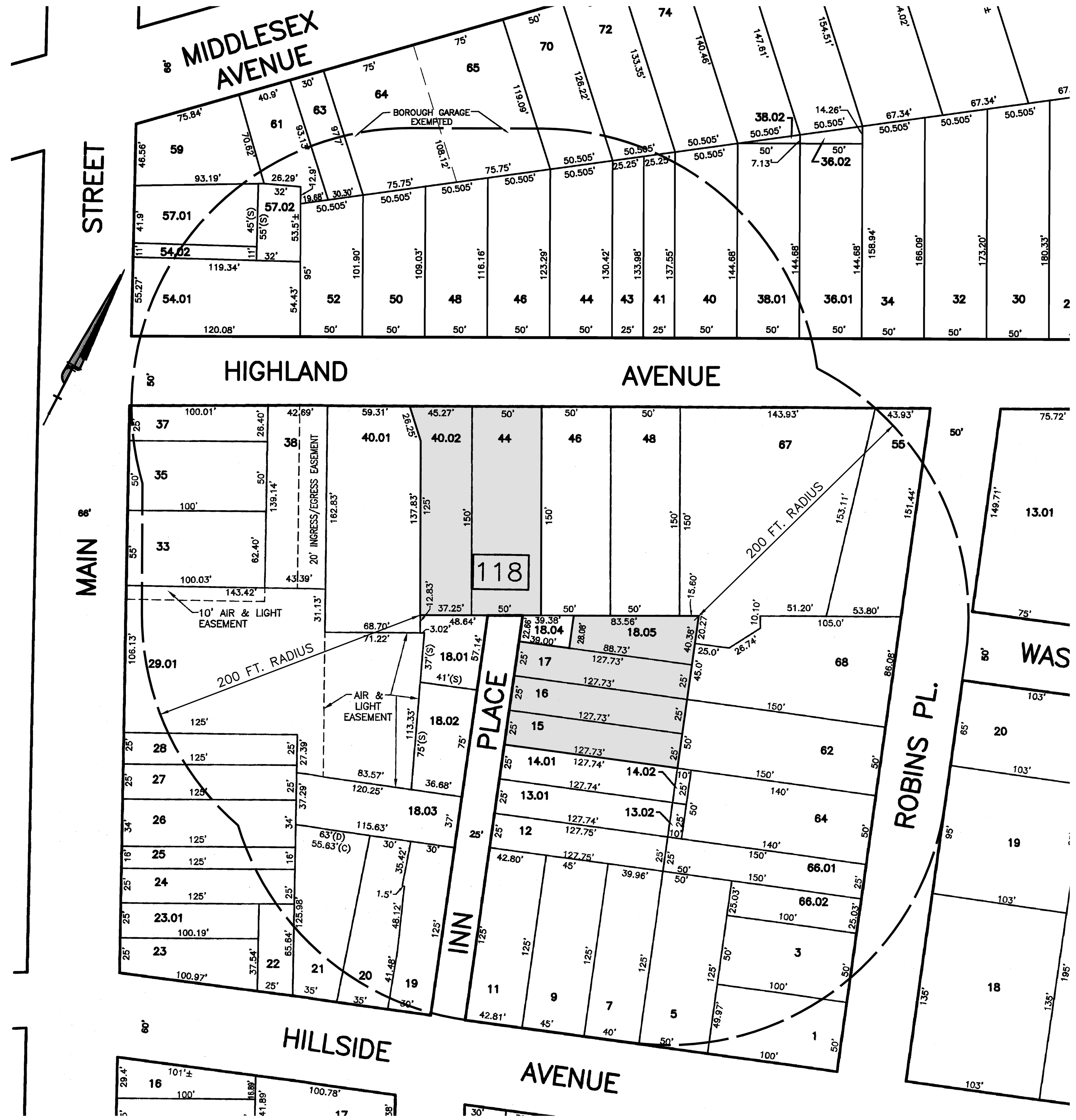


200 FT. RADIUS MAP
SCALE: 1"=60'

PROPERTY OWNERS WITHIN 200 FT.:

Property ID (Block, Lot)	Property Location	Owner Name & Address
120, 20	60 Robins Place	Joseph D. Roberts & Meaghan Ziznewski 60 Robins Place Metuchen, NJ 08840
120, 19	58 Robins Place	Daniel & Suzanne L. Cea 58 Robins Place Metuchen, NJ 08840
119, 13.01	74 Robins Place	Gerald S. & Shirley D. Windos 74 Robins Place Metuchen, NJ 08840
118 , 18.04	Inn Place	David Aitken 24 Highland Avenue Metuchen, NJ 08840
118, 14.01	Metuchen Borough	Metuchen Borough
118, 14.02	55 Robins Place	Cesar & Corazon Del Rosario 55 Robins Place Metuchen, NJ 08840
118, 13.01	Metuchen Borough	Metuchen Borough
118, 13.02	55 Robins Place	Cesar & Corazon Del Rosario 55 Robins Place Metuchen, NJ 08842
118, 12	52 Inn Place	Cesar & Corazon Del Rosario 55 Robins Place Metuchen, NJ 08843
118, 11	29 Hillside Avenue	Vu T Le 29 Hillside Avenue Metuchen, NJ 08840
118, 9	31 Hillside Avenue	Helen M. Pierce 31 Hillside Avenue Metuchen, NJ 08840
118, 7	33 Hillside Avenue	Mitsuko I. Thorton 33 Hillside Avenue Metuchen, NJ 08840
118, 5	35 Hillside Avenue	Jodie C. Digirolamo 35 Hillside Avenue Metuchen, NJ 08841
118, 3	49 Robins Place	Sen, Sunil Wieland & Lee, Soojin 49 Robins Place Metuchen, NJ 08840
118, 1	45 Robins Place	Fern A. Abbott 45 Robins Place Metuchen, NJ 08840
118, 66.02	55 Robins Place	Cesar & Corazon Del Rosario 55 Robins Place Metuchen, NJ 08842
118, 66.01	55 Robins Place	Cesar & Corazon Del Rosario 55 Robins Place Metuchen, NJ 08842
118, 64	55 Robins Place	Cesar & Corazon Del Rosario 55 Robins Place Metuchen, NJ 08843

Property ID (Block, Lot)	Property Location	Owner Name & Address
118, 62	59 Robins Place	Cheryl Craft 59 Robins Place Metuchen, NJ 08840
118, 68	65 Robins Place	Mae Frances Moore 65 Robins Place Metuchen, NJ 08840
118, 55	75 Robins Place	Christopher & Diane S. Battaglia 75 Robins Place Metuchen, NJ 08841
118, 67	36 Highland Avenue	Evelyn S. & Mckiernan, Thomas F. Grant 36 Highland Avenue Metuchen, NJ 08840
118, 48	32 Highland Avenue	Georffrey & Miwa Petersen 32 Highland Avenue Metuchen, NJ 08840
118, 46	24 Highland Avenue	David Aitken 24 Highland Avenue Metuchen, NJ 08840
118, 40.03	Highland Avenue	Main Street Metuchen, LTD 450 Main Street Metuchen, NJ 08840
118, 33.01	450 Main Street #460	Main Street Metuchen, LTD 450 Main Street Metuchen, NJ 08840
118, 29.011	442 Main Street	Metuchen Central LLC 43 Oak Avenue Metuchen, NJ 08840
118, 28	428 Main Street #430	430-438 Main Street LLC 30 Lum Avenue Chatham, NJ 07926
118, 27	429 Main Street #430	430-438 Main Street LLC 30 Lum Avenue Chatham, NJ 07927
118, 26	430 Main Street #430	430-438 Main Street LLC 30 Lum Avenue Chatham, NJ 07928
118, 24.01	426 Main Street #428	Giomar Properties LLC 426 Main Street; 2nd Floor Metuchen, NJ 08840
118, 22	424 Main Street	George & Maria Mastorou 424 Main Street Metuchen, NJ 08840
118, 19.01	25 Hillside Avenue	Hillside Metuchen Apartments LLC 3010 Bordentown Avenue Parlin NJ, 08859
117, 52	13 Highland Avenue #15	Mars Realty LLC 360 Main Street #442 Metuchen, NJ 08840
117, 57.02	470 Main Street	Highland Main Acquisition LLC 1 highland Avenue Metuchen, NJ 08840
117, 57.01	472 Main Street #474	NHF Properties LLC 1180 Saint Georges Avenue; Suite 3 Avenel NJ 07001
117, 54.02	470 Main Street	Highland Main Acquisition LLC 1 highland Avenue Metuchen, NJ 08840

Property ID (Block, Lot)	Property Location	Owner Name & Address
117, 54.01	470 Main Street	Highland Main Acquisition LLC 1 highland Avenue Metuchen, NJ 08840
117, 59	476 Main Street	Datar Realty LLC 476 Main Street Metuchen, NJ 08840
117, 61	507 Middlesex Avenue	Datar Realty LLC 476 Main Street Metuchen, NJ 08841
117, 63	505 Middlesex Avenue	Michael J. Geschlecht 505 Middlesex Avenue Metuchen, NJ 08840
117, 64	503 Middlesex Avenue	Metuchen Borough 500 Main Street Metuchen, NJ 08840
117, 65	503 Middlesex Avenue	Metuchen Borough 500 Main Street Metuchen, NJ 08841
117, 70	491 Middlesex Avenue	Boro Improvement League T. Reuter 491 Middlesex Avenue; Box 174 Metuchen, NJ 08840
117, 72	491 Middlesex Avenue	Boro Improvement League T. Reuter 491 Middlesex Avenue; Box 174 Metuchen, NJ 08841
117, 36.01	43 Highland Avenue	Arthur V. & Grace L. Allgauer 43 Highland Avenue Metuchen, NJ 08840
117, 38.01	43 Highland Avenue	Arthur V. & Grace L. Allgauer 43 Highland Avenue Metuchen, NJ 08840
117, 40	37 Highland Avenue	Marchwinski, Jacek & Banasik, C.P. 58 Miara Street Parlin, NJ 08853
117, 41	37 Highland Avenue	Marchwinski, Jacek & Banasik, C.P. 58 Miara Street Parlin, NJ 08854
117, 43	33 Highland Avenue	Kenneth & Lauren Duvilla 33 Highland Avenue Metuchen, NJ 08840
117, 44	33 Highland Avenue	Kenneth & Lauren Duvilla 33 Highland Avenue Metuchen, NJ 08841
117, 46	25 Highland Avenue	Saumya Patel 25 Highland Avenue Metuchen, NJ 08840
117, 48	21 Highland Avenue	A De La Paz & E-Trustees & M Pana 7 Aspen Circle Edison, 08820
117, 50	Highland Avenue	Highland Main Acquisition LLC 1 Highland Avenue Metuchen, NJ 08840

UTILITIES LIST:

P.S.E. & G. Co.
Manager-Corporate Properties
80 Park Plaza, T6B
Newark, NJ 07102

Cablevision of Raritan Valley
275 Centennial Avenue
CN 6805
Piscataway, NJ 08855
Attn: Marguerite Prenderville
Construction Department

Elizabethtown Gas Co.
1 Elizabeth Plaza
P.O. Box 3175
Union, NJ 07083

Buckeye Pipeline
P.O. Box 368
Emaus, Pa. 18049

Texas Eastern Transmission Corp.
501 Coolidge Street
South Plainfield, NJ 07080

New Jersey Bell Telephone Co.
540 Broad St. - Room 305
Newark, NJ 07101

Middlesex Water Co.
485 Rt 1 So., Bldg C. 4th Flr.
Iselin, NJ 08830

Parking Authority
500 Main Street
Metuchen, NJ 08840

Middlesex County Planning Board
Middlesex County Administration Building
John F. Kennedy Square
75 Bayard Street, 5th Floor
New Brunswick, NJ 08901

Freehold Soil Conservation District
4000 Kozloski Road
P.O. Box 5033
Freehold, NJ 07728-5033

DEPT.OF TRANSPORTATION
1035 PARKWAY AVENUE
CN 613
TRENTON, NJ 08625

GENERAL NOTES:

1. PROPERTY KNOWN AND DESIGNATED AS LOTS 15, 16, 17, 18.05, 40.02 & 44 IN BLOCK 118 SHOWN ON THE CURRENT TAX MAP SHEET No. 35 OF THE BOROUGH OF METUCHEN, MIDDLESEX COUNTY, NEW JERSEY.
2. AREA OF SITE:

   LOTS 40.02 & 44 (TRACT I) – 13,190 S.F.± (0.3028 AC.±)
   LOTS 15, 16, 17 & 18.05 (TRACT II) – 12,613 S.F.± (0.2896 AC.±)
   TOTAL AREA = 25,803 S.F.± (0.5924 AC.±)
3. TRACT I IS SITUATED IN BOTH "R–1" (RESIDENTIAL DISTRICT) AND "B–1" (CENTRAL BUSINESS DISTRICT) AND TRACT II IS SITUATED IN "R–1" (RESIDENTIAL DISTRICT). THIS APPLICATION WILL BE DEVELOPED UNDER "R–1" (RESIDENTIAL DISTRICT).
4. TRACT I CURRENTLY HAS AN EXISTING 11,518 S.F. 3 STORY FRAME W/BRICK FACE OFFICE BUILDING WITH A MACADAM PARKING LOT. TRACT II IS CURRENTLY A STONE PARKING LOT NO STRUCTURES ON SITE. THE APPLICANT PROPOSES TO CONSTRUCT A 8,249 S.F. ADDITION AND CONVERT THE EXISTING 3 STORY OFFICE BUILDING INTO A 3 STORY MIX USE BUILDING WITH 20 MULTI–FAMILY UNITS & 390 S.F. OFFICE USE.

   PROP. 3 STORY MIX USE BUILDING
   USE FLOOR AREA CALCULATIONS:

   THIRD FLOOR: 5,721 S.F. (3 UNITS STUDIO, 2 UNITS 1–BR, 1 UNIT 2–BR)
   SECOND FLOOR: 5,748 S.F. (3 UNITS STUDIO, 2 UNITS 1–BR, 1 UNIT 3–BR)
   FIRST FLOOR: 5,591 S.F. (3 UNITS STUDIO, 2 UNITS 1–BR, 1 UNIT 2–BR)
   GROUND FLOOR: 3,801 S.F. (1 UNIT STUDIO, 1 UNIT 1–BR, 390 S.F. OFFICE)
   TOTAL = 20,861 S.F. G.F.A. (20 MULTI–FAMILY UNITS & 390 S.F. OFFICE)
5. SURVEY REFERENCES:
   THE OUTBOUND & TOPOGRAPHIC SURVEY INFORMATION SHOWN ON THIS PLAN WAS PROVIDED BY THE APPLICANT AND IS BASED ON THE MAP ENTITLED, "BOUNDARY/TOPOGRAPHIC SURVEY 20 HIGHLAND AVENUE, BOROUGH OF METUCHEN, MIDDLESEX COUNTY, NEW JERSEY, BLOCK 118, LOTS 15, 16, 17, 18.05, 40.02 & 44", DATED 06/12/23, REVISED ON 06/15/23. PREPARED BY BRUNSWICK SURVEYING INCORPORATED, PISCATAWAY, NEW JERSEY 08854.
6. ALL PROPOSED IMPROVEMENTS SHALL CONFORM TO THE BOROUGH OF METUCHEN STANDARDS AND SPECIFICATIONS.
7. PARKING REQUIREMENTS:
   RESIDENTIAL PARKING, RSIS STANDARDS
   5:21–4.14 TABLE 4.4
   MID–RISE APARTMENT: 1 BR. (1.8 SPACES/UNIT), 2 BR. (2.0 SPACES/UNIT) AND 3 BR. (2.1 SPACES/UNIT)

   OFFICE USE: 1.0 PER 250 S.F. OF FLOOR AREA

   10 UNITS – STUDIO X 1.8 = 18.0 SPACES
   7 UNITS – 1 BR. X 1.8 = 12.6 SPACES
   2 UNITS – 2 BR. X 2.0 = 4.0 SPACES
   1 UNIT – 3 BR. X 2.1 = 2.1 SPACES

   390 S.F. OFFICE/250 S.F. = ~~1.56 SPACES~~
   1 SPACE (50% REDUCTION PER DOWNTOWN LOCATION)
   TOTAL REQUIRED PARKING = 37.7 = 38 SPACES
   TOTAL PROVIDED PARKING = 37 SPACES (35 SPACES FOR SITE, 2 FOR ADJACENT PROPERTY)

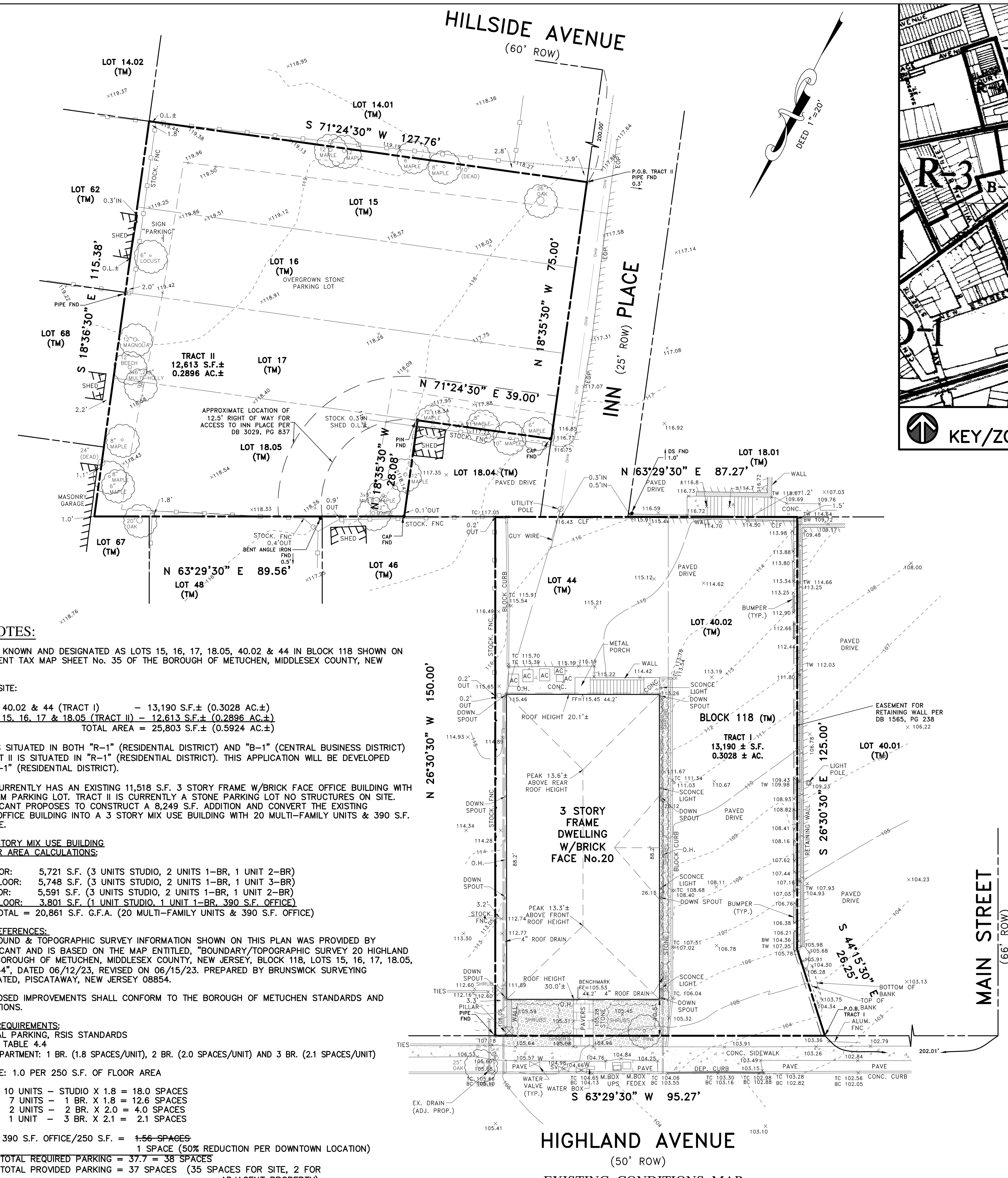
   EV READY STALLS (35 X 0.15 = 5.25 STALLS), 6 STALLS PROPOSED
   ONE–THIRD MINIMUM TO BE INSTALLED AS EVSE ACTIVE (6 X 0.33 = 1.98 ROUNDED TO 2 STALLS MIN.)
   10% MAXIMUM CREDIT FOR EVSE/MAKE–READY (38 X 0.10 = 3.8 STALLS CREDIT)
   35 PROVIDED + 3.8 EVSE CREDIT = 38.8 = 39 PROVIDED
8. ADA PARKING REQUIREMENTS
   ADA SPACES REQUIRED (26–50 SPACES) = 2 (1 VAN ACCESSIBLE)
   ADA SPACES PROVIDED = 3 (1 VAN ACCESSIBLE, 1 REGULAR, 1 EVSE)
9. BICYCLE PARKING AS RECOMMENDED BY THE BOROUGH PLANNER
   BICYCLE PARKING RECOMMENDED = 1 PER APARTMENT = 23
   BICYCLE PARKING PROVIDED = 23 – BIKE RACK (2 BIKES) OUTSIDE PLUS 21 INSIDE
   (BIKE ROOM ON GROUND FLOOR PLUS HOOKS IN APARTMENTS, REFER TO ARCHITECT'S PLAN)

OWNER/APPLICANT:

