS TO LIGHTING PLANS OR INTENDED SUBSTITUTIONS FOR APPROVED LIGHTING EQUIPMENT SHALL BE SUBMITTED TO THE TOWNSHIP FOR REVIEW AND APPROVAL.
 - THE TOWNSHIP RESERVES THE RIGHT TO CONDUCT POST-INSTALLATION NIGHTTIME INSPECTIONS TO VERIFY COMPLIANCE WITH THE ZONING ORDINANCE AND IF APPROPRIATE, TO REQUIRE REMEDIAL ACTION AT NO EXPENSE TO THE TOWNSHIP.
 - THIS PROJECT WAS DESIGNED ACCORDING TO THE 9TH EDITION OF THE IESNA LIGHTING HANDBOOK. THE FOLLOWING CRITERIA WAS HELD.
 - THE MAINTAINED AVERAGE FOOT CANDLES IN A PARKING LOT FOR A COMMERCIAL USE OF MEDIUM ACTIVITY SHALL NOT EXCEED 2.0 (0.5 x 4) USING A UNIFORMITY RATIO OF 4:1
 - THE INTENSITY OF ILLUMINATION PROJECTED ONTO A RESIDENTIAL PROPERTY FROM ANOTHER PROPERTY SHALL NOT EXCEED 0.1 VERTICAL FOOTCANDLE MEASURED LINE-OF-SIGHT, FROM ANY POINT ON THE ADJACENT RESIDENTIAL PROPERTY.
 - ALL FIXTURES SHALL MEET IESNA FULL CUTOFF CRITERIA.
- 5. EXTERIOR LIGHTING OPERATION NOTES:**
- ALL EXTERIOR LIGHTING FIXTURES TO BE CONTROLLED BY AN AUTOMATIC SWITCHING DEVICE(S) EQUIPMENT, APPROVED BY WESTTOWN TOWNSHIP. THE PROPOSED LUMINAIRES WILL BE EQUIPPED WITH LIGHT SENSITIVE PHOTOCONTROL, AND, THE DAILY OPERATION OF EXTERIOR FIXTURES SHALL BE SUPPLEMENTED BY TIME CLOCK CONTROL IN ORDER TO ACCOMPLISH THE FOLLOWING OPERATION SCHEDULE:
 - HOURS OF OPERATION
 - SITE LIGHTING ON AT DUSK, EXTINGUISHED AT 11:00 P.M. OR WITHIN ONE HOUR FOLLOWING THE CLOSE OF BUSINESS, WHICHEVER COMES FIRST.
 - SITE LIGHTING ON AT 7:30 A.M., IF NECESSARY, EXTINGUISHED AT DAWN.
 - AT THIS TIME THE APPLICANT DOES NOT PROPOSE AFTER-HOURS SECURITY LIGHTING FOR THE PROJECT. IF AND WHEN SECURITY LIGHTING IS PROPOSED, A BUILDING PERMIT APPLICATION WILL BE SUBMITTED.

LUMINAIRE SCHEDULE

Symbol	Qty	Catalog Number	Description	Lamp	Mounting Height	File	Lumens	LLF
■	9	H14L-48-700-W 62-4-HIS	GARDCO FORM TEN SQUARE AREA LED TYPE 4 OPTICS	48 LED's 4000K	16'	H14L-48L-700- HW-62-4-HIS-IES	ABSOLUTE	0.95

