

PRELIMINARY & FINAL SITE PLAN

RESIDENTIAL DEVELOPMENT

BLOCK 4201.01, LOT 33.03

GROVERS MILL ROAD

TOWNSHIP OF LAWRENCE

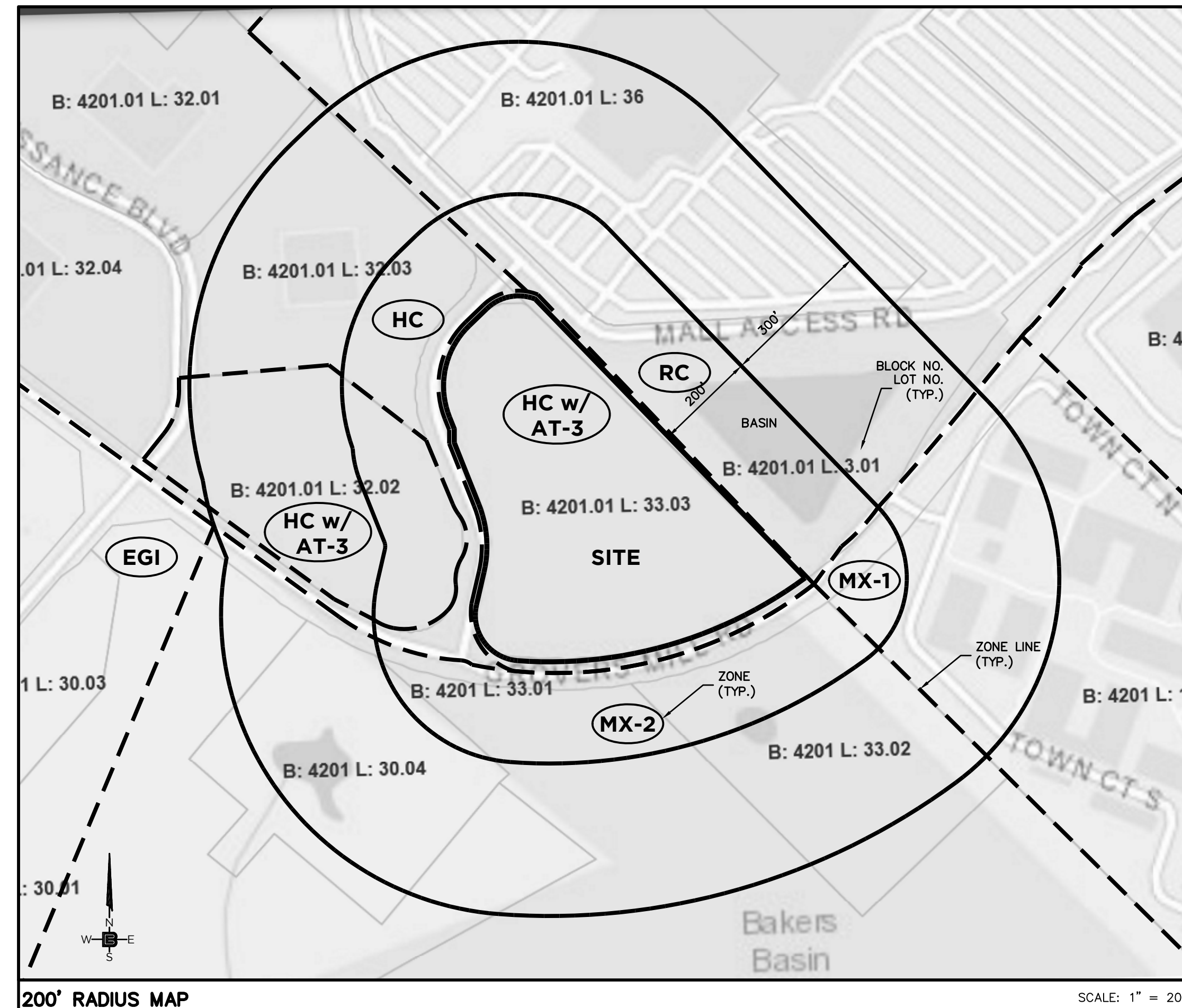
COUNTY OF MERCER, NEW JERSEY

PROPERTY OWNERS WITHIN 200'

BLOCK	LOT	PROPERTY OWNER	PROPERTY LOCATION
4201	10.03	TOWN COURT OWNER TIC LLC 5850 W 3RD ST #109 LOS ANGELES, CA 90036	5850 W 3RD ST #109 LAWRENCEVILLE, NJ 08648
30.04		DEPT OF TRANSPORTATION 1035 PARKWAY AVE TRENTON, NJ 08625	1035 PARKWAY AVE TRENTON, NJ 08625
33.01		DEPT OF ENVIRONMENTAL PROTECTION JOHN FITCH PLAZA TRENTON, NJ 08625	JOHN FITCH PLAZA TRENTON, NJ 08604
33.01	(T01)	SPRINT SPECTRUM PROP TAX DEPT PO BX 8430 (PL03XC109) KANSAS CITY, MO 64114-8430	PO BX 8430 (PL03XC109) KANSAS CITY, MO 64114-8430
33.01	(T03)	VERIZON WIRELESS C/O DUFF & PHELPS PO BOX 2549 ADDISON, TX 75001	PO BOX 2549 ADDISON, TX 75001
4201.01	3.01	QUAKER BRIDGE MALL, LLC 225 WEST WASHINGTON ST INDIANAPOLIS, IN 46204	225 WEST WASHINGTON ST PRINCETON NJ 08540
32.02		FAMPEC, LLC 100 RENAISSANCE BLVD LAWRENCEVILLE, NJ 08648	100 RENAISSANCE BLVD LAWRENCEVILLE, NJ 08648
32.03		AUTO CAMPUS REALTY LLC 100 RENAISSANCE BLVD LAWRENCEVILLE, NJ 08648	100 RENAISSANCE BLVD LAWRENCEVILLE, NJ 08648
36		TF LWRCVL NJ/DEPT 36134,BC-151A 3333 BEVERLY ROAD HOFFMAN ESTATES, IL 60179	3333 BEVERLY ROAD SINKING SPRING PA 19608

MUNICIPALITIES & UTILITIES

CORPORATE SECRETARY EWING-LAWRENCE SEWERAGE AUTHORITY 600 WHITEHEAD ROAD LAWRENCEVILLE, NJ 08648	CORPORATE SECRETARY PUBLIC SERVICE ELECTRIC & GAS COMPANY 80 PARK PLAZA, 4B NEWARK NJ 07101
N.J. AMERICAN WATER 1025 LAUREL OAK ROAD VOORHEES NJ 08043 ATTN: DONNA SHORT	ELIZABETHTOWN GAS COMPANY ONE ELIZABETHTOWN PLAZA THIRD FLOOR EAST UNION NJ 07083-1975
CORPORATE SECRETARY TRENTON WATER WORKS P.O. BOX 528 TRENTON NJ 08604	CORPORATE SECRETARY VERIZON 540 BROAD STREET NEWARK NJ 07101
AQUA WATER COMPANY 2875 ERIAL ROAD ERIAL NJ 08081 ATTN: JAMES BARBATO	GENERAL MANAGER COMCAST CABLEVISION 940 PROSPECT STREET TRENTON NJ 08618
RCN CORPORATION 105 CARNEGIE CENTER PRINCETON NJ 08540	CORPORATE SECRETARY AT&T 1 AT&T WAY BEDMINSTER NJ 07921
MERCER COUNTY PLANNING BOARD 640 SOUTH BROAD STREET P.O. BOX 8068 TRENTON NJ 08650-8068	CORPORATE SECRETARY JERSEY CENTRAL POWER AND LIGHT 300 MADISON AVENUE MORRISTOWN NJ 07962
SUN PIPE LINE COMPANY ATTN: R-O-W DEPARTMENT 1801 MARKET STREET 26TH FLOOR PHILADELPHIA PA 19103-1699	CORPORATE SECRETARY TRANSCONTINENTAL GAS PIPE LINE CORPORATION 2800 POST OAK BOULEVARD HOUSTON TX 77056
SUNOCO PIPE LINE, L.P. RIGHT-OF-WAY DEPARTMENT MONTELLO COMPLEX 525 FRITZTOWN ROAD SINKING SPRING PA 19608	COMMISSIONER N.J. DEPARTMENT OF TRANSPORTATION 1035 PARKWAY AVENUE, CN 600 TRENTON NJ 08625



ZONING NOTES

- OWNER/APPLICANT: TRICONE
2525 US-130 SUITE B4
CRANBURY, NJ 08512
- LOCATION: GROVERS MILL ROAD & MALL ACCESS ROAD
BLOCK 4201.01, LOT 33.03
TOWNSHIP OF LAWRENCE, NJ
- ZONE: AT-3 APARTMENT & TOWNHOUSE RESIDENTIAL
- USE: EXISTING: UNDEVELOPED
PROPOSED: TOWNHOUSE/APARTMENT (PERMITTED) 85 UNITS PROPOSED
- BULK REQUIREMENTS: (§ 409, ORD. 2283-17)

	REQUIRED	PROPOSED
MIN. GROSS TRACT AREA (AC)	10	6.86(E)
MIN. BUILDABLE AREA (AC)	7	3.73(V)
LOT WIDTH (FT)	N/A	780
LOT DEPTH (FT)	N/A	375
MAX. UNITS PER ACRE	15	12.39
MIN. OPEN SPACE(%)	30	45.8
MIN. FRONTAGE (FT)	300	1,200
MIN. BUILDING SETBACK(FT)	50	25(V)
MAX. UNITS PER TOWNHOUSE BUILDING	8	24
MAX. UNITS PER APARTMENT BUILDING	24	24/30(V)
MAX. UNITS PER MIXED BUILDING	12	N/A
MIN. DISTANCE BETWEEN BUILDINGS*	50	50
FRONT/BACK(FT)	30	30.5
BUILDING TO COMMON PARKING(FT)	15	9(V)
MAX. BUILDING HEIGHT(STY/FT)	3/38	42.38(V)
MAX. BUILDING LENGTH(FT)	240	215
MIN. PRIVATE REAR YARD PER GROUND FLOOR UNIT(SF)**	200	COMPLY
MIN. PRIVATE BALCONY PER ABOVE GROUND UNIT(SF)**	50	COMPLY
MIN. TOWNHOUSE WIDTH(FT)	20	24
MIN. APARTMENT SIZE(SF)	550	690
MIN. STORAGE AREA PER UNIT	300	300
TOWNHOUSE(SF)	100	89.7
MIN. ACCESSORY STRUCTURE SETBACK(FT)	5	142
MAX. UNIT TYPE IN MIXED DEVELOPMENT(%)	80	N/A
MIN. AFFORDABLE HOUSING UNITS(TOTAL,%)	N/A/20	17

6. OFFSTREET PARKING (N.J.A.C.5:21-TABLE 4.4)

PROPOSED APARTMENT BUILDING A:	REQUIRED	PROPOSED	
1 BEDROOM - 1.8 SP/UNIT (9 - 1 BEDROOM x 1.8) = 16.2 SPACES	16.2	23	INTERIOR
2 BEDROOM - 2.0 SP/UNIT (15 - 2 BEDROOM x 2.0) = 30.0 SPACES	30.0	14	EXTERIOR
TOTAL REQUIRED SPACES BUILDING "A" = 46.2		37	

PROPOSED APARTMENT BUILDING F:

1 BEDROOM - 1.8 SP/UNIT (8 - 1 BEDROOM x 1.8) = 10.8 SPACES	10.8	35	INTERIOR
2 BEDROOM - 2.0 SP/UNIT (21 - 2 BEDROOM x 2.0) = 42.0 SPACES	42.0	55	EXTERIOR
3 BEDROOM - 2.1 SP/UNIT (3 - 3 BEDROOM x 2.1) = 6.3 SPACES	6.3	20	EXTERIOR
TOTAL REQUIRED SPACES BUILDING "F" = 59.1		55	
TOTAL APARTMENT SPACES (46.2 + 59.1) = 105.3		+ 13	POOL PARKING
		105	

PROPOSED TOWNHOUSE:

(PROPOSED: 2 GARAGE SPACES + 1 DRIVEWAY SPACE = 3 PER TOWNHOUSE)			
31 3-BR TOWNHOUSE x 2.4 =	74.4	93	
TOTAL REQUIRED SPACES (105.3 + 74.4) = 179.7		198	TOTAL SPACES
MIN. PARKING/DRIVEWAY SETBACK(FT)	25	31.5	
MIN. PARKING SPACE SIZE(FT)	9x18	9x18	
MIN. 90' PARKING AISLE WIDTH (FT)	24	24	
MIN. HANDICAP SPACES (1401 TO 150):	5	6	

REQUIRED ELECTRIC VEHICLE SUPPLY EQUIPMENT SPACES (EVSE):

RESIDENTIAL/APARTMENTS	REQUIRED	PROVIDED
MIN. (EVSE)(15% OF REQUIRED): (105.3 SP x .15) = 15.80	16	16
MIN. HANDICAP (EVSE)(5% OF REQUIRED): (15.80 SP x .05) = 0.79	1	COMPLIES
TOTAL EVSE SPACES =	16	
TOTAL SPACES =	198	
EVSE BONUS/CREDIT (2 TO 1) =	10	
TOTAL ADJUSTED SPACES =	208	

- TBD - TO BE DETERMINED
- (E) - INDICATES AN EXISTING NON-CONFORMITY
- (V) - INDICATES A VARIANCE IS REQUIRED
- NC - NO CHANGE
- N/A - NOT APPLICABLE

- * THE PLANNING OR ZONING BOARD, AFTER DUE CONSIDERATION OF PLANS, TESTIMONY, OF OTHER EVIDENCE, MAY WAIVE STRICT COMPLIANCE WITH THIS SUBSECTION TO FURTHER THE ARCHITECTURAL RELATIONSHIP OF BUILDING GROUPS.
- ** OR AN ACTIVE AND/OR PASSIVE RECREATION AREA EQUAL TO 200SF PER UNIT AVAILABLE TO ALL TENANTS OR OWNERS.
- *** MAY BE REDUCED TO NO MORE THAN 75 SF IF EACH BUILDING HAS AN INTERNAL GARBAGE AND RECYCLABLE COLLECTION AREA OR READILY ACCESSIBLE EXTERIOR GARBAGE AND TRASH COLLECTION POINT.

DWG. #	DRAWING TITLE	DATED/ LAST REVISED	REV. #
C1.1	COVER SHEET	6-13-24	2
C2.1	SITE PLAN	6-13-24	2
C2.2	SOIL EROSION & SEDIMENT CONTROL PLAN (OMIT)	3-19-24	2
C2.3	GRADING & DRAINAGE PLAN	6-13-24	3
C2.4	UTILITY PLAN	6-13-24	2
C2.5	LIGHTING & LANDSCAPING PLAN	6-13-24	2
C2.6	LIGHTING INTENSITIES PLAN	6-13-24	2
C2.7	PARKING PLAN	6-13-24	2
C2.8	GRADING & LANDSCAPE PLAN	6-13-24	1
C2.9	WETLANDS PERMITTING PLAN	6-13-24	2
C2.10	TREE REMOVAL PLAN	3-19-24	0
C3.1	SITE DETAILS	3-19-24	1
C3.2	DRAINAGE DETAILS	3-19-24	1
C3.3	UTILITY DETAILS	3-19-24	1
C3.4	LANDSCAPING DETAILS	3-19-24	1
C3.5	LIGHTING DETAILS	3-19-24	1
C4.1	ROAD PROFILES	6-13-24	1
SV-1	LOCATION & TOPOGRAPHICAL SURVEY	6-16-22	2

UNIT MIX

- 6 3-BR TOWNHOUSE
- 25 4-BR TOWNHOUSE
- 3 3-BR APARTMENT
- 36 2-BR APARTMENT
- 15 1-BR APARTMENT
- 85 TOTAL

REQUIRED APPROVALS

- LAWRENCE TOWNSHIP PLANNING BOARD
- MERCER COUNTY PLANNING BOARD
- MERCER COUNTY SOIL CONSERVATION
- NJDEP TREATMENT WORKS
- NJDEP BUFFER AVERAGING

REQUIRED VARIANCES

- MIN. GROSS TRACT AREA
- MIN. BUILDABLE AREA
- MIN. BUILDING SETBACK
- MAX. UNITS PER APARTMENT BUILDING
- MIN. BUILDING TO COMMON PARKING

DESIGN EXCEPTIONS

- 492G4 - MAX. FENCE/WALL HEIGHT
(4' REQUIRED - 13' PROPOSED)
- 525H1d - MIN. BUFFER RESIDENTIAL TO RETAIL
(25' REQUIRED - 0' PROPOSED)

SOLID WASTE MANAGEMENT

- TOWNHOMES TO STORE TRASH AND RECYCLING WITHIN UNITS TO BE PLACED ON CURB SIDE FOR PICKUP.
- APARTMENT BUILDINGS HAVE TRASH SHOOT AND COMPACTORS. TRASH TO BE STORED IN TRASH ROOM FOR PRIVATE COLLECTION. RECYCLING TO BE STORED IN TRASH ROOM AND PLACED AT CURB FOR PICKUP.

APPROVED BY THE LAWRENCE TOWNSHIP
PLANNING BOARD OF ADJUSTMENT AT A
MEETING HELD ON _____ 2023

CHAIRPERSON	DATE
SECRETARY	DATE
ADMINISTRATIVE OFFICER	DATE
ENGINEER	DATE

66 GLEN AVENUE
GLEN ROCK, NJ 07465
P 201.670.6688
F 201.670.9788
www.bertineengineering.com



CALISTO J. BERTIN, P.E.

PROFESSIONAL ENGINEER
CT LIC. NO. 12950 NJ LIC. NO. 28845
MA LIC. NO. 40595 NY LIC. NO. 60022
NH LIC. NO. 9368 RI LIC. NO. 6694

ERIC M. HOUGH, P.E.

PROFESSIONAL ENGINEER
NJ LIC. NO. 51893

NO.	DATE	REVISION
1	6-13-24	REVISED DRAWING LIST
2	6-13-24	REVISED DRAWING LIST

COVER SHEET

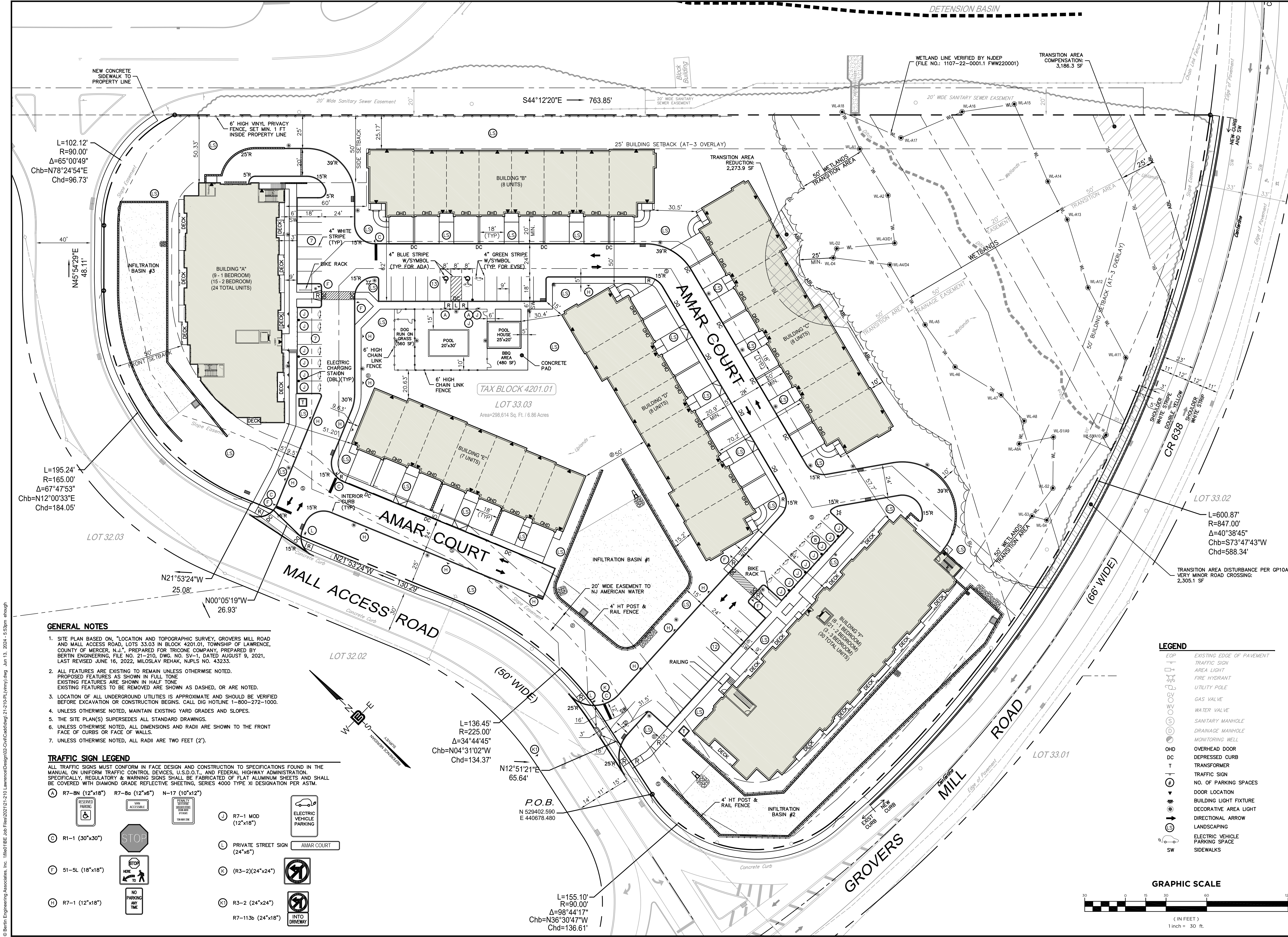
RESIDENTIAL DEVELOPMENT

BLOCK 4201.01, LOT 33.03
GROVERS MILL ROAD & MALL ACCESS ROAD
TOWNSHIP OF LAWRENCE
MERCER COUNTY, NEW JERSEY

CLIENT:
TRICONE
2525 US-130 SUITE B4
CRANBURY, NJ 08512

DRAWN BY	CHECKED BY
V.L.	C.J.B.
SCALE	PROJECT NO.
AS SHOWN	21-210
DATE	REVISION NO.
10-12-23	2

DRAWING NO. **C1.1**



L=102.12'
R=90.00'
Δ=65°00'49"
Chb=N78°24'54"E
Chd=96.73'

L=195.24'
R=165.00'
Δ=67°47'53"
Chb=N12°00'33"E
Chd=184.05'

L=600.87'
R=847.00'
Δ=40°38'45"
Chb=S73°47'43"W
Chd=588.34'

L=136.45'
R=225.00'
Δ=34°44'45"
Chb=N04°31'02"W
Chd=134.37'

P.O.B.
N 529402.590
E 440678.480

L=155.10'
R=90.00'
Δ=98°44'17"
Chb=N36°30'47"W
Chd=136.61'

GENERAL NOTES

- SITE PLAN BASED ON "LOCATION AND TOPOGRAPHIC SURVEY, GROVERS MILL ROAD AND MALL ACCESS ROAD, LOTS 33.03 IN BLOCK 4201.01, TOWNSHIP OF LAWRENCE, COUNTY OF MERCER, N.J.", PREPARED FOR TRICONE COMPANY, PREPARED BY BERTIN ENGINEERING, FILE NO. 21-210, DWG. NO. SV-1, DATED AUGUST 9, 2021, LAST REVISED JUNE 16, 2022, MILOSLAV REHAK, NJPLS NO. 43233.
- ALL FEATURES ARE EXISTING TO REMAIN UNLESS OTHERWISE NOTED. PROPOSED FEATURES AS SHOWN IN FULL TONE. EXISTING FEATURES ARE SHOWN IN HALF TONE. EXISTING FEATURES TO BE REMOVED ARE SHOWN AS DASHED, OR ARE NOTED.
- LOCATION OF ALL UNDERGROUND UTILITIES IS APPROXIMATE AND SHOULD BE VERIFIED BEFORE EXCAVATION OR CONSTRUCTION BEGINS. CALL DIG HOTLINE 1-800-272-1000.
- UNLESS OTHERWISE NOTED, MAINTAIN EXISTING YARD GRADES AND SLOPES.
- THE SITE PLAN(S) SUPERSEDES ALL STANDARD DRAWINGS.
- UNLESS OTHERWISE NOTED, ALL DIMENSIONS AND RADII ARE SHOWN TO THE FRONT FACE OF CURBS OR FACE OF WALLS.
- UNLESS OTHERWISE NOTED, ALL RADII ARE TWO FEET (2').

TRAFFIC SIGN LEGEND

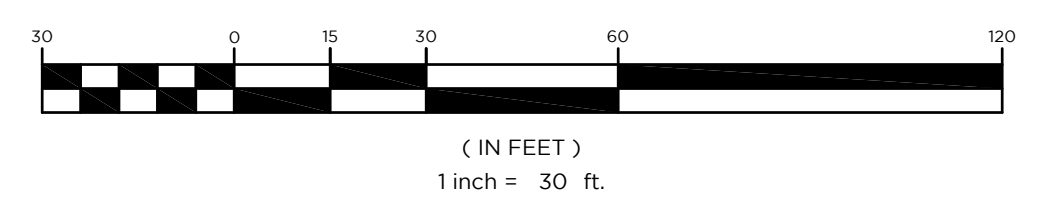
ALL TRAFFIC SIGNS MUST CONFORM IN FACE DESIGN AND CONSTRUCTION TO SPECIFICATIONS FOUND IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, U.S.D.O.T., AND FEDERAL HIGHWAY ADMINISTRATION. SPECIFICALLY, REGULATORY & WARNING SIGNS SHALL BE FABRICATED OF FLAT ALUMINUM SHEETS AND SHALL BE COVERED WITH DIAMOND GRADE REFLECTIVE SHEETING, SERIES 4000 TYPE XI DESIGNATION PER ASTM.

(A) R7-BN (12"x18")	R7-8a (12"x6")	N-17 (10"x12")	(J) R7-1 MOD (12"x18")	(E) ELECTRIC VEHICLE PARKING
(C) R1-1 (30"x30")	(L) PRIVATE STREET SIGN (24"x6")	(K) (R3-2) (24"x24")	(M) R7-1 (12"x18")	(F) INTO DRIVEWAY
(E) 51-5L (18"x18")	(K) (R3-2) (24"x24")	(K) R3-2 (24"x24")	(H) R7-1 (12"x18")	(N) NO PARKING ANY TIME
(H) R7-1 (12"x18")	(K) R3-2 (24"x24")	(K) R7-113b (24"x18")		

LEGEND

- EOP EXISTING EDGE OF PAVEMENT
- TRAFFIC SIGN
- AREA LIGHT
- FIRE HYDRANT
- UTILITY POLE
- GAS VALVE
- WATER VALVE
- SANITARY MANHOLE
- DRAINAGE MANHOLE
- MONITORING WELL
- OHD OVERHEAD DOOR
- DC DEPRESSED CURB
- T TRANSFORMER
- TRAFFIC SIGN
- NO. OF PARKING SPACES
- DOOR LOCATION
- BUILDING LIGHT FIXTURE
- DECORATIVE AREA LIGHT
- DIRECTIONAL ARROW
- LANDSCAPING
- ELECTRIC VEHICLE PARKING SPACE
- SW SIDEWALKS

GRAPHIC SCALE



66 GLEN AVENUE
GLEN ROCK, NJ 07452
P 201.670.6888
F 201.670.9788
www.bertinengineering.com

BERTIN ENGINEERING

CIVIL • SURVEYING • TRAFFIC • STRUCTURAL • ENVIRONMENTAL • MECHANICAL • LANDSCAPE

CALISTO J. BERTIN, P.E.
PROFESSIONAL ENGINEER
CT LIC. NO. 12950 NJ LIC. NO. 28845
MA LIC. NO. 40595 NY LIC. NO. 60022
NH LIC. NO. 9368 RI LIC. NO. 6694

ERIC M. HOUGH, P.E.
PROFESSIONAL ENGINEER
NJ LIC. NO. 51893

NO.	DATE	REVISION
1	3-19-24	ADDED STREET NAMES & TRANSFORMER LOCATIONS
2	6-13-24	REVISED DRIVEWAYS & ADD BASIN #2

DRAWING TITLE: **SITE PLAN**

PROJECT: **RESIDENTIAL DEVELOPMENT**
BLOCK 4201.01, LOT 33.03
GROVERS MILL ROAD & MALL ACCESS ROAD
TOWNSHIP OF LAWRENCE
MERCER COUNTY, NEW JERSEY

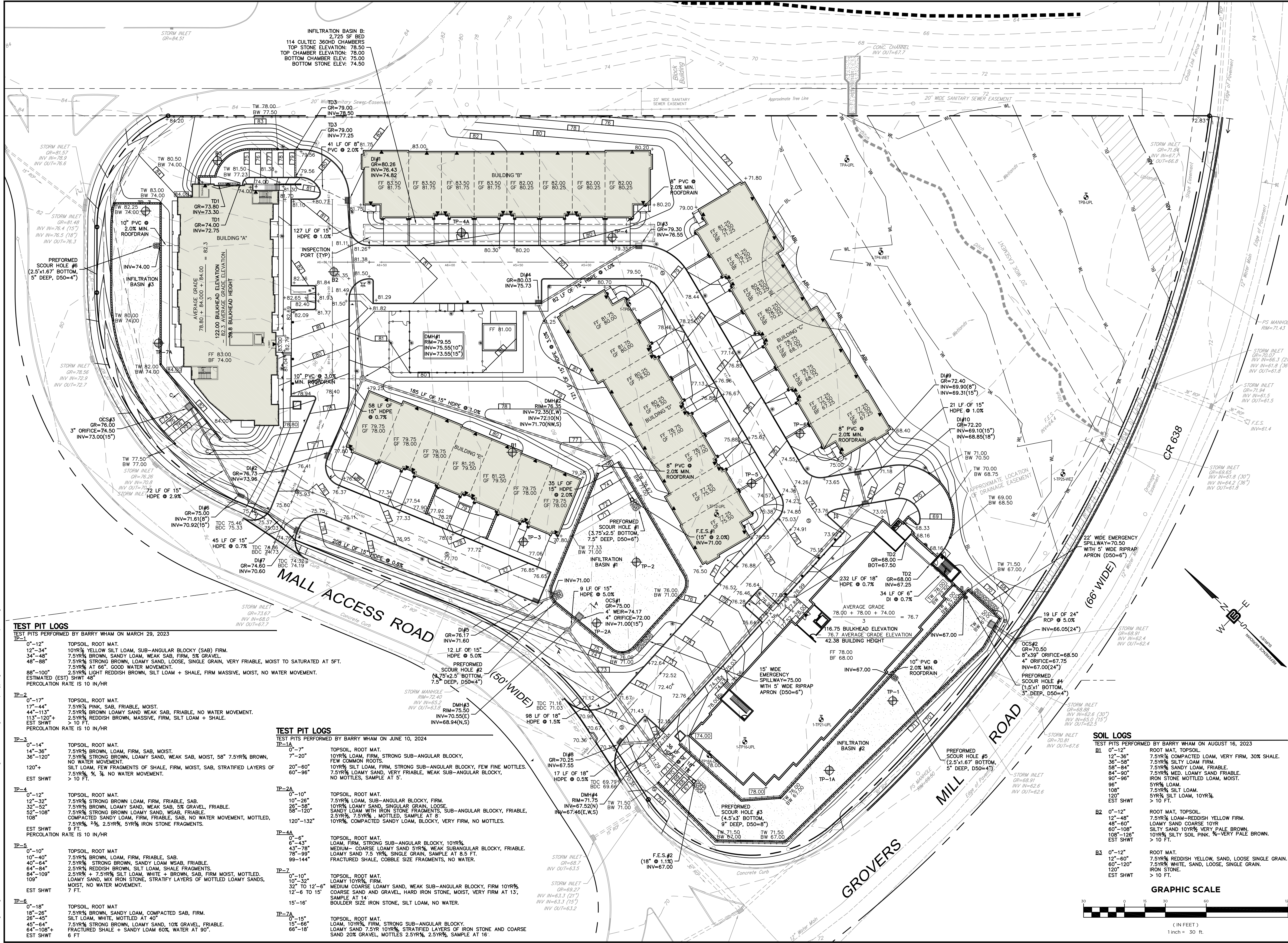
CLIENT: **TRICONE**
2525 US-130 SUITE B4
CRANBURY, NJ 08512

CERTIFICATE OF AUTHORIZATION
24GA28068900 / 21MH00002800

DRAWN BY: VL	CHECKED BY: C.J.B.
SCALE: 1" = 30'	PROJECT NO: 21-210
DATE: 10-12-23	REVISION NO: 2
DRAWING NO:	

C2.1

© Bertin Engineering Associates, Inc. M:\0101BE Job Files\2021\21-210 Lawrence\Design\02_Civil\cadd\dwg\21-210-PL(Vlmjy).dwg Jun 13, 2024 - 5:53pm etough



TEST PIT LOGS
TEST PITS PERFORMED BY BARRY WHAM ON MARCH 29, 2023

TP-1

0'-12" TOPSOIL, ROOT MAT.
12'-34" 10YR% YELLOW SILT LOAM, SUB-ANGULAR BLOCKY (SAB) FIRM.
34'-48" 7.5YR% BROWN, SANDY LOAM, WEAK SAB, FIRM, 5% GRAVEL.
48'-88" 7.5YR% STRONG BROWN, LOAMY SAND, LOOSE, SINGLE GRAIN, VERY FRIABLE, MOIST TO SATURATED AT 5 FT.
88'-100" 7.5YR% AT 66", GOOD WATER MOVEMENT.
ESTIMATED (EST) SHWT 2.5YR% LIGHT REDDISH BROWN, SILT LOAM + SHALE, FIRM MASSIVE, MOIST, NO WATER MOVEMENT.
PERCOLATION RATE IS 10 IN/HR

TP-2

0'-17" TOPSOIL, ROOT MAT.
17'-44" 7.5YR% PINK, SAB, FRIABLE, MOIST.
44'-113" 7.5YR% BROWN LOAMY SAND WEAK SAB, FRIABLE, NO WATER MOVEMENT.
113'-120"+ 2.5YR% REDDISH BROWN, MASSIVE, FIRM, SILT LOAM + SHALE.
EST SHWT
PERCOLATION RATE IS 10 IN/HR

TP-3

0'-14" TOPSOIL, ROOT MAT.
14'-36" 7.5YR% BROWN, LOAM, FIRM, SAB, MOIST.
36'-120" 7.5YR% STRONG BROWN, LOAMY SAND, WEAK SAB, MOIST, 58" 7.5YR% BROWN, NO WATER MOVEMENT.
120"+ SILT LOAM, FEW FRAGMENTS OF SHALE, FIRM, MOIST, SAB, STRATIFIED LAYERS OF 7.5YR% 1/4" NO WATER MOVEMENT.
EST SHWT
PERCOLATION RATE IS 10 IN/HR

TP-4

0'-12" TOPSOIL, ROOT MAT.
12'-32" 7.5YR% BROWN BROWN LOAM, FIRM, FRIABLE, SAB.
32'-52" 7.5YR% BROWN, LOAM, WEAK SAB, 5% GRAVEL, FRIABLE.
52'-108" 7.5YR% STRONG BROWN LOAMY SAND, WSAB, FRIABLE, COMPACTED SANDY LOAM, FIRM, FRIABLE, SAB, NO WATER MOVEMENT, MOTTLED, 108"
EST SHWT 9 FT.
PERCOLATION RATE IS 10 IN/HR

TP-5

0'-10" TOPSOIL, ROOT MAT
10'-40" 7.5YR% BROWN, LOAM, FIRM, FRIABLE, SAB.
40'-64" 7.5YR% STRONG BROWN, SANDY LOAM WSAB, FRIABLE.
64'-84" 2.5YR% REDDISH BROWN, SILT LOAM, SHALE FRAGMENTS.
84'-109" 2.5YR% + 7.5YR% SILT LOAM, WHITE + BROWN, SAB, FIRM MOIST, MOTTLED, LOAMY SAND, MIX IRON STONE, STRATIFY LAYERS OF MOTTLED LOAMY SANDS, MOST, NO WATER MOVEMENT.
109"
EST SHWT 7 FT.

TP-6

0'-18" TOPSOIL, ROOT MAT
18'-26" 7.5YR% BROWN, SANDY LOAM, COMPACTED SAB, FIRM.
26'-45" SILT LOAM, WHITE, MOTTLED AT 40"
45'-64" 7.5YR% STRONG BROWN, LOAMY SAND, 10% GRAVEL, FRIABLE.
64'-108"+ FRACTURED SHALE + SANDY LOAM 60% WATER AT 90".
EST SHWT 6 FT

TEST PIT LOGS
TEST PITS PERFORMED BY BARRY WHAM ON JUNE 10, 2024

TP-1A

0'-7" TOPSOIL, ROOT MAT.
7'-20" 10YR% LOAM, FIRM, STRONG SUB-ANGULAR BLOCKY, FEW COMMON ROOTS.
20'-60" 10YR% SILT LOAM, FIRM, STRONG SUB-ANGULAR BLOCKY, FEW FINE MOTTLES.
60'-96" 7.5YR% LOAMY SAND, VERY FRIABLE, WEAK SUB-ANGULAR BLOCKY, NO MOTTLES, SAMPLE AT 5'.

TP-2A

0'-10" TOPSOIL, ROOT MAT.
10'-26" 7.5YR% LOAM, SUB-ANGULAR BLOCKY, FIRM.
26'-58" 10YR% LOAMY SAND, SINGULAR GRAIN, LOOSE.
58'-120" SANDY LOAM WITH IRON STONE FRAGMENTS, SUB-ANGULAR BLOCKY, FRIABLE, 2.5YR% 7.5YR% MOTTLED, SAMPLE AT 8'
120'-132" 10YR% COMPACTED SANDY LOAM, BLOCKY, VERY FIRM, NO MOTTLES.

TP-4A

0'-6" TOPSOIL, ROOT MAT.
6'-43" LOAM, FIRM, STRONG SUB-ANGULAR BLOCKY, 10YR%.
43'-78" MEDIUM-COARSE LOAMY SAND 5YR% WEAK SUBANGULAR BLOCKY, FRIABLE.
78'-99" LOAMY SAND 7.5 YR% SINGLE GRAIN, SAMPLE AT 8.5 FT.
99'-144" FRACTURED SHALE, COBBLE SIZE FRAGMENTS, NO WATER.

TP-7

0'-10" TOPSOIL, ROOT MAT.
10'-32" LOAMY 10YR% FIRM.
32'-12" MEDIUM COARSE LOAMY SAND, WEAK SUB-ANGULAR BLOCKY, FIRM 10YR%.
12'-6 TO 15' COARSE SAND AND GRAVEL, HARD IRON STONE, MOIST, VERY FIRM AT 15', SAMPLE AT 14'.
15'-16" BOULDER SIZE IRON STONE, SILT LOAM, NO WATER.

TP-7A

0'-15" TOPSOIL, ROOT MAT.
15'-66" LOAM, 10YR% FIRM, STRONG SUB-ANGULAR BLOCKY.
66'-18" LOAMY SAND 7.5YR 10YR% STRATIFIED LAYERS OF IRON STONE AND COARSE SAND 20% GRAVEL, MOTTLES 2.5YR%, 2.5YR%, SAMPLE AT 16'.

SOIL LOGS
TEST PITS PERFORMED BY BARRY WHAM ON AUGUST 16, 2023

B1

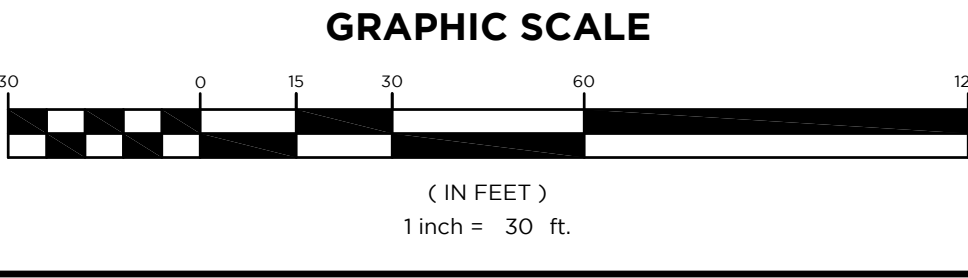
0'-12" ROOT MAT, TOPSOIL.
12'-36" 7.5YR% COMPACTED LOAM, VERY FIRM, 30% SHALE.
36'-58" 7.5YR% SILTY LOAM FIRM.
58'-84" 7.5YR% SANDY LOAM, FRIABLE.
84'-90" 7.5YR% MED. LOAMY SAND FRIABLE.
90'-98" IRON STONE MOTTLED LOAM, MOIST.
98" 5YR% LOAM.
108" 7.5YR% SILT LOAM.
120" 5YR% SILT LOAM, 10YR%.
EST SHWT > 10 FT.

B2

0'-12" ROOT MAT, TOPSOIL.
12'-48" 7.5YR% COMPACTED REDDISH YELLOW FIRM.
48'-60" 7.5YR% WHITE, SAND, LOOSE, SINGLE GRAIN.
60'-108" SILTY SAND 10YR% VERY PALE BROWN.
108'-126" 10YR% SILTY SOIL PINK 1/4"-VERY PALE BROWN.
EST SHWT > 10 FT.

