# PRELIMINARY AND FINAL SITE PLAN

BLOCK	<u>LOT</u>	200 FEET OWNE PROPERTY LOCATION	RS LIST PROPERTY OWNER & ADDRESS	91	5.01	20 WASHINGTON ST - UNIT-16 APT-1B	CARDEN, ALYSSA A 20 WASHINGTON ST - UNIT-16 APT-1B CLARK, NJ 07066
90	5	7 WASHINGTON ST	KOTULSKI, EDMUND & URSZULA 7 WASHINGTON ST	91	5.01	20 WASHINGTON ST - UNIT-17 APT-2B	CUMMINGS, EDWARD J & D AMBOLA, DENISI 20 WASHINGTON ST - UNIT-17 APT-2B CLARK, NJ 07066 PIZARRO. ALEJANDRA
90	6	11 WASHINGTON ST	CLARK, NJ 07066 WRAY, WILLIAM D & SUSAN M 11 WASHINGTON ST	91	5.01	20 WASHINGTON ST - UNIT-18 APT-BA	20 WASHINGTON ST - UNIT-18 APT-BA CLARK, NJ 07066 MALONEY, AMY
90	7	15 WASHINGTON ST	CLARK, NJ 07066 SPAZIANI, CRAIGE W & JOANNE P 15 WASHINGTON ST	91	5.01	20 WASHINGTON ST - UNIT-19 APT-1A	20 WASHINGTON ST - UNIT-19 APT-1A CLARK, NJ 07066 SAMSEL, CHESTER P III
90	8	19 WASHINGTON ST	CLARK, NJ 07066 COBOS, STANLEY & VALDEZ, YANELL 19 WASHINGTON ST	91	5.01	20 WASHINGTON ST - UNIT-20 APT-2A	20 WASHINGTON ST - UNIT-20 APT-2A CLARK, NJ 07066 HEINE, THOMAS WILLIAM
90	9	23 WASHINGTON ST	CLARK, NJ 07066 PIRES, JOSE B & ALDA M 23 WASHINGTON ST	91	5.01	15 WESTFIELD	15 WESTFIELD AVE, UNIT 1A CLARK, NJ 07066 SVIL, MAUREEN
90	11.01	33 WASHINGTON ST	CLARK, NJ 07066 SLAWINSKI, DEREK L 33 WASHINGTON ST CLARK, NJ 07066	91	5.01	15 WESTFIELD - UNIT-02 APT-1A	15 WESTFIELD - UNIT-02 APT-1A CLARK, NJ 07066 DEPETRIS, PETER JOHN
90	11.02	29 WASHINGTON ST	STOLARCZYK, ARTUR & URSZULA 29 WASHINGTON ST CLARK, NJ 07066	91	5.01	15 WESTFIELD - UNIT-03 APT-2A	15 WESTFIELD - UNIT-03 APT-2A CLARK, NJ 07066 SAMSEL, KEVIN
90	13	45 WASHINGTON ST	RINGWOOD, ROBERT & ARLENE 45 WASHINGTON ST CLARK, NJ 07066	91	5.01	15 WESTFIELD - UNIT-04 APT-BB	15 WESTFIELD - UNIT-04 APT-BB CLARK, NJ 07066 SCARNEGI, LISAMARIE
90	31	53 WASHINGTON ST	MAJOR, PIOTR & MAGDALENA 53 WASHINGTON ST CLARK, NJ 07066	91	5.01	15 WESTFIELD - UNIT-05 APT-1B	15 WESTFIELD - UNIT-05 APT-1B CLARK, NJ 07066 RAMOS, DIOMAR
90	32	48 STANTON ST	CHIU, JULIE & WING 48 STANTON ST CLARK, NJ 07066	91	5.01	15 WESTFIELD - UNIT-06 APT-2B	15 WESTFIELD AVE APT 3B CLARK, NJ 07066
90	33	38 STANTON ST	FRINO, KENNETH A JR & LAUREN M 38 STANTON ST CLARK, NJ 07066	91	6	17 WESTFIELD AVE	RUFOLO PROPERTY MANG. WEST. AVE-L.L.0 6 MOYSE PL-SUITE 201 EDISON, NJ 08820
90	34	34 STANTON ST	MARKOVIC, MARYANN % MARKOVIC, M PO BOX 1019 MECHANICSVILLE, VA 23111	91	7	21-23 WESTFIELD AVE	D & D HOLDING CO., LLC P.O. BOX5691 CLARK, NJ 07066 REN GUO LIN LLC
90	35	30 STANTON ST	MEGA, MARIA & HALL, KEVIN 30 STANTON ST CLARK, NJ 07066	91	11	35 WESTFIELD AVE	AS WESTFIELD AVE CLARK, NJ 07066 AJA REALTY HOLDING LLC
90	36	26 STANTON ST	BEAVER, THOMAS C & NANCY L 26 STANTON ST CLARK, NJ 07066	91	12	37 WESTFIELD AVE	37 WESTFIELD AVE CLARK, NJ 07066
90	37	22 STANTON ST	LANGHAM, BRYNN & JOHNSON, SHAUN 22 STANTON ST CLARK, NJ 07066	91	13	45 WESTFIELD AVE	GEOGHEGAN, DILLON M & LAUREN N 46 STEMMER DRIVE CLARK, NJ 07066
90	38	20 STANTON ST	RUZEK, ADEL & HODA 20 STANTON ST CLARK, NJ 07066	91	14.01	53-59 WESTFIELD AVE	R & S REAL ESTATE % RAKESH SAHNI 56 WARDELL AVENUE RUMSON, NJ 07760
90	39.01	16 STANTON ST	SILVA, PAUL & HENRIQUES, PAULA 16 STANTON ST CLARK, NJ 07066	91	30	52 WASHINGTON ST	DZIADYK, PETER 52 WASHINGTON ST CLARK, NJ 07066
91	3	5 WESTFIELD AVE	HWANG, TAE CHIN & OCK CHA 1132 WESTFIELD AVE UNIT 5 CLARK, NJ 07066	91	31	44 WASHINGTON ST	SLEPECKI, ANDRZEJ 44 WASHINGTON ST CLARK, NJ 07066
91	4	11-13 WESTFIELD AVE	PALM REALTY, L.L.C. 11 WESTFIELD AVE CLARK, NJ 07066	91	32	40 WASHINGTON ST	LAI, YENTING & HUANG, PEIYI 40 WASHINGTON ST CLARK, NJ 07066
91	5.01	WASHINGTON STREET	CLARK COMMONS A CONDOMINIUM 10 WASHINGTON STREET CLARK, NJ 07066	91	34	34 WASHINGTON ST	MARHOLD, LINDA 34 WASHINGTON ST CLARK, NJ 07066
91	5.01	10 WASHINGTON ST - UNIT-01 APT-ВВ	10 WASHINGTON AVE LLC 1014 FOUR SEASON DR CLARK, NJ 07066	91	37	22 WASHINGTON ST	BERNASKY, JANE 22 WASHINGTON ST CLARK, NJ 07066
91	5.01	10 WASHINGTON ST - UNIT-02 APT-1В	VILLARAUT, STEPHANIE 10 WASHINGTON ST - UNIT-02 APT-1B CLARK, NJ 07066	105	1.01	56 WESTFIELD AVE	INVESTORS FINANCIAL SERVICES, INC 101 JFK PARKWAY SHORT HILLS, NJ 07075
91	5.01	10 WASHINGTON ST - UNIT-03 APT-2B	DEMARZO, DANIEL E 10 WASHINGTON ST - UNIT-03 APT-2B CLARK, NJ 07066	105	2.01	52 WESTFIELD AVE	CLARK BROADWAY ASSOCIATES LLC 820 MORRIS TURNPIKE #301 SHORT HILLS, NJ 07078
91	5.01	10 WASHINGTON ST - UNIT-04 APT-BA	NEYRA, PATRICIA & CABREAR, DANIEL 10 WASHINGTON ST - UNIT-04 APT-BA CLARK, NJ 07066	105	6	30 WESTFIELD AVE	TOBIA, I, L.L.C. 26 WESTFIELD AVE CLARK, NJ 07066
91	5.01	10 WASHINGTON ST - UNIT-05 APT-1A	OLEN REALTY LLC 10 WASHINGTON ST - UNIT-05 APT-1A CLARK, NJ 07066	105	8.01	26 WESTFIELD AVE	TOBIA, I, L.L.C. 26 WESTFIELD AVE CLARK, NJ 07066
91	5.01	10 WASHINGTON ST - UNIT-06 APT-2A	NIERSTEDT, WILLIAM & MARIA 10 WASHINGTON ST - UNIT-06 APT-2A CLARK, NJ 07066	105	10.01	10 WESTFIELD AVE	WESTFIELD CRANFORD PLAZA LLC 105 WALNUT AVE CRANFORD, NJ 07016
91	5.01	14 WASHINGTON ST - UNIT-07 APT-BB	CLARK, NJ 07066	105	13	10 LINCOLN BLVD	TOBIA REAL ESTATE COMPANY 26 WESTFIELD AVE CLARK, NJ 07066
91	5.01	14 WASHINGTON ST - UNIT-08 APT-1В	COGAI, ROBERT  14 WASHINGTON ST - UNIT-08 APT-1B  CLARK, NJ 07066	105	14	14 LINCOLN BLVD	JLA REALTY ASSOC. LLC 106 CANAL ST ISELIN, NJ 08830
91	5.01	14 WASHINGTON ST - UNIT-09 APT-2B	DE OLIVEIRA, HELTON JANUARIO 28 CLAUSS ROAD CLARK, NJ 07066	UTILITY	COMPAN	IES & GOVERNMENT ENTITIES TO	D BE NOTIFIED  MANAGER-CORPORATE PROPERTIES
91	5.01	16 WASHINGTON ST - UNIT-10 APT-1B	BENINATO, ANGELA 47 COLDEVIN ROAD CLARK, NJ 07066 CURONNA POBERT LA ANNA MARIE	PU	JBLIC SERV	/ICE ELECTRIC & GAS COMPANY	80 PARK PLAZA, T6B NEWARK, NJ 07102 800 RAHWAY AVENUE
91	5.01	16 WASHINGTON ST - UNIT-11 APT-2B	CHRONNA, ROBERT J & ANNA MARIE 20 BELL DRIVE WESTFIELD, NJ 07090		MIDDL	COMCAST  LESEX WATER COMPANY	UNION, NJ 07083 1500 RONSON ROAD ISELIN, NJ 08830
91	5.01	16 WASHINGTON ST - UNIT-12 APT-BA	ALFARO, PHILIP C 16 WASHINGTON ST - UNIT-12 APT-BA CLARK, NJ 07066	NEW	JERSEY -	AMERICAN WATER COMPANY, INC.	CORPORATE HEADQUARTERS 1025 LAUREL OAK ROAD VOORHEES, NJ 08043
91	5.01	16 WASHINGTON ST - UNIT-13 APT-1A	HUSS, BEVERLY 1054 SUNNY VIEW RD MOUNTAINSIDE, NJ 07092 DAUNNO, SPENCER P			ZABETHTOWN GAS CO.	UNION, NJ 07083 1050 EAST HAZELWOOD AVENUE
91	5.01	16 WASHINGTON ST - UNIT-14 APT-2A		F		ALLEY SEWERAGE AUTHORITY  EW JERSEY TRANSIT	ID30 EAST HAZELWOOD AVENUE RAHWAY, NJ 07065 ONE PENN PLAZA EAST NEWARK, NJ 07105
91	5.01	20 WASHINGTON ST - UNIT-15 APT-BB	20 WASHINGTON ST - UNIT-15 APT-BB CLARK, NJ 07066			VERIZON	540 BROAD STREET NEWARK, NJ 07101

# PROPERTY OWNER/APPLICANT:

27 WESTFIELD AVE, LLC 148 McFARLANE ROAD COLONIA, NJ 07067

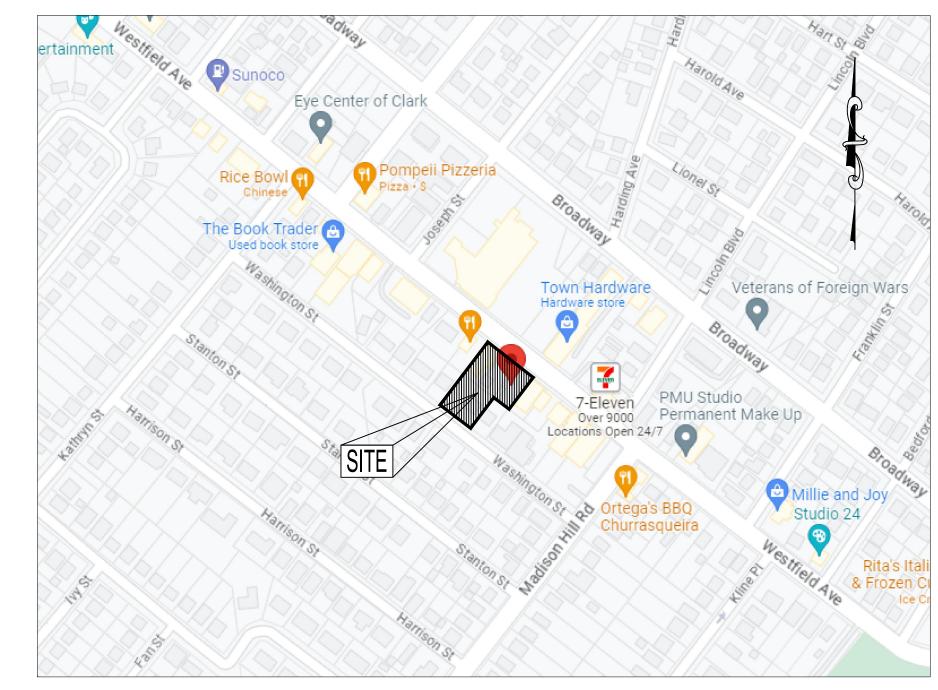
number of parking spaces required.

SIGN	Description	Required	Proposed	Comment
1 Blade Sign*	Max. Size: Area*	≤ 45 sf	2' Wide X 22.5 ft. Tall; 45 sf	Conforming

Description	Required	Proposed	Comment
Residential Units			
1.75 Spaces per unit (39 Units)	68.25 Spaces	69 Spaces	Conforming
Retail businesses			
1 Space per 150 square feet of gross floor area (845 sf)	5.63 Spaces	4 Spaces	
EV Credit - 10% of Required Parking Spaces** (73.88 Spaces)	7.38 Spaces*	7.38 Spaces	Conforming
Total	66.5 Spaces	73 Spaces	
Electric Vehicle Charging Station			
15% of Required Parking Spaces (73.88 Spaces)	11.08 Spaces*	12 Spaces	Conforming
Off-street loading spaces for commercial and ind	ustrial uses		
Floor Area Devoted to Use 5,000 sf to 30,000 sf (1,600 sf)	1	1	Conforming

# 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.

27-33 WESTFIELD AVENUE
26-30 WASHINGTON STREET
TAX LOTS 8.01, 10.01 & 36, BLOCK 91
TOWNSHIP OF CLARK
UNION COUNTY, NEW JERSEY



# SITE MAP

SCHEDULE OF	GENERAL ZONING REC	QUIREMENTS DTV (D	OWNTOWN VILLAGE	DISTRICT
	(BLOCK 91	REDEVELOPMENT P	PLAN)	
BLOCK 91 - 27-3	3 WESTFIELD AVENUE,	26-30 WASHINGTON	STREET - TOWNSHI	P OF CLARK
Regulation	General	Existing	Proposed	Comment
	Requirements	Lots 8.01, 10.01 & 36	Lots 8.01, 10.01 & 36	
Principal Permitted Uses	Multi-Family Residential Apartments, Retail, Personal Services, Offices, Restaurants	Single Family Residential, Mixed Use, Vacant	Multi-Family Residential Apartment, Retail, Restaurants	Conforming
Min. Lot Area	20,000 sf	25,726.00 sf	25,726.00 sf	Conforming
Min. Lot Width	125 ft.	100.00 ft. (e)	100.00 ft. (e)	Pre-existing Nonconformity
Min. Lot Depth	100 ft.	100.00 ft.	100.00 ft.	Conforming
Min. Front Yard (Westfield Avenue)	5 ft.	1.87 ft. (e)	7.69 ft.	Conforming
Min. Front Yard (Washington Street)	18 ft.	29.84 ft.	18.83 ft.	Conforming
Min. Side Yard	5 ft.	0.11 ft. (e)	5.00 ft.	Conforming
Min. Rear Yard	10 ft.	1.10 ft. (e)	12.00 ft.	Conforming
Max. Building Height	52 ft./ 4 stories*	≤52 ft./ 2.5 stories	50 ft./ 4 stories	Conforming
Max. Building Coverage	80%	32.67%	74.63%	Conforming
Max. Impervious Coverage	96%	84.07%	95.28%	Conforming
Min. Open Space and Landscaping	4%	15.93%	4.87%	Conforming
Max. Density (69 Units/Acre)	59 Units	NA	39 Units	Conforming
Affordable Multi-Family Residential Min. One Bedroom	1 Apartment	N/A	1 Apartment	Conforming
Affordable Multi-Family Residential Min. Two Bedroom	3 Apartments	N/A	3 Apartments	Conforming
Affordable Multi-Family Residential Min. Three Bedroom	2 Apartments	N/A	2 Apartments	Conforming
Min. Sidewalk Width**	10 ft.	6.78 ft. (e)	5.00 ft.** (V)	Variance is Required
* Maximum height (feet): 52 feet, as measurer  ** Access requirements:  1. Sidewalks shall be provided along all roads  2. The minimum width of such sidewalks shall  that is equivalent to the average width of such	way frontages and from all parking I be ten (10) feet, except that those	area or roadway frontages to	the principal building entrances	S.
Notes:				
(e) Pre-existing Nonconformity	N/A - Denotes Not Applic			
(V) Variance is Required	NA - Denotes Not Availa	able		
	DESIGN WAIVER	AND VARIANCE S	SCHEDULE	
BLOCK 91 - 27-33 W	ESTFIELD AVENUE. 2	26-30 WASHINGTO	ON STREET - TOW	NSHIP OF CLARK
BLOCK 91 - 27-33 WI		26-30 WASHINGTO	ON STREET - TOW	NSHIP OF CLARK Proposed

except that those sidewalks providing connections to existing sidewalks on adjacent properties shall have a width that is

