PUBLIC WORKS BUILDING REPLACEMENT

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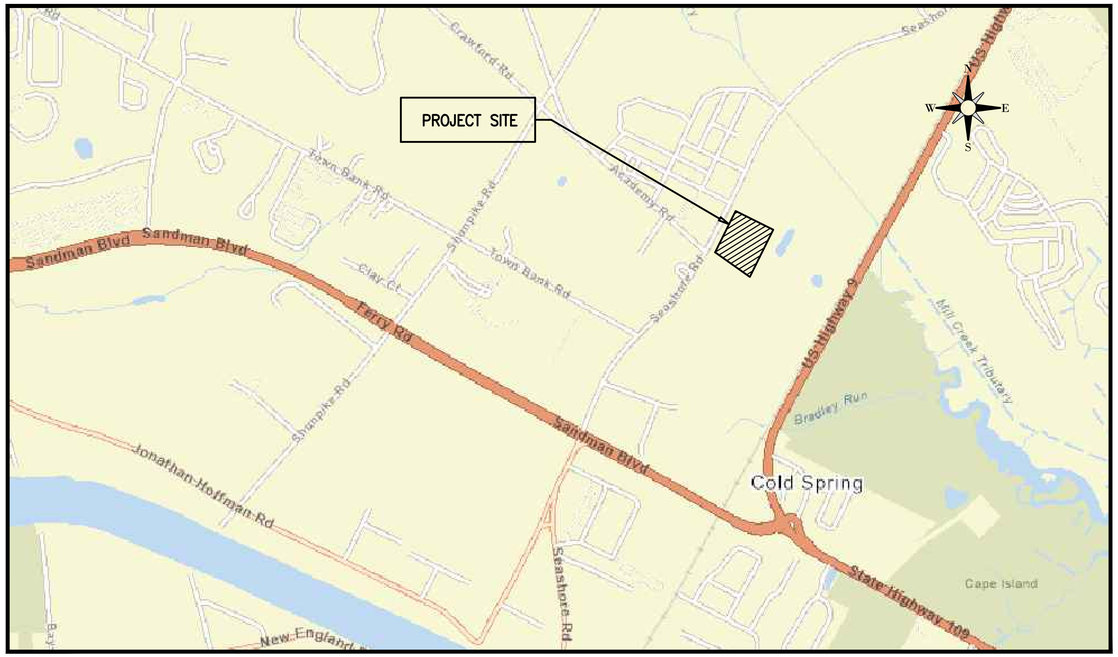

PROJECT LOCATION MAP

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

TOWNSHIP OF LOWER CAPE MAY COUNTY, NEW JERSEY

2019 N.J.D.O.T. STANDARD SPECIFICATIONS FOR ROADWAY AND BRIDGE CONSTRUCTION SHALL GOVERN, EXCEPT FOR THOSE DETAILS CONTAINED HEREIN

UTILITIES

PUBLIC WORKS:	LOWER TOWNSHIP PUBLIC WORKS DEPARTMENT GARY DOUGLASS, SUPERINTENDENT 2600 BAYSHORE ROAD VILLAS, NJ 08251 (609) 884-0898
SEWER:	LOWER TOWNSHIP M.U.A. STEPHEN R. BLANKENSHIP, P.E. 2900 BAYSHORE ROAD VILLAS, NJ 08251 (609) 886-7146 CAPE MAY COUNTY M.U.A. MICHAEL PULLANO, P.E. 1523 ROUTE 9 NORTH, PO BOX 610 CAPE MAY COURT HOUSE, NJ 08210 (609) 465-9026
WATER:	LOWER TOWNSHIP M.U.A. STEPHEN R. BLANKENSHIP, P.E. 2900 BAYSHORE ROAD VILLAS, NJ 08251 (609) 886-7146
ELECTRIC:	ATLANTIC CITY ELECTRIC COMPANY KENNETH ATWOOD 420 ROUTE 9 NORTH CAPE MAY COURT HOUSE, NJ 08210 609-463-3816
CABLE:	COMCAST CABLE JIM FAULKER 800 RAHWAY AVENUE, BLDG. D UNION, NJ 07083 201-954-7470
GAS:	SOUTH JERSEY GAS COMPANY JEREMIAH LIN ONE SOUTH JERSEY PLAZA FOLSOM, NJ 08210 609-561-9000
TELEPHONE:	VERIZON ENGINEERING DEPARTMENT GREGORY ANGSTMAN 10 TANSBORO ROAD, FLOOR 2 BERLIN, NJ 08009 856-626-4108
COUNTY ROADS:	CAPE MAY COUNTY PUBLIC WORKS ROBERT CHURCH, P.E. 4 MOORE ROAD CAPE MAY COURT HOUSE, NJ 08210 609-465-1035

NEW JERSEY ONE CALL SYSTEM INC. 1-800-272-1000 DIG SAFELY. STOP! CALL BEFORE YOU DIG

UTILITY MARKOUT REQUIRED: CONTRACTOR IS RESPONSIBLE TO CALL NEW JERSEY ONE CALL (800–272–1000) FOR UTILITY MARK–OUT 3 FULL BUSINESS DAYS PRIOR TO COMMENCEMENT OF EXCAVATION.

ARCHITECT

OSK DESIGN PARTNERS, PA
475 WHITE HORSE PIKE
COLLINGSWOOD, NJ 08107
PH: 856-854-0580

MECHANICAL, ELECTRICAL & PLUMBING ENGINEERS

BD ENGINEERING, LLC
44 MAIN STREET
FARMINGDALE, NEW JERSEY 07727
PH: 732-886-5432

NO.	DATE	APPR.	REVISION

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TITLE SHEET

DEBLASIO & ASSOCIATES
ENGINEERS, SURVEYORS AND PLANNERS
4701 NEW JERSEY AVENUE
WILDWOOD, NJ 08260
PHONE (609) 854–3311
FAX (609) 854–4323
Certification of Authorization No. 24GA28284900

PUBLIC WORKS BUILDING REPLACEMENT
TOWNSHIP OF LOWER
CAPE MAY COUNTY, NEW JERSEY

Design:	Drawn:	Check:	Date:
CMS	CMS	MAD	10/29/2025

10/29/2025
MARC A. DEBLASIO, PE — DATE
New Jersey License No. 41599

Scale:	Job No.:	Sheet No:	Total:
AS NOTED	LT–C–048.01	1	16

LEGEND

EXISTING

- TRAVERSE POINT
- FIRE HYDRANT
- SIGN
- UTILITY POLE
- 43.02 + SPOT ELEVATION
- LP LIGHT POLE
- GM GAS METER
- WATER METER
- WATER CURBSTOP/SHUT-OFF
- WATER VALVE
- GAS VALVE/SHUT-OFF
- SANITARY CLEANOUT
- STREET SIGN
- "B" INLET
- "A" INLET
- "E" INLET
- STORM MANHOLE
- SANITARY MANHOLE
- CURBING
- CONCRETE
- STORM DRAINS
- W WATER MAIN
- S SANITARY MAIN
- G GAS MAIN
- E ELECTRIC CONDUIT
- OHW OVERHEAD WIRES
- 50 EXISTING CONTOUR
- RIGHT-OF-WAY LINE
- DECIDUOUS TREE
- EVERGREEN TREE

PROPOSED

- FIRE HYDRANT
- SIGN
- UTILITY POLE
- 0.00 × SPOT ELEVATION
- LIGHT POLE
- WM WATER METER
- WATER VALVE
- CO SANITARY CLEANOUT
- "B" INLET
- "A" INLET
- "E" INLET
- STORM MANHOLE
- SANITARY MANHOLE
- CURBING
- CONCRETE
- STORM DRAINS
- W WATER MAIN
- S SANITARY MAIN
- G GAS MAIN
- E ELECTRIC CONDUIT
- OHW OVERHEAD WIRES
- 50 (PROPOSED CONTOUR)
- TC XX.XX / GL XX.XX (PROPOSED TOP OF CURB) (PROPOSED GUTTER LINE)
- PROPOSED SILT FENCE
- PROPOSED INLET PROTECTION

GENERAL NOTES

1) SITE CONSTRUCTION TO BE IN ACCORDANCE WITH NEW JERSEY STATE DEPARTMENT OF TRANSPORTATION STANDARDS FOR ROAD AND BRIDGE CONSTRUCTION, 2019 (LATEST ADDENDUM), WHICH SHALL GOVERN. 2016 NJDOT STANDARD DETAILS SHALL GOVERN. CONTRACTOR SHALL VERIFY THE LOCATION OF ANY UNDERGROUND ELECTRICAL CONDUIT AND IDENTIFY SAME PRIOR TO STARTING ANY EXCAVATION. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS FROM THE TOWNSHIP, COUNTY, AND STATE AND SHALL PAY ALL FEES, INCLUDING THE INSPECTION FEES, AND IN GENERAL SHALL PROCURE ALL REQUIRED PERMITS, LICENSES, INSPECTIONS, PAY ALL CHARGES AND FEES, AND GIVE NOTICES NECESSARY FOR AND INCIDENTAL TO THE DUE AND LAWFUL PROSECUTION OF THE PROJECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING THE PAVING, TOPSOIL, FERTILIZING AND SEEDING ALL AREAS DISTURBED BY HIS ACTIVITIES. INSPECTION OF, OR FAILURE TO INSPECT ANY MATERIALS OR WORKMANSHIP, SHALL IN NO WAY RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY TO PERFORM THE WORK IN ACCORDANCE WITH APPLICABLE PLANS, SPECIFICATIONS, AND LAW.
2) THE CONTRACTOR WILL PRESERVE AND PROTECT ALL EXISTING VEGETATION, SUCH AS TREES, SHRUBS, AND GRASS ON OR ADJACENT TO THE SITE, WHICH DO NOT REASONABLY INTERFERE WITH THE CONSTRUCTION AS MAY BE DETERMINED BY THE DESIGN ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR UNAUTHORIZED CUTTING OR DAMAGING OF TREES AND SHRUBS, MATERIALS, OR TRACKING OF GRASS AREAS BY EQUIPMENT. CARE SHALL BE TAKEN BY THE CONTRACTOR IN FELLING TREES AUTHORIZED FOR REMOVAL TO AVOID ANY UNNECESSARY DAMAGE TO VEGETATION THAT IS TO REMAIN IN PLACE. THE CONTRACTOR SHALL BE LIABLE FOR OR MAY BE REQUIRED TO REPLACE OR RESTORE, AT HIS EXPENSE, ALL VEGETATION NOT PROTECTED AND PRESERVED AS REQUIRED HEREIN THAT MAY BE DESTROYED OR DAMAGED.
3) THE CONTRACTOR SHALL ACKNOWLEDGE PRIOR TO CONSTRUCTION THAT HE HAS SATISFIED HIMSELF AS TO THE NATURE AND LOCATION OF THE WORK, THE GENERAL AND LOCAL CONDITIONS, PARTICULARLY THOSE BEARING ON TRANSPORTATION, HANDLING AND STORAGE OF MATERIALS, THE CHARACTER OF THE EQUIPMENT AND FACILITIES NEEDED DURING THE PROSECUTION OF THE WORK AND ALL OTHER MATTERS WHICH CAN IN ANY WAY AFFECT THE WORK OR THE COST THEREOF UNDER THIS CONTRACT. ANY FAILURE OF THE CONTRACTOR TO ACQUAINT HIMSELF WITH THE AVAILABLE INFORMATION CONCERNING THOSE CONDITIONS WILL NOT RELIEVE HIM FROM RESPONSIBILITY FOR ESTIMATING PROPERLY THE DIFFICULTIES OR COST OF SUCCESSFULLY PERFORMING THE WORK.
4) ALL MATERIALS, METHODS, AND DETAILS OF IMPROVEMENT CONSTRUCTION SHALL CONFORM TO THE REGULATIONS OF THE TOWNSHIP OF LOWER, CAPE MAY COUNTY, AND/OR THE APPROPRIATE UTILITY COMPANY, WHICHEVER REGULATION TAKES PRECEDENCE.
5) THE CONTRACTOR SHALL BE COMPLETELY RESPONSIBLE FOR ENSURING THAT ALL WORK PERFORMED CONFORMS TO ALL THE APPLICABLE STATUTES, REGULATIONS, ORDINANCES, AND STANDARDS OF GOVERNMENTAL BODIES HAVING JURISDICTION OVER SUCH WORK. THE RESPONSIBILITY SHALL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING:
   A. CONFORMITY WITH THE APPROVED PLANS AS WELL AS STANDARDS AND SPECIFICATIONS OF THE TOWNSHIP.
   B. CORRECTION OF ALL DEFECTS OF THE WORK, NO MATTER WHAT THE CAUSE, UNTIL THE DATE OF THE ACCEPTANCE, AND THEREAFTER, FOR THE PERIOD OF ANY GUARANTEE WHICH RUNS BEYOND THE DATE OF ACCEPTANCE.
   C. SOLUTION OF ANY PROBLEM, UNFORESEEN AT THE TIME OF THE APPROVAL OF THE PLAN, WHICH MAY OR DO IMPAIR THE INTEGRITY OF ANY IMPROVEMENTS, INCLUDING PROBLEMS SUCH AS HIGH GROUND WATER, UNSTABLE SOIL, ETC.
7) CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING PUBLIC SAFETY AND SECURING THE SITE AT ALL TIMES.
8) CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING ALL PUBLIC RIGHTS OF WAY AND ADJACENT PROPERTIES CLEAN AND SAFE FROM EXCESSIVE DUST AND DEBRIS RESULTING FROM DEMOLITION AND/OR CONSTRUCTION.
9) THE LOCATION OF ANY UTILITIES SHOWN ON THE PLANS ARE ONLY APPROXIMATE. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION PRIOR TO BEGINNING EXCAVATION OR COMMENCING CONSTRUCTION AND SHALL BE FULLY RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES IN THE VICINITY OF THE PROJECT. NEW JERSEY ONE CALL WILL PROVIDE FOR ON-SITE DELINEATION OF EXISTING UTILITIES UPON REQUEST (1-800-272-1000).
10) EXISTING MATERIALS DESIGNATED FOR REMOVAL SHALL BE REMOVED BY THE CONTRACTOR UNLESS OTHERWISE DIRECTED BY THE TOWNSHIP.
11) DISTURBED AREAS SHALL BE RESTORED AS SOON AS PRACTICAL.
12) THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY IF THERE ARE ANY DISCREPANCIES FOUND BETWEEN THE DRAWINGS AND SPECIFICATIONS AND THE SITE CONDITIONS. THE CONTRACTOR SHALL PROCEED AT HIS OWN RISK PRIOR TO THE RESOLUTION IF ANY DISCREPANCIES.
13) THE CONTRACTOR SHALL COORDINATE WATER MAIN SHUT DOWNS WITH THE LOWER TOWNSHIP MUA.
14) SEPARATE PAYMENT WILL NOT BE MADE FOR CONSTRUCTION LAYOUT, SAWCUTTING, SOIL EROSION AND SEDIMENT CONTROL MEASURES, DUST CONTROL, DEWATERING, BY-PASS PUMPING, CLEANING AND RESTORATIONS, REMOVAL AND DISPOSAL OF EXCESS MATERIALS OR UNWANTED MATERIALS OR DEBRIS, UNDER LAYER PREPARATION, PRIME COAT, TACK COAT, RELOCATIONS OF SIGNS OR MAILBOXES, CONDUCTORS OR CONDUITS DAMAGED DURING CONSTRUCTION, OR ANY OTHER STRUCTURES ENCOUNTERED UNLESS OTHERWISE INDICATED ON THE PLANS.
15) THE CONTRACTOR SHALL SUBMIT TO THE TOWNSHIP OF LOWER ASBUILTS PLANS AND SHALL IDENTIFY ALL CORRECTIONS THAT HAVE BEEN PERFORMED.
16) LIMITS OF PAVING (L.O.P.) SHALL BE SAWCUT AND SEALED WITH HOT JOINT SEALER. PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE HMA SURFACE PAVING.

ESTIMATE OF QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	PLAN QUANTITY	IF & WHERE DIRECTED	CONTRACT QUANTITY	AS-BUILT QUANTITY
1	EXISTING CONDITIONS (DIVISION 2): PRICE INCLUDES ALL WORK INCLUDED IN SECTION 024116, AND AS DETAILED IN THE CONSTRUCTION DOCUMENTS.	LUMP SUM	LUMP SUM	0	LUMP SUM	
2	CONCRETE (DIVISION 3): PRICE INCLUDES ALL WORK INCLUDED IN SECTION 031000, 032000, 033000, AND AS DETAILED IN THE CONSTRUCTION DOCUMENTS.	LUMP SUM	LUMP SUM	0	LUMP SUM	
3	MASONRY (DIVISION 4): PRICE INCLUDES ALL WORK INCLUDED IN SECTION 040110, 042200, 047200, AND AS DETAILED IN THE CONSTRUCTION DOCUMENTS.	LUMP SUM	LUMP SUM	0	LUMP SUM	
4	METALS (DIVISION 5): PRICE INCLUDES ALL WORK INCLUDED IN SECTION 051200, 055000, AND AS DETAILED IN THE CONSTRUCTION DOCUMENTS.	LUMP SUM	LUMP SUM	1	LUMP SUM	
5	WOOD, PLASTICS, AND COMPOSITES (DIVISION 6): PRICE INCLUDES ALL WORK INCLUDED IN SECTIONS 061000, 061600, 061753, 064116, 066400, AND AS DETAILED IN THE CONSTRUCTION DOCUMENTS.	LUMP SUM	LUMP SUM	0	LUMP SUM	
6	THERMAL AND MOISTURE PROTECTION (DIVISION 7): PRICE INCLUDES ALL WORK INCLUDED IN SECTIONS 071900, 072100, 072119, 072715, 073113, 074293, 074646, 076200, 077100, 079200, AND AS DETAILED IN THE CONSTRUCTION DOCUMENTS.	LUMP SUM	LUMP SUM	0	LUMP SUM	
7	OPENINGS (DIVISION 8): PRICE INCLUDES ALL WORK INCLUDED IN SECTIONS 081113, 081416, 083613, 084113, 085113, 087100, 088000, AND AS DETAILED IN THE CONSTRUCTION DOCUMENTS.	LUMP SUM	LUMP SUM	0	LUMP SUM	
8	FINISHES (DIVISION 9): PRICE INCLUDES ALL WORK INCLUDED IN SECTIONS 092216, 092900, 093013, 095113, 096513, 096519, 096813, 099114, 099124, AND AS DETAILED IN THE CONSTRUCTION DOCUMENTS.	LUMP SUM	LUMP SUM	0	LUMP SUM	
9	SPECIALTIES (DIVISION 10, 11 AND 12): PRICE INCLUDES ALL WORK INCLUDED IN SECTIONS 101419, 101423.16, 102113.14, 102600, 102800, 104313, 104413, 104416, 105113, 122413, 123661.16, 124813, AND AS DETAILED IN THE CONSTRUCTION DOCUMENTS.	LUMP SUM	LUMP SUM	0	LUMP SUM	
10	PLUMBING (DIVISION 22): PRICE INCLUDES ALL WORK INCLUDED IN SECTION 220000 AND AS DETAILED IN THE CONSTRUCTION DOCUMENTS.	LUMP SUM	LUMP SUM	0	LUMP SUM	
11	HEATING, VENTILATION, AND AIR CONDITIONING (HVAC) (DIVISION 23): PRICE INCLUDES ALL WORK INCLUDED IN SECTION 230000 AND AS DETAILED IN THE CONSTRUCTION DOCUMENTS.	LUMP SUM	LUMP SUM	0	LUMP SUM	
12	ELECTRICAL (DIVISION 26 AND 27): PRICE INCLUDES ALL WORK INCLUDED IN SECTION 260000, 263600, 270528, AND AS DETAILED IN THE CONSTRUCTION DOCUMENTS.	LUMP SUM	LUMP SUM	0	LUMP SUM	
13	EARTHWORK (DIVISION 31): PRICE INCLUDES ALL WORK INCLUDED IN SECTION 311000, 312000, 312319, 313116, 316219, AND AS DETAILED IN THE CONSTRUCTION DOCUMENTS.	LUMP SUM	LUMP SUM	0	LUMP SUM	
14	ALLOWANCE: UNFORESEEN CONDITIONS AND DEDICATED FOR ADDITIONAL CONSTRUCTION WORK REQUESTED BY THE OWNER.	ALLOWANCE	$75,000.00	0	$75,000.00	
15	SEPTIC SYSTEM	LUMP SUM	LUMP SUM	0	LUMP SUM	
16	PRECAST CONCRETE WHEEL STOP	UNIT	5	0	5	
17	VINYL FENCE, 6' HIGH	L.F.	24	6	30	
18	HMA MILLING, VARIABLE DEPTH	S.Y.	9,304	196	9,500	
19	HOT MIX ASPHALT SURFACE COURSE, MIX 9.5M64, 2" THICK	TON	1,176	24	1,200	
20	INLETS, TYPE "A"	UNIT	1	0	1	
21	INLETS, TYPE "E"	UNIT	1	0	1	
22	CHAIN LINK FENCE, 8' HIGH	L.F.	420	5	425	
23	10" DUCTILE IRON CULVERT PIPE, CLASS 52	L.F.	94	6	100	
24	CONCRETE SIDEWALK, 4" THICK	S.Y.	143	17	160	
25	8" x 18" CONCRETE VERTICAL CURB	L.F.	260	10	270	
26	REINFORCED CONCRETE APRON, 9" THICK	S.Y.	313	2	315	
27	REINFORCED CONCRETE PAD, 8" THICK	S.Y.	39	1	40	
28	BEAM GUIDE RAIL	L.F.	186	14	200	
29	TRAFFIC MARKINGS LINES, THERMOPLASTIC - 24"	L.F.	54	6	60	
30	TRAFFIC MARKINGS LINES, EPOXY RESIN - 4"	L.F.	2,740	135	2,875	
31	TRAFFIC MARKINGS, THERMOPLASTIC ARROW PAVEMENT MARKING	UNIT	7	0	7	
32	TRAFFIC MARKINGS, THERMOPLASTIC ADA PAVEMENT SYMBOL	UNIT	3	0	3	
33	SIGNS	UNIT	6	0	6	
34	BOLLARDS	UNIT	29	1	30	
35	TOPSOIL, SEEDING AND FERTILIZER, 5" THICK	S.Y.`	313	27	340	
36	CONNECT TO EXISTING INLET	UNIT	1	0	1	
37	DETECTABLE WARNING SURFACES	UNIT	1	0	1	
38	TRAFFIC MARKINGS, PAVEMENT WORD SYMBOL	UNIT	1	0	1	
39	DENSE GRADED AGGREGATE BASE COURSE, 6" THICK	S.Y.	1,300	100	1,400	
40	HOT MIX ASPHALT BASE COURSE, MIX 19M64, 4" THICK	TON	330	20	350	
41	STONE MULCHING, 6" THICK	S.Y.`	310	10	320	
42	WATER SERVICE, 2" COMPLETE	UNIT	1	0	1	
43	WATER SERVICE, 3/4" COMPLETE	UNIT	1	0	1	

NO.	DATE	APPR.	REVISION

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ESTIMATE OF QUANTITIES, NOTES & LEGEND

DEBLASIO & ASSOCIATES
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Certification of Authorization No. 24GA28284900

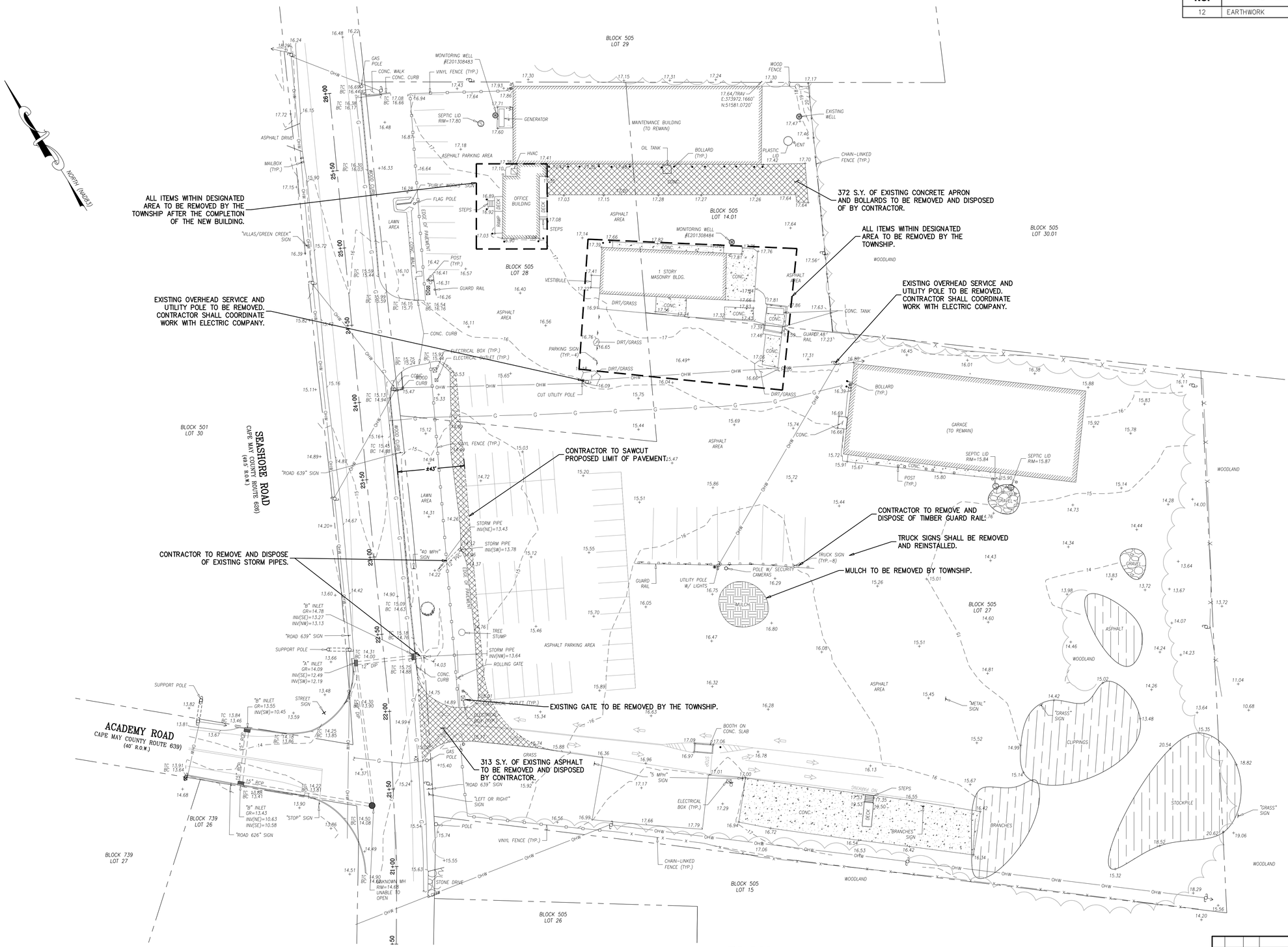
PUBLIC WORKS BUILDING REPLACEMENT
TOWNSHIP OF LOWER
CAPE MAY COUNTY, NEW JERSEY

Design:	Drawn:	Check:	Date:
CMS	CMS	MAD	10/29/2025

10/29/2025
MARC A. DEBLASIO, PE — DATE
New Jersey License No. 41599

Scale:	Job No.:	Sheet No:	Total:
AS NOTED	LT-C-048.01	2	16

ITEM NO.	TO BE CONSTRUCTED	UNIT	PLAN QUANTITY	AS-BUILT QUANTITY
12	EARTHWORK	LUMP SUM	LUMP SUM	



PLAN

SCALE : 1"=30'

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

GENERAL NOTES:

1. EXISTING TOPOGRAPHIC INFORMATION SHOWN WAS BASED ON A FIELD SURVEY PERFORMED BY DEBLASIO & ASSOCIATES, P.C. UNDER THE SUPERVISION OF HENRY V. ENGEL, N.J.P.L.S. NO. 35833, COMPLETED ON 05/31/2024.
2. ELEVATIONS SHOWN HEREON ARE IN FEET AND REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988.
3. HORIZONTAL CONTROL IS REFERENCED TO THE NEW JERSEY STATE PLANE COORDINATE SYSTEM (NAD 1983).
4. PROPERTY AND RIGHT-OF-WAY LINES SHOWN ARE APPROXIMATE LOCATIONS BASED ON THE CURRENT TAX MAPS OF THE TOWNSHIP OF LOWER, CAPE MAY COUNTY, NEW JERSEY. SAID LINES ARE SHOWN FOR GRAPHICAL INFORMATION ONLY AND HAVE NOT BEEN FIELD VERIFIED.
5. PROPERTY IS NOT LOCATED IN FLOOD ZONE AS PER CURRENT FEMA FIRM MAP.
6. ALL WORK SHOWN ON THIS SHEET SHALL BE INCLUDED IN THE PAY ITEM, "EARTHWORK" AS SPECIFIED IN SPECIFICATIONS SECTION 311000 UNLESS OTHERWISE NOTED.
7. THE CONTRACTOR WILL PRESERVE AND PROTECT ALL EXISTING VEGETATION, SUCH AS TREES, SHRUBS, AND GRASS ON OR ADJACENT TO THE SITE, WHICH DO NOT REASONABLY INTERFERE WITH THE CONSTRUCTION AS MAY BE DETERMINED BY THE DESIGN ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR UNAUTHORIZED CUTTING OR DAMAGING OF TREES AND SHRUBS, MATERIALS, OR TRACKING OF GRASS AREAS BY EQUIPMENT. CARE SHALL BE TAKEN BY THE CONTRACTOR IN FELLING TREES AUTHORIZED FOR REMOVAL TO AVOID ANY UNNECESSARY DAMAGE TO VEGETATION THAT IS TO REMAIN IN PLACE. THE CONTRACTOR SHALL BE LIABLE FOR OR MAY BE REQUIRED TO REPLACE OR RESTORE, AT HIS EXPENSE, ALL VEGETATION NOT PROTECTED AND PRESERVED AS REQUIRED HEREIN THAT MAY BE DESTROYED OR DAMAGED.
8. THE CONTRACTOR SHALL BE COMPLETELY RESPONSIBLE FOR ENSURING THAT ALL WORK PERFORMED CONFORMS TO ALL THE APPLICABLE STATUTES, REGULATIONS, ORDINANCES, AND STANDARDS OF GOVERNMENTAL BODIES HAVING JURISDICTION OVER SUCH WORK. THE RESPONSIBILITY SHALL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING:
   A. CONFORMITY WITH THE APPROVED PLANS AS WELL AS STANDARDS AND SPECIFICATIONS OF THE TOWNSHIP OF MIDDLE.
   B. CORRECTION OF ALL DEFECTS OF THE WORK, NO MATTER WHAT THE CAUSE, UNTIL THE DATE OF THE ACCEPTANCE, AND THEREAFTER, FOR THE PERIOD OF ANY GUARANTEE WHICH RUNS BEYOND THE DATE OF ACCEPTANCE.
   C. SOLUTION OF ANY PROBLEM, UNFORESEEN AT THE TIME OF THE APPROVAL OF THE PLAN, WHICH MAY OR DO IMPAIR THE INTEGRITY OF ANY IMPROVEMENTS, INCLUDING PROBLEMS SUCH AS HIGH GROUND WATER, UNSTABLE SOIL, ETC.
8. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING PUBLIC SAFETY AND SECURING THE SITE AT ALL TIMES.
9. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY IF THERE ARE ANY DISCREPANCIES FOUND BETWEEN THE DRAWINGS AND SPECIFICATIONS AND THE SITE CONDITIONS. THE CONTRACTOR SHALL PROCEED AT HIS OWN RISK PRIOR TO THE RESOLUTION IF ANY DISCREPANCIES.

DEMOLITION & WORKSITE:

1. CONTRACTOR SHALL LOCATE EXISTING EXPOSED & CONCEALED UTILITIES AND DETERMINE THEIR DISPOSITION WITH RESPECT TO THE DEMOLITION WORK.
2. DEMOLITION WORK INCLUDES REMOVAL OF EXISTING MATERIALS WHICH MAY INTERFERE WITH THE PROPER CONSTRUCTION OF THE PROPOSED WORK, REGARDLESS OF WHETHER NOTED ON THE DRAWINGS OR SPECIFIED. CONTRACTOR SHALL CAREFULLY INSPECT THE SITE PRIOR TO SUBMITTING HIS BID.
3. THE WORKSITE SHALL BE MAINTAINED IN A CLEAN, NEAT, ORDERLY, AND HAZARD FREE CONDITION FOR THE DURATION OF THE CONTRACT AND UNTIL FINAL ACCEPTANCE OF THE WORK BY THE OWNER. CONTRACTOR SHALL ERECT SUCH BARRICADES AS NECESSARY TO PROTECT THE PUBLIC AND ADJACENT PROPERTY. CONTRACTOR SHALL COMPLY WITH ALL OSHA, LOCAL, STATE, AND FEDERAL REGULATIONS PERTAINING TO THE WORK.
4. CLEANUP SHALL OCCUR ON A DAILY BASIS AND IN CONJUNCTION WITH PROSECUTION OF THE WORK. ALL SOLID WASTE SHALL BE DISPOSED OF IN ACCORDANCE WITH THE MIDDLE TOWNSHIP AND CAPE MAY COUNTY SOLID WASTE MANAGEMENT PLANS. DESIGNATED RECYCLABLE MATERIALS SHALL BE DISPOSED OF AT A N.J.D.E.P. APPROVED RECYCLING CENTER.

EXISTING CONDITIONS / DEMOLITION PLAN

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Certification of Authorization No. 24GA28284900

PUBLIC WORKS BUILDING REPLACEMENT
TOWNSHIP OF LOWER
CAPE MAY COUNTY, NEW JERSEY

Design:	Drawn:	Check:	Date:
CMS	CMS	MAD	10/29/2025

NO.	DATE	APPR.	REVISION

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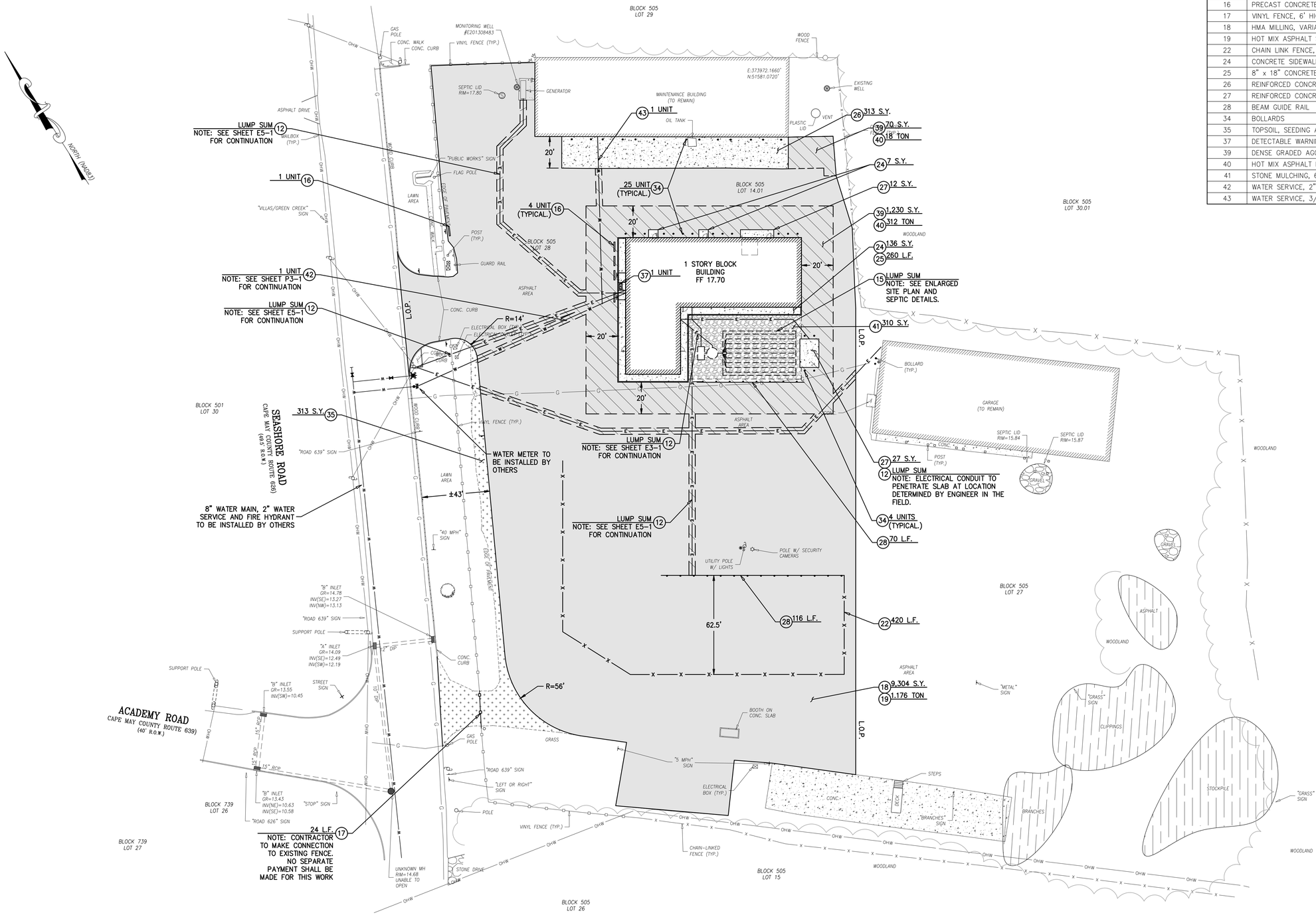
MARC A. DEBLASIO, PE — 10/29/2025 (DATE)
New Jersey License No. 41599

Scale:	Job No.:	Sheet No:	Total:
AS NOTED	LT-C-048.01	3	16

ITEM NO.	TO BE CONSTRUCTED	UNIT	PLAN QUANTITY	AS-BUILT QUANTITY
12	ELECTRICAL	LUMP SUM	LUMP SUM	
15	SEPTIC SYSTEM	LUMP SUM	LUMP SUM	
16	PRECAST CONCRETE WHEEL STOP	UNIT	5	
17	VINYL FENCE, 6' HIGH	L.F.	24	
18	HMA MILLING, VARIABLE DEPTH	S.Y.	9,304	
19	HOT MIX ASPHALT SURFACE COURSE, MIX 9.5M64, 2" THICK	TON	1,176	
22	CHAIN LINK FENCE, 8' HIGH	L.F.	420	
24	CONCRETE SIDEWALK, 4" THICK	S.Y.	143	
25	8" x 18" CONCRETE VERTICAL CURB	L.F.	260	
26	REINFORCED CONCRETE APRON, 9" THICK	S.Y.	313	
27	REINFORCED CONCRETE PAD, 8" THICK	S.Y.	39	
28	BEAM GUIDE RAIL	L.F.	186	
34	BOLLARDS	UNIT	29	
35	TOPSOIL, SEEDING AND FERTILIZER, 5" THICK	L.F.	313	
37	DETECTABLE WARNING SURFACES	UNIT	1	
39	DENSE GRADED AGGREGATE BASE COURSE, 6" THICK	S.Y.	1,300	
40	HOT MIX ASPHALT BASE COURSE, MIX 19M64, 4" THICK	TON	330	
41	STONE MULCHING, 6" THICK	S.Y.	310	
42	WATER SERVICE, 2" COMPLETE	UNIT	1	
43	WATER SERVICE, 3/4" COMPLETE	UNIT	1	



PLAN

SCALE : 1"=30'

NOTES:

1. EXISTING TOPOGRAPHIC INFORMATION SHOWN WAS BASED ON A FIELD SURVEY PERFORMED BY DEBLASIO & ASSOCIATES, P.C. UNDER THE SUPERVISION OF HENRY V. ENGEL, N.J.P.L.S. NO. 35833, COMPLETED ON 05/31/2024.
2. ELEVATIONS SHOWN HEREON ARE IN FEET AND REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988.
3. HORIZONTAL CONTROL IS REFERENCED TO THE NEW JERSEY STATE PLANE COORDINATE SYSTEM (NAD 1983).
4. PROPERTY AND RIGHT-OF-WAY LINES SHOWN ARE APPROXIMATE LOCATIONS BASED ON THE CURRENT TAX MAPS OF THE TOWNSHIP OF LOWER, CAPE MAY COUNTY, NEW JERSEY. SAID LINES ARE SHOWN FOR GRAPHICAL INFORMATION ONLY AND HAVE NOT BEEN FIELD VERIFIED.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A CAPE MAY COUNTY ROAD OPENING PERMIT FOR WORK WITHIN SEASHORE ROAD (CAPE MAY COUNTY ROAD 626) RIGHT-OF-WAY. ALL COSTS ASSOCIATED WITH PERMIT ACQUISITION SHALL BE INCLUDED IN THE VARIOUS ITEMS IN THE BID FORM.
6. CONTRACTOR SHALL INSTALL A 6 FT HIGH TEMPORARY CONSTRUCTION FENCE AROUND THE PROJECT AREA TO PROTECT AND SHIELD THE PUBLIC FROM THE CONSTRUCTION PROJECT. THE TEMPORARY FENCING SHALL BE PRESENT FROM THE START OF CONSTRUCTION THROUGH THE DURATION OF THE CONTRACT. THE FENCE SHALL BE STABILIZED ON ABOVE-GRADE SUPPORTS. NO SEPARATE PAYMENT SHALL BE MADE FOR THIS WORK. PAYMENT SHALL BE INCLUDED IN VARIOUS ITEMS IN THE BID FORM.

LEGEND

- PROPOSED CONCRETE
- PROPOSED TOPSOIL, FERTILIZER AND SEED
- PROPOSED LIMITS OF MILLING AND PAVING
- 4" HMA BASE COURSE 6" DENSE GRADED AGGREGATE

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET) 1 inch = 30 ft.

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SITE PLAN

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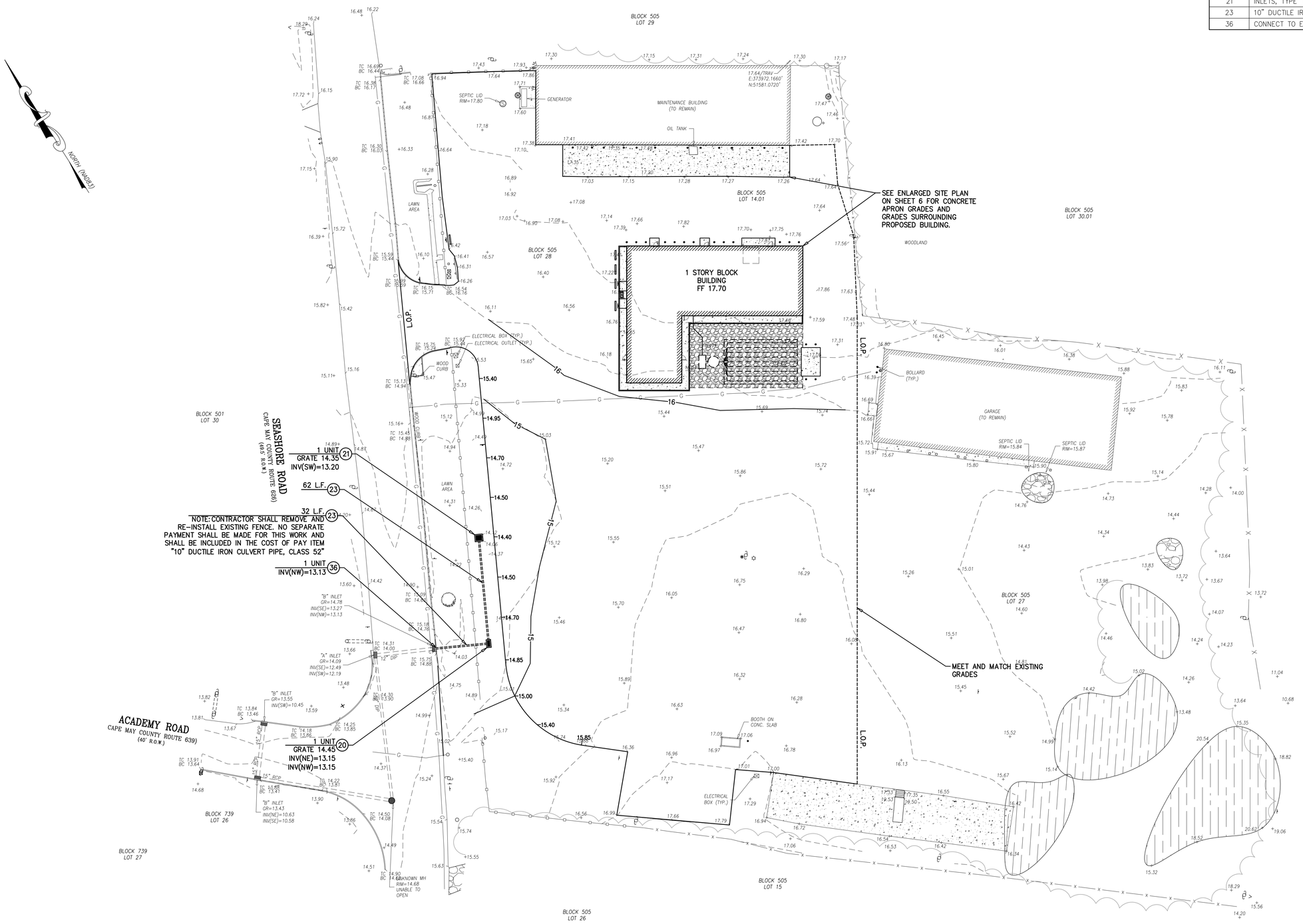
PUBLIC WORKS BUILDING REPLACEMENT
TOWNSHIP OF LOWER
CAPE MAY COUNTY, NEW JERSEY

Design:	Drawn:	Check:	Date:
CMS	CMS	MAD	10/29/2025

10/29/2025
MARC A. DEBLASIO, PE — DATE
New Jersey License No. 41599

Scale:	Job No.:	Sheet No:	Total:
AS NOTED	LT-C-048.01	4	16

ITEM NO.	TO BE CONSTRUCTED	UNIT	PLAN QUANTITY	AS-BUILT QUANTITY
20	INLETS, TYPE "A"	UNIT	1	
21	INLETS, TYPE "E"	UNIT	1	
23	10" DUCTILE IRON CULVERT PIPE, CLASS 52	L.F.	94	
36	CONNECT TO EXISTING INLET	UNIT	1	



PLAN

SCALE : 1"=30'

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

UTILITY NOTES:

1. THE CONTRACTOR SHALL CONFIRM PIPE INVERT ELEVATIONS AND REPORT ANY CONFLICTS BETWEEN THE PROPOSED AND EXISTING UTILITIES IMMEDIATELY TO THE ENGINEER. THERE SHALL BE NO SEPARATE PAYMENT FOR THIS WORK BUT THE COST SHALL BE INCLUDED IN THE VARIOUS ITEMS IN THE PROPOSAL.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A CAPE MAY COUNTY ROAD OPENING PERMIT FOR WORK WITHIN SEASHORE ROAD (CAPE MAY COUNTY ROAD 626) RIGHT-OF-WAY. ALL COSTS ASSOCIATED WITH PERMIT ACQUISITION SHALL BE INCLUDED IN THE VARIOUS ITEMS IN THE BID FORM.

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GRADING AND DRAINAGE PLAN

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PUBLIC WORKS BUILDING REPLACEMENT
TOWNSHIP OF LOWER
CAPE MAY COUNTY, NEW JERSEY

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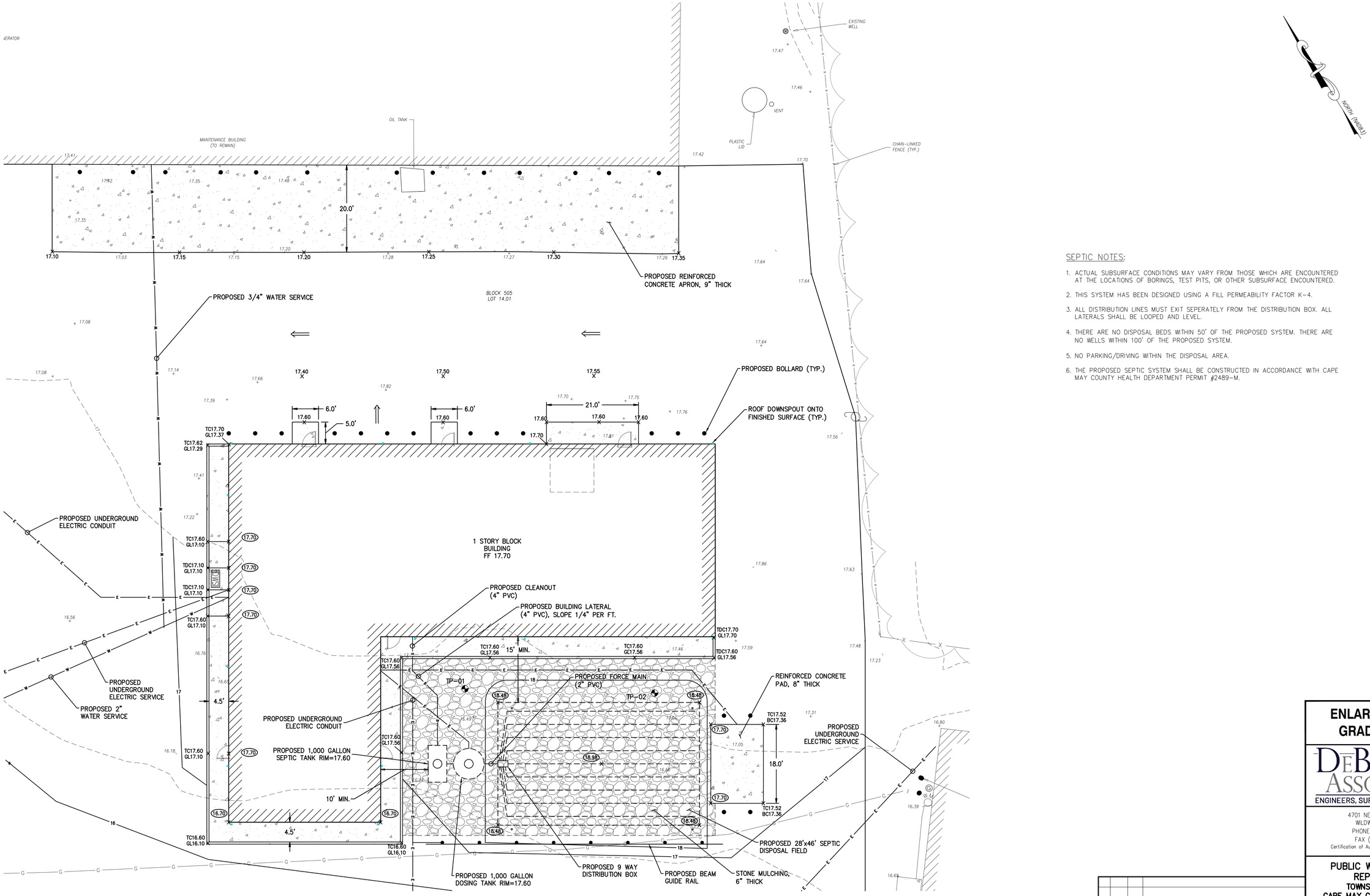

PLAN

SCALE : 1"=10'

GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)
1 inch = 10 ft.

SEPTIC NOTES:

1. ACTUAL SUBSURFACE CONDITIONS MAY VARY FROM THOSE WHICH ARE ENCOUNTERED AT THE LOCATIONS OF BORINGS, TEST PITS, OR OTHER SUBSURFACE ENCOUNTERED.
2. THIS SYSTEM HAS BEEN DESIGNED USING A FILL PERMEABILITY FACTOR K-4.
3. ALL DISTRIBUTION LINES MUST EXIT SEPERATELY FROM THE DISTRIBUTION BOX. ALL LATERALS SHALL BE LOOPED AND LEVEL.
4. THERE ARE NO DISPOSAL BEDS WITHIN 50' OF THE PROPOSED SYSTEM. THERE ARE NO WELLS WITHIN 100' OF THE PROPOSED SYSTEM.
5. NO PARKING/DRIVING WITHIN THE DISPOSAL AREA.
6. THE PROPOSED SEPTIC SYSTEM SHALL BE CONSTRUCTED IN ACCORDANCE WITH CAPE MAY COUNTY HEALTH DEPARTMENT PERMIT #2489-M.

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ENLARGED SITE & GRADING PLAN

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PUBLIC WORKS BUILDING REPLACEMENT
TOWNSHIP OF LOWER CAPE MAY COUNTY, NEW JERSEY

Design:	Drawn:	Check:	Date:
CMS	CMS	MAD	10/29/2025

MARC A. DEBLASIO, PE — 10/29/2025 (DATE)
New Jersey License No. 41599

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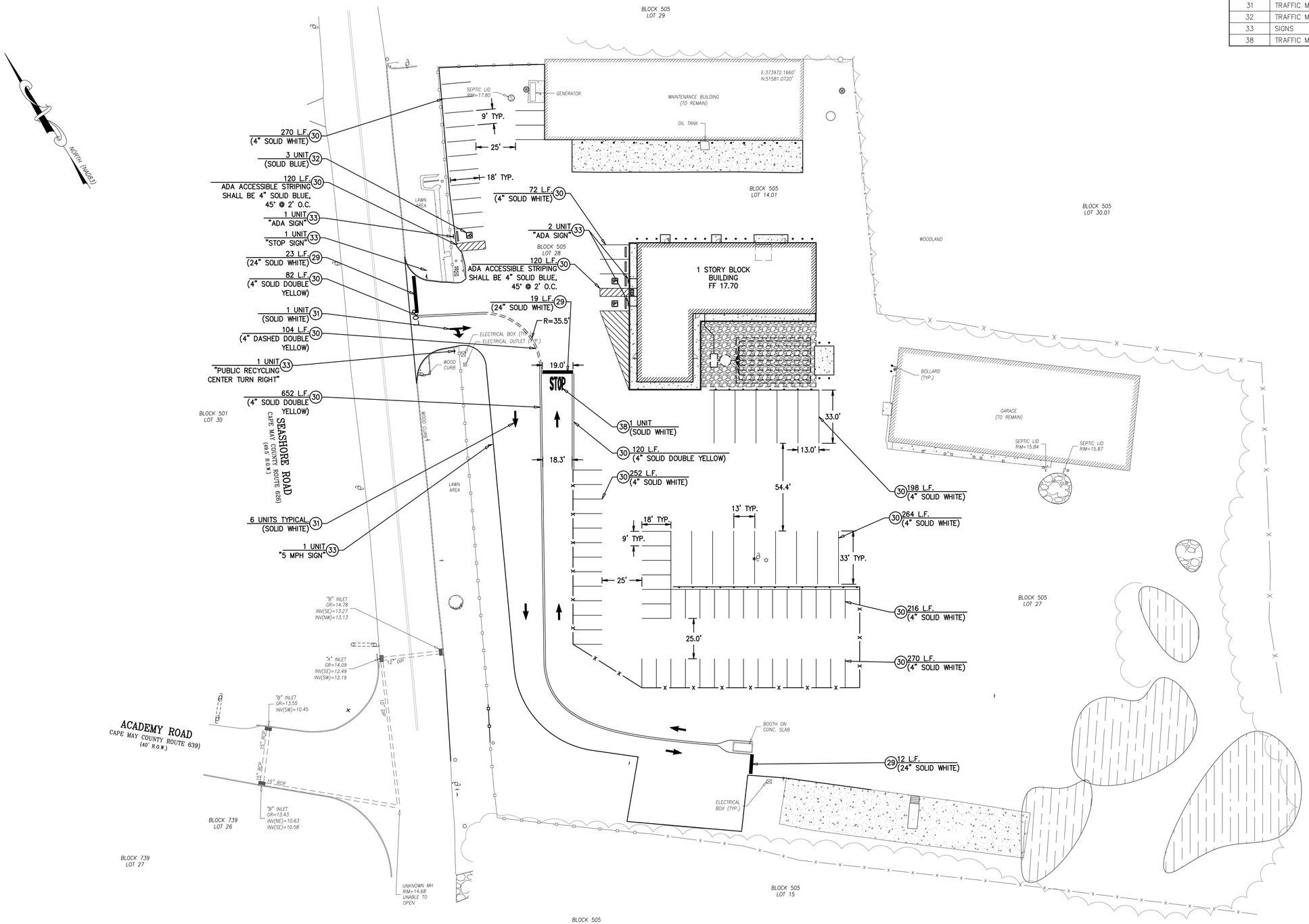
AS NOTED	LT-C-048.01	6	16

ITEM NO.	TO BE CONSTRUCTED	UNIT	PLAN QUANTITY	AS-BUILT QUANTITY
29	TRAFFIC MARKINGS, LINES, THERMOPLASTIC – 24"	L.F.	54	
30	TRAFFIC MARKINGS LINES, EPOXY RESIN – 4"	L.F.	2,740	
31	TRAFFIC MARKINGS, THERMOPLASTIC ARROW PAVEMENT MARKING	UNIT	7	
32	TRAFFIC MARKINGS, THERMOPLASTIC ADA PAVEMENT SYMBOL	UNIT	3	
33	SIGNS	UNIT	6	
38	TRAFFIC MARKINGS, PAVEMENT WORD SYMBOL	UNIT	1	



PLAN

SCALE : 1"=30'

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

STRIPING NOTES:

1. ALL PERMANENT LONGITUDINAL WHITE AND YELLOW LANE LINES SHALL BE LONG–LIFE EPOXY RESIN TRAFFIC STRIPES.
2. ALL PERMANENT DIAGONAL GORE MARKINGS, STOP BARS, WORDS, AND ARROWS SHALL BE LONG–LIFE THERMOPLASTIC TRAFFIC MARKINGS.
3. ALL TEMPORARY LONGITUDINAL CENTER LINES SHALL BE REMOVABLE PAVEMENT MARKING TAPE.
4. TRAFFIC STRIPING AND TRAFFIC MARKINGS OF DIFFERENT MATERIALS SHALL NOT BE OVERLAPPED.
5. TRANSVERSE DIMENSIONS INVOLVING PAINTING LINES ARE FROM THE CENTER OF PAINTED LINE UNLESS OTHERWISE SHOWN.

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STRIPING PLAN

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CAPE MAY COUNTY, NEW JERSEY

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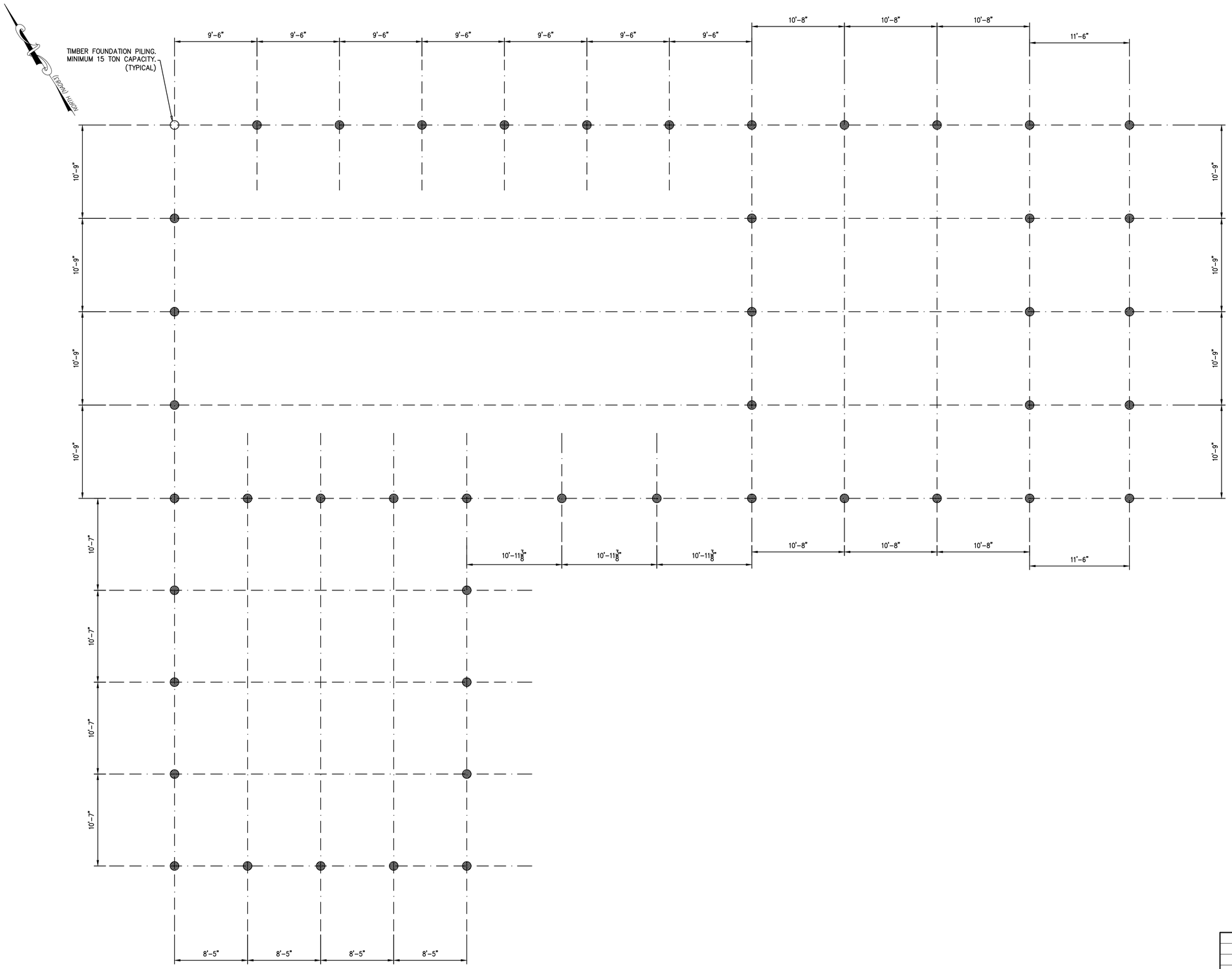

PILE LAYOUT PLAN

SCALE: 3/16" = 1'-0"

NOTES:

1. DO NOT BACKFILL AGAINST FOUNDATIONS WALL UNTIL FIRST FLOOR IS COMPLETED OR FOUNDATION WALL IS PROPERLY SHORED.
2. CONTRACTOR TO REFER TO MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS FOR ALL PIPE PENETRATION LOCATIONS AROUND EXTERIOR FOUNDATION WALL. PROVIDE ADEQUATE REINFORCEMENT IN CONCRETE WALLS AT SLEEVE LOCATIONS.
3. CJ SHALL BE CUT WITHIN 12-24 HRS OF CASTING SLAB.