B3

0'-12" ROOT MAT.
12'-60" 7.5YR% REDDISH YELLOW, SAND, LOOSE SINGLE GRAIN.
60'-120" 7.5YR% WHITE, SAND, LOOSE, SINGLE GRAIN.
120"
EST SHWT > 10 FT.



66 GLEN AVENUE
GLEN ROCK, NJ 07452
P 201.670.6888
F 201.670.9788
www.bertinengineering.com

BERTIN ENGINEERING

CIVIL • SURVEYING • TRAFFIC • STRUCTURAL • ENVIRONMENTAL • MECHANICAL • LANDSCAPE

CALISTO J. BERTIN, P.E.
PROFESSIONAL ENGINEER
CT LIC. NO. 12950 NJ LIC. NO. 28845
MA LIC. NO. 40595 NY LIC. NO. 60022
NH LIC. NO. 9368 RI LIC. NO. 6694

ERIC M. HOUGH, P.E.
PROFESSIONAL ENGINEER
NJ LIC. NO. 51893

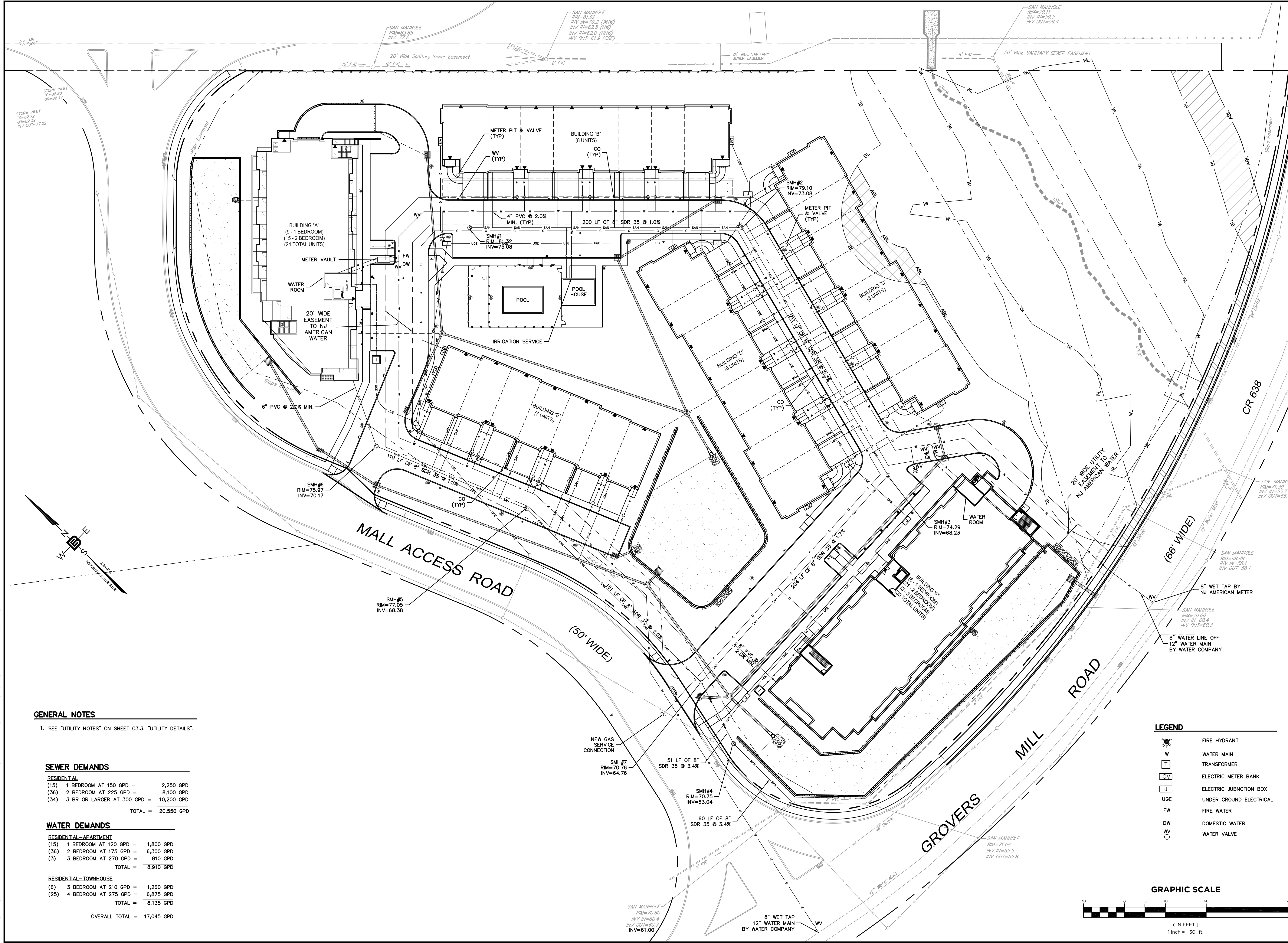
NO.	DATE	REVISION
3	6-13-24	REVISED AS PER SITE PLAN AND BASIN #3
2	3-19-24	REVISED AS PER SITE PLAN
1	3-6-24	REVISED WETLANDS TRANSITION AREA DISTURBANCES

DRAWING TITLE
GRADING & DRAINAGE PLAN

PROJECT
RESIDENTIAL DEVELOPMENT
BLOCK 420101, LOT 33.03
GROVERS MILL ROAD & MALL ACCESS ROAD
TOWNSHIP OF LAWRENCE
MERCER COUNTY, NEW JERSEY

CLIENT
TRICONE
2525 US-130 SUITE B4
CRANBURY, NJ 08512

DRAWN BY C.B.JR CHECKED BY C.J.B
SCALE 1" = 30' PROJECT NO. 21-210
DATE 10-12-23 REVISION NO. 3
DRAWING NO. **C2.3**



GENERAL NOTES
 1. SEE "UTILITY NOTES" ON SHEET C3.3. "UTILITY DETAILS".

SEWER DEMANDS

RESIDENTIAL		
(15)	1 BEDROOM AT 150 GPD =	2,250 GPD
(36)	2 BEDROOM AT 225 GPD =	8,100 GPD
(34)	3 BR OR LARGER AT 300 GPD =	10,200 GPD
TOTAL =		20,550 GPD

WATER DEMANDS

RESIDENTIAL - APARTMENT		
(15)	1 BEDROOM AT 120 GPD =	1,800 GPD
(36)	2 BEDROOM AT 175 GPD =	6,300 GPD
(3)	3 BEDROOM AT 270 GPD =	810 GPD
TOTAL =		8,910 GPD

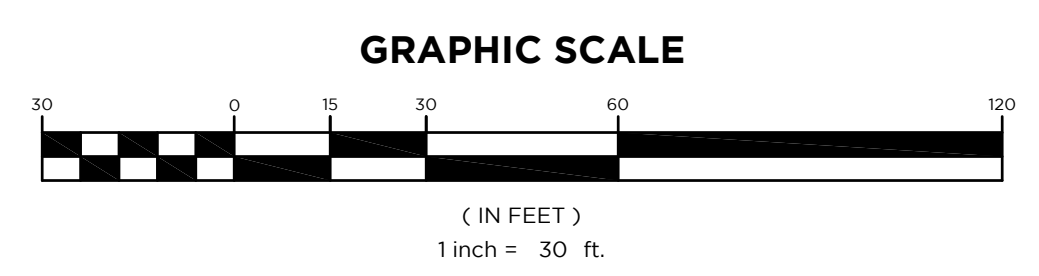
RESIDENTIAL - TOWNHOUSE

(6)	3 BEDROOM AT 210 GPD =	1,260 GPD
(25)	4 BEDROOM AT 275 GPD =	6,875 GPD
TOTAL =		8,135 GPD

OVERALL TOTAL = 17,045 GPD

LEGEND

	FIRE HYDRANT
	WATER MAIN
	TRANSFORMER
	ELECTRIC METER BANK
	ELECTRIC JUNCTION BOX
	UNDER GROUND ELECTRICAL
	FIRE WATER
	DOMESTIC WATER
	WATER VALVE



66 GLEN AVENUE
 GLEN ROCK, NJ 07452
 P. 201.670.6888
 F. 201.670.9788
 www.bertinengineering.com



CALISTO J. BERTIN, P.E.
 PROFESSIONAL ENGINEER
 CT LIC. NO. 12950 NJ LIC. NO. 28845
 MA LIC. NO. 40595 NY LIC. NO. 60022
 NH LIC. NO. 9368 RI LIC. NO. 6694

ERIC M. HOUGH, P.E.
 PROFESSIONAL ENGINEER
 NJ LIC. NO. 51893

NO.	DATE	REVISION
1	3-19-24	ADDED WATER MAIN & GENERAL NOTES; RELOCATED WATER SERVICE LINE
2	6-13-24	REVISE WATER & SEWER

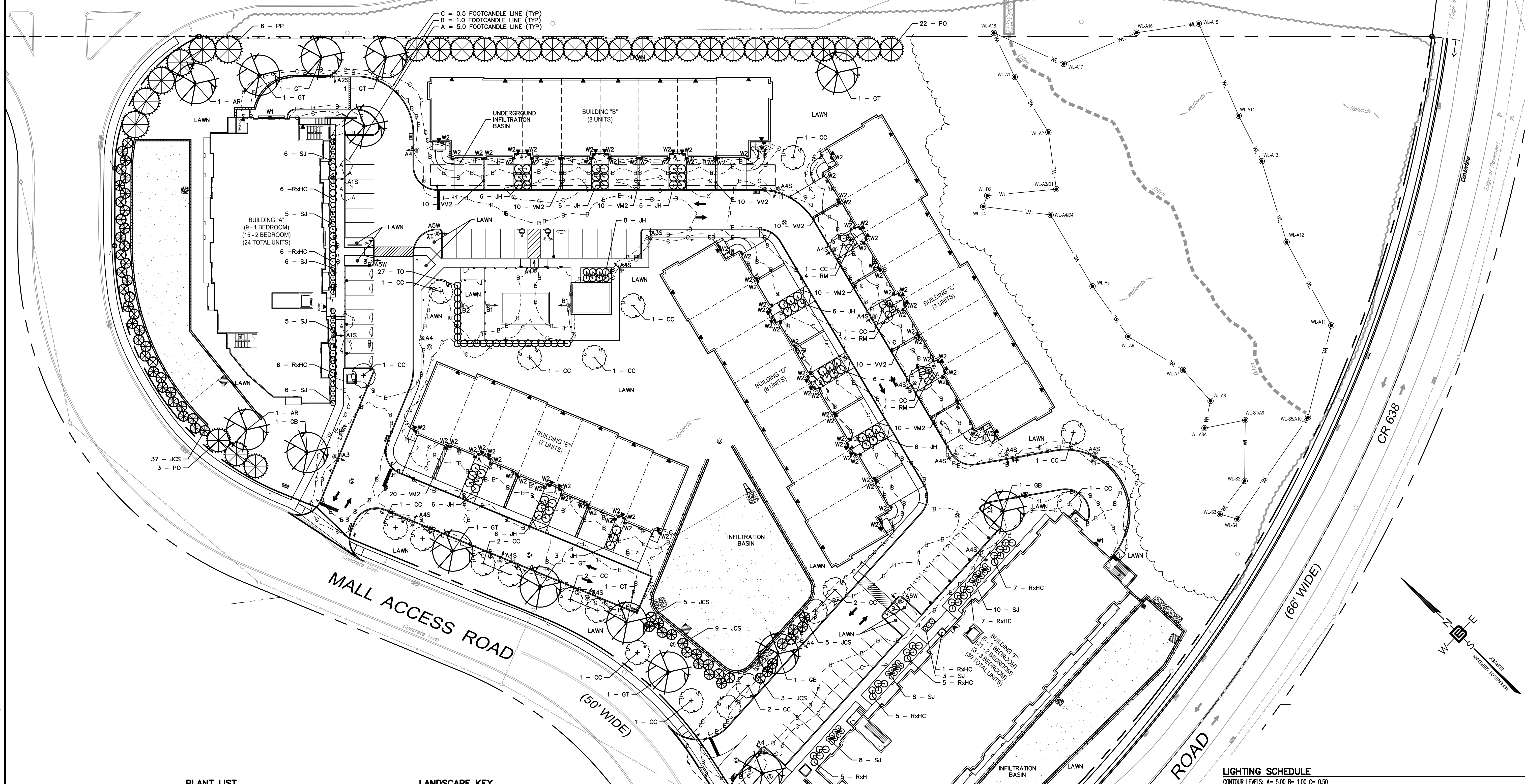
UTILITY PLAN

PROJECT
RESIDENTIAL DEVELOPMENT
 BLOCK 420101, LOT 33.03
 GROVERS MILL ROAD & MALL ACCESS ROAD
 TOWNSHIP OF LAWRENCE
 MERCER COUNTY, NEW JERSEY

CLIENT
 TRICONE
 2525 US-130 SUITE B4
 CRANBURY, NJ 08512

DRAWN BY C.B. JR.	CHECKED BY C.J.B.
SCALE 1" = 30'	PROJECT NO. 21-210
DATE 10-12-23	REVISION NO. 2

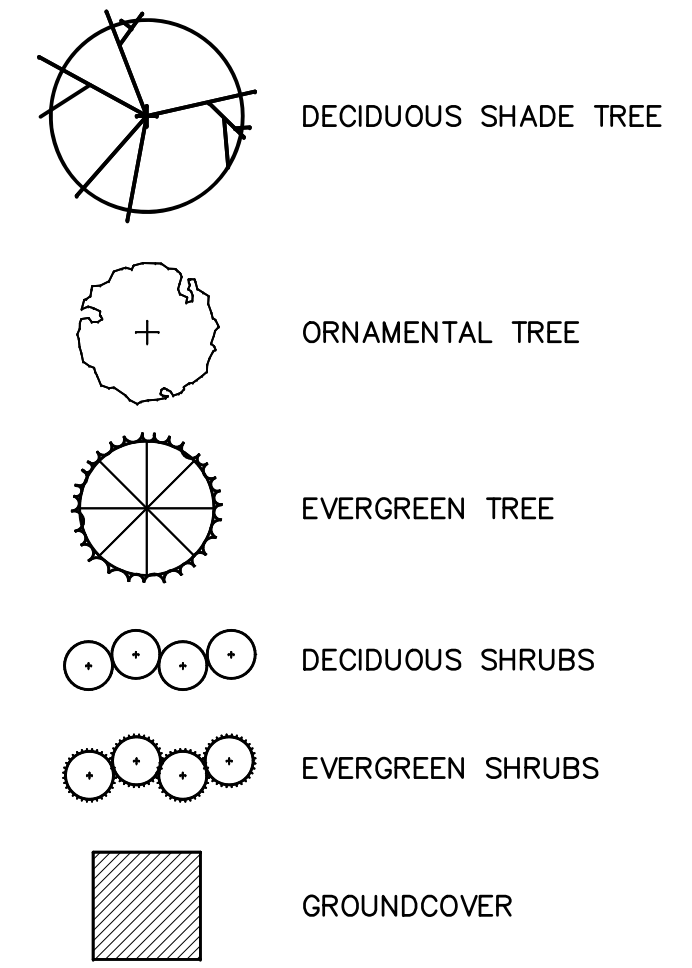
C2.4



PLANT LIST

KEY	QTY.	BOTANICAL NAME	COMMON NAME	PLANTING SIZE		MATURE SIZE		SPACING
				HEIGHT	ROOT	HEIGHT	SPREAD	
DECIDUOUS SHADE TREES								
AR	2	ACER RUBRUM "OCTOBER GLORY"	OCTOBER GLORY RED MAPLE	10' - 12' 2" - 2 1/2" CAL.	B&B	40'-50'	30'-40'	40' O.C.
GB	4	GINKGO BILOBA (MALE SPECIMENS ONLY)	MAIDENHAIR TREE RED MAPLE	10' - 12' 2" - 2 1/2" CAL.	B&B	50'-80'	30'-40'	AS SHOWN
GT	8	GLEDITSIA TRIACANTHOS "SHADEMASTER"	SHADEMASTER HONEYLOCUST	10' - 12' 2" - 2 1/2" CAL.	B&B	50'-75'	25'-40'	40' O.C.
EVERGREEN TREES								
JCS	59	JUNIPERUS CHINENSIS "SPARTAN"	SPARTAN JUNIPER	4' - 6'	B&B	15'-20'	8'-10'	6' O.C.
PO	25	PICEA OMORICA	SERBIAN SPRUCE	8' - 10'	B&B	30'-50'	20'-25'	14' O.C.
PP	6	PICEA PUNGENS	COLORADO BLUE SPRUCE	8' - 10'	B&B	30'-60'	10'-20'	18' O.C.
ORNAMENTAL TREES								
CC	23	CERCIS CANADENSIS	EASTERN REDBUD	5' - 6' 1" - 1 1/2" CAL.	B&B	20'-30'	25'-35'	AS SHOWN (18' O.C. MIN.)
DECIDUOUS SHRUBS								
SJ	57	SPIRAEA JAPONICA "LITTLE PRINCESS"	LITTLE PRINCESS JAPANESE SPIRAEA	18" - 24"	2 GAL.	2' - 3'	2' - 3'	3' O.C.
EVERGREEN SHRUBS								
JH	59	JUNIPERUS HORIZONTALIS "BAR HARBOR"	BAR HARBOR JUNIPER	4" - 6" (36" SPREAD MIN.)	3 GAL.	9" - 12"	5' - 6'	4' O.C.
RM	12	RHODODENDRON MICRONATUM "DELAWARE VALLEY WHITE"	DELAWARE VALLEY WHITE AZALEA	18" - 24"	2 GAL.	3' - 5'	4' - 5'	4' O.C.
RxHC	48	RHODODENDRON X "HINO-CRIMSON"	HINO-CRIMSON AZALEA	18" - 24"	2 GAL.	3' - 5'	3' - 5'	4' O.C.
TO	27	THUJA OCCIDENTALIS "SMARAGO"	EMERALD GREEN ARBORVITAE	6' - 8'	B&B	10' - 15'	3' - 5'	4' O.C.
GROUNDCOVERS								
VM2	90	VINCA MINOR	PERIWINKLE	2" - 4"	50/FLAT	3' - 6"	VARIABLE SPREAD	18" O.C.

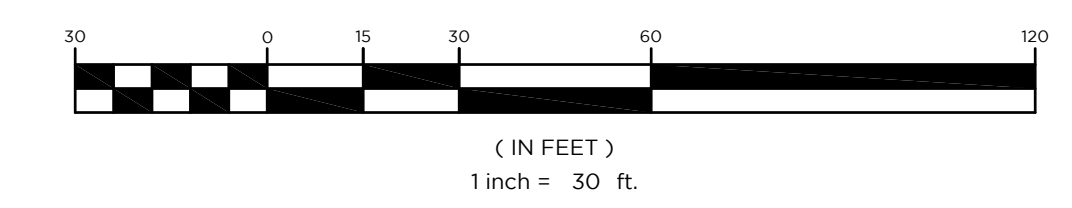
LANDSCAPE KEY




LIGHTING SCHEDULE

TYP	SYMBOL	DESCRIPTION	LAMP	LUMENS	MOUNTING/HALLCAST	LUF	QTY.
A1S	*	ARCHITECTURAL AREA LIGHTING (1) PROV2-36L-510-3K7-1-HS	(1) LEDs	3758	16 FT., 3000K Warm White LEDs, Type 1 Distribution with House Side Shield	0.85	2
A2S	*	ARCHITECTURAL AREA LIGHTING (1) PROV2-36L-510-3K7-2-HS	(1) LEDs	3268	16 FT., 3000K Warm White LEDs, Type 2 Distribution with House Side Shield	0.85	1
A3	*	ARCHITECTURAL AREA LIGHTING (1) PROV2-36L-510-3K7-3	(1) LEDs	5529	16 FT., 3000K Warm White LEDs, Type 3 Distribution	0.85	1
A3S	*	ARCHITECTURAL AREA LIGHTING (1) PROV2-36L-510-3K7-3-HS	(1) LEDs	3157	16 FT., 3000K Warm White LEDs, Type 3 Distribution with House Side Shield	0.85	1
A4	*	ARCHITECTURAL AREA LIGHTING (1) PROV2-36L-510-3K7-4W	(1) LEDs	5564	16 FT., 3000K Warm White LEDs, Type 4 Wide Distribution	0.85	5
A4S	*	ARCHITECTURAL AREA LIGHTING (1) PROV2-36L-510-3K7-4W-HS	(1) LEDs	3253	16 FT., 3000K Warm White LEDs, Type 4 Wide Distribution with House Side Shield	0.85	11
ASW	*	ARCHITECTURAL AREA LIGHTING (1) PROV2-36L-510-3K7-5W	(1) LEDs	5612	16 FT., 3000K Warm White LEDs, Type 5 Wide Distribution	0.85	3
B1	*	ARCHITECTURAL AREA LIGHTING (1) PROS-Y3-2030	(1) LEDs	1904	12 FT., 3000K Warm White LEDs, Type 3 Distribution	0.85	2
B2	*	ARCHITECTURAL AREA LIGHTING (1) PROS-Y2-2030	(1) LEDs	1929	12 FT., 3000K Warm White LEDs, Type 2 Distribution	0.85	1
W1	*	LSI INDUSTRIES (1) XWS-LED-02L-FTW-30-80CRI	(1) LEDs	2175	12 FT., 3000K Warm White LEDs, Forward Throw Wide Distribution	0.85	2
W2	*	URBAN AMBIANCE (1) UAL1503	(1) LEDs	806	6 FT., 3000K Warm White LEDs, SW LED, Bubble, Symmetrical Distribution	0.85	93

GRAPHIC SCALE





BERTIN ENGINEERING

CIVIL • SURVEYING • TRAFFIC • STRUCTURAL • ENVIRONMENTAL • MECHANICAL • LANDSCAPE

66 GLEN AVENUE
GLEN ROCK, NJ 07452
P 201.670.6888
F 201.670.9788
www.bertinengineering.com

CALISTO J. BERTIN, P.E.
PROFESSIONAL ENGINEER
CT LIC. NO. 12950 NJ LIC. NO. 28845
MA LIC. NO. 40595 NY LIC. NO. 60022
NH LIC. NO. 9368 RI LIC. NO. 6694

ERIC M. HOUGH, P.E.
PROFESSIONAL ENGINEER
NJ LIC. NO. 51893

LIGHTING & LANDSCAPE PLAN

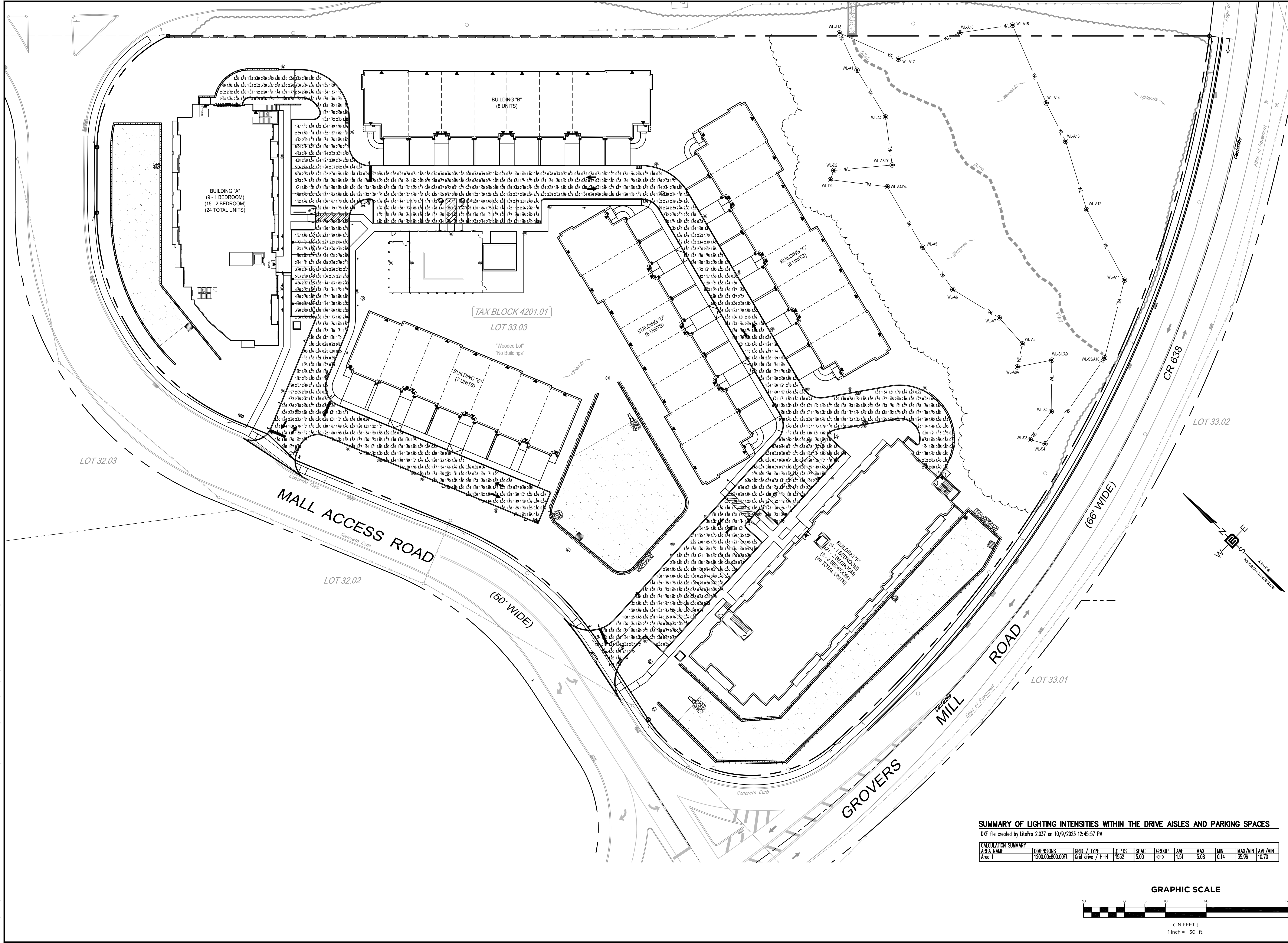
RESIDENTIAL DEVELOPMENT
BLOCK 420101, LOT 33.03
GROVERS MILL ROAD & MALL ACCESS ROAD
TOWNSHIP OF LAWRENCE
MERCER COUNTY, NEW JERSEY

TRICONE
2525 US-130 SUITE B4
CRANBURY, NJ 08512

CERTIFICATE OF AUTHORIZATION
24GA28068900 / 21MH00002800

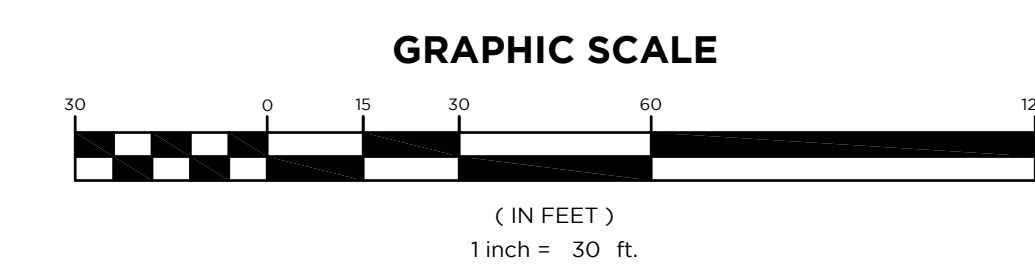
DRAWN BY: VL CHECKED BY: C.J.B.
SCALE: 1" = 30' PROJECT NO: 21-210
DATE: 10-12-23 REVISION NO: 2
DRAWING NO: C2.5

© Bertin Engineering Associates, Inc. Memo1BE Job Files\2021\1210 Lawrence\Design\02\Civil\dwg\1210-PL\working.dwg Jun 14, 2024 - 9:23am ehough



SUMMARY OF LIGHTING INTENSITIES WITHIN THE DRIVE AISLES AND PARKING SPACES
 DWG file created by LitePro 2.037 on 10/9/2023 12:45:57 PM

CALCULATION SUMMARY										
AREA NAME	DIMENSIONS	GRID / TYPE	L.F. PTS	SPAC	GROUP	AVE	MAX	MIN	MAX/MIN	AVG/MIN
Area 1	1200.00x800.00FT	Grid drive / H-H	1552	5.00	<=	1.51	5.08	0.14	35.96	10.70



66 GLEN AVENUE
 GLEN ROCK, NJ 07452
 P 201.670.6888
 F 201.670.9788
 www.bertinengineering.com

BERTIN ENGINEERING

CIVIL • SURVEYING • TRAFFIC • STRUCTURAL • ENVIRONMENTAL • MECHANICAL • LANDSCAPE

CALISTO J. BERTIN, P.E.
 PROFESSIONAL ENGINEER
 CT LIC. NO. 12950 NJ LIC. NO. 28845
 MA LIC. NO. 40595 NY LIC. NO. 60022
 NH LIC. NO. 9368 RI LIC. NO. 6694

[Signature]

ERIC M. HOUGH, P.E.
 PROFESSIONAL ENGINEER
 NJ LIC. NO. 51893

NO.	DATE	REVISION
2	6-13-24	REVISED LIGHTING INTENSITIES PER REVISED SITE LAYOUT
1	3-19-24	REVISED AS PER SITE PLAN

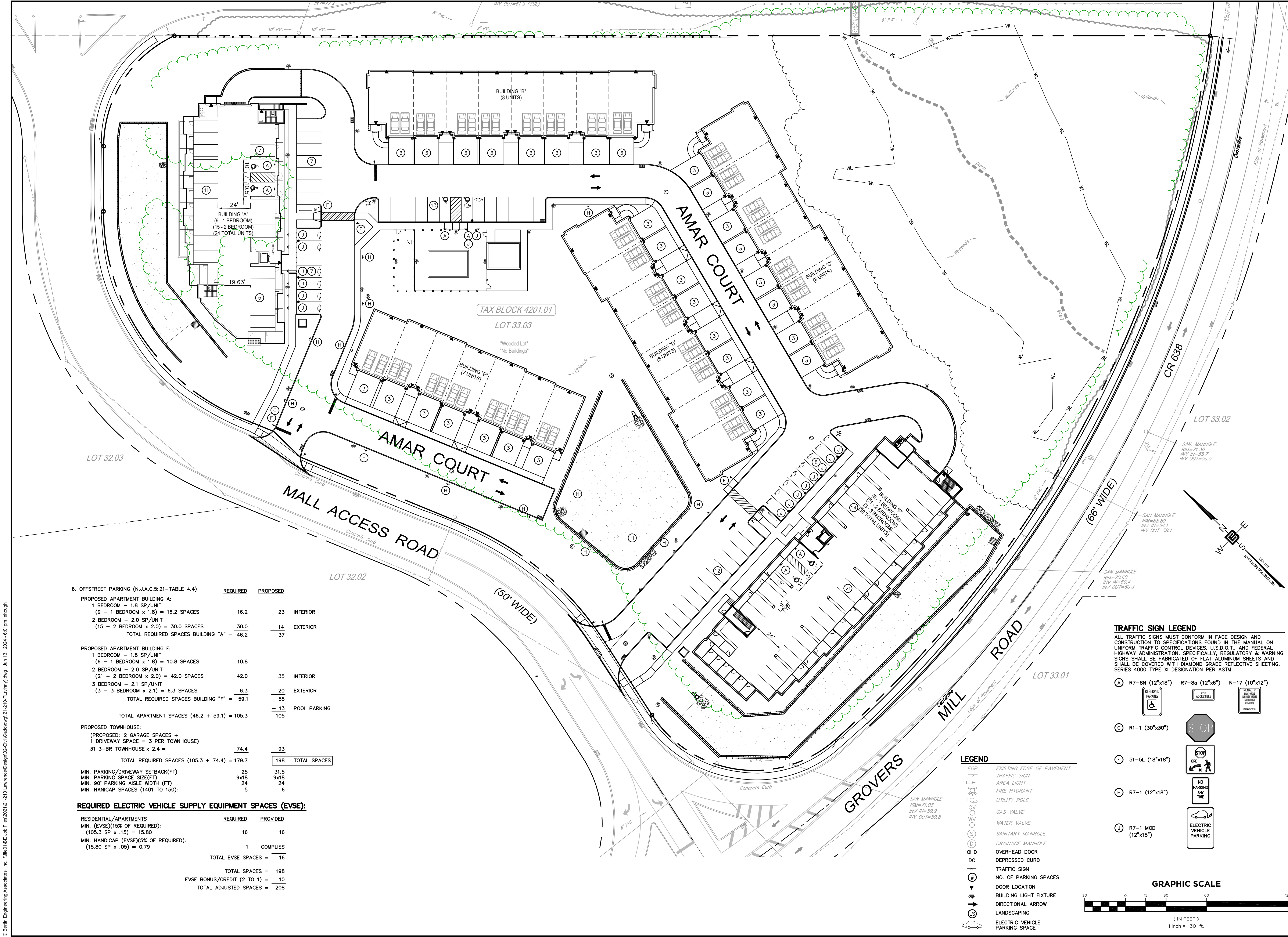
DRAWING TITLE
LIGHTING INTENSITIES PLAN

PROJECT
RESIDENTIAL DEVELOPMENT
 BLOCK 4201.01, LOT 33.03
 GROVERS MILL ROAD & MALL ACCESS ROAD
 TOWNSHIP OF LAWRENCE
 MERCER COUNTY, NEW JERSEY

CLIENT
TRICONE
 2525 US-130 SUITE B4
 CRANBURY, NJ 08512

DRAWN BY VL	CHECKED BY C.J.B.
SCALE 1" = 30'	PROJECT NO. 21-210
DATE 10-12-23	REVISION NO. 2
DRAWING NO.	

C2.6



6. OFFSTREET PARKING (N.J.A.C.S.21-TABLE 4.4)

	REQUIRED	PROPOSED	
PROPOSED APARTMENT BUILDING A:			
1 BEDROOM - 1.8 SP/UNIT			INTERIOR
(9 - 1 BEDROOM x 1.8) = 16.2 SPACES	16.2	23	
2 BEDROOM - 2.0 SP/UNIT			EXTERIOR
(15 - 2 BEDROOM x 2.0) = 30.0 SPACES	30.0	14	
TOTAL REQUIRED SPACES BUILDING "A" = 46.2		37	
PROPOSED APARTMENT BUILDING F:			
1 BEDROOM - 1.8 SP/UNIT			INTERIOR
(6 - 1 BEDROOM x 1.8) = 10.8 SPACES	10.8	35	
2 BEDROOM - 2.0 SP/UNIT			EXTERIOR
(21 - 2 BEDROOM x 2.0) = 42.0 SPACES	42.0	20	
3 BEDROOM - 2.1 SP/UNIT			EXTERIOR
(3 - 3 BEDROOM x 2.1) = 6.3 SPACES	6.3	55	
TOTAL REQUIRED SPACES BUILDING "F" = 59.1		55	
		+ 13	POOL PARKING
TOTAL APARTMENT SPACES (46.2 + 59.1) = 105.3		105	
PROPOSED TOWNHOUSE:			
(PROPOSED: 2 GARAGE SPACES + 1 DRIVEWAY SPACE = 3 PER TOWNHOUSE)			
31 3-BR TOWNHOUSE x 2.4 =	74.4	93	
TOTAL REQUIRED SPACES (105.3 + 74.4) = 179.7		198	TOTAL SPACES
MIN. PARKING/DRIVEWAY SETBACK(FT)	25	31.5	
MIN. PARKING SPACE SIZE(FT)	9x18	9x18	
MIN. 90° PARKING AISLE WIDTH (FT)	24	24	
MIN. HANICAP SPACES (1401 TO 150):	5	6	

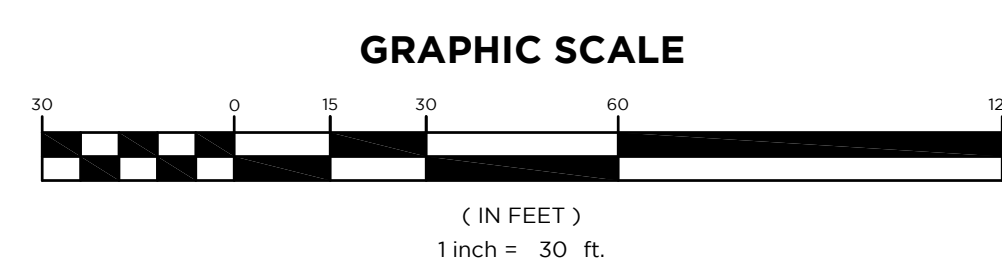
REQUIRED ELECTRIC VEHICLE SUPPLY EQUIPMENT SPACES (EVSE):

	REQUIRED	PROVIDED
RESIDENTIAL/APARTMENTS		
MIN. (EVSE)(15% OF REQUIRED):		
(105.3 SP x .15) = 15.80	16	16
MIN. HANICAP (EVSE)(5% OF REQUIRED):		
(15.80 SP x .05) = 0.79	1	COMPLIES
TOTAL EVSE SPACES =	16	
TOTAL SPACES =	198	
EVSE BONUS/CREDIT (2 to 1) =	10	
TOTAL ADJUSTED SPACES =	208	

TRAFFIC SIGN LEGEND
 ALL TRAFFIC SIGNS MUST CONFORM IN FACE DESIGN AND CONSTRUCTION TO SPECIFICATIONS FOUND IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, U.S.D.O.T., AND FEDERAL HIGHWAY ADMINISTRATION. SPECIFICALLY, REGULATORY & WARNING SIGNS SHALL BE FABRICATED OF FLAT ALUMINUM SHEETS AND SHALL BE COVERED WITH DIAMOND GRADE REFLECTIVE SHEETING, SERIES 4000 TYPE XI DESIGNATION PER ASTM.