MAINTAINED FOOTCANDLES

AVERAGE Fc = 1.6
MAXIMUM Fc = 7.3
MINIMUM Fc = 0.5

INITIAL FOOTCANDLES

AVERAGE Fc = 1.68
MAXIMUM Fc = 7.68
MINIMUM Fc = 0.52

PRELIMINARY/FINAL LIGHTING PLAN

1 1-28-19 REVISED PER ENGINEER COMMENTS

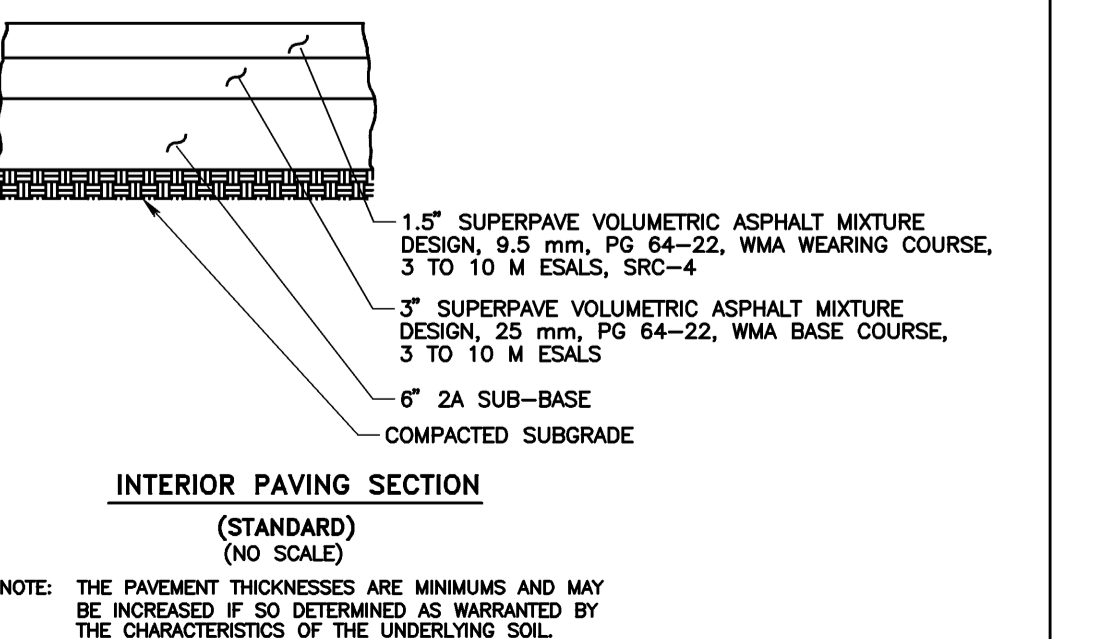
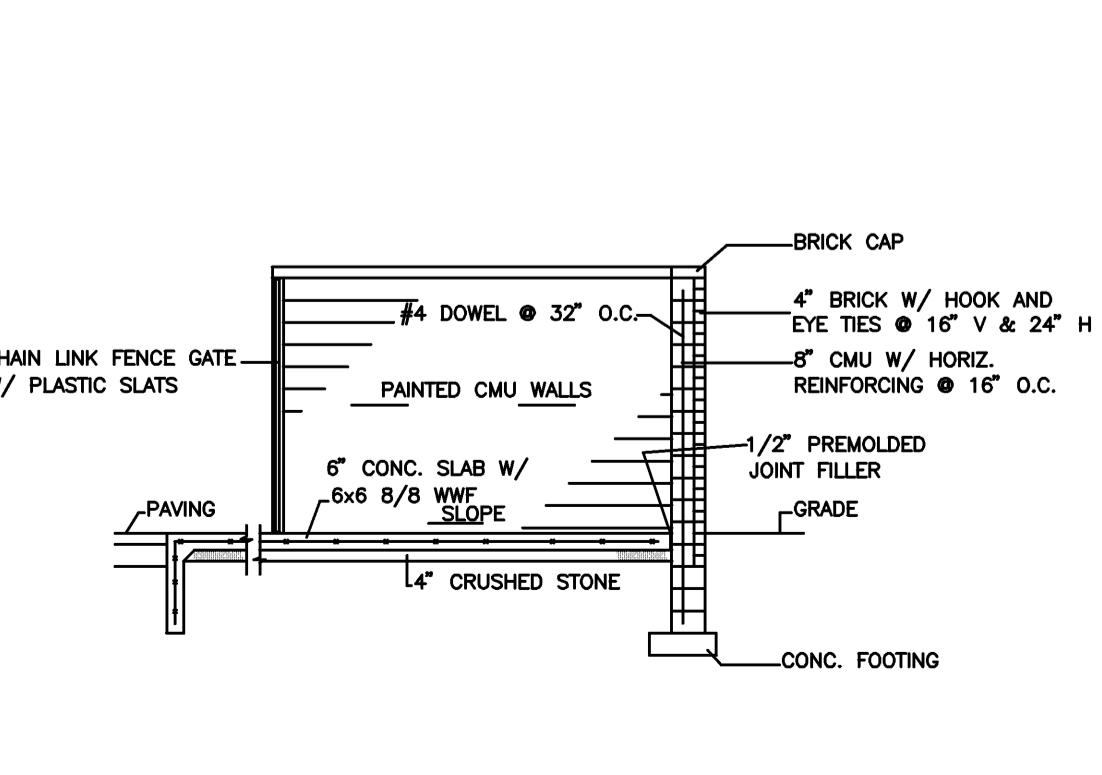
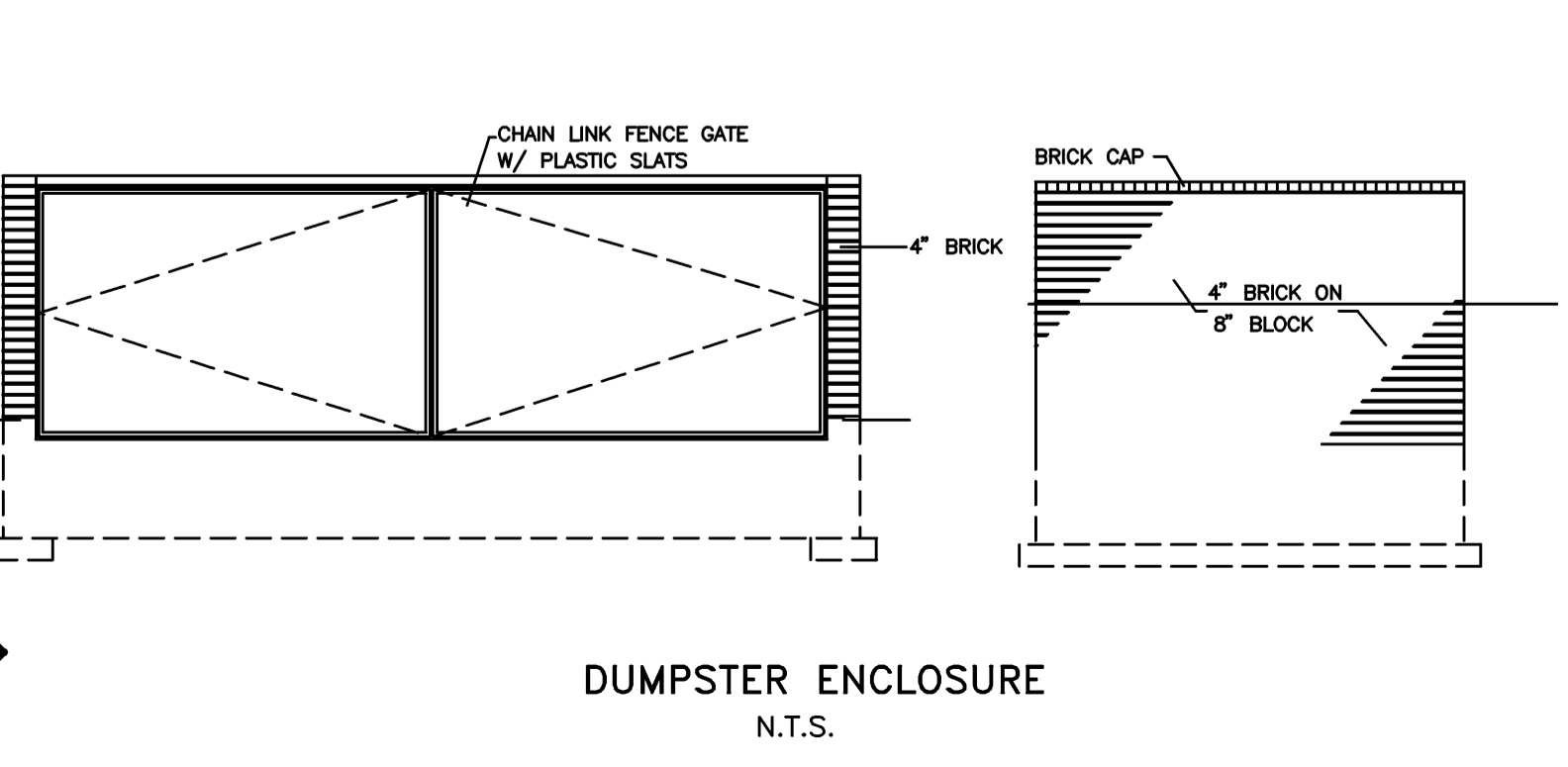
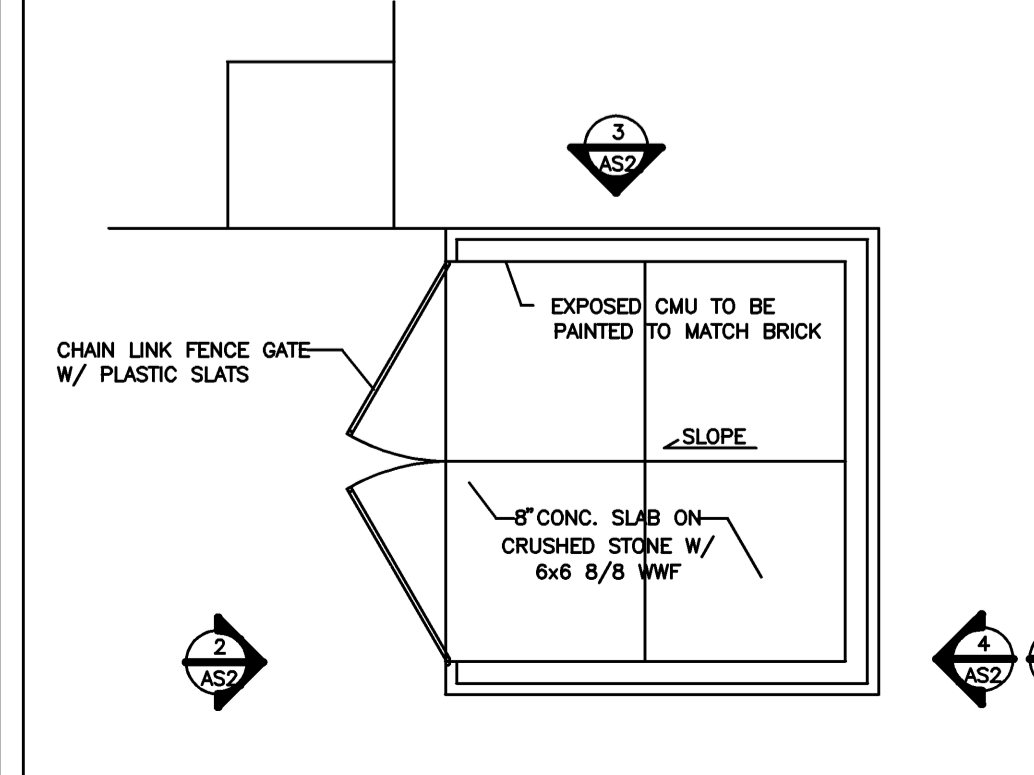
