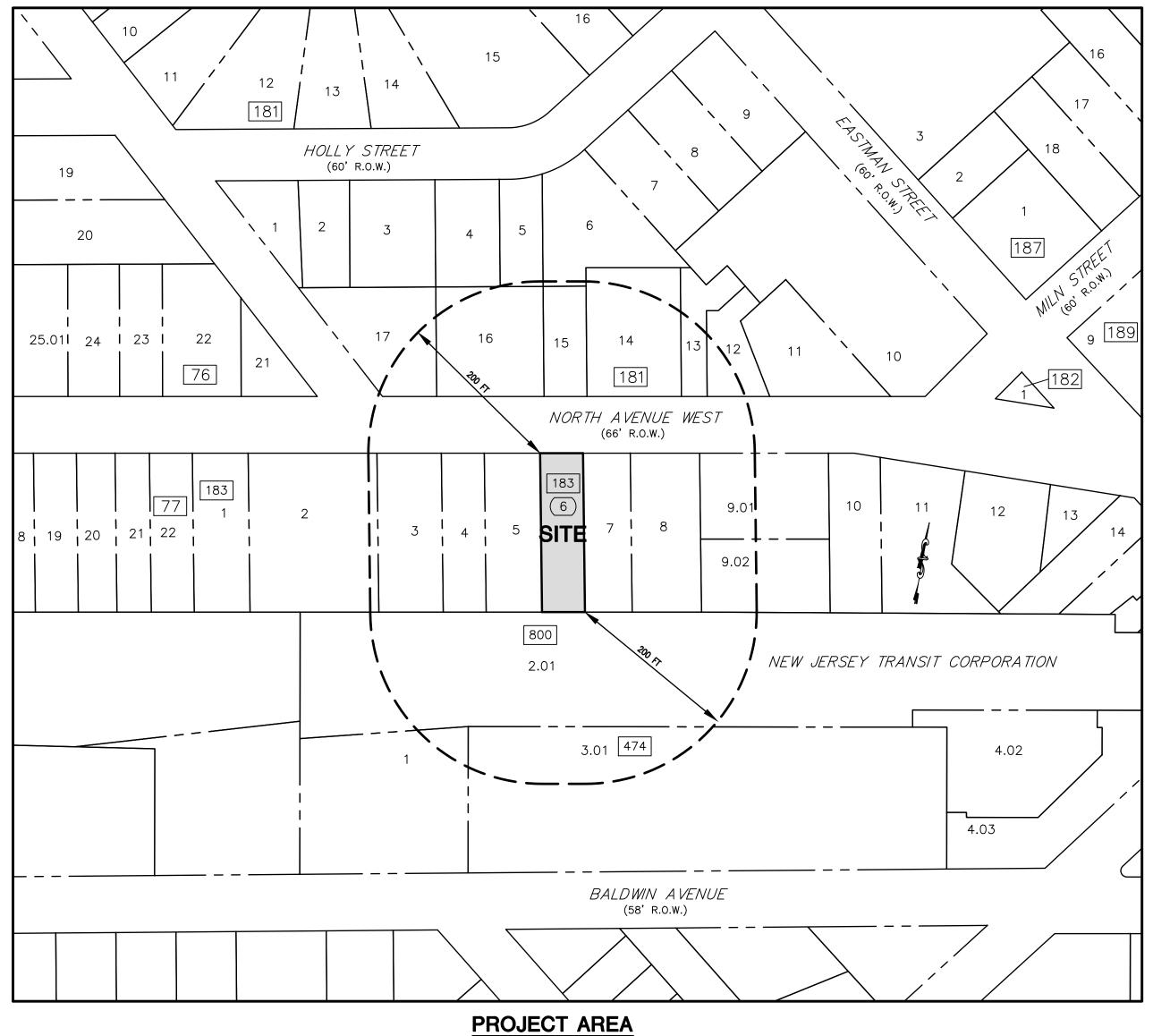
## PRELIMINARY & FINAL SITE PLAN

## No. 113 NORTH AVENUE WEST LOT 6, BLOCK 183 TAX MAP SHEET No. 31

TOWNSHIP OF CRANFORD UNION COUNTY NEW JERSEY

		•	O 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
LIS	T PROF	PERTY OWNERS &	UTILITIES 200 FEET
BLOCI	K & LOT	PROPERTY LOCATION	OWNER/MAIL ADDRESS
181	4	18 HOLLY ST	BURD: DOROTHY 18 HOLLY ST Cranford, NJ 07016
181	5	20 HOLLY ST	JOHNSON: DORIS ESTATE OF 20 HOLLY ST Cranford, NJ 07016
181	6	22 HOLLY ST	FERREIRA: ROSA 22 HOLLY ST Cranford, NJ 07016
181	12	110 NORTH AVE W	CRANFORD NORTH LLC 213 SOUTH AVE EAST Cranford, NJ 07016
181	13	112 NORTH AVE W	CRANFORD NORTH LLC 213 SOUTH AVE EAST Cranford, NJ 07016
181	14	114 NORTH AVE W	114 NORTH AVENUE LLC 66 MAREU DR Watchung, NJ 07069
181	15	116 NORTH AVE W	REKEMEIER: JOHN 116 NORTH AVE W Cranford, NJ 07016
181	16	118 NORTH AVE W	118 NAW LLC 118 NORTH AVE W Cranford, NJ 07016
181	17	120 NORTH AVE W	120 NORTH AVE CORP 120 NORTH AVE W Cranford, NJ 07016
183	2	201 NORTH AVE W	UNION COUNTY SAVINGS BANK 320 N BROAD ST Elizabeth, NJ 07208
183	3	119 NORTH AVE W	SALES MANAGEMENT REALTY LLC 119 NORTH AVE W Cranford, NJ 07016
183	4	117 NORTH AVE W	SALES MANAGEMENT REALTY LLC 119 NORTH AVE W Cranford, NJ 07016
183	5	115 NORTH AVE W	SPENCER, MARK S & BRUNETTE, RALPH V 101 FOREST AVE Cranford, NJ 07016
183	7	11 NORTH AVE W	SERV CENTERS OF N J INC 20 SCOTCH RD West Trenton, NJ 08628
183	8	109 NORTH AVE W	RUSTIC MILL DINER REALTY LLC 783 SPRINGFIELD AVE Summit, NJ 07901
183	9.01	105 NORTH AVE W	MY WAY DEVELOPMENT LLC, ACCT. DEPT. 101 JFK PKWY Short Hills, NJ 07078
183	9.02	109 NORTH AVE W	109 NORTH AVENUE LLC 1 CEDAR ST Garwood, NJ 07027
474	1	24 SOUTH AVE W	CRANFORD HARRISON DEVELOPERS LLC 253 MAIN ST Matawan, NJ 07747
474	3.01	6 SOUTH AVE W	CRANFORD SQUARE LLC 219 SOUTH ST S106 New Providence, NJ 07974



#### **CERTIFICATION OF APPROVAL**

APPROVED BY THE PLANNING BOARD OF THE TOWNSHIP OF CRANFORD

**ENGINEER** 

APPLICANT/OWNER CARWEN MANAGEMENT, LLC 113 NORTH AVENUE WEST CRANFORD, NJ 07016

### PREPARED MAY 2022

**FOR** 

### CARWEN MANAGEMENT, LLC

113 NORTH AVENUE WEST

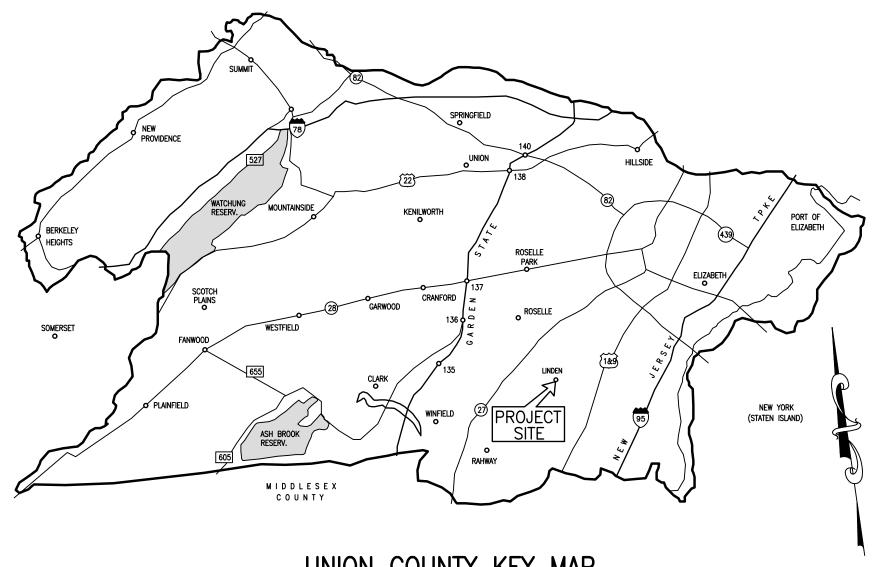
#### MUNICIPAL & UTILITIES CONTACT LIST

COMCAST CABLEVISION C/O- CORPORATION TRUST CO. 820 BEAR TAVERN ROAD WEST TRENTON, NJ 08628 NEW JERSEY AMERICAN WATER, Inc ATTN: GIS SUPERVISOR 1025 LAUREL OAK ROAD

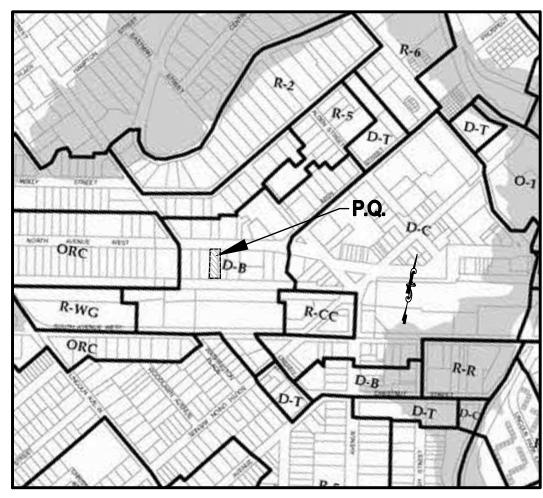
MANAGER, CORPORATE PROPERTIES 80 PARK PLAZA, T6B ELIZABETHTOWN GAS COMPANY ENGINEERING DEPARTMENT 520 GREEN LANE UNION, NJ 07083