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PILE LAYOUT PLAN

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PUBLIC WORKS BUILDING REPLACEMENT
TOWNSHIP OF LOWER
CAPE MAY COUNTY, NEW JERSEY

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MARC A. DEBLASIO, PE — DATE
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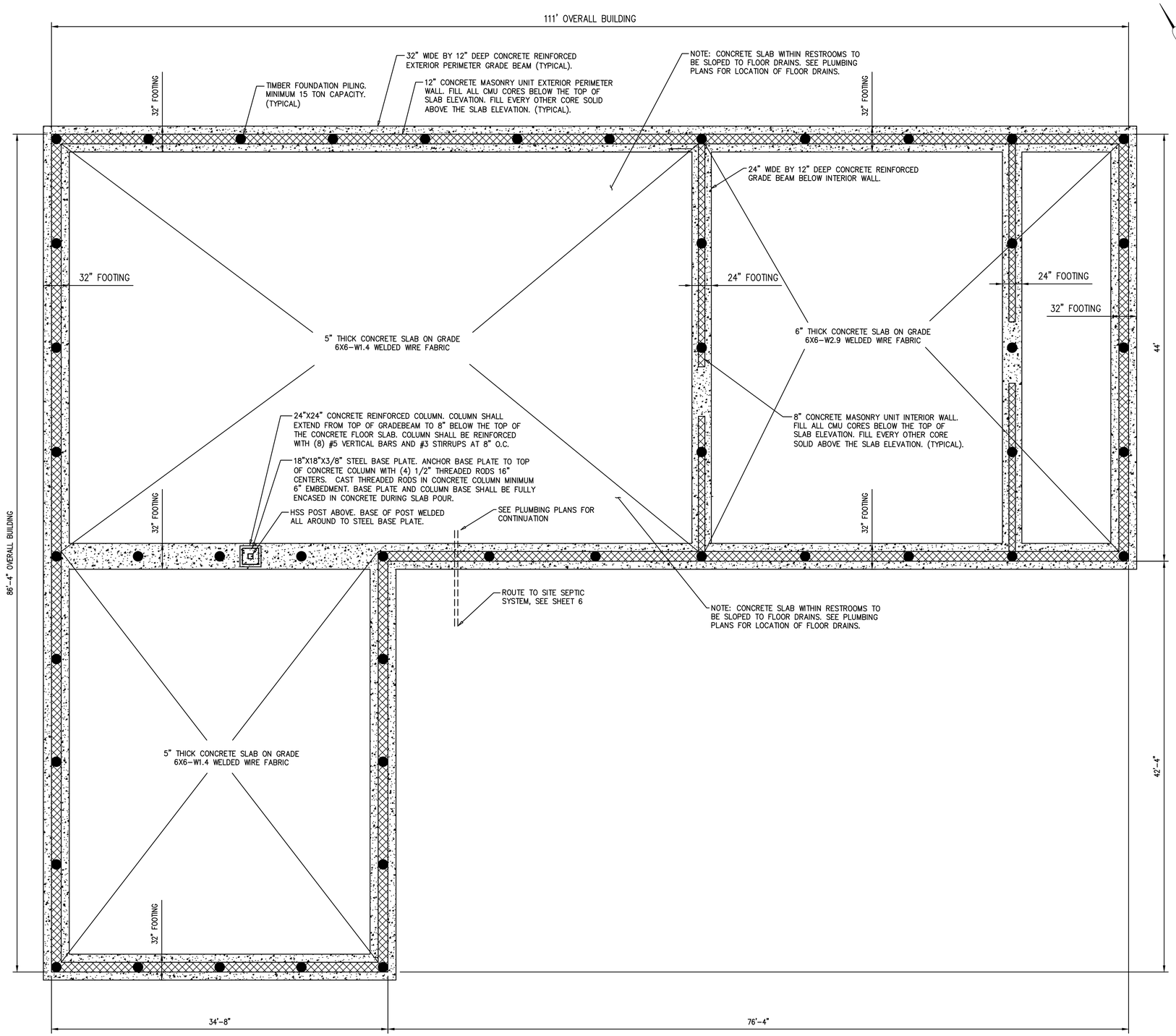
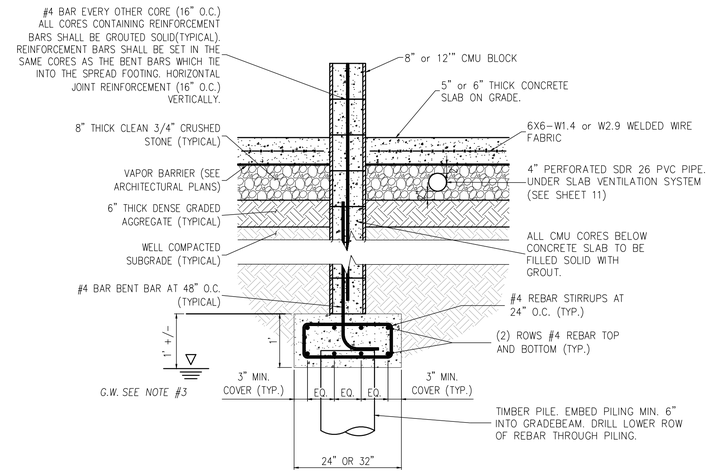


FOUNDATION PLAN

SCALE: 3/16" = 1'-0"



TYPICAL GRADEBEAM DETAIL

SCALE: 3/4" = 1'-0"

GENERAL NOTES

1. DO NOT SCALE THE DRAWINGS. THESE DOCUMENTS MAY CONTAIN UNINTENTIONAL OR INTENTIONAL GRAPHIC DISCREPANCIES.
2. DO NOT BACKFILL AGAINST FOUNDATIONS WALL UNTIL FIRST FLOOR IS COMPLETED OR FOUNDATION WALL IS PROPERLY SHORED.
3. CONTRACTOR TO REFER TO MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS FOR ALL PIPE PENETRATION LOCATIONS AROUND EXTERIOR FOUNDATION WALL. PROVIDE ADEQUATE REINFORCEMENT IN CONCRETE WALLS AT SLEEVE LOCATIONS.
4. CJ SHALL BE CUT WITHIN 12-24 HRS OF CASTING SLAB. CONTROL JOINT LAYOUT SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.
5. THE ENGINEER SHALL BE HELD HARMLESS FOR CHANGES MADE WITHOUT HIS KNOWLEDGE OR CONSENT; NO DEVIATION FROM THE DRAWINGS AND SPECIFICATION OR THE INTENT OF SAME SHALL BE MADE WITHOUT THE ENGINEER'S WRITTEN APPROVAL AND THE RECORDING OF THE SAME WITH LOCAL BUILDING OFFICIALS.

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FOUNDATION PLAN & DETAIL

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PUBLIC WORKS BUILDING REPLACEMENT
TOWNSHIP OF LOWER
CAPE MAY COUNTY, NEW JERSEY

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MARC A. DEBLASIO, PE
New Jersey License No. 41599

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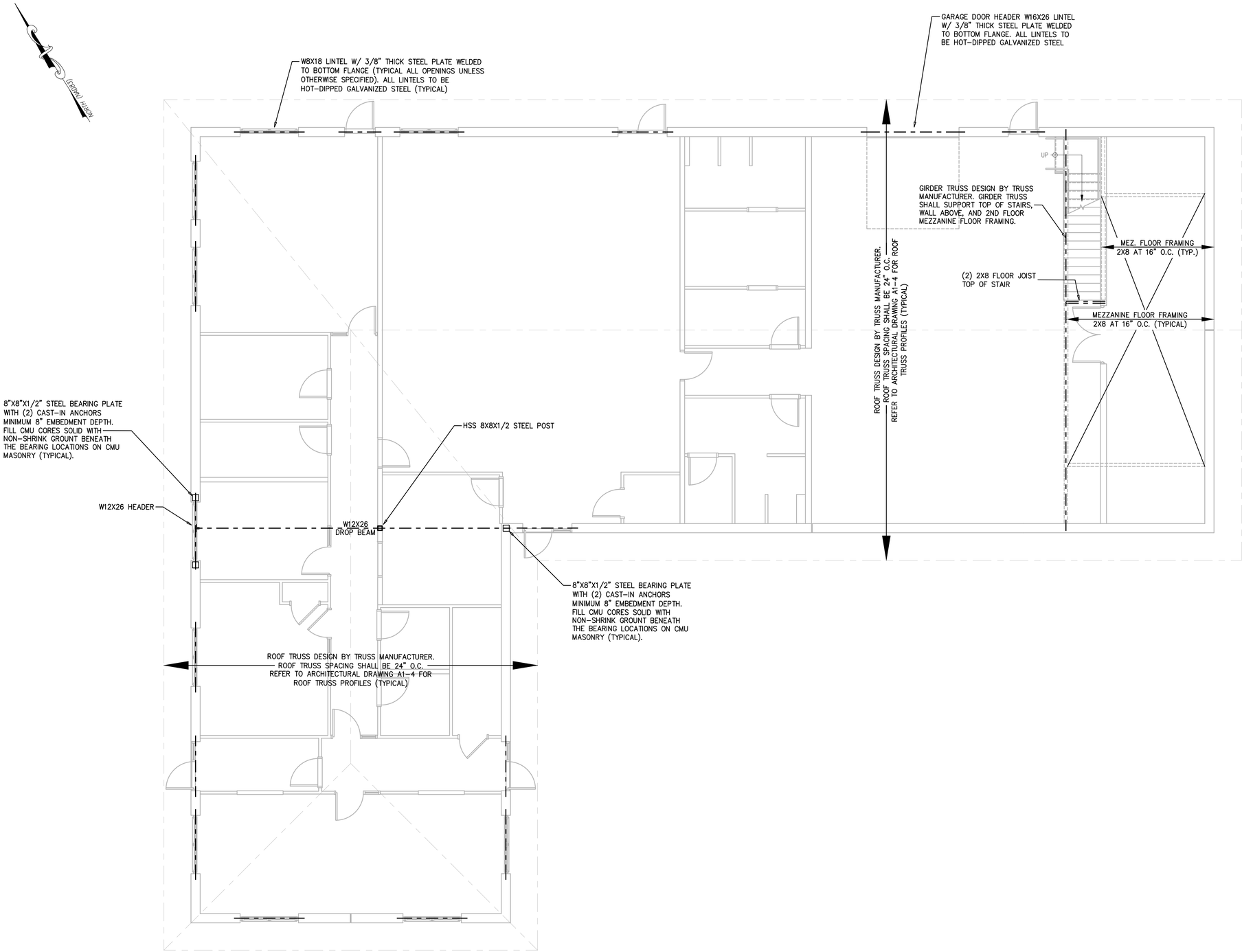

ROOF FRAMING PLAN

SCALE: 3/16" = 1'-0"

WOOD FRAMING

1. PROVIDE ALL WOOD FRAMING MATERIALS SHOWN ON THE PLANS FOR COMPLETE CONSTRUCTION.
2. NO OPENINGS SHALL BE MADE IN ANY STRUCTURAL MEMBER UNLESS SPECIFICALLY SHOWN ON THE STRUCTURAL DRAWING OR OTHER APPROVAL FROM THE ENGINEER.
3. ALL WOOD FRAMING CONNECTIONS SHALL COMPLY WITH THE MINIMUM NUMBER AND SIZE FASTENERS AS SHOWN IN TABLE 2304.10.1, FASTENING SCHEDULE IN I.B.C. 2021 UNLESS OTHERWISE SHOWN HEREIN. NOTE, FORMED METAL CONNECTORS FOR HURRICANE ANCHORAGE ARE IN ADDITION TO FASTENERS REQUIRED BY THE BUILDING CODE. DO NOT SUBSTITUTE METAL CONNECTORS FOR FASTENERS.

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ROOF FRAMING PLAN

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PUBLIC WORKS BUILDING REPLACEMENT
TOWNSHIP OF LOWER
CAPE MAY COUNTY, NEW JERSEY

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MARC A. DEBLASIO, PE — DATE
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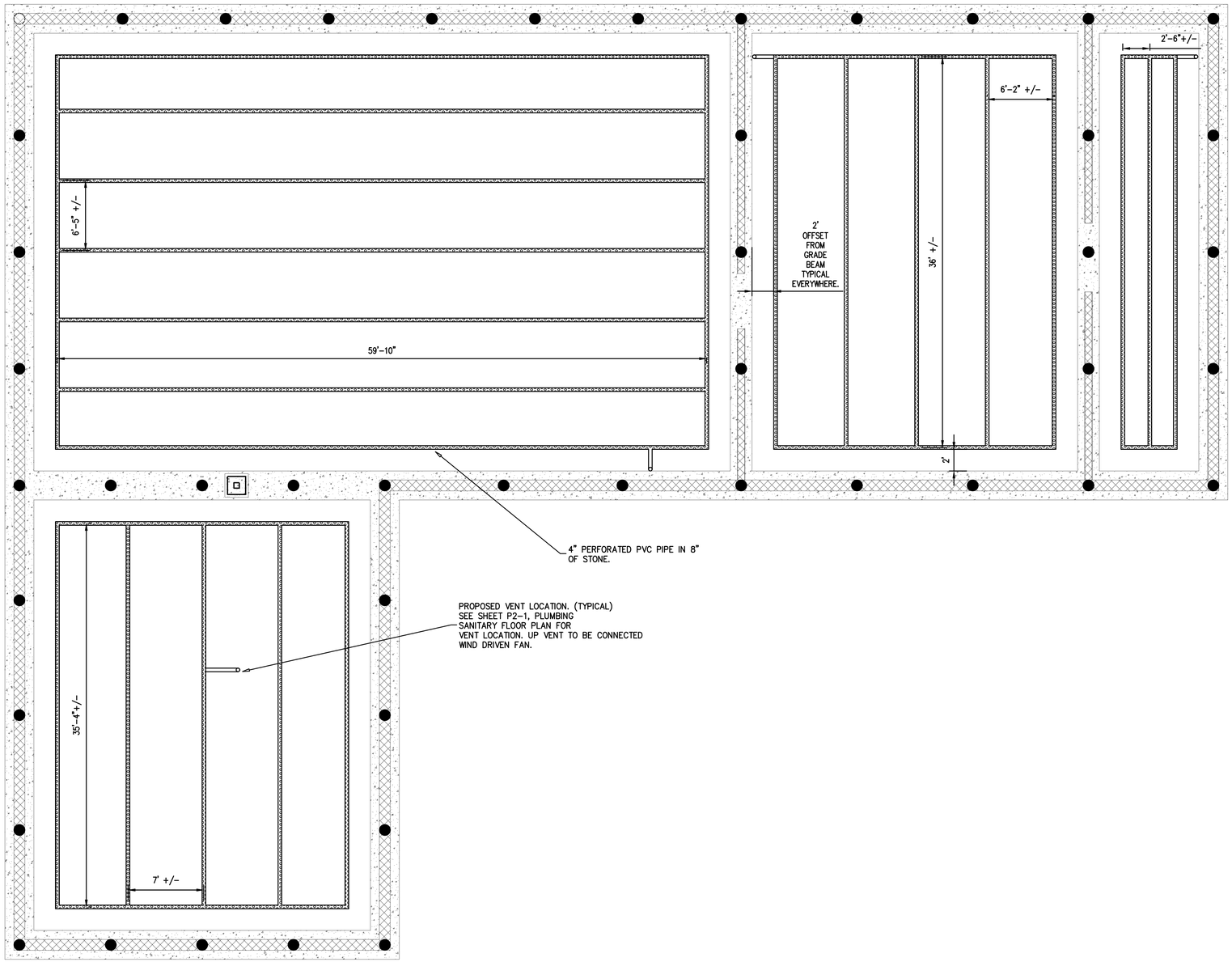
NORTH (MAGNETIC)



FOUNDATION PLAN

SCALE: 3/16" = 1'-0"

NOTES:
1. SEE DRAWING P3-1 FOR UP VENT LOCATIONS
2. COST OF THE UNDER SLAB VENTILATION SYSTEM PLAN TO BE INCLUDED IN PAY ITEM "PLUMBING (DIVISION 22)"

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UNDER SLAB VENTILATION SYSTEM PLAN

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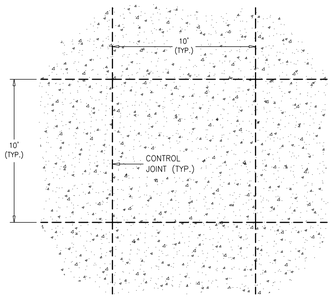
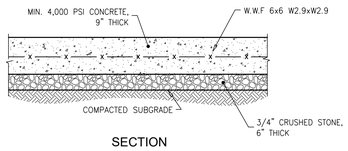


JOINT LAYOUT

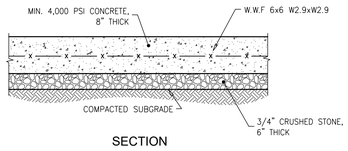
NOTES:
1. SLABS SHALL HAVE CONSTRUCTION JOINTS OR CRACK CONTROL JOINTS, SUCH THAT THE MAXIMUM SPACING BETWEEN CONSTRUCTION AND/OR CRACK CONTROL JOINTS DOES NOT EXCEED 30X SLAB THICKNESS IN INCHES AND LENGTH TO WIDTH RATIO 1.5:1.
2. CONTROL JOINTS SHALL BE NO LESS THAN 1/3 OF THE THICKNESS OF THE SLAB AND NEVER DELAYED MORE THAN 24 HOURS.



SECTION

9" REINFORCED CONCRETE APRON DETAIL

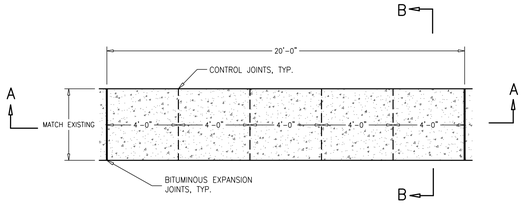
N.T.S.

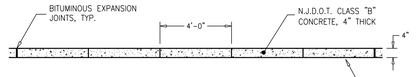


SECTION

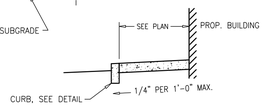
8" REINFORCED CONCRETE PAD DETAIL

N.T.S.





SECTION A-A

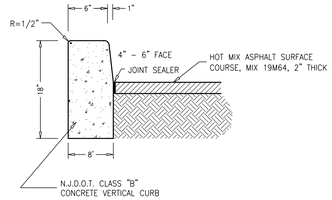


SECTION B-B

NOTES:
1.) A PREFORMED, BITUMINOUS EXPANSION JOINT 1/2" THICK AND EXTENDING THE FULL WIDTH OF THE WALK, UNBROKEN, SHALL BE INSTALLED EVERY 20 FEET. CONTROL JOINTS SHALL BE INSTALLED EVERY 4 FEET THE FULL WALK WIDTH.
2.) THERE SHALL BE A BROOM FINISH WITH THE EDGES FINISHED WITH A SUITABLE TOOL.

CONCRETE SIDEWALK

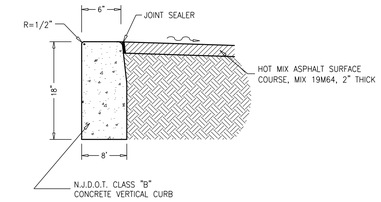
N.T.S.



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

CONCRETE VERTICAL CURB DETAIL

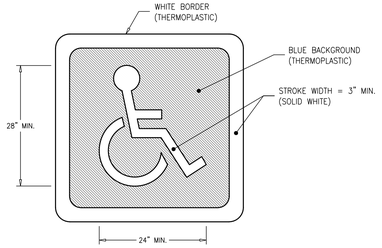
N.T.S.



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

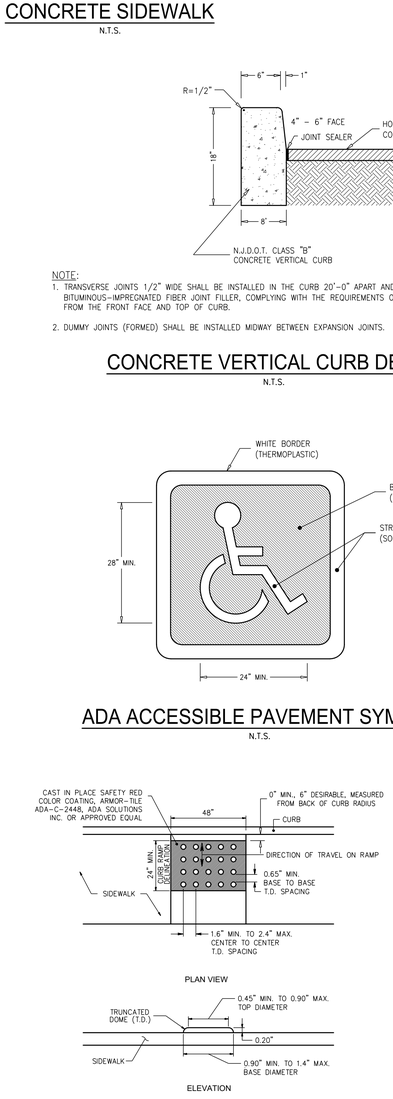
DEPRESSED VERTICAL CURB DETAIL

N.T.S.



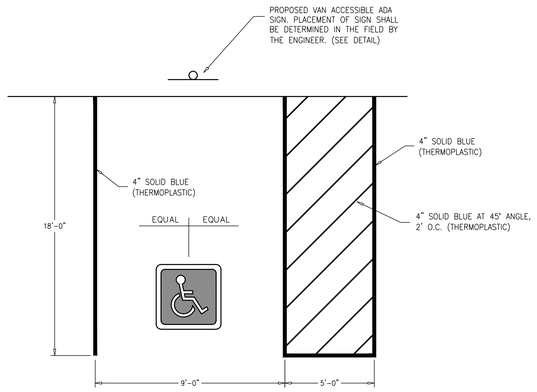
ADA ACCESSIBLE PAVEMENT SYMBOL

N.T.S.



DETECTABLE WARNING SURFACE

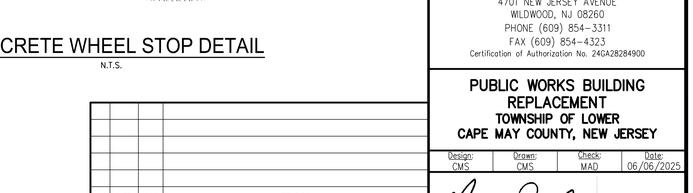
N.T.S.



NOTE:
1. LAYOUT SHALL MEET THE REQUIREMENTS OF THE MOST CURRENT AMERICAN DISABILITY ACT STANDARDS.

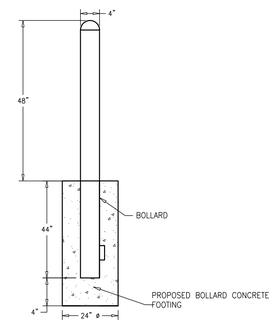
ADA ACCESSIBILITY PARKING STALL LAYOUT

N.T.S.



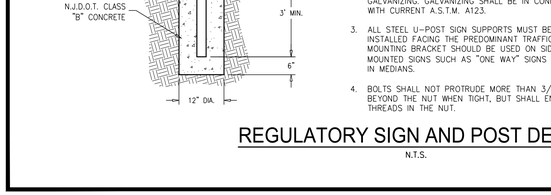
ACCESSIBILITY PARKING SIGN AND POST DETAIL

N.T.S.



BOLLARD DETAIL

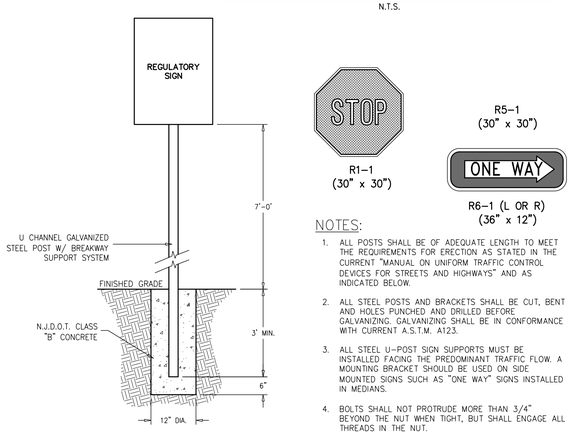
N.T.S.



NOTE:
1. GRID LINES SHOWN ARE FOR LAYOUT PURPOSES ONLY.

TURN ARROW PAVEMENT MARKING

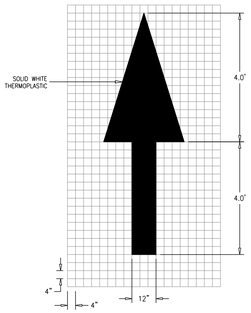
N.T.S.



NOTES:
1. ALL POSTS SHALL BE OF ADEQUATE LENGTH TO MEET THE REQUIREMENTS FOR ERECTION AS STATED IN THE CURRENT "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS" AND AS INDICATED BELOW.
2. ALL STEEL POSTS AND BRACKETS SHALL BE CUT, BENT AND HOLES PUNCHED AND DRILLED BEFORE GALVANIZING. GALVANIZING SHALL BE IN CONFORMANCE WITH CURRENT A.S.T.M. A123.
3. ALL STEEL U-POST SIGN SUPPORTS MUST BE INSTALLED FACING THE PREDOMINANT TRAFFIC FLOW. A MOUNTING BRACKET SHOULD BE USED ON SIDE MOUNTED SIGNS SUCH AS "ONE WAY" SIGNS INSTALLED IN MEDIANS.
4. BOLTS SHALL NOT PROTRUDE MORE THAN 3/4" BEYOND THE NUT WHEN TIGHT, BUT SHALL ENGAGE ALL THREADS IN THE NUT.

REGULATORY SIGN AND POST DETAIL

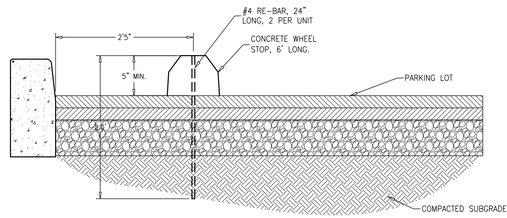
N.T.S.



NOTE:
1. GRID LINES SHOWN ARE FOR LAYOUT PURPOSES ONLY.

STRAIGHT ARROW PAVEMENT MARKINGS

N.T.S.



CONCRETE WHEEL STOP DETAIL

N.T.S.

NO.	DATE	APPR.	REVISION

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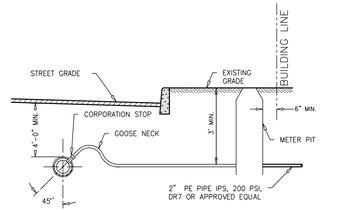
PUBLIC WORKS BUILDING REPLACEMENT
TOWNSHIP OF LOWER
CAPE MAY COUNTY, NEW JERSEY

Design:	Drawn:	Check:	Date:
CMS	CMS	MAD	06/06/2025

10/29/2025
MARC A. DEBLASIO, PE
New Jersey License No. 41599

Scale:	Job No.:	Sheet No:	Total:
AS NOTED	LT-C-048.01	12	16

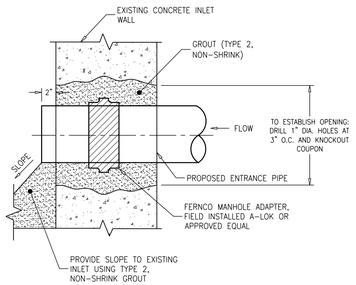


NOTE:

1. WATER MAIN, CORPORATION STOP, 2" SERVICE LINE FROM THE MAIN TO THE METER PIT, AND METER PIT ASSEMBLY BY OTHERS. THE CONTRACTOR SHALL EXTEND THE SERVICE PIPING FROM THE METER PIT TO THE PROPOSED BUILDING.

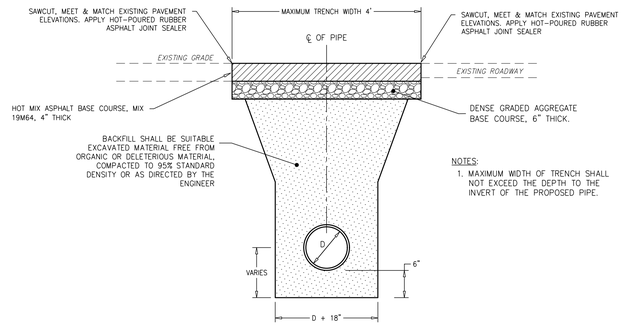
TYPICAL WATER SERVICE HOUSE CONNECTION INSTALLATION

N.T.S.



CONNECTION TO EX INLET DETAIL

N.T.S.



NOTES:

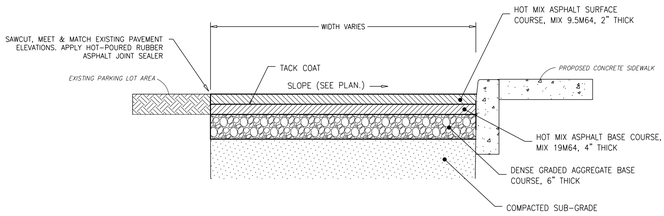
1. MAXIMUM WIDTH OF TRENCH SHALL NOT EXCEED THE DEPTH TO THE INVERT OF THE PROPOSED PIPE.

NOTE:

1. THE TRENCH WIDTH SHALL CONSIST OF HOT MIX ASPHALT BASE COURSE 19M64 (4" THICK) PLACED FLUSH WITH THE EXISTING PAVEMENT AT THE END OF EACH WORK WEEK, FOR A SETTLING PERIOD OF 60 DAYS.

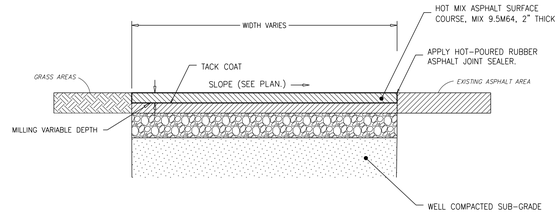
TYPICAL TRENCH RESTORATION FOR UTILITY SERVICES

N.T.S.



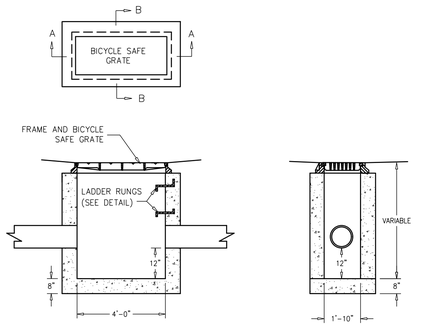
TYPICAL PARKING LOT RECONSTRUCTION SECTION DETAIL

N.T.S.



TYPICAL PARKING LOT RESURFACING SECTION DETAIL

N.T.S.



SECTION A-A

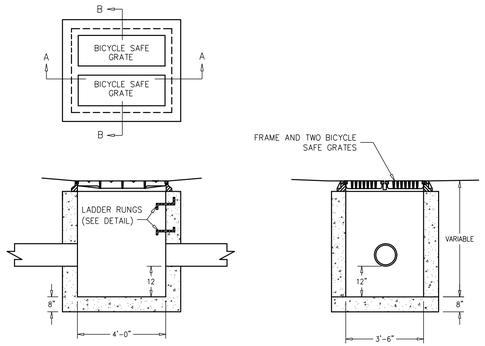
SECTION B-B

NOTES:

1. INLETS AND PIPING SHALL BE INSTALLED IN DRY GROUND. DEWATERING AS NEEDED TO PROVIDE PROVIDE DRY CONDITIONS SHALL BE INCLUDED AT NO ADDITIONAL COST.
2. NO ADDITIONAL PAYMENT WILL BE MADE FOR INSTALLATION OF PIPE AND STRUCTURES UP TO ONE(1) FOOT DEEPER THAN DESIGN INVERTS.

INLET, TYPE "A"

N.T.S.



SECTION A-A

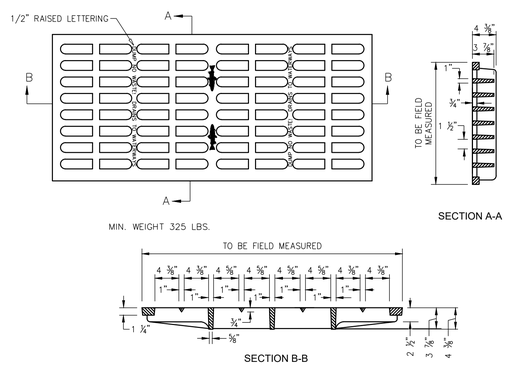
SECTION B-B

NOTES:

1. INLETS AND PIPING SHALL BE INSTALLED IN DRY GROUND. DEWATERING AS NEEDED TO PROVIDE PROVIDE DRY CONDITIONS SHALL BE INCLUDED AT NO ADDITIONAL COST.
2. NO ADDITIONAL PAYMENT WILL BE MADE FOR INSTALLATION OF PIPE AND STRUCTURES UP TO ONE(1) FOOT DEEPER THAN DESIGN INVERTS.

INLET, TYPE "E"

N.T.S.



BICYCLE SAFE GRATE (CAST IRON)

N.T.S.

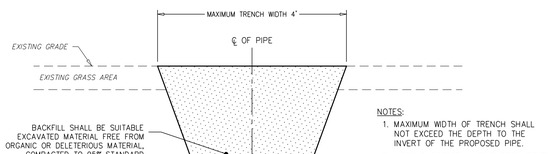
INLET GENERAL NOTES:

1. INLETS MAY BE CONSTRUCTED OF BRICK, CONCRETE, CONCRETE BLOCK OR PRECAST CONCRETE. WALLS SHALL BE 8 INCHES THICK IF BRICK AND 6 INCHES THICK IF CONCRETE, CONCRETE BLOCK OR PRECAST CONCRETE. INLET FOUNDATIONS AND INVERTS SHALL BE CLASS C CONCRETE.
2. CORBELLING OF INLET WALLS WILL BE PERMITTED AT THE RATE OF 1/2" INCH PER 8 INCHES OF HEIGHT; MAXIMUM CORBEL 6 INCHES PER WALL.
3. INLET FOUNDATIONS WHICH ARE PRECAST SHALL BE PLACED ON A 6 INCH THICK BED OF COMPACTED COARSE AGGREGATE SIZE NO. 57. THE COARSE AGGREGATE SHALL EXTEND 6 INCHES BEYOND THE HORIZONTAL LIMITS OF THE INLET FOUNDATION.
4. CASTINGS FOR PRECAST INLETS SHALL BE ADJUSTED TO GRADE WITH COURSES OF BRICK, AS REQUIRED, 12 INCHES MAXIMUM.
5. MINIMUM WALL REINFORCEMENT FOR PRECAST INLETS TYPES A, B, C, E, D-1, D-2 AND B MODIFIED:

DEPTH BELOW TOP OF GRATE	HORIZONTAL REINF.	VERTICAL REINF.
0' TO 10'-0"	#13 @ 10" C.C.	#13 @ 18" C.C.

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

6. ALL INLETS AND MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT NJDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND ITS AMENDMENTS.
7. IF INLETS ARE BUILT IN THE FIELD, BOTH THE INSIDE AND OUTSIDE WALLS SHALL BE PARGED WITH CEMENT.

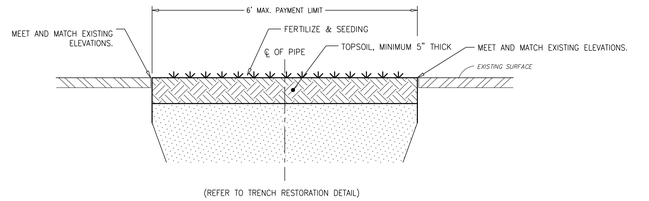


NOTES:

1. MAXIMUM WIDTH OF TRENCH SHALL NOT EXCEED THE DEPTH TO THE INVERT OF THE PROPOSED PIPE.
2. UPON SUCCESSFUL COMPLETION OF THE SUBSURFACE PIPE INSTALLATION, THE CONTRACTOR SHALL PLACE FILL TO MATCH THE EXISTING GRADE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THESE TRENCHES UNTIL THE FINAL RESTORATION IS COMPLETE.
3. THE RESTORATION REQUIREMENTS SHALL APPLY TO ALL TRENCH AREAS UNLESS OTHERWISE NOTED.

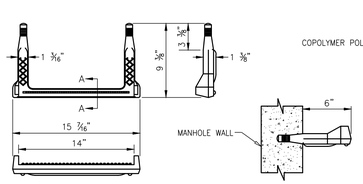
TYPICAL TRENCH DETAIL FOR STORM SEWER

N.T.S.



TYPICAL UTILITY TRENCH / TOP SOIL & SEED RESTORATION DETAIL

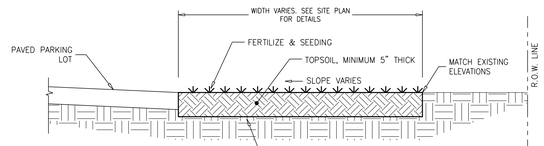
N.T.S.



NOTE:
LADDER RUNGS FACING TRAFFIC 12" C TO C

COPOLYMER POLYPROPYLENE PLASTIC LADDER RUNG

N.T.S.



NOTE:

1. THE CONTRACTOR SHALL ENSURE THAT THE TURF REPAIR STRIP IS CONSTRUCTED FREE FROM ROAD DEBRIS AND OTHER UNWANTED MATERIAL.

TURF REPAIR DETAIL

N.T.S.

NO.	DATE	APPR.	REVISION

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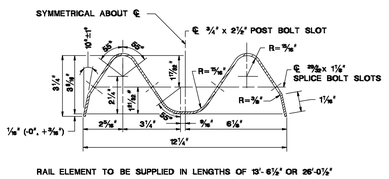
PUBLIC WORKS BUILDING REPLACEMENT
TOWNSHIP OF LOWER
CAPE MAY COUNTY, NEW JERSEY

Design:	Drawn:	Check:	Date:
CMS	CMS	MAD	06/06/2025

10/29/2025
DATE

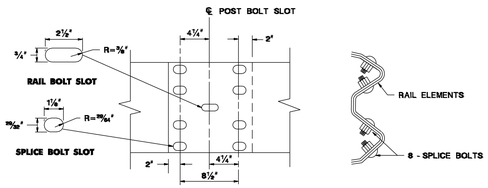
MARC A. DEBLASIO, PE
New Jersey License No. 41599

Scale:	Job No.:	Sheet No:	Total:
AS NOTED	LT-C-048.01	13	16

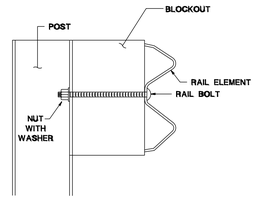


RAIL ELEMENT TO BE SUPPLIED IN LENGTHS OF 13'-6¼" OR 26'-0⅛"

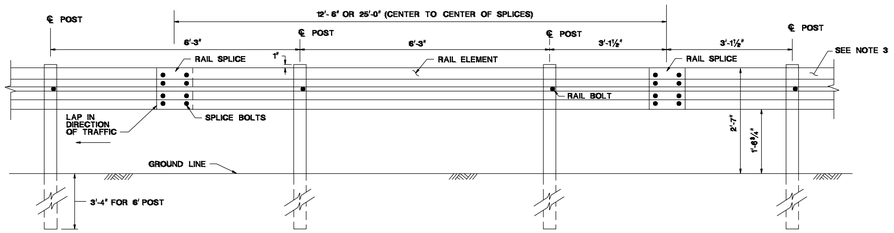
W-BEAM RAIL ELEMENT



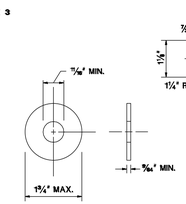
RAIL SPLICE



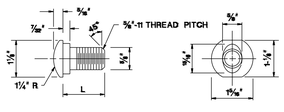
BEAM GUIDE RAIL POST ASSEMBLY



BEAM GUIDE RAIL

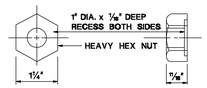


STEEL WASHER



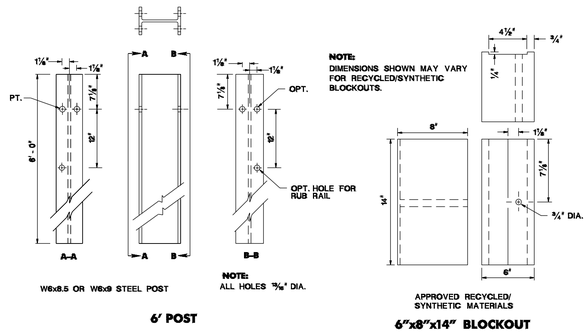
TYPE	L	MIN. THREAD LENGTH
SPLICE	1¼"	FULL LENGTH THREAD
RAIL	9⅛"	1¾"

⅝" DIA. BUTTON HEAD BOLT



⅝" DIA. RECESS NUT

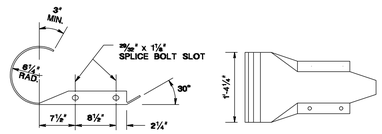
SPLICE & RAIL NUT & BOLT



6' POST

NOTE:
DIMENSIONS SHOWN MAY VARY FOR RECYCLED/SYNTHETIC BLOCKOUTS.

6"x8"x14" BLOCKOUT

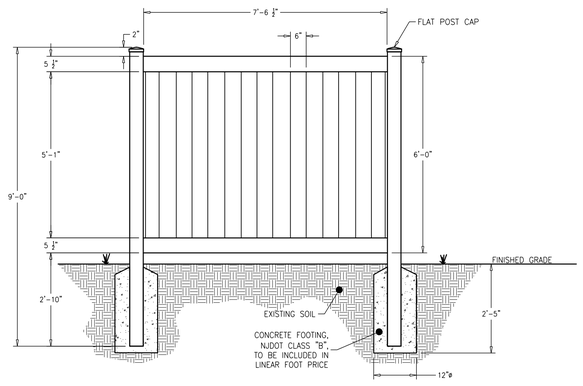


END SECTION (ROUNDED)

NOTES:
1. ALL DIMENSIONS ARE SUBJECT TO MANUFACTURING TOLERANCES.
2. FURNISH RAIL ELEMENTS SHOPCURVED, CONCAVE OR CONVEX, FOR RADII BETWEEN 20 FEET AND 150 FEET.
3. CONTRACTOR SHALL INSTALL END TERMINALS AT ALL BEAM GUIDE RAIL LOCATIONS. USE END SECTION (ROUNDED)

BEAM GUIDE RAIL DETAIL

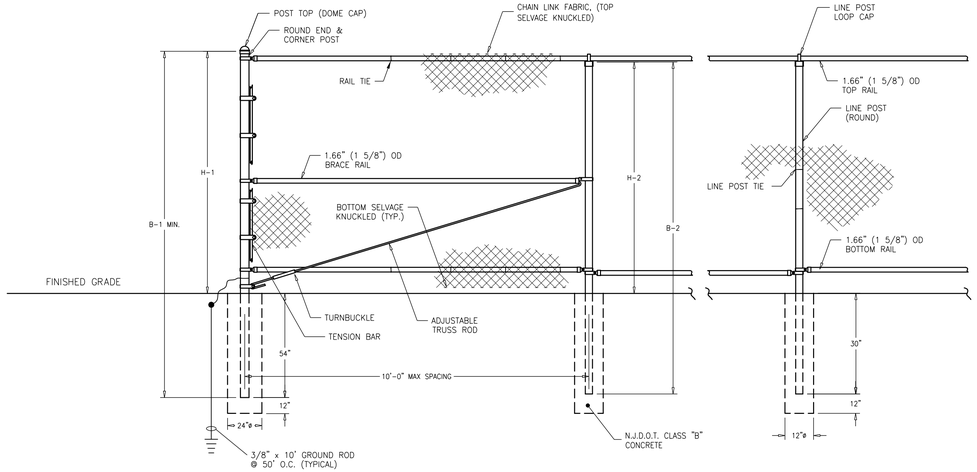
N.T.S.



NOTES:
1. VINYL FENCE SYSTEM SHALL BE ASTM F954-09 COMPLIANT.
2. VINYL FENCE SYSTEM SHALL BE COLOR WHITE.
3. BOTTOM RAIL SHALL INCLUDE METAL REINFORCEMENT.

6' VINYL FENCE DETAIL

N.T.S.



NOTES:
1. ALL CHAIN LINK FABRIC SHALL BE GALVANIZED STEEL (PVC) COLOR COATED WITH SCHEDULE 40 HOT-DIP GALVANIZED STEEL FRAMEWORK AND ACCESSORIES.
2. PROVIDE GROUNDING ELECTRODES AND BOND ALL CHAIN LINK FENCING SYSTEMS PER N.E.C.
3. COLOR FOR CHAIN LINK FABRIC, POSTS, AND ALL OTHER ACCESSORIES SHALL BE MIDNIGHT BLACK.

FENCE HEIGHT	END & CORNER POSTS		LINE POSTS	
NOMINAL HEIGHT	B-1 BAR LENGTH	H-1 HEIGHT ABOVE GRADE	B-2 BAR LENGTH	H-2 HEIGHT ABOVE GRADE
8'-0"	12'-6"	8'-0 5/8"	10'-8"	7'-8 7/8"

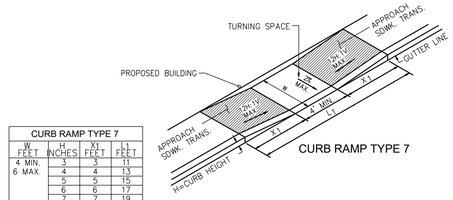
CHAIN LINK FENCE , 8' HIGH

N.T.S.

END & CORNER POST TOP	TOP & BOTTOM FABRIC
DOME	KNUCKLE

TERMINAL POSTS: END, CORNER, AND PULL		
NOM HEIGHT	OUTSIDE DIAMETER	WALL THICKNESS
8'-0"	3.5"	0.216"

LINE POSTS		
NOM HEIGHT	OUTSIDE DIAMETER	WALL THICKNESS
8'-0"	2.875"	0.203"
RAILS AND BRACES	1.660"	0.140"



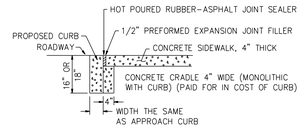
CURB RAMP TYPE 7			
W FEET	H INCHES	X1 FEET	L1 FEET
4 MIN. 6 MAX.	3	3	11
	4	4	13
	5	5	15
	6	6	17
	7	7	19
	8	8	21
	9	9	23

CURB RAMP TYPE 7

GENERAL NOTES:
1. KEEP TURNING SPACE, APPROACH SIDEWALK TRANSITIONS, AND CURB RAMP CLEAR OF OBSTRUCTIONS THAT PROTRUDE ABOVE THE SIDEWALK.
2. DIMENSIONS SHOWN IN TABLES ARE FOR RELATIVELY FLAT SIDEWALK AREAS. CARE SHOULD BE TAKEN WHEN DETERMINING CURB RAMP SIZE BASED ON CURB HEIGHT (H) WHERE ELEVATION OF CURB AND SIDEWALK VARY DRASTICALLY IN AREA OF PROPOSED CURB RAMP.
3. CURB (DROPPED CURB) GUTTERLINE TO BE FLUSH WITH ROADWAY PAVEMENT THE ENTIRE WIDTH OF THE RAMP (4 FEET MIN.) AT ALL CURB RAMPS.
4. WHERE THE DISTANCE FROM THE GUTTER LINE TO THE OUTSIDE EDGE OF SIDEWALK IS 6 FEET OR LESS, CURB RAMP TYPE 7 SHOULD BE USED, INSTEAD OF CURB RAMP TYPE 1 THROUGH 4.
5. THE PUBLIC SIDEWALK CURB RAMP, DETECTABLE WARNING SURFACE (SHADED AREA) SHALL BE SAFETY RED COLOR ON CONCRETE OR 70% COLOR CONTRAST FOR OTHER SURFACE SUCH AS BRICK.
6. CROSSWALKS AND STOP LINES MAY BE MARKED OR UNMARKED, SEE PLANS.
7. PREFERRED AND ALTERNATE TREATMENTS SHOULD NOT BE INTERMIXED WITHIN THE SAME INTERSECTION.
8. DIMENSIONS SHOWN IN TABLES ARE FOR 3 INCH TO 9 INCH CURB HEIGHTS. WHERE THE CURB HEIGHTS ARE OTHER THAN WHAT IS PROVIDED IN THE TABLES, THE DIMENSIONS OF THE RAMPS WILL HAVE TO BE CALCULATED BASED ON CROSS SLOPES SHOWN.
9. THE 12H:1V MAX SLOPE IS THE RUNNING SLOPE FOR CURB RAMPS, BUT ONLY THE 12H:1V SLOPE MEASURED AS X2 IS THE RUNNING SLOPE FOR TYPE 3 AND TYPE 4 CURB RAMPS. ENSURE THE RUNNING SLOPE OF CURB RAMPS DOES NOT REQUIRE ITS LENGTH TO EXCEED 15 FEET. THE RUNNING SLOPE MAY EXCEED THE 12H:1V MAX SLOPE AS TO NOT EXCEED THE 15 FEET MAXIMUM LENGTH.
10. CURB RAMP TYPE 1 THROUGH 7 ARE NORMALLY PLACED ON THE RADIUS RETURN AT THE INTERSECTION AND ON A TANGENT SECTION AS DRAWN.
11. CONSTRUCT CURB RAMP TYPES 1, 2, 3, 4, & 7 PERPENDICULAR TO CURBLINE, AS SHOWN.

PUBLIC SIDEWALK CURB RAMPS

N.T.S.



DROPPED CURB AND CRADLE AT ALL PUBLIC SIDEWALK CURB RAMPS

N.T.S.

CONSTRUCTION DETAILS

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PHONE (609) 854-3311
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Certification of Authorization No. 24GA28284900

PUBLIC WORKS BUILDING REPLACEMENT
TOWNSHIP OF LOWER
CAPE MAY COUNTY, NEW JERSEY

Design:	Drawn:	Check:	Date:
CMS	CMS	MAD	06/06/2025

NO.	DATE	APPR.	REVISION

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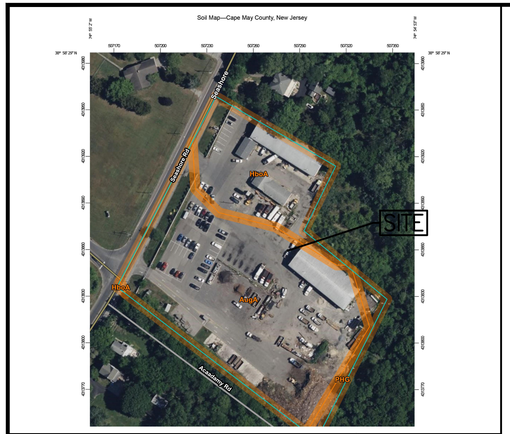
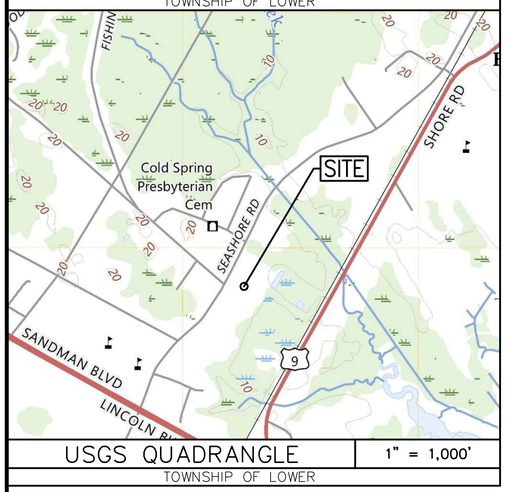
10/29/2025
MARC A. DEBLASIO, PE — DATE
New Jersey License No. 41599

Scale:	Job No.:	Sheet No:	Total:
AS NOTED	LT-C-048.01	14	16



SOILS MAP | 1" = 150'



USGS QUADRANGLE | 1" = 1,000'

TOWNSHIP OF LOWER

NOTES:

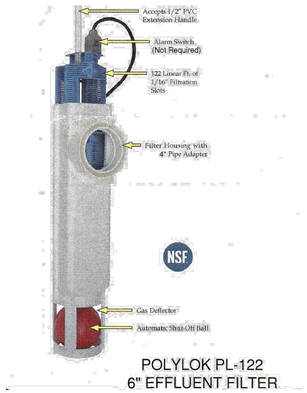
1. THE PURPOSE OF THIS PLAN IS TO SHOW CONFORMANCE WITH STANDARD FOR INDIVIDUAL SUBSURFACE SEWAGE DISPOSAL SYSTEMS (N.J.A.C. CHAPTER 7:9A). ANY OTHER USE OF THESE PLANS IS AT THE RISK OF THE USER.
2. EXISTING TOPOGRAPHIC INFORMATION SHOWN WAS BASED ON A FIELD SURVEY PERFORMED BY DEBLASIO & ASSOCIATES, P.C. UNDER THE SUPERVISION OF HENRY V. ENGEL, N.J.P.L.S. NO. 35833, COMPLETED ON 05/31/2024.
3. ACTUAL SUBSURFACE CONDITIONS MAY VARY FROM THOSE WHICH ARE ENCOUNTERED AT THE LOCATIONS OF BORINGS, TEST PITS, OR OTHER SUBSURFACE ENCOUNTERED.
4. THIS SYSTEM HAS BEEN DESIGNED USING A FILL PERMEABILITY FACTOR K-4.
5. ALL DISTRIBUTION LINES MUST EXIT SEPERATELY FROM THE DISTRIBUTION BOX. ALL LATERALS SHALL BE LOOPED AND LEVEL.
6. THERE ARE NO DISPOSAL BEDS WITHIN 50' OF THE PROPOSED SYSTEM. THERE ARE NO WELLS WITHIN 100' OF THE PROPOSED SYSTEM.
7. NO PARKING/DRIVING WITHIN THE DISPOSAL AREA.
8. SOIL INFORMATION PROVIDED FOR USE IN SEPTIC DESIGNS ONLY. ANY OTHER USE OF THIS DATA IS AT THE SOLE RISK OF THE USER.
9. THE SOILS FROM THE SURFACE (ELEV. 16.90) TO (ELEV. 12.15) SHALL BE REMOVED AND REPLACED WITH THE SPECIFIED MATERIAL. A PERCOLATION OR PERMEABILTY TEST MUST BE PERFORMED IN THIS MATERIAL AS WELL AS ANY FILL MATERIAL REQUIRED. ALL COMPACTED SOILS AND ALL SANDY CLAY LOAM SOILS SHALL BE REMOVED FROM THE DISPOSAL AREA.
10. THE DISPOSAL SYSTEM IS NOT DESIGNED FOR USE WITH A GARBAGE DISPOSAL.

DISTRIBUTION BOX:
- CONSTRUCTED OF SOUND AND DURABLE MATERIALS WHICH WILL RESIST DECAY OR CORROSION BY SUPHURIC ACID, FROST DAMAGE, CRACKING OR BUCKLING DUE TO BACKFILLING OR RELATED STRESSES.
- SHALL BE WATER-TIGHT AND SET PERFECTLY LEVEL ON THE FILTER MATERIAL WITHIN THE DISPOSAL BED.
- PROVIDE A SEPARATE OUTLET FOR EACH DISTRIBUTION LATERAL.
- ALL LATERALS SHALL BE SECURELY SET AT THE SAME LEVEL, MINIMUM OF TWO INCHES ABOVE THE BOTTOM OF THE BOX.
- PROVIDE MEANS OF ACCESS TO THE DISTRIBUTION BOX.

DISTRIBUTION LATERALS:
- MATERIAL: POLYVINYL CHLORIDE (PVC) ASTM D-2729, D-3033, D-3034.
- SIZE: MINIMUM OF 2" IN DIAMETER CONNECTED WITH TIGHT JOINTS.
- PERFORATIONS: MIN. 3/8" TO 3/4" IN DIAMETER AND EVENLY SPACED ALONG TWO ROWS RUNNING THE LENGTH OF THE PIPE.
- EACH DISTRIBUTION LATERAL SHALL BE CAPPED AT THE END.
- SLOPE OF THE LATERAL TO NOT EXCEED 2 INCHES PER 100 FEET.
- PROVIDE INSPECTION PORTS IN EACH CORNER OF THE DISPOSAL BED CONSISTING OF A PERFORATED PIPE WITH A REMOVABLE CAP, EXTENDING FROM LEVEL OF INFILTRATION TO FINISHED GRADE.

DESIGN NOTES (PURSUANT TO N.J. ADMIN. CODE § 7:9A-7.4)

1. SOIL PERMEABILITY FACTOR = K-4
2. SOIL SUITABILIY CLASSIFICATION = 1 Hr
3. VOLUME OF SEWAGE = 0.125 * 6,300 SF = 787.5 GAL/DAY
4. DISPOSAL BED SIZE REQUIRED = 1.61 SF/GAL x 787.5 GAL/DAY = 1,267.88 SF
5. DISPOSAL BED PROVIDED = 28' x 46' = 1,288 SF
6. SEPTIC TANK SIZE = 1,000 GAL.



POLYLOK PL-122
6" EFFLUENT FILTER

SOLIDS FILTER DETAIL
N.T.S.

TEST PIT #1

SOIL BORING PROFILE Boring #: TP-1 **SHWT =** 57" **AWT =** N/E
Method (check one) **Profile Pit:** X **Boring:**

HORIZON DEPTH	HORIZON DESCRIPTION
0"-3"	Dark brown (10YR 3/3) aggregate concretion, with RQP & angular stone 2-30 mm at 30%; compacted/cemented, abrupt, smooth.
3"-7"	Very dark brown (10YR 2/2) loamy sand compacted with RQP 2-10mm at 10%; strong, firm, blocky, abrupt, smooth.
7"-13"	Dark gray (10YR 4/1) loamy sand compacted with RQP 2-10mm at 10%; strong, platy, firm, gradual, wavy.
13"-19"	Dark yellowish brown (10YR 4/4) sandy loam; weak, friable, subangular blocky, gradual, wavy.
19"-28"	Yellowish brown (10YR 5/6) sandy clay loam; strong, platy, plastic, clear, smooth.
28"-46"	Light olive brown (2.5Y 5/4) loamy sand; weak, subangular blocky, very friable, clear, smooth.
46"-54"	Light olive brown (2.5Y 5/3) fine sand with RQP 2-10mm at 25%; granular, loose, clear, smooth.
54"- 57"	Light brownish gray (10YR 6/2) fine sand with pea gravel at 50%; granular, loose, abrupt, smooth.
57" – 61"	Olive brown (2.5Y 4/3) coarse sand with pea gravel at 50% with yellowish brown (10YR 5/6) common, coarse, prominent concentrations; granular, loose, abrupt, smooth.
61"-69"	Light gray (10YR 7/1) sand with RQP 2-10mm at 25% with light olive brown (2.5Y 5/6) common, medium, prominent concentrations; granular, loose, gradual, wavy.

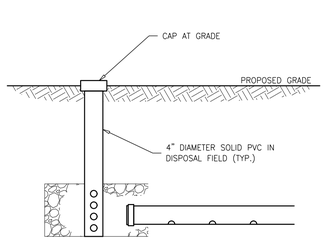
WITNESS BY: HEATHER CARR JOHNSON, CMC HEALTH DEPARTMENT
COMPLETED 1/16/25

TEST PIT #2

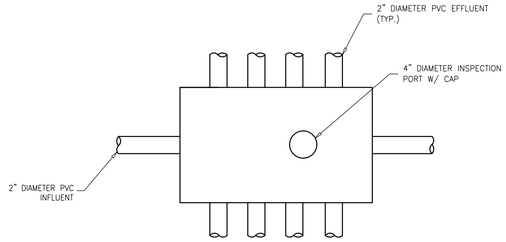
SOIL BORING PROFILE Boring #: TP-2 **SHWT =** 59" **AWT =** N/E
Method (check one) **Profile Pit:** X **Boring:**

HORIZON DEPTH	HORIZON DESCRIPTION
0"-6"	Brown (10YR 5/3) sand aggregate concretion with RQP & angular rock aggregate 2-30mm at 30; compacted/cemented, sharp, smooth
6"-9"	Dark brown (10YR 3/3) loamy sand compacted with RQP 2-10mm at 10%; strong, firm, blocky, abrupt, smooth
9"-14"	Dark grayish brown (2.5Y 4/2) sandy loam compacted, strong, subangular blocky, firm, clear, wavy.
14"-32"	Yellowish brown (10YR 5/6) sandy clay loam; strong, platy, plastic, clear, smooth.
32"-46"	Light olive brown (2.5Y 5/4) loamy sand; weak, subangular blocky, very friable, clear, smooth.
46"-53"	Light olive brown (2.5Y 5/3) fine sand with RQP 2-10mm at 25%; granular, loose, clear, smooth.
53"-59"	Light brownish gray (10YR 6/2) fine sand with pea gravel at 50%; granular, loose, abrupt, smooth.
59"- 63"	Olive brown (2.5Y 4/3) coarse sand with pea gravel at 50% with yellowish brown (10YR 5/6) common, coarse, prominent concentrations; granular loose, abrupt, smooth.
63" – 71"	Light gray (10YR 7/1) sand with RQP 2-10mm at 25% with light olive brown (2.5Y 5/6) concentrations; common, medium, prominent concentrations; granular, loose, gradual, wavy.

WITNESS BY: HEATHER CARR JOHNSON, CMC HEALTH DEPARTMENT
COMPLETED 1/16/25



INSPECTION PORT DETAIL
N.T.S.



