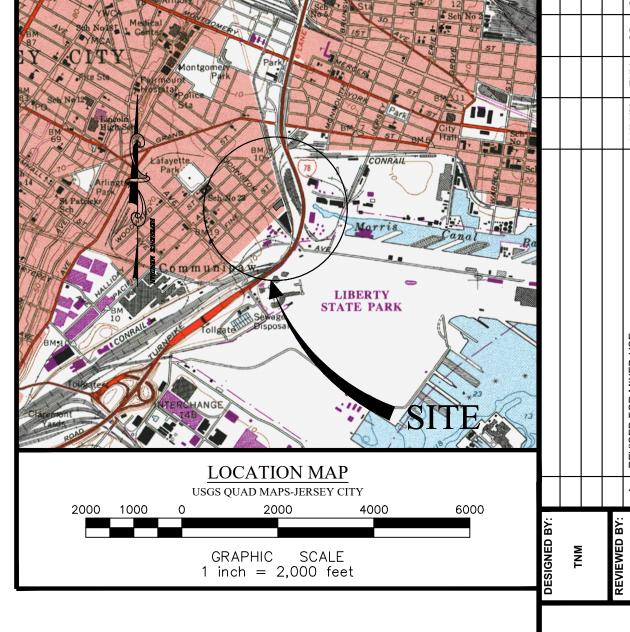
PRELIMINARY & FINAL MAJOR SITE PL PROPOSED MIXED-USE DEVELOPMENT 118-130 MONITOR STREET

BLOCK 17504, LOTS 20-25 AND 26.01

CITY OF JERSEY CITY, HUDSON COUNTY, NEW JERSEY



GENERAL NOTES:

1. THIS PROJECT CONSISTS OF ONE (1) PREVIOUSLY APPROVED 8-STORY RESIDENTIAL BUILDING, (70 UNITS), GROUND FLOOR AMENITIES, GROUND FLOOR PARKING GARAGE. AND ASSOCIATED INFRASTRUCTURE LOCATED ON LOT 26.01 WHICH IS CONSTRUCTED (JERSEY CITY PLANNING BOARD CASE NO. P20-157). IT IS NOW PROPOSED TO CONSTRUCT AN 8-STORY MIXED-USE ADDITION CONSISTING OF 70 DWELLING UNITS, A CHILDCARE CENTER (5,197 SF), GROUND FLOOR AMENITIES AND ASSOCIATED INFRASTRUCTURE LOCATED ON LOTS 20-25. THE PROPOSED USE IS PERMITTED WITH THE MORRIS CANAL REDEVELOPMENT PLAN TOD-NORTH ZONE.

2. CENTER OF SITE COORDINATES 684905 N, 615248 E.

3. THE SUBJECT SITE IS KNOWN AND DESIGNATED AS BLOCK 17504, LOTS 20-25 AND LOT 26.01 AS SHOWN ON SHEET 175 OF THE JERSEY CITY, HUDSON COUNTY, NEW JERSEY TAX MAP DATED MAY 2018.

4. TOTAL AREA OF SITE, BLOCK 17504, LOTS 20-25 AND 26.01- 24,565 SF (0.56 ACRES)

5. BOUNDARY AND TOPOGRAPHY INFORMATION FOR LOTS 20-25 BASED UPON A SURVEY ENTITLED BOUNDARY AND TOPOGRAPHY SURVEY OF TAX LOT 20, 21, 22, 23, 24 & 25, BLOCK 17504, AKA 118-128 MONITOR STREET, CITY OF JERSEY CITY, HUDSON COUNTY, NEW JERSEY", PREPARED BY DMC ASSOCIATES, INC DATED MARCH 29, 2022.

6. BOUNDARY AND TOPOGRAPHY INFORMATION FOR LOT 26.01 BASED UPON A SURVEY ENTITLED "130-132 MONITOR STREET, CITY OF JERSEY CITY, HUDSON COUNTY, NEW JERSEY", PREPARED BY BEHAR SURVEYING ASSOCIATES, PC DATED SEPTEMBER 14, 2020.

7. EXISTING IMPROVEMENTS SHOWN FOR LOT 26.01 BASED UPON PLANS ENTITLED "PRELIMINARY & FINAL MAJOR SITE PLAN, 130 & 132 MONITOR STREET, RESIDENTIAL DEVELOPMENT, BLOCK 17504, LOTS 26 & 27.01, SITUATED IN CITY OF JERSEY CITY, HUDSON COUNTY,

NEW JERSEY," PREPARED BY MATRIX NEW WORLD ENGINEERING, P.C. AND DATED 11/13/2020 WITH ALL REVISIONS. 8. THE PROJECT VERTICAL DATUM IS THE NORTH AMERICAN VERTICAL DATUM 1988 (NAVD 88).

9. INDIVIDUAL PAGES FROM THIS PLAN SET SHALL NOT BE UTILIZED FOR CONSTRUCTION ON THEIR OWN AS NOTES AND INFORMATION PROVIDED ON OTHER SHEETS MAY IMPACT WORK REQUIREMENTS. THE CONTRACTOR SHALL REVIEW AND UTILIZE THE ENTIRE PLAN SET

10. PLANS ARE NOT VALID UNLESS EMBOSSED WITH THE SEAL OF THE SIGNED PROFESSIONAL

BULK STANDARDS PER JERSEY CITY MORRIS CANAL DEVELOPMENT

11. THESE PLANS ARE PREPARED FOR THE PURPOSE OF PRELIMINARY & FINAL SITE PLAN APPROVAL WITH THE JERSEY CITY PLANNING BOARD. THE PLANS SHALL NOT BE UTILIZED AS CONSTRUCTION DOCUMENTS UNTIL ALL FINAL APPROVALS HAVE BEEN OBTAINED AND ALL CONDITIONS OF THE APPROVALS HAVE BEEN SATISFIED.

APPLICANT/ OWNER

LAFAYETTE DEVELOPMENT FUND, LLC

C/O LDF III, LLC P.O. BOX 4

JERSEY CITY, NJ 07304

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(LAFAYE) REFERENCE	FIE PARK)	CONRAIL (FORMERLY LV.R.R.	590	8.0 Ac 41 (GRAND JER 66)	DESIPTED 7.7. 3.62 AC 67 A. 5 EXEMPLE SECTION 1.1. EXCEPTION 1.1.
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		CANAL) 2.63 Ac A.2 M.S. CONRAIL 10/ EXEMPTED (FORMERLY LV.R.R. co N.J.D.O.T. 255'(S) 75'(S) 6 A.1	5 (S) 14 HU	EXEMPTED STATE OF N.J. OF PAV. PROTECTION 435'	** EXEMPT STATE OF LEFT. OF LEFT. OF PROTECTION \$3.7 (\$3.38'(\$)
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	AND THE CAR OF NA. MAN LINE - CLASS IN CARE OF NA. MAN LINE -	662'(S) 21 138'(S) 3	23.29'	7	DEPT. OF

KEY MAP

1 inch=300 feet

UTILITY CONTACTS

ROOM LL2 80 PARK PLACE NEWARK, NJ 07102 COMCAST CABLEVISION 2121 KENNEDY BLVD. JERSEY CITY, NJ 07305 UNITED WATER COMPANY 200 HOOK ROAD HARRINGTON PARK, NJ 07640 VERIZON TELEPHONE 540 BROAD STREET NEWARK, NJ 07102 JERSEY CITY M.U.A. 555 ROUTE 440

JERSEY CITY, NJ 07305

INDEX OF SHEETS

No.	DESCRIPTION	PLAN DATE
1.	TITLE SHEET	11/01/2023
2.	EXISTING CONDITIONS & DEMOLITION PLAN	11/01/2023
3.	GEOMETRY PLAN	11/01/2023
4.	GRADING PLAN	11/01/2023
5.	UTILITY PLAN	11/01/2023
6.	PROFILES	11/01/2023
7.	LANDSCAPING PLAN	11/01/2023
8.	LIGHTING PLAN	11/01/2023
9.	SOIL EROSION & SEDIMENT CONTROL PLAN	11/01/2023
10.	SOIL EROSION & SEDIMENT CONTROL DETAILS	11/01/2023
11.	CONSTRUCTION DETAILS	11/01/2023
12.	CONSTRUCTION DETAILS	11/01/2023

APPROVED BY THE PLANNING BOARD OF JERSEY CITY.

LEGEND

——— 200' ADJOINER LINE

_____ 1,000' ADJOINER LINE

BOUNDARY LINE

LOT NUMBER

BLOCK LIMIT

BLOCK NUMBER ZONE BOUNDARY

ZONE DESIGNATION

PROJECT LOCATION

LOT LINE

CHAIRMAN	DATE
SECRETARY	DATE
ENGINEER	

BULK STANDARDS	PERMITTED	EXISTING (LOTS 20-25 & 26.01)	PROPOSED (LOTS 20-25 & 26.01)	VARIANCE (Y/N)	
MINIMUM LOT AREA	10,000 SQ. FT.	24,565 SQ. FT.	24,565 SQ. FT.	N	
MAXIMUM BUILDING HEIGHT	EIGHT (8) STORIES, AND NINETY (90) FEET	EIGHT (8) STORIES, AND 89 FEET 7♣ INCHES	EIGHT (8) STORIES, AND NINETY (90) FEET	N	
MAXIMUM HEIGHT OF APPURTENANCES	20 FEET*	17 FEET 1 INCH	19'-1" FEET	N	
MINIMUM RESIDENTIAL FLOOR HEIGHT	9 FEET	10 FEET	10 FEET	N	
MINIMUM FRONT YARD SETBACK	0 FEET	2.83 FEET (LOT 26.01) 0 FEET (LOTS 20-25)	2.83 FEET	N	
MINIMUM REAR YARD SETBACK					
PARKING LEVEL	0 FEET	0 FEET	0 FEET	N	
RESIDENTIAL LEVEL	25 FEET	25 FEET	25 FEET	N	
MINIMUM SIDE YARD SETBACK	0 FEET	0 FEET (LOT 26.01) 0.2 FEET (LOTS 20-25)	0 FEET	N	
DENSITY	BY BUILDING ENVELOPE				
BUILDING AREA (ENVELOPE)					
GROUND FLOOR		9,300 SQ. FEET	21,186 SQ. FEET	N	
2ND -8TH FLOOR		8,685 SQ. FEET	17,365 SQ. FEET	N	
PENTHOUSE		1,444 SQ. FEET	2,743 SQ. FEET	N	
TOTAL		71,539 SQ. FEET	145,484 SQ. FEET	N	
NUMBER OF UNITS (PER RESIDENTIAL FLOOR)		10 UNITS/ FLOOR = 70 UNITS TOTAL	20 UNITS/ FLOOR = 140 UNITS TOTAL	N	
AREA OF SIGNAGE	12 SQUARE FEET	11.66 SQUARE FEET	11.66 SQUARE FEET	N	
BUILDING COVERAGE	N/A	44%	86%	N	
LOT COVERAGE	N/A	50%	95%	N	
JERSEY CITY FORESTRY STANDARDS					
TREE SPACING (TRUNK TO TRUNK)	20 TO 30 FEET MIN.	58 FEET (LOT 26.01)	42 FEET (LOTS 20-25)	N	
TREE PIT SIZING (SIDEWALK >10')	5'Wx10'Lx2'D	5'Wx10'Lx2'D (LOT 26.01)	5'Wx10'Lx2'D (LOTS 20-25 & 26.01)	N	

* ORDINANCE SECTION 345-60(G): FOR BUILDINGS WITH COMMON ROOFTOP AMENITY SPACE, A TOTAL OF 20 FEET

NOTE:

ALL SIGNAGE ON SITE WILL COMPLY WITH MORRIS CANAL REDEVELOPMENT PLAN (TOD NORTH ZONE).

BICYCLE PARKING STANDARDS					
LOT	BICYCLE PARKING STANDARDS	NUMBER OF UNITS	SPACES REQUIRED	SPACES PROPOSED	
LOTS 20-25 & 26.01	MINIMUM 0.5 SPACE PER UNIT	140	70	70	

PARKING STANDARDS FOR MID-RISE APARTMENT BUILDINGS						
LOT PARKING STANDARDS NUMBER OF UNITS MAXIMUM PARKING SPACES PARKING SPACES						
LOTS 20-25 & 26.01	MAX 1.0 SPACES PER UNIT	140	140	5*		

* ONE SPACE DESIGNATED AS HANDICAP SPACE PER ADA REQUIREMENTS

PROJECT NUMBER: 22-0362

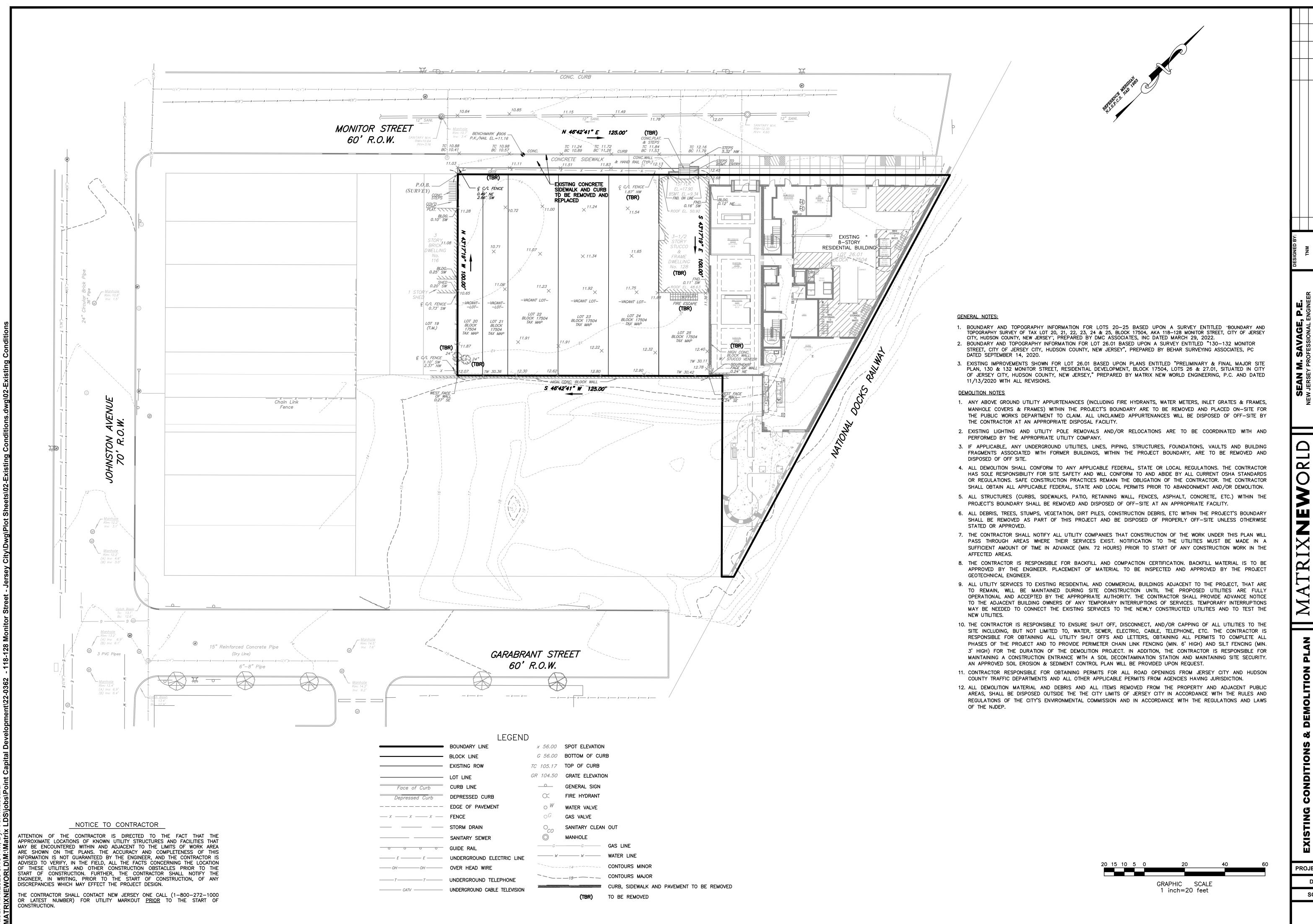
DATE: 08/14/2023

SCALE: AS SHOWN

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SHEET 1 OF 12



Engineering Progress
ring, Land Surveying
e, P.C.
Tel: 732-588-2999
rid Floor
Fax: 973-240-1818

Matrix New World Engineering, Lancand Landscape Architecture, P.C. 442 State Route 35, Second Floor Eatontown, New Jersey 07724

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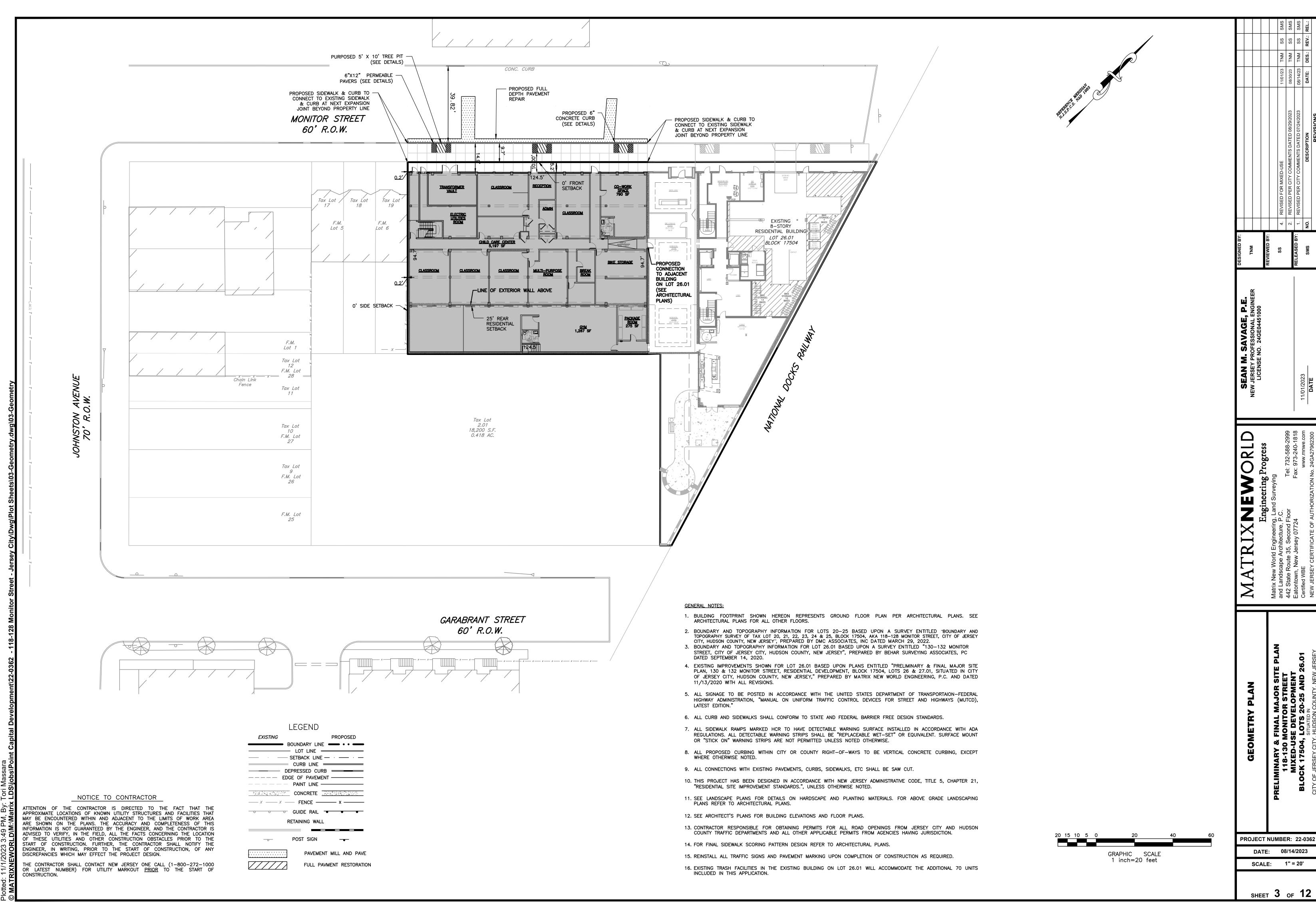
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ELIMINARY & FINAL MAJOR SITE P 118-130 MONITOR STREET MIXED-USE DEVELOPMENT ILOCK 17504, LOTS 20-25 AND 26.0