- (A) R7-8N (12"x18") RESERVED PARKING
- (B) R7-8a (12"x6") NO ACCESSIBLE
- (C) R1-1 (30"x30") STOP
- (D) R7-1 (12"x18") STOP HERE TO PROCEED
- (E) 51-5L (18"x18") NO PARKING ANY TIME
- (F) R7-1 (12"x18") STOP HERE TO PROCEED
- (G) R7-1 MOD (12"x18") ELECTRIC VEHICLE PARKING

- LEGEND**
- EOP EXISTING EDGE OF PAVEMENT
 - TS TRAFFIC SIGN
 - AL AREA LIGHT
 - FH FIRE HYDRANT
 - UP UTILITY POLE
 - GV GAS VALVE
 - WV WATER VALVE
 - SM SANITARY MANHOLE
 - DM DRAINAGE MANHOLE
 - OD OVERHEAD DOOR
 - DC DEPRESSED CURB
 - TS TRAFFIC SIGN
 - NO. OF PARKING SPACES
 - DL DOOR LOCATION
 - BLF BUILDING LIGHT FIXTURE
 - DA DIRECTIONAL ARROW
 - LAN LANDSCAPING
 - EV ELECTRIC VEHICLE
 - PS PARKING SPACE



66 GLEN AVENUE
 GLEN ROCK, NJ 07452
 P 201.670.6888
 F 201.670.9788
 www.bertinengineering.com



CALISTO J. BERTIN, P.E.
 PROFESSIONAL ENGINEER
 CT LIC. NO. 12950 NJ LIC. NO. 28845
 MA LIC. NO. 40595 NY LIC. NO. 60022
 NH LIC. NO. 9368 RI LIC. NO. 6694

ERIC M. HOUGH, P.E.
 PROFESSIONAL ENGINEER
 NJ LIC. NO. 51893

NO.	DATE	REVISION
1	6-13-24	REVISED AS PER SITE PLAN
2	6-13-24	REVISED AS PER SITE PLAN

PARKING PLAN

PROJECT
RESIDENTIAL DEVELOPMENT
 BLOCK 4201.01, LOT 33.03
 GROVERS MILL ROAD & MALL ACCESS ROAD
 TOWNSHIP OF LAWRENCE
 MERCER COUNTY, NEW JERSEY

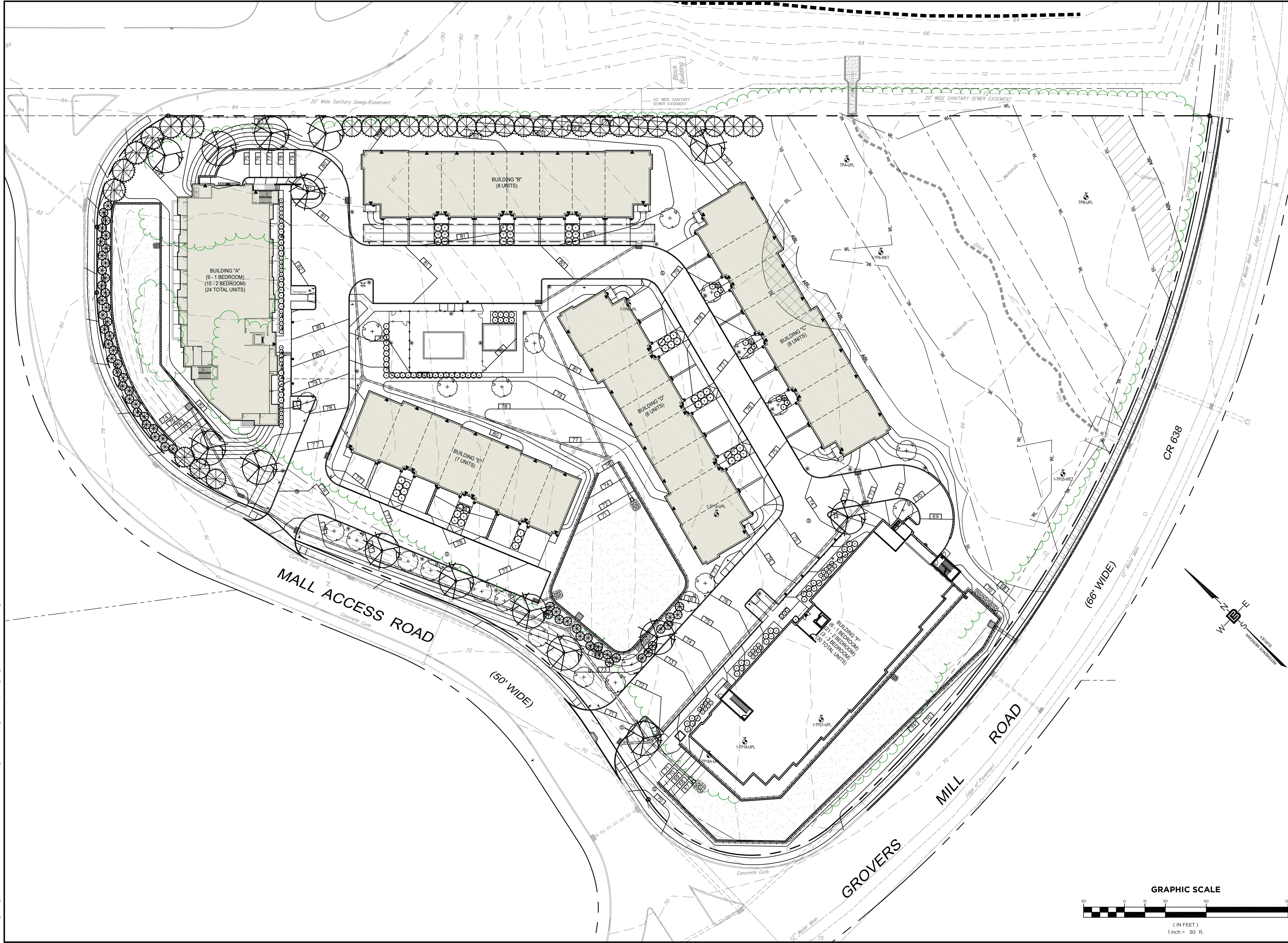
CLIENT
TRICONE
 2525 US-130 SUITE B4
 CRANBURY, NJ 08512

CERTIFICATE OF AUTHORIZATION
 24GA28068900 / 21MH00002800
 DRAWN BY: VL CHECKED BY: C.J.B.
 SCALE: 1" = 30' PROJECT NO: 21-210
 DATE: 10-12-23 REVISION NO: 2
 DRAWING NO:

C2.7

© Bertin Engineering Associates, Inc. M:\01018E Job Files\2021\21-210-PL(Vimny).dwg Jun 13, 2024 - 6:01pm etough

© Bertin Engineering Associates, Inc. Memo1BE Job Files\2021\21-210-Lawrence\Design\02-Civil\dwg\21-210-PL-working.dwg Jun 14, 2024 - 9:24am ehough



66 GLEN AVENUE
GLEN ROCK, NJ 07452
P 201.670.6688
F 201.670.9788
www.bertinengineering.com



CALISTO J. BERTIN, P.E.
PROFESSIONAL ENGINEER
CT LIC. NO. 12950 NJ LIC. NO. 28845
MA LIC. NO. 40595 NY LIC. NO. 60022
NH LIC. NO. 9368 RI LIC. NO. 6694

[Signature]

ERIC M. HOUGH, P.E.
PROFESSIONAL ENGINEER
NJ LIC. NO. 51893

NO.	DATE	REVISION
1	6-13-24	REVISED AS PER SITE PLAN

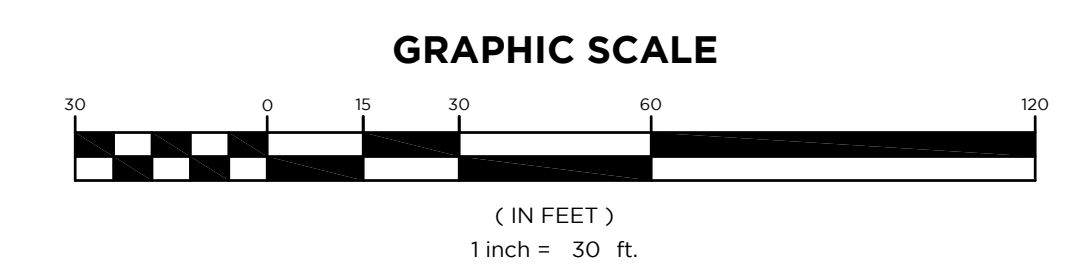
DRAWING TITLE
GRADING & LANDSCAPE PLAN

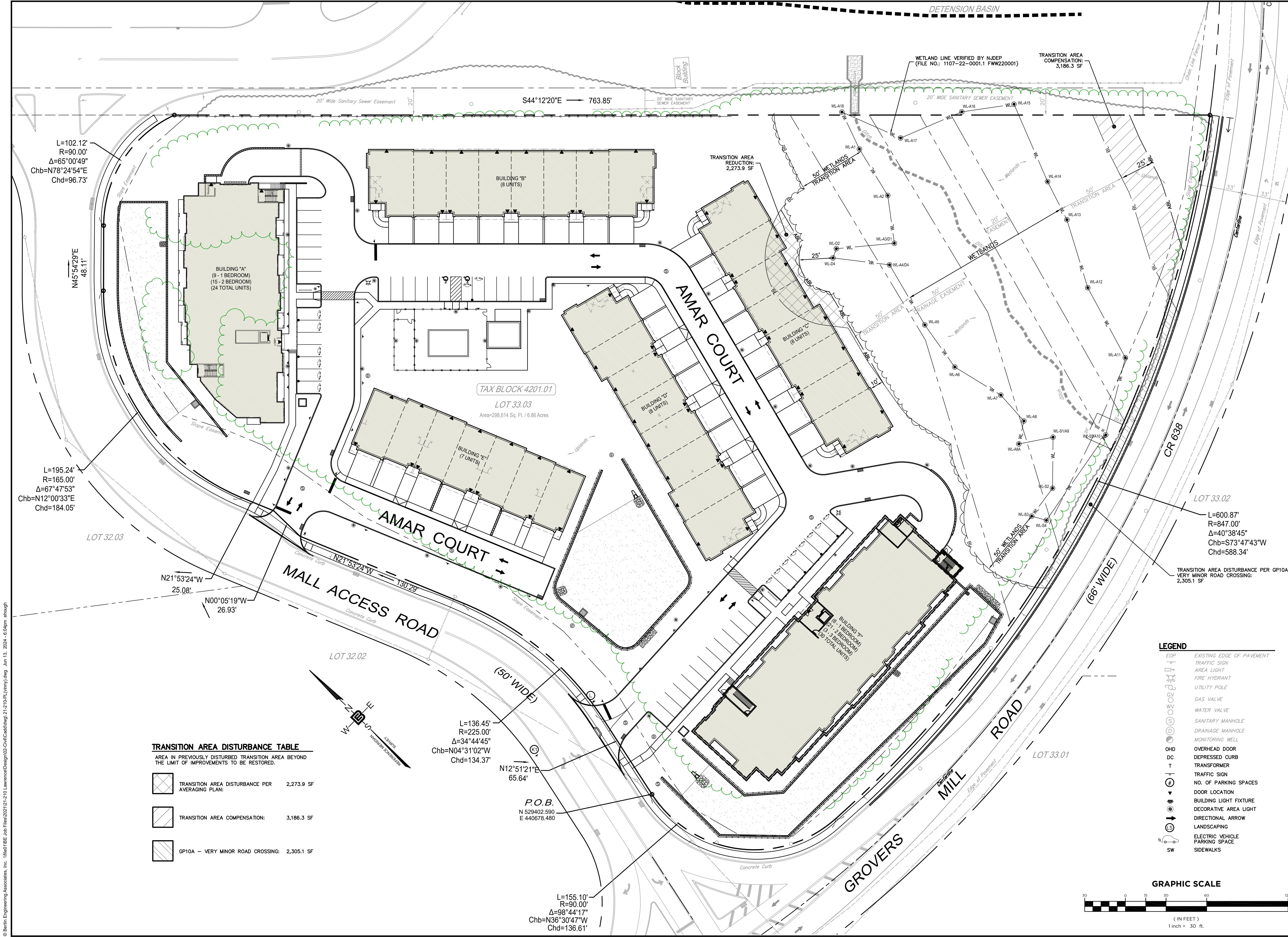
PROJECT
RESIDENTIAL DEVELOPMENT
BLOCK 4201.01, LOT 33.03
GROVERS MILL ROAD & MALL ACCESS ROAD
TOWNSHIP OF LAWRENCE
MERCER COUNTY, NEW JERSEY

CLIENT
TRICONE
2525 US-130 SUITE B4
CRANBURY, NJ 08512

DRAWN BY C.B. JR		CHECKED BY C.J.B	
SCALE 1" = 30'		PROJECT NO. 21-210	
DATE 3-19-24		REVISION NO. 1	

DRAWING NO. **C2.8**





L=102.12'
R=90.00'
Δ=65°00'49"
Chb=N78°24'54"E
Chd=96.73'

L=195.24'
R=165.00'
Δ=67°47'53"
Chb=N12°00'33"E
Chd=184.05'

TRANSITION AREA DISTURBANCE TABLE
AREA IN PREVIOUSLY DISTURBED TRANSITION AREA BEYOND THE LIMIT OF IMPROVEMENTS TO BE RESTORED.

	TRANSITION AREA DISTURBANCE PER AVERAGING PLAN:	2,273.9 SF
	TRANSITION AREA COMPENSATION:	3,186.3 SF
	GP10A - VERY MINOR ROAD CROSSING:	2,305.1 SF

L=136.45'
R=225.00'
Δ=34°44'45"
Chb=N04°31'02"W
Chd=134.37'

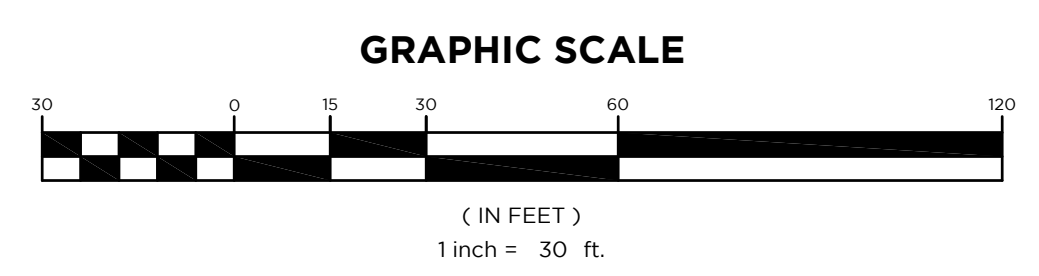
P.O.B.
N 529402.590
E 440678.480

L=155.10'
R=90.00'
Δ=98°44'17"
Chb=N36°30'47"W
Chd=136.61'

LOT 33.02
L=600.87'
R=847.00'
Δ=40°38'45"
Chb=S73°47'43"W
Chd=588.34'

TRANSITION AREA DISTURBANCE PER GP10A VERY MINOR ROAD CROSSING: 2,305.1 SF

- LEGEND**
- EOP EXISTING EDGE OF PAVEMENT
 - TRAFFIC SIGN
 - AREA LIGHT
 - FIRE HYDRANT
 - UTILITY POLE
 - GAS VALVE
 - WATER VALVE
 - SANITARY MANHOLE
 - DRAINAGE MANHOLE
 - MONITORING WELL
 - OHD OVERHEAD DOOR
 - DC DEPRESSED CURB
 - T TRANSFORMER
 - TRAFFIC SIGN
 - NO. OF PARKING SPACES
 - DOOR LOCATION
 - BUILDING LIGHT FIXTURE
 - DECORATIVE AREA LIGHT
 - DIRECTIONAL ARROW
 - LANDSCAPING
 - ELECTRIC VEHICLE PARKING SPACE
 - SW SIDEWALKS



BERTIN ENGINEERING

CIVIL • SURVEYING • TRAFFIC • STRUCTURAL • ENVIRONMENTAL • MECHANICAL • LANDSCAPE

66 GLEN AVENUE
GLEN ROCK, NJ 07452
P 201.670.6688
F 201.670.9788
www.bertinengineering.com

CALISTO J. BERTIN, P.E.
PROFESSIONAL ENGINEER
CT LIC. NO. 12950 NJ LIC. NO. 28845
MA LIC. NO. 40595 NY LIC. NO. 60022
NH LIC. NO. 9368 RI LIC. NO. 6694

ERIC M. HOUGH, P.E.
PROFESSIONAL ENGINEER
NJ LIC. NO. 51893

WETLANDS PERMITTING PLAN

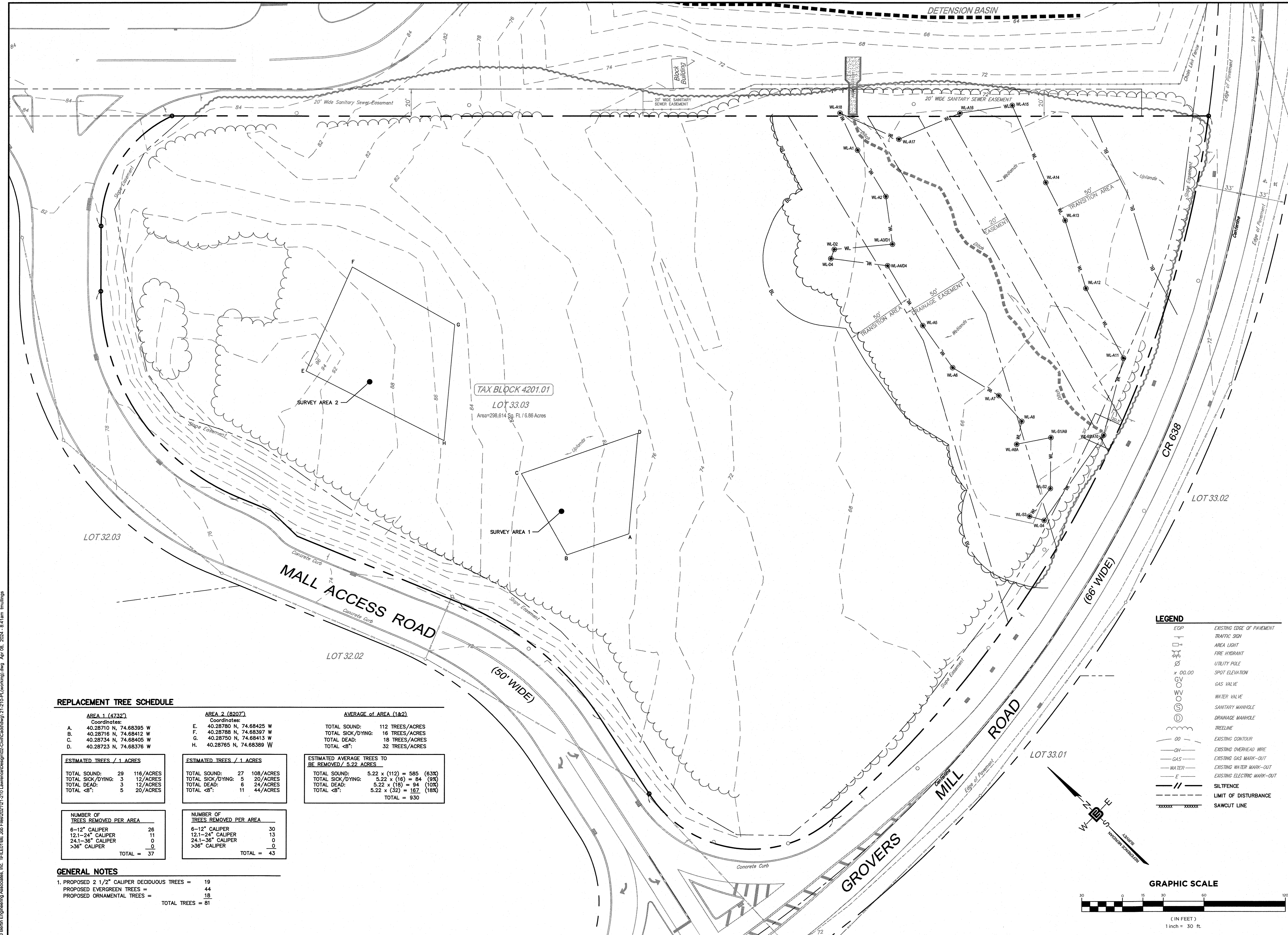
RESIDENTIAL DEVELOPMENT
BLOCK 4201.01, LOT 33.03
GROVERS MILL ROAD & MALL ACCESS ROAD
TOWNSHIP OF LAWRENCE
MERCER COUNTY, NEW JERSEY

TRICONE
2525 US-130 SUITE B4
CRANBURY, NJ 08512

CERTIFICATE OF AUTHORIZATION
24GA28068900 / 21MH00002800

DRAWN BY M.B.L.	CHECKED BY C.J.B.
SCALE 1" = 30'	PROJECT NO. 21-210
DATE 3-6-24	REVISION NO. 2

DRAWING NO. **C2.9**



TAX BLOCK 4201.01
 LOT 33.03
 Area=298,614 Sq. Ft. / 6.86 Acres

REPLACEMENT TREE SCHEDULE

AREA 1 (4732')		AREA 2 (8207')		AVERAGE of AREA (1&2)	
Coordinates:		Coordinates:		TOTAL SOUND:	
A.	40,28710 N, 74,68395 W	E.	40,28780 N, 74,68425 W	TOTAL SOUND:	112 TREES/ACRES
B.	40,28716 N, 74,68412 W	F.	40,28788 N, 74,68397 W	TOTAL SICK/DYING:	16 TREES/ACRES
C.	40,28734 N, 74,68405 W	G.	40,28750 N, 74,68413 W	TOTAL DEAD:	18 TREES/ACRES
D.	40,28723 N, 74,68376 W	H.	40,28765 N, 74,68389 W	TOTAL <8":	32 TREES/ACRES

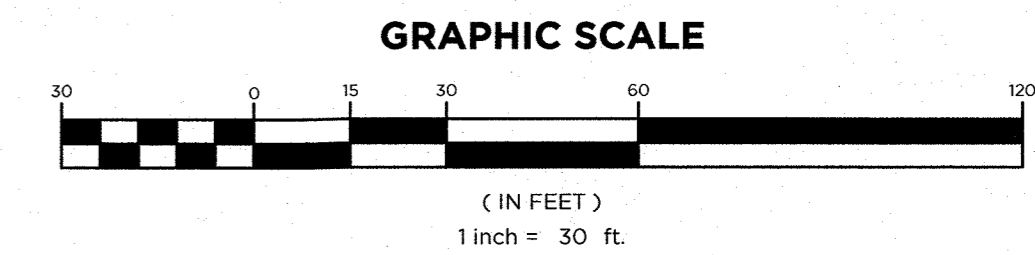
ESTIMATED TREES / 1 ACRES		ESTIMATED TREES / 1 ACRES		ESTIMATED AVERAGE TREES TO BE REMOVED / 5.22 ACRES	
TOTAL SOUND:	29 116/ACRES	TOTAL SOUND:	27 108/ACRES	TOTAL SOUND:	5.22 x (112) = 585 (63%)
TOTAL SICK/DYING:	3 12/ACRES	TOTAL SICK/DYING:	5 20/ACRES	TOTAL SICK/DYING:	5.22 x (16) = 84 (9%)
TOTAL DEAD:	3 12/ACRES	TOTAL DEAD:	6 24/ACRES	TOTAL DEAD:	5.22 x (18) = 94 (10%)
TOTAL <8":	5 20/ACRES	TOTAL <8":	11 44/ACRES	TOTAL <8":	5.22 x (32) = 167 (18%)
NUMBER OF TREES REMOVED PER AREA		NUMBER OF TREES REMOVED PER AREA		TOTAL = 930	
6-12" CALIPER	26	6-12" CALIPER	30		
12.1-24" CALIPER	11	12.1-24" CALIPER	13		
24.1-36" CALIPER	0	24.1-36" CALIPER	0		
>36" CALIPER	0	>36" CALIPER	0		
TOTAL = 37		TOTAL = 43			

GENERAL NOTES

- 1. PROPOSED 2 1/2" CALIPER DECIDUOUS TREES = 19
- PROPOSED EVERGREEN TREES = 44
- PROPOSED ORNAMENTAL TREES = 18
- TOTAL TREES = 81

LEGEND

- EQP EXISTING EDGE OF PAVEMENT
- TRAFFIC SIGN
- AREA LIGHT
- FIRE HYDRANT
- UTILITY POLE
- SPOT ELEVATION
- GAS VALVE
- WATER VALVE
- SANITARY MANHOLE
- DRAINAGE MANHOLE
- TREELINE
- EXISTING CONTOUR
- OH EXISTING OVERHEAD WIRE
- GAS EXISTING GAS MARK-OUT
- WATER EXISTING WATER MARK-OUT
- E EXISTING ELECTRIC MARK-OUT
- SILT FENCE
- LIMIT OF DISTURBANCE
- SAWCUT LINE



BERTIN ENGINEERING

CIVIL • SURVEYING • TRAFFIC • ENVIRONMENTAL • MECHANICAL • LANDSCAPE

66 GLEN AVENUE
 GLEN ROCK, NJ 07452
 P 201.670.9788
 F 201.670.9788
 www.bertinengineering.com

CALISTO J. BERTIN, P.E.
 PROFESSIONAL ENGINEER
 CT LIC. NO. 12950 NJ LIC. NO. 28845
 MA LIC. NO. 40595 NY LIC. NO. 60022
 NH LIC. NO. 9368 RI LIC. NO. 6694

ERIC M. HOUGH, P.E.
 PROFESSIONAL ENGINEER
 N.J. LIC. NO. 51693

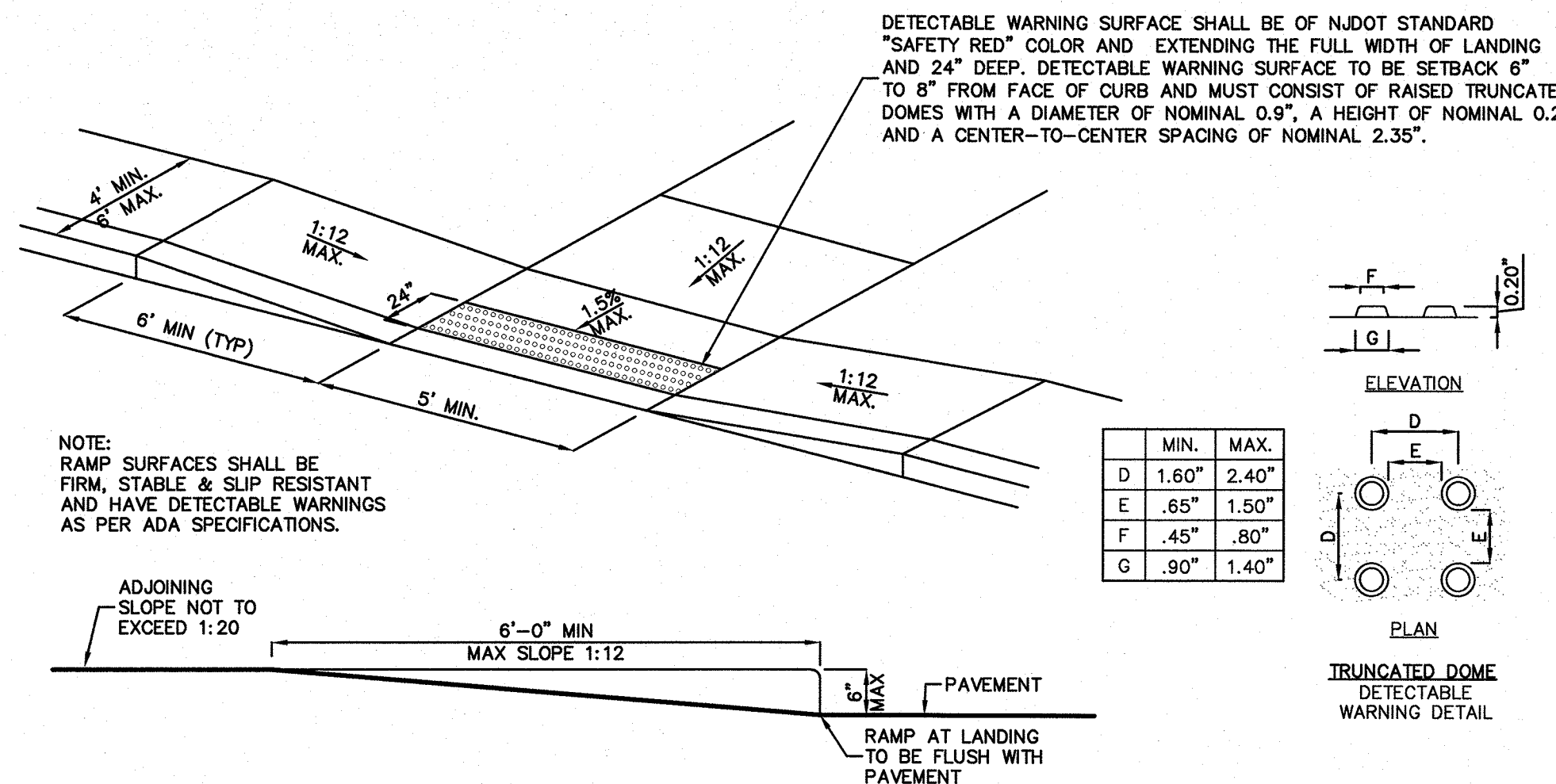
TREE REMOVAL PLAN

PROJECT
RESIDENTIAL DEVELOPMENT
 BLOCK 4201.01, LOT 33.03
 GROVERS MILL ROAD & MALL ACCESS ROAD
 TOWNSHIP OF LAWRENCE
 MERCER COUNTY, NEW JERSEY

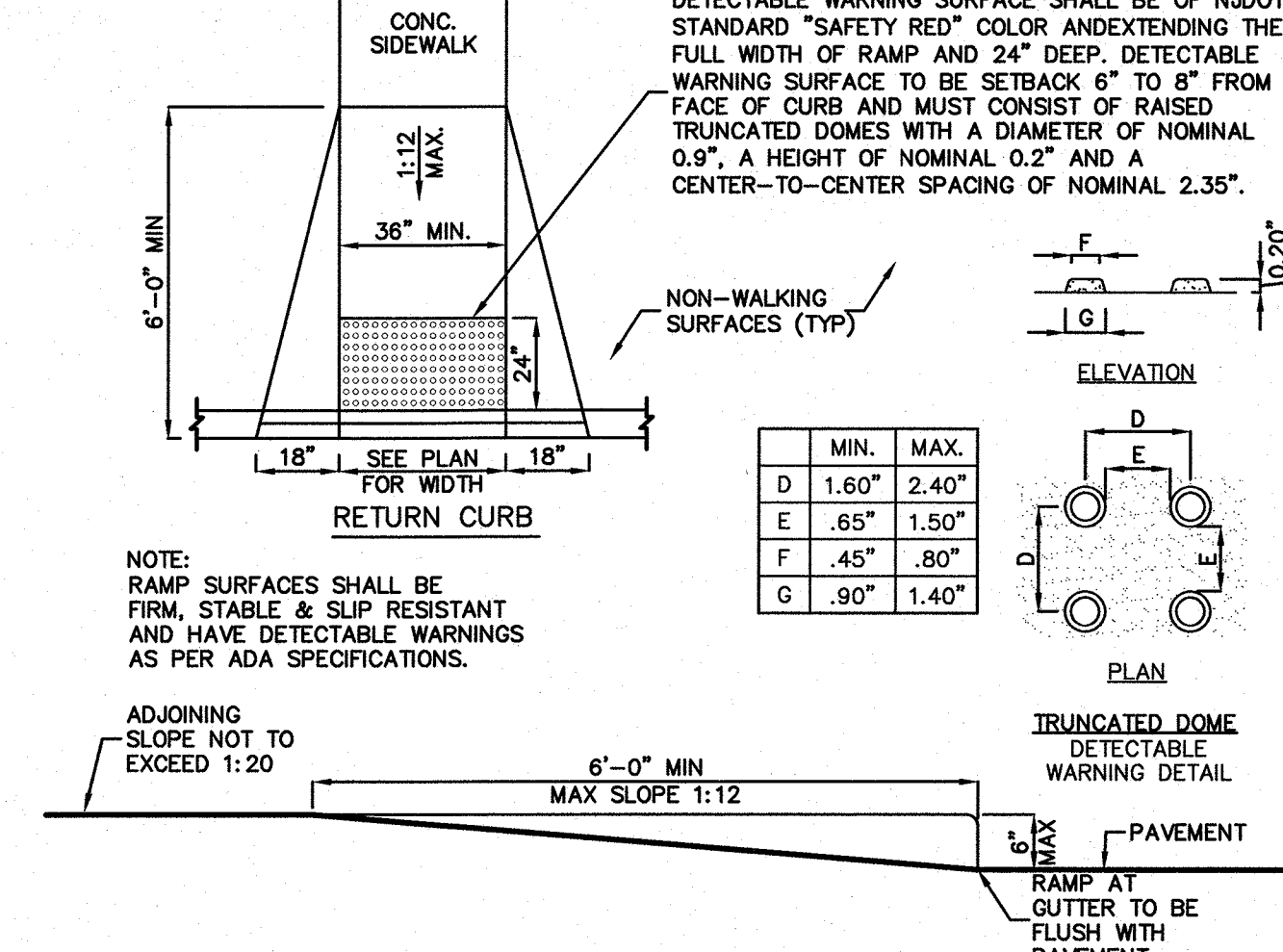
CLIENT
TRICONE
 2525 US-130 SUITE B4
 CRANBURY, NJ 08512

CERTIFICATE OF AUTHORIZATION
 24GA28068900 / 21MH00002800

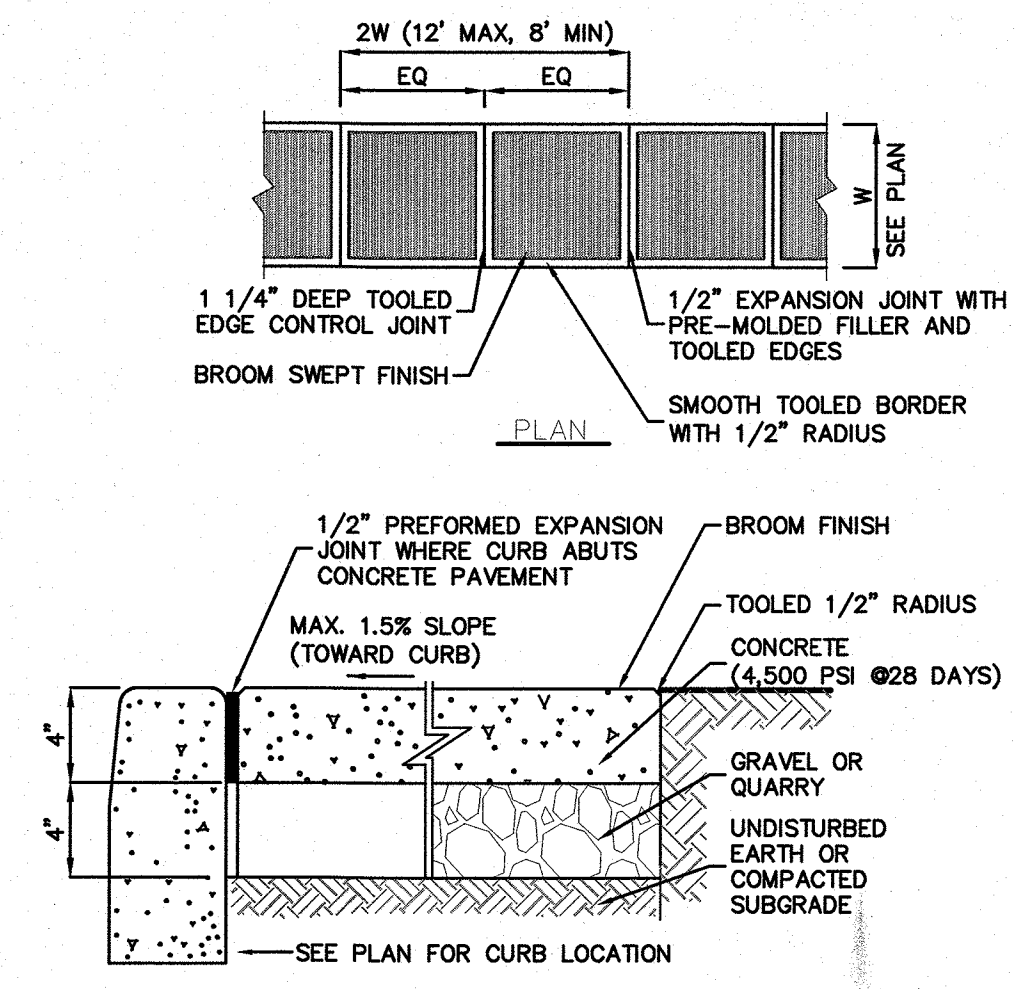
DRAWN BY: VL	CHECKED BY: C.J.B.
SCALE: 1" = 30'	PROJECT NO.: 21-210
DATE: 3-19-24	REVISION NO.: 0
DRAWING NO.: C2.10	



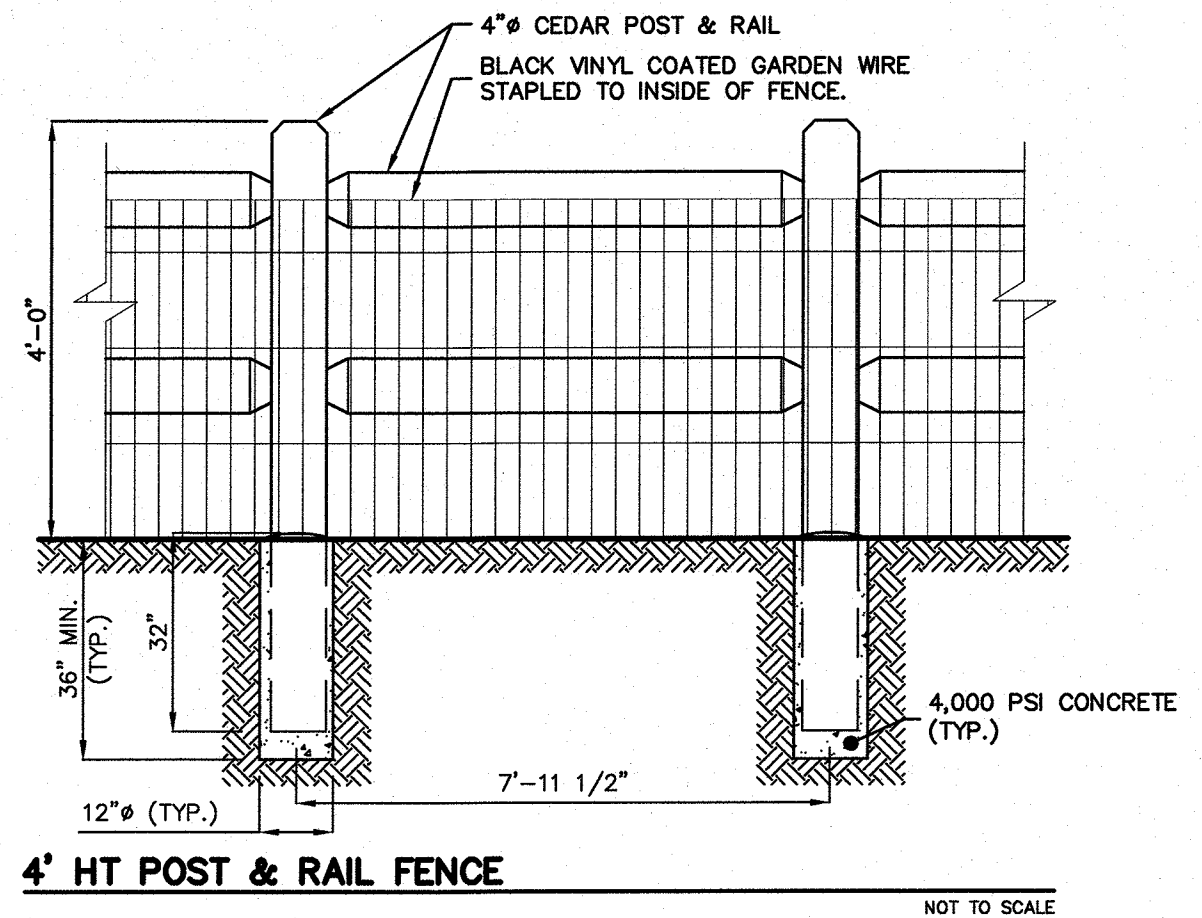
CONCRETE CURB RAMP (ADA REQUIREMENTS)



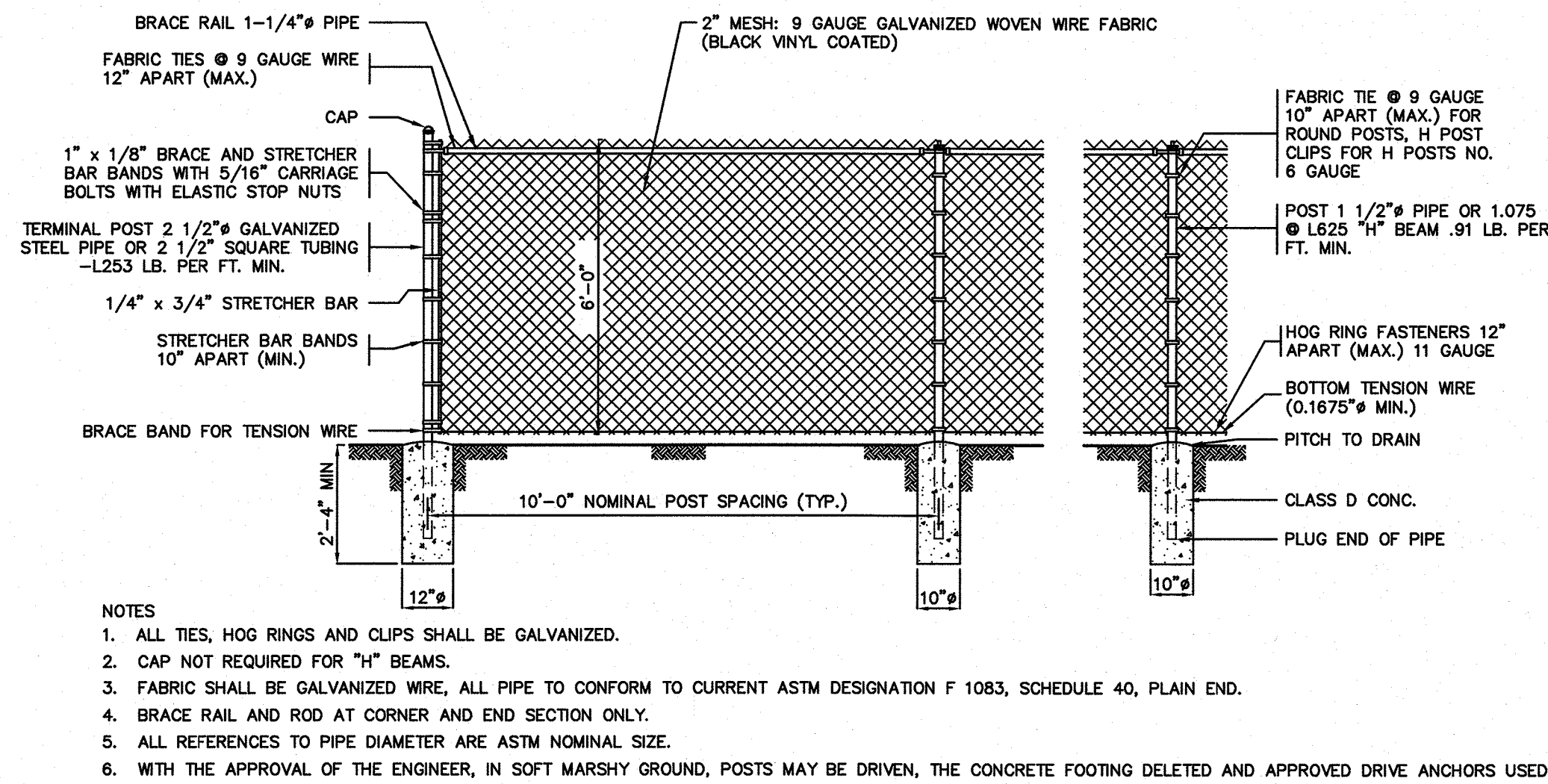
CONCRETE CURB RAMP (ADA REQUIREMENTS)