DISTRIBUTION BOX DETAIL
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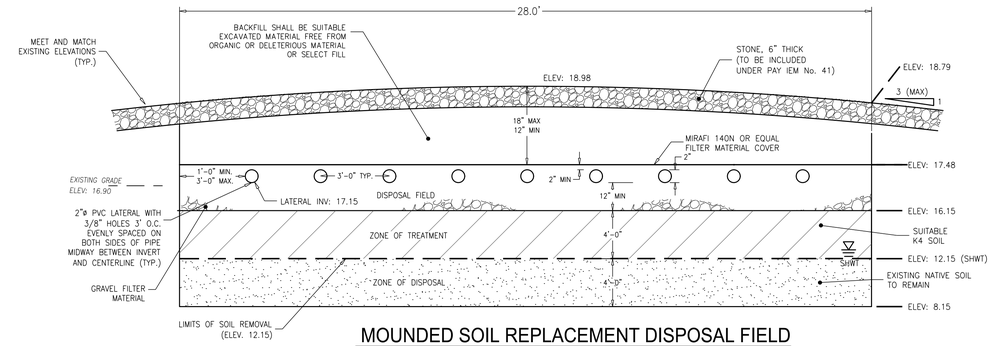
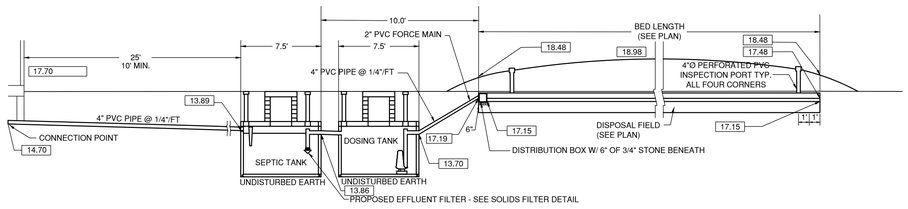
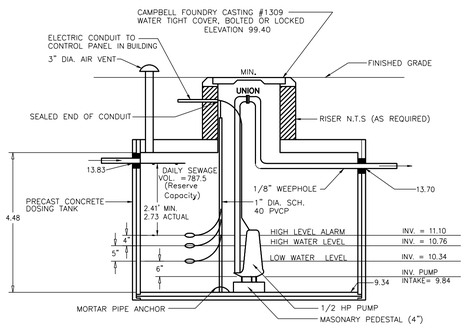


MOUNDED SOIL REPLACEMENT DISPOSAL FIELD SECTION DETAIL
SCALE : N.T.S.

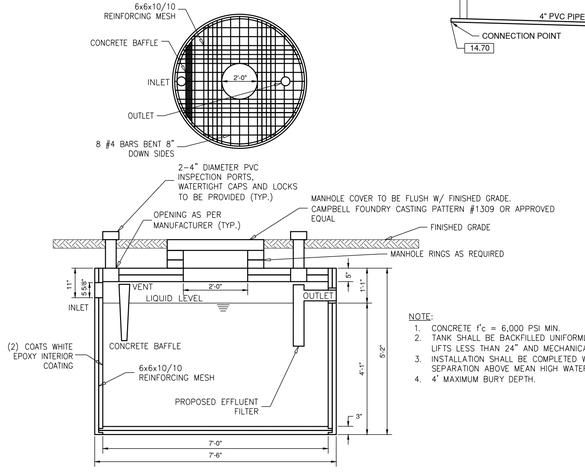


DISPOSAL SYSTEM PROFILE DETAIL (SRB)
SCALE : N.T.S.



NOTES:
1. SYSTEM TO BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS.
2. LIBERTY PUMPS FL51M-2 EFFLUENT PUMP, 1/2 HP, 115 V, 1 PHASE, CAPACITIES 93 GPM OR APPROVED EQUAL.

1,000 GALLON DOSING TANK DETAIL
NTS



NOTE:
1. CONCRETE f'c = 6,000 PSI MIN.
2. TANK SHALL BE BACKFILLED UNIFORMLY ON ALL SIDES IN LIFTS LESS THAN 24" AND MECHANICALLY COMPACTED.
3. INSTALLATION SHALL BE COMPLETED WITH 2" MIN. SEPARATION ABOVE MEAN HIGH WATER TABLE.
4. 4" MAXIMUM BURY DEPTH.

1,000 GALLON SEPTIC TANK DETAIL
N.T.S.

UTILITY MARKOUT REQUIRED: CONTRACTOR IS RESPONSIBLE TO CALL NEW JERSEY ONE CALL (800-272-1000) FOR UTILITY MARK-OUT 3 FULL BUSINESS DAYS PRIOR TO COMMENCEMENT OF EXCAVATION.

GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)
1 inch = 10 ft.

NO.	DATE	APPR.	REVISION

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SEPTIC SYSTEM DETAILS

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Certification of Authorization No. 24GA28284900

PUBLIC WORKS BUILDING REPLACEMENT
TOWNSHIP OF LOWER
CAPE MAY COUNTY, NEW JERSEY

Design:	Drawn:	Check:	Date:
CMS	CMS	MAD	06/06/2025

10/29/2025
MARC A. DEBLASIO, PE
New Jersey License No. 41599
DATE

Scale:	Job No.:	Sheet No:	Total:
AS NOTED	LT-C-048	15	16

SOIL EROSION AND SEDIMENT CONTROL NOTES

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

TEMPORARY VEGETATIVE COVER FOR SOIL STABILIZATION

1. SITE PREPARATION
   A. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING.
   B. INSTALL NEEDED EROSION CONTROL PRACTICES OR FACILITIES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENT BASINS, AND WATERWAYS.
2. SEEDBED PREPARATION
   A. APPLY LIMESTONE AND FERTILIZER. FERTILIZER SHALL BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE OR 11 POUNDS PER 1,000 SQUARE FEET OF 10–20–10 OR EQUIVALENT. APPLY LIMESTONE (EQUIVALENT TO 50% CALCIUM PLUS MAGNESIUM OXIDES) AS FOLLOWS:

SOIL TEXTURE	TONS/ACRE	LBS./1000 SQ. FT.
CLAY, CLAY LOAM, AND HIGH ORGANIC SOIL	3	135
SANDY LOAM, LOAM, SILT LOAM	2	90
LOAMY SAND, SAND	1	45

   PULVERIZED DOLOMITIC LIMESTONE IS PREFERRED FOR MOST SOILS SOUTH OF THE NEW BRUNSWICK–TRENTON LINE.
   B. WORK LIME AND FERTILIZER INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRINGTOOTH HARROW, OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OR DISCING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLY UNIFORM SEEDBED IS PREPARED.
   C. INSPECT SEEDBED JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE RETILLED AS ABOVE.
   D. SOILS HIGH ON SULFIDES OR HAVING A pH OF 4 OR LESS SHOULD BE MULCHED ONLY.
3. SEEDING
   A. SEE TEMPORARY SEED MIXTURE FOR SPECIES AND APPLICATION RATES.
   B. APPLY SEED UNIFORMLY BY HAND, CYCLONE(CENTRIFUGAL) SEEDER, DROP SEEDER, DRILL, CULTIPACKER SEEDER, OR HYDROSEEDER. MULCH SHALL NOT BE INCLUDED IN A HYDRO–SEEDER TANK WITH SEED. SEED SHALL BE INCORPORATED INTO THE SOIL BY RAKING OR DRAGGING. DEPTH OF SEED PLACEMENT MAY BE 1/4 INCH DEEPER ON COURSE TEXTURED SOIL.
   C. AFTER SEEDING, FIRMING THE SOIL SHALL BE PERFORMED WITH A CORRUGATED ROLLER WILL ASSURE GOOD SEED–TO–SOIL CONTACT, RESTORE CAPILLARITY, AND IMPROVE SEEDING EMERGENCE.
4. MULCHING
   MULCHING IS REQUIRED ON ALL SEEDING.
   A. MULCH MATERIALS SHOULD BE UNROTTED SMALL GRAIN STRAW, HAY FREE OF SEEDS, OR SALT HAY TO BE APPLIED AT THE RATE OF 1 1/2 TO 2 TONS PER ACRE (70 TO 90 POUNDS PER 1,000 SQUARE FEET), EXCEPT THAT WHERE A CRIMPER IS USED INSTEAD OF A LIQUID MULCH–BINDER (TACKIFYING OR ADHESIVE AGENT), THE RATE OF APPLICATION MUST BE DOUBLE THE LOWER RATE. MULCH CHOPPER–BLOWERS MUST NOT GRIND THE MATERIAL.
   B. SPREAD UNIFORMLY BY HAND OR MECHANICALLY SO THAT APPROXIMATELY 75% TO 95% OF THE SOIL SURFACE WILL BE COVERED. FOR UNIFORM DISTRIBUTION OF HAND–SPREAD MULCH, DIVIDE AREA INTO APPROXIMATELY 1,000 SQUARE FEET SECTIONS AND DISTRIBUTE 70 TO 90 POUNDS WITHIN EACH SECTION.
   C. MULCH ANCHORING SHOULD BE ACCOMPLISHED IMMEDIATELY AFTER PLACEMENT TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE DONE BY ONE OF THE FOLLOWING METHODS, DEPENDING UPON THE SIZE OF THE AREA, STEEPNESS OF SLOPES, AND COSTS.
      1. PEG AND TWINE– DRIVE 8 TO 10 INCH WOODEN PEGS TO WITHIN 2 TO 3 INCHES OF THE SOIL SURFACE EVERY 4 FEET IN ALL DIRECTIONS. STAKES MAY BE DRIVEN BEFORE OR AFTER APPLYING MULCH. SECURE MULCH TO SOIL SURFACE BY STRETCHING TWINE BETWEEN PEGS IN A CRISSCROSS AND A SQUARE PATTERN. SECURE TWINE AROUND EACH PEG WITH TWO OR MORE ROUND TURNS.
      2. MULCH NETTING– STAPLE PAPER, JUTE, COTTON, OR PLASTIC NETTING TO THE SOIL SURFACE. USE A DEGRADABLE NETTING IN AREAS TO BE MOWED.
      3. CRIMPER(MULCH ANCHORING TOOL)– A TRACTOR–DRAWN IMPLEMENT, SOMEWHAT LIKE A DISC HARROW, ESPECIALLY DESIGNED TO PUSH OR CUT SOME OF THE BROADCAST LONG FIBER MULCH 3 TO 4 INCHES INTO THE SOIL SO AS TO ANCHOR IT AND LEAVE PART STANDING UPRIGHT. THIS TECHNIQUE IS LIMITED TO AREAS TRAVERSABLE BY A TRACTOR, WHICH MUST OPERATE ON THE CONTOUR OF SLOPES. STRAW MULCH RATE MUST BE 3 TONS PER ACRE. NO TACKIFYING OR ADHESIVE AGENT IS REQUIRED.
   D. WOOD–FIBER OR PAPER–FIBER MULCH AT THE RATE OF 1,500 POUNDS PER ACRE MAY BE APPLIED BY A HYDROSEEDER. USE IS LIMITED TO FLATTER SLOPES AND DURING OPTIMUM SEEDING PERIODS IN SPRING AND FALL.
5. IRRIGATION
   A. IF SOIL MOISTURE IS DEFICIENT, SUPPLY NEW SEEDINGS WITH ADEQUATE WATER (A MINIMUM OF 1/4 INCH TWICE A DAY UNTIL VEGETATION IS WELL ESTABLISHED). THIS IS ESPECIALLY TRUE WHEN SEEDINGS ARE PERFORMED IN ABNORMALLY DRY OR HOT WEATHER OR ON DROUGHTY SITES.
6. TOP DRESSING *
   A. SPRING SEEDING WILL REQUIRE AN APPLICATION OF FERTILIZER SUCH AS 10–10–10 OR EQUIVALENT AT 400 POUNDS PER ACRE OR 10 POUNDS PER 1,000 SQUARE FEET BETWEEN SEPTEMBER 1 AND OCTOBER 15.
   B. FALL SEEDING WILL REQUIRE THE ABOVE BETWEEN MARCH 15 AND MAY 1.
   C. MIXTURES DOMINATED BY WEEPING LOVEGRASS OR LEGUMES MAY NOT NEED TOPDRESSING.
   * IF SLOW RELEASE NITROGEN (300 POUNDS 38–0–0 PER ACRE OR EQUIVALENT) IS USED IN ADDITION TO SUGGESTED FERTILIZER, THIS FOLLOW–UP OF TOP DRESSING IS NOT MANDATORY.

TEMPORARY SEEDING MIXTURE

THIS SEEDING MIXTURE IS COMPOSED OF A SINGLE SPECIES WHICH GERMINATES QUICKLY IN ORDER TO REDUCE SOIL EROSION UNTIL A PERMANENT VEGETATIVE COVER CAN BE COVER ESTABLISHED. A MIXTURE OF EQUAL QUALITY MAY BE SUBSTITUTED IF APPROVED BY OUR OFFICE.

%	COMMON NAME	BOTANICAL NAME
100%	PERENNIAL RYEGRASS	LOLIUM PERENNE

THE MINIMUM APPLICATION RATE FOR THIS SEEDING MIXTURE SHALL BE FOUR (4) POUNDS/1000 SQUARE FEET OR 160 POUNDS/ACRE.

THE OPTIMAL SEEDING DATES FOR PERRENNIAL RYEGRASS FOR CAPE–ATLANTIC REGION ARE 2/15 – 4/30 AND 8/15 – 10/30. SUMMER SEEDING SHALL BE PERFORMED ONLY IF ADEQUATE IRRIGATION IS PROVIDED TO ENSURE SUCCESSFUL GERMINATION.

PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION

1. SITE PREPARATION
   A. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MAINTENANCE.
   B. INSTALL NEEDED EROSION CONTROL PRACTICES OR FACILITIES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENT BASINS, AND WATERWAYS.
2. SEEDBED PREPARATION
   A. APPLY LIMESTONE AND FERTILIZER. FERTILIZER SHALL BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE OR 11 POUNDS PER 1,000 SQUARE FEET OF 10–20–10 OR EQUIVALENT. APPLY LIMESTONE (EQUIVALENT TO 50% CALCIUM PLUS MAGNESIUM OXIDES) AS FOLLOWS:

SOIL TEXTURE	TONS/ACRE	LBS./1000 SQ. FT.
CLAY, CLAY LOAM, AND HIGH ORGANIC SOIL	4	180
SANDY LOAM, LOAM, SILT LOAM	3	135
LOAMY SAND, SAND	2	90

   PULVERIZED DOLOMITIC LIMESTONE IS PREFERRED FOR MOST SOILS SOUTH OF THE NEW BRUNSWICK–TRENTON LINE.
   B. WORK LIME AND FERTILIZER INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRING TOOTH HARROW, OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OR DISCING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLY UNIFORM SEEDBED IS PREPARED. ALL BUT CLAY OR SILTY SOILS AND COURSE SANDS SHOULD BE ROLLED TO FIRM THE SEEDBED WHEREVER FEASIBLE.
   C. REMOVE FROM THE SURFACE ALL STONES TWO INCHES OR LARGER IN ANY DIMENSION. REMOVE ALL OTHER DEBRIS SUCH AS WIRE, CABLE, TREE ROOTS, PIECES OF CONCRETE, CLODS, LUMPS, OR OTHER UNSUITABLE MATERIAL.
   D. INSPECT SEEDBED JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE RETILLED AND FIRMED AS ABOVE.
3. SEEDING
   A. SEE PERMANENT SEED MIXTURE FOR SPECIES AND APPLICATION RATES.
   B. APPLY SEED UNIFORMLY BY HAND, CYCLONE(CENTRIFUGAL) SEEDER, DROP SEEDER, DRILL, CULTIPACKER SEEDER, OR HYDROSEEDER. MULCH SHALL NOT BE INCLUDED IN A HYDRO–SEEDER TANK WITH SEED. EXCEPT FOR DRILLED, HYDROSEEDED OR CULTIPACKED SEEDING, SHALL BE INCORPORATED INTO THE SOIL, TO A DEPTH OF 1/2 TO 1/2 INCH, BY RAKING OR DRAGGING. DEPTH OF SEED PLACEMENT MAY BE 1/4 INCH DEEPER ON COURSE TEXTURED SOIL.
   C. AFTER SEEDING, FIRMING THE SOIL SHALL BE PERFORMED WITH A CORRUGATED ROLLER WILL ASSURE GOOD SEED–TO–SOIL CONTACT, RESTORE CAPILLARITY, AND IMPROVE SEEDING EMERGENCE.
   4. MULCHING
   MULCHING IS REQUIRED ON ALL SEEDING.
   A. MULCH MATERIALS SHOULD BE UNROTTED SMALL GRAIN STRAW, HAY FREE OF SEEDS, OR SALT HAY TO BE APPLIED AT THE RATE OF 1 1/2 TO 2 TONS PER ACRE (70 TO 90 POUNDS PER 1,000 SQUARE FEET), EXCEPT THAT WHERE A CRIMPER IS USED INSTEAD OF A LIQUID MULCH–BINDER (TACKIFYING OR ADHESIVE AGENT), THE RATE OF APPLICATION MUST BE DOUBLE THE LOWER RATE. MULCH CHOPPER–BLOWERS MUST NOT GRIND THE MATERIAL.
   B. SPREAD UNIFORMLY BY HAND OR MECHANICALLY SO THAT APPROXIMATELY 75% TO 95% OF THE SOIL SURFACE WILL BE COVERED. FOR UNIFORM DISTRIBUTION OF HAND–SPREAD MULCH, DIVIDE AREA INTO APPROXIMATELY 1,000 SQUARE FEET SECTIONS AND DISTRIBUTE 70 TO 90 POUNDS WITHIN EACH SECTION.
   C. MULCH ANCHORING SHOULD BE ACCOMPLISHED IMMEDIATELY AFTER PLACEMENT TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE DONE BY ONE OF THE FOLLOWING METHODS, DEPENDING UPON THE SIZE OF THE AREA, STEEPNESS OF SLOPES, AND COSTS.
      1. PEG AND TWINE– DRIVE 8 TO 10 INCH WOODEN PEGS TO WITHIN 2 TO 3 INCHES OF THE SOIL SURFACE EVERY 4 FEET IN ALL DIRECTIONS. STAKES MAY BE DRIVEN BEFORE OR AFTER APPLYING MULCH. SECURE MULCH TO SOIL SURFACE BY STRETCHING TWINE BETWEEN PEGS IN A CRISSCROSS AND A SQUARE PATTERN. SECURE TWINE AROUND EACH PEG WITH TWO OR MORE ROUND TURNS.
      2. MULCH NETTING– STAPLE PAPER, JUTE, COTTON, OR PLASTIC NETTING TO THE SOIL SURFACE. USE A DEGRADABLE NETTING IN AREAS TO BE MOWED.
      3. CRIMPER(MULCH ANCHORING TOOL)– A TRACTOR–DRAWN IMPLEMENT, SOMEWHAT LIKE A DISC HARROW, ESPECIALLY DESIGNED TO PUSH OR CUT SOME OF THE BROADCAST LONG FIBER MULCH 3 TO 4 INCHES INTO THE SOIL SO AS TO ANCHOR IT AND LEAVE PART STANDING UPRIGHT. THIS TECHNIQUE IS LIMITED TO AREAS TRAVERSABLE BY A TRACTOR, WHICH MUST OPERATE ON THE CONTOUR OF SLOPES. STRAW MULCH RATE MUST BE 3 TONS PER ACRE. NO TACKIFYING OR ADHESIVE AGENT IS REQUIRED.
   D. WOOD–FIBER OR PAPER–FIBER MULCH AT THE RATE OF 1,500 POUNDS PER ACRE MAY BE APPLIED BY A HYDROSEEDER. USE IS LIMITED TO FLATTER SLOPES AND DURING OPTIMUM SEEDING PERIODS IN SPRING AND FALL.

PERMANENT SEEDING MIXTURE (DRY)

THIS SEEDING MIXTURE IS COMPOSED OF DROUGHT–TOLERANT SPECIES WHICH CAN THRIVE WITH LOW MAINTENANCE. THE PROPRIETARY NAME OF THE MIXTURE IS RECLAIM CONSERVATION MIX–DRY FORMULA AS MANUFACTURED BY LOFTS, INC., BOUND BROOK, N.J. 08805, (800)526–3890. A MIXTURE OF EQUAL QUALITY MAY BE SUBSTITUTED IF APPROVED BY OUR OFFICE.

%	COMMON NAME	BOTANICAL NAME
50	CLEMFINE TALL FESCUE	FESTUCA ARUNDINACEA "CLEMFINE"
20	RELIANT HARD FESCUE	FESTUCA LONGIFOLIA "RELIANT"
10	JAMESTOWN CHEWINGS FESCUE	FESTUCA RUBRA VAR. COMMUTATA "JAMESTOWN"
10	PALMER PERENNIAL RYE	LOLIUM PERENNE "PALMER"
5	WHITE CLOVER	TRIFOLIUM REPENS
5	BLACKWELL SWITCHGRASS	PANICUM VIRGATUM "BLACKWELL"

THE MINIMUM APPLICATION RATE FOR THIS SEEDING MIXTURE SHALL BE FOUR (4) POUNDS/1000 SQUARE FEET OR 175 POUNDS/ACRE.

THE OPTIMAL SEEDING DATES FOR MOST COOL SEASON GRASSES FOR CAPE–ATLANTIC REGION ARE 2/15 – 4/30 AND 8/15 – 10/30. SUMMER SEEDING SHALL BE PERFORMED ONLY IF ADEQUATE IRRIGATION IS PROVIDED TO ENSURE SUCCESSFUL GERMINATION.

PERMANENT SEEDING MIXTURE (MOIST)

THIS SEEDING MIXTURE IS COMPOSED OF MOISTURE–TOLERANT SPECIES WHICH CAN THRIVE WITH LOW MAINTENANCE. THE PROPRIETARY NAME OF THE MIXTURE IS RECLAIM CONSERVATION MIX–MOIST FORMULA AS MANUFACTURED BY LOFTS, INC., BOUND BROOK, N.J. 08805, (800)526–3890. A MIXTURE OF EQUAL QUALITY MAY BE SUBSTITUTED IF APPROVED BY OUR OFFICE.

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

THE MINIMUM APPLICATION RATE FOR THIS SEEDING MIXTURE SHALL BE FIVE (5) POUNDS/1000 SQUARE FEET OR 220 POUNDS/ACRE.

THE OPTIMAL SEEDING DATES FOR MOST COOL SEASON GRASSES FOR CAPE–ATLANTIC REGION ARE 2/15 – 4/30 AND 8/15 – 10/30. SUMMER SEEDING SHALL BE PERFORMED ONLY IF ADEQUATE IRRIGATION IS PROVIDED TO ENSURE SUCCESSFUL GERMINATION.

SPECIAL NOTES

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

TOP SOILING

TOPSOIL SHOULD BE USED WHERE SOILS ARE: SANDS, GRAVELY SOILS, CLAYS, SILTY CLAYS, VERY SHALLOW, OR WHERE THEY ARE EXTREMELY ACID (LESS THAN pH4.0) OR SALTY (COND–ACTIVITY GREATER THAN 1.0 MILLIMHOS PER CENTIMETER); OR WHERE TOPSOIL IS AVAILABLE ON SITE AND ASSURANCE OF IMPROVED VEGETATIVE GROWTH IS DESIRED.

1. MATERIALS
   A. TOPSOIL SHOULD BE FRIABLE AND LOAMY, FREE OF DEBRIS, OBJECTIONABLE WEEDS AND STONES, AND CONTAIN NO TOXIC SUBSTANCE THAT MAY BE HARMFUL TO PLANT GROWTH. A pH RANGE OF 5.0–7.5 IS ACCEPTABLE. SOLUBLE SALTS SHOULD NOT BE EXCESSIVE (CONDUCTIVITY LESS THAN 0.5 MILLIMHOS PER CENTIMETER). TOPSOIL HAULED IN FROM OFF SITE SHOULD HAVE A MINIMUM ORGANIC MATTER CONTENT OF 2.75 PERCENT. ORGANIC MATTER CONTENT MAY BE RAISED BY ADDITIVES.
2. STRIPPING AND STOCKPILING
   A. FIELD EXPLORATION SHOULD BE MADE TO DETERMINE WHETHER QUANTITY AND/OR QUALITY OF SURFACE SOIL JUSTIFIES STRIPPING.
   B. STRIPPING SHOULD BE CONFINED TO THE IMMEDIATE CONSTRUCTION AREA.
   C. WHERE FEASIBLE, LIME MAY BE APPLIED BEFORE STRIPPING AT A RATE DETERMINED BY SOIL TESTS TO BRING THE SOIL pH TO 6.5. IN LIEU OF SOIL TESTS, SEE LIME RATE GUIDE IN SEEDBED PREPARATION FOR PERMANENT VEGETATIVE COVER.
   D. A 4–6 INCH STRIPPING DEPTH IS COMMON, BUT MAY VARY DEPENDING ON THE PARTICULAR SOIL.
   E. STOCKPILES OF TOPSOIL SHOULD BE SITUATED SO AS NOT TO OBSTRUCT NATURAL DRAINAGE OR CAUSE OFF–SITE ENVIRONMENTAL DAMAGE.
   F. STOCKPILES SHOULD BE VEGETATED IN ACCORDANCE WITH TEMPORARY SEEDING STANDARDS PREVIOUSLY DESCRIBED HEREIN.
3. SITE PREPARATION
   A. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION AND ANCHORING, AND MAINTENANCE.
   B. SUBSOIL SHOULD BE TESTED FOR LIME REQUIREMENT AND LIMESTONE, IF NEEDED, SHOULD BE APPLIED TO BRING SOIL pH TO 6.5 AND INCORPORATED INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES.
   C. IMMEDIATELY PRIOR TO TOPSOIL DISTRIBUTION, THE SURFACE SHOULD BE SCARIFIED 6" – 12" WHERE THERE HAS BEEN SOIL COMPACTION.
   D. EMPLOY NEEDED EROSION CONTROL PRACTICES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENTATION BASINS, AND WATERWAYS.
4. APPLYING TOPSOIL
   A. TOPSOIL SHOULD BE HANDLED ONLY WHEN IT IS DRY ENOUGH TO WORK WITHOUT DAMAGING SOIL STRUCTURE; I.E., LESS THAN FIELD CAPACITY.
   B. TOPSOIL SHALL BE APPLIED TO A UNIFORM DEPTH OF 5.0 INCHES (FIRMED IN PLACE).

DUST CONTROL

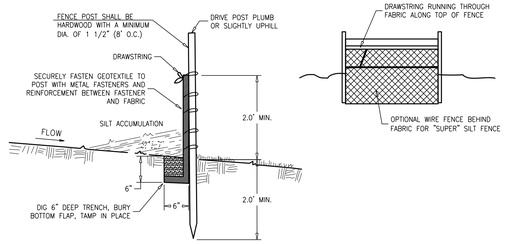
1. THE PURPOSE OF DUST CONTROL MEASURES IS TO PREVENT THE BLOWING AND MOVEMENT OF DUST FROM EXPOSED SOIL SURFACES, REDUCE ON–SITE AND OFF–SITE DAMAGE & HEALTH HAZARDS, AND IMPROVE TRAFFIC SAFETY.
   A. MULCHES – REVIEW MULCHING NOTES ABOVE.
   B. VEGETATIVE COVER – REVIEW NOTES ON TEMPORARY COVER.
   C. SPRAY–ON ADHESIVES – ON MINERAL SOILS (NOT EFFECTIVE ON MUCK SOILS). KEEP TRAFFIC OFF THESE AREAS.
   D.

MATERIAL	WATER DILUTION	TYPE OF NOZZLE	APPLY GALLON/ACRE
LATEX EMULSION	12.5:1	FINE SPRAY	235
RESIN IN WATER	4:1	FINE SPRAY	300
POLYACRYLAMIDE (PAM) – SPRAY ON	APPLY ACCORDING TO MANUFACTURER'S INSTRUCTIONS. MAY ALSO BE USED AS AN ADDITIVE TO SEDIMENT BASINS TO FLOCCULATE AND PRECIPITATE SUSPENDED COLLOIDS. SEE SEDIMENT BASIN STANDARD, PAGE 26–1		
POLYACRYLAMIDE (PAM) – DRY SPREAD			
ACIDULATED SOY BEAN SOAP STICK	NONE	COARSE SPRAY	1200

   E. TILLAGE – TO ROUGHEN SURFACE AND BRING CLODS TO THE SURFACE. THIS IS A TEMPORARY EMERGENCY MEASURE WHICH SHOULD BE USED BEFORE SOIL BLOWING STARTS. BEGIN PLOWING ON WINDWARD SIDE OF SITE. CHISEL–TYPE PLOWS SPACED ABOUT 12 INCHES APART, AND SPRING–TOOTHED HARROWS ARE EXAMPLES OF EQUIPMENT WHICH MAY PRODUCE THE DESIRED EFFECT.
   F. SPRINKLING – SITE IS SPRINKLED UNTIL THE SURFACE IS WET.
   G. BARRIERS – SOLID BOARD FENCES, SNOW FENCES, BURLAP FENCES, CRATE WALLS, BALES OF HAY AND SIMILAR MATERIAL CAN BE USED TO CONTROL AIR CURRENTS AND SOIL BLOWING.
   H. STONE – COVER SURFACE WITH CRUSHED STONE OR COARSE GRAVEL.

GENERAL NOTES:

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

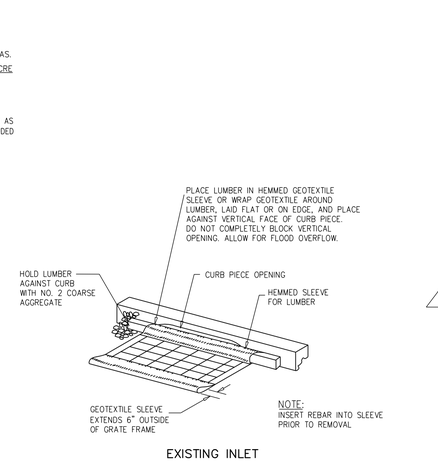


NOTES:

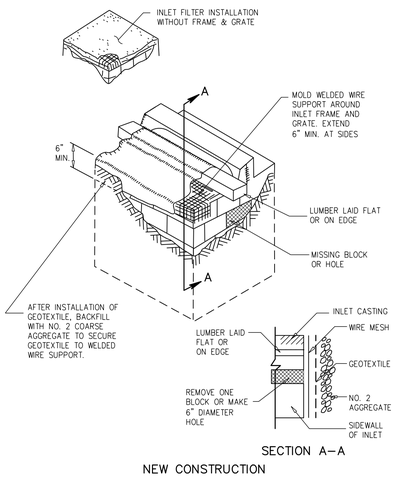
1. EXCAVATE A 6"x6" TRENCH ALONG THE LOWER PERIMETER OF THE SITE.
2. UNROLL THE SILT FENCE GEOTEXTILE AND POSITION THE POLES AGAINST THE BACK(DOWNSTREAM) WALL OF THE TRENCH.
3. LAY THE TOE–IN FLAP OF THE FABRIC ONTO THE UNDISTURBED BOTTOM OF THE TRENCH, BACKFILL THE TRENCH AND TAMP THE SOIL.

SILT FENCE DETAIL OR APPROVED EQUAL

N.T.S.



EXISTING INLET


INLET FILTER INSTALLATION WITHOUT FRAME & GRATE
MOLD WELDED WIRE SUPPORT AROUND INLET FRAME AND GRATE. EXTEND 6" MIN. AT SIDES
6" MIN.
A
A
LUMBER LAID FLAT OR ON EDGE
MISSING BLOCK OR HOLE
AFTER INSTALLATION OF GEOTEXTILE, BACKFILL WITH NO. 2 COARSE AGGREGATE TO SECURE GEOTEXTILE TO WELDED WIRE SUPPORT.
INLET CASTING
WIRE MESH
GEOTEXTILE
NO. 2 AGGREGATE
SIDEWALL OF INLET
REMOV

LOWER TOWNSHIP PUBLIC WORKS

771 SEASHORE ROAD, BLOCK 505 LOTS 14.01 & 28, CAPE MAY, LOWER TOWNSHIP, CAPE MAY COUNTY, NEW JERSEY, 08204
BUILDING REPLACEMENT

PROJECT INFORMATION

PROJECT:	NEW ADMINISTRATION BUILDING AND SIGN SHOP
LOCATION:	771 SEASHORE ROAD, LOWER TOWNSHIP, CAPE MAY COUNTY, NEW JERSEY, 08204
OCCUPANCY GROUP:	MIXED OCCUPANCY: B BUSINESS S-1 MODERATE HAZARD STORAGE
RISK CATEGORY OF STRUCTURE:	II
RENOVATION / NEW:	NEW CONSTRUCTION
NUMBER OF STORIES:	1-STORY W/ MEZZANINE
FLOOD HAZARD ZONE:	NOT APPLICABLE
DESIGN FLOOD ELEVATION:	NOT APPLICABLE
LOCAL ZONING DISTRICT:	R-2, SINGLE FAMILY RESIDENTIAL

PROJECT TEAM

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VILLAS, NJ, 08251

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SCOPE OF WORK

PROPOSED CONSTRUCTION OF A NEW ADMINISTRATION BUILDING WITH RELATED SITE WORK. THE NEW BUILDING WILL CONTAIN OFFICES, A MEETING ROOM, SIGN SHOP AND SHOP STORAGE.

CODE REFERENCES

1. INTERNATIONAL BUILDING CODE, NEW JERSEY EDITION, 2021 (IBC)
2. UNIFORM CONSTRUCTION CODE, STATE OF NEW JERSEY (NJAC)
3. NATIONAL STANDARD PLUMBING CODE, 2021 (NSPC)
4. NATIONAL ELECTRIC CODE, 2020 (NFPA 70)
5. INTERNATIONAL MECHANICAL CODE, 2021
6. INTERNATIONAL FUEL GAS CODE, 2021
7. ENERGY SUBCODE, AMERICAN SOCIETY OF HEATING, REFRIGERATION, AND AIR-CONDITIONING ENGINEERS, ASHREA 90.1-2019

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GENERAL NOTES

1. THE CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND FIELD CONDITIONS PRIOR TO STARTING CONSTRUCTION AND SHALL BRING TO THE ATTENTION OF THE ARCHITECT ANY DISCREPANCIES WHICH ALTER OR IMPEDE THE ORIGINAL OR INTENDED DESIGN. GENERAL CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF ALL WORK AND OF ALL TRADES.
2. ARCHITECT IS NOT RESPONSIBLE FOR EXISTING CONDITIONS.
3. ALL WORK MUST COMPLY WITH THE LATEST VERSION OF THE STATE OF NEW JERSEY UNIFORM CONSTRUCTION CODE AND ALL SUBCODES.
4. CONTRACTORS MUST COMPLY WITH ALL STATE AND FEDERAL OSHA SAFETY REGULATIONS.
5. DO NOT "SCALE" FROM THESE DRAWINGS. THE DIMENSIONS INDICATED ON THE DRAWINGS SHALL GOVERN. IF A DISCREPANCY IS NOTED, IMMEDIATELY NOTIFY THE ARCHITECT.
6. ALL DIMENSIONS INDICATED ON DRAWINGS ARE MEASURED TO THE FACE OF STUD FRAMING, EDGES OF CONCRETE SLABS, FACE OF MASONRY, OR FACE OF CONCRETE WALL. (UNLESS NOTED OTHERWISE) THE DIMENSIONS INDICATED ARE NOT CLEAR, FINISH TO FINISH DIMENSIONS.
7. MASONRY DIMENSIONS INDICATED ON DRAWINGS ARE "NOMINAL" DIMENSIONS (NOT ACTUAL). CONCRETE DIMENSIONS INDICATED ON DRAWINGS ARE ACTUAL DIMENSIONS.
8. LIFE SAFETY SYSTEMS SHALL REMAIN OPERABLE DURING CONSTRUCTION.
9. CONTRACTOR SHALL NOTIFY FIRE AND POLICE DEPARTMENTS, ALARM SERVICE COMPANY, AND COORDINATE WITH THE OWNER PRIOR TO SHUT DOWN AND START UP OF ANY LIFE SAFETY SYSTEM.
10. THE CABINETRY, CASEWORK, MILLWORK INDICATED ON THE DRAWINGS (WITH PLUMBING FIXTURES AND/OR APPLIANCES) IS PART OF THE CONTRACTOR'S CONTRACT. COORDINATE INSTALLATION OF ALL MILLWORK, CABINETRY AND CASEWORK WITH THE ARCHITECT (OWNER'S REPRESENTATIVE) TO VERIFY CONFIGURATIONS.
11. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND SAMPLES FOR ARCHITECT AND OWNER'S REVIEW PRIOR TO PURCHASING OR FABRICATION OF PROPOSED ITEMS.
12. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS FOR THIS PROJECT AND PAYMENT OF SAME.
13. CONTRACTOR SHALL DISPOSE OF ALL MATERIALS IN STRICT ACCORDANCE WITH ALL APPLICABLE GOVERNMENTAL LAWS, CODES, ORDINANCES, AND REGULATIONS.
14. CLEAR AND UNOBSTRUCTED PATHS AND AISLES SHALL BE MAINTAINED AT ALL TIMES THROUGH OCCUPIED SPACES AND SITE BY THE CONTRACTOR IN STRICT ACCORDANCE WITH ALL APPLICABLE GOVERNMENTAL LAWS, CODES, ORDINANCES, AND REGULATIONS.
15. WORK REQUIRING EXCESSIVE AND/OR DISTURBING NOISE TO NORMAL OPERATION OF THE BUILDING AND SITE SHALL BE REVIEWED WITH THE OWNER PRIOR TO THE START OF SUCH WORK. THE OWNER RESERVES THE RIGHT TO RESTRICT ANY WORK THEY DEEM DISTURBING TO THE OPERATION OF THE BUILDING AND SITE. ALL SUCH WORK SHALL BE COORDINATED WITH THE OWNER.
16. PRIOR TO FINAL BID AND OR THE START OF CONSTRUCTION THE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS AND IDENTIFY IN WRITING TO THE ARCHITECT ANY DISCREPANCIES OF CONFLICTS BETWEEN THE EXISTING AS-BUILT CONDITIONS AND THOSE SHOWN ON THE CONSTRUCTION DOCUMENTS CONTAINED HEREIN. COMMENCEMENT OF WORK INDICATES THE CONTRACTOR'S ACCEPTANCE OF THE EXISTING CONDITIONS AND THE ASSUMPTION OF RESPONSIBILITY, INCLUDING ALL COSTS AND EXPENSES, FOR PROVIDING A FINISHED PRODUCT AS DESIGNED AND PERMITTED.
17. ITEMS THAT ARE NOT PART OF THE CONTRACTOR'S CONTRACT ARE INDICATED BY "(NIC)" AND ARE SHOWN DASHED.

NO.	DRAWING SET ISSUE	DATE
1	ISSUED FOR BIDDING	10-28-2025

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PROJECT NORTH

PROJECT
LOWER TOWNSHIP PUBLIC WORKS
BUILDING REPLACEMENT
771 SEASHORE ROAD
CAPE MAY, NEW JERSEY 08204

DWG. TITLE
COVER SHEET - PROJECT INFO AND PERSPECTIVES

CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND FIELD CONDITIONS PRIOR TO STARTING CONSTRUCTION

J. Blackman
GERALD S. BLACKMAN JR.
NJ LICENSE #21713

NO	DESCRIPTION	DATE

REVISION SCHEDULE

DRAWN BY:	BJW
CHECKED BY:	JSB
DATE:	10-28-2025
SCALE:	

JOB NO. 1862.11

CS-1

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LOWER TOWNSHIP PUBLIC WORKS

771 SEASHORE ROAD, BLOCK 505 LOTS 14.01 & 28, CAPE MAY, LOWER TOWNSHIP, CAPE MAY COUNTY, NEW JERSEY, 08204
BUILDING REPLACEMENT

PLAN REVIEW RECORD

HEIGHT AND AREA COMPUTATIONS:

A. OCCUPANCY GROUP CLASSIFICATION: : B BUSINESS, S-1 MODERATE HAZARD STORAGE *(1)*

B. ACTUAL BUILDING AREA AND HEIGHT:

1. BUILDING AREA:
TOTAL BUILDING AREA : 6,352 SF
: 6,762 SF (INCLUDING MEZZANE)

2. HEIGHT:
TOTAL BUILDING HEIGHT : 22.5-FEET (22'-06"); 1-STORY W/ MEZZANINE *(2)*

C. TYPE OF CONSTRUCTION: : '3B' UNPROTECTED

1. ALLOWABLE BUILDING HEIGHT (TABLE 504.3) : 55-FEET *(1)(3)*

2. ALLOWABLE NUMBER OF STORIES (TABLE 504.4) : 2-STORIES *(1)(3)*

3. ALLOWABLE BUILDING AREA (TABLE 506.2) : 30,625 S.F. *(4)*
a) MIXED OCCUPANCY (SECTION 506.2.2)
1. ALLOWABLE AREA DETERMINATION (EQUATION 5-3)
: $A_a = A_1 + (NS \times I)$
: A_a = 17,500 S.F. + (17,500 S.F. x .75)
: A_a = 17,500 S.F. + 13,125 S.F.
: A_a = 30,625 S.F.

- BUILDING LENGTHS
NORTH : 111'-0"
EAST : 86'-4"
SOUTH : 111'-0"
WEST : 86'-4"
TOTAL BUILDING PERIMETER : 394'-8" (394.67)
- BUILDING PERIMETER W/ AN OPEN SPACE GREATER THAN 30-FEET : 367'-8" (367.67)
- PERCENTAGE OF BUILDING PERIMETER (GRATER THAN 30-FEET) : 93.2%
- FRONTAGE INCREASE FACTOR (I/F) TABLE 506.3.3 : 0.75 *(4)*
75% TO 100% OF BUILDING PERIMETER HAVING AN OPEN SPACE OF 30-FEET OR GREATER

TYPE OF CONSTRUCTION (CHAPTER 6) AND FIRE-RESITIVE CONSTRUCTION (CHAPTER 7):

A. FIRE RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS, CONSTRUCTION TYPE: 3B (TABLE 601)

PRIMARY STRUCTURAL FRAME	: 0 HOUR
BEARING WALLS	
EXTERIOR	: 2 HOURS
INTERIOR	: 0 HOURS
NONBEARING WALLS AND PARTITIONS	
EXTERIOR	: 0 HOURS (SEE TABLE 705.5)
INTERIOR	: 0 HOURS
FLOOR CONSTRUCTION	: 0 HOURS
ROOF CONSTRUCTION	: 0 HOURS

B. FIRE RESISTANCE RATING REQUIREMENTS FOR EXTERIOR WALLS BASED ON FIRE SEPARATION DISTANCE (TABLE 705.5)

FIRE SEPARATION DISTANCE	TYPE OF CONSTRUCTION	OCCUPANCY GROUP B / S-1
NORTH: 30.0+ FEET	3B	0 HRS.
EAST: 30.0+ FEET	3B	0 HRS.
SOUTH: 30.0+ FEET	3B	0 HRS.
WEST: 30.0+ FEET	3B	0 HRS.

C. MAXIMUM AREA OF EXTERIOR WALL OPENINGS (TABLE 705.8)

FIRE SEPARATION DISTANCE	DEGREE OF OPENING PROTECTION	ALLOWABLE AREA
NORTH WALL: 30.0+ FEET	UNPROTECTED, NON-SPRINKLERED	NO LIMIT
EAST WALL: 30.0+ FEET	UNPROTECTED, NON-SPRINKLERED	NO LIMIT
SOUTH WALL: 30.0+ FEET	UNPROTECTED, NON-SPRINKLERED	NO LIMIT
WEST WALL: 30.0+ FEET	UNPROTECTED, NON-SPRINKLERED	NO LIMIT

D. FIRE RESISTANCE RATING REQUIREMENTS FOR MISCELLANEOUS BUILDING ELEMENTS

FIRE WALLS (TABLE 706.4)	: NOT APPLICABLE
FIRE DOOR & FIRE SHUTTER (TABLE 716.4)	: NOT APPLICABLE
FIRE BARRIERS (SECTION 707.3.10)	: NOT APPLICABLE
EXIT ENCLOSURES (SECTION 1023.2)	: NOT APPLICABLE
EXIT PASSAGEWAY (SECTION 1024.1)	: NOT APPLICABLE
SHAFTS AND ELEVATOR HOISTWAYS (SECTION 713.4)	: NOT APPLICABLE
SHAFT DOORS (TABLE 716.5)	: NOT APPLICABLE
MIXED USE & OCCUPANCY (TABLE 508.4)	: NO SEPARATION REQUIREMENT *(1)*
FIRE PARTITIONS (SECTION 708)	: NOT APPLICABLE
CORRIDOR WALLS (TABLE 1020.1)	: NOT APPLICABLE *(3)(5)*
FIRE DOORS (TABLE 716.4)	
- AT FIRE BARRIERS	: NOT APPLICABLE
- AT FIRE PARTITIONS	: NOT APPLICABLE
- AT CORRIDOR WALLS	: NOT APPLICABLE *(5)*
- AT SMOKE BARRIER ASSEMBLIES	: NOT APPLICABLE
FIRE WINDOWS IN FIRE PARTITIONS (TABLE 716.6)	: NOT APPLICABLE
STRUCTURAL FRAME (SECTION 704)	: 0 HOURS
FLOOR CONSTRUCTION (SECTION 711.3)	: 0 HOURS
ROOF CONSTRUCTION (SECTION 711.3)	: 0 HOURS

TYPE OF CONSTRUCTION (CHAPTER 6) AND FIRE-RESITIVE CONSTRUCTION (CHAPTER 7) CONTINUED:

E. FIRE BLOCKING (SECTION 718.2)
- INSTALLED IN LOCATIONS SPECIFIED IN SECTIONS 718.2.2 THROUGH 718.2.7

F. DRAFTSTOPPING (SECTION 718.3 FLOORS & 718.4 ATTICS) *(6)*
- DRAFTSTOPPING SHALL BE INSTALLED IN COMBUSTIBLE CONCEALED LOCATIONS AS FOLLOWS:
HORIZONTAL FLOOR AREA (SECTION 718.3.) HORIZONTAL AREAS NOT TO EXCEED 1,000 SF
ATTIC SPACES AND CONCEALED ROOF AREAS (SECTION 718.4.) HORIZONTAL AREA NOT TO EXCEED 3,000 SF.

INTERIOR FINISHES (CHAPTER 8)

A. INTERIOR WALL & CEILING FINISH REQUIREMENTS BY OCCUPANCY (TABLE 803.13, NON SPRINKLERED)

AREA OF BUILDING (NON-SPRINKLERED)	B BUSINESS	S-1 STORAGE
INTERIOR EXIT STAIRWAYS, RAMPS & PASSAGEWAYS	CLASS A	CLASS B
CORRIDORS & ENCLOSURE FOR EXIT ACCESS STAIRS & RAMPS	CLASS B	CLASS B
ROOMS AND ENCLOSED SPACES	CLASS C	CLASS C

B. INTERIOR FLOOR FINISH (804.4.1)
1. TESTING REQUIREMENTS (SECTION 804.4.1): SHALL COMPLY WITH DOC FF-1 "PILL TEST" OR ASTM D2859
2. MINIMUM CRITICAL RADIANT FLUX (SECTION 804.4.2): NOT LESS THAN CLASS II FOR GROUPS (B) BUINESS AND (S-1) STORAGE.

C. DECORATIVE MATERIALS AND TRIM (SECTION 806.1.2 & 806)
1. COMBUSTIBLE DECORATIVE MATERIALS (SECTION 806.2): MAXIMUM OF 10% OF WALL OR CEILING AREA.
2. INTERIOR TRIM (SECTION 806.1)
MATERIALS (OTHER THAN FOAM PLASTIC) SHALL HAVE A MINIMUM CLASS C FLAME SPREAD AND SMOKE-DEVELOPED INDEX, WHEN TESTED IN ACCORDANCE WITH ASTM E84 OR UL 723. COMBUSTIBLE TRIM, EXCLUDING HANDRAILS AND GUARDRAILS, SHALL NOT EXCEED 10-PERCENT OF THE SPECIFIC ALL OR CEILING AREA IN WHICHT IS ATTACHED.
3. INTERIOR FLOOR-WALL BASE (SECTION 806.6).
FLOOR-WALL BASE LESS THAN 6-INCHES IN HEIGHT SHALL NOT BE LESS THAN CLASS II MATERIALS IN ACCORDANCE WITH NFPA 253.
(EXCEPTION: INTERIOR TRIM MATERIALS COMPLYING WITH SECTION 806.1)

FIRE PROTECTION SYSTEMS (CHAPTER 9)

	REQUIRED	NOT REQUIRED
AUTOMATIC SPRINKLER SYSTEMS (SECTIONS 903.2.9 & 903.2.13)		
1. OCCUPANCY GROUP: B & S-1		X *(3)*
STANDPIPE SYSTEMS (SECTION 905.3)		
1. OCCUPANCY GROUP: B & S-1		X
FIRE DEPARTMENT CONNECTIONS (SECTION 912)		
1. OCCUPANCY GROUP: B & S-1		X *(3)*
FIRE ALARM & DETECTION SYSTEMS (SECTIONS 907.2.2)		
1. OCCUPANCY GROUP: B & S-1		X *(7)*

FIRE EXTINGUISHERS (SECTION 906.1):
-SEE FLOOR PLANS FOR LOCATIONS. EXTINGUISHERS TO COMPLY WITH NFPA-10.

ROOF COVERING (SECTION 1505.1)
-CLASS 'C' MINIMUM. (CLASS 'A" MATERIALS ACTUALLY USED)

MEANS OF EGRESS (CHAPTER 10) :

A. OCCUPANCY LOAD (SECTION 1004 & TABLE 1004.1.2)

LOCATION	NET FLOOR AREA	USE GROUP	SQ. FT./ PERSON	TOTAL
FIRST FLOOR	2,455 SF	B BUSINESS	150 GROSS	17 PERSONS
	1,354 SF	B BUSINESS	15 NET	49 PERSONS *(8)*
	2,930 SF	S-1 STORAGE	300 GROSS	9 PERSONS
MEZZANINE	410 SF	S-1 STORAGE	300 GROSS	2 PERSONS
TOTALS:	6,762 SF			77 PERSONS

B. MEANS OF EGRESS SIZING (SECTION 1005.1)
CAPACITY UNIT EGRESS WIDTH/ OCCUPANT LOAD
USE GROUP: B BUSINESS, S-1 MODERATE HAZARD STORAGE
REQUIREMENT:
STAIRWAYS: 0.3-INCH PER OCCUPANT OTHER EGRESS COMPONENTS: 0.2-INCH PER OCCUPANT

LOCATION	PROPOSED STAIRWAYS	PROPOSED DOORS & CORRIDORS
FIRST FLOOR	NOT APPLICABLE	36" MIN. DOORS, 44" MIN. CORRIDORS
MEZZANINE	44" MIN.	NOT APPLICALBE

C. NUMBER OF EXITS (SECTION 1006.2, TABLES 1006.2.1, 1006.3.3 & 1006.3.4(2))
USE GROUP: B BUSINESS, S-1 MODERATE HAZARD STORAGE

LOCATION	OCCUPANT LOAD	REQUIRED	PROPOSED
FIRST FLOOR	1-500 PERSONS	2 EXITS	6 EXITS
MEZZANINE	1-500 PERSONS	1 EXITS *(9)*	1 EXIST *(9)*

D. EXIT SIGNS COMPLYING WITH SECTION 1013 ARE REQUIRED THROUGHOUT THE BUILDING AT ALL EXITS, EXIT ACCESS DOORS, AND ALONG THE PATH OF EGRESS TRAVEL TO EXITS. NO POINT OF EXIT ACCESS IS MORE THAN 100-FT FROM AN EXIT SIGN.

G. EXIST ACCESS TRAVEL DISTANCE (SECTION 1017 & TABLE 1017.1):
OCCUPANCY GROUP: B BUSINESS = 200 FT. MAX (WITHOUT SPRINKLER SYSTEM)
S-1 MODERATE HAZARD STORAGE = 300 FT MAX. (WITHOUT SPRINKLER SYSTEM)

H. CORRIDORS (SECTION 1020)
1. CONSTRUCTION (SECTION 1018.1)
CORRIDORS SHOULD BE FIRE-RESISTANCE RATED IN ACCORDANCE WITH TABLE 1020.1

OCCUPANCY GROUP	OCCUPANT LOAD SERVED BY CORRIDOR	REQUIRED FIRE-RESISTANCE RATING
B	17 PERSONS	NO RATING REQUIRED *(3)*
S-1	NOT APPLICABLE	NOT APPLICABLE

2. CORRIDOR WIDTH & CAPACITY (SECTION 1020.3 & TABLE 1020.3)
AS DETERMINED IN SECTION 1005.1, BUT NOT LESS THAN 36" (FOR CORRIDORS SERVING LESS THAN 50 OCCUPANTS.)

3. DEAD ENDS (SECTION 1020.5)
EXIT ACCESS SHALL BE ARRANGED SUCH THAT THERE ARE NO DEAD END CORRIDORS MORE THAN 20 FEET IN LENGTH.

PLAN REVIEW NOTES

1. THE BUILDING CONTAINS NON-SEPARATED OCCUPANCIES. THE ALLOWABLE AREA AND HEIGHT REQUIREMENTS OF THE BUILDING SHALL BE BASED ON THE MOST RESTRICTIVE OCCUPANCY GROUP UNDER CONSIDERATION FOR THE TYPE OF CONSTRUCTION OF THE BUILDING. THE BUILDING CONTAINS B-BUSINESS AND S-1 MODERATE HAZARD STORAGE OCCUPANCIES. THE ALLOWABLE AREA (BEFORE PERMITTED FRONTAGE INCREASE) AND HEIGHT FOR GROUP B IS 19,000 SF AND 3-STORIES (55-FEET). THE ALLOWABLE AREA (BEFORE PERMITTED FRONTAGE INCREASE) AND HEIGHT FOR GROUP S-1 IS 17,500 SF AND 2-STORIES (55-FEET). THE BUILDING HAS BEEN DESIGNED BASED ON THE HEIGHT AND AREA REQUIREMENTS FOR THE S-1 MODERATE HAZARD STORAGE USE WHICH IS THE MORE RESTRICTIVE OCCUPANCY . THE B-BUSINESS OCCUPANCY IS THE MAIN OCCUPANCY OF THE BUILDING AND CONTAINS A TRAINING ROOM WITH AN OCCUPANY OF 40 PERSONS. THE MEETING ROOM IS CONSIDERED A B BUSINESS OCCUPANCY.
2. FOR CALCULATION BASED UPON 'THE INTERNATIONAL BUILDING CODE' THE BUILDING HEIGHT IS MEASURED FROM THE GRADE PLANE TO THE AVERAGE HEIGHT OF THE HIGHEST ROOF SURFACE. THE PROPOSED BUILDING HEIGHT IS +/- 22.5-FEET (22'-06") PER THE INTERNATIONAL BUILDING CODE.
3. THE PROPOSED BUILDING WILL NOT BE NOT EQUIPPED WITH AN AUTOMATIC FIRE SPRINKLER SYSTEMS. THE S-1 MODERATE HAZARD STORAGE OCCUPANCY DOES NOT EXCEED 12,000 SF OR A COMBINED AREA OF 24,000 SF, IS NOT LOCATED MORE THAN 3-STORIES ABOVE THE GRADE PLANE AND IS NOT USED AS A REPAIR GARAGE OR FOR THE STORAGE OF COMMERCIAL MOTOR VEHICLES, TIRES, OR UPHOLSTERED FURNITURE / MATTRESSES. THE B BUSINESS OCCUPANCY DOES NOT EXCEED THE AUTOMATIC SPRINKLER SYSTEM THRESHOLDS LISTED IN TALBE 903.2.13.
4. THE BUILDING IS ELIGIBLE FOR A FRONTAGE INCREASE ACCORDING TO SECTION 506.3. 93.2% OF THE BUILDING'S PERIMETER IS ON AN OPEN SPACE WITH A WIDTH GREATER THEN 30 FT. THE PORTION OF THE BUILDING'S PERIMETER THAT WAS REMOVED FROM "OPEN PERIMETER" CALCULATION IS AT THE NORTH EAST CORNER OF THE BUILDING THAT IS ADJACENT TO THE REAR PROPERTY LINE.
5. THE PROPOSED CORRIDOR WALLS ARE NOT REQUIRED TO BE FIRE RATED. THE CORRIDOR WILL NOT SERVE AN OCCUPANCY OF GREATER THAN 30 PERSONS.
6. DRAFTSTOPPING WILL BE PROVIDED IN THE ATTIC SPACES. SEE ROOF PLAN DRAWING A1-4 FOR DRAFTSTOPPING LOCATIONS.
7. FIRE ALARM AND DETECTIONS SYSTMES ARE NOT REQUIRED BUT WILL BE PROVIDED PER SECTION 907 OF THE NJ IBC 2021.
8. TRAINING ROOM #114 WILL HAVE A MAXIMUM OCCUPANCY SET AT 49 PERSONS. THE FLOOR PLAN DEPICTS TABLES AND CHAIRS WITH SEATING FOR (40) PERSONS. A MAXIMUM OCCUPANCY SIGN WILL BE POSTED WITHIN THE ROOM. TRAINING ROOM #114 IS PROPOSED TO HAVE TWO (2) ACCESSIBLE EXITS DISCHARGING DIRECTLY TO THE EXTERIOR.
9. STORAGE MEZZANE #122 IS DESIGNED TO COMPLY WITH SECTION 505 OF THE NJBC 2021 AND IS LOCATED ABOVE SIGN SHOP #119. THE AREA OF THE SIGN SHOP IS 1,316 SF. THE PERMITTED MEZZANIE AREA IS 434 SF, 33% OF THE SIGN SHOP AREA PER SECTION 505.2.1. THE AREA OF THE PROPOSED STORAGE MEZZANINE IS 296 SF, 22.5% OF THE SIGN SHOP AREA. THE TOTAL OCCUPANT LOAD OF THE STORAGE MEZZANINE #122 IS (2) PERSONS AND THE TOTAL EXIT ACCESS TRAVEL DISTANCE IS 44'-6". PER TABLE 1006.3.4(2) ONE EXIT OR ACCESS TO ONE EXIT IS PERMITTED IF THE TOTAL OCCUPANCY IS (29) PERSONS OR LESS AND THE EXIT ACCESS TRAVEL DISTANCE 75-FEET MAXIMUM.

HATCH / KEY TO SYMBOLS

EARTHWORK
- EARTH
- COMPACTED CRUSHED STONE

CONCRETE
- CONCRETE (PLAN/ELEVATION)
- CONCRETE (SECTION)
- BRICK (PLAN)
- BRICK (ELEVATION)
- CONCRETE BLOCK
- CONCRETE BLOCK FILLED SOLID, SEE STRUCTURAL DRAWINGS

MASONRY
- STEEL

METAL
- FINISH WOOD
- PLYWOOD
- ROUGH BLOCKING

WOOD
- BATT/LOOSE FILL
- RIGID

INSULATION
- GYPSUM WALL BOARD

FINISHES
- BUILT-IN MILLWORK

MISCELLANEOUS
- EXISTING TO REMAIN
- EXISTING TO BE REMOVED BY G.C.
- NEW DOOR IN NEW STUD WALL CONSTRUCTION
- NEW 1-HOUR FIRE RATED SEPARATION ASSEMBLY
- NEW 2-HOUR FIRE RATED SEPARATION ASSEMBLY
- REVISION CLOUD & REVISION NUMBER
- W1 / 5x — WINDOW TYPE & ALUM. STOREFRONT TYPE
- 101 — DOOR NUMBER
- 1 — PARTITION TYPE
- A — TOILET ROOM ACCESSORY TAG
- ELEVATION OR BENCHMARK
- 1 / A1-1 — BUILDING OR WALL SECTION
- 1 / AX-X — DRAWING NUMBER / SHEET NUMBER
- ROOM NAME 101 — ROOM NAME / ROOM NUMBER
- MBL. — MARBLE THRESHOLD
- ALT. — ALUMINUM THRESHOLD
- 1Ref / Ref A101 Ref / 1Ref — ELEVATION DETAIL
- 1 — COLUMN LINE IDENTIFICATION NUMBER/LETTER
- FD — FLOOR DRAIN
- B.o — BOLLARD
- HB — HOSE BIBB, FROST PROOF AT EXTERIOR LOCATIONS
- FE2 — FIRE EXTINGUISHER IN SEMI-RECESSED CABINET
- FE1 — EXPOSED FIRE EXTINGUISHER WITH WALL MOUNT BRACKET
- ACCESSIBILITY CLEARANCES

NOTE: SEE ROOF PLAN FOR ROOF PLAN SYMBOLS

NO.	DESCRIPTION	DATE
1	ISSUED FOR BIDDING	10-28-2025

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PROJECT NORTH

PROJECT
LOWER TOWNSHIP PUBLIC WORKS
BUILDING REPLACEMENT
771 SEASHORE ROAD
CAPE MAY, NEW JERSEY 08204

DWG. TITLE
COVER SHEET - PLAN REVIEW RECORD

CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND FIELD CONDITIONS PRIOR TO STARTING CONSTRUCTION

GERALD S. BLACKMAN, JR.
NJ LICENSE #17113

DRAWN BY:	BJW
CHECKED BY:	JSB
DATE:	10-28-2025
SCALE:	

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CS-2

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LOWER TOWNSHIP PUBLIC WORKS

771 SEASHORE ROAD, BLOCK 505 LOTS 14.01 & 28, CAPE MAY, LOWER TOWNSHIP, CAPE MAY COUNTY, NEW JERSEY, 08204
BUILDING REPLACEMENT

ACCESSIBLE SITE & EXTERIOR FACILITY REQUIREMENTS

PARKING: (SEE SITE PLAN)	CODE SECTION	REQUIREMENT	PROPOSED
TOTAL NUMBER OF ON-SITE PARKING SPACES	: ----	: ----	: (XX) SPACES
ACCESSIBLE PARKING SPACES REQUIRED	: IBC NJ 2021, 1106.1	: (2) SPACES	: (XX) SPACES
SIZE OF PARKING SPACE	: ICC/ANSI 502.2	: 8' x 18' WITH 5' WIDE AISLE	: 9' x 18' W/ 5'-0" WIDE AISLE MIN.
SIGNAGE TYPE AT EACH ACCESSIBLE PARKING SPACE	: IBC NJ 2021, 1106.8	: R7-8 WITH R7-8P BELOW	: R7-8 WITH R7-8P BELOW
VAN ACCESSIBLE PARKING SPACES	: IBC NJ 2021, 1106.5	: (1) PER (6) SPACES	: (X) SPACES
AISLE WIDTH AT VAN SPACES	: ICC/ANSI 502.3.1	: 8'-0"	: 8'-0" WIDE
VERTICAL CLEARANCE AT VAN SPACE	: ICC/ANSI 502.5	: 8'-2" MIN.	: UNLIMITED
BUILDING ENTRANCES			
TOTAL NUMBER OF ENTRANCES	: ----	: ----	: (6) ENTRANCES
TOTAL NUMBER OF PUBLIC ENTRANCES	: ----	: ----	: (1) ENTRANCES
NUMBER OF ACCESSIBLE ENTRANCES	: IBC NJ 2021, 1105.1	: (1) ENTRANCE	: (6) ENTRANCES
CHANGE IN GRADE (EXTERIOR TO INTERIOR)	: ICC/ANSI 303.2	: 1/2" MAX.	: 1/2" MAX.