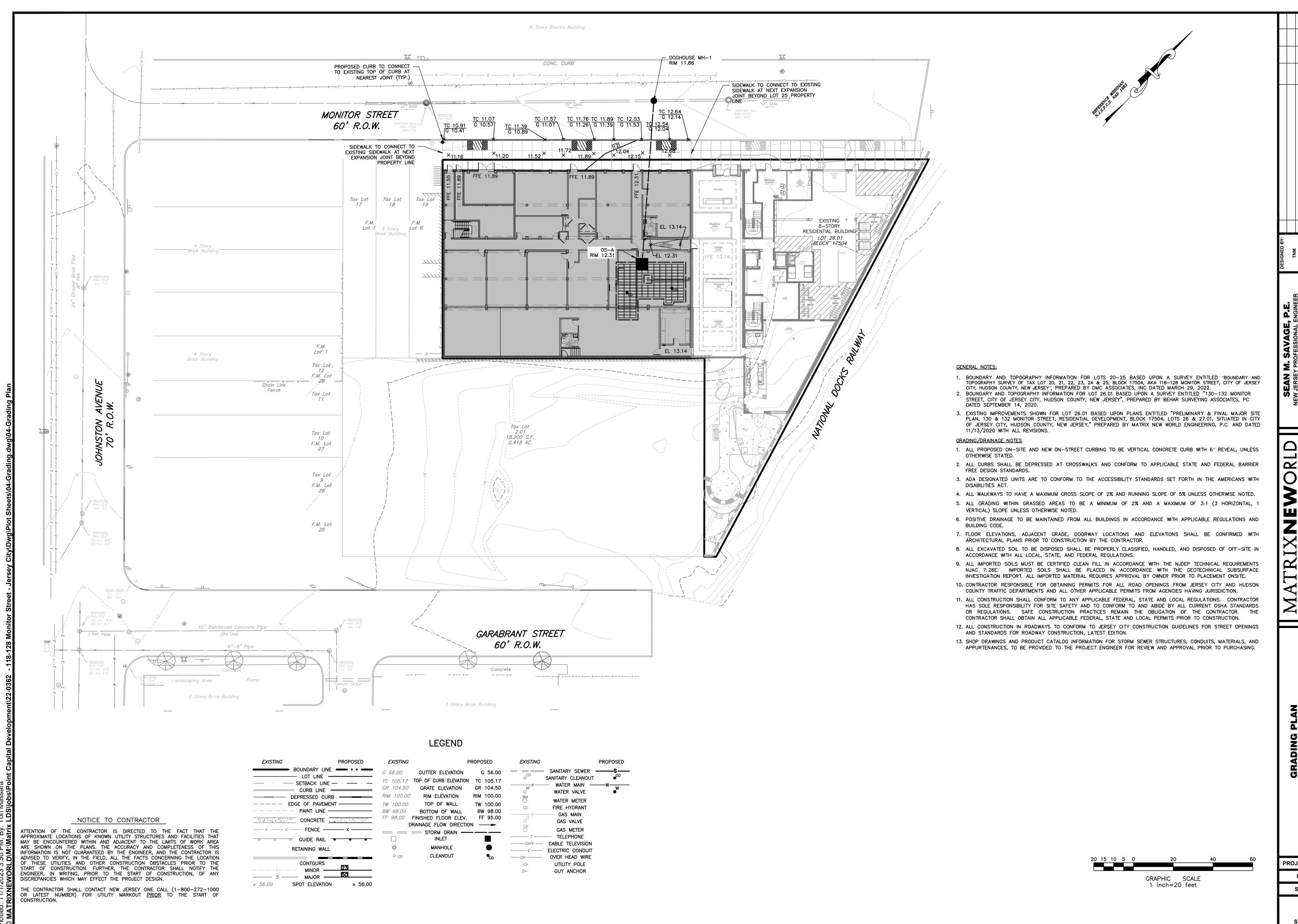
PROJECT NUMBER: 22-0362

DATE: 06/06/2023 SCALE: 1" = 20'

SHEET 2 OF 12



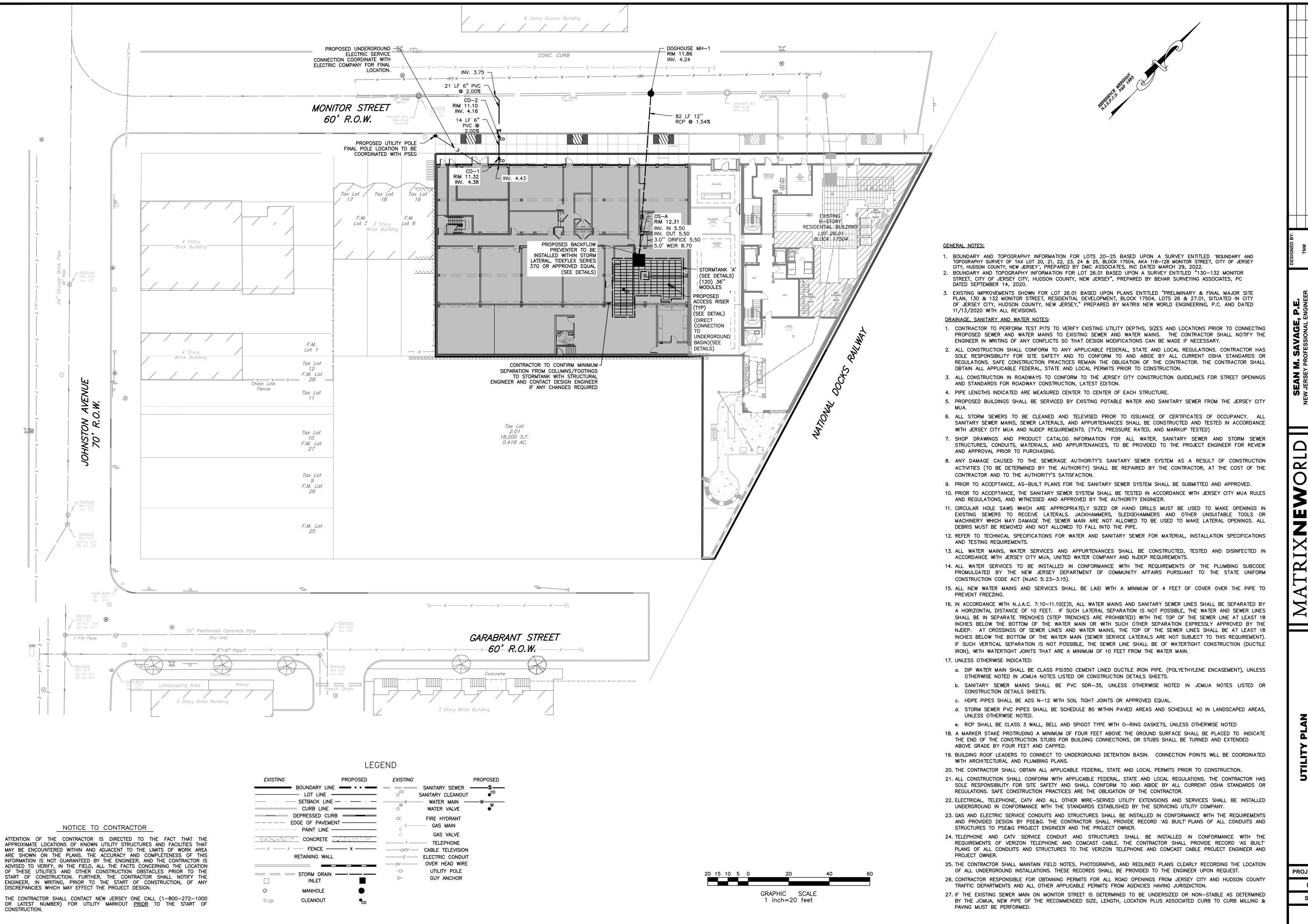
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PROJECT NUMBER: 22-0362 DATE: 08/14/2023

SCALE: 1" = 20'

SHEET 4 OF 12



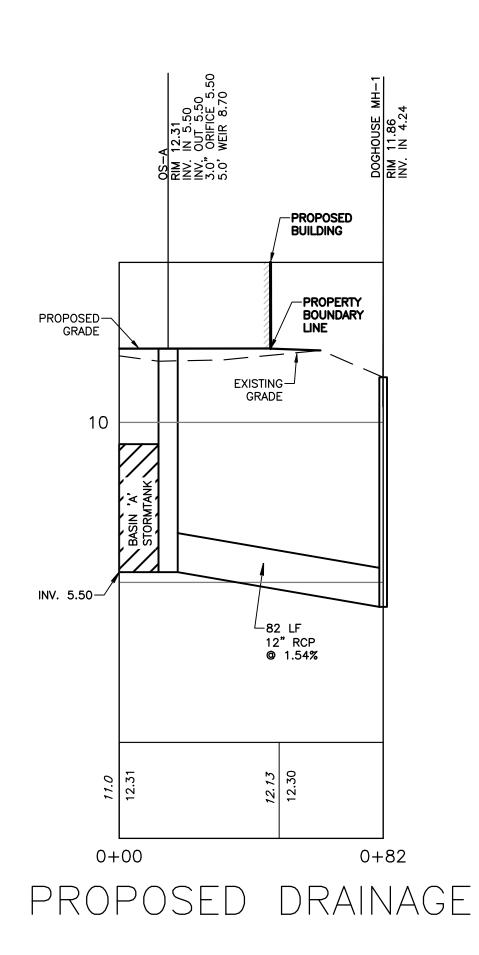
PROJECT NUMBER: 22-0362 DATE: 08/14/2023

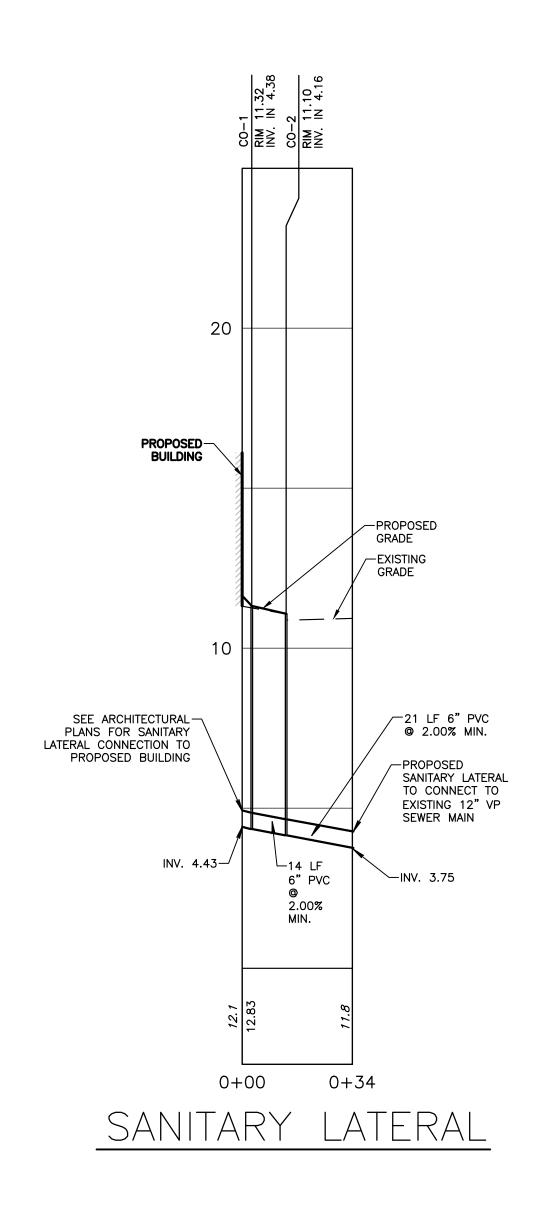
SCALE: 1" = 20'

