

BRIELLE CAPITAL

VARIANCE PLAN

LOT 5.01 BLOCK 35

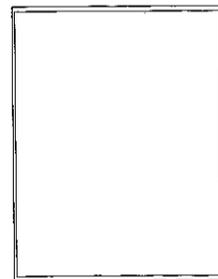
PROPERTY OWNERS WITHIN 200 FEET
WITHIN 200' OF RARITAN BLOCK 35 LOT 5.01

BOROUGH OF RARITAN SOMERSET COUNTY NEW JERSEY

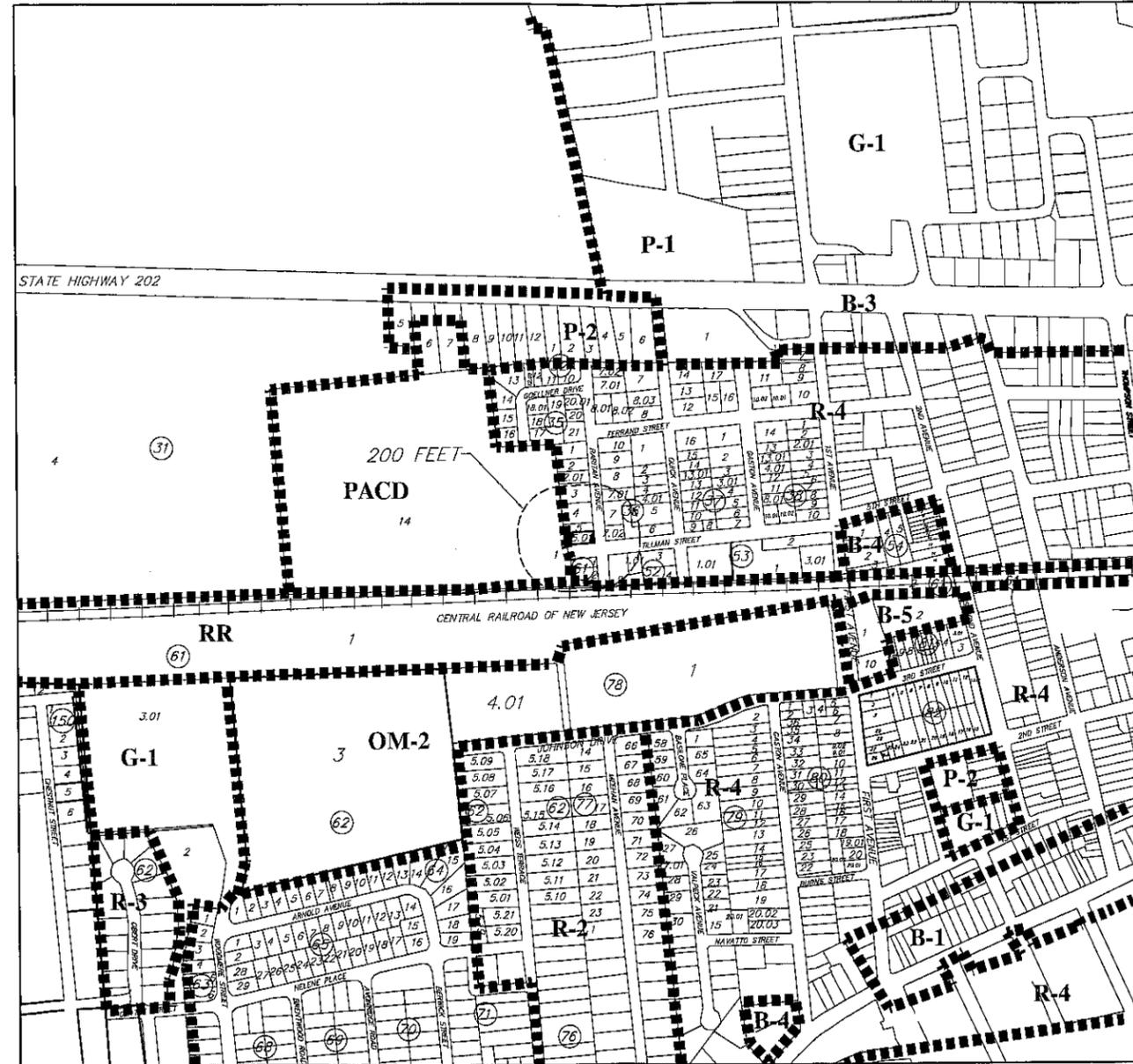
BOROUGH OF RARITAN

PROPERTY ID, Block/Lot	OWNER/ ADDRESS
36/7.02	BELLAFRONTIE, LOU 71 W FERRY ST NEW HOPE, PA 19388
51/1	ANTHONY JAMES LLC 77 TILMAN AVE RARITAN, NJ 08869
36/6.01	ALLEGAR, JEFFREY & MIDDLE 137 OLD YORK ROAD FLEMINGTON, NJ 08822
36/8	NELSON, JOAN & JOHN V 410 RARITAN AVE RARITAN, NJ 08869
36/7.01	RENE, DAPHNEY 408 RARITAN AVE RARITAN, NJ 08869
51/2	ANTHONY JAMES LLC 77 TILMAN AVE RARITAN, NJ 08869
52/1	HUDDY, MARY I 458 RICHARD STREET RARITAN, NJ 08869
35/3.01	PATEL, KIRAN & RITA 411 RARITAN AVE RARITAN, NJ 08869
35/4	CHEWYSS, JOSEPH AND MARY 405 RARITAN AVE RARITAN, NJ 08869
36/5	DICAPAZANO, KENNETH & ANNA 55 QUACK AVE RARITAN, NJ 08869
31/14.01	BRIDGEWALK, LLC 828 ROUTE 208 RARITAN, NJ 08869
61/1	NJ TRANSIT C/O ENERGYSOLVE UBAR-11 P.O. BOX 6077 SOMERSET, NJ 08875
52/1.01	RIVITUSO, AMY 25 TILMAN ST RARITAN, NJ 08869
36/7	THAKUR, SHIVANI 404 RARITAN AVE RARITAN, NJ 08869
35/5	CHEWYSS, JOSEPH & MARY 405 RARITAN AVE RARITAN, NJ 08869
35/3	PAROHA, DIPEN B & KHUSHBU D 405 RARITAN AVE RARITAN, NJ 08869

SOMERSET COUNTY
ACCEPTANCE STAMP



THESE PLANS ARE NOT ACCEPTED FOR CONSTRUCTION UNLESS THIS BLOCK IS STAMPED AND SIGNED BY A STAFF MEMBER OF THE SOMERSET COUNTY ENGINEERING DIVISION. ACCEPTANCE OF THESE PLANS EXPIRES TWO (2) YEARS FROM THE STAMPED DATE.



