AMENDED PRELIMINARY/FINAL SITE PLAN & MAJOR SUBDIVISION PHASE 1H
MAIN STREET NORTH BRUNSWICK

FOR

FOR BLOCK 141, LOTS 44.04, 50.04, 51.01 & PORTION OF LOT 141.04

North Brunswick Township, Middlesex County, NJ

OWNERS WITHIN 200 FT.

200' Radius Map - Block 141 Lot 141.04

BLOCK	LOT	Property Location	Owner Name	Mailing Address	City, State	Zip
141	2	SOUTH DRIVE	NORTH BRUNSWICK TOD ASSOCIATES LLC	820 MORRIS TURNPIKE	SHORT HILLS NJ	07078
141	6	SOUTH DRIVE	NORTH BRUNSWICK TOD ASSOCIATES LLC	820 MORRIS TURNPIKE	SHORT HILLS NJ	07078
141	7.01	SOUTH DRIVE	NORTH BRUNSWICK TOD ASSOCIATES LLC	820 MORRIS TURNPIKE	SHORT HILLS NJ	07078
141	9	TENTH AVENUE	NORTH BRUNSWICK TOD ASSOCIATES LLC	820 MORRIS TURNPIKE	SHORT HILLS NJ	07078
141	10	TENTH AVENUE	NORTH BRUNSWICK TOD ASSOCIATES LLC	820 MORRIS TURNPIKE	SHORT HILLS NJ	07078
141	12	SOUTH DRIVE	NORTH BRUNSWICK TOD ASSOCIATES LLC	820 MORRIS TURNPIKE	SHORT HILLS NJ	07078
141	13	SOUTH DRIVE	NORTH BRUNSWICK TOD ASSOCIATES LLC	820 MORRIS TURNPIKE	SHORT HILLS NJ	07078
141	14	SOUTH DRIVE	NORTH BRUNSWICK TOD ASSOCIATES LLC	820 MORRIS TURNPIKE	SHORT HILLS NJ	07078
141	15	GRAND AVENUE	NORTH BRUNSWICK TOD ASSOCIATES LLC	820 MORRIS TURNPIKE	SHORT HILLS NJ	07078
141	16	GRAND AVENUE	NORTH BRUNSWICK TOD ASSOCIATES LLC	820 MORRIS TURNPIKE	SHORT HILLS NJ	07078
141	17	GRAND AVENUE	NORTH BRUNSWICK TOD ASSOCIATES LLC	820 MORRIS TURNPIKE	SHORT HILLS NJ	07078
141	18	GRAND AVENUE	NORTH BRUNSWICK TOD ASSOCIATES LLC	820 MORRIS TURNPIKE	SHORT HILLS NJ	07078
141	19	GRAND AVENUE	NORTH BRUNSWICK TOD ASSOCIATES LLC	820 MORRIS TURNPIKE	SHORT HILLS NJ	07078
141	20	GRAND AVENUE	NORTH BRUNSWICK TOD ASSOCIATES LLC	820 MORRIS TURNPIKE	SHORT HILLS NJ	07078
141	21	GRAND AVENUE	NORTH BRUNSWICK TOD ASSOCIATES LLC	820 MORRIS TURNPIKE	SHORT HILLS NJ	07078
141	22	GRAND AVENUE	NORTH BRUNSWICK TOD ASSOCIATES LLC	820 MORRIS TURNPIKE	SHORT HILLS NJ	07078
141	23	GRAND AVENUE	NORTH BRUNSWICK TOD ASSOCIATES LLC	820 MORRIS TURNPIKE	SHORT HILLS NJ	07078
141	24	TENTH AVENUE	NORTH BRUNSWICK TOD ASSOCIATES LLC	820 MORRIS TURNPIKE	SHORT HILLS NJ	07078
141	33	MAIN STREET	NORTH BRUNSWICK TOD ASSOCIATES LLC	820 MORRIS TURNPIKE	SHORT HILLS NJ	07078
141	33.02	MAIN STREET	NORTH BRUNSWICK TOD ASSOCIATES LLC	820 MORRIS TURNPIKE	SHORT HILLS NJ	07078
141	37	GRAND AVENUE	NORTH BRUNSWICK TOD ASSOCIATES LLC	820 MORRIS TURNPIKE	SHORT HILLS NJ	07078
141	38.02	GRAND AVENUE	NBTOD PHASE 1F LLC	820 MORRIS TURNPIKE	SHORT HILLS NJ	07078
141	39.01	240 GRAND AVENUE	NBTOD PHASE 1F LLC	820 MORRIS TURNPIKE	SHORT HILLS NJ	07078
141	40.01	GRAND AVENUE	NBTOD PHASE 1F LLC	820 MORRIS TURNPIKE	SHORT HILLS NJ	07078
141	41	GRAND AVENUE	NORTH BRUNSWICK TOD ASSOCIATES LLC	820 MORRIS TURNPIKE	SHORT HILLS NJ	07078
141	42	GRAND AVENUE	NORTH BRUNSWICK TOD ASSOCIATES LLC	820 MORRIS TURNPIKE	SHORT HILLS NJ	07078
141	43	GRAND AVENUE	NORTH BRUNSWICK TOD ASSOCIATES LLC	820 MORRIS TURNPIKE	SHORT HILLS NJ	07078
141	44.07	229 GRAND AVENUE	NBTOD PHASE 1F LLC	820 MORRIS TURNPIKE	SHORT HILLS NJ	07078
141	44.03	MAIN STREET	NBTOD PHASE 1F LLC	820 MORRIS TURNPIKE	SHORT HILLS NJ	07078
141	45.02	100 MAIN STREET	NBTOD PHASE 1F LLC	820 MORRIS TURNPIKE	SHORT HILLS NJ	07078
141	46.01	351 GRAND AVENUE	NBTOD PHASE 1F LLC	1260 US ROUTE 1	NORTH BRUNSWICK NJ	08902
141	49.01	MAIN STREET	NBTOD PHASE 1F LLC	820 MORRIS TURNPIKE	SHORT HILLS NJ	07078
141	50.03	231 GRAND AVENUE	NBTOD PHASE 1F LLC	820 MORRIS TURNPIKE	SHORT HILLS NJ	07078
141	50.04	MAIN STREET	NBTOD PHASE 1F LLC	820 MORRIS TURNPIKE	SHORT HILLS NJ	07078
141	51.01	MAIN STREET	TOLL NJ 1 LLC	1140 VIRGINIA DRIVE	FT WASHINGTON PA	19034
141	57.02	MAIN STREET	NBTOD PHASE 1F LLC	820 MORRIS TURNPIKE	SHORT HILLS NJ	07078
141	122	GRAND AVENUE	NORTH BRUNSWICK TOD ASSOCIATES LLC	820 MORRIS TURNPIKE	SHORT HILLS NJ	07078
141	123	GRAND AVENUE	NORTH BRUNSWICK TOD ASSOCIATES LLC	820 MORRIS TURNPIKE	SHORT HILLS NJ	07078
141	141.04	2300 ROUTE 1	NORTH BRUNSWICK TOD ASSOCIATES LLC	820 MORRIS TURNPIKE	SHORT HILLS NJ	07078
141	546	62 CANNON STREET	QURESHI MUHAMMAD A & MUHAMMAD H	62 CANNON STREET	NORTH BRUNSWICK NJ	08902
141	547	66 CANNON STREET	SHARMA AMIT & ANUKA	66 CANNON STREET	NORTH BRUNSWICK NJ	08902
141	548	65 FLEET STREET	TSAI MING CHI-E SHEN HUA	65 FLEET STREET	NORTH BRUNSWICK NJ	08902
141	549	69 FLEET STREET	DEEVI NAGARAJA K & JAYAGARI JAYA L	69 FLEET STREET	NORTH BRUNSWICK NJ	08902
141	550	73 FLEET STREET	RAMAN RAJIV & RAMALINGAM SURYA	73 FLEET STREET	NORTH BRUNSWICK NJ	08902
141	551	77 FLEET STREET	PATEL ROHAN & TINKAL	77 FLEET STREET	NORTH BRUNSWICK NJ	08902
141	552	81 FLEET STREET	SHIRKE ROHAN P & TAILOR SEJAL	81 FLEET STREET	NORTH BRUNSWICK NJ	08902
141	553	85 FLEET STREET	HU ZHI QING & SHAO YAN JIA	85 FLEET STREET	NORTH BRUNSWICK NJ	08902
141	554	52 CANNON STREET	SAC KEHELIS M & AMANDA JUSTINE	82 CANNON STREET	NORTH BRUNSWICK NJ	08902
141	555	78 CANNON STREET	CHOU ZUN-JIA & LIU ANNA-CHIEH	5 PICKETT DRIVE	S BARRINGTON IL	60010
141	556	74 CANNON STREET	LEO MICHAEL SEUNG & GINA	74 CANNON STREET	NORTH BRUNSWICK NJ	08902
141	557	70 CANNON STREET	MITRA JOYES D & DHEERAJ A	70 CANNON STREET	NORTH BRUNSWICK NJ	08902
141	558	77 CANNON STREET	SEHANI KALIND & KAUR SUKHPREET	77 CANNON STREET	NORTH BRUNSWICK NJ	08902
141	559	73 CANNON STREET	DAMULLIA ARUN	73 CANNON STREET	NORTH BRUNSWICK NJ	08902
141	560	60 CANNON STREET	KANSARA KARAN & PUJA	60 CANNON STREET	NORTH BRUNSWICK NJ	08902
141	561	65 CANNON STREET	JANA VIJAY & MADHU	65 CANNON STREET	NORTH BRUNSWICK NJ	08902
141	562	61 CANNON STREET	KHAN MUHAMMAD O & ABID ZOHA	61 CANNON STREET	NORTH BRUNSWICK NJ	08902
141	563	57 CANNON STREET	DHAYALAN DHEENA & DHAYALAN SRIMATHI	57 CANNON STREET	NORTH BRUNSWICK NJ	08902
141	564	53 CANNON STREET	SHAH SAGAR S & SHAH JYOTSNA K	53 CANNON STREET	NORTH BRUNSWICK NJ	08902
141	586	66 BOND STREET	RAYAN JAYMONY & RAYAN KELLYN	66 BOND STREET	NORTH BRUNSWICK NJ	08902
141	587	54 BOND STREET	GADDAM SHIVA RAMAKANTHANDS SRUTHI	54 BOND STREET	NORTH BRUNSWICK NJ	08902
141	588	58 BOND STREET	HONG WEN J	58 BOND STREET	NORTH BRUNSWICK NJ	08902
141	589	62 BOND STREET	KIM MICHELLE SHARON & JONATHAN	62 BOND STREET	NORTH BRUNSWICK NJ	08902
141	590	68 BOND STREET	CHEN KATRINA	68 BOND STREET	NORTH BRUNSWICK NJ	08902
141	591	70 BOND STREET	PATEL RAJESH & KOMAL	70 BOND STREET	NORTH BRUNSWICK NJ	08902
141	592	74 BOND STREET	HARRIS C L & JOHNSON K & IRVIS K C	74 BOND STREET	NORTH BRUNSWICK NJ	08902
141	593	69 BOND STREET	WU TAOCHENG	69 BOND STREET	NORTH BRUNSWICK NJ	08902
141	594	65 BOND STREET	DOMINATI SAPAL & GADDAM SHIVA S	65 BOND STREET	NORTH BRUNSWICK NJ	08902
141	595	61 BOND STREET	MUNTAZAR MUHAMMAD & FAIHA ARUWALA	61 BOND STREET	NORTH BRUNSWICK NJ	08902
141	596	57 BOND STREET	MADHAVARAM PAVAN K & GHANETI BHANU	57 BOND STREET	NORTH BRUNSWICK NJ	08902
141	597	53 BOND STREET	PATEL SHIV SHAILESH	53 BOND STREET	NORTH BRUNSWICK NJ	08902
141	602	44 AUDLEY STREET	SINGH RAVI M & MARNEET MAHEET	44 AUDLEY STREET	NORTH BRUNSWICK NJ	08902
141	604	48 AUDLEY STREET	VIDYASAGAR NOMIN & SITAPARA PUJA	48 AUDLEY STREET	NORTH BRUNSWICK NJ	08902
141	605	52 AUDLEY STREET	FATIMA ABDELA & AHMED SHARIQ	52 AUDLEY STREET	NORTH BRUNSWICK NJ	08902
141	606	56 AUDLEY STREET	KONG LIN & SHEI YUAN	56 AUDLEY STREET	NORTH BRUNSWICK NJ	08902
141	607	60 AUDLEY STREET	BILLA PRASHANTH K & GOGINENI LIMITH M	60 AUDLEY STREET	NORTH BRUNSWICK NJ	08902
141	621	21 AUDLEY STREET	SHARIFF OUMAR	21 AUDLEY STREET	NORTH BRUNSWICK NJ	08902
141	622	29 AUDLEY STREET	SAPOOR SAURABH & RADHIKA KATTI	29 AUDLEY STREET	NORTH BRUNSWICK NJ	08902
141	623	33 AUDLEY STREET	SUKUMAR JULIAN LUXMI	33 AUDLEY STREET	NORTH BRUNSWICK NJ	08902
141	624	37 AUDLEY STREET	PRAKASHRAJ J N & SHANGARAMPU S	37 AUDLEY STREET	NORTH BRUNSWICK NJ	08902
141	625	41 AUDLEY STREET	HUDA HOME LLC	41 AUDLEY STREET	NORTH BRUNSWICK NJ	08902
141	626	45 AUDLEY STREET	QURESHI ADEEL & UAR HENA	45 AUDLEY STREET	NORTH BRUNSWICK NJ	08902
141	627	49 AUDLEY STREET	THYAGARAJAN SONIA & GOVINDRAJAN F	49 AUDLEY STREET	NORTH BRUNSWICK NJ	08902
141	628	53 AUDLEY STREET	MARTIN SHONDA	53 AUDLEY STREET	NORTH BRUNSWICK NJ	08902
141	629	57 AUDLEY STREET	MUHAMMAD FAIZRULLAH & SANA SIDDIQUI	346 SOUTH DRIVE	NORTH BRUNSWICK NJ	08902
141	630	342 SOUTH DRIVE	FERNANDEZ GUITAN LIB/ARNEST MARTINEZ	342 SOUTH DRIVE	NORTH BRUNSWICK NJ	08902
141	631	338 SOUTH DRIVE	PATHAK SAGE & AARUSHI Y	338 SOUTH DRIVE	NORTH BRUNSWICK NJ	08902
141	632	334 SOUTH DRIVE	KONDA PRAMOD K & CHALLURI PAVMANI	334 SOUTH DRIVE	NORTH BRUNSWICK NJ	08902
141	633	330 SOUTH DRIVE	PATEL P & VIRA N R & PATEL A	330 SOUTH DRIVE	NORTH BRUNSWICK NJ	08902
141	634	322 SOUTH DRIVE	ANANTHAN S & CHANDRASHEKHAR S	322 SOUTH DRIVE	NORTH BRUNSWICK NJ	08902
141	635	318 SOUTH DRIVE	YANG DAVIDSON N & CHANG SAMANTHA S	318 SOUTH DRIVE	NORTH BRUNSWICK NJ	08902
148	8.03	2510 ROUTE 1	M & M INVESTMENT LLC	PO BOX 7473	NORTH BRUNSWICK NJ	08902
148	24	1983 ROUTE 1	1983 US HWY 1 LLC %F GREEK DEVELOP	1 KIMBERLY ROAD STE 105	EAST BRUNSWICK NJ	08816
148	24.15	1983 ROUTE 1	1983 US HWY 1 LLC %F GREEK DEVELOP	1 KIMBERLY ROAD STE 105	EAST BRUNSWICK NJ	08816
148	25	1981 ROUTE 1	1981 US HWY 1 LLC %F GREEK DEVELOP	1 KIMBERLY ROAD STE 105	EAST BRUNSWICK NJ	08816
148	25.01	1981 ROUTE 1	1981 US HWY 1 LLC %F GREEK DEVELOP	1 KIMBERLY ROAD STE 105	EAST BRUNSWICK NJ	08816
148	26	2095 EXCELSIOR AVENUE	EXTREME PERFORMANCE TECHNOLOGY LLC	2095 EXCELSIOR AVENUE	NORTH BRUNSWICK NJ	08902
148	27	1980 ROUTE 1	1980 US HWY 1 LLC %F GREEK DEVELOP	1 KIMBERLY ROAD STE 105	EAST BRUNSWICK NJ	08816
148	28	1980 ROUTE 1	1980 US HWY 1 LLC %F GREEK DEVELOP	1 KIMBERLY ROAD STE 105	EAST BRUNSWICK NJ	08816
148	38.05	ADAMS LANE	AMTRAK	1818 MARKET STREET	PHILADELPHIA PA	19103
148	38.06	ADAMS LANE	NEW JERSEY TRANSIT CORPORATION	1 PENN PLAZA EAST	NEWARK NJ	07105
148	39	ADAMS LANE	AMTRAK	1818 MARKET STREET	PHILADELPHIA PA	19103
148	40.04	ADAMS LANE	AMTRAK	1818 MARKET STREET	PHILADELPHIA PA	19103
152	1	2152 TRUMAN PLACE	HORODOS PAVIR M & MALIZA B	2152 TRUMAN PLACE	NORTH BRUNSWICK NJ	08902
152	2	2144 TRUMAN PLACE	MAMCHASHA AMITESH & SUCHISMY SHANIA	2144 TRUMAN PLACE	NORTH BRUNSWICK NJ	08902
152	3	2140 TRUMAN PLACE	KHODOV RUSLAN & PROTASOVA ELENA	2140 TRUMAN PLACE	NORTH BRUNSWICK NJ	08902
152	4	2132 TRUMAN PLACE	PELLICANE JEFFREY&DIANE/MARGARET LE	2132 TRUMAN PLACE	NORTH BRUNSWICK NJ	08902
152	5	2124 TRUMAN PLACE	PATHAKOTI SATHYANARAYANA & SRIVAYA	2124 TRUMAN PLACE	NORTH BRUNSWICK NJ	08902
152	7	948 EDWIN STREET	BOODRAM RINMINIE & PREM LILAH	948 EDWIN STREET	NORTH BRUNSWICK NJ	08902
152	8.01	942 EDWIN STREET	WOWKOWSKI RICHARD & MARIA	11 FRANCIS COURT	MILLSTONE NJ	08510
152	8.02	2117 EXCELSIOR AVENUE	PYNDIKOLU ANTONINA & I PYLKTES	1255 ASTOR STREET	NORTH BRUNSWICK NJ	08902
152	9	2127 EXCELSIOR AVENUE	KRZEWICK WILLIAM M III & SAMANTHA A	2127 EXCELSIOR AVENUE	NORTH BRUNSWICK NJ	08902
152	10	2135 EXCELSIOR AVENUE	SINGH JASBIR L	833 PROSPECT AVENUE	MILLTOWN NJ	08850
152	11.03	2147 EXCELSIOR AVENUE	TRI STATE CONSTRUCTION INC	PO BOX 7315	EAST BRUNSWICK NJ	08816
152	11.02	2157 EXCELSIOR AVENUE	TRI STATE CONSTRUCTION INC	PO BOX 7315	EAST BRUNSWICK NJ	08816
152	12	345 FULTON STREET	TOROSOSI PAVIR & MALIZA	54 RUSSIE ROAD	NORTH EAST MD	21901


COMMERCE BLVD
BLOCK 4.45
LOT 3
BLOCK 153
BLOCK 152
LOT 8.02
BLOCK 4.46
BLOCK 4.461
AARON ROAD
NEW JERSEY STATE HIGHWAY ROUTE 1
SITE
MAIN STREET
TENTH AVENUE
AMTRAK CONRAIL
GRAND AVE
BLOCK 74
BLOCK 73
BLOCK 72
SOUTH DRIVE
BRIDGEWATER DRIVE
LOT 5.02
LOT 5.03
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19.01 (COSTCO)
8 (TARGET)
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MATCH LINE

PROJECT AREA

CONCRETE PAD WITH TRANSFORMER AND QUAZITE PAD WITH TRANSFORMER TO BE RELOCATED

UNDER CONSTRUCTION

EXISTING BUILDINGS

RESTAURANT 4,063 SF (PANERA CAFE)

EXISTING BASIN B WET POND (CONSTRUCTED)

EXISTING BASIN B

EXISTING BASIN A

EXISTING BASIN D WET POND

B-2 RESTAURANT (THE GREEN TURTLE)

B-1 6-STY 124 ROOM HOTEL 77,130 S.F. (COURT YARD BY MARRIOTT)

COSTCO RETAIL ESTABLISHMENT 152,173 S.F.

A-1

A-2

A-3

GASOLINE RETAILING FACILITY

TARGET RETAIL ESTABLISHMENT LRE – 136,488 S.F.

RESIDENTIAL BUILDINGS

ROUTE U.S. 1 SOUTHBOUND

ROUTE U.S. 1 NORTHBOUND

AARON ROAD

N12°59'31"E 1428.98'

S82°12'41"W 1474.29'

N.00°00'55"W 500.00'

N.00°00'55"W 500.00'

S.00°00'55"E 500.00'

S.00°40'13"W 527.40'

WETLANDS

WETLANDS BUFFER

BLOCK 148, LOT 5.04 N/L L'OREAL USA PRODUCTS INC.

BLOCK 148, LOT 5.02 N/L COUNTY OF MIDDLESEX N.J.

BLOCK 148, LOT 39, MAIN LINE N/L AMTRAK CLASS 1 N.J.T.R.R. (FORMERLY C.N.J.R.R.) TRENTON TO JERSEY CITY

CONC. MON. (FOUND)

CAPPED I.PIN (FOUND) "L. BUSH PE"

I.PIN (FOUND) "L. BUSH PE"

MAPLE 24" TREES

CHAIN LINK FENCE

LEGEND

EXISTING FEATURES

- EXIST. TREE LINE
- EXIST. SANITARY MANHOLE
- EXIST. INLET
- EXIST. UTILITY POLE
- EXIST. FIRE HYDRANT
- EXIST. SPOT ELEVATION (x 114.5)
- EXIST. WATER LINE (W)
- EXIST. SANITARY SEWER (S)
- EXIST. STORM SEWER
- EXIST. CONTOUR
- EXIST. FENCE (70)
- EX. TOP CURB/GUTTER GRADE (TC 113.3 / G 112.8)

NOTES:

1. BOUNDARY INFORMATION SHOWN ON THIS PLAN IS BASED UPON A SURVEY OF PROPERTY BY CREST ENGINEERING ASSOCIATES DATED 4/11/11.
2. OWNER: NORTH BRUNSWICK T.O.D. ASSOCIATES, LLC.
3. TOPOGRAPHIC SURVEY BASED ON AERIAL TOPOGRAPHIC MAPPING PREPARED BY GILMORE & ASSOC. DATED 4/20/03, AND UPDATED BY CREST ENGINEERING ASSOC. IN JANUARY, 2011. VERTICAL DATUM: NAVD88.
4. ASBUILT INFORMATION SHOWN ON THIS PLAN IS BASED UPON AN ASBUILT PREPARED BY CREST ENGINEERING ASSOCIATES INC., DATED 9/16/13, LAST REVISED 8/20/14
5. WETLANDS DELINEATION AND BUFFERS PER N.J.D.E.P. FILE #1215-08-0003.2 FWW100001, DATED NOV. 16, 2010.
6. TOTAL WETLANDS AREA = 28.55 ACRES, TOTAL BUFFER AREA = 12.97 ACRES.
7. THE 100 YEAR FLOOD LIMIT DOES NOT FALL WITHIN THE PROJECT BOUNDARIES (PER LETTER OF MAP REVISION NO. 11-02-1340P, DATED 8-16-11).

GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)
1 inch = 100 ft.

PROTECT YOURSELF
A PHONE CALL CAN BE YOUR INSURANCE POLICY

DIAL 811 CALL BEFORE YOU DIG! 1-800-272-1000 NEW JERSEY ONE CALL UNDERGROUND UTILITY PROTECTION SERVICE

THE STATE OF NEW JERSEY REQUIRES NOTIFICATION OF EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE, ANYWHERE IN THE STATE.

revisions

no.	date	description

Engineers
Landscape Architects
Land Surveyors
Planners
575 Route 28, Suite 110
Raritan, N.J. 08869
908-722-1500
Fax 908-722-7035
www.reynoldsgrp.com

The Reynolds Group Inc.

State of New Jersey
Certificate of Authorization
Number 24GA27969200
21MH00004300

F. Mitchel Ardman, P.E., P.P.
Jeffrey D. Reynolds, P.L.A.

F. MITCHEL ARDMAN
N.J. PROFESSIONAL ENGINEER LIC. NO. 34317

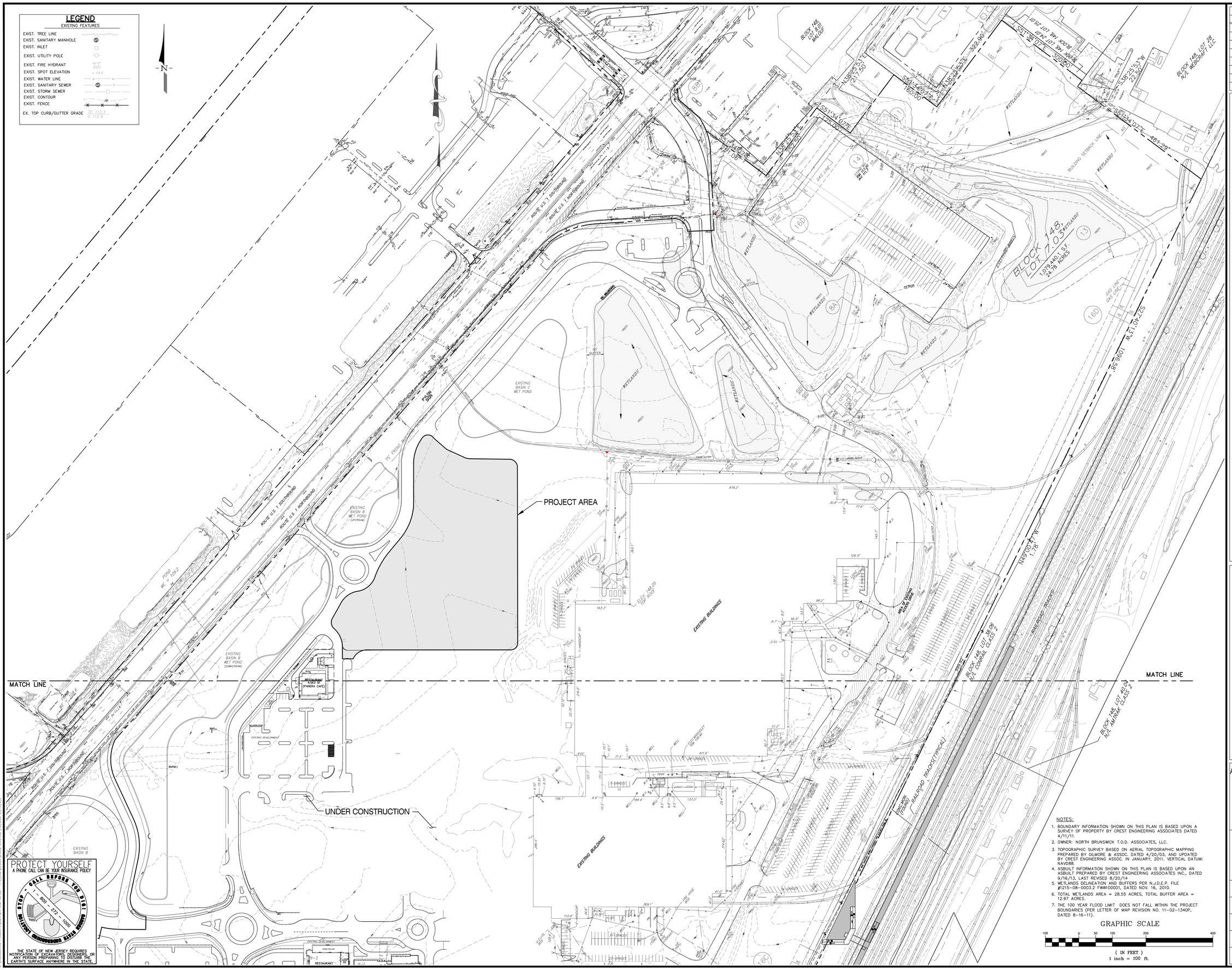
project
AMENDED PRELIMINARY/FINAL SITE PLAN & MAJOR SUBDIVISION
PHASE 1H
MAIN STREET NORTH BRUNSWICK

BLOCK 141
LOTS 44.04, 50.04, 51.01 & PORTION OF LOT 141.04
NORTH BRUNSWICK TOWNSHIP
MIDDLESEX COUNTY , NEW JERSEY

drawing title
EXISTING CONDITIONS PLAN 'A'

job number	drawing number
24-052	2
scale: 1"=100'	
checked by: FMA/AEC	
drawn by: A.A.	
date: 06/12/25	sheet 2 of 21

J:\ENGINEERING PROJECTS\2024\24-052 NBTOD - TM - CAD\DESIGN\SHEETS (PDF)\EXISTING CONDITIONS PLAN 'A'.DWG



revisions		
no.	date	description

Engineers
Landscape Architects
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575 Route 28, Suite 110
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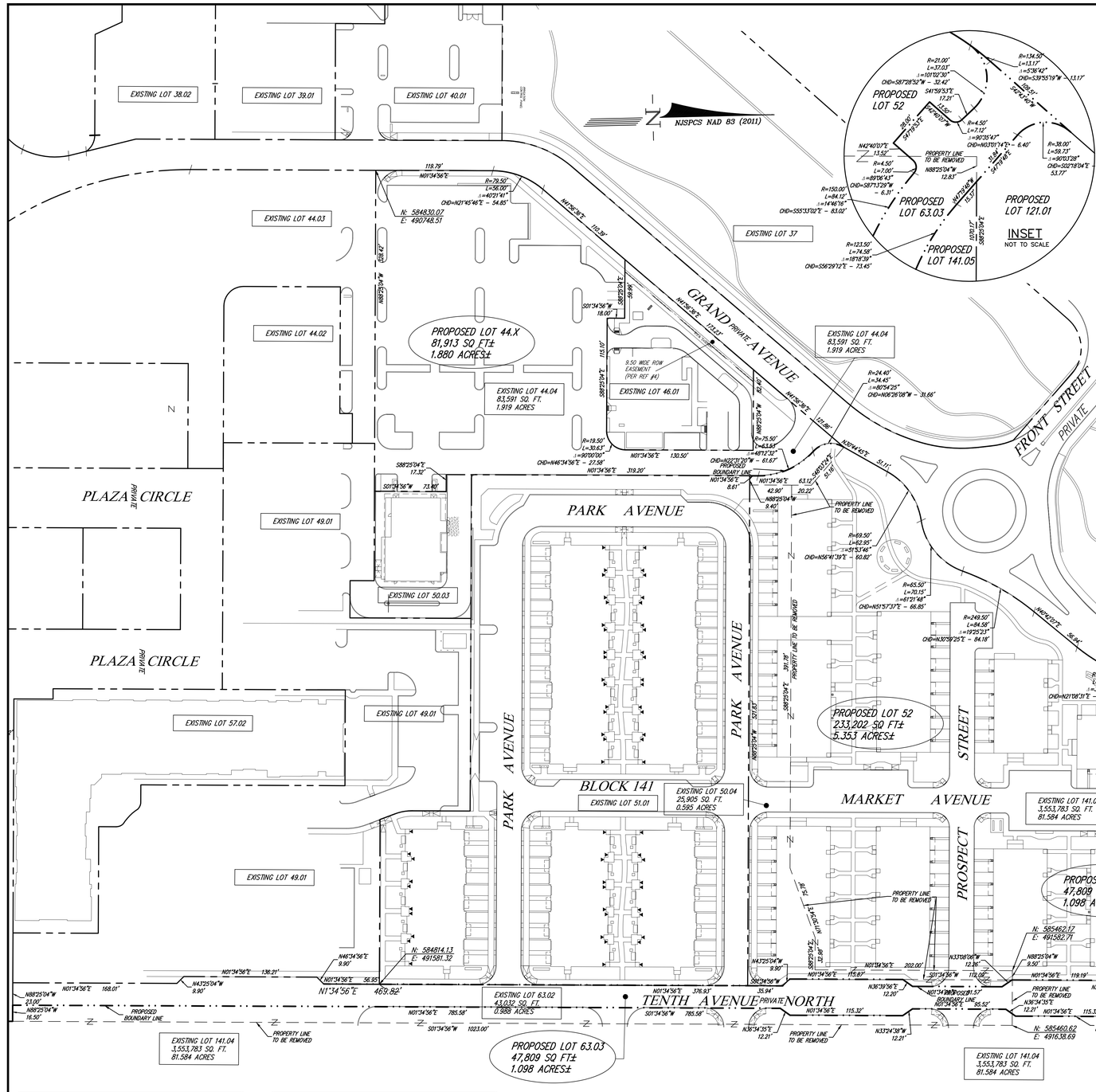
project
AMENDED PRELIMINARY/FINAL SITE PLAN & MAJOR SUBDIVISION
PHASE 1H
MAIN STREET NORTH BRUNSWICK

