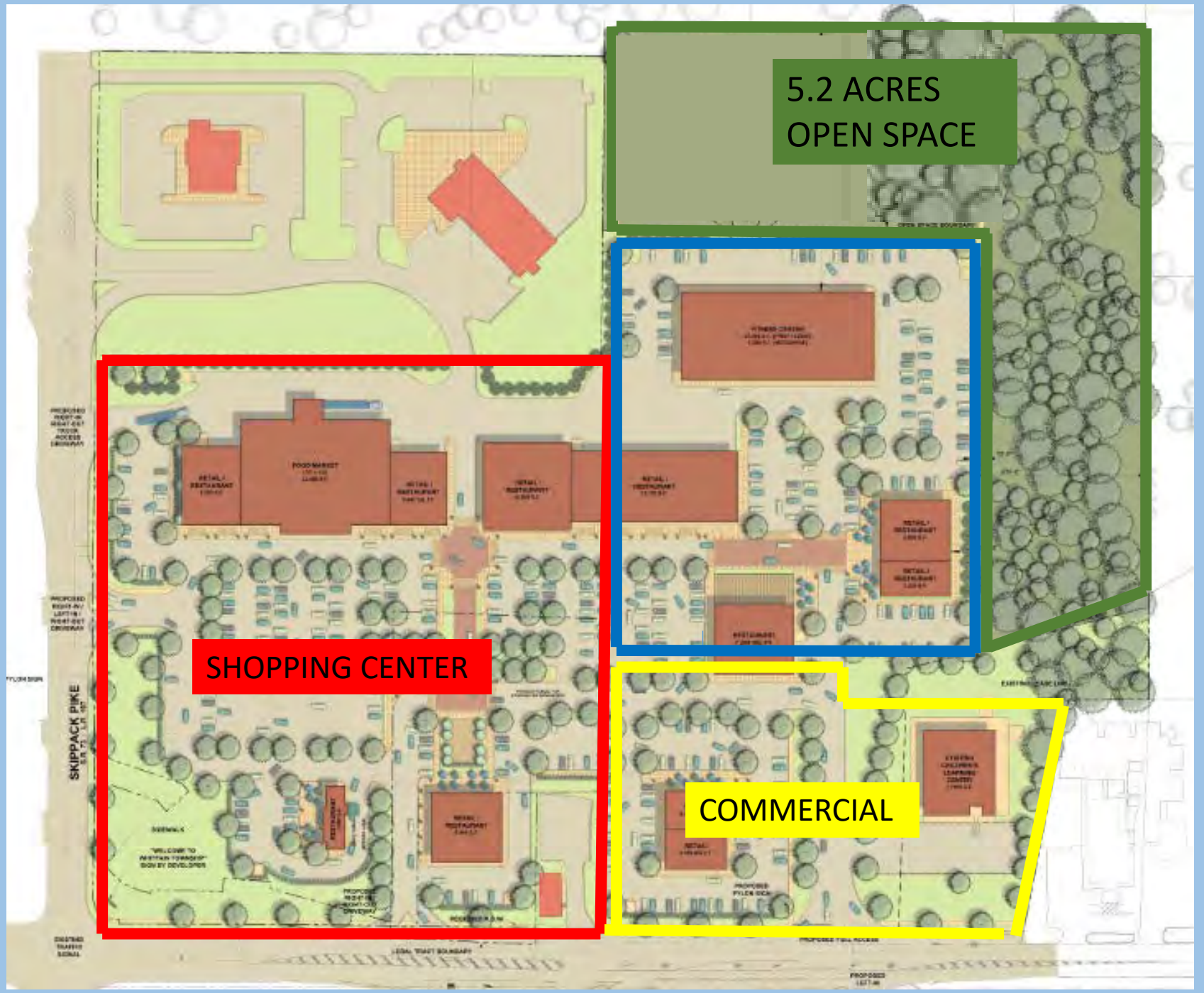
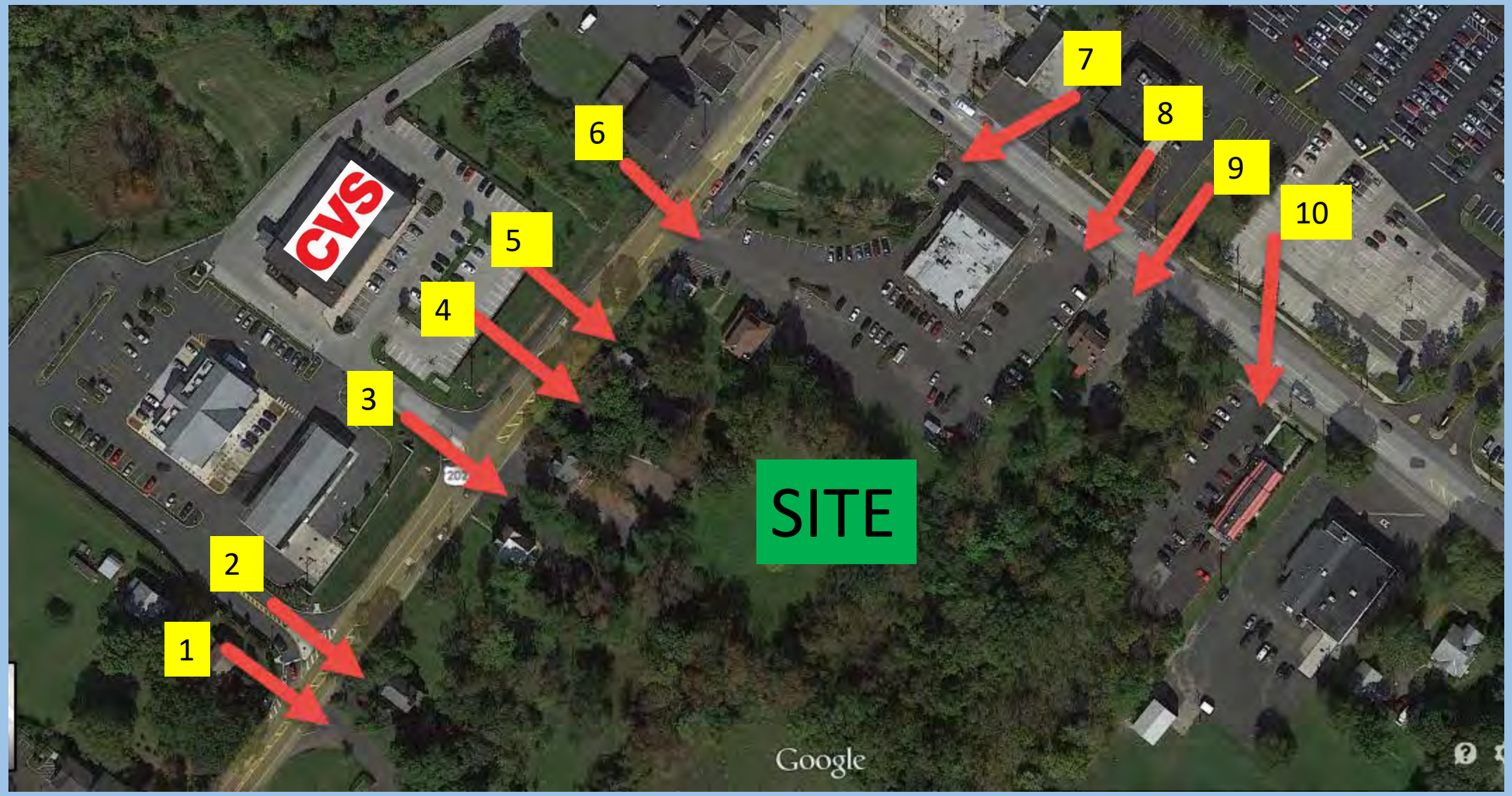
PROPOSED 22 ACRE REDEVELOPMENT


5.2 ACRES
OPEN SPACE
SHOPPING CENTER
COMMERCIAL
SKIPPACK PIKE

5.2 ACRES
OPEN SPACE
SKIPPACK PIKE

EXISTING CONDITIONS


CVS
1
2
3
4
5
6
7
8
9
10
SITE
Google

THE FRESH MARKET

THE FRESH MARKET
FRESH MARKET
NOW OPEN

THE FRESH MARKET

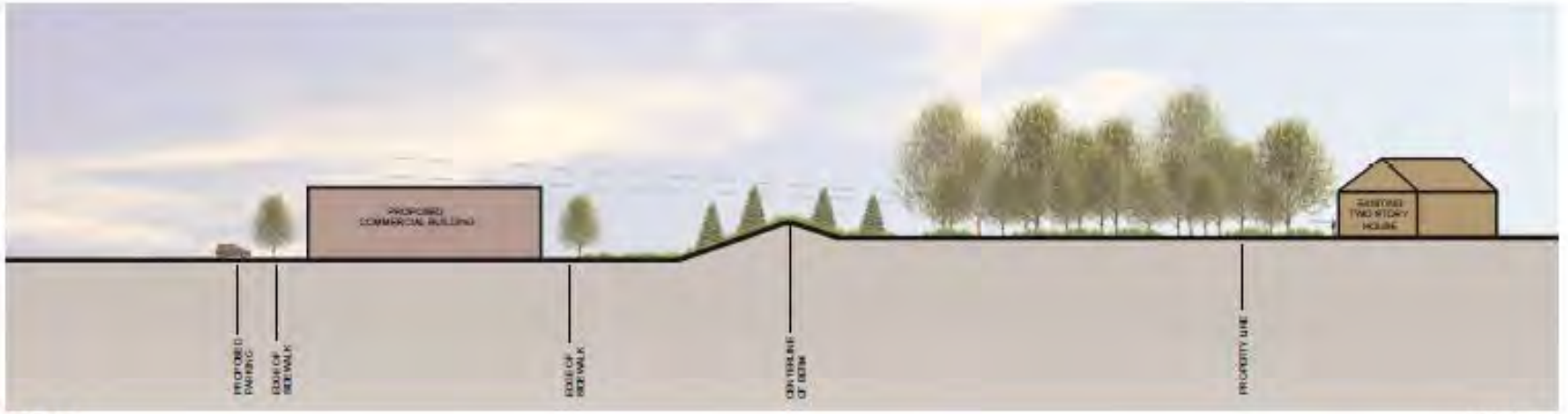
RESERVED FOR ACTIVE RECREATION
SKIPPACK PIKE
DEKALB PIKE

Bernardon
Haber
Holloway
CENTRE
SQUARE
ZOËS KITCHEN
SIMPLE
TASTY
FRESH
Sally's
SHOES

Cafe

SALON
SALON
PETS

SECTION A

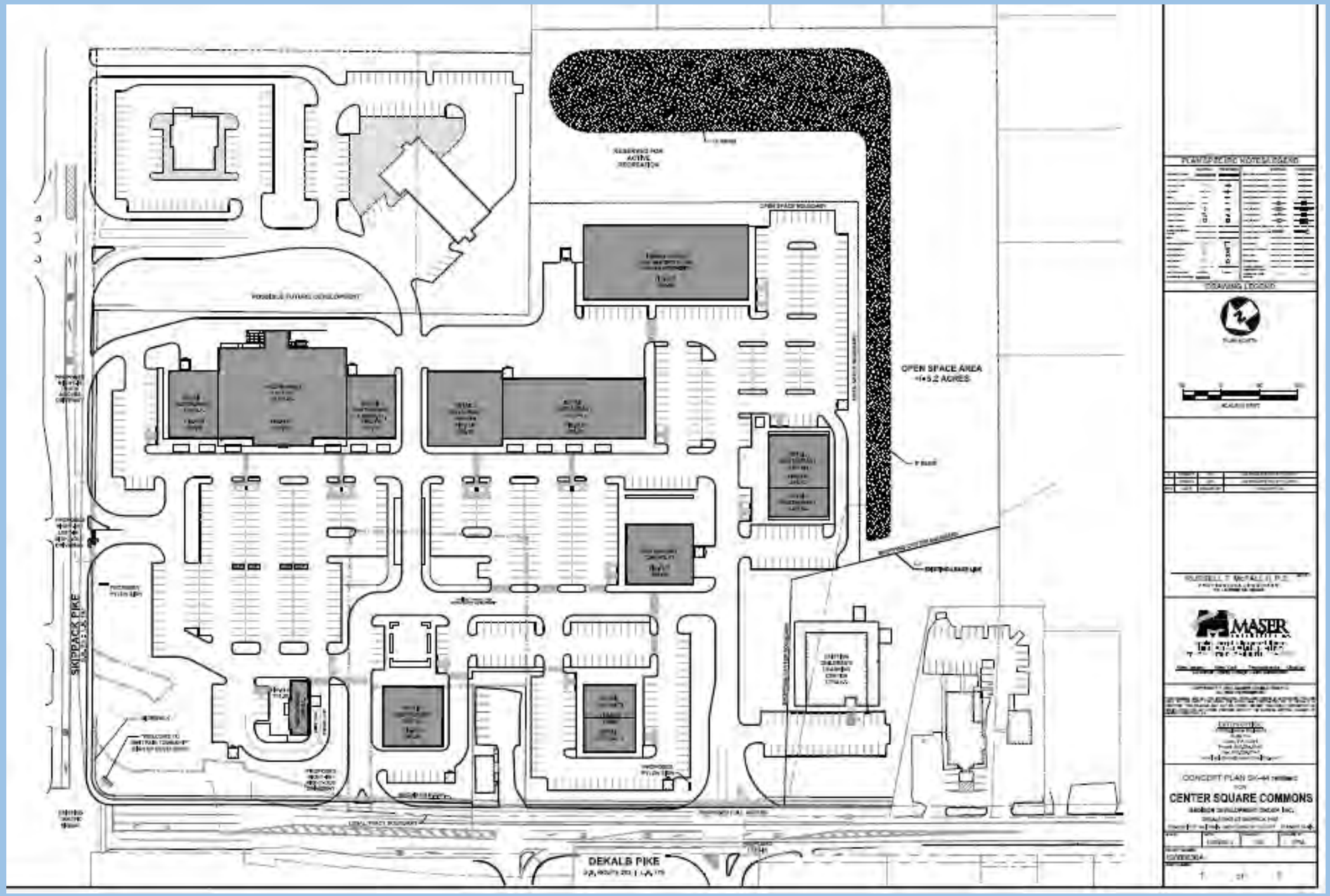


SECTION B

MADISON DEVELOPMENT GROUP, INC.
P.O. Box 507
Southeastern, PA 19399

ILLUSTRATIVE SITE SECTIONS
CENTRE SQUARE COMMONS
Whitpain Township
Montgomery County, Pennsylvania

Bernardon
Haber
Holloway
ARCHITECTS


RESERVED FOR ACTIVE RECREATION
POSSIBLE FUTURE DEVELOPMENT
OPEN SPACE AREA
+/- 5.2 ACRES
SKIPPACK PIKE
DEKALB PIKE
CENTER SQUARE COMMONS

SALON
SALON

MADISON DEVELOPMENT GROUP, INC.

REAL ESTATE DEVELOPMENT / CONSULTING

P.O Box 507, Southeastern, PA 19399
610-277-8500

MASER CONSULTING P.A.

Engineers
Planners
Surveyors
Landscape Architects
Environmental Scientists

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Exton, PA 19341
T: 610.254.9140
F: 610.254.9141
www.maserconsulting.com

November 30, 2015

VIA Hand Delivery

Mr. James E. Blanch, Township Engineer
Whitpain Township
960 Wentz Road
Blue Bell, PA 19422

Re: Centre Square Commons Shopping Center
Mulhern Site Lighting Review
M.C. Project Number - 15001861A

Dear Mr. Blanch:

Maser Consulting is in receipt of the review letter from Mulhern Consulting Engineers and Associates, Incorporated dated November 9th, 2015. We shall provide the following responses to the enumerated items (Responses are in bold):

1. 160-220-D-(1) – All light fixtures shall be fully shielded and shall be installed in such a manner that the light source and direct glare is not visible to any adjacent properties.

    a. Clearly indicate on the plans (Drawing #12) that any Type "B" fixtures shall have three-sided house-side Shields. Shields shall be at the rear of the fixture and one at each side.
    Several of the Type "B" fixtures have been changed to Type "E" fixtures which contain an optical back light control. Additionally rear house shields will be added to several different fixtures around the site. A legend has been provided on the Lighting Plan Sheet 11, to indicate which fixtures are to be shielded.

    b. The two Type "D" lights at the rear of the Supermarket have the potential for direct glare onto the adjacent property. Add a shield at the side of the fixture nearest the property line.
    The two (2) Type "D" light fixtures have been replaced with fixtures that contain an optical back light control. Additionally rear house shields will be added to these fixtures as noted on the plans. Refer to legend on Lighting Plan Sheet 11.

2. 160-220-D-(2) – Light levels shall not exceed 1.0 initial horizontal foot-candles at any property line adjacent to other non-residential, institutional or multi-family district properties or public right of way.

    a. Foot-candle levels behind the Supermarket exceed this value. Due to the relative ease of controlling spill for LED lights, it would in the best interest of the lighting designer to design for zero foot-candles at all property lines.
    Several fixtures along the rear of the supermarket have been adjusted and changed accordingly. Back light control and shielding has been provided as requested.

    b. Foot-candle levels along Skippack Pike near Building #1 exceed this value.
    Maser Consulting did not see any foot-candle readings in excess of 1.0 foot-candle along Skippack Pike. We adjusted some of the fixtures to ensure no readings exceed the maximum of 1.0 foot-candles adjacent to the public right of way. A Foot-candle reading of 1.0 was observed at the most western entrance on Dekalb Pike (Rt. 202). This fixture was adjusted so that all readings in the right of way are less than the maximum of 1.0 foot-candle.

    c. See and comply with Item 3b below.
    See comment 3b below.

3. 160-220-D-(3) – Properties adjacent to residential districts. The value of spill light shall not exceed 0.1 initial foot-candles at the property line of the residential property or the development where the residential property exists.

    a. The full property lines near the residential areas are not indicated on the lighting plan, Sheet #11. By interpretation, a Lighting Engineer can conclude that this condition is satisfied.
    No Comment.

    b. Because this plan will be reviewed by residents and others who are not Lighting Engineers, provide a separate set of plans that blow up of all property lines with legible foot-candle values at all property lines. Indicate the neighboring buildings on the plan so an interested party can understand the plan properly.
    A separate "Overall Lighting Plan Exhibit" has been attached to this response letter as requested.

4. 160-220-D-(4) – Light level shall be taken at a horizontal plane at grade level.

    a. Verify that this is the case for all of the calculations.
    All light levels have been calculated along a horizontal plan at grade level.

    b. If this is the case, indicate on the Sheet #11 – "All of the foot-candle levels shown on this plan are initial foot-candle values and are taken at a horizontal plane at grade level".

A note has been added to the Lighting Plan, Sheet 11, as requested.

c. If these calculations comply, also indicate on Sheet #12 under the Calculation Summary – "All of the foot-candle calculations are initial foot-candle values and are taken at a horizontal plan at grade level".
A note has been added to the Lighting Details, Sheet 12, as requested.

5. 160-220-F-(1) – Lighting levels for off-street parking lots shall be turned off no later than one hour after the ending of the use on site except for lights which are necessary for security purposes.

   a. Indicate this clearly on the drawings.
   The following note has been added to the Lighting Plan, Sheet 11, "All lights which are not essential for security purposes shall be turned off no later than one hour after the close of business. A plan indicating which lights will be left on for security purposes will be submitted by the developer prior to construction."

6. 160-220-G-(2)-(b) – Submitted plans shall include catalog information on all types of lighting fixtures utilized.

   a. Clearly indicate for the three catalog sheets on Drawing #12 the types for each catalog sheet. The upper left catalog sheet should say "Type A". Bottom left should say "Type G". Upper right should say "Types B, C, D, E, F, and H".
   Fixture types have been labeled on the corresponding cut sheets as requested. Please note that the corresponding letters in the light fixture schedule have changed to prevent confusion (fixture G and H switched). See Sheets 11 and 12.

7. Additional Comments

   a. Sheet #11 – No lights are indicated at the rear of Building #3 – Fitness Center. Indicate these lights and add to the foot-candle calculations.
   No exterior wall packs lights are proposed on the rear side of Building #3.

   b. Indicate clearly on the plans if there is a lighted cupola or structure at the top of the Building #3 - Fitness Center.
   There are windows located at the top building #3; however there is no lighted cupola at the top of this building.

Very truly yours,

MASER CONSULTING P.A.
Ryan M. Armour, RLA
Project Landscape Architect

Attached: "Overall Lighting Plan Exhibit"
Cc: RTM/CR/bsf

LIGHTING SCHEDULE

KEY	QTY.	ARRANGEMENT	MANUFACTURER	DESCRIPTION	LUMENS	LLF	WATTS	FIXTURE MOUNTING HEIGHT	COLOR
A	43	SINGLE	ARCHITECTURAL AREA LIGHTING MODEL: PKWM-STR-Y2VD-32LED-4K-525	LED LUMINAIRE WITH CAST ALUMINUM STRUTS AND GEAR COMPARTMENT DIFFUSED ACRYLIC LENS LAMP: 32 LED ARRAY 4200K	2332.805	1.00	58.6	12'	DARK BRONZE
B	7	SINGLE	STERNER LIGHTING MODEL: EXEC-RT21-60L-4K-3	TYPE 3 LENS LAMP: 60 - NICHIA 4200K LED	11092.71	1.00	142.3	25'	DARK BRONZE
C	4	SINGLE	STERNER LIGHTING MODEL: EXEC-RT21-60L-4K-4-BC	TYPE 4 LENS WITH BACK CONTROL LAMP: 60 - NICHIA 4200K LED	8203.326	1.00	142	25'	DARK BRONZE
D	28	SINGLE	STERNER LIGHTING MODEL: EXEC-RT21-60L-4K-5M	TYPE 5M LAMP: 60 - NICHIA 4200K LED	11603.36	1.00	142.2	25'	DARK BRONZE
E	8	SINGLE	STERNER LIGHTING MODEL: EXEC-RT21-60L-4K-3-BC	TYPE 3 LENS WITH BACK CONTROL LAMP: 60 - NICHIA 4200K LED	7456.388	1.00	142	25'	DARK BRONZE
F	7	SINGLE	STERNER LIGHTING MODEL: EXEC-RT21-60L-4K-4	TYPE 4 LENS LAMP: 60 - NICHIA 4200K LED	10713.27	1.00	142.2	25'	DARK BRONZE
G	11	DOUBLE	STERNER LIGHTING MODEL: EXEC-RT21-60L-4K-5M	TYPE 5M LAMP: 60 - NICHIA 4200K LED	11603.36	1.00	284.4	25'	DARK BRONZE
H	9	SINGLE WALL MOUNTED	SPAULDING LIGHTING MODEL: RDI-30L4K-053-2	TYPE 2 LENS LAMP: 30 - NICHIA 4200K LED	4466.271	1.00	53.1	20'	DARK BRONZE

NOTE: LIGHT FIXTURES B, C, D, E, F, AND G ARE TO BE MOUNTED ON A TWO AND A HALF FEET TALL CONCRETE BASE. LIGHT FIXTURE 'A' IS TO BE MOUNTED FLUSH WITH PAVERS.

LEGEND

(#1) LIGHT POLE FOUNDATIONS LOCATED ADJACENT TO UNDERGROUND STORMWATER BASIN ARE TO EXTEND BELOW THE BOTTOM OF THE STORMWATER BASIN

(#2) LIGHT FIXTURES SHALL BE SHIELDED ON THE REAR SIDE OF THE FIXTURE

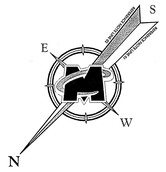
ALL OF THE FOOT-CANDLE LEVELS SHOWN ON THIS PLAN ARE INITIAL FOOT-CANDLE VALUES AND ARE TAKEN AT A HORIZONTAL PLANE AT GRADE LEVEL

ALL LIGHTS WHICH ARE NOT ESSENTIAL FOR SECURITY PURPOSES SHALL BE TURNED OFF NO LATER THAN ONE HOUR AFTER THE CLOSE OF BUSINESS. A PLAN INDICATING WHICH LIGHTS WILL BE LEFT ON FOR SECURITY PURPOSES WILL BE SUBMITTED BY THE DEVELOPER PRIOR TO CONSTRUCTION.

CALCULATION SUMMARY

SITE LIGHTING CALCULATION STATISTICS	Avg	Max	Min	Max/Min	Avg/Min
MAIN PARKING AREA	2.3	6.3	0.4	15.8 : 1.0	5.8 : 1.0
ENTIRE SITE	1.1	6.8	0.0	N/A	N/A

NOTE: THE MAXIMUM TO MINIMUM LIGHT LEVEL RATIO SET BY IESNA FOR PARKING LOTS IS, 20:1



BUILDING No.1
FOOD MARKET
170' x 120'
22,450 S.F.
MEZZANINE
3,500 S.F.

RETAIL / RESTAURANT
6,000 S.F.

RETAIL / RESTAURANT
5,400 SQ. FT.

BUILDING No.2
RETAIL / RESTAURANT
25,000 S.F.

BUILDING No.3
FITNESS CENTER
22,000 S.F. (FIRST FLOOR)
8,000 S.F. (MEZZANINE)

BUILDING No.4
RETAIL / RESTAURANT
4,000 S.F.
BANK
WITH DRIVE THRU
3,000 S.F.

BUILDING No.5
RESTAURANT
6,500 SQ. FT.

BUILDING No.6
RETAIL / RESTAURANT
6,400 S.F.

BUILDING No.7
WITH DRIVE THRU
2,000 S.F.

EXISTING CHILDREN'S LEARNING CENTER
7,700± S.F.

PROPOSED DOT STORMWATER MANAGEMENT BASIN

PROPOSED DOT PARCEL LINE

CART | CART

SKIPPACK PIKE
S.R. 73 : L.R. 197

DEKALB PIKE
U.S. ROUTE 202 : L.R. 178

1 STORY BUILDING
2 STORY BUILDING
3 STORY BUILDING
GARAGE
SHED

40 20 10 5 0 20 40 80
SCALE : 1" = 40'

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■ Albuquerque, NM

State of NJ, Certificate of Authorization: 24GA27986500

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ALL STATES REQUIRE NOTIFICATION OF EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN ANY STATE
FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM

NO	DATE	DRAWN BY	DESCRIPTION

COMMONWEALTH OF PENNSYLVANIA
RUSSELL T. McFALL II
PROFESSIONAL ENGINEER
RUSSELL T. McFALL II
PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER PA LICENSE NO. PE060408

FINAL LAND DEVELOPMENT PLANS
FOR
MADISON DEVELOPMENT GROUP, INC.

DEKALB PIKE AT SKIPPACK PIKE

WHITPAIN TOWNSHIP
MONTGOMERY COUNTY
PENNSYLVANIA

EXTON OFFICE
410 Eagleview Boulevard
Suite 104
Exton, PA 19341
Phone: 610.254.9140
Fax: 610.254.9141
email: solutions@maserconsulting.com

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	11/30/15	RMA	RTH
PROJECT NUMBER: 12000830A	DRAWING NAME: C-LGHT		

SHEET TITLE:
OVERALL LIGHTING PLAN EXHIBIT

SHEET NUMBER:
1 of 1

I:\2000\830A\Engineering\C-LGHT-Lighting Plan EXHIBIT.Dwg By: MARKUS

SYMBOLS

Interior Elevation Number
Sheet Number
Elevation Or Section Number
Sheet Number
Detail Number
Sheet Number
Working Point Or Control Point
New Column
Existing Column
Magnetic North
Plan North
Revision Number
& And
@ At
# Number Or Pound
Ø Diameter
℄ Center Line
Dimension to Face of Material

MATERIALS

Concrete Masonry Unit
Brick
Concrete
Porous Fill, Stone Or Gravel
Earth
Insulation - Batt, Blanket Or Loose
Insulation - Rigid
Glass In Elevation
Wood - Continuous Lumber
Wood - Blocking
Wood - Finish
Plywood - Small Scale
Plywood - Large Scale
Gypsum Board
Steel
Stone

STANDARD ABBREVIATIONS

AB	Anchor Bolt	FEC	Fire Extinguisher Cabinet	OPG	Opening
ADJ	Adjustable	FHC	Fire Hose Cabinet	OPP	Opposite
AFF	Above Finished Floor	FIN	Finish	OSB	Oriented Strand Board
AHU	Air Handling Unit	FIXT	Fixture		
ALUM	Aluminum	FLR	Floor	PCC	Precast Concrete
ALT	Alternate	FLUOR	Fluorescent	PFCS	Perimeter Fire Containment System
APC	Acoustic Panel Ceiling	FOC	Face Of Concrete		
APPROX	Approximate	FOF	Face Of Finish	PL	Plate
ARCH	Architectural	FOM	Face Of Masonry	PLAM	Plastic Laminate
		FOS	Face Of Studs	PLYWD	Plywood
BD	Board	FRJS	Fire Resistive Joint System	PR	Pair
BITUM	Bituminous	FRP	Fiberglass Reinforced Plastic	PSF	Pounds Per Square Foot
BLDG	Building	FRT	Fire Retardant Treated	PSI	Pounds Per Square Inch
BLKG	Blocking	FT	Foot	PSL	Parallel Strand Board
BM	Beam	FTG	Footing	PT	Pressure Treated
BRG	Bearing	FURR	Furring	PTAC	Packaged Terminal Air Conditioner
BSMT	Basement	FUT	Future		
BUR	Built-up Roofing			PTD	Painted
BW	Both Ways	GA	Gauge	PVMT	Pavement
		GALV	Galvanized		
CAB	Cabinet	GFCI	Ground Fault Circuit Interrupter	R	Riser or Radius
CB	Catch Basin			RD	Roof Drain
CCTV	Closed Circuit Television	GL	Glass	REF	Reference
CEM	Cement	GR	Grade	REFR	Refrigerator
CF/CI	Contractor Furnished / Contractor Installed	GYP BD	Gypsum Board	REINF	Reinforced
				REQD	Required
CF/OI	Contractor Furnished / Owner Installed	HB	Hose Bibb	RES	Resilient
		HC	Hollow Core	RM	Room
CI	Cast Iron	HDW	Hardware	RO	Rough Opening
CIP	Cast-in-place	HDWD	Hardwood	RWC	Rain Water Conductor
CJ	Control Joint	HM	Hollow Metal		
CLG	Ceiling	HORIZ	Horizontal	S	South
CLO	Closet	HP	High Point	SC	Solid Core
CLR	Clear	HR	Hour	SCHED	Schedule
CMU	Concrete Masonry Unit	HSS	Hollow Structural Section	SECT	Section
CNTR	Center	HT	Height	SF	Square Feet
COL	Column			SFRM	Spray Fire Resistive Materials
CONC	Concrete	ID	Inside Diameter	SIM	Similar
CONST	Construction	IN	Inch	SPEC	Specification
CONT	Continuous	INS	Insulation	SPM	Single Ply Membrane
CORR	Corridor	INT	Interior	SQ	Square
CRS	Course(s)			SS	Stainless Steel
CPT	Carpet	JAN	Janitor	STA	Station
CT	Ceramic Tile	JST	Joist	STD	Standard
		JT	Joint	STL	Steel
DBL	Double			STOR	Storage
DEPT	Department	LAB	Laboratory	STRUCT	Structure
DET	Detail	LAM	Laminate	SUSP	Suspended
DF	Drinking Fountain	LAV	Lavatory	SYM	Symmetrical
DH	Double Hung	LCC	Lead Coated Copper		
DIA	Diameter	LP	Low Point	T	Tread
DIM	Dimension	LTTR	Long Term Thermal Resistance	T&G	Tongue & Groove
DN	Down	LVL	Laminated Veneer Lumber	TEL	Telephone
DS	Downspout			THK	Thick
DWG	Drawing	MAS	Masonry	TOC	Top Of Concrete
		MAX	Maximum	TOF	Top Of Finish
E	East	MDF	Medium Density Fiberboard	TOM	Top Of Masonry
EA	Each	MECH	Mechanical	TOS	Top Of Steel
EIFS	Exterior Insulation and Finish System	MEP	Mechanical, Electrical, Plumbing	TPO	Thermoplastic Polyolefin
				TYP	Typical
EJ	Expansion Joint	MFR	Manufacturer		
EL	Elevation	MIN	Minimum	UNO	Unless Noted Otherwise
ELEC	Electrical	MISC	Miscellaneous		
ELEV	Elevator	MO	Masonry Opening	VCT	Vinyl Composition Tile
EMER	Emergency	MOD BIT	Modified Bituminous	VERT	Vertical
ENCL	Enclosure	MT	Marble Threshold	VEST	Vestibule
EOS	Edge of Slab	MTD	Mounted	VIF	Verify In Field
EPDM	Ethylene Propylene Diene Monomer	MTL	Metal		
		MUL	Mullion	W	West
EPS	Expanded Polystyrene Insulation			W/	With
		N	North	W/O	Without
EQ	Equal	NIC	Not In Contract	WC	Water Closet
EQUIP	Equipment	NO	Number	WD	Wood
ETR	Existing to Remain	NOM	Nominal	WH	Water Heater
EW	Each Way	NTS	Not To Scale	WIC	Walk-in-Closet
EWC	Electric Water Cooler			WP	Working Point
EXIST	Existing	OC	On Center	WRB	Water-Resistive Barrier
EXP	Expansion	OD	Outside Diameter	WSCT	Wainscot
EXT	Exterior	OF/CI	Owner Furnished/ Contractor Installed	WT	Weight
				WWF	Welded Wire Fabric
FA	Fire Alarm	OF/OI	Owner Furnished/ Owner Installed	XPS	Extruded Polystyrene Insulation
FD	Floor Drain				
FDN	Foundation	OFF	Office		
FE	Fire Extinguisher	OH	Overhead		

HARDSCAPE PLANS FOR:

CENTRE SQUARE COMMONS

DEKALB PIKE & SKIPPACK PIKE
BLUE BELL, PENNSYLVANIA 19422

Owner:
MADISON DEVELOPMENT GROUP, INC.
1601 Walnut Street, Suite 502
Philadelphia, Pennsylvania 19102
T 215-568-9495 F 215-359-1370
Contact: John McKenna
E-mail: jmckenna@madisondevelopmentgrp.com

Architect: Consultant to Owner
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Kennett Square, Pennsylvania 19348
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Contact: Timothy J. Cassidy
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Civil Engineer: Consultant to Owner
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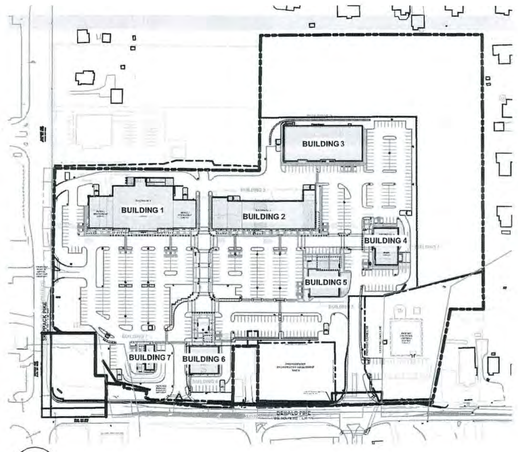
410 Eagleview Boulevard, Suite 104
Exton, Pennsylvania 19341
T 610-254-9140 F 610-254-9141
Contact: Russell T. McFall II
E-mail: rmcfall@maserconsulting.com

1 LOCATION MAP



2 SITE PLAN

LIST OF SHEETS

Sheet No	Sheet Title	Latest Issue Date
GENERAL		
G001	COVER SHEET	11/30/15
HARDSCAPE		
HS100	SITE PLAN - OVERALL	11/30/15
HS101	SITE PLAN - BUILDING 1	11/30/15
HS102	SITE PLAN - BUILDING 2	11/30/15
HS103	SITE PLAN - BUILDING 3	11/30/15
HS104	SITE PLAN - BUILDINGS 4 & 5	11/30/15
HS105	SITE PLAN - BUILDINGS 6 & 7	11/30/15
HS106	SITE PLAN - PROMENADE	11/30/15
HS107	DETAILED PLAN - PROMENADE EAST	11/30/15
HS108	DETAILED PLAN - PROMENADE WEST	11/30/15
HS109	DETAILED PLAN - SOUTH END PLAZA	11/30/15
HS110	HARDSCAPE DETAILS	11/30/15
HS111	HARDSCAPE - PAVING DETAILS	11/30/15
HS112	HARDSCAPE DETAILS	11/30/15

KEY INFORMATION

1. Applicable Code(s) & Regulations For This Project:

   STATE:
   2009 IBC (International Building Code With Amendments)
   2012 IBC (Chapter 11 "Accessibility" and Appendix E "Supplementary Accessibility Requirements")
   ICC A117.1-2009 (Accessibility required by IBC)

   FEDERAL:
   2010 ADA Standards for Accessible Design

2. Authority having jurisdiction: WHITPAIN TOWNSHIP (Montgomery County, PA)
3. WHITPAIN TOWNSHIP Zoning Map: S.C. (Shopping Center Zoning District)
4. New multiple single story retail buildings on 21.78 total acres.

GENERAL NOTES

1. All work shall be in accordance with applicable state and local building codes and all other governing agencies and regulations.
2. Contractor shall verify all conditions and dimensions in the field prior to commencement of the work. Verify layout in relation to property, benchmarks, and other fixed conditions. Report discrepancies to the Architect immediately upon discovery.
3. Notify Architect of discrepancies regarding the Contract Documents or design intent immediately upon discovery. Contractor shall be responsible for obtaining clarification prior to proceeding with the work or related work.
4. Contractor shall obtain all required building permits and licenses.
5. Contractor shall remove all rubbish and debris from the site during course of project, and dispose of legally off-site.
6. Contractor shall perform all cutting, patching and protection required to complete the work indicated on the Contract Documents.
7. Contractor shall provide all inspections and tests required by state and local authorities including but not limited to [earthwork, concrete, steel erection] mechanical, plumbing, and electrical work. Refer to individual drawings and specifications for additional testing requirements.
8. Unless indicated otherwise in Specifications, products and manufacturers are noted to establish the type and quality of materials to be provided. Contractor may submit proposed substitutions to the Architect for review, with enough supporting data provided for the Architect to make an evaluation. Contractor shall include costs associated with proposed substitution, including redesign, and alteration of adjacent work to accept substitution.
9. All dimensions are either to the center lines of trees grates, decorative light poles edge of building, edge of curb, edge of paver unit, pave band or paver field unless noted otherwise. Drawings are not to be scaled.
10. Install all equipment and materials per manufacturer's instructions and recommendations unless specifically otherwise indicated, or where local codes and regulations take precedence.
11. Contractor shall provide supervision while any subcontractors or workers are on the job site and shall supervise and direct all work.
12. Contractor shall be solely responsible for all construction means, methods, techniques, sequences, procedures, site safety, [erosion and sedimentation control,] and coordinating the work of all trades under the contract.
13. No products containing asbestos or other hazardous materials shall be installed on this project or used during the construction of the project. It shall be the responsibility of the Contractor to certify to the Owner that this requirement has been met. Subcontractors shall verify to the Contractor that no asbestos or other hazardous products are used in their work.
14. Spot elevations where provided within this document set, shall be utilized for construction. For all other proposed elevations and surface gradients, refer to the grading plans prepared by Maser Consulting P.A. (Civil Engineer). The contractor shall be responsible for assuring positive drainage on all hardscape surfaces.
15. Delegated Design: When professional design services or certifications related to systems, materials, or equipment are required by these documents, the Architect/Engineer will specify performance and design criteria that such services must satisfy. The Contractor shall cause such services and certifications to be provided by a properly licensed design professional, whose signature and seal shall appear on all drawings, calculations, Shop Drawings and other related submittals. The Owner and Architect/Engineer shall be entitled to rely upon the accuracy and completeness of those delegated services. The Architect/Engineer will review submittals only for the limited purpose of checking for conformance with the performance and design criteria.
16. Verify that all ADA ramps and curb cuts have been installed in the locations shown on these documents prior to commencing work in these areas.

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425 McFarlan Road, Suite 200
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Wilmington, Delaware

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Project:
CENTRE SQUARE COMMONS
Dekalb Pike & Skippack Pike
Blue Bell, Pennsylvania 19422

Owner:
MADISON DEVELOPMENT GROUP, INC.
1601 Walnut Street, Suite 502
Philadelphia, Pennsylvania 19102
215-568-9495

Revision/Issue:

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1	11/30/15	Final Land Development - revised per Township comments. (Not for Construction)

Drawn:
Reviewed:
Contact: Timothy J. Cassidy
Project Number: 1936.02-15

Sheet Title:
COVER SHEET

Sheet Number:
G001

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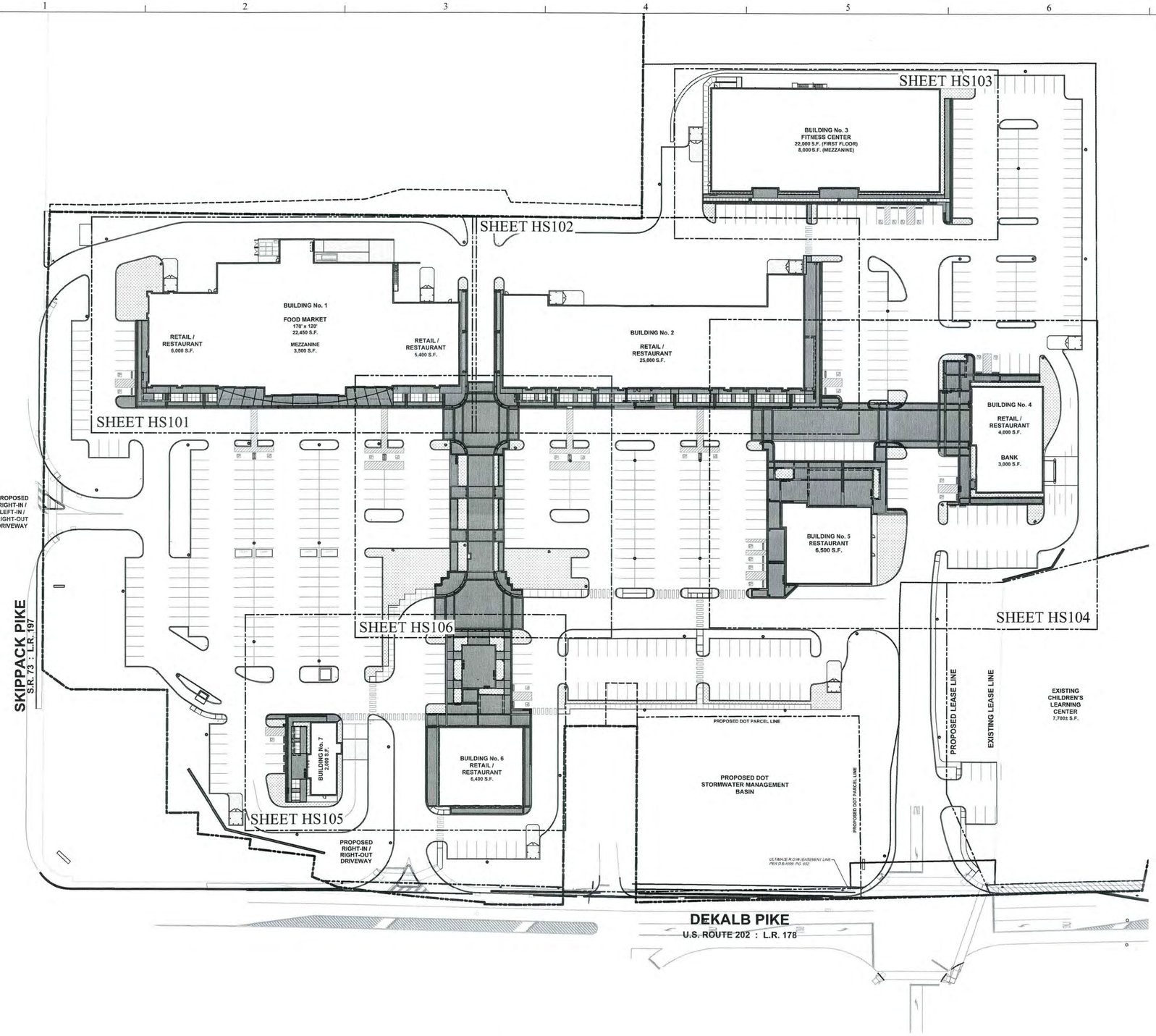
LD-3-15 & S-3-15



1 SITE PLAN - OVERALL

SCALE : 1" = 50' -0"

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LANDSCAPE ARCHITECTURE

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Drawn: -
Reviewed:
Contact: Timothy J. Cassidy
Project Number: 1936.02-15

Sheet Title:

SITE PLAN - OVERALL

Sheet Number:

HS100

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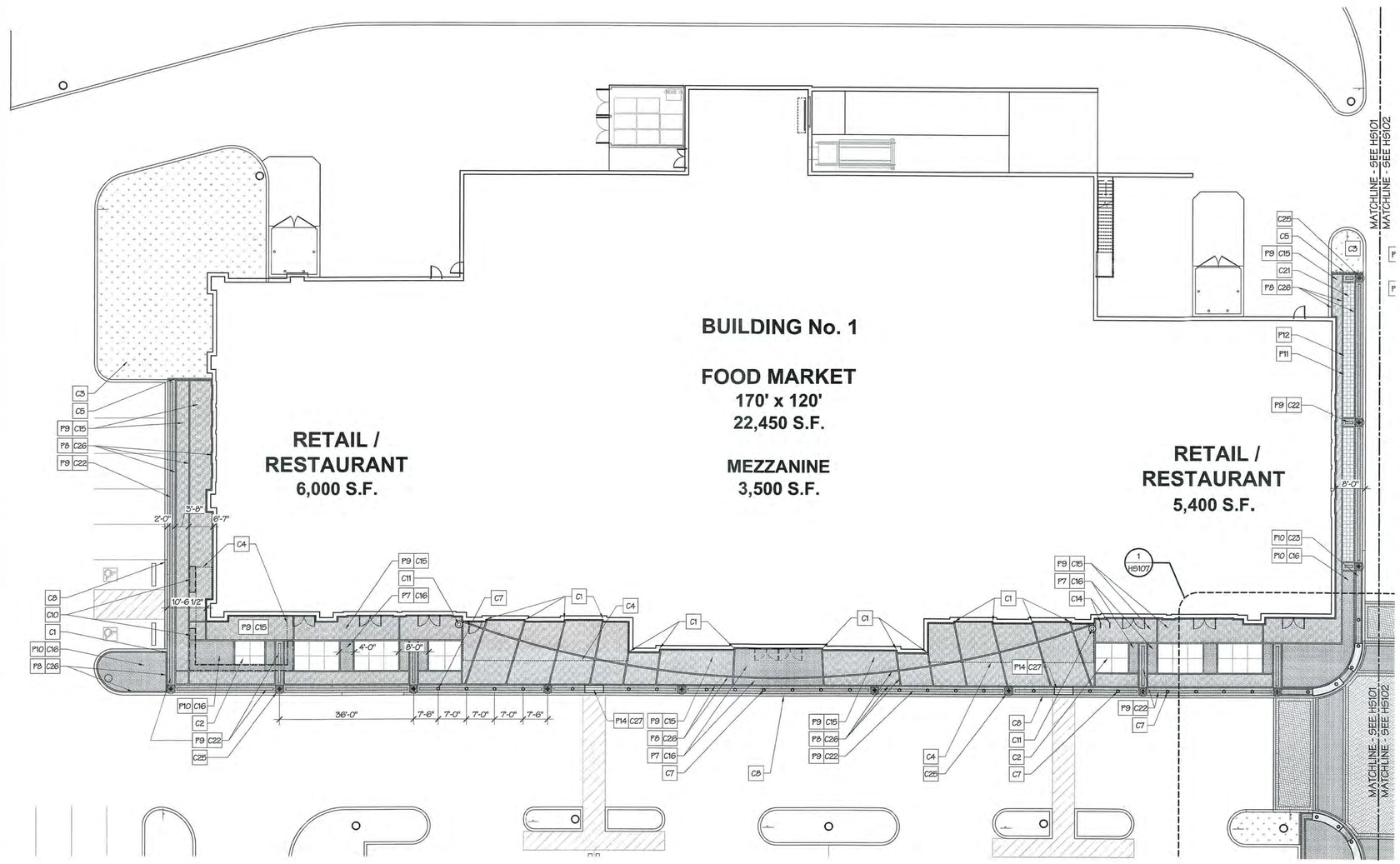

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- P3 PRECAST CONCRETE UNIT PAVER - 3 7/8" x 7 7/8" x 3 1/8" (NOM. W x L x H), RED.
- P4 PRECAST CONCRETE UNIT PAVER - 3 7/8" x 7 7/8" x 3 1/8" (NOM. W x L x H), BLACK.
- P5 PRECAST CONCRETE UNIT PAVER - 6 1/4" x 9 1/2" x 2 3/8" (NOM. W x L x H), GRAY BLEND.
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- C5 SUB-GRADE UNIT PAVER EDGE RESTRAINT, SEE 4/HS110.
- C6 ADHERED STONE MASONRY VENEER ON CMU (SEAT WALL) WITH CAST STONE CAP, SEE 5/HS110.
- C7 CAST IRON BOLLARD WITH CONCRETE FOOTING, SEE 6/HS110.
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- C12 STEEL BENCH, SEE 11/HS110.
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- C15 PAVER FIELD - 45° HERRINGBONE PATTERN, SEE 1/HS111 & 2/HS110.
- C16 PAVER FIELD - 90° HERRINGBONE PATTERN, SEE 2/HS111 & 2/HS110.
- C17 PAVER FIELD - 90° RUNNING BOND PATTERN WITH BORDER, SEE 3/HS111 & 3/HS110.
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- C26 FIELD / EDGE BORDER PAVERS, SINGLE ROW SAILOR COURSE PAVER TYPE P8, SEE 12/HS111 & 2/HS110.
- C27 DETECTABLE WARNING PAVING AT FLUSH CURB CROSSWALKS, SEE 1/HS112, 2/HS112 & 3/HS112.

1 PARTIAL SITE PLAN - BUILDING 1
SCALE : 1/16" = 1'-0"

0' 4' 8' 16' 32'

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INTERIOR DESIGN
LANDSCAPE ARCHITECTURE

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Reviewed:
Contact: Timothy J. Cassidy
Project Number: 1936.02-15

Sheet Title:
SITE PLAN - BUILDING 1

Sheet Number:
HS101

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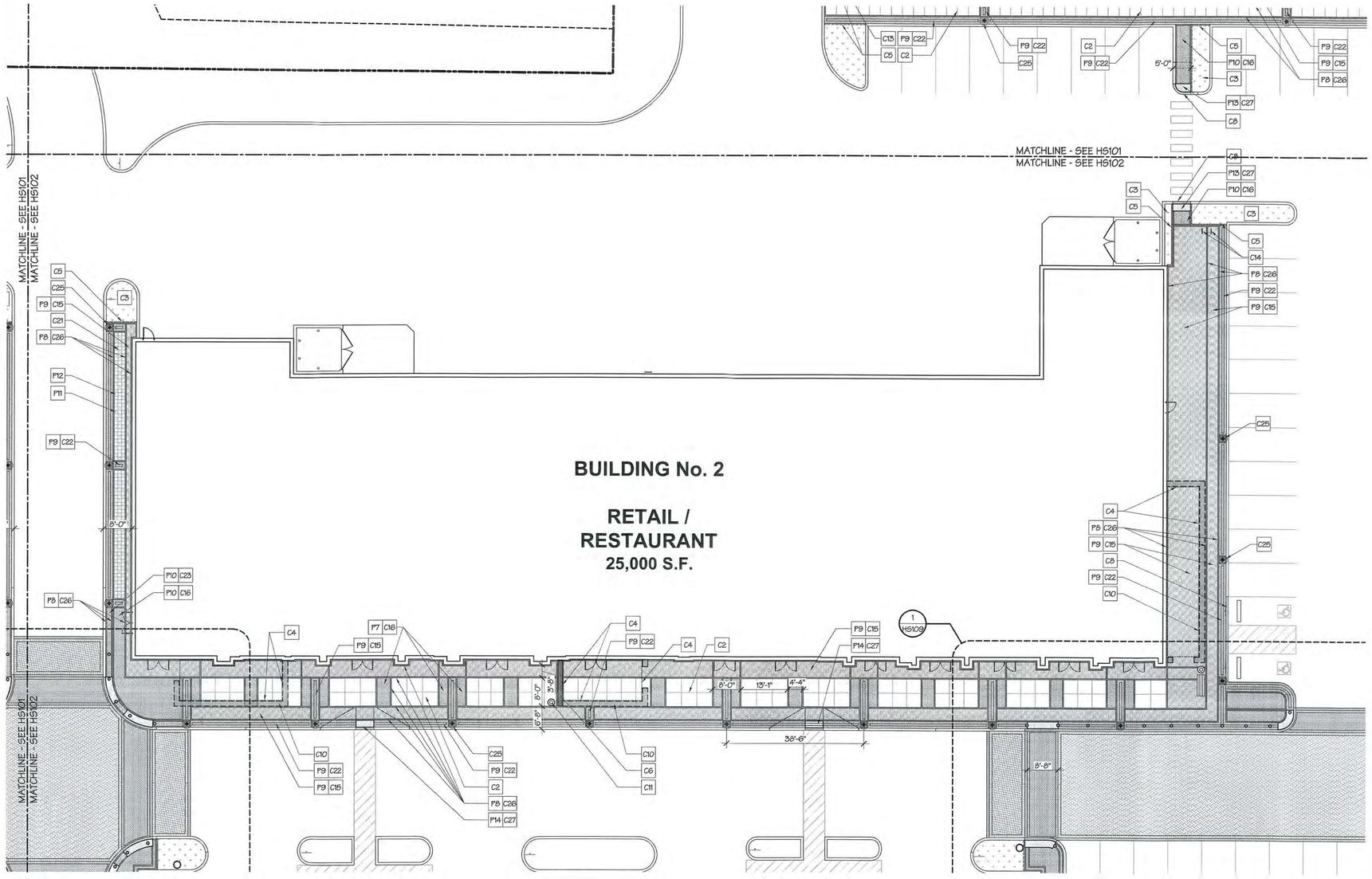
P:\1936.02-15 Centre Square Hankypan\CAD\Sheets\HS101 SITE PLAN - BUILDING 1.dwg 11/24/2015 11:48:42 AM



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- C25 PEDESTRIAN LIGHT POLE BASE SURROUND, SINGLE ROW SAILOR COURSE, SEE 11/HS111 & 2/HS110.
- C26 FIELD / EDGE BORDER PAVERS, SINGLE ROW SAILOR COURSE PAVER TYPE F8, SEE 12/HS111 & 2/HS110.
- C27 DETECTABLE WARNING PAVING AT FLUSH CURB CROSSWALKS, SEE 1/HS112, 2/HS112 & 3/HS112.

1 PARTIAL SITE PLAN - BUILDING 2

SCALE : 1/16" = 1'-0"

0' 4' 8' 16' 32'

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ARCHITECTURE
INTERIOR DESIGN
LANDSCAPE ARCHITECTURE

425 McFarlan Road, Suite 200
Kennett Square, Pennsylvania 19348
t. 610 444 2900 | f. 610 444 6525

Wilmington, Delaware

www.bernardon.com

Project:

CENTRE SQUARE COMMONS
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Blue Bell, Pennsylvania 19422

Owner:

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215-568-9495

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Drawn: -
Reviewed:
Contact: Timothy J. Cassidy
Project Number: 1936.02-15

Sheet Title:

SITE PLAN - BUILDING 2

Sheet Number:

HS102

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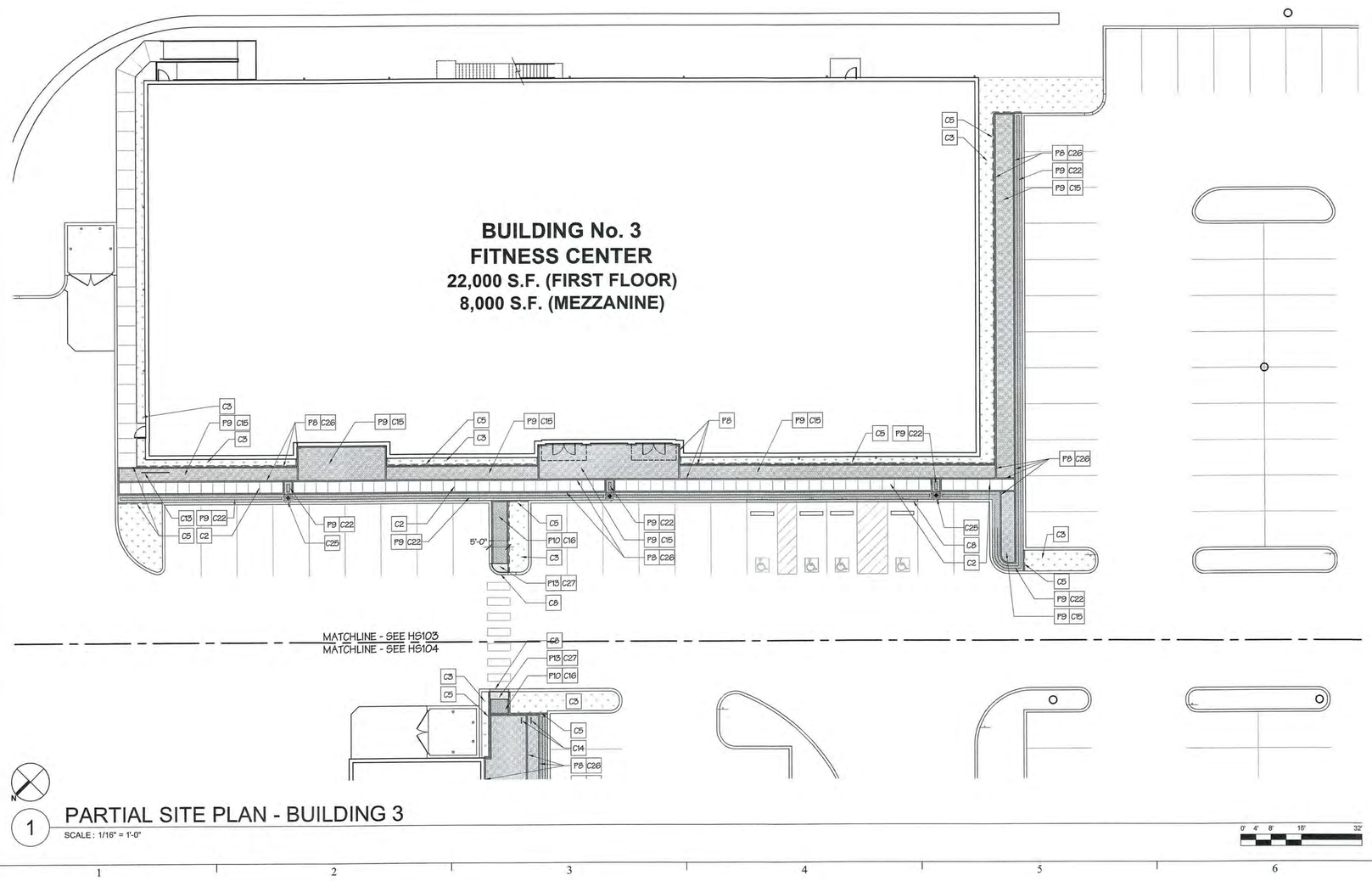

1 PARTIAL SITE PLAN - BUILDING 3

SCALE : 1/16" = 1'-0"

0' 4' 8' 16' 32'

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BERNARDON

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Wilmington, Delaware

www.bernardon.com

COMMONWEALTH OF PENNSYLVANIA REGISTERED TIMOTHY J. CASSIDY REGISTERED LANDSCAPE ARCHITECT

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Dekalb Pike & Skippack Pike
Blue Bell, Pennsylvania 19422

Owner:

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Drawn:
Reviewed:
Contact: Timothy J. Cassidy
Project Number: 1936.02-15

Sheet Title:

SITE PLAN - BUILDING 3

Sheet Number:

HS103

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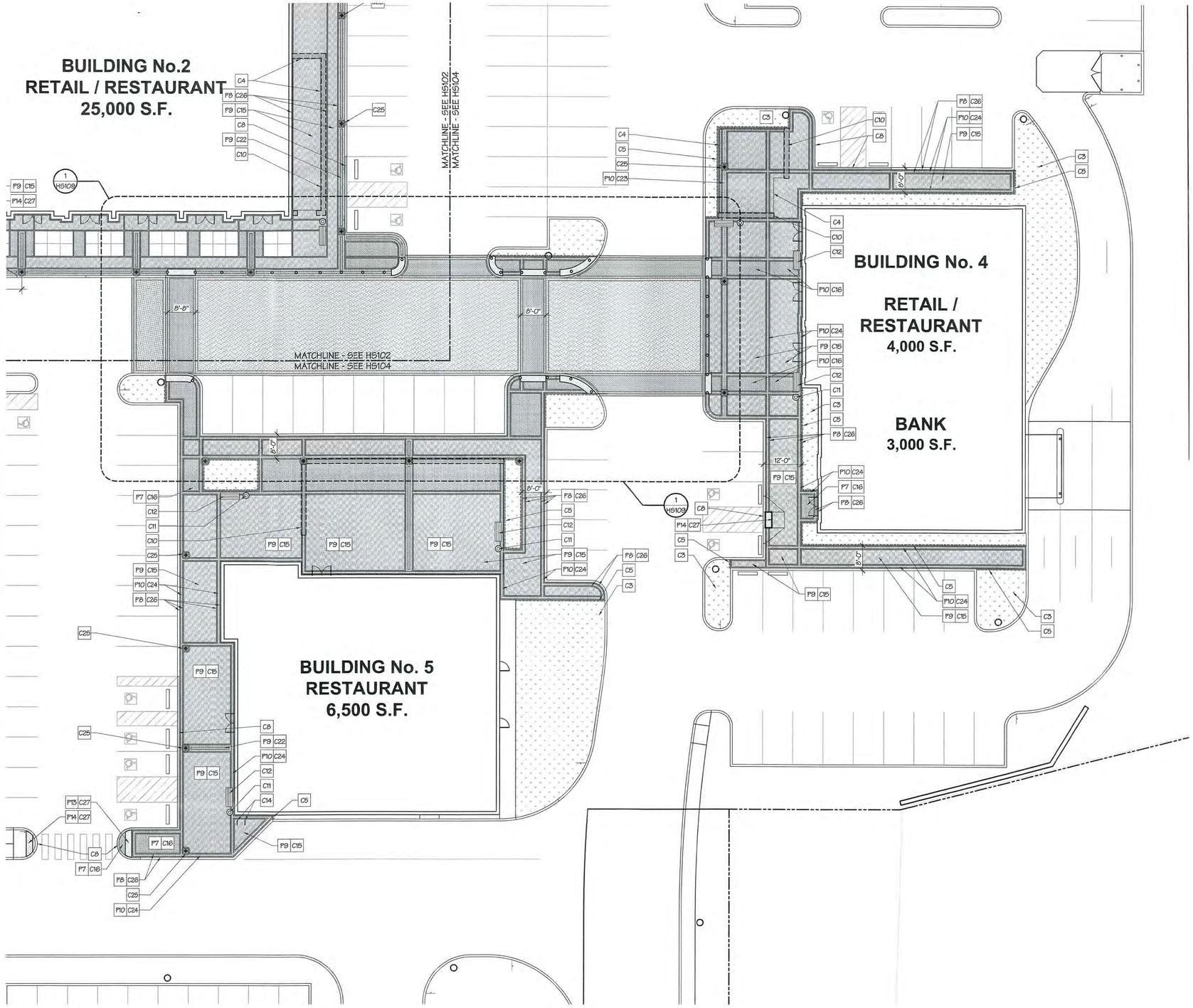

1 PARTIAL SITE PLAN - BUILDINGS 4 & 5
SCALE : 1/16" = 1'-0"

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- P8 PRECAST CONCRETE UNIT PAVER - 3 7/8" x 7 7/8" x 2 3/8" (NOM. W x L x H), BLACK.
- P9 PRECAST CONCRETE UNIT PAVER - 3 7/8" x 7 7/8" x 2 3/8" (NOM. W x L x H), RED BLEND.
- P10 PRECAST CONCRETE UNIT PAVER - 3 7/8" x 7 7/8" x 2 3/8" (NOM. W x L x H), GRAY BLEND.
- P11 PRECAST CONCRETE UNIT PAVER - 11 7/8" x 11 7/8" x 2 3/4" (NOM. W x L x H), BLACK COLOR.
- P12 PRECAST CONCRETE UNIT PAVER - 11 7/8" x 11 7/8" x 2 3/4" (NOM. W x L x H), LIGHT GRAY.
- P13 PRECAST CONCRETE DETECTABLE WARNING UNIT PAVER - 3 7/8" x 7 7/8" x 2 3/8" (NOM. W x L x H), BLACK COLOR WITH ADA-COMPLIANT TRUNCATED DOMES.
- P14 PRECAST CONCRETE DETECTABLE WARNING UNIT PAVER - 3 7/8" x 7 7/8" x 2 3/8" (NOM. W x L x H), NATURAL COLOR WITH ADA-COMPLIANT TRUNCATED DOMES.
- C1 ALIGN WITH SITE ELEMENT (CURB FACE, EDGE OF SIDEWALK, FACE OF WALL, ETC.).
- C2 CONCRETE SIDEWALK PAVING, SEE 1/HS110.
- C3 PLANTING AREA
- C4 OUTDOOR DINING AREA
- C5 SUB-GRADE UNIT PAVER EDGE RESTRAINT, SEE 4/HS110.
- C6 ADHERED STONE MASONRY VENEER ON CMU (SEAT WALL) WITH CAST STONE CAP, SEE 5/HS110.
- C7 CAST IRON BOLLARD WITH CONCRETE FOOTING, SEE 6/HS110.
- C8 FLUSH CONCRETE CURB (ROAD EDGE), SEE 7/HS110 AND CIVIL ENGINEER DETAILS.
- C9 FLUSH CONCRETE CURB (TRANSVERSE CARTWAY), SEE 8/HS110.
- C10 FIBERGLASS PLANTER, SEE 9/HS110.
- C11 STEEL TRASH RECEPTACLE, SEE 10/HS110.
- C12 STEEL BENCH, SEE 11/HS110.
- C13 STEEL BICYCLE RACK - MULTIPLE, SEE 12/HS110.
- C14 STEEL BICYCLE RACK - SINGLE, SEE 13/HS110.
- C15 PAVER FIELD - 45° HERRINGBONE PATTERN, SEE 1/HS111 & 2/HS110.
- C16 PAVER FIELD - 90° HERRINGBONE PATTERN, SEE 2/HS111 & 2/HS110.
- C17 PAVER FIELD - 90° RUNNING BOND PATTERN WITH BORDER, SEE 3/HS111 & 3/HS110.
- C18 PAVER FIELD - 45° RUNNING BOND PATTERN WITH BORDER, SEE 4/HS111 & 2/HS110.
- C19 PAVER FIELD - 45° HERRINGBONE (MODIFIED) PATTERN WITH SOLDIER BORDER, SEE 5/HS111, 2/HS110 & 3/HS110.
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- C21 PAVER FIELD - STACKED BOND PATTERN, ALTERNATE PAVERS P11 AND P12 (CHECKERBOARD) AS SHOWN, SEE 7/HS111 & 2/HS110.
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- C23 PAVER BAND - DOUBLE ROW SOLDIER COURSE, SEE 9/HS111 & 2/HS110.
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- C25 PEDESTRIAN LIGHT POLE BASE SURROUND, SINGLE ROW SAILOR COURSE, SEE 11/HS111 & 2/HS110.
- C26 FIELD / EDGE BORDER PAVERS, SINGLE ROW SAILOR COURSE PAVER TYPE P8, SEE 12/HS111 & 2/HS110.
- C27 DETECTABLE WARNING PAVING AT FLUSH CURB CROSSWALKS, SEE 1/HS112, 2/HS112 & 3/HS112.

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Wilmington, Delaware

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Project:

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Drawn: -
Reviewed:
Contact: Timothy J. Cassidy
Project Number: 1936.02-15

Sheet Title:

SITE PLAN - BUILDINGS 4 & 5

Sheet Number:

HS104

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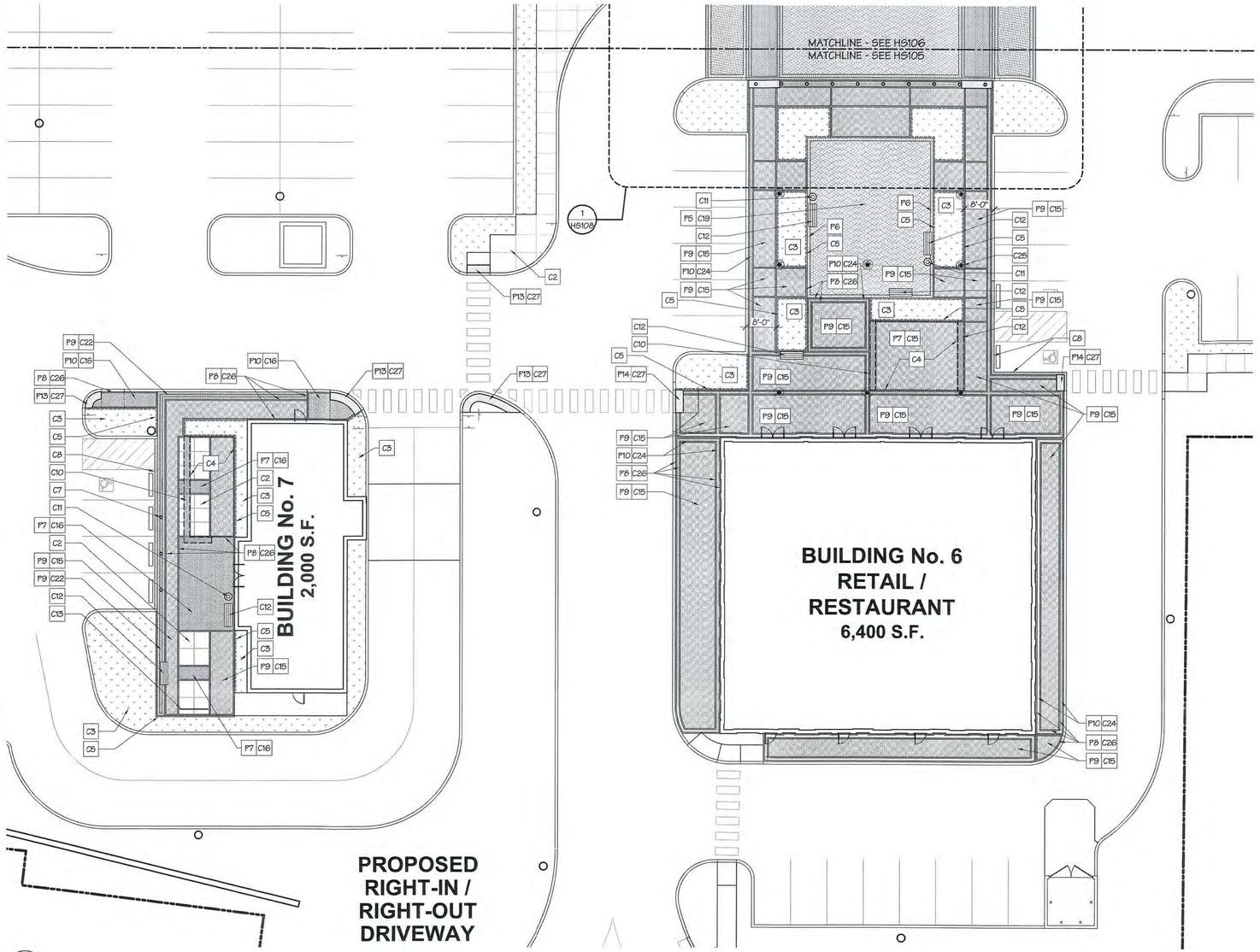

1 PARTIAL SITE PLAN - BUILDINGS 6 & 7

SCALE : 1/16" = 1'-0"

0' 4' 8' 16' 32'

GENERAL NOTES

1. THESE PLANS ARE FOR LAND DEVELOPMENT APPROVAL OF THE CURB-TO-BUILDING HARDSCAPE ELEMENTS ONLY; NOT FOR CONSTRUCTION.
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- P3 PRECAST CONCRETE UNIT PAVER - 3 7/8" x 7 7/8" x 3 1/8" (NOM. W x L x H), RED.
- P4 PRECAST CONCRETE UNIT PAVER - 3 7/8" x 7 7/8" x 3 1/8" (NOM. W x L x H), BLACK.
- P5 PRECAST CONCRETE UNIT PAVER - 6 1/4" x 9 1/2" x 2 3/8" (NOM. W x L x H), GRAY BLEND.
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- C5 SUB-GRADE UNIT PAVER EDGE RESTRAINT, SEE 4/HS110.
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- C27 DETECTABLE WARNING PAVING AT FLUSH CURB CROSSWALKS, SEE 1/HS112, 2/HS112 & 3/HS112.

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Drawn:
Reviewed:
Contact: Timothy J. Cassidy
Project Number: 1936.02-15

Sheet Title:

SITE PLAN - BUILDINGS 6 & 7

Sheet Number:

HS105

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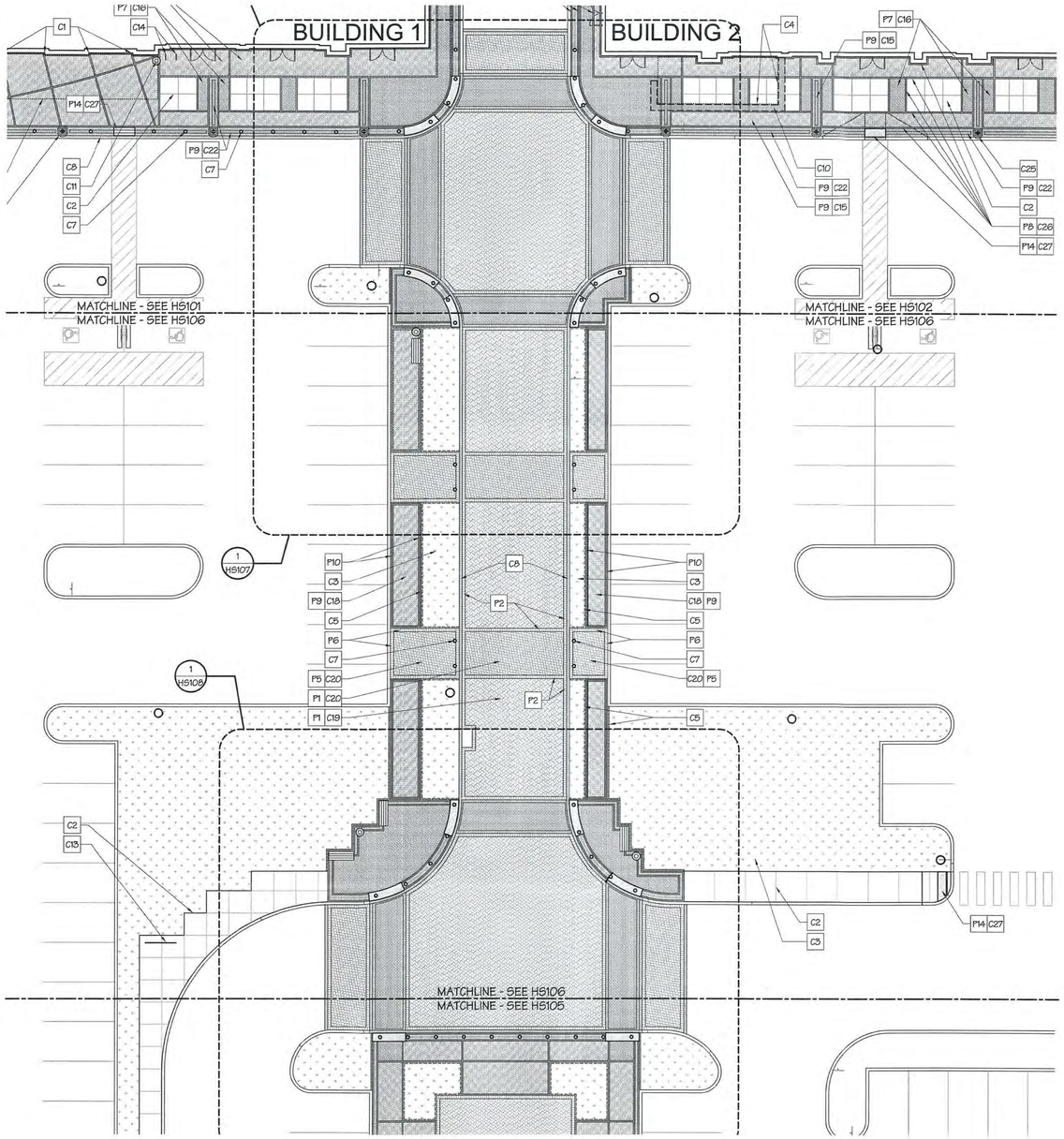

1 PARTIAL SITE PLAN - PROMENADE

SCALE : 1/16" = 1'-0"

0' 4' 8' 16' 32'

GENERAL NOTES

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- C26 FIELD / EDGE BORDER PAVERS, SINGLE ROW SAILOR COURSE PAVER TYPE P8, SEE 12/HS111 & 2/HS110.
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Drawn:
Reviewed:
Contact: Timothy J. Cassidy
Project Number: 1936.02-15

Sheet Title:

SITE PLAN - PROMENADE

Sheet Number:

HS106

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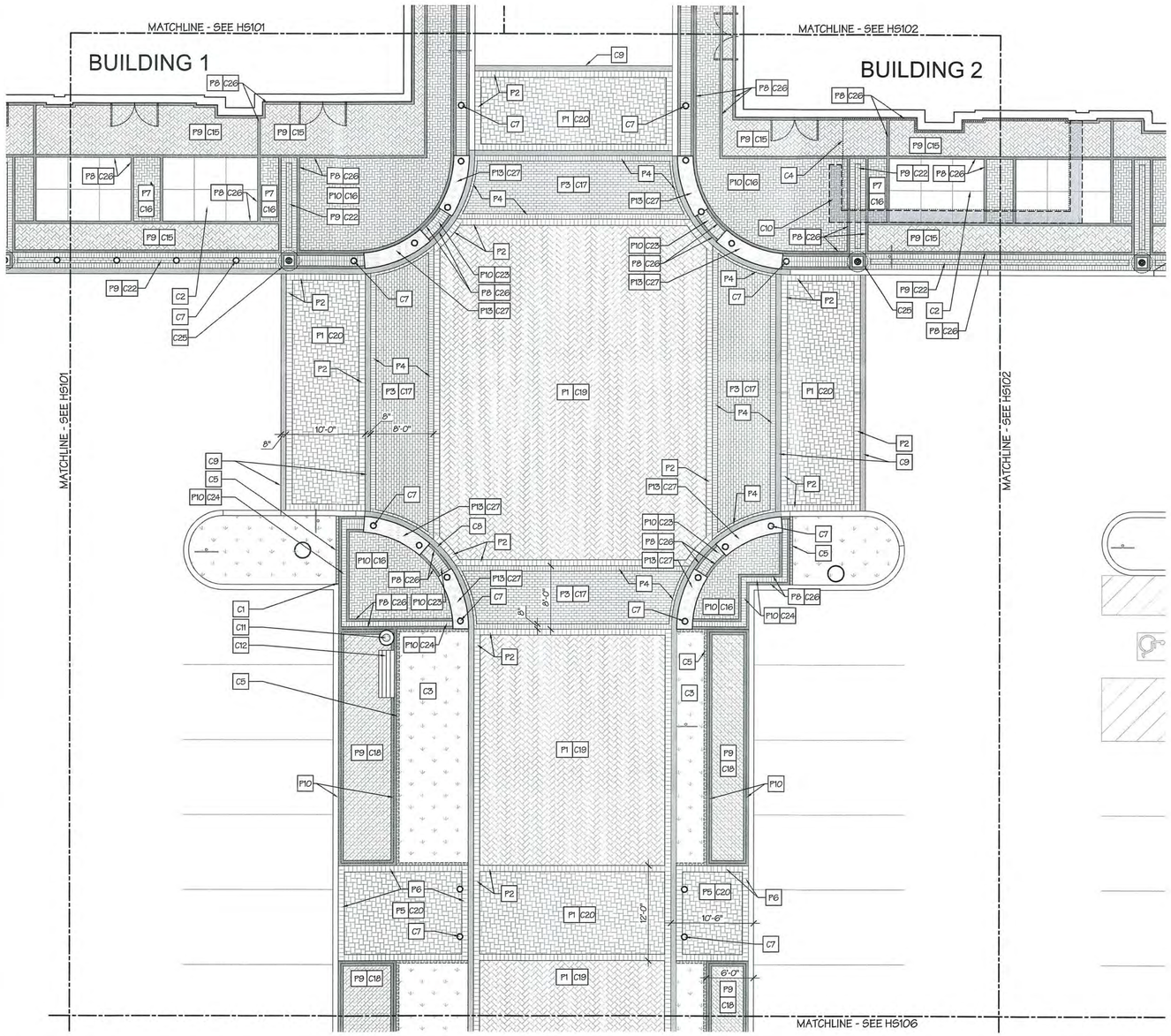

1 DETAILED SITE PLAN - PROMENADE EAST

SCALE : 1/8" = 1'-0"

GENERAL NOTES

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COMMONWEALTH OF PENNSYLVANIA TIMOTHY J. CASSIDY REGISTERED LANDSCAPE ARCHITECT

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Reviewed:
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Project Number: 1936.02-15

Sheet Title:

DETAILED PLAN - PROMENADE EAST

Sheet Number:

HS107

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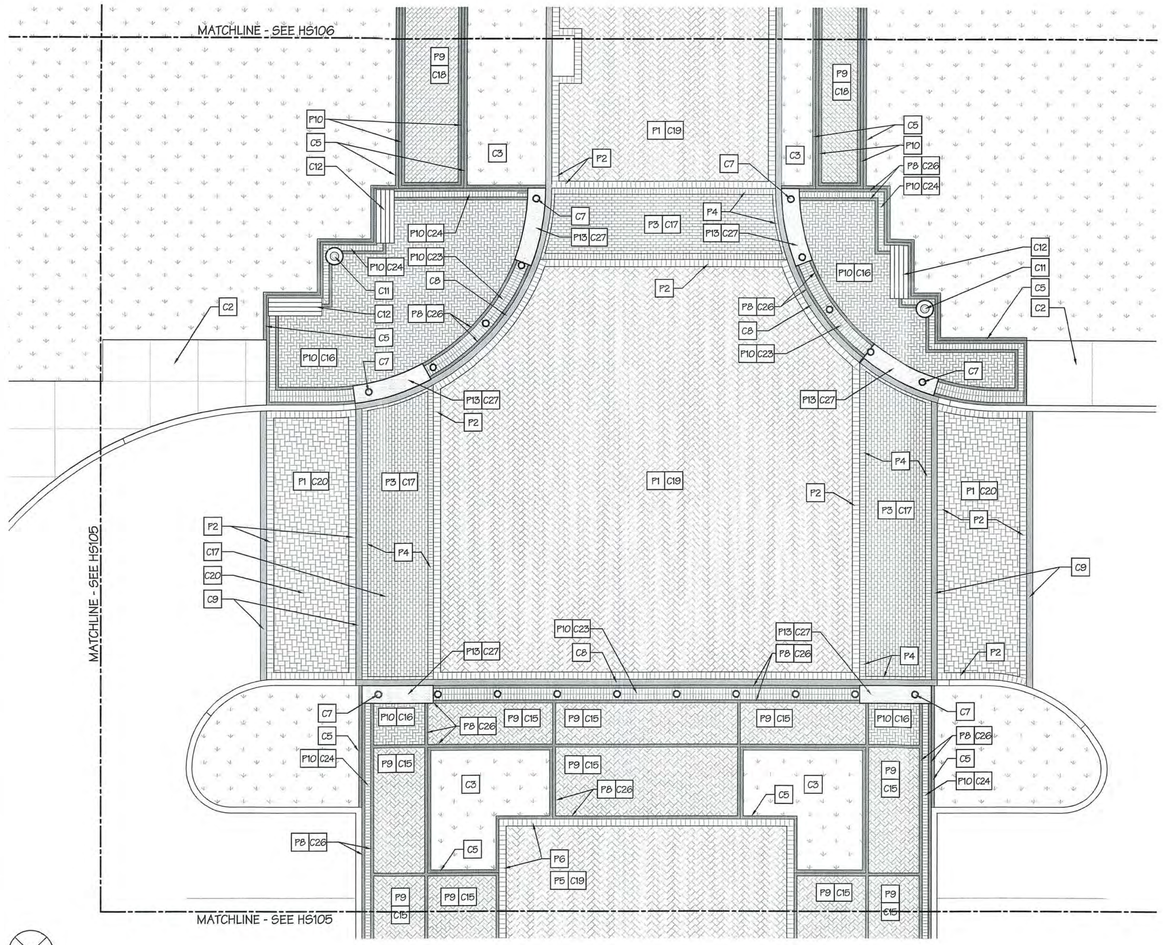
P:\1936\02-15 Centre Square The Plaza\ref\CAD\Sheets\HS107 DETAILED PLAN - PROMENADE EAST.dwg, 11/24/2015 11:59:03 AM



1 DETAILED SITE PLAN - PROMENADE WEST

SCALE : 1/8" = 1'-0"

0' 4' 8' 16'

GENERAL NOTES

1. THESE PLANS ARE FOR LAND DEVELOPMENT APPROVAL OF THE CURB-TO-BUILDING HARDSCAPE ELEMENTS ONLY; NOT FOR CONSTRUCTION.
2. SEE CIVIL ENGINEER'S PLANS FOR ELEMENTS NOT DETAILED/REFERENCED HEREON.

KEYNOTE LEGEND

- P1 PRECAST CONCRETE UNIT PAVER - 6 1/4" x 9 1/2" x 3 1/8" (NOM. W x L x H). GRAY BLEND.
- P2 PRECAST CONCRETE UNIT PAVER - 6 1/4" x 9 1/2" x 3 1/8" (NOM. W x L x H), DARK GRAY.
- P3 PRECAST CONCRETE UNIT PAVER - 3 7/8" x 7 7/8" x 3 1/8" (NOM. W x L x H), RED.
- P4 PRECAST CONCRETE UNIT PAVER - 3 7/8" x 7 7/8" x 3 1/8" (NOM. W x L x H), BLACK.
- P5 PRECAST CONCRETE UNIT PAVER - 6 1/4" x 9 1/2" x 2 3/8" (NOM. W x L x H), GRAY BLEND.
- P6 PRECAST CONCRETE UNIT PAVER - 6 1/4" x 9 1/2" x 2 3/8" (NOM. W x L x H), DARK GRAY.
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- P9 PRECAST CONCRETE UNIT PAVER - 3 7/8" x 7 7/8" x 2 3/8" (NOM. W x L x H), RED BLEND.
- P10 PRECAST CONCRETE UNIT PAVER - 3 7/8" x 7 7/8" x 2 3/8" (NOM. W x L x H), GRAY BLEND.
- P11 PRECAST CONCRETE UNIT PAVER - 11 7/8" x 11 7/8" x 2 3/4" (NOM. W x L x H), BLACK COLOR.
- P12 PRECAST CONCRETE UNIT PAVER - 11 7/8" x 11 7/8" x 2 3/4" (NOM. W x L x H), LIGHT GRAY.
- P13 PRECAST CONCRETE DETECTABLE WARNING UNIT PAVER - 3 7/8" x 7 7/8" x 2 3/8" (NOM. W x L x H), BLACK COLOR WITH ADA-COMPLIANT TRUNCATED DOMES.
- P14 PRECAST CONCRETE DETECTABLE WARNING UNIT PAVER - 3 7/8" x 7 7/8" x 2 3/8" (NOM. W x L x H), NATURAL COLOR WITH ADA-COMPLIANT TRUNCATED DOMES.
- C1 ALIGN WITH SITE ELEMENT (CURB FACE, EDGE OF SIDEWALK, FACE OF WALL, ETC.).
- C2 CONCRETE SIDEWALK PAVING, SEE 1/HS110.
- C3 PLANTING AREA
- C4 OUTDOOR DINING AREA
- C5 SUB-GRADE UNIT PAVER EDGE RESTRAINT, SEE 4/HS110.
- C6 ADHERED STONE MASONRY VENEER ON CMU (SEAT WALL) WITH CAST STONE CAP, SEE 5/HS110.
- C7 CAST IRON BOLLARD WITH CONCRETE FOOTING, SEE 6/HS110.
- C8 FLUSH CONCRETE CURB (ROAD EDGE), SEE 7/HS110 AND CIVIL ENGINEER DETAILS.
- C9 FLUSH CONCRETE CURB (TRANSVERSE CARTWAY), SEE 8/HS110.
- C10 FIBERGLASS PLANTER, SEE 9/HS110.
- C11 STEEL TRASH RECEPTACLE, SEE 10/HS110.
- C12 STEEL BENCH, SEE 11/HS110.
- C13 STEEL BICYCLE RACK - MULTIPLE, SEE 12/HS110.
- C14 STEEL BICYCLE RACK - SINGLE, SEE 13/HS110.
- C15 PAVER FIELD - 45° HERRINGBONE PATTERN, SEE 1/HS111 & 2/HS110.
- C16 PAVER FIELD - 90° HERRINGBONE PATTERN, SEE 2/HS111 & 2/HS110.
- C17 PAVER FIELD - 90° RUNNING BOND PATTERN WITH BORDER, SEE 3/HS111 & 3/HS110.
- C18 PAVER FIELD - 45° RUNNING BOND PATTERN WITH BORDER, SEE 4/HS111 & 2/HS110.
- C19 PAVER FIELD - 45° HERRINGBONE (MODIFIED) PATTERN WITH SOLDIER BORDER, SEE 5/HS111, 2/HS110 & 3/HS110.
- C20 PAVER FIELD - 90° HERRINGBONE (MODIFIED) PATTERN WITH SOLDIER BORDER, SEE 6/HS111, 2/HS110 & 3/HS110.
- C21 PAVER FIELD - STACKED BOND PATTERN, ALTERNATE PAVERS P11 AND P12 (CHECKERBOARD) AS SHOWN, SEE 7/HS111 & 2/HS110.
- C22 PAVER BAND - TWO ROWS RUNNING BOND WRAPPED WITH SOLDIER COURSE, SEE 8/HS111 & 2/HS110.
- C23 PAVER BAND - DOUBLE ROW SOLDIER COURSE, SEE 9/HS111 & 2/HS110.
- C24 PAVER BAND - SINGLE ROW SOLDIER COURSE, SEE 10/HS111 & 2/HS110.
- C25 PEDESTRIAN LIGHT POLE BASE SURROUND, SINGLE ROW SAILOR COURSE, SEE 11/HS111 & 2/HS110.
- C26 FIELD / EDGE BORDER PAVERS, SINGLE ROW SAILOR COURSE PAVER TYPE P8, SEE 12/HS111 & 2/HS110.
- C27 DETECTABLE WARNING PAVING AT FLUSH CURB CROSSWALKS, SEE 1/HS112, 2/HS112 & 3/HS112.

BERNARDON

ARCHITECTURE
INTERIOR DESIGN
LANDSCAPE ARCHITECTURE

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Kennett Square, Pennsylvania 19348
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Wilmington, Delaware

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Project:

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Dekalb Pike & Skippack Pike
Blue Bell, Pennsylvania 19422

Owner:

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1601 Walnut Street, Suite 502
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215-568-9495

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0	10/14/15	Final Land Development - Not for Construction
1	11/30/15	Final Land Development - revised per Township comments. (Not for Construction)

Drawn: -
Reviewed:
Contact: Timothy J. Cassidy
Project Number: 1936.02-15

Sheet Title:

DETAILED PLAN - PROMENADE WEST

Sheet Number:

HS108

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P:\1936.02-15 Centre Square Yeh\civil\CAD\Sheets\HS108 DETAILED PLAN - PROMENADE WEST.dwg, 11/30/2015 12:02:15 PM

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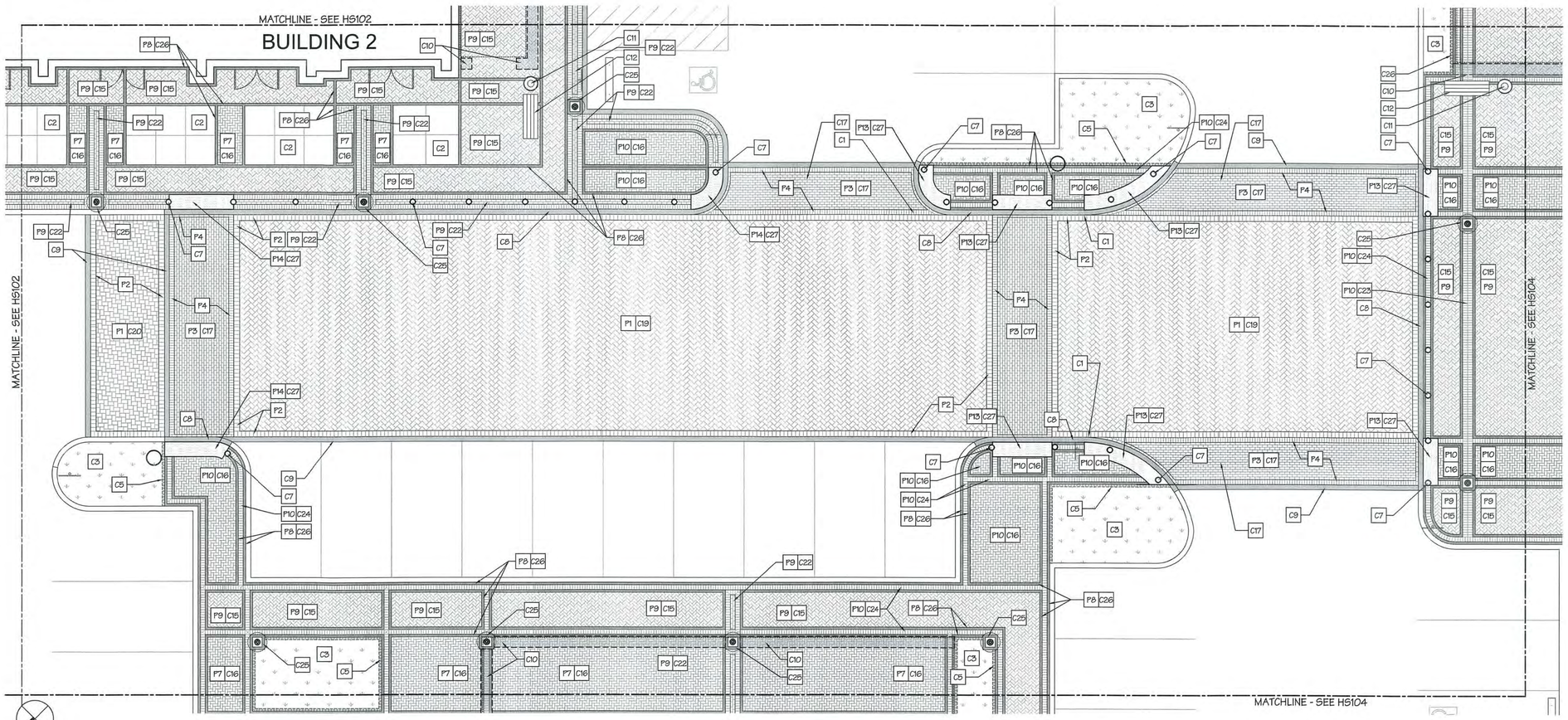

1 DETAILED SITE PLAN - SOUTH END PLAZA
SCALE : 1/8" = 1'-0"

0' 4' 8' 16'

BERNARDON
ARCHITECTURE
INTERIOR DESIGN
LANDSCAPE ARCHITECTURE

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COMMONWEALTH OF PENNSYLVANIA TIMOTHY J. CASSIDY LANDSCAPE ARCHITECT

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Drawn: -
Reviewed:
Contact: Timothy J. Cassidy
Project Number: 1936.02-15

Sheet Title:

DETAILED PLAN - SOUTH END PLAZA

Sheet Number:

HS109

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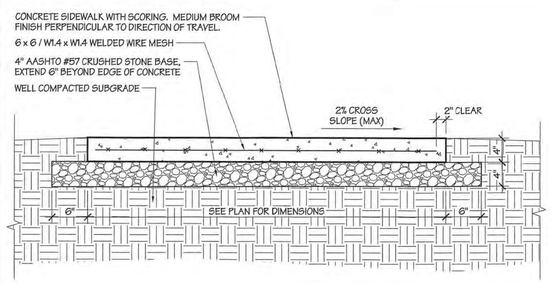
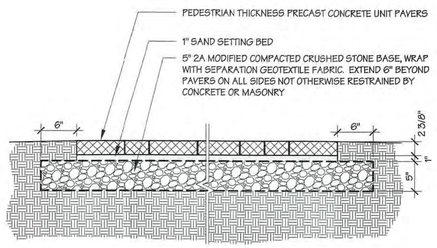
P:\1936.02-15 Centre Square Hatboro\CAD\Drawings\HS109 DETAILED PLAN - SOUTH END PLAZA.dwg 11/24/2015 12:09:43 PM



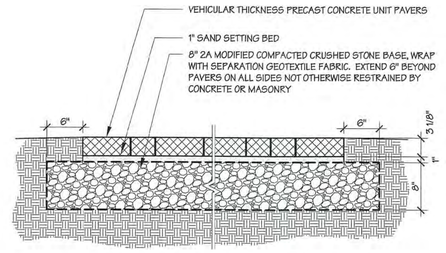
1 CONCRETE SIDEWALK PAVING

SCALE : 1" = 1'-0"



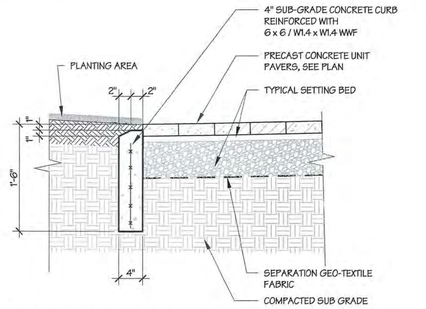
2 PAVER SECTION - PEDESTRIAN

SCALE : 1" = 1'-0"



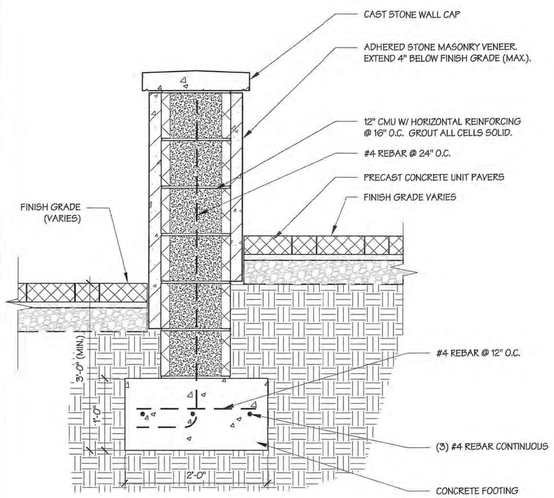
3 PAVER SECTION - VEHICULAR

SCALE : 1" = 1'-0"



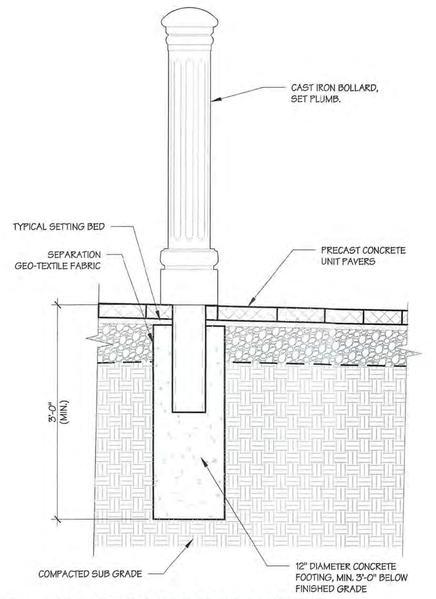
4 UNIT PAVER EDGE RESTRAINT

SCALE : 1" = 1'-0"



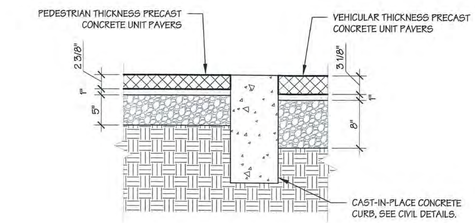
5 SEAT WALL

SCALE : 1" = 1'-0"



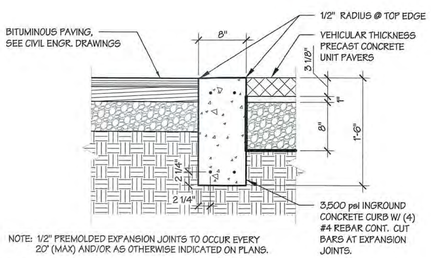
6 CAST IRON BOLLARD

SCALE : 1" = 1'-0"



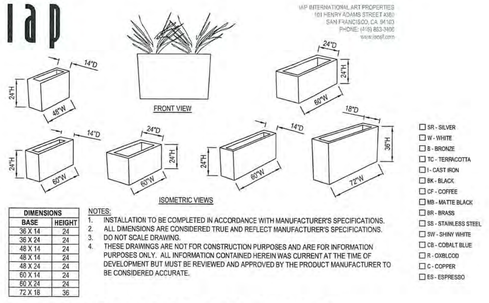
7 FLUSH CURB AT ROAD EDGE

SCALE : 1" = 1'-0"

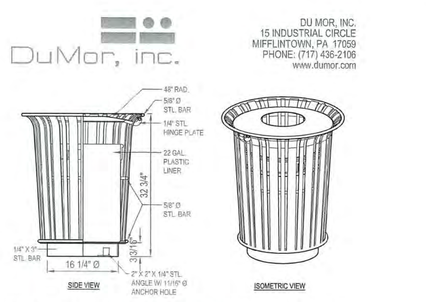


8 FLUSH CURB TRANSVERSE CARTWAY

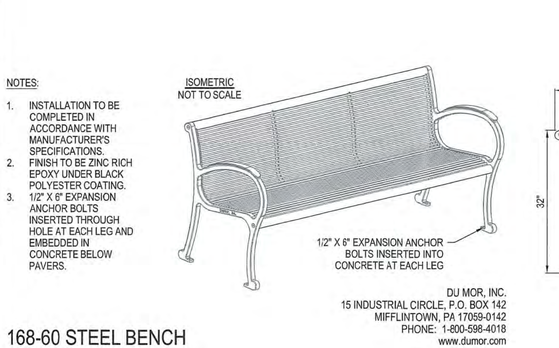
SCALE : 1" = 1'-0"



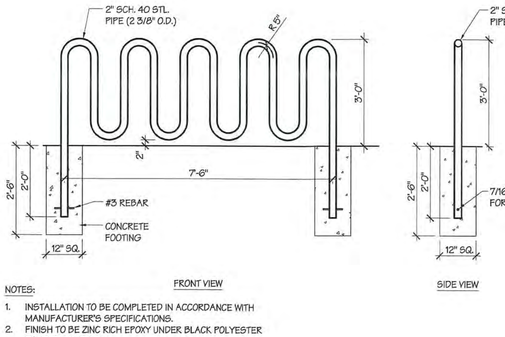
9 FIBERGLASS PLANTER



10 STEEL TRASH RECEPTACLE

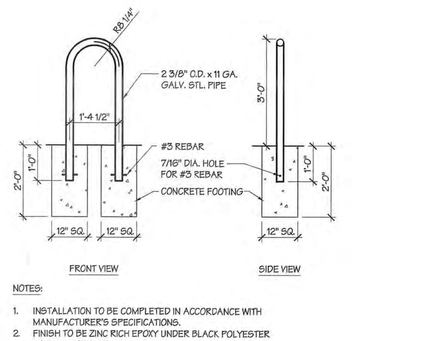


11 STEEL BENCH



12 STEEL BIKE RACK - MULTIPLE

SCALE : 1/2" = 1'-0"



13 STEEL BIKE RACK - SINGLE

SCALE : 1/2" = 1'-0"

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Sheet Title:

HARDSCAPE DETAILS

Sheet Number:

HS110

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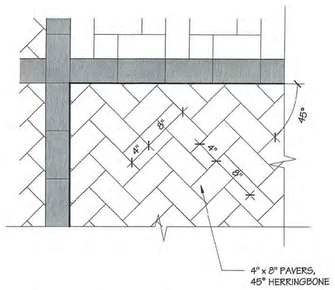
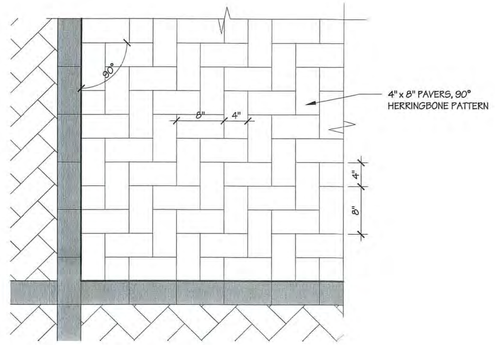
P:\1936.02- 15 Centre Square - Hardscape\CAD\Sheets\HS110 HARDSCAPE DETAILS.dwg, 11/24/2015 12:05:15 PM



NOTE: SEE PLANS FOR FIELD COLORS.

