

PRELIMINARY AND FINAL SITE PLAN

219-227 BROAD STREET TAX LOTS 1 & 5, BLOCK 516 TOWNSHIP OF BLOOMFIELD ESSEX COUNTY, NEW JERSEY

BLOCK	LOT	PROPERTY LOCATION	PROPERTY OWNER & ADDRESS
511	100	246 BROAD ST	NORFOLK SOUTHERN RR CORP 3 COMMERCIAL PLACE NORFOLK, VA 23510
512	15	190 STATE STREET	BLOOMFIELD COLUMBIAN CLUB J. LAZAR
512	18	236 BROAD STREET	BLOOMFIELD, NJ 07003
513	31	202 BROAD STREET	218 S LIVINGSTON AVE LIVINGSTON, NJ 07039
513	34	205-218 BROAD ST	205-218 BROAD ST BLOOMFIELD, NJ 07003
513	34	206 BROAD STREET APT 1A	527 SPRING VALLEY RD C MAYWOOD NJ 07067
513	34	206 BROAD STREET APT 2A	15 SKYLENE DRIVE MORRISTOWN, NJ 07960
513	34	206 BROAD STREET APT 3A	STANCOX, KENNY P 206 BROAD STREET APT 3A BLOOMFIELD, NJ 07003
513	34	206 BROAD STREET APT 4A	MONSELES, AMY 657 REDWOOD AVENUE MONTICLARE, NJ 07044
513	34	206 BROAD STREET APT 5A	KURRYANOV, ALEXANDER & DALY, SUZAN 206 BROAD STREET APT 5A G 48
513	34	206 BROAD STREET APT 6A	TEREK, VERA 206 BROAD STREET APT 6A BLOOMFIELD, NJ 07003
513	34	206 BROAD STREET APT 7A	2370 CAROL WOOD LANE #207 ROSCA FORTON, VA 24088
513	34	206 BROAD STREET APT 8A	COZZO, CONGO, MICHAEL, EST. BLOOMFIELD, NJ 07003
513	34	206 BROAD STREET APT 9A	30 ELIZABETH COURT BLOOMFIELD, NJ 07003
513	34	206 BROAD STREET APT 10A	COZZO, CONGO, MICHAEL, EST. BLOOMFIELD, NJ 07003
513	34	206 BROAD STREET APT 11A	30 ELIZABETH COURT BLOOMFIELD, NJ 07003
513	34	206 BROAD STREET APT 12A	COZZO, CONGO, MICHAEL, EST. BLOOMFIELD, NJ 07003
513	34	206 BROAD STREET APT 13A	COZZO, CONGO, MICHAEL, EST. BLOOMFIELD, NJ 07003
513	34	206 BROAD STREET APT 14A	COZZO, CONGO, MICHAEL, EST. BLOOMFIELD, NJ 07003
513	34	206 BROAD STREET APT 15A	COZZO, CONGO, MICHAEL, EST. BLOOMFIELD, NJ 07003
513	34	206 BROAD STREET APT 16A	COZZO, CONGO, MICHAEL, EST. BLOOMFIELD, NJ 07003
513	34	219 BROAD STREET APT 1B	COZZO, CONGO, MICHAEL, EST. BLOOMFIELD, NJ 07003
513	34	219 BROAD STREET APT 2B	COZZO, CONGO, MICHAEL, EST. BLOOMFIELD, NJ 07003
513	34	219 BROAD STREET APT 3B	COZZO, CONGO, MICHAEL, EST. BLOOMFIELD, NJ 07003
513	34	219 BROAD STREET APT 4B	COZZO, CONGO, MICHAEL, EST. BLOOMFIELD, NJ 07003
513	34	219 BROAD STREET APT 5B	COZZO, CONGO, MICHAEL, EST. BLOOMFIELD, NJ 07003
513	34	219 BROAD STREET APT 6B	COZZO, CONGO, MICHAEL, EST. BLOOMFIELD, NJ 07003
513	34	219 BROAD STREET APT 7B	COZZO, CONGO, MICHAEL, EST. BLOOMFIELD, NJ 07003
513	34	219 BROAD STREET APT 8B	COZZO, CONGO, MICHAEL, EST. BLOOMFIELD, NJ 07003
513	34	219 BROAD STREET APT 9B	COZZO, CONGO, MICHAEL, EST. BLOOMFIELD, NJ 07003
513	34	219 BROAD STREET APT 10B	COZZO, CONGO, MICHAEL, EST. BLOOMFIELD, NJ 07003
513	34	219 BROAD STREET APT 11B	COZZO, CONGO, MICHAEL, EST. BLOOMFIELD, NJ 07003
513	34	219 BROAD STREET APT 12B	COZZO, CONGO, MICHAEL, EST. BLOOMFIELD, NJ 07003
513	34	219 BROAD STREET APT 13B	COZZO, CONGO, MICHAEL, EST. BLOOMFIELD, NJ 07003
513	34	219 BROAD STREET APT 14B	COZZO, CONGO, MICHAEL, EST. BLOOMFIELD, NJ 07003
513	34	219 BROAD STREET APT 15B	COZZO, CONGO, MICHAEL, EST. BLOOMFIELD, NJ 07003
513	34	219 BROAD STREET APT 16B	COZZO, CONGO, MICHAEL, EST. BLOOMFIELD, NJ 07003

BLOCK	LOT	PROPERTY LOCATION	PROPERTY OWNER & ADDRESS
513	34	206 BROAD STREET	BLOOMFIELD CONDO ASSN C/O BALUNGO 36 PARKWAY WEST BLOOMFIELD NJ 07003
513	34	206 BROAD STREET	BALUNGO, A. LEM 36 PARKWAY WEST BLOOMFIELD NJ 07003
513	34	218 BROAD STREET	KOHA, GUENE 218 BROAD ST UNIT 9 BLOOMFIELD NJ 07003
513	37	224 BROAD STREET	224 BROAD, LLC 388 BROAD ST BLOOMFIELD NJ 07003
513	40	230 BROAD STREET	230 BROAD STREET LLC 230 BROAD ST BLOOMFIELD NJ 07003
514	7	249 BROAD STREET	552 FRANKLIN AVENUE MAYFIELD NJ 07095
515	1	77 MAPLE STREET	78 CLINTON ROAD FAIRFIELD, NJ 07004
515	2	68 MAPLE STREET	7 FREDERICK PL EGUITY INVESTMENTS CAPITAL CORP WEST CALDWELL NJ 07090
515	4	62 MAPLE STREET	12 LIBERTY STREET BLOOMFIELD NJ 07003
515	5	60 MAPLE STREET	BARILLARI, S O + PESCATORE, A 8 MAPLE STREET BLOOMFIELD NJ 07003
515	6	58 MAPLE STREET	OTROYLE, MARTIN & JUDITH ANNE VERONA, NJ 07094
515	50	235 BROAD ST	3 COMMERCIAL PLACE NORFOLK, VA 23510
516	5	219-221 BROAD STREET	ROSCA, DONALD R & ANNA 219-221 BROAD ST BLOOMFIELD NJ 07003
516	7	71 NEW STREET	71 NEW STREET BLOOMFIELD NJ 07003
516	8	69 NEW STREET	69 NEW ST BLOOMFIELD NJ 07003
516	10	63 NEW STREET	63 NEW ST BLOOMFIELD NJ 07003
516	11	59 NEW STREET	59 NEW STREET BLOOMFIELD NJ 07003
517	1	207 BROAD STREET	BARTMAN, IRENA 207 BROAD ST BLOOMFIELD NJ 07003
517	2	181 BROAD STREET	TOWNSHIP OF BLOOMFIELD MUNICIPAL PLAZA BLOOMFIELD NJ 07003
517	4	199 BROAD STREET	199 BROAD STREET BLOOMFIELD NJ 07003
517	15	337 BELLEVILLE AVENUE	VAN TASSEL REAL ESTATE, LLC 337 BELLEVILLE AVE, LLC BLOOMFIELD NJ 07003
517	17	329 BELLEVILLE AVENUE	583 RIDGEWOOD AVE GLENN RIDGE, NJ 07025
517	35	52 NEW STREET	WALTERS, MATTHEW J & MARIEAU CORINN 52 NEW ST BLOOMFIELD NJ 07003
517	36	54 NEW STREET	SMITH, GWEN A 54 NEW STREET BLOOMFIELD NJ 07003
517	37	56 NEW STREET	EDMOND, FRANCES E 56 NEW ST BLOOMFIELD NJ 07003
517	38	58 NEW STREET	58 NEW STREET BLOOMFIELD NJ 07003
517	39	60 NEW STREET	337 BELLEVILLE AVE, LLC BLOOMFIELD NJ 07003
517	40	64 NEW STREET (RD)	MITCHELL, THOMAS W, JR & LYNN 64 NEW STREET BLOOMFIELD NJ 07003

THE FOLLOWING COMPANIES MUST ALSO BE NOTIFIED

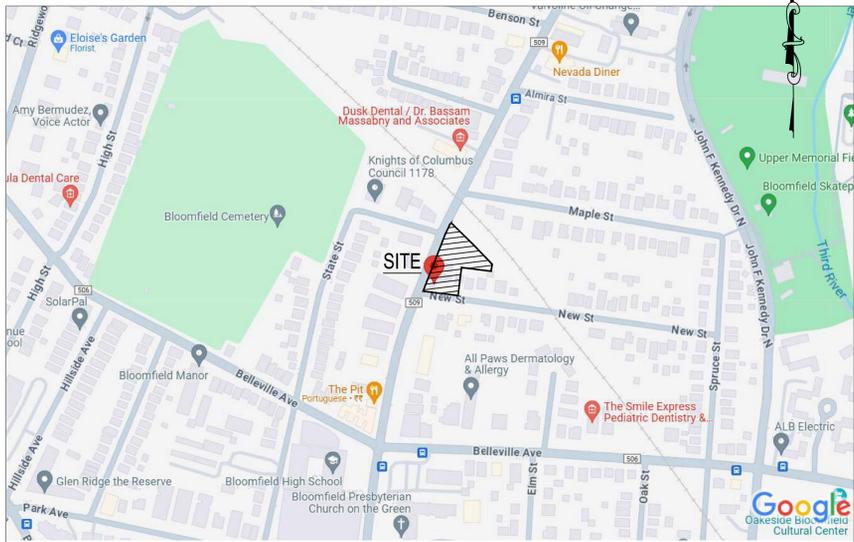
TOWNSHIP OF BLOOMFIELD	TOWNSHIP OF BLOOMFIELD
MUNICIPAL CLERK	SUB. CABLE/COMCAST
1 MUNICIPAL PLAZA	600 WILSON AVENUE
BLOOMFIELD, NJ 07003	UNION, NJ 07083
MANAGER - CORPORATION PROPERTIES	WITBERN
80 PARK PLAZA T40	PO BOX 152206
NEWARK, NJ 07102	BRVIND, TX 76015
NEW JERSEY TORBROCK AUTHORITY	PASSAIC VALLEY SERVICE COMMISSION
177 E SADDLE RIVER RD#63	600 WILSON AVENUE
SADDLE RIVER, NJ 07083	NEWARK, NJ 07105
WOODBOROGE, NJ 07095	COUNTY OF ESSEX
PASSAIC VALLEY WATER COMMISSION	COUNTY CLERK
1525 MAIN AVENUE	HALL OF RECORDS
CLIFTON, NJ 07015	465 DR MARTIN LUTHER KING, JR. BLVD
PO BOX 270	NEWARK, NJ 07102
CITY OF NEWARK WATER BUREAU	NORFOLK SOUTHERN RR CORPORATION
1204 WOODSIDE AVENUE	3 COMMERCIAL PLACE
LITTLE FALLS, NJ 07424	NORFOLK, VA 23510
NORTH JERSEY DIST. WATER SUPPLY COMM.	TRANS CONTINENTAL GAS PIPELINES
741 BROADWAY AVENUE	PO BOX 2490
WANANQUE, NJ 07085	TULSA, OK 74102

PARKING ANALYSIS

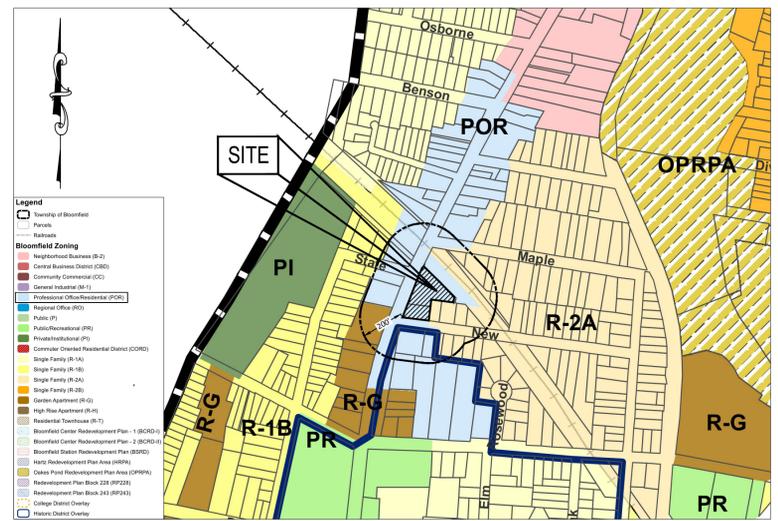
Description	Required	Proposed	Comment
Residential Uses			
Mid-Rise Apartment (RSIS):			
1.8 Spaces per 1 Bedroom Unit - (15 Unit)	27 Spaces	27 Spaces	Conforming
2.0 Spaces per 2 Bedroom Unit - (17 Unit)	34 Spaces	31 Spaces	Conforming
Guest Parking	None	None	Conforming
Total (Before EV Credit)	61 Spaces	58 Spaces	Conforming
Electric Vehicle Charging Station			
15% of Proposed Parking Spaces (61 Spaces)	10 Spaces	10 Spaces	Conforming
EV Credit - 10% of Required Parking Spaces*	6 Spaces*	6 Spaces*	Conforming
Total Parking (With Credits)	55 Spaces	58 Spaces	Conforming
Loading Requirements**			
Principal Building Size (square feet)			
Up to 20,000	1 Space	None	Non Conforming
20,000 to 50,000	2 Spaces	NA	Not Applicable
Each additional 100,000	One additional space	NA	Not Applicable

* Each EV-ready space will count as two spaces towards minimum parking requirements for a maximum reduction of 10% of the total number of parking spaces required.

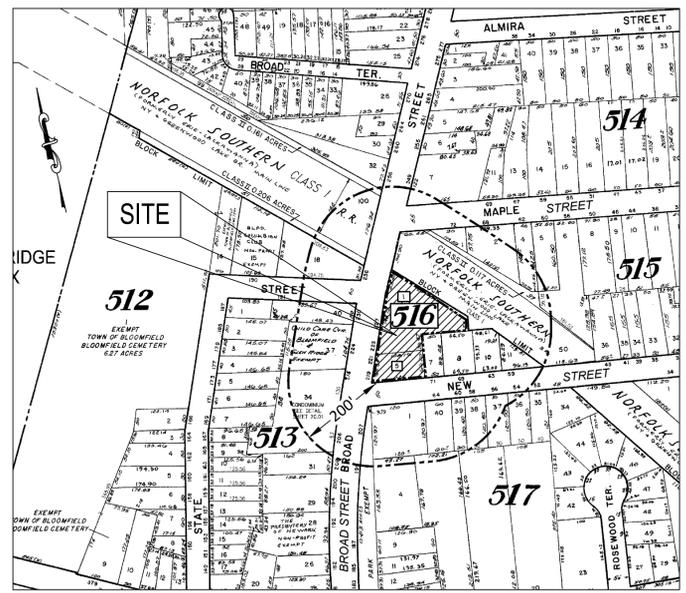
** In any building or building group or part thereof hereafter erected and having a gross floor area of 10,000 square feet or more of nonresidential space, there shall be provided and maintained on the same zone lot with such building, off-street loading berths.



