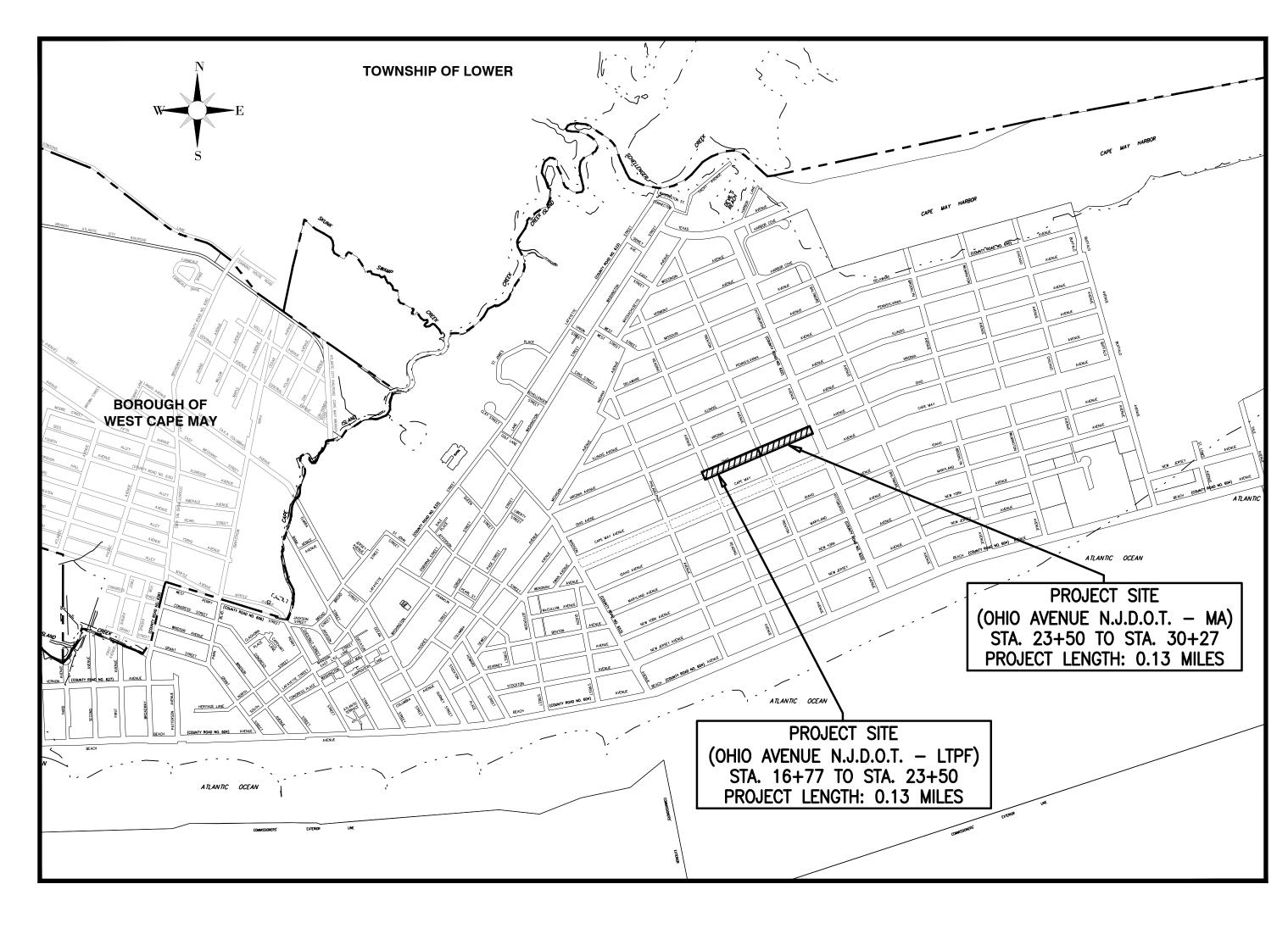
# FY2023 N.J.D.O.T. LOCAL TRANSPORTATION PROJECTS FUND AND FY2024 N.J.D.O.T. MUNICIPAL AID PROGRAM RECONSTRUCTION OF OHIO AVENUE (READING AVENUE TO PITTSBURGH AVENUE)

	UTILITIES
PUBLIC WORKS:	CITY OF CAPE MAY PUBLIC WORKS DEPARTMENT ERIC PRUSINSKI, SUPERINTENDENT 830 CANNING HOUSE LANE CAPE MAY, NJ 08204 609-884-9570
SEWER:	CITY OF CAPE MAY SEWER DEPARTMENT ROBERT CUMMISKEY, SUPERINTENDENT 643 WASHINGTON STREET CAPE MAY, NJ 08204 609-884-9576 CAPE MAY COUNTY M.U.A. THOMAS J. LAROCCO, P.E. 1523 ROUTE 9 NORTH, CAPE MAY COURT HOUSE, NJ 08210 609-465-9026
WATER:	CITY OF CAPE MAY WATER DEPARTMENT ROBERT CUMMISKEY, SUPERINTENDENT 643 WASHINGTON STREET CAPE MAY, NJ 08204 609-884-9576
ELECTRIC:	ATLANTIC CITY ELECTRIC COMPANY KENNETH ATWOOD 420 ROUTE 9 NORTH CAPE MAY COURT HOUSE, NJ 08210 267-533-1665
CABLE:	COMCAST CABLE QURAN OSIRIS 1846 NW BOULEVARD VINELAND, NJ 08360 800-934-6489
GAS:	SOUTH JERSEY GAS COMPANY JEREMIAH LIN 1708 ROUTE 9 NORTH CAPE MAY COURT HOUSE, NJ 08210 609-465-2900
TELEPHONE:	VERIZON ENGINEERING DEPARTMENT GREGORY ANGSTMAN 10 TANSBORO ROAD, FLOOR 2 BERLIN, NJ 08009 856-306-8590
COUNTY ROADS:	CAPE MAY COUNTY PUBLIC WORKS ROBERT CHURCH, P.E. 4 MOORE ROAD CAPE MAY COURT HOUSE, NJ 08210 609-465-1035



INDEX OF SHEETS					
SHEET NO.	DESCRIPTION				
1	TITLE SHEET				
2	ESTIMATE OF QUANTITIES, NOTES, LEGEND AND TYPICAL SECTION				
3-5	UTILITY PLAN & PROFILE				
6-8	ROADWAY PLAN & PROFILE				
9	TRAFFIC STRIPING PLAN				
10-12	CONSTRUCTION DETAILS				
13	CURB RAMP LAYOUT DETAILS				
14	SOIL EROSION & SEDIMENT CONTROL PLAN				
15-16	TRAFFIC CONTROL PLAN				

STANDARD N.J.D.O.T. ROADWAY CONSTRUCTION-TRAFFIC CONTROL-BRIDGE CONSTRUCTION DETAILS BOOKLET, 2016 ARE APPLICABLE TO THIS PROJECT EXCEPT FOR THOSE DETAILS CONTAINED



FY2023 N.J.D.O.T. LOC TRANSPORTATION PROJ
FAX (609) 854-4323 WWW.DEBLASIOASSOC.COM Certification of Authorization No. 24GA282
4701 NEW JERSEY AVENUE WILDWOOD, NJ 08260 PHONE (609) 854-3311

**FUND AND FY2024 N.J.D.O.T MUNICIPAL AID PROJECT RECONSTRUCTION OF** OHIO AVENUE

TITLE SHEET

ENGINEERS, SURVEYORS AND PLANNEI

**CITY OF CAPE MAY** 

PROJECT LOCATION MAP

# CITY OF CAPE MAY CAPE MAY COUNTY, NEW JERSEY

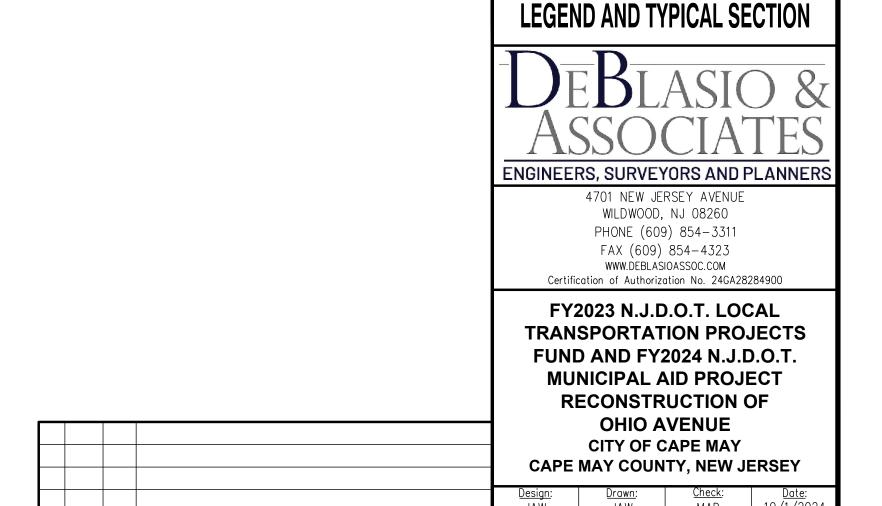
2019 N.J.D.O.T. STANDARD SPECIFICATIONS FOR ROADWAY AND BRIDGE

CONSTRUCTION SHALL GOVERN, EXCEPT FOR THOSE DETAILS CONTAINED HEREIN

#### **LEGEND GENERAL NOTES** 1) SITE CONSTRUCTION TO BE IN ACCORDANCE WITH NEW JERSEY STATE DEPARTMENT OF TRANSPORTATION STANDARDS FOR PROPOSED **EXISTING** ROAD AND BRIDGE CONSTRUCTION, 2019 (LATEST ADDENDUM), WHICH SHALL GOVERN. 2016 STANDARD CONSTRUCTION DETAILS - ROADWAY - TRAFFIC CONTROL - BRIDGE ARE APPLICABLE TO THIS PROJECT EXCEPT FOR THOSE DETAILS CONTAINED HEREIN. CONTRACTOR SHALL VERIFY THE LOCATION OF ANY UNDERGROUND ELECTRICAL CONDUIT AND IDENTIFY TRAVERSE POINT FIRE HYDRANT SAME PRIOR TO STARTING ANY EXCAVATION. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS FROM THE TOWNSHIP, COUNTY, AND STATE AND SHALL PAY ALL FEES, INCLUDING THE INSPECTION FEES, AND IN GENERAL SHALL FIRE HYDRANT SIGN PROCURE ALL REQUIRED PERMITS, LICENSES, INSPECTIONS, PAY ALL CHARGES AND FEES, AND GIVE NOTICES NECESSARY SIGN FOR AND INCIDENTAL TO THE DUE AND LAWFUL PROSECUTION OF THE PROJECT. THE CONTRACTOR SHALL BE UTILITY POLE RESPONSIBLE FOR RESTORING THE PAVING, TOPSOIL, FERTILIZING AND SEEDING ALL AREAS DISTURBED BY HIS ACTIVITIES. UTILITY POLE SPOT ELEVATION INSPECTION OF, OR FAILURE TO INSPECT ANY MATERIALS OR WORKMANSHIP, SHALL IN NO WAY RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY TO PERFORM THE WORK IN ACCORDANCE WITH APPLICABLE PLANS, SPECIFICATIONS, AND LAW. SPOT ELEVATION LIGHT POLE 2) THE CONTRACTOR WILL PRESERVE AND PROTECT ALL EXISTING VEGETATION, SUCH AS TREES, SHRUBS, AND GRASS ON OR LP 🌣 LIGHT POLE ADJACENT TO THE SITE, WHICH DO NOT REASONABLY INTERFERE WITH THE CONSTRUCTION AS MAY BE DETERMINED BY WATER METER THE DESIGN ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR UNAUTHORIZED CUTTING OR DAMAGING OF TREES GM 🜀 GAS METER WATER VALVE AND SHRUBS, MATERIALS, OR TRACKING OF GRASS AREAS BY EQUIPMENT. CARE SHALL BE TAKEN BY THE CONTRACTOR IN FELLING TREES AUTHORIZED FOR REMOVAL TO AVOID ANY UNNECESSARY DAMAGE TO VEGETATION THAT IS TO REMAIN WATER METER SANITARY CLEANOUT IN PLACE. THE CONTRACTOR SHALL BE LIABLE FOR OR MAY BE REQUIRED TO REPLACE OR RESTORE, AT HIS EXPENSE, WATER CURBSTOP/SHUT-OFF ALL VEGETATION NOT PROTECTED AND PRESERVED AS REQUIRED HEREIN THAT MAY BE DESTROYED OR DAMAGED. "B" INLET 3) THE CONTRACTOR SHALL ACKNOWLEDGE PRIOR TO CONSTRUCTION THAT HE/SHE HAS SATISFIED THEMSELVES AS TO THE WATER VALVE NATURE AND LOCATION OF THE WORK, THE GENERAL AND LOCAL CONDITIONS, PARTICULARLY THOSE BEARING ON "A" INLET TRANSPORTATION, HANDLING AND STORAGE OF MATERIALS, THE CHARACTER OF THE EQUIPMENT AND FACILITIES NEEDED GAS VALVE/SHUT-OFF "E" INLET DURING THE PROSECUTION OF THE WORK AND ALL OTHER MATTERS WHICH CAN IN ANY WAY AFFECT THE WORK OR THE COST THEREOF UNDER THIS CONTRACT. ANY FAILURE OF THE CONTRACTOR TO ACQUAINT THEMSELVES WITH THE SANITARY CLEANOUT STORM MANHOLE AVAILABLE INFORMATION CONCERNING THOSE CONDITIONS WILL NOT RELIEVE HIM FROM RESPONSIBILITY FOR ESTIMATING STREET SIGN PROPERLY THE DIFFICULTIES OR COST OF SUCCESSFULLY PERFORMING THE WORK. SANITARY MANHOLE 4) ALL MATERIALS, METHODS, AND DETAILS OF IMPROVEMENT CONSTRUCTION SHALL CONFORM TO THE REGULATIONS OF CITY "B" INLET CURBING OF CAPE MAY, CAPE MAY COUNTY, AND/OR THE APPROPRIATE UTILITY COMPANY, WHICHEVER REGULATION TAKES "A" INLET PRECEDENCE. "E" INLET 5) ALL CONCRETE FOR SIDEWALKS AND CURB SHALL BE OF A MIX TO ENSURE A 28 DAY STRENGTH OF 4,000 PSI AND CONCRETE HAVE A MINIMUM AIR CONTENT OF 5%. STORM MANHOLE 6) THE CONTRACTOR SHALL BE COMPLETELY RESPONSIBLE FOR ENSURING THAT ALL WORK PERFORMED CONFORMS TO ALL STORM DRAINS ==== THE APPLICABLE STATUTES, REGULATIONS, ORDINANCES, AND STANDARDS OF GOVERNMENTAL BODIES HAVING JURISDICTION SANITARY MANHOLE WATER MAIN \_\_\_w\_\_ OVER SUCH WORK. THE RESPONSIBILITY SHALL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING: A. CONFORMITY WITH THE APPROVED PLANS AS WELL AS STANDARDS AND SPECIFICATIONS OF THE CITY OF CAPE SANITARY MAIN —s— ELECTRIC MANHOLE GAS MAIN B. CORRECTION OF ALL DEFECTS OF THE WORK, NO MATTER WHAT THE CAUSE, UNTIL THE DATE OF THE TELEPHONE MANHOLE ELECTRIC CONDUIT —E— ACCEPTANCE, AND THEREAFTER, FOR THE PERIOD OF ANY GUARANTEE WHICH RUNS BEYOND THE DATE OF ——онw—— OVERHEAD WIRES CURBING C. SOLUTION OF ANY PROBLEM, UNFORESEEN AT THE TIME OF THE APPROVAL OF THE PLAN, WHICH MAY OR DO <del>-----</del>50-----PROPOSED CONTOUR IMPAIR THE INTEGRITY OF ANY IMPROVEMENTS, INCLUDING PROBLEMS SUCH AS HIGH GROUND WATER, UNSTABLE CONCRETE (PROPOSED TOP OF CURB) TCXX.XX 7) CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING PUBLIC SAFETY AND SECURING THE SITE AT ALL TIMES. GLXX.XX (PROPOSED GUTTER LINE) STORM DRAINS 8) CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING ALL PUBLIC RIGHTS OF WAY AND ADJACENT PROPERTIES CLEAN AND -W-W-W-WATER MAIN SAFE FROM EXCESSIVE DUST AND DEBRIS RESULTING FROM DEMOLITION AND/OR CONSTRUCTION. $\times \times \times$ PROPOSED SILT FENCE 9) THE LOCATION OF ANY UTILITIES SHOWN ON THE PLANS ARE ONLY APPROXIMATE. THE CONTRACTOR SHALL EXERCISE -S-S-S-SANITARY MAIN EXTREME CAUTION PRIOR TO BEGINNING EXCAVATION OR COMMENCING CONSTRUCTION AND SHALL BE FULLY RESPONSIBLE PROPOSED INLET PROTECTION -G-G-G-GAS MAIN FOR LOCATING ALL UNDERGROUND UTILITIES IN THE VICINITY OF THE PROJECT. NEW JERSEY ONE CALL WILL PROVIDE -E--E--E-ELECTRIC CONDUIT FOR ON-SITE DELINEATION OF EXISTING UTILITIES UPON REQUEST (1-800-272-1000). —— FM —— FORCE MAIN 10) EXISTING MATERIALS DESIGNATED FOR REMOVAL SHALL BE REMOVED BY THE CONTRACTOR UNLESS OTHERWISE DIRECTED PROPOSED TEST PIT BY THE OWNER. ---OHW----OVERHEAD WIRES 11) DISTURBED AREAS SHALL BE RESTORED AS SOON AS PRACTICAL. — — 50— — EXISTING CONTOUR 12) THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY IF THERE ARE ANY DISCREPANCIES FOUND BETWEEN THE SODDING DRAWINGS AND SPECIFICATIONS AND THE SITE CONDITIONS. THE CONTRACTOR SHALL PROCEED AT HIS OWN RISK PRIOR \_\_\_\_\_ RIGHT-OF-WAY LINE TO THE RESOLUTION IF ANY DISCREPANCIES. 13) THE CONTRACTOR SHALL COORDINATE WATER MAIN SHUT DOWNS, RESETTING OF WATER VALVE BOXES, AND SANITARY CLEANOUTS WITH THE CAPE MAY CITY WATER AND SEWER DEPARTMENT. DECIDUOUS TREE 14) SEPARATE PAYMENT WILL NOT BE MADE FOR CONSTRUCTION LAYOUT, SAWCUTTING, SOIL EROSION AND SEDIMENT CONTROL MEASURES, DUST CONTROL, DEWATERING, BY-PASS PUMPING, CLEANING AND RESTORATIONS, REMOVAL AND DISPOSAL OF EXCESS MATERIALS OR UNWANTED MATERIALS OR DEBRIS, UNDER LAYER PREPARATION, PRIME COAT, TACK COAT, RELOCATIONS OF SIGNS OR MAILBOXES, CONDUCTORS OR CONDUITS DAMAGED DURING CONSTRUCTION, OR ANY OTHER EVERGREEN TREE STRUCTURES ENCOUNTERED UNLESS OTHERWISE INDICATED ON THE PLANS. 15) THE CONTRACTOR SHALL SUBMIT TO THE CITY OF CAPE MAY ASBUILTS PLANS AND SHALL IDENTIFY ALL CORRECTIONS THAT HAVE BEEN PERFORMED. 16) LIMITS OF PAVING (L.O.P.) SHALL BE SAWCUT AND SEALED WITH HOT JOINT SEALER. PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE HMA SURFACE PAVING. → EXISTING → WIDTH − EXISTING −∽ WIDTH MEET & MATCH — MEET & -(L4)2" THICK — MATCH **EXISTING** EXISTING GRADE GRADE 1.5%-4.0% 4" TO 6" SIDEWALK/DRIVEWAY SIDEWALK/DRIVEWAY COMPACTED SUBGRADE WHERE SHOWN ON THE PLANS WHERE SHOWN THE CONTRACTOR EXCAVATE AND DISPOSE ALL OF THE EXISTING ROADWAY 11" BELOW PROPOSED ON THE PLANS TACK COAT L3 3" THICK FINISHED GRADE TYPICAL SECTION - OHIO AVENUE (STA. 16+77 TO STA. 23+50) — EXISTING —□ WIDTH MEET & MATCH — MEET & M4) 2" THICK — MATCH **EXISTING EXISTING** GRADE GRADE 1.5%-4.0% 1.5%-4.0% 4" TO 6 SIDEWALK/DRIVEWAY SIDEWALK/DRIVEWAY COMPACTED SUBGRADE WHERE SHOWN ON THE PLANS (M10) -(M2) 6" THICK THE CONTRACTOR EXCAVATE AND DISPOSE ALL OF THE EXISTING ROADWAY 11" BELOW PROPOSED WHERE SHOWN ON THE PLANS M3 3" THICK FINISHED GRADE TYPICAL SECTION - OHIO AVENUE

(STA. 23+50 TO STA. 30+32)