SUBJECT PREMISES AS SHOWN ON BOROUGH OF RARITAN TAX MAP SHEET #9
PROJECT SITE
SCALE 1" = 300'

ZONING DATA

R-4 ZONE- SINGLE FAMILY DWELLINGS
LOT 5.01 BLOCK 35 TRACT AREA = 7,488 S.F.
EXISTING USE: SINGLE FAMILY DWELLING
PROPOSED USE: MULTI FAMILY DWELLING (++)

SCHEDULE OF BULK REQUIREMENTS

DESCRIPTION	REQUIRED	EXISTING	PROPOSED	STATUS
MIN. LOT AREA (CORNER)	9,000 S.F.	7,488 S.F.*	7,488 S.F.*	EXISTING CONDITION
MIN. LOT WIDTH (CORNER)	85 FEET	52 FEET*	52 FEET*	EXISTING CONDITION
PRINCIPAL BUILDING (STRUCTURE)				
MIN. FRONT YARD (RARITAN AVE)	25 FEET	-	36.5 FEET	COMPLIES
MIN. REAR YARD	35 FEET	-	35.5 FEET	COMPLIES
MIN. ONE SIDE YARD	8 FEET	-	13 FEET	COMPLIES
EXTERIOR SIDE YARD (TILMAN ST)	25 FEET	-	15 FEET**	VARIANCE REQUESTED
ACCESSORY BUILDING				
MIN. FRONT	25 FEET	-	-	-
MIN. REAR	5 FEET	-	-	-
MIN. SIDE	5 FEET	-	-	-
MAX. BUILDING HEIGHT	2.5 STY./35 FEET	-	2 STY./31.5 FEET	COMPLIES
MAX. TOTAL IMP. LOT COV.	30%	-	28.5%	COMPLIES
MIN. NET FLOOR AREA/UNIT	1,000 S.F.	-	1,544 S.F.	COMPLIES

*EXISTING NON-COMFORMING CONDITION
**VARIANCE REQUIRED
+++USE VARIANCE REQUIRED

DRAWING LIST

SHEETS	DESCRIPTION
1	COVER SHEET
2	BOUNDARY & TOPOGRAPHIC SURVEY
3	VARIANCE PLAN
4	CONSTRUCTION DETAILS
5	CONSTRUCTION DETAILS

OWNER
THE BOROUGH OF RARITAN, NJ
23 FIRST STREET
RARITAN, NJ 08869

APPLICANT
BRIELLE CAPITAL LLC
50 DIVISION STREET, SUITE 501
SOMERVILLE, NJ 08876

UTILITY CONTACTS

N.J. DEPT. OF TRANSPORTATION 1035 PARKWAY AVE P.O. BOX 800 TRENTON, NJ 08625-0800	BOROUGH OF RARITAN BOROUGH CLERK 23 FIRST ST. RARITAN, NJ 08869	NEW JERSEY AMERICAN WATER CO. 1025 LAUREL OAK RD. VOORHEES, NJ 08043	BELL ATLANTIC 540 BROAD ST NEWARK, NJ 07102
PUBLIC SERVICE ELECTRIC & GAS CO. MANAGER - CORPORATE PROPERTIES 60 PARK PLAZA, 768 NEWARK, NJ 07102	CABLE VISION 375 CENTENNIAL AVE PISCATAWAY, NJ 08855-8805 CN 8805	SOMERVILLE BOROUGH CLERK 25 WEST END AVENUE SOMERVILLE, NJ 08876	SOMERSET COUNTY PLANNING BOARD P.O. BOX 3000 SOMERVILLE, NJ 08876
	SHERWIN ULEP, P.E. / FACILITY ENGINEER THE SOMERSET RARITAN VALLEY SEWAGE AUTHORITY P.O. BOX 5400 BRIDGEWATER, NJ 08807	BRIDGEWATER TOWNSHIP CLERK 100 COMMONS WAY BRIDGEWATER, NJ 08807	

APPROVED BY BOROUGH OF RARITAN LAND USE BOARD

CHAIRMAN	DATE
ENGINEER	DATE
SECRETARY	DATE

10/31/23
DATE

REVISOR
BY

CWS

BY

CRAIG W. STIRES
PROFESSIONAL ENGINEER

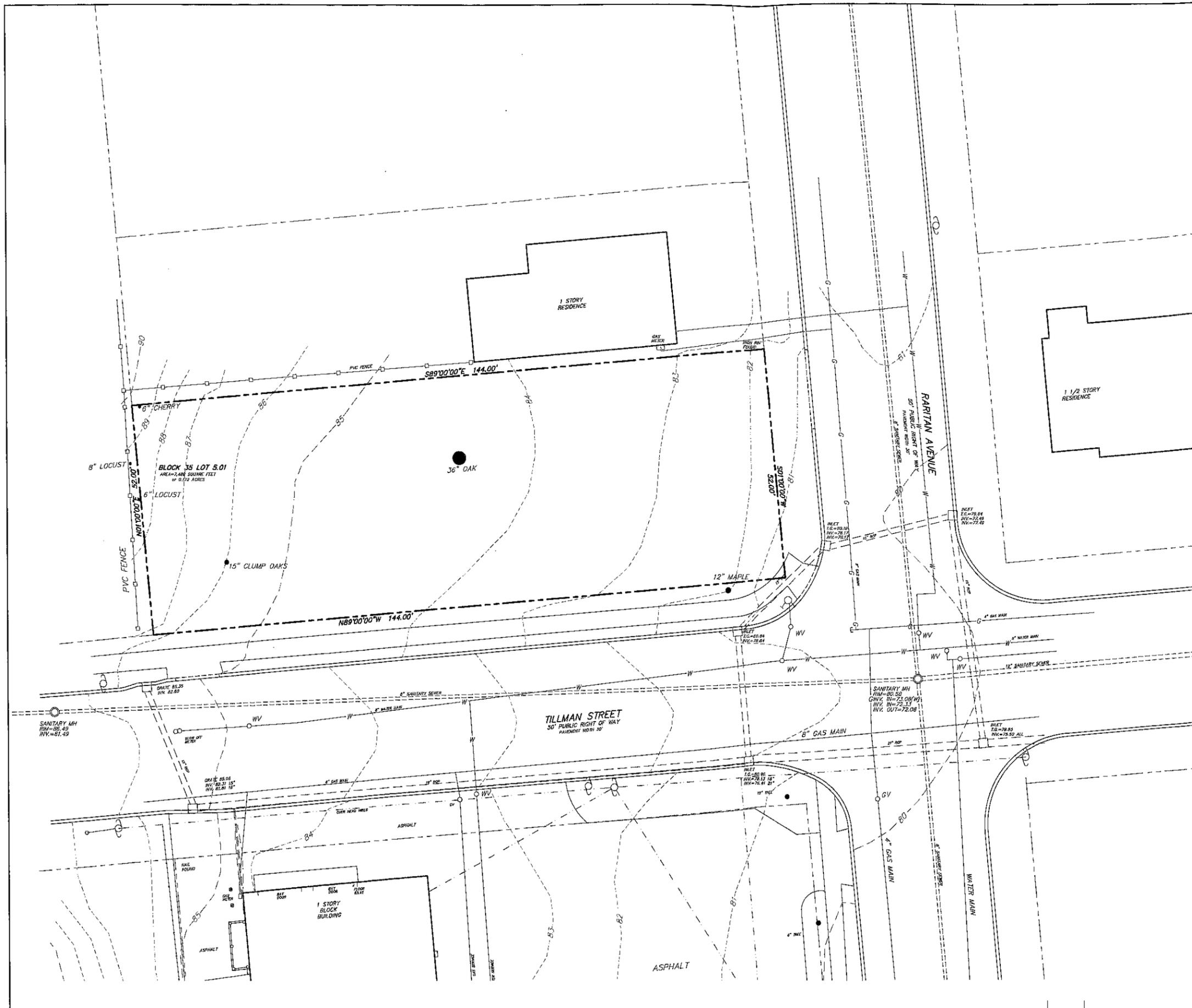
N.J. LICENSE No. 36076
DATE 8/10/23

DESIGNED BY: WHI
DRAWN BY: WHI

SCALE: AS SHOWN
PROJECT No. 23141

SHEET NUMBER
1 OF 5

CAUTION: If this document does not contain the correct information use of the information is at the user's discretion and may have been altered.