SITE MAP
SCALE: 1" = ±300'



ZONING MAP
SCALE: 1" = ±400'



200' TAX MAP
SCALE: 1" = ±200'

SCHEDULE OF GENERAL ZONING REQUIREMENTS
PROFESSIONAL OFFICE/RESIDENTIAL (PO/R)
BLOCK 516 - 219-227 BROAD STREET - TOWNSHIP OF BLOOMFIELD

Regulation	Requirements	Existing Lots 1 & 5	Proposed Lots 1 & 5	Comment
Principal Permitted Uses	Single-Family Single-Family Detached Residences, Two-Family Detached Residences, Garden Apartments, Offices, Professional Offices, Public Uses, Places of Worship, Public Utilities, Educational Institutions, Public Parks, Banks, Parking Areas.	Commercial Building (Auto Parts/Repair) (e)	Mid-rise Multifamily apartment buildings (V)	Variance is Required
Min. Lot Area	10,000 sf	29,290.60 sf	29,290.60 sf	Conforming
Min. Lot Width	100 ft.	118.55 ft.	118.55 ft.	Conforming
Min. Front Yard	25 ft. Excluding Front Yard Parking	0.90 ft. (e)	9.34 ft. along Broad St. (V); 15.40 ft. along New St. (V)	Variance is Required
Min. Rear Yard	30 ft.	30.6 ft.	9.85 ft. (V)	Variance is Required
Max. Side Yard	10 ft.	11.70 ft.	18.12 ft.	Conforming
Max. Side Yard (Accessory Building)	10 ft.	5.40 ft. (e)	N/A	Not Applicable
Max. Rear Yard (Accessory Building)	10 ft.	N/A	N/A	Not Applicable
Max. Building Coverage	35%	23.46%	45.69% (V)	Variance is Required
Max. Lot Coverage	70%	82.71% (e)	76.87% (V)	Variance is Required
Max. Floor Area Ratio	0.60	0.25	1.39 (V)	Variance is Required
Max. Building Height	40 ft.	< 40 ft.	44.00 ft. (V)	Variance is Required

APPROVED BY ZONING BOARD OF ADJUSTMENT - TOWNSHIP OF BLOOMFIELD

BOARD SECRETARY: _____ DATE: _____

BOARD CHAIRPERSON: _____ DATE: _____

BOARD ENGINEER: _____ DATE: _____

PROPERTY OWNER/APPLICANT:

223 BROAD ST LLC
219-227 BROAD STREET
BLOOMFIELD, NJ

DESIGN WAIVER/ VARIANCE SCHEDULE
BLOCK 516 - 219-227 BROAD STREET - TOWNSHIP OF BLOOMFIELD

Code Regulation	Required	Proposed
(11) Sidewalks in parking areas.	Sidewalks shall be required between parking areas and principal structures, along aisles and driveways and wherever pedestrian traffic occurs. They shall have a minimum of four feet of passable width and shall be raised a maximum of six inches above the parking area, except when crossing streets or driveways. Guardrails and wheel stops permanently anchored to the ground shall be provided in appropriate locations. Parked vehicles shall not overhang or extend over sidewalk areas, unless an additional sidewalk width of two feet is provided to accommodate such overhang.	No sidewalk and curb is proposed in the parking areas
(12) Landscaping, paving and drainage for parking areas.	(d) Parking areas, loading areas and driveways, except for one- or two-family residences, shall be curbed with granite block and paved.	No curb is proposed in the parking areas

REVISIONS

NO.	DATE	DESCRIPTION
1	06/04/24	PER BOARD PROFESSIONALS COMMENTS

DESIGN WAIVER/ VARIANCE SCHEDULE

Code Regulation	Required	Proposed
(7) Size of aisles. The width of all aisles providing direct access to individual parking spaces shall be in accordance with the requirements set forth below. Only one-way traffic shall be permitted in aisles serving parking spaces placed at an angle other than 90°.		The minimum proposed aisle width is 17.38 ft.

TAX LOTS 1 & 5
219-227 BROAD STREET
TOWNSHIP OF BLOOMFIELD
ESSEX COUNTY, NEW JERSEY

COVER SHEET

AWZ ENGINEERING, INC.
ENGINEERS • SCIENTISTS • CONSULTANTS
Main Office: 150 River Road, Suite B3, Montville, NJ 07045
Pennsylvania Office: Scranton, PA 18504
Tel: 973-588-7080 Fax: 973-588-7079
www.awzengineering.com e-mail: info@awzengineering.com
New Jersey Certificate of Authorization No.: 24GCA28118400
Pennsylvania Certificate of Authority No.: 37171554

ADNAN A. KHAN, P.E., C.M.E.
PROFESSIONAL ENGINEER
DATE: 09/04/24
DATE: 06/04/24
DATE: 06/04/24
DATE: 06/04/24

PER BOARD PROFESSIONALS COMMENTS

NO.	DATE	DESCRIPTION
1	09/04/24	PER BOARD PROFESSIONALS COMMENTS

JOB NUMBER: 24-0401
SCALE: AS SHOWN
C-01
SHEET 1 OF 10

EXIST. CHAIN LINK FENCE TO BE REMOVED

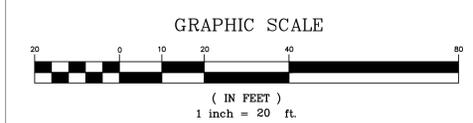
EXIST. STRUCTURE TO BE REMOVED
 EXIST. STRUCTURE TO BE REMOVED
 EXIST. CONC. PATIO TO BE REMOVED

EXIST. STOCKADE FENCE TO BE REMOVED

EXIST. STOCKADE FENCE TO REMAIN
 EXIST. TREE TO REMAIN (TYP.)
 EXIST. GARAGE TO BE REMOVED
 EXIST. CONC. CURB TO BE REMOVED (TYP.)
 EXIST. ABOVE GROUND POOL TO BE REMOVED

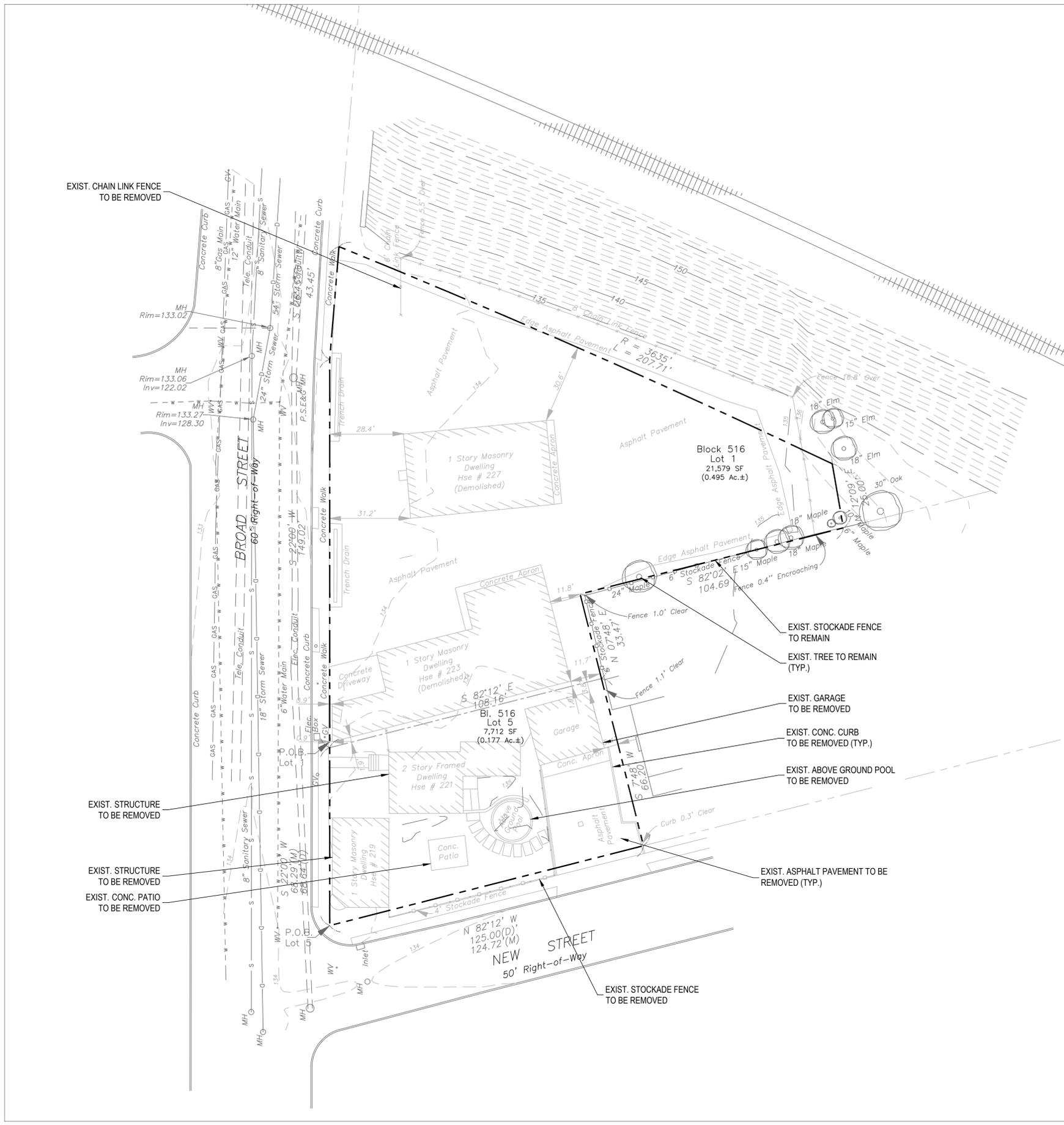
EXIST. ASPHALT PAVEMENT TO BE REMOVED (TYP.)

SURVEY NOTE:
 ALL SITE FEATURES, ELEVATIONS AND CONTOURS SHOWN ON THIS PLAN ARE BASED ON THE SURVEY PERFORMED AND PROVIDED BY EIC GROUP LLC OF FAIRFIELD, NJ 07004, DATED 04/02/2024.

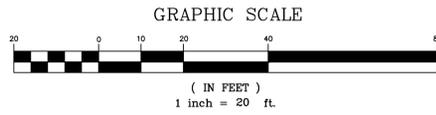
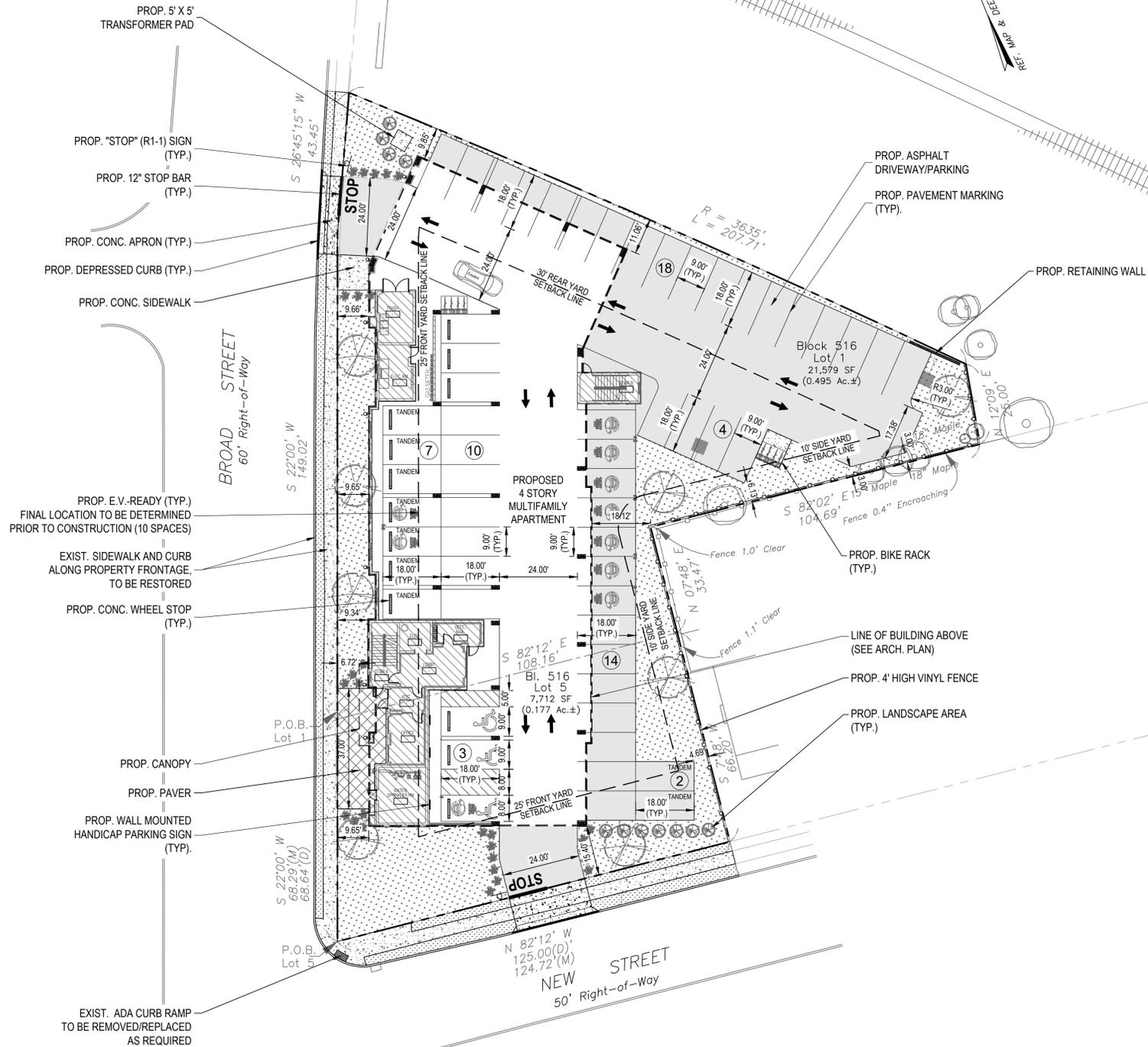


LEGEND

	TBR	- TO BE REMOVED
		- EXISTING SPOT ELEVATION
		- EXISTING CONTOUR



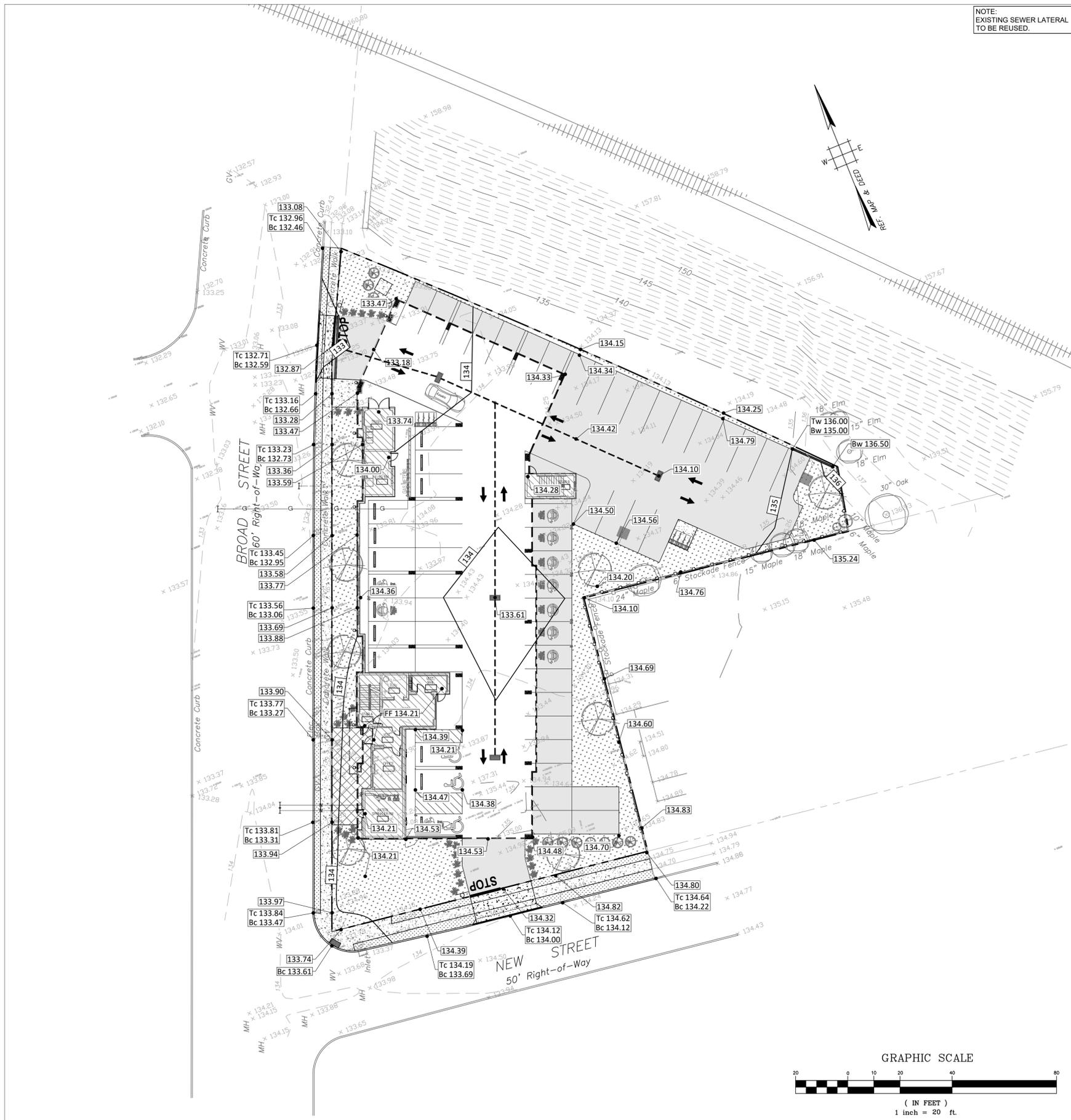
TAX LOTS 1 & 5	BLOCK 516	219-227 BROAD STREET	TOWNSHIP OF BLOOMFIELD	ESSEX COUNTY, NEW JERSEY
DEMOLITION PLAN				
<p>ADNAN A. KHAN, P.E., C.M.E. PROFESSIONAL ENGINEER</p> <p style="text-align: right;"><i>Adnan A. Khan</i> DATE: 09/04/24</p> <p>N.J. LICENSE NO. 39812 P.A. LICENSE NO. 4965E N.Y. LICENSE NO. 08645 M.D. LICENSE NO. 41893</p>				
<p>AWZ ENGINEERING, INC. ENGINEERS • SCIENTISTS • CONSULTANTS Main Office: 150 River Road, Suite B3, Montville, NJ 07045 Pennsylvania Office: Scranton, PA 18504 Tel: 973-588-7080 Fax: 973-588-7079 www.awzengineering.com e-mail: info@awzengineering.com New Jersey Certificate of Authority No.: 24GA28118400 Pennsylvania Certificate of Authority No.: 3771354</p>				
<p>JOB NUMBER: 24-0401</p> <p>SCALE: AS SHOWN</p>				
<p>C-02 SHEET 2 OF 10</p>				
DRAWN BY: CE DATE: 06/04/24 DESIGNED BY: AK DATE: 06/04/24 APPROVED BY: AK DATE: 07/12/24				
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GENERAL NOTES:

1. PARCEL IS KNOWN AS TAX LOTS 1 & 5 IN BLOCK 516 AS SHOWN ON THE TAX MAPS OF THE TOWNSHIP OF BLOOMFIELD.
2. AREA OF PARCEL = 29,290.60 S.F. OR 0.672 ACRES.
3. PARCEL IS LOCATED ENTIRELY IN THE POR (PROFESSIONAL OFFICE/RESIDENTIAL) DISTRICT AS SHOWN ON THE ZONING MAP OF THE TOWNSHIP OF BLOOMFIELD.
4. IF THIS DOCUMENT DOES NOT CONTAIN A RAISED IMPRESSION SEAL OF THE PROFESSIONAL, IT IS NOT AN AUTHORIZED ORIGINAL, AND MAY HAVE BEEN ALTERED.
5. THIS IS A LOT DEVELOPMENT PLAN AND NOT A SURVEY. DO NOT SCALE DRAWINGS FOR LOCATIONS OF ADJACENT STRUCTURES AND SURROUNDING PHYSICAL CONDITIONS. THESE ITEMS MAY BE SCHEMATIC ONLY EXCEPT WHERE DIMENSIONS ARE SHOWN THERETO.
6. THE CONTRACTOR SHALL NOTIFY THE UNDERSIGNED PROFESSIONAL IMMEDIATELY IF ANY FIELD CONDITIONS ENCOUNTERED DIFFER FROM THOSE SHOWN HEREON.
7. ELEVATIONS AND CONTOURS SHOWN ON THIS PLAN ARE BASED ON THE SURVEY PERFORMED AND PROVIDED BY EIC GROUP LLC OF FAIRFIELD, NJ 07004, DATED 04/02/2024.
8. PROPOSED DWELLING FOOT PRINT AND SITE LAYOUT SHOWN HERE ARE AS PER THE ARCHITECTURAL PLANS PREPARED BY MISTRY DESIGN OF BUDD LAKE, NJ 07828, RECEIVED AS DIGITAL FILE.
9. THE CONTRACTOR SHALL VERIFY ALL UTILITY INFORMATION TO HIS SATISFACTION PRIOR TO COMMENCEMENT OF ANY WORK. THE CONTRACTOR SHALL PERFORM TEST PITS WHERE EXISTING UTILITIES ARE TO BE CROSSED. TEST PIT INFORMATION SHALL BE GIVEN TO THE ENGINEER PRIOR TO CONSTRUCTION TO PERMIT ADJUSTMENTS AS MAY BE REQUIRED TO AVOID CONFLICTS.
10. ALL EXISTING UTILITIES THAT ARE TO BE RELOCATED OR ALTERED IN ANY MANNER ARE TO BE DONE IN ACCORDANCE WITH THE RESPECTIVE UTILITY COMPANIES STANDARDS. ALL THE EXISTING UTILITIES EXPOSED DURING CONSTRUCTION ARE TO BE SUPPORTED UNTIL BACKFILL IS IN PLACE. ANY CROSSING LESS THAN ONE FOOT CLEAR TO BE SUPPORTED WITH A SADDLE (CONCRETE OR SAND) AS NOTED.
11. ALL SEWER LINES SHALL BE LOCATED AT LEAST 10 FEET HORIZONTALLY FROM POTABLE WATER LINES AND/OR AT LEAST 18 INCHES BELOW POTABLE WATER LINES AND IN SEPARATE TRENCHES.
12. ALL UTILITIES SHALL BE INSTALLED UNDERGROUND. DESIGN AND INSTALLATION OF WATER, ELECTRIC, GAS, TELEPHONE AND CABLE TO BE PROVIDED BY RESPECTIVE UTILITY COMPANIES.
13. UTILITY CONNECTIONS SHALL COMPLY WITH THE COUNTY/MUNICIPAL ROAD OPENING PERMIT REQUIREMENTS.
14. SITE GRADING AND UTILITY WORK ARE TO BE PERFORMED IN A MANNER TO MINIMIZE DAMAGE TO EXISTING VEGETATION AND TREES. ALL AREAS NOT AFFECTED BY CONSTRUCTION ARE TO REMAIN NATURAL AND UNDISTURBED.
15. LOCATION OF PROPOSED ROOF DRAINS ARE APPROXIMATE AND SHALL BE COORDINATED WITH THE PROJECT ARCHITECT PRIOR TO CONSTRUCTION. ALL PROPOSED ROOF LEADERS TO BE DISCHARGED AT GRADE TO SPLASH PADS AWAY FROM THE FOUNDATION AND ADJACENT PROPERTIES.
16. NO DETERMINATION WAS MADE AS TO THE PRESENCE OR NONEXISTENCE OF WETLANDS AND/OR HAZARDOUS MATERIALS. THE CLIENT SHOULD PURSUE THESE MATTERS AS ITEMS SEPARATE AND APART FROM THESE PLANS.
17. NO ON-SITE SOIL TESTING AND GROUNDWATER ASSESSMENT HAS BEEN PERFORMED ON THIS PROJECT BY THE DESIGN ENGINEER. IT SHALL BE THE OWNERS AND/OR CONTRACTORS RESPONSIBILITY TO CONDUCT SOIL TESTING AND GROUNDWATER ELEVATION DETERMINATION TO CONFIRM APPLICABILITY OF PROPOSED IMPROVEMENTS. CONSTRUCT ABILITY OF THE PROPOSED FINISHED GRADES AND CONSTRUCTION TECHNIQUES WITH RESPECT TO SUBSURFACE SOIL AND GROUNDWATER CONDITIONS.
18. THIS SET OF PLANS HAS BEEN PREPARED FOR PURPOSES OF MUNICIPAL AND AGENCY REVIEW AND APPROVAL. THIS SET OF PLANS SHALL NOT BE UTILIZED AS CONSTRUCTION DOCUMENTS UNTIL ALL CONDITIONS OF APPROVAL HAVE BEEN SATISFIED AND THE DRAWINGS MARKED "ISSUED FOR CONSTRUCTION".
19. ALL MATERIAL, WORKMANSHIP AND CONSTRUCTION FOR SITE IMPROVEMENTS SHOWN HEREON SHALL BE PERFORMED IN STRICT CONFORMANCE WITH:
 - NJDOT "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", A CURRENTLY AMENDED.
 - CURRENT PREVAILING MUNICIPAL AND/OR COUNTY SPECIFICATIONS, STANDARDS, AND REQUIREMENTS.
 - CURRENT PREVAILING UTILITY COMPANY/AUTHORITY SPECIFICATIONS, STANDARDS, AND REQUIREMENTS.
 - "RESIDENTIAL SITE IMPROVEMENT STANDARDS", N.J. ADMINISTRATIVE CODE TITLE 5, CHAPTER 21, AS CURRENTLY AMENDED.
 - STANDARDS AND/OR CONDITIONS OF ANY OTHER GOVERNING BODIES HAVING JURISDICTION.
20. CONSTRUCTION WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE SAFETY CODES. APPLICABLE SAFETY CODES SHALL MEAN THE LATEST EDITION INCLUDING ANY AND ALL AMENDMENTS, REVISIONS AND ADDITIONS THERETO OF THE FEDERAL DEPARTMENT OF LABOR, OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION'S "OCCUPATIONAL SAFETY AND HEALTH STANDARDS" (OSHA); "SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION" OF THE STATE OF NEW JERSEY, DEPARTMENT OF LABOR AND INDUSTRY, BUREAU OF ENGINEERING AND SAFETY; "CONSTRUCTION SAFETY CODE", AND "MAINTENANCE, CONSTRUCTION AND DEMOLITION," AND "BUILDING CODE
21. CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR, WHO SHALL ALSO BE SOLELY RESPONSIBLE FOR THE MEANS, METHODS, AND SEQUENCING OF CONSTRUCTION OPERATIONS. UNDER NO CIRCUMSTANCES SHOULD THE INFORMATION PROVIDED HERE BE INTERPRETED TO MEAN THAT AMWZ ENGINEERING, INC. IS ASSUMING RESPONSIBILITY FOR CONSTRUCTION SITE SAFETY OR THE CONTRACTOR'S ACTIVITIES; SUCH RESPONSIBILITY IS NOT BEING IMPLIED AND SHOULD NOT BE INFERRED.
22. THE EXISTING BUILDING, DRIVEWAY, AND OTHER STRUCTURES TO BE RAZED AND MATERIALS SHOULD BE REMOVED FROM SITE AND PROPERLY DISPOSED IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS.
23. ALL REQUIRED SOIL EROSION AND SEDIMENT CONTROL DEVICES MUST BE INSTALLED PRIOR TO ANY SITE DISTURBANCE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO SUPPLY ANY ADDITIONAL SOIL EROSION & SEDIMENT CONTROL MEASURES AS REQUESTED BY THE GOVERNING SOIL CONSERVATION DISTRICT.
24. TOP SOILING & SEEDING SHALL BE PLACED IN THE AREAS DISTURBED DURING CONSTRUCTION AND / OR AS DIRECTED BY THE ENGINEER.

DRAWN BY CE	DATE:	06/04/24	DESIGNED BY AK	DATE:	06/04/24	APPROVED BY AK	DATE:	02/02/24
	DATE:	06/04/24		DATE:	06/04/24		DATE:	02/02/24
ADNAN A. KHAN, P.E., C.M.E. PROFESSIONAL ENGINEER		AMWZ ENGINEERING, INC. ENGINEERS • SCIENTISTS • CONSULTANTS Main Office: 150 River Road, Suite B3, Montville, NJ 07045 Pennsylvania Office: Scranton, PA 18504 Tel: 973-588-7080 Fax: 973-588-7079 www.amwzengineering.com e-mail: info@amwzengineering.com New Jersey Certificate of Authorization No.: 24GA28118400 Pennsylvania Certificate of Authority No.: 3771354		BLOCK 516 TAX LOTS 1 & 5 219-227 BROAD STREET TOWNSHIP OF BLOOMFIELD ESSEX COUNTY, NEW JERSEY		JOB NUMBER: 24-0401		
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NOTE:
EXISTING SEWER LATERAL
TO BE REUSED.

COVERAGE CALCULATIONS		
Block 516, Lots 1 & 5		
DESCRIPTION	EXISTING	PROPOSED
Lot Area	29,290.60	29,290.60
1 Story Masonry Dwelling HSE #219	735.56	0.00
2 Story Framed Dwelling HSE #221	969.59	0.00
1 Story Masonry Dwelling HSE #223 (Demolished)	2,792.90	0.00
1 Story Masonry Dwelling HSE #227 (Demolished)	1,795.34	0.00
Garage	578.28	0.00
Proposed Building Ground Floor	0.00	2,014.34
Proposed Building Above	0.00	13,383.46
Total Building	6,871.66	2,014.34
Landing and Steps	45.85	0.00
Concrete Pad	0.00	101.20
Concrete Patio	166.00	0.00
Concrete Driveway	292.41	0.00
Concrete Curb	41.69	0.00
Concrete	1,141.53	104.67
Above Ground Pool	201.69	0.00
Wall	0.00	11.33
Total Concrete	1,889.17	217.20
Paver	0.00	514.38
Asphalt Pavement	15,465.71	19,769.05
Green Area/Dirt	5,064.60	6,775.63
TOTAL	29,290.60	29,290.60
PerVIOUS	5,064.06	6,775.63
Impervious	24,226.54	22,514.97
Lot Coverage	82.71%	76.87%
Building Coverage (Building Above)	23.46%	45.69%

BUILDING HEIGHT CALCULATIONS	
- EXISTING AVERAGE GRADE	= 134.04'
- BUILDING HEIGHT FROM FINISHED FLOOR	= 43.83'
- FINISHED FLOOR	= 134.21'
- DIFFERENCE BETWEEN FINISHED FLOOR AND AVERAGE FINISHED GRADE	= 134.21' - 134.04' = 0.17'
- BUILDING HEIGHT	= 0.17' + 43.83' = 44.00'

EXISTING AND PROPOSED COVERAGE AREAS FOR STORMWATER DESIGN CALCULATIONS:

EXISTING CONDITIONS:
TOTAL LOT AREA = 29,290.60 SF
IMPERVIOUS = 24,226.54 SF
PERVIOUS = 5,064.06 SF

PROPOSED CONDITIONS:
TOTAL LOT AREA = 29,290.60 SF
IMPERVIOUS = 22,514.97 SF
PERVIOUS = 6,775.63 SF

UNDER THE PROPOSED CONDITIONS, THE IMPERVIOUS COVERAGE FOR THE ENTIRE SITE HAS DECREASED BY 5.84% (1,711.57 SF.). THEREFORE, NO STORMWATER MANAGEMENT IS REQUIRED FOR THE PROJECT.

SURVEY NOTE:
ALL SITE FEATURES, ELEVATIONS AND CONTOURS SHOWN ON THIS PLAN ARE BASED ON THE SURVEY PERFORMED AND PROVIDED BY EIC GROUP LLC OF FAIRFIELD, NJ 07004, DATED 04/02/2024.

NOTE:
BASED ON THE FEMA FLOOD INSURANCE RATE MAP (NO. 34013C0112G, DATED 04/03/2020) THE PROJECT SITE IS ENTIRELY OUTSIDE THE SPECIAL FLOOD HAZARD AREA.

SEWER DEMAND WORKSHEET:
AS PER N.J.A.C. 7:14A-23.3(a) - PROJECTED FLOW CRITERIA FOR THE PROPOSED USE IS AS FOLLOWS:

- ONE-BEDROOM UNIT = 150 GALLONS PER DAY PER UNIT = 150 x 15 = 2,250 GPD
- TWO-BEDROOM UNIT = 225 GALLONS PER DAY PER UNIT = 225 x 17 = 3,825 GPD

TOTAL PROJECTED SEWER FLOW = 6,075 GPD

WATER DEMAND WORKSHEET:
PER N.J.A.C. 7:10-11.5 (f), FOR RESIDENTIAL DEVELOPMENT THE AVERAGE DAILY WATER DEMAND SHALL BE IN ACCORDANCE WITH THE NJDCA -RSIS STANDARDS (N.J.A.C. 5:21-5.2, TABLE 5.1. FOR LOW AND MID-RISE APARTMENTS, THE WATER DEMAND IS AS FOLLOWS:

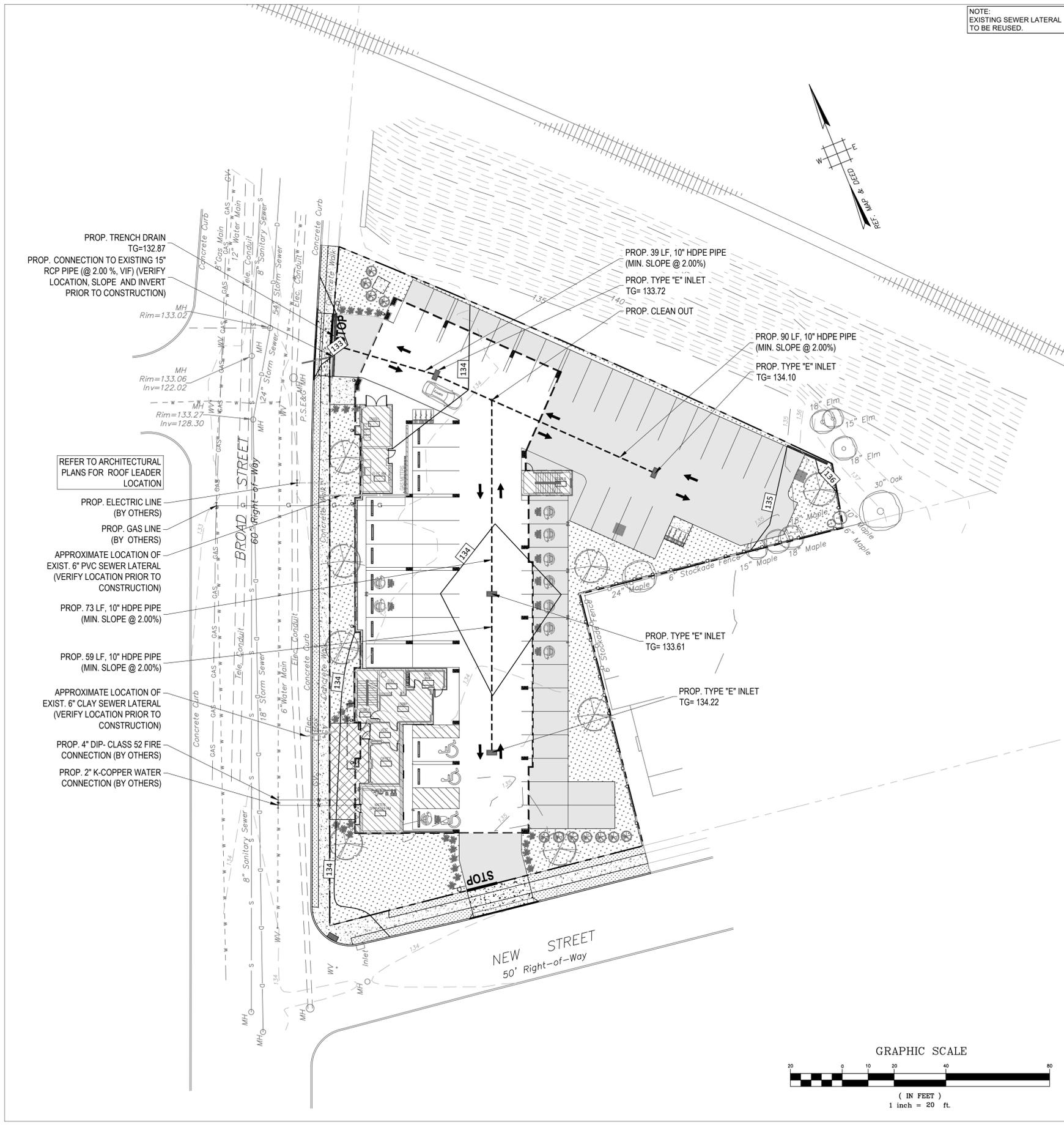
- 1 BEDROOM UNIT = 95 GALLONS PER DAY (GPD)/UNIT = 95x15 = 1,425 GPD
- 2 BEDROOM UNIT = 140 GALLONS PER DAY (GPD)/UNIT = 140x17 = 2,380 GPD