Fo the extent practicable, landscaping is encouraged along all

building elevations and at building entrances. Individual

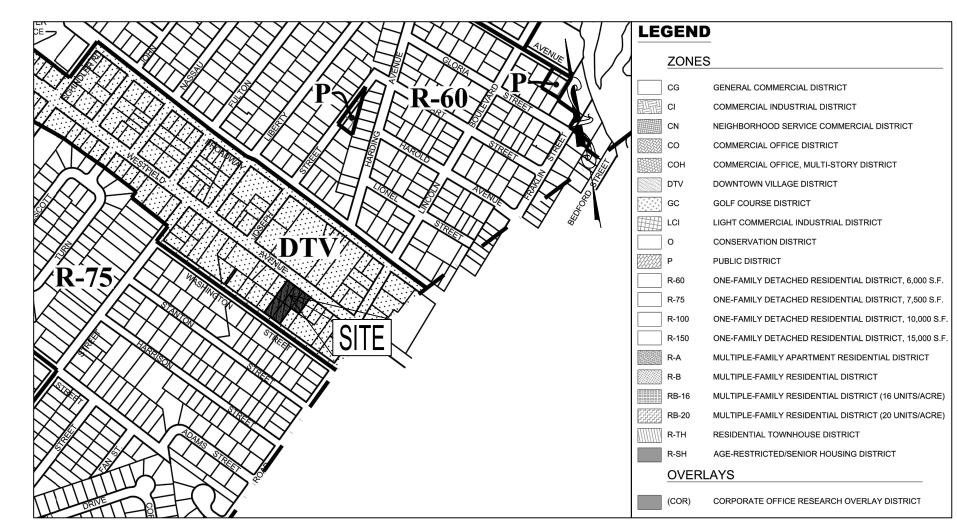
planters shall be placed along the building frontage

Some provided

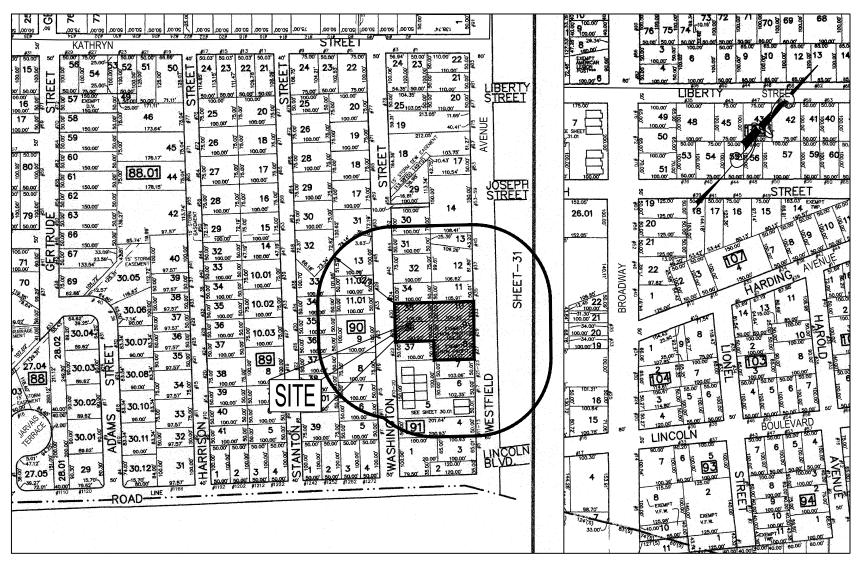
Redevelopment Plan 5.3.6 —

Redevelopment Plan 5.3.5 —

Landscaping, Screening and



ZONING MAP



200' TAX MAP SCALE: ±1"=250'

APPROVED BY PLANNING BOARD	- TOWNSHIP OF CLARK
BOARD SECRETARY:	DATE:
BOARD CHAIRMAN:	DATE:
TOWNSHIP ENGINEER:	

SHEET	TITLE	ISSUED	REVISED
1	COVER SHEET	07/17/23	04/02/24
2	DEMOLITION PLAN	07/17/23	N/A
3	SITE DEVELOPMENT PLAN	07/17/23	04/02/24
4	GRADING AND UTILITY PLAN	07/17/23	04/02/24
5	LIGHTING AND LANDSCAPE PLAN	07/17/23	04/02/24
6	CONSTRUCTION DETAILS	07/17/23	01/11/24
7	CONSTRUCTION DETAILS	07/17/23	04/02/24
8	CONSTRUCTION DETAILS	11/11/23	01/11/24
9	SOIL EROSION AND SEDIMENT CONTROL PLAN	07/17/23	N/A
10	SOIL EROSION AND SEDIMENT CONTROL NOTES AND DETAILS	07/17/23	N/A

	)			
	DATE.			
ENGINEER	04/24/23			
	DESIGNED BY			
04/02/24	AK	2	DED DEVIEW COMMENTS & ADCH CHANGES	è
	DATE:	C	FER REVIEW COMMENTS & ARCH. CHANGES	5
Man DATE	04/24/23	2	PER DRC MEETING & REVIEW COMMENTS	0.
	APPROVED BY	1	PER DRC MEETING & REVIEW COMMENTS	-
LICENSE NO. 45052E	AK	Z	SEVISIONS	⊢
	DATE.		NE VISIOINS	٦.
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CIENTISTS • CONSULTANTS

ad, Suite B3, Montville, NJ 07045
fice: Scranton, PA 18504

80 Fax.: 973-588-7079
e-mail: info@awzengineering.com
ate of Authorization No.: 24GA28118400

NJ. LICENSE NO. 3

Authorization No.: 3771354

ENGINEERS • SCIEN

Main Office: 150 River Road, S

Pennsylvania Office: 3

Tel: 973-588-7080 I

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New Jersey Certificate of Author

COTS 8.01, 10.01 & 36

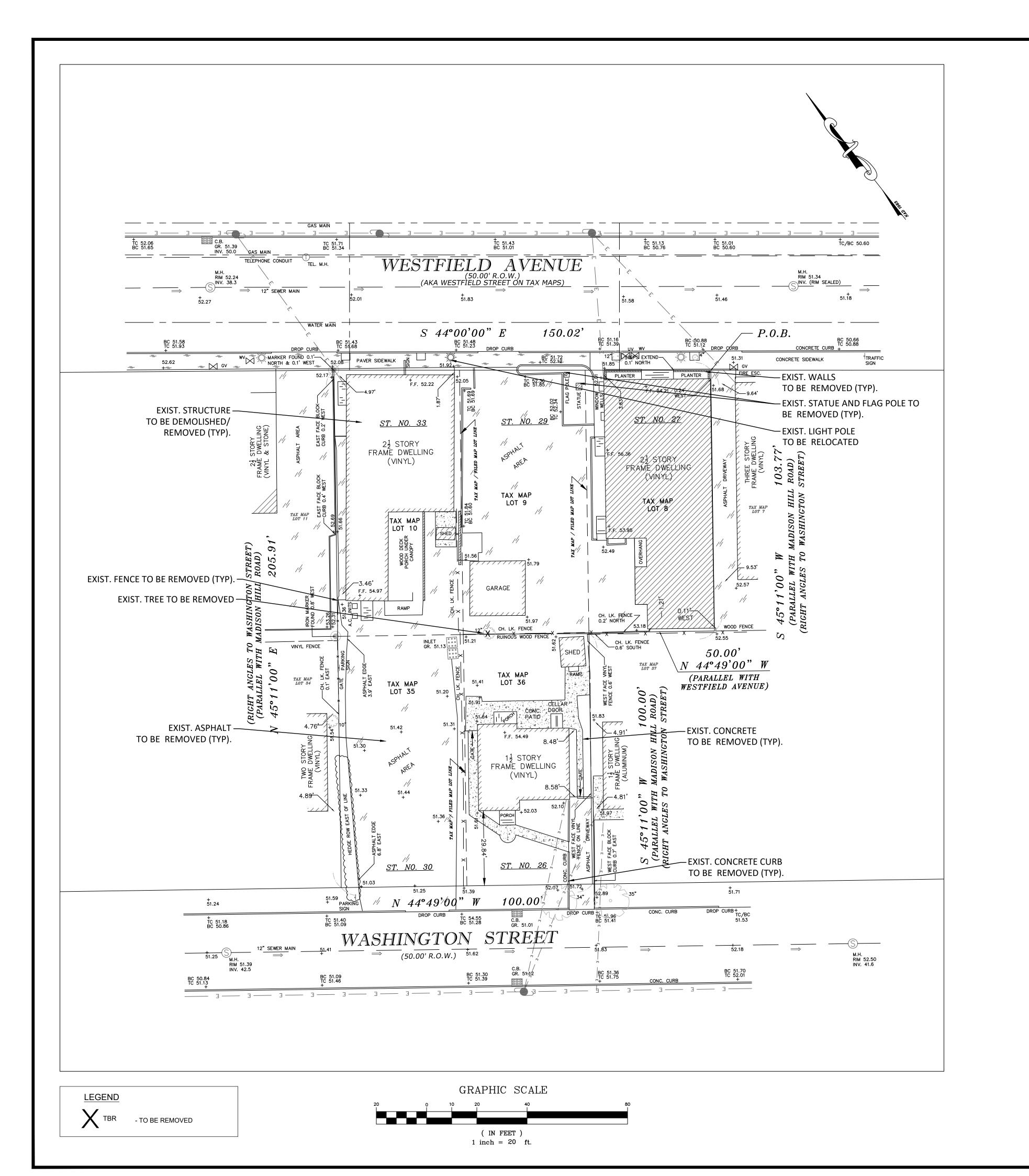
27-33 WESTFIELD AVENUE
26-30 WASHINGTON STREET
TOWNSHIP OF CLARK
UNION COUNTY, NEW JERSEY

COVER SHEET

JOB NUMBER: 22-0107

SCALE: AS SHOWN

C-01

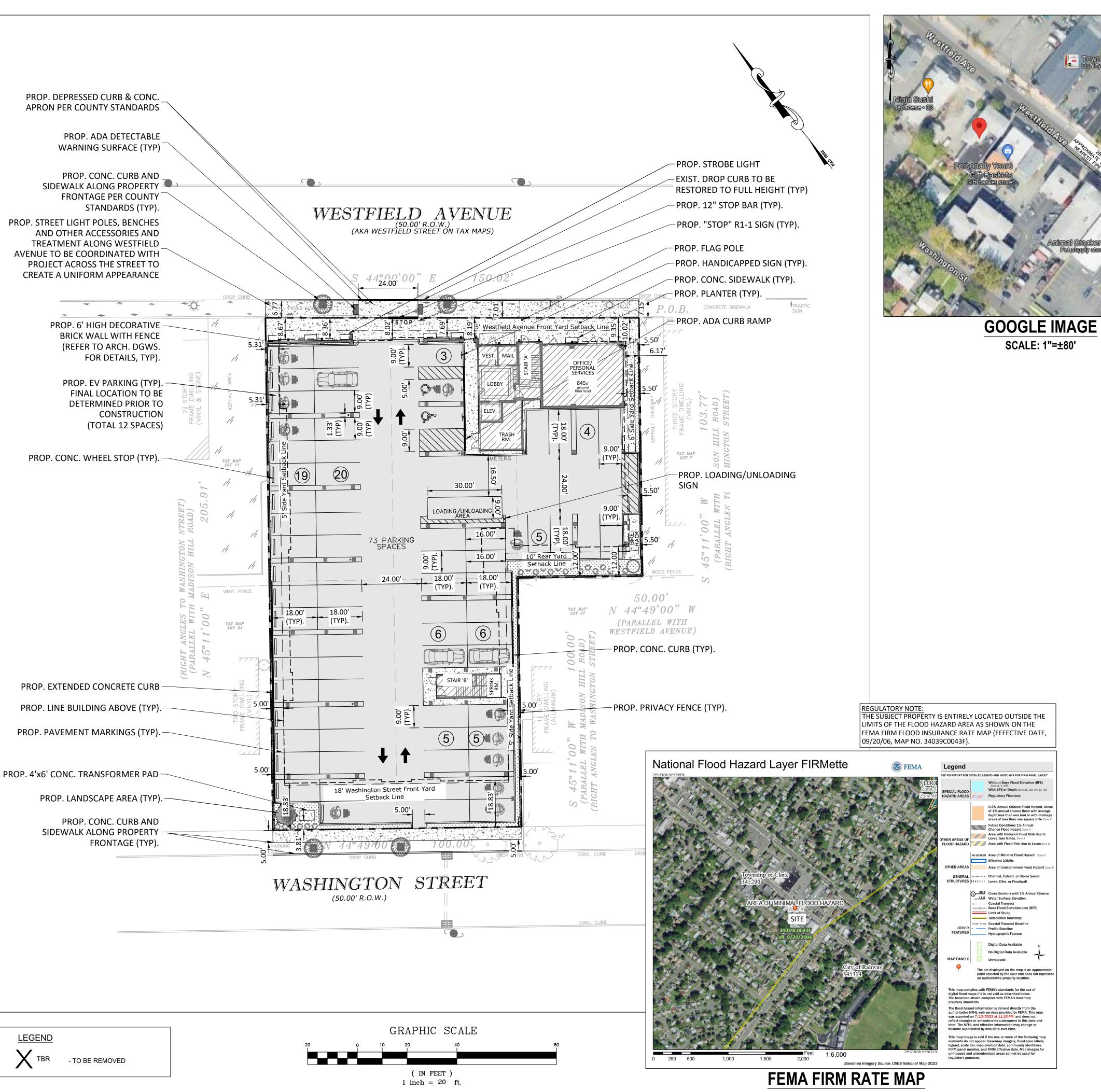


JOB NUMBER: 22-0107

SCALE: AS SHOWN

C-02

SHEET 2 OF 8



**GENERAL NOTES:** 

1. PARCEL IS KNOWN AS TAX LOTS 8.01, 10.01 & 36, IN BLOCK 91 AS SHOWN ON THE TAX MAPS OF THE TOWNSHIP OF CLARK.

2. AREA OF PARCEL = 25,726.00 S.F. OR 0.59 ACRES.

3. PARCEL IS LOCATED ENTIRELY IN THE DTV (DOWNTOWN VILLAGE) (BLOCK 91 REDEVELOPMENT PLAN) DISTRICT AS SHOWN ON THE ZONING MAP OF THE TOWNSHIP OF CLARK.

. IF THIS DOCUMENT DOES NOT CONTAIN A RAISED IMPRESSION SEAL OF THE PROFESSIONAL, IT IS NOT AN AUTHORIZED ORIGINAL, AND MAY HAVE BEEN ALTERED.

THIS IS A SITE DEVELOPMENT PLAN AND UNLESS SPECIFICALLY NOTED ELSEWHERE HEREON IS 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.

. THE CONTRACTOR SHALL NOTIFY THE UNDERSIGNED PROFESSIONAL IMMEDIATELY IF ANY FIELD CONDITIONS ENCOUNTERED DIFFER FROM THOSE SHOWN HEREON.

ELEVATIONS AND CONTOURS SHOWN ON THIS PLAN ARE BASED ON THE SURVEY PERFORMED AND PROVIDED BY BRAGINSKY SURVEYING, LLC OF ISELIN NJ, DATED 02/15/22 AND AMENDED 05-20-22.