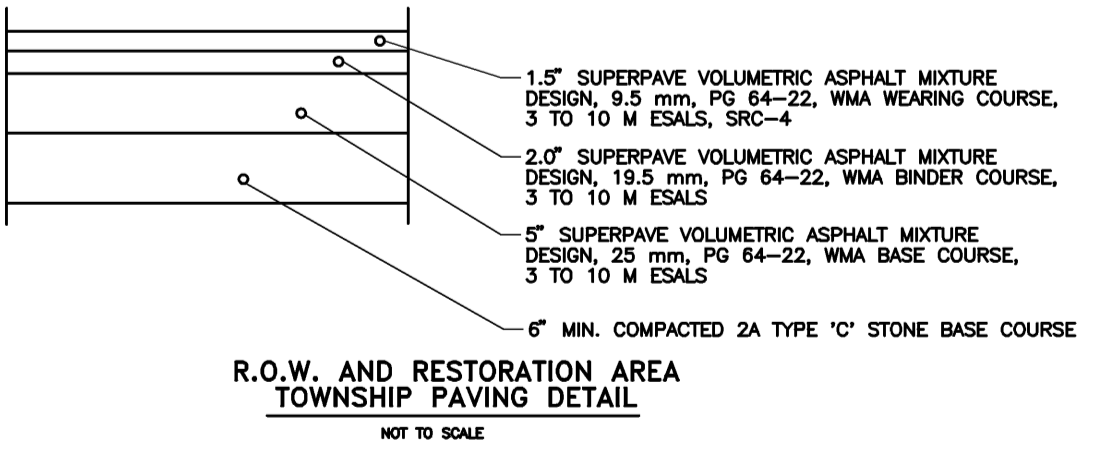
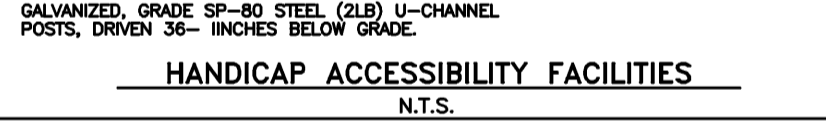
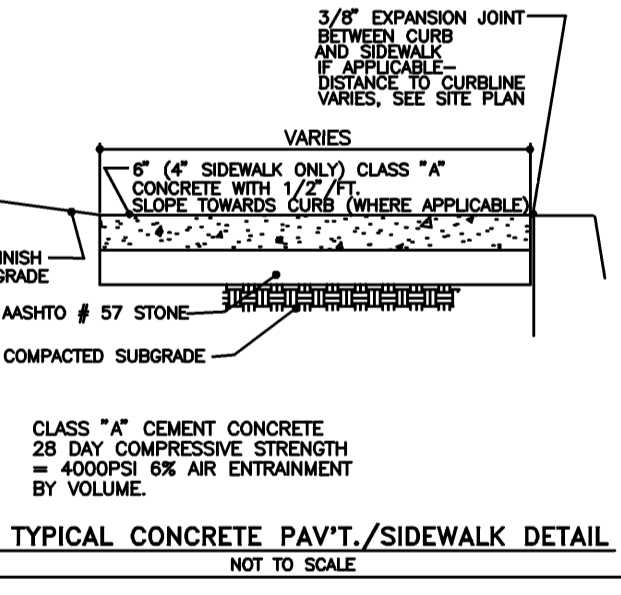
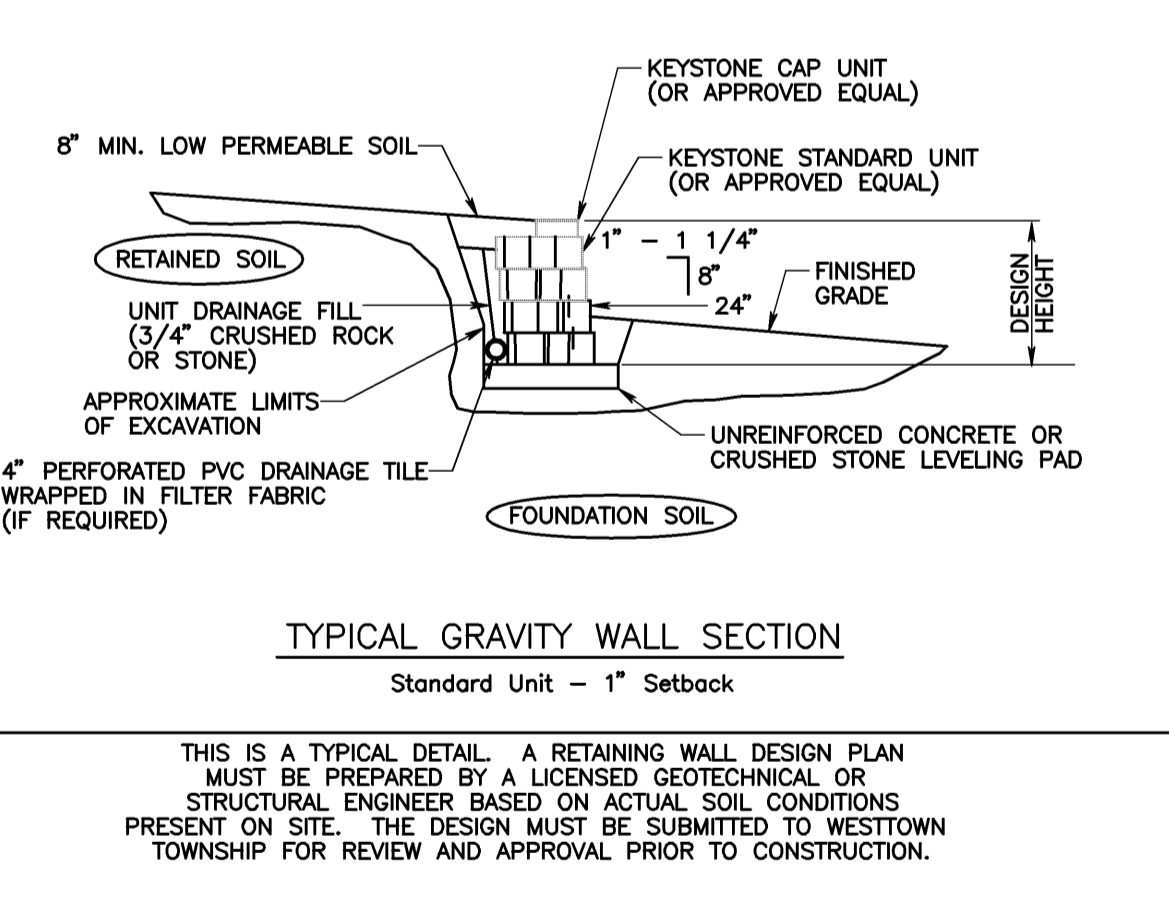
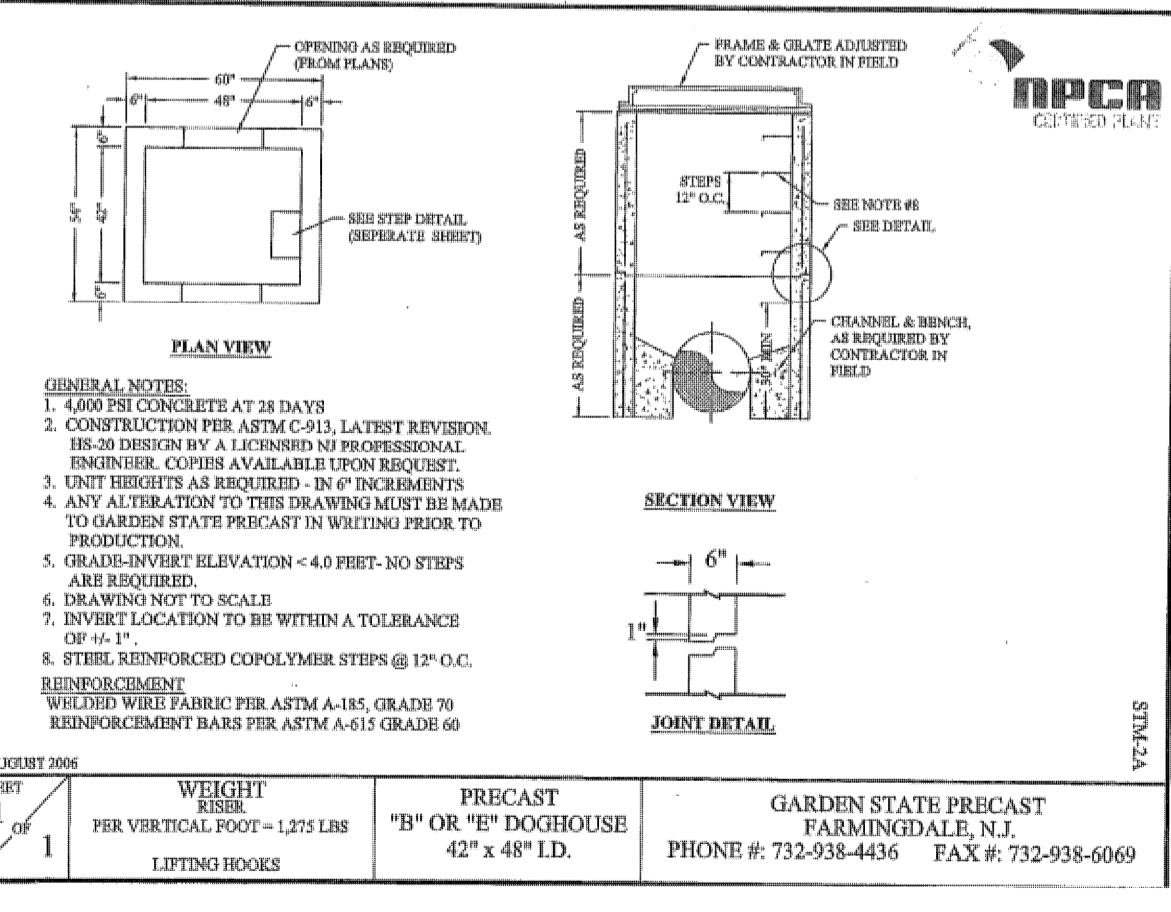