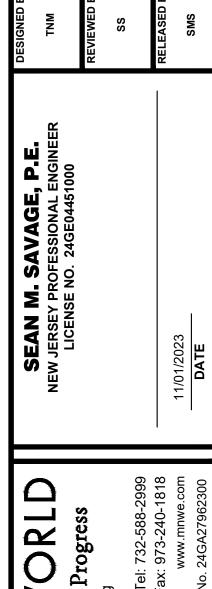
SHEET 5 OF 12

VERTICAL GRAPHIC SCALE 1 inch=3 feet

HORIZONTAL GRAPHIC SCALE 1 inch=30 feet







MATRIXNEWC Engineering Pro

PROJECT NUMBER: 22-0362 DATE: 08/14/2023

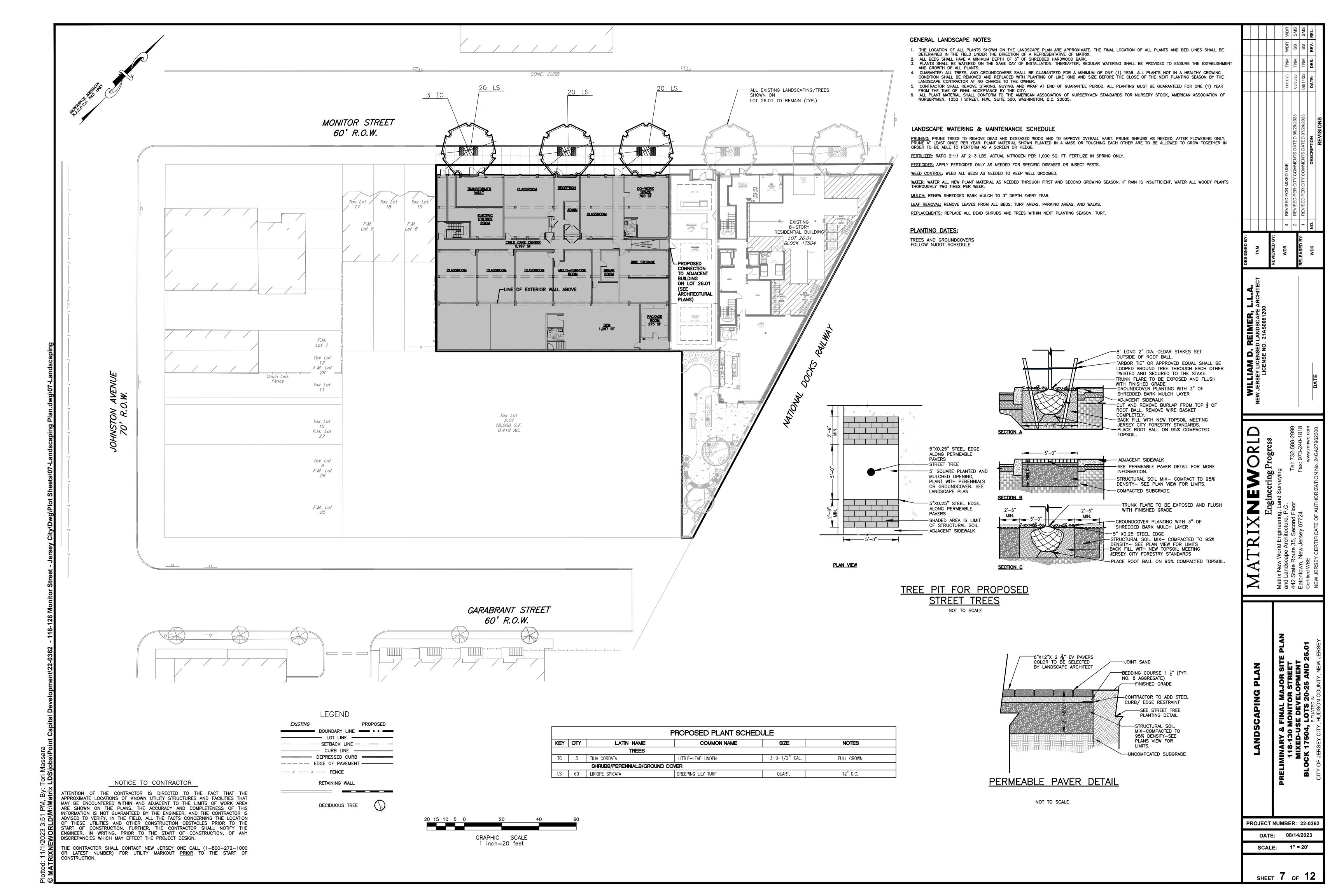
SCALE: AS SHOWN

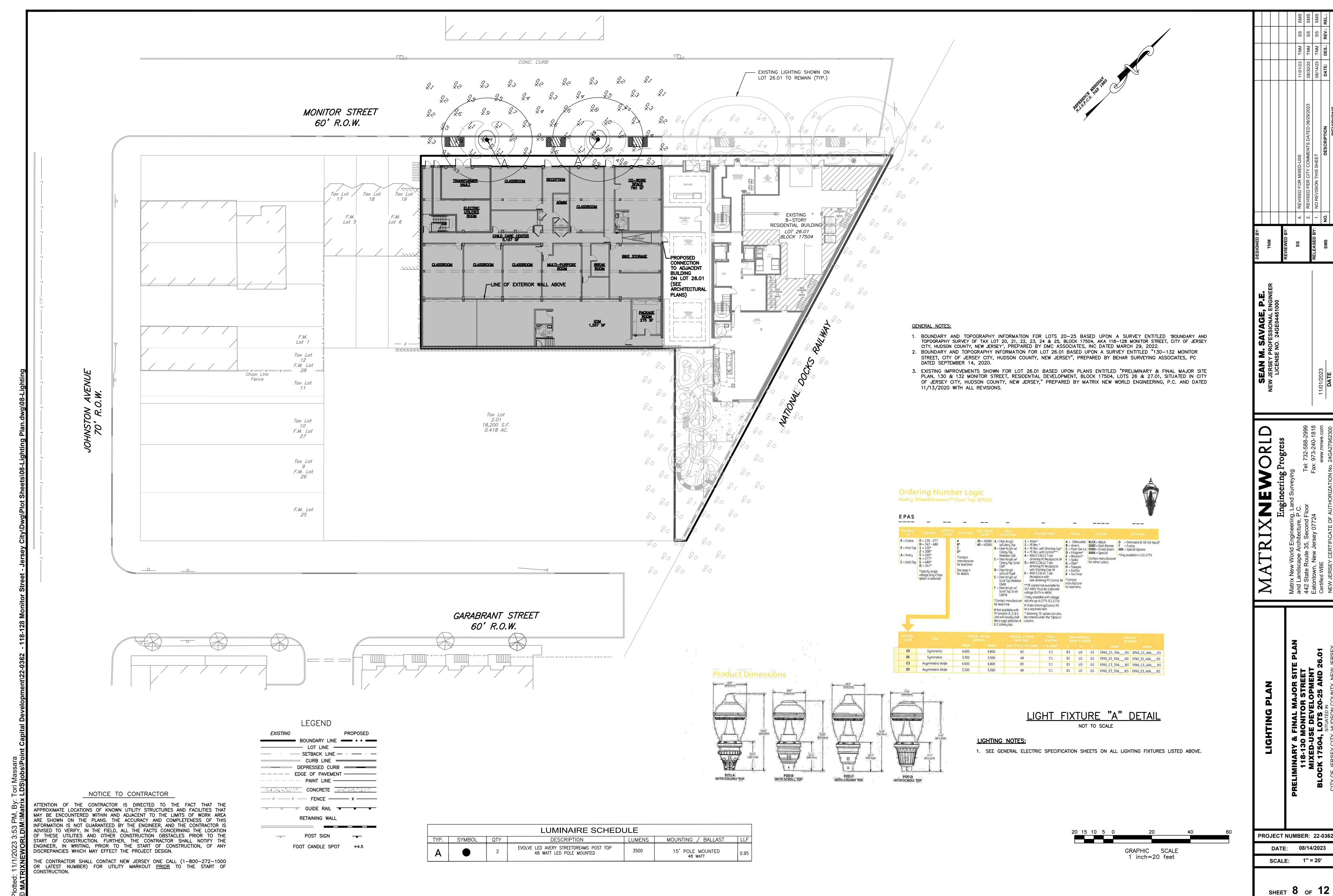
SHEET 6 OF 12

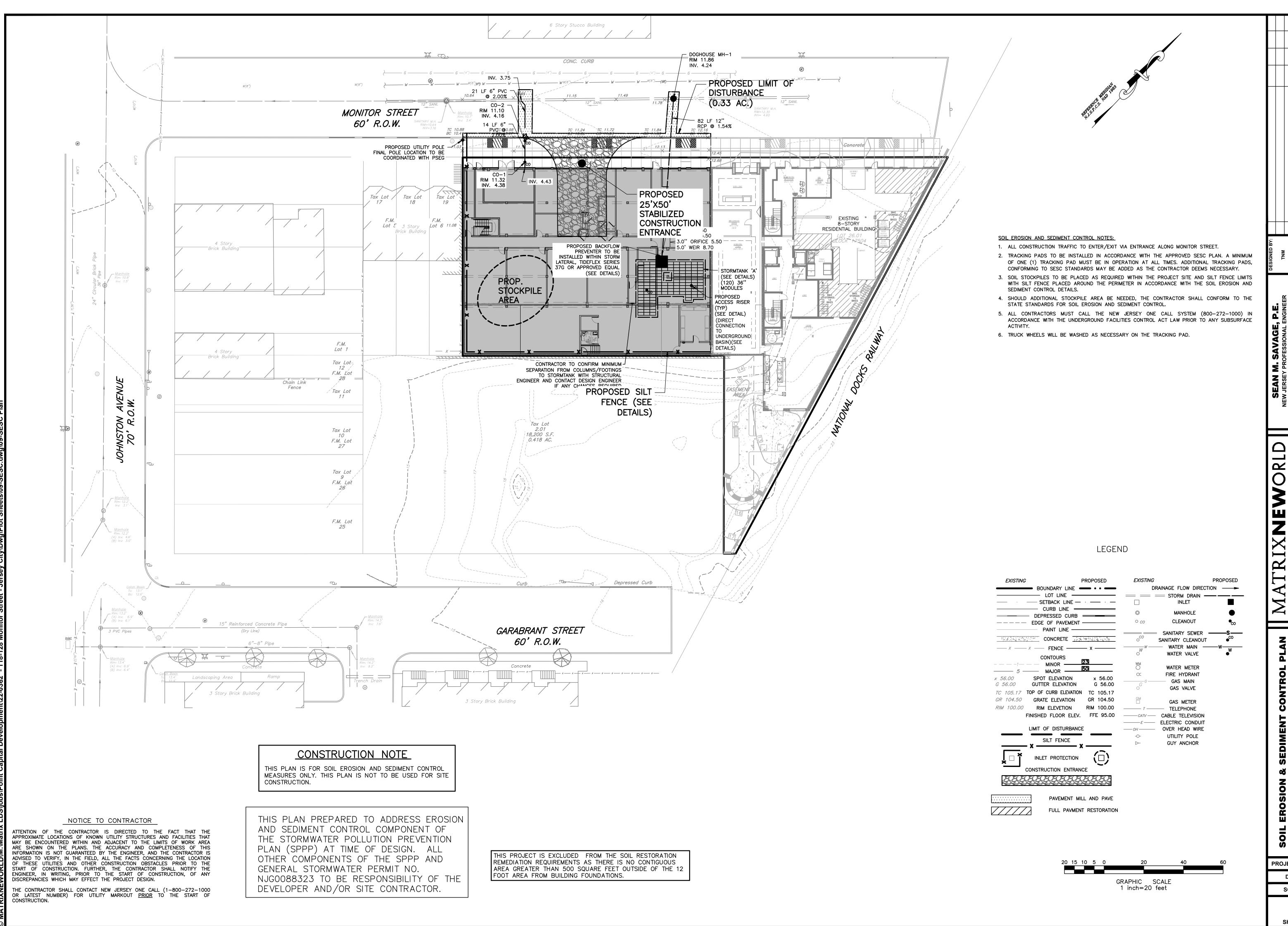
NOTICE TO CONTRACTOR

ATTENTION OF THE CONTRACTOR IS DIRECTED TO THE FACT THAT THE APPROXIMATE LOCATIONS OF KNOWN UTILITY STRUCTURES AND FACILITIES THAT MAY BE ENCOUNTERED WITHIN AND ADJACENT TO THE LIMITS OF WORK AREA ARE SHOWN ON THE PLANS. THE ACCURACY AND COMPLETENESS OF THIS INFORMATION IS NOT GUARANTEED BY THE ENGINEER, AND THE CONTRACTOR IS ADVISED TO VERIFY, IN THE FIELD, ALL THE FACTS CONCERNING THE LOCATION OF THESE UTILITIES AND OTHER CONSTRUCTION OBSTACLES PRIOR TO THE START OF CONSTRUCTION. FURTHER, THE CONTRACTOR SHALL NOTIFY THE ENGINEER, IN WRITING, PRIOR TO THE START OF CONSTRUCTION, OF ANY DISCREPANCIES WHICH MAY EFFECT THE PROJECT DESIGN.

THE CONTRACTOR SHALL CONTACT NEW JERSEY ONE CALL (1-800-272-1000 OR LATEST NUMBER) FOR UTILITY MARKOUT <u>PRIOR</u> TO THE START OF CONSTRUCTION.







PROJECT NUMBER: 22-0362 DATE: 08/14/2023 SCALE: 1" = 20'

SHEET **9** OF **12**

(14) DAYS, AND NOT UNDER ACTIVE CONSTRUCTION, MAY BE REQUIRED TO BE TEMPORARILY MULCHED, AND SEEDED OR OTHERWISE PROVIDED WITH VEGETATIVE COVER AS PER APPENDIX A3. THIS TEMPORARY COVER SHALL BE MAINTAINED UNTIL SUCH TIME WHEREBY PERMANENT RESTABILIZATION IS ESTABLISHED.

SEEDING DATES: THE FOLLOWING SEEDING DATES ARE RECOMMENDED TO BEST ESTABLISH PERMANENT VEGETATIVE COVER WITHIN MOST LOCATIONS IN THE HEPSCD:

SPRING 7.41 = 6.45 AND BALL 9.445 = 10.44 SPRING 3/1-5/15 AND FALL 8/15-10/1.
SEDIMENT FENCES ARE TO BE PROPERLY TRENCHED AND MAINTAINED UNTIL

6. SEDIMENT FENCES ARE TO BE PROPERLY TRENCHED AND MAINTAINED UNTIL PERMANENT VEGETATIVE COVER IS ESTABLISHED.
5. ALL STORM DRAINAGE INLETS SHALL BE PROTECTED BY ONE OF THE PRACTICES ACCEPTED IN THE STANDARDS AND PROTECTION SHALL REMAIN UNTIL PERMANENT STABILIZATION HAS BEEN ESTABLISHED. STORM DRAINAGE OUTLET POINTS SHALL BE PROTECTED AS REQUIRED BEFORE THEY BECOME FUNCTIONAL.
6. MULCH MATERIALS SHALL BE UN-ROTTED SMALL GRAIN STRAW APPLIED AT A RATE OF 70-90 POUNDS PER 1,000 SQUARE FEET AND ANCHORED WITH A MULCH ANCHORING TOOL, LIQUID MULCH BINDERS, OR NETTING TIE DOWN. OTHER SUITABLE MATERIALS MAY BE USED IF APPROVED BY THE SOIL CONSERVATION DISTRICT.
7. ALL FROSION CONTROL DEVICES SHALL BE PERIODICALLY INSPECTED. MAINTAINED AND

MAY BE USED IF APPROVED BY THE SUIL CONSERVATION DISTRICT.

ALL EROSION CONTROL DEVICES SHALL BE PERIODICALLY INSPECTED, MAINTAINED AND CORRECTED BY THE CONTRACTOR. ANY DAMAGE INCURRED BY EROSION SHALL BE RECTIFIED IMMEDIATELY.

THE HUDSON-ESSEX-PASSAIC SOIL CONSERVATION DISTRICT SHALL BE NOTIFIED IN WRITING AT LEAST 48 HOURS PRIOR TO ANY SOIL DISTURBING ACTIVITIES.

WRITING AT LEAST 48 HOURS PRIOR TO ANY SOIL DISTURBING ACTIVITIES.

FAX (862) 333-4507. EMAIL: INFORMATION@HEPSCD.ORG.

THE APPLICANT MUST OBTAIN A DISTRICT ISSUED REPORT-OF-COMPLIANCE PRIOR TO APPLYING FOR THE CERTIFICATE OF OCCUPANCY OR TEMPORARY CERTIFICATE OF OCCUPANCY FROM THE RESPECTIVE MUNICIPALITY. NJ-DCA OR ANY OTHER CONTROLLING AGENCY. CONTACT THE DISTRICT AT 862-333-4505 TO REQUEST / FINAL INSPECTION, GIVING ADVANCED NOTICE UPON COMPLETION OF THI RESTABILIZATION MEASURES. A PERFORMANCE DEPOSIT MAY BE POSTED WITH THE OFFICE WILLIAM WILLIAMED WEATURED OR SNOW COVER PROBUBITS THE PROPE

RESTABILIZATION MÉASURES. A PERFORMANCE DEPOSIT MAY BE POSTED WITH THE DISTRICT WHEN WINTER WEATHER OR SNOW COVER PROHIBITS THE PROPER APPLICATION OF SEED, MULCH, FERTILIZER OR HYDRO—SEED.

10. PAVED ROADWAYS MUST BE KEPT CLEAN AT ALL TIMES. DO NOT UTILIZE A FIRE OR GARDEN HOSE TO CLEAN ROADS UNLESS THE RUNOFF IS DIRECTED TO A PROPERLY DESIGNED AND FUNCTIONING SEDIMENT BASIN. WATER PUMPED OUT OF THE EXCAVATED AREAS CONTAINS SEDIMENTS THAT MUST BE REMOVED PRIOR TO DISCHARGING TO RECEIVING BODIES OF WATER USING REMOVABLE PUMPING STATIONS, SUMP PITS, PORTABLE SEDIMENTATION TANKS AND/OR SILT CONTROL BAGS.

11. ALL SURFACES HAVING LAWN OR LANDSCAPING AS FINAL COVER ARE TO BE PROVIDED TOPSOIL PRIOR TO RE—SEEDING, SODDING OR PLANTING. A DEPTH OF 5.0 INCHES, FIRMED IN PLACE, IS REQUIRED, AS PER THE STANDARDS FOR TOPSOILING AND LAND GRADING, LAST REVISED DECEMBER 2017.

12. ALL PLAN REVISIONS MUST BE SUBMITTED TO THE DISTRICT FOR PROPER REVIEW AND APPROVAL. APPROVAL.

13. A CRUSHED STONE WHEEL CLEANING TRACKING—PAD IS TO BE INSTALLED AT ALL SITE EXITS USING 2-1/2 - 1" CRUSHED ANGULAR STONE (ASTM 2 OR 3) TO A MINIMUM LENGTH OF 50 FEET AND A MINIMUM DEPTH OF 6". ALL DRIVEWAYS MUST BE PROVIDED WITH CRUSHED STONE UNTIL PAYING IS COMPLETE.

14. STEEP SLOPES INCURRING DISTURBANCE MAY REQUIRE ADDITIONAL STABILIZATION

THE HUDSON-ESSEX-PASSAIC SOIL CONSERVATION DISTRICT SHALL BE NOTIFIED. IN WRITING, FOR THE SALE OF ANY PORTION OF THE PROJECT OR FOR THE SALE OF INDIVIDUAL LOTS. NEW OWNERS' INFORMATION SHALL BE PROVIDED. ADDITIONA MEASURES DEEMED NECESSARY BY DISTRICT OFFICIALS SHALL BE IMPLEMENTED A STANDARD FOR

A TEMPORARY BARRIER AND SETTLING FACILITY INSTALLED AT A STORM SEWER PURPOSE

STORM SEWER INLET PROTECTION

DEFINITION

THE PURPOSE OF STORM SEWER INLET PROTECTION IS TO INTERCEPT. AND RETAIN SEDIMENT, THUS PREVENTING THE ENTRANCE OF SEDIMENT INTO THE STORM SEWER SYSTEM. CONDITIONS WHERE PRACTICE APPLIES

CONTRIBUTING DRAINAGE AREA IS 3 ACRES OR LESS.
A STORM SEWER OR THE OUTLET CHANNEL OF A STORM SEWER NEEDS PROTECTION FROM SEDIMENT.

3. TRAFFIC WILL NOT DESTROY OR CAUSE CONSTANT MAINTENANCE OF THE STORM SEWER INLET PROTECTION

4. A TRAFFIC HAZARD WILL NOT BE CREATED.
5. A FLOODING PROBLEM WILL NOT BE CREATED. WATER QUALITY ENHANCEMENT THE PRIMARY BENEFIT TO WATER QUALITY IS REMOVAL OF SEDIMENT FROM STORMWATER RUNOFF PRIOR TO ENTERING THE STORM SEWER SYSTEM. AS AN ADDED BENEFIT, OTHER FLOATABLE DEBRIS, SUCH AS VEGETATIVE MATTER AND LITTER MAY ALSO BE FILTERED OUT OF THE RUNOFF.

DESIGN CRITERIA

THE FOLLOWING APPLIES TO ALL METHODS OF STORM SEWER INLET

1. MUST SLOW THE STORM WATER, PROVIDE THE COARSE SEDIMENT PARTICLES A CHANCE TO SETTLE, AND PROVIDE AN AREA TO RETAIN THE PARTICLES THAT HAVE SETTLED.

2. IN ALL CASES, THE INLET PROTECTION SHOULD NOT COMPLETELY CLOSE OFF THE INLET. PROVISION MUST BE MADE TO ALLOW STORMWATER TO OVERFLOW OR BYPASS FILTER

3. THE PROTECTION DEVICE WILL BE DESIGNED TO CAPTURE OR FILTER RUNOFF FROM THE 1 YEAR, 24 HOUR STORM EVENT AND SHALL SAFELY CONVEY HIGHER FLOWS DIRECTLY INTO THE STORM SEWER SYSTEM.

OTHER METHODS THAT ACCOMPLISH THE PURPOSE OF STORM SEWER INLET PROTECTION MAY BE USED IF APPROVED BY THE SOIL CONSERVATION DISTRIC

INSPECTIONS SHALL BE FREQUENT. MAINTENANCE, REPAIR, AND REPLACEMENT SHALL BE MADE PROMPTLY, AS NEEDED. THE BARRIER SHALL BE REMOVED WHEN THE AREA DRAINING TOWARD THE INLET HAS BEEN STABILIZED.

STANDARD FOR DUST CONTROL CONDITIONS WHERE PRACTICE APPLIES THIS PRACTICE IS APPLICABLE TO AREAS SUBJECT TO DUST BLOWING AND MOVEMENT WHERE ON-SITE AND OFF-SITE DAMAGE IS LIKELY WITHOUT TREATMENT. CONSULT WITH LOCAL MUNICIPAL ORDINANCES AND RESTRICTIONS.

THE FOLLOWING METHODS SHOULD BE CONSIDERED FOR CONTROLLING DUST: MULCHES - SEE STANDARD OF STABILIZATION WITH MULCHES SHOWN HEREON. GETATIVE COVER — SEE STANDARD FOR: TEMPORARY VEGETATIVE COVER SHOWN HEREON, PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION SHOWN HEREON, AND PERMANENT STABILIZATION WITH SOD PER CURRENT STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY, CURRENT EDITION.

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

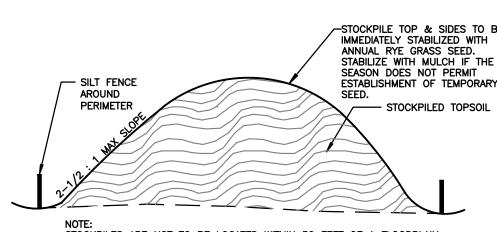
DUST CONTROL M	IATERIALS		
MATERIAL	WATER DILUTION	TYPE OF NOZZLE	APPLY GAL/ACRE
ANIONIC ASPHALT EMULSION	7:1	COARSE SPRAY	1200
LATEX EMULSION	12.5:1	FINE SPRAY	235
RESIN IN WATER	4:1	FINE SPRAY	300
POLYACRYLAMIDE (PAM) - SPRAY ON POLYACRYLAMIDE (PAM) - DRY SPREAD	ibasins to floccula	manufacturer's ir as an additive to te and precipitate ent Basin standard for Soll Erosion a sev.	suspended
ACIDULATED SOY BEAN SOAP STICE	K NONE	CDARSE SPRAY	1200

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

SPRINKLING - SITE IS SPRINKLED UNTIL SURFACE IS WET. BARRIERS - SOLID BOARD FENCES, SNOW FENCES, BURLAF FENCES, GUSTES BALES OF HAY AND SIMILAR MATERIAL CAN BE USED TO CONTROL AIR CURRENTS

CALCIUM CHLORIDE — SHALL BE IN THE FORM OF LOOSE, DRY GRANULES OR FLAKES FINE ENOUGH TO FEED THROUGH COMMONLY USED SPREADERS AT A RATE THAT WILL KEEP SURFACE MOIST BUT NOT CAUSE EROSION OR PLANT DAMAGE. IF USED ON STEEPER SLOPES, THEN USE OTHER PRACTICES TO PREVENT WASHING INTO STREAMS OR ACCUMULATION AROUND PLANTS.

STONE - COVER SURFACE WITH CRUSHED STONE OR COURSE GRAVEL.



STOCKPILES ARE NOT TO BE LOCATED WITHIN 50 FEET OF A FLOODPLAIN SLOPE, ROADWAY OR DRAINAGE FACILITY. THE BASE OF ALL STOCKPILES TO BE PROTECTED BY A STRAW BALE BARRIER OR SILT FENCE. STOCKPILE AREA

NOT TO SCALE

SPPP REQUIRED INSPECTIONS AND REPORTS

ROUTINE INSPECTIONS A. THE PERMITTEE SHALL CONDUCT AND DOCUMENT ROUTINE INSPECTIONS OF THE FACILITY TO IDENTIFY AREAS CONTRIBUTING TO THE STORMWATER DISCHARGE AUTHORIZED BY THIS PERMIT AND EVALUATE WHETHER THE STORMWATER POLLUTION PREVENTION PLAN (SPPP) IDENTIFIED UNDER 6.1 OF THE 5G3—CONSTRUCTION ACTIVITY STORMWATER (GP) PART 1 NARRATIVE REQUIREMENTS, INCLUDING THIS SOIL EROSION AND SEDIMENT CONTROL PLAN IS BEING PROPERLY IMPLEMENTED AND MAINTAINED, OR WHETHER ADDITIONAL MEASURES ARE NEEDED TO IMPLEMENT THE SPPP. (ROUTINE INSPECTIONS MINIMUM WEEKLY). HIGH ACID PRODUCING SOILS WITH A pH OF 4 OR LESS, OR CONTAINING IRON SULFIDE, (INCLUDING BORROW FROM CUTS) SHALL BE ULTIMATELY PLACED OR BURIED WITH LIMESTONE APPLIED AT A RATE OF 6 TONS PER ACRE (OR 275 POUNDS PER 1.000 SQUARE FEET OF SURFACE AREA) AND COVERED WITH A MINIMUM OF 12 INCHES OF SETTLED SOIL WITH A pH OF 5 OR MORE EXCEPT AS FOLLOWS:

HIGH ACID PRODUCING SOILS WITH A pH OF 4 OR LESS, OR CONTAINING IRON SULFIDE, (INCLUDING BORROW FROM CUTS) SHALL BE ULTIMATELY PLACED OR BURIED WITH LIMESTONE APPLIED AT A RATE OF 6 TONS PER ACRE (OR 275 POUNDS PER 1.000 SQUARE FEET OF SURFACE AREA) AND COVERED WITH A MINIMUM OF 12 INCHES OF SETTLED SOIL WITH A pH OF 5 OR MORE EXCEPT AS FOLLOWS: OTHER RECORD-KEEPING REQUIREMENTS

THE CONTRACTOR SHALL KEEP THE FOLLOWING RECORDS RELATED TO CONSTRUCTION
ACTIVITIES AT THE SITE:

— DATES WHEN MAJOR GRADING ACTIVITIES OCCUR AND THE AREAS WHICH WERE GRADED
— DATES AND DETAILS CONCERNING THE INSTALLATION OF STRUCTURAL CONTROLS
— DATES WHEN CONSTRUCTION ACTIVITIES CEASE IN AN AREA
— DATES WHEN AN AREA IS STABILIZED, EITHER TEMPORARILY OR PERMANENTLY
— DATES OF RAINFALL AND THE AMOUNT OF RAINFALL
— DATES AND DESCRIPTIONS OF THE CHARACTER AND AMOUNT OF ANY SPILLS OF

HAZARDOUS MATERIALS
RECORDS OF REPORTS FILED WITH REGULATORY AGENCIES IF REPORTABLE QUANTITIES OF HAZARDOUS MATERIALS SPILLED - A VISIBLE SIGN SHALL BE POSTED ON THE SITE TO IDENTIFY THE LOCATION OF SPPP ANNUAL REPORTS AND CERTIFICATIONS.