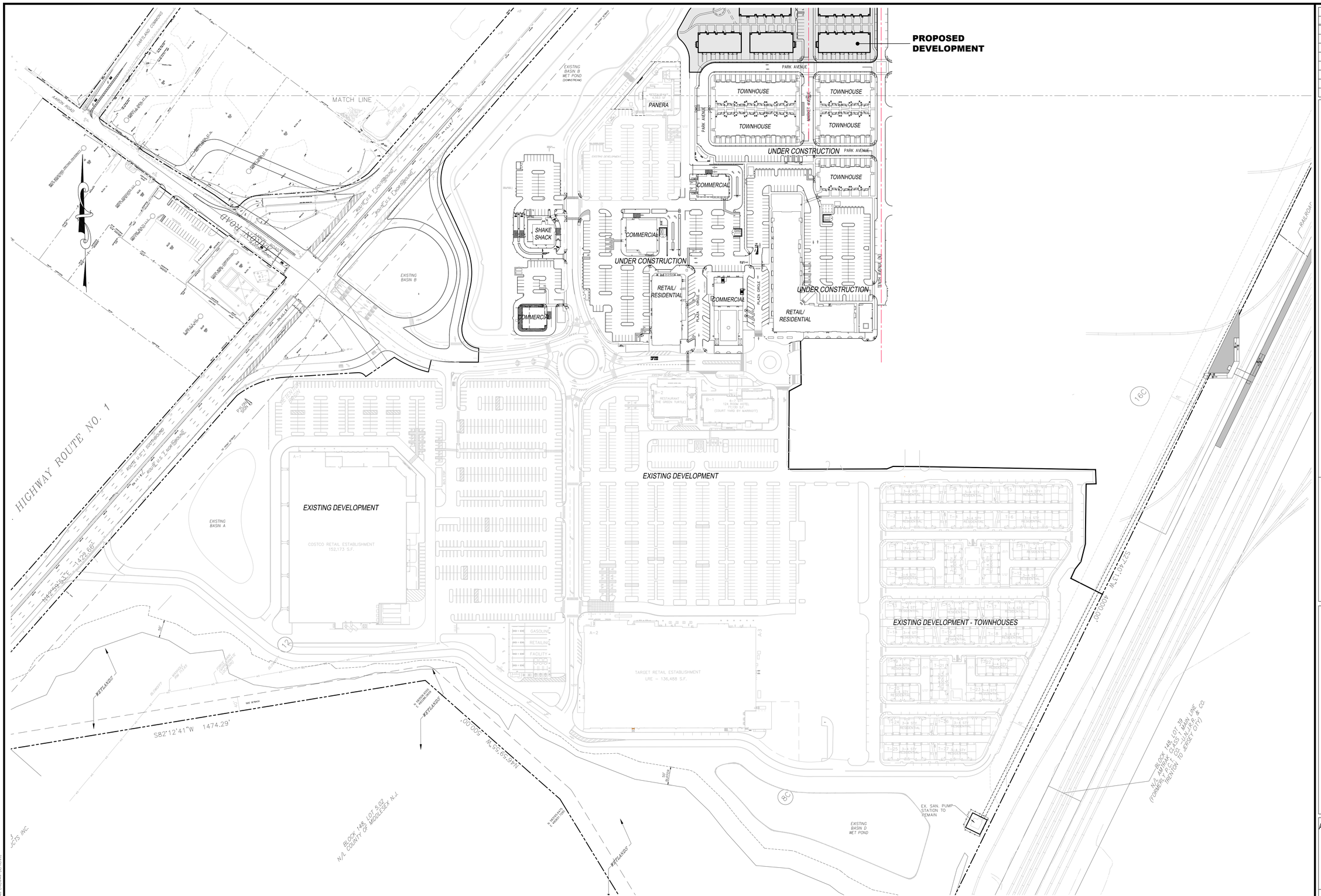
BLOCK 141
LOTS 44.04, 50.04, 51.01 & PORTION OF LOT 141.04
NORTH BRUNSWICK TOWNSHIP
MIDDLESEX COUNTY , NEW JERSEY

drawing title
EXISTING CONDITIONS PLAN 'B'

job number 24-052	drawing number 3
scale 1"=100'	
checked by FMA/AEC	
drawn by A.A.	
date 06/12/25	sheet 3 of 21

L:\ENGINEERING PROJECTS\2024\24-052 NBTOD - TAL - MAIN STREET\DWG\24-052 - EXISTING (INITIAL) - ALTA.DWG


NJSPCS NAD 83 (2011)
EXISTING LOT 38.02
EXISTING LOT 39.01
EXISTING LOT 40.01
EXISTING LOT 44.03
EXISTING LOT 44.02
EXISTING LOT 49.01
EXISTING LOT 57.02
EXISTING LOT 49.01
EXISTING LOT 37
PROPOSED LOT 44.X
81,913 SQ FT±
1.880 ACRES±
EXISTING LOT 44.04
83,591 SQ. FT.
1.919 ACRES
EXISTING LOT 46.01
9.50 WIDE ROW EASEMENT (PER REF #4)
EXISTING LOT 44.04
83,591 SQ. FT.
1.919 ACRES
EXISTING LOT 50.03
EXISTING LOT 49.01
EXISTING LOT 50.04
25,905 SQ. FT.
0.595 ACRES
EXISTING LOT 51.01
EXISTING LOT 63.02
43,032 SQ. FT.
0.988 ACRES
EXISTING LOT 141.04
3,553,783 SQ. FT.
81.584 ACRES
PROPOSED LOT 52
233,202 SQ FT±
5.353 ACRES±
PROPOSED LOT 63.03
47,809 SQ FT±
1.098 ACRES±
PROPOSED LOT 141.05
3,357,555 SQ FT±
77.079 ACRES±
(SEE INSET)
EXISTING LOT 141.04
3,553,783 SQ. FT.
81.584 ACRES
EXISTING LOT 141.04
3,553,783 SQ. FT.
81.584 ACRES
EXISTING LOT 41
EXISTING LOT 121
119,012 SQ. FT.
2.732 ACRES
EXISTING LOT 121
119,012 SQ. FT.
2.732 ACRES
EXISTING LOT 122
PROPOSED LOT 121.01
104,844 SQ. FT.±
2.407 ACRES±
PROPOSED LOT 141.05
3,357,555 SQ FT±
77.079 ACRES±
(SEE INSET)
PROPOSED LOT 63.03
47,809 SQ FT±
1.098 ACRES±
PROPOSED LOT 52
233,202 SQ FT±
5.353 ACRES±
PROPOSED LOT 44.X
81,913 SQ FT±
1.880 ACRES±
PROPOSED LOT 121.01
104,844 SQ. FT.±
2.407 ACRES±
PROPOSED LOT 141.05
3,357,555 SQ FT±
77.079 ACRES±
(SEE INSET)
PROPOSED LOT 63.03
47,809 SQ FT±
1.098 ACRES±
PROPOSED LOT 52
PROPOSED LOT 63.03
PROPOSED LOT 141.05
INSET
NOT TO SCALE
PROPOSED LOT 141.05
3,357,554 SQ FT±
77.079 ACRES±
INSET
SCALE: 1" = 500'
GRAND PRIVATE AVENUE
FRONT STREET PRIVATE
NEW JERSEY STATE HIGHWAY ROUTE #1
PARK AVENUE
PARK AVENUE
PARK AVENUE
PLAZA CIRCLE PRIVATE
PLAZA CIRCLE PRIVATE
PLAZA CIRCLE
BLOCK 141
MARKET AVENUE
PROSPECT STREET
CHAMBERS STREET
SUNSET ST.
TENTH AVENUE PRIVATE
NORTH
GRAND PRIVATE AVENUE
N: 584830.07
E: 490748.51
N: 584814.13
E: 491581.32
N: 585462.17
E: 491582.71
N: 585460.62
E: 491638.69
N: 586251.08
E: 491711.18
PROPERTY LINE TO BE REMOVED
PROPOSED BOUNDARY LINE
N1°34'56"E 469.82'
S01°34'56"W 1023.00'
S05°59'40"W 356.87'
S04°10'23"E 107.91'
N42°41'40"E 302.51'
N01°34'56"E 785.58'
N01°34'56"E 376.91'
N01°34'56"E 202.00'
N01°34'56"E 115.87'
N01°34'56"E 119.19'
N01°34'56"E 46.31'
N01°34'56"E 82.63'
N01°34'56"E 150.82'
N01°34'56"E 14.05'
N01°34'56"E 115.32'
N01°34'56"E 111.13'
N01°34'56"E 148.00'
N01°34'56"E 86.24'
N01°34'56"E 24.89'
N01°34'56"E 61.67'
N01°34'56"E 63.12'
N01°34'56"E 42.90'
N01°34'56"E 8.61'
N01°34'56"E 51.11'
N01°34'56"E 130.50'
N01°34'56"E 319.20'
N01°34'56"E 168.01'
N01°34'56"E 136.21'
N01°34'56"E 58.95'
N01°34'56"E 9.90'
N01°34'56"E 73.90'
N01°34'56"E 17.32'
S01°34'56"W 18.00'
S01°34'56"W 115.10'
S01°34'56"W 785.58'
S01°34'56"W 73.90'
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S01°34'56"W 13.50'
S01°34'56"W 8.00'
S01°34'56"W 13.50'
S01°34'56"W 112.08'
S01°34'56"W 98.52'
S01°34'56"W 12.20'
S01°34'56"W 11.76'
S01°34'56"W 14.05'
S01°34'56"W 107.91'
S05°59'39"W 13.40'
S05°59'39"W 169.96'
S05°59'40"W 356.87'
S04°10'23"E 107.91'
S88°25'04"E 17.32'
S88°25'04"E 42.90'
S88°25'04"E 20.22'
S88°25'04"E 54.16'
S88°25'04"E 98.53'
S88°25'04"E 115.32'
S88°25'04"E 306.19'
S88°25'04"W 23.00'
S88°25'04"W 16.50'
S88°25'04"W 9.50'
S88°25'04"W 10.00'
S88°25'04"W 12.83'
S88°25'04"W 15.37'
S88°25'04"W 306.19'
N88°25'04"W 42.90'
N88°25'04"W 8.40'
N88°25'04"W 12.26'
N88°25'04"W 12.83'
N88°25'04"W 15.37'
N88°25'04"W 306.19'
N43°25'04"W 9.90'
N43°25'04"W 9.90'
N43°25'04"W 9.90



NOTE: MIXED USE RETAIL/COMMERCIAL BUILDINGS SHOWN HEREON LIST S.F. OF COMMERCIAL SPACE PLUS THE NUMBER OF UNITS OF RESIDENTIAL SPACE.

DENOTES DEVELOPMENT AREA – THIS APPLICATION FOR AMENDED FINAL SITE PLAN APPROVAL.

GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)
1 inch = 100 ft.

PROTECT YOURSELF
A PHONE CALL CAN BE YOUR INSURANCE POLICY

STOP - CALL BEFORE YOU DIG! - 1-800-272-1000 - KNOW WHAT'S BELOW

THE STATE OF NEW JERSEY REQUIRES NOTIFICATION OF EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE STATE.

revisions		
no.	date	description

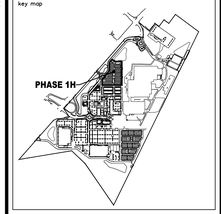
LEGEND

- GAS VALVE
- GAS METER
- WATER VALVE
- HYDRANT
- WATER METER
- CURB STOP
- FIRE DEPT. CONNECTION
- DRAINAGE MH
- CURB INLET
- LAWN INLET
- SANITARY MH
- CLEANOUT
- BOLLARD
- SIGN
- LIGHT
- MAIL BOX
- GUY WIRE
- UTILITY POLE
- ELECTRIC MH
- CONIFEROUS TREE
- DECIDUOUS TREE
- — X — FENCE
- RAILING
- WALL
- GATE POST
- — W — WATER LINE
- — G — GAS LINE
- — E — ELECTRIC LINE
- — S — SANITARY LINE
- — OH — OVERHEAD WIRES

PROPOSED LEGEND

- PHASE LINE
- STORM MANHOLE
- STORM 'B' INLET
- STORM 'E' INLET
- STORM LAWN INLET
- STORM PIPE
- SANITARY MANHOLE
- SANITARY PIPE
- — W — WATER LINE
- WATER VALVE
- FIRE HYDRANT
- F.D.C.
- STREET SIGN

key map



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Landscape Architects
Land Surveyors
Planners
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Raritan, N.J. 08869
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www.reynoldsgrp.com

The Reynolds Group Inc.

State of New Jersey
Certificate of Authorization
Number 24GA27969200
21MH00064300

F. Mitchel Ardman, P.E., P.P.
Jeffrey D. Reynolds, P.L.A.

F. MITCHEL ARDMAN
N.J. PROFESSIONAL ENGINEER LIC. NO. 34317

project
AMENDED PRELIMINARY/FINAL SITE PLAN & MAJOR SUBDIVISION
PHASE 1H
MAIN STREET NORTH BRUNSWICK

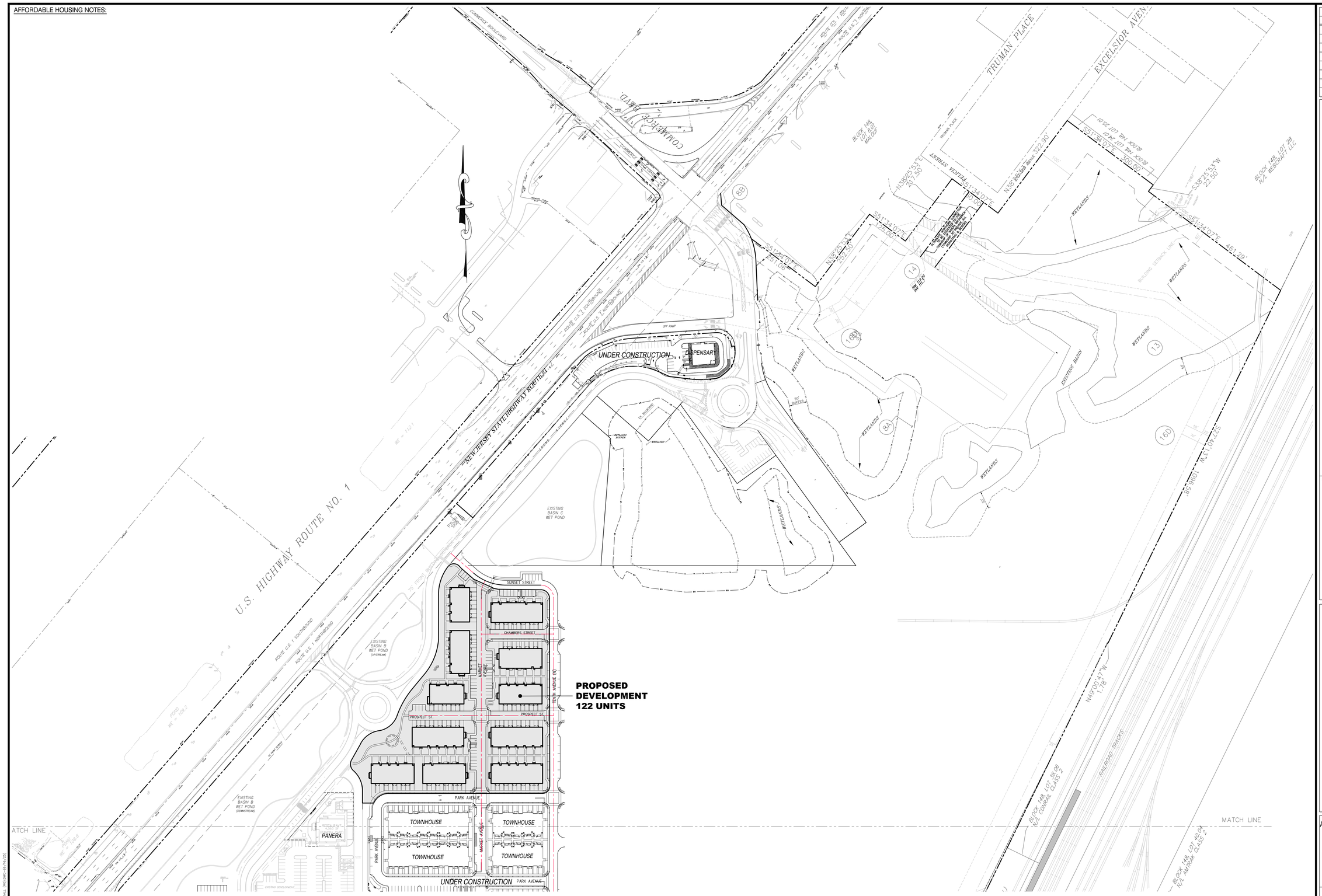
BLOCK 141
LOTS 44.04, 50.04, 51.01 & PORTION OF LOT 141.04
NORTH BRUNSWICK TOWNSHIP
MIDDLESEX COUNTY , NEW JERSEY

drawing title
OVERALL PLAN 'A'

job number	drawing number
24-052	5
scale: 1"=100'	
checked by: FMA/AEC	
drawn by: A.A.	
date: 06/12/25	sheet 5 of 21

J:\PROJECTS\2024\24-052\DWG\24-052 MSTRS - PH1_CAD\SITE\MSPS OVERALL PHASE 1H.DWG 6/6/2025

AFFORDABLE HOUSING NOTES:



PROTECT YOURSELF
A PHONE CALL CAN BE YOUR INSURANCE POLICY



THE STATE OF NEW JERSEY REQUIRES NOTIFICATION OF EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE STATE.

GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)
1 inch = 100 ft.

revisions		
no.	date	description

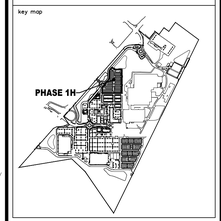
LEGEND

- GAS VALVE
- GAS METER
- WATER VALVE
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- WATER METER
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- FIRE DEPT. CONNECTION
- DRAINAGE MH
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- PHASE LINE
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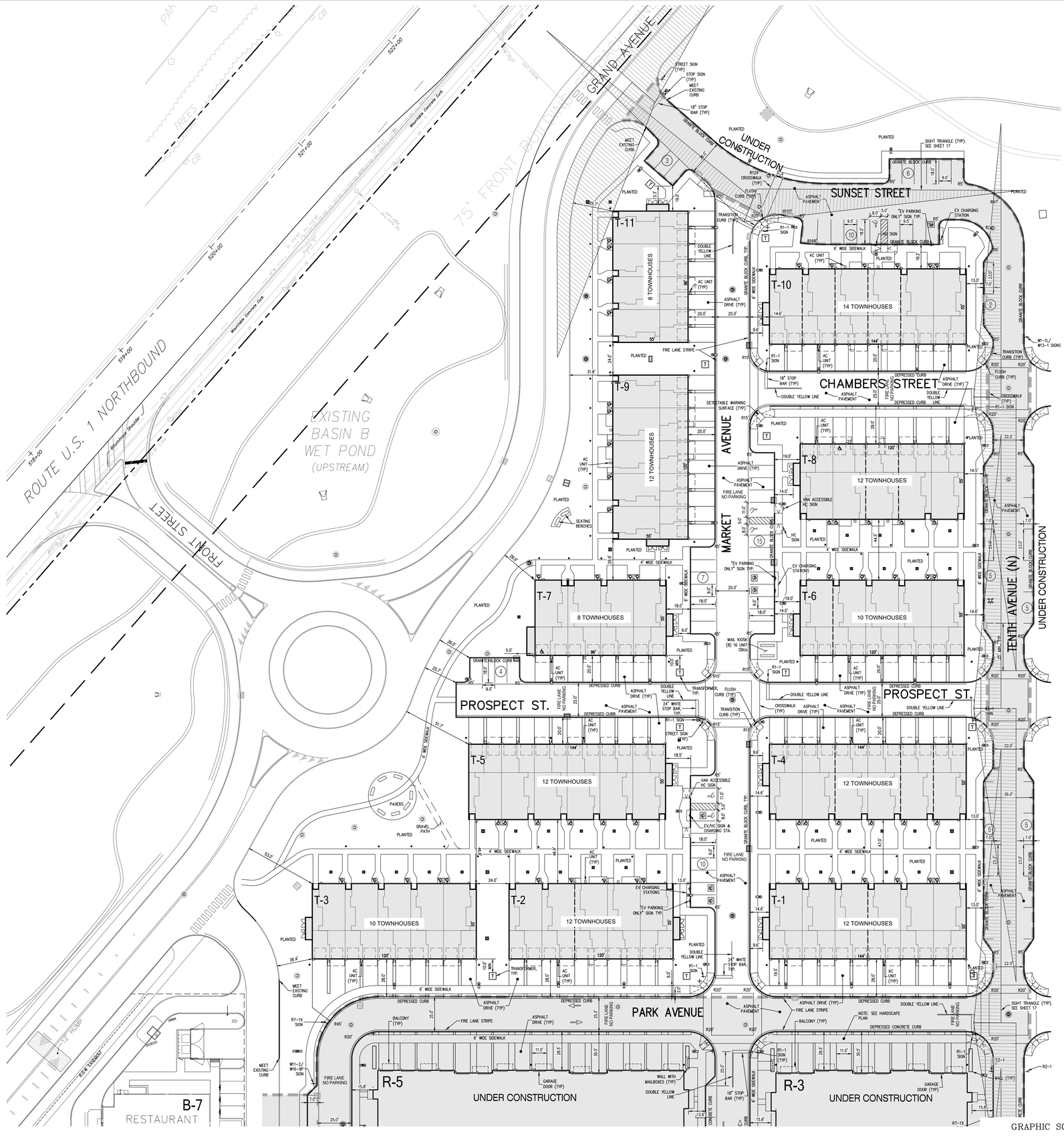
drawing title
OVERALL PLAN 'B'

job number	drawing number
24-052	6
scale: 1"=100'	
checked by: FMA/AEC	
drawn by: A.A.	
date: 06/12/25	sheet 6 of 21

J:\PROJECTS\2024\24-052 NORTH - 141,144\DESIGN\CAD\2 - OVERALL PDP\ 24-052 PDP - OVERALL.DWG

GENERAL NOTES:

1. SITE INFORMATION SHOWN ARE BASED UPON APPROVED SITE PLANS, SUBDIVISION PLAN AND AS-BUILT PLANS PREPARED BY CREST ENGINEERING.
   1.1. PRELIMINARY AND FINAL SITE PLAN: PANELS D & E DATED 8/2/2011, LAST REVISED 7/12/16.
   1.2. SUBDIVISION PLAN: ALTA/NSPS LAND TITLE SURVEY FOR LOTS 36.01, 38, 39, 40, 44.01, 45.01, 47, 48, 48.01, 49, 50.01, 50.02, 50.03, 51, 52, 53, 54, 55, 56, 57.01, 58, 59 & 60; BLOCK 141, SIGNED BY GARY P. YURO, P.L.S. No. 43251, DATED 6/1/2021, NO REVISION
   1.3. AS-BUILT PLANS: PANEL 'D' DATED 9/16/2013, LOTS 5.04, 7.01, 7.03 & 23; BLOCK 148, SIGNED BY GARY P. YURO, P.L.S. No. 43251, SHEET 4 OF 8, DATED 9/16/2013, LAST REVISED 8/20/2014; PANEL 'E' DATED 9/16/2013, LOTS 5.04, 7.01, 7.03 & 23; BLOCK 148, SIGNED BY GARY P. YURO, P.L.S. No. 43251, SHEET 5 OF 8, DATED 9/16/2013, LAST REVISED 6/10/2014.
2. ALL MATERIALS, WORKMANSHIP AND CONSTRUCTION FOR SITE IMPROVEMENTS SHALL CONFORM TO NORTH BRUNSWICK TOWNSHIP CODES AND STANDARDS, THE STANDARDS OF THE RESPECTIVE UTILITY COMPANIES, AND THE N.J.D.O.T. SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 2019 (AS UPDATED), AS APPLICABLE.
3. PROPOSED DEVELOPMENT SHALL BE IN COMPLIANCE WITH NJ BARRIER FREE AND A.D.A. REQUIREMENTS. RAMPS MUST COMPLY WITH CURRENT REQUIREMENTS IN PLACE DURING TIME OF CONSTRUCTION.
4. THE CONTRACTOR SHALL PROTECT ALL STRUCTURES, ROADS, PIPELINES, TREES, SHRUBBERY, GRASS AREA, ETC., DURING THE PROGRESS OF HIS WORK AND SHALL REMOVE FROM THE SITE ALL CUTTINGS, DRILLINGS, DEBRIS AND UNUSED MATERIALS. UPON COMPLETION OF THE WORK, THE CONTRACTOR SHALL RESTORE THE SITE TO ITS ORIGINAL CONDITION, INCLUDING AT THE CONTRACTOR'S SOLE EXPENSE, THE REPLACEMENT OF GRASSED AREAS WHICH HAVE BEEN DAMAGED.
5. 5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO SURROUNDING PROPERTY AND SHALL RESTORE ANY PROPERTY DAMAGED AS A RESULT OF HIS OPERATIONS. ALL RESTORATION WILL BE BORNE BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO SURROUNDING PROPERTY AND SHALL RESTORE ANY PROPERTY DAMAGED AS A RESULT OF HIS OPERATIONS. ALL RESTORATION WILL BE BORNE BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
7. THE CONTRACTOR SHALL COORDINATE WITH THE LOCAL FIRE OFFICIAL FOR APPROPRIATE FIRE LANE MARKINGS.
8. TRAFFIC, PARKING SIGNS AND STRIPING SHALL BE IN ACCORDANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", U.S.D.O.T. FEDERAL HIGHWAY ADMINISTRATION, 2023 AND AS UPDATED AND ADOPTED BY THE N.J. DEPARTMENT OF TRANSPORTATION.
9. THE FREEHOLD SOIL CONSERVATION DISTRICT (FSCD) SHALL BE NOTIFIED A MINIMUM OF 72 HOURS PRIOR TO ANY SOIL DISTURBANCE (732) 683-8500.
10. IN THAT N.J.S.A. 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 COMPLETED FOR PERMANENT MEASURES, ALL WORK AROUND INDIVIDUAL BUILDINGS 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. NOTATION FOR THIS SHOULD BE PROVIDED ON THE SITE PLAN AND WITHIN THE CONSTRUCTION SCHEDULE.
11. THE CONTRACTOR IS RESPONSIBLE FOR PROJECT SAFETY INCLUDING PROVISIONS OF ALL APPROPRIATE SAFETY MEASURES DEVISED AND TRAINING REQUIRED.
12. AS-BUILTS AS REQUIRED BY THE TOWNSHIP ENGINEERING DEPARTMENT TO BE PROVIDED PRIOR TO BOND RELEASE OR REDUCTION. THE AS-BUILTS SHALL INCLUDE THE STORMWATER MANAGEMENT SYSTEM AND RETAINING WALLS AS WELL AS THE OTHER STANDARD REQUIREMENTS IN SUFFICIENT DETAIL TO DOCUMENT THE PROJECT AS CONSTRUCTED IN ACCORDANCE WITH THE APPROVED LINES, GRADES AND INTENT. SEE TOWNSHIP ENGINEERING DEPARTMENT FOR SPECIFIC REQUIREMENTS.
13. THE CONTRACTOR SHALL NOTIFY THE UNDERSIGNED PROFESSIONAL IMMEDIATELY IF ANY FIELD CONDITIONS ENCOUNTERED DIFFER MATERIALLY FROM THOSE REPRESENTED HEREON SUCH CONDITIONS COULD RENDER THE DESIGNS SHOWN HEREON INAPPROPRIATE OR INEFFECTIVE.
14. SEE ADDITIONAL CONSTRUCTION NOTES ON OTHER PLAN SHEETS IN THIS SET.



GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)
1 inch = 30 ft.

revisions		
no.	date	description

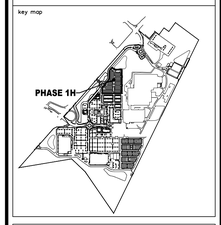
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drawing title
DIMENSION PLAN

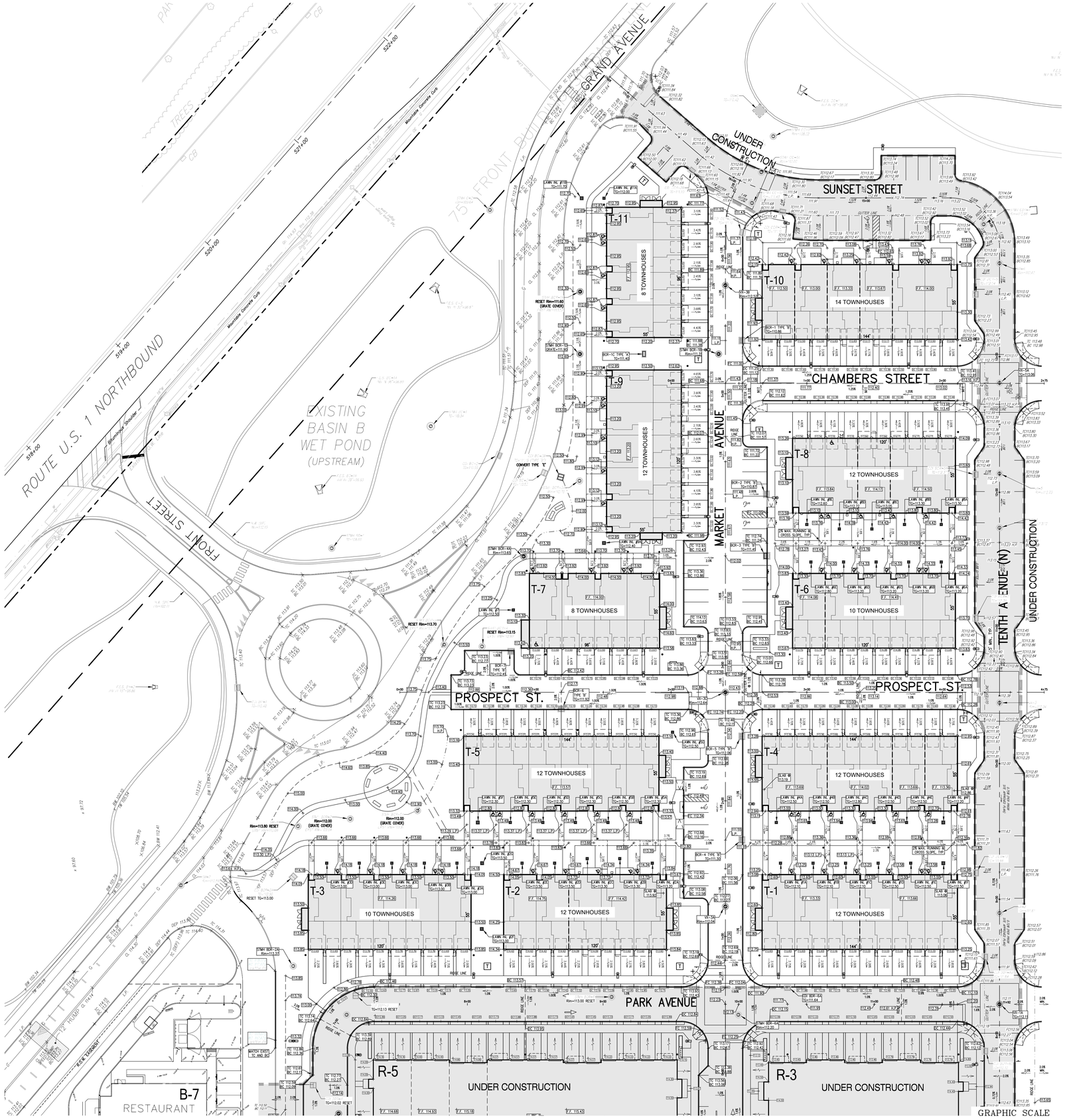
job number	drawing number
24-052	7
scale: 1"=30'	
checked by: FMA/AEC	
drawn by: A.A.	
date: 06/12/25	sheet 7 of 21

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J:\ENGINEERING PROJECTS\2024\24-052 MSTRO - TWL - JD\PROFESSIONALS\PLANS\24-052 MSTRO - PHASE 1H PRELIMINARY & FINAL SITE PLAN.DWG

GRADING NOTES:

1. THE LIMIT OF GRADING AND DISTURBANCE SHALL BE AS SHOWN ON THE DEVELOPMENT PLANS. ALL AREAS BEYOND SHALL REMAIN UNDISTURBED AND IN THE NATURAL STATE.
2. THE CONTRACTOR SHALL GRADE ALL AREAS TO PROVIDE POSITIVE SLOPE TO CATCH BASINS. LAWN AREAS SHALL BE GRADED AT A MINIMUM OF 2.00% AND A MAXIMUM OF 3H:1V (33.33%) ACROSS LAWN AREAS.
3. FOR SMOOTH HARD-FINISHED SURFACES OTHER THAN ROADWAYS, MINIMUM SLOPE SHALL BE 0.75%.
4. ALL GRADING, EXCAVATION OR EMBANKMENT CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE APPROVED PLAN AND SHALL PROVIDE FOR THE DISPOSAL OF ALL STORMWATER RUNOFF AND SUCH GROUNDWATER SEEPAGE AS MAY BE ENCOUNTERED. ALL CLEARING, EXCAVATION AND EMBANKMENT CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE APPLICABLE REQUIREMENTS OF THE STANDARD SPECIFICATIONS. NO EXCAVATED MATERIAL MAY BE REMOVED FROM THE SITE EXCEPT IN ACCORDANCE WITH AN APPROVED PLAN NOR WITHOUT PRIOR APPROVAL OF THE TOWNSHIP ENGINEER. WHERE BORROW EXCAVATION MATERIALS FROM OFFSITE SOURCES ARE REQUIRED TO COMPLETE THE NECESSARY GRADING, SUCH MATERIAL SHALL MEET THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR BORROW EXCAVATION ZONE 3, AND SHALL BE SUBJECT TO THE APPROVAL OF THE TOWNSHIP ENGINEER.
   - 4.1. MATERIAL SHALL BE PLACED IN 12" OR LESS LIFTS AND COMPACTED TO A DRY DENSITY OF NOT LESS THAN 95% OF THE LABORATORY STANDARD MAXIMUM SOIL DENSITY (DRY AS DETERMINED BY THE PROCTOR COMPACTION TEST FOR THE MATERIAL BEING COMPACTED).
   - 4.2. BACKFILL TO BE FREE OF ORGANIC MATTER, ROCKS & COBBLES GREATER THAN 5" AND FROZEN MATERIALS.
5. MATERIAL WHICH THE TOWNSHIP ENGINEER JUDGES IS UNSUITABLE FOR USE IN ROADWAY SUBSURFACE MAY BE USED FOR GRADING OUTSIDE THE ROADWAY RIGHT-OF-WAY OF BUILDING AREAS WITH THE PERMISSION OF THE TOWNSHIP ENGINEER. ANY UNSUITABLE MATERIAL WHICH CANNOT BE SATISFACTORILY UTILIZED ON THE SITE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF AT PLACES TO BE PROVIDED BY THE SUBDIVIDER.
6. ALL CONSTRUCTION LAYOUT AND GRADING STAKES SHALL BE SET BY A LICENSED LAND SURVEYOR OR PROFESSIONAL ENGINEER EMPLOYED BY THE SUBDIVIDER OR HIS CONTRACTOR.
7. ALL ROUGH GRADING MUST BE COMPLETED PRIOR TO THE CONSTRUCTION OF THE ROADWAY SUBGRADE. ALL SIDEWALK AREAS AND SLOPE AREAS MUST BE FULLY GRADED PRIOR TO THE CONSTRUCTION OF FINISHED PAVEMENTS OR PAVEMENT BASE COURSES.
8. ROADWAYS AND ALL APPURTENANCES, INCLUDING SUBGRADE, SUBBASE, BASE COURSES AND PAVEMENTS, SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE APPLICABLE REQUIREMENTS OF THE STANDARD SPECIFICATIONS AS MODIFIED HEREIN. ALL SUBSURFACE UTILITIES INCLUDING SERVICE CONNECTIONS (TERMINATING AT LEAST TWO FEET BEHIND (BEYOND) THE SIDEWALK, OR IF NO SIDEWALKS ARE TO BE INSTALLED, TERMINATING AT LEAST SEVEN FEET BEHIND THE CURB), AND ALL STORM DRAINS SHALL BE INSTALLED IN ALL ROADWAY AREAS PRIOR TO THE CONSTRUCTION OF FINAL PAVEMENT SURFACES.
9. ANY WASTE, DEBRIS OR ANY OTHER SIMILAR MATERIAL FOUND ON THE SITE OR GENERATED BY OPERATIONS DURING THE CONSTRUCTION SEQUENCE, SHALL BE PROPERLY REMOVED AND PROPERLY DISPOSED OF BY THE DEVELOPER.
10. SEE ADDITIONAL NOTES CONSTRUCTION ON OTHER PLAN SHEETS.



revisions		
no.	date	description

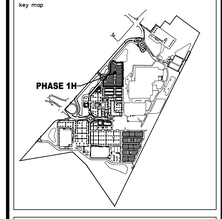
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drawing title
GRADING PLAN

job number	drawing number
24-052	8
scale: 1"=30'	
checked by: FMA/AEC	
drawn by: A.A.	
date: 06/12/25	sheet 8 of 21

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L:\DRAWING PROJECTS\2024\24-052 MSNB - PHASE 1H_CAD\SITE\24-052 MSNB - PHASE 1H - GRADING PLAN.DWG (6/16/25)

UTILITY NOTES:

1. EXISTING UTILITY INFORMATION SHOWN HEREON HAS BEEN COLLECTED FROM VARIOUS SOURCES AND IS NOT GUARANTEED AS TO ACCURACY OR COMPLETENESS. THE CONTRACTOR SHALL VERIFY ALL INFORMATION TO HIS SATISFACTION PRIOR TO EXCAVATION. WHERE EXISTING UTILITIES ARE TO BE CROSSED BY PROPOSED CONSTRUCTION, TEST PITS SHALL BE DUG BY THE CONTRACTOR PRIOR TO CONSTRUCTION TO ASCERTAIN EXISTING INVERTS, MATERIALS AND SIZES. TEST PITS INFORMATION SHALL BE GIVEN TO THE DESIGN ENGINEER PRIOR TO CONSTRUCTION TO PERMIT ADJUSTMENTS AS REQUIRED TO AVOID CONFLICTS.
2. STORM SEWER PIPE SHALL BE ADS N-12 OR ASTM C-76 REINFORCED CONCRETE PIPE WITH ASTM C-443 O-RING TYPE GASKETS (18" AND SMALLER MAY USE "HDPE SEAL #2" AS AN ALTERNATIVE) CLASS III, UNLESS OTHERWISE NOTED, PIPE SHALL BE SIZED AND LAID TO THE LINE AND GRADE, AS SHOWN. ALL STORM PIPES TO BE HDPE, N-12 AS MANUFACTURED BY ADS UNLESS NOTED. LENGTH OF STORM SEWER PIPE IS MEASURED FROM CENTERLINE OF STRUCTURES.
3. DRAINAGE INLETS SHALL BE STANDARD NJDOT TYPE "B" INLETS, UNLESS OTHERWISE NOTED OR AS REQUIRED TO ACCOMMODATE ALL PIPES IN AND OUT OF THE STRUCTURE. CASTING CURB HEIGHT SHALL BE 6". ALL INLETS TO HAVE BICYCLE SAFE GRATES.
4. ALL STORMWATER STRUCTURES MAY BE PRECAST. SHOP DRAWINGS FOR OVERSIZED STRUCTURES / SPECIAL STRUCTURES TO BE SUBMITTED TO TOWNSHIP ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION. SPECIAL STORM SEWER STRUCTURES MAYBE REQUIRED WHERE PIPE EXCEED 30" OR WITH MULTIPLE PIPES. CONTRACTOR TO PROVIDE SHOP DRAWINGS AS REQUIRED. ALL PRECAST DRAINAGE STRUCTURES SHOP DRAWINGS SHALL BE SIGNED AND SEALED BY A LICENSED NJ PROFESSIONAL ENGINEER AS TO THEIR ABILITY TO WITHSTAND AASHTO HS 20 LOADING AND THEIR SUITABILITY FOR THEIR INTENDED USE.
5. STORMWATER RUNOFF SHALL FLOW AWAY FROM BUILDINGS. ALL ROOF RUNOFF TO BE CONNECTED TO STORM SEWER VIA ROOF DRAIN COLLECTION SYSTEM.
6. ALL SANITARY SEWER CONSTRUCTION SHALL COMPLY WITH THE CURRENT STANDARDS OF NORTH BRUNSWICK TOWNSHIP UTILITY DEPARTMENTS AS WELL AS NJDEP STANDARDS. THE SANITARY SEWER SYSTEM SHALL BE LOW AIR PRESSURE TESTED AND DEFLECTION TESTED AS PER NORTH BRUNSWICK TOWNSHIP STANDARDS.
7. SANITARY SEWER MAIN SHALL BE PVC SDR-35. IF DIP SEWER PIPE IS USED IN PLACE OF PVC PIPE, DIP SHALL HAVE A HYDROGEN SULFIDE / CORROSION RESISTANT INTERIOR LINING SUITABLE FOR SEWER APPLICATIONS. STANDARD CEMENT LINED DIP WILL NOT BE PERMITTED FOR SANITARY SEWER COLLECTION SYSTEM CONSTRUCTION.
8. SANITARY SEWER LATERAL SHALL BE SCHEDULE 40 PVC WITH CLEAN OUTS AS REQUIRED BY PLUMBING CODE. ALL CLEANOUTS IN PAVED AREA TO BE CONSTRUCTED IN ACCORDANCE WITH THE 'SIGHT TEE' DETAIL. ALL PROPOSED SANITARY SEWER LATERALS SHALL HAVE A MINIMUM DEPTH OF COVER OF 3 FT. SEWER LATERALS, 4" MIN. SLOPE 2.0%, 6" MIN. SLOPE 1.0%, AND A DIRECT CONNECTION TO A SANITARY MANHOLE WILL NOT BE PERMITTED.
9. SANITARY SEWER AND WATER MAINS SHALL BE SEPARATED A MINIMUM OF 10' HORIZONTALLY. IF SUCH LATERAL SEPARATION IS NOT POSSIBLE, PIPES SHALL BE IN SEPARATE TRENCHES WITH THE SEWER AT LEAST 18" BELOW THE BOTTOM OF THE WATER MAIN. WHERE APPROPRIATE SEPARATION FROM A WATER MAIN IS NOT POSSIBLE, THE SEWER SHALL BE ENCASED IN CONCRETE, OR CONSTRUCTED OF DUCTILE IRON PIPE USING MECHANICAL SLIP-ON JOINTS FOR A DISTANCE OF AT LEAST 10 FEET ON EITHER SIDE OF THE CROSSING. IN ADDITION, ONE FULL LENGTH OF SEWER PIPE SHOULD BE LOCATED SO BOTH JOINTS WILL BE AS FAR FROM THE WATER MAIN AS POSSIBLE. WHERE A WATER MAIN CROSSES UNDER A SEWER, ADEQUATE STRUCTURAL SUPPORT FOR THE SEWER SHALL BE PROVIDED.
10. NO SUMP PUMPS SHALL BE CONNECTED TO THE SANITARY SEWER SYSTEM OR DISCHARGE DIRECTLY TO THE STREET.
11. WATER LINES SHALL BE DIP, CLASS 52-CL, SIZES AS NOTED ON PLAN. ALL WATER DISTRIBUTION PIPES, VALVES, FITTINGS AND APPURTENANCES SHALL BE LEAD FREE IN ACCORDANCE TO THE LATEST SAFE DRINKING WATER ACT, NSF/ANSI 61 AND AWWA REQUIREMENTS. CONTRACTOR TO COORDINATE WITH FIRE OFFICIAL FOR APPROVED FDC. DOMESTIC LINE SHALL BE TYPE 'K' COPPER. THE CONTRACTOR SHALL MAINTAIN A MINIMUM OF 4 FEET OF COVER ON THE INSTALLATION OF THE NEW WATER MAINS, DOMESTIC AND FIRE SERVICES. THE CONTRACTOR SHALL PROVIDE MECHANICAL JOINT RETAINER GLANDS AND THRUST BLOCKS AT ALL MECHANICAL JOINT FITTINGS. ALL WATER CONSTRUCTION (PIPES, VALVES, HYDRANTS AND APPURTENANCES, PRESSURE TESTING & DISINFECTIONS) AS PER NORTH BRUNSWICK TOWNSHIP STANDARDS.
12. IT IS THE INTENT TO PROVIDE GATE VALVES ON ALL LEGS OF "T" AND CROSS FITTINGS ON WATER MAIN CONNECTIONS.
13. PROVIDE SHUT OFF VALVE ON ALL FIRE SERVICE CONNECTIONS, CURB BOX / SHUT OFF VALVE ON ALL DOMESTIC SERVICES.
14. ALL UTILITIES SHALL BE INSTALLED UNDERGROUND. DESIGN AND LOCATION REQUIREMENTS PER RESPECTIVE UTILITY COMPANIES.
15. EXCAVATIONS OR TRENCHING WITHIN CLOSE PROXIMITY TO UNDERGROUND FACILITIES OR UTILITY POLES WILL REQUIRE PROTECTION IN AN APPROVED MANNER TO PREVENT DAMAGE OR INTERRUPTION OF SERVICE TO UNDERGROUND FACILITIES. THE COST TO PROVIDE THIS PROTECTION WILL BE BORNE BY THE CONTRACTOR.
16. ALL TRENCHES SHALL BE BACKFILLED WITHOUT DELAY. OPEN TRENCHES SHALL BE KEPT TO A MINIMUM. OPEN TRENCHES SHALL BE STEEL PLATED OR BARRICADED WHEN WORK IS NOT IN PROGRESS.
17. THE CONTRACTOR SHALL BE RESPONSIBLE TO PROTECT IN AN APPROVED MANNER EXISTING THRUST BLOCKS WHICH ARE RESTRAINING EXISTING UTILITIES. EXISTING THRUST BLOCKS SHALL NOT BE UNDERMINED.
18. STORM & SANITARY IMPROVEMENTS SHALL BE INSTALLED BEFORE OTHER UTILITIES.
19. GAS LINE TO BUILDING TO BE INSTALLED BY UTILITY COMPANY.
20. NO PIPE, INLET, MANHOLE, CURB, SHALL BE CONSTRUCTED WITHOUT CUT SHEETS. THE CONTRACTOR SHALL ALLOW TWO WORKING DAYS TO CHECK THE PROPOSED ELEVATIONS AGAINST THOSE ON THE CUT SHEET.
21. SEE ADDITIONAL CONSTRUCTION NOTES ON OTHER SHEETS.

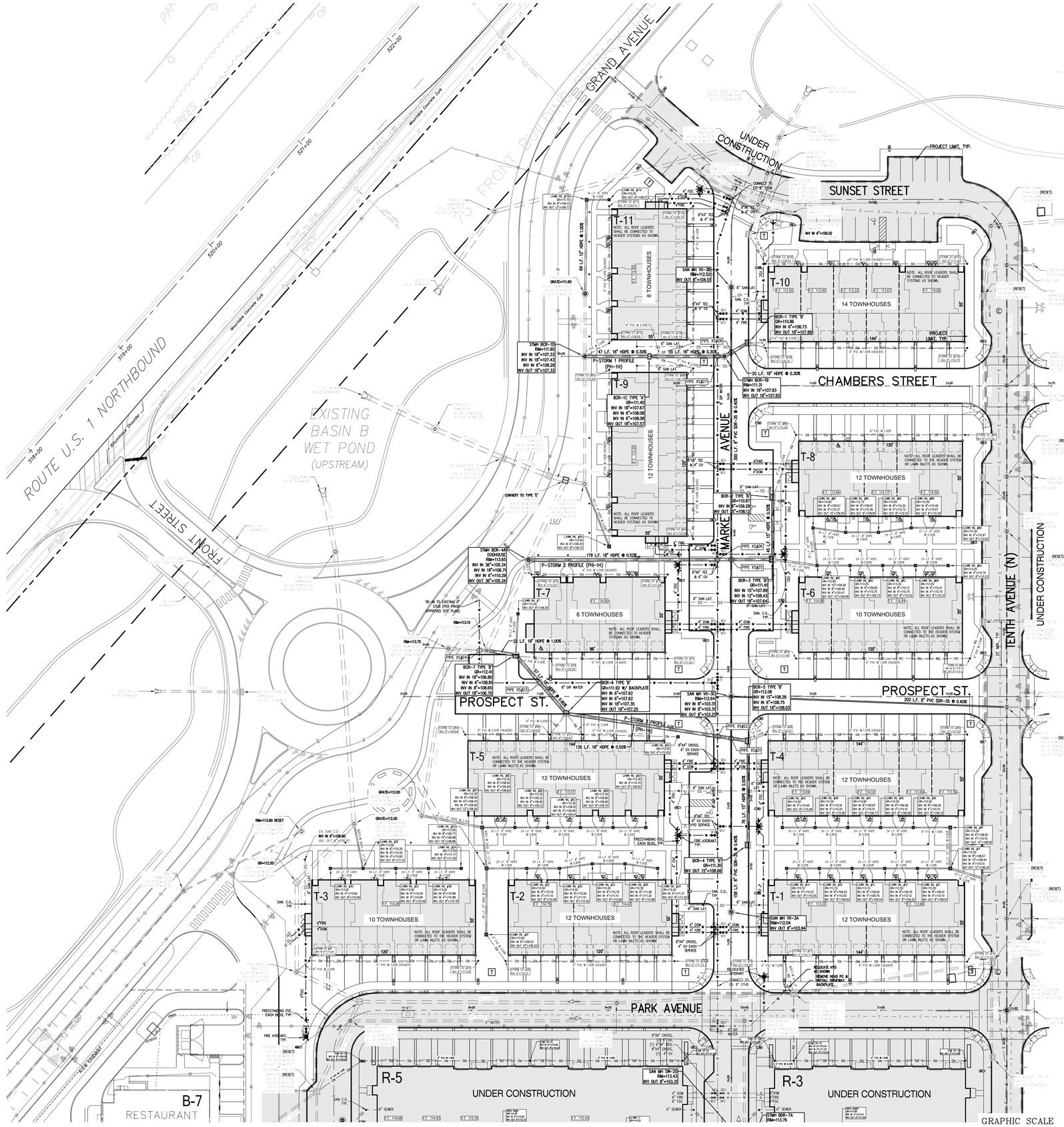
NOTE

A STORMWATER MAINTENANCE AGREEMENT WILL BE FILED WHICH SETS FORTH DOCUMENTATION THAT ANY PROPOSED DRAINAGE SYSTEM AND ANY AND ALL STORMWATER (DRAINAGE SWALES/DETENTION/RETENTION/RECHARGE FACILITIES) WILL BE ADEQUATELY MAINTAINED IN ACCORDANCE WITH THE STANDARDS OF MIDDLESEX COUNTY. REFER TO THE PARAGRAPH IN THE STORMWATER MAINTENANCE AGREEMENT ENTITLED AFFECT NON-COUNTY FACILITIES SHOULD BE REVIEWED AND APPROVED BY THE APPROPRIATE JURISDICTIONAL AGENCY.

UTILITY PIPE CROSSING TABLE

PIPE CROSSING #	PIPE ABOVE	PIPE BELOW	VERTICAL SEPARATION
21	18" HDPE PIPE, INV=107.97 O.D. BOT=107.80	6" PVC SAN, INV=103.43 O.D. TOP=104.13	3.67'
22	18" HDPE PIPE, INV=107.92 O.D. BOT=107.75	6" DIP WATER, INV=105.92 O.D. TOP=106.65	1.10'
23	18" HDPE PIPE, INV=107.02 O.D. BOT=106.85	6" DIP WATER, INV=105.75 O.D. TOP=105.02	1.10'
24	8" DIP WATER, INV=108.78 O.D. BOT=108.73	EX. 24" HDPE PIPE, INV=105.46 O.D. TOP=107.63	1.10'
25	18" HDPE PIPE, INV=107.49 O.D. BOT=107.32	6" PVC SAN, INV=103.71 O.D. TOP=104.41	2.81'
26	18" HDPE PIPE, INV=107.44 O.D. BOT=107.27	8" DIP WATER, INV=105.44 O.D. TOP=106	1.10'
27	18" HDPE PIPE, INV=107.82 O.D. BOT=107.65	8" DIP WATER, INV=106.42 O.D. TOP=107.15	0.50', CONCRETE CRADLE AT PIPE CROSSING
28	18" HDPE PIPE, INV=107.95 O.D. BOT=107.78	6" PVC SAN, INV=103.32 O.D. TOP=103.02	3.76'

PROTECT YOURSELF
A PHONE CALL CAN BE YOUR INSURANCE POLICY
CALL BEFORE YOU DIG!
1 - 800 - 272 - 1000
STOP
THINK
DIG
NEW JERSEY ONE CALL SYSTEM, INC.
THE STATE OF NEW JERSEY REQUIRES NOTIFICATION OF EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE STATE.



revisions

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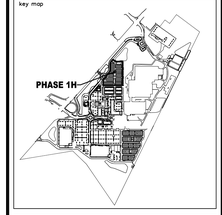
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HYDRANT
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FIRE DEPT. CONNECTION
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key map



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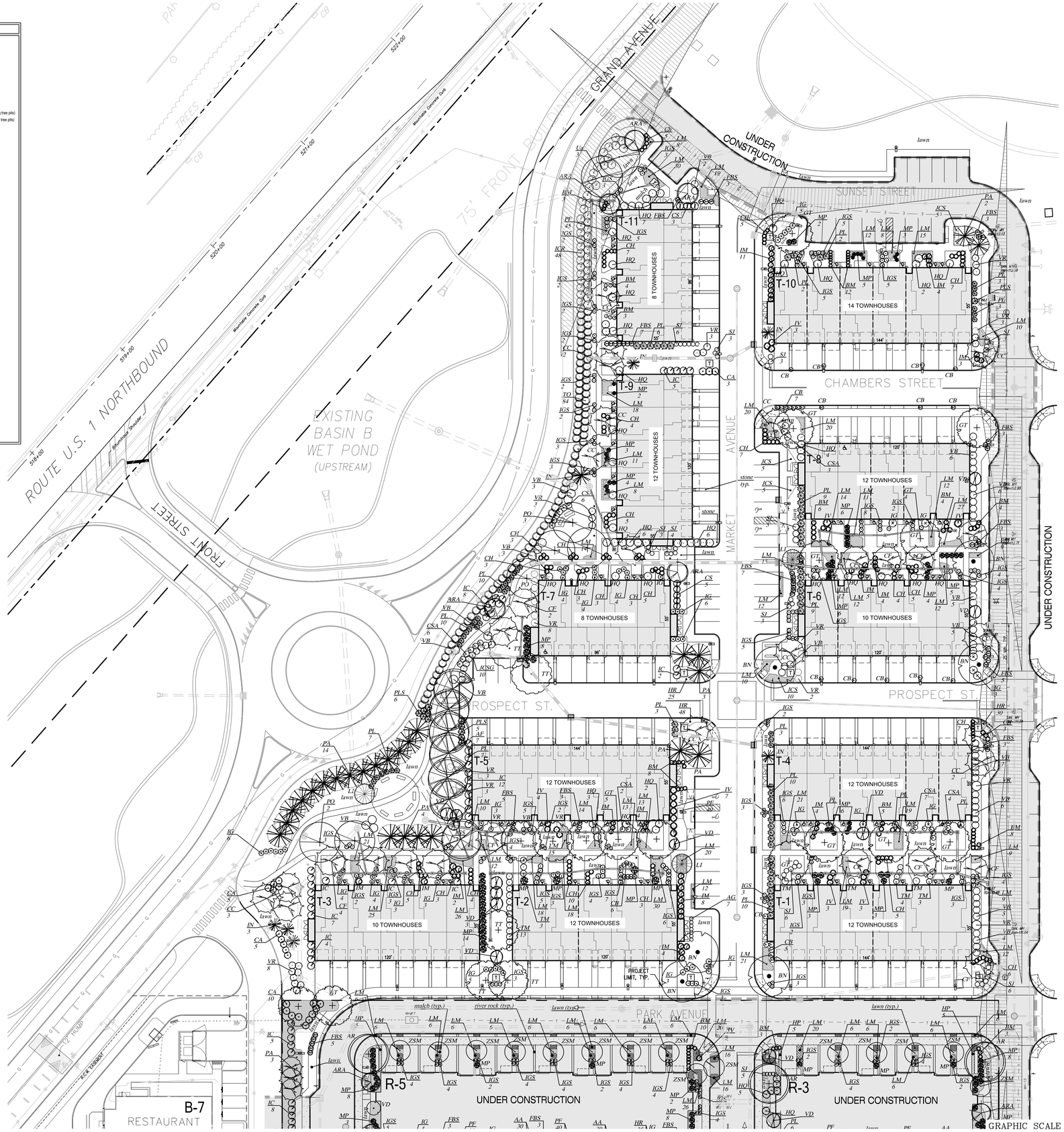
drawing title
UTILITY PLAN

job number	drawing number
24-052	9
scale: 1"=30'	
checked by: FMA/AEC	
drawn by: A.A.	
date: 06/12/25	sheet 9 of 21

J:\DRAWINGS\PROJECTS\2024\24-052\MSTRS - PHL - (DAVIDSON'S WOOD) BUFFALO\ PHASE 1H\PHASE 1H PLOTS\24-052 UTILITY PLAN.DWG

PLANTING SCHEDULE

KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	SPACING
		TREES				
ARA	4	ACER RUBRUM 'ARMSTRONG'	ARMSTRONG COLUMNAR RED MAPLE	2.5-3" CAL.	B&B	AS SHOWN
AF	7	ACER 'x' FREEMANII 'JEFFERSRED'	AUTUMN BLAZE MAPLE	2.5-3" CAL.	B&B	AS SHOWN
GT	14	GLEDITSIA TRIACANTHOS VAR. INERMIS 'HALKA'	HALKA HONEYLOCUST	2.5-3" CAL.	B&B	AS SHOWN
PO	6	PLATANUS OCCIDENTALIS	AMERICAN PLANETREE	2.5-3" CAL.	B&B	AS SHOWN
TT	5	TILIA TOMENTOSA 'GREEN MOUNTAIN'	GREEN MOUNTAIN LINDEN	2.5-3" CAL.	B&B	AS SHOWN
UA	3	ULMUS AMERICAN 'VALLEY FORGE'	VALLEY FORGE AMERICAN ELM	2.5-3" CAL.	B&B	AS SHOWN
		EVERGREEN TREES				
IN	7	ILEX 'x' NELLIE R. STEVENS	NELLIE STEVENS HOLLY	6-7' HT.	B&B	AS SHOWN
PA	25	PICEA ABIES	NORWAY SPRUCE	6-7' HT.	B&B	10' OC (connecting tree pits)
TO	84	THUJA OCCIDENTALIS 'NIGRA'	DARK GREEN ARBORVITAE	4-5' HT.	B&B	5' OC (connecting tree pits)
		ORNAMENTAL TREES				
BN	6	BETULA NIGRA 'HERITAGE'	HERITAGE BIRCH	14-16' HT.	B&B	AS SHOWN
CC	16	CERCIS CANADENSIS	EASTERN REDBUD	8-10' HT.	B&B	AS SHOWN
CF	14	CORNUS FLORIDA 'CLOUD 9'	CLOUD 9 DOGWOOD	8-10' HT.	B&B	AS SHOWN
LI	3	LAGERSTROEMIA INDICA	CRAPE MYRTLE	12-14' HT.	B&B	AS SHOWN
		SHRUBS				
AG	7	ABELIA X GRANDIFLORA	GLOSSY ABELIA	24-30" HT.	CONT.	4' OC
CA	13	CLETHERA ALNIFOLIA 'SIXTEEN CANDLES'	SIXTEEN CANDLES SUMMERSWEET	18-24" HT.	CONT.	5' OC
CS	8	CORNUS SERICEA	RED TWIG DOGWOOD	30-36" HT.	CONT.	5' OC
FBS	43	FOTHERGILLA X 'BLUE SHADOW'	DWARF FOTHERGILLA	18-24" HT.	CONT.	3.5' OC
HQ	55	HYDRANGEA QUERCIFOLIA 'SNOW QUEEN'	SNOW QUEEN OAKLEAF HYDRANGEA	18-24" HT.	CONT.	5' OC
IV	22	ITEA VIRGINICA 'HENRY'S GARNET'	VIRGINIA SWEETSPIRE	24-30" HT.	CONT.	5' OC
SJ	40	SPIREA JAPONICA 'LITTLE PRINCESS'	LITTLE PRINCESS JAPANESE SPIREA	12-18" HT.	CONT.	4.5' OC
VB	63	VIBURNUM X BURKWOODII	BURKWOOD VIBURNUM	3-4' HT.	B&B	5' OC
VD	11	VIBURNUM DENTATUM 'BLUE MUFFIN'	BLUE MUFFIN ARROWWOOD VIBURNUM	3-4' HT.	B&B	6' OC
		EVERGREEN SHRUBS				
BM	57	BUXUS MICROPHYLLA	LITTLE LEAF BOXWOOD	18-24" HT.	3 GAL.	3' OC
CH	118	CEPHALOTAXUS HARRINGTONIA 'DUKE GARDENS'	DUKE GARDENS PLUM YEW	18-24" HT.	5 GAL.	3' OC
CSA	28	CAMELLIA X 'SURVIVOR'	AUTUMN CAMELLIA	4-5' HT.	10 GAL.	4' OC
IC	41	ILEX CRENATA 'CONVEXA'	CONVEX JAPANESE HOLLY	3-4' HT.	B&B	5' OC
ICR	48	ILEX CRENATA 'REPANDENS'	REPANDENS SPREADING HOLLY	18-24" HT.	#5 CAN	5' OC
IG	64	ILEX GLABRA	INKBERRY HOLLY	24-30" HT.	5 GAL.	4' OC
IGS	161	ILEX GLABRA 'SHAMROCK'	SHAMROCK INKBERRY HOLLY	18-24" HT.	CONT.	3' OC
IM	54	ILEX X MESERVEAE 'BLUE PRINCESS'	BLUE PRINCESS HOLLY	24"-30" HT.	5 GAL.	4' OC
JCSG	10	JUNIPERUS CHINENSIS 'SEA GREEN'	SEA GREEN JUNIPER	3-4' HT.	10 GAL.	5' OC
MP	79	MYRICA PENSYLVANICA	NORTHERN BAYBERRY	3-4' HT.	B&B	4' OC
PL	69	PRUNUS LAUROCERASUS 'OTTO LUYKEN'	OTTO LUYKEN CHERRY LAUREL	24-30" HT.	B&B	5' OC
PLS	12	PRUNUS LAUROCERASUS 'SCHIPKAENSIS'	SCHIPKAENSIS CHERRY LAUREL	4-5' HT.	B&B	5' OC
TM	26	TAXUS MEDIA 'DENSIFORMIS'	DENSIFORMIS YEW	18-24" HT.	B&B	5' OC
VR	43	VIBURNUM RHYTIDOPHYLLUM	LEATHERLEAF VIBURNUM	3-4' HT.	B&B	5' OC
		GROUND COVERS				
JCS	25	JUNIPERUS CHINENSIS VAR. SARGENTII	SARGENT JUNIPER		3 GAL.	6' OC
LM	634	LIRIOPE MUSCARI	BIG BLUE LILY TURF		1 GAL.	24" OC
		PERENNIALS				
CB	30	CALAMAGROSTIS BRACHYTRICHA	KARL FOSTER FEATHER REED GRASS	18-24" HT.	1 GAL.	3' OC
HR	103	HEUCHERA X 'RASPBERRY REGAL'	CORAL BELLS		1 GAL.	15" OC
PF	85	POLYGONATUM FALCATUM 'VARIEGATUM'	VARIEGATED DWARF SOLOMON'S-SEAL		1 GAL.	12" OC



THIS PLAN TO BE USED FOR LANDSCAPE PURPOSES ONLY

NOTE: ALL PARKING ISLANDS TO BE MULCHED.