VERIZON EXECUTIVE OFFICES

RAHWAY VALLEY SEWERAGE AUTHORITY ATTN: CHIEF ENGINEER 1050 EAST HAZELWOOD AVENUE RAHWAY, NJ 07005



## UNION COUNTY KEY MAP



TOWNSHIP OF CRANFORD ZONING MAP

SHEET INDEX						
SHEET No.	DESCRIPTION	PREPARED	LAST REVISED			
1	COVER SHEET	05/10/2022	1/15/2024			
2	EXISTING CONDITIONS, DEMOLITION, LAYOUT & DIMENSIONING PLAN	05/10/2022	1/15/2024			
3	GRADING & UTILITY / LIGHTING & LANDSCAPING PLAN	05/10/2022	1/15/2024			
4	SOIL EROSION & SEDIMENT CONTROL PLAN	05/10/2022	1/15/2024			
5	CONSTRUCTION DETAILS	05/10/2022	1/15/2024			
6	VEHICLE TURNING PLAN	1/15/2024				

ARCHITECTURAL PLANS PREPARED BY: WAGA ENTERPRISES ARCHITECTS, LLC 2109 ST. GEORGES AVENUE RAHWAY, NJ 07065 PHONE: 732-382-2000

5	1/15/2024	REVISED AS PER BOARD COMMENTS	C.V.F.	A.G.G.
4	07/27/2023	REVISED AS PER BOARD COMMENTS	A.M.	
3	05/24/2023	REVISED AS PER DRC MEETING	A.M.	
2	11/07/2022	REVISED AS PER TOWNSHIP OF CRANFORD COMMENTS	A.M.	
1	08/25/2022	REVISED AS PER TOWNSHIP OF CRANFORD COMMENTS	S.P.	
PE/	DATE	DESCRIPTION	CHK,D	APPV'D



AS-SHOWN

#### Harbor Consultants Inc. Engineers & Surveyors

320 NORTH AVENUE EAST CRANFORD, N.J. 07016 Phone (908) 276-2715 Fax (908) 709-1738 Email: info@hcicg.net

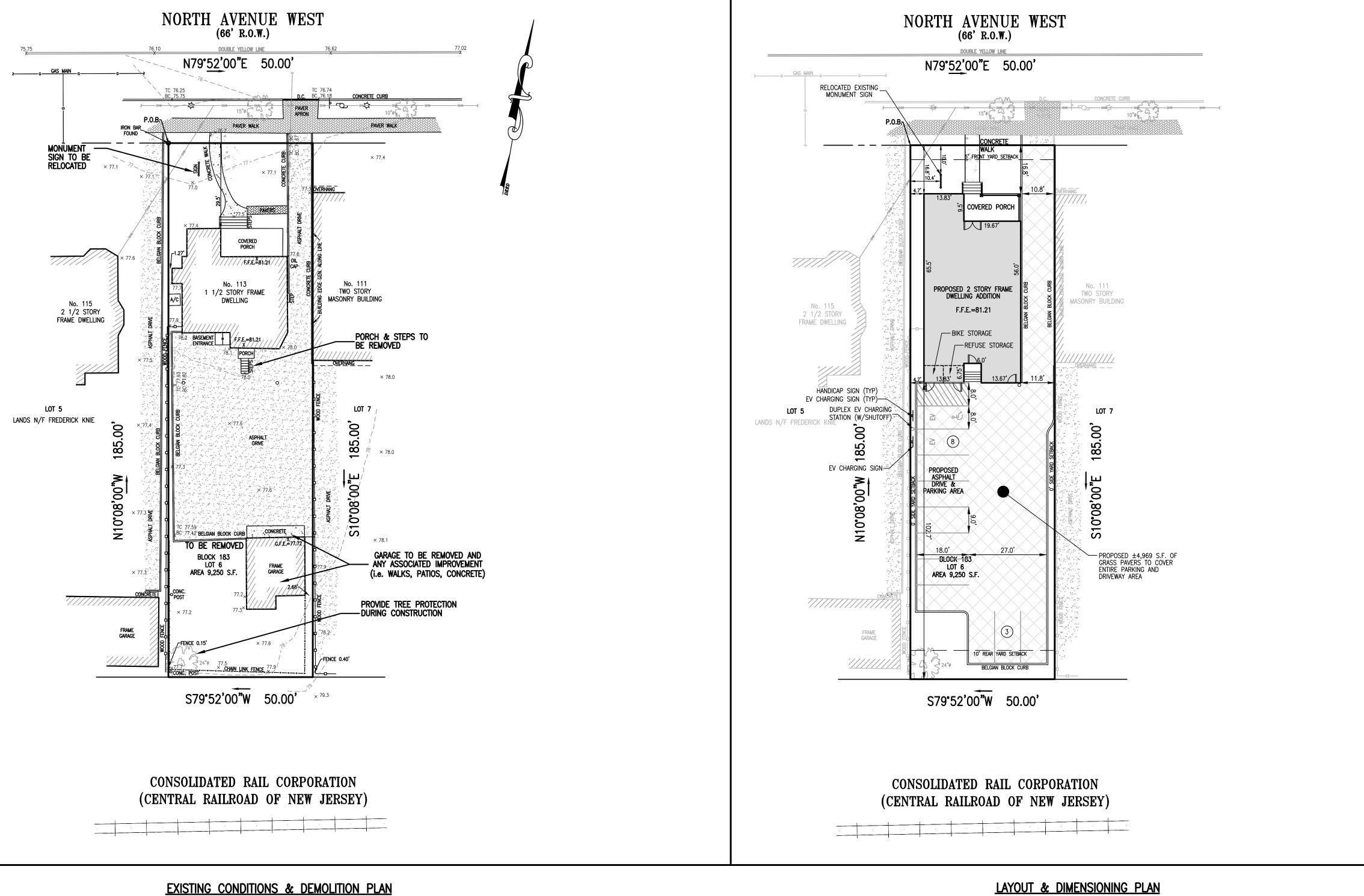
PRELIMINARY & FINAL SITE PLAN COVER SHEET No. 113 NORTH AVENUE WEST

LOT 6, BLOCK 183 UNION COUNTY **NEW JERSEY**  VICTOR E. VINEGRA PROFESSIONAL ENGINEER & LAND SURVEYOR NEW JERSEY LICENSE No. 34460

TOWNSHIP OF CRANFORD

V.E.V. 2021038\_COVER 24GA27962100

CRANFORD, NJ 07016



LAYOUT & DIMENSIONING PLAN

#### **GENERAL NOTES:**

- 1. SITE AREA LOT 6, BLOCK 183 = 9,250 S.F. (0.212 Ac.).
- 2. BEING KNOWN AS 113 NORTH AVENUE WEST, TOWNSHIP OF CRANFORD, NEW JERSEY
- 3. LOT IS SITUATED IN ZONE D-B (DOWNTOWN BUSIN DETACHED RESIDENTIAL) AS SHOWN ON TOWNSHIP OF CRANFORD ZONING MAP.
- 4. BOUNDARY INFORMATION PREPARED BY BRAGINSKY SURVEYING, INC., DATED FEBRUARY 12, 2021.
- 5. PUBLIC SEWER, WATER, GAS, ELECTRIC, CATV, AND TELEPHONE SERVICES ARE PRESENTLY SERVING THE PROPERTY.
- 6. DISTURBANCE IS WITHIN EXISTING FOOTPRINT THEREFORE SOIL EROSION CERTIFICATION APPROVAL IS NOT REQUIRED.

255-44-B-CRANFORD PARKING SCHEDULE II (PARKING REQUIREMENTS FOR RESIDENTIAL LAND USE) REQUIRED PROPOSED COMPLY NUMBER OF UNITS PARKING CRITERIA OFFICE, OTHER USE 1 PER 250 S,F. OF NET FLOOR AREA 8.0 SPACES 1,967 S.F.± 2.0 SPACES PER UNIT 8.0 SPACES 2-BEDROOM GARDEN APARTMENT 4-UNITS EV CHARGING STATION 15% OF PROPOSED PARKING (2.0 SPACES) 16.0 SPACES 1:1 UP TO 10% OF REQUIRED PARKING | -2.0 SPACES | 2.0 SPACES EV CHARGING STATION CREDIT TOTAL WITH CREDIT 14.0 SPACES 11.0 SPACES NO (1)

OFF-STREET PARKING SCHEDULE

ELEVATIONS SHOWN ARE BASED ON NAVD 88 GRAPHIC SCALE

( IN FEET )

1 inch = 20 ft.

<u>ITEM</u>	REQUIRED	<u>EXISTING</u>	COMPLY	PROPOSED	COMPLY
PERMITTED USE	SINGLE FAMILY	OFFICE	YES	OFFICE/MUFTI-FAMILY	NO (2)
MINIMUM LOT DIMENSION MINIMUM AREA MINIMUM WIDTH	N/A N/A	9,250 S.F. 50.00 FEET	YES YES	9,250 S.F. 50.00 FEET	YES YES
MINIMUM YARDS (PRINCIPAL)					
FRONT YARD	5 FEET	29.50 FEET	YES	16.8 FEET	YES
REAR YARD	10 FEET	113.80 FEET	YES	102.7 FEET	YES
SIDE YARD (ONE SIDE)	O FEET	1.27 FEET	YES	4.7 FEET	YES
SIDE YARD (BOTH SIDES)	O FEET	10.02 FEET	YES	13.07 FEET	YES
MAXIMUM BULK STANDARDS  MAXIMUM FLOOR AREA RATIO  MAXIMUM LOT IMPERVIOUS COVERAGE  MAXIMUM BUILDING COVERAGE  MAXIMUM BUILDING HEIGHT	2.5 (80%) N/A 3 STORIES/ 45.0 FEET	N/A 6,113 S.F. (65.3%) 1,403 S.F. (15.2%) 1 1/2 STORIES	YES YES YES YES	0.7 5,238 S.F. (56.6%) 2,194.25 S.F. (23.7%) 3 STORIES	YES YES YES YES
MINIMUM DISTANCE FROM BUILDING TO 1 OR 2 FAMILY RESIDENCE ZONE DRIVEWAY WIDTH GROSS DENSITY (MAXIMUM DWELLING UNITS PER ACRE)	20 FEET 10'–26' 10 UNITS/AC (3) (2 UNITS)	>200 FEET 11.3' N/A	YES YES N/A	>200 FEET 10.8' 18 UNITS/AC. (4 UNITS)	YES YES NO (3)
SIGNS - 255-38G(4)(g) SIGN AREA SIGN HEIGHT SIGN SETBACK BUILDING FRONT YARD SETBACK	12 S.F. 4 FEET 10 FEET 15 FEET	11.5 S.F. 3.33 FEET 6.7 FEET 29.5 FEET	YES YES NO YES	11.5 S.F. 6.33 FEET 10.0 FEET 16.8 FEET	YES NO (1) YES YES

TOWNSHIP OF CRANFORD, UNION COUNTY, NEW JERSEY

SCHEDULE OF ZONE DISTRICT AREA, YARD & BUILDING REQUIREMENTS

ZONE D-B (DOWNTWON BUSINESS DISTRICT)

(1) VARIANCE REQUESTED

(2) CONDITIONAL USE VARIANCES REQUESTED - SEE BELOW.