		ES	TIM	ATE	OF	QUA	4 <i>NT</i>	ITIE	5				
ITEM NO.	DESCRIPTION	UNIT	SHEET 3 QUANTITY	SHEET 4 QUANTITY	SHEET 5 QUANTITY	SHEET 6 QUANTITY	SHEET 7 QUANTITY	SHEET 8 QUANTITY	SHEET 9 QUANTITY	PLAN QUANTITY	IF & WHERE DIRECTED	CONTRACT QUANTITY	AS-BUILT QUANTITY
NON - N.	J.D.O.T. PARTICIPATING ITEMS			1		1	•	•				•	
1	CLEARING SITE	LUMP SUM	0	0	0	0	0	0	0	LUMP SUM	0	LUMP SUM	
2	TRAFFIC CONTROL	LUMP SUM	0	0	0	0	0	0	0	LUMP SUM	0	LUMP SUM	
3	SELECT FILL	C.Y.	1,033	1,561	1,636	0	0	0	0	4,230	270	4,500	
<u>4</u> 5	8" C900 POLYVINYL CHLORIDE (PVC) WATER MAIN 8" DUCTILE IRON 45 DEGREE BENDS	L.F. UNIT	335	545	520 2	0	0	0	0	1,400	100	1,500	
6	WATER SERVICES (COPPER), 1" - COMPLETE	UNIT	17	22	25	0	0	0	0	64	<u> </u>	70	
7	FIRE HYDRANT ASSEMBLIES - COMPLETE	UNIT	1	1	1	0	0	0	0	3	0	3	
8	8" GATE VALVES AND BOXES	UNIT	1	3	1	0	0	0	0	5	3	8	
9	8" X 8" DUCTILE IRON TEE	UNIT	0	1	0	0	0	0	0	1	0	1	
10	8" X 6" DUCTILE IRON REDUCER	UNIT	1	0	1	0	0	0	0	2	0	2	
11	CUT AND CAP EXISTING WATER MAIN	UNIT	1	1	1	0	0	0	0	3	0	3	
12	GROUT EXISTING WATER MAIN	C.Y.	3	4	4	0	0	0	0	11	1	12	
13	CONNECT TO EXISTING WATER MAIN	UNIT	1	1	1	0	0	0	0	3	0	3	
14	8" POLYVINYL CHLORIDE (PVC) SANITARY SEWER MAIN, SDR 26	L.F.	367	180	529	0	0	0	0	1,076	24	1,100	1
15 16	10" POLYVINYL CHLORIDE (PVC) SANITARY SEWER MAIN, SDR 26 CLEAN AND TELEVISE SANITARY AND STORM SEWER MAIN	L.F.	0 398	350 642	0 529	0	0	0	0	350 1,569	30 61	380 1,630	
17	SANITARY SEWER MANHOLE. 4' DIAMETER	UNIT	1 390	042	1 328	0	0	0	0	1,309	0	1,030	
18	SANITARY SEWER NANHOLE, 4 DIAWIETER SANITARY SEWER SERVICE LATERALS, PVC SDR 26	UNIT	6	13	17	0	0	0	0	36	4	40	
19	CONNECT TO EXISTING SANITARY SEWER	UNIT	2	1	1	0	0	0	0	4	0	4	
20	UTILITY CROSSINGS	UNIT	0	1	0	0	0	0	0	1	2	3	
21	EXCAVATION, TEST PIT	C.Y.	12	9	6	0	0	0	0	27	15	42	
22	8" DUCTILE IRON CULVERT STORM PIPE, CLASS 52	L.F.	0	112	0	0	0	0	0	112	8	120	
23	12" DUCTILE IRON CULVERT STORM PIPE, CLASS 52	L.F.	31	0	0	0	0	0	0	31	129	160	
24	INLET, TYPE A	UNIT	1	0	0	0	0	0	0	1	1	2	
25	DENSE-GRADED AGGREGATE BASE COURSE, VARIABLE THICKNESS	C.Y.	0	0	60	0	0	0	0	60	0	60	
	FUEL PRICE ADJUSTMENTS	DOLLAR	0	0	0	0	0	0	0	1,000	0	1,000	
	ASPHALT PRICE ADJUSTMENTS	DOLLAR	0	0	0	0	0	0	0	2,300	0	2,300	
	OCAL TRANSPORTATION PROJECTS FUND (LTPF) P					170	105					0.50	
L1	EXCAVATION, UNCLASSIFIED  DENSE-GRADED AGGREGATE BASE COURSE	C.Y. S.Y.	0	0	0	470 1,390	435 1,250	0	0	905 2,640	45 60	950 2,700	
L2 L3	HOT MIX ASPHALT MIX 19M64 BASE COURSE	TON	0	0	0	265	238	0	0	503	27	530	
L3	HOT MIX ASPHALT MIX 19/064 BASE COURSE	TON	0	0	0	177	159	0	0	336	14	350	
L5	8" x 18" CONCRETE VERTICAL CURB	L.F.	0	0	0	690	748	0	0	1,438	12	1,450	
L6	CONCRETE GUTTER, 8" THICK	L.F.	0	0	0	690	748	0	0	1,438	12	1,450	
L7	CONCRETE SIDEWALK, 4" THICK	S.Y.	0	0	0	52	28	0	0	80	20	100	
L8	DETECTABLE WARNING SURFACE	S.Y.	0	0	0	8	4	0	0	12	0	12	
L9	CONCRETE DRIVEWAY, 6" THICK	S.Y. S.Y.	0	0	0	73 174	70 207	0	0	143 381	7 39	150 420	
L10 L11	SODDING INLET FILTERS, TYPE 1	S.T. S.F.	0	0	0	60	30	0	0	90	0	90	
L12	RESET EXISTING CASTING	UNIT	0	0	0	3	1	0	0	4	1	5	
L13	RESET WATER VALVE BOX	UNIT	0	0	0	0	0	0	0	0	1	1	
L14	BICYCLE SAFE GRATE	UNIT	0	0	0	0	0	0	0	0	5	5	
L15	TRAFFIC MARKINGS LINES, 24"	L.F.	0	0	0	0	0	0	272	272	8	280	
FY2024 N	MUNICIPAL AID (MA) PARTICIPATING ITEMS												
M1	EXCAVATION, UNCLASSIFIED	C.Y.	0	0	0	0	240	615	0	855	45	900	
	DENSE-GRADED AGGREGATE BASE COURSE	S.Y.	0	0	0	0	727	1,850	0	2,577	223	2,800	
M3	HOT MIX ASPHALT MIX 19M64 BASE COURSE	TON	0	0	0	0	140	352	0	492	38	530	
M4 M5	HOT MIX ASPHALT MIX 9.5M64 SURFACE COURSE  8" x 18" CONCRETE VERTICAL CURB	TON L.F.	0	0	0	0	95 280	235 1,060	0	330 1,340	20 60	350 1,400	
M5 M6	CONCRETE GUTTER, 8" THICK	L.F.	0	0	0	0	280	1,060	0	1,340	60	1,400	
M7	CONCRETE SIDEWALK, 4" THICK	S.Y.	0	0	0	0	26	4	0	30	40	70	
M8	DETECTABLE WARNING SURFACE	S.Y.	0	0	0	0	4	0	0	4	0	4	
<b>M</b> 9	CONCRETE DRIVEWAY, 6" THICK	S.Y.	0	0	0	0	18	141	0	159	51	210	
<b>M</b> 10	SODDING	S.Y.	0	0	0	0	83	206	0	289	41	330	
M11	RESET STONE MULCHING	S.Y.	0	0	0	0	0	64	0	64	16	80	
M12	INLET FILTERS, TYPE 1	S.F.	0	0	0	0	15	30	0	45	15	60	
M13 M14	RESET EXISTING CASTING RESET WATER VALVE BOX	UNIT UNIT	0	0	0	0	0	0	0	0	0	1 1	
M15	BICYCLE SAFE GRATE	UNIT	0	0	0	0	0	0	0	0	2	2	
	TRAFFIC MARKINGS LINES, 24"	L.F.	0	0	0	0	0	0	240	240	20	260	
		•		•	•	•	•	•	•			•	•



NO. DATE APPR. REVISION

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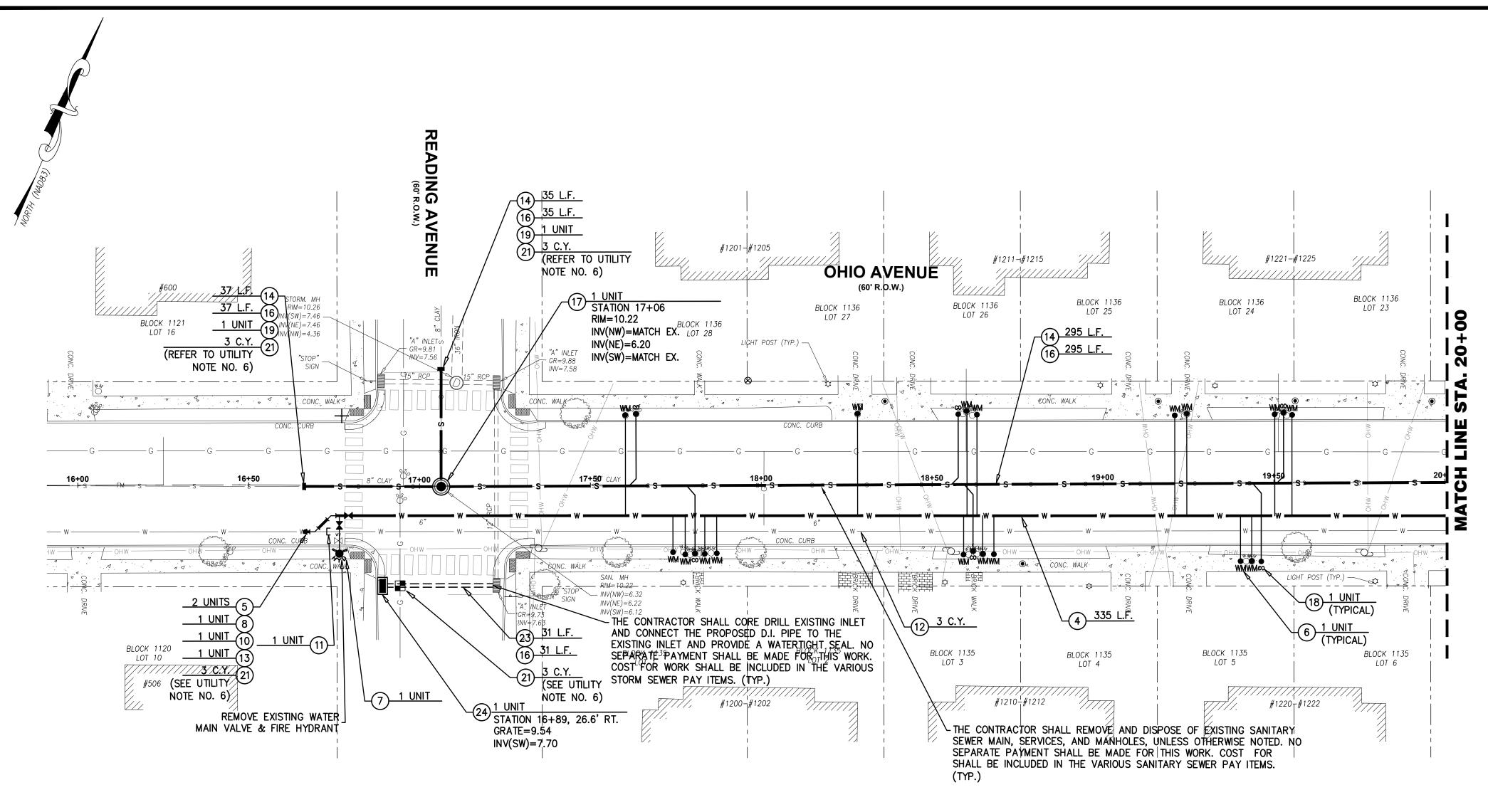
REVISED PER IN-HOUSE REVISION AND NJDOT COMMENTS DATED 10/30/2024

MARC A. DEBLASIO, PE

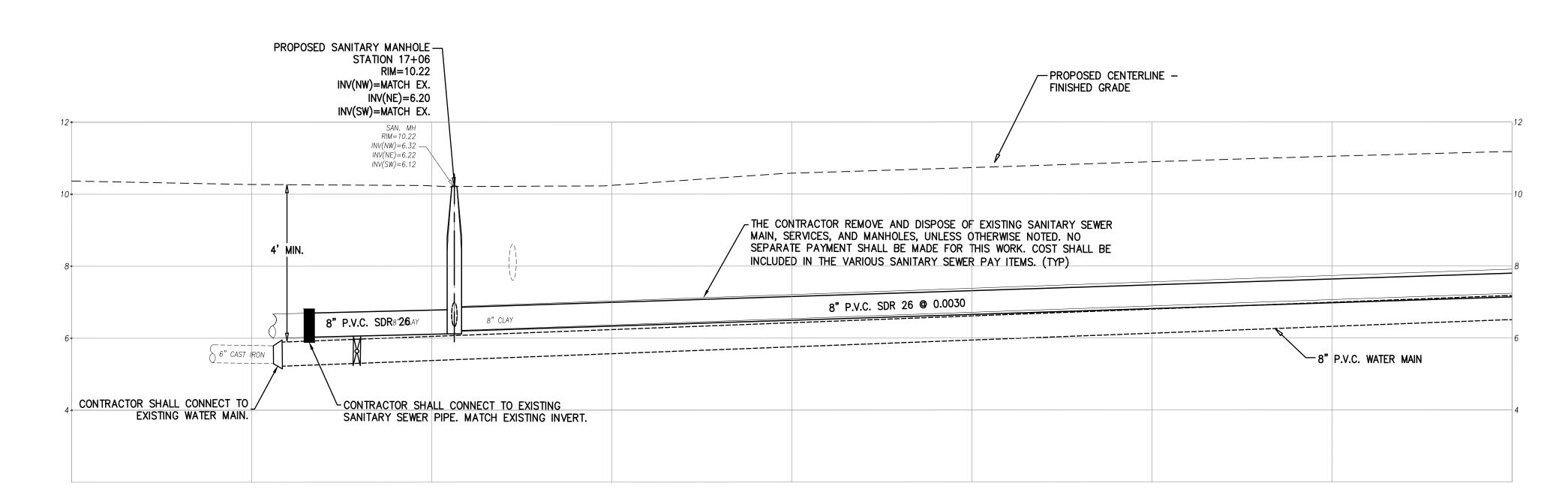
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**ESTIMATE OF QUANTITIES, NOTES** 

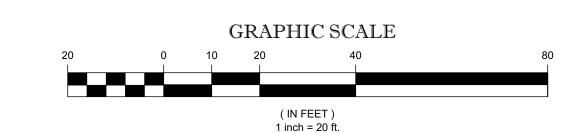


PLAN
SCALE: 1"=20'



## **PROFILE**

HORIZONTAL SCALE : 1"=20'
VERTICAL SCALE : 1"=2'



ITEM NO.	TO BE CONSTRUCTED	UNIT	PLAN QUANTITY	AS-BUILT QUANTITY
NON - N.	J.D.O.T. PARTICIPATING ITEMS	•	•	
3	SELECT FILL	C.Y.	1,033	
4	8" C900 POLYVINYL CHLORIDE (PVC) WATER MAIN	L.F.	335	
5	8" DUCTILE IRON 45 DEGREE BENDS	UNIT	2	
6	WATER SERVICES (COPPER), 1" - COMPLETE	UNIT	17	
7	FIRE HYDRANT ASSEMBLIES — COMPLETE	UNIT	1	
8	8" GATE VALVES AND BOXES	UNIT	1	
10	8" X 6" DUCTILE IRON REDUCER	UNIT	1	
11	CUT AND CAP EXISTING WATER MAIN	UNIT	1	
12	GROUT EXISTING WATER MAIN	C.Y.	3	
13	CONNECT TO EXISTING WATER MAIN	UNIT	1	
14	8" POLYVINYL CHLORIDE (PVC) SANITARY SEWER MAIN, SDR 26	L.F.	367	
16	CLEAN AND TELEVISE SANITARY AND STORM SEWER MAIN	L.F.	398	
17	SANITARY SEWER MANHOLE, 4' DIAMETER	UNIT	1	
18	SANITARY SEWER SERVICE LATERALS, PVC SDR 26	UNIT	6	
19	CONNECT TO EXISTING SANITARY SEWER	UNIT	2	
21	EXCAVATION, TEST PIT	C.Y.	12	
23	12" DUCTILE IRON CULVERT STORM PIPE, CLASS 52	L.F.	31	
24	INLET, TYPE A	UNIT	1	

#### SURVEY NOTES

- 1. EXISTING TOPOGRAPHIC INFORMATION SHOWN WAS BASED ON A FIELD SURVEY PERFORMED BY DEBLASIO & ASSOCIATES, P.C. UNDER THE SUPERVISION OF HENRY V. ENGEL, N.J.P.L.S. NO. 35833, COMPLETED ON 01/12/2024.
- 2. ELEVATIONS SHOWN HEREON ARE IN FEET AND REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988.
- 3. HORIZONTAL CONTROL IS REFERENCED TO THE NEW JERSEY STATE PLANE COORDINATE SYSTEM (NAD 1983).
- 4. PROPERTY AND RIGHT-OF-WAY LINES SHOWN ARE APPROXIMATE LOCATIONS BASED ON THE CURRENT TAX MAPS OF THE CITY OF CAPE MAY, CAPE MAY COUNTY, NEW JERSEY. SAID LINES ARE SHOWN FOR GRAPHICAL INFORMATION ONLY AND HAVE NOT BEEN FIELD VERIFIED.

#### UTILITY NOTE

- 1. UNLESS OTHERWISE NOTED ON THE PLANS, THE CONTRACTOR SHALL REMOVE ALL ABANDONED WATER MAIN, VALVES, VALVE BOXES, HYDRANTS, SERVICES, METER BOXES AND LIDS, APPURTENANCES, ETC. THERE SHALL BE NO SEPARATE PAYMENT FOR THIS WORK BUT THE COST SHALL BE INCLUDED IN THE VARIOUS ITEMS IN THE PROPOSAL.
- 2. IN ACCORDANCE WITH N.J.A.C. 7:10-11.10(E), ALL WATER MAINS AND SANITARY OR INDUSTRIAL SEWER LINES SHALL BE SEPARATED BY A HORIZONTAL DISTANCE OF 10 FEET. IF SUCH LATERAL SEPARATION IS NOT POSSIBLE, THE WATER AND SEWER LINES SHALL BE IN SEPARATE TRENCHES (STEP TRENCHES ARE PROHIBITED) WITH THE TOP OF THE SEWER LINE AT LEAST 18 INCHES BELOW THE BOTTOM OF THE WATER MAIN OR WITH SUCH OTHER SEPARATION EXPRESSLY APPROVED BY THE DEPARTMENT. AT CROSSINGS OF SEWER LINES AND WATER MAINS, THE TOP OF THE SEWER LINES SHALL BE AT LEAST 18 INCHES BELOW THE BOTTOM OF THE WATER MAIN (SEWER SERVICE LATERALS ARE NOT SUBJECT TO THIS REQUIREMENT). IF SUCH VERTICAL SEPARATION IS NOT POSSIBLE, THE SEWER LINE SHALL BE OF WATERTIGHT CONSTRUCTION (THAT IS, DUCTILE IRON OR REINFORCED CONCRETE PIPE), WITH WATERTIGHT JOINTS THAT ARE A MINIMUM OF 10 FEET FROM THE WATER MAIN.
- 3. THE CONTRACTOR SHALL CONFIRM PIPE INVERT ELEVATIONS AND REPORT ANY CONFLICTS BETWEEN THE PROPOSED AND EXISTING UTILITIES IMMEDIATELY TO THE ENGINEER. THERE SHALL BE NO SEPARATE PAYMENT FOR THIS WORK BUT THE COST SHALL BE INCLUDED IN THE VARIOUS ITEMS IN THE PROPOSAL.
- 4. ALL EXISTING WATER SERVICES EXCAVATED DURING THE REPLACEMENT OF THE WATER MAIN WHETHER SHOWN ON THE PLANS OR LOCATED DURING CONSTRUCTION SHALL BE REPLACED UNLESS OTHERWISE DIRECTED BY THE ENGINEER. PAYMENT FOR WATER SERVICES SHALL BE INCLUDED IN UNIT PRICE BID.
- 5. ALL EXISTING SANITARY SEWER LATERALS EXCAVATED DURING THE REPLACEMENT OF THE SANITARY SEWER MAIN WHETHER SHOWN ON THE PLANS OR LOCATED DURING CONSTRUCTION SHALL BE REPLACED UNLESS OTHERWISE DIRECTED BY THE ENGINEER. PAYMENT FOR SANITARY SEWER LATERALS SHALL BE INCLUDED IN UNIT PRICE BID.
- 6. THE CONTRACTOR SHALL COMPLETE A TEST PIT TO DETERMINE THE DEPTH, SIZE AND MATERIAL OF THE EXISTING UTILITY IN QUESTION AND SUBMIT THIS INFORMATION TO THE ENGINEER PRIOR TO PROCEEDING WITH THE WORK.
- 7. THERE SHALL BE NO SEPARATE PAYMENT FOR THE REMOVAL AND DISPOSAL OF ASBESTOS CEMENT PIPE. PAYMENT SHALL BE INCLUDED UNDER THE PAY ITEM, "CLEARING SITE."
- 8. THE CONTRACTOR SHALL LAYOUT PROPOSED WATER VALVES OUTSIDE OF CROSSWALKS OR BIKE LANES, AND SHALL BE A MINIMUM OF THREE(3) FEET FROM THE PROPOSED TEE OR CROSS UNLESS OTHERWISE DIRECTED BY THE ENGINEER OR THE CITY'S WATER DEPARTMENT.

## UTILITY PLAN & PROFILE

## DEBLASIO 8 ASSOCIATES

ENGINEERS, SURVEYORS AND PLANNERS

4701 NEW JERSEY AVENUE

WILDWOOD, NJ 08260
PHONE (609) 854-3311
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WWW.DEBLASIOASSOC.COM
Certification of Authorization No. 24GA28284900

FY2023 N.J.D.O.T. LOCAL
TRANSPORTATION PROJECTS
FUND AND FY2024 N.J.D.O.T.
MUNICIPAL AID PROJECT
RECONSTRUCTION OF
OHIO AVENUE
CITY OF CAPE MAY
CAPE MAY COUNTY, NEW JERSEY

Desic JE:

1 11/1/24 MAD REVISED PER IN-HOUSE REVISION AND NJDOT COMMENTS DATED 10/30/2024

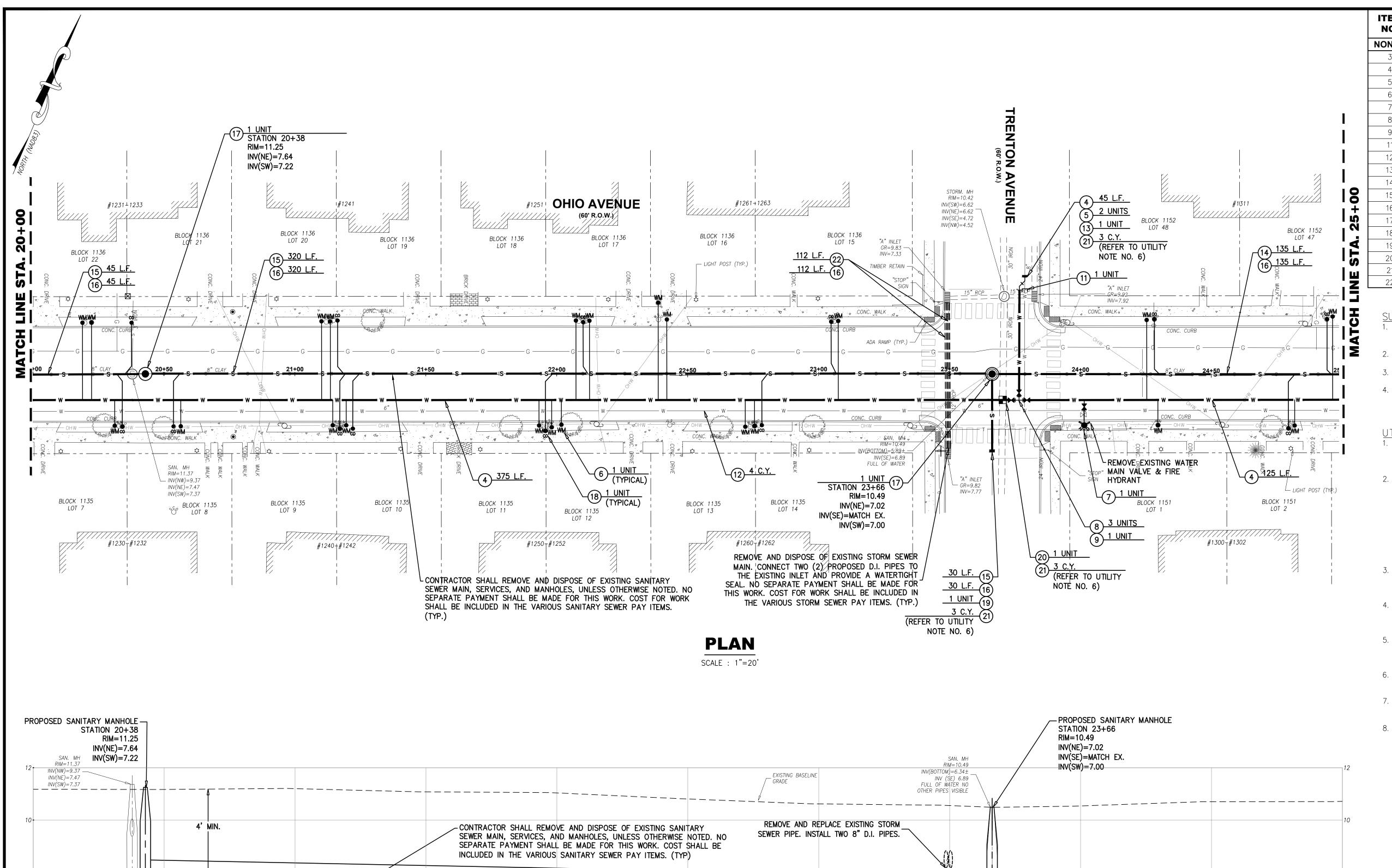
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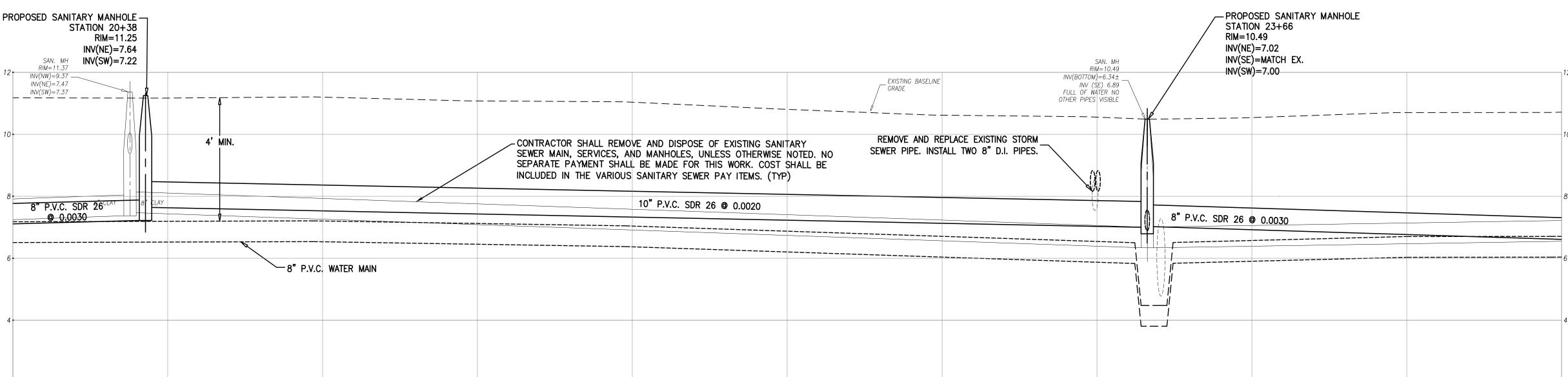
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MARC A. DEBLASIO, PE