8. PROPOSED BUILDING FOOTPRINT AS PER THE ARCHITECTURAL PLANS PREPARED AND PROVIDED BY ANADAL ARCHITECTURE & DESIGN PC OF WOODBRIDGE, NJ, RECEIVED AS DIGITAL FILE MARCH 2023 AND UPDATED MARCH 2024.

UTILITY INFORMATION SHOWN HEREON HAS BEEN COLLECTED FROM VARIOUS SOURCES AND IS NOT GUARANTEED AS TO ACCURACY AND COMPLETENESS. 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.

1. LOCATION OF PROPOSED ROOF DRAINS SHALL BE COORDINATED WITH THE PROJECT ARCHITECT PRIOR TO CONSTRUCTION. ALL PROPOSED ROOF LEADERS TO BE DISCHARGED AWAY FROM THE FOUNDATION AND ADJACENT PROPERTIES.

12. 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.

13. ALL UTILITIES SHALL BE INSTALLED UNDERGROUND. DESIGN AND INSTALLATION OF WATER, ELECTRIC, GAS, TELEPHONE AND CABLE TO BE PROVIDED BY RESPECTIVE UTILITY COMPANIES.

14. WATER AND GAS SERVICE MATERIALS, BURIAL DEPTH, AND COVER REQUIREMENTS SHALL BE SPECIFIED BY THE LOCAL UTILITY COMPANY. CONTRACTOR'S PRICE FOR WATER SERVICE SHALL INCLUDE ALL FEES AND APPURTENANCES REQUIRED BY THE UTILITY TO PROVIDE A COMPLETE WORKING SERVICE. UTILITY CONNECTIONS SHALL COMPLY WITH THE COUNTY/MUNICIPAL ROAD OPENING PERMIT REQUIREMENTS.

.5. 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.

16. 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.

7. COMPACTING IN FILL AREAS BENEATH ALL PROPOSED UTILITIES AND STRUCTURES SHOULD MEET ALL MANUFACTURERS AND MUNICIPAL REQUIREMENTS AND BE EQUAL TO THE MINIMUM 95% MODIFIED PROCTOR DENSITY.

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

• CURRENT PREVAILING MUNICIPAL AND/OR COUNTY SPECIFICATIONS, STANDARDS, AND REQUIREMENTS.

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 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 AWZ 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.

21. 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.

22. ANY EXISTING CURBS OR OTHER OBJECTS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE TOWNSHIP ENGINEER.

23. APPLICANT SHALL BE RESPONSIBLE FOR RESTORING THE ASPHALT PAVEMENT AND CURBING TO THE SATISFACTION OF THE TOWNSHIP ENGINEER.

04/24/23				
DESIGNED BY				
AK DATE:	3	PER REVIEW COMMENTS & ARCH. CHANGES	04/02/24	EC
04/24/23	2	PER DRC MEETING & REVIEW COMMENTS	01/11/24 LF	LF
APPROVED BY	1	PER DRC MEETING & REVIEW COMMENTS	11/11/23 LF	LF
AK	NO.	REVISIONS	DATE: BY:	BY:
DATE: 04/02/24	© 20 the or	© 2023, AWZ Engineering, Inc. All Rights Reserved. The copying or reuse of this document, or portions thereof, for oth the original project, or purpose originally intended, without the written permission of AWZ Engineering, Inc., is strictly program to a strictly property or purpose originally intended, without the written permission of AWZ Engineering, Inc., is strictly program to the program of the program	or portions ther gineering, Inc.	eof, for other, is strictly p

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office: 150 River Road, Suite B3, Montville, NJ 07045

Pennsylvania Office: Scranton, PA 18504

Tel: 973-588-7080 Fax.: 973-588-7079

awzengineering.com e-mail: info@awzengineering.com

ERSEY

Main C

T PLAN

26-30 WASHINGTON STREET
TOWNSHIP OF CLARK
UNION COUNTY, NEW JERSEY
SITE DEVEL OPMENT DE

JOB NUMBER:

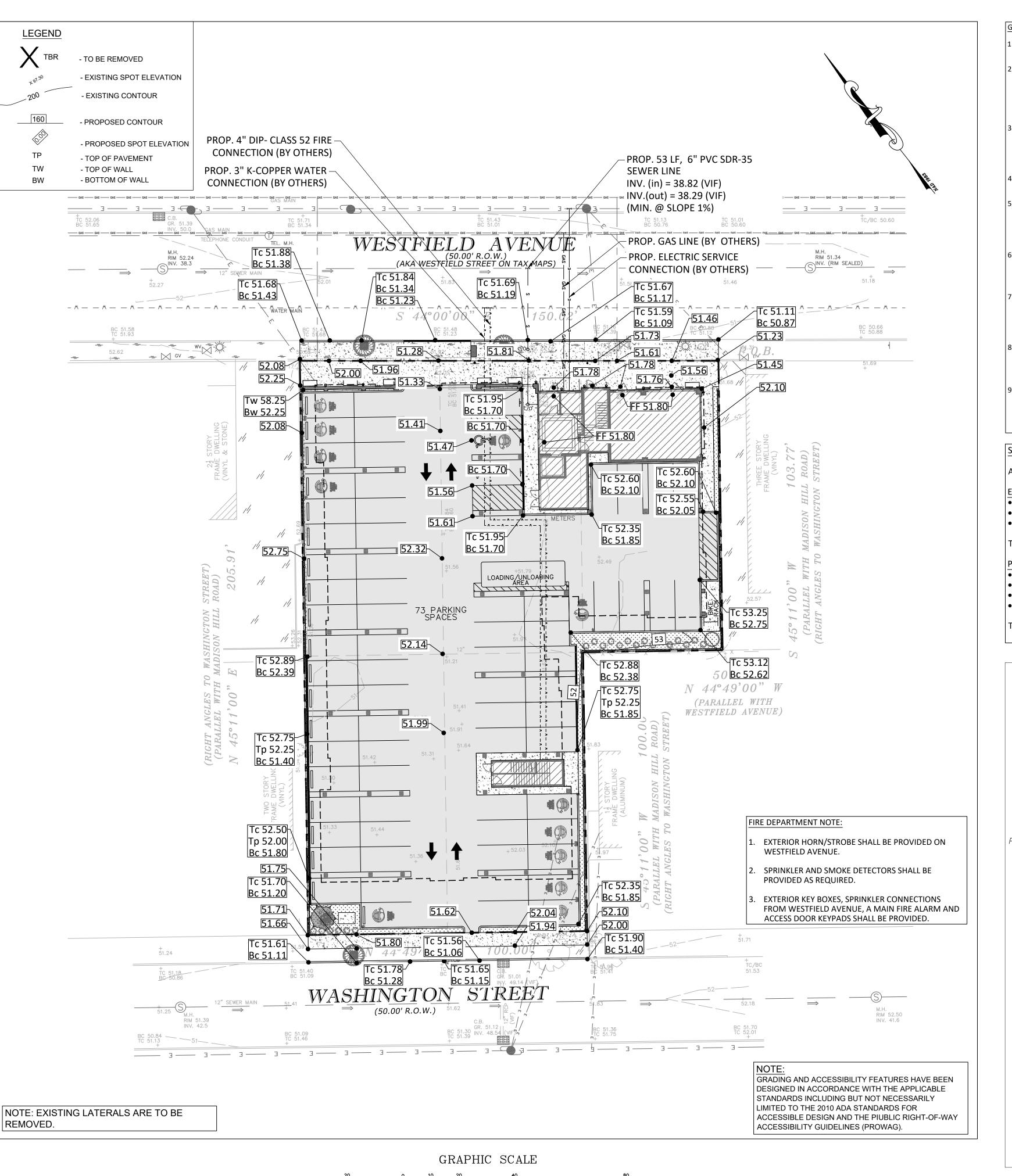
22-0107

**SCALE: AS SHOWN** 

C-03

SHEET 3 OF 8

N.T.S.



( IN FEET )
1 inch = 20 ft.

#### GRADING NOTES

- 1. SITE GRADING SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH HEREIN.
- 2. 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.
- 3. CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF EXISTING
  TOPOGRAPHIC INFORMATION AND UTILITY INVERT ELEVATIONS PRIOR TO
  COMMENCEMENT OF ANY CONSTRUCTION. PROCEEDING WITH
  CONSTRUCTION WITH DESIGN DISCREPANCIES IS DONE SOLELY AT THE
  CONTRACTOR'S OWN RISK.
- 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.
- 3. 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.
- O. CONSTRUCTION EQUIPMENT ENTRANCE AND/OR STORAGE OF MATERIAL, SUPPLIES OR STOCKPILING WITHIN THE FOOTPRINT OF THE PROPOSED STORMWATER INFILTRATION SYSTEM IS PROHIBITED.

Block 91, Lots 8.01, 10.01 & 36				
Block 91, Lots 8.0	1, 10.01 & 36			
DESCRIPTION	EXISTING	PROPOSED		
Lot Area	25,726.00	25,726.00		
2017.1.00	25,725.00			
2.5 Story Frame Dwelling #33	2,936.20	0.00		
Shed	36.18	0.00		
Garage # 29	479.45	0.00		
2.5 Story Frame Dwelling # 27	3,706.74	0.00		
1.5 Story Frame Dwelling # 26	1,129.74	0.00		
Shed	115.64	0.00		
Building Above	0.00	19,199.25		
Building and Columns				
Ground Floor	0.00	2,140.50		
Total Dwelling	8,403.95	2,140.50		
Exist. Conc. Pad, Walk Ramp, Cellar Door	1,569.55	0.00		
Exist. Porch and Ramp	576.00	0.00		
Conc. Wall	58.71	56.64		
Conc. Pad	0.00	24.00		
Conc. Curb	103.32	292.91		
Conc. Sidewalk	0.00	2,353.65		
Total Concrete	2,307.58	2,727.20		
Pavement	10,917.15	19,644.32		
Green Area/Dirt/Gravel	4,097.32	1,213.98		
TOTAL	25,726.00	25,726.00		
Pervious	4,097.32	1,213.98		
Pervious %	15.93%	4.72%		
Impervious	21,628.68	24,512.02		
Lot Coverage	84.07%	95.28%		
Building Coverage				
-				

32.67%

(Building Above)

#### SEWER DEMAND WORKSHEET:

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

#### EXISTING:

- STORES & SHOPPING CENTERS = 0.10 GALLONS PER DAY PER SQUARE FOOT = 0.10 x 2,200 = 220 GPD
- RESTAURANT = 35 GALLONS PER DAY PER SEATS = 35 x 44 = 1,540 GPD
- THREE-BEDROOM UNIT = 300 GALLONS PER DAY PER UNIT = 300 x 3 = 900 GPD

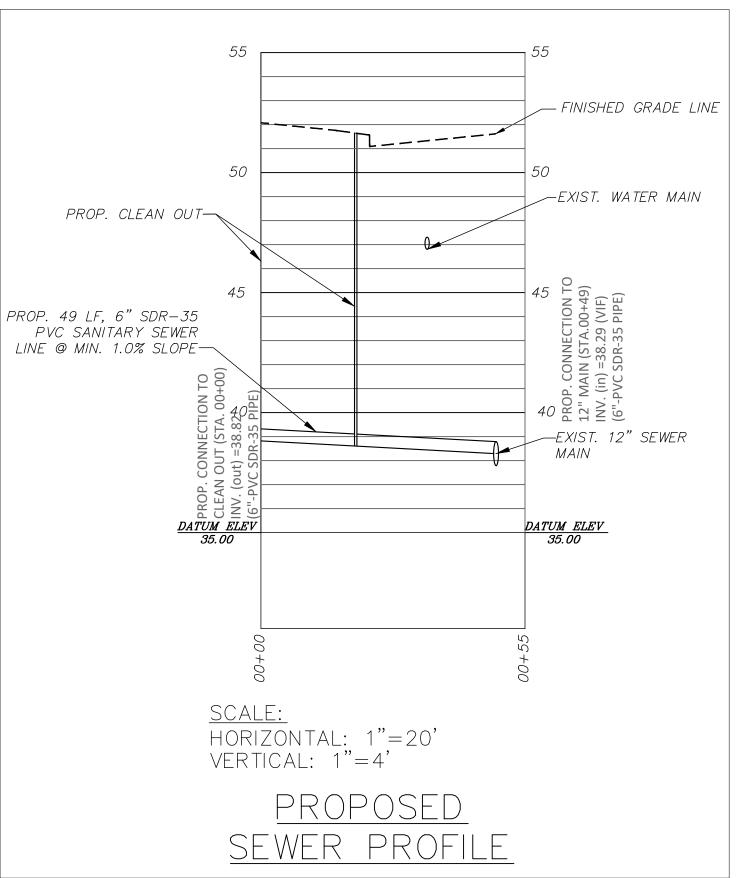
TOTAL EXISTING SEWER FLOW = 2,660 GPD

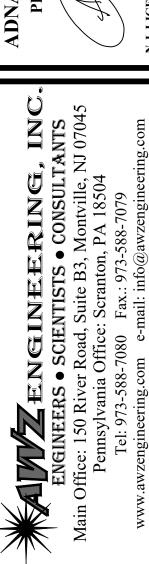
#### ROPOSED:

- STORES & SHOPPING CENTERS = 0.10 GALLONS PER DAY PER SQUARE FOOT = 0.10 x 1,775 = 177.5 GPD
- ONE-BEDROOM UNIT = 150 GALLONS PER DAY PER UNIT = 150 x 12 = 1,800 GPD
   TWO-BEDROOM UNIT = 225 GALLONS PER DAY PER UNIT = 225 x 18 = 4,050 GPD
- THREE-BEDROOM UNIT = 223 GALLONS PER DAY PER UNIT = 223 x 18 = 4,050 GPD