(3) SECTION 255-39B(22)(G) ALLOWS A GROSS DENSITY NOT TO EXCEED 10 UNITS/ACRE, WHICH ALLOWS 2 UNITS ON THE LOT.

#### **VARIANCES REQUESTED:**

- 1. D.3 CONDITIONAL USE VARIANCE, SEE BELOW. 2. D.5 DENSITY VARIANCE FOR 18 UNITS/ACRE. WHERE 10 UNITS/ACRE IS
- 1. 11 PARKING SPACED PROVIDED, WHERE 14 SPACES REQUIRED.
- DESIGN WAIVERS: 1. PARKING SPACE DIMENSIONS OF 9' X 18', WHERE 10' X 18' IS REQUIRED.
- 2. NO LOADING SPACE, WHERE 1 (ONE) SPACE IS REQUIRED.
  3. FREESTANDING SIGN HEIGHT OF 6.33 FEET, WHEREAS 4 FEET MAXIMUM IS REQUIRED.

#### **CONDITIONAL USE VARIANCES:**

- § 255-39.B(18) OFFICES, PROFESSIONAL, BUSINESS AND ADMINISTRATIVE USES (e) - PROPOSED 1,967 S.F. FIRST FLOOR OFFICE (ONE TENANT), WHERE MAXIMUM 1,000 S.F. ALLOWED PER TENANT.
- § 255–39.B(22) RESIDENTIAL USES

LOT COVER	AGE TABLE	
<u>TYPE</u>	<u>EXISTING</u>	<u>PROPOSED</u>
BUILDING	1,914 S.F.	2,193 S.F.
WALKWAYS/CONCRETE PADS	196 S.F.	64 S.F.
ASPHALT	4,003 S.F.	N/A
GRASS PAVERS*	N/A	4,969 S.F. 1,988 S.F. GRASS 2,981 S.F. CONCRET
TOTAL	6,113 S.F.	5,238 S.F.

\* GRASS PAVERS ARE NOT 100% IMPERMEABLE. MANUFACTURER SPECIFICATIONS STATE THE TURFSTONE GRASS PAVER PRODUCT HAS 40% OPEN AREA. THE BREAKDOWN HAS BEEN PROVIDED AND THEREFORE OVERALL IMPERVIOUS COVERAGE IS BEING REDUCED.

> C.V.F. A.G.G. 5 1/15/2024 REVISED AS PER BOARD COMMENTS A.M. REVISED AS PER BOARD COMMENTS A.M. 3 05/24/2023 REVISED AS PER DRC MEETING 2 11/07/2022 REVISED AS PER TOWNSHIP OF CRANFORD COMMENTS A.M. S.P. 1 08/25/2022 REVISED AS PER TOWNSHIP OF CRANFORD COMMENTS REV. DATE DESCRIPTION CHK'D. APPV'

> > 2021038\_Exist&Demo&L&D

Harbor Consultants Inc. Engineers & Surveyors

05/10/2022

320 NORTH AVENUE EAST CRANFORD, N.J. 07016 Phone (908) 276-2715 Fax (908) 709-1738 Email: info@hcicg.net

PRELIMINARY & FINAL SITE PLAN EXIST. CONDITIONS & DEMO/LAYOUT & DIMENSIONING PLAN

No. 113 NORTH AVENUE WEST LOT 6, BLOCK 183 TOWNSHIP OF CRANFORD UNION COUNTY **NEW JERSEY** 

**VICTOR E. VINEGRA** PROFESSIONAL ENGINEER & LAND SURVEYOR NEW JERSEY LICENSE No. 34460

24GA27962100

<u>LEGEND</u>

IRON BAR FOUND

EXIST. SPOT ELEVATION

MAILBOX

-- 10 -- EXISTING CONTOUR LINE

GAS VALVE

WATER VALVE

FIRE HYDRANT

LIGHT POST

STREET TREE

STREET SIGN

CATCH BASIN

CATCH BASIN

SOIL BORING

UTILITY POLE

P.K. NAIL FOUND

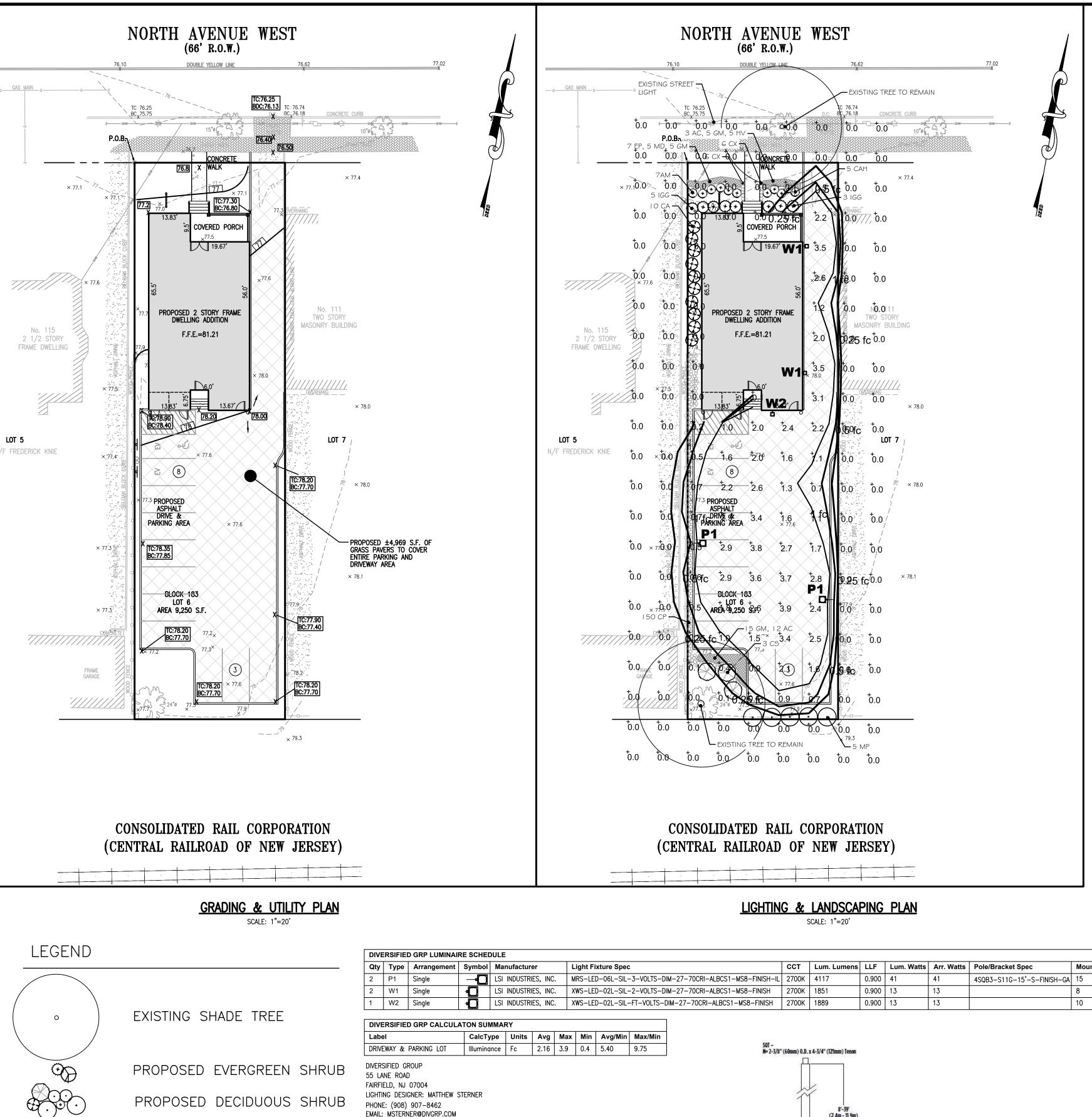
CONC. MONUMENT FOUND

SANITARY MANHOLE

DRAINAGE MANHOLE

CLEANOUT

(1) – VARIANCE REQUESTED



EMAIL: MSTERNER@DIVGRP.COM

SITE LIGHTING CONTROLS SEQUENCE OF OPERATION IN COMPLIANCE WITH ASHRAE 90.1-2019 - EACH SITE FIXTURE TO BE EQUIPPED WITH LSI'S AIRLINK BLUE, WHICH IS A WIRELESS BLUETOOTH MESH CONTROL SYSTEM.

