

- ### UTILITY CONSTRUCTION NOTES
- WATER UTILITY SERVICE IS AVAILABLE TO THE PROPERTY BY EXISTING WATER MAIN LOCATED ALONG MUNRO AVENUE, OWNED AND OPERATED BY NJ AMERICAN WATER CO.
 - SANITARY SEWERAGE SERVICE IS AVAILABLE TO THE PROPERTY BY EXISTING SEWER MAIN LOCATED ALONG MUNRO AVENUE, OWNED BY HAZLET TOWNSHIP AND ADMINISTERED BY BAYSHORE REGIONAL SEWERAGE AUTHORITY.
 - PROPOSED UTILITIES SHALL BE INSTALLED UNDERGROUND.
 - EACH DWELLING UNIT SHALL HAVE INDEPENDENTLY METERED WATER SERVICE CONNECTIONS. EACH COMMERCIAL BUILDING SHALL HAVE INDEPENDENTLY METERED WATER SERVICE CONNECTIONS. WATER METERS SHALL BE GROUPED TOGETHER IN THE LOWER LEVEL UTILITY ROOM AS SHOWN ON THE ARCHITECTURAL DRAWINGS.
 - EACH DWELLING AND COMMERCIAL UNIT SHALL HAVE A 4-INCH DIAMETER INTERIOR SEWER CONNECTION TO A COMMON 6-INCH DIAMETER BUILDING SEWER LATERAL WITH CONNECTION TO THE MAIN AS SHOWN ON THE PLANS. THE COMMON BUILDING SEWER LATERAL SHALL EXTEND THROUGH THE FOOTPRINT OF THE PROPOSED BUILDING TO ALLOW FOR INTERIOR CONNECTIONS. THE PROPOSED 6-INCH LATERAL AND BUILDING SEWER SHALL BE INSTALLED ACCORDING TO THE DETAILS SHOWN ON THE PLANS IN ACCORDANCE WITH THE REQUIREMENTS OF THE BAYSHORE REGIONAL SEWERAGE AUTHORITY. CLEANOUTS SHALL BE PROVIDED ON THE INTERIOR 4-INCH LATERALS AND THE 6-INCH COMMON BUILDING SEWER PER PLUMBING SUBCODE REQUIREMENTS.
 - PVC SEWER LATERALS SHALL MAINTAIN THE FOLLOWING MINIMUM PIPE SLOPES: 4-INCH DIAMETER PIPE, MINIMUM SLOPE = 2.0%; 6-INCH DIAMETER PIPE, MINIMUM SLOPE = 1.0%. PVC SEWER LATERAL PIPE MATERIAL SHALL BE GASKETED PUSH-ON JOINT, SDR-35.
 - PVC SANITARY SEWER LATERALS SHALL MAINTAIN 3-FEET MINIMUM COVER FROM TOP OF PIPE TO GRADE. IF 3-FEET OF COVER CANNOT BE PROVIDED, THEN DUCTILE IRON PIPE SHALL BE INSTALLED. COVER OF LESS THAN 2.5-FEET SHALL NOT BE ACCEPTED.
 - ANY DAMAGE CAUSED TO THE BRSA SANITARY SEWER SYSTEM AS A RESULT OF CONSTRUCTION ACTIVITIES (TO BE DETERMINED BY THE BRSA), SHALL BE REPAIRED BY THE CONTRACTOR AT HIS COST AND TO THE SATISFACTION OF THE AUTHORITY.