1 PAVER FIELD

SCALE : 1" = 1'-0"



2 PAVER FIELD

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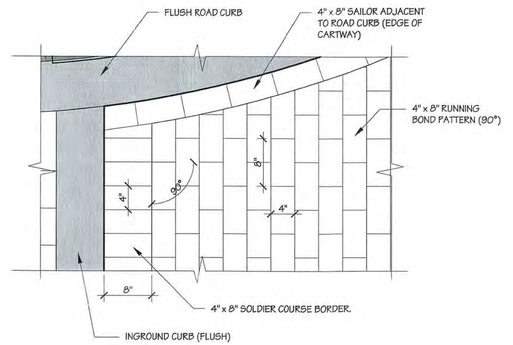

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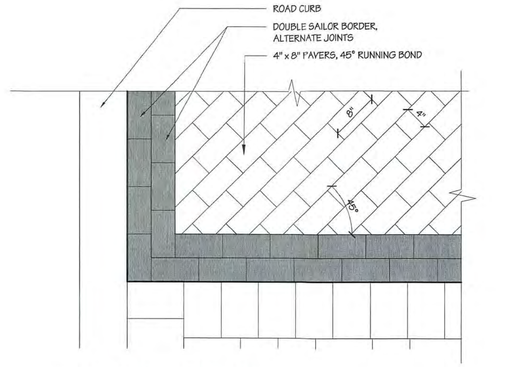
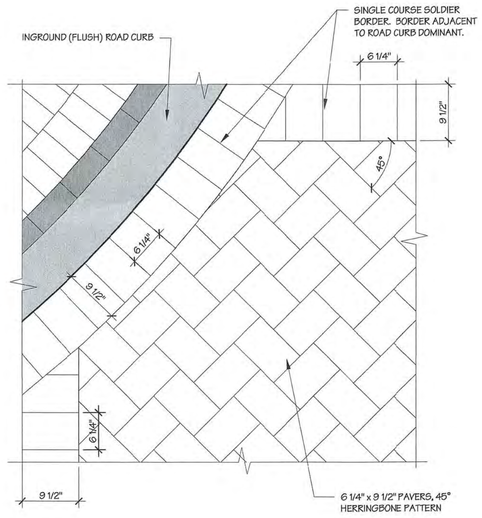


4 PAVER FIELD

SCALE : 1" = 1'-0"



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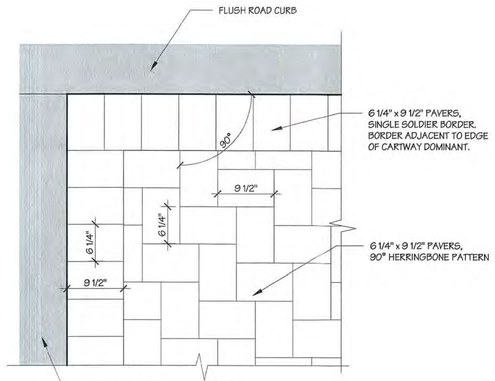

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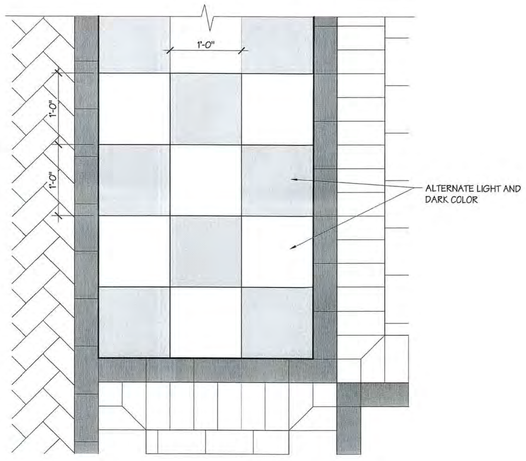
SCALE : 1" = 1'-0"



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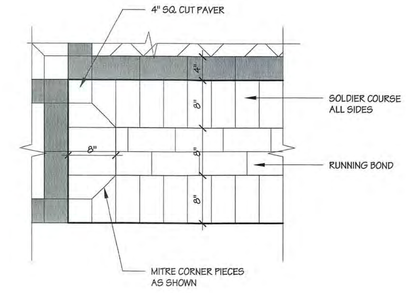
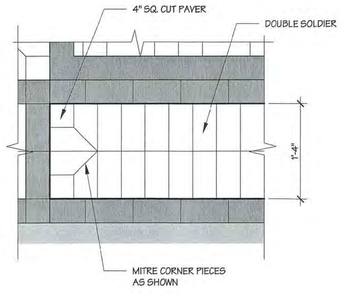
SCALE : 1" = 1'-0"



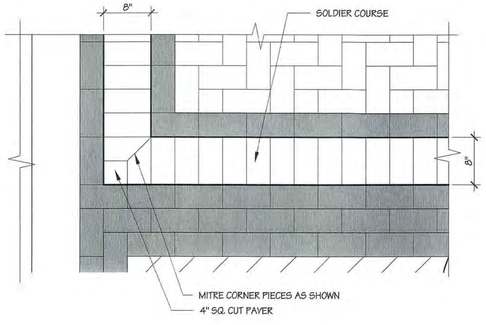
8 PAVER BAND

SCALE : 1" = 1'-0"



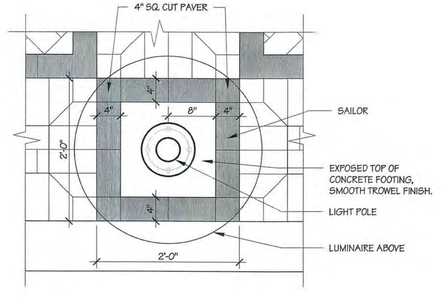
9 PAVER BAND

SCALE : 1" = 1'-0"



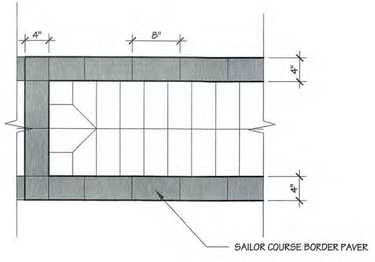
10 PAVER BAND

SCALE : 1" = 1'-0"



11 LIGHT POLE BASE

SCALE : 1" = 1'-0"



12 PAVER BORDER

SCALE : 1" = 1'-0"

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LANDSCAPE ARCHITECTURE

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t. 610 444 2900 | f. 610 444 6525

Wilmington, Delaware

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Project:

CENTRE SQUARE COMMONS
Dekalb Pike & Skippack Pike
Blue Bell, Pennsylvania 19422

Owner:

MADISON DEVELOPMENT GROUP, INC.
1601 Walnut Street, Suite 502
Philadelphia, Pennsylvania 19102
215-568-9495

Revision/Issue:

0	10/14/15	Final Land Development - Not for Construction
1	11/30/15	Final Land Development - revised per Township comments. (Not for Construction)

Drawn:
Reviewed:
Contact: Timothy J. Cassidy
Project Number: 1936.02-15

Sheet Title:

HARDSCAPE - PAVING DETAILS

Sheet Number:

HS111

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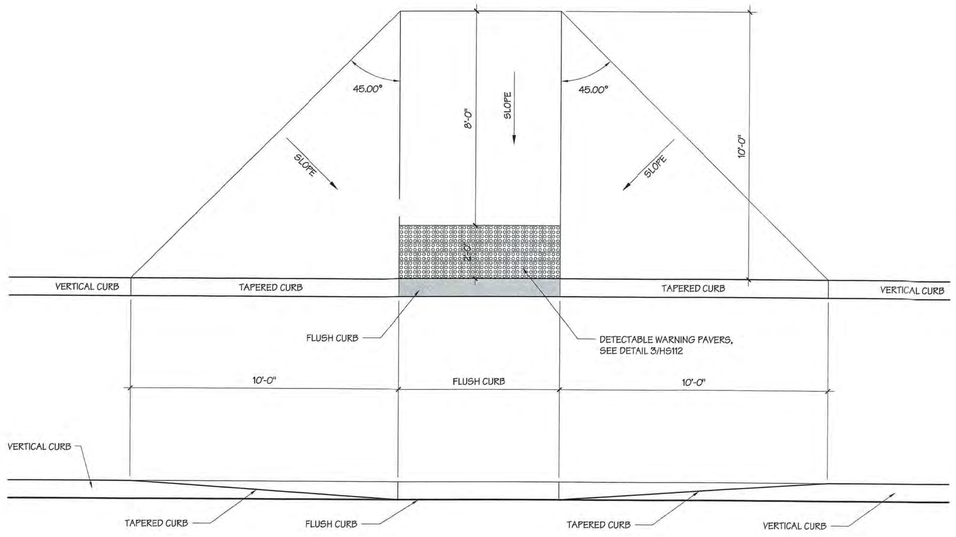
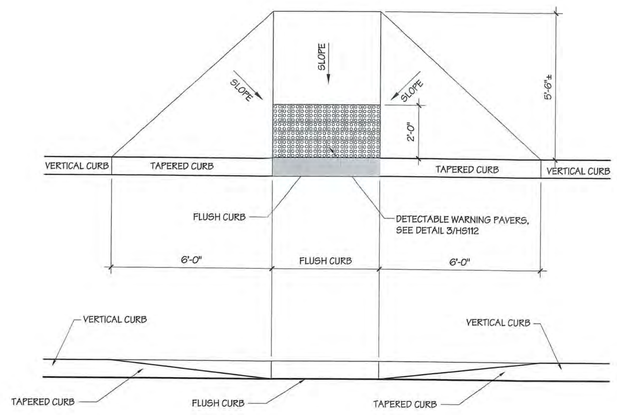
P:\1936\02-15 Centre Square Hardscape\CAD\Sheets\HS111 HARDSCAPE - PAVING DETAILS.dwg, 11/24/2015 12:07:19 PM



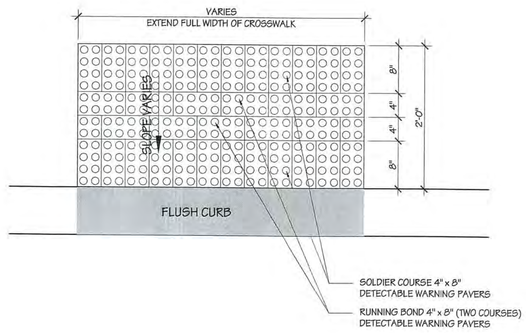
1 WIDE TRANSITION CURB RAMP

SCALE : 3/8" = 1'-0"



2 STANDARD TRANSITION CURB RAMP

SCALE : 3/8" = 1'-0"



3 DETECTABLE WARNING PAVERS

SCALE : 1" = 1'-0"

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Drawn: -
Reviewed:
Contact: Timothy J. Cassidy
Project Number: 1936.02-15

Sheet Title:

HARDSCAPE DETAILS

Sheet Number:

HS112

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FINAL LAND DEVELOPMENT PLANS

FOR PROPOSED

CENTRE SQUARE COMMONS

BLOCK 4 : LOTS 1-4; BLOCK 5 : LOTS 2-5 AND 9-12
DEKALB PIKE AT SKIPPACK PIKE
WHITPAIN TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

ZONING REQUIREMENTS

PROJECT/MUNICIPALITY :	DEKALB PIKE AT SKIPPACK PIKE WHITPAIN TOWNSHIP MONTGOMERY COUNTY, PENNSYLVANIA
ZONING:	C: COMMERCIAL DISTRICT SC: SHOPPING CENTER DISTRICT R1: RESIDENTIAL DISTRICT
EXISTING USE:	UNDEVELOPED LAND RESIDENTIAL OFFICE RESTAURANT
PROPOSED USE: CONDITIONAL USE:	SHOPPING CENTER COMMUNITY SHOPPING CENTER OVERLAY DISTRICT ORDINANCE NO. 4-237

CONDITIONAL USE
COMMUNITY SHOPPING CENTER OVERLAY DISTRICT: ORDINANCE No. 4-237

DESCRIPTION		REQUIRED	PROPOSED
TRACT AREA: MINIMUM NET EXCLUDING PENNDOT BASIN PARCEL		18 ACRES	21.78 ACRES 20.95 ACRES
BUILDING COVERAGE		22 PERCENT MAXIMUM	12.1 PERCENT
FRONT SETBACK: ULTIMATE RIGHT OF WAY		25 FEET MINIMUM	75.6 FEET
PROPERTY LINE SETBACK: TENANT "A" PROPERTY LINE SETBACK: SIDE SETBACK: RESIDENTIAL USE REAR SETBACK: RESIDENTIAL USE		25 FEET 15 FEET MINIMUM 225 FEET MINIMUM 250 FEET MINIMUM	39.0 FEET 23.8 FEET 225.2 FT. 252.8 FT.
PARKING SETBACK: ULTIMATE RIGHT OF WAY PROPERTY LINE		10 FEET MINIMUM 25 FEET MINIMUM	12.6 FEET 25.0 FEET
GREEN AREA		35 PERCENT	43.7 PERCENT
SECTION 160-269.C	NO MORE THAN A SINGLE TENANT OR BLDG. OCCUPY MORE THAN 40% OF TOTAL GROUND FLOOR AREA		30.6 PERCENT (BUILDING NO. 1)
SECTION 160-269.D	AT LEAST THREE (3) BULDINGS BE LOCATED WITHIN 120 FT. OF THE ULTIMATE RIGHT-OF-WAY ALONG ROAD FRONTAGES		BUILDINGS 1, 6 AND 7
SECTION 160-261.A	NO MORE THAN 22% OF THE NET LOT AREA OCCUPIED BY BUILDINGS (AFTER DEDICATION OR DEED RESTRICTION)		16.2 PERCENT
SECTION 160-261.K	IF EATING AND DRINKING ESTABLISHMENTS ARE (AT ANY TIME) TO COMPRISE MORE THAN 30% (33,135 S.F.) OF THE TOTAL SQUARE FOOTAGE OF THE COMMUNITY CENTER A CONDITIONAL USE TO PROVIDE REQUIRED PARKING SPACES MUST BE OBTAINED.		29.7% (32,800 S.F.)

SIGNAGE
COMMUNITY SHOPPING CENTER OVERLAY DISTRICT
SHOPPING CENTER SIGN

ONE (1) TYPE "A" SIGN,GROUND SIGN, PERMITTED PER STREET FRONTAGE		
MAXIMUM NUMBER OF SIGNS	2 : ONE PER STREET	2 : ONE PER STREET
MAXIMUM GROUND SIGN AREA:	200 SQ. FT.	200 SQ. FT.

PARKING
SHOPPING CENTER:
4.5 PARKING SPACES PER 1,000 SQ. FT. OF GROUND LEVEL FLOOR AREA (INCLUDES OUTDOOR SEATING AND DAYCARE)
3 PARKING SPACES PER 1,000 SQ. FT. SECOND FLOOR OR MEZZANINE AREA (SUPER MARKET AND FITNESS FACILITY)

BUILDING AREA	110,450 SQ. FT.	497.0 SPACES	
OUTDOOR SEATING AREA	5,200 SQ. FT.	23.4 SPACES	
MEZZANINE AREA	11,500 SQ. FT.	34.5 SPACES	
		554.9 SPACES REQUIRED	555 SPACES PROVIDED
PARKING SPACE SIZE		9 1/2 FT. x 19 FT. MINIMUM	9 1/2 FT. x 19 FT. 9 1/2 FT. x 17 FT.@ LANDSCAPING
PARKING GREEN AREA PARKING AREA: 163,044 SQ. FT.		10 PERCENT MINIMUM 16,304 SQ. FT.	10.2 PERCENT 16,612 SQ. FT.

SITE DATA

TRACT AREA	21.78+/- ACRES
NET TRACT AREA	20.95+/- ACRES (EXCLUDING PENNDOT BASIN PARCEL)
BUILDING AREA	110,450 SQ. FT. (INCLUDING 27,600 SQ. FT. OF RESTAURANT)
IMPERVIOUS AREA	514,055 SQ. FT. (56.3 PERCENT)
GREEN AREA	394,658 SQ. FT. (43.2 PERCENT)

LANDSCAPING DATA

STREET TREES EVERY 50 FT. (805 L.F. OF FRONTAGE)	16 TREES REQUIRED	17 TREES PROPOSED
PARKING LOT SHADE TREES 1 SHADE TREE PER 10 STALLS	56 TREES REQUIRED	67 TREES PROPOSED

INDEX OF SHEETS

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3 OF 38	EXISTING CONDITIONS PLAN
4 OF 38	OVERALL SITE PLAN AND NOTES
5 OF 38	SITE PLAN
6 OF 38	OVERALL GRADING AND DRAINAGE PCSM PLAN AND NOTES
7 OF 38	GRADING AND DRAINAGE PCSM PLAN
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15 OF 38	EROSION CONTROL DEMOLITION/ INITIAL SITE PREPARATION PLAN
16 OF 38	EROSION CONTROL PLAN - PHASE 1
17 OF 38	EROSION CONTROL PLAN - FINAL
18 OF 38	EROSION CONTROL - NOTES AND DETAILS
19 OF 38	EROSION CONTROL - NOTES AND DETAILS
20 OF 38	GENERAL SITE DETAILS
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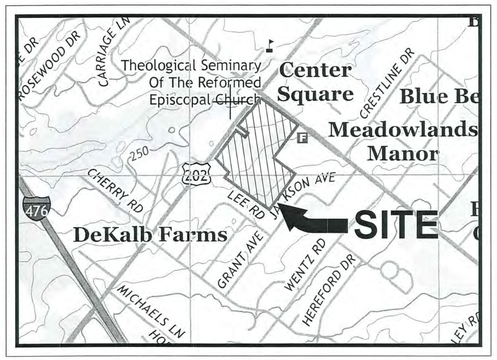
24 OF 38	STORM SEWER PROFILES
25 OF 38	STORM SEWER PROFILES
26 OF 38	SANITARY SEWER PROFILES
27 OF 38	SPRAY IRRIGATION: OVERALL PCSM PLAN
28 OF 38	SPRAY IRRIGATION: PCSM PLAN (ENLARGED SE)
29 OF 38	SPRAY IRRIGATION: PCSM PLAN (ENLARGED NE)
30 OF 38	SPRAY IRRIGATION: PCSM PLAN (ENLARGED NW)
31 OF 38	SPRAY IRRIGATION: PCSM PLAN (ENLARGED SW)
32 OF 38	SPRAY IRRIGATION: PCSM DATA AND DETAIL PLAN
33 OF 38	SPRAY IRRIGATION: PCSM PUMP AND DETAIL PLAN
34 OF 38	SPRAY IRRIGATION: PCSM O&M SCHEDULE PLAN
35 OF 38	FINANCIAL SUBDIVISION PLAN
36 OF 38	EASEMENT PLAN
37 OF 38	FLO-TANK: PCSM DETAILS
38 OF 38	RETAINING WALL DETAILS

LEGEND

	EXISTING	PROPOSED
CONCRETE CURB		
CONCRETE DEP. CURB		
TRAFFIC FLOW		
I.D. SIGN		
SIGN		
ENTER AND EXIT SIGNS		
POLE MOUNTED LIGHT		
UTILITY POLE		
TRANSFORMER		
CHAIN FENCE		
BOARD-ON-BOARD FENCE		
WALL		
BUILDING ENTRANCE		
FIRE HYDRANT		
WATER VALVE		
GAS VALVE		
CONTOUR	90	90
SPOT ELEVATION	x 86.7	x 100.00
UNMARKED MANHOLE		

	EXISTING	PROPOSED
ELECTRICAL MANHOLE		
DRAINAGE MANHOLE		
SANITARY MANHOLE		
TELEPHONE MANHOLE		
MONITORING WELL		
TYPE 'B' INLET		
DBL. 'B' INLET		
TYPE 'E' INLET		
DBL. 'E' INLET		
ROOF LEADER W/C.O.		
FLARED END SECTION		
WATER MAIN	W	W
GAS MAIN	G	
SANITARY LATERAL	S	
ELECTRIC	E	
TELEPHONE	T	
UNDER GROUND FIBER OPTIC LINE	FO	
DRAINAGE FLOW ARROW		

APPLICANT/EQUITABLE OWNER
MADISON DEVELOPMENT GROUP, INC AND
CENTER SQUARE COMMONS, LP
ATTN:JOHN MCKENNA
PO BOX 507
SOUTHEASTERN, PA 19399
PHONE: 215-568-9495
FAX: 215-359-1370



N W E S

USGS QUADRANGLE: LANSDALE, PENNSYLVANIA, U.S.

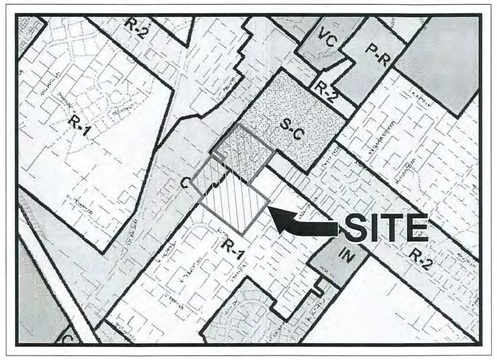
VICINITY/USGS MAP

SCALE: 1" = 1000' (APPROXIMATE)

GRAPHIC SCALE

1000 0 500 1000 2000 4000

(IN FEET)
1 inch = 1000 ft.



N W E S

ZONING MAP

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GRAPHIC SCALE

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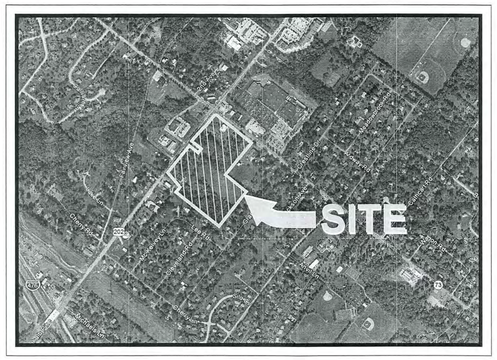
(IN FEET)
1 inch = 1000 ft.



N W E S

AERIAL MAP

SCALE: 1" = 1000' (APPROXIMATE)

GRAPHIC SCALE

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(IN FEET)
1 inch = 1000 ft.

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1	09/11/15	CR	REVISED PER HCCD REVIEW
2	10/09/15	EXTON	FINAL PLAN SUBMISSION
3	11/30/15	EXTON	REVISED PER FINAL PLAN REVIEW

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — RUSSELL T. McFALL II

RUSSELL T. McFALL II
PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER • LICENSE NUMBER: PE060408

FINAL LAND DEVELOPMENT PLANS

FOR

MADISON DEVELOPMENT GROUP, INC.

DEKALB PIKE AT SKIPPACK PIKE

WHITPAIN TOWNSHIP
MONTGOMERY COUNTY
PENNSYLVANIA

EXTON OFFICE
410 Eagleview Boulevard
Suite 104
Exton, PA 19341
Phone: 610.254.9140
Fax: 610.254.9141
email: solutions@maserconsulting.com

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	06/10/15	DIII	RTH

PROJECT NUMBER:	DRAWING NAME:
12000830A	C-CVER

SHEET TITLE:
COVER SHEET

SHEET NUMBER:
1 of 38

LD-3-15 & S-3-15

By: JDUPKE
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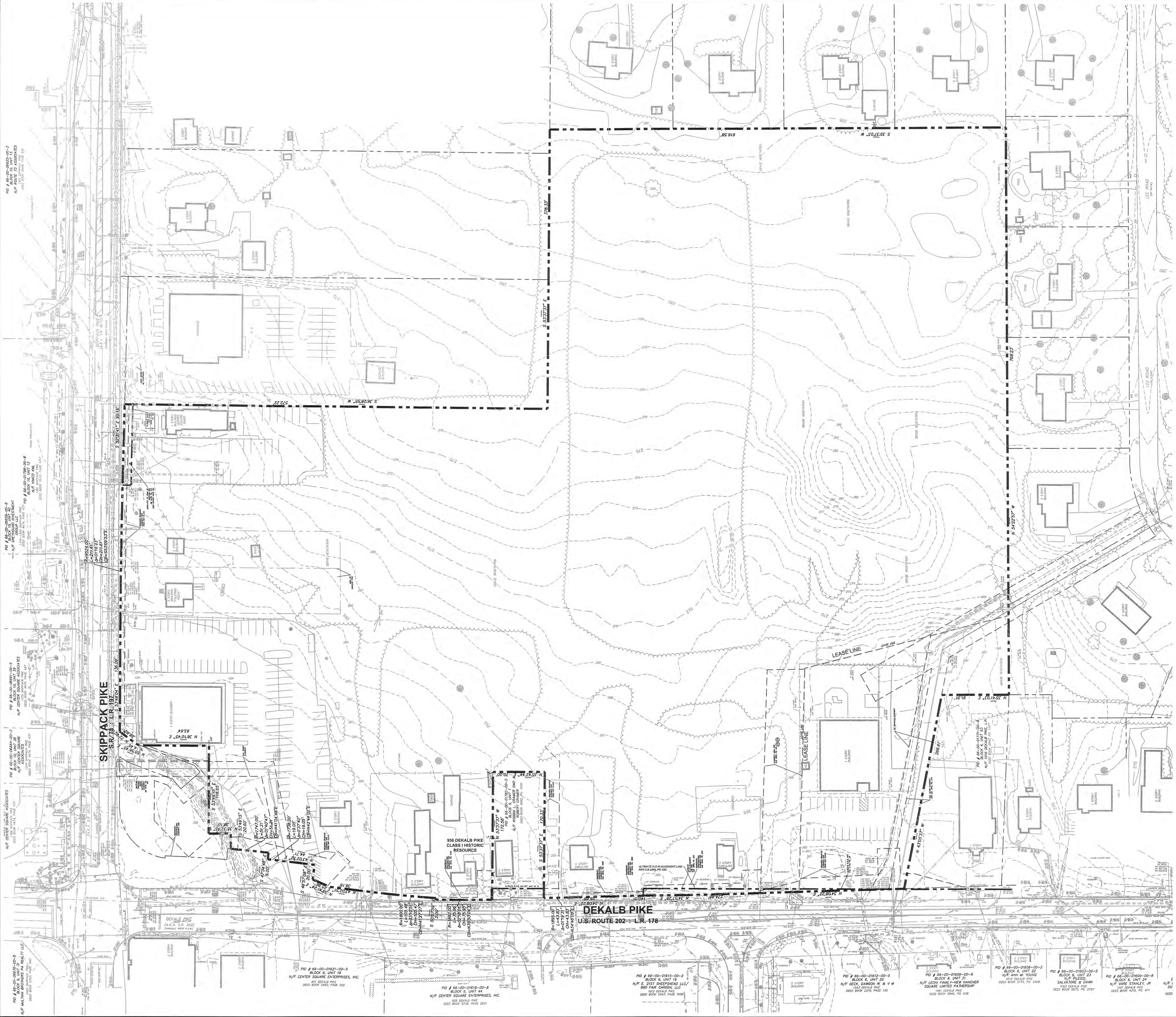
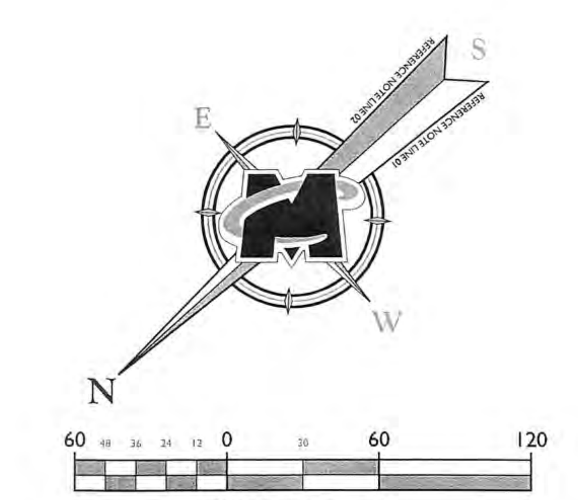


GENERAL NOTES

1. THE ACCURACY AND COMPLETENESS OF THIS INFORMATION HAS BEEN PROVIDED TO THE BEST ABILITY OF THE ENGINEER, HOWEVER, THE CONTRACTOR IS ADVISED TO VERIFY IN THE FIELD ALL THE FACTORS CONCERNING THE LOCATION OF ALL UTILITIES PRIOR TO BIDDING AND CONSTRUCTION. LOCATIONS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THESE PLANS ARE TO BE CONSIDERED APPROXIMATE AND SHOULD BE VERIFIED BY THE CONTRACTOR.
2. DO NOT SCALE DRAWINGS AS THEY PERTAIN TO ADJACENT AND SURROUNDING PHYSICAL CONDITIONS, BUILDINGS, STRUCTURES, ETC. THEY ARE SCHEMATIC ONLY, EXCEPT WHERE DIMENSIONS ARE SHOWN THERETO.
3. EXISTING UTILITY INFORMATION SHOWN HEREON HAS BEEN COLLECTED FROM VARIOUS SOURCES AND CANNOT BE GUARANTEED AS TO ACCURACY OR COMPLETENESS. THE CONTRACTOR SHALL VERIFY ALL INFORMATION TO HIS SATISFACTION PRIOR TO EXCAVATION. WHERE EXISTING UTILITIES ARE TO BE CROSSED BY PROPOSED CONSTRUCTION, TEST PITS SHALL BE DUG BY THE CONTRACTOR PRIOR TO CONSTRUCTION TO ASCERTAIN EXISTING INVERTS, MATERIALS AND SIZES. TEST PIT INFORMATION SHALL BE GIVEN TO THE ENGINEER PRIOR TO CONSTRUCTION, TO PERMIT ADJUSTMENT AS REQUIRED TO AVOID CONFLICTS. ANY EXISTING UTILITY SERVICE CONNECTIONS, LOCATED BY THE CONTRACTOR, CAPABLE OF SERVICING THE PROPOSED USE SHALL BE REUSED AS LONG AS THEY ARE IN GOOD CONDITION AND MEET THE UTILITY AUTHORITY'S STANDARDS AND SPECIFICATIONS. IF THE EXISTING UTILITY SERVICES DO NOT MEET THE ABOVE CRITERIA, THEN NEW SERVICE LINES SHALL BE INSTALLED.
4. THE CONTRACTOR SHALL NOTIFY THE UNDERSIGNED PROFESSIONAL IMMEDIATELY IF ANY FIELD OR SOIL CONDITIONS ENCOUNTERED DIFFER MATERIALLY FROM THOSE REPRESENTED HEREON. SUCH CONDITIONS COULD RENDER THE DESIGNS SHOWN HEREON INAPPROPRIATE OR INEFFECTIVE.
5. HORIZONTAL DATUM IS NAD 1983 PA STATE PLANE COORDINATE SYSTEM. VERTICAL DATUM IS USGS 1929. VERTICAL RELIEF IS SHOWN AT A CONTOUR OF 1' ESTABLISHED BY AERIAL PHOTOGRAPHIC MAPPING PROVIDED BY PROMAPS BASED ON A PHOTOGRAPHY DATED 12-4-14 AND GROUND SURVEY WITHIN THE ROADWAYS.
6. EXISTING SITE FEATURES AND TOPOGRAPHIC DATA FROM ALTA/ACSM LAND TITLE SURVEY PREPARED FOR CENTRE SQUARE COMMONS BY MASER CONSULTING P.A., JOB NUMBER 12000830A/HASUO32176, PLAN DATED JANUARY 21, 2015.
7. PURSUANT TO SECTION 129-58.C.(4)(a) OF THE TOWNSHIP CODE, THERE ARE NO HERITAGE TREES AS IDENTIFIED IN THE WHITPAIN TOWNSHIP "2009 HERITAGE TREE REGISTRY" LOCATED ON THE PROPERTIES THAT COMPRISE THE OVERALL TRACT.
8. PURSUANT TO SECTION 129-58.c.(4)(b) OF THE TOWNSHIP CODE, 956 DEKALB PIKE IS LISTED AS A CLASS I HISTORIC RESOURCE IN THE "WHITPAIN TOWNSHIP HISTORIC PROPERTIES".

LEGEND

EXISTING	EXISTING
CONCRETE CURB	ELECTRICAL MANHOLE
CONCRETE DEP. CURB	DRAINAGE MANHOLE
TRAFFIC FLOW	SANITARY MANHOLE
I.D. SIGN	TELEPHONE MANHOLE
SIGN	MONITORING WELL
ENTER AND EXIT SIGNS	TYPE 'B' INLET
POLE MOUNTED LIGHT	DBL. 'B' INLET
UTILITY POLE	TYPE 'E' INLET
TRANSFORMER	DBL. 'E' INLET
CHAIN FENCE	ROOF LEADER W/C.O.
BOARD-ON-BOARD FENCE	FLARED END SECTION
WALL	WATER MAIN
BUILDING ENTRANCE	GAS MAIN
FIRE HYDRANT	SANITARY LATERAL
WATER VALVE	ELECTRIC
GAS VALVE	TELEPHONE
CONTOUR	UNDER GROUND FIBER OPTIC LINE
SPOT ELEVATION	DRAINAGE FLOW ARROW
UNMARKED MANHOLE	



SCALE : 1" = 60'

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1	09/11/15	CJR	REVISED PER MCCD REVIEW
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3	11/30/15	EXTON	REVISED PER FINAL PLAN REVIEW

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL ENGINEER
RUSSELL T. McFALL II
NO PE060408

RUSSELL T. McFALL II
PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER - LICENSE NUMBER: PE60408

FINAL LAND
DEVELOPMENT PLANS
FOR
MADISON
DEVELOPMENT
GROUP, INC.

DEKALB PIKE AT
SKIPPACK PIKE

WHITPAIN TOWNSHIP
MONTGOMERY COUNTY
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PROJECT NUMBER: 12000830A	DRAWING NAME: C-LAYT		

SHEET TITLE:
OVERALL EXISTING
CONDITIONS AND NOTES

SHEET NUMBER:
2 of 38

12000830A\Engineering\C-LAYT.dwg\C02-OVERALL EXISTING CONDITIONS By: JDUMKE

SKIPPACK PIKE
S.R. 73 - L.R. 197

DEKALB PIKE
U.S. ROUTE 202 - L.R. 178

956 DEKALB PIKE
CLASS I HISTORIC RESOURCE

LEASE LINE

ULTIMATE R.O.W./EASEMENT LINE PER D.B.4999, PG. 652

SCALE : 1" = 40'

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REV	DATE	DRAWN BY	DESCRIPTION
1	09/11/15	CJR	REVISED PER MCCD REVIEW
2	10/09/15	EXTON	FINAL PLAN SUBMISSION
3	11/30/15	EXTON	REVISED PER FINAL PLAN REVIEW

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
RUSSELL T. McFALL II

RUSSELL T. McFALL II
PENNSYLVANIA LICENSE NO. 015172 - PROFESSIONAL ENGINEER - LICENSE NUMBER: PE60408

FINAL LAND DEVELOPMENT PLANS

FOR

MADISON DEVELOPMENT GROUP, INC.

DEKALB PIKE AT SKIPPACK PIKE

WHITPAIN TOWNSHIP
MONTGOMERY COUNTY
PENNSYLVANIA

EXTON OFFICE
410 Eagleview Boulevard
Suite 104
Exton, PA 19341
Phone: 610.254.9140
Fax: 610.254.9141
email: solutions@maserconsulting.com

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	06/10/15	DIII	RTM

PROJECT NUMBER: 12000830A
DRAWING NAME: C-LAYT

SHEET TITLE:
EXISTING CONDITIONS PLAN

SHEET NUMBER: 3 of 38

I:\2000\830A\Engineering\C-LAYT.dwg\C03 EXISTING CONDITIONS By: jfurphi

GENERAL NOTES

1. THE ACCURACY AND COMPLETENESS OF THIS INFORMATION HAS BEEN PROVIDED TO THE BEST ABILITY OF THE ENGINEER, HOWEVER, THE CONTRACTOR IS ADVISED TO VERIFY IN THE FIELD ALL THE FACTORS CONCERNING THE LOCATION OF ALL UTILITIES PRIOR TO BIDDING AND CONSTRUCTION. LOCATIONS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THESE PLANS ARE TO BE CONSIDERED APPROXIMATE AND SHOULD BE VERIFIED BY THE CONTRACTOR.
2. THIS SET OF PLANS HAS BEEN PREPARED FOR PURPOSE OF MUNICIPAL AND AGENCY REVIEW AND APPROVAL. THIS SET OF PLANS SHALL NOT BE UTILIZED AS CONSTRUCTION DOCUMENTS UNTIL ALL CONDITIONS OR APPROVALS HAVE BEEN SATISFIED ON THE DRAWINGS AND EACH DRAWING HAS BEEN REVISED TO INDICATE "ISSUED FOR CONSTRUCTION". THE CLIENT OR OWNER AND CONTRACTOR ARE RESPONSIBLE TO ASSURE THAT THE APPROVED PLANS ONLY, ARE USED FOR BIDDING AND CONSTRUCTION.
3. DO NOT SCALE DRAWINGS AS THEY PERTAIN TO ADJACENT AND SURROUNDING PHYSICAL CONDITIONS, BUILDINGS, STRUCTURES, ETC. THEY ARE SCHEMATIC ONLY, EXCEPT WHERE DIMENSIONS ARE SHOWN THERETO.
4. EXISTING UTILITY INFORMATION SHOWN HEREON HAS BEEN COLLECTED FROM VARIOUS SOURCES AND CANNOT BE GUARANTEED AS TO ACCURACY OR COMPLETENESS. THE CONTRACTOR SHALL VERIFY ALL INFORMATION TO HIS SATISFACTION PRIOR TO EXCAVATION. WHERE EXISTING UTILITIES ARE TO BE CROSSED BY PROPOSED CONSTRUCTION, TEST PITS SHALL BE DUG BY THE CONTRACTOR PRIOR TO CONSTRUCTION TO ASCERTAIN EXISTING INVERTS, MATERIALS AND SIZES. TEST PIT INFORMATION SHALL BE GIVEN TO THE ENGINEER PRIOR TO CONSTRUCTION, TO PERMIT ADJUSTMENT AS REQUIRED TO AVOID CONFLICTS. ANY EXISTING UTILITY SERVICE CONNECTIONS, LOCATED BY THE CONTRACTOR, CAPABLE OF SERVICING THE PROPOSED USE SHALL BE REUSED AS LONG AS THEY ARE IN GOOD CONDITION AND MEET THE UTILITY AUTHORITY'S STANDARDS AND SPECIFICATIONS. IF THE EXISTING UTILITY SERVICES DO NOT MEET THE ABOVE CRITERIA, THEN NEW SERVICE LINES SHALL BE INSTALLED.
5. FINAL LOCATIONS, NUMBERS AND SIZE OF ALL PROPOSED UTILITIES SERVICING BUILDINGS ARE TO BE VERIFIED WITH THE ARCHITECT, OWNER AND APPROPRIATE UTILITY AUTHORITY BY THE CONTRACTOR.
6. ALL MATERIALS, WORKMANSHIP, AND CONSTRUCTION FOR SITE IMPROVEMENTS SHOWN HEREON SHALL BE IN ACCORDANCE WITH:
   A. PENNSYLVANIA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", AS CURRENTLY AMENDED.
   B. CURRENT PREVAILING WHITPAIN TOWNSHIP SPECIFICATIONS, STANDARDS AND REQUIREMENTS.
   C. CURRENT PREVAILING UTILITY COMPANY/AUTHORITY AND OWNER SPECIFICATIONS, STANDARDS AND REQUIREMENTS.
7. THE CONTRACTOR SHALL NOTIFY THE UNDERSIGNED PROFESSIONAL IMMEDIATELY IF ANY FIELD OR SOIL CONDITIONS ENCOUNTERED DIFFER MATERIALLY FROM THOSE REPRESENTED HEREON. SUCH CONDITIONS COULD RENDER THE DESIGNS SHOWN HEREON INAPPROPRIATE OR INEFFECTIVE.
8. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL APPROPRIATE SAFETY DEVICES AND TRAINING TO ALL WORKERS IN ORDER TO MAINTAIN SAFE CONDITIONS ON THE PROJECT SITE.
9. THE CONTRACTOR IS RESPONSIBLE FOR ALL REQUIRED CONSTRUCTION PERMITS NECESSARY FOR THE CONSTRUCTION AND COMPLETION OF THE APPROVED IMPROVEMENTS.
10. THE CONTRACTOR IS RESPONSIBLE FOR THE PROPER REMOVAL AND DISPOSAL OF ANY AND ALL EXISTING OBJECTS, STRUCTURES, ETC. THAT ARE IN THE WAY OF PROPOSED CONSTRUCTION, OR INDICATED AS "TO BE REMOVED".
11. ALL PROPOSED SPOT ELEVATIONS ARE GRADE OR BOTTOM OF CURB UNLESS OTHERWISE NOTED.
12. WALKWAYS ARE TO SLOPE AWAY FROM BUILDINGS AT A MAXIMUM PITCH OF ¼ INCH PER FOOT. HANDICAP RAMPS ARE TO HAVE A MAXIMUM SLOPE OF 1" PER FOOT.
13. THE CONTRACTOR SHALL TAKE ADDITIONAL PRECAUTIONS TO WATERPROOF AREAS WHERE THE EXTERIOR FINISHED GRADE IS HIGHER THAN THE FINISHED FLOOR ELEVATION. ALTERNATELY, FOUNDATION WALLS IN EXCESS OF 6" BELOW FINISHED FLOOR SHALL BE FINISHED SUITABLY.
14. THE APPLICANT TO PROVIDE PRIVATE TRASH CARTING FOR THE PROPOSED FACILITIES AND WILL COMPLY WITH ALL RECYCLING REQUIREMENTS OF THE MUNICIPALITY, COUNTY AND STATE.
15. ALL DIMENSIONS LABELED ARE IN UNITED STATES STANDARD.
16. ALL ELECTRIC, TELEPHONE, AND CABLE TV UTILITY DISTRIBUTION LINES SHALL BE INSTALLED UNDERGROUND.
17. ALL STORMWATER BMP'S AND STORMWATER MANAGEMENT FACILITIES ARE TO BE PERMANENT FIXTURES THAT CAN BE ALTERED OR REMOVED ONLY AFTER APPROVAL BY THE TOWNSHIP OF A REVISED PLAN WHICH SHALL BE APPLICABLE TO ALL FUTURE OWNERS OF THIS PROPERTY.
18. THE PROPERTY IS SERVICED BY PUBLIC WATER AND PUBLIC SEWER.
19. EXISTING SITE FEATURES AND TOPOGRAPHIC DATA FROM ALTA/ACSM LAND TITLE SURVEY PREPARED FOR CENTRE SQUARE COMMONS BY MASER CONSULTING P.A., JOB NUMBER 12009830A/ALI030217R, PLAN DATED JANUARY 21, 2015.
20. A HIGHWAY OCCUPANCY PERMIT IS REQUIRED PURSUANT TO SECTION 420 OF THE ACT OF JUNE 1, 1945, KNOWN AS THE "STATE HIGHWAY LAW", BEFORE DRIVEWAY ACCESS TO A STATE HIGHWAY IS PERMITTED.
21. THE OPEN SPACE AS SHOWN IS TO BE DEED RESTRICTED AGAINST DEVELOPMENT AND REMAIN AS OPEN SPACE.
22. WHITPAIN TOWNSHIP HAS THE RIGHT TO INSPECT ALL STORMWATER BMP'S INSTALLED ON SITE AT ANY TIME.
23. SANITARY SEWER LINES AND LATERALS WILL BE PRIVATELY OWNED.
24. NO PLANTINGS OR STRUCTURES SHOULD BE LOCATED WITHIN 10 FEET OF THE SANITARY SEWERS OR LATERALS.

APPLICANT/EQUITABLE OWNER

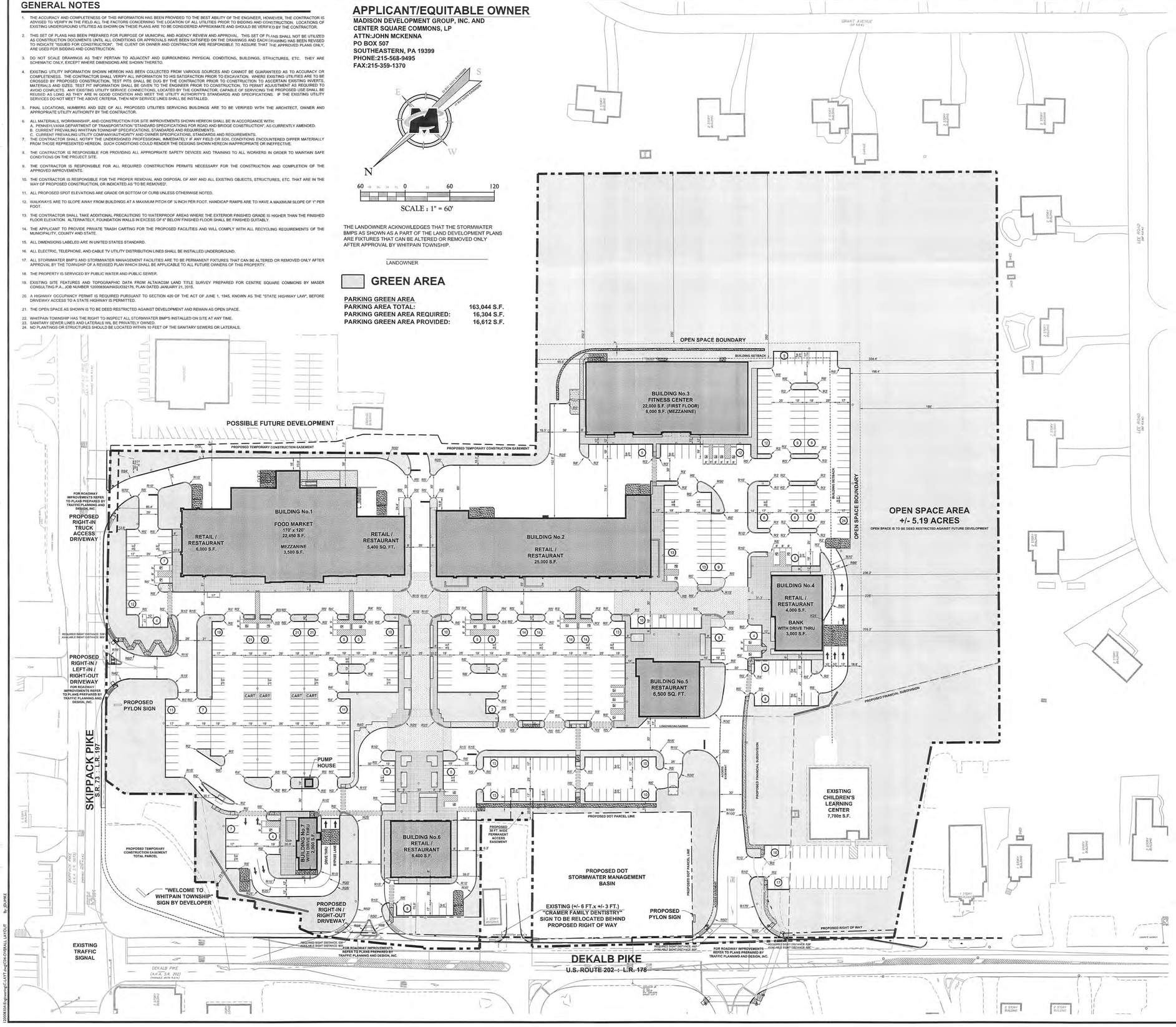
MADISON DEVELOPMENT GROUP, INC. AND
CENTER SQUARE COMMONS, LP
ATTN:JOHN MCKENNA
PO BOX 507
SOUTHEASTERN, PA 19399
PHONE:215-568-9495
FAX:215-359-1370

THE LANDOWNER ACKNOWLEDGES THAT THE STORMWATER BMPS AS SHOWN AS A PART OF THE LAND DEVELOPMENT PLANS ARE FIXTURES THAT CAN BE ALTERED OR REMOVED ONLY AFTER APPROVAL BY WHITPAIN TOWNSHIP.

LANDOWNER

GREEN AREA

PARKING GREEN AREA	
PARKING AREA TOTAL:	**163,044 S.F.**
PARKING GREEN AREA REQUIRED:	**16,304 S.F.**
PARKING GREEN AREA PROVIDED:	**16,612 S.F.**



ZONING REQUIREMENTS

PROJECT/MUNICIPALITY :	DEKALB PIKE AT SKIPPACK PIKE WHITPAIN TOWNSHIP MONTGOMERY COUNTY, PENNSYLVANIA
ZONING	C: COMMERCIAL DISTRICT SC: SHOPPING CENTER DISTRICT R1: RESIDENTIAL DISTRICT
EXISTING USE:	UNDEVELOPED LAND RESIDENTIAL OFFICE RESTAURANT
PROPOSED USE:	SHOPPING CENTER
CONDITIONAL USE:	COMMUNITY SHOPPING CENTER OVERLAY DISTRICT ORDINANCE NO. 4-237

CONDITIONAL USE
COMMUNITY SHOPPING CENTER OVERLAY DISTRICT: ORDINANCE No. 4-237

DESCRIPTION	REQUIRED	PROPOSED
TRACT AREA: MINIMUM NET EXCLUDING PENNDOT BASIN PARCEL	18 ACRES	21.78 ACRES 20.95 ACRES
BUILDING COVERAGE	22 PERCENT MAXIMUM	12.1 PERCENT
FRONT SETBACK: ULTIMATE RIGHT OF WAY	25 FEET MINIMUM	75.6 FEET
PROPERTY LINE SETBACK: TENANT "A" PROPERTY LINE SETBACK SIDE SETBACK: RESIDENTIAL USE REAR SETBACK: RESIDENTIAL USE	25 FEET 15 FEET MINIMUM 225 FEET MINIMUM 250 FEET MINIMUM	39.0 FEET 23.6 FEET 225.2 FT. 252.9 FT.
PARKING SETBACK ULTIMATE RIGHT OF WAY PROPERTY LINE	10 FEET MINIMUM 25 FEET MINIMUM	12.6 FEET 25.0 FEET
GREEN AREA	35 PERCENT	43.7 PERCENT
SECTION 160-260.C NO MORE THAN A SINGLE TENANT OR BLDG. OCCUPY MORE THAN 40% OF TOTAL GROUND FLOOR AREA		30.6 PERCENT (BUILDING NO. 1)
SECTION 160-260.D AT LEAST THREE (3) BUILDINGS BE LOCATED WITHIN 120 FT. OF THE ULTIMATE RIGHT-OF-WAY ALONG ROAD FRONTAGES		BUILDINGS 1, 6 AND 7
SECTION 160-261.A NO MORE THAN 22% OF THE NET LOT AREA OCCUPIED BY BUILDINGS (AFTER DEDICATION OR DEED RESTRICTION)		16.2 PERCENT
SECTION 160-261.K IF EATING AND DRINKING ESTABLISHMENTS ARE (AT ANY TIME) TO COMPRISE MORE THAN 30% (33,135 S.F.) OF THE TOTAL SQUARE FOOTAGE OF THE COMMUNITY CENTER A CONDITIONAL USE TO PROVIDE REQUIRED PARKING SPACES MUST BE OBTAINED.		29.7% (32,800 S.F.)

SIGNAGE
COMMUNITY SHOPPING CENTER OVERLAY DISTRICT

SHOPPING CENTER SIGN		
ONE (1) TYPE "A" SIGN GROUND SIGN, PERMITTED PER STREET FRONTAGE		
MAXIMUM NUMBER OF SIGNS	2 : ONE PER STREET	2 : ONE PER STREET
MAXIMUM GROUND SIGN AREA:	200 SQ. FT.	200 SQ. FT.

PARKING
SHOPPING CENTER:
4.5 PARKING SPACES PER 1,000 SQ. FT. OF GROUND LEVEL FLOOR AREA (INCLUDES OUTDOOR SEATING AND DAYCARE)
3 PARKING SPACES PER 1,000 SQ. FT. SECOND FLOOR OR MEZZANINE AREA (SUPER MARKET AND FITNESS FACILITY)

BUILDING AREA		110,450 SQ. FT.	497.0 SPACES
OUTDOOR SEATING AREA	5,200 SQ. FT.	23.4 SPACES	
MEZZANINE AREA	11,500 SQ. FT.	34.5 SPACES	
		554.9 SPACES REQUIRED	555 SPACES PROVIDED
PARKING SPACE SIZE		9 1/2 FT. x 19 FT. MINIMUM	9 1/2 FT. x 19 FT. 9 1/2 FT. x 17 FT.@ LANDSCAPING
PARKING GREEN AREA PARKING AREA: 163,044 SQ. FT.		10 PERCENT MINIMUM 16,304 SQ. FT.	10.2 PERCENT 16,612 SQ. FT.

SITE DATA

TRACT AREA	21.78+/- ACRES
NET TRACT AREA	20.95+/- ACRES (EXCLUDING PENNDOT BASIN PARCEL)
BUILDING AREA	110,450 SQ. FT. (INCLUDING 27,600 SQ. FT. OF RESTAURANT)
IMPERVIOUS AREA	514,085 SQ. FT. (56.3 PERCENT)
GREEN AREA	394,858 SQ. FT. (43.2 PERCENT)

LANDSCAPING DATA

STREET TREES EVERY 50 FT. (805 LF OF FRONTAGE)	16 TREES REQUIRED	17 TREES PROPOSED
PARKING LOT SHADE TREES 1 SHADE TREE PER 10 STALLS	56 TREES REQUIRED	67 TREES PROPOSED

DESIGN WAIVERS REQUESTED

SUBDIVISION AND LAND DEVELOPMENT ORDINANCE : CHAPTER 129

129-15.C SIDEWALKS SHALL BE LOCATED IN THE SHOULDER STRIP AND SIX FEET FROM THE CURB TO THE NEAR EDGE OF THE SIDEWALK.
WAIVER TO ALLOW SIDEWALK TO BE CONSTRUCTED ADJACENT TO THE CURB.

(129-19.A)(129-19.D.3.) WAIVER OF THE LISTED SECTIONS. LANDSCAPING HAS BEEN PROVIDED IN ACCORDANCE WITH THE REQUIREMENTS OUTLINED IN THE "COMMUNITY SHOPPING CENTER OVERLAY DISTRICT"

129-20.E.(2) SITE GRADING OR SITE DISTURBANCE SHALL NOT OCCUR WITHIN FIVE FEET OF THE PARCEL BOUNDARY LINE.
WAIVER TO ALLOW GRADING AND SITE DISTURBANCE WITHIN FIVE FEET OR PARCEL BOUNDARY.

129-20.E.(5) WHEN THE SLOPE OF GROUND EXCEEDS ONE VERTICAL TO FOUR HORIZONTAL, THE SLOPE SHALL BE SODDED OR PLANTED WITH PLANTS A MINIMUM OF SIX INCHES IN LENGTH IN CONFORMANCE WITH THE SPECIFICATIONS OF THE PENNSYLVANIA DEPARTMENT OF TRANSPORTATION FORM 408. SUCH SLOPES SHALL NOT BE SEEDED.
WAIVER TO ALLOW SLOPES OF 1 VERTICAL TO 3 HORIZONTAL TO BE SEEDED AND JUTE MATTING APPLIED.

129-21.C. STORM DRAINS SHALL HAVE A MINIMUM DIAMETER OF 18 INCHES .
WAIVER TO ALLOW STORM DRAINS 12 INCHES IN DIAMETER.

129-58.B.(1) NO LETTERING OR PRINTING SHALL BE LESS THAN 1/10 OF AN INCH IN HEIGHT.
WAIVER TO ALLOW PLAN TEXT SMALLER THAN 1/10 OF AN INCH IN HEIGHT. (6 POINT: +/- 1/16 INCH)

129-58.C.(1) THE PLAN SHALL SET FORTH EXISTING FEATURES OF THE LAND WITH 400 FEET OF ANY PART OF THE LAND TO BE SUBDIVIDED OR DEVELOPED.
WAIVER FROM SHOWING EXISTING FEATURES WITHIN LESS THAN 400 FEET OF THE SUBJECT SITE.

129-58.C.(2) THE PLAN SHALL INCLUDE EXISTING CENTER-LINE COURSES, DISTANCES AND CURVE DATA, PAVING WIDTHS AND CURBLINES, RIGHT-OF-WAY AND CURBLINE RADII AT INTERSECTIONS AND STREET LOCATION TIE-INS BY COURSES AND DISTANCES TO THE NEAREST INTERSECTION OF EXISTING AND PLANNED STREETS.
WAIVER FROM SHOWING COMPLETE EXISTING STREET DATA AS LISTED. PLANS SHOW RIGHT-OF-WAY DATA AND EXISTING ROADWAY FEATURES PER CURRENT PHYSICAL SURVEY PREPARED BY MASER CONSULTING P.A.

129-58.C.(5) MEASURED DISTANCES FROM THE CENTER LINE OF STREETS TO BUILDINGS, LARGE TREES STANDING ALONE OR OTHER CONTROL POINTS AND THE LOCATION OF ALL MONUMENTS WITH REFERENCE TO THEM.
WAIVER FROM SHOWING DISTANCES FROM THE CENTER LINE OF STREETS. BUILDINGS ARE DIMENSIONED TO STREET RIGHT OF WAY LINE OR PROPERTY LINE.

I HEREBY CERTIFY THAT _____ IS THE DEVELOPER OF THE LAND HEREIN SUBDIVIDED OR TO BE DEVELOPED AND THAT I DO HEREBY ADOPT THIS PLAN.

_____
(TITLE)

APPROVED BY THE WHITPAIN TOWNSHIP PLANNING COMMISSION THIS ___ DAY OF_____, 2015.

_____
SECRETARY
WHITPAIN TOWNSHIP
PLANNING COMMISSION

APPROVED BY THE TOWNSHIP ENGINEER ON THE DAY OF _____, 2015.

_____
TOWNSHIP ENGINEER

APPROVED BY THE BOARD OF SUPERVISORS OF WHITPAIN TOWNSHIP THIS ___ DAY OF _____, 2015.

_____
CHAIRMAN

_____
SECRETARY

STATE OF PENNSYLVANIA
COUNTY OF MONTGOMERY

ON THIS, THE _____ DAY OF_____, 2015, BEFORE ME, _____, THE UNDERSIGNED OFFICER, PERSONALLY APPEARED _____ WHO ACKNOWLEDGED HIMSELF TO BE THE _____ OF _____, A CORPORATION, AND THAT HE AS SUCH _____, BEING AUTHORIZED TO DO SO, EXECUTED THE FOREGOING INSTRUMENT FOR THE PURPOSE THEREIN CONTAINED BY SIGNING THE NAME OF THE CORPORATION BY HIMSELF AS _____.

WITNESS MY HAND AND NOTARY SEAL THE DAY AND YEAR AFORESAID.

_____
NOTARY PUBLIC
MY COMMISSION EXPIRES
_____, 20____

RECORDED THIS _____ DAY OF _____, 2015 IN THE OFFICE FOR THE RECORDING OF DEEDS, ETC., IN AND FOR THE COUNTY OF MONTGOMERY, PENNSYLVANIA
IN PLAN FILE CASE _____ D.B. NO _____ PAGE _____.

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COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — RUSSELL T. McFALL II
RUSSELL T. McFALL II
PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER, LICENSE NUMBER: PE60408

FINAL LAND DEVELOPMENT PLANS
FOR
MADISON DEVELOPMENT GROUP, INC.

DEKALB PIKE AT SKIPPACK PIKE

WHITPAIN TOWNSHIP
MONTGOMERY COUNTY
PENNSYLVANIA

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AS SHOWN	06/10/15	DIII	KTH

PROJECT NUMBER:	DRAWING NAME:
12009830A	C-LAYT

SHEET TITLE:
OVERALL SITE PLAN AND NOTES

SHEET NUMBER:
4 of 38

I:\2009\12009830A\Engineering\C-LAYT.dwg|C34-OVERALL LAYOUT By: jbojnicki

SITE PLAN LEGEND

(A)	PROPOSED CONCRETE CURB: 6" REVEAL
(B)	PROPOSED CONCRETE FLUSH CURB
(C)	PROPOSED CONCRETE SIDEWALK
(D)	PROPOSED CONCRETE PAVER BLOCK SIDEWALK
(E)	PROPOSED ASPHALT PAVING
(F)	PROPOSED CONCRETE PAVER BLOCK PAVING
(G)	PROPOSED PAINTED WHITE STRIPING, 4" WIDE
(H)	PROPOSED PAINTED CROSS WALK
(I)	PROPOSED PAINTED WHITE PAVEMENT MARKINGS
(J)	PROPOSED HANDICAP PARKING
(K)	PROPOSED HANDICAP SIGN (R7-8) OR (R7-8 VA)
(L)	PROPOSED HANDICAP RAMP
(M)	PROPOSED HANDICAP LANDING
(N)	PROPOSED STOP SIGN (R1-1)
(O)	PROPOSED CONCRETE WHEEL STOP
(P)	PROPOSED LIGHT POLE
	CONCRETE

OPEN SPACE AREA
+/- 5.19 ACRES
OPEN SPACE IS TO BE DEED RESTRICTED AGAINST FUTURE DEVELOPMENT

OPEN SPACE BOUNDARY

POSSIBLE FUTURE DEVELOPMENT

PROPOSED TEMPORARY CONSTRUCTION EASEMENT

BUILDING No.1
FOOD MARKET
170' x 120'
22,450 S.F.
MEZZANINE
3,500 S.F.
RETAIL / RESTAURANT
6,000 S.F.
RETAIL / RESTAURANT
5,400 SQ. FT.

BUILDING No.2
RETAIL / RESTAURANT
25,000 S.F.

BUILDING No.3
FITNESS CENTER
22,000 S.F. (FIRST FLOOR)
8,000 S.F. (MEZZANINE)

BUILDING No.4
RETAIL / RESTAURANT
4,000 S.F.
BANK
WITH DRIVE THRU
3,000 S.F.

BUILDING No.5
RESTAURANT
6,500 SQ. FT.

BUILDING No.6
RETAIL / RESTAURANT
6,400 S.F.

BUILDING No.7
WITH DRIVE THRU
2,000 S.F.

EXISTING CHILDREN'S LEARNING CENTER
7,700± S.F.

FOR ROADWAY IMPROVEMENTS REFER TO PLANS PREPARED BY TRAFFIC PLANNING AND DESIGN, INC.

PROPOSED RIGHT-IN TRUCK ACCESS DRIVEWAY

PROPOSED RIGHT-IN / LEFT-IN / RIGHT-OUT DRIVEWAY
FOR ROADWAY IMPROVEMENTS REFER TO PLANS PREPARED BY TRAFFIC PLANNING AND DESIGN, INC.

PROPOSED PYLON SIGN

PROPOSED RIGHT-IN / RIGHT-OUT DRIVEWAY

PROPOSED PYLON SIGN

PUMP HOUSE

ATM KIOSK

"WELCOME TO WHITPAIN TOWNSHIP" SIGN BY DEVELOPER

EXISTING (+/- 6 FT.x +/- 3 FT.) "CRAMER FAMILY DENTISTRY" SIGN TO BE RELOCATED BEHIND PROPOSED RIGHT OF WAY

PROPOSED DOT STORMWATER MANAGEMENT BASIN

PROPOSED DOT PARCEL LINE

PROPOSED 30 FT. WIDE PERMANENT ACCESS EASEMENT

PROPOSED TEMPORARY CONSTRUCTION EASEMENT TOTAL PARCEL

PROPOSED FINANCIAL SUBDIVISION

PROPOSED RIGHT OF WAY

EXISTING TRAFFIC SIGNAL

SKIPPACK PIKE
S.R. 73 : L.R. 197

DEKALB PIKE
U.S. ROUTE 202 : L.R. 178

NEW SIDEWALK RT.73

NEW SIDEWALK RT.202

NEW SIDEWALK RT.202 (PHASE 2)

SIDEWALK PHASE 2

RETAINING WALL

REQUIRED SIGHT DISTANCE: 538'
AVAILABLE SIGHT DISTANCE: 800'

REQUIRED SIGHT DISTANCE: 460'
AVAILABLE SIGHT DISTANCE: 800'

SCALE : 1" = 40'

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PROJECT NUMBER: 12000830A
DRAWING NAME: C-LAYT

SHEET TITLE: SITE PLAN

SHEET NUMBER: 5 of 38

12000830A\Engineering\CLAYT.dwg\C5-LAYOUT by JDUKE

CRITICAL STAGE / SEQUENCE OF UNDERGROUND STORMWATER BASIN INSTALLATION

CRITICAL STAGE #1: COMMENCE INSTALLATION OF UNDERGROUND DETENTION FACILITY NO. 1(BMP)
A. CONTRACTOR TO INSTALL CONSTRUCTION FENCE AROUND THE ENTIRE UNDERGROUND DETENTION AREA AND PROTECT THE AREA AT ALL TIMES.
B. INSTALL OUTLET STRUCTURE AND OUTLET PIPE. CONSTRUCTION FENCE WHICH HAS BEEN REMOVED FOR THIS STAGE OF CONSTRUCTION MUST BE RE-INSTALLED AND STABILIZED AT THE END OF THE WORKING DAY.
C. INSTALL THE UNDERGROUND DETENTION SYSTEM AS INDICATED ON THE DETAIL SHEET.

CRITICAL STAGE #1a: COMMENCE INSTALLATION OF IRRIGATION SYSTEM(BMP)
A. CONTRACTOR SHALL MAKE THEMSELVES FAMILIAR WITH ALL ASPECTS OF THE PCSM SYSTEM.
B. PRIOR TO ANY TRENCHING, CONSTRUCTION OR INSTALLATION, THE CONTRACTOR SHALL FLAG OUT AREA TO ENSURE LOCATION OF THE PIPE, SPRINKLER HEADS VALVES, ETC.
C. INSTALL WET WELL AND INTAKE PIPE AND SCREEN.
D. INSTALL PUMP STATION.
E. INSTALL ROAD AND PARKING LOT SLEEVES.
F. INSTALL MAINS, LATERALS, VALVES AND COMMUNICATION CABLE, SENSORS AND SPRINKLER HEADS.
G. TEST SYSTEM AND ADJUST SPRINKLER HEADS AS NECESSARY.
* FOR ADDITIONAL DETAIL, SEE PCSM NARRATIVE FOR IRRIGATION SYSTEM DESIGN AND IRRIGATION LAYOUT.

CRITICAL STAGE #2: COMMENCE INSTALLATION OF UNDERGROUND DETENTION FACILITY NO. 2(BMP)
A. CONTRACTOR TO INSTALL CONSTRUCTION FENCE AROUND THE ENTIRE UNDERGROUND DETENTION AREA AND PROTECT THE AREA AT ALL TIMES.
B. INSTALL OUTLET STRUCTURE AND OUTLET PIPE. CONSTRUCTION FENCE WHICH HAS BEEN REMOVED FOR THIS STAGE OF CONSTRUCTION MUST BE RE-INSTALLED AND STABILIZED AT THE END OF THE WORKING DAY.
C. INSTALL THE UNDERGROUND DETENTION SYSTEM AS INDICATED ON THE DETAIL SHEET.
D. CONNECT BASIN NO. 2 TO BASIN NO. 1.

NPDES PCSM NOTES

EVIDENCE THE PCSM PLAN WILL PRESERVE THE INTEGRITY OF STREAM CHANNELS AND MAINTAIN AND PROTECT THE PHYSICAL,
BIOLOGICAL AND CHEMICAL QUALITIES OF THE RECEIVING
- **THE PROPOSED SITE DESIGN HAS MAINTAINED THE EXISTING ON-SITE DRAINAGE CHANNELS.**
- **STORMWATER MANAGEMENT FACILITIES HAVE BEEN PROVIDED TO MAINTAIN RATE, VOLUME AND QUALITY CONTROLS**
- **THE UNDERGROUND STORMWATER FACILITIES AS WELL AS THE USE OF SPRAY IRRIGATION WILL HELP MAINTAIN THE PHYSICAL, BIOLOGICAL AND CHEMICAL QUALITIES OF THE RECEIVING STREAM**

MANNER IN WHICH THE PCSM PLAN WILL MINIMIZE IMPERVIOUS AREAS
- **24.8 PERCENT OF THE OVERALL TRACT IS DEDICATED AS OPEN SPACE**
- **AFTER DEVELOPMENT THE SITE WILL CONTAIN 9.13 ACRES OF GREEN AREA**

MANNER IN WHICH THE PCSM PLAN WILL MAXIMIZE THE PROTECTION OF EXISTING DRAINAGE FEATURES AND EXISTING VEGETATION
- **THE PROPOSED SITE DESIGN HAS MAINTAINED THE EXISTING ON-SITE DRAINAGE CHANNELS.**

EVIDENCE IN WHICH THE PCSM PLAN WILL MINIMIZE LAND CLEARING AND LAND GRADING
- **A "LIMIT OF DISTURBANCE" IS SHOWN ON THE PLANS THAT MAXIMIZES THE PROTECTION OF EXISTING VEGETATION**

EVIDENCE THE PCSM WILL MINIMIZE SOIL COMPACTION
- **A "LIMIT OF DISTURBANCE" IS SHOWN ON THE PLANS TO MINIMIZE THE EXTENT OF EARTH DISTURBANCE AND COMPACTION**
- **"FILL MATERIALS, PLACEMENT AND COMPACTION NOTES" ARE SHOWN ON THE PLANS**

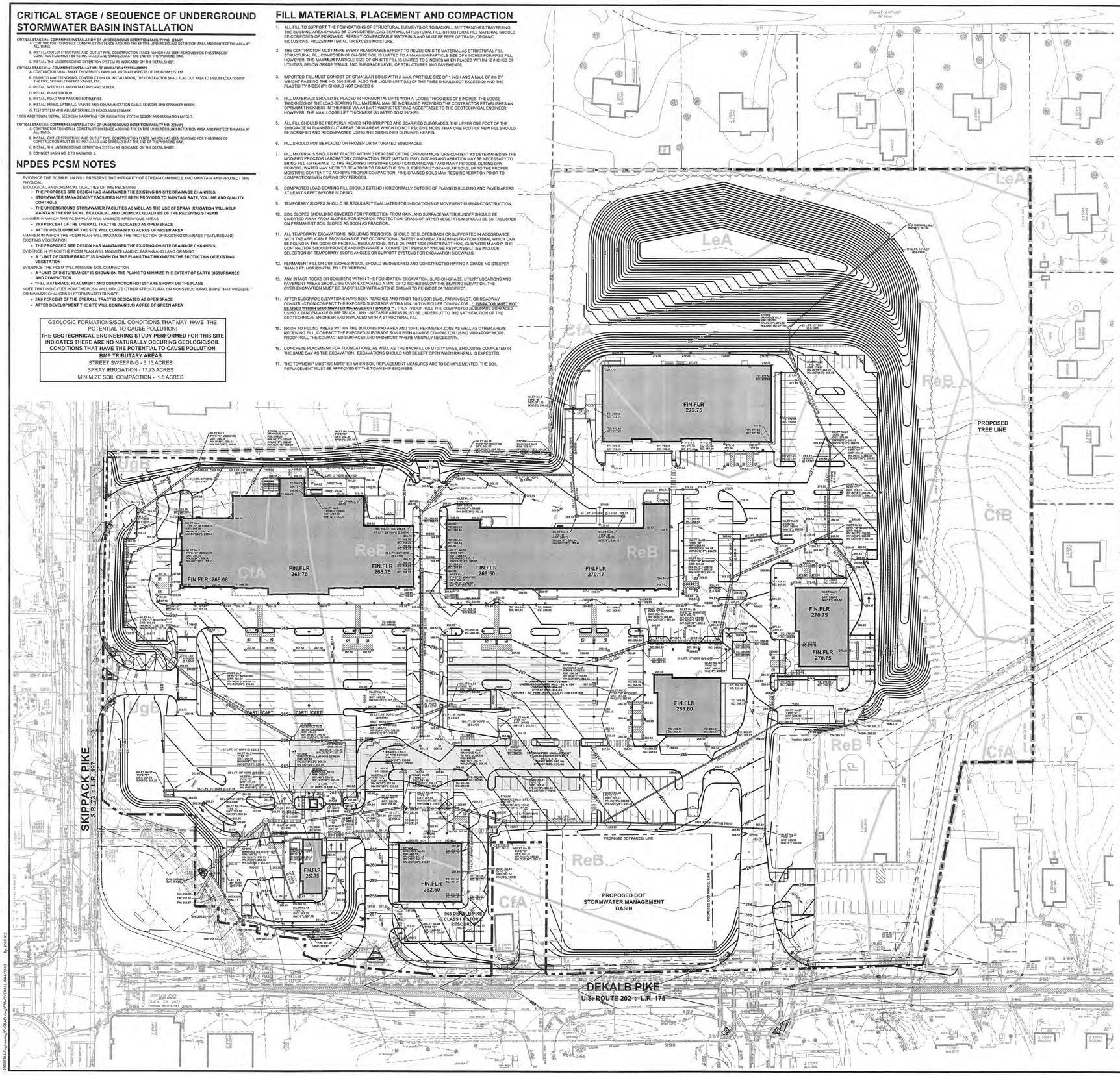
NOTE THAT INDICATES HOW THE PCSM WILL UTILIZE OTHER STRUCTURAL OR NONSTRUCTURAL BMPS THAT PREVENT OR MINIMIZE CHANGES IN STORMWATER RUNOFF.
- **24.8 PERCENT OF THE OVERALL TRACT IS DEDICATED AS OPEN SPACE**
- **AFTER DEVELOPMENT THE SITE WILL CONTAIN 9.13 ACRES OF GREEN AREA**

GEOLOGIC FORMATIONS/SOIL CONDITIONS THAT MAY HAVE THE POTENTIAL TO CAUSE POLLUTION:
THE GEOTECHNICAL ENGINEERING STUDY PERFORMED FOR THIS SITE INDICATES THERE ARE NO NATURALLY OCCURING GEOLOGIC/SOIL CONDITIONS THAT HAVE THE POTENTIAL TO CAUSE POLLUTION

BMP TRIBUTARY AREAS
STREET SWEEPING - 6.13 ACRES
SPRAY IRRIGATION - 17.73 ACRES
MINIMIZE SOIL COMPACTION - 1.5 ACRES

FILL MATERIALS, PLACEMENT AND COMPACTION

1. ALL FILL TO SUPPORT THE FOUNDATIONS OF STRUCTURAL ELEMENTS OR TO BACKFILL ANY TRENCHES TRAVERSING THE BUILDING AREA SHOULD BE CONSIDERED LOAD-BEARING, STRUCTURAL FILL. STRUCTURAL FILL MATERIAL SHOULD BE COMPOSED OF INORGANIC, READILY COMPACTABLE MATERIALS AND MUST BE FREE OF TRASH, ORGANIC INCLUSIONS, FROZEN MATERIAL, OR EXCESS MOISTURE.
2. THE CONTRACTOR MUST MAKE EVERY REASONABLE EFFORT TO REUSE ON-SITE MATERIAL AS STRUCTURAL FILL. STRUCTURAL FILL COMPOSED OF ON-SITE SOIL IS LIMITED TO A MAXIMUM PARTICLE SIZE OF 6 INCHES FOR MASS FILL; HOWEVER, THE MAXIMUM PARTICLE SIZE OF ON-SITE FILL IS LIMITED TO 3 INCHES WHEN PLACED WITHIN 12 INCHES OF UTILITIES, BELOW GRADE WALLS, AND SUBGRADE LEVEL OF STRUCTURES AND PAVEMENTS.
3. IMPORTED FILL MUST CONSIST OF GRANULAR SOILS WITH A MAX. PARTICLE SIZE OF 1 INCH AND A MAX. OF 8% BY WEIGHT PASSING THE NO. 200 SIEVE. ALSO THE LIQUID LIMIT (LL) OF THE FINES SHOULD NOT EXCEED 30 AND THE PLASTICITY INDEX (PI) SHOULD NOT EXCEED 8.
4. FILL MATERIALS SHOULD BE PLACED IN HORIZONTAL LIFTS WITH A LOOSE THICKNESS OF 8 INCHES. THE LOOSE THICKNESS OF THE LOAD-BEARING FILL MATERIAL MAY BE INCREASED PROVIDED THE CONTRACTOR ESTABLISHES AN OPTIMUM THICKNESS IN THE FIELD VIA AN EARTHWORK TEST PAD ACCEPTABLE TO THE GEOTECHNICAL ENGINEER. HOWEVER, THE MAX. LOOSE LIFT THICKNESS IS LIMITED TO12 INCHES.
5. ALL FILL SHOULD BE PROPERLY KEYED INTO STRIPPED AND SCARIFIED SUBGRADES. THE UPPER ONE FOOT OF THE SUBGRADE IN PLANNED CUT AREAS OR IN AREAS WHICH DO NOT RECEIVE MORE THAN ONE FOOT OF NEW FILL SHOULD BE SCARIFIED AND RECOMPACTED USING THE GUIDELINES OUTLINED HEREIN.
6. FILL SHOULD NOT BE PLACED ON FROZEN OR SATURATED SUBGRADES.
7. FILL MATERIALS SHOULD BE PLACED WITHIN 3 PERCENT OF THE OPTIMUM MOISTURE CONTENT AS DETERMINED BY THE MODIFIED PROCTOR LABORATORY COMPACTION TEST (ASTM D-1557). DISCING AND AERATION MAY BE NECESSARY TO BRING FILL MATERIALS TO THE REQUIRED MOISTURE CONDITION DURING WET AND RAINY PERIODS DURING DRY PERIODS, WATER MAY NEED TO BE ADDED TO BRING THE SOILS, ESPECIALLY GRANULAR SOILS, UP TO THE PROPER MOISTURE CONTENT TO ACHIEVE PROPER COMPACTION. FINE-GRAINED SOILS MAY REQUIRE AERATION PRIOR TO COMPACTION EVEN DURING DRY PERIODS.
8. COMPACTED LOAD-BEARING FILL SHOULD EXTEND HORIZONTALLY OUTSIDE OF PLANNED BUILDING AND PAVED AREAS AT LEAST 5 FEET BEFORE SLOPING.
9. TEMPORARY SLOPES SHOULD BE REGULARLY EVALUATED FOR INDICATIONS OF MOVEMENT DURING CONSTRUCTION.
10. SOIL SLOPES SHOULD BE COVERED FOR PROTECTION FROM RAIN, AND SURFACE WATER RUNOFF SHOULD BE DIVERTED AWAY FROM SLOPES. FOR EROSION PROTECTION, GRASS OR OTHER VEGETATION SHOULD BE ES TABLISHED ON PERMANENT SOIL SLOPES AS SOON AS PRACTICAL.
11. ALL TEMPORARY EXCAVATIONS, INCLUDING TRENCHES, SHOULD BE SLOPED BACK OR SUPPORTED IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA), WHICH CAN BE FOUND IN THE CODE OF FEDERAL REGULATIONS, TITLE 29, PART 1926 (29 CFR PART 1926), SUBPARTS M AND P. THE CONTRACTOR SHOULD PROVIDE AND DESIGNATE A "COMPETENT PERSON" WHOSE RESPONSIBILITIES INCLUDE SELECTION OF TEMPORARY SLOPE ANGLES OR SUPPORT SYSTEMS FOR EXCAVATION SIDEWALLS.
12. PERMANENT FILL OR CUT SLOPES IN SOIL SHOULD BE DESIGNED AND CONSTRUCTED HAVING A GRADE NO STEEPER THAN 3 FT. HORIZONTAL TO 1 FT. VERTICAL.
13. ANY INTACT ROCKS OR BOULDERS WITHIN THE FOUNDATION EXCAVATION, SLAB-ON-GRADE, UTILITY LOCATIONS AND PAVEMENT AREAS SHOULD BE OVER-EXCAVATED A MIN. OF 12 INCHES BELOW THE BEARING ELEVATION. THE OVER-EXCAVATION MUST BE BACKFILLED WITH A STONE SIMILAR TO PENNDOT 2A "MODIFIED".
14. AFTER SUBGRADE ELEVATIONS HAVE BEEN REACHED AND PRIOR TO FLOOR SLAB, PARKING LOT, OR ROADWAY CONSTRUCTION COMPACT THE EXPOSED SUBGRADE WITH A MIN. 10-TON ROLLER COMPACTOR. **"VIBRATOR MUST NOT BE USED WITHIN STORMWATER MANAGEMENT BASINS ".** THEN PROOF ROLL THE COMPACTED SUBGRADE SURFACES USING A TANDEM-AXLE DUMP TRUCK. ANY UNSTABLE AREAS MUST BE UNDERCUT TO THE SATISFACTION OF THE GEOTECHNICAL ENGINEER AND REPLACED WITH A STRUCTURAL FILL.
15. PRIOR TO FILLING AREAS WITHIN THE BUILDING PAD AREA AND 10 FT. PERIMETER ZONE AS WELL AS OTHER AREAS RECEIVING FILL, COMPACT THE EXPOSED SUBGRADE SOILS WITH A LARGE COMPACTOR USING VIBRATORY MODE. PROOF ROLL THE COMPACTED SURFACES AND UNDERCUT WHERE VISUALLY NECESSARY.
16. CONCRETE PLACEMENT FOR FOUNDATIONS, AS WELL AS THE BACKFILL OF UTILITY LINES, SHOULD BE COMPLETED IN THE SAME DAY AS THE EXCAVATION. EXCAVATIONS SHOULD NOT BE LEFT OPEN WHEN RAINFALL IS EXPECTED.
17. THE TOWNSHIP MUST BE NOTIFIED WHEN SOIL REPLACEMENT MEASURES ARE TO BE IMPLEMENTED. THE SOIL REPLACEMENT MUST BE APPROVED BY THE TOWNSHIP ENGINEER.



POST CONSTRUCTION STORMWATER MANAGEMENT GENERAL MAINTENANCE NOTES

1. ALL STORMWATER COMPONENTS MUST BE INSPECTED FOR CLOGGING AND EXCESSIVE DEBRIS AND SEDIMENT ACCUMULATION AT LEAST FOUR (4) TIMES ANNUALLY AND AFTER MAJOR STORM (RAINFALL EVENTS IN EXCESS OF 4"). SUCH COMPONENTS ARE TO INCLUDE STORM INLETS AND MANHOLES
2. SEDIMENT REMOVAL IS TO TAKE PLACE DURING DRY CONDITIONS. DISPOSAL OF DEBRIS, TRASH, SEDIMENT AND OTHER WASTE MATERIAL IS TO BE DONE AT SUITABLE DISPOSAL/RECYCLING SITES AND IN COMPLIANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL WASTE REGULATIONS.
3. BERMS AND EMBANKMENTS ARE TO BE MOWED ON A REGULAR BASIS. GRASS IS TO BE MOWED AT LEAST ONCE A MONTH DURING THE GROWING SEASON. VEGETATED AREAS ARE TO BE INSPECTED AT LEAST ANNUALLY FOR EROSION AND SCOUR. VEGETATED AREAS ARE TO BE INSPECTED FOR UNWANTED TREE GROWTH AT LEAST ONCE A YEAR.
4. ALL STRUCTURAL COMPONENTS (STORM INLETS, MANHOLES AND PIPING) ARE TO BE INSPECTED FOR CRACKING, SUBSIDENCE, SPALLING, EROSION AND DETERIORATION BI-ANNUALLY.
5. OWNER IS RESPONSIBLE FOR MAINTENANCE OF ALL POST CONSTRUCTION STORMWATER MANAGEMENT BMPS.
6. ALL COLLECTED WASTES MUST BE HANDLED AND DISPOSED OF ACCORDING TO LOCAL ENVIRONMENTAL REQUIREMENTS.
7. ALL IMPERVIOUS DRIVES AND PARKING FIELDS TO BE SWEPT WITH A VACUUM STREET SWEEPER BIWEEKLY.(7.1 ACRES)

GRADING AND DRAINAGE NOTES

1. REFER TO THE SITE PLAN FOR SPECIFIC DETAILS AND DIMENSIONS OF SITE PARKING LAYOUT AND RELATED IMPROVEMENTS.
2. PROPOSED SPOT ELEVATIONS PROVIDED REPRESENT BOTTOM OF CURB ELEVATIONS. TOP OF CURB ELEVATIONS ARE 0.5' ABOVE BOTTOM OF CURB ELEVATION UNLESS OTHERWISE NOTED.
3. ALL PERIMETER BUILDING SIDEWALKS TO SLOPE AT 1% MINIMUM (1/8"/FT.) AND 2% MAXIMUM (1/4"/FT.) AWAY FROM THE BUILDING TO THE EDGE OF PAVING OR FIRST PARKING STALL.
4. REFER TO THE UTILITY PLAN FOR UTILITY LAYOUT AND RELATED IMPROVEMENTS.
5. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE LOCATIONS OF ALL EXISTING UTILITIES. ONLY THE LOCATION OF VISIBLE UTILITIES ON OR ABOVE THE SURFACE OF THE EARTH THAT CAN BE REASONABLY LOCATED USING STANDARD SURVEY PROCEDURES SHALL BE CERTIFIED. NO CERTIFICATION IS MADE BY MASER CONSULTING, P.A. AS TO THE ACCURACY OR COMPLETENESS OF THE ACTUAL LOCATION OF ANY UNDERGROUND UTILITIES OR STRUCTURES. IT IS IMPERATIVE THAT PRIOR TO ANY CONSTRUCTION IN THE AREA, A UTILITY MARK-OUT IS ORDERED.
6. NO TOPSOIL SHALL BE REMOVED FROM THE SITE OR USED AS SPOIL UNLESS APPROVED BY THE TOWNSHIP. TOPSOIL MOVED DURING THE COURSE OF CONSTRUCTION SHALL BE REDISTRIBUTED SO AS TO PROVIDE AT LEAST EIGHT (8) INCHES OF COVER TO ALL LANDSCAPE AREAS OF THE SITE AND SHALL BE STABILIZED BY SEEDING OR PLANTING.
7. THE EROSION AND SEDIMENTATION CONTROL PLANS SHALL BE REFERENCED AND USED IN CONJUNCTION WITH THIS DRAWING TO COMPLETE CONSTRUCTION PHASING.
8. LOCATIONS OF EXISTING UTILITIES SHOWN HEREON HAVE BEEN DEVELOPED FROM EXISTING RECORDS AND/OR ABOVE-GROUND OBSERVATIONS AT THE SITE. COMPLETENESS OR ACCURACY OF LOCATIONS AND DEPTH CANNOT BE GUARANTEED. ALL CONTRACTORS AND OTHER PERSONS UTILIZING THIS PLAN AND THE INFORMATION CONTAINED THEREON ARE CAUTIONED THAT EACH INDIVIDUAL USING THIS PLAN MUST VERIFY THE LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES AND FACILITIES BEFORE STARTING WORK.
9. THE CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS AND SPECIFICATIONS FOR ACTUAL LOCATIONS OF ALL UTILITIES ENTERING THE BUILDING INCLUDING SANITARY SEWER LATERALS, DOMESTIC WATER AND FIRE PROTECTION SERVICE, ELECTRIC, TELEPHONE AND GAS SERVICE. THE CONTRACTOR SHALL COORDINATE INSTALLATION OF UTILITIES IN SUCH A MANNER AS TO AVOID CONFLICTS AND TO ENSURE PROPER DEPTHS ARE ACHIEVED AS WELL AS COORDINATING WITH THE UTILITY COMPANIES AS TO THEIR FACILITIES.
10. SITE GRADING SHALL NOT PROCEED UNTIL EROSION CONTROL MEASURES HAVE BEEN INSTALLED.
11. IN AREAS OF PROPOSED EARTHWORK, THE RESIDUAL SOIL AND DECOMPOSED ROCK MAY BE EXCAVATED USING CONVENTIONAL EQUIPMENT, INCLUDING EXCAVATORS, LOADERS AND DOZERS. LARGE ROCKS MAY BE BROKEN UP OR DISLODGED BY HOE RAMS AND DOZERS WITH RIPPERS. BLASTING IS NOT RECOMMENDED ON THIS SITE.
12. THE SITE IS TO BE GRADED SMOOTHLY AND EVENLY IN ACCORDANCE WITH THE PROPOSED CONTOURS AND SPOT ELEVATIONS. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING A POSITIVE DRAINAGE FLOW TO INLET STRUCTURES WITHOUT CREATING FLAT SPOTS THAT WILL RESULT IN STANDING WATER (PUDDLING OR PONDING).
13. DURING GRADING OPERATIONS NECESSARY MEASURES FOR DUST CONTROL WILL BE IMPLEMENTED.

ALL EARTHWORK SHALL BE WITNESSED BY A LICENSED PROFESSIONAL ENGINEER OR DESIGNEE. THE CRITICAL STAGE OF THIS DEVELOPMENT WILL BE THE CONSTRUCTION OF THE STORMWATER MANAGEMENT SYSTEM. SPECIFICALLY THE UNDERGROUND BASINS AND THE IRRIGATION SYSTEM.

THE CONTRACTOR ASSUMES RESPONSIBILITY TO PROVIDE CLEAN FILL TO AND FROM THE SITE.

CLEAN FILL IS UNCONTAMINATED, NON-WATER SOLUABLE, NON-DECOMPOSABLE, INERT, SOLID MATERIAL.

APPLICANT IS RESPONSIBLE FOR MAINTENANCE OF PCSM BMPS:
MADISON DEVELOPMENT GROUP, INC.
AND CENTER SQUARE COMMONS, LP
ATTN:JOHN MCKENNA
PO BOX 507
SOUTHEASTERN, PA 19399
PHONE:215-568-9495
FAX:215-359-1370

SOIL DESCRIPTIONS:

Bo--BOWMANSVILLE-KNAUERS SILT LOAMS:
DESCRIPTION OF KNAUERS
0 TO 3 % SLOPES
DEPTH TO BEDROCK: 72-99 INCHES
DEPTH TO WATER TABLE: 0 INCHES

DESCRIPTION OF BOWMANSVILLE
0 TO 3 % SLOPES
DEPTH TO BEDROCK: 72-99 INCHES
DEPTH TO WATER TABLE: 0-18 INCHES

CHARACTERISTIC THAT AFFECTS SUITABILITY FOR BUILDING SITE: DEPTH TO BEDROCK AND DEPTH TO WATER TABLE

MEANS TO ADDRESS THE BUILDING CONSTRUCTION SUITABILITY: NO PROPOSED IMPROVEMENTS ARE LOCATED WITHIN THIS AREA.

CfA--CHALFONT SILT LOAM:
0 TO 3 % SLOPES
DEPTH TO BEDROCK: 42 - 99 INCHES (15 - 30 INCHES TO FRAGIPAN)
DEPTH TO WATER TABLE: 6-18 INCHES

CHARACTERISTIC THAT AFFECTS SUITABILITY FOR BUILDING SITE:
VERY LIMITED FOR SMALL COMMERCIAL BUILDINGS, DEPTH TO BEDROCK AND DEPTH TO WATER TABLE

MEANS TO ADDRESS THE BUILDING CONSTRUCTION SUITABILITY
BUILDING CONSTRUCTION IS MINIMAL WITHIN THE CFA SOIL ALTHOUGH SOME BEDROCK WILL HAVE TO BE EXCAVATED FOR BUILDING FOUNDATIONS.

CfB--CHALFONT SILT LOAM:
3 TO 8 % SLOPES
DEPTH TO BEDROCK: 42 - 99 INCHES (15 - 30 INCHES TO FRAGIPAN)
DEPTH TO WATER TABLE: 6-18 INCHES

CHARACTERISTIC THAT AFFECTS SUITABILITY FOR BUILDING SITE:
VERY LIMITED FOR SMALL COMMERCIAL BUILDINGS, DEPTH TO BEDROCK AND DEPTH TO WATER TABLE

MEANS TO ADDRESS THE BUILDING CONSTRUCTION SUITABILITY: NO BUILDING CONSTRUCTION WITHIN THE AREA OF CFB.

LeA--LAWRENCEVILLE SILT LOAM:
0 TO 3 % SLOPES
DEPTH TO BEDROCK: 48 - 99 INCHES (24 - 38 INCHES TO FRAGIPAN)
DEPTH TO WATER TABLE: 18-36 INCHES

CHARACTERISTIC THAT AFFECTS SUITABILITY FOR BUILDING SITE: DEPTH TO BEDROCK AND DEPTH TO WATER TABLE

MEANS TO ADDRESS THE BUILDING CONSTRUCTION SUITABILITY: NO PROPOSED IMPROVEMENTS ARE LOCATED WITHIN THIS AREA.

ReB--READINGTON SILT LOAM:
3 TO 8 % SLOPES
DEPTH TO BEDROCK: 40 - 70 INCHES (20 - 36 INCHES TO FRAGIPAN)
DEPTH TO WATER TABLE: 18-36 INCHES

CHARACTERISTIC THAT AFFECTS SUITABILITY FOR BUILDING SITE: DEPTH TO BEDROCK AND DEPTH TO WATER TABLE

MEANS TO ADDRESS THE BUILDING CONSTRUCTION SUITABILITY
THE MAJORITY OF THE SITE LIES WITHIN THE REB FORMATION. BEDROCK WILL HAVE TO BE EXCAVATED FOR DEVELOPMENT OF THE SITE. ADDITIONALLY, SOIL REMEDIATION WILL BE INCORPORATED TO ENSURE INFILTRATION OCCURS.

UgB--URBAN LAND:
0 TO 8 % SLOPES
DEPTH TO BEDROCK: 10-98 INCHES
DEPTH TO WATER TABLE: N/A

CHARACTERISTIC THAT AFFECTS SUITABILITY FOR BUILDING SITE: DEPTH TO BEDROCK

MEANS TO ADDRESS THE BUILDING CONSTRUCTION SUITABILITY
BUILDING CONSTRUCTION IS MINIMAL WITHIN THE CFA SOIL ALTHOUGH SOME BEDROCK WILL HAVE TO BE EXCAVATED FOR BUILDING FOUNDATIONS.

TOTAL AREA OF DISTURBANCE: 20.65 ACRES
TOTAL NPDES BOUNDARY AREA: 23.70 ACRES

PCSM LEGEND

- NPDES BOUNDARY
- SOIL LIMIT
- LIMIT OF DISTURBANCE
- 170 PROPOSED CONTOURS
- 170 EXISTING CONTOURS

WATERSHED:

LOWER SCHUYLKILL WATERSHED DRAINING TO STONY CREEK
TSF - TROUT STOCKING FISHES
MF - MIGRATORY FISHES

SCALE : 1" = 60'

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REV	DATE	DRAWN BY	DESCRIPTION
1	09/11/15	CJR	REVISED PER HCCD REVIEW
2	10/09/15	EXTON	FINAL PLAN SUBMISSION
3	11/30/15	EXTON	REVISED PER FINAL PLAN REVIEW

RUSSELL T. McFALL II
PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER - LICENSE NUMBER: PE604408

FINAL LAND DEVELOPMENT PLANS
FOR
MADISON DEVELOPMENT GROUP, INC.

DEKALB PIKE AT SKIPPACK PIKE

WHITPAIN TOWNSHIP
MONTGOMERY COUNTY
PENNSYLVANIA

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SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	06/10/15	DIII	RTM
PROJECT NUMBER: 12000830A	DRAWING NAME: C-GRAD		

SHEET TITLE:
OVERALL GRADING AND DRAINAGE PCSM PLAN NOTES

SHEET NUMBER:
6 of 38

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CPS FILTER SCREEN DESIGN TABLE

MANHOLE NUMBER	SIZE
MANHOLE 2	36"
MANHOLE 4	15"
MANHOLE 5	36"
MANHOLE 6	24"
MANHOLE 8	30"
MANHOLE 14	24"

*ALL CPS FILTER SCREENS TO BE INSTALLED PER MANUFACTURERS SPECIFICATIONS

PCSM LEGEND

- NPDES BOUNDARY
- SOIL LIMIT
- LIMIT OF DISTURBANCE
- 170 PROPOSED CONTOURS
- 170 EXISTING CONTOURS

TOTAL AREA OF DISTURBANCE: 20.65 ACRES
TOTAL NPDES BOUNDARY AREA: 23.70 ACRES

PROPOSED TREE LINE

PROPOSED DOT PARCEL LINE

PROPOSED DOT STORMWATER MANAGEMENT BASIN

956 DEKALB PIKE CLASS I HISTORIC RESOURCE

SKIPPACK PIKE
S.R. 73 : L.R. 197

DEKALB PIKE
U.S. ROUTE 202 : L.R. 178

DEKALB PIKE
(A.K.A. S.R. 202)
(VARIABLE WIDTH R.O.W.)

SCALE : 1" = 40'

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
RUSSELL T. MCFALL II
ENGINEER

RUSSELL T. MCFALL II
PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER - LICENSE NUMBER: PE60408

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AS SHOWN	06/10/15	DIII	RTM

PROJECT NUMBER: 12000830A
DRAWING NAME: C-GRAD

SHEET TITLE:
GRADING AND DRAINAGE PCSM PLAN

SHEET NUMBER: 7 of 38

12000830A\Engineering\C-GRAD.dwg-EXT GRADING by JPJAKE

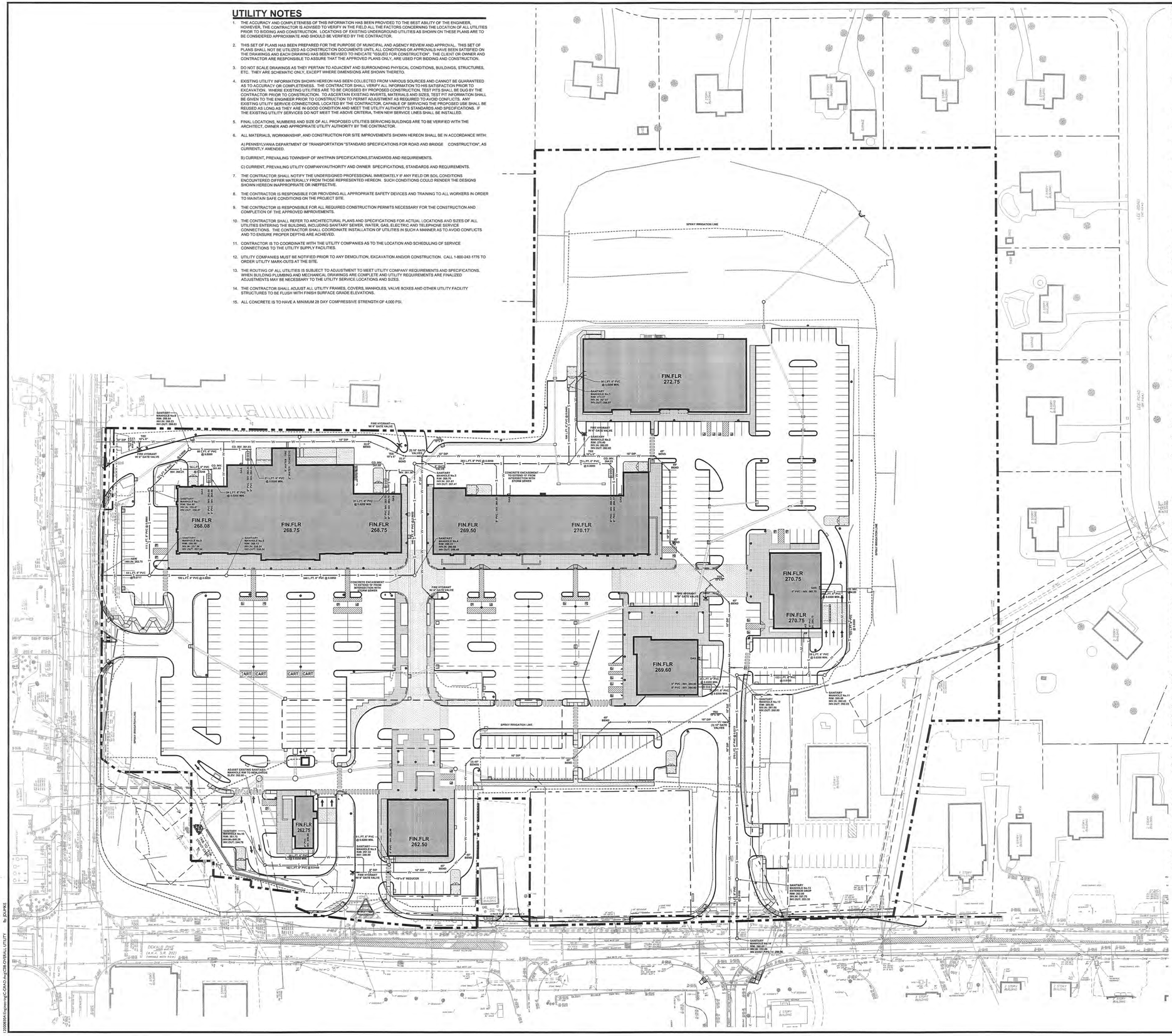
UTILITY NOTES

1. THE ACCURACY AND COMPLETENESS OF THIS INFORMATION HAS BEEN PROVIDED TO THE BEST ABILITY OF THE ENGINEER, HOWEVER, THE CONTRACTOR IS ADVISED TO VERIFY IN THE FIELD ALL THE FACTORS CONCERNING THE LOCATION OF ALL UTILITIES PRIOR TO BIDDING AND CONSTRUCTION. LOCATIONS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THESE PLANS ARE TO BE CONSIDERED APPROXIMATE AND SHOULD BE VERIFIED BY THE CONTRACTOR.
2. THIS SET OF PLANS HAS BEEN PREPARED FOR THE PURPOSE OF MUNICIPAL AND AGENCY REVIEW AND APPROVAL. THIS SET OF PLANS SHALL NOT BE UTILIZED AS CONSTRUCTION DOCUMENTS UNTIL ALL CONDITIONS OR APPROVALS HAVE BEEN SATISFIED ON THE DRAWINGS AND EACH DRAWING HAS BEEN REVISED TO INDICATE "ISSUED FOR CONSTRUCTION". THE CLIENT OR OWNER AND CONTRACTOR ARE RESPONSIBLE TO ASSURE THAT THE APPROVED PLANS ONLY, ARE USED FOR BIDDING AND CONSTRUCTION.
3. DO NOT SCALE DRAWINGS AS THEY CONTAIN TO ADJACENT AND SURROUNDING PHYSICAL CONDITIONS, BUILDINGS, STRUCTURES, ETC. THEY ARE SCHEMATIC ONLY, EXCEPT WHERE DIMENSIONS ARE SHOWN THERETO.
4. EXISTING UTILITY INFORMATION SHOWN HEREON HAS BEEN COLLECTED FROM VARIOUS SOURCES AND CANNOT BE GUARANTEED AS TO ACCURACY OR COMPLETENESS. THE CONTRACTOR SHALL VERIFY ALL INFORMATION TO HIS SATISFACTION PRIOR TO EXCAVATION. WHERE EXISTING UTILITIES ARE TO BE CROSSED BY PROPOSED CONSTRUCTION, TEST PITS SHALL BE DUG BY THE CONTRACTOR PRIOR TO CONSTRUCTION. TO ASCERTAIN EXISTING INVERTS, MATERIALS AND SIZES, TEST PIT INFORMATION SHALL BE GIVEN TO THE ENGINEER PRIOR TO CONSTRUCTION TO PERMIT ADJUSTMENT AS REQUIRED TO AVOID CONFLICTS. ANY EXISTING UTILITY SERVICE CONNECTIONS, LOCATED BY THE CONTRACTOR, CAPABLE OF SERVICING THE PROPOSED USE SHALL BE REUSED AS LONG AS THEY ARE IN GOOD CONDITION AND MEET THE UTILITY AUTHORITY'S STANDARDS AND SPECIFICATIONS. IF THE EXISTING UTILITY SERVICES DO NOT MEET THE ABOVE CRITERIA, THEN NEW SERVICE LINES SHALL BE INSTALLED.
5. FINAL LOCATIONS, NUMBERS AND SIZE OF ALL PROPOSED UTILITIES SERVICING BUILDINGS ARE TO BE VERIFIED WITH THE ARCHITECT, OWNER AND APPROPRIATE UTILITY AUTHORITY BY THE CONTRACTOR.
6. ALL MATERIALS, WORKMANSHIP, AND CONSTRUCTION FOR SITE IMPROVEMENTS SHOWN HEREON SHALL BE IN ACCORDANCE WITH:

   A) PENNSYLVANIA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", AS CURRENTLY AMENDED.