  THREE-BEDROOM UNIT = 300 GALLONS PER DAY PER UNIT = 300 x 9 = 2,700 GPD

TOTAL PROJECTED SEWER FLOW = 8,727.50 GPD





KHAN, P.E., SSIONAL ENGINE

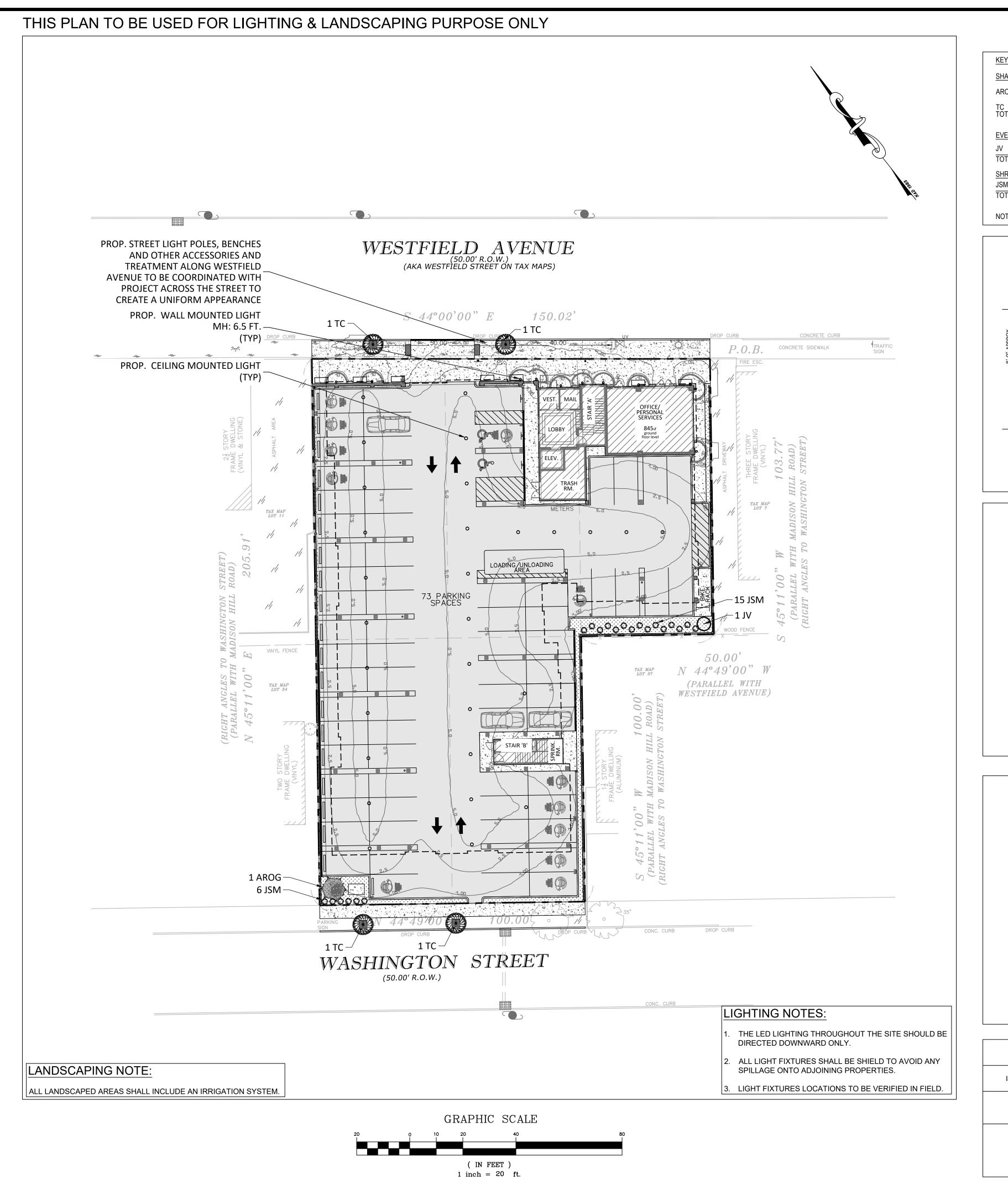
AND UTILITY PLAN

1AX LOIS 8.01, 10.01 & 36
27-33 WESTFIELD AV
26-30 WASHINGTON S
TOWNSHIP OF CLA
UNION COUNTY, NEW

JOB NUMBER: 22-0107

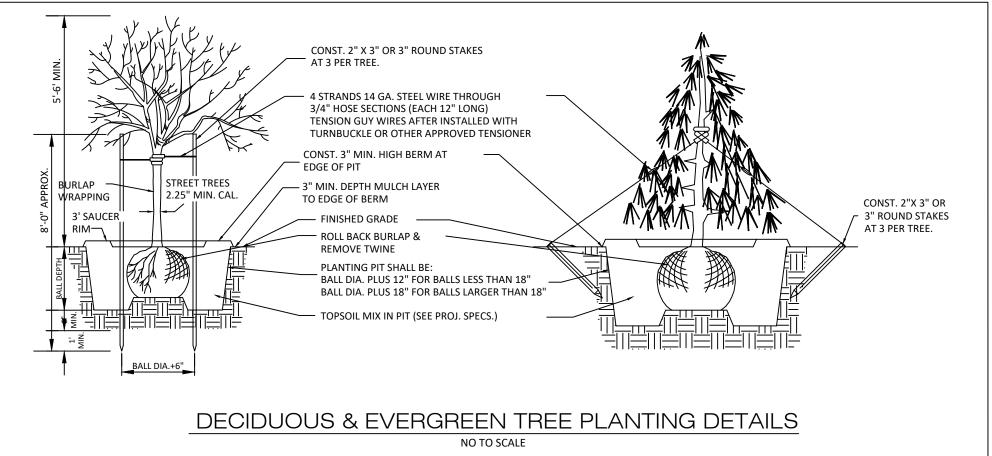
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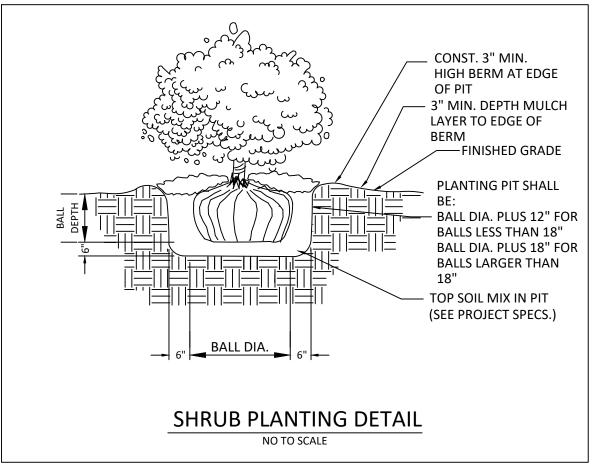
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SHEET 4 OF 8

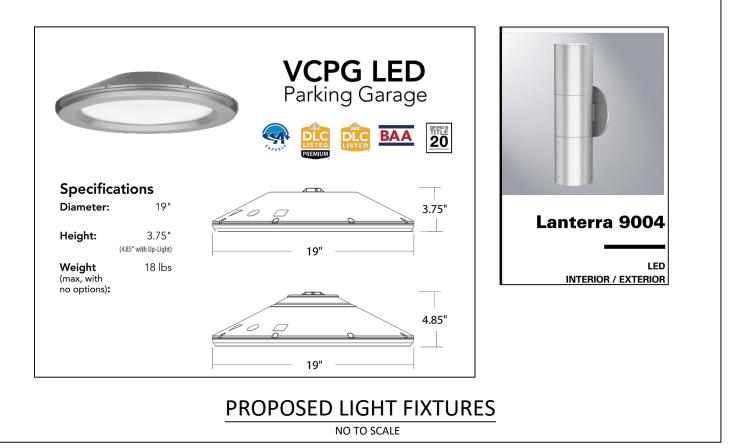


#### PROPOSED PLANTING SCHEDULE

<u>KEY</u>	QTY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS
SHADE TE	REE(S)	<b>)</b>				
AROG	1		ACER RUBRUM 'OCTOBER GLORY'	OCTOBER GLORY RED MAPLE	3" RANGE	B+B
TC TOTAL	$\frac{4}{5}$		TILIA CORDATA GLENLEVEN	GLENLEVEN LINDEN	3-4" CAL.	B+B
EVERGRE JV TOTAL	EEN TREE(S 1 1	· •	JUNIPERUS VIRGINIANA	EASTERN RED CEDAR	9-10'	B+B
SHRUBS JSM TOTAL	21 21	Ed. 3	JUNIPERUS SCOPULORUM 'MOONGLOW'	MOONGLOW JUNIPER	3-4' HT	В+В
NOTE: IF	ANY DISCRE	EPANCIES OC	CUR BETWEEN AMOUNTS SHOWN IN THE PLAN AN	D THE PLANT LIST, THE PLAN SHALL DIC	CTATE.	







			Luminair	re list (Site 1)				
Index	Manufacturer	Article name	Item number	Fitting	Luminous flux	Light loss factor	Connected load	Quantity
1	Lithonia Lighting	VCPG LED WITH P1 - PERFORMANCE PACKAGE, 3000K, T5E OPTIC TYPE, UP-LIGHT 2 PACKAGE	VCPG LED P1 30K T5E MVOLT UPL2	1x	4253 lm	0.80	34.9 W	29
2	COOPER LIGHTING SOLUTIONS - LUMIERE (FORMERLY EATON)	LUMIERE LANTERRA 9004 LED WALL LUMINAIRE, RECESSED LENS, FLOOD OPTIC, BLACK HOUSING.	9004-W2-[RW, RI]-LED2790-F-BK-L 3-UNV	1x (1) 2790K CCT, 90 CRI LED	4005 lm	0.80	57.2 W	11

	DATE.				
~	04/24/23				
	DESIGNED BY				
1/02/24	AK DATE:	3	PER REVIEW COMMENTS & ARCH. CHANGES	04/02/24	
ATE	04/24/23	2	PER DRC MEETING & REVIEW COMMENTS	01/11/24	
	APPROVED BY	1	PER DRC MEETING & REVIEW COMMENTS	11/11/23	
O. 45052E	AK	NO.	REVISIONS	DATE:	
VO. 41803	DATE: 04/02/24	© 20 the or	© 2023, AWZ Engineering, Inc. All Rights Reserved. The copying or reuse of this document, or portions then the original project, or purpose originally intended, without the written permission of AWZ Engineering, Inc.	, or portions the	

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PROFESSIONAL ENGINEER	100,000	( Allen A. Man DATE	N.I. LICENSE NO. 39812 P.A. LICENSE NO. 45052E	16

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Pennsylvania Office: Scranton, PA 18504
Tel: 973-588-7080 Fax.: 973-588-7079
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New Jersey Certificate of Authorization No.: 24GA2811840

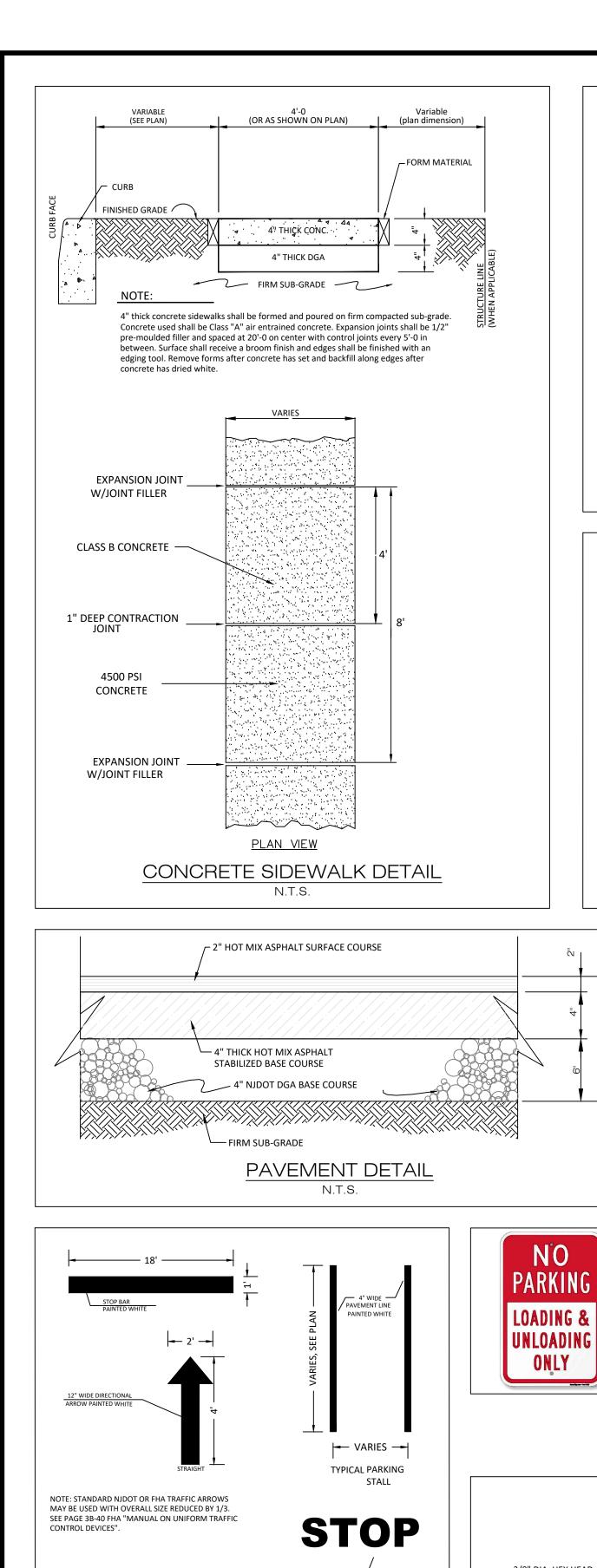
SHINGTON STREET
ASHIP OF CLARK
OUNTY, NEW JERSEY
ID I ANDSCAPE PI AN

TAX LOTS 8.01, 10.01 & 36
27-33 WESTFIELD AVE
26-30 WASHINGTON ST
TOWNSHIP OF CLAI
UNION COUNTY, NEW J

JOB NUMBER: 22-0107

SCALE: AS SHOWN

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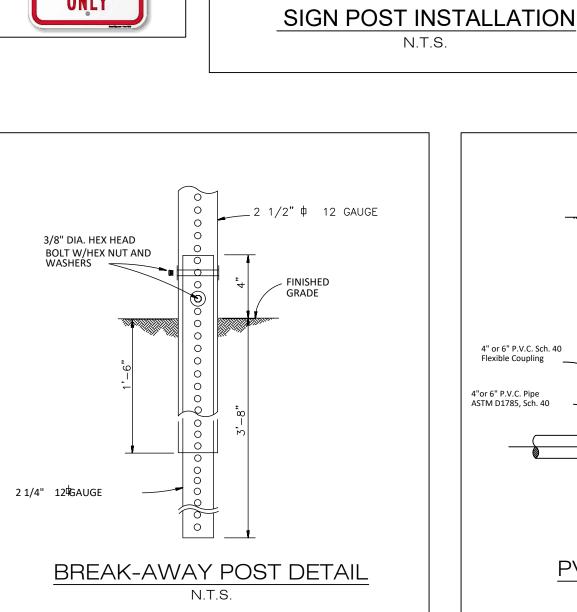


30" WIDE PAVEMENT LETTERING PAINTED WHITE (AS REQUIRED)

PAVEMENT MARKINGS

N.T.S.

4" WIDE PAVEMENT LINE PAINTED YELLOW 12" O.C.



NEW DEPRESSED

PAVEMENT REPAIR ——

1/2"

REVEAL

(TYP.)

SEE PLANS FOR

BELGIAN BLOCK CURB

VARIABLE DISTANCE

LPROPOSED CONCRETE

DEPRESSED CURB & CONCRETE APRON

AT DRIVEWAY DETAIL

N.T.S.

4500 PSI

GROUND LINE

CLASS "C" CONCRETE 4500

P.S.I. AT 28 DAYS

SIGN FOOTING N.T.S.

30"X30"

Post to be driven into ground

STOP SIGN DETAIL
NOT TO SCALE

DRIVEWAY APRON (6" THICK)

4' WALK BEHIND \_\_\_

- 1/2" THICK NON-EXTRUDABLE

└ 6" - 3/4" CLEAN CRUSHED STONE

BITUMASTIC MATERIAL FOR EXPANSION JOINT

APRON

∕-6 x 6 x 6 GA.

(MIN.)

VAN ACCESSIBLE

HANDICAPPED PARKING

SPACE DETAIL

PENALTY \$250 1ST OFFENSE

SUBSEQUENT OFFENSES FINE AND/OR UP TO 90 DAYS COMMUNITY SERVICE TOW-AWAY ZONE

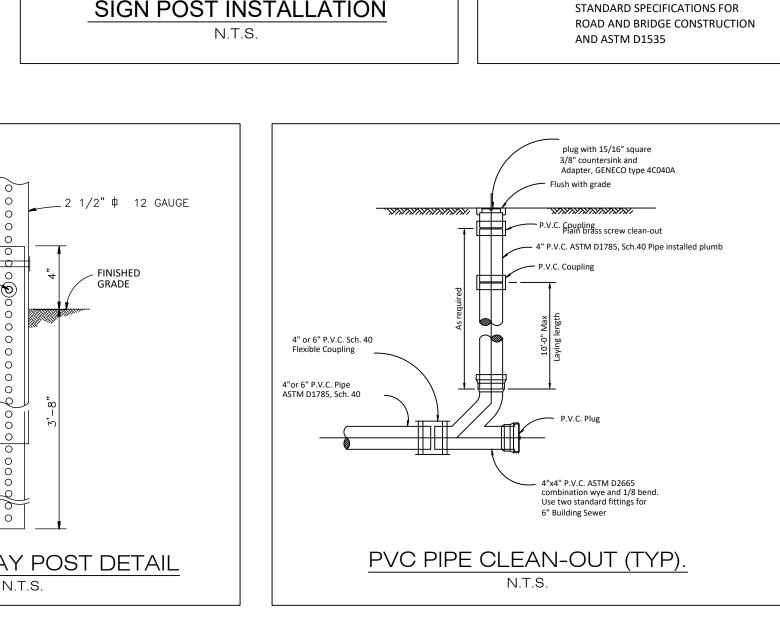
HANDICAPPED PARKING SIGN

N.T.S. ALL SIGN MATERIALS TO CONFORM WITH SECTION 916 OF THE N.J.D.O.T.