New Jersey License No. 41599

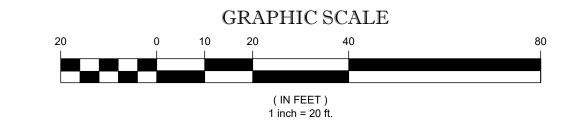
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## **PROFILE**

HORIZONTAL SCALE: 1"=20' VERTICAL SCALE : 1"=2"



ITEM NO.	TO BE CONSTRUCTED	UNIT	PLAN QUANTITY	AS-BUILT QUANTITY
NON - N.	J.D.O.T. PARTICIPATING ITEMS	7		
3	SELECT FILL	C.Y.	1,561	
4	8" C900 POLYVINYL CHLORIDE (PVC) WATER MAIN	L.F.	545	
5	8" DUCTILE IRON 45 DEGREE BENDS	UNIT	2	
6	WATER SERVICES (COPPER), 1" - COMPLETE	UNIT	22	
7	FIRE HYDRANT ASSEMBLIES - COMPLETE	UNIT	1	
8	8" GATE VALVES AND BOXES	UNIT	3	
9	8" X 8" DUCTILE IRON TEE	UNIT	1	
11	CUT AND CAP EXISTING WATER MAIN	UNIT	1	
12	GROUT EXISTING WATER MAIN	C.Y.	4	
13	CONNECT TO EXISTING WATER MAIN	UNIT	1	
14	8" POLYVINYL CHLORIDE (PVC) SANITARY SEWER MAIN, SDR 26	L.F.	180	
15	10" POLYVINYL CHLORIDE (PVC) SANITARY SEWER MAIN, SDR 26	L.F.	350	
16	CLEAN AND TELEVISE SANITARY AND STORM SEWER MAIN	L.F.	642	
17	SANITARY SEWER MANHOLE, 4' DIAMETER	UNIT	2	
18	SANITARY SEWER SERVICE LATERALS, PVC SDR 26	UNIT	13	
19	CONNECT TO EXISTING SANITARY SEWER	UNIT	1	
20	UTILITY CROSSINGS	UNIT	1	
21	EXCAVATION, TEST PIT	C.Y.	9	
22	8" DUCTILE IRON CULVERT STORM PIPE, CLASS 52	L.F.	112	

- . EXISTING TOPOGRAPHIC INFORMATION SHOWN WAS BASED ON A FIELD SURVEY PERFORMED BY DEBLASIO & ASSOCIATES, P.C. UNDER THE SUPERVISION OF HENRY V. ENGEL, N.J.P.L.S. NO. 35833, COMPLETED ON 01/12/2024.
- 2. ELEVATIONS SHOWN HEREON ARE IN FEET AND REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988.
- 3. HORIZONTAL CONTROL IS REFERENCED TO THE NEW JERSEY STATE PLANE COORDINATE SYSTEM (NAD 1983).
- 4. PROPERTY AND RIGHT-OF-WAY LINES SHOWN ARE APPROXIMATE LOCATIONS BASED ON THE CURRENT TAX MAPS OF THE CITY OF CAPE MAY, CAPE MAY COUNTY, NEW JERSEY. SAID LINES ARE SHOWN FOR GRAPHICAL INFORMATION ONLY AND HAVE NOT BEEN FIELD VERIFIED.

#### JTILITY NOTES:

- UNLESS OTHERWISE NOTED ON THE PLANS, THE CONTRACTOR SHALL REMOVE ALL ABANDONED WATER MAIN, VALVES VALVE BOXES, HYDRANTS, SERVICES, METER BOXES AND LIDS, APPURTENANCES, ETC. THERE SHALL BE NO SEPARATE PAYMENT FOR THIS WORK BUT THE COST SHALL BE INCLUDED IN THE VARIOUS ITEMS IN THE PROPOSAL
- 2. IN ACCORDANCE WITH N.J.A.C. 7:10-11.10(E), ALL WATER MAINS AND SANITARY OR INDUSTRIAL SEWER LINES SHALL BE SEPARATED BY A HORIZONTAL DISTANCE OF 10 FEET. IF SUCH LATERAL SEPARATION IS NOT POSSIBLE, THE WATER AND SEWER LINES SHALL BE IN SEPARATE TRENCHES (STEP TRENCHES ARE PROHIBITED) WITH THE TOP OF THE SEWER LINE AT LEAST 18 INCHES BELOW THE BOTTOM OF THE WATER MAIN OR WITH SUCH OTHER SEPARATION EXPRESSLY APPROVED BY THE DEPARTMENT. AT CROSSINGS OF SEWER LINES AND WATER MAINS, THE TOP OF THE SEWER LINES SHALL BE AT LEAST 18 INCHES BELOW THE BOTTOM OF THE WATER MAIN (SEWER SERVICE LATERALS ARE NOT SUBJECT TO THIS REQUIREMENT). IF SUCH VERTICAL SEPARATION IS NOT POSSIBLE, THE SEWER LINE SHALL BE OF WATERTIGHT CONSTRUCTION (THAT IS, DUCTILE IRON OR REINFORCED CONCRETE PIPE), WITH WATERTIGHT JOINTS THAT ARE A MINIMUM OF 10 FEET FROM THE WATER MAIN.
- 3. THE CONTRACTOR SHALL CONFIRM PIPE INVERT ELEVATIONS AND REPORT ANY CONFLICTS BETWEEN THE PROPOSED AND EXISTING UTILITIES IMMEDIATELY TO THE ENGINEER. THERE SHALL BE NO SEPARATE PAYMENT FOR THIS WORK BUT THE COST SHALL BE INCLUDED IN THE VARIOUS ITEMS IN THE PROPOSAL.
- 4. ALL EXISTING WATER SERVICES EXCAVATED DURING THE REPLACEMENT OF THE WATER MAIN WHETHER SHOWN ON THE PLANS OR LOCATED DURING CONSTRUCTION SHALL BE REPLACED UNLESS OTHERWISE DIRECTED BY THE ENGINEER. PAYMENT FOR WATER SERVICES SHALL BE INCLUDED IN UNIT PRICE BID.
- 5. ALL EXISTING SANITARY SEWER LATERALS EXCAVATED DURING THE REPLACEMENT OF THE SANITARY SEWER MAIN WHETHER SHOWN ON THE PLANS OR LOCATED DURING CONSTRUCTION SHALL BE REPLACED UNLESS OTHERWISE DIRECTED BY THE ENGINEER. PAYMENT FOR SANITARY SEWER LATERALS SHALL BE INCLUDED IN UNIT PRICE BID.
- 6. THE CONTRACTOR SHALL COMPLETE A TEST PIT TO DETERMINE THE DEPTH, SIZE AND MATERIAL OF THE EXISTING UTILITY IN QUESTION AND SUBMIT THIS INFORMATION TO THE ENGINEER PRIOR TO PROCEEDING WITH THE WORK.
- 7. THERE SHALL BE NO SEPARATE PAYMENT FOR THE REMOVAL AND DISPOSAL OF ASBESTOS CEMENT PIPE. PAYMENT SHALL BE INCLUDED UNDER THE PAY ITEM, "CLEARING SITE."
- 8. THE CONTRACTOR SHALL LAYOUT PROPOSED WATER VALVES OUTSIDE OF CROSSWALKS OR BIKE LANES, AND SHALL BE A MINIMUM OF THREE(3) FEET FROM THE PROPOSED TEE OR CROSS UNLESS OTHERWISE DIRECTED BY THE ENGINEER OR THE CITY'S WATER DEPARTMENT.

## **UTILITY PLAN & PROFILE**

## ENGINEERS, SURVEYORS AND PLANNERS

4701 NEW JERSEY AVENUE WILDWOOD, NJ 08260 PHONE (609) 854-3311 FAX (609) 854-4323 WWW.DEBLASIOASSOC.COM

Certification of Authorization No. 24GA28284900

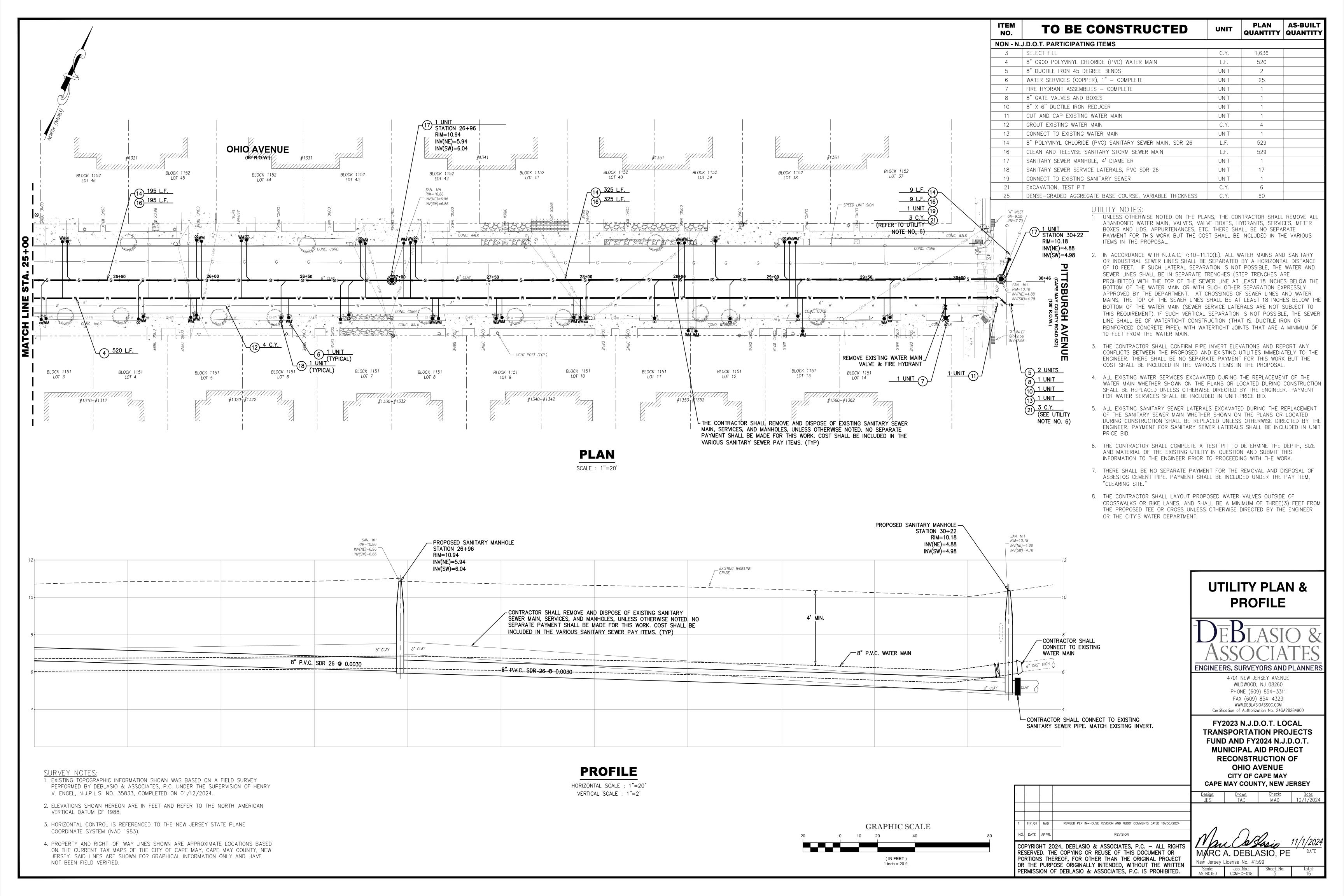
FY2023 N.J.D.O.T. LOCAL TRANSPORTATION PROJECTS **FUND AND FY2024 N.J.D.O.T.** MUNICIPAL AID PROJECT RECONSTRUCTION OF OHIO AVENUE

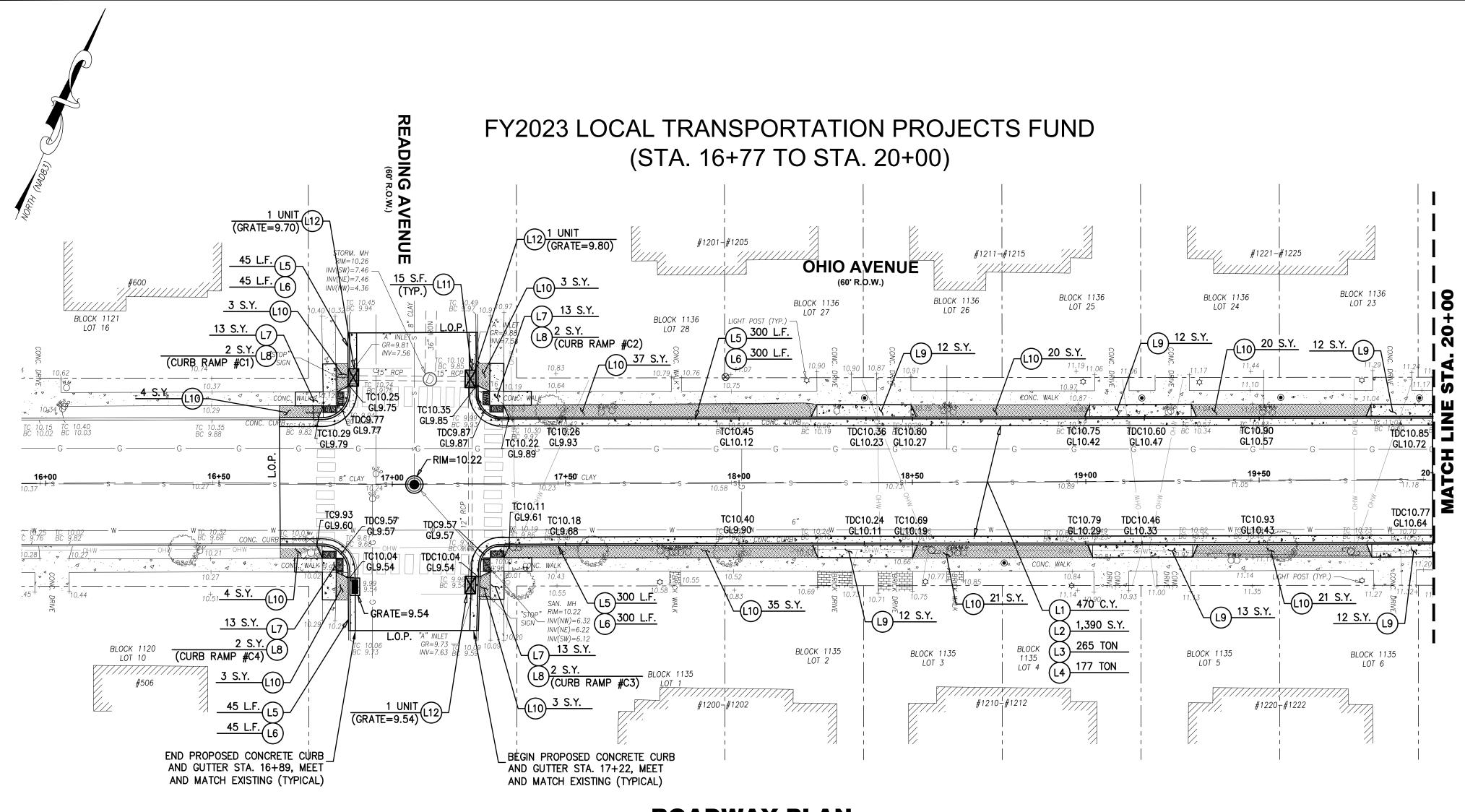
CITY OF CAPE MAY

**CAPE MAY COUNTY, NEW JERSEY** 

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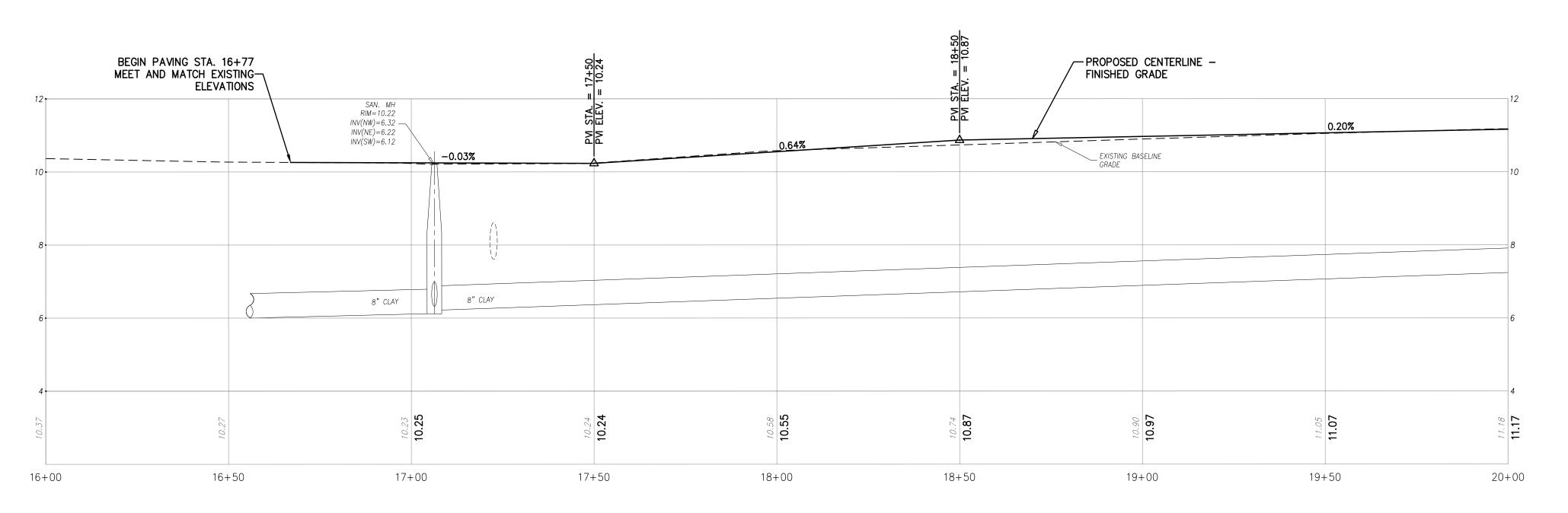
REVISED PER IN-HOUSE REVISION AND NJDOT COMMENTS DATED 10/30/2024





## **ROADWAY PLAN**

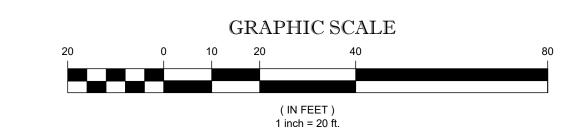
SCALE : 1"=20'



PROFILE

HORIZONTAL SCALE : 1"=20'

VERTICAL SCALE : 1"=2'



ITEM NO.	TO BE CONSTRUCTED	UNIT	PLAN QUANTITY	AS-BUILT QUANTITY
FY2023 L	OCAL TRANSPORTATION PROJECTS FUND (LTPF) PARTICIP	ATION ITEM	<b>MS</b>	
L1	EXCAVATION, UNCLASSIFIED	C.Y.	470	
L2	DENSE-GRADED AGGREGATE BASE COURSE	S.Y.	1,390	
L3	HOT MIX ASPHALT MIX 19M64 BASE COURSE	TON	265	
L4	HOT MIX ASPHALT MIX 9.5M64 SURFACE COURSE	TON	177	
L5	8" x 18" CONCRETE VERTICAL CURB	L.F.	690	
L6	CONCRETE GUTTER, 8" THICK	L.F.	690	
L7	CONCRETE SIDEWALK, 4" THICK	S.Y.	52	
L8	DETECTABLE WARNING SURFACE	S.Y.	8	
L9	CONCRETE DRIVEWAY, 6" THICK	S.Y.	73	
L10	SODDING	S.Y.	174	
L11	INLET FILTERS, TYPE 1	S.F.	60	
L12	RESET EXISTING CASTING	UNIT	3	

## <u>SURVEY NO</u>TES:

- 1. EXISTING TOPOGRAPHIC INFORMATION SHOWN WAS BASED ON A FIELD SURVEY PERFORMED BY DEBLASIO & ASSOCIATES, P.C. UNDER THE SUPERVISION OF HENRY V. ENGEL, N.J.P.L.S. NO. 35833, COMPLETED ON 01/12/2024.
- 2. ELEVATIONS SHOWN HEREON ARE IN FEET AND REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988
- 3. HORIZONTAL CONTROL IS REFERENCED TO THE NEW JERSEY STATE PLANE COORDINATE SYSTEM (NAD 1983).
- 4. PROPERTY AND RIGHT-OF-WAY LINES SHOWN ARE APPROXIMATE LOCATIONS BASED ON THE CURRENT TAX MAPS OF THE CITY OF CAPE MAY, CAPE MAY COUNTY, NEW JERSEY. SAID LINES ARE SHOWN FOR GRAPHICAL INFORMATION ONLY AND HAVE NOT BEEN FIELD VERIFIED.

## ROADWAY NOTES

- 1. LIMITS OF PAVING (L.O.P.) SHALL BE SAWCUT FULL DEPTH AND SEALED WITH HOT-POURED JOINT SEALER, MEET AND MATCH EXISTING PAVEMENT ELEVATIONS. THERE SHALL BE NO SEPARATE PAYMENT FOR THIS WORK BUT THE COST SHALL BE INCLUDED IN THE SURFACE PAVING.
- 2. LIMITS OF SIDEWALK REPLACEMENT SHALL BE SAWCUT TO A NEAT AND CLEAN EDGE WHERE NO JOINT EXISTS. THE COSTS OF SAWCUTTING SHALL BE INCLUDED IN THE RELATED PAY ITEMS IN THE BID FORM.
- 3. REFER TO CURB RAMP LAYOUT DETAILS SHEET 13 OF 13 FOR ADDITIONAL INFORMATION.