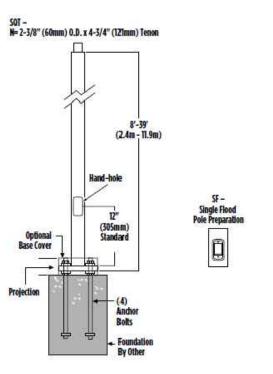
PROPOSED PERENNIAL - CONTROL SYSTEM IS TO BE ACCESSIBLE VIA IOS APP FOR PROGRAMMING. - EACH SITE FIXTURE TO HAVE AN INTEGRAL MOTION AND PHOTO SENSOR MODULE

> ON TIME OF DAY OR ASTRONMICAL CLOCK. - ALL SITE LIGHTS TO TURN ON AT DUSK AND OFF AT DAWN. - LIGHTS TO REMAIN FULL BRIGHTNESS UNIT 12 A.M., AT WHICH TIME THE LIGHTS WILL DIM

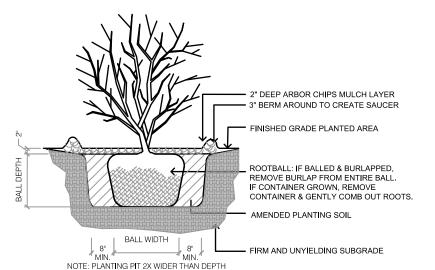
- LIGHTING CONTROL SYSTEM WILL ALSO INCORPORATE THE AIRLINK BLUE TIME KEEPER

120 VOLT (ALBTK-120). THIS ADDS THE ABILITY TO SCHEDULE MULIPLE EVENTS BASED

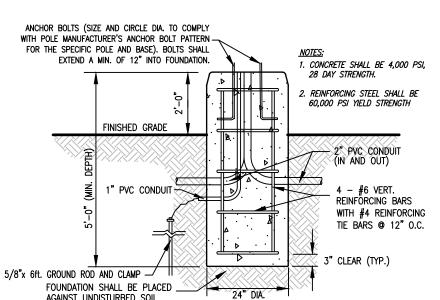
TO PROVIDE MULTI-LEVEL CONTROL BASED ON MOTION AND/OR DAYLIGHT.



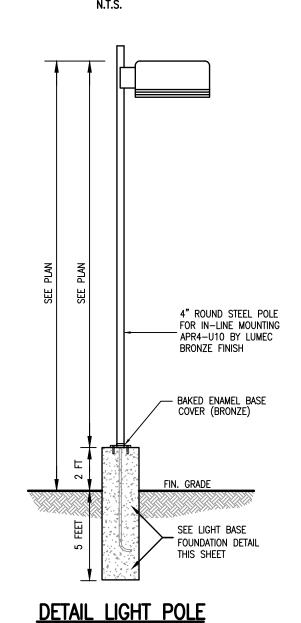
MIRADA LIGHT POLE



SHRUB PLANTING N.T.S.



LIGHT BASE FOUNDATION DETAIL



MIRADA WALL MOUN



1. ELEVATIONS SHOWN ARE BASED ON NAVD88 DATUM.

2. UNDERGROUND UTILITIES WERE MARKED OUT AT TIME OF SURVEY.

3. THE LOCATION OF UNDERGROUND UTILITIES SHOWN HEREON IS APPROXIMATE AND BASED UPON FIELD OBSERVATION AND THE TOWNSHIP OF CRANFORD UTILITY KEY MAPS.

4. PUBLIC SEWER, WATER, GAS, ELECTRIC, CATV, AND TELEPHONE SERVICES ARE PRESENTLY SERVING THE PROPERTY, AND WILL SERVE THE PROPOSED ADDITION.

5. THE LOCATION OF ALL UNDERGROUND UTILITIES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE TO BE FIELD VERIFIED PRIOR TO ANY CONSTRUCTION ACTIVITIES. ANY DISCREPANCIES BETWEEN PLAN AND FIELD INFORMATION ARE TO BE REPORTED IMMEDIATELY TO HARBOR CONSULTANTS.

6. THE DISRUPTION OF EXISTING UTILITY SERVICES SHALL BE AVOIDED TO THE GREATEST EXTENT POSSIBLE. ANY REQUIRED DISRUPTION OF SERVICES SHALL BE COORDINATED IN ADVANCE WITH THE RESPECTIVE AUTHORITY AND AFFECTED USERS SHALL BE ADEQUATELY NOTIFIED.

7. THIS SITE PLAN MAKES NO CERTIFICATION OR REPRESENTATION AS TO THE LOCATION OF ANY UNDERGROUND, ELECTRICAL, PHONE OR CABLE CONDUITS AND/ OR WIRES WHICH MAY BE PRESENT

8. ALL PROPOSED CONSTRUCTION TO BE IN CONFORMANCE WITH TOWNSHIP OF CRANFORD STANDARD DETAILS.

9. ALL ROOF LEADERS/DOWN SPOUTS WILL BE CONNECTED TO THE DRAINAGE SYSTEM.

10. PROPERTY IS SITUATED IN FLOOD AREA OF MINIMAL FLOOD HAZARD WHICH IS ZONE X (BASE FLOOD ELEVATIONS DETERMINED) PER A PLAN ENTITLED "FIRM" FLOOD INSURANCE RATE MAP, FOR THE TOWNSHIP OF CRANFORD COMMUNITY/PANEL No. 345291 0032F, No. 34039C0032F EFFECTIVE DATE SETPEMBER 20TH, 2006

11. WATER, GAS AND SANITARY SEWER SERVICE LINES SHOULD BE PROVIDED INVERTS DURING CONSTRUCTION

12. THE APPLICANT SHALL CONTACT THE ENGINEERING OFFICE 48 HOURS IN ADVANCE FOR INSPECTION OF SEEPAGE PIT INSTALLATION AND RIGHT-OF-WAY IMPROVEMENTS.

13. TELEPHONE, CABLE AND ELECTRICITY CONNECTIONS WILL BE INSTALLED AS DIRECTED BY EACH UTILITY COMPANY.

1. CONTRACTOR SHALL INSPECT SITE PRIOR TO BEGINNING PLANTING OPERATIONS AND NOTIFY THE ENGINEER OF ANY CONDITIONS THAT ARE NOT SUITABLE TO PERFORMING PLANTING OPERATIONS. CONTRACTOR SHALL NOTIFY OWNER'S REP. OR LANDSCAPE ARCHITECT OF ANY CONDITIONS THAT WOULD PREVENT HEALTHY GROWTH OF PLANT MATERIAL.

2. NO HEAVY EQUIPMENT, MACHINERY OR STOCK PILING OF MATERIAL IS EXISTING TREES THROUGHOUT THE COURSE OF THE CONTRACT.

3. EXISTING TREES SHALL BE PROTECTED WITH TEMPORARY WOODEN TREE GUARDS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING TREES INCLUDING BUT NOT LIMITED TO INSTALLING TREE GUARDS.

4. THE CONTRACTOR SHALL TAKE EXTREME CARE TO PROTECT THE ROOT SYSTEMS OF EXISTING TREES. HAND/PNEUMATIC EXCAVATE WITHIN THE DRIP LINES OF EXISTING TREES.

5. PLANT GROUPINGS & LOCATIONS ARE DIAGRAMMATIC. THE LOCATION OF PLANTS SHALL BE APPROVED IN THE FIELD BY THE LANDSCAPE ARCHITECT. 6. PLANT GROUPINGS & LOCATIONS ARE DIAGRAMMATIC. THE LOCATION OF PLANTS SHALL BE APPROVED IN THE FIELD BY THE LANDSCAPE ARCHITECT.

7. ALL PLANT MATERIAL SHALL CONFORM TO THE MOST CURRENT ISSUE OF "ANSI Z60.1—2014 NURSERY STOCK STANDARDS" OR LATEST EDITION. ALL PLANTS TO BE NURSERY—GROWN UNDER SIMILAR CLIMATIC CONDITIONS AS JOB SITE FOR AT LEAST 2 YEARS. PLANTS SHALL BE DISEASE FREE, VIGOROUS, WITH WELL DEVELOPED ROOT SYSTEMS. TREES SHALL HAVE STRAIGHT TRUNKS, LEADER INTACT, UNDAMAGED & UNCUT.

8. THERE WILL BE NO SUBSTITUTIONS OF PLANT MATERIAL WITHOUT PRIOR WRITTEN APPROVAL BY THE LANDSCAPE ARCHITECT.

9. CONTRACTOR SHALL CONTACT AGENCIES FOR UTILITY MARK-OUT PRIOR TO PLANTING.

10. ALL PLANTS TO BE APPROVED BY THE LANDSCAPE ARCHITECT.

11. PLANTING OPERATIONS SHALL BE PERFORMED DURING PERIODS WITHIN THE PLANTING SEASON WHEN WEATHER AND SOIL CONDITIONS ARE SUITABLE. SPRING PLANTING SEASON SHALL BE MARCH 15 THROUGH MAY 15: FALL PLANTING SEASON SHALL BE OCT. 15 THROUGH DEC 15. PLANTING IS ACCEPTABLE DURING OTHERTIMES IF WEATHER PERMITS, THE GROUND IS NOT FROZEN AND SUPPLEMENTAL WATERING IS PROVIDED (IN SUMMER

NO PLANT, OTHER THAN GROUNDCOVER, MAY BE PLANTED CLOSER THAN TWO FEET TO EXISTING STRUCTURES OR SIDEWALKS.

THE FOLLOWING 'FALL PLANTING HAZARD' TREE SPECIES SHALL BE PLANTED IN THE SPRING SEASON ONLY:

LIQUIDAMBAR QUERCUS (EXCEPT Q. palustris)

ACER RUBRUM

12. THE CONTRACTOR SHALL LAYOUT ALL TREES, TREE PITS, SHRUBS, AND SHRUB BEDS PRIOR TO INSTALLATION FOR APPROVAL. FINAL LOCATION OF ALL PLANTS TO BE DETERMINED IN THE FIELD BY THE LANDSCAPE

13. SOIL TEST SHALL BE PERFORMED AND ADJUSTMENTS TO pH AND AMENDMENTS MADE IN ACCORDANCE WITH RECOMMENDATIONS FROM TESTING LAB (I.E., RUTGERS SOIL TESTING LAB). AT A MINIMUM,

TREES PITS & SHRUB BEDS SHALL HAVE COMPOST ADDED TO THE TOPSOIL MIX AT THE RATIO OF 2 PARTS COMPOST TO 7 PARTS TOPSOIL.