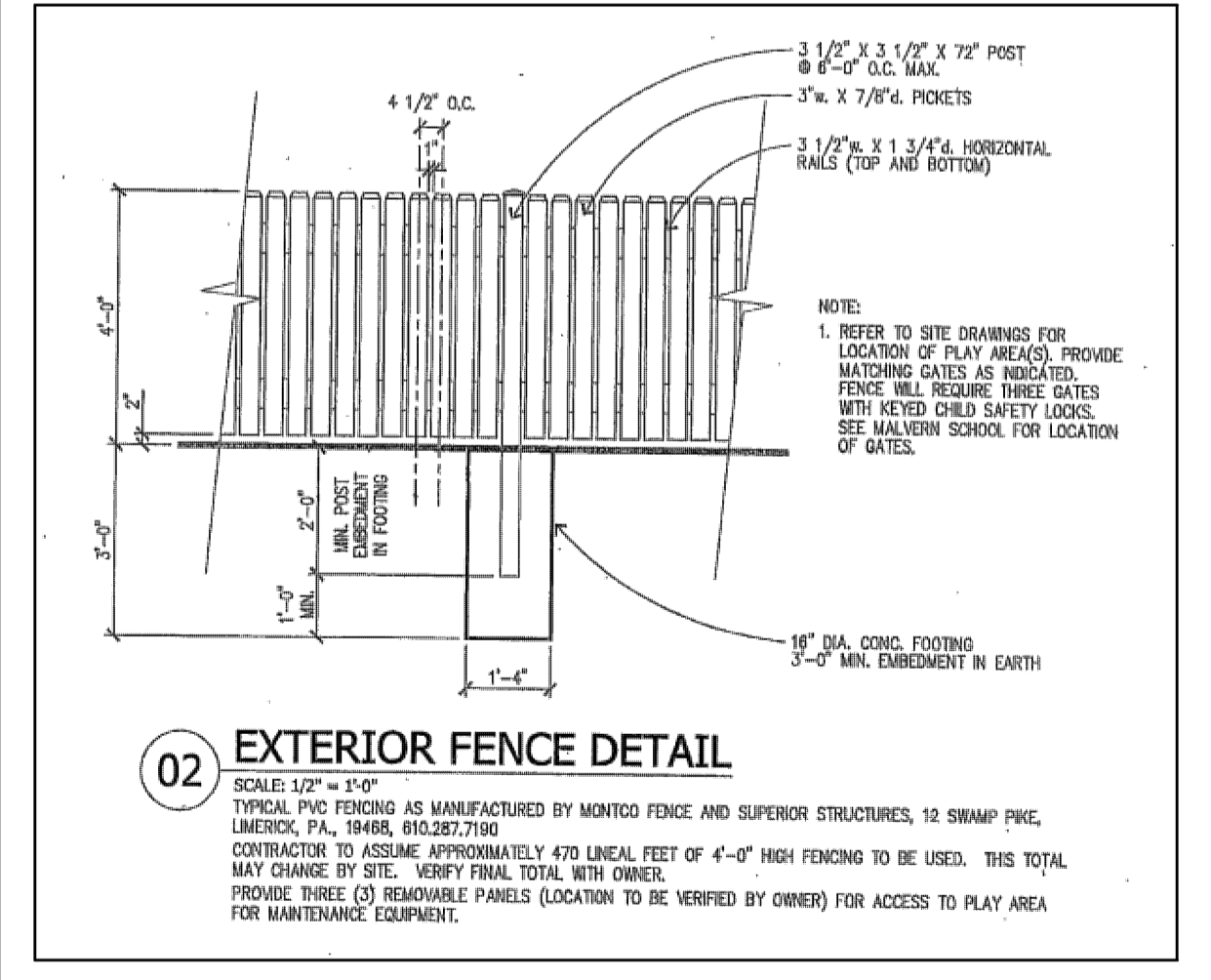
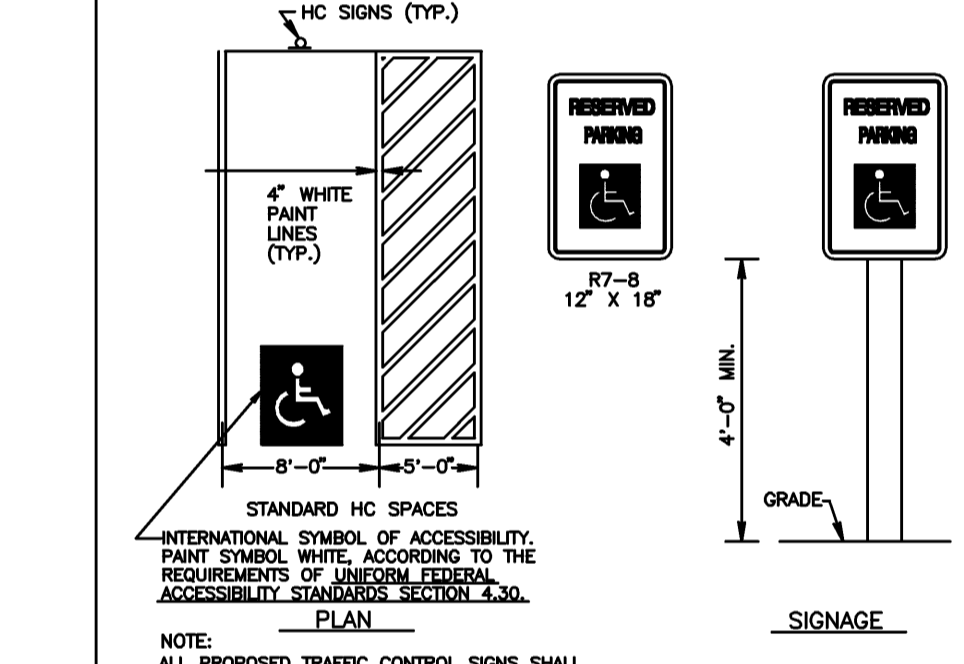
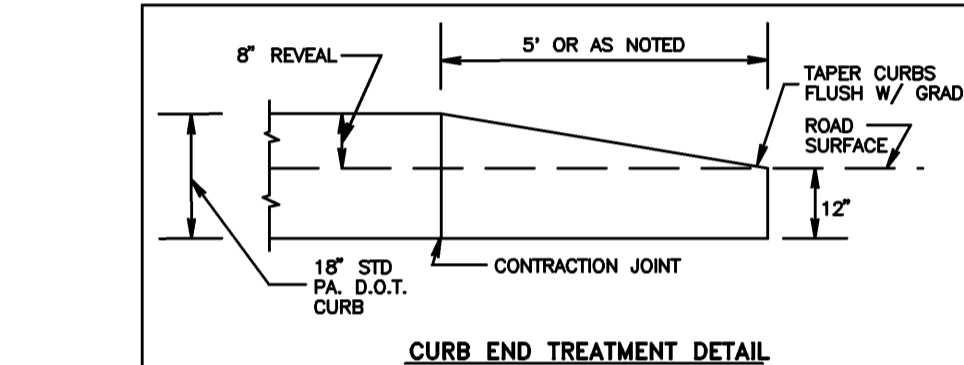
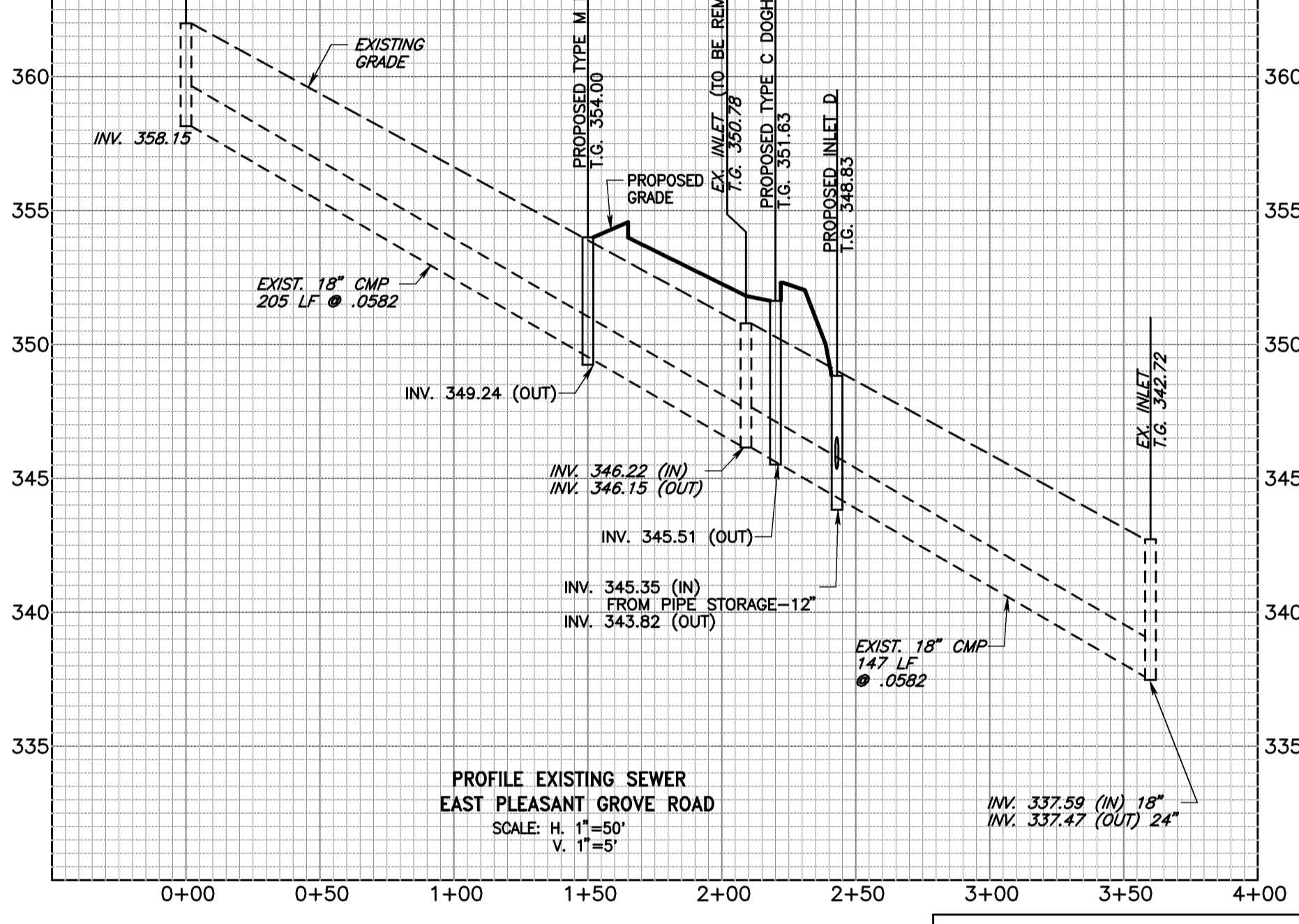
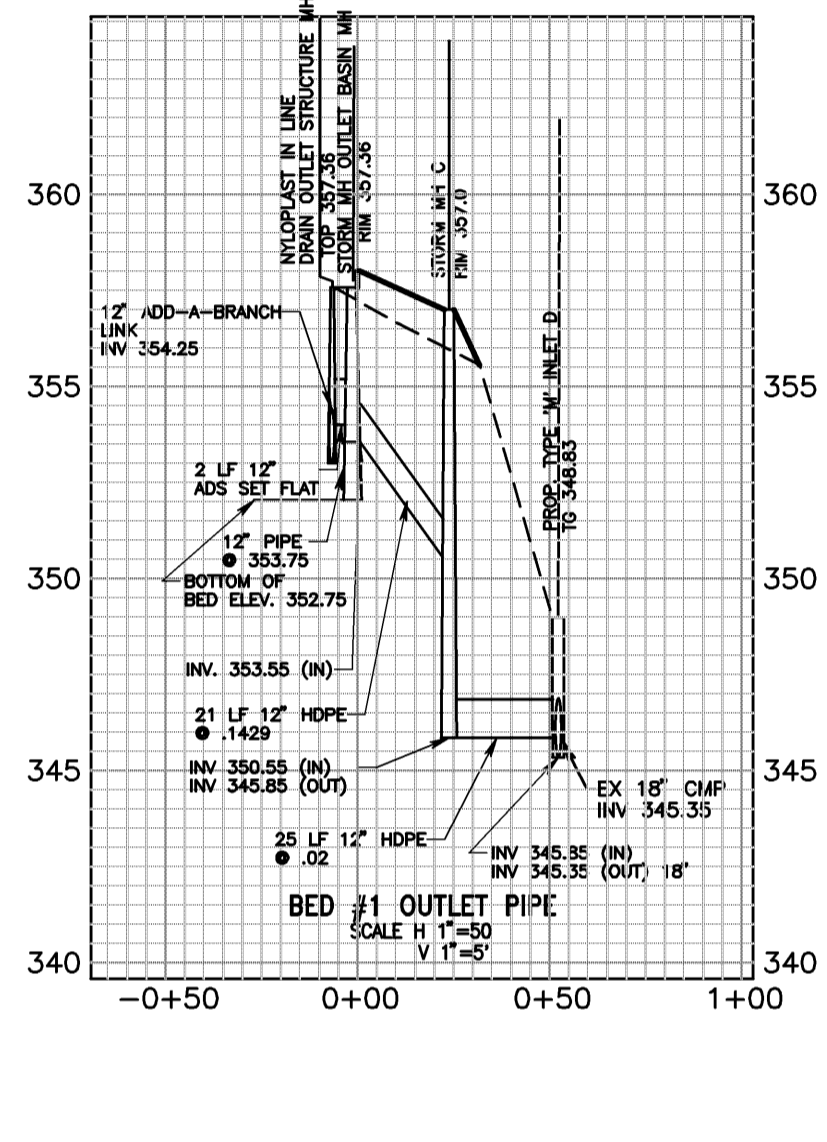