MINIMUM NUMBER OF REQUIRED PLUMBING FIXTURES

USE GROUP: B BUSINESS & S-1 MODERATE HAZARD STORAGE (1)

A. TOTAL FLOOR AREA: 6,352 SF (EXCLUING MEZZANINE)

B. OCCUPANCY PER EGRESS REQUIREMENTS: (77) PERSONS FOR BUILDING.
NOTE: SEE COVER SHEET CS-2

C. OCCUPANCY FOR PLUMBING FIXTURE REQUIREMENTS: (52) PERSONS
OCCUPANCY = EGRESS OCCUPANCY (#B ABOVE) X 2/3

D. NUMBER OF PERSONS FOR EACH SEX: (26) PERSONS
EACH SEX = NSPC OCCUPANCY (#C ABOVE) x 50%

E. TOTAL REQUIRED:
1. WATER CLOSETS — MALE- 2 — FEMALE- 2
2. LAVATORIES — MALE- 1 — FEMALE- 1
3. URINALS MAY BE SUBSTITUTED FOR NO MORE THEN 50% OF THE REQUIRED WATER CLOSETS

F. MALES PROVIDED:
1. WATER CLOSETS= 3
2. URINALS= 3
3. LAVATORIES= 4

G. FEMALES PROVIDED:
1. WATER CLOSETS= 2
2. LAVATORIES= 2

H. DRINKING FOUNTAINS:
(1) DRINKING FOUNTAIN IS REQUIRED. (1) DRINKING FOUNTAIN IS PROVIDED IN TRAINING ROOM 114.

I. (1) SERVICE SINK IS REQUIRED. (1) SERVICE SINK IS PROVIDED IN JANITORS CLOSET #115.

PLUMBING FIXTURE CODE REVIEW NOTES

1. THE TOTAL FIXTURE COUNT IS BASED ON THE B BUSINESS USE WHICH IS THE MORE RESTRIVE USE FOR DETERMINING THE TOTAL PLUMBING FIXTURE COUNT.

2. TOILET ROOMS #105 & 106 ARE INTENDED TO BE SINGLE USER, UNI-SEX TOILET ROOMS. FOR THE PURPOSES OF THE PLUMBING FIXTURE CALCULATION, TOILET ROOM #105 WAS INCLUDED IN THE FEMALE FIXTURE COUNT AND TOILET ROOM #106 WAS INCLUDED IN THE MALE FIXTURE COUNT.

BARRIER FREE ACCESSIBILITY REQUIREMENTS

ACCESSIBLE BUILDING REQUIREMENTS	CODE SECTION	REQUIREMENT	PROPOSED
RAMPS:			
SLOPE	: ICC/ANSI 405.2	: 1:12 MAX.	: NOT APPLICABLE
MAX RISE PER RAMP RUN	: ICC/ANSI 405.6	: 30" MAX.	: NOT APPLICABLE
CLEAR WIDTH	: ICC/ANSI 405.5	: 36" MIN.	: NOT APPLICABLE
TOTAL LENGTH	:	: ----	: NOT APPLICABLE
LANDING	: ICC/ANSI 405.7	: RAMP WIDTH X 5'-0" LONG AT EVERY 30'-0" MAX. RUN	: NOT APPLICABLE
HANDRAILS	: ICC/ANSI 405.8	: D/A. 1 1/4"-2" O.D. HT. 2'-10"- 3'-2" TOP AND BOTTOM 12" EXTENSIONS	: NOT APPLICABLE
DOORS:			
MIN. SIZE / CLEAR WIDTH	: ICC/ANSI 404.2.2	: 3'-0" x 6'-8"	: 3'-0" X 7'-0" MIN. FOR ACCESSIBLE DOORS
THRESHOLD HEIGHT	: ICC/ANSI 404.2.4	: 1/2" MAX.	: 1/2" MAX.
HARDWARE	: ICC/ANSI 404.2.6	: LEVER, PUSH/ PULLS, PANIC	: LEVER, PUSH, PULL, PANIC
HARDWARE HEIGHT	: ICC.ANSI 404.2.6.1	: 34" MIN, 48" MAX.	: 36"
ACCESSIBLE ROUTES:			
MIN. WIDTH (INTERIOR ROUTE)	: ICC/ANSI 403.5	: 36"	: 36" MIN.
MIN. DOORWAY WIDTH (OPENINGS WITHOUT DOORS)	: ICC/ANSI 403.5.1	: 32" NOT TO EXCEED 24" DEPTH	: 36" MIN.
MIN. VERTICAL CLEARANCES	: ICC/ANSI 307.4	: 8'-8"	: 7'-0" MIN.

TOILET FACILITIES:	CODE SECTION	REQUIREMENT	PROPOSED
SEAT HEIGHT	: ICC/ANSI 604.4	: 17"-19"	: 17"-19"
CONTROLS HEIGHT (LOCATED ON OPEN SIDE OF W.C.)	: ICC/ANSI 604.6	:44" MAX.	: 44" MAX.
GRAB BARS	: ICC/ANSI 604.5		
DIAMETER	: ----	: 1 1/4" - 1 1/2" O.D.	: 1 1/2" O.D.
HEIGHT (TO TOP OF GRAB BAR)	: ----	: 33" - 36"	: SEE DRAWING A4-1
LENGTH	: ----	: 3'-0", 3'-6", 1'-6"	: 3'-0", 3'-6", 1'-6"
TOILET PAPER DISPENSERS	: ICC/ANSI 604.7	: SEE DRAWING A4-1	: SEE DRAWING A4-1
CLEAR FLOOR AREA	: ICC/ANSI 604.3 OR ICC/ANSI 604.9.2	: 56" MIN. DEEP x 60" MIN. WIDE 59" MIN. DEEP x 60" MIN. WIDE	: SEE DRAWING A4-1
NUMBER OF WATER CLOSETS	: NSPC TABLE 7.21.1	: 2 MALE, 2 FEMALE	: (5) TOTAL (3) MALE, (2) FEMALE
NUMBER OF ACCESSIBLE WATER CLOSETS	: IBC NJ 2021, 1110.2.4	: (1) PER TOILET FACILITY (4) TOTAL (2) MALE, (2) FEMALE	: (4) TOTAL (2) MALE, (2) FEMALE
NUMBER OF URINALS	: NSPC TABLE 7.21.5, a.	: 50% OF REQ'D W.C. MAX.	: (3) URINALS
NUMBER OF LAVATORIES	: NSPC TABLE 7.21.1	: (1) MALE, (1) FEMALE	: (2) TOTAL (1) MALE, (1) FEMALE
NUMBER OF ACCESSIBLE LAVATORIES	: IBC NJ 2015, 1110.2.5	: (1) PER TOILET FACILITY (2) TOTAL (1) MALE, (1) FEMALE,	: (6) TOTAL (4) MALE, (2) FEMALE
CLEAR FLOOR AREA	: ICC/ANSI 606.2	: 2'-6" x 4'-4"	: 2'-6" x 4'-4"
RIM OR COUNTER HEIGHT	: ICC/ANSI 606.3	: 2'-10"	: 2'-10"
SIZE OF KNEE SPACE	: ICC/ANSI 606.2	: 2'-6" WIDE x 1'-8" DEEP x 2'-3" HIGH	: 2'-6" WIDE x 1'-8" DEEP x 2'-3" HIGH
MIRROR MOUNTING HEIGHT (BOTTOM OF REFLECTING SURF.)	: ICC/ANSI 603.3	: 40" MAX.	: 40" MAX.
NUMBER OF SHOWERS	: ----	: ----	: (2) MALE (1) FEMALE
NUMBER OF ACCESSIBLE SHOWERS	: ----	: (1) PER BATHING FACILITY	: (1) MALE (1) FEMALE

DRINKING FOUNTAINS:	CODE SECTION	REQUIREMENT	PROPOSED
TOTAL NUMBER PROVIDED	: NSPC TABLE 7.21.1	: 1 PER 100 PEOPLE	: 1
NO. OF ACCESSIBLE DRINKING FOUNTAINS	: IBC NJ 2021, 1110.5	: 1	: 1
CLEAR FLOOR AREA	: ICC/ANSI 602.2.1	: 2'-6" X 4'-4"	: 2'-6" X 4'-4"
MOUNTING HEIGHT TO SPOUT	: ICC/ANSI 602.2.3	: 3'-0"	: 3'-0"

STANDARD ABBREVIATIONS

A
@ AT
A.B. ANCHOR BOLT
A/C AIR CONDITIONING
ACT ACOUSTIC CEILING TILE
ADDL ADDITIONAL
ADJ ADJUSTABLE / ADJUST
A.F.F. ABOVE FINISHED FLOOR
AGGR AGGREGATE
A.H.U. AIR HANDLING UNIT
ALT ALUMINUM THRESHOLD
ALUM ALUMINUM
AN ANODIZED
APPROX APPROXIMATE
ARCH ARCHITECTURAL

B
B.B. BALL BEARING
BD BOARD
B.O. BOTTOM OF
BITUM BITUMINOUS
BLDG BUILDING
BLK BLOCK
BLKG BLOCKING
BM BEAM
B.P.L. BEARING PLATE / BASE PLATE
BRCK BRICK
B.U.R. BUILT UP ROOFING

C
CAB CABINET
C.I. CAST IRON
C.J. CONTROL JOINT
CLG. HT. CEILING HEIGHT
CLO CLOSET
CLR CLEAR
CLRM CLASSROOM
C.M.U. CONCRETE MASONRY UNIT
CNTR COUNTER
C.O. CLEAN OUT
COL COLUMN
CONC CONCRETE
CONF CONFERENCE
CONST CONSTRUCTION
CONT CONTINUOUS
CONTR CONTRACTOR
COORD COORDINATE
CORR CORRIDOR
C.P. CONTROL PANEL
CPT CARPET
C.T. CERAMIC TILE
CTR CENTER
C.Y. CUBIC YARD

D
D. DEEP
DBL DOUBLE
DEPT DEPARTMENT
DTL. DETAIL
DF. DRINKING FOUNTAIN
DIA DIAMETER
DIM DIMENSION
DISP DISPENSER
DIV DIVISION
D.L. DEAD LOAD
D.L.O. DAY LIGHT OPENING
DN DOWN
DS DOWNSPOUT
DWG DRAWING

E
EA. EACH
E.I.F.S. EXTERIOR INSULATION & FINISH SYSTEM
E.J. EXPANSION JOINT
EL ELEVATION
ELEC ELECTRICAL
ELEV ELEVATOR
EMER EMERGENCY
ENCL ENCLOSURE
ENG. ENGINEER
E.P. ELECTRICAL PANEL
EQ. EQUAL
EQUIP. EQUIPMENT
E.W. EACH WAY
E.W.C. ELECTRIC WATER COOLER
EXH EXHAUST
EXIST. EXISTING
EXP EXPANSION
EXT. EXTERIOR

F
F.A. FIRE ALARM
F.A.C.P. FIRE ALARM CONTROL PANEL
FD. FLOOR DRAIN
FE FIRE EXTINGUISHER
F.F. FACTORY FINISH
F.H.C. FIRE HOSE CABINET
F.H.P. FULL HEIGHT PARTITION
FIN FINISH
FIN FL FINISHED FLOOR
FIXT FIXTURE
FLR. FLOOR
FND. FOUNDATION
F.O. FACE OF
FPFG FIREPROOFING
F.R. FIRE RATED
FRP FIBERGLASS REINFORCED PANEL
F.R.T FIRE RETARDANT TREATED
F.S. FULL SIZE
FT FOOT OR FEET
FUR FURRING

G
GA GAUGE
GALV. GALVANIZED
G.C. GENERAL CONTRACTOR
GL GLASS
GLZ GLAZE
GND GROUND
GWB GYPSUM WALL BOARD

H
H.B. HOSE BIBB
H.C. HANDICAPPED
HD HEAD
H.P. HIGH POINT
H.M. HOLLOW METAL
H.M.G. HOLLOW METAL GALVANIZED
HORIZ. HORIZONTAL
HT. HEIGHT
HWH HOT WATER HEATER

I
I.F. INSIDE FACE
IN. INCH
INCL. INCLUDE
INSUL INSULATION
INT. INTERIOR
INV INVERT

J
JAN JANITOR
JST JOIST
JT JOINT

K
KIT. KITCHEN
K.P. KICK PLATE

L
L. LONG
LAV LAVATORY
LKR. LOCKER
L.F. LINEAR FOOT
L.L. LIVE LOAD
L.P. LOW POINT
LT LIGHT
LTG. LIGHTING

M
MAS MASONRY
MATL MATERIAL
MAX MAXIMUM
MECH MECHANICAL
MTL. METAL
MEZZ MEZZANINE
MFR. MANUFACTURER
MIN MINIMUM
MIR. MIRROR
MISC. MISCELLANEOUS
M.O. MASONRY OPENING
MTD MOUNTED
M.U. MASONRY UNIT
MULL MULLION

N
N.I.C. NOT IN CONTRACT
NO. NUMBER
NOM NOMINAL
N.T.S. NOT TO SCALE

O
O.A. OVERALL
O/C ON CENTER
O.D. OUTSIDE DIAMETER
O.F. OUTSIDE FACE
OFC. OFFICE
O.H. OVERHEAD/OVERHANG
OPNG OPENING
OPP OPPOSITE
O.H. OPPOSITE HAND
OZ OUNCE

P
PART PARTITION
PL PLATE
P.LAM PLASTIC LAMINATE
PLYWD PLYWOOD
PLUMB. PLUMBING
PR. PAIR
PREFAB PREFABRICATED
PROJ. PROJECTION
PROP PROPERTY
PTD. PAINTED

Q
Q.T. QUARRY TILE

R
R.B. RESILIENT BASE
R.D. ROOF DRAIN
REFL REFLECTED, REFLECTIVE
REF. REFRIGERATOR
REINF. REINFORCING
REQ'D REQUIRED
RES RESILIENT
RET RETAINING
REV REVISION
RM. ROOM
R.O. ROUGH OPENING
R.O.W. RIGHT OF WAY
R.T. RUBBER TILE
RV ROOF VENT
R.W.C. RAIN WATER CONDUCTOR
R.W.L. RAIN WATER LEADER

S
SCHED SCHEDULE
SECT SECTION
S.F. SQUARE FOOT
SQ. FT. SQUARE FOOT
SHWR. SHOWER
SHT SHEET
SIM. SIMILAR
SPEC. SPECIFICATIONS
SPKLR SPRINKLER
S.P.R. SINGLE PLY ROOF
SQ. SQUARE
S.S. SOLID SURFACE
S.STL. STAINLESS STEEL
STD. STAINED
STL. STEEL
STOR. STORAGE
STRUCT STRUCTURAL
SURF SURFACE
SUSP SUSPENDED

T
T TREAD
T & B TOP AND BOTTOM
TEL. TELEPHONE
TEMP. TEMPERED
TERR. TERRAZZO
T & G TONGUE AND GROOVE
THK. THICK
THRESH THRESHOLD
T.O. TOP OF
T/S. TOP OF SLAB
TWH TANKLESS HOT WATER HEATER
TYP. TYPICAL

U
U.L. UNDERWRITER'S LABORATORY
UNFIN UNFINISHED
U.N.O. UNLESS NOTED OTHERWISE
UR URINAL

V
V.B. VINYL BASE
VCB VINYLE COVE BASE
VCT VINYL COMPOSITION TILE
VERT. VERTICAL
VEST. VESTIBULE
V.I.F. VERIFY IN FIELD
VOL. VOLUME
VTR VENT THRU ROOF
VWC VINYL WALLCOVERING

W
W. WIDE
W/ WITH
WB WOOD BASE
W.C. WATER CLOSET
WD WOOD
WNW WINDOW
W/O WITHOUT
WP WATERPROOF
WRB WEATHER RESISTANT BARRIER
WSCT WAINSCOT
WWF WELDED WIRE FABRIC

NO.	ISSUED FOR BIDDING	10-28-2025
NO.	DRAWING SET ISSUE	DATE

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PROJECT NORTH

PROJECT
LOWER TOWNSHIP PUBLIC WORKS
BUILDING REPLACEMENT
771 SEASHORE ROAD
CAPE MAY, NEW JERSEY 08204

DWG. TITLE
COVER SHEET - ACCESSIBILITY PLAN REVIEW RECORD

CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND FIELD CONDITIONS PRIOR TO STARTING CONSTRUCTION

J. Blackman
GERALD S. BLACKMAN, JR.
NJ. LICENSE #19113

NO.	DESCRIPTION	DATE

REVISION SCHEDULE

DRAWN BY: BJW
CHECKED BY: JSB
DATE: 10-28-2025
SCALE:

JOB NO. 1862.11

CS-3

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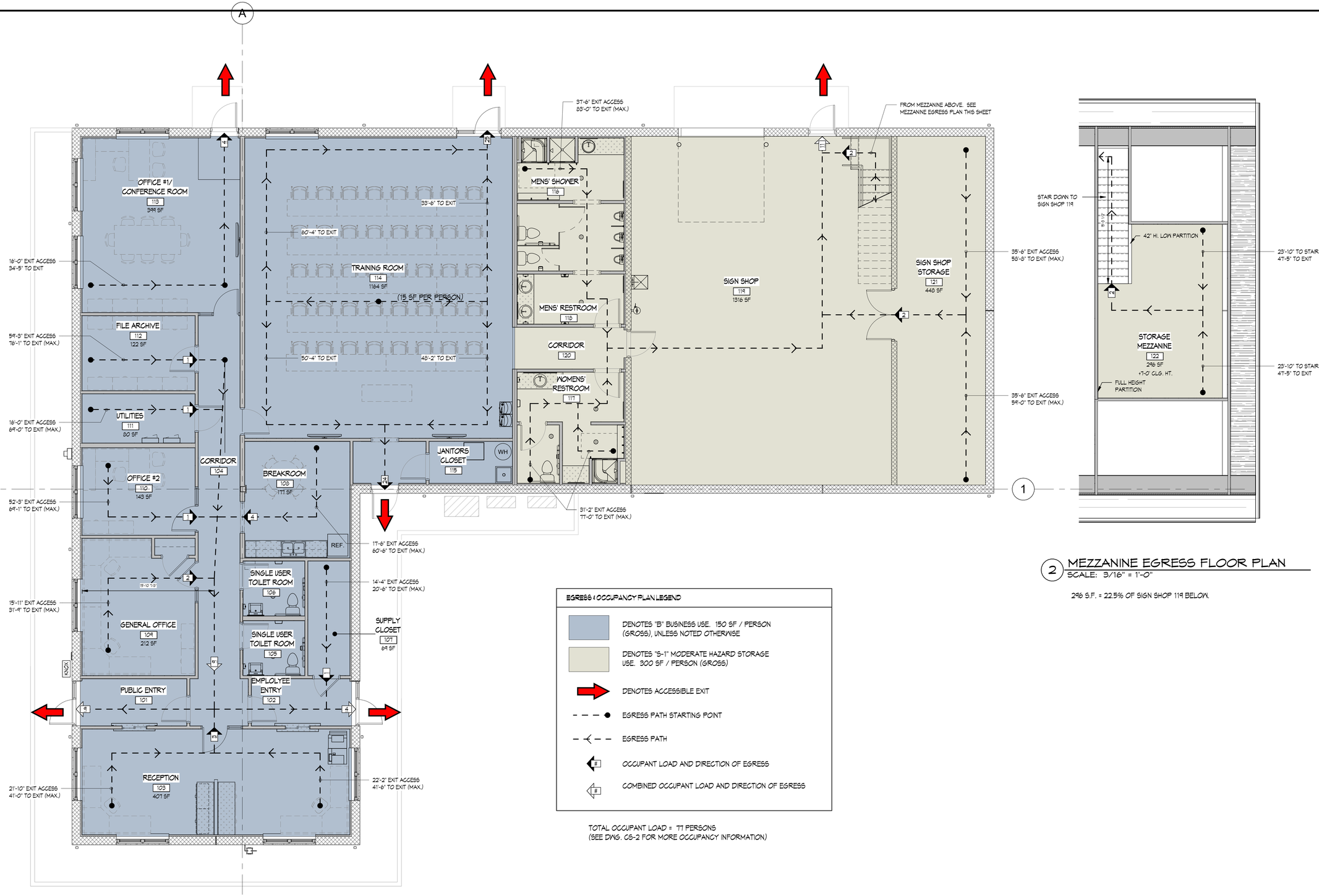

1 EGRESS & OCCUPANCY FLOOR PLAN
SCALE: 3/16" = 1'-0"

2 MEZZANINE EGRESS FLOOR PLAN
SCALE: 3/16" = 1'-0"

296 S.F. = 22.5% OF SIGN SHOP 119 BELOW.

EGRESS & OCCUPANCY PLAN LEGEND

- DENOTES "B" BUSINESS USE. 150 SF / PERSON (GROSS), UNLESS NOTED OTHERWISE
- DENOTES "S-1" MODERATE HAZARD STORAGE USE. 300 SF / PERSON (GROSS)
- DENOTES ACCESSIBLE EXIT
- EGRESS PATH STARTING POINT
- EGRESS PATH
- OCCUPANT LOAD AND DIRECTION OF EGRESS
- COMBINED OCCUPANT LOAD AND DIRECTION OF EGRESS

TOTAL OCCUPANT LOAD = 71 PERSONS
(SEE DWG. CS-2 FOR MORE OCCUPANCY INFORMATION)

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PROJECT NORTH

PROJECT
LOWER TOWNSHIP PUBLIC WORKS
BUILDING REPLACEMENT
771 SEASHORE ROAD
CAPE MAY, NEW JERSEY 08204

DWG. TITLE
COVER SHEET - EGRESS & OCCUPANCY PLANS

CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND FIELD CONDITIONS PRIOR TO STARTING CONSTRUCTION

J. Blackman

GERALD S. BLACKMAN, JR.
NJ. LICENSE #21113

NO.	DESCRIPTION	DATE
	REVISION SCHEDULE	

DRAWN BY:	BJW
CHECKED BY:	JSB
DATE:	10-28-2025
SCALE:	3/16" = 1'-0"

NO.	DRAWING SET ISSUE	DATE
1	ISSUED FOR BIDDING	10-28-2025

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CS-4

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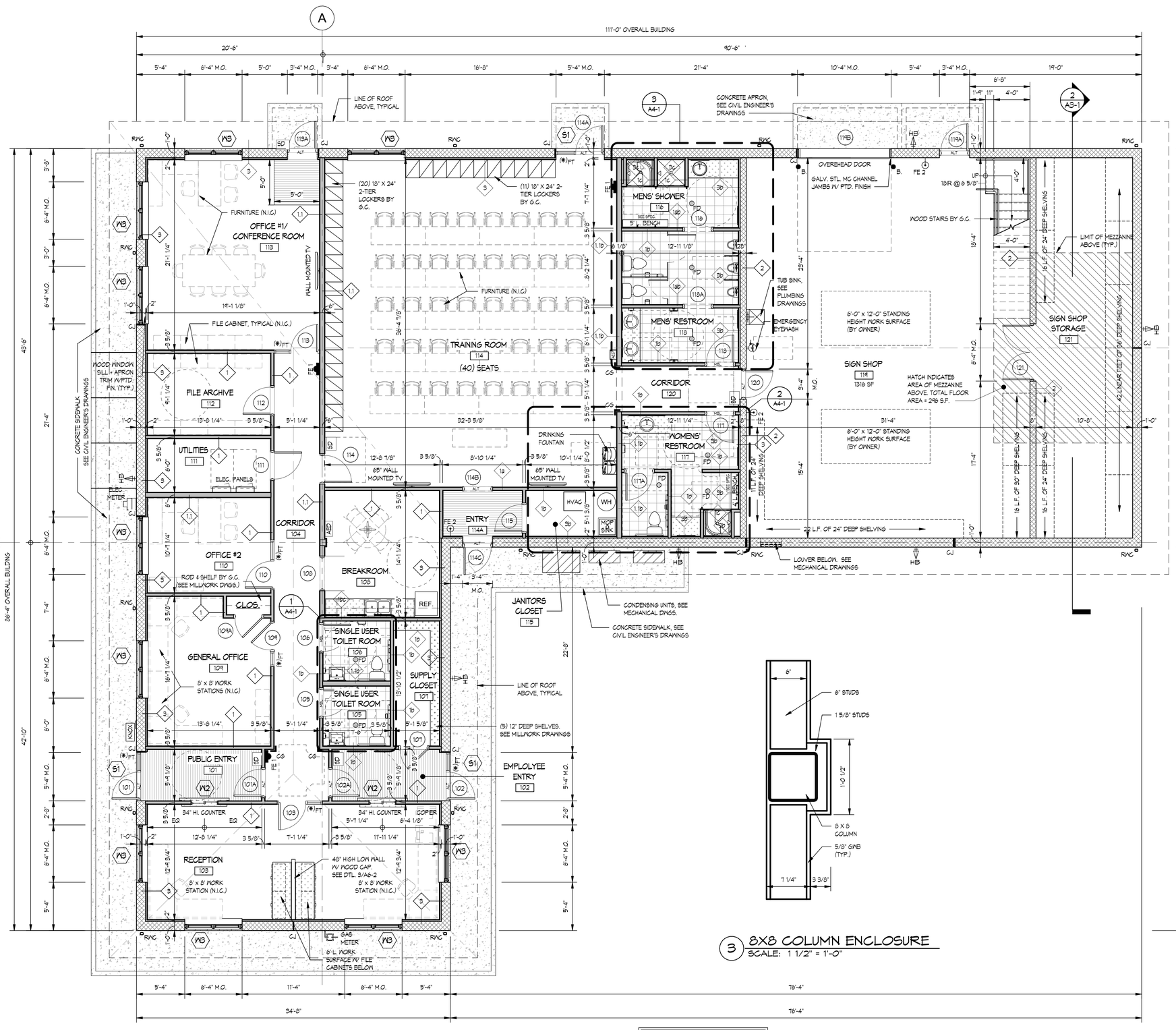
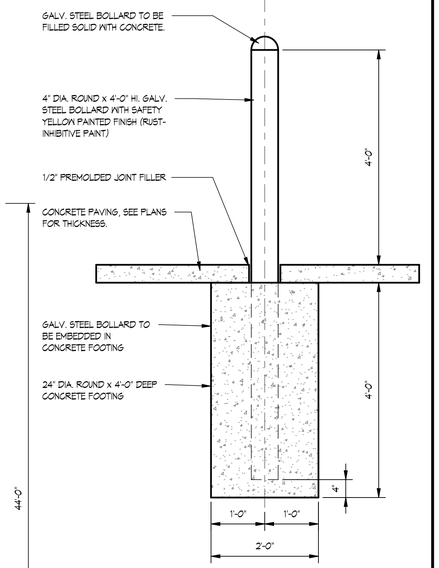


1 FLOOR PLAN
SCALE: 3/16" = 1'-0"

PROPOSED FINISHED FLOOR ELEVATION = +17.70-FEET (SEE ALSO CIVIL ENGINEER'S DRAWINGS)

NOTE: WALL-MOUNTED TV'S ARE FURNISHED BY THE OWNER AND INSTALLED BY THE G.C.

3 8X8 COLUMN ENCLOSURE
SCALE: 1 1/2" = 1'-0"



2 BOLLARD DETAIL
SCALE: 3/4" = 1'-0"

PLAN SYMBOLS:

- FURNITURE, N.I.C
- BUILT-IN MILLWORK BY G.C., SEE DWGS. A6-1 & A6-2
- WALK-IN ENTRY MAT
- PORCELAIN FLOOR TILE
- MBL. MARBLE THRESHOLD
- ALT. ALUMINUM THRESHOLD
- FD FLOOR DRAIN
- B. BOLLARD (SEE DTL. 2/A1-1)
- HB HOSE BIBB. FROST PROOF AT EXTERIOR LOCATIONS
- FE 1 FIRE EXTINGUISHER IN SEMI-RECESSED CABINET
- FE 2 EXPOSED FIRE EXTINGUISHER WITH WALL MOUNT BRACKET
- CJ MASONRY CONTROL JOINT LOCATION SEE DRAWINGS 4/A3-2
- (*)FT INDICATES WINDOW, DOOR OR STOREFRONT GLAZING TO BE FULLY TEMPERED SAFETY GLAZING. SEE DRAWINGS A5-2 & A5-3.
- AED AMERICAN AED - AUTOMATED EXTERNAL DEFIBRILLATOR
- KNOX KNOX BOX RAPID ENTRY SYSTEM, #3286X, SURFACE MTD. ALUMINUM W/ TAMPER SWITCH. CONFIRM TYPE W/ TOWNSHIP.
- RWC DOWNSPOUT INTO BOOT, SEE SPECIFICATIONS AND CIVIL ENGINEERING DRAWINGS
- 2-TIER LOCKERS
- SD SECURED, ELECTRICALLY OPERATED DOORS
- CG CORNER GUARD. SEE SPEC.

NOTE: SEE DRAWING G5-2 FOR ADDITIONAL ANNOTATION SYMBOLS

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PROJECT NORTH

PROJECT
LOWER TOWNSHIP PUBLIC WORKS BUILDING REPLACEMENT
771 SEASHORE ROAD
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DWG. TITLE
PROPOSED FLOOR PLAN

CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND FIELD CONDITIONS PRIOR TO STARTING CONSTRUCTION

J. Blm
GERALD S. BLACKMAN, JR
NJ LICENSE #21713

NO.	DESCRIPTION	DATE
	REVISION SCHEDULE	

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CHECKED BY:	JSB
DATE:	10-28-2025
SCALE:	As indicated

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A1-1

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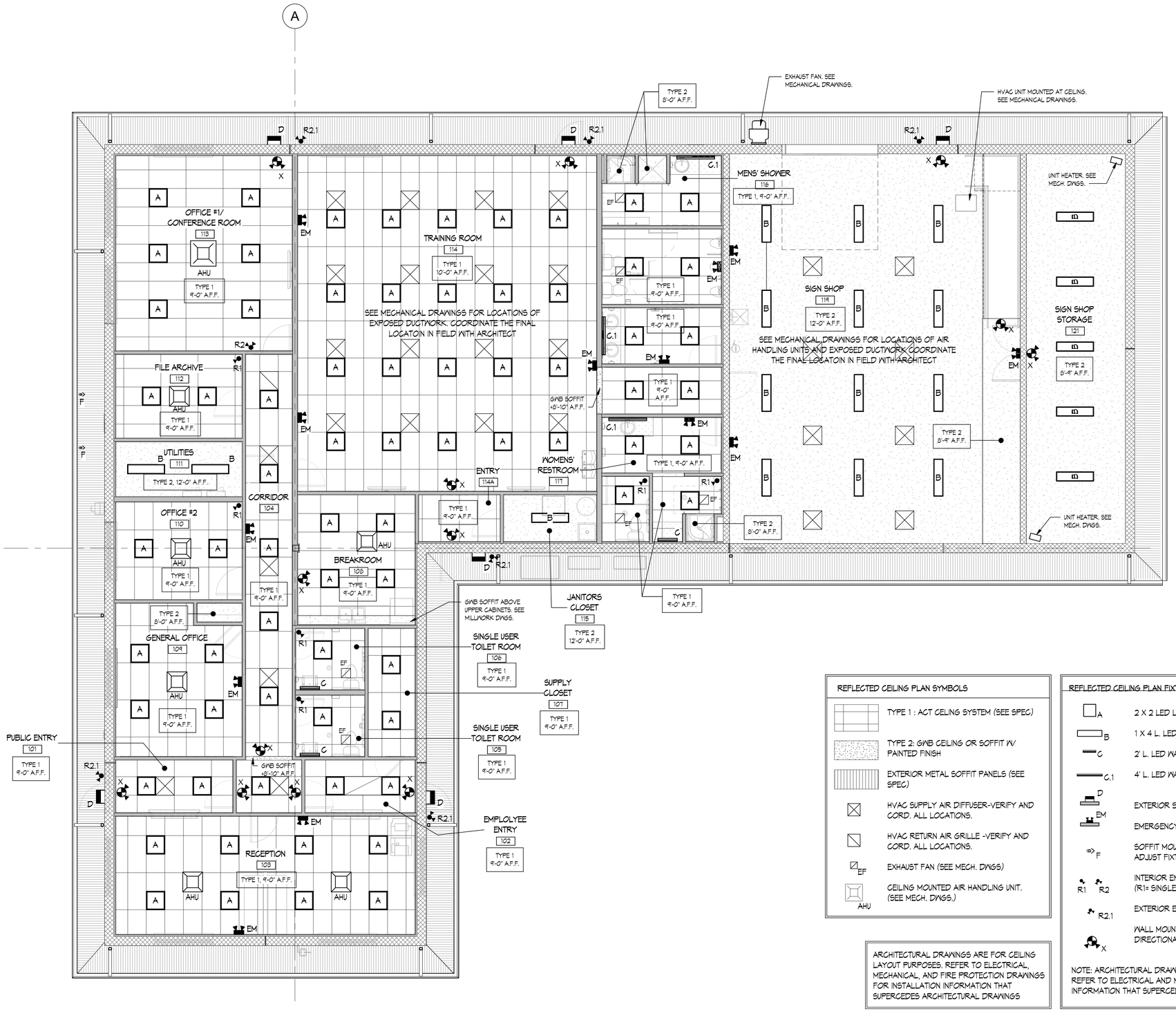

1 REFLECTED CEILING PLAN
SCALE: 3/16" = 1'-0"

REFLECTED CEILING PLAN SYMBOLS

- TYPE 1 : ACT CELING SYSTEM (SEE SPEC)
- TYPE 2: GWB CEILING OR SOFFIT W/ PAINTED FINISH
- EXTERIOR METAL SOFFIT PANELS (SEE SPEC)
- HVAC SUPPLY AIR DIFFUSER-VERIFY AND CORD. ALL LOCATIONS.
- HVAC RETURN AIR GRILLE -VERIFY AND CORD. ALL LOCATIONS.
- EF — EXHAUST FAN (SEE MECH. DWGS)
- AHU — CEILING MOUNTED AIR HANDLING UNIT. (SEE MECH. DWGS.)

ARCHITECTURAL DRAWINGS ARE FOR CEILING LAYOUT PURPOSES. REFER TO ELECTRICAL, MECHANICAL, AND FIRE PROTECTION DRAWINGS FOR INSTALLATION INFORMATION THAT SUPERCEDES ARCHITECTURAL DRAWINGS

REFLECTED CEILING PLAN FIXTURE SYMBOLS

- A — 2 X 2 LED LIGHT FIXTURE (RECESSED LAY-IN)
- B — 1 X 4 L. LED SURFACE MOUNTED LIGHT FIXTURE
- C — 2' L. LED WALLMOUNTED VANITY LIGHT FIXTURE
- C.1 — 4' L. LED WALL MOUNTED VANITY LIGHT FIXTURE
- D — EXTERIOR SITE LIGHTING, WALL MOUNTED PAK
- EM — EMERGENCY LIGHTING W/ BATTERY BACK-UP
- F — SOFFIT MOUNTED LED FLOOD LIGHT FOR SIGN LIGHTING. ADJUST FIXTURE ANGLE IN FIELD.
- R1 R2 — INTERIOR EMERGENCY REMOTE LIGHTING (R1= SINGLE HEAD, R2= DOUBLE HEAD)
- R2.1 — EXTERIOR EMERGENCY REMOTE LIGHTING, DOUBLE HEAD
- X — WALL MOUNTED EMERGENCY EXIT SIGN W/ LIGHTS AND DIRECTIONAL ARROWS AS INDICATED IN THE PLANS

NOTE: ARCHITECTURAL DRAWINGS ARE FOR CEILING LAYOUT PURPOSES. REFER TO ELECTRICAL AND MECHANICAL DRAWINGS FOR INSTALLATION INFORMATION THAT SUPERCEDES ARCHITECTURAL DRAWINGS

NO.	DESCRIPTION	DATE
1	ISSUED FOR BIDDING	10-28-2025

NO. DRAWING SET ISSUE DATE

OSK DESIGN PARTNERS, PA
ARCHITECTS & LAND PLANNERS
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FOUNDER: JOHN J. OLIVERI (1956-1999)
PRINCIPAL: PAUL A. KISS, AIA, PP, NCARB
PARTNER: GERALD S. BLACKMAN, JR AIA, PP, NCARB
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PROJECT NORTH

PROJECT
LOWER TOWNSHIP PUBLIC WORKS
BUILDING REPLACEMENT
771 SEASHORE ROAD
CAPE MAY, NEW JERSEY 08204

DWG. TITLE
REFLECTED CEILING PLAN

CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND FIELD CONDITIONS PRIOR TO STARTING CONSTRUCTION

J. Blackman
GERALD S. BLACKMAN, JR.
NJ LICENSE #19113

DRAWN BY: ANN
CHECKED BY: JSB
DATE: 10-28-2025
SCALE: As indicated

JOB NO. 1862.11

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REFLECTED CEILING PLAN SYMBOLS

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- EXTERIOR METAL SOFFIT PANELS (SEE SPEC)
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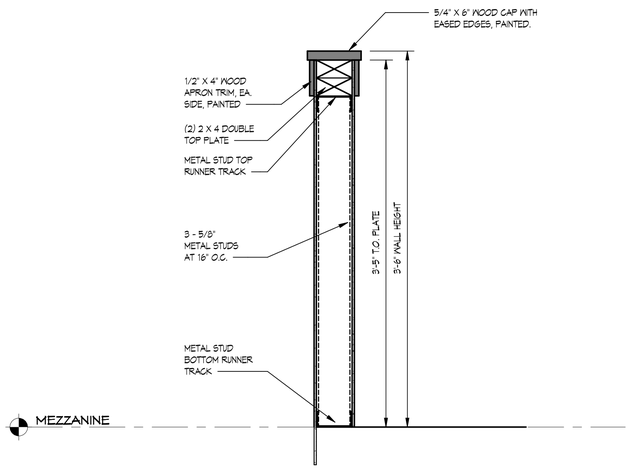
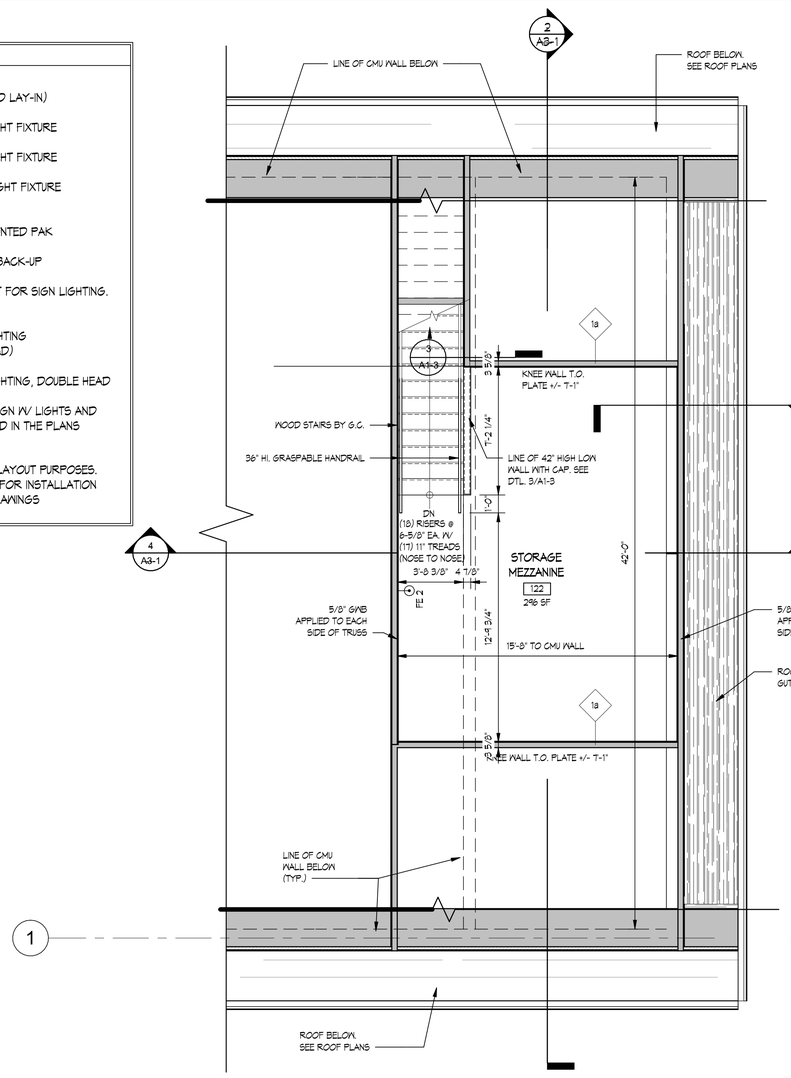
NOTE: ARCHITECTURAL DRAWINGS ARE FOR CEILING LAYOUT PURPOSES. REFER TO ELECTRICAL AND MECHANICAL DRAWINGS FOR INSTALLATION INFORMATION THAT SUPERCEDES ARCHITECTURAL DRAWINGS

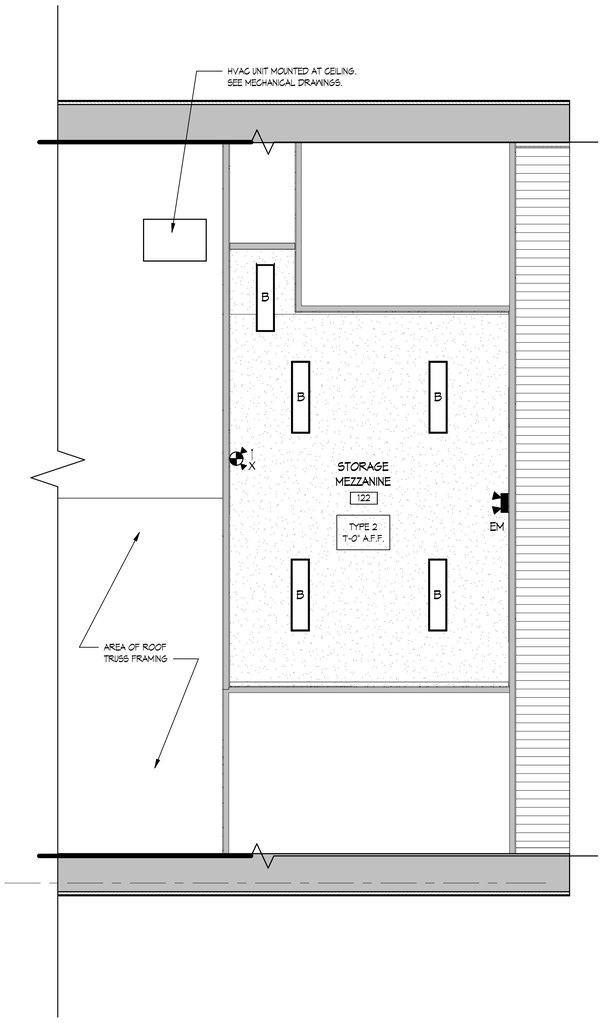


3 LOW WALL AT MEZZANINE
SCALE: 1 1/2" = 1'-0"



1 MEZZANINE FLOOR PLAN
SCALE: 1/4" = 1'-0"

PROPOSED FINISHED FLOOR ELEVATION = +27.63-FEET



2 MEZZANINE REFLECTED CEILING PLAN
SCALE: 1/4" = 1'-0"

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PROJECT NORTH

PROJECT
LOWER TOWNSHIP PUBLIC WORKS
BUILDING REPLACEMENT
771 SEASHORE ROAD
CAPE MAY, NEW JERSEY 08204

DWG. TITLE
MEZZANINE PLAN AND REFLECTED CEILING PLAN

CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND FIELD CONDITIONS PRIOR TO STARTING CONSTRUCTION

J. Blackman

GERALD S. BLACKMAN, JR.
NJ LICENSE #17113

NO.	DESCRIPTION	DATE
1	ISSUED FOR BIDDING	10-28-2025

REVISION SCHEDULE

DRAWN BY:	BJW, ANN
CHECKED BY:	JSB
DATE:	10-28-2025
SCALE:	As indicated

JOB NO. 1862.11

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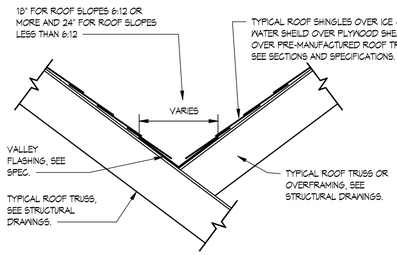
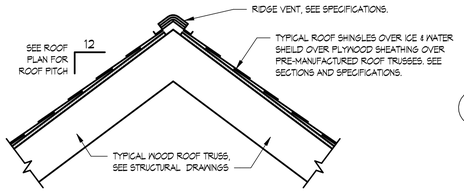
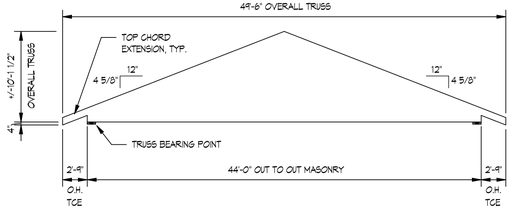


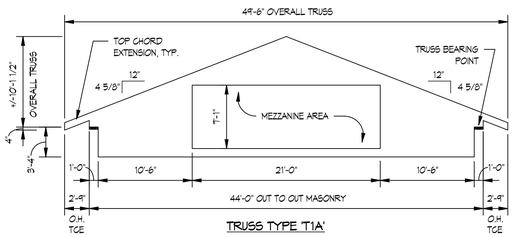
2 VALLEY DETAIL
SCALE: 3/4" = 1'-0"



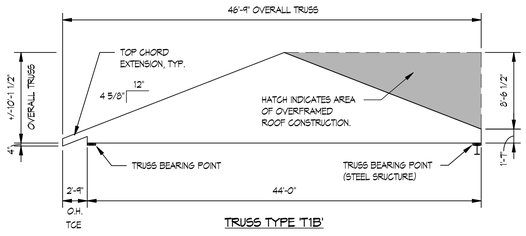
3 RIDGE DETAIL
SCALE: 3/4" = 1'-0"



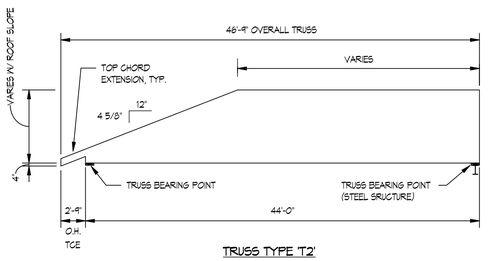
TRUSS TYPE 'T1'



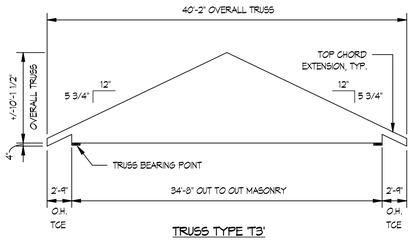
TRUSS TYPE 'T1A'
(MEZZANINE TRUSS)



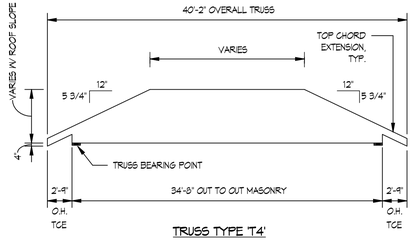
TRUSS TYPE 'T1B'



TRUSS TYPE 'T2'



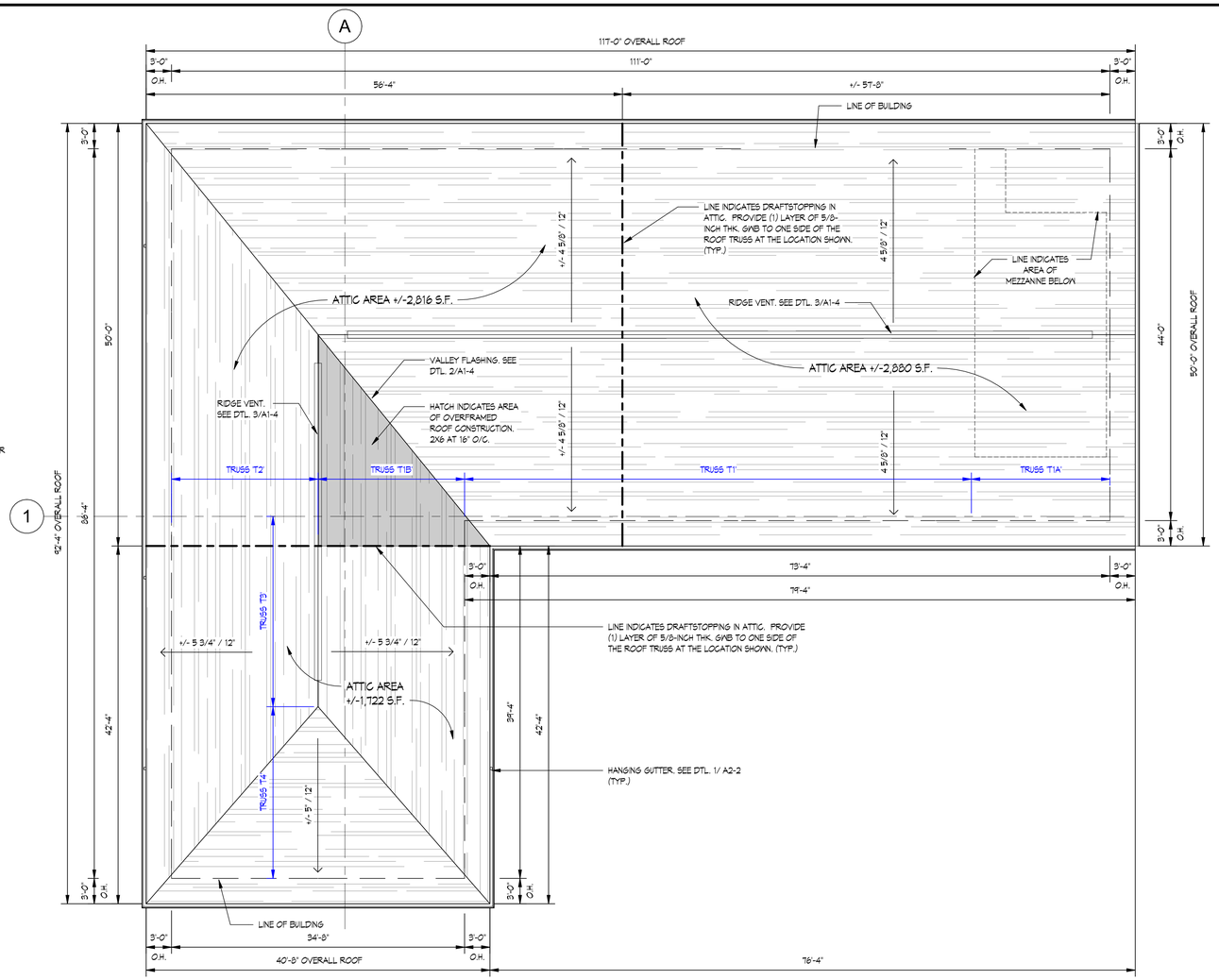
TRUSS TYPE 'T3'



TRUSS TYPE 'T4'

4 ROOF TRUSS PROFILE DETAILS
SCALE: 1/8" = 1'-0"

NOTE: SEE ROOF PLAN FOR ROOF SLOPES. TRUSS DESIGNED AND ENGINEERED BY TRUSS MANUFACTURER. SEE STRUCTURAL DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION. SEE MECHANICAL DRAWINGS FOR LOCATIONS OF HVAC TO BE SUPPORTED BY ROOF TRUSSES



1 ROOF PLAN
SCALE: 1/8" = 1'-0"

NOTE: EA. ROOF TRUSS SHALL BE CONNECTED TO WALL TOP PLATES WITH "SIMPSON" STRONG TIE "H2.5T HURRICANE TIE (OR EQUAL)

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BUILDING REPLACEMENT
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DWG. TITLE
ROOF PLAN AND DETAILS

CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND FIELD CONDITIONS PRIOR TO STARTING CONSTRUCTION

J. Blackman
GERALD S. BLACKMAN, JR.
NJ. LICENSE #17113

NO	DESCRIPTION	DATE
	REVISION SCHEDULE	

DRAWN BY:	BJW
CHECKED BY:	JSB
DATE:	10-28-2025
SCALE:	As indicated

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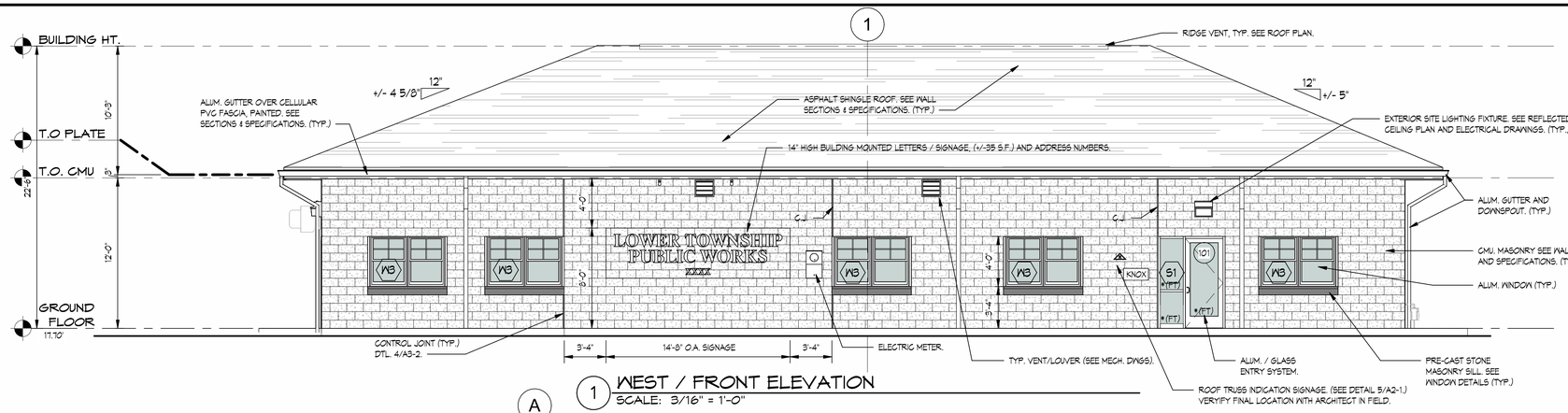
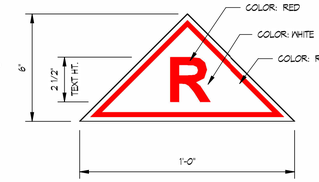


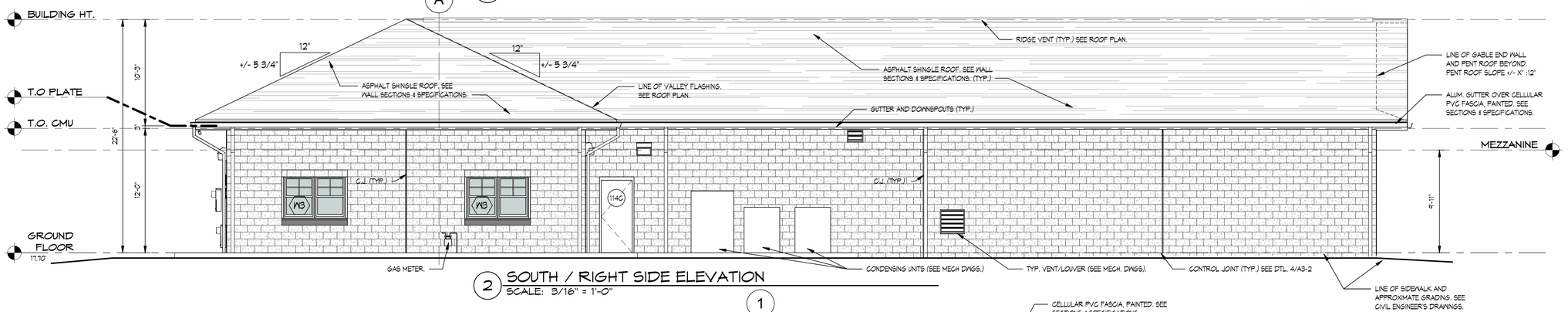
1 WEST / FRONT ELEVATION
SCALE: 3/16" = 1'-0"



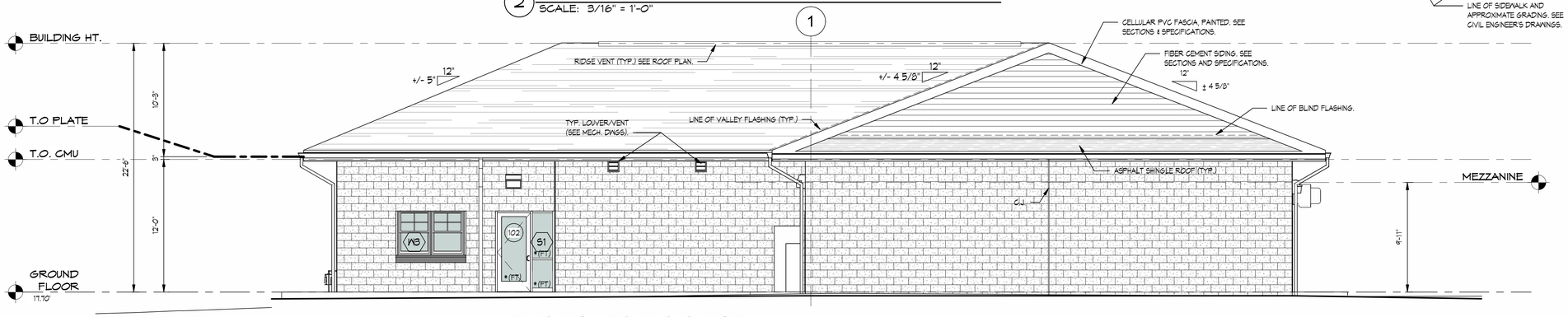
SIGN PANEL NOTES:
MATERIAL: ENGINEERING GRADE REFLECTIVE ALUMINUM
THICKNESS: 0.040" THICK
SIZE: 6" X 12"
COLOR: RED AND WHITE AS INDICATED
MOUNTING HOLES: THREE 1/32" HOLES (ONE IN EACH CORNER)

- SIGN TO COMPLY WITH N.J.A.C § 5:23-3.5 (e)
- SIGN MEETS THE REQUIREMENTS OF ASTM D4956 TYPE I, RESISTANT TO FADING AND MILD CHEMICALS

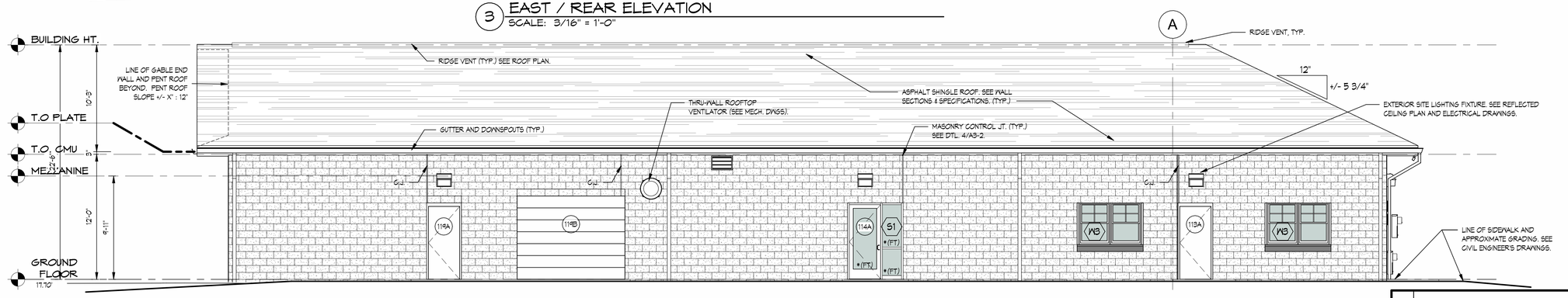
5 ROOF TRUSS SIGN DETAIL
SCALE: 3" = 1'-0"



2 SOUTH / RIGHT SIDE ELEVATION
SCALE: 3/16" = 1'-0"



3 EAST / REAR ELEVATION
SCALE: 3/16" = 1'-0"



4 NORTH / LEFT SIDE ELEVATION
SCALE: 3/16" = 1'-0"

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PROJECT NORTH

PROJECT
LOWER TOWNSHIP PUBLIC WORKS
BUILDING REPLACEMENT
771 SEASHORE ROAD
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DWG. TITLE
BUILDING ELEVATIONS

CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND FIELD CONDITIONS PRIOR TO STARTING CONSTRUCTION

J. Blackman
GERALD S. BLACKMAN, JR.
NJ LICENSE #13113

NO	DESCRIPTION	DATE

REVISION SCHEDULE

DRAWN BY:	BJW
CHECKED BY:	JSB
DATE:	10-28-2025
SCALE:	As indicated

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BUILDING AND WALL SECTION NOTES

DIVISION 03 CONCRETE:

1. CONTINUOUS REINFORCED CONCRETE GRADE BEAM. REFER TO THE STRUCTURAL ENGINEER'S FOUNDATION PLAN AND SECTION 033000 CAST-IN-PLACE CONCRETE.
2. 6-INCH CONCRETE FLOOR SLAB-ON-GRADE OVER VAPOR BARRIER OVER 8-INCHES OF CRUSHED STONE (No. 57) AND 8-INCHES OF COMPACTED FGA. REFER TO THE STRUCTURAL ENGINEER'S DRAWINGS AND SECTION 033000 CAST-IN-PLACE CONCRETE. PROVIDE FLOAT AND TROWELLED FINISH.
3. 20-MIL SHEET VAPOR BARRIER. REFER TO SECTION 033000 CAST-IN-PLACE CONCRETE.
4. MINIMUM 4-INCHES, COMPACTED, CRUSHED STONE (No. 57). REFER TO THE STRUCTURAL ENGINEER'S DRAWINGS.
5. CONTINUOUS 1/2-INCH PRE-MOLDED JOINT FILLER STRIP. REFER TO SECTION 033000 CAST-IN-PLACE CONCRETE.
6. EXTERIOR CONCRETE WALK. REFER TO THE CIVIL ENGINEER'S DRAWINGS.
7. CONCRETE RAISED CURB. REFER TO THE CIVIL ENGINEER'S DRAWINGS.
8. TIMBER PILE. REFER TO THE STRUCTURAL ENGINEER'S DRAWINGS.