OWNER:
CYDANA LLC
20 HIGHLAND AVENUE
METUCHEN, NJ 08840

APPLICANT:
51 HOLLY RD. ASSOCIATES, LLC
JAMIE GORDON
P.O. BOX 476
METUCHEN, NJ 08840
732–709–8297

INDEX OF DRAWINGS



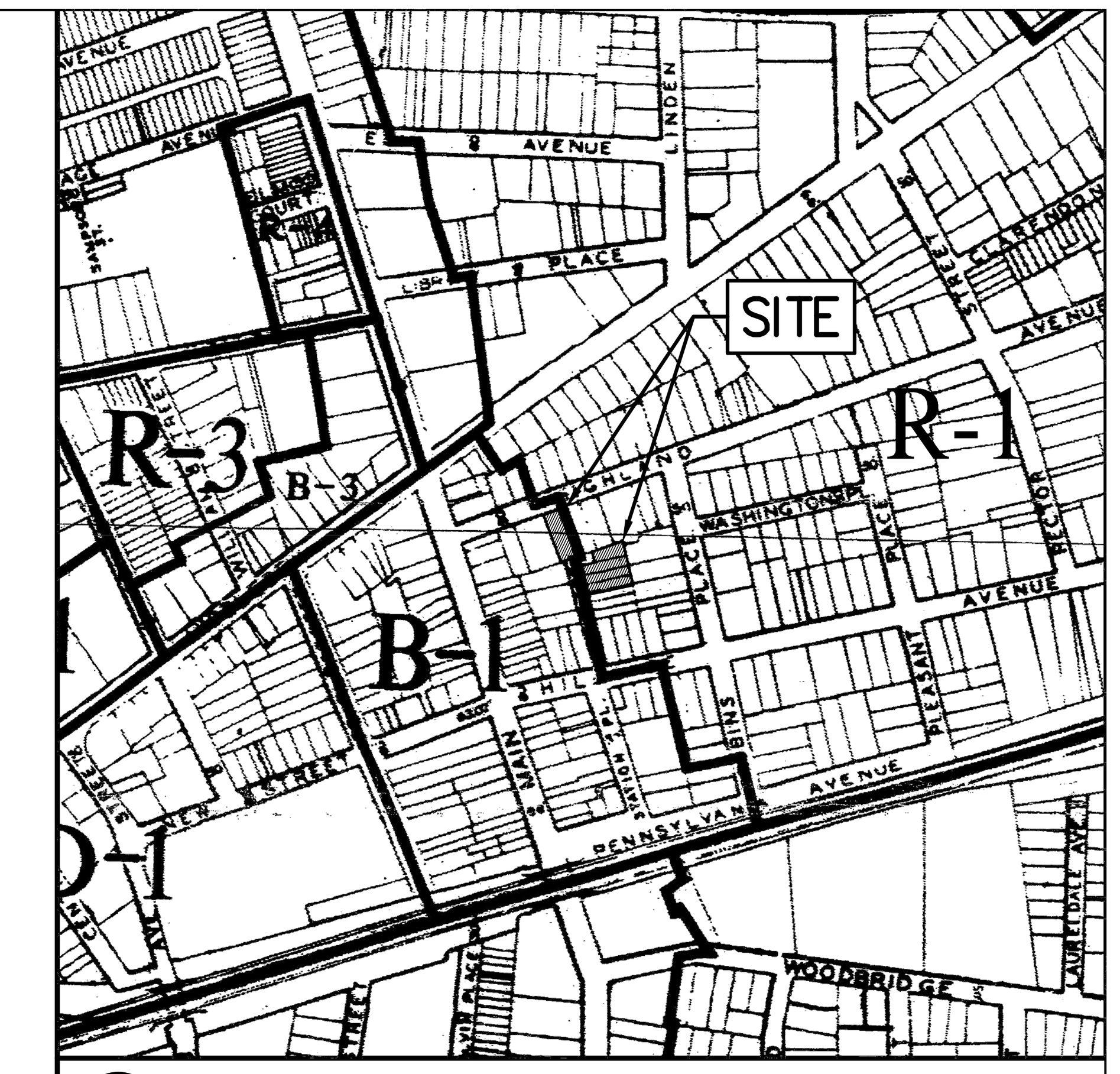
EXISTING CONDITIONS MAP
SCALE: 1"=20'

BULK REQUIREMENTS FOR "R-1" (RESIDENTIAL DISTRICT)

		REQUIRED	EXISTING	PROPOSED
MINIMUM LOT AREA:	TRACT I TRACT II	10,000 SF	13,190 SF 12,613 SF	13,190 SF 12,613 SF
MINIMUM LOT WIDTH:	TRACT I TRACT II	75 FT	87.27 FT 75 FT	87.27 FT 75 FT
MINIMUM LOT DEPTH:	TRACT I TRACT II	100 FT	150 FT 127.76 FT	150 FT 127.76 FT
MINIMUM FRONT YARD SETBACK:	TRACT I TRACT II	*30 FT	(E) 10.5 FT N/A	(E) 10.5 FT N/A
MINIMUM ONE SIDE YARD SETBACK:	TRACT I TRACT II	10 FT	(E) 3.3 FT N/A	(E) 3.3 FT N/A
MINIMUM BOTH SIDE YARD SETBACKS:	TRACT I TRACT II	20 FT	43.1 FT N/A	43.1 FT N/A
MINIMUM REAR YARD SETBACK:	TRACT I TRACT II	25 FT	51.3 FT N/A	(V) 10.08 FT N/A
MAXIMUM BUILDING COVERAGE:	TRACT I TRACT II	30%	(3,896 SF±) 29.5% N/A	(V) (5,716 SF±) 43.3% N/A
MAXIMUM IMPERVIOUS COVERAGE:	TRACT I TRACT II	50%	(E) (11,953 SF±) 90.6% (9,723 SF±) 77.1%	(E) (11,136 SF±) 84.4% (8,534 SF±) 67.7%
MAXIMUM BUILDING HEIGHT:	TRACT I TRACT II	35 FT/3 STY	34.44 FT/3 STY N/A	34.44 FT/3 STY N/A

* THE PREVAILING SETBACK (FOR TRACT I) CONSIDERS THE IMMEDIATE ADJACENT LOTS ON EITHER SIDE OF THE TRACT (LOTS 46 AND 40.01). LOT 46 IS 24 HIGHLAND AVENUE CONTAINING A DWELLING AND LOT 40.01 IS PART OF ANOTHER LOT BUT HAS NO BUILDING. AS SUCH, THE AVERAGE SETBACK IS CALCULATED AS ONLY 24 HIGHLAND AVENUE SINCE THE OTHER LOT HAS NO BUILDING, WHICH MEANS THE PREVAILING FRONT YARD SETBACK IS 30 FEET.

(E) – EXISTING NON CONFORMING
(V) – PROPOSED VARIANCE
N/A – NOT APPLICABLE



KEY/ZONING MAP
SCALE: 1" = 400'

APPROVED BY THE METUCHEN ZONING BOARD OF ADJUSTMENT

CHAIRMAN OF THE ZONING BOARD OF ADJUSTMENT — DATE

SECRETARY OF THE ZONING BOARD OF ADJUSTMENT — DATE

BOROUGH ENGINEER — DATE

CERTIFICATION OF SITE IMPROVEMENTS IN COMPLIANCE WITH PROWAG AND ADAAG

THE UNDERSIGNED CERTIFIES THAT THE DESIGN OF PROPOSED SITE IMPROVEMENTS MEETS THE REQUIREMENTS SET FORTH IN THE US ACCESS BOARD'S PUBLIC RIGHTS–OF–WAY ACCESSIBILITY GUIDELINES (PROWAG) AND AMERICAN DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG).

[illegible] 02/08/24
LESLIE A. WALKER III, PE — DATE
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE NUMBER: 24GE04729700

REV.	DESCRIPTION	DATE	BY
5	UPDATED PER REVISED ARCHITECTURAL PLANS	03/01/24	DSA
4	REVISED PLAN PER BOARD ENGINEER'S LETTER DATED 02/07/23	02/08/24	RVB
3	REVISED PLAN PER BOROUGH PLANNER'S LETTER DATED 12/13/23	01/28/24	DSA
2	REVISED PLAN PER BOROUGH PLANNER'S COMMENTS 11/02/23	11/02/23	DSA
1	REVISED PLAN PER BOROUGH PLANNER'S LETTER DATED 10/27/23	10/31/23	DSA

200 FT. RADIUS MAP & EXISTING CONDITIONS MAP

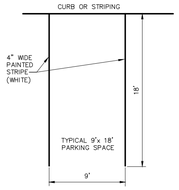
GRAPHIC SCALE 1" = 20'
0 20 40 60

MERIDIAN
ENGINEERING GROUP, INC.
CERTIFICATE OF AUTHORIZATION NUMBER: 24GA28084700
CIVIL ENGINEERING • LAND SURVEYING
LAND PLANNING • LANDSCAPE ARCHITECTURE
HYDRAULIC & HYDROLOGIC ENGINEERING
ENVIRONMENTAL & EROSION CONTROL ENGINEERING
1199 AMBOY AVENUE, SUITE 1D
EDISON, NEW JERSEY 08837
PHONE: (732) 205-8288 • FAX: (732) 719-7208
www.meridianegi.com • info@meridianegi.com

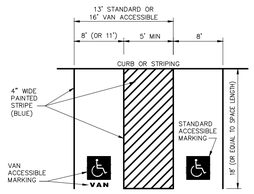
SITE PLAN
PREPARED FOR:
MIXED USE
LOTS 15-17, 18.05, 40.02 & 44 IN BLOCK 118
20 HIGHLAND AVENUE
SITUATED IN:
BOROUGH OF METUCHEN
MIDDLESEX COUNTY, NEW JERSEY

CAD: 46–65	DATE: 10/18/23	SCALE: 1" = 20'
FILE: 046.0065	DRAWN: DSA	SHEET 1 OF 7

[illegible] 03/01/24
LESLIE A. WALKER III, PE — DATE
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE NUMBER: 24GE04729700



TYPICAL PARKING STALL STRIPING DETAIL
NTS



TYPICAL ACCESSIBLE PARKING SPACE STRIPING DETAIL
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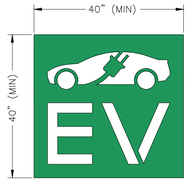
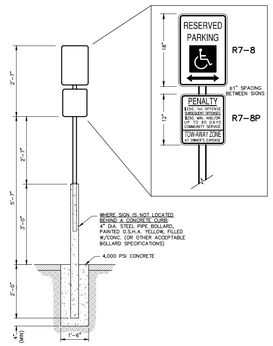
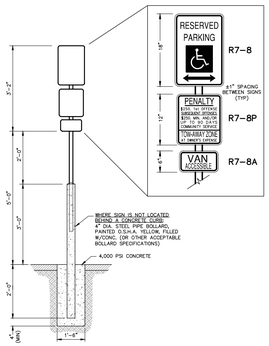


NOTE: DIMENSIONS AND DESIGN MAY VARY, DEPENDANT ON TEMPLATE SUPPLIER. PAINT OF PARKING SPACE(S) AND TEMPLATE MUST BE GREEN ACRYLIC TRAFFIC MARKING PAINT.

EV PAVEMENT PARKING
NTS



DETAIL OF CONCRETE BOLLARD STANDARD ACCESSIBLE SIGN POST
NTS



DETAIL OF CONCRETE BOLLARD VAN ACCESSIBLE SIGN POST
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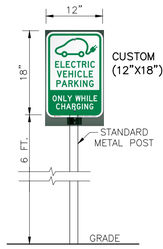

EV SIGN DETAIL
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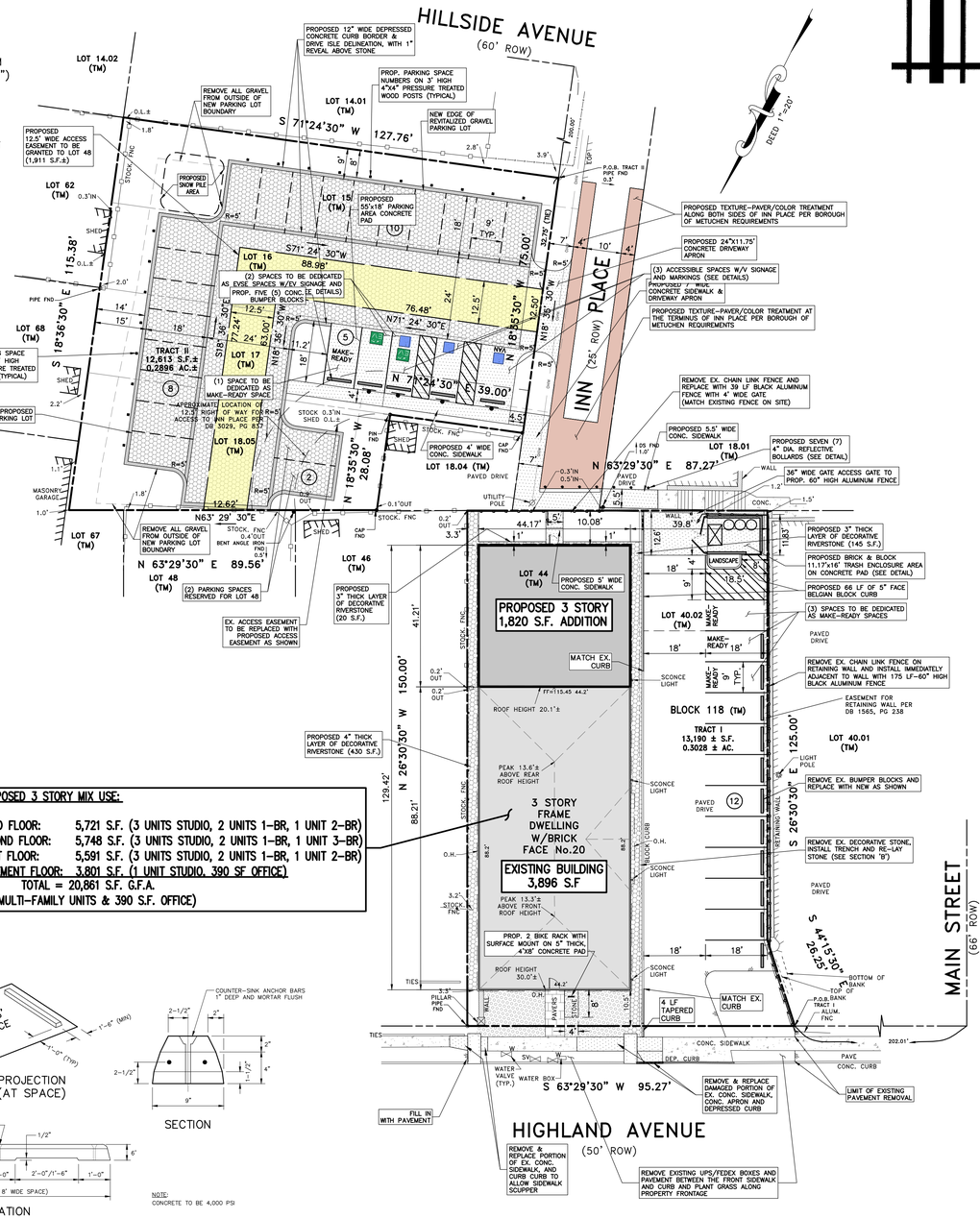
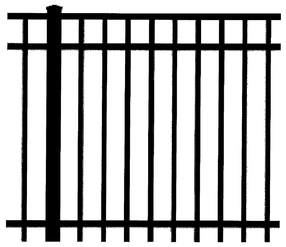


ORNAMENTAL ALUMINUM FENCING

The Opal



Commercial Components	
Pickets	3/4" sq. x .062 wall
Horizontal Rails	1 1/4" x 1 5/8"
Side Walls	.100 wall
Top Walls	.070 wall
Standard PostS	2 1/2" sq. x .075 wall
Gate Posts	4" sq. x .125 wall
Spacing Between Pickets	4"
Standard	1 1/2"
Tighter Spacing	
Maximum Post Spacing	72", 96" on center
Height	60"
Standard Color	Black

Fence Height	Post Length
36" & 48"	70"
54" & 60"	84"
72"	96"

PROPOSED 60" HIGH DECORATIVE METAL FENCE ADJACENT TO EXISTING WALL
NTS

In Ground #12727
Surface #12728

Plastisol {Braced} Racks
Surface Mount / In Ground Mount

CycleSafe BICYCLE PARKING www.cyclesafe.com

In Ground #12727
Surface #12728

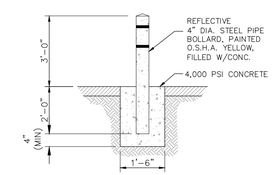
Plastisol {Braced} Racks
Surface Mount / In Ground Mount {Dims}

CycleSafe BICYCLE PARKING www.cyclesafe.com

2 BIKE RACK – SURFACE MOUNT #12728
BIKE U RACK WITH CROSSBAR, IN BLACK (POWDER COAT)
NTS

NOTE:
CONCRETE TO BE 4,000 PSI

PRECAST CONCRETE BUMPER BLOCK DETAIL
NTS



DETAIL OF CONCRETE BOLLARD
NTS

REV.	DESCRIPTION	DATE	BY
5	UPDATED PER REVISED ARCHITECTURAL PLANS	03/01/24	DSA
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DIMENSIONING PLAN

GRAPHIC SCALE 1" = 20'

0 20 40 60

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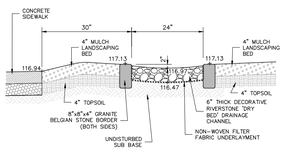
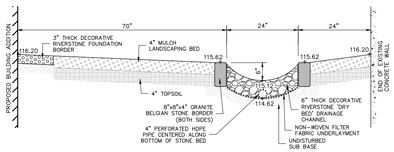
CAD: 46-65	DATE: 10/18/23	SCALE: 1" = 20'
FILE: 046.0065	DRAWN: DSA	SHEET 2 OF 7

05/01/24
LESLIE A. WALKER III, PE DATE
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE NUMBER: 24GE04729700



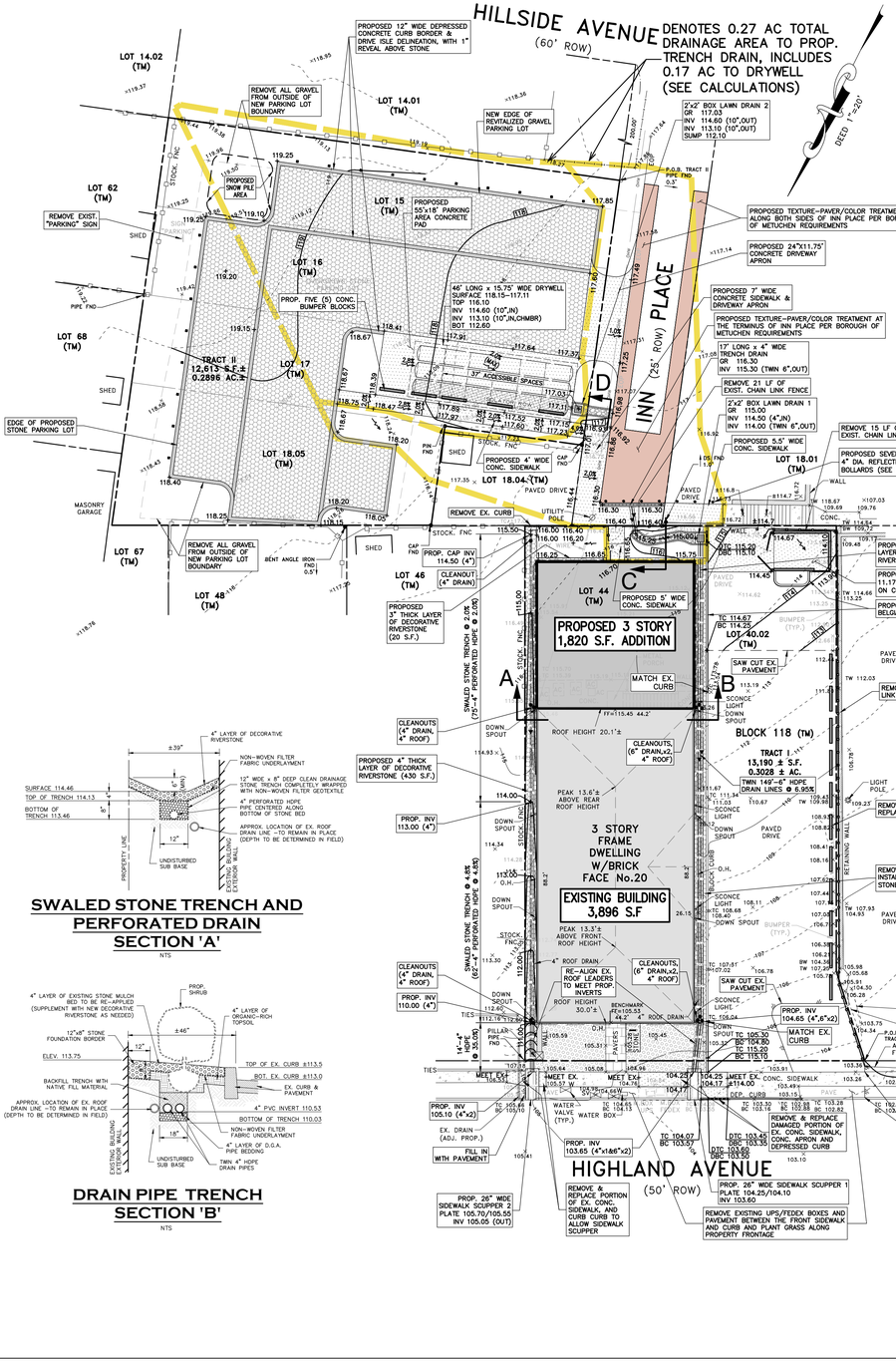
24" WIDE RIVERSTONE OVERFLOW CHANNEL SECTION 'D'

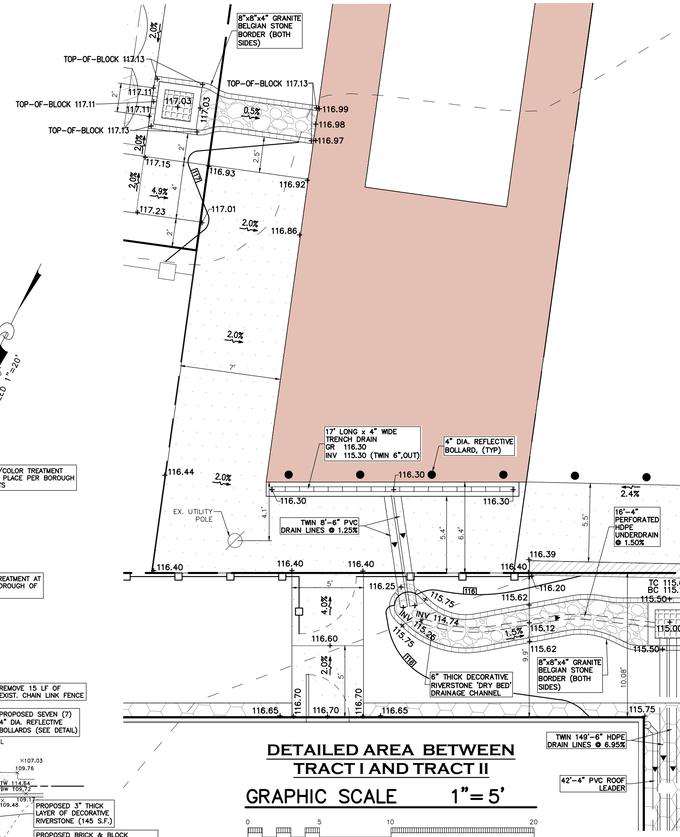
NTS



24" WIDE RIVERSTONE DRAINAGE CHANNEL SECTION 'C'

NTS

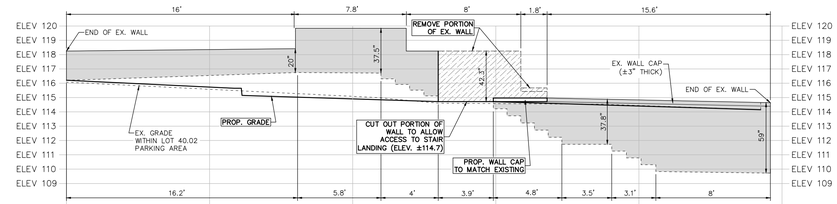




DETAILED AREA BETWEEN TRACT I AND TRACT II

GRAPHIC SCALE 1"= 5'

0 5 10 20



PROFILE OF WALKWAY AT BACK OF TRACT I

SCALE: HORZ & VERT 1" = 5'

SWALED STONE TRENCH AND PERFORATED DRAIN SECTION 'A'

NTS

DRAIN PIPE TRENCH SECTION 'B'

NTS

DRAINAGE AREA CALCULATIONS TO PROPOSED TRENCH DRAIN
(BASED ON NJDOT ROADWAY DESIGN MANUAL, SECTION 10.3, RATIONAL METHOD, 100-YR STORM EVENT)

COEFFICIENT (C) - 'C' HSC BOONTON SOILS,
0.11 AC (IMPERVIOUS, C=0.99)
0.15 AC (GRAVEL, C=0.80)
0.01 AC (GRASS, C=0.51)
WEIGHTED C = 0.87

100YR STORM INTENSITY (i_{100}) - Tc ASSUME 6 MINUTES MIN. = 6.5 IN/HR

AREA (A) = 0.27 AC (TOTAL AREA TO TRENCH DRAIN, INCLUDING DRYWELL RECEIVING AREA)

$Q_{100} = (C)(i_{100})(A) = 0.87 \times 6.5 \times 0.27 =$ 1.5 CFS

CAPACITY OF 6" PVC PIPE @ 1.25% = 0.82 CFS, TWIN PIPES = 1.64 CFS

VOLUME CALCULATION FOR TRACT II DRYWELL

- TOTAL AREA TO DRYWELL = ±7,433 SF (0.17 ACRES)
- TARGET VOLUME = 2" OF RAINFALL OVER THE RECEIVING AREA.
  = 7,433 SF x 0.17 FT = 1,264 CF
- DRYWELL STORAGE VOLUME:
  MANUFACTURER'S RATED UNIT VOLUME = 46.2 CF x 18 UNITS = 832 CF
  EXCAVATED VOLUME = 15.75 FT WIDE x 46.0 FT LONG x 3.0 FT DEEP (NOT INCLUDING 6" BOTTOM) = 2,174 CF
  2,174 CF - 832 CF = 1,342 CF
  VOID RATIO 33%: 1,342 CF x 0.33 = 447 CF
  832 CF + 447 CF = 1,279 CF = (PROVIDED STORAGE)

SOIL DATA:

- BASED UPON THE CUSTOM SOIL RESOURCE REPORT GENERATED FROM THE NRCS WEB SOIL SURVEY WEBSITE (websoilsurvey.sc.egov.usda.gov), THIS PROPERTY IS LOCATED IN BOONTON-URBAN LAND SOILS (BouB) CLASSIFICATION AREA. WELL DRAINED CLASSIFIED SOILS. Ksat RATE: 0.06-0.20 IN/HR (0.13 IN/HR AVERAGE). DEPTH TO WATER TABLE (+80 INCHES).