## ROADWAY PLAN & PROFILE

DEBLASIO & ASSOCIATES

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FY2023 N.J.D.O.T. LOCAL
TRANSPORTATION PROJECTS
FUND AND FY2024 N.J.D.O.T.
MUNICIPAL AID PROJECT
RECONSTRUCTION OF
OHIO AVENUE
CITY OF CAPE MAY

**CAPE MAY COUNTY, NEW JERSEY** 

Design:
JES TAD

724 MAD REVISED PER IN-HOUSE REVISION AND NJDOT COMMENTS DATED 10/30/2024

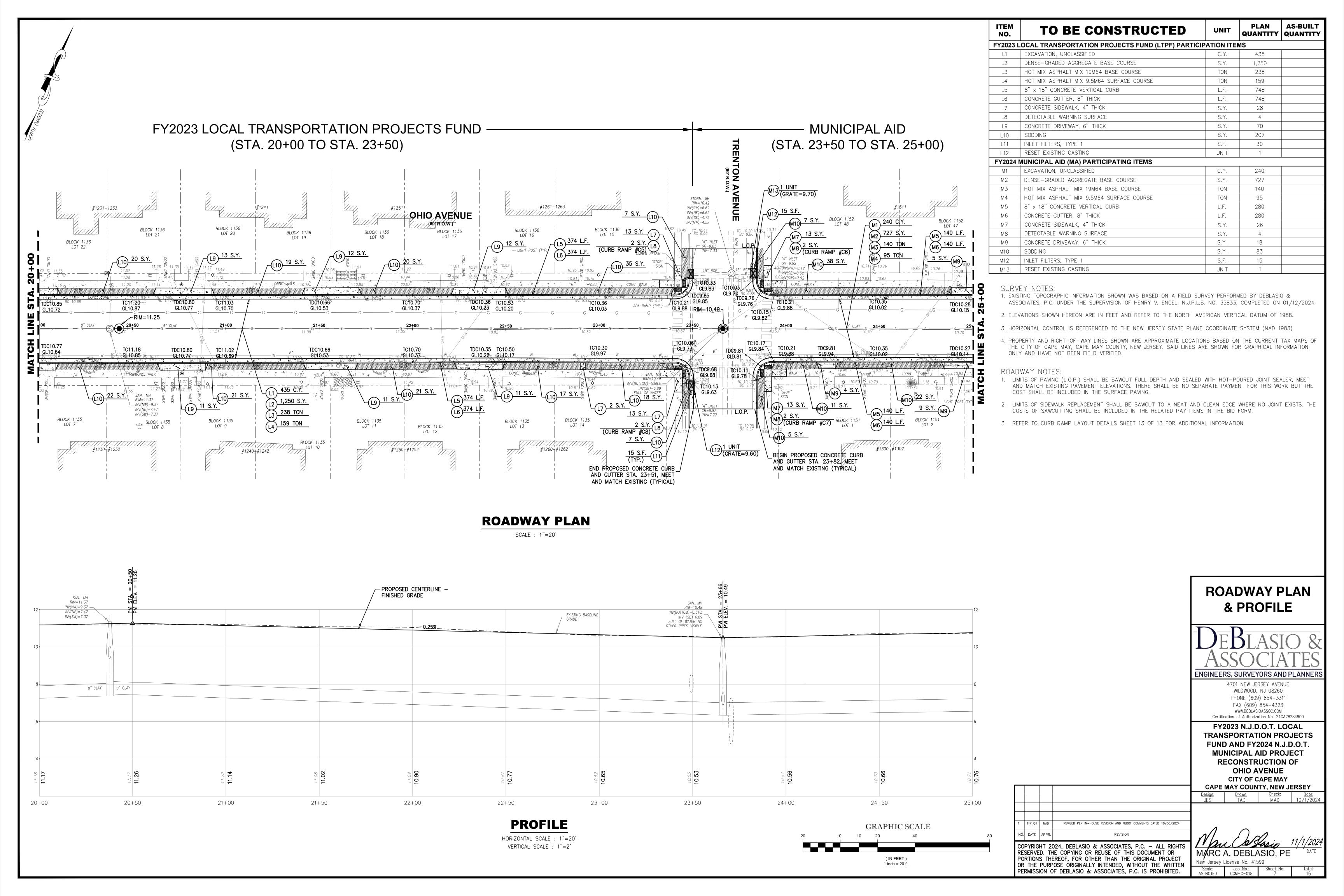
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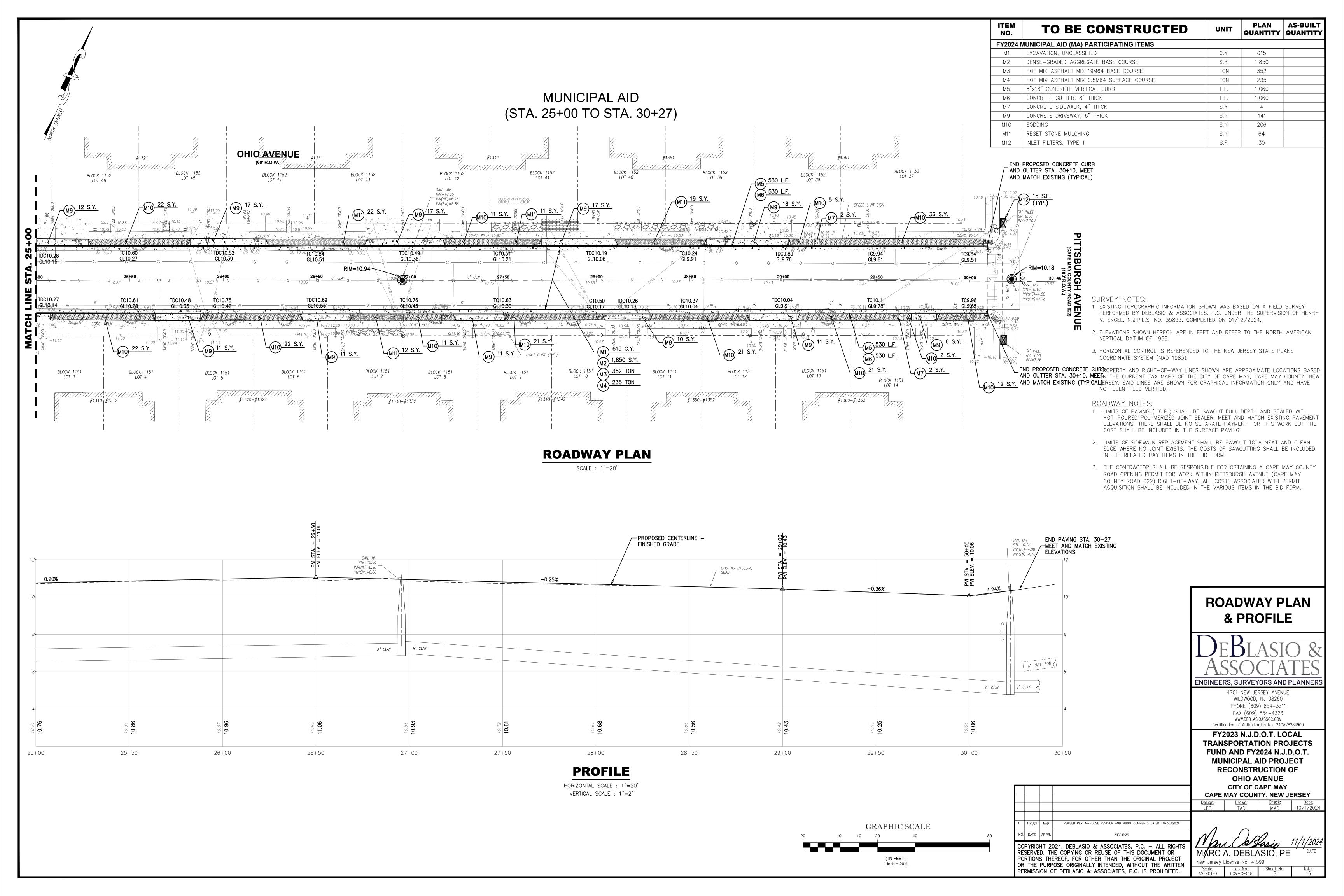
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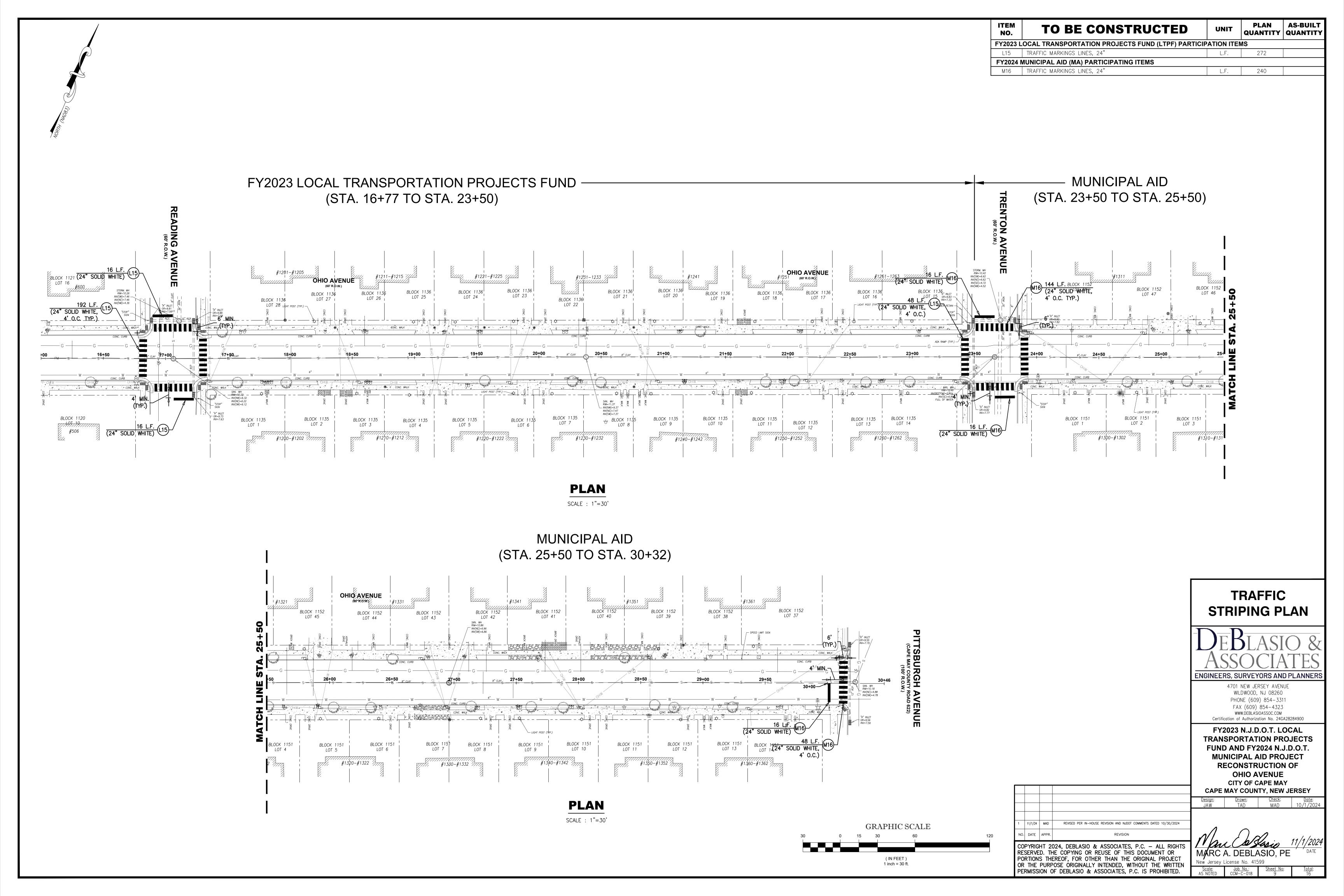
MARC A. DEBLASIO, PE

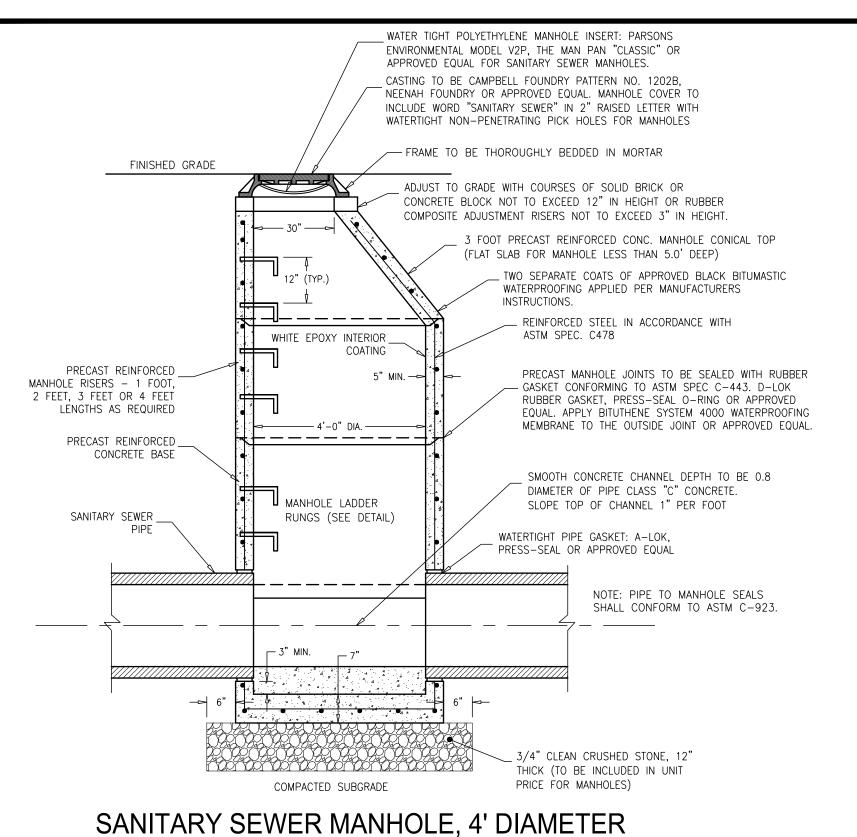
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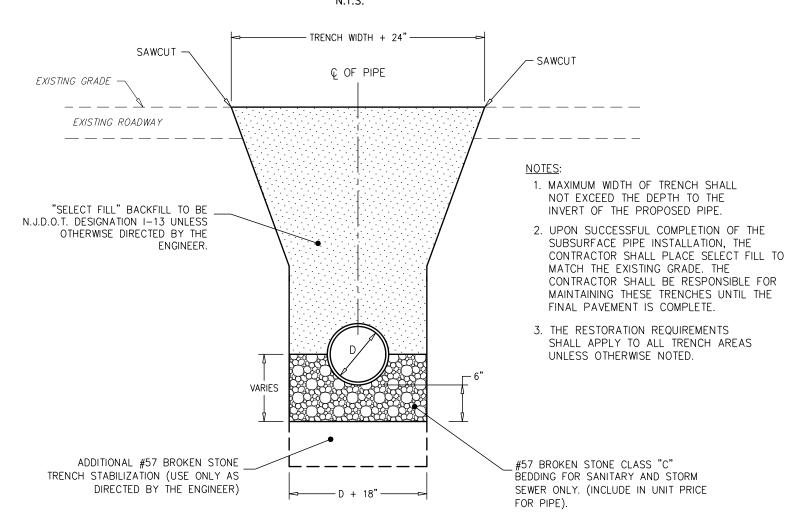
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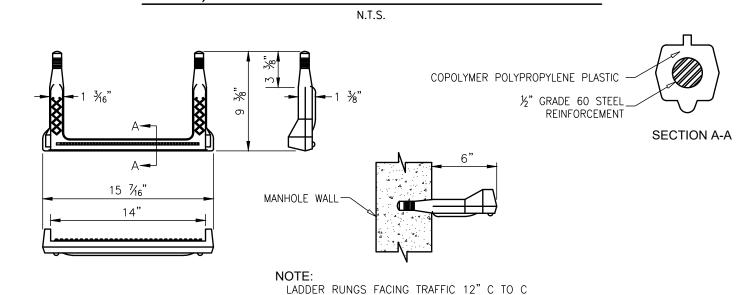




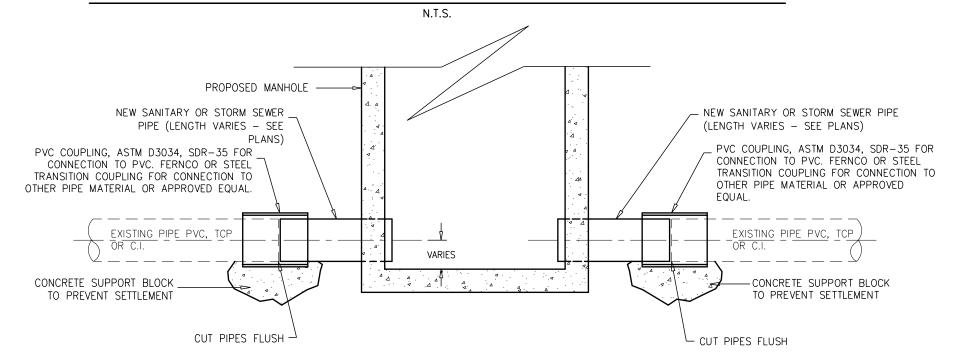




## TYPICAL TRENCH RESTORATION DETAIL FOR STORM SEWER PIPE, SANITARY PIPE AND SERVICES

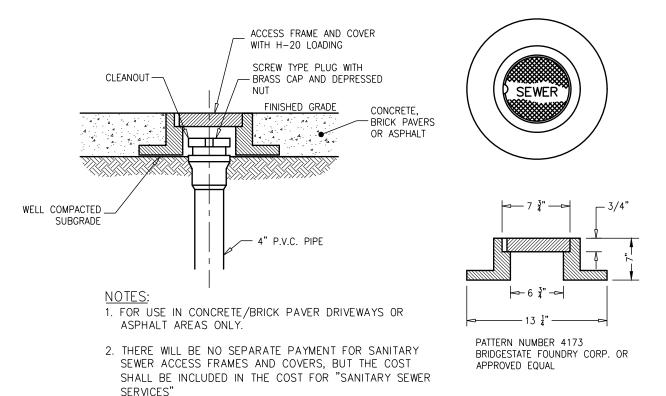


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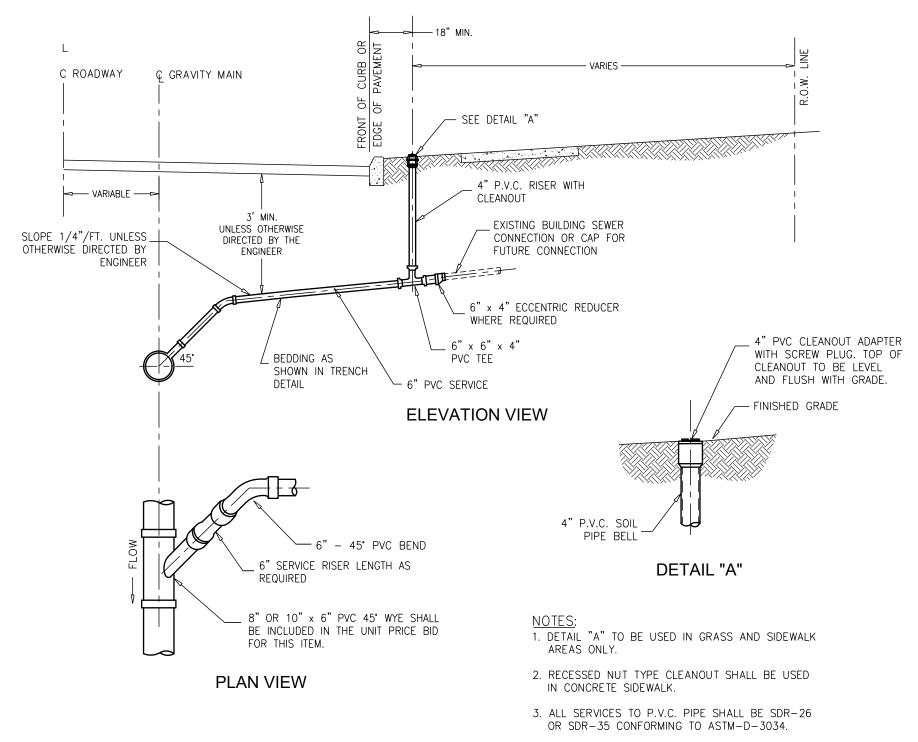


**CONNECTION TO EXISTING** SANITARY SEWER PIPE DETAIL

N.T.S.



## SANITARY SEWER ACCESS FRAME AND COVER DETAIL



## TYPICAL SANITARY SEWER SERVICE LATERAL

THOT POURED RUBBER-ASPHALT JOINT SEALER

PROPOSED CURB -

ROADWAY-

4"|-

→ WIDTH THE SAME

DROPPED CURB AND CRADLE AT ALL PUBLIC

SIDEWALK CURB RAMPS

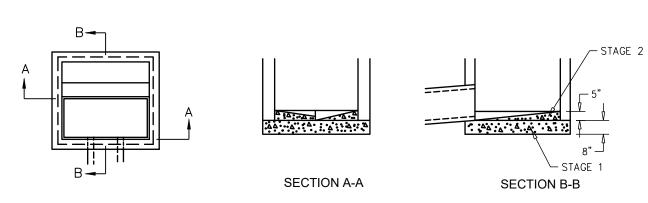
AS APPROACH CURB

1/2" PREFORMED EXPANSION JOINT FILLER

CONCRETE CRADLE 4" WIDE (MONOLITHIC

WITH CURB) (PAID FOR IN COST OF CURB)

CONCRETE SIDEWALK, 4" THICK



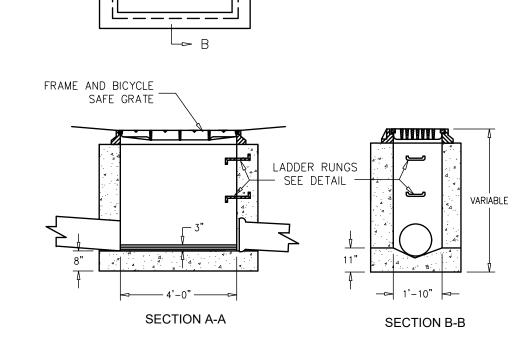
FOUNDATION AND INVERT TO BE CONSTRUCTED IN TWO STAGES. THE TOP SURFACE OF STAGE 1 TO BE LEFT ROUGH.

\_\_\_\_\_

BICYCLE SAFE

GRATE

## DETAIL OF INVERT FOR INLET WITHOUT **CONTINUOUS PIPE**



INLET, TYPE "A'

## **INLET 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 C CONCRETE.
- 2. CORBELLING OF INLET WALLS WILL BE PERMITTED AT THE RATE OF 1/2" 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 SIZE NO. 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

- 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: VERTICAL TOP OF GRATE REINF. #13 @ 10" C.C. #13 @ 18" C.C. 0' TO 10'-0" #13 @ 18" C.C. 10'-1" TO 15'-0" #13 @ 8" C.C. #13 @ 6" C.C. #13 @ 18" C.C. 15'-1" TO 20'-0"

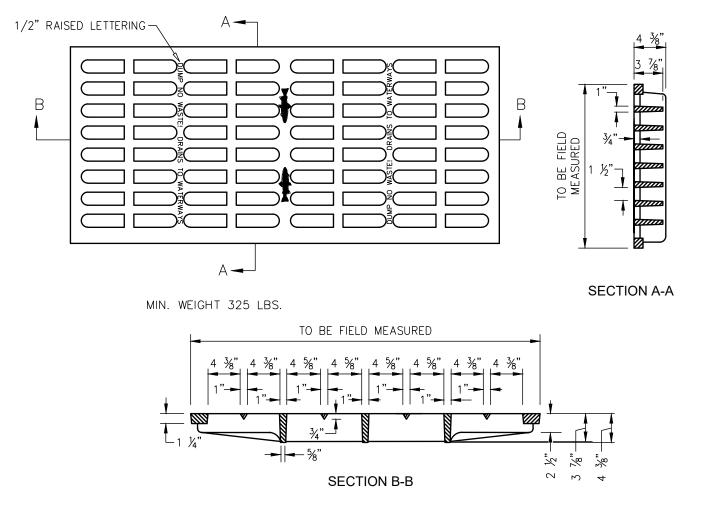
REINFORCING SHOWN FOR PRECAST INLETS IS THE MINIMUM REQUIRED. ADDITIONAL REINFORCING FOR HANDLING IS THE RESPONSIBILITY OF THE CONTRACTOR. ALTERNATE REINFORCEMENT

DEPTH BELOW TOP OF GRATE

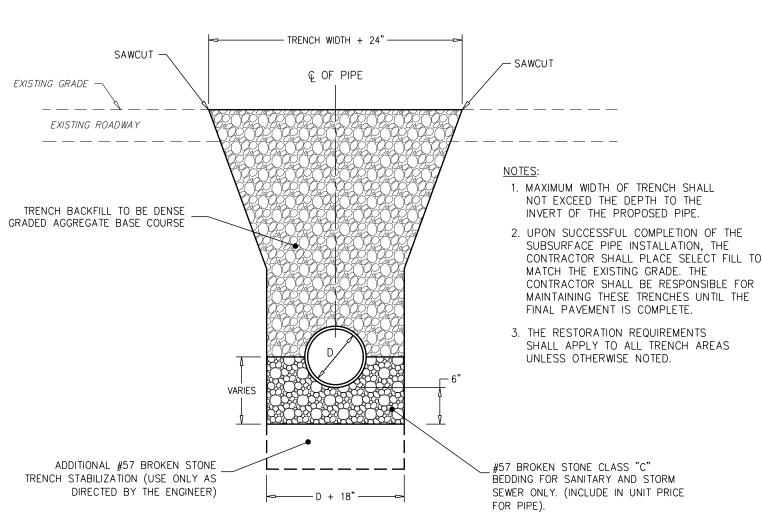
0' TO 10'-0" WWF  $3 \times 6$  W6 WIRES SPACED AT 3" TO RUN HORIZONTAL IN ALL CASES.