ANNUAL REPORTS AND CERTIFICATIONS.

A. THE PERMITTEE SHALL PREPARE AN ANNUAL REPORT SUMMARIZING EACH INSPECTION PERFORMED UNDER 1.A., ABOVE. THIS REPORT SHALL BE ACCOMPANIED BY AN ANNUAL CERTIFICATION, ON A FORM PROVIDED BY THE NJDEP THAT THE FACILITY IS IN COMPLIANCE WITH ITS SPPP AND THIS PERMIT, EXCEPT THAT IF THERE ARE ANY INCIDENTS OF NONCOMPLIANCE, THOSE INCIDENTS SHALL BE IDENTIFIED IN THE CERTIFICATION. IF THERE ARE INCIDENTS OF NONCOMPLIANCE, THE REPORT SHALL IDENTIFY THE STEPS BEING TAKEN TO REMEDY THE NONCOMPLIANCE AND TO PREVENT SUCH INCIDENTS FROM RECURRING. THE REPORT AND CERTIFICATION SHALL BE SIGNED AND DATED BY THE PERMITTEE IN ACCORDANCE WITH N.J.A.C. 7:14A-4.9. AND SHALL BE MAINTAINED FOR A PERIOD OF AT LEAST FIVE YEARS ALONG WITH COPIES OF ALL INSPECTION REPORTS AND RECORD KEEPING. THIS PERIOD MAY BE EXTENDED BY WRITTEN REQUEST FROM THE DEPARTMENT AT ANY TIME (SEE N.J.A.C. 7:14A-6.6) REPORTS OF NONCOMPLIANCE

A. ALL INSTANCES OF NONCOMPLIANCE NOT REPORTED UNDER N.J.A.C. 7:140A-6.10 SHALL BE REPORTED TO THE DEPARTMENT ANNUALLY.

A. THE SOIL CONSERVATION DISTRICT WILL PROVIDE THE DEPARTMENT A COPY OF THE REPORT OF COMPLIANCE ISSUED UNDER N.J.A.C. 2:90-1 FOR COMPLETED CONSTRUCTION ACTIVITIES, EXCEPT SINGLE FAMILY HOME CONSTRUCTION UNDER B. BELOW. THE REPORT OF COMPLIANCE SHALL SERVE AS THE NOTIFICATION OF COMPLETION. B. THE BUILDER OF A SINGLE FAMILY HOME THAT IS AUTHORIZED UNDER THIS PERMIT, BUT NOT WITHIN THE DEFINITION OF "PROJECT" AT N.J.S.A. 4:24-41G, SHALL SEND A COPY OF THE FINAL CERTIFICATE OF OCCUPANCY TO THE SOIL CONSERVATION DISTRICT. THE SOIL CONSERVATION DISTRICT WILL PROVIDE A COPY OF THE FINAL CERTIFICATION OF OCCUPANCY TO THE DEPARTMENT, WHICH WILL SERVE AS NOTIFICATION OF COMPLETION.

C. THE DOT SHALL PROVIDE WRITTEN NOTIFICATION TO THE DEPARTMENT WHEN DOT CERTIFIED PROJECTS ARE COMPLETED. MITIGATION NOTES FOR ACIDIC SOIL

1. LIMIT THE EXCAVATION AREA AND EXPOSURE TIME WHEN HIGH ACID PRODUCING SOILS ARE ENCOUNTERED.

TOPSOIL STRIPPED FROM THE SITE SHALL BE STORED SEPARATELY FROM TEMPORARILY STOCKPILED HIGH ACID PRODUCING SOILS.

STOCKPILES OF HIGH ACID PRODUCING SOIL SHOULD BE LOCATED ON LEVEL LAND TO MINIMIZE ITS MOVEMENT, ESPECIALLY WHEN THIS MATERIAL HAS A HIGH CLAY CONTENT.

4. TEMPORARILY STOCKPILED HIGH ACID PRODUCING SOIL MATERIAL TO BE EXPOSED MORE THAN 48 HOURS SHOULD BE COVERED WITH PROPERLY ANCHORED, HEAVY GRADE SHEETS OF POLYETHYLENE WHERE POSSIBLE. IF NOT POSSIBLE, STOCKPILES SHALL BE COVERED WITH A MINIMUM OF 3 TO 6 INCHES OF WOOD CHIPS TO MINIMIZE EROSION OF THE STOCKPILE. SILT FENCE SHALL BE INSTALLED AT THE TOE OF SLOPE TO CONTAIN MOVEMENT OF THE STOCKPILED MATERIAL. TOPSOIL SHALL NOT BE APPLIED TO THE STOCKPILES TO PREVENT TOPSOIL CONTAMINATION WITH HIGH ACID PRODUCING SOIL

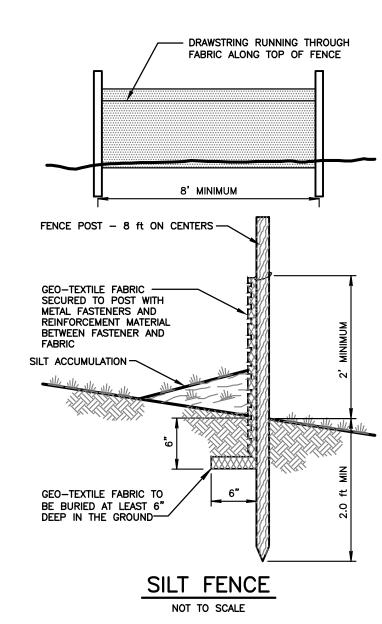
5. HIGH ACID PRODUCING SOILS WITH A pH OF 4.0 OR LESS OR CONTAINING IRON SULFIDE, (INCLUDING BORROW FROM CUTS OR DREDGED SEDIMENT) SHALL BE ULTIMATELY PLACED OR BURIED WITH LIMESTONE APPLIED AT A RATE OF 10 TONS PER ACRE (OR 450 POUNDS PER 1.000 SQUARE FEET OF SURFACE AREA) AND COVERED WITH A MINIMUM OF 12 INCHES OF SETTLED SOIL WITH A PH OF 5.0 OR MORE EXCEPT AS FOLLOWS:

A. AREAS WHERE TREES OR SHRUBS ARE TO BE PLANTED SHALL BE COVERED WITH A MINIMUM OF 24 INCHES OF SOIL WITH A pH OF 5 OR B. DISPOSAL AREAS SHALL NOT BE LOCATED WITHIN 24 INCHES OF ANY SURFACE OF A SLOPE OR BANK, SUCH AS BERMS, STREAM BANKS, DITCHES AND OTHERS TO PREVENT POTENTIAL LATERAL LEACHING

5. EQUIPMENT USED FOR MOVEMENT OF HIGH ACID PRODUCING SOILS SHOULD BE CLEANED AT THE END OF EACH DAY TO PREVENT SPREADING OF HIGH ACID SOIL MATERIALS TO OTHER PARTS OF THE SITE, INTO STREAMS OR R CONVEYANCES AND TO PROTECT MACHINERY FROM

7. NON-VEGETATIVE EROSION CONTROL PRACTICES (STONE TRACKING PADS, STRATEGICALLY PLACED LIMESTONE CHECK DAM, SEDIMENT BARRIER, WOOD CHIPS) SHOULD BE INSTALLED TO LIMIT THE MOVEMENT OF HIGH ACID PRODUCING SOILS FROM, AROUND OR OFF THE SITE.

8. FOLLOWING BURIAL OR REMOVAL OF HIGH ACID PRODUCING SOIL, TOPSOILING AND SEEDING OF THE SITE, (SEE TEMPORARY VEGETATIVE COVER FOR SOIL STABILIZATION, PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION, AND TOPSOILING) MONITORING SHOULD CONTINUE FOR A MINIMUM OF 6 MONTHS TO ENSURE THERE IS ADEQUATE STABILIZATION AND THAT NO HIGH ACID SOIL PROBLEMS EMERGE. IF PROBLEMS STILL EXIST THE AFFECTED AREA MUST BE TREATED AS INDICATED ABOVE TO CORRECT THE PROBLEM.



CONSTRUCTION SITE WASTE CONTROL COMPONENT OF THE STORMWATER POLLUTION PREVENTION PLAN (SPPP)

(THIS IS FOR CONSTRUCTION WASTE ONLY)

THE CONSTRUCTION SITE WASTE CONTROL COMPONENT OF THE SPPP CONSISTS OF THE REQUIREMENT IN 2., 3., AND 4. BELOW. THESE REQUIREMENTS BECOME OPERATIVE ON MARCH 3, 2004 AND APPLY TO CONSTRUCTION ACTIVITIES THAT COMMENCE ON OR AFTER MARCH 3, 2004. ANY NEW CONSTRUCTION ACTIVITY FOR WHICH AN RFA IS SUBMITTED ON OR AFTER MARCH 3, 2004 OR WHICH WILL RECEIVE AUTOMATIC RENEWAL OR AUTHORIZATION UNDER THIS PERMIT AFTER MARCH 3, 2004 ALSO SHALL COMPLY WITH THESE REQUIREMENTS. MATERIAL MANAGEMENT TO PREVENT OR REDUCE WASTE — ANY PERILIZERS, FERTILIZERS, FUELS, LUBRICANTS, PETROLEUM PRODUCTS, ANTI-FREEZE, PAINTS AND PAINT THINNERS, CLEANING SOLVENTS AND ACIDS, DETERGENTS, CHEMICAL ADDITIVES, AND CONCRETE CURING COMPOUNDS SHALL BE STORED IN CONTAINERS IN A DRY COVERED AREA. MANUFACTURERS' RECOMMENDED APPLICATION RATES, USES, AND METHODS SHALL BE STRICTLY FOLLOWED TO THE EXTENT NECESSARY TO PREVENT OR MINIMIZE THE PRESENCE OF WASTE FROM SUCH MATERIALS IN THE STORMWATER DISCHARGE AUTHORIZED BY THIS PERMIT (THE PRECEDING SENTENCE DOES NOT APPLY TO ANY MANUFACTURERS' RECOMMENDATIONS ABOUT FERTILIZER OR OTHER MATERIAL THAT CONFLICT WITH THE EROSION AND SEDIMENT CONTROL COMPONENT OF THE FACILITY'S SPPP.)

WASTE HANDLING — THE FOLLOWING REQUIREMENTS APPLY ONLY TO CONSTRUCTION SITE WASTE THAT HAS THE POTENTIAL TO BE TRANSPORTED BY THE STORMWATER DISCHARGE AUTHORIZED BY THIS PERMIT. THE HANDLING AT THE CONSTRUCTION SITE OF WASTE BUILDING MATERIAL AND RUBBLE AND OTHER CONSTRUCTION SITE WASTES, INCLUDING LITTER AND HAZARDOUS AND SANITARY WASTES, SHALL CONFORM WITH THE STATE SOLID WASTE MANAGEMENT ACT, N.J.S.A. 13:1E— ET SEQ., AND ITS IMPLEMENTING RULES AT N.J.A.C. 7:26, 7:26A, AND 7:26G, THE NEW JERSEY PESTICIDE CONTROL CODE AT N.J.A.C. 7:30, THE STATE LITTER STATUTE N.J.S.A. 13:1e—99.3); AND OSHA REQUIREMENTS FOR SANITATION AT 29 C.F.R., 1926 (EXCEPT WHERE SUCH CONFORMANCE IS NOT RELEVANT TO THE STORMWATER DISCHARGE AUTHORIZED BY THIS PERMIT). CONSTRUCTION SITES SHALL HAVE ONE OR MORE DESIGNATED WASTE COLLECTION AREAS ONSITE OR ADJACENT TO THE SITE, AND AN ADEQUATE NUMBER OF CONTAINERS (WITH LIDS OR COVERS) FOR WASTE. WASTE SHALL BE COLLECTED FROM SUCH CONTAINERS BEFORE THEY OVERFLOW, AND SPILLS AT SUCH CONTAINERS SHALL BE CLEANED UP IMMEDIATELY. A. CONSTRUCTION SITE WASTES INCLUDE BUT ARE NOT LIMITED TO:

I. "CONSTRUCTION AND DEMOLITION WASTE", AS DEFINED IN N.J.A.C. 7:7:26-1.4 AS FOLLOWS:
"WASTE BUILDING MATERIAL AND RUBBLE RESULTING FROM CONSTRUCTION, REMODELING,
REPAIR, AND DEMOLITION OPERATIONS ON HOUSES, COMMERCIAL BUILDINGS, PAVEMENTS AND
OTHER STRUCTURES. THE FOLLOWING MATERIALS MAY BE FOUND IN CONSTRUCTION AND
DEMOLITION WASTE: TREATED AND UNTREATED WOOD SCRAP; TREE PARTS, TREE STUMPS
AND BRUSH; CONCRETE, ASPHALT, BRICKS, BLOCKS AND OTHER MASONRY; PLASTER AND
WALLBOARD; ROOFING MATERIALS; CORRUGATED CARDBOARD AND MISCELLANEOUS PAPER;
FERROUS AND NON-FERROUS METAL; NON-ASBESTOS BUILDING INSULATION; PLASTIC SCRAP;
DIRT; CARPETS AND PADDING, GLASS (WINDOW AND DOOR); AND OTHER MISCELLANEOUS
MATERIALS; BUT SHALL NOT INCLUDE OTHER SOLID WASTE TYPES."

ANY WASTE BUILDING MATERIAL AND RUBBLE RESULTING FROM SUCH OPERATIONS THAT IS HAZARDOUS FOR PURPOSES OF N.J.A.C 7:26G (THE HAZARDOUS WASTE RULES). III. DISCARDED (INCLUDING SPILLED) PESTICIDES, FERTILIZERS, FUELS, LUBRICANTS, PETROLEUM PRODUCTS, ANTI-FREEZE, PAINTS AND PAINT THINNERS, PAINT CHIPS AND SANDBLASTING GRITS, CLEANING SOLVENTS, ACIDS FOR CLEANING MASONRY SURFACES, DETERGENTS, CHEMICAL ADDITIVES USED FOR SOIL STABILIZATION (E.G. CALCIUM CHLORIDE), AND CONCRETE CURING COMPOUNDS.

V. OTHER "LITTER" AS DEFINED AT N.J.S.A. 13:1E-215.D AS FOLLOWS: "ANY USED OR UNCONSUMED SUBSTANCE OR WASTE MATERIAL WHICH HAS BEEN DISCARDED WHETHER MADE OF ALUMINUM, GLASS, PLASTIC, RUBBER, PAPER, OR OTHER NATURAL OR SYNTHETIC MATERIAL, OR ANY COMBINATION THEREOF, INCLUDING, BUT NOT LIMITED TO, ANY BOTTLE, JAR OR CAN, OR ANY TOP, CAP OR DETACHABLE TAB OF ANY BOTTLE, JAR OR CAN, ANY UNLIGHTED CIGARETTE, CIGAR, MATCH OR ANY FLAMING OR GLOWING MATERIAL OR ANY GARBAGE, TRASH, REFUSE, DEBRIS, RUBBISH, GRASS CLIPPINGS OR OTHER LAWN OR GARDEN WASTE, NEWSPAPERS, MAGAZINES, CLASS, METAL, PLASTIC OR PAPER CONTAINERS OR OTHER PACKAGING OR CONSTRUCTION MATERIAL, BUT DOES NOT INCLUDE THE WASTE OF THE PRIMARY PROCESSES OF MINOR OR OTHER EXTRACTION PROCESSES, LOGGING, SAWMILLING, FARMING OR MANUFACTURING." V. SANITARY SEWAGE AND SEPTAGE.

VI. CONTAMINATED SOILS ENCOUNTERED OR DISCOVERED DURING EARTHMOVING ACTIVITIES OR DURING THE CLEANUP OF A LEAK OR DISCHARGE OF A HAZARDOUS SUBSTANCE. B. CONCRETE TRUCK WASHOUT — CONCRETE TRUCK WASHOUT ONSITE IS PROHIBITED OUTSIDE DESIGNATED AREAS. DESIGNATED WASHOUT AREAS SHALL BE LINED AND BERMED TO PREVENT DISCHARGES TO SURFACE AND GROUND WATER. HARDENED CONCRETE FROM CONCRETE TRUCK WASHOUT SHALL BE REMOVED AND PROPERLY DISPOSED OF.

C. SANITARY SEWAGE/SEPTAGE DISPOSAL — DISCHARGES OF RAW SANITARY SEWAGE OR SEPTAGE ONSITE ARE STRICTLY PROHIBITED. ADEQUATE FACILITIES WITH PROPER DISPOSAL SHALL BE PROVIDED AND MAINTAINED ONSITE OR ADJACENT TO THE SITE FOR ALL WORKERS AND OTHER SANITARY NEEDS. 4. SPILLS: DISCHARGE OF HAZARDOUS SUBSTANCES,

A. SPILL KITS SHALL BE AVAILABLE ONSITE OR ADJACENT TO THE SITE FOR ANY MATERIALS THAT ARE LISTED IN 2 ABOVE AND USED OR APPLIED ONSITE. ALL SPILLS OF SUCH MATERIAL SHALL BE CONTAINED AND CLEANED UP IMMEDIATELY. CLEANED UP MATERIALS SHALL BE PROPERLY DISPOSED OF.

B. DISCHARGES OF HAZARDOUS SUBSTANCES (AS DEFINED IN N.J.A..C. 7:1E-1.6) IN CONSTRUCTION SITE WASTES ARE SUBJECT TO THE PROVISIONS OF THE SPILL COMPENSATION AND CONTROL ACT, NJAC 58:10-23.11 ET SEQ., AND OF DEPARTMENT RULES FOR DISCHARGE OF PETROLEUM AND OTHER HAZARDOUS SUBSTANCES AT NJAC 7:1E. NO DISCHARGE OF HAZARDOUS SUBSTANCES RESULTING FROM AN ONSITE SPILL SHALL BE DEEMED TO BE "PURSUANT TO AND IN COMPLIANCE WITH (THIS) PERMIT" WITHIN THE MEANS OF THE SPILL COMPENSATION AND CONTROL ACT AT NJSA 58;10-2311C.

C. RELEASES IN EXCESS OF REPORTABLE QUANTITIES (RQ) ESTABLISHED UNDER 40 C.F.R. 110, 117 AND 302 THAT OCCUR WITHIN A 24-HOUR PERIOD MUST BE REPORTED TO THE NATIONAL RESPONSE CENTER (800-424-8802)

STANDARD FOR TOPSOILING

TOPSOILING ENTAILS THE DISTRIBUTION OF SUITABLE QUALITY SOIL ON AREAS TO BE PURPOSE
TO IMPROVE THE SOIL MEDIUM FOR PLANT ESTABLISHMENT AND MAINTENANCE

WATER QUALITY ENHANCEMENT GROWTH AND ESTABLISHMENT OF VIGOROUS VEGETATIVE COVER IS FACILITATED BY TOPSOIL, PREVENTING SOIL LOSS BY WIND AND RAIN OFFSITE AND INTO STREAMS AND OTHER STORMWATER CONVEYANCES.

WHERE APPLICABLE TOPSOIL SHALL BE USED WHERE SOILS ARE TO BE DISTURBED AND WILL BE REVEGETATED. METHODS AND MATERIALS

A. TOPSOIL SHOULD BE FRIABLE, LOAMY, FREE OF DEBRIS, OBJECTIONABLE WEEDS AND STONES, AND CONTAIN NO TOXIC SUBSTANCE OR ADVERSE CHEMICAL OR PHYSICAL CONDITION THAT MAY BE HARMFUL TO PLANT GROWTH. SOLUBLE SALTS SHOULD NOT BE EXCESSIVE (CONDUCTIVITY LESS THAN 0.5 MILLIMHOS PER CENTIMETER. MORE THAN 0. MILLIMHOS MAY DESICCATE SEEDLINGS AND ADVERSELY IMPACT GROWTH). TOPSOIL HAULED IN FROM OFFSITE SHOULD HAVE A MINIMUM ORGANIC MATTER CONTENT OF 2.75 PERCENT. ORGANIC MATTER CONTENT MAY BE RAISED BY ADDITIVES. B. TOPSOIL SUBSTITUTE IS A SOIL MATERIAL WHICH MAY HAVE BEEN AMENDED WITH SAND, SILT, CLAY, ORGANIC MATTER, FERTILIZER OR LIME AND HAS THE APPEARANCE OF TOPSOIL TOPSOIL SUBSTITUTES MAY BE UTILIZED ON SITES WITH INSUFFICIENT TOPSOIL FOR ESTABLISHING PERMANENT VEGETATION. ALL TOPSOIL SUBSTITUTE MATERIALS SHALL MEET THE REQUIREMENTS OF TOPSOIL NOTED ABOVE. SOIL TESTS SHALL BE PERFORMED TO DETERMINE THE COMPONENTS OF SAND, SILT, CLAY, ORGANIC MATTER, SOLUBLE SALTS AND PH LEVEL.

