PRELIMINARY AND FINAL AND SITE AND SUBDIVISION PLAN

FOR

RPM DEVELOPMENT, LLC
PROPOSED RESIDENTIAL DEVELOPMENT

BLOCK 2001, LOTS 3, 60-66 & 68; TAX MAP SHEETS #20 & 20.01- LATEST REV. DATED 1-1-2001

2495 BRUNSWICK PIKE (A.K.A. ALT. ROUTE 1)

TOWNSHIP OF LAWRENCE

MERCER COUNTY, NEW JERSEY

200' PROPERTY OWNERS LIST

PROPERTY OWNER	BLOCK	LOT
NJ CONFERENCE/SEVENTH-DAY ADVENTIST 2303 BRUNSWICK AVE LAWRENCEVILLE, NJ 08648	1502	1
TOWNSHIP OF LAWRENCE 2207 LAWRENCEVILLE RD. LAWRENCEVILLE, NJ 08648	1502 1506 2001 2101	3 25-27 10, 67 6
ORANTES, CECILIO I & ELODIA C 826 PRESIDENT AVE LAWRENCEVILLE, NJ 08648	1506	21
FELLERS, GARY LEE 836 PRESIDENT AVE LAWRENCE TOWNSHIP, NJ 08648	1506	22-24
CALLE, MOISES 817 LAKE DR LAWRENCEVILLE, NJ 08648	1506	28-32
DORNER, CHARLES & DEBORAH 807 LAKE DR LAWRENCEVILLE, NJ 08648	1506	33
HOANN, CANDIDA 2247 PRINCETON PK LAWRENCEVILLE, NJ 08648	1802	22
CCCHING, FEDERICO I & BUCHANAN, BETH 51 DEVON AVE LAWRENCEVILLE, NJ 08648	1803	23
SEABRIDGE, DEBRA 13 VALERIE LANE LAWRENCEVILLE, NJ 08648	1803	24
AUGUSTYNIAK, GRZEGORZ & ROSZKOWSKI, G. 131 GRAF AVENUE LAWRENCE TOWNSHIP, NJ 08648	1803	25
JOHNSON, MAUREEN 2269 PRINCETON PK LAWRENCEVILLE, NJ 08648	1803	26
GROOVER, JANET E 2269 PRINCETON PK LAWRENCEVILLE, NJ 08648	1803	27
LOPES, EVERSON B ANA 2261 PRINCETON PIKE LAWRENCEVILLE, NJ 08648	1803	28
LEMMON, JOHN T UX 2 IRWIN PL LAWRENCEVILLE, NJ 08648	1803	29
LUKOIL NORTH AMERICAN LLC 505 FIFTH AVE 9TH FL NEW YORK, NY 10017	2001	1
PLAPINGER, WALLACE R ALS PO BOX 5031 TRENTON, NJ 08638	2001	6
SHAROPOV, ULMAS & NASIROVA, DILNOZA 2250 PRINCETON PIKE LAWRENCEVILLE, NJ 08648	2001	7
POLISH NAT CATH CHUR C/O M KOWALIK 100 ELTON AVE TRENTON, NJ 08620	2001	11
ERDIE, JULIUS MICHAEL JR. 29 FAIRFIELD AVE LAWRENCEVILLE, NJ 08648	2001	13
ERDIE, J M JR C/O HOLLYWOOD GARAGE 29 FAIRFIELD AVE LAWRENCEVILLE, NJ 08648	2001	14
ZAJAC, SALLY L 2330 PRINCETON PK LAWRENCEVILLE, NJ 08648	2001	15
THAT'S A LOVELY ACCENT YOU HAVE URB 215 S LACIENEGA BLVD #203 BEVERLEY HILLS, CA 90211	2001	17
KOWAL, TADEUSZ 45 JOFFRE AVE LAWRENCEVILLE, NJ 08648	2001	43.01
SHARMA, KULBHUSHAN 88 JOFFRE AVE LAWRENCEVILLE, NJ 08648	2001	47-50, 56-59
BURKE, TIMOTHY B & BRENDA S 1 JOFFRE AVE LAWRENCEVILLE, NJ 08648	2001	51-54
COOPER, STELLA 101 HARDING AVE LAWRENCEVILLE, NJ 08648	2001	55
FRANCO PROPERTIES, LLC 299 FLOCK RD MERCERVILLE, NJ 08648	2001	69

PROPERTY OWNER	BLOCK	LOT
DAROZINSKI, BENJAMEN & WIESLAWA 109 TEXAS AVE LAWRENCEVILLE, NJ 08648	2002	27
HAMPTON, ANNE TRUEHART 101 TEXAS AVE LAWRENCEVILLE, NJ 08648	2002	28-33
THE HARDING AVE PRTNER C/O M MANN PO BOX 5271 TRENTON, NJ 08638.0271	2002	34, 35
TRUSZKOWSKI, LECH & EWA 11 MILLBROOK LANE LAWRENCEVILLE, NJ 08648	2002	36
WALEKO, STEPHEN JR. & SHERRY 101 COOLIDGE AVENUE LAWRENCEVILLE, NJ 08648	2003	28, 29
BLOOM, TOMMIE & HAZEL 100 TEXAS AVE LAWRENCEVILLE, NJ 08648	2003	30, 31
SIVARAMAMOORTHY, T & GRITHARI 110 TEXAS AVE LAWRENCEVILLE, NJ 08648	2003	32.01
THOMAS, CLYDE S UX 94 TEXAS AVE LAWRENCEVILLE, NJ 08648 -35	2001	1-4, 32
WAY, SUZANNE 89 COOLIDGE AVE LAWRENCE, NJ 08648	2004	5-8
KUBALA, DONALD J & JOAN E 8 RANDI WAY TITUSVILLE, NJ 08560 22-27	2004	9-14,
ERKOBONI, RICHARD JR & MINDY 68 TEXAS AVE LAWRENCEVILLE, NJ 08648	2004	15-21
SURLA, MAMTA & FNU CHAMAN LAL 82 TEXAS AVE LAWRENCEVILLE, NJ 08648	2004	28-31
PUBLIC SERVICE E&G PROPERTY TAXES 80 PARK PLAZA, 5TH FLOOR NEWARK, NJ 07102-4194	2005	9
JHAKU-HP, LLC 8 WELLESLEY COURT PRINCETON JUNCTION, NJ 08550	2005	10
CRUZ, ROSA MARIA 36 TEXAS ROAD LAWRENCEVILLE, NJ 08648	2005	11, 12
BSA OIL CORP PO BOX 5317 TRENTON, NJ 08638	2005	13
COMMUNITY OPTIONS PROPERTIES INC 16 FARBER ROAD PRINCETON, NJ 08540	2005	14.01
JOHNSON, JOSEPH & YVONNE 56 TEXAS AVE LAWRENCEVILLE, NJ 08648	2005	17
ARRIOLA, ESTUARDO & LILIAN 1145 GLENN AVE LAWRENCEVILLE, NJ 08648	2005	18
2470 ROUTE 1, LLC 15 HAWTHORNE DR PRINCETON JCT, NJ 08550	2101	1, 40.01
SHEFT ASSOCIATES INC. 2420 BRUNSWICK PIKE LAWRENCEVILLE, NJ 08648	2101	39
GLICK, RONALD UX C/O HOWCO MGT. 7 GORDON AVE LAWRENCEVILLE, NJ 08648-1088	2102	1
JOANEM, JOLITHA 2310 BRUNSWICK AVE LAWRENCEVILLE, NJ 08648	2102	2, 3
PETRINE PROPERTIES, LLC 2304 BRUNSWICK AVE LAWRENCEVILLE, NJ 08648	2102	4
2480 BRUNSWICK, LLC 5522 FT. HAMILTON PARKWAY BROOKLYN, NY 11219	2201	16
NAGARAJ, CHAM V ATTN: LISA A ZOLNA 1650 MARKET ST, STE 1800 PHILA, PA 19103-7395	2201	17.01
2500 BRUNSWICK, LLC 195 NASSAU ST PRINCETON, NJ 08542	2201	17.02

ALSO TO BE NOTIFIED:

CORPORATE SECRETARY
EWING-LAWRENCE SEWERAGE AUTHORITY
600 WHITEHEAD ROAD
LAWRENCEVILLE, NJ 08648

CORPORATE SECRETARY
PUBLIC SERVICE ELECTRIC & GAS COMPANY
80 PARK PLAZA, 4B
NEWARK, NJ 07101

NJ. AMERICAN WATER
1025 LAUREL OAK ROAD
VOORHEES, NJ 08043
ATTN: DONNA SHORT

ELIZABETHTOWN GAS COMPANY
ONE ELIZABETHTOWN PLAZA
THIRD FLOOR EAST
UNION, NJ 07083-1975

CORPORATE SECRETARY
TRENTON WATER WORKS
PO BOX 528
TRENTON, NJ 08604

CORPORATE SECRETARY
VERIZON
540 BROAD STREET
NEWARK, NJ 07101

AQUA WATER COMPANY
2875P ERIAL ROAD
ERIAL, NJ 08081
ATTN: JAMES SARBATO

GENERAL MANAGER
COMCAST CABLEVISION
940 PROSPECT STREET
TRENTON, NJ 08618

RCN CORPORATION
105 CARNEGIE CENTER
PRINCETON, NJ 08540

CORPORATE SECRETARY
AT&T
1 AT&T WAY
BEDMINSTER, NJ 07921

MERCER COUNTY PLANNING BOARD
640 SOUTH BROAD STREET
26TH FLOOR
PHILADELPHIA, PA 19103-1699

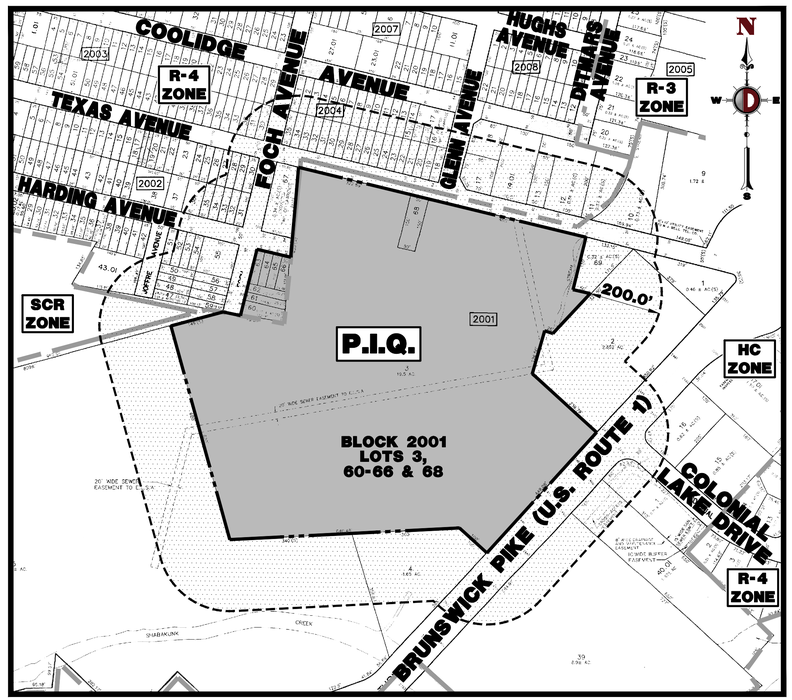
CORPORATE SECRETARY
JERSEY CENTRAL POWER & LIGHT
300 MADISON AVENUE
MORRISTOWN, NJ 07962

SUN PIPE LINE, L.P.
ATTN: R-O-W DEPARTMENT
1801 MARKET STREET
20TH FLOOR
PHILADELPHIA, PA 19103-1699

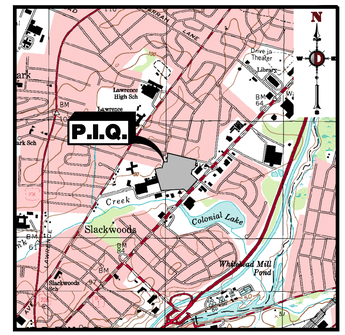
CORPORATE SECRETARY
TRANSCONTINENTAL GAS PIPE LINE CORPORATION
2800 POST OAK BOULEVARD
HOUSTON, TX 77056

SUNOCO PIPE LINE, L.P.
RIGHT-OF-WAY DEPARTMENT
MONTELLO COMPLEX
525 FRITZTOWN ROAD
SINKING SPRING, PA 19608

COMMISSIONER
NJ. DEPARTMENT OF TRANSPORTATION
1035 PARKWAY AVENUE CN 600
TRENTON, NJ 08625



AREA MAP
1" = 200'



KEY MAP
1" = 2000'

DRAWING INDEX

ZONING BOARD OF ADJUSTMENT APPROVAL

APPROVED AT THE ZONING BOARD OF ADJUSTMENT OF THE TOWNSHIP OF LAWRENCE, MERCER COUNTY, NEW JERSEY

CHAIRMAN — DATE

SECRETARY — DATE

BOARD ENGINEER — DATE

PREPARED BY
DYNAMIC ENGINEERING CONSULTANTS, P.C.
1904 MAIN STREET
LAKE COMO, NJ 07719
WWW.DYNAMICEC.COM

THIS PLAN SET IS FOR PERMITTING PURPOSES ONLY AND MAY NOT BE USED FOR CONSTRUCTION

Rev.	Date	Comments	By
1	10/07/20	REV. PER TOWNSHIP COMMENTS	GMC

DYNAMIC ENGINEERING
LAND DEVELOPMENT CONSULTING • PERMITTING • GEOTECHNICAL • ENVIRONMENTAL • SURVEY • PLANNING & ZONING
1904 Main Street, Lake Como, NJ 07719
T: 732.974.0198
F: 732.974.3021
www.dynamicec.com
Offices conveniently located in:
Lake Como, New Jersey T: 732.974.0198 | Chester, New Jersey T: 908.879.9229 | Newark, New Jersey T: 973.755.7200 | Toms River, New Jersey T: 732.974.0198
Allen, Texas T: 972.534.2100 | Austin, Texas T:512.646.2646 | Houston, Texas T: 281.789.4400
Newtown, Pennsylvania T: 267.685.0276 | Delray Beach, Florida T: 561.921.8570

TITLE: COVER SHEET

PROJECT: **RPM DEVELOPMENT, LLC**
PROPOSED RESIDENTIAL DEVELOPMENT
BLOCK 2001, LOTS 3, 60-66, & 68
2495 BRUNSWICK PIKE (A.K.A. ALT ROUTE 1)
TOWNSHIP OF LAWRENCE, MERCER COUNTY, NEW JERSEY

JOB No: 1279-99-010
DATE: 04/15/2020
DRAWN BY: GMC
SCALE: (H) AS (V) SHOWN
DESIGNED BY: LPG
CHECKED BY: TJM
CHECKED BY: _
SHEET No: 1 OF 23
Rev. # 1

JOHN A. PALUS
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 41975

THOMAS J. MULLER
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 52179

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Plotted: 10/09/20 – 12:34 PM, By: gcwdrick, – Product Ver: 23.1s (LMS Tech)
File: P:\decpc projects\1279 rpm development group\99-010 lawrence\Dwg\Site Plans\D1279990100SK1.dwg, ---> 01 COVER SHEET

GRAPHIC SCALE

−100 0 50 100 200 400

(IN FEET)

1 INCH = 100 FT.

THE AERIAL IMAGE DEPICTED ON THIS PLAN IS BASED UPON AERIAL PHOTOGRAPHY OF THE STATE OF NEW JERSEY CAPTURED BETWEEN MARCH AND MAY, 2015. THE NEW JERSEY 2015 HIGH RESOLUTION ORTHOPHOTOGRAPHY PROJECT WAS FURNISHED BY THE NJ OFFICE OF INFORMATION TECHNOLOGY. THE CONDITIONS OF THE SITE AND SURROUNDING AREAS MAY HAVE CHANGED SINCE THE DATE OF AERIAL PHOTOGRAPHY AND, THEREFORE THIS PLAN MAY NOT ACCURATELY REFLECT ALL CURRENT EXISTING CONDITIONS.

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1904 Main Street
Lake Como, NJ 07719
T: 732.974.0198
F: 732.974.3521
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TITLE: AERIAL MAP

PROJECT: **RPM DEVELOPMENT, LLC**
PROPOSED RESIDENTIAL DEVELOPMENT
BLOCK 2001, LOTS 3, 60-66, & 68
2495 BRUNSWICK PIKE (A.K.A. ALT ROUTE 1)
TOWNSHIP OF LAWRENCE, MERCER COUNTY, NEW JERSEY

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Rev. #	1

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File: P:\decpc projects\1279 rpm development group\99-010 lawrence\Dwg\Site Plans\D1279990105A1.dwg, ---> 02 AERIAL MAP

GENERAL NOTES

1. THIS PLAN HAS BEEN PREPARED BASED ON REFERENCES INCLUDING:

   PRELIMINARY TOPOGRAPHIC SURVEY
   PREPARED BY DYNAMIC SURVEY, LLC
   1904 MAIN STREET
   LAKE COMO, NJ 07719
   DATED MAY 24, 2019

2. APPLICANT: RPM DEVELOPMENT
   77 PARK STREET
   MONTCLAIR, NJ 07042

3. OWNER: LAWRENCE SHOPPING CENTER ASSOCIATION
   112 WEST 34th STREET #2106
   NEW YORK, NY 10120

4. PARCEL DATA: BLOCK 2001, LOTS 3, 60–66, & 68
   TOWNSHIP OF LAWRENCE
   MERCER COUNTY, NJ

5. ZONE: ZONE HC (HIGHWAY COMMERCIAL ZONE) (LOT 3 & 68)
   ZONE R-4 (RESIDENTIAL ZONE) (LOTS 60–66)

6. EXISTING USE: OFFICES **(PERMITTED USE)** (§ 420.B.10.) &
   RETAIL SALES OF GOODS AND SERVICES **(PERMITTED USE)** (§ 420.B.11.)
   SHOPPING CENTER **(PERMITTED USE)** (§ 420.B.13)

7. PROPOSED USE: OFFICES **(PERMITTED USE)** (§ 420.B.10.)
   RETAIL SALES OF GOODS AND SERVICES **(PERMITTED USE)** (§ 420.B.11.)
   SHOPPING CENTER **(PERMITTED USE)** (§ 420.B.13)
   TOWNHOUSE, QUADRAPLEX OR APARTMENT DWELLINGS **(NON-PERMITTED USE IN THE R-4 ZONE)** (§ 407.D.3)
   & (HC ZONE) **(NON-PERMITTED USE IN THE HC ZONE)** (§ 420.B)

8. SCHEDULE OF ZONING REQUIREMENTS (§ 407.D & 420.E.(1))

ZONE REQUIREMENT	ZONE HC	R-4 ZONE	EXISTING	PROPOSED LOT 2.01	PROPOSED LOT 2.02
MINIMUM LOT AREA	40,000 SF	60,000 SF	2,272,718 SF (52.17 Ac)	2,102,128 SF (48.26 Ac)	170,590 SF (3.92 Ac)
MINIMUM LOT FRONTAGE	200 FT	150 FT	135.2 FT **(E)**	135.2 FT **(E)**	720.0 FT
MINIMUM LOT WIDTH	200 FT	N/S	1,530.4 FT	1,530.4 FT	716.3 FT
MINIMUM LOT DEPTH [1]	175 FT	N/S	278.7 FT	470.2 FT	243.8 FT
MINIMUM FRONT YARD SETBACK [2]	25 FT	50 FT	104.4 FT	104.4 FT	25.2 FT
MINIMUM SIDE YARD SETBACK [2]	25 FT	40 FT	46.5 FT	46.5 FT	32.6 FT **(V)**
MINIMUM REAR YARD SETBACK [2]	60 FT	50 FT	68.2 FT	119.2 FT	25.0 FT **(V)**
MAXIMUM FLOOR AREA RATIO	[6]	0.50	0.16 (365,340 SF)	0.17 (365,340 SF)	0.51 (87,283 SF) **(V)**
MAXIMUM IMPERVIOUS SURFACE RATIO	[7]	N/S	0.69 (1,564,553 SF)	0.74 (1,564,553 SF)	0.48 (81,534 SF)
MAXIMUM BUILDING HEIGHT	35 FT	35 FT	33.6 FT	33.6 FT	39.8 FT **(V)**
MINIMUM SIDE YARD SETBACK (ACCESSORY BUILDING)	20 FT	N/A	194.6 FT	194.6 FT	N/A
MINIMUM REAR YARD SETBACK (ACCESSORY BUILDING)	20 FT	N/A	17.7 FT **(E)**	17.7 FT **(V)**	N/A
MINIMUM DISTANCE TO OTHER BUILDING (ACCESSORY BUILDING) [3]	25 FT	N/A	N/A	N/A	18.0 FT **(V)**
MINIMUM DISTANCE TO OTHER BUILDING (ACCESSORY BUILDING) [4]	50 FT	N/A	19.4 FT **(E)**	19.4 FT **(E)**	N/A
MAXIMUM HEIGHT (ACCESSORY BUILDING)	20 FT	N/A	< 20 FT	< 20 FT	N/A
MINIMUM USABLE YARD AREA	N/S	20% EACH YARD	N/S	N/S	55.2% (94,209 SF)
N/S: NO STANDARD N/A: NOT APPLICABLE (E): EXISTING NON-CONFORMANCE (V): VARIANCE					

[1] LOT DEPTH: THE SHORTEST HORIZONTAL DISTANCE BETWEEN THE FRONT LOT LINE AND A LINE DRAWN PARALLEL TO THE FRONT LOT LINE THROUGH THE MIDPOINT OF THE REAR LOT LINE. (§201)
[2] ANY REQUIRED YARD OR REQUIRED SETBACK SHALL BE MEASURED FROM THE CLOSEST EDGE OF ANY BUFFER REQUIRED BY THE DELAWARE AND RARITAN CANAL COMMISSION. (§400.C.4)
[3] WHEN THE SEPARATION AREA IS NOT USED FOR PARKING OR VEHICULAR CIRCULATION. (§420.E.2.D)
[4] WHEN THE SEPARATION AREA IS USED FOR PARKING OR VEHICULAR CIRCULATION. (§420.E.2.E)
[5] NO ACCESSORY BUILDING SHALL BE PERMITTED IN THE FRONT YARD. (§420.E.2.A)
[6] 0.25 FOR LOTS LESS THAN 5 ACRES, 0.30 FOR LOTS 5 ACRES OR LARGER
[7] 0.70 FOR LOTS LESS THAN 5 ACRES, 0.75 FOR LOTS 5 ACRES OR LARGER

9. PARKING REQUIREMENTS
   A. THE MINIMUM WIDTH OF LANDSCAPE ISLANDS SHALL BE EIGHT (8) FEET ON THE SIDE OF PARKING SPACES AND TEN (10) FEET BETWEEN PARKING BAYS (§ 525.L.1.)
   B. LANDSCAPE ISLANDS SHALL BE PLANTED WITH A COMBINATION OF DECIDUOUS TREES, EVERGREEN AND DECIDUOUS SHRUBS, AND GROUND COVER AT THE RATE OF 6 LARGE OR MEDIUM TREES, 4 SMALL OR ORNAMENTAL TREES AND 60 SHRUBS PER 100 LINEAL FEET ALONG THE LONG AXIS OF THE ISLAND (§ 525.L.2.)
   C. PARKING AND LOADING AREAS SHALL BE SCREENED BY A COMBINATION OF BERMS, HEDGES, FENCES OR WALLS. THE MINIMUM SCREENING HEIGHT AT PLANTING SHALL BE 3 FEET AND SHALL HAVE A HEIGHT OF AT LEAST 4 FEET WITHIN THREE YEARS OF INSTALLATION (§ 525.L.3.)
   D. NO MORE THAN TWENTY (20) PARKING SPACES SHALL BE PLACED IN ONE ROW OF PARKING WITHOUT AN INTERVENING LANDSCAPE ISLAND (§ 525.L.5.)
   E. ALL REQUIRED OFF-STREET PARKING AND LOADING FACILITIES SHALL BE LOCATED ON THE SAME LOT OR PREMISES AS THE USE SERVED (§ 530.B.)
   F. FOR RESIDENTIAL DEVELOPMENTS, OFF-STREET PARKING SHALL BE PROVIDED AS REQUIRED IN N.J.A.C. 5:21-1. (SEE ALSO TABLE 5.2). (§ 530.C.1)
   G. FOR RESIDENTIAL USES, PARKING SPACES SHALL BE NINE (9) FEET BY EIGHTEEN (18) FEET. (§ 530.D.1)
   H. PARKING LOTS SHALL BE SET BACK FROM ALL LOT LINES A MINIMUM OF 25 FEET UNLESS A LARGER SETBACK IS REQUIRED (§ 530.F.) **(V)**
   I. PARKING SHALL NOT BE PERMITTED TO BE LOCATED IN ANY REQUIRED LANDSCAPING BUFFER (§ 530.F.)
   J. SETBACKS SHALL BE REQUIRED FROM ANY PUBLIC STREETS AND FROM PRIVATE INTERNAL COLLECTOR ACCESS ROADS THAT SERVE A PARKING LOT (§ 530.F.)
      i. SETBACK MEASUREMENTS SHALL BE FROM THE RIGHT-OF-WAY OF A PUBLIC STREET AND FROM THE CURBLINE OF A PRIVATE STREET TO THE NEAREST PARKING SPACE (§ 530.F.)
   K. WHERE PARKING AREAS OF THE REGIONAL SHOPPING MALL ABUT PARKING AREAS ON CONTIGUOUS PROPERTY THE REQUIRED SETBACK FROM THE COMMON LOT LINE SHALL BE 10 FEET (§ 530.F.)
   L. FOR HANDICAPPED PARKING, THE MAXIMUM DISTANCE FROM THE BUILDING SHALL BE ONE HUNDRED (100) FT (§ 530.I.1.)
   M. FOR RESIDENT PARKING, THE MAXIMUM DISTANCE FROM THE BUILDING SHALL BE TWO HUNDRED-FIFTY (250) FT (§ 530.I.1.)
   N. DIRECT ACCESS TO AN OFF-STREET PARKING SPACE FROM A PUBLIC OR PRIVATE STREET, OR AN INTERNAL COLLECTOR DRIVE IS PROHIBITED (§ 530.I.3.)
   O. WHERE SIDEWALKS OCCUR IN PARKING AREAS, PARKED VEHICLES SHALL NOT OVERHANG OR EXTEND OVER THE SIDEWALK UNLESS AN ADDITIONAL 2 FEET IN WIDTH IS PROVIDED IN ORDER TO ACCOMMODATE SUCH OVERHANG (§ 530.I.6.)

   P. PARKING CALCULATION (LOTS 3, 60–66, 68)(§ 504.N.Table 5.2):

1 BEDROOM GARDEN APARTMENT:	8 UNITS X 1.8 SPACES/UNIT	=	14.4 SPACES
2 BEDROOM GARDEN APARTMENT:	37 UNITS X 2.0 SPACES/UNIT	=	74.0 SPACES
3 BEDROOM GARDEN APARTMENT:	25 UNITS X 2.1 SPACES/UNIT	=	52.5 SPACES
	TOTAL SPACES REQUIRED:	=	140.9 SPACES
	TOTAL SPACES PROPOSED:	=	102 SPACES (INCLUDES 43 SPACES ON SHOPPING CENTER) **(V)**

10. ACCESS DRIVE AND DRIVEWAY REQUIREMENTS
    A. RESIDENTIAL DRIVEWAYS SHALL BE SET BACK 5 FEET FROM THE SIDE OR REAR PROPERTY LINE. THIS REQUIREMENT, HOWEVER, SHALL NOT PREVENT ACCESS FROM AN ALLEY (§ 530.E)
    B. THE MINIMUM LENGTH OF THE ACCESS DRIVE SHALL BE FIFTY (50) FEET FOR PARKING LOTS WITH FORTY (40) TO NINETY-NINE (99) TOTAL PARKING SPACES (§ 530.I.2.)
    C. ACCESS POINTS FROM ANY ONE LOT CROSSING THE STREET LINE SHALL BE LIMITED TO A MAXIMUM OF TWO ALONG THE FRONTAGE OF ANY SINGLE STREET. THE CENTERLINES OF ANY SEPARATE ACCESS POINTS SHALL BE SPACED AT LEAST SIXTY-FIVE (65) FEET APART, SHALL HANDLE NO MORE THAN TWO (2) DIRECTIONS OF TRAFFIC; SHALL BE AT LEAST TWENTY (20) FEET FROM ANY SIDE OR REAR PROPERTY LINES; AND SHALL BE SET BACK FROM THE STREET LINE OF ANY INTERSECTING STREET AT LEAST FIFTY (50) FEET OR ONE-HALF THE LOT FRONTAGE, WHICHEVER IS GREATER, EXCEPT THAT IN NO CASE NEED THE SETBACK DISTANCE EXCEED TWO HUNDRED (200) FEET (§ 430.O.)
    D. TWO-WAY ACCESS DRIVES FOR NON-RESIDENTIAL AND MULTI-FAMILY USES SHALL NOT EXCEED 12 FEET PER LANE (§ 430.O.)
    E. FOR NINETY (90) DEGREE PARKING SPACES, THE REQUIRED AISLE WIDTH FOR ONE-WAY TRAFFIC SHALL BE TWENTY-TWO (22) FEET (§ 430.P.2.Table 5.17)
    F. FOR NINETY (90) DEGREE PARKING SPACES, THE REQUIRED AISLE WIDTH FOR TWO-WAY TRAFFIC SHALL BE TWENTY-FOUR (24) FEET (§ 430.P.2.Table 5.17)

11. BUFFER REQUIREMENTS
    A. THERE SHALL BE NO DISTURBANCE, INCLUDING BUT NOT LIMITED TO, GRADING AND THE PLACEMENT OF BUILDINGS, WITHIN 100 FEET OF THE 100-YEAR FLOOD PLAIN OF A STREAM ALONG ALL STREAM CORRIDORS OR FROM THE UPPER BANK FOR WHICH A FLOOD PLAIN LINE HAS NOT BEEN ESTABLISHED EXCEPT FOR NECESSARY STORM WATER OUTFALL STRUCTURES AND PIPING (§ 430.J.)
    B. THE MINIMUM WIDTH OF A LANDSCAPE BUFFER SHALL BE DEPENDENT ON THE PROPOSED USE OF A PROPERTY AND THE LAND USES ADJACENT TO IT IN ACCORDANCE WITH TABLE 5.10 (§ 525.H.TABLE 5.10):
       - 50 FT BUFFER IS REQUIRED WHEN AN APARTMENT BUILDING IS ADJACENT TO A SINGLE FAMILY HOME
       - 25 FT BUFFER IS REQUIRED WHEN AN APARTMENT BUILDING IS ADJACENT TO RETAIL
       - 0 FT BUFFER IS REQUIRED WHEN A DUPLEX IS ADJACENT TO A SINGLE FAMILY HOME
       - 40 FT BUFFER IS REQUIRED WHEN A DUPLEX IS ADJACENT TO RETAIL
    C. MINIMUM PLANT DENSITY FOR BUFFERS ARE OUTLINED IN TABLE 5.11 (§ 525.H.TABLE 5.11)
    D. ALLOWABLE REDUCTIONS IN BUFFER WIDTHS AND PLANT DENSITIES OUTLINED IN TABLE 5.12 (§ 525.H.TABLE 5.12)

12. SOLID WASTE REQUIREMENTS
    A. VISUAL SCREENING IS REQUIRED TO BUFFER ALL TRASH ENCLOSURES, ABOVE GROUND PROPANE TANKS AND OTHER SIMILAR STRUCTURES (§ 525.A.8.)
    B. THERE SHALL BE AT LEAST ONE TRASH AND RECYCLING PICK-UP LOCATION PROVIDED FOR EACH MULTI-FAMILY OR NON-RESIDENTIAL BUILDING WHICH SHALL BE SEPARATED FROM PARKING SPACES EITHER INSIDE OR OUTSIDE THE BUILDING. ALL TRASH AND RECYCLING LOCATIONS SHALL BE ENCLOSED AND LOCATED IN A MANNER WHICH IS OBSCURED FROM VIEW FROM PARKING AREAS, STREETS AND ADJACENT RESIDENTIAL USES OR ZONING DISTRICTS BY A FENCE, WALL, PLANTING OR COMBINATION OF THE THREE (§ 538.B.)
    C. ALL EXTERIOR SOLID WASTE ENCLOSURES SHALL BE CONSTRUCTED OF MASONRY COMPATIBLE WITH THE ARCHITECTURAL MATERIALS OF THE BUILDING (§ 538.C.)
    D. IF LOCATED WITHIN THE BUILDING, THE DOORWAY MAY SERVE BOTH THE LOADING AND TRASH/GARBAGE FUNCTIONS AND IF LOCATED OUTSIDE THE BUILDING, IT MAY BE LOCATED ADJACENT TO OR WITHIN THE GENERAL LOADING AREA(S) PROVIDED THE CONTAINER IN NO WAY INTERFERES WITH OR RESTRICTS LOADING AND UNLOADING FUNCTIONS. MOREOVER, IF LOCATED OUTSIDE THE BUILDING, THE CONTAINER SHALL BE SITUATED ON THE SAME HORIZONTAL PLANE AS THE DRIVEWAY PROVIDING ACCESS TO THE CONTAINER (§ 538.D.)

13. FENCES AND WALLS REQUIREMENTS
    A. FENCES SHALL BE LIMITED TO EIGHT (8) FEET IN HEIGHT (§ 524.A.)
    B. WALLS SHALL BE LIMITED TO SIX (6) FEET IN HEIGHT (§ 524.A.)

14. R-4 CONDITIONAL USE REQUIREMENTS (FOR REFERENCE ONLY)
    A. MAXIMUM TRACT SIZE: 7 ACRES
    B. MAXIMUM GROSS DENSITY: 10 UNITS PER ACRE
    C. MAXIMUM NUMBER OF UNITS PER BUILDING:
       (1) WITHIN 200 FEET OF EXISTING APARTMENT OR TOWNHOUSE USE: 30 UNITS
       (2) 200 FEET OR GREATER DISTANCE FROM APARTMENT OR TOWNHOUSE USE: 4 UNITS
    D. MINIMUM DISTANCE BETWEEN BUILDINGS: 40 FEET
    E. MINIMUM DISTANCE FROM TRACT PERIMETER: 50 FEET
    F. MAXIMUM HEIGHT:
       (1) WITHIN 200 FEET OF EXISTING APARTMENT OR TOWNHOUSE USE: 32 FEET OR 2 STORIES
       (2) 200 FEET OR GREATER DISTANCE FROM APARTMENT OR TOWNHOUSE USE: 28 FEET OR 1.5 STORIES
    G. AGE-RESTRICTED APARTMENTS SHALL BE PERMITTED A COMMON ACTIVITY ROOM AND A COMMON LAUNDRY WITHIN THE CONFINES OF THE BUILDING.
    H. QUADRAPLEXES AND TOWNHOUSES MARKETED ON A FEE SIMPLE BASIS SHALL CONFORM TO THE LOT REQUIREMENTS OF §410.G.3 AND -.4, RESPECTIVELY.
    I. ANY OTHER STANDARD NOT MODIFIED HEREIN SHALL APPLY.

15. RESIDENTIAL BUILDING DESIGN STANDARDS
    A. ALL BUILDINGS SHALL BE SEPARATED BY A MINIMUM OF 25 FEET PROVIDED SUCH SEPARATION IS TO BE USED SOLELY FOR PEDESTRIAN CIRCULATION. ALL BUILDINGS SHALL BE SEPARATED BY A MINIMUM OF 50 FEET WHEN ANY PART OF SUCH SEPARATION IS TO BE USED FOR PARKING OR VEHICULAR CIRCULATION. HOWEVER, THE SEPARATION REQUIREMENTS SHOULD NOT BE CONSTRUED TO PROHIBIT COVERED PEDESTRIAN WALKWAYS WHEN THE ROOF OR COVERING OF SUCH WALKWAY EXTENDS BETWEEN THE BUILDINGS (§ 420.F.2) **(W)**
    B. WHERE APPROPRIATE, AGREEMENTS PROVIDING FOR CROSS ACCESS FOR PEDESTRIANS AND VEHICLES BETWEEN ADJACENT LOTS OR TRACTS SHALL BE PROVIDED TO REDUCE THE AMOUNT OF TRAFFIC ON ADJACENT ROADS (§ 420.F.6)
    C. APARTMENT BUILDINGS SHALL NOT EXCEED 240 LINEAL FEET THROUGH THE LONG AXIS OF THE BUILDING. LONGER BUILDINGS SHALL INTRODUCE AT LEAST A 135 DEGREE ANGLE AT THE INTERSECTION OF THE AXES BETWEEN DIFFERENT SEGMENTS OF THE BUILDING (§ 531.A.2)
    D. ACCESS TO ANY UNIT SHOULD NOT REQUIRE A VERTICAL ASCENT OF OVER TWO STORIES (§ 531.A.8) **(W)**

GENERAL NOTES (CONTINUED)

16. THE APPLICANT REQUESTS ANY AND ALL SUBMISSION WAIVERS THAT ARE NOT SPECIFICALLY IDENTIFIED HEREIN. TESTIMONY WILL BE SUPPLIED AT THE PUBLIC HEARING TO SUPPORT SAID SUBMISSION WAIVERS.

17. PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE TO MAKE SURE THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION OR FABRICATION SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWED ALL PLANS AND OTHER DOCUMENTS BY ALL OF THE PERMITTING AUTHORITIES.

18. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE REQUIREMENTS AND STANDARDS OF THE LOCAL GOVERNING AUTHORITY.

19. THE SOILS REPORT AND RECOMMENDATIONS SET FORTH THEREIN ARE A PART OF THE REQUIRED CONSTRUCTION DOCUMENTS AND IN CASE OF CONFLICT SHALL TAKE PRECEDENCE UNLESS SPECIFICALLY NOTED OTHERWISE ON THE PLANS. THE CONTRACTOR SHALL NOTIFY THE ENGINEER CONSTRUCTION MANAGER OF ANY DISCREPANCY BETWEEN SOILS REPORT & PLANS.

20. SITE CLEARING SHALL INCLUDE THE LOCATION AND REMOVAL OF ALL UNDERGROUND TANKS, PIPES, VALVES, ETC.

21. THE PROPERTY SURVEY SHALL BE CONSIDERED A PART OF THESE PLANS.

22. ALL DIMENSIONS SHOWN ON THE PLANS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY ENGINEER IF ANY DISCREPANCIES EXIST PRIOR TO PROCEEDING WITH CONSTRUCTION FOR NECESSARY PLAN CHANGES. NO EXTRA COMPENSATION SHALL BE PAID TO THE CONTRACTOR FOR WORK HAVING TO BE REDONE DUE TO DIMENSIONS OR GRADES SHOWN INCORRECTLY ON THESE PLANS IF SUCH NOTIFICATION HAS NOT BEEN GIVEN.

23. SOLID WASTE TO BE DISPOSED OF BY CONTRACTOR IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.

24. ALL EXCAVATED UNSUITABLE MATERIAL MUST BE TRANSPORTED TO AN APPROVED DISPOSAL LOCATION.

25. CONTRACTOR IS RESPONSIBLE FOR ALL SHORING REQUIRED DURING EXCAVATION AND SHALL BE PERFORMED IN ACCORDANCE WITH CURRENT OSHA STANDARDS, AS WELL AS ADDITIONAL PROVISIONS TO ASSURE STABILITY OF CONTIGUOUS STRUCTURES, AS FIELD CONDITIONS DICTATE.

26. ALL CONTRACTORS MUST CARRY STATUTORY WORKERS COMPENSATION, EMPLOYERS LIABILITY INSURANCE AND APPROPRIATE LIMITS OF COMMERCIAL GENERAL LIABILITY INSURANCE (CGL). ALL CONTRACTORS MUST HAVE THEIR CGL POLICIES ENDORSED TO NAME DYNAMIC ENGINEERING CONSULTANTS, P.C. , ITS SUBCONSULTANTS AS ADDITIONAL INSURED AND TO PROVIDE CONTRACTUAL LIABILITY COVERAGE SUFFICIENT TO INSURE THE HOLD HARMLESS AND INDEMNITY OBLIGATIONS ASSUMED BY THE CONTRACTORS. ALL CONTRACTORS MUST FURNISH DYNAMIC ENGINEERING CONSULTANTS, P.C. WITH CERTIFICATES OF INSURANCE AS EVIDENCE OF THE REQUIRED INSURANCE PRIOR TO COMMENCING WORK AND UPON RENEWAL OF EACH POLICY DURING THE ENTIRE PERIOD OF CONSTRUCTION. IN ADDITION, ALL CONTRACTORS WILL, TO THE FULLEST EXTENT PERMITTED BY LAW, INDEMNIFY AND HOLD HARMLESS DYNAMIC ENGINEERING CONSULTANTS, P.C. AND ITS SUBCONSULTANTS FROM AND AGAINST ANY DAMAGES, LIABILITIES OR COSTS, INCLUDING REASONABLE ATTORNEYS' FEES AND DEFENSE COSTS, ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE PROJECT, INCLUDING ALL CLAIMS BY EMPLOYEES OF THE CONTRACTORS.

27. NEITHER THE PROFESSIONAL ACTIVITIES OF DYNAMIC ENGINEERING CONSULTANTS, P.C., NOR THE PRESENCE OF DYNAMIC ENGINEERING CONSULTANTS, P.C. OR ITS EMPLOYEES AND SUBCONSULTANTS AT A CONSTRUCTION/PROJECT SITE, SHALL RELIEVE THE GENERAL CONTRACTOR OF ITS OBLIGATIONS, DUTIES AND RESPONSIBILITIES INCLUDING, BUT NOT LIMITED TO, CONSTRUCTION MEANS, METHODS, SEQUENCE, TECHNIQUES OR PROCEDURES NECESSARY FOR PERFORMING, SUPERINTENDING AND COORDINATING THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND ANY HEALTH OR SAFETY PRECAUTIONS REQUIRED BY ANY REGULATORY AGENCIES. DYNAMIC ENGINEERING CONSULTANTS, P.C. AND ITS PERSONNEL HAVE NO AUTHORITY TO EXERCISE ANY CONTROL OVER ANY CONSTRUCTION CONTRACTOR OR ITS EMPLOYEES IN CONNECTION WITH THEIR WORK OR ANY HEALTH OR SAFETY PROGRAMS OR PROCEDURES. THE GENERAL CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR JOBSITE SAFETY. DYNAMIC ENGINEERING CONSULTANTS, P.C. SHALL BE INDEMNIFIED BY THE GENERAL CONTRACTOR AND SHALL BE MADE ADDITIONAL INSURED UNDER THE GENERAL CONTRACTOR'S POLICIES OF GENERAL LIABILITY INSURANCE.

28. DYNAMIC ENGINEERING CONSULTANTS, P.C. SHALL REVIEW AND APPROVE OR TAKE OTHER APPROPRIATE ACTION ON THE CONTRACTOR SUBMITTALS, SUCH AS SHOP DRAWINGS, PRODUCT DATA, SAMPLES AND OTHER DATA, WHICH THE CONTRACTOR IS REQUIRED TO SUBMIT, BUT ONLY FOR THE LIMITED PURPOSE OF CHECKING FOR CONFORMANCE WITH THE DESIGN CONCEPT AND THE INFORMATION SHOWN IN THE CONSTRUCTION MEANS OR METHODS, COORDINATION OF THE WORK WITH OTHER TRADES OR CONSTRUCTION SAFETY PRECAUTIONS, ALL OF WHICH ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. DYNAMIC ENGINEERING'S REVIEW SHALL BE CONDUCTED WITH REASONABLE PROMPTNESS WHILE ALLOWING SUFFICIENT TIME TO PERMIT ADEQUATE REVIEW. REVIEW OF A SPECIFIC ITEM SHALL NOT INDICATE THAT DYNAMIC ENGINEERING CONSULTANTS, P.C. HAS REVIEWED THE ENTIRE ASSEMBLY OF WHICH THE ITEM IS A COMPONENT. DYNAMIC ENGINEERING CONSULTANTS, P.C. SHALL NOT BE RESPONSIBLE FOR ANY DEVIATIONS FROM THE CONSTRUCTION DOCUMENTS NOT BROUGHT TO THE ATTENTION OF DYNAMIC ENGINEERING CONSULTANTS, P.C. IN WRITING BY THE CONTRACTOR. DYNAMIC ENGINEERING CONSULTANTS, P.C. SHALL NOT BE REQUIRED TO REVIEW PARTIAL SUBMISSIONS OR THOSE FOR WHICH SUBMISSIONS OF CORRELATED ITEMS HAVE NOT BEEN RECEIVED.

29. IN AN EFFORT TO RESOLVE ANY CONFLICTS THAT ARISE DURING THE DESIGN AND CONSTRUCTION OF THE PROJECT OR FOLLOWING THE COMPLETION OF THE PROJECT, DYNAMIC ENGINEERING CONSULTANTS, P.C. AND THE CONTRACTOR MUST AGREE THAT ALL DISPUTES BETWEEN THEM ARISING OUT OF OR RELATING TO THIS AGREEMENT OR THE PROJECT SHALL BE SUBMITTED TO NONBINDING MEDIATION UNLESS THE PARTIES MUTUALLY AGREE OTHERWISE.

30. THE CONTRACTOR MUST INCLUDE A MEDIATION PROVISION IN ALL AGREEMENTS WITH INDEPENDENT SUBCONTRACTORS AND CONSULTANTS RETAINED FOR THE PROJECT AND TO REQUIRE ALL INDEPENDENT CONTRACTORS AND CONSULTANTS ALSO TO INCLUDE A SIMILAR MEDIATION PROVISION IN ALL AGREEMENTS WITH THEIR SUBCONTRACTORS, SUBCONSULTANTS, SUPPLIERS AND FABRICATORS, THEREBY PROVIDING FOR MEDIATION AS THE PRIMARY METHOD FOR DISPUTE RESOLUTION BETWEEN THE PARTIES TO ALL THOSE AGREEMENTS.

31. IF THE CONTRACTOR DEVIATES FROM THE PLANS AND SPECIFICATIONS, INCLUDING THE NOTES CONTAINED THEREON, WITHOUT FIRST OBTAINING PRIOR WRITTEN AUTHORIZATION FOR SUCH DEVIATIONS FROM THE OWNER AND ENGINEER, IT SHALL BE RESPONSIBLE FOR THE PAYMENT OF ALL COSTS TO CORRECT ANY WORK DONE, ALL FINES OR PENALTIES ASSESSED WITH RESPECT THERETO AND ALL COMPENSATORY OR PUNITIVE DAMAGES RESULTING THEREFROM AND IT SHALL INDEMNIFY AND HOLD THE OWNER AND ENGINEER HARMLESS FROM ALL SUCH COSTS TO CONNECT ANY SUCH WORK AND FROM ALL SUCH FINES AND PENALTIES, COMPENSATION AND PUNITIVE DAMAGES AND COSTS OF ANY NATURE RESULTING THEREFROM.

32. ALL TRAFFIC SIGNS AND STRIPING SHALL FOLLOW THE REQUIREMENTS SPECIFIED IN THE MANUAL ON "UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS" PUBLISHED BY THE FEDERAL HIGHWAY ADMINISTRATION.

33. THE BUILDING SETBACK DIMENSIONS ILLUSTRATED AND LISTED ON THE SITE PLAN DRAWINGS ARE MEASURED FROM THE OUTSIDE SURFACE OF BUILDING WALLS. THESE SETBACK DIMENSIONS DO NOT ACCOUNT FOR ROOF OVERHANGS, ORNAMENTAL ELEMENTS, SIGNAGE OR OTHER EXTERIOR EXTENSIONS UNLESS SPECIFICALLY NOTED.

34. CONTRACTOR ACKNOWLEDGES HE HAS READ AND UNDERSTOOD THE DESIGN PHASE SOIL PERMEABILITY AND GROUNDWATER TEST RESULTS IN THE STORMWATER MANAGEMENT REPORT AND THAT THE CONTRACTORS RESPONSIBILITIES INCLUDE NECESSARY PROVISIONS TO ACHIEVE THE DESIGN PERMEABILITY IN THE FIELD.

35. CONTRACTOR TO BE ADVISED THAT THE ENGINEER WAS NOT PROVIDED WITH FINAL FLOOR PLAN DRAWINGS FOR THE BUILDING AT THE TIME OF SITE PLAN DESIGN. AS A RESULT, ENTRANCE DOOR LOCATIONS AS DEPICTED HEREON MAY NOT BE FINAL AND MUST BE CONFIRMED WITH THE ARCHITECTURAL PLANS PRIOR TO CONSTRUCTION. THE HANDICAP ACCESSIBLE PARKING SPACES AND THE ASSOCIATED RAMPS AND ACCESSIBLE ROUTE MUST COMPLY WITH NJAC 5:23-7 AND THE HANDICAP PARKING SPACES MUST BE LOCATED AS THE NEAREST SPACES TO THE ENTRANCE. CONTRACTOR TO NOTIFY OWNER AND ENGINEER IMMEDIATELY OF ANY DISCREPANCY PRIOR TO CONSTRUCTION.

DEMOLITION NOTES

1. ALL DEMOLITION ACTIVITIES ARE TO BE PERFORMED IN STRICT ADHERENCE TO ALL FEDERAL, STATE AND LOCAL REGULATIONS.
2. PROCEED WITH DEMOLITION IN A SYSTEMATIC MANNER, FROM THE TOP OF THE STRUCTURE(S) TO THE GROUND.
3. COMPLETE DEMOLITION WORK ABOVE EACH FLOOR OR TIER BEFORE DISTURBING ANY OF THE SUPPORTING MEMBERS OF THE LOWER LEVELS.
4. DEMOLISH CONCRETE AND MASONRY IN SMALL SECTIONS.
5. REMOVE STRUCTURAL FRAMING MEMBERS AND LOWER THEM TO THE GROUND BY MEANS OF HOISTS, DERRICKS OR OTHER SUITABLE METHODS.
6. BREAK UP CONCRETE SLABS-ON-GRADE, UNLESS OTHERWISE DIRECTED BY OWNER.
7. LOCATE DEMOLITION EQUIPMENT THROUGHOUT THE STRUCTURE AND REMOVE MATERIALS SO AS TO NOT IMPOSE EXCESSIVE LOADS ON SUPPORTING WALLS, FLOORS, OR FRAMING.
8. PROVIDE INTERIOR AND EXTERIOR SHORING, BRACING AND SUPPORTS TO PREVENT MOVEMENT, SETTLEMENT OR COLLAPSE OF STRUCTURES TO BE DEMOLISHED (AND ADJACENT FACILITIES, IF APPLICABLE).
9. DEMOLISH AND REMOVE ALL FOUNDATION WALLS, FOOTINGS AND OTHER MATERIALS WITHIN THE AREA OF THE DESIGNATED FUTURE BUILDING. ALL OTHER FOUNDATION SYSTEMS, INCLUDING BASEMENTS, SHALL BE DEMOLISHED TO A DEPTH OF NOT LESS THAN ONE FOOT BELOW PROPOSED PAVEMENT OR, BREAK BASEMENT FLOOR SLABS. SEAL ALL OPEN UTILITY LINES WITH CONCRETE. CONTRACTOR TO REVIEW STRUCTURE PRIOR TO DEMOLITION TO DETERMINE IF BASEMENT, CRAWL SPACE OR ANY SUB-STRUCTURE EXISTS. ANY SUB-STRUCTURE, INCLUDING BASEMENTS SHALL BE REMOVED IN ITS ENTIRETY OR AS DIRECTED BY OWNER.
10. ERECT AND MAINTAIN COVERED PASSAGEWAYS IN ORDER TO PROVIDE SAFE PASSAGE FOR PERSONS AROUND THE AREA OF DEMOLITION. CONDUCT ALL DEMOLITION OPERATIONS IN A MANNER THAT WILL PREVENT DAMAGE AND PERSONAL INJURY TO STRUCTURES, ADJACENT BUILDINGS AND ALL PERSONS.
11. REFRAIN FROM USING ANY EXPLOSIVES WITHOUT PRIOR WRITTEN CONSENT OF OWNER AND APPLICABLE GOVERNMENTAL AUTHORITIES.
12. CONDUCT DEMOLITION SERVICES IN SUCH A MANNER TO ENSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, WALKS AND OTHER ADJACENT FACILITIES. DO NOT CLOSE OR OBSTRUCT STREETS, WALKS, OR OTHER OCCUPIED FACILITIES WITHOUT PRIOR WRITTEN PERMISSION OF OWNER AND ANY APPLICABLE GOVERNMENTAL AUTHORITIES. PROVIDE ALTERNATE ROUTES AROUND CLOSED OR OBSTRUCTED TRAFFIC WAYS, IF REQUIRED BY APPLICABLE GOVERNMENTAL REGULATIONS.
13. USE WATERING, TEMPORARY ENCLOSURES AND OTHER SUITABLE METHODS, AS NECESSARY TO LIMIT THE AMOUNT OF DUST AND DIRT RISING AND SCATTERING IN THE AIR. CLEAN ADJACENT STRUCTURES AND IMPROVEMENTS OF ALL DUST AND DEBRIS CAUSED BY THE DEMOLITION OPERATIONS. RETURN ALL ADJACENT AREAS TO THE CONDITIONS EXISTING PRIOR TO THE START OF WORK.
14. ACCOMPLISH AND PERFORM THE DEMOLITION IN SUCH A MANNER AS TO PREVENT THE UNAUTHORIZED ENTRY OF PERSONS AT ANY TIME.
15. COMPLETELY FILL BELOW GRADE AREAS AND VOIDS RESULTING FROM THE DEMOLITION OF STRUCTURES AND FOUNDATIONS WITH SOIL MATERIALS IN ACCORDANCE WITH THE GEOTECHNICAL REPORT, CONSISTING OF STONE, GRAVEL AND SAND, FREE FROM DEBRIS, TRASH, FROZEN MATERIALS, ROOTS AND OTHER ORGANIC MATTER. STONES USED WILL NOT BE LARGER THAN 6 INCHES IN DIMENSION. MATERIAL FROM DEMOLITION MAY NOT BE USED AS FILL. PRIOR TO PLACEMENT OF FILL MATERIALS, UNDERTAKE ALL NECESSARY ACTION IN ORDER TO ENSURE THAT AREAS TO BE FILLED ARE FREE OF STANDING WATER, FROST, FROZEN MATERIAL, TRASH, DEBRIS. PLACE FILL MATERIALS IN HORIZONTAL LAYERS NOT EXCEEDING 6 INCHES IN LOOSE DEPTH AND COMPACT EACH LAYER AT PLACEMENT TO 95% OPTIMUM DENSITY. GRADE THE SURFACE TO MEET ADJACENT CONTOURS AND TO PROVIDE SURFACE DRAINAGE.
16. REMOVE FROM THE DESIGNATED SITE, AT THE EARLIEST POSSIBLE TIME, ALL DEBRIS, RUBBISH, SALVAGEABLE ITEMS, HAZARDOUS AND COMBUSTIBLE SERVICES. REMOVED MATERIALS MAY NOT BE STORED, SOLD OR BURNED ON THE SITE. REMOVAL OF HAZARDOUS AND COMBUSTIBLE MATERIALS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE PROCEDURES AS AUTHORIZED BY THE FIRE DEPARTMENT OR OTHER APPROPRIATE REGULATORY AGENCIES AND AUTHORITIES.
17. DISCONNECT, SHUT OFF AND SEAL IN CONCRETE ALL UTILITIES SERVING THE STRUCTURE(S) TO BE DEMOLISHED BEFORE THE COMMENCEMENT OF THE DESIGNATED DEMOLITION. MARK FOR POSITION ALL UTILITY DRAINAGE AND SANITARY LINES AND PROTECT ALL ACTIVE LINES. CLEARLY IDENTIFY BEFORE THE COMMENCEMENT OF DEMOLITION SERVICES THE REQUIRED INTERRUPTION OF ACTIVE SYSTEMS THAT MAY AFFECT OTHER PARTIES, AND NOTIFY ALL APPLICABLE UTILITY COMPANIES TO ENSURE THE CONTINUATION OF SERVICE.
18. THIS DEMOLITION PLAN IS INTENDED TO IDENTIFY THOSE EXISTING CONDITIONS WHICH ARE TO BE REMOVED. IT IS NOT INTENDED TO PROVIDE DIRECTION OTHER THAN THAT ALL PROCEDURES ARE TO BE IN ACCORDANCE WITH STATE, FEDERAL, LOCAL, AND JURISDICTIONAL REQUIREMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAFETY PRECAUTIONS NECESSARY.

NOTES

1. IN ACCORDANCE WITH STATE LAW, THE CONTRACTOR SHALL BE REQUIRED TO CALL THE BOARD OF PUBLIC UTILITIES ONE CALL DAMAGE PROTECTION SYSTEM OR UTILITY MARK OUT IN ADVANCE OF ANY EXCAVATION.
2. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL EXISTING SITE IMPROVEMENTS AND UTILITIES. ALL DISCREPANCIES SHALL BE IDENTIFIED TO THE ENGINEER IN WRITING.
3. ALL EXISTING UTILITIES TO BE ABANDONED SHALL BE DISCONNECTED AND CAPPED AT THE MAIN FOR WATER, AT THE CLEAN-OUT FOR SEWER AND THE SHUT-OFF VALVE OR MAIN FOR GAS IN ACCORDANCE WITH MUNICIPAL AND LOCAL UTILITY REQUIREMENTS.
4. ALL EXISTING DEBRIS SHALL BE REMOVED BY CONTRACTOR IN ACCORDANCE WITH MUNICIPAL AND LOCAL UTILITY COMPANY REQUIREMENTS.

PLANTING NOTES

1. PLANT MATERIAL SHALL BE FURNISHED AND INSTALLED AS INDICATED; INCLUDING ALL LABOR, MATERIALS, PLANTS, EQUIPMENT, INCIDENTALS, AND CLEAN-UP.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PLANTING AT CORRECT GRADES AND ALIGNMENT. LAYOUT TO BE APPROVED BY LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
3. PLANTS SHALL BE TYPICAL OF THEIR SPECIES AND VARIETY; HAVE NORMAL GROWTH HABITS; WELL DEVELOPED BRANCHES, DENSELY FOLIATED, VIGOROUS ROOT SYSTEMS AND BE FREE FROM DEFECTS AND INJURIES.
4. CONTRACTOR SHALL REPORT ANY SOIL OR DRAINAGE CONDITIONS CONSIDERED DETRIMENTAL TO THE GROWTH OF PLANT MATERIAL.
5. ALL PLANT MATERIAL SHALL BE GUARANTEED BY THE CONTRACTOR TO BE IN VIGOROUS GROWING CONDITION. PROVISION SHALL BE MADE FOR A GROWTH GUARANTEE OF AT LEAST ONE (1) YEAR FROM THE DATE OF ACCEPTANCE FOR TREES AND SHRUBS. REPLACEMENTS SHALL BE MADE AT THE BEGINNING OF THE FIRST SUCCEEDING PLANTING SEASON. ALL REPLACEMENTS SHALL HAVE A GUARANTEE EQUAL TO THAT STATED ABOVE.
6. INSOFAR AS IT IS PRACTICABLE, PLANT MATERIAL SHALL BE PLANTED ON THE DAY OF DELIVERY. IN THE EVENT THIS IS NOT POSSIBLE, THE CONTRACTOR SHALL PROTECT STOCK NOT PLANTED. PLANTS SHALL NOT REMAIN UNPLANTED FOR LONGER THAN A THREE DAY PERIOD AFTER DELIVERY. ANY PLANTS NOT INSTALLED DURING THIS PERIOD WILL BE REJECTED.
7. QUALITY AND SIZE OF PLANTS, SPREAD OF ROOTS, AND SIZE OF BALLS SHALL BE IN ACCORDANCE WITH ANSI Z60.1 (REV. 2001) "AMERICAN STANDARD FOR NURSERY STOCK" AS PUBLISHED BY THE AMERICAN NURSERY & LANDSCAPE ASSOCIATION.
8. ALL PLANTS SHALL BE PLANTED IN AMENDED TOPSOIL THAT IS THOROUGHLY WATERED AND TAMPED AS BACK FILLING PROGRESSES. PLANTING MIX TO BE AS SHOWN ON PLANTING DETAILS. LARGE PLANTING AREAS TO INCORPORATE FERTILIZER AND SOIL CONDITIONERS AS STATED IN PLANTING SPECIFICATIONS.
9. PLANTS SHALL NOT BE BOUND WITH WIRE OR ROPE AT ANY TIME SO AS TO DAMAGE THE BARK OR BREAK BRANCHES. PLANTS SHALL BE HANDLED FROM THE BOTTOM OF THE BALL ONLY.
10. PLANTING OPERATIONS SHALL BE PERFORMED DURING PERIODS WITHIN THE PLANTING SEASON WHEN WEATHER AND SOIL CONDITIONS ARE SUITABLE AND IN ACCORDANCE WITH ACCEPTED LOCAL PRACTICE. PLANTS SHALL NOT BE INSTALLED IN TOPSOIL THAT IS IN A MUDDY OR FROZEN CONDITION. ALL PLANT MATERIAL SHALL BE SPRAYED WITH 'WILT-PRUF' OR EQUAL AS PER MANUFACTURER'S INSTRUCTIONS.
11. NO PLANT, EXCEPT GROUND COVERS, SHALL BE PLANTED LESS THAN TWO FEET FROM EXISTING STRUCTURES AND SIDEWALKS.
12. SET ALL PLANTS PLUMB AND STRAIGHT. SET AT SUCH LEVEL THAT, A NORMAL OR NATURAL RELATIONSHIP TO THE CROWN OF THE PLANT WITH THE GROUND SURFACE WILL BE ESTABLISHED. LOCATE PLANT IN THE CENTER OF THE PIT.
13. ALL INJURED ROOTS SHALL BE PRUNED TO MAKE CLEAN ENDS BEFORE PLANTING UTILIZING CLEAN, SHARP TOOLS. IT IS ADVISABLE TO PRUNE APPROXIMATELY 1/3 OF THE GROWTH OF LARGE TREES (2" CALIPER AND OVER) BY THE REMOVAL OF SUPERFLUOUS BRANCHES, THOSE WHICH CROSS, THOSE WHICH RUN PARALLEL, ETC. MAIN LEADER OF TREES WILL NOT BE CUT BACK. LONG SIDE BRANCHES, HOWEVER, MUST BE SHORTENED.
14. EACH TREE AND SHRUB SHALL BE PRUNED IN ACCORDANCE WITH STANDARD HORTICULTURAL PRACTICE TO PRESERVE NATURAL CHARACTER OF PLANT. PRUNING SHALL BE DONE WITH CLEAN, SHARP TOOLS.
15. ALL EXISTING TREES TO REMAIN SHALL BE PRUNED TO REMOVE ANY DAMAGED BRANCHES AS A RESULT OF CONSTRUCTION OPERATIONS. ALL EXISTING TREES SHALL BE FERTILIZED WITH A REGULAR GARDEN FERTILIZER (5-10-5) UPON COMPLETION OF WORK. THE ENTIRE LIMB OF ANY DAMAGED BRANCH SHALL BE CUT OFF AT THE TRUNK. CONTRACTOR TO ENSURE THAT CUTS ARE SMOOTH AND STRAIGHT. ANY EXPOSED ROOTS SHALL BE CUT BACK WITH SHARP TOOLS AND FILLED AROUND WITH TOPSOIL. COMPLETELY SATURATE THESE AREAS WITH WATER. ROOTS SHALL NOT BE LEFT EXPOSED FOR MORE THAN ONE (1) DAY. CONTRACTOR IS TO PROTECT ALL EXISTING TREES TO REMAIN BY ERECTING TREE PROTECTION FENCE AT THE DRIP LINE. THIS WILL ENSURE NO COMPACTION OF THE ROOT MASS.
16. ALL PLANTING BEDS SHALL BE MULCHED WITH 4" LAYER OF DOUBLE SHREDDED HARDWOOD BARK MULCH.
17. NEW PLANTING AREAS AND SOD SHALL BE ADEQUATELY IRRIGATED OR WATERED TO ESTABLISH THE PROPOSED PLANTS AND LAWN.
18. PRIOR TO THE ISSUANCE OF ANY CERTIFICATE OF OCCUPANCY, THE PROPOSED LANDSCAPE AS SHOWN ON THE APPROVED LANDSCAPE PLAN MUST BE INSTALLED, INSPECTED AND APPROVED BY THE MUNICIPAL LANDSCAPE ARCHITECT. THE MUNICIPAL ENGINEER AND LANDSCAPE ARCHITECT SHALL TAKE INTO ACCOUNT SEASONAL CONSIDERATIONS IN THIS REGARD AS FOLLOWS. THE PLANTING OF TREES, SHRUBS, VINES OR GROUND COVER AS REQUIRED BY OR ASSOCIATED WITH A SUBDIVISION OR SITE PLAN APPROVAL BY THE PLANNING BOARD OR ZONING BOARD OF ADJUSTMENT SHALL BE INSTALLED DURING THE FOLLOWING PLANTING SEASONS:

TYPE	DATES
PLANTS	3/15 TO 12/15
LAWN	3/15 TO 6/15
	9/15 TO 12/1

    FURTHERMORE, THE FOLLOWING TREE VARIETIES SHALL NOT BE PLANTED DURING THE FALL PLANTING SEASON DUE TO THE HAZARDS ASSOCIATED WITH DIGGING THESE TREES IN THIS SEASON.

ACER RUBRUM	POPULUS VARIETIES
BETULA VARIETIES	PRUNUS VARIETIES
CARPINUS VARIETIES	PYRUS VARIETIES
CRATAEGUS VARIETIES	QUERCUS VARIETIES
KOELREUTERIA	SALIX WEEPING VARIETIES
LIQUIDAMBAR STYRACIFLUA	TILIA TOMENTOSA
LIRIODENDRON TULIPIFERA	ZELKOVA VARIETIES
PLATANUS ACERFOLIA	

    ANY PLANTINGS INSTALLED IN CONFLICT WITH THIS REQUIREMENT MUST RECEIVE THE WRITTEN APPROVAL BY THE MUNICIPAL ENGINEER OR LANDSCAPE ARCHITECT, PRIOR TO PLANTING. FAILURE TO COMPLY WITH THESE REQUIREMENTS WILL REQUIRE THE REMOVAL OF THE PLANTING IN QUESTION. THIS REQUIREMENT DOES NOT APPLY TO SEEDING OR SODDING OR PLANTINGS SPECIFICALLY FOR SOIL STABILIZATION PURPOSES. THE PLANTING ASSOCIATED WITH ANY LOT GIVEN A CERTIFICATE OF OCCUPANCY OUTSIDE THESE PERIODS SHALL BE PROVIDED DURING THE PREVIOUS OR NEXT APPROPRIATE SEASON.
19. ALL DISTURBED AREAS TO BE TREATED WITH TOPSOIL SEED SOD STABILIZATION METHOD.

PLANTING SPECIFICATIONS

1. SCOPE OF WORK
   A. THIS WORK SHALL CONSIST OF PERFORMING, CLEARING AND SOIL PREPARATION, FINISH GRADING, PLANTING AND DRAINAGE, INCLUDING ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, AND ANY OTHER APPURTENANCES NECESSARY FOR THE COMPLETION OF THIS PROJECT.
2. MATERIALS
   A. GENERAL – ALL MATERIALS SHALL MEET OR EXCEED SPECIFICATIONS AS OUTLINED IN THE STATE DEPARTMENT OF TRANSPORTATION (D.O.T.) MANUAL OF ROADWAY AND BRIDGE CONSTRUCTION (LATEST EDITION) OR APPROVED EQUAL.
   B. PLANTS – ALL PLANTS SHALL BE HEALTHY OR NORMAL GROWTH, WELL ROOTED, FREE FROM DISEASE AND INSECTS.
   C. TOPSOIL – LOAMY SILT, HAVING AN ORGANIC CONTENT NOT LESS THAN 5%, pH RANGE BETWEEN 4.5 – 7, BE FREE OF DEBRIS, ROCKS LARGER THAN TWO INCHES (2"), WOOD, ROOTS, VEGETABLE MATTER AND CLAY CLODS.
   D. MULCH – FOUR (4") INCHES DOUBLE SHREDDED HARDWOOD BARK MULCH.
3. FERTILIZER AND SOIL CONDITIONER – PLANTED AREAS
   A. ORGANIC FERTILIZER – SHALL BE PROCESSED SEWER SLUDGE WITH MINIMAL CONTENT OF 1% NITROGEN AND 2% PHOSPHORIC ACID, EQUAL TO 'NITROHUMIS'.
   B. ORGANIC FERTILIZER AND SOIL CONDITIONER – SHALL BE 'GRO- POWER' AND ORGANIC BASE MATERIALS COMPRISED OF DECOMPOSED ANIMAL AND VEGETABLE MATTER AND COMPOSTED TO SUPPORT BACTERIAL CULTURES, CONTAINING NO POULTRY OR HUMAN WASTE. GUARANTEED ANALYSIS (5-3-1): NITROGEN 5%. PHOSPHATE 3%, POTASH 1%. 50% HUMUS AND 15% HUMIC ACIDS.
4. GENERAL WORK PROCEDURES
   A. LANDSCAPE WORK SHALL COMMENCE AS SOON AS THOSE PORTIONS OF THE SITE ARE AVAILABLE. CONTRACTOR TO UTILIZE WORKMANLIKE STANDARDS IN PERFORMING ALL LANDSCAPE CONSTRUCTION. THE SITE IS TO BE LEFT IN A CLEAN STATE AT THE END OF EACH DAY'S WORK. ALL DEBRIS, MATERIALS, AND TOOLS SHALL BE PROPERLY STOCKPILED OR DISPOSED OF. ALL PAVED SURFACES SHALL BE SWEPT CLEAN AT THE END OF EACH DAYS WORK.
5. WEEDING
   A. BEFORE AND DURING PRELIMINARY GRADING AND FINISH GRADING, ALL WEEDS AND GRASSES SHALL BE DUG OUT BY THE ROOTS AND DISPOSED OF AT THE CONTRACTOR'S EXPENSE.
6. TOPSOILING
   A. CONTRACTOR TO PROVIDE A 4" THICK TOPSOIL LAYER IN ALL PLANTING AREAS. TOPSOIL SHOULD BE SPREAD OVER A PREPARED SURFACE IN A UNIFORM LAYER TO PRODUCE A 4" UNSETTLED THICKNESS. TOPSOIL PRESENT AT THE SITE, IF ANY, MAY BE USED TO SUPPLEMENT TOTAL AMOUNT REQUIRED. CONTRACTOR TO FURNISH AN ANALYSIS OF ON-SITE TOPSOIL UTILIZED IN ALL PLANTING AREAS. ADJUST pH AND NUTRIENT LEVELS AS REQUIRED TO ENSURE AN ACCEPTABLE GROWING MEDIUM.
7. SOIL CONDITIONING:
   A. CULTIVATE ALL AREAS TO BE PLANTED TO A DEPTH OF 6". ALL DEBRIS EXPOSED FROM EXCAVATION AND CULTIVATION SHALL BE DISPOSED OF AT THE CONTRACTOR'S EXPENSE. SPREAD EVENLY IN ALL PLANTING AREAS AND TILL (2 DIRECTIONS) INTO TOP 4" WITH THE FOLLOWING PER 1,000 SQ. FT.:
      20 POUNDS 'GRO-POWER'
      100 POUNDS AGRICULTURAL GYPSUM
      20 POUNDS NITROFORM (COURSE) 38-0-0 BLUE CHIP