 - ATTENTION OF THE CONTRACTOR IS DIRECTED TO THE FACT THAT APPROXIMATE LOCATIONS OF KNOWN UTILITY STRUCTURES THAT MAY BE ENCOUNTERED WITHIN AND ADJACENT TO THE LIMITS OF WORK ARE SHOWN ON THE PLANS. EXISTING UTILITY INFORMATION SHOWN HEREON HAS BEEN COLLECTED FROM VARIOUS SOURCES AND IS NOT GUARANTEED AS TO ACCURACY OR COMPLETENESS. THE CONTRACTOR IS ADVISED TO VERIFY IN THE FIELD ALL THE FACTS CONCERNING THE LOCATION OF KNOWN UTILITIES OR OTHER CONSTRUCTION OBSTACLES TO HIS SATISFACTION PRIOR TO BEGINNING WORK. IF NECESSARY, THE CONTRACTOR SHALL DIG TEST PITS PRIOR TO CONSTRUCTION WHERE EXISTING UTILITIES ARE CROSSED BY PROPOSED SITE IMPROVEMENTS TO ASCERTAIN EXISTING INVERTS, GRADES, MATERIALS, AND SIZES. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES THAT MAY AFFECT THE PROJECT DESIGN, AND TEST PIT INFORMATION SHALL BE GIVEN TO THE ENGINEER PRIOR TO CONSTRUCTION TO PERMIT ADJUSTMENTS IF OR AS NEEDED TO MAKE ADJUSTMENTS.
 - CONTRACTOR IS RESPONSIBLE FOR PROJECT SAFETY INCLUDING PROVISIONS FOR APPROPRIATE SAFETY DEVICES AND REQUIRED TRAINING.
 - ALL WORK RELATING TO INSTALLATION OF SANITARY SEWERAGE SYSTEM SHALL BE DONE IN ACCORDANCE WITH BAYSHORE REGIONAL SEWERAGE AUTHORITY RULES AND REGULATIONS AND STANDARD DETAILS.
 - PRIOR TO ACCEPTANCE, THE SANITARY SEWER FACILITIES SHALL BE TESTED IN ACCORDANCE WITH BAYSHORE REGIONAL SEWERAGE AUTHORITY RULES AND REGULATIONS AND WITNESSED AND APPROVED BY THE AUTHORITY ENGINEER.
 - PRIOR TO ACCEPTANCE, AS-BUILT PLANS FOR THE SANITARY SEWER SYSTEM SHALL BE SUBMITTED AND APPROVED BY THE AUTHORITY ENGINEER.
 - THE LOCATION OF NATURAL GAS MAIN AND NATURAL GAS LATERAL SERVICE CONNECTIONS SHALL BE COORDINATED WITH NJR OJ NATURAL GAS CO.
 - OUTLETS SHALL BE INSTALLED ALONG BUILDING ROOF LINES AS INDICATED ON THE ARCHITECTURAL DRAWINGS. DOWNSPOUTS SHALL DISCHARGE TO COLLECTION PIPES, WHICH SHALL DIRECT ROOFTOP RUNOFF TO PROPOSED STORMWATER RECHARGE AREA, AS SHOWN.
 - IF, DURING THE INSTALLATION OF THE PROPOSED STORMWATER RECHARGE AREA, ANY CLAY LAYERS, CLAY LENSES, OR UNSUITABLE SOILS ARE ENCOUNTERED, THOSE SOILS SHALL BE REMOVED AND REPLACED WITH SUITABLE K-5 SANDS AS DIRECTED BY THE ENGINEER.