TOTAL PROJECTED WATER DEMAND = 3,805 GPD

LEGEND	
	- EXISTING SPOT ELEVATION
	- EXISTING CONTOUR
	- PROPOSED CONTOUR
	- PROPOSED SPOT ELEVATION
	- TOP OF CURB
	- BOTTOM OF CURB

- GRADING AND UTILITY NOTES:**
- SITE GRADING SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH HEREIN.
 - COMPLETELY FILL BELOW GRADE AREAS AND VOIDS RESULTING FROM THE DEMOLITION OF STRUCTURES AND FOUNDATIONS. PRIOR TO PLACEMENT OF FILL MATERIALS, UNDERTAKE ALL NECESSARY ACTION IN ORDER TO INSURE THAT AREAS TO BE FILLED ARE FREE OF STANDING WATER, FROST, FROZEN MATERIAL, TRASH AND DEBRIS. THE MATERIAL FROM DEMOLITION SHALL NOT BE USED AS FILL MATERIAL.
 - PROPOSED TOP OF CURB ELEVATIONS ARE GENERALLY 6" ABOVE EXISTING LOCAL ASPHALT GRADE UNLESS OTHERWISE NOTED.
 - SUB-BASE MATERIAL FOR SIDEWALKS, CURB, OR ASPHALT SHALL BE FREE OF ORGANICS AND OTHER UNSUITABLE MATERIAL. SHOULD SUB-BASE BE DEEMED UNSUITABLE, SUB-BASE IS TO BE REMOVED AND FILLED WITH APPROVED FILL MATERIAL COMPACTED 95% OPTIMUM DENSITY (AS DETERMINED BY MODIFIED PROCTOR METHOD).
 - THE CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF FINISHED GRADES AT THE BUILDING EXTERIOR WITH THE ARCHITECT. ANY DISCREPANCIES WITH THE GRADING PLAN SHALL BE IDENTIFIED TO THE ENGINEER IN WRITING PRIOR TO PLACEMENT OF FILL.
 - ALL DIMENSIONS AND GRADES SHOWN ON THE PLANS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY CONSTRUCTION MANAGER IF ANY DISCREPANCIES EXIST PRIOR TO PROCEEDING WITH CONSTRUCTION FOR NECESSARY PLAN OR GRADE CHANGES.
 - CONSTRUCTION EQUIPMENT ENTRANCE AND/OR STORAGE OF MATERIAL, SUPPLIES OR STOCKPILING WITHIN THE FOOTPRINT OF THE PROPOSED STORMWATER INFILTRATION SYSTEM IS PROHIBITED.
 - CONTRACTOR SHALL COORDINATE THE EXACT UTILITY LOCATIONS WITH THE ARCHITECT AND MEP ENGINEER PRIOR TO START OF THE WORK.
 - THE CONTRACTOR SHALL COORDINATE AND COMPLY WITH ALL THE DIRECTIVES FROM THE DIVISION OF WATER/SEWER UTILITY WITH REGARDS TO THE WATER AND SEWER CONNECTIONS.
 - IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO DISCONNECT ANY EXISTING UNUSED WATER SERVICE(S) AT THE MAIN.
 - NO UTILITY METERS SHALL BE LOCATED AT ANY STREET EXPOSURE OF THE BUILDING. THE LOCATION OF ALL THE EXTERIOR METERS SHALL BE COORDINATED WITH THE PROJECT ARCHITECT PRIOR TO INSTALLATION.
 - THE MINIMUM COVER REQUIREMENTS FOR SEWER UTILITIES SHALL BE MAINTAINED. 3.5 FT FOR NON-VEHICULAR TRAFFIC AND 6 FT FOR VEHICULAR TRAFFIC.
 - IN CASE OF ANY STORMWATER RUNOFF DRAINAGE PROBLEMS OCCURRING ON THE PROPERTY AND/OR NEIGHBORING PROPERTIES, IT WILL BE THE OWNERS RESPONSIBILITY TO REMEDY THE DRAINAGE ISSUE.
 - UTILITIES MUST BE METERED WHERE THEY COME INTO ANY PROPOSED NEW, RECONSTRUCTED OR REHABILITATED STRUCTURE.
 - ALL EXISTING UTILITIES TO BE REUSED WHERE POSSIBLE.
 - THE APPLICANT/DEVELOPER MUST COMPLY WITH ALL DIRECTIVES FROM THE DEPARTMENT OF WATER & SEWER UTILITY.
 - A STREET AND/OR SIDEWALK OCCUPANCY PERMIT MUST BE OBTAINED FROM THE DIVISION OF TRAFFIC AND SIGNALS PRIOR TO ANY CONSTRUCTION IN OR OCCUPANCY OF THE PUBLIC RIGHT-OF-WAY.

ADNAN A. KHAN, P.E., C.M.E. PROFESSIONAL ENGINEER N.J. LICENSE NO. 39812 P.A. LICENSE NO. 4965E N.Y. LICENSE NO. 08645 M.D. LICENSE NO. 4183	DRAWN BY: CE DATE: 06/04/24	DESIGNED BY: AK DATE: 06/04/24	APPROVED BY: AK DATE: 07/17/24
	AMZ ENGINEERING, INC. ENGINEERS • SCIENTISTS • CONSULTANTS Main Office: 150 River Road, Suite B3, Montville, NJ 07045 Pennsylvania Office: Scranton, PA 18504 Tel: 973-588-7080 Fax: 973-588-7079 www.amzengineering.com e-mail: info@amzengineering.com New Jersey Certificate of Authorization No.: 24GA28118400 Pennsylvania Certificate of Authority No.: 3771354	TAX LOTS 1 & 5 219-227 BROAD STREET TOWNSHIP OF BLOOMFIELD ESSEX COUNTY, NEW JERSEY	BLOCK 516 GRADING PLAN
SCALE: AS SHOWN			C-04 SHEET 4 OF 10



NOTE:
EXISTING SEWER LATERAL
TO BE REUSED.

Pipe Calc. NJ-Bloomfield 100-yr Duration=10 min, Inten=6.48 in/hr
Prepared by Darshan Katarmal Printed 9/4/2024
HydroCAD® 10.20-4a s/n 13291 © 2023 HydroCAD Software Solutions LLC Page 1

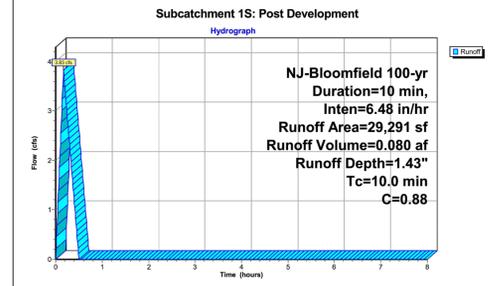
Summary for Subcatchment 1S: Post Development

Runoff = 3.83 cfs @ 0.17 hrs, Volume= 0.080 af, Depth= 1.43"
Routed to Reach P2: 10" Pipe /15" Pipe

Runoff by Rational method, Rise/Fall=1.02,0 xTc, Time Span= 0.00-8.00 hrs, dt= 0.01 hrs
NJ-Bloomfield 100-yr Duration=10 min, Inten=6.48 in/hr

Area (sf)	C	Description
22,515	0.99	Impervious Area
6,776	0.51	Pervious Area
29,291	0.88	Weighted Average
6,776	23.13%	Pervious Area
22,515	76.87%	Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry, Minimum Used



Pipe Calc. NJ-Bloomfield 100-yr Duration=10 min, Inten=6.48 in/hr
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Summary for Reach P1: 15" Pipe

[52] Hint: Inlet/Outlet conditions not evaluated

Inflow Area = 0.672 ac, 76.87% Impervious, Inflow Depth = 1.43" for 100-yr event
Inflow = 3.83 cfs @ 0.17 hrs, Volume= 0.080 af
Outflow = 3.82 cfs @ 0.17 hrs, Volume= 0.080 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-8.00 hrs, dt= 0.01 hrs
Max. Velocity= 8.05 fps, Min. Travel Time= 0.0 min
Avg. Velocity = 6.28 fps, Avg. Travel Time= 0.0 min

Peak Storage= 7 cf @ 0.17 hrs
Average Depth at Peak Storage= 0.51', Surface Width= 1.23'
Bank-Full Depth= 1.25' Flow Area= 1.2 sf, Capacity= 10.80 cfs

15.0" Round Pipe
n= 0.011 Concrete pipe, straight & clean
Length= 15.0' Slope= 0.0200 /'
Inlet Invert= 100.00', Outlet Invert= 99.70'



Pipe Calc. NJ-Bloomfield 100-yr Duration=10 min, Inten=6.48 in/hr
Prepared by Darshan Katarmal Printed 9/4/2024
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Summary for Reach P2: 10" Pipe

[52] Hint: Inlet/Outlet conditions not evaluated

Inflow Area = 0.672 ac, 76.87% Impervious, Inflow Depth = 1.43" for 100-yr event
Inflow = 3.83 cfs @ 0.17 hrs, Volume= 0.080 af
Outflow = 3.82 cfs @ 0.17 hrs, Volume= 0.080 af, Atten= 0%, Lag= 0.1 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-8.00 hrs, dt= 0.01 hrs
Max. Velocity= 8.40 fps, Min. Travel Time= 0.0 min
Avg. Velocity = 6.85 fps, Avg. Travel Time= 0.0 min

Peak Storage= 7 cf @ 0.17 hrs
Average Depth at Peak Storage= 0.65', Surface Width= 0.69'
Bank-Full Depth= 0.83' Flow Area= 0.5 sf, Capacity= 4.03 cfs

10.0" Round Pipe
n= 0.010 PVC, smooth interior
Length= 15.0' Slope= 0.0200 /'
Inlet Invert= 100.00', Outlet Invert= 99.70'



LEGEND

- EXISTING SPOT ELEVATION
- EXISTING CONTOUR
- PROPOSED CONTOUR
- PROPOSED SPOT ELEVATION
- Tw - TOP OF CURB
- Bw - BOTTOM OF CURB

TAX LOTS 1 & 5
BLOCK 516
219-227 BROAD STREET
TOWNSHIP OF BLOOMFIELD
ESSEX COUNTY, NEW JERSEY

UTILITY PLAN

JOB NUMBER:
24-0401

SCALE: AS SHOWN

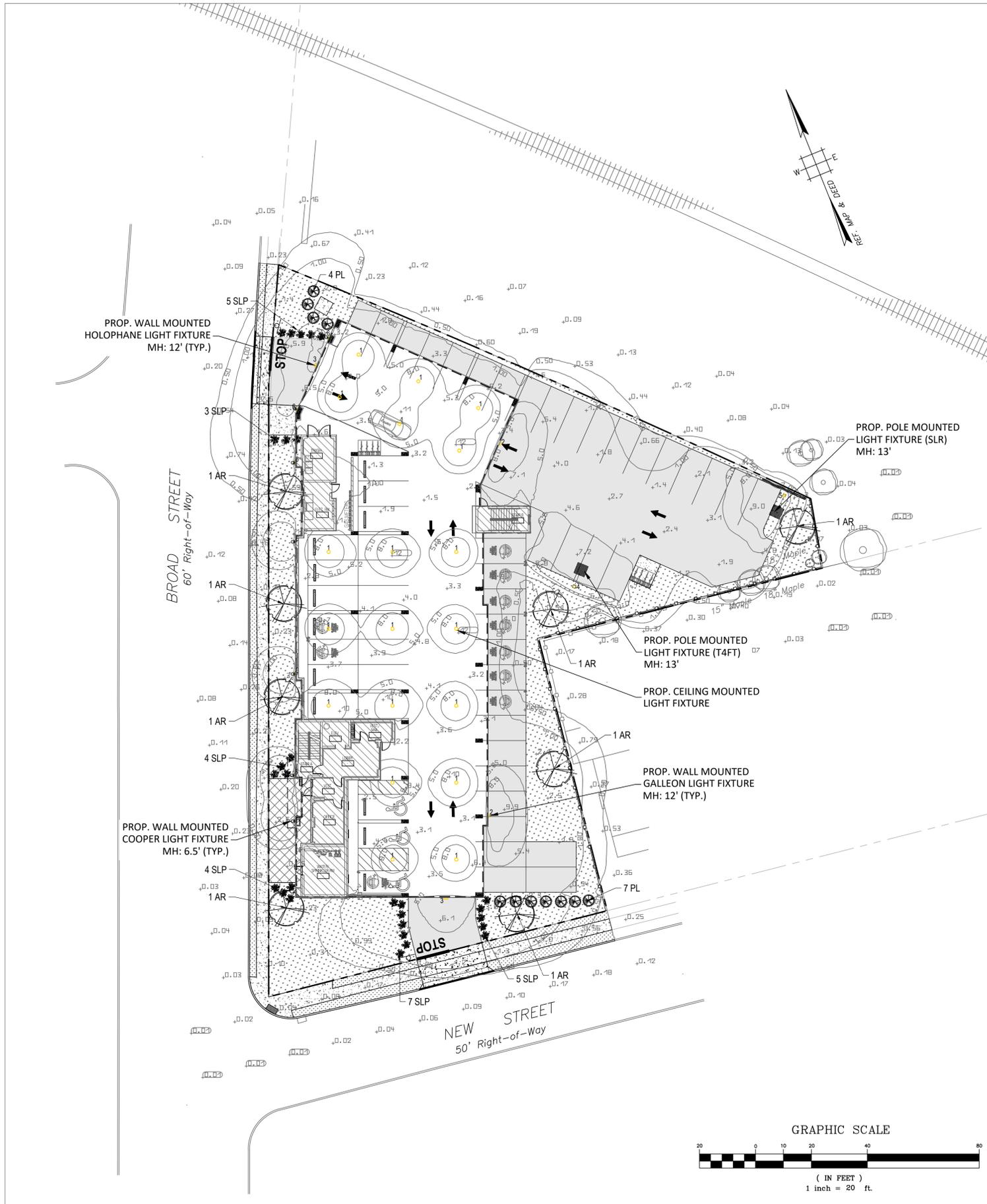
C-05
SHEET 5 OF 10

ADNAN A. KHAN, P.E., C.M.E.
PROFESSIONAL ENGINEER
DATE: 06/04/24
DESIGNED BY: AK
DATE: 06/04/24
APPROVED BY: AK
DATE: 06/04/24

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New Jersey Certificate of Authorization No.: 24GA28118400
Pennsylvania Certificate of Authority No.: 3771354

PER BOARD PROFESSIONALS COMMENTS
NO. 1
DATE: 09/04/24
BY: AK
REVISIONS

THIS PLAN TO BE USED FOR LIGHTING & LANDSCAPING PURPOSE ONLY.

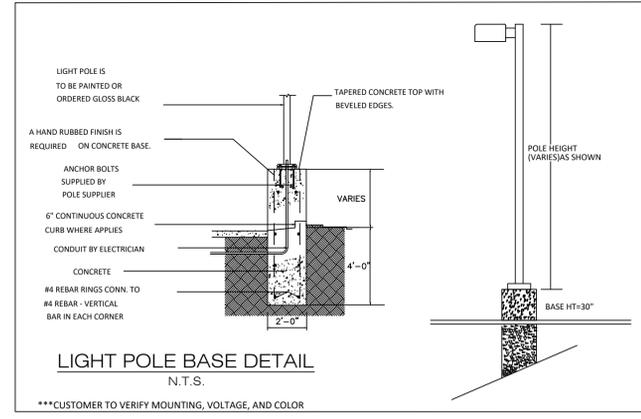


KEY	QTY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS
SHADE TREE(S)						
AR	8	⊗	ACER RUBRUM	RED MAPLE	3-4" CAL.	B+B
TOTAL	8					
EVERGREEN SHRUB(S)						
PL	11	⊗	PRUNUS LAUROCERASUS	SKIP LAUREL	42"-48"	B+B
TOTAL	11					
SHRUBS						
SLP	28	⊗	SPIREA X 'LITTLE PRINCESS'	LITTLE PRINCESS SPIREA	24" HT	1 GAL.
TOTAL	28					

NOTE:
1. IF ANY DISCREPANCIES OCCUR BETWEEN AMOUNTS SHOWN IN THE PLAN AND THE PLANT LIST, THE PLAN SHALL DICTATE.