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L:\PROJECTS\2024\24-052\DWG\24-052 MSTRS - PHL - LANDSCAPE\24-052 LANDSCAPE PLAN.DWG (ARCH D) (06/12/2025 10:16:29 AM)

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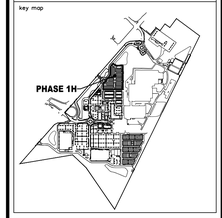
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key map



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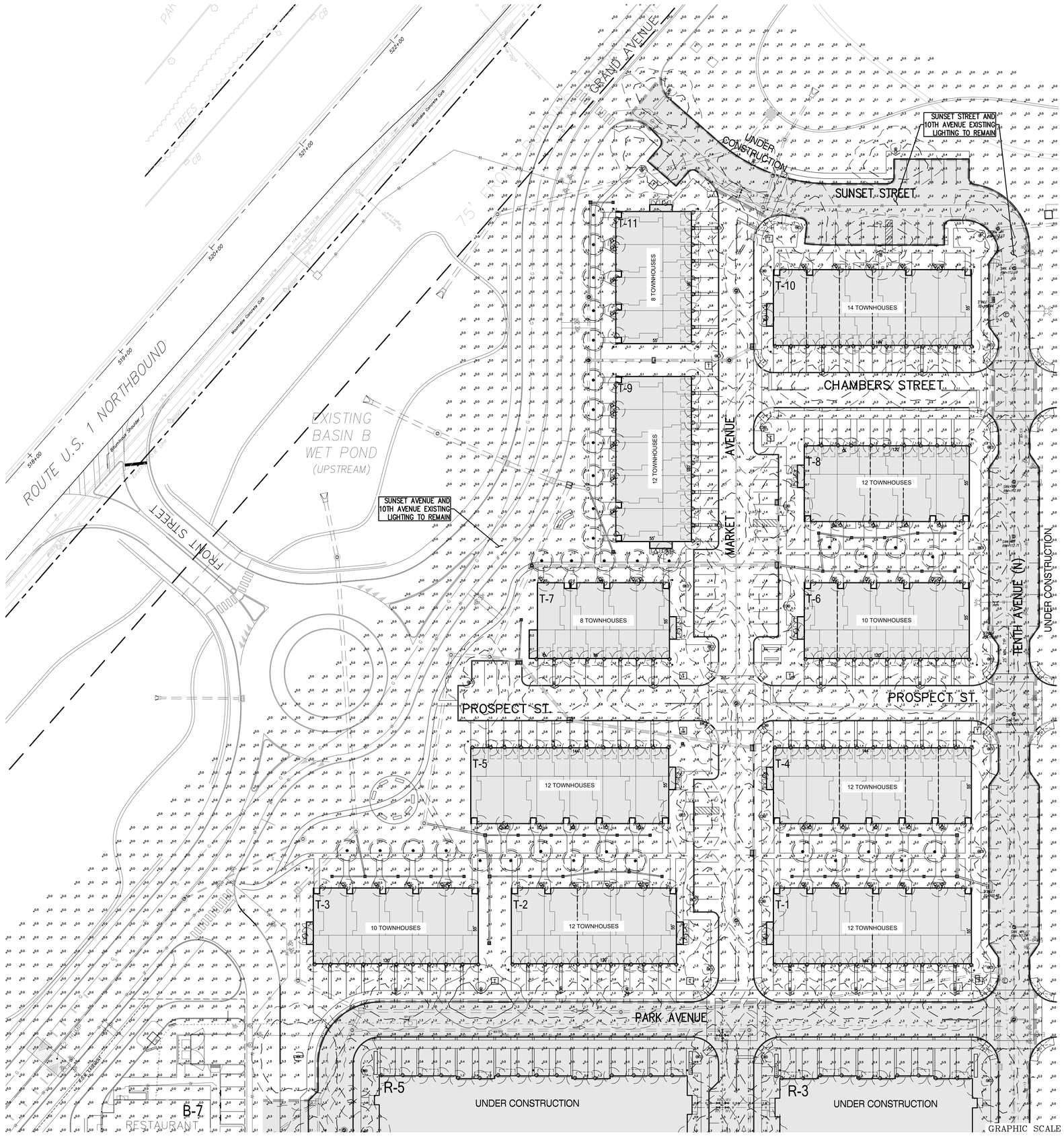
F. MITCHEL ARDMAN
N.J. PROFESSIONAL ENGINEER LIC. NO. 34317

project
AMENDED PRELIMINARY/FINAL SITE PLAN & MAJOR SUBDIVISION
PHASE 1H
MAIN STREET NORTH BRUNSWICK

BLOCK 141
LOTS 44.04, 50.04, 51.01 & PORTION OF LOT 141.04
NORTH BRUNSWICK TOWNSHIP
MIDDLESEX COUNTY , NEW JERSEY

drawing title
LANDSCAPE PLAN

job number	drawing number
24-052	10
scale: 1"=30'	
checked by: FMA/AEC	
drawn by: A.A.	
date: 06/12/25	sheet 10 of 21



THIS PLAN TO BE USED FOR LIGHTING PURPOSES ONLY

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

revisions		
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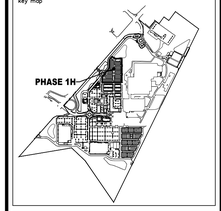
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drawing title
LIGHTING PLAN

job number 24-052	drawing number 11
scale 1"=30'	
checked by FMA/AEC	
drawn by A.A.	
date 06/12/25	sheet 11 of 21

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J:\DRAWINGS\ PROJECTS\2024\24-052 MSTOD - TWL\CAD\DESIGN\CIVIL\ 24-052 LIGHTING PLAN.DWG, 6/11/2025 7:50:17 AM, EDT, JEFF

FREEHOLD SOIL CONSERVATION DISTRICT NOTES:

1. FSCD #2011-0558 ENCOMPASSED THE WHOLE ENTIRE PROJECT ACCEPT PHASE 1F AS DESCRIBED BELOW. THE MAIN COMPONENTS OF THE STORMWATER MANAGEMENT SYSTEM HAVE BEEN OR ARE BEING CONSTRUCTED UNDER THIS PROJECT INCLUDING THE COLLECTION SYSTEM AND BASINS A, B, C, D & E.
2. FSCD #2015-0876 ENCOMPASSES THE AREA WITHIN THE INSIDE CURB OF SOUTH DRIVE, TENTH AVENUE, GREEN STREET AND EAST END AVENUE. AS OF DECEMBER 2015, THESE STREETS HAVE BASE COURSE INSTALLED. THE RESPONSIBILITY OF MAINTENANCE OF SE&SC MEASURES SEPARATES BETWEEN THE TWO PROJECTS AT THE CURB LINE.
3. FSCD #2015-0876 SEDIMENT BARRIERS WILL BE PROVIDED AS NECESSARY BASED ON LOCATION OF CURRENT CONSTRUCTION.

N

ROUTE U.S. 1 NORTHBOUND

Bituminous Shoulder

Manhole Concrete Curb

EXISTING BASIN B WET POND (UPSTREAM)

75' FRONT BUILDING LINE

GRAND AVENUE

STABILIZED CONSTRUCTION ENTRANCE

UNDER CONSTRUCTION

SUNSET STREET

PROPOSED LIMIT OF DISTURBANCE

PROPOSED INLET FILTER (TYP)

CHAMBERS STREET

MARKET AVENUE

TENTH AVENUE (N) UNDER CONSTRUCTION

PROSPECT ST.

PARK AVENUE

PROPOSED INLET FILTER (TYP)

PROPOSED LIMIT OF DISTURBANCE

PROPOSED LIMIT OF DISTURBANCE

PROPOSED INLET FILTER (TYP)

T-11 — 8 TOWNHOUSES

T-10 — 14 TOWNHOUSES

T-9 — 12 TOWNHOUSES

T-8 — 12 TOWNHOUSES

T-7 — 8 TOWNHOUSES

T-6 — 10 TOWNHOUSES

T-5 — 12 TOWNHOUSES

T-4 — 12 TOWNHOUSES

T-3 — 10 TOWNHOUSES

T-2 — 12 TOWNHOUSES

T-1 — 12 TOWNHOUSES

R-5 UNDER CONSTRUCTION

R-3 UNDER CONSTRUCTION

B-7 RESTAURANT

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

THIS PLAN TO BE USED FOR SOIL EROSION AND SEDIMENT CONTROL PURPOSES ONLY. SEE SHEET 20 FOR DETAILS

LIMIT OF DISTURBANCE 686,128 SF (15.75 Ac.)

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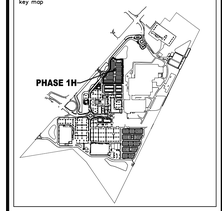
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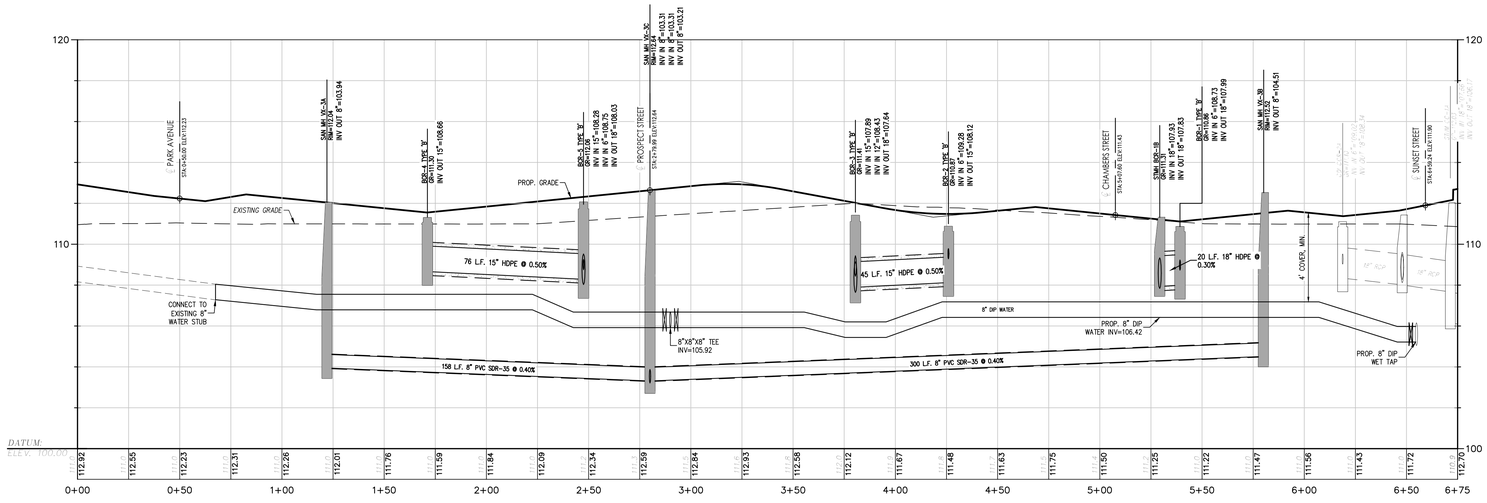
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NORTH BRUNSWICK TOWNSHIP
MIDDLESEX COUNTY , NEW JERSEY

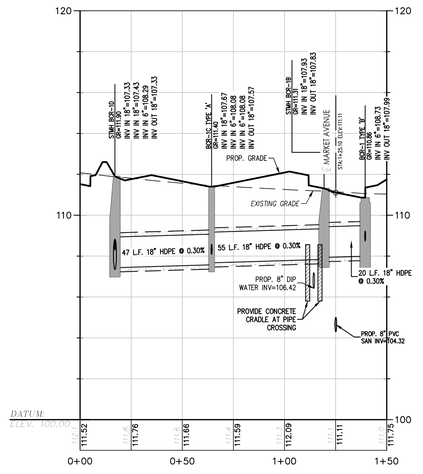
drawing title
SOIL EROSION AND SEDIMENT CONTROL PLAN

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checked by: FMA/AEC	
drawn by: A.A.	
date: 06/12/25	sheet 12 of 21

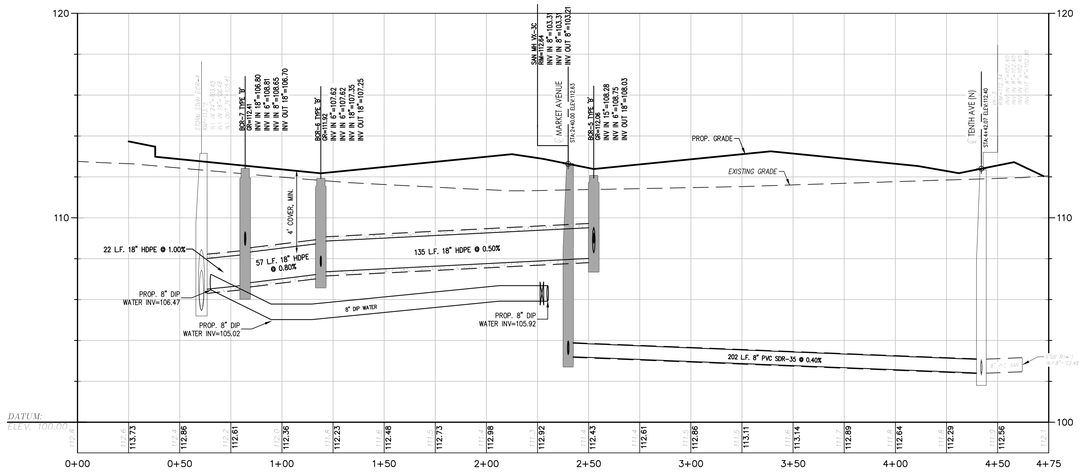
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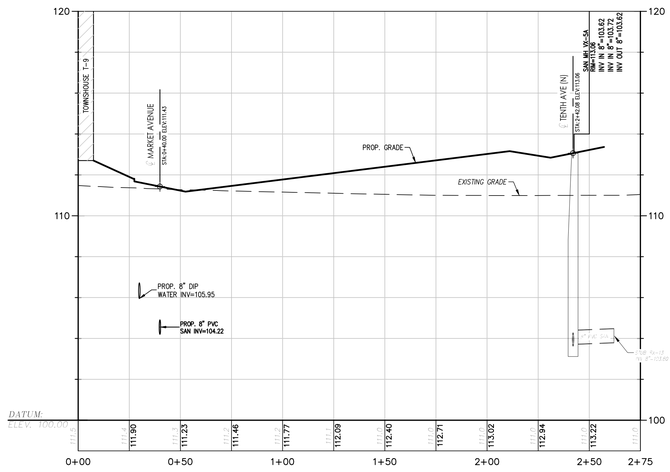
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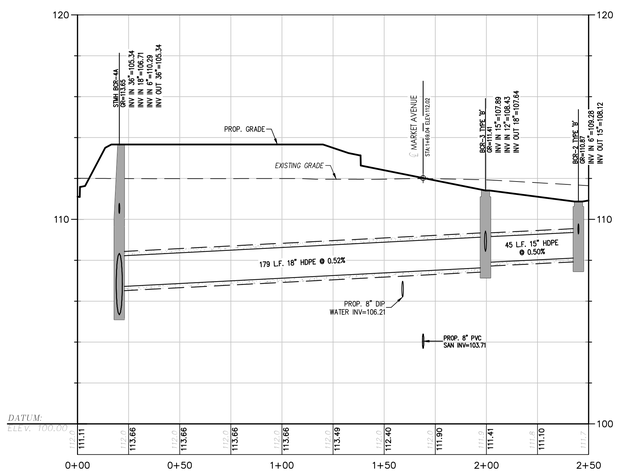
P-STORM 1 (PH-1H) PROFILE



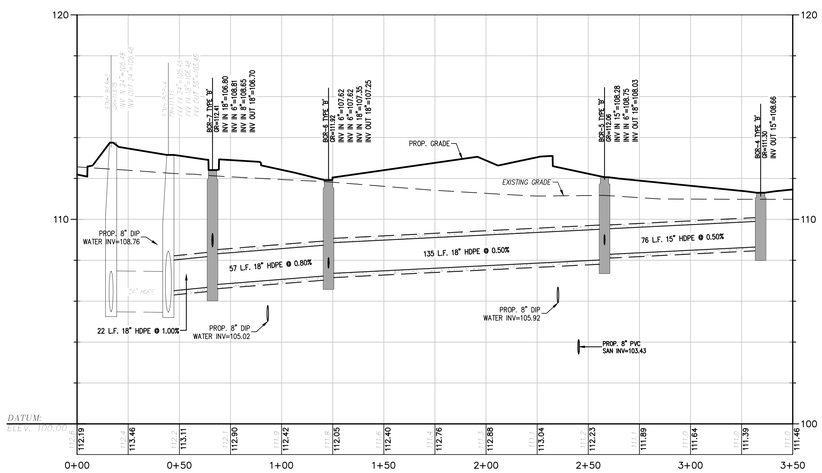
PROSPECT STREET PROFILE



CHAMBERS STREET PROFILE



P-STORM 2 (PH-1H) PROFILE



P-STORM 3 (PH-1H) PROFILE

0 30 60
HORIZONTAL SCALE IN FEET

0 3 6
VERTICAL SCALE IN FEET

revisions

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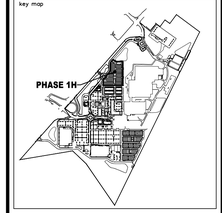
EXISTING LEGEND

- GAS VALVE
- GAS METER
- WATER VALVE
- HYDRANT
- WATER METER
- CURB STOP
- FIRE DEPT. CONNECTION
- DRAINAGE MH
- CURB INLET
- LAWN INLET
- SANITARY MH
- CLEANOUT
- BOLLARD
- SIGN
- LIGHT
- MAIL BOX
- GUY WIRE
- UTILITY POLE
- ELECTRIC MH
- CONIFEROUS TREE
- DECIDUOUS TREE
- X — FENCE
- RAILING
- WALL
- GATE POST
- W — WATER LINE
- G — GAS LINE
- E — ELECTRIC LINE
- S — SANITARY LINE
- OH — OVERHEAD WIRES

PROPOSED LEGEND

- PHASE LINE
- STORM MANHOLE
- STORM "B" INLET
- STORM "E" INLET
- STORM LAWN INLET
- STORM PIPE
- SANITARY MANHOLE
- SANITARY PIPE
- W — WATER LINE
- WATER VALVE
- FIRE HYDRANT
- F.D.C.
- STREET SIGN

key map



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State of New Jersey
Certificate of Authorization
Number 24GA27969200
21MH00004300

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Jeffrey D. Reynolds, P.L.A.

F. MITCHEL ARDMAN
N.J. PROFESSIONAL ENGINEER LIC. NO. 34317

project
AMENDED PRELIMINARY/FINAL SITE PLAN & MAJOR SUBDIVISION
PHASE 1H
MAIN STREET NORTH BRUNSWICK

BLOCK 141
LOTS 44.04, 50.04, 51.01 & PORTION OF LOT 141.04
NORTH BRUNSWICK TOWNSHIP
MIDDLESEX COUNTY , NEW JERSEY

drawing title
ROAD STORM AND SANITARY PROFILES

job number 24-052	drawing number 13
scale AS SHOWN	
checked by FMA/AEC	
drawn by A.A.	
date 06/12/25	sheet 13 of 21

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FREEHOLD SOIL CONSERVATION DISTRICT
SOIL EROSION AND SEDIMENT CONTROL NOTES

1. THE FREEHOLD SOIL CONSERVATION DISTRICT SHALL BE NOTIFIED FORTY-EIGHT (48) HOURS IN ADVANCE OF ANY SOIL DISTURBING ACTIVITY.

2. ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES ARE TO BE INSTALLED PRIOR TO SOIL DISTURBANCE, OR IN THEIR PROPER SEQUENCE, AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED.

3. ANY CHANGES TO THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLANS WILL REQUIRE THE SUBMISSION OF REVISED SOIL EROSION AND SEDIMENT CONTROL PLANS TO THE DISTRICT FOR RE-CERTIFICATION. THE REVISED PLANS MUST MEET ALL CURRENT STATE SOIL EROSION AND SEDIMENT CONTROL STANDARDS.

4. N.J.S.A 4:24-39 ET. SEQ. REQUIRES THAT NO CERTIFICATES OF OCCUPANCY BE ISSUED BEFORE THE DISTRICT DETERMINES THAT A PROJECT OR PORTION THEREOF IS IN FULL COMPLIANCE WITH THE CERTIFIED PLAN AND STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY AND A REPORT OF COMPLIANCE HAS BEEN ISSUED. UPON WRITTEN REQUEST FROM THE APPLICANT, THE DISTRICT MAY ISSUE A REPORT OF COMPLIANCE WITH CONDITIONS ON A LOT-BY-LOT OR SECTION-BY-SECTION BASIS, PROVIDED THAT THE PROJECT OR PORTION THEREOF IS IN SATISFACTORY COMPLIANCE WITH THE SEQUENCE OF DEVELOPMENT AND TEMPORARY MEASURES FOR SOIL EROSION AND SEDIMENT CONTROL HAVE BEEN IMPLEMENTED, INCLUDING PROVISIONS FOR STABILIZATION AND SITE WORK.

5. ANY DISTURBED AREAS THAT WILL BE LEFT EXPOSED MORE THAN SIXTY (60) DAYS, AND NOT SUBJECT TO CONSTRUCTION TRAFFIC, WILL IMMEDIATELY RECEIVE A TEMPORARY SEEDING. IF THE SEASON PREVENTS THE ESTABLISHMENT OF TEMPORARY COVER, THE DISTURBED AREAS WILL BE MULCHED WITH STRAW, OR EQUIVALENT MATERIAL, AT A RATE OF 2 TO 2 ½ TONS PER ACRE, ACCORDING TO THE STANDARD FOR STABILIZATION WITH MULCH ONLY.

6. IMMEDIATELY FOLLOWING INITIAL DISTURBANCE OR ROUGH GRADING, ALL CRITICAL AREAS SUBJECT TO EROSION (I.E. SOIL STOCKPILES, STEEP SLOPES AND ROADWAY EMBANKMENTS) WILL RECEIVE TEMPORARY SEEDING IN COMBINATION WITH STRAW MULCH OR A SUITABLE EQUIVALENT, AND A MULCH ANCHOR, IN ACCORDANCE WITH STATE STANDARDS.

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

8. THE STANDARD FOR STABILIZED CONSTRUCTION ACCESS REQUIRES THE INSTALLATION OF A PAD OF CLEAN CRUSHED STONE AT POINTS WHERE TRAFFIC WILL BE ACCESSING THE CONSTRUCTION SITE. AFTER INTERIOR ROADWAYS ARE PAVED, INDIVIDUAL LOTS REQUIRE A STABILIZED CONSTRUCTION ACCESS CONSISTING OF ONE INCH TO TWO INCH (1" - 2") STONE FOR A MINIMUM LENGTH OF TEN FEET (10') EQUAL TO THE LOT ENTRANCE WIDTH. ALL OTHER ACCESS POINTS SHALL BE BLOCKED OFF.

9. ALL SOIL WASHED, DROPPED, SPILLED, OR TRACKED OUTSIDE THE LIMIT OF DISTURBANCE OR ONTO PUBLIC RIGHT-OF-WAYS WILL BE REMOVED IMMEDIATELY.

10. PERMANENT VEGETATION IS TO BE SEEDED OR SODDED ON ALL EXPOSED AREAS WITHIN TEN (10) DAYS AFTER FINAL GRADING.

11. AT THE TIME THAT SITE PREPARATION FOR PERMANENT VEGETATIVE STABILIZATION IS GOING TO BE ACCOMPLISHED, ANY SOIL THAT WILL NOT PROVIDE A SUITABLE ENVIRONMENT TO SUPPORT ADEQUATE VEGETATIVE GROUND COVER SHALL BE REMOVED OR TREATED IN SUCH A WAY THAT IT WILL PERMANENTLY ADJUST THE SOIL CONDITIONS AND RENDER IT SUITABLE FOR VEGETATIVE GROUND COVER.IF THE REMOVAL OR TREATMENT OF THE SOIL WILL NOT PROVIDE SUITABLE CONDITIONS, NON-VEGETATIVE MEANS OF PERMANENT GROUND STABILIZATION WILL HAVE TO BE EMPLOYED.

12. IN ACCORDANCE WITH THE STANDARD FOR MANAGEMENT OF HIGH ACID PRODUCING SOILS, ANY SOIL HAVING A PH OF 4 OR LESS OR CONTAINING IRON SULFIDES SHALL BE ULTIMATELY PLACED OR BURIED WITH LIMESTONE APPLIED AT THE RATE OF 10 TONS/ACRE, (OR 450 LBS/1,000 SQ FT OF SURFACE AREA) AND COVERED WITH A MINIMUM OF 12' OF SETTLED SOIL. WITH A PH OF 5 OR MORE, OR 24' WHERE TREES OR SHRUBS ARE TO BE PLANTED.

13. CONDUIT OUTLET PROTECTION MUST BE INSTALLED AT ALL REQUIRED OUTFALLS PRIOR TO THE DRAINAGE SYSTEM BECOMING OPERATIONAL.

14. UNFILTERED DEWATERING IS NOT PERMITTED. NECESSARY PRECAUTIONS MUST BE TAKEN DURING ALL DEWATERING OPERATIONS TO MINIMIZE SEDIMENT TRANSFER. ANY DEWATERING METHODS USED MUST BE IN ACCORDANCE WITH THE STANDARD FOR DEWATERING.

15. SHOULD THE CONTROL OF DUST AT THE SITE BE NECESSARY, THE SITE WILL BE SPRINKLED UNTIL THE SURFACE IS WET, TEMPORARY VEGETATIVE COVER SHALL BE ESTABLISHED OR MULCH SHALL BE APPLIED AS REQUIRED BY THE STANDARD FOR DUST CONTROL.

16. STOCKPILE AND STAGING LOCATIONS ESTABLISHED IN THE FIELD SHALL BE PLACED WITHIN THE LIMIT OF DISTURBANCE ACCORDING TO THE CERTIFIED PLAN. STAGING AND STOCKPILES NOT LOCATED WITHIN THE LIMIT OF DISTURBANCE WILL REQUIRE CERTIFICATION OF A REVISED SOIL EROSION AND SEDIMENT CONTROL PLAN. CERTIFICATION OF A NEW SOIL EROSION AND SEDIMENT CONTROL PLAN MAY BE REQUIRED FOR THESE ACTIVITIES, IF AN AREA GREATER THAN 5,000 SQUARE FEET IS DISTURBED.

17. ALL SOIL STOCKPILES ARE TO BE TEMPORARILY STABILIZED IN ACCORDANCE WITH SOIL EROSION AND SEDIMENT CONTROL NOTE #6.

18. THE PROPERTY OWNER SHALL BE RESPONSIBLE FOR ANY EROSION OR SEDIMENTATION THAT MAY OCCUR BELOW STORMWATER OUTFALLS OR OFFSITE AS A RESULT OF CONSTRUCTION OF THE PROJECT.

AREAS TO BE SCARIFIED/TILLED:

PURSUANT TO NJ SOIL EROSION AND SEDIMENT CONTROL STANDARD FOR LANDING GRADING (CHAPTER 19), THE FOLLOWING ON-SITE AREAS SHALL BE SCARIFIED/TILLED TO A MINIMUM DEPTH OF 6":

- DISTURBED AREAS OF SITE WITH CONTIGUOUS AREA > 500 SF.
- AREAS THAT WILL NOT BE IMPERVIOUS
- PERVIOUS AREA 20' OUTSIDE BUILDING WITH BASEMENT OR 12' OUTSIDE BUILDING ON SLAB.

NOTE: SCARIFICATION/TILLAGE IS NOT REQUIRED IN AREAS WITH SHALLOW BEDROCK CONDITIONS OR WHERE THERE IS A DANGER TO UNDERGROUND UTILITIES.

FOR ADDITIONAL REQUIREMENTS REGARDING SOIL COMPACTION AND TESTING, SEE SOIL COMPACTION NOTES AND SOIL DE-COMPACTION AND TESTING REQUIREMENTS.

SOIL COMPACTION NOTES:

1. TO ENSURE SUBGRADE SOILS ARE FREE OF EXCESSIVE COMPACTION, DEEP SCARIFICATION/TILLAGE (MINIMUM DEPTH 6"; MAXIMUM 12") SHALL BE PERFORMED BY THE CONTRACTOR PRIOR TO THE APPLICATION OF TOPSOIL AND PERMANENT SEEDING. THE AREAS OF THE SITE SUBJECT TO THIS SCARIFICATION ARE NOTED ON THE SOIL EROSION AND SEDIMENT CONTROL PLAN. NOTE THAT SCARIFICATION IS PERMISSIBLE ONLY WHERE THERE IS NO DANGER TO UNDERGROUND UTILITIES (CABLES, IRRIGATION SYSTEMS, ETC.)
2. IF THE CONTRACTOR, WITH CONSENT OF THE OWNER, ELECTS TO FOREGO SCARIFICATION OF THE SITE, THEN THE CONTRACTOR SHALL, AT HIS EXPENSE, PERFORM SOIL COMPACTION TESTING IN ACCORDANCE WITH THE STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY. SEE CHAPTER 19 STANDARD OF LAND GRADING, IN THE ABOVE-REFERENCED MANUAL, FOR ACCEPTABLE METHODS OF TESTING AND THEIR SPECIFIC REQUIREMENTS. TWO TESTS PER ACRE MUST BE PERFORMED ON-SITE, WITH A MINIMUM OF TWO TESTS MUST BE PERFORMED FOR EVERY PROJECT.
3. IF TESTING INDICATES EXCESSIVE COMPACTION, THEN THE CONTRACTOR/OWNER SHALL EITHER PERFORM COMPACTION MITIGATION, IN ACCORDANCE WITH NJ SESC STANDARDS, OVER THE ENTIRE DISTURBED AREA (EXCLUDING EXEMPT AREAS), OR TO PERFORM ADDITIONAL TESTING TO ESTABLISH THE LIMITS OF THE EXCESSIVELY COMPACTED AREAS WHICH WOULD REQUIRE THE MITIGATION.
4. THE CONTRACTOR SHALL SUBMIT A SOIL COMPACTION MITIGATION VERIFICATION FORM TO THE DISTRICT AND COMPLY WITH ALL DISTRICT REQUIREMENTS REGARDING COMPACTION MITIGATION AND TESTING.
5. FOR COMPACTION IN STORMWATER MANAGEMENT FACILITIES, SEE BASIN COMPACTION NOTES.

STANDARD FOR STABILIZATION WITH MULCH ONLY

METHODS AND MATERIALS

1. SITE PREPARATION:
   FOLLOW REQUIREMENTS FOR PERMANENT VEGETATIVE COVER.
2. PROTECTIVE MATERIALS.
   A. UNROTTED SMALL-GRAIN STRAW AT 2.0 TO 2.5 TONS PER ACRE IS SPREAD UNIFORMLY AT 90 TO 115 POUNDS PER 1,000 SQ. FEET AND ANCHORED WITH A MULCH ANCHORING TOOL, LIQUID MULCH BINDERS, OR NETTING TIE DOWN. OTHER SUITABLE MATERIALS MAY BE USED IF APPROVED BY THE SOIL CONSERVATION DISTRICT. THE APPROVED RATES ABOVE HAVE BEEN MET WHEN THE MULCH COVERS THE
   B. SYNTHETIC OR ORGANIC SOIL STABILIZERS MAY BE USED UNDER SUITABLE CONDITIONS AND IN QUANTITIES AS RECOMMENDED BY THE MANUFACTURER.
   C. WOOD-FIBER OR PAPER-FIBER MULCH AT THE RATE OF 1,500 POUNDS PER ACRE (OR ACCORDING TO THE MANUFACTURER'S REQUIREMENTS) MAY BE APPLIED BY A HYDROSEEDER.
   D. MULCH NETTING, SUCH AS PAPER JUTE, EXCELSIOR, COTTON, OR PLASTIC MAY BE USED.
   E. WOODCHIPS APPLIED UNIFORMLY TO A MINIMUM DEPTH OF 2 INCHES MAY BE USED. WOODCHIPS WILL NOT BE USED ON AREAS WHERE FLOWING WATER COULD WASH THEM INTO AN INLET AND PLUG IT.
   F. GRAVEL, CRUSHED STONE, OR SLAG AT THE RATE OF 9 CU. YDS. PER 1,000 SQ. FT. APPLIED UNIFORMLY TO A MINIMUM DEPTH OF 3 INCHES MAY BE USED. SIZE 2 OR 3 (ASTM C-33) IS RECOMMENDED.
   G. MULCH ANCHORING SHALL BE ACCOMPLISHED AS DIRECTED FOR PERMANENT STABILIZATION.

Permanent Seeding Table

PERMANENT VEGETATIVE MIXTURES, PLANTING RATES AND PLANTING DATES

SEED MIXTURE	PLANTING RATE[1]		PLANTING DATES O=Optimum Planting period A=Acceptable Planting period — PLANT HARDINESS ZONES[3] Zone 5b,6a			Zone 6b			Zone 7a,7b			MULCHING & LIVE[4]	REMARKS
	lbs/ac.	lbs/1000 s.f.	3/15-5/31	6/1-7/31	8/1-10/1	3/1-4/30	5/1-6/15	8/16-10/15	3/1-4/30	5/1-6/15	8/16-10/15		
COOL SEASON SEED MIXTURES													
1. Turf-type Tall Fescue (Blend of 3 local cultivars)	350	8	A	A	O	A	A	O	A	A	O	C-0	Use in a managed filter strip for nutrient uptake.
2. Deertongue Redtop Wild Rye (Elymus) Switchgrass	20 2 15 25	.45 .05 .35 .60	O			O			O			C-0	Native wet mix.

1. Seeding rates specified are required when a report of compliance is requested prior to actual establishment of permanent vegetation. Up to 50% reduction in rates may be used when permanent vegetation is established prior to a report of compliance inspection. These rates apply to all methods of seeding. Establishing permanent vegetation means 80% vegetative coverage 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. 4:4-17.13 et. seq.
2. Maintenance Level:
   A. Intensive mowing (2-4 days), fertilization, lime, pest control and irrigation (Examples-high maintenance lawns, commercial and recreation areas, public facilities).
   B. Frequent mowing (4-7 days), occasional fertilization, lime and weed control (Examples-home lawns, commercial sites, school sites).
   C. Periodic mowing (7-14 days), occasional fertilization and lime (Examples-home lawns, parks).
   D. Infrequent or no mowing, fertilization and lime the first year of establishment (Examples-roadsides, recreation areas, public open spaces).
3. Project is in Plant Hardiness Zone 6b.