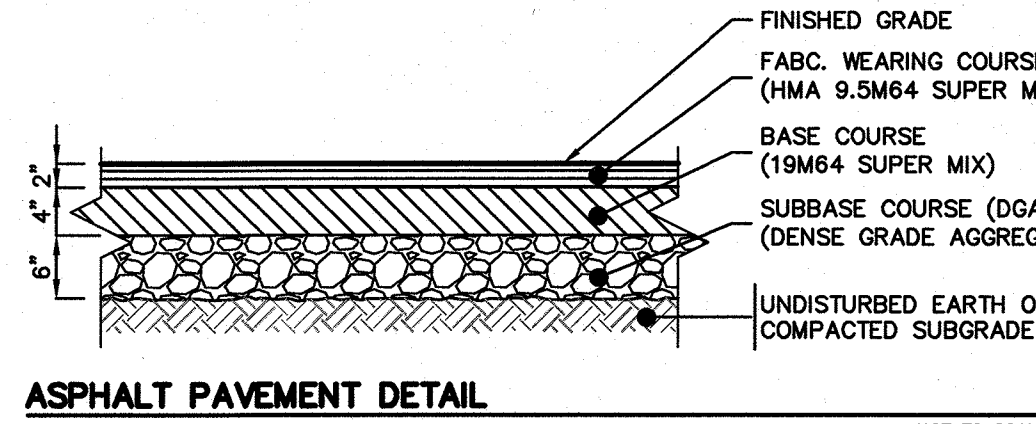
CONCRETE SIDEWALK DETAIL



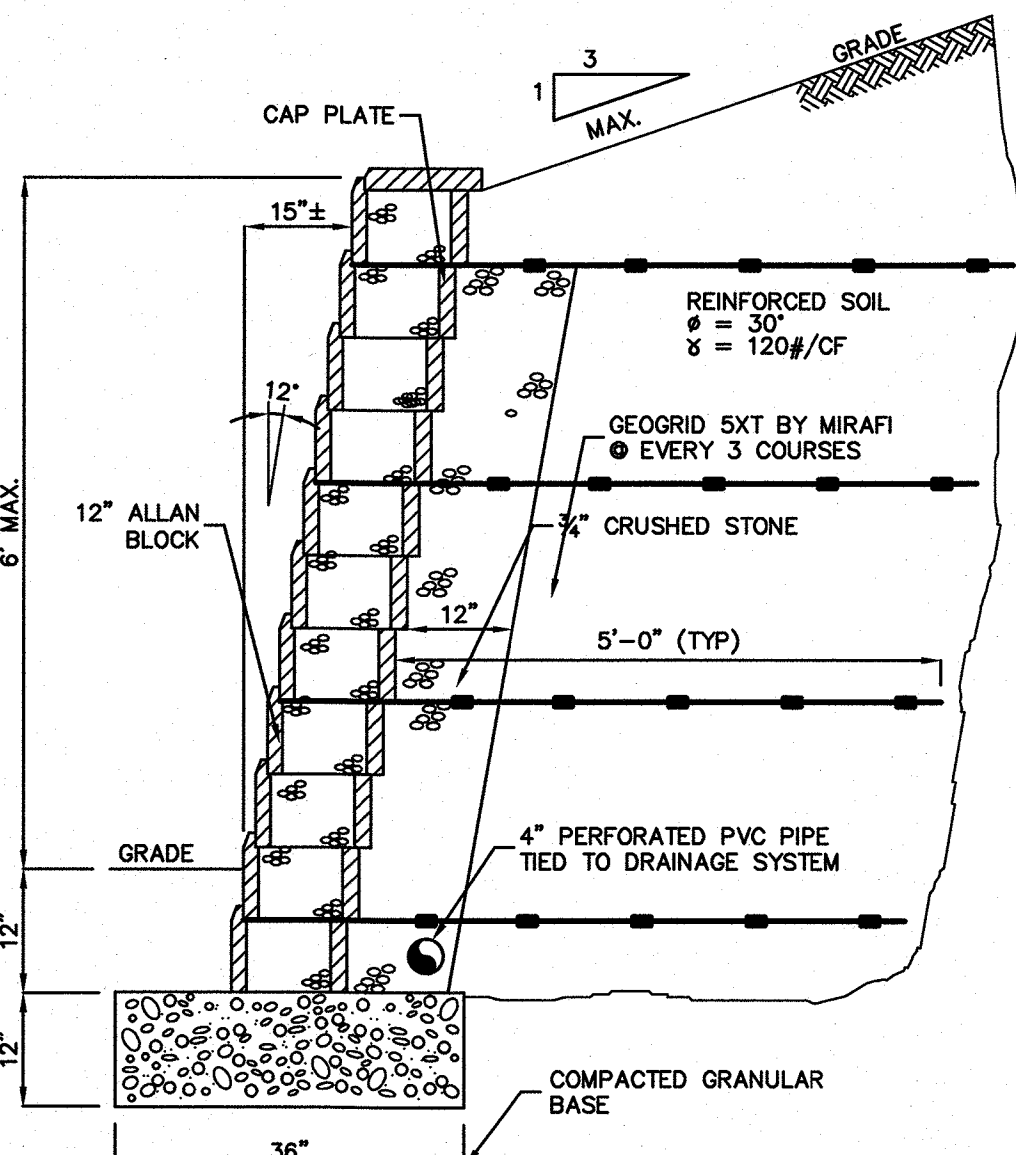
4' HT POST & RAIL FENCE



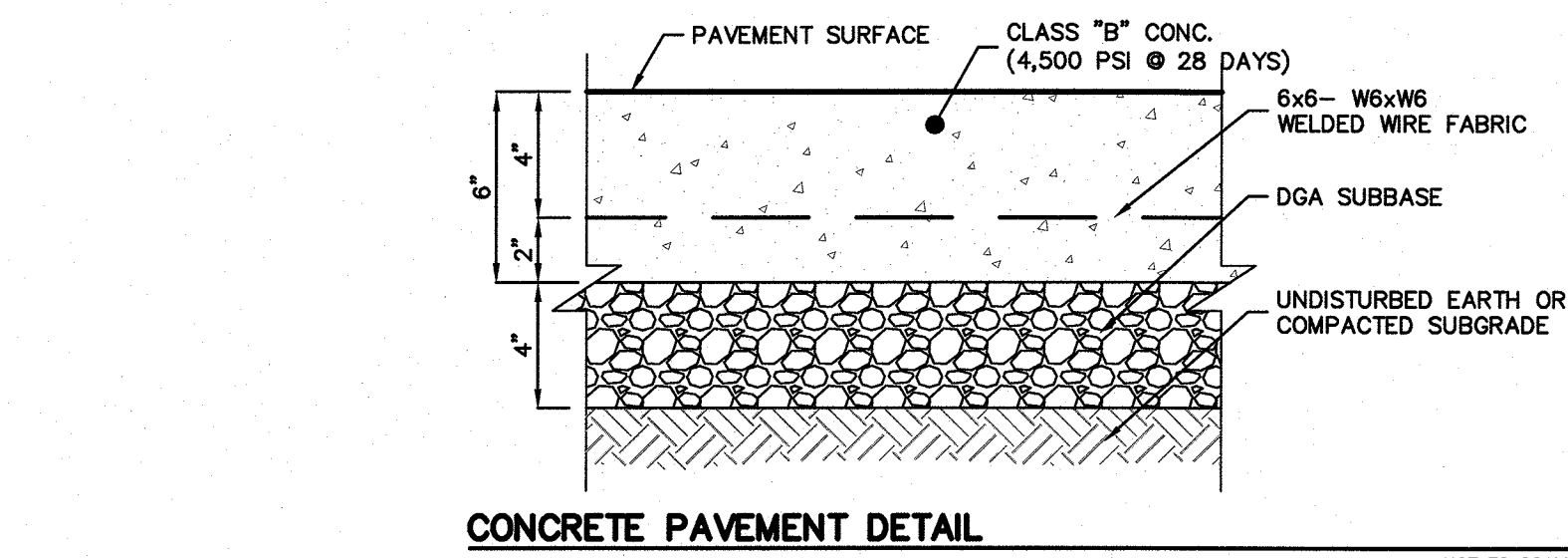
CHAIN LINK FENCE DETAIL



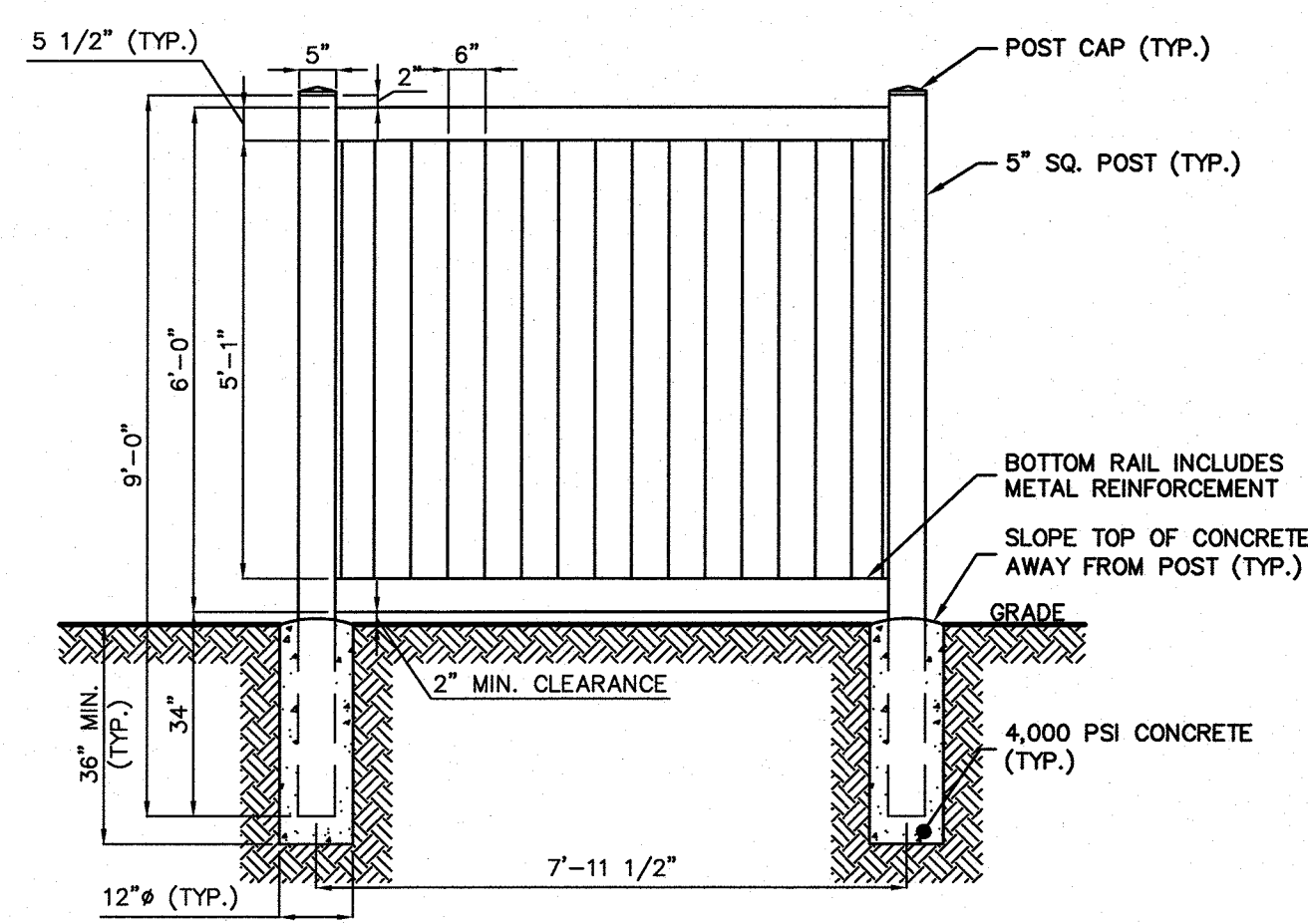
ASPHALT PAVEMENT DETAIL



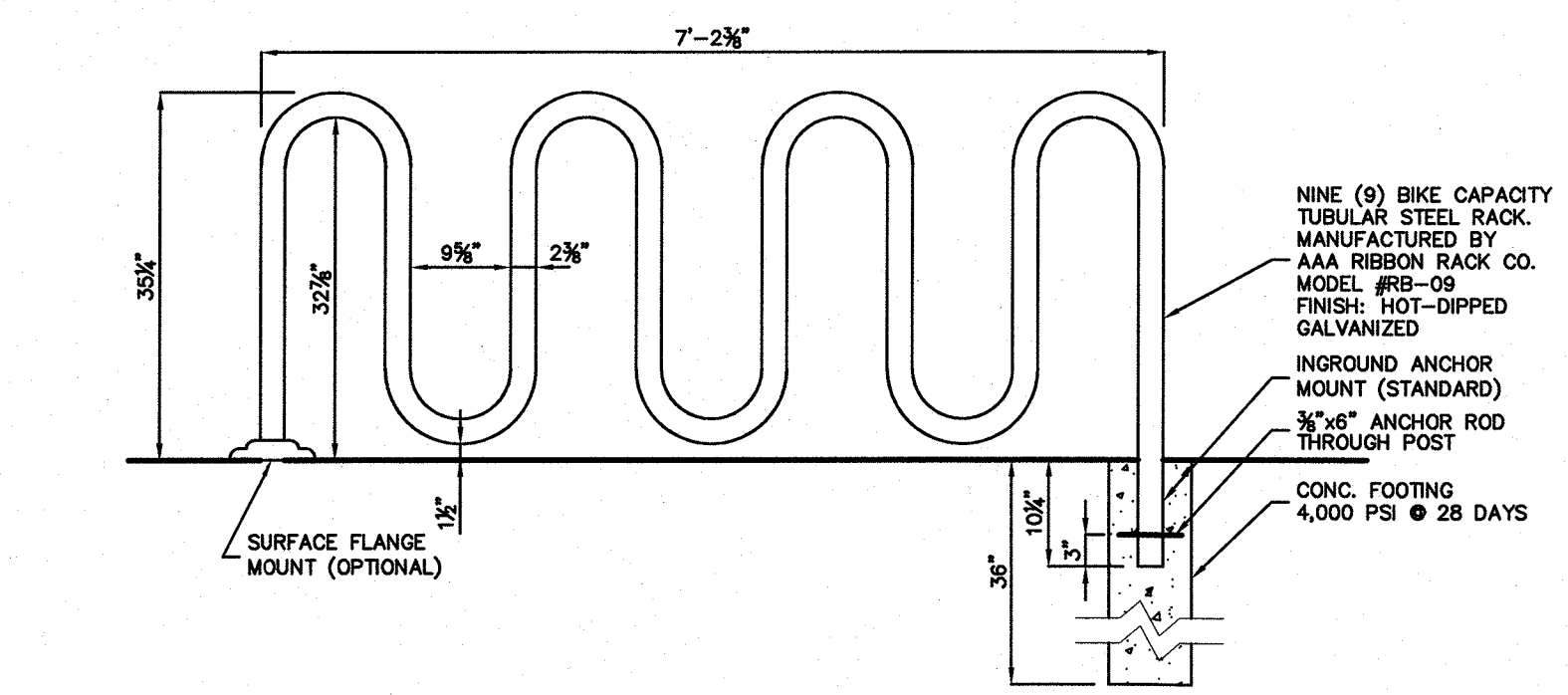
6' RETAINING WALL DETAIL (ALLAN BLOCK)



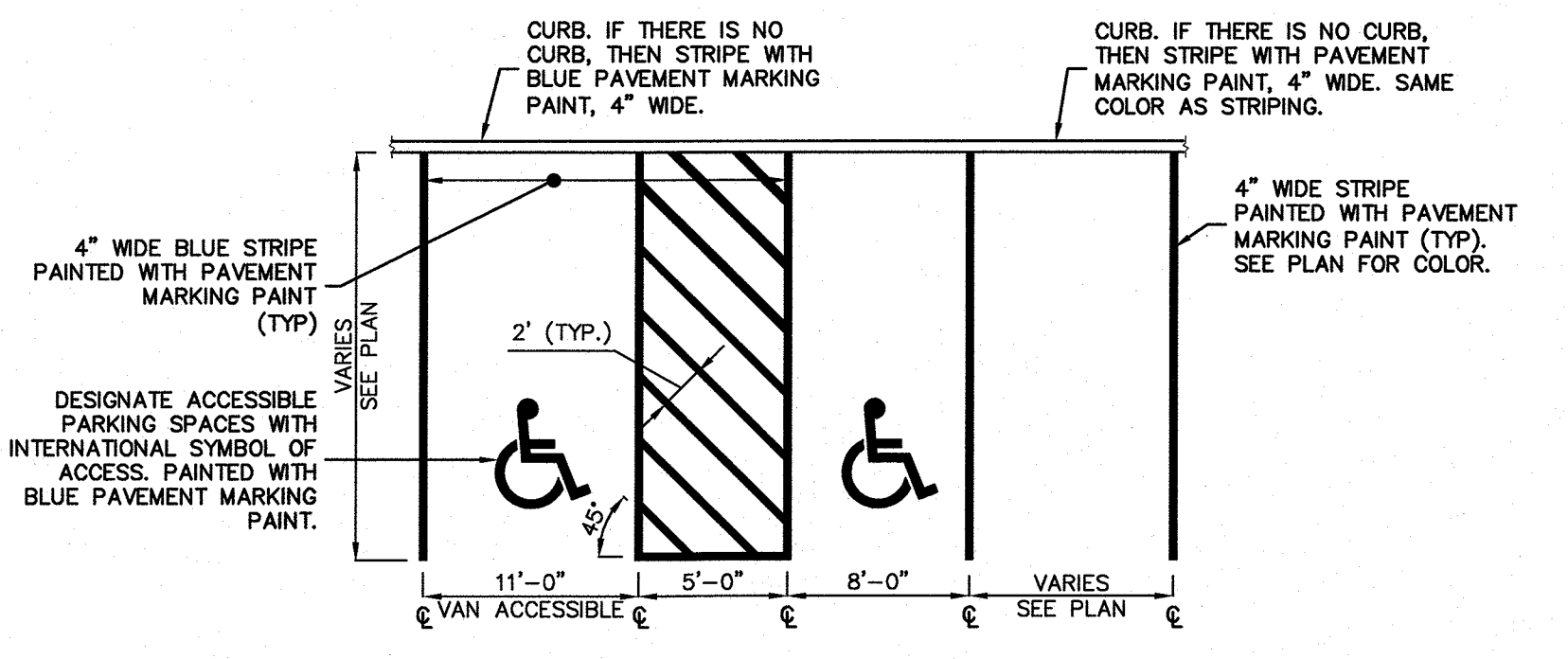
CONCRETE PAVEMENT DETAIL



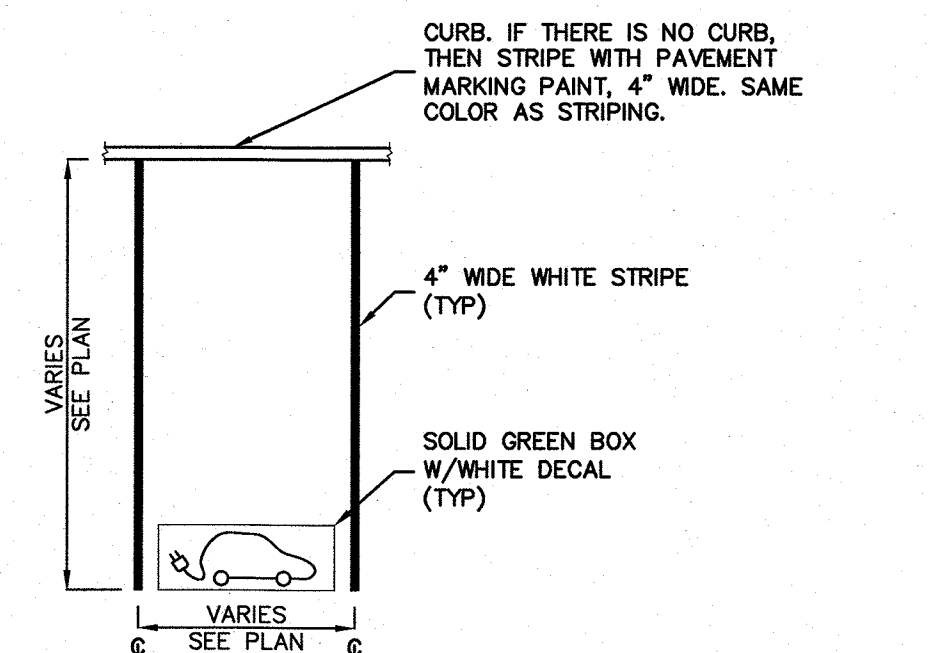
SOLID VINYL TONGUE AND GROOVE FENCE - 6' HT.



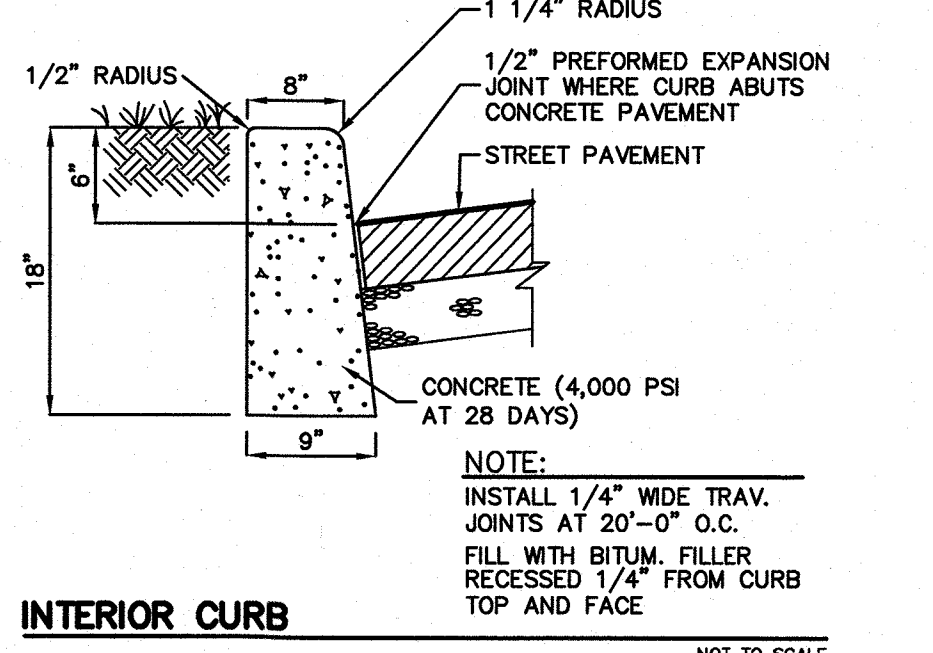
BICYCLE RACK



PARKING SPACE STRIPING



ELECTRIC VEHICLE PARKING SPACE STRIPING



INTERIOR CURB

CT4000 Family
ChargePoint® Charging Stations

The CT4000 is the latest generation of ChargePoint charging stations. Refined yet rugged, the CT4000 family sets the industry standard for functionality and aesthetics. A robust cord retraction system comes standard on all CT4000 models to eliminate unsightly cords on the ground, and to keep your drivers from having to touch charging cables.

The CT4000 full motion color LCD display instructs drivers while supporting dynamic updates of custom branded videos and advertisements.

The intelligent power sharing feature of the CT4000 doubles the number of parking spaces served by allowing two charging ports to share a single circuit. Sites with single port EV stations can upgrade to dual port stations without requiring additional electrical services.

All CT4000 models offer one or two standard SAE J1772™ Level 2 charging ports with locking holders, each port supplying up to 7.2kW.

Available in bollard and wall mount configurations, the CT4000 supports easy installation anywhere. To future proof your investment, all stations are fully software upgradable over the air. All ChargePoint stations are networked and managed through ChargePoint Service Plans and backed by ChargePoint's world class 24/7 driver phone support.

Driver Friendly User Interface

- Instructional video shows how to use the station
- Multi-language: English, French, Spanish
- Touch button interface: works in rain, ice and with gloves
- Backed by ChargePoint's world class 24/7 driver phone support

Energy Measurement and Management

- Real-time energy measurement
- 15 minute interval recording
- Time of Day (TOD) pricing
- Load shed by % of running average or to fixed power output

Corporate Branding and Video Advertising

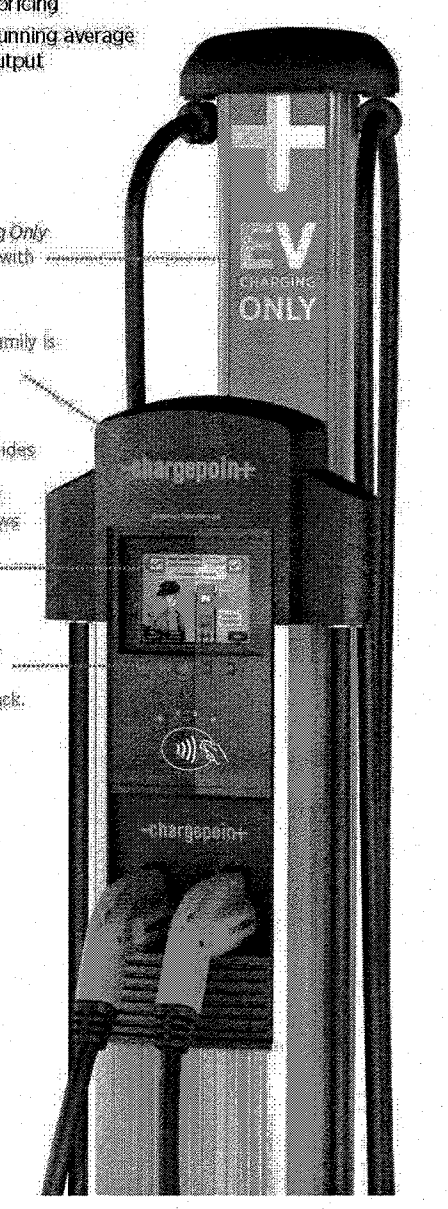
- Download full motion color videos to your stations
- Custom replaceable signage to project your brand
- Custom "cap" printing available*

Clean Cord Technology™

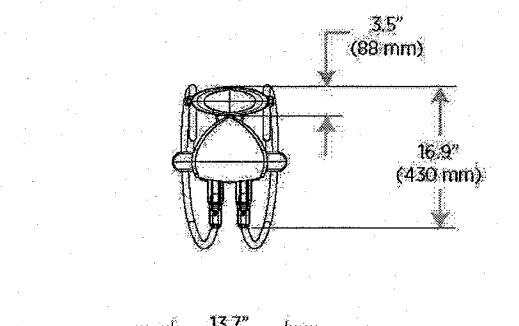
- Maintenance-free, light-weight, self-retracting cords come standard on all models
- Keep charging cords off the ground and out of your and drivers' hands
- Flexible over entire -22°F to +122°F product temperature range

Intelligent Power Sharing (patent pending)

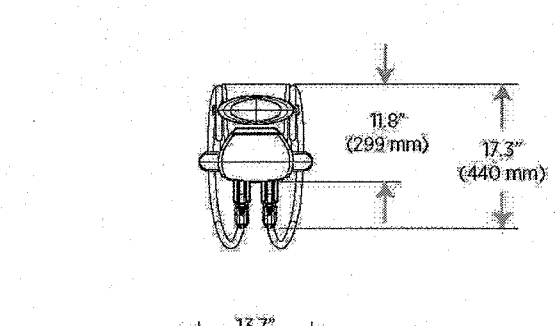
- Reduced installation and operating costs
- Dynamically share one 40A circuit between two parking spaces
- Double the number of parking spaces for a given site's power capacity
- Upgrade a single port station to dual port with no electrical upgrade



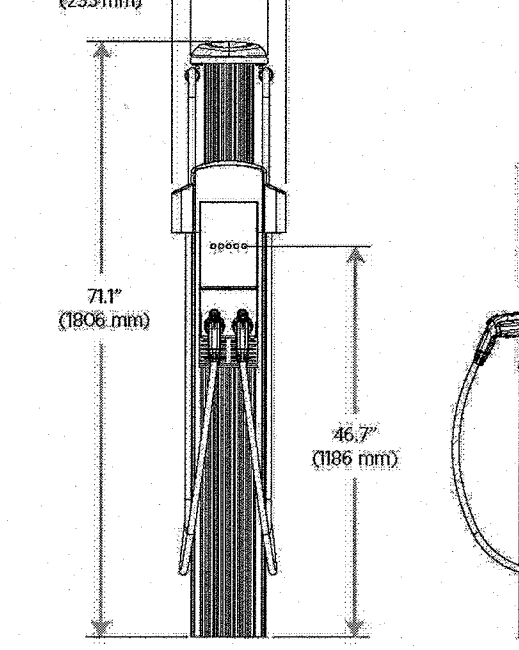
CT4021 Bollard



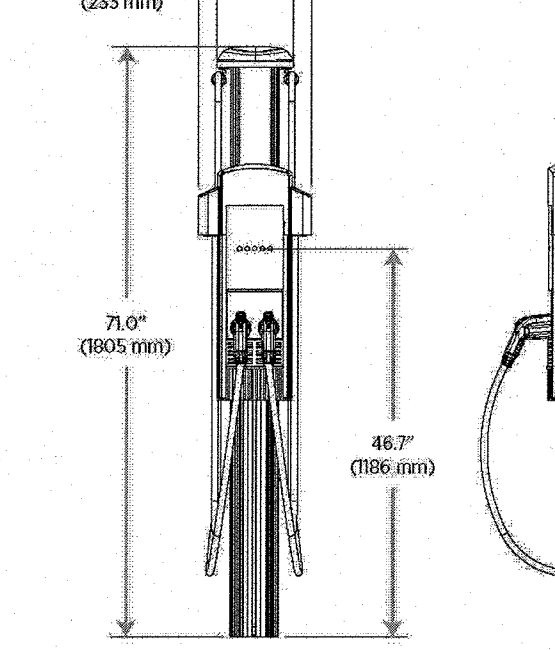
CT4023 Wall Mount



CT4021 Bollard



CT4023 Wall Mount



ELECTRIC VEHICLE CHARGE STATION - DOUBLE

66 GLEN AVENUE
GLEN ROCK, NJ 07452
P 201.670.6688
F 201.670.9788
www.bertinengineering.com



CALISTO J. BERTIN, P.E.
PROFESSIONAL ENGINEER
CT LIC. NO. 12950 NJ LIC. NO. 28845
MA LIC. NO. 40595 NY LIC. NO. 60022
NH LIC. NO. 9368 RI LIC. NO. 6694

ERIC M. HOUGH, P.E.
PROFESSIONAL ENGINEER
NJ LIC. NO. 51893

NO.	DATE	REVISION
1	3-18-24	ADDED ELECTRIC VEHICLE CHARGE STATION & ELECTRIC PARKING SPACE DETAIL

SITE DETAILS

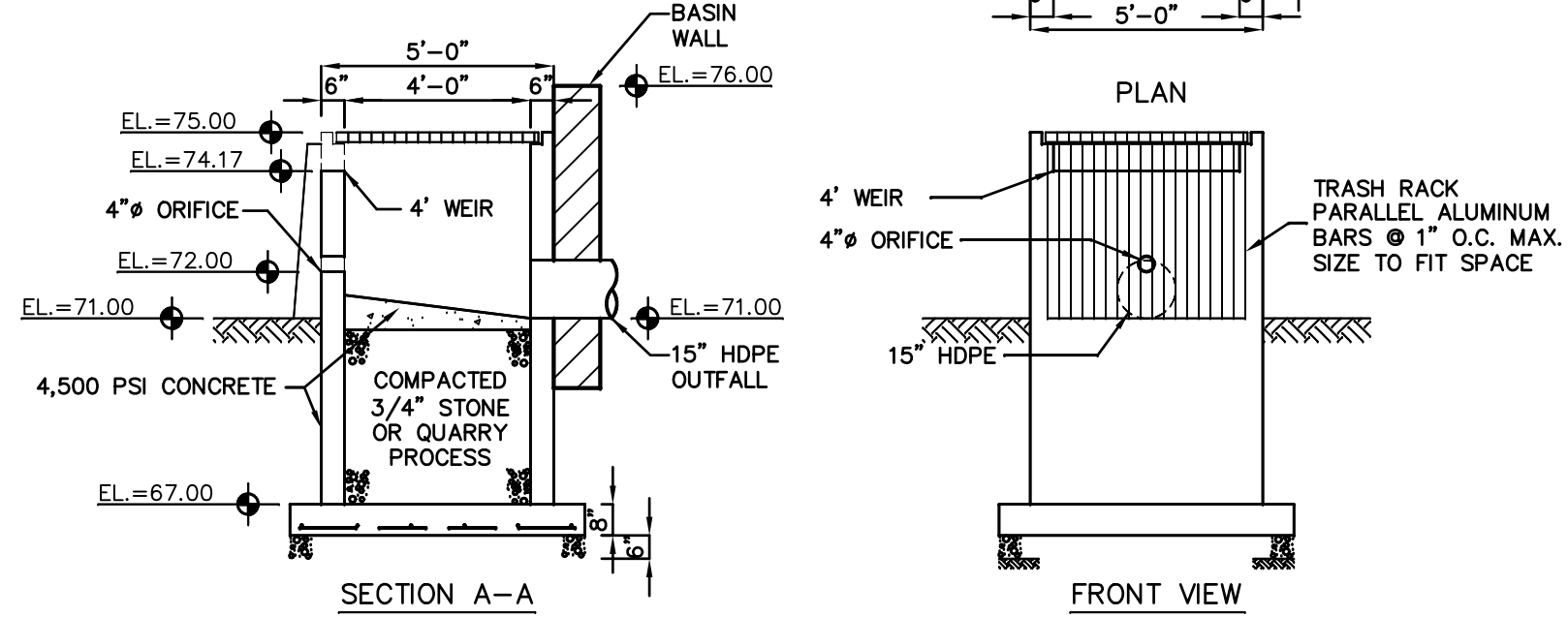
PROJECT
RESIDENTIAL DEVELOPMENT
BLOCK 4201.01, LOT 33.03
GROVERS MILL ROAD & MALL ACCESS ROAD
TOWNSHIP OF LAWRENCE
MERCER COUNTY, NEW JERSEY

CLIENT
TRICONE
2525 US-130 SUITE B4
CRANBURY, NJ 08512

CERTIFICATE OF AUTHORIZATION
24GA28068900 / 21MH00002800
DRAWN BY M.B.L. CHECKED BY C.J.B.
SCALE AS SHOWN PROJECT NO. 21-210
DATE 10-12-23 REVISION NO. 1
DRAWING NO.

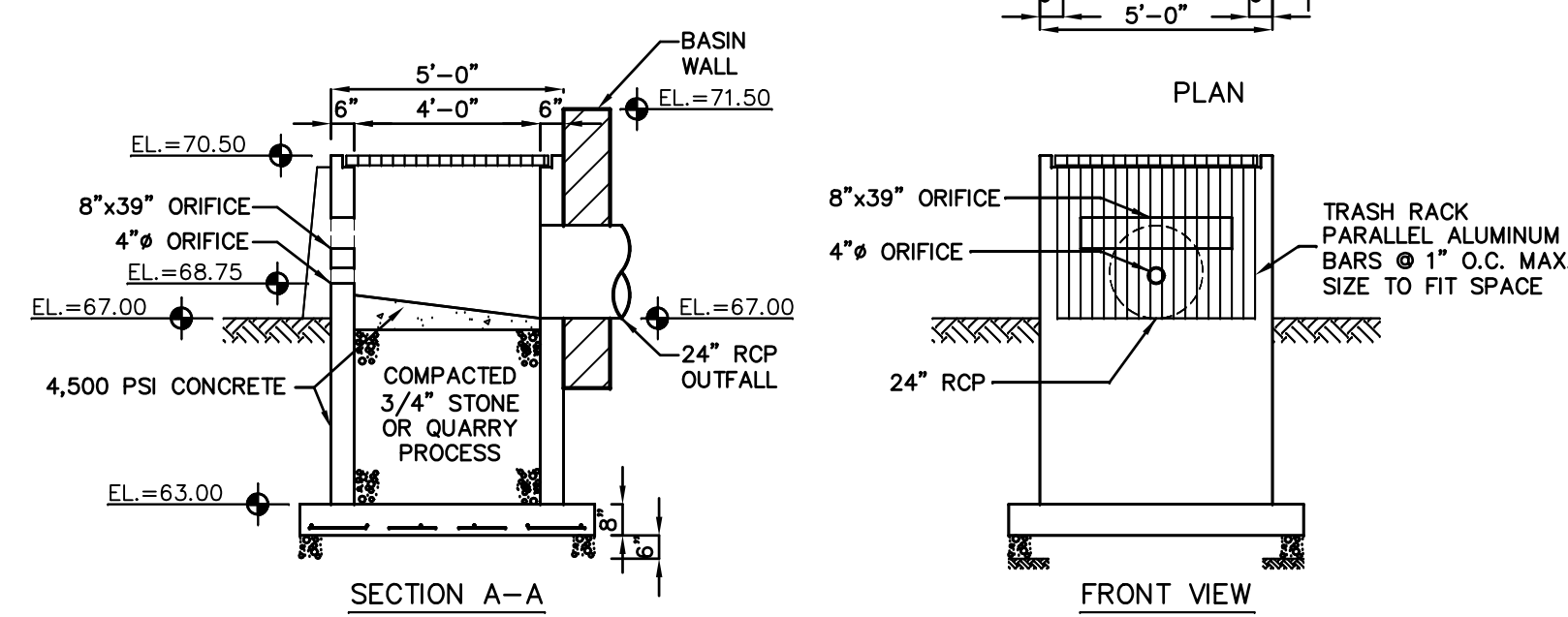
C3.1

- NOTES:
1. ALL CONCRETE SHALL BE 4,500 PSI.
 2. STRUCTURAL CALCULATIONS SHALL BE PROVIDED TO TOWNSHIP ENGINEER PRIOR TO CONSTRUCTION.



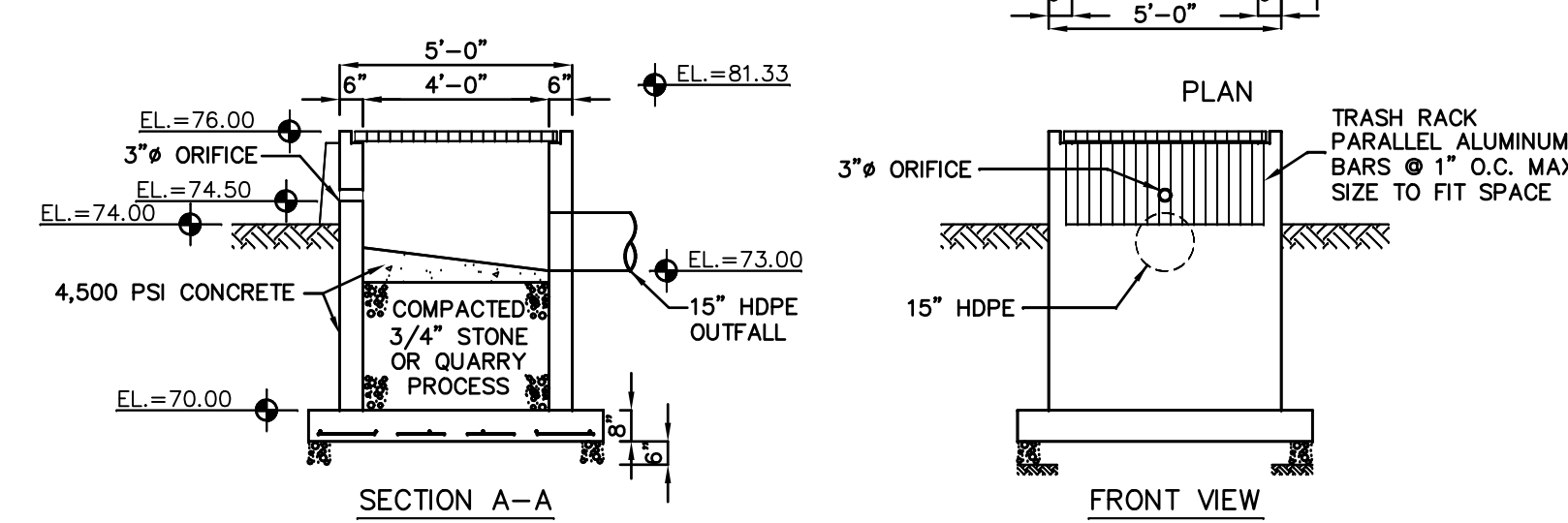
OUTLET CONTROL STRUCTURE #1

- NOTES:
1. ALL CONCRETE SHALL BE 4,500 PSI.
 2. STRUCTURAL CALCULATIONS SHALL BE PROVIDED TO TOWNSHIP ENGINEER PRIOR TO CONSTRUCTION.