PLANTING AND LANDSCAPING NOTES:

- ALL PLANTS SHALL BE HEALTHY OR NORMAL GROWTH, WELL ROOTED, FREE FROM DISEASE AND INSECTS. QUALITY AND SIZE OF PLANT MATERIAL SHALL CONFORM TO THE AMERICAN SOCIETY OF NURSERYMEN STANDARDS, LATEST EDITION GRADING CODE OF NURSERY STOCK AND BE OF NUMBER ONE GRADE.
- POSITION TREES AND SHRUBS AT THEIR INTENDED LOCATIONS AS PER THE PLANS AND SECURE THE APPROVAL OF THE ENGINEER BEFORE EXCAVATING PITS, MAKING NECESSARY ADJUSTMENTS AS DIRECTED. ANY SUBSTITUTIONS ARE TO BE APPROVED BY THE ENGINEER.
- PLANTING PITS SHALL BE DUG WITH LEVEL BOTTOMS, WITH WIDTH TWICE THE DIAMETER OF ROOT BALL AND 6" DEEPER THAN THE LENGTH OF ROOT BALL. EACH PLANT PIT SHALL BE BACKFILLED WITH THE FOLLOWING PREPARED SOIL MIXED THOROUGHLY:
 - ORGANIC TOPSOIL FROM NATURES CHOICE CORP -1 800 637 4140
 - 3 CUBIC FEET/PLANTING PIT FOR SHADE OR EVERGREEN TREES
 - 1 CUBIC FOOT FOR SHRUBS
- IMMEDIATELY AFTER PLANTING, STAKE ALL TREES IF NECESSARY TO PREVENT DAMAGE FROM WIND (LODGE-POLE STAKES LENGTH AS REQUIRED) . FASTEN TREES TO UPPER END OF STAKE IN AT LEAST TWO (2) PLACES USING HOSE TYPE TIES.
- WATER IMMEDIATELY AFTER PLANTING. WATER SHALL BE APPLIED TO EACH TREE AND SHRUB IN SUCH MANNER AS NOT TO DISTURB BACKFILL AND TO THE EXTENT THAT ALL MATERIALS IN THE PLANTING HOLE ARE THOROUGHLY SATURATED.
- ALL PLANTING AREAS SHALL BE GRADED AND MAINTAINED TO ALLOW FREE FLOW OF SURFACE WATER.
- ALL PLANTING SHALL BE MAINTAINED OR REPLACED IF NECESSARY BY THE CONTRACTOR FOR AT LEAST TWO GROWING SEASONS
- ALL PROPOSED PLANTINGS ALONG THE ACCESS DRIVEWAYS SHALL BE KEPT TO A MATURE HEIGHT OF NO GREATER THAN THIRTY (30) INCHES AND THE SHADE TREES BRANCHES TRIMMED UP TO A HEIGHT OF 7, MEASURED FROM THE DRIVEWAY PAVEMENT .



LIGHTING NOTES:

- LIGHT POLE MOUNTING HEIGHT FOR THE PROPOSED FIXTURES ARE 13 FEET FROM PROPOSED FINISH GRADE AS SHOWN ON THE PLAN.
- THE LED LIGHTING THROUGHOUT THE SITE SHOULD BE DIRECTED DOWNWARD ONLY.
- ALL LIGHT FIXTURES SHALL BE SHIELD TO AVOID ANY SPILLAGE ONTO ADJOINING PROPERTIES.
- LIGHT FIXTURES LOCATIONS TO BE VERIFIED IN FIELD.
- CUSTOMER TO VERIFY FINAL MOUNTING, VOLTAGE AND COLOR.

GWC - GALLEON - COOPER
VCPG LED
Parking Garage

HOLOPHANE
LEADER IN LIGHTING SOLUTIONS
HLWPC2
Wallpack* Full Cutoff LED

PROPOSED LIGHT FIXTURES
NO TO SCALE

Luminaire list (Site 1)								
Index	Manufacturer	Article name	Item number	Fitting	Luminous flux	Maintenance factor	Connected load	Quantity
1	VCPG	VCPG LED WITH P1 - PERFORMANCE PACKAGE, 3000K, TSE OPTIC TYPE, UP-LIGHT 2 PACKAGE	VCPG LED P1 30K TSE MVOLT UPL2	1x	4253 lm	0.80	34.9 W	19
2	Cooper Lighting	GALLEON WALL LUMINAIRE (2) 80 CRI, 3000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD	GWC-SA2C-830-U-SL4-HSS	32x	9520 lm	0.80	111 W	2
3	Holophane	Wallpack Full Cutoff LED, LED Performance Package P10, 3000 series CCT, Voltage, Type II Medium	HLWPC2 P30 30K XX T2M	1x	7275 lm	0.80	71 W	2
4	Cooper Lighting	GALLEON AREA AND ROADWAY LUMINAIRE (3) 70 CRI, 3000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD	GLEON-SA3C-73 O-U-T4FT-HSS	48x	13966 lm	0.80	166 W	1
5	Cooper Lighting	GALLEON AREA AND ROADWAY LUMINAIRE (2) 70 CRI, 3000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND SPILL LIGHT ELIMINATOR RIGHT OPTICS WITH HOUSE SIDE SHIELD	GLEON-SA2C-73 O-U-SLR-HSS	32x	9767 lm	0.80	113 W	1
6	Cooper Lighting	31" 674 SERIES LUMINOUS WALL SCONCE	674-WP-31-L3/30	56x 3000K CCT, 80 CRI LEDS	1636 lm	0.80	21.2 W	7

TAX LOTS 1 & 5
BLOCK 516
219-227 BROAD STREET
TOWNSHIP OF BLOOMFIELD
ESSEX COUNTY, NEW JERSEY

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Pennsylvania Certificate of Authority No.: 37171554

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DATE: 06/04/24
DESIGNED BY: AK
DATE: 06/04/24
APPROVED BY: AK
DATE: 07/17/24

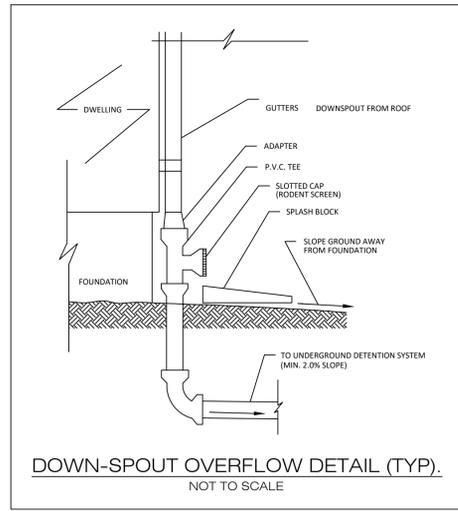
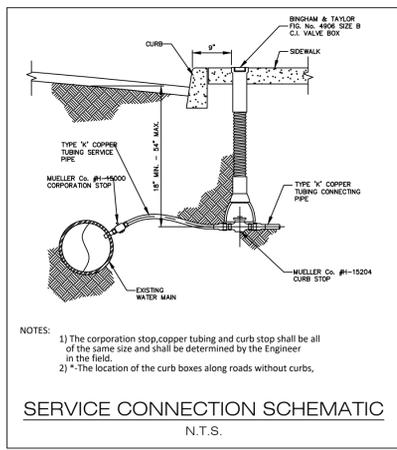
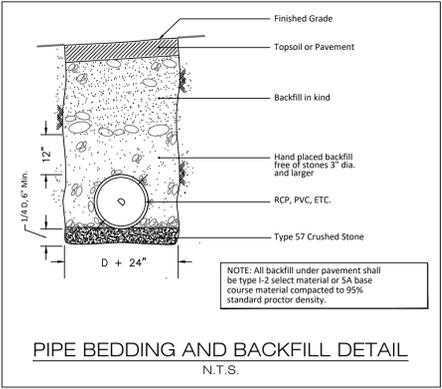
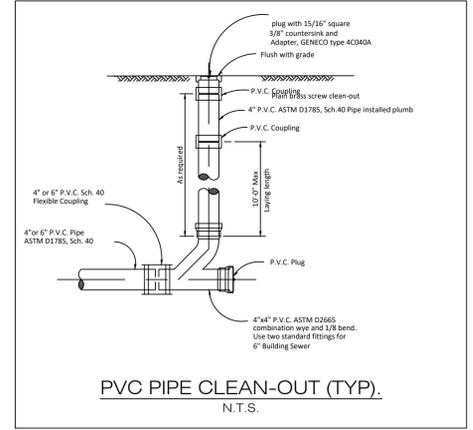
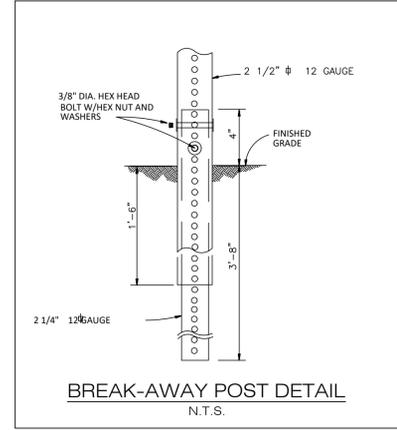
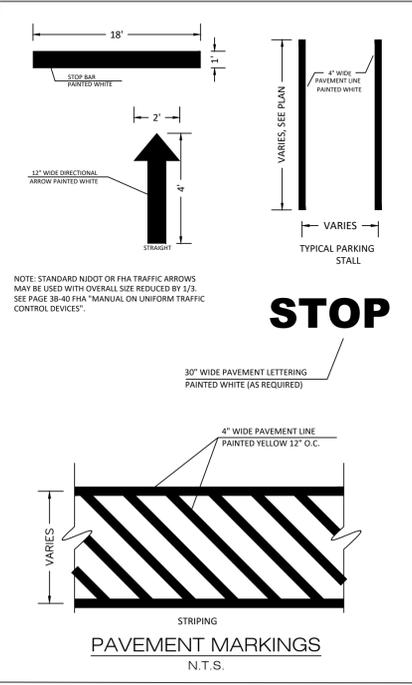
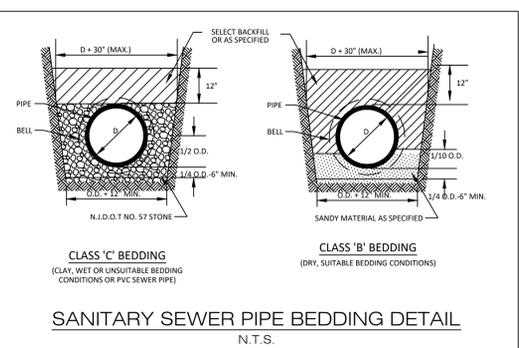
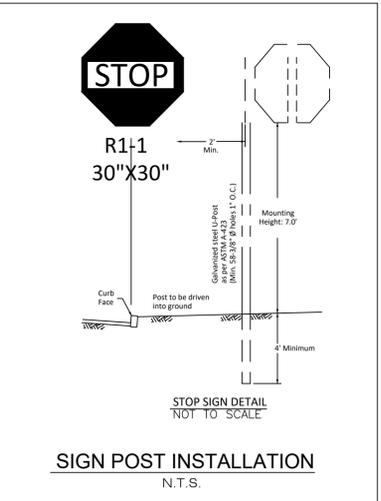
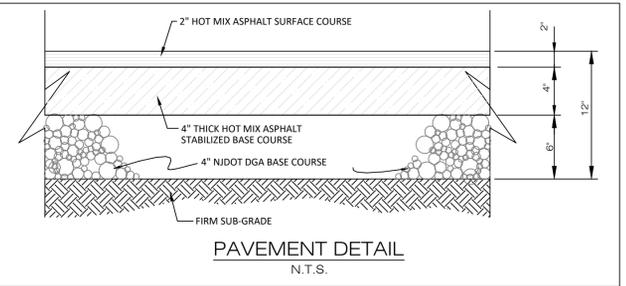
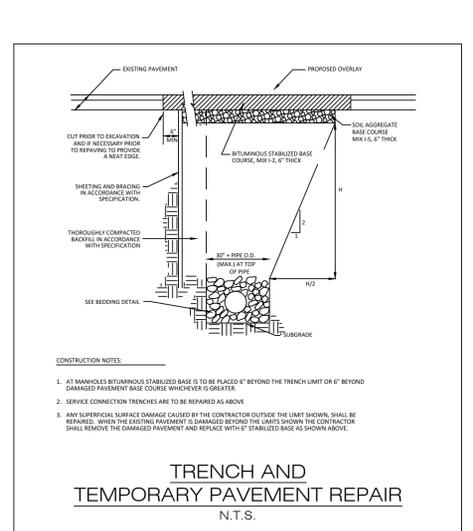
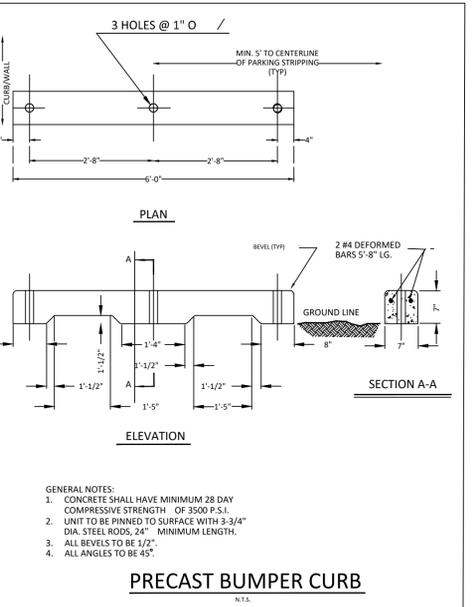
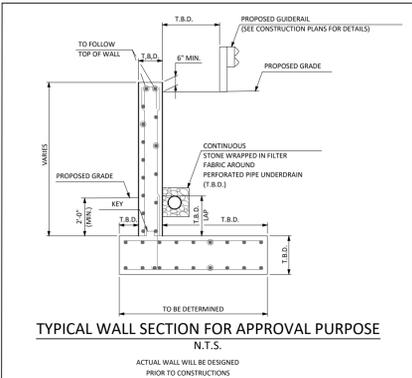
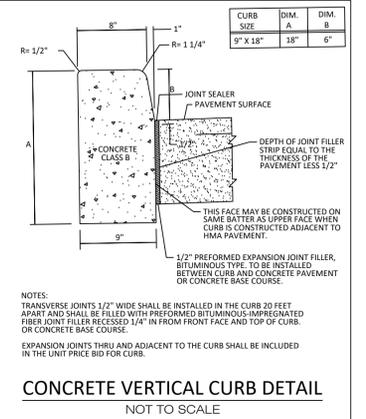
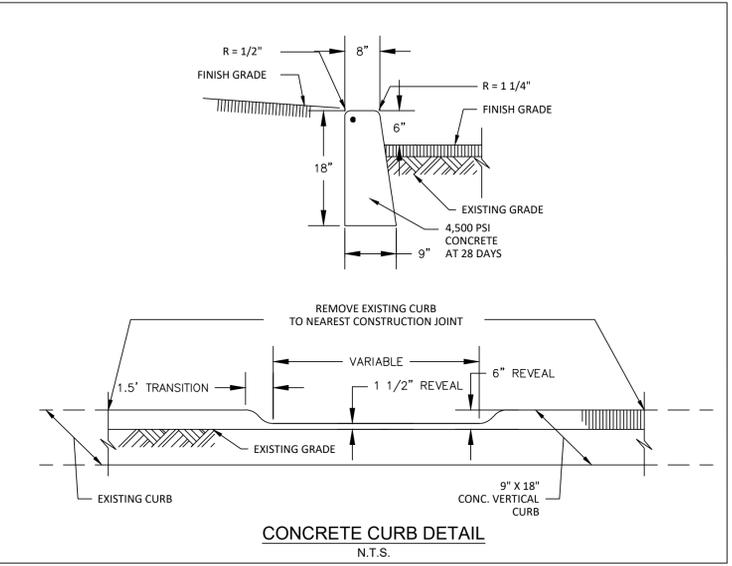
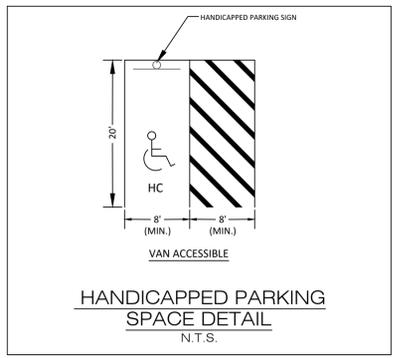
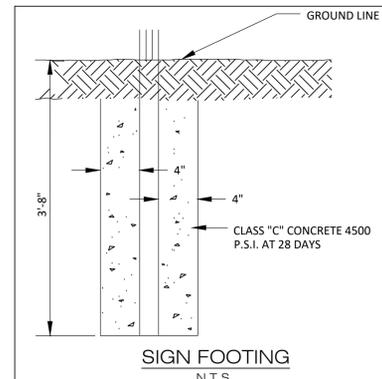
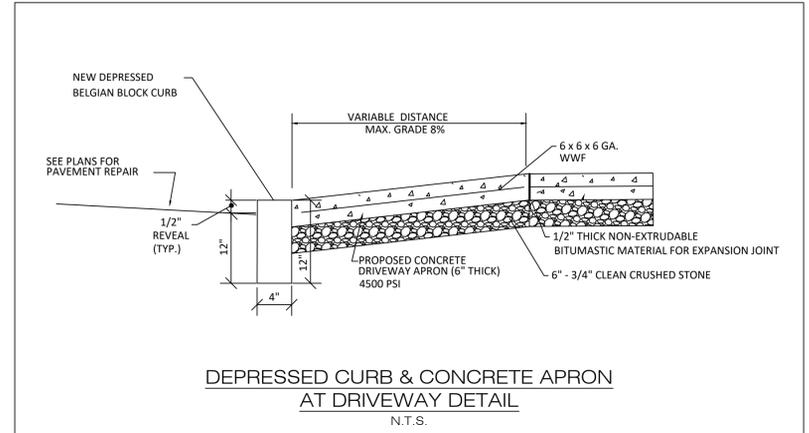
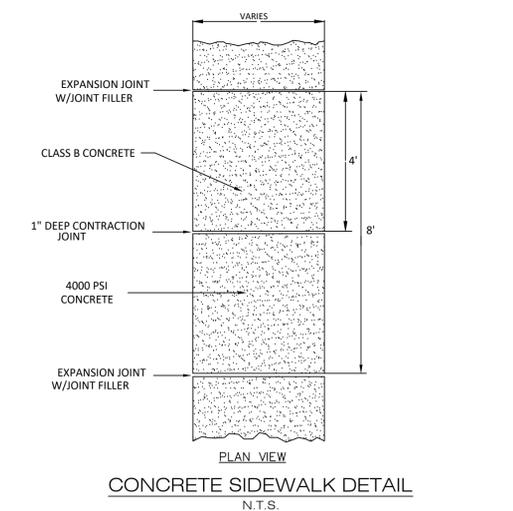
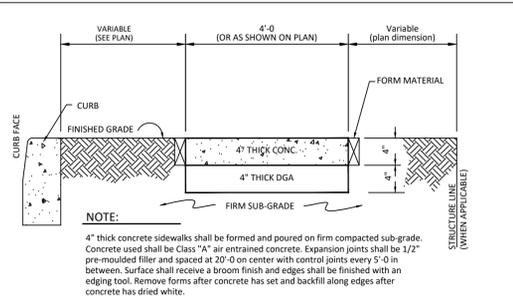
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SCALE: AS SHOWN