   SOIL MODIFICATIONS:
   A. THOROUGHLY TILL ORGANIC MATTER INTO THE TOP 6 TO 12 IN. OF MOST PLANTING SOILS TO IMPROVE THE SOIL'S ABILITY TO RETAIN WATER AND NUTRIENTS. USE COMPOSTED BARK, RECYCLED YARD WASTE OR PEAT MOSS. ALL PRODUCTS SHOULD BE COMPOSTED TO A DARK COLOR AND BE FREE OF PIECES WITH IDENTIFIABLE LEAF OR WOOD STRUCTURE. AVOID MATERIAL WITH A pH HIGHER THAN 7.5.
   B. MODIFY HEAVY CLAY OR SILT (MORE THAN 40% CLAY OR SILT) BY ADDING COMPOSTED PINE BARK (UP TO 30% BY VOLUME) AND/OR GYPSUM. COARSE SAND MAY BE USED IF ENOUGH IS ADDED TO BRING THE SAND CONTENT TO MORE THAN 60% OF THE TOTAL MIX. IMPROVE DRAINAGE IN HEAVY SOILS BY PLANTING ON RAISED MOUNDS OR BEDS AND INCLUDING SUBSURFACE DRAINAGE LINES.
   C. MODIFY EXTREMELY SANDY SOILS (MORE THAN 85% SAND) BY ADDING ORGANIC MATTER AND/OR DRY, SHREDDED CLAY LOAM UP TO 30% OF THE TOTAL MIX.
8. PLANTING
   POSITION TREES AND SHRUBS AT THEIR INTENDED LOCATIONS AS PER THE PLANS AND SECURE THE APPROVAL OF THE LANDSCAPE ARCHITECT BEFORE EXCAVATING PITS, MAKING NECESSARY ADJUSTMENTS AS DIRECTED.
   A. PLANTING PITS SHALL BE DUG WITH LEVEL BOTTOMS, WITH THE WIDTH TWICE THE DIAMETER OF ROOT BALL. THE ROOT BALL SHALL REST ON UNDISTURBED GRADE. EACH PLANT PIT SHALL BE BACK FILLED WITH THE FOLLOWING PREPARED SOIL MIXED THOROUGHLY:
      1 PART PEAT MOSS BY VOLUME
      1 PART COW MANURE BY VOLUME
      3 PARTS TOPSOIL BY VOLUME
      21 GRAM 'AGRIFORM' PLANTING TABLETS AS FOLLOWS:
         2 TABLETS PER 1 GAL. PLANT
         3 TABLETS PER 5 GAL. PLANT
         4 TABLETS PER 15 GAL. PLANT
         LARGER PLANTS (2) TWO TABLETS PER 1/2" DIAM. OF TRUNK CALIPER
   B. PREPARED SOIL SHALL BE TAMPED FIRMLY AT BOTTOM OF PIT. FILL PREPARED SOIL AROUND BALL OF PLANT 1/2 WAY, AND INSERT PLANT TABLETS. COMPLETE BACK FILL AND WATER THOROUGHLY.
   C. ALL PLANTS SHALL BE SET SO THAT, THEY BEAR THE SAME RELATION TO THE REQUIRED GRADE AS THEY BORE TO THE NATURAL GRADE BEFORE BEING TRANSPLANTED.
   D. PREPARE RAISED EARTH BASIN AS WIDE AS PLANTING HOLE OF EACH TREE.
   E. WATER IMMEDIATELY AFTER PLANTING. WATER SHALL BE APPLIED TO EACH TREE AND SHRUB IN SUCH MANNER AS NOT TO DISTURB BACK FILL AND TO THE EXTENT THAT ALL MATERIALS IN THE PLANTING HOLE ARE THOROUGHLY SATURATED.
   F. PRUNE ALL PROPOSED TREES DIRECTLY ADJACENT TO WALKWAYS TO A MIN. OF 7' BRANCHING HEIGHT.
9. GROUND COVER
   A. ALL GROUND COVER AREAS SHALL RECEIVE A 1/4" LAYER OF HUMUS RAKED INTO THE TOP 1" OF PREPARED SOIL PRIOR TO PLANTING GROUND COVER.
   B. SPACING AND VARIETY OF GROUND COVER SHALL BE AS SHOWN ON DRAWINGS.
   C. IMMEDIATELY AFTER PLANTING GROUND COVER, CONTRACTOR SHALL THOROUGHLY WATER GROUND COVER.
   D. ALL GROUND COVER AREAS SHALL BE TREATED WITH A PRE-EMERGENT BEFORE FINAL LANDSCAPE INSPECTION. GROUND COVER AREAS SHALL BE WEEDED PRIOR TO APPLYING PRE-EMERGENT. PRE-EMERGENT TO BE APPLIED AS PER MANUFACTURER'S RECOMMENDATION.
10. FINISH GRADING
    A. ALL AREAS WILL BE RECEIVED BY THE CONTRACTOR AT SUBSTANTIALLY PLUS/MINUS .1 FOOT OF FINISH GRADE.
    B. ALL LAWN AND PLANTING AREAS SHALL BE GRADED TO A SMOOTH, EVEN AND UNIFORM PLANE WITH NO ABRUPT CHANGE OF SURFACE, UNLESS OTHERWISE DIRECTED BY LANDSCAPE ARCHITECT. SOIL AREAS ADJACENT TO THE BUILDINGS SHALL SLOPE AWAY.
    C. ALL PLANTING AREAS SHALL BE GRADED AND MAINTAINED TO ALLOW FREE FLOW OF SURFACE WATER.
11. GUARANTEE
    A. CONTRACTOR SHALL GUARANTEE ALL PLANTS FOR A PERIOD OF ONE (1) YEAR FROM ACCEPTANCE OF JOB. OWNER TO SECURE A MAINTENANCE BOND FROM THE CONTRACTOR FOR TEN PERCENT (10%) OF THE VALUE OF THE LANDSCAPE INSTALLATION WHICH WILL BE RELEASED AT THE COMMENCEMENT OF THE GUARANTEE PERIOD AND PASSES A FINAL INSPECTION BY THE OWNER OR OWNERS REPRESENTATIVE.
12. CLEANUP
    A. UPON THE COMPLETION OF ALL PLANTING WORK AND BEFORE FINAL ACCEPTANCE, THE CONTRACTOR SHALL REMOVE ALL MATERIAL, EQUIPMENT, AND DEBRIS RESULTING FROM HIS WORK. ALL PAVED AREAS SHALL BE BROOM CLEANED AND THE SITE LEFT IN A NEAT AND ACCEPTABLE CONDITION AS APPROVED BY THE OWNER'S AUTHORIZED REPRESENTATIVE.
    B. MAINTAIN TREES, SHRUBS AND OTHER PLANTS BY PRUNING, CULTIVATING AND WEEDING AS REQUIRED FOR HEALTHY GROWTH. RESTORE PLANTING SAUCERS. TIGHTEN AND REPAIR STAKE AND GUY SUPPORTS AND RESET TREES AND SHRUBS TO PROPER GRADES OR VERTICAL POSITION AS REQUIRED. RESTORE OR REPLACE DAMAGED WRAPPINGS. SPRAY WITH HERBICIDE AS REQUIRED TO KEEP TREES AND SHRUBS FREE OF INSECTS AND DISEASE.
    C. MAINTAIN LAWNS BY WATERING, FERTILIZING, WEEDING, MOWING, TRIMMING, AND OTHER OPERATIONS SUCH AS ROLLING, REGRADING AND REPLANTING AS REQUIRED TO ESTABLISH A SMOOTH, ACCEPTABLE LAWN, FREE OF ERODED OR BARE AREAS.
13. MAINTENANCE (ALTERNATE BID) COST PER MONTH AFTER INITIAL 90-DAY MAINTENANCE PERIOD.

MUNICIPAL, COUNTY, STATE AND MUA DETAILS TO SUPERCEDE DYNAMIC ENGINEERING DETAILS WHERE APPLICABLE

UTILITY NOTES

1. LOCATION OF ALL EXISTING AND PROPOSED SERVICES ARE APPROXIMATE AND MUST BE CONFIRMED INDEPENDENTLY WITH LOCAL UTILITY COMPANIES PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION OR EXCAVATION. SANITARY SEWER AND ALL OTHER UTILITY SERVICE CONNECTION POINTS SHALL BE CONFIRMED INDEPENDENTLY BY THE CONTRACTOR IN FIELD PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. ALL DISCREPANCIES SHALL BE REPORTED IMMEDIATELY IN WRITING TO THE ENGINEER. CONSTRUCTION SHALL COMMENCE BEGINNING AT THE LOWEST INVERT (POINT OF CONNECTION) AND PROGRESS UP GRADIENT. INTERFACE POINTS (CROSSINGS) WITH EXISTING UNDERGROUND UTILITIES SHALL BE FIELD VERIFIED BY TEST PIT PRIOR TO COMMENCEMENT OF CONSTRUCTION.
2. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY UTILITY "ONE-CALL" NUMBER 72 HOURS PRIOR TO ANY EXCAVATION ON THIS SITE. CONTRACTOR SHALL ALSO NOTIFY LOCAL WATER & SEWER DEPARTMENTS TO MARK OUT THEIR UTILITIES.
3. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT BUILDING UTILITY CONNECTION LOCATIONS. WHERE CONFLICTS EXIST WITH THESE SITE PLANS, ENGINEER IS TO BE NOTIFIED PRIOR TO CONSTRUCTION TO RESOLVE SAME. SERVICE SIZES TO BE DETERMINED BY ARCHITECT.
4. WATER SERVICE MATERIALS SHALL BE SPECIFIED BY THE LOCAL UTILITY COMPANY. CONTRACTORS PRICE FOR WATER SERVICE SHALL INCLUDE ALL FEES AND APPURTENANCES REQUIRED BY THE UTILITY TO PROVIDE A COMPLETE WORKING SERVICE.
5. ALL WATER MAIN SHALL BE CEMENT-LINED, CLASS 52 DUCTILE IRON PIPE, UNLESS OTHERWISE DESIGNATED.
6. THE MINIMUM DIAMETER FOR DOMESTIC WATER SERVICES SHALL BE 1 INCH.
7. SEWER MAINS SHALL BE SEPARATED FROM WATER MAINS BY A DISTANCE OF AT LEAST 10 FEET HORIZONTALLY. WHERE THIS IS NOT POSSIBLE, THE PIPES SHALL BE IN SEPARATE TRENCHES WITH THE SEWER MAIN AT LEAST 18 INCHES BELOW THE WATER MAIN. ALL SEWER MAINS SHALL BE SDR-35 PVC PIPE UNLESS OTHERWISE DESIGNATED.
8. ALL SEWER PIPE INSTALLED WITH LESS THAN 3 FEET OF COVER, GREATER THAN 20 FEET OF COVER OR WITHIN 18 INCHES OF A WATER MAIN SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE. ALL DUCTILE IRON SEWER PIPE SHALL BE CEMENT-LINED, CLASS 52 PIPE, FURNISHED WITH SEWER COAT, OR APPROVED EQUAL.
9. WHERE SANITARY SEWER LATERALS ARE GREATER THAN 10' DEEP AT CONNECTION TO THE SEWER MAIN, CONCRETE DEEP LATERAL CONNECTIONS ARE TO BE UTILIZED.
10. LOCATION & LAYOUT OF GAS, ELECTRIC & TELECOMMUNICATION UTILITY LINES AND SERVICES SHOWN ON THESE PLANS ARE SCHEMATIC IN NATURE. ACTUAL LOCATION & LAYOUT OF THESE UTILITIES & SERVICES ARE TO BE PER THE APPROPRIATE UTILITY PROVIDER.
11. ROOF LEADER COLLECTION PIPING ARE CONCEPTUAL IN NATURE AND ARE NOT FOR CONSTRUCTION. ACTUAL ROOF LEADER COLLECTION PIPING IS TO BE COORDINATED W/ ARCHITECTURAL PLANS FOR EACH INDIVIDUAL BUILDING. ALL ROOF LEADER COLLECTION PIPING SHALL BE SCHEDULE 40 PVC UNLESS OTHERWISE DESIGNATED.
12. ALL SEWER AND WATER FACILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE REGULATORY AUTHORITY'S RULES AND REGULATIONS.
13. ALL PROPOSED UTILITIES TO BE INSTALLED UNDERGROUND UNLESS OTHERWISE NOTED.
14. MANUFACTURED REINFORCED CONCRETE STORM PIPE TO CONFORM TO ASTM C-76, CLASS III, UNLESS OTHERWISE DESIGNATED. MANUFACTURED REINFORCED CONCRETE ELLIPTICAL STORM PIPE TO CONFORM TO ASTM C-507, CLASS HE-III, UNLESS OTHERWISE DESIGNATED. REINFORCED CONCRETE STORMWATER PIPE TO BE INSTALLED IN ACCORDANCE WITH AMERICAN CONCRETE PIPE ASSOCIATION INSTALLATION GUIDELINES AND MORTAR OR PREFORMED FLEXIBLE JOINT SEALANTS IN ACCORDANCE WITH ASTM C 990 TO BE UTILIZED TO PROVIDE A SILT-TIGHT JOINT. WHERE SPECIFICALLY INDICATED, REINFORCED CONCRETE STORM PIPE JOINTS SHALL BE WATERTIGHT AND CONFORM TO ASTM C-443.
15. HDPE DRAINAGE PIPE SHALL HAVE A SMOOTH WALL INTERIOR WITH ANNULAR EXTERIOR CORRUGATIONS AND CONFORM TO ASTM F2306. SOLID PIPE SHALL HAVE GASKETED WATER-TIGHT JOINTS MEETING THE REQUIREMENTS OF ASTM F2306 AND ASTM D3212. PERFORATED PIPE SHALL HAVE GASKETED SILT-TIGHT JOINTS MEETING THE REQUIREMENTS OF ASTM F2306 AND ASTM F477. HDPE PIPE SHALL BE FROM A MANUFACTURER WHO IS AN EASTERN STATES CONSORTIUM (ESC) QUALIFIED MANUFACTURER OF HDPE PIPE AND INSTALLED IN ACCORDANCE WITH PIPE MANUFACTURE RECOMMENDATIONS.
16. HP DRAINAGE PIPE SHALL HAVE A SMOOTH WALL INTERIOR WITH ANNULAR EXTERIOR CORRUGATIONS AND CONFORM TO ASTM F2736 (12"-30" PIPE) AND ASTM F2881 (36"-60" PIPE). PIPE SHALL HAVE GASKETED WATER-TIGHT JOINTS MEETING THE REQUIREMENTS OF ASTM D3212 AND ASTM F477. FIELD WATERTIGHTNESS PERFORMANCE VERIFICATION MAY BE ACCOMPLISHED IN ACCORDANCE WITH ASTM F2487. HP PIPE SHALL BE FROM A MANUFACTURER WHO IS AN EASTERN STATES CONSORTIUM (ESC) QUALIFIED MANUFACTURER OF HP STORM PIPE AND INSTALLED IN ACCORDANCE WITH PIPE MANUFACTURER RECOMMENDATIONS.
17. PIPE LENGTHS ON THIS PLAN HAVE BEEN MEASURED AS THE DISTANCE BETWEEN THE CENTER POINT OF THE 2 CONNECTED STRUCTURES. ACTUAL PHYSICAL PIPE LENGTH FOR INSTALLATION IS EXPECTED TO BE LESS AND SHOULD BE ACCOUNTED FOR BY THE CONTRACTOR ACCORDINGLY.

EXISTING UTILITY NOTES

EXISTING WATER SERVICE NOTE: CONTRACTOR TO LOCATE AND UTILIZE EXISTING WATER SERVICE CONNECTION IF FEASIBLE. OTHERWISE REMOVE EXISTING WATER SERVICE LINE AND CAP AT MAIN IN R.O.W. IN ACCORDANCE WITH THE LOCAL WATER COMPANY REQUIREMENTS. TERMINATION AT THE MAIN MUST BE APPROVED BY THE LOCAL WATER COMPANY PRIOR TO COMPLETION. IF THE EXISTING WATER SERVICE CAN NOT BE UTILIZED, THE NEW SERVICE IS TO BE COORDINATED AND VERIFIED FOR LOCATION WITH THE LOCAL WATER COMPANY. CONTRACTOR SHALL OBTAIN ALL REQUIRED STREET OPENING PERMITS FOR REMOVAL OF EXISTING SERVICE AND INSTALLATION OF NEW SERVICE.

EXISTING GAS SERVICE NOTE: CONTRACTOR TO LOCATE AND UTILIZE EXISTING GAS SERVICE CONNECTION IF FEASIBLE. OTHERWISE REMOVE EXISTING GAS SERVICE LINE AND CAP AT MAIN IN R.O.W. IN ACCORDANCE WITH THE LOCAL GAS COMPANY REQUIREMENTS. TERMINATION AT THE MAIN MUST BE APPROVED BY THE LOCAL GAS COMPANY PRIOR TO COMPLETION. ANY NEW SERVICE IS TO BE COORDINATED AND VERIFIED FOR LOCATION WITH THE LOCAL GAS COMPANY. THE CONTRACTOR SHALL OBTAIN ALL REQUIRED STREET OPENING PERMITS FOR REMOVAL OF EXISTING SERVICE AND INSTALLATION OF NEW SERVICE.

SANITARY SEWER SERVICE NOTE: CONTRACTOR TO LOCATE AND UTILIZE EXISTING SEWER SERVICE CONNECTION IF OF ADEQUATE SIZE AND INTEGRITY AND ACCEPTABLE TO LOCAL SEWER AUTHORITY. OTHERWISE CONTRACTOR TO REMOVE EXISTING SEWER SERVICE LINE AND CAP AT MAIN IN R.O.W. IN ACCORDANCE WITH THE LOCAL SEWER AUTHORITY REQUIREMENTS. TERMINATION AT THE MAIN MUST BE APPROVED BY THE LOCAL SEWER AUTHORITY PRIOR TO COMPLETION. IF EXISTING SEWER SERVICE CAN NOT BE UTILIZED THEN THE NEW SERVICE IS TO BE COORDINATED AND VERIFIED FOR LOCATION WITH THE LOCAL SEWER AUTHORITY. CONTRACTOR SHALL OBTAIN ALL REQUIRED STREET OPENING PERMITS FOR REMOVAL OF EXISTING SERVICE AND INSTALLATION OF NEW SERVICE.

GRADING NOTES

1. SITE GRADING SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH IN THE SOILS REPORT REFERENCED IN THIS PLAN SET. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND REPLACING ALL SOFT, YIELDING OR UNSUITABLE MATERIALS AND REPLACING WITH SUITABLE MATERIALS AS SPECIFIED IN THE SOILS REPORT. ALL EXCAVATED OR FILLED AREAS SHALL BE COMPACTED TO 95% OF MODIFIED PROCTOR MAXIMUM DENSITY PER A.S.T.M. TEST D-1557. MOISTURE CONTENT AT TIME OF PLACEMENT SHALL NOT EXCEED 2% ABOVE NOR 3% BELOW OPTIMUM. CONTRACTOR SHALL SUBMIT A COMPACTION REPORT PREPARED BY A QUALIFIED SOILS ENGINEER, REGISTERED WITHIN THE STATE WHERE THE WORK IS PERFORMED, VERIFYING THAT ALL FILLED AREAS AND SUBGRADE AREAS WITHIN THE BUILDING PAD AREA AND AREAS TO BE PAVED HAVE BEEN COMPACTED IN ACCORDANCE WITH THESE PLANS AND SPECS AND THE RECOMMENDATIONS SET FORTH IN THE SOILS REPORT.
2. CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF EXISTING TOPOGRAPHIC INFORMATION AND UTILITY INVERT ELEVATIONS PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR TO ENSURE 0.75% MIN. SLOPE AGAINST ALL ISLAND GUTTERS, CURBS AND 1.0% ON ALL CONCRETE SURFACES, AND 1-1/2% MIN. ON ASPHALT, TO PREVENT PONDING. ANY DISCREPANCIES THAT MAY EFFECT THE PUBLIC SAFETY OR PROJECT COST, MUST BE IDENTIFIED TO THE ENGINEER IN WRITING IMMEDIATELY. PROCEEDING WITH CONSTRUCTION WITH DESIGN DISCREPANCIES IS DONE SO AT THE CONTRACTOR'S OWN RISK.
3. PROPOSED TOP OF CURB ELEVATIONS ARE GENERALLY 6" ABOVE EXISTING LOCAL ASPHALT GRADE UNLESS OTHERWISE NOTED. FIELD ADJUST TO CREATE A MIN. OF 0.75% GUTTER GRADE ALONG CURB FACE. ENGINEER TO APPROVE FINAL CURBING CUT SHEETS PRIOR TO INSTALLATION.
4. SUBBASE MATERIAL FOR SIDEWALKS, CURB, OR ASPHALT SHALL BE FREE OF ORGANICS AND OTHER UNSUITABLE MATERIALS. SHOULD SUBBASE BE DEEMED UNSUITABLE, SUBBASE IS TO BE REMOVED AND FILLED WITH APPROVED FILL MATERIAL COMPACTED TO 95% OPTIMUM DENSITY (AS DETERMINED BY MODIFIED PROCTOR METHOD).
5. REFER TO SITE PLAN FOR ADDITIONAL NOTES.
6. IN CASE OF DISCREPANCIES BETWEEN PLANS, THE SITE PLAN WILL SUPERCEDE IN ALL CASES. CONTRACTOR MUST NOTIFY ENGINEER OF RECORD OF ANY CONFLICT IMMEDIATELY.
7. MAXIMUM CROSS SLOPE OF 2% ON ALL SIDEWALKS.
8. CONTRACTOR TO ENSURE A MAXIMUM OF 2% SLOPE IN ALL DIRECTIONS IN ADA PARKING SPACES AND ADA ACCESS AISLES. CONTRACTOR TO ENSURE A MAXIMUM OF 5% RUNNING SLOPE AND 2% CROSS SLOPE ALONG ALL OTHER PORTIONS OF ACCESSIBLE ROUTE, WITH THE EXCEPTION OF RAMPS AND CURB RAMPS. CONTRACTOR SHALL CLARIFY ANY QUESTIONS CONCERNING CONSTRUCTION IN ADA AREAS WITH THE ENGINEER PRIOR TO THE START OF CONSTRUCTION.
9. THE OWNER SHALL RETAIN DYNAMIC EARTH, LLC (908-879-7095) OR ALTERNATE QUALIFIED GEOTECHNICAL ENGINEER TO TEST SOIL PERMEABILITY AND PROVIDE CONSTRUCTION PHASE INSPECTIONS OF THE BASIN BOTTOM SOILS AND ANY FILL MATERIALS WITHIN ANY PROPOSED INFILTRATION OR RETENTION BASIN TO COMPARE RESULTS TO DESIGN CRITERIA.
10. CONTRACTOR IS TO REMOVE EXISTING UNSUITABLE OR OVERLY COMPACT SOIL OR ROCK AS NEEDED TO ACHIEVE REQUIRED PERMEABILITY AS DIRECTED BY THE OWNERS GEOTECHNICAL ENGINEER, AND NEW FILL, IF NEEDED, SHALL HAVE AN IN PLACE PERMEABILITY GREATER THAN OR EQUAL TO THE DESIGN CRITERIA.
11. CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE OWNER'S GEOTECHNICAL ENGINEER PRIOR TO ONSET OF CONSTRUCTION TO SUBMIT AND CONFIRM THE CONTRACTOR'S PROPOSED MEANS AND MATERIALS AND TO SCHEDULE INSPECTIONS FOR BOTTOM OF BASIN, REMOVAL OF UNSUITABLE SOIL, FILL PLACEMENT, AND FINAL BASIN PERMEABILITY TESTING.
12. THE CONTRACTOR IS RESPONSIBLE FOR AS-BUILT PLANS AND GRADE CONTROL UNLESS DEFINED OTHERWISE ELSEWHERE IN THE CONTRACT DOCUMENTS.

THIS PLAN SET IS FOR PERMITTING PURPOSES ONLY AND MAY NOT BE USED FOR CONSTRUCTION

Rev.	Date	Comments	By
1	10/07/20	REV. PER TOWNSHIP COMMENTS	GMC

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Newtown, Pennsylvania T: 267.685.0276 | Delray Beach, Florida T: 561.921.8570

TITLE: GENERAL NOTES

PROJECT: **RPM DEVELOPMENT, LLC**
PROPOSED RESIDENTIAL DEVELOPMENT
BLOCK 2001, LOTS 3, 60–66, & 68
2495 BRUNSWICK PIKE (A.K.A. ALT ROUTE 1)
TOWNSHIP OF LAWRENCE, MERCER COUNTY, NEW JERSEY

JOB No:	1279-99-010
DATE:	04/15/2020
DRAWN BY:	GMC
SCALE:	(H) NOT TO (V) SCALE
DESIGNED BY:	LPG
CHECKED BY:	TJM
CHECKED BY:	–
SHEET No:	3 OF 23
Rev. #	1

JOHN A. PALUS
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 41975

THOMAS J. MULLER
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 52179

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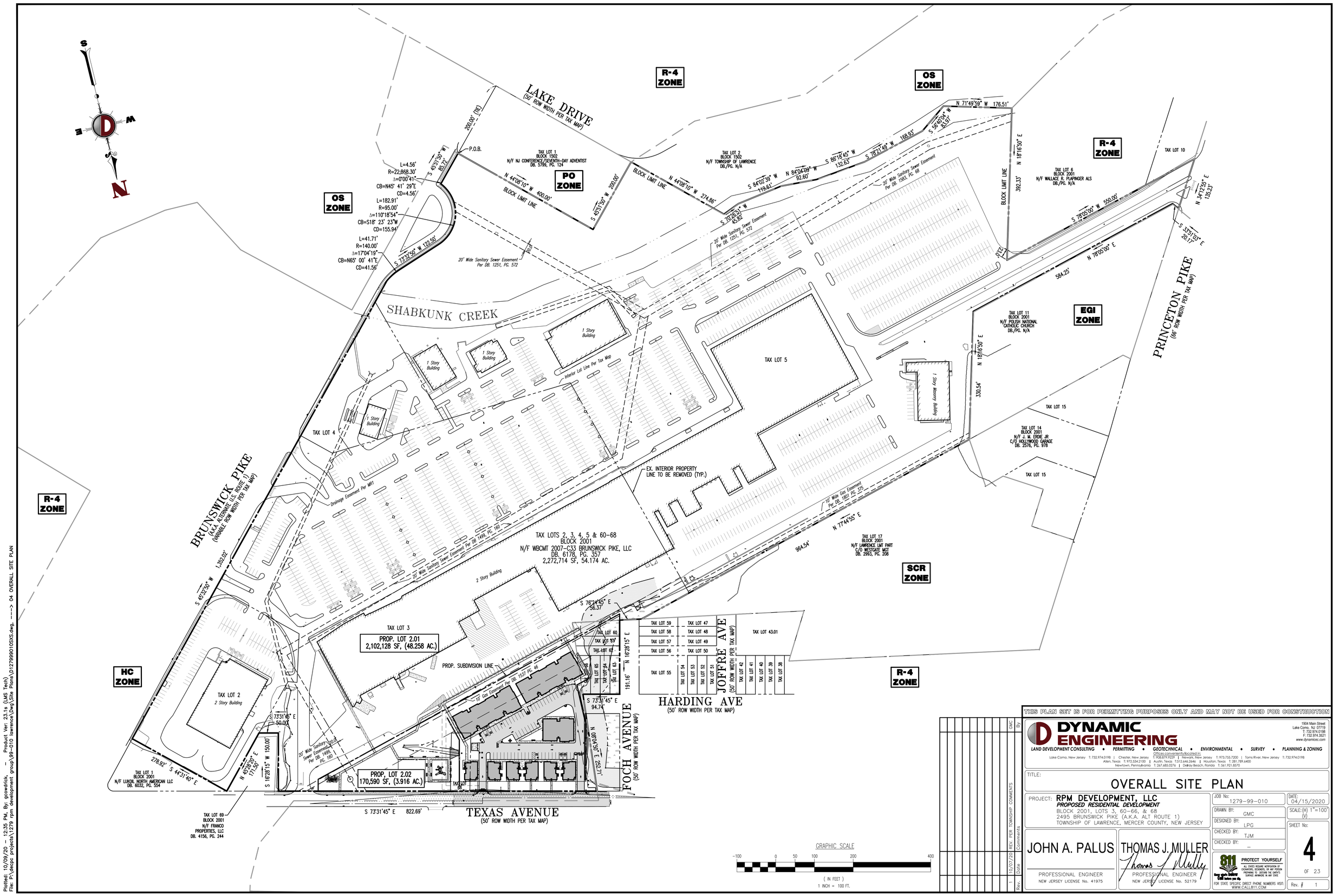
File: P:\decpc projects\1279 rpm development group\99-010 lawrence\Dwg\Site Plans\D127999010SD1.dwg, ---> 03 GENERAL NOTES



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TITLE:

OVERALL SITE PLAN

PROJECT: **RPM DEVELOPMENT, LLC**
PROPOSED RESIDENTIAL DEVELOPMENT
BLOCK 2001, LOTS 3, 60-66, & 68
2495 BRUNSWICK PIKE (A.K.A. ALT ROUTE 1)
TOWNSHIP OF LAWRENCE, MERCER COUNTY, NEW JERSEY

JOB No:	1279-99-010
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DRAWN BY:	GMC
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SHEET No:	4 OF 23
Rev. #	1

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Plotted: 10/09/20 – 12:35 PM, By: gcwdrick, – Product Ver: 23.1s (LMS Tech)
File: P:\decpc projects\1279 rpm development group\99-010 lawrence\Dwg\Site Plans\D1279990105XS.dwg, ----> 04 OVERALL SITE PLAN

DEMOLITION PLAN LEGEND

(heavy dashed line)	– PROPOSED LIMIT OF DISTURBANCE LINE
—TPF—TPF—	– PROPOSED TREE PROTECTION FENCE LINE
(hatch)	– EXISTING IMPROVEMENTS TO BE REMOVED UNLESS OTHERWISE NOTED
(symbol)	– TREES TO REMAIN
(symbol)	– TREES TO BE REMOVED
(symbol)	– TREES TO BE TRANSPLANTED/RELOCATED

LIMIT OF DISTURBANCE = 157,093 SF. (3.606 Ac.)

GRAPHIC SCALE
-30 0 15 30 60 120
(IN FEET)
1 INCH = 30 FT.

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1	10/07/20	REV. PER TOWNSHIP COMMENTS	GMC

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1904 Main Street
Lake Como, NJ 07719
T: 732.974.0198
F: 732.974.3521
www.dynamicec.com

TITLE:
DEMOLITION PLAN

PROJECT: **RPM DEVELOPMENT, LLC**
PROPOSED RESIDENTIAL DEVELOPMENT
BLOCK 2001, LOTS 3, 60–66, & 68
2495 BRUNSWICK PIKE (A.K.A. ALT ROUTE 1)
TOWNSHIP OF LAWRENCE, MERCER COUNTY, NEW JERSEY

JOB No: 1279–99–010
DATE: 04/15/2020
DRAWN BY: GMC
SCALE: (H) 1"=30' (V)
DESIGNED BY: LPG
CHECKED BY: TJM
CHECKED BY: –
SHEET No: 5 OF 23
Rev. # 1

JOHN A. PALUS
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 41975

THOMAS J. MULLER
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 52179

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Plotted: 10/09/20 – 1:45 PM, By: gcowdrick, – Product Ver: 23.1s (LMS Tech)
File: P:\decpc projects\1279 rpm development group\99-010 lawrence\Dwg\Site Plans\D127999010SR1.dwg, ---> 05 DEMOLITION PLAN

GRAPHIC SCALE

-30 0 15 30 60 120

(IN FEET)
1 INCH = 30 FT.

BULK CHART

ZONE REQUIREMENT	ZONE HC	R-4 ZONE	EXISTING	PROPOSED LOT 2.01	PROPOSED LOT 2.02
MINIMUM LOT AREA	40,000 SF	60,000 SF	2,272,718 SF (52.17 Ac)	2,102,128 SF (48.26 Ac)	170,590 SF (3.92 Ac)
MINIMUM LOT FRONTAGE	200 FT	150 FT	135.2 FT **(E)**	135.2 FT **(E)**	720.0 FT
MINIMUM LOT WIDTH	200 FT	N/S	1,530.4 FT	1,530.4 FT	716.3 FT
MINIMUM LOT DEPTH [1]	175 FT	N/S	278.7 FT	470.2 FT	243.8 FT
MINIMUM FRONT YARD SETBACK [2]	25 FT	50 FT	104.4 FT	104.4 FT	25.2 FT
MINIMUM SIDE YARD SETBACK [2]	25 FT	40 FT	46.5 FT	46.5 FT	32.6 FT **(V)**
MINIMUM REAR YARD SETBACK [2]	60 FT	50 FT	68.2 FT	119.2 FT	25.0 FT **(V)**
MAXIMUM FLOOR AREA RATIO	[6]	0.50	0.16 (365,340 SF)	0.17 (365,340 SF)	0.51 (87,283 SF) **(V)**
MAXIMUM IMPERVIOUS SURFACE RATIO	[7]	N/S	0.69 (1,564,553 SF)	0.74 (1,564,553 SF)	0.48 (81,534 SF)
MAXIMUM BUILDING HEIGHT	35 FT	35 FT	33.6 FT	33.6 FT	39.8 FT **(V)**
MINIMUM SIDE YARD SETBACK (ACCESSORY BUILDING)	20 FT	N/A	194.6 FT	194.6 FT	N/A
MINIMUM REAR YARD SETBACK (ACCESSORY BUILDING)	20 FT	N/A	17.7 FT **(E)**	17.7 FT **(V)**	N/A
MINIMUM DISTANCE TO OTHER BUILDING (ACCESSORY BUILDING) [3]	25 FT	N/A	N/A	N/A	18.0 FT **(V)**
MINIMUM DISTANCE TO OTHER BUILDING (ACCESSORY BUILDING) [4]	50 FT	N/A	19.4 FT **(E)**	19.4 FT **(E)**	N/A
MAXIMUM HEIGHT (ACCESSORY BUILDING)	20 FT	N/A	< 20 FT	< 20 FT	N/A
MINIMUM USABLE YARD AREA	N/S	20% EACH YARD	N/S	N/S	55.2% (94,209 SF)
N/S: NO STANDARD N/A: NOT APPLICABLE (E): EXISTING NON-CONFORMANCE (V): VARIANCE					

[1] LOT DEPTH: THE SHORTEST HORIZONTAL DISTANCE BETWEEN THE FRONT LOT LINE AND A LINE DRAWN PARALLEL TO THE FRONT LOT LINE THROUGH THE MIDPOINT OF THE REAR LOT LINE. (§201)
[2] ANY REQUIRED YARD OR REQUIRED SETBACK SHALL BE MEASURED FROM THE CLOSEST EDGE OF ANY BUFFER REQUIRED BY THE DELAWARE AND RARITAN CANAL COMMISSION. (§400.C.4)

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TITLE:
SITE PLAN

PROJECT: **RPM DEVELOPMENT, LLC**
PROPOSED RESIDENTIAL DEVELOPMENT
BLOCK 2001, LOTS 3, 60-66, & 68
2495 BRUNSWICK PIKE (A.K.A. ALT ROUTE 1)
TOWNSHIP OF LAWRENCE, MERCER COUNTY, NEW JERSEY

JOB No: 1279-99-010
DATE: 04/15/2020
DRAWN BY: GMC
SCALE: (H) 1"=30' (V)
DESIGNED BY: LPG
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CHECKED BY: –

JOHN A. PALUS
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SHEET No: 6 OF 23
Rev. # 1

Plotted: 10/09/20 – 1:44 PM, By: gcowdrick, – Product Ver: 23.1s (LMS Tech)
File: P:\DECPC PROJECTS\1279 RPM Development Group\99-010 Lawrence\Dwg\Site Plans\D1279990105XS.dwg, ---> 06 SITE PLAN

GRADING/UTILITY GRAPHIC LEGEND

- PROPERTY LINE (PARCEL IN QUESTION)
- OFF-SITE PROPERTY LINES
- EXIST. GUY WIRE
- EXIST. LIGHT POLE
- EXIST. BUILDING LIGHT
- EXIST. SHOE BOX LIGHT
- EXIST. COBRA LIGHT POLE
- EXIST. TRAFFIC SIGNAL POLE
- EXIST. MANHOLE
- EXIST. "A" INLET
- EXIST. "B" INLET
- EXIST. "E" INLET
- EXIST. YARD INLET
- EXIST. FLARED END SECTION
- EXIST. HEADWALL
- EXIST. UTILITY POLE
- EXIST. MONITORING WELL
- APPROX. TEST PIT LOCATION
- EXIST. FIRE HYDRANT
- EXIST. WATER VALVE
- EXIST. GAS VALVE
- EXIST. GAS METER
- EXIST. ELECTRIC METER
- EXIST. ELECTRIC BOX
- EXIST. CLEAN OUT
- EXIST. WELL
- EXIST. WATER SHUT OFF VALVE
- EXIST. TELEPHONE BOX
- EXIST. CABLE TV BOX
- PROP. HEADWALL
- PROP. WATER VALVE
- PROP. GAS VALVE
- PROP. STORM CLEANOUT
- PROP. SANITARY CLEANOUT
- PROP. AREA LIGHT
- PROP. OUTLET CONTROL STRUCTURE
- PROP. DRAINAGE MANHOLE
- PROP. SANITARY SEWER MANHOLE
- PROP. 'A' INLET
- PROP. 'B' INLET
- PROP. 'E' INLET
- PROP. YARD INLET
- PROP. FLARED END SECTION
- EXIST. CABLE LINE
- PROP. CABLE LINE
- EXIST. ELECTRIC LINE
- PROP. ELECTRIC LINE
- EXIST. FIBER OPTIC LINE
- PROP. FIBER OPTIC LINE
- EXIST. GAS LINE
- PROP. GAS LINE
- EXIST. OVERHEAD WIRES
- PROP. OVERHEAD WIRES
- EXIST. TELEPHONE LINE
- PROP. TELEPHONE LINE
- EXIST. WATER LINE
- PROP. WATER LINE
- EXIST. UNDERGROUND ELEC./TELE. SERVICE (NO. & SIZE OF CONDUITS NOT DEFINED)
- PROP. UNDERGROUND ELEC./TELE. SERVICE (NO. & SIZE OF CONDUITS NOT DEFINED)
- EXIST. SANITARY SEWER LINE
- PROP. SANITARY SEWER LINE
- EXIST. STORM DRAIN LINE
- PROP. STORM DRAIN LINE
- EXIST. MINOR CONTOUR & ELEVATION
- EXIST. MAJOR CONTOUR & ELEVATION
- PROP. FINISH GRADE CONTOUR & ELEVATION
- PROP. DIRECTION OF DRAINAGE FLOW ARROW
- × 8.9 EXIST. SPOT ELEVATIONS
- × G: 8.90 EXIST. GUTTER ELEV.
- × TC: 8.90 EXIST. TOP OF CURB ELEV.
- × FF: 8.90 EXIST. FINISH FLOOR ELEV.
- × GF: 8.90 EXIST. GARAGE FLOOR ELEV.
- G: 000.00 PROP. GRADE SPOT ELEV.
- TC: 000.00 G: 000.00 PROP. TOP OF CURB & FINISHED GRADE ELEV.
- FF: 000.00 PROP. FINISHED FLOOR ELEV.
- TW: 000.00 GL: 000.00 PROP. TOP OF WALL & FINISHED GRADE @ LOW SIDE OF WALL (ACTUAL BOTTOM OF WALL FOOTING TO BE ESTABLISHED BY WALL DESIGNER)
- TC: 000.00 GH: 000.00 GL: 000.00 PROP. TOP OF EXTENDED CURB, (GH) FINISHED GRADE @ HIGH SIDE OF EXTENDED CURB & (GL) FINISHED GRADE @ LOW SIDE OF EXTENDED CURB

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TITLE:

GRADING PLAN

PROJECT: **RPM DEVELOPMENT, LLC**
PROPOSED RESIDENTIAL DEVELOPMENT
BLOCK 2001, LOTS 3, 60-66, & 68
2495 BRUNSWICK PIKE (A.K.A. ALT ROUTE 1)
TOWNSHIP OF LAWRENCE, MERCER COUNTY, NEW JERSEY

JOB No:	1279-99-010
DATE:	04/15/2020
DRAWN BY:	GMC
SCALE:	(H) 1"=30' (V)
DESIGNED BY:	LPG
CHECKED BY:	TJM
CHECKED BY:	–
SHEET No:	7 OF 23
Rev. #	1

JOHN A. PALUS
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NEW JERSEY LICENSE No. 41975

THOMAS J. MULLER
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Plotted: 10/09/20 – 12:56 PM, By: areyes, – Product Ver: 23.1s (LMS Tech)
File: P:\decpc projects\1279 rpm development group\99-010 lawrence\Dwg\Site Plans\D127999010SXG.dwg, ---> 07 GRADING PLAN

PIPE CROSSINGS

PIPE CROSSING X1
36" RCP: BOP: 57.23
6" PVC: TOP: 54.60
SEPARATION: 2.63'

PIPE CROSSING X2 W/ CONC. ENCASEMENT
15" RCP: BOP: 61.53
30" RCP: TOP: 61.04
SEPARATION: 0.50'

PIPE CROSSING X3
15" RCP: BOP: 62.1
4" PVC: TOP: 54.49
SEPARATION: 7.61'

GRAPHIC SCALE

−30 0 15 30 60 120

(IN FEET)
1 INCH = 30 FT.