- GENERAL NOTES**
1. THE TOPOGRAPHIC AND BOUNDARY INFORMATION WAS PREPARED FROM ACTUAL FIELD SURVEYS PERFORMED BY STIRES ASSOCIATES, P.A. SURVEY PERSONNEL.
 2. UTILITIES AS SHOWN HEREON WERE BASED UPON LOCATED SURFACE FEATURES SUCH AS VALVES, MANHOLES, INLETS, AND OTHER FEATURES ALONG WITH PAINTED UTILITY MARK-OUTS AND UTILITY PLANS BY OTHERS, WHERE ACCESS PERMITTED. SIZES AND DEPTHS TO INVERTS OF PIPES WERE MEASURED AND SHOWN HEREON. ALL UNDERGROUND LINES BETWEEN STRUCTURES ARE ASSUMED TO RUN IN A STRAIGHT LINE. OTHER UTILITIES MAY EXIST UNDER THE SURVEYED PREMISES WHICH ARE NOT KNOWN TO THE UNDERSIGNED AND ALL PROPOSED TIE-INS OR PIPE CROSSINGS MUST BE VERIFIED BY THE APPROPRIATE AUTHORITIES FOR CONFLICTS.
 3. PRIOR TO THE START OF CONSTRUCTION THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION, SIZE AND DIMENSION OF ALL UNDERGROUND UTILITIES. STIRES ASSOCIATES, P.A. ASSUMES NO RESPONSIBILITY FOR THE LOCATION OF BURIED UTILITIES SHOWN NOR LACK THEREOF. THE CONTRACTOR SHALL CONTACT THE UTILITY MARK OUT SERVICE BY CALLING 1-800-272-1000 AT LEAST 3 DAYS PRIOR TO THE START OF CONSTRUCTION.
 4. ANY DISCREPANCIES IN REFERENCED COORDINATES, ELEVATIONS, EXISTING DIMENSIONS AND DETAILS SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER OR OWNER'S REPRESENTATIVE BEFORE PROCEEDING WITH THE WORK.
 5. ALL DEBRIS, CONCRETE CHUNKS, TREE STUMPS AND OTHER UNSUITABLE MATERIAL RESULTING FROM THE SITE GRADING AND EXISTING STRUCTURAL DEMOLITION SHALL BE DISPOSED OF AT AN APPROVED DISPOSAL LOCATION. NO UNSUITABLE MATERIALS SHALL BE PERMITTED TO BE BURIED ON SITE.
 6. IN INSTANCES WHERE THE TOWNSHIP SPECIFICATIONS PROVIDE NO DETAILED SPECIFICATION, THE MATERIALS AND METHODS OF CONSTRUCTION SHALL MEET AND CONFORM TO THE REQUIREMENTS OF "THE STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION" FOR THE NEW JERSEY DEPARTMENT OF TRANSPORTATION.
 7. ANY EXCESS FILL OR ANY OTHER MATERIAL IS TO BE REMOVED FROM THE SITE. THE PROJECT OWNER/APPLICANT SHALL BE RESPONSIBLE FOR ITS PROPER DISPOSAL AND WILL NOTIFY THE SOMERSET-UNION SOIL CONSERVATION DISTRICT AS TO THE PLANNED DISPOSAL SITE LOCATION. IF APPLICABLE, A SOIL EROSION AND SEDIMENT CONTROL PLAN MUST BE SUBMITTED TO, REVIEWED AND CERTIFIED BY THE SOMERSET-UNION SOIL CONSERVATION DISTRICT PRIOR TO ANY MATERIAL REMOVAL FROM THE PROJECT SITE.
 8. MAXIMUM ALLOWABLE VEGETATED SLOPES SHALL BE 2:1. ANY SLOPES IN EXCESS OF 3:1 SHALL BE COVERED BY TEMPORARY EROSION CONTROL MATTING.
 9. ADDITIONAL SOIL EROSION AND SEDIMENT CONTROL MEASURES MAY BE REQUIRED BY THE SOIL CONSERVATION DISTRICT OR TOWNSHIP ENGINEER IF FIELD CONDITIONS WARRANT THEM.
 10. TOWNSHIP ENGINEER SHALL BE NOTIFIED A MINIMUM OF 72 HOURS IN ADVANCE OF ANY SITE WORK.

PROJECT SITE AS SHOWN ON RARITAN BOROUGH TAX MAP SHEET 9

BOUNDARY & TOPOGRAPHIC SURVEY

401 TILLMAN STREET
LOT 5.01 BLOCK 35

RARITAN BOROUGH SOMERSET COUNTY NEW JERSEY

STIRES ASSOCIATES, P.A.
ENGINEERS, SURVEYORS & ENVIRONMENTAL CONSULTANTS
43 West High Street, Somerville, New Jersey 08876
Phone (908) 725-0230 Fax (908) 707-0531

RICHARD C. MATHEWS
PROFESSIONAL LAND SURVEYOR
N.J. LICENSE No. 26353

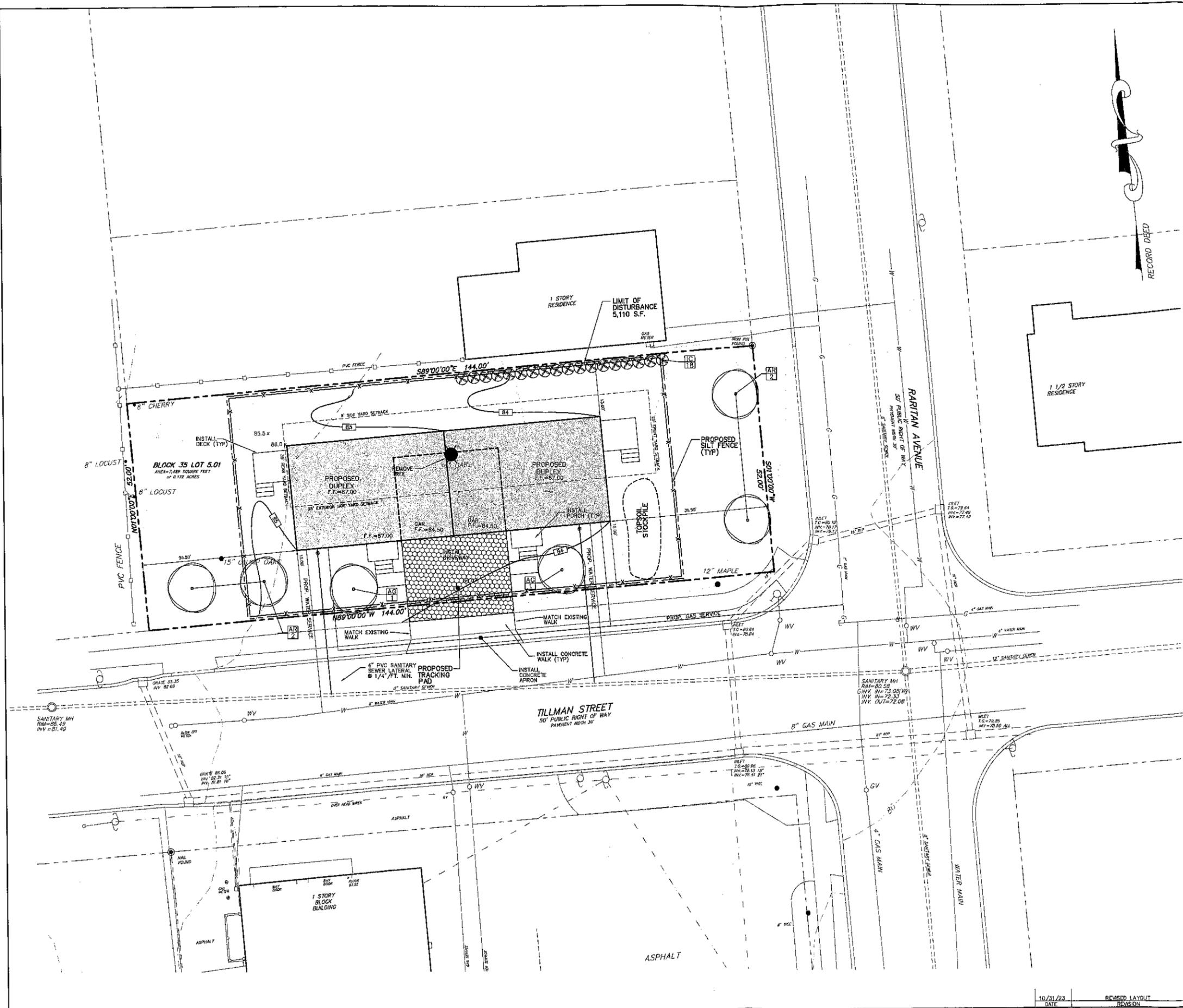
DESIGNED BY: RCM
DRAWN BY: RCM
CHECKED BY: RCM
DATE: 07/11/23
SCALE: 1" = 10'
SHEET NUMBER: 2 OF 5