STANDARD FOR PERMANENT AND TEMPORARY VEGETATIVE COVER FOR SOIL STABILIZATION

1. SITE PREPARATION:
   A. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING. ALL GRADING SHOULD BE DONE IN ACCORDANCE WITH STANDARDS FOR LAND GRADING.
   B. IMMEDIATELY PRIOR TO SEEDING AND TOPSOIL APPLICATION, THE SUBSOIL SHALL BE EVALUATED FOR COMPACTION IN ACCORDANCE WITH STANDARDS FOR LAND GRADING.
   C. TOPSOIL SHALL 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 FOR FACILITIES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENT BASINS, AND WATERWAYS IN ACCORDANCE WITH STATE STANDARDS.
2. SEEDBED PREPARATION:
   A. UNIFORMLY APPLY GROUND LIMESTONE AND FERTILIZER TO TOPSOIL WHICH HAS BEEN SPREAD AND FIRMED, ACCORDING TO SOIL TEST RECOMMENDATIONS SUCH AS OFFERED BY RUTGERS CO-OPERATIVE EXTENSION. SOIL SAMPLE MAILERS ARE AVAILABLE FROM THE LOCAL RUTGERS COOPERATIVE EXTENSION OFFICES. FERTILIZER SHALL BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE OR 11 POUNDS PER 1,000 SQUARE FEET OF 10-10-10 (PERMANENT) AND 10-20-10 (TEMPORARY) OR EQUIVALENT WITH 50% WATER INSOLUBLE NITROGEN UNLESS A SOIL TEST INDICATES OTHERWISE AND INCORPORATED INTO THE SURFACE 4 INCHES. IF FERTILIZER IS NOT INCORPORATED, APPLY ONE-HALF THE RATE DESCRIBED ABOVE DURING SEEDBED PREPARATION AND REPEAT ANOTHER ONE-HALF RATE APPLICATION OF THE SAME FERTILIZER WITHIN 3 TO 5 WEEKS AFTER SEEDING.
   B. WORK LIME AND FERTILIZER INTO THE TOPSOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRINGTOOTH HARROW, OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OR DISKING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLE UNIFORM SEEDBED IS PREPARED. HIGH ACID PRODUCING SOIL.
   C. SOILS HAVING A PH OF 4 OR LESS OR CONTAINING IRON SULFIDE SHALL BE COVERED WITH A MINIMUM OF 12 INCHES OF SOIL HAVING A PH OF 5 OR MORE BEFORE INITIATING SEEDBED PREPARATION. IN ACCORDANCE WITH THE STANDARD FOR MANAGEMENT OF HIGH ACID PRODUCING SOILS.
3. SEEDING:
   A. PERMANENT SEEDING: USE MIXTURE SHOWN IN THE PERMANENT SEEDING TABLE OR USE MIXTURE RECOMMENDED BY RUTGERS COOPERATIVE EXTENSION OR NATURAL RESOURCES CONSERVATION SERVICE WHICH IS APPROVED BY THE SOIL CONSERVATION DISTRICT. SEED GERMINATION SHALL HAVE BEEN TESTED WITHIN 12 MONTHS OF THE PLANTING DATE. NO SEED SHALL BE ACCEPTED WITH A GERMINATION TEST DATE MORE THAN 12 MONTHS OLD UNLESS RETESTED.
      1. SEEDING RATES SPECIFIED ARE REQUIRED WHEN A REPORT OF COMPLIANCE IS REQUESTED PRIOR TO ACTUAL ESTABLISHMENT OF PERMANENT VEGETATION. UP TO 50% REDUCTION IN RATES MAY BE USED WHEN PERMANENT VEGETATION IS ESTABLISHED PRIOR TO A REPORT OF COMPLIANCE INSPECTION. THESE RATES APPLY TO ALL METHODS OF SEEDING. ESTABLISHING PERMANENT VEGETATION MEANS 80% VEGETATIVE COVERAGE WITH THE SPECIFIED SEED MIXTURE FOR THE SEEDED AREA AND MOWED ONCE.
      2. WARM SEASON MIXTURES ARE GRASSES AND LEGUMES WHICH MAXIMIZE GROWTH AT HIGH TEMPERATURES, GENERALLY 85° AND ABOVE. SEE PERMANENT SEEDING TABLE. PLANTING RATES FOR WARM SEASON GRASSES SHALL BE AMOUNT OF PURE LIVE SEED (PLS) AS DETERMINED BY GERMINATING TESTING RESULTS.
      3. COOL SEASON MIXTURES ARE GRASSES AND LEGUMES WHICH MAXIMIZE GROWTH AT TEMPERATURES BELOW 85°. MANY GRASSES BECOME ACTIVE AT 65°. ADJUSTMENT OF PLANTING RATES TO COMPENSATE FOR THE AMOUNT OF PURE LIVE SEED IS NOT REQUIRED FOR COOL SEASON GRASSES.

   TEMPORARY SEEDING: TEMPORARY VEGETATIVE COVER SHALL BE ESTABLISHED ON SOILS EXPOSED FOR PERIODS OF 2 TO 6 MONTHS WHICH ARE NOT BEING GRADED, NOT UNDER ACTIVE CONSTRUCTION, OR NOT SCHEDULED FOR PERMANENT SEEDING WITHIN 60 DAYS. SELECT A SEED FROM THE TEMPORARY VEGETATIVE SEEDING TABLE.
   B. CONVENTIONAL SEEDING IS PERFORMED BY APPLYING SEED UNIFORMLY BY HAND, CYCLONE (CENTRIFUGAL) SEEDER, DROP SEEDER, DRILL OR CULTIPACKER SEEDER. EXCEPT FOR DRILLED, HYDROSEEDED OR CULTIPACKED SEEDINGS, SEED SHALL BE INCORPORATED INTO THE SOIL WITHIN 24 HOURS OF SEEDBED PREPARATION TO A DEPTH OF 1/4 TO 1/2 INCH, BY RAKING OR DRAGGING. DEPTH OF SEED PLACEMENT MAY BE 1/4 INCH DEEPER ON COARSE TEXTURED SOIL.
   C. AFTER SEEDING, PRAIRIE GRASS WITH A CORRUGATED ROLLER WILL ASSURE GOOD SEED-TO-SOIL CONTACT, RESTORE CAPILLARY , AND IMPROVE SEEDLING EMERGENCE. THIS IS THE PREFERRED METHOD. WHEN PERFORMED ON THE CONTOUR, SHEET EROSION WILL BE MINIMIZED AND WATER CONSERVATION ON SITE WILL BE MAXIMIZED.
   D. HYDROSEEDING IS A BROADCAST SEEDING METHOD USUALLY INVOLVING A TRUCK OR TRAILER MOUNTED TANK, WITH AN AGITATION SYSTEM AND HYDRAULIC PUMP FOR MIXING SEED, WATER AND FERTILIZER AND SPRAYING THE MIX ONTO THE PREPARED SEEDBED. MULCH SHALL NOT BE INCLUDED IN THE TANK WITH SEED. SHORT FIBERED MULCH MAY BE APPLIED WITH A HYDROSEEDER FOLLOWING SEEDING. (ALSO SEE SECTION 4 MULCHING BELOW) HYDROSEEDING IS NOT A PREFERRED SEEDING METHOD BECAUSE SEED AND FERTILIZER ARE APPLIED TO THE SURFACE AND NOT INCORPORATED INTO THE SOIL. WHEN POOR SEED TO SOIL CONTACT OCCURS, THERE IS REDUCED SEED GERMINATION AND GROWTH.
4. MULCHING:

   MULCHING IS REQUIRED ON ALL SEEDING. MULCH WILL PROJECT 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 COMPLIANT WITH THIS MULCHING REQUIREMENT.

   A. STRAW OR 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 LIQUID MULCH-BINDER (TACKIFYING OR ADHESIVE AGENT), THE RATE OF APPLICATION IS 3 TONS PER ACRE. MULCH CHOPPER-BLOWERS MUST NOT GRIND THE MULCH. HAY MULCH IS NOT RECOMMENDED FOR ESTABLISHING FINE TURF OR LAWNS DUE TO THE PRESENCE OF WEED SEED.

   APPLICATION. SPREAD MULCH UNIFORMLY BY HAND OR MECHANICALLY SO THAT AT LEAST 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 SLOPE, AND COSTS.

   1. 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 CRISSCROSS AND SQUARE PATTERN. SECURE TWINE AROUND EACH PEG WITH TWO OR MORE ROUND TURNS.
   2. MULCH NETTINGS. STAPLE PAPER, JUTE, COTTON, OR PLASTIC NETTINGS TO THE SOIL SURFACE. USE A DEGRADABLE NETTING IN AREAS TO BE MOWED.
   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 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.
   4. 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.
      B. USE ONE OF THE FOLLOWING:
         (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 CURING CONDITIONS WILL FORM MEMBRANED NETWORKS OF INSOLUBLE POLYMERS. THE VEGETATIVE GEL SHALL BE PHYSIOLOGICALLY HARMLESS AND NOT RESULT IN A PHYTOTOXIC EFFECT OR IMPEDE GROWTH OF TURFGRASS. 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. BINDER 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.

   B. WOOD-FIBER OR PAPER -FIBER MULCH SHALL BE MADE FROM WOOD, PLANT FIBERS OR PAPER CONTAINING NO GROWTH OR GERMINATION INHIBITING MATERIALS, USED AT THE RATE OF 1,500 POUNDS PER ACRE (OR AS RECOMMENDED BY THE PRODUCT MANUFACTURER) AND MAY BE APPLIED BY A HYDROSEEDER. MULCH SHALL NOT BE MIXED IN THE TANK WITH SEED. USE IS LIMITED TO FLATTER SLOPES AND DURING OPTIMUM SEEDING PERIODS IN SPRING AND FALL.
   C. PELLETIZED MULCH. COMPRESSED AND EXTRUDED PAPER AND/OR WOOD FIBER PRODUCT, WHICH MAY CONTAIN COPOLYMERS, TACKIFIERS, FERTILIZERS AND COLORING AGENTS. THE DRY PELLETS, WHEN APPLIED TO A SEEDED AREA AND WATERED, FORM A MULCH MAT. PELLETIZED MULCH SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. MULCH MAY BE APPLIED BY HAND OR MECHANICAL SPREADER AT THE RATE OF 60-75 LBS/1,000 SQ. FT. AND ACTIVATED WITH 0.2 TO 0.4 INCHES OF WATER. THIS MATERIAL HAS BEEN FOUND TO BE BENEFICIAL FOR USE ON SMALL LAWN 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 SEEDBED IS EXTREMELY IMPORTANT FOR SUFFICIENT ACTIVATION AND EXPANSION OF THE MULCH TO PROVIDE SOIL COVERAGE.
5. IRRIGATION (WHERE FEASIBLE):

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

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

   THE QUALITY OF PERMANENT VEGETATION RESTS WITH THE CONTRACTOR. THE TIMING OF SEEDING, PREPARING THE SEEDBED, APPLYING NUTRIENTS, MULCH AND OTHER MANAGEMENT ARE ESSENTIAL. THE SEED APPLICATION RATES IN THE PERMANENT SEEDING TABLE ARE REQUIRED WHEN A REPORT OF COMPLIANCE IS REQUESTED PRIOR TO ACTUAL ESTABLISHMENT OF PERMANENT VEGETATION. UP TO 50% REDUCTION IN APPLICATION RATES MAY BE USED WHEN PERMANENT VEGETATION IS ESTABLISHED PRIOR TO REQUESTING A REPORT OF COMPLIANCE FROM THE DISTRICT. THESE RATES APPLY TO ALL METHODS OF SEEDING. ESTABLISHING PERMANENT VEGETATION MEANS 80% VEGETATIVE COVER (OF THE SEEDED SPECIES) AND MOWED ONCE. NOTE THIS DESIGNATION OF MOWED ONCE DOES NOT GUARANTEE THE PERMANENCY OF THE TURF SHOULD OTHER MAINTENANCE FACTORS BE NEGLECTED OR OTHERWISE MISMANAGED.

DUST CONTROL NOTES

THE FOLLOWING METHODS SHOULD BE CONSIDERED FOR CONTROLLING DUST:

MULCHES - SEE STANDARD FOR STABILIZATION WITH MULCHES ONLY (PG. 5-1).

VEGETATIVE COVER - SEE STANDARD FOR TEMPORARY VEGETATIVE COVER (PG. 7-1), PERMANAENT VEGATATIVE COVER FOR SOIL STABILIZATION (PG. 4-1), AND PERMANENT STABILIZATION WITH SOD (PG. 8-1).

SPRAY-ON ADHESIVES - ON MINERAL SOILS (NOT EFFECTIVE ON MUCK SOILS). KEEP TRAFFIC OFF THESE AREAS.

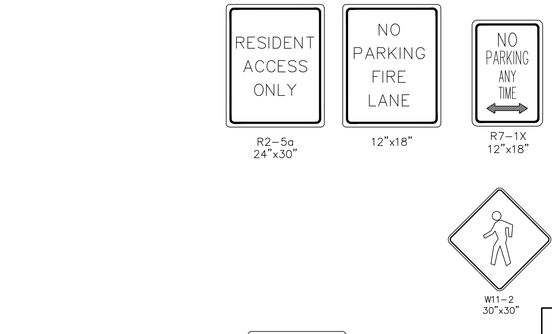
MATERIAL	WATER DILUTION	TYPE OF NOZZLE	APPLY GALLONS/ACRE
ANIONIC ASPHALT EMULSION	7:1	COARSE SPRAY	1200
LATEX EMULSION	12:1	FINE SPRAY	235
RESIN IN WATER	4:1	FINE SPRAY	300
POLYACRYLAMIDE (PAM) - SPRAY ON	APPLY ACCORDING TO MANUFACTURER'S INSTRUCTIONS. MAY ALSO BE USED AS AN ADDITIVE TO SEDIMENT BASINS TO FLOCCULATE AND PRECIPITATE SUSPENDED COLLOIDS. SEE SEDIMENT BASIN STANDARD (PG. 26-1)		
POLYACRYLAMIDE (PAM) - DRY SPRAY	APPLY ACCORDING TO MANUFACTURER'S INSTRUCTIONS. MAY ALSO BE USED AS AN ADDITIVE TO SEDIMENT BASINS TO FLOCCULATE AND PRECIPITATE SUSPENDED COLLOIDS. SEE SEDIMENT BASIN STANDARD (PG. 26-1)		
ACIDULATED SOY BEAN SOAP STICK	NONE	COARSE SPRAY	1200

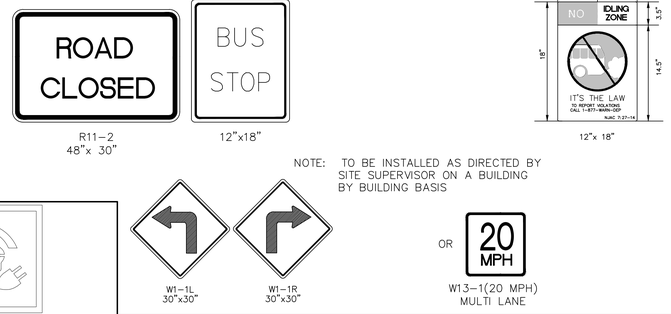
TILLAGE - TO ROUGHEN SURFACE AND BRING CLODS TO THE SURFACE. THIS IS A TEMPORARY EMERGENCY MEASURE WHICH SHOULD BE USED BEFORE SOIL BLOWING STARTS. BEGIN PLOWING ON WINDWARD SIDE OF SITE. CHISEL TYPE PLOWS SPACES ABOUT 12 INCHES APART, AND SPRING-TOOTHED HARROWS ARE EXAMPLES OF EQUIPTMENT WHICH MAY PRODUCE THE DESIRED EFFECT.

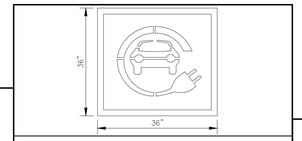
SPRINKLING - SITE IS SPRINKLED UNTIL THE SURFACE IS WET.

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.

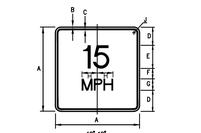
CALCIUM CHLOR





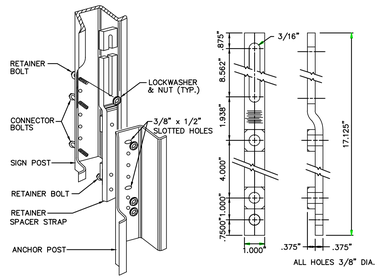


PAINTED EV ICON DETAIL
(N.T.S.)



A	B	C	D	E	F	G	H	J
18	0.375	0.625	2.5	8E	2	3E	4.723	1.5

ADVISORY SPEED

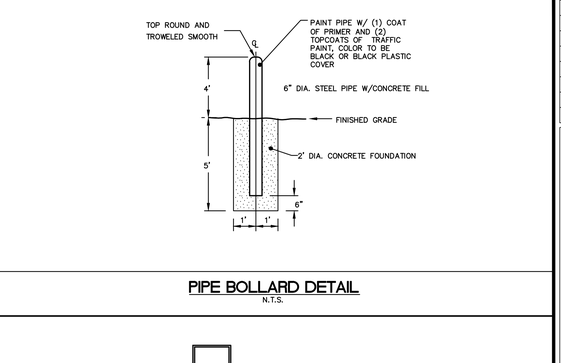


TWO PIECE STEEL U-POSTS STRAP

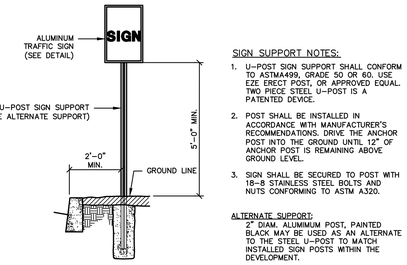
GENERAL NOTES:

1. DRIVE THE ANCHOR POST INTO THE GROUND (UTILIZING A DRIVE CAP) UNTIL 10-12" OF ANCHOR POST IS REMAINING ABOVE GROUND LEVEL.
2. ALIGN THE CONNECTION HOLE CLOSEST TO THE LONG SLOT IN THE RETAINER SPACER STRAP WITH THE TOP HOLE IN THE ANCHOR POST. THE STRAP IS THEN ATTACHED BY MAKING A BOLTED CONNECTION THROUGH THE BOTTOM HOLE IN THE STRAP AND THE HOLE IT ALIGNS WITH IN THE ANCHOR POST.
3. ROTATE THE STRAP 90 DEGREES TO THE LEFT AND DRIVE THE ANCHOR POST INTO THE GROUND UNTIL ONLY 4" REMAINS ABOVE GROUND LEVEL. THIS 4" MUST BE ADHERED TO FOR SAFETY REASONS TO ENHANCE THE BREAKAWAY FEATURES OF THE SIGN IN ACCORDANCE WITH CURRENT FEDERAL AND STATE SAFETY STANDARDS. EXCAVATE AS REQUIRED TO TIGHTEN BOLTS.
4. ROTATE THE STRAP BACK TO VERTICAL POSITION.
5. PLACE THE SIGN POST AGAINST THE ANCHOR POST AND THE STRAP. ALIGN THE BOTTOM HOLE IN THE SIGN POST WITH THE CONNECTION HOLE IN THE LOWER END OF THE STRAP. INSERT TWO (2) CONNECTOR BOLTS THROUGH THE COMMON HOLES IN THE SIGN POST, STRAP AND ANCHOR POST.
6. COMPLETE THE CONSTRUCTION BY ATTACHING THE STRAP TO THE SIGN POST WITH A BOLT AND NUT. THIS CONNECTION SHALL BE MADE AT THE BOTTOM OF THE LONG SLOT IN THE STRAP.
7. TWO PIECE STEEL U-POST IS A PATENTED DEVICE. THE PATENT NO. IS 4126403.

U-POST SIGN SUPPORT



PIPE BOLLARD DETAIL
N.T.S.

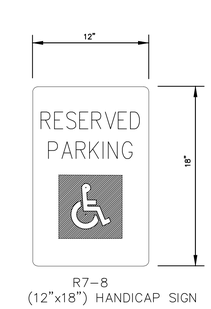


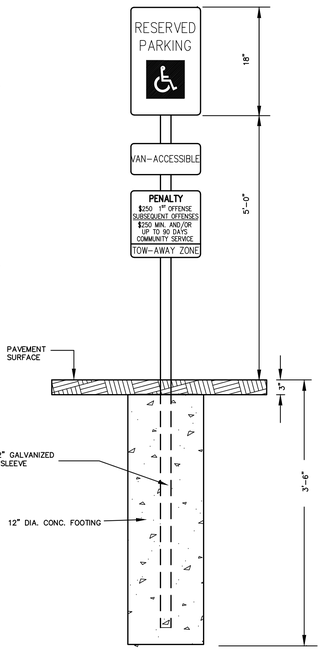
SIGN SUPPORT NOTES:

1. U-POST SIGN SUPPORT SHALL CONFORM TO ASTM-A499, GRADE 50 OR 60. USE EZE ERECT POST, OR APPROVED EQUAL. TWO PIECE STEEL U-POST IS A PATENTED DEVICE.
2. POST SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. DRIVE THE ANCHOR POST INTO THE GROUND UNTIL 12" OF ANCHOR POST IS REMAINING ABOVE GROUND LEVEL.
3. SIGN SHALL BE SECURED TO POST WITH 18-8 STAINLESS STEEL BOLTS AND NUTS CONFORMING TO ASTM A320.

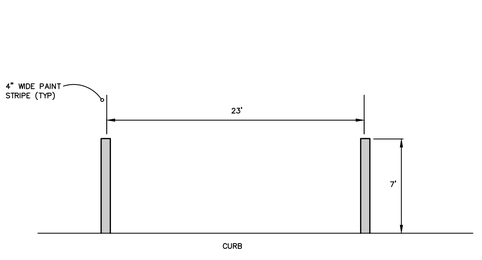
ALTERNATE SUPPORT:
2" DIAM. ALUMIMUM POST, PAINTED BLACK MAY BE USED AS AN ALTERNATE TO THE STEEL U-POST TO MATCH INSTALLED SIGN POSTS WITHIN THE DEVELOPMENT.

TRAFFIC SIGN SUPPORT



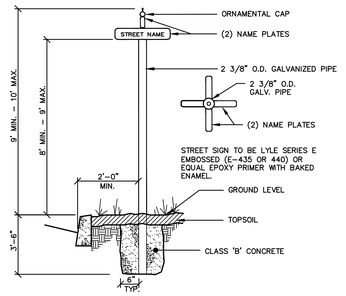


HANDICAPPED PARKING SIGN
N.T.S.



90° PARKING SPACE DETAIL

PARALLEL PARKING SPACE DETAIL
N.T.S.



STREET SIGN



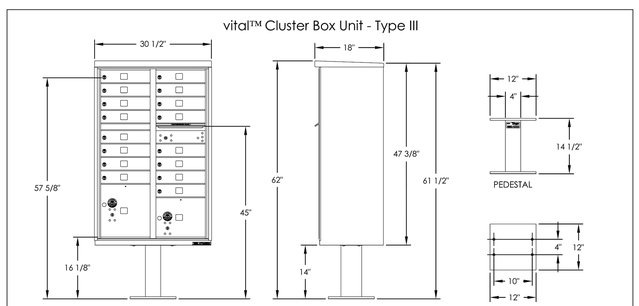
MODEL: MELVILLE
MANUFACTURER: LANDSCAPE FORMS OR APPROVED EQUAL
NOTE: LOCATIONS OF ALL SITE FURNISHINGS TO BE FIELD LOCATED BY CLIENT

BENCHES



MODEL: POE
MANUFACTURER: LANDSCAPE FORMS OR APPROVED EQUAL
NOTE: LOCATIONS OF ALL SITE FURNISHINGS TO BE FIELD LOCATED BY CLIENT

LITTER RECEPTACLE



DOOR CHART

DOOR TYPE	DIMENSION (HEIGHT x WIDTH)
TENANT	3-3/8"x12-13/16"
10" PARCEL	10-1/4"x12-13/16"
13" PARCEL	13-3/4"x12-13/16"
OUTGOING SLOT	3/4"x11-3/4"

NOTES:

1. This unit is approved for USPS and private applications.
2. Decorative mailbox accessories sold separately and are USPS Approved products.
3. Pedestal should be installed with included Rubber Pad: mounting hardware not included, refer to installation manual for recommendations.
4. Florence "F" series CBU is Officially Licensed by USPS: License#CDSEQ-08-B-0012

PRODUCT SERIES: vital™ CLUSTER BOX UNIT

AF FLORENCE manufacturing company
5935 Corporate Drive • Manhattan, KS 66503
www.florencemailboxes.com • (800) 275-1747
A GIBRALTAR INDUSTRIES COMPANY

MODEL	1570-16	REV	A
SCALE	NONE	LAST REV DATE	9/26/2012
DRAWING NUMBER	1570-16CS	DRAWN BY	AFD

U.S. POSTAL SERVICE APPROVED MAILBOX

revisions

no.	date	description

key map



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Land Surveyors
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The Reynolds Group Inc.

State of New Jersey
Certificate of Authorization
Number 24GA27969200
21MH00004300

F. Mitchel Ardman, P.E., P.P.
Jeffrey D. Reynolds, P.L.A.

F. MITCHEL ARDMAN
N.J. PROFESSIONAL ENGINEER LIC. NO. 34317

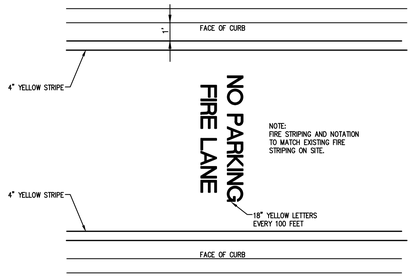
project
AMENDED PRELIMINARY/FINAL SITE PLAN & MAJOR SUBDIVISION
PHASE 1H
MAIN STREET NORTH BRUNSWICK

BLOCK 141
LOTS 44.04, 50.04, 51.01 & PORTION OF LOT 141.04
NORTH BRUNSWICK TOWNSHIP
MIDDLESEX COUNTY , NEW JERSEY

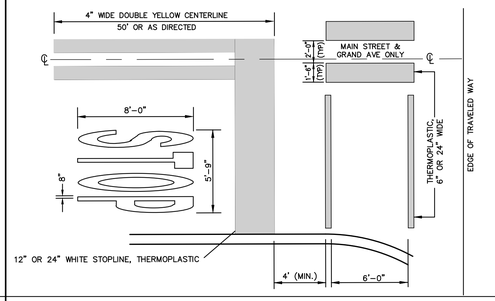
drawing title
CONSTRUCTION DETAILS

job number	drawing number
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checked by: FMA/AEC	
drawn by: A.A.	
date: 06/12/25	sheet 15 of 21

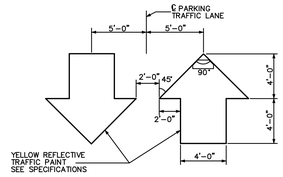
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FIRE LANE STRIPING DETAIL

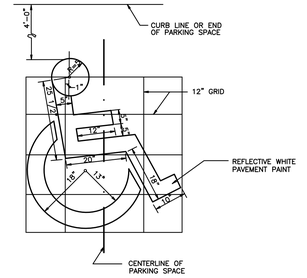


STRIPING SPACING



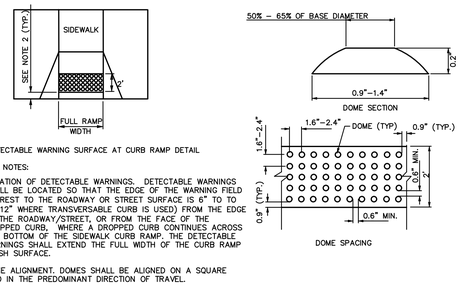
TRAFFIC ARROW STRIPING DETAIL FOR PARKING LOT

N.T.S.



HANDICAP PARKING SYMBOL

N.T.S.

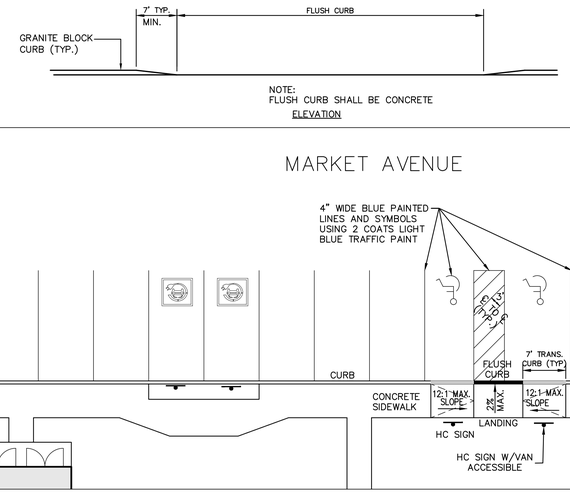


DETECTABLE WARNING SURFACE AT CURB RAMP DETAIL

GENERAL NOTES:

1. LOCATION OF DETECTABLE WARNINGS. DETECTABLE WARNINGS SHALL BE LOCATED SO THAT THE EDGE OF THE WARNING FIELD NEAREST TO THE ROADWAY OR STREET SURFACE IS 6" TO TO 9". 12" WHERE TRANSVERSABLE CURB IS USED) FROM THE EDGE OF THE ROADWAY/STREET, OR FROM THE FACE OF THE DROPPED CURB. WHERE A DROPPED CURB CONTINUES ACROSS THE BOTTOM OF THE SIDEWALK CURB RAMP, THE DETECTABLE WARNINGS SHALL EXTEND THE FULL WIDTH OF THE CURB RAMP FLUSH SURFACE.
2. DOME ALIGNMENT. DOMES SHALL BE ALIGNED ON A SQUARE GRID IN THE PREDOMINANT DIRECTION OF TRAVEL.

CURB RAMP AND DETECTABLE WARNING DETAIL

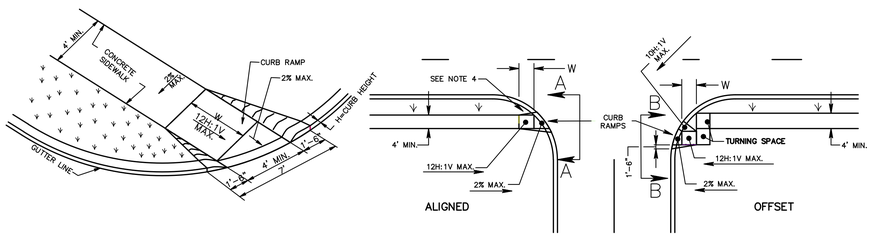


NOTE:
FLUSH CURB SHALL BE CONCRETE

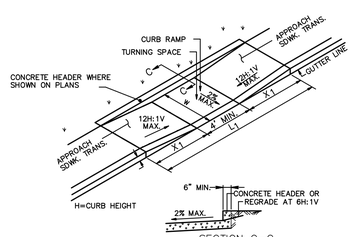
ELEVATION

PLAN

HANDICAPPED PARKING SPACES DETAIL



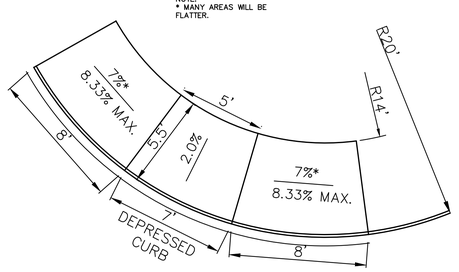
CURB RAMP TYPE 5



SECTION C–C

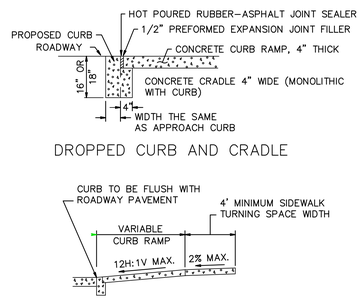
CURB RAMP TYPE 7

(LIMITED ROW)
(SEE NJDOT NOTE 5 & 8)



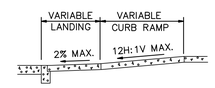
PHASE 1F TYPE 7 NJDOT CURB RAMP

N.T.S.
(AS SHOWN ON PLANS)

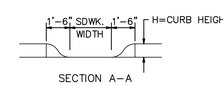


DROPPED CURB AND CRADLE

SECTION THROUGH CURB RAMPS 1 THROUGH 4

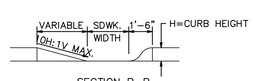


SECTION THROUGH CURB RAMPS 5 AND 6



SECTION A–A

NOTE:
CURB RAMP OPENING TO BE FLUSH WITH ROADWAY PAVEMENT (CURB RAMP TYPES 5 & 6).



SECTION B–B

GENERAL NOTES FOR CURB RAMP DETAIL:

1. THE PUBLIC SIDEWALK CURB RAMP STANDARDS DEPICTED HERE MAY NOT BE APPROPRIATE FOR ALL LOCATIONS. FIELD CONDITIONS AT INDIVIDUAL LOCATIONS MAY REQUIRE SPECIFIC DESIGNS. DESIGNS MUST BE CONSISTENT WITH THE PROVISIONS OF THIS SHEET TO THE MAXIMUM EXTENT FEASIBLE ON ALTERATION PROJECTS AND WHEN STRUCTURALLY PRACTICABLE ON NEW CONSTRUCTION PROJECTS AS REQUIRED BY THE AMERICAN'S WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES. THERE SHALL BE A LANDING AT THE TOP OF EACH CURB RAMP.
2. THERE SHALL BE A LANDING AT THE TOP AND AT THE BOTTOM OF EACH PARALLEL AND PARALLEL/PERPENDICULAR RAMP.
3. LANDINGS SHALL HAVE A MINIMUM CLEAR DIMENSION OF A 4' BY 4' SQUARE. LANDINGS MAY OVERLAP WITH ADJACENT LANDINGS OR A SINGLE LANDING MAY SERVE MULTIPLE CURB RAMPS OR PARALLEL OR PARALLEL/PERPENDICULAR RAMPS. LANDINGS MAY OVERLAP WITH THE CLEAR GROUND SPACE REQUIRED AT PEDESTRIAN SIGNAL PUSH BUTTONS.
4. CROSS SLOPES. THE MAXIMUM CROSS SLOPE OF CURB RAMPS SHALL BE 2 PERCENT. THE MAXIMUM CROSS SLOPE AT LANDINGS IS 2 PERCENT IN ANY DIRECTION. SURFACES SHALL GENERALLY LIE IN CONTINUOUS PLANES WITH A MINIMUM OF SURFACE WARP.
5. THE RUNNING GRADE OF CURB RAMPS SHOULD BE AS FLAT AS PRACTICABLE. THE MAXIMUM RUNNING GRADE OF ANY PORTION OF ANY CURB RAMP SHALL BE 1:12 (8.3%). CURB RAMPS ARE NOT REQUIRED TO BE LONGER THAN 15'.
6. CURB RAMPS LOCATED WHERE PEDESTRIANS MAY WALK ACROSS THE CURB RAMP SHALL HAVE FLARED SIDES. THE LENGTH OF THE FLARES SHALL BE AT LEAST TEN (10) THE TIMES THE CURB HEIGHT, MEASURED ALONG THE CURB LINE. WHEN INFEASIBLE OR IMPRACTICABLE TO PROVIDE A LANDING THAT IS AT LEAST 4' WIDE (MEASURED FROM THE TOP OF THE RAMP TO THE BACK OF THE SIDEWALK), THE LENGTH OF THE FLARES SHALL BE TWELVE (12) TIMES THE CURB HEIGHT MEASURED ALONG THE CURB LINE.
7. THE SURFACE OF ALL CURB RAMPS SHALL BE STABLE, FIRM AND SLIP RESISTANT. A COARSE BROOM FINISH RUNNING PERPENDICULAR TO THE SLOPE IS RECOMMENDED ON CONCRETE RAMP SURFACES, EXCLUSIVE OF THE DETECTABLE WARNING FIELDS.
8. RAMP TRANSITIONS BETWEEN WALKS, GUTTERS, OR STREETS SHALL BE FLUSH AND FREE OF ABRUPT VERTICAL CHANGES 0.2" MAX.
9. COORDINATE ALL TRAFFIC CONTROL DEVICES, UTILITY LOCATIONS, SIGNS, STREET FURNITURE AND DRAINAGE TO ENSURE A CONTINUOUS PEDESTRIAN ACCESS ROUTE AT ALL CURB RAMP LOCATIONS. GUIDANCE FOR CROSSWALK MARKINGS AND TRAFFIC CONTROL DEVICES IS PROVIDED IN THE MUTCD. DRAINAGE GRATES AND UTILITY ACCESS COVERS ARE NOT ALLOWED IN RAMP WALKING SURFACES OR LANDINGS.
10. WHERE FEASIBLE, E.G. WHERE R.O.W. WIDTH PROVIDES SUFFICIENT SPACE TO INSTALL SIDEWALKS SET BACK FROM THE CURBS, RAMP TYPES 2A AND 3A SHOULD BE INSTALLED AS THE SEPARATION PROVIDED BETWEEN SIDEWALK AND CURB OR TRAVELWAY MAKE FOR GREATER PEDESTRIAN SAFETY AND COMFORT.
11. AT MARKED CROSSINGS, THE FULL WIDTH OF THE RAMP SHALL BE WHOLLY CONTAINED WITHIN THE MARKINGS. THE SIDES OF THE RAMPS (THE FLARES) SHOULD NOT BE WITHIN THE WIDTH OF THE MARKINGS.
12. DETAILS ILLUSTRATE THAT DETECTABLE WARNINGS ARE REQUIRED. SEE SPECIFICATION FOR SPECIFIC DETECTABLE WARNING REQUIREMENTS. DETAILS DO NOT SHOW DROPPED CURBS AT BOTTOMS OF CURB RAMPS. DROPPED CURBS MAY BE SPECIFIED.