GRADING/UTILITY GRAPHIC LEGEND

PROPERTY LINE (PARCEL IN QUESTION)
OFF-SITE PROPERTY LINES

EXIST. GUY WIRE
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EXIST. BUILDING LIGHT
EXIST. SHOE BOX LIGHT
EXIST. COBRA LIGHT POLE
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EXIST. "B" INLET
EXIST. "E" INLET
EXIST. YARD INLET
EXIST. FLARED END SECTION
EXIST. HEADWALL
EXIST. UTILITY POLE

EXIST. MONITORING WELL
APPROX. TEST PIT LOCATION
EXIST. FIRE HYDRANT
EXIST. WATER VALVE
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EXIST. GAS METER
EXIST. ELECTRIC METER
EXIST. ELECTRIC BOX
EXIST. CLEAN OUT
EXIST. WELL
EXIST. WATER SHUT OFF VALVE
EXIST. TELEPHONE BOX
EXIST. CABLE TV BOX
PROP. HEADWALL

PROP. WATER VALVE
PROP. GAS VALVE
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PROP. DRAINAGE MANHOLE
PROP. SANITARY SEWER MANHOLE
PROP. 'A' INLET
PROP. 'B' INLET
PROP. 'E' INLET
PROP. YARD INLET
PROP. FLARED END SECTION

EXIST. CABLE LINE
PROP. CABLE LINE
EXIST. ELECTRIC LINE
PROP. ELECTRIC LINE
EXIST. FIBER OPTIC LINE
PROP. FIBER OPTIC LINE
EXIST. GAS LINE
PROP. GAS LINE
EXIST. OVERHEAD WIRES
PROP. OVERHEAD WIRES
EXIST. TELEPHONE LINE
PROP. TELEPHONE LINE
EXIST. WATER LINE
PROP. WATER LINE

EXIST. UNDERGROUND ELEC./TELE. SERVICE (NO. & SIZE OF CONDUITS NOT DEFINED)
PROP. UNDERGROUND ELEC./TELE. SERVICE (NO. & SIZE OF CONDUITS NOT DEFINED)
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PROP. SANITARY SEWER LINE
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PROP. STORM DRAIN LINE
EXIST. MINOR CONTOUR & ELEVATION
EXIST. MAJOR CONTOUR & ELEVATION
PROP. FINISH GRADE CONTOUR & ELEVATION
PROP. DIRECTION OF DRAINAGE FLOW ARROW

EXIST. SPOT ELEVATIONS
EXIST. GUTTER ELEV.
EXIST. TOP OF CURB ELEV.
EXIST. FINISH FLOOR ELEV.
EXIST. GARAGE FLOOR ELEV.
PROP. GRADE SPOT ELEV.
PROP. TOP OF CURB & FINISHED GRADE ELEV.
PROP. FINISHED FLOOR ELEV.
PROP. TOP OF WALL & FINISHED GRADE @ LOW SIDE OF WALL (ACTUAL BOTTOM OF WALL FOOTING TO BE ESTABLISHED BY WALL DESIGNER)
PROP. TOP OF EXTENDED CURB, (GH) FINISHED GRADE @ HIGH SIDE OF EXTENDED CURB & (GL) FINISHED GRADE @ LOW SIDE OF EXTENDED CURB

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Newtown, Pennsylvania T: 267.685.0276 | Delray Beach, Florida T: 561.921.8570

TITLE:
DRAINAGE & UTILITY PLAN

PROJECT: **RPM DEVELOPMENT, LLC**
PROPOSED RESIDENTIAL DEVELOPMENT
BLOCK 2001, LOTS 3, 60–66, & 68
2495 BRUNSWICK PIKE (A.K.A. ALT ROUTE 1)
TOWNSHIP OF LAWRENCE, MERCER COUNTY, NEW JERSEY

JOB No: 1279–99–010
DATE: 04/15/2020
DRAWN BY: GMC
SCALE: (H) 1"=30' (V)
DESIGNED BY: LPG
CHECKED BY: TJM
CHECKED BY: –
SHEET No: 8 OF 23
Rev. # 1

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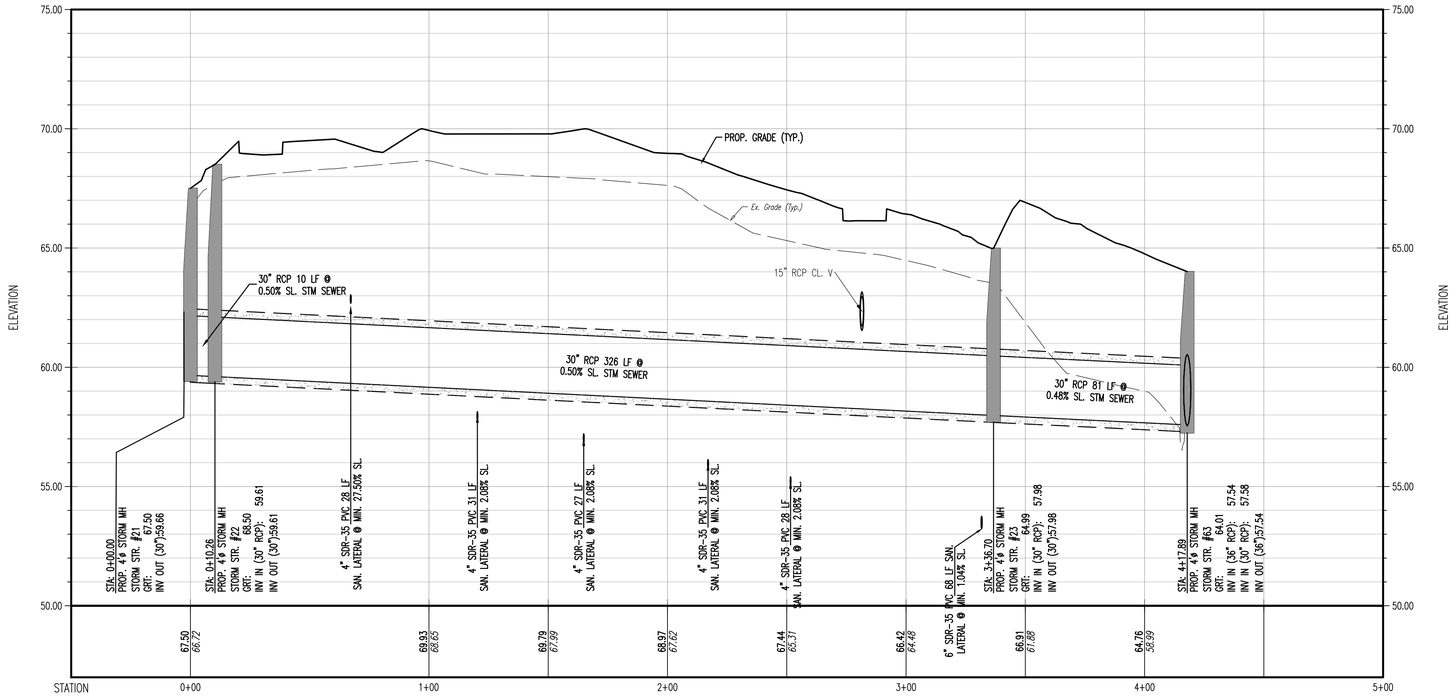
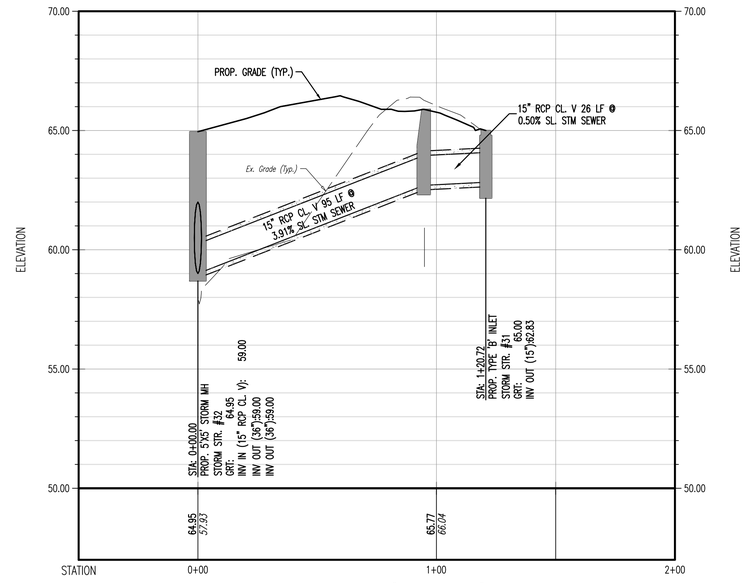
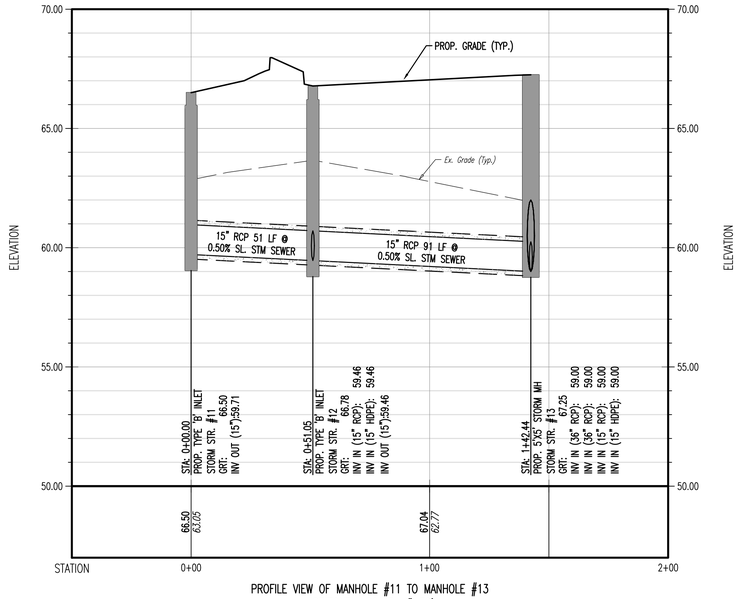
File: P:\decpc projects\1279 rpm development group\99–010 lawrence\Dwg\Site Plans\D127999010SU1.dwg, ---> DRAINAGE & UTILITY PLAN



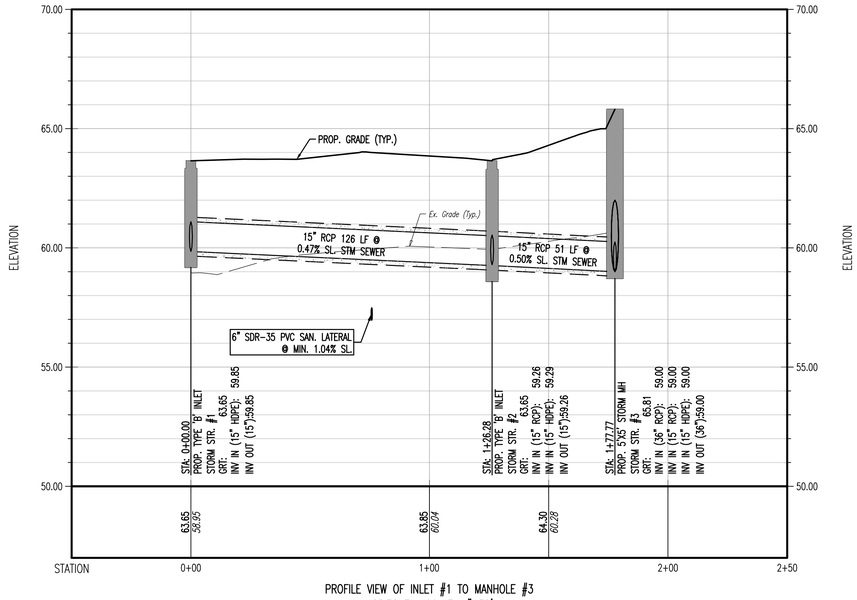
PROFILE VIEW OF MANHOLE #21 TO MANHOLE #63
HORIZONTAL SCALE: 1"=30'
VERTICAL SCALE: 1"=3'



PROFILE VIEW OF MANHOLE #31 TO MANHOLE #32
HORIZONTAL SCALE: 1"=30'
VERTICAL SCALE: 1"=3'



PROFILE VIEW OF MANHOLE #11 TO MANHOLE #13
HORIZONTAL SCALE: 1"=30'
VERTICAL SCALE: 1"=3'



PROFILE VIEW OF INLET #1 TO MANHOLE #3
HORIZONTAL SCALE: 1"=30'
VERTICAL SCALE: 1"=3'

HORIZONTAL SCALE

−30 0 15 30 60 120

(IN FEET)
1 INCH = 30 FT.

VERTICAL SCALE

−3 0 1.5 3 6 12

(IN FEET)
1 INCH = 3 FT.

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TITLE: UTILITY PROFILES

PROJECT: **RPM DEVELOPMENT, LLC**
PROPOSED RESIDENTIAL DEVELOPMENT
BLOCK 2001, LOTS 3, 60-66, & 68
2495 BRUNSWICK PIKE (A.K.A. ALT ROUTE 1)
TOWNSHIP OF LAWRENCE, MERCER COUNTY, NEW JERSEY

JOB No: 1279-99-010
DATE: 04/15/2020
DRAWN BY: ALPH
SCALE:(H) 1"=30' (V) 1"=3'
DESIGNED BY: LPG
CHECKED BY: TJM
CHECKED BY: _
SHEET No: 9 OF 23
Rev. # 1

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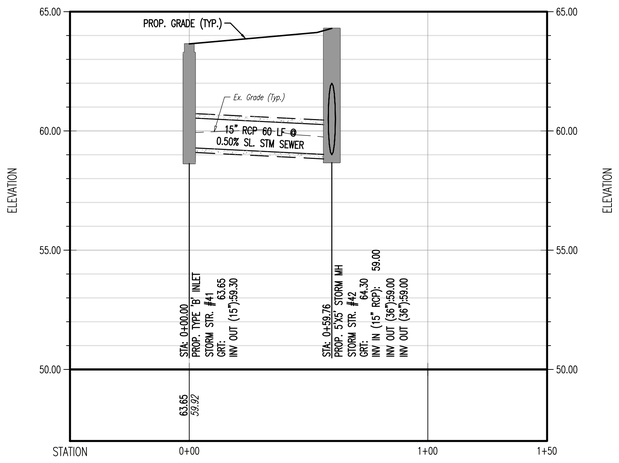
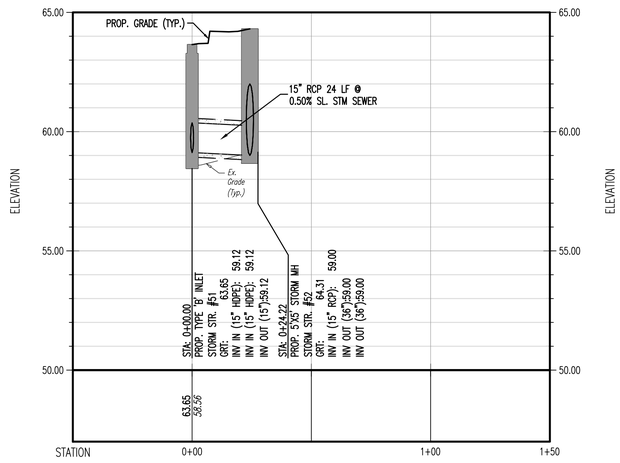
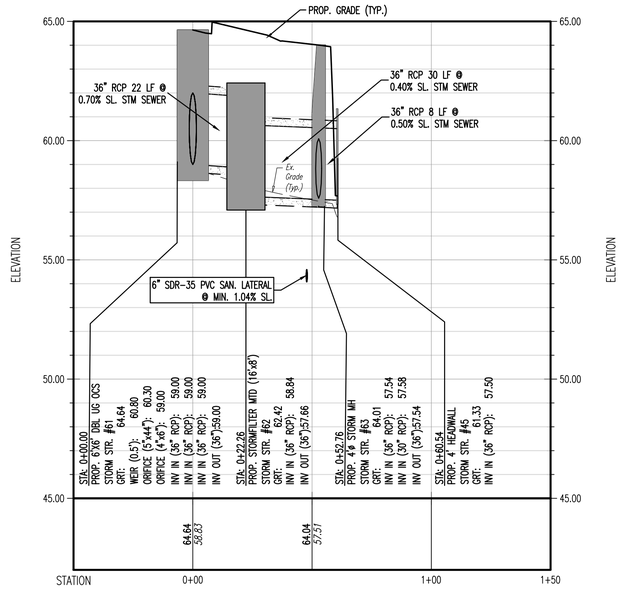
File: P:\decpc projects\1279 rpm development group\99-010 lawrence\Dwg\Site Plans\D1279990010SP1.dwg, ---> 09 UTILITY PROFILES



PROFILE VIEW OF INLET #41 TO MANHOLE #42
HORIZONTAL SCALE: 1"=30'
VERTICAL SCALE: 1"=3'



PROFILE VIEW OF INLET #51 TO MANHOLE #52
HORIZONTAL SCALE: 1"=30'
VERTICAL SCALE: 1"=3'



PROFILE VIEW OF OCS #61 TO HEADWALL #45
HORIZONTAL SCALE: 1"=30'
VERTICAL SCALE: 1"=3'

HORIZONTAL SCALE

-30 0 15 30 60 120

(IN FEET)
1 INCH = 30 FT.

VERTICAL SCALE

-3 0 1.5 3 6 12

(IN FEET)
1 INCH = 3 FT.

Rev.	Date	Comments	By
1	10/07/20	REV. PER TOWNSHIP COMMENTS	DMC

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TITLE: UTILITY PROFILES

PROJECT: **RPM DEVELOPMENT, LLC**
PROPOSED RESIDENTIAL DEVELOPMENT
BLOCK 2001, LOTS 3, 60-66, & 68
2495 BRUNSWICK PIKE (A.K.A. ALT ROUTE 1)
TOWNSHIP OF LAWRENCE, MERCER COUNTY, NEW JERSEY

JOB No: 1279-99-010
DATE: 04/15/2020
DRAWN BY: ALPH
SCALE: (H) 1"=30' (V) 1"=3'
DESIGNED BY: LPG
CHECKED BY: TJM
CHECKED BY: _
SHEET No: 10 OF 23
Rev. # 1

JOHN A. PALUS
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 41975

THOMAS J. MULLER
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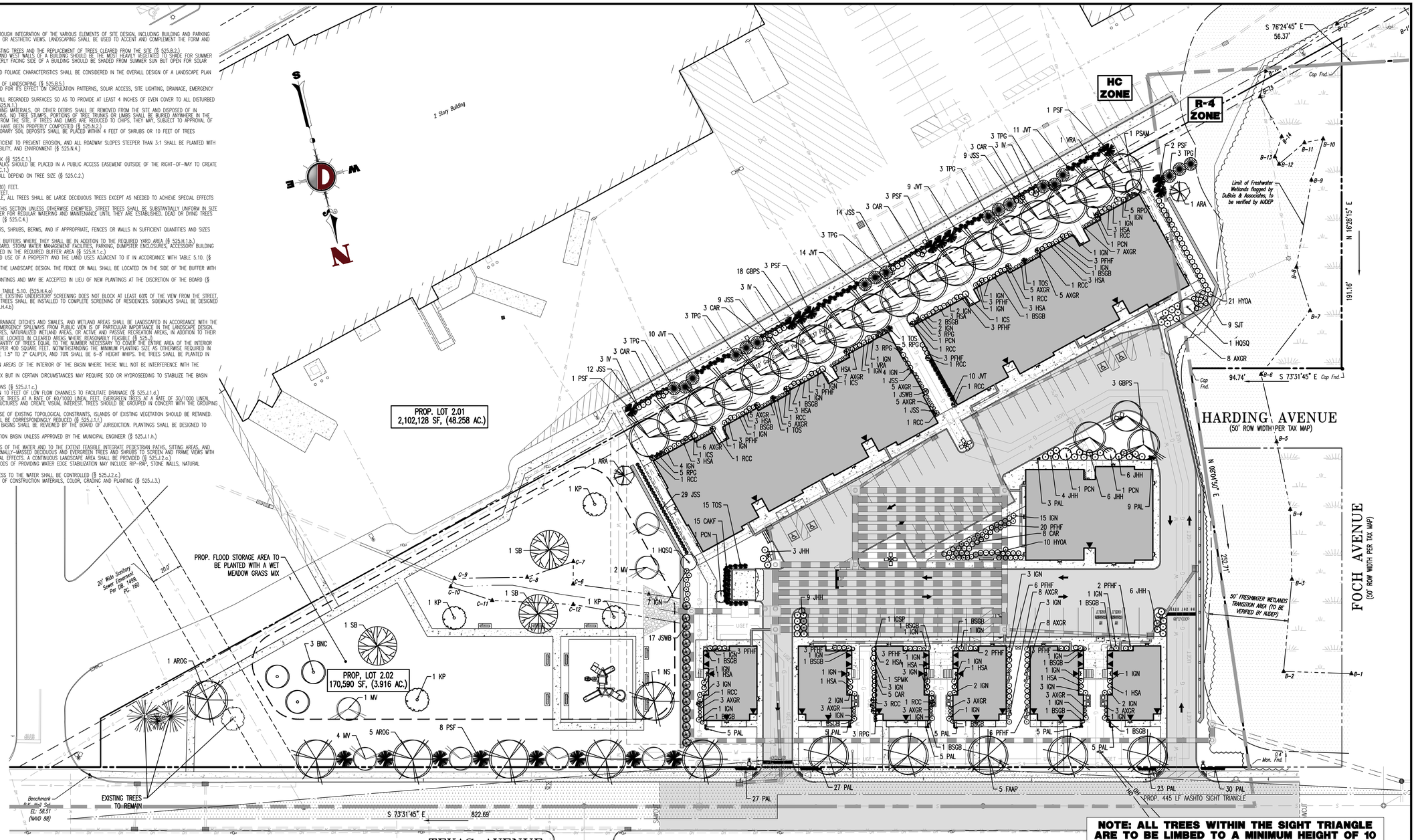
LANDSCAPING REQUIREMENTS

1. LANDSCAPING REQUIREMENTS
   - A. LANDSCAPING SHALL BE CONCEIVED HOLISTICALLY AND BE DESIGNED TO ACHIEVE A THOROUGH INTEGRATION OF THE VARIOUS ELEMENTS OF SITE DESIGN, INCLUDING BUILDING AND PARKING PLACEMENT, THE NATURAL FEATURES OF THE SITE AND THE PRESERVATION OF PLEASING OR AESTHETIC VIEWS. LANDSCAPING SHALL BE USED TO ACCENT AND COMPLEMENT THE FORM AND TYPE OF BUILDING PROPOSED (§ 525.B.1.)
   - B. IN THE LANDSCAPE DESIGN OF SITES, AREAS SHALL BE DESIGNATED FOR RETAINING EXISTING TREES AND THE REPLACEMENT OF TREES CLEARED FROM THE SITE (§ 525.B.2.)
   - C. LANDSCAPING SHALL BE LOCATED TO PROVIDE EFFECTIVE CLIMATIC CONTROL. THE EAST AND WEST WALLS OF A BUILDING SHOULD BE THE MOST HEAVILY VEGETATED TO SHADE FOR SUMMER SUN AND THE NORTH TO NORTHWEST AREA FOR WINTER PREVAILING WINDS. THE SOUTHERLY FACING SIDE OF A BUILDING SHOULD BE SHADED FROM SUMMER SUN BUT OPEN FOR SOLAR GAIN DURING THE WINTER (§ 525.B.3.)
   - D. PLANT'S SUSCEPTIBILITY TO DISEASE, THEIR COLORS, TEXTURES, SHAPES, BLOSSOMS, AND FOLIAGE CHARACTERISTICS SHALL BE CONSIDERED IN THE OVERALL DESIGN OF A LANDSCAPE PLAN (§ 525.B.4.)
   - E. LOCAL SOIL CONDITIONS AND WATER AVAILABILITY SHALL BE CONSIDERED IN THE CHOICE OF LANDSCAPING (§ 525.B.5.)
   - F. IN THE DESIGN PROCESS, THE EVENTUAL MATURITY OF THE PLANT SHALL BE CONSIDERED FOR ITS EFFECT ON CIRCULATION PATTERNS, SOLAR ACCESS, SITE LIGHTING, DRAINAGE, EMERGENCY ACCESS AND RELATIONSHIP TO BUILDINGS AND THE STREETSCAPE (§ 525.B.6.)
   - G. TOPSOIL MOVED DURING THE COURSE OF CONSTRUCTION SHALL BE REDISTRIBUTED ON ALL REGRADED SURFACES SO AS TO PROVIDE AT LEAST 4 INCHES OF EVEN COVER TO ALL DISTURBED AREAS OF THE DEVELOPMENT AND SHALL BE STABILIZED BY SEEDING OR PLANTING (§ 525.N.1.)
   - H. ALL STUMPS AND OTHER TREE PARTS, LITTER, BRUSH, WEEDS, EXCESS OR SCRAP BUILDING MATERIALS, OR OTHER DEBRIS SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN ACCORDANCE WITH NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION REGULATIONS. NO TREE STUMPS, PORTIONS OF TREE TRUNKS OR LIMBS SHALL BE BURIED ANYWHERE IN THE DEVELOPMENT. ALL DEAD OR DYING TREES, STANDING OR FALLEN, SHALL BE REMOVED FROM THE SITE. IF TREES AND LIMBS ARE REDUCED TO CHIPS, THEY MAY, SUBJECT TO APPROVAL OF THE MUNICIPAL ENGINEER, BE USED AS MULCH IN LANDSCAPED AREAS, PROVIDED THEY HAVE BEEN PROPERLY COMPOSTED (§ 525.N.2.)
   - I. MAXIMUM EFFORT SHOULD BE MADE TO SAVE SPECIMEN PLANTS. NO MATERIAL OR TEMPORARY SOIL DEPOSITS SHALL BE PLACED WITHIN 4 FEET OF SHRUBS OR 10 FEET OF TREES DESIGNATED TO BE RETAINED ON THE PRELIMINARY AND/OR FINAL PLAT (§ 525.N.3.)
   - J. LANDSCAPING OF THE AREA OF ALL CUTS AND FILLS AND/OR TERRACES SHALL BE SUFFICIENT TO PREVENT EROSION, AND ALL ROADWAY SLOPES STEEPER THAN 3:1 SHALL BE PLANTED WITH GROUND COVERS APPROPRIATE FOR THE PURPOSE AND SOIL CONDITIONS, WATER AVAILABILITY, AND ENVIRONMENT (§ 525.N.4.)
2. STREET TREES REQUIREMENTS
   - A. TREES SHALL BE SPACED EVENLY ALONG THE STREET BETWEEN THE CURB AND SIDEWALK (§ 525.C.1.)
   - B. WHERE THE DISTANCE BETWEEN THE CURB AND SIDEWALK IS LESS THAN 5 FEET, SIDEWALKS SHOULD BE PLACED IN A PUBLIC ACCESS EASEMENT OUTSIDE OF THE RIGHT-OF-WAY TO CREATE A PLANTING STRIP AT LEAST 5 FEET WIDE TO FACILITATE STREET TREE GROWTH (§ 525.C.1.)
   - C. WHEN TREES ARE PLANTED AT PREDETERMINED INTERVALS ALONG STREETS, SPACING SHALL DEPEND ON TREE SIZE (§ 525.C.2.)
     - i. FOR LARGE TREES (45+), THE PLANTING INTERVAL SHALL BE FORTY (40) FEET.
     - ii. FOR MEDIUM-SIZED TREES (30'-45'), THE PLANTING INTERVAL SHALL BE THIRTY (30) FEET.
     - iii. FOR SMALL TREES (UP TO 30'), THE PLANTING INTERVAL SHALL BE TWENTY (20) FEET.
   - D. TREE TYPE MAY VARY DEPENDING ON OVERALL EFFECT DESIRED BUT AS A GENERAL RULE, ALL TREES SHALL BE LARGE DECIDUOUS TREES EXCEPT AS NEEDED TO ACHIEVE SPECIAL EFFECTS (§ 525.C.3.)
   - E. ALL TREES SHALL HAVE A MINIMUM CALIPER AS NOTED IN THE APPROPRIATE TABLE IN THIS SECTION UNLESS OTHERWISE EXEMPTED. STREET TREES SHALL BE SUBSTANTIALLY UNIFORM IN SIZE AND SHAPE, AND HAVE STRAIGHT TRUNKS. PROVISION SHALL BE MADE BY THE DEVELOPER FOR REGULAR WATERING AND MAINTENANCE UNTIL THEY ARE ESTABLISHED. DEAD OR DYING TREES SHALL BE REPLACED BY THE DEVELOPER DURING THE NEXT SUITABLE PLANTING SEASON (§ 525.C.4.)
3. LANDSCAPE BUFFERS REQUIREMENTS
   - A. LANDSCAPE BUFFERS SHALL CONSIST OF A COMBINATION OF DECIDUOUS TREES, CONIFERS, SHRUBS, BERMS, AND IF APPROPRIATE, FENCES OR WALLS IN SUFFICIENT QUANTITIES AND SIZES TO PERFORM THEIR NECESSARY SCREENING FUNCTION (§ 525.H.1.a.)
   - B. BUFFERS MAY BE INSTALLED IN REQUIRED YARD AREAS EXCEPT FOR REVERSE FRONTAGE BUFFERS WHERE THEY SHALL BE IN ADDITION TO THE REQUIRED YARD AREA (§ 525.H.1.b.)
   - C. BUFFERS SHALL BE CONTINUOUS EXCEPT FOR ACCESS DRIVES AS APPROVED BY THE BOARD. STORM WATER MANAGEMENT FACILITIES, PARKING, DUMPSTER ENCLOSURES, ACCESSORY BUILDING OR ABOVE GROUND STRUCTURES, AND SIMILAR ENCROACHMENTS SHALL NOT BE PERMITTED IN THE REQUIRED BUFFER AREA (§ 525.H.1.c.)
   - D. THE MINIMUM WIDTH OF A LANDSCAPE BUFFER SHALL BE DEPENDENT ON THE PROPOSED USE OF A PROPERTY AND THE LAND USES ADJACENT TO IT IN ACCORDANCE WITH TABLE 5.10. (§ 525.H.1.d.)
   - E. ANY BUFFER 15 FEET OR LESS IN WIDTH SHALL INCORPORATE A FENCE OR WALL INTO THE LANDSCAPE DESIGN. THE FENCE OR WALL SHALL BE LOCATED ON THE SIDE OF THE BUFFER WITH THE MOST INTENSIVE USE (§ 525.H.2.a.)
   - F. EXISTING VEGETATION MAY SUBSTITUTE FOR ALL OR PART OF THE REQUIRED BUFFER PLANTINGS AND MAY BE ACCEPTED IN LIEU OF NEW PLANTINGS AT THE DISCRETION OF THE BOARD (§ 525.H.3)
   - G. A LANDSCAPE BUFFER OF 25 FEET IN WIDTH SHALL BE PROVIDED IN ACCORDANCE WITH TABLE 5.10. (525.H.4.a)
   - H. THE PRESERVATION OF EXISTING TREES IN EXCESS OF 8 INCHES IS ENCOURAGED WHERE EXISTING UNDERSTORY SCREENING DOES NOT BLOCK AT LEAST 60% OF THE VIEW FROM THE STREET, SUPPLEMENTAL SHADE TOLERANT PLANTINGS OF SHRUBS, EVERGREEN AND ORNAMENTAL TREES SHALL BE INSTALLED TO COMPLETE SCREENING OF RESIDENCES. SIDEWALKS SHALL BE DESIGNED TO AVOID MATURE PLANTINGS EVEN IF A PUBLIC ACCESS EASEMENT IS NECESSARY (525.H.4.b)
4. STORMWATER FACILITIES REQUIREMENTS
   - A. STORMWATER DETENTION FACILITY LANDSCAPING
     - i. STORMWATER MANAGEMENT AREAS INCLUDING RETENTION AND DETENTION BASINS, DRAINAGE DITCHES AND SWALES, AND WETLAND AREAS SHALL BE LANDSCAPED IN ACCORDANCE WITH THE STANDARDS IN THIS SUBSECTION. THE SCREENING OF OUTFALL STRUCTURES AND EMERGENCY SPILLWAYS FROM PUBLIC VIEW IS OF PARTICULAR IMPORTANCE IN THE LANDSCAPE DESIGN. THIS MAY INVOLVE INTEGRATION OF THESE AREAS AS AESTHETIC LANDSCAPING FEATURES. NATURALIZED WETLAND AREAS, OR ACTIVE AND PASSIVE RECREATION AREAS, IN ADDITION TO THEIR STORMWATER MANAGEMENT FUNCTION. DETENTION AND RETENTION BASINS SHOULD BE LOCATED IN CLEARED AREAS WHERE REASONABLY FEASIBLE (§ 525.J.)
     - ii. BASINS DESIGNED AS NATURALIZED WETLAND AREAS SHALL BE PLANTED WITH A QUANTITY OF TREES EQUAL TO THE NUMBER NECESSARY TO COVER THE ENTIRE AREA OF THE INTERIOR OF THE BASIN TO THE EMERGENCY SPILLWAY ELEVATION AT A RATE OF ONE TREE PER 400 SQUARE FEET. NOTWITHSTANDING THE MINIMUM PLANTING SIZE AS OTHERWISE REQUIRED IN THIS SECTION, OF THIS NUMBER 10% SHALL BE 2" - 2.5" CALIPER, 20% SHALL BE 1.5" TO 2" CALIPER, AND 70% SHALL BE 6'-8' HEIGHT WHIPS. THE TREES SHALL BE PLANTED IN GROVES AND SPACED 5 FEET TO 15 FEET ON-CENTER (§ 525.J.1.a.(1))
     - iii. BASINS DESIGNED TO FUNCTION AS DRY BASINS SHALL BE PLANTED WITH TREES IN AREAS OF THE INTERIOR OF THE BASIN WHERE THERE WILL NOT BE INTERFERENCE WITH THE MAINTENANCE OF THE BASIN AND LOW FLOW CHANNEL (§ 525.J.a.(2))
     - iv. THE GROUND SHOULD BE SEEDED WITH A WILDFLOWER OR WET MEADOW GRASS MIX BUT IN CERTAIN CIRCUMSTANCES MAY REQUIRE SOD OR HYDROSEEDING TO STABILIZE THE BASIN SLOPES (§ 525.J.1.b.)
     - v. ALL PLANTS SHALL BE TOLERANT OF TYPICAL FLOOD PLAIN AND WETLAND CONDITIONS (§ 525.J.1.c.)
     - vi. PLANTING OTHER THAN WILDFLOWERS AND GRASSES SHALL NOT BE LOCATED WITHIN 10 FEET OF LOW FLOW CHANNELS TO FACILITATE DRAINAGE (§ 525.J.1.d.)
     - vii. THE PERIMETER AREA (SLOPES ABOVE THE HIGH WATER LINE) SHALL INCLUDE SHADE TREES AT A RATE OF 60/1000 LINEAL FEET, EVERGREEN TREES AT A RATE OF 30/1000 LINEAL FEET AND SUFFICIENT ORNAMENTAL TREES AND SHRUBS TO SCREEN DRAINAGE STRUCTURES AND CREATE VISUAL INTEREST. TREES SHOULD BE GROUPED IN CONCERT WITH THE GROUPING OF TREES IN THE INTERIOR OF THE BASIN (§ 525.J.1.e.)
     - viii. WHERE BASINS ARE REQUIRED TO BE LOCATED IN EXISTING WOODED AREAS BECAUSE OF EXISTING TOPOLOGICAL CONSTRAINTS, ISLANDS OF EXISTING VEGETATION SHOULD BE RETAINED. IF THE EXISTING VEGETATION IS RETAINED, THE NEW PLANTINGS REQUIREMENT SHALL BE CORRESPONDINGLY REDUCED (§ 525.J.1.f.)
     - ix. PROVISIONS FOR EMERGENCY ACCESS AS WELL AS GENERAL MAINTENANCE OF THE BASINS SHALL BE REVIEWED BY THE BOARD OF JURISDICTION. PLANTINGS SHALL BE DESIGNED TO DISGUISE YET NOT HINDER VEHICULAR ACCESS (§ 525.J.1.g.)
     - x. PLANTINGS SHALL NOT BE PERMITTED UPON ANY BERM ASSOCIATED WITH A DETENTION BASIN UNLESS APPROVED BY THE MUNICIPAL ENGINEER (§ 525.J.1.h.)
   - B. STORMWATER RETENTION FACILITY LANDSCAPING
     - i. THE PLANTING OF THE PERIMETER OF THE WATER'S EDGE SHALL ACCENTUATE VIEWS OF THE WATER AND TO THE EXTENT FEASIBLE INTEGRATE PEDESTRIAN PATHS, SITTING AREAS, AND OTHER PASSIVE RECREATIONAL USES. PLANTINGS SHALL INCLUDE FORMAL OR INFORMALLY-MASSED DECIDUOUS AND EVERGREEN TREES AND SHRUBS TO SCREEN AND FRAME VIEWS WITH ORNAMENTAL TREES, SHRUBS AND GRASSES USED FOR VISUAL INTEREST OR SPECIAL EFFECTS. A CONTINUOUS LANDSCAPE AREA SHALL BE PROVIDED (§ 525.J.2.a.)
     - ii. THE WATER'S EDGE SHALL BE EASILY MAINTAINED AND SHALL BE STABILIZED. METHODS OF PROVIDING WATER EDGE STABILIZATION MAY INCLUDE RIP-RAP, STONE WALLS, NATURAL PLANTINGS, DECKING AND BULKHEADS (§ 525.J.2.b.)
     - iii. IF RETENTION FACILITIES ARE USED AS A RECREATIONAL AMENITY, PEDESTRIAN ACCESS TO THE WATER SHALL BE CONTROLLED (§ 525.J.2.c.)
   - C. ALL BASIN STRUCTURES SHALL BE DESIGNED TO BLEND INTO THE LANDSCAPE IN TERMS OF CONSTRUCTION MATERIALS, COLOR, GRADING AND PLANTING (§ 525.J.3.)