   B) CURRENT, PREVAILING TOWNSHIP OF WHITPAIN SPECIFICATIONS,STANDARDS AND REQUIREMENTS.

   C) CURRENT, PREVAILING UTILITY COMPANY/AUTHORITY AND OWNER SPECIFICATIONS, STANDARDS AND REQUIREMENTS.
7. THE CONTRACTOR SHALL NOTIFY THE UNDERSIGNED PROFESSIONAL IMMEDIATELY IF ANY FIELD OR SOIL CONDITIONS ENCOUNTERED DIFFER MATERIALLY FROM THOSE REPRESENTED HEREON. SUCH CONDITIONS COULD RENDER THE DESIGNS SHOWN HEREON INAPPROPRIATE OR INEFFECTIVE.
8. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL APPROPRIATE SAFETY DEVICES AND TRAINING TO ALL WORKERS IN ORDER TO MAINTAIN SAFE CONDITIONS ON THE PROJECT SITE.
9. THE CONTRACTOR IS RESPONSIBLE FOR ALL REQUIRED CONSTRUCTION PERMITS NECESSARY FOR THE CONSTRUCTION AND COMPLETION OF THE APPROVED IMPROVEMENTS.
10. THE CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS AND SPECIFICATIONS FOR ACTUAL LOCATIONS AND SIZES OF ALL UTILITIES ENTERING THE BUILDING, INCLUDING SANITARY SEWER, WATER, GAS, ELECTRIC AND TELEPHONE SERVICE CONNECTIONS. THE CONTRACTOR SHALL COORDINATE INSTALLATION OF UTILITIES IN SUCH A MANNER AS TO AVOID CONFLICTS AND TO ENSURE PROPER DEPTHS ARE ACHIEVED.
11. CONTRACTOR IS TO COORDINATE WITH THE UTILITY COMPANIES AS TO THE LOCATION AND SCHEDULING OF SERVICE CONNECTIONS TO THE UTILITY SUPPLY FACILITIES.
12. UTILITY COMPANIES MUST BE NOTIFIED PRIOR TO ANY DEMOLITION, EXCAVATION AND/OR CONSTRUCTION. CALL 1-800-242-1776 TO ORDER UTILITY MARK-OUTS AT THE SITE.
13. THE ROUTING OF ALL UTILITIES IS SUBJECT TO ADJUSTMENT TO MEET UTILITY COMPANY REQUIREMENTS AND SPECIFICATIONS. WHEN BUILDING PLUMBING AND MECHANICAL DRAWINGS ARE COMPLETE AND UTILITY REQUIREMENTS ARE FINALIZED ADJUSTMENTS MAY BE NECESSARY TO THE UTILITY SERVICE LOCATIONS AND SIZES.
14. THE CONTRACTOR SHALL ADJUST ALL UTILITY FRAMES, COVERS, MANHOLES, VALVE BOXES AND OTHER UTILITY FACILITY STRUCTURES TO BE FLUSH WITH FINISH SURFACE GRADE ELEVATIONS.
15. ALL CONCRETE IS TO HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4,000 PSI.



WATER SERVICE NOTES

1. EXCAVATION AND BACKFILL SHALL CONFORM TO THE REQUIREMENTS FOR SUBSURFACE STRUCTURE EXCAVATION. THE CONTRACTOR SHALL PROVIDE ADEQUATE EQUIPMENT AND SO OPERATE IT AS TO MAINTAIN AN ESSENTIALLY DRY EXCAVATION, STABLE TRENCH BOTTOMS, AND SUITABLE WORKING CONDITIONS UNTIL THE COMPLETION OF WORK.
2. WATER SERVICE SHALL BE LAID IN STRAIGHT LINES EXCEPT WHEN OTHERWISE SPECIFICALLY PROVIDED OR DIRECTED BY THE ENGINEER. WHEN DEVIATION FROM A STRAIGHT LINE IS PERMITTED, THE DEFLECTION OF EACH JOINT SHALL NOT EXCEED THE MANUFACTURER'S RECOMMENDED MAXIMUM FOR THE TYPE OF JOINT AND SIZE OF PIPE BEING INSTALLED.
3. PIPE SHALL BE LAID WITH AT LEAST FOUR (4) FEET OF COVER OVER THE TOP OF THE PIPE TO SURFACE GRADES OR FUTURE FINISH GRADES. THE DEPTH OF PIPE MAY BE INCREASED OR SLIGHTLY DECREASED LOCALLY TO PASS OBSTRUCTIONS. GRADE CHANGES SHALL BE ACCOMPLISHED BY FITTINGS AND/OR DIVIDING THE NECESSARY DEFLECTION AMONG SEVERAL JOINTS.
4. SPECIAL CARE SHALL BE EXERCISED TO REMOVE ALL EARTH, STONES AND OTHER MATERIALS FROM EACH PIPE AS IT IS LAID AND TO PREVENT ANY SUCH MATERIALS FROM ENTERING THE PIPELINE. THE CONTRACTOR SHALL SEE THAT THE ENTIRE PIPELINE IS MAINTAINED TOTALLY CLEAN ON THE INSIDE. ALL VALVES AND HYDRANTS ARE TO BE CLEAN AND IN GOOD WORKING ORDER WHEN INSTALLED. OPEN ENDS SHALL BE ADEQUATELY PROTECTED AT ALL TIMES AND SHALL BE SECURELY SEALED WITH APPROVED PLUGS WHENEVER WORK IS STOPPED FOR ANY REASON. AFTER REMOVING A PLUG, THE INTERIOR OF THE PIPELINE SHALL BE INSPECTED AND CLEANED BEFORE RESUMING PIPE LAYING OPERATIONS.
5. BEFORE PLACING EACH LENGTH OF PIPE, THE CONTRACTOR SHALL CAREFULLY EXAMINE IT FOR BREAKS, CRACKS OR OTHER DEFECTS AND SHALL DISCARD ANY WHICH MAY APPEAR TO BE IN ANY WAY DEFECTIVE. ALL PIPE AND FITTINGS SHALL BE HANDLED AND INSTALLED WITH CARE TO AVOID BREAKAGE.
6. EACH SECTION OF PIPE SHALL BE SOLIDLY BEDDED IN THE TRENCH BOTTOM AND SHALL BE SUPPORTED FOR ITS FULL LENGTH EXCEPT WHERE EXCESS EXCAVATION HAS BEEN MADE FOR JOINTS.
7. BEFORE MAKING JOINT CONNECTIONS, THE ENDS OF THE PIPES AND ALL JOINT MEMBERS SHALL BE THOROUGHLY CLEANED. ALL JOINTING SHALL BE DONE IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND THE DIRECTIONS OF THE ENGINEER.
8. THE CONTRACTOR SHALL DO ALL NECESSARY PIPE CUTTING USING CUTTING TOOLS OF AN APPROVED TYPE AND IN GOOD WORKING ORDER TO ENSURE CLEAN, SQUARE CUTS TO EXACT MEASUREMENTS.
9. THE CONTRACTOR SHALL POSITION VALVES, FITTINGS AND FIRE HYDRANTS IN THE LOCATIONS AS INDICATED ON THE PLANS.
10. ALL FITTINGS AND VALVES SHALL BE SET ACCURATELY, TRUE TO, AND SQUARE WITH PIPELINES. VALVE STEMS SHALL BE ACCURATELY PLUMB. FITTINGS AND VALVES SHALL BE SUPPORTED BY APPROVED BLOCKING SO AS TO ENSURE THEIR REMAINING ACCURATELY IN POSITION DURING JOINTING AND IN SUCH MANNER THAT THEIR WEIGHT WILL NOT PLACE UNDUE STRAIN ON CONNECTING PIPE OR JOINTS. VALVE BOXES SHALL BE SET PLUMB, ACCURATELY CENTERED WITH RESPECT TO THE VALVE STEM. VALVE BOXES ARE TO BE WELL SUPPORTED BY SOLIDLY TAMPED EARTH AND WITH THEIR TOPS FLUSH WITH THE FINISHED PAVED SURFACE OR EARTH SURFACE GRADE.
11. PIPELINES SHALL BE THRUST BLOCKED, HORIZONTALLY AND VERTICALLY, AT ALL BENDS GREATER THAN TEN (10) DEGREES AND AT ALL TEES, PLUGS, VALVES AND FIRE HYDRANTS SO AS TO PREVENT MOVEMENT OF THE LINES UNDER PRESSURE.
12. EXISTING WATER MAIN SERVICE SHALL NOT BE INTERRUPTED UNLESS NECESSARY FOR THE COMPLETION OF THE WORK INDICATED AND THEN ONLY IN ACCORDANCE WITH THE REQUIREMENTS OF THE GOVERNING WATER AUTHORITY.

WATER SERVICE MATERIALS

DUCTILE IRON PIPE AND FITTINGS

1. DUCTILE IRON PIPE SHALL CONFORM TO AWWA C151 AND SHALL BE THICKNESS CLASS 52.
2. FLANGES SHALL BE THICKNESS CLASS 53. GASKET-TYPE JOINTS SHALL BE TYTON OR APPROVED EQUAL. MECHANICAL JOINTS SHALL CONFORM TO ANSI/AWWA C111/A21.11. PUSH-ON JOINTS SHALL BE USED. THE PIPE JOINTS MAY BE TYTON JOINT, WITH THE EXCEPTION OF JOINTS ON FIRE HYDRANT LATERAL WHICH MUST BE EITHER TYTON JOINT WITH A FIELD LOCK GASKET, MECHANICAL JOINT OR RESTRAINED JOINT. ALL FITTINGS MUST BE MECHANICAL JOINT.
3. FITTINGS SHALL CONFORM TO ANSI/AWWA C110/A21.10 OR ANSI C153/A21.53.
4. UNLESS OTHERWISE SPECIFIED, ALL DUCTILE IRON PIPE AND FITTINGS SHALL BE CEMENT LINED IN ACCORDANCE WITH AMERICAN STANDARDS ASSOCIATION A21.4, AS AMENDED AND REVISED TO DATE.

VALVES

1. VALVES SHALL BE IRON BODY, RESILIENT SEALED, NRS CONFORMING TO AWWA C509. VALVES SHALL BE OF THE TYPE MANUFACTURED BY EITHER THE "KENNEDY" OR "MUELLER" VALVE COMPANY. UNLESS OTHERWISE SPECIFIED, VALVES SHALL BE OPERATED BY A TWO (2) INCH SQUARE OPERATING NUT OF CAST IRON AND SHALL OPEN IN THE COUNTERCLOCKWISE DIRECTION. THE DIRECTION OF OPENING SHALL BE MARKED ON THE NUT BY AN ARROW AND THE WORD "OPEN".
2. ALL CAST-IRON SURFACES OF VALVES AND VALVE BOXES SHALL BE PAINTED WITH THREE (3) COATS OF ASPHALTUM PAINT, INSIDE AND OUT.
3. VALVES MUST BE MECHANICAL JOINT.

VALVE BOXES

1. VALVE BOXES SHALL BE COMPLETE WITH COVERS, AND BOTH VALVE BOX AND COVER SHALL BE OF AMPLE STRENGTH AND DIMENSION TO FULLY SUSTAIN THE SHOCKS OF HEAVY VEHICULAR TRAFFIC AND TO MAINTAIN THE UPPER SECTION AND COVER AT PROPER GRADE UNDER HEAVY VEHICULAR TRAFFIC.
2. COVERS SHALL BE ROUND, AT LEAST SIX (6) INCHES IN DIAMETER AND SHALL HAVE THE WORD "WATER", AN ARROW SHOWING THE OPENING DIRECTION, AND THE WORD "OPEN" CLEARLY CAST THEREON.

FIRE HYDRANTS

1. HYDRANT THREADS MUST CONFORM TO LOCAL FIRE DEPARTMENT REQUIREMENTS.
2. HYDRANTS MUST HAVE PENTAGON NUT ON OPERATING STEM AND ALL CAPS
3. HYDRANTS MUST OPEN IN A COUNTER CLOCKWISE (LEFT) DIRECTION
4. HYDRANTS MUST HAVE (2) HOSE AND (1) PUMP NOZZLES. THREADS MUST BE 2.5" NH (NATIONAL STANDARD) FOR HOSE CONNECTIONS. THREADS MUST BE 4.5" NH (NATIONAL STANDARD) FOR PUMPER CONNECTION.
5. ALL PRIVATELY OWNED AND MAINTAINED FIRE HYDRANTS SHALL HAVE BODY AND CAPS PAINTED YELLOW. ALL BONNETS (DOMES) SHALL BE PAINTED TO MEET THE FOLLOWING COLOR SCHEME:
   - 4" AND 6" WATER MAINS SHALL HAVE "RED" BONNETS (DOMES)
   - 8", 10" AND 12" WATER MAINS SHALL HAVE "GREEN" BONNETS (DOMES)
   - 16" AND LARGER WATER MAINS SHALL HAVE "BLUE" BONNETS (DOMES)

CONCRETE

1. CONCRETE FOR CRADLES AND THRUST BLOCKS SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3,500 PSI.

WATER MAIN TESTING / STERILIZING

EXFILTRATION TESTING

BEFORE NEW WATER LINES ARE PUT INTO SERVICE, THE CONTRACTOR SHALL PROVIDE THE NECESSARY EQUIPMENT FOR AND SHALL PERFORM AN EXFILTRATION TEST.
TESTING PROCEDURE:

A. EXPEL AIR FROM THE PIPE THROUGH HYDRANTS, BLOW-OFFS OR TAPS REQUIRED FOR RELEASE OF AIR AT HIGH POINTS. TAPS FOR RELEASE OF AIR AND BLOW-OFFS FOR FILLING PIPE AND RELEASING AIR SHALL BE PROVIDED BY THE CONTRACTOR.
B. FILL EACH PIPE SECTION WITH WATER SLOWLY. SUBJECT PIPE TO A HYDROSTATIC PRESSURE OF 1.5 TIMES THE WORKING PRESSURE OR A MINIMUM OF 150 PSI, WITH THE DURATION OF THE TEST BEING 2 HOURS
C. WHEN TEST PRESSURE IS REACHED, MEASURE AMOUNT OF MAKE-UP WATER REQUIRED TO MAINTAIN THIS PRESSURE DURING THE ONE (1) HOUR TEST PERIOD.
D. THE ALLOWABLE MAKEUP WATER/LEAKAGE BEING ONE FOURTH OF THAT ALLOWED BY THE AWWA SPECIFICATIONS. PIPELINES FAILING TO MEET THIS REQUIREMENT SHALL BE REPAIRED AND RETESTED AS ABOVE SPECIFIED.

STERILIZING

BEFORE NEW WATERLINES ARE PUT INTO SERVICE, THEY SHALL BE COMPLETELY STERILIZED WITH CHLORINE. THE CHLORINE SHALL BE INTRODUCED AND DISTRIBUTED INTO THE NEW PIPELINES BY SUITABLE AND APPROVED MEANS AND IN SUCH MANNER THAT IT SHALL REACH ALL OF THE PIPE AND ALL FITTINGS, VALVES AND APPURTENANCES. STERILIZATION MAY BE DONE IN CONNECTION WITH PIPE TESTING OR INDEPENDENTLY. THE MANNER AND METHOD OF INTRODUCTION OF CHLORINE SHALL BE SATISFACTORY TO AND MUST BE APPROVED BY THE GOVERNING WATER AUTHORITY. STERILIZING DOSAGE SHALL BE SUFFICIENT TO PROVIDE THE EQUIVALENT OF NOT LESS THAN FIFTY (50) PARTS PER MILLION (PPM) OF FREE CHLORINE TO THE ENTIRE CONTENTS OF THE PIPELINE OR SECTION THEREOF TO BE STERILIZED. THE CHLORINATED WATER SHALL BE PERMITTED TO REMAIN IN THE PIPELINE FOR A CONTACT PERIOD OF NOT LESS THAN TWENTY FOUR (24) HOURS. AFTER STERILIZATION, THE WATER MAIN OR SECTION SHALL BE THOROUGHLY FLUSHED. THE CHLORINE CONCENTRATION IN THE WATER MAIN AFTER FLUSHING SHALL BE NO HIGHER THAN THAT GENERALLY FOUND IN THE WATER SYSTEM, OR NOT EXCEEDING 0.2 PPM, WHICHEVER IS LOWER. ANY SECTION OF PIPELINE WHICH IS DRAINED OR EMPTIED OF WATER AT ANY TIME, FOR ANY PURPOSE, IN CONNECTION WITH THIS WORK, WETHER A NEWLY LAID PIPELINE OR PART OF AN EXISTING SYSTEM, SHALL BE STERILIZED AS ABOVE SPECIFIED BEFORE BEING RETURNED TO SERVICE.

SANITARY SEWER NOTES

1. CONSTRUCTION AND MATERIALS SHALL CONFORM TO THE SPECIFICATIONS OF WHITPAIN TOWNSHIP. THE TOWNSHIP SHALL APPROVE CHANGES TO THE DESIGN.
2. SEWER LATERAL SHALL BE POLYVINYL CHLORIDE (PVC) SDR-26.
3. SANITARY SEWER LATERAL SHALL BE BACKFILLED AND COMPACTED AS SPECIFIED ON THESE DRAWINGS.
4. MAINTAIN 10 FEET HORIZONTAL DISTANCE BETWEEN WATER MAINS AND SEWER MAINS AS A MINIMUM, EXCEPT AT CROSSINGS.
5. NO FIELD CHANGES OR DEVIATIONS FROM THE DESIGN SHALL BE MADE WITHOUT PRIOR APPROVAL FROM THE ENGINEER AND WHITPAIN TOWNSHIP.
6. MINIMUM COVER OVER PIPES SHALL BE 48 INCHES.
7. BUILDING SEWER CONNECTION SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE TOWNSHIP RULES AND REGULATIONS.
8. NO PLANTINGS OR STRUCTURES SHOULD BE LOCATED WITHIN 10 FEET OF THE SANITARY SEWERS OR LATERALS.
9. SANITARY SEWER LINES AND LATERALS WILL BE PRIVATELY OWNED.
10. A HORIZONTAL SEPARATION OF 10 FEET AND/OR A VERTICAL CLEARANCE OF 18 INCHES SHALL BE MAINTAINED BETWEEN THE SANITARY SEWER AND ANY OTHER UTILITY PIPELINES.

UTILITY SERVICE PROVIDERS

AMERICAN WATER
P.O. BOX 578
ALTON, ILLINOIS 62002

WHITPAIN TOWNSHIP SEWER AUTHORITY
960 WENTZ ROAD
BLUE BELL PENNSYLVANIA, 19422

PECO ENERGY COMPANY (GAS)
WARMINSTER SERVICE BUILDING
400 PARK AVENUE
WARMINSTER, PA 18974

PECO ENERGY COMPANY (ELECTRIC)
WARMINSTER SERVICE BUILDING
400 PARK AVENUE
WARMINSTER, PA 18974

VERIZON COMMUNICATIONS
500 W GERMANTOWN PIKE
PLYMOUTH MEETING,PA 19462

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PHILADELPHIA, PA. 19103

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1	09/11/15	CJR	REVISED PER HCCD REVIEW
2	10/09/15	EXTON	FINAL PLAN SUBMISSION
3	11/30/15	EXTON	REVISED PER FINAL PLAN REVIEW

RUSSELL McFALL II
PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER #PE060408

FINAL LAND DEVELOPMENT PLANS
FOR
MADISON DEVELOPMENT GROUP, INC.

DEKALB PIKE AT SKIPPACK PIKE

WHITPAIN TOWNSHIP
MONTGOMERY COUNTY
PENNSYLVANIA

EXTON OFFICE
410 Eagleview Boulevard
Suite 104
Exton, PA. 19341
Phone: 610.254.9140
Fax: 610.254.9141
email: solutions@maserconsulting.com

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	06/10/15	DIII	RTM
PROJECT NUMBER: 12000830A	DRAWING NAME: C-GRAD		

SHEET TITLE:
OVERALL UTILITY PLAN AND NOTES

SHEET NUMBER:
8 of 38

I:\12000830A\Engineering\C-GRAD.dwg\C08 OVERALL UTILITY By: DUPKE

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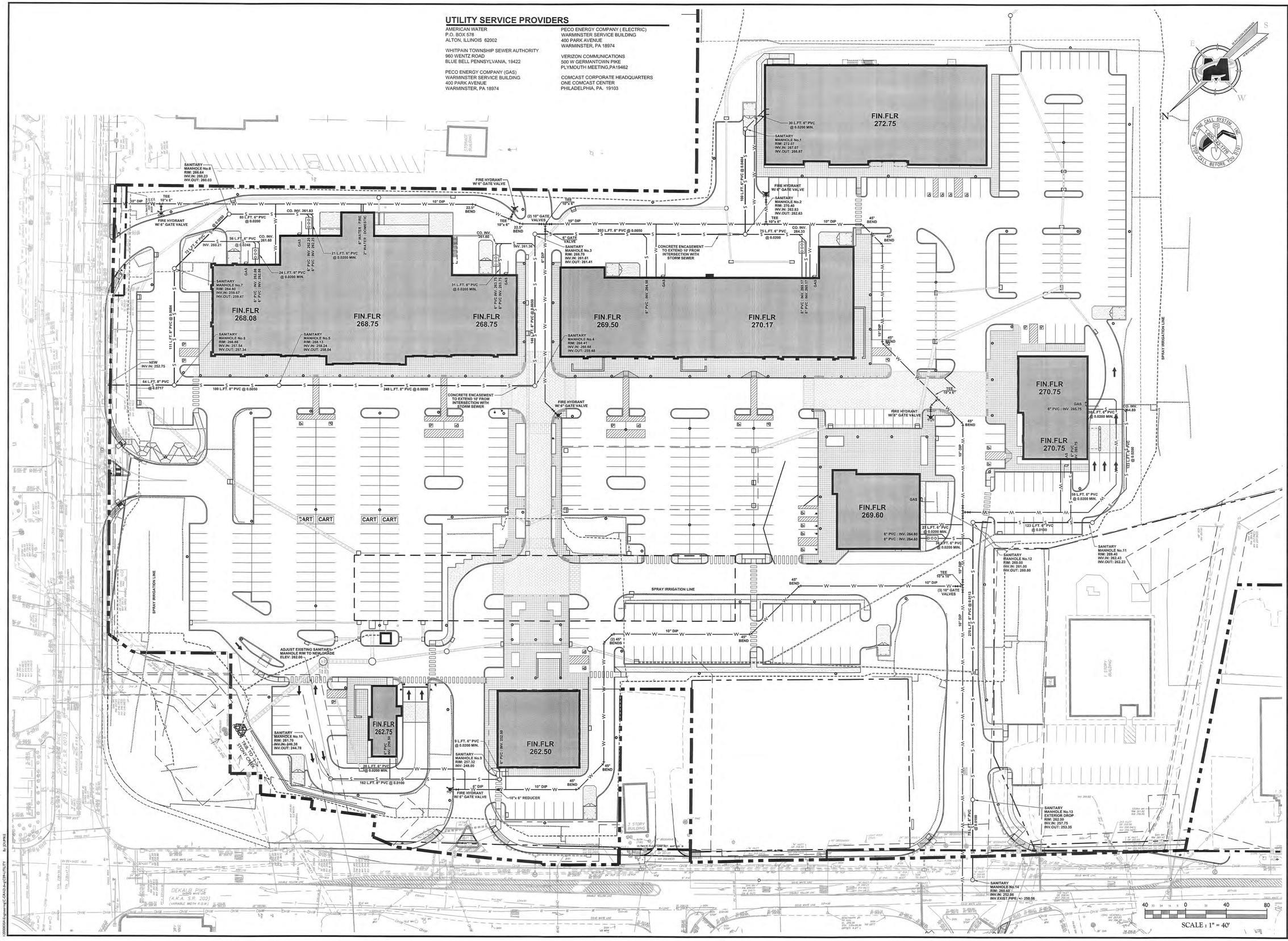

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RUSSELL T. MCFALL II
COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL ENGINEER
PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER
LICENSE NUMBER: PE60408

FINAL LAND DEVELOPMENT PLANS

FOR

MADISON DEVELOPMENT GROUP, INC.

DEKALB PIKE AT SKIPPACK PIKE

WHITPAIN TOWNSHIP
MONTGOMERY COUNTY
PENNSYLVANIA

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PROJECT NUMBER: 12000830A
DRAWING NAME: C-GRAD

SHEET TITLE: UTILITY PLAN

SHEET NUMBER: 9 of 38

12000830A\Engineering\C-CAD\Layout\C-UTILITY By: JDUPKE

PLANTING SCHEDULE

	QTY	BOTANICAL NAME / COMMON NAME	CONT	CAL	SIZE
DECIDUOUS TREES					
AA	11	ACER RUBRUM 'AUTUMN BLAZE' / AUTUMN BLAZE RED MAPLE	B & B	2.5"CAL	13'-15'
CF2	17	CORNUS FLORIDA / EASTERN DOGWOOD	B & B	1.5"CAL	6'-8'
LT	8	LIRIODENDRON TULIPIFERA / TULIP TREE	B & B	2.5"CAL	13'-15'
MP	19	MALUS X 'PRAIRIFIRE' / PRAIRIFIRE CRAB APPLE	B & B	1.5"CAL	6'-8'
PA3	16	PLATANUS X ACERIFOLIA / LONDON PLANE TREE	B & B	2.5"CAL	13'-15'
PO2	19	PRUNUS X OKAME / OKAME CHERRY	B & B	1.5"CAL	6'-8'
QP	26	QUERCUS PHELLOS / WILLOW OAK	B & B	2.5"CAL	13'-15'
TC	24	TILIA CORDATA / LITTLELEAF LINDEN	B & B	2.5"CAL	13'-15'
ZG	32	ZELKOVA SERRATA 'GREEN VASE' / SAWLEAF ZELKOVA	B & B	2.5"CAL	13'-15'
EVERGREEN TREES	QTY	BOTANICAL NAME / COMMON NAME	CONT	CAL	SIZE
PA	81	PICEA ABIES / NORWAY SPRUCE	B & B		7' - 8'
PO3	53	PICEA OMORIKA / SERBIAN SPRUCE	B & B		7' - 8'
PC	46	PICEA PUNGENS / COLORADO SPRUCE	B & B		7' - 8'
PS	45	PINUS STROBUS / WHITE PINE	B & B		7' - 8'
PD	43	PSEUDOTSUGA MENZIESII / DOUGLAS FIR	B & B		7' - 8'
SHRUBS	QTY	BOTANICAL NAME / COMMON NAME	CONT		
BM	4	BUXUS SEMPERVIRENS 'MONRUE' / GREEN TOWER BOXWOOD	3 GAL		
BG3	19	BUXUS X 'GREEN GEM' / GREEN GEM BOXWOOD	12"-18" MIN.		
BG2	30	BUXUS X 'GREEN MOUNTAIN' / BOXWOOD	24"-30" MIN.		
BG	206	BUXUS X 'GREEN VELVET' / BOXWOOD	24"-30" MIN.		
CF	66	CORNUS SERICEA 'FLAVIRAMEA' / YELLOW TWIG DOGWOOD	24"-30" MIN.		
CI	127	CORNUS SERICEA 'IVORY HALO' / VARIEGATED REDTWIG DOGWOOD	24"-30" MIN.		
IS	118	ILEX GLABRA 'SHAMROCK' / INKBERRY	24"-30" MIN.		
JK	148	JUNIPERUS X PFITZERIANA 'KALLAY'S COMPACT' / JUNIPER	24"-30" MIN.		
NH	16	NANDINA DOMESTICA 'HARBOUR DWARF' / DWARF HEAVENLY BAMBOO	18"-24" MIN.		
PO	41	PRUNUS LAUROCERASUS 'OTTO LUYKEN' / LUYKENS LAUREL	24"-30" MIN.		
SA	21	SPIRAEA X BUMALDA 'ANTHONY WATERER' / ANTHONY WATERER SPIRAEA	24"-30" MIN.		

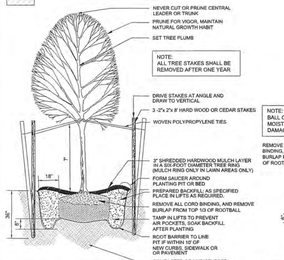
GROUND COVERS	CODE	QTY	BOTANICAL NAME / COMMON NAME	CONT	SPACING
	JB	20	JUNIPERUS HORIZONTALIS 'BAR HARBOR' / BAR HARBOR CREEPING JUNIPER	2 GAL	42" o.c.
	JB2	32	JUNIPERUS HORIZONTALIS 'BLUE CHIP' / BLUE CHIP JUNIPER	2 GAL	42" o.c.
	JE	73	JUNIPERUS HORIZONTALIS 'EMERALD SPREADER' / EMERALD SPREADER JUNIPER	2 GAL	42" o.c.
	LV	32	LIRIOPE MUSCARI 'VARIEGATA' / VARIEGATED LILY TURF	4"POT	24" o.c.

LANDSCAPING DATA:
STREET TREES EVERY 50 FT. (805 LF OF FRONTAGE) — 16 TREES REQUIRED — 17 TREES PROPOSED
PARKING LOT SHADE TREES — 56 TREES REQUIRED — 67 TREES PROPOSED
1 SHADE TREE PER 10 STALLS

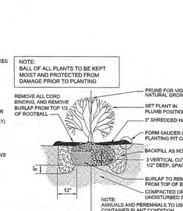
LANDSCAPE NOTES

1. GENERAL NOTES:
   - A. THIS PLAN IS TO BE USED ONLY FOR THE PURPOSES OF LANDSCAPING.
   - B. EXAMINE ALL ENGINEERING DRAWINGS AND FIELD CONDITIONS FOR SPECIFIC LOCATIONS OF UTILITIES, STRUCTURES, ETC. NOTIFY MASER CONSULTING P.A. IMMEDIATELY, IN WRITING, IN REFERENCE TO DISCREPANCIES OR LOCATION CONFLICTS.
   - C. IN THE EVENT THAT PLANT QUANTITY DISCREPANCIES OR MATERIAL OMISSIONS OCCUR IN THE PLANTING SCHEDULE, THE PLAN SHALL SUPERSEDE.
   - D. ALL PLANTING MATERIALS AND METHODS SHALL MEET OR EXCEED THE REQUIREMENTS OF WHITPAIN TOWNSHIP ORDINANCES AND ANSI Z-60.1 (CURRENT VERSION), THE AMERICAN STANDARD FOR NURSERY STOCK, PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN. IN THE EVENT OF CONFLICT BETWEEN A.A.N. AND MUNICIPAL STANDARDS, THE MUNICIPAL REQUIREMENTS SHALL SUPERSEDE.
   - E. ALL LANDSCAPING SHALL BE PLANTED SO AS TO NOT INTERFERE WITH UTILITY LINES, SIGHT TRIANGLES, UNDERGROUND UTILITIES OR PUBLIC WALKWAYS OR OTHER EXISTING OR PROPOSED STRUCTURES. ALL PLANT MATERIAL PROPOSED WITHIN THE REQUIRED SIGHT DISTANCES OR SIGHT TRIANGLES ARE SELECTED SO AS TO NOT EXCEED A MATURE HEIGHT GREATER THAN 30" ABOVE THE ELEVATION OF THE ADJACENT ROADWAY. STREET TREES AND SHADE TREES PLANTED NEAR PEDESTRIAN OR VEHICULAR ACCESSES, OR WITHIN REQUIRED SIGHT DISTANCES OR SIGHT TRIANGLE EASEMENTS SHALL NOT BE BRANCHED ANY LOWER THAN 7'-0" ABOVE GRADE, AND MUST BE APPROPRIATELY PRUNED. **NO WOODY PLANTS, EXCEPT GROUNDCOVERS, ARE TO HAVE THEIR CENTERS CLOSER THAN 36" TO THE BACK OF THE CURB.**
2. PLANT MATERIAL:
   - A. NO PLANT SUBSTITUTION SHALL BE ALLOWED WITH REGARD TO SIZE, SPECIES, NAMED VARIETY, OR CULTIVAR, WITHOUT PRIOR PERMISSION IN WRITING FROM MASER CONSULTING P.A. AND THE APPROVING AUTHORITY.
   - B. ALL PLANTS SHALL BE DUG, PACKED, TRANSPORTED AND HANDLED WITH THE UTMOST CARE TO ENSURE ADEQUATE PROTECTION FROM INJURY AND DESICCATION.
   - C. ALL PLANTS SHALL BE FREE FROM DISEASE AND INFESTATION, AND SHALL BEAR ALL LEGALLY REQUIRED AGRICULTURAL CERTIFICATIONS.
   - D. ALL PLANTS SHALL BE PRUNED TO ENHANCE VIGOR PRIOR TO, OR UPON INSTALLATION, WHILE RETAINING NATURAL GROWTH HABIT OF THE PLANTS. THE CENTRAL LEADER SHALL NOT BE CUT; PLANTS PROVIDED IN THIS CONDITION SHALL NOT BE ACCEPTED. DAMAGED, BROKEN OR CONFLICTING BRANCHES SHALL BE PRUNED CLEANLY, FLUSH WITH THE MAIN TRUNK OR BRANCH.
   - E. ALL PLANTS SHALL BE NURSERY-GROWN AND TAGGED WITH A DURABLE LABEL INDICATING THE GENUS, SPECIES AND SPECIFIED VARIETY OR CULTIVAR.
   - F. ALL SCREEN PLANTING MATERIAL SHALL BE A MINIMUM OF 2 - 2.5 FEET TALL AT TIME OF PLANTING.
3. PLANTING:
   - A. SOIL MUST BE FROST-FREE, FRIABLE AND NOT MUDDY AT THE TIME OF PLANTING.
   - B. BACKFILL MATERIAL FOR PLANTING PITS SHALL BE COMPOSED OF 70% TOPSOIL, 20% FULLY COMPOSTED COW OR HORSE MANURE AND 10% PEAT MOSS. TOPSOIL SHALL MEET PENNDOT STANDARD SPECIFICATIONS AND MAY BE FROM ON-SITE OR IMPORTED SOURCES. SOIL SHALL CONTAIN NO ACIDIC MARL, NOR ANY LARGE STONES.
   - C. PLANTS SHALL BE SET TO ULTIMATE FINISHED GRADE SO THAT THEY WILL BE LEFT IN THE RELATIONSHIP TO THE SURROUNDING GROUND AS THEY HAD, PRIOR TO BEING DUG. IF EVIDENCE OF SATURATED SOILS IS ENCOUNTERED DURING EXCAVATION OF THE PLANTING PITS, UPON DIRECTION BY MASER CONSULTING P.A., PLANTS SHALL BE SET SO THAT THEIR ROOT CROWNS ARE APPROXIMATELY THREE INCHES ABOVE THE FINAL GRADE, WITH TOPSOIL AND MULCH GENTLY MOUNDED TO AVOID EXCESSIVE DRYING AT THE SURFACE, UNDER NO CIRCUMSTANCES SHALL PLANTINGS AT RELATIVELY DRY LOCATIONS BE PERFORMED IN A MOUNDED MANNER.
   - D. THE CORD BINDING THE BALL OF ALL BALLED AND BURLAPPED(B&B) PLANTS SHALL BE CUT AND REMOVED ACCORDING TO THE SPECIFICATIONS ON THE DETAIL. PLANTS WITH SYNTHETIC NON- DEGRADABLE ROOT BALL WRAPS SHALL NOT BE ACCEPTABLE.
   - E. ALL PROPOSED TREES SHALL BE SET IN BEDS MULCHED TO THE LIMIT OF THEIR PLANTING PITS. ALL PROPOSED SHRUBS SHALL BE SET IN CONTINUOUS, MASSED PLANTING BEDS, RATHER THAN ISOLATED INDIVIDUALS. ALL TREE AND SHRUB BEDS SHALL RECEIVE A 3" THICK APPLICATION OF A THOROUGHLY COMPOSTED ORGANIC MULCH FREE OF ANY OBJECTIONABLE OR FOREIGN MATERIALS.
   - F. ALL TREES GREATER THAN TWELVE FEET IN HEIGHT SHALL BE STAKED AND GUYED PER THE DETAILS.
   - G. ALL DISTURBED AREAS BEYOND THE LIMITS OF THE MULCHED PLANTING BEDS AND AREAS OF HERBACEOUS PLANTINGS SHALL BE PERMANENTLY STABILIZED WITH TURFGRASSES PER THE THE SOIL EROSION AND SEDIMENT CONTROL PLANS.
   - H. A MAJORITY OF THE LANDSCAPING SHALL BE IRRIGATED UTILIZING A STORMWATER CAPTURE AND REUSE SYSTEM.
   - I. NO PLANTINGS OR STRUCTURES SHOULD BE LOCATED WITHIN THE SANITARY SEWER EASEMENTS OR WITHIN 10 FEET OF THE SANITARY SEWERS OR LATERALS
4. MAINTENANCE:
   - A. ALL PLANTINGS SHALL BE WATERED AS NECESSARY FOR SOUND HORTICULTURAL PRACTICE DURING THE FIRST GROWING SEASON, TO ENSURE THEIR PROPER ESTABLISHMENT.
   - B. IN GENERAL SHRUBS ARE TO BE PLANTED AT INTERVALS WHICH WILL ALLOW THEM TO FULLY DEVELOP INTO CONTINUOUS MASSES OF THE INDIVIDUAL SPECIES. THEREFORE, NO PRUNING TO SHAPE OR DHEARING IS REQUIRED OR DESIRABLE. WHERE DEAD OR CONFLICTING BRANCHING DEVELOPS, IT SHOULD BE PRUNED OUT.

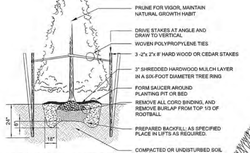
LANDSCAPING MATERIAL SHOWN ON CENTRE SQUARE FIRE DEPARTMENT PROPERTY SHALL BE INSTALLED AS PART OF PHASE II WORK AFTER CENTRE SQUARE FIRE DEPARTMENT REMOVES THE EXISTING FIRE HOUSE.



DECIDUOUS TREE PLANTING DETAIL
N.T.S.



SHRUB PLANTING DETAIL
N.T.S.

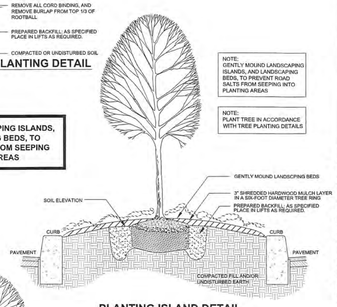


CONIFEROUS TREE PLANTING DETAIL
N.T.S.

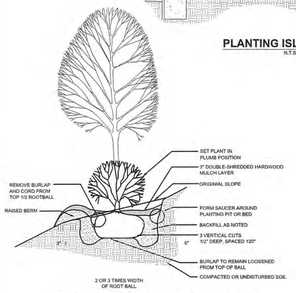
GENTLY MOUND LANDSCAPING ISLANDS, AND ALL LANDSCAPING BEDS, TO PREVENT ROAD SALTS FROM SEEPING INTO PLANTING AREAS

NOTE: GENTLY MOUND LANDSCAPING ISLANDS, AND LANDSCAPING BEDS, TO PREVENT ROAD SALTS FROM SEEPING INTO PLANTING AREAS

NOTE: PLANT TREE IN ACCORDANCE WITH TREE PLANTING DETAILS



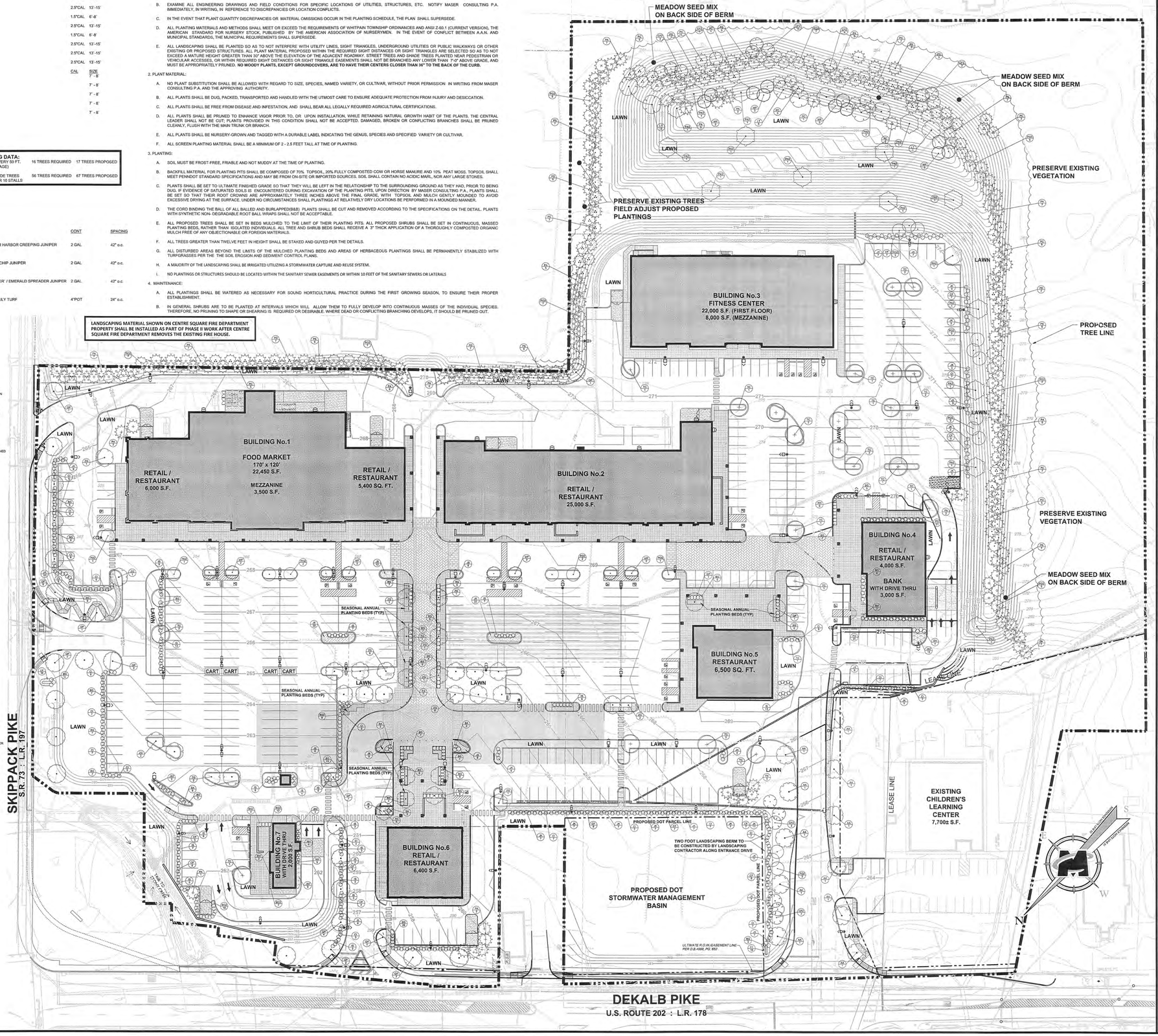
PLANTING ISLAND DETAIL
N.T.S.



TYPICAL PLANTING ON SLOPE DETAIL
N.T.S.

40 32 24 16 8 0 0 40 80

SCALE : 1" = 40'



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REV	DATE	DRAWN BY	DESCRIPTION
1	09/11/15	QR	REVISED PER MCCD REVIEW
2	10/09/15	EXTON	FINAL PLAN SUBMISSION
3	11/30/15	EXTON	REVISED PER FINAL PLAN REVIEW

RYAN M. ARMOUR
PENNSYLVANIA REGISTERED
LANDSCAPE ARCHITECT - LICENSE NUMBER: LA002939

FINAL LAND DEVELOPMENT PLANS

FOR

MADISON DEVELOPMENT GROUP, INC.

DEKALB PIKE AT SKIPPACK PIKE

WHITPAIN TOWNSHIP
MONTGOMERY COUNTY
PENNSYLVANIA

EXTON OFFICE
410 Eagleview Boulevard
Suite 104
Exton, PA 19341
Phone: 610.254.9140
Fax: 610.254.9141
email: solutions@maserconsulting.com

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	06/10/15	RMA	RTM

PROJECT NUMBER: 12000830A
DRAWING NAME: C-LAND

SHEET TITLE: LANDSCAPE PLAN

SHEET NUMBER: 10 of 38

I:\2000\830A\Engineering\C-LAND.dwg\C-XX-LANDSCAPE By: RARMOUR

ALL OF THE FOOT-CANDLE LEVELS SHOWN ON THIS PLAN ARE INITIAL FOOT-CANDLE VALUES AND ARE TAKEN AT A HORIZONTAL PLANE AT GRADE LEVEL

ALL LIGHTS WHICH ARE NOT ESSENTIAL FOR SECURITY PURPOSES SHALL BE TURNED OFF NO LATER THAN ONE HOUR AFTER THE CLOSE OF BUSINESS. A PLAN INDICATING WHICH LIGHTS WILL BE LEFT ON FOR SECURITY PURPOSES WILL BE SUBMITTED BY THE DEVELOPER PRIOR TO CONSTRUCTION.

ALL PERIMETER LIGHT FIXTURES AREA DESIGNED TO DIRECT ILLUMINATION FORWARD INTO THE SITE AND NOT TO THE REAR OF THE FIXTURE. REFER TO LEGEND FOR SHIELDED FIXTURE LOCATIONS

LEGEND

(#1) LIGHT POLE FOUNDATIONS LOCATED ADJACENT TO UNDERGROUND STORMWATER BASIN ARE TO EXTEND BELOW THE BOTTOM OF THE STORMWATER BASIN

(#2) LIGHT FIXTURES SHALL BE SHIELDED ON THE REAR SIDE OF THE FIXTURE

BUILDING No.1
FOOD MARKET
170' x 120'
22,450 S.F.
MEZZANINE
3,500 S.F.
RETAIL / RESTAURANT
6,000 S.F.
RETAIL / RESTAURANT
5,400 SQ. FT.

BUILDING No.2
RETAIL / RESTAURANT
25,000 S.F.

BUILDING No.3
FITNESS CENTER
22,000 S.F. (FIRST FLOOR)
8,000 S.F. (MEZZANINE)

BUILDING No.4
RETAIL / RESTAURANT
4,000 S.F.
BANK
WITH DRIVE THRU
3,000 S.F.

BUILDING No.5
RESTAURANT
6,500 SQ. FT.

BUILDING No.6
RETAIL / RESTAURANT
6,400 S.F.

BUILDING No.7
WITH DRIVE THRU
2,000 S.F.

EXISTING CHILDREN'S LEARNING CENTER
7,700± S.F.

PROPOSED DOT PARCEL LINE

PROPOSED DOT STORMWATER MANAGEMENT BASIN

CART CART CART CART

SKIPPACK PIKE
S.R. 73 : L.R. 197

DEKALB PIKE
U.S. ROUTE 202 : L.R. 178

SCALE : 1" = 40'

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL ENGINEER
RUSSELL T. McFALL II

RUSSELL T. McFALL II
PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER - LICENSE NUMBER: PE60408

FINAL LAND DEVELOPMENT PLANS
FOR
MADISON DEVELOPMENT GROUP, INC.

DEKALB PIKE AT SKIPPACK PIKE

WHITPAIN TOWNSHIP
MONTGOMERY COUNTY
PENNSYLVANIA

EXTON OFFICE
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email: solutions@maserconsulting.com

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	06/10/15	RMA	RTM
PROJECT NUMBER:	DRAWING NAME:		
12000830A	C-LGHT		

SHEET TITLE:
LIGHTING PLAN

SHEET NUMBER:
11 of 38

I:\2000830A\Engineering\C-LGHT Avg\Lighting Plan By: RAMOUR

FIXTURE "TYPE A"

PKWS/PKWM/PKWB/PKSA/PKSP

Parkway Square® Small/Medium/Bollard/Sconce

- Three hood styles and six decorative screen options
- Custom mounting options, including 3" square pole
- Tool-less access
- Cast aluminum struts
- Full cutoff options
- IP65
- Powder coat finish in 13 standard colors with a polymer primer sealer

ORDERING INFORMATION

PKWS/PKWM/PKWB/PKSA/PKSP - _____ - _____ - _____ - _____ - _____ - _____ - _____ - _____ - _____ - _____

MODEL

Pole Mount	
PKWS	Accent scale. *Slips over a 3" open top pole.*
PKWM	Pedestrian scale. *Slips over a 4" open top pole.*
Bollard	
PKWB	Bollard
Sconce	
PKSA	Accent scale
PKSP	Pedestrian scale

HOODS (not for sconce)

ANG	Angled hood
STR	Straight hood
IND	Indirect hood
DBL	Double hood

DISTRIBUTION

Horizontal lens - *Available with ANG hood only. Flat glass lens. PKWM only.*

Y2H, Y3H, Y4H, Y5H — IES Type 2, 3, 4, 5 distribution.

Vertical lens - *Available with ANG hood only. Flat glass lens.*

Y2V, Y3V, Y4V, Y5V — IES Type 2, 3, 4, 5 distribution.

LENS

C	Clear secondary lens
D	Diffused secondary lens

COLOR TEMPERATURE

PKWS - *T1, T3, T5 (IES Type 2, 3, 5 distribution)*

- 9LED-3K | 9 LED array, 3000K. *GLA only.*
- 9LED-4K | 9 LED array, 4200K. *GLA only.*
- 9LED-5K | 9 LED array, 5100K. *GLA only.*
- 18LED-3K | 18 LED array, 3000K. *GLA only.*
- 18LED-4K | 18 LED array, 4200K. *GLA only.*
- 18LED-5K | 18 LED array, 5100K. *GLA only.*
- 36LED-3K | 36 LED array, 3000K
- 36LED-4K | 36 LED array, 4200K
- 36LED-5K | 36 LED array, 5100K

PKWM

- 32LED-3K | 3000K. *VL3 & VL5 only.*
- 32LED-4K | 4200K. *VL3 & VL5 only.*
- 32LED-5K | 5100K. *VL3 & VL5 only.*

PKWB - *T1, T3, T5 (IES Type 2, 3, 5 distribution)*

- 6LED-3K | 6 LED array, 3000K. *GLA only.*
- 6LED-4K | 6 LED array, 4200K. *GLA only.*
- 6LED-5K | 6 LED array, 5100K. *GLA only.*
- 12LED-3K | 12 LED array, 3000K. *GLA only.*
- 12LED-4K | 12 LED array, 4200K. *GLA only.*
- 12LED-5K | 12 LED array, 5100K. *GLA only.*
- 36LED-3K | 36 LED array, 3000K. *Horizontal LED only.*
- 36LED-4K | 36 LED array, 4200K. *Horizontal LED only.*
- 36LED-5K | 36 LED array, 5100K. *Horizontal LED only.*

PKSA

- 15LED-3K | 15 LED array, 3000K. *DB/DS/UB/US only.*
- 15LED-4K | 15 LED array, 4200K. *DB/DS/UB/US only.*
- 15LED-5K | 15 LED array, 5100K. *DB/DS/UB/US only.*
- 24LED-3K | 24 LED array, 3000K. *DBUS/UBDS/USDS only.*
- 24LED-4K | 24 LED array, 4200K. *DBUS/UBDS/USDS only.*
- 24LED-5K | 24 LED array, 5100K. *DBUS/UBDS/USDS only.*

PKSP

- 18LED-3K | 18 LED array, 3000K. *DB/DS/UB/US only.*
- 18LED-4K | 18 LED array, 4200K. *DB/DS/UB/US only.*
- 18LED-4K | 18 LED array, 5100K. *DB/DS/UB/US only.*
- 30LED-3K | 30 LED array, 3000K. *DBUS/UBDS/USDS only.*
- 30LED-4K | 30 LED array, 4200K. *DBUS/UBDS/USDS only.*
- 30LED-5K | 30 LED array, 5100K. *DBUS/UBDS/USDS only.*

DRIVER (*PKWM, PKWB & PKSP have 700mA only*)

700mA	700mA, 75 watts. *Y2H only.*
550mA	550mA, 59 watts. *Y2V only.*
450mA	450mA, 48 watts. *Y2H only.*

DECORATIVE SCREENS (OPTIONAL)

Painted to match fixture. Also available in stainless steel or copper. Not available with MicroEmitter or hi-efficacy LED optics.

- DSIN | Infinity design
- DSOF | Offset design
- DSWH | Wheat design
- DSTR | Trio design
- DSSH | Shutter design
- DSCS | Custom design *(Contact factory)*

OPTIONS

- ULS | Upper lens shield. Reduces light above hood.
- TA23 | 2 3/8" O.D. x 4" long tenon. Required for all poles, except for PS4. *GLA only. For AA poles, order TEN23 option.*
- LDL | Lightly diffused lens
- COP | Brushed copper hood
- STS | Stainless steel hood
- SSP | Screen in brushed stainless steel
- CPR | Screen in brushed copper

COLORS

- AWT | Arctic White
- BLK | Black
- MTB | Matte Black
- DGN | Dark Green
- DBZ | Dark Bronze
- WRZ | Weathered Bronze
- BRM | Metallic Bronze
- VBL | Verde Blue
- CRT | Cortex
- MAL | Matte Aluminum
- MDG | Medium Grey
- ATG | Antique Green
- LGY | Light Grey
- RAL/PREMIUM COLOR | Provide a RAL 4 digit color number
- CUSTOM COLOR | Please provide color chip for matching

MOUNTING (not for Sconce)

Wall Mount - Mounting plate provided, Hardware by others.

- PSWM-TU | Fixture above with arm mounted up.
- PSWM-TD | Fixture above with arm mounted down.
- PSWM-BU | Fixture below with arm mounted up.
- PSWM-BD | Fixture below with arm mounted down.

Pole Mount - Arm mounts to side of a 4" O.D. pole.

- PSA-TU | Fixture above with arm mounted up.
- PSA-TD | Fixture above with arm mounted down.
- PSA-BU | Fixture below with arm mounted up.
- PSA-BD | Fixture below with arm mounted down.
- PM | Per mount (PKWB only)

274

architectural area lighting

FIXTURE "TYPE B, C, D, E, F, G"

EXECUTIVE-RT SERIES

STERNER EXTRUDED SERIES

EXEC - RT21-RT25 SPEC SHEET

DIMENSIONS

EXEC-RT21
EPA: 1.6 WT. 31lbs.
Dimensions: a=18" b=21" c=6.75"
Arm: 2"x4"x8"

EXEC-RT25
EPA: 2.2 WT. 40 lbs.
Dimensions: a=20" b=25" c=8.75"
Arm: 2"x4"x8"

ORDERING SEQUENCE

_____ - _____ - _____ - _____ - _____ - _____ - _____ - _____ - _____ - _____ - _____

FAMILY	# OF LEDS	CCT	DRIVE CURRENT	DISTRIBUTION	VOLTAGE	MOUNTING	OPTIONS	COLOR	POLE SECTION
EXEC RT21 EXEC RT25	30L 90 High brightness LEDs 60L 60 High brightness LEDs	3K 3000K 4K 4000K 5K 5100K AM Amber (590 um available for "turtle friendly" applications (consult factory)	070 700mA (standard) 035* 350mA Amber (required with Amber CCT)	2 Type II 3 Type III 4 Type IV 5M Type V medium 5S Type V short 5W Type V wide 2L Type II Rotated 90° left 3L Type III Rotated 90° left 4L Type IV Rotated 90° left 2R Type II Rotated 90° right 3R Type III Rotated 90° right 4R Type IV Rotated 90° right	U Universal 120V-277V, 50/60 Hz 1 120V 2 208V 3 240V 4 277V 5 480V, 60 Hz F 347V, 60 Hz E 220V, 50 Hz	10 28 29 32 39 49 Note: First digit denotes fixture quantity per assembly.	WM Wall mount VF Vertical slipfitter HF Horizontal slipfitter F1 Fuse EXI Extruded insert BC1 Backlight Control **CONTROLLABILITY OPTIONS** SCO1 On/Off control - No light output when no motion detected SCP1 High/low control - user program-mable settings. Factory default is 10% PR1 Photo cell recep-tacle WIH1 In-fixture wireless control module (120, 277, 347 & 480V)	Powder Coat BL Black DB Dark Bronze WH White PS Platinum Silver	STR Square straight C30 3.0" dia round C35 3.5" dia round C40 4.0" dia round C45 4.5" dia round C50 5.0" dia round C60 6.0" dia round

* Same models meet DesignLights Consortium (DLC) qualifications, consult DLC website for more details. **http://www.designlights.org/QPL**

1 Select only when voltage specific option included SCO, SCP, PR, WIH, F
2 Most select specific voltage (not "U")
3 Not available with distributions 5S, 5M or 5W
4 Only available with Amber CCT

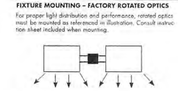
SCP CONTROL OPTION

SCP-REMOTE Remote control for SCP option. Order at least one per project to program and control fixtures. 0-10V fully adjustable dimming with automatic daylight calibration and different time delay settings. 120V or 277V only

OPTICS

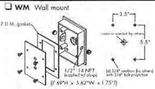
FIXTURE MOUNTING – FACTORY ROTATED OPTICS

For proper light distribution and performance, rotated optics must be mounted as referenced in illustration. Consult instruction sheet included when mounting.



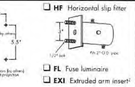
2L Type II rotated 90° left
3L Type III rotated 90° left
4L Type IV rotated 90° left
2R Type II rotated 90° right
3R Type III rotated 90° right
4R Type IV rotated 90° right

GENERAL OPTIONS



- WM Wall mount
- VF Vertical slip fitter

- HF Horizontal slip fitter



- F1 Fuse luminaire
- EXI Extruded arm insert2
- BC Backlight control
- N Not required

Note: 1) 32" mounting (SB120) only available with round pole or modified pole top fitter
2) If the color for the "EXI" extruded arm insert is not specified, insert will be brushed aluminum.

FINISH OPTIONS

Powder Paint

- BL Black
- DB Dark Bronze
- WH White
- AL Natural Aluminum
- NS Not Standard Finish (consult factory) (provide color chip)

STERNER EXTRUDED SERIES 701 Millennium Blvd • Greenville, SC 29607 • TEL 864.678.1000 FAX 864.678.1417 • www.sternerlighting.com

In the interest of continuous product improvement, Sterner Lighting reserves the right to change specifications without notice. 2/15

HUBBELL Lighting

FIXTURE "TYPE H"

QSP/RDI LED NEW
ARCHITECTURAL WALLPACKS

Cat.# _____ Job _____ Type _____

SPAULDING LIGHTING

Approvals

SPECIFICATIONS

Applications:
- Architectural wallpack in two stylish shapes with molded contours to accentuate building architecture. Provides excellent illumination in energy-saving LED systems.

Construction:
- Die-cast aluminum housing and door
- Seven powder coat standard finishes, plus custom color options

LED:
- 30 high power LEDs deliver up to 5,062 lumens
- Up to 105 Lumens per watt
- Different lenses offer a variety of distribution patterns - Type II, III, and IV (Forward throw)
- 3000K - 80 CRI, 4000K - 70 CRI, and 5000K - 67 CRI, CCT nominal

Operating Temperature:
- -40°C/-40°F to 40°C/104°F for 350mA
- -30°C/-22°F to 40°C/104°F for 530mA

Electrical:
- Two driver options: 34w at 350mA (1 driver) and 53w at 525mA (1 driver)

Electrical (Cont.):
- Operating temperature: -20°C/-22°F to 40°C/104°F
- 120-277VAC, 50/60Hz
- Power factor ≥ 90%
- THD (Total Harmonic Distortion) <20%
- 10 KA, 10 KV, 270 joules surge suppressor

Controls:
Drivers are 0-10V dimming standard; Photocell and occupancy sensor options available for complete on/off and dimming control

Listings:
- UL 1598 listed for use in wet locations
- 4K and 5K models meet DesignLights Consortium (DLC) qualifications, consult DLC website for more details: http://www.designlights.org/QPL
- Zero uplight (U0), dark sky, neighbor friendly
- Drivers IP66 and RoHS compliant

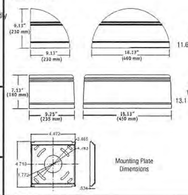
Warranty:
For more information visit: http://www.hubbelloutdoor.com/resources/warranty/

PRODUCT IMAGE(S)

QSP

RDI

DIMENSIONS



QSP Weight: 11.6 lbs 5.26 kg

RDI Weight: 13.1 lbs 5.94 kg

Mounting Plate Dimensions

SHIPPING INFORMATION

Catalog Number	G.W.(lbs)/ CTN	Carton Dimensions Length Inch (cm)	Width Inch (cm)	Height Inch (cm)
QSP	17 (7.7)	20.5 (52)	10.5 (26)	11 (28)
RDI	16 (6.2)	20.5 (52)	9.5 (24)	12 (30)

CERTIFICATIONS/LISTINGS

ORDERING INFORMATION

ORDERING EXAMPLE: TRP-30L5K-053-2-U-DB

TRP - 30L - ____ - ____ - ____ - ____ - ____ - ____ - ____ - ____ - ____

FAMILY	# OF LEDS	CCT	DRIVE CURRENT	DISTRIBUTION	VOLTAGE	FINISH	CONTROL OPTIONS	OPTIONS
QSP Quarterasphere RDI Radius	30L 30 High brightness LEDs	3K[1] 3000K 4K 4000K 5K 5000K	035 350mA 053 525mA	2 Type II 3 Type III 4 Type IV	U 120V-277V 1[1] 120V 2[1] 208V 3[1] 240V 4[1] 277V	CC[2] Custom Color BL Black DB Bronze FG Forest Green GR Gray PS Platinum RD Red WH White	PC[3] Photocontrol (Must specify individual voltage) SCO[3,5] Motion sensor On/Off control, No light output when no motion detected SCP[3,5] Programmable motion control, factory default is 10% light output Override mode	F[1] Fusing (Must specify individual voltage)

* Must specify individual voltage for PC and Fusing options.
1 Not available with SCP. Order separately. Required to program dimming settings, 0-10V fully adjustable dimming with automatic daylight calibration and different time delay settings. 120V or 277V only
2 Consult factory for Custom Color option
3 DLC qualification 4K and 5K models only
4 PC option not applicable, included in sensor

ACCESSORIES - Order separately

Catalog Number	Description
SCP-REMOTE[1]	Remote control for SCP option. Order at least one per project to program and control.

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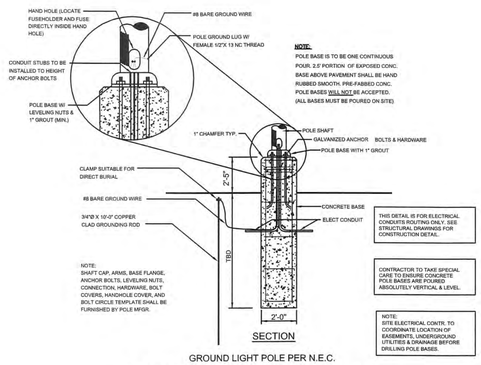
HUBBELL Lighting



NOTE:
POLE BASE IS TO BE ONE CONTINUOUS POUR. 2.5' PORTION OF EXPOSED CONC. BASE ABOVE PAVEMENT SHALL BE HAND RUBBED SMOOTH. PRE-FABBED CONC. POLE BASES WILL NOT BE ACCEPTED. (ALL BASES MUST BE POURED ON SITE)

NOTE:
SHAFT CAP, ARMS, BASE FLANGE, ANCHOR BOLTS, LEVELING NUTS, CONNECTION, HARDWARE, BOLT COVERS, HANDHOLE COVER, AND BOLT CIRCLE TEMPLATE SHALL BE FURNISHED BY POLE MFGR.

THIS DETAIL IS FOR ELECTRICAL CONDUITS ROUTING ONLY. SEE STRUCTURAL DRAWINGS FOR CONSTRUCTION DETAIL.

CONTRACTOR TO TAKE SPECIAL CARE TO ENSURE CONCRETE POLE BASES ARE POURED ABSOLUTELY VERTICAL & LEVEL.

NOTE:
SITE ELECTRICAL CONTR. TO COORDINATE LOCATION OF ALL EQUIPMENTS, UNDERGROUND UTILITIES & DRAINAGE BEFORE DRILLING POLE BASES.

GROUND LIGHT POLE PER N.E.C.

LIGHT POLE BASE DETAIL

FIXTURES B, C, D, E, F AND G

N.T.S.

LIGHTING SCHEDULE

KEY	QTY.	ARRANGEMENT	MANUFACTURER	DESCRIPTION	LUMENS	LLF	WATTS	FIXTURE MOUNTING HEIGHT	COLOR
A	43	SINGLE	ARCHITECTURAL AREA LIGHTING MODEL: PKWM-STR-Y2VD-32LED-4K-525	LED LUMINAIRE WITH CAST ALUMINUM STRUTS AND GEAR COMPARTMENT DIFFUSED ACRYLIC LENS LAMP: 32 LED ARRAY 4200K	2332.805	1.00	58.6	12'	DARK BRONZE
B	7	SINGLE	STERNER LIGHTING MODEL: EXEC-RT21-60L-4K-3	TYPE 3 LENS LAMP: 60 - NICHIA 4200K LED	11092.71	1.00	142.3	25'	DARK BRONZE
C	4	SINGLE	STERNER LIGHTING MODEL: EXEC-RT21-60L-4K-4-BC	TYPE 4 LENS WITH BACK CONTROL LAMP: 60 - NICHIA 4200K LED	8203.326	1.00	142	25'	DARK BRONZE
D	28	SINGLE	STERNER LIGHTING MODEL: EXEC-RT21-60L-4K-5M	TYPE 5M LAMP: 60 - NICHIA 4200K LED	11603.36	1.00	142.2	25'	DARK BRONZE
E	8	SINGLE	STERNER LIGHTING MODEL: EXEC-RT21-60L-4K-3-BC	TYPE 3 LENS WITH BACK CONTROL LAMP: 60 - NICHIA 4200K LED	7456.388	1.00	142	25'	DARK BRONZE
F	7	SINGLE	STERNER LIGHTING MODEL: EXEC-RT21-60L-4K-4	TYPE 4 LENS LAMP: 60 - NICHIA 4200K LED	10713.27	1.00	142.2	25'	DARK BRONZE
G	11	DOUBLE	STERNER LIGHTING MODEL: EXEC-RT21-60L-4K-5M	TYPE 5M LAMP: 60 - NICHIA 4200K LED	11603.36	1.00	284.4	25'	DARK BRONZE
H	9	SINGLE WALL MOUNTED	SPAULDING LIGHTING MODEL: RDI-30L4K-053-2	TYPE 2 LENS LAMP: 30 - NICHIA 4200K LED	4466.271	1.00	53.1	20'	DARK BRONZE

NOTE: LIGHT FIXTURES B, C, D, E, F, AND G ARE TO BE MOUNTED ON A TWO AND A HALF FEET TALL CONCRETE BASE. LIGHT FIXTURE 'A' IS TO BE MOUNTED FLUSH WITH PAVERS.

CALCULATION SUMMARY

SITE LIGHTING CALCULATION STATISTICS	Avg	Max	Min	Max/Min	Avg/Min
MAIN PARKING AREA	2.3	6.3	0.4	15.8 : 1.0	5.8 : 1.0
ENTIRE SITE	1.1	6.8	0.0	N/A	N/A

NOTE: THE MAXIMUM TO MINIMUM LIGHT LEVEL RATIO SET BY IESNA FOR PARKING LOTS IS, 20:1

LEGEND

(#1) **LIGHT POLE FOUNDATIONS LOCATED ADJACENT TO UNDERGROUND STORMWATER BASIN ARE TO EXTEND BELOW THE BOTTOM OF THE STORMWATER BASIN**

(#2) **LIGHT FIXTURES SHALL BE SHIELDED ON THE REAR SIDE OF THE FIXTURE**

ALL OF THE FOOT-CANDLE CALCULATIONS ARE INITIAL FOOT-CANDLE VALUES AND ARE TAKEN AT A HORIZONTAL PLANE AT GRADE LEVEL

ALL LIGHTS WHICH ARE NOT ESSENTIAL FOR SECURITY PURPOSES SHALL BE TURNED OFF NO LATER THAN ONE HOUR AFTER THE CLOSE OF BUSINESS. A PLAN INDICATING WHICH LIGHTS WILL BE LEFT ON FOR SECURITY PURPOSES WILL BE SUBMITTED BY THE DEVELOPER PRIOR TO CONSTRUCTION.

ALL PERIMETER LIGHT FIXTURES AREA DESIGNED TO DIRECT ILLUMINATION FORWARD INTO THE SITE AND NOT TO THE REAR OF THE FIXTURE. REFER TO LEGEND FOR SHIELDED FIXTURE LOCATIONS

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2	10/09/15	EXTON	FINAL PLAN SUBMISSION
3	11/09/15	EXTON	REVISED PER FINAL PLAN REVIEW

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL RUSSELL T. McFALL II ENGINEER

RUSSELL T. McFALL II
PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER - LICENSE NUMBER: PE60408

FINAL LAND DEVELOPMENT PLANS

FOR

MADISON DEVELOPMENT GROUP, INC.

DEKALB PIKE AT SKIPPACK PIKE

WHITPAIN TOWNSHIP
MONTGOMERY COUNTY
PENNSYLVANIA

EXTON OFFICE
410 Eagleview Boulevard
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Exton, PA 19341
Phone: 610.254.9140
Fax: 610.254.9141
email: solutions@maserconsulting.com

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AS SHOWN	06/10/15	RMA	RTM

PROJECT NUMBER: 12000830A
DRAWING NAME: C-LGHT

SHEET TITLE: LIGHTING DETAILS

SHEET NUMBER: 12 of 38

12000830A\Engineering\C-LGHT Avg\Lighting Details By: KAMADUR

PROPOSED RIGHT-IN TRUCK ACCESS DRIVEWAY

PROPOSED RIGHT-IN / LEFT-IN / RIGHT-OUT DRIVEWAY

SKIPPACK PIKE (A.K.A. S.R. 0073) (VARIABLE WIDTH R.O.W.)

SKIPPACK PIKE
S.R. 73 : L.R. 197

FIREHOUSE

STORAGE BUILDING

CART CART CART CART

PROPOSED DOT PARCEL LINE

PROPOSED DOT STORMWATER MANAGEMENT BASIN

PROPOSED DOT PARCEL LINE

3 STORY BUILDING

PROPOSED RIGHT-IN / RIGHT-OUT DRIVEWAY

DEKALB PIKE (A.K.A. S.R. 202) (VARIABLE WIDTH R.O.W.)

DEKALB PIKE
U.S. ROUTE 202 : L.R. 178

LEGEND

- WB-67 TRUCK (73.5 FT. LONG)
- WB-40 TRUCK (45.5FT. LONG)
- EMERGENCY VEHICLE
- HEAVY DUTY PAVING

SCALE : 1" = 40'

I:\2000839\Engineering\CAD\TT.dwg\C-13-TRUCK TURNING PLAN By: JDUPKE

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RUSSELL T. MCFALL II
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FOR

MADISON DEVELOPMENT GROUP, INC.

DEKALB PIKE AT SKIPPACK PIKE

WHITPAIN TOWNSHIP
MONTGOMERY COUNTY
PENNSYLVANIA

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PROJECT NUMBER:	DRAWING NAME:
12000830A	C-LAYT

SHEET TITLE:
TRUCK TURNING AND PAVING PLAN

SHEET NUMBER:
13 of 38

PROPOSED RIGHT-IN TRUCK ACCESS DRIVEWAY

PROPOSED RIGHT-IN / LEFT-IN / RIGHT-OUT DRIVEWAY

SKIPPACK PIKE
S.R. 73 : L.R. 197

SKIPPACK PIKE
(A.K.A. S.R. 0073)
(VARIABLE WIDTH R.O.W.)

PROPOSED RIGHT-IN / RIGHT-OUT DRIVEWAY

PROPOSED DOT PARCEL LINE

PROPOSED DOT STORMWATER MANAGEMENT BASIN

PROPOSED DOT PARCEL LINE

DEKALB PIKE
U.S. ROUTE 202 : L.R. 178

DEKALB PIKE
(A.K.A. S.R. 202)
(VARIABLE WIDTH R.O.W.)

CART CART CART CART

FIRE TRUCK

STORAGE BUILDING

1 STORY BUILDING

2 STORY BUILDING

46.75

7.83 20.87

FIRE TRUCK	feet
Width	: 8.25
Track	: 8.25
Lock to Lock Time	: 6.0
Steering Angle	: 40.0

LEGEND

FIRE TRUCK — EMERGENCY VEHICLE

N E S W

40 32 24 16 8 0 20 40 80

SCALE : 1" = 40'

I:\2000830A\Engineering\C-LAYT.dwg\C14-PREMISENCY ACCESS By: DUMKE

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3	11/30/15	EXTON	REVISED PER FINAL PLAN REVIEW

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RUSSELL McFALL II
PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER, STATE CERTIFICATE NUMBER: PE060408

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12000830A	C-LAYT		

SHEET TITLE:
FIRE TRUCK TURNING MOVEMENTS

SHEET NUMBER:
14 of 38

CRITICAL STAGE / SEQUENCE OF UNDERGROUND STORMWATER BASIN INSTALLATION

CRITICAL STAGE #1: COMMENCE INSTALLATION OF UNDERGROUND DETENTION FACILITY NO. 1(BMP)

A. CONTRACTOR TO INSTALL CONSTRUCTION FENCE AROUND THE ENTIRE UNDERGROUND DETENTION AREA AND PROTECT THE AREA AT ALL TIMES.

B. INSTALL OUTLET STRUCTURE AND OUTLET PIPE. CONSTRUCTION FENCE WHICH HAS BEEN REMOVED FOR THIS STAGE OF CONSTRUCTION MUST BE RE-INSTALLED AND STABILIZED AT THE END OF THE WORKING DAY.

C. INSTALL THE UNDERGROUND DETENTION SYSTEM AS INDICATED ON THE DETAIL SHEET.

CRITICAL STAGE #1a: COMMENCE INSTALLATION OF IRRIGATION SYSTEM(BMP)

A. CONTRACTOR SHALL MAKE THEMSELVES FAMILIAR WITH ALL ASPECTS OF THE PCSM SYSTEM.

B. PRIOR TO ANY TRENCHING, CONSTRUCTION OR INSTALLATION, THE CONTRACTOR SHALL FLAG OUT AREA TO ENSURE LOCATION OF THE PIPE, SPRINKLER HEADS VALVES, ETC.

C. INSTALL WET WELL AND INTAKE PIPE AND SCREEN.

D. INSTALL PUMP STATION.

E. INSTALL ROAD AND PARKING LOT SLEEVES.

F. INSTALL MAINS, LATERALS, VALVES AND COMMUNICATION CABLE, SENSORS AND SPRINKLER HEADS.

G. TEST SYSTEM AND ADJUST SPRINKLER HEADS AS NECESSARY.

* FOR ADDITIONAL DETAIL, SEE PCSM NARRATIVE FOR IRRIGATION SYSTEM DESIGN AND IRRIGATION LAYOUT.

CRITICAL STAGE #2: COMMENCE INSTALLATION OF UNDERGROUND DETENTION FACILITY NO. 2(BMP)

A. CONTRACTOR TO INSTALL CONSTRUCTION FENCE AROUND THE ENTIRE UNDERGROUND DETENTION AREA AND PROTECT THE AREA AT ALL TIMES.

B. INSTALL OUTLET STRUCTURE AND OUTLET PIPE. CONSTRUCTION FENCE WHICH HAS BEEN REMOVED FOR THIS STAGE OF CONSTRUCTION MUST BE RE-INSTALLED AND STABILIZED AT THE END OF THE WORKING DAY.

C. INSTALL THE UNDERGROUND DETENTION SYSTEM AS INDICATED ON THE DETAIL SHEET.

D. CONNECT BASIN NO. 2 TO BASIN NO. 1.

THE CONTRACTOR ASSUMES RESPONSIBILITY TO PROVIDE CLEAN FILL TO AND FROM THE SITE.

CLEAN FILL IS UNCONTAMINATED, NON-WATER SOLUABLE, NON-DECOMPOSABLE, INERT, SOLID MATERIAL.

DUE DILIGENCE IS AN INVESTIGATIVE TECHNIQUE INCLUDING, BUT NOT LIMITED TO, VISUAL PROPERTY INSPECTIONS, ELECTRONIC DATA BASE SEARCHES, REVIEW OF THE PROPERTY OWNERSHIP, REVIEW OF THE PROPERTY HISTORY, SANBORN MAPS, ENVIRONMENTAL QUESTIONNAIRES, TRANSACTION SCREENS, ANALYTICAL TESTING, ENVIRONMENTAL ASSESSMENTS OR AUDITS.

SOIL DESCRIPTIONS AND USE LIMITATIONS (ACCORDING TO PADEP E&SCP MANUAL) :

Bo–BOWMANSVILLE-KNAUERS SILT LOAMS:
DESCHIPTION OF KNAUERS
0 TO 3 % SLOPES
DEPTH TO BEDROCK: 72-99 INCHES
DEPTH TO WATER TABLE: 0 INCHES

DESCRIPTION OF BOWMANSVILLE
0 TO 3 % SLOPES
DEPTH TO BEDROCK: 72-99 INCHES
DEPTH TO WATER TABLE:0-18 INCHES

CHARACTERISTIC THAT AFFECTS SUITABILITY FOR BUILDING SITE:
DEPTH TO BEDROCK AND DEPTH TO WATER TABLE
MEANS TO ADDRESS THE BUILDING CONSTRUCTION SUITABILITY
NO PROPOSED IMPROVEMENTS ARE LOCATED WITHIN THIS AREA.

CfA–CHALFONT SILT LOAM:
0 TO 3 % SLOPES
DEPTH TO BEDROCK: 42 - 99 INCHES (15 - 30 INCHES TO FRAGIPAN)
DEPTH TO WATER TABLE: 6-18 INCHES

CHARACTERISTIC THAT AFFECTS SUITABILITY FOR BUILDING SITE:
VERY LIMITED FOR SMALL COMMERCIAL BUILDINGS, DEPTH TO BEDROCK AND DEPTH TO WATER TABLE
MEANS TO ADDRESS THE BUILDING CONSTRUCTION SUITABILITY
BUILDING CONSTRUCTION IS MINIMAL WITHIN THE CFA SOIL ALTHOUGH SOME BEDROCK WILL HAVE TO BE EXCAVATED FOR BUILDING FOUNDATIONS.

CfB–CHALFONT SILT LOAM:
3 TO 8 % SLOPES
DEPTH TO BEDROCK: 42 - 99 INCHES (15 - 30 INCHES TO FRAGIPAN)
DEPTH TO WATER TABLE: 6-18 INCHES

CHARACTERISTIC THAT AFFECTS SUITABILITY FOR BUILDING SITE:
VERY LIMITED FOR SMALL COMMERCIAL BUILDINGS, DEPTH TO BEDROCK AND DEPTH TO WATER TABLE
MEANS TO ADDRESS THE BUILDING CONSTRUCTION SUITABILITY
BUILDING CONSTRUCTION IS MINIMAL WITHIN THE CFA SOIL ALTHOUGH SOME BEDROCK WILL HAVE TO BE EXCAVATED FOR BUILDING FOUNDATIONS.

CUTBACKS TO CAVE (Bo, CfA, CfB, LeA, ReB) - EXCAVATIONS WILL BE SHORED IN ACCORDANCE WITH OSHA STANDARDS.

EASILY ERODIBLE (CFA, CfB, LeA, ReB) - EXCAVATIONS WILL BE SHORED IN ACCORDANCE WITH OSHA STANDARDS.

FLOODING (Bo) - NOT APPLICABLE.

DEPTH TO WATER (Bo, CfA, CfB, LeA, ReB) - USE OF FILTER BAGS WILL BE USED IF WATER IS ENCOUNTERED.

HYDRIC SOILS (Bo, CfA, CfB, LeA, ReB) - NOT APPLICABLE

LOW STRENGTH / LANDSLIDE PRONE (Bo, CfA, CfB, LeA, ReB) - NOT APPLICABLE

SLOW PERCOLATION (Bo, CfA, CfB, LeA, ReB) - NO INFILTRATION IS PROPOSED.

PIPING (Bo, CfA, CfB, LeA, ReB) - FILTER FABRIC WILL BE USED IN WET APPLICATIONS TO REDUCE PIPING.

POOR SOURCE OF TOPSOIL (Bo, CfA, CfB, ReB) -NOT APPLICABLE

FROST ACTION (Bo, CfA, CfB, LeA, ReB) - ALL PIPING WILL BEINSTALLED BELOW FROST LINE, WITH THE EXCEPTION OF THE IRRIGATION LINES. THESE WILL BE DRAINED PRIOR TO THE WINTER MONTHS.

WETNESS (Bo, CfA, CfB, LeA, ReB) - NOT APPLICABLE.

MEANS TO ADDRESS THE BUILDING CONSTRUCTION SUITABILITY
NO BUILDING CONSTRUCTION WITHIN THE AREA OF CFB.

LeA–LAWRENCEVILLE SILT LOAM:
0 TO 3 % SLOPES
DEPTH TO BEDROCK: 48 - 99 INCHES (24 - 38 INCHES TO FRAGIPAN)
DEPTH TO WATER TABLE: 18-36 INCHES

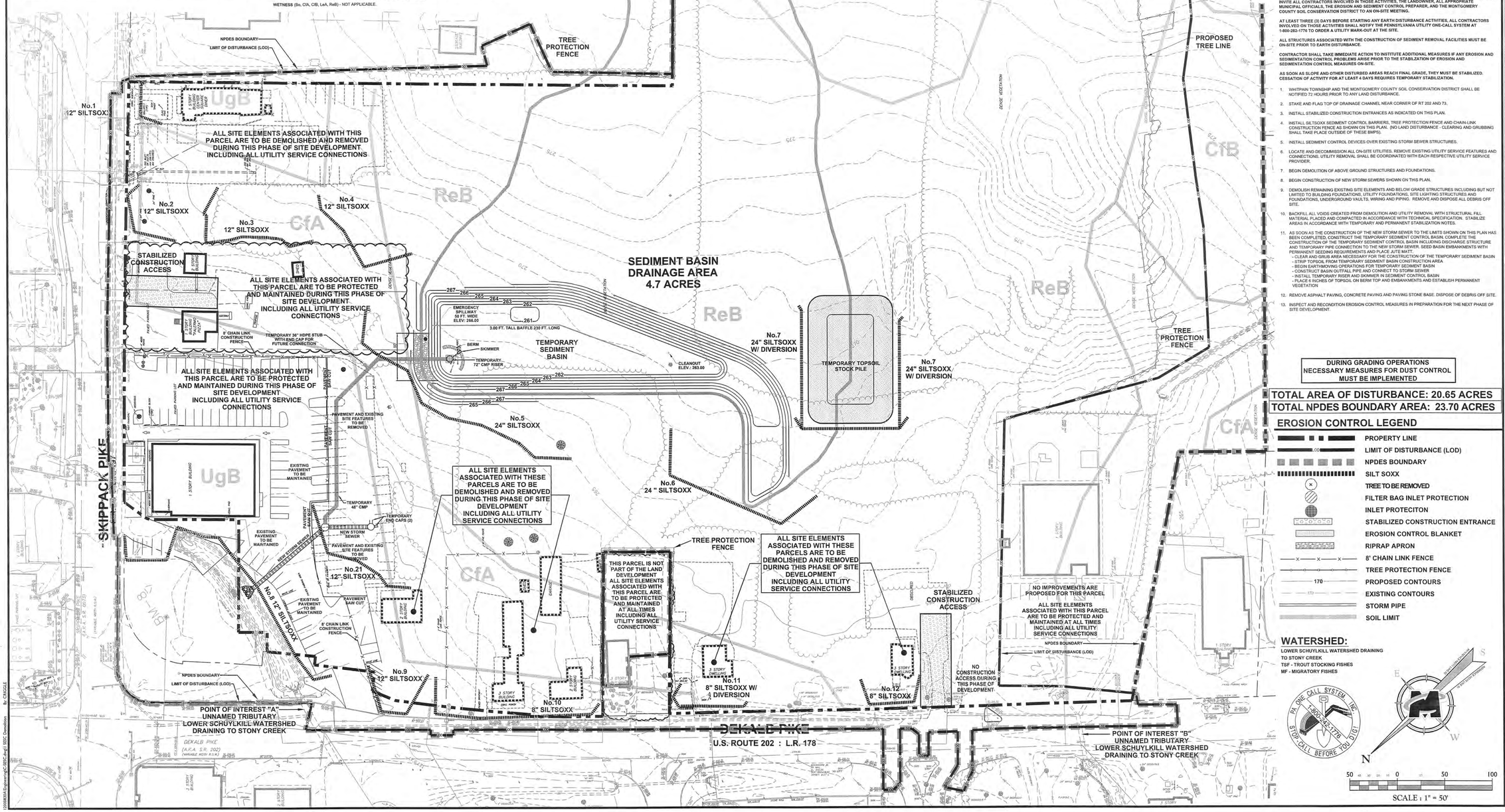
CHARACTERISTIC THAT AFFECTS SUITABILITY FOR BUILDING SITE:
DEPTH TO BEDROCK AND DEPTH TO WATER TABLE
MEANS TO ADDRESS THE BUILDING CONSTRUCTION SUITABILITY
NO PROPOSED IMPROVEMENTS ARE LOCATED WITHIN THIS AREA.

ReB–READINGTON SILT LOAM:
3 TO 8 % SLOPES
DEPTH TO BEDROCK: 40 - 70 INCHES (20 - 36 INCHES TO FRAGIPAN)
DEPTH TO WATER TABLE: 18-36 INCHES

CHARACTERISTIC THAT AFFECTS SUITABILITY FOR BUILDING SITE:
DEPTH TO BEDROCK AND DEPTH TO WATER TABLE
MEANS TO ADDRESS THE BUILDING CONSTRUCTION SUITABILITY
THE MAJORITY OF THE SITE LIES WITHIN THE REB FORMATION. BEDROCK WILL HAVE TO BE EXCAVATED FOR DEVELOPMENT OF THE SITE. ADDITIONALLY, SOIL REMEDIATION WILL BE INCORPORATED TO ENSURE INFILTRATION OCCURS.

UgB–URBAN LAND:
0 TO 8 % SLOPES
DEPTH TO BEDROCK: 10-98 INCHES
DEPTH TO WATER TABLE: N/A

CHARACTERISTIC THAT AFFECTS SUITABILITY FOR BUILDING SITE:
DEPTH TO BEDROCK
MEANS TO ADDRESS THE BUILDING CONSTRUCTION SUITABILITY
BUILDING CONSTRUCTION IS MINIMAL WITHIN THE CFA SOIL ALTHOUGH SOME BEDROCK WILL HAVE TO BE EXCAVATED FOR BUILDING FOUNDATIONS.



DEMOLITION NOTES:

1. THE DEMOLITION CONTRACTOR AND GENERAL CONTRACTOR SHALL BE DEEMED TO HAVE VISITED THE SITE AND ACCEPTED THE SITE AS IS.
2. THE DEMOLITION CONTRACTOR SHALL CARRY OUT THE WORK OF THIS CONTRACT PLACING THE SAFETY AND PROTECTION OF THE SURROUNDING COMMUNITY AND PROPERTY AT THE HIGHEST PRIORITY. THE DEMOLITION CONTRACTOR SHALL IMPLEMENT SPECIFIED MEASURES, AND ANY OTHER MEASURES DEEMED NECESSARY, TO PROTECT ADJACENT AND ON-SITE PROPERTY, BUILDINGS, HOMES, BUSINESSES, FACILITIES AND UTILITIES.
3. THE DEMOLITION CONTRACTOR SHALL ENSURE FREE AND SAFE PASSAGE OF PERSONS AROUND THE AREA OF THE DEMOLITION AS DIRECTED BY THE OWNER AND THE BOROUGH OFFICIALS. ALL OPERATIONS SHALL BE CONDUCTED SO AS TO PREVENT DAMAGE TO ADJACENT BUILDINGS, STRUCTURES, OTHER FACILITIES, AND INJURY TO PERSONS, BOTH PEDESTRIAN AND WORKERS ALIKE.
4. THE CONSULTANT IS NOT RESPONSIBLE FOR JOB SITE SAFETY AND CANNOT STOP THE DEMOLITION ACTIVITIES.
5. THE DEMOLITION CONTRACTOR SHALL INSTALL ROADWAY CONSTRUCTION SIGNAGE AND ASSOCIATED TRAFFIC MEASURES AS NECESSARY FOR WORK SHOWN ON THE CONTRACT DRAWINGS.
6. THE DEMOLITION CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR MAINTAINING THE SECURITY OF THE PROJECT SITE DURING ALL NON-WORKING HOURS, SEVEN DAYS A WEEK.
7. ALL UTILITY LOCATIONS ARE APPROXIMATE AND ADDITIONAL UTILITIES MAY EXIST. IT SHALL BE THE DEMOLITION CONTRACTOR'S RESPONSIBILITY TO IDENTIFY THE ACTUAL LOCATION OF ALL UTILITIES IMPACTED BY THIS WORK, AND WHICH MUST BE MAINTAINED OR REMOVED, WHETHER SHOWN OR NOT SHOWN ON THE CONTRACT DRAWINGS.
8. THE DEMOLITION CONTRACTOR SHALL COMPLETELY REMOVE ALL UTILITY SERVICE CONNECTIONS AND APPURTENANCES TO ALL FACILITIES WITHIN THE DEMOLITION AREA UNLESS OTHERWISE NOTED. ALL FOUNDATIONS ARE TO BE COMPLETELY REMOVED.
9. ALL BUILDING, STRUCTURE AND FACILITY FOUNDATIONS ARE TO BE REMOVED COMPLETELY BY THE DEMOLITION CONTRACTOR.
10. THE DEMOLITION CONTRACTOR SHALL BACKFILL ALL VOIDS REMAINING FROM THE REMOVAL OF FOUNDATIONS, UTILITIES AND OTHER SUBSURFACE ELEMENTS WITH STRUCTURAL, COMPACTED FILL MATERIAL IN ACCORDANCE WITH THE TECHNICAL SPECIFICATIONS.
11. THE DEMOLITION CONTRACTOR IS RESPONSIBLE FOR OBTAINING THE NECESSARY DEMOLITION PERMITS.
12. THE DEMOLITION CONTRACTOR SHALL REMOVE AND LEGALLY DISPOSE OF OFF-SITE ANY HAZARDOUS MATERIALS ENCOUNTERED DURING THE DEMOLITION OR SITE CLEARING ACTIVITIES. BEFORE ANY OFF-SITE REMOVALS, THE DEMOLITION CONTRACTOR HAS TO PROVIDE, IN WRITING, THE PROPOSED DESTINATION OF ALL MATERIALS.
13. DEMOLITION AND BACKFILLING WORK IS TO BE PERFORMED IN DRY WEATHER.
14. THE DEMOLITION CONTRACTOR SHALL COORDINATE ALL UTILITY REMOVAL WITH EACH RESPECTIVE UTILITY PROVIDER.

DEMOLITION SEQUENCE OF ACTIVITIES:

AT LEAST SEVEN (7) DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, THE OPERATOR SHALL INVITE ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES, THE LANDOWNER, ALL APPROPRIATE MUNICIPAL OFFICIALS, THE EROSION AND SEDIMENT CONTROL PREPARER, AND THE MONTGOMERY COUNTY SOIL CONSERVATION DISTRICT TO AN ON-SITE MEETING.

AT LEAST THREE (3) DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, ALL CONTRACTORS INVOLVED ON THOSE ACTIVITIES SHALL NOTIFY THE PENNSYLVANIA UTILITY ONE-CALL SYSTEM AT 1-800-282-1776 TO ORDER A UTILITY MARK-OUT AT THE SITE.

ALL STRUCTURES ASSOCIATED WITH THE CONSTRUCTION OF SEDIMENT REMOVAL FACILITIES MUST BE ON-SITE PRIOR TO EARTH DISTURBANCE.

CONTRACTOR SHALL TAKE IMMEDIATE ACTION TO INSTITUTE ADDITIONAL MEASURES IF ANY EROSION AND SEDIMENTATION CONTROL PROBLEMS ARISE PRIOR TO THE STABILIZATION OF EROSION AND SEDIMENTATION CONTROL MEASURES ON-SITE.

AS SOON AS SLOPE AND OTHER DISTURBED AREAS REACH FINAL GRADE, THEY MUST BE STABILIZED. CESSATION OF ACTIVITY FOR AT LEAST 4 DAYS REQUIRES TEMPORARY STABILIZATION.

1. WHITPAIN TOWNSHIP AND THE MONTGOMERY COUNTY SOIL CONSERVATION DISTRICT SHALL BE NOTIFIED 72 HOURS PRIOR TO ANY LAND DISTURBANCE.
2. STAKE AND FLAG TOP OF DRAINAGE CHANNEL NEAR CORNER OF RT 202 AND 73.
3. INSTALL STABILIZED CONSTRUCTION ENTRANCES AS INDICATED ON THIS PLAN.
4. INSTALL SILTSOXX SEDIMENT CONTROL BARRIERS, TREE PROTECTION FENCE AND CHAIN-LINK CONSTRUCTION FENCE AS SHOWN ON THIS PLAN. (NO LAND DISTURBANCE - CLEARING AND GRUBBING SHALL TAKE PLACE OUTSIDE OF THESE BMPS).
5. INSTALL SEDIMENT CONTROL DEVICES OVER EXISTING STORM SEWER STRUCTURES.
6. LOCATE AND DECOMMISSION ALL ON-SITE UTILITIES. REMOVE EXISTING UTILITY SERVICE FEATURES AND CONNECTIONS. UTILITY REMOVAL SHALL BE COORDINATED WITH EACH RESPECTIVE UTILITY SERVICE PROVIDER.
7. BEGIN DEMOLITION OF ABOVE GROUND STRUCTURES AND FOUNDATIONS.
8. BEGIN CONSTRUCTION OF NEW STORM SEWERS SHOWN ON THIS PLAN.
9. DEMOLISH REMAINING EXISTING SITE ELEMENTS AND BELOW GRADE STRUCTURES INCLUDING BUT NOT LIMITED TO BUILDING FOUNDATIONS, UTILITY FOUNDATIONS, SITE LIGHTING STRUCTURES AND FOUNDATIONS, UNDERGROUND VAULTS, WIRING AND PIPING. REMOVE AND DISPOSE ALL DEBRIS OFF SITE.
10. BACKFILL ALL VOIDS CREATED FROM DEMOLITION AND UTILITY REMOVAL WITH STRUCTURAL FILL MATERIAL PLACED AND COMPACTED IN ACCORDANCE WITH TECHNICAL SPECIFICATION. STABILIZE AREAS IN ACCORDANCE WITH TEMPORARY AND PERMANENT STABILIZATION NOTES.
11. AS SOON AS THE CONSTRUCTION OF THE NEW STORM SEWER TO THE LIMITS SHOWN ON THIS PLAN HAS BEEN COMPLETED, CONSTRUCT THE TEMPORARY SEDIMENT CONTROL BASIN. COMPLETE THE CONSTRUCTION OF THE TEMPORARY SEDIMENT CONTROL BASIN INCLUDING DISCHARGE STRUCTURE AND TEMPORARY PIPE CONNECTION TO THE NEW STORM SEWER. SEED BASIN EMBANKMENTS WITH PERMANENT SEEDING REQUIREMENTS AND PLACE JUTE MATT.
    - CLEAR AND GRUB AREA NECESSARY FOR THE CONSTRUCTION OF THE TEMPORARY SEDIMENT BASIN
    - STRIP TOPSOIL FROM TEMPORARY SEDIMENT BASIN CONSTRUCTION AREA
    - BEGIN EARTHMOVING OPERATIONS FOR TEMPORARY SEDIMENT BASIN
    - CONSTRUCT BASIN OUTFALL PIPE AND CONNECT TO STORM SEWER
    - INSTALL TEMPORARY RISER AND SKIMMER IN SEDIMENT CONTROL BASIN
    - PLACE 6 INCHES OF TOPSOIL ON BERM TOP AND EMBANKMENTS AND ESTABLISH PERMANENT VEGETATION
12. REMOVE ASPHALT PAVING, CONCRETE PAVING AND PAVING STONE BASE. DISPOSE OF DEBRIS OFF SITE.
13. INSPECT AND RECONDITION EROSION CONTROL MEASURES IN PREPARATION FOR THE NEXT PHASE OF SITE DEVELOPMENT.

TOTAL AREA OF DISTURBANCE: 20.65 ACRES
TOTAL NPDES BOUNDARY AREA: 23.70 ACRES

EROSION CONTROL LEGEND

- PROPERTY LINE
- LIMIT OF DISTURBANCE (LOD)
- NPDES BOUNDARY
- SILT SOXX
- TREE TO BE REMOVED
- FILTER BAG INLET PROTECTION
- INLET PROTECITON
- STABILIZED CONSTRUCTION ENTRANCE
- EROSION CONTROL BLANKET
- RIPRAP APRON
- 8' CHAIN LINK FENCE
- TREE PROTECTION FENCE
- PROPOSED CONTOURS
- EXISTING CONTOURS
- STORM PIPE
- SOIL LIMIT

WATERSHED:

LOWER SCHUYLKILL WATERSHED DRAINING TO STONY CREEK
TSF - TROUT STOCKING FISHES
MF - MIGRATORY FISHES

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1	09/11/15	CJR	REVISED PER MCCD REVIEW
2	10/09/15	EXTON	FINAL PLAN SUBMISSION
3	11/20/15	EXTON	REVISED PER FINAL PLAN REVIEW

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COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — RUSSELL T. McFALL II — ENGINEER
RUSSELL T. McFALL II
PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER - LICENSE NUMBER: PE60408

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FOR
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email: solutions@maserconsulting.com

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	06/10/15	DIII	RTM
PROJECT NUMBER: 12000830A	DRAWING NAME: C-SESC		

SHEET TITLE:
EROSION CONTROL DEMOLITION/ INITIAL SITE PREPARATION PLAN

SHEET NUMBER:
15 of 38

PA ONE CALL SYSTEM, INC. 1-800-242-1776 STOP-CALL BEFORE YOU DIG!

12000830A\Engineering\C-SESC.dwg, 10/5/2015 8:39:00 AM, Ryan Cassidy, Ryan.Cassidy@maserconsulting.com

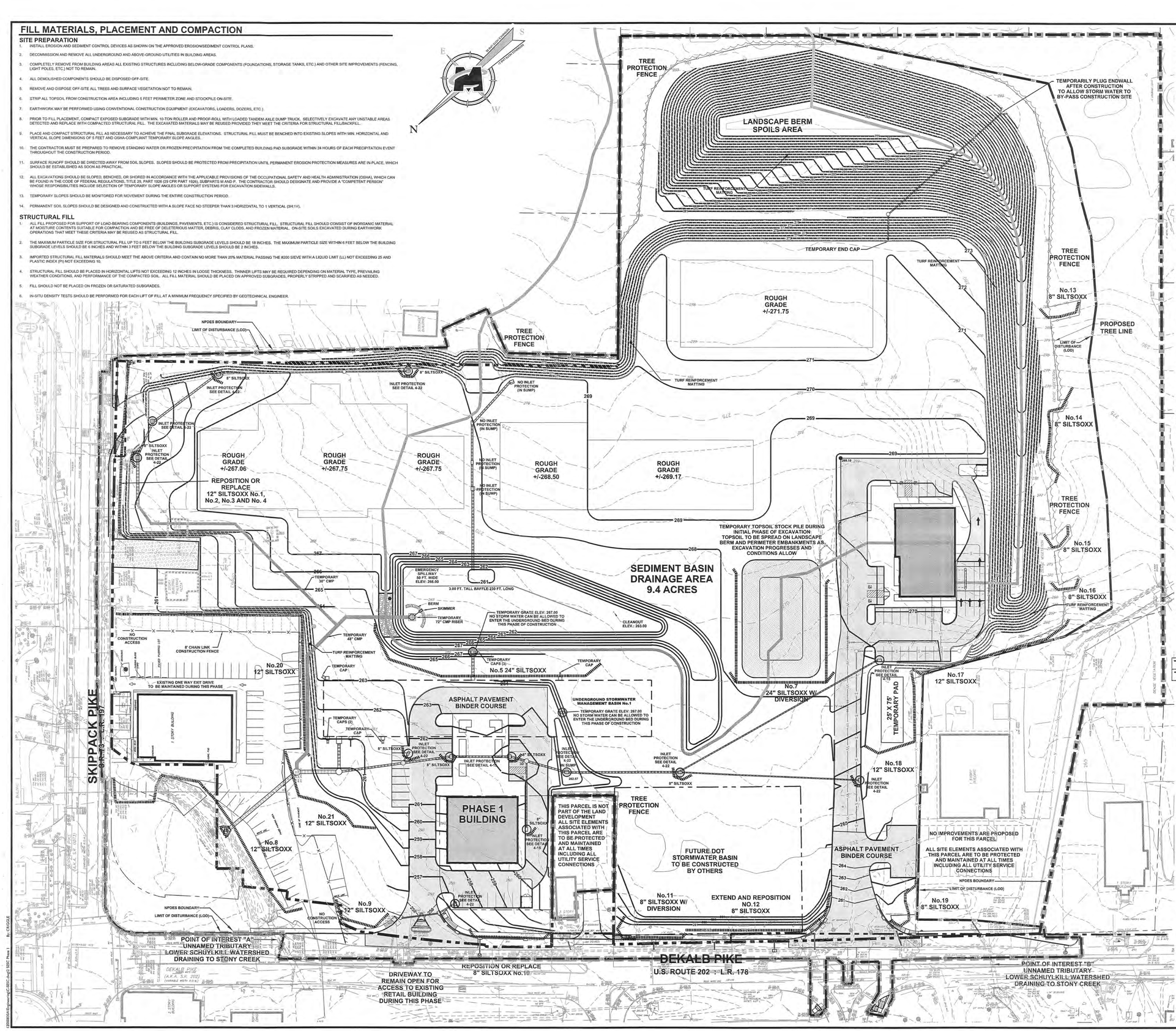
FILL MATERIALS, PLACEMENT AND COMPACTION

SITE PREPARATION

1. INSTALL EROSION AND SEDIMENT CONTROL DEVICES AS SHOWN ON THE APPROVED EROSION/SEDIMENT CONTROL PLANS.
2. DECOMMISSION AND REMOVE ALL UNDERGROUND AND ABOVE-GROUND UTILITIES IN BUILDING AREAS.
3. COMPLETELY REMOVE FROM BUILDING AREAS ALL EXISTING STRUCTURES INCLUDING BELOW-GRADE COMPONENTS (FOUNDATIONS, STORAGE TANKS, ETC.) AND OTHER SITE IMPROVEMENTS (FENCING, LIGHT POLES, ETC.) NOT TO REMAIN.
4. ALL DEMOLISHED COMPONENTS SHOULD BE DISPOSED OFF-SITE.
5. REMOVE AND DISPOSE OFF-SITE ALL TREES AND SURFACE VEGETATION NOT TO REMAIN.
6. STRIP ALL TOPSOIL FROM CONSTRUCTION AREA INCLUDING 5 FEET PERIMETER ZONE AND STOCKPILE ON-SITE.
7. EARTHWORK MAY BE PERFORMED USING CONVENTIONAL CONSTRUCTION EQUIPMENT (EXCAVATORS, LOADERS, DOZERS, ETC.)
8. PRIOR TO FILL PLACEMENT, COMPACT EXPOSED SUBGRADE WITH MIN. 10-TON ROLLER AND PROOF-ROLL WITH LOADED TANDEM AXLE DUMP TRUCK. SELECTIVELY EXCAVATE ANY UNSTABLE AREAS DETECTED AND REPLACE WITH COMPACTED STRUCTURAL FILL. THE EXCAVATED MATERIALS MAY BE REUSED PROVIDED THEY MEET THE CRITERIA FOR STRUCTURAL FILL/BACKFILL.
9. PLACE AND COMPACT STRUCTURAL FILL AS NECESSARY TO ACHIEVE THE FINAL SUBGRADE ELEVATIONS. STRUCTURAL FILL MUST BE BENCHED INTO EXISTING SLOPES WITH MIN. HORIZONTAL AND VERTICAL SLOPE DIMENSIONS OF 5 FEET AND OSHA-COMPLIANT TEMPORARY SLOPE ANGLES.
10. THE CONTRACTOR MUST BE PREPARED TO REMOVE STANDING WATER OR FROZEN PRECIPITATION FROM THE COMPLETED BUILDING PAD SUBGRADE WITHIN 24 HOURS OF EACH PRECIPITATION EVENT THROUGHOUT THE CONSTRUCTION PERIOD.
11. SURFACE RUNOFF SHOULD BE DIRECTED AWAY FROM SOIL SLOPES. SLOPES SHOULD BE PROTECTED FROM PRECIPITATION UNTIL PERMANENT EROSION PROTECTION MEASURES ARE IN-PLACE, WHICH SHOULD BE ESTABLISHED AS SOON AS PRACTICAL.
12. ALL EXCAVATIONS SHOULD BE SLOPED, BENCHED, OR SHORED IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA), WHICH CAN BE FOUND IN THE CODE OF FEDERAL REGULATIONS, TITLE 29, PART 1926 (29 CFR PART 1926), SUBPARTS M AND P. THE CONTRACTOR SHOULD DESIGNATE AND PROVIDE A "COMPETENT PERSON" WHOSE RESPONSIBILITIES INCLUDE SELECTION OF TEMPORARY SLOPE ANGLES OR SUPPORT SYSTEMS FOR EXCAVATION SIDEWALLS.
13. TEMPORARY SLOPES SHOULD BE MONITORED FOR MOVEMENT DURING THE ENTIRE CONSTRUCTION PERIOD.
14. PERMANENT SOIL SLOPES SHOULD BE DESIGNED AND CONSTRUCTED WITH A SLOPE FACE NO STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3H:1V).