NJDOT CURB RAMP NOTES:

1. KEEP TURNING SPACE APPROACH SIDEWALK TRANSITIONS, AND CURB RAMP CLEAR OF OBSTRUCTIONS THAT PROTRUDE ABOVE THE SURFACE.
2. FOR DIMENSION SEE 2016 CD-606-3 AND CD-606-4 PER NJDOT STANDARD CONSTRUCTION DETAILS AND AS AMENDED.
3. CURB (DROPPED CURB) GUTTERLINE TO BE FLUSH WITH ROADWAY PAVEMENT TO ENTIRE WIDTH OF THE RAMP (4 FEET MIN.) AT ALL CURB RAMPS.
4. FOR CURB RAMP TYPE 5 IF A GRASS BUFFER DOES NOT EXIST, SLOPE CURB TO EQUAL SLOPE OF ADJACENT CURB RAMP.
5. WHERE THE DISTANCE FROM THE GUTTER LINE TO THE OUTSIDE EDGE OF SIDEWALK IS 6 FEET OR LESS, USE CURB RAMP TYPE 7, INSTEAD OF CURB RAMP TYPE 1 THROUGH 3.
6. CROSSWALKS AND STOP LINES MAY BE MARKED OR UNMARKED. SEE PLANS.
7. THE 12H:1V MAX SLOPE IS THE RUNNING SLOPE FOR CURB RAMPS, BUT ONLY THE 12H:1V SLOPE MEASURED AS X2 IS THE RUNNING SLOPE FOR TYPE 3 AND TYPE 4 CURB RAMPS. ENSURE THE RUNNING SLOPE OF CURB RAMPS DOES NOT REQUIRE ITS LENGHT TO EXCEED 15 FEET. THE RUNNING SLOPE MAY EXCEED THE 12H:1V MAX SLOPE SO AS NOT TO EXCEED THE 15 FEET MAXIMUM LENGTH.
8. CURB RAMP TYPE 1 THROUGH 7 ARE NORMALLY PLACED ON THE RADIUS RETURN AT THE INTERSECTION AND ON A TANGENT SECTION AS DRAWN.

revisions

no.	date	description

key map

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project
AMENDED PRELIMINARY/FINAL SITE PLAN & MAJOR SUBDIVISION
PHASE 1H
MAIN STREET NORTH BRUNSWICK

BLOCK 141
LOTS 44.04, 50.04, 51.01 & PORTION OF LOT 141.04
NORTH BRUNSWICK TOWNSHIP
MIDDLESEX COUNTY , NEW JERSEY

drawing title
CONSTRUCTION DETAILS

job number	drawing number
24–052	16
scale: AS SHOWN	
checked by: FMA/AEC	
drawn by: A.A.	
date: 06/12/25	sheet 16 of 21

J:\DRAWINGS\24-052\CAD\24-052 SHEETS - PLA_CIVIL\DESIGN_SHEETS_PDF\DWG_16 PLA.DWG

NOTES FOR PAVEMENT DETAILS:

1. SUBGRADES: ALL SUBGRADE SHALL BE PREPARED IN ACCORDANCE WITH THE APPLICABLE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR BITUMINOUS CONCRETE AND REINFORCED CONCRETE PAVEMENTS. PRIOR TO THE CONSTRUCTION OF ANY SUBBASE BASE OF PAVEMENT COURSE ALL SALT OR UNYIELDING PORTIONS OF THE SUBGRADE WHICH DO NOT ATTAIN THE REQUIRED STABILITY WILL BE REMOVED AND REPLACED WITH THE SUITABLE MATERIAL, AND THE WHOLE SURFACE OF THE SUBGRADE SHALL BE COMPACTED.

2. SUBBASE AND/OR AGGREGATE BASE COURSES: WHERE GRANULAR SUBBASE COURSES ARE INCLUDED IN THE PAVEMENT DESIGN SECTION, THEY SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE APPLICABLE REQUIREMENTS OF THE STANDARD SPECIFICATIONS. DENSE GRADED AGGREGATE BASE COURSES SHALL COMPLY WITH THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR SOIL AGGREGATE TYPE 5, CLASS A, OR TYPE 2, CLASS A OR B.

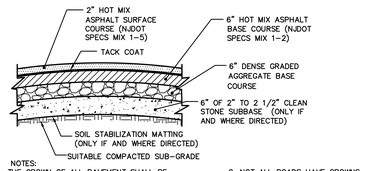
3. BITUMINOUS BASE COURSES:
   A. BITUMINOUS BASE COURSES FOR USE WITH BITUMINOUS CONCRETE PAVEMENTS SHALL CONSIST OF A PLANT-MIXED BITUMINOUS STABILIZED BASE COURSE (STONE MIX OR GRAVEL MIX) IN ACCORDANCE WITH THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS, EXCEPT THAT THE REQUIREMENTS FOR THE CONSTRUCTION OF BASE COURSE SHALL BE AMENDED TO ALLOW THE LAYING OF THE BASE COURSE WITH A SINGLE LIFT MAXIMUM THICKNESS NOT EXCEEDING FOUR INCHES.

   B. PRIOR TO PLACEMENT OF ANY BITUMINOUS STABILIZED BASE COAT, THE FINISHED SURFACE OF ANY UNDERLYING SUBBASE OR AGGREGATE BASE SHALL RECEIVE A PRIME COAT IN ACCORDANCE WITH THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS.

   C. SUITABLE STABILIZED BASE COURSE MAY INCLUDE RECYCLED CONCRETE, RECYCLED BITUMINOUS CONCRETE PAVEMENT, BITUMINOUS PAVEMENT MILLINGS AND DENSE GRADED AGGREGATES.

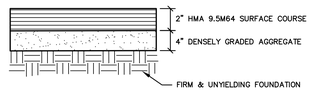
4. BITUMINOUS PAVEMENTS: BITUMINOUS PAVEMENTS SHALL CONSIST OF A BITUMINOUS CONCRETE SURFACE COURSE TYPE FABC 1 IN ACCORDANCE WITH THE REQUIREMENT OF THE STANDARD SPECIFICATIONS. THE BITUMINOUS PAVEMENT WEARING SURFACE SHOULD GENERALLY NOT BE INSTALLED UNTIL JUST PRIOR TO THE TIME THE STREETS ARE PREPARED FOR FINAL ACCEPTANCE. PRIOR TO THE INSTALLATION OF A BITUMINOUS CONCRETE SURFACE, THE BITUMINOUS BASE COURSE SHALL BE INSPECTED BY THE TOWNSHIP ENGINEER. ANY AREAS OF THE BASE COURSE IN NEED OF REPAIR SHALL BE REMOVED AND REPLACED AT THE DIRECTION OF THE TOWNSHIP ENGINEER. IF THE TOWNSHIP ENGINEER DIRECTS, A LEVELING COURSE OF FABC MATERIAL SHALL BE PLACED ON ANY UNEVEN OR BELOW-GRADE BASE COURSES PRIOR TO THE PLACEMENT OF FINISHED PAVEMENT. NO PAVEMENT SURFACES SHALL BE PLACED UNLESS PERMISSION TO DO SO HAS BEEN GRANTED BY THE TOWNSHIP ENGINEER. NO PAVING SHALL BE DONE UNTIL ALL ROAD STRUCTURES, SUCH AS MANHOLES, CATCH BASINS AND OTHER UNDERGROUND UTILITY ACCESS CHAMBERS, ARE BROUGHT TO GRADE LEVEL.

5. ASPHALTIC BINDER SHALL BE PG 64-22.

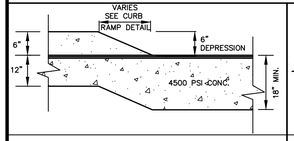


NOTES:
1. THE CROWN OF ALL PAVEMENT SHALL BE AS INDICATED ON THE TYPICAL CROSS SECTION
2. NOT ALL ROADS HAVE CROWNS, SEE TYPICAL CROSS SECTION.

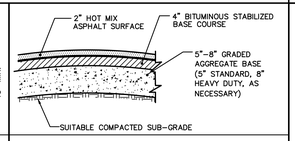
TYPICAL PAVEMENT DETAIL - ROADS (NAMED ROADS)
N.T.S.



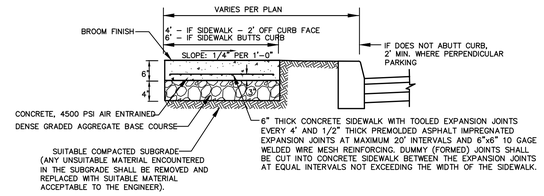
PAVED DRIVEWAY



CONCRETE CURB DEPRESSION
N.T.S.



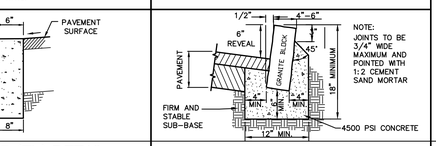
PARKING LOT PAVEMENT DETAIL
N.T.S.



NOTES:
1. SEE DETAILS FOR HANDICAPPED RAMP
2. BROOM FINISH

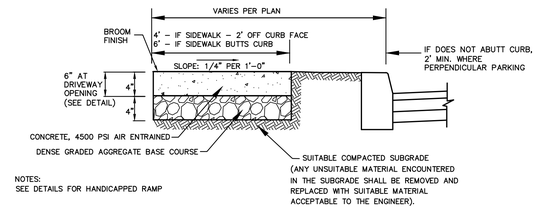
(NOTE: HEAVY DUTY SIDEWALK TO BE PROVIDED IN ALL AREAS WHERE DRIVEWAYS CROSS SIDEWALKS.

HEAVY DUTY SIDEWALK DETAIL
N.T.S.



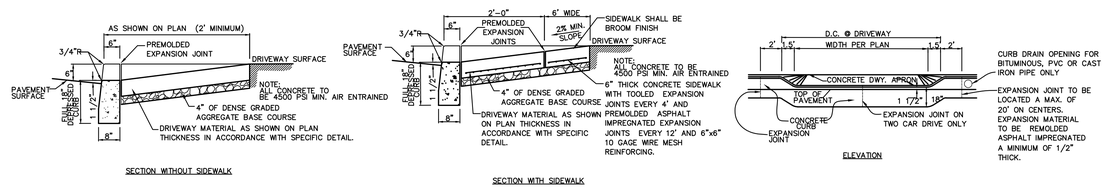
FLUSH CURB (FL) DETAIL
NOT TO SCALE

GRANITE BLOCK CURB
N.T.S.

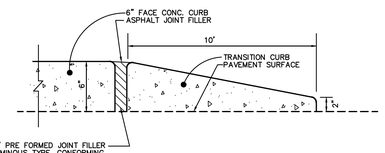


NOTES:
SEE DETAILS FOR HANDICAPPED RAMP

TYPICAL SIDEWALK DETAIL
N.T.S.

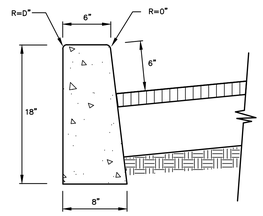


DRIVEWAY ENTRANCE DEPRESSED CURB, DRIVEWAY APRON + SIDEWALK

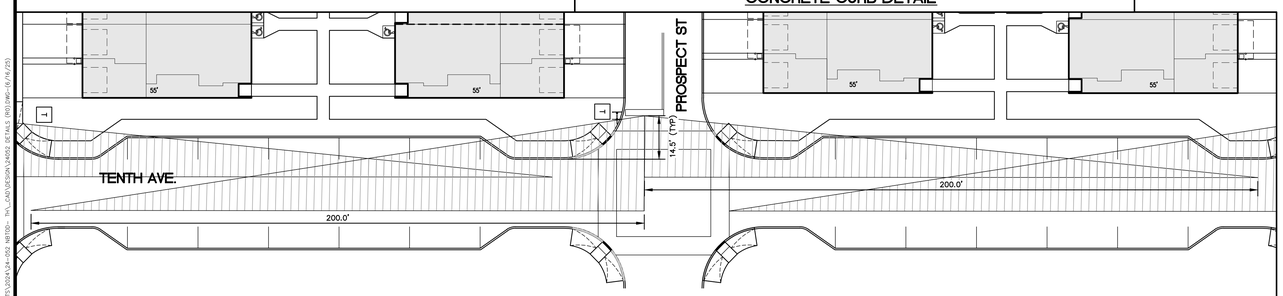


TRANSITION CURB

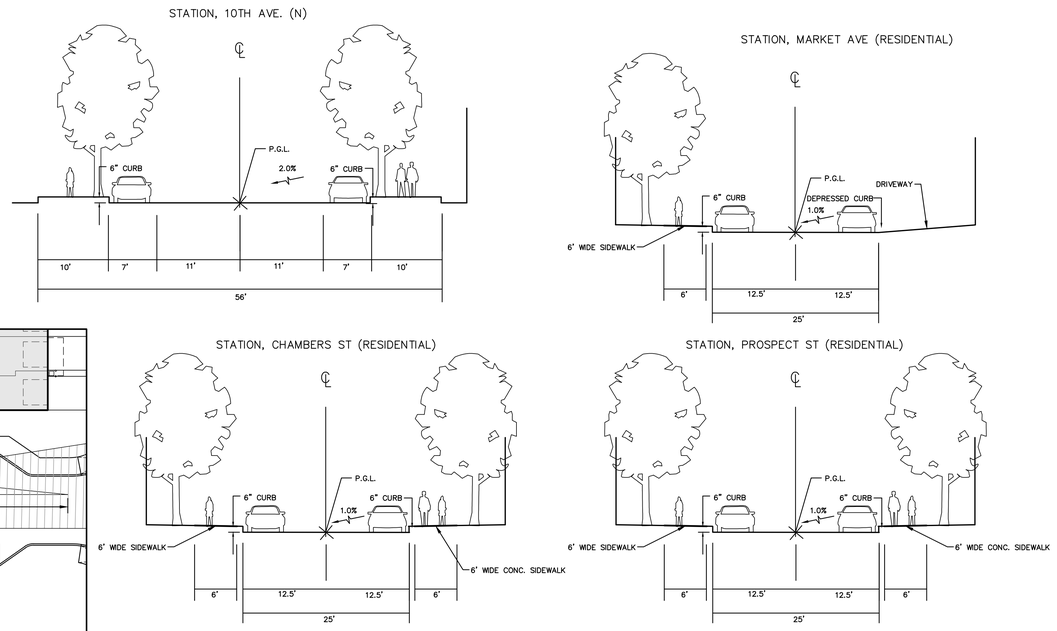
NOTES:
1. CONCRETE TO TEST 4500 PSI MINIMUM ON 28 DAY TEST. AIR ENTRAINMENT 4% TO 7% SLUMP TO BE 5" MAXIMUM.
2. SEE DETAILS FOR HANDICAPPED RAMP.
3. PREFORMED BITUMINOUS CELLULAR TYPE JOINTS FILLER 1/2" THICK & CUT TO MATCH CROSS SECTION OF THE CURB SHALL BE USED AT ALL EXPANSION JOINTS AT INTERVALS NOT GREATER THAN 20 FEET.
4. IN AREAS WITH BITUMINOUS CONCRETE PAVEMENT, THE REQUIRED CURB SHALL BE CONSTRUCTED PRIOR TO THE CONSTRUCTION OF THE BITUMINOUS BASE COURSES. ANY REQUIRED REPAIRS TO CURBS, WHICH ARE NOT SUITABLE FOR ACCEPTANCE SHALL BE MADE PRIOR TO CONSTRUCTION OF THE FINAL PAVEMENT WEARING COURSE.



TYPICAL 8"x18" CONCRETE CURB DETAIL



SIGHT TRIANGLE DETAIL - TYPICAL INTERSECTION
DESIGN SPEED 30 MPH (POSTED SPEED LIMIT 25 MPH)

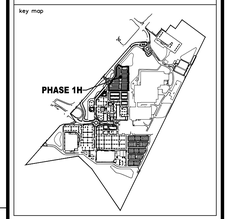


ROAD TYPICAL CROSS - SECTIONS

revisions

no.	date	description

key map



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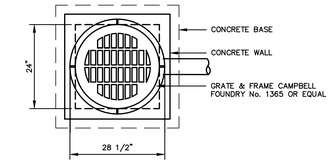
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AMENDED PRELIMINARY/FINAL SITE PLAN & MAJOR SUBDIVISION
PHASE 1H
MAIN STREET NORTH BRUNSWICK

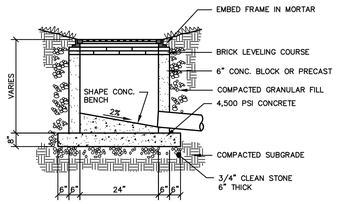
BLOCK 141
LOTS 44.04, 50.04, 51.01 & PORTION OF LOT 141.04
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MIDDLESEX COUNTY, NEW JERSEY

drawing title
CONSTRUCTION DETAILS

job number	drawing number
24-052	17
scale: AS SHOWN	
checked by: FMA/AEC	
drawn by: A.A.	
date: 06/12/25	sheet 17 of 21

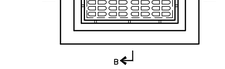
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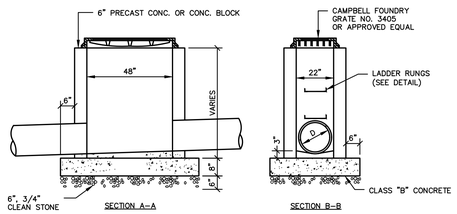




NOTES:
1) ALL INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH CURRENT NJDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND ITS AMENDMENTS.
2) IF BLOCK INLETS PROVIDED, SHALL BE MULTIPLEX BLOCK, WITH STAGGERED, MORTARED JOINTS. INTERIOR AND EXTERIOR WALLS SHALL ALSO BE PLASTERED WITH 1/2" MORTAR.
3) PROVIDE POLYPROPYLENE STEPS AT 12" O.C.

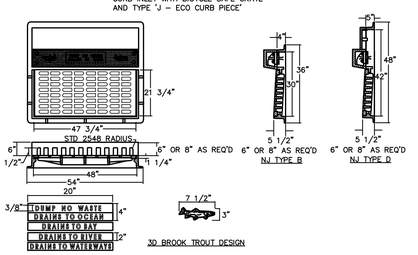
2' X 2' LAWN INLET
(ALTERNATE TO NYLOPLAST)



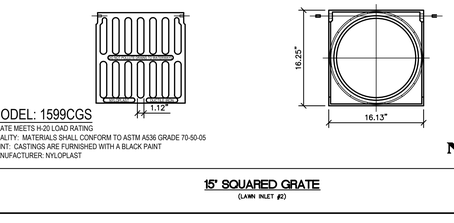


NOTES:
1) ALL INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH CURRENT NJDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND ITS AMENDMENTS.
2) GRATES SHALL BE BICYCLE SAFE AND ECO. CURB PIECE SHALL BE TYPE 'N' ECO.
3) IF BLOCK INLETS PROVIDED, SHALL BE MULTIPLEX BLOCK, WITH STAGGERED, MORTARED JOINTS. INTERIOR AND EXTERIOR WALLS SHALL ALSO BE PLASTERED WITH 1/2" MORTAR.
4) PROVIDE POLYPROPYLENE STEPS AT 12" O.C., ON WALL FACING TRAFFIC.

TYPE 'A' INLET
N.T.S.



TYPE "J" CURB PIECE + BICYCLE SAFE GRATE
N.T.S.



NOTES:
1. CURB FACE TO BE 8" UNLESS OTHERWISE INDICATED.
2. CAMPBELL CASTING PATTERN NO. 2618, TYPE J ECO CURB PIECE, "BICYCLE SAFE GRATE" OR APPROVED EQUAL.
3. LADDER RUNGS SHALL BE POLYPROPYLENE.
4. WHERE INLETS ARE GREATER THAN 8' DEEP, DOUBLE BLOCK WALLS ARE REQUIRED.
5. WALLS CAN BE PRECAST CONCRETE 6" THICK, PER N.J.D.O.T. STANDARD DETAIL.
6. SEE INLET TYPE A FOR OTHER NOTES.
7. 6" EXTENSION OF BASE NOT REQUIRED IF PRECAST AS SINGLE UNIT WITH FIRST SECTION.

INLET TYPE "B"
N.T.S.

CONCRETE SUPPORT BLOCK DETAIL: PIPE/UTILITY CROSSING
N.T.S.

MODEL: 1599CGS
GRATE MEETS H-20 LOAD RATING
QUALITY: MATERIALS SHALL CONFORM TO ASTM A536 GRADE 70-50-05
PAINT: CASTINGS ARE FURNISHED WITH A BLACK PAINT
MANUFACTURER: NYLOPLAST

Nyloplast

15" SQUARED GRATE
(LAWN INLET #2)

MATERIAL SPECIFICATIONS:
THE DRAIN BASINS SHALL BE MANUFACTURED FROM PVC PIPE STOCK, UTILIZING A THERMO-MOLDING PROCESS TO REFORM THE PIPE STOCK TO THE SPECIFIED CONFIGURATION. THE DRAINAGE PIPE CONNECTION STUBS SHALL BE MANUFACTURED FROM PVC PIPE STOCK AND FORMED TO THE SPECIFIED CONFIGURATION. JOINTS IN THE SPECIFIED PIPE SYSTEM FOR WATER TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR JOINTS FOR DRAIN AND SEWER PLASTIC PIPE USING FLEXIBLE ELASTOMERIC SEALS. THE FLEXIBLE ELASTOMERIC SEALS SHALL CONFORM TO ASTM F477. THE PIPE BELL SPIGOT SHALL BE JOINED TO THE MAIN BODY OF THE DRAIN BASIN OR CATCH BASIN. THE RAW MATERIAL USED TO MANUFACTURE THE MAIN BODY AND PIPE STUBS TO MANUFACTURE THE MAIN BODY AND PIPE STUBS OF THE SURFACE DRAINAGE INLETS SHALL CONFORM TO ASTM D1784 CELL CLASS 12454.

THE GRATES AND FRAMES FURNISHED FOR ALL SURFACE DRAINAGE INLETS SHALL BE DUCTILE IRON. THE GRATES SHALL BE CAST SPECIFICALLY FOR EACH BASIN SO AS TO PROVIDE A ROUND BOTTOM FLANGE THAT CLOSELY MATCHES THE DIAMETER OF THE SURFACE DRAINAGE INLET. GRATES FOR DRAIN BASINS SHALL BE CAPABLE OF SUPPORTING H-20 WHEEL LOADING OR H-10 LOADING AS NOTED. 15" SQUARE GRATES WILL BE HINGED TO THE FRAME USING PINS. METAL USED IN THE MANUFACTURE OF THE CASTINGS SHALL CONFORM TO ASTM A536 GRADE 70-50-05 FOR DUCTILE IRON. GRATES SHALL BE PROVIDED PAINTED BLACK.

Nyloplast

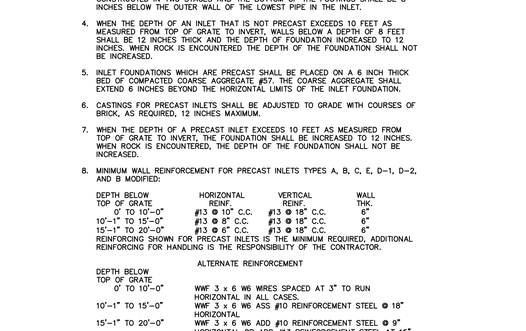
LAWN INLET
(AS MANUF. BY NYLOPLAST, OR EQUAL)

1. ALL TRENCHES OR DITCHES WHICH CROSS AN EXISTING STREET AND WHICH ARE DUG FOR SEWERS, WATER MAINS, GAS MAINS OR OTHER UTILITIES, INCLUDING THE HOUSE CONNECTIONS FOR THOSE UTILITIES, SHALL BE FILLED WITH QUARRY PROCESS STONE. THE STONE SHALL BE PLACED IN LAYERS NOT EXCEEDING TWELVE (12) INCHES IN DEPTH AND SHALL BE SPRINKLED WITH WATER AND MECHANICALLY COMPACTED. ALL SOFT SPOTS AND DEPRESSIONS IN A SURFACE WHICH HAS BEEN GRADED WILL BE REMOVED AND FILLED WITH STONE OF A SIZE TO BE DETERMINED BY THE TOWNSHIP ENGINEER. ALL TRENCHES WHICH ARE DUG IN A FUTURE STREET OR EXISTING R.O.W., ON WHICH NO SUBBASE OR PAVEMENT HAS BEEN CONSTRUCTED SHALL BE BACKFILLED AS INDICATED ABOVE OR MAY BE BACKFILLED WITH SUITABLE ON-SITE EXCAVATED MATERIALS OR IMPORTED FILL.

2. PRIOR TO USING ANY ON-SITE AND/OR IMPORTED SOIL MATERIALS THE CONTRACTOR OR ANY INDIVIDUAL OR FIRM SHALL EMPLOY A RECOGNIZED SOILS LABORATORY TO SECURE SOIL SAMPLES, PERFORM THE NECESSARY LABORATORY ANALYSIS AND ESTABLISH THE COMPACTION AND OTHER CRITERIA NECESSARY FOR THE PROPER PLACEMENT OF THE BACKFILL. A REPORT OF THE LABORATORY FINDINGS, INCLUDING THE COMPACTION SPECIFICATIONS, SHALL BE SUBMITTED TO THE TOWNSHIP ENGINEER FOR REVIEW AND APPROVAL PRIOR TO COMMENCING ANY BACKFILL OPERATIONS USING ON-SITE SOIL AND/OR IMPORTED SOIL MATERIALS.

3. DURING THE BACKFILLING OPERATIONS, THE CONTRACTOR OR ANY INDIVIDUAL OR FIRM ENGAGED IN A BACKFILLING OPERATION SHALL EMPLOY A PROFESSIONAL ENGINEER, LICENSED IN THE STATE OF NEW JERSEY, OR HIS REPRESENTATIVE, WHO IS REGULARLY ENGAGED IN THE PRACTICE OF GEOTECHNICAL ENGINEERING AND WHO IS TRAINED IN SOIL MECHANICS, TO OBSERVE THE PLACEMENT OF THE BACKFILL. THE SOILS ENGINEER SHALL FILE DAILY REPORTS WITH THE TOWNSHIP ENGINEER INDICATING THE RESULTS OF THE COMPACTION AND UPON THE CONCLUSION OF THE PROJECT FILE A FINAL CERTIFICATION INDICATING THAT THE BACKFILL MATERIAL HAS BEEN PLACED AND COMPACTED IN ACCORDANCE WITH THE RECOMMENDATIONS CONTAINED IN THE APPROVED LABORATORY REPORT.

TRENCH NOTES



NOTES:
SEE INLET TYPE A AND B FOR CONSTRUCTION NOTES.

TYPE 'E' INLET

BICYCLE SAFE GRATE
N.T.S.
CAMPBELL CASTING 2618 OR EQUAL

GENERAL NOTES

1. INLETS MAY BE CONSTRUCTED OF BRICK, CONCRETE, CONCRETE BLOCK OR PRECAST CONCRETE. WALLS SHALL BE 8 INCHES THICK IF BRICK AND 6 INCHES THICK IF CONCRETE, CONCRETE BLOCK OR PRECAST CONCRETE. INLET FOUNDATIONS AND INVERTS SHALL BE CLASS B CONCRETE.
2. CORBELLING OF INLET WALLS WILL BE PERMITTED AT THE RATE OF ½ INCH PER 8 INCHES OF HEIGHT; MAXIMUM CORBEL 6 INCHES PER WALL.
3. EXCEPT FOR INLETS TYPE A AND C, FOUNDATIONS AND INVERTS SHALL BE CONSTRUCTED IN TWO STAGES AND THE BOTTOM OF THE FOOTINGS SHALL BE 8 INCHES BELOW THE OUTER WALL OF THE LOWEST PIPE IN THE INLET.
4. WHEN THE DEPTH OF AN INLET THAT IS NOT PRECAST EXCEEDS 10 FEET AS MEASURED FROM TOP OF GRATE TO INVERT, WALLS BELOW A DEPTH OF 8 FEET SHALL BE 12 INCHES THICK AND THE DEPTH OF FOUNDATION INCREASED TO 12 INCHES. WHEN ROCK IS ENCOUNTERED THE DEPTH OF THE FOUNDATION SHALL NOT BE INCREASED.
5. INLET FOUNDATIONS WHICH ARE PRECAST SHALL BE PLACED ON A 6 INCH THICK BED OF COMPACTED COARSE AGGREGATE #57, THE COARSE AGGREGATE SHALL EXTEND 6 INCHES BEYOND THE HORIZONTAL LIMITS OF THE INLET FOUNDATION.
6. CASTINGS FOR PRECAST INLETS SHALL BE ADJUSTED TO GRADE WITH COURSES OF BRICK, AS REQUIRED, 12 INCHES MAXIMUM.
7. WHEN THE DEPTH OF A PRECAST INLET EXCEEDS 10 FEET AS MEASURED FROM TOP OF GRATE TO INVERT, THE FOUNDATION SHALL BE INCREASED TO 12 INCHES. WHEN ROCK IS ENCOUNTERED, THE DEPTH OF THE FOUNDATION SHALL NOT BE INCREASED.
8. MINIMUM WALL REINFORCEMENT FOR PRECAST INLETS TYPES A, B, C, E, D-1, D-2, AND B MODIFIED:

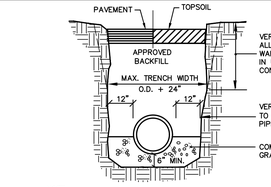
DEPTH BELOW TOP OF GRATE	HORIZONTAL REINF.	VERTICAL REINF.	WALL THK.
0' TO 10'-0"	#13 @ 10" C.C.	#13 @ 18" C.C.	6"
10'-1" TO 15'-0"	#13 @ 8" C.C.	#13 @ 18" C.C.	6"
15'-1" TO 20'-0"	#13 @ 6" C.C.	#13 @ 18" C.C.	6"

REINFORCING SHOWN FOR PRECAST INLETS IS THE MINIMUM REQUIRED, ADDITIONAL REINFORCING FOR HANDLING IS THE RESPONSIBILITY OF THE CONTRACTOR.

ALTERNATE REINFORCEMENT

DEPTH BELOW TOP OF GRATE	
0' TO 10'-0"	WWF 3 x 6 W6 WIRES SPACED AT 3" TO RUN HORIZONTAL IN ALL CASES.
10'-1" TO 15'-0"	WWF 3 x 6 W6 ASS #10 REINFORCEMENT STEEL @ 18" HORIZONTAL.
15'-1" TO 20'-0"	WWF 3 x 6 W6 ADD #10 REINFORCEMENT STEEL @ 9" HORIZONTAL OR ADD #13 REINFORCEMENT STEEL AT 15" HORIZONTAL.

9. ALL INLETS AND MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT NJDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND ITS AMENDMENTS.
10. DIMENSIONS, WEIGHTS AND OTHER CRITERIA SHOWN ON THESE DETAILS ARE FOR CLASS 30B CAST IRON ONLY.