COMPUTED LAND COVER BREAKDOWN
TRACK I & II (25,803 SF)

TRACT I (13,190 SF)

EXIST. GRASS & LANDSCAPING AREA	=	504 SF	(4%)
EXIST. LANDSCAPING STONE AREA	=	733 SF	(5%)
EXIST. CONCRETE WALKWAYS, STAIRS, WALLS AREA	=	440 SF	(3%)
EXIST. BUILDING AREA	=	3,896 SF	(30%)
EXIST. PAVEMENT PARKING LOT AREA (VEHICLE TRAFFIC)	=	7,617 SF	(58%)
PROP. GRASS & LANDSCAPING AREA	=	682 SF	(5%)
PROP. LANDSCAPING/DRAINAGE STONE AREA	=	1,372 SF	(11%)
PROP. WALKWAYS, STAIRS, WALLS, ETC. AREA	=	291 SF	(2%)
PROP. BUILDING AREA	=	5,716 SF	(43%)
PROP. PAVEMENT/CONCRETE PARKING LOT (VEHICLE TRAFFIC)	=	5,129 SF	(39%)

TRACT II (12,613 SF)

EXIST. GRASS & LANDSCAPING AREA	=	2,890 SF	(23%)
EXIST. GRAVEL PARKING LOT (VEHICLE TRAFFIC)	=	9,723 SF	(77%)
PROP. GRASS & LANDSCAPING AREA	=	4,079 SF	(33%)
PROP. CONCRETE WALKWAYS AREA	=	279 SF	(2%)
PROP. GRAVEL PARKING LOT (VEHICLE TRAFFIC)	=	6,592 SF	(52%)
PROP. CONCRETE WITHIN PARKING LOT (VEHICLE TRAFFIC)	=	1,663 SF	(13%)

CONSTRUCTION NOTES:

1. PRIOR TO COMMENCEMENT OF ANY WORK, THE CONTRACTOR SHALL OBTAIN ALL THE NECESSARY STATE, COUNTY AND TOWNSHIP PERMITS.
2. THE CONTRACTOR SHALL CONTACT THE UTILITIES COORDINATION COMMITTEE AT 1-800-272-1000 FOR A UTILITY MARK UP IN THE AREA OF THE CONSTRUCTION AT LEAST 72 HOURS PRIOR TO COMMENCEMENT OF ANY WORK.
3. THESE PLANS IN NO WAY SHOW ALL THE EXISTING UNDERGROUND OR ABOVE GROUND UTILITIES LOCATED WITHIN THE PROJECT SITE, HIGHLAND AVE. R.O.W. AND INN PLACE R.O.W. IT IS THEREFORE THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE EXACT LOCATION AND DEPTH OF ALL THE EXISTING UTILITIES IN THE AREA OF CONSTRUCTION PRIOR TO COMMENCEMENT OF ANY WORK.
4. WHERE EXISTING UTILITIES ARE TO BE CROSSED BY THE PROPOSED CONSTRUCTION, TEST PITS SHALL BE DUG BY THE CONTRACTOR PRIOR TO ANY CONSTRUCTION ACTIVITY TO ASCERTAIN EXISTING INVERTS, MATERIALS AND SIZES. THE TEST PIT INFORMATION SHALL BE PROVIDED TO THE ENGINEER PRIOR TO CONSTRUCTION IN ORDER TO PERMIT ADJUSTMENTS, IF REQUIRED.
5. ALL THE EXISTING CURBS, SIDEWALK AND DRIVEWAYS DISTURBED DUE TO THE PROPOSED IMPROVEMENTS SHALL BE RESTORED IN ACCORDANCE WITH THE CURRENT TOWNSHIP AND MIDDLESEX COUNTY'S STANDARDS AND SPECIFICATIONS.
6. ALL THE EXISTING POWER POLES WITHIN 10 FEET OF THE PROPOSED IMPROVEMENTS SHALL EITHER BE RELOCATED OR SUPPORTED PER THE RECOMMENDATIONS OF THE UTILITY COMPANY.
7. SEWERS CONVEYING SANITARY FLOW, COMBINED SANITARY AND STORMWATER FLOW, OR INDUSTRIAL FLOW SHALL BE SEPARATED FROM WATER MAINS BY A DISTANCE OF AT LEAST 10 FEET HORIZONTALLY. IF SUCH LATERAL SEPARATION IS NOT POSSIBLE, THE PIPES SHALL BE IN SEPARATE TRENCHES WITH THE SEWER AT LEAST 18 INCHES BELOW THE BOTTOM OF THE WATER MAIN, OR SUCH OTHER SEPARATION AS APPROVED BY THE NEW JERSEY DEPARTMENT ENVIRONMENTAL PROTECTION.
8. WHERE APPROPRIATE SEPARATION FROM WATER MAIN IS NOT POSSIBLE, THE SEWER SHALL BE ENCASED IN CONCRETE, OR CONSTRUCTED OF DUCTILE IRON PIPE USING MECHANICAL OR SLIP-ON JOINTS FOR A DISTANCE OF AT LEAST 10 FEET ON EITHER SIDE OF THE CROSSING. IN ADDITION, ONE FULL LENGTH OF SEWER PIPE SHOULD BE LOCATED SO BOTH JOINTS WILL BE AS FAR FROM THE WATER LINE AS POSSIBLE. WHERE WATER MAIN CROSSES UNDER A SEWER, ADEQUATE STRUCTURAL SUPPORT FOR THE SEWER SHALL BE PROVIDED. THE DEPARTMENT MAY REQUIRE ADDITIONAL STRUCTURAL SUPPORT FOR STORM SEWERS CROSSING OVER SEWER.
9. THE OUTBOUND SURVEY AND TOPOGRAPHIC INFORMATION AS SHOWN ON THIS PLAN HAS BEEN PROVIDED BY THE APPLICANT.
10. THE SURVEY INFORMATION AS SHOWN ON THESE PLANS IS SUBJECT TO SUCH FACTS AS AN ACCURATE TITLE SEARCH MAY DISCLOSE.
11. MAINTAIN EXISTING UTILITY CONNECTIONS WHERE POSSIBLE.

REV.	DESCRIPTION	DATE	BY
4	REVISED PLAN PER BOARD ENGINEER'S LETTER DATED 02/07/23	02/08/24	RVB
3	REVISED PLAN PER BOROUGH PLANNER'S LETTER DATED 12/13/23	01/28/24	DSA
2	REVISED PLAN PER BOROUGH PLANNER'S COMMENTS 11/02/23	11/02/23	DSA
1	REVISED PLAN PER BOROUGH PLANNER'S LETTER DATED 10/27/23	10/31/23	DSA

GRADING AND UTILITY PLAN & DETAILS

GRAPHIC SCALE 1" = 20'

0 20 40 60

MERIDIAN
ENGINEERING GROUP, INC.
CERTIFICATE OF AUTHORIZATION NUMBER: 24GA28084700
CIVIL ENGINEERING • LAND SURVEYING
LAND PLANNING • LANDSCAPE ARCHITECTURE
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EDISON, NEW JERSEY 08837
PHONE: (732) 205-8288 • FAX: (732) 719-7208
www.meridianegi.com • info@meridianegi.com

SITE PLAN
PREPARED FOR:

MIXED USE

LOTS 15-17, 18.05, 40.02 & 44 IN BLOCK 118
20 HIGHLAND AVENUE
SITUATED IN:
BOROUGH OF METUCHEN
MIDDLESEX COUNTY, NEW JERSEY

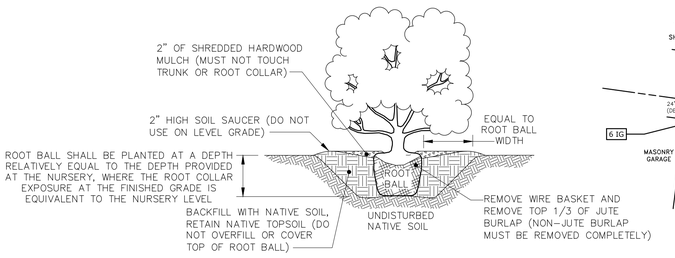
CAD: 46-65	DATE: 10/18/23	SCALE: 1" = 20'	
FILE: 046.0065	DRAWN: DSA	SHEET 3 OF 7	

02/08/24

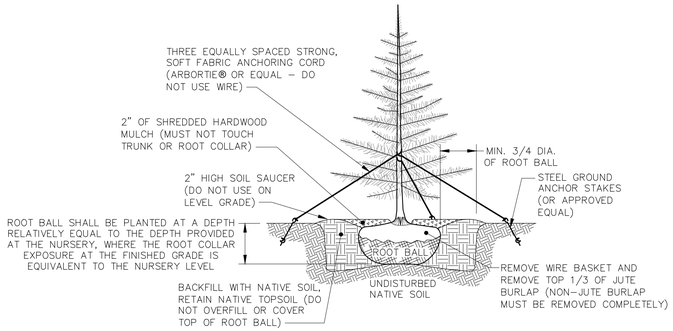
LESLIE A. WALKER III, PE DATE
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE NUMBER: 24GE04729700

PLANTING NOTES

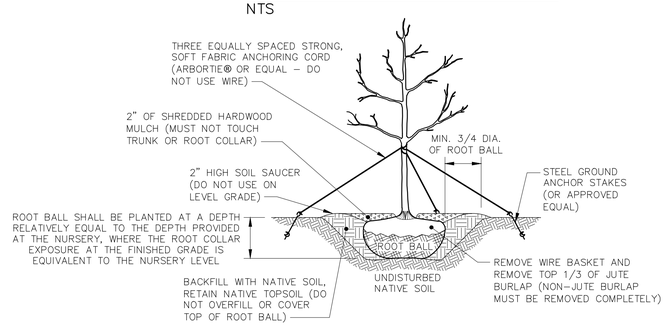
1. All landscaping plant material are shown in a semi-mature size in this plan set. Sizes indicated in Plant List are sizes at time of installation.
2. The staking layout of all retaining walls, walkways, patio and deck surfaces, irrigation lines, and plantings (where applicable) shall be inspected by the Municipal Engineer (or similar agent as applicable) prior to installation. It is the contractor's responsibility to notify the Municipal Engineer (or similar agent as applicable) as to when the work shall begin.
3. Plant locations shown on this plan are diagrammatic. The final locations of all plant materials shall be determined and approved by the Municipal Engineer (or similar agent as applicable).
4. The quality and size of plants, spread of roots and size of root balls shall be in accordance with ANSI Z60.1–1986, "American Standard for Nursery Stock" as published by the American Association of Nurserymen.
5. The Contractor shall examine all field conditions for exact locations of utilities, drainage systems and irrigation systems and shall adjust proposed plantings accordingly.
6. The Contractor shall notify the Municipal Engineer (or similar agent as applicable) in writing of all soil or drainage conditions which the Contractor considers detrimental to the growth of the plant material.
7. GUARANTEE OF PLANT MATERIALS AND GROWTH : All plants and trees shall be guaranteed by the Contractor to be in vigorous growing condition. Provision shall be made for a growth guarantee of at least one year for trees, and a minimum of one growing season for shrubs. Replacements shall be made at the beginning of the first succeeding planting season.
8. All plant substitutions are to be verified with the Municipal Engineer (or similar agent as applicable) prior to purchase and installation.
9. All trees over six feet in height are to be staked at time of installation. All street trees (as applicable) shall be located minimum of four (4) feet from the sidewalk in the front lawn area, and shall be spaced an average of fifty (50) feet apart unless indicated otherwise in this plan set.
10. All landscape areas, either newly created or in existing areas that require repair shall be provided with a 4" thick minimum topsoil layer if none less than 4" are present and shall be temporarily seeding during construction at the rates and applications as specified in the 'Temporary Stabilization Specs' notation of the Soil Erosion and Sediment Control Details within this plan set. If lawns are to be provided, seed at the rates and applications as specified in the 'Permanent Stabilization Specs' notation of the soil erosion and sediment control details within this plan set.
11. All side slopes and bottoms of intermittent water–containing structures (such as grassed waterways or detention basins, if applicable) shall be provided with 6" thick minimum topsoil layers and shall be seeding at the rates and applications as specified in the 'Intermittent Waterways – Permanent Seeding Specs' notation of the Soil Erosion and Sediment Control Details within this plan set.
12. The Contractor shall lime, fertilize and mulch all landscape areas at the rate specified by the Soil Erosion and Sediment Control Permanent Stabilization notes within this plan set.
13. It is the Contractor's responsibility to determine soil acidity levels of the underlying soils of the new lawn areas. A PH level of 4 or less will require a new 12" minimum layer of soil with a PH of 5 or greater before the topsoil is applied. The acidic underlying soil shall either be ameliorated by scarifying 12" of the soil and adding limestone until the soil is no longer acidic or a new layer will be applied on top, which ever is most applicable.
14. No soil shall be placed atop the planting rootball and the root collar must be exposed. Wire baskets and the top $\frac{1}{3}$ of jute burlap are to be removed prior to backfilling the planting pit. Any material other than jute burlap must be removed completely. The sub–soil should not be disturbed directly under the root ball platform.
15. The Contractor shall fertilize all landscaping plant material with 5-10-5 fertilizer, or approved equal, at the rate specified by the manufacturer.
16. All tree pits, plant beds and ground cover areas shall be mulched to a 3–inch depth (after settlement) with shredded hardwood mulch. Shredded hardwood mulch with a maximum of one (1) inch of mulch shall be placed within twelve (12) inches of tree trunks. The mulch should not come in contact with the trunk or the root collar. The mulch shall have no leaves, weeds, branches, shavings, twigs over $\frac{3}{4}$" diameter, or foreign material such as stones, etc.
17. All water applied to planted or lawn areas shall be free from impurities harmful to vegetation and applied at a rate of five gallons of water per square yard of plant pit. all watering is the responsibility of the applicant.
18. Backfill material for raised plant beds shall consist of natural loam topsoil, free from subsoil, and shall be obtained from an area which has never been stripped. Topsoil shall have been removed from a depth of no more than 1 foot, or less if subsoil is encountered. Topsoil shall be of uniform quality, free from hard clods, stiff clay hard pan, sods, partially disintegrated stone, lime cement, tar residues, chips or any other undesirable material.
19. All proposed trees (as applicable) should be provided with anchoring and stakes. Anchoring must be cord made of strong, soft fabric material (NO WIRE). All anchoring and stakes must be removed after one (1) year.
20. Areas disturbed by landscape operations shall be graded to match existing. Topsoil and seed as required.
21. Provide Tree protection fencing as specified in the Soil Erosion and Sediment Control Details within this plan set.
22. Plant material shown in a mass or touching each other shall be allowed to grow together to perform as a screen or hedge. DO NOT PRUNE OR SHEAR INTO INDIVIDUAL FREE-STANDING PLANTS OR TREES!!!
23. This drawing is to be used for Landscaping development purposes only.
24. All landscaping procedures and applications as indicated in this plan set shall be performed in strict compliance with the Standards for Soil Erosion and Sediment Control in New Jersey.



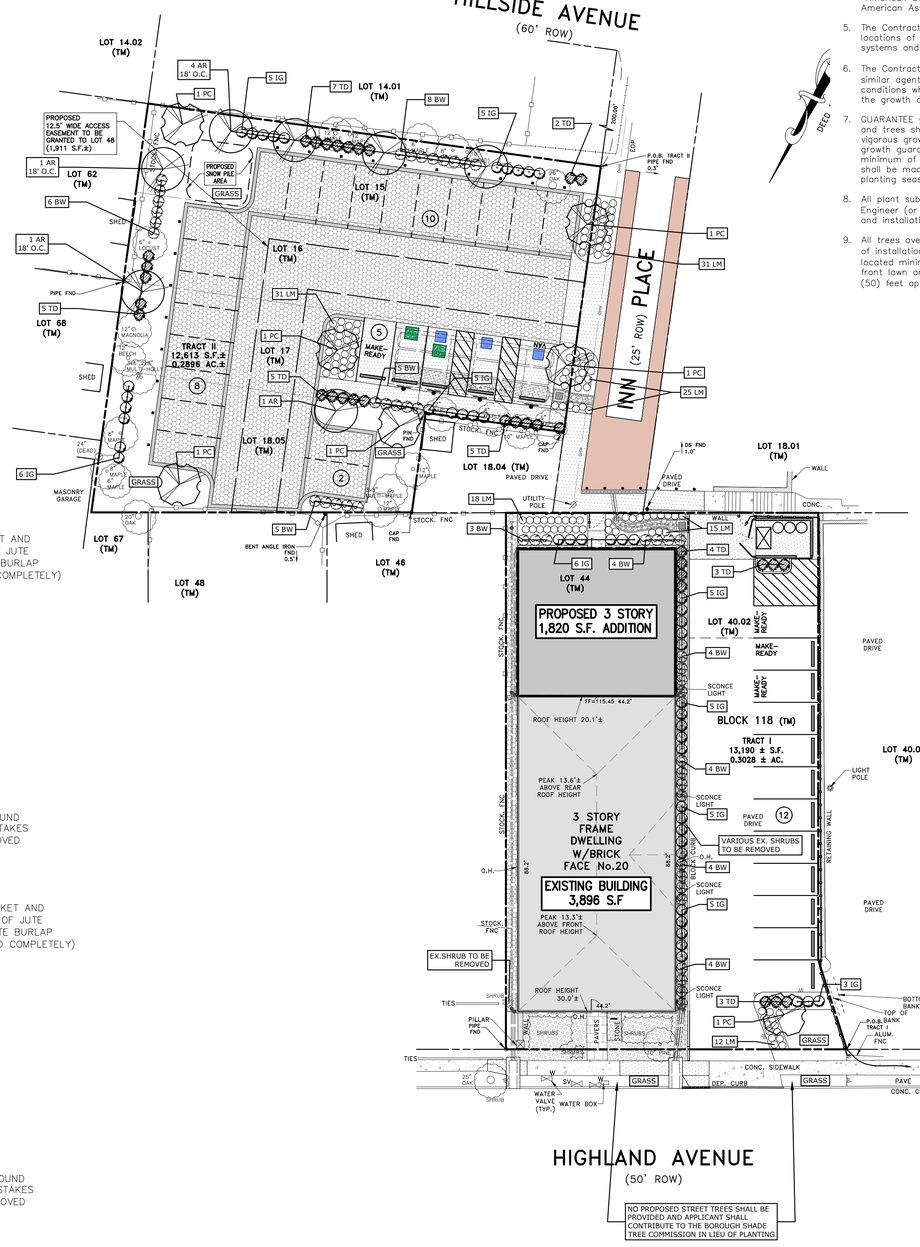
SHRUB PLANTING DETAIL
NTS



EVERGREEN TREE PLANTING DETAIL
NTS



DECIDUOUS TREE PLANTING DETAIL
NTS



PLANT LIST

SYM.	QUAN.	BOTANICAL NAME	COMMON NAME	PLANTING SIZE	REMARKS	MATURE SIZE
SHADE TREES						
AR	7	Acer rubrum 'UFS–KW78'	Armstrong Gold Maple Tree	2.5" Cal.	B&B	40' Tall X 12' Wide
PC	7	Pyrus Calleryana 'Capital'	Capital Pear Tree	2.5" Cal.	B&B	25–35' Tall X 8–12' Wide
EVERGREEN TREE						
TO	TBD	Thuja occidentalis 'Emerald Green'	Emerald Green Arborvitae	6' Tall	B&B	10–15' Tall X 3–4' Wide
SHRUBS						
BW	51	Buxus microphylla japonica 'Winter Gem'	Winter Gem Boxwood	24" High	B&B	5' Tall X 3–4' Wide
IG	55	Ilex glabra 'Compacta'	Compact Inkberry	36" High	B&B	4' Tall X 4' Wide
LM	132	Liriope muscari	Big Blue Lilyturf	12" High	#1 Cont.	18–24" Tall X 18–24" Wide
TD	35	Taxus cuspidata 'Densiformis'	Dense Japanese Yew	36" High	B&B	3–4' Tall X 4–6' Wide

LANDSCAPING NOTE:
ARBORVITAES MAY BE SUBSTITUTED AT A 3:1 RATIO FOR PROPOSED TREES TO ENHANCE VISUAL SCREENING AROUND THE BACK PARKING AREA, AT THE DIRECTION OF THE BOARD PLANNER DURING CONSTRUCTION

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LANDSCAPING PLAN & DETAILS

GRAPHIC SCALE 1" = 20'