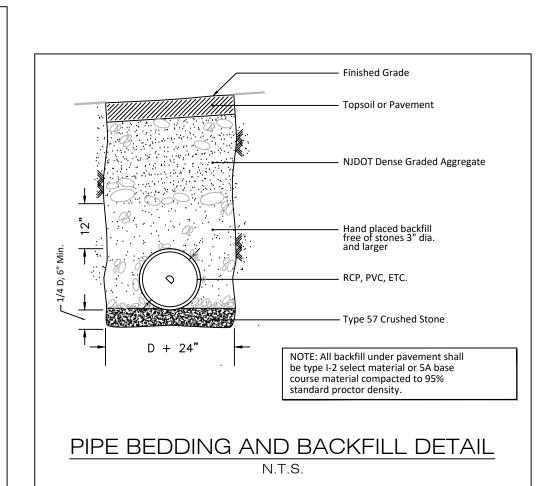
– 12" X 18"

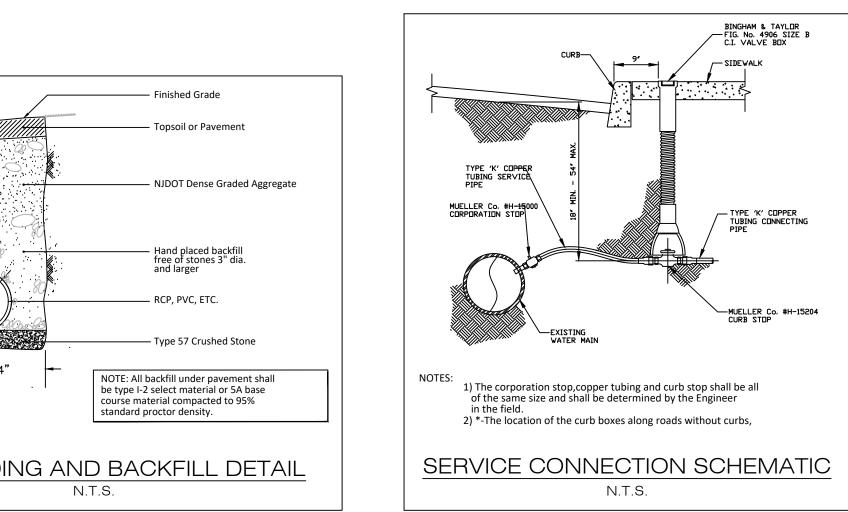
– 10' X 12"

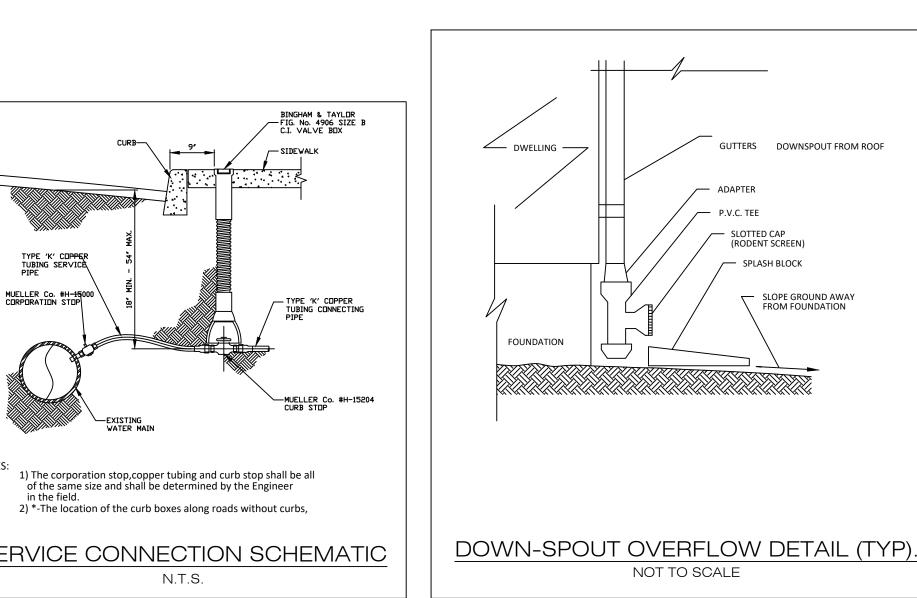
\_TO BE ADDED WHERE APPLICABLE

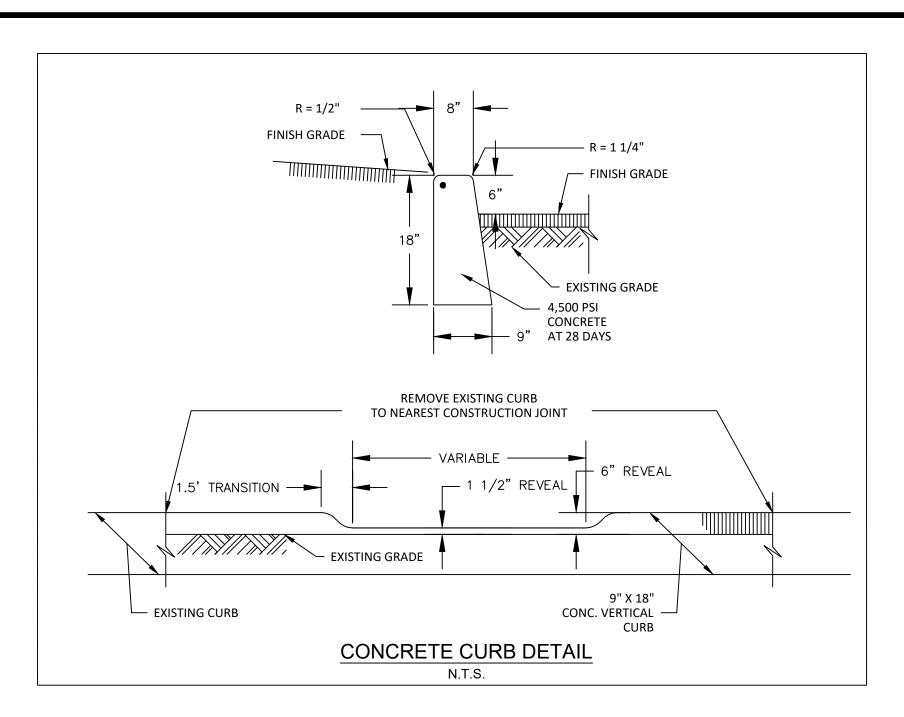


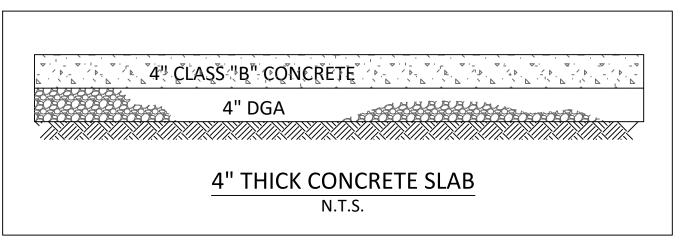
Mounting Height: 7.0'

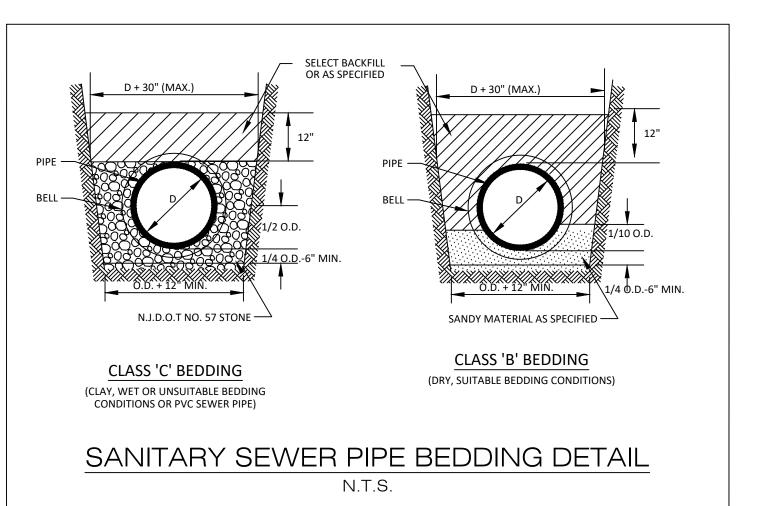


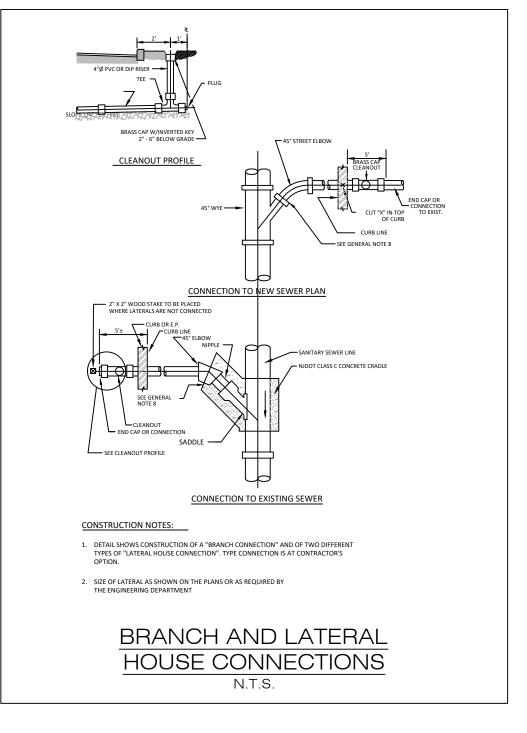


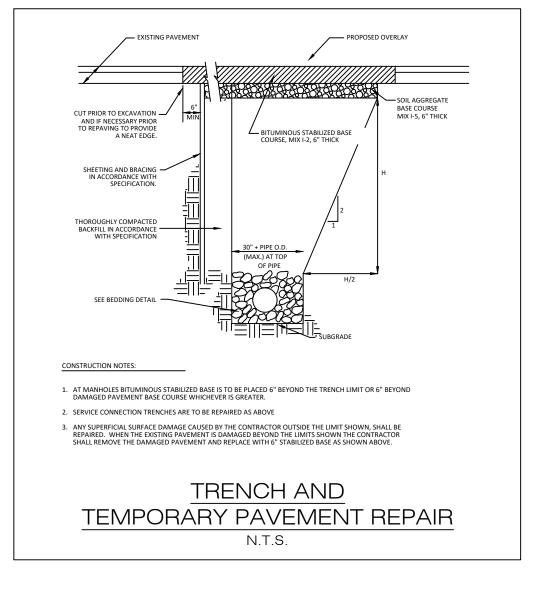


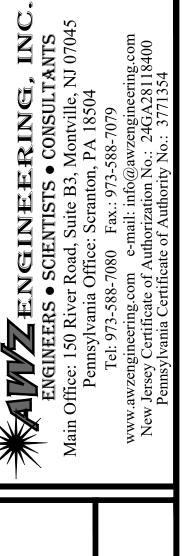












A. KHAN, P.E., C.M.E. ESSIONAL ENGINEER

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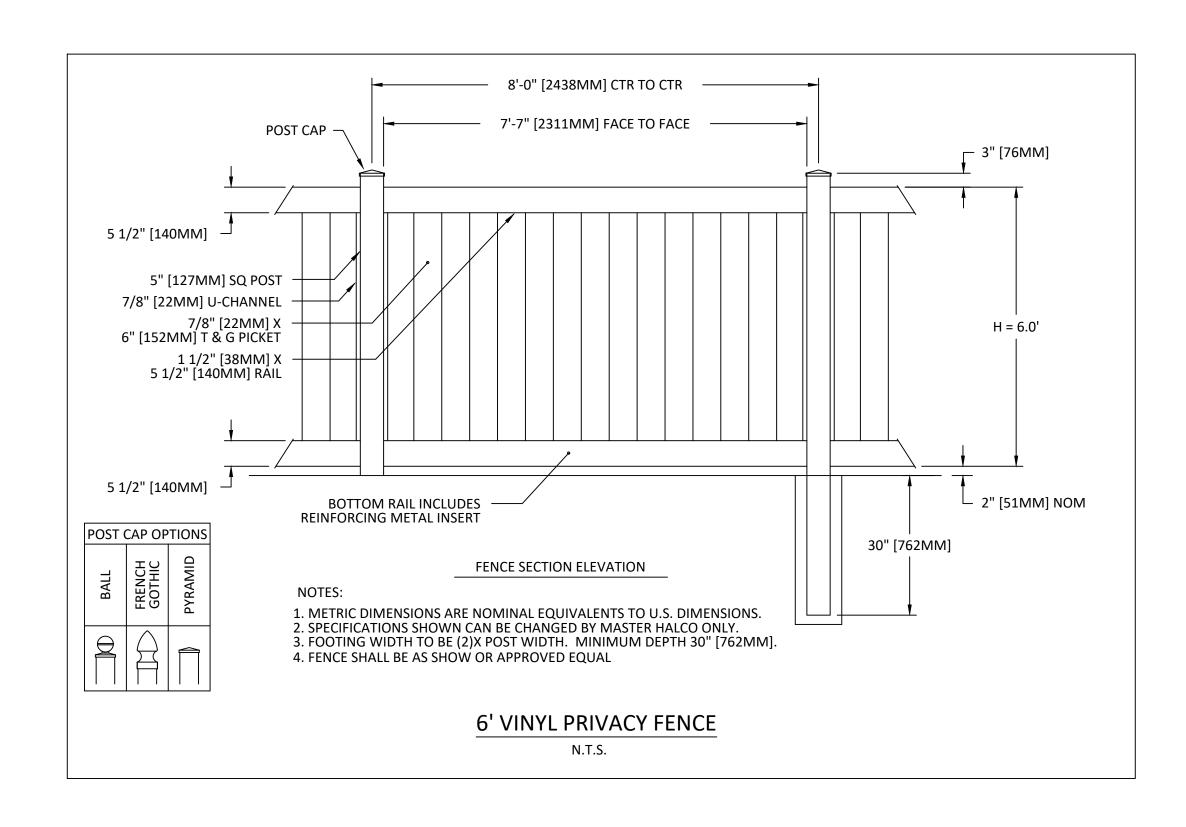
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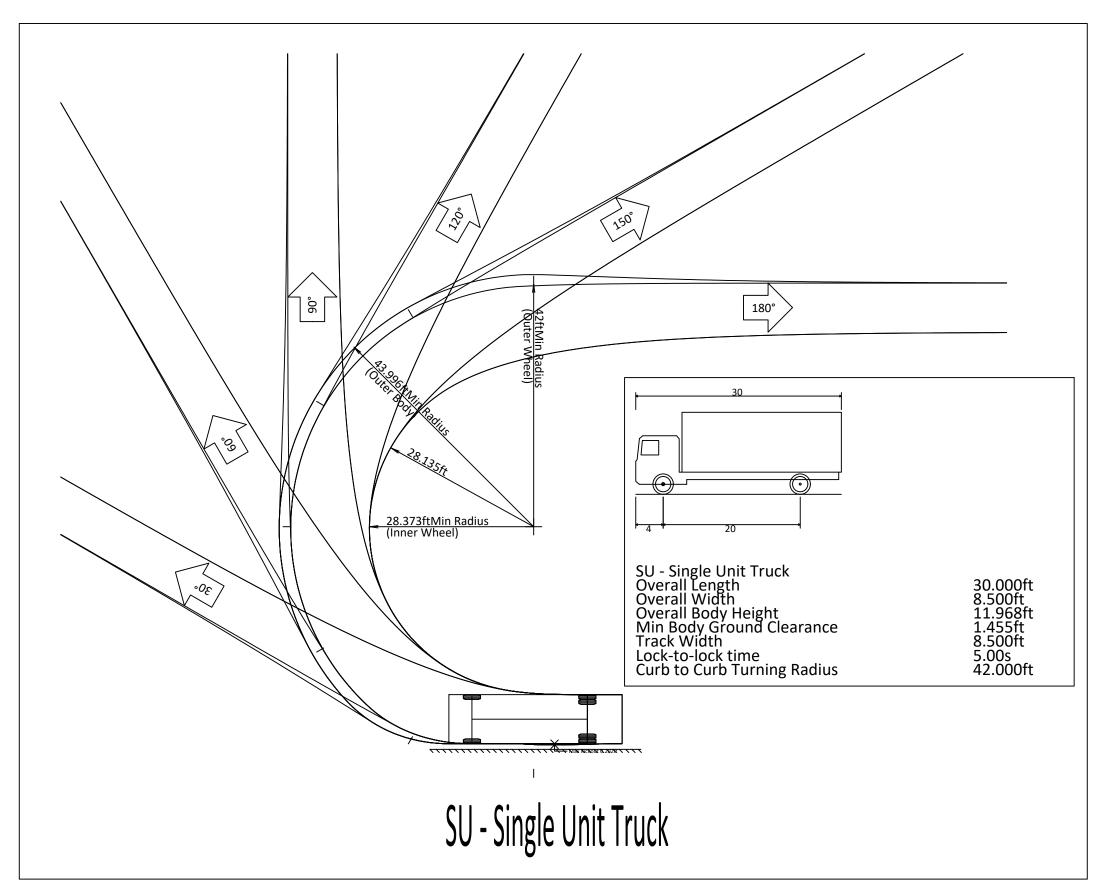
FROM FOUNDATION