STRUCTURAL FILL

1. ALL FILL PROPOSED FOR SUPPORT OF LOAD-BEARING COMPONENTS (BUILDINGS, PAVEMENTS, ETC.) IS CONSIDERED STRUCTURAL FILL. STRUCTURAL FILL SHOULD CONSIST OF INORGANIC MATERIAL AT MOISTURE CONTENTS SUITABLE FOR COMPACTION AND BE FREE OF DELETERIOUS MATTER, DEBRIS, CLAY CLODS, AND FROZEN MATERIAL. ON-SITE SOILS EXCAVATED DURING EARTHWORK OPERATIONS THAT MEET THESE CRITERIA MAY BE REUSED AS STRUCTURAL FILL.
2. THE MAXIMUM PARTICLE SIZE FOR STRUCTURAL FILL UP TO 5 FEET BELOW THE BUILDING SUBGRADE LEVELS SHOULD BE 18 INCHES. THE MAXIMUM PARTICLE SIZE WITHIN 6 FEET BELOW THE BUILDING SUBGRADE LEVELS SHOULD BE 6 INCHES AND WITHIN 3 FEET BELOW THE BUILDING SUBGRADE LEVELS SHOULD BE 2 INCHES.
3. IMPORTED STRUCTURAL FILL MATERIALS SHOULD MEET THE ABOVE CRITERIA AND CONTAIN NO MORE THAN 20% MATERIAL PASSING THE #200 SIEVE WITH A LIQUID LIMIT (LL) NOT EXCEEDING 25 AND PLASTIC INDEX (PI) NOT EXCEEDING 10.
4. STRUCTURAL FILL SHOULD BE PLACED IN HORIZONTAL LIFTS NOT EXCEEDING 12 INCHES IN LOOSE THICKNESS. THINNER LIFTS MAY BE REQUIRED DEPENDING ON MATERIAL TYPE, PREVAILING WEATHER CONDITIONS, AND PERFORMANCE OF THE COMPACTED SOIL. ALL FILL MATERIAL SHOULD BE PLACED ON APPROVED SUBGRADES, PROPERLY STRIPPED AND SCARIFIED AS NEEDED.
5. FILL SHOULD NOT BE PLACED ON FROZEN OR SATURATED SUBGRADES.
6. IN-SITU DENSITY TESTS SHOULD BE PERFORMED FOR EACH LIFT OF FILL AT A MINIMUM FREQUENCY SPECIFIED BY GEOTECHNICAL ENGINEER.



PHASE 1 SEQUENCE OF ACTIVITIES:

AT LEAST SEVEN (7) DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, THE OPERATOR SHALL INVITE ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES, THE LANDOWNER, ALL APPROPRIATE MUNICIPAL OFFICIALS, THE EROSION AND SEDIMENT CONTROL PREPARER, AND THE MONTGOMERY COUNTY SOIL CONSERVATION DISTRICT TO AN ON-SITE MEETING.

AT LEAST THREE (3) DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, ALL CONTRACTORS INVOLVED ON THOSE ACTIVITIES SHALL NOTIFY THE PENNSYLVANIA UTILITY ONE-CALL SYSTEM AT 1-800-382-1776 TO ORDER A UTILITY MARK-OUT AT THE SITE.

ALL STRUCTURES ASSOCIATED WITH THE CONSTRUCTION OF SEDIMENT REMOVAL FACILITIES MUST BE ON-SITE PRIOR TO EARTH DISTURBANCE.

CONTRACTOR SHALL TAKE IMMEDIATE ACTION TO INSTITUTE ADDITIONAL MEASURES IF ANY EROSION AND SEDIMENTATION CONTROL PROBLEMS ARISE PRIOR TO THE STABILIZATION OF EROSION AND SEDIMENTATION CONTROL MEASURES ON-SITE.

THIS PLAN IS A CONTINUATION OF PROCEDURES INITIATED ON THE DEMOLITION / INITIAL SITE PREPARATION PLAN.

AS SOON AS SLOPE AND OTHER DISTURBED AREAS REACH FINAL GRADE, THEY MUST BE STABILIZED. CESSATION OF ACTIVITY FOR AT LEAST 4 DAYS REQUIRES TEMPORARY STABILIZATION.

1. INSPECT ALL SOIL EROSION / SEDIMENT CONTROL MEASURES CONSTRUCTED AS PART OF THE DEMOLITION AND INITIAL SITE PREPARATION ACTIVITIES INCLUDING BUT NOT LIMITED TO SEDIMENT CONTROL BARRIERS, INLET PROTECTION AND CONSTRUCTION ACCESS. REPAIR OR REPLACE AS NECESSARY.
2. CLEAR AND GRUB AREAS FOR PHASE 1 AND 1A BUILDINGS AND BULK EARTHMOVING OPERATIONS SHOWN ON THIS PLAN.
3. STRIP AND STOCKPILE TOPSOIL FROM EARTHMOVING AREAS
4. BEGIN ROUGH GRADING, FILLING AND COMPACTING PHASE 1 AND 1A BUILDING SITES AS WELL AS BULK EARTHMOVING FOR REMAINDER OF DEVELOPMENT TO LIMITS AS SHOWN ON THIS PLAN
5. **CRITICAL STAGE OF CONSTRUCTION TO BE INSPECTED BY DESIGN ENGINEER:** CONSTRUCT UNDERGROUND BASIN No.1 INCLUDING MANHOLES, PIPE STUBS AND TEMPORARY END CAPS; **NO STORM WATER IS TO BE DIRECTED TO UNDER GROUND BASIN No.1 DURING THIS PHASE OF CONSTRUCTION**
6. CONSTRUCT NEW PERMANENT DRIVEWAYS OFF OF DEKALB PIKE AS SHOWN ON THIS PLAN; INCLUDING CURB, STONE BASE AND PAVING BINDER COURSE. INSTALL STABILIZED CONSTRUCTION ACCESS ON DRIVEWAY ADJACENT TO DAYCARE BUILDING
7. CONSTRUCT PHASE 1 AND 1A BUILDING SITE STORM SEWERS AS ROUGH GRADING OPERATIONS PERMIT.
8. STORM INLETS TO BE TEMPORARILY PROTECTED ACCORDING TO DETAIL 4-22 INCLUDING 8" SILTSOXX IN PLACE OF 6" BERM.
9. ALL STORM INLETS ARE TO HAVE FILTER BAGS INSTALLED AS SOON AS INLET TOPS ARE SET.
10. CONSTRUCT SANITARY SEWERS, WATER SERVICE AND GAS SERVICE FOR PHASE 1AND 1A BUILDINGS.
11. CURBING AROUND THE PHASE 1AND 1A BUILDINGS CAN BE CONSTRUCTED AS ROUGH GRADING PROGRESSES AND CONDITIONS ALLOW.
12. PHASE 1 AND 1A PAVING STONE BASE CAN BE PLACED AS ROUGH GRADING PROGRESSES AND CONDITIONS ALLOW. INSTALL PAVING BINDER COURSE.
    - AS SOON AS A CERTIFICATE OF OCCUPANCY IS OBTAINED FOR THE PHASE 1 BUILDING AND THE OCCUPANT HAS RELOCATED TO THE NEW BUILDING THE REMAINDER OF THE SITE ELEMENTS CAN BE DEMOLISHED AND REMOVED.
10. CONTINUE ROUGH GRADING SITE. SPOIL FROM ROUGH GRADING IS TO BE USED TO CONSTRUCT LANDSCAPE BERM ALONG RESIDENTIAL PROPERTIES BORDERING THE SITE AS SHOWN ON THE PLAN. FILL SLOPES OF THE BERM SHALL BE SEEDED AND MULCHED AT REGULAR VERTICAL INCREMENTS - 15 TO 25 FEET MAXIMUM - AS THE BERM IS BEING CONSTRUCTED. EROSION CONTROL MATTING (EAST COAST EROSION CONTROL, ECSC-2), OR APPROVED EQUAL) SHALL BE INSTALLED ON ALL PORTIONS OF BERM THAT THE SLOPE IS 2:1 OR GREATER. SEE PLAN FOR LIMITS.
11. AS DISTURBED AREAS APPROACH FINAL GRADE, PREPARATIONS SHOULD BE MADE FOR SEEDING AND MULCHING TO BEGIN. IN NO CASE SHOULD AN AREA EXCEEDING 15,000 SF REACH FINAL GRADE WITHOUT BEING SEEDED AND MULCHED.
12. AS SOON AS SUBGRADE ELEVATION HAS BEEN ESTABLISHED WITHIN THE LIMITS OF INDIVIDUAL BUILDINGS, PLACE AND COMPACT CRUSHED STONE BUILDING PAD. ESTABLISH FINISH PAD ELEVATION.
13. CONSTRUCTION OF BUILDINGS CAN BEGIN AS SOON AS BUILDING PADS ARE IN PLACE AND HAVE BEEN APPROVED.
14. INSPECT AND RECONDITION EROSION CONTROL MEASURES IN PREPARATION FOR THE NEXT PHASE OF CONSTRUCTION.

FILL MATERIAL RESPONSIBILITY NOTE:

IF THE SITE WILL NEED TO IMPORT OR EXPORT MATERIAL FROM THE SITE, THE RESPONSIBILITY FOR PERFORMING ENVIRONMENTAL DUE DILIGENCE AND DETERMINATION OF CLEAN FILL WILL REST WITH *(RESPONSIBLE PARTY)*.

CLEAN FILL IS DEFINED AS: UNCONTAMINATED, NON-WATER SOLUBLE, NON-DECOMPOSABLE, INERT, SOLID MATERIAL. THE TERM INCLUDES SOIL, ROCK, STONE, DREDGED MATERIAL, USED ASPHALT, AND BRICK, BLOCK OR CONCRETE FROM CONSTRUCTION AND DEMOLITION ACTIVITIES THAT IS SEPARATE FROM OTHER WASTE AND IS RECOGNIZABLE AS SUCH. THE TERM DOES NOT INCLUDE MATERIALS PLACED IN OR ON THE WATERS OF THE COMMONWEALTH UNLESS OTHERWISE AUTHORIZED. (THE TERM "USED ASPHALT" DOES NOT INCLUDE MILLED ASPHALT OR ASPHALT THAT HAS BEEN PROCESSED FOR RE-USE).

CLEAN FILL AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE: FILL MATERIALS AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE STILL QUALIFIES AS CLEAN FILL PROVIDED THE TESTING REVEALS THAT THE FILL MATERIAL CONTAINS CONCENTRATIONS OF REGULATED SUBSTANCES THAT ARE BELOW THE RESIDENTIAL LIMITS IN TABLES FP-1A AND FP-1B FOUND IN THE DEPARTMENTS POLICY *"MANAGEMENT OF FILL"*.

ANY PERSON PLACING CLEAN FILL THAT HAS BEEN AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE MUST USE FORM FP-001 TO CERTIFY THE ORIGIN OF THE FILL MATERIAL AND THE RESULTS OF THE ANALYTICAL TESTING TO QUALIFY THE MATERIAL AS CLEAN FILL. FORM FP-001 MUST BE RETAINED BY THE OWNER OF THE PROPERTY RECEIVING THE FILL. A COPY OF FORM FP-001 CAN BE FOUND AT THE END OF THESE INSTRUCTIONS.

ENVIRONMENTAL DUE DILIGENCE. THE APPLICANT MUST PERFORM ENVIRONMENTAL DUE DILIGENCE TO DETERMINE IF THE FILL MATERIALS ASSOCIATED WITH THE PROJECT QUALIFY AS CLEAN FILL. ENVIRONMENTAL DUE DILIGENCE IS DEFINED AS: *INVESTIGATIVE TECHNIQUES, INCLUDING, BUT NOT LIMITED TO, VISUAL PROPERTY INSPECTIONS, ELECTRONIC DATA BASE SEARCHES, REVIEW OF PROPERTY OWNERSHIP, REVIEW OF PROPERTY USE HISTORY, SANBORN MAPS, ENVIRONMENTAL QUESTIONNAIRES, TRANSACTION SCREENS, ANALYTICAL TESTING, ENVIRONMENTAL ASSESSMENTS OR AUDITS.* **ANALYTICAL TESTING IS NOT A REQUIRED PART OF DUE DILIGENCE UNLESS VISUAL INSPECTION AND/OR REVIEW OF THE PAST LAND USE OF THE PROPERTY INDICATES THAT THE FILL MAY HAVE BEEN SUBJECTED TO A SPILL OR RELEASE OF REGULATED SUBSTANCE.** IF THE FILL MAY HAVE BEEN AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE, IT MUST BE TESTED TO DETERMINE IF IT QUALIFIES AS CLEAN FILL. TESTING SHOULD BE PERFORMED IN ACCORDANCE WITH APPENDIX A OF THE DEPARTMENTS POLICY *"MANAGEMENT OF FILL"*.

FILL MATERIAL THAT DOES NOT QUALIFY AS CLEAN FILL IS REGULATED FILL. REGULATED FILL IS WASTE AND MUST BE MANAGED IN ACCORDANCE WITH THE DEPARTMENT'S MUNICIPAL OR RESIDUAL WASTE REGULATIONS BASED ON 25 PA. CODE CHAPTERS 287 RESIDUAL WASTE MANAGEMENT OR 271 MUNICIPAL WASTE MANAGEMENT, WHICHEVER IS APPLICABLE. THESE REGULATIONS ARE AVAILABLE ON-LINE AT WWW.PACODE.COM .

DURING GRADING OPERATIONS NECESSARY MEASURES FOR DUST CONTROL MUST BE IMPLEMENTED

TOTAL AREA OF DISTURBANCE: 20.65 ACRES
TOTAL NPDES BOUNDARY AREA: 23.70 ACRES

EROSION CONTROL LEGEND

- PROPERTY LINE
- LIMIT OF DISTURBANCE (LOD)
- NPDES BOUNDARY
- SILT SOXX
- TREE TO BE REMOVED
- FILTER BAG INLET PROTECTION
- INLET PROTECTION
- STABILIZED CONSTRUCTION ENTRANCE
- EROSION CONTROL BLANKET
- RIPRAP APRON
- CHAIN LINK BOUNDARY FENCE
- TREE PROTECTION FENCE
- 170 PROPOSED CONTOURS
- EXISTING CONTOURS
- STORM PIPE
- EROSION CONTROL BLANKET

WATERSHED:

LOWER SCHUYLKILL WATERSHED DRAINING TO STONY CREEK
TSF - TROUT STOCKING FISHES
MF - MIGRATORY FISHES

50 0 50 100
SCALE : 1" = 50'

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REV	DATE	DRAWN BY	DESCRIPTION
1	09/11/15	CJR	REVISED PER MCCD REVIEW
2	10/09/15	EXTON	FINAL PLAN SUBMISSION
3	11/30/15	EXTON	REVISED PER FINAL PLAN REVIEW

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER RUSSELL T. McFALL II
RUSSELL T. McFALL II
PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER - LICENSE NUMBER: PE60408

FINAL LAND DEVELOPMENT PLANS
FOR
MADISON DEVELOPMENT GROUP, INC.

DEKALB PIKE AT SKIPPACK PIKE

WHITPAIN TOWNSHIP
MONTGOMERY COUNTY
PENNSYLVANIA

EXTON OFFICE
410 Eagleview Boulevard
Suite 104
Exton, PA 19341
Phone: 610.254.9140
Fax: 610.254.9141
email: solutions@maserconsulting.com

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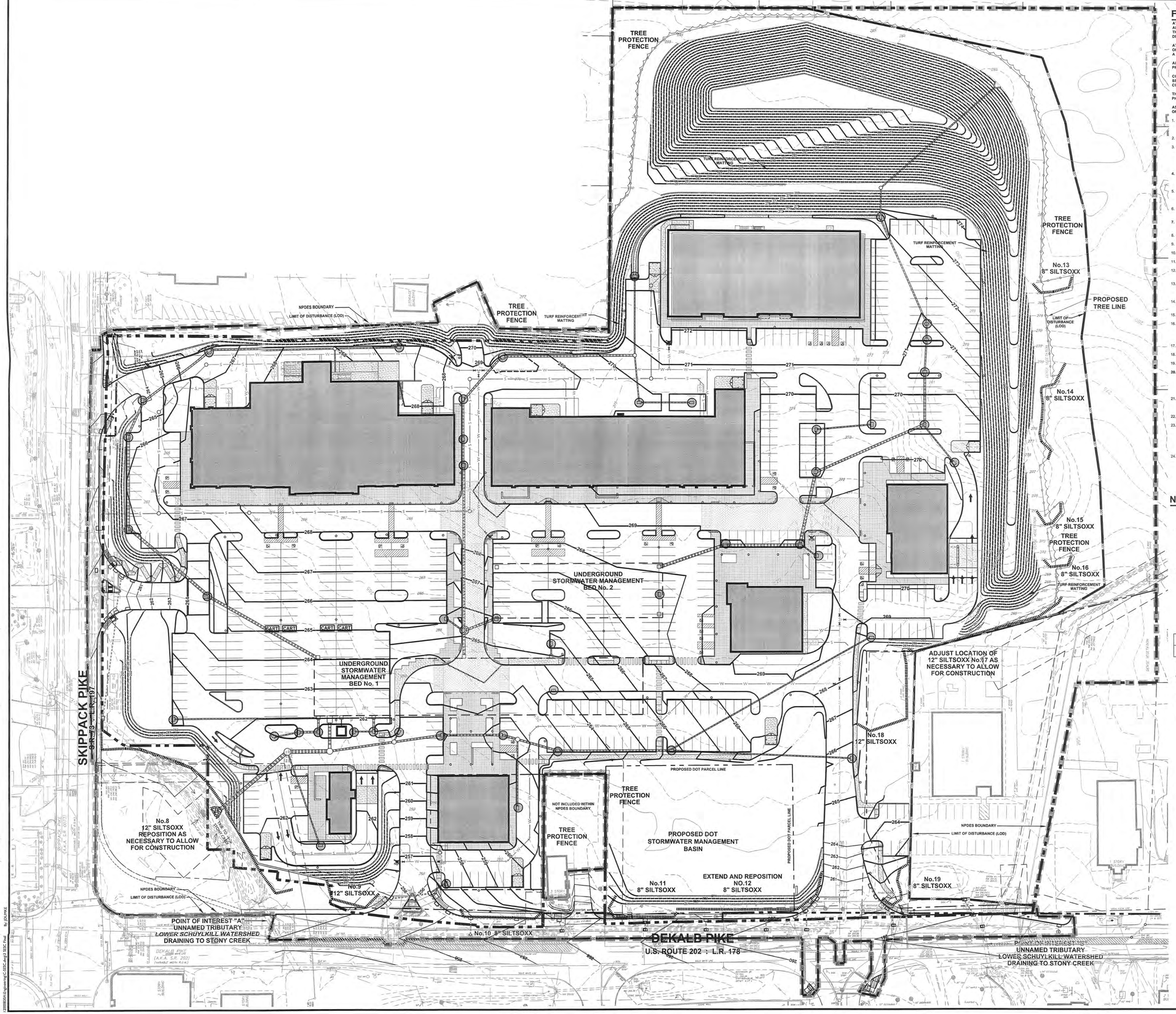
SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	06/10/15	DIII	RTM
PROJECT NUMBER: 12000830A		DRAWING NAME: C-SESC	

SHEET TITLE:
EROSION CONTROL PHASE 1 PLAN

SHEET NUMBER:
16 of 38

I:\2000\830A\Engineering\C-SESC-Ang\C-SESC Phase 1 By: CJNGLE



FINAL SEQUENCE OF ACTIVITIES:

AT LEAST SEVEN (7) DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, THE OPERATOR SHALL INVITE ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES, THE LANDOWNER, ALL APPROPRIATE MUNICIPAL OFFICIALS, THE EROSION AND SEDIMENT CONTROL PREPARER, AND THE MONTGOMERY COUNTY SOIL CONSERVATION DISTRICT TO AN ON-SITE MEETING.

AT LEAST THREE (3) DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, ALL CONTRACTORS INVOLVED ON THOSE ACTIVITIES SHALL NOTIFY THE PENNSYLVANIA UTILITY ONE-CALL SYSTEM AT 1-800-282-1776 TO ORDER A UTILITY MARK-OUT AT THE SITE.

ALL STRUCTURES ASSOCIATED WITH THE CONSTRUCTION OF SEDIMENT REMOVAL FACILITIES MUST BE ON-SITE PRIOR TO EARTH DISTURBANCE.

CONTRACTOR SHALL TAKE IMMEDIATE ACTION TO INSTITUTE ADDITIONAL MEASURES IF ANY EROSION AND SEDIMENTATION CONTROL PROBLEMS ARISE PRIOR TO THE STABILIZATION OF EROSION AND SEDIMENTATION CONTROL MEASURES ON-SITE.

THIS PLAN IS A CONTINUATION OF PROCEDURES INITIATED ON THE DEMOLITION, INITIAL SITE PREPARATION AND PHASE 1 PLANS

AS SOON AS SLOPE AND OTHER DISTURBED AREAS REACH FINAL GRADE, THEY MUST BE STABILIZED. CESSATION OF ACTIVITY FOR AT LEAST 4 DAYS REQUIRES TEMPORARY STABILIZATION.

1. INSPECT ALL SOIL EROSION / SEDIMENT CONTROL MEASURES CONSTRUCTED AS PART OF THE DEMOLITION, INITIAL SITE PREPARATION AND PHASE 1 ACTIVITIES INCLUDING BUT NOT LIMITED TO SEDIMENT CONTROL BARRIERS, INLET PROTECTION AND CONSTRUCTION ACCESS. REPAIR OR REPLACE AS NECESSARY.
2. CONTINUE ROUGH GRADING, FILLING AND COMPACTING SITE.
3. CONSTRUCT STORM SEWERS TO UNDERGROUND BED No.1 AS ROUGH GRADING OPERATIONS PERMIT ALL STORM INLETS CONSTRUCTED DURING ROUGH GRADING OPERATIONS ARE TO HAVE TEMPORARY GRATE ELEVATIONS SET 8 INCHES BELOW THE PERMANENT GRATE ELEVATION TO FACILITATE RUNOFF ENTERING THE INLET DURING ROUGH GRADING. ALL INLET BOXES TO HAVE CRUSHED STONE SEDIMENT PROTECTION INSTALLED AS SOON AS INLET TOPS ARE SET
4. **CRITICAL STAGE OF CONSTRUCTION TO BE INSPECTED BY DESIGN ENGINEER:** REMOVE SEDIMENT BASIN AND CONSTRUCT STORMWATER MANAGEMENT UNDERGROUND BED No.2 AND CONNECT TO STORM SEWER SYSTEM THAT DRAINS TO UNDERGROUND BED No.1.
5. CONSTRUCT STORM SEWERS TO UNDERGROUND BED No.2. ALL STORM INLETS CONSTRUCTED DURING ROUGH GRADING OPERATIONS ARE TO BE SET ON BRICKS TO ALLOW RUNOFF TO ENTER AS WELL AS HAVE INLET PROTECTION ACCORDING TO DETAIL 4-22 INCLUDING 8" SILTSOXX IN PLACE OF 6" BERM.
6. CONSTRUCTION OF SANITARY SEWERS, WATER MAINS AND GAS SERVICE CAN BE CONSTRUCTED AS ROUGH GRADING OPERATIONS PERMIT.
7. **CRITICAL STAGE OF CONSTRUCTION TO BE INSPECTED BY DESIGN ENGINEER:** CONSTRUCT IRRIGATION SYSTEM THAT IS CONNECTED TO UNDERGROUND BED No. 1.
8. CURBING CAN BE CONSTRUCTED AS ROUGH GRADING PROGRESSES AND CONDITIONS ALLOW.
9. PAVING STONE BASE CAN BE PLACED AS ROUGH GRADING PROGRESSES AND CONDITIONS ALLOW.
10. CONSTRUCT BUILDING UTILITY SERVICE CONNECTIONS TO WITHIN 5 FEET OF THE BUILDING LIMITS.
11. FINISH CONSTRUCTION OF ALL REMAINING STORM SEWERS.
12. CONSTRUCT DRIVEWAY CONNECTIONS TO SKIPPACK PIKE COMPLETE WITH CURBING, TRENCH DRAINS, PAVING STONE BASE AND BINDER COURSE.
13. FINISH CONSTRUCTION OF ALL ON SITE UNDERGROUND UTILITIES AND BUILDING SERVICE CONNECTIONS. CONSTRUCT FOUNDATIONS FOR AREA LIGHT STANDARDS AND RUN ELECTRIC SERVICE TO FOUNDATIONS AND ALL LOCATIONS FOR ILLUMINATED SIGNS.
14. FINISH CONSTRUCTION OF ALL CURBING AROUND PERIMETER OF NEW PARKING AND DRIVEWAY AREAS. CONSTRUCT CURBING AROUND BUILDING. CONSTRUCT CURBING AROUND LANDSCAPE ISLANDS.
15. FINISH PLACEMENT OF PAVING STONE BASE COURSE ON AREAS TO BE PAVED AND COMPACTED.
16. ALL INLETS SET DURING INITIAL SITE PREPARATION AND ROUGH GRADING OPERATIONS WITH TEMPORARY GRATE ELEVATIONS ARE TO BE RAISE TO PERMANENT GRATE ELEVATIONS AS SOON AS PAVING STONE BASE HAS BEEN PLACED AROUND THE INLET. REPLACE CRUSHED STONE INLET PROTECTION WITH FILTER BAG INLET PROTECTION.
17. CONSTRUCT ALL CONCRETE PADS AND CONCRETE PAVEMENT.
18. INSTALL ASPHALT PAVING BINDER COURSE.
19. INSTALL ALL SIGNAGE ON THE SITE INCLUDING TRAFFIC CONTROL AND DIRECTIONAL SIGNS.
20. **CRITICAL STAGE OF CONSTRUCTION TO BE INSPECTED BY DESIGN ENGINEER:** AREAS WHICH ARE TO BE TOPSOILED SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 3 TO 5 INCHES - 4 TO 12 INCHES ON COMPACTED SOILS - PRIOR TO PLACEMENT OF TOPSOIL. AREAS TO BE VEGETATED SHALL HAVE A MINIMUM 4 INCHES OF TOPSOIL IN PLACE PRIOR TO SEEDING AND MULCHING. FILL OUTSLOPES SHALL HAVE A MINIMUM OF 2 INCHES OF TOPSOIL
21. SPREAD TOPSOIL IN ALL AREAS TO BE LANDSCAPED OR SEEDED AND ESTABLISH PERMANENT GROUND COVER AND LANDSCAPING AS SPECIFIED BY LANDSCAPING PLAN. MULCH ALL EXPOSED AREAS AS SPECIFIED BY THESE PLANS.
22. INSTALL FINAL PAVING WEARING SURFACE. APPLY PARKING AREA AND TRAFFIC CONTROL PAVEMENT PAINT.
23. UPON PERMANENT STABILIZATION OF EARTH DISTURBANCE ACTIVITY UNDER 25 PA CODE 102.22(b)(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 NOTICE OF TERMINATION (NOT) TO THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT. ONCE THE NOT HAS BEEN APPROVED, THE FOLLOWING MAY TAKE PLACE.
24. REMOVE ALL TEMPORARY SOIL EROSION AND SEDIMENT CONTROLS. ESTABLISH PERMANENT VEGETATION ON ALL AREA DISTURBED BY THE REMOVAL OF THE TEMPORARY CONTROLS. AN AREA SHALL BE CONSIDERED TO HAVE ACHIEVED FINAL STABILIZATION WHEN IT HAS A MINIMUM UNIFORM 70 PERCENT PERENNIAL VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED SURFACE EROSION AND SUBSURFACE CHARACTERISTICS SUFFICIENT TO RESIST SLIDING AND OTHER MOVEMENTS.

NPDES E&S NOTES:

EVIDENCE THAT INDICATES THAT E&S PLAN MINIMIZES EXTENT AND & DURATION OF EARTH DISTURBANCE
- **A "LIMIT OF DISTURBANCE" IS SHOWN ON THE PLANS TO MINIMIZE THE EXTENT OF EARTH DISTURBANCE .**
- **THE "CONSTRUCTION SEQUENCING" HAS BEEN DEVELOPED AND SHOWN ON THE PLAN TO MINIMIZE THE DURATION OF EARTH DISTURBANCE.**

EVIDENCE THAT INDICATES E&S PLAN MAXIMIZES PROTECTION OF EXISTING DRAINAGE FEATURES AND VEGETATION
- **THE PROPOSED SITE DESIGN HAS MAINTAINED THE EXISTING ON-SITE DRAINAGE CHANNELS.**
- **A "LIMIT OF DISTURBANCE" IS SHOWN ON THE PLANS THAT MAXIMIZES THE PROTECTION OF EXISTING VEGETATION**

EVIDENCE THAT INDICATES E&S PLAN MINIMIZES SOIL COMPACTION
- **A "LIMIT OF DISTURBANCE" IS SHOWN ON THE PLANS TO MINIMIZE THE EXTENT OF EARTH DISTURBANCE AND COMPACTION**
- **"FILL MATERIALS, PLACEMENT AND COMPACTION NOTES" ARE SHOWN ON THE PLANS**

EVIDENCE THAT THE E&S PLAN UTILIZES OTHER MEASURES OR CONTROLS THAT PREVENT OR MINIMIZE GENERATION OF INCREASED STORMWATER
- **24.8 PERCENT OF THE OVERALL TRACT IS DEDICATED AS OPEN SPACE**
- **AFTER DEVELOPMENT THE SITE WILL CONTAIN 5.13 ACRES OF GREEN AREA**

GEOLOGIC FORMATIONS/SOIL CONDITIONS THAT MAY HAVE THE POTENTIAL TO CAUSE POLLUTION:
THE GEOTECHNICAL ENGINEERING STUDY PERFORMED FOR THIS SITE INDICATES THERE ARE NO NATURALLY OCCURING GEOLOGIC/SOIL CONDITIONS THAT HAVE THE POTENTIAL TO CAUSE POLLUTION

TOTAL AREA OF DISTURBANCE: 20.65 ACRES
TOTAL NPDES BOUNDARY AREA: 23.70 ACRES

EROSION CONTROL LEGEND

- PROPERTY LINE
- LIMIT OF DISTURBANCE (LOD)
- NPDES BOUNDARY
- SILT SOXX
- TREE TO BE REMOVED
- INLET PROTECTION
- STABILIZED CONSTRUCTION ENTRANCE
- EROSION CONTROL BLANKET
- RIPRAP APRON
- TREE PROTECTION FENCE
- 170 PROPOSED CONTOURS
- 170 EXISTING CONTOURS
- STORM PIPE
- EROSION CONTROL BLANKET

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COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — RUSSELL T. McFALL II

RUSSELL T. McFALL II
PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER, LICENSE NUMBER: PE60408

FINAL LAND DEVELOPMENT PLANS

FOR

MADISON DEVELOPMENT GROUP, INC.

DEKALB PIKE AT SKIPPACK PIKE

WHITPAIN TOWNSHIP
MONTGOMERY COUNTY
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EXTON OFFICE
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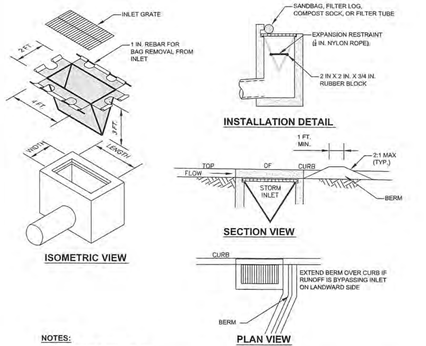
SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	06/10/15	DIB	KTH

PROJECT NUMBER: 12000830A
DRAWING NAME: C-SESC

SHEET TITLE:
EROSION CONTROL FINAL PLAN

SHEET NUMBER:
17 of 38

12000830A\Engineering\C-SESC.dwg 3:55C Plot By JSLAVIK



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.

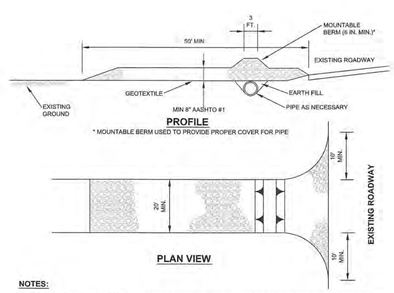
ROLLED EARTHEN BERM SHALL BE MAINTAINED UNTIL ROADWAY IS STONED, ROAD SUBBASE BERM SHALL BE MAINTAINED UNTIL ROADWAY SURFACE RECEIVES FINAL COAT.
AT A MINIMUM, THE FABRIC SHALL HAVE A MINIMUM GRAB TENSILE STRENGTH OF 120 LBS, A MINIMUM BURST STRENGTH OF 200 PSI, AND A MINIMUM TRAPEZOIDAL TEAR STRENGTH 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 OF ACCUMULATED SEDIMENT AS WELL AS ALL USED BAGS ACCORING TO THE PLAN NOTES.

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

STANDARD CONSTRUCTION DETAIL #4-15
FILTER BAG INLET PROTECTION - TYPE C INLET

NOT TO SCALE



NOTES:

REMOVE TOPSOIL PRIOR TO INSTALLATION OF ROCK CONSTRUCTION ENTRANCE. EXTEND ROCK OVER FULL WIDTH OF ENTRANCE.

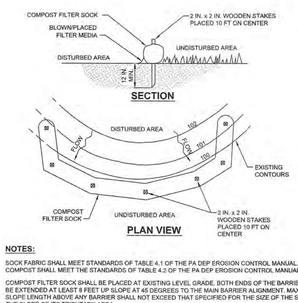
RUNOFF SHALL BE DIVERTED FROM ROADWAY TO A SUITABLE SEDIMENT REMOVAL BMP PRIOR TO ENTERING ROCK CONSTRUCTION ENTRANCE.

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

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

STANDARD CONSTRUCTION DETAIL #3-1
ROCK CONSTRUCTION ENTRANCE

NOT TO SCALE



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.

TRAFFIC SHALL NOT BE PERMITTED TO CROSS COMPOST FILTER SOCKS.

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

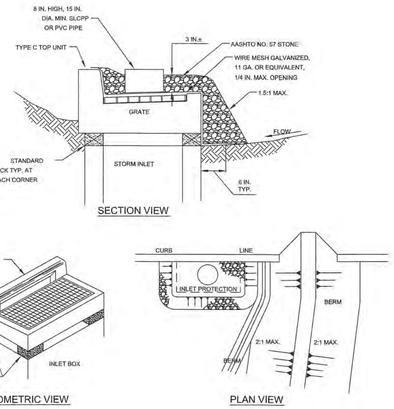
COMPOST FILTER SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.

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



NOTES:

INLET PROTECTION SHALL NOT BE REQUIRED FOR INLETS TRIBUTARY TO SEDIMENT BASINS OR SEDIMENT TRAPS. ALTERNATE TYPE C INLET PROTECTION CAN BE USED ON ONE ACRE MAXIMUM DRAINAGE AREA WITH 15 IN. OVERFLOW PIPE AND 4 IN. HEAD.

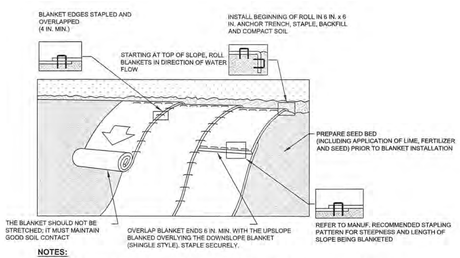
BERMS SHALL BE REQUIRED FOR ALL INSTALLATIONS NOT LOCATED AT LOW POINTS. EARTHEN BERMS SHALL BE STABILIZED WITH VEGETATION AND MAINTAINED UNTIL ROADWAY IS STONED OR TRIBUTARY AREA IS PERMANENTLY VEGETATED. ROAD SUBBASE BERMS SHALL BE MAINTAINED UNTIL ROADWAY IS PAVED.

INLETS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES HALF THE HEIGHT OF THE STONE. DAMAGED INSTALLATIONS SHALL BE REPAIRED OR REPLACED WITHIN 24 HOURS OF INSPECTION.

FOR SYSTEMS DISCHARGING TO HQ OR EV SURFACE WATER, A 6 INCH THICK COMPOST LAYER SHALL BE SECURELY ANCHORED ON OUTSIDE AND OVER TOP OF STONE. COMPOST SHALL MEET THE STANDARDS IN TABLE 4.2 OF THE PA DEP EROSION CONTROL MANUAL.

STANDARD CONSTRUCTION DETAIL #4-22
ALTERNATE TYPE C INLET PROTECTION - NOT AT GRADE

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.

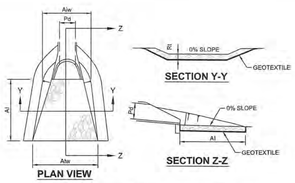
BLANKET SHALL HAVE GOOD CONTINUOUS CONTACT WITH UNDERLYING SOIL THROUGHOUT ENTIRE LENGTH. LAY BLANKET LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH SOIL. DO NOT STRETCH BLANKET.

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 DISPLACED BLANKETS SHALL BE RESTORED OR REPLACED WITHIN 4 CALENDAR DAYS.

STANDARD CONSTRUCTION DETAIL #11-1
EROSION CONTROL BLANKET INSTALLATION

NOT TO SCALE



OUTLET NO.	PIPE DIA. Pd (IN)	RIPRAP SIZE R__	RIPRAP THICK. Rt (IN)	APRON LENGTH Al (FT)	APRON INITIAL WIDTH Aiw (FT)	APRON TERMINAL WIDTH Atw (FT)
1	48	7	18	10	12	15

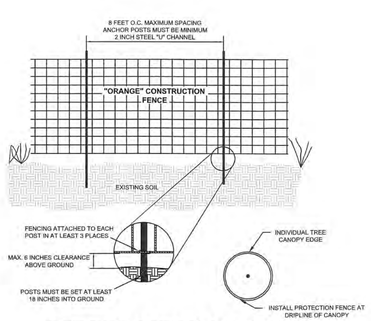
NOTES:

ALL APRONS SHALL BE CONSTRUCTED TO THE DIMENSIONS SHOWN. TERMINAL WIDTHS SHALL BE ADJUSTED AS NECESSARY TO MATCH RECEIVING CHANNELS.

ALL APRONS SHALL BE INSPECTED AT LEAST WEEKLY AND AFTER EACH RUNOFF EVENT. DISPLACED RIPRAP WITHIN THE APRON SHALL BE REPLACED IMMEDIATELY.

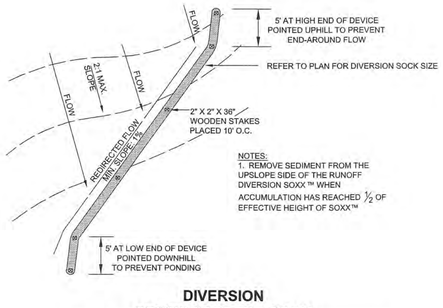
STANDARD CONSTRUCTION DETAIL #9-1
RIPRAP APRON AT PIPE OUTLET WITH FLARED END SECTION OR ENDWALL

NOT TO SCALE



TREE PROTECTION FENCE

NOT TO SCALE



NOTES:
1.: REMOVE SEDIMENT FROM THE UPSLOPE SIDE OF THE RUNOFF DIVERSION SOXX ™ WHEN ACCUMULATION HAS REACHED ½ OF EFFECTIVE HEIGHT OF SOXX™

DIVERSION
COMPOST FILTER SOCK

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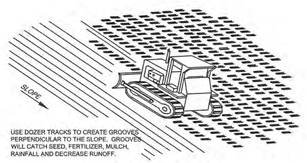
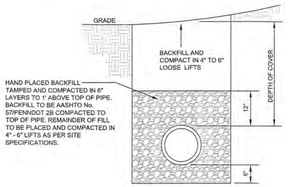


TRACKING DETAIL

NOT TO SCALE

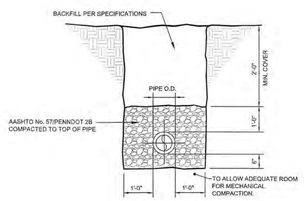
UTILITY INSTALLATION AND TRENCH EXCAVATION GUIDELINES

1. CONSTRUCTION REQUIREMENTS
   A. LIMIT ADVANCE 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 AND SEPARATE FROM CLEARING AND GRUBBING AND SITE RESTORATION AND STABILIZATION OPERATIONS.
   C. LIMIT DAILY TRENCH EXCAVATION TO THE LENGTH OF PIPE PLACEMENT, PLUG INSTALLATION AND BACKFILLING THAT CAN BE COMPLETED THE SAME DAY.
   D. WATER THAT ACCUMULATES IN THE OPEN TRENCH WILL BE COMPLETELY REMOVED BY PUMPING, AS REQUIRED, TO A FACILITY FOR REMOVAL OF SEDIMENT IN ACCORDANCE WITH "PADEP" GUIDELINES.
   E. ON THE DAY FOLLOWING PIPE PLACEMENT AND TRENCH BACKFILLING, THE DISTURBED AREA WILL BE GRADED TO BE FINAL CONTOURS AND APPROPRIATE TEMPORARY EROSION AND SEDIMENT POLLUTION CONTROL MEASURES/FACILITIES WILL BE INSTALLED. SEEDING AND MULCHING OF ALL DISTURBED AREAS WILL BE DONE AT THE END OF EACH WEEK.
2. BACKFILLING: AFTER THE PIPE AND ITS APPURTENANCES HAVE BEEN SATISFACTORILY INSTALLED AND COVERED, THE TRENCH SHALL BE BACKFILLED IN SIX (6) INCH LAYERS AND IN SUCH A MANNER AS NOT TO DISTURB THE PIPE. HOWEVER, 8-INCH LAYERS WILL BE PERMITTED WHEN USING VIBRATORY COMPACTION EQUIPMENT PROVIDED BACKFILL MATERIAL IS SUITABLE FOR COMPACTION TESTING. EACH LAYER OF BACKFILL SHALL BE THOROUGHLY COMPACTED WITH MECHANICAL TAMPERS OR BY OTHER ACCEPTABLE METHODS, FOR THE FULL TRENCH WIDTH. THE BACKFILL SHALL BE COMPACTED TO NOT LESS THAN 95% OF THE DETERMINED DRY WEIGHT DENSITY OF THE BACKFILL MATERIAL.
3. EXCEPTIONS: IN CERTAIN CASES TRENCHES CAN NOT BE BACKFILLED UNTIL THE PIPE IS HYDROSTATICALLY TESTED, OR ANCHORS AND OTHER PERMANENT FEATURES ARE INSTALLED. IN THESE CASES, ALL OF THE REQUIREMENTS LISTED UNDER ITEM 1. (CONSTRUCTION REQUIREMENTS) WILL REMAIN IN EFFECT WITH THE FOLLOWING EXCEPTIONS:
   A. DAILY BACKFILLING OF THE TRENCH MAY BE DELAYED FOR SIX DAYS. ALL PRESSURE TESTING AND THE COMPLETE BACKFILLING OF THE OPEN TRENCH MUST BE COMPLETED BY THE SEVENTH WORKING DAY.
   B. IF DAILY BACKFILLING IS DELAYED, THE DISTURBED AREA WILL BE GRADED TO FINAL CONTOURS, APPROPRIATE TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES OR FACILITIES WILL BE INSTALLED, AND THE AREAS SEEDED AND MULCHED WITHIN THE NEXT TWO CALENDAR DAYS.
   C. SIDES OF TRENCHES SHALL BE KEPT AS NEARLY VERTICAL AS POSSIBLE, AND THE TRENCHES SHALL BE EXCAVATED TRUE TO THE LINE SO THAT A CLEAR SPACE EIGHT (8") INCHES IN WIDTH IS PROVIDED ON EACH SIDE OF THE BARREL OF THE PIPE TO A HEIGHT OF LESS THAN ONE (1) FOOT ABOVE THE TOP OF THE PIPE. IF SHEETING IS REQUIRED AT THE LEVEL OF THE PIPE, THE DIMENSIONS IN THE FOREGOING SENTENCE SHALL BE APPLICABLE TO THE INSIDE FACES OF THE SHEETING.
   D. THE MUNICIPALITY SHALL HAVE THE RIGHT TO LIMIT THE AMOUNT OF TRENCH OPENED IN ADVANCE OF PIPE LAYING AND THE AMOUNT OF PIPE LAID IN ADVANCE OF BACKFILLING, BUT IN NO CASE SHALL MORE THAN FOUR HUNDRED (400) FEET OF TRENCH BE OPENED AT ANY ONE PLACE IN ADVANCE OF THE COMPLETED PIPE. THE TRENCH SHALL NOT BE OPENED FOR A DISTANCE OF MORE THAN FIVE HUNDRED (500) FEET AT ANY ONE TIME.
   E. NO TRENCH WITHIN A PUBLIC STREET SHALL BE LEFT UNCOVERED AT THE CLOSE OF THE WORK DAY. NO OTHER TRENCH SHALL BE LEFT UNCOVERED FOR MORE THAN FIVE CONSECUTIVE WORKING DAYS. STEEL PLATES OF ADEQUATE STRENGTH MAY BE USED TO COVER OPENINGS WITH THE PRIOR APPROVAL OF THE MUNICIPAL ENGINEER.
   F. PRIOR TO PERFORMING ANY BLASTING, THE CONTRACTOR MUST OBTAIN ALL NECESSARY LICENSES AND PERMITS. PROTECTIVE MEASURES MUST BE USED TO INSURE SAFETY TO ADJACENT PROPERTY.
   G. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR INJURY TO PERSONS OR PROPERTY THAT MAY RESULT FROM THE USE OF EXPLOSIVES. ALL BLASTING SHALL BE PERFORMED UNDER THE SUPERVISION OF A LICENSED BLASTER, AND SHALL BE SUBJECT TO STATE, COUNTY AND LOCAL REGULATIONS.
   H. WHEN PIPE IS TO BE INSTALLED IN FILL, THE EMBANKMENT SHALL BE CONSTRUCTED TO AT LEAST ONE (1) FOOT ABOVE THE PROPOSED TOP OF THE PIPE. THE EMBANKMENT SHALL THEN BE EXCAVATED TO THE PROPER FORM AND GRADE, AND THE PIPE INSTALLED. THE EMBANKMENT SHALL THEN BE CONSTRUCTED TO NOT LESS THAN THREE AND ONE HALF (3 ½) FEET ABOVE THE TOP OF THE PIPE.



UTILITY TRENCH DETAIL

N.T.S.



TRENCH DETAIL FOR PVC PIPE

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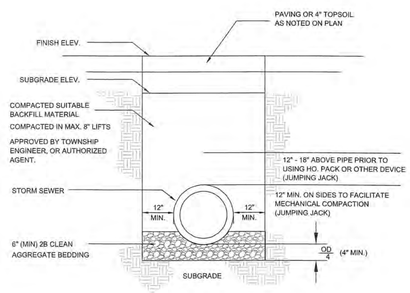

TRENCH DETAIL FOR STORM SEWER

N.T.S.

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REV	DATE	DRAWN BY	DESCRIPTION
1	09/11/15	CJR	REVISED PER HCCD REVIEW
2	10/09/15	EXTON	FINAL PLANS SUBMISSION
3	11/20/15	EXTON	REVISED PER FINAL PLAN REVIEW

RUSSELL T. McFALL II
PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER - LICENSE NUMBER: PE60408

FINAL LAND DEVELOPMENT PLANS

FOR

MADISON DEVELOPMENT GROUP, INC.

DEKALB PIKE AT SKIPPACK PIKE

WHITPAIN TOWNSHIP
MONTGOMERY COUNTY
PENNSYLVANIA

EXTON OFFICE
410 Eagleview Boulevard
Suite 104
Exton, PA 19341
Phone: 610.254.9140
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SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	06/10/15	DIII	RTM

PROJECT NUMBER: 12000830A
DRAWING NAME: C-DTLS

SHEET TITLE:
EROSION CONTROL - NOTES AND DETAILS

SHEET NUMBER:
18 of 38

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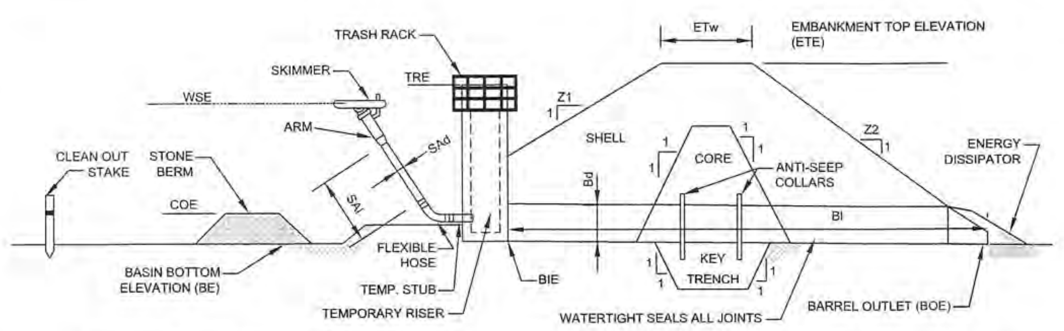
By: CJR/DJ.E



BASIN NO.	Z1 (FT)	Z2 (FT)	TEMP RISER ELEV TRE (FT)	EMBANKMENT				CLEAN OUT ELEV COE (FT)	BOTTOM ELEV BE (FT)
				TOP ELEV ETE (FT)	TOP WIDTH ETw (FT)	KEY TRENCH DEPTH (FT)	KEY TRENCH WIDTH (FT)		
1	3	3	264.75	267.00	10	2	8	263.00	262.00

SKIMMER			OUTLET BARREL				
DIA SAd (IN)	LENGTH SAi (FT)	MAT'L	DIA Bd (IN)	INLET ELEV BIE (FT)	MAT'L	LENGTH Bl (FT)	OUTLET ELEV BOE (FT)
4	8	PVC	48	259.00	HDPE	270	253.48

NOTES:

SEDIMENT BASINS, INCLUDING ALL APPURTENANT WORKS, SHALL BE CONSTRUCTED TO THE DETAIL AND DIMENSIONS SHOWN ON THE E&S PLAN DRAWINGS.

AREA UNDER EMBANKMENT SHALL BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL TO A DEPTH OF TWO FEET PRIOR TO ANY PLACEMENT AND COMPACTION OF EARTHEN FILL. IN ORDER TO FACILITATE MAINTENANCE AND RESTORATION, THE POOL AREA SHALL BE CLEARED OF ALL BRUSH, TREES, AND OBJECTIONABLE MATERIAL. FILL MATERIAL FOR THE EMBANKMENTS SHALL BE FREE OF ROOTS, OR OTHER WOODY VEGETATION, ORGANIC MATERIAL, LARGE STONES, AND OTHER OBJECTIONABLE MATERIALS. THE EMBANKMENT SHALL BE COMPACTED IN LAYERED LIFTS OF NOT MORE THAN 6 TO 9 IN. THE MAXIMUM ROCK SIZE SHALL BE NO GREATER THAN 2/3 THE LIFT THICKNESS.

UPON COMPLETION, THE EMBANKMENT SHALL BE SEEDED, MULCHED, BLANKETED OR OTHERWISE STABILIZED ACCORDING TO THE SPECIFICATIONS OF THE E&S PLAN DRAWINGS. TREES SHALL NOT BE PLANTED ON THE EMBANKMENT.

INSPECT ALL SEDIMENT BASINS ON AT LEAST A WEEKLY BASIS AND AFTER EACH RUNOFF EVENT. PROVIDE ACCESS FOR SEDIMENT REMOVAL AND OTHER REQUIRED MAINTENANCE ACTIVITIES. A CLEAN OUT STAKE SHALL BE PLACED NEAR THE CENTER OF EACH BASIN ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT HAS REACHED THE CLEAN OUT ELEVATION ON THE STAKE AND THE BASIN RESTORED TO ITS ORIGINAL DIMENSIONS. DISPOSE OF MATERIALS REMOVED FROM THE BASIN IN THE MANNER DESCRIBED IN THE E&S PLAN. THE STAKE SHALL BE MARKED WITH SURVEY RIBBON RATHER THAN PAINT, WHICH CAN QUICKLY FADE.

BASIN EMBANKMENTS, SPILLWAYS, AND OUTLETS SHALL BE INSPECTED FOR EROSION, PIPING AND SETTLEMENT. NECESSARY REPAIRS SHALL BE IMMEDIATELY. DISPLACED RIPRAP WITHIN THE OUTLET ENERGY DISSIPATER SHALL BE REPLACED IMMEDIATELY.

ACCUMULATED SEDIMENT SHALL BE REMOVED AND DISTURBED AREAS SHALL BE STABILIZED INSIDE THE BASIN BEFORE CONVERSION TO A STORMWATER MANAGEMENT FACILITY. THE DEVICE SHOWN IN STANDARD CONSTRUCTION DETAIL #7-16 MAY BE USED TO DEWATER SATURATED SEDIMENT PRIOR TO ITS REMOVAL. ROCK FILTERS SHALL BE ADDED AS NECESSARY.

STANDARD CONSTRUCTION DETAIL #7-4
SEDIMENT BASIN EMBANKMENT AND SPILLWAY DETAILS - SKIMMER

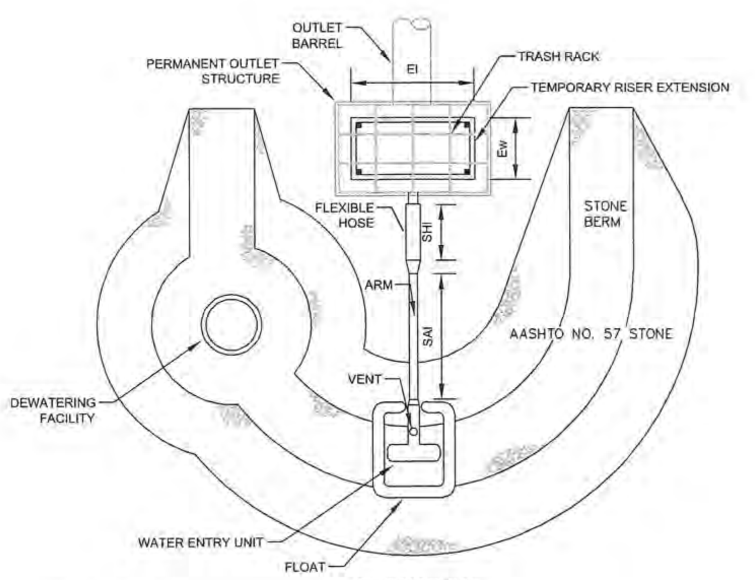
NOT TO SCALE

Calculate Skimmer Size			
Basin Volume in Cubic Feet	54,893 Cu.Ft	Skimmer Size	4.0 Inch
Days to Drain*	4 Days	Orifice Radius	1.7 Inch[es]
		Orifice Diameter	3.3 Inch[es]

MINIMUM ARM LENGTH OF SKIMMER:

MIN. ARM LENGTH = MAX STORAGE DEPTH X SQRT(2)

MIN. ARM LENGTH =7.1 FEET



PLAN VIEW

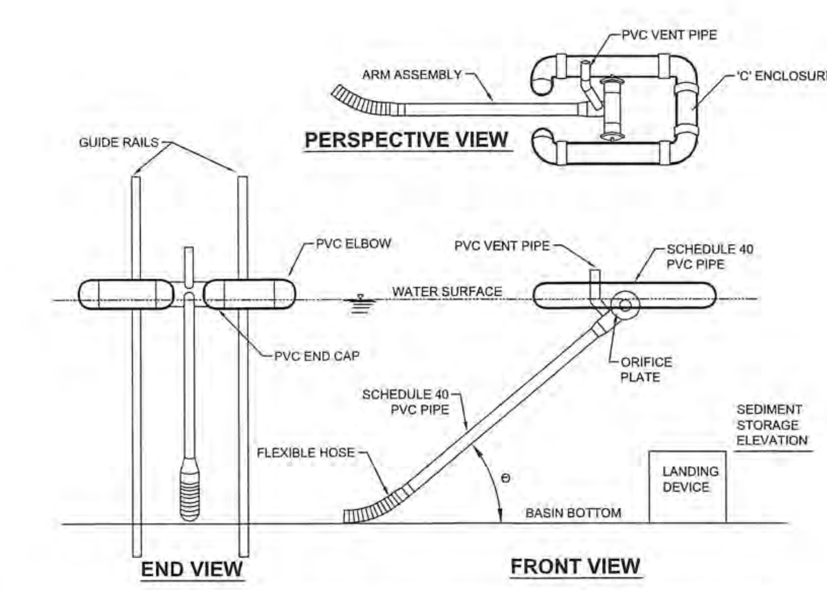
NOTES:

NO GUIDE RAILS SHALL BE REQUIRED FOR THIS INSTALLATION.

THIS DETAIL SHALL BE USED IN CONJUNCTION WITH STANDARD CONSTRUCTION DETAILS #7-2 AND #7-4.

STANDARD CONSTRUCTION DETAIL #7-3
SKIMMER WITH STONE LANDING BERM

NOT TO SCALE



BASIN NO.	WATER SURFACE ELEVATION (FT)	ARM LENGTH (FT)	ARM DIA. (IN)	ORIFICE DIA. (IN)	TOP OF LANDING DEVICE ELEVATION (FT)	FLEXIBLE HOSE LENGTH (IN)	FLEXIBLE HOSE ATTACHMENT ELEVATION (FT)	ORIFICE HEAD (IN)
1	265.33	8	4	3.3	263.00	24	262.00	1.7

NOTES:

ORIFICE DIAMETER 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).

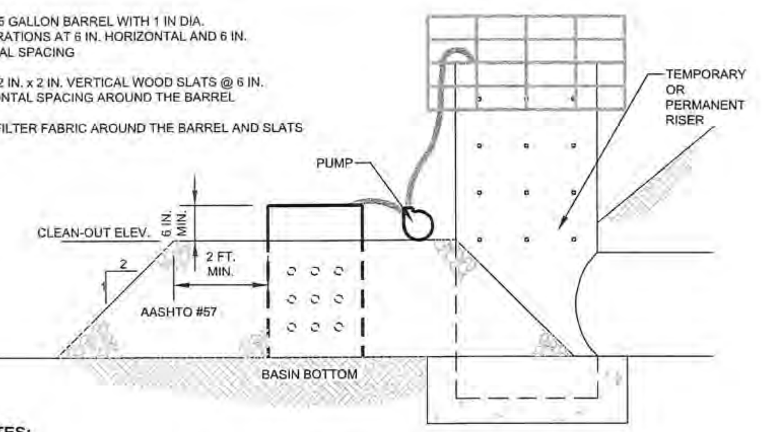
STANDARD CONSTRUCTION DETAIL #7-1 : SKIMMER

NOT TO SCALE

30 TO 55 GALLON BARREL WITH 1 IN DIA. PERFORATIONS AT 6 IN. HORIZONTAL AND 6 IN. VERTICAL SPACING

PLACE 2 IN. x 2 IN. VERTICAL WOOD SLATS @ 6 IN. HORIZONTAL SPACING AROUND THE BARREL

WRAP FILTER FABRIC AROUND THE BARREL AND SLATS



NOTES:

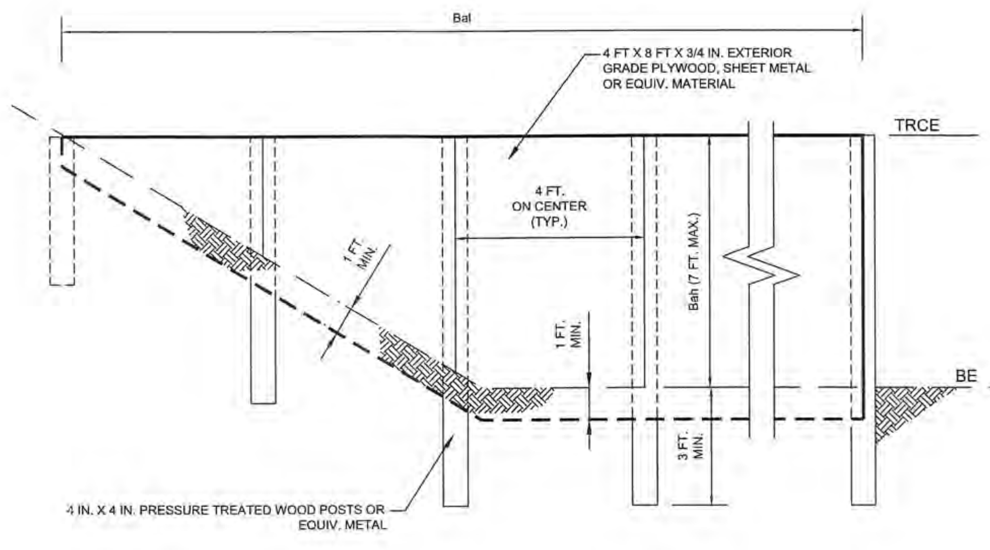
DEWATERING FACILITY SHALL BE INSTALLED IMMEDIATELY UPON COMPLETION OF BASIN/TRAP.

PRIOR TO INITIATING OPERATION OF DEWATERING FACILITY, ALL ACCUMULATED SEDIMENT SHALL BE CLEANED FROM THE INSIDE OF THE BARREL.

DEWATERING FACILITY SHALL BE CONTINUOUSLY MONITORED DURING OPERATION. IF FOR ANY REASON THE DEWATERING FACILITY CEASES TO FUNCTION PROPERLY, IT SHALL BE IMMEDIATELY SHUT DOWN AND NOT RESTARTED UNTIL THE PROBLEM HAS BEEN CORRECTED.

STANDARD CONSTRUCTION DETAIL #7-18
SEDIMENT BASIN OR SEDIMENT TRAP
SEDIMENT STORAGE DEWATERING FACILITY

NOT TO SCALE



BASIN OR TRAP NO.	BAFFLE		TEMPORARY RISER	BOTTOM
	LENGTH Bal (FT)	HEIGHT Bah (FT)	CREST ELEV. TRCE (FT)	BOTTOM ELEV BE (FT)
1	230	3.00	264.75	262.00

NOTES:

SEE APPROPRIATE BASIN DETAIL FOR PROPER LOCATION AND ORIENTATION.

AN ACCEPTABLE ALTERNATIVE IS TO INSTALL A SUPER SILT FENCE AT THE BAFFLE LOCATION

IN POOLS WITH DEPTHS EXCEEDING 7', THE TOP OF THE PLYWOOD BAFFLE DOES NOT NEED TO EXTEND TO THE TEMPORARY RISER CREST. SUPER SILT FENCE BAFFLES NEED NOT EXTEND TO TRCE ELEVATION.

BAFFLES SHALL BE TIED INTO ONE SIDE OF THE BASIN UNLESS OTHERWISE SHOWN ON THE PLAN DRAWINGS.

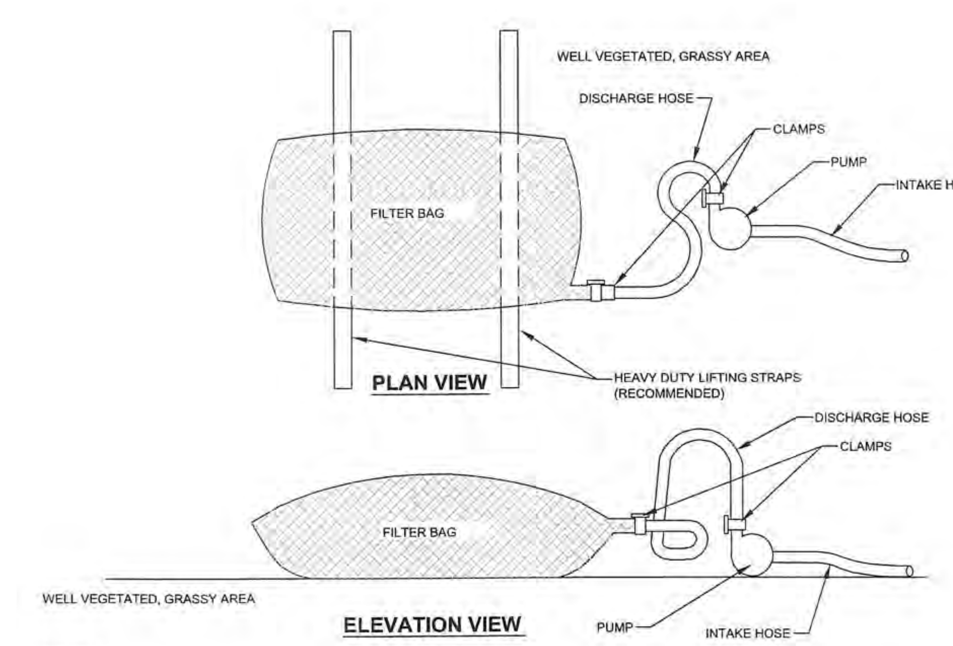
SUBSTITUTION OF MATERIALS NOT SPECIFIED IN THIS DETAIL SHALL BE APPROVED BY THE DEPARTMENT OR THE LOCAL CONSERVATION DISTRICT BEFORE INSTALLATION.

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.

STANDARD CONSTRUCTION DETAIL #7-14 : BAFFLE

NOT TO SCALE



NOTES:

LOW VOLUME FILTER BAGS SHALL BE MADE FROM NON-WOVEN GEOTEXTILE MATERIAL SEWN WITH HIGH STRENGTH, DOUBLE STITCHED "J" 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	205 LB
PUNCTURE	ASTM D-4833	110 LB
MULLEN BURST	ASTM D-3786	350 PSI
UV RESISTANCE	ASTM D-4355	70%
AOS % RETAINED	ASTM D-4751	80 SIEVE

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. SPARE 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 STRAPS ALREADY ATTACHED.

BAGS SHALL BE LOCATED IN WELL-VEGETATED (GRASSY) AREA, AND DISCHARGE ONTO STABLE, EROSION RESISTANT AREAS. WHERE THIS IS NOT POSSIBLE, A GEOTEXTILE UNDERLAYMENT AND FLOW PATH SHALL BE PROVIDED. BAGS MAY BE PLACED ON FILTER STONE TO INCREASE 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.

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

SEEDING	% BY WEIGHT	MINIMUM %		MAX % WEED SEED	SEEDING RATE LBS. PER 1,000 SY
		PURITY	GERMINATION		
PennDOT FORMULA B SEEDING (LAWN) MIX: • PERENNIAL RYEGRASS MIXTURE (LOLIUM PERENNE). A COMBINATION OF IMPROVED CERTIFIED VARIETIES WITH NO ONE VARIETY EXCEEDING 50% OF THE TOTAL RYEGRASS COMPONENT.	20	98	90	0.15	4.0
• CREEPING RED FESCUE OR CHEWINGS FESCUE	30	98	85	0.15	6.0
• KENTUCKY BLUEGRASS MIXTURE (POA PRATENSIS) A COMBINATION OF IMPROVED CERTIFIED VARIETIES WITH NO ONE VARIETY EXCEEDING 25% OF THE TOTAL BLUEGRASS COMPONENT.	50	98	80	0.20	11.0
					21.0 TOTAL

PERMANENT MEADOW SEED MIX SHALL CONSIST OF THE FOLLOWING MIXTURE OR APPROVED EQUAL - OPTIMUM SEEDING DATES ARE BETWEEN JANUARY 15 AND MAY 1: AUGUST 15 AND OCTOBER 15:

ERNST CONSERVATION SEEDS
MIX # - ERNMX-153 (Showy Northeast Native Wildflower & Grass Mix)

34%	Little Bluestem, 'Camper' (Schizachyrium scoparium, 'Camper')
10%	Sideoats Grama, 'Trailway' (Bouteloua curtipendula, 'Trailway')
10%	Virginia Wildrye, PA Ecotype (Elymus virginicus, PA Ecotype)
9%	Indiangrass, 'Southlow'-MI Ecotype (Sorghastrum nutans, 'Southlow'-MI Ecotype)
4%	Marsh (Dense) Blazing Star (Spiked Gayfeather), PA Ecotype (Liatris spicata, PA Ecotype)
4%	Partridge Pea, PA Ecotype (Chamaecrista fasciculata (Cassia f.), PA Ecotype)
3%	Tall White Beardtongue, PA Ecotype (Penstemon digitalis, PA Ecotype)
3%	Blackeyed Susan, Coastal Plain NC Ecotype (Rudbeckia hirta, Coastal Plain NC Ecotype)
3%	Golden Alexanders (Zizia aurea)
3%	Purple Coneflower (Echinacea purpurea)
3%	Ohio Spiderwort, PA Ecotype (Tradescantia ohiensis, PA Ecotype)
2%	Gray Goldenrod, PA Ecotype (Solidago nemoralis, PA Ecotype)
2%	Wild Senna, VA & WV Ecotype (Senna hebecarpa (Cassia h.), VA & WV Ecotype)
2%	Zigzag Aster, PA Ecotype (Aster prenanthoides (Symphyotrichum p.), PA Ecotype)
2%	Blue 0 Indigo, Southern WV Ecotype (Baptisia australis, Southern WV Ecotype)
1%	Wild Bergamot (Monarda fistulosa)
1%	Oxeye Sunflower, PA Ecotype (Heliopsis helianthoides, PA Ecotype)
1%	Early Goldenrod, PA Ecotype (Solidago juncea, PA Ecotype)
1%	New England Aster, PA Ecotype (Aster novae-angliae (Symphyotrichum n.), PA Ecotype)
1%	Smooth Blue Aster, NY Ecotype (Aster laevis (Symphyotrichum laeve), NY Ecotype)
1%	Maryland Senna (Senna marilandica (Cassia m.))

TEMPORARY AND PERMANENT STABILIZATION

TEMPORARY AND PERMANENT SEEDING:
1. TEMPORARY SEEDING SHALL CONSIST OF ANNUAL RYEGRASS - 40 LBS/ACRE.
2. PERMANENT SEEDING SHALL BE PENNDOT FORMULA B OR APPROVED EQUAL
3. PERMANENT SEEDING TO BE APPLIED BY RAKING OR DRILLING INTO THE SOILS. SLOPED AREA TO BE COVERED WITH MULCH AS SPECIFIED.
4. AREAS WHICH ARE TO BE TOPSOILED SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 3 TO 5 INCHES - 6 TO 12 INCHES ON COMPACTED SOILS - PRIOR TO PLACEMENT OF TOPSOIL. AREAS TO BE VEGETATED SHALL HAVE A MINIMUM 4 INCHES OF TOPSOIL IN PLACE PRIOR TO SEEDING AND MULCHING. FILL OUTSLOPES SHALL HAVE A MINIMUM OF 2 INCHES OF TOPSOIL

TEMPORARY AND PERMANENT FERTILIZER RATES:
1. TEMPORARY FERTILIZER TO BE APPLIED AT A RATE OF 50-50-50 (50 LBS OF N, 50 LBS OF P205, AND 50 LBS OF K20) PER ACRES TO LANDS DISTURBED.
2. PERMANENT FERTILIZER TO BE APPLIED AT A RATE OF 100-200-200 (100 LBS OF N, 200 LBS OF P205, AND 200 LBS OF K20) PER ACRES TO LANDS DISTURBED.

TEMPORARY AND PERMANENT LIMING RATES:
1. TEMPORARY AGRICULTURAL GRADE LIMESTONE TO BE APPLIED AT A RATE OF 1.0 TON PER ACRE.
2. PERMANENT AGRICULTURAL GRADE LIMESTONE TO BE APPLIED AT A RATE OF 6.0 TON PER ACRE.

TEMPORARY AND PERMANENT MULCHING RATES:
1. GRASS HAY AND CEREAL STRAW ARE PREFERRED MULCHES AND SHOULD BE APPLIED TO PRODUCE A LOOSE LAYER 0.75 TO 1.0 INCH DEEP. GENERALLY, 3.0 TONS OF MULCH PER ACRE ARE SUFFICIENT. AS A GUIDELINE, A THICKNESS OF FIVE TO SIX OVERLAPPING STRAW OR HAY STEMS IS ACCEPTABLE FOR MULCHING.

GENERAL STABILIZATION NOTES:
1. WORK LIME AND FERTILIZER INTO THE TOP SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRING TOOTH HARROW, OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OR DISCING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE UNTIL A REASONABLE UNIFORM FINE SEEDBED IS PREPARED. ALL BUT CLAY OR SILTY SOILS AND COARSE SANDS SHOULD BE ROLLED TO FIRM THE SEEDBED WHEREVER FEASIBLE.
2. REMOVE FROM THE SURFACE ALL STONES TWO INCHES OR LARGER IN ANY DIMENSION. REMOVE ALL OTHER DEBRIS, SUCH AS WIRE, CABLE, TREE ROOTS, PIECES OF CONCRETE, CLODS, LUMPS, OR OTHER UNSUITABLE MATERIAL. INSPECT SEEDBED JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE RETILED AND FIRMED AS ABOVE.
3. IF SEASON PREVENTS THE ESTABLISHMENT OF TEMPORARY OR PERMANENT SEEDING, EXPOSED AREA TO BE STABILIZED WITH MULCH AS SPECIFIED.

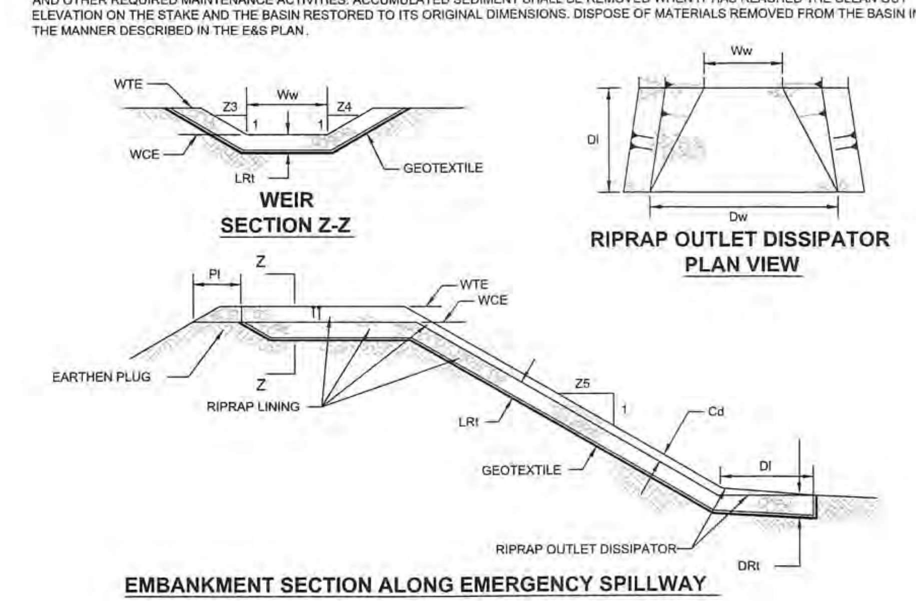
E&S BMP MAINTENANCE:

SILT SOCK SHALL BE MAINTAINED AS FOLLOWS:
1. THE SILT FENCE CONDITION WILL BE INSPECTED ONCE A WEEK OR AFTER EVERY STORM EVENT, WHICHEVER COMES FIRST. ANY NECESSARY REPAIRS WILL BE MADE IMMEDIATELY.
2. ACCUMULATED SEDIMENTS WILL BE REMOVED AS REQUIRED TO KEEP THE SEDIMENT CONTROL BARRIER FUNCTIONAL. IN ALL CASES DEPOSITS WILL BE REMOVED WHEN ACCUMULATIONS REACH 1/2 THE HEIGHT OF THE BARRIER.
3. ALL UNDERCUTTING OR EROSION OF THE BARRIER WILL BE REPAIRED IMMEDIATELY WITH COMPACTED BACKFILL MATERIALS.
4. ADHERE TO ANY MANUFACTURER'S RECOMMENDATIONS FOR REPLACING SEDIMENT CONTROL BARRIER DUE TO WEATHERING.

INLET PROTECTION SHALL BE MAINTAINED AS FOLLOWS:
1. THE INLET PROTECTION CONDITION WILL BE INSPECTED ONCE A WEEK OR AFTER EVERY STORM EVENT, WHICHEVER COMES FIRST. ANY NECESSARY REPAIRS WILL BE MADE IMMEDIATELY.
2. FILTER BAGS MUST BE CLEANED AND/OR REPLACED WHEN THE BAG IS HALF FULL OR WHEN FLOW CAPACITY HAS BEEN REDUCED SO AS TO CAUSE FLOODING OR BYPASSING OF THE INLET.
3. ADHERE TO ANY MANUFACTURER'S RECOMMENDATIONS FOR REPLACING SEDIMENT CONTROL BARRIER DUE TO WEATHERING.

CONSTRUCTION ENTRANCE SHALL BE MAINTAINED AS FOLLOWS:
1. THE CONSTRUCTION ENTRANCE WILL BE INSPECTED AT THE END OF EACH WORKDAY.
2. AT THE END OF EACH CONSTRUCTION DAY, ANY SEDIMENT DEPOSITED ON PUBLIC ROADWAYS, WILL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE. WASHING OF THE ROADWAY WITH WATER WILL NOT BE PERMITTED.

SEDIMENT BASIN SHALL BE MAINTAINED AS FOLLOWS:
1. INSPECT ALL SEDIMENT BASINS ON AT LEAST A WEEKLY BASIS AND AFTER EACH RUNOFF EVENT. PROVIDE ACCESS FOR SEDIMENT REMOVAL AND OTHER REQUIRED MAINTENANCE ACTIVITIES. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT HAS REACHED THE CLEAN OUT ELEVATION ON THE STAKE AND THE BASIN RESTORED TO ITS ORIGINAL DIMENSIONS. DISPOSE OF MATERIALS REMOVED FROM THE BASIN IN THE MANNER DESCRIBED IN THE E&S PLAN.



BASIN NO.	WEIR					LINING		CHANNEL		DISSIPATOR			
	Z3 (FT)	Z4 (FT)	TOP ELEV WTE (FT)	CREST ELEV WCE (FT)	WIDTH Ww (FT)	RIPRAP SIZE (R-_)	RIPRAP THICK. LRt (IN)	Z5 (FT)	DEPTH Cd (FT)	LENGTH Dl (FT)	WIDTH Dw (FT)	RIPRAP SIZE (R-_)	RIPRAP THICK. DRt (IN)
1	3	3	267.00	266.00	50	4	18	N/A	N/A	20	50	4	18

NOTES:

DIMENSION Pl SHALL BE 5' MINIMUM.
DISPLACED RIPRAP WITHIN THE SPILLWAY AND/OR OUTLET CHANNEL SHALL BE REPLACED IMMEDIATELY.

STANDARD CONSTRUCTION DETAIL #7-12
SEDIMENT BASIN EMERGENCY SPILLWAY
WITH RIPRAP LINING

NOT TO SCALE

STANDARD EROSION AND SEDIMENT CONTROL NOTES

1. 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 SHALL 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.
2. AT LEAST 7 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE 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 AN ON-SITE PRECONSTRUCTION MEETING.
3. 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.
4. ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE SEQUENCE PROVIDED ON THE PLAN DRAWINGS. DEVIATION FROM THAT SEQUENCE MUST BE APPROVED IN WRITING FROM THE LOCAL CONSERVATION DISTRICT OR BY THE DEPARTMENT PRIOR TO IMPLEMENTATION.
5. AREAS TO BE FILLED ARE TO BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS AND OTHER OBJECTIONABLE MATERIAL.
6. CLEARING, GRUBBING, AND TOPSOIL STRIPPING SHALL BE LIMITED TO THOSE AREAS DESCRIBED IN EACH STAGE OF THE CONSTRUCTION SEQUENCE. GENERAL SITE CLEARING, GRUBBING AND TOPSOIL STRIPPING MAY NOT COMMENCE IN ANY STAGE OR PHASE OF THE PROJECT UNTIL THE E&S BMPS SPECIFIED BY THE BMP SEQUENCE FOR THAT STAGE OR PHASE HAVE BEEN INSTALLED AND ARE FUNCTIONING AS DESCRIBED IN THIS E&S PLAN.
7. AT NO TIME SHALL CONSTRUCTION VEHICLES BE ALLOWED TO ENTER AREAS OUTSIDE THE LIMIT OF DISTURBANCE BOUNDARIES SHOWN ON THE PLAN MAPS. THESE AREAS MUST BE CLEARLY MARKED AND FENCED OFF BEFORE CLEARING AND GRUBBING OPERATIONS BEGIN.
8. TOPSOIL REQUIRED FOR THE ESTABLISHMENT OF VEGETATION SHALL BE STOCKPILED AT THE LOCATION(S) SHOWN ON THE PLAN MAPS(S) IN THE AMOUNT NECESSARY TO COMPLETE THE FINISH GRADING OF ALL EXPOSED AREAS THAT ARE TO BE STABILIZED BY VEGETATION. EACH STOCKPILE SHALL BE PROTECTED IN THE MANNER SHOWN ON THE PLAN DRAWINGS. STOCKPILE HEIGHTS SHALL NOT EXCEED 35 FEET. STOCKPILE SLOPES SHALL BE 2H:1V OR FLATTER.
9. 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 AND NOTIFY THE LOCAL CONSERVATION DISTRICT AND/OR THE REGIONAL OFFICE OF THE DEPARTMENT.
10. ALL BUILDING MATERIALS AND WASTES SHALL BE REMOVED FROM THE SITE AND RECYCLED OR DISPOSED OF IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET SEQ., 271.1, AND 287.1 ET. SEQ. NO BUILDING MATERIALS OR WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURNED, BURIED, DUMPED, OR DISCHARGED AT THE SITE.
11. ALL OFF-SITE WASTE AND BORROW AREAS MUST HAVE AN E&S PLAN APPROVED BY THE LOCAL CONSERVATION DISTRICT OR THE DEPARTMENT FULLY IMPLEMENTED PRIOR TO BEING ACTIVATED.
12. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ANY MATERIAL BROUGHT ON SITE IS CLEAN FILL. FORM FP-001 MUST BE RETAINED BY THE PROPERTY OWNER FOR ANY FILL MATERIAL AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE BUT QUALIFYING AS CLEAN FILL DUE TO ANALYTICAL TESTING.
13. ALL PUMPING OF WATER FROM ANY WORK AREA SHALL BE DONE ACCORDING TO THE PROCEDURE DESCRIBED IN THIS PLAN, OVER UNDISTURBED VEGETATED AREAS.
14. VEHICLES AND EQUIPMENT MAY ONLY ENTER THE SITE FROM THE CONSTRUCTION ENTRACNES DEPICTED ON THIS PLAN.
15. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENT BMPS SHALL BE MAINTAINED PROPERLY. MAINTENANCE SHALL INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENT BMPS AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING AND RENETTING MUST BE PERFORMED IMMEDIATELY. IF THE E&S BMPS FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPS, OR MODIFICATIONS OF THOSE INSTALLED WILL BE REQUIRED.
16. A LOG SHOWING DATES THAT E&S BMPS WERE INSPECTED AS WELL AS ANY DEFICIENCIES FOUND AND THE DATE THEY WERE CORRECTED SHALL BE MAINTAINED ON THE SITE AND BE MADE AVAILABLE TO REGULATORY AGENCY OFFICIALS AT THE TIME OF INSPECTION.
17. SEDIMENT TRACKED ONTO ANY PUBLIC ROADWAY OR SIDEWALK SHALL BE RETURNED TO THE CONSTRUCTION SITE BY THE END OF EACH WORK DAY AND DISPOSED IN THE MANNER DESCRIBED IN THIS PLAN. IN NO CASE SHALL THE SEDIMENT BE WASHED, SHOVELED, OR SWEPT INTO ANY ROADSIDE DITCH, STORM SEWER, OR SURFACE WATER.
18. ALL SEDIMENT REMOVED FROM BMPS SHALL BE DISPOSED OF IN THE MANNER DESCRIBED ON THE PLAN DRAWINGS.
19. AREAS WHICH ARE TO BE TOPSOILED SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 3 TO 5 INCHES - 6 TO 12 INCHES ON COMPACTED SOILS - PRIOR TO PLACEMENT OF TOPSOIL. AREAS TO BE VEGETATED SHALL HAVE A MINIMUM 4 INCHES OF TOPSOIL IN PLACE PRIOR TO SEEDING AND MULCHING. FILL OUTSLOPES SHALL HAVE A MINIMUM OF 2 INCHES OF TOPSOIL.
20. ALL FILLS SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS. FILL INTENDED TO SUPPORT BUILDINGS, STRUCTURES AND CONDUITS, ETC. SHALL BE COMPACTED IN ACCORDANCE WITH LOCAL REQUIREMENTS OR CODES.
21. ALL EARTHEN FILLS SHALL BE PLACED IN COMPACTED LAYERS NOT TO EXCEED 9 INCHES IN THICKNESS.
22. FILL MATERIALS SHALL BE FREE OF FROZEN PARTICLES, BRUSH, ROOTS, SOD, OR OTHER FOREIGN OR OBJECTIONABLE MATERIALS THAT WOULD INTERFERE WITH OR PREVENT CONSTRUCTION OF SATISFACTORY FILLS.
23. FROZEN MATERIALS OR SOFT, MUCKY, OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED INTO FILLS.
24. FILL SHALL NOT BE PLACED ON SATURATED OR FROZEN SURFACES.
25. SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE HANDLED IN ACCORDANCE WITH THE STANDARD AND SPECIFICATION FOR SUBSURFACE DRAIN OR OTHER APPROVED METHOD.
26. ALL GRADED AREAS SHALL BE PERMANENTLY STABILIZED IMMEDIATELY UPON REACHING FINISHED GRADE. CUT SLOPES IN COMPETENT BEDROCK AND ROCK FILLS NEED NOT BE VEGETATED. SEEDED AREAS WITHIN 50 FEET OF A SURFACE WATER, OR AS OTHERWISE SHOWN ON THE PLAN DRAWINGS, SHALL BE BLANKETED ACCORDING TO THE STANDARDS OF THIS PLAN.
27. IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE IN ANY AREA OR SUBAREA OF THE PROJECT, THE OPERATOR SHALL STABILIZE ALL DISTURBED AREAS. DURING NON-GERMINATING MONTHS, MULCH OR PROTECTIVE BLANKETING SHALL BE APPLIED AS DESCRIBED IN THE PLAN. AREAS NOT AT FINISHED GRADE, WHICH WILL BE REACTIVATED WITHIN 1 YEAR, MAY BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY STABILIZATION SPECIFICATIONS. THOSE AREAS WHICH WILL NOT BE REACTIVATED WITHIN 1 YEAR SHALL BE STABILIZED IN ACCORDANCE WITH THE PERMANENT STABILIZATION SPECIFICATIONS.
28. PERMANENT STABILIZATION IS DEFINED AS A MINIMUM UNIFORM, PERENNIAL 70% VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED EROSION. CUT AND FILL SLOPES SHALL BE CAPABLE OF RESISTING FAILURE DUE TO SLUMPING, SLIDING, OR OTHER MOVEMENTS.
29. EROSION AND SEDIMENT CONTROL 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 DEPARTMENT.
30. 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 THE E&S BMPS.
31. AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENT BMPS MUST BE REMOVED OR CONVERTED TO PERMANENT POST CONSTRUCTION STORMWATER MANAGEMENT BMPS. AREAS DISTURBED DURING REMOVAL OR CONVERSION OF THE BMPS SHALL BE STABILIZED IMMEDIATELY. IN ORDER TO ENSURE RAPID REVEGETATION OF DISTURBED AREAS, SUCH REMOVAL/CONVERSIONS ARE TO BE DONE ONLY DURING THE GERMINATING SEASON.
32. 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.
33. FAILURE TO CORRECTLY INSTALL E ROSION AND SEDIMENT BMPS, FAILURE TO PREVENT SEDIMENT-LADEN RUNOFF FROM LEAVING THE CONSTRUCTION SITE, OR FAILURE TO TAKE IMMEDIATE CORRECTIVE ACTION TO RESOLVE FAILURE OF EROSION AND SEDIMENT BMPS MAY RESULT IN ADMINISTRATIVE, CIVIL, AND/OR CRIMINAL PENALTIES BEING INSTITUTED BY THE DEPARTMENT AS DEFINED IN SECTION 602 OF THE PENNSYLVANIA CLEAN STREAMS LAW. THE CLEAN STREAMS LAW PROVIDES FOR UP TO $10,000 PER DAY IN CIVIL PENALTIES, UP TO $10,000 IN SUMMARY CRIMINAL PENALTIES, AND UP TO $25,000 IN MISDEMEANOR CRIMINAL PENALTIES FOR EACH VIOLATION.

SOURCE: EROSION AND SEDIMENT POLLUTION CONTROL PROGRAM MANUAL , 363-2134-008, APPENDIX C - STANDARD E&S PLAN NOTES, MARCH 31, 2012

MONITORING, INSPECTION AND REPORTING REQUIREMENTS:

VISUAL INSPECTIONS

THE PERMITTEE AND CO_PERMITTEE(S) MUST ENSURE THAT VISUAL SITE INSPECTIONS ARE CONDUCTED WEEKLY, AND WITHIN 24 HOURS AFTER EACH MEASURABLE RAINFALL EVENT THROUGHOUT THE DURATION OF CONSTRUCTION AND UNTIL THE RECEIPT AND ACKNOWLEDGEMENT OF THE NOT BY THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT. THE VISUAL SITE INSPECTIONS AND REPORTS SHALL BE COMPLETED IN A FORMAT PROVIDED BY THE DEPARTMENT, AND CONDUCTED BY QUALIFIED PERSONNEL, TRAINED AND EXPERIENCED IN EROSION AND SEDIMENT CONTROL, TO ASCERTAIN THAT E&S BMPS AND PCSM BMPS ARE PROPERLY CONSTRUCTED AND MAINTAINED TO EFFECTIVELY MINIMIZE POLLUTION TO THE WATERS OF THIS COMMONWEALTH. A WRITTEN REPORT OF EACH INSPECTION SHALL BE KEPT AND INCLUDE AT A MINIMUM:

(1) A SUMMARY OF SITE CONDITIONS, E&S BMP AND PCSM BMP, IMPLEMENTATION AND MAINTENANCE AND COMPLIANCE ACTIONS; AND

(2) THE DATE, TIME, NAME AND SIGNATURE OF THE PERSON CONDUCTING THE INSPECTION.

NONCOMPLIANCE REPORTING

WHERE E&S, PCSM OR PPC BMPS ARE FOUND TO BE INOPERATIVE OR INEFFECTIVE DURING AN INSPECTION, OR ANY OTHER TIME, THE PERMITTEE AND CO_PERMITTEE(S) SHALL, WITHIN 24 HOURS, CONTACT THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT, BY PHONE OR PERSONAL CONTACT, FOLLOWED BY THE SUBMISSION OF A WRITTEN REPORT WITHIN 5 DAYS OF THE INITIAL CONTACT. NONCOMPLIANCE REPORTS SHALL INCLUDE THE FOLLOWING INFORMATION:

(1) ANY CONDITION ON THE PROJECT SITE WHICH MAY ENDANGER PUBLIC HEALTH, SAFETY, OR THE ENVIRONMENT, OR INVOLVE INCIDENTS WHICH CAUSE OR THREATEN POLLUTION;

(2) THE PERIOD OF NONCOMPLIANCE, INCLUDING EXACT DATES AND TIMES AND/OR ANTICIPATED TIME WHEN THE ACTIVITY WILL RETURN TO COMPLIANCE;

(3) STEPS BEING TAKEN TO REDUCE, ELIMINATE, AND PREVENT RECURRENCE OF THE NONCOMPLIANCE; AND

(4) THE DATE OR SCHEDULE OF DATES, AND IDENTIFYING REMEDIES FOR CORRECTING NONCOMPLIANCE CONDITIONS.

REDUCTION, LOSS, OR FAILURE OF THE BMPS

UPON REDUCTION, LOSS, OR FAILURE OF THE BMPS, THE PERMITTEE AND CO_PERMITTEE SHALL TAKE IMMEDIATE ACTION TO RESTORE THE BMPS OR PROVIDE AN ALTERNATIVE METHOD OF TREATMENT. SUCH RESTORED BMPS OR ALTERNATIVE TREATMENT SHALL BE AT LEAST AS EFFECTIVE AS THE ORIGINAL BMPS.

TERMINATION OF COVERAGE

NOT: UPON PERMANENT STABILIZATION OF EARTH DISTURBANCE ACTIVITIES ASSOCIATED WITH CONSTRUCTION ACTIVITY THAT ARE AUTHORIZED BY THIS PERMIT AND WHEN BMPS IDENTIFIED IN THE PCSM PLAN HAVE BEEN PROPERLY INSTALLED, THE PERMITTEE AND/OR CO_PERMITTEE OF THE FACILITY MUST SUBMIT A NOT FORM THAT IS SIGNED IN ACCORDANCE WITH PART B, SECTION 1.C, SIGNATORY REQUIREMENTS, OF THIS PERMIT. ALL LETTERS CERTIFYING DISCHARGE TERMINATION ARE TO BE SENT TO THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT. THE NOT MUST CONTAIN THE FOLLOWING INFORMATION: FACILITY NAME, ADDRESS, AND LOCATION, OPERATOR NAME AND ADDRESS, PERMIT NUMBER, IDENTIFICATION AND PROOF OF ACKNOWLEDGMENT FROM THE PERSON(S) WHO WILL BE RESPONSIBLE FOR OPERATION AND MAINTENANCE OF THE PCSM BMPS IN ACCORDANCE WITH THE APPROVED PCSM PLAN, AND THE REASON FOR PERMIT TERMINATION. UNTIL THE PERMITTEE HAS RECEIVED WRITTEN ACKNOWLEDGEMENT OF THE NOT, THE PERMITTEE WILL REMAIN RESPONSIBLE FOR OPERATING AND MAINTAINING ALL E&S BMPS AND PCSM BMPS ON THE PROJECT SITE AND WILL BE RESPONSIBLE FOR VIOLATIONS OCCURRING ON THE PROJECT SITE.

COMPLETION CERTIFICATE AND FINAL PLANS

WITHIN 30 DAYS AFTER THE COMPLETION OF EARTH DISTURBANCE ACTIVITIES AUTHORIZED BY THIS PERMIT, INCLUDING THE PERMANENT STABILIZATION OF THE SITE AND PROPER INSTALLATION OF PCSM BMPS IN ACCORDANCE WITH THE APPROVED PCSM PLAN, OR UPON SUBMISSION OF THE NOT IF SOONER, THE PERMITTEE SHALL FILE WITH THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT A STATEMENT SIGNED BY A LICENSED PROFESSIONAL AND BY THE PERMITTEE CERTIFYING THAT WORK HAS BEEN PERFORMED IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THIS PERMIT AND THE APPROVED E&S AND PCSM PLANS.

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REV	DATE	DRAWN BY	DESCRIPTION
1	09/11/15	CJR	REVISED PER MCCD REVIEW
2	10/09/15	EXTON	FINAL PLAN SUBMISSION
3	11/30/15	EXTON	REVISED PER FINAL PLAN REVIEW

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL RUSSELL T. McFALL II ENGINEER NO. PE060408

RUSSELL T. McFALL II
PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER - LICENSE NUMBER: PE60408

FINAL LAND DEVELOPMENT PLANS
FOR
MADISON DEVELOPMENT GROUP, INC.

DEKALB PIKE AT SKIPPACK PIKE

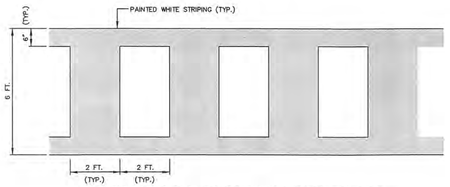
WHITPAIN TOWNSHIP
MONTGOMERY COUNTY
PENNSYLVANIA

EXTON OFFICE
410 Eagleview Boulevard
Suite 104
Exton, PA 19341
Phone: 610.254.9140
Fax: 610.254.9141
email: solutions@maserconsulting.com

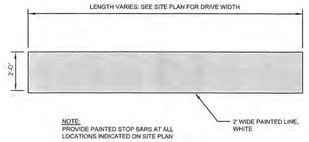
SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	06/10/15	DIII	RTM
PROJECT NUMBER: 12000830A	DRAWING NAME: C-DTLS		

SHEET TITLE: EROSION CONTROL - NOTES AND DETAILS

12000830A\Engineering\C-DTLS.dwg\C19-E&S-DETAILS (2) By: JDUMKE



PAINTED CROSS WALK DETAIL
NTS



NOTE:
PROVIDE PAINTED STOP BARS AT ALL LOCATIONS INDICATED ON SITE PLAN

STOP BAR DETAIL
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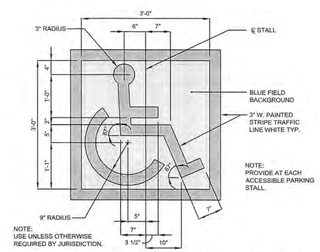

ACCESSIBLE PARKING SYMBOL
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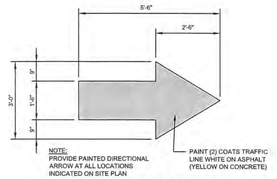

DIRECTION ARROW PAINT DETAIL
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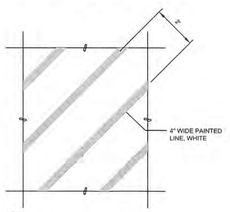

PAINTED STRIPE DETAIL
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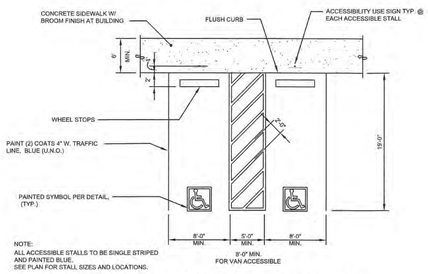

HANDICAP PARKING STALLS
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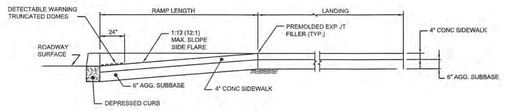
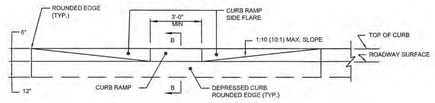
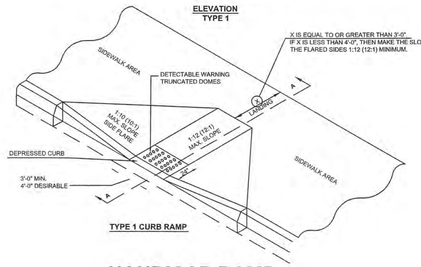


SECTION A-A
TYPE 1

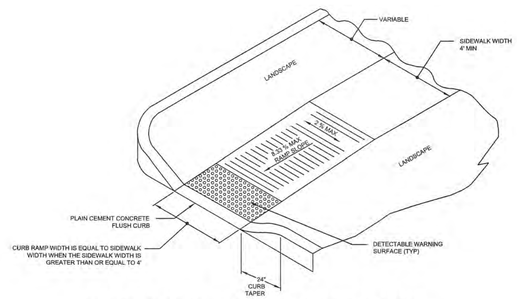


ELEVATION
TYPE 1



TYPE 1 CURB RAMP

HANDICAP RAMP PENNDOT TYPE 1
NTS



ALTERNATE TYPE 4A CURB RAMP (PARALLEL)
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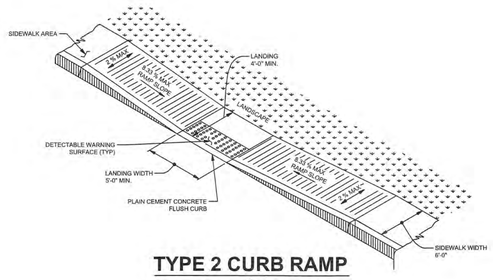

TYPE 2 CURB RAMP
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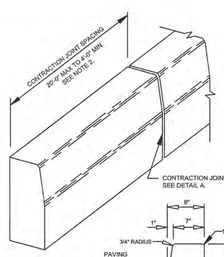
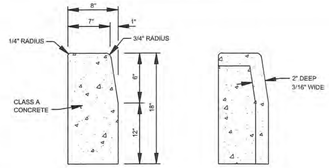
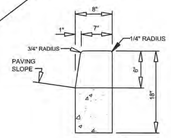




TYPICAL 6" REVEAL
CROSS SECTION

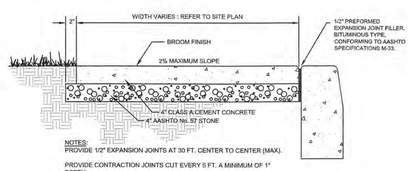
DETAIL A
CONTRACTION JOINT



FLUSH CURB (6")

NOTES:
1. PROVIDE MATERIALS AND CONSTRUCTION MEETING THE REQUIREMENTS OF PENNDOT PUBLICATION 408/2003, SECTION 630.
2. SPACE CONTRACTION JOINTS IN UNIFORM LENGTHS OR SECTIONS.
3. PLACE 3/4" THICK PREMOLDED EXPANSION JOINT FILLER MATERIA AT STRUCTURES AND AT THE END OF THE WORK DAY. CUT MATERIAL TO CONFORM TO AREA ADJACENT TO CURB OR TO CONFORM TO CROSS SECTIONAL AREA OF CURB.
4. "TYPE HAND FORM" CURB EXPANSION JOINTS SHALL BE PLACED EVERY 30 FT., AT STRUCTURES, AND AT THE END OF A DAYS WORK. FOR CONCRETE CURB FORMED BY 'MACHINE SLIP FORM' THE CONTRACTION JOINTS SHALL BE SAW CUT EVERY 10 FT. A MIN. OF 2" IN DEPTH. EXPANSION JOINTS SHALL BE EVERY 60 FT., AT ALL STRUCTURES, AND AT THE END OF A DAYS WORK.
5. PROVIDE A 4" STONE BEDDING OF AASHTO #57 STONE.
6. ALL CONCRETE SHALL HAVE A 28 DAY COMPRESSIVE STRENGTH OF 4000 PSI WITH 6% AIR-ENTRAINMENT

CAST-IN-PLACE CONCRETE CURB
N.T.S.