0 20 40 60

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SITE PLAN
PREPARED FOR:
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LOTS 15-17, 18.05, 40.02 & 44 IN BLOCK 118
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CAD:	46–65	DATE:	10/18/23	SCALE:	1" = 20'
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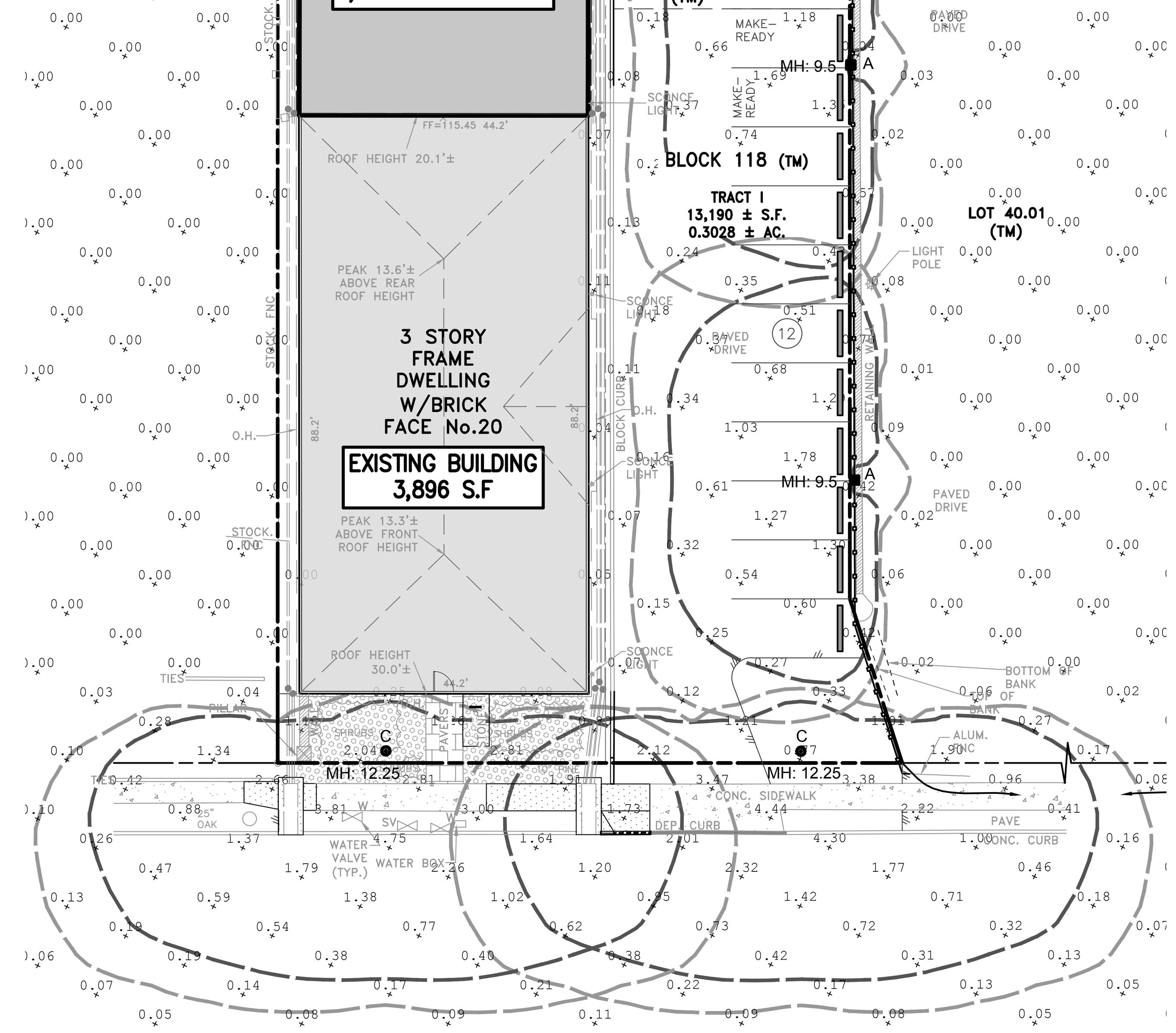
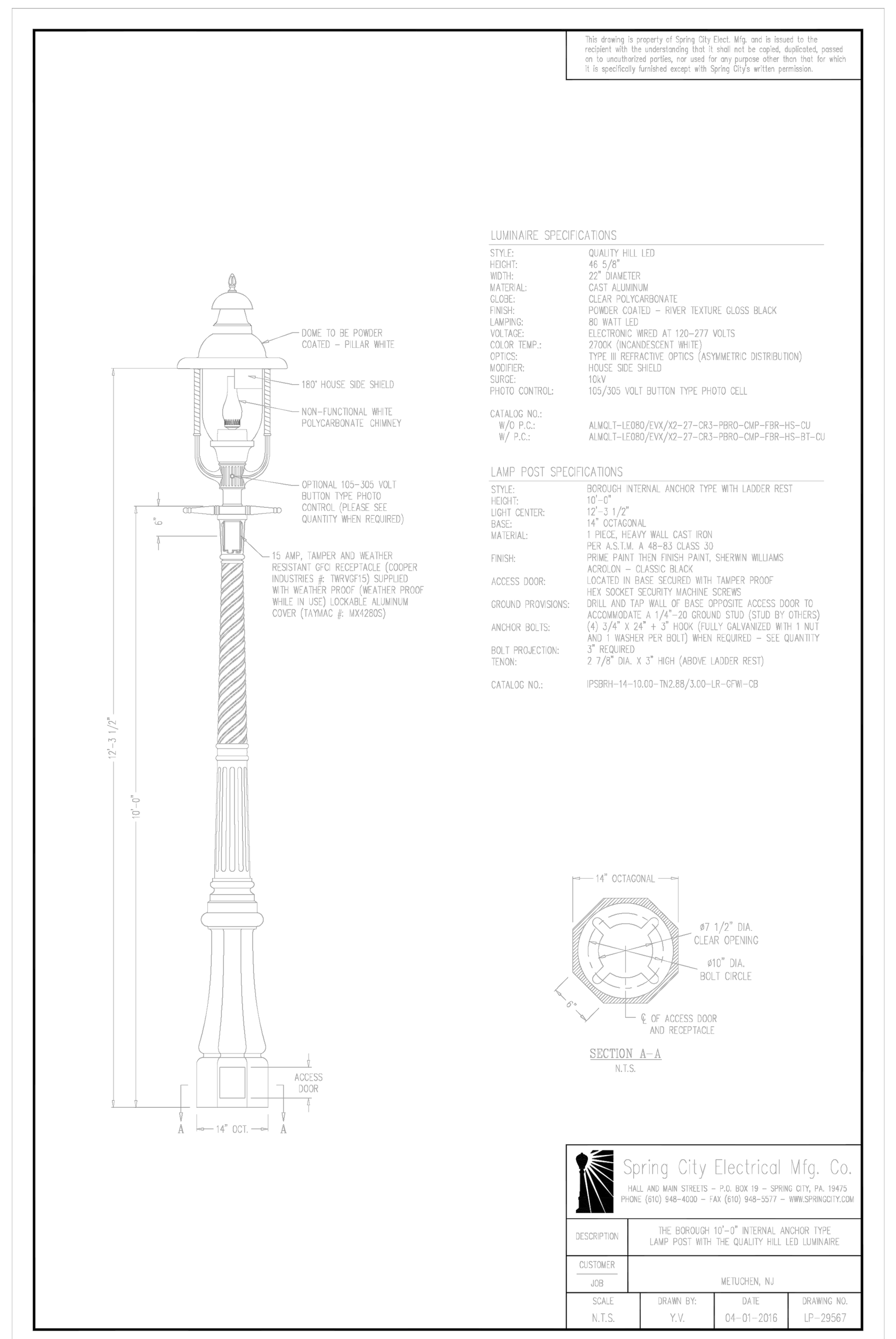
02/08/24
LESLIE A. WALKER III, PE DATE
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE NUMBER: 24GE04729700

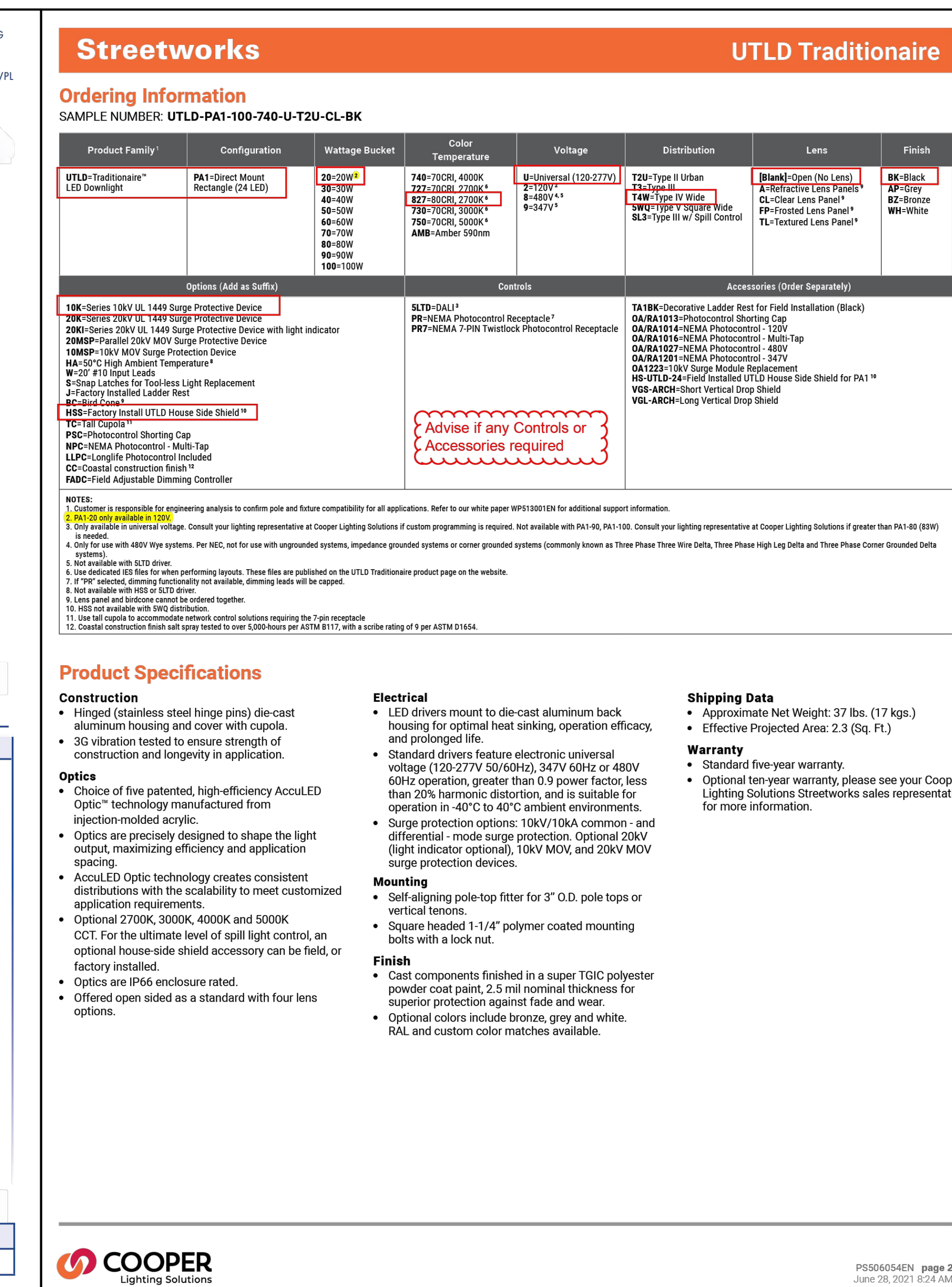


DEED 1"=20'
LOT 14.02 (TM)
LOT 14.01 (TM)
PROPOSED 12.5' WIDE ACCESS EASEMENT TO BE GRANTED TO LOT 48 (1,911 S.F.±)
PROPOSED SNOW PILE AREA
LOT 62 (TM)
LOT 15 (TM)
LOT 16 (TM)
LOT 68 (TM)
TRACT II 12,613 S.F.± 0.2896 AC.±
LOT 17 (TM)
LOT 18.05 (TM)
LOT 18.04 (TM)
LOT 18.01 (TM)
LOT 67 (TM)
LOT 48 (TM)
LOT 46 (TM)
LOT 44 (TM)
PROPOSED 3 STORY 1,820 S.F. ADDITION
LOT 40.02 (TM)
BLOCK 118 (TM)
TRACT I 13,190 ± S.F. 0.3028 ± AC.
LOT 40.01 (TM)
3 STORY FRAME DWELLING W/BRICK FACE No.20
EXISTING BUILDING 3,896 S.F
ROOF HEIGHT 20.1'±
PEAK 13.6'± ABOVE REAR ROOF HEIGHT
PEAK 13.3'± ABOVE FRONT ROOF HEIGHT
ROOF HEIGHT 30.0'±
MH: 9.5
MH: 3.5
MH: 12.25
MASONRY GARAGE
SHED
PAVED DRIVE
UTILITY POLE
LIGHT POLE
SCONCE LIGHT
CONC. SIDEWALK
DEP. CURB
CONC. CURB
WATER VALVE (TYP.)
WATER BOX
RETAINING WALL
STOCK. FNC.
BOTTOM OF BANK
TOP OF BANK


LUMINAIRE SPECIFICATIONS
STYLE: QUALITY HILL LED
HEIGHT: 46 5/8"
WIDTH: 22" DIAMETER
MATERIAL: CAST ALUMINUM
GLOBE: CLEAR POLYCARBONATE
FINISH: POWDER COATED - RIVER TEXTURE GLOSS BLACK
LAMPING: 80 WATT LED
VOLTAGE: ELECTRONIC WIRED AT 120-277 VOLTS
COLOR TEMP.: 2700K (INCANDESCENT WHITE)
OPTICS: TYPE III REFRACTIVE OPTICS (ASYMMETRIC DISTRIBUTION)
MODIFIER: HOUSE SIDE SHIELD
SURGE: 10KV
PHOTO CONTROL: 105/305 VOLT BUTTON TYPE PHOTO CELL
LAMP POST SPECIFICATIONS
STYLE: BOROUGH INTERNAL ANCHOR TYPE WITH LADDER REST
HEIGHT: 10'-0"
LIGHT CENTER: 12'-3 1/2"
BASE: 14" OCTAGONAL
MATERIAL: 1 PIECE, HEAVY WALL CAST IRON PER A.S.T.M. A 48-83 CLASS 30
FINISH: PRIME PAINT THEN FINISH PAINT, SHERWIN WILLIAMS ACROLON - CLASSIC BLACK
DOME TO BE POWDER COATED - PILLAR WHITE
180° HOUSE SIDE SHIELD
NON-FUNCTIONAL WHITE POLYCARBONATE CHIMNEY
SECTION A-A
N.T.S.
Spring City Electrical Mfg. Co.
METUCHEN, NJ
04-01-2016
LP-29567

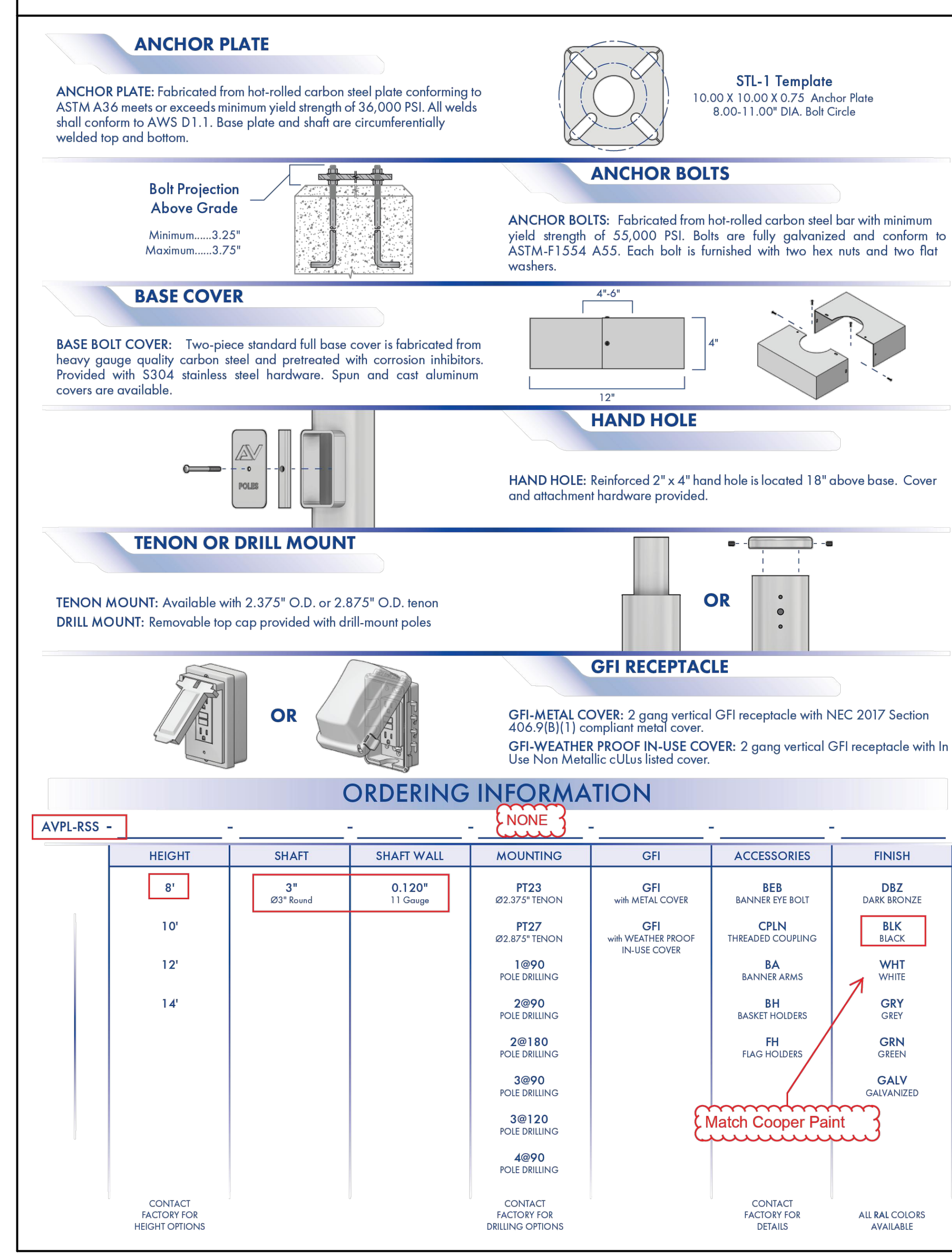
LIGHT POLE AND FIXTURE DETAIL

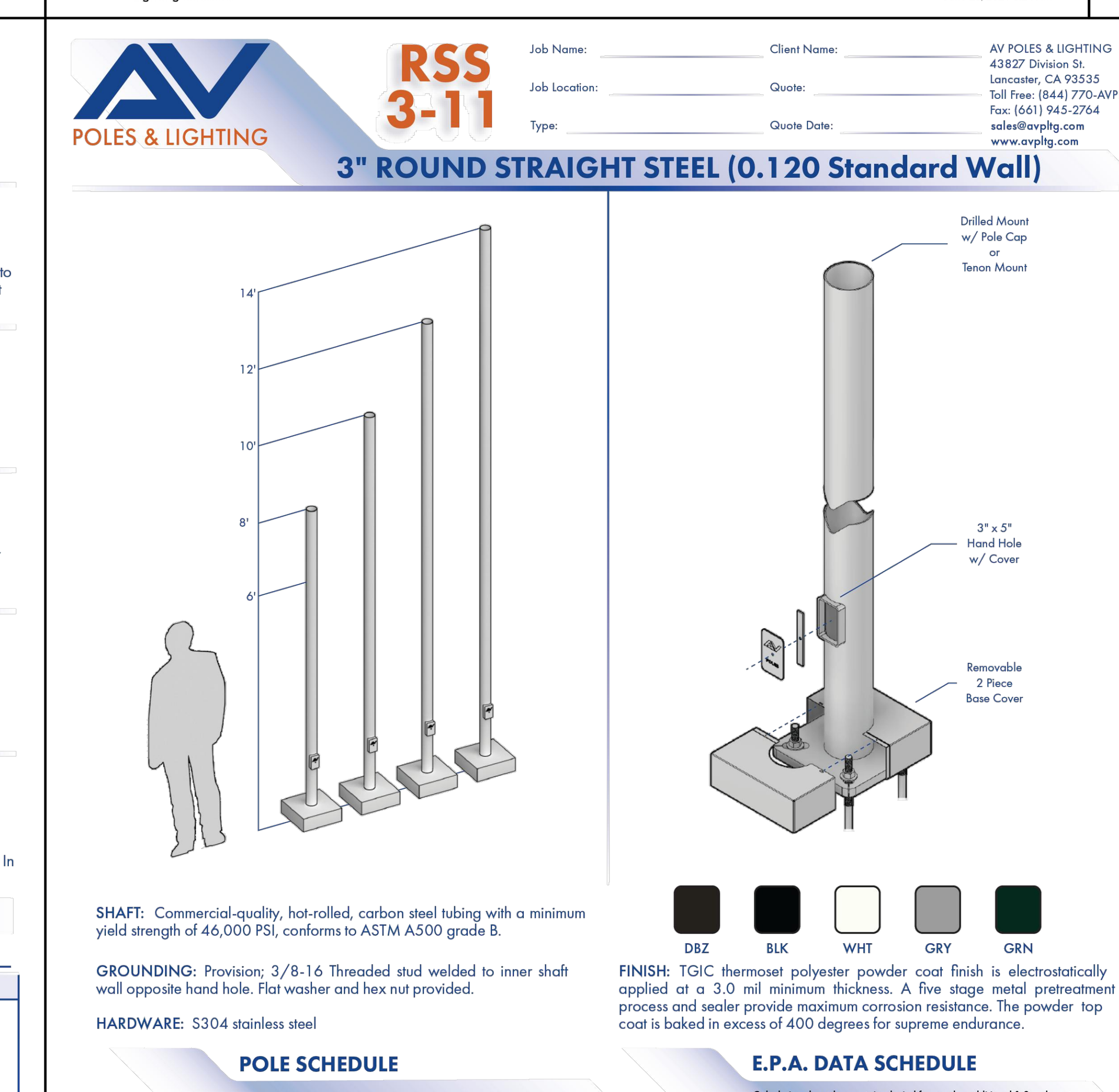
NTS


AV POLES & LIGHTING
ATR-BOL
Type: B
ATRIA BOLLARD
AV POLES & LIGHTING
43827 Division St.
Lancaster, CA 93535
Toll Free: (844) 770-AVPL
Fax: (661) 945-2764
sales@avpltg.com
www.avpltg.com
DIMENSIONS
ANCHORAGE
Anchor Bolt
2" Minimum Projection
Anchor Plate
6" Diameter
3.5" B.C.D.
2.25" Conduit Opening
DESCRIPTION
An outstanding traditional design and authentic appearance that is suitable for a variety of lighting applications. The ATR-BOL series by AV Poles and Lighting is ideal for courtyards, pathways, and all low level lighting applications.
FEATURES
Round extruded, spun, and cast aluminum construction
Stainless steel hardware
Acrylic injection molded lenses with smooth clear or opal finish.
0-10V dimmable driver
10-20KV surge protection
IP67 rated modules - 5 year warranty
Up to 180 Lumens Per Watt output
Low maintenance cost with lifetime >54,000 hrs
Multiple lighting distribution options with optical lens transmittance up to 98%
TGIC thermoset polyester powder coat finish is electrostatically applied at a 3.0 mil nominal thickness. A five stage metal pre-treatment process and sealer provide maximum corrosion resistance. The powder top coat is baked in excess of 400 degrees for supreme endurance.
ORDERING INFORMATION
AVPL -
BOLLARD: ATR-BOL
HEIGHT: 42"
WATTAGE: 18W 350mA, 35W 700mA, 55W 1050mA
COLOR TEMP: 3000K WARM WHITE, 4000K NEUTRAL WHITE, 5000K COOL WHITE
VOLTAGE: 120-277V VOLTAGE SENSING, 347-480V VOLTAGE SENSING
OPTICS: TYPE II, TYPE III, TYPE IV, TYPE V
FINISH: DARK BRONZE, BLACK, WHITE, GREY, GREEN
OPTIONS: STANCHION MOUNT, HOUSE-SIDE SHIELD, PHOTOCELL BUTTON
CONTACT FACTORY FOR FULL LUMEN CHART
ALL RAL COLORS AVAILABLE
LUMEN OUTPUT CHART
3K Type V: 18W 2,147; 35W 4,177; 55W 5,680
4K Type V: 18W 2,279; 35W 4,432; 55W 6,028
5K Type V: 18W 2,315; 35W 4,504; 55W 6,125