14. TREES AND SHRUBS SHALL BE PLANTED SO THAT THE ROOT FLARE IS LEVEL OR SLIGHTLY ABOVE FINISHED GRADE AFTER ALLOWING FOR WATERING & SETTLING. REMOVE EXCESS SOIL FROM TOP OF BALL AS REQUIRED TO EXPOSE ROOT FLARE. 15. PLANTS MUST BE WATERED AS THEY ARE PLANTED. TREES TO BE WATERED WITH 10 GALLONS OF POTABLE WATER WHEN BACKFILLED TO ONE HALF FINISHED HEIGHT. AN ADDITIONAL 10 GALLONS AFTER COMPLETELY

16. TOPSOIL FOR PLANTING PITS AND BEDS SHALL BE SANDY LOAM: FREE FROM SUBSOIL, STONES LARGER THAN 1", OR ANY UNDESIRABLE MATERIAL: CONTAIN 5% ORGANIC MATTER, pH 5.0 TO 7.0 INCLUSIVE. DO NOT PLACE ANY SOIL ON TOP OF ROOT BALL.

17. CUT AND REMOVE ALL BURLAP & STRING FROM ROOT BALL. REMOVE ENTIRE WIRE BASKET & DISPOSE OF LEGALLY OFF SITE.

18. LOCATE TREE SUPPORT SYSTEM SO THAT IT WILL NOT PULL CROTCH APART. USE ARBOR-TIE, ¾" FLAT WOVEN POLYPROPYLENE STRAPS. TIE TO STAKES IN A MANNER THAT PERMITS SOME TREE MOVEMENT AND SUPPORTS

19. UPON COMPLETION OF THE TWO (2) YEAR PLANT WARRANTEE PERIOD, THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR ADJUSTING OR REMOVING ALL STAKES, AS WELL AS STAKING MATERIAL. WARRANTEE BEGINS AT

20. ALL PLANTS AND ENTIRE SHRUB BEDS TO RECEIVE 3" MAX. LAYER OF MULCH. MULCH SHALL NOT COME IN DIRECT CONTACT WITH TREE TRUNKS.

21. IF THERE IS A DISCREPANCY BETWEEN THE PLANT COUNT SHOWN IN THE PLANT LIST AND THE PLANTING GRAPHIC, THE GRAPHIC SHALL TAKE PRECEDENCE.

22. IF THE CONTRACTOR DETERMINES THE SUB-GRADE SOIL CONDITIONS ARE DELETERIOUS TO PLANT GROWTH OR WILL INHIBIT DRAINAGE, THE LANDSCAPE ARCHITECT SHALL BE NOTIFIED IMMEDIATELY AND PRIOR TO

23. MAINTAIN TREES AND GROUNDCOVER UPON COMPLETION OF PLANTING OPERATIONS AND UNTIL ISSUANCE OF FINAL ACCEPTANCE.

24. PLANTED AREAS SHALL BE WATERED BY THE CONTRACTOR WHEN RAINFALL IS LESS THAN 1" PER WEEK. SHRUBS SHALL RECEIVE 3-5 GALLONS PER PLANT AND TREES 7-10 GALLONS PER INCH OF CALIPER PER WEEK, OR AS DIRECTED BY THE LANDSCAPE ARCHITECT

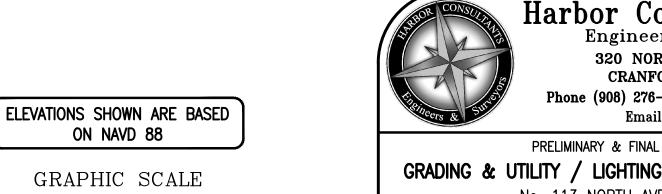
25. CONTRACTOR SHALL PROVIDE A MINIMUM OF 6" TOPSOIL IN ALL LAWN AREAS. PLANT PERENNIALS AND GROUNDCOVER IN 8" DEEP TOPSOIL BED CONSISTING OF 2/3 TOPSOIL AND 1/3 HUMUS. PLANT BULBS IN NATURALIZED DRIFTS. PLANT SHRUBS AND TREES AS PER PLANT DETAILS.

TOPSOIL AND SEED ALL AREAS DISTURBED AS A RESULT OF ANY AND ALL DISTURBANCES, CONSTRUCTION, OR STORAGE OF EQUIPMENT WHETHER SUCH AREAS ARE SHOWN ON THE PLANS OR NOT.

Montauk Turf-Type TallFescue Santa Fe Turf-Type Tall Fescue

Washington Kentucky Bluegrass SEEDING RATE 75-100 lbs./acre SEED MULCH SHALL BE STRAW OR HAY, OR WOOD CELLULOSE FIBER, OR SOIL STABILIZATION MATTING.

KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	SPC	COMMENTS
Shrubs					•		
AM	7	Aronia melanocarpo 'Low scape mound'	Low Scape chokeberry	24-30"	#3 Can	36" O.C.	Well established, heavy, symmetrical
CA	10	Ceanothus americanus	New Jersey Tea	24-30"	#3 Can	36" O.C.	Well established, heavy, symmetrical
CAH	5	Clethra alnifolia 'Hummingbird'	Hummingbird summersweet	24-30"	#3 Can	36" O.C.	Well established, heavy, symmetrical
CS	3	Cornus sericea 'Artic fire'	Artic Fire Red twig dogwood	30-36"	#3 Can	48" O.C.	Well established, heavy, symmetrical
IGG	8	llex glabra 'Gem Box'	Gem Box inkberry	24-30"	#3 Can	36" O.C.	Well established, heavy, symmetrical
MP	5	Myrica pensylvanica	Bayberry	30-36"	#7 Can	72" O.C.	Well established, heavy, symmetrical
		er, perennials, grasses	Г.			1	
AC	15	Aquilegia canadensis	Columbine		1 qt.	12" O.C.	Vigorous, well established deep plug
AC CX		Aquilegia canadensis Carex amphibola	Creek sedge		1 qt. 1 qt.	12" O.C.	Vigorous, well established in containers
	15	Aquilegia canadensis			<del> </del>	+	
AC CX	15 12	Aquilegia canadensis Carex amphibola	Creek sedge		1 qt.	12" O.C.	Vigorous, well established in containers
AC CX CP	15 12	Aquilegia canadensis Carex amphibola Carex pensylvanica	Creek sedge Pennsylvania sedge		1 qt. plug	12" O.C. 18" O.C.	Vigorous, well established in containers Vigorous, well established deep plug
AC CX CP EP	15 12 150 7	Aquilegia canadensis Carex amphibola Carex pensylvanica Echinacea purpureum	Creek sedge Pennsylvania sedge Purple coneflower		1 qt. plug 1 qt.	12" O.C. 18" O.C. 18" O.C.	Vigorous, well established in containers Vigorous, well established deep plug Vigorous, well established deep plug



( IN FEET )

1 inch = 20 ft.



REVISED AS PER BOARD COMMENTS

2 11/07/2022 REVISED AS PER TOWNSHIP OF CRANFORD COMMENTS

PRELIMINARY & FINAL SITE PLAN GRADING & UTILITY / LIGHTING & LANDSCAPING PLAN

5 1/15/2024 REVISED AS PER BOARD COMMENTS

3 05/24/2023 REVISED AS DRC MEETING

No. 113 NORTH AVENUE WEST LOT 6, BLOCK 183 TOWNSHIP OF CRANFORD UNION COUNTY **NEW JERSEY** 1"=20' 05/10/2022 V.E.V.

VICTOR E. VINEGRA PROFESSIONAL ENGINEER & LAND SURVEYOR NEW JERSEY LICENSE No. 34460

C.V.F. A.G.G

A.M.

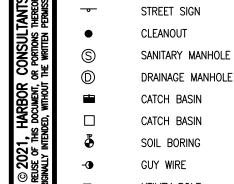
A.M.

A.M.

S.P.

CHK'D. APPV

2021038 24GA27962100



DRAINAGE MANHOLE EXIST. SPOT ELEVATION X 0.00 CATCH BASIN ——10—— EXISTING CONTOUR LINE CATCH BASIN —— G—— GAS LINE SOIL BORING GAS VALVE WATER VALVE UTILITY POLE P.K. NAIL FOUND FIRE HYDRANT LIGHT POST

**\$** 

CONC. MONUMENT FOUND

**LEGEND** 

PROPOSED GROUNDCOVER

IRON BAR FOUND

MAILBOX

STREET TREE

TO 50% OUTPUT UNTIL DAWN. - ANY MOTION DETECTED ON SITE AFTER 12 A.M. WILL KICK THE POWER UP TO 100% BRIGHTNESS. AFTER A DURATION OF 15 MINUTES WITH NO MOTION DETECTION, THE LIGHTS WILL RESUME BACK TO THE DIMMED 50% STATE. - MULTIPLE LIGHT FIXTURES TO BE GROUPED TOGETHER INTO ZONES BASED ON AREA AND TRAFFIC PATTERNS. MOTION DETECTION WILL ACTIVATE THE ENTIRE ZONE, NOT THE INDIVIDUAL FIXTURE, TO ENSURE UNIFORM COVERAGE IN THE AREA.

(REVISED PER "NJ STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL" 7th EDITION, DECEMBER 2017) 1. REMOVE FROM THE SURFACE ALL STONES TWO INCHES OR LARGER IN ANY DIMENSION, REMOVE ALL OTHER DEBRIS. SUCH AS WIRE, CABLE, TREE ROOTS, PIECES OF CONCRETE, CLODS, LUMPS OR OTHER UNSUITABLE MATERIAL

2. INSPECT SEEDBED JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT SOIL COMPACTED, THE AREA MUST BE RETILLED AND

3. TEMPORARY SEEDING SHALL CONSIST OF SPRING OATS APPLIED AT A RATE OF 2.0 LBS. PER 1,000 SF OR GRAIN RYE APPLIED AT A RATE OF 2.4 LBS. PER 1,000 SF. TEMPORARY SEEDING TO BE MAINTAINED UNTIL DISTURBED AREAS ARE PERMANENTLY STABILIZED WITH PERMANENT SEEDING. IF ANY SERIOUS EROSION PROBLEM OCCURS, THE ERODED AREAS SHALL BE REPAIRED AND STABILIZED WITH A MULCH AS INDICATED IN NOTE 6.