WWF 3 x 6 W6 ADD #10 BAR @ 18" HORIZONTAL. WWF 3 x 6 W6 ADD #10 BAR @ 9" HORIZONTAL OR ADD #13 BAR AT 15" HORIZONTAL.

9. ALL INLETS AND STORM MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT NJDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND ITS AMENDMENTS.



**BICYCLE SAFE GRATE** (CAST IRON)



TYPICAL PAVEMENT/TRENCH RESTORATION DETAIL

N.T.S.

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**CONSTRUCTION DETAILS** ENGINEERS, SURVEYORS AND PLANNER 4701 NEW JERSEY AVENUE

WILDWOOD, NJ 08260

PHONE (609) 854-3311

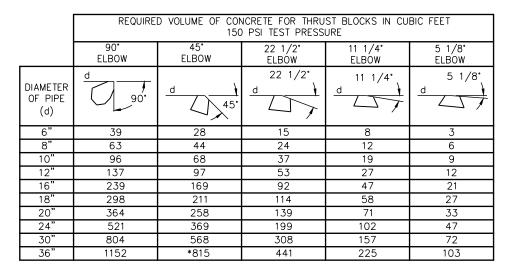
FAX (609) 854-4323

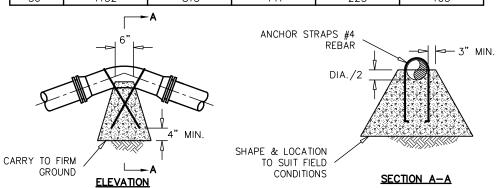
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Certification of Authorization No. 24GA28284900 FY2023 N.J.D.O.T. LOCAL TRANSPORTATION PROJECTS **FUND AND FY2024 N.J.D.O.T. MUNICIPAL AID PROJECT RECONSTRUCTION OF** 

OHIO AVENUE CITY OF CAPE MAY **CAPE MAY COUNTY, NEW JERSEY** <u>Cneck:</u> <u>Date:</u> MAD 10/1/202

(PITTSBURGH AVENUE - C.R. 622)





## VERTICAL DOWNWARD BENDS

NOTES: . VOLUME OF CONCRETE BASED ON 1 CU. FT. WEIGHING 150 LBS. ALL VERTICAL CONCRETE THRUST BLOCKS SHALL BE CLASS B CONCRETE. NO JOINT SHALL BE COVERED WITH CONCRETE. RETAINER GLANDS SHALL BE USED ON ALL MECHANICAL JOINT CONNECTIONS. 5. \* VOLUME OF CONCRETE CALCULATED:

> Volume of Concrete =  $\frac{PA \sin 45}{\text{Weight of Concrete per Cu.Ft.}}$ = 815 Cu.Ft.

## THRUST BLOCKS **VERTICAL DOWNWARD BENDS**

- TRENCH WIDTH + 24" -----

Ç OF PIPE

→ D + 18" — →

TYPICAL TRENCH RESTORATION DETAIL FOR

WATER MAIN AND SERVICES N.T.S.

— SAWCUT

\_ \_ \_ \_ \_ \_ \_ \_ \_

1. MAXIMUM WIDTH OF TRENCH SHALL

NOT EXCEED THE DEPTH TO THE

INVERT OF THE PROPOSED PIPE.

UPON SUCCESSFUL COMPLETION OF THE

CONTRACTOR SHALL PLACE SELECT FILL TO

CONTRACTOR SHALL BE RESPONSIBLE FOR

MAINTAINING THESE TRENCHES UNTIL THE

SHALL APPLY TO ALL TRENCH AREAS

SUBSURFACE PIPE INSTALLATION, THE

MATCH THE EXISTING GRADE. THE

FINAL PAVEMENT IS COMPLETE.

3. THE RESTORATION REQUIREMENTS

UNLESS OTHERWISE NOTED.

SAWCUT

EXISTING GRADE -

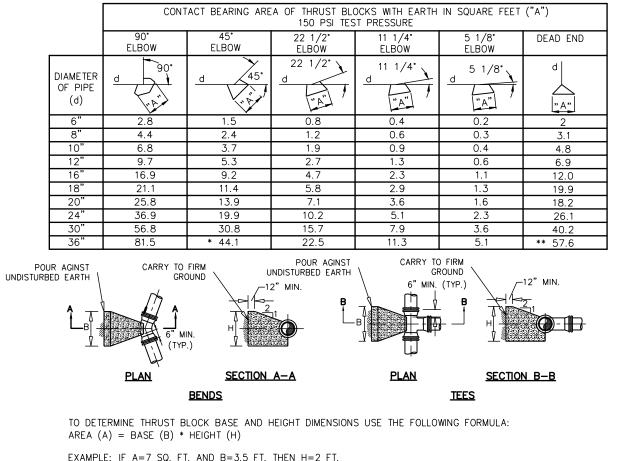
EXISTING ROADWAY

\_\_\_\_\_\_

"SELECT FILL" BACKFILL TO BE .

OTHERWISE DIRECTED BY THE

ENGINEER.



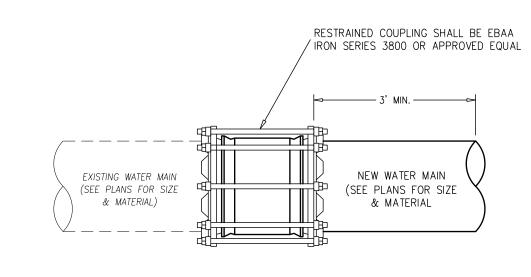
EXAMPLE: IF A=7 SQ. FT. AND B=3.5 FT. THEN H=2 FT.

NOTES: 1. BEARING AREAS ARE BASED ON UNDISTURBED SOIL WITH A BEARING CAPACITY OF 3000 LBS. PER SQ. FT. FOR A LESSER SOIL BEARING CAPACITY, BEARING AREAS SHALL BE INCREASED ACCORDINGLY. 2. ALL CONCRETE THRUST BLOCKS SHALL BE CLASS B CONCRETE.

3. THRUST BLOCKS SHALL BE POURED AGAINST UNDISTURBED EARTH.
4. NO JOINT SHALL BE COVERED WITH CONCRETE. 5. RETAINER GLANDS SHALL BE USED ON ALL MECHANICAL JOINT CONNECTIONS.
6. BEARING AREA CALCULATED: P=Pressure in Lbs/Sq.ln.  $A=\text{Area of the pipe }(A=\pi r^2)$ 

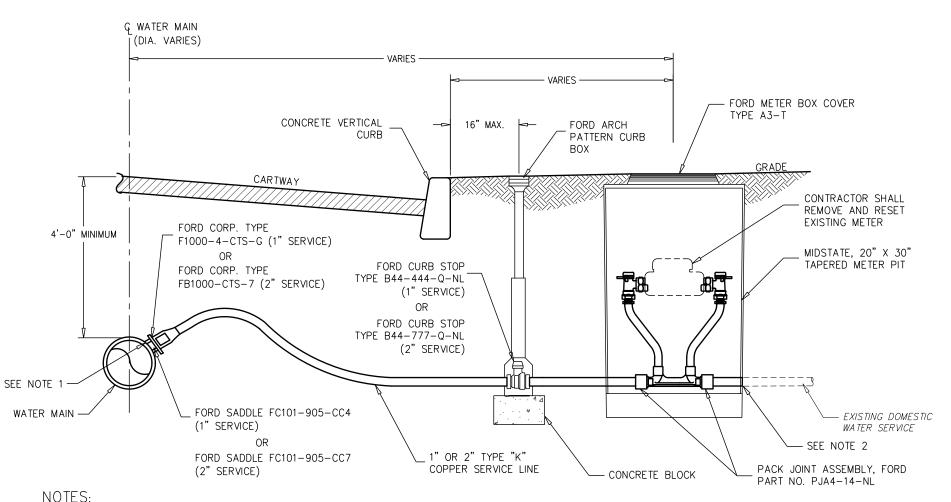
 $= \frac{(2) (150) (1152.09) (0.3827)}{3,000 \text{ Lbs/Sq. Ft.}}$ = 57.6 Sq. Ft. = 44.1 Sq. Ft.

## THRUST BLOCKS HORIZONTAL BENDS AND VERTICAL UPWARD BENDS



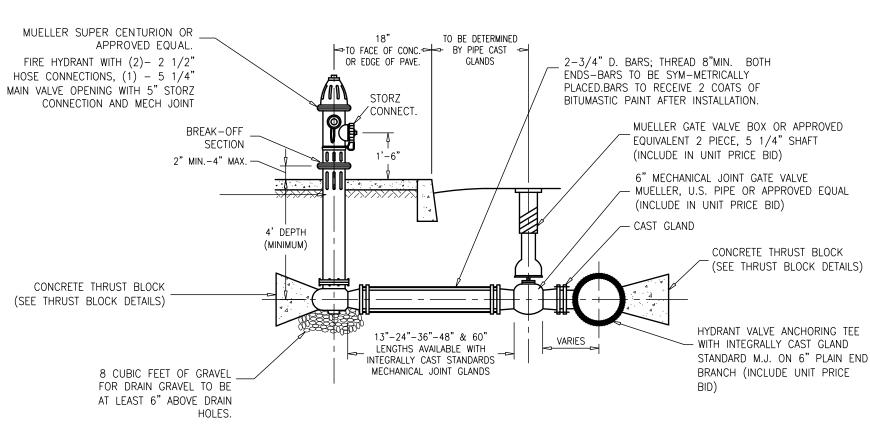
- 1. THERE WILL BE NO SEPARATE PAYMENT FOR ANY ELEVATION ADJUSTMENTS, BOTH HORIZONTALLY OR VERTICALLY TO MAKE A COMPLETE CONNECTION BETWEEN THE PROPOSED WATER MAIN & EXISTING WATER MAIN. ANY FITTINGS ASSOCIATED WITH SUCH ELEVATIONAL ADJUSTMENTS SHALL BE DUCTILE IRON MECHANICAL JOINT FITTINGS WITH APPLICABLE JOINT RESTRAINTS IN ALL CASES.
- 2. PAYMENT, INCLUDING, BUT NOT LIMITED TO THE AFOREMENTIONED ITEMS, AND ALL ELSE NECESSARY TO MAKE A COMPLETE CONNECTION FROM THE EXISTING WATER MAIN TO THE PROPOSED WATER MAIN, SHALL BE INCLUDED IN THE PAY ITEM "CONNECT TO EXISTING WATER MAIN".

## CONNECTION TO EXISTING WATER MAIN DETAIL N.T.S.



- 1. FOR THE REPLACEMENT OF EXISTING WATER SERVICES, THE CONTRACTOR MAY UTILIZE THE EXISTING CORPORATION STOP SUBJECT TO THE APPROVAL OF THE ENGINEER. IF IT IS DETERMINED THAT THE EXISTING CORPORATION STOP CAN BE UTILIZED, THAN THE CONTRACTOR SHALL PROVIDE THE NECESSARY FITTINGS, ADAPTERS AND ALL ELSE FOR A COMPLETE RECONNECTION. THE COST FOR THIS WORK SHALL BE INCLUDED IN THE
- UNIT COST FOR WATER SERVICES. 2. CONTRACTOR TO CONNECT TO THE EXISTING WATER SERVICE. ALL MISCELLANEOUS FITTINGS, COUPLINGS, ADAPTERS AND TUBING REQUIRED TO MAKE A COMPLETE CONNECTION SHALL BE INCLUDED IN THE COST FOR WATER SERVICE.
- 3. FOR ALL FUTURE WATER SERVICE CONNECTIONS THE CONTRACTOR SHALL INSTALL PER THIS DETAIL, EXCEPT THE SERVICE SHALL BE PLUGGED AND NO NEW METER SHALL BE INSTALLED.

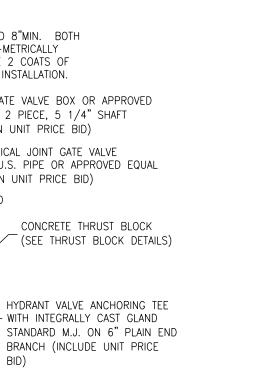
## TYPICAL WATER SERVICE CONNECTION DETAIL



## FIRE HYDRANT DETAIL

### SAWCUT (TYP.) -Ç OF PIPE EXISTING GRADE -EXISTING ROADWAY "SELECT FILL" BACKFILL TO BE N.J.D.O.T. DESIGNATION I-13 IF AND WHERE DIRECTED BY THE 1. UPON SUCCESSFUL COMPLETION OF THE SUBSURFACE PIPE INVESTIGATION, THE CONTRACTOR SHALL PLACE BACKFILL TO MATCH THE EXISTING GRADE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THESE TRENCHES UNTIL THE FINAL PAVEMENT IS COMPLETE.

## TEST PIT RESTORATION DETAIL



## N.T.S.

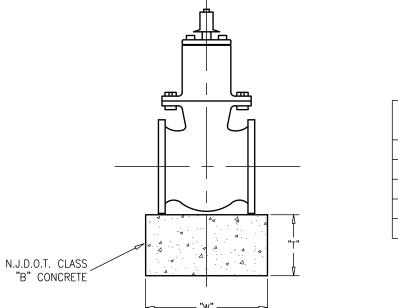
## PAY LIMIT FOR ITEM, "UTILITY CROSSING" MECHANICAL JOINT RESTRAINT (TYP.) EXISTING/PROPOSED - 8" PVC WATER MAIN THRUST BLOCKS SHALL BE PROVIDED AT ALL DOWNWARD VERTICAL POURED CONCRETE LENGTH OF WATER MAIN EXCEEDING O.D. + 12" THRUST BLOCKS, TO BE SHALL BE PAID FOR PER LINEAR FOOT (IN EXCESS OF O.D. + 12") OF WATER MAIN OF THE SAME TYPE AND SIZE SHOWN ON THE PLANS.

1. WATER MAIN MAY BE LOOPED ABOVE/BELOW AN OBSTRUCTION, IF 48" MINIMUM COVER IS MAINTAINED ABOVE WATER MAIN AND 1'-6" VERTICAL CLEARANCE OVER THE OBSTRUCTION IS MAINTAINED.

2. ALL MECHANICAL JOINT RESTRAINTS FOR PVC PIPE SHALL BE EBAA IRON SERIES 2000PV MEGALUG, MJ FIELD LOK SERIES PV OR APPROVED EQUAL.

3. CONCRETE THRUST BLOCKS SHALL BE PROVIDED AT ALL BENDS OR OTHER POINTS OF PIPE DIRECTION CHANGE. 4. VERTICAL CLEARANCE BETWEEN OBSTRUCTING PIPE AND WATER MAIN SHALL BE 1'-6" MINIMUM.

**UTILITY CROSSING DETAIL - VERTICAL** 

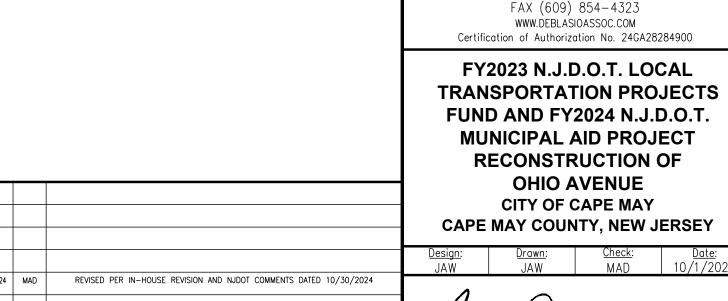


SIZE	Т	W	L
6"	8"	16"	16"
8"	8"	18"	18"
12"	10"	20"	20"
16"	12"	26"	26"
20"	14"	28"	28"

NOTE:

1. THE COST OF THE CONCRETE SUPPORT SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE PROPOSED VALVES.

VALVE SUPPORT DETAIL



PERMISSION OF DEBLASIO & ASSOCIATES, P.C. IS PROHIBITED.

-STORM DRAIN PIPE

SECTION A-A

NOTES:

1. NO SEPARATE PAYMENT SHALL BE MADE FOR THIS
WORK BUT THE COST THEREOF SHALL BE INCLUDED IN

CONCRETE SADDLE DETAIL

(IF REQUIRED)

VARIOUS ITEMS IN THE BID FORM.

N.J.D.O.T. CLASS "C" CONCRETE SADDLE TO VIRGIN GROUND

\_SANITARY SEWER

- STORM DRAIN PIPE

MIDWAY POINT OF PIPE

- N.J.D.O.T. CLASS "C" CONCRETE

CONCRETE SADDLE REQUIRED WHERE

CLEARANCE BETWEEN SAN. SEWER PIPE & STORM DRAIN PIPE IS LESS

──SANITARY SEWER PIPE

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CONSTRUCTION

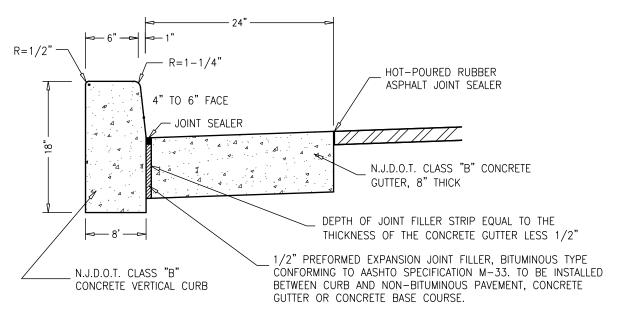
**DETAILS** 

ENGINEERS, SURVEYORS AND PLANNERS

4701 NEW JERSEY AVENUE

WILDWOOD, NJ 08260

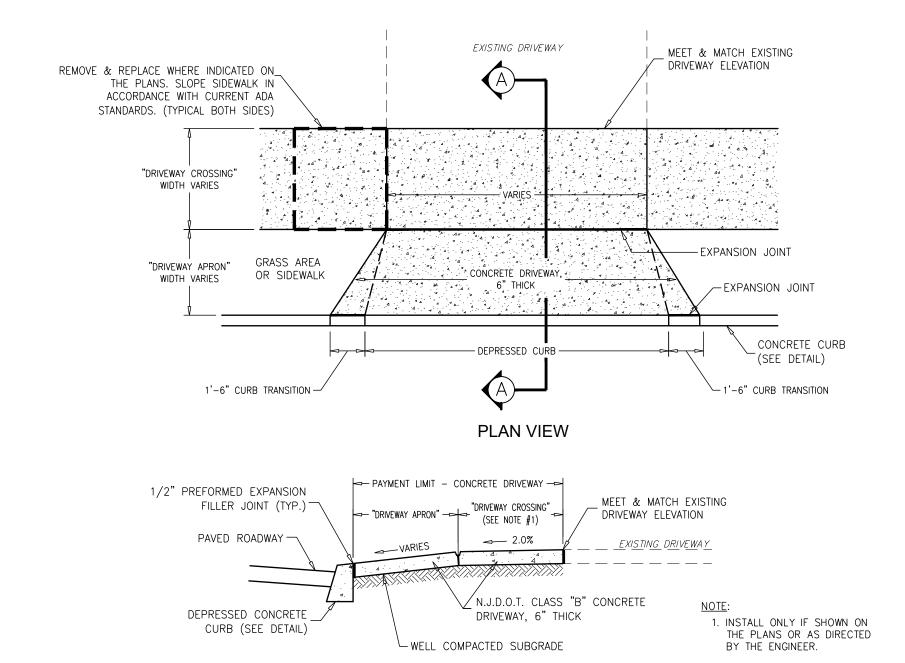
PHONE (609) 854-3311



1. TRANSVERSE JOINTS 1/2" WIDE SHALL BE INSTALLED IN THE CURB 20'-0" APART AND SHALL BE FILLED WITH PREFORMED, BITUMINOUS-IMPREGNATED FIBER JOINT FILLER, COMPLYING WITH THE REQUIREMENTS OF AASHTO M-213, RECESSED 1/4" FROM THE FRONT FACE AND TOP OF CURB.

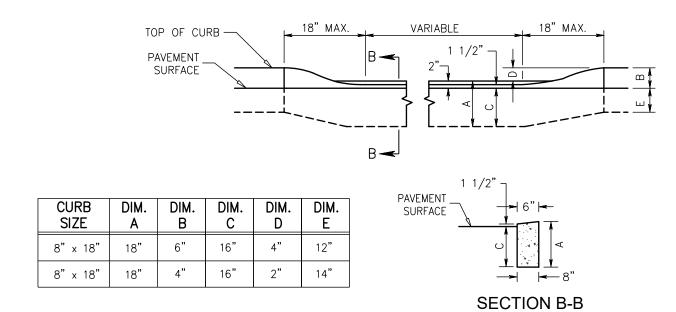
2. DUMMY JOINTS (FORMED) SHALL BE INSTALLED MIDWAY BETWEEN EXPANSION

## CONCRETE VERTICAL CURB AND **CONCRETE GUTTER DETAIL**



## CONCRETE DRIVEWAY APRON DETAIL

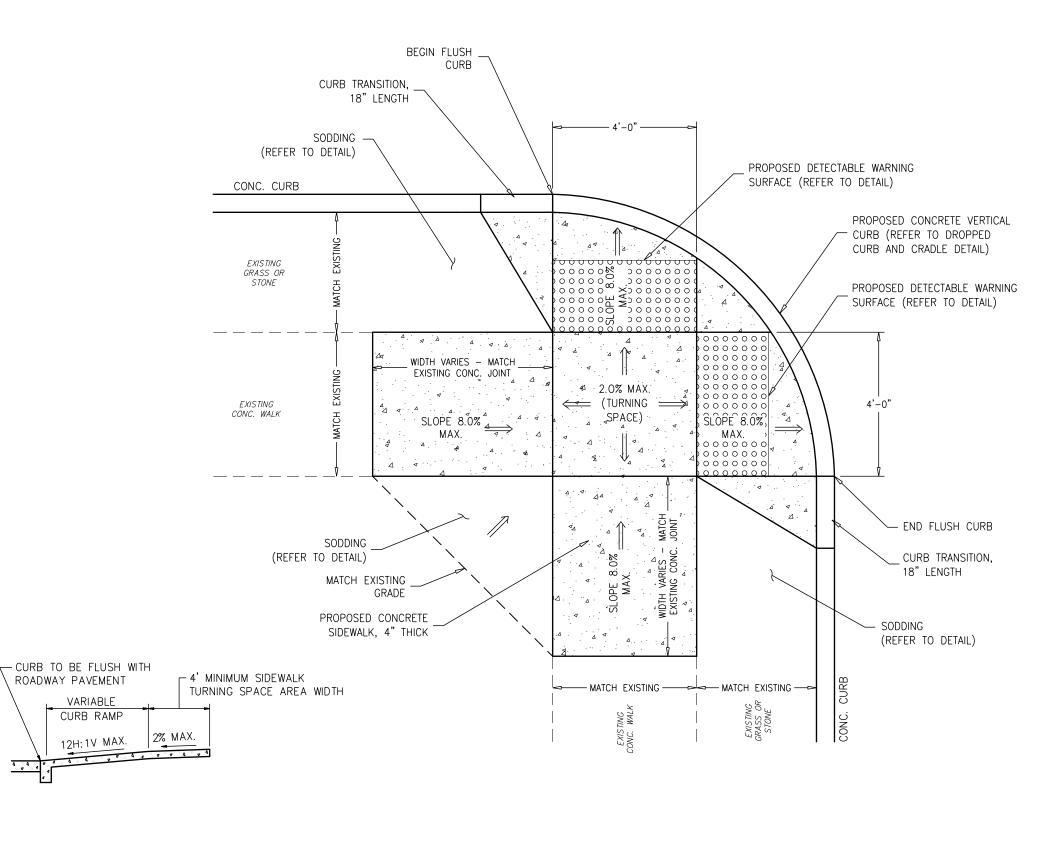
SECTION A-A



METHOD OF DEPRESSED CURB AT DRIVEWAYS

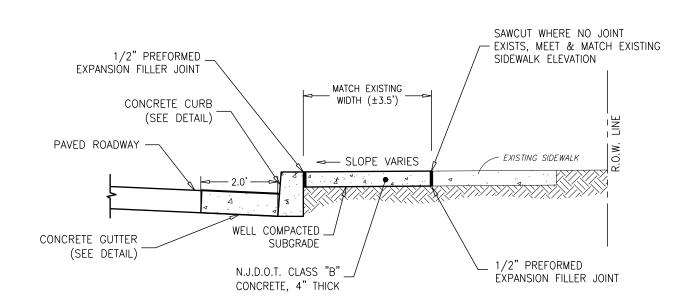
CAST IN PLACE DARK GRAY COLOR COATING, ARMOR-TILE -O" MIN., 6" DESIRABLE, MEASURED ADA-C-2448, ADA FROM BACK OF CURB RADIUS SOLUTIONS INC. OR APPROVED EQUAL - DIRECTION OF TRAVEL ON RAMP 00000 □ 0.65" MIN. BASE TO BASE TO T.D. SPACING SIDEWALK — T.D. SPACING PLAN VIEW — 0.45" MIN. TO 0.90" MAX. TOP DIAMETER — 0.90" MIN. TO 1.4" MAX BASE DIAMETER **ELEVATION** 