C-06

SHEET 6 OF 10



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REVISIONS

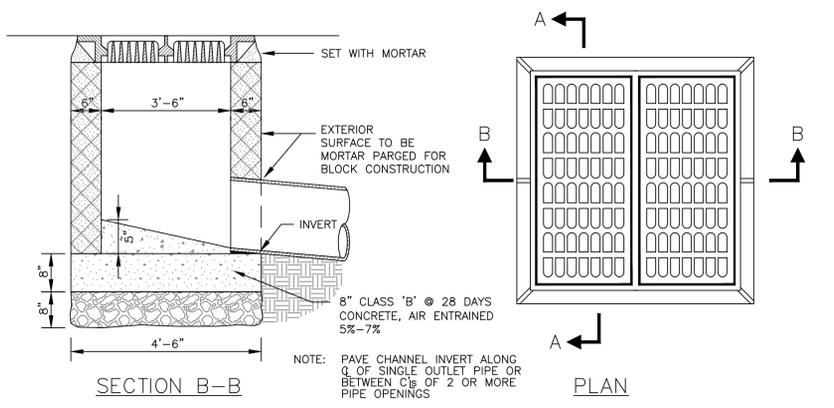
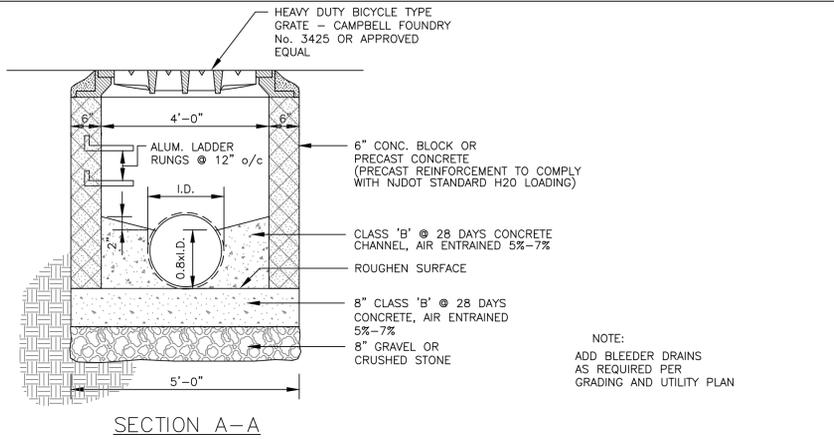
TAX LOTS 1 & 5
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TOWNSHIP OF BLOOMFIELD
ESSEX COUNTY, NEW JERSEY

CONSTRUCTION DETAILS

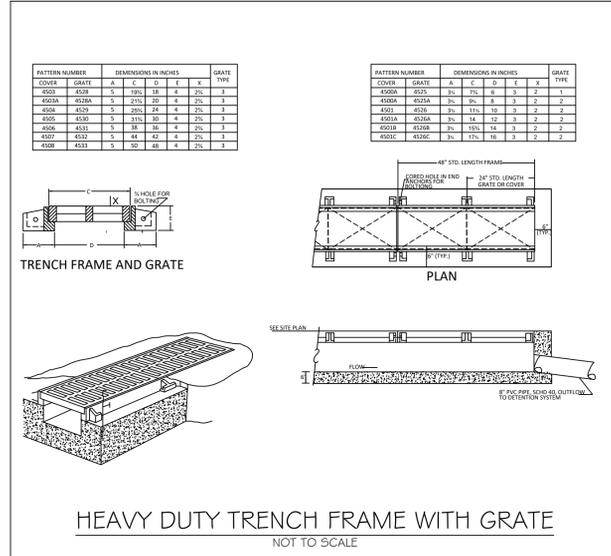
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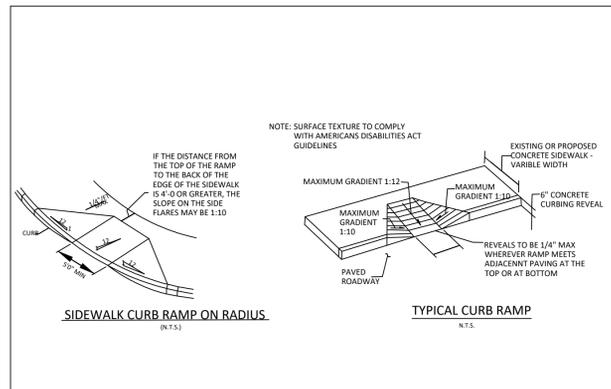
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SHEET 8 OF 10



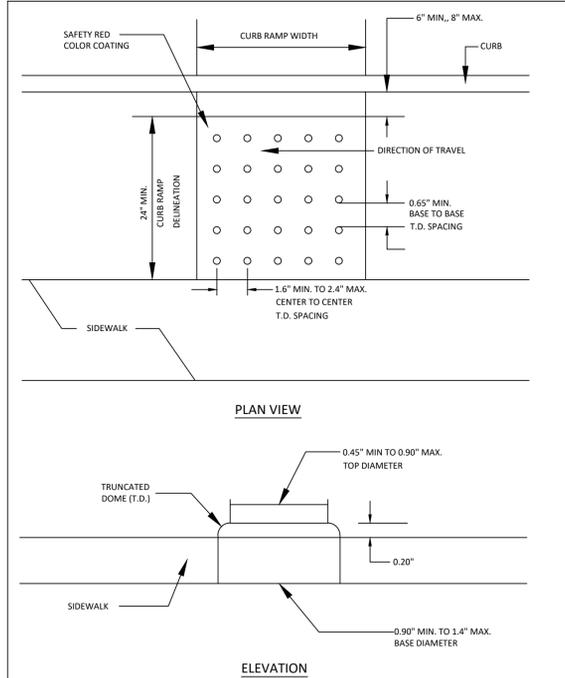
STORM INLET TYPE 'E' DETAIL
N.T.S.



HEAVY DUTY TRENCH FRAME WITH GRATE
NOT TO SCALE



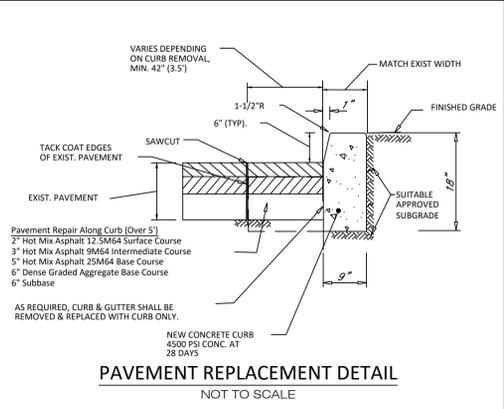
SIDEWALK CURB RAMP ON RADIUS
N.T.S.



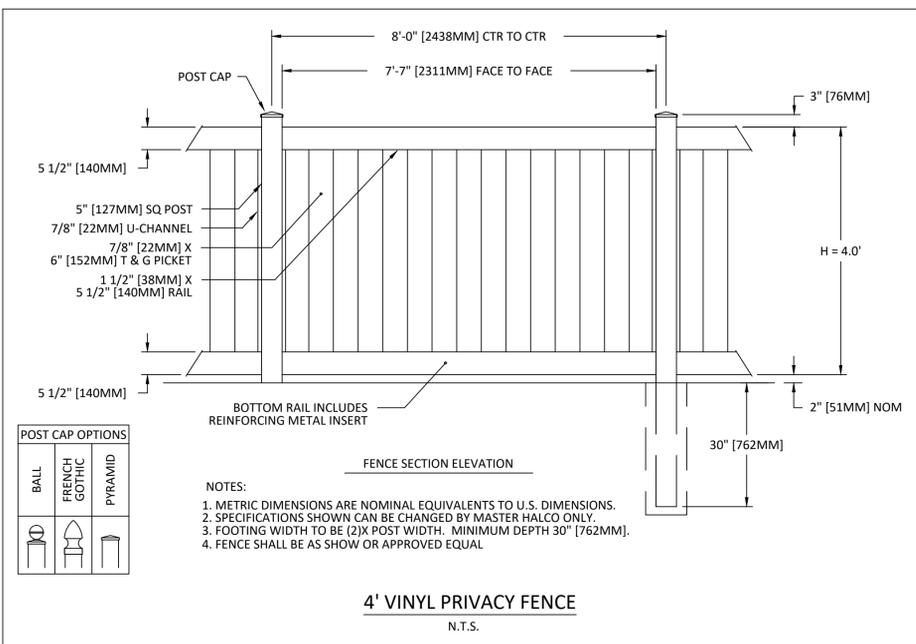
DETECTABLE WARNING SURFACE AT SIDEWALK RAMPS DETAIL

DETECTABLE WARNING SURFACE APPLICATION INSTRUCTIONS

- CLEAN MAT(S) WITH RUBBING ALCOHOL AND LET DRY. LAY MAT(S) FLAT, AWAY FROM THE ACTUAL FINAL PLACEMENT. (IF NECESSARY, BEND THEM SLIGHTLY TO MAKE THEM LIE FLAT.)
- CLEAN THE SURFACE USING A PRESSURE WASH OF AT LEAST 2,500 PSI. IF THERE IS GUM OR OTHER CONTAMINANTS ON THE SURFACE, CLEAN WITH A WIRE BRUSH. ALTERNATIVELY, NEW CONCRETE WILL REQUIRE ONLY A CITRIC CLEANER APPLICATION. AGITATE WITH A DECK BRUSH, RINSE OFF THOROUGHLY AND DRY THOROUGHLY.
- PLACE MAT(S) ONTO THE APPLICATION SURFACE.
- MASK OFF AREA AROUND THE MAT(S) WITH A GOOD-QUALITY DUCT TAPE (THE DUCT TAPE BONDS BETTER TO THE CONCRETE THAN REGULAR MASKING TAPE.)
- REMOVE THE MAT(S) FROM THE WORKING AREA, REMEMBERING THE EXACT POSITION THEY WERE IN.
- PLACE THE ADHESIVE IN THE CAULK GUN. CUT OFF 1/2" TO 3/4" OF THE PLASTIC TIP AND PIERCE THE INNER SEAL OF THE CAULK TUBE.
- SQUEEZE OUT A LARGE BEAD OF ADHESIVE ON THE HALF OF THE SURFACE.
- USING A SERRATED TROWEL, SPREAD THE ADHESIVE TO COVER THE ENTIRE MASKED-OFF SURFACE (PAYING PARTICULAR ATTENTION TO MAKING SURE THAT THE PERIMETER OF THE AREA IS COVERED RIGHT UP TO THE DUCT-TAPPED EDGES). A 1-1/4" TUBE COVERS 4 SQUARE FEET.
- CAREFULLY PLACE THE MAT(S) BACK IN THEIR ORIGINAL POSITION ON THE SURFACE, MAKING SURE THAT THEY ARE NOT OVERLAPPING THE DUCT TAPE.
- LAY A SMALL, FLAT BOARD (1 SQUARE FOOT OR SMALLER) ON THE TOP OF THE DOMES AND PRESS DOWN FIRMLY. MOVE THE BOARD AROUND, MAKING SURE THAT ALL AREAS OF EACH MAT HAVE BEEN PRESSED DOWN. USE THE END OF THE BOARD OR ANOTHER BOARD TO PRESS DOWN ALL AREAS IN BETWEEN THE DOMES. WORK FROM THE CENTER OUT AND PAY PARTICULAR ATTENTION TO PRESSING DOWN ALL AREAS AROUND THE OUTSIDE PERIMETER.
- REMOVE ANY EXCESS ADHESIVE WITH A RAG WET WITH XYLENE. IF NEED BE, DURABAK CAN LATER BE USED FOR TOUCH-UP WITH A SMALL BRUSH.
- LET ADHESIVE DRY FOR AT LEAST 6 HOURS BEFORE ALLOWING FOOT TRAFFIC.



PAVEMENT REPLACEMENT DETAIL
NOT TO SCALE



4' VINYL PRIVACY FENCE
N.T.S.

POST CAP OPTIONS

BALL	FRENCH GOTHIC	PYRAMID

- NOTES:**
- METRIC DIMENSIONS ARE NOMINAL EQUIVALENTS TO U.S. DIMENSIONS.
 - SPECIFICATIONS SHOWN CAN BE CHANGED BY MASTER HALCO ONLY.
 - FOOTING WIDTH TO BE (2)X POST WIDTH. MINIMUM DEPTH 30" [762MM].
 - FENCE SHALL BE AS SHOW OR APPROVED EQUAL.

TAX LOTS 1 & 5
BLOCK 516
219-227 BROAD STREET
TOWNSHIP OF BLOOMFIELD
ESSEX COUNTY, NEW JERSEY

CONSTRUCTION DETAILS

ADNAN A. KHAN, P.E., C.M.E.
PROFESSIONAL ENGINEER
DATE: 06/04/24
DESIGNED BY: AK
DATE: 06/04/24
APPROVED BY: AK
DATE: 07/17/24

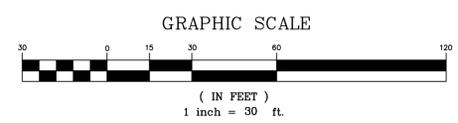
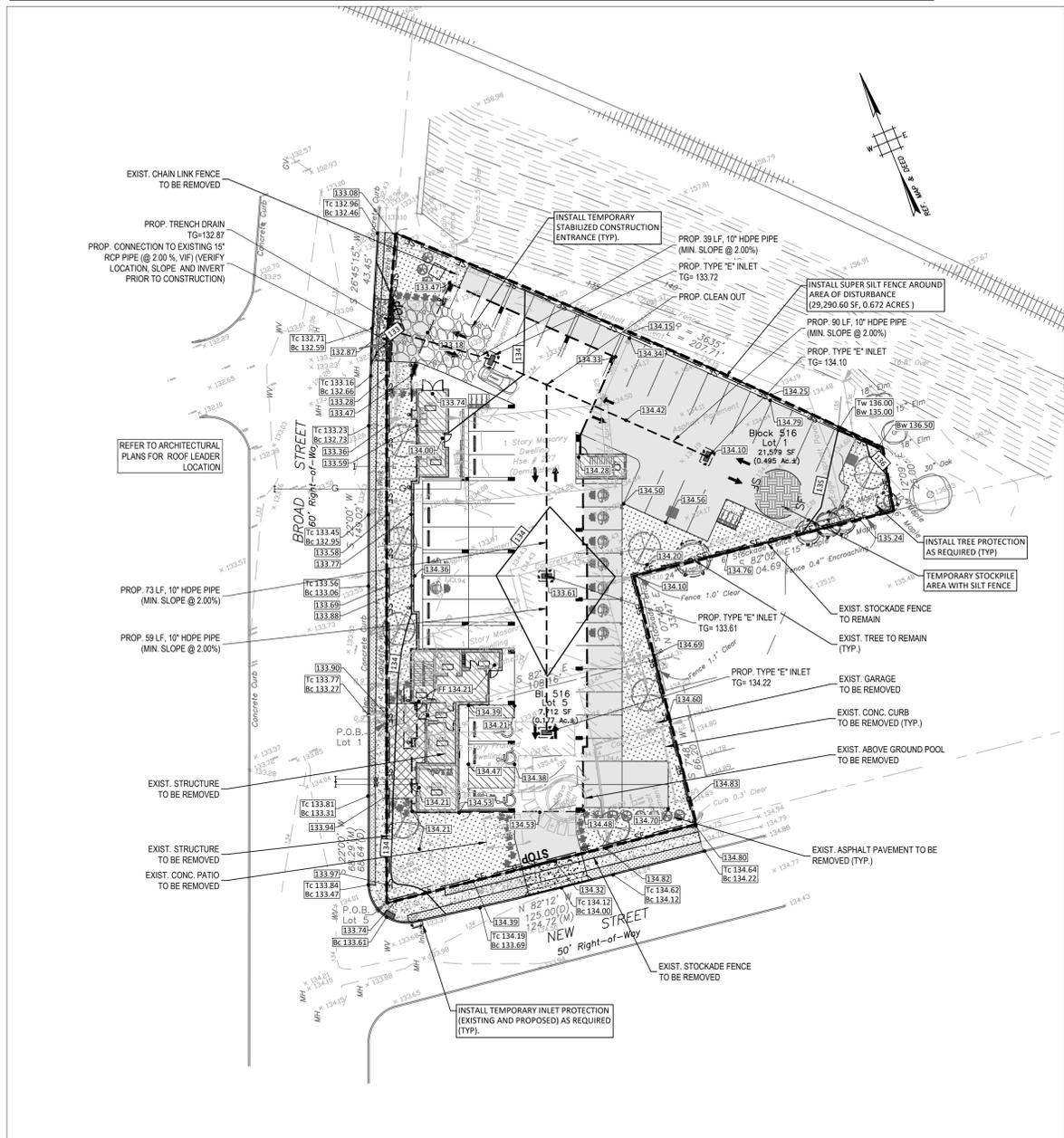
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Pennsylvania Certificate of Authority No.: 3771354

JOB NUMBER:
24-0401

SCALE: AS SHOWN

C-09
SHEET 9 OF 10

THIS PLAN IS TO BE USED FOR SOIL EROSION CONTROL PURPOSES ONLY



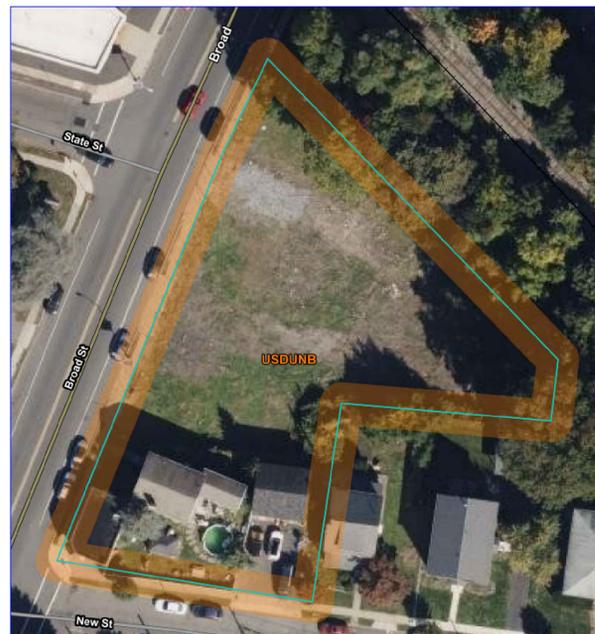
LEGEND	
X	TBR - TO BE REMOVED
-	- EXISTING SPOT ELEVATION
-	- EXISTING CONTOUR
160	- PROPOSED CONTOUR
160	- PROPOSED SPOT ELEVATION
Tc	- TOP OF CURB
Bc	- BOTTOM OF CURB

PROTECT YOURSELF
A PHONE CALL
CAN BE YOUR INSURANCE POLICY

WHAT YOU DON'T KNOW CAN HURT YOU.
THE STATE OF NEW JERSEY REQUIRES NOTIFICATION OF EXCAVATORS,
DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S
SURFACE ANYWHERE IN THE STATE.