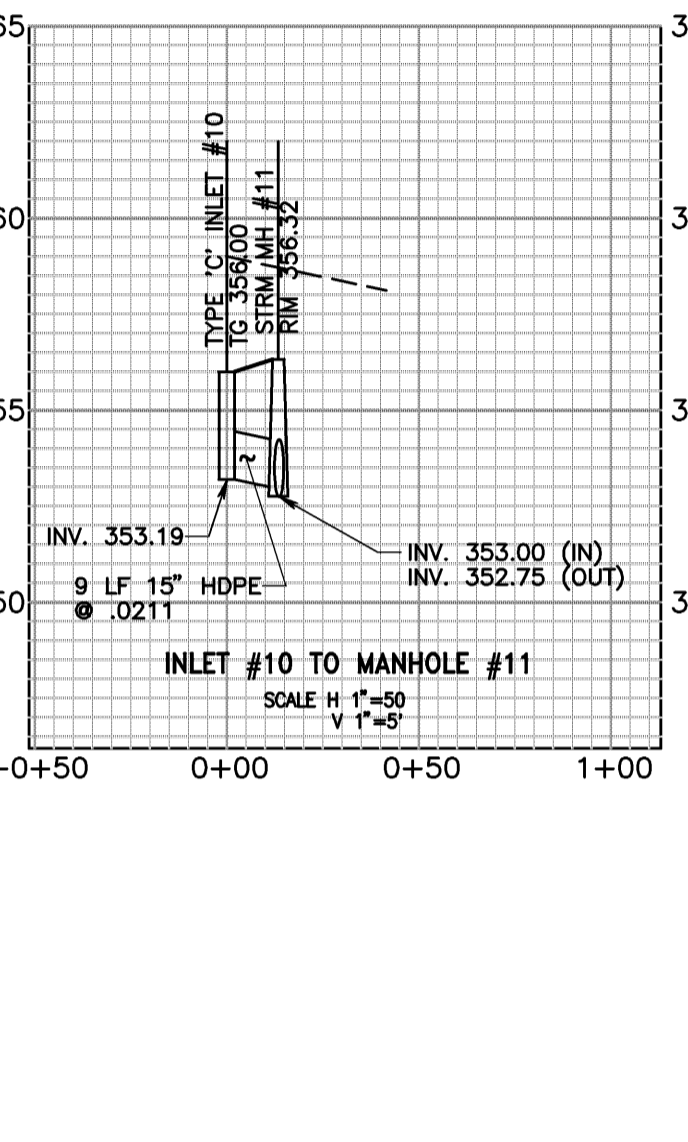
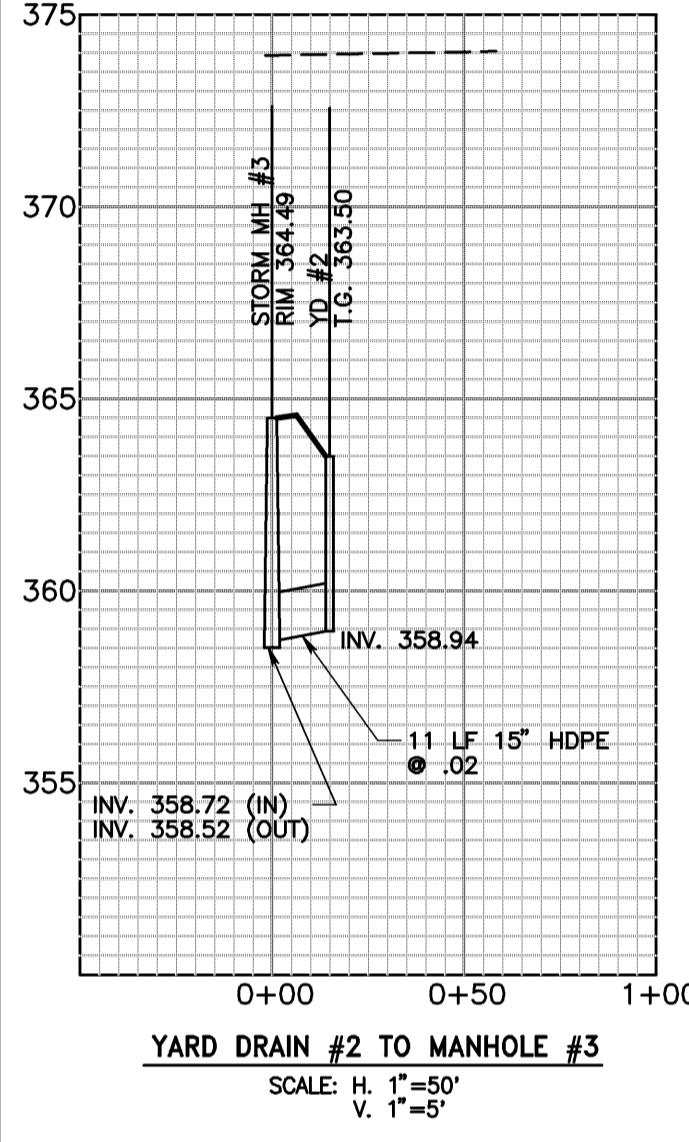
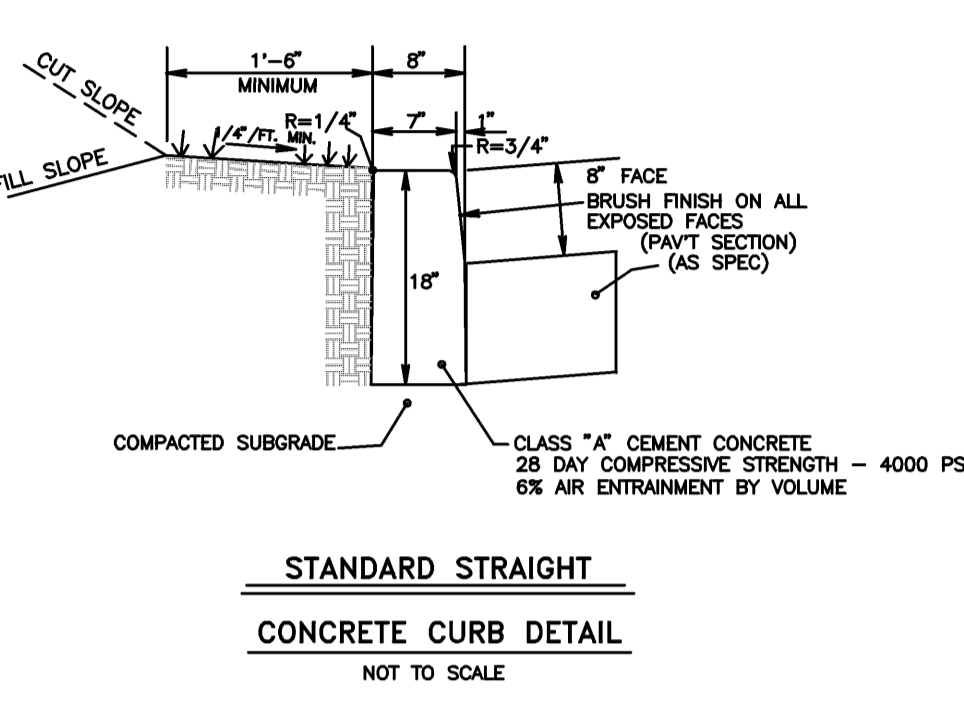
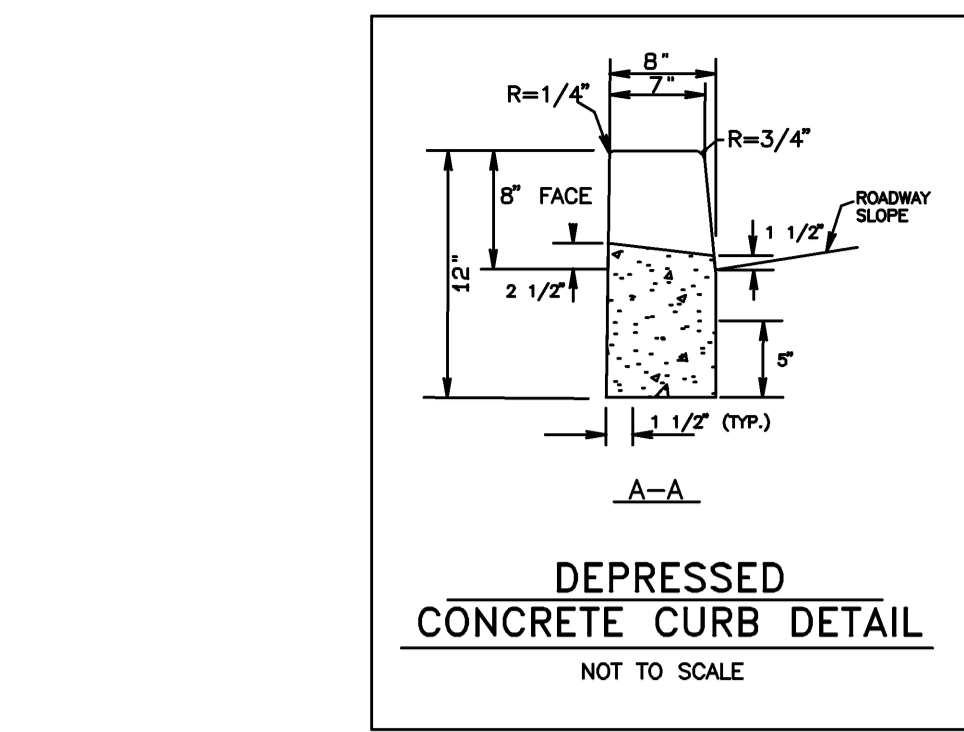