4. PERMANENT SEEDING SHALL CONSIST OF THE FOLLOWING MIXTURE OR APPROVED EQUAL. SITE CONTAINS SOIL HALEDON-URBAN LAND-HASBROUCK COMPLEX, O TO 8 PERCENT SLOPES CLASSIFIED AS "SOMEWHAT POORLY DRAINED"

PLANTING MIXTURE TO BE USED: MIX-16 (RESIDENTIAL/COMMERCIAL USE)

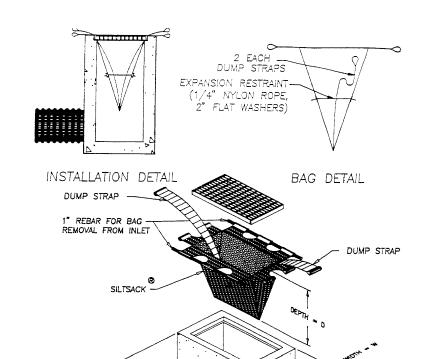
ACCEPTABLE DATE: 3/01 TO 4/30 ACCEPTABLE DATE: 5/01 TO 8/14 (\*\*) OPTIMAL DATE: 8/15 TO 10/15

5. "PERMANENT SEEDING TO BE APPLIED BY CYCLONE SPREADER OR OTHER APPROVED METHOD, AT A RATE OF 150#/ACRE. SLOPED AREA TO BE COVERED WITH MULCH AS INDICATED IN NOTE 6".

6. FERTILIZER FOR THE ESTABLISHMENT OF TEMPORARY AND PERMANENT VEGETATIVE COVER SHALL BE 10-20-10 APPLIED AT A RATE OF 11Ib/1000 SF OR AS DETERMINED BY SOIL TESTS. LIMESTONE FOR TEMPORARY SEEDING SHALL BE APPLIED AT A RATE OF 90Ib/1000SF. LIMESTONE FOR PERMANENT SEEDING SHALL BE APPLIED AT A RATE OF 135lb/1000 SF.

7. IF SEASON PREVENTS THE ESTABLISHMENT OF TEMPORARY OR PERMANENT SEEDING, EXPOSED AREA TO BE

8. ALL SEEDED AREAS SHALL BE MULCHED. MULCH SHALL CONSIST OF SMALL GRAIN STRAW OR SALT HAY ANCHORED WITH A WOOD AND FIBER MULCH BINDER, LIQUID MULCH BINDER, OR AN APPROVED EQUAL AT A RATE OF 70-90 LBS.



STORM SEWER INLET TYPE "B" PROTECTION DETAIL

#### **GENERAL NOTES:**

. <u>SOMERSET-UNION CONSERVATION DISTRICT</u> SOMERSET COUNTY 4-H CENTER 308 MILLTOWN ROAD BRIDGEWATER, NJ 08807

(908)-526-2701 2. <u>OWNER/APPLICANT:</u> CARWEN MANAGEMENT. 113 NORTH AVENUE WEST CRANFORD, NJ 07016

3. THIS PLAN IS ONLY TO BE USED AS A GUIDE TO THE IMPLEMENTATION OF SOIL EROSION CONTROL MEASURES. I IS NOT TO BE USED FOR CONSTRUCTION. REFER 1 GRADING & UTILITY PLAN AND SUPPLEMENTS THERETO.

4. ALL ROADS AND WALKWAYS WILL BE SWEPT DAILY THROUGH THE DURATION OF CONSTRUCTION.

5. AREA WITHIN LIMIT OF DISTURBANCE LINE 10,044 S.F. (0.23<u>+</u> ACRES) (INCLUDES OFFSITE & LANDSCAPE AREA)

# (SEE DETAIL) TOPSOIL STOCKPILING DETAIL

25 FEET MINIMUM EXISTING R.O.W. **PROFILE** PROVIDE APPROPRIATE TRANSITION BETWEEN STABILIZED CONSTRUCTION ENTRANCE & PUBLIC RIGHT-OF-WAY EXISTING RIGHT-OF-WAY GROUND

STABILIZED CONSTRUCTION ENTRANCE SPECIFICATIONS 1. STONE SIZE - USE ASTM C-33, SIZES NO. 2 OR 3. USE CRUSHED STONES. 2. LENGTH - AS EFFECTIVE, BUT NOT LESS THAN 50 FEET. 3. THICKNESS - NOT LESS THAN 8 INCHES. BUT IN NO CASE LESS THAN 15' WIDE. 5. WASHING - WHEN NECESSARY, WHEELS SHALL BE CLEANED TO

AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO PUBLIC RIGHT OF WAY MUST BE REMOVED IMMEDIATELY.

STABILIZED CONSTRUCTION ENTRANCE

AS PER NJ WEB SOIL SURVEY USDA

ROUGH BLUEGRASS @ 90 lb/Ac. STRONG CREEPING RED FESCUE @ 130 lb/Ac.

SITE IS LOCATED WITHIN USDA PLANT HARDINESS ZONE 6b, PLANTING DATES:

(\*\*) SUMMER SEEDINGS SHOULD ONLY BE CONDUCTED WHEN THE SITE IS IRRIGATED. MIXES INCLUDING WHITE CLOVER REQUIRE THAT AT LEAST SIX SEEKS OF GROWING SEASON REMAIN AFTER SEEDING TO ENSURE ESTABLISHMENT BEFORE FREEZING CONDITIONS.

STABILIZED WITH MULCH

METHODS AND MATERIALS

2. <u>SEEDBED PREPARATION</u>

SEEDING

WITH THE STANDARD FOR LAND GRADING.

SITE PREPARATION

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

STANDARD FOR STABILIZATION WITH VEGETATIVE COVER

AS NEEDED, IN ACCORDANCE WITH THE STANDARD FOR TOPSOILING.

OF THE SAME FERTILIZER WITHIN 3 TO 5 WEEKS AFTER SEEDING.

HIGH ACID-PRODUCING SOILS OF SPECIFIC REQUIREMENTS.

CONTINUE TILLAGE LINTIL A REASONABLE LINIFORM SEEDBED IS PREPARED

SEED (PLS) AS DETERMINED BY GERMINATION TESTING RESULTS.

SEED PLACEMENT MAY BE 1/4 INCH DEEPER ON COARSE-TEXTURED SOIL.

BE MINIMIZED AND WATER CONSERVATION ON SITE WILL BE MAXIMIZED.

OF PLS IS NOT REQUIRED FOR COOL—SEASON GRASSES.

STABILIZATION MEASURES, SEDIMENT BASINS, AND WATERWAYS.

(REVISED PER "NJ STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL" 7th EDITION, JULY 2017)

A. GRADE, AS NEEDED AND FEASIBLE, TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH

B. IMMEDIATELY PRIOR TO SEEDING AND TOPSOIL APPLICATION, THE SUBSOIL SHALL BE EVALUATED FOR COMPACTION IN ACCORDANCE

C. TOPSOIL SHOULD BE HANDLED ONLY WHEN IT IS DRY ENOUGH TO WORK WITHOUT DAMAGING THE SOIL STRUCTURE. A UNIFORM

D. INSTALL NEEDED EROSION CONTROL PRACTICES OR FACILITIES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, CHANNEL

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. FERTILIZER SHALL BE APPLIED AT THE RATE OF 500

POUNDS PER ACRE OR 11 POUNDS PER 1,000 SQUARE FEET OF 10-10-10 OR EQUIVALENT, WITH 50% WATER INSOLUBLE NITROGEN

UNITES 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

B. WORK LIME AND FERTILIZER INTO THE TOPSOIL AS NEARLY PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRING-TOOTH HARROW, OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OR DISKING OPERATION SHOULD BE ON THE GENERAL CONTOUR.

C. HIGH ACID PRODUCING SOIL. SOILS HAVING A PH OF 4 OF LESS OR CONTAINING IRON SULFIDE SHALL BE COVERED WITH A MINIMUM

A. SELECT A MIXTURE FROM TABLE 4-3 OR USE A MIXTURE RECOMMENDED BY RUTGERS COOPERATIVE EXTENSION OR NATURAL

RESOURCES CONSERVATION SERVICE WHICH IS APPROVED BY THE SOIL CONSERVATION DISTRICT. SEED GERMINATION SHALL HAVE BEEN

TESTED WITH 12 MONTHS OF THE PLANTING DATE. NO SEED SHALL BE ACCEPTED WITH A GERMINATION TEST DATE MORE THAN 12

1 SEEDING RATES SPECIFIED ARE REQUIRED WHEN A REPORT OF COMPLIANCE IS REQUIESTED PRIOR TO ACTUAL ESTABLISHMENT OF

2 WARM-SEASON MIXTURES ARE GRASSES AND LEGUMES WHICH MAXIMIZE GROWTH AT HIGH TEMPERATURES, GENERALLY 85°F AND

3 COOL-SEASON MIXTURES ARE GRASSES AND LEGUMES WHICH MAXIMIZE GROWTH AT TEMPERATURES BELOW 85'F. MANY GRASSES

B. CONVENTIONAL SEEDING IS PERFORMED BY APPLYING SEED UNIFORMLY BY HAND, CYCLONE (CENTRIFUGAL) SEEDER, DROP SEEDER,

DRILL OR CULTIPACKER SEEDER. EXCEPT FOR DRILLED, HYDROSEEDED OR CULTIPACKED SEEDINGS, SEED SHALL BE INCORPORATED

INTO THE SOIL WITHIN 24 HOURS OF SEEDBED PREPARATION TO A DEPTH OF 1/4 TO 1/2 INCH, BY RAKING OR DRAGGING, DEPTH OF

AND IMPROVE SEEDLING EMERGENCE. THIS IS THE PREFERRED METHOD. WHEN PERFORMED ON THE CONTOUR, SHEET EROSION WILL

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 4-MULCHING BELOW). HYDROSEEDING IS NOT A PREFERRED SEEDING METHOD BECAUSE SEED AND

FERTILIZER ARE APPLIED TO THE SURFACE AND NOT INCORPORATED INTO THE SOIL. WHEN POOR SEED TO SOIL CONTACT OCCURS,

C. AFTER SEEDING, FIRMING THE SOIL WITH A CORRUGATED ROLLER WILL ASSURE GOOD SEED-TO-SOIL CONTACT. RESTORE CAPILLARITY.

ABOVE. SEE TABLE 4-3 MIXTURES 1 TO 7. PLANTING RATES FOR WARM-SEASON GRASSES SHALL BE THE AMOUNT OF PURE LIVE

BECOME ACTIVE AT 65°F. SEE TABLE 4-3 MIXTURES 8 TO 20. ADJUSTMENT OF PLANTING RATES TO COMPENSATE FOR THE AMOUNT

MEANS 80% VEGETATIVE COVERAGE WITH THE SPECIFIED SEED MIXTURE FOR THE SEEDED AREA AND MOWED ONCE.