NOTES:
PROVIDE 1/2" EXPANSION JOINTS AT 30 FT. CENTER TO CENTER (MAX).

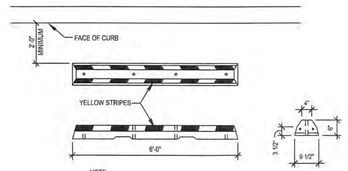
PROVIDE CONTRACTION JOINTS CUT EVERY 5 FT. A MINIMUM OF 1" DEPTH.

ALL SIDEWALKS SHALL RECEIVE A BROOM FINISH UNLESS APPROVED OTHERWISE BY THE TOWNSHIP.

ALL CONCRETE SHALL HAVE A 28 DAY COMPRESSIVE STRENGTH OF 4,000 PSI WITH A 6% AIR-ENTRAINMENT.

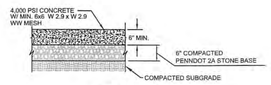
ALL CONCRETE WALKWAYS ARE TO BE CONSTRUCTED PER LATEST ADA REQUIREMENTS.

CONCRETE SIDEWALK DETAIL
N.T.S.

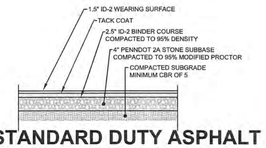


NOTE:
1. CENTER IN WIDTH OF PARK STALL
2. MATERIAL: COMPRESSION MOLDED COMPOSITE: 100% RECYCLED RUBBER AND POLYURETHANE PREPOLYMER

WHEEL STOP
N.T.S.



CONCRETE PAVEMENT SECTION
N.T.S.



STANDARD DUTY ASPHALT PAVEMENT SECTION
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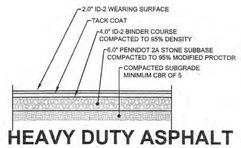

HEAVY DUTY ASPHALT PAVEMENT SECTION
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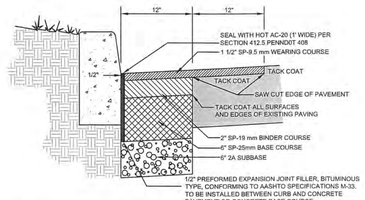
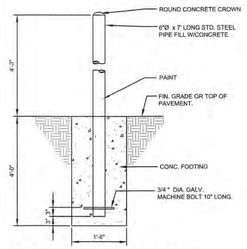


PAVEMENT RESTORATION DETAIL
N.T.S.



BOLLARD DETAIL
GATE POST DETAIL
N.T.S.

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1	09/11/15	CJB	REVISED PER MCCD REVIEW
2	10/09/15	EXTON	FINAL PLAN SUBMISSION
3	11/09/15	EXTON	REVISED PER FINAL PLAN REVIEW

RUSSELL T. McFALL II
PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER - LICENSE NUMBER: PE60408

FINAL LAND DEVELOPMENT PLANS

FOR

MADISON DEVELOPMENT GROUP, INC.

DEKALB PIKE AT SKIPPACK PIKE

WHITPAIN TOWNSHIP
MONTGOMERY COUNTY
PENNSYLVANIA

EXTON OFFICE
410 Eagleview Boulevard
Suite 104
Exton, PA 19341
Phone: 610.254.9140
Fax: 610.254.9141
email: solutions@maserconsulting.com

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	06/10/15	DIII	RTM

PROJECT NUMBER: 12000830A
DRAWING NAME: C-DTLS

SHEET TITLE:
GENERAL SITE DETAILS

SHEET NUMBER:
20 of 38

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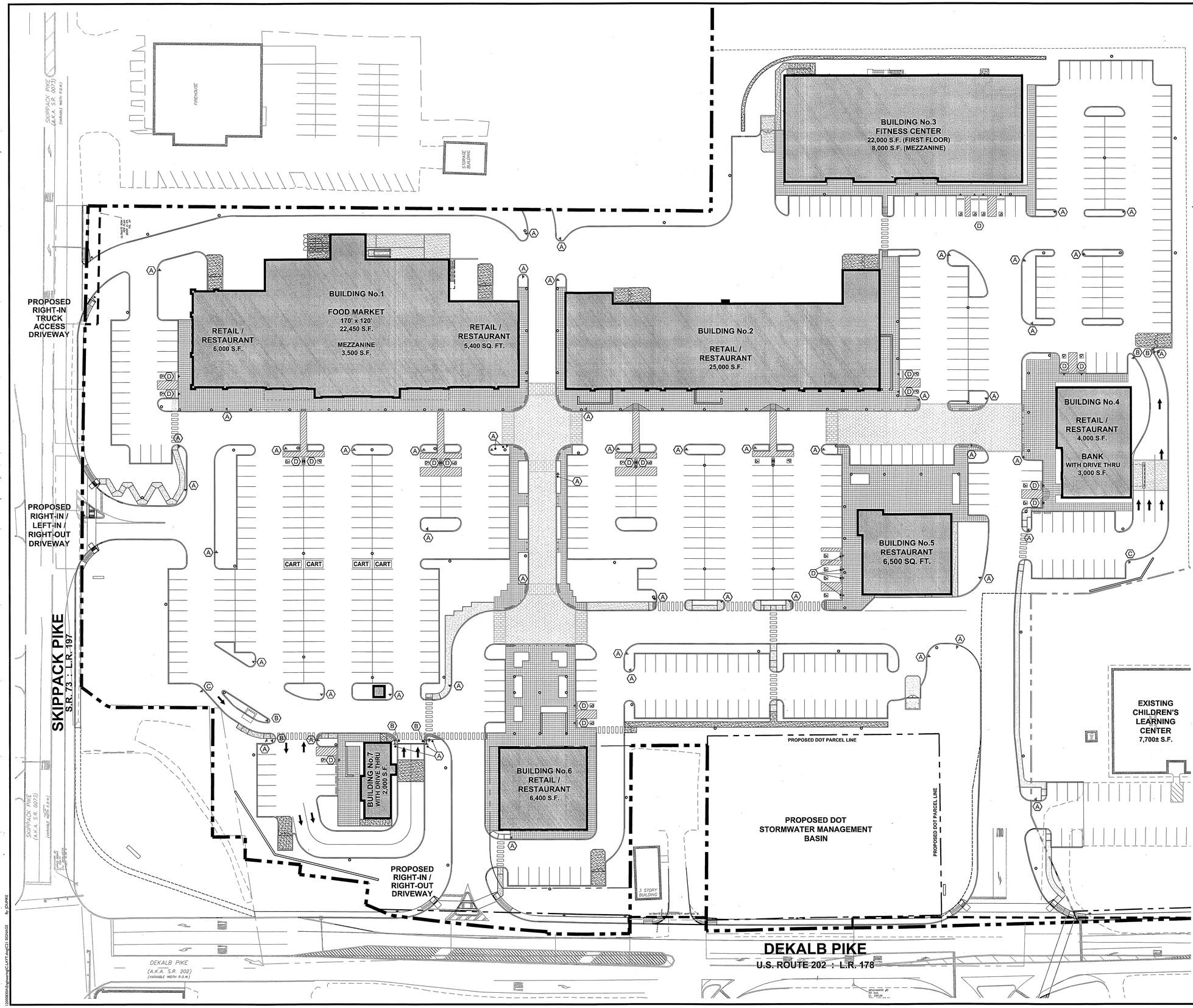
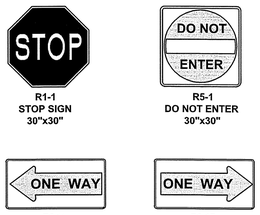
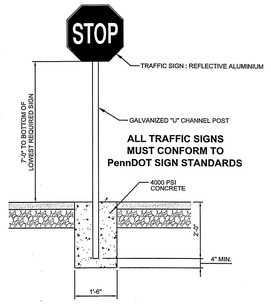




NOTE: ALL TRAFFIC SIGNAGE SHALL CONFORM TO MUTCD STANDARDS AND PennDOT SIGN STANDARDS

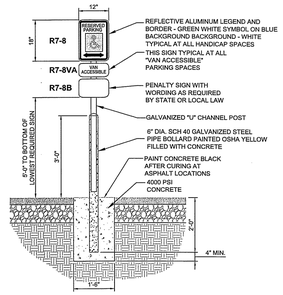
TRAFFIC CONTROL SIGNS

N.T.S.



TRAFFIC SIGN MOUNTING DETAIL

N.T.S.



ONE AT EACH HANDICAP SPACE.
WHERE HANDICAP SPACES FACE EACH OTHER WITHOUT WALKWAY, THERE SHALL BE ONE POST WITH SIGNS MOUNTED BOTH SIDES

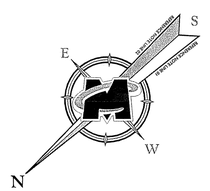
ALL HANDICAP SIGNS MUST CONFORM TO PennDOT SIGN STANDARDS

HANDICAP SIGN DETAIL

N.T.S.

SIGNAGE PLAN LEGEND

- (A) PROPOSED STOP SIGN (R1-1)
- (B) PROPOSED DO NOT ENTER SIGN (R5-1)
- (C) PROPOSED ONE WAY SIGN (R6-1L) OR (R6-1R)
- (D) PROPOSED HANDICAP SIGN (R7-8) OR (R7-8 VA)



40 32 24 16 8 0 20 40 80

SCALE : 1" = 40'

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COMMONWEALTH OF PENNSYLVANIA
RUSSELL T. McFALL II
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PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER - LICENSE NUMBER - PE60408

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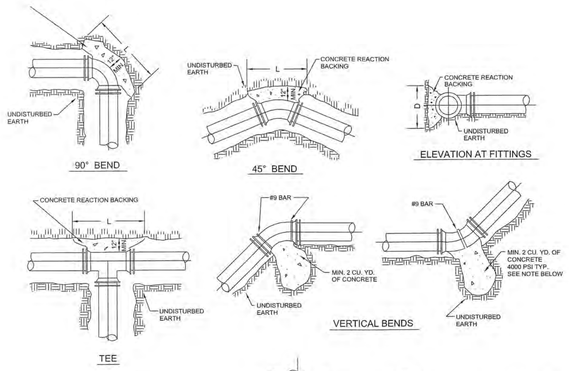
PROJECT NUMBER: 12000830A
DRAWING NAME: C-LAYT

SHEET TITLE: TRAFFIC SIGNAGE

SHEET NUMBER: 21 of 38

12000830A\Engineering\C-LAYT.dwg(21 SIGNAGE by JBURKE

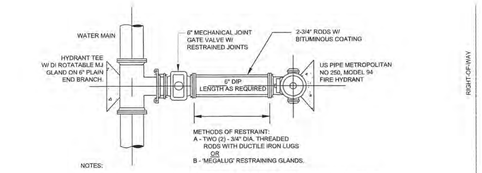


NOTES:
1. SPECIFIED DIMENSIONS OF CONCRETE THRUST BLOCKS ARE BASED ON ALLOWABLE SOIL BEARING OF 4000 PSI.
2. THRUST BLOCKS ARE NOT SHOWN ON PLAN AND PROFILE DRAWINGS. HOWEVER, ALL FITTINGS OF THE SIZE INDICATED REQUIRE BLOCKING IN ACCORDANCE WITH THESE DETAILS.
3. ALL CONCRETE WILL HAVE A 28 DAY COMPRESSIVE STRENGTH OF 4000 PSI WITH 6% AIR-ENTRAINMENT AND WILL BE PLACED AGAINST UNDISTURBED EARTH AND CLEAR OF FITTING JOINTS AND BOLTS.
4. ALL FITTINGS AND VALVES WILL BE INSTALLED WITH POLYETHYLENE ENCASEMENT AND PROPERLY TIED TO PROVIDE PROTECTION TO BOLTS AND NUTS FROM CONCRETE.

CONCRETE REACTION BACKING SCHEDULE

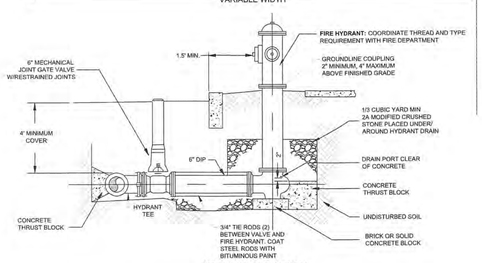
PIPE	TEES, CAPS & PLUGS		11-1/4° BEND 22-1/2°BEND		45 BEND		90 BEND	
SIZE	L	D	L	D	L	D	L	D
6"	3'-0"	12"	18"	12"	2'-3"	12"	4'-3"	12"
8"	3'-6"	18"	18"	18"	2'-9"	18"	4'-9"	18"
10"	4'-0"	2'-0"	2'-0"	1'-6"	3'-0"	2'-0"	5'-0"	2'-0"
12"	4'-9"	2'-6"	2'-0"	2'-6"	3'-3"	2'-6"	6'-0"	2'-6"

THRUST BLOCK DETAILS
N.T.S.



NOTES:
1. THE MINIMUM DEPTH OF HYDRANT BURY SHALL BE 5 FEET, FROM FINISHED GRADE AT HYDRANT BARREL TO BOTTOM OF BASE.
2. GENERAL LOCATION OF THE HYDRANT ASSEMBLY IS AS SHOWN ON THE CONTRACT DRAWINGS. EXACT LOCATION OF HYDRANT ASSEMBLY SHALL BE DETERMINED BY THE ENGINEER AT THE TIME OF CONSTRUCTION. FOR BIDDING PURPOSES, MAXIMUM DISTANCE BETWEEN WATER MAIN AND FIRE HYDRANT IS TO BE 15 FEET.

HYDRANT PLAN VIEW



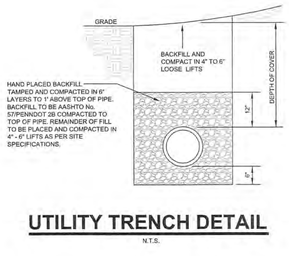
HYDRANT ELEVATION

NOTES:
1. THE MINIMUM DEPTH OF HYDRANT BURY SHALL BE 5 FEET, FROM FINISHED GRADE AT HYDRANT BARREL TO BOTTOM OF BASE.
2. GENERAL LOCATION OF THE HYDRANT ASSEMBLY IS AS SHOWN ON THE CONTRACT DRAWINGS. EXACT LOCATION OF HYDRANT ASSEMBLY SHALL BE DETERMINED BY THE ENGINEER AT THE TIME OF CONSTRUCTION. FOR BIDDING PURPOSES, MAXIMUM DISTANCE BETWEEN WATER MAIN AND FIRE HYDRANT IS TO BE 15 FEET.
3. HYDRANTS MUST HAVE PENTAGON NUT ON OPERATING STEM AND ALL CAPS.
4. HYDRANTS MUST OPEN IN A COUNTER CLOCKWISE (LEFT) DIRECTION
5. HYDRANTS MUST HAVE (2) HOSE AND (1) PUMP NOZZLES. THREADS MUST BE 2.5" NH (NATIONAL STANDARD) FOR HOSE CONNECTIONS. THREADS MUST BE 4.5" NH (NATIONAL STANDARD) FOR PUMPER CONNECTION.
6. ALL PRIVATELY OWNED AND MAINTAINED FIRE HYDRANTS SHALL HAVE BODY AND CAPS PAINTED YELLOW. ALL BONNETS (DOMES) SHALL BE PAINTED TO MEET THE FOLLOWING COLOR SCHEME:
   * 4" AND 6" WATER MAINS SHALL HAVE "RED" BONNETS (DOMES)
   * 8", 10" AND 12" WATER MAINS SHALL HAVE "GREEN" BONNETS (DOMES)
   * 16" AND LARGER WATER MAINS SHALL HAVE "BLUE" BONNETS (DOMES)

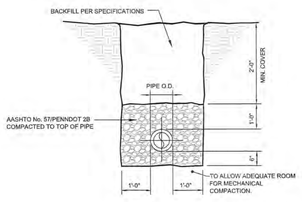
TYPICAL FIRE HYDRANT PIPING AND RESTRAINT DETAIL
N.T.S.

UTILITY INSTALLATION AND TRENCH EXCAVATION GUIDELINES

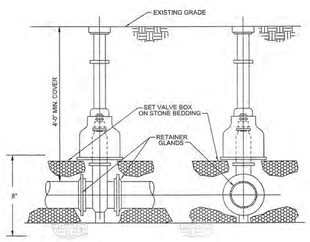
1. CONSTRUCTION REQUIREMENTS
   A. LIMIT ADVANCE CLEARING AND GRUBBING OPERATIONS TO A DISTANCE EQUAL TO TWO TIMES THE LENGTH OF PIPE INSTALLATION THAT CAN BE COMPLETED IN ONE DAY.
   B. WORK CREWS AND EQUIPMENT FOR TRENCHING, PLACEMENT OF PIPE, PLUG CONSTRUCTION AND BACKFILLING WILL BE SELF CONTAINED AND SEPARATE FROM CLEARING AND GRUBBING AND SITE RESTORATION AND STABILIZATION OPERATIONS.
   C. LIMIT DAILY TRENCH EXCAVATION TO THE LENGTH OF PIPE PLACEMENT, PLUG INSTALLATION AND BACKFILLING THAT CAN BE COMPLETED THE SAME DAY.
   D. WATER THAT ACCUMULATES IN THE OPEN TRENCH WILL BE COMPLETELY REMOVED BY PUMPING, AS REQUIRED, TO A FACILITY FOR REMOVAL OF SEDIMENT IN ACCORDANCE WITH "PADEP" GUIDELINES.
   E. ON THE DAY FOLLOWING PIPE PLACEMENT AND TRENCH BACKFILLING, THE DISTURBED AREA WILL BE GRADED TO BE FINAL CONTOURS AND APPROPRIATE TEMPORARY EROSION AND SEDIMENT POLLUTION CONTROL MEASURES/FACILITIES WILL BE INSTALLED. SEEDING AND MULCHING OF ALL DISTURBED AREAS WILL BE DONE AT THE END OF EACH WEEK.
2. BACKFILLING: AFTER THE PIPE AND ITS APPURTENANCES HAVE BEEN SATISFACTORILY INSTALLED AND COVERED, THE TRENCH SHALL BE BACKFILLED IN SIX (6) INCH LAYERS AND IN SUCH A MANNER AS NOT TO DISTURB THE PIPE. HOWEVER, 8-INCH LAYERS WILL BE PERMITTED WHEN USING VIBRATORY COMPACTION EQUIPMENT PROVIDED BACKFILL MATERIAL IS SUITABLE FOR COMPACTION TESTING. EACH LAYER OF BACKFILL SHALL BE THOROUGHLY COMPACTED WITH MECHANICAL TAMPERS OR BY OTHER ACCEPTABLE METHODS, FOR THE FULL TRENCH WIDTH. THE BACKFILL SHALL BE COMPACTED TO NOT LESS THAN 95% OF THE DETERMINED DRY WEIGHT DENSITY OF THE BACKFILL MATERIAL.
3. EXCEPTIONS: IN CERTAIN CASES TRENCHES CAN NOT BE BACKFILLED UNTIL THE PIPE IS HYDROSTATICALLY TESTED, OR ANCHORS AND OTHER PERMANENT FEATURES ARE INSTALLED. IN THESE CASES, ALL OF THE REQUIREMENTS LISTED UNDER ITEM 1. (CONSTRUCTION REQUIREMENTS) WILL REMAIN IN EFFECT WITH THE FOLLOWING EXCEPTIONS:
   A. DAILY BACKFILLING OF THE TRENCH MAY BE DELAYED FOR SIX DAYS. ALL PRESSURE TESTING AND THE COMPLETE BACKFILLING OF THE SIX (6) INCH LAYERS MUST BE COMPLETED BY THE SEVENTH WORKING DAY.
   B. IF DAILY BACKFILLING IS DELAYED, THE DISTURBED AREA WILL BE GRADED TO FINAL CONTOURS, APPROPRIATE TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES OR FACILITIES WILL BE INSTALLED, AND THE AREAS SEEDED AND MULCHED WITHIN THE NEXT TWO CALENDAR DAYS.
   C. SIDES OF TRENCHES SHALL BE KEPT AS NEARLY VERTICAL AS POSSIBLE, AND THE TRENCHES SHALL BE EXCAVATED TRUE TO THE LINE SO THAT A CLEAR SPACE EIGHT (8") INCHES IN WIDTH IS PROVIDED ON EACH SIDE OF THE BARREL OF THE PIPE TO A HEIGHT OF LESS THAN ONE (1) FOOT ABOVE THE TOP OF THE PIPE. IF SHEETING IS REQUIRED AT THE LEVEL OF THE PIPE, THE DIMENSIONS IN THE FOREGOING SENTENCE SHALL BE APPLICABLE TO THE INSIDE FACES OF THE SHEETING.
   D. THE MUNICIPALITY SHALL HAVE THE RIGHT TO LIMIT THE AMOUNT OF TRENCH OPENED IN ADVANCE OF PIPE LAYING AND THE AMOUNT OF PIPE LAID IN ADVANCE OF BACKFILLING, BUT IN NO CASE SHALL MORE THAN FOUR HUNDRED (400) FEET OF TRENCH BE OPENED AT ANY ONE PLACE IN ADVANCE OF THE COMPLETED PIPE. THE TRENCH SHALL NOT BE OPENED FOR A DISTANCE OF MORE THAN FIVE HUNDRED (500) FEET AT ANY ONE TIME.
   E. NO TRENCH WITHIN A PUBLIC STREET SHALL BE LEFT UNCOVERED AT THE CLOSE OF THE WORK DAY. NO OTHER TRENCH SHALL BE LEFT UNCOVERED FOR MORE THAN FIVE CONSECUTIVE WORKING DAYS. STEEL PLATES OF ADEQUATE STRENGTH MAY BE USED TO COVER OPENINGS WITH THE PRIOR APPROVAL OF THE MUNICIPAL ENGINEER.
   F. PRIOR TO PERFORMING ANY BLASTING, THE CONTRACTOR MUST OBTAIN ALL NECESSARY LICENSES AND PERMITS. PROTECTIVE MEASURES MUST BE USED TO INSURE SAFETY TO ADJACENT PROPERTY.
   G. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR INJURY TO PERSONS OR PROPERTY THAT MAY RESULT FROM THE USE OF EXPLOSIVES. ALL BLASTING SHALL BE PERFORMED UNDER THE SUPERVISION OF A LICENSED BLASTER, AND SHALL BE SUBJECT TO STATE, COUNTY AND LOCAL REGULATIONS.
   H. WHEN PIPE IS TO BE INSTALLED IN FILL, THE EMBANKMENT SHALL BE CONSTRUCTED TO AT LEAST ONE (1) FOOT ABOVE THE PROPOSED TOP OF THE PIPE. THE EMBANKMENT SHALL THEN BE EXCAVATED TO THE PROPER FORM AND GRADE, AND PIPE INSTALLED. THE EMBANKMENT SHALL THEN BE CONSTRUCTED TO NOT LESS THAN THREE AND ONE HALF (3 ½) FEET ABOVE THE TOP OF THE PIPE.



UTILITY TRENCH DETAIL
N.T.S.

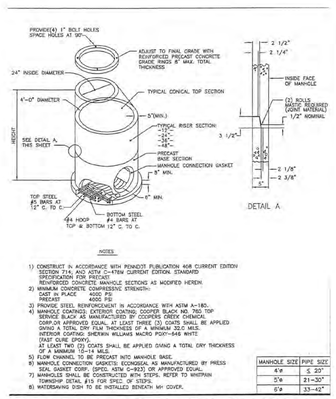


TRENCH DETAIL FOR PVC PIPE
N.T.S.



NOTES:
1. RETAINER GLANDS REQUIRED ON ALL MECHANICAL JOINT FITTINGS.
2. VALVE BOX SHALL BE 2 PIECE SCREW TYPE.

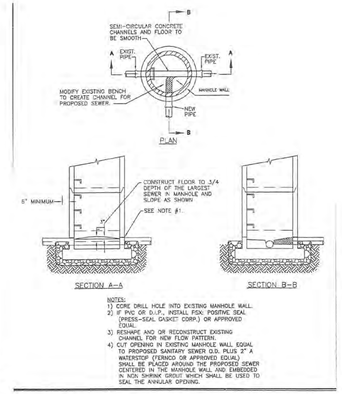
GATE VALVE INSTALLATION
N.T.S.



NOTES
1) CONSTRUCT IN ACCORDANCE WITH PENNDOT PUBLICATION 408 CURRENT EDITION SECTION 714, AND ASTM C-478M CURRENT EDITION STANDARD SPECIFICATION FOR PRECAST REINFORCED CONCRETE MANHOLE SECTIONS AS MODIFIED HEREIN.
2) MINIMUM CONCRETE COMPRESSIVE STRENGTH:
   CAST-IN-PLACE 4000 PSI
   PRECAST 4000 PSI
3) PROVIDE STEEL REINFORCEMENT IN ACCORDANCE WITH ASTM A-185.
4) MANHOLE CONTROL EXTERIOR COATING: COOPER BLACK MD. 750 TOP SERVICE BLACK AS MANUFACTURED BY COOPERS CREEK CHEMICAL CORP.(A APPROVED EQUAL, AT LEAST THREE (3) COATS SHALL BE APPLIED FOR A TOTAL DRY FILM THICKNESS OF A MINIMUM 32.0 MILS. INTERIOR COATING: SIKAGARD WILLIAMS MACRO POXY-646 WHITE (TAST CURE EPOXY).
   AT LEAST TWO (2) COATS SHALL BE APPLIED USING A TOTAL DRY THICKNESS OF A MINIMUM 10-14 MILS.
5) FLOW CHANNEL TO BE PRECAST INTO MANHOLE BASE.
6) MANHOLE STEPS: M.A. INDUSTRIES PS2-PF AS MANUFACTURED BY PRESS SEAL GASKET CORP., (SPEC. NEW C-923) OR APPROVED EQUAL.
7) MANHOLES SHALL BE CONSTRUCTED WITH STEPS. REFER TO WHITPAIN TOWNSHIP DETAIL #10 FOR SPEC. OF STEPS.
8) WATERSAVING DISH TO BE INSTALLED BENEATH MH COVER.

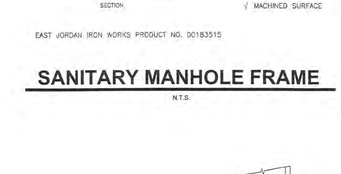
MANHOLE SIZE	PIPE SIZE
4'-0"	≤ 27"
5'-0"	21"-30"
6'-0"	33"-42"

PRECAST SANITARY MANHOLE
N.T.S.



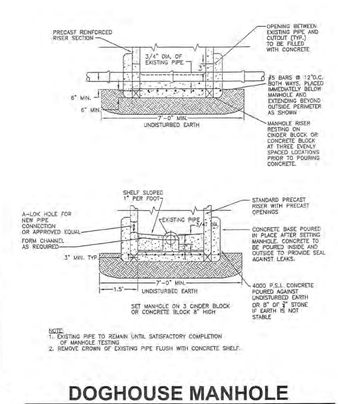
NOTES:
1) CORE DRILL HOLE INTO EXISTING MANHOLE WALL.
2) IF PVC OR D.I.P., INSTALL PSX POSITIVE SEAL (PRESS-SEAL GASKET CORP.) OR APPROVED EQUAL.
3) RESHAPE AND OR RECONSTRUCT EXISTING CHANNEL FOR NEW FLOW PATTERN.
4) CUT OPENING IN EXISTING MANHOLE WALL EQUAL TO PROPOSED SANITARY SEWER O.D. PLUS 2" A WATERSTOP (PERMCO OR APPROVED EQUAL) SHALL BE PLACED AROUND PROPOSED SEWER CENTERED IN THE MANHOLE WALL AND EMBEDDED IN NON SHRINK GROUT WHICH SHALL BE USED TO SEAL THE ANNULAR OPENING.

CONNECTION TO EXISTING MANHOLE
N.T.S.



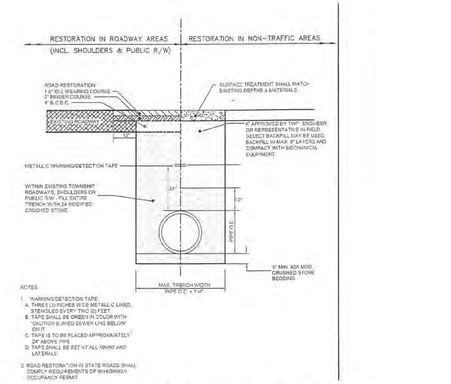
EAST JORDAN IRON WORKS PRODUCT NO. 00183515

SANITARY MANHOLE FRAME
N.T.S.



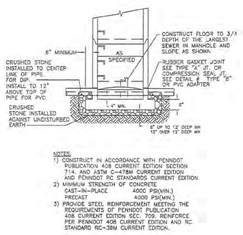
NOTE:
1. EXISTING PIPE TO REMAIN UNTIL SATISFACTORY COMPLETION OF MANHOLE TESTING.
2. REMOVE CROWN OF EXISTING PIPE FLUSH WITH CONCRETE SHELF.

DOGHOUSE MANHOLE
N.T.S.



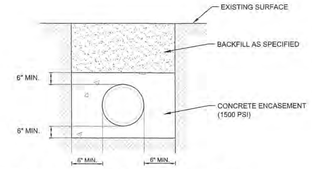
NOTES
1. WARNING/DETECTION TAPE:
   A. THREE (3) LAYERS W/ DE METALLIC LAYER, STENCILED EVERY TWO (2) FEET.
   B. TAPE SHALL BE GREEN IN COLOR WITH "CAUTION BURIED SEWER LINE BELOW" ON IT
   C. TAPE IS TO BE PLACED APPROXIMATELY 24" ABOVE PIPE
   D. TAPE SHALL BE SET AT ALL BENDS AND LATERALS.
2. ROAD RESTORATION IN STATE ROADS SHALL COMPLY REQUIREMENTS OF W/H/DMWAY OCCUPANCY PERMIT

SANITARY BACKFILL DETAIL
N.T.S.

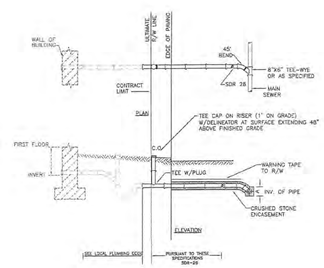


NOTES:
1) CONSTRUCT IN ACCORDANCE WITH PENNDOT PUBLICATION 408 CURRENT EDITION SECTION 714, AND ASTM C-478M CURRENT EDITION AND PENNDOT RC STANDARDS CURRENT EDITION.
2) MINIMUM STRENGTH OF CONCRETE
   CAST-IN-PLACE 4000 PSI(MIN.)
   PRECAST 4000 PSI(MIN.)
3) PROVIDE STEEL REINFORCEMENT MEETING THE REQUIREMENTS OF PENNDOT PUBLICATION 408 CURRENT EDITION SEC. 709, REINFORCE PER PENNDOT 408 CURRENT EDITION AND RC STANDARD RC-38M CURRENT EDITION.

PRECAST MANHOLE BASE
N.T.S.

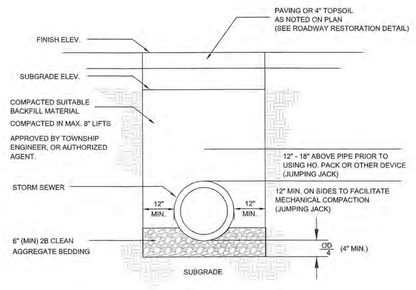


CONCRETE ENCASEMENT
N.T.S.



NOTES:
1. MINIMUM GRADE OF LATERAL = 1/4" IN 1'-0", EXCEPT AS APPROVED OTHERWISE BY TOWNSHIP.
2. 36" MINIMUM COVER.

TYPICAL LATERAL CONNECTION
N.T.S.



TRENCH DETAIL FOR STORM SEWER
N.T.S.

UTILITY TRENCH DETAIL
N.T.S.

NOTE:
MANHOLE COVERS SHALL NOT BE COATED
EAST JORDAN IRON WORKS PRODUCT NO. 00183549

√ MACHINED SURFACE

24" CAST IRON MANHOLE COVER
N.T.S.

ALL CONCRETE SHALL HAVE A 28 DAY COMPRESSIVE STRENGTH OF 4000 PSI WITH 6% AIR-ENTRAINMENT

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1	09/11/15	CJR	REVISED PER PCCO REVIEW
2	10/09/15	EXTON	FINAL PLAN SUBMISSION
3	11/30/15	EXTON	REVISED PER FINAL PLAN REVIEW

COMMONWEALTH OF PENNSYLVANIA
RUSSELL T. McFALL II
PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER LICENSE NUMBER: PE60408

FINAL LAND DEVELOPMENT PLANS
FOR
MADISON DEVELOPMENT GROUP, INC.

DEKALB PIKE AT SKIPPACK PIKE

WHITPAIN TOWNSHIP
MONTGOMERY COUNTY
PENNSYLVANIA

EXTON OFFICE
410 Eagleview Boulevard
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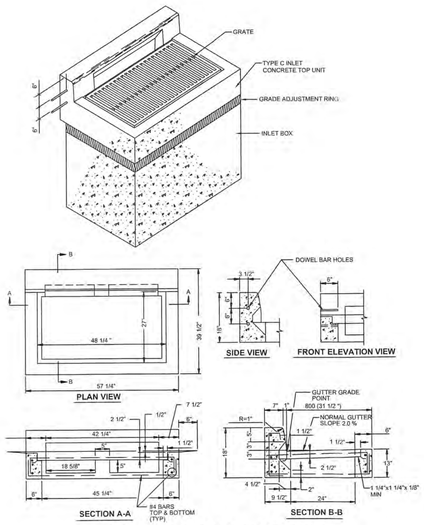
Exton, PA 19341
Phone: 610.254.9140
Fax: 610.254.9141
email: solutions@maserconsulting.com

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	06/10/15	DIB	RTM
PROJECT NUMBER: 12000830A		DRAWING NAME: C-DTLS	

SHEET TITLE: UTILITY DETAILS

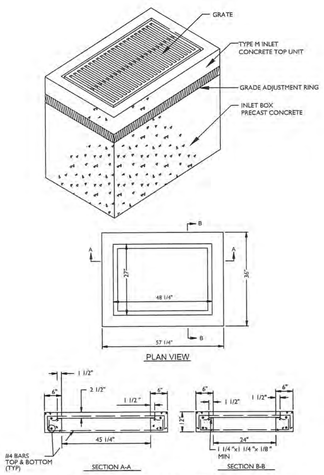
SHEET NUMBER: 22 of 38

12000830A/Engineering/C-DTLS.dwg/C-22 UTILITY DETAILS By: JDLANCE



TYPE "C" INLET DETAIL

N.T.S.



TYPE "M" INLET DETAIL

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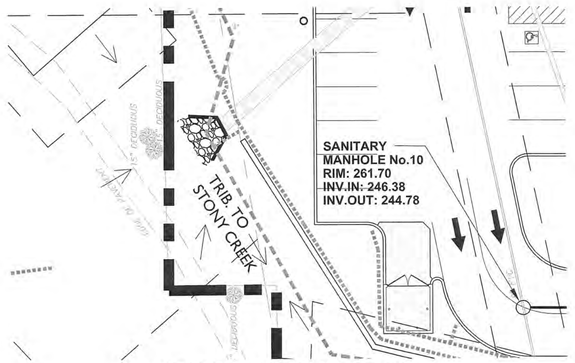
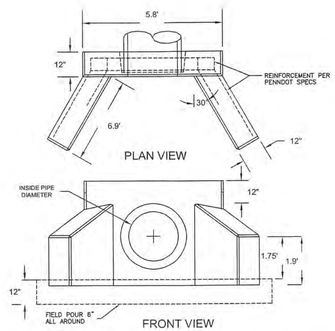


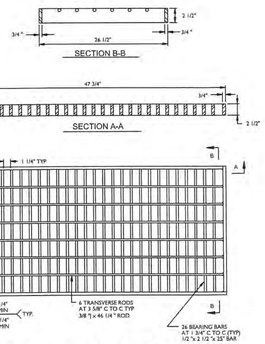
HEADWALL (GP-4) DETAIL

1"=20'



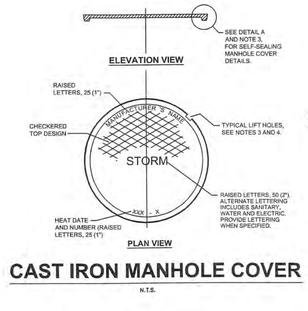
NOTE:
1. PROVIDE MATERIALS AND WORKMANSHIP IN ACCORDANCE WITH THE APPROPRIATE SPECIFICATIONS AS OUTLINED IN PENNDOT PUBLICATION 408, SECTION 605.
2. PROVIDE REINFORCEMENT IN ACCORDANCE WITH PENNDOT PUBLICATION 408, SECTION 709.
3. USE CLASS A CONCRETE OR BETTER.

TYPE D-W ENDWALL DETAIL



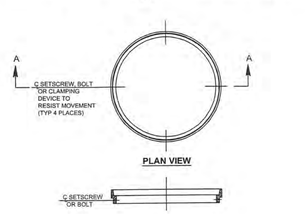
STRUCTURAL STEEL GRATE BICYCLE SAFE

N.T.S.



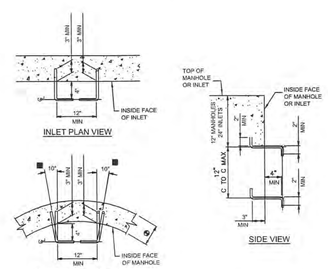
CAST IRON MANHOLE COVER

N.T.S.



ADJUSTMENT RISERS

N.T.S.



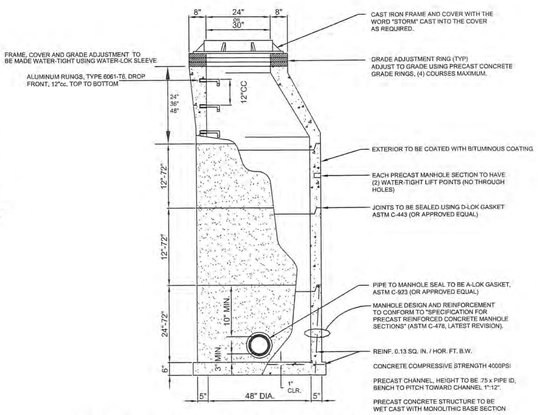
■ ALTERNATE ACCEPTABLE CONFIGURATION

⊘ 10" FOR CAST-in-PLACE 5" FOR PRECAST

NOTES:
1. PROVIDE POLYPROPYLENE PLASTIC COATED 1/2" DIAMETER GRADE 60 STEEL REINFORCED STEPS 12" CENTER TO CENTER IN ALL INLETS AND BOXES OVER 4 FEET IN DEPTH.
2. PROVIDE MANHOLE STEPS MEETING THE REQUIREMENTS OF PUBLICATION 408, SECTION 605.2(c). ALTERNATE CONFIGURATIONS AND DIMENSIONS, AS APPROVED BY THE ENGINEER, MAY BE USED.
3. PROVIDE MINIMUM 1" SECTION DIMENSION FOR METAL STEPS. PROVIDE MINIMUM 3/4" SECTION DIMENSION FOR NON-DETERIORATING MATERIAL STEPS.

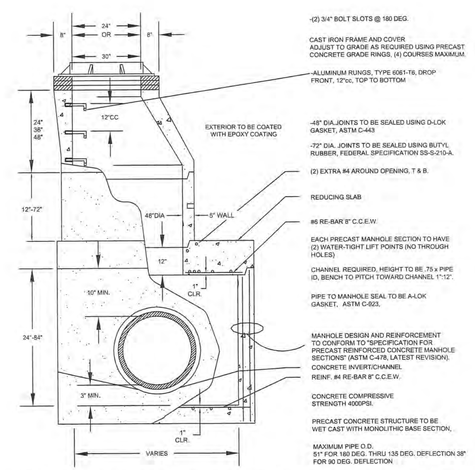
TYPICAL STEP CONFIGURATION MANHOLE AND INLET STEPS

N.T.S.



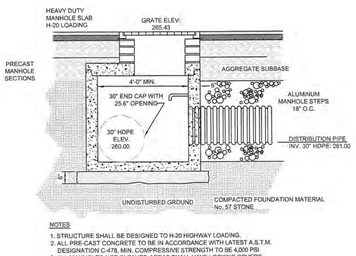
48" DIAMETER STORM MANHOLE DETAIL

N.T.S.



48"/60"/72" DIAMETER STORM MANHOLE DETAIL

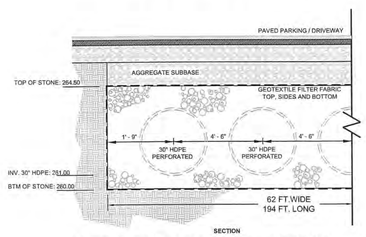
NO SCALE



NOTES
1. STRUCTURE SHALL BE DESIGNED TO H-20 HIGHWAY LOADING.
2. ALL PRE-CAST CONCRETE TO BE IN ACCORDANCE WITH LATEST A.S.T.M. DESIGNATION C-478, MIN. COMPRESSIVE STRENGTH TO BE 4,000 PSI.
3. ALL MANHOLES NOT IN PAVED AREAS SHALL HAVE LOCKING COVERS.

BASIN 2 DISCHARGE STRUCTURE DETAIL

NO SCALE



13 ROWS OF 30" PERFORATED HDPE PIPE @ 0.000 FT/FT

UNDERGROUND STORMWATER MANAGEMENT BASIN 2

NO SCALE

UNDERGROUND BASIN PCSM NOTES (BASINS 1 AND 2):

PURPOSE: REDUCE STREAM BANK EROSION BY CONTROLLING 2 YR TO 1 YR YR STORM (RATE CONTROL)

DRAINAGE AREA: 17.73 ACRES

MAINTAINED BY: PROPERTY OWNER

MAINTENANCE SCHEDULE: SEE BELOW

MAINTENANCE NOTES:

1. ALL STORMWATER COMPONENTS MUST BE INSPECTED FOR CLOGGING AND EXCESSIVE DEBRIS AND SEDIMENT ACCUMULATION AT LEAST TWO (2) TIMES ANNUALLY AND AFTER MAJOR RAINFALL EVENTS (EVENTS IN EXCESS OF 4)".
2. ALL STRUCTURAL COMPONENTS (STORM INLETS, MANHOLES AND PIPING) ARE TO BE INSPECTED FOR CRACKING, SUBSIDENCE, SPALLING, EROSION AND DETERIORATION BI-ANNUALLY.
3. SEDIMENT REMOVAL IS TO TAKE PLACE DURING DRY CONDITIONS. DISPOSAL OF DEBRIS, TRASH, SEDIMENT AND OTHER WASTE MATERIAL IS TO BE DONE AT SUITABLE DISPOSAL/RECYCLING SITES AND IN COMPLIANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL WASTE REGULATIONS.

STREET SWEEPING NOTES:

PURPOSE: REDUCE POLLUTANTS FROM ENTERING ANY SURFACE WATERS OR STORMWATER SYSTEM

DRAINAGE AREA: 6.13 ACRES

MAINTAINED BY: PROPERTY OWNER

MAINTENANCE SCHEDULE: ALL IMPERVIOUS DRIVES AND PARKING FIELDS TO BE SWEPT WITH A VACUUM STREET SWEEPER BIWEEKLY.(7.1 ACRES)

ALL INLETS AND MANHOLES SHALL CONFORM TO CURRENT PENNDOT RC STANDARDS AND IN ACCORDANCE WITH WHITPAIN TOWNSHIP DESIGN STANDARDS.

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REV	DATE	DRAWN BY	DESCRIPTION
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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
RUSSELL T. MCFALL II
PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER I.D. NUMBER: PE60408

FINAL LAND DEVELOPMENT PLANS

FOR

MADISON DEVELOPMENT GROUP, INC.

DEKALB PIKE AT SKIPPACK PIKE

WHITPAIN TOWNSHIP
MONTGOMERY COUNTY
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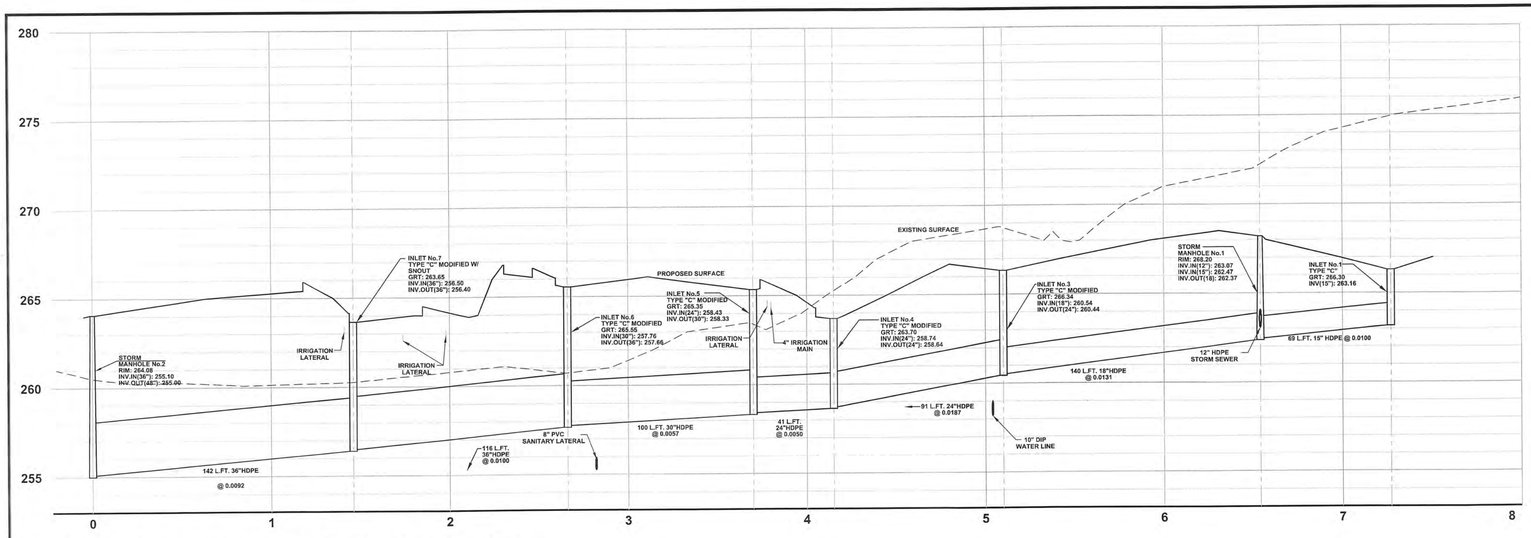
PROJECT NUMBER: 12000830A
DRAWING NAME: C-GRAD

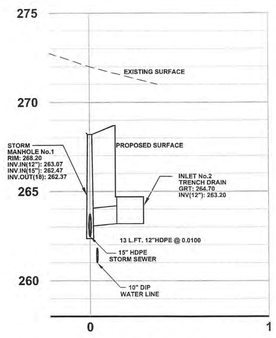
SHEET TITLE: PCSM DETAILS

SHEET NUMBER: 23 of 38



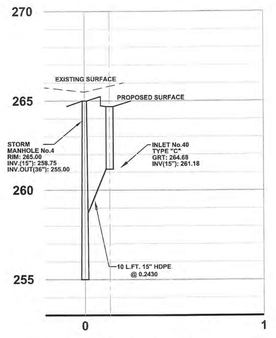
STORM SEWER: MANHOLE 2 TO INLET 1

SCALE: HORIZ. 1" = 40 FEET / VERT. 1" = 4 FOOT



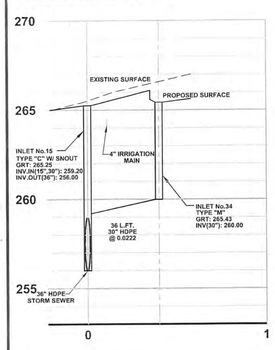
STORM SEWER: MANHOLE 1 TO INLET 2

SCALE: HORIZ. 1" = 40 FEET / VERT. 1" = 4 FOOT



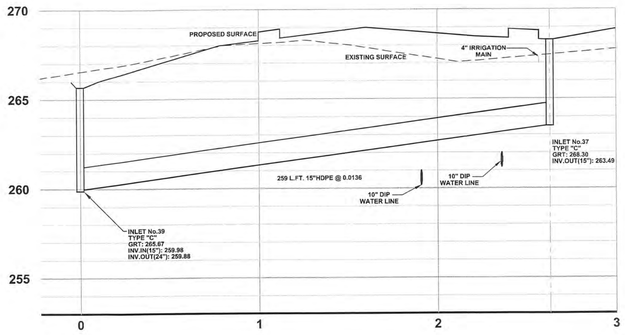
STORM SEWER: MANHOLE 4 TO INLET 40

SCALE: HORIZ. 1" = 40 FEET / VERT. 1" = 4 FOOT



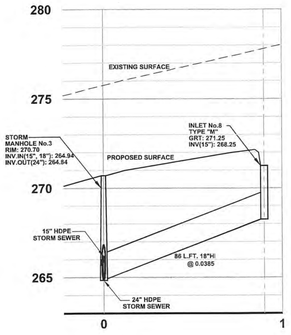
STORM SEWER: INLET 15 TO INLET 34

SCALE: HORIZ. 1" = 40 FEET / VERT. 1" = 4 FOOT



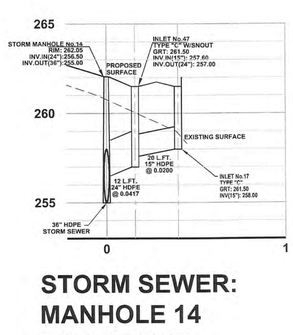
STORM SEWER: INLET 39 TO INLET 37

SCALE: HORIZ. 1" = 40 FEET / VERT. 1" = 4 FOOT



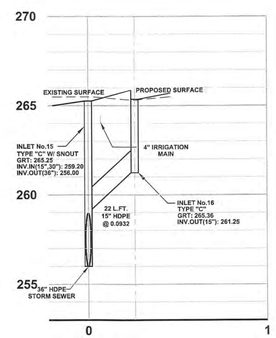
STORM SEWER: MANHOLE 3 TO INLET 8

SCALE: HORIZ. 1" = 40 FEET / VERT. 1" = 4 FOOT



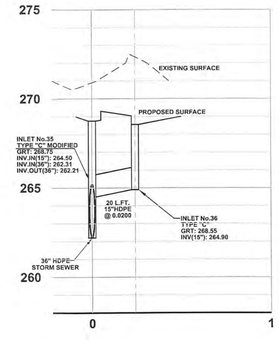
STORM SEWER: MANHOLE 14 TO INLET 17

SCALE: HORIZ. 1" = 40 FEET / VERT. 1" = 4 FOOT



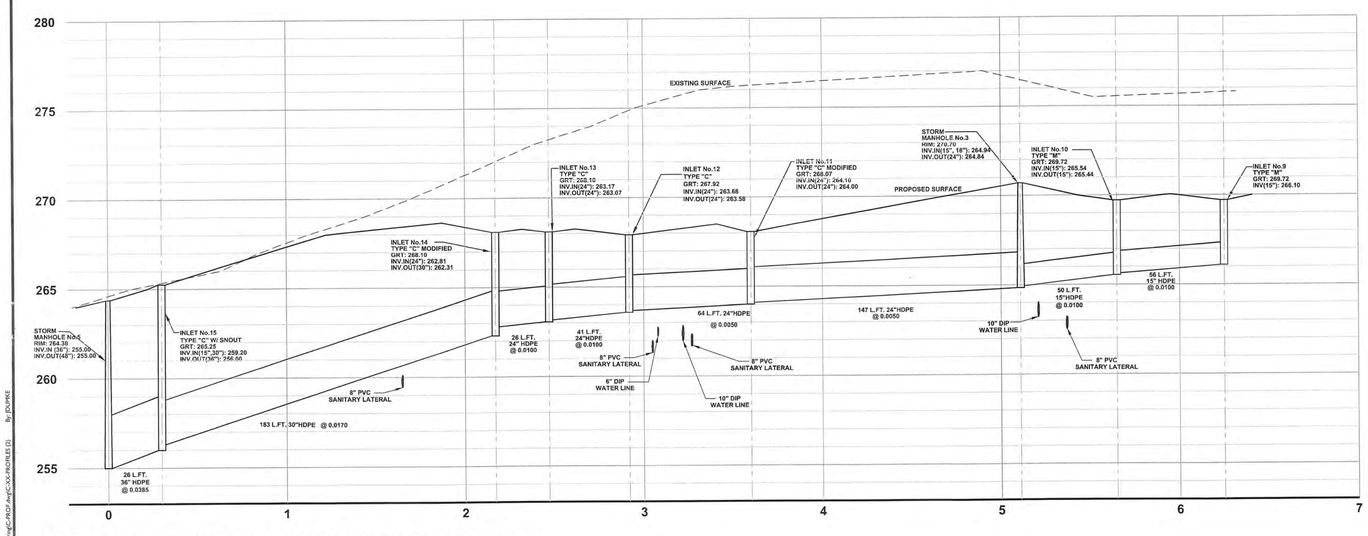
STORM SEWER: INLET 15 TO INLET 16

SCALE: HORIZ. 1" = 40 FEET / VERT. 1" = 4 FOOT



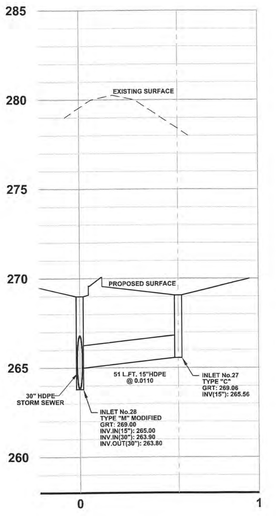
STORM SEWER: INLET 35 TO INLET 36

SCALE: HORIZ. 1" = 40 FEET / VERT. 1" = 4 FOOT



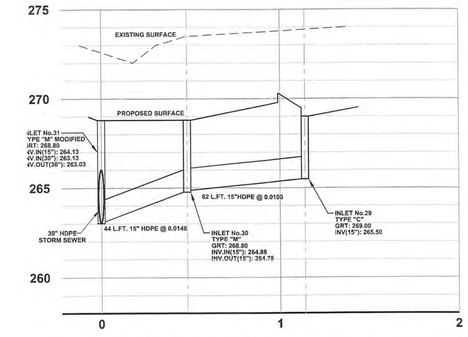
STORM SEWER: MANHOLE 5 TO INLET 9

SCALE: HORIZ. 1" = 40 FEET / VERT. 1" = 4 FOOT



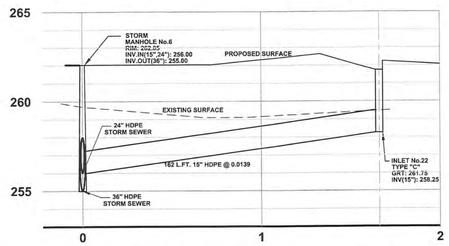
STORM SEWER: INLET 28 TO INLET 27

SCALE: HORIZ. 1" = 40 FEET / VERT. 1" = 4 FOOT



STORM SEWER: INLET 31 TO INLET 29

SCALE: HORIZ. 1" = 40 FEET / VERT. 1" = 4 FOOT



STORM SEWER: MANHOLE 6 TO INLET 22

SCALE: HORIZ. 1" = 40 FEET / VERT. 1" = 4 FOOT

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REV	DATE	DRAWN BY	DESCRIPTION
1	08/11/15	CJR	REVISED PER PCCD REVIEW
2	10/29/15	EXTON	FINAL PLAN SUBMISSION
3	11/30/15	EXTON	REVISED PER FINAL PLAN REVIEW

RUSSELL T. McFALL II
PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER, LICENSE NUMBER PE084408

FINAL LAND DEVELOPMENT PLANS

FOR

MADISON DEVELOPMENT GROUP, INC.

DEKALB PIKE AT SKIPPACK PIKE

WHITPAIN TOWNSHIP
MONTGOMERY COUNTY
PENNSYLVANIA

EXTON OFFICE
410 Eagleview Boulevard
Suite 104
Exton, PA 19341
Phone: 610.254.9140
Fax: 610.254.9141
email: solutions@maserconsulting.com

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	06/10/15	DIII	RTM

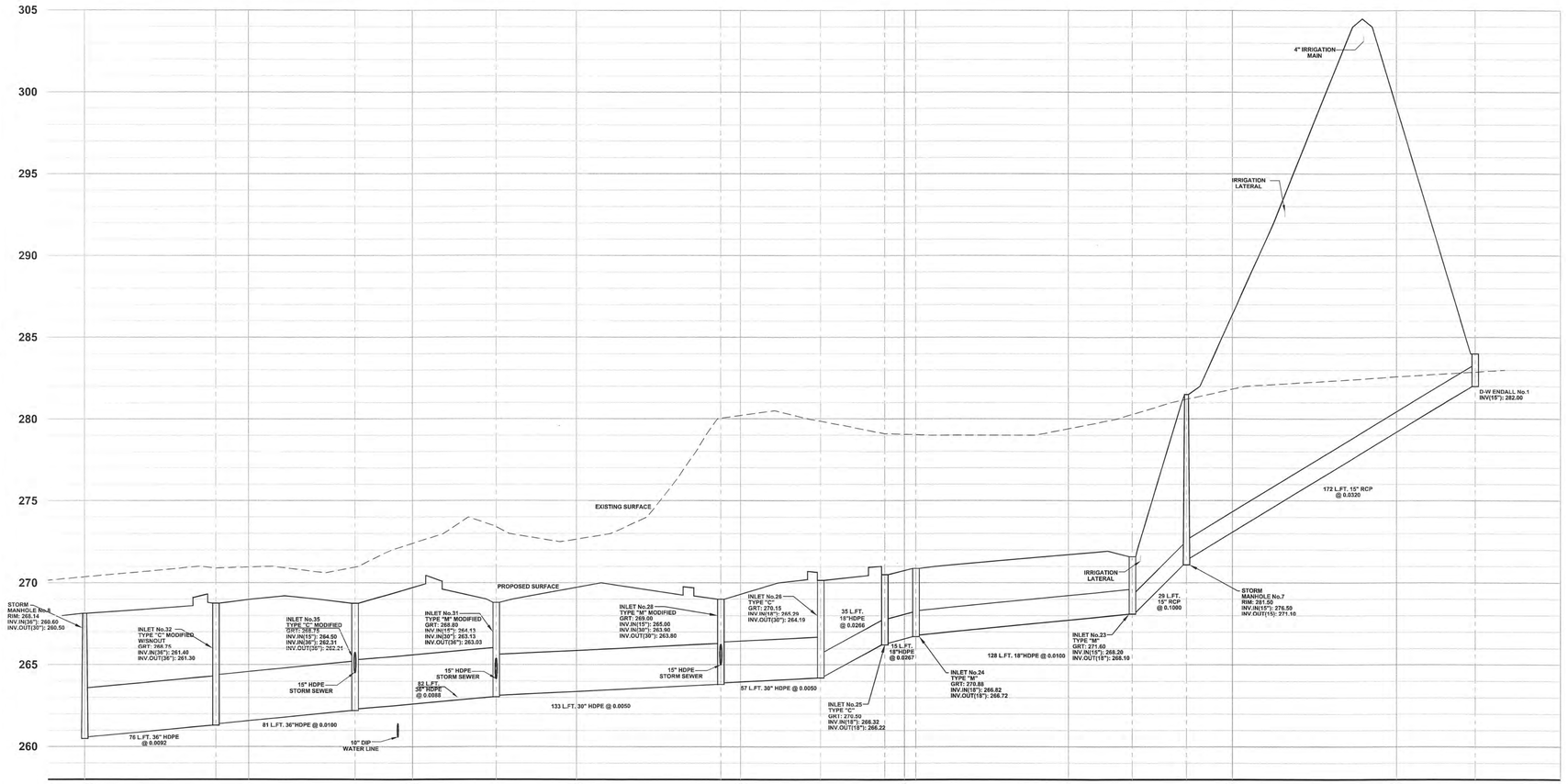
PROJECT NUMBER: 12000830A

DRAWING NAME: C-PROF

SHEET TITLE: STORM SEWER PROFILES

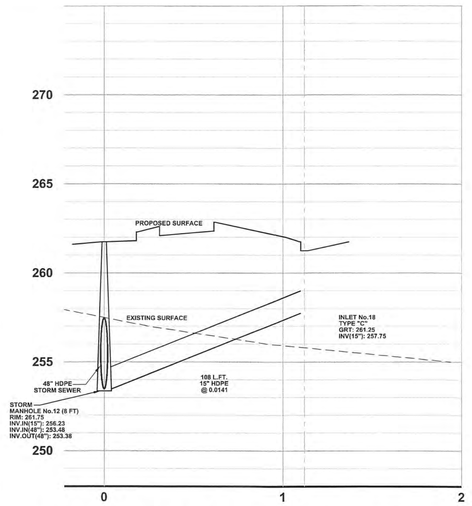
SHEET NUMBER: 24 of 38

12000830A\Engineering\C-PROF.dwg\C-XX-PROFILES (1) By: JBURKE



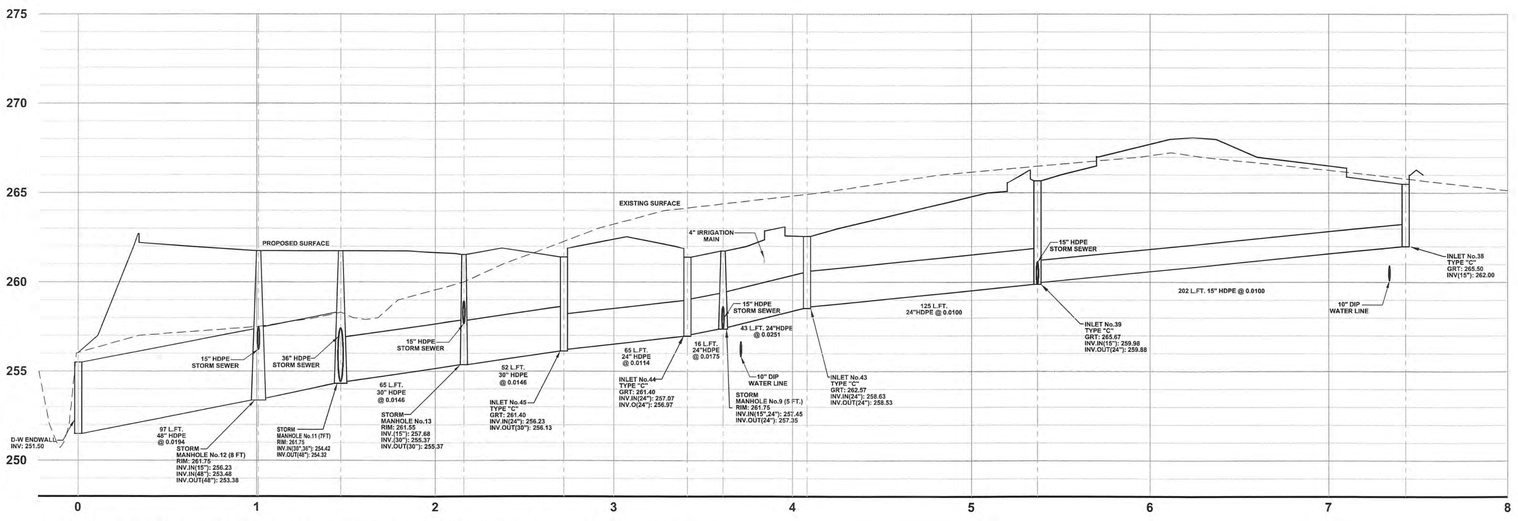
STORM SEWER: MANHOLE 8 TO ENDWALL 1

SCALE: HORIZ. 1" = 40 FEET / VERT. 1" = 4 FOOT



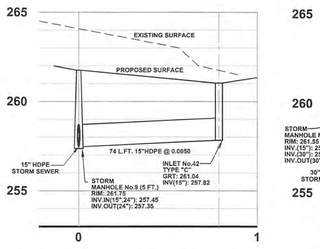
STORM SEWER: MANHOLE 12 TO INLET 18

SCALE: HORIZ. 1" = 40 FEET / VERT. 1" = 4 FOOT



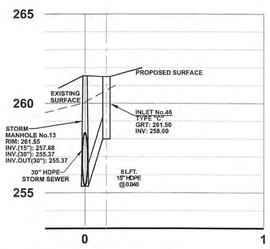
STORM SEWER: MANHOLE D-W ENDWALL TO INLET 38

SCALE: HORIZ. 1" = 40 FEET / VERT. 1" = 4 FOOT



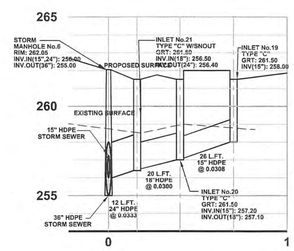
STORM SEWER: MANHOLE 13 TO INLET 46

SCALE: HORIZ. 1" = 40 FEET / VERT. 1" = 4 FOOT



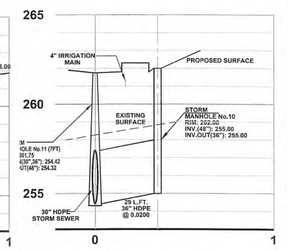
STORM SEWER: MANHOLE 13 TO INLET 46

SCALE: HORIZ. 1" = 40 FEET / VERT. 1" = 4 FOOT



STORM SEWER: MANHOLE 6 TO INLET 19

SCALE: HORIZ. 1" = 40 FEET / VERT. 1" = 4 FOOT



STORM SEWER: MANHOLE 11 TO MANHOLE 10

SCALE: HORIZ. 1" = 40 FEET / VERT. 1" = 4 FOOT

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1	09/11/15	CJR	REVISED PER MCCD REVIEW
2	10/09/15	EXTON	FINAL PLAN SUBMISSION
3	11/30/15	EXTON	REVISED PER FINAL PLAN REVIEW

RUSSELL T. McFALL II
PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER LICENSE NUMBER PE60408

FINAL LAND DEVELOPMENT PLANS

FOR

MADISON DEVELOPMENT GROUP, INC.

DEKALB PIKE AT SKIPPACK PIKE

WHITPAIN TOWNSHIP
MONTGOMERY COUNTY
PENNSYLVANIA

EXTON OFFICE
410 Eagleview Boulevard
Suite 104
Exton, PA 19341
Phone: 610.254.9140
Fax: 610.254.9141
email: solutions@maserconsulting.com

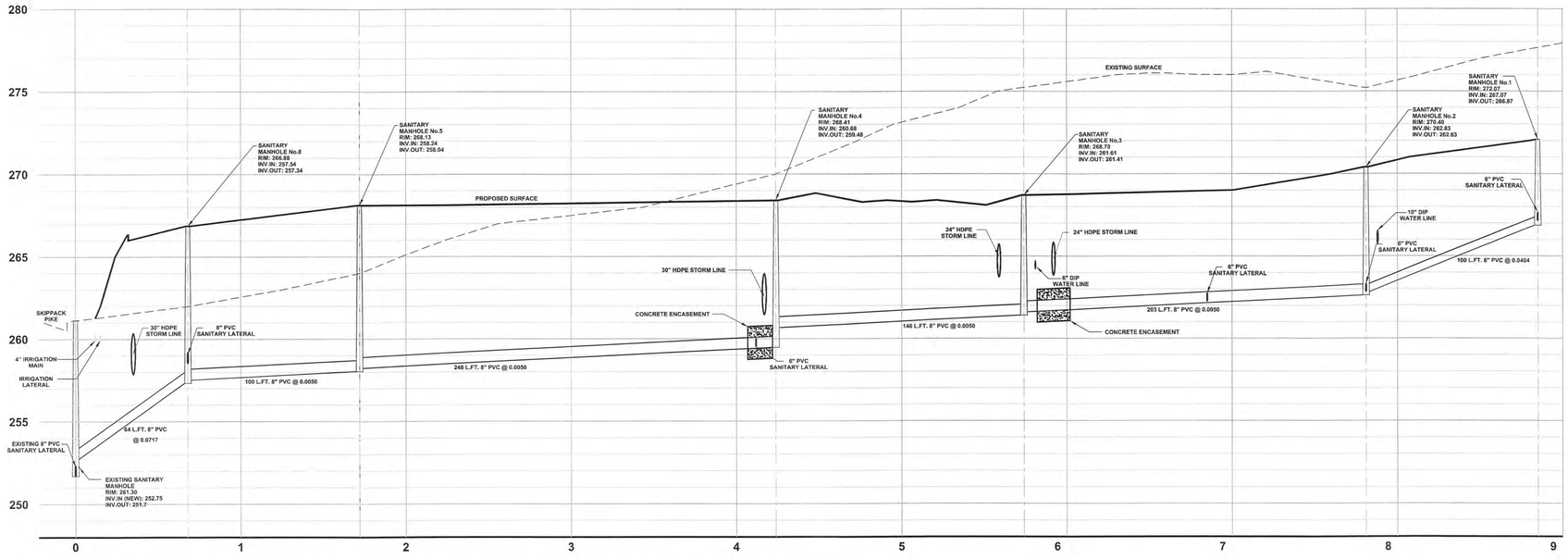
SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	04/10/15	DIII	RTH

PROJECT NUMBER: 12000830A
DRAWING NAME: C-PROF

SHEET TITLE: STORM SEWER PROFILES (CONT.)

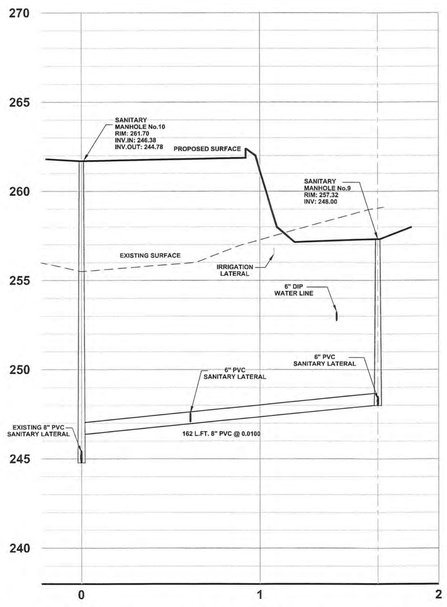
SHEET NUMBER: 25 of 38

I:\2000\830A\Engineering\C-PROF.dwg(C-SW PROFILES (2)) By: JSUHKE



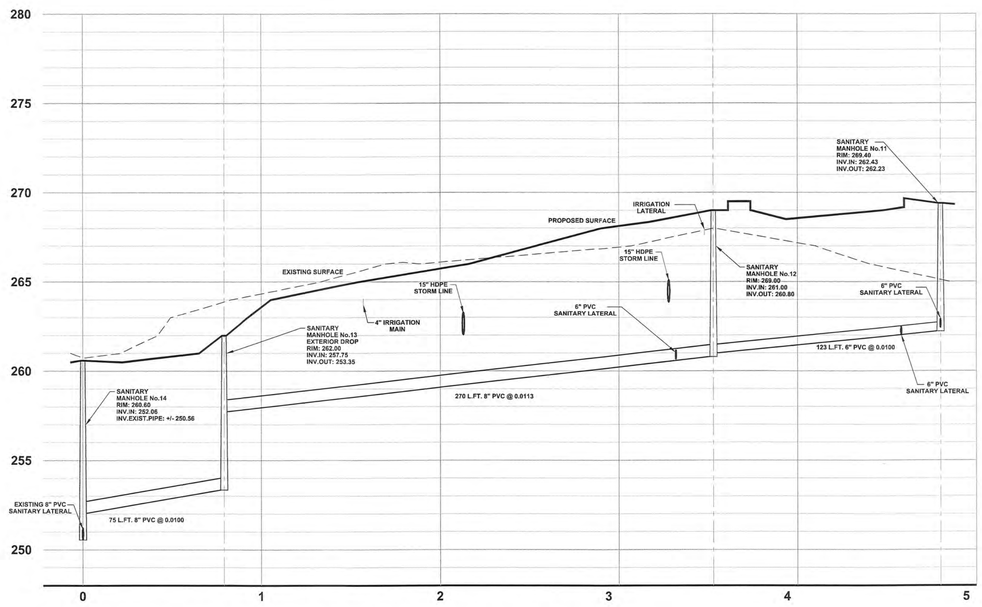
SANITARY SEWER: SKIPPACK PIKE TO SANITARY MANHOLE 1

SCALE: HORIZ. 1" = 40 FEET / VERT. 1" = 4 FOOT



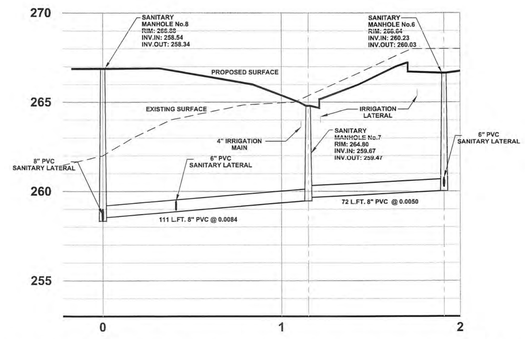
SANITARY SEWER: MANHOLE 10 TO MANHOLE 9

SCALE: HORIZ. 1" = 40 FEET / VERT. 1" = 4 FOOT



SANITARY SEWER: MANHOLE 14 TO MANHOLE 11

SCALE: HORIZ. 1" = 40 FEET / VERT. 1" = 4 FOOT



SANITARY SEWER: MANHOLE 8 TO MANHOLE 6

SCALE: HORIZ. 1" = 40 FEET / VERT. 1" = 4 FOOT

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1	09/11/15	CJR	REVISED PER MCCD REVIEW
2	10/09/15	EXTON	FINAL PLANS SUBMISSION
3	11/30/15	EXTON	REVISED PER FINAL PLAN REVIEW

RUSSELL T. McFALL II
PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER LICENSE NO. PE060408

FINAL LAND DEVELOPMENT PLANS

FOR

MADISON DEVELOPMENT GROUP, INC.

DEKALB PIKE AT SKIPPACK PIKE

WHITPAIN TOWNSHIP
MONTGOMERY COUNTY
PENNSYLVANIA

EXTON OFFICE
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Exton, PA 19341
Phone: 610.254.9140
Fax: 610.254.9141
email: solutions@maserconsulting.com

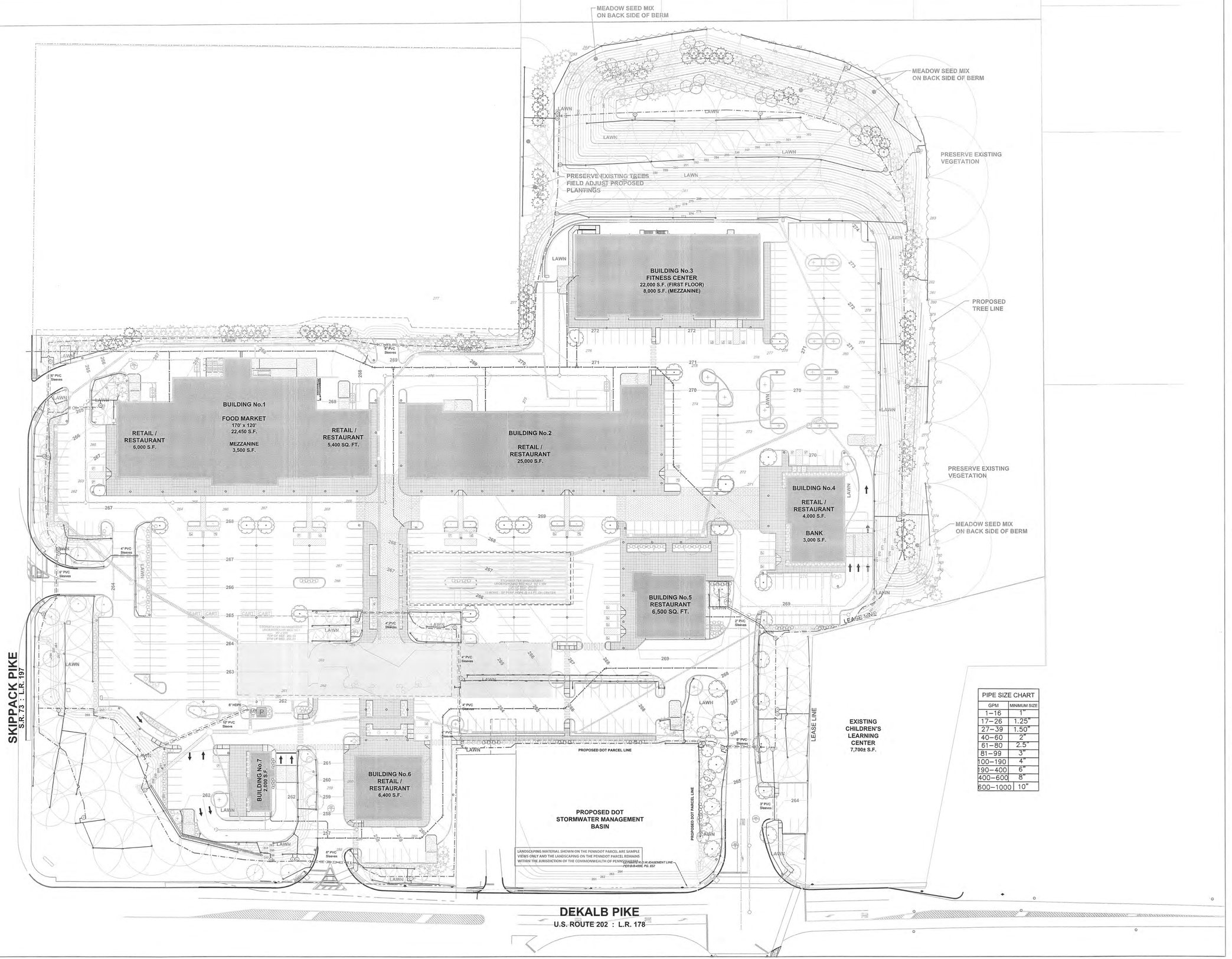
SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	06/10/15	DIII	RTM

PROJECT NUMBER: 12000B30A
DRAWING NAME: C-PROF

SHEET TITLE: SANITARY SEWER PROFILES

SHEET NUMBER: 26 of 38

12000B30A/Engineering/C-PROF/Land/SEWER PROFILES By: JDUNKS



PIPE SIZE CHART	
GPM	MINIMUM SIZE
1–16	1"
17–26	1.25"
27–39	1.50"
40–60	2"
61–80	2.5"
81–99	3"
100–190	4"
190–400	6"
400–600	8"
600–1000	10"

AQUA MIST IRRIGATION

28 James Street
South Hackensack, NJ 07606

201-488-2057 NJ LIC # 15036

Project Title:

CENTER SQUARE COMMONS

WHITPAIN TOWNSHIP

Montgomery County Pennsylvania

Legend:

- Rainbird 5500 Rotary Head w/ # 12 Nozzle
- Rainbird 5004 Rotary Head w/ #4 Nozzle
- Rainbird 5004 Rotary Head w/ # 3 Nozzle
- Rainbird 5004 Rotary Head w/ # 2 Nozzle
- Rainbird 1800 Series Spray w/ 10' Nozzle
- Rainbird 1800 Series Spray w/ 12' Nozzle
- Rainbird 1800 Series Spray w/ 15' Nozzle
- Rainbird 1800 Series Spray w/ SST Nozzle
- (1) Rainbird PESB Electric Valve w/Decoder
- (P) Rainbird Pump Station
- (SC) Rainbird Site Control
- (R) Rainbird Rain Sensor
- (F) 4" Rainbird Flow Meter
- (M) 4" Rainbird Master Valve
- Communication Cable in 1"conduit
- Class 200, SDR21 PVC Main Line size as noted
- 6" HDPE Main Line as noted
- 100psi Polyethylene Lateral Pipe
- Line Size Isolation Valve
- PVC Sleeves (size as noted)
- (B) Blow out port

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
RUSSELL T. McFALL II
ENGINEER
No. PE 061078

REVISIONS:

06-09-15 Landscpae Modifications
09-09-15 Pump Re-location, Landsc Modifications
09-29-15 Tank Re-location, Landsc Modifications

Project:

Center Square Commons

Post Construction
Stormwater Management
System

Date:	Design By:
5-25-15	WJM
Drawn By:	Checked By:
WJM	
Scale:	Sheet #:
1" = 50'	27 of 38

MEADOW SEED MIX
ON BACK SIDE OF BERM

MEADOW SEED MIX
ON BACK SIDE OF BERM

PRESERVE EXISTING VEGETATION

PRESERVE EXISTING TREES
FIELD ADJUST PROPOSED
PLANTINGS

PROPOSED
TREE LINE

PRESERVE EXISTING
VEGETATION

MEADOW SEED MIX
ON BACK SIDE OF BERM

LAWN

BUILDING No.3
FITNESS CENTER
22,000 S.F. (FIRST FLOOR)
8,000 S.F. (MEZZANINE)

RETAIL /
RESTAURANT
5,400 SQ. FT.

BUILDING No.2

RETAIL /
RESTAURANT
25,000 S.F.

BUILDING No.4

RETAIL /
RESTAURANT
4,000 S.F.

BANK
3,000 S.F.

6" PVC
Sleeves

LANDSCAPING MATERIAL SHOWN ON THE PENNDOT PARCEL ARE SHOWN FOR VIEWS ONLY AND THE LANDSCAPING ON THE PENNDOT PARCEL REMAINS WITHIN THE JURISDICTION OF THE COMMONWEALTH OF PENNSYLVANIA.

STORMWATER MANAGEMENT
UNDERGROUND BED No.2 - 62' x 194'

AQUA MIST IRRIGATION

28 James Street
South Hackensack, NJ 07606

201-488-2057 NJ LIC # 15036

Project Title:

CENTER SQUARE
COMMONS

WHITPAIN TOWNSHIP

Montgomery County Pennsylvania

Legend:

- Rainbird 5500 Rotary Head w/ # 12 Nozzle
- Rainbird 5004 Rotary Head w/ #4 Nozzle
- Rainbird 5004 Rotary Head w/ # 3 Nozzle
- Rainbird 5004 Rotary Head w/ # 2 Nozzle
- Rainbird 1800 Series Spray w/ 10' Nozzle
- Rainbird 1800 Series Spray w/ 12' Nozzle
- Rainbird 1800 Series Spray w/ 15' Nozzle
- Rainbird 1800 Series Spray w/ SST Nozzle
- (1) Rainbird PESB Electric Valve w/Decoder
- [P] Rainbird Pump Station
- [SC] Rainbird Site Control
- (R) Rainbird Rain Sensor
- (F) 4" Rainbird Flow Meter
- (M) 4" Rainbird Master Valve
- Communication Cable in 1"conduit
- Class 200, SDR21 PVC Main Line size as noted
- 6" HDPE Main Line as noted
- 100psi Polyethylene Lateral Pipe
- Line Size Isolation Valve
- PVC Sleeves (size as noted)
- (B) Blow out port

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
RUSSELL T. McFALL II
No. PE-060756

REVISIONS:

06-09-15 Landscpae Modifications
09-09-15 Pump Re-location, Landsc Modifications
09-29-15 Tank Re-location, Landsc Modifications

Project:

Center Square Commons

Post Construction
Stormwater Management
System

ENLARGED SE

Date: 5-25-15	Design By: WJM
Drawn By: WJM	Checked By:
Scale: 1" = 30'	Sheet #: 28 of 38

MEADOW SEED MIX
ON BACK SIDE OF BERM

PRESERVE EXISTING TREES
FIELD ADJUST PROPOSED
PLANTINGS

BUILDING No.3
FITNESS CENTER
22,000 S.F. (FIRST FLOOR)
8,000 S.F. (MEZZANINE)

BUILDING No.1
FOOD MARKET
170' x 120'
22,450 S.F.
MEZZANINE
3,500 S.F.

RETAIL / RESTAURANT
6,000 S.F.

RETAIL / RESTAURANT
5,400 SQ. FT.

BUILDING No.2
RETAIL / RESTAURANT
25,000 S.F.

LAWN

6" PVC Sleeves

4" PVC Sleeves

LANDSCAPING MATERIAL SHOWN ON THE PENNDOT PARCEL ARE SAMPLE VIEWS ONLY AND THE LANDSCAPING ON THE PENNDOT PARCEL REMAINS WITHIN THE JURISDICTION OF THE COMMONWEALTH OF PENNSYLVANIA.

STORMWATER MANAGEMENT
UNDERGROUND BED No.2 : 62' x 194'
TOP OF BED: 264.50

AQUA MIST IRRIGATION

28 James Street
South Hackensack, NJ 07606

201-488-2057 NJ LIC # 15036

Project Title:

CENTER SQUARE COMMONS

WHITPAIN TOWNSHIP

Montgomery County Pennsylvania

Legend:

- Rainbird 5500 Rotary Head w/ # 12 Nozzle
- Rainbird 5004 Rotary Head w/ #4 Nozzle
- Rainbird 5004 Rotary Head w/ # 3 Nozzle
- Rainbird 5004 Rotary Head w/ # 2 Nozzle
- Rainbird 1800 Series Spray w/ 10' Nozzle
- Rainbird 1800 Series Spray w/ 12' Nozzle
- Rainbird 1800 Series Spray w/ 15' Nozzle
- Rainbird 1800 Series Spray w/ SST Nozzle
- (1) Rainbird PESB Electric Valve w/Decoder
- (P) Rainbird Pump Station
- (SC) Rainbird Site Control
- (R) Rainbird Rain Sensor
- (F) 4" Rainbird Flow Meter
- (M) 4" Rainbird Master Valve
- Communication Cable in 1"conduit
- Class 200, SDR21 PVC Main Line size as noted
- 6" HDPE Main Line as noted
- 100psi Polyethylene Lateral Pipe
- Line Size Isolation Valve
- PVC Sleeves (size as noted)
- (B) Blow out port

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ROBERT T. McFALL II
ENGINEER
NO PE-060436

REVISIONS:

06-09-15 Landscpae Modifications
09-09-15 Pump Re-location, Landsc Modifications
09-29-15 Tank Re-location, Landsc Modifications

Project:

Center Square Commons

Post Construction
Stormwater Management
System

ENLARGED NE

Date: 5-25-15	Design By: WJM
Drawn By: WJM	Checked By:
Scale: 1" = 30'	Sheet #: 29 of 38

BUILDING No.1

FOOD MARKET
170' x 120'
22,450 S.F.

MEZZANINE
3,500 S.F.

RETAIL / RESTAURANT
6,000 S.F.

RETAIL / RESTAURANT
5,400 SQ. FT.

BUILDING No.2

RETAIL / RESTAURANT
25,000 S.F.

BUILDING No.5
RESTAURANT
6,500 SQ. FT.

BUILDING No.6
RETAIL / RESTAURANT
6,400 S.F.

BUILDING No.7
2,000 S.F.

STORMWATER MANAGEMENT
UNDERGROUND BED No.1
90' x 260'
TOP OF BED: 260.00
BTM OF BED: 255.00

STORMWATER MANAGEMENT
UNDERGROUND BED No.2 : 62' x 194'
TOP OF BED: 264.50
BTM OF BED: 260.00
13 ROWS : 30" PERF. HDPE @ 4.5 FT. ON CENTER

PROPOSED DOT
STORMWATER MANAGEMENT
BASIN

PROPOSED DOT PARCEL LINE

PROPOSED DOT PARCEL LINE

ULTIMATE R.O.W./EASEMENT LINE
PER D.B.4999, PG. 652

LANDSCAPING MATERIAL SHOWN ON THE PENNDOT PARCEL IS SAMPLE PLANS ONLY AND THE LANDSCAPING ON THE PENNDOT PARCEL REMAINS WITH THE PENNDOT CONTRACTOR OR PENNDOT ITSELF.

6" PVC Sleeves
4" PVC Sleeves
2" PVC Sleeves
3" PVC Sleeves
10" PVC Sleeve
6" HDPE

LAWN
CART
CART

SKIPPACK PIKE
S.R. 73 : L.R. 197

DEKALB PIKE
U.S. ROUTE 202 : L.R. 178

AQUA MIST IRRIGATION

28 James Street
South Hackensack, NJ 07606

201-488-2057 NJ LIC # 15036

Project Title:

CENTER SQUARE COMMONS

WHITPAIN TOWNSHIP

Montgomery County Pennsylvania

Legend:

- Rainbird 5500 Rotary Head w/ # 12 Nozzle
- Rainbird 5004 Rotary Head w/ #4 Nozzle
- Rainbird 5004 Rotary Head w/ # 3 Nozzle
- Rainbird 5004 Rotary Head w/ # 2 Nozzle
- Rainbird 1800 Series Spray w/ 10' Nozzle
- Rainbird 1800 Series Spray w/ 12' Nozzle
- Rainbird 1800 Series Spray w/ 15' Nozzle
- Rainbird 1800 Series Spray w/ SST Nozzle
- (1) Rainbird PESB Electric Valve w/Decoder
- (P) Rainbird Pump Station
- (SC) Rainbird Site Control
- (R) Rainbird Rain Sensor
- (F) 4" Rainbird Flow Meter
- (M) 4" Rainbird Master Valve
- Communication Cable in 1"conduit
- Class 200, SDR21 PVC Main Line size as noted
- 6" HDPE Main Line as noted
- 100psi Polyethylene Lateral Pipe
- Line Size Isolation Valve
- PVC Sleeves (size as noted)
- (B) Blow out port

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
RUSSELL J. NEALL II
ENGINEER
NO. PE-041028

REVISIONS:

06-09-15 Landscpae Modifications
09-09-15 Pump Re-location, Landsc Modifications
09-29-15 Tank Re-location, Landsc Modifications

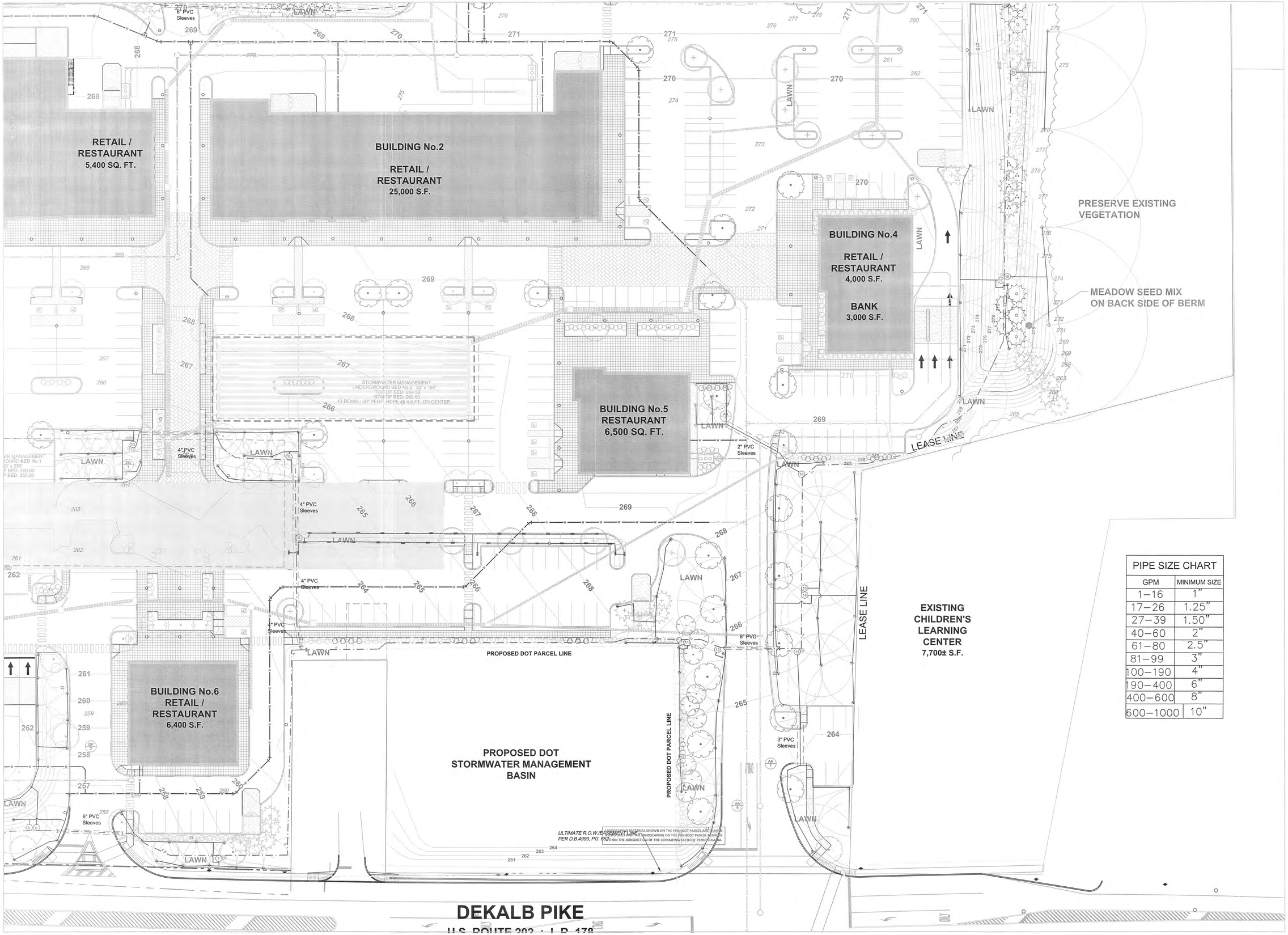
Project:

Center Square Commons

Post Construction Stormwater Management System

ENLARGED NW

Date: 5-25-15	Design By: WJM
Drawn By: WJM	Checked By:
Scale: 1" = 30'	Sheet #: 30 of 38



PIPE SIZE CHART	
GPM	MINIMUM SIZE
1–16	1"
17–26	1.25"
27–39	1.50"
40–60	2"
61–80	2.5"
81–99	3"
100–190	4"
190–400	6"
400–600	8"
600–1000	10"

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ENLARGED SW

Date: 5-25-15	Design By: WJM
Drawn By: WJM	Checked By:
Scale: 1" = 30'	Sheet #: 31 of 38

Chart # 1

5004 Series Rotary Heads @ 55 psi

Station	2	3	6	12	26		Total	AVG
1	2.3	3.47	4.44	12.3	26.7			
		10					10	
		34.70					34.70	3.47
2		10					10	
		34.70					34.70	3.47
3		9					9	
		31.23					31.23	3.47
5		4					4	
		13.88					13.88	3.47
6							12	
	12						27.60	2.30
7	11						11	
	25.30						25.30	2.30
9		11					11	
		38.17					38.17	3.47
10		11					11	
		38.17					38.17	3.47
11	6	6					10	
	9.20	20.82					30.02	3.00
12	3	7					10	
	6.90	24.29					31.19	3.12
13		3					3	
		10.41					10.41	3.47
14		12					12	
		41.64					41.64	3.47
15		4					4	
		13.88					13.88	3.47
17		6					6	
		20.82					20.82	3.47
18					2		2	
					53.40		53.40	26.70
19					2		2	
					53.40		53.40	26.70
20					5		5	
			22.20				22.20	4.44
21					2		2	
					53.40		53.40	26.70
22				4			4	
				49.20			49.20	12.30
23				4			4	
				49.20			49.20	12.30
24					2		2	
					53.40		53.40	26.70
25			7				7	
			31.08				31.08	4.44
26				3			3	
				36.90			36.90	12.30
27				3			3	
				36.90			36.90	12.30
28			7				7	
			31.08				31.08	4.44
29		6					6	
		20.82					20.82	3.47
30				3			3	
				36.90			36.90	12.30
31		4					4	
			17.76				17.76	4.44
86	6						6	
	20.82						20.82	3.47
38	12						12	
	41.64						41.64	3.47
							195	

Chart # 2

Station #	Zone #	Head Type			Flow	Run Time	Gals/Cycle
1	1	5004 Rotary			34.70	23	798.10
2	1	5004 Rotary			17.35	23	399.05
3	1	5004 Rotary			38.17	23	877.91
5	1	5004 Rotary			13.88	23	319.24
6	1	5004 Rotary			27.60	23	634.80
7	1	5004 Rotary			25.30	23	581.90
9	1	5004 Rotary			38.17	23	877.91
10	1	5004 Rotary			38.17	23	877.91
11	1	5004 Rotary			30.02	23	690.46
12	1	5004 Rotary			31.19	23	717.37
13	1	5004 Rotary			10.41	23	239.43
14	1	5004 Rotary			41.64	23	957.72
15	1	5004 Rotary			13.88	23	319.24
16	1	5004 Rotary			20.82	23	478.86
38	1	5004 Rotary			41.64	23	957.72
							9,727.62

Station #	Zone #	Head Type			Flow	Run Time	Gals/Cycle
3	1	1800 Spray			7.80	10	78.00
8	1	1800 Spray			48.40	10	484.00
16	1	1800 Spray			12.68	5	63.40
21	1	1800 Spray			7.40	10	74.00
32	1	1800 Spray			16.65	10	166.50
33	1	1800 Spray			7.40	10	74.00
34	1	1800 Spray			20.35	10	203.50
35	1	1800 Spray			25.90	10	259.00
37	1	1800 Spray			17.00	10	170.00
							1,572.40

TOTAL	3						11,300.02

	Zone #	Head Type			Flow	Run Time	Gals/Cycle
17	2	5004 Rotary			20.82	15	312.30
18	2	8005 Rotary			53.40	11	587.40
19	2	8005 Rotary			53.40	11	587.40
20	2	5500 Rotary			22.20	15	333.00
21	2	8005 Rotary			53.40	11	587.40
22	2	5500 Rotary			49.20	15	738.00
23	2	5500 Rotary			49.20	15	738.00
24	2	8005 Rotary			53.40	12	640.80
25	2	5500 Rotary			31.08	15	466.20
26	2	8005 Rotary			53.40	11	587.40
27	2	8005 Rotary			53.40	11	587.40
28	2	5500 Rotary			31.08	15	466.20
29	2	5004 Rotary			20.82	15	312.30
30	2	5500 Rotary			36.90	15	553.50
31	2	5500 Rotary			17.76	15	266.40
TOTAL	2						7,763.70

Chart # 3

SPRAY IRRIGATION DESIGN
Center Square Commons — Zone 1

STORM INFORMATION		ACRE FT	CUBIC FT	GALLONS
VOLUME TO BE IRRIGATED:	REQUIRED	1.697	70,000.00	523,600.00
7 Days	PROVIDED	0.485	21,149.77	158,250
	1 ACRE FT=	325,900 Gallons	1 CUBIC FT =	7.48 GALLONS

DOSAGE INFORMATION		Cycle & Soak	
NO. OF DOSES =	1	2	
VOLUME PER CYCLE =	11,300.02	22,600.04	
PROVIDED RATE OF IRRIGATION =	18,000 GAL / HR	18,000 GAL / HR	
TOTAL REQUIRED HOURS OF IRRIGATION =	0.63	1.26	

MAX RATE OF IRRIGATION (ET) =	IN/DAY	ACRE INCH	SQ FT / ACRE	GAL / SF / HR
	0.5	27,154	43,560	0.31

SEASONAL SCHEDULE	MARCH 15TH TO NOVEMBER 15TH

	LENGTH OF DOSE		TIME OF DAY FOR DOSING		CYCLE & SOAK WAIT TIME
ZONE	HOUR	MINUTES			
1		37	1:00 AM	1:37 AM	4 Hours
1		37	5:00 AM	5:37 AM	

DAILY DOSAGE:	22,600.04 GALLONS	DAILY RUN TIME:	4.63 HOURS

SOIL INFORMATION:	
SOIL TYPE:	

MAXIMUM RATE OF IRRIGATION:	ABSORPTION AREA PROVIDED FOR IRRIGATION SQ FT	MAX ALLOWABLE RATE OF IRRIGATION BASED ON ABSRPTION AREA PROVIDED GAL / DAY
ZONE		
1	99,573.00	30,723.73

PROVIDED	99,573.00		30,723.73	
ZONE	TOTAL # OF SPRINKLERS	REQUIRED FLOW GPM	PROVIDED IRRIGATION RATE BASED ON SPRINKLER DESIGN GAL / DAY	PERCENT OF MAXIMUM ALLOWABLE IRRIGATION RATE
1	171	300	22,600.04	73.6%

PROVIDED				
Total Square Feet:	99,573.00	Total Gallons Per Day:	22,600.04	Inches Per Day: 0.368
		Cu Ft per Day:	3,021.40	

Chart # 4

SPRAY IRRIGATION DESIGN
Center Square Commons — Zone 2

STORM INFORMATION		ACRE FT	CUBIC FT	GALLONS
VOLUME TO BE IRRIGATED:	REQUIRED	1.734	75,545.00	565,076.60
7 Days	PROVIDED	1.167	50,858.46	380,421
	1 ACRE FT=	325,900 Gallons	1 CUBIC FT =	7.48 GALLONS

DOSAGE INFORMATION		Cycle & Soak	
NO. OF DOSES =	1	2	
VOLUME PER CYCLE =	7,763.70	54,345.90	
PROVIDED RATE OF IRRIGATION =	15,000 GAL / HR	18,000 GAL / HR	
TOTAL REQUIRED HOURS OF IRRIGATION =	0.43	3.02	

MAX RATE OF IRRIGATION (ET) =	IN/DAY	ACRE INCH	SQ FT / ACRE	GAL / SF / HR
	0.5	27,154	43,560	0.31

SEASONAL SCHEDULE	MARCH 15TH TO NOVEMBER 15TH

	LENGTH OF DOSE		TIME OF DAY FOR DOSING		CYCLE & SOAK WAIT TIME
ZONE	HOUR	MINUTES			
2		25	9:00 PM	9:25 PM	2 Hours
2		25	11:00 PM	11:25 PM	2 Hours
2		25	1:00 AM	1:25 AM	2 Hours
2		25	3:00 AM	3:25 AM	2 Hours
2		25	5:00 AM	5:25 AM	2 Hours
2		25	7:00 AM	7:25 AM	2 Hours
2		25	9:00 AM	9:25 AM	

DAILY DOSAGE:	54,345.90 GALLONS	DAILY RUN TIME:	4.43 HOURS

SOIL INFORMATION:	
SOIL TYPE:	

MAXIMUM RATE OF IRRIGATION:	ABSORPTION AREA PROVIDED FOR IRRIGATION SQ FT	MAX ALLOWABLE RATE OF IRRIGATION BASED ON ABSRPTION AREA PROVIDED GAL / DAY
ZONE		
1	175,408.00	54,672.05

PROVIDED	175,408.00		54,672.05	
ZONE	TOTAL # OF SPRINKLERS	REQUIRED FLOW GPM	PROVIDED IRRIGATION RATE BASED ON SPRINKLER DESIGN GAL / DAY	PERCENT OF MAXIMUM ALLOWABLE IRRIGATION RATE
1	137	300	54,345.90	99.4%

PROVIDED				
Total Square Feet:	175,408.00	Total Gallons Per Day:	54,345.90	Inches Per Day: 0.497
		Cu Ft per Day:	7,265.49	

Chart # 5

SPRAY IRRIGATION DESIGN
Center Square Commons — Summary

STORM INFORMATION		ACRE FT	CUBIC FT	GALLONS
VOLUME TO BE IRRIGATED:	REQUIRED	1.653	72,000.00	538,560.00
7 Days	PROVIDED	1.653	72,008.23	538,621.58
	1 ACRE FT=	325,900 Gallons	1 CUBIC FT =	7.48 GALLONS

DOSAGE INFORMATION		Cycle & Soak			
NO. OF DOSES =	1		2		6
VOLUME PER CYCLE =	19,663.72		38,127.44		38,810.50
PROVIDED RATE OF IRRIGATION =	18,000	GAL / HR	18,000	GAL / HR	
TOTAL REQUIRED HOURS OF IRRIGATION =	1.06		2.12		76,945.94

MAX RATE OF IRRIGATION (ET) =	IN/DAY	ACRE INCH	SQ FT / ACRE	GAL / SF / HR
	0.5	27,154	43,560	0.31

SEASONAL SCHEDULE	MARCH 15TH TO NOVEMBER 15TH

	LENGTH OF DOSE		TIME OF DAY FOR DOSING		CYCLE & SOAK WAIT TIME
ZONE	HOUR	MINUTES			
2		25	9:00 PM	9:25 AM	2 Hours
2		25	11:00 PM	11:25 AM	2 Hours
1 & 2	1	2	1:00 AM	2:02 AM	2 Hours
2		25	3:00AM	3:25 AM	2 Hours
1 & 2	1	2	5:00 AM	6:02 AM	2 Hours
2		25	7:00 AM	7:25 AM	3 Hours
2		25	9:00 AM	9:25 AM	

DAILY DOSAGE:	38,127.44 GALLONS	DAILY RUN TIME:	12.06 HOURS

SOIL INFORMATION:	
SOIL TYPE:	

MAXIMUM RATE OF IRRIGATION:	ABSORPTION AREA PROVIDED FOR IRRIGATION SQ FT	MAX ALLOWABLE RATE OF IRRIGATION BASED ON ABSRPTION AREA PROVIDED GAL / DAY
ZONE		
1	99,573.00	30,723.73
2	175,408.00	54,672.05

PROVIDED	273,981.00		85,395.78	
ZONE	TOTAL # OF SPRINKLERS	REQUIRED FLOW GPM	PROVIDED IRRIGATION RATE BASED ON SPRINKLER DESIGN GAL / DAY	PERCENT OF MAXIMUM ALLOWABLE IRRIGATION RATE
1	308	300	76,945.94	90.1%

PROVIDED				
Total Square Feet:	273,981.00	Total Gallons Per Day:	76,945.94	Inches Per Day: 0.451
		Cu Ft per Day:	10,286.89	

Chart # 6

1800 Series Spray W/ MPR Nozzles @ 30psi

Station	10	12	15	32T		Total	AVG
4	0.79	1.3	1.85	1.31		8	
		8				8	
8		7.80				7.80	0.98
				30		30	
				48.40		48.40	1.61
16	2	6				8	
	1.58		11.10			12.68	1.59
21			12			12	
			7.40			7.40	0.62
32			9			9	
			16.65			16.65	1.85
33			14	4		18	
			7.40			7.40	0.41
34			11			11	
			20.35			20.35	1.85
35			14			14	
			25.90			25.90	1.85
37			9			9	
			17			17	1.85
			133				

Chart # 7

Pressure Loss Chart			Static Pressure			75
	Flow/GPM	Size	Length/ft	Multiplier	Loss/100'	Press Loss
Pump PSI						75.00
Main Line	300	6"	40	0.4	0.27	0.11
Main Line	150	4"	1880	18.8	0.49	9.21
Loss						9.32
Dynamic Pressure at Station # 24						65.68
Pump PSI						78.00
Main Line	300	6"	40	0.4	0.27	0.11
Main Line	150	4"	1360	13.6	0.49	6.66
Loss						6.77
Dynamic Pressure at Station # 28						68.23

GENERAL PCSM / IRRIGATION:

System will be active from March 15th to November 15th

WARRANTY & MAINTENANCE:

1. CONTRACTOR SHALL MAINTAIN THE IRRIGATION SYSTEM IN GOOD OPERATING CONDITION AND COORDINATE THE OPERATION OF THE SYSTEM WITH THE ON SITE MANAGER THROUGH MONTHLY INSPECTIONS OF SYSTEM COMPONENTS AND MAKE REPAIRS OR REPLACEMENTS OF PARTS AS NECESSARY. THIS INCLUDES CHECKING AND VERIFYING OPERATION IN EACH STATION, ALIGNMENT OF HEADS, RAIN SENSORS, FREEZE SENSOR AND CENTRAL CONTROL.