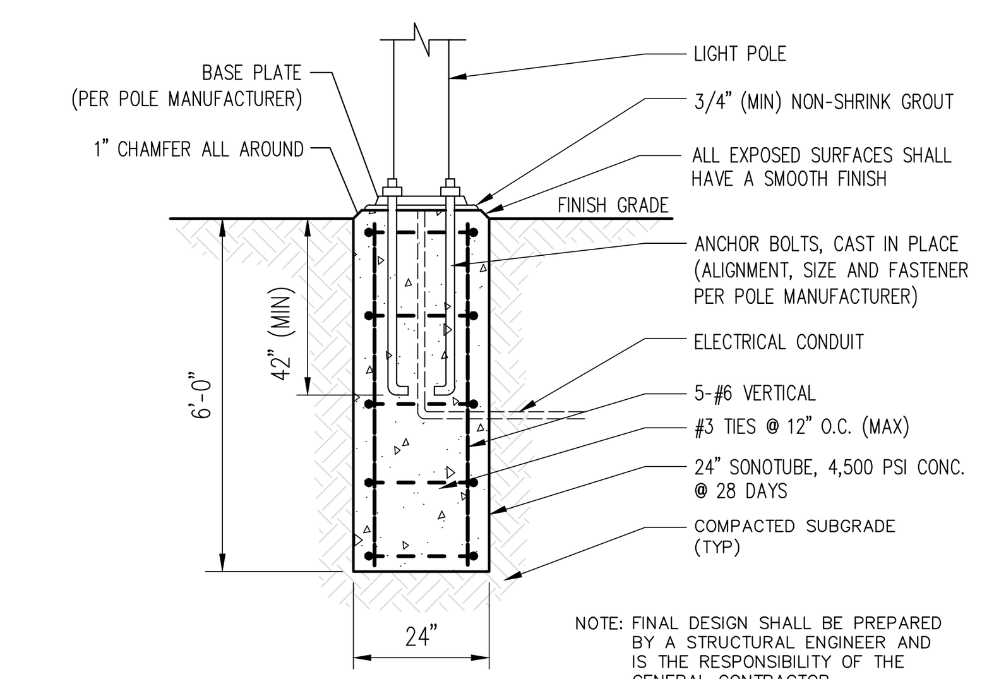

Streetworks
UTLD Traditionaire
Ordering Information
SAMPLE NUMBER: UTLD-PA1-100-740-U-T2U-CL-BK
Product Family: UTLD=Traditionaire™ LED Downlight
Configuration: PA1=Direct Mount Rectangle (24 LED)
Wattage Bucket: 20=20W, 30=30W, 40=40W, 50=50W, 60=60W, 70=70W, 80=80W, 90=90W, 100=100W
Color Temperature: 740=70CRI, 4000K; 727=70CRI, 2700K; 827=80CRI, 2700K; 730=70CRI, 3000K; 750=70CRI, 5000K; AMB=Amber 590nm
Voltage: U=Universal (120-277V); 2=120V; 8=480V; 9=347V
Distribution: T2U=Type II Urban; T3=Type III; T4W=Type IV Wide; SWQ=Type V Square Wide; SL3=Type III w/ Spill Control
Lens: [Blank]=Open (No Lens); A=Refractive Lens Panels; CL=Clear Lens Panel; FP=Frosted Lens Panel; TL=Textured Lens Panel
Finish: BK=Black; AP=Grey; BZ=Bronze; WH=White
Options (Add as Suffix)
10K=Series 10kV UL 1449 Surge Protective Device
20K=Series 20kV UL 1449 Surge Protective Device
20KI=Series 20kV UL 1449 Surge Protective Device with light indicator
20MSP=Parallel 20kV MOV Surge Protective Device
10MSP=10kV MOV Surge Protection Device
HA=50°C High Ambient Temperature
W=20' #10 Input Leads
S=Snap Latches for Tool-less Light Replacement
J=Factory Installed Ladder Rest
BC=Bird Cone
HSS=Factory Install UTLD House Side Shield
TC=Tall Cupola
PSC=Photocontrol Shorting Cap
NPC=NEMA Photocontrol - Multi-Tap
LLPC=Longlife Photocontrol Included
CC=Coastal construction finish
FADC=Field Adjustable Dimming Controller
Controls
5LTD=DALI
PR=NEMA Photocontrol Receptacle
PR7=NEMA 7-PIN Twistlock Photocontrol Receptacle
Advise if any Controls or Accessories required
Accessories (Order Separately)
TA1BK=Decorative Ladder Rest for Field Installation (Black)
OA/RA1013=Photocontrol Shorting Cap
OA/RA1014=NEMA Photocontrol - 120V
OA/RA1016=NEMA Photocontrol - Multi-Tap
OA/RA1027=NEMA Photocontrol - 480V
OA/RA1201=NEMA Photocontrol - 347V
OA1223=10kV Surge Module Replacement
HS-UTLD-24=Field Installed UTLD House Side Shield for PA1
VGS-ARCH=Short Vertical Drop Shield
VGL-ARCH=Long Vertical Drop Shield
2. PA1-20 only available in 120V.
Product Specifications
Construction
Hinged (stainless steel hinge pins) die-cast aluminum housing and cover with cupola.
3G vibration tested to ensure strength of construction and longevity in application.
Optics
Choice of five patented, high-efficiency AccuLED Optic™ technology manufactured from injection-molded acrylic.
Optics are precisely designed to shape the light output, maximizing efficiency and application spacing.
AccuLED Optic technology creates consistent distributions with the scalability to meet customized application requirements.
Optional 2700K, 3000K, 4000K and 5000K CCT. For the ultimate level of spill light control, an optional house-side shield accessory can be field, or factory installed.
Optics are IP66 enclosure rated.
Offered open sided as a standard with four lens options.
Electrical
LED drivers mount to die-cast aluminum back housing for optimal heat sinking, operation efficacy, and prolonged life.
Standard drivers feature electronic universal voltage (120-277V 50/60Hz), 347V 60Hz or 480V 60Hz operation, greater than 0.9 power factor, less than 20% harmonic distortion, and is suitable for operation in -40°C to 40°C ambient environments.
Surge protection options: 10kV/10kA common - and differential - mode surge protection. Optional 20kV (light indicator optional), 10kV MOV, and 20kV MOV surge protection devices.
Mounting
Self-aligning pole-top fitter for 3" O.D. pole tops or vertical tenons.
Square headed 1-1/4" polymer coated mounting bolts with a lock nut.
Finish
Cast components finished in a super TGIC polyester powder coat paint, 2.5 mil nominal thickness for superior protection against fade and wear.
Optional colors include bronze, grey and white. RAL and custom color matches available.
Shipping Data
Approximate Net Weight: 37 lbs. (17 kgs.)
Effective Projected Area: 2.3 (Sq. Ft.)
Warranty
Standard five-year warranty.
Optional ten-year warranty, please see your Cooper Lighting Solutions Streetworks sales representative for more information.
COOPER Lighting Solutions
PS506054EN page 2
June 28, 2021 8:24 AM


Project 20 Highland
Catalog #
Type A
Prepared by
Notes
Date 1.12.24
Streetworks
UTLD Traditionaire
Decorative Post Top Luminaire
Typical Applications
Outdoor • Parking Lots • Walkways • Roadways • Building Areas
Interactive Menu
Ordering Information page 2
Product Specifications page 2
Energy and Performance Data page 3
Product Certifications
Product Features
Quick Facts
Replaces up to 250W equivalent HID
Asymmetric & Symmetric distributions
0-10V dimming driver standard
UL 1449/MOV surge protection available
3G vibration rated
Dimensional Details
UTLD
UTLD - Tall Cupola
Optional Bird Cone
COOPER Lighting Solutions
PS506054EN page 1
June 28, 2021 8:24 AM


ANCHOR PLATE
ANCHOR PLATE: Fabricated from hot-rolled carbon steel plate conforming to ASTM A36 meets or exceeds minimum yield strength of 36,000 PSI. All welds shall conform to AWS D1.1. Base plate and shaft are circumferentially welded top and bottom.
STL-1 Template
10.00 X 10.00 X 0.75 Anchor Plate
8.00-11.00" DIA. Bolt Circle
ANCHOR BOLTS
Bolt Projection Above Grade
Minimum......3.25"
Maximum......3.75"
ANCHOR BOLTS: Fabricated from hot-rolled carbon steel bar with minimum yield strength of 55,000 PSI. Bolts are fully galvanized and conform to ASTM-F1554 A55. Each bolt is furnished with two hex nuts and two flat washers.
BASE COVER
BASE BOLT COVER: Two-piece standard full base cover is fabricated from heavy gauge quality carbon steel and pretreated with corrosion inhibitors. Provided with S304 stainless steel hardware. Spun and cast aluminum covers are available.
HAND HOLE
HAND HOLE: Reinforced 2" x 4" hand hole is located 18" above base. Cover and attachment hardware provided.
TENON OR DRILL MOUNT
TENON MOUNT: Available with 2.375" O.D. or 2.875" O.D. tenon
DRILL MOUNT: Removable top cap provided with drill-mount poles
GFI RECEPTACLE
GFI-METAL COVER: 2 gang vertical GFI receptacle with NEC 2017 Section 406.9(B)(1) compliant metal cover.
GFI-WEATHER PROOF IN-USE COVER: 2 gang vertical GFI receptacle with In Use Non Metallic cULus listed cover.
ORDERING INFORMATION
AVPL-RSS -
NONE
HEIGHT: 8', 10', 12', 14'
SHAFT: 3" Ø3" Round
SHAFT WALL: 0.120" 11 Gauge
MOUNTING: PT23 Ø2.375" TENON; PT27 Ø2.875" TENON; 1@90 POLE DRILLING; 2@90 POLE DRILLING; 2@180 POLE DRILLING; 3@90 POLE DRILLING; 3@120 POLE DRILLING; 4@90 POLE DRILLING
GFI: GFI with METAL COVER; GFI with WEATHER PROOF IN-USE COVER
ACCESSORIES: BEB BANNER EYE BOLT; CPLN THREADED COUPLING; BA BANNER ARMS; BH BASKET HOLDERS; FH FLAG HOLDERS
FINISH: DBZ DARK BRONZE; BLK BLACK; WHT WHITE; GRY GREY; GRN GREEN; GALV GALVANIZED
Match Cooper Paint
CONTACT FACTORY FOR HEIGHT OPTIONS
CONTACT FACTORY FOR DRILLING OPTIONS
CONTACT FACTORY FOR DETAILS
ALL RAL COLORS AVAILABLE


AV POLES & LIGHTING
RSS 3-11
3" ROUND STRAIGHT STEEL (0.120 Standard Wall)
AV POLES & LIGHTING
43827 Division St.
Lancaster, CA 93535
Toll Free: (844) 770-AVPL
Fax: (661) 945-2764
sales@avpltg.com
www.avpltg.com
Drilled Mount w/ Pole Cap or Tenon Mount
3" x 5" Hand Hole w/ Cover
Removable 2 Piece Base Cover
SHAFT: Commercial-quality, hot-rolled, carbon steel tubing with a minimum yield strength of 46,000 PSI, conforms to ASTM A500 grade B.
GROUNDING: Provision; 3/8-16 Threaded stud welded to inner shaft wall opposite hand hole. Flat washer and hex nut provided.
HARDWARE: S304 stainless steel
DBZ BLK WHT GRY GRN
FINISH: TGIC thermoset polyester powder coat finish is electrostatically applied at a 3.0 mil minimum thickness. A five stage metal pretreatment process and sealer provide maximum corrosion resistance. The powder top coat is baked in excess of 400 degrees for supreme endurance.
POLE SCHEDULE
E.P.A. DATA SCHEDULE
Calculations based on sustained wind forces plus additional 1.3 mph gust.

CATALOG NUMBER	POLE HEIGHT	SHAFT SIZE	WALL GAUGE	BOLT CIRCLE	ANCHOR BOLTS	MAX. FIXT. WT.	70 MPH	80 MPH	90 MPH	100 MPH
RSS-083-11	8'	Ø3"	11	9"	3/4" x 18" x 3"	N/A	N/A	N/A	N/A	N/A
RSS-103-11	10'	Ø3"	11	9"	3/4" x 18" x 3"	N/A	N/A	N/A	N/A	N/A
RSS-123-11	12'	Ø3"	11	9"	3/4" x 18" x 3"	N/A	N/A	N/A	N/A	N/A
RSS-143-11	14'	Ø3"	11	9"	3/4" x 18" x 3"	N/A	N/A	N/A	N/A	N/A


BASE PLATE (PER POLE MANUFACTURER)
1" CHAMFER ALL AROUND
LIGHT POLE
3/4" (MIN) NON-SHRINK GROUT
ALL EXPOSED SURFACES SHALL HAVE A SMOOTH FINISH
FINISH GRADE
ANCHOR BOLTS, CAST IN PLACE (ALIGNMENT, SIZE AND FASTENER PER POLE MANUFACTURER)
ELECTRICAL CONDUIT
5-#6 VERTICAL
#3 TIES @ 12" O.C. (MAX)
24" SONOTUBE, 4,500 PSI CONC. @ 28 DAYS
COMPACTED SUBGRADE (TYP)
6'-0"
42" (MIN)
24"

NOTE: FINAL DESIGN SHALL BE PREPARED BY A STRUCTURAL ENGINEER AND IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.

24" POLE BASE

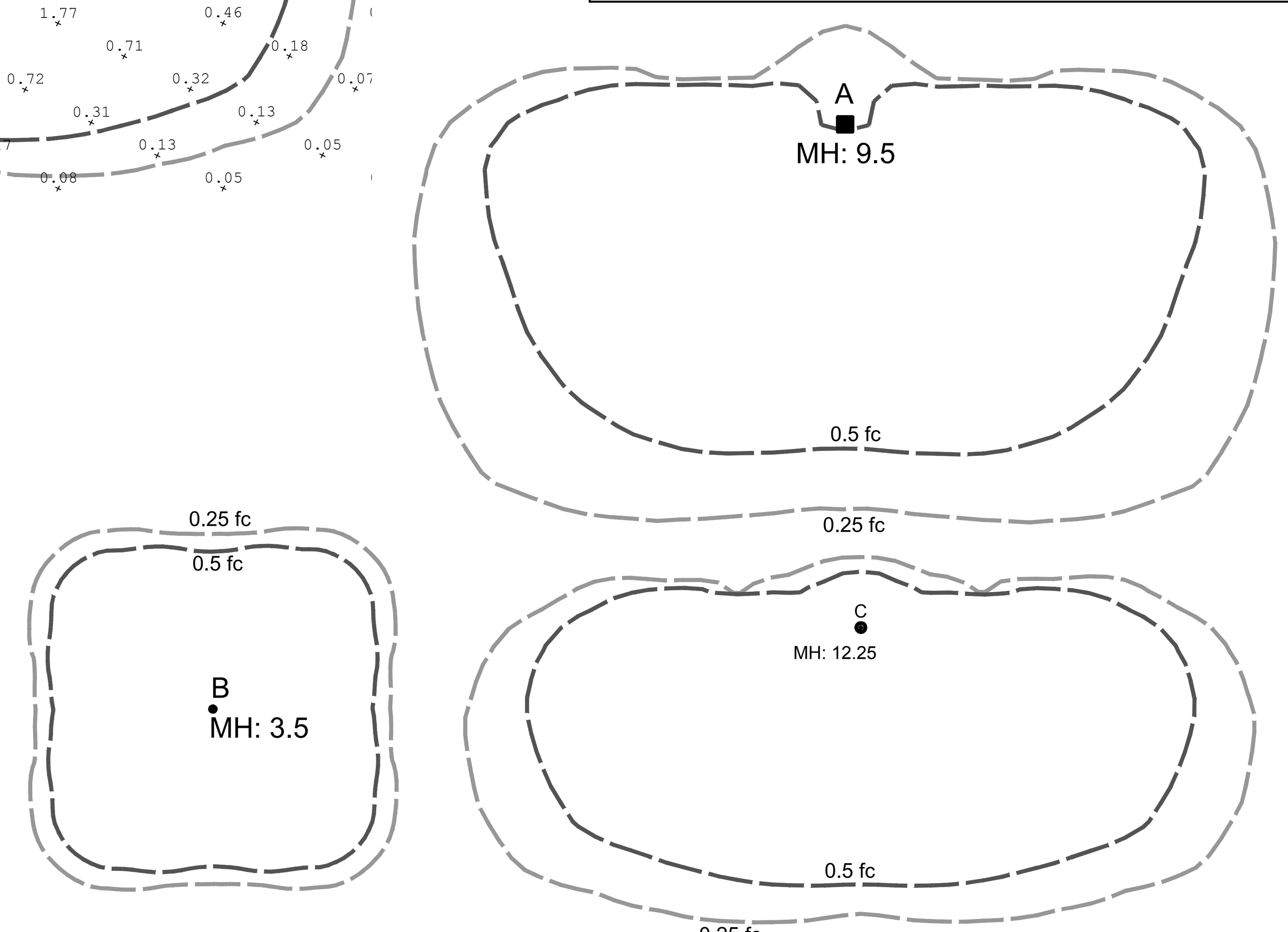
NTS

Calculation Summary								
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
AREA	Illuminance	Fc	0.2100	10.99	0.00	N.A.	N.A.
Front Parking Lot	Illuminance	Fc	0.770	8.6	0.1	7.700	86.000
Rear Parking Lot	Illuminance	Fc	0.540	1.6	0.1	5.400	16.000

Luminaire Schedule					
Symbol	Label	Description	Arr. Watts	Arr. Lum. Lumens	LLF
■	A	STREETWORKS #UTLD-PA1-20-827-U-T4W-HSS+ AV POLE #RSS-8-3-120-N/A-BLK (NOTE FIXTURE IS 120V ONLY)	21	1538	1.000
⊙	B	AV #ATR-BOL-42-18-3K-VOLT-T5-COLOR	18	4432	0.480
⊙	C	Town Standard Pole (By Others)	80	4742	1.000

NOTES:

1) FIXTURES ARE CALCUALTED AT "INITIAL" FC LEVELS. LIGHT LEVELS WILL SLOWLY DECREASE OVER TIME IN ACCORDANCE WITH TM-21 AND L70 DATA PUBLISHED ON FIXTURE CUTSHEET.
2) FIXTURES ARE DIMMABLE WITH 0-10V CONTROLS.



TYPICAL LIGHTING ISOLUX DIAGRAMS

NTS

LIGHTING NOTES

1. TYPICAL POLES AND LUMINARY BOX SUPPLIED BY "EATON LIGHTING" SPECIFICATION GRADE OUTDOOR LIGHTING OR APPROVED EQUAL.
2. POLES AND LUMINARIES SHALL BE POLYESTER COATED STEEL TO MINIMIZE MAINTENANCE. PAINTED FINISH WILL NOT BE ACCEPTED.
3. POLE MOUNTED LAMPS ARE LED UNITS, MOUNTED ON 10' HIGH POLES.
4. BOLLARD LAMPS ARE LED UNITS, WITH 3.5' OVERALL MOUNTING HEIGHT.
4. ALL LIGHTING TO RECEIVE UNDERGROUND ELECTRICAL SERVICE.
5. HOUSE-SIDE SHIELDS ARE TO BE PROVIDED TO PREVENT GLARE INTO WINDOWS OF BUILDING OR ONTO ADJACENT PROPERTIES.
6. ALL SITE LIGHTING HAS BEEN DESIGNED TO PROVIDE A MINIMUM DISTRIBUTION OF 0.5 FOOTCANDLES IN PARKING LOTS AND ACCESS DRIVEWAYS. READINGS SHOWN ARE MAINTAINED HORIZONTAL ILLUMININANCE, AND ARE TAKEN AT GRADE.
7. LIGHTS SPECIFIED ON THIS PLAN SHALL BE FULLY ILLUMINATED ONE-HALF HOUR BEFORE SUNSET UNTIL LAST EMPLOYEE LEAVES FOR CLOSING.
8. THE LIGHTING CONTRACTOR SHALL FIELD VERIFY ALL POLE LOCATIONS IN ORDER TO ACCOMMODATE ALL UTILITIES.
9. ALL POLE MOUNTED FIXTURES SHALL BE INSTALLED ON A CONCRETE BASE, WHICH SHALL CONFORM TO ALL OF THE MANUFACTURER'S MOUNTING AND INSTALLATION SPECIFICATIONS.
10. THE CONTRACTOR SHALL CONTACT THE MANUFACTURER TO OBTAIN UNIT MOUNTING TEMPLATES AND SPECIFICATIONS.
11. ALL FIXTURES SHALL BE PROPERLY MAINTAINED, AND SHALL BECOME THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY ONCE INSTALLATION HAS BEEN SATISFACTORILY COMPLETED BY THE CONTRACTOR.

GENERAL NOTES:

1) ALL FC LEVELS ARE "INITAL". AT "END OF LIFE" FC LEVELS WILL BE APPROXIMATELY 30% LESS.