OUTLET CONTROL STRUCTURE #2

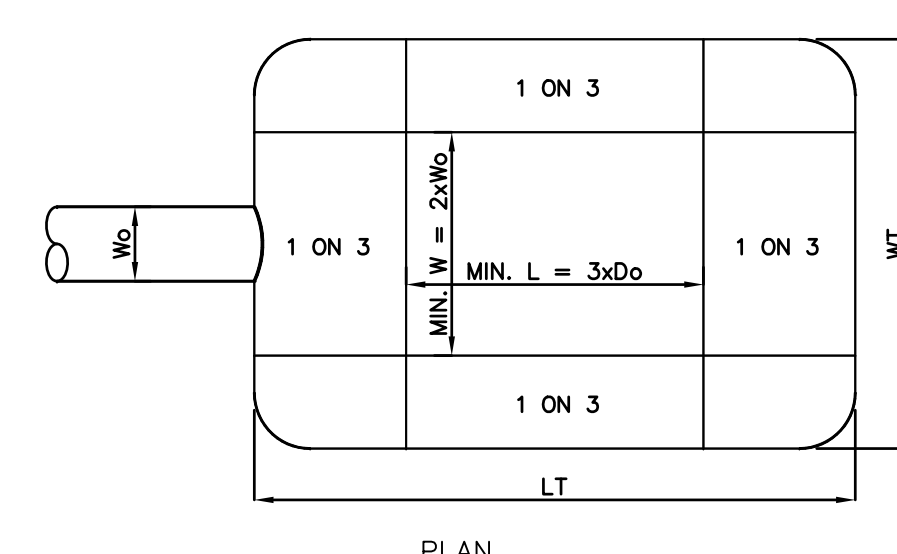
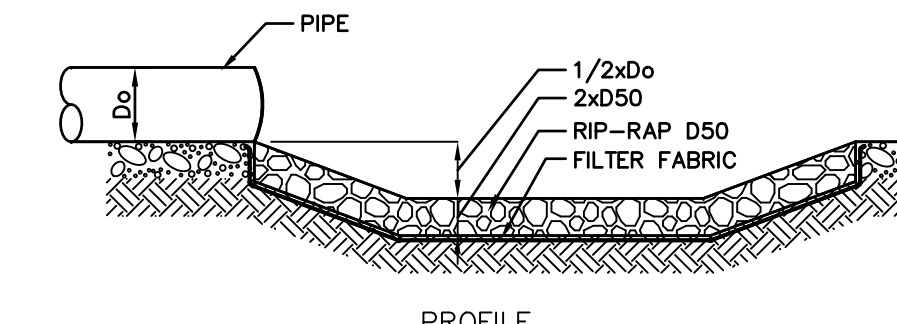
- NOTES:
1. ALL CONCRETE SHALL BE 4,500 PSI.
 2. STRUCTURAL CALCULATIONS SHALL BE PROVIDED TO TOWNSHIP ENGINEER PRIOR TO CONSTRUCTION.



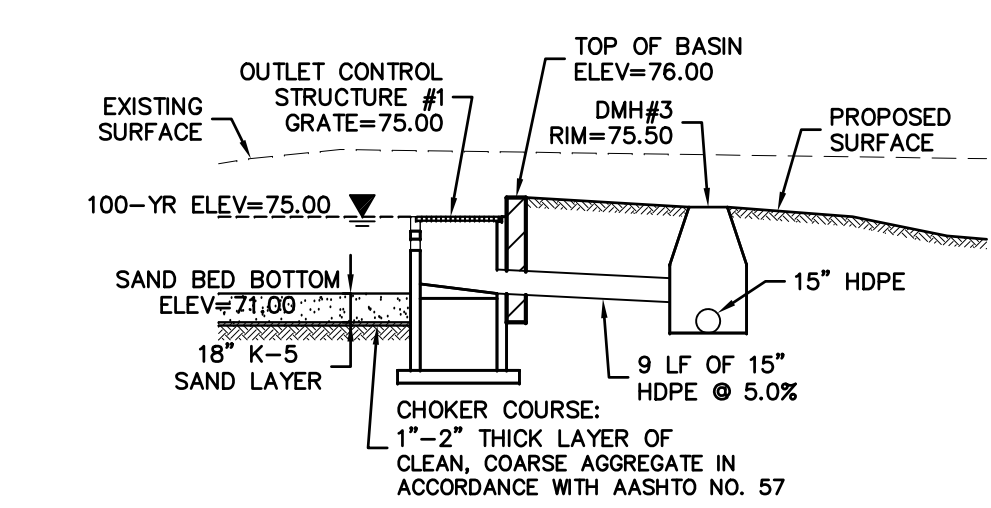
OUTLET CONTROL STRUCTURE #3

OUTLET SCHEDULE

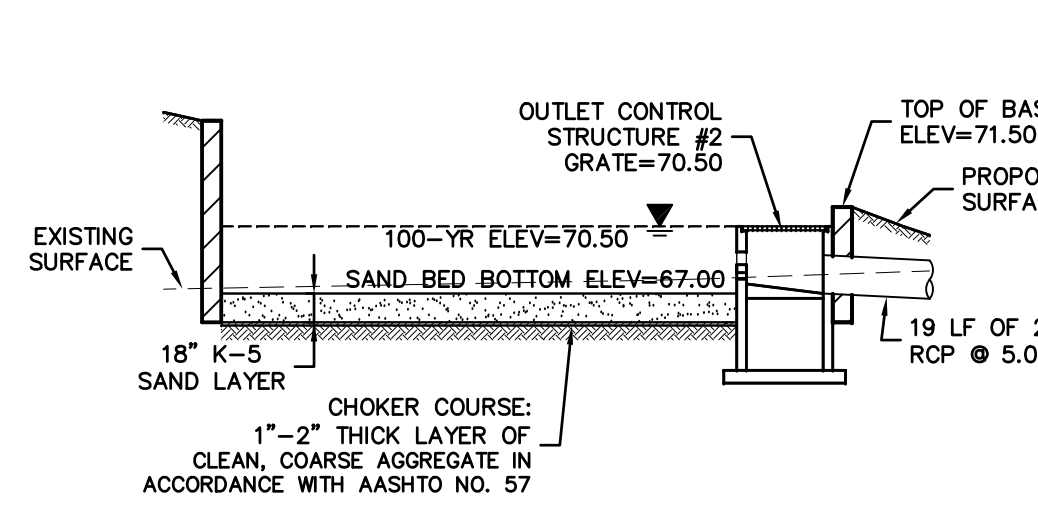
OUTLET #	D _o	W _o	L	W	LT	WT	D ₅₀
#1	15"	15"	3.75'	2.5'	11.25'	10'	6"
#2	15"	15"	3.75'	2.5'	8.75'	7.5'	4"
#3	18"	18"	3.75'	2.5'	8.75'	7.5'	8"
#4	6"	6"	1.5'	1'	6.5'	6'	4"
#5	10"	10"	2.5'	1.67'	7.5'	6.67'	4"
#6	10"	10"	2.5'	1.67'	7.5'	6.67'	4"



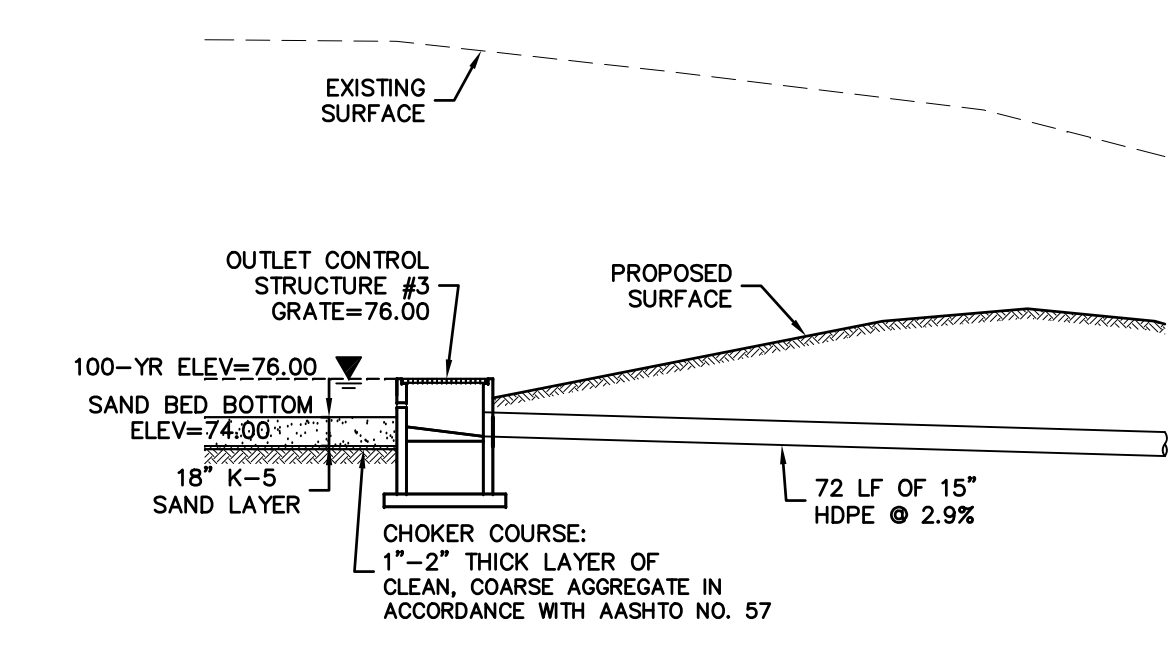
PREFORMED SCOUR HOLE DETAIL



SAND FILTER PROFILE (SECTION A-A)

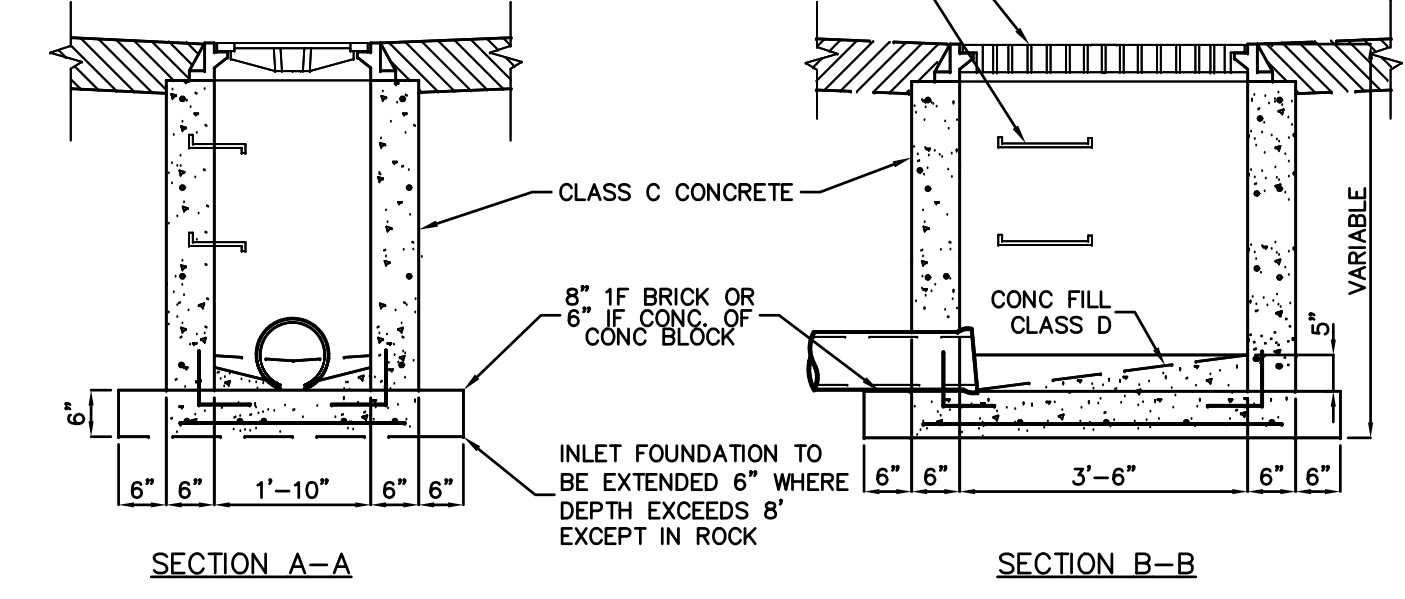
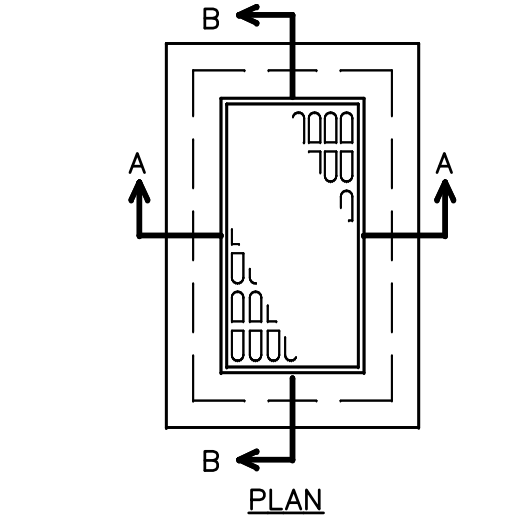


SAND FILTER PROFILE (SECTION B-B)

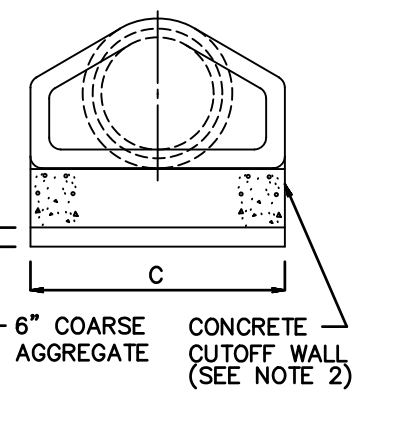


SAND FILTER PROFILE (SECTION C-C)

- NOTES:
1. CONSTRUCT INLET WITH CONCRETE BLOCK. BOTTOM SHALL BE AS SHOWN FOR CONCRETE AND THE OUTSIDE WALL SHALL BE PLASTERED WITH A 1/2" THICK COAT OF F2 CEMENT, SAND MORTAR.
 2. ALTERNATE CONSTRUCTION OF INLET TO BE PRECAST REINFORCED 4,000 PSI CONCRETE.
 3. THE INTERIOR WALL AND FLOOR OF ALL INLETS SHALL BE COATED WITH LIQUID ASPHALT.
 4. SEE GRADING OR UTILITY PLAN FOR DEPTH OF INLETS, PIPE LOCATION AND PIPE SIZE.



CATCH BASIN, TYPE A

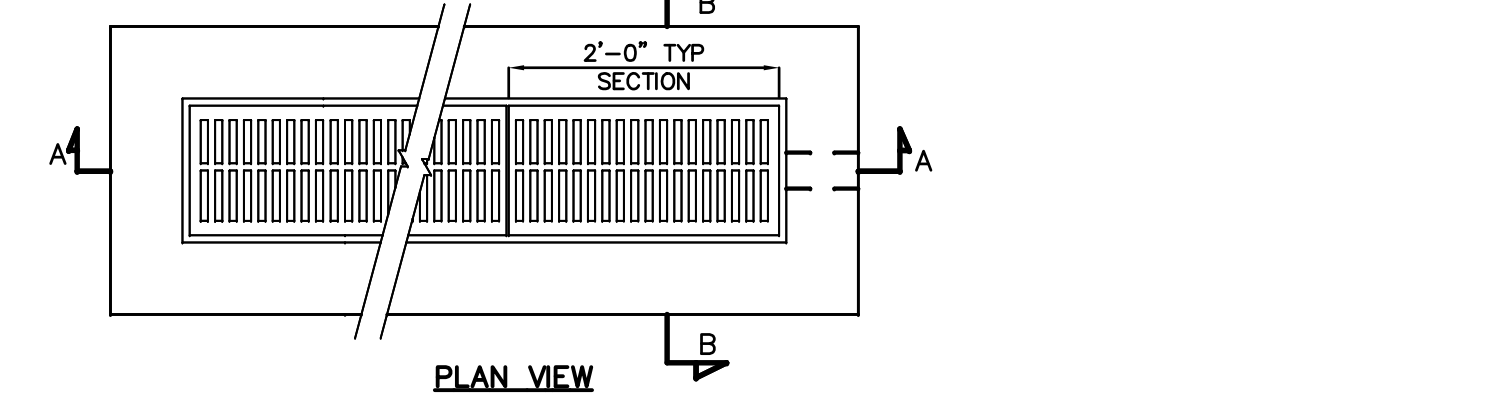


FLARED END SECTION DETAIL

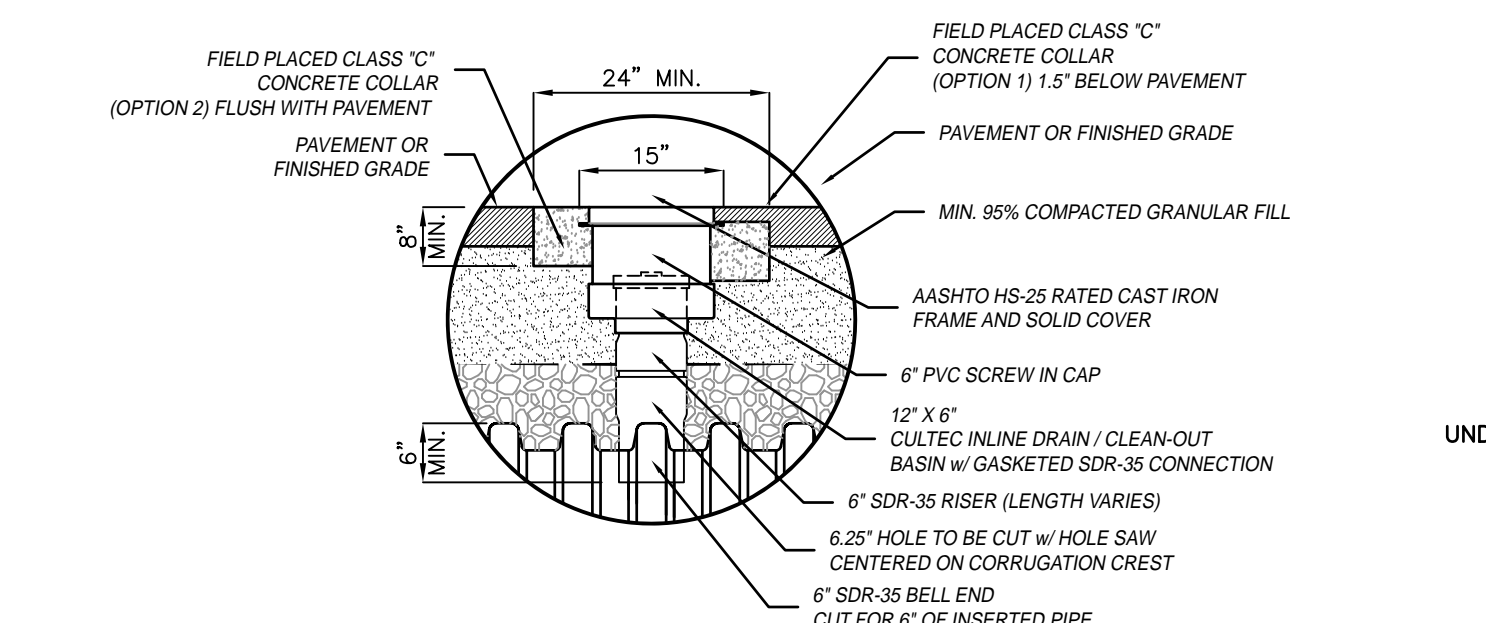
DIMENSIONS (INCHES)

I.D.	12	15	18	21	24	27	30	36	42	48	54	60
A	2	2.25	2.5	2.75	3	3.25	3.5	4	4.5	5	5.5	6
U	72	72	72	72	72	72	72	96	96	96	96	96
C	28	34.5	41	47.5	54	60.5	67	80	87	94	101	108

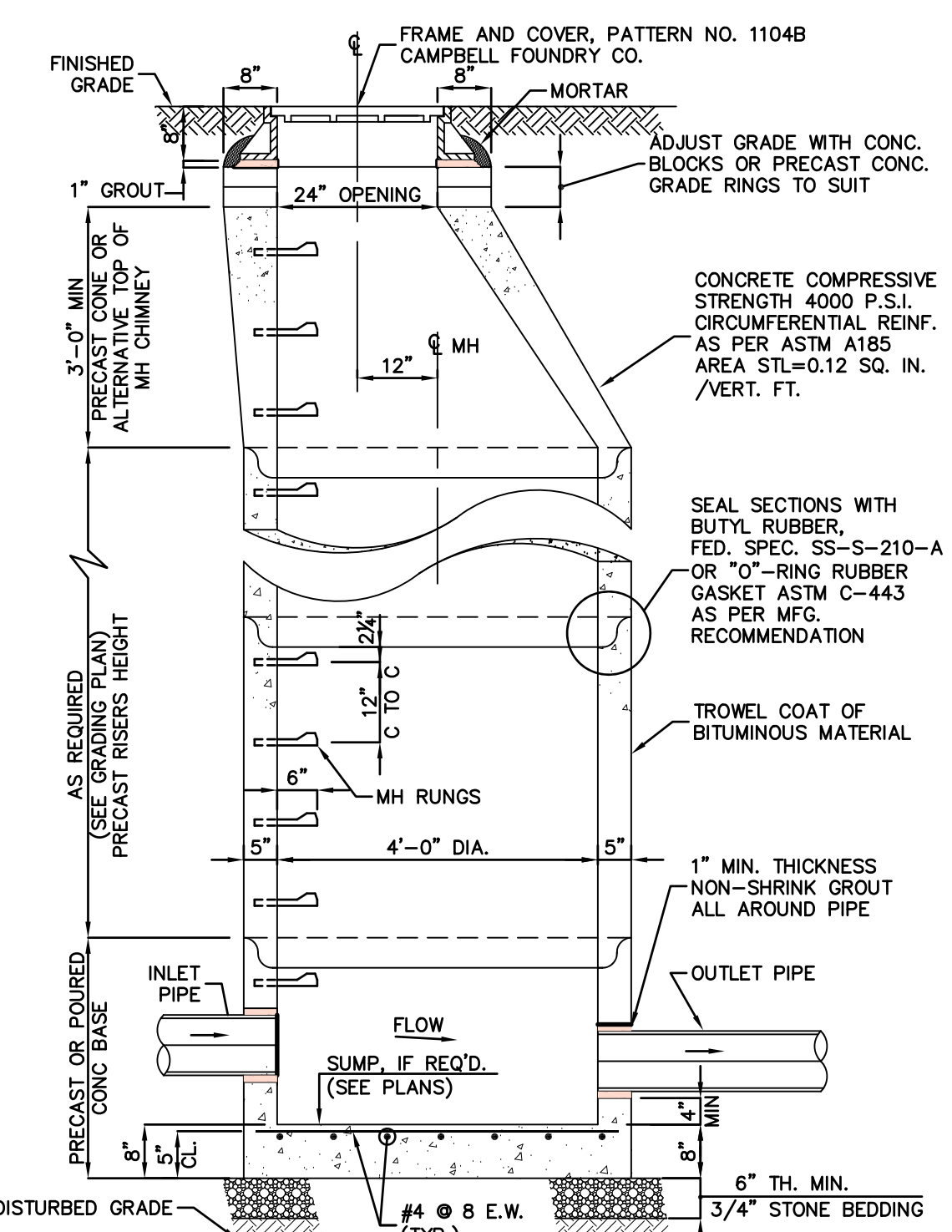
- NOTES:
1. MINOR VARIATIONS TO THE ABOVE DIMENSIONS ARE ACCEPTABLE WITH THE EXCEPTION OF THE INSIDE DIAMETER DIMENSION.
 2. A 1 INCH THICK MORTAR BED AND A 6 INCH DEEP LAYER OF COARSE AGGREGATE ARE REQUIRED WHEN A PRECAST CONCRETE CUTOFF WALL IS USED.
 3. NO SEPARATE PAYMENT WILL BE MADE FOR THE CONCRETE CUTOFF WALL. THE COST OF THE CONCRETE CUTOFF WALL SHALL BE INCLUDED IN THE COST OF THE END SECTION.
 4. THE WIDTH OF THE CONCRETE CUTOFF WALL SHALL BE EQUAL TO THE MAXIMUM WIDTH OF THE END SECTION AS INDICATED ON THE DETAIL BY DIMENSION "C". HOWEVER, IF THE ACTUAL MAXIMUM WIDTH EXCEEDS THE CHART VALUE OF "C", THE WIDTH OF THE CONCRETE CUTOFF WALL SHALL EQUAL THE ACTUAL MAXIMUM WIDTH OF THE END SECTION.



TRENCH DRAIN DETAIL

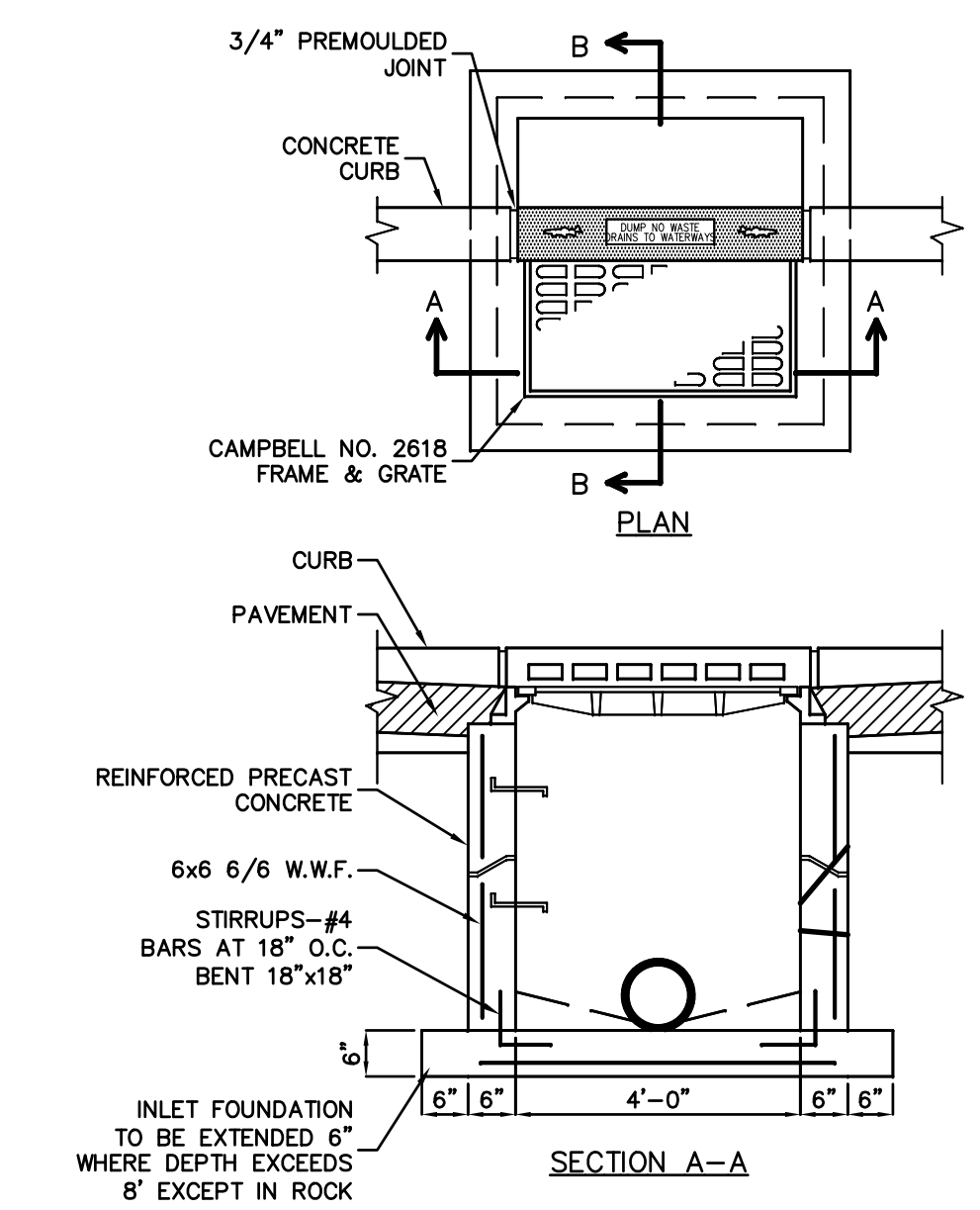


INSPECTION PORT DETAIL

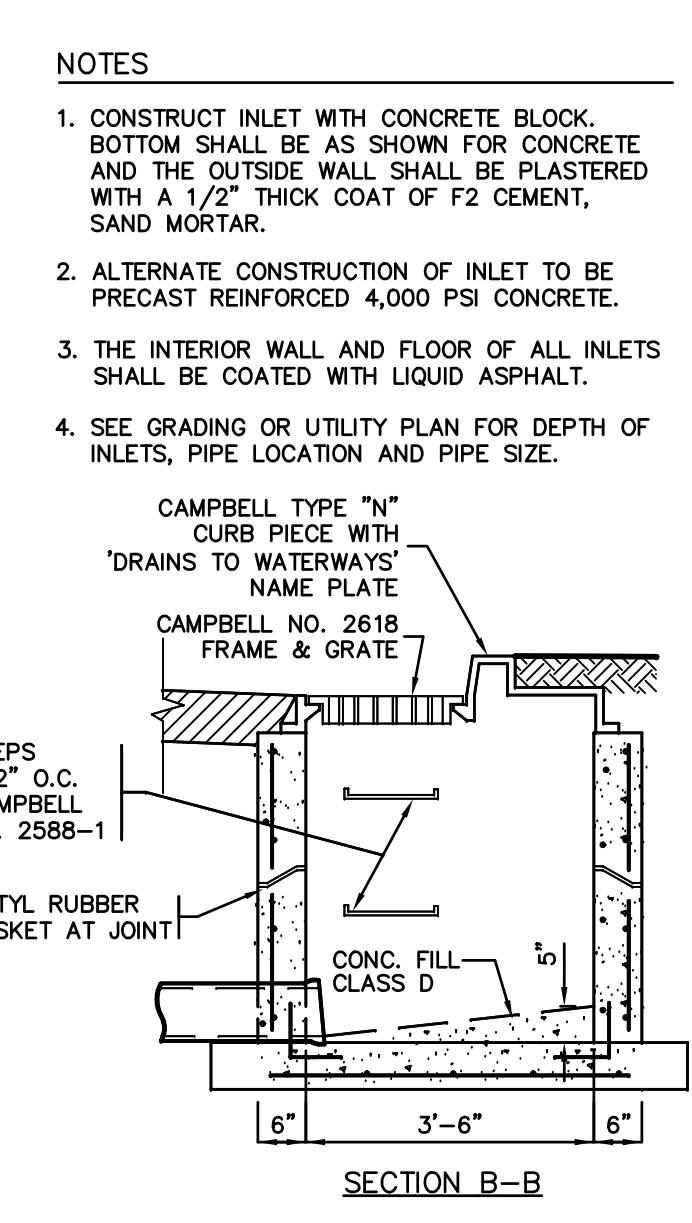


- NOTES:
1. MANHOLE DESIGN SPECIFICATIONS CONFORMS TO "PRECAST REINFORCED CONCRETE MANHOLE SECTIONS" ASTM C478, LATEST REVISION.
 2. SEPARATE DRILL SHEETS FOR EACH STRUCTURE, TO ENGINEER PRIOR TO FABRICATION.

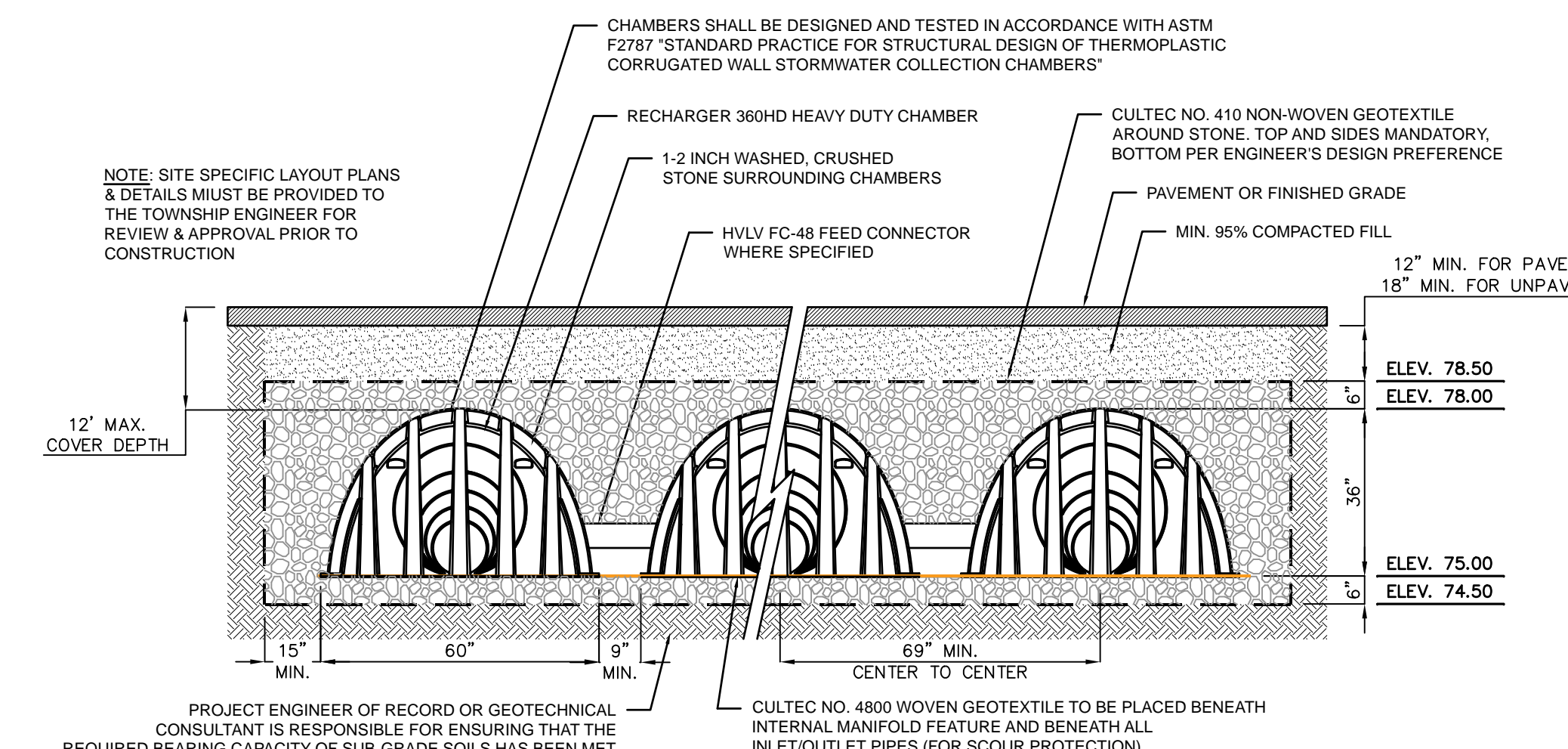
DRAINAGE MANHOLE



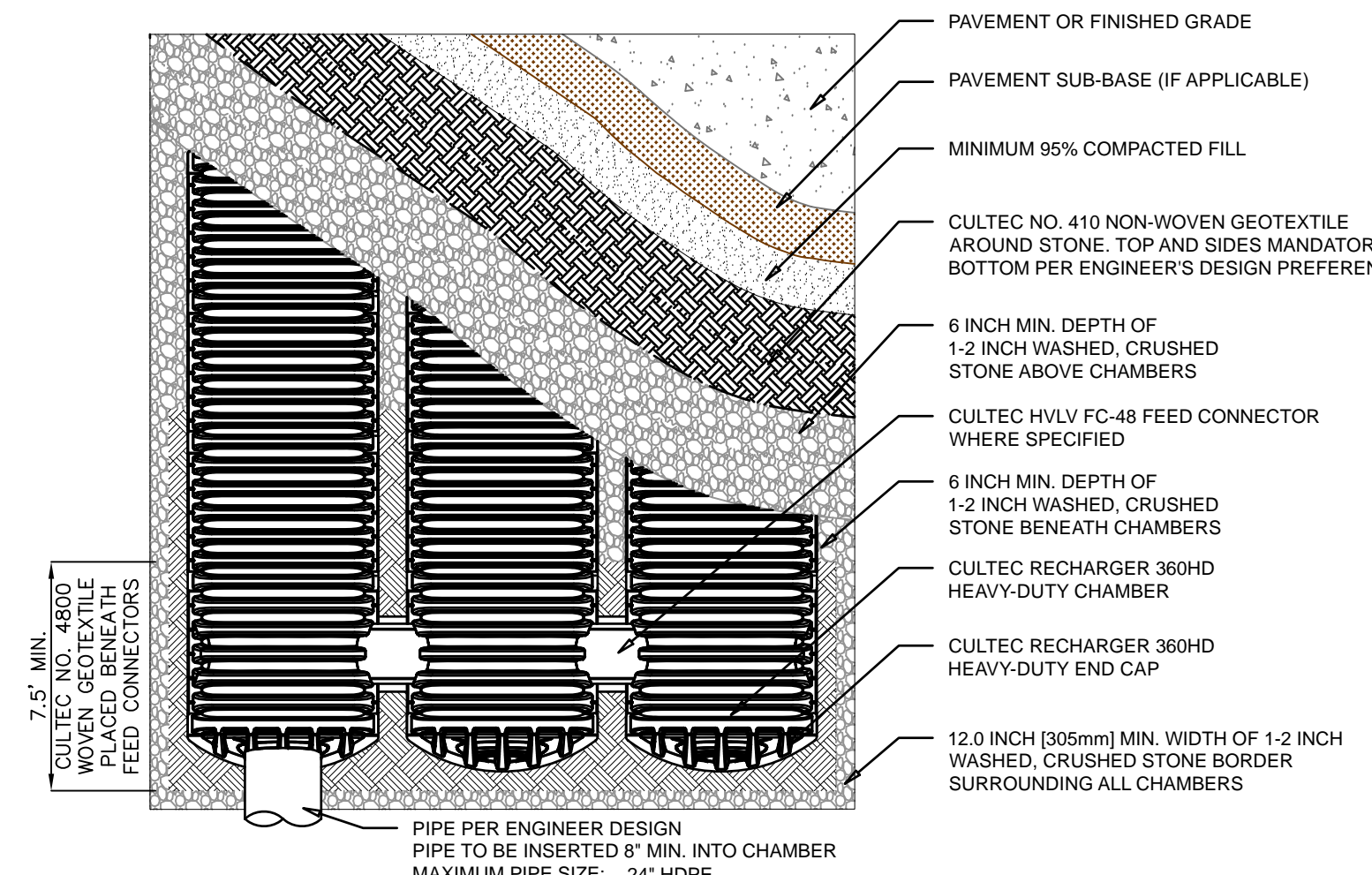
CURB INLET (TYPE B)



CURB INLET (TYPE B)



CULTEC RECHARGER 360HD TYPICAL CROSS SECTION



CULTEC RECHARGER 360HD PLAN VIEW

66 GLEN AVENUE
GLEN ROCK, NJ 07452
P 201.670.6888
F 201.670.9788
www.bertinengineering.com



CALISTO J. BERTIN, P.E.
PROFESSIONAL ENGINEER
CT LIC. NO. 12950 NJ LIC. NO. 28845
MA LIC. NO. 40595 NY LIC. NO. 60022
NH LIC. NO. 9368 RI LIC. NO. 6694

ERIC M. HOUGH, P.E.
PROFESSIONAL ENGINEER
NJ LIC. NO. 51893

NO.	DATE	REVISION	M.B.L.	A.R.D.
1	3-19-24	REVISE PREFORMED SCOUR HOLE DETAIL		
2	6-14-24	REVISE OUTLET STRUCTURES, PROFILES & PREFORMED SCOUR HOLE DETAIL		

DRAINAGE DETAILS

PROJECT
RESIDENTIAL DEVELOPMENT
BLOCK 420101, LOT 33.03
GROVERS MILL ROAD & MALL ACCESS ROAD
TOWNSHIP OF LAWRENCE
MERCER COUNTY, NEW JERSEY