SITE MAP
SCALE: 1" = ±300'



USDA WEB SOIL SURVEY MAP
N.T.S.

ACCORDING TO USDA WEB SOIL SURVEY, THE MAP UNIT SYMBOL FOR THE ENTIRE SITE IS "USDUNB" (URBAN LAND, DUNELLEN SUBSTRATUM - DUNELLEN COMPLEX, 0 TO 8 PERCENT SLOPES).

SOIL MANAGEMENT NOTE:
ACCORDING TO STATE OF NEW JERSEY LAND USE CLASSIFICATION SYSTEM, THE SITE IS UNDER URBAN REDEVELOPMENT AREA, LAND USE CODE 1,110. THEREFORE, THE PROPOSED PROJECT DOES NOT REQUIRE COMPACTION REMEDIATION, AS PER EXEMPTION #6 UNDER SOIL MANAGEMENT AND PREPARATION STANDARDS FOR SOIL AND SEDIMENT CONTROL IN NEW JERSEY.

SOIL EROSION AND SEDIMENT CONTROL NOTES FOR THE HUDSON, ESSEX & PASSAIC COUNTY SOIL CONSERVATION DISTRICT

- ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES ON THIS PLAN WILL BE CONSTRUCTED IN ACCORDANCE WITH THE "NEW JERSEY STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL" 7TH EDITION LAST REVISED DECEMBER 2017. THESE MEASURES WILL BE INSTALLED PRIOR TO ANY MAJOR SOIL DISTURBANCE OR IN THEIR PROPER SEQUENCE AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED.
- ALL SOIL TO BE EXPOSED OR STOCKPILED FOR A PERIOD OF GREATER THAN 14 DAYS AND NOT UNDER ACTIVE CONSTRUCTION, WILL BE TEMPORARILY SEEDED AND HAY MULCHED OR OTHERWISE PROVIDED WITH VEGETATIVE COVER. THIS TEMPORARY COVER SHALL BE MAINTAINED UNTIL SUCH TIME WHEREBY PERMANENT RESTABILIZATION IS ESTABLISHED.
- SEEDING DATES:** THE FOLLOWING SEEDING DATES ARE BEST RECOMMENDED TO ESTABLISH PERMANENT VEGETATIVE COVER WITHIN MOST LOCATIONS IN THE HEPCSD: SPRING - 3/1-5/15 AND FALL - 8/15 - 10/1
- SEDIMENT FENCES ARE TO BE PROPERLY TRENCHED AND MAINTAINED UNTIL PERMANENT VEGETATIVE COVER IS ESTABLISHED
- ALL STORM DRAINAGE INLETS SHALL BE PROTECTED BY ONE OF THE PRACTICES ACCEPTED IN THE STANDARDS, AND PROTECTION SHALL REMAIN UNTIL PERMANENT STABILIZATION HAS BEEN ESTABLISHED. STORM DRAINAGE OUTLET POINTS SHALL BE PROTECTED AS REQUIRED BEFORE THEY BECOME FUNCTIONAL.
- MULCH MATERIALS SHALL BE UN-ROTTED SMALL GRAIN STRAW APPLIED AT THE RATE OF 70 TO 80 POUNDS PER 1,000 SQUARE FEET AND ANCHORED WITH A MULCH ANCHORING TOOL. LIQUID MULCH BINDERS, OR NETTING TIE DOWN, OTHER SUITABLE MATERIALS MAY BE USED IF APPROVED BY THE SOIL CONSERVATION DISTRICT.
- ALL EROSION CONTROL DEVICES SHALL BE PERIODICALLY INSPECTED, MAINTAINED AND CORRECTED BY THE CONTRACTOR. ANY DAMAGE INCURRED BY EROSION SHALL BE RECTIFIED IMMEDIATELY.
- THE HUDSON-ESSEX-PASSAIC SOIL CONSERVATION DISTRICT WILL BE NOTIFIED IN WRITING AT LEAST 48 HOURS PRIOR TO ANY SOIL DISTURBING ACTIVITIES. FAX - (862) 333-4507 OR EMAIL - INFORMATION@HEPCSD.ORG
- THE APPLICANT MUST OBTAIN A DISTRICT ISSUED REPORT-OF-COMPLIANCE PRIOR TO APPLYING FOR THE CERTIFICATE OF OCCUPANCY OR TEMPORARY CERTIFICATE OF OCCUPANCY FROM THE RESPECTIVE MUNICIPALITY, NJ - DCA OR ANY OTHER CONTROLLING AGENCY. CONTACT THE DISTRICT AT 862-333-4505 TO REQUEST A FINAL INSPECTION, GIVING ADVANCED NOTICE UPON COMPLETION OF THE RESTABILIZATION MEASURES. A PERFORMANCE DEPOSIT MAY BE POSTED WITH THE DISTRICT WHEN WINTER WEATHER OR SNOW COVER PROHIBITS THE PROPER APPLICATION OF SEED, MULCH, FERTILIZER OR HYDRO-SEED.
- PAVED ROADWAYS MUST BE KEPT CLEAN AT ALL TIMES. DO NOT UTILIZE A FIRE OR GARDEN HOSE TO CLEAN ROADS UNLESS THE RUNOFF IS DIRECTED TO A PROPERLY DESIGNED AND FUNCTIONING SEDIMENT BASIN. WATER PUMPED OUT OF THE EXCAVATED AREAS CONTAINS SEDIMENTS THAT MUST BE REMOVED PRIOR TO DISCHARGING TO RECEIVING BODIES OF WATER USING REMOVABLE PUMPING STATIONS, SUMP PITS, PORTABLE SEDIMENTATION TANKS AND/OR SILT CONTROL BAGS.
- ALL SURFACES HAVING LAWN OR LANDSCAPING AS FINAL COVER ARE TO BE PROVIDED TO SOIL PRIOR TO RE-SEEDING, SOIDDING OR PLANTING. A DEPTH OF 5 INCHES, FIRM IN PLACE, IS REQUIRED, AS PER THE STANDARDS FOR TOPSOILING AND LAND GRADING, LAST REVISED DECEMBER 2017.
- ALL PLAN REVISIONS MUST BE SUBMITTED TO THE DISTRICT FOR PROPER REVIEW AND APPROVAL.
- A CRUSHED STONE WHEEL CLEANING TRACKING-PAD IS TO BE INSTALLED AT ALL SITE EXITS USING 2 1/2 - 1" CRUSHED ANGULAR STONE (ASTM 2 OR 3) TO A MINIMUM LENGTH OF 50 FEET AND MINIMUM DEPTH OF 6". ALL DRIVEWAYS MUST BE PROVIDED WITH CRUSHED STONE UNTIL PAVING IS COMPLETE.
- STEEP SLOPES INCURRING DISTURBANCE MAY REQUIRE ADDITIONAL STABILIZATION MEASURES. THESE "SPECIAL" MEASURES SHALL BE DESIGNED BY THE APPLICANT'S ENGINEER AND BE APPROVED BY THE SOIL CONSERVATION DISTRICT.
- THE HUDSON-ESSEX-PASSAIC SOIL CONSERVATION DISTRICT SHALL BE NOTIFIED, IN WRITING, FOR THE SALE OF ANY PORTION OF THE PROJECT OR FOR THE SALE OF INDIVIDUAL LOTS. NEW OWNERS' INFORMATION SHALL BE PROVIDED. ADDITIONAL MEASURES DEEMED NECESSARY BY DISTRICT OFFICIALS SHALL BE IMPLEMENTED AS CONDITIONS WARRANT.

SEQUENCE OF CONSTRUCTION:

- INSTALL SEDIMENT BARRIER FENCE- DURATION OF PROJECT.
- STABILIZE CONSTRUCTION ENTRANCE- DURATION OF PROJECT.
- SITE PREPARATION- CLEAR AND GRUB- WEEK 1.
- GRADING TO SUB-GRADE ELEVATIONS- WEEK 2.
- SITE AND BUILDING CONSTRUCTION- WEEK 3 THRU WEEK 30.
- REMOVE SOIL EROSION AND SEDIMENT CONTROL MEASURES- END OF PROJECT.

DUST CONTROL NOTES

THE FOLLOWING METHODS SHOULD BE CONSIDERED FOR CONTROLLING DUST: MULCHES - SEE STANDARD FOR STABILIZATION WITH MULCHES ONLY (PG. 5-1) OF STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY. NOTE: ALL PAGE REFERENCES ARE FOR ABOVE DOCUMENT DATED 7/99. VEGETATIVE COVER - SEE STANDARD FOR TEMPORARY VEGETATIVE COVER (PG. 7-1), PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION (PG. 4-1), AND PERMANENT STABILIZATION WITH SOD (PG. 6-1) SPRAY-ON ADHESIVES - ON MINERAL SOILS (NOT EFFECTIVE ON MUCK SOILS). KEEP TRAFFIC OFF THESE AREAS.

TABLE 16-1: DUST CONTROL MATERIALS

MATERIAL	WATER DILUTION	TYPE OF NOZZLE	APPLY GALLONS/ACRE
ANIONIC ASPHALT EMULSION	7:1	COARSE SPRAY	1200
LATEX EMULSION	12.5:1	FINE SPRAY	235
BASIN IN WATER	4:1	FINE SPRAY	300
POLYACRYLAMIDE (PAM) - SPRAY ON	APPLY ACCORDING TO MANUFACTURER'S INSTRUCTIONS.		
POLYACRYLAMIDE (PAM)-SDRY SPRAY	MAY ALSO BE USED AS AN ADDITIVE TO SEDIMENT BASINS TO FLOCCULATE AND PRECIPITATE SUSPENDED COLLOIDS. SEE SEDIMENT BASIN STANDARD (PG.26-1)		
ACIDULATED SOY BEAN SOAP STICK	NONE	COARSE SPRAY	1200

TILLAGE - TO ROUGHEN SURFACE AND BRING CLODS TO THE SURFACE. THIS IS A TEMPORARY EMERGENCY MEASURE WHICH SHOULD BE USED BEFORE SOIL BLOWING STARTS. BEGIN PLOWING ON WINDWARD SIDE OF SITE.
CHISEL-TYPE PLOWS SPACED ABOUT 12 INCHES APART, AND SPRING-TOOTHED HARROWS ARE EXAMPLES OF EQUIPMENT WHICH MAY PRODUCE THE DESIRED EFFECT.
SPRINKLING - SITE IS SPRINKLED UNTIL THE SURFACE IS WET.
BARRIERS - SOLID BOARD FENCES, SNOW FENCES, BURLAP FENCES, CRATE WALLS, BALES OF HAY, AND SIMILAR MATERIAL CAN BE USED TO CONTROL AIR CURRENTS AND SOIL BLOWING.
CALCIUM CHLORIDE - SHALL BE IN THE FORM OF LOOSE, DRY GRANULATES OF FLAKES FINE ENOUGH TO FEED THROUGH COMMONLY USED SPREADERS AT A RATE THAT WILL KEEP SURFACE MOIST BUT NOT CAUSE POLLUTION OR PLANT DAMAGE. IF USED ON STEEPER SLOPES, THEN USE OTHER PRACTICES TO PREVENT WASHING INTO STREAMS, OR ACCUMULATION AROUND PLANTS.
STONE - COVER SURFACE WITH CRUSHED STONE OR COARSE GRAVEL.

TAX LOTS 1 & 5
BLOCK 516
219-227 BROAD STREET
TOWNSHIP OF BLOOMFIELD
ESSEX COUNTY, NEW JERSEY
SOIL EROSION AND SEDIMENT CONTROL PLAN

ADNAN A. KHAN, P.E., C.M.E.
PROFESSIONAL ENGINEER
DATE: 06/04/24
DESIGNED BY: AK
DATE: 09/04/24
APPROVED BY: AK
DATE: 06/04/24

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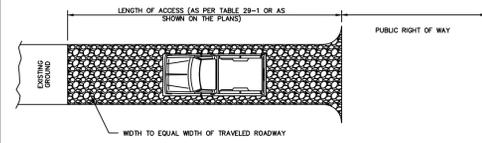
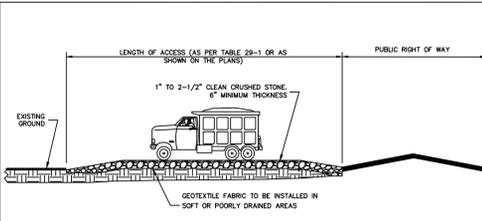
N.J. LICENSE NO. 30812 P.E. LICENSE NO. 40682
N.Y. LICENSE NO. 08645 M.D. LICENSE NO. 41863

JOB NUMBER:
24-0401

SCALE: AS SHOWN

S-01
SHEET 1 OF 2

THIS PLAN IS TO BE USED FOR SOIL EROSION CONTROL PURPOSES ONLY



LENGTH OF STABILIZED CONSTRUCTION ACCESS (TABLE 29-1)

PERCENT SLOPE OF ROADWAY	LENGTH OF STONE GRAINED SOILS	
	COARSE GRAINED SOILS	FINE GRAINED SOILS
0 TO 2%	50 FT	100 FT
2 TO 5%	100 FT	200 FT

NOTE: Entire surface stabilized with FABC base course per governing authority requirements.

- NOTES:**
- ALL INDIVIDUAL LOT INGRESS/EGRESS POINTS SHALL REQUIRE STABILIZED CONSTRUCTION ENTRANCE ACCESS.
 - PLACE STABILIZED CONSTRUCTION ENTRANCE AT LOCATIONS AS SHOWN ON THE SOIL EROSION AND SEDIMENT CONTROL PLAN.
 - STONE SIZE SHALL BE ASTM C-33, SIZE NO. 2 OR 3, CRUSHED STONE.
 - THE THICKNESS OF THE STABILIZED CONSTRUCTION ENTRANCE SHALL NOT BE LESS THAN 4".
 - THE WIDTH AT THE EXISTING PAVEMENT SHALL NOT BE LESS THAN THE FULL WIDTH OF POINTS OF INGRESS AND EGRESS.
 - THE STABILIZED CONSTRUCTION ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO THE ROAD/PAVEMENT. THIS REQUIRES PERIODIC TOP DRESSING WITH ADDITIONAL LAYER AS CONDITIONS DEMAND AND REPAIR AND/OR CLEAN OUT OF ANY MEASURE USED TO TRAP SEDIMENT.
 - ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO THE PUBLIC ROADWAY MUST BE REMOVED IMMEDIATELY.
 - WHERE TRACKING OF SOIL ONTO ROADWAYS IS A CONTINUAL OCCURRENCE, ALL CONTRACTORS BOTH SITE AND DRILLING CONTRACTORS SHALL BE REQUIRED TO BROOD SWEEP THE ROADWAY AT 2 HOUR INTERVALS MINIMUM PRIOR TO LEAVING THE CONSTRUCTION SITE AT THE END OF THE DAY.