2) PROPOSED LIGHTING PROVIDED BY:

ATTN: ANDY CHILDERS
ENTERPRISE LIGHTING SALES
1480 ROUTE 9 NORTH
SUITE 304
WOODBRIDGE, NJ 07095
EMAIL: ACHILDERS@ENTERELS.COM
cell: (732) 425-5287
tel: (732) 634-2025 X282
fax: (732) 634-2084
GENERAL: (212) 343-9300 X277
WWW.ENTERELS.COM
ENTERPRISE-NJ LINE CARD

ELS ENTERPRISE LIGHTING SALES

REV.	DESCRIPTION	DATE	BY
4	REVISED PLAN PER BOARD ENGINEER'S LETTER DATED 02/07/23	02/08/24	RVB
3	REVISED PLAN PER BOROUGH PLANNER'S LETTER DATED 12/13/23	01/28/24	DSA
2	REVISED PLAN PER BOROUGH PLANNER'S COMMENTS 11/02/23	11/02/23	DSA
1	REVISED PLAN PER BOROUGH PLANNER'S LETTER DATED 10/27/23	10/31/23	DSA

LIGHTING PLAN & DETAILS

GRAPHIC SCALE 1" = 20'

0 20 40 60

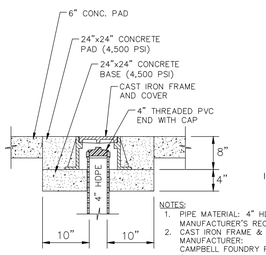
MERIDIAN ENGINEERING GROUP, INC.
CERTIFICATE OF AUTHORIZATION NUMBER: 24GA28084700
CIVIL ENGINEERING • LAND SURVEYING
LAND PLANNING • LANDSCAPE ARCHITECTURE
HYDRAULIC & HYDROLOGIC ENGINEERING
ENVIRONMENTAL & EROSION CONTROL ENGINEERING
1199 AMBOY AVENUE, SUITE 1D
EDISON, NEW JERSEY 08837
PHONE: (732) 205-8288 • FAX: (732) 719-7208
www.meridianegi.com • info@meridianegi.com

SITE PLAN
PREPARED FOR:
MIXED USE
LOTS 15-17, 18.05, 40.02 & 44 IN BLOCK 118
20 HIGHLAND AVENUE
SITUATED IN:
BOROUGH OF METUCHEN
MIDDLESEX COUNTY, NEW JERSEY

CAD: 46-65	DATE: 10/18/23	SCALE: 1" = 20'
FILE: 046.0065	DRAWN: DSA	SHEET 5 OF 7

[illegible] 02/08/24

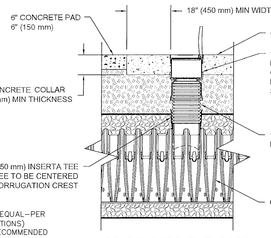
LESLIE A. WALKER III, PE DATE
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE NUMBER: 24GE04729700



NOTES:
1. PIPE MATERIAL: 4" HDPE, (OR EQUAL–PER MANUFACTURER'S RECOMMENDATIONS)
2. CAST IRON FRAME & COVER RECOMMENDED MANUFACTURER: CAMPBELL FOUNDRY PATTERN NO. 4173 (OR EQUAL–PER MANUFACTURER'S RECOMMENDATIONS)

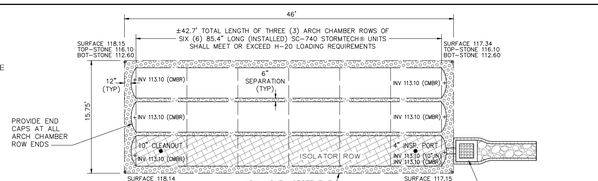
ISOLATOR ROW 4" INSPECTION PORT WITHIN PARKING AREA

NTS



ISOLATOR ROW 10" CLEANOUT WITHIN PARKING AREA

NTS

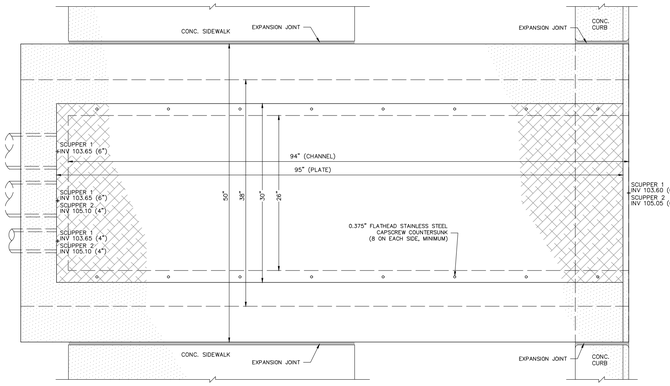


Suggested Manufacturer:
StormTech® A Division of ADS
Website: www.stormtech.com
Address:
70 Inwood Rd, Suite 3
Rocky Hill, CT 06067
Phone:
860-529-8188
888-892-2694 (Toll Free)

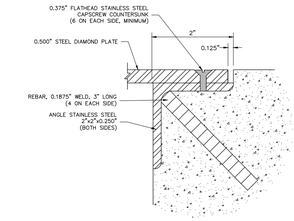
NOTES:
1. ALL SUB-BASE SOILS MUST BE UNDISTURBED AND SUITABLE FOR LOAD BEARING AND SOILS IN OVERBURDEN MUST BE COMPACTED TO A MINIMUM OF 95% STANDARD PROCTOR DENSITY (OR AS DIRECTED BY THE SOILS ENGINEER).
2. MATERIALS AND INSTALLATION SHALL BE IN STRICT COMPLIANCE WITH MANUFACTURER'S RECOMMENDATIONS.

DRYWELL PLAN VIEW

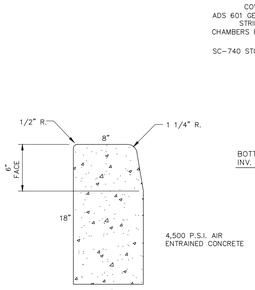
SCALE: 1" = 10'



TOP VIEW



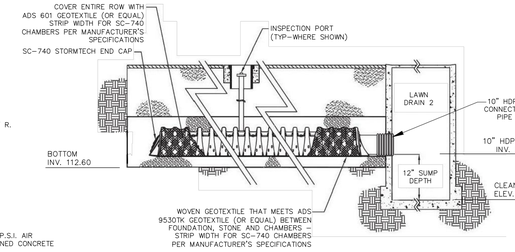
DETAIL OF PLATE MOUNT



TYPICAL 9"x18" CURB DETAIL

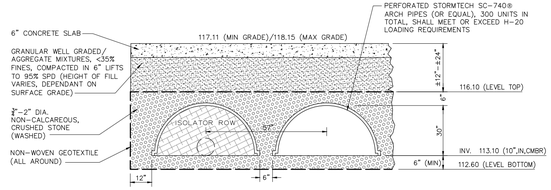
NTS

(AT HIGHLAND AVENUE ONLY)



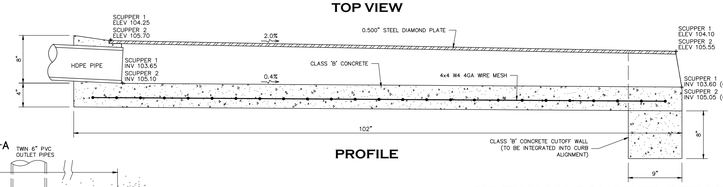
ISOLATOR ROW DETAIL

NTS

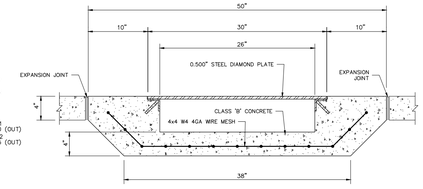


TYPICAL DRYWELL SECTION

NTS



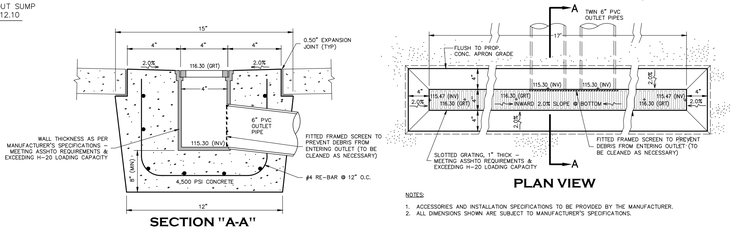
PROFILE



TYPICAL SECTION

SIDEWALK SCUPPER DETAIL

SCALE: 1" = 1'



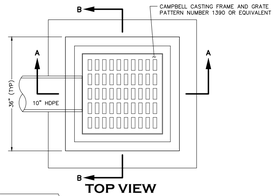
SECTION "A-A"

PLAN VIEW

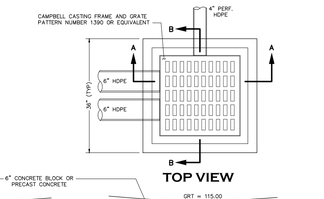
TRENCH DRAIN DETAIL

NTS

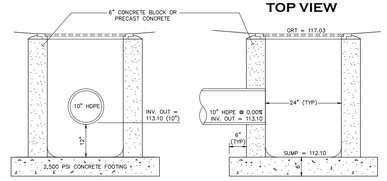
NOTES:
1. ACCESSORIES AND INSTALLATION SPECIFICATIONS TO BE PROVIDED BY THE MANUFACTURER.
2. ALL DIMENSIONS SHOWN ARE SUBJECT TO MANUFACTURER'S SPECIFICATIONS.



TOP VIEW



TOP VIEW

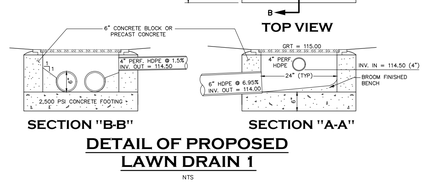


SECTION "B-B"

SECTION "A-A"

DETAIL OF PROPOSED LAWN DRAIN 1

NTS



SECTION "B-B"

SECTION "A-A"

DETAIL OF PROPOSED LAWN DRAIN 2

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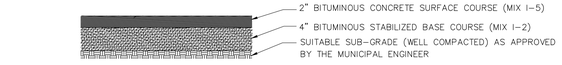
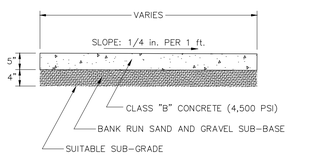


NOTE:

REPLACEMENT OF EXISTING SURFACES OTHER THAN CONCRETE OR BITUMINOUS PAVEMENT WILL BE AS DIRECTED BY THE MUNICIPAL ENGINEER.

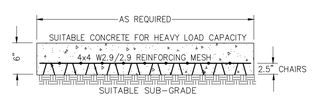
TYPICAL PARKING AREA PAVEMENT DETAIL

NOT TO SCALE



TYPICAL SIDEWALK DETAIL

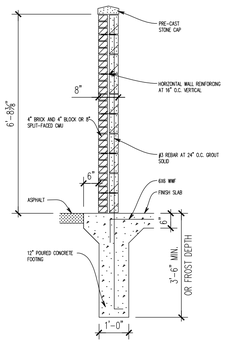
NTS



TYPICAL SECTION OF PROPOSED 6" THICK CONCRETE PAD

NTS

(AT TRASH ENCLOSURE AREA, PARKING AREA AND DRIVEWAY APRON)



TRASH ENCLOSURE DETAIL

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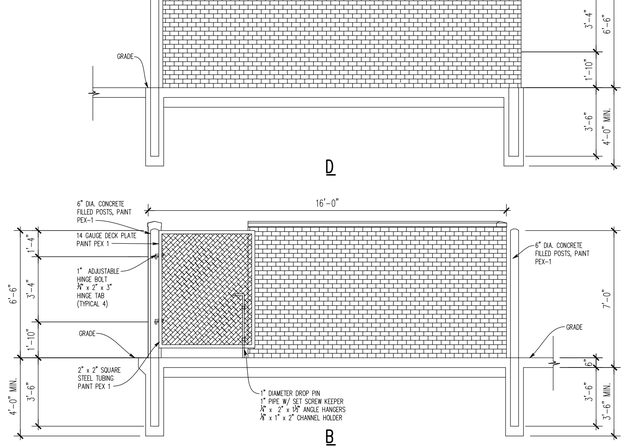

TRASH ENCLOSURE ELEVATIONS

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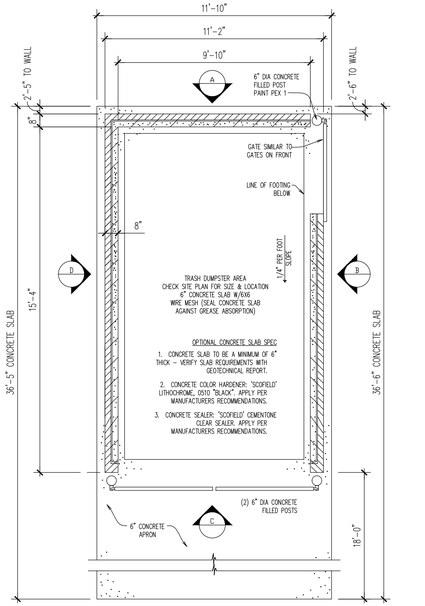

TRASH ENCLOSURE PLAN

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REV.	DESCRIPTION	DATE	BY
4	REVISED PLAN PER BOARD ENGINEER'S LETTER DATED 02/07/23	02/08/24	RVB
3	REVISED PLAN PER BOROUGH PLANNER'S LETTER DATED 12/13/23	01/28/24	DSA
2	REVISED PLAN PER BOROUGH PLANNER'S COMMENTS 11/02/23	11/02/23	DSA
1	REVISED PLAN PER BOROUGH PLANNER'S LETTER DATED 10/27/23	10/31/23	DSA

CONSTRUCTION DETAILS

GRAPHIC SCALE 1" = 1'

0 1 2 3

MERIDIAN
ENGINEERING GROUP, INC.
CERTIFICATE OF AUTHORIZATION NUMBER: 24GA28084700
CIVIL ENGINEERING • LAND SURVEYING
LAND PLANNING • LANDSCAPE ARCHITECTURE
HYDRAULIC & HYDROLOGIC ENGINEERING
ENVIRONMENTAL & EROSION CONTROL ENGINEERING
1199 AMBOY AVENUE, SUITE 1D
EDISON, NEW JERSEY 08837
PHONE: (732) 205-8288 • FAX: (732) 719-7208
www.meridianegi.com • info@meridianegi.com

SITE PLAN
PREPARED FOR:

MIXED USE

LOTS 15-17, 18.05, 40.02 & 44 IN BLOCK 118

20 HIGHLAND AVENUE

SITUATED IN:
BOROUGH OF METUCHEN
MIDDLESEX COUNTY, NEW JERSEY

CAD: 46-65	DATE: 01/28/24	SCALE: AS SHOWN
FILE: 046.0065	DRAWN: DSA	SHEET 6 OF 7

02/28/24

LESLIE A. WALKER III, PE DATE
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE NUMBER: 24GE04729700

PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION

(reference: Section 4-1, The Standards for Soil Erosion and Sediment Control in NJ, 7th Edition, January 2014)

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 a 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. Select a mixture from Table 4-3 or use a mixture recommended by Rutgers Cooperative Extension or Natural Resources Conservation Service which is approved by the Soil Conservation District. Seed germination shall have been tested within 12 months of the planting date. No seed shall be accepted with a germination test date more than 12 months old unless retested.

     1. Seeding rates specified are required when a report of compliance is requested prior to actual establishment of permanent vegetation. Up to 50% reduction in rates may be used when permanent vegetation is established prior to a report of compliance inspection. These rates apply to all methods of seeding. Establishing permanent vegetation means 80% vegetative coverage with the specified seed mixture for the seeded area and mowed once.

     2. Warm-season mixtures are grasses and legumes which maximize growth at high temperatures, generally 85° F and above. See Table 4-3 mixtures 1 to 7. Planting rates for warm-season grasses shall be the amount of Pure Live Seed (PLS) as determined by germination testing results.

     3. Cool-season mixtures are grasses and legumes which maximize growth at temperatures below 85°F. Many grasses become active at 65° F. See Table 4-3, mixtures 8-20. Adjustment of planting rates to compensate for the amount of PLS is not required for cool season grasses.
   - 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. Refer to the detail "EXPOSED SOILS STABILIZED WITH MULCH ONLY DURING NON-GROWING SEASON & FOR FASTER ESTABLISHMENT" for application specifications.
4. Irrigation (where feasible)

   If soil moisture is deficient supply new seeding with adequate water (a minimum of 1/4 inch applied up to twice a day until vegetation is well established). This is especially true when seedings are made in abnormally dry or hot weather or on droughty sites.
5. Topdressing

   Since soil organic matter content and slow release nitrogen fertilizer (water insoluble) are prescribed in Section 2A - Seedbed Preparation in this Standard, no follow-up of topdressing is mandatory. An exception may be made where gross nitrogen deficiency exists in the soil to the extent that turf failure may develop. In that instance, topdress with 10-10-10 or equivalent at 300 pounds per acre or 7 pounds per 1,000 square feet every 3 to 5 weeks until the gross nitrogen deficiency in the turf is ameliorated.
6. Establishing Permanent Vegetative Stabilization

   The quality of permanent vegetation rests with the contractor. The timing of seeding, preparing the seedbed, applying nutrients, mulch and other management are essential. The seed application rates in Table 4-3 are required when a Report of Compliance is requested prior to actual establishment of permanent vegetation. Up to 50% reduction in application rates may be used when permanent vegetation is established prior to requesting a Report of Compliance from the district. These rates apply to all methods of seeding. Establishing permanent vegetation means 80% vegetative cover (of the seeded species) and mowed once. Note this designation of mowed once does not guarantee the permanency of the turf should other maintenance factors be neglected or otherwise mismanaged.

TEMPORARY VEGETATIVE COVER FOR SOIL STABILIZATION

(reference: Section 7-1, The Standards for Soil Erosion and Sediment Control in NJ, 7th Edition, January 2014)

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. Limestone rates shall be established by soil testing only. 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 retilled 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

Select seed from recommendations in table below.

TEMPORARY SEEDING SPECIFICATIONS (PLANT HARDINESS ZONE 6B):

SEED SELECTIONS	SEEDING RATES	SEEDING DEPTH	OPTIMAL PLANTING PERIODS:
COOL SEASON GRASSES			
1. PERENNIAL RYEGRASS	100 LBS./AC (1.0 LBS./1,000 S.F.)	0.5" (1" IN SANDY SOILS)	MARCH 1 TO MAY 15 & AUGUST 15 TO OCTOBER 1
2. SPRING OATS	86 LBS./AC (2.0 LBS./1,000 S.F.)	1.0" (2" IN SANDY SOILS)	MARCH 1 TO MAY 15 & AUGUST 15 TO OCTOBER 1
3. WINTER BARLEY	96 LBS./AC (2.2 LBS./1,000 S.F.)	1.0" (2" IN SANDY SOILS)	AUGUST 15 TO OCTOBER 1
4. ANNUAL RYEGRASS	100 LBS./AC (1.0 LBS./1,000 S.F.)	0.5" (1" IN SANDY SOILS)	MARCH 15 TO JUNE 1 & AUGUST 1 TO SEPTEMBER 15
5. WINTER CEREAL RYE	112 LBS./AC (2.8 LBS./1,000 S.F.)	1.0" (2" IN SANDY SOILS)	AUGUST 1 TO NOVEMBER 15
WARM SEASON GRASSES			
6. PEARL MILLET	20 LBS./AC (0.5 LBS./1,000 S.F.)	1.0" (2" IN SANDY SOILS)	MAY 15 TO AUGUST 15
7. MILLET (GERMAN OR HUNGARIAN)	30 LBS./AC (07 LBS./1,000 S.F.)	1.0" (2" IN SANDY SOILS)	MAY 15 TO AUGUST 15

1. Seeding rate for warm season grass, selections 5 - 7 shall be adjusted to reflect the amount of Pure Line Seed (PLS) as determined by a germination test result. No adjustment is required for cool season grasses.
2. May be planted throughout summer if soil moisture is adequate or seeded area can be irrigated.
3. Plant Hardiness Zone. (see figure 7-1, pg. 7-4)

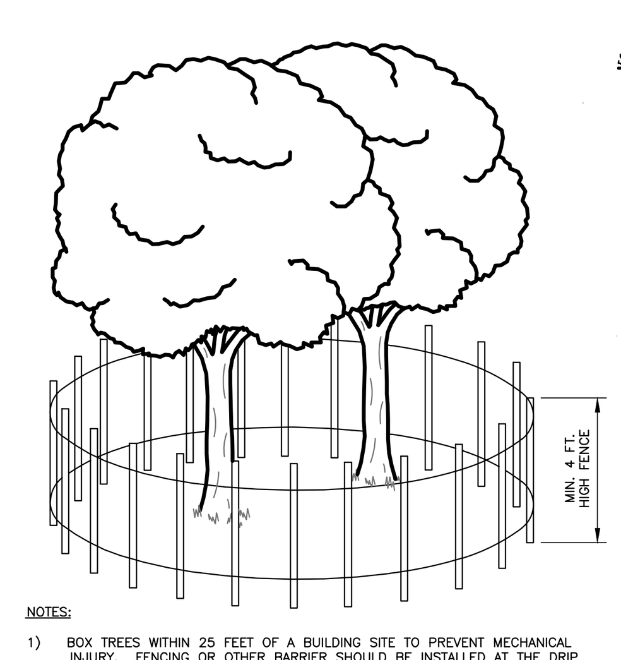
E. Conventional Seeding. Apply seed uniformly by hand, cyclone (centrifugal) seeder, drop seeder, drill or cultipacker seeder. Except for drilled, hydroseeded or cultipacked seedings, seed shall be incorporated into the soil, to a depth of 1/4 to 1/2 inch, by raking or dragging. Depth of seed placement may be 1/4 inch deeper on coarse textured soil.

F. 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 IV 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 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. Refer to the detail "EXPOSED SOILS STABILIZED WITH MULCH ONLY DURING NON-GROWING SEASON & FOR FASTER ESTABLISHMENT" for application specifications.



NOTES:
1) BOX TREES WITHIN 25 FEET OF A BUILDING SITE TO PREVENT MECHANICAL INJURY. FENCING OR OTHER BARRIER SHOULD BE INSTALLED AT THE DRIP LINE OF THE TREE BRANCHES.
2) BOARDS WILL NOT BE NAILED TO TREES DURING BUILDING OPERATIONS.
3) FEEDER ROOTS SHOULD NOT BE CUT IN AN AREA INSIDE THE DRIP LINE OF THE TREE BRANCHES.
4) DAMAGED TRUNKS OR EXPOSED ROOTS WILL BE PAINTED IMMEDIATELY WITH A GOOD GRADE OF "TREE PAINT". CARE FOR SERIOUS INJURY SHOULD BE PRESCRIBED BY A PROFESSIONAL FORESTER OR LICENSED TREE EXPERT.
5) TREE LIMB REMOVAL, WHERE NECESSARY, WILL BE DONE FLUSH TO TRUNK OR MAIN BRANCH AND THAT AREA PAINTED WITH A GOOD GRADE OF TREE PAINT.