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

OF 12 INCHES OF SOIL HAVING A PH OF 5 OR MORE BEFORE INITIATING SEEDBED REPARATION. SEE STANDARD FOR MANAGEMENT OF

APPLICATION TO A DEPTH OF 5 INCHES (UNSETTLED) IS REQUIRED ON ALL SITES. TOPSOIL SHALL BE AMENDED WITH ORGANIC MATTER,

APPLICATION, AND MULCH ANCHORING. ALL GRADING SHOULD BE DONE IN ACCORDANCE WITH STANDARDS FOR LAND GRADING.

A. STRAW OF HAY. UNROTTED SMALL GRAIN STRAW, HAY FREE OF SEEDS, 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 LÍQUID 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 LAWN DUE TO THE PRESENCE OF WEED SEED

APPLICATION — SPREAD MULCH UNIFORMLY BY HAND OR MECHANICALLY SO THAT AT LEAST 85% OF THE SOIL SURFACE IS COVERED. FOR UNIFORM DISTRIBUTION OF HAND-SPREAD MULCH, DIVIDE EACH 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 SLOPES, AND COSTS.

1 PEG AND TWINE. DRIVE 8 TO 10 INCH WOODEN PEGS WITHIN 2 TO 3 INCHES OF THE SOIL SURFACE EVERY 4 FEET IN ALI 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 2 MULCH NETTINGS - STAPLE PAPER, JUTE, COTTON, OR PLASTIC NETTINGS TO THE SOIL SURFACE. USE A DEGRADABLE NETTING 3 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

MUST OPERATE ON THE CONTOUR OF SLOPES, STRAW MULCH RATE MUST BE 3 TONS PER ACRE. NO TACKIFYING OR 4 LIQUID MULCH-BINDERS - MAY BE USED TO ANCHOR SALT HAY, HAY OR STRAW MULCH.

(B) USE ONE OF THE FOLLOWING:

(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 OCCURRING, POWDER-BASED, HYDROPHILIC MATERIALS WHEN MIXED WITH WATER FORMULATES A GEL AND WHEN APPLIED TO MULCH UNDER SATISFACTORY CURIT CONDITIONS WILL FORM MEMBRANED NETWORKS OF INSOLUBLE POLYMERS. THE VEGETABLE GEL SHALL BI 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 USED

ANCHOR IT AND LEAVE PART STANDING UPRIGHT. THIS TECHNIQUE IS LIMITED TO AREAS TRAVERSABLE MY A TRACTOR, WHICH

(2) SYNTHETIC BINDERS - HIGH POLYMER SYNTHETIC EMULSION, MISCIBLE WITH WATER WHEN DILUTED AND, FOLLOWING APPLICATION OF MULCH, DRYING AND CURING, SHALL NO LONGER BE SOLUBLE OR DISPERSIBLE IN WATER. BINDER SHALL BE APPLIED AT RATES RECOMMENDED BY THE MANUFACTURER AND REMAIN TACKY UNTIL

B. WOOD-FIBER OR PAPER-FIBER MULCH - SHALL BE MADE FROM WOOD, PLANT FIBERS OR PAPER CONTAINING NO GROWTH OF GERMINATION INHIBITING MATERIALS, USED AT THE RATE OF 1,5000 POUNDS PER ACRE (OR AS RECOMMENDED BY THE PRODUC MANUFACTURER) AND MAY BE APPLIED BY A HYDROSEEDER. MULCH SHALL NOT BE MIXED IN THE TANK WITH SEED. USE IS LIMITED TO FLATTER SLOPED AND DURING OPTIMUM SEEDING PERIODS IN SPRING AND FAL C. PELLETIZED MULCH - COMPRESSED AND EXTRUDED PAPER AND/OR WOOD FIBER PRODUCT, WHICH MAY CONTAIN CO-POLYMERS, TACKIFIERS, FERTILIZERS, AND COLORING AGENTS. THE DRY PELLETS, WHEN APPLIED TO A SEEDED AREA AND WATERED, FORM / 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 FOLIND 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 EXTREMELY IMPORTANT FOR SUFFICIENT ACTIVATION AND EXPANSION OF THE MULCH TO PROVIDE SOIL COVERAGE.

5. <u>IRRIGATION (WHERE FEASIBLE)</u>

IF SOIL MOISTURE IS DEFICIENT SUPPLY NEW SEEDING WITH ADEQUATE WATER (A MINIMUM OF 1/4 INCH APPLIED UP TO TWICE A DAY UNTIL VEGETATION IS WELL ESTABLISHED). THIS IS ESPECIALLY TRUE WHEN SEEDINGS ARE MADE IN ABNORMALLY DRY OR HOT WEATHER OR ON

6. <u>TOPDRESSING</u>

SINCE SOIL ORGANIC MATTER CONTENT AND SLOW RELEASE NITROGEN FERTILIZER (WATER INSOLUBLE) ARE PRESCRIBED IN SECTION 2A -SEEDBED PREPARATION IN THIS STANDARD, NO FOLLOW-UP OF TOPDRESSING IS MANDATORY. AN EXCEPTION MAY BE MADE WHERE GROSS NITROGEN DEFICIENCY EXISTS IN THE SOIL TO THE EXTENT THAT TURF FAILURE MAY DEVELOP. IN THAT INSTANCE, TOPDRESS WITH 10-10-10 OR EQUIVALENT AT 300 POUNDS PER ACRE OR 7 POUNDS PER 1,000 SQUARE FEET EVERY 3 TO 5 WEEKS UNTIL THE GROSS

7. <u>ESTABLISHING PERMANENT VEGETATIVE STABILIZATION</u>

**ELEVATIONS SHOWN ARE BASED** 

ON NAVD 88

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 THE 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 RATE APPLY TO ALL METHODS OF SEEDING. <u>ESTABLISHING PERMANENT VEGETATION MEANS 80% VEGETATIVE</u> COVER (OF THE SEEDED SPECIES) AND MOWED ONCE.

#### SOIL EROSION AND SEDIMENT CONTROL NOTES

1. ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES ARE TO BE INSTALLED PRIOR TO ANY MAJOR SOIL DISTURBANCES, OR IN THEIR PROPER SEQUENCE, AND MAINTAINED UNTIL PERMANENT PROTECTION IS

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 NJ 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 NJ STATE STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY, 7TH EDITION LAST REVISED JANUARY 2014.

5. A SUB-BASE COURSE WILL BE APPLIED IMMEDIATELY FOLLOWING ROUGH GRADING AND INSTALLATION OF IMPROVEMENTS TO STABILIZE STREETS, ROADS, DRIVEWAYS AND PARKING AREAS. IN AREAS WHERE NO UTILITIES ARE PRESENT, THE SUB-BASE SHALL BE INSTALLED WITHIN 15 DAYS OF THE PRELIMINARY

6. IMMEDIATELY FOLLOWING INITIAL DISTURBANCES OR ROUGH GRADING, ALL CRITICAL AREAS SUBJECT TO EROSION (I.E. STEEP SLOPES AND 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 NJ 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'X6' PAD OR 2" 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 VEGETATION STABILIZATION IS GOING TO BE ACCOMPLISHED, ANY SOIL THAT WILL NOT PROVIDE A SUITABLE ENVIRONMENT TO SUPPORT ADEQUATE VEGETATIVE GROUND COVER, SHALL BE REMOVED OR TREATED IN SUCH A WAY THAT WILL PERMANENTLY ADJUST THE SOIL CONDITIONS AND RENDER IT SUITABLE FOR VEGETATIVE GROUND COVER. IF THE REMOVAL OR TREATMENT OF THE SOIL WILL NOT PROVIDE SUITABLE CONDITIONS, NON-VEGETATIVE MEANS OF PERMANENT GROUND STABILIZATION WILL HAVE TO BE EMPLOYED. 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.

11. IN THAT N.J.S.A. 4:24-39 ET SEQ. REQUIRES THAT NO CERTIFICATES 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 FROSION 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 NJ STATE SOIL EROSION AND SEDIMENT CONTROL STANDARDS.

14. THE SOMERSET-UNION SOIL CONSERVATION DISTRICT SHALL BE NOTIFIED OF ANY CHANGES IN

15. MUI CHING TO THE NJ STANDARDS IS REQUIRED FOR OBTAINING A CONDITIONAL REPORT OF COMPLIANCE. CONDITIONALS ARE ONLY ISSUED WHEN THE SEASON PROHIBITS SEEDING.

16. CONTRACTOR IS RESPONSIBLE FOR KEEPING ALL ADJACENT ROADS CLEAN DURING LIFE OF CONSTRUCTION PROJECT.

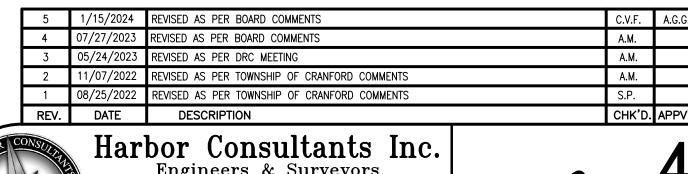
17. THE DEVELOPER SHALL BE RESPONSIBLE FOR REMEDIATING ANY EROSION OR SEDIMENT PROBLEMS THAT ARISE AS A RESULT OF ONGOING CONSTRUCTION AT THE REQUEST OF THE SOMERSET-UNION SOIL

18. HYDRO SEEDING 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 SEEDING OPERATION, HYDRO-MULCH SHOULD BE APPLIED AT A RATE OF 1500 LBS. PER ACRE IN SECOND STEP. THE USE OF HYDRO-MULCH. AS OPPOSED TO STRAW, IS LIMITED TO OPTIMUM SEEDING DATES AS LISTED IN THE NJ STANDARDS.