DIVISION 04 MASONRY:

9. 12-INCH CMU MASONRY FOUNDATION WALL W/ #4 BAR AT 32-INCHES O/C VERTICAL REINFORCING. FILL ALL CORES SOLID W/ 3,000-PSI GROUT. REFER TO THE STRUCTURAL ENGINEER'S FOUNDATION PLAN AND SECTION 042200 CONCRETE UNIT MASONRY.
10. 8-INCH OR 12-INCH (SEE PLAN) CMU MASONRY WALL CONSTRUCTION W/ HORIZONTAL JOINT REINFORCING AT 16-INCHES O/C VERTICAL. PROVIDE #4 BAR AT 32-INCHES O/C VERTICAL REINFORCING. FILL ALL CORES W/ REINFORCING SOLID W/ 3,000-PSI GROUT. REFER TO THE STRUCTURAL ENGINEER'S DRAWINGS. REFER TO SECTION 042200 CONCRETE UNIT MASONRY.
11. CONTINUOUS 8-INCH CMU MASONRY, KNOCK-OUT, BOND BEAM W/ ONE (1) CONTINUOUS #5 RE-BAR. FILL SOLID W/ 3,000-PSI GROUT.
12. CONTINUOUS 12-INCH CMU MASONRY, KNOCK-OUT, BOND BEAM W/ TWO (2) CONTINUOUS # 5 RE-BARS. FILL SOLID W/ 3,000-PSI GROUT.
13. CAST STONE MASONRY SILL. REFER TO PROFILE DETAIL ON DRAWING A5-4. REFER TO SECTION 047200 CAST STONE MASONRY.
14. EMBEDDED, FLEXIBLE, NON-ASPHALTIC, 5-OZ., COPPER FABRIC THRU-WALL FLASHING (CONTINUOUS) EXTEND TO EXTERIOR FACE OF MASONRY VENEER. PROVIDE STAINLESS STEEL CONTINUOUS DRIP EDGE.
15. WEEP HOLES ABOVE FLASHING AT 24-INCHES O/C MAXIMUM HORIZONTAL SPACING.
16. FILL CMU MASONRY CORES SOLID W/ SELF-EXPANDING, CLOSED-CELL, FOAMED-IN-PLACE INSULATION.
17. (RESERVED).

DIVISION 05 METALS:

18. STRUCTURAL STEEL BEAM. REFER TO THE STRUCTURAL ENGINEER'S DRAWINGS. REFER TO SECTION 051200 STRUCTURAL STEEL FRAMING.
19. NON-STRUCTURAL METAL STUDS FRAMING, 3.625 OR 6-INCHES (SEE PLAN) x 20 GA. (MINIMUM) AT 24-INCHES O/C SPACING. PROVIDE CONTINUOUS RUNNER TRACK AT BOTTOM AND CONTINUOUS LONG-LEG RUNNER TRACK AT TOP. PROVIDE CONTINUOUS BRIDGING AT MID-HEIGHT OF STUDS AND WITHIN 12-INCHES OF LONG-LEG RUNNER TRACK AT TOP. PROVIDE FULL THICKNESS SOUND-ATTENUATING BATT INSULATION IN ALL STUD CAVITIES.
20. TWO (2) 8-INCH METAL STUDS BOX HEADER WITH RUNNER TRACK AT TOP AND BOTTOM.
21. ROOF TRUSS HOLD-DOWN CLIP AT EACH ROOF TRUSS. SIMPSON STRONG TIE #H2.5T.
22. C 12 X 20.7 GALVANIZED STEEL CHANNEL WITH PAINTED FINISH, SEE DOOR DETAILS ON DRAWING A5-4. PROVIDE GALVANIZED STEEL STRAP ANCHORS 1-INCH WIDE x 0.25-INCH THICKNESS AT 24-INCHES O/C SPACING W/ 4-INCH EMBEDMENT IN MASONRY JAMB. FILLET WELD CHANNEL TO LINTEL AT HEAD OF OPENING.
23. CONCRETE FILLED, GALVANIZED STEEL SCHEDULE 40 PIPE BOLLARD, PAINTED FINISH (SAFETY YELLOW). SEE FLOOR PLAN FOR LOCATIONS. SEE DETAIL 2/A1-1.
24. GALVANIZED STEEL LINTEL WITH PAINTED FINISH. LINTELS ARE (N 8 x 18 W/ 11-INCH WIDE x 0.250 THICK STEEL PLATE AT BOTTOM FLANGE OF BEAM. REFER TO STRUCTURAL ENGINEER'S DRAWINGS. PROVIDE 8-INCHES BEARING AT EACH END OF LINTEL. PROVIDE 0.375-INCH NEOPRENE BEARING PADS AT LINTEL BEARING. FILL CMU CORES SOLID W/ 3,000-PSI GROUT 24-INCHES BELOW LINTEL BEARING LOCATIONS.
25. (RESERVED).

DIVISION 06 WOOD, PLASTIC AND COMPOSITES:

26. PRESSURE-TREATED 2 x 6 WOOD OUTLOOKS AT 24-INCHES O/C SPACING WITH 2 x 6 PRESSURE-TREATED WOOD LEDGER AT EXTERIOR WALL. OUTLOOKS TO BE UTILIZED FOR THE SUPPORT OF SOFFIT PANELS. REFER TO SECTION 061000 ROUGH CARPENTRY.
27. TOP CHORD EXTENSION (TCE) OF ROOF TRUSS FOR ROOF OVERHANG.
28. TWO (2) CONTINUOUS, PRESSURE-TREATED, 2 X 12 WOOD TOP PLATES. PROVIDE 0.500-INCH DIAMETER GALVANIZED STEEL ANCHOR BOLTS W/ 3-INCH PLATE WASHER AND NUT AT 48-INCHES O/C SPACING, BUT NO MORE THAN 12-INCHES FROM PLATE ENDS. REFER TO SECTION 061000 ROUGH CARPENTRY.
29. PRESSURE-TREATED, 2 x 6 WOOD OUTLOOKS AT 24-INCHES O/C SPACING ARRANGED AS DEPICTED ON DRAWING A3-2 FOR RAKE. REFER TO SECTION 061000 ROUGH CARPENTRY.
30. ONE (1) 2 x 6 PRESSURE-TREATED WOOD NAILER AT PERIMETER OF WINDOW OR DOOR OPENING. REFER TO SECTION 061000 ROUGH CARPENTRY.
31. 0.625-INCH THICK PLYWOOD SHEATHING FOR WALLS WITH ALL JOINTS TAPED. REFER TO SECTION 061600 SHEATHING.
32. 0.750-INCH THICK T & G PLYWOOD SHEATHING FOR STEEP-PITCHED ROOFS. REFER TO SECTION 061600 SHEATHING.
33. 0.750-INCH THICK T & G PLYWOOD SHEATHING FOR MEZZANINE FLOOR. REFER TO SECTION 061600 SHEATHING.
34. 2 x 8 WOOD FLOOR JOISTS AT 16-INCHES O/C SPACING FOR MEZZANINE. REFER TO SECTION 061000 ROUGH CARPENTRY.
35. 2 x 8 WOOD RAFTERS AT 16-INCHES O/C SPACING FOR PENT ROOF. REFER TO SECTION 061000 ROUGH CARPENTRY.
36. CONTINUOUS, PRESSURE-TREATED, 2 x 10 WOOD SUB-FASCIA. REFER TO SECTION 061000 ROUGH CARPENTRY.
37. CONTINUOUS 5/4 x 10 CELLULAR PVC FASCIA W/ PAINTED FINISH.
38. 5/4-INCH THICK WOOD WINDOW SILL AND WOOD APRON TRIM W/ PAINTED FINISH.
39. COUNTERTOPS AND WOOD MILLWORK. REFER TO DRAWINGS A6-1 AND A6-2. REFER TO SECTIONS 064116 PLASTIC LAMINATE FACED ARCHITECTURAL CABINETS AND 123623.13 PLASTIC LAMINATE COUNTERTOPS.
40. PRE-FABRICATED, WOOD ROOF TRUSSES AT 24-INCHES O/C. REFER TO THE STRUCTURAL ENGINEER'S DRAWINGS.
41. PRE-FABRICATED, WOOD ROOF GIRDER TRUSS. REFER TO THE STRUCTURAL ENGINEER'S DRAWINGS.
42. WOOD STAIRS FOR MEZZANINE. REFER TO DETAIL.
43. (RESERVED)

DIVISION 07 THERMAL AND MOISTURE PROTECTION:

44. STAINLESS STEEL SHEET METAL FLASHING DRIP EDGE. REFER TO SECTION 076200 SHEET METAL FLASHING AND TRIM.
45. CMU MASONRY CONTROL JOINT. REFER TO DETAIL 4/A3-2.
46. EXTRUDED POLYSTYRENE INSULATION, 2-INCHES THICK R-11.0, WITH 2-INCH METAL Z-FURRING AT 24-INCHES O/C SPACING AT INTERIOR SIDE OF EXTERIOR CMU MASONRY WALLS. REFER TO SECTION 072100 THERMAL INSULATION.
47. EXTRUDED POLYSTYRENE INSULATION, 2-INCHES THICK R-11.0, AT INTERIOR SIDE OF FOUNDATION WALLS, SECURED W/ ADHESIVE. PROVIDE MINIMUM 24-INCHES WIDE X 2-INCHES THICK INSULATION BENEATH CONCRETE FLOOR SLABS AT THE LOCATIONS DEPICTED ON THE SECTIONS. REFER TO SECTION 072100 THERMAL INSULATION.
48. FIBERGLASS BATT INSULATION FOR FRAMED CONSTRUCTION. PROVIDE 12-INCH R-38.0 INSULATION AT BOTTOM CHORDS OF ROOF TRUSSES. ALL INSULATION SHALL BE COVERED WITH GWB. PROVIDE STYROFOAM BAFFLE AT EACH TRUSS BAY AS NEEDED TO MAINTAIN MINIMUM 2-INCHES CLEAR VENTILATION OPENINGS BETWEEN EAVES AND ATTIC AREAS. REFER TO SECTION 072100 THERMAL INSULATION.
49. STAINLESS STEEL SHEET METAL FLASHING. REFER TO SECTION 076200 SHEET METAL FLASHING AND TRIM.
50. UNFACED, MINERAL-WOOL SOUND ATTENUATION INSULATION TYPE SAFB. PROVIDE CONTINUOUS, FULL THICKNESS SOUND ATTENUATION INSULATION IN ALL STUD CAVITIES FOR ALL INTERIOR PARTITIONS (UNO). REFER TO SECTION 072100 THERMAL INSULATION.
51. CONTINUOUS WEATHER BARRIER. REFER TO SECTION 072500 WEATHER BARRIERS.
52. ASPHALT SHINGLE ROOFING SHINGLES OVER WEATHER BARRIER OVER PLYWOOD SHEATHING. REFER TO SECTION 073113 ASPHALT SHINGLE ROOFING.
53. FLUSH METAL SOFFIT PANELS, 1-INCH THICK, VENTILATED OVER PRESSURE TREATED WOOD OUTLOOKS. REFER TO SECTION 074213.93 METAL SOFFIT PANELS.
54. GUTTER AND DOWNSPOUTS. PROVIDE CONTINUOUS GUTTER FOR ALL ROOF EDGES WITH DOWNSPOUTS AT LOCATIONS INDICATED ON THE DRAWINGS. DOWNSPOUTS TO BE 4-INCH DIAMETER PLAIN, ROUND DOWNSPOUTS. GUTTER TO BE 8-INCHES HIGH X 6-INCHES WIDE WITH GUTTER BRACKETS AT 30-INCHES O/C MAXIMUM SPACING. REFER TO SECTION 077100 ROOF SPECIALTIES.
55. HORIZONTAL FIBER-CEMENT SIDING W/ PAINTED FINISH OVER DRAINAGE LAYER OVER WEATHER BARRIER OVER PLYWOOD SHEATHING.
56. (RESERVED)

DIVISION 08 OPENINGS:

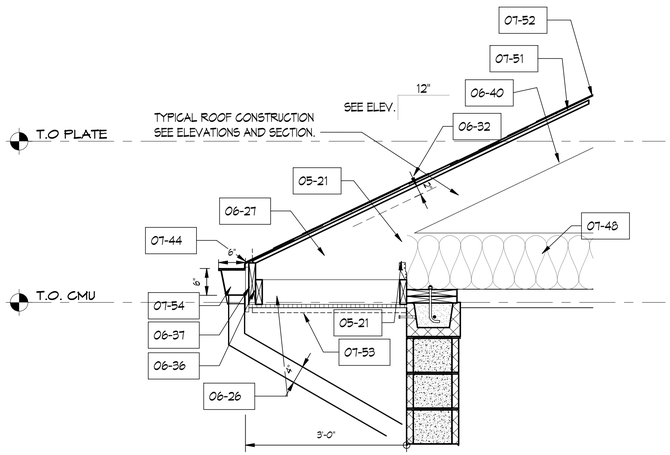
57. GALVANIZED, INSULATED HOLLOW-METAL DOOR AND FRAME W/ PAINTED FINISH. REFER TO THE DOOR/FRAME SCHEDULE ON DRAWING A5-2. REFER TO SECTION 081113 HOLLOW METAL DOORS AND FRAMES.
58. FLUSH WOOD DOOR AND HOLLOW-METAL FRAME W/ PAINTED FINISH. REFER TO THE DOOR/FRAME SCHEDULE ON DRAWING A5-2. REFER TO SECTION 081416 FLUSH WOOD DOORS AND SECTION 081113 HOLLOW METAL DOORS AND FRAMES.
59. INSULATED, SECTIONAL, OVERHEAD DOOR W/ WEATHER SEALS.
60. ALUMINUM FRAMED ENTRANCE AND STOREFRONTS. REFER TO THE DOOR/FRAME SCHEDULE ON DRAWING A5-2. REFER TO THE STOREFRONT ELEVATIONS ON DRAWING A5-1. REFER TO SECTION 084113 ALUMINUM FRAMED ENTRANCES AND STOREFRONTS.
61. ALUMINUM WINDOW. REFER TO THE WINDOW ELEVATIONS ON DRAWING A5-1. REFER TO SECTION 085113 ALUMINUM WINDOWS.
62. (RESERVED)

DIVISION 09 INTERIOR FINISHES:

63. INTERIOR PARTITIONS AND SOFFITS. 0.625-INCH GWB W/ PAINTED FINISH OVER 2-INCH METAL FURRING, OR 3.625-INCH OR 6-INCH, NON-STRUCTURAL METAL STUDS FRAMING AT 24-INCHES O/C. REFER TO SECTION 092216 NON-STRUCTURAL METAL FRAMING AND 092900 GYPSUM WALL BOARD. GWB EXTENDS FULL HEIGHT OF PARTITION (UNO).
64. ACOUSTIC PANEL CEILINGS. REFER TO THE REFLECTED CEILING PLANS AND SECTION 095113 ACOUSTIC PANEL CEILINGS.
65. 0.625-INCH GWB AT CEILING, TAPED AND SPACKLED. GWB EXPOSED TO VIEW SHALL BE PAINTED. REFER TO SECTION 092900 GYPSUM WALL BOARD.
66. RESILIENT WALL BASE. REFER TO SECTION 096513 RESILIENT BASE AND ACCESSORIES.
67. PORCELAIN TILE BASE.
68. (RESERVED)

DIVISION 31 AND 32 SITE WORK:

69. LINE OF GRADE. REFER TO CIVIL ENGINEER'S DRAWINGS.
70. ASPHALT PAVING. REFER TO CIVIL ENGINEER'S DRAWINGS.



1 EAVE/HANGING GUTTER DETAIL
SCALE: 3/4" = 1'-0"

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1	ISSUED FOR BIDDING	10-28-2025
NO.	DRAWING SET ISSUE	DATE

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PROJECT
LOWER TOWNSHIP PUBLIC WORKS
BUILDING REPLACEMENT
771 SEASHORE ROAD
CAPE MAY, NEW JERSEY 08204

DWG. TITLE
SECTION NOTES

CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND FIELD CONDITIONS PRIOR TO STARTING CONSTRUCTION

GERALD S. BLACKMAN, JR.
N.J. LICENSE #17113

DRAWN BY: ANN
CHECKED BY: JSB
DATE: 10-28-2025
SCALE: As indicated

JOB NO. 1862.11

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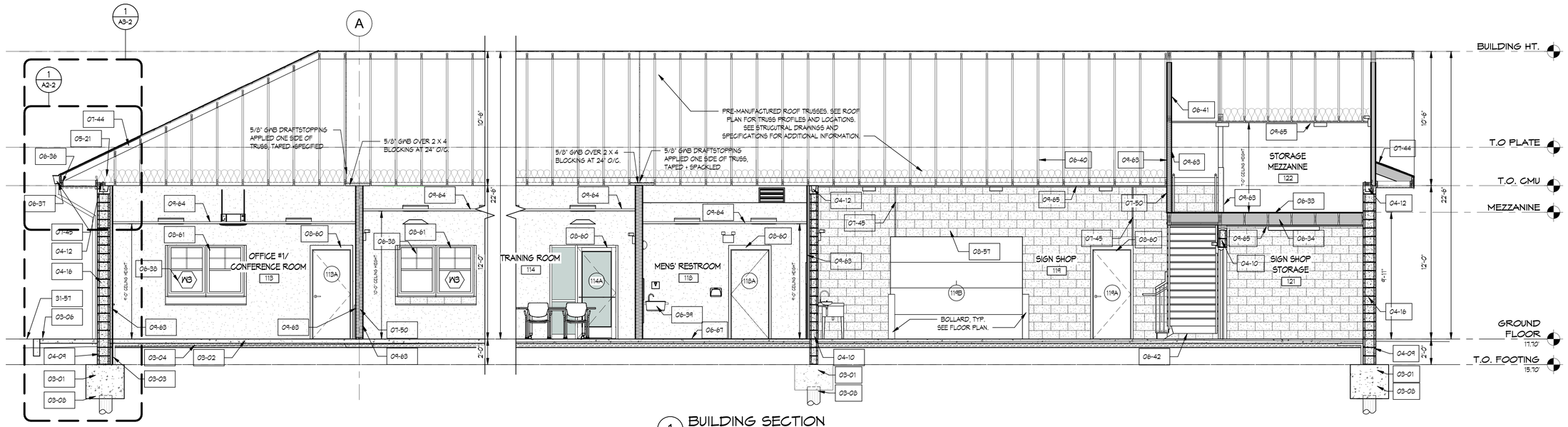

1 BUILDING SECTION
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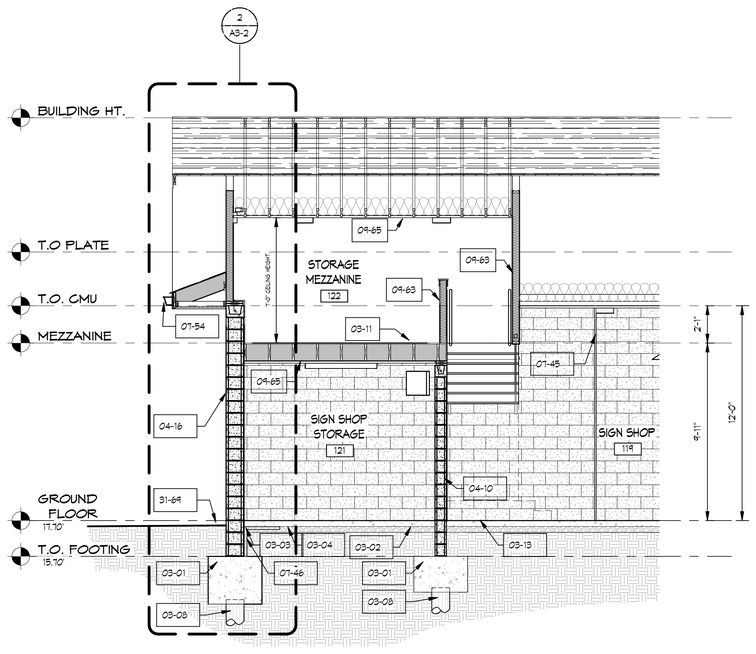
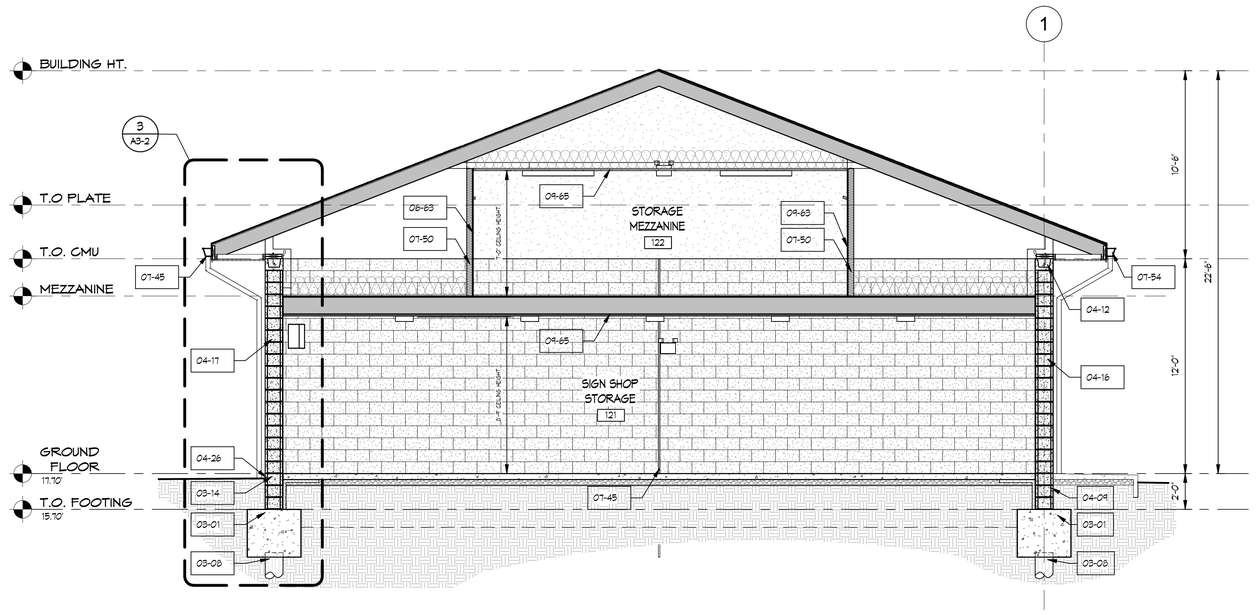


3 BUILDING SECTION AT MEZZANINE
SCALE: 1/4" = 1'-0"



2 BUIDLING SECTION AT MEZZANINE
SCALE: 1/4" = 1'-0"

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DWG. TITLE
BUILDING SECTIONS

CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND FIELD CONDITIONS PRIOR TO STARTING CONSTRUCTION

J.Blackman
GERALD S. BLACKMAN, JR.
NJ LICENSE #17113

DRAWN BY:	BJW, ANN
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DATE:	10-28-2025
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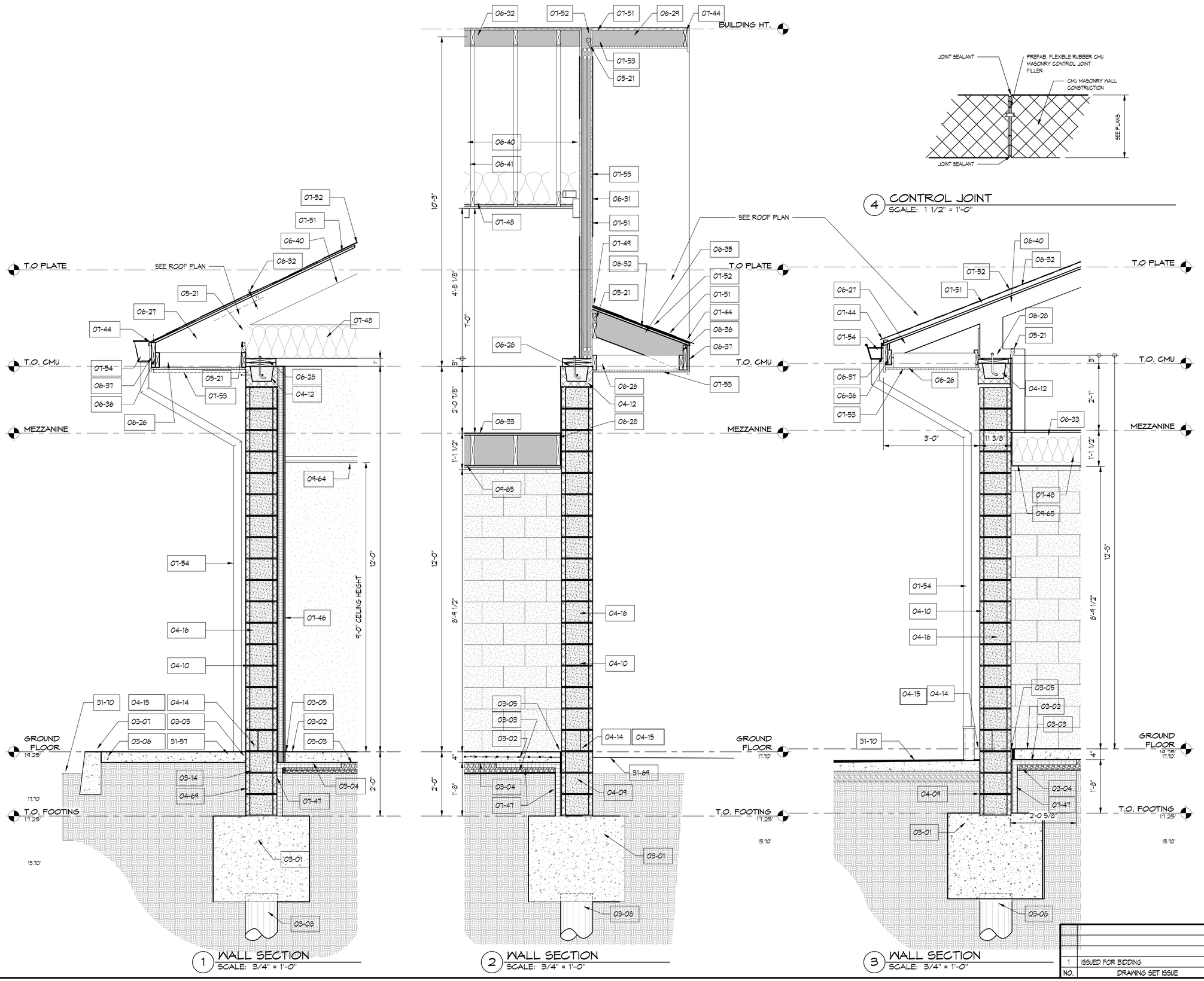

4 CONTROL JOINT
SCALE: 1 1/2" = 1'-0"

1 WALL SECTION
SCALE: 3/4" = 1'-0"

2 WALL SECTION
SCALE: 3/4" = 1'-0"

3 WALL SECTION
SCALE: 3/4" = 1'-0"

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WALL SECTIONS

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J. Blackman
GERALD S. BLACKMAN, JR.
NJ LICENSE #19113

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SCALE:	As indicated

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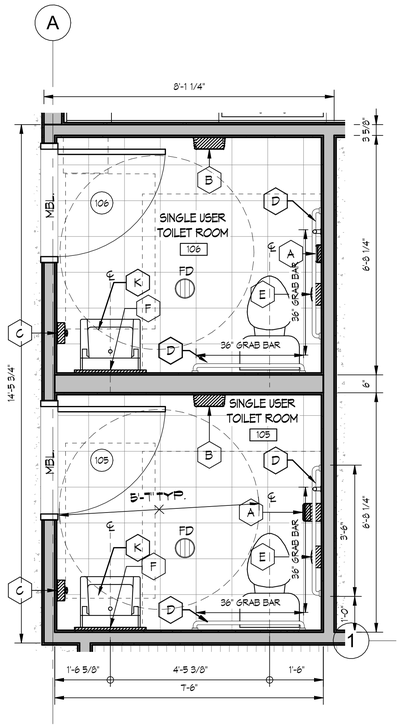
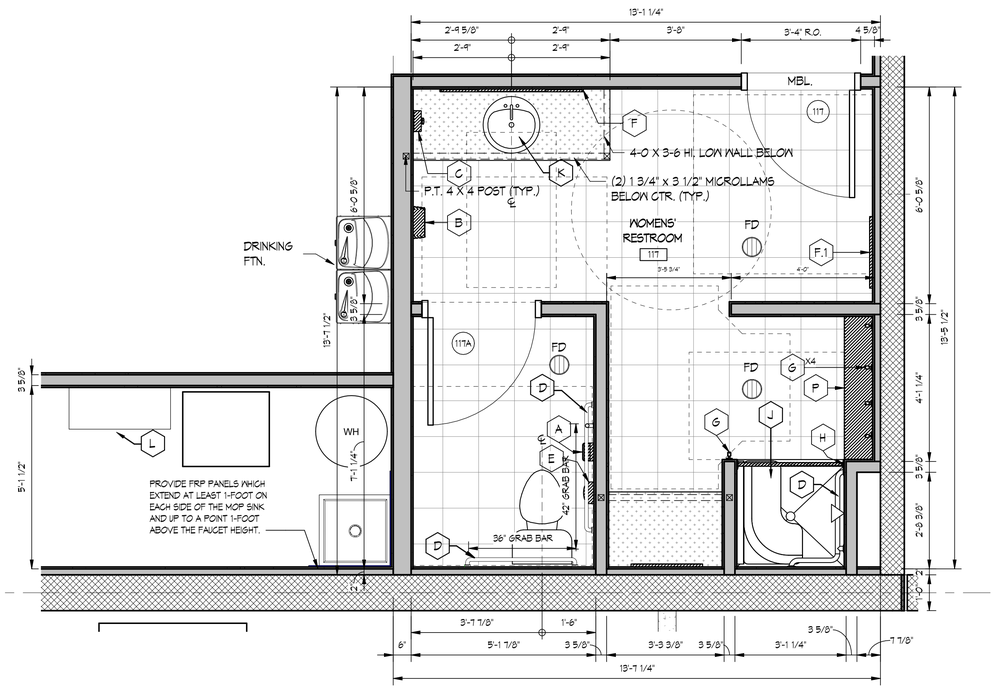
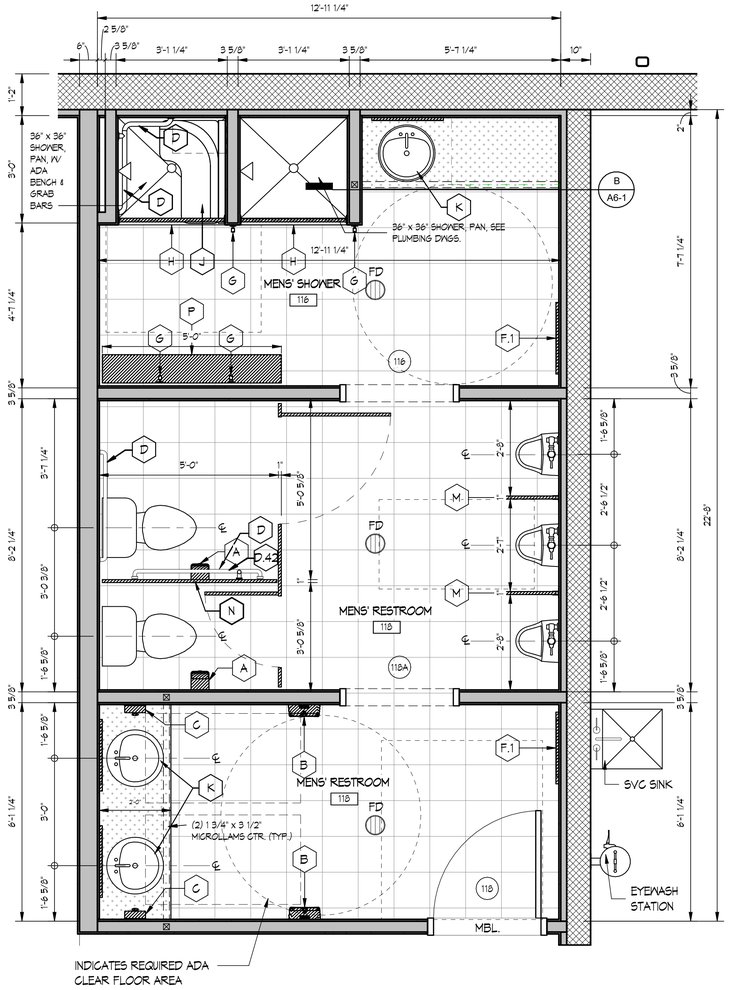


1 ENLARGED TOILET ROOM PLANS, #105 & 106
SCALE: 1/2" = 1'-0"



2 ENLARGED WOMENS ROOM 117 PLAN
SCALE: 1/2" = 1'-0"



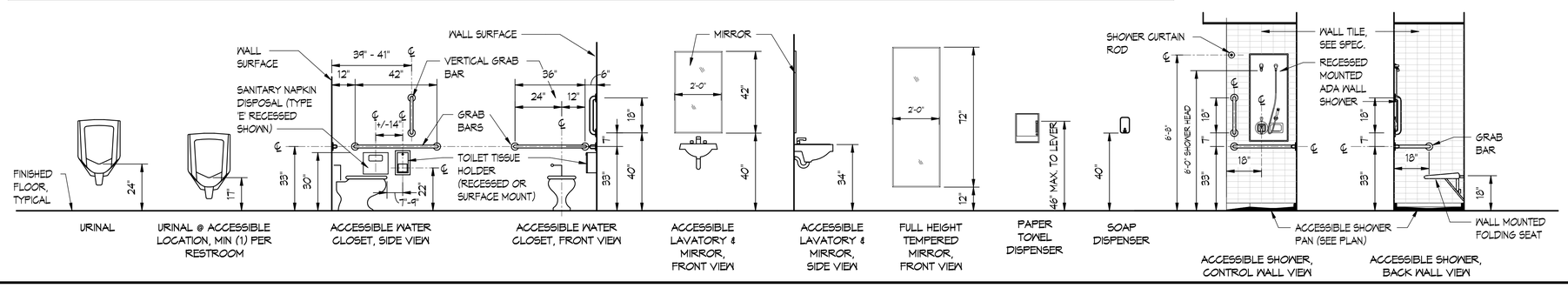
3 ENLARGED MENS ROOM 118 PLAN
SCALE: 1/2" = 1'-0"

TOILET ROOM ACCESSORY SCHEDULE:

MARK	ACCESSORY	MANUF.	CAT. NUMBER	REMARKS
A	RECESSED TOILET TISSUE DISPENSER	ASI	20031	DUAL-ROLL, THEFT RESISTANT, TUMBLER LOCK.
B	SURFACE MOUNTED, PAPER TOWEL DISPENSER	ASI	8522	STAINLESS STEEL, ROLL DISPENSER
C	HORIZONTAL, SURFACE-MOUNTED, LIQUID SOAP DISPENSER	ASI	20363	VANDAL RESISTANT, TUMBLER LOCK
D	CONCEALED MOUNTING GRAB BAR W/ SNAP FLANGE COVER	ASI	3800, 18", 36" OR 42"	1-1/2" DIA., 22 GA. STAINLESS STEEL
E	ROVAL, RECESSED SANITARY NAPKIN DISPOSAL	ASI	20470	HEAVY DUTY, 22 GA. STAINLESS STEEL
F	STAINLESS STEEL FRAMED, PLATE-GLASS MIRROR	ASI	0600-A2442	18 GA. STAINLESS STEEL
F.1	STAINLESS STEEL FRAMED, FULL HEIGHT, PLATE-GLASS MIRROR	ASI	0600-B2472	18 GA. STAINLESS STEEL
G	CONCEALED MOUNTING, HEAVY DUTY ROBE HOOK	ASI	0751	POLISHED CHROME-PLATED BRASS
H	CONCEALED MOUNTING, SHOWER CURTAIN ROD + CURTAIN	ASI	1224-36 AND 1260-V	1" DIA., 20 GA. STAINLESS STEEL; 10 GA VINYL CURTAIN
J	33-INCH WIDE, L-SHAPED PHENOLIC FOLD-UP SHOWER SEAT	ASI	8206-L	ONE PIECE SOLID SEAT, COLOR WHITE
K	UNDERLAVATORY GUARD	TRUEBRO	LAV GUARD 2	ANTIMICROBAL, MOLDED PLASTIC, WHITE
L	34-INCHES LONG, MOP SHELF WITH (4) HOOKS, (3) HOLDERS	ASI	1308-3	SURFACE MOUNTED, STAINLESS STEEL
M	FLOOR MOUNTED URINAL PRIVACY SCREEN	SEE SPECIFICATIONS		STAINLESS STEEL
N	FLOOR MOUNTED, OVERHEAD BRACED TOILET PARTITION	SEE SPECIFICATIONS		STAINLESS STEEL, 1" THK., CONTINUOUS. BRACKETS
P	1-1/4" THK. x 9-1/2" W. PEDESTAL HARDWOOD BENCH	SEE SPECIFICATIONS		PROVIDE (2) 10 GA. TUBULAR STEEL PEDESTALS

ACCESSORY NOTES:

1. ALL TOILET PARTITIONS TO BE STAINLESS STEEL, SATIN FINISH.
2. TOILET PARTITION HARDWARE TO BE OPTIONAL CAST STAINLESS STEEL, 18-8S, TYPE 304, HEAVY DUTY, INSTITUTIONAL HARDWARE. PROVIDE CONTINUOUS BRACKETS AT WALLS.
3. TUMBLER LOCKS FOR TOILET ROOM ACCESSORIES SHALL BE KEYED ALIKE.
4. ALL TOILET ROOM ACCESSORIES SHALL BE TYPE 304 SATIN STAINLESS STEEL UNLESS NOTED OTHERWISE.
5. COORDINATE SPECIFIED TOILET ROOM ACCESSORIES W/ TOILET PARTITION SUPPLIER TO PROVIDE REINFORCEMENT, CUT- OUT, ETC. AT INDICATED LOCATIONS AND HEIGHTS.
6. MANUFACTURER AND CATALOG NUMBERS ARE LISTED IN THE SCHEDULE TO ESTABLISH A "BASIS OF DESIGN." SUBSTITUTIONS MAY BE PERMITTED SUBJECT TO THE REQUIREMENTS LISTED IN DIVISION 1 SPECIFICATIONS.
7. PROVIDE PIPE INSULATION COVER FOR ALL EXPOSED PIPING BENEATH LAVATORIES (HW,CW, SANITARY.) PROVIDE UNDERLAVATORY GUARD PER SPECIFICATION. SEE PLUMBING DWGS. FOR ADDITIONAL INFORMATION.



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BUILDING REPLACEMENT
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CAPE MAY, NEW JERSEY 08204

DWG. TITLE
ENLARGED TOILET ROOM PLANS

CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND FIELD CONDITIONS PRIOR TO STARTING CONSTRUCTION

J. Blm
GERALD S. BLACKMAN, JR.
NJ LICENSE #21713

NO.	DESCRIPTION	DATE

REVISION SCHEDULE

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CHECKED BY:	JSB
DATE:	10-28-2025
SCALE:	As indicated
JOB NO.	1862.11

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ROOM FINISH SCHEDULE

ROOM #	WINDOW SIZE	FLOOR MATERIAL	FLOOR COLOR	BASE TYPE	BASE COLOR	WALLS NORTH	WALLS EAST	WALLS SOUTH	WALLS WEST	WALLS COLOR	CEILING MATERIAL	CEILING COLOR	CEILING HEIGHT	REMARKS
101	PUBLIC ENTRY	2		8		11	11	11	11		16		9'-0"	
102	EMPLOYEE ENTRY	2		8		11	11	11	11		15		9'-0"	
103	RECEPTION	4		8		11	11	11	11		16		9'-0"	
104	CORRIDOR	3		8		11	11	11	11		16		9'-0"	
105	TOILET ROOM	3		8		11	11	11	11		16		9'-0"	CT-1 FLOOR AND BASE
106	TOILET ROOM	3		8		11	11	11	11		16		9'-0"	CT-1 FLOOR AND BASE
107	SUPPLY CLOSET	3		8		11	11	11	11		16		9'-0"	
108	BREAKROOM	3		8		11	11	11	11		16		9'-0"	CT-2 BACKSPLASH AT COUNTER
109	GENERAL OFFICE	4		8		11	11	11	11		16		9'-0"	
110	OFFICE #2	4		8		11	11	11	11		16		9'-0"	
111	UTILITIES	3		8		11	11	11	11		15		12'-0"	
112	FILE ARCHIVE	3		8		11	11	11	11		16		9'-0"	
113	CONFERENCE ROOM	4		8		11	11	11	11		16		9'-0"	
114	TRAINING ROOM	3		8		11	11	11	11		16		10'-0"	
114A	ENTRY	2		8		11	11	11	11		16		9'-0"	
115	JANITORS CLOSET	3		8		11	11	11	11		16		10'-0"	
116	MEN'S SHOWER	5		9		11	11	11	11		16		9'-0"	ET-1 FLOOR AND BASE; CT-2 SHOWER WALLS
117	WOMENS' RESTROOM	5		9		11	11	11	11		16		9'-0"	ET-1 FLOOR AND BASE; CT-2 SHOWER WALLS
118	MENS' RESTROOM	5		9		11	11	11	11		16		9'-0"	ET-1 FLOOR AND BASE
119	SIGN SHOP	7		10		12	12	12	12		11		12'-0"	
120	CORRIDOR	3		8		11	11	11	11		16		9'-0"	
121	SIGN SHOP STORAGE	7		10		12	12	12	12		11		8'-9"	
122	MEZZANINE	13/6		8		11	11	11	11		15		9'-0"	PROVIDE RUBBER STAIR ACCESSORIES FOR STAIRS

PARTITION TYPES SCHEDULE

PARTITION			
CONSTRUCTION	5/8" GWB EACH SIDE OF 3-5/8" OR 6" MTL. STUDS AT 16" O/C W/ FULL THICKNESS SOUND ATTENUATION BATT INSULATION IN ALL STUD CAVITIES. SEAL ALL JOINTS AND PENETRATIONS.	8" CMU W/ HORIZONTAL JOINT REINFORCING AT EVERY OTHER COURSE (16" O.C. VERT. SPACING.	5/8" GWB ON 2" MTL. "Z" FURRING (24" O/C SPACING) ON CMU WALL TYPE 2 OR 12-INCH CMU EXTERIOR WALLS. SEAL ALL JOINTS AND PENETRATIONS.
SYMBOL	1 — 3 5/8 " MTL. STUDS; 1.1 — 6" MTL. STUDS	2	3
TYPE	TYP. NOT RATED	CMU PARTITION	FURRED PARTITION NOT FIRE RATED
UL DES. NO.	----	----	----

PARTITION NOTES:

1. ALL PARTITION TO BE NON-FIRE RATED, NON-COMBUSTIBLE TYPE SHOWN AS UNLESS OTHERWISE NOTED.
2. SEE ROOM FINISH SCHEDULE FOR APPLIED FINISHES.
3. ALL NON-FIRE RATED PARTITIONS FRAMING TO BE CONTINUOUS TO UNDERSIDE OF ROOF TRUSS ABOCE AND ALL GWB WALL FINISH TO BE CONTINUOUS TO BOTTOM OF ROOF TRUSS ABOVE (UNO), OR GWB CEILING.
4. ALL SOUND ATTENUATING BATT INSULATION SHOWN TO BE "USG THERMAFIBER" TYPE SAFB OF SIMILAR.
5. OMIT SOUND ATTENUATING BATT INSULATION AT PARTITIONS DESIGNATED WITH "a".
6. PARTITIONS W/ DESIGNATION "b" TO RECEIVE MOISTURE RESISTANT GWB AT BACKSPLASH, TOILET ROOM, LOCKER ROOM OR JANITORS CLOSET
7. PARTITIONS W/ DESIGNATION "C" TO REVEICE TILE BACKER BOARD AND FULL HEIGHT WALL TILE AT BACKSPLASH OR SHOWER SIDE OF THE PARTITION.

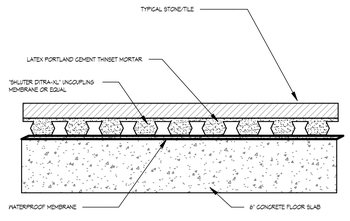
ROOM FINISH SCHEDULE LEGEND:

1. RESINOUS FLOORING OVER CONCRETE FLOOR SLAB-ON-GRADE W/ 4" INTEGRAL BASE
2. WALK-OFF ENTRY MAT OVER CONCRETE FLOOR SLAB-ON-GRADE
3. VINYL COMPOSITION FLOOR TILE (VCT) OVER CONCRETE FLOOR SLAB-ON-GRADE.
4. CARPET TILES OVER CONCRETE FLOOR SLAB-ON-GRADE.
5. PORCEILAIN FLOOR TILES OVER CONCRETE FLOOR SLAB
6. RUBBER STAIR TREADS, LANDING OR FLOORING OVER WOOD=FRAMED STRAIRS.
7. UNFINISHED CONCRETE FLOOR SLAB W/ CLEAR SEALER AND HARDENER. FILL CRACK W/ EPOXY PRIOR TO SEALING
8. RUBBER WALL BASE, 4-INCH HI. X 1/8-INCH THICK
9. PORCELAIN TILE BASE
10. NO BASE TO BE PROVIDED
11. PAINTED FINISH OVER GWB. TWO FINISH COATS OVER ONE PRIME COAT
12. PAINTED FINISH OVER CMU. ONE FINISH COAT OVER ONE COAT BLOCK FILLER.
13. UNFINISHED; PLYWOOD SUB-FLOOR TO BE EXPSOED.
14. ALUMINUM AND GLASS STOREFRONT SYSTEM
15. 2 X 2 ACOUTSIC CEILING TILE STYSTEM (ACT)
16. 2 X 4 ACOUSTIC CELING TILE SYSTEM (ACT

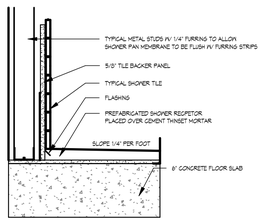
ROOM FINISH SCHEDULE NOTES:

1. SEE REFLECTED CEILING PLAN FOR LAYOUT OF GWB SOFFITS AND ACT CEILING
2. SEE SPECIFICATION FOR ADDITIONAL INFORMATION

SHOWER DETAILS:



1 TILE FLOOR



2 TILE AT SHOWER

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PROJECT NORTH

PROJECT
LOWER TOWNSHIP PUBLIC WORKS
BUILDING REPLACEMENT
771 SEASHORE ROAD
CAPE MAY, NEW JERSEY 08204

DWG. TITLE
SCHEDULES

CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND FIELD CONDITIONS PRIOR TO STARTING CONSTRUCTION

J. Blackman

GERALD S. BLACKMAN, JR.
NJ LICENSE #21113

NO.	DESCRIPTION	DATE
1	ISSUED FOR BIDDING	10-28-2025
NO.	DRAWING SET ISSUE	DATE

REVISION SCHEDULE

DRAWN BY: ANN
CHECKED BY: BJW
DATE: 10-28-2025
SCALE: As indicated

JOB NO. 1862.11

A5-1

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DOOR SCHEDULE

DOOR #	ROOM FROM	ROOM TO	DOOR SIZE	DOOR TYPE	DOOR THICKNESS	DOOR MATERIAL	DOOR FINISH	FRAME TYPE	FRAME MATERIAL	FRAME FINISH	FRAME HEAD	FRAME JAMB	FRAME THRESHOLD	FIRE RATING (IN MINUTES)	HARDWARE SET	REMARK
101	EXTERIOR	PUBLIC ENTRY - 101	3'-0" X 7'-0"	A	1 3/4"	ALUM	AN	S1	ALUM	AN	-	-	ALT	-	1.0	GL-1 GLAZING. SEE STOREFRONT DETAILS.
101A	PUBLIC ENTRY - 101	CORRIDOR -104	3'-0" X 7'-0"	C	1 3/4"	WD	STD	AA	HM	PTD	1	3	ALT	-	4.0	GL-2 GLAZING.
102	EXTERIOR	CORRIDOR - 102	3'-0" X 7'-0"	A	1 3/4"	ALUM	AN	S1	ALUM	AN	-	-	ALT	-	1.0	GL-1 GLAZING. SEE STOREFRONT DETAILS.
102A	EMPLOYEE ENTRY - 102	CORRIDOR - 104	3'-0" X 7'-0"	C	1 3/4"	WD	STD	AA	HM	PTD	1	3	ALT	-	4.0	GL-2 GLAZING.
103	CORRIDOR	RECEPTION - 103	3'-0" X 7'-0"	C	1 3/4"	WD	STD	CC	HM	PTD	-	-	-	-	6.1	GL-2 GLAZING. SEE FRAME ELEVATIONS FOR DETAILS.
104	NOT USED	NOT USED		-	-	-	-	-	-	-	-	-	-	-	-	
105	CORRIDOR	TOILET ROOM - 105	3'-0" X 7'-0"	B	1 3/4"	WD	STD	AA	HM	PTD	1	3	MBL	-	8.0	
106	CORRIDOR	TOILET ROOM - 106	3'-0" X 7'-0"	B	1 3/4"	WD	STD	AA	HM	PTD	1	3	MBL	-	8.0	
107	CORRIDOR	SUPPLY CLOSET - 107	3'-0" X 7'-0"	B	1 3/4"	WD	STD	AA	HM	PTD	1	3	-	-	6.1	
108	CORRIDOR	BREAKROOM - 108	3'-0" X 7'-0"	-	-	-	-	AA	HM	PTD	6	8	-	-	-	CASED OPENING.
108A	NOT USED	NOT USED		-	-	-	-	-	-	-	-	-	-	-	-	
109	CORRIDOR	GENERAL OFFICE - 109	3'-0" X 7'-0"	C	1 3/4"	WD	STD	CC	HM	PTD	-	-	-	-	6.0	GL-2 GLAZING. SEE FRAME ELEVATIONS FOR DETAILS.
109A	GENERAL OFFICE -109	CLOSET	3'-0" X 7'-0"	B	1 3/4"	WD	STD	AA	HM	PTD	1	3	-	-	7.0	
110	CORRIDOR	OFFICE #2 - 110	3'-0" X 7'-0"	C	1 3/4"	WD	STD	CC	HM	PTD	-	-	-	-	6.0	GL-2 GLAZING. SEE FRAME ELEVATIONS FOR DETAILS.
111	CORRIDOR	UTILITES - 111	3'-0" X 7'-0"	B	1 3/4"	WD	STD	AA	HM	PTD	1	3	-	-	6.1	
112	CORRIDOR	FILE ARCHIVE - 112	3'-0" X 7'-0"	B	1 3/4"	WD	STD	AA	HM	PTD	1	3	-	-	6.1	
113	CORRIDOR	CONFERENCE - 113	3'-0" X 7'-0"	C	1 3/4"	WD	STD	CC	HM	PTD	-	-	-	-	6.0	GL-2 GLAZING. SEE FRAME ELEVATIONS FOR DETAILS.
113A	CONFERENCE - 113	EXTERIOR	3'-0" X 7'-0"	B	1 3/4"	HMG	PTD	BB	HMG	PTD	15	16	ALT	-	11.0	4" HEAD.
114	CORRIDOR	TRAINING ROOM - 114	3'-0" X 7'-0"	C	1 3/4"	WD	STD	AA	HM	PTD	2	4	-	-	2.0	GL-2 GLAZING.
114A	TRAINING ROOM - 114	EXTERIOR	3'-0" X 7'-0"	A	1 3/4"	ALUM	AN	S1	ALUM	AN	-	-	ALT	-	1.0	GL-1 GLAZING. SEE STOREFRONT DETAILS.
114B	TRAINING ROOM - 114	ENTRY - 114A	3'-0" X 7'-0"	-	-	-	-	AA	HM	PTD	5	7	ALT	-	-	CASED OPENING.
114C	ENTRY - 114A	EXTERIOR	3'-0" X 7'-0"	B	1 3/4"	HMG	PTD	BB	HMG	PTD	15	16	ALT	-	10.0	4" HEAD.
115	TRAINING ROOM	JANITORS CLOSET - 115	3'-0" X 7'-0"	B	1 3/4"	WD	STD	AA	HM	PTD	1	3	-	-	6.1	
116	MEN'S RESTROOM	MEN'S SHOWER	3'-0" X 7'-0"	-	-	-	-	AA	HM	PTD	5	7	-	-	-	CASED OPENING.
117	CORRIDOR	WOMENS REST. - 117	3'-0" X 7'-0"	B	1 3/4"	WD	STD	AA	HM	PTD	1	3	MBL	-	9.0	
117A	WOMENS RESTROOM	WOMENS RESTROOM	3'-0" X 7'-0"	B	1 3/4"	WD	STD	AA	HM	PTD	1	3	-	-	8.1	
118	CORRIDOR	MENS' REST. - 118	3'-0" X 7'-0"	B	1 3/4"	WD	STD	AA	HM	PTD	1	3	MBL	-	9.0	
118A	MENS RESTROOM	MENS' RESTROOM	3'-0" X 7'-0"		-	-	-	AA	HM	PTD	5	7	-	-	-	CASED OPENING.
119	NOT USED	NOT USED	---	-	-	-	-	-	-	-	-	-	-	-	-	
119A	SIGN SHOP - 119	EXTERIOR	3'-0" X 7'-0"	B	1 3/4"	HMG	PTD	BB	HMG	PTD	21	22	ALT	-	10.0	4" HEAD.
119B	SIGN SHOP - 119	EXTERIOR	10'-0" X 8'-0"	D	2"	STL	FAC	-	-	-	17	18	-	-	-	OVERHEAD DOOR; INSULATED. PROVIDE GALV. STL. CHANNEL JAMBS.
120	CORRIDOR - 120	SIGN SHOP - 119	3'-0" X 7'-0"	C	1 3/4"	HM	PTD	BB	HM	PTD	13	14	ALT	-	3.0	4" HEAD, GL-2 GLAZING
121	SIGN SHOP - 119	SHOP STORAGE - 121	3'-0" X 7'-0"	B	1 3/4"	HM	PTD	DD	HM	PTD	13	14	-	-	5.0	DOUBLE DOORS; 4" HEAD.

DOOR SCHEDULE LEGEND:

ALUM	- ALUMINUM
ALT	- MILL-FINISH ALUMINUM THRESHOLD, 1/2 INCH HI. MAX.
AN	- ANODIZED FINISH, CLASS 1
FAC	- FACTORY APPLIED FINISH, BAKED-ON POLYESTER COATING OR POWDER COAT FINISH
CO	- CASED OPENING
HM	- HOLLOW METAL
HMG	- HOLLOW METAL GALVANIZED STEEL
FT	- CLEAR TEMPERED SAFETY GLASS (SEE SPEC FOR GLAZING TYPES)
MBL	- MARBLE THRESHOLD, 1/2-INCH HI. MAX, W/ 1:2 BEVELED EDGES
PTD	- PAINTED FINISH
STD	- STAINED AND SEALED FINISH
STL	- STEEL WITH FACTORY FINISH.
WD	- WOOD, SOLID CORE, FLUSH DOOR

DOOR SCHEDULE NOTES:

(1) ALL HOLLOW METAL DOORS AND FRAMES TO BE PAINTED TO MATCH WALL SURFACES.

(2) ALL WOOD DOORS TO BE FACTORY FINISHED .

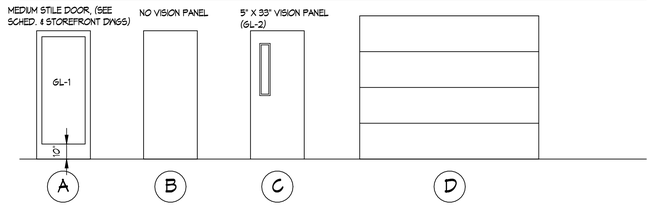
(3) ALL INTERIOR DOOR FRAMES TO RECEIVE DOOR SILENCERS.

(4) DO NOT PAINT LABELS AFFIXED TO FIRE-RATED DOORS OR FRAMES.

(5) ALL THRESHOLDS TO BE PLACED IN A FULL BED OF ELASTOMERIC SEALANT.

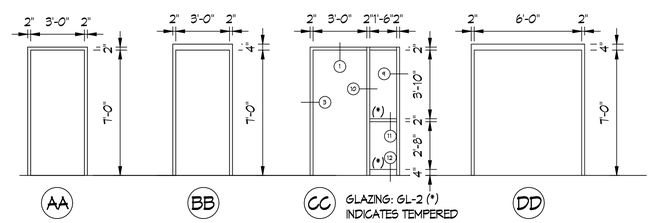
(6) SEE DRAWINGS A5-3 FOR DOOR FRAME DETAILS.

DOOR TYPES:



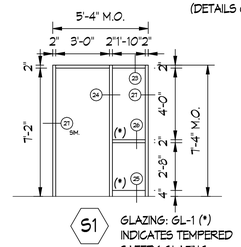
DOOR FRAME TYPES:

(DETAILS ON A5-3)



STOREFRONT FRAME ELEVATIONS:

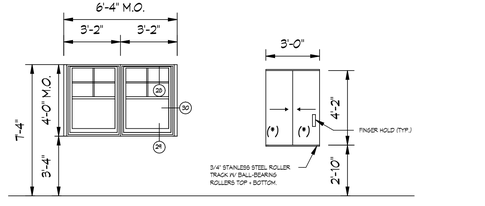
(DETAILS ON A5-3)



WINDOW SCHEDULE

DESIGNAT.	MANUF./ MODEL NUMBER	WINDOW SIZE	QUANTITY	HEAD HT.	FRAME HEAD	FRAME SILL	FRAME JAMB	REMARKS
W1	SEE SPECIFICATIONS	6' 4" X 4' 0" M.O.	10	7' - 4" AFF	28	29	30	GLAZING GL-1, DOUBLE HUNG
W2	-	3' 0" X 4' 2" R.O.	2	7' - 0" AFF	-	-	-	SLIDING TRANSACTION WINDOW, GLAZING GL-2. SEE DWG A6-2 FOR DETAILS.

WINDOW FRAME ELEVATIONS:

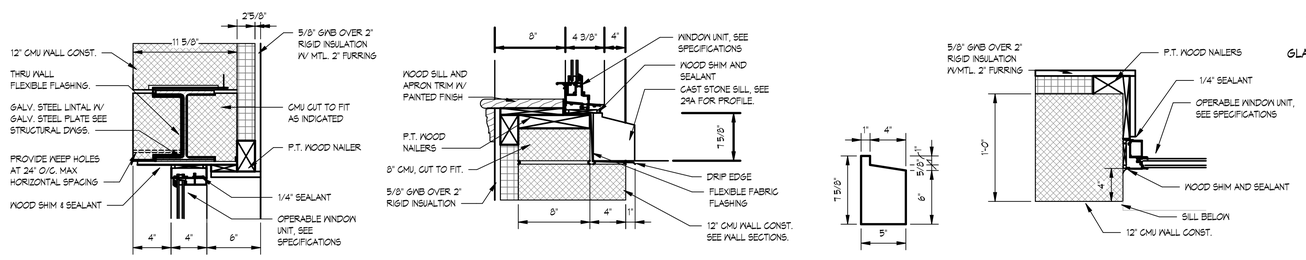


GLAZING TYPES:

GL-1 : 1" INSULATED GLAZING W/ LOW-E COATING.

GL-2 : 1/4" CLEAR, TEMPERED, SAFETY GLAZING.

WINDOW DETAILS:



28 HEAD

29 SILL

29A CAST SILL PROFILE

30 JAMB

NOTE: GALVANIZED STL. LINTELS TO RECEIVE PAINTED FINISH AT EXPOSED PARTITIONS.