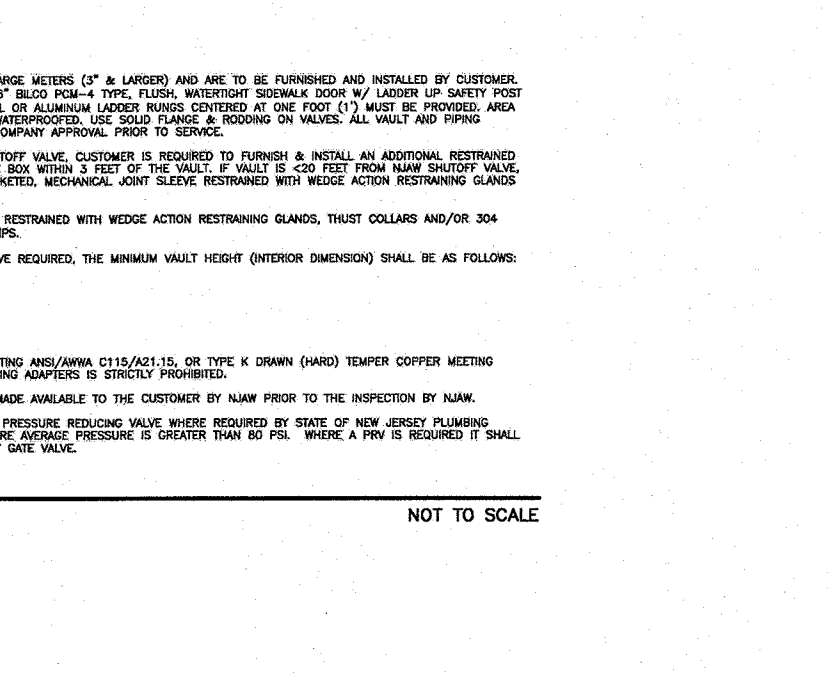
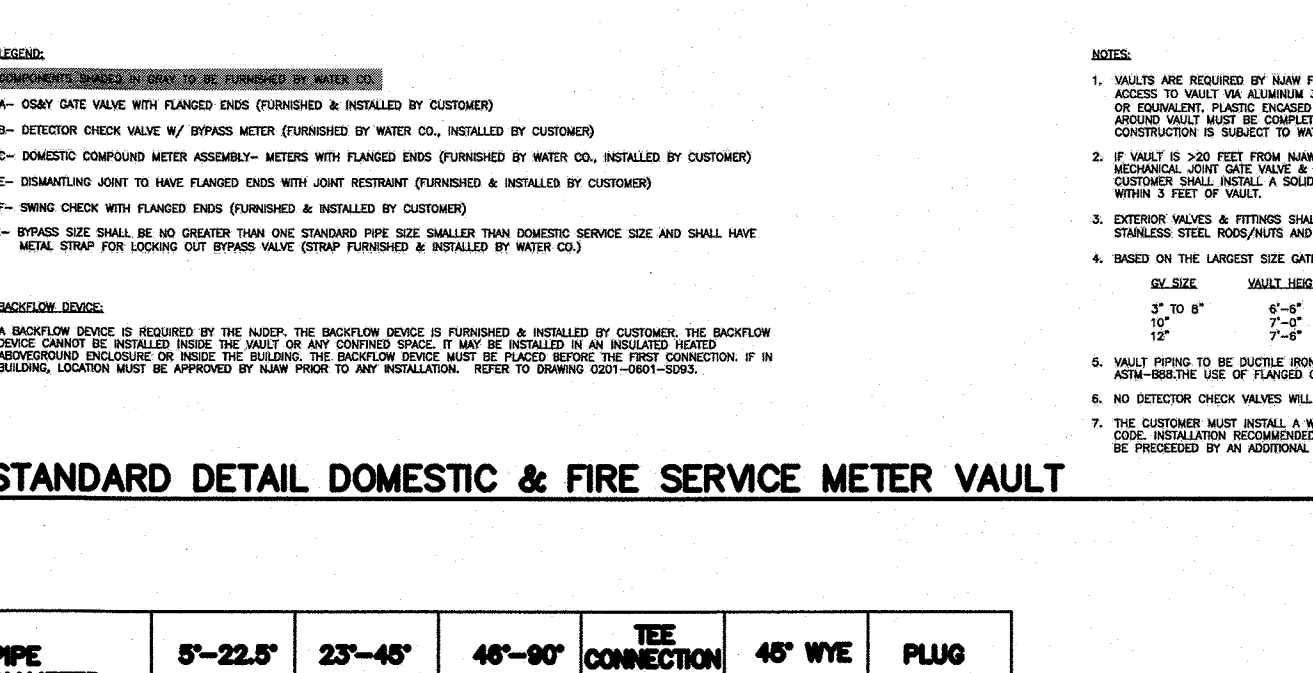
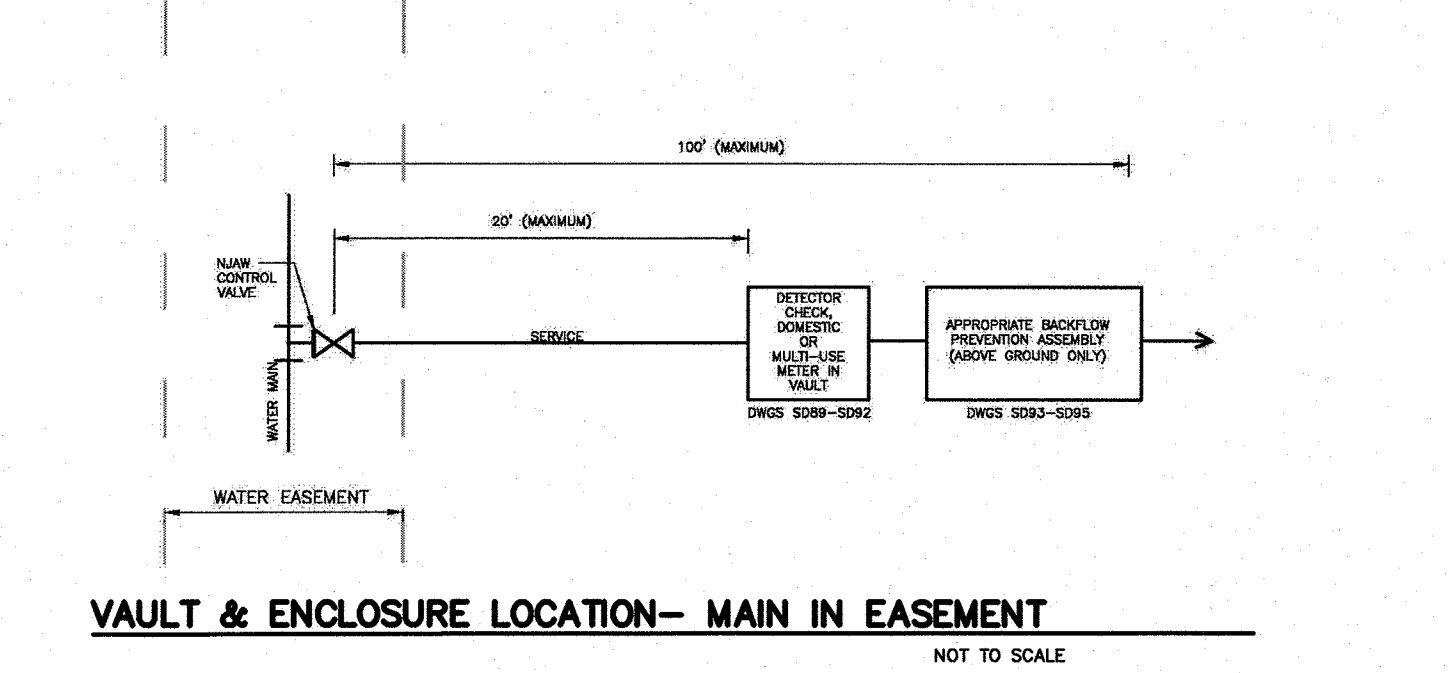
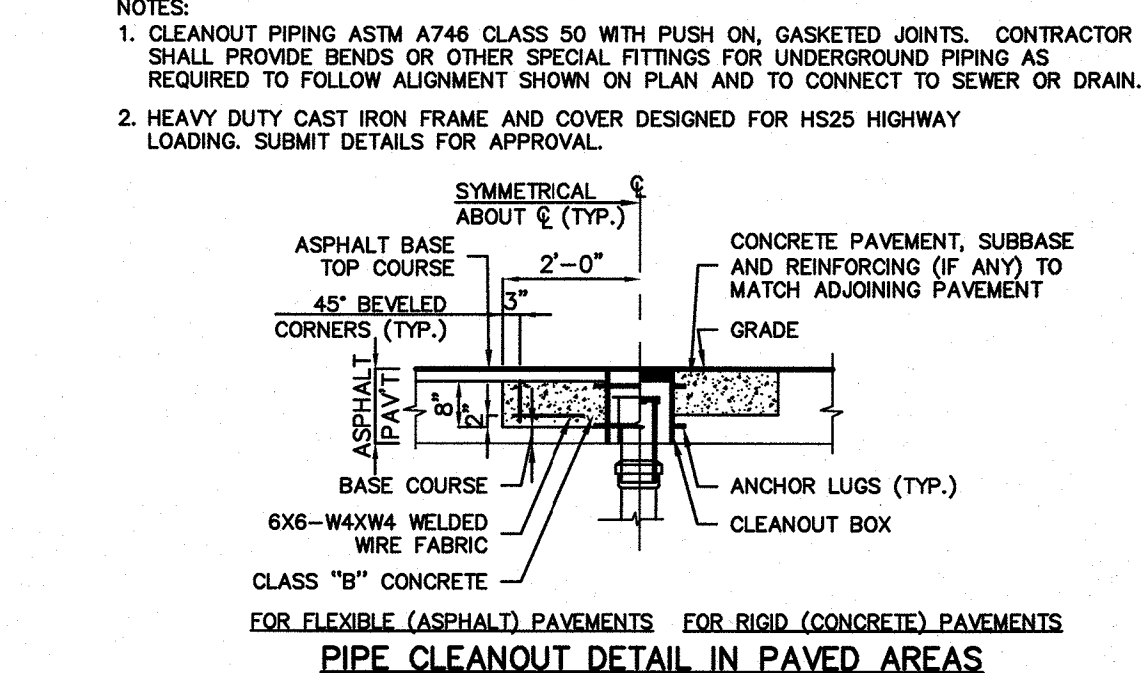
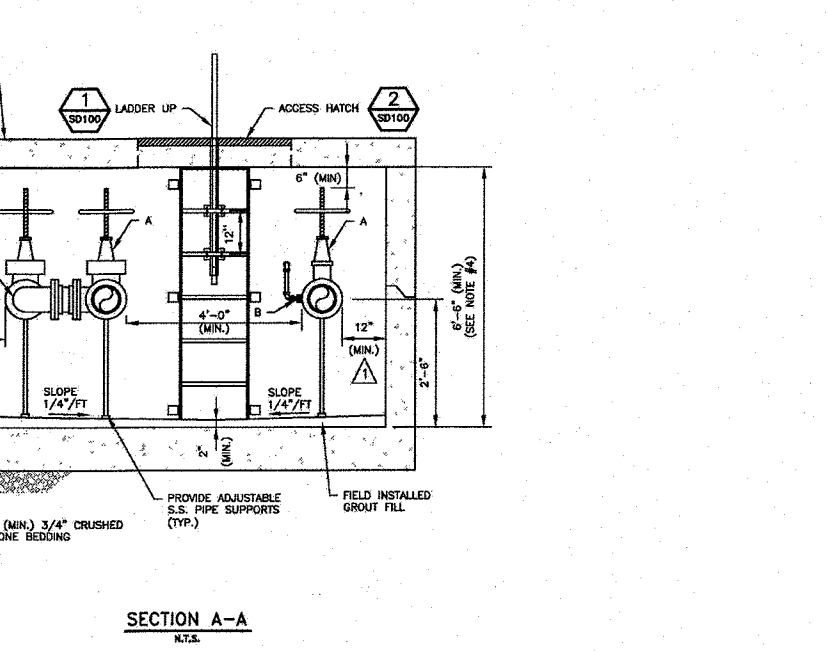
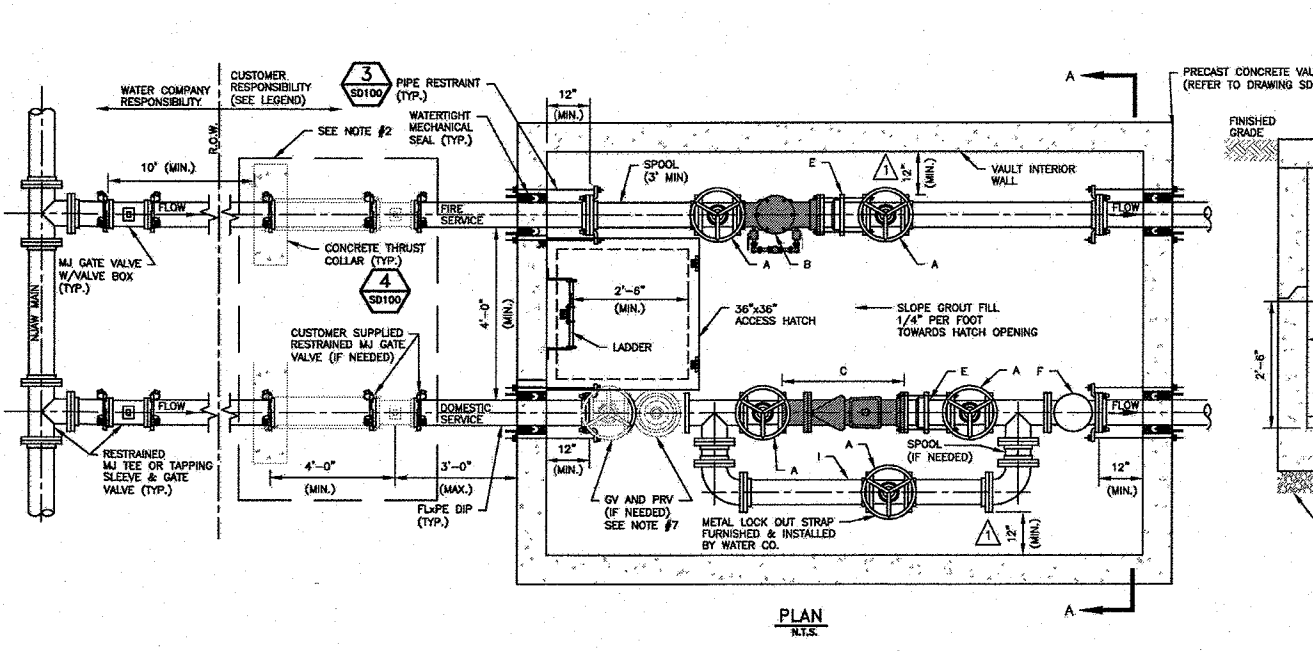
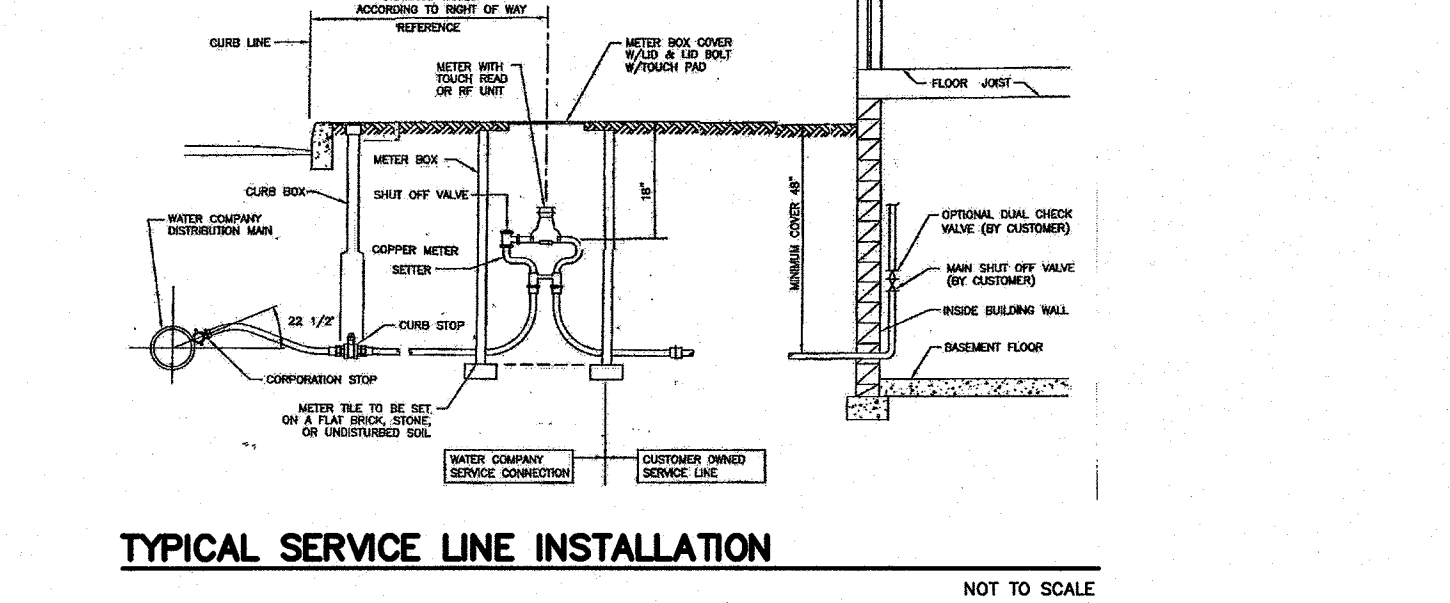
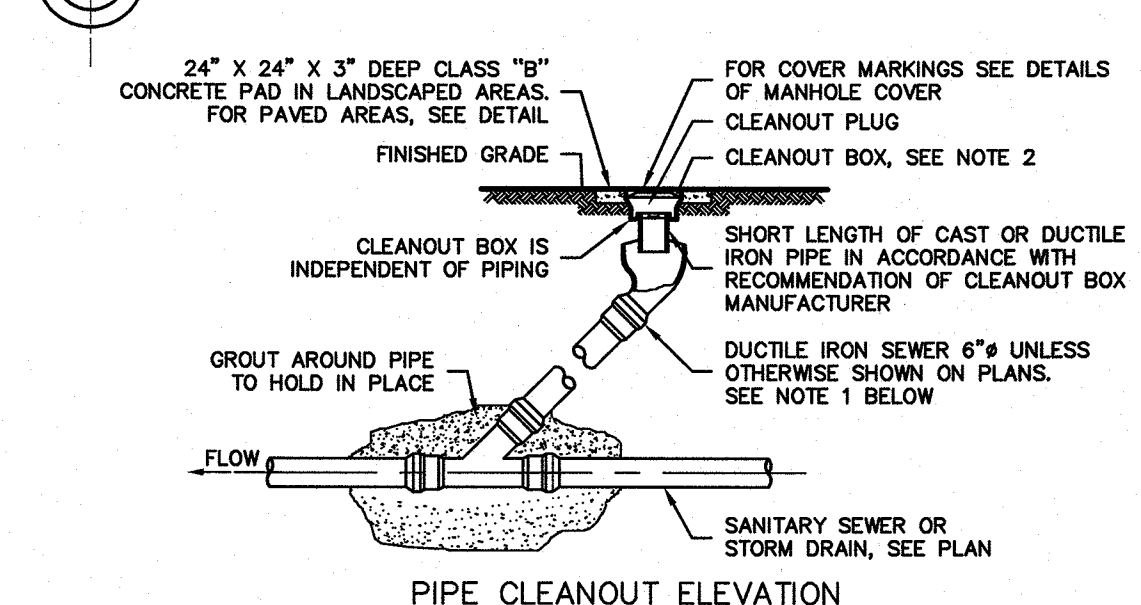
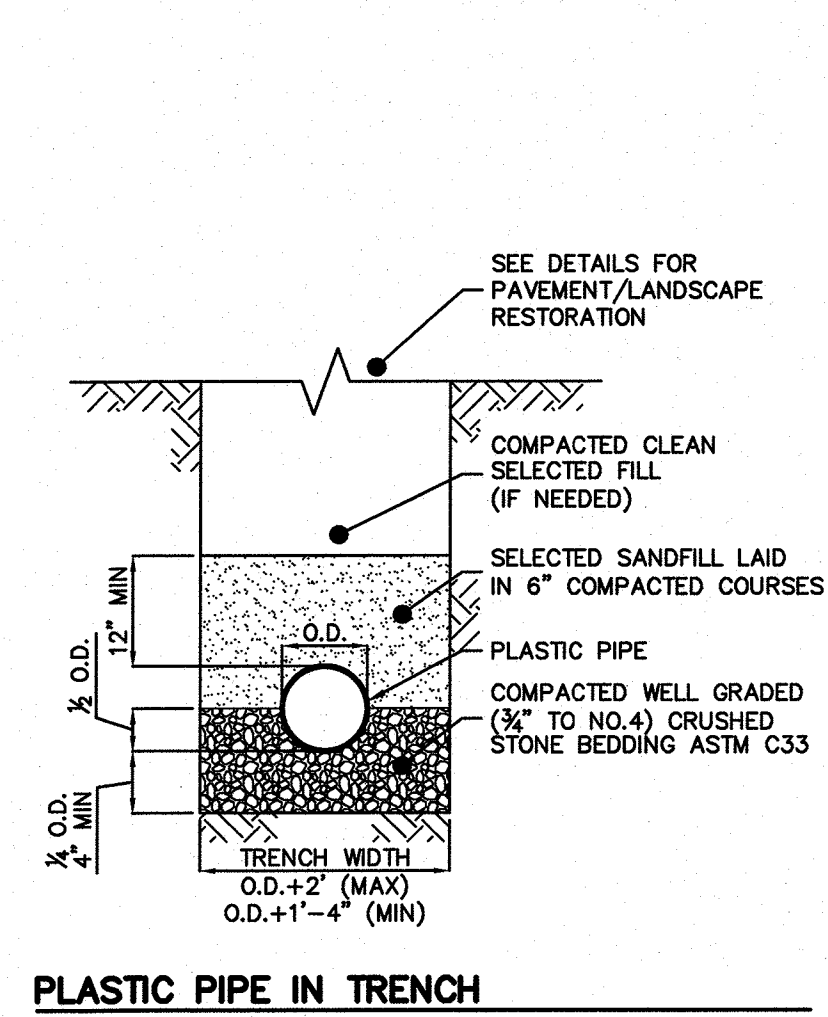
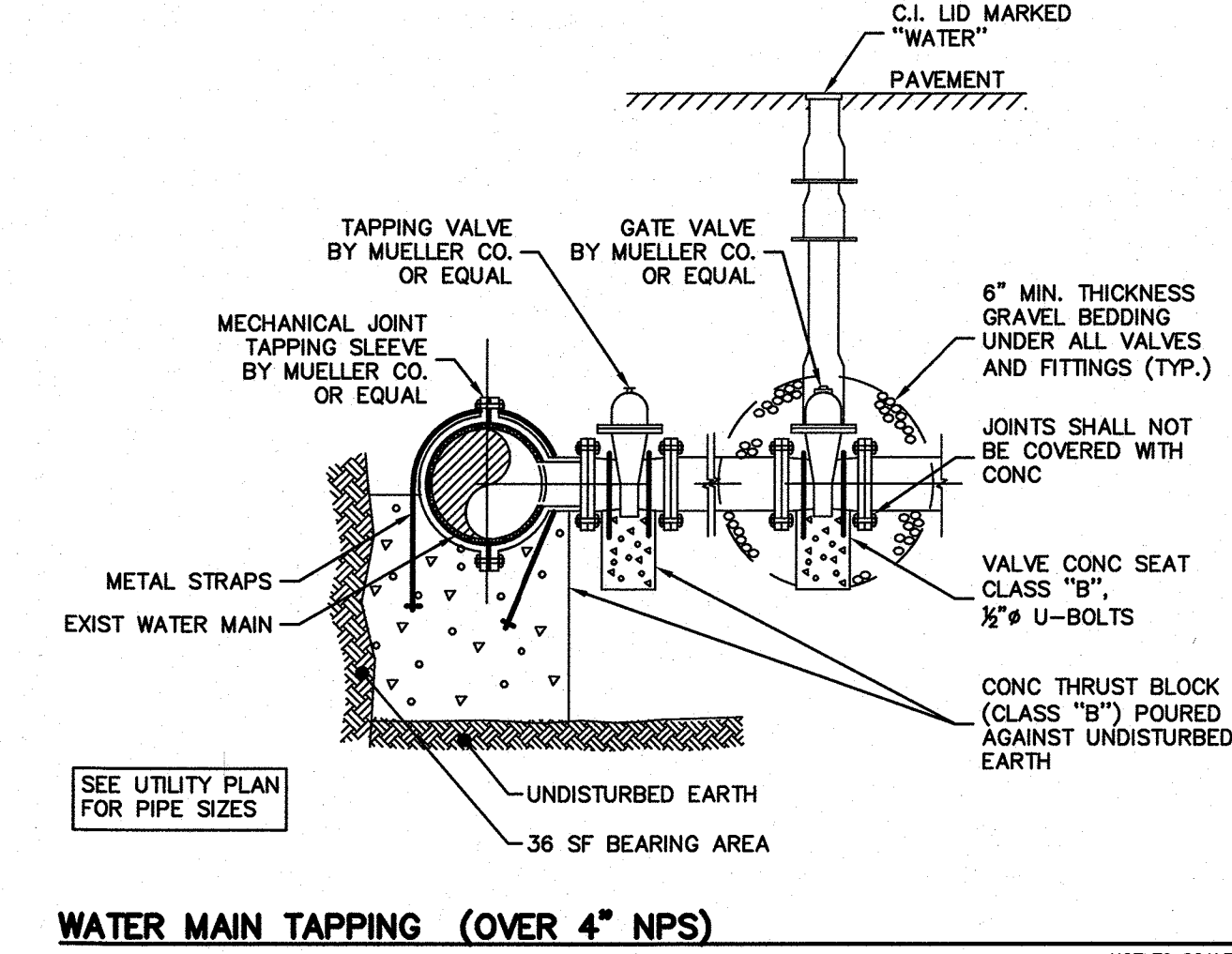
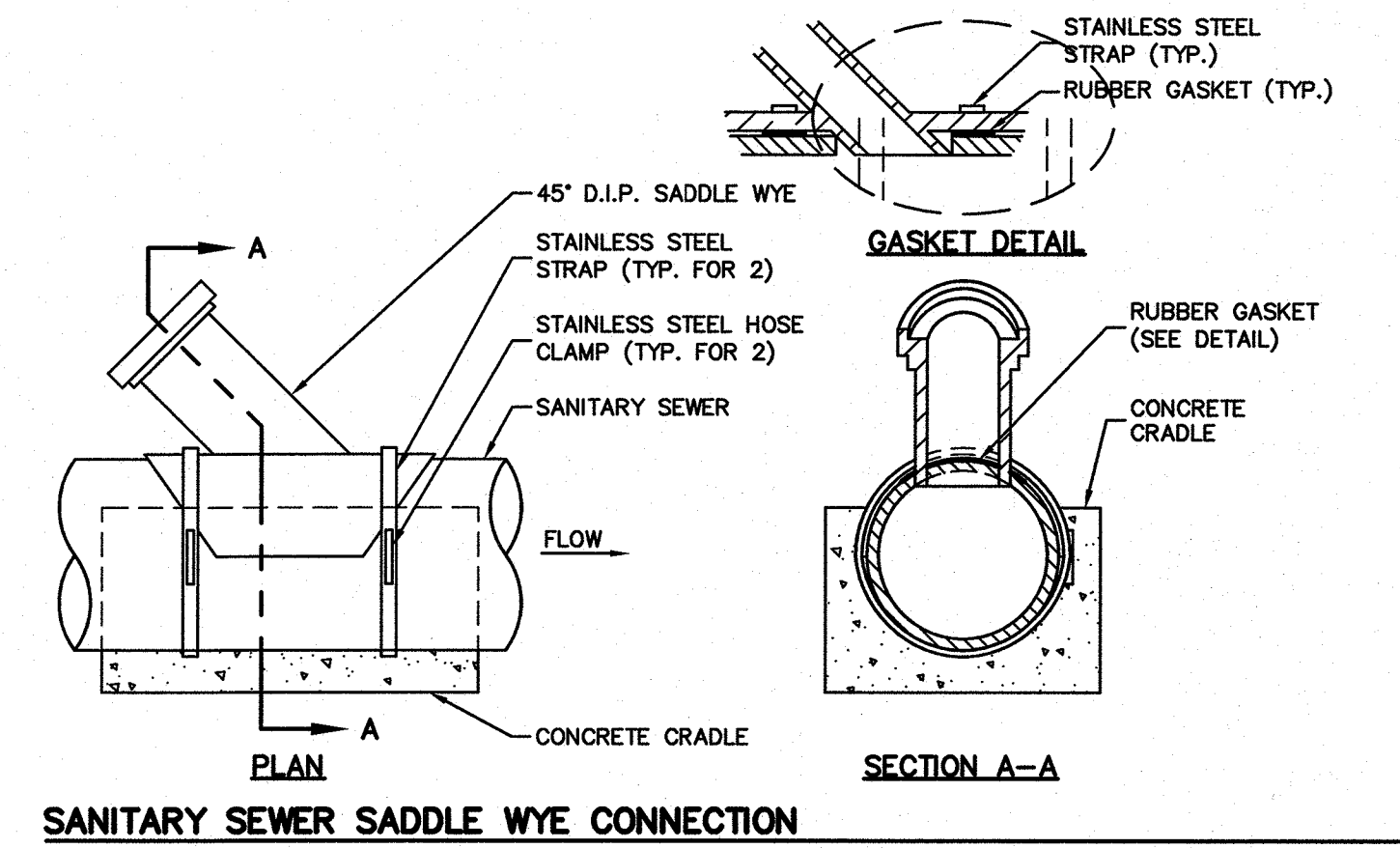
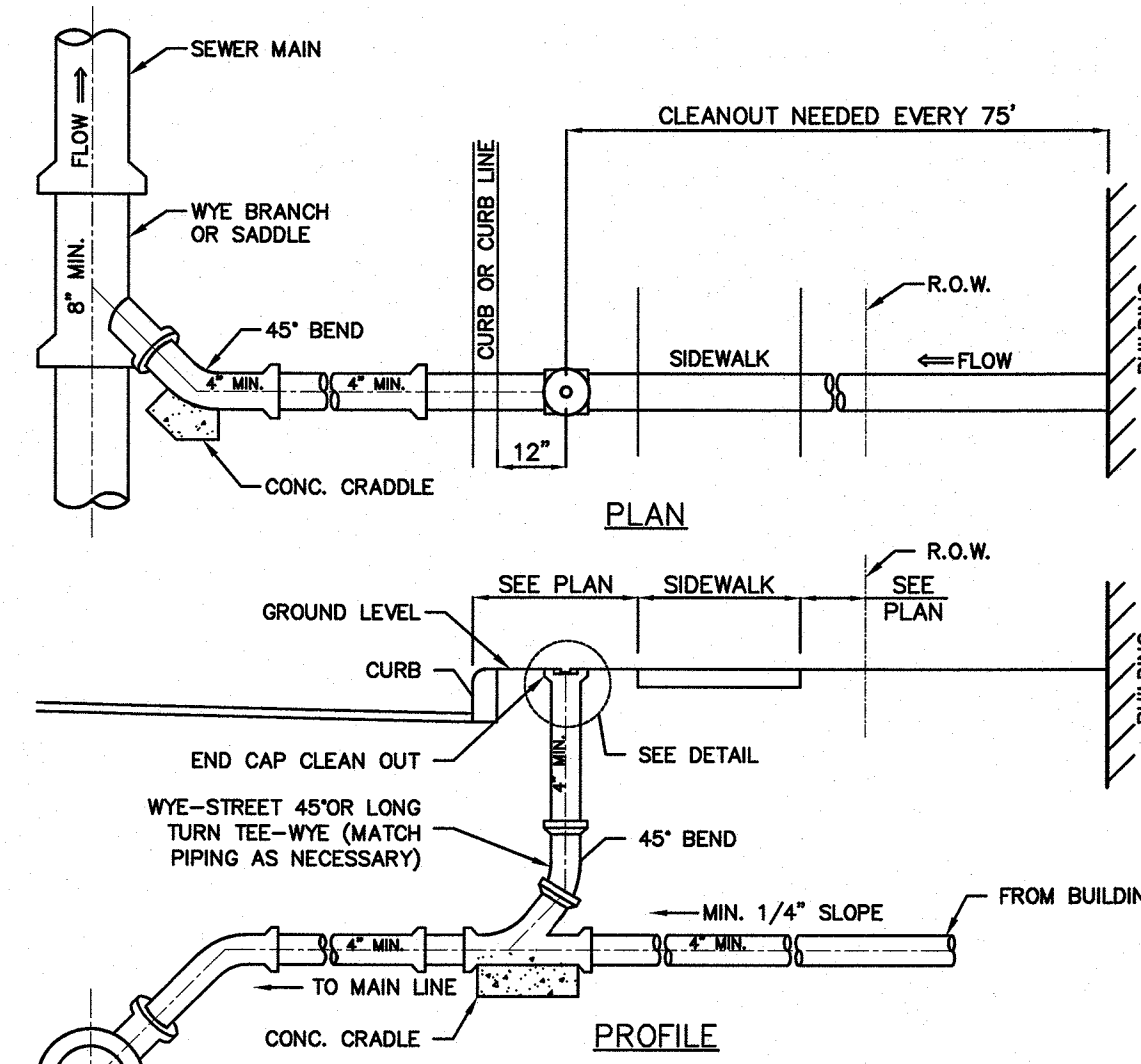
CLIENT
TRICONE
2525 US-130 SUITE B4
CRANBURY, NJ 08512