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PROJECT No. 23141

GENERAL NOTES

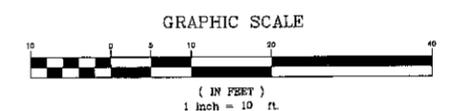
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PLANTING SCHEDULE

QTY	TREE	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	PREFERRABLE
2	Shade Trees	Azadirachta indica	Neem	3-5'	Ball	(P)
4	Shade Trees	Acacia saligna	Black Wattle	3-5'	Ball	(P)
15	Shade Trees	Quercus laevis	White Oak	3-5'	Ball	(P)

(P) Denotes a native plant



PROJECT SITE AS SHOWN ON BOROUGH OF RARITAN TAX MAP SHEET 9

VARIANCE PLAN

401 TILLMAN STREET
LOT 5.01 BLOCK 35

RARITAN BOROUGH SOMERSET COUNTY NEW JERSEY

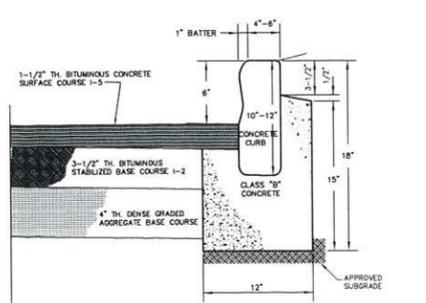
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Phone (908) 725-0230 Fax (908) 707-0831

CRAIG W. STIRES
PROFESSIONAL ENGINEER
N.J. LICENSE No. 39078

DESIGNED BY: CWS
DRAWN BY: RCM
CHECKED BY: CWS

DATE: 08/10/23
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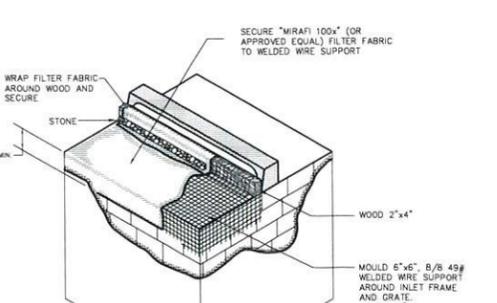
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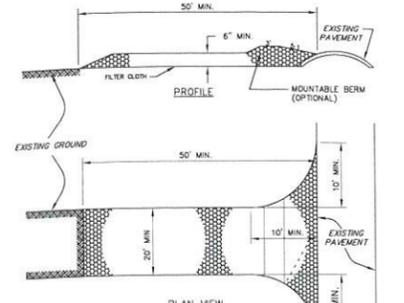
PAVEMENT AND CURB DETAIL
ON-SITE



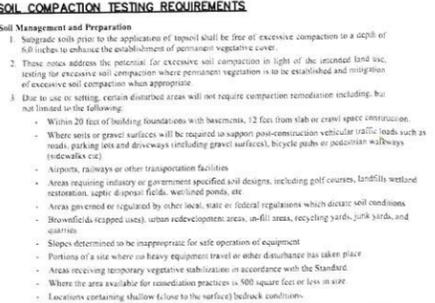
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N.T.S.



INLET FILTER DETAIL



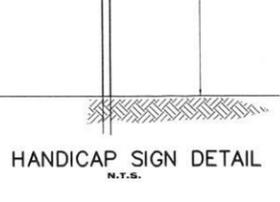
GRAVEL TRACKING PAD



TREE PROTECTION DETAIL



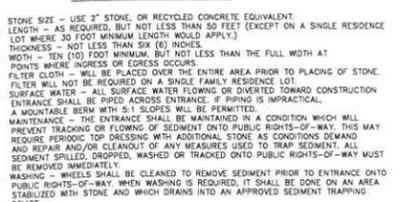
CONCRETE CURB DETAIL



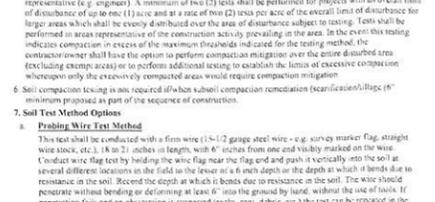
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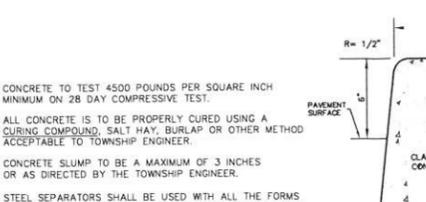
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N.T.S.



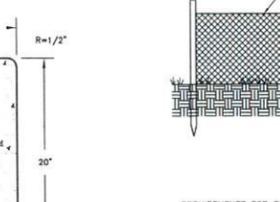
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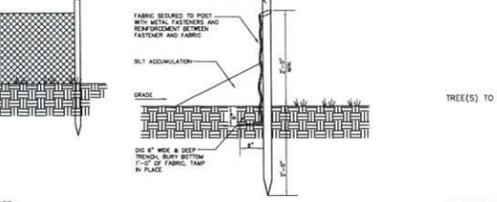
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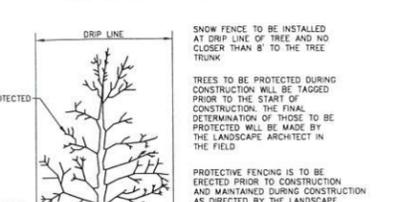
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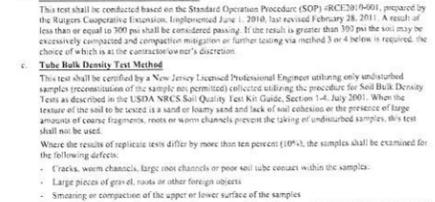
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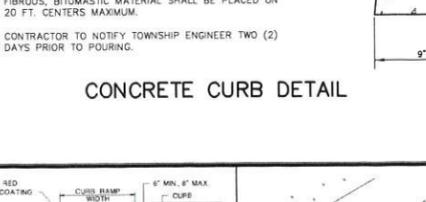
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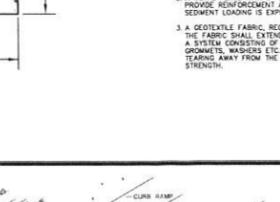
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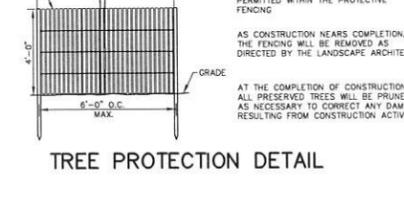
ISLAND WALKWAY OPENING AT INTERSECTIONS