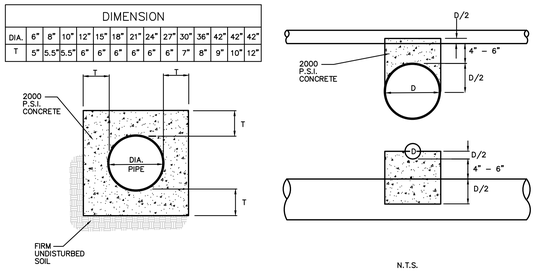


TYPE C BEDDING
BROKEN STONE OR WASHED GRAVEL MEETING REQUIREMENTS OF COURSE AGGREGATE SIZE NUMBER 57 N.J.D.O.T. STANDARD SPECIFICATIONS TABLE 901.1-ARTICLE 901.21

NOTE:
1. IN PAVED AREAS, WIDTH OF PAVEMENT TO BE REMOVED SHALL BE 12" BEYOND EDGE OF TRENCH. SAWCUT EXISTING PAVEMENT TO FULL DEPTH PRIOR TO EXCAVATION. EXISTING PAVEMENT TO REMAIN SHALL BE PROTECTED FROM BREAKAGE DURING PIPE INSTALLATION AND TRENCH BACKFILL.
2. IF CONTRACTOR INCREASES TRENCH WIDTH, HE IS TO RECOMPUTE AND SUBMIT FOR APPROVAL BY THE ENGINEER ALL PIPE CLASSES. ANY ADDITIONAL COST NECESSITATED BY THE INCREASE IN TRENCH WIDTH IS TO BE BORNE BY THE CONTRACTOR.
3. ALL EXCAVATION, TRENCHING, SHEETING AND BRACING SHALL CONFORM TO THE REQUIREMENTS OF THE "CONSTRUCTION SAFETY CODE OF THE BUREAU OF ENGINEERING AND SAFETY OF THE NEW JERSEY DEPARTMENT OF LABOR AND INDUSTRY".
4. SLOPE OF THE TRENCH SHALL NOT EXCEED O.S.H.A. REQUIREMENTS. WHERE SUCH SLOPE WILL CAUSE TOP WIDTH OF TRENCH TO PROTRUDE BEYOND THE ACQUIRED EASEMENT (PERMANENT AND TEMPORARY), THE CONTRACTOR SHALL USE SHEETING.

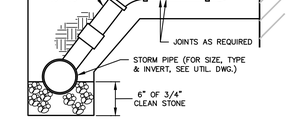
TYPICAL STORM LINE TRENCH

DIMENSION												
DIA.	6"	8"	10"	12"	15"	18"	21"	24"	27"	30"	36"	42"	42"	42"
T	5"	5.5"	5.5"	6"	6"	6"	6"	6"	7"	8"	9"	10"	12"	



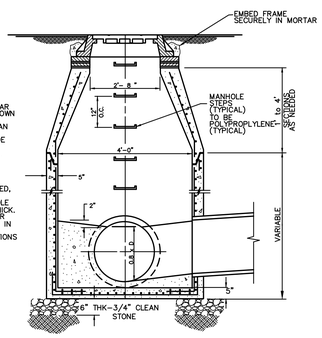
N.T.S.

CONCRETE ENCASEMENT + CRADLE
N.T.S.



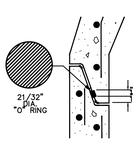
NOTE:
1. ALL COUPLINGS, PLUGS AND CAPS SHALL BE STANDARD FOR TYPE OF PIPE USED AND INSTALLATION TO BE WATERTIGHT. SCHEDULE 40 PVC PIPE REQUIRED.
2. CLEANOUTS OR INSPECTION WYES ARE TO BE LOCATED AS SHOWN ON DETAIL.
3. FOR PIPE BEDDING DETAILS, SEE DETAILS THIS SHEET.

DRAIN PIPE CONNECTION

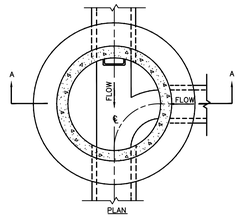


NOTES:
1. MANHOLE COVER AND FRAME TO BE CAMPBELL No. 1203A OR APPROVED EQUAL, SET IN A FULL BED OF MORTAR TO CONFORM TO THE GRADE AND CROWN OF THE ROAD.
2. IF WALL CONSTRUCTION IS OTHER THAN CONCRETE, THE WALLS SHALL BE PLASTERED, BOTH INSIDE AND OUTSIDE WITH 1/2" THICK CEMENT PLASTER.
3. FOOTING TO BE 4,500 PSI CONCRETE.
4. INVERT TO BE N.J.D.O.T. CLASS "C" CONCRETE.
5. PROVIDE 3/4" DIA. POLYPROYLENE LADDER RUNGS 12" ON CENTER.
6. WHEN ADDITIONAL DEPTH IS SCHEDULED, WALLS BELOW THE DEPTH OF MANHOLE MEASURED FROM TOP OF COVER TO MANHOLE FRAME TO INVERT, SHALL BE 12" THICK. THE FOUNDATION DIMENSION SHALL BE INCREASED 12" IN WIDTH AND TO 12" IN DEPTH.
7. MANHOLE TO MEET NJDOT SPECIFICATIONS WHERE CONFLICTS.

SECTION A-A



"O" RING FLEXIBLE WATERTIGHT RUBBER GASKET JOINT AS PER ASTM C443

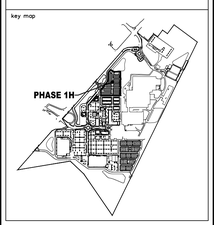


PLAN

STANDARD STORM DRAINAGE MANHOLE
N.T.S.
SHOP DRAWING TO BE PROVIDED FOR GREATER THAN 4' DIA. MANHOLE

revisions		
no.	date	description

key map



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The Reynolds Group Inc.

State of New Jersey
Certificate of Authorization
Number 24GA27969200
21MH00004300

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Jeffrey D. Reynolds, P.L.A.

F. MITCHEL ARDMAN
N.J. PROFESSIONAL ENGINEER LIC. NO. 34317

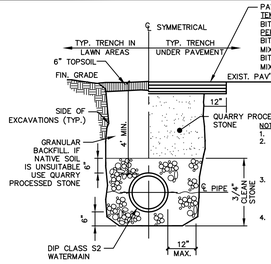
project
AMENDED PRELIMINARY/FINAL SITE PLAN & MAJOR SUBDIVISION
PHASE 1H
MAIN STREET NORTH BRUNSWICK

BLOCK 141
LOTS 44.04, 50.04, 51.01 & PORTION OF LOT 141.04
NORTH BRUNSWICK TOWNSHIP
MIDDLESEX COUNTY, NEW JERSEY

drawing title
CONSTRUCTION DETAILS

job number	drawing number
24-052	18
scale: AS SHOWN	
checked by: FMA/AEC	
drawn by: A.A.	
date: 06/12/25	sheet 18 of 21

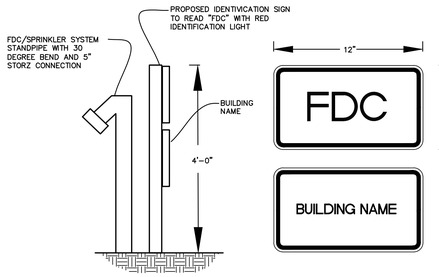
J:\DRAWINGS\PROJECTS\2024\24-052 NORTH BRUNSWICK\CAD\CONSTRUCTION DETAILS.DWG (MAR 26, 2025)



PAVEMENT RESTORATION
TEMPORARY:
BITUMINOUS CONCRETE, MIX I-5, 2" THICK
PERMANENT:
BITUMINOUS STABILIZED BASE COURSE, MIX I-2, 4" THICK (MIN) OR AS DIRECTED AND BITUMINOUS CONCRETE SURFACE COURSE, MIX I-5, 2" THICK

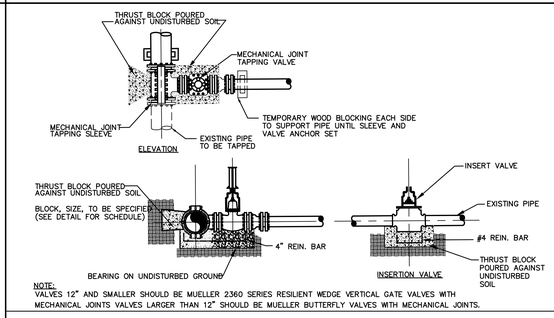
NOTES:
1. BACKFILL IN 12" LIFTS TO 95% PROCTOR DENSITY.
2. ALL EXCAVATION, TRENCHING, SHEETING, AND BRACING SHALL CONFORM TO THE REQUIREMENTS OF THE "CONSTRUCTION SAFETY CODE OF THE BUREAU OF ENGINEERING AND SAFETY OF THE NEW JERSEY DEPARTMENT OF LABOR AND INDUSTRY".
3. SLOPE OF THE TRENCH SHALL NOT EXCEED O.S.H.A. REQUIREMENTS WHERE SUCH SLOPE WILL CAUSE TOP WIDTH OF TRENCH TO PROTRUDE BEYOND THE ACQUIRED EASEMENT (PERMANENT PLUS TEMPORARY) THE CONTRACTOR SHALL USE SHEETING.
4. EXCAVATIONS IN EXISTING PAVED ROADWAYS SHALL BE COORDINATED WITH THE MUNICIPAL ROAD DEPARTMENT, AND ALL EXCAVATION SHALL BE PAVED WITH TEMPORARY BITUMINOUS PAVEMENT FROM THE DATE OF ORIGINAL EXCAVATION UNTIL PERMANENT PAVEMENT IS INSTALLED.

WATERMAIN TRENCH



FIRE DEPARTMENT CONNECTION (FDC) DETAIL

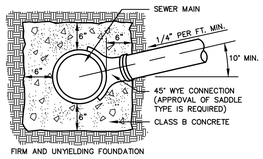
NOT TO SCALE



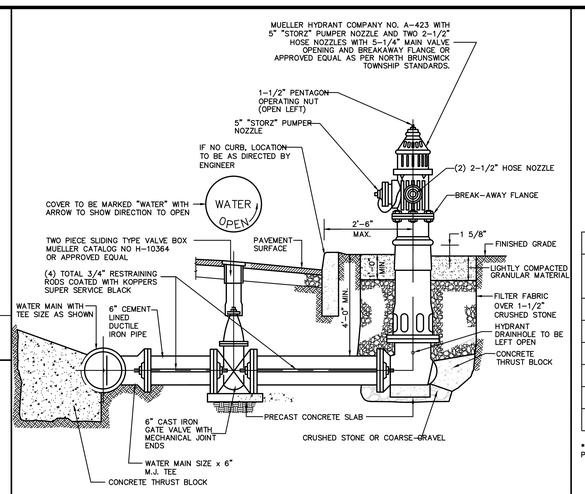
NOTE:
VALVES 12" AND SMALLER SHOULD BE MUELLER 2360 SERIES RESILIENT WEDGE VERTICAL GATE VALVES WITH MECHANICAL JOINTS VALVES LARGER THAN 12" SHOULD BE MUELLER BUTTERFLY VALVES WITH MECHANICAL JOINTS.

TAPPING VALVE AND SLEEVE ASSEMBLY

NOT TO SCALE



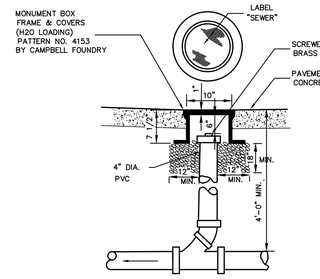
SADDLE CONNECTION



NOTES:
1. CAPS ON HYDRANT OFF OF A MAIN SMALLER THAN 6" DIAMTER SHALL BE RED
2. CAPS ON A HYDRANT OFF OF A MAIN 6" TO 8" SHALL BE YELLOW
3. CAPS ON A HYDRANT OFF OF A MAIN 10" OR LARGER SHALL BE GREEN
4. HYDRANT SHALL BE FIELD PAINTED WITH TNEMEC ENDURA SHIELD SERIES 73. OSHA SAFETY RED IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.

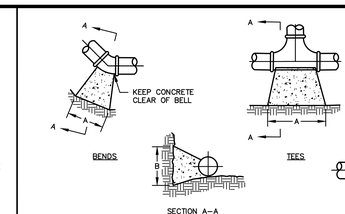
HYDRANT ASSEMBLY

NOT TO SCALE



MONUMENT BOX PROTECTION DETAIL (FOR CLEANOUT IN PAVEMENT AND CONCRETE)

N.T.S.



REQUIRED BEARING AREA ON UNDISTURBED SOIL AND TYPICAL DIMENSIONS

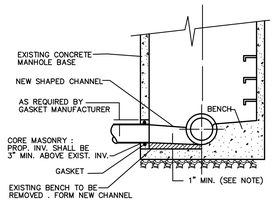
SIZE	CROSSES/90° BENDS			45° BENDS			11-1/4° BENDS			22-1/2° BENDS			TEES AND PLUGS		
	AREA SQ. FT.	"A"	"B"	AREA SQ. FT.	"A"	"B"	AREA SQ. FT.	"A"	"B"	AREA SQ. FT.	"A"	"B"	AREA SQ. FT.	"A"	"B"
6"	4.0	32"	18"	2.2	18"	16"	0.8	5"	18"	1.1	9"	18"	2.8	23"	18"
8"	7.0	42"	24"	3.8	23"	24"	1.0	6"	24"	2.0	12"	24"	5.0	30"	24"
10"	11.0	53"	30"	6.3	30"	30"	1.6	8"	30"	3.1	15"	30"	8.0	38"	30"
12"	16.1	64"	36"	10.0	40"	36"	2.2	9"	36"	4.4	18"	36"	11.3	45"	36"
14"	21.6	74"	42"	12.5	43"	42"	3.0	10"	42"	3.0	21"	42"	15.5	53"	42"
16"	28.3	85"	48"	17.7	53"	48"	4.0	12"	48"	7.7	23"	48"	20.1	60"	48"

* SURFACE AREA OF BEARING SOIL IS PROVIDED FOR 200 PSI MAXIMUM PRESSURE (INCLUDING SURGE) AND 200 PSF SOIL BEARING. IF PRESSURE IS HIGHER OR SOIL BEARING IS POTENTIALLY LOWER, CONSULT THE ENGINEER FOR ADJUSTMENTS.

NOTES:
1. COVER OVER TOP OF PIPE SHALL BE BELOW THE FROST LINE OR 30" MINIMUM, 72" MAXIMUM ACCORDING TO REGULATORY REQUIREMENTS. IF GRADING PLANS RECEIVED BY THE ENGINEER/OWNER WITH THE REQUEST FOR WATER MAIN LAYOUT INDICATE ADJUSTMENTS TO EXISTING GRADE, THEN PIPE SHALL BE INSTALLED TO MEET MINIMUM AND MAXIMUM COVER FROM PROPOSED GRADES SHOWN ON THE SAID PLANS.
2. THRUST BLOCKS SHALL BE BUILT AGAINST UNDISTURBED SOIL WITH ADEQUATE BACKING TO PREVENT MOVEMENT OF FITTING.
3. NO THRUST BLOCKS TO BE PLACED IN SEWER LATERAL DITCHES.
4. THRUST BLOCKING MUST FIT WITHIN THE EASEMENT.
5. IN SOME CASES, ADDITIONAL RESTRAINT MAY BE REQUIRED BASED ON 150 PSI STATIC PRESSURE, PLUS 50 PSI WATER HAMMER AND 2000 PSF SOIL BEARING.
6. POLYETHYLENE ENCASEMENT IS REQUIRED ON ALL D.I. PIPE AND FITTINGS.
7. THRUST BLOCKING SHALL BE PERFORMED SUCH THAT PIPE JOINTS AND BOLTS ARE ACCESSIBLE.
8. SUFFICIENT CLEARANCE SHALL BE ALLOWED BETWEEN CONCRETE AND BLOTS FOR FUTURE MAINTENANCE.
9. ALL ANCHOR BOLTS SHALL BE STAINLESS STEEL, MINIMUM 3/4" DIAMETER.
10. ALL M.J. AND FLG. FITTINGS TO RECEIVE THRUST BLOCKS SHALL BE WRAPPED IN POLYWRAP. CONTRACTOR SHALL ENSURE THAT POLYWRAP EXTENDS FAR ENOUGH BEYOND THE FITTING TO ENCLOSE ALL BOLTS WITHIN THE POLYWRAP.
11. THRUST BLOCKING DETAILS ARE SHOWN HERE FOR TYPICAL INSTALLATIONS, IN SOME CASES, ADDITIONAL RESTRAINT MAY BE REQUIRED.
12. PORTLAND CEMENT CONCRETE USED FOR THRUST BLOCKS SHALL BE CLASS 'B' CONCRETE.
13. FOR UNSTABLE SOIL CONDITIONS, CHECK WITH ENGINEER FOR THRUST BLOCK DIMENSIONS.
14. FOR MAIN SIZES GREATER THAN 16", SEE ENGINEER FOR THRUST BLOCK DIMENSIONS.
15. FOR 4" MAIN, USE THRUST BLOCK REQUIREMENTS FOR 6" MAIN.

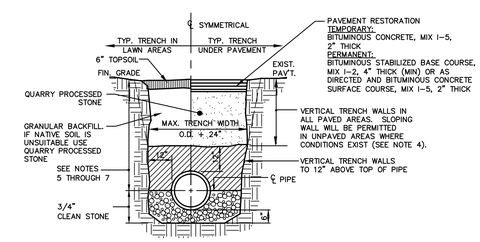
THRUST BLOCK DETAIL

NOTES
1. CLEAN AND ROUGHEN ALL SURFACES AGAINST WHICH NEW MORTAR IS TO BE PLACED.
2. EXISTING CONCRETE SHALL BE REMOVED TO A LINE 1" BEYOND THE NEW CHANNEL LINE AND FINISHED OFF WITH NEW CEMENT MORTAR.
3. USE LINK-SEAL GASKET AS MANUFACTURED BY THUNDERLINE CORP. BELLEVILLE MICHIGAN (800-288-0404), OR APPROVED EQUAL.
4. IF THE PROPOSED PIPE COINCIDES WITH THE EXISTING MANHOLE RUNGS:
   a. THE EXISTING MANHOLE OPENING AND CONE SECTION SHALL BE REALIGNED WITH THE PROPOSED ACCESS LADDER. THE EXISTING MANHOLE RUNGS WITHIN THE CONE SECTION MAY REMAIN AND ALL OTHERS SHALL BE REMOVED.
   b. A NEW STAINLESS STEEL ACCESS LADDER SHALL BE INSTALLED. SHOP DRAWINGS SHALL BE SUBMITTED FOR REVIEW.
5. SUBMIT SHOP DRAWINGS FOR APPROVAL.



NEW CONNECTION TO EXISTING M.H.

NOT TO SCALE



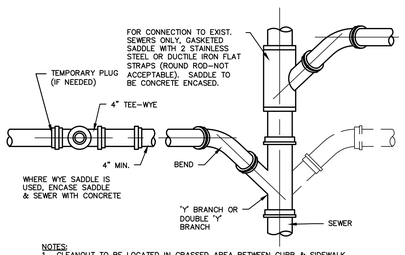
PAVEMENT RESTORATION
TEMPORARY:
BITUMINOUS CONCRETE, MIX I-5, 2" THICK
PERMANENT:
BITUMINOUS STABILIZED BASE COURSE, MIX I-2, 4" THICK (MIN) OR AS DIRECTED AND BITUMINOUS CONCRETE SURFACE COURSE, MIX I-5, 2" THICK

VERTICAL TRENCH WALLS IN ALL PAVED AREAS. SLOPING WALL WILL BE PERMITTED IN UNPAVED AREAS WHERE CONDITIONS EXIST (SEE NOTE 4).

VERTICAL TRENCH WALLS TO 12" ABOVE TOP OF PIPE

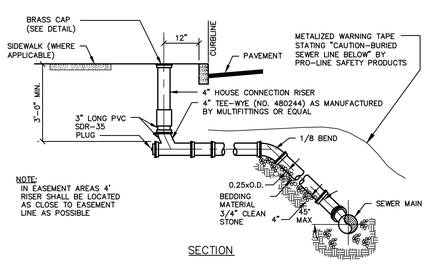
TRENCH NOTES:
1. IF CONTRACTOR INCREASES TRENCH WIDTH, HE IS TO RECOMPUTE AND SUBMIT FOR APPROVAL BY THE ENGINEER ALL PIPE CLASSES. ANY ADDITIONAL COST NECESSITATED BY THE INCREASE IN TRENCH WIDTH IS TO BE BORNE BY THE CONTRACTOR.
2. IN PAVED AREAS, WIDTH OF PAVEMENT TO BE REMOVED SHALL BE 12" BEYOND EDGE OF TRENCH.
3. ALL EXCAVATION, TRENCHING, SHEETING AND BRACING SHALL CONFORM TO THE REQUIREMENTS OF THE "CONSTRUCTION SAFETY CODE OF THE BUREAU OF ENGINEERING AND SAFETY OF THE NEW JERSEY DEPARTMENT OF LABOR AND INDUSTRY".
4. SLOPE OF THE TRENCH SHALL NOT EXCEED O.S.H.A. REQUIREMENTS. WHERE SUCH SLOPE WILL CAUSE TOP WIDTH OF TRENCH TO PROTRUDE BEYOND THE ACQUIRED EASEMENT (PERMANENT AND TEMPORARY), THE CONTRACTOR SHALL USE SHEETING.
5. ALL TRENCHES OR DITCHES WHICH CROSS AN EXISTING STREET AND WHICH ARE DUG FOR SEWERS, WATER MAINS, GAS MAINS OR OTHER UTILITIES, INCLUDING THE HOUSE CONNECTIONS FOR THOSE UTILITIES, SHALL BE FILLED WITH QUARRY PROCESS STONE. THE STONE SHALL BE PLACED IN LAYERS NOT EXCEEDING TWELVE (12) INCHES IN DEPTH AND SHALL BE SPRINKLED WITH WATER AND MECHANICALLY COMPACTED. ALL SOFT SPOTS AND DEPRESSIONS IN A SURFACE WHICH HAS BEEN GRADED WILL BE REMOVED AND FILLED WITH STONE OF A SIZE TO BE DETERMINED BY THE TOWNSHIP ENGINEER. ALL TRENCHES WHICH ARE DUG IN A FUTURE STREET OR EXISTING R.O.W., ON WHICH NO SUBBASE OR PAVEMENT HAS BEEN CONSTRUCTED SHALL BE BACK FILLED AS INDICATED ABOVE OR MAY BE BACK FILLED WITH SUITABLE ON-SITE EXCAVATED MATERIALS OR IMPORTED FILL.
6. PRIOR TO USING ANY ON-SITE AND/OR IMPORTED SOIL MATERIALS THE CONTRACTOR OR ANY INDIVIDUAL OR FIRM SHALL EMPLOY A RECOGNIZED SOILS LABORATORY TO SECURE SOIL SAMPLES; PERFORM THE NECESSARY LABORATORY ANALYSIS AND ESTABLISH THE COMPACTION AND OTHER CRITERIA NECESSARY FOR THE PROPER PLACEMENT OF THE BACKFILL. A REPORT OF THE LABORATORY FINDINGS, INCLUDING THE COMPACTION SPECIFICATIONS, SHALL BE SUBMITTED TO THE TOWNSHIP ENGINEER FOR REVIEW AND APPROVAL PRIOR TO COMMENCING ANY BACK FILL OPERATIONS USING ON-SITE SOIL AND/OR IMPORTED SOIL MATERIALS.
7. INSTALL CLASS 52 D.I.P. WHEN DEPTH OF INSTALLATION EXCEEDS 20 FEET.
8. BACKFILL IN 12" LIFTS TO 95% PROCTOR DENSITY

SANITARY TRENCH DETAIL



NOTES:
1. CLEANOUT TO BE LOCATED IN GRASSED AREA BETWEEN CURB & SIDEWALK.
2. CLEANOUTS WILL NOT BE PERMITTED IN DRIVEWAYS OR SIDEWALKS.
3. LATERAL TO BE SAME SIZE FOR ENTIRE LENGTH FROM BUILDING TO SEWER, 4" OR 6".
4. ALL PIPES AND FITTINGS SHALL BE PVC SDR-35 UNLESS OTHERWISE NOTED.

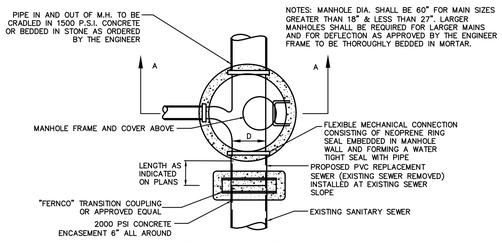
PLAN



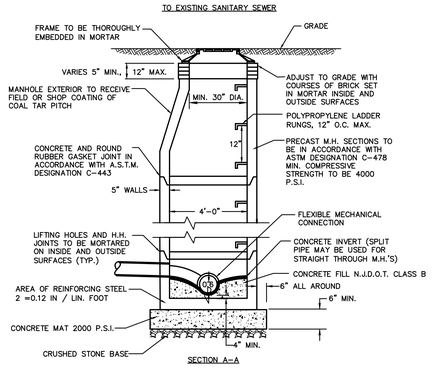
NOTE:
IN EASEMENT AREAS 4' RISER SHALL BE LOCATED AS CLOSE TO EASEMENT LINE AS POSSIBLE

SECTION

SANITARY LATERAL CONNECTION



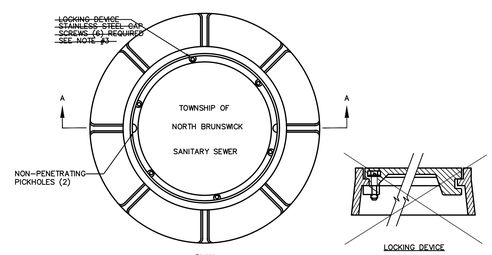
SECTIONAL PLAN AND CONNECTION TO EXISTING SANITARY SEWER



SECTION A-A

TYPICAL PRECAST CONCRETE SANITARY SEWER MANHOLE

N.T.S.



SECTION A-A

NOTES:
1. STANDARD MANHOLE FRAME AND COVER SHALL BE PATTERN NO. 1203A AS MANUFACTURED BY THE CAMPBELL FOUNDARY CO., OR APPROVED EQUAL.
   A. WEIGHT OF COVER = 186 LBS.
   B. WEIGHT OF FRAME = 312 LBS.
2. MANHOLE FRAME AND COVER TO BE HEAVY DUTY, CONFORMING TO A.S.T.M. SPECIFICATION A-48 CLASS 30-B WITH SHOP COAT OF ASPHALTIC PITCH.
3. ~~IN EASEMENTS AND REMOTE AREAS COVER LOCKING DEVICES OF BRONZE AND KEY SHALL BE PROVIDED.~~
4. WATERTIGHT MANHOLE FRAME AND COVER SHALL BE PATTERN NO 1503 AS MANUFACTURED BY THE CAMPBELL FOUNDARY CO. OR APPROVED EQUAL AND SHALL REQUIRE 6 STAINLESS STEEL CAP SCREWS IN LID AND FLAT RUBBER GASKET UNDER THE LID.

STANDARD OR WATERTIGHT SANITARY MANHOLE FRAME + COVER

N.T.S.

revisions

no.	date	description

key map



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project
AMENDED PRELIMINARY/FINAL SITE PLAN & MAJOR SUBDIVISION
PHASE 1H
MAIN STREET NORTH BRUNSWICK

BLOCK 141
LOTS 44.04, 50.04, 51.01 & PORTION OF LOT 141.04
NORTH BRUNSWICK TOWNSHIP
MIDDLESEX COUNTY , NEW JERSEY

drawing title
CONSTRUCTION DETAILS

job number 24-052	drawing number 19
scale AS SHOWN	
checked by FMA/AEC	
drawn by A.A.	
date 06/12/25	sheet 19 of 21

J:\DRAWINGS\ PROJECTS\2024\24-052 MSTRS - PHL 4\CAD\DETAILS\DETAILS (REV) (REV - 06.16.25).DWG

PLANTING NOTES

1. ALL PLANT MATERIAL TO BE FIRST QUALITY, NURSERY GROWN STOCK, FREE FROM DISEASE OR OBJECTIONABLE DISFIGUREMENTS. QUALITY AND SIZE OF PLANTS, INCLUDING ROOT SIZE SHALL BE IN ACCORDANCE WITH "AMERICAN STANDARDS FOR NURSERY STOCK" ANSI Z60.1 (MOST RECENT ADDITION) AS PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN.
2. CONTRACTOR TO VERIFY ALL PLANT DISCREPANCIES INCLUDING PLANT QUANTITIES BETWEEN PLANT LIST AND PLAN. CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING QUANTITY WHICH IS GREATER.
3. NO SUBSTITUTES SHALL BE PERMITTED WITHOUT WRITTEN APPROVAL OF THE TOWNSHIP LANDSCAPE ARCHITECT AND ENGINEER.
4. ALL PROPOSED PLANT MATERIAL SHALL BE BALLED AND BURLAPPED UNLESS NOTED OTHERWISE ON PLANTING SCHEDULE.
5. ALL INSTALLED PLANT MATERIALS SHALL BEAR THE SAME RELATION TO GRADE WHEN INSTALLED ON SITE AS EXISTED IN NURSERY PRIOR TO DIGGING.
6. HOLES FOR PLANT MATERIALS (B&B) SHALL BE DUG A MINIMUM OF TWICE THE BALL DIAMETER. ALL PLANTS SHALL BE LOCATED IN THE CENTER OF THEIR RESPECTIVE PITS.
7. B&B PLANTS SHALL BE HANDLED FROM THE BOTTOM OF THE ROOT BALL ONLY. PLANTS WITH BROKEN, SLIT OR DAMAGED ROOT BALLS SHALL BE REJECTED.
8. PLANTS SHALL NOT BE BOUND AT ANY TIME WITH WIRE OR ROPE AS TO DAMAGE THE BARK AND BRANCHES.
9. PLANT MATERIAL SHALL BE PLANTED ON THE DAY OF DELIVERY. IN THE EVENT THIS IS NOT POSSIBLE THE CONTRACTOR WILL PROTECT THE STOCK THAT IS NOT PLANTED AND KEEP WELL WATERED. PLANTS SHALL NOT REMAIN UNPLANTED FOR MORE THAN A THREE DAY PERIOD AFTER BEING DELIVERED.
10. ALL STAKING AND GUYING WIRES SHALL BE FLAGGED WITH A BRIGHT REFLECTIVE MATERIAL TO WARN PEDESTRIANS
11. TOPSOIL AND SEED ALL AREAS DISTURBED BY CONSTRUCTION AND ALL LOCATIONS SHOWN AS LAWN AREAS ON PLAN.
12. ALL PLANTS SHALL BE PLANTED IN AN APPROVED BACKFILL MIXTURE THAT IS THOROUGHLY WATERED AND TAMPED AS BACKFILLING PROGRESSES. ONLY SUITABLE TOPSOIL, FREE OF DRY SOD, STIFF CLAY, LITTER ETC., SHALL BE USED FOR PLANTING
13. ALL SHRUB BEDS AND TREE SAUCERS TO BE MULCHED AS DETAILED.
14. THE CONTRACTOR SHALL REPORT ANY SOIL OR DRAINAGE CONDITIONS CONSIDERED DETRIMENTAL TO THE GROWTH OF ANY OF THE PROPOSED PLANTING MATERIAL.
15. PROVIDE SNOW/TREE PROTECTION FENCING AS REQUIRED AROUND EXISTING TREES TO BE SAVED.
16. CONTRACTOR SHALL GUARANTEE ALL PLANT MATERIAL (NOT INCLUDING LAWNS) FOR A PERIOD OF ONE (1) YEAR FROM DATE OF ACCEPTANCE.
17. AFTER THE PLANTING CONTRACTOR HAS COMPLETED THE TERMS OF HIS CONTRACT, THE OWNER SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL PROPOSED PLANTINGS BY PROVIDING THE CORRECT METHODS OF WEEDING, SPRAYING, WATERING, PRUNING AND FERTILIZING ACCORDING TO GOOD HORTICULTURAL PRACTICE.
18. ALL TREES TO BE BRANCHED 7' HIGH.

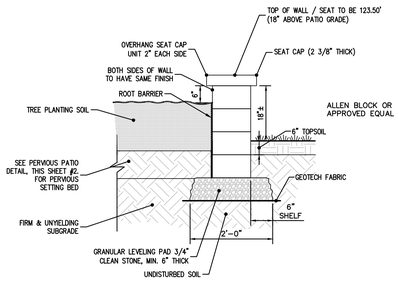
ADDITIONAL PLANTING NOTES

1. AFTER CONSTRUCTION, IT MAY BE ADVISABLE TO SEED OR PLANT CERTAIN AREAS WITH NON-WOODY HERBACEOUS PLANT MATERIALS (I.E. WILDFLOWERS, FERNS, TALL GRASSES, ETC.). THIS APPROACH MAY BE USEFUL ON STEEP SLOPES, EDGES FOR EXISTING WOODED AREAS, WHERE THE UNDERSTORY HAS BEEN DISTURBED AND IN AREAS WHERE MOWING IS NOT PRACTICAL OR NECESSARY. SELECTION OF APPROPRIATE PLANTS SHALL BE DETERMINED AFTER COMPLETION OF GRADING AND CONSTRUCTION. POST CONSTRUCTION CONDITIONS WILL DICTATE WHICH HERBACEOUS PLANTS ARE MOST SUITABLE.
2. PRUNING NOTES:
   - -IT IS RECOMMENDED THAT AN ANNUAL PRUNING PROGRAM BE BUDGETED AND SCHEDULED ON A CONTINUOUS BASIS.
   - -ALL TREES AND SHRUBS PLANTED NEAR SIGHT TRIANGLES, DRIVEWAYS, PARKING AREAS AND SIDEWALKS SHALL BE MAINTAINED AS FOLLOWS: ALL BRANCHES EXTENDING INTO LINE OF SIGHT OR INTERFERING WITH VEHICULAR OR PEDESTRIAN ACCESS SHALL BE REMOVED TO AN ACCEPTABLE HEIGHT.
   - -REMOVAL OF DEAD LIMBS AND BRANCHES AND PRUNING FOR THE GENERAL HEALTH AND APPEARANCE OF ALL PLANT MATERIAL IS RECOMMENDED.
   - -SOUND PRUNING PRACTICES SHALL BE OBSERVED IN MAINTENANCE OF ALL PLANT MATERIALS.
3. EXISTING TREES AND SHRUBS IN AREAS TO BE CLEARED FOR CONSTRUCTION MAY ALSO BE SUBSTITUTED FOR PROPOSED PLANT MATERIAL, PROVIDED THEY HAVE EQUIVALENT SIZE AND CHARACTER. IT IS RECOMMENDED THAT AN EXPERIENCED CONTRACTOR USE A TREE DIGGING MACHINE TO REMOVE AND TRANSPLANT SUCH PLANT MATERIAL.