## DETECTABLE WARNING SURFACE

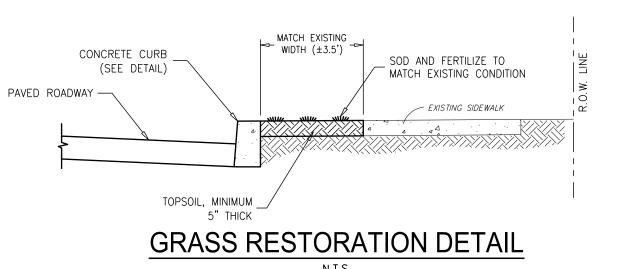


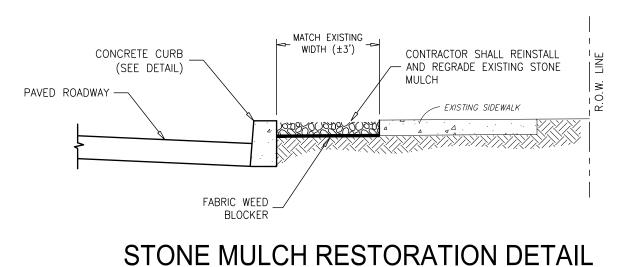
- KEEP TURNING SPACE, APPROACH SIDEWALK TRANSITIONS, AND CURB RAMP CLEAR OF OBSTRUCTIONS THAT PROTRUDE ABOVE THE SIDEWALK. 2. DIMENSIONS SHOWN IN TABLES ARE FOR RELATIVELY FLAT SIDEWALK AREAS. CARE SHOULD BE TAKEN WHEN DETERMINING CURB RAMP SIZE BASED ON CURB HEIGHT (H) WHERE ELEVATION OF CURB AND SIDEWALK VARY DRASTICALLY IN AREA OF PROPOSED CURB RAMP.
- 3. CURB (DROPPED CURB) GUTTERLINE TO BE FLUSH WITH ROADWAY PAVEMENT A MINIMUM OF 4 FEET AT ALL CURB RAMPS. 4. FOR CÙRB RAMP TYPES 5 AND 6, IF A GRASS BUFFER DOES NOT EXIST, SLOPE CURB TO EQUAL SLOPE OF ADJACENT CURB RAMP.
- 5. SIDEWALK AND CURB RAMP WITHIN AREA ENCLOSED BY HEAVY LINES TO BE PAID FOR AS CONCRETE SIDEWALK OF THE APPROPRIATE ADJACENT
- 6. CURB AND HEADER WITHIN AREA ENCLOSED BY HEAVY LINES TO BE PAID FOR AS VERTICAL CURB OR SLOPING CURB OF THE APPROPRIATE ADJACENT SIZE AND KIND. 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 4. CROSSWALKS AND STOP LINES MAY BE MARKED OR UNMARKED. SEE PLANS.
- DIMENSIONS SHOWN IN TABLES ARE FOR 3 INCH TO 9 INCH CURB HEIGHTS. WHERE THE CURB HEIGHTS ARE OTHER THAN WHAT IS PROVIDED IN
- THE TABLES, THE DIMENSIONS OF THE RAMPS WILL HAVE TO BE CALCULATED BASED ON CROSS SLOPES SHOWN. 10. 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 LENGTH TO EXCEED 15 FEET. THE RUNNING SLOPE MAY EXCEED THE 12H:1V MAX SLOPE SO AS NOT TO EXCEED THE 15 FEET MAXIMUM LENGTH.
- 11. CURB RAMP TYPE 1 THROUGH 7 ARE NORMALLY PLACED ON THE RADIUS RETURN AT THE INTERSECTION AND ON A TANGENT SECTION AS DRAWN. 12. THE PUBLIC SIDEWALK CURB RAMP, DETECTABLE WARNING SURFACE (SHADED AREA) SHALL BE DARK GRAY COLOR ON CONCRETE.

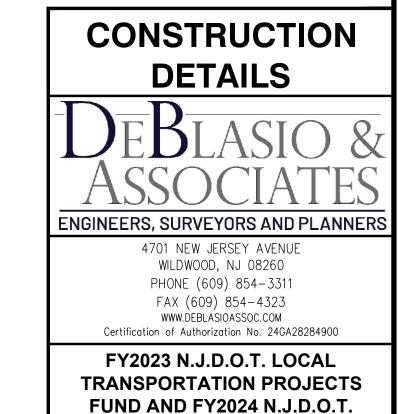
TYPICAL PUBLIC SIDEWALK CURB RAMP (TYPE 4 - MODIFIED)



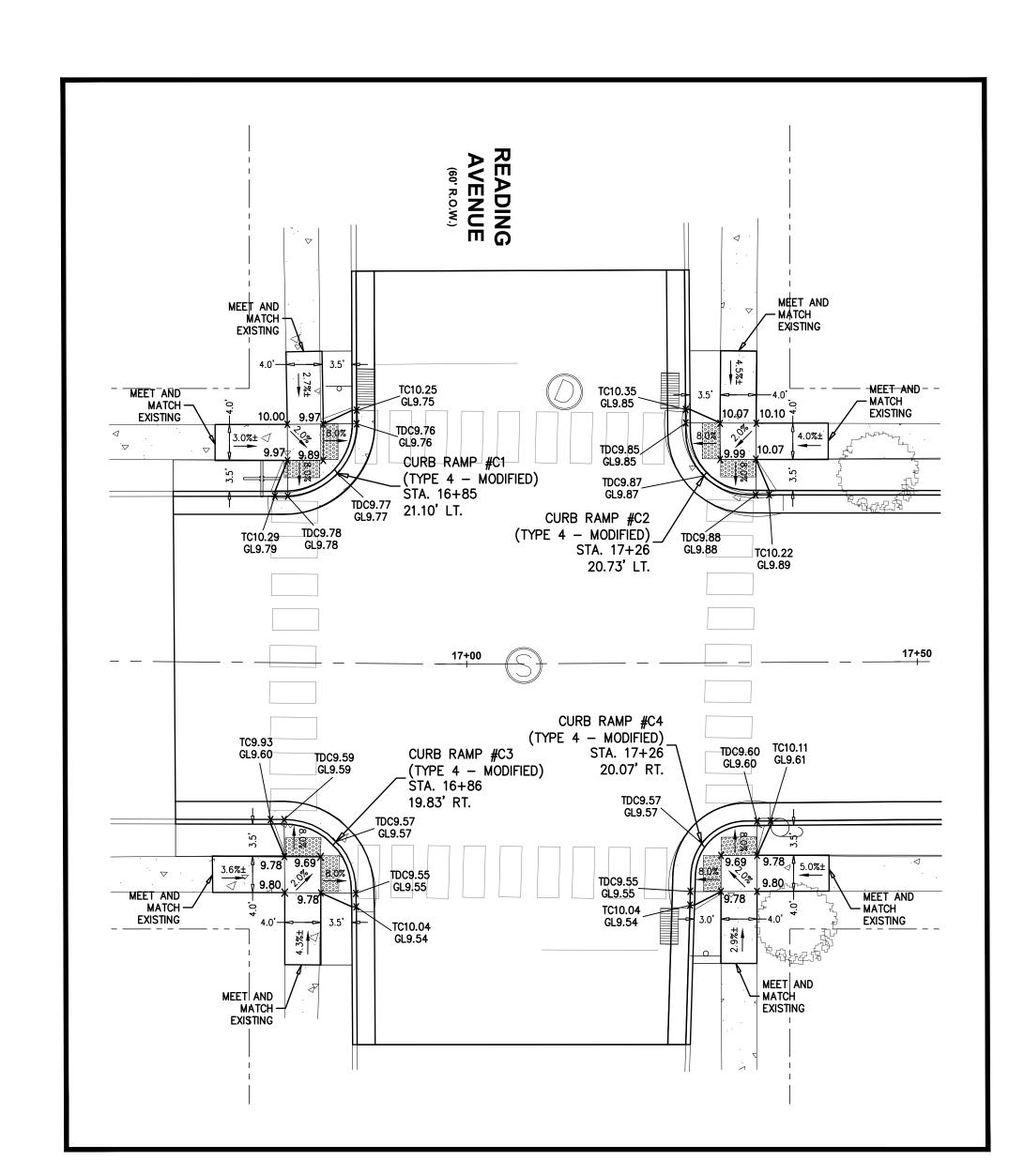
## CONCRETE SIDEWALK RESTORATION DETAIL





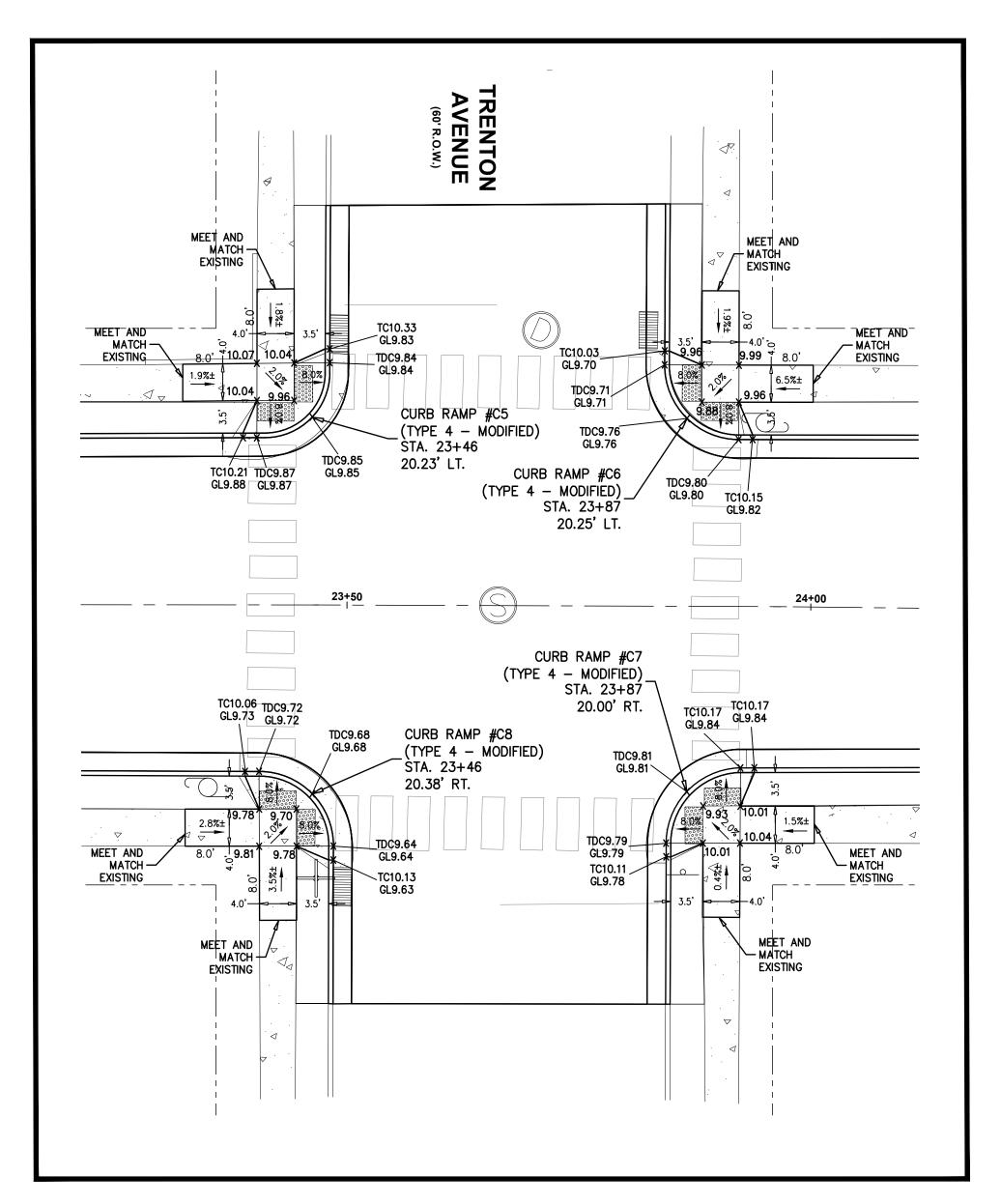


**MUNICIPAL AID PROJECT** RECONSTRUCTION OF OHIO AVENUE CITY OF CAPE MAY **CAPE MAY COUNTY, NEW JERSEY** REVISED PER IN-HOUSE REVISION AND NJDOT COMMENTS DATED 10/30/2024 COPYRIGHT 2024, DEBLASIO & ASSOCIATES, P.C. - ALL RIGHTS MARC A. DEBLASIO, PE RESERVED. THE COPYING OR REUSE OF THIS DOCUMENT OR PORTIONS THEREOF, FOR OTHER THAN THE ORIGINAL PROJECT OR THE PURPOSE ORIGINALLY INTENDED, WITHOUT THE WRITTEN PERMISSION OF DEBLASIO & ASSOCIATES, P.C. IS PROHIBITED.



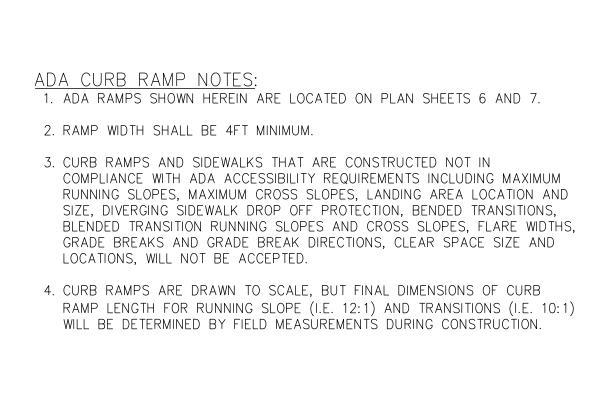
PLAN
(OHIO AVENUE AND READING AVENUE)

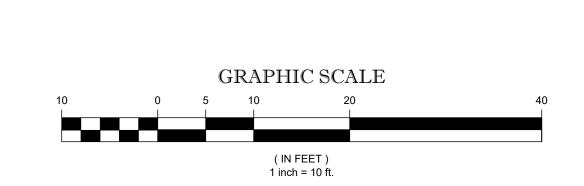
SCALE: 1"=10'

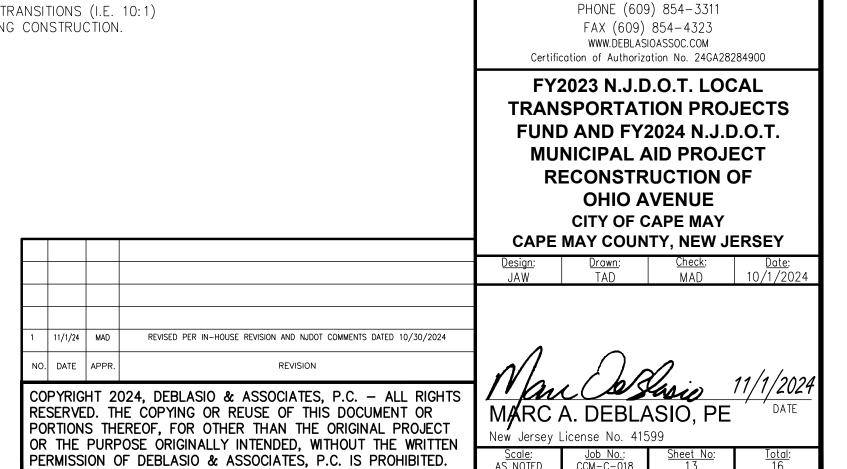


PLAN
(OHIO AVENUE AND TRENTON AVENUE)

SCALE: 1"=10'







**CURB RAMP** 

LAYOUT DETAILS

**ENGINEERS, SURVEYORS AND PLANNERS** 

4701 NEW JERSEY AVENUE WILDWOOD, NJ 08260

## SOIL EROSION AND SEDIMENT CONTROL NOTES

- 1. ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE INSTALLED IN ACCORDANCE WITH THE NJ STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL, AND WILL BE INSTALLED
- IN PROPER SEQUENCE AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED. 2. ANY DISTURBED AREA THAT WILL BE LEFT EXPOSED FOR MORE THAN TEN (10) DAYS AND NOT SUBJECT TO CONSTRUCTION TRAFFIC SHALL IMMEDIATELY RECEIVE A TEMPORARY SEEDING. IF THE SEASON PROHIBITS TEMPORARY SEEDING, THE DISTURBED AREA WILL BE MULCHED WITH SALT HAY OR EQUIVALENT AND BOUND IN ACCORDANCE WITH THE NJ STANDARDS (I.E. PEG AND TWIN, MULCH NETTING, OR LIQUID MULCH BINDER).
- 3. IMMEDIATELY FOLLOWING INITIAL DISTURBANCE OR ROUGH GRADING, ALL CRITICAL AREAS SUBJECT TO EROSION WILL RECEIVE A TEMPORARY SEEDING IN COMBINATION WITH STRAW MULCH OR A SUITABLE EQUIVALENT, AT A RATE OF 2 TONS PER ACRE, ACCORDING TO THE NJ STANDARDS.

#### STABILIZATION SPECIFICATIONS:

- A. TEMPORARY SEEDING AND MULCHING: -LIME - 90 LBS/1,000 SF GROUND LIMESTONE; FERTILIZER - 14 LBS/1,000 SF; 10-20-10 OR EQUIVALENT WORKED INTO SOIL A MINIMUM OF 4"
  -SEED - PERENNIAL RYEGRASS 100 LBS/ACRE OR OTHER APPROVED SEEDS; PLANT BETWEEN MARCH 1 AND MAY 15 OR BETWEEN AUGUST 15 AND OCTOBER 1. -MULCH - SALT HAY OR SMALL GRAIN STRAW AT A RATE OF 70 TO 90 LBS/1,000 SF, TO BE APPLIED ACCORDING TO THE NJ STANDARDS. MULCH SHALL BE SECURED BY
- APPROVED METHODS (I.E. PEG AND TWINE, MULCH NETTING, OR LIQUID MULCH BINDER). B. PERMANENT SEEDING AND MULCHING: -LIME - 90 LBS/1,000 SF GROUND LIMESTONE; FERTILIZER - 14 LBS/1,000 SF; 10-20-10 OR EQUIVALENT WORKED INTO SOIL A MINIMUM OF 4"
  -SEED - PERENNIAL RYEGRASS 40 LBS/ACRE OR OTHER APPROVED SEEDS; PLAN BETWEEN MARCH 1 AND MAY 15 OR BETWEEN AUGUST 15 AND OCTOBER 1. -MULCH - SALT HAY OR SMALL GRAIN STRAW AT A RATE OF 70 TO 90 LBS/1,000 SF, TO BE APPLIED ACCORDING TO THE NJ STANDARDS. MULCH SHALL BE SECURED BY
- APPROVED METHODS (I.E. PEG AND TWINE, MULCH NETTING, OR LIQUID MULCH BINDER). 5. TEMPORARY BERMS ARE TO BE INSTALLED ON ALL CLEARED ROADWAYS AND EASEMENT AREAS IN ACCORDANCE WITH SECTION 4.21 OF THE NJ STANDARDS.
- 6. THE SITE SHALL AT ALL TIMES BE GRADED AND MAINTAINED SUCH THAT ALL STORM-
- WATER RUN-OFF IS DIVERTED TO SOIL EROSION AND SEDIMENT CONTROL FACILITIES. 7. ALL SEDIMENTATION STRUCTURES WILL BE INSPECTED AND MAINTAINED ON A REGULAR
- 8. STOCKPILES ARE NOT TO BE LOCATED WITHIN 50' OF A FLOODPLAIN, SLOPE, ROADWAY, OR DRAINAGE FACILITY. THE BASE OF ALL STOCKPILES SHOULD BE PROTECTED BY A HAY
- BALE BARRIER OR SEDIMENT FENCE. 9. A CRUSHED STONE, VEHICLE WHEEL-CLEANING BLANKET WILL BE INSTALLED WHEREVER A CONSTRUCTION ACCESS ROAD INTERSECTS ANY PAVED ROADWAY. SAID BLANKET WILL BE COMPOSED OF 2 1/2" CRUSHED STONE, 6" THICK, WILL BE AT LEAST 30' x 100' AND SHOULD BE UNDERLAIN WITH A SUITABLE SYNTHETIC SEDIMENT FILTER FABRIC AND MAINTAINED.
- 10. MAXIMUM SIDE SLOPES OF ALL EXPOSED SURFACES SHALL NOT EXCEED 3:1 UNLESS OTHERWISE APPROVED BY THE DISTRICT. 11. ALL DRIVEWAYS MUST BE STABILIZED WITH 2 1/2" CRUSHED STONE OR SUBBASE PRIOR
- TO INDIVIDUAL LOT CONSTRUCTION. 12. PAVED ROADWAYS MUST BE KEPT CLEAN AT ALL TIMES.
- 13. ALL CATCH BASIN INLETS WILL BE PROTECTED WITH A CRUSHED STONE OR FABRIC
- FILTER (FILTER DETAILS APPEAR ON THE PLAN). 14. ALL STORM DRAINAGE OUTLETS WILL BE STABILIZED, AS REQUIRED, BEFORE THE
- DISCHARGE POINTS BECOME OPERATIONAL. 15. ALL DEWATERING OPERATIONS MUST DISCHARGE DIRECTLY INTO A SEDIMENT FILTER
- AREA. THE SEDIMENT FILTER SHOULD BE COMPOSED OF A SUITABLE SEDIMENT FILTER 16. THE CAPE/ATLANTIC SOIL CONSERVATION DISTRICT MUST BE NOTIFIED, IN WRITING,
- AT LEAST 48 HOURS PRIOR TO ANY LAND DISTURBANCE. 17. THE CAPE/ATLANTIC SOIL CONSERVATION DISTRICT MAY REQUEST ADDITIONAL MEASURES TO MINIMIZE ON OR OFF-SITE EROSION PROBLEMS DURING CONSTRUCTION.

## 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
- B. INSTALL NEEDED EROSION CONTROL PRACTICES OR FACILITIES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENT BASINS, AND WATERWAYS.

A. APPLY LIMESTONE AND FERTILIZER. FERTILIZER SHALL BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE OR 11 POUNDS PER 1,000 SQUARE FEE OF 10-20-10 OR EQUIVALENT. APPLY LIMESTONE (EQUIVALENT TO 50% CALCIUM PLUS MAGNESIUM OXIDES) AS FOLLOWS:

SOIL TEXTURE	TONS/ACRE	LBS./1000 SQFT.
CLAY, CLAY LOAM, AND HIGH ORGANIC SOIL	3	135
SANDY LOAM, LOAM, SILT LOAM	2	90

OF THE NEW BRUNSWICK-TRENTON LINE

- PULVERIZED DOLOMITIC LIMESTONE IS PREFERRED FOR MOST SOILS SOUTH
- B. WORK LIME AND FERTILIZER INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRINGTOOTH HARROW, OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OR DISCING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLY UNIFORM SEEDBED
- C. INSPECT SEEDBED JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE RETILLED AS ABOVE.
- D. SOILS HIGH ON SULFIDES OR HAVING A pH OF 4 OR LESS SHOULD BE MULCHED ONLY.