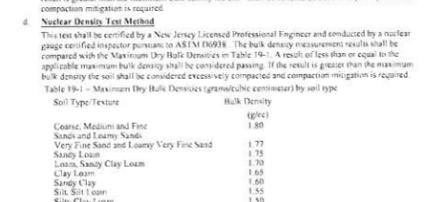
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CURB RAMP TYPE 2 TABLE



CURB RAMP TYPE 3 TABLE



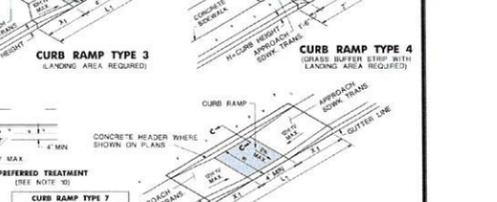
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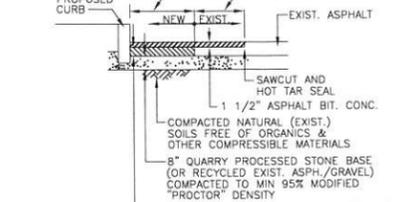
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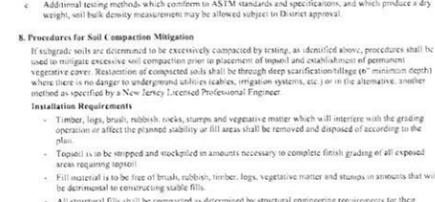
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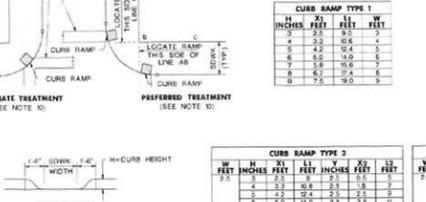
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ISLAND WALKWAY OPENING AT INTERSECTIONS TABLE



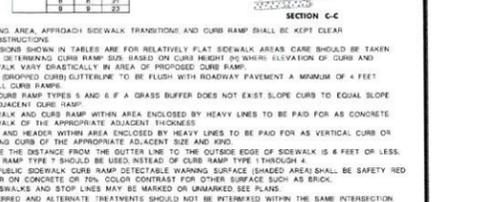
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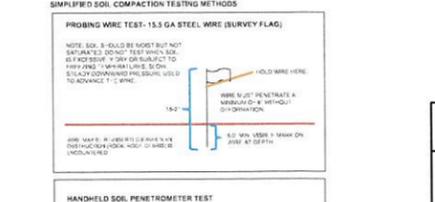
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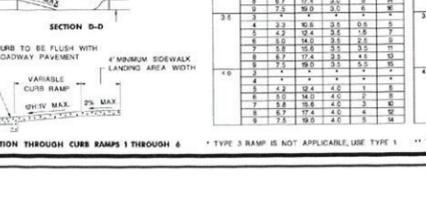
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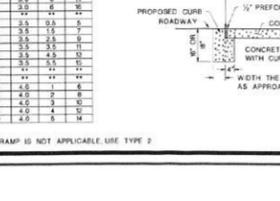
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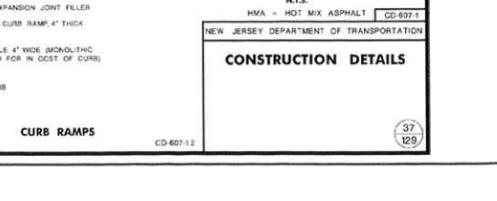
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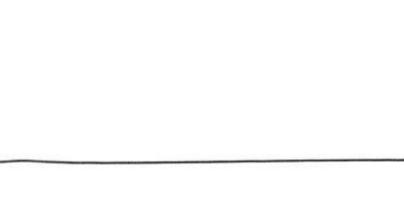
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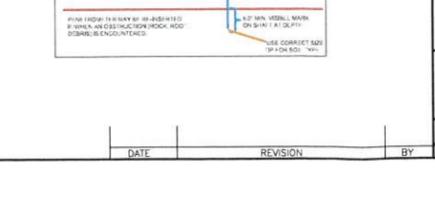
ISLAND WALKWAY OPENING AT INTERSECTIONS TABLE



CURB RAMP TYPE 1 TABLE



CURB RAMP TYPE 2 TABLE



CURB RAMP TYPE 3 TABLE



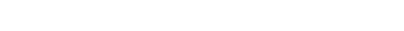
CURB RAMP TYPE 4 TABLE



CURB RAMP TYPE 5 TABLE



CURB RAMP TYPE 6 TABLE



CURB RAMP TYPE 7 TABLE



ISLAND WALKWAY OPENING AT INTERSECTIONS TABLE

SOIL COMPACTION TESTING REQUIREMENTS

Soil Management and Preparation

- Subgrade soils prior to the application of topsoil shall be free of excessive compaction to a depth of 6.0 inches to enhance the establishment of permanent vegetative cover.
- These notes address the potential for excessive soil compaction in light of the standard 100 psi testing for excessive soil compaction where permanent vegetation is to be established and mitigation of excessive soil compaction when appropriate.
- Due to use of setting, certain disturbed areas will not require compaction remediation including, but not limited to the following:
 - Within 20 feet of building foundations with basements, 12 feet from slab on crawl space construction.
 - Where mats or gravel surfaces will be required to support post-construction vehicular traffic loads such as roads, parking lots and driveways (including gravel surfaces), bicycle paths or pedestrian walkways (including mats).
 - Airports, railways or other transportation facilities.
 - Areas requiring utility or government specified soil designs, including golf courses, landfills wetland restoration, septic disposal fields, wetland ponds, etc.
 - Areas governed or regulated by other local, state or federal regulations which dictate soil conditions.
 - Stormwater (regardless of use), urban redevelopment areas, landfill areas, recycling yards, junk yards, and quarries.
 - Slopes determined to be inappropriate for safe operation of equipment.
 - Portions of a site where no heavy equipment travel or other disturbance has taken place.
 - Areas receiving temporary vegetative stabilization in accordance with the Standard.
 - Where the area available for remediation practices is 500 square feet or less in size.
 - Locations containing shallow (close to the surface) bedrock conditions.
- Areas of the site which are subject to compaction testing and/or mitigation are graphically denoted on the certified soil erosion control plan.
- Soil compaction remediation or testing to prove remediation is not necessary in areas where permanent vegetation is to be established that are not otherwise exempted above. Testing method shall be selected, and soil compaction testing shall be performed by the contractor or other project owner's representative (e.g. engineer). A minimum of two (2) tests shall be performed for projects with an overall test disturbance of 500 sq. ft. (11' x 45') and a test of 100 sq. ft. for areas of the overall test disturbance for larger areas which shall be evenly distributed over the area of disturbance subject to testing. Tests shall be performed in areas representative of the construction activity prevailing in the area. In the event this testing indicates compaction in excess of the maximum frequency indicated for the testing method, the contractor shall have the option to perform compaction mitigation on the entire disturbed area (including exempt areas) or to perform additional testing to establish the limits of excessive compaction whereupon only the excessively compacted areas would require compaction mitigation.
- Soil compaction testing is not required if a soil compaction remediation (excavation/tiltage) is minimum proposed as part of the sequence of construction.