TREE PROTECTION FENCING DETAIL
NTS

Standards for Soil Erosion and Sediment Control in New Jersey — *January 2014*

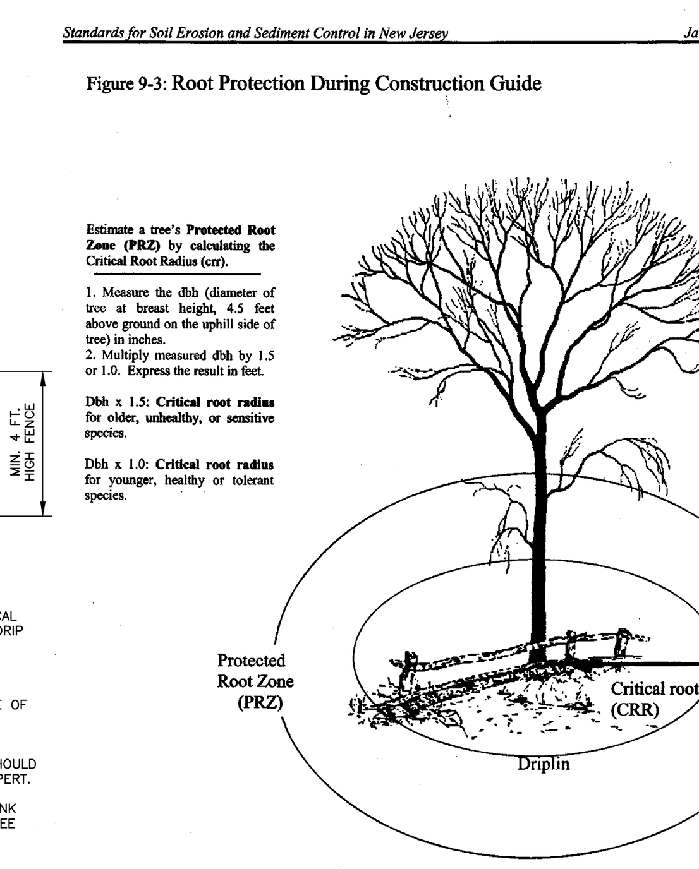
Figure 9-3: Root Protection During Construction Guide

Estimate a tree's **Protected Root Zone (PRZ)** by calculating the **Critical Root Radius (crr).**

1. Measure the dbh (diameter of tree at breast height, 4.5 feet above ground on the uphill side of tree) in inches.
2. Multiply measured dbh by 1.5 or 1.0. Express the result in feet.

Dbh x 1.5: Critical root radius for older, unhealthy, or sensitive species.

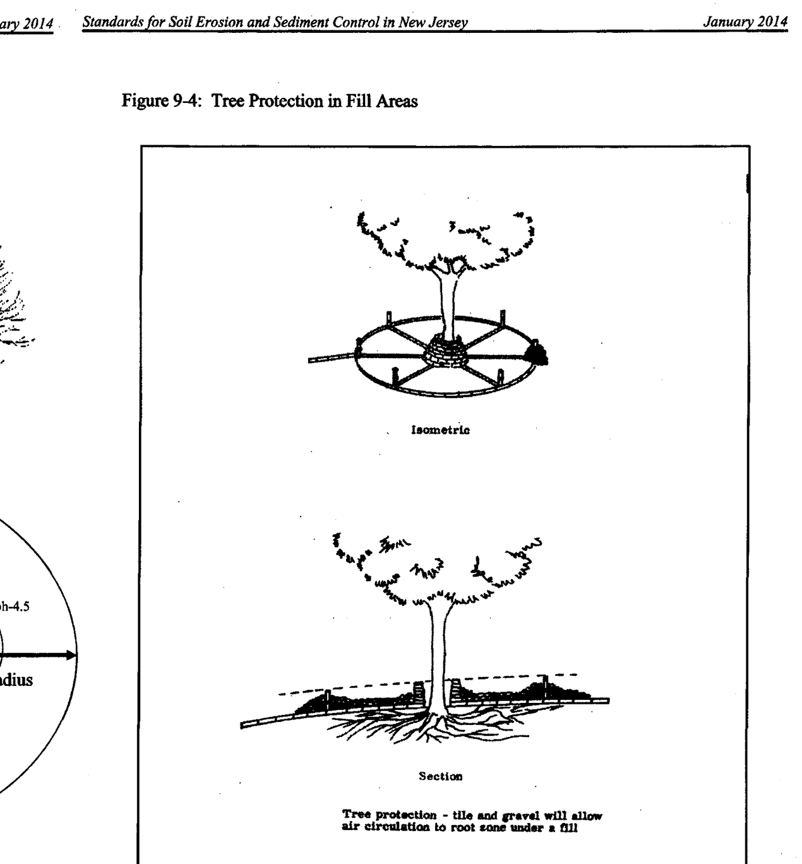
Dbh x 1.0: Critical root radius for younger, healthy or tolerant species.



1. *Protecting Trees from Construction Damage- A Homeowners Guide,* Gary R. Johnson, University Of Minnesota Extension Service, Saint Paul, MN, 1999.

Standards for Soil Erosion and Sediment Control in New Jersey — *January 2014*

Figure 9-4: Tree Protection in Fill Areas



Standards for Soil Erosion and Sediment Control in New Jersey — *January 2014*

Figure 9-5: Tree Protection in Cut Areas

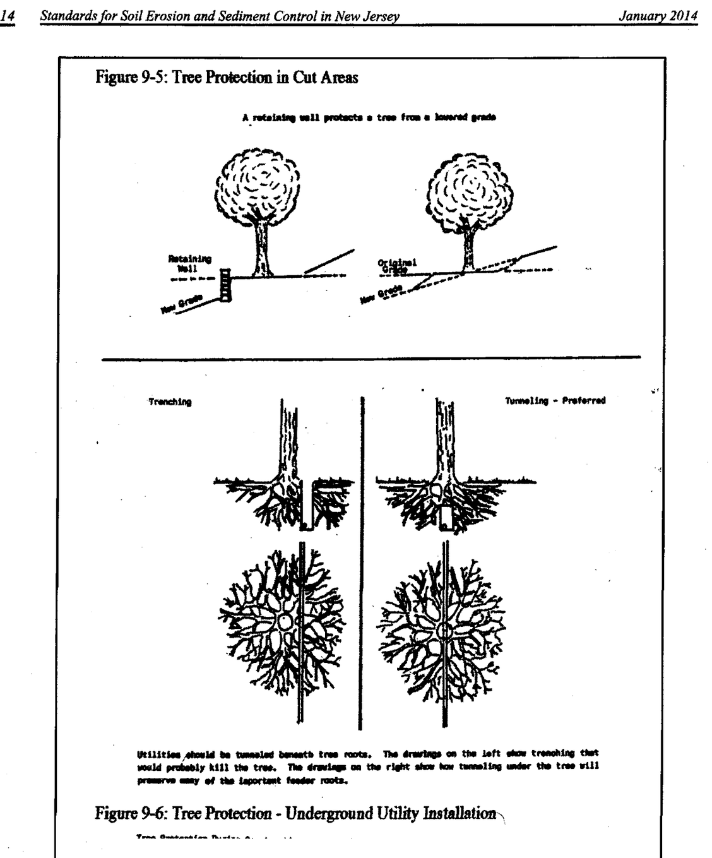


Figure 9-6: Tree Protection - Underground Utility Installation

PERMANENT STABILIZATION SEED MIXTURES (FROM TABLE 4-3, SSESCNJ)

SITE CONDITIONS:

- COMMERCIAL USE
- SITE CONSISTS OF MOSTLY BOONTON URBAN LAND
- WELL DRAINED SOILS
- USDA PLANT HARDINESS ZONE 6B

NOTES:

SEEDING RATES SPECIFIED ARE REQUIRED WHEN A REPORT OF COMPLIANCE IS REQUESTED PRIOR TO ACTUAL ESTABLISHMENT OF PERMANENT VEGETATION. UP TO 50% REDUCTION IN RATES MAY BR USED WHEN PERMANENT VEGETATION IS ESTABLISHED PRIOR TO A REPORT OF COMPLIANCE INSPECTION. THESE RATES APPLY TO ALL METHODS OF SEEDING. ESTABLISHING PERMANENT VEGETATION MEANS 80% VEGETATIVE COVERAGE OF THE SEEDED AREA AND MOWED ONCE. GRASS SEED MIXTURE CHECKED BY THE STATE SEED ANALYST, NEW JERSEY DEPARTMENT OF AGRICULTURE, TRENTON, NEW JERSEY, WILL ASSURE THE PURCHASER THAT THE MIXTURE OBTAINED IS THE MIXTURE ORDERED, PURSUANT TO THE N.J. STATE SEED LAW, NJSA 4:8-17.13 ET. SEQ.

MAINTENANCE LEVELS:

A – INTENSIVE MOWING, (2-4 DAYS), FERTILIZATION, LIME, PEST CONTROL AND IRRIGATION
B – FREQUENT MOWING, (4-7 DAYS), OCCASIONAL FERTILIZATION, LIME AND WEED CONTROL
C – PERIODIC MOWING, (7-14 DAYS), OCCASIONAL FERTILIZATION AND LIME
D – INFREQUENT OR NO MOWING, FERTILIZATION AND LIME THE FIRST YEAR OF ESTABLISHMENT

PERMANENT SEEDING SPECIFICATIONS:

MIXTURE 15 (FOR LAWN AREAS)	
SEED MIXTURE	PLANTING RATES
HARD FESCUE	120 LBS./AC (2.7 LBS./1,000 S.F.)
PERENNIAL RYEGRASS	30 LBS./AC (0.7 LBS./1,000 S.F.)
KENTUCKY BLUEGRASS (BLEND)	40 LBS./AC (0.9 LBS./1,000 S.F.)
OPTIMAL PLANTING PERIODS:	ACCEPTABLE PLANTING PERIODS:
MARCH 1 TO APRIL 30 OR AUGUST 15 TO NOVEMBER 15	MAY 1 TO AUGUST 14
MAINTENANCE LEVEL: (A–C)	
REMARKS: TYPICALLY A COOL SEASON MIXTURE, INTENDED FOR GENERAL LAWN/RECREATION AREAS.	

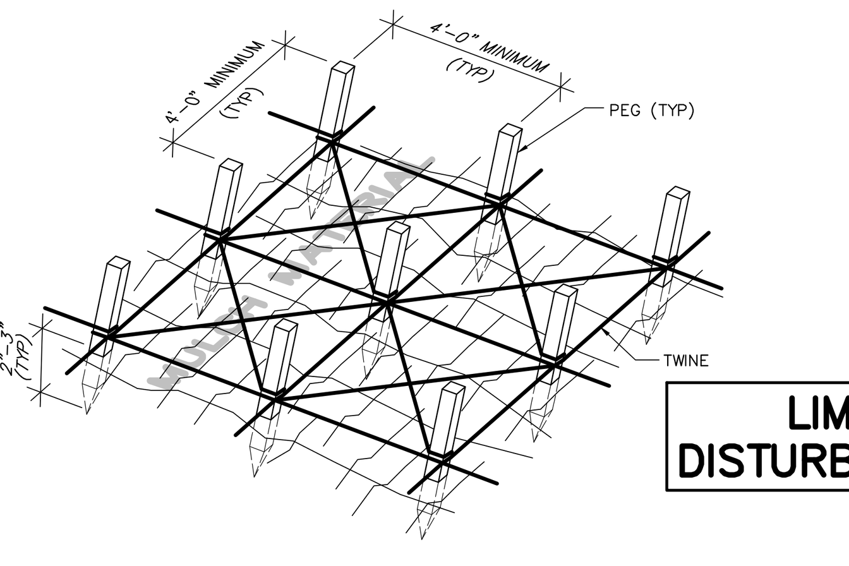
EXPOSED SOILS STABILIZED WITH MULCH ONLY DURING NON-GROWING SEASON & FOR FASTER ESTABLISHMENT

USE UNROTTED SMALL GRAIN STRAW OR SALT HAY.

AT A RATE OF:
FOR TEMPORARY STABILIZATION – 2.0 TO 2.5 TONS/ACRE (90 TO 115 LBS/1,000 SF)
FOR PERMANENT STABILIZATION – 1.5 TO 2.0 TONS/ACRE (70 TO 90 LBS/1,000 SF)

ANCHOR USING THE FOLLOWING METHOD:
DRIVE 8 TO 10 INCH WOODEN PEGS 2 TO 3 INCHES INTO THE SOIL EVERY 4 FEET IN ALL DIRECTIONS. THEN, KEEPING THE TWINE TAUNT, WRAP EACH PEG TO THE NEXT PEG, CREATING A CRISSCROSS PATTERN. DOUBLE OR TRIPLE WRAP EACH PEG AS TO SECURE THE TWINE. REFER TO DETAIL BELOW.

OTHER SUITABLE MATERIALS AND ANCHORING METHODS MAY BE USED, BUT ONLY AT THE DIRECTION AND APPROVAL OF THE SOIL CONSERVATION DISTRICT.

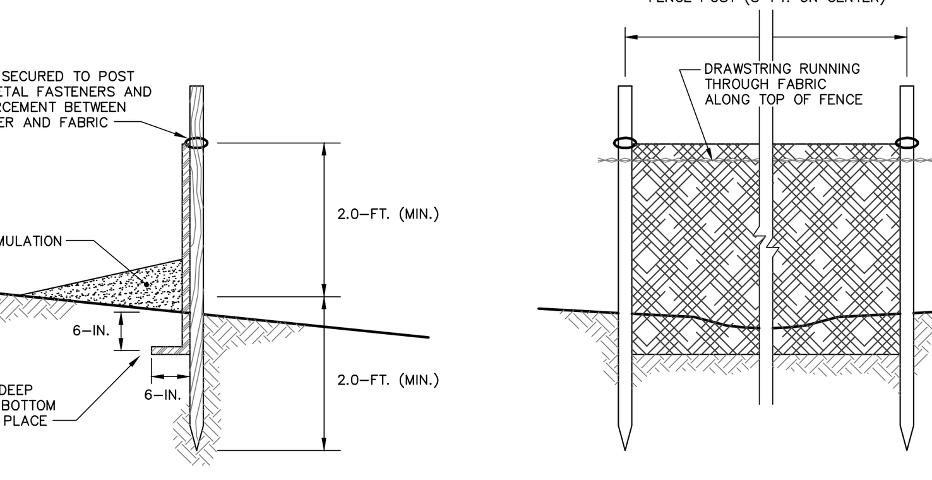


STANDARD FOR TOPSOILING

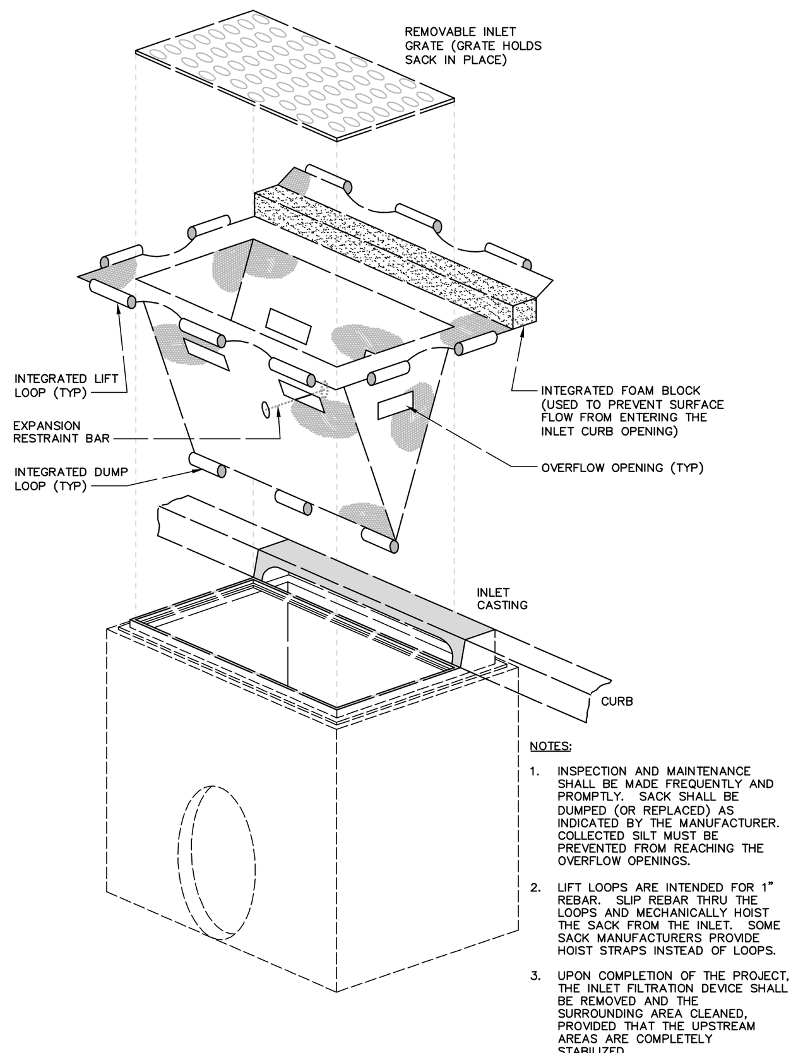
(reference: Section 8-1, The Standards for Soil Erosion and Sediment Control in NJ, 7th Edition, January 2017)

If topsoil is required on site, where conditions such as the existing topsoil quality is poor or an insufficient quantity of existing topsoil is generated (in post conditions, enough volume of material to cover 4" minimum in all vegetated areas within the limit of disturbance), follow the standards below:

1. Materials
   - A. Topsoil should be friable[1], loamy[2], free of debris, objectionable weeds and stones, and contain no toxic substance or adverse chemical or physical condition that may be harmful to plant growth. Soluble salts should not be excessive (conductivity less than 0.5 millimhos per centimeter. More than 0.5 millimhos may desiccate seedlings and adversely impact growth). Imported topsoil shall have a minimum organic matter content of 2.75 percent. Organic matter content may be raised by additives.
     - *1 Friable means easily crumbles in the fingers, as defined in most soils texts.*
     - *2 Loamy means texture groups consisting of coarse loamy sands, sandy loam, fine and very fine sandy loam, loam, silt loam, clay loam, sandy clay loam and silty clay loam textures and having less than 35% coarse fragments (particles less than 2mm in size) as defined in the Glossary of Soil Science Terms, 1996, Soil Science Society of America.*
   - B. Topsoil substitute is a soil material which may have been amended with sand, silt, clay, organic matter, fertilizer or lime and has the appearance of topsoil. Topsoil substitutes may be utilized on sites with insufficient topsoil for establishing permanent vegetation. All topsoil substitute materials shall meet the requirements of topsoil noted above. Soil tests shall be performed to determine the components of sand, silt, clay, organic matter, soluble salts and pH level.
2. Stripping and Stockpiling
   - A. Field exploration should be made to determine whether quantity and or quality of surface soil justifies stripping.
   - A. Stripping shall be confined to the immediate construction area.
   - C. Where feasible, lime may be applied before stripping at a rate determined by soil tests to bring the soil pH to approximately 6.5
   - D. A 4-6 inch stripping depth is common, but may vary depending on the particular soil.
   - E. Stockpiles of topsoil should be situated so as not to obstruct natural drainage or cause off-site environmental damage.
   - F. Stockpiles should be vegetated in accordance with standards previously described herein; see standards for Permanent (pg. 4-1) or Temporary (pg.7-1) Vegetative Cover for Soil Stabilization. Weeds should not be allowed to grow on stockpiles.
3. Site Preparation
   - A. Grade at the onset of the optimal seeding period so as to minimize the duration and area of exposure of disturbed soil to erosion. Immediately proceed to establish vegetative cover in accordance with the specified seed mixture. Time is of the essence.
   - B. Grade as needed and feasible to permit the use of conventional equipment for seedbed preparation, seeding, mulch application and anchoring, and maintenance. See the Standard for Land Grading, pg. 19-1.
   - C. As guidance for ideal conditions, subsoil should be tested for lime requirement. Limestone, if needed, should be applied to bring soil to a pH of approximately 6.5 and incorporated into the soil as nearly as practical to a depth of 4 inches.
   - D. Prior to topsoiling, the subsoil shall be in compliance with the Standard for Land Grading, pg. 19-1.
   - E. Employ needed erosion control practices such as diversions, grade stabilization structures, channel stabilization measures, sedimentation basins, and waterways. See Standards 11 through 42.
4. Applying Topsoil
   - A. Topsoil should be handled only when it is dry enough to work without damaging soil structure; i.e., less than field capacity (see glossary).
   - B. A uniform application to an average depth of 5.0 inches, minimum of 4 inches, firmed in place is required. Alternative depths may be considered where special regulatory and/or industry design standards are appropriate such as on golf courses, sports fields, landfill capping, etc.. Soils with a pH of 4.0 or less or containing iron sulfide shall be covered with a minimum depth of 12 inches of soil having a pH of 5.0 or more, in accordance with the Standard for Management of High Acid Producing Soil (pg. 1-1).
   - C. Pursuant to the requirements in Section 7 of the Standard for Permanent Vegetative Stabilization, the contractor is responsible to ensure that permanent vegetative cover becomes established on at least 80% of the soils to be stabilized with vegetation. Failure to achieve the minimum coverage may require additional work to be performed by the contractor to include some or all of the following: supplemental seeding, re-application of lime and fertilizers, and/or the addition of organic matter (i.e. compost) as a top dressing. Such additional measures shall be based on soil tests such as those offered by Rutgers Cooperative Extension Service or other approved laboratory facilities qualified to test soil samples for agronomic properties.

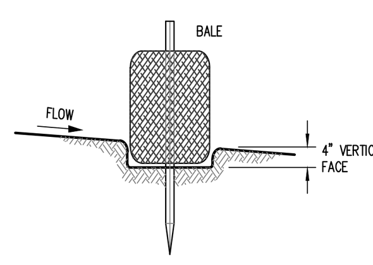


SILT FENCE CONSTRUCTION AND INSTALLATION DETAIL
(FIGURE 25–2)
NTS

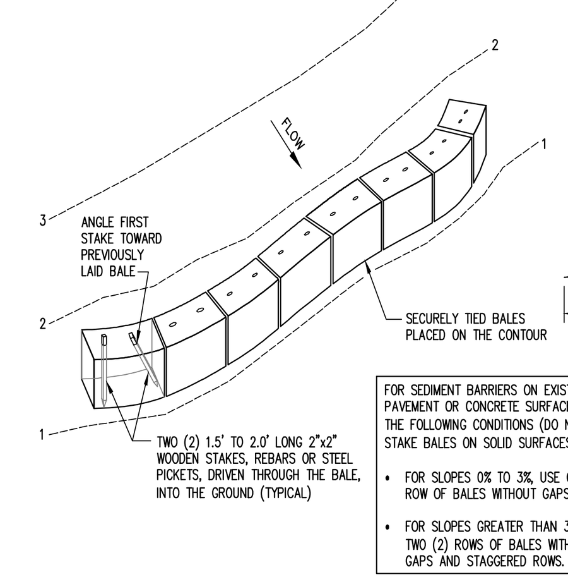


NOTES:
1. INSPECTION AND MAINTENANCE SHALL BE MADE FREQUENTLY AND PROMPTLY. SACK SHALL BE DUMPED (OR REPLACED) AS INDICATED BY THE MANUFACTURER. COLLECTED SILT MUST BE PREVENTED FROM REACHING THE OVERFLOW OPENINGS.
2. LIFT LOOPS ARE INTENDED FOR 1" REBAR. SLIP REBAR THRU THE LOOPS AND MECHANICALLY HOIST THE SACK FROM THE INLET. SOME SACK MANUFACTURERS PROVIDE HOIST STRAPS INSTEAD OF LOOPS.
3. UPON COMPLETION OF THE PROJECT, THE INLET FILTRATION DEVICE SHALL BE REMOVED AND THE SURROUNDING AREA CLEANED, PROVIDED THAT THE UPSTREAM AREAS ARE COMPLETELY STABILIZED.

INLET FILTRATION DEVICE
(FOR INLET STRUCTURES WITHIN ACTIVE ROADWAYS OR WHERE VEHICULAR TRAFFIC IS ANTICIPATED)
N.T.S.