WINTERIZATION:

WHEN COLD WEATHER APPROACHES AND CHANCE FOR FREEZING CONDITIONS EXIST, THE IRRIGATION SYSTEM SHALL BE DRAINED AFTER EACH USE

WINTERIZATION PROCEDURE SHALL INCLUDE THE FOLLOWING:

1. OPERATE SYSTEM TO DRAIN BASINS TO LOWEST POSSIBLE LEVEL
2. BLOW OUT EACH STATION TWICE WITH COMPRESSED AIR.
3. CLOSE DISCHARGE VALVE AT PUMP
4. OPEN WINTER BYPASS VALVE TO OUTFLOW STRUCTURE
5. SET INTERNAL HEATER FOR PUMP ENCLOSURE
6. ACTIVATE WINTER PROGRAM ON SITE CONTROL

SPRING START UP:

1. OPEN SPRING GATE VALVES
2. CHECK POND LEVEL SENSORS
3. SLOWLY FILL MAIN LINE
4. CHECK FOR LEAKS AND PROPER ALIGNMENT OF HEADS
5. REPAIR AND ADJUST SYSTEM AS REQUIRED FOR PROPER OPERATION

NO FAULT REPAIR AND CORRECTION:

NO FAULT REPAIR AND CORRECTION WORK SHALL CONSIST OF WORK TO CORRECT FAULTS OR REPAIR DAMAGE EXISTING THROUGH NO FAULT OF THE CONTRACTOR BUT WHICH IS NECESSARY FOR THE CONTINUED PROPER MAINTENANCE AND OPERATION OF THE IRRIGATION SYSTEM INCLUDING CORRECTION OF SPRINKLER SYSTEM. NO FAULT REPAIR AND CORRECTION SHALL NOT INCLUDE WORK AS OTHERWISE DEFINED WITHIN THE SCOPE OF WARRANTY. THE OWNER WILL AGREE TO PAY FOR THESE REPAIRS.THE SYSTEM AND ALL IT'S COMPONENTS ARE GUARANTEED FOR ONE (1) YEAR FROM INSTALLATION.

Chart # 8

PIPE SIZE CHART	
GPM	MINIMUM SIZE
1-16	1"
17-26	1.25"
27-39	1.50"
40-60	2"
61-80	2.5"
81-99	3"
100-190	4"
190-400	6"
400-600	8"
600-1000	10"

General Notes:

Contractor to provide 110v electric supply and Internet access to the Central Computer.

The Site Control Central Computer is installed in Pump House

Rainbird Site Control to be installed in order to complete the necessary communication and interaction between the pump station, pond level, and seasonal water schedule, or approved equal.
All Communication cable shall be installed in 1" PVC Conduit

All irrigation equipment to have Purple covers (non potable) Heads,Valve box covers, etc...

RAINBIRD SITE CONTROL:

THE INTERACTIVE CENTRAL CONTROL SYSTEM FOR LANDSCAPE VIA A 2 WIRE PATH AND DECODERS.

SMART SENSORS:

ALLOWS USE OF PULSE (FLOW) AND STATIC/SWITCH SENSORS TO MONITOR, ALARM AND TAKE ACTION ON MEASURED CONDITIONS

RAIN WATCH:

USES TIPPING BUCKET RAIN CAN TO DETECT AND SUSPEND IRRIGATION WHILE MEASURING RAINFALL.

FREEZE SENSOR:

WILL ACTIVATE OR DEACTIVATE SYSTEM AS PER SPECIFIED BY USER

DECODER HARDWARE:

LARGE DECODER INTERFACE (LDI) OR APPROVED EQUAL, SHALL SERVE AS AN INTERFACE BETWEEN THE CENTRAL CONTROLLER AND THE FIELD AND SENSOR DECODERS.
LDI CAN INTERFACE WITH UP TO 500 DECODER ADDRESSES AND CAN ACTIVATE UP TO 1000 SOLENOIDS.

LDI COMES WITH STANDARD TERMINALS FOR 4 WIRE PATHS

LDI SHALL BE GROUNDED TO LESS THAN 5 OHMS

WINTER PROGRAM:
CENTRAL CONTROL SYSTEM SHALL BE CAPABLE OF OPERATING DURING WINTER MONTHS
WINTER PROGRAM SHALL CONSIST OF THE FOLLOWING:
DEACTIVATE RAIN SENSOR
IF THE CONDITION EXISTS THAT THE LEVEL OF THE BASIN HAS RISEN TO ABOVE PERMANENT POOL LEVEL, THE PUMP WILL ACTIVATE AND UTILIZING THE WINTER BYPASS VALVE AND LINE TO DISBURSE THE EXCESS WATER TO THE OUTFLOW STRUCTURE ASSOCIATED WITH EACH PUMP STATION
THIS ACTION WILL BE ACTIVATED BY THE TRANSDUCER IN THE WET WELL MONITORING THE PERMANENT POOL LEVEL

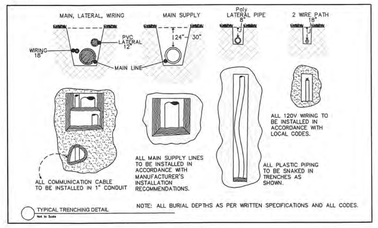
PCSM/Irrigation Spray Construction Sequence:

Contractor Shall make themselves familiar with all aspects of the construction of the PCSM system.
Prior to any trenching construction or installation, the Contractor shall flag out area to ensure the best location of pipe, sprinkler heads, valves, etc.
Any deviations in layout shall be brought to the Owners representative before proceeding.
The Contractor is expected to make minor adjustments of wire, pipe and valve locations as to not conflict with existing or future utilities.
Irrigation Sequence:
Installation of wet well and intake pipe and Screen
Installation of Pump Station
Installation of Road and Parking lot Sleeves
Installation of Main line, Valves and Communication Cable
Installation of Central Control System and Sensors
Installation of Lateral Lines
Installation of Sprinkler Heads
Testing of System
Adjustment of all sprinkler heads
Decoder Test
Flow Sensor Test
Completion of As-Built Drawings
Contact the Lehigh County Conservation District as to any changes in the Spray System and supply the LCCD with As-Built and impact of changes.

When required, Pressure Regulated Electric Valves will be installed to insure that the stations operate at the desired pressure

All Rotary stations to operate at 65psi
All Spray stations to operate at 30psi

Chart # 8



Main Line & Lateral Notes:

10" PVC Main Line Depth of Burial:36"
8" PVC Main Line Depth of Burial: 36"
6" PVC Main Line Depth of Burial: 30"
4" PVC Main Line Depth of Burial: 28"
3" PVC Main Line Depth of Burial: 24"
2" - 2.5" PVC Main Line Depth of Burial: 24"
1.5" PVC Lateral Line Depth of Burial: 12"
All Polyethylene Lateral Lines Depth of Burial: 8"

Chart # 9

Hydraulic Datasheet

Customer: Lehigh Valley Hospital Network	: Rain Bird Corporation	Pump / Stages	: 10ELM / 6
Customer: Aqua Mist Irrigation	: Default	Based on curve no.	: EC-2367
Item number	: -	Flowserve reference	: Default-0.1
Service	:	Date	: October 14, 2012

Operating Conditions

Capacity	: 300.0 USgpm
Water capacity (CQ=1.00)	: -
Normal capacity	: -
Total Developed Head	: 300.00 ft
Water head (CH=1.00)	: -
NPSH available (NPSHa)	: Ample
NPSHa less NPSH margin	: -
Maximum suction pressure	: Not applicable
Rated suction pressure	: Not applicable

Liquid

Liquid type	: Other
Liquid description	:
Temperature / Spec. Gravity	: 60 F / 1.000
Viscosity / Vapor pressure	: 1.0 cSt / -

Materials / Specification

Material column code	: B30

Other Requirements

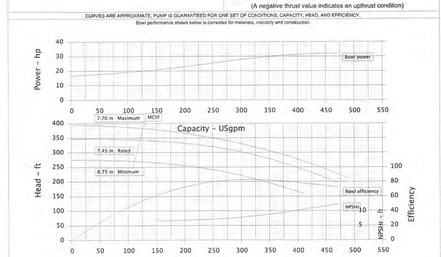
Hydraulic selection : No specification
Construction : No specification
Test tolerance : Hydraulic Institute Level A
Driver Sizing : Max Power(MCSF to EOC)with SF

Performance

Pump speed	: 1775 rpm	Impeller diameter	: Rated / Maximum / Minimum
NPSH required (NPSHr)	: 7.1 ft		: 7.45 in 7.70 in 6.75 in
Minimum submergence	: 21.00 in	Impeller dia ratio (rated/max)	: 96.8 %
Hydraulic power	: 22.8 hp	Maximum head @ rated dia	: 347.90 ft
Efficiency (CE=1.00)	: 82.2 %	Head rise to shut off	: 15.6 %
Power: (Rated / Max)	: 27.7 hp / 32.8 hp	Total head ratio (rated/max)	: 91.3 %
Driver power	: 40.0 hp / 29.8 kW	Flow at BEP	: 313.6 USgpm
Bowl Pressure	: 150.6 psig	Flow as % of BEP	: 96.7 %
(based on shut off and Rated specific gravity @ Cst dia)		Minimum continuous flow	: 122.4 USgpm
Maximum allowable	: 175.0 psig	Suction specific speed	: 7050 US units
Bowl & column hydrotest	: 195.4 psig	Rated thrust (at Rated flow)	: 921.5 lbf
Discha Head Discha Region MAWP	: 175.0 psig	Maximum thrust (at Shut off flow)	: 1046.1 lbf
		Minimum thrust (at Runout flow)	: 633.3 lbf

(A negative thrust value indicates an upthrust condition)

CURVES ARE APPROXIMATE. PUMP IS GUARANTEED FOR ONE SET OF CONDITIONS; CAPACITY, HEAD, AND EFFICIENCY.
Bowl performance shown below is corrected for materials, viscosity and construction.



Bowl head of 300.91 ft corresponds with 300.0 ft head at discharge flange adjusted for elevation and friction losses.

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FlowSelex v2.2

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AQUA MIST IRRIGATION
28 James Street
South Hackensack, NJ 07606
201-488-2057 NJ LIC # 15036

Project Title:

CENTER SQUARE COMMONS

WHITPAIN TOWNSHIP

Montgomery County Pennsylvania

Legend:

- Rainbird 5500 Rotary Head w/ # 12 Nozzle
- Rainbird 5004 Rotary Head w/ #4 Nozzle
- Rainbird 5004 Rotary Head w/ # 3 Nozzle
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- (R) Rainbird Rain Sensor
- (F) 4" Rainbird Flow Meter
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- 100psi Polyethylene Lateral Pipe
- Line Size Isolation Valve
- PVC Sleeves (size as noted)
- (B) Blow out port

REVISIONS:
06-09-15 Landscape Modifications
09-09-15 Volume Correction
09-29-15 Re-Size Drawing

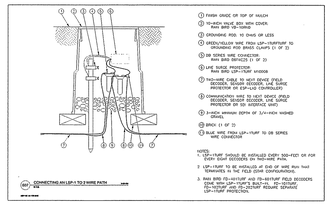
Project:

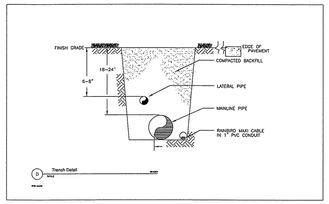
Center Square Commons

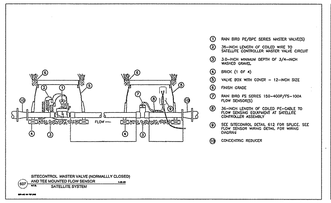
Post Construction Stormwater Management System

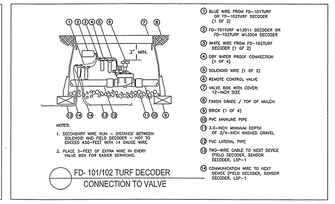
Data & Details

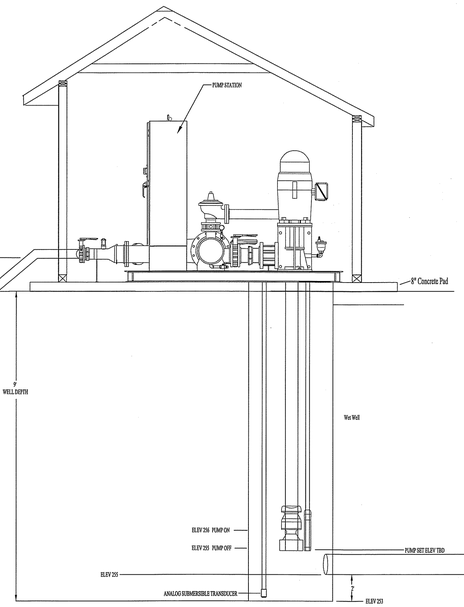
Date: 5-25-15	Design By: WJM
Drawn By: WJM	Checked By:
Scale: NTS	Sheet #: 32 of 38

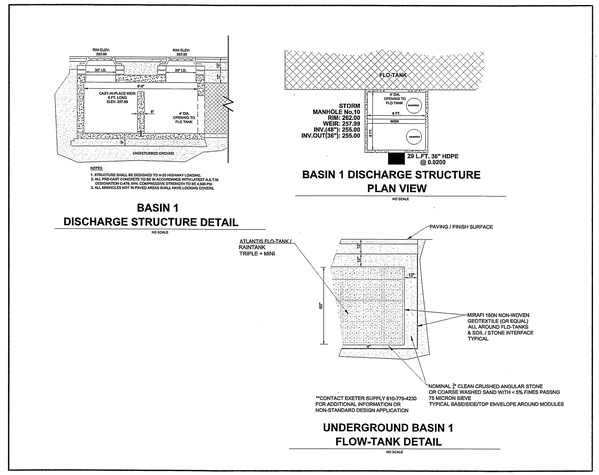


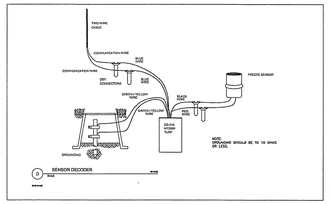


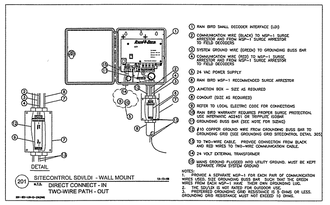


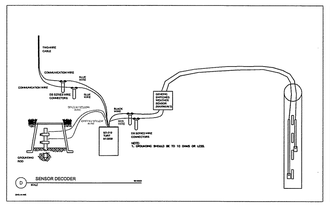


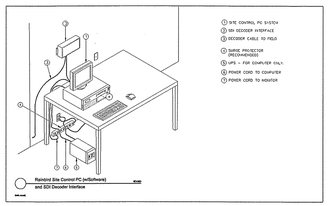


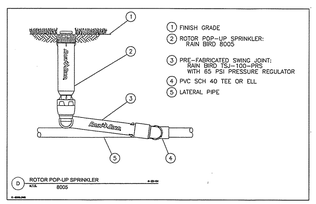












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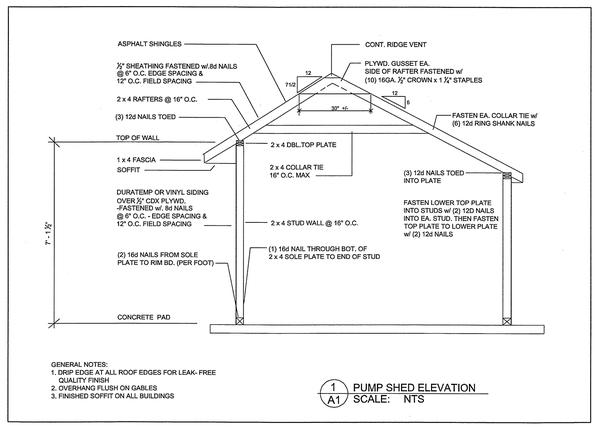

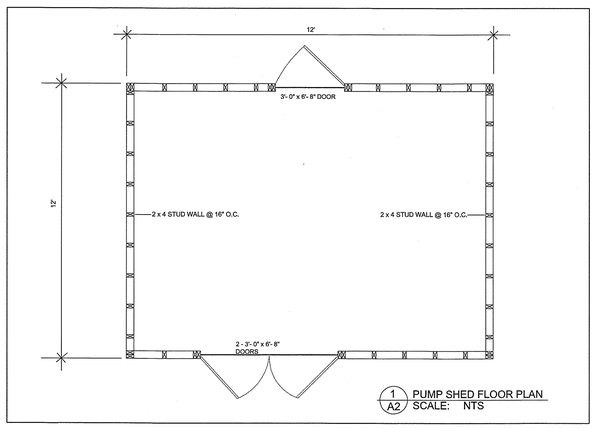

AQUA MIST IRRIGATION

28 James Street
South Hackensack, NJ 07606

201-488-2057 NJ LIC # 15036

Project Title:

CENTER SQUARE COMMONS

WHITPAIN TOWNSHIP

Montgomery County Pennsylvania

Legend:

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- PVC Sleeves (size as noted)
- (B) Blow out port

COMMONWEALTH OF PENNSYLVANIA — ROBERT J. McFALL II — ENGINEER — 1997

REVISIONS:
09-09-15 Pump Re-Location
09-29-15 Re-Size Drawing

Project:

Center Square Commons

Post Construction Stormwater Management System

Pump & Details

Date: 5-25-15	Design By: WJM
Drawn By: WJM	Checked By:
Scale: NTS	Sheet #: 33 of 38

OPERATIONS AND MAINTENANCE SCHEDULE:

Page 1

- STORMWATER SPRAY IRRIGATION

The contractor's shall ensure the spray irrigation is in working order and remains so for the period of time specified in the Maintenance Agreement. Following the maintenance agreement period the owner shall contract with a qualified irrigation contractor to provide preventative maintenance, seasonal maintenance, and annual reporting. Maintenance practices include, but are not limited to the following:

1. The contractor shall visit the site once a month for the first season of operation following Final Acceptance. The contractor shall monitor the system, balance the system to function per the performance specification, provide maintenance and repair. He shall also provide on-site consultation with the Owner's operating personnel and assist in submitting the required reports to the Conservation District and DEP.
2. Prior to beginning installation, written Maintenance Agreement with Owner for period specified in said Agreement from date of Final Acceptance for the following:
   a. Costs for additional work required for repair of items not covered by warranty shall be negotiated between Owner and Contractor prior to initiation of any repairs.
   b. Costs for the Maintenance Agreement are over and above Contract Sum, and shall not be included in construction price. Payment for extended maintenance by Owner shall occur upon completion of scheduled service and additional work, if any, as it occurs on monthly basis throughout duration of the Maintenance Agreement.
3. Flushing
   a. Schedule
      1) Every 2 weeks for first 6 weeks
      2) Spring startup
      3) Every 2 months
      4) Following any repairs
   b. Flush until exiting water is clean
      1) If after a reasonable period of time water remains unclean determine source of contaminants and remediate
      2) Re-flush until water is clean
   c. Following flushing operation pressure at end of runs to assure the pressure is within normal operating range. If pressure is outside of normal operating ranges remediate condition.
4. Pump Station: The pump station shall be maintained per the manufacture's requirements. The following information is the "Rainbird -

Page 2

pump station user manual - section 5.1 preventative maintenance schedule." It represents an example of the requirements for pump station operation and maintenance. The actual requirements to be used shall be based on the specific requirements for the pump station installed.

5.1 PREVENTATIVE MAINTENANCE SCHEDULE

Warning: the following preventative maintenance items should only be performed by a service provider trained to repair and maintain electrical and rotating equipment.

Caution: immediately remove rust and corrosion from damaged areas and apply touch up paint in accordance with the powder coating touch-up procedure.
Failure to do so will result in reduced service life and possible unsafe conditions.

1. 90 days following initial pump station start-up:
   a. De-energize the pump station and check tight all terminal connections and all plumbing connections.
   b. Remove any debris from control panel interior.
2. Daily: perform a cursory visual inspection of the pump station/pump house.
3. Weekly: perform a detailed visual inspection of the pump station/pump house.
4. Monthly tasks:
   a. Check condition and security of all installed equipment.
   b. Check for leaks and blockage of drain lines and control tubes.
   c. Check for signs of rust and corrosion.
   d. Check for any alarm conditions.
   e. Wash down pump station skid and piping (do not wash down pump station motors or other electrical components).
   f. Vacuum control panel interior.
5. Semi-annual tasks:
   a. De-energize the pump station and check tight all terminal connections and all plumbingconnections.
   b. Clear control panel heat exchanger and heat exchanger intake and discharge lines with compressed air.
   c. Clean all y-strainers (heat exchanger, prv, self-cleaning intake flush line, etc).
   d. Change oil on vertical hollow-shaft motors.
   e. Clear vertical turbine wet-well return/drain lines with compressed air.
   f. Clean and inspect pressure transducer. Remove and clear the pressure transducer hydraulic signal line with

Page 3

compressed air.
   g. Apply power to station.
   h. Check status of surge arrestors. (Led's should be illuminated)
   i. Check packing gland for proper bleed rate on vertical turbine pumps equipped with mechanical seals).
   j. Verify pump motor ampere draws closely match nameplate
   k. Flow test station up to design flow rate and back to zero. Ensure pumps start/stop in sequence properly.
6. Annually:
   a. Perform the motor insulation test procedure on all pump motors. Record the values and keep record that allows year-to-year comparison.
   b. On pump stations equipped with automatic filtration:
      1) Close the main inlet/discharge isolation valve(s).
      2) De-energize and de-pressurize the pump station.
      3) Remove and power wash each filter screen.
      4) Inspect the filter components in accordance with the filter's manufacturer recommendations.
   c. Verify individual pump performance at specified duty point against pump curve.
   d. Install a rebuild kit on the prv and adjust relief set-point to 110% of system operating pressure.
   e. Inspect all contactors and relays. (power off)
   f. Inspect and tighten all electrical terminals and lugs. (power off)

   Caution: do not store anything (equipment, rotors, painting supplies, food, clothing, etc.) on the pump station piping, skid or control panel. Stored items on the pump station may cause or contribute to corrosion and is a safety hazard.

   Note: the above schedule outlines the minimum required maintenance to ensure a long service life and reliable performance. Additional inspections and more frequent cleaning cycles may be necessary depending on the water quality or as desired.
5. Control Valves:
   a. Control valves shall be inspected as part of preventative - scheduled maintenance, winterization and start up.
   b. Check for water puddles on the surface which may indicate that a drain is stuck in an open position. If so determined repair and or replace as necessary. Automatic control valves shall be repaired only by properly trained personnel.
6. Sprinkler Heads:

Page 4

   a. Visually inspect operation of sprinkler heads. Assure uniform distribution and proper range of motion.
   b. Common cause of issues
      1) Foreign objects in water - remove through flushing and cleaning.
      2) Oil or pipe dope - do not use oil, grease or pipe dope. Remove any of these items previously used. Use Teflon tape on connections.
      3) Improper pressure - check per manufacture's specifications.
      4) Damaged parts - repair or replace as necessary. Note that repairs to sprinkler heads should only be made by trained personnel. including:
         a) Broken arm spring
         b) Worn bearing or wear washers
         c) Worn bearings
         d) Trip mechanism on part circle models
   c. Reset part circle friction collars as necessary to provide proper coverage and prevent overspray into undesirable or unnecessary areas.
   d. If visual observation indicates water puddles or non-uniform application perform a calibration test (sometime referred to as a can or cup test) to verify that loading is uniform. Make necessary adjustments as necessary.

7. Scheduled maintenance - periodic maintenance shall be undertaken during operation. This should be done a minimum of 4 weeks after start-up and 8 weeks thereafter. This schedule should be modified based on climate and past operational conditions. This should include but not be limited to the following:
   a. Visual observation of all system components as mentioned above.
   b. Cleaning of intake and inline screens, filters, etc.
   c. Flushing of system
   d. Pressure tests as necessary
   e. Adjustment of sprinkler head coverage, pressures duration of application, etc.
   f. Repair and replace damaged components.
   g. Review of system operation reports to determine if permit requirements are being meet.
8. Repairs - following all repairs:
   a. Flush system.
   b. Check pressures on repaired line.
   c. Review operation and inspect all zones during operation.
   d. Make additional repairs as necessary.
9. Winterization - following the annual operating cycle, October 15th and

Page 5

before freezing temperatures winterize the system.
   a. Comply with manufacturer's instructions.
   b. Winterize the pump station per the winterization procedures in the manufacturers - pump station manual.
   c. Include valves, filters, backflow preventers, lines, emitters, etc.
   d. Blow out lines with compressed air. This includes sprinkler, drip and controlled application lines.
      1) Caution - do not exceed manufacturer's pressure limits. Check limits for all components.
      2) Close mainline shut-off valve.
      3) Relieve pressure by opening control valve.
      4) Slowly open all flush valves and drain ports on the mainline.
      5) Apply compressed air, gradually increase flow until no water exits ports. a compressor capable of producing 10 to 25 cfm of air volume with a pressure relief valve to assure pressure does not exceed manufacturer's limits shall be used.
      6) Limit time compressed air is applied to the manufacturer's requirements to prevent damage to system, use of a timer is recommended.
      7) Repeat this procedure on the each individual zone control valve. Start at farthest zone from air connection. Assure that at least one zone control valve is open while there is air flow from the compressor.
      8) All valves must be winterized using blown compressed air to remove water.
      9) To ensure the system is adequately drained, repeat this cycle 2 or more times until there is no longer any water flow.
      10) Manual valves and solenoids shall be left in open position throughout non- operating period.
   e. Winter Bypass
      1) After System has been winterized, open 4" gate valve to manually drain basin to outflow structure
   f. File the necessary reports on compliance of operation with the appropriate jurisdictional authorities (PADEP, County Conservation District, and Municipality).

10. Spring Startup
   a. Remove foreign material and debris from the irrigation system:
      1) Clean and/or replace screens, filters, etc. on intake lines and in-line per manufacturer's requirements.
      2) Flush lines per procedures in flushing section.

Page 6

   b. Sprinkler Heads
      1) Check clearance around each head
      2) Check to assure heads properly circulate
      3) Replace damaged nozzles (cracked, chipped, worn, etc.)
      4) Check application rates - see manufactures information on can/cup test.
   c. Valves
      1) Visually inspect operation of each valve
      2) Check any surface areas that appear to be overly wet.
   d. Controller (in addition to spring start-up check after each power outage)
      1) Re-program controller if settings were lost. check all settings
      2) Run through all cycles
      3) Check and replace back-up battery as necessary
   e. Pump Station
      1) Perform pump station annual maintenance per requirements above.
      2) Check and record operational criteria and compare to design criteria.
      3) If not within normal operating ranges, perform repair or replacement as necessary to operate within the design criteria.

F. Landscaping:

Inspect seeded areas for failure and if repairs or reseeding are necessary, do them immediately. Re-inspect the seeded areas after a year.

If an area is covered less than 70 percent, reevaluate the choice of plant materials and the quantities of lime and fertilizer used. Reestablish the stand after the seedbed is prepared. Follow the recommendations, and do not use lime and fertilizer if the results of a soil test are not available. If the season prevents re-sowing, mulch or erosion netting is an effective temporary cover. Contractors should be held responsible for meeting performance guarantee.

G. Outlet Structures:

The outlet structures should be inspected after heavy rains to see if any erosion around or below the structure has taken place or if stones have been dislodged. All needed repairs should be performed immediately to prevent further damage.

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AQUA MIST IRRIGATION

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201-488-2057 NJ LIC # 15036

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COMMONWEALTH OF PENNSYLVANIA — Russell McFall II — Member — No. PA 035126

REVISIONS:
09-29-15 Re-Size Drawing

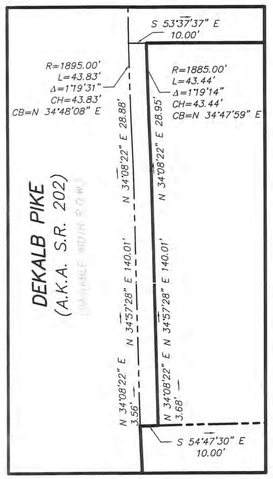
Project:

Center Square Commons

Post Construction Stormwater Management System

O & M Schedule

Date:	Design By:
5-25-15	WJM
Drawn By: WJM	Checked By:
Scale: NTS	Sheet #: 34 of 38



DETAIL VIEW 'A'

APPLICANT/EQUITABLE OWNER

MADISON DEVELOPMENT GROUP, INC.
AND CENTER SQUARE COMMONS, LP.
ATTN: JOHN MCKENNA
P.O. BOX 507
SOUTHEASTERN, PA 19399

I HEREBY CERTIFY THAT _____ IS THE OWNER OF THE LAND HEREIN SUBDIVIDED OR TO BE DEVELOPED AND THAT I DO HEREBY ADOPT THIS PLAN.

_____ DATE
(TITLE)

APPROVED BY THE WHITPAIN TOWNSHIP PLANNING COMMISSION THIS _____ DAY OF _____, 20 _____.

_____ DATE
SECRETARY
WHITPAIN TOWNSHIP PLANNING COMMISSION

APPROVED BY THE TOWNSHIP ENGINEER ON THE DAY OF _____, 20____.

_____ DATE
TOWNSHIP ENGINEER

APPROVED BY THE BOARD OF SUPERVISORS OF WHITPAIN TOWNSHIP THIS _____ DAY OF _____, 20 _____.

_____ DATE
CHAIRMAN

_____ DATE
SECRETARY

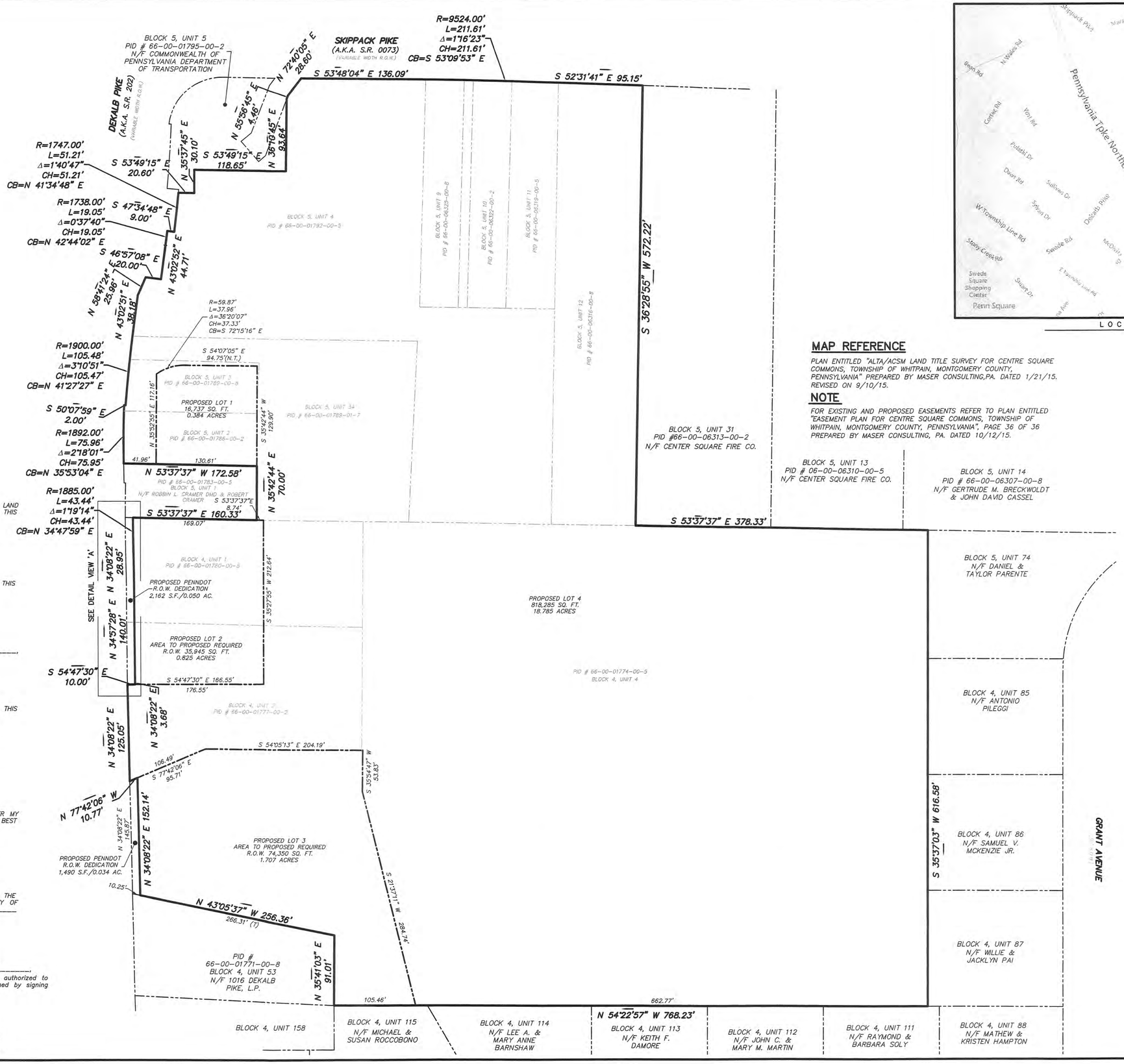
I HEREBY CERTIFY THAT THIS PLAN REPRESENTS A SURVEY MADE UNDER MY SUPERVISION AND THAT ALL DIMENSIONAL DETAILS ARE CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

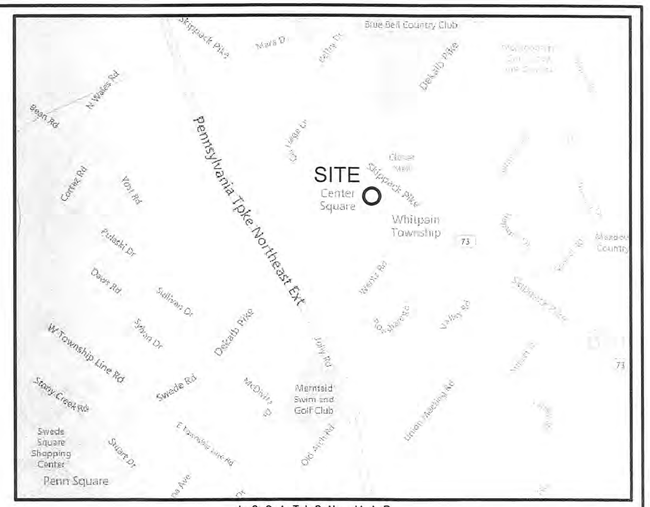
10/12/15
DATE
MICHAEL F. BURNS
PENNSYLVANIA PROFESSIONAL
LAND SURVEYOR LIC. NO. SU050063-E

RECORDED THIS _____ DAY OF _____, 20____, IN THE OFFICE FOR THE RECORDING OF DEEDS, ETC., IN AND FOR THE COUNTY OF MONTGOMERY OF NORRISTOWN, PENNSYLVANIA, IN PLAN BOOK NO. _____ PAGE_____.

CORPORATE ACKNOWLEDGEMENT
COMMONWEALTH OF PENNSYLVANIA
COUNTY OF _____
On this, _____ day of _____, 20_____, before me, _____, the undersigned officer, personally appeared _____, who acknowledged himself (herself) to be the _____, being authorized to do so, executed th foregoing instrument for the purpose therein contained by signing the name of the corporation by himself(herself) as
IN WITNESS WHEREOF, I have hereunto set my hand and official seal.

_____ Notary Public
My Commission Expires:
_____,20_____





LOCATION MAP

MAP REFERENCE

PLAN ENTITLED "ALTA/ACSM LAND TITLE SURVEY FOR CENTRE SQUARE COMMONS, TOWNSHIP OF WHITPAIN, MONTGOMERY COUNTY, PENNSYLVANIA" PREPARED BY MASER CONSULTING,PA. DATED 1/21/15. REVISED ON 9/10/15.

NOTE

FOR EXISTING AND PROPOSED EASEMENTS REFER TO PLAN ENTITLED "EASEMENT PLAN FOR CENTRE SQUARE COMMONS, TOWNSHIP OF WHITPAIN, MONTGOMERY COUNTY, PENNSYLVANIA", PAGE 36 OF 36 PREPARED BY MASER CONSULTING, PA. DATED 10/12/15.

PA. STATE PLANE COORDINATE SYSTEM (NAD83)

60 0 60 120
SCALE IN FEET (1"=60')

REV.	DATE	DRAWN BY	DESCRIPTION

COMMONWEALTH OF PENNSYLVANIA
REGISTERED
MICHAEL F. BURNS
10/12/15
MICHAEL F. BURNS
PENNSYLVANIA PROFESSIONAL
LAND SURVEYOR LIC. NO. SU050063-E

MASER CONSULTING P.A.
Consulting, Municipal & Environmental Engineers
Planners * Surveyors * Landscape Architects
New Jersey New York Pennsylvania Virginia
Customer Loyalty through Client Satisfaction

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Mount Laurel Twp., NJ 08054
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Fax: 856.772.1120
email: solutions @ maserconsulting.com

FINANCIAL SUBDIVISION PLAN

FOR

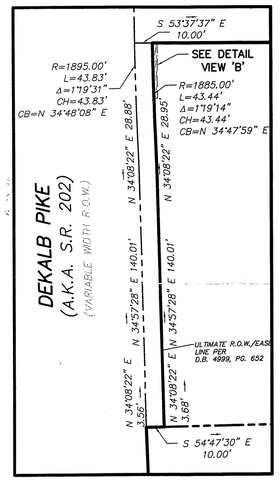
CENTRE SQUARE COMMONS

TOWNSHIP OF WHITPAIN
MONTGOMERY COUNTY PENNSYLVANIA

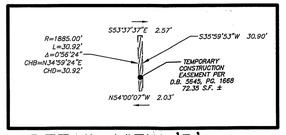
SCALE:	DATE:	DRAWN BY:	CHECKED BY:
1"=60'	10/12/15	AJN	MB

PROJECT NUMBER: 12000830A V-SURV-RCRD-SUBD

SHEET NUMBER: 35 of 38



DETAIL VIEW 'A'



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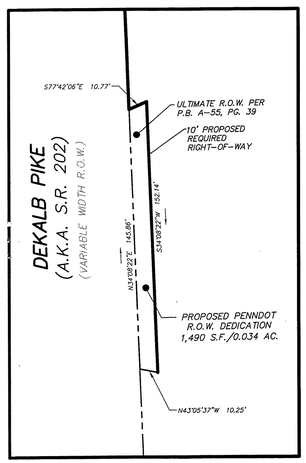

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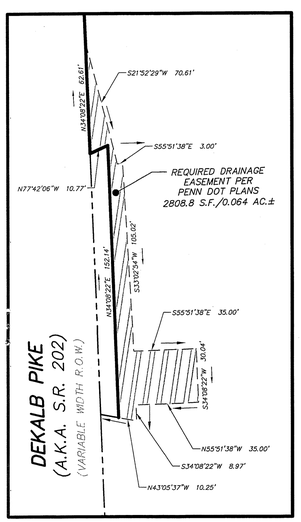
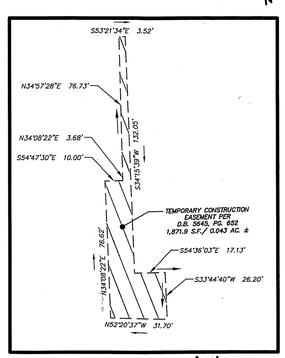
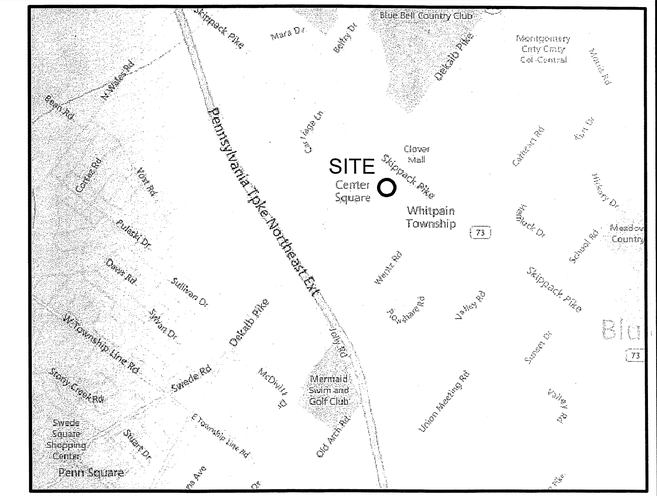


DETAIL VIEW 'C'



DETAIL VIEW 'D'



LOCATION MAP

NOTES

1. FOR EXISTING EASEMENTS REFER TO PLAN ENTITLED "ALTA/ACSM LAND TITLE SURVEY FOR CENTRE SQUARE COMMONS, TOWNSHIP OF WHITPAIN, MONTGOMERY COUNTY, PENNSYLVANIA" PREPARED BY MASER CONSULTING, PA. DATED 1/21/15. LAST REVISED 9/10/15.
2. FOR PROPOSED EASEMENTS REFER TO PLAN ENTITLED "FINAL LAND DEVELOPMENT PLAN FOR MADISON DEVELOPMENT GROUP INC., DEKALB PIKE AT SKIPPACK PIKE, WHITPAIN TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA" PREPARED BY MASER CONSULTING, PA., DATED 6/10/15, LAST REVISED 10/09/15.

PA. STATE PLANE COORDINATE SYSTEM (NAD83)

60 0 60 120

SCALE IN FEET (1"=60')

REV.	DATE	DRAWN BY	DESCRIPTION

COMMONWEALTH OF PENNSYLVANIA REGISTERED Professional Land Surveyor MICHAEL E. BURNS 10/2/15

MICHAEL E. BURNS
PENNSYLVANIA PROFESSIONAL LAND SURVEYOR LIC. NO. SU050063-E

MASER CONSULTING P.A.
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EASEMENT PLAN

FOR

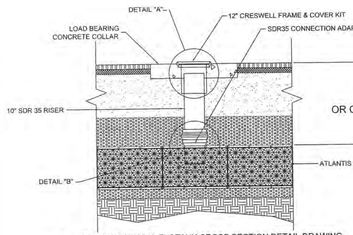
CENTRE SQUARE COMMONS

TOWNSHIP OF WHITPAIN
MONTGOMERY COUNTY PENNSYLVANIA

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
1"=60'	10/12/15	AJN/BJS	JJP

PROJECT NUMBER: 12000830A V-SURV-EASE-PLAN

SHEET NUMBER: 36 of 38



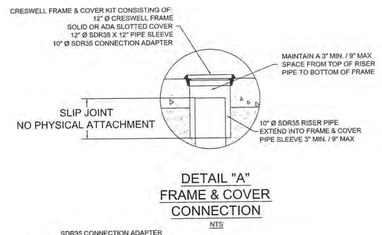
* REFER TO TYPICAL FLOTANK CROSS SECTION DETAIL DRAWING FOR MODULE INSTALLATION DETAILS

TYPICAL CROSS SECTION MAINTENANCE PORT CONNECTION VEHICULAR LOADING

INSTALLATION NOTES:

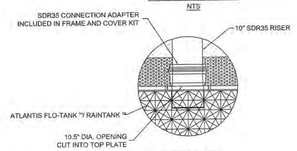
1. 10" Ø MAINTENANCE PORTS PROVIDE VISUAL INSPECTION CAPABILITY, FLUSH / VACUUM ACCESS AND SYSTEM VENTILATION.
2. MAINTENANCE PORTS ARE RECOMMENDED WITHIN THE FIRST 10'-15' OF AN INLET PIPE OR CATCH BASIN ABUTMENT TO SYSTEM AND 35'-50' SPACING THROUGHOUT THE SYSTEM. MAINTENANCE PORTS CAN SUBSTITUTE OBSERVATION PORTS.
3. LAYOUT AND CUT 10.5" HOLE IN THE TOP PLATE.
   - 3.1. POSITION THE HOLE CENTERED IN THE WIDTH OF THE LARGE PLATE
   - 3.2. POSITION THE HOLE BETWEEN INTERNAL PLATES IN THE LENGTH OF THE LARGE PLATE, BASED ON THE PLATE CONFIGURATION A PLATE MAY NEED TO BE OMITTED FOR THE MAINTENANCE PORT.
   - 3.3. USE A HOLE SAW, JIG SAW, OR SAZALL TO CUT A 10.5" Ø HOLE IN THE LARGE PLATE
4. PLACE THE SDR35 CONNECTION ADAPTER WITH THE SPIGOT END INTO THE LARGE PLATE, MAKING SURE THE ADAPTER DOESN'T FALL COMPLETELY THROUGH, IF SO DISCARD & CUT A NEW LARGE PLATE
5. CUT A PIECE OF SDR35 PIPE TO THE DESIRED HEIGHT. THE RISER PIPE MUST BE 3" MINIMUM AND 9" MAXIMUM LESS THAN THE BOTTOM OF THE COVER FRAME
6. INSTALL THE RISER PIPE INTO THE ADAPTER FITTING
7. INSTALL THE 12" LONG PIPE SLEEVE INTO THE FRAME & COVER
8. INSTALL THE FRAME & COVER WITH PIPE SLEEVE OVER THE RISER PIPE. DO NOT GLUE OR PHYSICALLY ATTACH THE PIPE SLEEVE TO THE RISER PIPE.
9. WHEN BACKFILLING KEEP THE FRAME WITH PIPE SLEEVE AT FINISH ELEVATION, CREATING A 3"-9" SPACE BETWEEN THE TOP OF THE RISER PIPE AND THE BOTTOM OF THE COVER FRAME
10. THE PIPE SLEEVE CREATES A SLIP JOINT OVER THE RISER PIPE AND WILL PREVENT ADVERSE VERTICAL LOADING FROM BEING TRANSFERRED TO THE TOP OF THE SYSTEM

** CONTACT EXETER SUPPLY 610-779-4230 FOR ADDITIONAL INFORMATION, ORDERING OR NON-STANDARD DESIGN APPLICATION



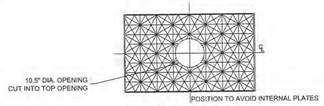
DETAIL "A" FRAME & COVER CONNECTION

NTS



DETAIL "B" LOCATING COUPLING CONNECTION

NTS



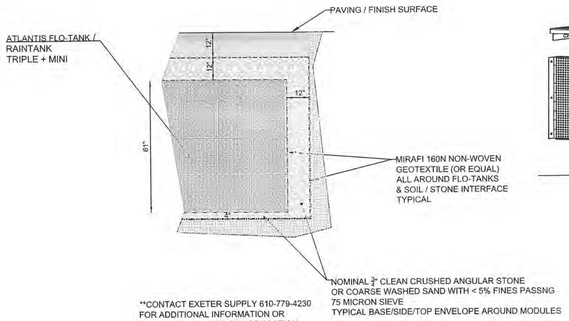
ATLANTIS FLO-TANK®

TOP VIEW
NTS

STORM MANHOLE No.10
RIM: 262.00
WEIR: 257.99
INV.(48"): 255.00
INV.OUT(36"): 255.00

BASIN 1 DISCHARGE STRUCTURE PLAN VIEW

NO SCALE



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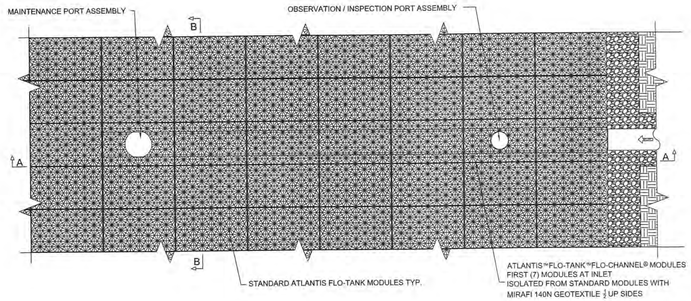
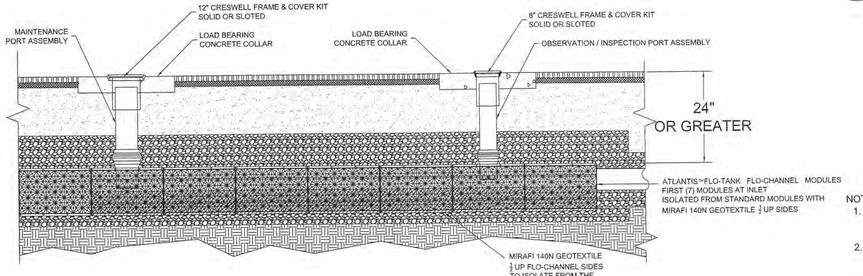
UNDERGROUND BASIN 1 FLOW-TANK DETAIL

NO SCALE



PLAN VIEW
SECONDARY SEDIMENT CONTAINMENT CHANNEL

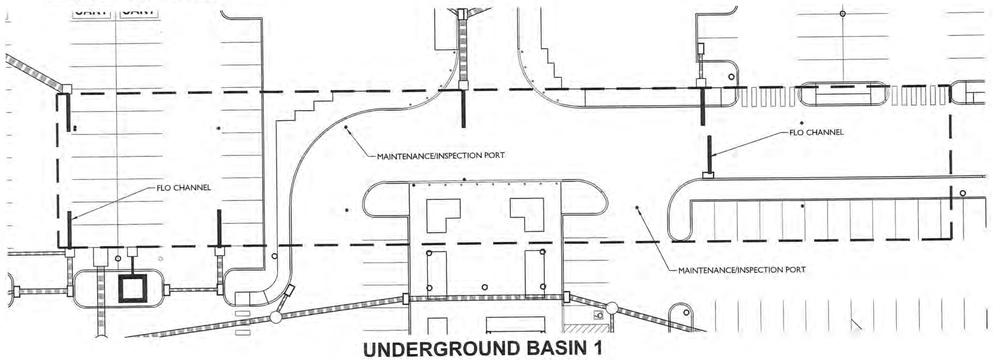


A-A SSC-1 TYPICAL CROSS SECTION
SECONDARY SEDIMENT CONTAINMENT CHANNEL VEHICULAR LOADING

** CONTACT EXETER SUPPLY 610-779-4230 FOR ADDITIONAL INFORMATION, ORDERING OR NON-STANDARD DESIGN APPLICATION

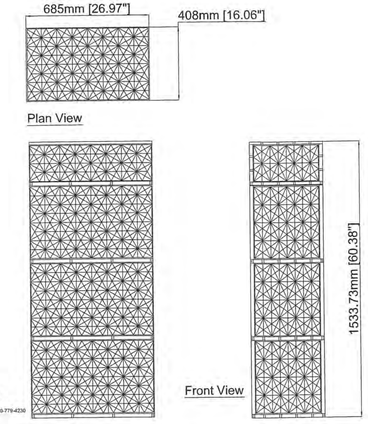
NOTES:

1. THE SECONDARY SEDIMENT CONTAINMENT CHANNEL MODULE MUST HAVE 10" DIAMETER OPENING THROUGH THE LENGTH OF THE MODULE FOR PROPER FLOW, INSPECTION AND MAINTENANCE
2. THE SECONDARY SEDIMENT CONTAINMENT CHANNEL IS TO BE USED IN CONJUNCTION WITH A PRIMARY TREATMENT DEVICE AND NOT AS THE PRIMARY TREATMENT UNIT
3. THE SECONDARY SEDIMENT CONTAINMENT CHANNEL IS DESIGNED TO MINIMIZE SEDIMENT FROM SPREADING THROUGHOUT THE BASIN SHOULD IT GET PAST THE PRIMARY TREATMENT DEVICE. THE CHANNEL CONTAINS SEDIMENT IN AN ISOLATED AREA FOR EASE OF MAINTENANCE
4. REFERENCE TYPICAL FLO-TANK CROSS SECTION DETAIL DRAWING FOR MODULE INSTALLATION DETAILS
5. REFERENCE TYPICAL OBSERVATION PORT & MAINTENANCE PORT CROSS SECTION DETAIL DRAWINGS FOR PROPER INSTALLATION



UNDERGROUND BASIN 1 ACCESSORIES DETAIL

SCALE: 1"=30'



Constant: Exeter Supply 610-779-4230

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Drawing No: AOP 0023-M

Atlantis® Matrix®/ Flo-Tank®/ D-Raintank® Module - *TRIPLE + MINI*

Dimensions (W x L x H)	408mm x 685mm x 1534mm	16.06" x 26.97" x 60.38"
Module Footprint	0.2795 m²	3.011 ft²
Gross Volume	0.428 m³	15.104 ft³
Storage Capacity	405 L	107 gal

Atlantis®
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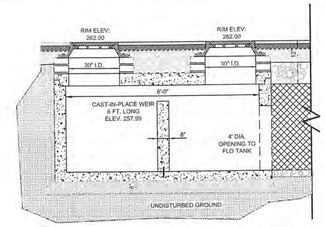
September 2014 PLOT SHEET

FABCO - CONNECTOR PIPE SCREEN

N.T.S.

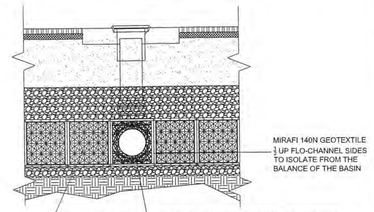


NOTES

1. STRUCTURE SHALL BE DESIGNED TO H-20 HIGHWAY LOADING.
2. ALL PRE-CAST CONCRETE TO BE IN ACCORDANCE WITH LATEST A.S.T.M. DESIGNATION C-478, MIN. COMPRESSIVE STRENGTH TO BE 4,000 PSI
3. ALL MANHOLES NOT IN PAVED AREAS SHALL HAVE LOCKING COVERS.

BASIN 1 DISCHARGE STRUCTURE DETAIL

NO SCALE



B-B SSC-1 TYPICAL CROSS SECTION
SECONDARY SEDIMENT CONTAINMENT CHANNEL VEHICULAR LOADING

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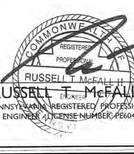
REV	DATE	DRAWN BY	DESCRIPTION
1	09/11/15	CJR	REVISED PER HCCD REVIEW
2	10/09/15	EXTON	FINAL PLAN SUBMISSION
3	11/30/15	EXTON	REVISED PER FINAL PLAN REVIEW



FINAL LAND DEVELOPMENT PLANS

FOR

MADISON DEVELOPMENT GROUP, INC.

DEKALB PIKE AT SKIPPACK PIKE

WHITPAIN TOWNSHIP
MONTGOMERY COUNTY
PENNSYLVANIA

EXTON OFFICE
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email: solutions@maserconsulting.com

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	06/10/15	DRI	RTM

PROJECT NUMBER: 12000830A
DRAWING NAME: C-GRAD

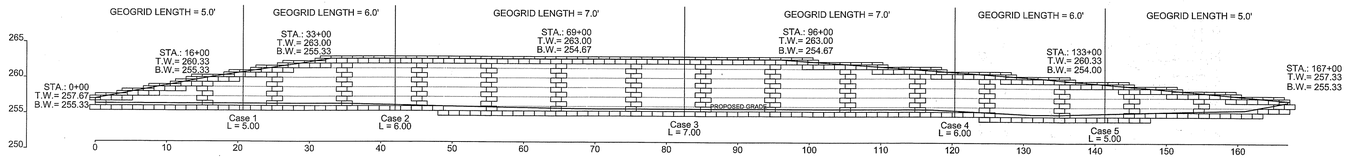
SHEET TITLE: FLO-TANK: PCSM DETAILS

SHEET NUMBER: 37 of 38

I:\2000830A\Engineering\C-CAD\C-dwg\C-37-FLO TANK PCSM DETAILS By: JDR/RKS

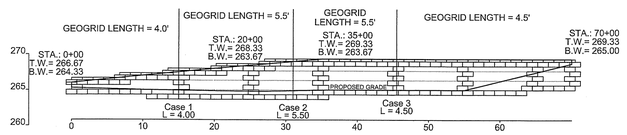
RETAINING WALL 1

SCALE: 1" = 10'



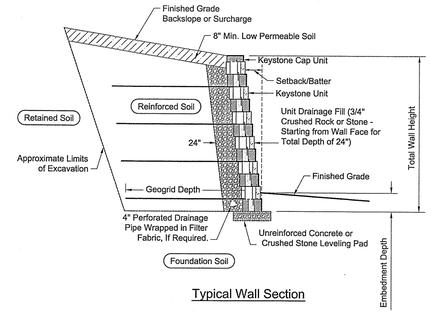
RETAINING WALL 2

SCALE: 1" = 10'



SEGMENTAL RETAINING WALL NOTES:

- RETAINING WALL DESIGN PROVIDED BY DOUG STATLER, ENGINEERED WALL CONSULTANT / SALES REPRESENTATIVE FOR YORK BUILDING PRODUCTS CO., INC. ADDITIONAL INFORMATION REGARDING RETAINING WALL TO BE PROVIDED BY YORK BUILDING PRODUCTS. DSTATLER@YORKBUILDING.COM; CELL - (301) 748-1220
- THE GEOTECHNICAL REPORT FOR THIS PROJECT (DATED 01.16.15 BY MASER CONSULTING) INDICATES THAT THE SOILS ON THE SITE VARY BETWEEN CLAY, SAND, SILT AND WEATHERED ROCK. AN INTERNAL ANGLE OF FRICTION OF 28 DEGREES WAS USED FOR ALL SOILS IN THE WALL DESIGN CALCULATIONS BASED ON WORST CASE "CL" (LEAN CLAY SOILS). NO ORGANIC SOILS ("OH" OR "OL") OR PLASTIC SOILS ("CH" OR "MH") MAY BE PERMITTED WITHIN THE FOUNDATION SOILS (WALL SUB-GRADE, INCLUDING UNDER THE REINFORCED GEOGRID ZONE) OR THE RETAINED SOILS (BEHIND THE REINFORCED GEOGRID ZONE). THE INFILL SOILS (REINFORCED GEOGRID ZONE) MUST MEET THESE SAME PARAMETERS BUT ADDITIONALLY MUST BE CLASSIFIED BY USCS AS ML (SANDY SILT) OR MORE GRANULAR. A UNIT WEIGHT OF 120 PCF WAS USED FOR ALL SOILS- THIS MAY BE +/- 5 PCF.
- WHERE ELEVATIONS ARE SHOWN, TOP OF WALL SHALL MEAN THE ELEVATION AT THE TOP OF THE CAP STONE AND BOTTOM OF WALL SHALL MEAN THE ELEVATION AT THE TOP OF THE LEVELING PAD.
- THE BEARING CAPACITY OF THE FOUNDATION SOILS MUST BE ≥ 2,000 PSF. THE HIGHEST BEARING PRESSURE EXERTED BY THESE WALLS IS 1,333 PSF (WALL 1- CASE 3).
- THE GEOGRID REINFORCING SHALL BE STRATA SG200 (AT LENGTHS SPECIFIED ON WALL PROFILE). MIRAFI 3XT IS AN ACCEPTABLE SUBSTITUTION.
- THE WALLS WERE DESIGNED WITH THE NEAR VERTICAL BATTER- FRONT PIN POSITION (1/8" SETBACK: 1 DEGREE BATTER), BUT THEY MAY ALSO BE BUILT USING THE BACK PIN POSITION (1-1/4" SETBACK: 8.8 DEGREE BATTER) IF DESIRED SINCE THE CALCULATIONS WERE DONE WITH THE MORE CONSERVATIVE FRONT PIN POSITION.
- THE ANGLE POINTS ON THESE WALLS (STATION 0+69 OF WALL #1 AND STATION 0+49 OF WALL #2) SHALL BE BUILT AS RADII (OUTSIDE CURVES) TO AVOID VERTICAL JOINTS.



Typical Wall Section

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Design is for internal stability of the KEYSTONE wall structure only. External stability, including but not limited to foundation and slope stability is the responsibility of the Owner. The design is based on the assumption that the materials within the retained mass, methods of construction, and quality of materials conform to KEYSTONE's specification for this project.

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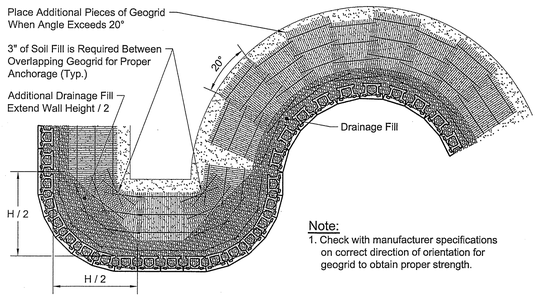
KEYSTONE® RETAINING WALL SYSTEMS, A KEYSTEN COMPANY
4444 West 78th Street
Minneapolis, MN 55435
952-897-1040

Designed By: DMT	Title: Typical Wall Section	Date: 11/2014
Checked By: CDM	Project: Wall Details	Project No: Det
Scale: No Scale		Drawing No: 1 of 1



Note:
1. Check with manufacturer specifications on correct direction of orientation for geogrid to obtain proper strength.

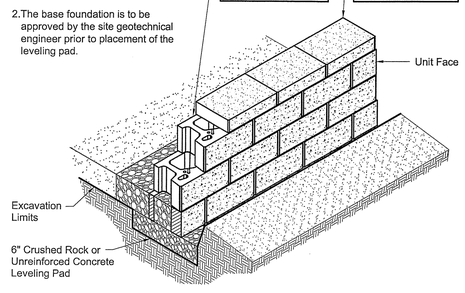
Geogrid Installation on Curves

Base Leveling Pad Notes:

1. The leveling pad is to be constructed of crushed stone or 2,000 psi± unreinforced concrete
2. The base foundation is to be approved by the site geotechnical engineer prior to placement of the leveling pad.

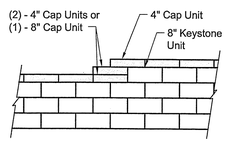
Compac III Unit	
*Width:	18"
*Depth:	12"
Height:	8"
*Weight:	75 lbs

Cap Unit	
Width:	18"
*Depth:	12"
Height:	4"
*Weight:	67.5 lbs



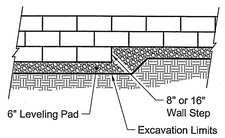
Compac III Unit/Base Pad Isometric Section View

* Dimensions & Weight May Vary by Region



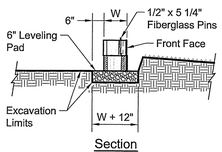
Note:
1. Secure all cap units with Keystone Kapseal or equal.

Top of Wall Steps



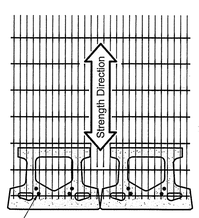
Elevation

Note:
1. The leveling pad is to be constructed of crushed stone or 2000 psi ± unreinforced concrete.



Section

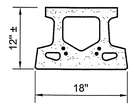
Leveling Pad Detail



Geogrid is to be Placed on Level Backfill and Extended Over the Fiberglass Pins. Place Next Unit. Pull Grid Taught and Backfill. Stake as required.

Grid & Pin Connection

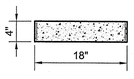
Compac III Elevation



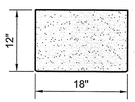
Compac III Plan

Compac III Unit

* Dimensions May Vary by Region



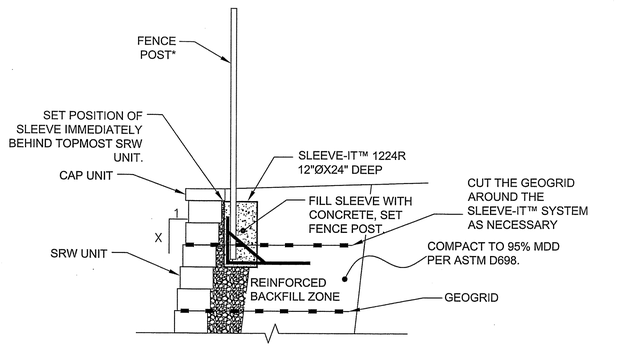
Cap Unit Elevation



Cap Unit Plan

Straight Split Cap Unit

* Dimensions & Availability Will Vary by Region



*FENCING SYSTEMS APPROVED FOR USE WITH SLEEVE-IT™ 1224R ARE LIMITED TO THE FOLLOWING HEIGHTS: CHAIN LINK - UP TO 8-FT, PRIVACY - UP TO 6-FT (WOODEN, PVC, METAL). POST SIZE 4"X4" MAX.

DETAIL OF FENCE POST INSTALLATION USING SLEEVE-IT™ 1224R

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strata@geogrid.com

DATE: 12/15/2007	SCALE: NTS	DWG NO. SLEEVE-IT™ 1224R SECTION

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REV	DATE	DRAWN BY	DESCRIPTION
1	09/11/15	CJR	REVISED PER MCCD REVIEW
2	10/09/15	EXTON	FINAL PLAN SUBMISSION
3	11/20/15	EXTON	REVISED PER FINAL PLAN REVIEW

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL ENGINEER — RUSSELL L. MCFALL II

RUSSELL L. MCFALL II
PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER LICENSE NUMBER: PE60408

FINAL LAND DEVELOPMENT PLANS

FOR

MADISON DEVELOPMENT GROUP, INC.

DEKALB PIKE AT SKIPPACK PIKE

WHITPAIN TOWNSHIP
MONTGOMERY COUNTY
PENNSYLVANIA

EXTON OFFICE
410 Eagleview Boulevard
Suite 104
Exton, PA 19341
Phone: 610.254.9140
Fax: 610.254.9141
email: solutions@maserconsulting.com

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	06/10/15	DIII	RTM

PROJECT NUMBER: 12000830A
DRAWING NAME: C-GRAD

SHEET TITLE: RETAINING WALL DETAILS

SHEET NUMBER: 38 of 38

12000830A\Engineering\C-GRAD.dwg\C-38 RETAINING WALL DETAILS By: DJUPKE

CENTRE SQUARE COMMONS

WHITPAIN TOWNSHIP - MONGOMERY COUNTY - PENNSYLVANIA

PRELIMINARY LAND DEVELOPMENT SUBMISSION
ARCHITECTURAL DESIGN GUIDELINES

APRIL 22, 2015
REVISED JUNE 4, 2015

APPLICANT:

CENTER SQUARE COMMONS, LP

P.O. BOX 507
SOUTHEASTERN, PA

ARCHITECT:

Bernardon Haber Holloway
ARCHITECTS PC

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Kennett Square, PA 19348
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SHEET INDEX

SHEET NUMBER	SHEET TITLE
1.	SHEET INDEX
2.	PROJECT NARRATIVE AND GENERAL NOTES
3.	SITE PLAN
4.	PERSPECTIVE
5.	PERSPECTIVE
6.	PERSPECTIVE
7.	PERSPECTIVE
8.	SECTIONS AT BERM
9.	BUILDING 1 – ELEVATIONS & PLAN
10.	BUILDING 2 – ELEVATIONS & PLAN
11.	BUILDING 3 – ELEVATIONS & PLAN
12.	BUILDING 4 – ELEVATIONS & PLAN
13.	BUILDING 5 – ELEVATIONS & PLAN
14.	BUILDING 6 – ELEVATIONS & PLAN
15.	BUILDING 7 – ELEVATIONS & PLAN
16.	TRASH ENCLOSURE
17.	BENCHES AND WASTE RECEPTACLES
18.	BIKE RACKS AND BOLLARDS
19.	CART CORRALS AND CURBING
20.	FENCING AND GREEN AREAS
21.	HANGING BASKETS AND LANDSCAPING
22.	MAINTENANCE AND PAVEMENTS
23.	SIDEWALKS AND WALLS

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PROJECT NARATIVE

These Design Guidelines are provided in support of a 21.78 acre development tract at the southeast corner of Route 202 and Route 73 and known as the Centre Square Commons. The proposed Centre Square Commons provides for approximately one hundred fifteen thousand (115,000) square foot shopping center designed to be compatible with the community shopping center overlay district design criteria of Whitpain Township.

These Design Guidelines are intended to provide a guide for municipal officials, and future owners of the retail complex for the architectural design and site layout. These Design Guidelines will provide the vision statement for the project and will guide the builders and future owners with design related details that are specific to this site and are a component of the Final Approval from Whitpain Township.

It is the vision of both Whitpain Township and the developers of this project to promote a 'walkable' community in the Community Shopping Center Overlay District area of the Township. Although this component is non-residential in use it does provide an opportunity to infill with retail and convenience uses that are adjacent to other districts within walking distance. The project proposes pedestrian linkages which move pedestrians around the site internally and connect with proposed access points to link with external walkways. Although a large portion of the center of the site is used as vehicle parking, substantial walk ways, courtyards, and landscape features are provided to allow patrons the opportunity to gather and relax in outdoor civic spaces. These elements are intended to encourage time spent walking about the center, and its adjoining uses.

The property is bounded by Skippack Pike and Dekalb Pike. The plans depict the tract to be served by four points of access: Two on Skippack Pike and two on Dekalb Pike. The site will be serviced by public water and sewer. A reduced site sketch plan is included as on Sheet 3.

The improvements required for the development will be constructed in a single phase. Refer to the land development plans prepared by Mazer Consulting, PA for information regarding the site improvements. The future improvements on the adjoining parcel shall be constructed per the development agreement between the applicant, township, and neighboring property owner. It is expected that the time period to allow for the completion of these improvements is approximately twelve months. These improvements will include access driveways and parking areas, utilities, landscaping and civic areas.

The buildings will be constructed utilizing modern conventional materials and methods and will comply with all applicable building codes and requirements. There has already been a high degree of architectural vetting of various façade treatments and roof elements. The buildings will be substantially in accordance with the design criteria and materials shown and discussed on the elevations and renderings were reviewed by both the Planning Commission and Board of Supervisors prior to submission of this study and the land development plan application.

The common areas and site as a whole will be managed and maintained as a single entity under a unified development agreement.

BUILDING ARCHITECTURE

The architectural style of Centre Square Commons shall be designed to avoid the massive scale and uniform impersonal appearances of a generic *big box* commercial center. This shall be accomplished with building façades on which there are customer entrances through façade ornamentation, building offsets, window treatments, variations in roof lines, customer entrance treatments and, in all instances, through the use of quality building materials.

The building design intent is to include Front building façades greater than 200 feet in length which face public streets shall have recesses or projections of the main building wall including, but not limited to, canopies, towers, bays, changes in building materials, and gables. There shall be no uninterrupted length of Front building façade greater than 200 feet. First floor activities that promote multiple pedestrian destinations such as retail, restaurants, banking and entertainment are encouraged and outdoor plaza and/or café seating for restaurants shall be permitted, provided that such seating does not obstruct pedestrian circulation.

Front building façades (including separate buildings which are attached) shall have clearly defined, highly visible customer entrances which may include Pilasters, Overhangs, Recess/Projections, Masonry Banding, Cornices, Awnings, Outdoor Patios and Display Windows.

Side and Rear Exterior Building Walls, including independent buildings that are physically attached, shall be designed to avoid the massive scale and uniform impersonal appearances of generic *big box* commercial centers. In addition to the requirements noted in section above, such exterior wall surfaces shall have architectural treatments to include, but not be limited to, articulation of building materials, to reduce the mass of such building elevations and avoid a homogenous presentation.

Variations in facade roof parapet heights shall be used to screen HVAC equipment and to provide interest and reduce the scale of large buildings. Roofs visible from the perspective of individuals facing those building façades that have or are intended to have a customer entrance may have articulated cornices or sloping roofs.

Exterior building materials may be composed of the following exterior building materials

- Cementitious siding
- Brick;
- Stone or architectural precast masonry;
- Cast stone or cultured stone;
- Glass in warm or cool tones;
- Stucco or EIFS; and/or
- Concrete masonry unit (CMU), but only split face block or ground face block.

SITE PLAN

NOTE: THIS PLAN IS FOR BUILDING LOCATION ONLY - REFER TO LAND DEVELOPMENT PLANS PREPARED BY MASER CONSULTANTS FOR ALL OTHER INFORMATION

N.T.S.

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WHITPAIN TOWNSHIP MONTGOMERY COUNTY - PENNSYLVANIA

PRELIMINARY LAND DEVELOPMENT SUBMISSION – ARCHITECTURAL DESIGN GUIDELINES

SITE PLAN
April 22, 2015
Revised June 4, 2015

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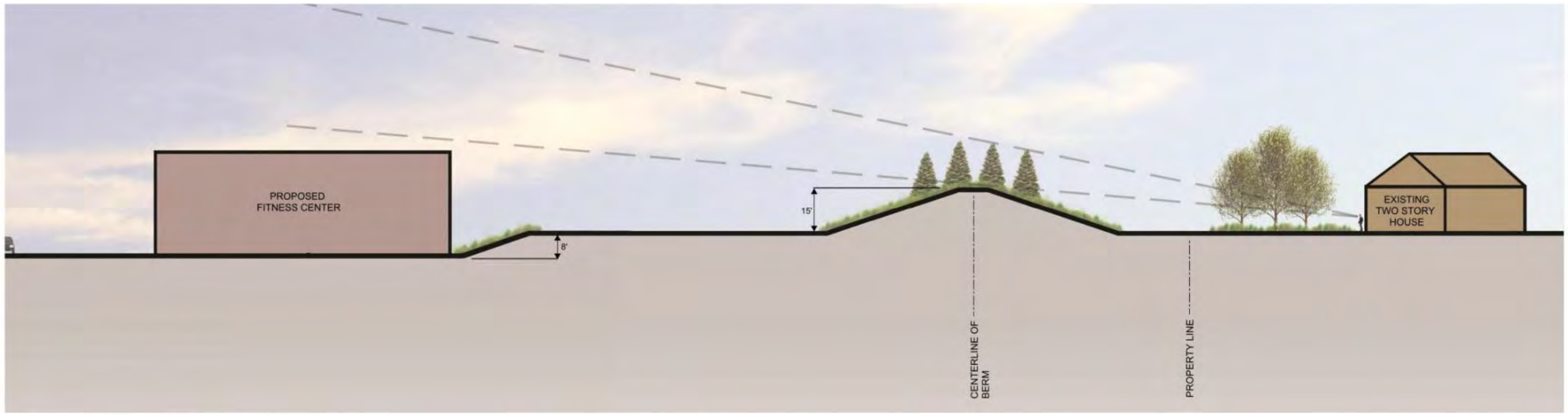
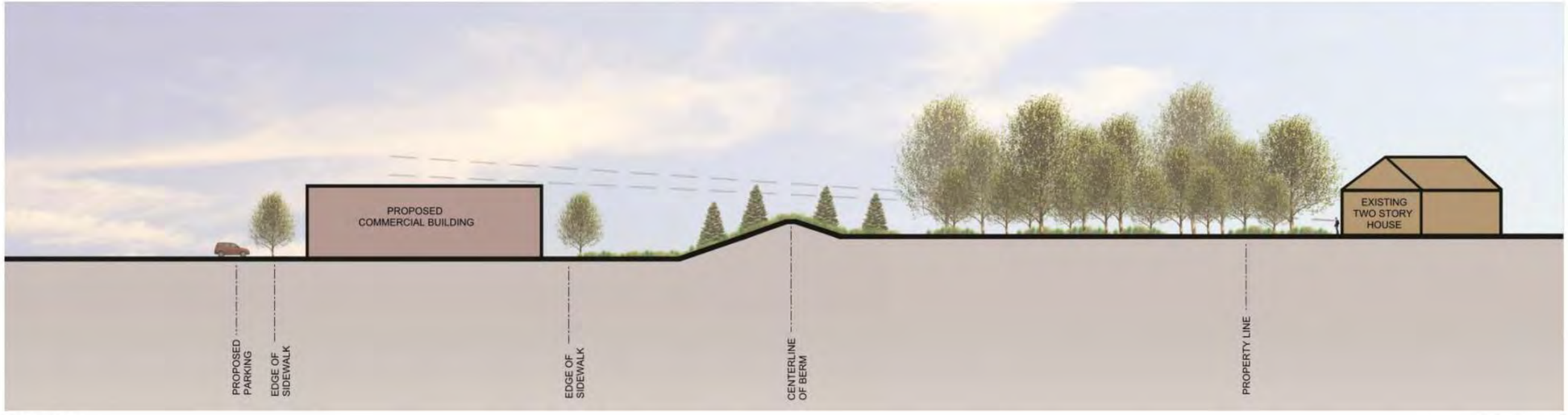


SECTION A



SECTION B

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PRELIMINARY LAND DEVELOPMENT SUBMISSION – ARCHITECTURAL DESIGN GUIDELINES

SECTIONS AT BERM
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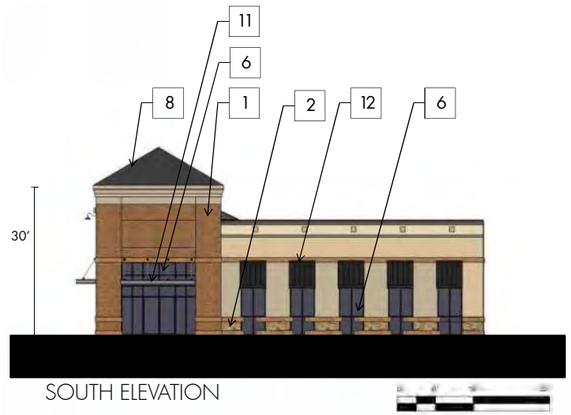
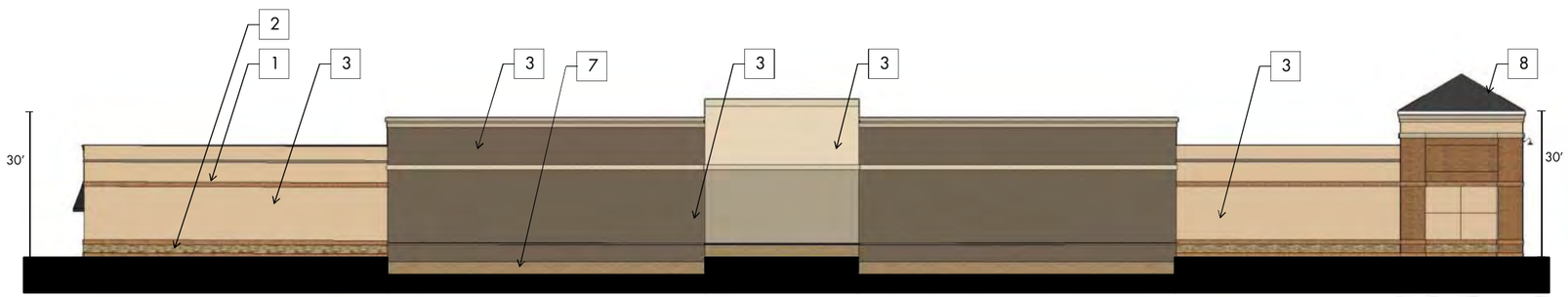
WEST ELEVATION

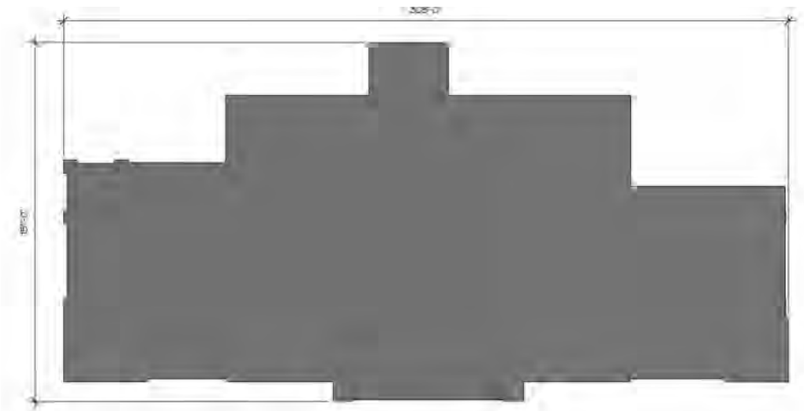


SOUTH ELEVATION



EAST ELEVATION

NORTH ELEVATION



PLAN

BUILDING MATERIAL LEGEND

1	BRICK
2	MANUFACTURED STONE
3	STUCCO/E.I.F.S
4	FALSE WINDOW
5	DOORS
6	GLASS/STOREFRONT/FENESTRATION
7	GROUNDFACE CMU
8	METAL ROOF
9	ASPHALT SHINGLE ROOF
10	CEMENTITIOUS SIDING
11	CANOPY
12	AWNINGS

KEY PLAN
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BUILDING 1

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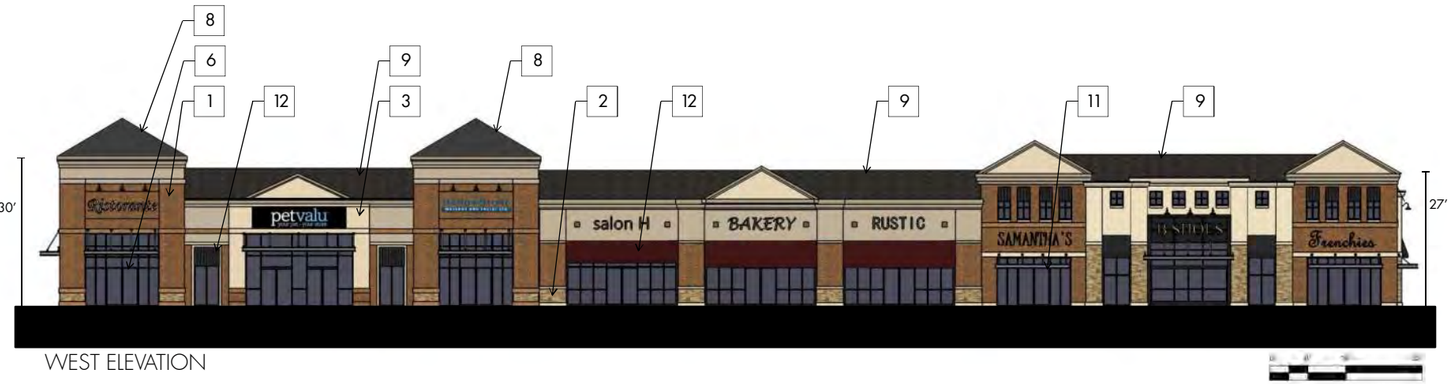

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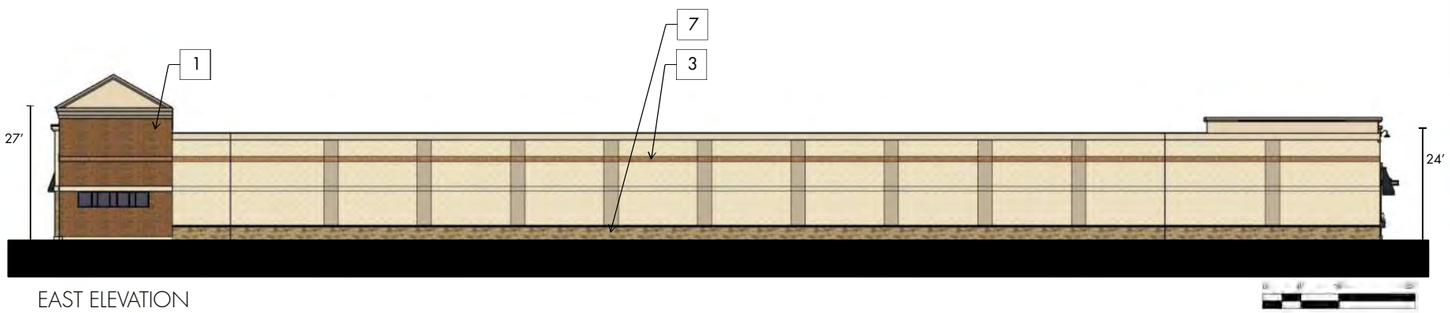

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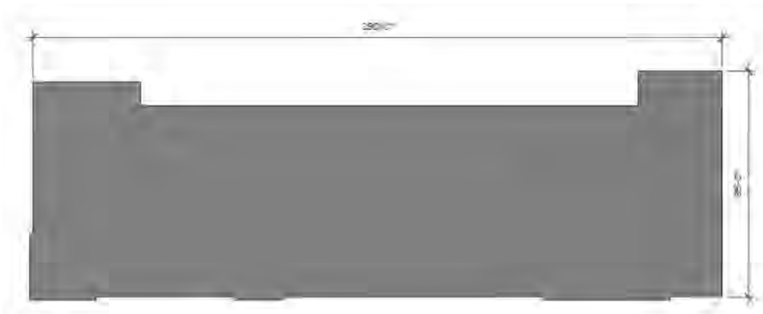

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PRELIMINARY LAND DEVELOPMENT SUBMISSION – ARCHITECTURAL DESIGN GUIDELINES

BUILDING 2

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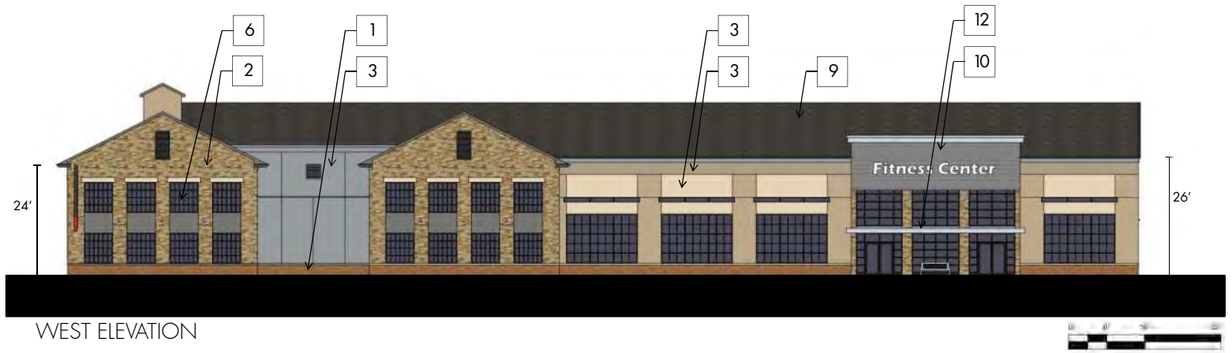

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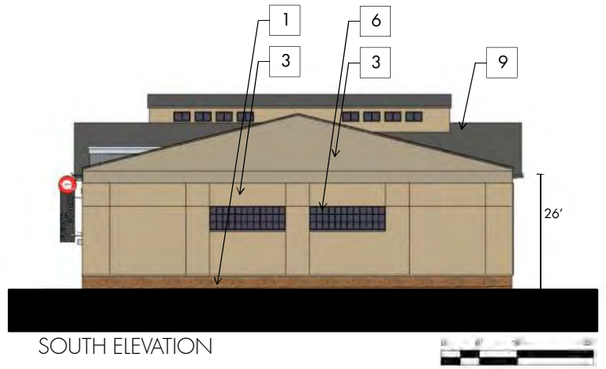

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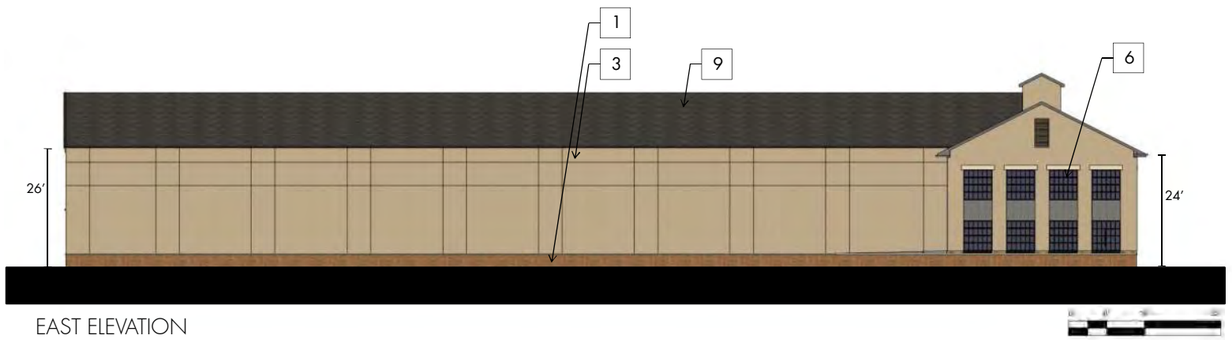

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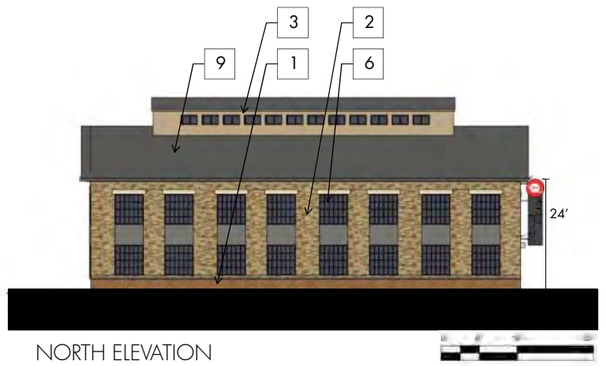

NORTH ELEVATION

PLAN

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WHITPAIN TOWNSHIP MONTGOMERY COUNTY - PENNSYLVANIA

PRELIMINARY LAND DEVELOPMENT SUBMISSION – ARCHITECTURAL DESIGN GUIDELINES

BUILDING 3

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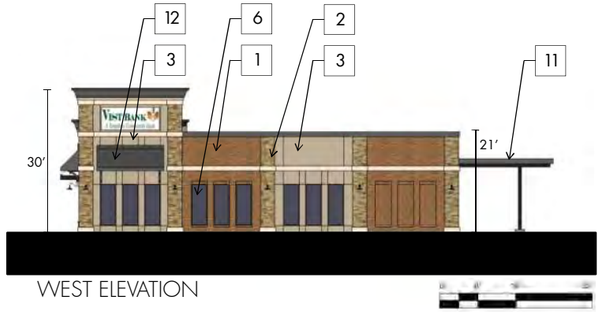

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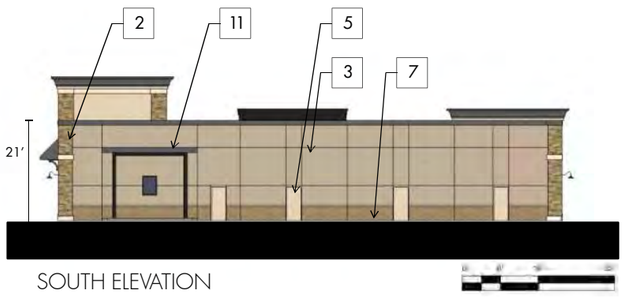

SOUTH ELEVATION

EAST ELEVATION

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PLAN

KEY PLAN

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WHITPAIN TOWNSHIP MONTGOMERY COUNTY - PENNSYLVANIA

PRELIMINARY LAND DEVELOPMENT SUBMISSION – ARCHITECTURAL DESIGN GUIDELINES

BUILDING 4

April 22, 2015

Revised June 4, 2015

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425 McFarlan Road, Suite 200
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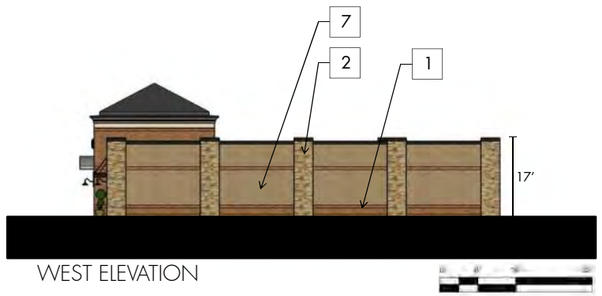
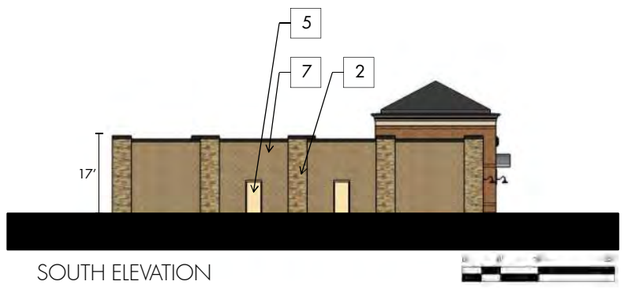
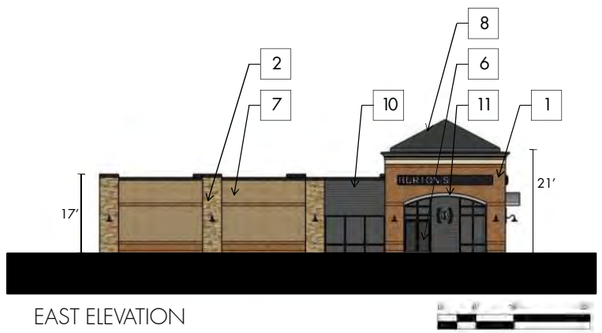
NORTH ELEVATION



WEST ELEVATION



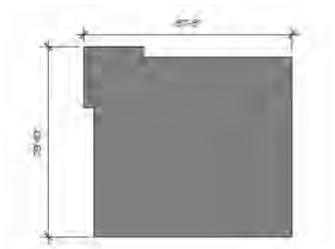
SOUTH ELEVATION



EAST ELEVATION

BUILDING MATERIAL LEGEND

1	BRICK
2	MANUFACTURED STONE
3	STUCCO/E.I.F.S
4	FALSE WINDOW
5	DOORS
6	GLASS/STOREFRONT/FENESTRATION
7	GROUNDFACE CMU
8	METAL ROOF
9	ASPHALT SHINGLE ROOF
10	CEMENTITIOUS SIDING
11	CANOPY
12	AWNINGS



PLAN

KEY PLAN
N.T.S.

CENTER SQUARE COMMONS, LP
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Southeastern, PA

CENTRE SQUARE COMMONS

WHITPAIN TOWNSHIP MONTGOMERY COUNTY - PENNSYLVANIA

PRELIMINARY LAND DEVELOPMENT SUBMISSION – ARCHITECTURAL DESIGN GUIDELINES

BUILDING 5
April 22, 2015
Revised June 4, 2015

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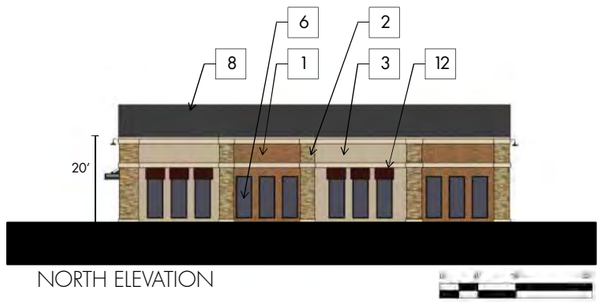
EAST ELEVATION



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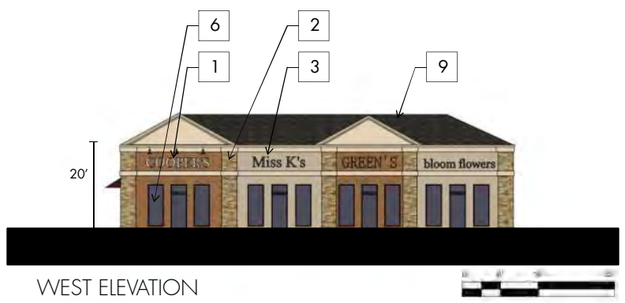
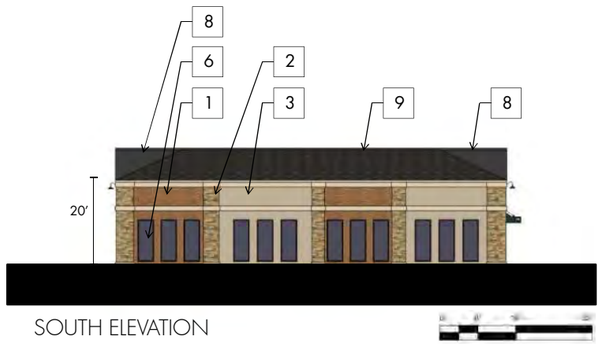


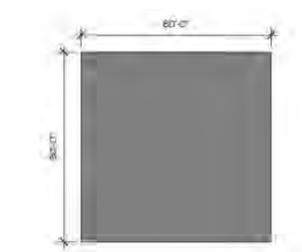
WEST ELEVATION



SOUTH ELEVATION

BUILDING MATERIAL LEGEND

1	BRICK
2	MANUFACTURED STONE
3	STUCCO/E.I.F.S
4	FALSE WINDOW
5	DOORS
6	GLASS/STOREFRONT/FENESTRATION
7	GROUNDFACE CMU
8	METAL ROOF
9	ASPHALT SHINGLE ROOF
10	CEMENTITIOUS SIDING
11	CANOPY
12	AWNINGS



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PRELIMINARY LAND DEVELOPMENT SUBMISSION – ARCHITECTURAL DESIGN GUIDELINES

BUILDING 6

April 22, 2015
Revised June 4, 2015

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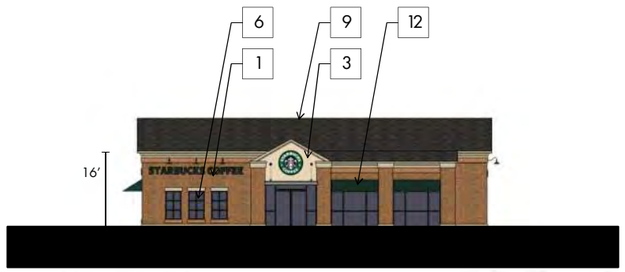

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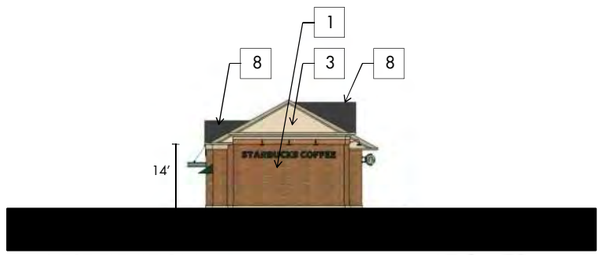
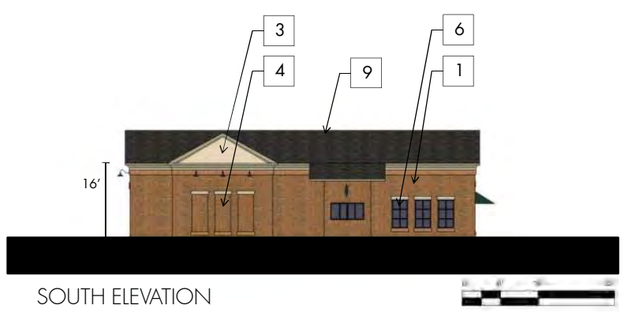
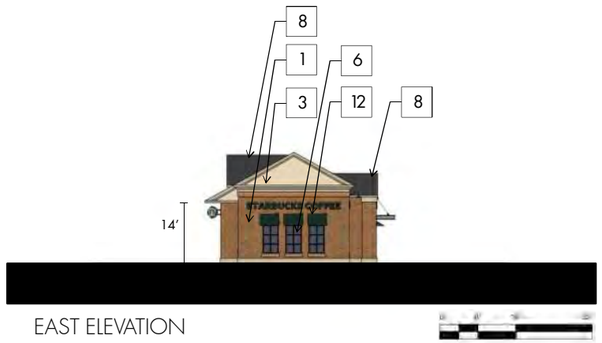


WEST ELEVATION



SOUTH ELEVATION



EAST ELEVATION

BUILDING MATERIAL LEGEND

1	BRICK
2	MANUFACTURED STONE
3	STUCCO/E.I.F.S
4	FALSE WINDOW
5	DOORS
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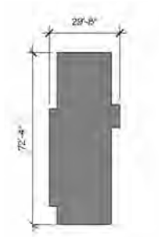

PLAN

KEY PLAN
N.T.S.