STABILIZED CONSTRUCTION ACCESS

PROPOSED SEQUENCE OF DEVELOPMENT	Weeks
Installation of all sediment and erosion control devices (including silt fences and stabilized construction access) prior to any major soil disturbances or in their proper sequence and maintenance until permanent protection is established.	1 Week
Site demolition, clearing, clear and remove all debris as necessary. All remaining vegetation to be properly protected and to remain in its natural state.	2 Weeks
General and preliminary grading of all pavement areas and storm water management basins.	2 Week
Layout and location of all proposed utilities.	1 Week
Construction of all proposed improvements and drainage facilities. Installation of all erosion control measures affected by said facilities such as inlet sediment barriers.	25 Weeks
Pavement subbase course to be applied immediately following preliminary grading and construction of improvements in order to stabilize pavement areas.	1 Week
Installation of all pavement base material.	1 Week
Final grading of all lot areas and basins including construction of all soil erosion control as necessary.	1 Week
Stabilization of all off pavement areas.	1 Week
Complete all landscaping and vegetative cover.	1 Week
Removal of all temporary sediment and erosion control devices.	upon completion

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 discing operation should be 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.

SEEDING

A. Select seed from recommendations in Table 7-2.

TABLE 7-2
TEMPORARY VEGETATIVE STABILIZATION GRASSES, SEEDING RATES, DATES AND DEPTH.

SEED SELECTIONS	Per Acre	SEEDING RATE ¹ (lb./1000 Sq. Ft.)	OPTIMUM SEEDING DATE ² (Based on Plant Hardiness Zone ³)			OPTIMUM SEEDING DEPTH ⁴ (inches)
			Zone 5a, 6a	Zone 6b	Zone 7a, 7b	
COLD SEASON GRASSES						
1. Perennial ryegrass	100	1.0	3/15-6/1	3/1-5/15	2/15-5/1	0.5
2. Spring oats	86	2.0	3/15-6/1	8/15-10/1	8/15-10/15	1.0
3. Winter Barley	96	2.2	8/1-9/15	8/15-10/1	8/15-10/15	1.0
4. Annual ryegrass	110	1.0	3/15-6/1	3/1-5/15	2/15-5/1	0.5
5. Winter Cereal Rye	112	2.8	8/1-11/1	8/1-11/15	8/1-12/15	1.0
WARM SEASON GRASSES						
6. Pearl Millet	20	0.5	6/1-8/1	5/15-8/15	5/1-9/1	1.0
7. Millet (German or Hungarian)	30	0.7	6/1-8/1	5/15-8/15	5/1-9/1	0.25

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

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

C. Hydroseeding is a broadcast seeding method usually involving a truck or trailer mounted tank, with an agitation system and hydraulic pump for mixing seed, water and fertilizer and spraying the mix onto the prepared seedbed. Mulch shall not be included in the tank with seed. Short fibered mulch may be applied with a hydroseeder following seeding. (also see Section 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, promote capillary, 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.

MULCHING

Mulching is required on all seeding. Mulch will insure against erosion before grass is established and will promote faster and earlier establishment. The existence of vegetation sufficient to control soil erosion shall be deemed compliance with this mulching requirement.

Straw or Hay: Unrotted small grain straw, hay free of seeds, or salt hay to be applied at the rate of 1-1/2 to 2 tons per acre (70 to 90 pounds per 1,000 square feet), except that where a crimper is used instead of a liquid mulch-silver (topdressing or adhesive agent), the rate of application is 3 tons per acre. Mulch chopper-blowers must not grind the mulch. Hay mulch is not recommended for establishing fine turf or lawns due to the presence of weed seed.

Application: Spread mulch uniformly by hand or mechanically so that approximately 85% of the soil surface will be covered. For uniform distribution of hand-spread mulch, divide area into approximately 1,000 square foot sections and distribute 70 to 90 pounds within each section.

Anchoring shall be accomplished immediately after placement to minimize loss by wind or water. This may be done by one of the following methods, depending upon the size of the area, steepness of slopes, and costs.

Peg and Twine: Drive 8 to 10 inch wooden pegs to within 2 to 3 inches of the soil surface every 4 feet in all directions. Stakes may be driven before or after applying mulch. Secure twine around each peg with two or more round turns.

Mulch Nettings: Staple paper, jute, cotton, or plastic nettings to the soil surface. Use a degradable netting in areas to be mowed.

Crimper (mulch anchoring coupler tool): A tractor-drawn implement, somewhat like a disc-harrow, especially designed to push or cut some of the broadcast long fiber mulch 1 to 4 inches into the soil so as to anchor it and leave part standing upright. This technique is limited to areas traversable by a tractor, which must operate on the contour of slopes. Straw mulch rate must be 3 tons per acre. No topdressing or adhesive agent is required.

Liquid Mulch-Binders: May be used to anchor salt hay, hay or straw mulch.

a. Applications should be heavier at edges where wind may catch the mulch, in valleys, and at crests of banks. The remainder of the area should be uniform in application.

Use one of the following:

- Organic and Vegetable Based Binders - Naturally occurring, powder based, hydrophilic materials with water formulates a gel and when applied to mulch under satisfactory curing conditions will form membrane networks of insoluble polymers. The vegetable gel shall be physiologically harmless and not result in a phytotoxic effect or impede growth of turf-grass. Use of rates and weather conditions as recommended by the manufacturer to anchor mulch materials. Many new products are available, some of which may need further evaluation for use in this state.
- Synthetic Binders - High polymer synthetic emulsion, miscible with water when diluted and following application to mulch, drying and curing shall no longer be soluble or dispersible in water. It shall be applied at rates recommended by the manufacturer and remain tacky until germination of grass.

Note: All names given above are registered trade names. This does not constitute a recommendation of these products to the exclusion of other products.

Wood-fiber or paper-fiber mulch. Shall be made from wood, plant fibers or paper containing no growth or germination inhibiting materials, used at the rate of 1,500 pounds per acre (or as recommended by the product manufacturer) and may be applied by a hydroseeder. This mulch shall not be mixed in the tank with seed. Use is limited to flatter slopes and during optimum seeding periods in spring and fall.

Pelletized mulch. Compressed and extruded paper and/or wood fiber product, which may contain co-polymers, tackifiers, fertilizers and coloring agents. The dry pellets, when applied to a seeded area and watered, form a mulch mat. Pelletized mulch shall be applied in accordance with the manufacturer's recommendations. Mulch may be applied by hand or mechanical spreader at the rate of 60-75 lbs./1,000 square feet and activated with 0.2 to 0.4 inches of water. This material has been found to be beneficial for use on small lawn or renovation areas, seeded areas where weed-seed free mulch is desired or on sites where straw mulch and tackifier agent are not practical or desirable.

Applying the full 0.2 to 0.4 inches of water after spreading pelletized mulch on the seed bed is extremely important for sufficient activation and expansion of the mulch to provide soil coverage.

STANDARD FOR PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION

DEFINITION: Establishment of temporary vegetative cover on soils exposed for periods of two to six months which are not being graded, not under active construction or not scheduled for permanent seeding within 60 days.

PURPOSE: To temporarily stabilize the soil and reduce damage from wind and water erosion until permanent stabilization is accomplished.

WATER QUALITY ENHANCEMENT: Provides temporary protection against the impacts of wind and rain, slows the over land movement of stormwater runoff, increases infiltration and retains soil and nutrients on site, protecting streams or other stormwater conveyances.

WHERE APPLICABLE: On exposed soils that have the potential for causing off-site environmental damage.

METHODS AND MATERIALS

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, page 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. 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 applied with soil compaction. This practice is permissible only where there is no danger to underground utilities (cables, irrigation systems, etc.)

D. 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.

SEEDBED PREPARATION

A. Apply lime and fertilizer according to soil test recommendations such as offered by Rutgers Co-operative Extension. Soil sample motters are available from the local Rutgers Cooperative Extension offices. Fertilizer shall be applied at the rate of 500 pounds per acre of 11 lbs. per 1000 square feet of 10-20-10 or equivalent with 50% water insoluble nitrogen unless a soil test indicates otherwise. Calcium carbonate is the equivalent and standard for measuring the ability of liming materials to neutralize soil acidity and supply calcium magnesium to grasses and legumes.

B. Immediately prior to seeding and topsoil application, 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.)

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 applied with soil compaction. This practice is permissible only where there is no danger to underground utilities (cables, irrigation systems, etc.)

D. 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.

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 discing operation should be the general contour. Continue tillage until a reasonable uniform seedbed is prepared.

C. High acid producing soils, 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 preparation. See Standard for Management of High Acid Producing Soils for specific requirements.

SEEDING

- Select a mixture from Table 4-3 or use mixture recommended by Rutgers Cooperative Extension or Natural Resources Conservation Service which is approved by the Soil Conservation District. Seeding rates shall have been tested within 12 months of the planting date. No seed shall be accepted with a germination test data more than 12 months old unless retested.
- 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.
- Warm season mixtures are grasses and legumes which maximize growth at high temperatures, generally 85F 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.
- Cool Season Mixtures are grasses and legumes which maximize growth at temperatures below 85F. Many grasses become active at 65F. See Table 3, mixtures 8-20. Adjustment of planting rates to compensate for the amount of Pure Live Seed 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 coultivar seeder. Except for drilled, hydroseeded or cutplucked 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, promote capillary, 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. 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.

MULCHING

Mulching is required on all seeding. Mulch will insure against erosion before grass is established and will promote faster and earlier establishment. The existence of vegetation sufficient to control soil erosion shall be deemed compliance with this mulching requirement.

Straw or Hay: Unrotted small grain straw, hay free of seeds, or salt hay to be applied at the rate of 1-1/2 to 2 tons per acre (70 to 90 pounds per 1,000 square feet), except that where a crimper is used instead of a liquid mulch-silver (topdressing or adhesive agent), the rate of application is 3 tons per acre. Mulch chopper-blowers must not grind the mulch. Hay mulch is not recommended for establishing fine turf or lawns due to the presence of weed seed.

Application: Spread mulch uniformly by hand or mechanically so that approximately 85% of the soil surface will be covered. For uniform distribution of hand-spread mulch, divide area into approximately 1,000 square foot sections and distribute 70 to 90 pounds within each section.

Anchoring shall be accomplished immediately after placement to minimize loss by wind or water. This may be done by one of the following methods, depending upon the size of the area, steepness of slopes, and costs.

Peg and Twine: Drive 8 to 10 inch wooden pegs to within 2 to 3 inches of the soil surface every 4 feet in all directions. Stakes may be driven before or after applying mulch. Secure twine around each peg with two or more round turns.

Mulch Nettings: Staple paper, jute, cotton, or plastic nettings to the soil surface. Use a degradable netting in areas to be mowed.

Crimper (mulch anchoring coupler tool): A tractor-drawn implement, somewhat like a disc-harrow, especially designed to push or cut some of the broadcast long fiber mulch 1 to 4 inches into the soil so as to anchor it and leave part standing upright. This technique is limited to areas traversable by a tractor, which must operate on the contour of slopes. Straw mulch rate must be 3 tons per acre. No topdressing or adhesive agent is required.

Liquid Mulch-Binders: May be used to anchor salt hay, hay or straw mulch.

a. Applications should be heavier at edges where wind may catch the mulch, in valleys, and at crests of banks. The remainder of the area should be uniform in application.

b. Use one of the following:

- Organic and Vegetable Based Binders - Naturally occurring, powder based, hydrophilic materials with water formulates a gel and when applied to mulch under satisfactory curing conditions will form membrane networks of insoluble polymers. The vegetable gel shall be physiologically harmless and not result in a phytotoxic effect or impede growth of turf-grass. Use of rates and weather conditions as recommended by the manufacturer to anchor mulch materials. Many new products are available, some of which may need further evaluation for use in this state.
- Synthetic Binders - High polymer synthetic emulsion, miscible with water when diluted and following application to mulch, drying and curing shall no longer be soluble or dispersible in water. It shall be applied at rates recommended by the manufacturer and remain tacky until germination of grass.

Note: All names given above are registered trade names. This does not constitute a recommendation of these products to the exclusion of other products.

Wood-fiber or paper-fiber mulch. Shall be made from wood, plant fibers or paper containing no growth or germination inhibiting materials, used at the rate of 1,500 pounds per acre (or as recommended by the product manufacturer) and may be applied by a hydroseeder. This mulch shall not be mixed in the tank with seed. Use is limited to flatter slopes and during optimum seeding periods in spring and fall.

Pelletized mulch. Compressed and extruded paper and/or wood fiber product, which may contain co-polymers, tackifiers, fertilizers and coloring agents. The dry pellets, when applied to a seeded area and watered, form a mulch mat. Pelletized mulch shall be applied in accordance with the manufacturer's recommendations. Mulch may be applied by hand or mechanical spreader at the rate of 60-75 lbs./1,000 square feet and activated with 0.2 to 0.4 inches of water. This material has been found to be beneficial for use on small lawn or renovation areas, seeded areas where weed-seed free mulch is desired or on sites where straw mulch and tackifier agent are not practical or desirable.

Applying the full 0.2 to 0.4 inches of water after spreading pelletized mulch on the seed bed is extremely important for sufficient activation and expansion of the mulch to provide soil coverage.

IRRIGATION (where feasible)

If soil moisture is deficient, and mulch is not used, supply new seedlings with adequate water (a minimum of 1/4 inch twice a day until vegetation is well established). This is especially true when seedlings are made in abnormally dry or hot weather or on droughty sites.

TOPDRESSING

Since soil organic matter content and slow fertilizer (water insoluble) are prescribed in Section 2A, Seeded preparation in this Standard, no follow-up of topdressing is mandatory.

An exception may be made where gross nitrogen deficiency exists 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.

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.

TABLE 4-2
PERMANENT STABILIZATION MIXTURES FOR VARIOUS USES

Application	PLANTING MIXTURES BY SOIL DRAINAGE CLASS ¹ (see Table 4-3)		
	Excessively Drained	Moderately Well Drained	Somewhat Poorly to Poorly Drained
Residential/commercial lots	10, 12, 15	6, 10, 12, 13, 14, 15	16
Ponds and channel banks, ditches, berms, and dams	2, 5, 6, 10	5, 6, 7, 8, 9, 15	2, 8, 16, 17
Drainage ditches, swales, detention basins	2, 9, 11	2, 7, 9, 11, 12, 17	2, 9, 16, 17
Filter Strips	12	11, 12	11, 12
Stormwater way, spillways	2, 3, 9, 10, 12	6, 7, 9, 10, 11, 12	2, 9, 11, 12
Recreation areas, athletic fields	5, 12, 15, 18	12, 13, 14, 15, 18	16
Special Problem Sites			
Sleep slope and banks, roadsides, borrow areas	2, 3, 6, 8	2, 3, 5, 7, 8, 9, 10, 15	2, 9, 10, 11, 12
Sand and gravel pits	1, 2, 3, 4, 6, 21	1, 2, 3, 4, 5, 6, 8, 15, 20	2, 8
Dredged material, spoilbanks, borrow areas	2, 3, 6, 20	2, 3, 6, 11	2, 8
Streambanks & shorelines ²	2, 8, 20, 21a	2, 8, 19b, 20, 21a, 21b	2, 8, 19a, 21a,b,c,d
Utility rights-of-way	3, 7, 18b	3, 7	8, 9, 17

1. Refer to Soil Surveys for drainage class descriptions.
2. Refer to Soil Engineering Standard for additional seed mixtures.
3. Spillways only.
4. See Appendix E for description of turf grasses and cultivars

TABLE 4-3
PERMANENT VEGETATIVE MIXTURES, PLANTING RATES AND PLANTING DATES¹

SEED MIXTURE ²	PLANTING RATE ³ (lb./1000 Sq. Ft.)	PLANTING DATES				MAINTENANCE LEVEL ⁴	REMARKS
		O = Optimal Planting period		A = Acceptable Planting period			
		PLANT HARDINESS ZONES (see Figure 4-1)					
		Zone 5a, 6a	Zone 6b	Zone 7a, 7b			
WARM SEASON SEED MIXTURES							
1. A. FOR FINELANDS NATIONAL RESERVE SEE TABLE 4-3 FOR THE STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY							
1. SWITCHGRASS AND PERFORNIA	15	.35					C-D
1. SWITCHGRASS AND PERFORNIA PLUS OR PATENTED	15	.45					C-D
2. DEERTONGUE OR REDTOP	15	.35					C-D
2. DEERTONGUE OR REDTOP	1	.1					C-D
3. SWITCHGRASS AND PERFORNIA LITTLE FESCUE PLUS PATENTED PEA	15	.35					C-D
3. SWITCHGRASS AND PERFORNIA LITTLE FESCUE PLUS PATENTED PEA	20	.45					C-D
3. SWITCHGRASS AND PERFORNIA LITTLE FESCUE PLUS PATENTED PEA	10	.25					C-D
4. SWITCHGRASS	5	.10					C-D
4. LITTLE FESCUE AND PERFORNIA	4	.10					C-D
4. LITTLE FESCUE AND PERFORNIA	10	.25					C-D
5. BERMUDA	15	.35					A-D
5. BERMUDA (SEED)	30	.70					A-D
6. BERMUDA (SEED)	30	.70					A-D
7. BERMUDA (SEED)	30	.70					A-D
8. BERMUDA (SEED)	30	.70					A-D
9. BERMUDA (SEED)	30	.70					A-D
10. BERMUDA (SEED)	30	.70					A-D
11. BERMUDA (SEED)	30	.70					A-D
12. BERMUDA (SEED)	30	.70					A-D
13. BERMUDA (SEED)	30	.70					A-D
14. BERMUDA (SEED)	30	.70					A-D
15. BERMUDA (SEED)	30	.70					A-D
16. BERMUDA (SEED)	30	.70					A-D
17. BERMUDA (SEED)	30	.70					A-D
18. BERMUDA (SEED)	30	.70					A-D
19. BERMUDA (SEED)	30	.70					A-D
20. BERMUDA (SEED)	30	.70					A-D
21. BERMUDA (SEED)	30	.70					A-D