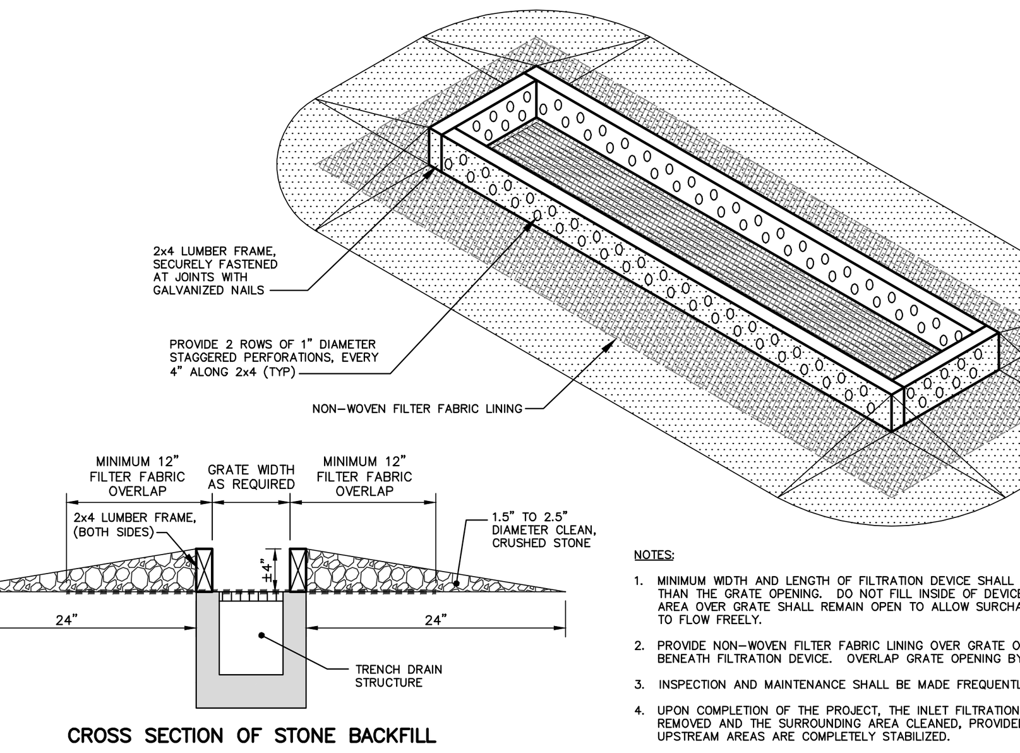


EMBEDDING DETAIL



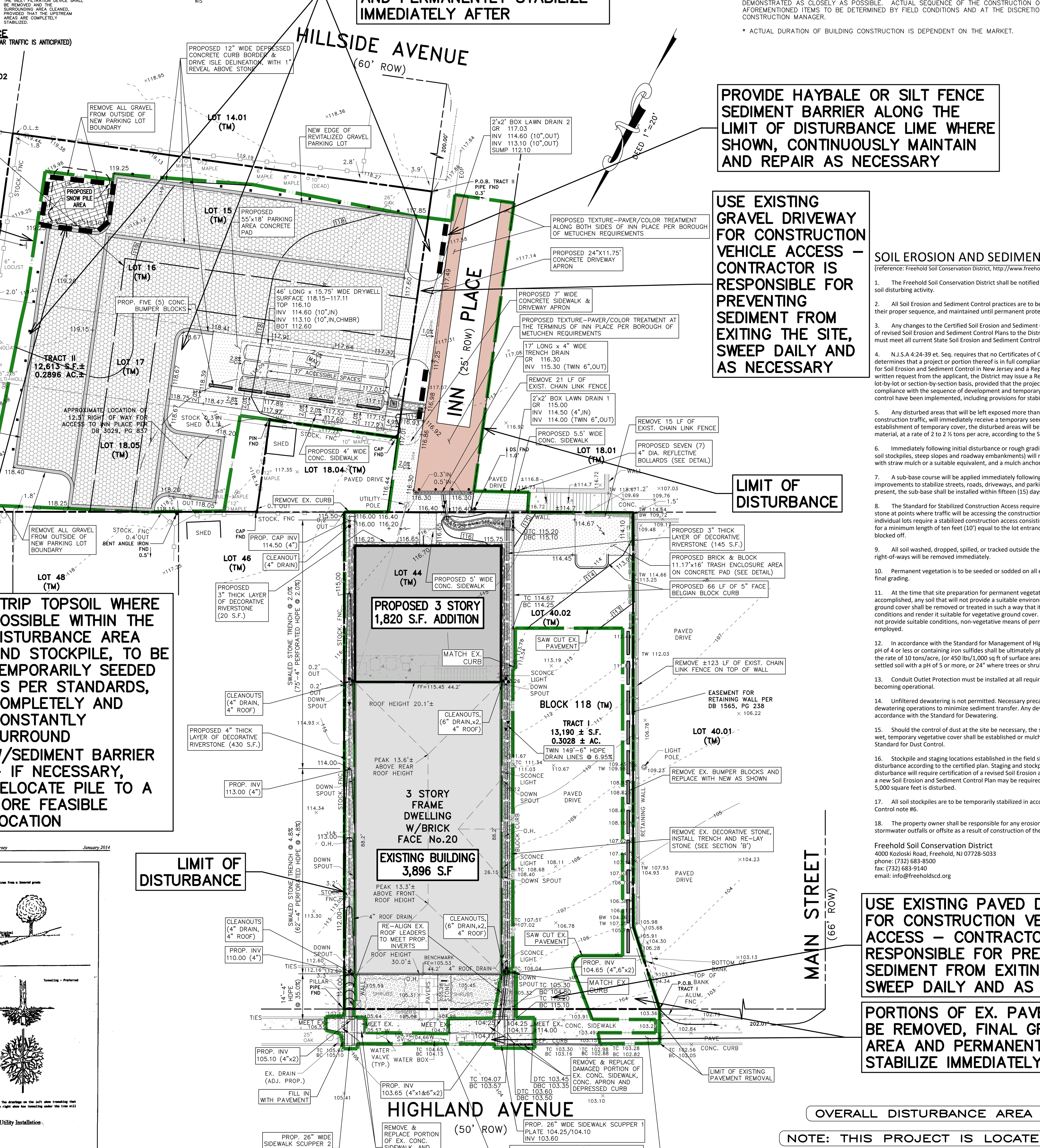
FOR SEDIMENT BARRIERS ON EXISTING PAVEMENT OR CONCRETE SURFACES, USE THE FOLLOWING CONDITIONS (DO NOT STAKE BALES ON SOLID SURFACES):
- FOR SLOPES 0% TO 3%, USE ONE (1) ROW OF BALES WITHOUT GAPS.
- FOR SLOPES GREATER THAN 3%, USE TWO (2) ROWS OF BALES WITHOUT GAPS AND STAGGERED ROWS.

PLACEMENT AND ANCHORING DETAIL OF BALE SEDIMENT BARRIERS
(FIGURE 25–1)
NTS



NOTES:
1. MINIMUM WIDTH AND LENGTH OF FILTRATION DEVICE SHALL BE NO SMALLER THAN THE GRATE OPENING. DO NOT FILL INSIDE OF DEVICE WITH STONE – AREA OVER GRATE SHALL REMAIN OPEN TO ALLOW SURCHARGE STORMWATER TO FLOW FREELY.
2. PROVIDE NON–WOVEN FILTER FABRIC LINING OVER GRATE OPENING AND BENEATH FILTRATION DEVICE. OVERLAP GRATE OPENING BY 1 FOOT MINIMUM
3. INSPECTION AND MAINTENANCE SHALL BE MADE FREQUENTLY AND PROMPTLY.
4. UPON COMPLETION OF THE PROJECT, THE INLET FILTRATION DEVICE SHALL BE REMOVED AND THE SURROUNDING AREA CLEANED, PROVIDED THAT THE UPSTREAM AREAS ARE COMPLETELY STABILIZED.

INLET FILTRATION DEVICE AT TRENCH DRAIN (SIZED AS REQUIRED)
N.T.S.



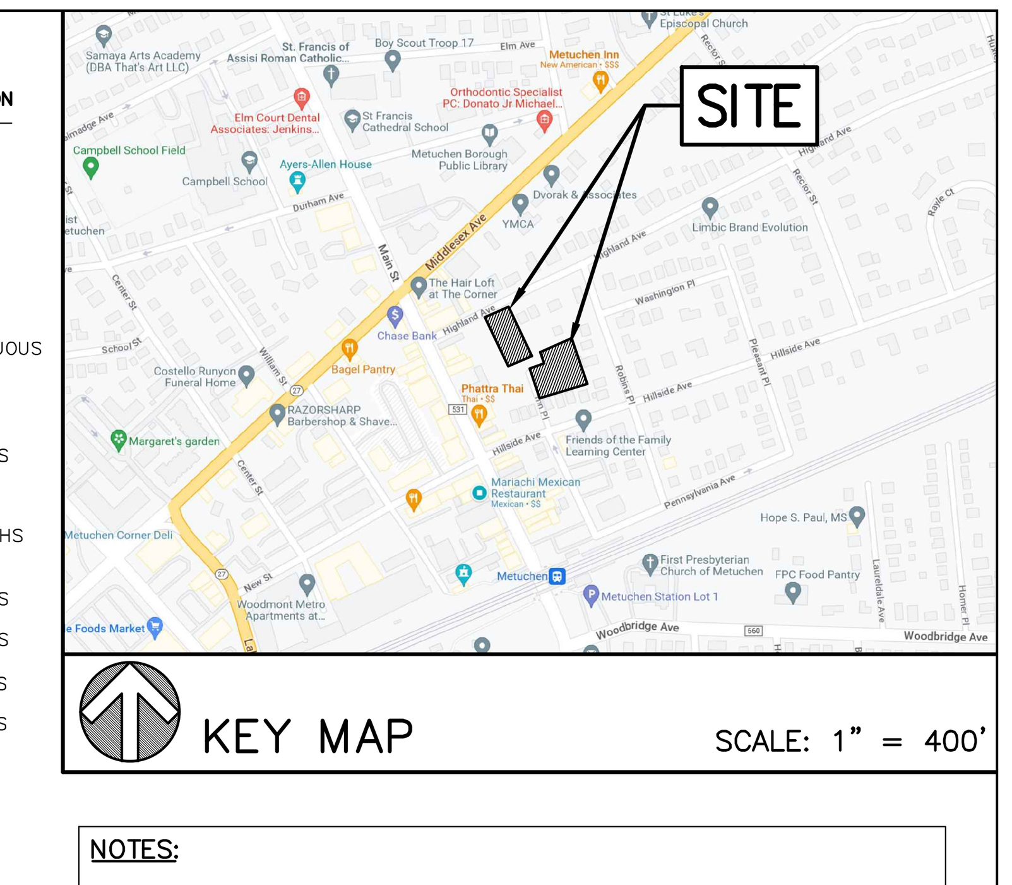
ESTIMATED SEQUENCE OF CONSTRUCTION

THE SEQUENCE OF CONSTRUCTION SHALL BE AS FOLLOWS (SEE NOTE BELOW)	DURATION
CONTRACTOR TO PROVIDE WRITTEN NOTIFICATION TO FREEHOLD SOIL CONSERVATION DISTRICT A MINIMUM 48 HOURS PRIOR TO INITIAL SOIL DISTURBANCE.	
1. THE EXISTING SITE IS FULLY DEVELOPED AND THEREFORE DOES NOT REQUIRE TRACKING PREVENTION. EXISTING DRIVEWAYS WHERE SHOWN SHALL BE THE CONSTRUCTION VEHICLE POINTS OF ENTRY. PAVED DRIVEWAY AND STREETS SHALL BE CONTINUOUSLY KEPT CLEAN THROUGHOUT THE ENTIRE PROJECT DURATION. ANY SOIL DISTURBANCE (SUCH AS AREAS OF PAVEMENT REMOVAL) SHALL BE FINAL GRADED AND PERMANENTLY STABILIZED IMMEDIATELY. PROVIDE SEDIMENT BARRIER AS SHOWN ON PLANS. NOTE THERE ARE NO INLETS, EXISTING OR PROPOSED, WITHIN OR NEAR LIMIT OF DISTURBANCE.	CONTINUOUS
2. REMOVE DESIGNATED FEATURES FROM SITE. STRIP TOPSOIL FROM THE PROPOSED MINOR GRADING AREAS. IF WARRANTED, PROVIDE TOPSOIL STOCKPILE (WHERE APPLICABLE). APPLY TEMPORARY SEEDING TO TOPSOIL STOCKPILE AND PROVIDE SEDIMENT BARRIER AT TOE OF STOCKPILE (WHERE APPLICABLE, SEE DETAIL).	2 WEEKS
3. REMOVE PAVEMENT AND EXISTING SITE FEATURES BEHIND EXISTING BUILDING. CONSTRUCT BUILDING EXPANSION AS SHOWN ON ARCHITECTURAL PLANS BY OTHERS.	7 MONTHS
4. HAND DIG TRENCH ON WEST SIDE OF BUILDING, STOCKPILE EXCEED SOIL. INSTALL DRAINAGE PIPE AND BACKFILL WITH STONE AS INDICATED.	2 WEEKS
5. INSTALL ALL NEW CURB, BLOCK WALL, SIDEWALK, CONCRETE PADS.	3 WEEKS
6. CONSTRUCT PROPOSED CONCRETE WALKWAYS AND BASE PADS AS SHOWN.	3 WEEKS
7. INSTALL LANDSCAPING AND SITE LIGHTING.	4 WEEKS
8. PROVIDE PERMANENT VEGETATIVE STABILIZATION TO REMAINING AREAS (SUCH AS REMOVED STOCKPILE AREAS) AND REMOVE ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES UPON COMPLETION OF ALL DISTURBANCE.	1 WEEK
9. PROVIDE TOP COURSE ON NEW PAVEMENT SURFACE WHERE REQUIRED. PROVIDE/REPAIR ALL NECESSARY PAVEMENT MARKINGS.	1 WEEK
TOTAL ESTIMATED CONSTRUCTION TIME:	10 MONTHS AND 3 WEEKS

NOTES:

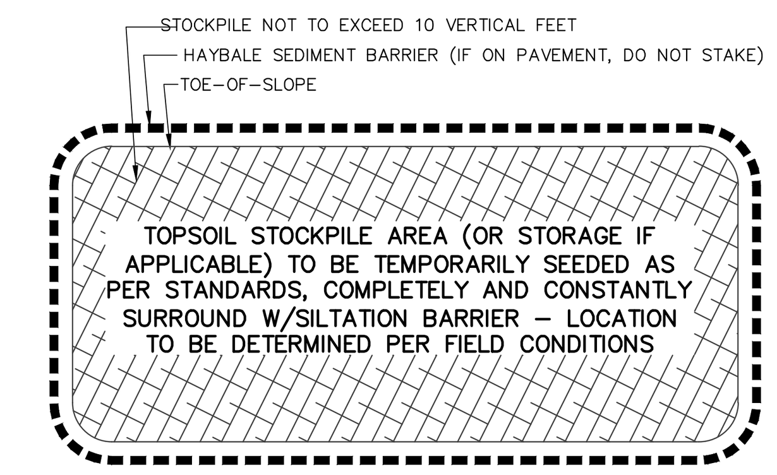
THIS IS AN APPROXIMATE SCHEDULE OF EVENTS AND SHOULD BE FOLLOWED IN THE SEQUENCE DEMONSTRATED AS CLOSELY AS POSSIBLE. ACTUAL SEQUENCE OF THE CONSTRUCTION OF THE AFOREMENTIONED ITEMS TO BE DETERMINED BY FIELD CONDITIONS AND AT THE DISCRETION OF THE CONSTRUCTION MANAGER.

* ACTUAL DURATION OF BUILDING CONSTRUCTION IS DEPENDENT ON THE MARKET.



KEY MAP — SCALE: 1" = 400'

NOTES:
- THIS PROJECT IS EXEMPT FROM SOIL COMPACTION TESTING DUE TO THE QUALIFICATION OF URBAN REDEVELOPMENT AREA AS IT IS DESIGNATED AS METROPOLITAN PLANNING AREA 1 (PA1) ON THE NEW JERSEY STATE PLAN POLICY MAP AND THE PROJECT SITE IS PREVIOUSLY DEVELOPED. ADDITIONALLY.
- CONTAIN ALL DEBRIS AND SEDIMENT WITHIN THE LIMIT OF DISTURBANCE. ANY SEDIMENT TRACKED OUT OF THE LIMIT OF DISTURBANCE SHALL BE CLEANED UP IMMEDIATELY AND EROSIVE CONDITION MUST BE IDENTIFIED AND REMEDIATED.



TOPSOIL/STORAGE STOCKPILE DETAIL (IF APPLICABLE)
NTS

SOIL EROSION AND SEDIMENT CONTROL NOTES

(reference: Freehold Soil Conservation District, http://www.freeholdscd.org/)

1. The Freehold Soil Conservation District shall be notified forty-eight (48) hours in advance of any soil disturbing activity.
2. All Soil Erosion and Sediment Control practices are to be installed prior to soil disturbance, or in their proper sequence, and maintained until permanent protection is established.
3. Any changes to the Certified Soil Erosion and Sediment Control Plans will require the submission of revised Soil Erosion and Sediment Control Plans to the District for re-certification. The revised plans must meet all current State Soil Erosion and Sediment Control Standards.
4. N.J.S.A 4:24-39 et. Seq. requires that no Certificates of Occupancy be issued before the District determines that a project or portion thereof is in full compliance with the Certified Plan and Standards for Soil Erosion and Sediment Control in New Jersey and a Report of Compliance has been issued. Upon written request from the applicant, the District may issue a Report of Compliance with conditions on a lot-by-lot or section-by-section basis, provided that the project or portion thereof is in satisfactory compliance with the sequence of development and temporary measures for soil erosion and sediment control have been implemented, including provisions for stabilization and site work.
5. Any disturbed areas that will be left exposed more than sixty (60) days, and not subject to construction traffic, will immediately receive a temporary seeding. If the season prevents the establishment of temporary cover, the disturbed areas will be mulched with straw, or equivalent material, at a rate of 2 to 2 ½ tons per acre, according to the Standard for Stabilization with Mulch Only.
6. Immediately following initial disturbance or rough grading, all critical areas subject to erosion (i.e. soil stockpiles, steep slopes and roadway embankments) will receive temporary seeding in combination with straw mulch or a suitable equivalent, and a mulch anchor, in accordance with State Standards.
7. A sub-base course will be applied immediately following rough grading and installation of improvements to stabilize streets, roads, driveways, and parking areas. In areas where no utilities are present, the sub-base shall be installed within fifteen (15) days of the preliminary grading.
8. The Standard for Stabilized Construction Access requires the installation of a pad of clean crushed stone at points where traffic will be accessing the construction site. After interior roadways are paved, individual lots require a stabilized construction access consisting of one inch to two inch (1" – 2") stone for a minimum length of ten feet (10') equal to the lot entrance width. All other access points shall be blocked off.
9. All soil washed, dropped, spilled, or tracked outside the limit of disturbance or onto public right-of-ways will be removed immediately.
10. Permanent vegetation is to be seeded or sodded on all exposed areas within ten (10) days after final grading.
11. At the time that site preparation for permanent vegetative stabilization is going to be accomplished, any soil that will not provide a suitable environment to support adequate vegetative ground cover shall be removed or treated in such a way that it will permanently adjust the soil conditions and render it suitable for vegetative ground cover. If the removal or treatment of the soil will not provide suitable conditions, non-vegetative means of permanent ground stabilization will have to be employed.
12. In accordance with the Standard for Management of High Acid Producing Soils, any soil having a pH of 4 or less or containing iron sulfides shall be ultimately placed or buried with limestone applied at the rate of 10 tons/acre, (or 450 lbs/1,000 sq ft of surface area) and covered with a minimum of 12" of settled soil with a pH of 5 or more, or 24" where trees or shrubs are to be planted.
13. Conduit Outlet Protection must be installed at all required outfalls prior to the drainage system becoming operational.
14. Unfiltered dewatering is not permitted. Necessary precautions must be taken during all dewatering operations to minimize sediment transfer. Any dewatering methods used must be in accordance with the Standard for Dewatering.
15. Should the control of dust at the site be necessary, the site will be sprinkled until the surface is wet, temporary vegetative cover shall be established or mulch shall be applied as required by the Standard for Dust Control.
16. Stockpile and staging locations established in the field shall be placed within the limit of disturbance according to the certified plan. Staging and stockpiles not located within the limit of disturbance will require certification of a revised Soil Erosion and Sediment Control Plan. Certification of a new Soil Erosion and Sediment Control Plan may be required for these activities if an area greater than 5,000 square feet is disturbed.
17. All soil stockpiles are to be temporarily stabilized in accordance with Soil Erosion and Sediment Control note #6.
18. The property owner shall be responsible for any erosion or sedimentation that may occur below stormwater outfalls or offsite as a result of construction of the project.

Freehold Soil Conservation District
4000 Kozloski Road, Freehold, NJ 07728-5033
phone: (732) 683-8500
fax: (732) 683-9140
email: info@freeholdscd.org

REV.	DESCRIPTION	DATE	BY
4	REVISED PLAN PER BOARD ENGINEER'S LETTER DATED 02/07/23	02/08/24	RVB
3	REVISED PLAN PER BOROUGH PLANNER'S LETTER DATED 12/13/23	01/28/24	DSA
2	REVISED PLAN PER BOROUGH PLANNER'S COMMENTS 11/02/23	11/02/23	DSA
1	REVISED PLAN PER BOROUGH PLANNER'S LETTER DATED 10/27/23	10/31/23	DSA

SOIL EROSION AND SEDIMENT CONTROL PLAN & DETAILS

GRAPHIC SCALE 1" = 20'
0 20 40 60

MERIDIAN ENGINEERING GROUP, INC.
CERTIFICATE OF AUTHORIZATION NUMBER: 24GA28084700
CIVIL ENGINEERING • LAND SURVEYING
LAND PLANNING • LANDSCAPE ARCHITECTURE
HYDRAULIC & HYDROLOGIC ENGINEERING
ENVIRONMENTAL & EROSION CONTROL ENGINEERING
1199 AMBOY AVENUE, SUITE 1D
EDISON, NEW JERSEY 08837
PHONE: (732) 205-8288 • FAX: (732) 719-7208
www.meridianegi.com • info@meridianegi.com

SITE PLAN
PREPARED FOR:
MIXED USE
LOTS 15-17, 18.05, 40.02 & 44 IN BLOCK 118
20 HIGHLAND AVENUE
SITUATED IN:
BOROUGH OF METUCHEN
MIDDLESEX COUNTY, NEW JERSEY

CAD: 46–65	DATE: 10/18/23	SCALE: 1" = 20'
FILE: 046.0065	DRAWN: DSA	SHEET 7 OF 7

OVERALL DISTURBANCE AREA = ±0.41 ACRES

NOTE: THIS PROJECT IS LOCATED IN "ZONE 6B"

SOIL EROSION AND SEDIMENT CONTROL PLAN – SHEET 1 OF 1

02/08/24
LESLIE A. WALKER III, PE — DATE
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE NUMBER: 24GE04729700