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 APPROXIMATELY 6.5. D. A 4-6 INCH STRIPPING DEPTH IS COMMON, BUT MAY VARY DEPENDING ON THE

PARTICULAR SOIL.

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 STANDARDS PREVIOUSLY DESCRIBED HEREIN; SEE STANDARDS FOR PERMANENT (PG. 4–1) OR TEMPORARY (PG.7-1) VEGETATIVE COVER FOR SOIL STABILIZATION. WEEDS SHOULD NOT BE ALLOWED TO GROW ON STOCKPILES. 3. SITE PREPARATION

A. GRADE AT THE ONSET OF THE OPTIMAL SEEDING PERIOD SO AS TO MINIMIZE THE DURATION AND AREA OF EXPOSURE OF DISTURBED SOIL TO EROSION. IMMEDIATELY PROCEED TO ESTABLISH VEGETATIVE COVER IN ACCORDANCE WITH THE SPECIFIED SEED MIXTURE. TIME IS OF THE ESSENCE

B. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION AND ANCHORING, AND MAINTENANCE. SEE THE STANDARD FOR LAND GRADING, PG. 19-1.

C. AS GUIDANCE FOR IDEAL CONDITIONS, SUBSOIL SHOULD BE TESTED FOR LIME REQUIREMENT. LIMESTONE, IF NEEDED, SHOULD BE APPLIED TO BRING SOIL TO A PH OF APPROXIMATELY 6.5 AND INCORPORATED INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES. DEPTH OF 4 INCHES.
PRIOR TO TOPSOILING, THE SUBSOIL SHALL BE IN COMPLIANCE WITH THE STANDARD FOR LAND GRADING, PG. 19-1.
EMPLOY NEEDED EROSION CONTROL PRACTICES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENTATION BASINS, AND WATERWAYS. SEE STANDARDS 11 THROUGH 42. 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 (SEE GLOSSARY).

B. A UNIFORM APPLICATION TO A DEPTH OF 5 INCHES, FIRMED IN PLACE IS REQUIRED. SOILS WITH A PH OF 4.0 OR LESS OR CONTAINING IRON SULFIDE SHALL BE COVERED WITH A MINIMUM DEPTH OF 12 INCHES OF SOIL HAVING A PH OF 5.0 OR MORE, IN ACCORDANCE MINIMUM DEPTH OF 12 INCHES OF SOIL HAVING A PH OF 5.0 OR MORE, IN ACCORDANCE WITH THE STANDARD FOR MANAGEMENT OF HIGH ACID PRODUCING SOIL (PG. 1-1).

C. PURSUANT TO THE REQUIREMENTS IN SECTION 7 OF THE STANDARD FOR PERMANENT VEGETATIVE STABILIZATION, THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT PERMANENT VEGETATIVE COVER BECOMES ESTABILISHED ON AT LEAST 80% OF THE SOILS TO BE STABILIZED WITH VEGETATION. FAILURE TO ACHIEVE THE MINIMUM COVERAGE MAY REQUIRE ADDITIONAL WORK TO BE PERFORMED BY THE CONTRACTOR TO INCLUDE SOME OR ALL OF THE FOLLOWING: SUPPLEMENTAL SEEDING, RE—APPLICATION OF LIME AND FERTILIZERS, AND/OR THE ADDITION OF ORGANIC MATTER (I.E. COMPOST) AS A TOP DRESSING. SUCH ADDITIONAL MEASURES SHALL BE BASED ON SOIL TEST SUCH AS THOSE REQUIRED BY RUTGERS COOPERATIVE EXTENSION SERVICE OR OTHER APPROVED LABORATORY FACILITIES QUALIFIED TO TEST SOIL SAMPLES FOR AGRONOMIC PROPERTIES.

STANDARD FOR STABILIZATION WITH MULCH ONLY DEFINITION

STABILIZING EXPOSED SOILS WITH NON-VEGETATIVE MATERIALS EXPOSED FOR PERIODS LONGER THAN 14 DAYS. PURPOSE

TO PROTECT EXPOSED SOIL SURFACES FROM EROSION DAMAGE AND TO REDUCE OFFSITE ENVIRONMENTAL DAMAGE. CONDITIONS WHERE PRACTICE APPLIES

THIS PRACTICE IS APPLICABLE TO AREAS SUBJECT TO EROSION, WHERE THE SEASON AND OTHER CONDITIONS MAY NOT BE SUITABLE FOR GROWING AN EROSION—RESISTANT COVER OR WHERE STABILIZATION IS NEEDED FOR A SHORT PERIOD UNTIL MORE SUITABLE PROTECTION CAN BE APPLIED.

METHODS AND MATERIALS

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. INSTALL NEEDED EROSION CONTROL PRACTICES OR FACILITIES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENT BASINS AND WATERWAYS. SEE STANDARDS 11 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 1000 SQUARE FEET AND ANCHORED WITH A MULCH ANCHORING TOOL, LIQUID MULCH BINDERS OR NETTING TIE DOWN. OTHER SUITABLE MATERIALS MAY BE USED IF APPROVED BY THE SOIL CONSERVATION DISTRICT. THE APPROVED RATES ABOVE HAVE BEEN MET WHEN MULCH COVERS THE GROUND COMPLETELY LIPON VISUAL INSPECTION. LET THE INSPECTOR CANNOT SEE

COMPLETELY UPON VISUAL INSPECTION, I.E. THE INSPECTOR CANNOT SEE THE GROUND BELOW THE MULCH. 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 A RATE OF 1,500 POUNDS PER ACRE (OR ACCORDING TO THE MANUFACTURER'S REQUIREMENTS) MAY BE APPLIED BY A HYDROSEEDER OR HYDROMULCHING. 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 WAS THEM INTO AN INLET AND PLUG IT. F. GRAVEL, CRUSHED STONE OR SLAG AT THE RATE OF 9 CUBIC YARDS PER 1000 SQ. FT. APPLIED UNIFORMLY TO A MINIMUM DEPTH OF 3 INCHES MAY BE USED. SIZE 2 OR 3 (ASTM C-33) IS RECOMMENDED.

MULCH ANCHORING SHOULD BE ACCOMPLISHED IMMEDIATELY AFTER PLACEMENT OF HAY OR STRAW TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE DONE BY ONE OF THE FOLLOWING METHODS, DEPENDING UPON THE SIZE OF THE AREA AND STEEPNESS OF SLOPES.

A. PEG AND TWINE — DRIVE 8 TO 10 INCH WOODEN PEGS TO WITHIN 2 TO 3 INCHES OF THE SOIL SURFACE EVERY 4 FEET IN ALL DIRECTIONS. STAKES MAY BE DRIVEN BEFORE OR AFTER APPLYING MULCH. SECURE MULCH TO SOIL SURFACE BY STRETCHING TWINE BETWEEN PEGS IN A CRISS—CROSS AND A SQUARE PATTERN.

B. MULCH NETTINGS — STAPLE PAPER, COTTON, OR PLASTIC NETTINGS OVER MULCH. USE DEGRADABLE NETTING IN AREAS TO BE MOWED. NETTING IS USUALLY AVAILABLE IN ROLLS 4 FEET WIDE AND UP TO

C. CRIMPER MULCH ANCHORING COULTER TOOL - A TRACTOR-DRAWN IMPLEMENT ESPECIALLY DESIGNED TO PUNCH AND ANCHOR MULCH INTO THE SOIL SURFACE. THIS PRACTICE AFFORDS MAXIMUM EROSION CONTROL, BUT ITS USE IS LIMITED TO THOSE SLOPES UPON WHICH THE TRACTOR CAN OPERATE SAFELY. SOIL PENETRATION SHOULD BE ABOUT 3 TO 4 INCHES. ON SLOPING LAND, THE OPERATION SHOULD D. LIQUID MULCH-BINDERS

 APPLICATIONS SHOULD BE HEAVIER AT EDGES WHERE WIND CATCHES THE MULCH, IN VALLEYS, AND AT CRESTS OF BANKS. REMAINDER OF AREA SHOULD BE UNIFORM IN APPEARANCE. 2. USE ONE OF THE FOLLOWING:

A. ORGANIC AND VEGETABLE BASED BINDERS — NATURALLY OCCURRING, POWDER BASED, HYDROPHILIC MATERIAL THAT MIXED WITH WATER FORMULATES A GEL AND WHEN APPLIED TO MULCH UNDER SATISFACTORY DURING CONDITIONS WILL FORM MEMBRANE NETWORKS OF INSOLUBLE POLYMERS. THE VEGETABLE GEL SHALL BE PHYSIOLOGICALLY HARMLESS AND NOT RESULT IN A PHTO—TOXIC EFFECT OR IMPEDE GROWTH OF TURFGRASS. VEGETABLE BASED GELS SHALL BE APPLIED AT RATES AND WEATHER CONDITIONS RECOMMENDED BY THE MANUFACTURED.

B. SYNTHETIC BINDERS — HIGH POLYMER SYNTHETIC EMULSION, MISCIBLE WITH WATER WHEN DILUTED AND FOLLOWING APPLICATION TO MULCH, DRYING AND CURING SHALL NO LONGER BE SOLUBLE OR DISPERSIBLE IN WATER. IT SHALL BE APPLIED AT RATES AND WEATHER CONDITIONS RECOMMENDED BY THE MANUFACTURER AND REMAIN TACKY UNTIL GERMINATION OF GRASS. **CONSTRUCTION SEQUENCE**

ROUGH CLEARING AND GRADING
EXISTING SIDEWALK AND CURB REMOVAL

EXISTING UTILITY REMOVALS/CAPPING TEMPORARY SEEDING

6. TEMPORARY SEEDING
9. CONSTRUCTION OF THE BUILDING
10. SLOPE & EMBANKMENT PROTECTION
11. SANITARY SEWER INSTALLATION
12. WATER INSTALLATION
13. STORM SEWER INSTALLATION

14. INLET PROTECTION

15. PUBLIC UTILITY INSTALLATIONS

6. CURB & SIDEWALK INSTALLATION
7. PAVEMENT SUB-BASE

MIN. OF 4", FIRMED IN PLACE.

20. FINAL SEEDING AND LANDSCAPING 21. FINAL PAVEMENT COURSE

CONTROL IN NEW JERSEY.

18. MAINTENANCE OF TEMPORARY EROSION CONTROL MEASURES

19. UNIFORMLY APPLY TOPSOIL TO AN AVERAGE DEPTH OF 5",

*TEMPORARY SEEDING SHALL ALSO BE PERFORMED WHEN NECESSARY IN ACCORDANCE WITH THE CURRENT EDITION OF STANDARDS FOR SOIL EROSION AND SEDIMENT

EXACT TIMING FOR DEVELOPMENT OF THIS PROJECT IS NOT KNOWN AT THIS TIME. HOWEVER, IT IS ANTICIPATED THAT CONSTRUCTION WILL COMMENCE IN SUMMER 2023 AND WILL PROCEED IMMEDIATELY AND CONTINUOUSLY ONCE THE REQUIRED APPROVALS ARE CURED. ITEMS AND DURATIONS OF CONSTRUCTION WILL OCCUR APPROXIMATELY AS FOLLOWSHASE TEMPORARY SOIL EROSION FACILITIES
CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE
INSTALL SILT FENCE
INSTALL INLET PROTECTION ON EXISTING INLETS

CONTINUOUSLY

1 WEEK

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 MUST BE 3 TONS PER ACRE. NO TACKIFYING OR ADHESIVE AGENT IS REQUIRED. 10 MONTHS
IMMEDIATELY
1 WEEK
1 WEEK
1 WEEK b. USE ONE OF THE FOLLOWING IMMEDIATELY
2 WEEKS
1 WEEK

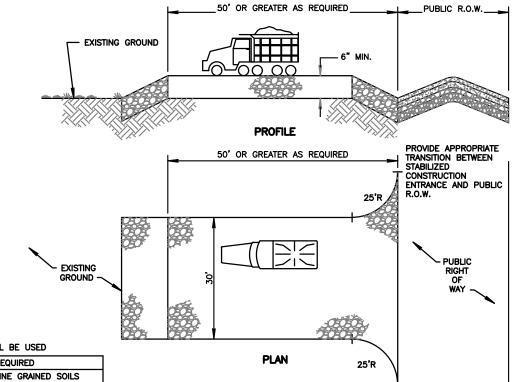
) ORGANIC AND VEGETABLE BASED BINDERS - NATURALLY OCCURRING, POWDER BASED. (1) ORGANIC AND VEGETABLE BASED BINDERS — NATURALLY OCCURRING, POWDER BASED, HYDROPHILIC MATERIAL WHEN MIXED WITH WATER FORMULATES A GEL AND WHEN APPLIED TO MULCH UNDER SATISFACTORY CONDITIONS WILL FORM MEMBRANE NETWORKS OF INSOLUBLE POLYMERS. THE VEGETABLE GEL SHALL BE PHYSIOLOGICALLY HARMLESS AND NOT RESULT IN A PHYTOTOXIC EFFECT OR IMPEDE GROWTH OF TURFGRASS. USE AT RATES AND WEATHER CONDITIONS AS RECOMMENDED BY THE MANUFACTURER TO ANCHOR MULCH

(2) SYNTHETIC BINDERS — HIGH POLYMER SYNTHETIC EMULSION, MISCIBLE WITH WATER WHEN DILUTED AND FOLLOWING APPLICATION TO MULCH, DRYING AND CURING SHALL NO LONGER BE SOLUBLE OR DISPERSIBLE IN WATER. IT SHALL BE APPLIED AT RATES AND

B. WOOD-FIBER OR PAPER-MULCH. SHALL BE MADE FROM WOOD, PLANT FIBERS OR PAPER CONTAINING NO GROWTH OR GERMINATION INHIBITING MATERIALS, USED AT THE

MANUFACTURER) AND MAY BE APPLIED BY A HYDROSEEDER. THIS MULCH SHALL NOT BE MIXED IN THE TANK WITH SEED. USE IS LIMITED TO FLATTER SLOPES AND DURING OPTIMUM SEEDING PERIODS IN SPRING AND FALL. OPTIMUM SEEDING PERIODS IN SPRING AND FALL.

PELLETIZED MULCH. COMPRESSED AND EXTRUDED PAPER AND/OR WOOD FIBER PRODUCT, WHICH MAY CONTAIN CO-POLYMERS, TACKIFIERS, FERTILIZERS AND COLORING AGENTS. THE DRY PELLETS, WHEN APPLIED TO A SEEDED AREA AND WATERED, FORM A MULCH MAT. PELLETIZED MULCH SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS. MULCH MAY BE APPLIED BY HAND OR MECHANICAL SPREADER AT THE RATE OF 60-75 POUNDS PER 1,000 SQUARE FEET AND ACTIVATED WITH 0.2 TO 0.4 INCHES OF WATER. THIS MATERIAL HAS BEEN FOUND TO BE BENEFICIAL FOR USE ON SMALL LAWNS OR RENOVATION AREAS, SEEDED AREAS WHERE WEED-SEED FREE MUCH IS DESIRED OR ON SITE WHERE STRAW MULCH AND TACKIFIER AGENT ARE NOT PRACTICAL OR DESIRABLE.



STABILIZED CONSTRUCTION ENTRANCE

1"-2 1/2" CLEAN CRUSHED ANGULAR STONE SHALL BE USED PERCENT SLOPE OF ROADWAY COARSE GRAINED SOILS FINE GRAINED SOILS 100 FT. 200 FT. 100 FT. ENTIRE SURFACE STABILIZED WITH HOT MIX ASPHALT BASE COURSE, MIX I-2 >5% 1 AS PRESCRIBED BY LOCAL ORDINANCE OR OTHER GOVERNING AUTHORITY

STANDARD FOR TEMPORARY VEGETATIVE COVER FOR SOIL STABILIZATION

MATERIALS AND METHODS

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 THE CURRENT STANDARDS FOR LAND GRADING, PG 19-1.

INSTALL NEEDED EROSION CONTROL PRACTICES OR FACILITIES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENT BASINS, AND WATERWAYS. SEE STANDARDS 11 THROUGH 42.

C. IMMEDIATELY PRIOR TO SEEDING, THE SURFACE WOULD BE SCARIFIED 6" TO 12"
WHERE THERE HAS BEEN SOIL COMPACTIONS. THIS PRACTICE IS PERMISSIBLE ONLY
WHERE THERE IS NO DANGER TO UNDERGROUND UTILITIES (CABLES, IRRIGATION SYSTEMS, ETC.). 2. SEEDBED PREPARATION

A. APPLY GROUND LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST
RECOMMENDATIONS SUCH AS OFFERED BY RUTGERS CO-OPERATIVE EXTENSION. SOIL
SAMPLER 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 USING 10-20-10 OR
EQUIVALENT WITH 50% WATER INSOLUBLE NITROGEN UNLESS A SOIL TEST INDICATES
OTHERWISE LIMING PATES SHALL BE ESTRIPLISHED VAS SOIL TESTING CALCULAR. OTHERWISE. LIMING RATES SHALL BE ESTABLISHED VIA SOIL TESTING.. CALCIUM CARBONATE IS THE EQUIVALENT AND STANDARD FOR MEASURING THE ABILITY OF LIMING MATERIALS TO NEUTRALIZE SOIL ACIDITY AND SUPPLY CALCIUM AND

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 DISKING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLE UNIFORM SEEDBED IS PREPARED. C. INSPECT SEEDBED JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE RETILLED IN ACCORDANCE WITH THE ABOVE.

D. SOILS HIGH IN SULFIDES OR HAVING A PH OF 4 OR LESS REFER TO STANDARDS FOR MANAGEMENT OF HIGH ACID PRODUCING SOILS, PG, 1-1.

A. SELECT SEED FROM RECOMMENDATIONS IN TABLE 7-2.

SEED SELECTION	SEEDING RATE (POUNDS)		OPTIMUM SEEDING DATE	OPTIMUM SEEDING DEPTH (INCHES)	
	PER ACRE	PER 1000 S.F.	ZONE 6b		
PERENNIAL RYEGRASS	100	1.0	3/1-5/15 8/15-10/01	0.5	
B. CONVENTIONAL SEEDING, APPLY SEED UNIFORMLY BY HAND, CYCLONE (CENTRIFUGAL)					

CONVENTIONAL SEEDING. APPLY SEED UNIFORMLY BY HAND, CYCLONE (CENTRIFUG SEEDER, DROP SEEDER, DRILL OR CULTIPACKER SEEDER. EXCEPT FOR DRILLED, HYDROSEEDED OR CULTIPACKED SEEDLINGS, SEED SHALL BE INCORPORATED INTO THE SOIL, TO A DEPTH OF \$\frac{1}{4}\$ TO \$\frac{1}{2}\$ INCH, BY RAKING OR DRAGGING. DEPTH OF SEED PLACEMENT MAY BE \$\frac{1}{4}\$ INCH DEEPER ON COURSE TEXTURED SOILS.

C. HYDROSEEDING IS A BROADCAST SEEDING METHOD USUALLY INVOLVING A TRUCK OR TRAILER MOUNTED TANK, WITH AN AGITATION SYSTEM AND HYDRAULIC PUMP FOR MIXING SEED, WATER AND FERTILIZER AND SPRAYING THE MIX ONTO THE PREPARED SEEDBED. MULCH SHALL NOT BE INCLUDED IN THE TANK WITH SEED. SHORT FIBERED MULCH MAY BE APPLIED WITH A HYDROSEEDER FOLLOWING SEEDING. (ALSO SEE STABILIZATION WITH MULCH ONLY SHOWN HEREON) HYDROSEEDING IS NOT PREFERRED SEEDING METHOD BECAUSE SEED AND FERTILIZER ARE APPLIED TO THE SURFACE AND NOT INCORPORATED INTO THE SOIL. POOR SEED TO BE SOIL CONTACT OCCURS REDUCING SEED GERMINATION AND GROWTH. HYDROSEEDING MAY BE USED FOR AREAS TOO STEEP FOR CONVENTIONAL EQUIPMENT TO TRAVERSE OR TOO OBSTRUCTED WITH ROCKS, STUMPS, ETC.