TREE REPLACEMENT DENSITY CALCULATION

1. REQUIRED TREE DENSITY:
   (170,590 SF) * (15 TREES/43,560 SF) = 59 REQUIRED TREE DENSITY (RTD)
2. EXISTING TREE DENSITY:
   THE SURVEY IDENTIFIES 4 TREES TO REMAIN PRIOR TO DEVELOPMENT.
   3 – 12" CONIFERS (0.8 DENSITY UNITS)
   1 – 12" DECIDUOUS (0.8 DENSITY UNITS)
   CONVERTING THE CALIPER TO TREE DENSITY UNITS YIELDS THE FOLLOWING VALUES:
   (4 – 12" TREES) * (0.8 UNITS/TREE) = 3.2 EXISTING TREE DENSITY (ETD)
3. REPLACEMENT TREE CALCULATION:
   59 (RTD) – 3.2 (ETD) = 55.8 REPLACEMENT TREE UNITS
4. PROPOSED REPLACEMENT TREES:
   27 – 3" DECIDUOUS TREES (0.6 DENSITY UNITS)
   57 – 6-8' TAYLOR JUNIPERS (1.0 DENSITY UNITS)
   10 – 8-10' PYRAMIDAL WHITE PINE (1.3 DENSITY UNITS)
   CONVERTING THE CALIPER TO TREE DENSITY UNITS YIELDS THE FOLLOWING VALUES:
   (27 – 3" TREES) * (0.6 UNITS/TREE) = 16.2 DENSITY UNITS
   (57 – 6-8' TREES) * (1.0 UNITS/TREE) = 57 DENSITY UNITS
   (10 – 8-10' TREES) * (1.3 UNITS/TREE) = 13 DENSITY UNITS
   TOTAL REPLACEMENT TREE UNITS = 86.2 DENSITY UNITS



NOTE: ALL TREES WITHIN THE SIGHT TRIANGLE ARE TO BE LIMBED TO A MINIMUM HEIGHT OF 10 FEET. GROUND VEGETATION IS TO BE KEPT PRUNED TO A HEIGHT NOT EXCEEDING 30"

LANDSCAPE SCHEDULE

KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS
SHADE TREE(S)					
ARA	2	ACER RUBRUM 'ARMSTRONG'	ARMSTRONG COLUMNAR RED MAPLE	3 – 3 1/2" CAL.	B+B
AROG	6	ACER RUBRUM 'OCTOBER GLORY'	OCTOBER GLORY RED MAPLE	3 – 3 1/2" CAL.	B+B
FAAP	5	FRAXINUS AMERICANA 'AUTUMN PURPLE'	AUTUMN PURPLE ASH	3 – 3 1/2" CAL.	B+B
GBPS	21	GINKGO BILOBA 'PRINCETON SENTRY'	PRINCETON SENTRY BRAND GINKGO	3 – 3 1/2" CAL.	B+B
NS	1	NYSSA SYLVATICA	SOURGUM OR TUPELO	3 – 3 1/2" CAL.	B+B
SB	3	SALIX BABYLONICA	BABYLON WEEPING WILLOW	3 – 3 1/2" CAL.	B+B
	38				
ORNAMENTAL TREE(S)					
BNC	3	BETULA NIGRA 'CULLY'	HERITAGE RIVER BIRCH, MULTI-STEM	10–12"	B+B
KP	4	KOELREUTERIA PLANICULATA	GOLDEN RAIN TREE	2–2 1/2" CAL.	B+B
MV	7	MAGNOLIA VIRGINIANA	SWEETBAY MAGNOLIA	10–12"	B+B
PCN	5	PRUNUS CERASIFERA 'CRIPOZAM'	CRIMSON POINTE FLOWERING PLUM	2–2 1/2" CAL.	B+B
PSAM	1	PRUNUS SERRULATA 'AMANOGAWA'	AMANOGAWA CHERRY		B+B
	20				
EVERGREEN TREE(S)					
JVT	54	JUNIPERUS VIRGINIANA 'TAYLOR'	TAYLOR JUNIPER	6–8'	B+B
PSF	18	PINUS STROBUS 'FASTIGIATA'	PYRAMIDAL WHITE PINE	8–10'	B+B
	72				
EVERGREEN SHRUB(S)					
AXGR	92	ABELIA X GRANDIFLORA 'OPSTAL 103'	MAGIC DAYDREAM ABELIA	18–24"	#3 CAN
BSGB	18	BUXUS SEMPERVIRENS 'GRAHAM BLANDY'	GRAHAM BLANDY BOXWOOD	30–36"	#5 CAN
ICS	3	ILEX CRENATA 'STEEDS'	STEEDS JAPANESE HOLLY	42–48"	B+B
ICSP	1	ILEX CRENATA 'SKY PENCIL'	SKY PENCIL HOLLY	3–4'	#3 CAN
IGN	87	ILEX GLABRA X 'CHAMZIN'	NORDIC INKBERRY	24–30"	#3 CAN
JSS	75	JUNIPERUS SCOPULORUM 'SKYROCKET'	SKYROCKET JUNIPER	6–8'	B+B
JSWB	18	JUNIPERUS SCOPULORUM 'WICHITA BLUE'	ROCKY MOUNTAIN JUNIPER	3–4'	5 GAL.
RCC	17	RHODODENDRON CATAWBIENSE 'CHIONOIDES'	CHINOIDES RHODODENDRON	2–3'	B+B
RPG	24	RHODODENDRON 'PURPLE GEM'	PURPLE GEM RHODODENDRON	2–3'	#3 CAN
TOS	18	THUJA OCCIDENTALIS 'SMARAGD'	EMERALD GREEN ARBORVITAE	5–6'	B+B
TPG	18	THUJA PLICATA 'GREEN GIANT'	GREEN GIANT ARBORVITAE	7–8'	B+B
	371				
DECIDUOUS SHRUB(S)					
CAR	25	CLETHRA ALNIFOLIA 'ROSEA'	PINK SUMMERSWEET CLETHRA	15–18"	#5 CAN
HQSQ	2	HYDRANGEA QUERCIFOLIA 'SNOW QUEEN'	SNOW QUEEN OAKLEAF HYDRANGEA	18–24"	B+B
HSA	41	HIBISCUS SYRACUS 'APHRODITE'	PINK ROSE OF SHARON	18–24"	#5 CAN
HYOA	31	HYDRANGEA ARBORESCENS 'NCHA1'	INVINCEABLE RUBY SMOOTH HYDRANGEA	18–24"	#5 CAN
IV	12	ITEA VIRGINICA 'HENRY'S GARNET'	GARNET SWEETSPIRE	24–30"	#5 CAN
PFHF	66	POTENTILLA FRUTICOSA 'KUPINPA'	HAPPY FACE PINK PARADISE CINQUEFOIL	12–18"	#3 CAN
SPMK	1	SYRINGA PATTULA 'MISS KIM'	MISS KIM LILAC	5–6'	#5 CAN
VRA	2	VIBURNUM X RHYTIDOPHYLLOIDES 'ALLEGHANY'	ALLEGHANY VIBURNUM	5–6'	B+B
	180				
GROUND COVER					
JHH	33	JUNIPERUS HORIZONTALIS 'HUGHES'	HUGHES JUNIPER	24–30" SPRD	#3 CAN
ORNAMENTAL GRASS(ES)					
CAKF	15	CALAMAGROSTIS ARUNDINACEA 'KARL FOERSTER'	FEATHER REED GRASS	2 GAL.	CONTAINER
PAL	150	PENNISETUM ALOPECUROIDES 'LITTLE BUNNY'	LITTLE BUNNY FOUNTAIN GRASS	2 GAL.	CONTAINER
	185				

NOTES:
IF ANY DISCREPANCIES OCCUR BETWEEN AMOUNTS SHOWN IN THE PLAN AND THE PLANT LIST, THE PLAN SHALL DICTATE.
ALL RED MAPLE (ACER RUBRUM) SPECIES SHALL BE LOCALLY SOURCED.

GRAPHIC SCALE
–30 0 15 30 60 120
(IN FEET)
1 INCH = 30 FT.

Rev.	Date	REV. PER TOWNSHIP COMMENTS	BY
1	10/07/20		GMC

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PROPOSED RESIDENTIAL DEVELOPMENT
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JOHN A. PALUS, PROFESSIONAL ENGINEER, NEW JERSEY LICENSE No. 41975
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Rev. # 1

Plotted: 10/09/20 – 1:47 PM, By: gcwodrick, Product Ver: 23.1s (LMS Tech)
File: P:\deopc projects\1279 rpm development group\99-010 lawrence\Dwg\Site Plans\D1279990105L1.dwg, ---> LANDSCAPE PLAN

GENERAL NOTES

1. THIS LIGHTING PLAN ILLUSTRATES ILLUMINATION LEVELS CALCULATED FROM LABORATORY DATA TAKEN UNDER CONTROLLED CONDITIONS IN ACCORDANCE WITH ILLUMINATING ENGINEERING SOCIETY OF NORTH AMERICA (IESNA) APPROVED METHODS. ACTUAL SITE ILLUMINATION LEVELS AND PERFORMANCE OF LUMINARES MAY VARY DUE TO VARIATIONS IN WEATHER, ELECTRICAL VOLTAGE, TOLERANCE IN LAMPS, AND OTHER RELATED VARIABLE FIELD CONDITIONS.

2. ALL EXISTING CONDITIONS LIGHTING LEVELS ARE REPRESENTATIVE OF AN APPROXIMATION UTILIZING LABORATORY DATA FOR SIMILAR FIXTURES AND/OR ACTUAL FIELD MEASUREMENTS TAKEN WITH A LIGHT METER. DUE TO FACTORS SUCH AS FIXTURE MAINTENANCE, EQUIPMENT TOLERANCES, WEATHER CONDITIONS, ETC., ACTUAL LIGHTING LEVELS MAY DIFFER AND THE LIGHTING LEVELS DEPICTED ON THIS PLAN SHOULD BE CONSIDERED AS APPROXIMATE.

3. CONDUITS SHALL BE INSTALLED A MINIMUM OF 2 FEET BEHIND GUIDERAIL POSTS.

4. ALL WIRING METHODS AND EQUIPMENT CONSTRUCTION SHALL CONFORM TO THE CURRENT NATIONAL ELECTRICAL CODE.

5. REFER TO ARCHITECTURAL PLANS FOR LIGHTING DIAGRAM.

LIGHTING REQUIREMENTS

A. SUFFICIENT LIGHTING SHALL BE PROVIDED ON EACH SITE OR ALONG ROADWAYS TO ENSURE THE SECURITY OF PROPERTY AND TO PROTECT THE SAFETY OF PERSONS BETWEEN THE HOURS OF SUNSET AND SUNRISE WHEN THE ESTABLISHMENT OR FACILITY IS IN USE. (§ 527.A.1.)

B. LIGHTING SHALL BE SO DESIGNED TO AVOID THE CREATION OF HAZARDS TO MOTORISTS AND PEDESTRIANS OR NUISANCE TO ADJOINING PROPERTY OWNERS OR RESIDENTS. LIGHTING DIRECTED TOWARDS THE SKY SHALL BE DESIGNED TO PREVENT INTERFERENCE WITH COMMERCIAL AVIATION ROUTES (§ 527.A.2.)
   i. SECURITY LIGHTING DESIGN FOR COMMERCIAL DEVELOPMENTS SHALL EMPLOY TIMERS ON ALL OR A PORTION OF THE SITE LIGHTING THAT REDUCES THE AVERAGE ILLUMINATION TO THE MINIMUM REQUIREMENTS OF THIS ORDINANCE WITHIN ONE HOUR AFTER CLOSE OF BUSINESS OR BEFORE MIDNIGHT, WHICHEVER OCCURS EARLIER (§ 527.A.2.a.)
   ii. SAFETY LIGHTING DESIGN SHALL EMPLOY MOTION SENSORS SO THAT ILLUMINATION OCCURS ONLY WHEN SOMEONE IS IN THE IMMEDIATE AREA (§ 527.A.2.b.)
   iii. DISPLAY, ADVERTISING AND SPECIALTY LIGHTING, EXCLUDING INTERIOR ILLUMINATED OR BACKLIT IDENTIFICATION SIGNAGE, SHALL BE TURNED OFF AT OR BEFORE MIDNIGHT (§ 527.A.2.c.)

C. LIGHTING LEVELS, LAMP COLOR, AND FIXTURE TYPE SHALL BE CONSISTENT THROUGHOUT THE PARCEL IN QUESTION AND SHALL COMPLEMENT BUILDING ARCHITECTURE AND LANDSCAPING. LIGHTING SHALL BE DESIGNED TO MINIMIZE ENERGY AND MAINTENANCE REQUIREMENTS AND SHALL COMPLY WITH THE U.S. ENERGY POLICY ACT OF 1992 AS IT MAY BE AMENDED OR SUPERSEDED (§ 527.A.3.)

D. EXTERIOR LIGHTING NOT BUILDING MOUNTED SHALL BE SUPPLIED BY ELECTRICITY FROM UNDERGROUND CABLING (§ 527.A.4.)

E. THE MINIMUM ILLUMINATION FOR SURFACE PARKING WITH LOW ACTIVITY SHALL BE 0.5 FOOTCANDLES FOR VEHICULAR TRAFFIC, 0.2 FOOTCANDLES FOR PEDESTRIAN SAFETY, AND 0.8 FOOTCANDLES FOR PEDESTRIAN SECURITY (§ 527.C.TABLE 5.13)

F. THE MINIMUM ILLUMINATION FOR SURFACE PARKING WITH MEDIUM ACTIVITY SHALL BE 1.0 FOOTCANDLES FOR VEHICULAR TRAFFIC, 0.6 FOOTCANDLES FOR PEDESTRIAN SAFETY, AND 2.0 FOOTCANDLES FOR PEDESTRIAN SECURITY (§ 527.C.TABLE 5.13)

G. THE MINIMUM ILLUMINATION FOR SURFACE PARKING WITH HIGH ACTIVITY SHALL BE 2.0 FOOTCANDLES FOR VEHICULAR TRAFFIC, 0.9 FOOTCANDLES FOR PEDESTRIAN SAFETY, AND 4.0 FOOTCANDLES FOR PEDESTRIAN SECURITY (§ 527.C.TABLE 5.13)

H. LIGHTING SHALL BE PROVIDED BY FIXTURES WITH A MOUNTING HEIGHT NOT MORE THAN 25 FEET OR THE HEIGHT OF THE BUILDING, WHICHEVER IS LESS, MEASURED FROM THE GROUND LEVEL TO THE CENTERLINE OF THE LIGHT SOURCE (§ 527.C.1.)

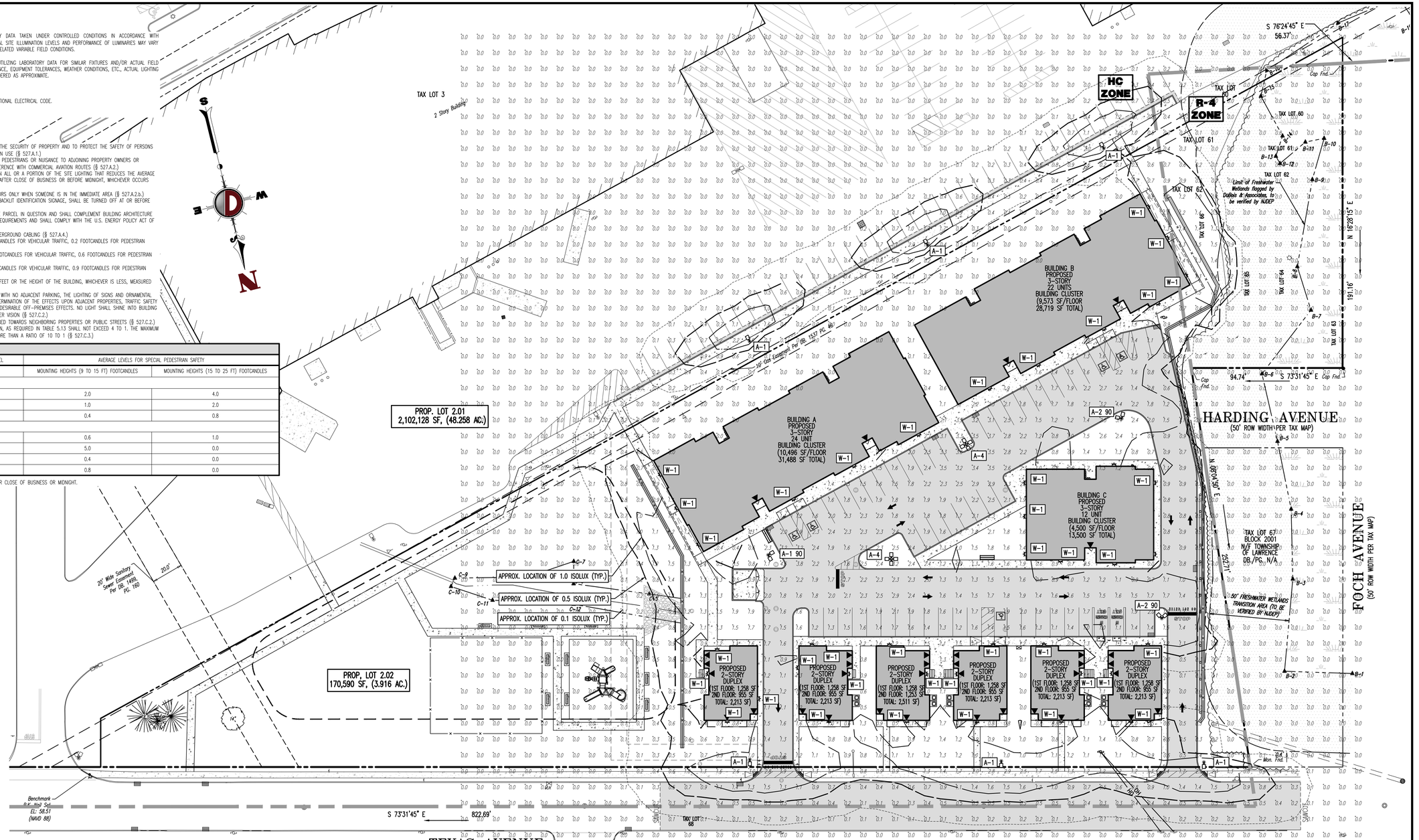
I. ANY OTHER OUTDOOR LIGHTING SUCH AS BUILDING AND SIDEWALK ILLUMINATION, DRIVEWAYS WITH NO ADJACENT PARKING, THE LIGHTING OF SIGNS AND ORNAMENTAL LIGHTING, SHALL BE SHOWN ON THE LIGHTING PLAN IN SUFFICIENT DETAIL TO ALLOW A DETERMINATION OF THE EFFECTS UPON ADJACENT PROPERTIES, TRAFFIC SAFETY AND OVERHEAD SKY GLOW. THE OBJECTIVES OF THESE SPECIFICATIONS ARE TO MINIMIZE UNDESIRABLE OFF-PREMISES EFFECTS. NO LIGHT SHALL SHINE INTO BUILDING WINDOWS, OR ONTO STREETS AND DRIVEWAYS SO AS TO INTERFERE WITH OR DISTRACT DRIVER VISION (§ 527.C.2.)

J. WALL MOUNTED FIXTURES ARE ONLY PERMITTED IF DIRECTED INTO A SITE AND NOT POSITIONED TOWARDS NEIGHBORING PROPERTIES OR PUBLIC STREETS (§ 527.C.2.)

K. THE RATIO OF AVERAGE ILLUMINATION, MEASURED IN FOOTCANDLES, TO MINIMUM ILLUMINATION, AS REQUIRED IN TABLE 5.13 SHALL NOT EXCEED 4 TO 1. THE MAXIMUM ILLUMINATION PROVIDED ON ANY SITE SHALL NOT EXCEED THE MINIMUM ILLUMINATION BY MORE THAN A RATIO OF 10 TO 1 (§ 527.C.3.)

	MINIMUM AVERAGE LEVEL	AVERAGE LEVELS FOR SPECIAL PEDESTRIAN SAFETY	
WALKWAY AND BIKEWAY CLASSIFICATIONS	FOOTCANDLES	MOUNTING HEIGHTS (9 TO 15 FT) FOOTCANDLES	MOUNTING HEIGHTS (15 TO 25 FT) FOOTCANDLES
SIDEWALKS (ROADSIDE) AND TYPE A BIKEWAYS			
COMMERCIAL AREAS	0.9	2.0	4.0
INTERMEDIATE AREAS	0.6	1.0	2.0
RESIDENTIAL AREAS	0.2	0.4	0.8
SIDEWALKS DISTANT FROM ROADWAYS AND TYPE B BIKEWAYS			
PARK, WALKWAYS AND BIKEWAYS	0.5	0.6	1.0
PEDESTRIAN TUNNELS	4.0	5.0	0.0
PEDESTRIAN OVERPASSES	0.3	0.4	0.0
PEDESTRIAN STAIRWAYS	0.6	0.8	0.0

M. SITE LIGHTING NOT USED FOR SECURITY PURPOSES IS TO BE TURNED OFF ONE HOUR AFTER CLOSE OF BUSINESS OR MIDNIGHT.



LIGHTING LUMINAIRE SCHEDULE						
SYMBOL	QUANTITY	LABEL	MOUNTING HEIGHT	ARRANGEMENT	MANUFACTURER	IES FILE
	42	W-1	20'	SINGLE	PROGRESS LIGHTING, HUBBELL	PCOWC-20LED-20, MOUNTED 20' HIGH ON BUILDING
	2	A-2 90	20'	2 @ 90°	PROGRESS LIGHTING, HUBBELL	PCADS-27LED-3K-2-BL-2
	2	A-4	20'	4 @ 90°	PROGRESS LIGHTING, HUBBELL	PCADS-27LED-3K-2-BL-3
	6	A-1	20'	SINGLE	PROGRESS LIGHTING, HUBBELL	PCADS-27LED-3K-2-BL-2

ISO CURVES ARE MAINTAINED AND SHOWN AT 0.5 AND 0.1 FC.

(FM) - FLUSH MOUNT FOUNDATION (PED) - PEDESTAL FOUNDATION

THE CALCULATIONS SHOWN WERE MADE UTILIZING ACCEPTED PROCEDURES OF THE ILLUMINATING ENGINEERING SOCIETY OF NORTH AMERICA. VARIATIONS IN LAMP OUTPUT, BALLAST OUTPUT, LINE VOLTAGE, DIRT DEPRECIATION, AND OTHER FACTORS MAY AFFECT ACTUAL RESULTS. UNLESS OTHERWISE STATED, ALL RESULTS ARE MAINTAINED VALUES, UTILIZING ACCEPTED LIGHT LOSS FACTORS (LLF).

STATISTICAL AREA SUMMARY					
LABEL	AVERAGE	MAXIMUM	MINIMUM	AVG./MIN.	MAX./MIN.
PIQ	0.68	4.6	0.0	N.A	N.A
PAVEMENT AREA	1.68	4.4	0.0	N.A	N.A

GRAPHIC SCALE

-30 0 15 30 60 120

(IN FEET)
1 INCH = 30 FT.

Rev.	Date	Comments	By
1	10/07/20	REV. PER TOWNSHIP COMMENTS	DMC

THIS PLAN SET IS FOR PERMITTING PURPOSES ONLY AND MAY NOT BE USED FOR CONSTRUCTION

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LAND DEVELOPMENT CONSULTING • PERMITTING • GEOTECHNICAL • ENVIRONMENTAL • SURVEY • PLANNING & ZONING
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www.dynamicec.com
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Allen, Texas T: 972.534.2100 | Austin, Texas T:512.646.2646 | Houston, Texas T: 281.789.6400
Newtown, Pennsylvania T: 267.685.0276 | Delray Beach, Florida T: 561.921.8570

TITLE: LIGHTING PLAN

PROJECT: **RPM DEVELOPMENT, LLC**
PROPOSED RESIDENTIAL DEVELOPMENT
BLOCK 2001, LOTS 3, 60-66, & 68
2495 BRUNSWICK PIKE (A.K.A. ALT ROUTE 1)
TOWNSHIP OF LAWRENCE, MERCER COUNTY, NEW JERSEY

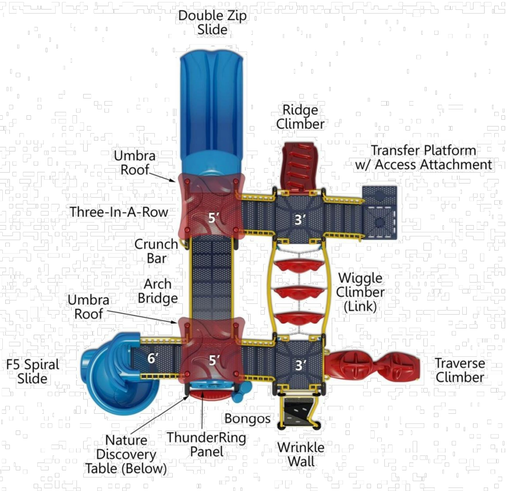
JOB No:	1279-99-010
DATE:	04/15/2020
DRAWN BY:	GMC
SCALE: (H) 1"=30' (V)	
DESIGNED BY:	LPG
CHECKED BY:	TJM
CHECKED BY:	_
SHEET No:	12 OF 23
Rev. #	1

JOHN A. PALUS
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 41975

THOMAS J. MULLER
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 52179

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

Plotted: 10/09/20 - 1:44 PM, By: gcowdrick, - Product Ver: 23.1s (LMS Tech)
File: P:\decpc projects\1279 rpm development group\99-010 lawrence\Dwg\Site Plans\D1279990105l1.dwg, ---> 12 LIGHTING PLAN



GameTime — A PLAYCORE Company

Twilight

Play Value! PrimeTime is the choice of schools, childcare centers and communities who want to maximize value and create play spaces that provide fun and challenging activities along a developmental continuum. The small footprint of PrimeTime reduces cost, and a wide range of play components provide the maximum amount of play opportunities.

Features and Benefits:

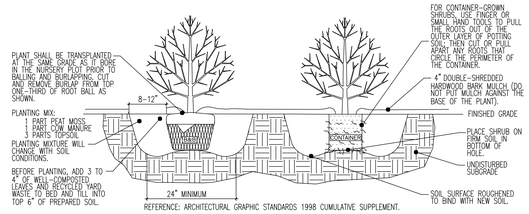
Model: PT19036
Use Zone: 36' X 39'
Fall Height: 6'
Age Group: 5 to 12 Years
Number of Children: 36-55

Limited Lifetime Warranty on uprights, hardware and connectors. Visit **gametime.com/warranty** for full warranty information.

Designing award-winning playgrounds since 1926 | Certified Installer Network - GameTime trained for GameTime playgrounds. | Complies with ASTM standards, before it leaves the factory.

NOTE: FINAL PLAYGROUND DESIGN SHALL BE CONFIRMED BY OWNER

GAMETIME "TWILIGHT" EQUPMENT DETAIL

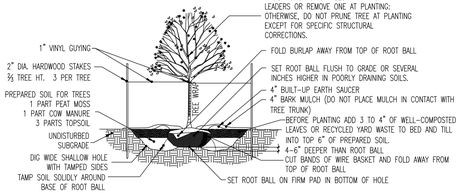


REFERENCE: ARCHITECTURAL GRAPHIC STANDARDS 1998 CUMULATIVE SUPPLEMENT.

DECIDUOUS AND EVERGREEN SHRUB PLANTING DETAIL

NOT TO SCALE

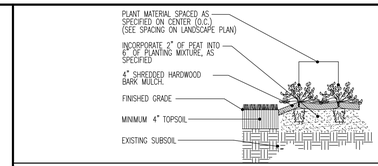
NOTES:
1. NO SOIL OR MULCH SHALL BE PLACED AGAINST ROOT COLLAR OF PLANT.
2. REMOVE ALL ROPE FROM TRUNK & TOP OF ROOT BALL FOLD BURLAP BACK ½ FROM TOP ROOT BALL
3. PLANTING DEPTH SHALL BE THE SAME AS GROWN IN NURSERY.
4. THOROUGHLY SOAK THE ROOT BALL AND ADJACENT PREPARED SOIL SEVERAL TIMES DURING THE FIRST MONTH AFTER PLANTING AND REGULARLY THROUGHOUT THE FOLLOWING TWO SUMMERS.
5. THE BOTTOM OF PLANTING PIT EXCAVATIONS SHOULD BE ROUGH TO AVOID MATTING OF SOIL LAYERS AS NEW SOIL IS ADDED. IT IS PREFERABLE TO TILL THE FIRST LIFT (2 TO 3 IN.) OF PLANTING SOIL INTO THE SUBSOIL.



REFERENCE: ARCHITECTURAL GRAPHIC STANDARDS 1998 CUMULATIVE SUPPLEMENT.

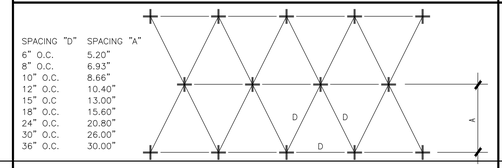
DECIDUOUS TREE PLANTING DETAIL

NOT TO SCALE



PERENNIAL/GROUND COVER PLANTING DETAIL

NOT TO SCALE



SPACING "D"	SPACING "A"
6" O.C.	5.20"
8" O.C.	6.93"
10" O.C.	8.66"
12" O.C.	10.40"
15" O.C	13.00"
18" O.C.	15.60"
24" O.C.	20.80"
30" O.C.	26.00"
36" O.C.	30.00"

PERENNIAL GROUNDCOVER/SPACING DETAIL

NOT TO SCALE

NOTES:
1. NO SOIL OR MULCH SHALL BE PLACED AGAINST ROOT COLLAR OF PLANT.
2. REMOVE ALL ROPE FROM TRUNK & TOP OF ROOT BALL FOLD BURLAP BACK ½ FROM TOP ROOT BALL
3. PLANTING DEPTH SHALL BE THE SAME AS GROWN IN NURSERY.
4. THOROUGHLY SOAK THE ROOT BALL AND ADJACENT PREPARED SOIL SEVERAL TIMES DURING THE FIRST MONTH AFTER PLANTING AND REGULARLY THROUGHOUT THE FOLLOWING TWO SUMMERS.
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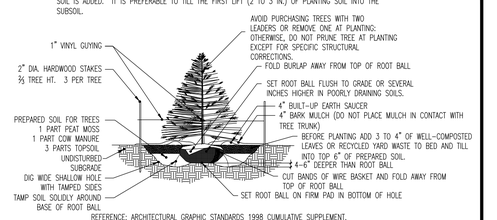
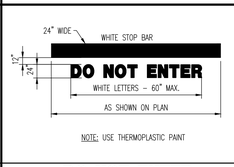


REFERENCE: ARCHITECTURAL GRAPHIC STANDARDS 1998 CUMULATIVE SUPPLEMENT.