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Southeastern, PA

CENTRE SQUARE COMMONS

WHITPAIN TOWNSHIP MONTGOMERY COUNTY - PENNSYLVANIA

PRELIMINARY LAND DEVELOPMENT SUBMISSION – ARCHITECTURAL DESIGN GUIDELINES

BUILDING 7
April 22, 2015
Revised June 4, 2015

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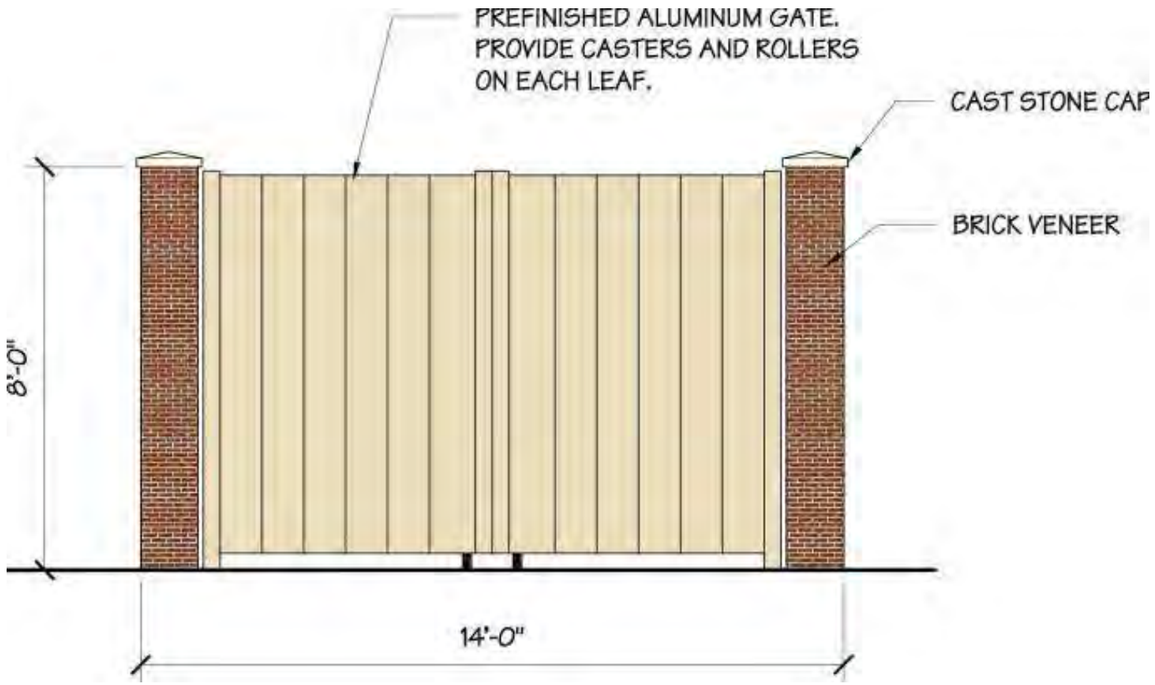

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WHITPAIN TOWNSHIP MONTGOMERY COUNTY - PENNSYLVANIA

PRELIMINARY LAND DEVELOPMENT SUBMISSION – ARCHITECTURAL DESIGN GUIDELINES

TRASH ENCLOSURE

April 22, 2015
Revised June 4, 2015

Bernardon Haber Holloway
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Benches

1. Overview

   Benches are needed to provide rest opportunities, and to complement pedestrian accessways (sidewalks, pedestrian paths).

2. Design guidelines
   - A. Benches shall be installed to provide rest opportunities, and to complement pedestrian accessways (sidewalks, pedestrian paths).
   - B. Benches may be located close to building entrances, pedestrian plazas and walkways, pavilions and/or pergolas, against a building wall, a retaining wall or other decorative wall.
   - C. Benches shall be no less than six (6) feet in length and shall be anchored to the sidewalk or walkway to provide stability.
   - D. Benches shall have frames and/or seating constructed of steel, aluminum, or cast iron. Wood seats and backs are permitted.
   - E. Bench type shall be consistent with the style and character of the other proposed street furnishings.
   - F. A minimum of fifteen (15) benches will be provided. Final locations to be mutually determined by the applicant and the township.

Waste Receptacles

1. Overview

   Waste (trash) receptacles should be placed in selected locations along streets, sidewalks and pathways and in other locations determined by the property owners. A uniform appearance of these structures is necessary to ensure that they are not visually offensive.

2. Design guidelines
   - A. Waste (trash) receptacles shall be a dark color to reduce their visibility, easy to open, and placed to be convenient to service.
   - B. Waste (trash) receptacles shall be placed on a concrete pad or other hard surface to aid in their maintenance.
   - C. A minimum of fifteen (15) waste receptacles will be provided. Final locations to be mutually determined by the applicant and the township.

Bike Racks

1. Overview

   Bike racks send an important message: "Bikes are Welcome Here!" Bike racks are an integral component to the pedestrian orientation of the town center.

2. Design guidelines
   A. Bike racks may be installed and maintained as an integral component to the pedestrian orientation.
   B. Bike racks shall be permanently anchored to the sidewalk or walkway to promote stability and security, and should be located near major areas of pedestrian activity.

Bollards

1. Overview

   Bollards provide enclosure, limit access or serve as an edge or containment feature necessary for minimizing pedestrian and vehicular conflicts. Bollards with lighting provide low-level pedestrian lighting along sidewalks and pathways.

2. Design guidelines
   A. Bollards may be used to provide enclosure, limit access or serve as an edge or containment feature necessary for minimizing pedestrian and vehicular conflicts.
   B. Bollards shall be installed and maintained, and any bollard which becomes damaged or destroyed shall be repaired or replaced as necessary.
   C. Bollards shall be securely anchored per manufacturer's specifications.
   D. Bollards shall be at a height of 30 to 48 inches above grade, except in service areas where bollards may measure up to 72 inches in height, with a minimum diameter of 6 inches in any instance.
   E. Bollards with lighting may be used as an appropriate means to provide low level pedestrian lighting along sidewalks and pathways.
   F. All bollards with lighting shall not exceed 4 feet in height and have an enclosed light source.

Cart Corrals

1. Overview

Cart corrals provide an effective way to prevent shopping carts from being randomly scattered throughout parking areas.

2. Design guidelines

A. Cart corrals within the sidewalk immediately adjacent to building storefronts ("Building Cart Corrals") shall: i) be 3 feet high; ii) permanently affixed to the sidewalk; iii) include ADA-compliant access points; and iv) be constructed of steel 3 inches in diameter or width.

B. Cart corrals may be permitted within the parking fields ("Parking Cart Corrals") provided that such cart corrals are affixed to the pavement. Parking Cart Corrals constructed of wood shall not be permitted.

C. Cart corrals of any type shall have canopy covers.

Curbing

1. Overview

Curbing is critical for channelizing pedestrian and vehicular movement. Curbing may be needed for grading and storm water management.

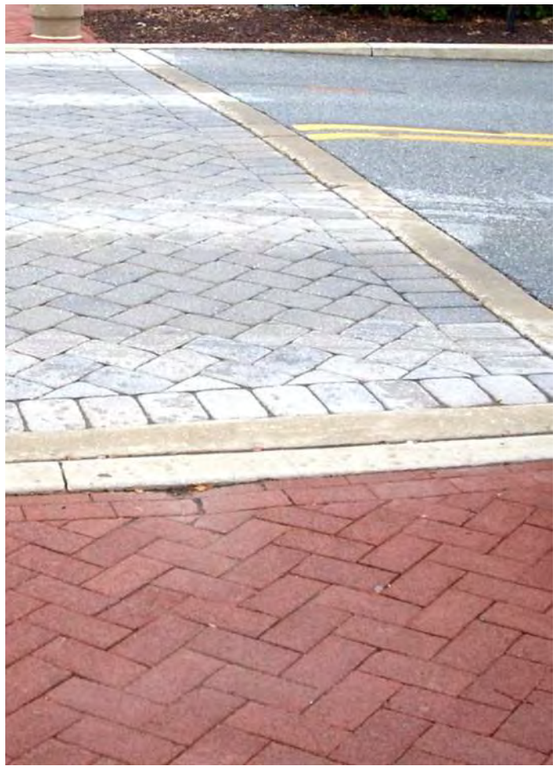
2. Design guidelines

A. Curbing shall be installed and maintained in order to channel pedestrian and vehicular movement and/or to contain grades or direct storm water.

B. Curbing shall be provided throughout Centre Square Commons along streets and access drives and within and around parking areas.

C. Curb cuts shall be made to promote barrier-free access, and to accommodate pedestrians with disabilities in accordance with ADA requirements.

D. All low points along curbs shall be adequately drained pursuant to the post-construction stormwater management plan as approved by the Board of Supervisors as part of Final Land Development Approval for Centre Square Commons to prevent flooding and ponding of water.



Fencing

1. Overview

   Fencing shall be installed and maintained to define pedestrian space, courtyards and civic spaces, and to screen and separate uses and activities. Fencing can also be used to define street/urban edges in lieu of building facades where locating buildings is impractical.

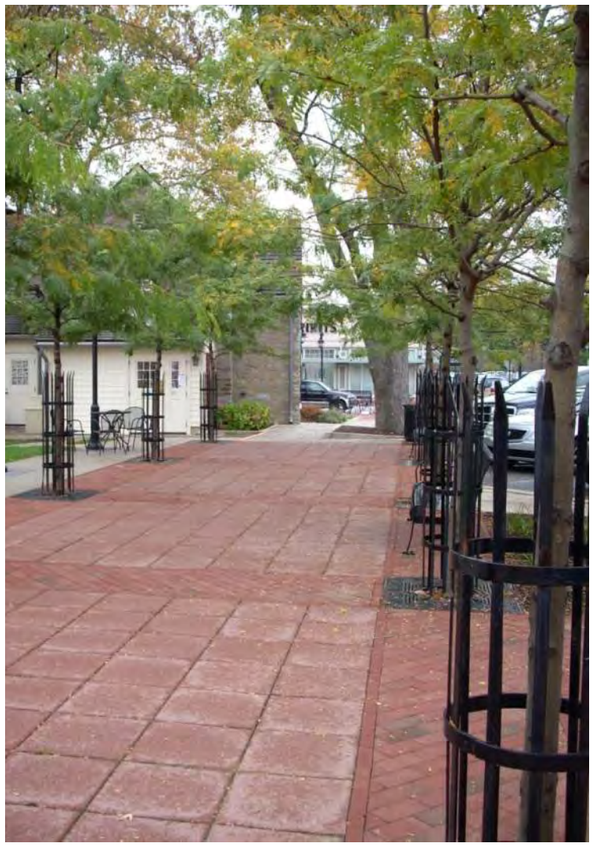
2. Design guidelines
   - A. Fencing shall be installed and maintained to help define pedestrian space, courtyards and civic spaces.
   - B. Such fences may be up to 6 feet in height and may be erected in any required yard, provided it does not obstruct sight distance at intersections.
   - C. Fencing shall include a combination of masonry curbs and/or piers and iron and/or aluminum components.
   - D. Chain-link fencing shall be prohibited.

Green Areas: Pedestrian Plazas & Pavilions

1. Overview
   - A. Pedestrian plazas and pavilions are meant to identify places where people would congregate. Such places should be designed and built as a park or gathering place, marked with special pavements, shade trees, benches and other pedestrian amenities.
   - B. Planters provide a graceful and attractive type of street or courtyard furniture within which plants can be installed, and are encouraged.

2. Design guidelines
   - A. Open air or covered pedestrian-oriented spaces may act as connectors and may contain such amenities as changes in level, benches, landscaping, accent lighting, planters, sculptures, opportunities for entertainment and seating areas to provide a sense of place and orientation for its users.
   - B. Trees in Pedestrian Plazas may have tree grates and tree guards or be in large planter areas which also include ornamental shrubs and/or flowers.
   - C. Pavilions, pergolas, canopies or other structures which form an overhead plane or roof may be installed and maintained to provide opportunities for gathering, pedestrian circulation and visual interest. Pavilions shall be pedestrian in scale and designed to reflect the character and identity of Centre Square Commons. Access to any pavilion shall be provided in accordance with ADA requirements. Detailed drawings to be created of the pavilions and pergolas with the architectural elements to be specified; such drawings to be submitted at the time of building permit application.

A landscape plan will be prepared and submitted for approval to the township. A majority of the landscaping and areas within the Open Space shall be irrigated. Landscaping shall be in accordance with the exhibits.



Hanging Baskets

1. Overview

Hanging baskets with plants can provide an attractive accent to an entrance court or courtyard and can provide a complementary element to the overall green look of a streetscape.

2. Design guidelines

A. Hanging baskets may be utilized seasonally. All hardware connection straps or other attachments to poles and all pole details shall be congruent with the streetscape design.

B. If utilized, the location and spacing of hanging baskets shall be coordinated with other streetscape furnishings and improvements.

Landscaping

1. Overview

Landscaping is one of the most critical elements to define and enhance the appearance of a Community Shopping Center Development. Trees, shrubs and herbaceous flowing plants should be utilized to define and reinforce outdoor spaces, create a sense of human scale and complement the architecture.

2. Design guidelines

A. During the design process, the Applicant's registered Landscape Architect will respond to the following pursuant to the Zoning Ordinance and the Subdivision and Land Development Ordinance:

(1) Existing topography and vegetation;

(2) Screening views of buildings, parking areas, storage areas, site utilities and other types of screening; and

(3) Provide visual interest, define outdoor space, compliment the architectural style and achieve functional and aesthetic landscape.

(4) Trees within the non-off-street parking areas within the may be in tree grates with tree guards.

Maintenance for all Improvements

1. Overview

Centre Square Commons shall be operated and maintained as a unified development pursuant to a Declaration of Covenants to be recorded in the Office of the Recorder of Deeds in and for Montgomery County, Pennsylvania, at the time the Final Land Development Plans for Centre Square Commons are recorded.

Pavements - Materials

1. Overview

Pavement materials in Centre Square Commons should be distinctive and respectful of pedestrian movement. Unit pavers add visual interest, have a tendency to slow traffic down and reinforce the sense of entry and/or arrival to a building or civic space. Intersection pavers shall provide a crosswalk texture and traffic calming element that enhances the attractiveness of street access drive intersections.

2. Design guidelines

A. Pavement materials shall be installed and maintained to be respectful of pedestrian movement. Unit pavers shall be provided to add visual interest, slow traffic down and reinforce the sense of entry and/or arrival at a building or civic space. Asphalt and concrete pavements shall comply with the following:

(1) All concrete pavements shall have a broom finish, with smooth trowel edging along the sides and at all expansion and control joints.

(2) Feature paving shall be provided at designated intersections of interior drive aisles within Centre Square Commons as to be more fully depicted on the Preliminary land Development Plans for the project.

Sidewalks & Pedestrian Paths

1. Overview

Sidewalks serve as the most practical method of pedestrian access to and within Centre Square Commons. Sidewalks, when interrupted, should be made continuous through the use of crosswalks and pedestrian paths.

2. Design guidelines

A. Sidewalks shall comply with local codes and the following Design Guidelines (subject to waivers requested):

(1) Sidewalks shall be a minimum of 5 feet in width, constructed with appropriate control joints.

(2) Whenever a sidewalk is interrupted by a vehicular way, a crosswalk shall be provided.

(3) Colored concrete is permitted in sidewalks.

Walls

1. Overview

Walls can be a feature element, and will help to define pedestrian and civic spaces.

2. Design guidelines

A. Walls shall be in accordance with the following:

(1) Seating walls may be built and maintained to provide containment of courtyard, center square or plaza or other civic spaces.

(2) Walls shall not obstruct safe sight distance at intersections.

(3) Concrete or segmental retaining walls shall be permitted within Centre Square Commons.

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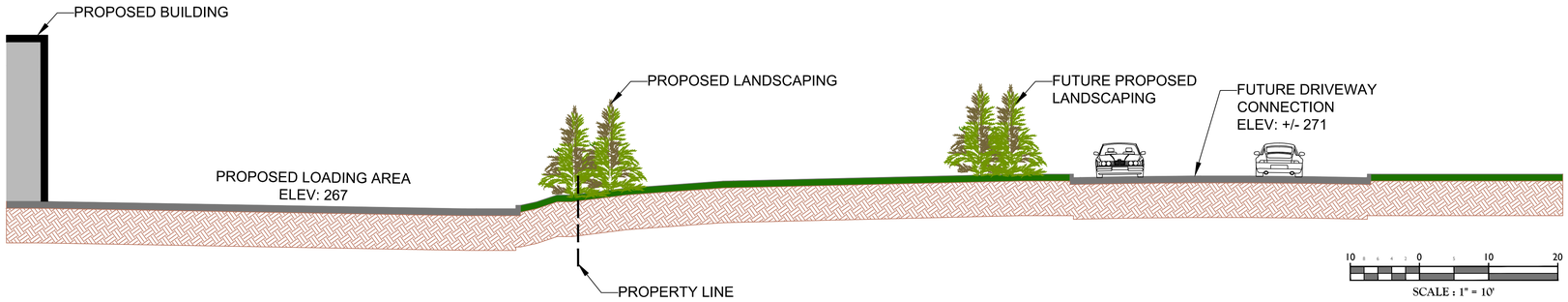

SECTION A-A'

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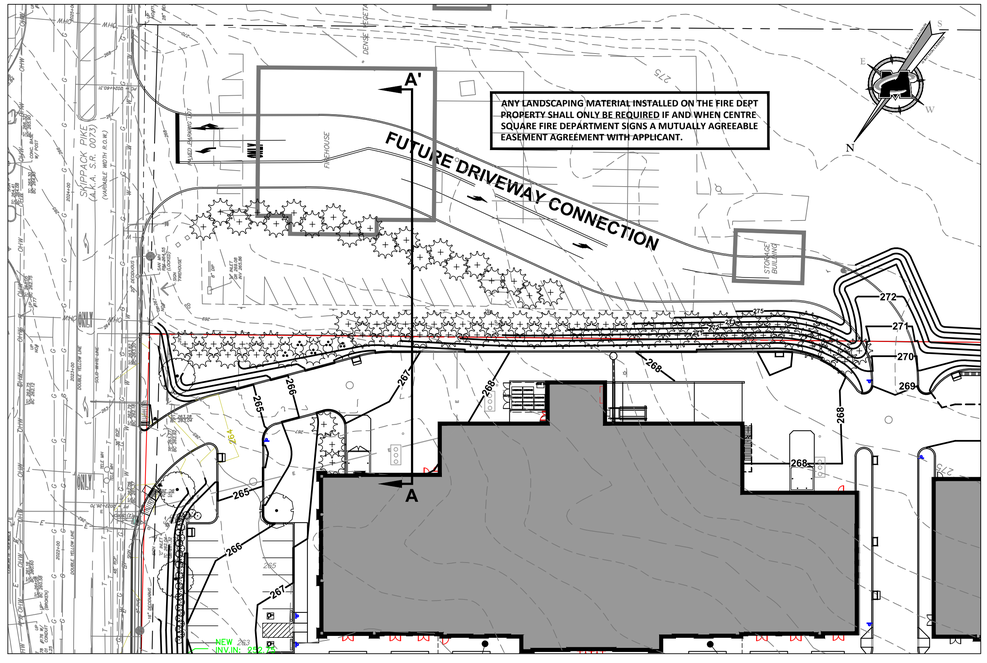

PLAN VIEW

SCALE: 1"=40'

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REV	DATE	DRAWN BY	DESCRIPTION

SECTION ELEVATIONS

FOR

MADISON DEVELOPMENT GROUP, INC.

DEKALB PIKE AT SKIPPACK PIKE

WHITPAIN TOWNSHIP
MONTGOMERY COUNTY
PENNSYLVANIA

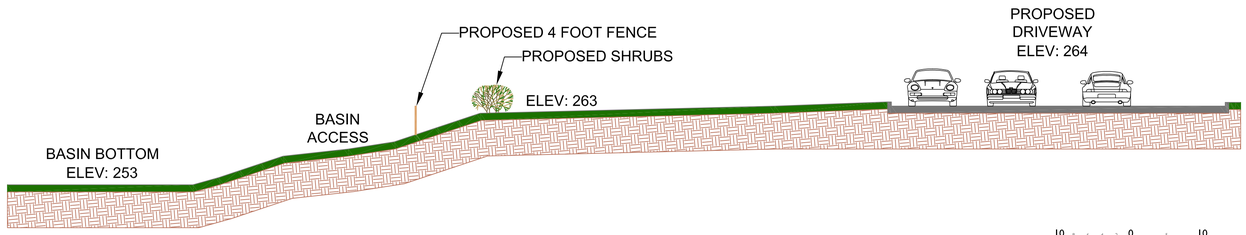
EXTON OFFICE
410 Eagleview Boulevard
Suite 104
Exton, PA 19341
Phone: 610.254.9140
Fax: 610.254.9141
email: solutions@maserconsulting.com

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	06/03/2015	RMA	RTM

PROJECT NUMBER:	DRAWING NAME:
12000830A	SECTIONS

SHEET TITLE:
SECTION ELEVATIONS

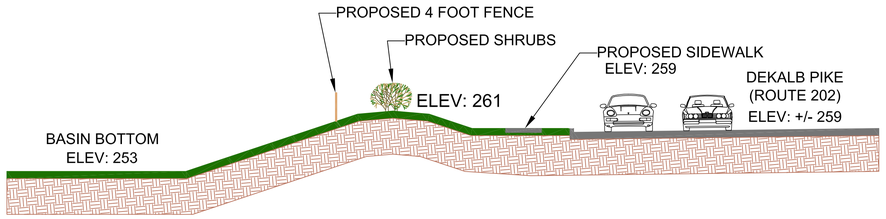
SHEET NUMBER:
1 of 1



SECTION A-A'

SCALE: 1"=10'

SCALE : 1" = 10'



SECTION B-B'

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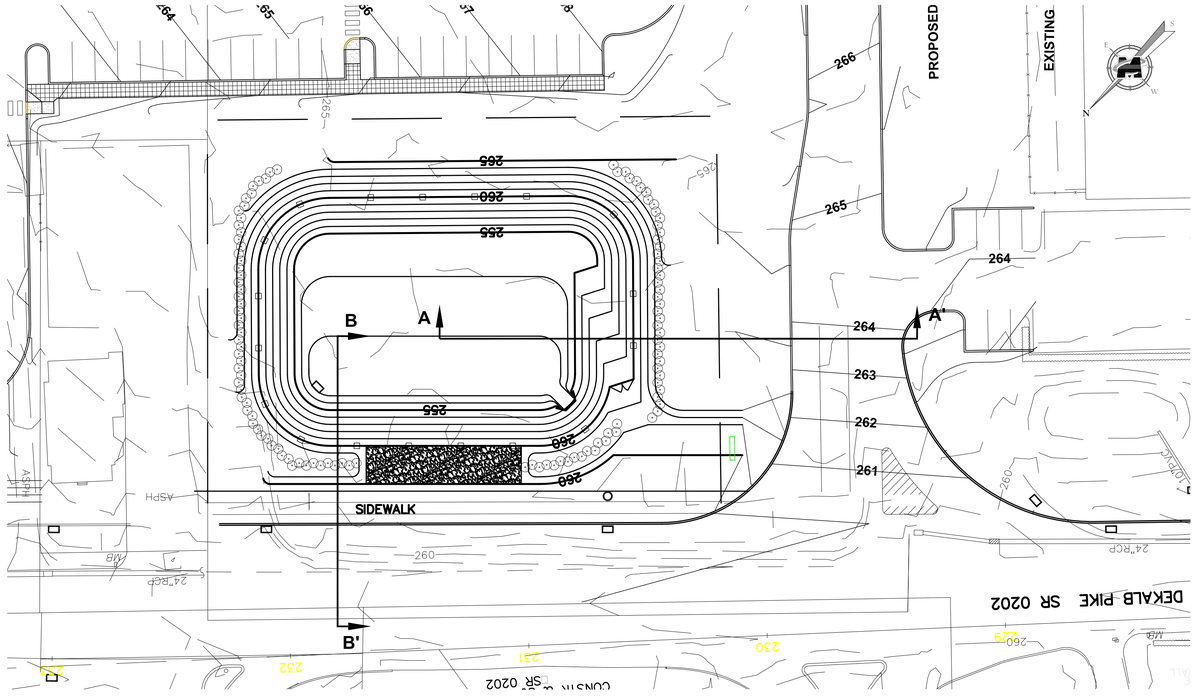
SCALE : 1" = 10'



PLAN VIEW

SCALE: 1"=30'

SCALE : 1" = 30'

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REV	DATE	DRAWN BY	DESCRIPTION

ELEVATIONS

FOR

MADISON DEVELOPMENT GROUP, INC.

DEKALB PIKE AT SKIPPACK PIKE

WHITPAIN TOWNSHIP
MONTGOMERY COUNTY
PENNSYLVANIA

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PROJECT NUMBER: 12000830A

DRAWING NAME: 15-0604 - DOT BASIN SECTIONS

SHEET TITLE: SECTION ELEVATIONS

SHEET NUMBER: 1 of 1

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PLANTING SCHEDULE

DECIDUOUS TREES	QTY	BOTANICAL NAME / COMMON NAME	CONT	CAL	SIZE
AA	31	ACER RUBRUM 'AUTUMN BLAZE' / AUTUMN BLAZE RED MAPLE	B & B	2.5"CAL	13'-15' HEIGHT MIN.
CF2	11	CORNUS FLORIDA / EASTERN DOGWOOD	B & B	1.5"CAL	6'-8' HEIGHT MIN.
LT	8	LIRIODENDRON TULIPIFERA / TULIP TREE	B & B	2.5"CAL	13'-15' HEIGHT MIN.
MP	12	MALUS X 'PRAIRIFIRE' / PRAIRIFIRE CRAB APPLE	B & B	1.5"CAL	6'-8' HEIGHT MIN.
PA3	4	PLATANUS X ACERIFOLIA / LONDON PLANE TREE	B & B	2.5"CAL	13'-15' HEIGHT MIN.
QP	29	QUERCUS PHELLOS / WILLOW OAK	B & B	2.5"CAL	13'-15' HEIGHT MIN.
TC	21	TILIA CORDATA / LITTLELEAF LINDEN	B & B	2.5"CAL	13'-15' HEIGHT MIN.
ZG	32	ZELKOVA SERRATA 'GREEN VASE' / SAWLEAF ZELKOVA	B & B	2.5"CAL	13'-15' HEIGHT MIN.

EVERGREEN TREES	QTY	BOTANICAL NAME / COMMON NAME	CONT	CAL	SIZE
PA	101	PICEA ABIES / NORWAY SPRUCE	B & B		7' - 8'
PO3	53	PICEA OMORIKA / SERBIAN SPRUCE	B & B		7' - 8'
PC	46	PICEA PUNGENS / COLORADO SPRUCE	B & B		7' - 8'
PS	45	PINUS STROBUS / WHITE PINE	B & B		7' - 8'
PD	50	PSEUDOTSUGA MENZIESII / DOUGLAS FIR	B & B		7' - 8'

SHRUBS	QTY	BOTANICAL NAME / COMMON NAME	CONT	SIZE
BG	328	BUXUS X 'GREEN VELVET' / BOXWOOD	24"-30" MIN.	
CF	15	CORNUS SERICEA 'FLAVIRAMEA' / YELLOW TWIG DOGWOOD	24"-30" MIN.	
CI	43	CORNUS SERICEA 'IVORY HALO' / VARIEGATED REDTWIG DOGWOOD	24"-30" MIN.	
IS	173	ILEX GLABRA 'SHAMROCK' / INKBERRY	24"-30" MIN.	
JK	62	JUNIPERUS X PFITZERIANA 'KALLAY`S COMPACT' / JUNIPER	24"-30" MIN.	
NH	10	NANDINA DOMESTICA 'HARBOUR DWARF' / DWARF HEAVENLY BAMBOO	18"-24" MIN.	
PO	17	PRUNUS LAUROCERASUS 'OTTO LUYKEN' / LUYKENS LAUREL	24"-30" MIN.	
SA	29	SPIRAEA X BUMALDA 'ANTHONY WATERER' / ANTHONY WATERER SPIRAEA	24"-30" MIN.	

GROUND COVERS	CODE	QTY	BOTANICAL NAME / COMMON NAME	CONT	SPACING
	JB	15	JUNIPERUS HORIZONTALIS 'BAR HARBOR' / BAR HARBOR CREEPING JUNIPER	1 GAL	42" o.c.
	JB2	39	JUNIPERUS HORIZONTALIS 'BLUE CHIP' / BLUE CHIP JUNIPER	1 GAL	42" o.c.
	JE	93	JUNIPERUS HORIZONTALIS 'EMERALD SPREADER' / EMERALD SPREADER JUNIPER	1 GAL	42" o.c.
	LB	155	LIRIOPE MUSCARI 'BIG BLUE' / BIG BLUE LILYTURF	4"POT	24" o.c.
	LV	32	LIRIOPE MUSCARI 'VARIEGATA' / VARIEGATED LILY TURF	4"POT	24" o.c.

LANDSCAPING MATERIAL SHOWN ON CENTRE SQUARE FIRE DEPARTMENT PROPERTY SHALL BE INSTALLED AS PART OF PHASE II WORK AFTER CENTRE SQUARE FIRE DEPARTMENT REMOVES THE EXISTING FIRE HOUSE.

MEADOW SEED MIX ON BACK SIDE OF BERM

PRESERVE EXISTING TREES FIELD ADJUST PROPOSED PLANTINGS

PRESERVE EXISTING VEGETATION

PROPOSED TREE LINE

FUTURE DRIVEWAY CONNECTION

BUILDING No.1
FOOD MARKET
170' x 120'
22,450 S.F.
MEZZANINE
3,500 S.F.
RETAIL / RESTAURANT
6,000 S.F.
RETAIL / RESTAURANT
5,400 SQ. FT.

BUILDING No.2
RETAIL / RESTAURANT
25,000 S.F.

BUILDING No.3
FITNESS CENTER
22,000 S.F. (FIRST FLOOR)
8,000 S.F. (MEZZANINE)

BUILDING No.4
RETAIL / RESTAURANT
4,600 S.F.
BANK
3,200 S.F.

BUILDING No.5
RESTAURANT
6,500 SQ. FT.

BUILDING No.6
RETAIL / RESTAURANT
6,400 S.F.

BUILDING No.7
1,800 S.F.

EXISTING CHILDREN'S LEARNING CENTER
7,700± S.F.

PROPOSED DOT STORMWATER MANAGEMENT BASIN

PROPOSED DOT PARCEL LINE

LEASE LINE

LAWN

CART CART

SKIPPACK PIKE
S.R. 73 : L.R. 197

DEKALB PIKE
U.S. ROUTE 202 : L.R. 178

LANDSCAPE NOTES

1. GENERAL NOTES:

A. THIS PLAN IS TO BE USED ONLY FOR THE PURPOSES OF LANDSCAPING.

B. EXAMINE ALL ENGINEERING DRAWINGS AND FIELD CONDITIONS FOR SPECIFIC LOCATIONS OF UTILITIES, STRUCTURES, ETC. NOTIFY MASER CONSULTING P.A. IMMEDIATELY, IN WRITING, IN REFERENCE TO DISCREPANCIES OR LOCATION CONFLICTS.

C. IN THE EVENT THAT PLANT QUANTITY DISCREPANCIES OR MATERIAL OMISSIONS OCCUR IN THE PLANTING SCHEDULE, THE PLAN SHALL SUPERSEDE.

D. ALL PLANTING MATERIALS AND METHODS SHALL MEET OR EXCEED THE REQUIREMENTS OF WHITPAIN TOWNSHIP ORDINANCES AND ANSI Z-60.1 (CURRENT VERSION), THE AMERICAN STANDARD FOR NURSERY STOCK, PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN. IN THE EVENT OF CONFLICT BETWEEN A.A.N. AND MUNICIPAL STANDARDS, THE MUNICIPAL REQUIREMENTS SHALL SUPERSEDE.

E. ALL LANDSCAPING SHALL BE PLANTED SO AS TO NOT INTERFERE WITH UTILITY LINES, SIGHT TRIANGLES, UNDERGROUND UTILITIES OR PUBLIC WALKWAYS OR OTHER EXISTING OR PROPOSED STRUCTURES. ALL PLANT MATERIAL PROPOSED WITHIN THE REQUIRED SIGHT DISTANCES OR SIGHT TRIANGLES ARE SELECTED SO AS TO NOT EXCEED A MATURE HEIGHT GREATER THAN 30" ABOVE THE ELEVATION OF THE ADJACENT ROADWAY. STREET TREES AND SHADE TREES PLANTED NEAR PEDESTRIAN OR VEHICULAR ACCESSES, OR WITHIN REQUIRED SIGHT DISTANCES OR SIGHT TRIANGLE EASEMENTS SHALL NOT BE BRANCHED ANY LOWER THAN 7'-0" ABOVE GRADE, AND MUST BE APPROPRIATELY PRUNED. **NO WOODY PLANTS, EXCEPT GROUNDCOVERS, ARE TO HAVE THEIR CENTERS CLOSER THAN 30" TO THE BACK OF THE CURB.**

2. PLANT MATERIAL:

A. NO PLANT SUBSTITUTION SHALL BE ALLOWED WITH REGARD TO SIZE, SPECIES, NAMED VARIETY, OR CULTIVAR, WITHOUT PRIOR PERMISSION, IN WRITING FROM MASER CONSULTING P.A. AND THE APPROVING AUTHORITY.

B. ALL PLANTS SHALL BE DUG, PACKED, TRANSPORTED AND HANDLED WITH THE UTMOST CARE TO ENSURE ADEQUATE PROTECTION FROM INJURY AND DESICCATION.

C. ALL PLANTS SHALL BE FREE FROM DISEASE AND INFESTATION, AND SHALL BEAR ALL LEGALLY REQUIRED AGRICULTURAL CERTIFICATIONS.

D. ALL PLANTS SHALL BE PRUNED TO ENHANCE VIGOR PRIOR TO, OR UPON INSTALLATION, WHILE RETAINING NATURAL GROWTH HABIT OF THE PLANTS. THE CENTRAL LEADER SHALL NOT BE CUT. PLANTS PROVIDED IN THIS CONDITION SHALL NOT BE ACCEPTED. DAMAGED, BROKEN OR CONFLICTING BRANCHES SHALL BE PRUNED CLEANLY, FLUSH WITH THE MAIN TRUNK OR BRANCH.

E. ALL PLANTS SHALL BE NURSERY-GROWN AND TAGGED WITH A DURABLE LABEL INDICATING THE GENUS, SPECIES AND SPECIFIED VARIETY OR CULTIVAR.

F. ALL SCREEN PLANTING MATERIAL SHALL BE A MINIMUM OF 2 - 2.5 FEET TALL AT TIME OF PLANTING.

3. PLANTING:

A. SOIL MUST BE FROST-FREE, FRIABLE AND NOT MUDDY AT THE TIME OF PLANTING.

B. BACKFILL MATERIAL FOR PLANTING PITS SHALL BE COMPOSED OF 70% TOPSOIL, 20% FULLY COMPOSTED COW OR HORSE MANURE AND 10% PEAT MOSS. TOPSOIL SHALL MEET PENNDOT STANDARD SPECIFICATIONS AND MAY BE FROM ON-SITE OR IMPORTED SOURCES. SOIL SHALL CONTAIN NO ACIDIC MARL, NOR ANY LARGE STONES.

C. PLANTS SHALL BE SET TO ULTIMATE FINISHED GRADE SO THAT THEY WILL BE LEFT IN THE RELATIONSHIP TO THE SURROUNDING GROUND AS THEY HAD, PRIOR TO BEING DUG. IF EVIDENCE OF SATURATED SOILS IS ENCOUNTERED DURING EXCAVATION OF THE PLANTING PITS, UPON DIRECTION BY MASER CONSULTING P.A., PLANTS SHALL BE SET SO THAT THEIR ROOT CROWNS ARE APPROXIMATELY THREE INCHES ABOVE THE FINAL GRADE, WITH TOPSOIL AND MULCH GENTLY MOUNDED TO AVOID EXCESSIVE DRYING AT THE SURFACE. UNDER NO CIRCUMSTANCES SHALL PLANTINGS AT RELATIVELY DRY LOCATIONS BE PERFORMED IN A MOUNDED MANNER.

D. THE CORD BINDING THE BALL OF ALL BALLED AND BURLAPPED(B&B) PLANTS SHALL BE CUT AND REMOVED ACCORDING TO THE SPECIFICATIONS ON THE DETAIL. PLANTS WITH SYNTHETIC NON- DEGRADABLE ROOT BALL WRAPS SHALL NOT BE ACCEPTABLE.

E. ALL PROPOSED TREES SHALL BE SET IN BEDS MULCHED TO THE LIMIT OF THEIR PLANTING PITS. ALL PROPOSED SHRUBS SHALL BE SET IN CONTINUOUS, MASSED PLANTING BEDS, RATHER THAN ISOLATED INDIVIDUALS. ALL TREE AND SHRUB BEDS SHALL RECEIVE A 3" THICK APPLICATION OF A THOROUGHLY COMPOSTED ORGANIC MULCH FREE OF ANY OBJECTIONABLE OR FOREIGN MATERIALS.

F. ALL TREES GREATER THAN TWELVE FEET IN HEIGHT SHALL BE STAKED AND GUYED PER THE DETAILS.

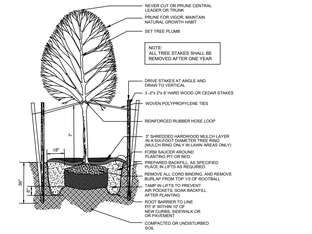
G. ALL DISTURBED AREAS BEYOND THE LIMITS OF THE MULCHED PLANTING BEDS AND AREAS OF HERBACEOUS PLANTINGS SHALL BE PERMANENTLY STABILIZED WITH TURFGRASSES PER THE THE SOIL EROSION AND SEDIMENT CONTROL PLANS.

H. A MAJORITY OF THE LANDSCAPING SHALL BE IRRIGATED UTILIZING A STORMWATER CAPTURE AND REUSE SYSTEM.

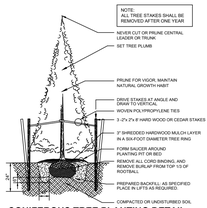
4. MAINTENANCE:

A. ALL PLANTINGS SHALL BE WATERED AS NECESSARY FOR SOUND HORTICULTURAL PRACTICE DURING THE FIRST GROWING SEASON, TO ENSURE THEIR PROPER ESTABLISHMENT.

B. IN GENERAL, SHRUBS ARE TO BE PLANTED AT INTERVALS WHICH WILL ALLOW THEM TO FULLY DEVELOP INTO CONTINUOUS MASSES OF THE INDIVIDUAL SPECIES. THEREFORE, NO PRUNING TO SHAPE OR SHEARING IS REQUIRED OR DESIRABLE. WHERE DEAD OR CONFLICTING BRANCHING DEVELOPS, IT SHOULD BE PRUNED OUT.



DECIDUOUS TREE PLANTING DETAIL
N.T.S.



CONIFEROUS TREE PLANTING DETAIL
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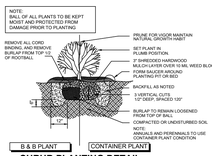
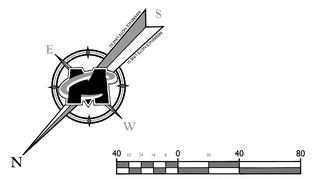


SHRUB PLANTING DETAIL
N.T.S.



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REV	DATE	DRAWN BY	DESCRIPTION

RYAN M. ARMOUR
PENNSYLVANIA REGISTERED
LANDSCAPE ARCHITECT - LICENSE NUMBER: LA002939

PRELIMINARY/FINAL LAND DEVELOPMENT PLANS

FOR

MADISON DEVELOPMENT GROUP, INC.

DEKALB PIKE AT SKIPPACK PIKE

WHITPAIN TOWNSHIP
MONTGOMERY COUNTY
PENNSYLVANIA

EXTON OFFICE
410 Eagleview Boulevard
Suite 104
Exton, PA 19341
Phone: 610.254.9140
Fax: 610.254.9141
email: solutions@maserconsulting.com

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	06/10/15	RMA	RTM

PROJECT NUMBER:	DRAWING NAME:
12000830A	C-LAND

SHEET TITLE:
LANDSCAPE PLAN

SHEET NUMBER:
7 of 16

DESIGN WAIVERS REQUESTED

SUBDIVISION AND LAND DEVELOPMENT ORDINANCE : CHAPTER 129

(129-19.A)(129-19.D.3.) WAIVER OF THE LISTED SECTIONS. LANDSCAPING HAS BEEN PROVIDED IN ACCORDANCE WITH THE REQUIREMENTS OUTLINED IN THE "COMMUNITY SHOPPING CENTER OVERLAY DISTRICT".

129-20.E.(2) SITE GRADING ON SITE DISTURBANCE SHALL NOT OCCUR WITHIN FIVE FEET OF THE PARCEL BOUNDARY LINE.
WAIVER TO ALLOW GRADING AND SITE DISTURBANCE WITHIN FIVE FEET OF PARCEL BOUNDARY.

129-20.E.(5) WHEN THE SLOPE OF GROUND EXCEEDS ONE VERTICAL TO FOUR HORIZONTAL, THE SLOPE SHALL BE SODDED OR PLANTED WITH PLANTS A MINIMUM OF SIX INCHES IN LENGTH IN CONFORMANCE WITH THE SPECIFICATIONS OF THE PENNSYLVANIA DEPARTMENT OF TRANSPORTATION FORM 408. SUCH SLOPES SHALL NOT BE SEEDED.
WAIVER TO ALLOW SLOPES OF 1 VERTICAL TO 3 HORIZONTAL TO BE SEEDED AND JUTE MATTING APPLIED.

129-21.C. STORM DRAINS SHALL HAVE A MINIMUM DIAMETER OF 18 INCHES .
WAIVER TO ALLOW STORM DRAINS 15 INCHES IN DIAMETER.

129-58.B.(1) SHEET SIZE FOR PLANS TO BE RECORDED SHALL BE 24 INCHES BY 36 INCHES AND NO OTHER SIZE. THE SCALE SHALL BE ANY CONVENIENT STANDARD SCALE AS LARGE AS PRACTICABLE TO CLEARLY READ ANY LETTERING OR PRINTING SHALL BE LESS THAN 1/10 OF AN INCH IN HEIGHT.
WAIVER TO ALLOW PLAN SHEET SIZE OF 30 INCHES BY 42 INCHES, AND PLAN TEXT SMALLER THAN 1/10 OF AN INCH IN HEIGHT. (6 POINT: +/- 1/16 INCH)

129-58.C.(1) THE PLAN SHALL SET FORTH EXISTING FEATURES OF THE LAND WITH 400 FEET OF ANY PART OF THE LAND TO BE SUBDIVIDED OR DEVELOPED.
WAIVER FROM SHOWING EXISTING FEATURES WITHIN LESS THAN 400 FEET OF THE SUBJECT SITE.

129-58.C.(2) THE PLAN SHALL INCLUDE EXISTING CENTER-LINE COURSES, DISTANCES AND CURVE DATA, PAVING WIDTHS AND CURBLINES, RIGHT-OF-WAY AND CURBLINE RADII AT INTERSECTIONS AND STREET LOCATION TIE-INS BY COURSES AND DISTANCES TO THE NEAREST INTERSECTION OF EXISTING AND PLANNED STREETS.
WAIVER FROM SHOWING COMPLETE EXISTING STREET DATA AS LISTED. PLANS SHOW RIGHT-OF-WAY DATA AND EXISTING ROADWAY FEATURES PER CURRENT PHYSICAL SURVEY PREPARED BY MASER CONSULTING P.A.

129-58.C.(5) MEASURED DISTANCES FROM THE CENTER LINE OF STREETS TO BUILDINGS, LARGE TREES STANDING ALONE OR OTHER CONTROL POINTS AND THE LOCATION OF ALL MONUMENTS WITH REFERENCE TO THEM.
WAIVER FROM SHOWING DISTANCES FROM THE CENTER LINE OF STREETS. BUILDINGS ARE DIMENSIONED TO STREET RIGHT OF WAY LINE OR PROPERTY LINE.

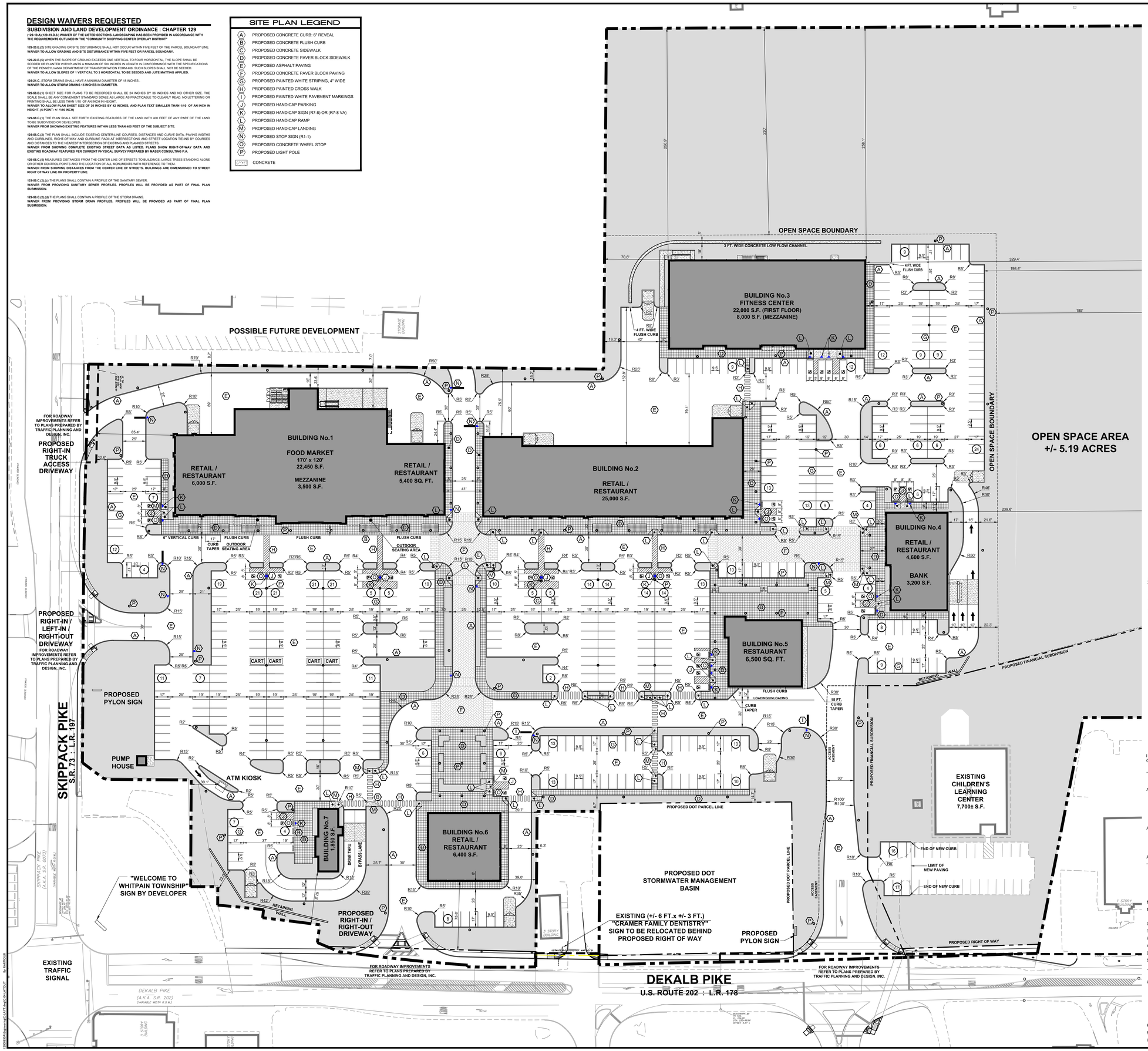
129-59.C.(2)(c) THE PLANS SHALL CONTAIN A PROFILE OF THE SANITARY SEWER.
WAIVER FROM PROVIDING SANITARY SEWER PROFILES. PROFILES WILL BE PROVIDED AS PART OF FINAL PLAN SUBMISSION.

129-59.C.(2)(d) THE PLANS SHALL CONTAIN A PROFILE OF THE STORM DRAINS.
WAIVER FROM PROVIDING STORM DRAIN PROFILES. PROFILES WILL BE PROVIDED AS PART OF FINAL PLAN SUBMISSION.

SITE PLAN LEGEND

- (A) PROPOSED CONCRETE CURB. 6" REVEAL
- (B) PROPOSED CONCRETE FLUSH CURB
- (C) PROPOSED CONCRETE SIDEWALK
- (D) PROPOSED CONCRETE PAVER BLOCK SIDEWALK
- (E) PROPOSED ASPHALT PAVING
- (F) PROPOSED CONCRETE PAVER BLOCK PAVING
- (G) PROPOSED PAINTED WHITE STRIPING, 4" WIDE
- (H) PROPOSED PAINTED CROSS WALK
- (I) PROPOSED PAINTED WHITE PAVEMENT MARKINGS
- (J) PROPOSED HANDICAP PARKING
- (K) PROPOSED HANDICAP SIGN (R7-8) OR (R7-8 VA)
- (L) PROPOSED HANDICAP RAMP
- (M) PROPOSED HANDICAP LANDING
- (N) PROPOSED STOP SIGN (R1-1)
- (O) PROPOSED CONCRETE WHEEL STOP
- (P) PROPOSED LIGHT POLE

CONCRETE



ZONING REQUIREMENTS

PROJECT/MUNICIPALITY :	DEKALB PIKE AT SKIPPACK PIKE WHITPAIN TOWNSHIP MONTGOMERY COUNTY, PENNSYLVANIA
ZONING	C: COMMERCIAL DISTRICT SC: SHOPPING CENTER DISTRICT R1: RESIDENTIAL DISTRICT
EXISTING USE:	UNDEVELOPED LAND RESIDENTIAL OFFICE RESTAURANT
PROPOSED USE:	SHOPPING CENTER
CONDITIONAL USE:	COMMUNITY SHOPPING CENTER OVERLAY DISTRICT ORDINANCE NO. 4-237

CONDITIONAL USE
COMMUNITY SHOPPING CENTER OVERLAY DISTRICT: ORDINANCE No. 4-237

DESCRIPTION	REQUIRED	PROPOSED
TRACT AREA: MINIMUM NET EXCLUDING PENNDOT BASIN PARCEL	18 ACRES	21.78 ACRES 20.95 ACRES
BUILDING COVERAGE	22 PERCENT MAXIMUM	12.2 PERCENT
FRONT SETBACK: ULTIMATE RIGHT OF WAY	25 FEET MINIMUM	85.4 FEET
PROPERTY LINE SETBACK: TENANT "A" PROPERTY LINE SETBACK	25 FEET 15 FEET MINIMUM	56.9 FEET 23.6 FEET
SIDE SETBACK: RESIDENTIAL USE	50 FEET MINIMUM	256.9 FT / 239.6 FT.
REAR SETBACK: RESIDENTIAL USE	45 FEET MINIMUM	256.9 FT / 239.6 FT.
PARKING SETBACK: ULTIMATE RIGHT OF WAY PROPERTY LINE	10 FEET MINIMUM 25 FEET MINIMUM	12.6 FEET 36.2 FEET
GREEN AREA	35 PERCENT	44 PERCENT

SIGNAGE
COMMUNITY SHOPPING CENTER OVERLAY DISTRICT
SHOPPING CENTER SIGN

ONE (1) TYPE "A" SIGN,GROUND SIGN, PERMITTED PER STREET FRONTAGE		
MAXIMUM NUMBER OF SIGNS	2 : ONE PER STREET	2 : ONE PER STREET
MAXIMUM GROUND SIGN AREA:	200 SQ. FT.	200 SQ. FT.

PARKING
SHOPPING CENTER:
4.0 PARKING SPACES PER 1,000 SQ. FT. OF GROUND LEVEL FLOOR AREA (INCLUDING OUTDOOR SEATING)
3 PARKING SPACES PER 1,000 SQ. FT. SECOND FLOOR OR MEZZANINE AREA (SUPER MARKET OR FITNESS FACILITY)

BUILDING AREA	111,100 SQ. FT.	500 SPACES
OUTDOOR SEATING AREA	5,300 SQ. FT.	24 SPACES
MEZZANINE AREA	11,500 SQ. FT.	35 SPACES
		559 SPACES REQUIRED — 559 SPACES PROVIDED
PARKING SPACE SIZE	9 1/2 FT. x 19 FT. MINIMUM	9 1/2 FT. x 19 FT. 9 1/2 FT. x 17 FT. @ LANDSCAPING
PARKING GREEN AREA PARKING AREA: 100,899.5 SQ. FT.	10 PERCENT MINIMUM 10,090 SQ. FT.	21.0 PERCENT 21,215 SQ. FT.

SITE DATA

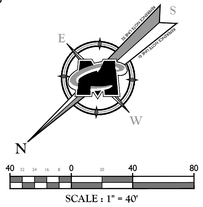
TRACT AREA	21.78+/- ACRES
NET TRACT AREA	20.95+/- ACRES (EXCLUDING PENNDOT BASIN PARCEL)
BUILDING AREA	111,100 SQ. FT.
IMPERVIOUS AREA	514,790 SQ. FT. (56.4 PERCENT)
GREEN AREA	397,792 SQ. FT. (43.6 PERCENT)

GENERAL NOTES

1. THE ACCURACY AND COMPLETENESS OF THIS INFORMATION HAS BEEN PROVIDED TO THE BEST ABILITY OF THE ENGINEER, HOWEVER, THE CONTRACTOR IS ADVISED TO VERIFY IN THE FIELD ALL THE FACTORS CONCERNING THE LOCATION OF ALL UTILITIES PRIOR TO BIDDING AND CONSTRUCTION. LOCATIONS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THESE PLANS ARE TO BE CONSIDERED APPROXIMATE AND SHOULD BE VERIFIED BY THE CONTRACTOR.
2. THIS SET OF PLANS HAS BEEN PREPARED FOR PURPOSE OF MUNICIPAL AND AGENCY REVIEW AND APPROVAL. THIS SET OF PLANS SHALL NOT BE UTILIZED AS CONSTRUCTION DOCUMENTS UNTIL ALL CONDITIONS OR APPROVALS HAVE BEEN SATISFIED ON THE DRAWINGS AND EACH DRAWING HAS BEEN REVISED TO INDICATE "ISSUED FOR CONSTRUCTION". THE CLIENT OR OWNER AND CONTRACTOR ARE RESPONSIBLE TO ASSURE THAT THE APPROVED PLANS ONLY, ARE USED FOR BIDDING AND CONSTRUCTION.
3. DO NOT SCALE DRAWINGS AS THEY PERTAIN TO ADJACENT AND SURROUNDING PHYSICAL CONDITIONS, BUILDINGS, STRUCTURES, ETC. THEY ARE SCHEMATIC ONLY, EXCEPT WHERE DIMENSIONS ARE SHOWN THERETO.
4. EXISTING UTILITY INFORMATION SHOWN HEREON HAS BEEN COLLECTED FROM VARIOUS SOURCES AND CANNOT BE GUARANTEED AS TO ACCURACY OR COMPLETENESS. THE CONTRACTOR SHALL VERIFY ALL INFORMATION TO HIS SATISFACTION PRIOR TO EXCAVATION. WHERE EXISTING UTILITIES ARE TO BE CROSSED BY PROPOSED CONSTRUCTION, THE EXACT LOCATION, ELEVATION, MATERIAL AND CONDITION OF EXISTING UTILITIES SHALL BE FIELD VERIFIED FOR LOCATION AND SIZE. THIS INFORMATION SHALL BE GIVEN TO THE ENGINEER PRIOR TO CONSTRUCTION, TO PERMIT ADJUSTMENT AS REQUIRED TO AVOID CONFLICTS. ANY EXISTING UTILITY SERVICE CONNECTIONS, LOCATED BY THE CONTRACTOR, CAPABLE OF SERVICING THE PROPOSED USE SHALL BE REUSED AS LONG AS THEY ARE IN GOOD CONDITION AND MEET THE UTILITY AUTHORITY'S STANDARDS AND SPECIFICATIONS. IF THE EXISTING UTILITY SERVICES DO NOT MEET THE ABOVE CRITERIA, THEN NEW SERVICE LINES SHALL BE INSTALLED.
5. FINAL LOCATIONS, NUMBERS AND SIZE OF ALL PROPOSED UTILITIES SERVICING BUILDINGS ARE TO BE VERIFIED WITH THE ARCHITECT, OWNER AND APPROPRIATE UTILITY AUTHORITY BY THE CONTRACTOR.
6. ALL MATERIALS, WORKMANSHIP, AND CONSTRUCTION FOR SITE IMPROVEMENTS SHOWN HEREON SHALL BE IN ACCORDANCE WITH:
   A. PENNSYLVANIA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", AS CURRENTLY AMENDED.
   B. CURRENT PREVAILING WHITPAIN TOWNSHIP SPECIFICATIONS, STANDARDS AND REQUIREMENTS.
   C. CURRENT PREVAILING UTILITY COMPANY/AUTHORITY AND OWNER SPECIFICATIONS, STANDARDS AND REQUIREMENTS.
7. THE CONTRACTOR SHALL NOTIFY THE UNDERSIGNED PROFESSIONAL IMMEDIATELY IF ANY FIELD OR SOIL CONDITIONS ARISE WHICH VARY FROM THE CONDITIONS SHOWN OR PRESENTED HEREON. SUCH CONDITIONS COULD RENDER THE DESIGNS SHOWN HEREON INAPPROPRIATE OR INEFFECTIVE.
8. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL APPROPRIATE SAFETY DEVICES AND TRAINING TO ALL WORKERS IN ORDER TO MAINTAIN SAFE CONDITIONS ON THE PROJECT SITE.
9. THE CONTRACTOR IS RESPONSIBLE FOR ALL REQUIRED CONSTRUCTION PERMITS NECESSARY FOR THE CONSTRUCTION AND COMPLETION OF THE APPROVED IMPROVEMENTS.
10. THE CONTRACTOR IS RESPONSIBLE FOR THE PROPER REMOVAL AND DISPOSAL OF ANY AND ALL EXISTING OBJECTS, STRUCTURES, ETC. THAT ARE IN THE WAY OF PROPOSED CONSTRUCTION, OR INDICATED AS TO BE REMOVED.
11. ALL PROPOSED SPOT ELEVATIONS ARE GRADE OR BOTTOM OF CURB UNLESS OTHERWISE NOTED.
12. WALKWAYS ARE TO SLOPE AWAY FROM BUILDINGS AT A MAXIMUM PITCH OF ¼ INCH PER FOOT. HANDICAP RAMPS ARE TO HAVE A MAXIMUM SLOPE OF 1" PER FOOT.
13. THE CONTRACTOR SHALL TAKE ADDITIONAL PRECAUTIONS TO WATERPROOF AREAS WHERE THE EXTERIOR FINISHED GRADE IS HIGHER THAN THE FINISHED FLOOR ELEVATION. ALTERNATELY, FOUNDATION WALLS IN EXCESS OF 8" BELOW FINISHED FLOOR SHALL BE FINISHED SUITABLY.
14. THE APPLICANT TO PROVIDE PRIVATE TRASH CARTING FOR THE PROPOSED FACILITIES AND WILL COMPLY WITH ALL RECYCLING REQUIREMENTS OF THE MUNICIPALITY, COUNTY AND STATE.
15. ALL DIMENSIONS LABELED ARE IN UNITED STATES STANDARD.
16. ALL ELECTRIC, TELEPHONE, AND CABLE TV UTILITY DISTRIBUTION LINES SHALL BE INSTALLED UNDERGROUND.
17. ALL STORMWATER BMP'S AND STORMWATER MANAGEMENT FACILITIES ARE TO BE PERMANENT FIXTURES THAT CAN BE ALTERED OR REMOVED ONLY AFTER APPROVAL BY THE TOWNSHIP OF A REVISED PLAN WHICH SHALL BE APPLICABLE TO ALL FUTURE OWNERS OF THIS PROPERTY.
18. THE PROPERTY IS SERVICED BY PUBLIC WATER AND PUBLIC SEWER.
19. EXISTING SITE FEATURES AND TOPOGRAPHIC DATA FROM ALTA/ACSM LAND TITLE SURVEY PREPARED FOR CENTRE SQUARE COMMONS BY MASER CONSULTING P.A., JOB NUMBER 12000830A/HASU032176, PLAN DATED JANUARY 21, 2015.

APPLICANT/EQUITABLE OWNER

MADISON DEVELOPMENT GROUP, INC. AND
CENTER SQUARE COMMONS, LP
ATTN:JOHN MCKENNA
PO BOX 507
SOUTHEASTERN, PA 19399
PHONE:215-568-9495
FAX:215-359-1370



I HEREBY CERTIFY THAT _____ IS THE DEVELOPER OF THE LAND HEREIN SUBDIVIDED OR TO BE DEVELOPED AND THAT I DO HEREBY ADOPT THIS PLAN.

_____
(TITLE)

APPROVED BY THE WHITPAIN TOWNSHIP PLANNING COMMISSION THIS ___ DAY OF _____, 2015.

_____
SECRETARY
WHITPAIN TOWNSHIP
PLANNING COMMISSION

APPROVED BY THE TOWNSHIP ENGINEER ON THE DAY OF _____, 2015.

_____
TOWNSHIP ENGINEER

APPROVED BY THE BOARD OF SUPERVISORS OF WHITPAIN TOWNSHIP THIS ____ DAY OF _____, 2015.

_____
CHAIRMAN

_____
SECRETARY

STATE OF PENNSYLVANIA
COUNTY OF MONTGOMERY

ON THIS, THE _____ DAY OF _____, 2015, BEFORE ME, _____,
THE UNDERSIGNED OFFICER, PERSONALLY APPEARED _____
WHO ACKNOWLEDGED HIMSELF TO BE THE _____ OF _____,
A CORPORATION, AND THAT HE AS SUCH _____, BEING AUTHORIZED TO DO SO, EXECUTED THE FOREGOING INSTRUMENT FOR THE PURPOSE THEREIN CONTAINED BY SIGNING THE NAME OF THE CORPORATION BY HIMSELF AS

_____.

WITNESS MY HAND AND NOTARY SEAL THE DAY AND YEAR AFORESAID.

_____
NOTARY PUBLIC
MY COMMISSION EXPIRES
_____, 20____

RECORDED THIS _____ DAY OF _____, 2015 IN THE OFFICE FOR THE RECORDING OF DEEDS, ETC., IN AND FOR THE COUNTY OF MONTGOMERY, PENNSYLVANIA IN PLAN FILE CASE _____ D.B. NO _____ PAGE _____.

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State of N.J. Certificate of Authorization: 24GA27986500

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REV	DATE	DRAWN BY	DESCRIPTION

RUSSELL T. McFALL II
PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER - LICENSE NUMBER: PE60408

PRELIMINARY/FINAL LAND DEVELOPMENT PLANS

FOR

MADISON DEVELOPMENT GROUP, INC.

DEKALB PIKE AT SKIPPACK PIKE

WHITPAIN TOWNSHIP
MONTGOMERY COUNTY
PENNSYLVANIA

EXTON OFFICE
410 Eagleview Boulevard
Suite 104
Exton, PA 19341
Phone: 610.254.9140
Fax: 610.254.9141
email: solutions@maserconsulting.com

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	06/10/15	DIII	RTM
PROJECT NUMBER: 12000830A	DRAWING NAME: C-LAYT		

SHEET TITLE: SITE PLAN

SHEET NUMBER: 4 of 16

12000830A/Engineering/C-LAYT.dwg/C-LAYOUT By:MARKUS

Township Use:
No. CU28-15

CODE ENFORCEMENT OFFICE

WHITPAIN TOWNSHIP
960 Wentz Road
Blue Bell, PA 19422
buldingandzoning@whitpaintownship.org

Phone: (610) 277-2400
Fax: (610) 277-2209
Office Hours: Mon. – Fri. 1-2 p.m.
& By Appointment

Application for Conditional Use Hearing

TO WHITPAIN TOWNSHIP BOARD OF SUPERVISORS

1. The Applicant: Phone H# 610-277-8500 EXT# 1
   (Name) CENTER SQUARE COMMONS, LP. W#
   of (address)

2. If other than owner, state interest in property: EQUITABLE OWNERSHIP

3. Property: 1324, 1358, 1374 & 1380 SKIPPACK PIKE
   A. Location or Address: 920, 938, 956, 990, 998 & 1010 DEKALB
   B. Zoning District: "COMMUNITY SHOPPING CENTER" OVERLAY DISTRICT

4. Conditional Use Request: 111,100 SQUARE FOOT SHOPPING CENTER with 11,500 SQUARE FOOT MEZZANINES

5. The Pertinent section(s) of Ordinance for this request: # 4-237

I (we) certify that the foregoing statements are true:

EDMUND MULLIN
Attorney

Signature of Applicant

610-277-8500
Phone

MANAGING MEMBER, JOHN MCKENNA
Title of Signer

(DO NOT WRITE IN THIS SPACE)

SCHEDULED HEARING DATE:

Petition Granted:

Petition Refused:

WHITPAIN TOWNSHIP BOARD OF SUPERVISORS

by:

Filing Fee $ 750.00 Received 5/8/15
by JM
Whitpain Township

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MAY 07 2015
WHITPAIN TOWNSHIP

TRAFFIC PLANNING AND DESIGN, INC.
Est. 1989
2500 E. High Street | Suite 650 | Pottstown, PA | 19464
610.326.3100 | TPD@TrafficPD.com

MEMORANDUM

Date: May 6, 2015

Subject: Centre Square Fire Company
Property Redevelopment Traffic Analysis
Whitpain Township, Montgomery County, PA

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TPD#: MDGR.00003

Prepared by: Greg Richardson, P.E.

This analysis has been prepared to determine the operational conditions of the intersection of the redesigned Fire Company driveway/Center Square Plaza driveway intersection with Skippack Pike after potential redevelopment of the Fire Company property. As proposed, the property would be redeveloped to relocate the existing fire company building further to the south, redesign the existing access to better align with the Center Square Plaza driveway, and provide traffic signalization (see **Figure 1- Site Plan**). Additionally, with the redevelopment of the property, the opportunity to provide for additional land use(s) on the property may be realized. For the purposes of this report, a 4,200 square foot fast food restaurant was assumed for the outparcel adjacent to Skippack Pike.

PROPOSED SITE ACCESS

As stated previously, if the redevelopment occurs, the existing fire company driveway will be redesigned to better align with the Center Square Plaza driveway and, if approved by PennDOT, provide traffic signalization. In addition, discussions regarding a potential access easement from the proposed adjacent Centre Square Commons through the fire company property in order to provide access to the traffic signal, are on-going.

BASE TRAFFIC VOLUMES

Base traffic volumes for this analysis were obtained from the Centre Square Commons Transportation Impact Study, dated April 24, 2015. These volumes are presented in **Figure 2**.

TRIP GENERATION

The trip generation rates for the proposed redevelopment were obtained from the manual Trip Generation, Ninth Edition, 2012, an Institute of Transportation Engineers (ITE) Informational Report. Land Use Code #934 (Fast-Food Restaurant with Drive-Thru) was used to calculate the number of vehicular trips during the following time periods: (1) weekday A.M. peak hour; (2) weekday P.M. peak hour; (3) Saturday midday peak hour and (4) average weekday. **Table 1** shows the equations/rates and directional percentages for the analyzed time periods.

TABLE 1
ITE TRIP GENERATION DATA

Land Use	Size	Time Period	Equation/Rate	Entering %	Exiting %
Fast-Food Restaurant w/Drive Thru (#934)	4,200 s.f.	Weekday A.M. Peak Hour	T = 45.42.(X)	51%	49%
		Weekday P.M. Peak Hour	T = 32.65(X)	52%	48%
		Saturday Midday Peak Hour	T = 59.00(X)	51%	49%
		Weekday	T = 496.12(X)	50%	50%

T = number of site-generated vehicular trips
X = independent variable (ksf, thousand square feet of gross leasable area)

Pass-By Trips

Based on the information provided in the manual Trip Generation, not all of the trips generated by the proposed redevelopment will be "new" to the nearby roadway system. In addition to the "new trips" generated by the development, there will be "pass-by trips", which are trips that are drawn from the passing traffic stream and do not add trips to the adjacent roadways. Pass-by trip percentages for the proposed use were utilized as specified in the ITE Trip Generation Handbook, Ninth Edition. The pass-by percentages utilized are shown in **Table 2.**

TABLE 2
ITE PASS-BY TRIP PERCENTAGES

Land Use	Pass-by Trip Percentage		
	A.M. Peak Hour	P.M. Peak Hour	Sat. Midday Peak Hour
Fast-Food Restaurant w/Drive Thru (#934)	49%	50%	50%

Table 3 summarizes the trip generation of the proposed redevelopment during the weekday A.M., weekday P.M. and Saturday midday peak hours.

TABLE 3
TRIP GENERATION SUMMARY

Land Use	Total Trips			Pass-By Trips			New Trips		
	Total	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit
Weekday	2084	1042	1042	0	0	0	2084	1042	1042
Weekday A.M. Peak Hour	191	97	94	94	47	47	97	50	47
Weekday P.M. Peak Hour	137	71	66	70	35	35	67	36	31
Saturday Mid. Peak Hour	248	126	122	124	63	61	124	63	61

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TRIP DISTRIBUTION

New Trips

The distribution of new trips generated by the proposed development was based on the local road network, the existing traffic patterns, the proposed use of the property and the property driveway location. The new trips for the proposed redevelopment were distributed to the local roadway network based on the percentages shown in **Table 4**.

TABLE 4
TRIP DISTRIBUTION PERCENTAGES – NEW TRIPS

Direction - To/From	Assignment	Distribution % (AM/PM/SAT)
East	via Skippack Pike (SR 0073)	42/53/43%
West	via Skippack Pike (SR 0073)	53/34/13%
North	via Center Square Plaza	4/13/14%

Pass-By Trips

Pass-by trips were established based on the existing traffic patterns in the vicinity of the property and the location and configuration of the site driveway. The percentages used for the distribution of pass-by trips to the property are shown below in **Table 5**.

TABLE 5
TRIP DISTRIBUTION PERCENTAGES – PASS-BY TRIPS

Direction - To/From	Pass-by Trip Distribution Percentages		
	Weekday A.M.	Weekday P.M.	Saturday Midday
East via Skippack Pike	52%	34%	43%
West via Skippack Pike	46%	53%	43%
North via Center Square Plaza	4%	13%	14%
Total	100%	100%	100%

Redistributed Trips

In conjunction with the redevelopment of the fire company property, and with the potential access easement from the proposed adjacent Centre Square Commons through the fire company property, a portion of the shopping center traffic volumes to and from the east along Skippack Pike were redistributed to the redesigned intersection. **Figure 3** indicates this redistribution of traffic.

Fire Company Driveway Volumes

The driveway volumes presented in Table 3, as well as the redistributed Center Square Commons traffic, noted above, are presented in **Figure 3**

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PROJECTED (BUILD) CONDITION TRAFFIC VOLUMES

The site-generated trips for the proposed redevelopment and the redistribution of the Centre Square Commons trips were added to the 2021 projected volumes obtained from the Centre Square Commons TIS to develop 2021 projected (build) condition traffic volumes. Projected condition traffic volumes for the 2021 conditions are shown in **Figure 4** for the weekday A.M., weekday P.M. and Saturday midday peak hours.

CAPACITY ANALYSIS METHODOLOGY

Capacity analyses were conducted for the 2021 Projected Conditions (Build-Out Design year with development) weekday A.M., weekday P.M. and Saturday midday peak hours at the proposed signalized intersection with Skippack Pike. These analyses were conducted according to the methodologies contained in the 2010 *Highway Capacity Manual* (HCM) using *Synchro 8* software, a Trafficware product.

LEVELS OF SERVICE IN THE STUDY AREA

Levels of service (LOS) at the proposed signalized intersection with Skippack Pike for the weekday A.M., weekday P.M. and Saturday midday peak hours are summarized in matrix form in **Tables 6** for the 2021 projected (build) conditions.

TABLE 6
LEVEL OF SERVICE DELAY (SECONDS) SUMMARY

Intersection	Movement	Design Year 2021 with PennDOT Improvements & Signalization		
		AM Peak	PM Peak	SAT Peak
Skippack Pike (SR 0073) & Center Square Plaza Driveway/ Fire Station Driveway	EB L	A	B	A
	EB T/R	B	A	C
	WB L	B	B	B
	WB T	A	B	B
	WB R	A	A	A
	NB L	C	C	C
	NB T/R	C	C	C
	SB L/T	C	C	C
	SB R	A	A	A
	ILOS	**B (13.4)**	**B (16.1)**	**B (18.3)**

Under 2021 projected (build) conditions, the intersection will operate at LOS B for all three (3) time periods analyzed.

95TH PERCENTILE QUEUE ANALYSIS

Queue analyses were conducted at the proposed signalized intersection with Skippack Pike using *Synchro 8* software. For this analysis, the 95th percentile queue is defined as the queue length that is exceeded in 5% of the signal cycles. As an example, for a signal with a 90-second cycle, this means

that the 95th percentile queue length will be exceeded during 2 of the 40 signal cycles that occur during the peak hour. The queue analysis results are summarized in **Table 7** for the analyzed peak hours.

TABLE 7
95TH PERCENTILE (FEET) SUMMARY

Intersection	Movement	Available Storage	Design Year 2021 with PennDOT Improvements & Signalization		
			AM Peak	PM Peak	SAT Peak
Skippack Pike (SR 0073) & Center Square Plaza Driveway/ Fire Station Driveway	EB L	190	10	45	28
	EB T/R	700[1]	155	260	503
	WB L	265	45	85	125
	WB T	600+	308	615	403
	WB R	265	0	0	0
	NB L	50	50	25	53
	NB T/R	100+	53	58	93
	SB L/T	160	30	133	118
	SB R	160	0	0	0

1 = Distance to adjacent signalized intersection

RECOMMENDATIONS

- Install a new traffic signal at the re-designed Fire Company driveway/Center Square Plaza driveway intersection with Skippack Pike.
- Coordinate/interconnect the proposed signalized intersection with the signals to the east and west located at Wentz Road and DeKalb Pike, respectively.
- Provide a 125-foot left turn lane on the westbound approach of Skippack Pike to serve the proposed signalized intersection.
- Provide painted crosswalks and other accommodations to promote/encourage pedestrian activity between nearby properties.
- Provide required emergency pre-emption equipment for the proposed traffic signal, as directed by the Township and the Centre Square Fire Company.

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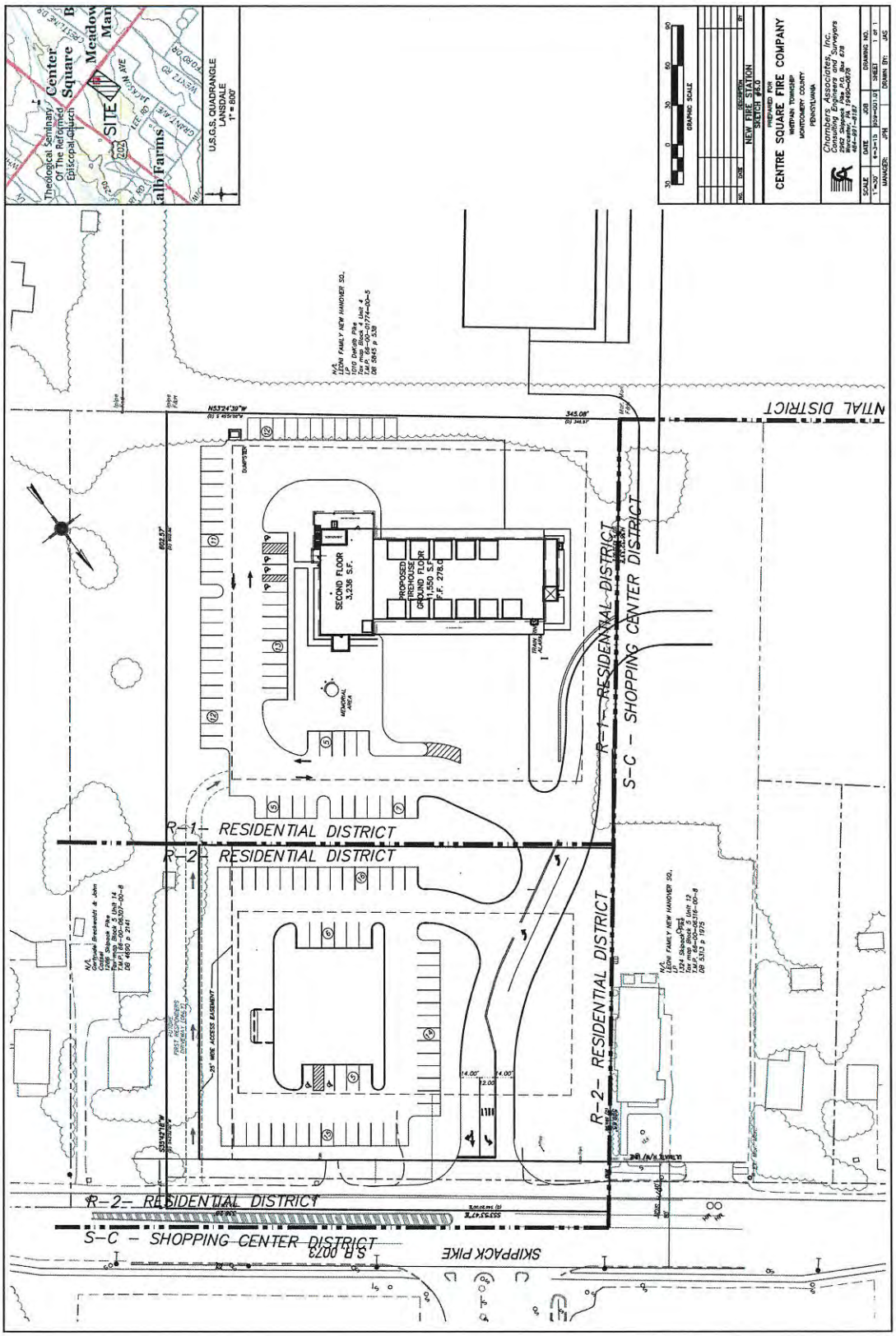

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FIGURE 1

SITE PLAN

$FILE$ $DATE$ $TIME$ $USER$ $MODEL$

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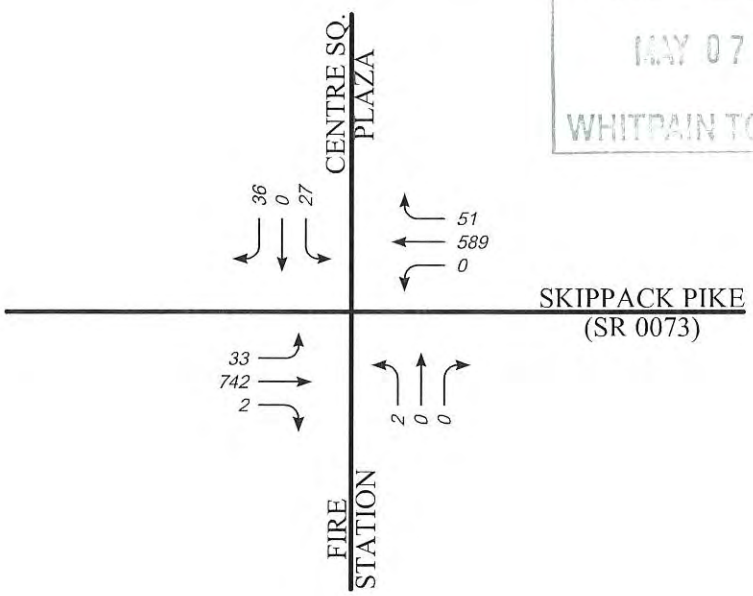
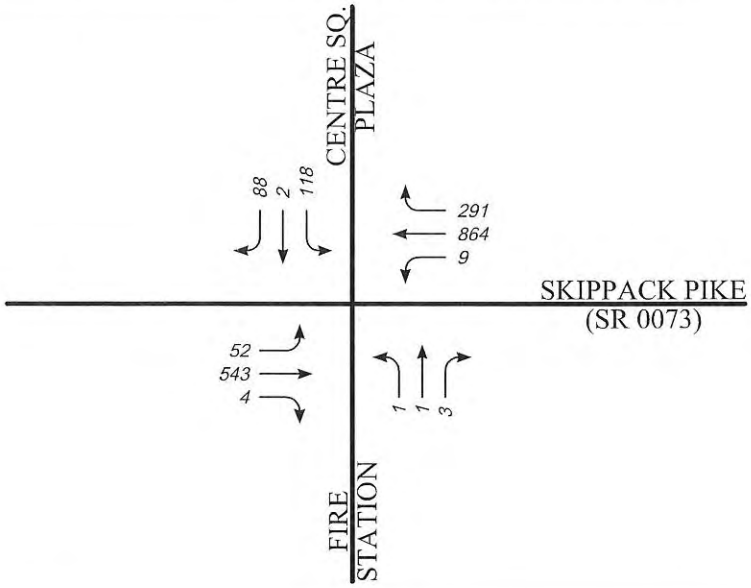
AM PEAK



PM PEAK



SATURDAY PEAK

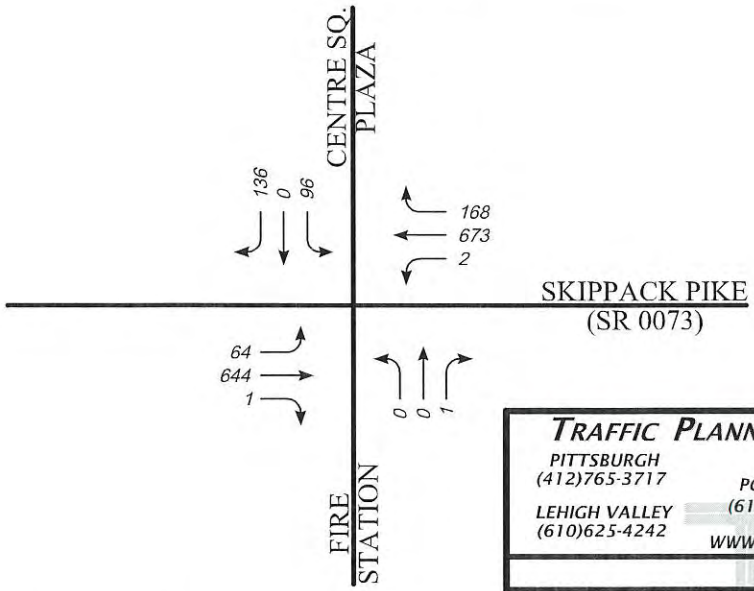


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FIGURE 2

2021 PROJECTED CONDITIONS
TRAFFIC VOLUMES
WITH CENTRE SQ. COMMONS ONLY

$FILE$ $DATE$ $TYPE$ $USER$ $MODEL$

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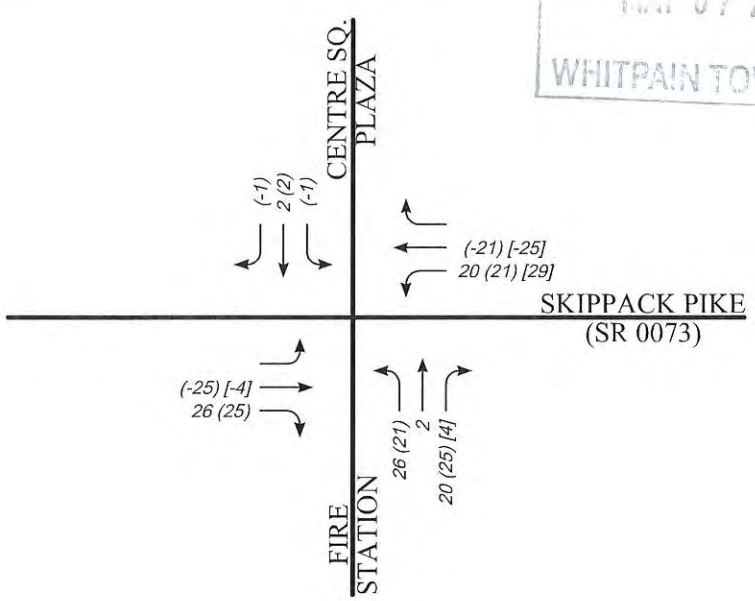
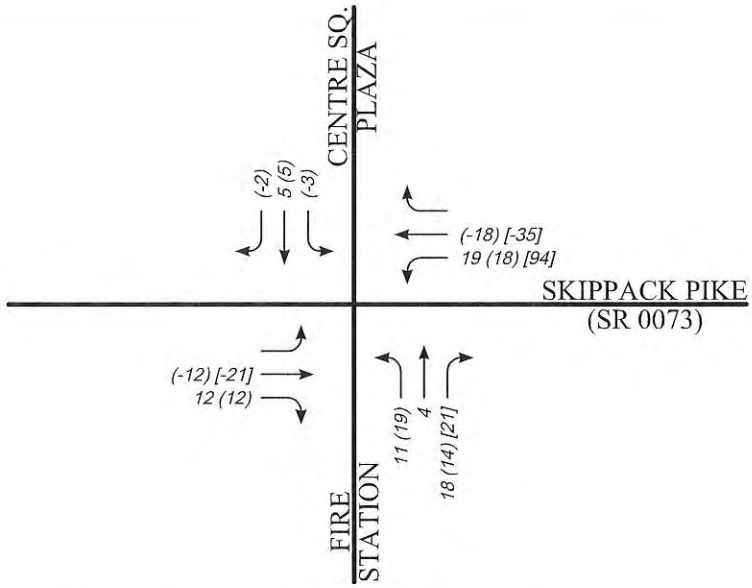
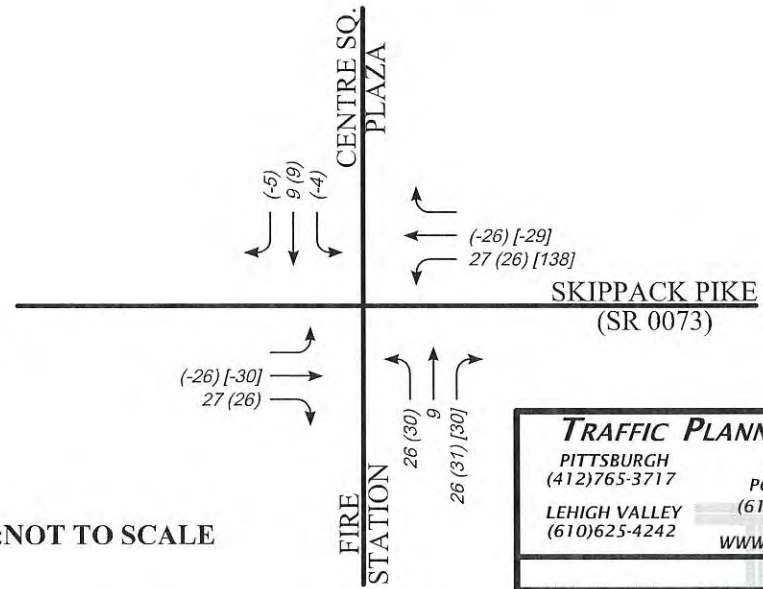
AM PEAK



PM PEAK



SATURDAY PEAK



KEY:

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LEGEND:

X (Y) [Z] = FIRE STATION (PASS-BY) [CENTRE SQ COMMONS]

TRAFFIC PLANNING AND DESIGN, INC.

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FIGURE 3

TRIP DISTRIBUTION
FIRE STATION RE-DEVELOPMENT

$FILE$ $DATE$ $TIME$ $USER$ $MODEL$

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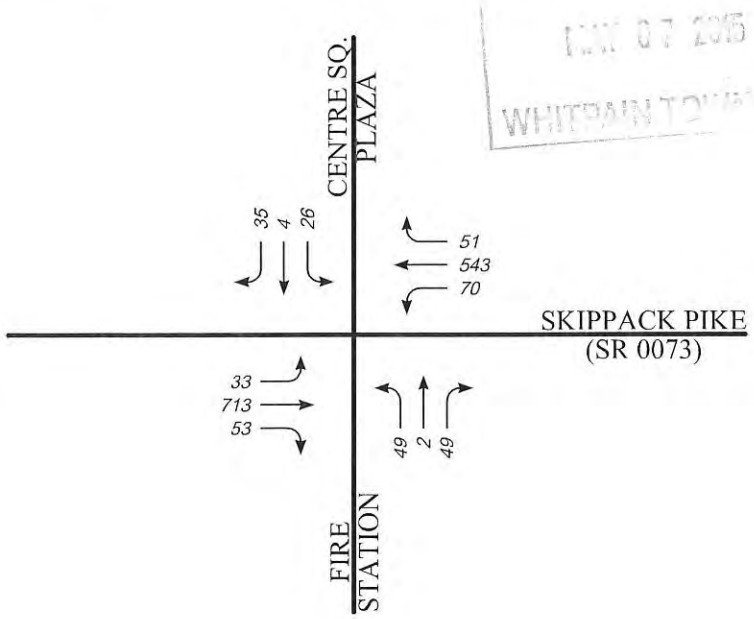
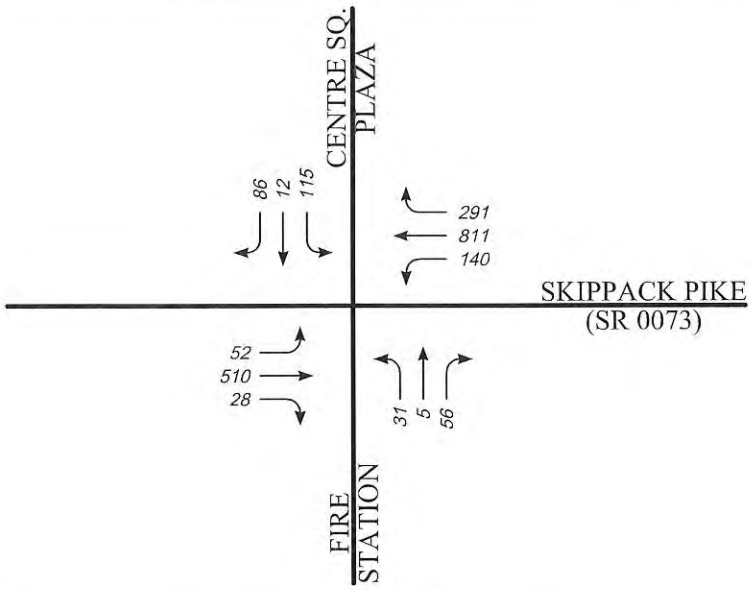
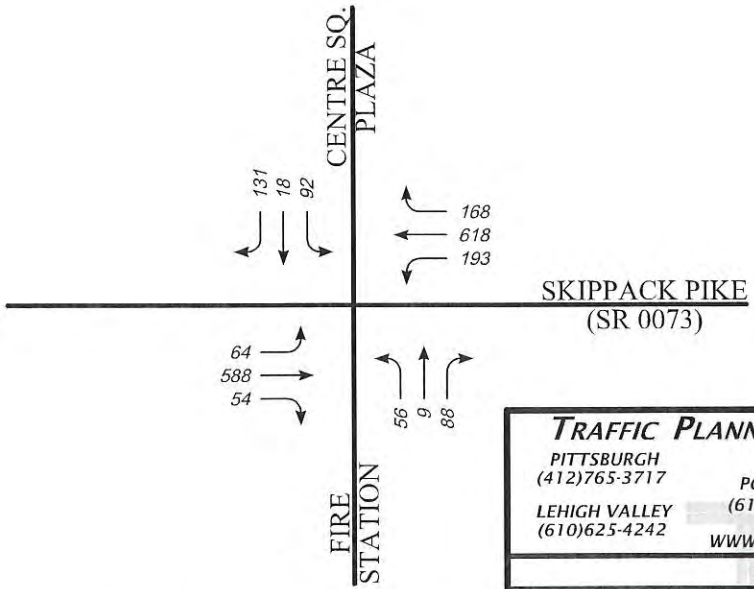
AM PEAK



PM PEAK



SATURDAY PEAK



KEY:

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FIGURE 4

2021 PROJECTED CONDITIONS
TRAFFIC VOLUMES
WITH CENTRE SQ. COMMONS & FIRE STATION

$FILE$ $DATE$ $TIME$ $USER$ $MODEL$

CENTRE SQUARE COMMONS

WHITPAIN TOWNSHIP - MONGOMERY COUNTY - PENNSYLVANIA

PRELIMINARY LAND DEVELOPMENT SUBMISSION
ARCHITECTURAL DESIGN GUIDELINES

APRIL 22, 2015

APPLICANT:

CENTER SQUARE COMMONS, LP

P.O. BOX 507
SOUTHEASTERN, PA

ARCHITECT:

Bernardon Haber Holloway
ARCHITECTS PC

425 McFarlan Road, Suite 200
Kennett Square, PA 19348
T 610-444-2900 F 610-444-6525

SHEET INDEX

SHEET NUMBER	SHEET TITLE
1.	SHEET INDEX
2.	PROJECT NARRATIVE AND GENERAL NOTES
3.	SITE PLAN
4.	PERSPECTIVE
5.	PERSPECTIVE
6.	PERSPECTIVE
7.	BUILDING 1 – ELEVATIONS & PLAN
8.	BUILDING 2 – ELEVATIONS & PLAN
9.	BUILDING 3 – ELEVATIONS & PLAN
10.	BUILDING 4 – ELEVATIONS & PLAN
11.	BUILDING 5 – ELEVATIONS & PLAN
12.	BUILDING 6 – ELEVATIONS & PLAN
13.	BUILDING 7 – ELEVATIONS & PLAN
14.	BENCHES AND WASTE RECEPTACLES
15.	BIKE RACKS AND BOLLARDS
16.	CART CORRALS AND CURBING
17.	FENCING AND GREEN AREAS
18.	HANGING BASKETS AND LANDSCAPING
19.	MAINTENANCE AND PAVEMENTS
20.	SIDEWALKS AND WALLS

CENTER SQUARE COMMONS, LP
P.O. Box 507
Southeastern, PA

Bernardon Haber Holloway ARCHITECTS PC
425 McFarlan Road, Suite 200
Kennett Square, PA 19348
T 610-444-2900 F 610-444-6525

PROJECT NARATIVE

These Design Guidelines are provided in support of a 21.78 acre development tract at the southeast corner of Route 202 and Route 73 and known as the Centre Square Commons. The proposed Centre Square Commons provides for approximately one hundred fifteen thousand (115,000) square foot shopping center designed to be compatible with the community shopping center overlay district design criteria of Whitpain Township.

These Design Guidelines are intended to provide a guide for municipal officials, and future owners of the retail complex for the architectural design and site layout. These Design Guidelines will provide the vision statement for the project and will guide the builders and future owners with design related details that are specific to this site and are a component of the Final Approval from Whitpain Township.

It is the vision of both Whitpain Township and the developers of this project to promote a 'walkable' community in the Community Shopping Center Overlay District area of the Township. Although this component is non-residential in use it does provide an opportunity to infill with retail and convenience uses that are adjacent to other districts within walking distance. The project proposes pedestrian linkages which move pedestrians around the site internally and connect with proposed access points to link with external walkways. Although a large portion of the center of the site is used as vehicle parking, substantial walk ways, courtyards, and landscape features are provided to allow patrons the opportunity to gather and relax in outdoor civic spaces. These elements are intended to encourage time spent walking about the center, and its adjoining uses.

The property is bounded by Skippack Pike and Dekalb Pike. The plans depict the tract to be served by four points of access: Two on Skippack Pike and two on Dekalb Pike. The site will be serviced by public water and sewer. A reduced site sketch plan is included as on Sheet 3.

The improvements required for the development will be constructed in a single phase. It is expected that the time period to allow for the completion of these improvements is approximately twelve months. These improvements will include access driveways and parking areas, utilities, landscaping and civic areas.

The buildings will be constructed utilizing modern conventional materials and methods and will comply with all applicable building codes and requirements. There has already been a high degree of architectural vetting of various façade treatments and roof elements. The buildings will be substantially in accordance with the design criteria and materials shown and discussed on the elevations and renderings which received approval from both the Planning Commission and Board of Supervisors prior to submission of this study and the land development plan application.

The common areas and site as a whole will be managed and maintained as a single entity under a unified development agreement.

BUILDING ARCHITECTURE

The architectural style of Centre Square Commons shall be designed to avoid the massive scale and uniform impersonal appearances of a generic *big box* commercial center. This shall be accomplished with building façades on which there are customer entrances through façade ornamentation, building offsets, window treatments, variations in roof lines, customer entrance treatments and, in all instances, through the use of quality building materials.

The building design intent is to include Front building façades greater than 200 feet in length which face public streets shall have recesses or projections of the main building wall including, but not limited to, canopies, towers, bays, changes in building materials, and gables. There shall be no uninterrupted length of Front building façade greater than 200 feet. First floor activities that promote multiple pedestrian destinations such as retail, restaurants, banking and entertainment are encouraged and outdoor plaza and/or café seating for restaurants shall be permitted, provided that such seating does not obstruct pedestrian circulation.

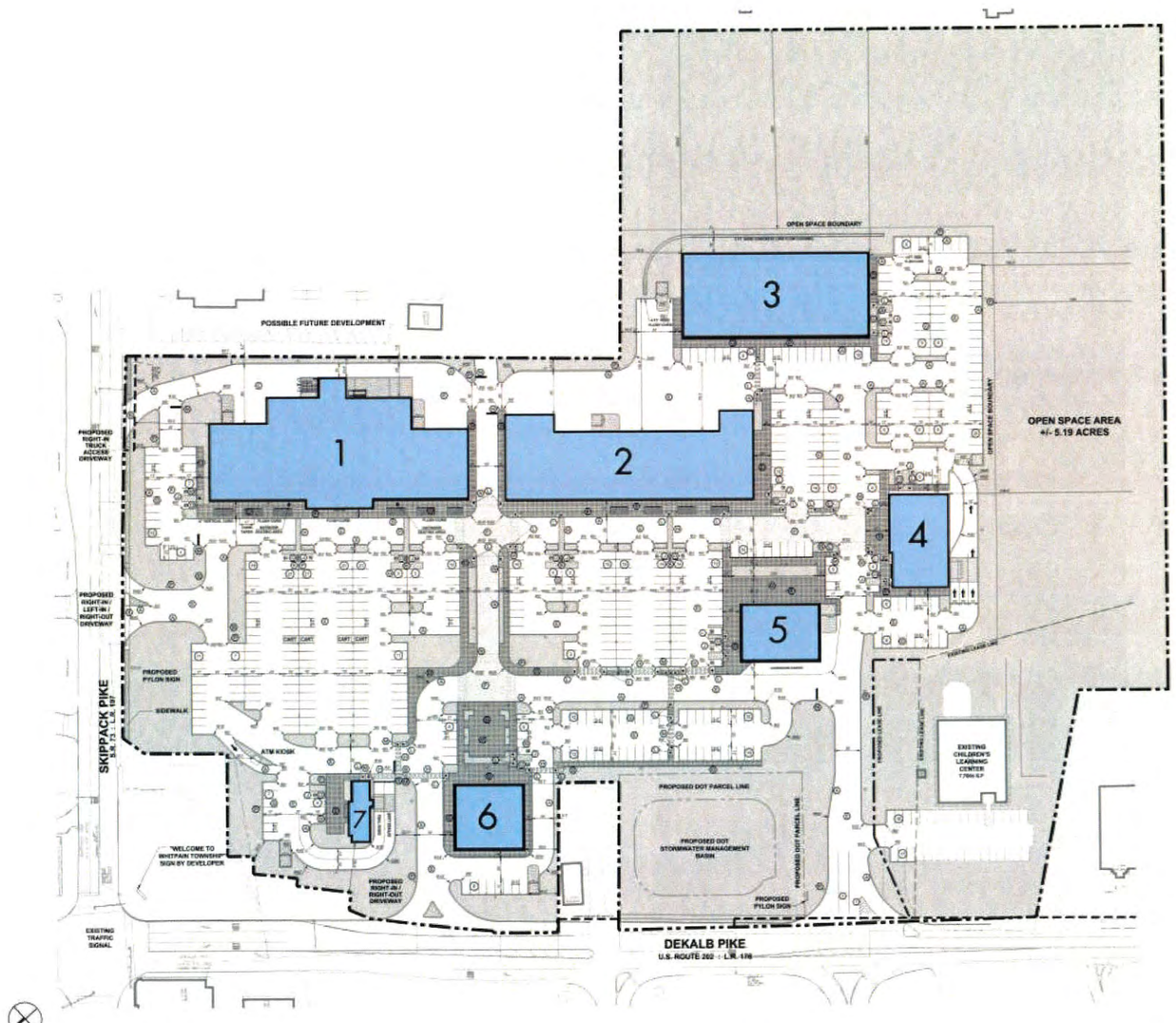
Front building façades (including separate buildings which are attached) shall have clearly defined, highly visible customer entrances which may include Pilasters, Overhangs, Recess/Projections, Masonry Banding, Cornices, Awnings, Outdoor Patios and Display Windows.

Side and Rear Exterior Building Walls, including independent buildings that are physically attached, shall be designed to avoid the massive scale and uniform impersonal appearances of generic *big box* commercial centers. In addition to the requirements noted in section above, such exterior wall surfaces shall have architectural treatments to include, but not be limited to, articulation of building materials, to reduce the mass of such building elevations and avoid a homogenous presentation.

Variations in facade roof parapet heights shall be used to screen HVAC equipment and to provide interest and reduce the scale of large buildings. Roofs visible from the perspective of individuals facing those building façades that have or are intended to have a customer entrance may have articulated cornices or sloping roofs.

Exterior building materials may be composed of the following exterior building materials

- Cementitious siding
- Brick;
- Stone or architectural precast masonry;
- Cast stone or cultured stone;
- Glass in warm or cool tones;
- Stucco or EIFS; and/or
- Concrete masonry unit (CMU), but only split face block or ground face block.



SITE PLAN

NOTE: THIS PLAN IS FOR BUILDING LOCATION ONLY - REFER TO LAND DEVELOPMENT PLANS PREPARED BY MASER CONSULTANTS FOR ALL OTHER INFORMATION

N.T.S.