O. AFTER SEEDING, FIRMING THE SOIL WITH A CORRUGATED ROLLER WILL ASSURE FOOD SEED-TO-SOIL CONTACT, RESTORE CAPILLARITY, AND IMPROVE SEEDING EMERGENCE. THIS IS THE PREFERRED METHOD. WHEN PERFORMED ON THE CONTOUR, SHEET EROSION WILL BE MINIMIZED AND WATER CONSERVATION ON THE SITE WILL BE

4. MULCHING

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

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 FIND TURF OR LAWNS DUE TO THE PRESENCE OF

APPLICATION. SPREAD MULCH UNIFORMLY BY HAND OR MECHANICALLY SO THAT APPROXIMATELY 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 PER SECTION. ANCHORING SHALL BE ACCOMPLISHED IMMEDIATELY AFTER PLACEMENT TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE DONE BY ONE OF THE FOLLOWING METHODS, DEPENDING UPON THE SIZE OF THE AREA, STEEPNESS OF SLOPES, AND COSTS.

1. PEG AND TWINE. DRIVE 8 TO 10 INCH WOODEN PEGS TO WITHIN 2 TO 3 INCHES OF THE SOIL SURFACE EVERY 4 FEET IN ALL DIRECTIONS. STAKES MAY BE DRIVEN BEFORE AFTER APPLYING MULCH, SECURE MULCH TO SOIL SURFACE BY STRETCHING TWINE
BETWEEN PEGS N A CROS-CROSS AND A SQUARE PATTERN. SECURE TWINE AROUND EACH
PEG WITH TWO OR MORE ROUND TURNS.
2. MULCH NETTING. STAPLE PAPER, JUTE, COTTON, OR PLASTIC NETTINGS TO THE SOIL
SURFACE. USE A DEGRADABLE NETTING IN AREAS TO BE MOWED.

4. LIQUID MULCH BINDERS - MAY BE USED TO ANCHOR HAY OR STRAW MULCH. g. 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.

NOTE: ALL NAMES GIVEN ABOVE ARE REGISTERED TRADE NAMES. THIS DOES NOT CONSTITUTE A RECOMMENDATION OF THESE PRODUCTS TO THE EXCLUSION OF OTHER PRODUCTS.

RATE OF 1,500 POUNDS PER ACRE (OR AS RECOMMENDED BY THE PROJECT

ON THE SEED BED IS EXTREMELY IMPORTANT FOR SUFFICIENT ACTIVATION AND EXPANSION OF THE MULCH TO PROVIDE SOIL COVERAGE.

SINCE SOIL ORGANIC MATTER CONTENT AND SLOW RELEASE NITROGEN FERTILIZER (WATER INSOLUBLE) ARE PRESCRIBED IN SECTION 2A - SEEDBED PREPARATION IN THIS STANDARD

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.

ESTABLISHING PERMANENT VEGETATIVE STABILIZATION
THE QUALITY OF PERMANENT VEGETATION RESTS WITH THE CONTRACTOR. THE TIMING OF SEEDING, PREPARING THE SEEDBED, APPLYING NUTRIENTS, MULCH AND OTHER MANAGEMENT ARE ESSENTIAL. THE SEED APPLICATION RATES IN TABLE 4—2 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

STANDARD FOR PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION

MATERIALS AND METHODS 1. SITE PREPARATION

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 THE CURRENT STANDARDS FOR LAND GRADING.

IMMEDIATELY PRIOR TO SEEDING AND TOPSOIL APPLICATION, THE SUBSOIL SHALL BE EVALUATED FOR COMPACTION IN ACCORDANCE WITH THE STANDARD FOR LAND GRADII TOPSOIL SHOULD BE HANDLED ONLY WHEN IT IS DRY ENOUGH TO WORK WITHOUT DAMAGING SOIL STRUCTURE. A UNIFORM APPLICATION TO A DEPTH OF 5 INCHES (UNSETTLED) IS

REQUIRED ON ALL SITES. TOPSOIL SHALL BE AMENDED WITH ORGANIC MATTER, AS NEEDED, IN ACCORDANCE WITH THE STANDARD FOR TOPSOILING. D. INSTALL NEEDED EROSION CONTROL PRACTICES OR FACILITIES SUCH AS DIVERSIONS, GRADE—STABLIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENT BASINS, AND

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 COOPERATIVE EXTENSION. SOIL SAMPLE MAILERS ARE AVAILABLE FROM THE LOCAL RUTGERS COOPERATIVE EXTENSION OFFICES (http://njaes.rutgers.edu/county). FERTILIZER SHALL BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE OR 11 POUNDS PER 1,000 SQUARE FEET USING 10-10-10 OR EQUIVALENT WITH 50% WATER INSOLUBLE NITROGEN UNLESS A SOIL TEST INDICATES OTHERWISE AND INCORPORATED INTO THE SURFACE 4 INCHES. IF FERTILIZER IS NOT INCORPORATED, APPLY ONE—HALF THE RATE DESCRIBED ABOVE DURING SEEDBED PREPARATION AND REPEAT ANOTHER ONE—HALF RATE APPLICATION OF THE SAME FERTILIZER WITHIN 3 TO 5 WEEKS AFTER SEEDING.

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 DISKING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLE UNIFORM SEEDBED IS PREPARED.

C. HIGH ACID PRODUCING SOIL. SOILS HAVING A PH OF 4 OR LEES OR CONTAINING IRON SULFIDES SHALL BE COVERED WITH A MINIMUM OF 12 INCHES OF SOIL HAVING A PH OF 5 OR MORE BEFORE INITIATING SEEDBED PREPARATION. SEE STANDARD FOR MANAGEMENT OF HIGH ACID—PRODUCING SOILS FOR SPECIFIC REQUIREMENTS. . 3. SEEDING

SELECT A MIXTURE FROM TABLE 4-2 OR USE A MIXTURE RECOMMENDED BY RUTGERS COOPERATIVE EXTENSION OR NATURAL RESOURCES CONSERVATION SERVICE WHICH IS APPROVED BY THE SOIL CONSERVATION DISTRICT. SEED GERMINATION SHALL HAVE BEEN TESTED WITHIN 12 MONTHS OF THE PLANTING DATE. NO SEED SHALL BE ACCEPTED WITH A GERMINATION TEST DATE MORE THAN 12 MONTHS OLD UNLESS RETESTED.

SEED SELECTION	RA	ADIMIM SEEDING DATE		MAINTENANCE LEVEL
	PER ACRE	PER 1000	ZONE 6B	
HARD FESCUE	45	.1	8/15–10/15	B-D

. 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 COVER WITH THE SPECIFIED SEED MIXTURE FOR THE SEEDED AREA AND MOWED ONCE.

2. WARM—SEASON MIXTURES ARE GRASSES AND LEGUMES WHICH MAXIMIZE GROWTH AT HIGH TEMPERATURES, GENERALLY 85' F AND ABOVE. SEE TABLE 4—2 MIXTURES 1—7. PLANTING RATES FOR WARM—SEASON GRASSES SHALL BE THE AMOUNT OF PURE LIVE SEED (PLS) AS DETERMINED BY GERMINATION TESTING RESULTS.

3. COOL—SEASON MIXTURES ARE GRASSES AND LEGUMES WHICH MAXIMIZE GROWTH AT TEMPERATURES BELOW 85'. MANY GRASSES BECOME ACTIVE AT 65' F. SEE TABLE 4—2, MIXTURES 8—20. ADJUSTMENT OF PLANTING RATES TO COMPENSATE FOR THE AMOUNT OF PLS IS NOT REQUIRED FOR COOL—SEASON GRASSES.

B. CONVENTIONAL SEEDING IS PERFORMED BY APPLYING SEED UNIFORMLY BY HAND, CYCLONE (CENTRIFUGAL) SEEDER, DROP SEEDER, DRILL OR CULTIPACKER SEEDER. EXCEPT FOR DRILLED, HYDROSEEDED OR CULTIPACKED SEEDLINGS, SEED SHALL BE INCORPORATED INTO THE SOIL WITHIN 24 HOURS OF SEEDBED PREPARATION, TO A DEPTH OF $\frac{1}{4}$ TO $\frac{1}{2}$ INCH, BY RAKING OR DRAGGING. DEPTH OF SEED PLACEMENT MAY BE \$\frac{1}{2}\$ INCH DEEPER ON COURSE TEXTURED SOILS.

B. AFTER SEEDING, FIRMING THE SOIL WITH A CORRUGATED ROLLER WILL ASSURE FOOD SEED-TO-SOIL CONTACT, RESTORE CAPILLARITY, AND IMPROVE SEEDING EMERGENCE. THIS IS THE PREFERRED METHOD. WHEN PERFORMED ON THE CONTOUR, SHEET EROSION WILL BE

C. HYDROSEEDING IS A BROADCAST SEEDING METHOD USUALLY INVOLVING A TRUCK OR TRAILER MOUNTED TANK, WITH AN AGITATION SYSTEM AND HYDRAULIC PUMP FOR MIXING SEED, WATER AND FERTILIZER AND SPRAYING THE MIX ONTO THE PREPARED SEEDBED. MULCH SHALL NOT BE INCLUDED IN THE TANK WITH SEED. SHORT FIBERED MULCH MAY BE APPLIED WITH A HYDROSEEDER FOLLOWING SEEDING. (ALSO SEE STABILIZATION WITH MULCH ONLY SHOWN HEREON) 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 BE SOIL CONTACT OCCURS, THERE IS A REDUCED SEED GERMINATION AND GROWTH. HYDROSEEDING MAY BE USED FOR AREAS TOO STEEP FOR CONVENTIONAL EQUIPMENT TO TRAVERSE OR TOO OBSTRUCTED WITH ROCKS, STUMPS, ETC.

MULCHING IS REQUIRED ON ALL SEEDING. MULCH WILL PROTECT AGAINST EROSION BEFORE GRASS IS ESTABLISHED AND WILL PROMOTE FASTER AND EARLIER ESTABLISHMENT. THE EXISTENCE OF VEGETATION SUFFICIENT TO CONTROL SOIL EROSION SHALL BE DEEMED IN A. STRAW OR HAY. UNROTTED SMALL-GRAIN STRAW, HAY FREE OF SEEDS, 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 APPROXIMATELY 85% OF THE SOIL SURFACE IS 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 SLOPES, 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 N A CROS—CROSS AND A SQUARE PATTERN. SECURE TWINE AROUND
EACH PEG WITH TWO OR MORE ROUND TURNS.
2. MULCH NETTING — 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 MUST BE 3 TONS PER ACRE. NO TACKIFYING OR ADHESIVE AGENT IS REQUIRED.

1. LIQUID MULCH BINDERS - MAY BE USED TO ANCHOR 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.

ORGANIC AND VEGETABLE BASED BINDERS — NATURALLY OCCURRING, POWDER BASED, HYDROPHILIC MATERIAL WHEN MIXED WITH WATER FORMULATES A GEL AND WHEN APPLIED TO MULCH UNDER SATISFACTORY CONDITIONS WILL FORM MEMBRANE NETWORKS OF INSOLUBLE POLYMERS. THE VEGETABLE GEL SHALL BE PHYSIOLOGICALLY HARMLESS AND NOT RESULT IN A PHYTOTOXIC EFFECT OR IMPEDE GROWTH OF 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. SYNTHETIC BINDERS — HIGH POLYMER SYNTHETIC EMULSION, MISCIBLE WITH WATER WHEN DILUTED AND FOLLOWING APPLICATION OF MULCH, DRYING AND CURING SHALL NO LONGER BE SOLUBLE OR DISPERSIBLE IN WATER. BINDER SHALL BE APPLIED AT RATES AND WEATHER CONDITIONS RECOMMENDED BY THE MANUFACTURER AND REMAIN TACKY LATTICE CONTROL OF CRESS.

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-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 PROJECT MANUFACTURER) AND MAY BE POUNDS PER ACRE (OR AS RECOMMENDED BY THE PROJECT 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.

PELLETIZED MULCH — COMPRESSED AND EXTRUDED PAPER AND/OR WOOD FIBER PRODUCT, WHICH MAY CONTAIN CO—POLYMERS, TACKIFIERS, FERTILIZERS AND COLORING AGENTS. THE DRY PELLETS, WHEN APPLIED TO A SEEDED AREA AND WATERED, FORM A MULCH MAT. PELLETIZED MULCH SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS. MULCH MAY BE APPLIED BY HAND OR MECHANICAL SPREADER AT THE RATE OF 60—75 POUNDS PER 1,000 SQUARE FEET AND ACTIVATED WITH 0.2 TO 0.4 INCHES OF WATER. THIS MATERIAL HAS BEEN FOUND TO BE BENEFICIAL FOR USE ON SMALL LAWNS OR RENOVATION AREAS, SEEDED AREAS WHERE WEED—SEED FREE MUCH IS DESIRED OR ON SITE WHERE STRAW MULCH AND TACKIFIER AGENT ARE NOT PRACTICAL OR DESIRABLE.APPLYING THE FULL 0.2 TO 0.4 INCHES OF WATER AFTER SPREADING PELLETIZED MULCH ON THE SEED BED IS EXTREMELY IMPORTANT FOR SUFFICIENT ACTIVATION AND EXPANSION OF THE MULCH TO PROVIDE SOIL COVERAGE.

IF SOIL MOISTURE IS DEFICIENT TO SUPPLY NEW SEEDING WITH ADEQUATE WATER (A MINIMUM OF \$\frac{1}{2}\$ INCH APPLIED UP TO TWICE A DAY UNTIL VEGETATION IS ESTABLISHED). THIS IS ESPECIALLY TRUE WHEN SEEDINGS ARE MADE IN ABNORMALLY DRY OR HOT WEATHER OR ON DROUGHTY SITES.

2. TOPDRESSING

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.

SCALE: AS SHOWN

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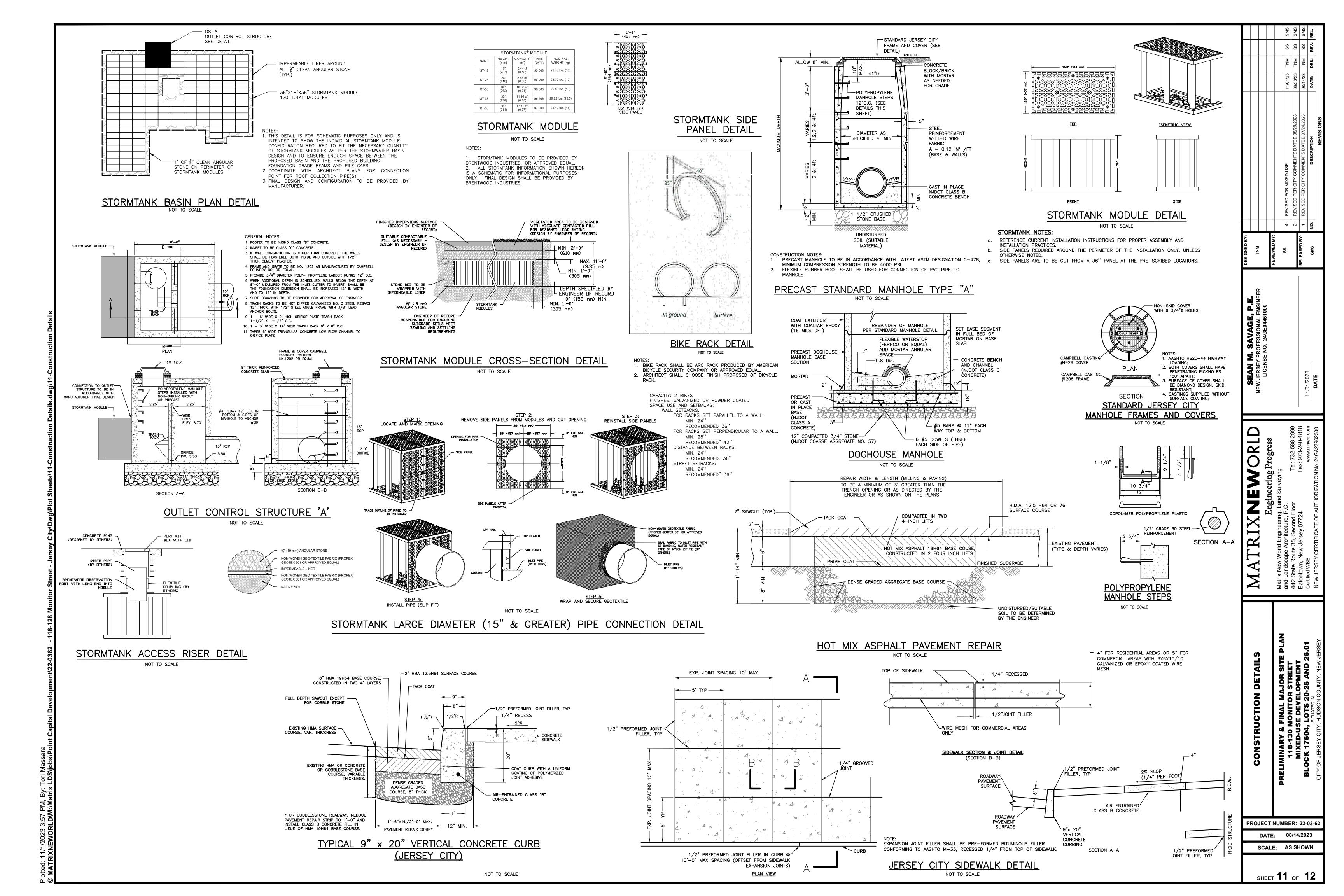
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PROJECT NUMBER: 22-0362 DATE: 08/14/2023