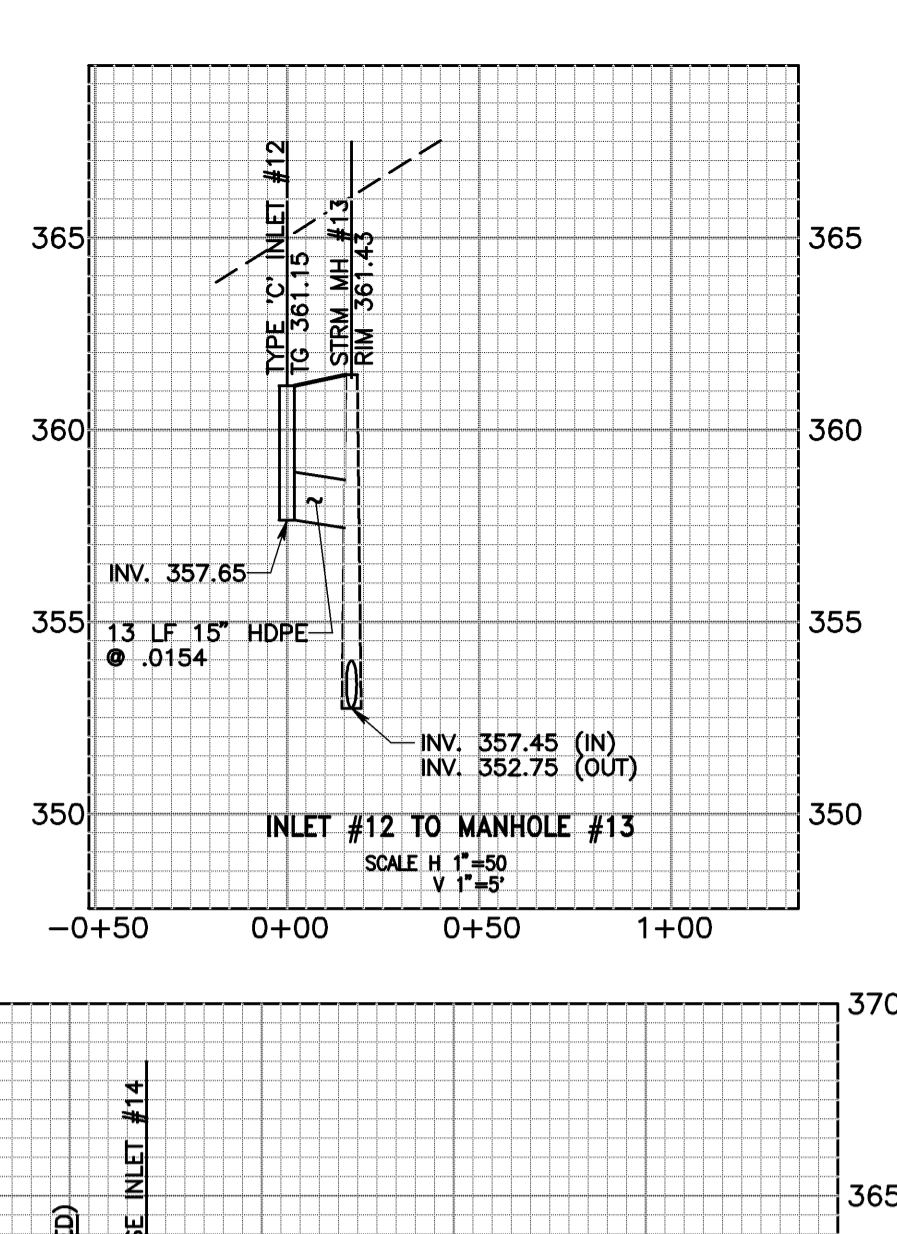
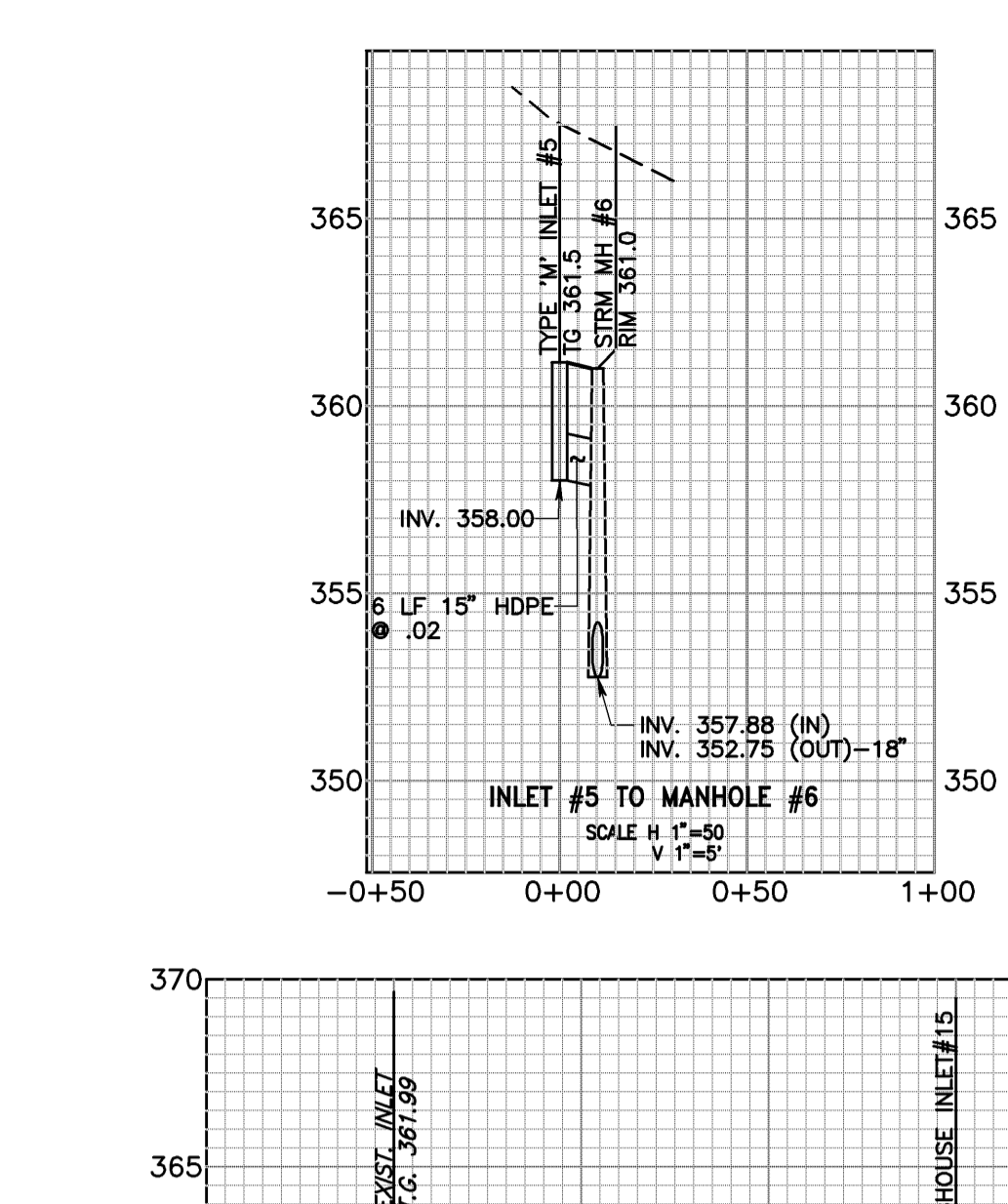
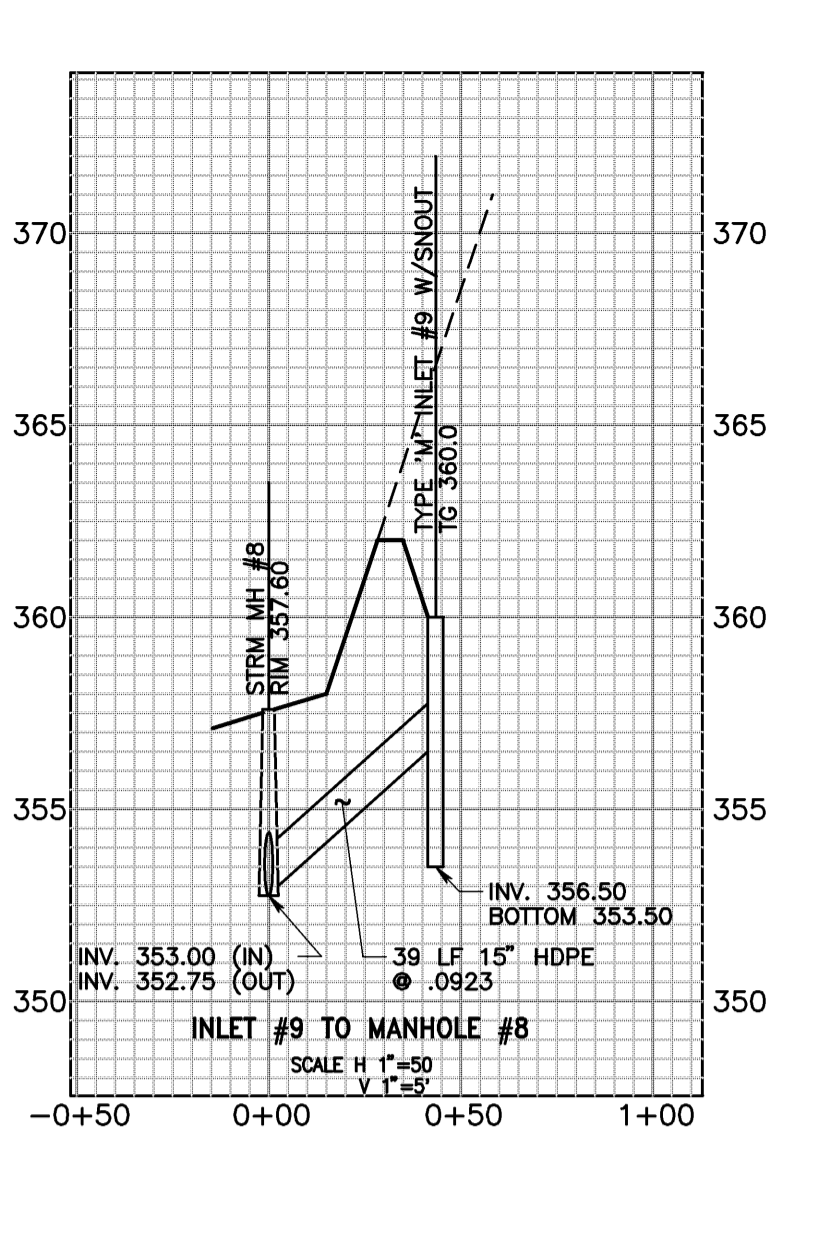
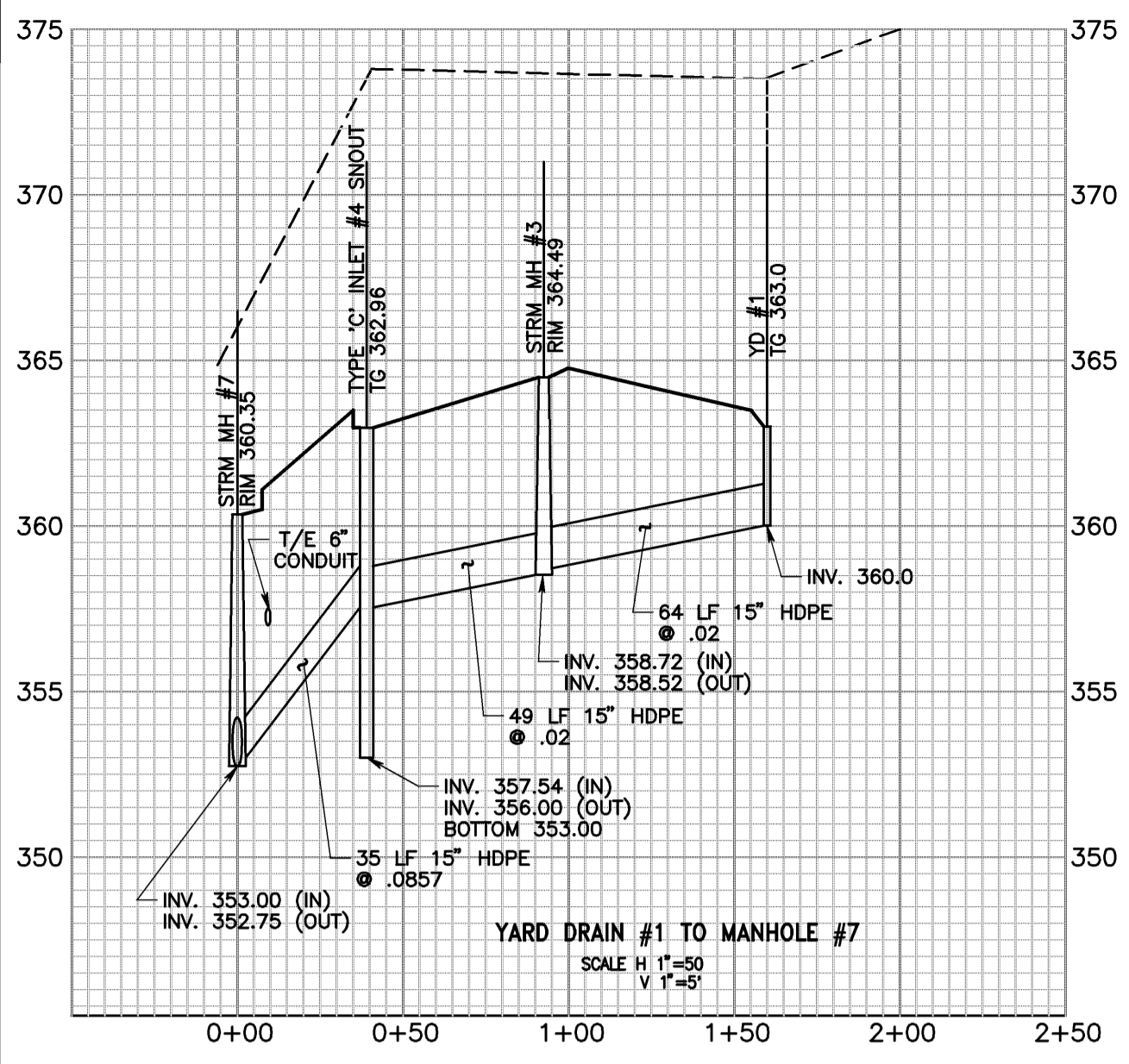
SUBDIVISION/LAND DEVELOPMENT FOR
THE MALVERN SCHOOL