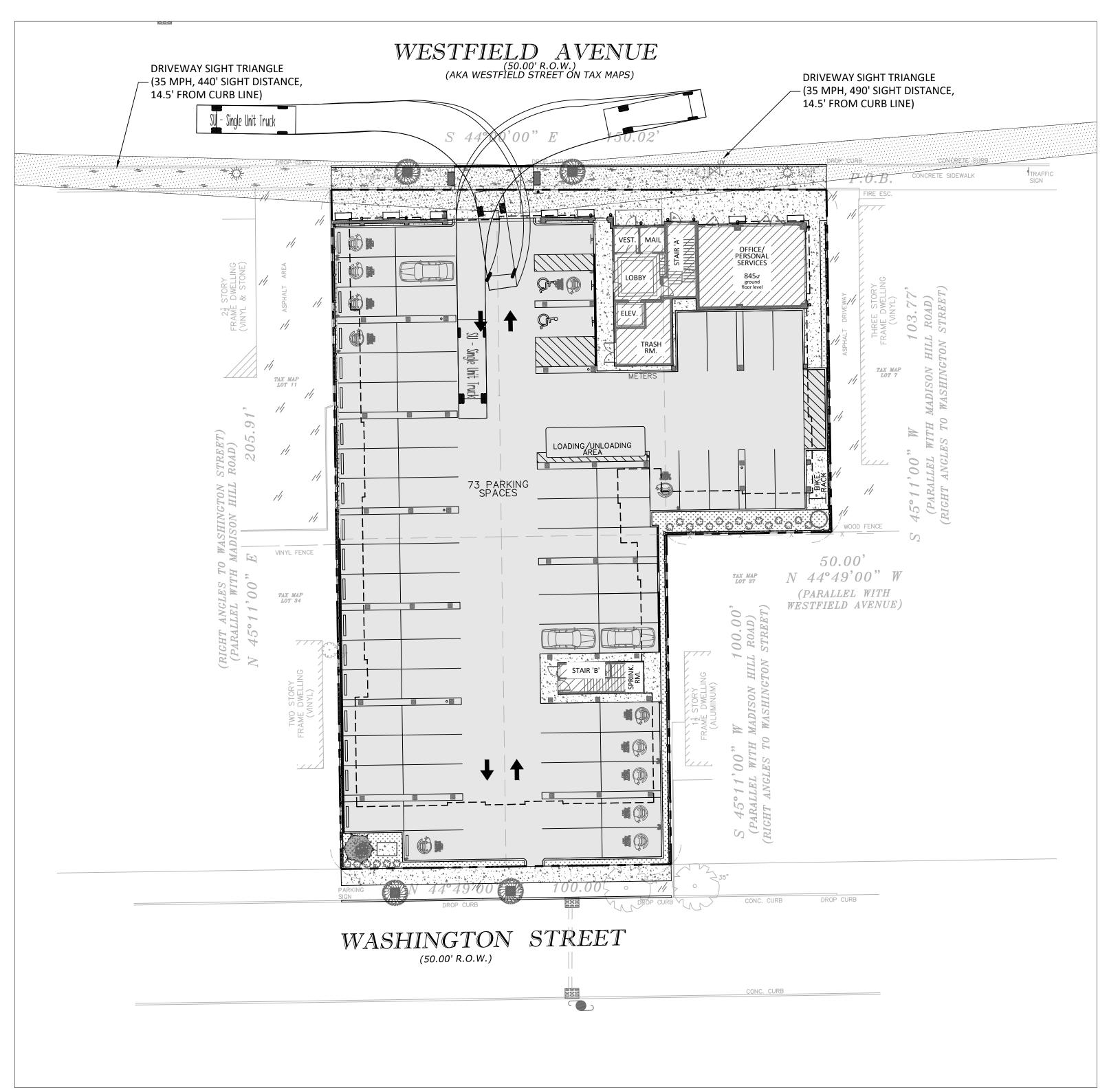
22-0107 SCALE: AS SHOWN

C-06

SHEET 6 OF 8







TRAFFIC CIRCULATION PLAN

SCALE: 1"=20"

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Main Office: 150 River Road, Suite B3, Montville, NJ 0704

Pennsylvania Office: Scranton, PA 18504

Tel: 973-588-7080 Fax.: 973-588-7079

www.awzengineering.com e-mail: info@awzengineering.com

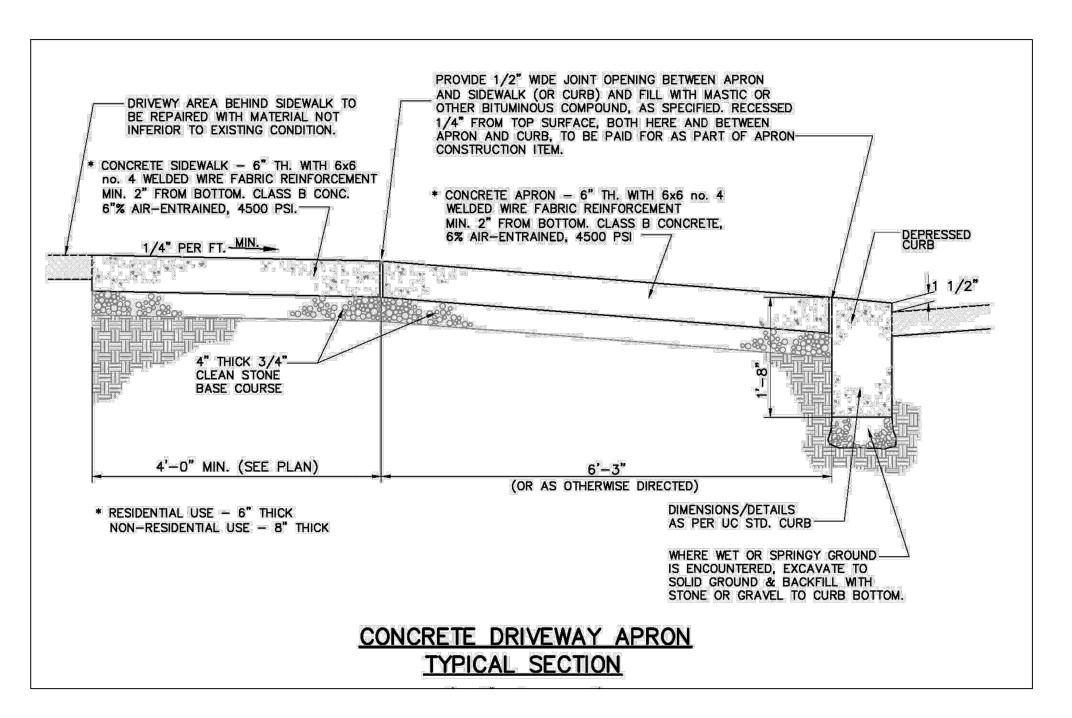
A. KHAN, P.E., C.M.E. ESSIONAL ENGINEER

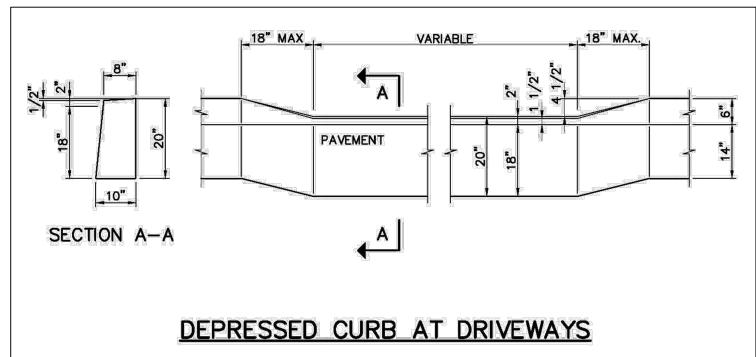
VESTFIELD AVENUE
ASHINGTON STREET
VNSHIP OF CLARK
SOUNTY, NEW JERSEY

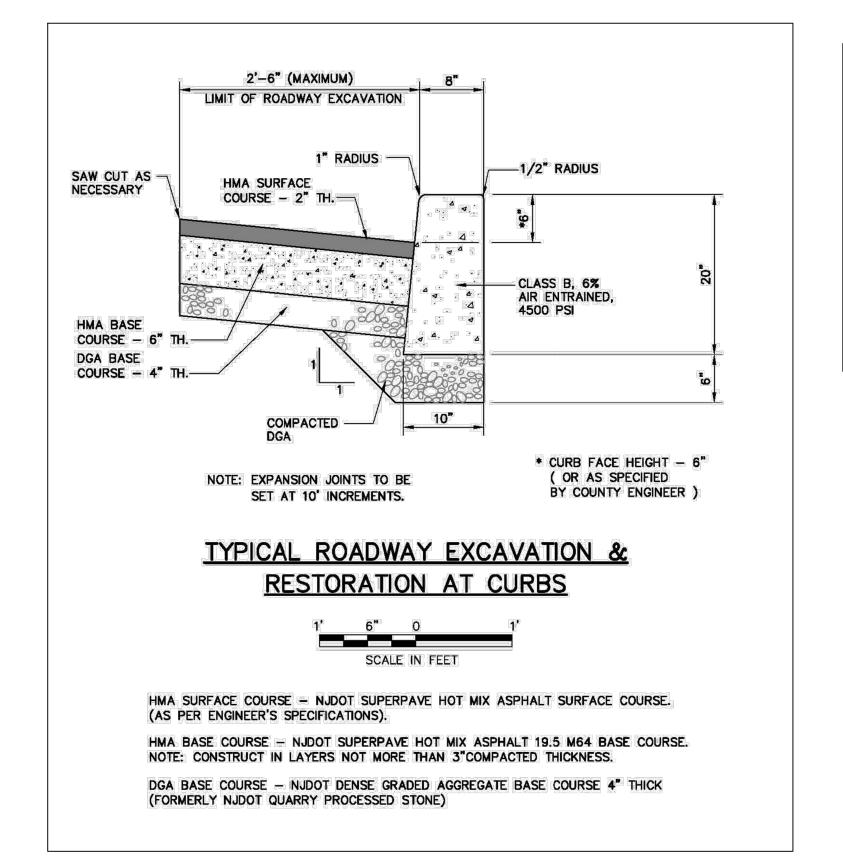
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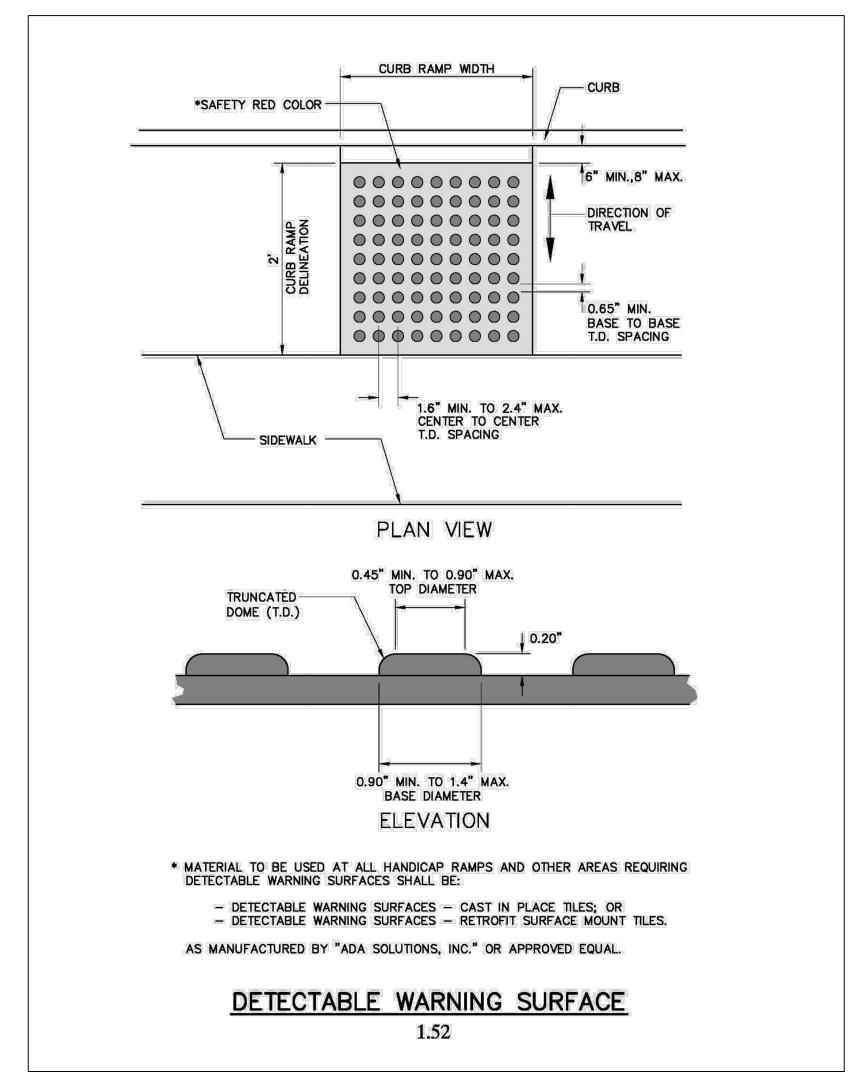
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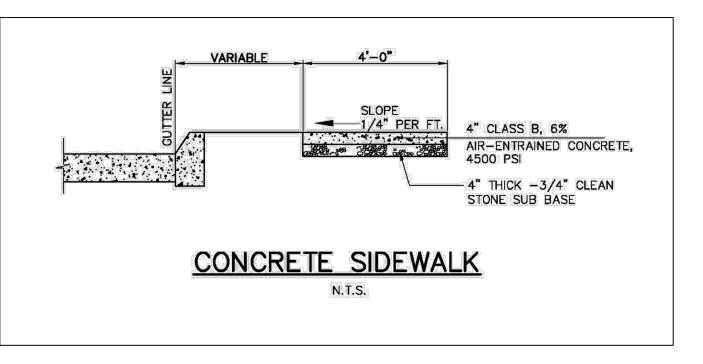
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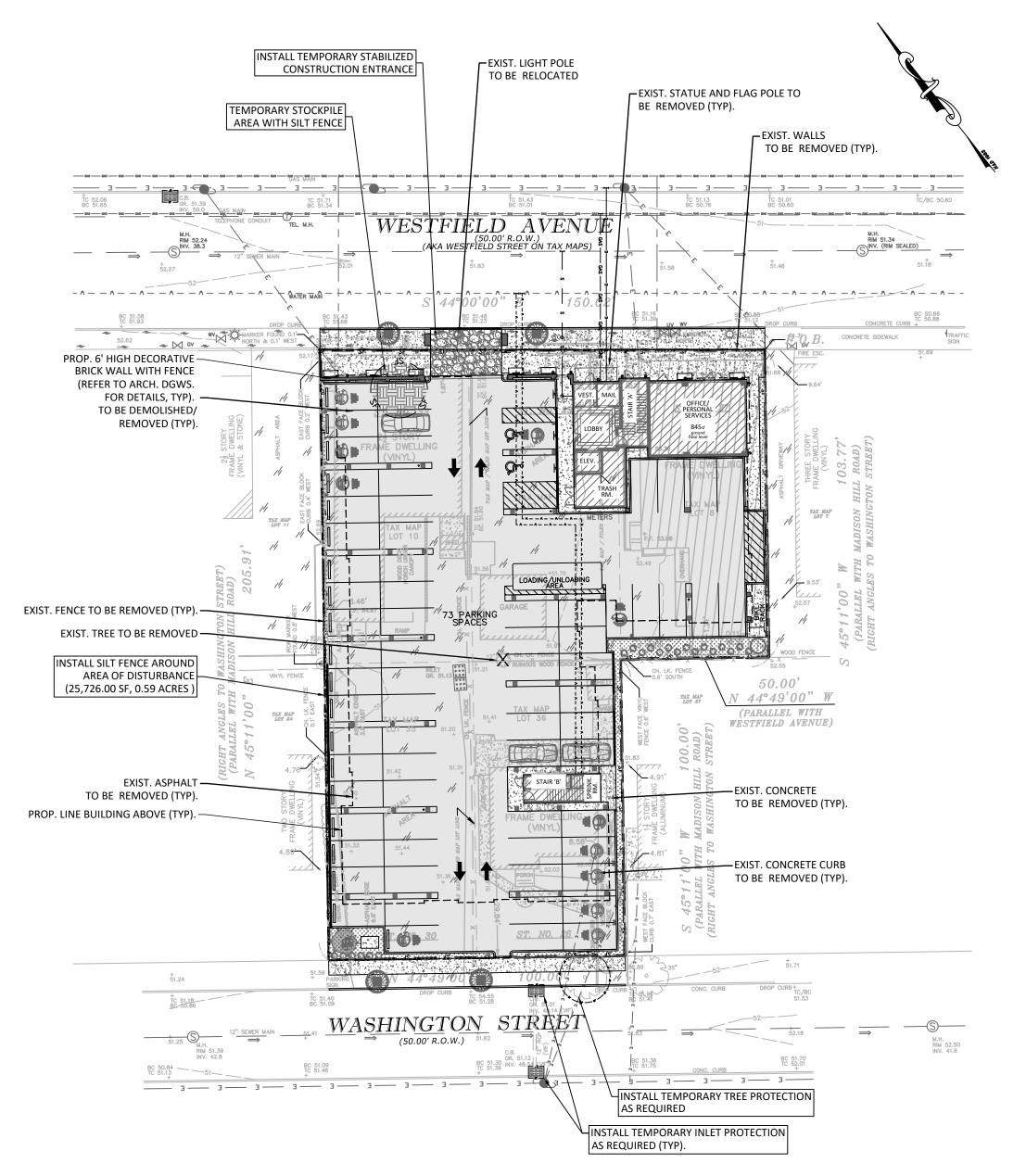
ADNAN A. KHAN, P.E., C.M.E. PROFESSIONAL ENGINEER