JERSEY CITY MUNICIPAL UTILITIES AUTHORITY BUREAU OF WATER ENGINEERING REQUIREMENTS FOR FIRE AND DOMESTIC WATER LINE AND METER INSTALLATIONS GATE VALVES SHALL BE IN CONFORMANCE WITH A.N.S.I./A.W.W.A. STANDARD C500—80 AND SHALL BE JERSEY CITY STANDARD VALVES, M&H METROPOLITAN MECHANICAL JOINT VALVES AS MANUFACTURED BY DRESSER COMPANY OR APPROVED EQUAL. VALVES SHALL BE NON-RISING STEM, MECHANICAL JOINT, SHALL BE FURNISHED WITH A (2") SQUARE OPERATING NUT AND SHALL OPEN BY TURNING TO THE RIGHT. GATE ALL FIRE SERVICE APPLICATIONS AND ALL DOMESTIC SERVICE APPLICATIONS TWO (2) INCHES AND LARGER MUST BE SUBMITTED TO THE JCMUA'S BUREAU OF WATER ENGINEERING FOR APPROVAL. FIVE (5) SETS OF PLANS SHALL BE SUBMITTED FOR APPROVAL. ALL PLANS SHALL BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER OR REGISTERED ARCHITECT LICENSED TO PRACTICE IN NEW JERSEY VALVES (16") AND OVER SHALL BE FURNISHED WITH BY-PASS. VALVE SHALL BE 100% SOLID HEAT CURED, EPOXY COATED HOLIDAY-FREE II SUBMITTED PLANS SHALL BE STANDARD ENGINEERING DRAWINGS, SIZE 24 INCHES X 36 INCHES. INCLUDED SHALL BE A SITE PLAN SHOWING ADJACENT STREETS WITH WATER MAIN, SERVICE, AND DETAILS INDICATED. ALSO INCLUDED SHALL BE A KEY MAP SHOWING GENERAL LOCATION WITHIN THE CITY. BUTTERFLY VALVES SHALL BE IN CONFORMANCE WITH A.N.S.I./A.W.W.A. STANDARD C504-80. BUTTERFLY VALVES SHALL BE CLASS 1508, MECHANICAL JOINT, WITH RUBBER SEAT MOUNTED ON THE DISC, SHALL BE FURNISHED WITH A (2") INCH SQUARE OPERATING NUT AND SHALL OPEN BY TURNING TO THE RIGHT. THE VALVE SHALL BE 100% SOLID HEAT CURED, EPOXY COATED HOLIDAY-FREE IN THE WATERWAY. THE USE AND SIZE OF FACILITY'S METER. ALSO INDICATED ON THE PLANS SHALL BE THE TYPE OF OCCUPANCY OF THE FACILITY RECEIVING THE WATER SERVICE. (I.E. HOSPITAL, WAREHOUSE, APARTMENT BUILDING, ETC.) VALVES BOXES SHALL BE JERSEY CITY "STANDARD" AS MANUFACTURED BY BINGHAM AND TAYLOR, OR APPROVED EQUAL. BOXES SHALL HAVE A MINIMUM OF 8-1/4 INCH DIAMETER AND SHALL BE AN ADJUSTABLE SCREW TYPE WITH THE BOX EXTENDING FROM THE SURFACE TO (3") INCHES ABOVE THE VALVE BONNET BASE. VALVE BOX SHALL BE CAST IRON WITH A STANDARD COAL TAR FOUNDRY DIP WITH CAST IRON WATER DROP ALL EXISTING WATER SERVICE LINES TO BE ABANDONED SHALL BE CUT AND CAPPED AT THE MAIN, IN ACCORDANCE WITH JCMUA STANDARDS, AND INSPECTED WITHIN 24 HOURS AFTER INSTALLATION OF NEW TAP. THE MAXIMUM OF ONE (1) TAP SHALL BE MADE FOR BOTH DOMESTIC COVER AND THE WORD "WATER" CAST IN COVER. VALVE BOX COVER SHALL BE INSTALLED FLUSH WITH THE EXISTING GRADE ELEVATION. AND FIRE SERVICE PER FACILITY. THE TAP SHALL BE THE MAXIMUM OF ONE (1) SIZE SMALLER THAN THE CITY'S WATER MAIN. NO TAPPING SHALL BE DONE BY ANYONE EXCEPT BY UNITED WATER JERSEY CITY (UWJC) UNLESS SPECIFICALLY APPROVED BY JCMUA. CONCRETE FOR VALVE SEATS AND THRUST BLOCKS SHALL HAVE A MINIMUM 28 DAY STRENGTH OF 3000 PSI. ONLY ONE DOMESTIC/FIRE SERVICE IS ALLOWED FOR EACH FACILITY, APPLICANT MAY INSTALL CHECK METERS ON INDIVIDUAL BRANCH SELECT GRANULAR BACKFILL MATERIAL SHALL BE SOIL AGGREGATE TYPE I-6 (POROUS FILL, CLEAN SAND, GRAVEL OR STONE) OBTAINED FROM DRY SOURCES AND SHALL BE FREE FROM STUMPS, BRUSH, WEEDS, ROOTS, RUBBISH, WOOD AND OTHER MATERIAL THAT MAY DECAY. VINSTREAM OF DOMESTIC METER SETUP WHERE THERE IS MORE THAN ONE OWNER/TENANT FOR A FACILITY. HOWEVER, ONLY ONE WATER BILL WILL BE ISSUED FOR THE FACILITY. RADUATION, SHALL CONFORM TO TABLE 901-2, FOR TYPE I-6 IN ARTICLE 901.09 OF THE (N.J.D.O.T.) NEW JERSEY DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS. BACKFILL MATERIAL SHALL BE PLACED AND COMPACTED IN TWELVE (12) INCH LIFTS. A SOLID DUCTILE IRON-TAPPING SLEEVE SUCH AS MUELLER H-615 TAPPING SLEEVE OR APPROVED EQUAL SHALL BE UTILIZED FOR ALL TAPS 2—INCHES AND LARGER. THE TAPPING SLEEVE SHALL PASS PRESSURE TESTING BASED ON AWWA STANDARDS BEFORE TAP IS MADE. RODS SHALL BE THREE QUARTER (3/4) INCH DIAMETER THREADED STEEL BARS. RODS SHALL HAVE A MINIMUM YIELD STRESS OF 36,000 I. THRUST BLOCK AND TIE RODS SHALL BE INSTALLED AT ALL BENDS AND FITTINGS. FOR ALL SERVICES INCLUDED HEREIN, TWO (2) GATE VALVES ARE REQUIRED THAT ARE TO BE INSTALLED BY THE APPLICANT; A TAPPING VALVE, LOCATED AT THE TAP AND CURB VALVE, LOCATED IN THE SIDEWALK BEFORE THE METER. TAPPING GATES SHALL BE FURNISHED OPENED RIGHT, ALL TAPPING AND CURB VALVES SHALL BE DOUBLE DISC GATE VALVES AND MEET AWWA STANDARDS. THE WET TAP UP TO 12 COUPLINGS SHALL BE DRESSER STYLE NUMBER 153 FOR PIPE SIZES THROUGH (30") INCH DIAMETER. FOR LARGER DIAMETER PIPE, DRESSER STYLE NUMBER 38 STEEL COUPLINGS SHALL BE USED. SHEETING, SHORING AND BRACING SHALL BE CLOSED VERTICAL SHEETING, TONGUE AND GROOVE THAT IS BRACED TO PREVENT THE CAVE—IN OF TRENCHES. ALL LABOR EQUIPMENT, MATERIALS AND METHODS OF CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF THE UNITED STATES OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION. ADJACENT TO THE TAPPING VALVE. NO TAPS SHALL BE PERMITTED ON MAINS LARGER THAN TWENTY (20) INCHES UNLESS THERE IS NO ALTERNATIVE WATER SOURCE, AND SPECIAL WRITTEN APPROVAL IS ISSUED BY THE JCMUA. MATERIALS FOR SHEETING SHALL BE TONGUE AND GROOVE WOODEN PLANKS AND TIMBER OR STEEL CONFORMING TO THE REQUIREMENTS OF THE VALVE BOX PARTS FOR ALL VALVES SHALL BE PROVIDED BY THE APPLICANT. ALL TAPPING GATE VALVES LARGER THAN 2-INCHES AND ALL CURB VALVES / STOPS REGARDLESS OF SIZE REQUIRE A VALVE BOX WITH THE WORD "WATER" CAST IN THE COVER. BURIED CORPORATION UNITED STATES OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION. TIMBER SHALL BE A MINIMUM OF 3" THICK. VALVES/ STOPS SHALL BE USED AT THE TAP FOR CLASS K COPPER SERVICES 2-INCHES AND SMALLER. SHEETING SHALL BE LEFT IN PLACE. SHORING AND BRACING SHALL BE REMOVED. 10. ALL SERVICE PIPES, SIZES 2-INCHES THROUGH 12-INCHES, SHALL BE PRESSURE CLASS 350-PSI CEMENT-LINED DUCTILE IRON PIPE WITH MECHANICAL JOINTS. O. BROKEN STONE FOUNDATION CUSHION SHALL BE PLACED IN THOSE AREAS WHERE THE DIRECTOR, DEPARTMENT OF ENGINEERING, HAS DEEMED THE SOIL CONDITIONS INFERIOR. BROKEN STONE SHALL CONFORM TO ARTICLE 901.03 OF THE STANDARD SPECIFICATIONS AS CURRENTLY AMENDED. THE SIZE OF BROKEN STONE SHALL BE AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER FOR SIZE NUMBER 2, 4, 5, OR 6 AS SHOWN IN TABLE 901-1. STANDARD SIZES OF COARSE AGGREGATES OF THE NEW JERSEY DEPARTMENT OF TRANSPORTATION STANDARD 12. FOR A REGULAR FIRE SUPPRESSION SYSTEM (COMBINED SERVICE LINE LARGER THAN 2"). A COMBINED REDUCED PRESSURE DETECTOR 1. FILTER CLOTH SHALL BE PLACED IN THOSE AREAS WHERE THE DIRECTOR, DEPARTMENT OF ENGINEERING, HAS DEEMED THE SOIL CONDITIONS ASSEMBLY (AMES 5000 SS AMES 5000 RPDA OR WATTS 909 RPDA*) SHALL BE INSTALLED ON THE MAIN FIRE SERVICE LINE AND A AFTER THE ENGINEER HAS INSPECTED THE COMPLETED INSTALLATION OF VALVES, AND WATER MAIN, AND <u>BEFORE BACKFILLING</u> THE EXCAVATIONS. THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS AND EQUIPMENT REQUIRED TO PRESSURE TEST THE PIPE. THE PIPE SHALL B SUPPRESSION SYSTEM (COMBINED SERVICE LINE 1.5" OR 2"). A FIRE LINE DETECTOR CHECK WITH A SINGLE CHECK VALVE (AMES 1000 DCV*) SHALL BE INSTALLED ON THE MAIN FIRE LINE AND A REDUCED PRESSURE BACKELOW PREVENTER (AMES 4000 SS OR WATTS 909*) PRESSURIZED TO 1.5 X THE WORKING PRESSURE FOR A PERIOD OF TWO (2) HOURS. PRESSURE SHALL NOT VARY MORE THAN FIVE (5) PSI. THE VALVED SECTION OF PIPE SHALL BE FILLED WITH WATER SLOWLY, AND THE TEST PRESSURE SHALL BE APPLIED BY MEANS OF A PUMP CONNECTED TO THE PIPE IN MANNER SATISFACTORY TO THE ENGINEER. BEFORE APPLYING THE TEST PRESSURE, AIR SHALL BE EXPELLED COMPLETELY FROM THE PIPE BY INSTALLING CORPORATION COCKS AT SUCH POINTS SO THAT THE AIR CAN BE EXPELLED AS THE LINE IS FILLED SHALL BE INSTALLED DOWNSTREAM OF THE BYPASS (REFER TO FIGURE 2). ALL REGULAR FIRE SUPPRESSION SYSTEMS MUST HAVE OS&Y VALVES, HOWEVER, LIMITED FIRE SUPPRESSION SYSTEMS MAY USE BALL VALVES (VICTAULIC SERIES 728 FIRELOCK*) INSTEAD OF OS&Y VALVES. THE FIRE UNIT SHALL BE FURNISHED WITH A 5/8 INCH X 3/4 INCH METERED BYPASS. BYPASS METERS SHALL BE JERSEY CITY STANDARD SINGLE DISPLACEMENT SENSUS METERS WITH TOUCHPAD AND RADIO READ CAPABILITIES. THE SAME RADIO MXU UNIT SHALL BE IF THE JOINTS LEAK, REPAIRS OR REPLACEMENTS SHALL BE MADE. TESTING SHALL BE IN CONFORMANCE WITH A.W.W.A. STANDARD USED FOR A COMBINED DOMESTIC AND FIRE SERVICE. 13. FOR DOMESTIC SERVICES, AN APPROVED REDUCED PRESSURE BACKFLOW PREVENTER (AMES 4000 SS OR WATTS 909*) IS REQUIRED WHEN THE JCMUA DETERMINES THAT THERE IS A CROSS-CONNECTION HAZARD AND THE FACILITY PRESENTS A THREAT TO THE CITY'S DISTRIBUTION SYSTEM WATER QUALITY IN ACCORDANCE WITH THE PLUMBING SUBCODE OF THE NEW JERSEY STATE UNIFORM CONSTRUCTION CODE, NJAC 5:23-3.15 AND THE NEW JERSEY SAFE DRINKING WATER ACT NJAC 7:10-10 PHYSICAL CONNECTIONS AND CROSS CONNECTIONS CONTROL BY CONTAINMENT. SOME SERVICES WHICH REQUIRE SUCH DEVICES INCLUDE: A HOSPITAL, SCHOOL, CHEMICAL PLANT, FACTORY AND A FACILITY SEWARE FIGORORS. 3. THE CONTRACTOR SHALL DISINFECT ALL WATER MAINS IN ACCORDANCE WITH A.W.W.A. STANDARD FOR "DISINFECTING WATER MAINS" DESIGNATION C-601. COMMERCIAL PRODUCTS SUCH AS "HTH", "PERCHLARON", AND "MAXOXHLOR" MAY BE USED IN FLAKE OR CRYSTAL FORM, BUT IN NO INSTANCE WILL TABLETS BE PERMITTED TO BE USED IN THE DISINFECTION OF WATER MAINS. THE CHLORINE DOSAGE SHALL INITIALLY PRODUCE 50 PPM RESIDUAL TO THE WATER AND MAINTAIN A MINIMUM RESIDENTIAL OF 25 PPM AFTER 24 HOURS. AFTER SATISFACTORY DISINFECTION OF THE TEST SECTION, THE LINE SHALL BE CONTINUOUSLY FLUSHED UNTIL THE RESULTANT CHLORINE RESIDUAL EQUALS ONE PPM OR THE RESIDUAL OF THE SYSTEM, WHICHEVER IS GREATER. AFTER FINAL FLUSHING AND BEFORE THE WATER MAIN IS PLACED IN SERVICE, SAMPLES SHALL BE COLLECTED FROM EACH END OF THE MAIN AND TESTED FOR BACTERIOLOGIC QUALITY. IF THE INITIAL DISINFECTION FAILS TO PRODUCE SATISFACTORY SAMPLES, DISINFECTION SHALL BE REPEATED UNTIL SATISFACTORY SAMPLES HAVE 14. IF REDUCED PRESSURE BACKFLOW PREVENTER IS NOT REQUIRED ON THE DOMESTIC SERVICE, A CHECK VALVE SHOULD BE INSTALLED 15. ALL METERS SIZES 2 INCHES THROUGH 6 INCHES SHALL BE SINGLE COMPOUND METERS AND ALL METERS 8 INCHES AND LARGER SHALL BE 14. AIR RELEASE VALVES SHALL BE INSTALLED AT THE HIGH POINTS OF THE WATER MAINS. 6. ALL METERS SHALL BE ADEQUATELY RESTRAINED WITH METAL BRACKETS FASTENED TO THE FLOOR OR WALL OR OTHER APPROVED MEANS SUCH AS UNIFLANGED WHERE INTERNAL PIPE PRESSURE AND FLOW WARRANT SUCH RESTRAINTS. METERS, DETECTOR CHECKS, AND VALVES MAY BE SEATED ON CONCRETE BLOCK AND TAPERED SHIMS TO PROVIDE ADEQUATE SUPPORT. METERS SHALL BE INSTALLED APPROXIMATELY 15. ALL WATER MAINS WILL BE AT LEAST 8" IN DIAMETER. TEN (10") AND 14" DIAMETER MAINS SHALL NOT BE USED. 16. THRUST BLOCKS AND TIE RODS SHALL BE INSTALLED AT ALL BENDS AND FITTINGS. . HYDRANTS SHALL BE TWO (2) PIECE "JERSEY CITY STANDARD" HYDRANTS AS MANUFACTURED BY A.P. SMITH OR APPROVED EQUAL. HYDRANT SPACING SHALL BE A MAXIMUM 300 FEET MEASURED CENTER TO CENTER. ALL METER INSTALLATIONS IN METER PIT OR VAULT SHALL BE PRE-APPROVED BY JCMUA AND HAVE PROPER ACCESS OPENINGS FOR METER FOR EITHER NEW CONSTRUCTION OR RELOCATION OF THE FOLLOWING SHALL BE REQUIRED: A. HYDRANTS SHALL BE LOCATED NO CLOSER THAN 20 FEET FROM THE POINT OF TANGENCY OR CURVATURE AT INTERSECTIONS. B. ALL ONE PIECE OR HYDRANTS NOT MANUFACTURED BY A.P. SMITH THAT ARE TO BE RELOCATED SHALL BE REMOVED AND DELIVERED TO JERSEY CITY DIVISION OF WATER DISTRIBUTION. A NEW HYDRANT WILL BE SUPPLIED BY THE CITY FOR INSTALLATION. 8. EACH COMPOUND METER SHALL HAVE STRAINER INSTALLED ON THE INLET SIDE IMMEDIATELY BEFORE THE METER. ALL STRAINERS MUST BE PURCHASED FROM THE JCMUA OR ITS AUTHORIZED AGENT. 19. ALL METERS 2" AND LARGER SHALL BE FURNISHED WITH SENSUS ECR/WP REMOTE TOUCH PAD MODULES AND RADIO MXU UNITS FOR BOTH TYPES OF READING CAPABILITIES. HYDRANTS SHALL BE NO CLOSER THAN TEN (10") FEET FROM THE EDGE OF A RESIDENTIAL DRIVEWAY OR (20") FEET FROM THE EDGE OF COMMERCIAL DRIVEWAY. IN THE CASE WHERE DRIVEWAYS ARE EXPANDED OR NEWLY CONSTRUCTED, THE OWNER SHALL BE RESPONSIBLE FOR THE RELOCATION OF AN EXISTING HYDRANT IF ABOVE REQUIREMENTS ARE VIOLATED. 20. REMOTE TOUCH PAD MODULE WIRE SHALL BE CONNECTED TO THE METER REGISTER UTILIZING A GEL CAP FOR WATERTIGHT SEALING OF ALL TERMINAL CONNECTIONS. TOUCH PADS MAY BE WALL MOUNTED OR LID MOUNTED WHERE A METER PIT IS UTILIZED. TOUCH PADS ARE TO BE INSTALLED ON EXTERIOR BUILDING WALL FACING THE STREET AND LOCATED AS CLOSE AS POSSIBLE TO THE STREET. THE RADIO MXU UNIT MUST BE INSTALLED WITH MOUNTING BRACKETS AND LIKEWISE IS TO BE INSTALLED IN PROXIMITY TO STREET. ALL SINGLE GATED HYDRANTS ON (16") INCH OR LARGER MAINS SHALL REQUIRE A NEW VALVE AT THE BASE OF THE RELOCATED HYDRANT. . NEW GATE VALVES AND BOXES ARE REQUIRED AT THE BASE OF RELOCATED HYDRANTS WHEN MORE THAN (10") FEET OF PIPE IS REQUIRED. 9 FXISTING WATER SERVICE LINES SHALL RE SHUT—OFF AND CAPPED AT THE MAIN PRIOR TO THE INSTALLATION OF NEW WATER SERVICES. PRIOR TO NEW SERVICE TAP THE JERSEY CITY WATER DEPARTMENT SHALL INSPECT AND CERTIFY THE ABANDONED SERVICES. 21. ALL INSTALLATIONS OF EQUIPMENT AND COMPONENTS SHALL BE PERFORMED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. 22. ALL METERS INCLUDING TOUCH PAD MODULES AND RADIO MXU UNITS SHALL BE PURCHASED THROUGH THE PERMIT CLERK AT JCMUA OFFICE. APPROVED PLANS MUST BE SUBMITTED TO THE PERMIT CLERK FOR ISSUANCE OF REQUIRED PERMITS. O. WATER MAINS TO ABANDON SHALL BE CUT AND PLUGGED WITH REQUIRED FITTINGS, RODS AND CONCRETE AS CLOSE TO THE EXISTING MAIN IN SERVICE AS POSSIBLE. ALL VALVES SHALL BE OPERATED BY JERSEY CITY WATER DEPARTMENT PERSONNEL. THE CONTRACTOR SHALL NOT BE PERMITTED TO OPERATE 23. AFTER OBTAINING THE REQUIRED PERMITS (STREET OPENING, TAP AND METER) THE APPLICANT SHALL CALL UWJC AT (201) 239-1108 TO SCHEDULE THE TAP. THE EXCAVATION SHALL BE COMPLETED TWENTY-FOUR (24) HOURS PRIOR TO THE SCHEDULED TAP, AND VERIFIED BY JCMUA OR ITS AUTHORIZED AGENT BEFORE THE TAP WILL BE INSTALLED. EXCAVATION SHALL BE CONSTRUCTED IN ACCORDANCE WITH OSHA ANY VALVES. THE CONTRACTOR SHALL NOTIFY THE ENGINEER, IN WRITING, FIVE (5) DAYS IN ADVANCE OF VALVE OPERATING REQUIREMENTS. 22. FAILURE TO COMPLY WITH THE ABOVE REQUIREMENTS WILL RESULT IN THE IMMEDIATE SHUT-DOWN OF THE PROJECT. 24. UPON COMPLETION OF THE INSTALLATION, THE APPLICANT SHALL SUBMIT THREE (3) SETS OF "AS BUILT" PLANS, TO THE JCMUA'S BUREAU OF WATER ENGINEERING. THE JCMUA WILL AUTHORIZE SUPPLY WATER UPON ACCEPTANCE OF THE "AS BUILT" DRAWINGS. - RC-70 TACK COAT APPLIED TO ALL RECIEVING SURFACES SEE NOTE 3 HOT MIX ASPHALT 12.5H64 OR 76 SURFACE COURSE COMPACTED WITH ROLLER, MINIMUM SIZE, ONE-TON HOT MIX ASPHALT 19H64 BASE COURSE, 8" CONSTRUCTED IN TWO 4" LIFTS - FULL DEPTH SAW CUT (BOTH SIDES) NOTE: 1. FOR MAJOR UTILITY WORK REPAIR WIDTH AND LENGTH (MILLING AND AGGREGATE AGGREGATE PAVING) TO BE A MINIMUM OF 3' PAST TRENCH OPENING OR AS DETERMINED BY THE ENGINEER OF - CUT LINE FOR TIMBER SHEETING LEFT IN AS SHOWN ON THE PLANS. PLACE (WHERE REQ'D.) 2. ALL MATERIALS AND WORK SHALL CONFORM TO THE 2007 NJDOT VIRGIN DENSE GRADED - LIMIT OF EXCAVATION -STANDARD SPECIFICATIONS FOR AGGREGATE BACKFILL COMPACTED ROAD AND BRIDGE CONSTRUCTION IN 12" MAXIMUM LIFTS AS CURRENTLY AMENDED. 3. FOR CURBS, GUTTERS, MANHOLES, ┌ O.D. 36 ALL EXCAVATED MATERIAL IS UNSUITABLE

JCMUA WATER DISTRIBUTION STANDARDS JERSEY CITY MUNICIPAL UTILITIES AUTHORITY STANDARD REQUIREMENTS FOR NEW SANITARY AND STORM SEWERS AND SERVICE LATERALS A.N.S.I. STANDARD A21.5-1976 (A.W.W.A. C151-76). ALL WATER MAINS SHALL BE AT LEAST 8" IN DIAMETER. 10" AND 14" DIAMETER MAINS

- CAP MARKED "SEWER"

1" CLEAR AROUND PVC-

4" SDR 35 PVC ----

(SEE NOTES)

OS&Y GATE
VALVE *SEALED
BY JCMUA OR

의 AGENT (UWJC)

SENSUS WATER

FROM JCMUA)

METER (PURCHASED

GATE VALVE

SECURE CASTING IN PLACE-

1. MAXIMUM DISTANCE BETWEEN

2. INSTALL C.O. AS INDICATED

CLEANOUTS IS 50 FT.