NO.	DRAWING SET ISSUE	DATE
1	ISSUED FOR BIDDING	10-28-2025

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PROJECT NORTH

PROJECT
LOWER TOWNSHIP PUBLIC WORKS
BUILDING REPLACEMENT
771 SEASHORE ROAD
CAPE MAY, NEW JERSEY 08204

DWG. TITLE
DOOR SCHEDULES AND DETAILS

CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND FIELD CONDITIONS PRIOR TO STARTING CONSTRUCTION

J. Blackman
GERALD S. BLACKMAN JR.
NJ LICENSE #17113

NO	DESCRIPTION	DATE

REVISION SCHEDULE

DRAWN BY:	ANN
CHECKED BY:	BJW
DATE:	10-28-2025
SCALE:	As indicated

JOB NO. 1862.11

A5-2

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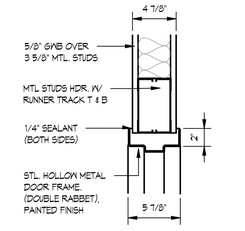
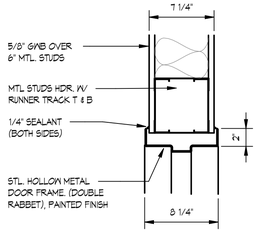
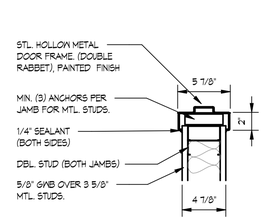
DOOR FRAME DETAILS:



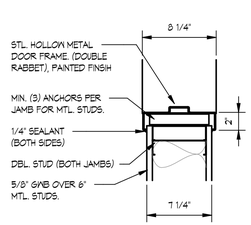
1 HEAD



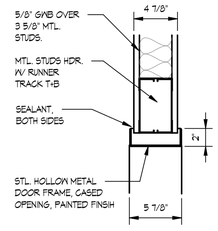
2 HEAD



3 JAMB



4 JAMB



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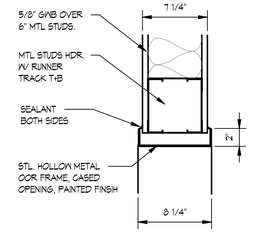

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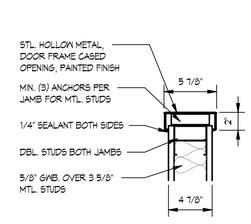
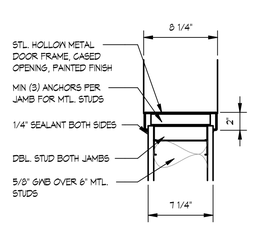


7 JAMB



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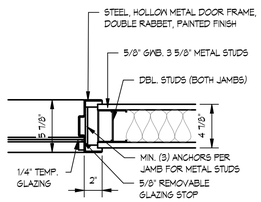

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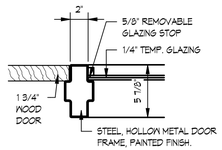

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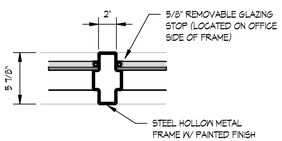

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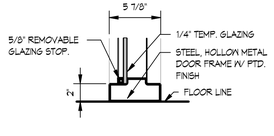

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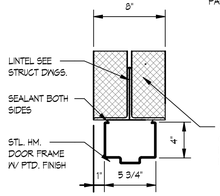

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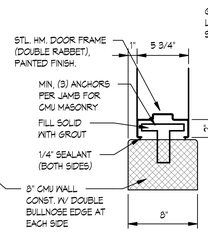
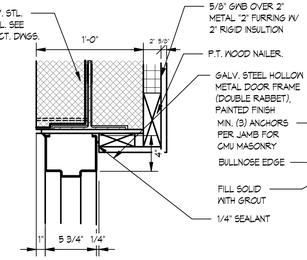


14 JAMB



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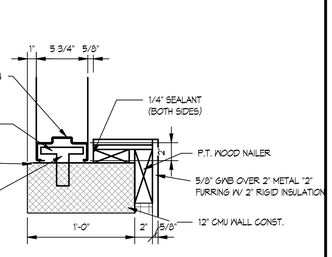

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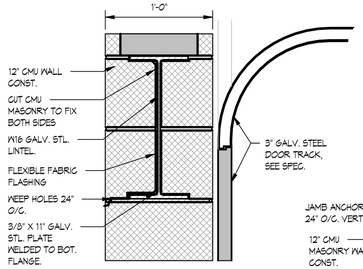
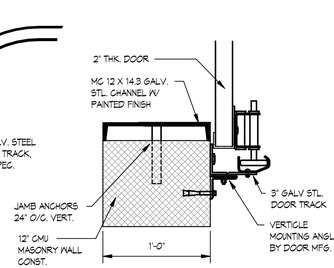


17 HEAD



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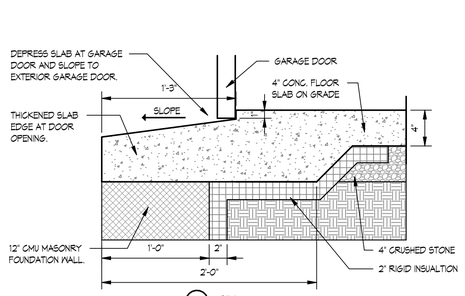

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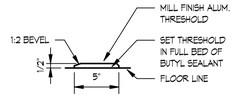
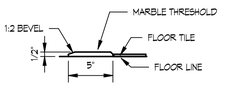


20 THRESHOLD



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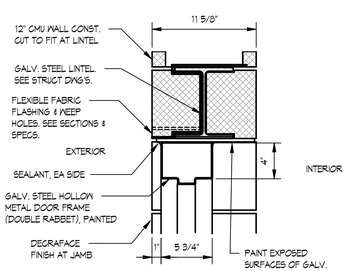
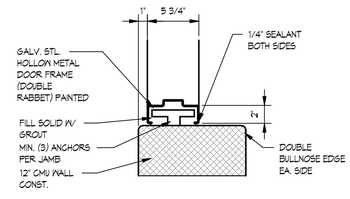
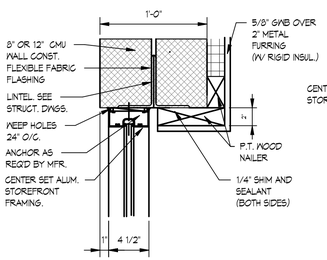


21 HEAD

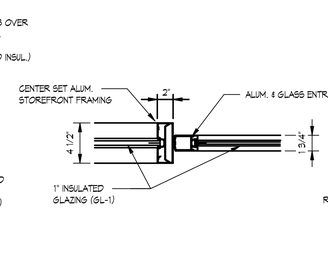


22 JAMB

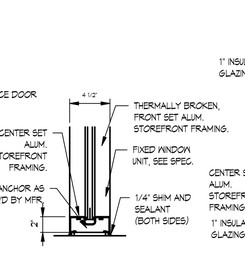
STOREFRONT DETAILS:



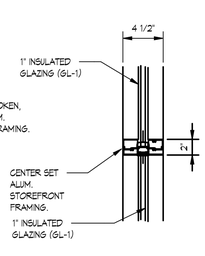
23 HEAD (DOOR HEAD SIMLAR)



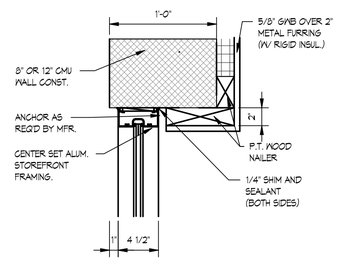
24 VERTICAL MULLION AT DOOR



25 MULLION AT FLOOR



26 HORIZONTAL MULLION



27 JAMB MULLION (DOOR JAMB SIMLAR)

NO.	DRAWING SET ISSUE	DATE
1	ISSUED FOR BIDDING	10-28-2025

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FAX: (856)-854-0993
WEB: www.oskdp.com
FOUNDER: JOHN J. OLIVERI (1956-1999)
PRINCIPAL: PAUL A. KISS, AIA, PP, NCARB — SENIOR ASSOCIATE: DANIEL A. SHOUSKY, AIA, PP, NCARB
PARTNER: GERALD S. BLACKMAN, JR AIA, PP, NCARB — SENIOR ASSOCIATE: STEVEN J. BOLOGNO, AIA
PARTNER: BRAD WAMPLER, AIA, NCARB, LEED AP — SENIOR ASSOCIATE: JAMES G. ELLIOTT, AIA, NCARB, LEED AP
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PROJECT NORTH

PROJECT
LOWER TOWNSHIP PUBLIC WORKS
BUILDING REPLACEMENT
771 SEASHORE ROAD
CAPE MAY, NEW JERSEY 08204

DWG. TITLE
DOOR AND STOREFRONT DETAILS

CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND FIELD CONDITIONS PRIOR TO STARTING CONSTRUCTION

J. Blackman
GERALD S. BLACKMAN, JR.
NJ. LICENSE #17113

NO	DESCRIPTION	DATE
	REVISION SCHEDULE	

DRAWN BY:	ANN
CHECKED BY:	BJW
DATE:	10-28-2025
SCALE:	1 1/2" = 1'-0"

JOB NO. 1862.11

A5-3

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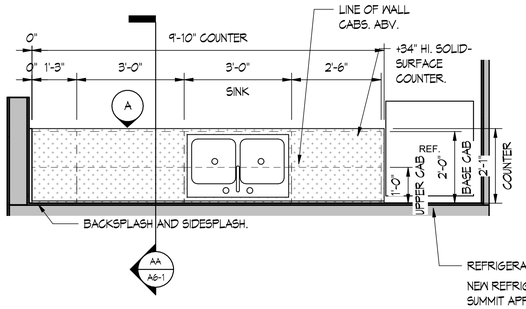
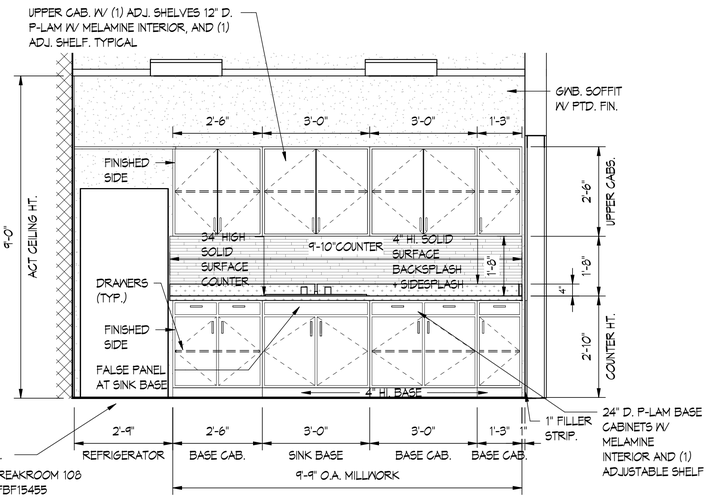
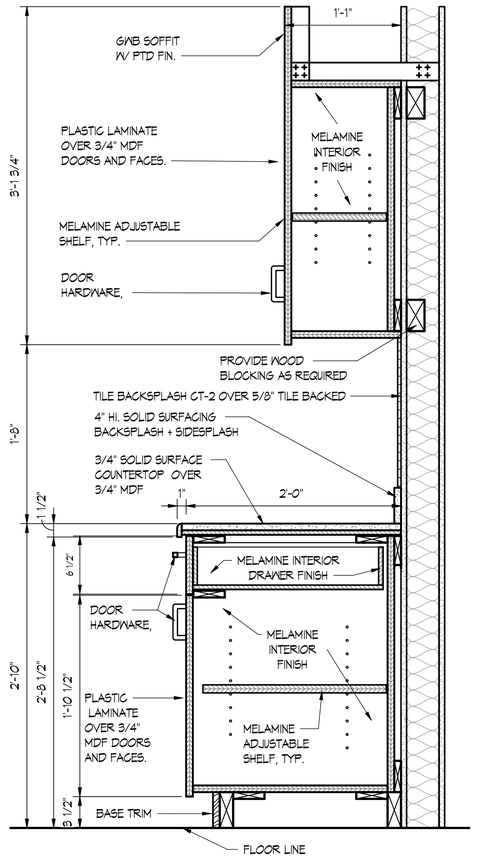
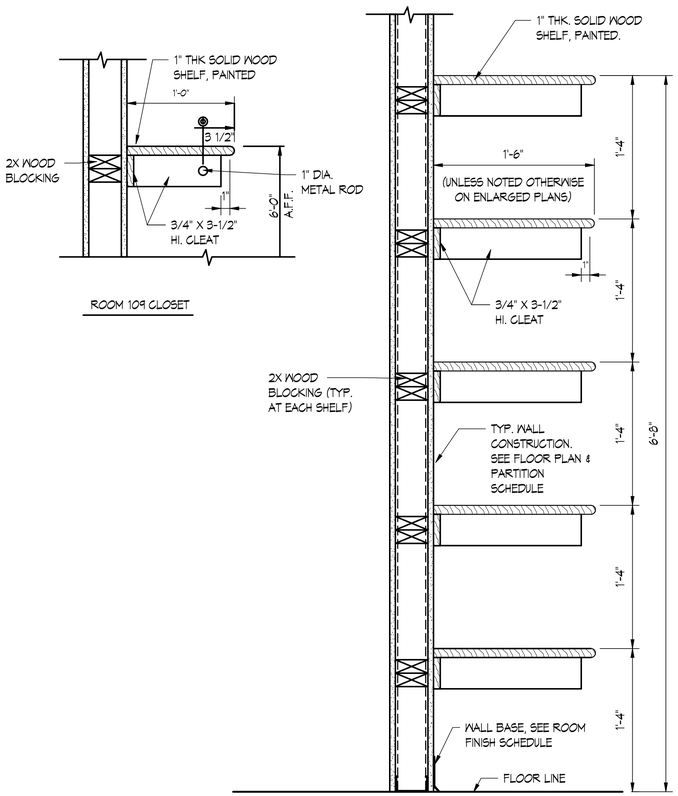




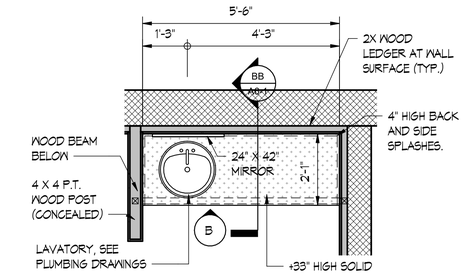


1 BREAKROOM PLAN - ROOM 108
SCALE: 1/2" = 1'-0"

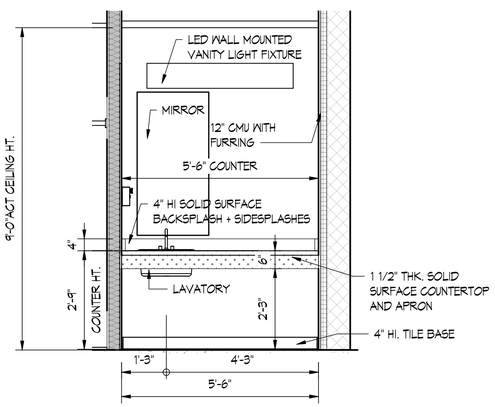
A BREAKROOM ELEVATION - ROOM 108
SCALE: 1/2" = 1'-0"



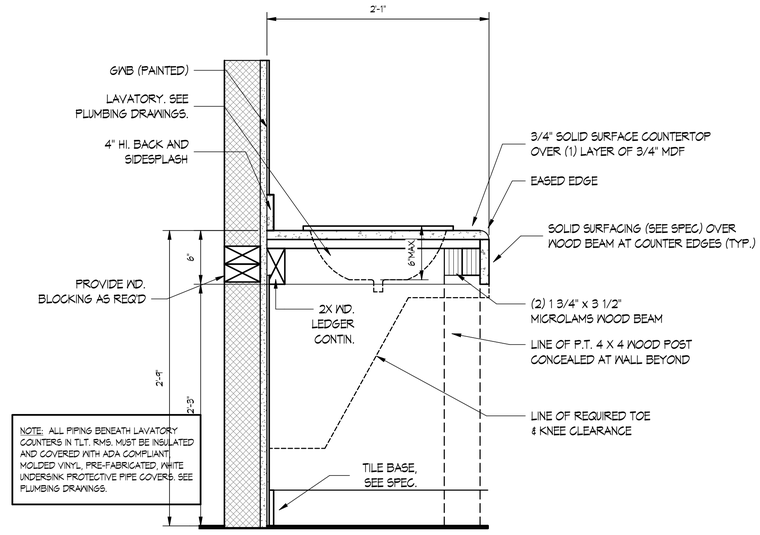
2 ROD & SHELF DETAIL - ROOM 107
SCALE: 1 1/2" = 1'-0"



3 TOILET ROOM SINK-COUNTER PLAN - ROOM 116
SCALE: 1/2" = 1'-0"
(ROOM 117, 118 SIMILAR)



B TOILET ROOM SINK-COUNTER ELEVATION
SCALE: 1/2" = 1'-0"



BB TOILET ROOM COUNTER SECTION DETAIL
SCALE: 1 1/2" = 1'-0"

NO.	DRAWING SET ISSUE	DATE
1	ISSUED FOR BIDDING	10-28-2025

OSK DESIGN PARTNERS, PA
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PRINCIPAL: PAUL A. KISS, AIA, PP, NCARB
PARTNER: GERALD S. BLACKMAN, JR AIA, PP, NCARB
PARTNER: BRAD WAMPLER, AIA, NCARB, LEED AP
SENIOR ASSOCIATE: STEVEN J. BOLOGNO, AIA
SENIOR ASSOCIATE: ALISON E. HEASLEY, AIA, NCARB
SENIOR ASSOCIATE: JAMES G. ELLIOTT, AIA, NCARB, LEED AP
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PROJECT
LOWER TOWNSHIP PUBLIC WORKS
BUILDING REPLACEMENT
771 SEASHORE ROAD
CAPE MAY, NEW JERSEY 08204

DWG. TITLE
MILLWORK PLANS, ELEVATIONS & DETAILS

CONTRACTOR SHALL CHECK ALL DIMENSIONS AND FIELD VERIFY ALL DIMENSIONS AND FIELD CONDITIONS PRIOR TO STARTING CONSTRUCTION

J. Blackman

GERALD S. BLACKMAN, JR.
NJ LICENSE #21113

NO.	DESCRIPTION	DATE

REVISION SCHEDULE

DRAWN BY:	ANN
CHECKED BY:	JSB
DATE:	10-28-2025
SCALE:	As indicated

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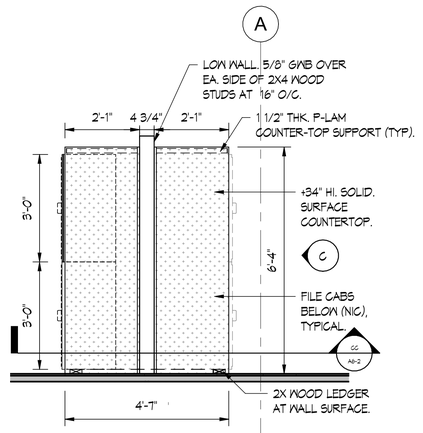
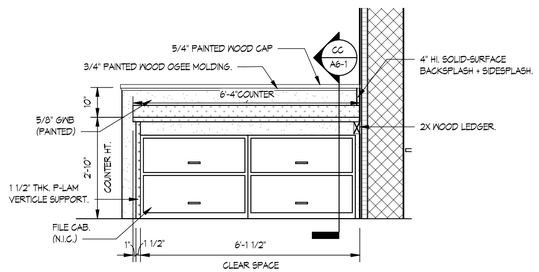
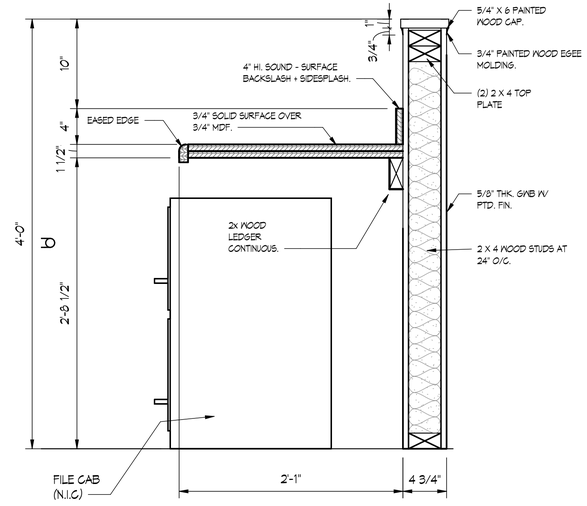


4 FLOOR PLAN - RECEPTION 103
SCALE: 1/2" = 1'-0"



C MILLWORK ELEVATION - RECEPTION 103
SCALE: 1/2" = 1'-0"



CC MILLWORK - RECEPTION 103
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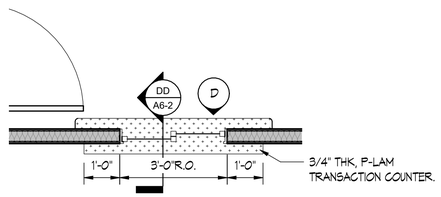
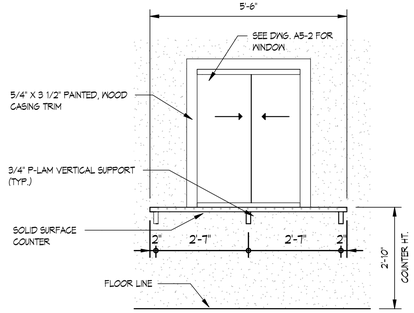
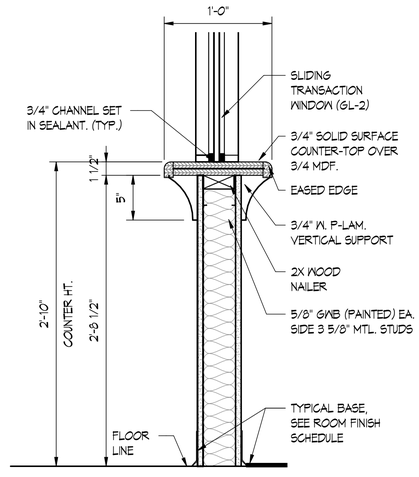


5 TRANSACTION WINDOW PLAN - RECEPTION 103
SCALE: 1/2" = 1'-0"
(TWO LOCATIONS AT ROOM 103)



D TRANSACTION WINDOW ELEVATION - RECEPTION 103
SCALE: 1/2" = 1'-0"



DD TRANSACTION WINDOW DETAIL - RECEPTION 103
SCALE: 1 1/2" = 1'-0"

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CAPE MAY, NEW JERSEY 08204

DWG. TITLE
MILLWORK PLANS, ELEVATIONS & DETAILS

CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND FIELD CONDITIONS PRIOR TO STARTING CONSTRUCTION

J. Blm
GERALD S. BLACKMAN, JR.
NJ LICENSE #17113

NO	DESCRIPTION	DATE

REVISION SCHEDULE

DRAWN BY:	ANN
CHECKED BY:	JSB
DATE:	10-28-2025
SCALE:	As indicated

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1. GENERAL NOTES, SYMBOLS LIST AND DETAILS ARE APPLICABLE TO ALL DRAWINGS MARKED P.

2. DRAWINGS ARE DIAGRAMMATIC: DETERMINE LOCATIONS OF SYSTEMS AND COMPONENTS IN FIELD.

3. NEITHER ACCURACY NOR COMPLETION OF UTILITY LOCATIONS SHOWN ON DRAWINGS IS GUARANTEED. DETERMINE EXACT LOCATIONS OF EXISTING UTILITY IN FIELD, WHETHER OR NOT SHOWN ON DRAWINGS. EXERCISE CAUTION AND IDENTIFY LOCATIONS OF UNMARKED UTILITY LINES AS NECESSARY TO PERFORM WORK OF THIS SECTION.

4. ALL PLUMBING WORK SHALL BE IN ACCORDANCE WITH THE CURRENT PLUMBING CODE AND ALL APPLICABLE LOCAL CODES AND DRAWINGS.

5. IT SHALL BE THE RESPONSIBILITY OF THIS CONTRACTOR TO COORDINATE HIS WORK WITH THAT OF ALL OTHER TRADES, INCLUDING (BUT NOT LIMITED TO), ELECTRICAL, HVAC PROCESS PIPING, KITCHEN EQUIPMENT VENDOR, STRUCTURAL AND GENERAL ARCHITECTURE.

6. ANY INTERFERENCE SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER, AND SHALL BE RESOLVED PRIOR TO THE INSTALLATION OF THE WORK INVOLVED.

7. NO WORK SHALL BE INSTALLED IN VIOLATION OF ANY GOVERNING CODES. ANY WORK SHOWN ON THE DRAWINGS WHICH IS IN VIOLATION OF SUCH CODES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND SHALL BE RESOLVED PRIOR TO THE INSTALLATION OF THE WORK INVOLVED.

8. ALL PIPING PENETRATING CEILING AND WALLS SHALL BE INSTALLED WITH CHROME (STAINLESS WHERE NOTED) PLATED ESCUTCHEONS AT THE PENETRATION. ALL PIPING PENETRATING EXTERIOR WALLS AND ROOFS SHALL BE FLASHED IN AN APPROVED MANNER AND SHALL BE SEALED WEATHER TIGHT. PIPING PENETRATING RATED PARTITIONS SHALL BE PROTECTED AS REQUIRD BY LOCAL CODE AUTHORITY.

9. MANUFACTURER'S MODEL NUMBERS ARE SPECIFIED SOLELY TO ESTABLISH STANDARDS OF QUALITY FOR PERFORMANCE AND MATERIALS.

10. PRODUCTION INSTALLATION SHALL ADHERE TO MANUFACTURERS' RECOMMENDATIONS.

11. PROVIDE ACCESS PANELS FOR EQUIPMENT THAT REQUIRES PERIODIC SERVICE.

12. TOPS OF ALL FLOOR DRAINS SHALL BE SET FLUSH WITH FINISHED FLOOR. ALL PIPING ABOVE GRADE SHALL BE PROPERLY SUPPORTED BY THE BUILDING STRUCTURE AND SHALL NOT REST ON CEILING TILES OR CEILING STRUCTURE.

13. CONTRACTOR SHALL COORDINATE ELECTRICAL CHARACTERISTICS AND REQUIREMENTS OF ALL PLUMBING EQUIPMENT WITH THE ELECTRICAL DRAWINGS AND SHALL FURNISH EQUIPMENT WIRED FOR THE VOLTAGES SHOWN HEREIN.

14. CONNECT NEW WORK TO EXISTING WORK IN A NEAT AND ACCEPTABLE MANNER. RESTORE EXISTING DISTURBED WORK TO ITS ORIGINAL CONDITION, INCLUDING MAINTENANCE OF WIRING CONTINUITY AS REQUIRED.

15. CONNECT NEW WORK TO EXISTING WORK WITH MINIMUM INTERFERENCE TO EXISTING FACILITIES. TEMPORARY SHUTDOWNS ARE PERMISSIBLE ONLY WITH WRITTEN CONSENT OF THE OWNER. ALARM AND EMERGENCY SYSTEMS ARE NOT TO BE INTERRUPTED.

16. FIRESTOPPING SHALL BE INSTALLED WHENEVER PIPING CROSSES FIRE RATED PARTITIONS. REFER TO THE ARCHITECTURAL PLANS FOR FIRE RATED PARTITION LOCATIONS. THE FIRESTOPPING SHALL MATCH OR EXCEED THE FIRE RATING OF THE PARTITION PENETRATED. ALL FIRESTOPPING SHALL BE A UL LISTED ASSEMBLY.

17. PROVIDE SHUTOFF VALVES ON ALL BRANCH PIPING AND ON ALL SUPPLIES TO INDIVIDUAL FIXTURES AND EQUIPMENT. PROVIDE BALL VALVES ON ALL WATER MAIN BRANCHES WHERE INDICATED ON DRAWINGS. ALL VALVES SHALL BE ACCESSIBLE.

18. ALL SLEEVES THROUGH CONCRETE FLOORS AND ALL CORE DRILLING OF CONCRETE FLOORS AND WALLS SHALL BE BY THIS CONTRACTOR.

19. COORDINATE ROOF PENETRATIONS WITH WORK OF OTHER SECTIONS AND WITH FLASHING REQUIREMENTS.

20. RUN PIPING CONCEALED IN WALLS AND CEILING CAVITIES, UNLESS SPECIFIED OTHERWISE, AND CLEAR OF CEILING INSERTS.

21. PROVIDE CLAMPS, OFFSETS, EXPANSION JOINTS, ANCHORS AND GUIDES AS NECESSARY TO PREVENT STRESS ON PIPING.

22. PROVIDE BALANCING VALVES AT SYSTEM LOOP RETURNS AND AT RETURN RISERS. PROVIDE SHUT-OFF VALVES AT SYSTEM LOOP SUPPLIES AND SUPPLY RISERS.

23. PROVIDE VENTS AT HIGH POINTS IN PIPING SYSTEMS AND DRAIN VALVES AT LOW POINTS.

24. PROVIDE GAUGE FITTINGS AND THERMOMETER WELLS AT HOT WATER SUPPLY AND RETURN BRANCHES AND AT PUMP INLETS AND OUTLETS.

25. VERIFY EXACT SIZES, LOCATIONS, INVERTS AND ELEVATIONS PRIOR TO RUNNING ANY PIPING. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS OF ALL FIXTURES AND EQUIPMENT.

26. PLUMBING SUBCONTRACTOR IS RESPONSIBLE FOR EXTENDING ALL REGULATOR VENTS TO ATMOSPHERE. REGULATORS ARE PART OF THIS CONTRACTORS SCOPE OF WORK.

27 WATER HEATERS SHALL BE INSTALLED WITH DRAIN PANS UNDER HEATERS. ROUTE PAN DRAINS TO NEAREST FLOOR DRAIN OR SAFE WASTE PIPE LOCATION.

28. PIPING SHALL NOT RUN OVER ELECTRICAL PANELS AND SHALL BE COORDINATED WITH WORK OF OTHER TRADES.

29. ALL NEW PIPING SHALL BE CONCEALED IN CEILING, WALL CAVITIES AND/OR UNDER SLAB, UNLESS OTHERWISE NOTED. EXISTING PIPING TO REMAIN BUT EXPOSED AS A RESULT OF DEMOLITION OPERATIONS SHALL BE RE-ROUTED/MODIFIED FOR CONCEALMENT IN CEILING OR WALL CAVITIES, OR UNDER SLAB, AT NO ADDITIONAL COST TO THE OWNER.

30. CONTRACTOR SHALL INCLUDE PATCHING OF CONCRETE FLOOR DUE TO SAWCUTTING REQUIREMENTS FOR NEW UNDERGROUND PIPING.

31. CONTRACTOR SHALL PROVIDE BACKFLOW PREVENTION DEVICES ON ALL WATER CONNECTED EQUIPMENT AS REQUIRED BY APPLICABLE CODE.

32. PC IS RESPONSIBLE TO PROVIDE ACCESS PANELS FOR ANY CONCEALED PLUMBING WORK THAT MUST BE ACCESSIBLE EITHER BY CODE OR AS INDICATED IN THE DOCUMENTS. ALL ACCESS DOOR LOCATIONS SHALL BE REVIEWED AND APPROVED BY ARCHITECT PRIOR TO INSTALLATION OF DEVICE REQUIRING THE ACCESS PANEL. ALL ACCESS DOORS MUST MATCH THE FIRE RATING AND CONSTRUCTION TYPE OF THE CEILING OR WALL PENETRATION AS DESIGNATED ON THE ARCHITECTURAL DRAWINGS.

33. THE CONTRACTOR SHALL BRING ANY CONFLICTS IN THE DRAWINGS TO THE ATTENTION OF THE ENGINEER DURING THE BIDDING PROCESS. IF NOT BROUGHT UP TO THE ENGINEER DURING THE BIDDING PROCESS THE MORE EXPENSIVE OPTION SHALL BE CHOSEN FOR BIDDING PURPOSES.

34. THE CONTRACTOR SHALL PROVIDE ADJUSTABLE THERMOSTATIC MIXING VALVES FOR ALL HAND SINKS TO LIMIT THE HOT WATER TEMPERATURE COMING OUT OF THE FAUCET TO 105 DEGREES FAHRENHEIT BUT BE ADJUSTABLE UP TO 110 DEGREES FAHRENHEIT AS DIRECTED BY THE CLIENT.

35. THE CONTRACTOR SHALL USE THERMOSTATIC MIXING VALVES THAT COMPLY WITH ASSE STANDARDS. POINT OF USE MIXING VALVES SHALL COMPLY WITH ASSE 1070-2020 OR 1069-2020. MANIFOLD MIXING VALVES SHALL COMPLY WITH ASSE 1069-2020. FACILITY WATER DISTRIBUTION MIXING VALVES SHALL COMPLY WITH ASSE 1017-2009. EMERGENCY EYEWASH / SHOWER MIXING VALVES SHALL COMPLY WITH ASSE 1071-2012.

36. THE CONTRACTOR SHALL PROVIDE COVERS FOR ALL PIPING ABOVE AND BELOW GROUND AT THE END OF THE DAY AND DURING THE DAY TO ENSURE DEBRIS DOES NOT ENTER THE PIPE. FAILURE TO DO THIS WILL REQUIRE THE CONTRACTOR TO SCOPE THE PIPING AFTER FINAL INSTALLATION AND VIDEO TAPE THE SCOPING FOR RECORD TO ENSURE NO DEBRIS IS PRESENT IN THE PIPE. ANY DEBRIS WILL BE REMOVED OR THE PIPE WILL BE REPLACED AT THE CONTRACTORS EXPENSE INCLUDING THE TRENCHING AND REPAIR OF ANY FLOOR OR GRADE FINISHES. A COPY OF THE VIDEO SHALL BE GIVEN TO THE OWNER FOR THEIR RECORD.

37. FOR ALL FAST ACTING VALVES SUCH AS BUT NOT LIMITED TO ELECTRICALLY OPERATED VALVES, HOSE STATIONS, HOSE SPRAYERS, FLUSHOMETERS, ETC., WATER HAMMER ARRESTERS ARE TO BE PROVIDED. ARRESTER SHALL BE SIZED AS PER THE ARRESTER MANUFACTURER REQUIREMENTS AND COORDINATED WITH THE SIZE OF THE FAST ACTING VALVE.

38. PLUMBING CONNECTIONS ARE SHOWN FOR DIAGRAMMATIC PURPOSES AND THE CONTRACTOR SHALL NOT BASE THEIR BID ON THE LOCATION OF THOSE CONNECTIONS. SUBMISSION OF A BID INDICATES AN UNDERSTANDING THE CONTRACTOR WILL CONNECT THE PLUMBING CONNECTIONS TO THE EQUIPMENT IN THE LOCATION SPECIFIED BY THE MANUFACTURE OR PER CONSTRUCTION RESTRICTIONS AT NO ADDITIONAL COST TO THE CLIENT.

39. PLUMBING CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL FINAL UTILITY CONNECTIONS WITH THE UTILITY COMPANIES. FOR EXAMPLE: IF THE PROJECT HAS NATURAL GAS SERVICE AND THE SYSTEM IS EXISTING THE CONTRACTOR SHALL CALL THE UTILITY COMPANY AND TAKE OVER AS THE LEAD CONTACT PERSON FOR THE ADDITIONAL LOAD APPLICATION AND BE THE NEW POINT OF CONTACT FOR ANY CHANGES REQUIRED FOR THE EXISTING GAS SERVICE. THIS INTRODUCTION AND CHANGE OF POINT CONTACT SHALL HAPPEN WITHIN THE FIRST TWO WEEKS OF STARTING THE PROJECT. IT IS THE PC'S RESPONSIBILITY TO COMMUNICATE WITH THE UTILITY COMPANY SERVICE START DATES AS TO NOT DELAY THE PROJECT WITH INADEQUATE UTILITY SERVICES.

40. CONTRACTOR SHALL PROVIDE MANUFACTURED PROTECTIVE SHIELDING PIPE COVERS FOR HOT AND COLD WATER SUPPLY, TRAP, AND DRAIN PIPING IN COMPLIANCE WITH THE AMERICANS WITH DISABILITIES ACT (ADA) REQUIREMENTS.

GENERAL NOTES

SYMBOL	DESCRIPTION
	NEW - UNLESS OTHERWISE NOTED, DARK LINE WEIGHT.
	EXISTING - UNLESS OTHERWISE NOTED, LIGHT LINE WEIGHT
S	SANITARY PIPING
W	WASTE PIPING
CWV	COMINATION WASTE VENT PIPING
	VENT PIPING (ABOVE)
	VENT PIPING (BELOW)
ST	STORM PIPING
G	NATURAL GAS
	COLD WATER
	HOT WATER
	HOT WATER RECIRC.
GW	GREASE WASTE
IW	INDIRECT WASTE
	CONDENSATE
FW	FILTER WATER
TW	TEMPERED WATER
CA	COMPRESSED AIR
STM	STEAM

NOT ALL SYMBOLS AND ABBREVIATIONS SHOWN ON THIS PLAN ARE USED IN THE FOLLOWING DRAWINGS.

SYMBOL	DESCRIPTION
	SHUT OFF VALVE
	CHECK VALVE
	BACKFLOW PREVENTION
	TEMPERING VALVE
	BALANCING VALVE
	PRESS. RED. VALVE
	SOLENOID VALVE
	GAS COCK
	GREASE INTERCEPTOR
	HUB DRAIN
	EXISTING HUB DRAIN
	FLOOR SINK
	EXISTING FLOOR SINK
	FLOOR DRAIN
	EXISTING FLOOR DRAIN
	FLOOR CLEAN OUT
	EXISTING FLOOR CLEAN OUT
	WALL CLEAN OUT
	HORIZONTAL CLEAN OUT
	CASE DRAIN
	STAND PIPE
	TRENCH DRAIN
	P TRAP
	PIPE DOWN & DROP
	PIPE UP & RISE
	BACKWATER VALVE
	HOSE BIBB
	WASH DOWN FAUCET / HOSE BIBB
	WATER FILTER
	FLOW ARROW
	TRAP PRIMER
	CONNECT TO EXISTING
X	DRAWING NOTE - 'x' DENOTES NOTE NUMBER SHOWN ON PLAN.
X	KEY NOTE - 'x' DENOTES NOTE NUMBER SHOWN FOR ALL PLUMBING PLANS.
X	DEMOLITION NOTE - 'x' DENOTES NOTE NUMBER SHOWN ON PLAN

SYMBOL LEGENDS AND ABBREVIATIONS

ABBREVIATIONS			
AFF	ABOVE FINISHED FLOOR	HS	HAND SINK
AFG	ABOVE FINISHED GRADE	HW	HOT WATER
ASSY	ASSEMBLY	HCO	HORIZONTAL CLEANOUT
BFC	BELOW FINISHED CEILING	HWR	HOT WATER RECIRCULATION
BFF	BELOW FINISHED FLOOR	IW	INDIRECT WASTE
BFG	BELOW FINISHED GRADE	MS	MOP SINK
BW	BOOT WASH	NTS, N.T.S.	NOT TO SCALE
CL	CENTER LINE	OC	ON CENTER
CLG	CEILING	PC	PLUMBING CONTRACTOR
CO	CLEAN OUT	RD	ROOF DRAIN
COMP	COMPARTMENT	RE	EXISTING TO BE REMOVED
CW	COLD WATER	REX	EXISTING TO BE RELOCATED
DN	DOWN	SAN	SANITARY
DOM	DOMESTIC WATER	SPR	SPRINKLER
DW	DISH WASHER	SC	SCUPPER
DWH	DOMESTIC WATER HEATER	SD	STORM DRAIN
EWH	ELECTRIC WATER HEATER	SF	SQUARE FEET
EWC	ELECTRIC WATER COOLER	SP	STAND PIPE
EX	EXISTING TO REMAIN	SS	STAINLESS STEEL
FAI	FRESH AIR INTAKE	ST	STORM
FCO	FLOOR CLEAN OUT	TD	TRENCH DRAIN
FD	FLOOR DRAIN	TP	TRAP PRIMER
FFD	FUNNEL FLOOR DRAIN	TW	TEPID WATER
FP	FROST PROOF	TYP	TYPICAL
NFWH	NON FREEZE WALL HYDRANT	U/C	UNDER COUNTER
FS	FLOOR SINK	V	VENT
G	GAS	VIF	VERIFY IN FIELD
GI	GREASE INTERCEPTOR	VTR	VENT THRU ROOF
HB	HOSE BIBB	W	WASTE
HR	HOSE REEL	WF	WATER FILTER
		WP	WEATHERPROOF
		WCO	WALL CLEAN OUT

PROJECT NOTES:

THE CONTRACTOR SHALL RECEIVE AND REVIEW ALL OF THE PROJECTS DRAWINGS AND SPECIFICATIONS SUCH AS ARCHITECTURAL, STRUCTURAL, HVAC, ELECTRICAL, PLUMBING, FIRE ALARM, SPRINKLER, SITE, ETC. TO UNDERSTAND THE FULL SCOPE OF WORK. FAILURE TO RECEIVE AND REVIEW THOSE PLANS DURING BIDDING WILL RESULT IN THE DENIAL OF EXTRA'S.

PLUMBING EQUIPMENT SCHEDULE

TAG	EQUIPMENT	MANUFACTURER	MODEL	VOLTAGE	PHASE	AMPS	NOTES
EXP	EXPANSION TANK	TACO	PAX-25				
GWH	GAS WATER HEATER	AO SMITH	BTX-80	120	1	5.0	50 GALLONS, 76,000 BTU PROVIDE CONDENSATE NEUTRALIZER KIT 100112380
RCP	RECIRCULATION PUMP	TACO	0026e-SF2	115	1	1.0	120 WATTS

PLUMBING FIXTURE SCHEDULE

TAG	FIXTURE	MANUFACTURER	MODEL	MISC. SECTION		FIXTURE ACCESSORIES	PLUMBING CONNECTION SIZES				NOTES
				MOUNT TYPE	MATERIAL/COLOR		CW	HW	SAN	VENT	
DF	DRINKING FOUNTAIN	ELKAY	LZSTL8WSLK	WALL	STAINLESS		1/4"	-	1-1/2"	1-1/2"	120 V, BI-LEVEL WITH BOTTLE FILLER, PROVIDE EXTRA FILTERS
EW	EYE WASH STATION	GUARDIAN	G1814	WALL	STAINLESS STEEL		3/4"	-	1 1/2"	-	
FCO-1	FLOOR CLEANOUT	WATTS	CO-200-R	FLOOR	EPOXY COATED CAST IRON, NICKEL BRONZE TOP		-	-	4"	-	
FCO-2	FLOOR CLEANOUT	WATTS	CO-200-R	FLOOR	EPOXY COATED CAST IRON, STAINLESS STEEL TOP		-	-	3"	-	
FD	FLOOR DRAIN	WATTS	FD-100-A	FLOOR	EPOXY COATED CAST IRON		-	-	2"	1-1/2"	
FFHB	FROST FREE HOSE BIB	JR SMITH	5519	WALL	BRONZE	-	1/2"	-	-	-	
KS	KITCHEN SINK	KOHLER	K-3348-3	COUNTER	STAINLESS STEEL	FAUCET 15171-F	1/2"	1/2"	1-1/2"	1-1/2"	
LAV-1	BATHROOM SINK	KOHLER	K-2005	WALL	WHITE/ VITREOUS CHINA	FAUCET K-97282-4	1/2"	1/2"	1-1/2"	1-1/2"	
LAV-2	BATHROOM SINK	KOHLER	K-2196-4	COUNTER	WHITE/ VITREOUS CHINA	FAUCET K-97282-4	1/2"	1/2"	1-1/2"	1-1/2"	
MS	MOP SINK	FIAT	TSB-100	FLOOR	TERRAZZO	FAUCET 830-AA, WALL GUARDS	1/2"	1/2"	3"	1-1/2"	
SHWR-1	SHOWER	KOHLER	RELY 36"X34" BASE	FLOOR		ADA COMPLIANT BENCH, HANDRAILS, SHOWER TRIM AND HANDHELD SPRAY, THERMOSTATIC MIXING VALVE	1/2"	1/2"	2"	1-1/2"	
SHWR-2	SHOWER	KOHLER	RELY 36"X34" BASE	FLOOR			1/2"	1/2"	2"	1-1/2"	
SS	SLOP SINK	FIAT	TAT1	FLOOR	POLYETHYLINE	LEG KIT 02883900100, FAUCET INCLUDED	1/2"	1/2"	1-1/2"	1-1/2"	
UR	ADA URINAL	KOHLER	K-4991-ET	WALL	WHITE / VITREOUS CHINA	FLUSHOMETER K-80UM00G20	3/4"	-	2"	-	
WC	WATER CLOSET	KOHLER	K-96057-0	FLOOR	WHITE/VITREOUS CHINA	FLUSHOMETER 7632	1"	-	4"	2"	
WCO	WALL CLEANOUT	ZURN	Z1441	WALL			-	-	4"	-	

THE CONTRACTOR SHALL CONFORM TO THE LATEST BUILDING CODES:

INTERNATIONAL BUILDING CODE / 2021, NJ ED.
NATIONAL STANDARD PLUMBING CODE / 2021, NJ ED.
INTERNATIONAL FUEL GAS CODE / 2021, NJ ED.
NJUCC, SUBCHAPTER 6
BARRIER FREE SUBCODE (CH 11 OF IBC & NJAC 5:23-7, ICC A117.1-2017)
ELEVATOR SUBCODE (NJAC 5:23-12)

APPLICABLE CODES

Sheet Number	Sheet Name
P1-1	PLUMBING COVER SHEET
P2-1	PLUMBING SANITARY FLOOR PLAN
P3-1	PLUMBING SUPPLY FLOOR PLAN
P4-1	PLUMBING DETAILS

DRAWING LIST

BD engineering
NJ CERTIFICATE OF AUTHORIZATION - 24GA28116100
BD Engineering, LLC
44 MAIN STREET FARMINGDALE NJ 07727 732-886-5432

BRIAN D. TANNENHAUS

ISSUED FOR BIDDING
NOT FOR CONSTRUCTION
10/29/2025

NJ PROFESSIONAL ENGINEER
NO. GE 45801
DATE: XX/XX/XXXX

No.	Description	Date
	ISSUED FOR CLIENT REVIEW	11/20/24
	ISSUED FOR BID	03/21/25
	ISSUED FOR CLIENT REVIEW	04/16/25
	ISSUED FOR BIDDING	10/29/25

revisions

PUBLIC WORKS BUILDING
LOWER TOWNSHIP
771 SEASHORE ROAD
CAPE MAY COUNTY, NJ

project title

PLUMBING COVER SHEET

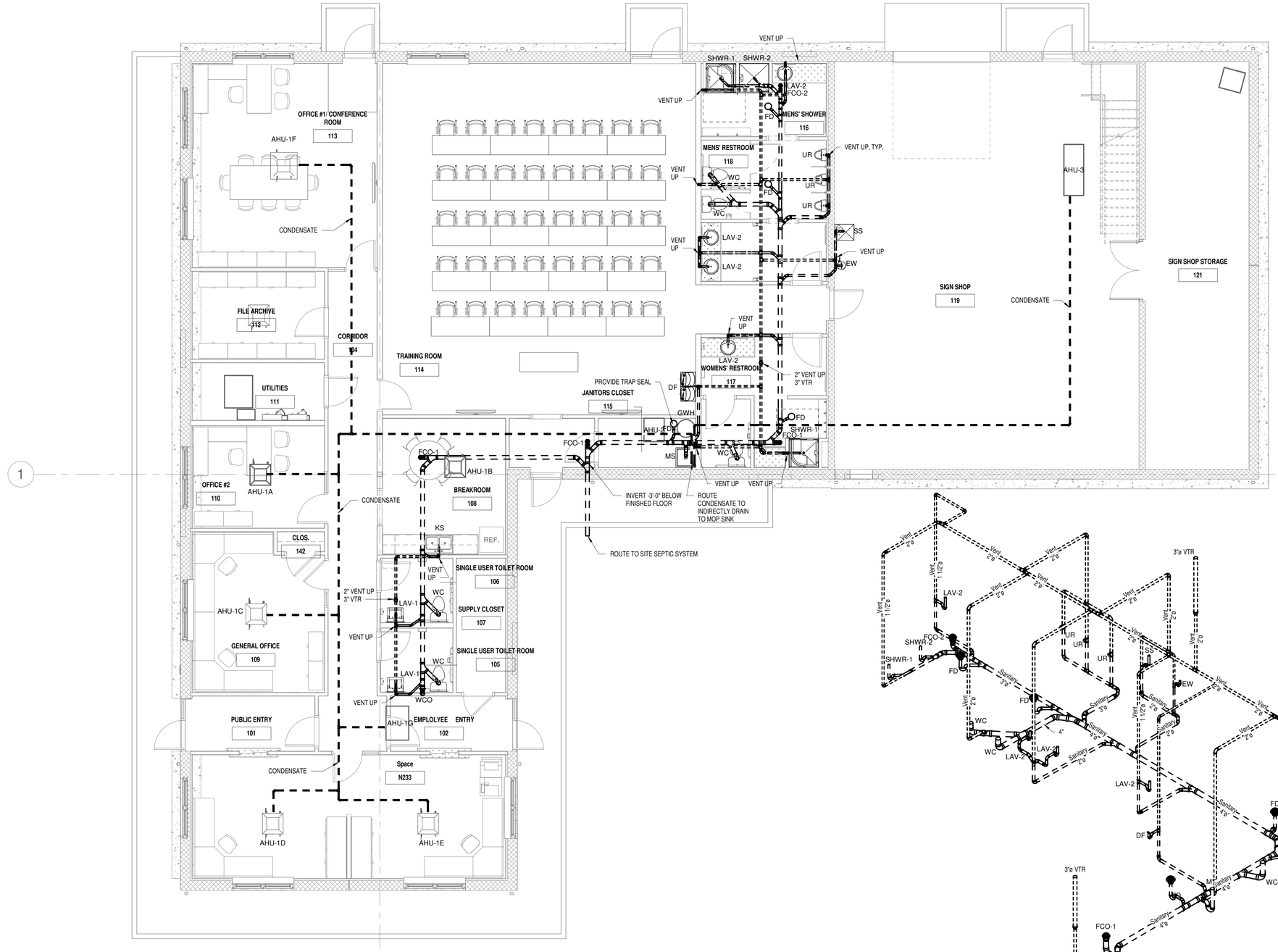
drawing name

scale

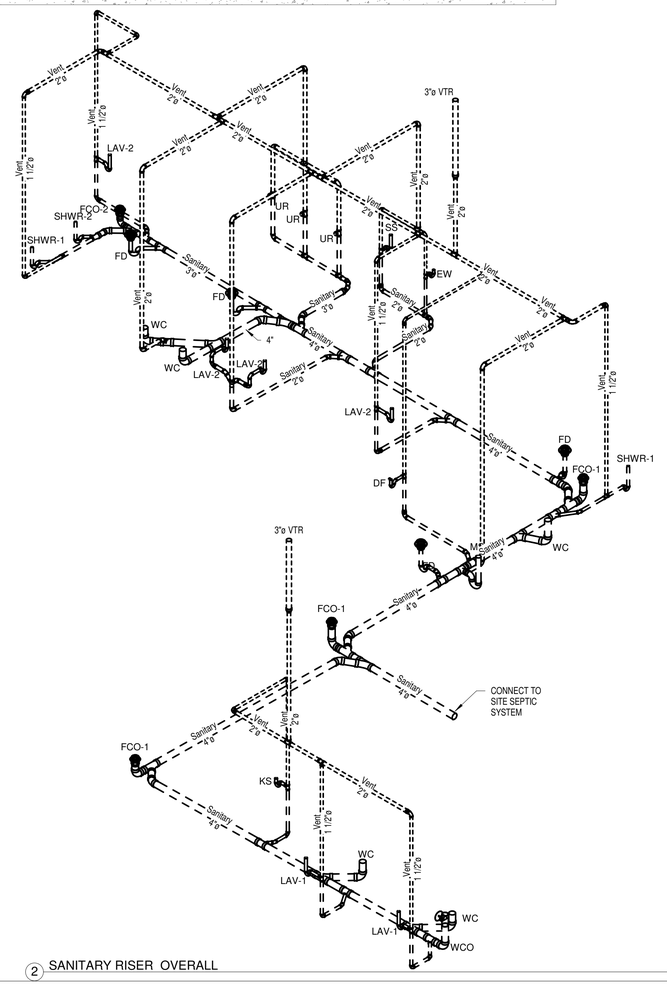
date 11/20/24
drawn by RL
project no. 240093

P1-1

drawing no.



1 PLUMBING SANITARY GROUND FLOOR PLAN
3/16" = 1'-0"



2 SANITARY RISER OVERALL

BD engineering
NJ CERTIFICATE OF AUTHORIZATION - 24GA28116100
BD Engineering, LLC
44 MAIN STREET FARMINGDALE NJ 07727 732-886-5432
BRIAN D. TANNENHAUS

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revisions

PUBLIC WORKS BUILDING
LOWER TOWNSHIP
771 SEASHORE ROAD
CAPE MAY COUNTY, NJ

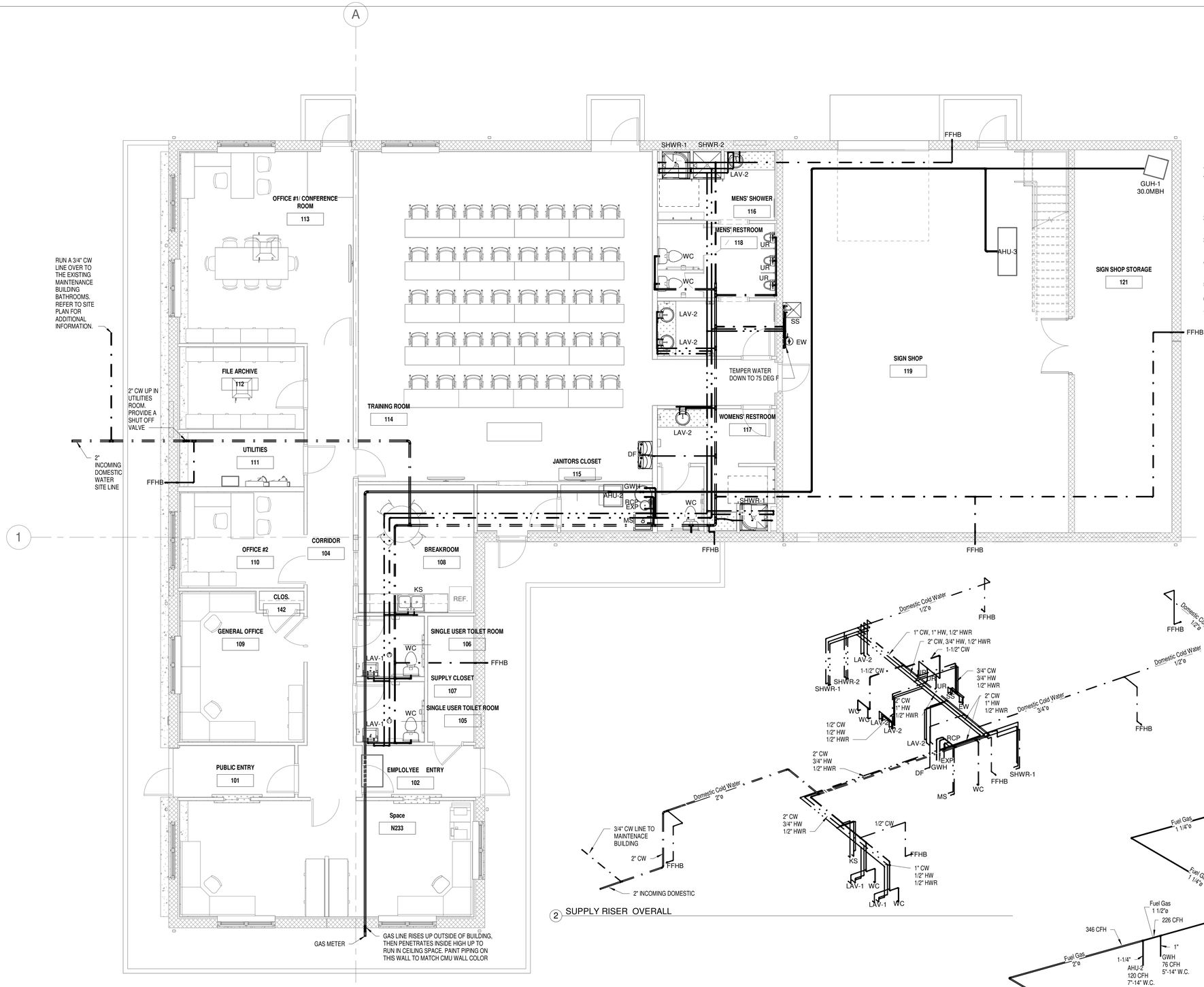
project title

drawing name: PLUMBING SANITARY FLOOR PLAN

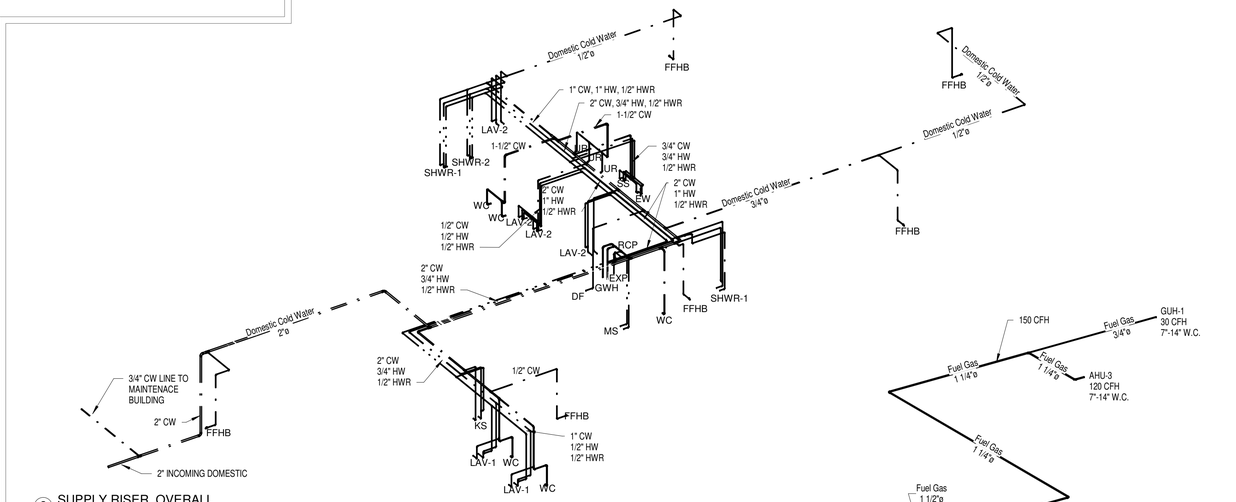
scale 3/16" = 1'-0"

date 11/20/24
drawn by RL
project no. 240093

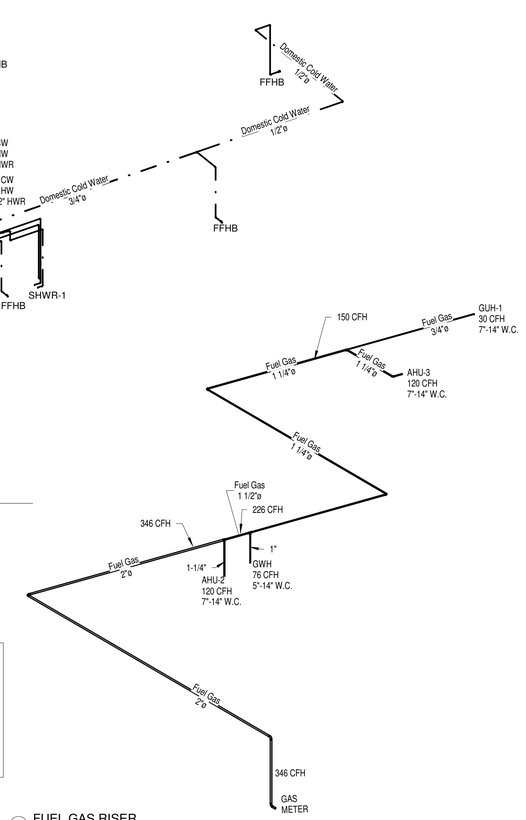
P2-1
drawing no.



1 PLUMBING SUPPLY GROUND FLOOR PLAN
3/16" = 1'-0"



2 SUPPLY RISER OVERALL



3 FUEL GAS RISER

FUEL GAS CRITERIA IFGC CHART 402.4(1)
INLET PRESSURE: LESS THAN 2 PSI
PRESSURE DROP: 0.3 IN W.C.
SPECIFIC GRAVITY: 0.6
TOTAL DEVELOPED LENGTH: 238 FT
PIPE LENGTH SIZE AT: 250 FT

NOTE:
PC TO COORDINATE PRESSURE REGULATOR REQUIREMENTS WITH ALL GAS EQUIPMENT SUPPLIERS.

WATER GENERAL NOTES:

1. UNLESS OTHERWISE NOTED, ALL BRANCH PIPING SHALL HAVE A SHUTOFF VALVE INSTALLED WHERE THE BRANCH TAKE OFF BEGINS FROM THE MAIN.
2. PROVIDE WATER FILTERS AT ALL WATER CONNECTIONS TO REFRIGERATORS, ICE MAKERS, AND DRINKING FOUNTAINS.
3. PROVIDE THERMOSTATIC MIXING VALVES FOR ALL HAND SINKS AND LIMIT THE WATER TEMPERATURE TO 110°F.
4. UNLESS OTHERWISE NOTED, ALL PLUMBING FIXTURES SHALL HAVE SHUT OFF VALVES AT THE FIXTURE.
5. REFER TO RISER DIAGRAM FOR ADDITIONAL INFORMATION.
6. REFER TO PLUMBING SCHEDULES FOR FIXTURE PIPE CONNECTION SIZES.
7. REFER TO DETAILS FOR SPECIFIC INSTALLATION REQUIREMENTS.

BD engineering
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10/29/2025

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revisions

PUBLIC WORKS BUILDING
LOWER TOWNSHIP
771 SEASHORE ROAD
CAPE MAY COUNTY, NJ

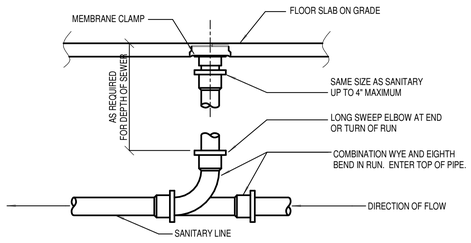
project title

PLUMBING SUPPLY FLOOR PLAN
drawing name

scale As indicated
date 11/20/24
drawn by RL
project no. 240093

P3-1
drawing no.

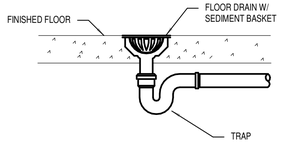
PROVIDE ROUND SECURED ADJUSTABLE TOP WITH "CO" ON COVER. PROVIDE CLEANOUT TOP WITH VARIATIONS SUITABLE FOR FLOOR COVERING (CARPET MARKER, RECESSED FOR TILE, SCORIATED FOR UNFINISHED FLOORS).



LOCATE AT BUILDING EXIT, AT ENDS OF RUNS, AT TURNS OF PIPE GREATER THEN 45°, AT 50' INTERVALS ON STRAIGHT RUNS, AND WHERE SHOWN ON PLANS. PROVIDE BACKFILL (if applicable) PER ARCHITECTURAL SPECIFICATIONS. LOCATE CLEANOUTS WHERE THERE IS 18" CLEAR AROUND. CONSULT LOCAL CODES FOR OTHER FCO REQUIREMENTS.