AVERAGE DAILY WATER DEMAND (NJAC 7:10-12.6(b))

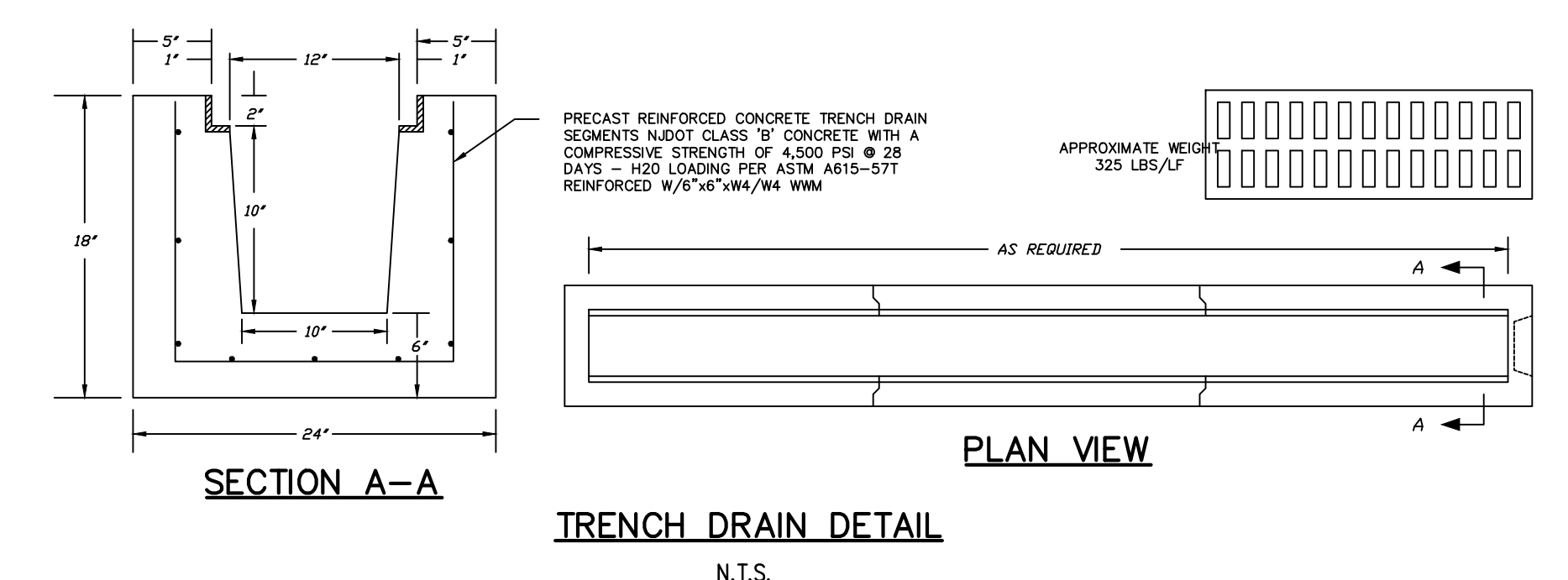
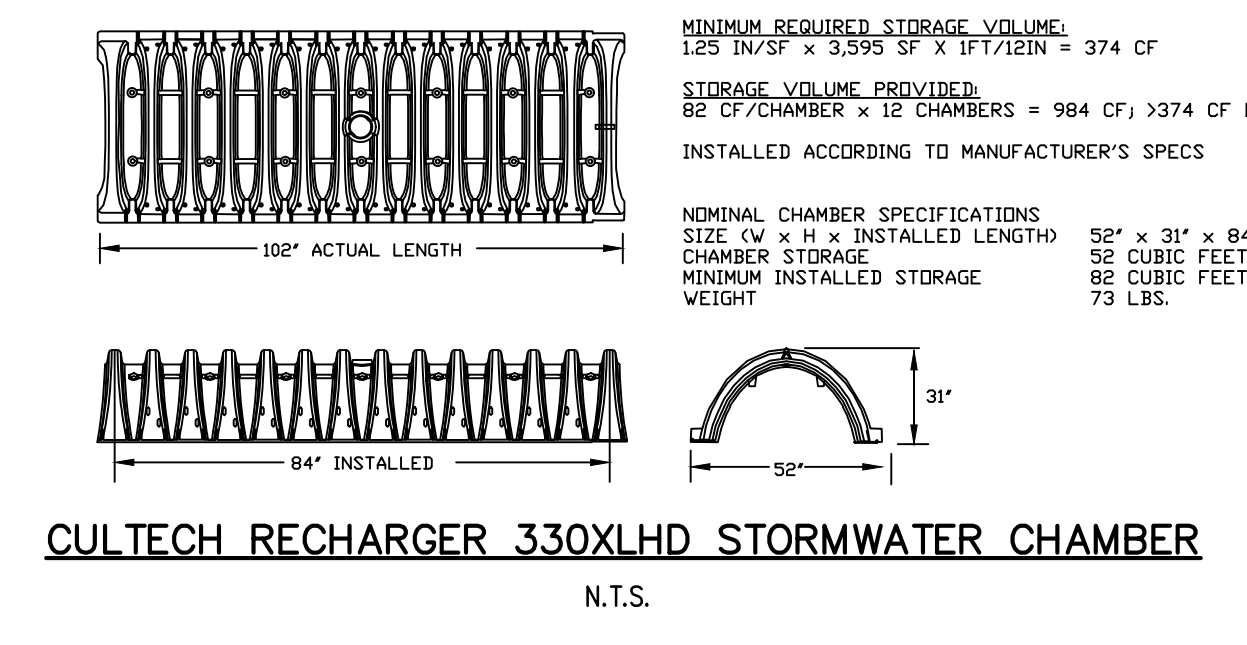
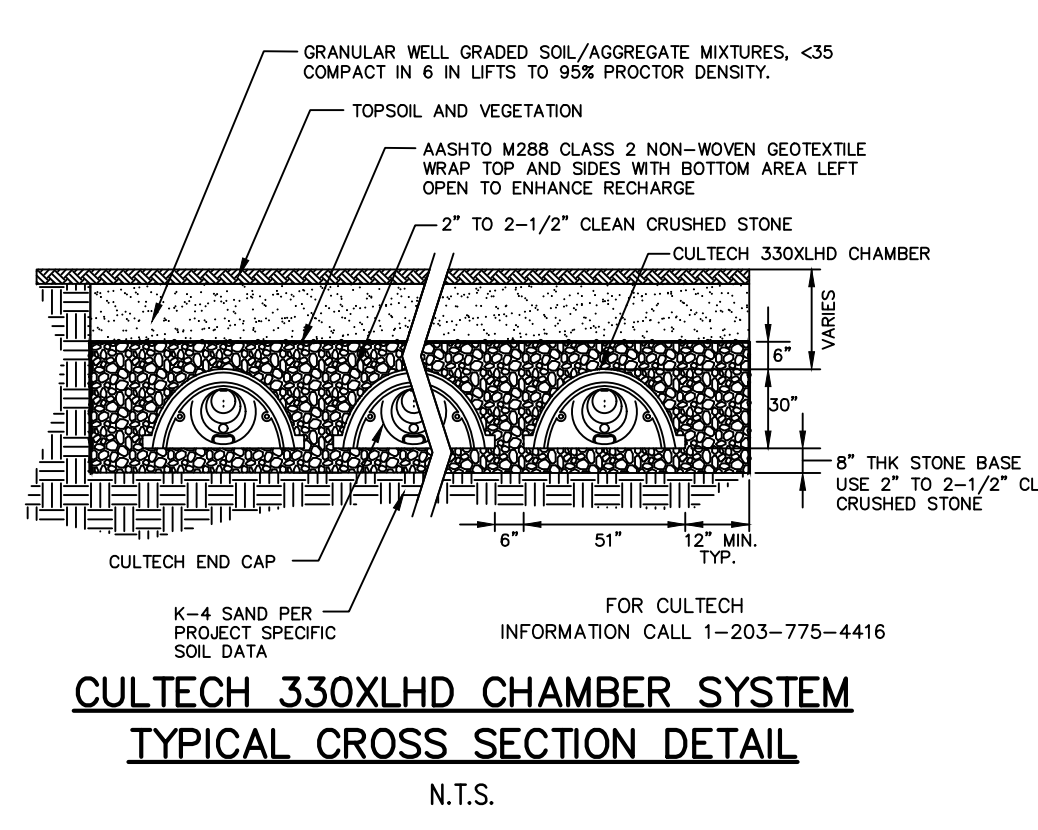
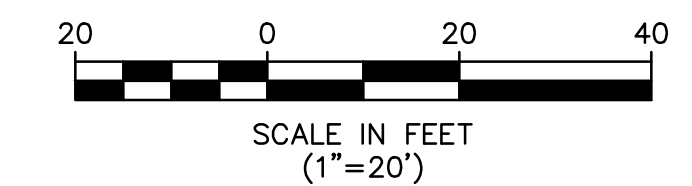
EXISTING CONDITIONS
 EXISTING BAR USE: 1,858 SF/FLOOR x 0.125 GPD/SF = 232 GPD
 EXISTING RESIDENTIAL APARTMENT: 1 DU x 175 GPD/DU = 175 GPD
 TOTAL EXISTING AVERAGE DAILY WATER DEMAND = 232 GPD + 175 GPD = 407 GPD