TAPPING VALVE

(SOLID SLEEVE

MUELLER H615

OR APPROVED

 $-\bowtie-\bowtie-$

GATE VALVE

LARGER)

NOTES:

ONLY IF WATER

1. SEE WATER NOTES ABOVE.

ATTACHED AS A UNIT.

2. ALL RPZ BACKFLOW UNITS MUST BE

PURCHASED WITH OS&Y VALVES

3. ALL UNDERGROUND VALVES MUST BE

4. REFER TO ARCHITECTURAL/MEP PLANS FOR FINAL FIRE AND DOMESTIC

DOUBLE DISC VALVES ONLY.

∐ MAIN IS 16" OR

EQUAL)

VITH MORTAR AROUND

ENTIRE PERIMETER OF

CONCRETE GRADE COLLA

SHALL BE CLASS 'B' CONCRETE 5-7%

EXISTING SURFACE COURSE

AS BACKFILL AND MUST BE DEPOSITED

OUTSIDE THE LIMITS OF JERSEY CITY

-PROPOSED UTILITY

UNDISTURBED SOIL

<u>JERSEY CITY PIPE TRENCH DETAIL</u>

. EXISTING SEWER MAIN

3/4" CLEAN STONE BEDDING

EXISTING PAVEMENT

(DEPTH & TYPE VARIES)

-FINISHED GRADE

CRUSHED STONE

SANITARY CLEANOUT DETAIL

NOT TO SCALE

CHECK (AMES 5000 SS FOR 2 1/2" TO 6" AND AMES

RPZ DOUBLE DETECTOR

RPDA FOR 8" TO 12")

CURB GATE VALVE 5000 RPDA OR WATTS 909

OS&Y GATE

SENSUS RPZ BACKFLOW

STRAINER PREVENTOR (AMES 4000

SS OR WATTS 909)

RPZ BACKFLOW

909) (ONLY IF

REQUIRED)

PREVENTOR (AMES

4000 SS OR WATTS

OS&Y GATE VALVE -

CAMPBELL FOUNDRY

OR APPRÖVED EQUAL

SUBGRADE COMPACTED

OS&Y GATE

SERVICE

VAI VF

COUPLING

▼—— 2" BRASS GATE

TEST CHECK GATE TEE VALVE VALVI

VALVE VALVE

VALVE WITH PLUG

DOMESTIC

COUPLING

VALVE

5/8" X 3/4"

WATER MÉTER

(PURCHASED JCMUA)

TO 95% MODIFIED

PLANS AND ANY ADDITIONAL INFORMATION AS APPLICABLE MUST BE PRESENTED TO THE JCMUA FOR REVIEW AND COMMENTS FOR ALL PROPOSED SANITARY AND STORM SEWER CONNECTIONS TO THE JCMUA SEWER SYSTEM OR THAT ARE PROPOSED IN JERSEY CITY. REPAIRS TO EXISTING SERVICES DO NOT REQUIRE THE REVIEW AND APPROVAL OF THE JCMUA. ALL PLANS MUST BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER OR REGISTERED ARCHITECT LICENSED TO PRACTICE IN NEW JERSEY AND SUBMITTED TO THE JCMUA'S SEWER ENGINEERING OFFICE, 555 ROUTE 440, JERSEY CITY, NJ 07305 FOR APPROVAL. HE FOLLOWING TECHNICAL REQUIREMENTS SHALL BE ADDRESSED IN PREPARATION OF SITE/UTILITY PLANS:

BEDDING AND BACKFILL MATERIAL SHALL COMPLY WITH THE REQUIREMENTS OF THE NJDOT'S STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION, AND THE DESIGN AND CONSTRUCTION OF URBAN STORM WATER MANAGEMENT SYSTEMS, ASCE MANUALS AND REPORTS C ENGINEERING PRACTICE No. 77, 1993, AS APPLICABLE.

ALL SEWER SERVICE CONNECTIONS 6-INCHES IN SIZE OR SMALLER MUST BE MADE DIRECTLY TO THE SEWER MAIN AND ALL CONNECTIONS 8-INCHES IN SIZE OR LARGER MUST BE MADE TO A MANHOLE. WHERE A CONNECTION TO A MANHOLE IS REQUIRED, MANHOLE BENCH AND UNDISTURBED CHANNEL MAY REQUIRE MODIFICATION. THE JCMUA REQUIRES THAT SEWER SERVICE CONNECTIONS TO BE RE-USED BE TELEVISED TO VERIFY THEIR INTEGRITY AND THAT THE PIPE IS FREE FROM ANY DEFECTS.

. EACH BUILDING CONNECTION REQUIRES A CURB CLEANOUT (REFER TO ATTACHED DETAIL DRAWINGS). T—WYE CLEANOUTS, WHICH ENABLE CLEANING IN BOTH DIRECTIONS, SHOULD BE INSTALLED ON BOTH THE STORM AND SANITARY LATERALS. PROPOSED SEWER LATERAL CONNECTION TO JCMUA'S SEWER MAIN SHALL BE MADE ABOVE HORIZONTAL CENTERLINE OF PIPE (REFER TO ATTACHED CONCRETE SEWER SERVICE CONNECTION DETAILS).

IE SIZE, MATERIAL, DEPTH, CONDITION, DIRECTION OF FLOW AND ANY OTHER RELEVANT CONDITIONS OF THE EXISTING JCMUA SEWER TO WHICH YOU PLAN TO CONNECT MUST BE FIELD VERIFIED BY DEVELOPER TO DETERMINE IF SAID CONNECTION IS PHYSICALLY POSSIBLE AND PRACTICAL. IN ADDITION, MANHOLE INVERTS AND RIM ELEVATION MUST BE SHOWN ON PLANS. THIS VERIFICATION IS TO BE INCLUDED ON THE PLANS FOR THE PROJECT.

3. A DETAIL OF ANY PROPOSED MANHOLE OR CATCH BASIN SHOWING ALL DIMENSIONS IN ADDITION TO RIM, GRATE AND INVERT ELEVATIONS OF THE STRUCTURE AND ALL PIPES CONNECTED TO THE STRUCTURE MUST BE SHOWN ON PLANS. REFER TO JCMUA STANDARD DETAIL DRAWINGS FOR MANHOLES AND CATCH BASINS. . PROPOSED MANHOLES CONSTRUCTED IN THE PUBLIC R.O.W. ON EXISTING OR PROPOSED JCMUA SEWERS SHALL BE FURNISHED WITH CONCENTRIC MANHOLE COVERS AS MANUFACTURED BY CAMPBELL FOUNDRY CO. PATTERN #4428 OR EQUAL WITH OUTSIDE COVER DIAMETER OF 31-3/4 INCHES THE LETTERS "JCMUA" AND "SEWER" SHALL BE CAST IN THE INSIDE COVER. MANHOLE FRAMES SHALL BE CAMPBELL FOUNDRY CO. PATTERN #4428

(FOR 30-INCH OPENING) OR #1206 (FOR 41-INCH OPENING) OR EQUAL FURNISHED WITH A PATTERN #4428 CONCENTRIC COVER AS SPECIFIED IN THE PRECEDING PARAGRAPH.

CIRCULAR HOLE SAWS WHICH ARE APPROXIMATELY SIZED OR HAND DRILLS MUST BE USED TO MAKE THE OPENINGS IN THE EXISTING SEWER TO RECEIVE THE LATERALS. JACKHAMMERS, SLEDGEHAMMERS AND OTHER UNSUITABLY TOOLS OR MACHINERY THAT MAY DAMAGE THE JCMUA'S SEWE MAIN ARE NOT ALLOWED TO BE USED TO MAKE THE LATERAL OPENINGS. ALL DEBRIS MUST BE REMOVED AND NOT ALLOWED TO FALL INTO PIPE.

REFER TO JCMUA'S STANDARD DETAIL FOR MANHOLE FRAME AND COVERS. 10. STORM INLETS, WHICH ARE CONNECTED DIRECTLY TO JCMUA COMBINED SEWERS, MUST BE FURNISHED WITH A SUMP AND TRAP AS PER JCMUA THROUGH PLUMBING FIXTURES (SINKS, TOILETS, FLOOR DRAINS, ETC.) BELOW STREET LEVEL. THIS POSSIBILITY MUST BE ADDRESSED DURING THE DESIGN/CONSTRUCTION PHASE. 12. A DROP MANHOLE CONNECTION SHALL BE USED WHERE THERE IS A DIFFERENCE IN ELEVATION OF TWO (2) FEET OR GREATER BETWEEN THE INVERT OF A SANITARY OR COMBINED INLET PIPE TO MANHOLE AND THE CROWN OF THE OUTLET PIPE FROM MANHOLE. REFER TO ATTACHED JCMUA'S STANDARD DETAIL FOR DROP MANHOLE CONNECTION, WHICH MUST BE SHOWN ON SITE PLAN IF REQUIRED 3. TEST PITS MUST BE PERFORMED AT THE DEVELOPER'S EXPENSE DURING THE DESIGN PHASE OF THE PROJECT TO ENSURE THAT PROPOSED

. ALL EXISTING SEWER MAINS AND SANITARY LATERALS TO BE ABANDONED MUST BE FILLED WITH CONCRETE SLURRY OR REMOVED FROM THE GROUND, CATCH BASINS AND MANHOLES MUST BE REMOVED FROM THE GROUND, CONNECTIONS MUST BE CUT AND SEALED AT THE MAIN AND PRECAUTIONS MUST BE UNDERTAKEN BY THE CONTRACTOR TO ENSURE CONCRETE AND OTHER MATERIALS DO NOT ENTER THE MAIN AND CREATE 15. ALL PROPOSED INLETS/CATCH BASINS MUST BE CONSTRUCTED WITH A BICYCLE SAFE GRATE AND CAMPBELL FOUNDRY CO. TYPE 'N' CURBPIECE

16. PROPOSED WATER SERVICES REQUIRE THE REVIEW AND APPROVAL OF THE DIVISION OF WATER ENGINEERING 17. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING PERMITS FOR STREET OPENINGS FROM THE JERSEY CITY BUILDING DEPARTMENT LOCATED AT 30 STREET, JERSEY CITY, NJ AND ALL OTHER APPLICABLE PERMITS FROM AGENCIES HAVING JURISDICTION.

THE SYSTEM DESIGNER IS ALSO RESPONSIBLE FOR COMPLIANCE WITH THE APPLICABLE REGULATIONS OF THE NEW JERSEY ADMINISTRATIVE CODE, NJDEP RULES AND REGULATIONS GOVERNING TREATMENT WORKS APPROVAL PROGRAM, LOCAL CODES AND ORDINANCES, FEDERAL AND STATE REGULATIONS ETC. IN ADDITION TO OTHER REQUIREMENTS THAT MAY BE IMPOSED BY THE JCMUA.

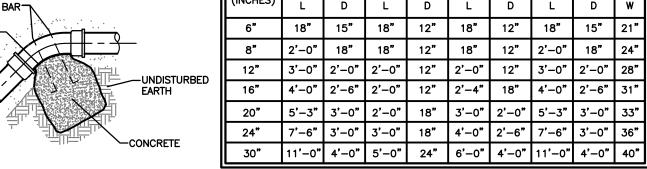
(INCHES) **ELEVATION-VERTICAL BEND**

-UNDISTURBED

PLAN-45° BEND

EXISTING -

SEWER



1. ALL HORIZONTAL BENDS SHALL HAVE CONCRETE THRUST BLOCKS WITH MINIMUM BEARING AREAS AGAINST UNDISTURBED SOIL AS SHOWN IN THIS

THRUST BLOCK SCHEDULE

2. BEARING AREAS ARE BASED UPON UNDISTRUBED SOIL WITH A MINIMUM BEARING CAPACITY OF 0.5 TONS PER SQUARE FOOT. FOR A LESSER SOIL BEARING CAPACITY, THESE AREAS SHALL BE INCREASED ACCORDINGLY.

3. THRUST BLOCKS SHALL BE POURED DIRECTLY AGAINST UNDISTURBED TRENCH

4. DETAILS FOR SUPPORTS AND BRACING FOR VERTICAL BENDS FOR 12"

DIAMETER OR LARGER SHALL BE APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION.

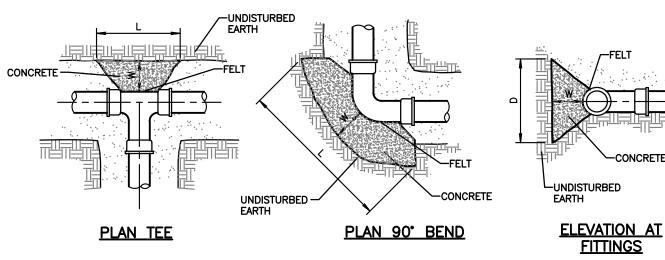
5. NO JOINT SHALL BE COVERED IN CONCRETE.

6. CONCRETE SHALL BE 3000 p.s.i.

7. THRUST BLOCKS TO CONFORM TO JCMUA REQUIREMENTS.

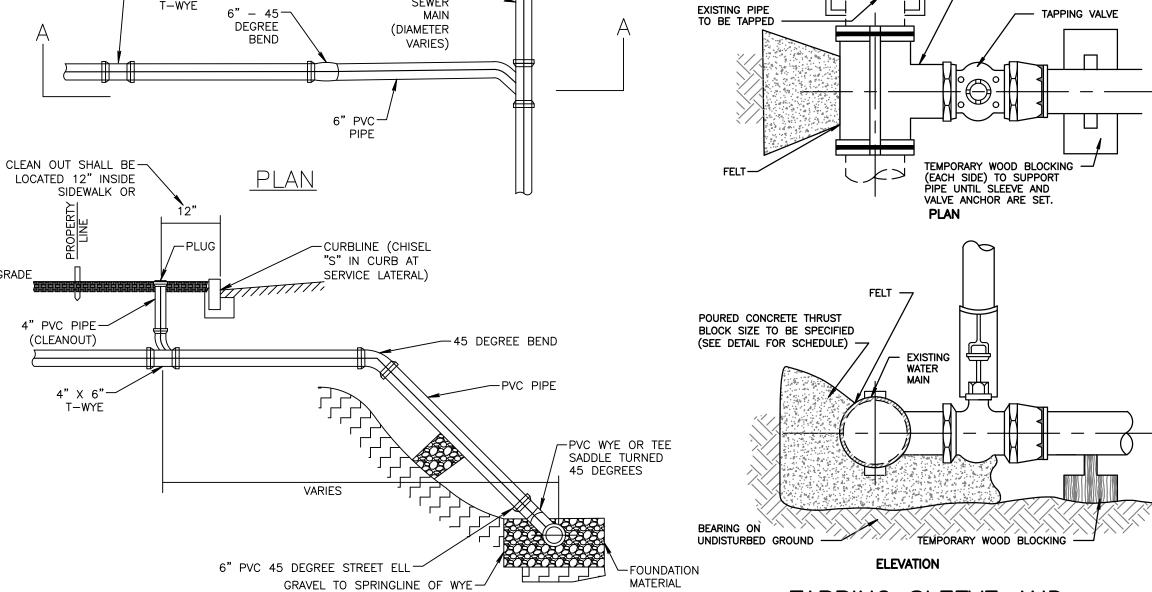
MECHANICAL JOINT SLEEVE

8. SEE TIE ROD REQUIREMENT CHART FOR TIE ROD REQUIREMENTS.

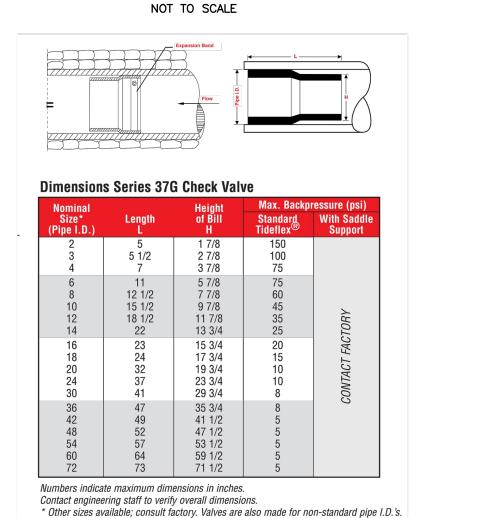


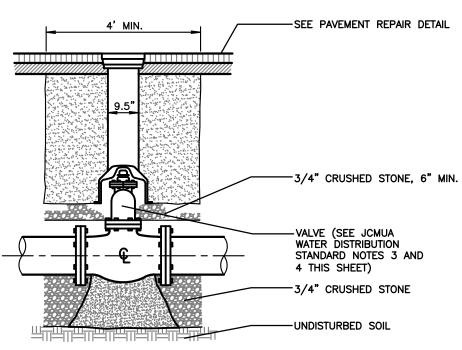
PLAN-22.5° BEND

CONCRETE THRUST BLOCKS



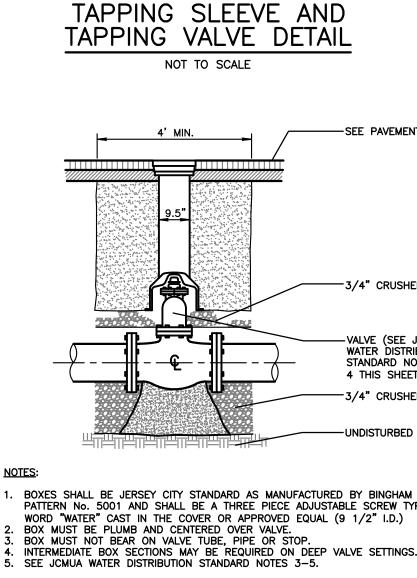






. BOXES SHALL BE JERSEY CITY STANDARD AS MANUFACTURED BY BINGHAM & TAYLOR PATTERN No. 5001 AND SHALL BE A THREE PIECE ADJUSTABLE SCREW TYPE WITH THE WORD "WATER" CAST IN THE COVER OR APPROVED EQUAL (9 1/2" I.D.)

WATER MAIN VALVE BOX



CONNECTION TO PVC, CLAY OR DUCTILE IRON SEWERS

NOT TO SCALE

6" MIN

WATER VALVE BOXES AND OTHER

UNIFORM COATING OF POLYMERIZED

SIMILAR STRUCTURES, DO NOT

APPLY TACT COAT. CLEAN THE

EXPOSED SURFACES OF THESE

STRUCTURES AND APPLY A

JOINT ADHESIVE TO CONTACT

SURFACES BEFORE PAVING.

TIDEFLEX SERIES 37G CHECK VALVE

(SEE SECTION A-A FOR INSTALLATION

CONFIGURATION

6" MIN

SECTION A-A

6' MIN

DIAMETER VARIES

BUILDING FIRE AND DOMESTIC WATER SERVICE DETAIL

NOT TO SCALE

ATRI Z

2

3

Ш

Z

PROJECT NUMBER: 22-0362 DATE: 08/14/2023 SCALE: AS SHOWN

SHEET 12 OF 12