#### SECLIENCE OF CONSTRUCTION OPERATIONS

<u> 2E(</u>	ANTION OF CONSTRUCTION OF	<u>ERAHUN.</u>
	ACTIVITY	TIME PERIOD
1.	Install silt fence.	1 Day
2.	Install stabilized construction entrance.	1 Day
3.	Demolish existing structures and associated improvements.	1 Week
4.	Strip topsoil, stockpile and stabilize.	2 Days
5.	Excavate and construct Foundation.	2 Month
6.	Back fill Foundation, rough grade site and apply temporary seeding and or mulch as required.	3 Days
7.	Begin Building construction.	1 Year
8.	Connect underground utilities.	2 Week
9.	Install services walkways and pave driveway.	3 Days
10.	Finish grading site and apply permanent stabilization measures.	1 Week
11.	Remove temporary soil erosion control measures.	1 Day
12.	Complete Building and Landscaping.	2 Weeks

THIS PROJECT QUALIFIES FOR THE URBAN REDEVELOPMENT AREA EXEMPTION LISTED WITHIN EXEMPTION 1 ON A DOCUMENT ENTITLED 'NEW JERSEY DEPARTMENT OF AGRICULTURE STATE SOIL CONSERVATION COMMITTEE, CHAPTER 251, PL 1975 AS AMENDED ENGINEERING POLICIES - TECHNICAL BULLETIN'. THIS PROJECT IS WITHIN THE METROPOLITAN PLANNING AREA (PA-1).



2021038\_SESC



TOWNSHIP OF CRANFORD

Engineers & Surveyors

320 NORTH AVENUE EAST CRANFORD, N.J. 07016 Phone (908) 276-2715 Fax (908) 709-1738 Email: info@hcicg.net

PRELIMINARY & FINAL SITE PLAN

SOIL EROSION & SEDIMENT CONTROL PLAN No. 113 NORTH AVENUE WEST LOT 6, BLOCK 183

UNION COUNTY

V.E.V.

VICTOR E. VINEGRA PROFESSIONAL ENGINEER & LAND SURVEYOR **NEW JERSEY** NEW JERSEY LICENSE No. 34460

24GA27962100

2021038

STREET SIGN CLEANOUT CATCH BASIN CATCH BASIN SOIL BORING GUY WIRE

CONC. MONUMENT FOUND

<u>LEGEND</u> IRON BAR FOUND MAILBOX STREET TREE SANITARY MANHOLE DRAINAGE MANHOLE EXIST. SPOT ELEVATION X 0.00 --10--EXISTING CONTOUR LINE —— G—— GAS LINI GAS VALVE UTILITY POLE WATER VALVE P.K. NAIL FOUND FIRE HYDRANT

DIG SAFELY - NEW JERSEY

CALL BEFORE YOU DIG

1-800-272-1000

IT'S THE LAW

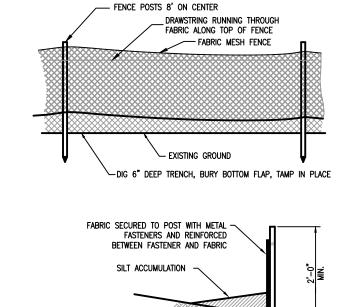
NEW JERSEY ONE CALL

CONTRACTORS SHALL CALL 1-800-272-1000 MINIMUM THREE DAYS, MAXIMUM 10 DAYS NOTICE PRIOR TO

BEGINNING EXCAVATION

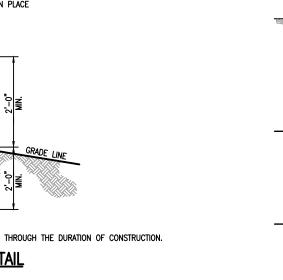
LIGHT POST

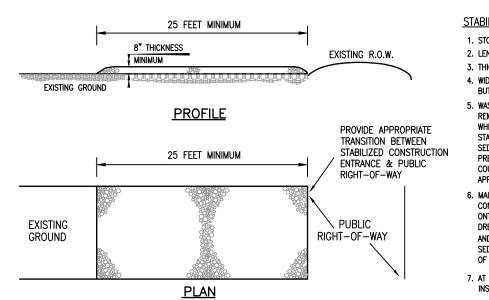
Dig Safely

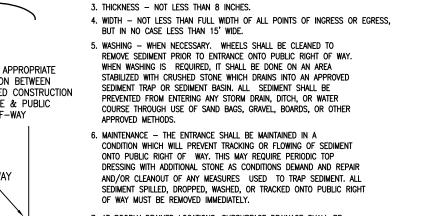


THE SILT FENCE SHALL BE MAINTAINED AND REMAIN IN PLACE THROUGH THE DURATION OF CONSTRUCTION. SILTATION FENCE DETAIL

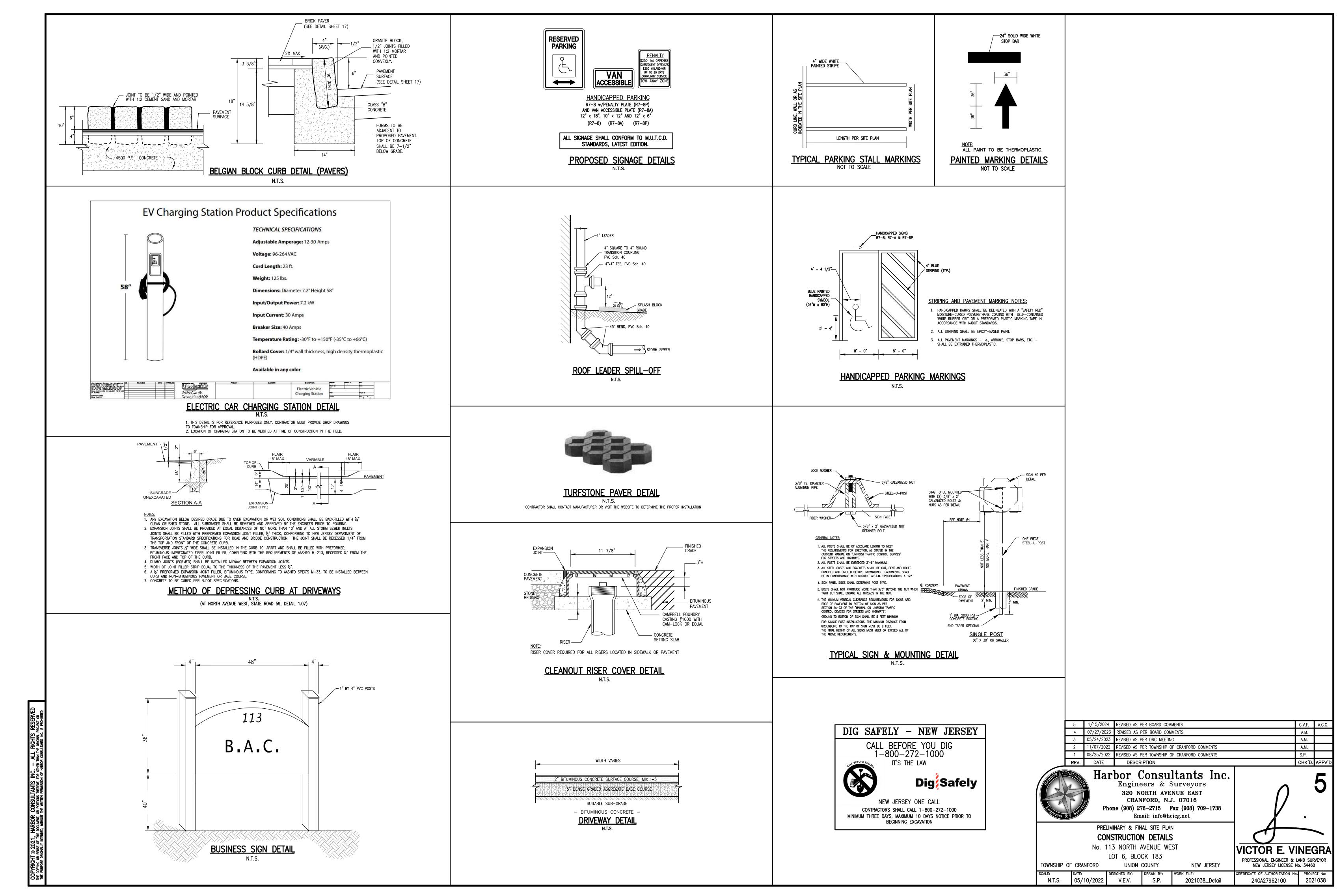
N.T.S.







 AT POORLY DRAINED LOCATIONS, SUBSURFACE DRAINAGE SHALL BE INSTALLED BEFORE INSTALLATION. GRAPHIC SCALE ( IN FEET ) 1 inch = 20 ft



T:\2021038 - 113 North Avenue West, Cranford\Finals\2021038\_Details.dwg, 1/15/2024 1:27:5



Phone (908) 276-2715 Fax (908) 709-1738

Email: info@hcicg.net

**NEW JERSEY** 

2021038\_Truck Turning

VICTOR E. VINEGRA

PROFESSIONAL ENGINEER & LAND SURVEYOR NEW JERSEY LICENSE No. 34460

24GA27962100

PRELIMINARY & FINAL SITE PLAN

VEHICLE TURNING PLAN

No. 113 NORTH AVENUE WEST

LOT 6, BLOCK 183

V.E.V.

TOWNSHIP OF CRANFORD

1/15/2024

UNION COUNTY

ELEVATIONS SHOWN ARE BASED

ON NAVD 88

GRAPHIC SCALE

( IN FEET )

1 inch = 20 ft.

DRAINAGE MANHOLE

CATCH BASIN

CATCH BASIN

UTILITY POLE

CONC. MONUMENT FOUND

STREET TREE

GAS VALVE

WATER VALVE

FIRE HYDRANT

LIGHT POST