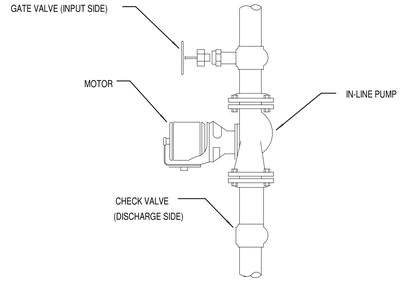
FLOOR CLEANOUT DETAIL

SCALE: NONE



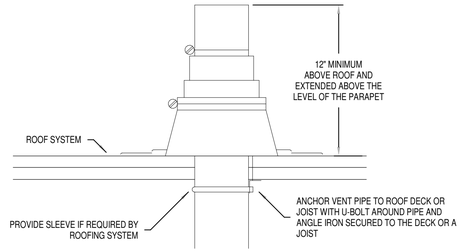
FLOOR DRAIN DETAIL

SCALE: NONE



TYPICAL INLINE PUMP DETAIL

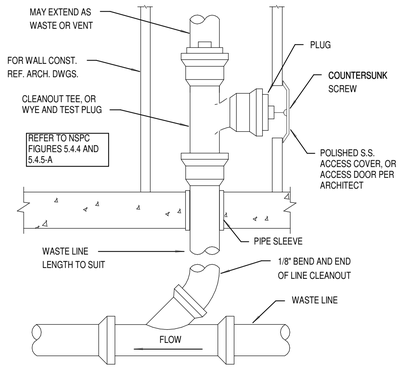
SCALE: NONE



REFER TO PLANS FOR VTR PIPE SIZES AND LOCATIONS. LOCATE VTR MINIMUM TEN FEET HORIZONTAL OR THREE FEET VERTICAL ABOVE ANY BUILDING OPENING OR FRESH AIR INTAKE, AND ONE FOOT FROM ANY VERTICAL SURFACE. PROVIDE 1" FIBERGLASS INSULATION WITH ALL-SERVICE JACKET ON VENT PIPE INSIDE BUILDING WITHIN SIX FEET OF VENT THRU ROOF LOCATION. FLASHING AND COUNTER FLASHING ARE TO BE COMPATIBLE WITH THE ROOFING SYSTEM.

VENT THROUGH ROOF DETAIL

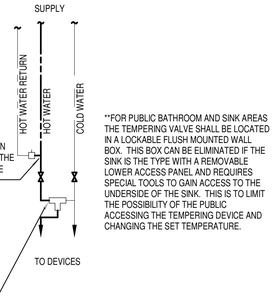
SCALE: NONE



WALL CLEANOUT DETAIL

SCALE: NONE

NOTE: THE PURPOSE OF ROUTING THE HOT WATER RETURN DOWN TO THE SHUTOFF VALVE IS TO ENSURE THAT HOT WATER COMES OUT OF THE DEVICE INSTANTANEOUSLY.

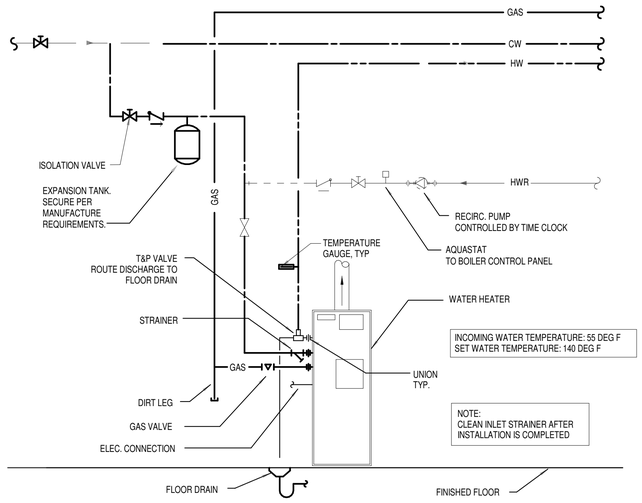


PROVIDE TEMPERING VALVE WITH ANTI-SCOLD, INTERNAL CHECK VALVE, STAINLESS STRAINERS ON EACH INPUT AND APPROVED FOR POTABLE WATER USE. SET HAND SINKS TO 105 DEG F AND KITCHEN SINKS TO 140 DEG F. SET SHOWERS IF ON THE PROJECT TO 120 DEG F. SET EYEWASH OR EYEWASH / SHOWER STATIONS TO OSHA REQUIRED TEMPERATURE. HOSE STATIONS, IF ON THE PROJECT PER CLIENT BUT TYPICALLY 140 DEG F.

**FOR PUBLIC BATHROOM AND SINK AREAS THE TEMPERING VALVE SHALL BE LOCATED IN A LOCKABLE FLUSH MOUNTED WALL BOX. THIS BOX CAN BE ELIMINATED IF THE SINK IS THE TYPE WITH A REMOVABLE LOWER ACCESS PANEL AND REQUIRES SPECIAL TOOLS TO GAIN ACCESS TO THE UNDERSIDE OF THE SINK. THIS IS TO LIMIT THE POSSIBILITY OF THE PUBLIC ACCESSING THE TEMPERING DEVICE AND CHANGING THE SET TEMPERATURE.

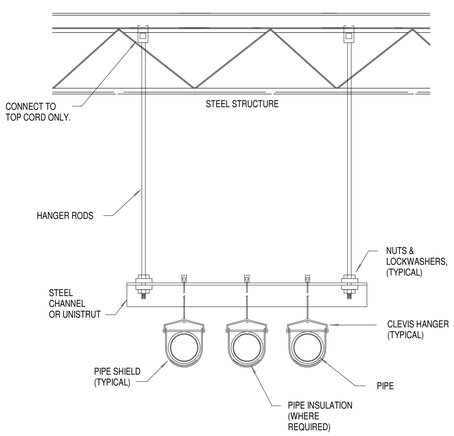
HOT WATER RETURN AT WATER DEVICE AND TEMPERING VALVE.

SCALE: NONE



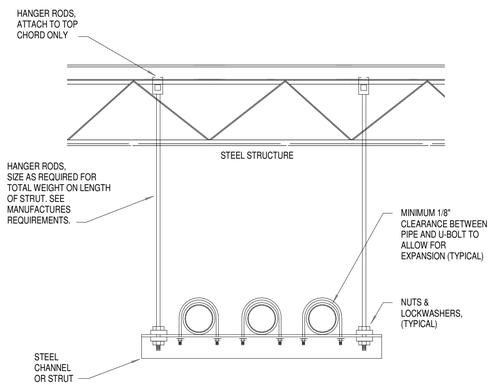
WATER HEATER DETAIL

SCALE: NONE



TRAPEZE PIPE HANGER DETAIL

SCALE: NONE



TRAPEZE PIPE HANGER DETAIL

SCALE: NONE

BD engineering

NJ CERTIFICATE OF AUTHORIZATION - 24GA28116100
BD Engineering, LLC
44 MAIN STREET FARMINGDALE NJ 07727 732-886-5432

BRIAN D. TANNENHAUS

ISSUED FOR BIDDING
NOT FOR CONSTRUCTION
10/29/2025

NJ PROFESSIONAL ENGINEER
NO. GE 45801

DATE: XX/XX/XXXX

No.	Description	Date
	ISSUED FOR CLIENT REVIEW	11/20/24
	ISSUED FOR BID	03/21/25
	ISSUED FOR CLIENT REVIEW	04/16/25
	ISSUED FOR BIDDING	10/29/25

revisions

PUBLIC WORKS BUILDING
LOWER TOWNSHIP
771 SEASHORE ROAD

CAPE MAY COUNTY, NJ

project title

drawing name: PLUMBING DETAILS

scale

date: 11/20/24

drawn by: RL

project no.: 240093

P4-1

drawing no.

ELECTRICAL GENERAL NOTES

1. DRAWINGS ARE DIAGRAMMATIC AND INDICATE GENERAL ARRANGEMENT OF SYSTEMS AND WORK. FOLLOW DRAWINGS IN LAYING OUT WORK AND CHECK DRAWINGS OF OTHER TRADES TO VERIFY SPACE CONDITIONS. MAINTAIN HEADROOM AND SPACE CONDITIONS IN ALL CASES.
2. THE CONTRACTOR SHALL BRING ANY CONFLICTS IN THE DRAWINGS TO THE ATTENTION OF THE ENGINEER DURING THE BIDDING PROCESS. IF NOT BROUGHT UP TO THE ENGINEER DURING THE BIDDING PROCESS THE MORE EXPENSIVE OPTION SHALL BE CHOSEN FOR BIDDING PURPOSES.
3. PASS RACEWAYS OVER WATER, STEAM OR OTHER PIPING WHEN PULL BOXES ARE NOT REQUIRED. NO RACEWAY SHALL BE INSTALLED WITHIN 6" OF STEAM OR HOT WATER PIPES OR APPLIANCES (EXCEPT PIPE CROSSINGS WHERE RACEWAY SHALL BE AT LEAST 3" FROM PIPE COVERS).
4. CUT CONDUIT ENDS SQUARE, REAM SMOOTH, PAINT MALE THREAD OF FIELD THREADED RACEWAYS WITH GRAPHITE BASE PIPE COMPOUND. DRAW UP TIGHT WITH RACEWAY COUPLING.
5. HORIZONTAL OR CROSS RUNS IN PARTITIONS AND WALLS ARE NOT PERMITTED.
6. DO NOT RUN CONDUIT IN PRECAST ROOF SLABS, IN 2" SLABS OR IN TERRAZZO FLOOR FINISH.
7. LEAVE WIRES WITH SUFFICIENT SLACK TO PERMIT FINAL CONNECTIONS.
8. PROVIDE NYLON FISH WIRE IN ALL EMPTY RACEWAYS OVER 10' LONG.
9. PROVIDE PULL BOXES EVERY 100' AND WHEREVER REQUIRED BY CODE FOR ALL EMPTY RACEWAY RUNS. COORDINATE PULLBOX LOCATIONS WITH OTHER TRADES IN FIELD.
10. VERIFY LOCATIONS OF OUTLETS AND SWITCHES IN FINISHED ROOMS WITH ARCHITECTURAL DRAWINGS OF INTERIOR DETAILS AND FINISH. IN CENTERING OUTLETS AND LOCATING BOXES AND OUTLETS, ALLOW FOR OVERHEAD PIPES, DUCTS AND MECHANICAL EQUIPMENT, VARIATIONS IN FIREPROOFING AND PLASTERING, WINDOW AND DOOR TRIM, PANELING, HUNG CEILINGS AND THE LIKE. CORRECT ANY INACCURACY RESULTING FROM FAILURE TO DO SO WITHOUT EXPENSE TO OWNER.
11. LOCATIONS INDICATED FOR LOCAL WALL SWITCHES ARE SUBJECT TO MODIFICATIONS AT OR NEAR DOORS. COORDINATE WITH ARCHITECT AND INSTALL SWITCH ON SIDE OPPOSITE HINGE. VERIFY FINAL HINGE LOCATIONS IN FIELD PRIOR TO SWITCH OUTLET INSTALLATION.
12. COVERS OF JUNCTION AND PULLBOXES SHALL BE READILY ACCESSIBLE.
13. PROVIDE PULLBOXES WHERE INDICATED, WHERE REQUIRED BY CODE AND WHEREVER NECESSARY TO FACILITATE PULLING OF WIRE. COORDINATE PULLBOX LOCATIONS WITH OTHER TRADES.
14. GENERALLY, DO NOT LOCATE JUNCTION AND PULL BOXES EXPOSED IN FINISHED SPACES. WHERE NECESSARY, REROUTE RACEWAYS OR MAKE OTHER ARRANGEMENTS FOR CONCEALMENT.
15. SUPPORT PANEL, JUNCTION AND PULLBOXES INDEPENDENTLY TO BUILDING STRUCTURE, WITH NO WEIGHT BEARING ON RACEWAYS.
16. EC IS RESPONSIBLE TO PROVIDE ACCESS PANELS FOR ANY CONCEALED ELECTRICAL WORK THAT MUST BE ACCESSIBLE EITHER BY CODE OR AS INDICATED IN THE DOCUMENTS. ALL ACCESS DOOR LOCATIONS SHALL BE REVIEWED AND APPROVED BY ARCHITECT PRIOR TO INSTALLATION OF DEVICE REQUIRING THE ACCESS PANEL. ALL ACCESS DOORS MUST MATCH THE FIRE RATING AND CONSTRUCTION TYPE OF THE CEILING OR WALL PENETRATION AS DESIGNATED ON THE ARCHITECTURAL DRAWINGS.
17. ALL ELECTRICAL EQUIPMENT INCLUDING BUT NOT LIMITED TO RACEWAYS, PULLBOXES, LUMINAIRES, ETC. SHALL BE HUNG FROM THE TOP CORD OR THE TOP OF A STEEL 'I' BEAM ONLY IN A STEEL STRUCTURE BUILDING.
18. CONNECT CONDUIT TO MOTOR CONDUIT TERMINAL BOXES WITH FLEXIBLE CONDUIT (MINIMUM 18" AND 50% SLACK). DO NOT TERMINATE IN OR FASTEN RACEWAYS TO MOTOR FOUNDATION.
19. PROVIDE 2#14 INDICATING PILOT LIGHT WIRES FROM PILOT LIGHT IN CONTROLLER TO LOAD SIDE OF DISCONNECT SWITCH. RUN WIRES IN BRANCH CIRCUIT CONDUIT AND INCREASE CONDUIT SIZE AS REQUIRED.
20. PULL NO THERMOPLASTIC WIRES AT TEMPERATURES BELOW 32°F. PROVIDE CABLE SUPPORTS FOR WIRE
21. IN RISER CONDUITS AS REQUIRED BY CODE., PROVIDE SEPARATE RACEWAYS FOR CONDUCTORS OF NORMAL AND EMERGENCY CIRCUITS. WHERE COMMON BOXES ARE USED, PROVIDE BARRIERS BETWEEN NORMAL AND EMERGENCY WIRING.
22. PROVIDE SEPARATE RACEWAYS FOR CONDUCTORS OF NORMAL AND EMERGENCY CIRCUITS. WHERE COMMON BOXES ARE USED, PROVIDE BARRIERS BETWEEN NORMAL AND EMERGENCY WIRING.
23. WIRE COLOR CODING SHALL BE AS PER CODE AND SPECIFICATION. WHERE COLOR-CODED CABLE IS NOT AVAILABLE, CERTIFY IN WRITING, AND REQUEST PERMISSION FOR OVERLAP COLOR TAPING OF CONDUCTORS (MINIMUM LENGTH 6") IN ALL ACCESSIBLE LOCATIONS. COLOR CODING MUST BE USED CONSISTENTLY FOR THE ENTIRE PROJECT.
24. ELECTRICAL CONNECTIONS AND DISCONNECTS ARE SHOWN FOR DIAGRAMMATIC PURPOSES AND THE CONTRACTOR SHALL NOT BASE THEIR BID ON THE LOCATION OF THOSE CONNECTIONS AND/OR DISCONNECTS. SUBMISSION OF A BID INDICATES AN UNDERSTANDING THE CONTRACTOR WILL CONNECT THE ELECTRICAL CIRCUIT TO THE EQUIPMENT IN THE LOCATION SPECIFIED BY THE MANUFACTURE OR PER CONSTRUCTION RESTRICTIONS AT NO ADDITIONAL COST TO THE CLIENT.
25. FIRESTOPPING SHALL BE INSTALLED WHENEVER WIRING OR RACEWAYS CROSS FIRE RATED PARTITIONS. REFER TO THE ARCHITECTURAL PLANS FOR FIRE RATED PARTITION LOCATIONS. THE FIRESTOPPING SHALL MATCH OR EXCEED THE FIRE RATING OF THE PARTITION PENETRATED. ALL FIRESTOPPING SHALL BE A UL LISTED ASSEMBLY.
26. THE CONTRACTOR SHALL NOTE THAT THE BRANCH AND FEEDER CIRCUITS MAY HAVE BEEN INCREASED IN SIZE FOR VOLTAGE DROP AND OTHER REASONS. THIS MAY RESULT IN THE CABLE NOT FITTING IN THE ELECTRICAL EQUIPMENTS LUG OR TERMINAL. IF THIS HAPPENS THE CONTRACTOR SHALL REDUCE THE WIRE SIZE TO THE MAXIMUM SIZE THAT WILL FIT UNDER THE ELECTRICAL EQUIPMENTS LUG OR TERMINAL. PROVIDE AN IRREVERSIBLE SPLICE(S) OR OTHER APPROVED METHOD. THE LENGTH OF CABLE SHALL BE MINIMIZED TO DIRECTLY OUTSIDE THE EQUIPMENT. THE SPLICE(S) SHALL NOT TAKE PLACE INSIDE THE EQUIPMENT UNLESS THE EQUIPMENT IS UL LISTED FOR THAT PURPOSE. FOR EQUIPMENT NOT UL LISTED PROVIDE A SPLICE BOX, SIZED AS REQUIRED, OUTSIDE THE EQUIPMENT FOR THE SPLICE(S). THE NEMA RATING OF THE SPLICE BOX SHALL MATCH THE NEMA RATING OF THE ELECTRICAL EQUIPMENT. AHJ APPROVED REDUCING ADAPTERS SUCH AS THOSE FROM BURNDY ARE ACCEPTABLE ALTERNATES. EC SHALL GET PERMISSION FROM THE AHJ TO USE THIS METHOD.
27. ALL DEVICE ELEVATIONS SHALL BE MOUNTED IN ACCORDANCE WITH ANSI A117. ALL CONTROL DEVICES (IE: SWITCHES, ETC.) SHALL BE MOUNTED NO HIGHER THAN 48" AFF TO TOP OF DEVICE. ALL INSERTION DEVICES (IE: POWER, TELEPHONE, DATA RECEPTACLES, ETC.) SHALL BE MOUNTED NO LOWER THAT 15" AFF TO BOTTOM OF JUNCTION BOX. ALL DEVICES MOUNTED ABOVE A COUNTER NOT DEEPER THAN 24" SHALL BE MOUNTED 46" AFF TO TOP DEVICE. OTHER MOUNTING HEIGHTS WILL BE AS NOTED ON THE DRAWINGS.
28. PANEL BOARDS SHALL ALL MEET UL67 REQUIREMENTS AND COME WITH SERVICE ENTRANCE BARRIERS.
29. UNLESS OTHERWISE NOTED, MOUNTING HEIGHTS FROM FLOOR TO CENTERLINE OF OUTLET:

    RECEPTACLES, DATA AND TELEPHONES:

    GENERALLY - 1'-6"
    OVER WORK BENCHES - 3'-6"

    WALL SWITCHES AND WALL TELEPHONES : 4'-0"(TO TOP OF JUNCTION BOX)

    WALL FIXTURES - 7'-6"

    MOTOR CONTROLLERS - 5'-0"

    FA AUDIO DEVICE/ STROBES - 6-8" TO THE BOTTOM OF THE LENSE (OR 6" BELOW CEILING, WHICHEVER IS LOWER)

    FA STROBE LIGHTS - 6'-8" TO THE BOTTOM OF THE LENSE (OR 6" BELOW CEILING, WHICHEVER IS LOWER)

    FA PULL STATIONS NO LOWER THAN 3'-6"AFF OR HIGHER THAN 4'-0"AFF TO TOP OF DEVICE.

    CLOCKS - 7'-6"

    EXIT SIGN - MOUNT JUST ABOVE THE DOOR WHEN LOCATED AT A DOOR LOCATION, UNLESS OTHERWISE NOTED. WHEN NOT BY A DOOR 8'-0"AFF, UON.
30. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL FINAL UTILITY CONNECTIONS WITH THE UTILITY COMPANIES. FOR EXAMPLE: IF THE PROJECT HAS AN EXISTING OR NEW SERVICE THE CONTRACTOR SHALL CALL THE UTILITY COMPANY AND TAKE OVER AS THE LEAD CONTACT PERSON FOR THE ADDITIONAL LOAD APPLICATION AND BE THE NEW POINT OF CONTACT FOR ANY CHANGES OR COORDINATION REQUIRED. THIS INTRODUCTION AND CHANGE OF POINT CONTACT SHALL HAPPEN WITHIN THE FIRST TWO WEEKS OF STARTING THE PROJECT. IT IS THE EC'S RESPONSIBILITY TO COMMUNICATE WITH THE UTILITY COMPANY SERVICE START DATES AS TO NOT DELAY THE PROJECT WITH INADEQUATE UTILITY SERVICES.

GENERAL NOTES

THE CONTRACTOR SHALL CONFORM ENTIRE INSTALLATION TO THE LATEST BUILDING CODES AS FOLLOWS:

- INTERNATIONAL BUILDING CODE/2021, NJ ED
- NATIONAL STANDARD PLUMBING CODE/2021, NJ ED
- NATIONAL ELECTRICAL CODE (NFPA 70)/2020
- ASHRAE 90.1-2019 *(COMMERCIAL & ALL OTHER RESIDENTIAL)*
- INTERNATIONAL MECHANICAL CODE/2021
- INTERNATIONAL FUEL GAS CODE/2021
- NJUCC, SUBCHAPTER 6
- **BARRIER FREE SUBCODE** *(CHAPTER 11 OF IBC/2021 & NJAC 5:23-7)* , ICC A117.1-2017
- **ELEVATOR SUBCODE** *(NJAC 5:23-12)*
- AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME)

APPLICABLE CODES

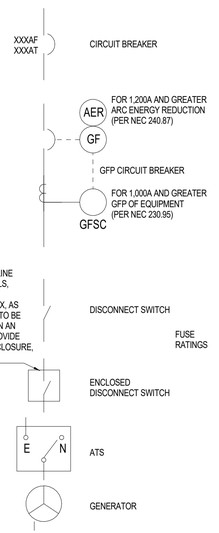
POWER DEVICES

- WIREMOLD (OR EQUAL) SINGLE OR DUAL CHANNEL (WHERE SHOWN WITH VOICE/DATA OUTLETS) SURFACE MOUNTED METALLIC RACEWAY WITH 20A DOUBLE DUPLEX RECEPTACLES AS SHOWN. MOUNT ABOVE COUNTER LEVEL.
- PWR — SIMPLEX RECEPTACLE
- DUPLEX RECEPTACLE
- CEILING MOUNTED RECEPTACLE
- GFCI TYPE RECEPTACLE
- QUAD (DOUBLE DUPLEX) RECEPTACLE
- FLUSH FLOOR BOX WITH FLOOR MOUNTED RECEPTACLES. PROVIDE DEVICES AS SHOWN ON PLANS.
- TELE/DATA — FLUSH FLOOR BOX WITH SEPARATE POWER AND TELE / DATA DEVICES AS SHOWN ON PLANS. SET BOX INTO CONCRETE FLOOR SLAB AND ROUTE CONDUITS IN FLOOR PRIOR TO POURING CONCRETE. ADJUST PRE AND POST POUR TO MAKE LEVEL AND FLUSH WITH FINISHED FLOOR.
- SPECIAL PURPOSE RECEPTACLE. PROVIDE TYPE (NEMA CONFIGURATION) AS REQUIRED FOR EQUIPMENT SERVED. FIELD COORDINATE WITH MFG AND APPROVED SHOP DRAWINGS.
- TAMPERPROOF DUPLEX RECEPTACLE
- EXPLOSION PROOF RECEPTACLE
- IG — ISOLATED GROUND RECEPTACLE
- SIMPLEX ISOLATED GROUND RECEPTACLE
- FLOOR OUTLET, PROVIDE DEVICE AS SHOWN ON DRAWINGS.
- FLOOR OUTLET WITH STUB UP, PROVIDE DEVICE AS SHOWN ON DRAWINGS.
- P — FIRE RATED FLOOR OUTLET, PROVIDE DEVICE AS SHOWN ON DRAWINGS.

PROVIDE DEVICE TYPES AS SHOWN ON THE PLANS.

- INDICATES CIRCUIT NUMBER
- WP — INDICATES DEVICE HAS A 'WEATHERPROOF' WHILE IN USE COVER.
- * — INDICATES DEVICE IS MOUNTED ABOVE THE COUNTER.
- CP — INDICATES FOR 'CONDENSATE PUMP'
- DC — INDICATES SERVED VIA 'DROP CORD' FROM CEILING. PROVIDE DEVICE TYPES AS SHOWN ON THE PLANS. REFER TO CORD DROP DETAIL.
- PP — INDICATES SERVED VIA 'POWER POLE' FROM CEILING. PROVIDE DEVICE TYPES AS SHOWN ON THE PLANS.
- ENCLOSED CIRCUIT BREAKER
- UNFUSED DISCONNECT SWITCH
  30A/3P — INDICATES SIZE/NUMBER OF POLES OR SIZE PER CIRCUIT SIZE
- FUSED DISCONNECT SWITCH
  30A/30A/3P — INDICATES SWITCH SIZE/FUSE SIZE/NUMBER OF POLES OR SIZE PER CIRCUIT SIZE. COORDINATE FINAL SWITCH/FUSE RATINGS WITH EQUIPMENT MANUFACTURERS' SPECIFICATION SHEETS, APPROVED SHOP DRAWINS AND/OR EQUIPMENT NAMEPLATES.

SINGLE LINE DIAGRAM



POWER DEVICES

- MOTOR STARTER
- MOTOR STARTER WITH CIRCUIT BREAKER
- MOTOR STARTER WITH NON-FUSED DISCONNECT SWITCH
- MOTOR STARTER WITH FUSED DISCONNECT SWITCH
- M — DISCONNECT SWITCH BY HVAC CONTRACTOR
- MOTOR
- EMERGENCY POWER OFF SWITCH
- S_t — MOTOR RATED SWITCH WITH THERMAL OVERLOADS
- J — CONCEALED JUNCTION BOX
- J — SURFACE MOUNTED JUNCTION BOX
- 208V PANEL, U.O.N.
- 480V PANEL, U.O.N.
- SYSTEM PANEL
  FA = FIRE ALARM
  SEC = SECURITY
  LIGHT = LIGHTING CONTROL
- G — GROUND BUS - WALL MOUNTED
- GROUND CONNECTION

LUMINAIRES

- AX — FIXTURE TYPE

TYPICAL LUMINAIRE, REFER TO THE LUMINAIRE OR LIGHTING SCHEDULE FOR ADDITIONAL INFORMATION.

- XXX-XX a — LOWER CASE LETTER INDICATES LOCAL SWITCH CONTROL DESIGNATION.
- CIRCUIT NUMBER, REFER TO THE PANELSCHEDULES FOR ADDITIONAL INFORMATION.
- PANEL ID(NAME) UNLESS OTHERWISE NOTED.
- SERVICE / WORK LIGHT LUMINAIRE ~ 15W, 120V, WP, COMMERCIAL GRADE, VAPOR TIGHT, LED, JELLYJAR TYPE WITH FROSTED GLOBE & ALUMINUM HOUSING WITH WIRE GUARD OR EQUIVALENT.
- TC — WALL MOUNTED, DIGITAL, ASTRONOMICAL TIME CLOCK, 2 CHANNEL, 120V.

FIRE ALARM DEVICES

- C — FIRE PHONE
- DH — SINGLE DOOR HOLDERS
- DH DH — DOUBLE DOOR HOLDERS
- F — FIRE ALARM BELL:
  SS = SINGLE STROKE
  T = TROUBLE
  V = VIBRATING
  G = GONG
- F C — FIRE ALARM STROBE
  UNLESS OTHERWISE NOTED, ALL STROBES SHALL BE 15CD(CANDELLA) TYPE.

  C = CEILING MOUNTED. TYPICAL ALL FIRE ALARM DEVICES.

NOTES:

- X — DRAWING NOTE - 'X' DENOTES NOTE NUMBER SHOWN ON PLAN.
- X — KEY NOTE - 'X' DENOTES NOTE NUMBER SHOWN FOR ALL ELECTRICAL PLANS.
- X — DEMOLITION NOTE - 'X' DENOTES NOTE NUMBER SHOWN ON PLAN

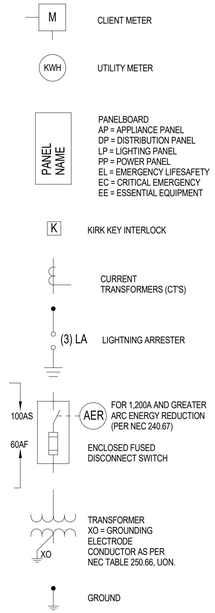
SYMBOLS & ABBREVIATIONS NOTES:

1. ABBREVIATIONS INCLUDE COMMONLY USED CONSTRUCTION INDUSTRY ACRONYMS.
2. NOT ALL SYMBOLS & ABBREVIATIONS SHOWN ON THIS DRAWING ARE USED IN THE FOLLOWING DRAWING SET.
3. SOME ABBREVIATIONS ON THESE DRAWINGS MAY BE SHOWN WITH OR WITHOUT ONE OR MORE PERIODS.
4. IF ANY ABBREVIATION OR SYMBOL ON THESE DRAWINGS IS UNCLEAR, CONTRACTOR SHALL IMMEDIATELY SUBMIT AN RFI FOR CLARIFICATION FROM THE ENGINEER.
5. SOME ABBREVIATIONS MAY HAVE MORE THAN ONE MEANING, DEPENDING ON CONTEXT.

FIRE ALARM CONT.

- F C — FIRE ALARM CHIME - ELECTRONIC TYPE
- F H — FIRE ALARM HORN
- F M — FIRE ALARM MINI HORN
- FIRE ALARM HORN/STROBE UNLESS OTHERWISE NOTED, ALL STROBES SHALL BE 15CD(CANDELLA) TYPE.
- FIRE ALARM SPEAKER/STROBE UNLESS OTHERWISE NOTED, ALL STROBES SHALL BE 15CD(CANDELLA) TYPE. UNLESS OTHERWISE NOTED WATTAGE SHALL BE SET AT 1W.
- S — FIRE SPEAKER UNLESS OTHERWISE NOTED WATTAGE SHALL BE SET AT 1W.
- F — FIRE ALARM PULLSTATION
- S — DUCT DETECTOR - UNLESS COORDINATED DURING BIDDING WITH THE HVAC CONTRACTOR EC AND/OR FIRE ALARM CONTRACTOR SHALL PROVIDE THE TUBES IN THE DUCTWORK FOR THE DETECTOR. PROVIDE COLD WEATHER/WEATHERPROOF COVER FOR DETECTORS LOCATED OUTSIDE OR IN SPACES LOWER THAN 70 DEGREES FAHRENHEIT.
- RTS — REMOTE TEST SWITCH - LOCATE IN CEILING SPACE BELOW HVAC UNIT.
- S PE — FIRE SMOKE DETECTOR:
  PE = PHOTOELECTRIC TYPE
  IO = IONIZATION TYPE
  ID = IN DUCT
  AS = AIR SAMPLING
  R = RELAY BASE
- CO — GAS DETECTION DEVICE:
  CO2 = CARBON DIOXIDE DETECTOR
  CO = CARBON MONOXIDE DETECTOR
  HCL = HYDROGEN CHLORIDE DETECTOR
  CH4 = METHANE DETECTOR
  ** DETECTORS SHALL HAVE A SOUNDER BASE WITH DISTINCT AND SEPARATE SOUND FROM MAIN SYSTEM
- I R/F — HEAT DETECTION DEVICE:
  R/F = COMBINATION RATE OF RISE/FIXED TEMPERATURE
  F = FIXED TEMPERATURE
  R/C = RATE COMPENSATION
  R = RATE OF RISE ONLY
  ** UNLESS OTHERWISE NOTED TEMPERATURE RATINGS SHALL BE 135 DEGREES FAHRENHEIT.
- AIM — ADDRESSABLE INPUT MONITOR MODULE
- AIO 2 — ADDRESSABLE INPUT MONITOR MODULE, # DENOTES NUMBER OF INPUTS AND OUTPUTS
- AOM — ADDRESSABLE OUTPUT CONTROL MODULE
- WF — INTERFACE AND SUPERVISORY DEVICE:
  WF = FLOW DETECTOR/SWITCH
  HT = HIGH TEMPERATURE SWITCH
  LS = LEVEL DETECTOR/SWITCH
  LT = LOW TEMPERATURE SWITCH
  PS = PRESSURE DETECTOR SWITCH
  VS = VALVE SUPERVISORY SWITCH
  KB = KNOX BOX WITH TAMPER SWITCH

SINGLE LINE DIAGRAM



SYMBOL LEGENDS

COMMUNICATION DEVICES

- TELEPHONE OUTLET, PROVIDE (1) 3/4"C WITH PULLSTRING AND PLASTIC BUSHING ON END TO THE NEAREST ACCESSIBLE CEILING SPACE.
- VOICE/DATA OUTLET, PROVIDE (1) 3/4"C WITH PULLSTRING AND PLASTIC BUSHING ON END TO THE NEAREST ACCESSIBLE CEILING SPACE.
- DATA OUTLET, PROVIDE (1) 3/4"C WITH PULLSTRING AND PLASTIC BUSHING ON END TO THE NEAREST ACCESSIBLE CEILING SPACE.
- TV — TV OUTLET, PROVIDE (1) 3/4"C WITH PULLSTRING AND PLASTIC BUSHING ON END TO THE NEAREST ACCESSIBLE CEILING SPACE.
- S — CEILING MOUNTED SPEAKER
- S — WALL MOUNTED SPEAKER
- V — VOLUME CONTROL
- M — MICROPHONE

WIRING DEVICES

- HOMERUN
- CONCEALED CIRCUIT
- CIRCUIT UNDER FLOOR OR GROUND
- BUZZER
- PUSH BUTTON
- CLOCK - DOTS INDICATE NUMBER OF FACES
- DS — SECURITY DEVICE
  DS = DOOR SWITCH
  CR = CARD READER
  KS = KEY SWITCH
  MD = MOTION DETECTOR
  ML = MAGNETIC LOCK
  PB = PANIC BUTTON
  KP = KEY PAD

LUMINAIRE SWITCHES

- S — LUMINAIRE SWITCH
- S_3 — 3-WAY LUMINAIRE SWITCH
- S_4 — 4-WAY LUMINAIRE SWITCH
- S_P — LUMINAIRE SWITCH WITH A PILOT LIGHT
- S_D — DIMMER TYPE LUMINAIRE SWITCH
- S_K — CAPTIVE KEY TYPE SWITCH
- S_a — LUMINAIRE SWITCH
  a — INDICATES LUMINAIRES IT WILL SWITCH
- S_{OR} — OVERRIDE SWITCH
- M_S — MOTION SENSOR TYPE LUMINAIRE SWITCH
  NOTE: THE MOTION SENSOR SHALL TURN OFF THE LUMINAIRE WITHIN 30 MINUTES OF AN OCCUPANT LEAVING THE SPACE.
- S_{LV} — LOW VOLTAGE SWITCH FOR MOTION SENSOR CONTROLLED LIGHTING.
- PC — PHOTOCELL

SURGE PROTECTION REQUIREMENTS:

1. CONTRACTOR SHALL PROVIDE SURGE PROTECTION DEVICES (SPD'S) ON ALL SERVICE ENTRANCE EQUIPMENT, DISTRIBUTION PANELS AND BRANCH CIRCUIT PANELS.
2. PROVIDE LEVEL OF PROTECTION AS REQUIRED IN ACCORDANCE WITH THE CHART BELOW AND BY EITHER OF THE FOLLOWING METHODS:
   a. PROVIDE SPD INTERNAL AND CLOSE COUPLED DIRECTLY TO THE PANELBOARD BUS OR INTEGRATED WITH THE MAIN DISCONNECT, BY THE MANUFACTURER. THIS METHOD PROVIDES THE BEST PERFORMANCE, BUT REQUIRES AN ELECTRICIAN TO REPLACE IN THE FUTURE.
   b. IF LOCATED EXTERNAL TO PANEL, SIDE MOUNT WHERE THERE IS SPACE, NIPPLING DIRECTLY THROUGH WITH TWISTED CONDUCTORS TO BUSES WITH THE SHORTEST CONDUCTORS POSSIBLE AND NO BENDS. THIS METHOD IS EASIER FOR FUTURE MAINTENANCE, BUT ADDITIONAL CABLE LENGTH INCREASES LET THROUGH VOLTAGE TO THE EQUIPMENT.

MINIMUM SURGE CURRENT CAPACITY BASED ON ANSI/IEEE C62.41.2 LOCATION CATEGORY	
LOCATION CATEGORY	APPLICATION
C	SERVICE ENTRANCE LOCATIONS (SWITCHBOARDS, SWITCHGEAR, MCC, MAIN SERVICE ENTRANCE PANELBOARDS)
B	DOWNSTREAM MORE THAN 30FT FROM SERVICE ENTRANCE OR HIGH EXPOSURE ROOF TOP LOCATIONS (ALL DISTRIBUTION PANELBOARDS)
A	FURTHER DOWNSTREAM, MORE THAN 60FT FROM SERVICE ENTRANCE OR BRANCH LOCATIONS (ALL BRANCH CIRCUIT PANELBOARDS, MCCS, BUSWAY)

PROJECT NOTES:

THE CONTRACTOR SHALL RECEIVE AND REVIEW ALL OF THE PROJECTS DRAWINGS AND SPECIFICATIONS SUCH AS ARCHITECTURAL, STRUCTURAL, HVAC, ELECTRICAL, PLUMBING, FIRE ALARM, SPRINKLER, SITE, ETC. TO UNDERSTAND THE FULL SCOPE OF WORK. FAILURE TO RECEIVE AND REVIEW THOSE PLANS DURING BIDDING WILL RESULT IN THE DENIAL OF ADDITIONAL SERVICE REQUESTS.

HIRED PE NOTES:

THE CONTRACTOR SHALL BE AWARE THERE MAY BE NOTES ON THESE PLANS AND IN THE SPECIFICATIONS THAT REQUIRE THE CONTRACTOR TO HIRE A PROFESSIONAL ENGINEER TO SIGN AND SEAL VARIOUS STUDIES OR SUBMIT FINAL SHOP DRAWINGS FOR PERMIT PURPOSES. EXAMPLES ARE FIRE ALARM, SHORT CIRCUIT STUDY, ARC FLASH STUDY, COORDINATION STUDY, ETC. THE PROFESSIONAL ENGINEER SHALL BE LICENSED TO PROVIDE ENGINEERING SERVICES IN THE JURISDICTION THE PROJECT IS LOCATED. THE CONTRACTOR SHALL PROVIDE THE PROFESSIONAL ENGINEERS QUALIFICATIONS AS PART OF THE BID SUBMISSION.

NEC 110-16

ALL SWITCHBOARDS (EACH SECTION), PANELBOARDS, ENCLOSED BREAKERS/SWITCHES, ATS'S, TRANSFORMERS, MOTOR STARTES, CONTRACTORS, INDUSTRIAL CONTROL PANELS, AND MOTOR CONTROL CENTERS SHALL BE FIELD MARKED TO WARN QUALIFIED PERSONS OF POTENTIAL ELECTRIC ARC FLASH HAZARDS. THE MARKING SHALL BE LOCATED IN A CLEARLY VISIBLE LOCATION TO QUALIFIED PERSON BEFORE EXAMINATION, ADJUSTMENT, SERVICING, OR MAINTENANCE OF THE EQUIPMENT.

FOR OTHER THAN DWELLING UNITS: GFCI OUTLETS(210.8B)

ALL 125-VOLT THROUGH 250-VOLT RECEPTACLES SUPPLIED BY SINGLE-PHASE BRANCH CIRCUITS RATED 150 VOLTS OR LESS TO GROUND, 50 AMPS OR LESS.
AND
ALL RECEPTACLES SUPPLIED BY THREE-PHASE BRANCH CIRCUITS RATED 150-VOLTS OR LESS TO GROUND, 100 AMPS OR LESS, INSTALLED IN THE LOCATIONS SPECIFIED IN 210.8B(1) THROUGH B(12) AND SHALL HAVE GFCI PROTECTION FOR

- KITCHENS OR AREAS WITH A SINK AND PERMANENT PROVISIONS FOR EITHER FOOD PREP. OR COOKING 210.8B(2)
- OUTDOORS 210.8B(4)

FOR OTHER THAN DWELLING UNITS:Outdoor Receptacles

GFCI PROTECTION IS REQUIRED FOR ALL 125-VOLT THROUGH 250-VOLT RECEPTACLE OUTLETS SUPPLIED BY SINGLE-PHASE BRANCH CIRCUITS RATED 150 VOLTS OR LESS TO GROUND, 50 AMPERES OR LESS, INSTALLED IN OUTDOOR LOCATIONS. IN ADDITION, GFCI PROTECTION IS REQUIRED FOR ALL RECEPTACLE OUTLETS SUPPLYING HEATING, AIR-CONDITIONING, AND REFRIGERATION EQUIPMENT, WHICH WOULD INCLUDE A 125-VOLT, SINGLE-PHASE, 15 OR 20 AMPERE-RATED RECEPTACLE OUTLET INSTALLED AT AN ACCESSIBLE LOCATION ON THE SAME LEVEL AND WITHIN 7.5 M (25 FT) OF THE EQUIPMENT'S REQUIRED SPACE.

NEC 110-22

- EACH DISCONNECTING MEANS SHALL BE LEGIBLY MARKED TO INDICATE ITS PURPOSE UNLESS LOCATED AND ARRANGED SO THE PURPOSE IS EVIDENT. THE MARKINGS SHALL BE OF SUFFICIENT DURABILITY TO WITHSTAND THE ENVIRONMENT INVOLVED.
- WHERE CIRCUIT BREAKERS OR FUSES ARE APPLIED IN COMPLIANCE WITH SERIES COMBINATION RATINGS MARKED ON THE EQUIPMENT BY THE MANUFACTURE, THE EQUIPMENT ENCLOSURE(S) SHALL BE LEGIBLY MARKED IN THE FIELD TO INDICATE THE EQUIPMENT HAS BEEN APPLIED WITH A SERIES COMBINATION RATINGS.
- THE MARKINGS SHALL BE READILY VISIBLE AND STATE THE INFORMATION LISTED ABOVE.

CAUTION - SERIES COMBINATION SYSTEM

RATED ___ AMPERES. IDENTIFIED

REPLACEMENT COMPONENTS REQUIRED.

Sheet Number	Sheet Name
E1-1	ELECTRICAL COVER SHEET
E2-1	ELECTRICAL LIGHTING GROUND FLOOR PLAN
E2-2	ELECTRICAL LIGHTING MEZZANINE PLAN
E2-3	ELECTRICAL LIGHTING CONTROLS DETAILS
E2-4	ELECTRICAL LIGHTING CONTROLS DETAILS
E3-1	ELECTRICAL POWER GROUND FLOOR PLAN
E3-2	ELECTRICAL POWER MEZZANINE PLAN
E3-3	ELECTRICAL HVAC POWER PLAN
E4-1	ELECTRICAL DETAILS
E4-2	ELECTRICAL PANEL SCHEDULES
E5-1	ELECTRICAL SITE PLAN

BD engineering

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BD Engineering, LLC
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BRIAN D. TANNENHAUS

ISSUED FOR BIDDING
NOT FOR CONSTRUCTION
10/20/2025

NJ PROFESSIONAL ENGINEER
NO. GE 45801
DATE: XX/XX/XXXX

No.	Description	Date
	ISSUED FOR CLIENT REVIEW	11/20/24
	ISSUED FOR BID	03/21/25
	ISSUED FOR CLIENT REVIEW	04/16/25
	ISSUED FOR BIDDING	10/29/25

revisions

PUBLIC WORKS BUILDING LOWER TOWNSHIP

771 SEASHORE ROAD

CAPE MAY COUNTY, NJ

project title

ELECTRICAL COVER SHEET

drawing name

scale 12" = 1'-0"

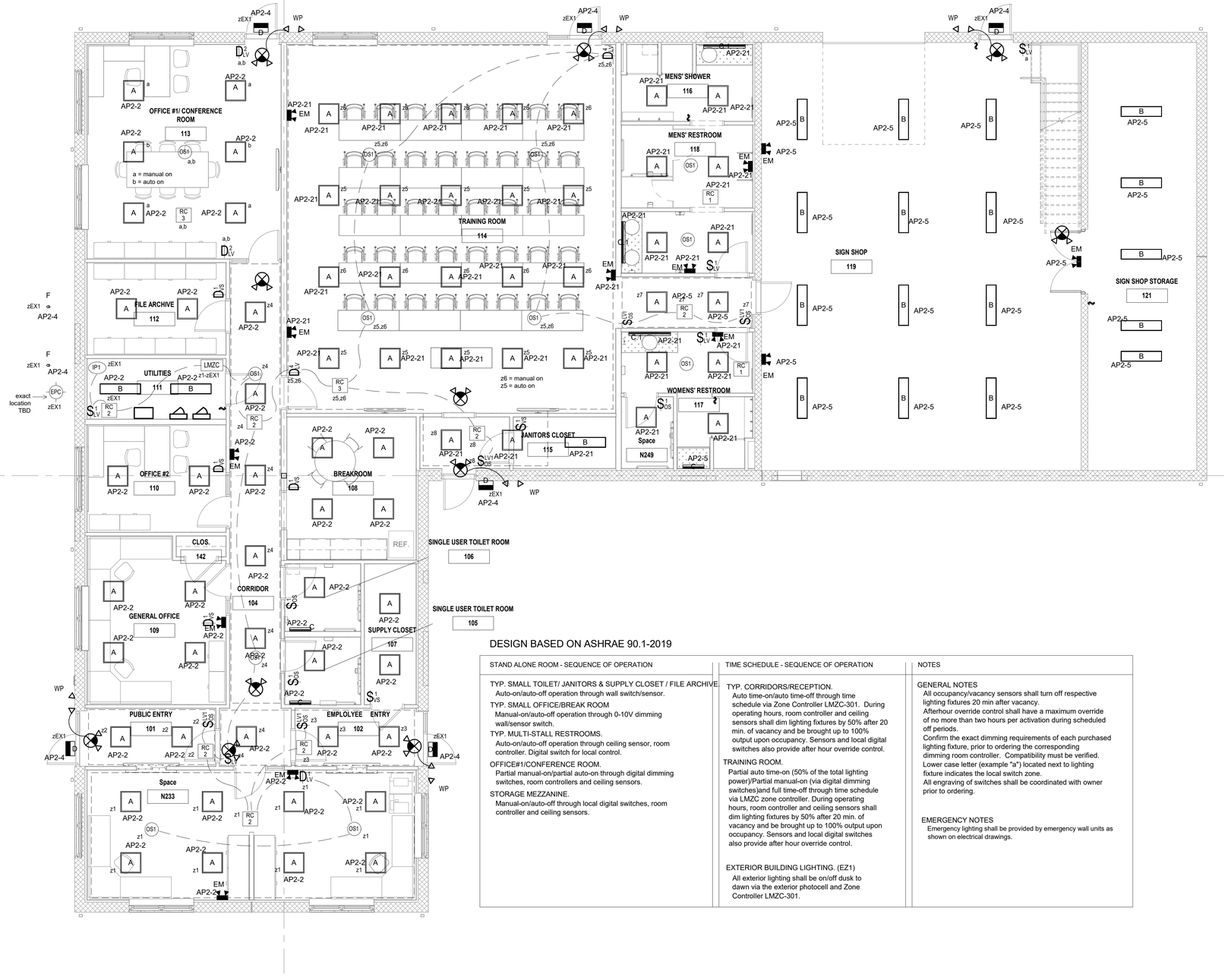
date 11/20/24

drawn by AW

project no. 240093

E1-1

drawing no.



1 ELECTRICAL LIGHTING GROUND FLOOR
3/16" = 1'-0"

DESIGN BASED ON ASHRAE 90.1-2019

STAND ALONE ROOM - SEQUENCE OF OPERATION	TIME SCHEDULE - SEQUENCE OF OPERATION	NOTES
TYP. SMALL TOILET/ JANITORS & SUPPLY CLOSET / FILE ARCHIVE. Auto-on/auto-off operation through wall switch/sensor. TYP. SMALL OFFICE/BREAK ROOM Manual-on/auto-off operation through 0-10V dimming wall/sensor switch. TYP. MULTI-STALL RESTROOMS. Auto-on/auto-off operation through ceiling sensor, room controller. Digital switch for local control. OFFICE#1/CONFERENCE ROOM. Partial manual-on/partial auto-on through digital dimming switches, room controllers and ceiling sensors. STORAGE MEZZANINE. Manual-on/auto-off through local digital switches, room controller and ceiling sensors.	TYP. CORRIDORS/RECEPTION. Auto time-on/auto time-off through time schedule via Zone Controller LMZC-301. During operating hours, room controller and ceiling sensors shall dim lighting fixtures by 50% after 20 min. of vacancy and be brought up to 100% output upon occupancy. Sensors and local digital switches also provide after hour override control. TRAINING ROOM. Partial auto time-on (50% of the total lighting power)/Partial manual-on (via digital dimming switches)and full time-off through time schedule via LMZC zone controller. During operating hours, room controller and ceiling sensors shall dim lighting fixtures by 50% after 20 min. of vacancy and be brought up to 100% output upon occupancy. Sensors and local digital switches also provide after hour override control. EXTERIOR BUILDING LIGHTING. (EZ1) All exterior lighting shall be on/off dusk to dawn via the exterior photocell and Zone Controller LMZC-301.	GENERAL NOTES All occupancy/vacancy sensors shall turn off respective lighting fixtures 20 min after vacancy. Afterhour override control shall have a maximum override of no more than two hours per activation during scheduled off periods. Confirm the exact dimming requirements of each purchased lighting fixture, prior to ordering the corresponding dimming room controller. Compatibility must be verified. Lower case letter (example "a") located next to lighting fixture indicates the local switch zone. All engraving of switches shall be coordinated with owner prior to ordering. EMERGENCY NOTES Emergency lighting shall be provided by emergency wall units as shown on electrical drawings.

GENERAL NOTES:

1. LIGHTING LAYOUT PROVIDED BY ARCHITECT. REFER TO ARCHITECHURAL PLANS FOR ADDITIONAL INFORMATION.
2. UNLESS OTHERWISE NOTED EXIT AND EMERGENCY LIGHTING TO BE CIRCUITED TO NEAREST LIGHTING CIRCUIT IN AREA AHEAD OF ALL SWITCHING DEVICES.

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PUBLIC WORKS BUILDING
LOWER TOWNSHIP
771 SEASHORE ROAD
CAPE MAY COUNTY, NJ

project title

drawing name: ELECTRICAL LIGHTING GROUND FLOOR PLAN

scale: As indicated

date: 11/20/24

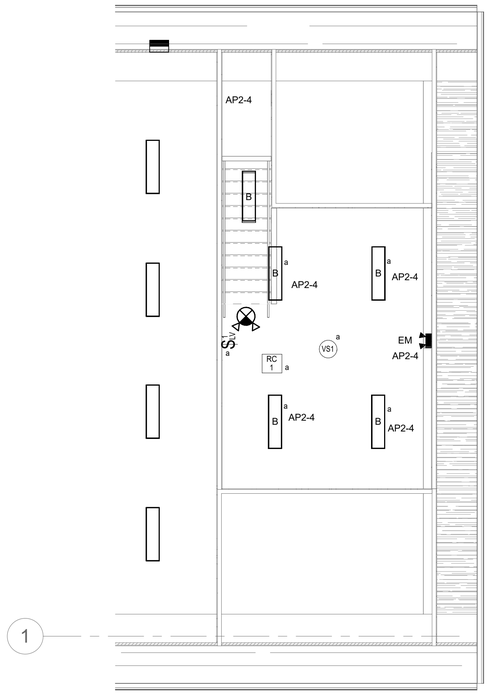
drawn by: AW

project no.: 240093

E2-1
drawing no.

GENERAL NOTES:

1. LIGHTING LAYOUT PROVIDED BY ARCHITECT. REFER TO ARCHITECHURAL PLANS FOR ADDITIONAL INFORMATION.
2. UNLESS OTHERWISE NOTED EXIT AND EMERGENCY LIGHTING TO BE CIRCUITED TO NEAREST LIGHTING CIRCUIT IN AREA AHEAD OF ALL SWITCHING DEVICES.



1 ELECTRICAL LIGHTING MEZZANINE PLAN
3/16" = 1'-0"

BD engineering

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LOWER TOWNSHIP
771 SEASHORE ROAD

CAPE MAY COUNTY, NJ

project title

drawing name: ELECTRICAL LIGHTING MEZZANINE PLAN

scale: As indicated

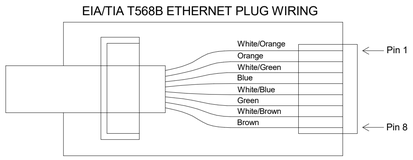
date: 11/20/24

drawn by: AW

project no.: 240093

E2-2

drawing no.



EIA/TIA T568B ETHERNET PLUG WIRING

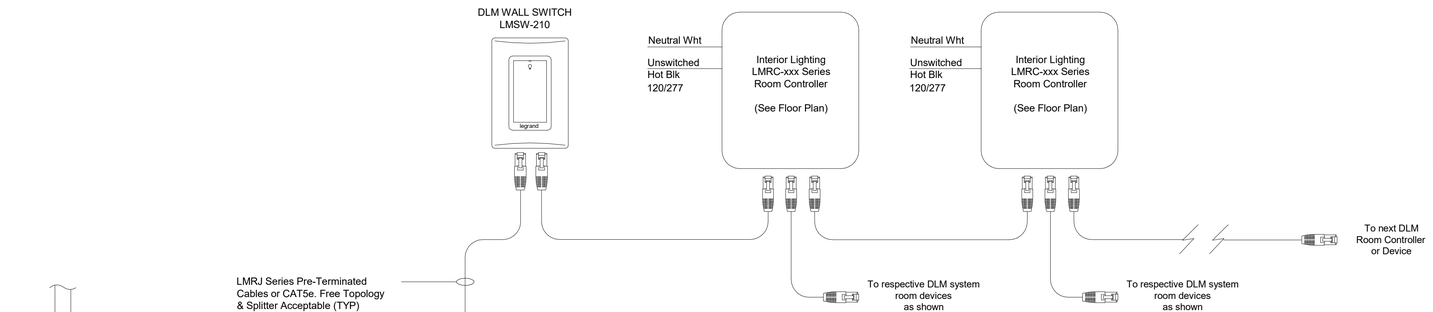
LATCHING TAB FACES AWAY
(ON OPPOSITE SIDE)

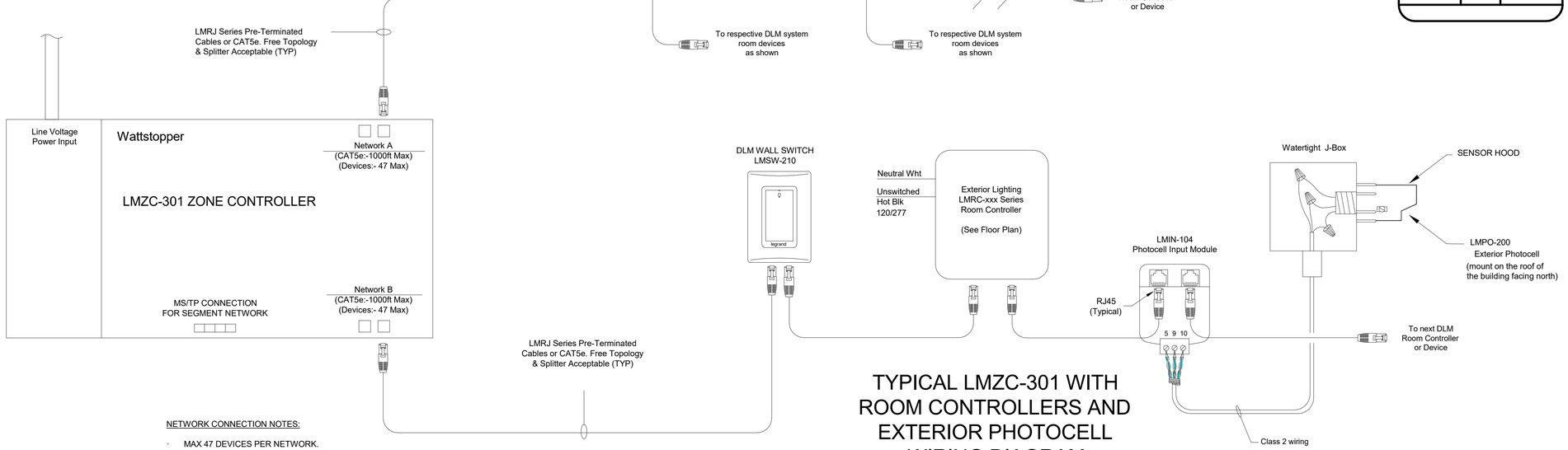
CAT5E WIRING DIAGRAM

WATTSTOPPER DLM SYSTEM NOTES:

IN ROOM BUS (IRB):

1. MAX IRB CAT5e LENGTH OF 150ft IN BETWEEN EACH INTELLIGENT DLM DEVICE, WITH A MAX OVERALL LENGTH OF 1,000ft.
2. CAT5e CABLES CAN BE RUN FREE OR STAR TOPOLOGY, BUT DO NOT CREATE ANY LOOPS.
3. ROOM CONTROLLERS SHALL BE INSTALLED LOCAL TO AREA OF CONTROL.
4. NEVER USE MORE THAN FOUR (4) 100 SERIES CONTROLLERS ON AN IRB.
5. LMRC-100 AND LMRC-110 SERIES ROOM CONTROLLERS SUPPLY 150mA OF POWER TO AN IRB.
6. LMRC-210 SERIES ROOM CONTROLLERS SUPPLY 250mA OF POWER TO AN IRB.
7. 48 MAX LMRC-110 AND/OR LMRC-210 SERIES (INTELLIGENT) ROOM CONTROLLERS ON A LOCAL NETWORK.





TYPICAL LMZC-301 WITH ROOM CONTROLLERS AND EXTERIOR PHOTOCELL WIRING DIAGRAM

NOTE: Refer to layout for exact quantity and model number of devices.

NETWORK CONNECTION NOTES:

- MAX 47 DEVICES PER NETWORK.
- MAX 64 LOADS ACROSS BOTH NETWORKS.
- ROOM CONTROLLERS SHALL BE INSTALLED LOCAL TO AREA OF CONTROL.
- MAX 250mA DRAW PER NETWORK WITHOUT SUPPLEMENTAL POWER (ROOM CONTROLLERS).
- MAX 800mA DRAW PER NETWORK WITH SUPPLEMENTAL POWER (ROOM CONTROLLERS).
- MAX IRB CAT5e LENGTH OF 150ft IN BETWEEN EACH INTELLIGENT DLM DEVICE. WITH A MAX OVERALL LENGTH OF 1,000ft.
- NETWORK MULTIPLE LMZC-301 ZONE CONTROLLERS VIA LM-MTSP SEGMENT WIRE.

LIGHTING CONTROL NOTES

1. All sensor locations are approximate. Refer to the Manufacture's installation instructions prior to installation.
2. If any questions arise regarding sensor placement, contact SLS Lighting and Controls prior to installation to schedule a field visit.
3. If pendant mounted fixtures are present, location and coverage of sensors should be reviewed.
4. Ceiling mounted sensors shall be located no closer than 6-8' from air supply/return registers.
5. Maximum number of sensors that can be wired in parallel to a single power pack or room controller, depends on sensor model (see individual sheets for mA consumption).
6. Contractor is responsible for field verification of required number of power packs or room controllers.
7. One power pack or room controller is required for each branch circuit that is to be controlled.
8. Power packs and room controllers shall be accessible and installed local to the area of control.
9. Contractor shall install all equipment so it is accessible via a ladder.
10. Power packs and room controllers are shown for zoning purposes only. Contractor is responsible for determining actual location and circuiting.
11. Power packs (if apply) should be mounted at least 6-12 inches from any sensor.
12. Locations of photocells (if shown) are diagrammatic and for quantitative purposes only. Actual mounting locations of photocells should be determined in an onsite pre-installation meeting prior to roughing in equipment.
13. Turn off any power at the circuit breaker before wiring any product.
14. Free-topology DLM local network segments may include digital load controllers, switches and sensors; Cat 5e cable, 150' per device to 1,000' max, per each local network.
15. Never use more than four (4) 100 series controllers on an IRB (In Room Bus).

ELECTRICAL CONTRACTOR SHALL CONTACT SLS NJ CONTROLS WITH ANY QUESTIONS:

DANIEL HAAS - daniel@slsltg.com
Cell Phone: 917-580-1681

LIGHTING CONTROL SYMBOL LIST

LEGRAND - WATTSTOPPER		
RC 1 LMRC-101	120/277 VAC (20A Rated)	1-relay On/Off Room Controller
RC 2 LMRC-111 -20M	120/277 VAC (20A Rated)	1-Relay On/Off 0-10V Dimming Room Controller
RC 3 LMRC-212	120/277 VAC (20A Rated)	2-Relay On/Off 0-10V Dimming Room Controller
S^{1}_{LV} LMSW-210	24VDC, 5mA	Single Zone, On/Off Digital Wall Switch
D^{1}_{LV} LMSW-211	24VDC, 5mA	Single Zone, On/Off, Raise/Lower Digital Wall Switch
D^{2}_{LV} LMSW-222	24VDC, 5mA	Dual Zone, On/Off, Raise/Lower Digital Wall Switch
D^{4}_{LV} LMSW-241 (engraving)	24VDC, 5mA	Four Zone, On/Off, Raise/Lower Digital Wall Switch
S^{LV1}_{OS} LMDW-220	24VDC, 20mA	Single Zone, On/Off Dual Tech Wall Switch/Occ. Sensor
OS1 LMDC-100	24VDC, 20mA	Dual Technology Ceiling Sensor
VS1 LMDC-100	24VDC, 20mA	Dual Technology Ceiling Sensor
LMZC LMZC-301	120/277 VAC	DLM Zone Controller
IP1 LMIN-104	24VDC, 20mA	Input Interface
EPC LMPO-200	24VDC	Analog Exterior Photocell
S^{1}_{OS} PW-301	120/277 VAC	1-Button PIR Single Relay Wall Switch Occ Sensor
S^{1}_{VS} PW-301	120/277 VAC	1-Button PIR Single Relay Wall Switch Occ Sensor
D^{1}_{VS} DW-311	120/277 VAC	2-Button Dual Tech 0-10V Dim Wall Switch Occ Sensor

THESE DETAILS ARE PROVIDED FOR DIAGRAMMATIC PURPOSES ONLY. REFER TO THE MANUFACTURES SHOP DRAWINGS, DETAILS AND INSTALLATION INSTRUCTIONS FOR FINAL REQUIREMENTS.