Soil Test Method Options

- Penetration Test Method**
This test shall be conducted with a firm wire (1.5-1.2 gauge steel wire - e.g. survey marker flag, straight wire stake, etc.) 18 in. in length, with 6" inches from one end and visibly marked on the wire. Contact wire flag end by holding the wire flag near the flag end and push it vertically into the soil at several different locations in the field to the depth of 6 inches from the depth at which it bends due to resistance in the soil. Record the depth at which it bends due to resistance in the soil. The wire should penetrate without bending or deforming at least 6" into the ground by hand, without the use of tools. If penetration fails and an obstruction is suspected (rocks, roots, debris, etc.) the test can be repeated in the same general area. If the test is successful the soil is not excessively compacted. If the wire is difficult to insert (two hands or devices prior to reaching 6 inches in depth) the soil may be excessively compacted and compaction mitigation or further testing via method 3 or 4 below is required, the choice of which is at the contractor/owner's discretion.
- Handheld Soil Penetration Test Method**
This test shall be conducted based on the Standard Operation Procedure (SOP) RC220/0001, prepared by the Rutgers Cooperative Extension, implemented June 1, 2010. (last revised February 28, 2011). A result of less than or equal to 300 psi shall be considered passing. If the result is greater than 300 psi the soil may be excessively compacted and compaction mitigation or further testing via method 3 or 4 below is required, the choice of which is at the contractor/owner's discretion.
- Tube Bulk Density Test Method**
This test shall be certified by a New Jersey Licensed Professional Engineer utilizing only unaltered samples (recommendations of no sample no permit) collected utilizing the procedure for Soil Bulk Density Tests as described in the USDA NRCS Soil Quality Test Kit Guide, Section 1.4, July 2001. When the texture of the soil to be tested is a sand or loam sand and lack of soil cohesion or the presence of large amounts of coarse fragments, roots or worms channels prevent the taking of undisturbed samples, this test shall not be used. Where the results of replicate tests differ by more than ten percent (10%), the samples shall be examined for the following defects:
 - Cracks, worm channels, large root channels or poor soil cohesion within the samples.
 - Large pieces of gravel, roots or other foreign objects.
 - Smearing or compaction of the upper or lower surface of the samples.
 If any of the defects described in 3 (iii) above are found, the defective core(s) shall be discarded and the test re-performed in a new replicate sample for each defective replicate sample. The bulk density measurements results shall be compared with the Maximum Dry Bulk Densities in Table 19-1. A result of less than or equal to the applicable maximum bulk density shall be considered passing. If the result is greater than the maximum bulk density the soil shall be considered excessively compacted and compaction mitigation is required.

Soil Type/Texture	Bulk Density (g/cc)
Coarse Medium and Fine Sands and Loamy Sands	1.60
Very Fine Sand and Loamy Very Fine Sand	1.75
Sandy Loam	1.70
Loam, Silty Clay Loam	1.65
Sandy Clay	1.60
Silt, Silty Loam	1.55
Silty Clay Loam	1.50
Silty Clay	1.45
Clay	1.40

 Source: USDA Natural Resource Conservation Service, Soil Quality Information Sheet, Soil Quality Resource Center, Compaction, April 1996.
- Nuclear Density Test Method**
This test shall be certified by a New Jersey Licensed Professional Engineer and conducted by a nuclear gauged certified inspector pursuant to ASTM D6978. The bulk density measurements results shall be compared with the Maximum Dry Bulk Densities in Table 19-1. A result of less than or equal to the applicable maximum bulk density shall be considered passing. If the result is greater than the maximum bulk density the soil shall be considered excessively compacted and compaction mitigation is required.

Soil Type/Texture	Bulk Density (g/cc)
Coarse Medium and Fine Sands and Loamy Sands	1.60
Very Fine Sand and Loamy Very Fine Sand	1.75
Sandy Loam	1.70
Loam, Silty Clay Loam	1.65
Sandy Clay	1.60
Silt, Silty Loam	1.55
Silty Clay Loam	1.50
Silty Clay	1.45
Clay	1.40

 Source: USDA Natural Resource Conservation Service, Soil Quality Information Sheet, Soil Quality Resource Center, Compaction, April 1996.

Procedures for Soil Compaction Mitigation

If subgrade soils are determined to be excessively compacted by testing, as identified above, procedures shall be used to mitigate excessive soil compaction prior to placement of topsoil and establishment of permanent vegetation cover. Remediation of compacted soils shall be through deep scarification/tiltage or minimum depth) where there is no danger to underground utilities (cables, irrigation systems, etc.) or in the alternative, another method as specified by a New Jersey Licensed Professional Engineer.

Installation Requirements

- Timber, logs, brush, rubbish, rocks, stumps and vegetative matter which will interfere with the grading operation or affect the planned stability or fill areas shall be removed and disposed of according to the plan.
- Topsoil is to be stripped and stockpiled in amounts necessary to complete finish grading of all exposed areas requiring topsoil.
- Fill material is to be free of brush, rubbish, timber, logs, vegetative matter and stumps in amounts that will be detrimental to establishing suitable fills.
- All structural fills shall be compacted as determined by structural engineering requirements for their intended purpose and as required to reduce slumping, erosion or excessive saturation.
- All disturbed areas shall be left with a neat and finished appearance and shall be protected from erosion.
- Traps to be retained shall be protected in accordance with the Standard for Tree Protection During Construction.

Simplified Soil Compaction Testing Methods

PROBING WIRE TEST - 15.5 GA STEEL WIRE (SURVEY FLAG)

NOTE: SOIL SHOULD BE MOIST BUT NOT TOO MOIST. WIRE SHOULD BE HELD AT AN ANGLE OF 45 DEGREES TO THE SURFACE. WIRE SHOULD BE HELD AT AN ANGLE OF 45 DEGREES TO THE SURFACE. WIRE SHOULD BE HELD AT AN ANGLE OF 45 DEGREES TO THE SURFACE.

HANDHELD SOIL PENETROMETER TEST

NOTE: SOIL SHOULD BE MOIST BUT NOT TOO MOIST. WIRE SHOULD BE HELD AT AN ANGLE OF 45 DEGREES TO THE SURFACE. WIRE SHOULD BE HELD AT AN ANGLE OF 45 DEGREES TO THE SURFACE. WIRE SHOULD BE HELD AT AN ANGLE OF 45 DEGREES TO THE SURFACE.

CONSTRUCTION DETAILS

RESERVED PARKING
R7-B 12x16
R7-P 12x4
R7-BP 12x10

SECURE "MIRAF 100" (OR APPROVED EQUAL) FILTER FABRIC TO WELDED WIRE SUPPORT

WRAP FILTER FABRIC AROUND WOOD AND SECURE

WOOD 2"x4"

MOULD 6"x6", 8/8 49# WELDED WIRE SUPPORT AROUND INLET FRAME AND GRATE. EXTEND 6" MIN. AT SIDES.

NOTES:
1. CONTRACTOR TO CLEAN INLET FILTER AFTER EVERY STORM.
2. CONTRACTOR TO REMOVE FABRIC AND MESH JUST PRIOR TO PAVING.