EVERGREEN TREE PLANTING DETAIL

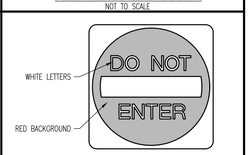
NOT TO SCALE



NOTE: USE THERMOPLASTIC PAINT

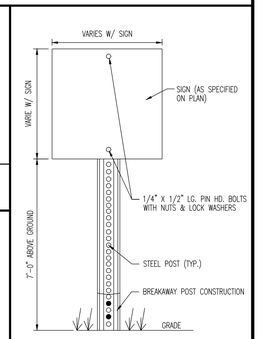
DO NOT ENTER STRIPING DETAIL

NOT TO SCALE



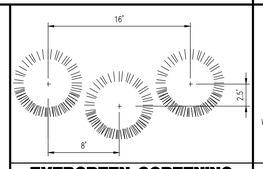
R5-1 SIGN DETAIL

NOT TO SCALE



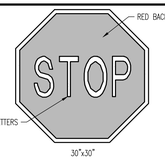
SIGN POST DETAIL

NOT TO SCALE



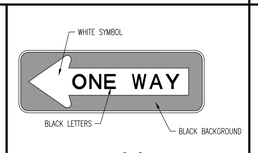
EVERGREEN SCREENING SPACING DETAIL

NOT TO SCALE



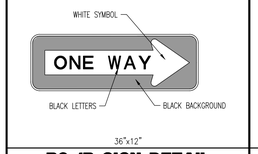
R1-1 SIGN DETAIL

NOT TO SCALE



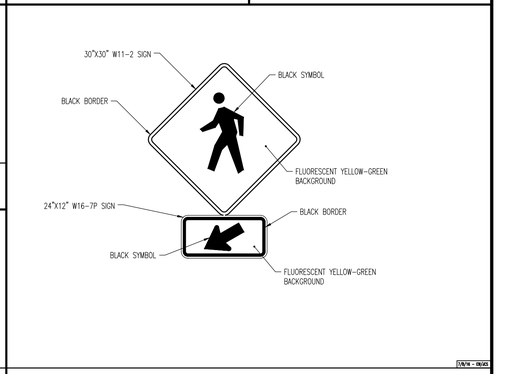
R6-1L SIGN DETAIL

NOT TO SCALE



R6-1R SIGN DETAIL

NOT TO SCALE



PEDESTRIAN CROSSING SIGN AT CROSSWALK DETAIL

NOT TO SCALE

landscapeforms

AUSTIN

Product Data Sheet

Austin blends modernist inspiration into a new interpretation that's as timely as today. The Austin Bench, designed by landscape architect Robert Chipman, is a study in beautiful balance. Inspired by architecture of the 20s and classic modern furniture of the 50s, it expresses familiar themes in thoroughly contemporary terms. Austin balances lightness and substance, is relaxed, yet refined, poised but never boring. The cantilever version is a natural for minimalist spaces, the four-legged version a fine fit within a range of architectural styles. Composed of minimal parts, (just two extrusions create the seat and back in all versions) Austin masters the details, from its tapered slats to the lovely winged shape of its end piece. In aluminum or wood Austin is a high-design solution — and a breath of fresh air — for corporate and healthcare courtyards, atria, small-scale public places, and private retail space.

Seat

- Austin benches are available in backed or backless, and in a selection of interior and exterior woods, as well as aluminum extruded boards.
- Unique cantilever style or freestanding/surface mount supports are cast iron.

	STYLE	DEPTH	WIDTH	HEIGHT	PRODUCT WEIGHT
	cantilever backed	23"	72"	33"	Alum: 118 lb Wood: 150 lb
	cantilever backed	22"	72"	18"	Alum: 68 lb Wood: 120 lb
	Freestanding/ Surface Mount backed	24"	72"	33"	Alum: 100 lb Wood: 130 lb
	Freestanding/ Surface Mount backless	22"	72"	18"	Alum: 66 lb Wood: 90 lb

Arm Options

- Optional arms may be added to both ends, as well as the center position.
- Arms are available for either backed or backless benches.
- All arms are cast aluminum and attached to the seat boards.

Arm Options	
end and center position	end arms
	

Mounting Options

- Austin benches with freestanding/surface mount supports ship with glides which may be removed for surface mounting.
- All cantilever supports must be surface mounted into concrete.

Mounting Options		
cantilever backed	cantilever backless	freestanding / surface mount
		

Landscape Forms, Inc. | 800.521.2546 | F 269.381.3455 | 7800 E. Michigan Ave., Kalamazoo, MI 49048

landscapeforms

AUSTIN

Product Data Sheet

Litter Receptacles

- Top and side opening litters are available with or without lock.
- With a 34 gallon capacity, litter can be freestanding or surface mount.
- Fabricated with carbon steel body panels, cast aluminum top, and cast iron base.
- Litter is finished with exclusive Pangard II® powdercoat finish.
- Black polyethylene liner comes standard with litter.
- Shipped with freestanding glides that remain in place for surface mounting.
- Litter ships fully assembled.

	STYLE	DIAMETER	HEIGHT	PRODUCT WEIGHT
	Top-Opening	24"	35"	172 lb
	Side-Opening	24"	42"	186 lb

Finishes

- All metal is finished with Landscape Forms' proprietary Pangard II® polyester powdercoat, a hard yet flexible finish that resists rusting, chipping, peeling, and fading.
- Call for standard color chart.

To Specify

- Select top or side-opening litter. Specify with or without lock.
- Select powdercoat color.

Designed by Robert Chipman, ASLA
Austin design is protected by U.S. Patent Nos. D481,210, D481,211, D482,885, D483,960

Visit our landscapeforms.com for more information. Specifications are subject to change without notice. Landscape Forms supports the Landscape Architecture Foundation at the Second Century level.

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LANDSCAPEFORMS "AUSTIN" BENCH DETAIL

NOT TO SCALE

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Rev.	Date	Comments	By
1	10/07/20	REV. PER TOWNSHIP COMMENTS	GMC

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Newtown, Pennsylvania T: 267.685.0276 | Delray Beach, Florida T: 561.921.8570

TITLE:

CONSTRUCTION DETAILS

PROJECT: **RPM DEVELOPMENT, LLC**
PROPOSED RESIDENTIAL DEVELOPMENT
BLOCK 2001, LOTS 3, 60-66, & 68
2495 BRUNSWICK PIKE (A.K.A. ALT ROUTE 1)
TOWNSHIP OF LAWRENCE, MERCER COUNTY, NEW JERSEY

JOHN A. PALUS
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 41975

THOMAS J. MULLER
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 52179

JOB No: 1279-99-010
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DESIGNED BY: LPG
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SHEET No: 13 OF 23
Rev. # 1

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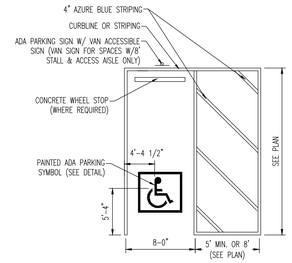
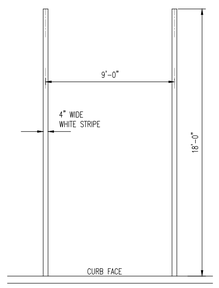


NOTES:

1. PAVEMENT STRIPING FOR ALL ADA PARKING SPACES SHALL BE PAINTED AZURE BLUE.
2. WHERE AN ADA PARKING STALL MEETS A STANDARD PARKING STALL, AN AZURE BLUE AND WHITE PAVEMENT STRIPE SHALL BE PAINTED.
3. ALL PAVEMENT STRIPING, MARKINGS AND SIGNAGE SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST ADA ACCESSIBILITY GUIDELINES.

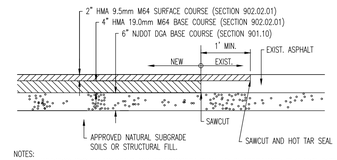
ADA STALL MARKINGS DETAIL

NOT TO SCALE



PARKING STALL STRIPING DETAIL

NOT TO SCALE

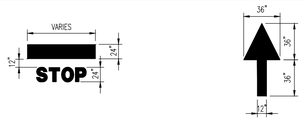


NOTES:

1. ALL PAVEMENT SECTION MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH NEW JERSEY DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION 2007.
2. OWNER SHALL CONTACT AND ENGAGE DYNAMIC EARTH, LLC. TO INSPECT AND TEST SUBGRADE SOILS. CONTRACTOR SHALL CONTACT DYNAMIC EARTH, LLC. AT (908) 879-7095 (WWW.DYNAMIC-EARTH.COM) AT ONSET OF CONSTRUCTION TO CONFIRM REQUIREMENTS AND COORDINATE INSPECTIONS.
3. SUBGRADE SOILS SHALL BE APPROVED BY DYNAMIC EARTH, LLC. APPROVED NATURAL SOILS SHALL BE COMPACTED AND PROOFROLLED WITH A LOADED TANDEM AXLE TRUCK TO A FIRM AND UNYIELDING CONDITION. UNSUITABLE MATERIALS SHALL BE REMOVED AND REPLACED WITH STRUCTURAL FILL OR STABILIZED AS DIRECTED BY DYNAMIC EARTH, LLC. ANY STRUCTURAL FILL AT OR BELOW PAVEMENT SUBGRADE SHALL BE COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY WITHIN 2% OF THE OPTIMUM MOISTURE CONTENT AS DETERMINED BY ASTM-D1557.
4. CONTRACTOR TO REFER TO GEOTECHNICAL REPORT FOR FINAL PAVEMENT SECTION DESCRIPTION.

PAVING DETAIL

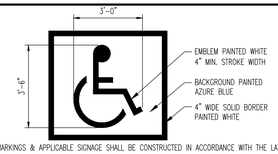
NOT TO SCALE



NOTE: ARROWS AND WORDS CAN BE ARRANGED IN OTHER COMBINATIONS THAN THOSE ILLUSTRATED HERE TO ACHIEVE DESIRED RESULT. ALL PAINT TO BE THERMOPLASTIC.

PAINTED MARKING DETAILS

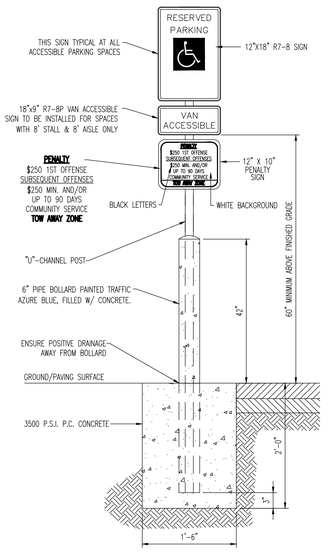
NOT TO SCALE



NOTE: ALL PAVEMENT STRIPING, MARKINGS & APPLICABLE SIGNAGE SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST A.D.A. ACCESSIBILITY GUIDELINES.

PAINTED A.D.A. PARKING SYMBOL DETAIL

NOT TO SCALE



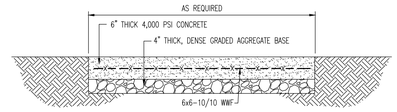
NOTES:

1.) IF AT THE TIME OF CONSTRUCTION THE STATE OF NEW JERSEY HAS APPROVED FINES/PENALTIES DIFFERENT THAN THOSE INDICATED ON THIS DETAIL, CONTRACTOR IS TO PROVIDE SIGNAGE INDICATING THE CURRENT FINES/PENALTIES AS APPROVED BY THE STATE OF NEW JERSEY.

2.) VAN ACCESSIBLE SIGN SHALL BE 60" MINIMUM ABOVE FINISHED GRADE WHERE APPLICABLE. WHEN VAN ACCESSIBLE IS NOT REQUIRED, R7-8 SIGN SHALL BE SET AT 60" MINIMUM ABOVE FINISHED GRADE.

A.D.A. PARKING SIGN ON BOLLARD DETAIL

NOT TO SCALE

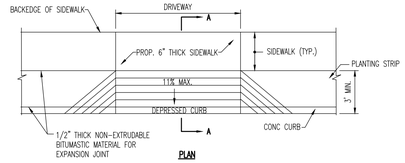


NOTES:

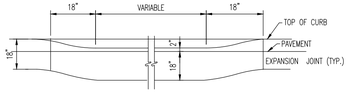
1. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS WITH A MINIMUM CEMENT CONTENT OF 600 POUNDS PER CUBIC YARD FOR ALL FOOTINGS.
2. ALL CONCRETE SHALL HAVE A SLUMP OF NO GREATER THAN 4" TO WITHIN A TOLERANCE OF 1".
3. ALL EXPOSED CONCRETE SHALL BE AIR-ENTRAINED, (6% WITHIN 1% TOLERANCE), CONFORMING TO ASTM C260.
4. REINFORCING STEEL BARS SHALL BE A MINIMUM ASTM A615, GRADE 60, AND SHALL BE FIELD WIRED IN PLACE.
5. ALL FRAMEWORK, AND PLACEMENT OF CONCRETE SHALL COMPLY WITH GOOD CONSTRUCTION PRACTICES AND BE IN ACCORDANCE WITH ALL LOCAL GOVERNING CODES AND REGULATIONS, AS WELL AS THE ACI AND UNIFORM BUILDING CODE.
6. EXPANSION JOINTS 1/2" WIDE OF PREMOULDED BITUMINOUS MATERIALS SHALL BE INSTALLED.

CONCRETE PAD DETAIL

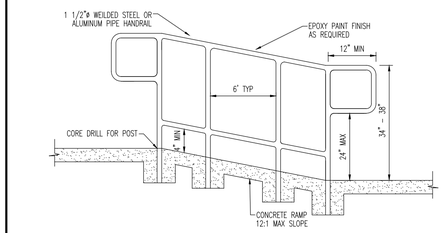
NOT TO SCALE

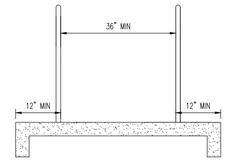


PLAN



ELEVATION





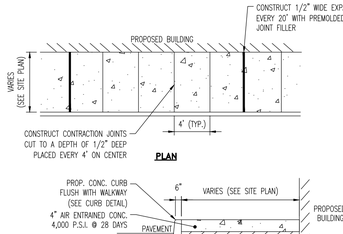
CONSTRUCTION IN ACCORDANCE WITH ALL APPLICABLE LOCAL & STATE CODE REQUIREMENTS

NOTES:

1. THE MAXIMUM SLOPE OF A RAMP IN NEW CONSTRUCTION SHALL BE 1:12. THE MAXIMUM RISE FOR ANY RUN SHALL BE 30 IN (760MM).
2. THE MINIMUM CLEAR WIDTH OF A RAMP SHALL BE 36IN (915MM).
3. RAMPS SHALL HAVE LEVEL LANDINGS AT BOTTOM AND TOP OF EACH RAMP AND EACH RAMP RUN. LANDINGS SHALL HAVE THE FOLLOWING FEATURES:
   1. THE LANDING SHALL BE AT LEAST AS WIDE AS THE RAMP RUN LEADING TO IT.
   2. THE LANDING LENGTH SHALL BE A MINIMUM OF 60IN (1525MM) CLEAR.
   3. IF RAMPS CHANGE DIRECTION AT LANDINGS, THE MINIMUM LANDING SIZE SHALL BE 60IN BY 60IN (1525MM BY 1526MM).
4. HANDRAILS SHALL BE PROVIDED ALONG BOTH SIDES OF RAMP SEGMENTS. THE INSIDE HANDRAIL ON SWITCHBACK OR DOGLEG RAMPS SHALL ALWAYS BE CONTINUOUS.
5. IF HANDRAILS ARE NOT CONTINUOUS, THEY SHALL EXTEND AT LEAST 12IN (305MM) BEYOND THE TOP AND BOTTOM OF THE RAMP SEGMENT AND SHALL BE PARALLEL WITH THE FLOOR OR GROUND SURFACE.
6. THE CLEAR SPACE BETWEEN THE HANDRAIL AND THE WALL SHALL BE 1-1/2IN
7. GRIPPING SURFACES SHALL BE CONTINUOUS.
8. ENDS OF HANDRAILS SHALL BE EITHER ROUNDED OR RETURNED SMOOTHLY TO FLOOR, WALL OR POST.
9. HANDRAILS SHALL NOT ROTATE WITHIN THEIR FITTINGS.

HANDRAIL AT A.D.A ACCESSIBLE RAMP DETAIL

NOT TO SCALE



PLAN

SECTION

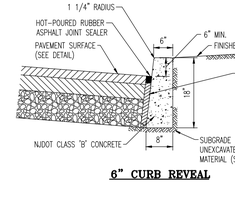
NOTE:

1. MAX. CROSS SLOPE 1/4" PER FOOT PITCHED AWAY FROM BUILDING.
2. PROVIDE 1/2" WIDE PREMOLDED BITUMINOUS EXPANSION JOINT AT 20' INTERVALS.
3. REFER TO SITE PLAN FOR SIDEWALK WIDTH.
4. PROVIDE A BROOM FINISH TO PROVIDE A SLIP RESISTANT WEARING SURFACE IN ACCORDANCE WITH A.D.A. REGULATIONS. FINISH THE EDGES OF THE GROOVES USING AN EDGING TOOL WITH A 1/4" RADIUS.

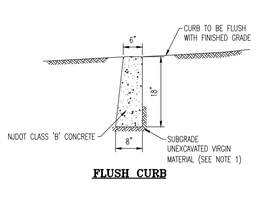
AS REVISED

CURB AND WALK DETAIL AT BUILDING

NOT TO SCALE



6" CURB REVEAL



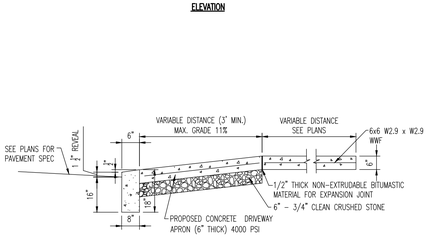
FLUSH CURB

NOTES:

1. ANY EXCAVATION BELOW DESIRED GRADE DUE TO OVER EXCAVATION OR WET SOIL CONDITIONS SHALL BE BACKFILLED WITH 3/4" CLEAN CRUSHED STONE. ALL SUBGRADES SHALL BE APPROVED BY THE TOWNSHIP ENGINEER PRIOR TO POURING.
2. TRANSVERSE JOINTS 1/2" WIDE SHALL BE INSTALLED IN THE CURB 20'-0" APART AND SHALL BE FILLED WITH PREFORMED, BITUMINOUS-IMPREGNATED FIBER JOINT FILLER, COMPLYING WITH THE REQUIREMENTS OF ASHTOM-213, RECESSED 1/4" FROM THE FRONT FACE AND TOP OF THE CURB.
3. DUMMY JOINTS (FORMED) SHALL BE INSTALLED MIDWAY BETWEEN EXPANSION JOINTS.
4. WIDTH OF JOINT FILLER STRIP EQUAL TO THE THICKNESS OF THE PAVEMENT LESS 1/2".
5. THESE SPECIFICATIONS ALSO MEET RSIS DESIGN STANDARDS.

CONCRETE CURB DETAIL

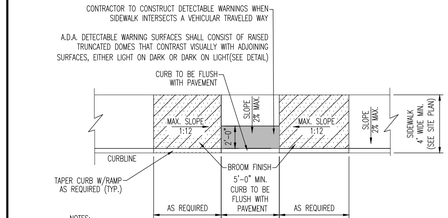
NOT TO SCALE



SECTION A-A

DEPRESSED CURB & CONCRETE APRON AT DRIVEWAY DETAIL

NOT TO SCALE



A.D.A. DETECTABLE WARNING SURFACES SHALL CONSIST OF RAISED TRUNCATED DOMES THAT CONTRAST VISUALLY WITH ADJOINING SURFACES, EITHER LIGHT ON DARK OR DARK ON LIGHT(SEE DETAIL)

NOTES:

1.) CURB RAMPS MAY NOT EXTEND INTO ANY PORTION OF THE PARKING SPACE OR ASSOCIATED STRIPED ISLAND.

2.) COUNTER SLOPES OF ADJOINING GUTTERS AND PAVEMENT SHALL NOT BE STEEPER THAN 1:20 WITH A MAX. CROSS SLOPE OF 2%.

3. A LEVEL LANDING AREA(MAX. SLOPE 2% IN ANY DIRECTION) SHALL BE PROVIDED AT THE TOP OF THE RAMP. THE LANDING CLEAR LENGTH SHALL BE 36" MIN AND THE CLEAR WIDTH SHALL BE AS WIDE AS THE RAMP.

4.) CURB RAMPS, PAVEMENT MARKINGS & APPLICABLE SIGNAGE SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST A.D.A. ACCESSIBILITY GUIDELINES.

A.D.A. PARALLEL CURB RAMP DETAIL

NOT TO SCALE

NOTE: SEE CURB DETAIL FOR MATERIAL SPECIFICATIONS, BEDDING REQUIREMENTS, ETC.

VERTICAL CURB TAPER DETAIL

NOT TO SCALE

NOTE: PAVEMENT SECTION TO MATCH APPROVED PAVEMENT DETAIL

CONCRETE & PAVING DETAIL

NOT TO SCALE

Plotted: 10/09/20 – 12:37 PM, By: gcowdrick, – Product Ver: 23.1s (LMS Tech)
File: P:\decpc projects\1279 rpm development group\99-010 lawrence\Dwg\Site Plans\D1279990105D1.dwg, ----> 12 CONSTRUCTION DETAILS

THIS PLAN SET IS FOR PERMITTING PURPOSES ONLY AND MAY NOT BE USED FOR CONSTRUCTION

Rev.	Date	Comments	By
1	10/07/20	REV. PER TOWNSHIP COMMENTS	GMC

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1904 Main Street
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TITLE: CONSTRUCTION DETAILS

PROJECT: RPM DEVELOPMENT, LLC
PROPOSED RESIDENTIAL DEVELOPMENT
BLOCK 2001, LOTS 3, 60-66, & 68
2495 BRUNSWICK PIKE (A.K.A. ALT ROUTE 1)
TOWNSHIP OF LAWRENCE, MERCER COUNTY, NEW JERSEY

JOB No:	1279-99-010
DATE:	04/15/2020
DRAWN BY:	GMC
SCALE:(H) NOT TO (V) SCALE	
DESIGNED BY:	LPG
CHECKED BY:	TJM
CHECKED BY:	–
SHEET No:	14 OF 23
Rev. #	1

JOHN A. PALUS
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 41975

THOMAS J. MULLER
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 52179

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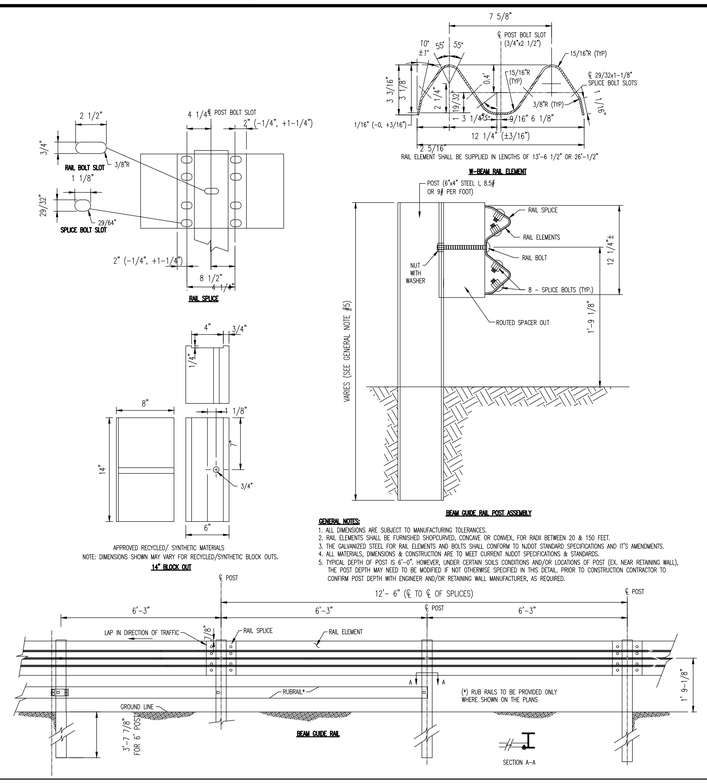
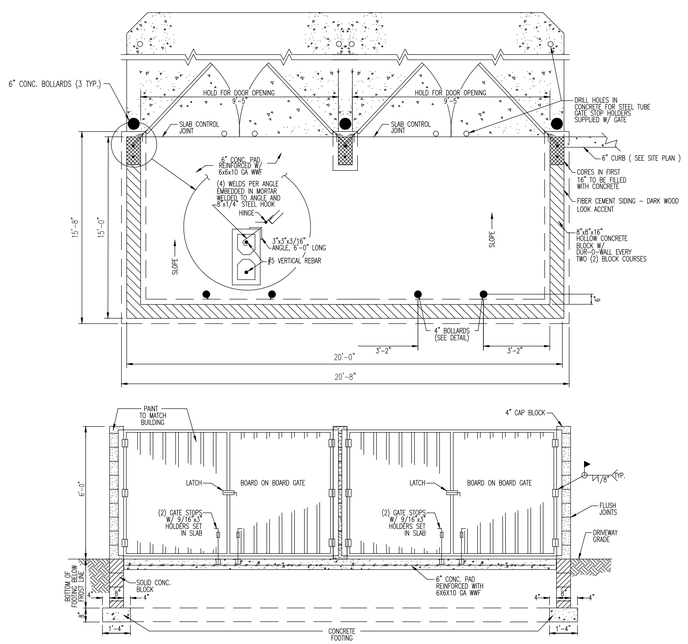


GALVANIZED STEEL BEAM GUIDE RAIL DETAIL

NOT TO SCALE



MASONRY TRASH/BOARD-ON-BOARD GATE ENCLOSURE DETAIL

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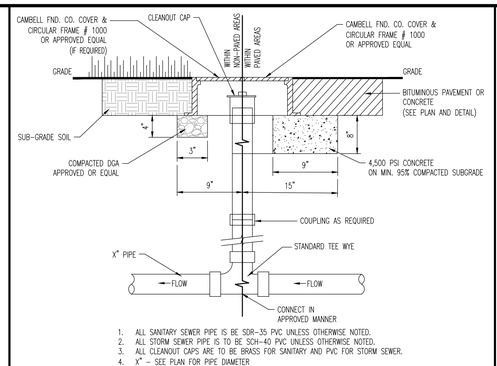
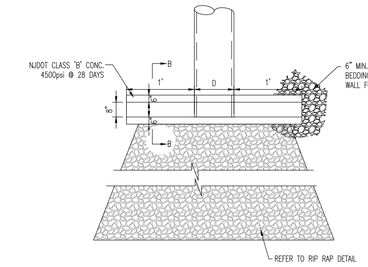


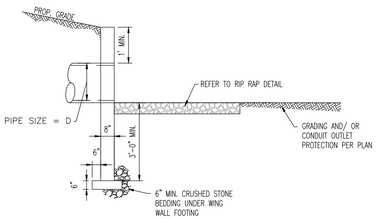
1. ALL SANITARY SEWER PIPE IS BE SDR-35 PVC UNLESS OTHERWISE NOTED.
2. ALL STORM SEWER PIPE IS TO BE SCH-40 PVC UNLESS OTHERWISE NOTED.
3. ALL CLEANOUT CAPS ARE TO BE BRASS FOR SANITARY AND PVC FOR STORM SEWER.
4. X" - SEE PLAN FOR PIPE DIAMETER

CLEANOUT DETAIL

NOT TO SCALE



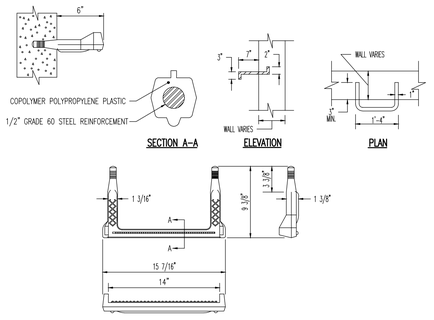
PLAN VIEW



SECTION B-B

PRE CAST CONCRETE HEADWALL DETAIL

NOT TO SCALE



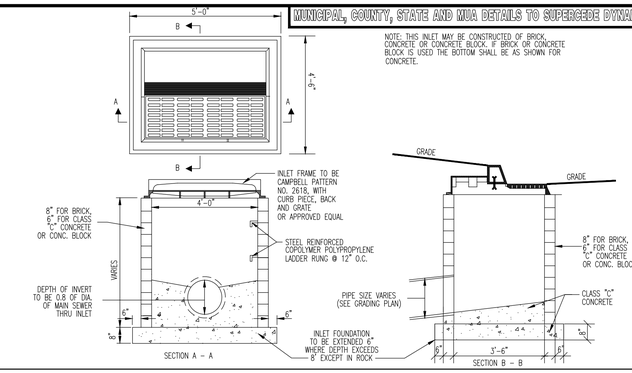
STEEL REINFORCED COPOLYMER POLYPROPYLENE LADDER RUNG

NOTE: LADDER RUNGS FACING TRAFFIC 12" C TO C

LADDER RUNG DETAIL

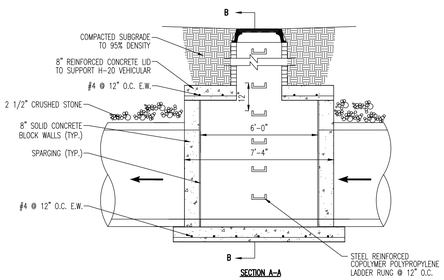
NOT TO SCALE

MUNICIPAL, COUNTY, STATE AND MUA DETAILS TO SUPERCEDE DYNAMIC ENGINEERING DETAILS WHERE APPLICABLE

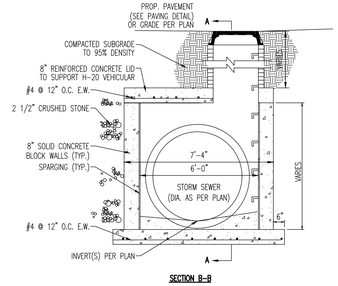


TYPE B INLET DETAIL

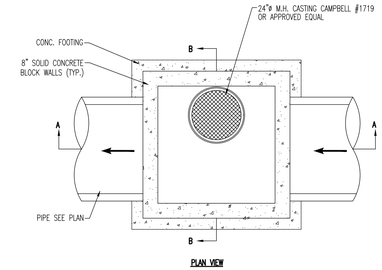
NOT TO SCALE



SECTION A-A



SECTION B-B



PLAN VIEW

NOTES: 1. CONSTRUCTION SHALL BE 8" SOLID CONCRETE BLOCK WALL OR PRECAST CONCRETE.
2. ALL CONCRETE SHALL BE A MINIMUM 4,000 PSI UNLESS NOTED OTHERWISE.

6' x 6' STORM SEWER MANHOLE DETAIL

NOT TO SCALE

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Rev.	Date	Comments	By
1	10/07/20	REV. PER TOWNSHIP COMMENTS	GMC

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TITLE: CONSTRUCTION DETAILS

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BLOCK 2001, LOTS 3, 60-66, & 68
2495 BRUNSWICK PIKE (A.K.A. ALT ROUTE 1)
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JOB No: 1279-99-010
DRAWN BY: GMC
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SHEET No: 15 OF 23
Rev. # 1

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PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 41975

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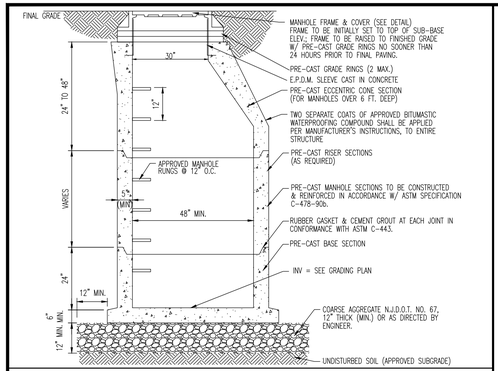
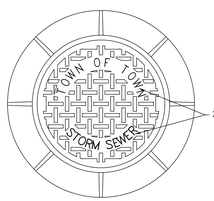
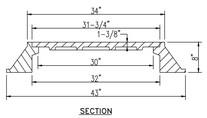


TYPICAL PRECAST STORM MANHOLE

NOT TO SCALE



PLAN



SECTION

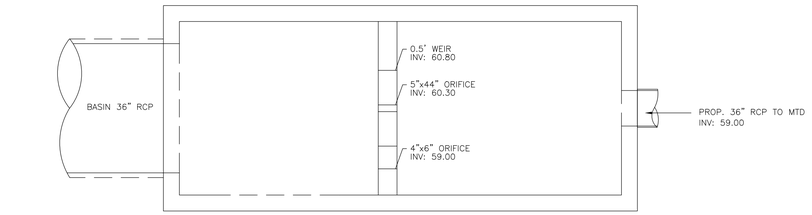
2" RAISED LETTERS (AS REQUIRED BY GOVERNING AUTHORITY)

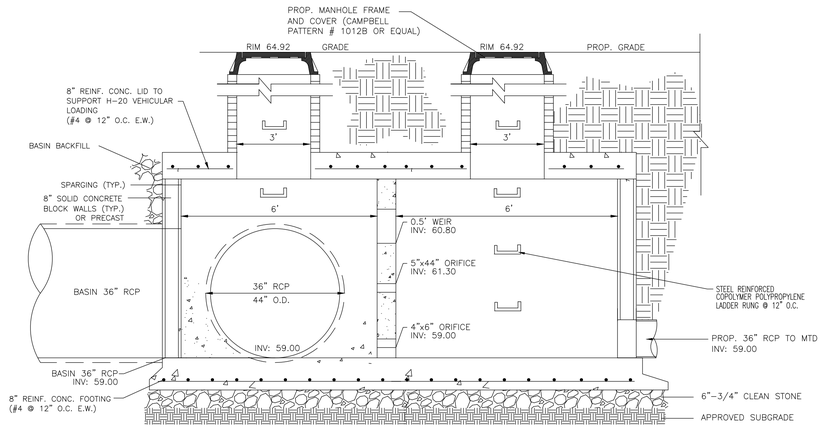
NOTES:

1. STANDARD MANHOLE FRAMES & COVERS SHALL BE USED ON ALL MANHOLES NOT LOCATED WITHIN EASEMENTS UNLESS DIRECTED OTHER-WISE BY THE ENGINEER OR TOWNSHIP REPRESENTATIVE.
2. STANDARD MANHOLE FRAME & COVER SHALL BE CAMPBELL FOUNDRY PATTERN # 1012B, OR APPROVED EQUAL, WITH NON-PENETRATING PICK HOLES.
3. WATERTIGHT MANHOLE COVERS SHALL BE USED ON MANHOLES LOCATED WITHIN EASEMENTS, IN UNPAVED AREAS, AND OUTSIDE OF THE CENTERLINE OF PAVED ROADS AS DIRECTED BY ENGINEER OR TOWNSHIP REPRESENTATIVE.