## SEEDING

- A. SEE TEMPORARY SEED MIXTURE FOR SPECIES AND APPLICATION RATES.
- B. APPLY SEED UNIFORMLY BY HAND, CYCLONE(CENTRIFUGAL) SEEDER, DROP SEEDER, DRILL, CULTIPACKER SEEDER, OR HYDROSEEDER. MÜLCH SHALL NOT BE INCLUDED IN A HYDRO-SEEDER TANK WITH SEED. SEED SHALL BE INCORPORATED INTO THE SOIL BY RAKING OR DRAGGING. DEPTH OF SEED PLACEMENT MAY BE 1/4 INCH DEEPER ON COURSE TEXTURED
- C. AFTER SEEDING, FIRMING THE SOIL SHALL BE PERFORMED WITH A CORRUGATED ROLLER WILL ASSURE GOOD SEED—TO—SOIL CONTACT, RESTORE CAPILLARITY, AND IMPROVE SEEDING

## 4. MULCHING

- MULCHING IS REQUIRED ON ALL SEEDING. A. MULCH MATERIALS SHOULD BE UNROTTED SMALL GRAIN STRAW, HAY FREE OF SEEDS, OR SALT HAY TO BE APPLIED AT THE RATE OF 1 1/2 TO 2 TONS PER ACRE (70 TO 90 POUNDS PER 1,000 SQUARE FEET), EXCEPT THAT WHERE A CRIMPER IS USED INSTEAD OF A LIQUID MULCH-BINDER (TACKIFYING OR ADHESIVE AGENT), THE RATE OF APPLICATION MUST BE DOUBLE THE LOWER RATE. MULCH CHOPPER-BLOWERS MUST NOT GRIND THE MATERIAL.
- B. <u>SPREAD UNIFORMLY</u> BY HAND OR MECHANICALLY SO THAT APPROXIMATELY 75% TO 95% 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
- C. MULCH ANCHORING SHOULD BE ACCOMPLISHED IMMEDIATELY AFTER PLACEMENT TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE DONE BY ONE OF THE FOLLOWING METHODS, DEPENDING UPON THE SIZE OF THE AREA, STEEPNESS OF SLOPES, AND COSTS.
- PEG AND TWINE- DRIVE 8 TO 10 INCH WOODEN PEGS TO WITHIN 2 TO 3 INCHES OF THE SOIL SURFACE EVERY 4 FEET IN ALL DIRECTIONS. STAKES MAY BE DRIVEN BEFORE OR AFTER APPLYING MULCH. SECURE MULCH TO SOIL SURFACE BY STRETCHING TWINE BETWEEN PEGS IN A CRISSCROSS AND A SQUARE PATTERN. SECURE TWINE AROUND EACH PEG WITH TWO OR MORE ROUND TURNS.
- 2. <u>MULCH NETTING</u>— STAPLE PAPER, JUTE, COTTON, OR PLASTIC NETTING TO THE SOIL SURFACE. USE A DEGRADABLE NETTING IN AREAS TO BE MOWED.
- 3. <u>CRIMPER(MULCH ANCHORING TOOL)</u>— 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 [ONS PER ACRE. NO TACKIFYING OR ADHESIVE AGENT IS REQUIRE[
- D. WOOD-FIBER OR PAPER-FIBER MULCH AT THE RATE OF 1,500 POUNDS PER ACRE MAY BE APPLIED BY A HYDROSEEDER. USE IS LIMITED TO FLATTER SLOPES AND DURING OPTIMUM

## TEMPORARY SEEDING MIXTURE

SEEDING PERIODS IN SPRING AND FALL.

IRRIGATION IS PROVIDED TO ENSURE SUCCESSFUL GERMINATION.

- THIS SEEDING MIXTURE IS COMPOSED OF A SINGLE SPECIES WHICH GERMINATES QUICKLY IN ORDER TO REDUCE SOIL EROSION UNTIL A PERMANENT VEGETATIVE COVER CAN BE COVER ESTABLISHED. A MIXTURE OF EQUAL QUALITY MAY BE SUBSTITUTED IF APPROVED BY OUR OFFICE. COMMON NAME BOTANICAL NAME
- PERENNIAL RYEGRASS LOLIUM PERENNE THE MINIMUM APPLICATION RATE FOR THIS SEEDING MIXTURE SHALL BE FOUR (4) POUNDS/1000 SQUARE FEET OR 160 POUNDS/ACRE

THE OPTIMAL SEEDING DATES FOR PERRENNIAL RYEGRASS FOR CAPE-ATLANTIC REGION ARE 2/15 - 4/30 AND 8/15 - 10/30. SUMMER SEEDING SHALL BE PERFORMED ONLY IF ADEQUATE

## PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION

SITE PREPARATION

MAINTENANCE

- A. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND
- B. INSTALL NEEDED EROSION CONTROL PRACTICES OR FACILITIES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENT BASINS, AND WATERWAYS.

### 2. SEEDBED PREPARATION

- A. APPLY LIMESTONE AND FERTILIZER. FERTILIZER SHALL BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE OR 11 POUNDS PER 1.000 SQUARE FEET 1-10 OR EQUIVALENT. APPLY LIMESTONE (EQUIVALENT TO 50% CALCIUM PLUS MAGNESIUM OXIDES) AS FOLLOWS:
- TONS/ACRE SQ. FT. CLAY, CLAY LOAM, AND HIGH SANDY LOAM, LOAM, SILT LOAM
- LOAMY SAND, SAND
- PULVERIZED DOLOMITIC LIMESTONE IS PREFERRED FOR MOST SOILS SOUTH OF THE NEW BRUNSWICK-TRENTON LINE. B. WORK LIME AND FERTILIZER INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRING TOOTH HARROW, OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OR DISCING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLY UNIFORM SEEDBED IS PREPARED. ALL BUT CLAY OR SILTY SOILS AND COURSE SANDS SHOULD BE ROLLED
- O FIRM THE SEEDBED WHEREVER FEASIBLE. C. REMOVE FROM THE SURFACE ALL STONES TWO INCHES OR LARGER IN ANY DIMENSION. REMOVE ALL OTHER DEBRIS, SUCH AS WIRE, CABLE, TREE ROOTS, PIECES OF CONCRETE CLODS, LUMPS, OR OTHER UNSUITABLE MATERIAL.
- D. INSPECT SEEDBED JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE RETILLED AND FIRMED AS ABOVE.

#### 3. SEEDING A. SEE PERMANENT SEED MIXTURE FOR SPECIES AND APPLICATION RATES.

B. APPLY SEED UNIFORMLY BY HAND, CYCLONE(CENTRIFUGAL) SEEDER, DROP SEEDER, DRILL CULTIPACKER SEEDER, OR HYDROSEEDER. MULCH SHALL NOT BE INCLUDED IN A HYDRO-SEEDER TANK WITH SEED. EXCEPT FOR DRILLED, HYDROSEEDED OR CULTIPACKED SEEDING SHALL BE INCORPORATED INTO THE SOIL, TO A DEPTH OF 1/4 TO 1/2 INCH, BY RAKING OF DRAGGING. DEPTH OF SEED PLACEMENT MAY BE 1/4 INCH DEEPER ÓN COURSE TEXTURED SOIL. C. AFTER SEEDING, FIRMING THE SOIL SHALL BE PERFORMED WITH A CORRUGATED ROLLER WILL ASSURE GOOD SEED-TO-SOIL CONTACT, RESTORE CAPILLARITY, AND IMPROVE SEEDING

- MULCHING IS REQUIRED ON ALL SEEDING.
- A. MULCH MATERIALS SHOULD BE UNROTTED SMALL GRAIN STRAW, HAY FREE OF SEEDS, OR SALT HAY TO BE APPLIED AT THE RATE OF 1 1/2 TO 2 TONS PER ACRE (70 TO 90 POUNDS PER 1,000 SQUARE FEET), EXCEPT THAT WHERE A CRIMPER IS USED INSTEAD OF A LIQUID MULCH-(TACKIFYING OR ADHESIVE AGENT), THE RATE OF APPLICATION MUST BE DOUBLE THE LOWER RATE. MULCH CHOPPER-BLOWERS MUST NOT GRIND THE MATERIAL
- B. <u>SPREAD UNIFORML</u>Y BY HAND OR MECHANICALLY SO THAT APPROXIMATELY 75% TO 95% 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 FACH SECTION.
- C. MULCH ANCHORING SHOULD BE ACCOMPLISHED IMMEDIATELY AFTER PLACEMENT TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE DONE BY ONE OF THE FOLLOWING METHODS, DEPENDING UPON THE SIZE OF THE AREA, STEEPNESS OF SLOPES, AND COSTS. . <u>PEG AND TWINE</u>— DRIVE 8 TO 10 INCH WOODEN PEGS TO WITHIN 2 TO 3 INCHES OF THE SOIL SURFACE EVERY 4 FEET IN ALL DIRECTIONS. STAKES MAY BE DRIVEN BEFORE OR AFTER APPLYING MULCH. SECURE MULCH TO SOIL SURFACE BY STRETCHING TWINE BETWEEN
- PEGS IN A CRISS-CROSS AND SQUARE PATTERN. SECURE TWINE AROUND EACH PEG WITH 2. <u>MULCH NETTING</u>— STAPLE PAPER, JUTE, COTTON, OR PLASTIC NETTING TO THE SOIL SURFACE. USE A DEGRADABLE NETTING IN AREAS TO BE MOWED.
- 3. CRIMPER(MULCH ANCHORING 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.
- D. WOOD-FIBER OR PAPER-FIBER MULCH AT THE RATE OF 1,500 POUNDS PER ACRE MAY BE APPLIED BY A HYDROSEEDER. USE IS LIMITED TO FLATTER SLOPES AND DURING OPTIMUM SEEDING PERIODS IN SPRING AND FALL.

## IRRIGATION

6. TOP DRESSING \*

- A. IF SOIL MOISTURE IS DEFICIENT, SUPPLY NEW SEEDINGS WITH ADEQUATE WATER (A MINIMUM OF 1/4 INCH TWICE A DAY UNTIL VEGETATION IS WELL ESTABLISHED). THIS IS ESPECIALLY TRUE WHEN SEEDINGS ARE PERFORMED IN ABNORMALLY DRY OR HOT WEATHER OR ON DROUGHTY SITES.
- A. SPRING SEEDING WILL REQUIRE AN APPLICATION OF FERTILIZER SUCH AS 10-10-10 OR
- EQUIVALENT AT 400 POUNDS PER ACRE OR 10 POUNDS PER 1,000 SQUARE FEET BETWEEN SEPTEMBER 1 AND OCTOBER 15.
- B. FALL SEEDING WILL REQUIRE THE ABOVE BETWEEN MARCH 15 AND MAY 1
- C. MIXTURES DOMINATED BY WEEPING LOVEGRASS OR LEGUMES MAY NOT NEED TOPDRESSING. \* IF SLOW RELEASE NITROGEN (300 POUNDS 38-0-0 PER ACRE OR EQUIVALENT) IS USED IN ADDITION TO SUGGESTED FERTILIZER, THIS FOLLOW-UP OF TOP DRESSING IS NOT MANDATORY

## PERMANENT SEEDING MIXTURE (DRY)

THIS SEEDING MIXTURE IS COMPOSED OF DROUGHT-TOLERANT SPECIES WHICH CAN THRIVE WITH LOW MAINTENANCE. THE PROPRIETARY NAME OF THE MIXTURE IS RECLAIM CONSERVATION MIXTURE OF FOUND MANUFACTURED BY LOFTS, INC., BOUND BROOK, N.J. 08805, (800)526-3890.

MIXTURE	OF EQUAL QUALITY MAY BE SUBSTITUTED	IF APPROVED BY OUR OFFICE.
_%_	COMMON NAME	BOTANICAL NAME
50 20 10 10 5	CLEMFINE TALL FESCUE RELIANT HARD FESCUE JAMESTOWN CHEWINGS FESCUE PALMER PERENNIAL RYE WHITE CLOVER BLACKWELL SWITCHGRASS	FESTUCA ARUNDINACEA "CLEMFINE" FESTUCA LONGIFOLIA "RELIANT" FESTUCA RUBRA VAR. COMMUTATA "JAMESTOWN" LOLIUM PERENNE "PALMER" TRIFOLIUM REPENS PANICUM VIRGATUM "BLACKWELL"

THE MINIMUM APPLICATION RATE FOR THIS SEEDING MIXTURE SHALL BE FOUR (4) POUNDS/1000 SQUARE FEET OR 175 POUNDS/ACRE THE OPTIMAL SEEDING DATES FOR MOST COOL SEASON GRASSES FOR CAPE-ATLANTIC REGION ARE 2/15 - 4/30 AND 8/15 - 10/30. SUMMER SEEDING SHALL BE PERFORMED ONLY IF ADEQUATE IRRIGATION IS PROVIDED TO ENSURE SUCCESSFUL GERMINATION.

## PERMANENT SEEDING MIXTURE (MOIST)

THIS SEEDING MIXTURE IS COMPOSED OF MOISTURE-TOLERANT SPECIES WHICH CAN THRIVE WITH LOW MAINTENANCE. THE PROPRIETARY NAME OF THE MIXTURE IS <u>RECLAIM CONSERVATION</u>

<u>MIX-MOIST FORMULA</u> AS MANUFACTURED BY <u>LOFTS</u>, <u>INC.</u>, BOUND BROOK, N.J. 08805, (800)526-3890.

A MIXTURE OF EQUAL QUALITY MAY BE SUBSTITUTED IF APPROVED BY OUR OFFICE.

_%_	COMMON NAME	BOTANICAL NAME
55 15 10 10 5 5	CLEMFINE TALL FESCUE NASSAU KENTUCKY BLUEGRASS PALMER PERENNIAL RYE LASER POA TRIVIALIS STREAKER REDTOP REED CANARY GRASS	FESTUCA ARUNDINACEA "CLEMFINE" POA PRATENSIS "NASSAU" LOLIUM PERENNE "PALMER" POA TRIVIALIS "LASER" AGROSTIS ALBA "STREAKER" PHLARIS ARUNDINACEA

THE MINIMUM APPLICATION RATE FOR THIS SEEDING MIXTURE SHALL BE FIVE (5) POUNDS/1000 SQUARE FEET OR 220 POUNDS/ACRE. THE OPTIMAL SEEDING DATES FOR MOST COOL SEASON GRASSES FOR CAPE-ATLANTIC REGION ARE 2/15 - 4/30 AND 8/15 - 10/30. SUMMER SEEDING SHALL BE PERFORMED ONLY IF

ADEQUATE IRRIGATION IS PROVIDED TO ENSURE SUCCESSFUL GERMINATION.

## SPECIAL NOTES

- 1. TEMPORARY STABILIZATION ALL EXPOSED AREAS NOT TO BE CONSTRUCTED UPON WITHIN 14 DAYS SHOULD RECEIVE TEMPORARY STABILIZATION. THE TEMPORARY SEEDING MIXTURES SHALL BE ANNUAL RYE GRASS AT A RATE OF 4 POUND PER 1000 SQ. FT. AND LIMED AT A
- RATE OF 45 LBS. PER 1000 SQ. FT. 2. PERMANENT STABILIZATION - ALL EXPOSED AREAS WHICH ARE TO BE PERMANENTLY VEGETATED SHOULD BE SEEDED WITHIN 7 DAYS OF FINAL GRADING, ACCORDING TO THE PERMANENT SEEDING SPECIFICATIONS.

- TOPSOIL SHOULD BE USED WHERE SOILS ARE: SANDS, GRAVELY SOILS, CLAYS, SILTY CLAYS, VERY SHALLOW, OR WHERE THEY ARE EXTREMELY ACID (LESS THAN pH4.0) OR SALTY (COND-ACTIVITY GREATER THAN 1.0 MILLIMHOS PER CENTIMETER); OR WHERE TOPSOIL IS AVAILABLE ON SITE AND ASSURANCE OF IMPROVED VEGETATIVE GROWTH IS DESIRED.
- A. TOPSOIL SHOULD BE FRIABLE AND LOAMY, FREE OF DEBRIS, OBJECTIONABLE WEEDS AND STONES, AND CONTAIN NO TOXIC SUBSTANCE THAT MAY BE HARMFUL TO PLANT GROWTH. A pH RANGE OF 5.0-7.5 IS ACCEPTABLE. SOLUBLE SALTS SHOULD NOT BE EXCESSIVE CONDUCTIVITY LESS THAN 0.5 MILLIMHOS PER CENTIMETER). TOPSOIL HAULED IN FROM OFF SITE SHOULD HAVE A MINIMUM ORGANIC MATTER CONTENT OF 2.75 PERCENT. ORGANIC MATTER CONTENT MAY BE RAISED BY ADDITIVES.

#### 2. STRIPPING AND STOCKPILING

- A. FIELD EXPLORATION SHOULD BE MADE TO DETERMINE WHETHER QUANTITY AND/OR QUALITY OF SURFACE SOIL JUSTIFIES STRIPPING.
- B. STRIPPING SHOULD BE CONFINED TO THE IMMEDIATE CONSTRUCTION AREA.
- C. WHERE FEASIBLE, LIME MAY BE APPLIED BEFORE STRIPPING AT A RATE DETERMINED BY SOIL TESTS TO BRING THE SOIL PH TO 6.5. IN LIEU OF SOIL TESTS, SEE LIME RATE GUIDE IN SEEDBED PREPARATION FOR PERMANENT VEGETATIVE COVER.
- D. A 4-6 INCH STRIPPING DEPTH IS COMMON, BUT MAY VARY DEPENDING ON THE PARTICULAR
- E. STOCKPILES OF TOPSOIL SHOULD BE SITUATED SO AS NOT TO OBSTRUCT NATURAL DRAINAGE OR CAUSE OFF-SITE ENVIRONMENTAL DAMAGE.
- F. STOCKPILES SHOULD BE VEGETATED IN ACCORDANCE WITH TEMPORARY SEEDING STANDARDS PREVIOUSLY DESCRIBED HEREIN.

#### 3. SITE PREPARATION A. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR

- SEEDBED PREPARATION, SEEDING, MULCH APPLICATION AND ANCHORING, AND MAINTENANCE. B. SUBSOIL SHOULD BE TESTED FOR LIME REQUIREMENT AND LIMESTONE, IF NEEDED, SHOULD BE APPLIED TO BRING SOIL PH TO 6.5 AND INCORPORATED INTO THE SOIL AS NEARLY AS
- PRACTICAL TO A DEPTH OF 4 INCHES. C. IMMEDIATELY PRIOR TO TOPSOIL DISTRIBUTION, THE SURFACE SHOULD BE SCARIFIED 6" - 12" WHERE THERE HAS BEEN SOIL COMPACTION.
- D. EMPLOY NEEDED EROSION CONTROL PRACTICES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENTATION BASINS, AND WATERWAYS
- 4. APPLYING TOPSOIL A. TOPSOIL SHOULD BE HANDLED ONLY WHEN IT IS DRY ENOUGH TO WORK WITHOUT DAMAGING SOIL STRUCTURE; I.E., LESS THAN FIELD CAPACITY.

## B. TOPSOIL SHALL BE APPLIED TO A UNIFORM DEPTH OF 5.0 INCHES (FIRMED IN PLACE).

RESIN IN WATER

- 1. THE PURPOSE OF DUST CONTROL MEASURES IS TO PREVENT THE BLOWING AND MOVEMENT OF DUST FROM EXPOSED SOIL SURFACES, REDUCE ON—SITE AND OFF—SITE DAMAGE & HEALTH HAZARDS, AND IMPROVE TRAFFIC SAFETY.
- A. MULCHES REVIEW MULCHING NOTES ABOVE.

ACIDULATED SOY BEAN SOAP STICK

- B. <u>VEGETATIVE COVER</u> REVIEW NOTES ON TEMPORARY COVER.
- C. <u>SPRAY-ON ADHESIVES</u> ON MINERAL SOILS (NOT EFFECTIVE ON MUCK SOILS). KEEP TRAFFIC OFF THESE AREAS. D. <u>MATERIAL</u> WATER DILUTION TYPE OF NOZZLE APPLY GALLON/ACRE LATEX EMULSION 12.5:1 FINE SPRAY 235

4:1

NONE

APPLY ACCORDING TO MANUFACTURER'S INSTRUCTIONS. MAY ALSO BE USED AS POLYACRYLAMIDE (PAM) - SPRAY ON AN ADDITIVE TO SEDIMENT BASINS TO FLOCCULATE AND PRECIPITATE SUSPENDED POLYACRYLAMIDE (PAM) - DRY SPREAD COLLOIDS. SEE SEDIMENT BASIN STANDARD, PAGE 26-1.

FINE SPRAY

COARSE SPRAY

300

- E. TILLAGE TO ROUGHEN SURFACE AND BRING CLODS TO THE SURFACE. THIS IS A TEMPORARY EMERGENCY MEASURE WHICH SHOULD BE USED BEFORE SOIL BLOWING STARTS. BEGIN PLOWING ON WINDWARD SIDE OF SITE. CHISEL—TYPE PLOWS SPACED ABOUT 12 INCHES APART, AND SPRING—TOOTHED HARROWS ARE EXAMPLES OF EQUIPMENT WHICH MAY PRODUCE THE DESIRED EFFECT.
- F. SPRINKLING SITE IS SPRINKLED UNTIL THE SURFACE IS WET.
- G. <u>BARRIERS</u> 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.
- H. <u>STONE</u> COVER SURFACE WITH CRUSHED STONE OR COARSE GRAVEL.

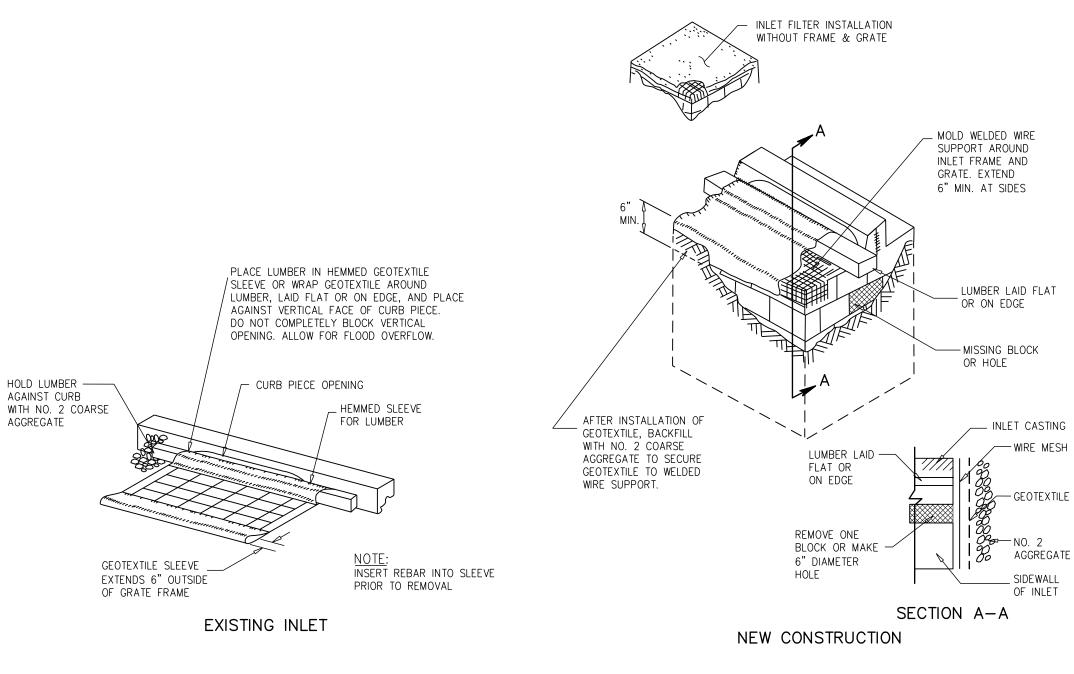
## **GENERAL NOTES:**

- 1. A REPORT OF COMPLIANCE MUST BE OBTAINED FROM THE DISTRICT PRIOR TO RECEIVING A CERTIFICATE OF OCCUPANCY FROM THE MUNICIPALITY. A REQUEST FOR A DISTRICT INSPECTION FOR THE RELEASE OF A REPORT OF COMPLIANCE MUST BE MADE 5 WORKING DAYS IN ADVANCE. THIS APPLIES TO BOTH COMPLETE (FINAL) AND CONDITIONAL (TEMPORARY) CERTIFICATES ALL STREETS AND UNITS MUST BE PROPERLY IDENTIFIED. A REPORT OF COMPLIANCE WILL NOT BE RELEASED FOR A UNIT IF IT CAN NOT BE IDENTIFIED. IDENTIFY ALL UNITS AT THE SITE BY BLOCK, LOT, AND STREET ADDRESS.
- 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY EROSION OR SEDIMENTATION THAT MAY OCCUR BELOW STORMWATER OUTFALLS OR OFFSITE AS A RESULT OF CONSTRUCTION
- 3. THE CONTRACTOR SHALL REMOVE ANY SEDIMENT THAT MAY BE SPILLED, DROPPED OR TRACKED OFF THE PROJECT SITE. ALL PAVED RIGHT-OF-WAYS ADJACENT TO THE PROJECT SITE MUST BE MAINTAINED IN A CLEAN, SWEPT CONDITION THROUGHOUT CONSTRUCTION.