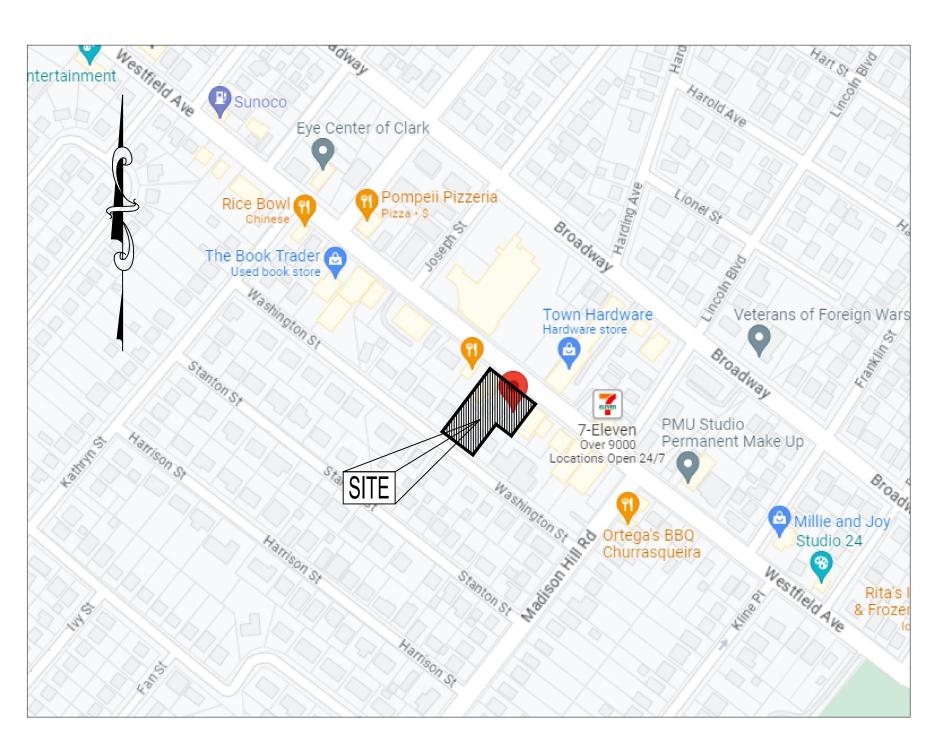
**JOB NUMBER:** 22-0107

SCALE: AS SHOWN

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SHEET 8 OF 8







### <u>LEGEND</u> TBR - TO BE REMOVED - EXISTING SPOT ELEVATION - EXISTING CONTOUR - PROPOSED CONTOUR - PROPOSED SPOT ELEVATION

#### **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

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 POLYACRYLAMIDE (PAM)- DRY SPRAY	MAY ALSO SEDIMENT E PRECIPITA	ORDING TO MAN INSTRUCTIONS BE USED AS AN BASINS TO FLOC TE SUSPENDED  NT BASIN STANI	ADDITIVE TO CCULATE AND COLLOIDS.
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.

#### NOTES FOR ROAD WORK:

1. THE CONTRACTOR SHALL PREPARE A PLAN FOR THE PROPER DEWATERING OF EACH STREAM CROSSING PRIOR TO EXCAVATING THE STREAM BED. PLAN SHALL BE FORWARDED TO THE ENGINEER AND MORRIS COUNTY SOIL CONSERVATION DISTRICT FOR APPROVAL. THE DISTRICT SHALL BE NOTIFIED FOR INSPECTION PRIOR TO EACH STREAM CROSSING CONSTRUCTION.

2. ANY AREAS USED FOR CONTRACTOR'S STAGING, INCLUDING BUT NOT LIMITED TO, TEMPORARY STORAGE OF STOCKPILE MATERIALS (e.g. CRUSHED STONE, QUARRY PROCESS STONE, SELECT FILL, EXCAVATED MATERIALS, ETC.) SHALL BE ENTIRELY PROTECTED BY A SILT FENCE ALONG THE LOW ELEVATION SIDE TO CONTROL SEDIMENT RUNOFF.

3. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE MORRIS COUNTY SOIL CONSERVATION DISTRICT OF ANY STAGING AND/OR STOCKPILE LOCATION AREAS AND FOR OBTAINING A SOIL EROSION AND SEDIMENT CONTROL CERTIFICATION FOR THESE AREAS.

4. A CRUSHED STONE, VEHICLE WHEEL-CLEANING BLANKET SHALL BE INSTALLED AT THE CONTRACTOR'S STAGING YARD AND/OR STOCKPILE AREAS TO PREVENT OFF-SITE TRACING OF SEDIMENT BY CONSTRUCTION VEHICLE ONTO PUBLIC ROADS. BLANKET SHALL BE 15 FT. x 50 FT. x 6 IN. (MINIMUM), CRUSHED STONE 2-1/2 INCHES IN DIAMETER. SAID BLANKET SHALL BE UNDERLAIN WITH A SUITABLE SYNTHETIC SEDIMENT FILTER FABRIC AND MAINTAINED IN GOOD ORDER.

#### SOMERSET-UNION COUNTY SOIL CONSERVATION DISTRICT SOIL EROSION AND SEDIMENT CONTROL NOTES:

- 1. ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE INSTALLED PRIOR TO ANY MAJOR SOIL DISTURBANCE, OR IN THEIR PROPER SEQUENCE AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED.
- 2. ANY DISTURBED AREAS THAT WILL BE LEFT EXPOSED MORE THAN 30 DAYS AND NOT SUBJECT TO CONSTRUCTION TRAFFIC WILL IMMEDIATELY RECEIVE A TEMPORARY SEEDING. IF THE SEASON PREVENTS THE ESTABLISHMENT OF A TEMPORARY COVER, THE DISTURBED AREAS WILL BE MULCHED WITH STRAW OR EQUIVALENT MATERIAL, AT A RATE OF TWO (2) TONS PER ACRE, ACCORDING TO STATE STANDARDS.
- 3. PERMANENT VEGETATION SHALL BE SEEDED OR SODDED ON ALL EXPOSED AREAS WITHIN TEN (10) DAYS AFTER FINAL GRADING. MULCH WILL BE USED FOR PROTECTION UNTIL SEEDING IS ESTABLISHED.
- 4. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE STATE STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY.
- 5. A SUB-BASE COURSE WILL BE APPLIED IMMEDIATELY FOLLOWING ROUGH GRADING AND INSTALLATION OF IMPROVEMENTS IN ORDER TO STABILIZE STREETS, ROADS, DRIVEWAYS AND

PARKING AREAS. IN AREAS WHERE NO UTILITIES ARE PRESENT, THE SUB-BASE SHALL INSTALLED WITHIN 15 DAYS OF PRELIMINARY GRADING.

- IMMEDIATELY FOLLOWING INITIAL DISTURBANCE OR ROUGH GRADING, ALL CRITICAL AREAS SUBJECT TO EROSION (I.E. STEEP SLOPES, ROADWAY EMBANKMENTS) WILL RECEIVE A TEMPORARY SEEDING IN COMBINATION WITH STRAW MULCH OR A SUITABLE EQUIVALENT, AT A RATE OF TWO (2) TONS PER ACRE, ACCORDING TO THE STATE STANDARDS.
- 7. ANY STEEP SLOPES RECEIVING PIPELINE INSTALLATION WILL BE BACKFILLED AND STABILIZED DAILY, AS THE INSTALLATION PROCEEDS (I.E. SLOPES GREATER THAN 3:1).
- 8. TRAFFIC CONTROL STANDARDS REQUIRE THE INSTALLATION OF A 50'X30'X1" PAD OF 1 STONE, AT ALL CONSTRUCTION DRIVEWAYS, IMMEDIATELY AFTER INITIAL SITE DISTURBANCE.
- 9. THE SOMERSET-UNION SOIL CONSERVATION DISTRICT SHALL BE NOTIFIED IN WRITING 48 HOURS IN ADVANCE OF ANY LAND DISTURBING ACTIVITY.
- 10. AT THE TIME WHEN THE SITE PREPARATION FOR PERMANENT VEGETATIVE STABILIZATION IS GOING TO BE ACCOMPLISHED, ANY SOIL THAT WILL NOT PROVIDE SUITABLE ENVIRONMENT TO SUPPORT ADEQUATE VEGETATIVE GROUND COVER, SHALL BE REMOVED OR TREATED IN SUCH A WAY THAT 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 OR PERMANENT GROUND STABILIZATION WILL HAVE TO BE EMPLOYED.
- 11. IN THAT NJSA 4:24-39 ET SEQ., REQUIRES THAT NO CERTIFICATE OF OCCUPANCY BE ISSUED BEFORE THE PROVISIONS OF THE CERTIFIED PLAN FOR SOIL EROSION AND SEDIMENT CONTROL HAVE BEEN COMPLIED WITH FOR PERMANENT MEASURES, ALL SITE WORK FOR SITE PLANS AND ALL WORK AROUND INDIVIDUAL LOTS IN SUBDIVISIONS, WILL HAVE TO BE COMPLETED PRIOR TO THE DISTRICT ISSUING A REPORT OF COMPLIANCE FOR THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY BY THE MUNICIPALITY.
- 12. CONDUIT OUTLET PROTECTION MUST BE INSTALLED AT ALL REQUIRED OUTFALLS PRIOR TO THE DRAINAGE SYSTEM BECOMING OPERATIONAL.
- 13. ANY CHANGES TO THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLAN 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.
- 14. THE SOMERSET-UNION SOIL CONSERVATION DISTRICT SHALL BE NOTIFIED OF ANY CHANGES IN OWNERSHIP.
- 15. MULCHING IN THE STANDARDS IS REQUIRED FOR OBTAINING A CONDITIONAL REPORT OF COMPLIANCE. CONDITIONS ARE ONLY ISSUED WHEN THE SEASON PROHIBITS
- 16. THE CONTRACTOR IS RESPONSIBLE FOR KEEPING ALL ADJACENT ROADS CLEAN DURING THE LIFE OF THE CONSTRUCTION PROJECT.
- 17. THE DEVELOPER SHALL BE RESPONSIBLE FOR REMEDIATING ANY EROSION OR SEDIMENT PROBLEMS THAT ARISE AS A RESULT OF ONGOING CONSTRUCTION AT THE REQUEST OF THE SOMERSET-UNION SOIL CONSERVATION DISTRICT.
- 18. HYDROSEEDING IS A TWO-STEP PROCESS. THE FIRST STEP INCLUDES SEED, FERTILIZER, LIME, ETC., ALONG WITH MINIMAL AMOUNTS OF MULCH TO PROMOTE CONSISTENCY, GOOD SEED TO SOIL CONTACT, AND GIVE A VISUAL INDICATION OF COVERAGE. UPON COMPLETION OF THE SEEDING OPERATION, HYDRO-MULCH SHOULD BE APPLIED AT A RATE OF 1500 LBS. PER ACRE IN THE SECOND STEP. THE USE OF HYDRO-MULCH, AS OPPOSED TO STRAW, IS LIMITED TO OPTIMUM SEEDING DATES AS LISTED IN THE STANDARDS.

# GRAPHIC SCALE

1 inch = 30 ft.



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.

BASED ON THE USDA WEB SOIL SURVEY, THE MAP UNIT SYMBOL FOR 43.2% OF THE SITE IS "HatB" (HALEDON-URBAN LAND-HASBROUCK COMPLEX, 0 TO 8 PERCENT SLOPES) AND 56.8% "UR" (URBAN LAND).

**PROTECT YOURSELF** A PHONE CALL CAN BE YOUR INSURANCE POLICY



DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S

SURFACE ANYWHERE IN THE STATE

**JOB NUMBER:** 22-0107

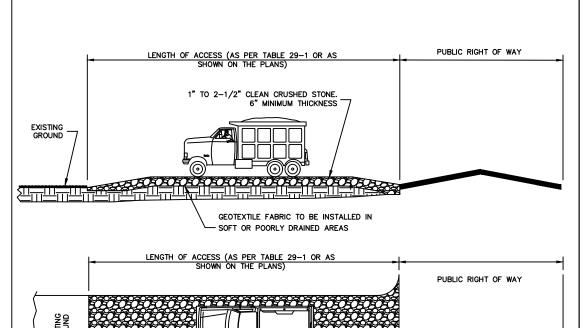
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S-01

SCALE: AS SHOWN

SHEET 1 OF 2

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



LENGTH OF STABILIZED CONSTRUCTION ACCESS (TABLE 29-1)											
1.100											
PERCENT SLOPE	LENGTH OF ST	ONE REQUIRED									
OF ROADWAY	CDARSE GRAINED SDILS	FINE GRAINED SOILS									
0 TO 2%	50 FT	100 FT									
2 TO 5%	100 FT	200 FT									
>5%	>5% Entire surface stabilized with FABC base										
	course per governing	authority requirements.									

WIDTH TO EQUAL WIDTH OF TRAVELED ROADWAY

1. ALL INDIVIDUAL LOT INGRESS/EGRESS POINTS SHALL REQUIRE STABILIZED CONSTRUCTION ENTRANCE ACCESS.

2. PLACE STABILIZED CONSTRUCTION ENTRANCE AT LOCATIONS AS SHOWN ON THE SOIL EROSION AND SEDIMENT CONTROL PLAN. 3. STONE SIZE SHALL BE ASTM C-33, SIZE NO. 2 OR 3, CRUSHED STONE.

4. THE THICKNESS OF THE STABILIZED CONSTRUCTION ENTRANCE SHALL NOT BE LESS THAN 6'. 5. THE WIDTH AT THE EXISTING PAVEMENT SHALL NOT BE LESS THAN THE FULL WIDTH OF

6. THE STABILIZED CONSTRUCTION ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OF FLOWING OF SEDIMENT ONTO THE R.D.W./PAVEMENT. THIS REQUIRES PERIODIC TOP DRESSING WITH ADDITIONAL LENGTH AS CONDITIONS DEMAND AND REPAIR AND/OR CLEAN OUT OF ANY MEASURE USED TO TRAP SEDIMENT.

7. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO THE PUBLIC ROADWAY MUST BE REMOVED IMMEDIATELY. 8. WHERE TRACKING OF SOIL ONTO ROADWAYS IS A CONTINUAL DCCURRENCE, ALL CONTRACTORS BOTH SITE AND DWELLING CONTRACTORS, SHALL BE REQUIRED TO BROOM SWEEP THE ROADWAY AT 2 HOUR INTERVALS MINIMUM AND PRIOR TO LEAVING THE CONSTRUCTION SITE AT THE END

PROPOSED	SEQUENCE	OF	DEVEL	OPMENT	
Installation	of all podi	man	t and	orogion	_

PROPOSED SEQUENCE OF DEVELOPMENT		
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.		Week Week
Layout and location of all proposed utilities.		
Construction of all proposed improvements and drainage facilities. installation of all erosion control measures affected by said facilities such as inlet sediment barriers.	2	5 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
Fine grading of all lot areas and basins including construction of all soil erosion control as necessary.	1	Week
Compaction test on mitigation areas	1	Week
Stabilization of all off pavement areas.	1	Week
Uniformly apply topsoil to an average depth of 5", minimum of 4",firmed in place. Provide permanent vegetative stabilization of all exposed areas.	1	Week
Complete all landscaping and vegetative cover.	1	Week
Removal of all temporary sediment and erosion control devices.		pon ompletion

#### STANDARD FOR TEMPORARY VEGETATIVE COVER FOR SOIL STABILIZATION

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

To temporarily stabilize the soil and reduce damage from wind and water erosion until permanent

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

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

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.

2. Immediately prior to seeding and topsoil application, the surface should be scarified 6" to 12" where there has been soil compaction. <u>This practice is permissible only where there is no danger to</u> underground utilities (cables, irrigation systems, etc.)

#### SEEDBED PREPARATION

A. Apply 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 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. 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. . Inspect seedbed just before seeding. If traffic has left the soil compacted, the area must be retille

D. Soils high in sulfides or having a pH of 4 or less refer to Standard for Management of High Acid Producing Soils, pq. 1—1. SEEDING

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

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

SEED SELECTIONS	SEEDING (pou	RATE <sup>1</sup>		M SEEDING Plant Hardine		OPTIMUM SEEDING
SEED SELECTIONS	Per Acre	Per 1000 Sq. Ft.	ZONE 5b,6s	ZONE 6b	ZONE 7a,b	DEPTH⁴ (inches)
COLD SEASON GRASSES						
1. Perennial ryegrass	100	1.0		3/1-5/15 8/15-10/1	2/15-5/1 8/15-10/15	0.5
2. Spring oats	86	2.0		3/1-5/15 8/15-10/1	2/15-5/1 8/15-10/15	1.0
3. Winter Barley	96	2.2	8/1-9/15		8/15-10/15	1.0
4. Annual ryegrass	110	1.0	3/15-6/1 8/1-9/15		2/15-5/1 8/15-10/15	0.5
5. Winter Cereal Rye	112	2.8	8/1-11/1	8/1-11/15	8/1-12/15	1.0
	WA	RM SEASO	N 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
1 Seeding rate for warm se	acon araco	coloctions 5	-7 shall be	adjusted to	rofloot the c	mount of

. 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 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.)