PROPOSED DEVELOPMENT
 NEW COMMERCIAL SPACE: 4,595 SF x 0.125 GPD/SF = 574 GPD
 NEW RESIDENTIAL SPACE: 4 DU x 175 GPD/DU = 700 GPD
 TOTAL PROPOSED AVERAGE DAILY WATER DEMAND = 574 GPD + 700 GPD = 1,274 GPD

PROJECTED WASTEWATER FLOW (NJAC 7:14A-23.3(g))

EXISTING CONDITIONS
 EXISTING BAR USE: 1,858 SF/FLOOR x 0.100 GPD/SF = 186 GPD
 EXISTING RESIDENTIAL APARTMENT: 1 DU x 225 GPD/DU = 225 GPD
 TOTAL EXISTING AVERAGE DAILY WASTEWATER FLOW = 186 GPD + 225 GPD = 411 GPD

PROPOSED DEVELOPMENT
 NEW COMMERCIAL SPACE: 4,595 SF x 0.100 GPD/SF = 460 GPD
 NEW RESIDENTIAL SPACE: 4 DU x 225 GPD/DU = 900 GPD
 TOTAL PROPOSED AVERAGE DAILY WASTEWATER FLOW = 460 GPD + 900 GPD = 1,360 GPD



5	9-01-24	REV. PER TOWNSHIP 7-31-24 RESOLUTION COMPLIANCE REVIEW	ARS
4	6-01-24	REV. FOR TOWNSHIP LAND USE BOARD - RESOLUTION COMPLIANCE	ARS
3	12-01-23	REV. FOR TOWNSHIP LAND USE BOARD - RESOLUTION COMPLIANCE	ARS
2	7-22-22	REV. PER TOWNSHIP ENGINEER'S 6-30-21 COMPLETENESS REVIEW	ARS
1	10-01-21	REV. PER TOWNSHIP ENGINEER'S 6-30-21 COMPLETENESS REVIEW	ARS
No.	DATE	REVISION	BY

EASTERN CIVIL ENGINEERING, LLC
 CIVIL ENGINEERING - SURVEYING & MAPPING - LAND USE PLANNING - SITE DESIGN

31 GRAND TOUR, HIGHLANDS NJ 07732 PHONE: 732.872.7736

GRADING, DRAINAGE & UTILITY PLAN FOR
MICHAEL MARGARELLA
 BLOCK 47 LOTS 2, 3, 5 & 6
 TAX MAP SHEET NO. 15

HAZLET TOWNSHIP, MONMOUTH COUNTY, NEW JERSEY

ANDREW R. STOCKTON
 PROFESSIONAL ENGINEER & LAND SURVEYOR
 NEW JERSEY LIC. NO. 35405

DATE: 3-01-21	SCALE: 1" = 20'	DESIGN BY: ARS	PROJECT NO.: 2001813	SHEET NO.: 4 of 9
---------------	-----------------	----------------	----------------------	-------------------