WESTTOWN TOWNSHIP CHESTER COUNTY, PA.
Edward B. Walsh & Associates, Inc.
CIVIL ENGINEERS & SURVEYORS

Project- 4432
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Checked- A.E.
Sheet- 8 OF 10

125 DOWLIN FORGE RD.
ESTON, PENNSYLVANIA 19341
Phone: 610-903-0060
Fax: 610-903-0080

Plotted: 1/29/2019 File: F:\J\4432\4432-92.pro



ORDER

AND NOW, this 15th day of October, 2018, upon the application of Malvern School Real Estate, L.P., for conditional use approval pursuant to §170.2009 and §170.801.B of the Westtown Township Zoning Ordinance to permit a two-story 11,000 square foot building to be used for an educational use and daycare center with 49 parking spaces and a 10,000 square foot outside playground area for the property located at 1081 Wilmington Pike (UPI No. 67-4-38), West Chester, Pennsylvania in the R-3 Residence Office Zoning District of the Township, IT IS HEREBY ORDERED that the relief requested shall be GRANTED, subject to the following conditions:

- The Applicant shall prepare and submit a compliant land development plan within six months of the date of the Decision and Order of the Board of Supervisors. This compliant land development plan shall demonstrate satisfaction with all stated conditions of the Order.
- The Applicant shall fully comply with the requirements of the Township's landscaping ordinance(s) and provide for adequate screening during land development except as modified by waiver herein.
- As part of land development, the Applicant shall demonstrate compliance with all outstanding comments in the June 15, 2018 and August 3, 2018 review letters from McCormick Taylor (Exhibits B-5 and B-6, respectively).
- The Applicant shall coordinate with the Township Engineer during land development to select the vegetation and landscaping that will best assist the Township to reach the goals and requirements of the Pennsylvania Department of Environmental Protection (PADEP) MS4 Program. Such provisions will address concerns regarding water quality such as phosphorous reduction in the watersheds.
- The Applicant shall confirm with the Township's Sewer Engineer and PADEP that there is adequate capacity for the proposed facilities.
- Following the design and construction process, the Applicant shall install a bi-directional amplifier within the daycare use if determined to be necessary by the Chief of Police of the Westtown - East Golden Police Department.
- The Applicant shall provide a detail and construct a fence that is durable and child safe in the play areas associated with the daycare. The fence shall have gated access, discourage climbing, and prevent entrapment or associated injuries.
- The proposed construction and use of the subject property shall be in conformance with the plans, specifications, testimony and evidence presented to the Board except as modified by these conditions.

BOARD OF SUPERVISORS
WESTTOWN TOWNSHIP

Carol R. DeWolf, Chairman

Scott H. Yaw

Michael T. DiDomenico

(SIGNATURE PAGE TO THE DECISION OF THE WESTTOWN TOWNSHIP BOARD OF SUPERVISORS ON THE CONDITIONAL USE APPLICATION OF MALVERN SCHOOL REAL ESTATE, L.P. DATED OCTOBER 15, 2018)

PRELIMINARY/FINAL
PROFILES AND DETAILS PLAN

1 1-28-19 REVISED PER ENGINEER COMMENTS

SUBDIVISION/LAND DEVELOPMENT
FOR
THE MALVERN SCHOOL

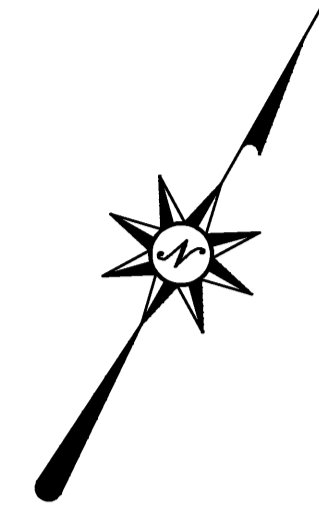
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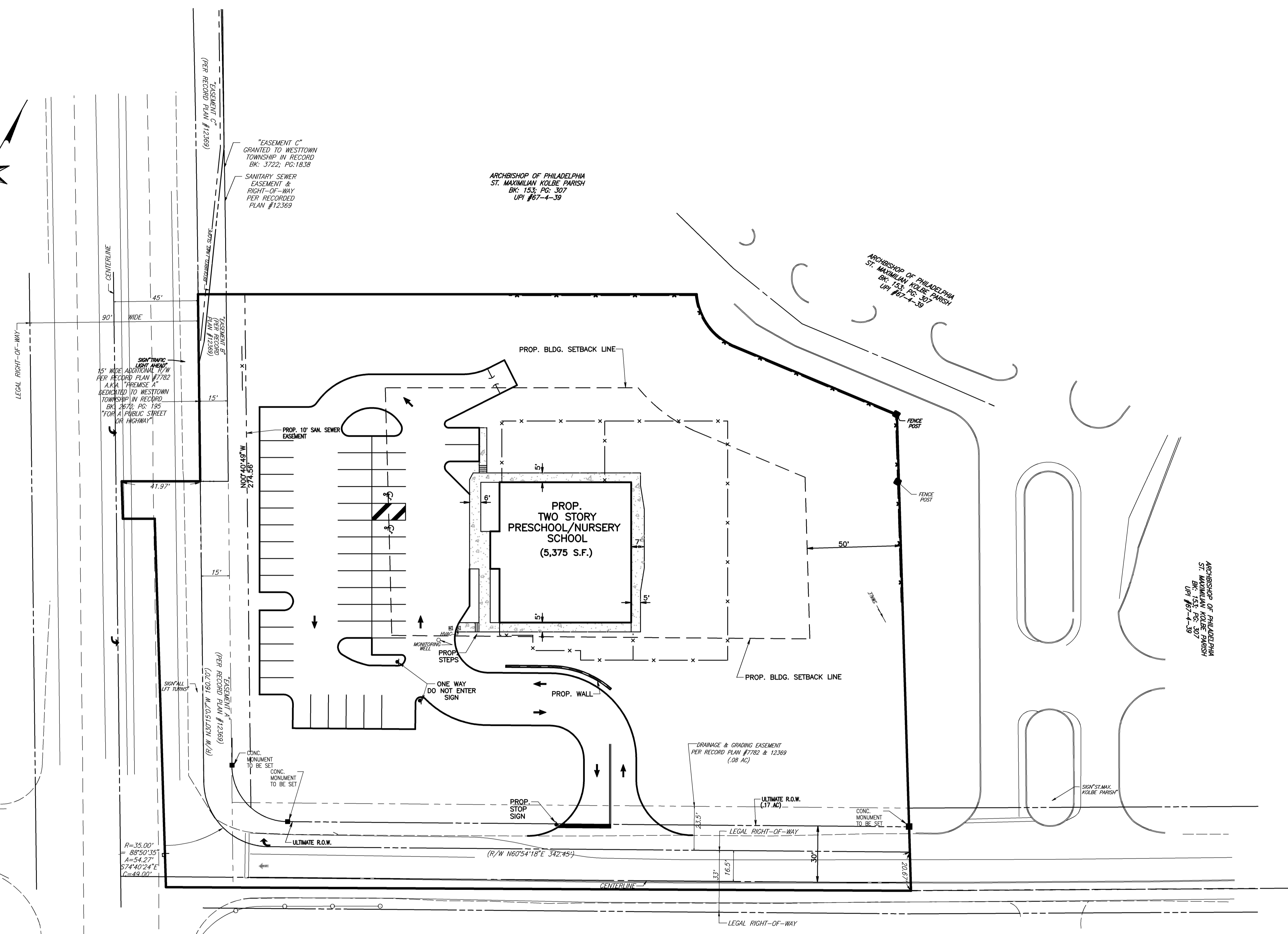
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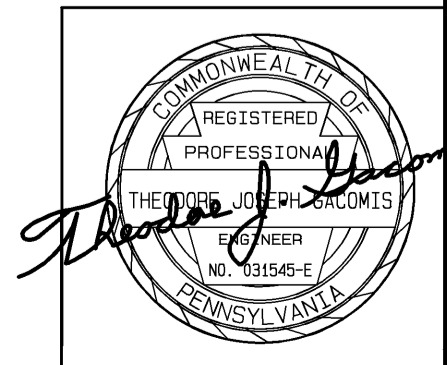
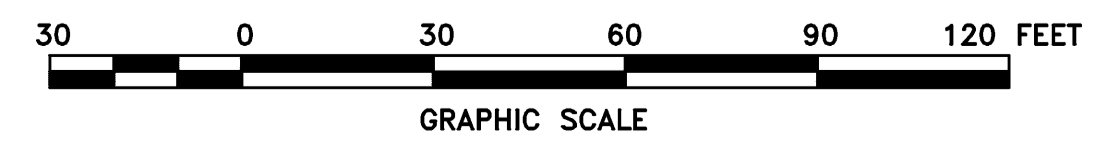
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**WILMINGTON PIKE
(ROUTE 202)**



EAST PLEASANT GROVE ROAD



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LAND DEVELOPMENT FOR THE MALVERN SCHOOL	
WESTTOWN TOWNSHIP	CHESTER COUNTY, PA.
Edward B. Walsh & Associates, Inc. CIVIL ENGINEERS & SURVEYORS	
125 DOWIN FORGE RD. ESTON, PENNSYLVANIA 19341 PHONE: 610-903-0060 FAX: 610-903-0080	Project- 4432 Date- 11-14-18 Scale- 1"= 30' Drawn- LR Checked- AE Sheet- COVER
Plotted: 1/29/2019	File: F:\JB\4432\4432-B2.pro