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P.O. Box 507
Southeastern, PA

CENTRE SQUARE COMMONS

WHITPAIN TOWNSHIP MONTGOMERY COUNTY - PENNSYLVANIA

PRELIMINARY LAND DEVELOPMENT SUBMISSION – ARCHITECTURAL DESIGN GUIDELINES

SITE PLAN

April 22, 2015

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WHITPAIN TOWNSHIP MONTGOMERY COUNTY - PENNSYLVANIA

PRELIMINARY LAND DEVELOPMENT SUBMISSION – ARCHITECTURAL DESIGN GUIDELINES

PERSPECTIVE

April 22, 2015

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PRELIMINARY LAND DEVELOPMENT SUBMISSION – ARCHITECTURAL DESIGN GUIDELINES

PERSPECTIVE

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PRELIMINARY LAND DEVELOPMENT SUBMISSION – ARCHITECTURAL DESIGN GUIDELINES

PERSPECTIVE

April 22, 2015

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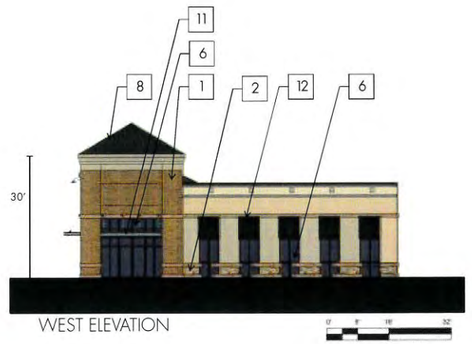
NORTH ELEVATION



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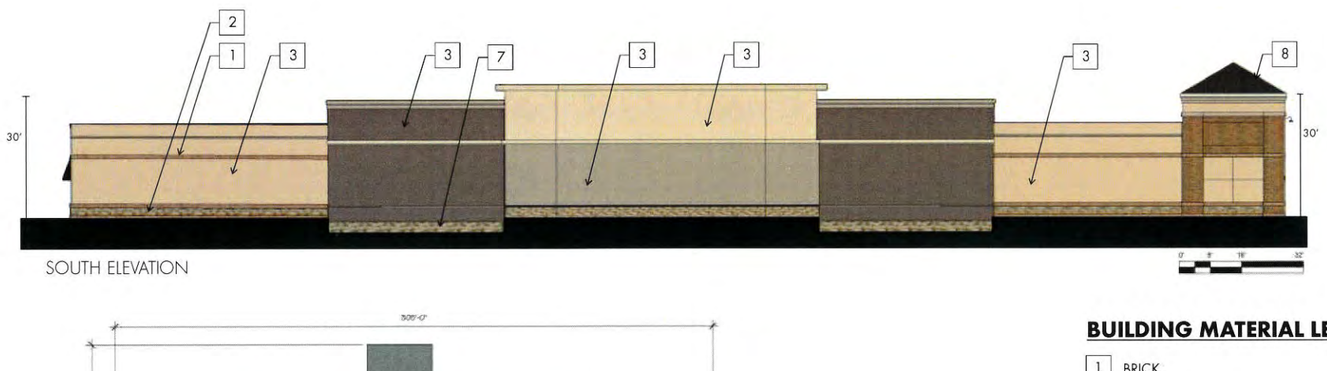
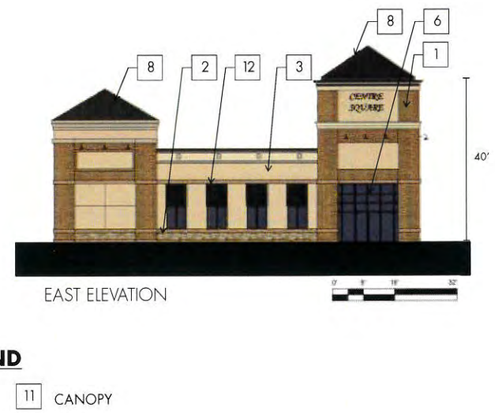
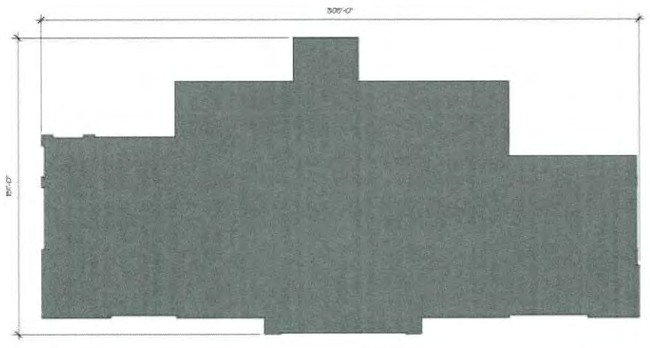


SOUTH ELEVATION



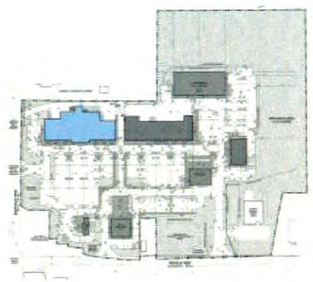
EAST ELEVATION



PLAN

BUILDING MATERIAL LEGEND

1	BRICK	11	CANOPY
2	MANUFACTURED STONE	12	AWNINGS
3	STUCCO/E.I.F.S		
4	FALSE WINDOW		
5	DOORS		
6	GLASS/STOREFRONT/FENESTRATION		
7	GROUNDFACE CMU		
8	METAL ROOF		
9	ASPHALT SHINGLE ROOF		
10	CEMENTITIOUS SIDING		



KEY PLAN
N.T.S.

CENTER SQUARE COMMONS, LP
P.O. Box 507
Southeastern, PA

CENTRE SQUARE COMMONS

WHITPAIN TOWNSHIP MONTGOMERY COUNTY - PENNSYLVANIA

PRELIMINARY LAND DEVELOPMENT SUBMISSION – ARCHITECTURAL DESIGN GUIDELINES

BUILDING 1

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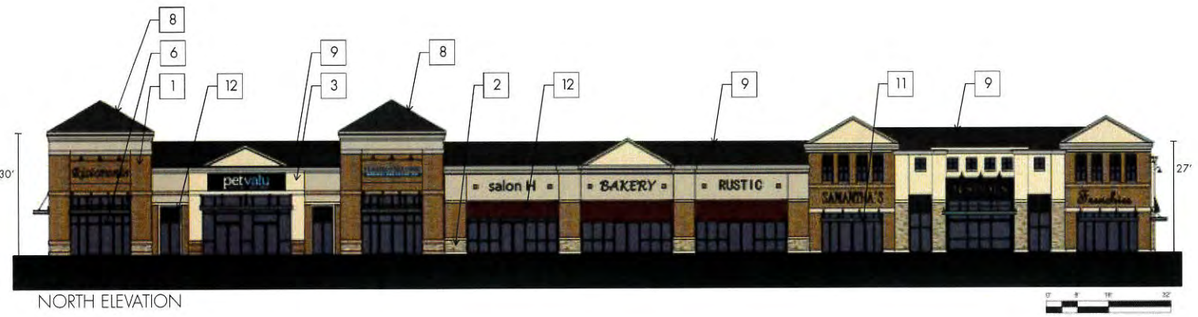
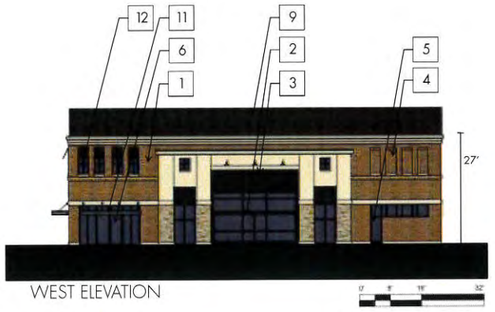


NORTH ELEVATION



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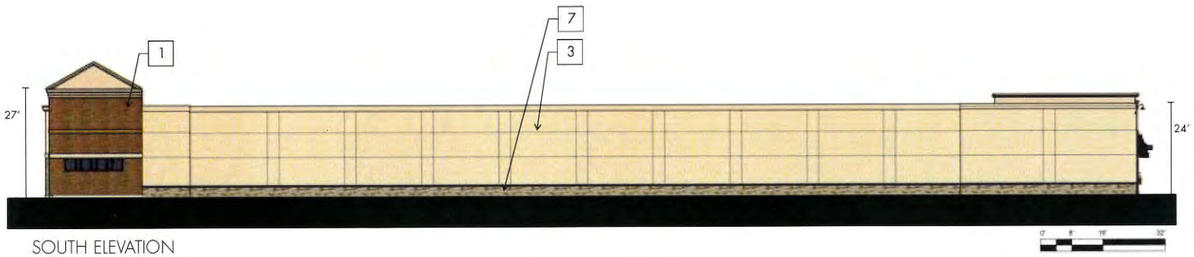
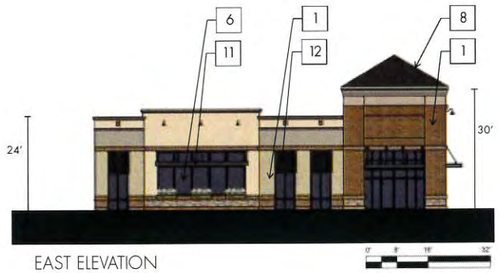
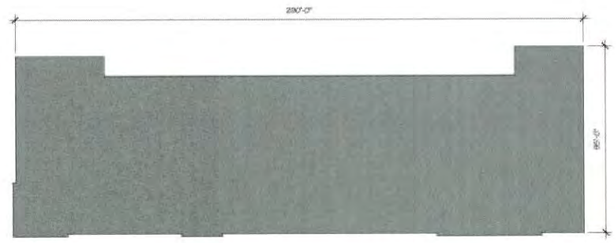


SOUTH ELEVATION



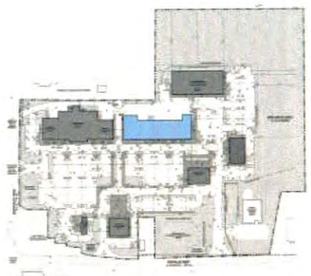
EAST ELEVATION



PLAN

BUILDING MATERIAL LEGEND

1 BRICK	11 CANOPY
2 MANUFACTURED STONE	12 AWNINGS
3 STUCCO/E.I.F.S	
4 FALSE WINDOW	
5 DOORS	
6 GLASS/STOREFRONT/FENESTRATION	
7 GROUNDFACE CMU	
8 METAL ROOF	
9 ASPHALT SHINGLE ROOF	
10 CEMENTITIOUS SIDING	



KEY PLAN
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PRELIMINARY LAND DEVELOPMENT SUBMISSION – ARCHITECTURAL DESIGN GUIDELINES

BUILDING 2

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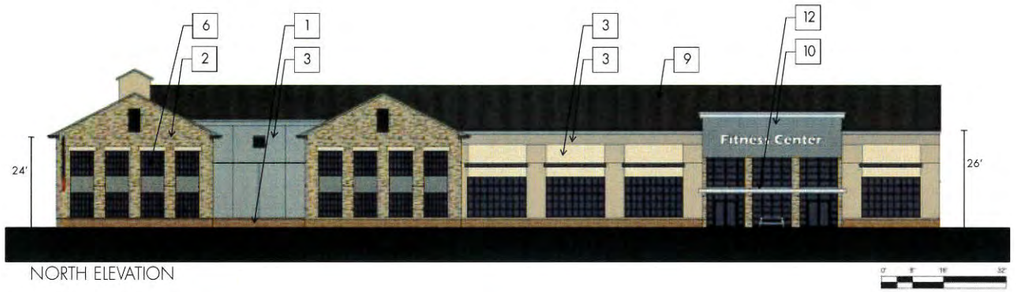

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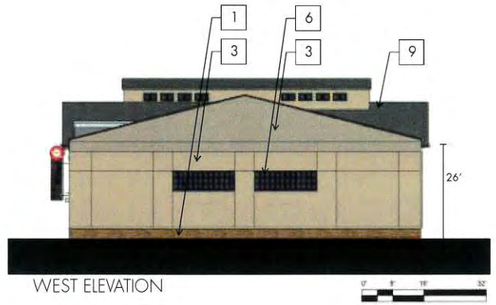
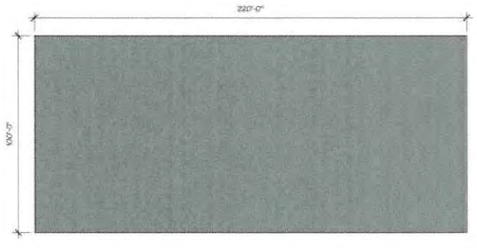


WEST ELEVATION

SOUTH ELEVATION

EAST ELEVATION



PLAN

BUILDING MATERIAL LEGEND

1	BRICK	11	CANOPY
2	MANUFACTURED STONE	12	AWNINGS
3	STUCCO/E.I.F.S		
4	FALSE WINDOW		
5	DOORS		
6	GLASS/STOREFRONT/FENESTRATION		
7	GROUNDFACE CMU		
8	METAL ROOF		
9	ASPHALT SHINGLE ROOF		
10	CEMENTITIOUS SIDING		

KEY PLAN
N.T.S.

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WHITPAIN TOWNSHIP MONTGOMERY COUNTY - PENNSYLVANIA

PRELIMINARY LAND DEVELOPMENT SUBMISSION – ARCHITECTURAL DESIGN GUIDELINES

BUILDING 3

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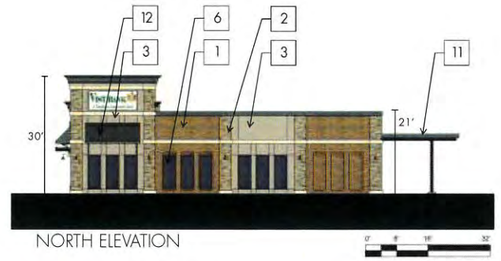
EAST ELEVATION



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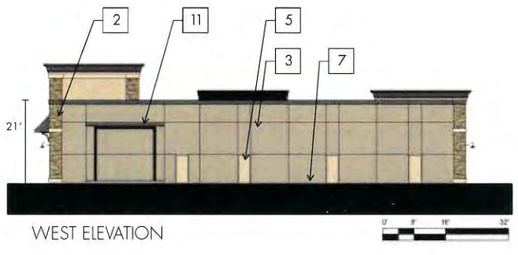

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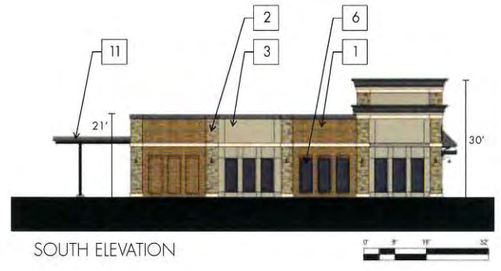
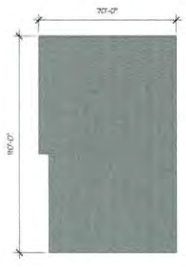


SOUTH ELEVATION



PLAN

BUILDING MATERIAL LEGEND

1	BRICK
2	MANUFACTURED STONE
3	STUCCO/E.I.F.S
4	FALSE WINDOW
5	DOORS
6	GLASS/STOREFRONT/FENESTRATION
7	GROUNDFACE CMU
8	METAL ROOF
9	ASPHALT SHINGLE ROOF
10	CEMENTITIOUS SIDING
11	CANOPY
12	AWNINGS

KEY PLAN
N.T.S.

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WHITPAIN TOWNSHIP MONTGOMERY COUNTY - PENNSYLVANIA

PRELIMINARY LAND DEVELOPMENT SUBMISSION – ARCHITECTURAL DESIGN GUIDELINES

BUILDING 4

April 22, 2015

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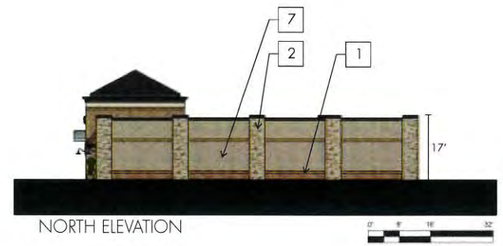
EAST ELEVATION



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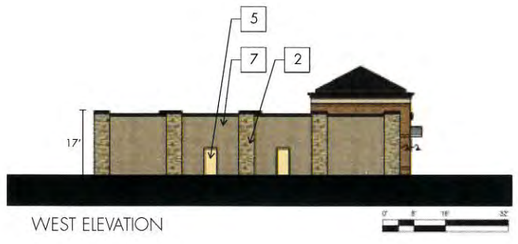

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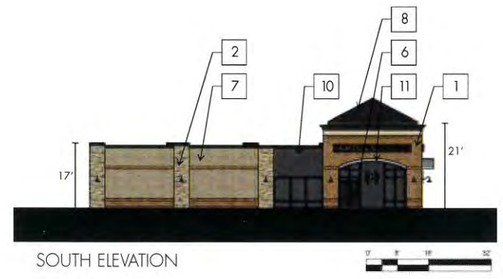
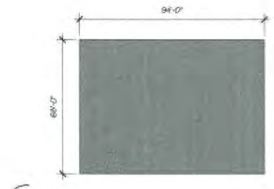


SOUTH ELEVATION

BUILDING MATERIAL LEGEND

1	BRICK	11	CANOPY
2	MANUFACTURED STONE	12	AWNINGS
3	STUCCO/E.I.F.S		
4	FALSE WINDOW		
5	DOORS		
6	GLASS/STOREFRONT/FENESTRATION		
7	GROUNDFACE CMU		
8	METAL ROOF		
9	ASPHALT SHINGLE ROOF		
10	CEMENTITIOUS SIDING		



PLAN

KEY PLAN
N.T.S.

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CENTRE SQUARE COMMONS

WHITPAIN TOWNSHIP MONTGOMERY COUNTY - PENNSYLVANIA

PRELIMINARY LAND DEVELOPMENT SUBMISSION – ARCHITECTURAL DESIGN GUIDELINES

BUILDING 5

April 22, 2015

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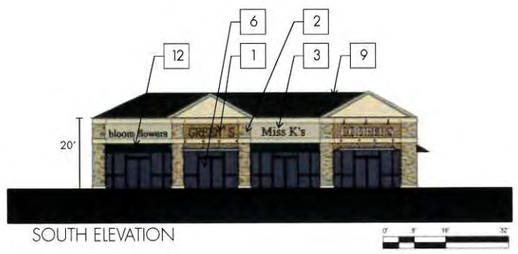

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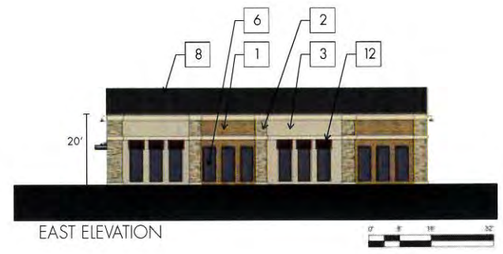

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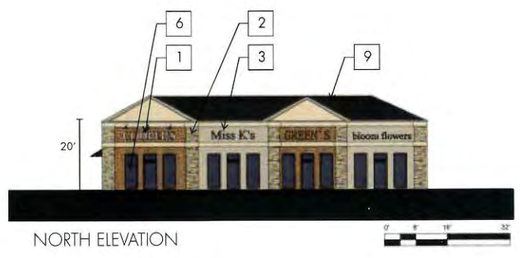

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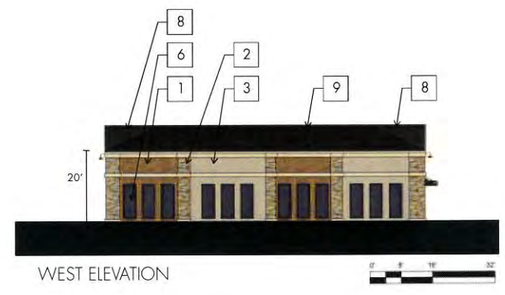

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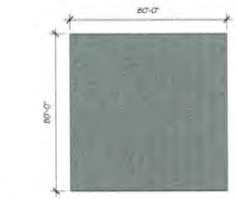

PLAN

BUILDING MATERIAL LEGEND

1 BRICK	11 CANOPY
2 MANUFACTURED STONE	12 AWNINGS
3 STUCCO/E.I.F.S	
4 FALSE WINDOW	
5 DOORS	
6 GLASS/STOREFRONT/FENESTRATION	
7 GROUNDFACE CMU	
8 METAL ROOF	
9 ASPHALT SHINGLE ROOF	
10 CEMENTITIOUS SIDING	

KEY PLAN
N.T.S.

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WHITPAIN TOWNSHIP MONTGOMERY COUNTY - PENNSYLVANIA

PRELIMINARY LAND DEVELOPMENT SUBMISSION – ARCHITECTURAL DESIGN GUIDELINES

BUILDING 6

April 22, 2015

Bernardon Haber Holloway
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Kennett Square, PA 19348
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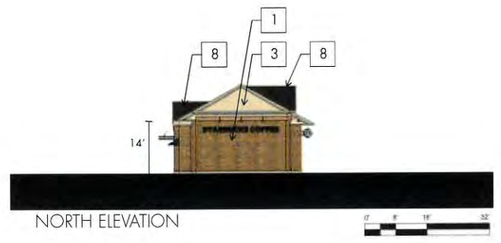
EAST ELEVATION



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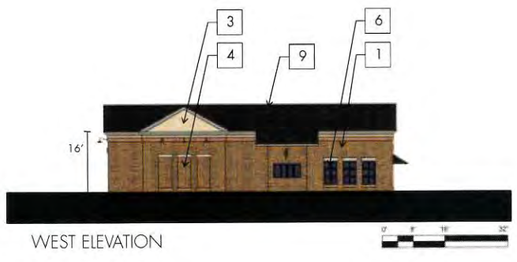

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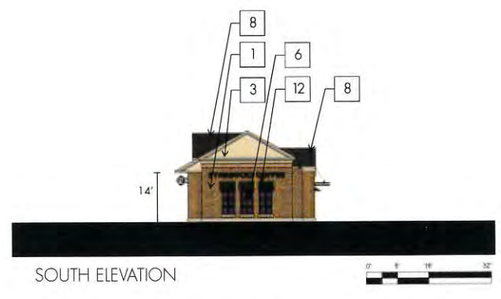

SOUTH ELEVATION

PLAN

BUILDING MATERIAL LEGEND

1	BRICK	11	CANOPY
2	MANUFACTURED STONE	12	AWNINGS
3	STUCCO/E.I.F.S		
4	FALSE WINDOW		
5	DOORS		
6	GLASS/STOREFRONT/FENESTRATION		
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8	METAL ROOF		
9	ASPHALT SHINGLE ROOF		
10	CEMENTITIOUS SIDING		

KEY PLAN
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WHITPAIN TOWNSHIP MONTGOMERY COUNTY - PENNSYLVANIA

PRELIMINARY LAND DEVELOPMENT SUBMISSION – ARCHITECTURAL DESIGN GUIDELINES

BUILDING G

April 22, 2015

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Benches

1. Overview

   Benches are needed to provide rest opportunities, and to complement pedestrian accessways (sidewalks, pedestrian paths).

2. Design guidelines
   - A. Benches shall be installed to provide rest opportunities, and to complement pedestrian accessways (sidewalks, pedestrian paths).
   - B. Benches may be located close to building entrances, pedestrian plazas and walkways, pavilions and/or pergolas, against a building wall, a retaining wall or other decorative wall.
   - C. Benches shall be no less than six (6) feet in length and shall be anchored to the sidewalk or walkway to provide stability.
   - D. Benches shall have frames and/or seating constructed of steel, aluminum, or cast iron. Wood seats and backs are permitted.
   - E. Bench type shall be consistent with the style and character of the other proposed street furnishings.

Waste Receptacles

1. Overview

   Waste (trash) receptacles should be placed in selected locations along streets, sidewalks and pathways and in other locations determined by the property owners. A uniform appearance of these structures is necessary to ensure that they are not visually offensive.

2. Design guidelines
   - A. Waste (trash) receptacles shall be a dark color to reduce their visibility, easy to open, and placed to be convenient to service.
   - B. Waste (trash) receptacles shall be placed on a concrete pad or other hard surface to aid in their maintenance.

Bike Racks

1. Overview
   Bike racks send an important message: "Bikes are Welcome Here!" Bike racks are an integral component to the pedestrian orientation of the town center.

2. Design guidelines
   A. Bike racks may be installed and maintained as an integral component to the pedestrian orientation.
   B. Bike racks shall be permanently anchored to the sidewalk or walkway to promote stability and security, and should be located near major areas of pedestrian activity.

Bollards

1. Overview
   Bollards provide enclosure, limit access or serve as an edge or containment feature necessary for minimizing pedestrian and vehicular conflicts. Bollards with lighting provide low-level pedestrian lighting along sidewalks and pathways.

2. Design guidelines
   A. Bollards may be used to provide enclosure, limit access or serve as an edge or containment feature necessary for minimizing pedestrian and vehicular conflicts.
   B. Bollards shall be installed and maintained, and any bollard which becomes damaged or destroyed shall be repaired or replaced as necessary.
   C. Bollards shall be securely anchored per manufacturer's specifications.
   D. Bollards shall be at a height of 30 to 48 inches above grade, except in service areas where bollards may measure up to 72 inches in height, with a minimum diameter of 6 inches in any instance.
   E. Bollards with lighting may be used as an appropriate means to provide low level pedestrian lighting along sidewalks and pathways.
   F. All bollards with lighting shall not exceed 4 feet in height and have an enclosed light source.

Cart Corrals

1. Overview

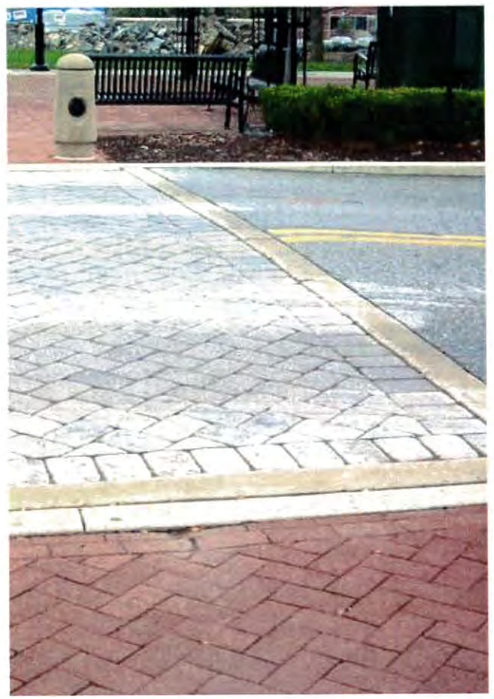
   Cart corrals provide an effective way to prevent shopping carts from being randomly scattered throughout parking areas.

2. Design guidelines
   - A. Cart corrals within the sidewalk immediately adjacent to building storefronts ("Building Cart Corrals") shall: i) be 3 feet high; ii) permanently affixed to the sidewalk; iii) include ADA-compliant access points; and iv) be constructed of steel 3 inches in diameter or width.
   - B. Cart corrals may be permitted within the parking fields ("Parking Cart Corrals") provided that such cart corrals are affixed to the pavement. Parking Cart Corrals constructed of wood shall not be permitted.
   - C. Cart corrals of any type shall have canopy covers.

Curbing

1. Overview

   Curbing is critical for channelizing pedestrian and vehicular movement. Curbing may be needed for grading and storm water management.
2. Design guidelines
   - A. Curbing shall be installed and maintained in order to channel pedestrian and vehicular movement and/or to contain grades or direct storm water.
   - B. Curbing shall be provided throughout Centre Square Commons along streets and access drives and within and around parking areas.
   - C. Curb cuts shall be made to promote barrier-free access, and to accommodate pedestrians with disabilities in accordance with ADA requirements.
   - D. All low points along curbs shall be adequately drained pursuant to the post-construction stormwater management plan as approved by the Board of Supervisors as part of Final Land Development Approval for Centre Square Commons to prevent flooding and ponding of water.

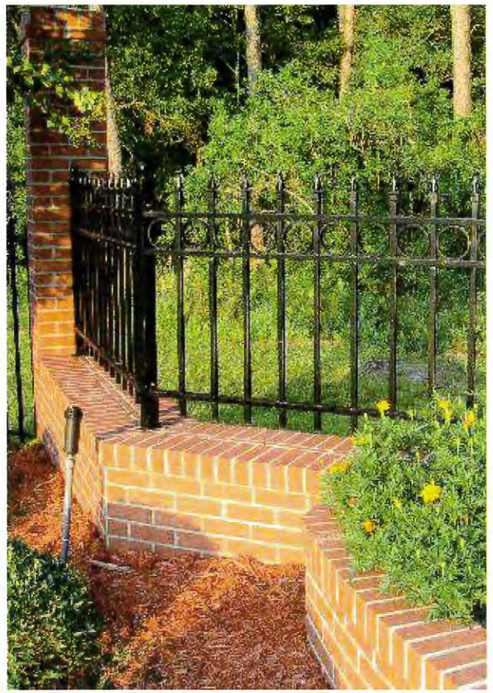


Fencing

1. Overview

   Fencing can be installed and maintained to define pedestrian space, courtyards and civic spaces, and to screen and separate uses and activities. Fencing can also be used to define street/urban edges in lieu of building facades where locating buildings is impractical.

2. Design guidelines
   - A. Fencing may be installed and maintained to help define pedestrian space, courtyards and civic spaces.
   - B. Such fences may be up to 6 feet in height and may be erected in any required yard, provided it does not obstruct sight distance at intersections.
   - C. Fencing may include a combination of masonry curbs and/or piers and iron and/or aluminum components.
   - D. Chain-link fencing shall be prohibited.



Green Areas: Pedestrian Plazas & Pavilions

1. Overview
   - A. Pedestrian plazas and pavilions are meant to identify places where people would congregate. Such places should be designed and built as a park or gathering place, marked with special pavements, shade trees, benches and other pedestrian amenities.
   - B. Planters provide a graceful and attractive type of street or courtyard furniture within which plants can be installed, and are encouraged.

2. Design guidelines
   - A. Open air or covered pedestrian-oriented spaces may act as connectors and may contain such amenities as changes in level, benches, landscaping, accent lighting, planters, sculptures, opportunities for entertainment and seating areas to provide a sense of place and orientation for its users.
   - B. Trees in Pedestrian Plazas may have tree grates and tree guards or be in large planter areas which also include ornamental shrubs and/or flowers.
   - C. Pavilions, pergolas, canopies or other structures which form an overhead plane or roof may be installed and maintained to provide opportunities for gathering, pedestrian circulation and visual interest. Pavilions shall be pedestrian in scale and designed to reflect the character and identity of Centre Square Commons. Access to any pavilion shall be provided in accordance with ADA requirements. Detailed drawings to be created of the pavilions and pergolas with the architectural elements to be specified; such drawings to be submitted at the time of building permit application.

Hanging Baskets

1. Overview

   Hanging baskets with plants can provide an attractive accent to an entrance court or courtyard and can provide a complementary element to the overall green look of a streetscape.

2. Design guidelines

   A. Hanging baskets may be utilized seasonally. All hardware connection straps or other attachments to poles and all pole details shall be congruent with the streetscape design.

   B. If utilized, the location and spacing of hanging baskets shall be coordinated with other streetscape furnishings and improvements.

Landscaping

1. Overview

   Landscaping is one of the most critical elements to define and enhance the appearance of a Community Shopping Center Development. Trees, shrubs and herbaceous flowing plants should be utilized to define and reinforce outdoor spaces, create a sense of human scale and complement the architecture.

2. Design guidelines

A. During the design process, the Applicant's registered Landscape Architect will respond to the following pursuant to the Zoning Ordinance and the Subdivision and Land Development Ordinance:

   (1) Existing topography and vegetation;

   (2) Screening views of buildings, parking areas, storage areas, site utilities and other types of screening; and

   (3) Provide visual interest, define outdoor space, compliment the architectural style and achieve functional and aesthetic landscape.

   (4) Trees within the non-off-street parking areas within the may be in tree grates with tree guards.

Maintenance for all Improvements

1. Overview

Centre Square Commons shall be operated and maintained as a unified development pursuant to a Declaration of Covenants to be recorded in the Office of the Recorder of Deeds in and for Montgomery County, Pennsylvania, at the time the Final Land Development Plans for Centre Square Commons are recorded.

Pavements - Materials

1. Overview

Pavement materials in Centre Square Commons should be distinctive and respectful of pedestrian movement. Unit pavers add visual interest, have a tendency to slow traffic down and reinforce the sense of entry and/or arrival to a building or civic space. Intersection pavers shall provide a crosswalk texture and traffic calming element that enhances the attractiveness of street access drive intersections.

2. Design guidelines

A. Pavement materials shall be installed and maintained to be respectful of pedestrian movement. Unit pavers shall be provided to add visual interest, slow traffic down and reinforce the sense of entry and/or arrival at a building or civic space. Asphalt and concrete pavements shall comply with the following:

(1) All concrete pavements shall have a broom finish, with smooth trowel edging along the sides and at all expansion and control joints.

(2) Feature paving shall be provided at designated intersections of interior drive aisles within Centre Square Commons as to be more fully depicted on the Preliminary land Development Plans for the project.

Sidewalks & Pedestrian Paths

1. Overview

Sidewalks serve as the most practical method of pedestrian access to and within Centre Square Commons. Sidewalks, when interrupted, should be made continuous through the use of crosswalks and pedestrian paths.

2. Design guidelines

A. Sidewalks shall comply with local codes and the following Design Guidelines (subject to waivers requested):

(1) Sidewalks shall be a minimum of 5 feet in width, constructed with appropriate control joints.

(2) Whenever a sidewalk is interrupted by a vehicular way, a crosswalk shall be provided.

(3) Colored concrete is permitted in sidewalks.

Walls

1. Overview

Walls can be a feature element, and will help to define pedestrian and civic spaces.

2. Design guidelines

A. Walls shall be in accordance with the following:

(1) Seating walls may be built and maintained to provide containment of courtyard, center square or plaza or other civic spaces.

(2) Walls shall not obstruct safe sight distance at intersections.

(3) Concrete or segmental retaining walls shall be permitted within Centre Square Commons.

DESIGN WAIVERS REQUESTED

SUBDIVISION AND LAND DEVELOPMENT ORDINANCE : CHAPTER 129

129-43.C.(1) TREES SHALL BE PLACED NOT TO EXCEED 50 FEET ON CENTER ALONG STREET FRONTAGE.
WAIVER FROM PROVIDING STREET TREES EVERY 50 FEET ON CENTER.

129-43.E.(4) WHEN THE SLOPE OF GROUND EXCEEDS ONE VERTICAL TO FOUR HORIZONTAL, THE SLOPE SHALL BE SODDED OR PLANTED WITH CROWN VETCH PLANTS A MINIMUM OF SIX INCHES IN LENGTH, OR OTHER APPROVED PLANT MATERIAL. SUCH SLOPES SHALL NOT BE SEEDED.
WAIVER TO ALLOW SLOPES OF 1 VERTICAL TO 4 HORIZONTAL TO BE SEEDED WITH JUTE MATTING APPLIED.

129-44.C. STORM DRAINS SHALL HAVE A MINIMUM DIAMETER OF 18 INCHES .
WAIVER TO ALLOW STORM DRAINS 15 INCHES IN DIAMETER.

129-86.B.(1) NO LETTERING OR PRINTING SHALL BE LESS THAN 1/10 OF AN INCH IN HEIGHT.
WAIVER TO ALLOW PLAN TEXT SMALLER THAN 1/10 OF AN INCH IN HEIGHT. (6 POINT +/- 0.16 INCH)

129-86.C.(1) THE PLAN SHALL SET FORTH EXISTING FEATURES OF THE LAND WITH 400 FEET OF ANY PART OF THE LAND TO BE SUBDIVIDED OR DEVELOPED.
WAIVER FROM SHOWING EXISTING FEATURES WITHIN LESS THAN 400 FEET OF THE SUBJECT SITE.

129-86.C.(2) THE PLAN SHALL INCLUDE EXISTING CENTER-LINE COURSES, DISTANCES AND CURVE DATA, PAVING WIDTHS AND CURBLINES, RIGHT-OF-WAY AND CURBLINE TIE-OR AT INTERSECTIONS AND STREET LOCATION TIE-INS BY COURSES AND DISTANCES TO THE NEAREST INTERSECTION OF EXISTING AND PLANNED STREETS.
WAIVER FROM SHOWING EXISTING STREET DATA.

129-86.C.(5) MEASURED DISTANCES FROM THE CENTER LINE OF STREETS TO BUILDINGS, LARGE TREES STANDING ALONE OR OTHER CONTROL POINTS.
WAIVER FROM SHOWING DISTANCES FROM THE CENTER LINE OF STREETS. BUILDINGS ARE DIMENSIONED TO STREET RIGHT-OF-WAY LINE OR PROPERTY LINE.

129-87.C.(2).(c) THE PLANS SHALL CONTAIN A PROFILE OF THE SANITARY SEWER.
WAIVER FROM PROVIDING SANITARY SEWER PROFILES UNTIL FINAL PLAN SUBMISSION.

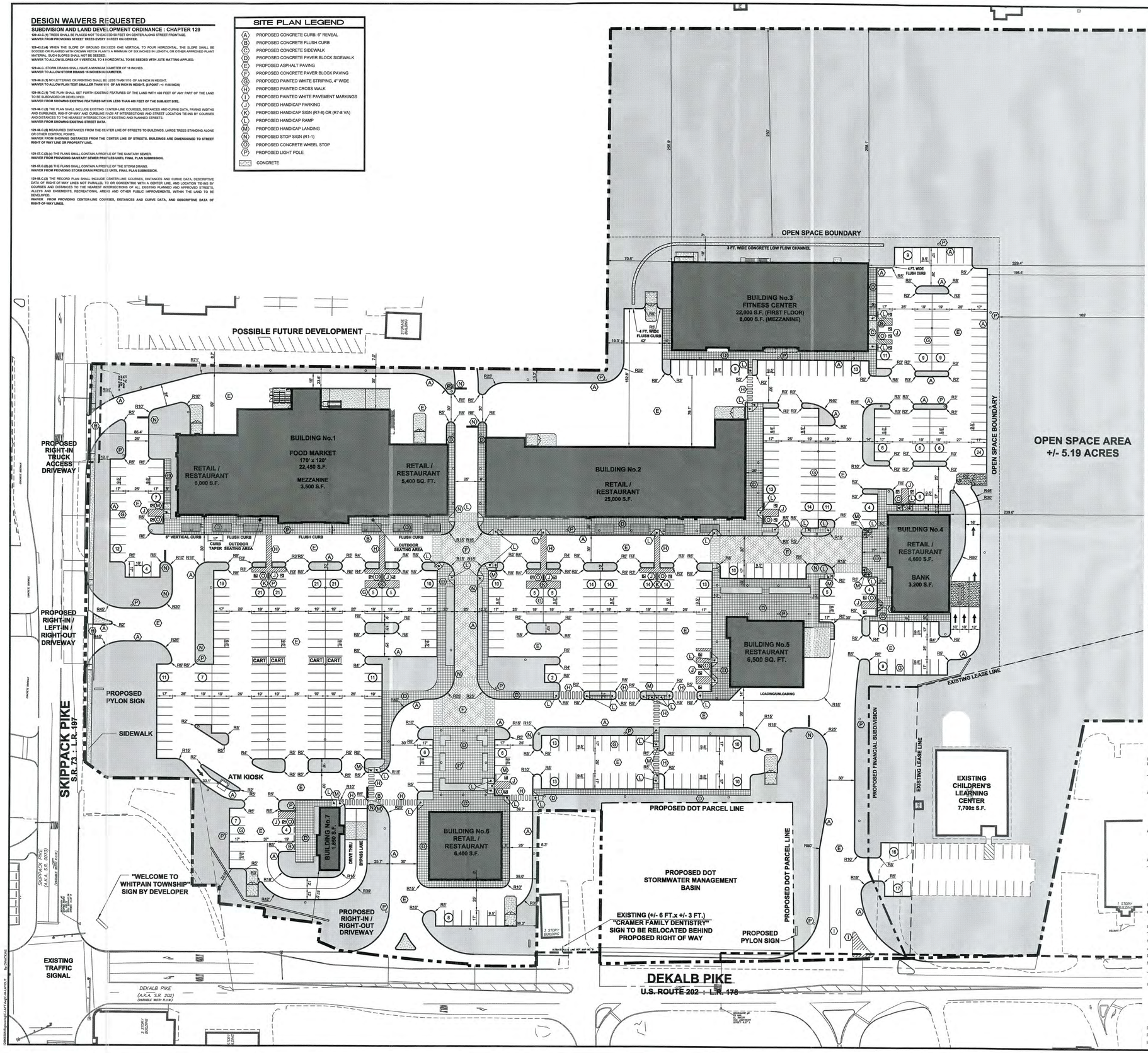
129-87.C.(2).(d) THE PLANS SHALL CONTAIN A PROFILE OF THE STORM DRAINS.
WAIVER FROM PROVIDING STORM DRAIN PROFILES UNTIL FINAL PLAN SUBMISSION.

129-88.C.(2) THE RECORD PLAN SHALL INCLUDE CENTER-LINE COURSES, DISTANCES AND CURVE DATA, DESCRIPTIVE DATA OF RIGHT-OF-WAY LINES NOT PARALLEL TO OR CONCENTRIC WITH A CENTER LINE, AND LOCATION TIE-INS BY COURSES AND DISTANCES TO THE NEAREST INTERSECTIONS OF ALL EXISTING PLANNED AND APPROVED STREETS, ALLEYS AND EASEMENTS, RECREATIONAL AREAS AND OTHER PUBLIC IMPROVEMENTS, WITHIN THE LAND TO BE DEVELOPED.
WAIVER FROM PROVIDING CENTER-LINE COURSES, DISTANCES AND CURVE DATA, AND DESCRIPTIVE DATA OF RIGHT-OF-WAY LINES.

SITE PLAN LEGEND

- (A) PROPOSED CONCRETE CURB: 6" REVEAL
- (B) PROPOSED CONCRETE FLUSH CURB
- (C) PROPOSED CONCRETE SIDEWALK
- (D) PROPOSED CONCRETE PAVER BLOCK SIDEWALK
- (E) PROPOSED ASPHALT PAVING
- (F) PROPOSED CONCRETE PAVER BLOCK PAVING
- (G) PROPOSED PAINTED WHITE STRIPING, 4" WIDE
- (H) PROPOSED PAINTED CROSS WALK
- (I) PROPOSED PAINTED WHITE PAVEMENT MARKINGS
- (J) PROPOSED HANDICAP PARKING
- (K) PROPOSED HANDICAP SIGN (R7-8) OR (R7-8 VA)
- (L) PROPOSED HANDICAP RAMP
- (M) PROPOSED HANDICAP LANDING
- (N) PROPOSED STOP SIGN (R1-1)
- (O) PROPOSED CONCRETE WHEEL STOP
- (P) PROPOSED LIGHT POLE

CONCRETE



ZONING REQUIREMENTS

PROJECT/MUNICIPALITY :	DEKALB PIKE AT SKIPPACK PIKE WHITPAIN TOWNSHIP MONTGOMERY COUNTY, PENNSYLVANIA
ZONING	C: COMMERCIAL DISTRICT SC: SHOPPING CENTER DISTRICT R1: RESIDENTIAL DISTRICT
EXISTING USE:	UNDEVELOPED LAND RESIDENTIAL VACANT RESTAURANT
PROPOSED USE:	SHOPPING CENTER
CONDITIONAL USE:	COMMUNITY SHOPPING CENTER OVERLAY DISTRICT ORDINANCE No. 4-237

CONDITIONAL USE
COMMUNITY SHOPPING CENTER OVERLAY DISTRICT: ORDINANCE No. 4-237

DESCRIPTION	REQUIRED	PROPOSED
TRACT AREA: MINIMUM	10 ACRES	21.79 ACRES
NET EXCLUDING PENNDOT BASIN PARCEL		20.99 ACRES
BUILDING COVERAGE	22 PERCENT MAXIMUM	12.2 PERCENT
FRONT SETBACK: ULTIMATE RIGHT OF WAY	25 FEET MINIMUM	89.4 FEET
PROPERTY LINE SETBACK:	25 FEET	56.8 FEET
TENANT 'A' PROPERTY LINE SETBACK	15 FEET MINIMUM	33.8 FEET
SIDE SETBACK: RESIDENTIAL USE	50 FEET MINIMUM	256.9 FT./ 239.8 FT.
REAR SETBACK: RESIDENTIAL USE	45 FEET MINIMUM	256.9 FT./ 239.8 FT.
PARKING SETBACK:		
ULTIMATE RIGHT OF WAY	10 FEET MINIMUM	12.6 FEET
PROPERTY LINE	25 FEET MINIMUM	36.2 FEET
GREEN AREA	35 PERCENT	41 PERCENT

SIGNAGE
COMMUNITY SHOPPING CENTER OVERLAY DISTRICT

SHOPPING CENTER SIGN:	ONE (1) TYPE "A" SIGN GROUND SIGN, PERMITTED PER STREET FRONTAGE	
MAXIMUM NUMBER OF SIGNS	2 - ONE PER STREET	2 - ONE PER STREET
MAXIMUM GROUND SIGN AREA:	200 SQ. FT.	200 SQ. FT.

PARKING
SHOPPING CENTER:
4.6 PARKING SPACES PER 1,000 SQ. FT. OF GROUND LEVEL FLOOR AREA (INCLUDING OUTDOOR SEATING)
15 PARKING SPACES PER 1,000 SQ. FT. OF MEZZANINE AREA (SUPER MARKET OR FITNESS FACILITY)

BUILDING AREA	111,100 SQ. FT.	360 SPACES
OUTDOOR SEATING AREA	6,000 SQ. FT.	27 SPACES
MEZZANINE AREA	11,000 SQ. FT.	35 SPACES
	562 SPACES REQUIRED	562 SPACES PROVIDED
PARKING SPACE SIZE	9 1/2 FT. x 19 FT. MINIMUM	9 1/2 FT. x 19 FT. 9 1/2 FT. x 17 FT.@ LANDSCAPING
PARKING GREEN AREA PARKING AREA: 84,600 SQ. FT.	10 PERCENT MINIMUM 8,460 SQ. FT.	22.0 PERCENT 18,550 SQ. FT.

SITE DATA

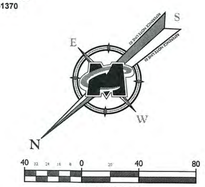
TRACT AREA	21.79+/- ACRES
NET TRACT AREA	20.95+/- ACRES (EXCLUDING PENNDOT BASIN PARCEL)
BUILDING AREA	111,100 SQ. FT.
IMPERVIOUS AREA	516,465 SQ. FT. (56.6 PERCENT)
GREEN AREA	396,113 SQ. FT. (43.4 PERCENT)

GENERAL NOTES

1. THE ACCURACY AND COMPLETENESS OF THIS INFORMATION HAS BEEN PROVIDED TO THE BEST ABILITY OF THE ENGINEER, HOWEVER, THE CONTRACTOR SHALL BE REQUIRED TO VERIFY IN THE FIELD ALL THE FACTORS CONCERNING THE LOCATION OF ALL UTILITIES PRIOR TO BIDDING AND CONSTRUCTION. ALL UTILITY LOCATIONS SHOWN ON THESE PLANS ARE APPROXIMATE AS SHOWN ON THESE PLANS ARE TO BE CONSIDERED APPROXIMATE AND SHOULD BE VERIFIED BY THE CONTRACTOR.
2. THIS SET OF PLANS HAS BEEN PREPARED FOR PURPOSE OF MUNICIPAL AND AGENCY REVIEW AND APPROVAL. THIS SET OF PLANS SHALL NOT BE UTILIZED AS CONSTRUCTION DOCUMENTS UNTIL ALL CONDITIONS OR APPROVALS HAVE BEEN SATISFIED AND THE DRAWINGS FOR EACH DRAWING HAS BEEN REVISED TO INDICATE "ISSUED FOR CONSTRUCTION". THE CLIENT OR OWNER AND CONTRACTOR ARE RESPONSIBLE TO ASSURE THAT THE APPROVED PLANS ONLY, ARE USED FOR BIDDING AND CONSTRUCTION.
3. DO NOT SCALE DRAWINGS AS THEY PERTAIN TO ADJACENT AND SURROUNDING PHYSICAL CONDITIONS, BUILDINGS, STRUCTURES, ETC. THEY ARE SCHEMATIC ONLY, EXCEPT WHERE DIMENSIONS ARE SHOWN THERETO.
4. EXISTING UTILITY INFORMATION SHOWN HEREON HAS BEEN COLLECTED FROM VARIOUS SOURCES AND CANNOT BE GUARANTEED AS TO ACCURACY OR COMPLETENESS. THE CONTRACTOR SHALL VERIFY ALL INFORMATION TO HIS SATISFACTION PRIOR TO EXCAVATION. WHERE EXISTING UTILITIES ARE TO BE CROSSED BY PROPOSED CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE PRIOR TO CONSTRUCTION TO ASCERTAIN EXISTING INVERTS, MATERIALS AND SIZES. TEST PIT INFORMATION SHALL BE GIVEN TO THE ENGINEER PRIOR TO CONSTRUCTION, TO PERMIT ADJUSTMENT AS REQUIRED TO AVOID CONFLICTS. WHERE EXISTING UTILITY SERVICES ARE ENCOUNTERED BY THE CONTRACTOR, CAPABLE OF SERVICING THE PROPOSED USE SHALL BE REUSED AS LONG AS THEY ARE IN GOOD CONDITION AND MEET THE UTILITY AUTHORITY'S STANDARDS AND SPECIFICATIONS. IF THE EXISTING UTILITY SERVICES DO NOT MEET THE ABOVE CRITERIA, THEN NEW SERVICE LINES SHALL BE INSTALLED.
5. FINAL LOCATIONS, NUMBERS AND SIZE OF ALL PROPOSED UTILITIES SERVICING BUILDINGS ARE TO BE VERIFIED WITH THE ARCHITECT, OWNER AND APPROPRIATE UTILITY AUTHORITY BY THE CONTRACTOR.
6. ALL MATERIALS, WORKMANSHIP, AND CONSTRUCTION FOR SITE IMPROVEMENTS SHOWN HEREON SHALL BE IN ACCORDANCE WITH:
   A. PENNSYLVANIA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", AS CURRENTLY AMENDED.
   B. CURRENT PREVAILING WHITPAIN TOWNSHIP SPECIFICATIONS, STANDARDS AND REQUIREMENTS.
   C. CURRENT PREVAILING UTILITY COMPANY/AUTHORITY AND OWNER SPECIFICATIONS, STANDARDS AND REQUIREMENTS.
7. THE CONTRACTOR SHALL NOTIFY THE UNDERSIGNED PROFESSIONAL IMMEDIATELY IF ANY FIELD OR SOIL CONDITIONS ENCOUNTERED DIFFER MATERIALLY FROM THOSE REPRESENTED HEREON. SUCH CONDITIONS COULD RENDER THE DESIGNS SHOWN HEREON INAPPROPRIATE OR INEFFECTIVE.
8. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL APPROPRIATE SAFETY DEVICES AND TRAINING TO ALL WORKERS IN ORDER TO MAINTAIN SAFE CONDITIONS ON THE PROJECT SITE.
9. THE CONTRACTOR IS RESPONSIBLE FOR ALL REQUIRED CONSTRUCTION PERMITS NECESSARY FOR THE CONSTRUCTION AND COMPLETION OF THE APPROVED IMPROVEMENTS.
10. THE CONTRACTOR IS RESPONSIBLE FOR THE PROPER REMOVAL AND DISPOSAL OF ANY AND ALL EXISTING OBJECTS, STRUCTURES, ETC. THAT ARE IN THE WAY OF PROPOSED CONSTRUCTION, OR INDICATED AS "TO BE REMOVED".
11. ALL PROPOSED SPOT ELEVATIONS ARE GRADE OR BOTTOM OF CURB UNLESS OTHERWISE NOTED.
12. WALKWAYS ARE TO SLOPE AWAY FROM BUILDINGS AT A MAXIMUM PITCH OF ¼ INCH PER FOOT. HANDICAP RAMPS ARE TO HAVE A MAXIMUM SLOPE OF 1" PER FOOT.
13. THE CONTRACTOR SHALL TAKE ADDITIONAL PRECAUTIONS TO WATERPROOF AREAS WHERE THE EXTERIOR FINISHED GRADE IS HIGHER THAN THE FINISHED FLOOR ELEVATION. ALTERNATELY, FOUNDATION WALLS IN EXCESS OF 8" BELOW FINISHED FLOOR SHALL BE FINISHED SUITABLY.
14. THE APPLICANT TO PROVIDE PRIVATE TRASH CARTING FOR THE PROPOSED FACILITIES AND WILL COMPLY WITH ALL RECYCLING REQUIREMENTS OF THE MUNICIPALITY, COUNTY AND STATE.
15. ALL DIMENSIONS LABELED ARE IN UNITED STATES STANDARD.
16. ALL ELECTRIC, TELEPHONE, AND CABLE TV UTILITY DISTRIBUTION LINES SHALL BE INSTALLED UNDERGROUND.
17. ALL STORMWATER BMPS AND STORMWATER MANAGEMENT FACILITIES ARE TO BE PERMANENT FIXTURES THAT CAN BE ALTERED OR REMOVED ONLY AFTER APPROVAL BY THE TOWNSHIP OF A REVISED PLAN WHICH SHALL BE APPLICABLE TO ALL FUTURE OWNERS OF THIS PROPERTY.
18. THE PROPERTY IS SERVICED BY PUBLIC WATER AND PUBLIC SEWER.
19. EXISTING SITE FEATURES AND TOPOGRAPHIC DATA FROM ALTA/ACSM LAND TITLE SURVEY PREPARED FOR CENTRE SQUARE COMMONS BY MASER CONSULTING P.A., JOB NUMBER 120008SMAHBUD03178, PLAN DATED JANUARY 21, 2015.

APPLICANT/EQUITABLE OWNER

MADISON DEVELOPMENT GROUP, INC. AND
CENTER SQUARE COMMONS, LP
ATTN:JOHN MCKENNA
PO BOX 607
SOUTHEASTERN, PA 19399
PHONE:215-568-9495
FAX:215-359-1370



I HEREBY CERTIFY THAT _____ IS THE DEVELOPER OF THE LAND HEREIN SUBDIVIDED OR TO BE DEVELOPED AND THAT I DO HEREBY ADOPT THIS PLAN.

_____
(TITLE)

APPROVED BY THE WHITPAIN TOWNSHIP PLANNING COMMISSION THIS ___ DAY OF_____, 2015.

_____
SECRETARY
WHITPAIN TOWNSHIP
PLANNING COMMISSION

APPROVED BY THE TOWNSHIP ENGINEER ON THE DAY OF _____, 2015.

_____
TOWNSHIP ENGINEER

APPROVED BY THE BOARD OF SUPERVISORS OF WHITPAIN TOWNSHIP THIS ___ DAY OF _____, 2015.

_____
CHAIRMAN

_____
SECRETARY

STATE OF PENNSYLVANIA
COUNTY OF MONTGOMERY

ON THIS, THE _____ DAY OF _____, 2015, BEFORE ME, _____
THE UNDERSIGNED OFFICER, PERSONALLY APPEARED _____
WHO ACKNOWLEDGED HIMSELF TO BE THE _____ OF _____
A CORPORATION, AND THAT HE AS SUCH _____ BEING AUTHORIZED TO DO SO, EXECUTED THE FOREGOING INSTRUMENT FOR THE PURPOSE THEREIN CONTAINED BY SIGNING THE NAME OF THE CORPORATION BY HIMSELF AS _____

WITNESS MY HAND AND NOTARY SEAL THE DAY AND YEAR AFORESAID.

_____
NOTARY PUBLIC
MY COMMISSION EXPIRES
_____, 20____

RECORDED THIS _____ DAY OF _____, 2015 IN THE OFFICE FOR THE RECORDING OF DEEDS, ETC., IN AND FOR THE COUNTY OF MONTGOMERY, PENNSYLVANIA IN PLAN FILE CASE _____ D.B. NO. _____ PAGE _____

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State of NJ. Certificate of Authorization: 24GA27986500

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811 Know what's below. Call before you dig.

PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION OF EXCAVATION, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN ANY STATE.
FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT:
WWW.CALL811.COM

REV.	DATE	DRAWN BY	DESCRIPTION

RUSSELL T. McFALL II
PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER - LICENSE NUMBER: PE60408

PRELIMINARY/FINAL LAND DEVELOPMENT PLANS

FOR

MADISON DEVELOPMENT GROUP, INC.

DEKALB PIKE AT SKIPPACK PIKE

WHITPAIN TOWNSHIP
MONTGOMERY COUNTY
PENNSYLVANIA

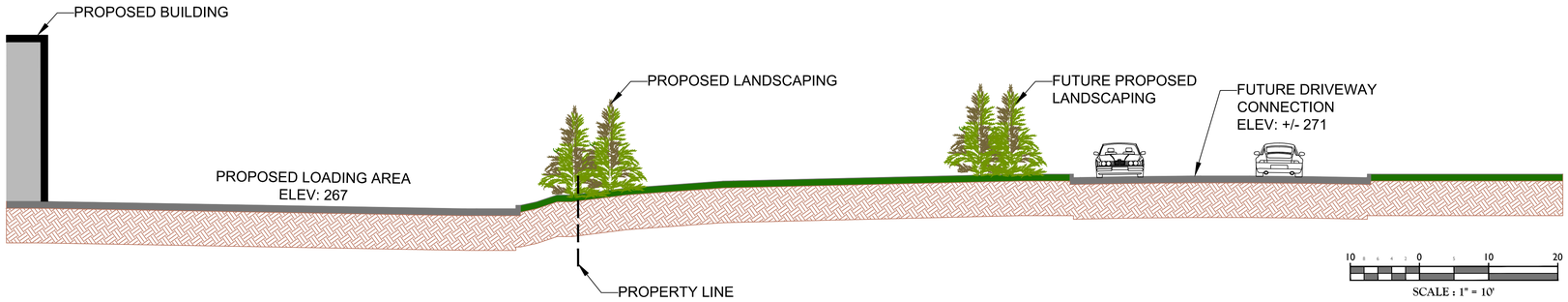
EXTON OFFICE
410 Eagleview Boulevard
Suite 104
Exton, PA 19341
Phone: 610.254.9140
Fax: 610.254.9141
email: solutions@maserconsulting.com

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	05/05/15	DIII	RTH

PROJECT NUMBER: 120008030A
DRAWING NAME: C-LAYT

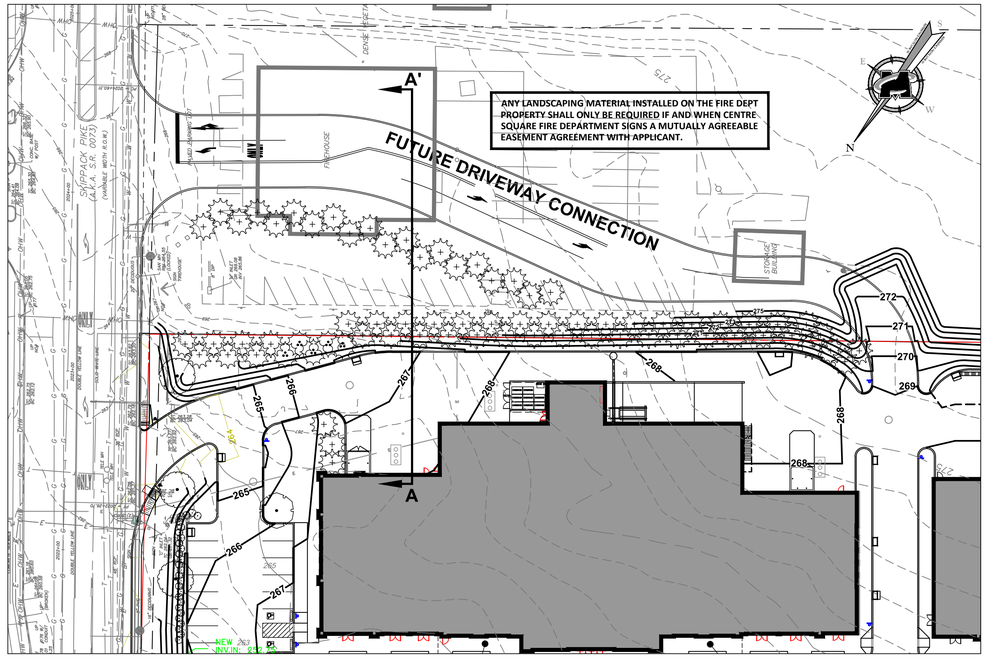
SHEET TITLE: SITE PLAN

SHEET NUMBER: 4 of 16



SECTION A-A'

SCALE: 1"=10'



PLAN VIEW

SCALE: 1"=40'

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REV	DATE	DRAWN BY	DESCRIPTION

SECTION ELEVATIONS

FOR

MADISON DEVELOPMENT GROUP, INC.

DEKALB PIKE AT SKIPPACK PIKE

WHITPAIN TOWNSHIP
MONTGOMERY COUNTY
PENNSYLVANIA

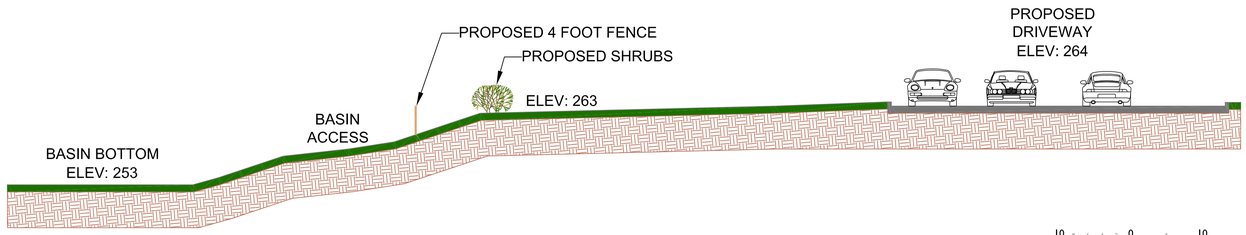
EXTON OFFICE
410 Eagleview Boulevard
Suite 104
Exton, PA 19341
Phone: 610.254.9140
Fax: 610.254.9141
email: solutions@maserconsulting.com

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	06/03/2015	RMA	RTM

PROJECT NUMBER:	DRAWING NAME:
12000830A	SECTIONS

SHEET TITLE:
SECTION ELEVATIONS

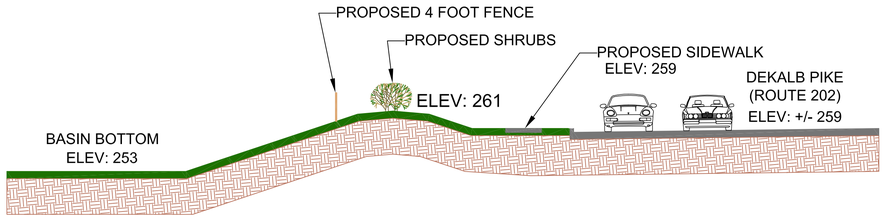
SHEET NUMBER:
1 of 1



SECTION A-A'

SCALE: 1"=10'

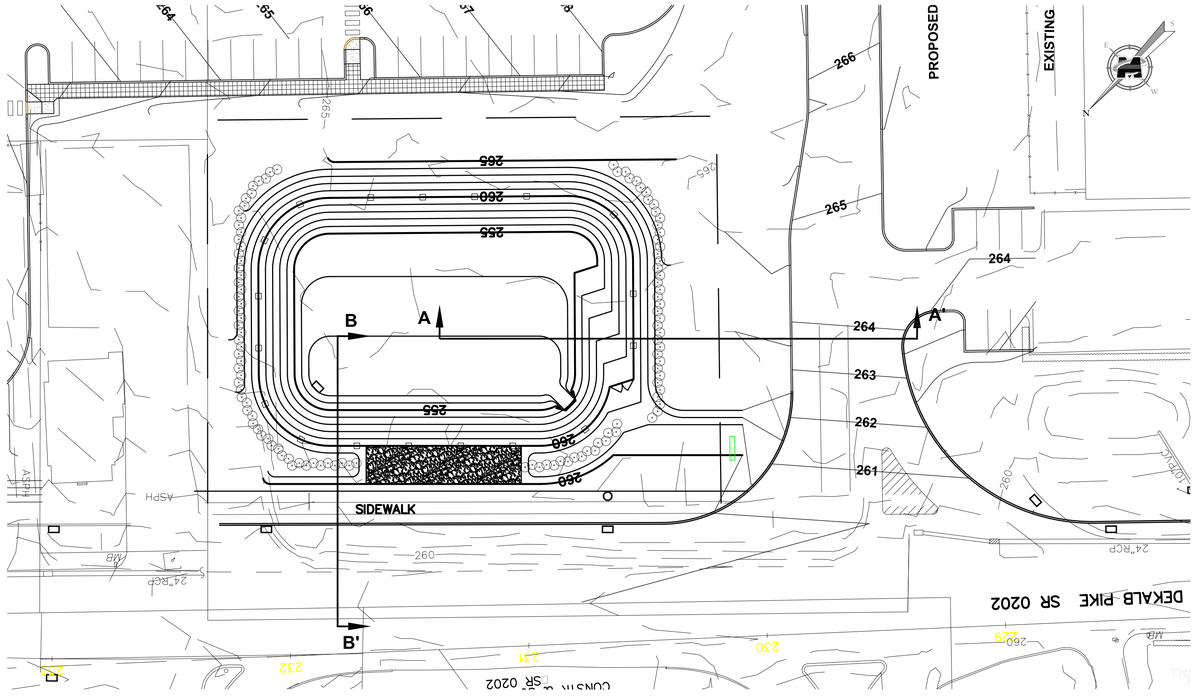
SCALE : 1" = 10'



SECTION B-B'

SCALE: 1"=10'

SCALE : 1" = 10'



PLAN VIEW

SCALE: 1"=30'

SCALE : 1" = 30'

LANDSCAPING MATERIALS SHOWN ON THE PENNDOT PARCEL ARE SAMPLE VIEWS ONLY AND THE LANDSCAPING ON THE PENNDOT PARCEL REMAINS WITHIN THE JURISDICTION OF THE COMMONWEALTH OF PENNSYLVANIA

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ELEVATIONS

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SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	06/04/2015	DIII	RTM

PROJECT NUMBER: 12000830A

DRAWING NAME: 15-0604 - DOT BASIN SECTIONS

SHEET TITLE: SECTION ELEVATIONS

SHEET NUMBER: 1 of 1

12120008304\Plan\15-0604 - DOT Basin Sections.dwg By: RAMHOJR

PLANTING SCHEDULE

DECIDUOUS TREES	QTY	BOTANICAL NAME / COMMON NAME	CONT	CAL	SIZE
AA	31	ACER RUBRUM 'AUTUMN BLAZE' / AUTUMN BLAZE RED MAPLE	B & B	2.5"CAL	13'-15' HEIGHT MIN.
CF2	11	CORNUS FLORIDA / EASTERN DOGWOOD	B & B	1.5"CAL	6'-8' HEIGHT MIN.
LT	8	LIRIODENDRON TULIPIFERA / TULIP TREE	B & B	2.5"CAL	13'-15' HEIGHT MIN.
MP	12	MALUS X 'PRAIRIFIRE' / PRAIRIFIRE CRAB APPLE	B & B	1.5"CAL	6'-8' HEIGHT MIN.
PA3	4	PLATANUS X ACERIFOLIA / LONDON PLANE TREE	B & B	2.5"CAL	13'-15' HEIGHT MIN.
QP	29	QUERCUS PHELLOS / WILLOW OAK	B & B	2.5"CAL	13'-15' HEIGHT MIN.
TC	21	TILIA CORDATA / LITTLELEAF LINDEN	B & B	2.5"CAL	13'-15' HEIGHT MIN.
ZG	32	ZELKOVA SERRATA 'GREEN VASE' / SAWLEAF ZELKOVA	B & B	2.5"CAL	13'-15' HEIGHT MIN.

EVERGREEN TREES	QTY	BOTANICAL NAME / COMMON NAME	CONT	CAL	SIZE
PA	101	PICEA ABIES / NORWAY SPRUCE	B & B		7' - 8'
PO3	53	PICEA OMORIKA / SERBIAN SPRUCE	B & B		7' - 8'
PC	46	PICEA PUNGENS / COLORADO SPRUCE	B & B		7' - 8'
PS	45	PINUS STROBUS / WHITE PINE	B & B		7' - 8'
PD	50	PSEUDOTSUGA MENZIESII / DOUGLAS FIR	B & B		7' - 8'

SHRUBS	QTY	BOTANICAL NAME / COMMON NAME	CONT	SIZE
BG	328	BUXUS X 'GREEN VELVET' / BOXWOOD	24"-30" MIN.	
CF	15	CORNUS SERICEA 'FLAVIRAMEA' / YELLOW TWIG DOGWOOD	24"-30" MIN.	
CI	43	CORNUS SERICEA 'IVORY HALO' / VARIEGATED REDTWIG DOGWOOD	24"-30" MIN.	
IS	173	ILEX GLABRA 'SHAMROCK' / INKBERRY	24"-30" MIN.	
JK	62	JUNIPERUS X PFITZERIANA 'KALLAY`S COMPACT' / JUNIPER	24"-30" MIN.	
NH	10	NANDINA DOMESTICA 'HARBOUR DWARF' / DWARF HEAVENLY BAMBOO	18"-24" MIN.	
PO	17	PRUNUS LAUROCERASUS 'OTTO LUYKEN' / LUYKENS LAUREL	24"-30" MIN.	
SA	29	SPIRAEA X BUMALDA 'ANTHONY WATERER' / ANTHONY WATERER SPIRAEA	24"-30" MIN.	

GROUND COVERS	CODE	QTY	BOTANICAL NAME / COMMON NAME	CONT	SPACING
	JB	15	JUNIPERUS HORIZONTALIS 'BAR HARBOR' / BAR HARBOR CREEPING JUNIPER	1 GAL	42" o.c.
	JB2	39	JUNIPERUS HORIZONTALIS 'BLUE CHIP' / BLUE CHIP JUNIPER	1 GAL	42" o.c.
	JE	93	JUNIPERUS HORIZONTALIS 'EMERALD SPREADER' / EMERALD SPREADER JUNIPER	1 GAL	42" o.c.
	LB	155	LIRIOPE MUSCARI 'BIG BLUE' / BIG BLUE LILYTURF	4"POT	24" o.c.
	LV	32	LIRIOPE MUSCARI 'VARIEGATA' / VARIEGATED LILY TURF	4"POT	24" o.c.

LANDSCAPING MATERIAL SHOWN ON CENTRE SQUARE FIRE DEPARTMENT PROPERTY SHALL BE INSTALLED AS PART OF PHASE II WORK AFTER CENTRE SQUARE FIRE DEPARTMENT REMOVES THE EXISTING FIRE HOUSE.

MEADOW SEED MIX ON BACK SIDE OF BERM

PRESERVE EXISTING TREES FIELD ADJUST PROPOSED PLANTINGS

PRESERVE EXISTING VEGETATION

PROPOSED TREE LINE

FUTURE DRIVEWAY CONNECTION

BUILDING No.1
FOOD MARKET
170' x 120'
22,450 S.F.
MEZZANINE
3,500 S.F.
RETAIL / RESTAURANT
6,000 S.F.
RETAIL / RESTAURANT
5,400 SQ. FT.

BUILDING No.2
RETAIL / RESTAURANT
25,000 S.F.

BUILDING No.3
FITNESS CENTER
22,000 S.F. (FIRST FLOOR)
8,000 S.F. (MEZZANINE)

BUILDING No.4
RETAIL / RESTAURANT
4,600 S.F.
BANK
3,200 S.F.

BUILDING No.5
RESTAURANT
6,500 SQ. FT.

BUILDING No.6
RETAIL / RESTAURANT
6,400 S.F.

BUILDING No.7
1,800 S.F.

EXISTING CHILDREN'S LEARNING CENTER
7,700± S.F.

PROPOSED DOT STORMWATER MANAGEMENT BASIN

PROPOSED DOT PARCEL LINE

LEASE LINE

LAWN

CART CART

SKIPPACK PIKE
S.R. 73 : L.R. 197

DEKALB PIKE
U.S. ROUTE 202 : L.R. 178

LANDSCAPE NOTES

1. GENERAL NOTES:

A. THIS PLAN IS TO BE USED ONLY FOR THE PURPOSES OF LANDSCAPING.

B. EXAMINE ALL ENGINEERING DRAWINGS AND FIELD CONDITIONS FOR SPECIFIC LOCATIONS OF UTILITIES, STRUCTURES, ETC. NOTIFY MASER CONSULTING P.A. IMMEDIATELY, IN WRITING, IN REFERENCE TO DISCREPANCIES OR LOCATION CONFLICTS.

C. IN THE EVENT THAT PLANT QUANTITY DISCREPANCIES OR MATERIAL OMISSIONS OCCUR IN THE PLANTING SCHEDULE, THE PLAN SHALL SUPERSEDE.

D. ALL PLANTING MATERIALS AND METHODS SHALL MEET OR EXCEED THE REQUIREMENTS OF WHITPAIN TOWNSHIP ORDINANCES AND ANSI Z-60.1 (CURRENT VERSION), THE AMERICAN STANDARD FOR NURSERY STOCK, PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN. IN THE EVENT OF CONFLICT BETWEEN A.A.N. AND MUNICIPAL STANDARDS, THE MUNICIPAL REQUIREMENTS SHALL SUPERSEDE.

E. ALL LANDSCAPING SHALL BE PLANTED SO AS TO NOT INTERFERE WITH UTILITY LINES, SIGHT TRIANGLES, UNDERGROUND UTILITIES OR PUBLIC WALKWAYS OR OTHER EXISTING OR PROPOSED STRUCTURES. ALL PLANT MATERIAL PROPOSED WITHIN THE REQUIRED SIGHT DISTANCES OR SIGHT TRIANGLES ARE SELECTED SO AS TO NOT EXCEED A MATURE HEIGHT GREATER THAN 30" ABOVE THE ELEVATION OF THE ADJACENT ROADWAY. STREET TREES AND SHADE TREES PLANTED NEAR PEDESTRIAN OR VEHICULAR ACCESSES, OR WITHIN REQUIRED SIGHT DISTANCES OR SIGHT TRIANGLE EASEMENTS SHALL NOT BE BRANCHED ANY LOWER THAN 7'-0" ABOVE GRADE, AND MUST BE APPROPRIATELY PRUNED. **NO WOODY PLANTS, EXCEPT GROUNDCOVERS, ARE TO HAVE THEIR CENTERS CLOSER THAN 30" TO THE BACK OF THE CURB.**

2. PLANT MATERIAL:

A. NO PLANT SUBSTITUTION SHALL BE ALLOWED WITH REGARD TO SIZE, SPECIES, NAMED VARIETY, OR CULTIVAR, WITHOUT PRIOR PERMISSION, IN WRITING FROM MASER CONSULTING P.A. AND THE APPROVING AUTHORITY.

B. ALL PLANTS SHALL BE DUG, PACKED, TRANSPORTED AND HANDLED WITH THE UTMOST CARE TO ENSURE ADEQUATE PROTECTION FROM INJURY AND DESICCATION.

C. ALL PLANTS SHALL BE FREE FROM DISEASE AND INFESTATION, AND SHALL BEAR ALL LEGALLY REQUIRED AGRICULTURAL CERTIFICATIONS.

D. ALL PLANTS SHALL BE PRUNED TO ENHANCE VIGOR PRIOR TO, OR UPON INSTALLATION, WHILE RETAINING NATURAL GROWTH HABIT OF THE PLANTS. THE CENTRAL LEADER SHALL NOT BE CUT. PLANTS PROVIDED IN THIS CONDITION SHALL NOT BE ACCEPTED. DAMAGED, BROKEN OR CONFLICTING BRANCHES SHALL BE PRUNED CLEANLY, FLUSH WITH THE MAIN TRUNK OR BRANCH.

E. ALL PLANTS SHALL BE NURSERY-GROWN AND TAGGED WITH A DURABLE LABEL INDICATING THE GENUS, SPECIES AND SPECIFIED VARIETY OR CULTIVAR.

F. ALL SCREEN PLANTING MATERIAL SHALL BE A MINIMUM OF 2 - 2.5 FEET TALL AT TIME OF PLANTING.

3. PLANTING:

A. SOIL MUST BE FROST-FREE, FRIABLE AND NOT MUDDY AT THE TIME OF PLANTING.

B. BACKFILL MATERIAL FOR PLANTING PITS SHALL BE COMPOSED OF 70% TOPSOIL, 20% FULLY COMPOSTED COW OR HORSE MANURE AND 10% PEAT MOSS. TOPSOIL SHALL MEET PENNDOT STANDARD SPECIFICATIONS AND MAY BE FROM ON-SITE OR IMPORTED SOURCES. SOIL SHALL CONTAIN NO ACIDIC MARL, NOR ANY LARGE STONES.

C. PLANTS SHALL BE SET TO ULTIMATE FINISHED GRADE SO THAT THEY WILL BE LEFT IN THE RELATIONSHIP TO THE SURROUNDING GROUND AS THEY HAD, PRIOR TO BEING DUG. IF EVIDENCE OF SATURATED SOILS IS ENCOUNTERED DURING EXCAVATION OF THE PLANTING PITS, UPON DIRECTION BY MASER CONSULTING P.A., PLANTS SHALL BE SET SO THAT THEIR ROOT CROWNS ARE APPROXIMATELY THREE INCHES ABOVE THE FINAL GRADE, WITH TOPSOIL AND MULCH GENTLY MOUNDED TO AVOID EXCESSIVE DRYING AT THE SURFACE. UNDER NO CIRCUMSTANCES SHALL PLANTINGS AT RELATIVELY DRY LOCATIONS BE PERFORMED IN A MOUNDED MANNER.

D. THE CORD BINDING THE BALL OF ALL BALLED AND BURLAPPED(B&B) PLANTS SHALL BE CUT AND REMOVED ACCORDING TO THE SPECIFICATIONS ON THE DETAIL. PLANTS WITH SYNTHETIC NON- DEGRADABLE ROOT BALL WRAPS SHALL NOT BE ACCEPTABLE.

E. ALL PROPOSED TREES SHALL BE SET IN BEDS MULCHED TO THE LIMIT OF THEIR PLANTING PITS. ALL PROPOSED SHRUBS SHALL BE SET IN CONTINUOUS, MASSED PLANTING BEDS, RATHER THAN ISOLATED INDIVIDUALS. ALL TREE AND SHRUB BEDS SHALL RECEIVE A 3" THICK APPLICATION OF A THOROUGHLY COMPOSTED ORGANIC MULCH FREE OF ANY OBJECTIONABLE OR FOREIGN MATERIALS.

F. ALL TREES GREATER THAN TWELVE FEET IN HEIGHT SHALL BE STAKED AND GUYED PER THE DETAILS.

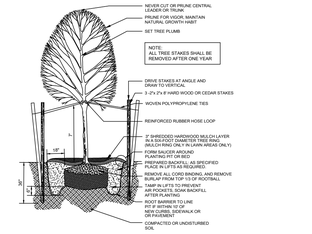
G. ALL DISTURBED AREAS BEYOND THE LIMITS OF THE MULCHED PLANTING BEDS AND AREAS OF HERBACEOUS PLANTINGS SHALL BE PERMANENTLY STABILIZED WITH TURFGRASSES PER THE THE SOIL EROSION AND SEDIMENT CONTROL PLANS.

H. A MAJORITY OF THE LANDSCAPING SHALL BE IRRIGATED UTILIZING A STORMWATER CAPTURE AND REUSE SYSTEM.

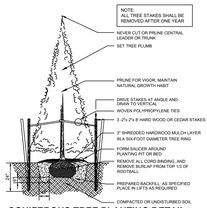
4. MAINTENANCE:

A. ALL PLANTINGS SHALL BE WATERED AS NECESSARY FOR SOUND HORTICULTURAL PRACTICE DURING THE FIRST GROWING SEASON, TO ENSURE THEIR PROPER ESTABLISHMENT.

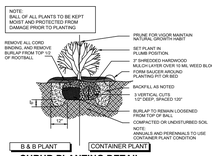
B. IN GENERAL, SHRUBS ARE TO BE PLANTED AT INTERVALS WHICH WILL ALLOW THEM TO FULLY DEVELOP INTO CONTINUOUS MASSES OF THE INDIVIDUAL SPECIES. THEREFORE, NO PRUNING TO SHAPE OR SHEARING IS REQUIRED OR DESIRABLE. WHERE DEAD OR CONFLICTING BRANCHING DEVELOPS, IT SHOULD BE PRUNED OUT.



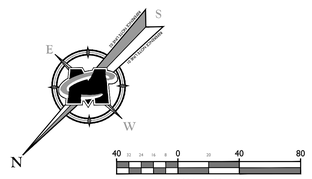
DECIDUOUS TREE PLANTING DETAIL
N.T.S.



CONIFEROUS TREE PLANTING DETAIL
N.T.S.



SHRUB PLANTING DETAIL
N.T.S.



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RYAN M. ARMOUR
PENNSYLVANIA REGISTERED
LANDSCAPE ARCHITECT - LICENSE NUMBER: LA002939

PRELIMINARY/FINAL LAND DEVELOPMENT PLANS

FOR

MADISON DEVELOPMENT GROUP, INC.

DEKALB PIKE AT SKIPPACK PIKE

WHITPAIN TOWNSHIP
MONTGOMERY COUNTY
PENNSYLVANIA

EXTON OFFICE
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PROJECT NUMBER:		DRAWING NAME:	
12000830A		C-LAND	

SHEET TITLE:
LANDSCAPE PLAN

SHEET NUMBER:
7 of 16

DESIGN WAIVERS REQUESTED

SUBDIVISION AND LAND DEVELOPMENT ORDINANCE : CHAPTER 129

(129-19.A)(129-19.D.3.) WAIVER OF THE LISTED SECTIONS. LANDSCAPING HAS BEEN PROVIDED IN ACCORDANCE WITH THE REQUIREMENTS OUTLINED IN THE "COMMUNITY SHOPPING CENTER OVERLAY DISTRICT".

129-20.E.(2) SITE GRADING ON SITE DISTURBANCE SHALL NOT OCCUR WITHIN FIVE FEET OF THE PARCEL BOUNDARY LINE.
WAIVER TO ALLOW GRADING AND SITE DISTURBANCE WITHIN FIVE FEET OF PARCEL BOUNDARY.

129-20.E.(5) WHEN THE SLOPE OF GROUND EXCEEDS ONE VERTICAL TO FOUR HORIZONTAL, THE SLOPE SHALL BE SODDED OR PLANTED WITH PLANTS A MINIMUM OF SIX INCHES IN LENGTH IN CONFORMANCE WITH THE SPECIFICATIONS OF THE PENNSYLVANIA DEPARTMENT OF TRANSPORTATION FORM 408. SUCH SLOPES SHALL NOT BE SEEDED.
WAIVER TO ALLOW SLOPES OF 1 VERTICAL TO 3 HORIZONTAL TO BE SEEDED AND JUTE MATTING APPLIED.

129-21.C. STORM DRAINS SHALL HAVE A MINIMUM DIAMETER OF 18 INCHES .
WAIVER TO ALLOW STORM DRAINS 15 INCHES IN DIAMETER.

129-58.B.(1) SHEET SIZE FOR PLANS TO BE RECORDED SHALL BE 24 INCHES BY 36 INCHES AND NO OTHER SIZE. THE SCALE SHALL BE ANY CONVENIENT STANDARD SCALE AS LARGE AS PRACTICABLE TO CLEARLY READ ANY LETTERING OR PRINTING SHALL BE LESS THAN 1/10 OF AN INCH IN HEIGHT.
WAIVER TO ALLOW PLAN SHEET SIZE OF 30 INCHES BY 42 INCHES, AND PLAN TEXT SMALLER THAN 1/10 OF AN INCH IN HEIGHT. (6 POINT: +/- 1/16 INCH)

129-58.C.(1) THE PLAN SHALL SET FORTH EXISTING FEATURES OF THE LAND WITH 400 FEET OF ANY PART OF THE LAND TO BE SUBDIVIDED OR DEVELOPED.
WAIVER FROM SHOWING EXISTING FEATURES WITHIN LESS THAN 400 FEET OF THE SUBJECT SITE.

129-58.C.(2) THE PLAN SHALL INCLUDE EXISTING CENTER-LINE COURSES, DISTANCES AND CURVE DATA, PAVING WIDTHS AND CURBLINES, RIGHT-OF-WAY AND CURBLINE RADII AT INTERSECTIONS AND STREET LOCATION TIE-INS BY COURSES AND DISTANCES TO THE NEAREST INTERSECTION OF EXISTING AND PLANNED STREETS.
WAIVER FROM SHOWING COMPLETE EXISTING STREET DATA AS LISTED. PLANS SHOW RIGHT-OF-WAY DATA AND EXISTING ROADWAY FEATURES PER CURRENT PHYSICAL SURVEY PREPARED BY MASER CONSULTING P.A.

129-58.C.(5) MEASURED DISTANCES FROM THE CENTER LINE OF STREETS TO BUILDINGS, LARGE TREES STANDING ALONE OR OTHER CONTROL POINTS AND THE LOCATION OF ALL MONUMENTS WITH REFERENCE TO THEM.
WAIVER FROM SHOWING DISTANCES FROM THE CENTER LINE OF STREETS. BUILDINGS ARE DIMENSIONED TO STREET RIGHT OF WAY LINE OR PROPERTY LINE.

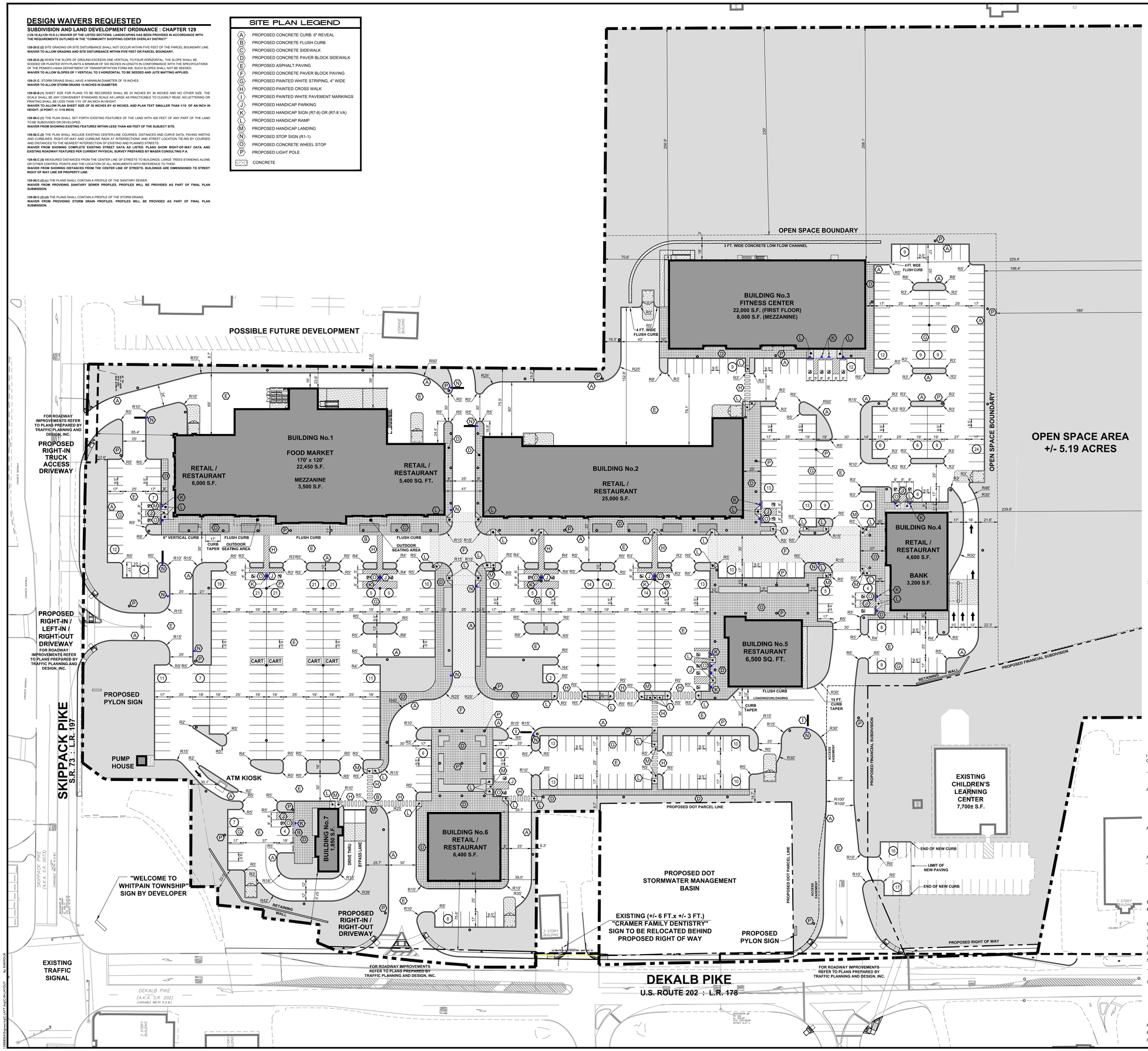
129-59.C.(2)(c) THE PLANS SHALL CONTAIN A PROFILE OF THE SANITARY SEWER.
WAIVER FROM PROVIDING SANITARY SEWER PROFILES. PROFILES WILL BE PROVIDED AS PART OF FINAL PLAN SUBMISSION.

129-59.C.(2)(d) THE PLANS SHALL CONTAIN A PROFILE OF THE STORM DRAINS.
WAIVER FROM PROVIDING STORM DRAIN PROFILES. PROFILES WILL BE PROVIDED AS PART OF FINAL PLAN SUBMISSION.

SITE PLAN LEGEND

- (A) PROPOSED CONCRETE CURB. 6" REVEAL
- (B) PROPOSED CONCRETE FLUSH CURB
- (C) PROPOSED CONCRETE SIDEWALK
- (D) PROPOSED CONCRETE PAVER BLOCK SIDEWALK
- (E) PROPOSED ASPHALT PAVING
- (F) PROPOSED CONCRETE PAVER BLOCK PAVING
- (G) PROPOSED PAINTED WHITE STRIPING, 4" WIDE
- (H) PROPOSED PAINTED CROSS WALK
- (I) PROPOSED PAINTED WHITE PAVEMENT MARKINGS
- (J) PROPOSED HANDICAP PARKING
- (K) PROPOSED HANDICAP SIGN (R7-8) OR (R7-8 VA)
- (L) PROPOSED HANDICAP RAMP
- (M) PROPOSED HANDICAP LANDING
- (N) PROPOSED STOP SIGN (R1-1)
- (O) PROPOSED CONCRETE WHEEL STOP
- (P) PROPOSED LIGHT POLE

CONCRETE



ZONING REQUIREMENTS

PROJECT/MUNICIPALITY :	DEKALB PIKE AT SKIPPACK PIKE WHITPAIN TOWNSHIP MONTGOMERY COUNTY, PENNSYLVANIA
ZONING	C: COMMERCIAL DISTRICT SC: SHOPPING CENTER DISTRICT R1: RESIDENTIAL DISTRICT
EXISTING USE:	UNDEVELOPED LAND RESIDENTIAL OFFICE RESTAURANT
PROPOSED USE:	SHOPPING CENTER
CONDITIONAL USE:	COMMUNITY SHOPPING CENTER OVERLAY DISTRICT ORDINANCE NO. 4-237

CONDITIONAL USE
COMMUNITY SHOPPING CENTER OVERLAY DISTRICT: ORDINANCE No. 4-237

DESCRIPTION	REQUIRED	PROPOSED
TRACT AREA: MINIMUM NET EXCLUDING PENNDOT BASIN PARCEL	18 ACRES	21.78 ACRES 20.95 ACRES
BUILDING COVERAGE	22 PERCENT MAXIMUM	12.2 PERCENT
FRONT SETBACK: ULTIMATE RIGHT OF WAY	25 FEET MINIMUM	85.4 FEET
PROPERTY LINE SETBACK: TENANT "A" PROPERTY LINE SETBACK	25 FEET 15 FEET MINIMUM	56.9 FEET 23.6 FEET
SIDE SETBACK: RESIDENTIAL USE	50 FEET MINIMUM	256.9 FT / 239.6 FT.
REAR SETBACK: RESIDENTIAL USE	45 FEET MINIMUM	256.9 FT / 239.6 FT.
PARKING SETBACK: ULTIMATE RIGHT OF WAY PROPERTY LINE	10 FEET MINIMUM 25 FEET MINIMUM	12.6 FEET 36.2 FEET
GREEN AREA	35 PERCENT	44 PERCENT

SIGNAGE
COMMUNITY SHOPPING CENTER OVERLAY DISTRICT
SHOPPING CENTER SIGN

ONE (1) TYPE "A" SIGN,GROUND SIGN, PERMITTED PER STREET FRONTAGE		
MAXIMUM NUMBER OF SIGNS	2 : ONE PER STREET	2 : ONE PER STREET
MAXIMUM GROUND SIGN AREA:	200 SQ. FT.	200 SQ. FT.

PARKING
SHOPPING CENTER:
4.0 PARKING SPACES PER 1,000 SQ. FT. OF GROUND LEVEL FLOOR AREA (INCLUDING OUTDOOR SEATING)
3 PARKING SPACES PER 1,000 SQ. FT. SECOND FLOOR OR MEZZANINE AREA (SUPER MARKET OR FITNESS FACILITY)

BUILDING AREA	111,100 SQ. FT.	500 SPACES
OUTDOOR SEATING AREA	5,300 SQ. FT.	24 SPACES
MEZZANINE AREA	11,500 SQ. FT.	35 SPACES
		559 SPACES REQUIRED — 559 SPACES PROVIDED
PARKING SPACE SIZE	9 1/2 FT. x 19 FT. MINIMUM	9 1/2 FT. x 19 FT. 9 1/2 FT. x 17 FT. @ LANDSCAPING
PARKING GREEN AREA PARKING AREA: 100,899.5 SQ. FT.	10 PERCENT MINIMUM 10,090 SQ. FT.	21.0 PERCENT 21,215 SQ. FT.

SITE DATA

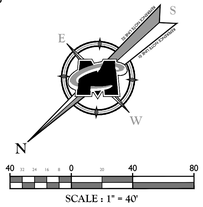
TRACT AREA	21.78+/- ACRES
NET TRACT AREA	20.95+/- ACRES (EXCLUDING PENNDOT BASIN PARCEL)
BUILDING AREA	111,100 SQ. FT.
IMPERVIOUS AREA	514,790 SQ. FT. (56.4 PERCENT)
GREEN AREA	397,792 SQ. FT. (43.6 PERCENT)

GENERAL NOTES

1. THE ACCURACY AND COMPLETENESS OF THIS INFORMATION HAS BEEN PROVIDED TO THE BEST ABILITY OF THE ENGINEER, HOWEVER, THE CONTRACTOR IS ADVISED TO VERIFY IN THE FIELD ALL THE FACTORS CONCERNING THE LOCATION OF ALL UTILITIES PRIOR TO BIDDING AND CONSTRUCTION. LOCATIONS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THESE PLANS ARE TO BE CONSIDERED APPROXIMATE AND SHOULD BE VERIFIED BY THE CONTRACTOR.
2. THIS SET OF PLANS HAS BEEN PREPARED FOR PURPOSE OF MUNICIPAL AND AGENCY REVIEW AND APPROVAL. THIS SET OF PLANS SHALL NOT BE UTILIZED AS CONSTRUCTION DOCUMENTS UNTIL ALL CONDITIONS OR APPROVALS HAVE BEEN SATISFIED ON THE DRAWINGS AND EACH DRAWING HAS BEEN REVISED TO INDICATE "ISSUED FOR CONSTRUCTION". THE CLIENT OR OWNER AND CONTRACTOR ARE RESPONSIBLE TO ASSURE THAT THE APPROVED PLANS ONLY, ARE USED FOR BIDDING AND CONSTRUCTION.
3. DO NOT SCALE DRAWINGS AS THEY PERTAIN TO ADJACENT AND SURROUNDING PHYSICAL CONDITIONS, BUILDINGS, STRUCTURES, ETC. THEY ARE SCHEMATIC ONLY, EXCEPT WHERE DIMENSIONS ARE SHOWN THERETO.
4. EXISTING UTILITY INFORMATION SHOWN HEREON HAS BEEN COLLECTED FROM VARIOUS SOURCES AND CANNOT BE GUARANTEED AS TO ACCURACY OR COMPLETENESS. THE CONTRACTOR SHALL VERIFY ALL INFORMATION TO HIS SATISFACTION PRIOR TO EXCAVATION. WHERE EXISTING UTILITIES ARE TO BE CROSSED BY PROPOSED CONSTRUCTION, THE EXACT LOCATION, ELEVATION, MATERIAL AND CONDITION OF EXISTING UTILITIES SHALL BE FIELD VERIFIED FOR LOCATION AND SIZE. THIS INFORMATION SHALL BE GIVEN TO THE ENGINEER PRIOR TO CONSTRUCTION, TO PERMIT ADJUSTMENT AS REQUIRED TO AVOID CONFLICTS. ANY EXISTING UTILITY SERVICE CONNECTIONS, LOCATED BY THE CONTRACTOR, CAPABLE OF SERVICING THE PROPOSED USE SHALL BE REUSED AS LONG AS THEY ARE IN GOOD CONDITION AND MEET THE UTILITY AUTHORITY'S STANDARDS AND SPECIFICATIONS. IF THE EXISTING UTILITY SERVICES DO NOT MEET THE ABOVE CRITERIA, THEN NEW SERVICE LINES SHALL BE INSTALLED.
5. FINAL LOCATIONS, NUMBERS AND SIZE OF ALL PROPOSED UTILITIES SERVICING BUILDINGS ARE TO BE VERIFIED WITH THE ARCHITECT, OWNER AND APPROPRIATE UTILITY AUTHORITY BY THE CONTRACTOR.
6. ALL MATERIALS, WORKMANSHIP, AND CONSTRUCTION FOR SITE IMPROVEMENTS SHOWN HEREON SHALL BE IN ACCORDANCE WITH:
   A. PENNSYLVANIA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", AS CURRENTLY AMENDED.
   B. CURRENT PREVAILING WHITPAIN TOWNSHIP SPECIFICATIONS, STANDARDS AND REQUIREMENTS.
   C. CURRENT PREVAILING UTILITY COMPANY/AUTHORITY AND OWNER SPECIFICATIONS, STANDARDS AND REQUIREMENTS.
7. THE CONTRACTOR SHALL NOTIFY THE UNDERSIGNED PROFESSIONAL IMMEDIATELY IF ANY FIELD OR SOIL CONDITIONS ARISE WHICH VARY FROM THE CONDITIONS SHOWN OR PRESENTED HEREON. SUCH CONDITIONS COULD RENDER THE DESIGNS SHOWN HEREON INAPPROPRIATE OR INEFFECTIVE.
8. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL APPROPRIATE SAFETY DEVICES AND TRAINING TO ALL WORKERS IN ORDER TO MAINTAIN SAFE CONDITIONS ON THE PROJECT SITE.
9. THE CONTRACTOR IS RESPONSIBLE FOR ALL REQUIRED CONSTRUCTION PERMITS NECESSARY FOR THE CONSTRUCTION AND COMPLETION OF THE APPROVED IMPROVEMENTS.
10. THE CONTRACTOR IS RESPONSIBLE FOR THE PROPER REMOVAL AND DISPOSAL OF ANY AND ALL EXISTING OBJECTS, STRUCTURES, ETC. THAT ARE IN THE WAY OF PROPOSED CONSTRUCTION, OR INDICATED AS TO BE REMOVED.
11. ALL PROPOSED SPOT ELEVATIONS ARE GRADE OR BOTTOM OF CURB UNLESS OTHERWISE NOTED.
12. WALKWAYS ARE TO SLOPE AWAY FROM BUILDINGS AT A MAXIMUM PITCH OF ¼ INCH PER FOOT. HANDICAP RAMPS ARE TO HAVE A MAXIMUM SLOPE OF 1" PER FOOT.
13. THE CONTRACTOR SHALL TAKE ADDITIONAL PRECAUTIONS TO WATERPROOF AREAS WHERE THE EXTERIOR FINISHED GRADE IS HIGHER THAN THE FINISHED FLOOR ELEVATION. ALTERNATELY, FOUNDATION WALLS IN EXCESS OF 8" BELOW FINISHED FLOOR SHALL BE FINISHED SUITABLY.
14. THE APPLICANT TO PROVIDE PRIVATE TRASH CARTING FOR THE PROPOSED FACILITIES AND WILL COMPLY WITH ALL RECYCLING REQUIREMENTS OF THE MUNICIPALITY, COUNTY AND STATE.
15. ALL DIMENSIONS LABELED ARE IN UNITED STATES STANDARD.
16. ALL ELECTRIC, TELEPHONE, AND CABLE TV UTILITY DISTRIBUTION LINES SHALL BE INSTALLED UNDERGROUND.
17. ALL STORMWATER BMP'S AND STORMWATER MANAGEMENT FACILITIES ARE TO BE PERMANENT FIXTURES THAT CAN BE ALTERED OR REMOVED ONLY AFTER APPROVAL BY THE TOWNSHIP OF A REVISED PLAN WHICH SHALL BE APPLICABLE TO ALL FUTURE OWNERS OF THIS PROPERTY.
18. THE PROPERTY IS SERVICED BY PUBLIC WATER AND PUBLIC SEWER.
19. EXISTING SITE FEATURES AND TOPOGRAPHIC DATA FROM ALTA/ACSM LAND TITLE SURVEY PREPARED FOR CENTRE SQUARE COMMONS BY MASER CONSULTING P.A., JOB NUMBER 12000830A/HASU032176, PLAN DATED JANUARY 21, 2015.

APPLICANT/EQUITABLE OWNER

MADISON DEVELOPMENT GROUP, INC. AND
CENTER SQUARE COMMONS, LP
ATTN:JOHN MCKENNA
PO BOX 507
SOUTHEASTERN, PA 19399
PHONE:215-568-9495
FAX:215-359-1370



I HEREBY CERTIFY THAT _____ IS THE DEVELOPER OF THE LAND HEREIN SUBDIVIDED OR TO BE DEVELOPED AND THAT I DO HEREBY ADOPT THIS PLAN.

_____
(TITLE)

APPROVED BY THE WHITPAIN TOWNSHIP PLANNING COMMISSION THIS ___ DAY OF _____, 2015.

_____
SECRETARY
WHITPAIN TOWNSHIP
PLANNING COMMISSION

APPROVED BY THE TOWNSHIP ENGINEER ON THE DAY OF _____, 2015.

_____
TOWNSHIP ENGINEER

APPROVED BY THE BOARD OF SUPERVISORS OF WHITPAIN TOWNSHIP THIS ____ DAY OF _____, 2015.

_____
CHAIRMAN

_____
SECRETARY

STATE OF PENNSYLVANIA
COUNTY OF MONTGOMERY

ON THIS, THE _____ DAY OF _____, 2015, BEFORE ME, _____,
THE UNDERSIGNED OFFICER, PERSONALLY APPEARED _____
WHO ACKNOWLEDGED HIMSELF TO BE THE _____ OF _____,
A CORPORATION, AND THAT HE AS SUCH _____, BEING AUTHORIZED TO DO SO, EXECUTED THE FOREGOING INSTRUMENT FOR THE PURPOSE THEREIN CONTAINED BY SIGNING THE NAME OF THE CORPORATION BY HIMSELF AS

_____.

WITNESS MY HAND AND NOTARY SEAL THE DAY AND YEAR AFORESAID.

_____
NOTARY PUBLIC
MY COMMISSION EXPIRES
_____, 20____

RECORDED THIS _____ DAY OF _____, 2015 IN THE OFFICE FOR THE RECORDING OF DEEDS, ETC., IN AND FOR THE COUNTY OF MONTGOMERY, PENNSYLVANIA IN PLAN FILE CASE _____ D.B. NO _____ PAGE _____.

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State of N.J. Certificate of Authorization: 24GA27986500

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REV	DATE	DRAWN BY	DESCRIPTION

RUSSELL T. McFALL II
PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER - LICENSE NUMBER: PE60408

PRELIMINARY/FINAL LAND DEVELOPMENT PLANS

FOR

MADISON DEVELOPMENT GROUP, INC.

DEKALB PIKE AT SKIPPACK PIKE

WHITPAIN TOWNSHIP
MONTGOMERY COUNTY
PENNSYLVANIA

EXTON OFFICE
410 Eagleview Boulevard
Suite 104
Exton, PA 19341
Phone: 610.254.9140
Fax: 610.254.9141
email: solutions@maserconsulting.com

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	06/10/15	DIII	RTM
PROJECT NUMBER: 12000830A	DRAWING NAME: C-LAYT		

SHEET TITLE: SITE PLAN

SHEET NUMBER: 4 of 16

12000830A/Engineering/C-LAYT.dwg/C-LAYOUT By:MARKUS