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

C. Hydroseeding is a broadcast seeding method usually involving a truck or trailer mounted tank, with an agitation system and hydraulic pump for mixing seed, water and fertilizer and spraying the mix onto the prepared seedbed. Mulch shall not be included in the tank with seed. Short fibered mulch may be applied with a hydroseeder following seeding. (also see Section 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 improved 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 is required on all seeding. Mulch will insure against erosion before grass is established and wi promote faster and earlier establishment. The existence of vegetation sufficient to control soil erosion shall be deemed compliance with this mulching requirement.

Straw or Hav. 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-binder (tackifying or adhesive agent), the rate of application is 3 tons per acre. Mulch chopper-blowers must <u>not</u> grind the mulch. Hay mulch is not recommended for establishing fine turf or lawns due to the presence of weed seed

Application. Spread mulch uniformly by hand or mechanically so that approximately 85% of the soil

surface will be covered. For uniform distribution of hand—spread mulch, divide area into approximately 1,000 square feet sections and distribute 70 to 90 pounds within each section. Anchoring shall be accomplished immediately after placement to minimize loss by wind or water. This may be done by one of the following methods, depending upon the size of the area, steepness of

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 mulch to soil surface by stretching twine between pegs in a criss-cross and a square pattern. 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 anchorina coulter tool). A tractor-drawn implement, somewhat like a disc-harrow, especially designed to push or cut some of the broadcast long fiber mulch 3 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 tackifying 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 appearance.

(1) Organic and Vegetable Based Binders — Naturally occuring, powder based, hydrophilic materials when with water formulates a gel and when applied to mulch under satisfactory curing conditions will form membraned 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 at 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.

(2) 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 area and watered, form a mulch mat. Pelletized mulch shall be applied in accordance with the manufacturers recommendations. Mulch may be applied by hand or mechanical spreader at the rate of 60-75 lbs./1,000 square feet and activated with 0.2 to 0.4 inches of water. This material has been ound 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

Establishment of permanent vegetative cover on exposed soils where perennial vegetation is needed for long term protection.

To permanently stabilize the soil, assuring conservation of soil and water, and to enhance the

Slows the over land movement of stormwater runoff, increases infiltration and retains soil and nutrients on site, protecting streams or other stormwater conveyances.

On exposed soils that have the potential for causing off—site environmental damage. SITE PREPARATION A. Grade as needed and feasible to permit the use of conventional equipment for seedbed preparation,

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.)

seeding, mulch application, and mulch anchoring. All grading should be done in accordance with

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,

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. Fertilizer shall be applied at the rate of 500 pounds per acre of 11 lbs. per 1000

channel stabilization measures, sediment basins, and waterways. See Standards 11 through 42.

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 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 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.

A. Select a mixture from Table 4–3 or use mixture recommended by Rutgers Cooperative Extension Natural Resources Conservation Service which is approved by the Soil Conservation District. Seed germaination 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 whan 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 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 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 1/2inch, 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 seeding emergence. this is preferred method. When performed on the contour,

D. <u>Hydroseedina</u> 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 greas too steep for conventional equipment to traverse or too

sheet erosion will be minimize and water conservation on site will be maximized.

establishing fine turf or lawns due to the presence of weed seed.

obstructed with rocks, stumps, etc.

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 I-1/2 to 2 tons per acre (70 to 90 pounds per 1,000 square feet), except that where a crimper is used instead of a liquid mulch-binder (tackifying or adhesive agent), the rate of application is 3 tons per acre. Mulch chopper—blowers must <u>not</u> grind the mulch. Hay mulch is not recommended for

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 approxima 1,000 square feet sections and distribute 70 to 90 pounds within each section Anchoring shall be accomplished immediately after placement to minimize loss by wind or water. may be done by one of the following methods, depending upon the size of the area, steepness of

Peg and Twine. Drive 8 to 10 inch wooden pegs to within 2 to 3 inches of the soil surface every feet in all directions. Stakes may be driven before or after applying mulch. Secure mulch to soil surface by stretching twine between pegs in a criss—cross and a square pattern. Secure twine aro 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 coulter tool). A tractor-drawn implement, somewhat like a disc-harrow, especially designed to push or cut some of the broadcast long fiber mulch 3 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

tackifying 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 appearance.

(1) Organic and Vegetable Based Binders — Naturally occuring, powder based, hydrophilic materials when with water formulates a gel and when applied to mulch under satisfactory curing conditions will form membraned 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 at 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.

(2) Synthetic Binders — High polymer synthetic emulsion, miscible with water when diluted and following 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 area and watered, form a mulch mat. Pelletized mulch shall be applied in accordance with the manufacturers recommendations. Mulch may be applied by hand or mechanical spreader at the rate of 60-75 lbs./1,000 square feet and activated with 0.2 to 0.4 inches of water. This material has been found to be beneficial for use on small lawn or renovation areas, seeded areas where weed-seed free mulch is desired or on sites where straw mulch and tackifier agent are not practical or desirable. Applying the full 0.2 to 0.4 inches of water after spreading pelletized mulch on the seed bed is extremely important for sufficient activation and expansion of the mulch to provide soil coverage.

If soil moisture is deficient, and mulch is not used, supply new seedings with adequate water (a minimum of 1/4 inch 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.

Since soil organic matter content and slow 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 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 until the gross nitrogen deficiency

ESTABLISHING PERMANENT VEGETATIVE STABILIZATION

The quality of permanent vegetation rests with the contractor. The timing of seeding, preparing the the seedbed, applying nutrients, mulch and other management are essential. The seed application rates in Table 4—3 are required when a <u>Report of Compliance</u> 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 <u>Report of Compliance</u> from the district. These rates apply to all methods of seeding. <u>Establishing permanent vegetation means 80% vegetative cover (of the seeded</u> 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.

PERMANEN	TABLE IT STABILIZATION MI	PERMANENT STABILIZATION MIXTURES FOR VARIOUS USES										
Application	PLANTING M	IIXTURES BY SOIL DRAII (see Table 4-3)	NAGE CLASS/1									
Application	Somewhat Poorly to Poorly <u>Drained</u>											
Residential/commercial lots	10, 12, 15	6, 10, 12, 13, 14, 15	16									
Pond and channel banks, dikes, 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									
Grasses waterway, 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 Steep slope and banks, roadsides, borrow areas	2, 3, 6, 8	2, 3, 5, 7, 8, 9, 10, 15 18	2, 9, 10, 11, 12									
Sand and gravel pits, Sanitary landfills	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 & shorelines²	2, 8, 20, 21a	2, 8, 19b, 20, 21a, 21b	2, 8, 19a, 21a,b,c,d									
Utility rights—of—way	3, 7, 180	3, 7	8, 9, 17									

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

				TABLE 4-3						
ed	PERM	ANENT VE	GETATIVE MIXTU	RES, PLANTING	RATES AND PL	ANTING	DATES1			
i.	SEED MIXTURE <sup>2</sup>	PLANTING RATE/3	0 = 0	PLANTING DATES  O = Optimal Planting period  A = Acceptable Planting period						
n or		- PLAI	PLANT HARDI	NESS ZONES (see	e Figure 4-1)	ENANCE /*				
			Zone 5b, 6a	Zone 6b	Zone 7a, 7b	E A				

| 1000 | 5/31 | 7/31 | 10/1 | 4/30 | 8/14 | 10/15 | 4/30 | 8/14 | 11/30 |

WARM SEASON SEED MIXTURES										
1 A. FOR PINELANDS NATIONAL RESERVE SEED MIXTURES SEE TABLE 4.4 PG 4-17 OF THE STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY.			0		0		0			
1. SWITCHGRASS AND //OR COASTAL PANICGRASS PLUS OR FLATPEA.	15 15 20	.35 .45 .45	0		0		0		C-D	
2. DEERTONGUE OR SWITCHGRASS REDTOP	15 20 1	.35 .45 .1	0		0		0		C-D	USE DEER <4.0.SWITO SUPERIOR USE FOR V REDTOP P COVER.
3. SWITCH GRASS DEERTONGUE LITTLE BLUESTEM SHEEP	15 10	.35 .25							C-D	PINELAND

2. DEERTONGUE OR SWITCHGRASS REDTOP	15 20 1	.35 .45 .1	0		0		0		C-D	USE DEERTONGUE IF PH <4.0.SWITCHGRASS IS SUPERIOR WILDLIFE PLANT. USE FOR WATERWAYS. REDTOP PROVIDES QUICK COVER.
3. SWITCH GRASS DEERTONGUE LITTLE BLUESTEM SHEEP FESCUE PLUS PARTRIDGE PEA	15 10 20 20 10	.35 .25 .45 .45 .25	0		0		0		C-D	PINELANDS MIXTURE
4. SWITCHGRASS BIG BLUESTEM LITTLE BLUESTEM SAND LOVEGRASS COASTAL PANICGRASS	10 5 5 4 10	.25 .10 .10 .10 .25	0		0		0		C-D	NATIVE WARM-SEASON MIXTURE.
5. BERMUDAS ZOYSIAGRASS (SEED) ZOYSIAGRASS (SPRIGS)	15 30	.35 .70	0		0		0		A-D	BERMUDAGRASS HAS SUPERIOR SALT TOLERANCE. ZOYSIA HAS GREATER WEAR TOLERANCE.

SENERAL LOW

EXCLUDED ON LAWN

MOIST SHADE

oil ately	ZOYSIAG	GRASS (SPRIGS)	30	.70	0			0			0			
This of						5			_			5		
v 4 l cound		SEASON MIXTURES			A	Å	0	A	<b>A</b>	0	A	Ă	0	

SEED MIXTURES													
6. FINE FESCUE (BLEND) HARD FESCUE CHEWINGS FESCUE STRONG CREEPING RED	45	.10										B-D	WHITE CLOVER CAN BE REMOVED WHEN USED TO
FESCUE KENTUCKY BLUEGRASS PERENNIAL RYEGRASS	10	.50											ESTABLISH LAWNS.
PLUS WHITE CLOVER	5	.10											
7. STRONG CREEPING RED FESCUE KENTUCKY BLUE GRASS PERENNIAL RYEGRASS OR REDTOP PLUS WHITE CLOVER	130 50 20 10 5	3 1 .5 .25 .10	Α	<b>A</b>	0	Α	<b>A</b>	0	A	<b>A</b>	0	B-D	SUITABLE WATERWAY MIX CANADA BLUEGRASS MORE DROUGHT TOLERANT. USE REDTOP FOR

L FESCUE BEST |O|AONDITIONS. SE CREEPING RED

C-D NATIVE WET MIX. PERENNIAL RYEGRASS P|O|A|A|O|A|A|O|A|A WHITE CLOVER

BLUEGRASS TURF-TYPE TALL A A O A A O A A O AAAOAAAOAA BLEND OF 3 CULTIVARS) AAOAAOAAO

AAOAAOAAO ILEND) ERENNIAL RYEGRAS AAOAAOAAO TRONG CREEPING REI

A | A | O | A | A | O | A | A | O N.E. WILDFLOWER O|A|O|O|A|O|O|A|OB. SALTMEADOWN

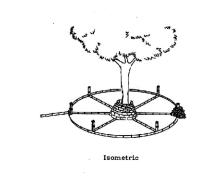
LANTED ABOVE MEAN SEA LEVEL. ASTAL PANICGRASS AY BE INTERSEEDE BETWEEN ROWS OF . A. PURPLEOSIER B. DWARF WILLOW Before 5/1 D. SILKY DOGWOOD

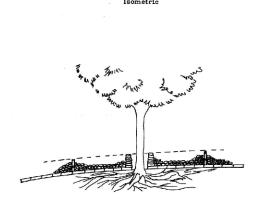
grasses (seed mixtures 8–20).

2 Seeding mixtures and/or rates not listed above may be used if recommended by the local Soil Conservation District, Natural Resources Conservation lespedeza) should be mixed with proper innoculant prior to planting.

Seeding rates specified are required when a report of compliance is requested prior to actual establishment of permanent vegetation. Up to 50% reductio 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 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, N.J.S.A. 4:8-17.13 et. seq.

O=optimal planting period A=acceptable planting period Maintenance Level: Intensive mowing, (2-4 days), fertilization, lime, pest control and irrigation (Examples - high maintenance lawns, commercial and recreation areas, public facilities). Frequent mowing, (4-7 days), occasional fertilization, lime and weed control (Examples - home lawns, commercial sites school sites). Periodic mowing (7-14 days), occasional fertilization and lime (Examples - home lawns, parks). Infrequent or no mowing, fertilization and lime the first year of establishment (Examples - roadsides, recreation areas, public open spaces). 5 Summer seddings should be only conducted when the site is irrigated. Mixes including white clover require that at least six weeks of growing season after seeding to ensure establishment before freezing conditions.





ree protection - tile and gravel will allow r circulation to root zone under a fill

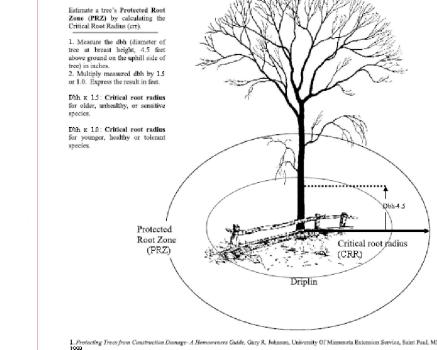
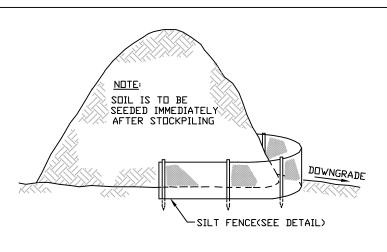


Figure 9-3: Root Protection During Construction Guide

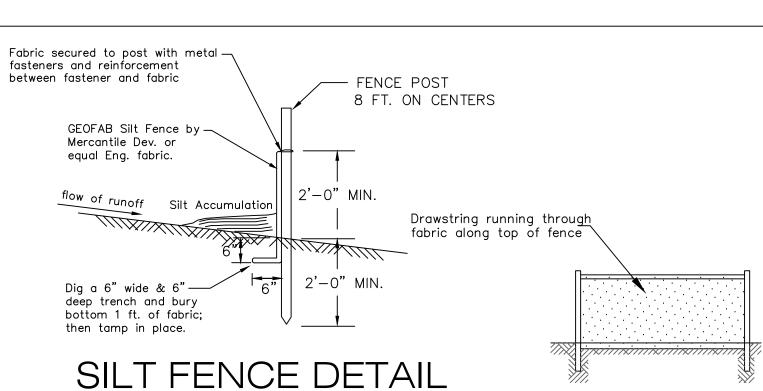
## TREE PROTECTION DETAIL

NOT TO SCALE



## TOPSOIL STOCKPILING DETAIL

NOT TO SCALE



NOT TO SCALE

-2 EACH DUMP STRAPS " REBAR FOR BAG CURB OPENING FILTER REMOVAL FROM INLET (1/4" NYLON ROPE, 2" FLAT WASHERS) 1. INSTALL SILT SACK IN CATCH BASIN, MAKING SURE EMPTYING STRAPS ARE LAID FLAT OUTSIDE OF BASIN AND HELD IN PLACE BY DRAIN GRATE. 2. HOLD DOWN REMOVAL FLAP POCKETS AND EMPTYING STRAPS BY COVERING WITH SOIL. REMOVE SOIL COVERING REMOVAL FLAP POCKETS AND INSERT REBAR THROUGH POCKETS. 2. REMOVE CATCH BASIN COVER GRATE.

> 6. INSERT A LIFTING BAR THROUGH BOTH EMPTYING STRAPS 7. LIFT WITH AVAILABLE EQUIPMENT WITH EMPTYING STRAPS

3. REMOVE SILT SACK FROM CATCH BASIN BY ATTACHING TO BOTH

4. MOVE FILLED SILT SACK TO DUMPING AREA AND SET ON GROUND

BARS AND LIFTING WITH AVAILABLE EQUIPMENT.

5. REMOVE STRAPS FROM LIFTING BARS

1. CONTRACTOR TO CHECK AND IF REQUIRED MAINTAIN AND CLEAN THE SILT SACK AFTER EVERY RAIN EVENT. 2. THE INLET PROTECTION DEVICE WILL BE DESIGNED TO CAPTURE OR FILTER RUNOFF FROM THE 1 YEAR, 24 HOUR STORM EVENT AND SHALL.

# TRENCH DRAIN INLET PROTECTION DETAIL

SAFELY CONVEY HIGHER FLOWS DIRECTLY INTO THE STORM SEWER SYSTEM.

NOT TO SCALE

KHA

**JOB NUMBER:** 

22-0107

SCALE: AS SHOWN

S-02

SHEET 2 OF 2