CERTIFICATE OF AUTHORIZATION
24GA28068900 / 21MH00029800

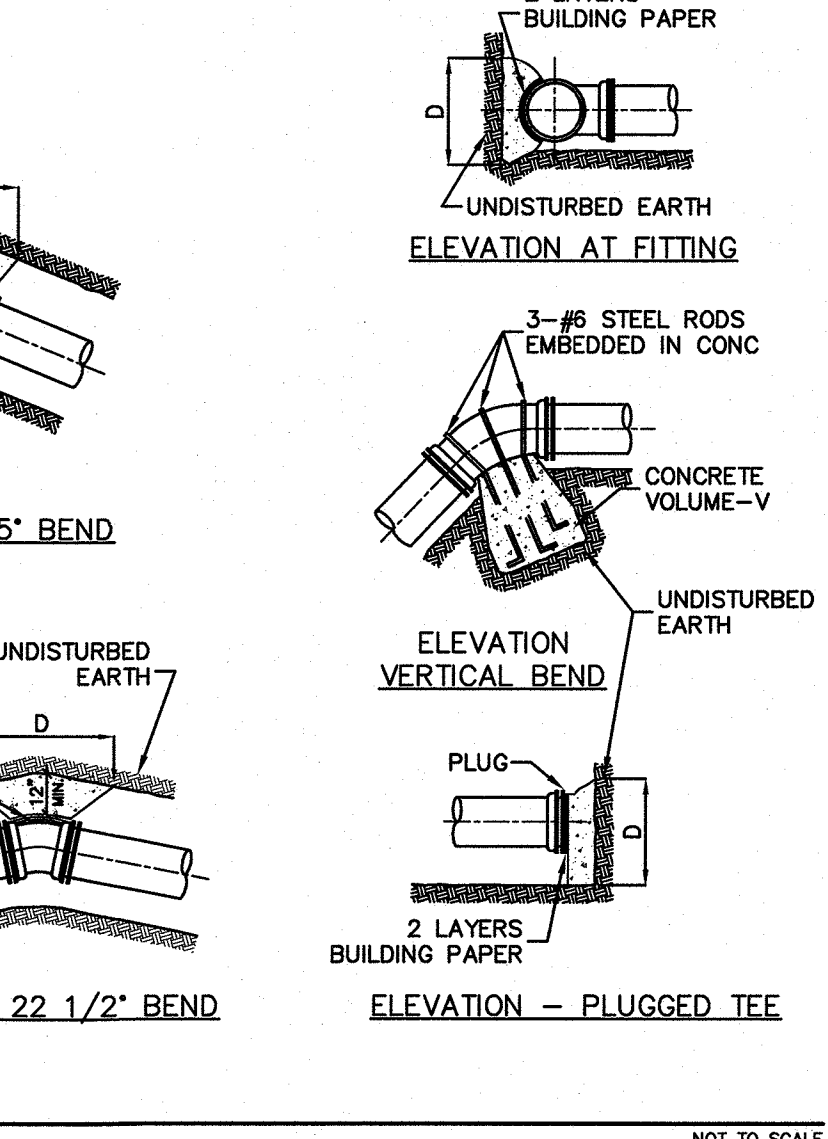
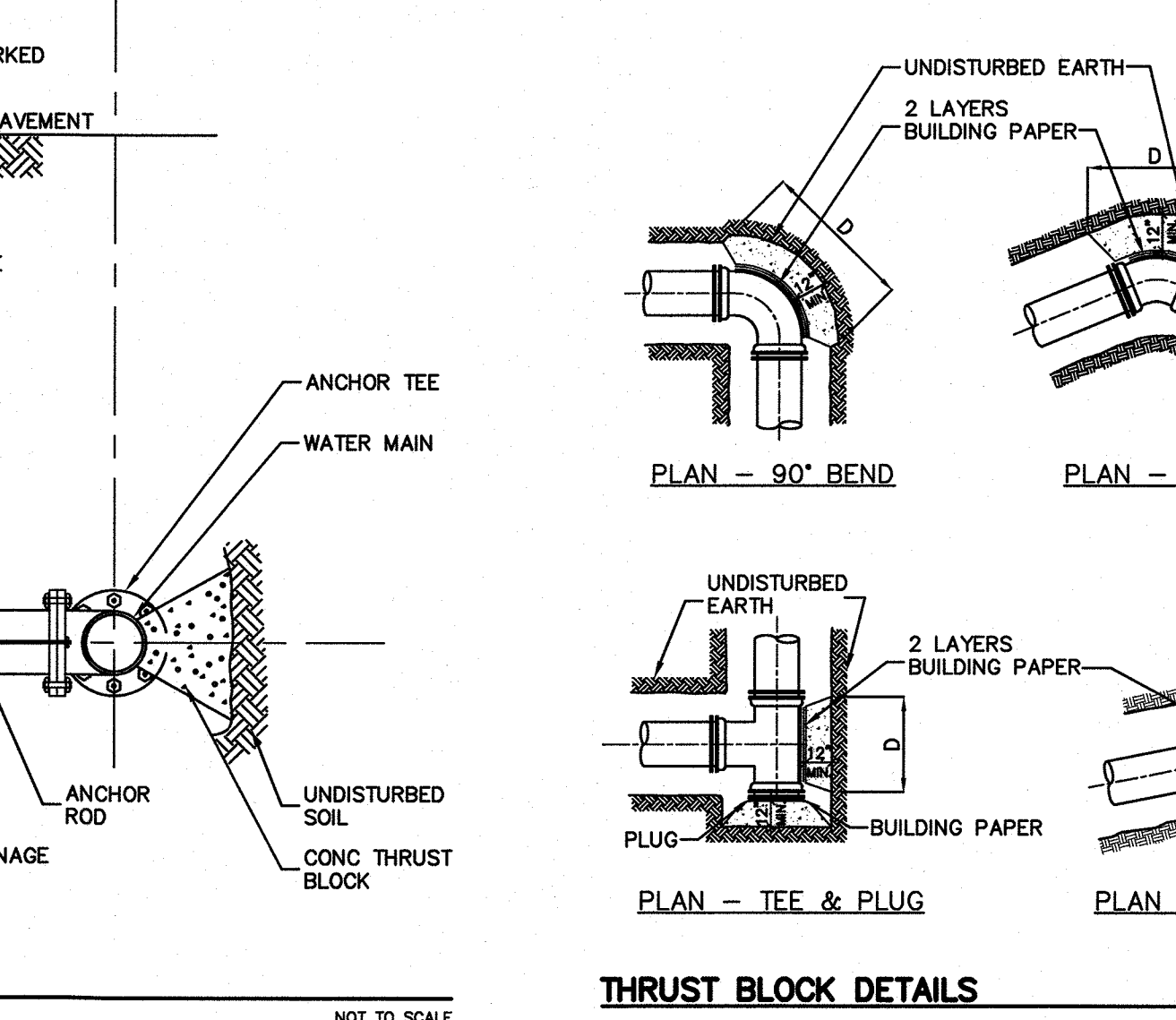
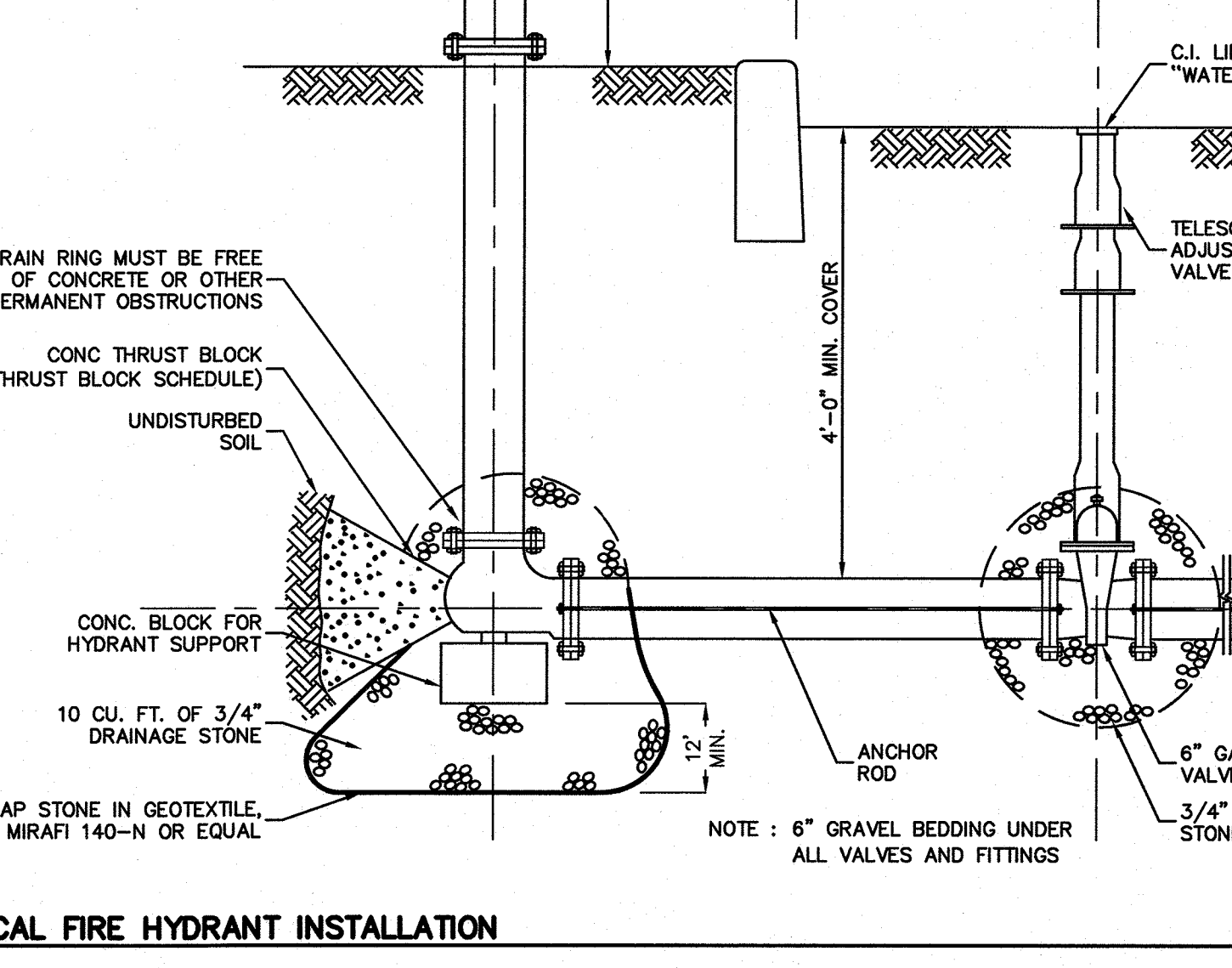
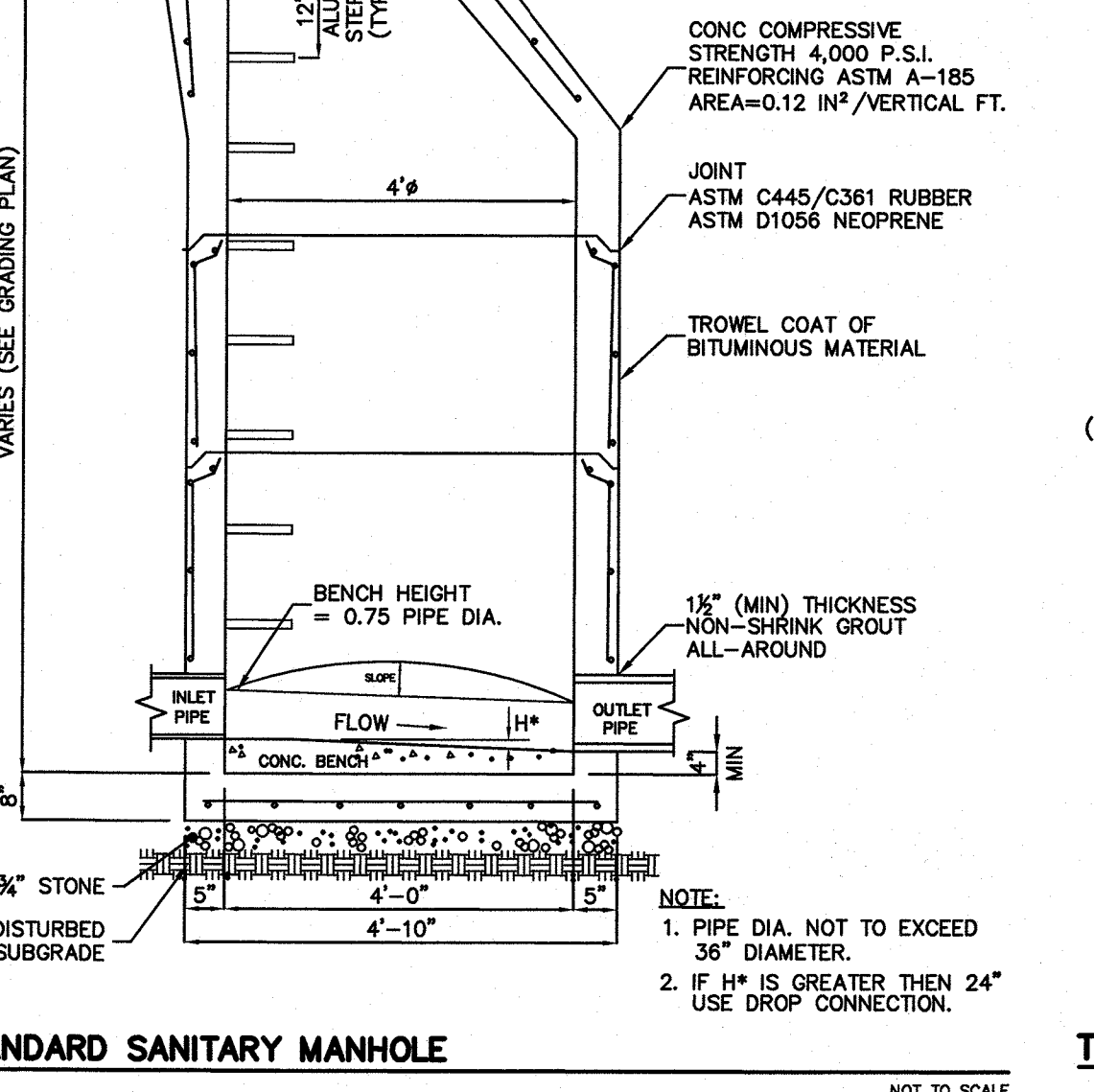
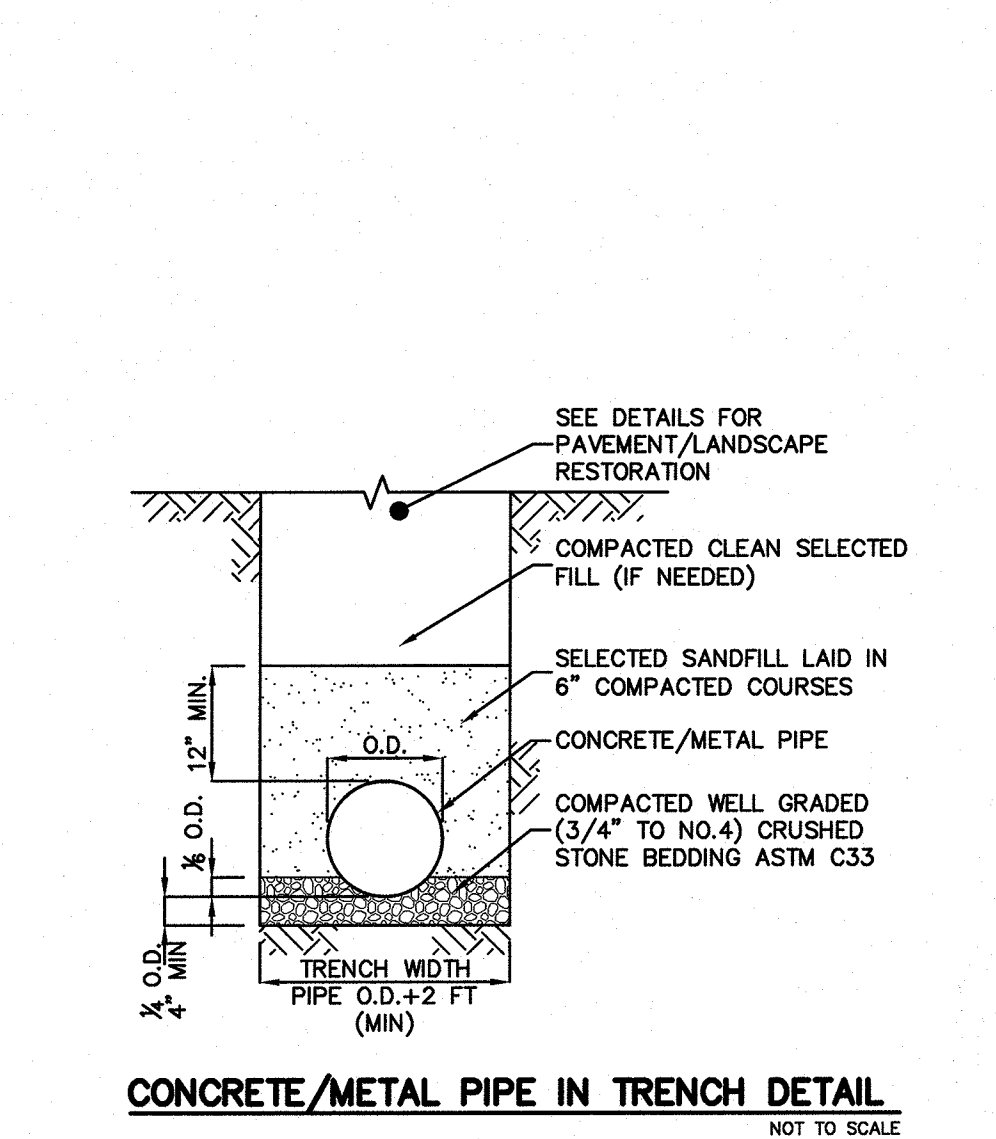
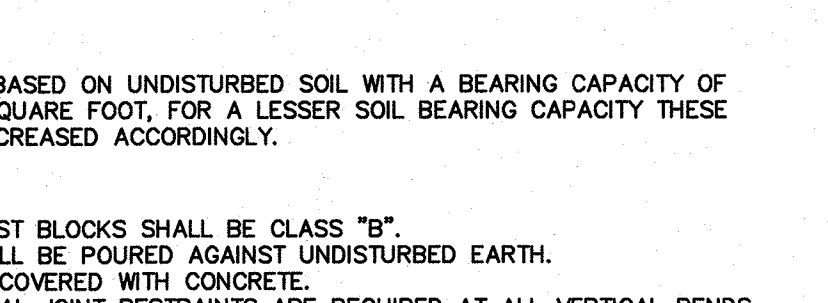
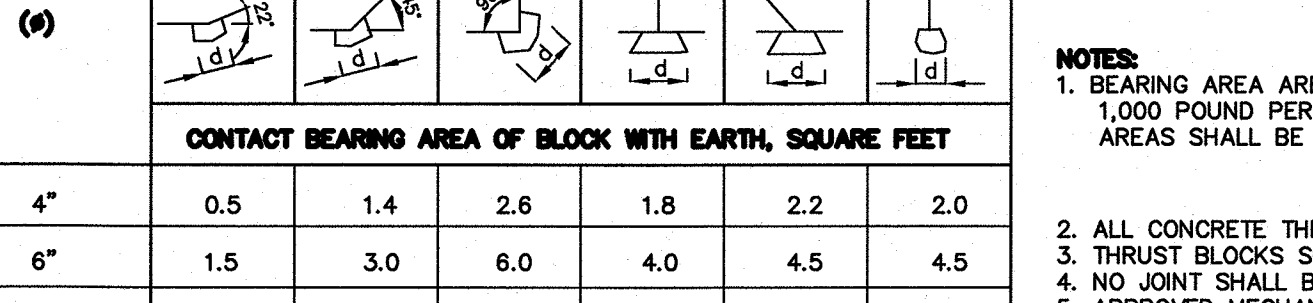
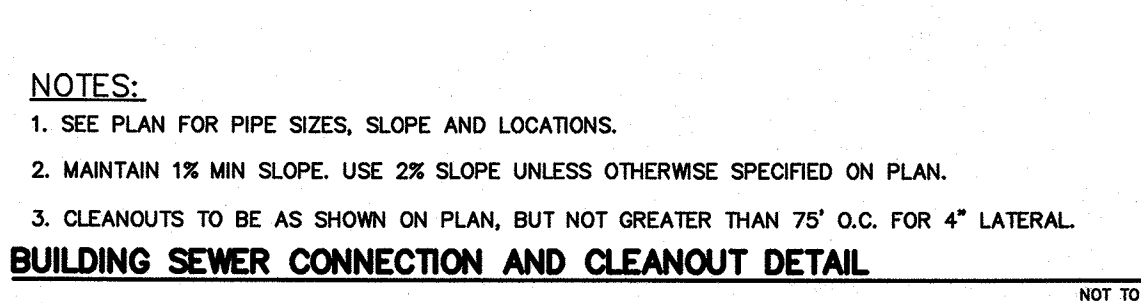
DRAWN BY: M.B.L. CHECKED BY: C.J.B.
SCALE: AS SHOWN PROJECT NO: 21-210
DATE: 10-12-23 REVISION NO: 2

UTILITY NOTES

- 1.0 GENERAL**
 - EXISTING UTILITY LOCATIONS AREA APPROXIMATE AND ALL PROPOSED CONNECTION CONDITIONS MUST BE VERIFIED PRIOR TO CONSTRUCTION OF ANY ON-SITE UTILITIES.
 - ALL UTILITIES TO BE INSTALLED IN ACCORDANCE WITH UTILITY COMPANY REQUIREMENTS.
 - METER LOCATIONS SHOWN HERE ARE SCHEMATIC. ACTUAL LOCATIONS TO BE DETERMINED BY UTILITY & ARCHITECT.
 - CONCRETE SUPPORT BLOCKS SHALL BE CONSTRUCTED AT ANY CROSSING WHERE THE SEPARATION BETWEEN THE UTILITIES IS LESS THAN EIGHTEEN (18) INCHES OR AS DIRECTED BY THE ENGINEER. CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE DETAIL AS SHOWN HEREIN.
 - THE CONTRACTOR SHALL DIG TEST PITS AT ALL CROSSINGS TO VERIFY EXISTING UTILITY LOCATIONS AND ELEVATIONS PRIOR TO THE START OF CONSTRUCTION. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLAN.
 - TRENCH DEPTHS FOR ALL UTILITIES SHALL MEET THE MINIMUM REQUIREMENT OF THE DEPTH SPECIFIED BY THE GOVERNING UTILITY COMPANY OR AUTHORITY. IF DEPTHS TO TOP OF UTILITIES DUE TO PROPOSED GRADING DO NOT MEET GOVERNING UTILITY COMPANY/AUTHORITY DEPTH REQUIREMENT, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO RELOCATE THE UTILITY.
 - IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REMOVE ALL EXISTING UTILITIES WITHIN THE PROPOSED BUILDING FOOTPRINT.
 - REFER TO PLUMBING PLANS FOR LOCATION OF DOWNSPOUTS, SANITARY LATERALS & UTILITY SERVICE ENTRANCES
 - ALL UTILITY & SEWER RISERS IN PARKING LOT ARE TO BE PROTECTED FROM IMPACT.
- 2.0 WATER**
 - BUILDING SHALL BE SPRINKLERED.
 - WHERE WATER MAIN IS LOCATED WITHIN 10' HORIZONTALLY OF THE SEWER MAIN, IT SHALL BE AT LEAST 18" HIGHER OR CONCRETE ENCASED.
 - ALL EXPOSED WATER LATERALS SHALL BE INSULATED AND HEAT TRACED.
 - SITUATIONS WHERE THE PROPOSED WATER SERVICE CONFLICTS WITH OTHER UTILITIES, THE CONTRACTOR WILL BE DIRECTED BY THE ENGINEER TO LOOP OVER OR UNDER THE UTILITY AS THE CASE MAY BE. IN ADDITION, THE CONTRACTOR SHALL CONTACT THE OWNER, CITY ENGINEER, AND UTILITY COMPANIES TO ARRANGE FOR PROPER REMOVAL, RELOCATION, AND / OR REPAIRS OF ANY UNDERGROUND OR ABOVE GROUND UTILITIES AND OTHER SERVICES, WHICH MAY INTERFERE THROUGHOUT THE COURSE OF CONSTRUCTION.
 - PRIOR TO CONSTRUCTION, A FLOW TEST SHALL BE PERFORMED TO CONFIRM THE FLOW AND/OR PRESSURE AVAILABLE IN THE MAIN TO WHICH THE PROPOSED BUILDING WILL CONNECT.
 - THRUST BLOCKS SHALL BE INSTALLED FOR PROPOSED WATER LINES AND SHALL BE PROVIDED AT ALL TEES, ELBOWS, BENDS, AND PLUGS. IN ADDITION, WATER SERVICE LINES SHALL BE SEPARATED FROM SANITARY SEWERS AND STORMWATER CONVEYANCE LINES BY EITHER 10 FEET HORIZONTALLY (MINIMUM) OR 1.5 FEET VERTICALLY (MINIMUM). IF THIS SEPARATION CAN NOT BE PROVIDED, THE WATER LINE SHALL BE ENCASED IN CONCRETE AS PER THE WATER COMPANY SPECIFICATIONS.
 - VALVES FOR WATER LATERALS TO BE LOCATED IN LANDSCAPE AREA BETWEEN SIDEWALK AND BUILDING.
 - WATER LATERALS TO BE SIZED BY MECHANICAL ENGINEER.
 - PROPOSED LOCATION OF HYDRANT ALONG RIVER ROAD TO BE DETERMINED BY FIRE DEPARTMENT & WATER COMPANY
 - CONTRACTOR TO DETERMINE LOCATION OF EXISTING WATER MAIN IN RIVER ROAD BEFORE CONSTRUCTION.
- 3.0 STORM & SANITARY SEWER**
 - COORDINATE SEWER CONNECTIONS WITH PLUMBING PLANS.
 - ROOF LEADERS ARE SHOWN ON ARCHITECTURAL PLANS, THE CONNECTIONS TO DRAINAGE SYSTEM SHALL BE COORDINATED BETWEEN CONTRACTOR AND ENGINEER PRIOR TO CONSTRUCTION.
 - SANITARY PIPES SHALL BE AS NOTED.
 - ALL WORK TO BE IN CONFORMANCE WITH THE GUIDELINES OF THE JERSEY CITY PLUMBING SUBCODE.
 - THE MUNICIPAL AUTHORITY SHALL BE NOTIFIED AT THE COMMENCEMENT OF WORK AND 24 HOURS PRIOR TO FINAL CONNECTION TO THE COLLECTION SYSTEM AND BACKFILL. THE APPLICANT SHALL SUBMIT A SANITARY SEWER CONNECTION APPLICATION TO THE JERSEY CITY MUNICIPAL UTILITIES AUTHORITY.
 - THE APPLICANT/OWNER SHALL BE RESPONSIBLE FOR THE PROPOSED SEWER UP TO THE POINT OF CONNECTION TO THE MUNICIPAL SYSTEM.
 - MANHOLE SECTIONS TO CONFORM TO ASTM C-478
 - THE CONDITION OF THE EXISTING SANITARY MANHOLE SHALL BE INSPECTED AND RECONDITIONED TO THE SATISFACTION OF THE MUNICIPAL ENGINEER. THE EXISTING BENCH SHALL BE MODIFIED AS NECESSARY FOR THE INSTALLATION OF THE NEW GRAVITY CONNECTION.
- 4.0 NATURAL GAS & ELECTRIC**
 - NATURAL GAS PIPES TO BE SIZED BY GAS COMPANY.
 - THE CONTRACTOR SHALL INSTALL PROTECTIVE BRACING, BRACING OR SHEETING TO SUPPORT ANY EXPOSED GAS UTILITIES IN ACCORDANCE WITH THE GOVERNING GAS COMPANY REGULATIONS.
 - TELEPHONE, ELECTRIC, GAS, AND CABLE LINES AND STRUCTURE LOCATIONS SHOWN ON THE PLANS ARE TENTATIVE AND MAY CHANGE PER UTILITY COMPANY DIRECTION. THE CONTRACTOR SHALL COORDINATE FINAL LOCATIONS AND INSTALLATION REQUIREMENTS WITH THE APPLICABLE UTILITY COMPANIES.
 - PRIOR TO CONSTRUCTION ALL UTILITY POLE RELOCATIONS AND BUILDING CONNECTIONS TO BE COORDINATED BY THE CONTRACTOR AND GOVERNING UTILITY AUTHORITY.
 - SERVICES TO BE RUN OVERHEAD FROM UTILITY POLE.
 - RELOCATION OF UNDERGROUND ELECTRIC SERVICE THAT IS NECESSITATED BY ANY MODIFICATIONS/REMOVAL/RELOCATION OF UTILITY POLES IS THE RESPONSIBILITY OF THE PROPERTY OWNER.



- 1.0 GENERAL**
 - SEE PLAN FOR PIPE SIZES, SLOPE AND LOCATIONS.
 - MAINTAIN 1% MIN SLOPE. USE 2% SLOPE UNLESS OTHERWISE SPECIFIED ON PLAN.
 - CLEANOUTS TO BE AS SHOWN ON PLAN, BUT NOT GREATER THAN 75' O.C. FOR 4" LATERAL.
- BUILDING SEWER CONNECTION AND CLEANOUT DETAIL**
 - SEE PLAN FOR PIPE SIZES, SLOPE AND LOCATIONS.
 - MAINTAIN 1% MIN SLOPE. USE 2% SLOPE UNLESS OTHERWISE SPECIFIED ON PLAN.
 - CLEANOUTS TO BE AS SHOWN ON PLAN, BUT NOT GREATER THAN 75' O.C. FOR 4" LATERAL.



66 GLEN AVENUE
GLEN ROCK, NJ 07452
P 201.670.6688
F 201.670.9788
www.bertinengineering.com



CIVIL • SURVEYING • TRAFFIC • STRUCTURAL • ENVIRONMENTAL • MECHANICAL • LANDSCAPE

CALISTO J. BERTIN, P.E.
PROFESSIONAL ENGINEER
CT LIC. NO. 12950 NJ LIC. NO. 28845
MA LIC. NO. 40595 NY LIC. NO. 60022
NH LIC. NO. 9368 RI LIC. NO. 6594

ERIC M. HOUGH, P.E.
PROFESSIONAL ENGINEER
NJ LIC. NO. 58855

NO.	DATE	REVISION
1	3-12-24	ADDED UTILITY NOTES & WATER DETAILS

DRAWING TITLE
UTILITY DETAILS

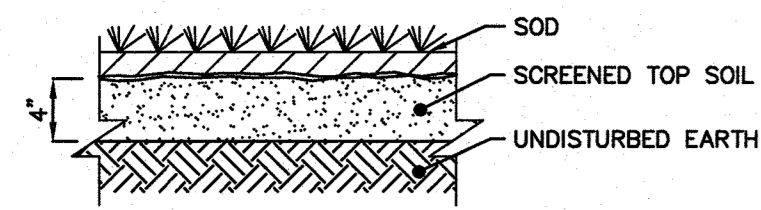
PROJECT
RESIDENTIAL DEVELOPMENT
BLOCK 4201.01, LOT 33.03
GROVERS MILL ROAD & MALL ACCESS ROAD
TOWNSHIP OF LAWRENCE
MERCER COUNTY, NEW JERSEY

CLIENT
TRICONE
2525 US-130 SUITE B4
CRANBURY, NJ 08512

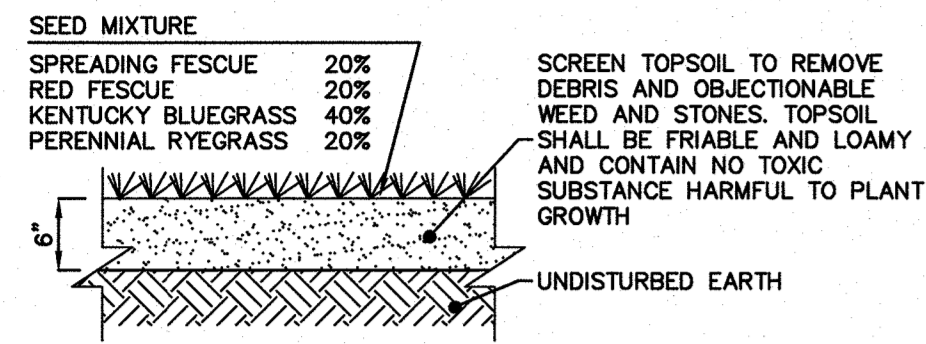
CERTIFICATE OF AUTHORIZATION
24GA28068900 / 21MH0002800

DRAWN BY V.L.	CHECKED BY C.J.B.
SCALE AS SHOWN	PROJECT NO. 21-210
DATE 10-12-23	REVISION NO. 1

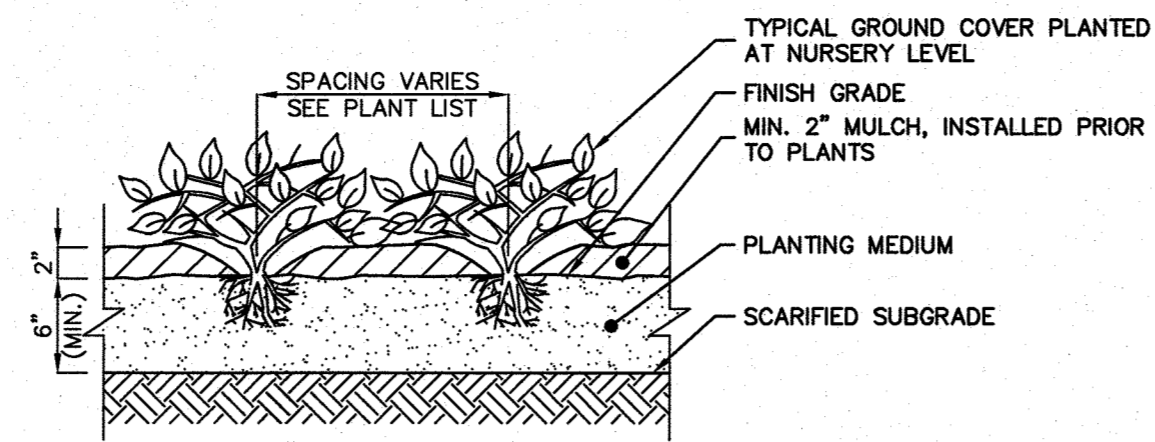
DRAWING NO.
C3.3



SOD DETAIL
NOT TO SCALE

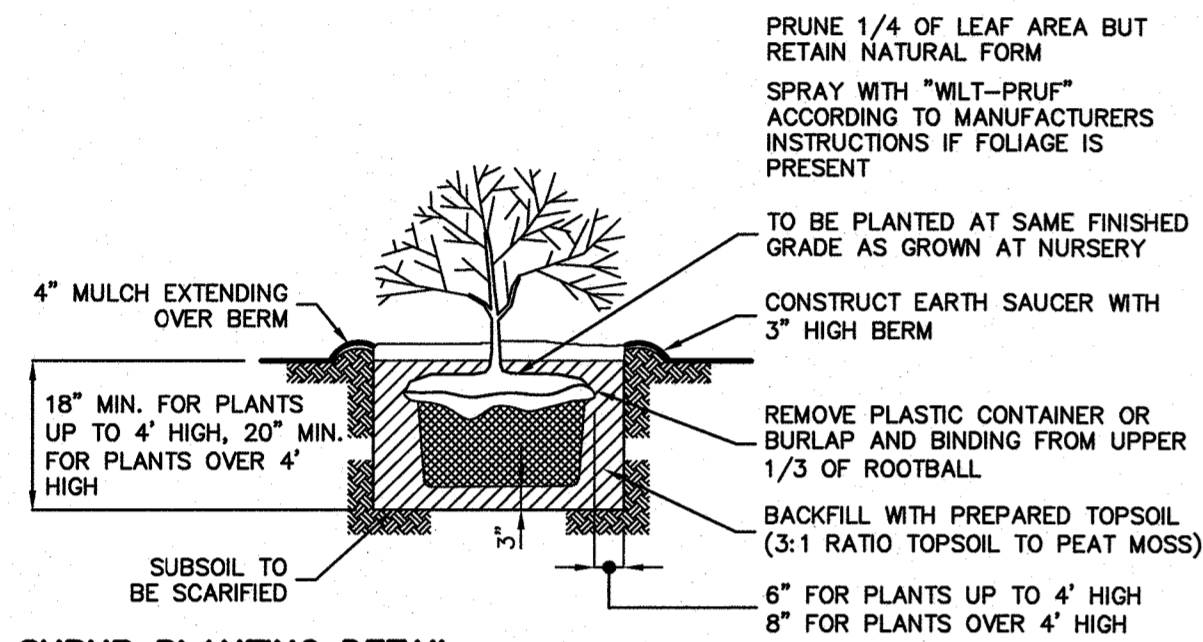


TOP SOIL & GRASS DETAIL
NOT TO SCALE

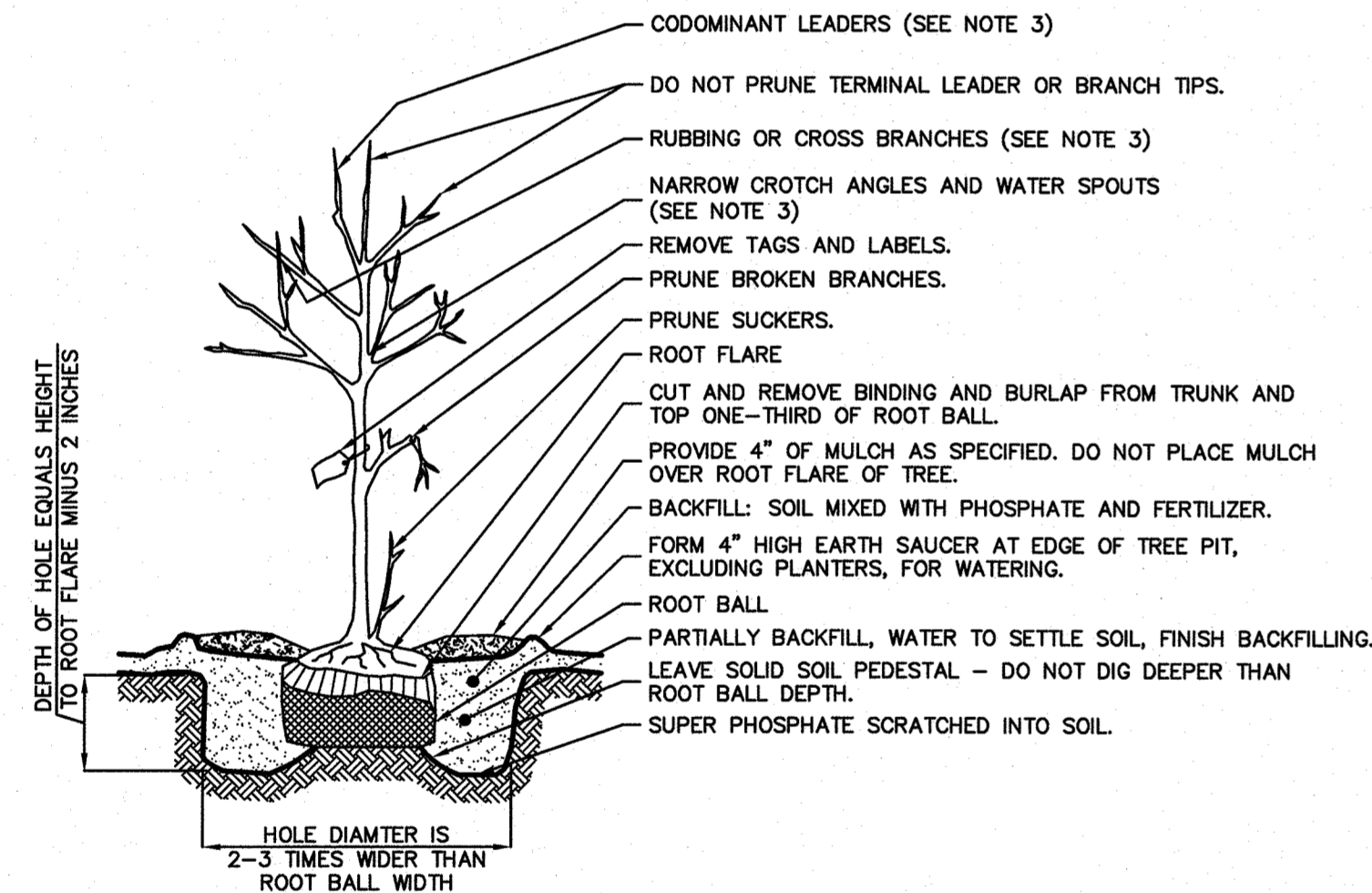


- NOTES:**
1. PLANTING MEDIUM SHALL BE PLANTING SOIL MIXED 50/50 WITH NATIVE SOIL OR NATIVE SOIL AMENDED WITH 25% MIN. DECOMPOSED ORGANIC MULCH AMENDMENT.
 2. ALL GROUNDCOVER SHALL BE PLANTED AT EQUAL TRIANGULAR SPACING OR ON CENTER SPACING AS SPECIFIED ON LANDSCAPING PLAN.
 3. LOCATE GROUNDCOVER ONE-HALF OF SPECIFIED SPACING DISTANCE FROM ANY CURB, SIDEWALK OR OTHER HARD SURFACE, UNLESS OTHERWISE SPECIFIED.

GROUNDCOVER PLANTING
NOT TO SCALE

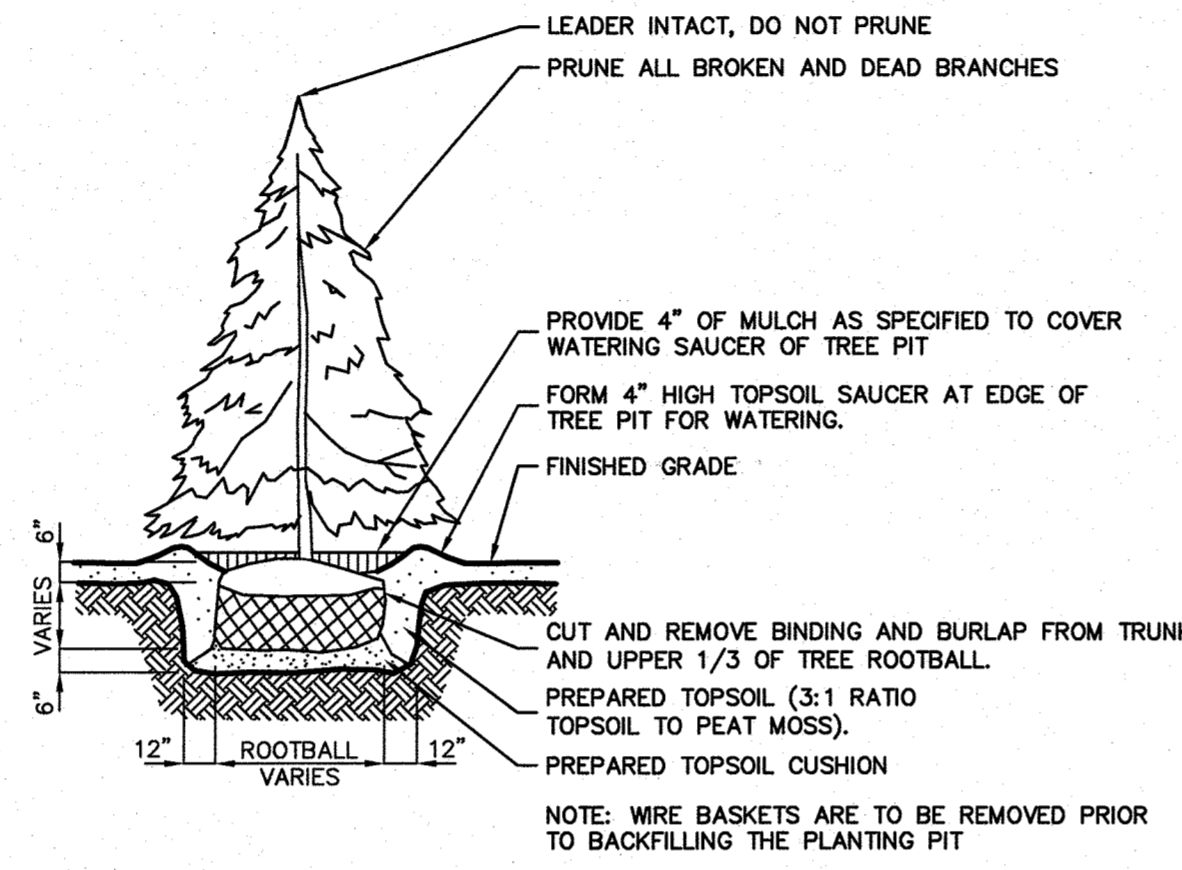


SHRUB PLANTING DETAIL
NOT TO SCALE

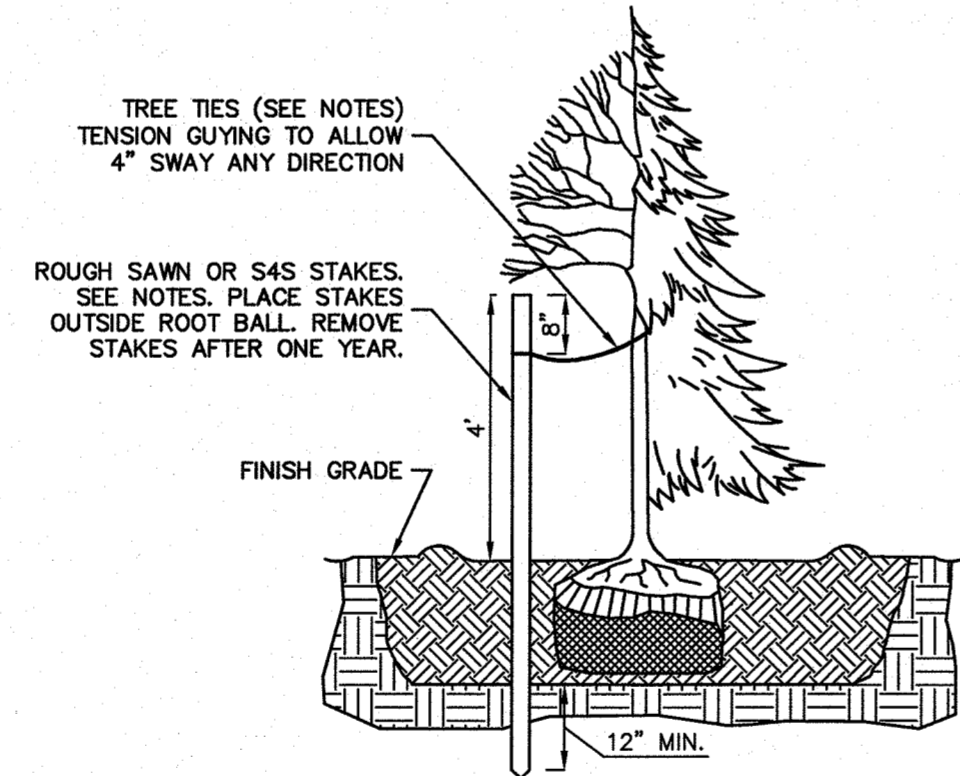


- NOTES:**
1. WIRE BASKETS ARE TO BE REMOVED PRIOR TO BACKFILLING THE PLANTING PIT.
 2. DO NOT STAKE TREE OR WRAP TRUNK UNLESS SPECIFIED ON PLANS OR REQUIRED BY A REVIEWING ENGINEER OR INSPECTOR. IF STAKING IS REQUIRED, A DETAIL WILL BE PROVIDED. IF TRUNK WRAPPING IS REQUIRED USE A WATERPROOF, BIODEGRADABLE TREE WRAP WITH 50% OVERLAP SECURED WITH HEMP CORD TO FIRST BRANCHING.
 3. AT TIME OF PLANTING, ONLY PRUNE DEAD OR BROKEN BRANCHES, ANY SUCKERS AND ANY BRANCHES THAT MAY BE A HAZARD TO PEDESTRIANS. AT 2-3 YEARS AFTER PLANTING, PRUNE THE FOLLOWING: CODOMINANT LEADERS, RUBBING OR CROSS BRANCHES, WATER SPOUTS AND BRANCHES WITH NARROW CROTCH ANGLES.

TYPICAL TREE PLANTING DETAIL
NOT TO SCALE



EVERGREEN TREE PLANTING DETAIL
NOT TO SCALE



TREE STAKING DETAIL
NOT TO SCALE

- TREE STAKING NOTES:**
1. STAKES TO BE CONSTRUCTION GRADE, ROUGH SAWN OR FINISHED DOUGLAR FIR OR PINE. STAKE SIZE TO BE 1 1/2" X 1 1/2" BY THE FOLLOWING LENGTHS:
- TREES 36" AND SHORTER - USE ONE 6 FT (APPROX.) STAKE
- TREES TALLER THAN 36" - USE TWO 8 FT (APPROX.) STAKES
 2. DRIVE STAKES VERTICALLY AND AT LEAST 12" INTO UNDISTURBED SOIL. DO NOT DRIVE STAKES THROUGH ROOT BALL. LOCATE STAKES TO BEST RESIST PREVAILING WINDS WHERE POSSIBLE.
 3. TREE TIES TO BE EITHER:
PLASTIC CHAIN TYPE, APPROX. 1" WIDTH BY 1/8" DEPTH. WHERE TWO STAKES ARE REQUIRED, CROSS THE TIES BETWEEN STAKES AND WRAP THE ONCE AROUND TREE. FASTEN SECURELY TO STAKE.
2 STRANDS #12 GAUGE GALV. ANNEALED STEEL WIRE TWISTED. PORTION OF WIRE THAT GOES AROUND TREE TO BE ENCLOSED IN NEW BLACK REINFORCED RUBBER HOSE. WIRE IS TO BE DOUBLE WRAPPED AROUND STAKE AND TWISTED TO TIGHTEN.