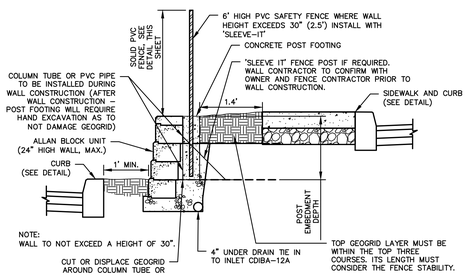
- IF TRANSPLANTED TREES ARE NOT ABLE TO BE TRANSPLANTED, REPLACEMENT TREES OF LIKE KIND WILL BE PROVIDED.
- CONTRACTOR TO MARK NORTH SIDE OF TREE PRIOR TO DIGGING AND TRANSPLANT WITH SAME ORIENTATION.
- CONTRACTOR TO ENSURE THAT THE ROOT MASS OF ALL TRANSPLANTS ARE IN TACT.
- THE ROOT BALL OF ALL TREES SHALL BE BALLED AND BURLAPPED UPON REMOVAL FROM PRESENT LOCATION.
- CONTRACTOR TO STOCKPILE AND PROTECT ALL TRANSPLANT MATERIAL UNTIL IT IS TIME TO REPLANT.
- PLANTS SHALL BE MAINTAINED BY WATERING, FERTILIZING, PRUNNING AND ANY OTHER METHODS TO KEEP PLANTS IN HEALTHY CONDITION.
- ALL TRANSPLANTS ARE GUARANTEED FOR A PERIOD OF ONE (1) YEAR FROM FINAL COMPLETION. ANY PLANTS THAT DIE DURING THAT PERIOD WILL BE REPLACED TO THE CORRECT SIZE AND SPECIES AT THE CONTRACTOR'S EXPENSE.

LANDSCAPE MAINTENANCE NOTES:

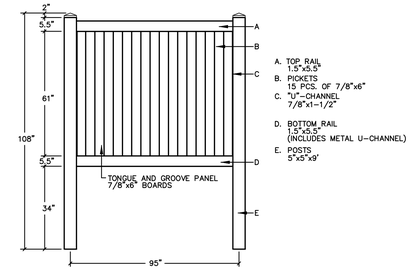
1. LAWN AREAS: ALL LAWNS SHALL BE MAINTAINED AT A MOWN HEIGHT OF 2.5-3 INCHES. THE CUT SHALL NOT REMOVE MORE THAN 1/3 OF THE BLADE HEIGHT THEREFORE LAWN SHALL BE MOWED WHEN IT ACHIEVES A HEIGHT OF 3.5-4 INCHES.
   - A. MOWING; USING CLEAN WELL SERVICED EQUIPMENT, MOW, TRIM, AND EDGE ALL FINE LAWN AREAS AS NEEDED; REMOVE ALL EXCESS CLIPPINGS.
   - B. EDGING: TURF ALONG ALL PLAYING SURFACES (OTHER THAN TURF), FENCE LINES, AND ANY OTHER PERMANENT OBJECTS IS TO BE CUT WITH A MECHANICAL EDGER TO PRODUCE A WELL DEFINED EDGE. ALL DEBRIS FROM THIS OPERATION IS TO BE REMOVED.
   - C. AERATION: AERATE LAWNS ON A YEARLY BASIS OR AS NEEDED TO PREVENT COMPACTION. ACCEPTABLE METHODS INCLUDE SPOON OR CORE PROCESSES. KNIFE TYPE METHODS ARE NOT RECOMMENDED.
   - D. LEAVES AND OTHER DEBRIS SHALL BE REMOVED FROM ALL LAWNS AS NECESSARY IN THE AUTUMN AND SPRING.
   - E. IRRIGATION: ALL TURF SHOULD MAINTAIN A MOIST SOIL DEPTH TO AT LEAST FOUR INCHES THROUGH AUTOMATIC SYSTEMS IF POSSIBLE. PRECAUTIONS SHOULD BE TAKEN TO AVOID WILTING AND DRYING OF THE TURF.
2. FERTILIZATION: ALL FERTILIZER SHOULD BE INSPECTED BEFORE APPLICATION FOR REVIEW ON CONTENT AND APPLICATION.
   - A. ALL LAWNS SHOULD BE FERTILIZED WITH THREE APPLICATIONS A YEAR, EARLY SPRING, LATE SPRING, AND EARLY FALL. GREAT CARE SHOULD BE TAKEN IN REGARDS TO HEAT AND MOISTURE TO AVOID BURNING OR DAMAGING TURF. ALL APPLICATIONS SHOULD BE MADE WITH TWO PASSES IN DIFFERING DIRECTIONS TO AVOID STREAKING. FERTILIZER SHOULD BE A 13-13-13 WITH A 50% SLOW RELEASE. APPLICATION RATE OF ONE POUND NITROGEN PER THOUSAND SQUARE FEET.
   - B. BROADLEAF WEED CONTROL: APPLICATION OF BROADLEAF WEED CONTROL SUCH AS TRIMEC OR SIMILAR PRODUCT TO ALL MAINTAINED TURF. APPLICATIONS TO BE MADE IN MID SPRING AND EARLY FALL. GREAT CARE SHOULD BE TAKEN IN REGARDS TO HEAT AND MOISTURE AT TIME OF APPLICATION TO AVOID TURF.
   - C. CRABGRASS CONTROL: APPLY PRE-EMERGENT CRABGRASS CONTROL SUCH AS TEAM, BALAN, OR OTHER LIKE MATERIAL WITH TWO APPLICATIONS IN THE SPRING.
   - D. LIMING: MAINTAIN A PH OF 6.5 ON ALL PLAYING TURF WITH APPLICATIONS OF PULVERIZED LIME AT RATES AND FREQUENCIES AS NEEDED.
   - E. INSECT CONTROL: APPLY DURSBAN, OR EQUAL, IN MID-JUNE FOR CHINCH BUG AND SOD WEBWORM CONTROL. APPLY OFTANOL, OR EQUAL, IN LATE AUGUST OR EARLY SEPTEMBER FOR GRUB CONTROL. APPLY FUNGICIDES AND INSECTICIDES AS NECESSARY TO MAINTAIN TURF CONDITIONING.
3. TREE, SHRUB AND GROUNDCOVER BED AREAS: BED AREAS ARE THOSE AREAS SPECIFICALLY PREPARED FOR TREE, SHRUB AND NON-TURF GROUNDCOVER GROWTH. BED AREAS ARE EITHER COVERED BY MULCH OR OTHER LIKE DECORATIVE MATERIAL. THESE AREAS TO BE MAINTAINED IN A WEED FREE AND WELL KEPT CONDITION.
   - A. BED WEED CONTROL: APPLY PRE-EMERGENT WEED CONTROL SUCH AS RONSTAR G. SURFLAN, OR SIMILAR PRODUCT. TWO (2) APPLICATIONS PER YEAR.
   - B. EDGE ALL BEDS, TREE RINGS, REMOVE ALL WEEDS, CLEAR EXISTING PLANTS OF DEBRIS AND DEAD MATERIAL.
   - C. PLANTING BED MULCH SHALL BE REPLENISHED AS NECESSARY TO MAINTAIN A 1 TO 3 INCH DEPTH OF MULCH UNLESS THE GROUNDCOVER OR PLANTING HAS COMPLETELY COVERED THE BED, PRECLUDING THE NEED FOR MULCH.
   - D. ALL PLANTS AND LAWN AREAS SHALL BE IRRIGATED OR WATERED AS NECESSARY TO MAINTAIN VIGOROUS AND HEALTHY GROWTH.
   - E. HERBICIDES AND PESTICIDES SHALL BE APPLIED ONLY AS NECESSARY TO TREAT SPECIFIC PROBLEMS AS THEY ARE OBSERVED. ALL TREATMENTS SHALL BE PERFORMED BY TRAINED AND LICENSED PERSONNEL IN ACCORDANCE WITH ALL REGULATIONS.
   - F. PERENNIAL VEGETATION SHALL BE REMOVED AS APPROPRIATE IN THE FALL AND ORNAMENTAL GRASSES SHALL BE CUT IN THE SPRING TO PROMOTE PROPER GROWTH AND A NEAT AND CLEAN APPEARANCE, BUT NOT TO DIMINISH THEIR WINTER INTEREST.
   - G. PLANTINGS WHICH ARE NOT GROWING IN A VIGOROUS MANNER AND ANY DEAD PLANTS SHALL BE REPLACED AS NECESSARY TO ACHIEVE THE INTENDED DESIGN DURING THE NEXT SPRING OR FALL PLANTING SEASON.
4. GENERAL SITE CLEAN UP: TO BE PERFORMED ON A TWICE YEARLY BASIS, EARLY SPRING AND LATE FALL. WORK LIMITED TO NATURAL PRODUCTION OF DEBRIS AND DOES NOT COVER DUMPING OR MUNICIPAL WASTE.
   - A. SPRING CLEAN UP: GENERAL CLEAN UP OF ENTIRE GROUNDS. EDGE ALL BEDS, REMOVE ALL WEEDS AND REMOVE WINTER KILL.
   - B. FALL CLEAN UP: WHEN VIRTUALLY ALL LEAVES HAVE FALLEN ALL LAWNS, BEDS, STREETS AND PARKING AREAS WILL BE CLEARED OF LEAVES, BROKEN BRANCHES, LITTER AND OTHER ASSORTED DEBRIS.
5. TRIMMING AND PRUNING: TRIMMING WILL REFER TO ALL ORNAMENTAL TREES, SHRUBS AND GROUNDCOVER. TRIMMING SHALL CONSIST OF REMOVAL OF EXCESSIVE SEASONAL GROWTH TO ALL HEDGE ROWS OR SHEARED MATERIAL PLANTED ON-SITE. PRUNING SHALL CONSIST OF REMOVAL OF WINTER KILL, REMOVAL OF DEAD BRANCHES, REMOVAL OF EXCESSIVE SUCKERING GROWTH FROM BASE OF TREES, AND DISEASED OR DAMAGED WOOD.
   - A. IT IS RECOMMENDED THAT EXISTING TREES REMAINING ON SITE AFTER CONSTRUCTION BE PRUNED, ESPECIALLY IN CASES WHERE ROOT SYSTEMS HAVE BEEN DISTURBED (I.E. CUT OR COMPACTED BY HEAVY EQUIPMENT).
   - B. ALL PLANTS SHALL BE PERIODICALLY PRUNED FREE OF DEAD, DAMAGED OR DISEASED BRANCHES TO MAINTAIN VIGOR OF THE PLANT AND MAINTAIN A SAFE CONDITION. PRUNING SHALL MAINTAIN THE NATURAL FORM OR HABIT OF THE PLANT . FLOWERING SHRUBS AND TREES SHOULD BE PRUNED AFTER FLOWERING TO LIMIT IMPACT UPON FOLLOWING SEASON FLOWER BUDS UNLESS SAFETY CONCERNS WARRANT IMMEDIATE PRUNING. HEDGES SHALL BE SHEARED TO A TRAPEZOIDAL FORM TO PREVENT SHADING OF LOWER BRANCHES.
   - C. IT IS RECOMMENDED THAT AN ANNUAL PRUNING PROGRAM BE BUDGETED AND SCHEDULED ON A CONTINUOUS BASIS.
   - D. ALL TREES AND SHRUBS PLANTED NEAR SIGHT TRIANGLES, DRIVEWAYS, PARKING AREAS AND SIDEWALKS SHALL BE MAINTAINED AS FOLLOWS: ALL BRANCHES EXTENDING INTO LINE OF SIGHT OR INTERFERING WITH VEHICULAR OR PEDESTRIAN ACCESS SHALL BE REMOVED TO AN ACCEPTABLE HEIGHT
   - E. REMOVAL OF DEAD LIMBS AND BRANCHES ALONG WITH EXCESSIVE SUCKERING GROWTH FROM BASE OF PLANTS AND PRUNING FOR THE GENERAL HEALTH AND APPEARANCE OF ALL PLANT MATERIAL IS RECOMMENDED.
   - F. SOUND PRUNING PRACTICES SHALL BE OBSERVED IN MAINTENANCE OF ALL PLANT MATERIALS.
6. DEAD PLANT MATERIAL: FAILED PLANT MATERIAL UP TO TWELVE (12) FEET IN HEIGHT WILL BE REMOVED AT THE BASE AND PLACED AT ON-SITE STORAGE OR AS DIRECTED.
7. TREE AND SHRUB SPRAYING: SPRAYING OF ALL TREES AND SHRUBS, AS REQUIRED, TO CONTROL INSECT INFESTATION AND DISEASE.
8. TREE AND SHRUB FERTILIZATION: TREES AND SHRUBS WILL BE FERTILIZED IN SPRING AND FALL.
9. GENERAL:
   - A. AT ALL TIMES USE GOVERNMENTAL APPROVED CHEMICALS AND WILL PROVIDE THE OWNER WITH MSDS SHEETS FOR ALL MATERIAL USED ON-SITE.
   - B. AT ALL TIMES USE LICENSED APPLICATORS AND HAVE ALL PERMITS AND INSURANCE IN ACCORDANCE WITH DEP GUIDELINES AND REQUIREMENTS



FREESTANDING SEATING WALL DETAIL

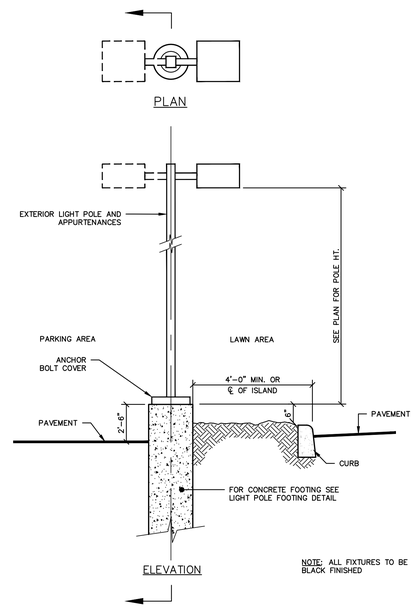


BLOCK WALL AND SAFETY FENCE DETAIL



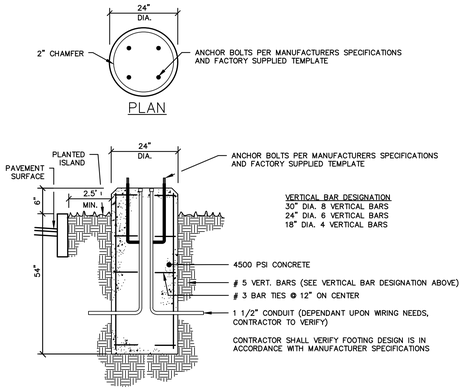
NOTE: METAL REINFORCEMENT CHANNEL INCLUDED IN BOTTOM RAIL

6' PVC SOLID FENCE DETAIL



NOTE: ALL FIXTURES TO BE BLACK FINISHED

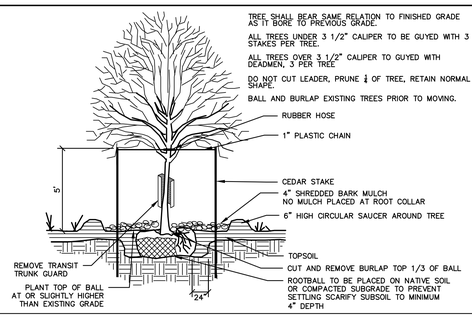
LIGHT POLE MOUNTING



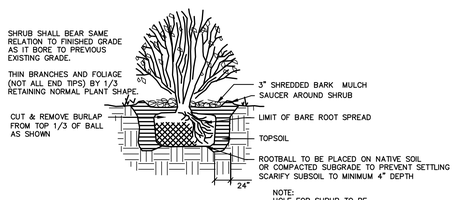
NOTE: PROVIDE GROUND ROD AS REQUIRED BY SUB-CODE OFFICAL

LIGHT POLE FOOTING

N.T.S.

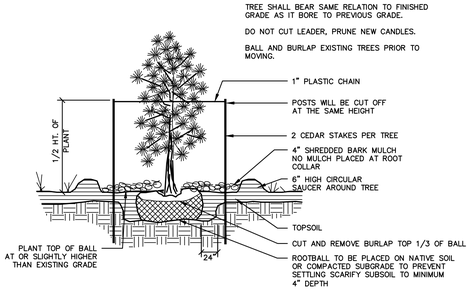


TREE PLANTING

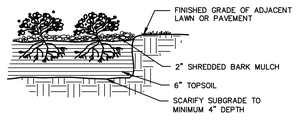


SHRUB PLANTING

N.T.S.

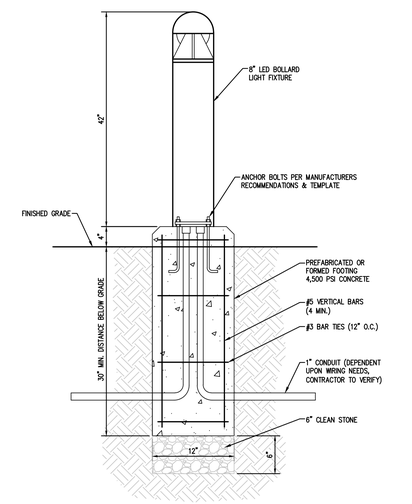


EVERGREEN TREE PLANTING



GROUNDCOVER PLANTING

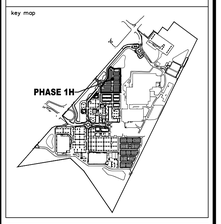
N.T.S.



LIGHT BOLLARD FOOTING DETAIL

revisions		
no.	date	description

key map



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PHASE 1H
MAIN STREET NORTH BRUNSWICK

BLOCK 141
LOTS 44.04, 50.04, 51.01 & PORTION OF LOT 141.04
NORTH BRUNSWICK TOWNSHIP
MIDDLESEX COUNTY , NEW JERSEY

drawing title
CONSTRUCTION DETAILS

job number	drawing number
24-052	20
scale: AS SHOWN	
checked by: FMA/AEC	
drawn by: A.A.	
date: 06/12/25	sheet 20 of 21

J:\PROJECTS\2024\24-052\WORD - PHL JOB SPECIFICATIONS\CAD DETAILS\ PRINT DWG - 06/16/2025

PEMCO Est. 1982 LIGHTING PRODUCTS A QSSI COMPANY

CAVALIER 460

ROUND BOLLARD LIGHTING



Lantern Top | Round Quad Full Cutoff | Open Flutes

Specifications and Features:

Radiant™ LED
- Conformal Coating LED light engine.
- CCT: Standard 3000K, 4000K, & 5000K
- 2700K, Amber, LPI (1800K) Offered for Some Wattages - Consult Factory
- Static Colors Available - Contact Factory

Distribution
- Types II, III, IV, V

Electrical
- Electronic: 120-277V, 50/60Hz or 347/480V, 50/60Hz
- 0-10v Dimmable Driver
- Standard Surge Protection Included (6kV Line-Line, 10k-V Line-Earth)

Controls (Optional)
- Button Eye Photo Control (PC)
- House Side Shield (H)

Housing
- Die-Cast Aluminum Base with Lantern Top or Open Flutes in Midsection

Finish
- Super Durable Polyester Powder Coat Finish. Custom Finishes Available, Including Pattinas and All RAL Colors.

Listings & Ratings
- ETL Listed to UL 1598 Standard for Wet Location and IP66.
- LED is IP66 Rated

Warranty
- 5 Year Limited Warranty

Order Information Examples: **CAV460LTWA20R3KUSPCBK**

CAV460

Model	Style	Globe/Lens	Wattages	CCT	Voltage	Optics	Options	Finish
CAV460=Cavalier 460 Round Bollard	**LT**=Non-Illuminated **LP**=Lantern Top **OF**=Open Flutes Full Cutoff **QF**=Open Flutes* *Must choose OT (Dome Top) Under Options	**WA**=Vilted Cast Acrylic* **PA**=Frosted Acrylic *Type V Only	**18**=15w **15**=15w **20**=20w **30**=30w	**3K**=3000K **4K**=4000K **5K**=5000K	**W**=120-277V	**T**=Type V **P**=Button Eye Photo Control **H**=House Side Shield **U18**=Dual LED Port* **GPEC**=DFI In Use Cover, Dual Aluminum* **GPEC-S**=DFI In Use Cover, Single* **CB**=Casted Mounted on Bollard* **BT**=Ball Top **FT**=Finial Top **AF**=Avalon Finial *Indicates Location Available in Non-Illuminated (N) Version Only	**STANDARD FINISHES** **BK**=Black **BZ**=Bronze **DBZ**=Dark Bronze **WH**=White **GY**=Grey **MB**=Silver Metallic **SP**=Light Gray **TB**=Textured Black **UC**=Custom Color (Consult Factory)

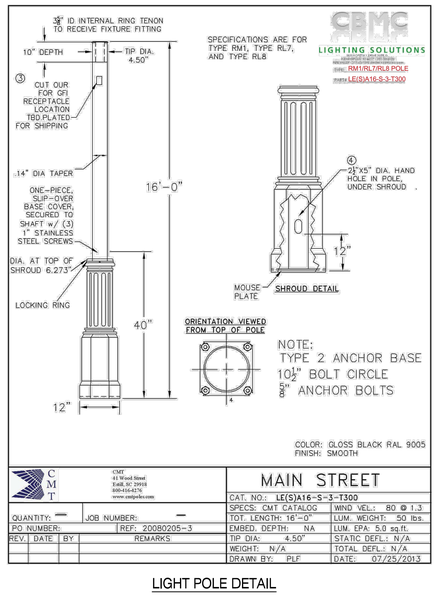
PEMCO Lighting Products Visit us at www.pemcolighting.com • Phone: 302.892.9000 CAV460

Specifications subject to change without notice. Rev. 07/24

2 BOLLARD LIGHT FIXTURE

NTS

BOLLARD LIGHT DETAIL (ROUND QUAD FULL CUTOFF)



CBMC LIGHTING SOLUTIONS
manufactured & supplied by:
CBMC LIGHTING SOLUTIONS
1000 Industrial Park Drive
Brookfield, WI 53045
order: RM1/RL7/RL8 POLE
matrix LE(S)A16-S-3-T300

CMT
CMT
41 W Wood Street
Estill, SC 29918
800-616-6276
www.cmtgranite.com

QUANTITY:	—	JOB NUMBER:	—
PO NUMBER:		REF: 20080205-3	
REV.	DATE	BY	REMARKS

MAIN STREET

CAT. NO.: LE(S)A16-S-3-T300	
SPECS: CMT CATALOG	WIND VEL.: 80 @ 1.3
TOT. LENGTH: 16'-0"	LUM. WEIGHT: 50 lbs.
EMBED. DEPTH: NA	LUM. EPA: 5.0 sq.ft.
TIP DIA: 4.50"	STATIC DEFL.: N/A
WEIGHT: N/A	TOTAL DEFL.: N/A
DRAWN BY: PLF	DATE: 07/25/2013

LIGHT POLE DETAIL

NERI

Product Heritage
Connection to head post
Source LED

Light 500
Range Performance
Cod. **PN500L** XX YYY ZZ

Technical sheet
Rev. A - 03/2014
Measures in mm

DESCRIPTION

Compliance
- In compliance with EN 60598-1; EN 60598-2-3; EN 62031; EN 55015 EMC; EN 61547 EMC; EN 62471

Dimensions - Area - Weight

Height	Width	Lenght	Diametre	Area exposed to wind (S)	Weight
700 mm			470 mm	0.218 m²	13.5 Kg.

Electrical characteristics

Voltage	Frequency	P. Rating (P)	CL I ⧈	CL I ⊖	Cos φ	Operative Temp.
120-277V	50-60 Hz	40	●	○	> 0.9	-30°C ~ +40°C

Connection
- Flange with a hole diam. 28 mm, on bottom frame. Suitable for head post.

Materials
- Die-cast and sheet aluminum (UNI EN 1706).
- Acrylic frosted transparent screen.
- Stainless steel fasteners.

Structure - Main components
- Upper fitting frame with circular shaped plant with a decorative pineapple, hinged to the lower frame.
- Bottom frame composed by a ring, three curved uprights decorated, fixed to an element of base with a hole (28 mm) for fixing to support. Electric cable inside at a curved upright.
- Screen in a single piece made in acrylic (PMMA) frosted transparent. Shock resistance: IK08 (EN 62262).

Electrical auxiliaries
- Programmable electronic power supply for LED module.
- Automatic disconnector switch when opening.
- Terminals for wires with a max. section of 2,5 mm².

Operations and maintenance
- To opening the light fixture and access to wiring and optic compartment unscrew two screws on the upper frame and rotate it.
- Automatic disconnector switch when opening.
- Separate electronic driver from LED module, individually replaceable.
- During installation, follow the instructions for the correct orientation on the support.
- Periodic maintenance for the external cleaning of the structure and the screens from dust and smog (the operations must be performed with the line power off and with luminaire cold).

Painting
- Standard color is dark gray, type Neri.
- Information about paint steps used on this product in specific technical sheet.

Symbols
- ● standard characteristics
- ○ On request characteristics

Code construction
- To create the complete code of the configuration, insert sequential parts of the code on the configuration of the optics 000 , LED modules (YYY) and functions of the power supply (ZZ). Example: **PN500L02** YP4 03
- Classe I of insulation (in this case the product code is to be requested).

DRAWINGS AND TECHNICAL INFORMATIONS



Property of Neri S.p.A. - Any use and reproduction for personal purposes is prohibited. Company shall reserve the right at any time to modify the specification or features without notice.

NERI

Source LED
Optic 02 - 06
Road lighting - mixed areas

Cod. _N___L **XX YYY ZZ**
Light 500

Technical sheet
Rev. B - 09/2016

DESCRIPTION

Optics

Cod. XX	Type	Lighting class	Class IES
02	Refractive lens	CrP - road lighting and mixed areas	Cutoff
06	Refractive lens	CrP - rotosymmetrical for mixed areas	Cutoff

- Refractive lens in polycarbonate, UV resistant. Shock resistance: IK10.
- Protection rating optic compartment: IP66.
- Height of installation: from 3.5 to 5.5 meters.

LED Module

3000K Cod. YYY		lm	W	lm/W
YP2	○	2.500	27	80
YP4	●	3.500	39	77
YP6	●	4.500	53	73

4000K Cod. YYY		lm	W	lm/W
3P2	○	2.500	26	83
3P4	○	3.500	36	84
3P6	○	4.500	48	81

- The energetic values in the table are referred to the complete system.
- Power LEDs module on printed circuit board with metal core plate.
- NTC sensor on LED plate for control of dangerous temperatures.
- Estimated life 100.000 h (L80 - Ta 25°C).
- Colour Rendering Index: CRI > 70
- Minimum efficiency of individual LEDs: ≥ of 100 lm/W
- No photobiological risk at distance: > 1.6 meters (EN 62471).

Power supply - characteristics and functions

Cod. ZZ		Functions
02	●	1-10V + NCL (Analogic control + Neri costant lumen)
06	●	DALI + NCL (Digital control + Neri costant lumen)
14	●	160LM + NCL (autodimming: -30% x Km + Neri costant lumen)

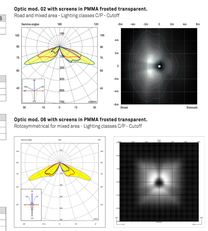
- Programmable electronic power supply with auto self diagnostics functions.
- Protected against short circuit, over-temperature and over-voltages up to 4 kV.
- Estimated life B10 ≥ 80.000 h.

Symbols
- ● standard characteristics
- ○ On request characteristics

Code construction
- To create the configuration code, insert sequential parts of the code of the optical configuration 000 + LED module (YYY) + power supply functions (ZZ), to be added to the base code of the light fixture.

PHOTOMETRIC CURVES

Optic mod. 02 with screens in PMMA frosted transparent.
Road and mixed area - Lighting classes CrP - Cutoff



Optic mod. 06 with screens in PMMA frosted transparent.
Rotosymmetrical for mixed area - Lighting classes CrP - Cutoff

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SITE LIGHT 'S3' AND 'S5' DETAIL

PROGRESS LIGHTING

Project:
Fixture Type:
Location:
Contact:

Small Wall Lantern

Wall mounted • Wet location listed PROGRESS LED

Description:

The one-light wall lantern from the Belle LED Collection features nautical undertones and a cage reminiscent of industrial spaces that is ideal for both interior and exterior settings. This fixture is available in convertible ceiling/pendant and wall mount options. Small LED wall lantern. Antique Bronze finish.

Specifications:

- Antique Bronze (-20) (painted)
- Aluminum Construction
- Etched glass diffuser
- LED Module is replaceable (part # 93004049)
- Nautical undertones,
- Cage reminiscent of industrial spaces.
- Ideal for both interior and exterior spaces.
- 623 lumens 69.3 lumens/watt per module (source)
- 3000K color temperature, 90+ CRI.
- Dimmable to 10% brightness (See Dimming Notes)
- Back plate covers a standard 4" octagonal recessed outlet box
- Mounting strap for outlet box included
- 6' of wire supplied
- ENERGY STAR® qualified
- Meets California Title 24 high efficacy requirements for outdoor use only

Performance:

Number of Modules	1
Input Power	9w
Input Voltage	120 V
Input Frequency	60 Hz
Lumens/LPW (Source)	623/69.2 (LM-82)
Lumens/LPW (Delivered)	401/50.9 (LM-79)
CCT	3000 K
CRI	90 CRI
Life (hours)	60,000 (L70/TM-21)
FCC	Meets FCC Title 47, Part 15 Class B
Min. Start Temp	-35°C
Max. Operating Temp	30 °C
Warranty	5 year warranty
Labels	cCSAus Wet location listed ENERGY STAR® qualified Meets California Title 24 high efficacy requirements for outdoor use only

P5676-2030K9

Images:



Dimensions:

Width: 7-1/2"
Depth: 7-3/8"
Height: 10-5/8"
H/CTR: 3"

Glass
Width: 4-3/8"
Length: 4-3/8"
Height: 8-3/4"

For more information visit our website: www.progresslighting.com

Progress Lighting • 701 Millennium Boulevard • Greenville, SC 29607

Small Wall Lantern

Wall mounted • Wet location listed PROGRESS LED

P5676-2030K9

Dimming Notes:

P5676 is designed to be compatible with many ELV/Reverse Phase controls.

The following is a partial list of known compatible dimmer controls.

Dimming Controls

Lutron Nova T NTELV-300
Lutron Vierti VTELV-600
Lutron Ariadni AYCL-153P
Lutron Diva DVCL-153P
Lutron Mantito MAELV-600
Lutron spacer/system SPSELV-600
Leviton Renoir II AWRMG-EAW

Dimming capabilities will vary depending on the dimmer control, load, and circuit installation. Always refer to dimmer manufacturer instructions or a controls specialist for specific requirements.

Dimmer control brand names where identified above are trade names or registered trademarks of each respective company.

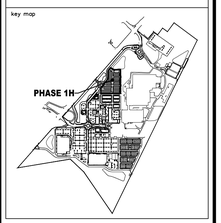
For more information visit our website: www.progresslighting.com

Progress Lighting • 701 Millennium Boulevard • Greenville, SC 29607

DOOR LIGHTS 'W' AND 'W1' (TOWNHOUSE) DETAIL

revisions		
no.	date	description

key map



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Landscape Architects
Land Surveyors
Planners
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Raritan, N.J. 08869
908-722-1500
Fax 908-722-7035
www.reynoldsgrp.com

The Reynolds Group Inc.

State of New Jersey
Certificate of Authorization
Number 24GA27969200
21MH00004300

F. Mitchel Ardman, P.E., P.P.
Jeffrey D. Reynolds, P.L.A.

F. MITCHEL ARDMAN
N.J. PROFESSIONAL ENGINEER LIC. NO. 34317

project
AMENDED PRELIMINARY/FINAL SITE PLAN & MAJOR SUBDIVISION
PHASE 1H
MAIN STREET NORTH BRUNSWICK

BLOCK 141
LOTS 44.04, 50.04, 51.01 & PORTION OF LOT 141.04
NORTH BRUNSWICK TOWNSHIP
MIDDLESEX COUNTY , NEW JERSEY

drawing title
CONSTRUCTION DETAILS

job number 24-052	drawing number 21
scale AS SHOWN	
checked by FMA/AEC	
drawn by A.A.	
date 06/12/25	sheet 21 of 21

J:\PROJECTS\2024\24-052 MSTBSD - PHASE 1H\CAD\DESIGN\SHEET\24-052 MSTBSD - PHASE 1H_CONSTRUCTION DETAILS_SHEET 21.DWG [Layout: 21] [Plotted: 06/06/2025 - 08:46 PM EDT]