CONSTRUCTION SPECIFICATIONS

- STONE SIZE - USE 2" STONE, OR RECYCLED CONCRETE EQUIVALENT.
- LENGTH - AS REQUIRED, BUT NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE 30 FOOT MINIMUM LENGTH WOULD APPLY).
- THICKNESS - NOT LESS THAN 5/8" (6) INCHES.
- WIDTH - TEN (10) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
- FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE. FILTER WILL NOT BE REQUIRED ON A SINGLE FAMILY RESIDENCE LOT.
- SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCE SHALL BE PIPED ACROSS ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
- MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
- WASHING - WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
- PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

REQUIREMENTS FOR SILT FENCE:

- FENCE POSTS SHALL BE SPACED 8 FEET CENTER-TO-CENTER OR CLOSER. THEY SHALL EXTEND AT LEAST 2 FEET INTO THE GROUND AND EXTEND AT LEAST 2 FEET ABOVE GROUND. POSTS SHALL BE CONSTRUCTED OF HARDWOOD WITH A MINIMUM DIAMETER THICKNESS OF 1-1/2" INCHES.
- A METAL FENCE WITH 6" OR SMALLER OPENINGS AND AT LEAST 2 FEET HIGH MAY BE UTILIZED. FASTENED TO THE FENCE POSTS TO PROVIDE REINFORCEMENT AND SUPPORT TO THE GEOTEXTILE FABRIC WHERE SPACE FOR OTHER PRACTICES IS LIMITED AND HEAVY SEDIMENT LOADING IS EXPECTED.
- A GEOTEXTILE FABRIC, RECOMMENDED FOR SUCH USE BY THE MANUFACTURER, SHALL BE BURIED AT LEAST 6" DEEP IN THE GROUND. THE FABRIC SHALL EXTEND AT LEAST 2 FEET ABOVE THE GROUND. THE FABRIC MUST BE SECURELY FASTENED TO THE POSTS USING A SYSTEM CONSISTING OF METAL FASTENERS (NAILS OR STAPLES) AND A HIGH STRENGTH REINFORCEMENT MATERIAL (CHAIN WEBBING, GRONNETS, WADERS ETC.) PLACED BETWEEN THE FASTENERS AND THE GEOTEXTILE FABRIC. THE FASTENING SYSTEM SHALL RESIST TEARING AWAY FROM THE POSTS. THE FABRIC SHALL BE APPROPRIATELY STAPLED TO THE TOP PORTION OF THE FENCE FOR ADDED STRENGTH.

NO CONSTRUCTION ACTIVITY IS PERMITTED WITHIN THE PROTECTIVE FENCING

AS CONSTRUCTION NEARS COMPLETION, THE FENCING WILL BE REMOVED AS DIRECTED BY THE LANDSCAPE ARCHITECT

AT THE COMPLETION OF CONSTRUCTION, ALL PRESERVED TREES WILL BE PRUNED AS DIRECTED BY THE LANDSCAPE ARCHITECT

4'-0" HIGH SNOW FENCE WITH POSTS DRIVEN INTO GROUND EVERY 6'-0" O.C. AT ALL CHANGES OF DIRECTION.

PROTECTIVE FENCING IS TO BE ERECTED PRIOR TO CONSTRUCTION AND MAINTAINED DURING CONSTRUCTION AS DIRECTED BY THE LANDSCAPE ARCHITECT

TREES TO BE PROTECTED

TREES TO BE PROTECTED DURING CONSTRUCTION WILL BE TAGGED PRIOR TO THE START OF CONSTRUCTION. THE FINAL DETERMINATION OF TREES TO BE PROTECTED WILL BE MADE BY THE LANDSCAPE ARCHITECT IN THE FIELD.

SNOW FENCE TO BE INSTALLED AT DRIFT LINE OF TREE AND NO CLOSER THAN 8' TO THE TREE TRUNK

DRIP LINE

6'-0" O.C. MAX.

SEQUENCE OF CONSTRUCTION

MEASURE	DURATION
1. INSTALL SOIL EROSION CONTROL MEASURES	1 DAY
2. INSTALL TRACKING PAD	1 DAY
3. TRENCH FOR UTILITIES, INSTALL AND PATCH ROAD	4 DAYS
4. INSTALL FOUNDATION AND CONSTRUCT DUPLEX	3 MONTHS
5. INSTALL DRIVEWAY, DECKS, AND SIDEWALK	2 WEEKS
6. FINE GRADE LOTS AND LANDSCAPE	2 DAYS
7. PLACE FINAL PAVEMENT	2 DAYS
8. REMOVE ALL SEDIMENT CONTROL BARRIERS AFTER STABILIZATION	1 DAY

NOTE: 72 HOURS PRIOR TO ANY SOIL DISTURBANCE, NOTICE IN WRITING, SHALL BE GIVEN TO THE SOMERSET UNION SOIL CONSERVATION DISTRICT.

CONSTRUCTION DETAILS

401 TILLMAN STREET
LOT 5.01 BLOCK 35
BOROUGH OF RARITAN SOMERSET COUNTY NEW JERSEY

STIRES ASSOCIATES, P.A.
ENGINEERS, SURVEYORS & ENVIRONMENTAL CONSULTANTS

43 West High Street, Somerville, New Jersey 08876
Phone (908) 725-0230 Fax (908) 707-0831

CRAIG W. STIRES
PROFESSIONAL ENGINEER
N.J. LICENSE No. 39078
DATE 8/15/23
SCALE: AS SHOWN
PROJECT No. 23141

DESIGNED BY: MMH
DRAWN BY: MMH
CHECKED BY: CWS
SHEET NUMBER: 4 OF 5

CONSTRUCTION DETAILS

SECTION A-A
CURB RAMP OPENING TO BE FLUSH WITH ROADWAY PAVEMENT (CURB RAMP TYPES 5 & 6)

SECTION B-B
CURB TO BE FLUSH WITH ROADWAY PAVEMENT

SECTION C-C
HOT Poured RUBBER-ASPHALT JOINT SEALER
CONCRETE CURB RAMP 4" THICK
N/ PREFORMED EXPANSION JOINT FILLER
HMA - HOT MIX ASPHALT CD-607.1
NEW JERSEY DEPARTMENT OF TRANSPORTATION

CONSTRUCTION DETAILS

SECTION THROUGH CURB RAMP TYPE 1

SECTION THROUGH CURB RAMP TYPE 2

SECTION THROUGH CURB RAMP TYPE 3

SECTION THROUGH CURB RAMP TYPE 4

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CONSTRUCTION DETAILS

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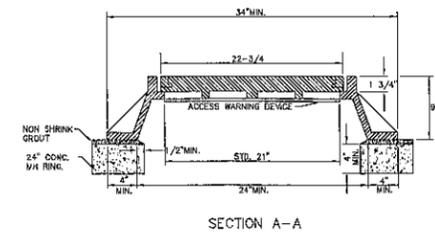
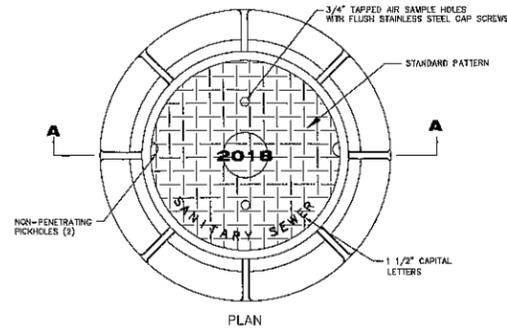
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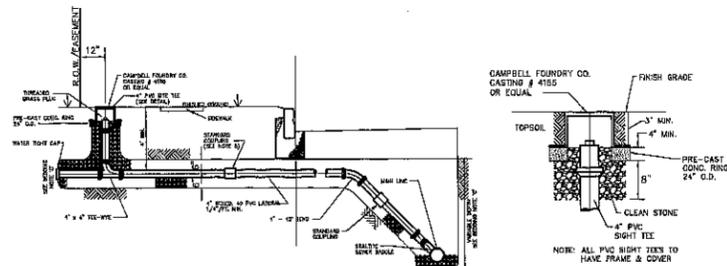
SECTION THROUGH CURB RAMP TYPE 45