LANDSCAPE MAINTENANCE NOTES

1. PROPERTY OWNER WILL BE RESPONSIBLE FOR MAINTENANCE OF ALL LANDSCAPING.
2. TREES AND SHRUBS, MAINTAIN FOR THE FOLLOWING MAINTENANCE PERIOD BY PRUNING, CULTIVATING, WATERING, WEEDING, FERTILIZING, RESTORING PLANTING SAUCERS, TIGHTENING AND REPAIRING STAKES AND GUY SUPPORTS, AND RESETING TO PROPER GRADES OR VERTICAL POSITION, AS REQUIRED TO ESTABLISH HEALTHY, VIABLE PLANTINGS. SPRAY AS REQUIRED TO KEEP TREES AND SHRUBS FREE OF INSECTS AND DISEASE. RESTORE OR REPLACE DAMAGED TREE WRAPPINGS.
GROUND COVER AND PLANTS: MAINTAIN FOR THE FOLLOWING MAINTENANCE PERIOD BY WATERING, WEEDING, FERTILIZING, AND OTHER OPERATIONS AS REQUIRED TO ESTABLISH HEALTHY, VIABLE PLANTINGS.
THOSE PERFORMING SUCH WORK BE PROFESSIONALS CERTIFIED IN SUCH WORK. (ISA CERTIFIED, CERTIFIED TREE EXPERT CERTIFICATION AND/OR SHOW PROOF OF NOT LESS THAN 5 YEARS EXPERIENCE IN SUCH HORTICULTURAL WORK HAS BEEN OBTAINED).
3. MAINTENANCE PERIOD: 24 MONTHS FROM DATE OF SUBSTANTIAL COMPLETION AS DETERMINED BY THE BOROUGH'S LANDSCAPE ARCHITECT/OR BOROUGH OFFICIAL HAVING JURISDICTION.
4. NORMAL MAINTENANCE AND CARE OF ALL PLANT MATERIAL, (WATERING, ETC.) SHALL TAKE PLACE PRIOR TO THE DETERMINATION OF SUBSTANTIAL COMPLETION AS WELL IN ORDER TO PLANTED MATERIAL HEALTHY.

LANDSCAPE NOTES

1. ALL LANDSCAPED AREAS TO RECEIVE A TWELVE INCH (12") LAYER OF COMPACTED TOPSOIL.
2. ALL PLANT MATERIAL TO BE BALLED & BURLAPPED AND CONFORM TO U.S.A. STANDARD FOR NURSERY STOCK U.S.A. Z 60.1-1989.
3. SHRUBS SHALL BE PLANTED IN PITS WITHIN THE BED ONE FOOT GREATER THAN THE SPREAD OF THE ROOTS AND 18" DEEP BELOW FINISH GRADE OR AS DEEP AS IS NECESSARY TO PROPERLY SET THE PLAN AT FINISH GRADE. THE DEPTH OF THE PLANTING PIT SHALL BE ADJUSTED AS NECESSARY TO PERMIT A MINIMUM OF (3") THREE INCHES OF TOPSOIL UNDER BALL OF ALL PLANTS.
4. TOP SOIL USED FOR PLANTING SHALL BE A MIXTURE OF THREE PARTS TOP SOIL TO ONE PART PEAT.
5. IMMEDIATELY AFTER PLANTING OPERATIONS ARE COMPLETED, ALL TREE & SHRUB PITS SHALL BE MULCHED WITH A (4") FOUR INCH LAYER OF ROOT MULCH. THE LIMIT OF THIS MULCH FOR TREES SHALL BE AREA OF THE PIT & FOR SHRUBS IN BEDS, THE ENTIRE AREA OF SHRUB BED.
6. CUT AND REMOVE BURLAP FROM TOP 1/3 OF BALL. NYLON ROPE AND OR NYLON BALLING MATERIAL IS NOT ACCEPTABLE.
7. IF THERE IS A DISCREPANCY BETWEEN THE PLANT COUNT SHOWN IN THE PLANT LIST AND THE PLANTING GRAPHIC, THE GRAPHIC SHALL TAKE PRECEDENCE.
8. IF THE CONTRACTOR FINDS QUESTIONABLE SUBGRADE MATERIAL/SOIL CONDITIONS THAT ARE DELETERIOUS TO PLANT SURVIVAL AND GROWTH OR INHIBIT DRAINAGE HE SHALL NOTIFY THE BOROUGH LANDSCAPE ARCHITECT AND OWNER'S LANDSCAPE ARCHITECT IMMEDIATELY AND PRIOR TO INSTALLATION OF PLANT MATERIALS UPON FINDINGS OF SUCH QUESTIONABLE MATERIAL.
9. PLANT GROUNDCOVERS IN 8" DEEP TOPSOIL BED CONSISTING OF 3 PARTS TOPSOIL AND 1 PART HUMUS. PLANT BULBS IN NATURALIZED DRIFTS.
10. TOPSOIL AND SEED ALL AREAS DISTURBED AS A RESULT OF ANY AND ALL CONSTRUCTION DISTURBANCES, OR STORAGE OF EQUIPMENT, WHETHER SUCH AREAS ARE SHOWN ON THE PLANS OR NOT. CONTRACTOR TO FIELD VERIFY AREAS OF SEED AND OF SOD PRIOR TO SUBMITTING BID.
11. CONTRACTOR SHALL REVIEW THE "PROTECTION AGAINST AND REMEDIATION OF EXCESS SOIL COMPACTION".
12. CONTRACTOR SHALL REVIEW AND COORDINATE HIS WORK WITH THAT OF THE WORK SHOWN ON THE LANDSCAPING PLAN DEVELOPED BY THE APPLICANT'S LANDSCAPE ARCHITECT.
13. UTILITIES/STRUCTURES, CONDUITS ARE TO BE PLACED ALONG THE INSIDE OF CURBING, BOTH EXISTING AND PROPOSED TO ENSURE THAT THEY DO NOT INTERFERE WITH THE INSTALLATION/PLANTING OF PROPOSED CANOPY TREES, EVERGREEN TREES, SHRUBS AND GROUND COVER. ANY CONDUITS, LINES, STRUCTURES FOUND TO BE IN INTERFERENCE OF PROPOSED PLANTINGS SHALL BE REARRANGED, REMOVED AND REPLACED AT CONTRACTOR'S EXPENSE.
14. AT ALL AREAS PROPOSED FOR PLANTINGS AND LANDSCAPING THE CONTRACTOR SHALL REMOVE ALL EXISTING DRIVEWAY/ASPHALT PAVEMENT AND STRUCTURE MATERIALS TO FULL DEPTH INCLUDING ALL SUBBASE MATERIAL. SUBGRADE SHALL BE TILLED/RIPPED TO SOFTEN SUBGRADE. ENTIRE AREA SHALL BE BACK FILLED WITH UP TO NOT LESS THAN 12" OF TOPSOIL.
15. FURNISH AN IRRIGATION SYSTEM AT ALL LANDSCAPED AREAS. IRRIGATION SYSTEM TO BE DESIGNED BY A PERSON LICENSED IN THE STATE OF NEW JERSEY.

LAWNS: SODDING AND SOIL PREPARATION NOTES

1. CONTRACTOR TO FINE GRADE AND PREPARE ALL SITE AREAS TO RECEIVE SOD. MAKE SITE SMOOTH TO FINAL GRADING PLAN ELEVATIONS, FILL IN DEPRESSIONS, LOW SPOTS AND GRADE SMOOTH.
2. ALL LAWN AREAS WITHIN LAWN LIMIT LINES TO RECEIVE 6" OF TOPSOIL PRIOR TO SODDING OPERATIONS. ONCE TOPSOIL HAS BEEN PLACED, CONSTRUCTION ACTIVITY OF ANY KIND (EXCLUDING LANDSCAPING) SHALL NOT BE PERMITTED ON OR ACROSS ANY PLANTING AREA. CONTRACTOR SHALL FULLY EXCAVATE ANY PLANTING AREA THAT IS DISTURBED AND REPLACE WITH TOPSOIL. SCARIFY SOIL TO DEPTH OF 3+ INCHES PRIOR TO APPLICATION.
3. LAWNS SHALL BE SODDED FOLLOWING SCARIFYING, FINAL GRADING, FERTILIZING, AND RAKING. LAWN SHALL BE FERTILIZED WITH 12-12-12 ANALYSIS FERTILIZER AT A RATE OF 10 LBS/1,000 SF.
4. WATER AND MAINTAIN GRASS UNTIL STAND IS ESTABLISHED AND READY FOR MOWING AT MINIMUM 4 INCH HEIGHT. CONTINUE TO WATER FOR A MINIMUM 30 DAYS OR UNTIL ACCEPTED BY OWNER.
5. FOLLOWING SODDING OPERATIONS, CLEAN UP EXCESS MATERIALS, AND CLEAN ALL BARK MULCHED AND PAVED AREAS. ALL LAWNS SHALL BE GUARANTEED TO HAVE A UNIFORM STAND OF ACCEPTABLE GRASS AT THE END OF THE ONE YEAR GUARANTEE PERIOD WITH NO BARE SPOTS COMPRISING MORE THAN 2% OF ANY LAWN AREA. ANY AREA SO NOTED WILL BE SODDED UNTIL AN ACCEPTABLE STAND OF GRASS IS ESTABLISHED.
6. ALL DISTURBED LAWN AREAS SHALL BE SODDED AS NOTED AND AS APPROVED BY OWNER'S REPRESENTATIVE AND LANDSCAPE ARCHITECT.

LAWNS: SEEDING AND SOIL PREPARATION NOTES

1. CONTRACTOR TO FINE GRADE AND PREPARE ALL SITE AREAS TO RECEIVE SEED. MAKE SITE SMOOTH TO FINAL GRADING PLAN ELEVATIONS, FILL IN DEPRESSIONS, LOW SPOTS AND GRADE SMOOTH.
2. ALL LAWN AREAS WITHIN LAWN LIMIT LINES TO RECEIVE 6" OF TOPSOIL PRIOR TO SEEDING OPERATIONS. ONCE TOPSOIL HAS BEEN PLACED, CONSTRUCTION ACTIVITY OF ANY KIND (EXCLUDING LANDSCAPING) SHALL NOT BE PERMITTED ON OR ACROSS ANY PLANTING AREA. CONTRACTOR SHALL FULLY EXCAVATE ANY PLANTING AREA THAT IS DISTURBED AND REPLACE WITH TOPSOIL.
3. HYDROSEEDING IS ACCEPTABLE. APPLY WITH APPROVED EQUIPMENT DESIGNED FOR PROFESSIONAL HYDROSEEDING APPLICATIONS AT RECOMMENDED RATES.
4. PROVIDE FRESH, CLEAN NEW-CROP "PREMIUM" GRADE SEED AND SEED MIXES AS FOLLOWS: (SUBMIT SEASONAL MIX ALTERNATIVE AS APPROPRIATE)
40% KENTUCKY BLUEGRASS
30% PERENNIAL RYE GRASS
30% TURF TYPE TALL FESCUE
5. APPLY SEED AT RATE OF MINIMUM 175 POUNDS PER ACRES (4 LBS/1,000 SF).
6. SCARIFY SOIL TO DEPTH OF 3 INCHES PRIOR TO APPLICATION.
7. LAWNS SHALL BE SEEDDED FOLLOWING SCARIFYING, FINAL GRADING, FERTILIZING, AND RAKING. LAWNS SHALL BE FERTILIZED WITH 12-12-12 ANALYSIS FERTILIZER AT A RATE OF 10 LBS/1,000 SF. APPLY SEED MIX AT SPECIFIED RATE, AND LIGHTLY RAKE INTO TOP 1/4 INCH OF SOIL.
8. MULCH SEEDDED AREAS WITH STRAW MULCH AT RATE OF MINIMUM 1 1/2 TON PER ACRE (70 LBS/1,000 SF). CRIMP OR TACK STRAW MULCH TO REMAIN IN PLACE UNTIL COMPLETE GERMINATION OF SEED AND ESTABLISHED GROWTH.
9. WATER AND MAINTAIN GRASS UNTIL STAND IS ESTABLISHED AND READ FOR MOWING AT MINIMUM 4 INCH HEIGHT. CONTINUE TO WATER FOR A MINIMUM 30 DAYS OR UNTIL ACCEPTED BY OWNER.
10. FOLLOWING SEEDING OPERATIONS, CLEAN UP EXCESS MATERIALS, AND CLEAN ALL BARK MULCHED AND PAVED AREAS.
11. FOLLOWING GERMINATION, APPLY HERBICIDE TO ALL GRASS GROWTH IN PLANT MULCH AREAS.
12. ALL LAWNS SHALL BE GUARANTEED TO HAVE A FULL UNIFORM STAND OF ACCEPTABLE GRASS AT THE END OF THE ONE YEAR GUARANTEE PERIOD WITH NO BARE SPOTS COMPRISING MORE THAN 2% OF ANY LAWN AREA. ANY AREA SO NOTED WILL BE RESEEDED OR SODDED UNTIL AN ACCEPTABLE STAND OF GRASS IS ESTABLISHED.
13. ALL DISTURBED LAWN AREAS SHALL BE SEEDDED AS NOTED AND AS APPROVED BY OWNER'S REPRESENTATIVE AND LANDSCAPE ARCHITECT.

66 GLEN AVENUE
ROCKY HILL, NJ 07045
P 201.670.6688
F 201.670.9788
www.bertinengineering.com

BERTIN ENGINEERING

CIVIL • SURVEYING • TRAFFIC • STRUCTURAL • ENVIRONMENTAL • MECHANICAL • LANDSCAPE

CALISTO J. BERTIN, P.E.
PROFESSIONAL ENGINEER
CT LIC. NO. 12950 NJ LIC. NO. 28845
MA LIC. NO. 40595 NY LIC. NO. 60022
NH LIC. NO. 9358 RI LIC. NO. 6604

ERIC M. HOUGH, P.E.
PROFESSIONAL ENGINEER
NJ LIC. NO. 51893

NO.	DATE	REVISION
1	3-8-24	REMOVE SOIL ENDSION DETAILS

DRAWING TITLE
LANDSCAPE DETAILS

PROJECT
RESIDENTIAL DEVELOPMENT
BLOCK 4201.01, LOT 33.03
GROVERS MILL ROAD & MALL ACCESS ROAD
TOWNSHIP OF LAWRENCE
MERCER COUNTY, NEW JERSEY

CLIENT
TRICONE
2525 US-130 SUITE B4
CRANBURY, NJ 08512

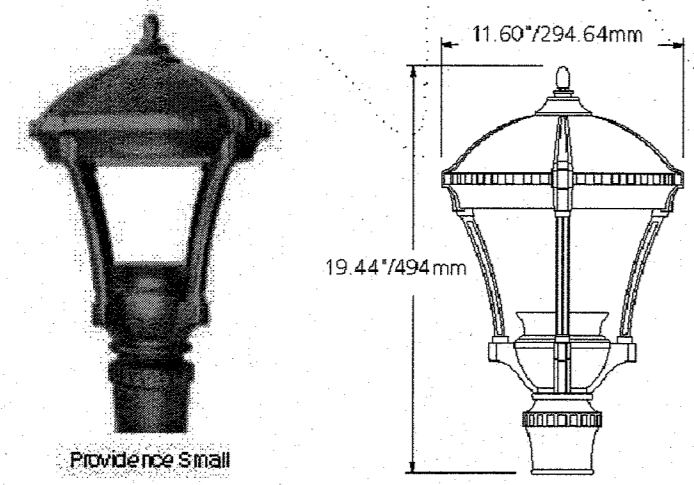
CERTIFICATE OF AUTHORIZATION
24GA28068900 / 21MH0002800

DRAWN BY V.L.	CHECKED BY C.J.B.
SCALE AS SHOWN	PROJECT NO. 21-210
DATE 10-12-23	REVISION NO. 1

DRAWING NO.
C3.4



"PROVIDENCE SMALL (PROS)" LED AREA LIGHT FIXTURE, MANUFACTURED BY ARCHITECTURAL AREA LIGHTING. SEE LIGHTING SCHEDULE FOR MODEL NUMBER(S), MOUNTING HEIGHT(S), LED COLOR TEMPERATURE(S), LIGHTING DISTRIBUTION(S), AND LUMENS.

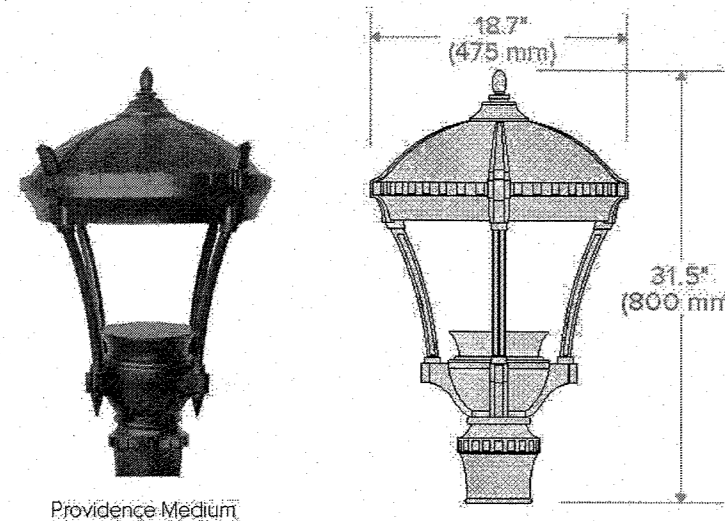


AREA LIGHT FIXTURE DETAIL
(AREA LIGHTS "B1" & "B2")

NOT TO SCALE

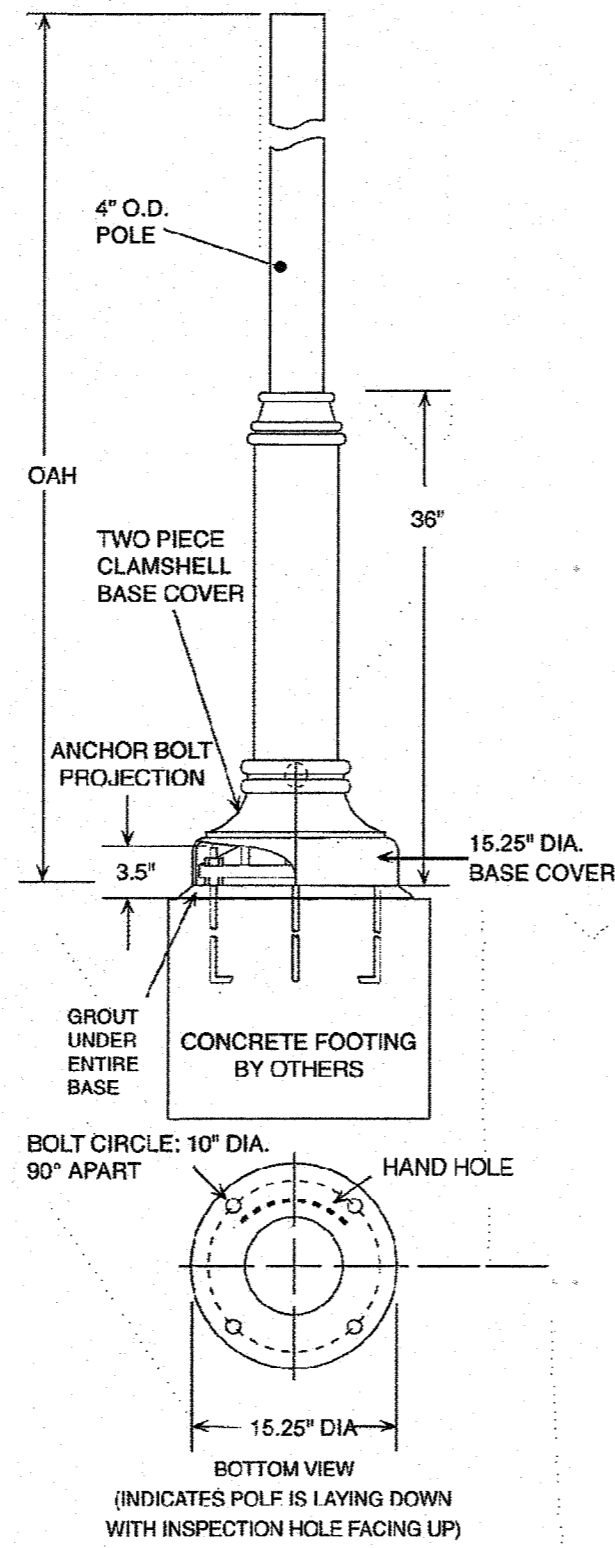


"PROVIDENCE MEDIUM (PROV2)" LED AREA LIGHT FIXTURE, MANUFACTURED BY ARCHITECTURAL AREA LIGHTING. SEE LIGHTING SCHEDULE FOR MODEL NUMBER(S), MOUNTING HEIGHT(S), LED COLOR TEMPERATURE(S), LIGHTING DISTRIBUTION(S), AND LUMENS.



AREA LIGHT FIXTURE DETAIL
(AREA LIGHTS "A1S", "A2S", "A3", "A3S", "A4", "A4S", & "A5W")

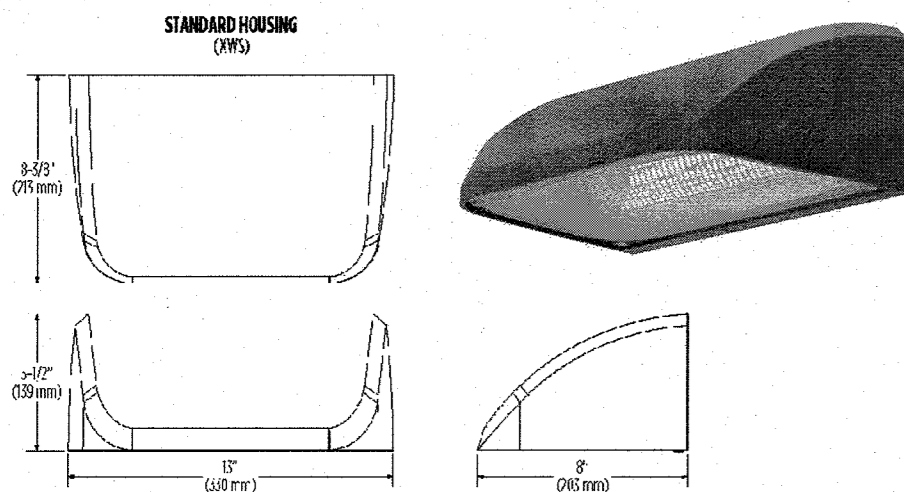
NOT TO SCALE



DECORATIVE AREA LIGHT POLE (DB6), MANUFACTURED BY ARCHITECTURAL AREA LIGHTING. SEE LIGHTING SCHEDULE FOR MODEL NUMBER(S), MOUNTING HEIGHT(S), LED COLOR TEMPERATURE(S), LIGHTING DISTRIBUTION(S), AND LUMENS.

AREA LIGHT POLE DETAIL

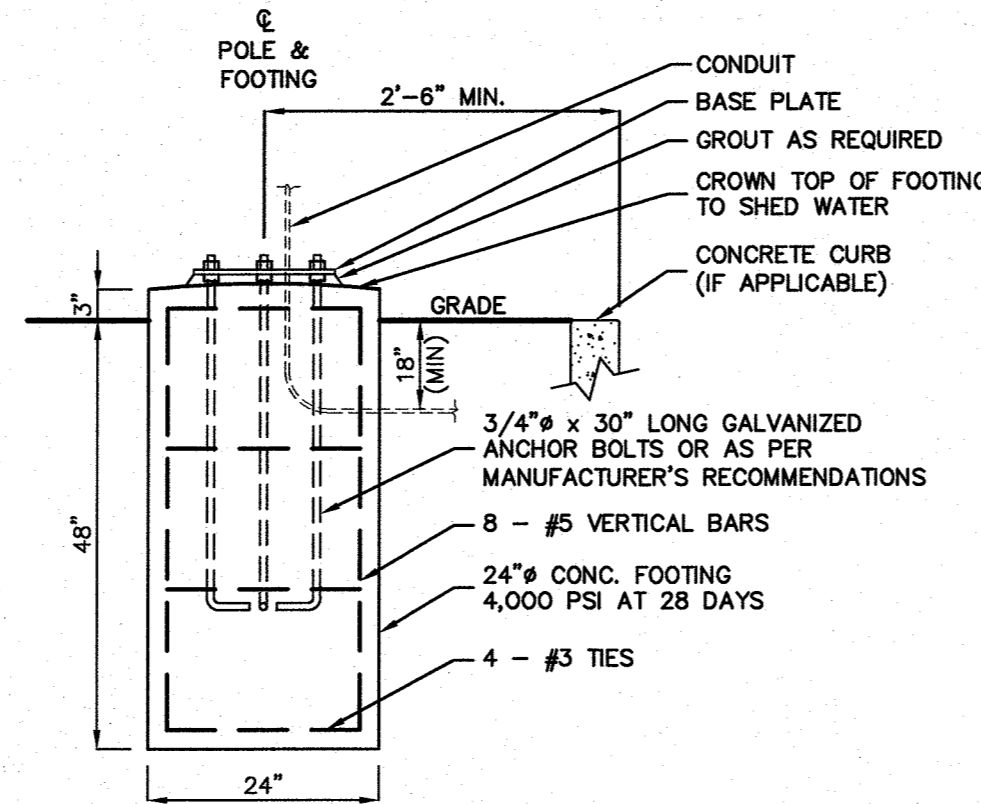
NOT TO SCALE



"PROVIDENCE MEDIUM (PROV2)" LED AREA LIGHT FIXTURE, MANUFACTURED BY ARCHITECTURAL AREA LIGHTING. SEE LIGHTING SCHEDULE FOR MODEL NUMBER(S), MOUNTING HEIGHT(S), LED COLOR TEMPERATURE(S), LIGHTING DISTRIBUTION(S), AND LUMENS.

WALL LIGHT FIXTURE DETAIL
(WALL LIGHT "W1")

NOT TO SCALE



AREA LIGHT FOOTING DETAIL

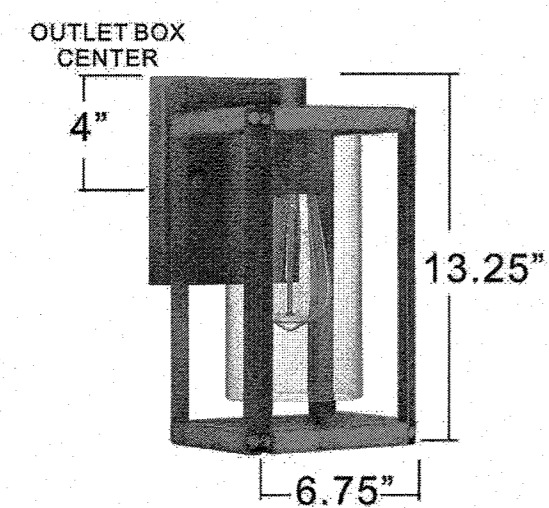
NOT TO SCALE

urban ambiance

UQL1503

EXTERIOR WALL SCENCE

Fixture Collection Name	Subtle
Fixture Finish	Antique Gold
Fixture Material	Steel
Shade Material	Clear Glass
Bulb Base Type	Medium Base
Bulb Wattage	100/0W
Number of Bulbs Req.	1
Bulbs Included	No
Primary Sign	Medium
Location Rating	Wet Location
Weight (in LBS)	5.50
Chain Length	None
Extension Rods	None
Chasing / Back Plate Dim.	5.250 x 4.000 inches
Power Wire Length	0.5 Feet
LED Bulb Compatible	Yes
Shaded Ceiling Compatible	No



EXTERIOR WALL SCENCE, MANUFACTURED BY URBAN AMBIANCE. FOR USE WITH A 9W LED 3000K LIGHT BULB. SEE LIGHTING SCHEDULE FOR MODEL NUMBER(S), MOUNTING HEIGHT(S), LED COLOR TEMPERATURE(S), LIGHTING DISTRIBUTION(S), AND LUMENS.

WALL SCENCE FIXTURE DETAIL
(WALL SCENCE "W2")

NOT TO SCALE

66 GLEN AVENUE
GLEN ROCK, NJ 07452
P 201.670.6688
F 201.670.9788
www.bertinengineering.com



CALISTO J. BERTIN, P.E.
PROFESSIONAL ENGINEER
CT LIC. NO. 12950 NJ LIC. NO. 28845
MA LIC. NO. 40595 NY LIC. NO. 60022
NH LIC. NO. 9368 RI LIC. NO. 6694

ERIC M. HOUGH, P.E.
PROFESSIONAL ENGINEER
NJ LIC. NO. 51895

NO. DATE	REVISION
1 3-12-24	RE-ISSUE

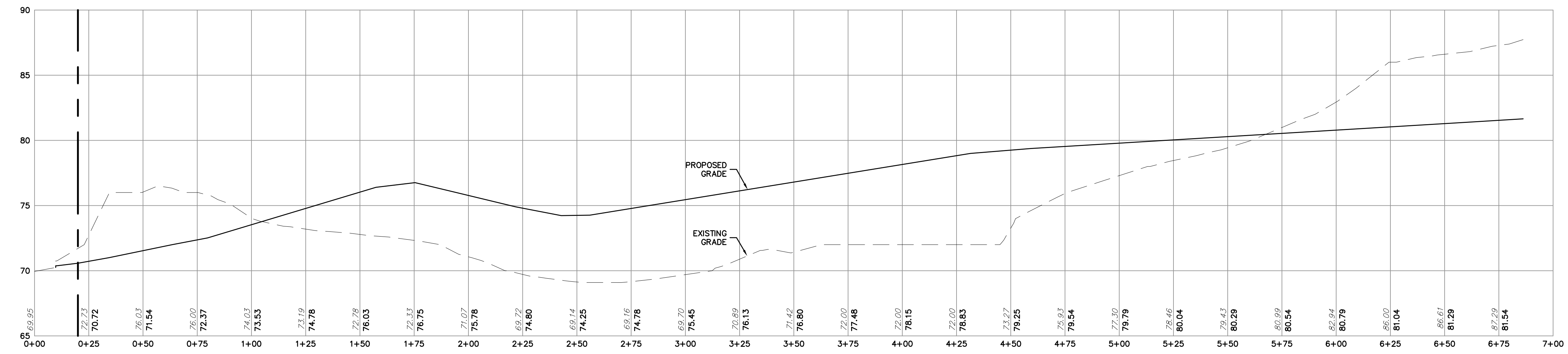
LIGHTING DETAILS

RESIDENTIAL DEVELOPMENT
BLOCK 4201.01, LOT 33.03
GROVERS MILL ROAD & MALL ACCESS ROAD
TOWNSHIP OF LAWRENCE
MERCER COUNTY, NEW JERSEY

CLIENT
TRICONE
2525 US-130 SUITE B4
CRANBURY, NJ 08512

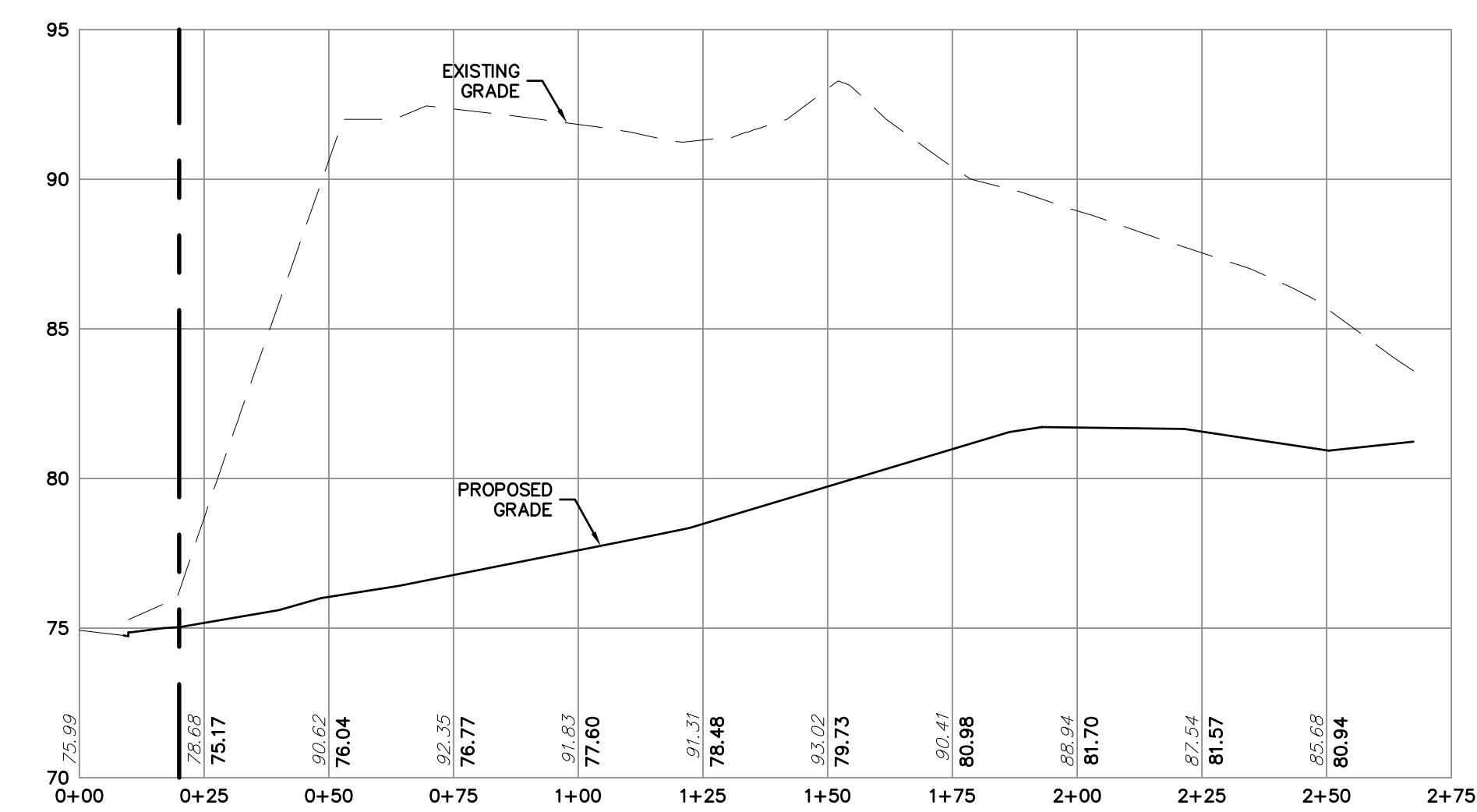
CERTIFICATE OF AUTHORIZATION 24GA28068900 / 21MH00002800	
DRAWN BY J.A.S.	CHECKED BY C.J.B.
SCALE AS SHOWN	PROJECT NO. 21-210
DATE 10-12-23	REVISION NO. 1
DRAWING NO.	

C3.5



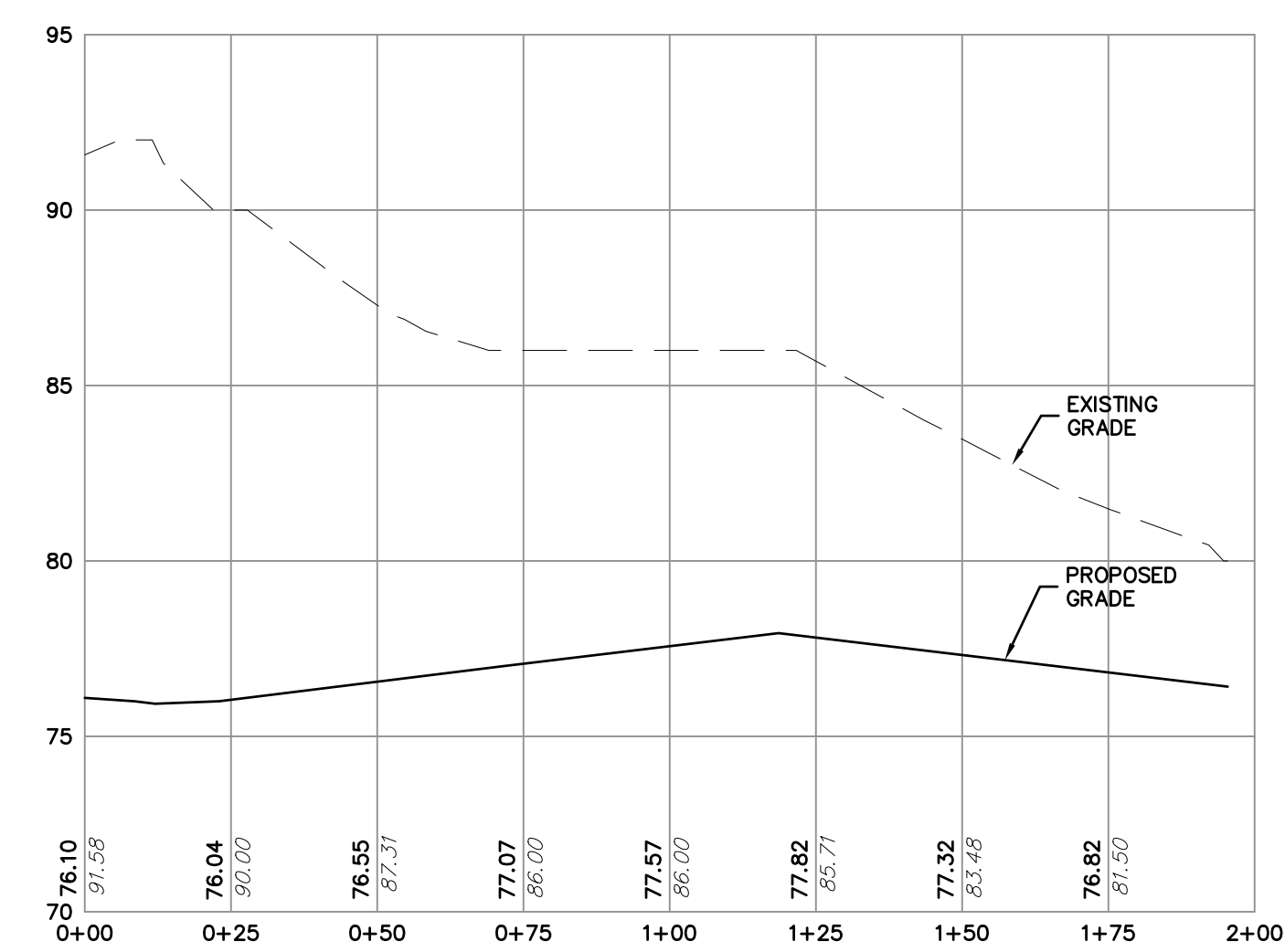
PROPOSED DRIVEWAY PROFILE A

SCALE: V: 1"=5'
H: 1"=30'



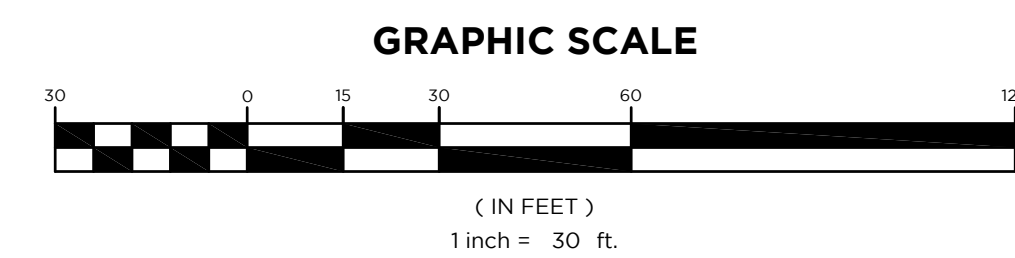
PROPOSED DRIVEWAY PROFILE B

SCALE: V: 1"=5'
H: 1"=30'



PROPOSED DRIVEWAY PROFILE C

SCALE: V: 1"=5'
H: 1"=30'



66 GLEN AVENUE
GLEN ROCK, NJ 07452
P 201.670.6888
F 201.670.9788
www.bertinengineering.com



CIVIL • SURVEYING • TRAFFIC • STRUCTURAL • ENVIRONMENTAL • MECHANICAL • LANDSCAPE

CALISTO J. BERTIN, P.E.
PROFESSIONAL ENGINEER

CT LIC. NO. 12950 NJ LIC. NO. 28845
MA LIC. NO. 40595 NY LIC. NO. 60022
NH LIC. NO. 9368 RI LIC. NO. 6694

[Signature]

ERIC M. HOUGH, P.E.
PROFESSIONAL ENGINEER
NJ LIC. NO. 51893

NOT FOR CONSTRUCTION

NO.	DATE	REVISION
1	6-13-24	REVISED AS PER SITE PLAN

DRAWING TITLE
ROAD PROFILES

PROJECT
RESIDENTIAL DEVELOPMENT
BLOCK 4201.01, LOT 33.03
GROVERS MILL ROAD & MALL ACCESS ROAD
TOWNSHIP OF LAWRENCE
MERCER COUNTY, NEW JERSEY

CLIENT
TRICONE
2525 US-130 SUITE B4
CRANBURY, NJ 08512

CERTIFICATE OF AUTHORIZATION
24GA28068900 / 21MH00002800
DRAWN BY: M.B.L. CHECKED BY: C.J.B.
SCALE: AS SHOWN PROJECT NO: 21-210
DATE: 3-19-24 REVISION NO: 1

DRAWING NO.
C4.1