### DRAWSTRING RUNNING THROUGH FABRIC ALONG TOP OF FENCE DRIVE POST PLUMB HARDWOOD WITH A MINIMUM OR SLIGHTLY UPHILL DIA. OF 1 1/2" (8' O.C.) DRAWSTRIN SECURELY FASTEN GEOTEXTILE TO POST WITH METAL FASTENERS AND REINFORCEMENT BETWEEN FASTENER $\times$ OPTIONAL WIRE FENCE BEHIND SILT ACCUMULATION FABRIC FOR "SUPER" SILT FENCE DIG 6" DEEP TRENCH, BURY BOTTOM FLAP, TAMP IN PLACE

- 1. EXCAVATE A 6"x6" TRENCH ALONG THE LOWER PERIMETER OF THE
- 2. UNROLL THE SILT FENCE GEOTEXTILE AND POSITION THE POLES AGAINST THE BACK(DOWNSTREAM) WALL OF THE TRENCH.
- 3. LAY THE TOE-IN FLAP OF THE FABRIC ONTO THE UNDISTURBED BOTTOM OF THE TRENCH, BACKFILL THE TRENCH AND TAMP THE

## SILT FENCE DETAIL OR APPROVED EQUAL



## INLET FILTERS, TYPE 1

| SOIL EROSION & SEDIMENT **CONTROL PLAN** 

> 4701 NEW JERSEY AVENUE WILDWOOD, NJ 08260 PHONE (609) 854-3311 FAX (609) 854-4323 WWW.DEBLASIOASSOC.COM Certification of Authorization No. 24GA28284900

ENGINEERS, SURVEYORS AND PLANNERS

FY2023 N.J.D.O.T. LOCAL TRANSPORTATION PROJECTS FUND AND FY2024 N.J.D.O.T. MUNICIPAL AID PROJECT RECONSTRUCTION OF OHIO AVENUE **CITY OF CAPE MAY** 

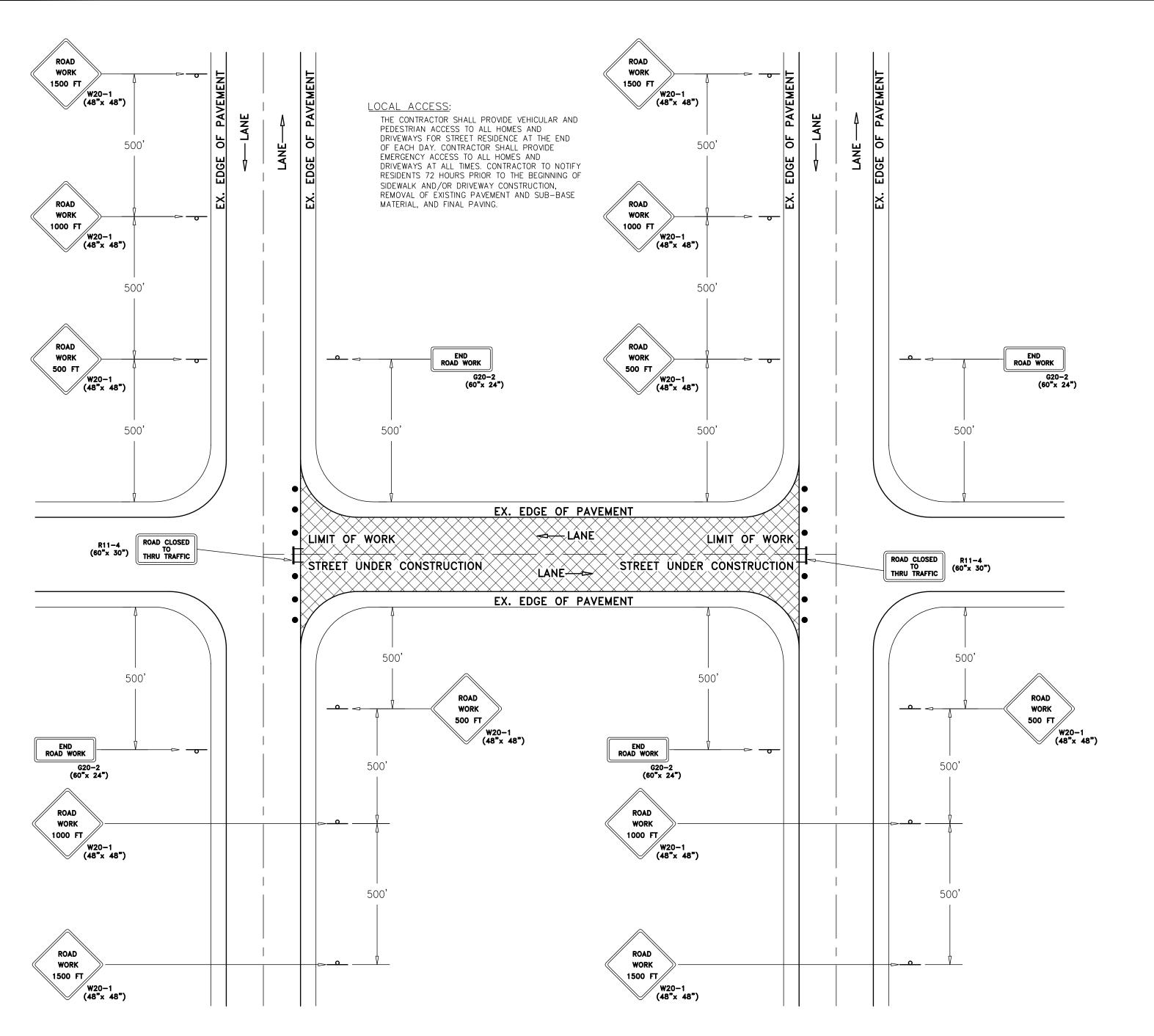
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**CAPE MAY COUNTY, NEW JERSEY** 

REVISED PER IN-HOUSE REVISION AND NJDOT COMMENTS DATED 10/30/2024 ). DATE APPR

PERMISSION OF DEBLASIO & ASSOCIATES, P.C. IS PROHIBITED.



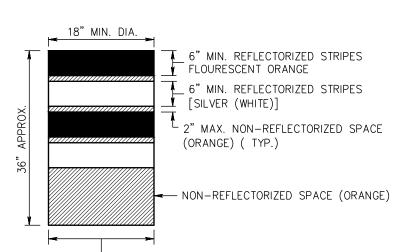
## TYPICAL STREET TRAFFIC CONTROL PLAN

1 3/4" MIN. O.D. — 3" TO 4" SPACE FOR HANDLING. \_ 6" SILVER (WHITE) RETROREFLECTIVE SHEETING, ASTM D-4956 TYPE III ₹ 2" SPACE \_ 4" SILVER (WHITE) RETROREFLECTIVE SHEETING, ASTM D-4956 TYPE III PLASTIC OR RUBBER, MIN. WEIGHT 7 LBS. 7 1/2" MIN. O.D. 14" MIN.

TRAFFIC CONES MUST BE PREDOMINATELY ORANGE IN BASES MAY BE OF BREAKAWAY BALLASTED TYPE.

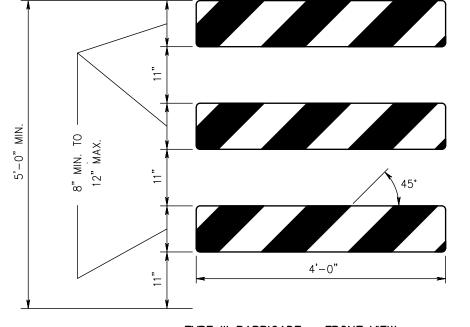
MINOR MANUFACTURER'S VARIATIONS MAY BE ACCEPTABLE UPON APPROVAL OF THE ENGINEER.

DRUMS SHALL BE MADE OF ORANGE PLASTIC WITH A MINIMUM OF FOUR ALTERNATE FLUORESCENT ORANGE AND SILVER (WHITE) RETROREFLECTIVE STRIPES. IF THERE ARE NON-REFLECTORIZED SPACES BETWEEN THE STRIPES, THEY SHALL BE NO MORE THAN 2" WIDE. ENSURE RETROREFLECTIVE SHEETING FOR STRIPES CONFORMS WITH ASTM D 4956 TYPE VII OR VII WITH S2 REQUIREMENTS. ENSURE THE TOP OF THE DRUM IS NOT OPEN. CONSTRUCT DRUMS TO INHIBIT ROLLING IF KNOCKED THE REFLECTORIZED AREA OF DRUMS SHALL BE ROUND EXCEPT THAT OTHER SHAPES, WHICH PROVIDE THE SAME VISIBILITY AS AN 18 INCH DIAMETER ROUND DRUM REGARDLESS OF ORIENTATION, MAY BE USED.



BASE DIA. MAY BE LARGER THAN TOP DIA. WHEN BALLAST IS REQUIRED BY THE ENGINEER, SAND SHALL BE USED. THE MAXIMUM WEIGHT OF THE BALLAST SHALL BE 50 LBS. AND BE LOCATED APPROXIMATELY AT GROUND LEVEL. ALTERNATE TYPES OF BALLAST SHALL BE APPROVED BY THE ENGINEER.

## DRUM DETAIL N.T.S.



## TYPE III BARRICADE - FRONT VIEW

- 1. ENSURE THE 8" MIN. x 48", TO 12" MAX. x 48" BARRICADE RAILS TO BE ATTACHED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.
- 2. ENSURE ORANGE AND SILVER (WHITE) STRIPES TO BE RETROREFLECTIVE SHEETING, ASTM D 4956 TYPE III. ALTERNATE ORANGE AND SILVER (WHITE) STRIPES 6" WIDE SLOPING DOWNWARD AT AN ANGLE OF 45 DEGREES IN THE DIRECTION TRAFFIC IS TO PASS.
- 3. THE FRAMING, RAILS, AND BALLAST FOR BREAKAWAY BARRICADE TO BE NCHRP-350 CRASHED TESTED AND FHWA
- 4. IF NECESSARY, FABRICATE THE BALLAST AND PLACE ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.

## **BREAKAWAY BARRICADES**

## LEGEND

BREAKAWAY BARRICADES BREAKAWAY BARRICADES WITH SIGN CONSTRUCTION SIGNS DRUMS

PRECAST CONCRETE CURB CONSTRUCTION BARRIER (TYPE SPECIFIED) DIRECTION OF TRAFFIC FLOW

FLAGGER

ILLUMINATED FLASHING ARROW MOUNTED ON TOWING VEHICLE SHOWING CAUTION MODE

ILLUMINATED FLASHING ARROW MOUNTED ON TOWING VEHICLE SHOWING ARROW PATTERN (Left, Right, Both)

TRAFFIC CONTROL TRUCK WITH MOUNTED CRASH CUSHION AND ARROW BOARD SHOWING CAUTION MODE

TRAFFIC CONTROL TRUCK WITH MOUNTED CRASH CUSHION AND ARROW BOARD SHOWING ARROW PATTERN (Left, Right, Both)

TEMPORARY CRASH CUSHION, INERTIAL BARRIER SYSTEM TEMPORARY CRASH CUSHION, (all other approved)

BUFFER ZONE

WORK AREA

PAINT STRIPING TRUCK OR OTHER OPERATING VEHICLE

#### RECOMMENDED RECOMMENDED TAPER LENGTH AND SPACING SPACING ALONG FOR CHANNELIZING TAPERS TANGENTS MAXIMUM MINIMUM APPROACH TAPER RATIO DEVICE (B) DEVICE (D) SPEED OF TAPER LENGTH IN LENGTH SPACING SPACING TRAFFIC PFR FOOT ALONG TAPERS ALONG TANGENTS OF WIDTH IN FEET IN FEET MILES/HOUR

THE MAXIMUM DEVICE SPACING ALONG CURVES SHALL BE AS DEFINED FOR TAPERS (B) IN THE ABOVE TABLE.

REGULATORY APPROACH SPEED OF	RECOMMENDED SIGHT DISTANCE TO BEGINNING OF CHANNELIZING TAPERS			
TRAFFIC	DES	IRABLE	MINIMUM	
	RURAL	URBAN	RURAL AND URBAN	
MILES/HOUR	FEET	FEET	FEET	
25	375	525	150	
30	450	625	200	
35	525	725	250	
40	600	825	325	
45	675	925	400	
50	750	1025	475	
55	875	1150	550	
60	1000	1275	650	
65	1050		725	

VALUES SHOWN ABOVE.

- 1. AVOIDANCE MANEUVER IS FOR A SPEED, PATH, AND/OR DIRECTION CHANGE PRIOR TO THE 2. RECOMMENDED DISTANCES BETWEEN TWO SEPARATE LANE CLOSURES SHALL BE DOUBLE THE
- 3. RURAL AND URBAN ROAD DESIGNATIONS SHALL BE AS DEFINED IN THE NJDOT STATE HIGHWAY STRAIGHT LINE DIAGRAMS.
- 4. DESIRABLE VALUES SHALL BE PROVIDED WHEREVER POSSIBLE. IF IT IS NOT FEASIBLE OR PRACTICAL TO PROVIDE DESIRABLE VALUES BECAUSE OF HORIZONTAL OR VERTICAL CURVATURE OR IF RELOCATION OF THE TAPER IS NOT POSSIBLE, THEN MINIMUM VALUES CAN BE APPLIED. WHEN MINIMUM VALUES ARE USED, SPECIAL ATTENTION SHOULD BE GIVEN TO THE USE OF SUITABLE TRAFFIC CONTROL DEVICES FOR PROVIDING ADVANCED WARNING OF THE CONDITIONS THAT ARE LIKELY TO BE ENCOUNTERED.
- 5. TAPERS SHALL BE LOCATED TO MAXIMIZE THE VISIBILITY OF THEIR TOTAL LENGTH.

### **GENERAL NOTES:**

- ADVANCE WARNING SIGNS, DISTANCES, AND TAPER LENGTHS MAY BE EXTENDED, AT DIRECTION OF THE ENGINEER, TO ADJUST FOR REDUCED VISIBILITY DUE TO HORIZONTAL AND VERTICAL CURVATURE OF THE ROADWAY.
- 2. THE APPROXIMATE LOCATIONS OF THE ILLUMINATED FLASHING ARROW BOARDS ARE SHOWN ON THE TRAFFIC CONTROL PLANS. THESE LOCATIONS MAY BE MODIFIED TO ADJUST FOR VISIBILITY DUE TO HORIZONTAL OR VERTICAL CURVATURE OF THE ROADWAY OR TO POSITION AT A SAFER LOCATION. ILLUMINATED FLASHING ARROW BOARDS ARE TO BE USED FOR TEMPORARY LANE CLOSINGS AND AT LOCATIONS SHOWN ON THE TRAFFIC CONTROL PLANS.
- 3. PRIOR TO ANY ROAD CONSTRUCTION, TRAFFIC CONTROL SIGNS AND DEVICES SHALL BE
- 4. RAMPS AND/OR SIDE STREETS ENTERING THE ROADWAY AFTER THE FIRST ADVANCE WARNING SIGN SHALL BE PROVIDED WITH AT LEAST ONE W20-IF SIGN (ROAD WORK
- ALL EXISTING ROAD SIGNS, PAVEMENT MARKINGS AND/OR PLOWABLE PAVEMENT REFLECTORS WHICH CONFLICT WITH THE PROPOSED TRAFFIC CONTROL PLAN SHALL BE COVERED, REMOVED OR RELOCATED AS DIRECTED BY THE ENGINEER.
- CONFLICTING OR NON-OPERATING SIGNAL INDICATIONS ON EITHER THE EXISTING, TEMPORARY,OR PROPOSED TRAFFIC SIGNAL SYSTEMS SHALL BE BAGGED OR
- 7. MAINTENANCE AND PROTECTION OF TRAFFIC SHALL BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES - PART VI "STANDARDS AND GUIDES FOR TRAFFIC CONTROL FOR STREET AND HIGHWAY CONSTRUCTION, MAINTENANCE, UTILITY, AND INCIDENT MANAGEMENT OPERATIONS", UNLESS OTHERWISE NOTED IN THE PLANS AND SPECIFICATIONS, AND SHALL BE APPROVED BY THE ENGINEER.
- 8. CONSTRUCTION SIGN W99-2 (GIVE US A BRAKE) SHALL BE LOCATED 200 FEET IN ADVANCE OF PROJECT LIMITS.
- 9 A W1-6 (ARROW) SIGN MOUNTED ON A BREAKAWAY BARRICADE AND CENTERED ON THE CLOSED WIDTH SHALL BE LOCATED 100 FEET BEYOND EACH INTERSECTION OR MAIN ACCESS POINT WITHIN THE AREA OF A LANE OR SHOULDER CLOSURE.
- 10. CONSTRUCTION SIGNS R11-4 (ROAD CLOSED TO THRU TRAFFIC) SHALL BE PLACED AT THE INTERSECTING STREETS WHICH ARE CLOSED TO TRAFFIC BECAUSE OF
- 11. CONSTRUCTION SIGNS W8-9A (SYMBOL FOR UNEVEN PAVEMENT) AND W8-14A

(GROOVED PAVEMENT) SHALL BE USED WHEN SUCH PAVEMENT CONDITIONS EXIST.

THE PLACEMENT OF THESE SIGNS SHALL BE AS DIRECTED BY THE ENGINEER.

- 12. MOVING WORK AREAS IN A LANE CLOSURE REQUIRE A TRAILER MOUNTED ILLUMINATED FLASHING ARROW TO REMAIN AT THE END OF THE TAPER, THE TRAFFIC CONTROL TRUCK WITH MOUNTED CRASH CUSHION THAT SHALL MOVE WITH THE WORK AREAS TO KEEP A 70 FEET MIN. AND 150 FEET MAX. BUFFER IN ADVANCE OF EACH WORK AREA
- 13. THE CONTRACTOR SHALL SUBMIT A PLAN FOR THE SAFE ACCESS OF CONSTRUCTION VEHICLES THROUGHOUT THE WORK SITE WHERE SPACE CONSTRAINTS PREVENT THE USE OF LANE CLOSURES. THE PLAN SHALL BE SUBMITTED TO THE ENGINEER IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.
- 14. ALL EXCAVATED AREAS WITHIN OR ADJACENT TO THE ROADWAY SHALL BE BACKFILLED AND PLACED ON A MINIMUM 6H: 1V SLOPE PRIOR TO THE END OF EACH WORK DAY. OTHER EXCAVATED AREAS WITHIN THE CLEAR ZONE ARE TO BE EITHER BACKFILLED OR A PRECAST CONCRETE CURB CONSTRUCTION BARRIER SET TEMPORARILY IN PLACE TO SHIELD VEHICULAR AND PEDESTRIAN TRAFFIC.
- 15. WHERE REQUIRED, THE CONTRACTOR SHALL MAKE PROVISIONS FOR MAINTAINING PEDESTRIAN CROSSING LOCATIONS AND TYPE AS DIRECTED BY THE ENGINEER.
- 16. HOT MIX ASPHALT PLACED DURING THE VARIOUS CONSTRUCTION STAGES SHALL BE TRANSITIONED ON A MINIMUM 20H: 1V SLOPE TO MEET THE ADJACENT EXISTING GRADE AT THE LONGITUDINAL AND TRANSVERSE LIMITS OF THE STAGE CONSTRUCTION AREAS UNLESS OTHERWISE NOTED ON THE STAGE CONSTRUCTION
- 17. THE PLACEMENT AND OR RELOCATION OF PRECAST CONCRETE CURB, CONSTRUCTION BARRIER SHALL BE DONE DURING APPROVED OFF-PEAK HOURS WHEN TRAFFIC MAY BE REDUCED TO ONE LANE IN EACH DIRECTION.
- 18. CONSTRUCTION ZONE SPEED LIMIT WILL BE DETERMINED BY THE REGIONAL TRAFFIC. ENGINEER AT THE TIME OF OR DURING CONSTRUCTION, AS REQUESTED BY THE
- 19. THE SPEED LIMIT, R2-1 (BLACK ON WHITE) SIGN SHALL BE LOCATED THROUGH WORK AREAS AS DIRECTED BY THE REGIONAL TRAFFIC ENGINEER.
- 20. THE REDUCED SPEED AHEAD SIGN, R2-5A(S) (BLACK ON WHITE) SHALL BE LOCATED IN ADVANCE OF SPEED LIMIT R2-1 SIGNS WHICH REDUCE THE NORMAL POSTED SPEED LIMIT THROUGH THE CONSTRUCTION ZONE.
- 21. TRAFFIC FINES DOUBLED IN WORK AREA R(NJ)5-17(S), 4 FEET BY 2.5 FEET SIGN SHALL BE LOCATED 500 FEET AFTER THE FIRST ADVANCE WARNING SIGN. (W20 SERIES) AT EACH WORK AREA LOCATED WITHIN URBAN AREAS. THIS SIGN SHALL ALSO BE USED ON PROJECTS REQUIRING MOVING OPERATIONS IN WHICH CASE THE SIGN SHALL BE MOUNTED ON A SLOW MOVING CONSTRUCTION VEHICLE.
- 22. THE FINAL HOT MIX ASPHALT SURFACE PAVEMENT SHALL NOT BE CONSTRUCTED UNTIL THE FINAL STAGE OF THE PROJECT. MANHOLES AND INLETS SHALL BE SET TO FINISHED GRADE AND TEMPORARY PAVEMENT RAMPS ARE TO BE CONSTRUCTED AROUND THEM WITH A MINIMUM 20H: 1V SLOPE IN ALL DIRECTIONS USING HOT MIX ASPHALT PAVEMENT. THIS TEMPORARY MATERIAL WILL BE REMOVED IMMEDIATELY PRIOR TO PLACING THE SURFACE COURSE.
- 23. TRAFFIC CONTROL DEVICES FOR LANE CLOSURES INCLUDING SIGNS, CONES, BARRICADES, ETC. SHALL BE PLACED AS SHOWN ON PLANS. SIGNS SHALL NOT BE PLACED WITHOUT ACTUAL LANE CLOSURES AND SHALL BE IMMEDIATELY REMOVED UPON REMOVAL OF THE CLOSURES.
- 24. CONES MAY BE SUBSTITUTED FOR DRUMS AND INSTALLED UPON THE APPROVAL OF THE ENGINEER.
- 25. SEE SPECIFICATION SECTION 320130 TRAFFIC CONTROL OF THE NON-STANDARD N.J.D.O.T. SPECIFICATIONS.

## TRAFFIC CONTROL **PLAN**



ENGINEERS, SURVEYORS AND PLANNERS

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FY2023 N.J.D.O.T. LOCAL TRANSPORTATION PROJECTS **FUND AND FY2024 N.J.D.O.T.** MUNICIPAL AID PROJECT RECONSTRUCTION OF OHIO AVENUE

**CITY OF CAPE MAY CAPE MAY COUNTY. NEW JERSEY** 

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MARC A. DEBLASIO, PE

PORTIONS THEREOF, FOR OTHER THAN THE ORIGINAL PROJECT OR THE PURPOSE ORIGINALLY INTENDED, WITHOUT THE WRITTEN