SECTION THROUGH CUR



- NOTES:
1. MANHOLE FRAME AND COVER SHALL BE PATTERN No. 1004A AS MANUFACTURED BY THE CAMPBELL FOUNDRY CO. W/ FLOW SEAL, NON-PENETRATING PICK HOLES AND AIR SAMPLE HOLES OR APPROVED EQUAL. PARISONS-95 WARNING DEVICE W/ W/EXIT, HANDLE AND GASKET SEAL ALL MANHOLES.
 2. MANHOLE FRAME AND COVER TO BE HEAVY DUTY, CONFORMING TO A.S.T.M. SPECIFICATION A-48 CLASS 30-8 WITH S/100 COAT OF ASPHALT PITCH.
 3. WATER TIGHT MANHOLE FRAME AND COVER SHALL BE CAMPBELL No. 1004A OR APPROVED EQUAL.
 5. CAST IRON MANHOLE ADJUSTMENT RINGS ARE NOT ACCEPTABLE.

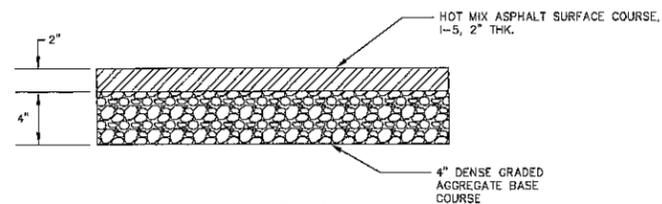
**STANDARD SANITARY
MANHOLE FRAME & COVER**
NOT TO SCALE



- BEDDING NOTES:
- A. COMPACTED AND CHOKED SUITABLE MATERIAL (6" LIFTS MAX.; SIMULTANEOUS ON BOTH SIDES OF PIPE).
 - B. ALL EXCAVATIONS AND BACKFILL BEYOND THE TRENCH PAYMENT LIMIT SHALL BE AT THE EXPENSE AND RESPONSIBILITY OF THE CONTRACTOR.
 - C. N.J.D.O.T. No. 57 COARSE AGGREGATE (CHOKED)
- NOTES:
1. ALL COUPLINGS, FLUGS AND CAPS SHALL BE STANDARD FOR TYPE OF PIPE USED AND INSTALLATION TO BE WATER TIGHT.
 2. CLEANOUTS OR INSPECTION WYES ARE TO BE LOCATED AS SHOWN ON DETAIL.
 3. 1/4" PER FOOT SLOPE GOVERNS OVER CONFLICTS WITH 5 FOOT MINIMUM COVER DIMENSION.
 4. FOR PIPE BEDDING DETAILS, SEE DETAILS THIS SHEET.
 5. WHERE A NEW PVC HOUSE CONNECTION IS TO BE INSTALLED, ALL COUPLINGS SHALL BE STANDARD.
 6. EXISTING SANITARY SEWER TO BE CORE DRILLED WHEN MAKING CONNECTION.

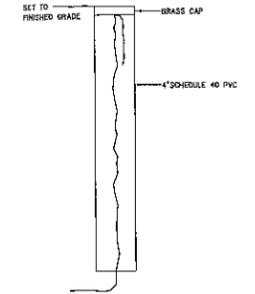
SANITARY HOUSE CONNECTION DETAIL

1. The Sewer Utility be notified at least 72 hours prior to a connection being made to the existing sanitary sewer to schedule required inspections.
2. When the installation of a "slight-tee" is required, the Sewer Utility engineer is to be notified at least 72 hours prior to its planned installation, for the purpose of scheduling inspections.

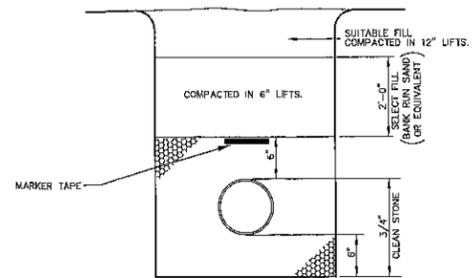


PAVEMENT SECTION

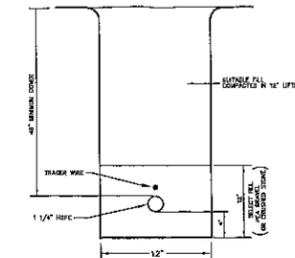
N.T.S.



**TRACER WIRE ACCESS
RISER DETAIL**

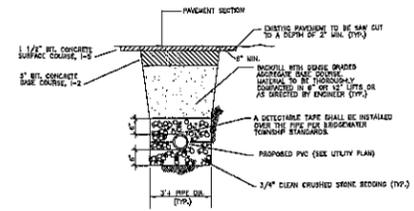


SANITARY TRENCH DETAIL

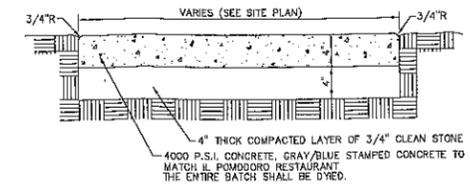


**SANITARY FORCE MAIN
TRENCH DETAIL**
N.T.S.

(TO BE UTILIZED IF AND WHERE BORING IS NOT FEASIBLE.)

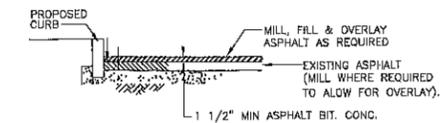


**TYPICAL SANITARY TRENCH DETAIL
AND PAVEMENT RESTORATION**
N.T.S.



CONCRETE SIDEWALK DETAIL

SIDEWALK TO HAVE EXPANSION JOINTS EVERY 20' FILLED WITH 4"x4"x1/2" PREFORMED BITUMINOUS-IMPREGNATED FIBER JOINT FILLER AND 2" DEEP FALSE JOINTS EVERY FIVE FIVE BETWEEN EXPANSION JOINTS.



ASPHALT OVERLAY DETAIL

CONSTRUCTION DETAILS			
401 TILLMAN STREET LOT 5.01 BLOCK 35			
BOROUGH OF RARITAN		SOMERSET COUNTY NEW JERSEY	
STIRES ASSOCIATES, P.A. ENGINEERS, SURVEYORS & ENVIRONMENTAL CONSULTANTS			
43 West High Street, Somerville, New Jersey 08875 Phone (908) 725-0230 Fax (908) 707-0831			
CRAIG W. STIRES PROFESSIONAL ENGINEER		N.J. LICENSE No. 35078	
DATE 8/15/23		DRAWN BY: MMH	
SCALE: AS SHOWN		CHECKED BY: CWS	
PROJECT No. 23141		SHEET NUMBER 5 OF 5	

DATE	REVISION	BY