STORM MANHOLE FRAME DETAIL

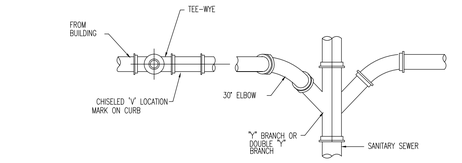
NOT TO SCALE



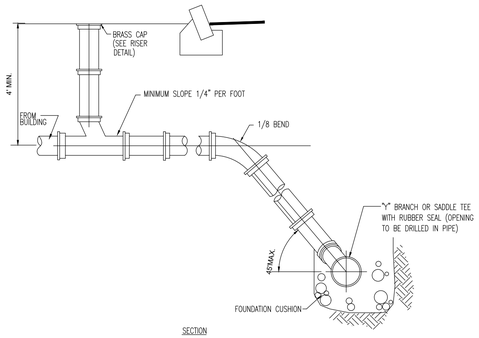


OUTLET STRUCTURE DETAIL

NOT TO SCALE



PLAN

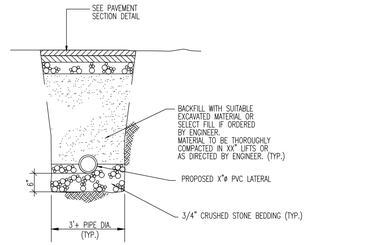


SECTION

NOTE: 1. REFER TO UTILITY PLAN FOR PIPE SIZES, VERIFY WITH ARCHITECTURAL PLANS.
2. CONTACT ENGINEER WITH ANY CONFLICTS PRIOR TO ANY SEWER CONNECTION WORK.

STANDARD CONNECTION DETAIL

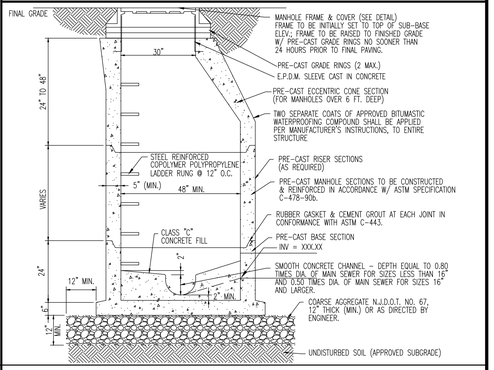
NOT TO SCALE



NOTE:
1. PAVEMENT SECTION TO MATCH, AT MINIMUM, ADJOINING PAVEMENT.
2. X" - SEE PLAN FOR PIPE DIAMETER.

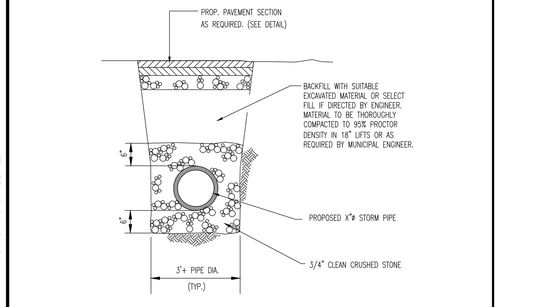
SANITARY SEWER TRENCH DETAIL

NOT TO SCALE



PRECAST SANITARY MANHOLE

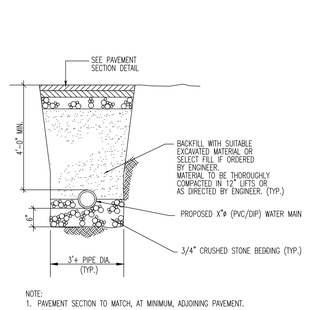
NOT TO SCALE



NOTE:
1. PAVEMENT SECTION TO MATCH, AT MINIMUM, ADJOINING PAVEMENT.
2. X" - SEE PLAN FOR PIPE DIAMETER.

STORM SEWER TRENCH DETAIL

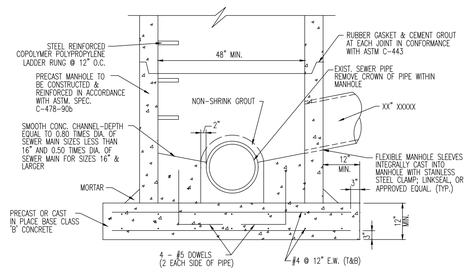
NOT TO SCALE



NOTE:
1. PAVEMENT SECTION TO MATCH, AT MINIMUM, ADJOINING PAVEMENT.
2. X" - SEE PLAN FOR PIPE DIAMETER.

WATER SERVICE TRENCH DETAIL

NOT TO SCALE

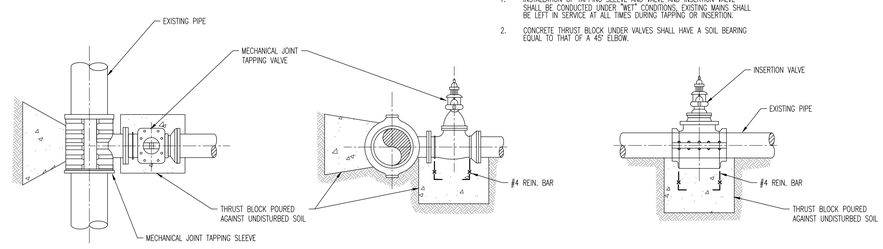


NOTES:
1. TWO SEPARATE COATS OF APPROVED BITUMASTIC WATERPROOFING COMPOUND SHALL BE APPLIED PER MANUFACTURERS INSTRUCTIONS TO THE ENTIRE EXTERIOR OF STRUCTURE.
2. TWO SEPARATE COATS OF APPROVED TWO-PART EPOXY COATING SHALL BE APPLIED PER MANUFACTURERS INSTRUCTIONS TO THE ENTIRE INTERIOR OF STRUCTURE.

SANITARY SEWER DOGHOUSE MANHOLE DETAIL

NOT TO SCALE

TAPPING NOTES:
1. INSTALLATION OF TAPPING SLEEVE AND VALVE AND INSERTION VALVE SHALL BE CONDUCTED UNDER "WET" CONDITIONS, EXISTING MAINS SHALL BE LEFT IN SERVICE AT ALL TIMES DURING TAPPING OR INSERTION.
2. CONCRETE THRUST BLOCK UNDER VALVES SHALL HAVE A SOIL BEARING EQUAL TO THAT OF A 45° ELBOW.



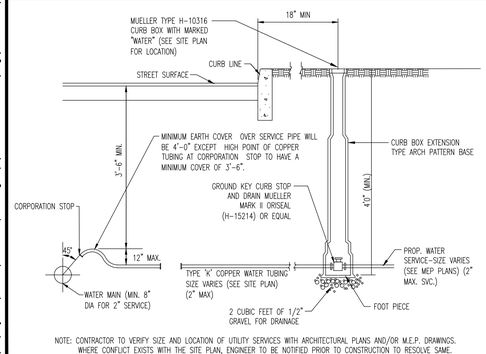
PLAN ELEVATION

TAPPING SLEEVE AND VALVE

VALVE SUPPORT BLOCK & INSERTION VALVE

WET TAP DETAIL

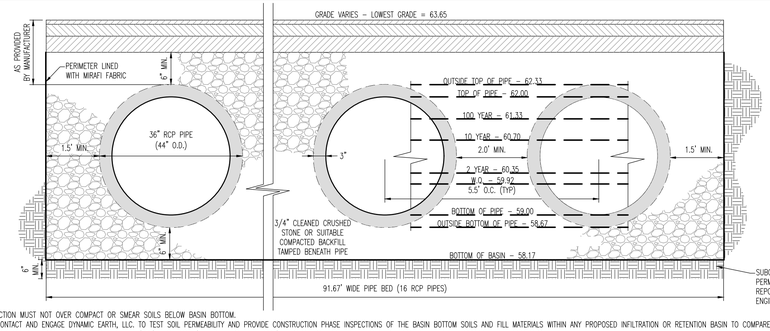
NOT TO SCALE



NOTE: CONTRACTOR TO VERIFY SIZE AND LOCATION OF UTILITY SERVICES WITH ARCHITECTURAL PLANS AND/OR M.E.P. DRAWINGS. WHERE CONFLICT EXISTS WITH THE SITE PLAN, ENGINEER TO BE NOTIFIED PRIOR TO CONSTRUCTION TO RESOLVE SAME.

WATER SERVICE CONNECTION

NOT TO SCALE



NOTES:
1. BASIN CONSTRUCTION MUST NOT OVER COMPACT OR SMEAR SOILS BELOW BASIN BOTTOM.
2. OWNER SHALL CONTACT AND ENGAGE DYNAMIC EARTH, LLC. TO TEST SOIL PERMEABILITY AND PROVIDE CONSTRUCTION PHASE INSPECTIONS OF THE BASIN BOTTOM SOILS AND FILL MATERIALS WITHIN ANY PROPOSED INFILTRATION OR RETENTION BASIN TO COMPARE RESULTS TO DESIGN CRITERIA. CONTRACTOR SHALL CONTACT DYNAMIC EARTH AT (908) 879-7095 (WWW.DYNAMIC-EARTH.COM) AT ONSET OF PROJECT TO CONFIRM REQUIREMENTS AND COORDINATE INSPECTIONS.
3. TOPSOIL AND UNSUITABLE MATERIALS (INCLUDING ANY SOILS WITH INSUFFICIENT PERMEABILITY) ARE TO BE STRIPPED FROM BASIN BOTTOM AREA AND REPLACED WITH SUITABLE MATERIAL PROVIDING PERMEABILITY RATES MEETING THE DESIGN CRITERIA. CONTRACTOR SHALL SUBMIT PROPOSED REPLACEMENT MATERIAL USED AND ITS CORRESPONDING PERMEABILITY RATE FOR APPROVAL BY DYNAMIC EARTH. REFER TO THE TEST PIT AND/OR SOIL BORING RECORDS AND STORMWATER MANAGEMENT REPORT TO CONFIRM THE DEPTH OF THE ZONE OF INFILTRATION.

36" RCP SCHEMATIC UNDERGROUND BASIN DETAIL

NOT TO SCALE

THIS PLAN SET IS FOR PERMITTING PURPOSES ONLY AND MAY NOT BE USED FOR CONSTRUCTION

Rev.	Date	REV. PER TOWNSHIP COMMENTS	BY
1	10/07/20		GMC

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TITLE: CONSTRUCTION DETAILS

PROJECT: **RPM DEVELOPMENT, LLC**
PROPOSED RESIDENTIAL DEVELOPMENT
BLOCK 2001, LOTS 3, 60-66, & 68
2495 BRUNSWICK PIKE (A.K.A. ALT ROUTE 1)
TOWNSHIP OF LAWRENCE, MERCER COUNTY, NEW JERSEY

JOHN A. PALUS
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 41975

THOMAS J. MULLER
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 52179

JOB No: 1279-99-010
DATE: 04/15/2020
DRAWN BY: RAU
SCALE:(H) NOT TO (V) SCALE
DESIGNED BY: LPG
CHECKED BY: TJM
CHECKED BY: _
SHEET No: 16 OF 23
Rev. # 1

PROTECT YOURSELF
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STANDARD FOR TEMPORARY VEGETATIVE COVER FOR SOIL STABILIZATION

1. SITE PREPARATION
   A. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING. ALL GRADING SHOULD BE DONE IN ACCORDANCE WITH STANDARDS FOR LAND GRADING, PG. 19–1.
   B. INSTALL NEEDED EROSION CONTROL PRACTICES OR FACILITIES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENT BASINS, AND WATERWAYS. SEE STANDARDS 11 THROUGH 42.
   C. IMMEDIATELY PRIOR TO SEEDING, THE SURFACE SHOULD BE SCARIFIED 6" TO 12" WHERE THERE HAS BEEN SOIL COMPACTION. THIS PRACTICE IS PERMISSIBLE ONLY WHERE THERE IS NO DANGER TO UNDERGROUND UTILITIES (CABLES, IRRIGATION SYSTEMS, ETC.).

2. SEEDBED PREPARATION
   A. APPLY GROUND LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST RECOMMENDATIONS SUCH AS OFFERED BY RUTGERS CO-OPERATIVE EXTENSION. SOIL SAMPLE MAILERS ARE AVAILABLE FROM THE LOCAL RUTGERS COOPERATIVE EXTENSION OFFICES.
      – FERTILIZER SHALL BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE OR 11 POUNDS PER 1,000 SQUARE FEET OF 10–20–10 OR EQUIVALENT WITH 50% WATER INSOLUBLE NITROGEN UNLESS A SOIL TEST INDICATES OTHERWISE AND INCORPORATED INTO THE SURFACE 4 INCHES. IF FERTILIZER IS NOT INCORPORATED, APPLY ONE-HALF THE RATE DESCRIBED ABOVE DURING SEEDBED PREPARATION AND REPEAT ANOTHER ONE-HALF RATE APPLICATION OF THE SAME FERTILIZER WITHIN 3 TO 5 WEEKS AFTER SEEDING.
      – CALCIUM CARBONATE IS THE EQUIVALENT AND STANDARD FOR MEASURING THE ABILITY OF LIMING MATERIALS TO NEUTRALIZE SOIL ACIDITY AND SUPPLY CALCIUM AND MAGNESIUM TO GRASSES AND LEGUMES.
   B. WORK LIME AND FERTILIZER INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRINGTOOTH HARROW, OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OR DISKING OPERATION SHOULD BE ON THE GENERAL CONTOUR, CONTINUE TILLAGE UNTIL A REASONABLE UNIFORM SEEDBED IS PREPARED.
   C. INSPECT SEEDBED JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE RETILED IN ACCORDANCE WITH THE ABOVE.
   D. SOILS HIGH IN SULFIDES OR HAVING A PH OF 4 OR LESS REFER TO STANDARD FOR MANAGEMENT OF HIGH ACID PRODUCING SOILS, PG. 1–1.

3. SEEDING
   A. TEMPORARY VEGETATIVE STABILIZATION GRASSES, SEEDING RATES, DATES AND DEPTHS
      – COOL SEASON GRASSES:
      (1) PERENNIAL RYEGRASS – 100 LBS / ACRE; PLANT BETWEEN MARCH 1 AND MAY 15 BETWEEN AUGUST 15 AND OCTOBER 1; AT A DEPTH OF 0.5 INCHES.
      (2) SPRING OATS – 86 LBS / ACRE; PLANT BETWEEN MARCH 1 AND MAY 15 BETWEEN AUGUST 15 AND OCTOBER 1; AT A DEPTH OF 1.0 INCHES.
      (3) WINTER BARLEY – 96 LBS / ACRE; PLANT BETWEEN AUGUST 15 AND OCTOBER 1; AT A DEPTH OF 1.0 INCHES.
      (4) ANNUAL RYEGRASS – 100 LBS / ACRE; PLANT BETWEEN MARCH 1 AND JUNE 15 BETWEEN AUGUST 1 AND SEPTEMBER 15; AT A DEPTH OF 0.5 INCHES.
      (5) WINTER CEREAL RYE – 112 LBS / ACRE; PLANT BETWEEN AUGUST 1 AND NOVEMBER 15; AT A DEPTH OF 1.0 INCHES.

      –WARM SEASON GRASSES:
      (1) PEARL MILLET – 20 LBS / ACRE; PLANT BETWEEN MAY 15 AND AUGUST 15; AT A DEPTH OF 1.0 INCHES.
      (2) MILLET (GERMAN OR HUNGARIAN) – 30 LBS / ACRE; PLANT BETWEEN MAY 15 AND AUGUST 15; AT A DEPTH OF 1.0 INCHES.
   B. CONVENTIONAL SEEDING: APPLY SEED UNIFORMLY BY HAND, CYCLONE (CENTRIFUGAL) SEEDER, DROP SEEDER, DRILL OR CULTIPACKER SEEDER. EXCEPT FOR DRILLED, HYDROSEEDED OR CULTIPACKED SEEDINGS, SEED SHALL BE INCORPORATED INTO THE SOIL, TO A DEPTH OF 1/4 TO 1/2 INCH, BY RAKING OR DRAGGING. DEPTH OF SEED PLACEMENT MAY BE 1/4 INCH DEEPER ON COARSE-TEXTURED SOIL.
   C. HYDROSEEDING IS A BROADCAST SEEDING METHOD USUALLY INVOLVING A TRUCK OR TRAILER MOUNTED TANK, WITH AN AGITATION SYSTEM AND HYDRAULIC PUMP FOR MIXING SEED, WATER AND FERTILIZER AND SPRAYING THE MIX ONTO THE PREPARED SEEDBED. MULCH SHALL NOT BE INCLUDED IN THE TANK WITH SEED. SHORT-FIBERED MULCH MAY BE APPLIED WITH A HYDROSEEDER FOLLOWING SEEDING. (ALSO SEE SECTION V, MULCHING) HYDROSEEDING IS NOT A PREFERRED SEEDING METHOD BECAUSE SEED AND FERTILIZER ARE APPLIED TO THE SURFACE AND NOT INCORPORATED INTO THE SOIL. POOR SEED TO SOIL CONTACT OCCURS REDUCING SEED GERMINATION AND GROWTH. HYDROSEEDING MAY BE USED FOR AREAS TOO STEEP FOR CONVENTIONAL EQUIPMENT TO TRAVERSE OR TOO OBSTRUCTED WITH ROCKS, STUMPS, ETC.
   D. AFTER SEEDING, FIRMING THE SOIL WITH A CORRUGATED ROLLER WILL ASSURE GOOD SEED-TO-SOIL CONTACT, RESTORE CAPILLARITY, AND IMPROVE SEEDLING EMERGENCE. THIS IS THE PREFERRED METHOD. WHEN PERFORMED ON THE CONTOUR, SHEET EROSION WILL BE MINIMIZED AND WATER CONSERVATION ON SITE WILL BE MAXIMIZED.

4. MULCHING

   MULCHING IS REQUIRED ON ALL SEEDING. MULCH WILL INSURE AGAINST EROSION BEFORE GRASS IS ESTABLISHED AND WILL PROMOTE FASTER AND EARLIER ESTABLISHMENT. THE EXISTENCE OF VEGETATION SUFFICIENT TO CONTROL SOIL EROSION SHALL BE DEEMED COMPLIANCE WITH THIS MULCHING REQUIREMENT.

   A. STRAW OR HAY, UNROTTED SMALL GRAIN STRAW, HAY FREE OF SEEDS, APPLIED AT THE RATE OF 1–1/2 TO 2 TONS PER ACRE (70 TO 90 POUNDS PER 1,000 SQUARE FEET), EXCEPT THAT WHERE A CRIMPER IS USED INSTEAD OF A LIQUID MULCH–BINDER (TACKIFYING OR ADHESIVE AGENT), THE RATE OF APPLICATION IS 3 TONS PER ACRE. MULCH CHOPPER–BLOWERS MUST NOT GRIND THE MULCH. HAY MULCH IS NOT RECOMMENDED FOR ESTABLISHING FINE TURF OR LAWNS DUE TO THE PRESENCE OF WEED SEED.

   APPLICATION. SPREAD MULCH UNIFORMLY BY HAND OR MECHANICALLY SO THAT APPROXIMATELY 95% OF THE SOIL SURFACE WILL BE COVERED. FOR UNIFORM DISTRIBUTION OF HAND–SPREAD MULCH, DIVIDE AREA INTO APPROXIMATELY 1,000 SQUARE FEET SECTIONS AND DISTRIBUTE 70 TO 90 POUNDS WITHIN EACH SECTION.

   ANCHORING SHALL BE ACCOMPLISHED IMMEDIATELY AFTER PLACEMENT TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE DONE BY ONE OF THE FOLLOWING METHODS IN ACCORDANCE WITH THE STATE STANDARDS, DEPENDING UPON THE SIZE OF THE AREA, STEEPNESS OF SLOPES, AND COST.
   1. PEG AND TWINE
   2. MULCH NETTINGS
   3. CRIMPER MULCH ANCHORING COULTER TOOL
   4. LIQUID MULCH–BINDERS

   B. WOOD–FIBER OR PAPER–FIBER MULCH. SHALL BE MADE FROM WOOD, PLANT FIBERS OR PAPER CONTAINING NO GROWTH OR GERMINATION INHIBITING MATERIALS, USED AT THE RATE OF 1,500 POUNDS PER ACRE (OR AS RECOMMENDED BY THE PROJECT MANUFACTURER) AND MAY BE APPLIED BY A HYDROSEEDER. THIS MULCH SHALL NOT BE MIXED IN THE TANK WITH SEED. USE IS LIMITED TO FLATTER SLOPES AND DURING OPTIMUM SEEDING PERIODS IN SPRING AND FALL.

   C. PELLETIZED MULCH. COMPRESSED AND EXTRUDED PAPER AND/OR WOOD FIBER PRODUCT, WHICH MAY CONTAIN CO–POLYMERS, TACKIFIERS, FERTILIZERS AND COLORING AGENTS. THE DRY PELLETS, WHEN APPLIED TO A SEEDED AREA AND WATERED, FORM A MULCH MAT. PELLETIZED MULCH SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS. MULCH MAY BE APPLIED BY HAND OR MECHANICAL SPREADER AT THE RATE OF 60–75 LBS./1,000 SQUARE FEET AND ACTIVATED WITH 0.2 TO 0.4 INCHES OF WATER. THIS MATERIAL HAS BEEN FOUND TO BE BENEFICIAL FOR USE ON SMALL LAWN OR RENOVATION AREAS, SEEDED AREAS WHERE WEED–SEED FREE MULCH IS DESIRED OR ON SITES WHERE STRAW MULCH AND TACKIFIER AGENT ARE NOT PRACTICAL OR DESIRABLE.

   APPLYING THE FULL 0.2 TO 0.4 INCHES OF WATER AFTER SPREADING PELLETIZED MULCH ON THE SEED BED IS EXTREMELY IMPORTANT FOR SUFFICIENT ACTIVATION AND EXPANSION OF THE MULCH TO PROVIDE SOIL COVERAGE.

STANDARD FOR PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION

1. SITE PREPARATION
   A. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING. ALL GRADING SHOULD BE DONE IN ACCORDANCE WITH STANDARD FOR LAND GRADING.
   B. IMMEDIATELY PRIOR TO SEEDING AND TOPSOIL APPLICATION, THE SUBSOIL SHALL BE EVALUATED FOR COMPACTION IN ACCORDANCE WITH THE STANDARD FOR LAND GRADING.
   C. TOPSOIL SHOULD BE HANDLED ONLY WHEN IT IS DRY ENOUGH TO WORK WITHOUT DAMAGING THE SOIL STRUCTURE. A UNIFORM APPLICATION TO A DEPTH OF 5 INCHES (UNSETTLED) IS REQUIRED ON ALL SITES. TOPSOIL SHALL BE AMENDED WITH ORGANIC MATTER, AS NEEDED, IN ACCORDANCE WITH THE STANDARD FOR TOPSOILING.
   D. INSTALL NEEDED EROSION CONTROL PRACTICES OR FACILITIES SUCH AS DIVERSIONS, GRADE–STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENT BASINS, AND WATERWAYS.

2. SEEDBED PREPARATION
   A. UNIFORMLY APPLY GROUND LIMESTONE AND FERTILIZER TO TOPSOIL WHICH HAS BEEN SPREAD AND FIRMED, ACCORDING TO SOIL TEST RECOMMENDATIONS SUCH AS OFFERED BY RUTGERS CO–OPERATIVE EXTENSION SOIL SAMPLE MAILERS ARE AVAILABLE FROM THE LOCAL RUTGERS COOPERATIVE EXTENSION OFFICES (HTTP://NJAES.RUTGERS.EDU/COUNTY/).
      – FERTILIZER SHALL BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE OR 11 POUNDS PER 1,000 SQUARE FEET OF 10–10–10 OR EQUIVALENT WITH 50% WATER INSOLUBLE NITROGEN UNLESS A SOIL TEST INDICATES OTHERWISE AND INCORPORATED INTO THE SURFACE 4 INCHES. IF FERTILIZER IS NOT INCORPORATED, APPLY ONE–HALF THE RATE DESCRIBED ABOVE DURING SEEDBED PREPARATION AND REPEAT ANOTHER ONE–HALF RATE APPLICATION OF THE SAME FERTILIZER WITHIN 3 TO 5 WEEKS AFTER SEEDING.
   B. WORK LIME AND FERTILIZER INTO THE TOPSOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRING–TOOTH HARROW, OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OR DISKING OPERATION SHOULD BE ON THE GENERAL CONTOUR, CONTINUE TILLAGE UNTIL A REASONABLE UNIFORM SEEDBED IS PREPARED.
   C. HIGH ACID PRODUCING SOIL: SOILS HAVING A PH OF 4 OR LESS OR CONTAINING IRON SULFIDE SHALL BE COVERED WITH A MINIMUM OF 12 INCHES OF SOIL HAVING A PH OF 5 OR MORE BEFORE INITIATING SEEDBED REPARATION. SEE STANDARD FOR MANAGEMENT OF HIGH ACID–PRODUCING SOILS FOR SPECIFIC REQUIREMENTS.

3. SEEDING
   A. PERMANENT VEGETATIVE MIXTURES & PLANTING RATES

(1)HARD FESCUE –	175 LBS/ACRE	4 LBS/1000 SQ.FT.
(2)CHEWING FESCUE –	175 LBS/ACRE	4 LBS/1000 SQ.FT.
(3)STRONG CREEPING RED FESCUE –	175 LBS/ACRE	4 LBS/1000 SQ.FT.
(4)PERENNIAL RYEGRASS –	45 LBS/ACRE	1 LBS/1000 SQ.FT.
(5)KY. BLUEGRASS –	45 LBS/ACRE	1 LBS/1000 SQ.FT.

   B. CONVENTIONAL SEEDING IS PERFORMED BY APPLYING SEED UNIFORMLY BY HAND, CYCLONE (CENTRIFUGAL) SEEDER, DROP SEEDER, DRILL OR CULTIPACKER SEEDER. EXCEPT FOR DRILLED, HYDROSEEDED OR CULTIPACKED SEEDINGS, SEED SHALL BE INCORPORATED INTO THE SOIL WITHIN 24 HOURS OF SEEDBED PREPARATION TO A DEPTH OF 1/4 TO 1/2 INCH, BY RAKING OR DRAGGING. DEPTH OF SEED PLACEMENT MAY BE 1/4 INCH DEEPER ON COARSE–TEXTURED SOIL.
   C. AFTER SEEDING, FIRMING THE SOIL WITH A CORRUGATED ROLLER WILL ASSURE GOOD SEED–TO–SOIL CONTACT, RESTORE CAPILLARITY, AND IMPROVE SEEDLING EMERGENCE. THIS IS THE PREFERRED METHOD. WHEN PERFORMED ON THE CONTOUR, SHEET EROSION WILL BE MINIMIZED AND WATER CONSERVATION ON SITE WILL BE MAXIMIZED.
   D. HYDROSEEDING IS A BROADCAST SEEDING METHOD USUALLY INVOLVING A TRUCK, OR TRAILER–MOUNTED TANK, WITH AN AGITATION SYSTEM AND HYDRAULIC PUMP FOR MIXING SEED, WATER AND FERTILIZER AND SPRAYING THE MIX ONTO THE PREPARED SEEDBED. MULCH SHALL NOT BE INCLUDED IN THE TANK WITH SEED. SHORTFIBERED MULCH MAY BE APPLIED WITH A HYDROSEEDER FOLLOWING SEEDING. (ALSO SEE SECTION 4–MULCHING BELOW). HYDROSEEDING IS NOT A PREFERRED SEEDING METHOD BECAUSE SEED AND FERTILIZER ARE APPLIED TO THE SURFACE AND NOT INCORPORATED INTO THE SOIL. WHEN POOR SEED TO SOIL CONTACT OCCURS, THERE IS A REDUCED SEED GERMINATION AND GROWTH.

4. MULCHING

   MULCHING IS REQUIRED ON ALL SEEDING. MULCH WILL PROTECT AGAINST EROSION BEFORE GRASS IS ESTABLISHED AND WILL PROMOTE FASTER AND EARLIER ESTABLISHMENT. THE EXISTENCE OF VEGETATION SUFFICIENT TO CONTROL SOIL EROSION SHALL BE DEEMED COMPLIANCE WITH THIS MULCHING REQUIREMENT.

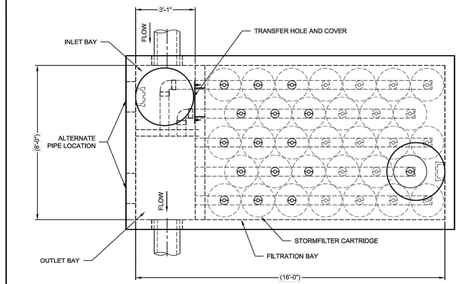
   A. STRAW OR HAY, UNROTTED SMALL GRAIN STRAW, HAY FREE OF SEEDS, APPLIED AT THE RATE OF 1.5 TO 2 TONS PER ACRE (70 TO 90 POUNDS PER 1,000 SQUARE FEET), EXCEPT THAT WHERE A CRIMPER IS USED INSTEAD OF A LIQUID MULCH–BINDER (TACKIFYING OR ADHESIVE AGENT), THE RATE OF APPLICATION IS 3 TONS PER ACRE. MULCH CHOPPER–BLOWERS MUST NOT GRIND THE MULCH. HAY MULCH IS NOT RECOMMENDED FOR ESTABLISHING FINE TURF OR LAWNS DUE TO THE PRESENCE OF WEED SEED.

   APPLICATION. SPREAD MULCH UNIFORMLY BY HAND OR MECHANICALLY SO THAT APPROXIMATELY 85% OF THE SOIL SURFACE WILL BE COVERED. FOR UNIFORM DISTRIBUTION OF HAND–SPREAD MULCH, DIVIDE AREA INTO APPROXIMATELY 1,000 SQUARE FEET SECTIONS AND DISTRIBUTE 70 TO 90 POUNDS WITHIN EACH SECTION.

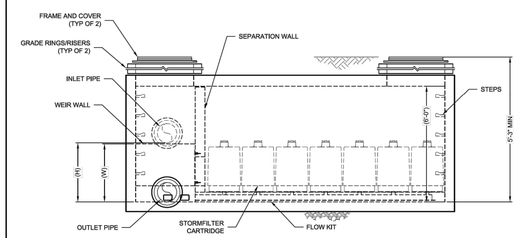
   ANCHORING SHALL BE ACCOMPLISHED IMMEDIATELY AFTER PLACEMENT TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE DONE BY ONE OF THE FOLLOWING METHODS IN ACCORDANCE WITH THE STATE STANDARDS, DEPENDING UPON THE SIZE OF THE AREA, STEEPNESS OF SLOPES, AND COST.
   1. PEG AND TWINE
   2. MULCH NETTINGS
   3. CRIMPER MULCH ANCHORING COULTER TOOL
   4. LIQUID MULCH–BINDERS

   B. WOOD–FIBER OR PAPER–FIBER MULCH – SHALL BE MADE FROM WOOD, PLANT FIBERS OR PAPER CONTAINING NO GROWTH OR GERMINATION INHIBITING MATERIALS, USED AT THE RATE OF 1,500 POUNDS PER ACRE (OR AS RECOMMENDED BY THE PRODUCT MANUFACTURER) AND MAY BE APPLIED BY A HYDROSEEDER. MULCH SHALL NOT BE MIXED IN THE TANK WITH SEED. USE IS LIMITED TO FLATTER SLOPES AND DURING OPTIMUM SEEDING PERIODS IN SPRING AND FALL.

   C. PELLETIZED MULCH – COMPRESSED AND EXTRUDED PAPER AND/OR WOOD FIBER PRODUCT, WHICH MAY CONTAIN CO–POLYMERS, TACKIFIERS, FERTILIZERS, AND COLORING AGENTS. THE DRY PELLETS, WHEN APPLIED TO A SEEDED AREA AND WATERED, FORM A MULCH MAT. PELLETIZED MULCH SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. MULCH MAY BE APPLIED BY HAND OR MECHANICAL SPREADER AT THE RATE OF 60–75 LBS./1,000 SQUARE FEET AND ACTIVATED WITH 0.2 TO 0.4 INCHES OF WATER. THIS MATERIAL HAS BEEN FOUND TO BE BENEFICIAL FOR USE ON SMALL LAWN OR RENOVATION AREAS, SEEDED AREAS WHERE WEEDSEED FREE MULCH IS DESIRED, OR ON SITES WHERE STRAW MULCH AND TACKIFIER AGENT ARE NOT PRACTICAL OR DESIRABLE. APPLYING THE FULL 0.2 TO 0.4 INCHES OF WATER AFTER SPREADING PELLETIZED MULCH ON THE SEED BED IS EXTREMELY IMPORTANT FOR SUFFICIENT ACTIVATION AND EXPANSION OF THE MULCH TO PROVIDE SOIL COVERAGE.



PLAN



ELEVATION

The Stormwater Management StormFilter

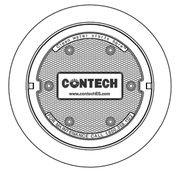
STORMFILTER DESIGN NOTES

- THE 8' x 16' PEAK DIVERSION STORMFILTER TREATMENT CAPACITY VARIES BY CARTRIDGE COUNT AND LOCALLY APPROVED SURFACE AREA SPECIFIC FLOW RATE. PEAK CONVEYANCE CAPACITY TO BE DETERMINED BY ENGINEER OF RECORD.
- THE PEAK DIVERSION STORMFILTER IS AVAILABLE IN A LEFT INLET (AS SHOWN) OR RIGHT INLET CONFIGURATION.
- ALL PARTS AND INTERNAL ASSEMBLY PROVIDED BY CONTECH UNLESS OTHERWISE NOTED.

CARTRIDGE SELECTION

CARTRIDGE HEIGHT	27"			18"			LOW DROP		
RECOMMENDED HYDRAULIC DROP (H)	3.06'			2.3'			1.8'		
HEIGHT OF WEIR (W)	3.00'			2.25'			1.75'		
SPECIFIC FLOW RATE (gpm/sf)	2 gpm/sf	1.67* gpm/sf	1 gpm/sf	2 gpm/sf	1.67* gpm/sf	1 gpm/sf	2 gpm/sf	1.67* gpm/sf	1 gpm/sf
CARTRIDGE FLOW RATE (gpm)	22.5	18.79	11.28	15	12.53	7.5	10	8.35	5

* 1.67 gpm/sf SPECIFIC FLOW RATE IS APPROVED WITH PHOSPHOSORB® (PSORB) MEDIA ONLY



FRAME AND COVER
(DIAMETER VARIES)
N.T.S.

SITE SPECIFIC DATA REQUIREMENTS		
STRUCTURE ID		*
WATER QUALITY FLOW RATE (cfs)		*
PEAK FLOW RATE (cfs)		*
RETURN PERIOD OF PEAK FLOW (yrs)		*
CARTRIDGE HEIGHT (27", 18", LOW DROP(LD))		*
NUMBER OF CARTRIDGES REQUIRED		*
CARTRIDGE FLOW RATE		*
MEDIA TYPE (PERLITE, ZPG, PSORB)		**

PIPE DATA:	I.E.	MATERIAL	DIAMETER
INLET PIPE	*	*	*
OUTLET PIPE	*	*	*

UPSTREAM RIM ELEVATION	*
DOWNSTREAM RIM ELEVATION	*

ANTI-FLOTATION BALLAST	WIDTH	HEIGHT
	*	*

NOTES/SPECIAL REQUIREMENTS:

* PER ENGINEER OF RECORD

PERFORMANCE SPECIFICATION
FILTER CARTRIDGES SHALL BE MEDIA-FILLED, PASSIVE, SIPHON ACTUATED, RADIAL FLOW, AND SELF CLEANING. **RADIAL MEDIA DEPTH SHALL BE 7-INCHES.** FILTER MEDIA CONTACT TIME SHALL BE AT LEAST **38 SECONDS.** SPECIFIC FLOW RATE SHALL BE **2 GPM/SF (MAXIMUM).** SPECIFIC FLOW RATE IS THE MEASURE OF THE FLOW (GPM) DIVIDED BY THE MEDIA SURFACE CONTACT AREA (SF). MEDIA VOLUMETRIC FLOW RATE SHALL BE **6 GPM/CF OF MEDIA (MAXIMUM).**

GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. DIMENSIONS MARKED WITH ( ) ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
3. FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH REPRESENTATIVE. www.contechES.com
4. STORMFILTER WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
5. STRUCTURE SHALL MEET AASHTO HS20 LOAD RATING, ASSUMING EARTH COVER OF 0' - 8' AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO.

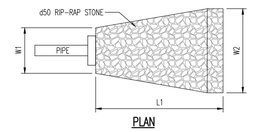
INSTALLATION NOTES
A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE STORMFILTER STRUCTURE (LIFTING CLUTCHES PROVIDED).
C. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL SECTIONS AND ASSEMBLE STRUCTURE.
D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH OUTLET PIPE INVERT WITH OUTLET BAY FLOOR.
E. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO PROTECT CARTRIDGES FROM CONSTRUCTION-RELATED EROSION RUNOFF.
F. CONTRACTOR TO REMOVE THE TRANSFER HOLE COVER WHEN THE SYSTEM IS BROUGHT ONLINE.

CONTECH ENGINEERED SOLUTIONS LLC
www.contechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 | 513-645-7000 | 513-645-7993 FAX

THE STORMWATER MANAGEMENT STORMFILTER
8' x 16' PEAK DIVERSION STORMFILTER
STANDARD DETAIL

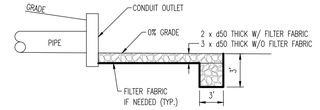
STORM FILTER DESIGN DETAIL

NOT TO SCALE



PLAN

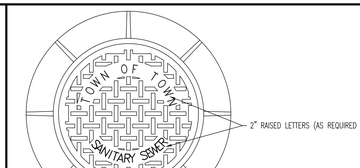
W1	L1	W2	d50	TH
X'	X'	X'	X"	X"

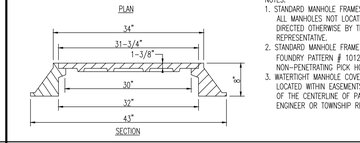


SECTION

NOTE:
1. FILTER FABRIC SHALL MEET THE MINIMUM REQUIREMENTS SET FORTH IN THE STANDARDS FOR SOIL EROSION AND SEDIMENTATION CONTROL IN NJ.

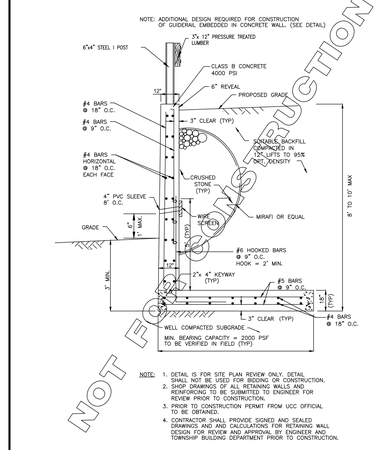
RIP-RAP DETAIL
NOT TO SCALE





NOTES:
1. STANDARD MANHOLE FRAMES & COVERS SHALL BE USED ON ALL MANHOLES NOT LOCATED WITHIN EASEMENTS UNLESS DIRECTED OTHERWISE BY THE ENGINEER OR TOWNSHIP REPRESENTATIVE.
2. STANDARD MANHOLE FRAME & COVER SHALL BE CAMPBELL FOUNDRY PATTERN # 1012B, OR APPROVED EQUAL, WITH NON–PENETRATING PICK HOLES.
3. WATERTIGHT MANHOLE COVERS SHALL BE USED ON MANHOLES LOCATED WITHIN EASEMENTS, IN UNPAVED AREAS, AND OUTSIDE OF THE CENTERLINE OF PAVED ROADS AS DIRECTED BY ENGINEER OR TOWNSHIP REPRESENTATIVE.

SANITARY MANHOLE FRAME DETAIL
NOT TO SCALE



NOT FOR CONSTRUCTION

NOTE:
1. DETAIL IS FOR SITE PLAN REVIEW ONLY. DETAIL SHALL NOT BE USED FOR BIDDING OR CONSTRUCTION.
2. ALL RETAINING WALLS AND REINFORCING TO BE SUBMITTED TO ENGINEER FOR REVIEW PRIOR TO CONSTRUCTION.
3. PRIOR TO CONSTRUCTION PERMIT FROM UCC OFFICIAL TO BE OBTAINED.
4. CONTRACTOR SHALL PROVIDE SIGNED AND SEALED DRAWINGS AND CALCULATIONS FOR RETAINING WALL DESIGN FOR REVIEW AND APPROVAL BY ENGINEER AND TOWNSHIP BUILDING DEPARTMENT PRIOR TO CONSTRUCTION.

CANTILEVERED CONCRETE RETAINING WALL DETAIL
NOT TO SCALE

THIS PLAN SET IS FOR PERMITTING PURPOSES ONLY AND MAY NOT BE USED FOR CONSTRUCTION

Rev.	Date	Comments	By
1	10/07/20	REV. PER TOWNSHIP COMMENTS	SMC

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LAND DEVELOPMENT CONSULTING • PERMITTING • GEOTECHNICAL • ENVIRONMENTAL • SURVEY • PLANNING & ZONING
1904 Main Street, Lake Como, NJ 07719 | T: 732.974.0198 | F: 732.974.3521 | www.dynamicec.com
Offices conveniently located in:
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Allen, Texas T: 972.534.2100 | Austin, Texas T:512.646.2446 | Houston, Texas T: 281.789.4400
Newtown, Pennsylvania T: 267.685.0276 | Delray Beach, Florida T: 561.921.8570

TITLE: CONSTRUCTION DETAILS

PROJECT: **RPM DEVELOPMENT, LLC**
PROPOSED RESIDENTIAL DEVELOPMENT
BLOCK 2001, LOTS 3, 60–66, & 68
2495 BRUNSWICK PIKE (A.K.A. ALT ROUTE 1)
TOWNSHIP OF LAWRENCE, MERCER COUNTY, NEW JERSEY

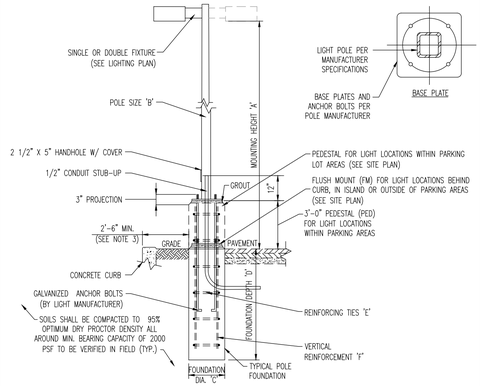
JOB No: 1279–99–010
DATE: 04/15/2020
DRAWN BY: RAU
SCALE:(H) NOT TO (V) SCALE
DESIGNED BY: LPG
CHECKED BY: TJM
CHECKED BY: –
SHEET No: 17 OF 23

JOHN A. PALUS
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 41975

THOMAS J. MULLER
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 52179

811 PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION OF EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN ANY STATE.
Know what's below. Call before you dig.
FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM

Rev. # 1



NOTE: 1. CONTRACTOR TO CONFIRM ALL LIGHT POLE & FIXTURE DIMENSIONS PRIOR TO CONSTRUCTION.
2. PROPOSED POLE IN COMBINATION WITH CONCRETE PEDESTAL TO EQUAL MOUNTING HEIGHT 'A'. ACTUAL POLE HEIGHT TO BE ADJUSTED ACCORDINGLY.
3. PROPOSED CONCRETE FOUNDATION AND POLE TO BE CONSTRUCTED WITHIN SUBJECT PROPERTY UNLESS OTHERWISE NOTED. SETBACK FROM CURB IS PREFERRED BUT TO BE ADJUSTED AS NEEDED TO PREVENT ENCROACHMENT OVER PROPERTY LINE.

LIGHT POLE FOUNDATION SCHEDULE	
MOUNTING HEIGHT ABOVE GRADE 'A'	18'-20'
POLE DIA. 'B'	6" SQUARE (OR PER MANUFACTURER)
# OF FIXTURES	SINGLE OR DOUBLE
FOUNDATION DIAMETER 'C'	18" DIA. ROUND
FOUNDATION DEPTH 'D'	7'
REINFORCING TIES 'E'	#4 @ 12" O.C.
VERTICAL REINFORCEMENT 'F'	(6) #6 BARS EQUALLY SPACED

SOIL NOTES

1. FOOTING DESIGN BASED ON ASSUMED MAXIMUM ALLOWABLE SOILS BEARING CAPACITY OF 2,000 SF PSF. CONTRACTOR RESPONSIBLE TO VERIFY ADEQUACY OF ASSUMED BEARING CAPACITY PRIOR TO CONSTRUCTION. ENGINEER TO BE NOTIFIED IF INCONSISTENCIES EXIST.
2. SUBGRADE TO BE FREE OF ORGANICS AND BE SUITABLE, COMPACTED MATERIAL.

CONCRETE NOTES

1. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS WITH A MINIMUM CEMENT CONTENT OF 600 POUNDS PER CUBIC YARD FOR ALL FOOTINGS.
2. ALL CONCRETE SHALL HAVE A SLUMP OF NO GREATER THAN 4" TO WITHIN A TOLERANCE OF 1".
3. ALL EXPOSED CONCRETE SHALL BE AIR-ENTRAINED (WITHIN 1% TOLERANCE), CONFORMING TO ASTM C260.
4. REINFORCING FRAMEWORK AND PLACEMENT OF CONCRETE SHALL COMPLY WITH GOOD CONSTRUCTION PRACTICES AND BE IN ACCORDANCE WITH ALL LOCAL GOVERNING CODES AND REGULATIONS AS WELL AS THE ACI AND UNIFORM BUILDING CODE.

UNIT - A1

AREA LIGHT DETAIL

NOT TO SCALE

PROGRESS LIGHTING | COMMERCIAL

PCOWC SERIES

LED Wall Packs

Photometric Data:

- Drive Current: 700 mA
- System Watts: 18 Watts (7 LEDs), 29 Watts (12 LEDs) or 45 Watts (18 LEDs)
- Number of LEDs: 7, 12 or 18
- Number of Drivers: 1
- 4000K, 70 CRI (7 LEDs)
- 4200K, 70 CRI (12 & 18 LEDs)

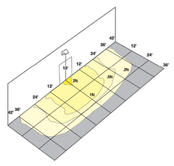
Model	Input Voltage (Volts)	System Power (Watts)	Current (Amps)
20 LED	120	16.6	0.14
	277	16.6	0.09
30 LED	120	28.9	0.24
	277	27.7	0.10
45 LED	120	41.0	0.35
	277	41.5	0.15

Ambient Temperature		Lumen Multiplier 7 LED's	12 & 18 LED's
0°C	32°F	1.02	1.02
10°C	50°F	1.01	1.01
20°C	68°F	1.00	1.00
25°C	77°F	1.00	1.00
30°C	86°F	1.00	1.00
40°C	104°F	0.99	1.00
50°C	122°F	0.98	0.99

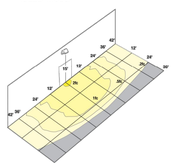
Model	Distribution Type	Lumens	LPW
20 LED	3	1421	82
30 LED	3	2246	79
45 LED	3	3069	69

Operating Hours (All Models)						
Ambient Temperature	0	25,000	50,000	TM-21-11 60,000	100,000	Calculated L70 (Hours)
25°C/77°F	1.00	0.98	0.97	0.96	0.95	>791,000
40°C/104°F	0.99	0.98	0.96	0.96	094	>635,000

30LED Model



45LED Model



PROGRESS LIGHTING | COMMERCIAL

Project:
Fixture Type:
Location:
Contact:

PCOWC SERIES

LED Wall Packs

Specifications:

Features:

- Die-cast aluminum housing and door
- Rugged design protects internal components and provides sufficient thermal management for long life
- 60,000 hours minimum LED life at L96 rating
- Powder paint finish provides lasting appearance in outdoor environments
- Quick mount adapter provides quick installation, designed for recessed box 4" square junction box
- 120 – 277V universal voltage 50/60Hz with a 0-10V dimming driver
- 4000K nominal, 70 CRI
- 20 LED: 1421 Lumens
- 30 LED: 2246 Lumens
- 45 LED: 3096 Lumens

Application:

The compact PCOWC Series is intended for perimeter illumination for safety, security and identity. The fixture has full cutoff distribution and is neighbor friendly with typical mounting heights up to 12 ft (20LED model) or up to 15 ft (30LED & 45LED models). Units have a protective polyester finish for long lasting appearance.

Compliances:

UL 1598 listed for use in wet locations, 40°C ambient environments

Images:

20LED Model

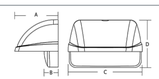
30LED Model

45LED Model

Warranty:

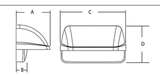
5 year warranty (Terms and Conditions Apply)

Dimensions:



20 LED Model

A: 4.81" (122 mm)
B: 1.55" (39 mm)
C: 8.22" (209 mm)
D: 5.25" (133 mm)



30& 45 LED Model

A: 6.25" (158.7 mm)
B: 1.6" (40.2 mm)
C: 10.25" (260.4 mm)
D: 5.6" (142.2 mm)

Catalog number:

Base	Lamp	Finish
PCOWC	**20 LED** - LED, 20 Watts	**20** - Bronze
	30 LED - LED, 30 Watts	**28** - White
	45 LED - LED, 45 Watts	**82** - Metallic Gray

WALL MOUNTED LIGHT DETAIL

NOT TO SCALE

PROGRESS LIGHTING | COMMERCIAL

Project:
Fixture Type:
Location:
Contact:

Product #:

RSA-B-S: Round Straight Aluminum Poles

Specifications:

Description:

APPLICATIONS

- Lighting installations for side and top mounting of luminaires with effective projected area (EPA) not exceeding maximum allowable loading of the specified pole in its installed geographic location

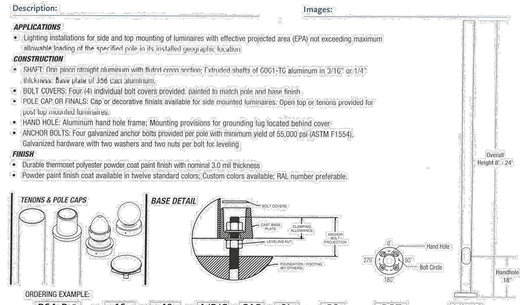
CONSTRUCTION

- SHAFT: One piece straight aluminum with tubed cross section. Extruded shafts of 6061-T6 aluminum in 3/16" or 1/4" thickness. Base plate of 356 cast aluminum.
- BOLT COVERS: Four (4) individual bolt covers provided, painted to match pole and base finish.
- POLE CAP OR FINIALS: Cap or decorative finials available for side mounted luminaires. Open top or tenons provided for pole top mounted luminaires.
- HAND HOLE: Aluminum hand hole frame; Mounting provisions for grounding lug located behind cover.
- ANCHOR BOLTS: Four galvanized anchor bolts provided per pole with minimum yield of 55,000 psi (ASTM F1554). Galvanized hardware with two washers and two nuts per bolt for leveling.

FINISH

- Durable thermoset polyester powder coat paint finish with nominal 3.0 mil thickness.
- Powder paint finish coat available in twelve standard colors; Custom colors available; RAL number preferable.

Images:



ORDERING EXAMPLE: RSA-B-S - 16 - 40 - A/B/C - CAP - 2L - B3 - DBT - VM2

SERIES	HEIGHT	SHAFT	THICKNESS	MOUNTING	DRILL PATTERN		OPTIONS	
RSA- Round Straight Aluminum Pole	Reference page 2 Ordering matrix	Reference page 2 Ordering matrix	Reference page 2 Ordering matrix	1 - Single arm mount	B1 - Cruiser	DB - Dark Bronze Textured	GFY - 20 Amp GFCI Receptacle and Cover	
B-S - Boston Smooth				2 - Two fixtures at 180°	B3 - VP-L	BL - Black Textured		
				2L - Two fixtures at 90°	B4 - VP-S	WH - White Textured	EHH - Extra Handhole	
				3T - Three fixtures at 90°		PS - Platinum Silver	C05 - .5" Coupling	
				3Y - Three at 120°		GYS - Light Gray Smooth	C07 - .75" Coupling	
				4 - Four fixtures at 90°		BZT - Bronze Textured	C20 - 2" Coupling	
				OT - Open top (in-studes pole cap)		BBT - Basic Black Textured	VM2 - 2nd mode vibration damper	
				TN3 - Tenon 3 x 3		CC - Custom Color	LAB - Less Anchor Bolts	
				TN4 - Tenon 3 x 4				
				TN5 - Tenon 4 x 5				
				TN8 - Tenon 4 x 8				
				ARC - Acorn Finial				
				BAL - Ball Finial				
				CAP - Flat Cap				

1. Specify option location using logic found on page 2 **(Option Orientation)**
2. Specify pole top

MOUNTING ORIENTATION

ACCESSORIES: **Order Separately**

Catalog Number	Description
VM2SVX	2nd mode vibration damper

LIGHT POLE DETAIL

NOT TO SCALE

MUNICIPAL, COUNTY, STATE AND MUA DETAILS TO SUPERCEDE DYNAMIC ENGINEERING DETAILS WHERE APPLICABLE

PROGRESS LIGHTING | COMMERCIAL

Project:
Fixture Type:
Location:
Contact:

PCAD SERIES

LED Area Designer Lighting

Specifications:

Construction:

The decorative pendant mount luminaire is pendant mounted in place with stainless steel bolts. The driver is located in the cast aluminum top housing and is accessible without tools by hinging the lower shade assembly. The lower shade assembly is a one-piece aluminum spinning.

Optics:

One piece optical system with internal brass standoffs soldered to the board which can be field replaced. Two-piece die cut silicone and polycarbonate foam gasket ensures weather-proof seal around each individual LED and allows luminaire to be rated for high-pressure hose down applications. The optical cartridge is secured to the aluminum heat sink with fasteners to ensure thermal conductivity. Optics held into place without use of adhesives and complete assembly is gasketed for high pressure hose down cleaning.

Electrical:

Luminaire equipped with LED driver that operates with 120-277V universal voltage, 50/60Hz and includes 0-10V dimming capability. Power factor is 0.92 at full load. All electrical components rated at 50,000 hours at full load and 40°C ambient conditions. Thermal feedback between PCB and driver to protect luminaire from excessive temperature by reducing drive current as necessary. Surge protection standard with device providing surge current rating of 20KA using 8/20 µSec wave, LSP clamping voltage of 825V and surge rating of 540J.

Finish:

Polyester powder paint finish that is corrosion resistant and resists surface impacts up to 160 inch-pound.

Listing/Certification:

The luminaire bears a CSA label and is marked suitable for wet locations.

Warranty:

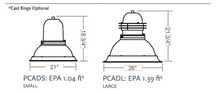
5 year limited warranty covering LED array and LED driver(s).

Images:

*Arm sold separately

Dimensions & Mounting

*Cast Rings Optional



PCADS: EPA 1.04 ft²
SMALL

PCADL: EPA 1.39 ft²
LARGE

Engine/ Wattage	# of LEDS	Delivered Lumens (varies by optics)	Delivered LPW	Drive Current (milliamps)
27	24	3600-3900	131-139	350 mA
55	24	6100-6450	107-113	700 mA
83	36	9100-9700	108-114	700 mA
110	48	12400-1300	110-116	700 mA
136	60	15200-16200	111-117	700 mA

Catalog number:

Series	Engine/Wattage	Color Temp	Distribution	Finish	Options
SCADS - Designer Small	**27LED** - 24LEDS @ 27W	**4K** - 4000K, 70 CRI	**2** - Type 2	BZ - Bronze	**BLANK**
PCADL - Designer Large	**55LED** - 24LEDS @ 55W	**3K (Custom IES file)**	**3** - Type 3	BL - Black	**PC120** - 120V Photocell
	83LED - 36LEDS @ 85W		**4** - Type 4	GN - Green	**PC277** - 277V Photocell
	110LED - 48LEDS @ 110W**		**4W** - Type 4 Wide		**CR** - Cast Rings
	136LED - 60LEDS @ 136W**		**SR** - Type 5 Rectangle		**BC** - BackLight Control
			5W - Type 5 Round		

** Large Only

AREA LIGHT DETAIL

NOT TO SCALE

THIS PLAN SET IS FOR PERMITTING PURPOSES ONLY AND MAY NOT BE USED FOR CONSTRUCTION

Rev.	Date	REV. PER TOWNSHIP COMMENTS	By
1	10/07/20		GMC

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Newtown, Pennsylvania T: 267.685.0276 | Delray Beach, Florida T: 561.921.8570

TITLE: CONSTRUCTION DETAILS

PROJECT: **RPM DEVELOPMENT, LLC**
PROPOSED RESIDENTIAL DEVELOPMENT
BLOCK 2001, LOTS 3, 60-66, & 68
2495 BRUNSWICK PIKE (A.K.A. ALT ROUTE 1)
TOWNSHIP OF LAWRENCE, MERCER COUNTY, NEW JERSEY

JOB No: 1279-99-010
DATE: 04/15/2020
DRAWN BY: GMC
SCALE: (H) NOT TO (V) SCALE
DESIGNED BY: LPG
CHECKED BY: TJM
CHECKED BY: _
SHEET No: 18 OF 23
Rev. # 1

JOHN A. PALUS
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 41975

THOMAS J. MULLER
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 52179

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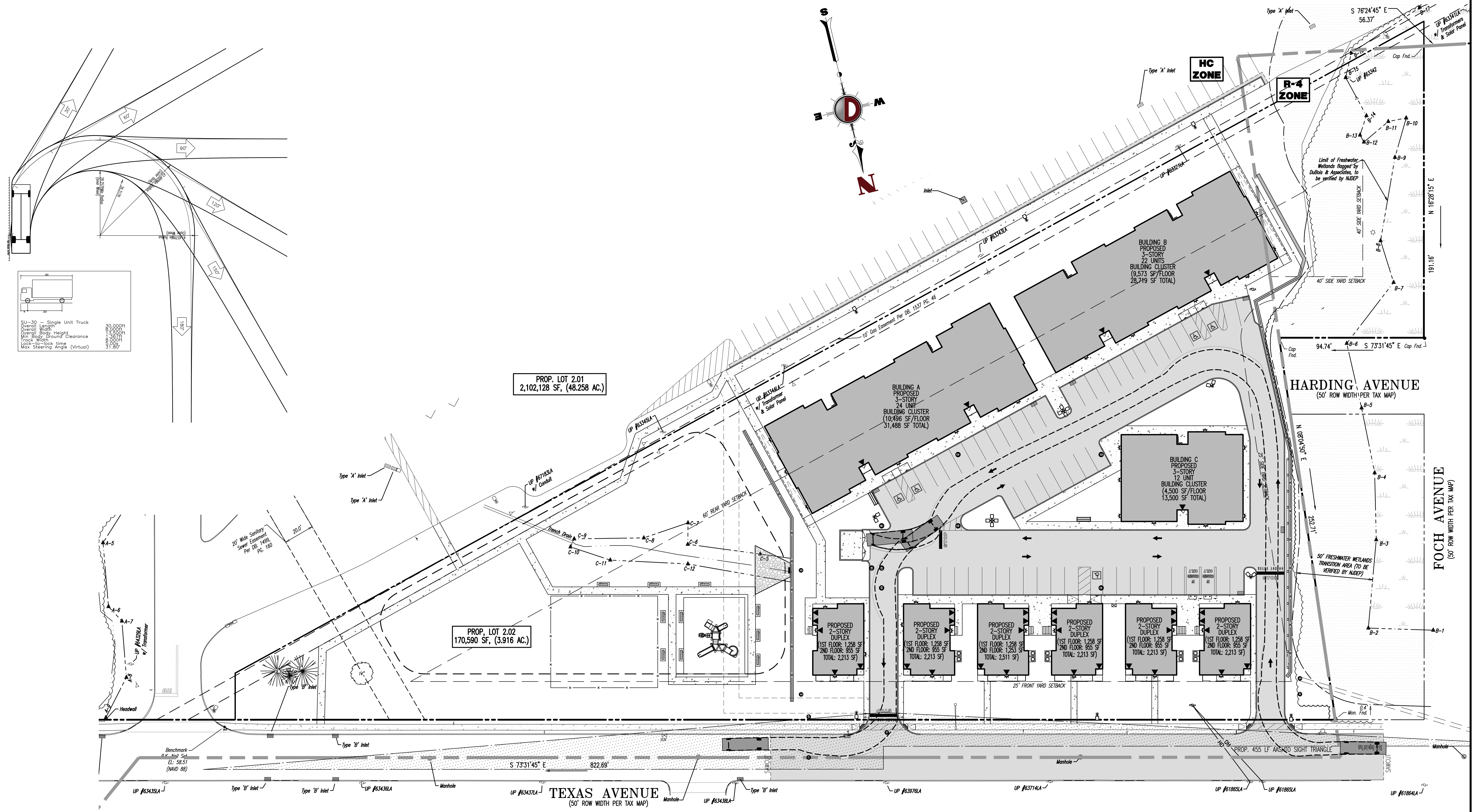
Dig right below Call before you dig
FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM



GRAPHIC SCALE

-30 0 15 30 60 120

(IN FEET)
1 INCH = 30 FT.

Rev.	Date	Comments	By
1	10/07/20	REV. PER TOWNSHIP COMMENTS	GMC

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Newtown, Pennsylvania T: 267.685.0276 | Delray Beach, Florida T: 561.921.8570

TITLE:
VEHICLE CIRCULATION PLAN (SU-30)

PROJECT: **RPM DEVELOPMENT, LLC**
PROPOSED RESIDENTIAL DEVELOPMENT
BLOCK 2001, LOTS 3, 60-66, & 68
2495 BRUNSWICK PIKE (A.K.A. ALT ROUTE 1)
TOWNSHIP OF LAWRENCE, MERCER COUNTY, NEW JERSEY

JOB No: 1279-99-010
DATE: 04/15/2020
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CHECKED BY: TJM
CHECKED BY: _
SCALE: (H) 1"=30' (V)
SHEET No: 19 OF 23
Rev. # 1

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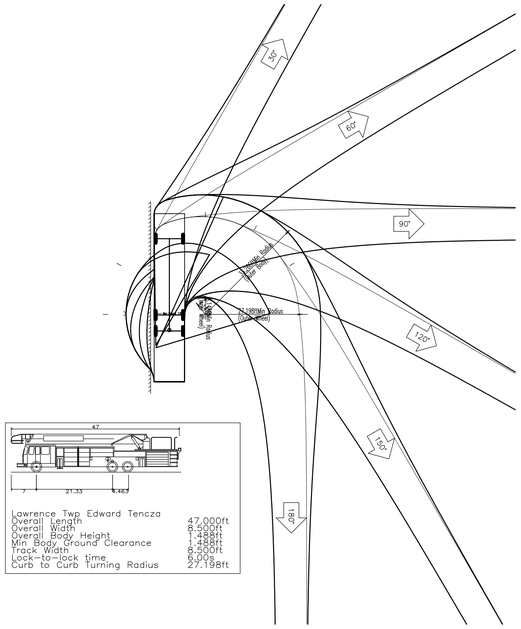

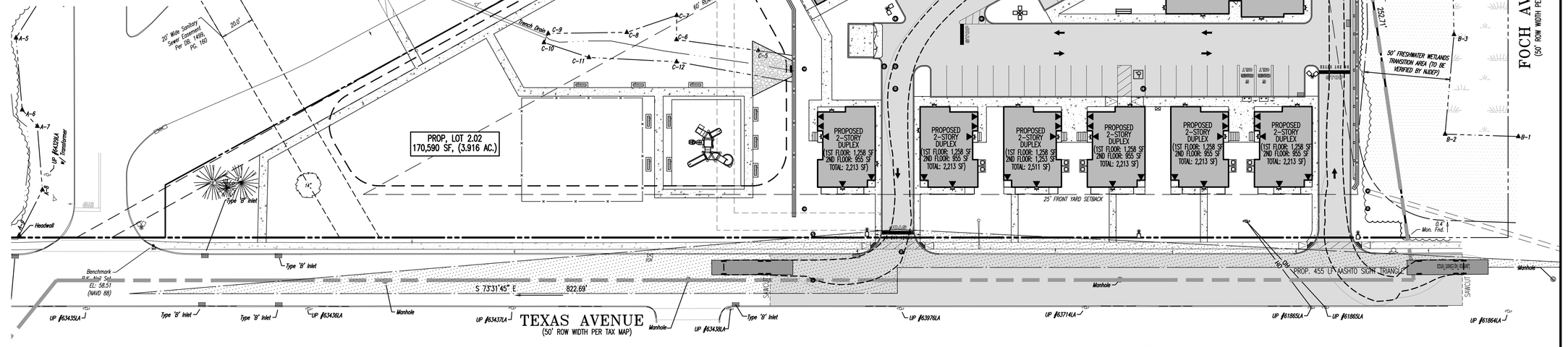

GRAPHIC SCALE
-30 0 15 30 60 120
(IN FEET)
1 INCH = 30 FT.

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Newtown, Pennsylvania T: 267.685.0276 | Delray Beach, Florida T: 561.921.8570

TITLE:
VEHICLE CIRCULATION PLAN (FIRE TRUCK)

PROJECT: **RPM DEVELOPMENT, LLC**
PROPOSED RESIDENTIAL DEVELOPMENT
BLOCK 2001, LOTS 3, 60-66, & 68
2495 BRUNSWICK PIKE (A.K.A. ALT ROUTE 1)
TOWNSHIP OF LAWRENCE, MERCER COUNTY, NEW JERSEY

JOB No:	1279-99-010
DRAWN BY:	GMC
DESIGNED BY:	LPG
CHECKED BY:	TJM
CHECKED BY:	–
DATE:	04/15/2020
SCALE:	(H) 1"=30' (V)
SHEET No:	20 OF 23
Rev. #	1

JOHN A. PALUS
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 41975

THOMAS J. MULLER
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PROP. LOT 2.01
2,102,128 SF, (48.258 AC.)

PROP. LOT 2.02
170,590 SF, (3.916 AC.)

HC ZONE

R-4 ZONE

BUILDING A
PROPOSED
3-STORY
24 UNIT
BUILDING CLUSTER
(10,496 SF/FLOOR
31,488 SF TOTAL)

BUILDING B
PROPOSED
3-STORY
22 UNITS
BUILDING CLUSTER
(9,573 SF/FLOOR
28,719 SF TOTAL)

BUILDING C
PROPOSED
3-STORY
12 UNIT
BUILDING CLUSTER
(4,500 SF/FLOOR
13,500 SF TOTAL)

PROPOSED 2-STORY DUPLEX
(1ST FLOOR: 1,258 SF
2ND FLOOR: 955 SF
TOTAL: 2,213 SF)

PROPOSED 2-STORY DUPLEX
(1ST FLOOR: 1,258 SF
2ND FLOOR: 1,253 SF
TOTAL: 2,511 SF)

PROPOSED 2-STORY DUPLEX
(1ST FLOOR: 1,258 SF
2ND FLOOR: 955 SF
TOTAL: 2,213 SF)

TEXAS AVENUE
(50' ROW WIDTH PER TAX MAP)

S 73°31'45" E 822.69'

S 73°31'45" E 50.00'

S 16°28'15" W 150.00'

N 16°28'15" E 1.16'

S 76°24'45" E 56.37'

10' Gas Easement Per DB. 1557 PG. 46

20' Wide Sanitary Sewer Easement Per DB. 1089, PG. 180

60' REAR YARD SETBACK

25' FRONT YARD SETBACK

40' SIDE YARD SETBACK

Limit of Freshwater Wetlands flagged by DuBois & Associates, to be verified by NJDEP

2 Story Building

Yard Inlet

Trench Drain

Round Inlet

Type 'A' Inlet

Type 'B' Inlet

Type 'A-1' Inlet

Type 'C' Inlet

Manhole

Headwall

Sanitary Manhole

Cap Fnd.

Benchmark
P.K. Nail Set
El.: 58.51
(NAVD 88)

UP #63435LA

UP #63436LA

UP #63437LA

UP #63438LA

UP #63439LA

UP #63714LA

UP #63345LA
Transformer
w/ Steel Pond

UP #63343LA

UP #63342LA

UP #63341LA
Transformers
w/ Solar Panel

UP #63344LA
Transformer
w/ Steel Panel

UP #63343LA

UP #63342LA

UP #63341LA

UP #63339LA
Transformer
w/ Concrete Pad

UP #63163LA
w/ Conduit

UP #63292LA
w/ Transformer

UP #41686LA

UP No ID
w/ Transformer

Tractor-Trailer-53S

Overall Length	73.50'/t
Overall Width	8.50'/t
Overall Body Height	13.50'/t
Min Ground Clearance	1.33'/t
Max Track Width	8.50'/t
Lock-to-Lock Time	10.00'/t
Max Steering Angle (Virtual)	58.40°

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GRAPHIC SCALE
-30 0 15 30 60 120
(IN FEET)
1 INCH = 30 FT.

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TITLE:
VEHICLE CIRCULATION PLAN A (WB-67)

PROJECT: **RPM DEVELOPMENT, LLC**
PROPOSED RESIDENTIAL DEVELOPMENT
BLOCK 2001, LOTS 3, 60-66, & 68
2495 BRUNSWICK PIKE (A.K.A. ALT ROUTE 1)
TOWNSHIP OF LAWRENCE, MERCER COUNTY, NEW JERSEY

JOB No:	1279-99-010
DRAWN BY:	DJB
DESIGNED BY:	LPG
CHECKED BY:	TJM
CHECKED BY:	_
DATE:	04/15/2020
SCALE: (H) 1"=30' (V)	
SHEET No:	21 OF 23
Rev. #	1

JOHN A. PALUS
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NEW JERSEY LICENSE No. 41975

THOMAS J. MULLER
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File: P:\decpc projects\1279 rpm development group\99-010 lawrence\Dwg\Site Plans\D1279990101SV1.dwg, ---> VEHICLE CIRCULATION PLAN A (WB-67)

PROP. LOT 2.01
2,102,128 SF. (48.258 AC.)

PROP. LOT 2.02
170,590 SF. (3.916 AC.)

HC ZONE

R-4 ZONE

BUILDING A
PROPOSED
3-STORY
24 UNIT
BUILDING CLUSTER
(10,496 SF/FLOOR
31,488 SF TOTAL)

BUILDING B
PROPOSED
3-STORY
22 UNITS
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(9,573 SF/FLOOR
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PROPOSED
3-STORY
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(1ST FLOOR: 1,258 SF
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TEXAS AVENUE
(50' ROW WIDTH PER TAX MAP)

S 73°31'45" E 822.69'

S 73°31'45" E 50.00'

S 16°28'15" W 150.00'

S 76°24'45" E 56.37'

N 16°28'15" E 191.16'

40' SIDE YARD SETBACK

60' REAR YARD SETBACK

25' FRONT YARD SETBACK

10' Gas Easement Per DB. 1557 PG. 46

20' Wide Sanitary Sewer Easement Per DB. 1493 PG. 161

Limit of Freshwater Wetlands flagged by DuBois & Associates, to be verified by NJDEP

Benchmark
Rail Road Spike
EL: 58.51
(NAVD 88)

Tractor-Trailer-53ft

Overall Length	73.50ft
Overall Width	8.50ft
Overall Body Height	13.50ft
Min. Ground Clearance	1.33ft
Max. Track Width	8.50ft
Lock-to-lock time	6.00s
Max Steering Angle (Virtual)	28.40°

GRAPHIC SCALE
−30 0 15 30 60 120
(IN FEET)
1 INCH = 30 FT.

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TITLE:
VEHICLE CIRCULATION PLAN B (WB-67)

PROJECT: **RPM DEVELOPMENT, LLC**
PROPOSED RESIDENTIAL DEVELOPMENT
BLOCK 2001, LOTS 3, 60-66, & 68
2495 BRUNSWICK PIKE (A.K.A. ALT ROUTE 1)
TOWNSHIP OF LAWRENCE, MERCER COUNTY, NEW JERSEY

JOB No: 1279-99-010
DATE: 04/15/2020
DRAWN BY: DJB
SCALE: (H) 1"=30' (V)
DESIGNED BY: LPG
CHECKED BY: TJM
CHECKED BY: —
SHEET No: 22 OF 23
Rev. # 1

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PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 41975

THOMAS J. MULLER
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 52179

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Newtown, Pennsylvania T: 267.685.0276 | Delray Beach, Florida T: 561.921.8570

TITLE:
VEHICLE CIRCULATION PLAN C (WB-67)

PROJECT: **RPM DEVELOPMENT, LLC**
PROPOSED RESIDENTIAL DEVELOPMENT
BLOCK 2001, LOTS 3, 60-66, & 68
2495 BRUNSWICK PIKE (A.K.A. ALT ROUTE 1)
TOWNSHIP OF LAWRENCE, MERCER COUNTY, NEW JERSEY

JOB No: 1279-99-010
DATE: 04/15/2020
DRAWN BY: DJB
SCALE: (H) 1"=30' (V) -
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CHECKED BY: -

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