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PUBLIC WORKS BUILDING
LOWER TOWNSHIP
771 SEASHORE ROAD

CAPE MAY COUNTY, NJ

project title

drawing name: ELECTRICAL LIGHTING CONTROLS DETAILS

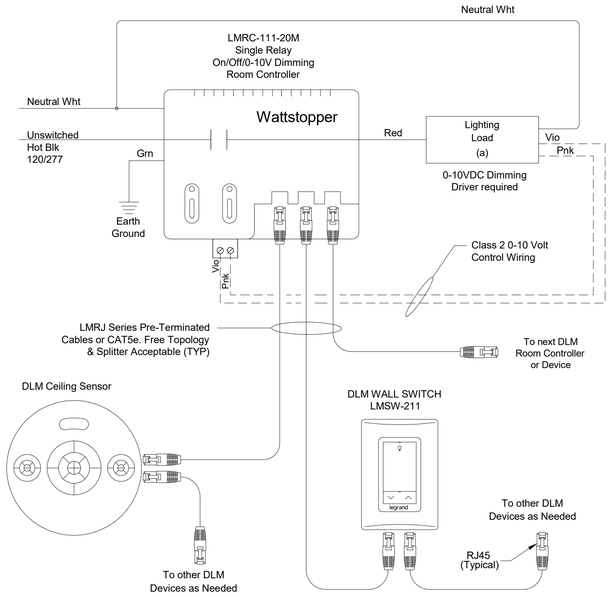
scale: 12" = 1'-0"

date: 11/20/24

drawn by: AW

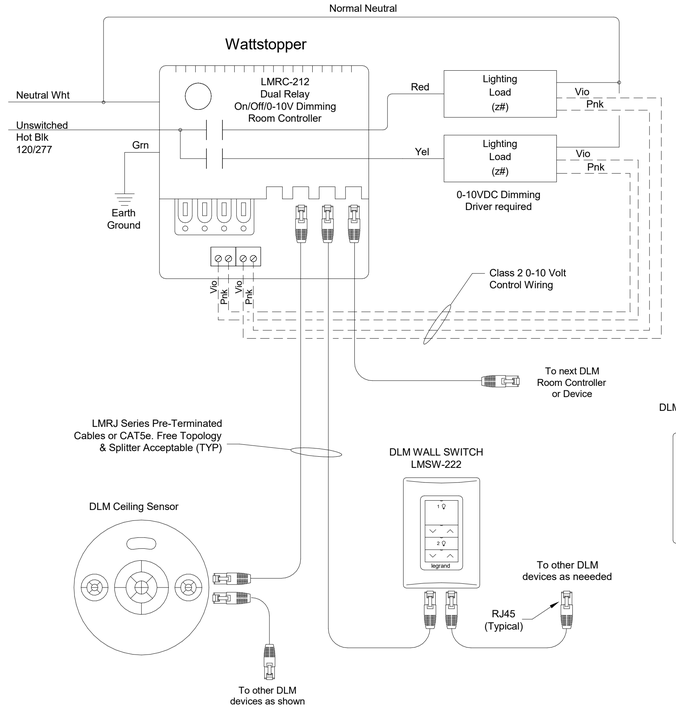
project no.: 240093

drawing no.: E2-3



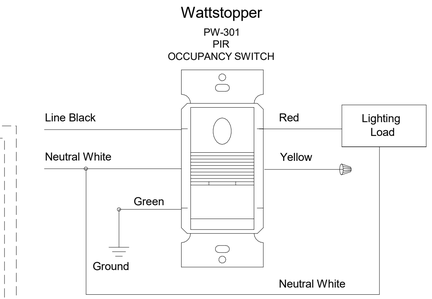
LMRC-111-20M WIRING DIAGRAM

NOTE: Refer to layout for exact quantity and model number of devices.



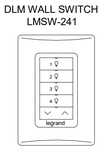
TYPICAL LMRC-212 WIRING DIAGRAM

NOTE: Refer to layout for exact quantity and model number of devices.



PW-301 WIRING DIAGRAM

Refer to Sequence of Operation notes for Manual-On and Auto-On settings



where shown

LIGHTING CONTROL NOTES

1. All sensor locations are approximate. Refer to the Manufacture's installation instructions prior to installation.

2. If any questions arise regarding sensor placement, contact SLS Lighting and Controls prior to installation to schedule a field visit.

3. If pendant mounted fixtures are present, location and coverage of sensors should be reviewed.

4. Ceiling mounted sensors shall be located no closer than 6-8' from air supply/return registers.

5. Maximum number of sensors that can be wired in parallel to a single power pack or room controller, depends on sensor model (see individual sheets for mA consumption).

6. Contractor is responsible for field verification of required number of power packs or room controllers.

7. One power pack or room controller is required for each branch circuit that is to be controlled.

8. Power packs and room controllers shall be accessible and installed local to the area of control.

9. Contractor shall install all equipment so it is accessible via a ladder.

10. Power packs and room controllers are shown for zoning purposes only. Contractor is responsible for determining actual location and circuiting.

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12. Locations of photocells (if shown) are diagrammatic and for quantitative purposes only. Actual mounting locations of photocells should be determined in an onsite pre-installation meeting prior to roughing in equipment.

13. Turn off any power at the circuit breaker before wiring any product.

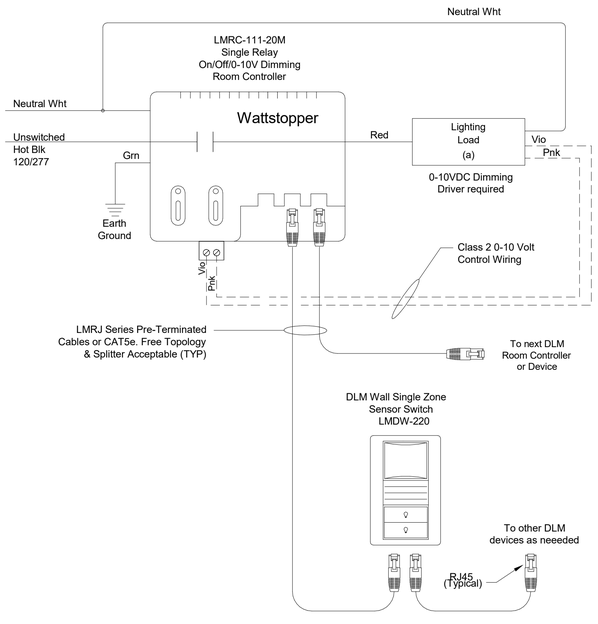
14. Free-topology DLM local network segments may include digital load controllers, switches and sensors; Cat 5e cable, 150' per device to 1,000' max, per each local network.

15. Never use more than four (4) 100 series controllers on an IRB (In Room Bus).

LIGHTING CONTROL SYMBOL LIST

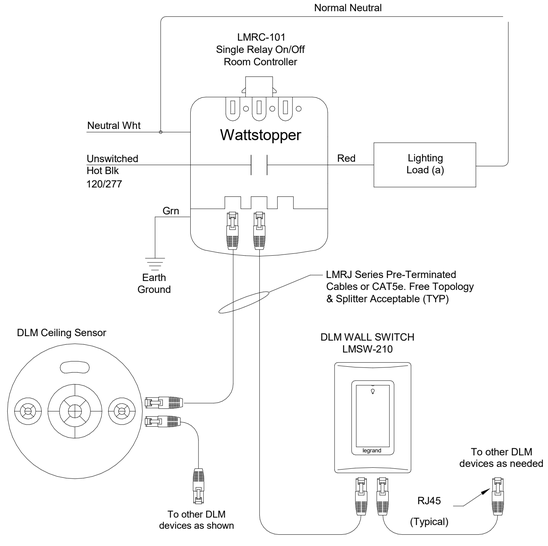
LEGRAND - WATTSTOPPER

RC 1	LMRC-101	120/277 VAC (20A Rated)	1-relay On/Off Room Controller
RC 2	LMRC-111 -20M	120/277 VAC (20A Rated)	1-Relay On/Off 0-10V Dimming Room Controller
RC 3	LMRC-212	120/277 VAC (20A Rated)	2-Relay On/Off 0-10V Dimming Room Controller
S1 LV	LMSW-210	24VDC, 5mA	Single Zone, On/Off Digital Wall Switch
D1 LV	LMSW-211	24VDC, 5mA	Single Zone, On/Off, Raise/Lower Digital Wall Switch
D2 LV	LMSW-222	24VDC, 5mA	Dual Zone, On/Off, Raise/Lower Digital Wall Switch
D4 LV	LMSW-241 (engraving)	24VDC, 5mA	Four Zone, On/Off, Raise/Lower Digital Wall Switch
S LV1 OS	LMDW-220	24VDC, 20mA	Single Zone, On/Off Dual Tech Wall Switch/Occ. Sensor
OS1	LMDC-100	24VDC, 20mA	Dual Technology Ceiling Sensor
VS1	LMDC-100	24VDC, 20mA	Dual Technology Ceiling Sensor
LMZC	LMZC-301	120/277 VAC	DLM Zone Controller
IP1	LMIN-104	24VDC, 20mA	Input Interface
EPC	LMPO-200	24VDC	Analog Exterior Photocell
S1 OS	PW-301	120/277 VAC	1-Button PIR Single Relay Wall Switch Occ Sensor
S1 VS	PW-301	120/277 VAC	1-Button PIR Single Relay Wall Switch Occ Sensor
D1 VS	DW-311	120/277 VAC	2-Button Dual Tech 0-10V Dim Wall Switch Occ Sensor



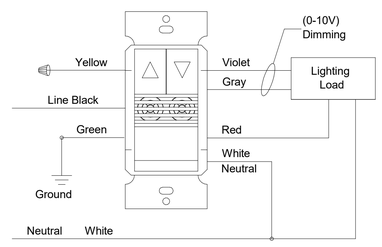
LMRC-111-20M WITH LMDW-220 WIRING DIAGRAM

NOTE: Refer to layout for exact quantity and model number of devices.



LMRC-101 WIRING DIAGRAM

NOTE: Refer to layout for exact quantity and model number of devices.



DW-311 SINGLE WIRING DIAGRAM

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PUBLIC WORKS BUILDING
LOWER TOWNSHIP
771 SEASHORE ROAD

CAPE MAY COUNTY, NJ

project title

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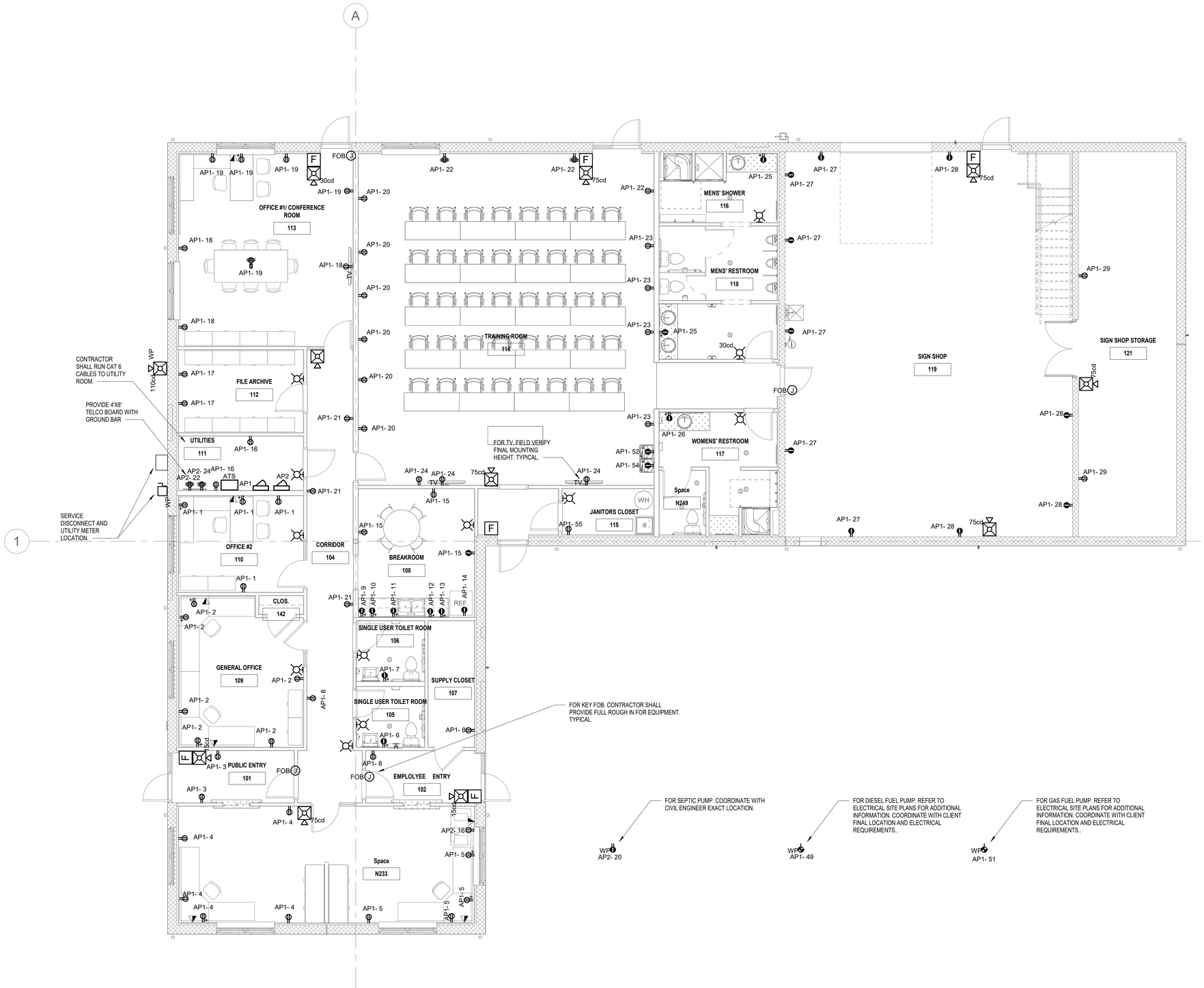


1 ELECTRICAL POWER GROUND FLOOR PLAN
3/16" = 1'-0"

BD engineering
NJ CERTIFICATE OF AUTHORIZATION - 24GA28116100
BD Engineering, LLC
44 MAIN STREET FARMINGDALE NJ 07727 732-886-5432

BRIAN D. TANNENHAUS

ISSUED FOR BIDDING
NOT FOR CONSTRUCTION
10/29/2025

NJ PROFESSIONAL ENGINEER
NO. GE 45801
DATE: XX/XX/XXXX

No.	Description	Date
	ISSUED FOR CLIENT REVIEW	11/20/24
	ISSUED FOR BID	03/21/25
	ISSUED FOR CLIENT REVIEW	04/16/25
	ISSUED FOR BIDDING	10/29/25

revisions

PUBLIC WORKS BUILDING
LOWER TOWNSHIP
771 SEASHORE ROAD
CAPE MAY COUNTY, NJ

project title

drawing name: ELECTRICAL POWER GROUND FLOOR PLAN

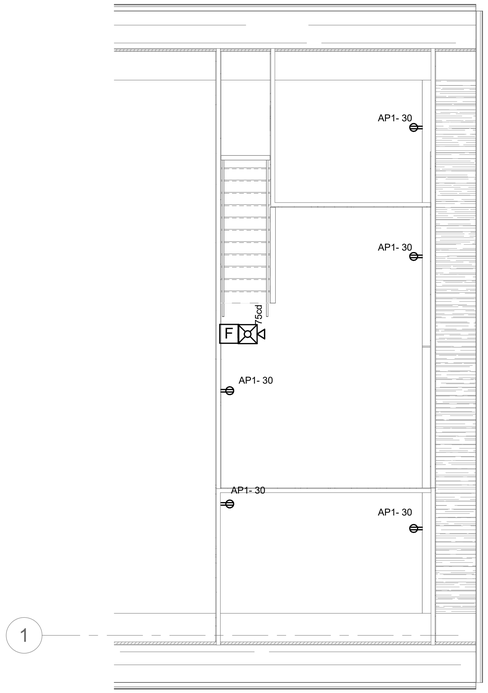
scale 3/16" = 1'-0"

date 11/20/24

drawn by AW

project no. 240093

E3-1
drawing no.



1 ELECTRICAL POWER MEZZANINE PLAN
3/16" = 1'-0"

BD engineering

NJ CERTIFICATE OF AUTHORIZATION - 24GA28116100
BD Engineering, LLC
44 MAIN STREET FARMINGDALE NJ 07727 732-886-5432

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revisions

PUBLIC WORKS BUILDING
LOWER TOWNSHIP
771 SEASHORE ROAD
CAPE MAY COUNTY, NJ

project title

drawing name: ELECTRICAL POWER MEZZANINE PLAN

scale 3/16" = 1'-0"

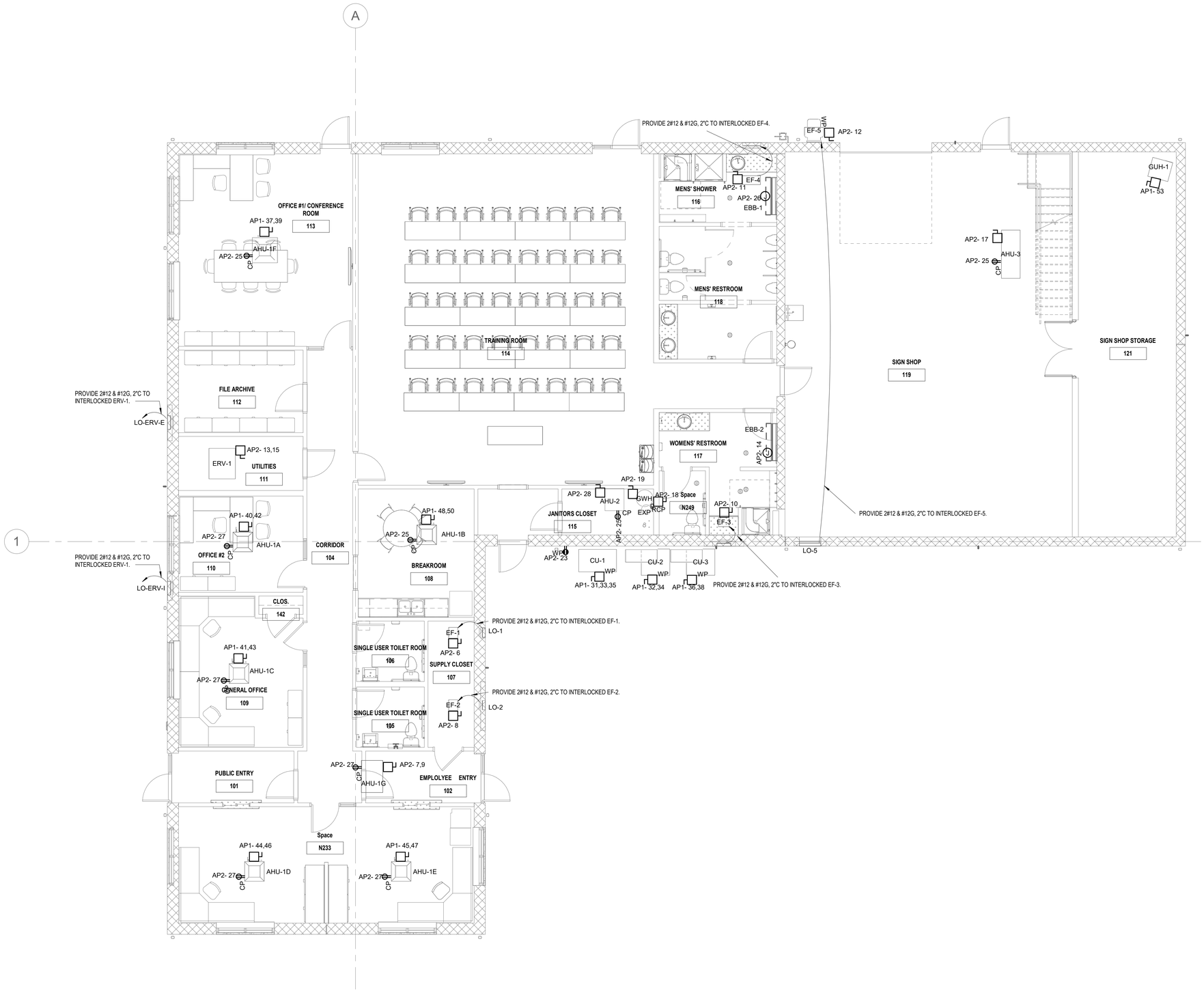
date 11/20/24

drawn by AW

project no. 240093

E3-2

drawing no.



1 ELECTRICAL HVAC POWER PLAN
3/16" = 1'-0"

BD engineering

NJ CERTIFICATE OF AUTHORIZATION - 24GA28116100
BD Engineering, LLC
44 MAIN STREET FARMINGDALE NJ 07727 732-886-5432

BRIAN D. TANNENHAUS

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NJ PROFESSIONAL ENGINEER
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revisions

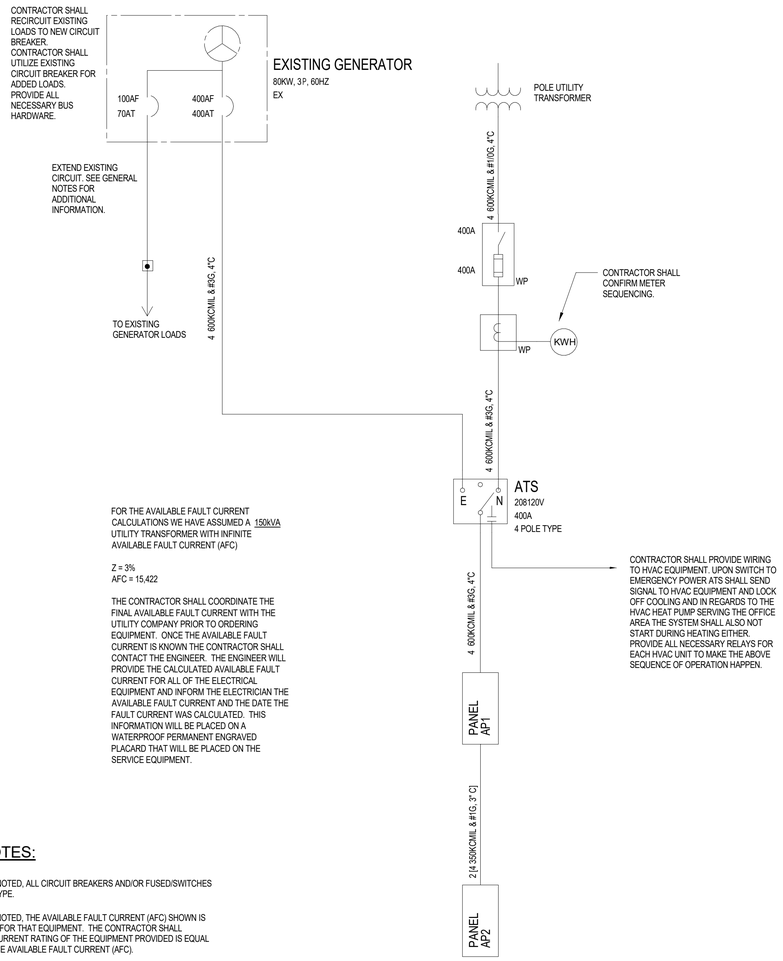
PUBLIC WORKS BUILDING
LOWER TOWNSHIP
771 SEASHORE ROAD
CAPE MAY COUNTY, NJ

project title

ELECTRICAL HVAC POWER PLAN
drawing name

scale 3/16" = 1'-0"
date 11/20/24
drawn by AW
project no. 240093

E3-3
drawing no.



FOR THE AVAILABLE FAULT CURRENT CALCULATIONS WE HAVE ASSUMED A 150kVA UTILITY TRANSFORMER WITH INFINITE AVAILABLE FAULT CURRENT (AFC)

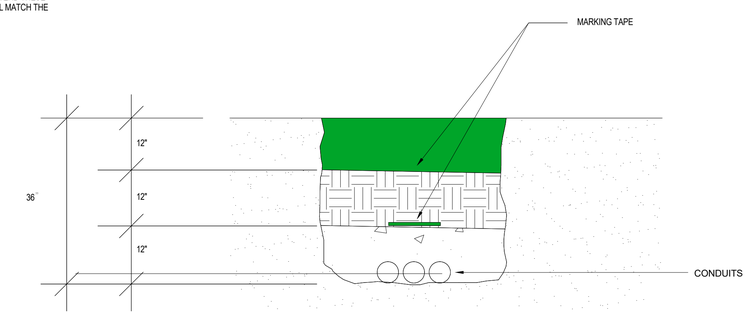
Z = 3%
AFC = 15,422

THE CONTRACTOR SHALL COORDINATE THE FINAL AVAILABLE FAULT CURRENT WITH THE UTILITY COMPANY PRIOR TO ORDERING EQUIPMENT. ONCE THE AVAILABLE FAULT CURRENT IS KNOWN THE CONTRACTOR SHALL CONTACT THE ENGINEER. THE ENGINEER WILL PROVIDE THE CALCULATED AVAILABLE FAULT CURRENT FOR ALL OF THE ELECTRICAL EQUIPMENT AND INFORM THE ELECTRICIAN THE AVAILABLE FAULT CURRENT AND THE DATE THE FAULT CURRENT WAS CALCULATED. THIS INFORMATION WILL BE PLACED ON A WATERPROOF PERMANENT ENGRAVED PLACARD THAT WILL BE PLACED ON THE SERVICE EQUIPMENT.

GENERAL NOTES:

1. UNLESS OTHERWISE NOTED, ALL CIRCUIT BREAKERS AND/OR FUSED/SWITCHES SHOWN ARE 3 POLE TYPE.
2. UNLESS OTHERWISE NOTED, THE AVAILABLE FAULT CURRENT (AFC) SHOWN IS THE MINIMUM RATING FOR THAT EQUIPMENT. THE CONTRACTOR SHALL ENSURE THE FAULT CURRENT RATING OF THE EQUIPMENT PROVIDED IS EQUAL OR GREATER THAN THE AVAILABLE FAULT CURRENT (AFC).
3. THE CONTRACTOR SHALL ASSUME FOR MULTI-SECTION PANELS THERE WILL BE FEED-THROUGH LUGS FROM ONE SECTION TO THE OTHER SECTION AND CONNECTED WITH A FEEDER THE SAME SIZE AS THE FEEDER CONDUCTORS AND CONDUIT(S) FROM THE UPSTREAM OVER CURRENT PROTECTION DEVICE.
4. UNLESS OTHERWISE NOTED, ALL CONDUCTOR SIZES SHOWN ARE COPPER TYPE.
5. UNLESS OTHERWISE NOTED ALL ELECTRICAL PANELS WILL BE REQUIRED TO HAVE SURGE PROTECTION. REFER TO COVER SHEET FOR ADDITIONAL INFORMATION.
6. BASIS OF DESIGN FOR ELECTRICAL EQUIPMENT IS EATON.
7. FOR ANY ELECTRICAL DEVICES TO BE RELOCATED OR FOR EXISTING CIRCUITS TO BE REUSED OR EXTENDED THE CONTRACTOR SHALL EXTEND THESE EXISTING CIRCUITS AS REQUIRED. THE CONTRACTOR SHALL MATCH THE EXISTING CONDUCTORS AND CONDUIT TYPE AND SIZES.

SINGLE LINE DIAGRAM
SCALE: NONE



EXTERIOR DIRECT BURIED CONDUIT DETAIL
SCALE: NONE

GENERAL FIRE ALARM SYSTEM NOTES

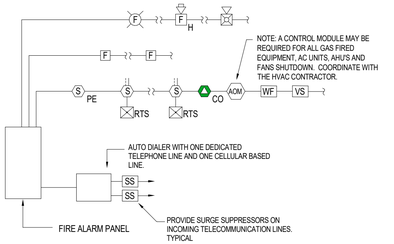
1. FIRE ALARM SYSTEM EQUIPMENT & INSTALLATION SHALL BE IN ACCORDANCE WITH THE APPLICABLE STATE OF NEW JERSEY BUILDING AND FIRE CODE. REFER TO THE ARCHITECTS DRAWINGS FOR THE BUILDING CLASSIFICATIONS.
2. FIRE ALARM SYSTEM SHALL BE INSTALLED BY A NICET CERTIFIED FIRE ALARM INSTALLER. FIRE ALARM SYSTEM SHALL BE U.L., N.F.P.A., F.M. AND LOCALLY APPROVED. THE SYSTEM SHALL COMPLY WITH THE ABOVE MENTIONED BUILDING CODE, AMERICAN DISABILITY ACT (ADA) AND ALL OTHER APPLICABLE STATE AND LOCAL CODES & REGULATIONS.
3. THE FIRE ALARM CONTRACTOR SHALL COORDINATE WITH THE FIRE ALARM EQUIPMENT MANUFACTURER FOR THE EXACT NUMBER AND SIZE OF ALL SYSTEM WIRING. ALL FIRE ALARM SYSTEM WIRING SHALL BE INSTALLED IN CONDUIT, SIZED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE.
4. THE FIRE ALARM RISER DIAGRAM IS DIAGRAMMATIC AND SERVES TO INDICATE THE ALARM DEVICE INTERCONNECTIONS AS CLEARLY AS POSSIBLE. IT DOES NOT SHOW QUANTITY OF DEVICES, ROUTING OR OFFSETS OF INTERCONNECTIONS OR QUANTITY. THE CONTRACTOR SHALL DETERMINE DEVICE LOCATIONS FROM THE DRAWING AND SELECT OPTIMUM ROUTING. PROVIDE OFFSETS AS MAY BE REQUIRED.
5. ALL JUNCTION BOXES ASSOCIATED WITH THE FIRE ALARM SYSTEM SHALL BE PAINTED RED.
6. SEE FLOOR PLANS FOR LOCATIONS OF ALL DEVICES. COORDINATE WITH THE SPRINKLER CONTRACTOR FOR ALL FLOW AND TAMPER SWITCH LOCATIONS AND QUANTITY.
7. TAMPER AND FLOW SWITCHES SHALL BE SUPPLIED AND INSTALLED BY THE MECHANICAL/PLUMBING CONTRACTOR AND WIRED BY THE FIRE ALARM INSTALLER.
8. DEVICE MOUNTING HEIGHT SHALL COMPLY WITH ALL ANSI A117 AND NFPA REQUIREMENTS.
9. THE FIRE ALARM PANEL SHALL NOTIFY THE LOCAL FIRE STATION HAVING JURISDICTION AND/OR CENTRAL MONITORING STATION. THE INSTALLATION CONTRACTOR SHALL COORDINATE WITH THE LOCAL INSPECTOR FOR AN AUTO DIALER APPROVED LOCAL STATION.
10. THE FIRE ALARM INSTALLER SHALL GUARANTEE ALL WORK, MATERIAL, AND EQUIPMENT FOR A PERIOD OF ONE (1) YEAR FROM DATE OF EQUIPMENT TURN OVER TO THE OWNER.
11. THE FIRE ALARM INSTALLER SHALL FURNISH AND INSTALL A COMPLETE FIRE ALARM SYSTEM INCLUDING ALL PANELS, WIRING, ASSOCIATED BOXES, CONDUITS, FITTINGS, CONNECTORS AND ALL NECESSARY APPLIANCES FOR AN APPROVED FIRE ALARM INSTALLATION.
12. ALL CONDUCTORS SHALL BE MINIMUM #14 THWN SOLID COPPER 90 DEGREES C. FPLP CABLE SHALL HAVE A MINIMUM RATING OF 150°C.
13. ALL 120V SUPPLY POWER CONDUCTORS TO THE FIRE COMMAND STATION AND/OR FIRE ALARM CONTROL UNIT AND/OR TO OUTLYING CONTROL CABINETS, SHALL CONTAIN A GREEN INSULATED GROUNDING CONDUCTOR SIZED IN ACCORDANCE WITH THE ADOPTED ELECTRICAL CODE WITH A MINIMUM OF #10 AWG.
14. THE FIRE ALARM INSTALLER SHALL SUBMIT IBC SECTION 907 SIGNED AND SEALED SHOP DRAWINGS TO THE AUTHORITY HAVING JURISDICTION THAT INCLUDE BUT ARE NOT LIMITED TO ALL BATTERY CALCULATIONS, EQUIPMENT SPECIFICATIONS, NUMBER OF DEVICES, VOLTAGE DROP CALCULATIONS AND ROUTING OF CABLES. THE FIRE ALARM INSTALLER SHALL BE STATE APPROVED AND SHALL ATTEND ALL INSPECTIONS. THE PLANS ARE TO BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED TO PRACTICE IN THE STATE THIS PROJECT IS LOCATED OR IF ACCEPTABLE BY THE AUTHORITY HAVING JURISDICTION BE A MINIMUM NICET LEVEL III CERTIFIED DESIGNER.
15. ALL STROBES SHALL BE SYNCHRONIZED TYPE.
16. SMOKE DETECTORS SHALL BE A MINIMUM OF 3(THREE) FEET FROM ANY AIR SUPPLY OR AIR RETURN DIFFUSERS FOR ANY HVAC AND EXHAUST SYSTEMS.
17. THE CONTRACTOR SHALL BE MADE AWARE THAT THE ANNUNCIATION DEVICES ARE SHOWN WIRED DIAGRAMMATICALLY. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY POWER SUPPLIES AS NECESSARY FOR A COMPLETE AND OPERATIONAL SYSTEM. PROVIDE A SMOKE DETECTOR ABOVE THE POWER SUPPLY(S). IF THE POWER SUPPLIES ARE TO BE REMOTE FROM THE MAIN FIRE ALARM PANEL THE CONTRACTOR SHALL INFORM THE ELECTRICIAN OF THESE ADDITIONAL CIRCUIT REQUIREMENTS, FAILURE TO INFORM THE ELECTRICIAN OF THESE REQUIREMENTS WILL RESULT IN THE DENIAL OF ANY EXTRAS.
18. FOR THE SYSTEM CONTROL PANELS AND/OR POWER SUPPLIES THE CONTRACTOR SHALL INSTALL THE CONDUITS FROM THE SIDE OR BOTTOM PORTION OF THE PANEL ONLY. THE CONTRACTOR SHALL ENSURE THAT NO CONDUITS ARE INSTALLED IN THE TOP OF THE(SE) PANEL(S).
19. PROVIDE SURGE SUPPRESSION DEVICES ON ALL INCOMING TELECOMMUNICATION LINES AND POWER LINES FOR MAIN PANEL AND AUXILIARY PANELS.

FIRE ALARM SEQUENCE OF OPERATIONS

ACTIVATION OF CARBON MONOXIDE DETECTOR	ACTIVATION OF MANUAL PULL STATION	ACTIVATION OF AREA SMOKE DETECTOR	ACTIVATION OF DUCT SMOKE DETECTOR	ACTIVATION OF WATER FLOW SWITCH	ACTIVATION OF SUPERVISORY TAMPER SWITCH	TROUBLE CONDITION AT PANEL	NOTES:
X	X	X	X	X	X	X	ACTIVATES ZONE ANNUNCIATION ON PANEL AND L.C.D.
	X	X	X	X			ACTIVATES AUDIO DEVICES
	X	X	X	X			ACTIVATES STROBE LIGHTS THROUGHOUT
X	X	X	X	X	X	X	TRANSMITS SIGNAL TO CENTRAL OFFICE COMPANY
X	X	X	X	X			ACTIVATES RELAY TO SHUT OFF AC UNITS, AHU'S, AND FANS. COORDINATE WITH THE LOCAL FIRE MARSHALL IF ALL AC UNITS, AHU'S AND FANS NEED TO SHUT DOWN IF ONE DUCT DETECTOR IS ACTIVATED. SYSTEM SHALL BE CAPABLE OF THIS FEATURE. FOR CARBON MONOXIDE IT IS TO SHUT DOWN ALL FUEL BURNING APPLIANCES SUCH AS BOILERS.
X	X	X	X	X	X	X	ACTIVATES SPECIFIC SIGNAL AT REMOTE ANNUCIATOR
X							ACTIVATE SOUNDER BASE
	X	X	X	X			RELEASE ALL SECURITY DOORS

1. FIRE DEPARTMENT AND CENTRAL OFFICE COMPANY TO RECEIVE SEPARATE & DISTINCT SIGNALS.
   a) MANUAL ALARM
   b) SPRINKLER ALARM
   c) AUTOMATIC ALARM (ie., SMOKE & DUCT DETECTORS.)
   d) TROUBLE & SUPERVISORY SIGNAL
2. ALL FANS TO BE MANUALLY RESTARTED. AUTOMATIC RESTART IS NOT PERMITTED
3. ALL SIGNALS TO FIRE ALARM PANEL TO BE DUPLICATED AT REMOTE ANNUNCIATOR PANEL LOCATED BY ENTRANCE. FINAL LOCATION TO BE DETERMINED BY THE FIRE MARSHAL.

* SEQUENCE OF OPERATION MUST COMPLY WITH AHJ AND LOCAL FIRE DEPARTMENT.



FIRE ALARM RISER AND NOTES
SCALE: NONE

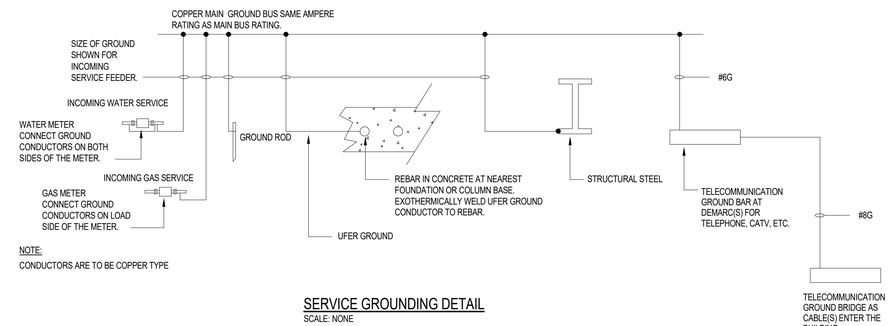
FIRE ALARM SUMMARY:

THE FIRE ALARM FOR THE BUILDING SHALL BE A LISTED ADDRESSABLE CHANGE FOR HORN/STROBE PROJECT TYPE TO PROVIDE THE REQUIRED AUDIO AND VISUAL NOTIFICATION TO EVACUATE THE ENTIRE BUILDING UPON A FIRE CALL, THERE WILL BE NO OCCUPANT RELOCATION DURING A FIRE CALL.

ALARM INITIATION:
MANUAL INITIATION: PULLSTATIONS SHALL BE PROVIDED AT ALL EXITS.
DUCT SMOKE DETECTION: DUCT SMOKE DETECTION SHALL BE LOCATED ON THE SUPPLY AND RETURN OF THE BUILDINGS MAIN HVAC ROOFTOP UNITS. DUCT SMOKE DETECTION SHALL BE ADDED AT EACH FLOOR TAKEOFF FROM THE SUPPLY AND RETURN MAINS.
SMOKE DETECTORS: AREA SMOKE DETECTORS SHALL BE PROVIDED ABOVE EACH FIRE ALARM PANEL AND/OR POWER SUPPLY, TOP OF EACH STAIRWELL.
CARBON MONOXIDE: CARBON MONOXIDE DETECTION WITH SOUNDER BASES SHALL BE PROVIDED FOR ALL FUEL BURNING EQUIPMENT, THE FIRST ROOM FROM THE FIRST DUCT TAKEOFF FROM EACH GAS FIRED HVAC UNIT AND EACH LEVEL TAKEOFF FROM THE ROOFTOP UNITS SERVING MULTIPLE FLOORS. UPON DETECTION OF CARBON MONOXIDE THE FUEL BURNING SYSTEM(S) IN THE AREA THE CARBON MONOXIDE DETECTOR IS PROTECTING SHALL SHUT DOWN THOSE FUEL BURNING EQUIPMENT AND INITIATE TROUBLE ALARM.
OCCUPANT NOTIFICATION:
VISUAL: PUBLIC MODE STROBES WILL BE PROVIDED THROUGHOUT THE FACILITY EXCEPT THE STAIRWELLS.

AUDIO: HORN APPLIANCES SHALL BE UTILIZED TO PROVIDE BOTH AUDIBILITY AND INTELLIGIBILITY THROUGHOUT THE BUILDING INCLUDING THE STAIRWELLS. HORN SPACING SHALL BE AS SUCH TO PROVIDE THE CODE REQUIRED AUDIBILITY 15DBA ABOVE THE AVERAGE AMBIENT SOUND LEVEL OR 5DBA ABOVE THE MAXIMUM SOUND LEVEL HAVING A DURATION OF NOT LESS THAN 60 SECONDS. PER ANNEX A OF NFPA 72 THE ASSUMED AVERAGE AMBIENT SOUND LEVELS SHALL BE THE FOLLOWING:
OFFICE AREAS : 55DBA
MECHANICAL ROOMS: 85DBA
ASSEMBLY TYPE OCCUPANCIES: 55DBA
CAFETERIA: 55DBA
STORAGE AREAS: 30DBA
INDUSTRIAL EQUIPMENT AREAS(F OCCUPANCY): 80DBA
SUPERVISORY:
POWER SUPPLIES: THE POWER SUPPLIES SHALL BE SUPERVISED TO VERIFY POWER IS STILL AVAILABLE.
OFF NORMAL: ALL DEVICE OFF NORMAL SIGNALS WILL BE MONITORED SUCH AS OTHER FIRE ALARM COMPONENTS.
TROUBLE:
FIRE PUMP: NFPA 20 REQUIRED TROUBLE SIGNALS WILL BE MONITORED FROM THE ELECTRIC FIRE PUMP. THE ROOM TEMPERATURE SHALL BE MONITORED AND INITIATE A TROUBLE SIGNAL IF THE ROOM DROPS BELOW THE PUMP MANUFACTURES RECOMMENDATION.

FIRE ALARM ITEMS ARE BROKEN: FIRE ALARM DEVICES THAT ARE NOT OPERATIONAL WILL BE MONITORED FOR TROUBLE SIGNALS.
POWER SUPPLIES:
POWER SHALL BE BACKED UP BY THE EMERGENCY GENERATOR ALONG WITH HAVING INTERNAL BATTERIES TO PROVIDE A MINIMUM OF 24 HOURS OF STANDBY POWER AND AFTER THAT 24 HOUR PERIOD A MINIMUM OF 5 MINUTES OF ALARM AT MAXIMUM LOAD.
CIRCUIT AND PATHWAY:
PATHWAY CLASS DESIGNATION: NFPA 72 APPLICABLE CLASS A PATHWAY'S SHALL BE PROVIDED FOR FOR BOTH NOTIFICATION CIRCUITS AND INITIATION CIRCUITS.
PATHWAY SURVIVABILITY: NFPA 72 LEVEL 2 AND LEVEL 3 PATHWAY SURVIVABILITY SHALL BE PROVIDED FOR ALL VERTICAL WIRING FROM THE MAIN PANEL IN THE FIRE COMMAND CENTER TO EACH DATA AND CONTROL LOOP, POWER SUPPLY INTERCONNECTION, EXPANSION PANEL INTERCONNECTION, ETC. THE WIRING ARRANGEMENT SHALL BE AS SUCH THAT A FIRE IN ONE FIRE COMPARTMENT OR FLOOR WILL NOT AFFECT THE PATHWAY INTEGRITY ON ANOTHER FIRE COMPARTMENT OR FLOOR SUCH AS THE FIRE PUMP ROOM, MINIMUM 2-HOUR FIRE RATED FIRE ALARM CABLE SHALL BE UTILIZED.
CENTRAL MONITORING:
COMMUNICATION WITH A CENTRAL MONITORING STATION WILL SHALL BE PROVIDED. TWO LINES WILL BE UTILIZED. ONE WILL BE CELLULAR BASED SYSTEM AND THE OTHER WILL UTILIZE A LANDLINE. COPPER PAIR POTS LINE IF AVAILABLE.
ZONING:
ZONING SHALL BE PER FLOOR THEN PER SMOKE OR FIRE PARTION NO MORE THAN 22,500 SQUARE FEET, EACH STAIRWELL.



NOTE:
CONDUCTORS ARE TO BE COPPER TYPE

SERVICE GROUNDING DETAIL
SCALE: NONE

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PUBLIC WORKS BUILDING
LOWER TOWNSHIP
771 SEASHORE ROAD
CAPE MAY COUNTY, NJ

project title

ELECTRICAL DETAILS
drawing name

scale

date 11/20/24
drawn by AW
project no. 240093

E4-1
drawing no.

Branch Panel: AP1

Location: UTILITIES 111
Supply From:
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 8931
Mains Type:
Mains Rating: 400.0
MCB Rating: 1.0

Notes:
PROVIDE FEED THROUGH LUGS

Wire Size	CKT	Circuit Description	Trip	Poles	A	B	C	Poles	Trip	Circuit Description	CKT	Wire Size
1-#12, 1-#12, 1-#12	1	REC - OFFICE #2 110	20.0	1	720... 1080...			1	20.0	REC - GEN OFFICE 109	2	1-#12, 1-#12, 1-#12
1-#12, 1-#12, 1-#12	3	REC - PUB ENTRY 101	20.0	1		360... 900...		1	20.0	REC - Space N233	4	1-#12, 1-#12, 1-#12
1-#12, 1-#12, 1-#12	5	REC - Space N233	20.0	1			720... 180...	1	20.0	REC - TOILET ROOM 105	6	1-#12, 1-#12, 1-#12
1-#12, 1-#12, 1-#12	7	REC - TOILET ROOM 106	20.0	1	180... 540...			1	20.0	REC - CORRID	8	1-#12, 1-#12, 1-#12
1-#12, 1-#12, 1-#12	9	REC - BREAKROOM 108	20.0	1		500... 300...		1	20.0	REC - BREAKROOM 108	10	1-#12, 1-#12, 1-#12
1-#12, 1-#12, 1-#12	11	REC - BREAKROOM 108	20.0	1			300... 200...	1	20.0	REC - BREAKROOM 108	12	1-#12, 1-#12, 1-#12
1-#12, 1-#12, 1-#12	13	REC - BREAKROOM 108	20.0	1	250... 500...			1	20.0	REC - FRIDGE	14	1-#12, 1-#12, 1-#12
1-#12, 1-#12, 1-#12	15	REC - BREAKROOM 108	20.0	1		540... 360...		1	20.0	REC - UTILITIES PANEL	16	1-#12, 1-#12, 1-#12
1-#12, 1-#12, 1-#12	17	REC - FILE ARCHIVE 112	20.0	1			360... 540...	1	20.0	REC - OFFICE CONF	18	1-#12, 1-#12, 1-#12
1-#12, 1-#12, 1-#12	19	REC - OFFICE CONF	20.0	1	1080... 1080...			1	20.0	REC - TRAINING ROOM...	20	1-#12, 1-#12, 1-#12
1-#12, 1-#12, 1-#12	21	REC - CORRIDOR 104	20.0	1		540... 900...		1	20.0	REC - TRAINING ROOM...	22	1-#12, 1-#12, 1-#12
1-#12, 1-#12, 1-#12	23	REC - TRAINING ROOM...	20.0	1			720... 540...	1	20.0	REC - TRAINING ROOM...	24	1-#12, 1-#12, 1-#12
1-#12, 1-#12, 1-#12	25	REC - MENS' SHOWER 116	20.0	1	360... 180...			1	20.0	REC - WOMENS'...	26	1-#12, 1-#12, 1-#12
1-#10, 1-#10, 1-#10	27	REC - SIGN SHOP 119	20.0	1		1080... 720...		1	20.0	REC - SIGN SHOP 119	28	1-#12, 1-#12, 1-#12
1-#12, 1-#12, 1-#12	29	REC - SHOP STORAGE 120	20.0	1			360... 900...	1	20.0	REC - MEZZANINE	30	1-#10, 1-#10, 1-#10
3-#1, 1-#1, 1-#8	31	CU-1	100.0	3	7557... 3744...			2	50.0	CU-2	32	2-#6, 1-#6, 1-#10
	33					7557... 3744...					34	
	35						7557... 3744...	2	50.0	CU-3	36	2-#6, 1-#6, 1-#10
2-#12, 1-#12, 1-#12	37	AHU-1F	15.0	2	300... 3744...						38	
	39					300... 41 VA		2	15.0	AHU-1A	40	2-#12, 1-#12, 1-#12
2-#12, 1-#12, 1-#12	41	AHU-1C	15.0	2			41 VA 41 VA				42	
	43				41 VA 41 VA			2	15.0	AHU-1D	44	2-#12, 1-#12, 1-#12
2-#12, 1-#12, 1-#12	45	AHU-1E	15.0	2		41 VA 41 VA					46	
	47						41 VA 41 VA	2	15.0	AHU-1B	48	2-#12, 1-#12, 1-#12
1-#10, 1-#10, 1-#10	49	DIESEL FUEL PUMP	20.0	1	1000... 41 VA						50	
1-#10, 1-#10, 1-#10	51	GAS FUEL PUMP	20.0	1		1000... 840...		1	20.0	REC - TRAINING ROOM...	52	1-#12, 1-#12, 1-#12
1-#12, 1-#12, 1-#12	53	GUH-1	15.0	1			219... 840...	1	20.0	REC - TRAINING ROOM...	54	1-#12, 1-#12, 1-#12
1-#12, 1-#12, 1-#12	55	REC - CLOSET 115	20.0	1	180... 6211...						56	
2-#12, 1-#12, 1-#12	57	AHU-1G	20.0	2		300... 6410...		3	400.0	AP2 (VIA FEED THROUGH LUGS)	58	3-#750, 1-#750, 1-#3
	59						300... 4638...				60	
			Total Load:		28827 VA	26471 VA	22279 VA					
			Total Amps:		245.6	226.0	185.7					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Lighting	2370 VA	100.00%	2370 VA		
Power	49837 VA	100.00%	49837 VA	**Total Conn. Load:**	77577 VA
Receptacle	25370 VA	69.71%	17685 VA	**Total Est. Demand:**	69892 VA
				Total Conn.:	215.3
				Total Est. Demand:	194.0

Branch Panel: AP2

Location: UTILITIES 111
Supply From: AP1
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 8722
Mains Type:
Mains Rating: 400.0
MCB Rating: 1.0

Notes:

Wire Size	CKT	Circuit Description	Trip	Poles	A	B	C	Poles	Trip	Circuit Description	CKT	Wire Size
1-#12, 1-#12, 1-#12	1	EF/LO-2	15.0	1	72 VA 920...			1	20.0	LTG - CORRIDOR/OFFICE	2	1-#12, 1-#12, 1-#12
1-#12, 1-#12, 1-#12	3	EF/LO-4	15.0	1		564... 210...		1	20.0	LTG - EXTER+EM	4	1-#12, 1-#12, 1-#12
1-#12, 1-#12, 1-#12	5	LTG- TRAIN/SHOP	20.0	1			430... 69 VA	1	15.0	EF/LO-1	6	1-#12, 1-#12, 1-#12
2-#12, 1-#12, 1-#12	7	AHU-1G	15.0	2	294... 69 VA			1	15.0	EF/LO-2	8	1-#12, 1-#12, 1-#12
	9					294... 84 VA		1	15.0	EF/LO-3	10	1-#12, 1-#12, 1-#12
1-#12, 1-#12, 1-#12	11	EF/LO-4	15.0	1			492... 864...	1	15.0	EF/LO-5	12	1-#12, 1-#12, 1-#12
2-#12, 1-#12, 1-#12	13	ERV-1	15.0	2	520... 1008...			1	20.0	EBB-2	14	1-#12, 1-#12, 1-#12
	15					520... 1000...		1	20.0	PRINTER	16	1-#12, 1-#12, 1-#12
1-#8, 1-#8, 1-#8	17	AUH-3	15.0	1			1668... 575...	1	20.0	RCP	18	1-#12, 1-#12, 1-#12
1-#12, 1-#12, 1-#12	19	GWH	20.0	1	600... 1000...			1	20.0	SEPTIC PUMP	20	1-#12, 1-#12, 1-#12
1-#12, 1-#12, 1-#12	21	Lighting	20.0	1		810... 360...		1	20.0	TELCO BOARD	22	1-#12, 1-#12, 1-#12
1-#12, 1-#12, 1-#12	23	REC-EXTERIOR	20.0	1			180... 360...	1	20.0	TELCO BOARD	24	1-#12, 1-#12, 1-#12
1-#12, 1-#12, 1-#12	25	REC-CONDENSE	20.0	1	720... 1008...			1	20.0	EBB-1	26	1-#12, 1-#12, 1-#12
1-#12, 1-#12, 1-#12	27	REC-CONDENSE	20.0	1		900... 1668...		1	20.0	AHU-2	28	1-#12, 1-#12, 1-#12
--	29	Spare	20.0	1			0 VA 0 VA	1	20.0	Spare	30	--
--	31	Spare	20.0	1	0 VA 0 VA			1	20.0	Spare	32	--
--	33	Spare	20.0	1		0 VA 0 VA		1	20.0	Spare	34	--
--	35	Spare	20.0	1			0 VA 0 VA	1	20.0	Spare	36	--
--	37	Spare	20.0	1	0 VA 0 VA			1	20.0	Spare	38	--
--	39	Spare	20.0	1		0 VA 0 VA		1	20.0	Spare	40	--
--	41	Spare	20.0	1			0 VA 0 VA	1	20.0	Spare	42	--
--	43	Spare	20.0	1	0 VA 0 VA			1	20.0	Spare	44	--
--	45	Spare	20.0	1		0 VA 0 VA		1	20.0	Spare	46	--
--	47	Spare	20.0	1			0 VA 0 VA	1	20.0	Spare	48	--
--	49	Spare	20.0	1	0 VA 0 VA			1	20.0	Spare	50	--
--	51	Spare	20.0	1		0 VA 0 VA		1	20.0	Spare	52	--
--	53	Spare	20.0	1			0 VA 0 VA	1	20.0	Spare	54	--
--	55	Spare	20.0	1	0 VA 0 VA			1	20.0	Spare	56	--
--	57	Spare	20.0	1		0 VA 0 VA		1	20.0	Spare	58	--
--	59	Spare	20.0	1			0 VA 0 VA	1	20.0	Spare	60	--
			Total Load:		6211 VA	6410 VA	4638 VA					
			Total Amps:		53.8	55.4	38.7					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Lighting	2370 VA	100.00%	2370 VA		
Power	10369 VA	100.00%	10369 VA	**Total Conn. Load:**	17259 VA
Receptacle	4520 VA	100.00%	4520 VA	**Total Est. Demand:**	17259 VA
				Total Conn.:	47.9
				Total Est. Demand:	47.9

BD engineering
NJ CERTIFICATE OF AUTHORIZATION - 24GA28116100
BD Engineering, LLC
44 MAIN STREET FARMINGDALE NJ 07727 732-886-5432

BRIAN D. TANNENHAUS

ISSUED FOR BIDDING
NOT FOR CONSTRUCTION
10/29/2025

NJ PROFESSIONAL ENGINEER
NO. GE 45801
DATE: XX/XX/XXXX

No.	Description	Date
	ISSUED FOR CLIENT REVIEW	11/20/24
	ISSUED FOR BID	03/21/25
	ISSUED FOR CLIENT REVIEW	04/16/25
	ISSUED FOR BIDDING	10/29/25

revisions

PUBLIC WORKS BUILDING
LOWER TOWNSHIP
771 SEASHORE ROAD
CAPE MAY COUNTY, NJ

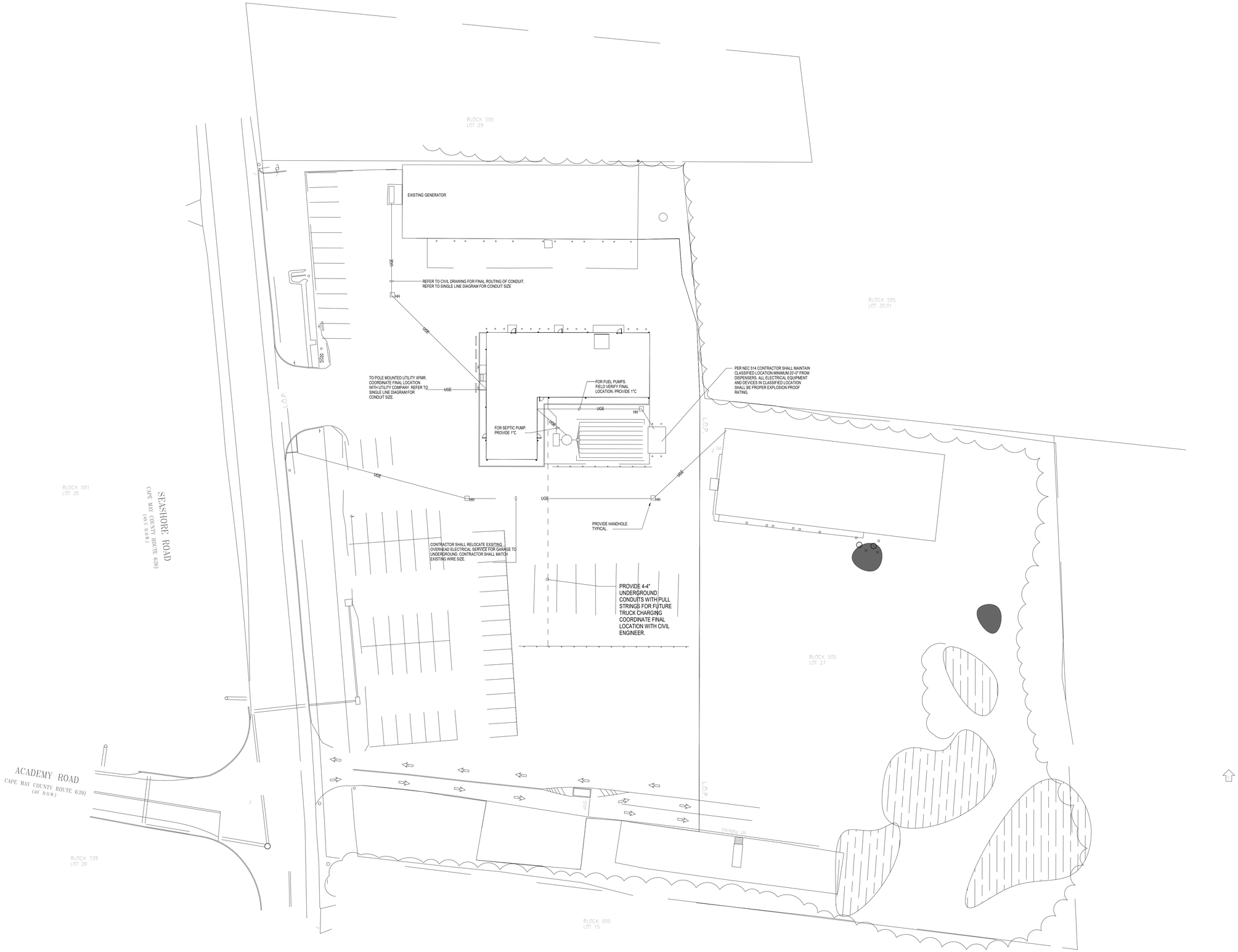
project title

ELECTRICAL PANEL SCHEDULES
drawing name

scale

date 11/20/24
drawn by AW
project no. 240093

E4-2
drawing no.



1 Electrical site plan
1" = 30'-0"

BD engineering

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PUBLIC WORKS BUILDING
LOWER TOWNSHIP
771 SEASHORE ROAD
CAPE MAY COUNTY, NJ

project title

ELECTRICAL SITE PLAN
drawing name

scale 1" = 30'-0"

date 11/20/24
drawn by Author
project no. 240093

E5-1
drawing no.

1. THESE GENERAL NOTES, SYMBOL LIST AND DETAILS ARE APPLICABLE TO ALL HVAC/MECHANICAL DRAWINGS.

2. DRAWINGS ARE DIAGRAMMATIC. DETERMINE LOCATIONS OF SYSTEMS AND COMPONENTS IN FIELD. RELOCATE EXISTING WORK THAT INTERFERES WITH WORK OF THIS CONTRACT.

3. WORK IN THIS SECTION IS SPECIFIED ON THE SPECIFICATION SHEET

4. COORDINATE THIS WORK WITH THAT OF OTHER TRADES.

5. DIMENSIONS SHOWN ON PLAN ARE HORIZONTAL. DIMENSIONS SHOWN IN ELEVATION ARE VERTICAL EXCEPT IN WAY OF STRUCTURAL STEEL, DIMENSIONS ARE MEASURED PERPENDICULAR TO FLANGE.

6. NEITHER ACCURACY NOR COMPLETION OF SERVICES AND UTILITY LOCATIONS SHOWN ON DRAWINGS IS GUARANTEED. DETERMINE EXACT LOCATIONS OF EXISTING SERVICES AND UTILITIES IN FIELD, WHETHER OR NOT SHOWN ON DRAWINGS. EXERCISE CAUTION AND IDENTIFY LOCATIONS OF UNMARKED UTILITY LINES AS NECESSARY TO PERFORM WORK OF THIS SECTION.

7. MANUFACTURERS MODEL NUMBERS ARE SPECIFIED SOLELY TO ESTABLISH STANDARDS OF QUALITY FOR PERFORMANCE AND MATERIALS.

8. PRODUCT INSTALLATION SHALL ADHERE TO MANUFACTURERS RECOMMENDATIONS.

9. PROVIDE HANGERS, INSERTS, ANCHORS, SUPPLEMENTAL STEEL & SUPPORTS AS REQUIRED TO SUPPORT DUCTWORK, PIPING AND EQUIPMENT FROM STRUCTURE.

10. SCHEDULE WORK OF THIS SECTION TO AVOID INTERFERING WITH EXISTING OPERATIONS IN THE FACILITY.

11. COORDINATE ROOF PENETRATIONS WITH WORK OF OTHER SECTIONS AND WITH FLASHING REQUIREMENTS. MECHANICAL CONTRACTOR TO NOTIFY OWNER PRIOR TO STARTING WORK TO VERIFY COMPLIANCE WITH BOND AND WARRANTY OF EXISTING ROOF.

12. RUN DUCTS AND PIPING CONCEALED AND CLEAR OF CEILING INSERTS, UNLESS OTHERWISE SPECIFIED.

13. INSTALL THERMOSTATS 4'-6" ABOVE FINISHED FLOOR OR AS DIRECTED OTHERWISE BY ARCHITECT.

14. STRUCTURAL WELDING SHALL BE CONTINUOUS 1/4" FILLET UNLESS REQUIRED OTHERWISE.

15. ALL NEW PIPING SHALL BE CONCEALED IN CEILING, WALL CAVITIES AND/OR UNDER SLAB, UNLESS OTHERWISE NOTED. EXISTING PIPING TO REMAIN BUT EXPOSED AS A RESULT OF DEMOLITION OPERATIONS SHALL BE RE-ROUTED/MODIFIED FOR CONCEALMENT IN CEILING OR WALL CAVITIES,OR UNDER SLAB, AT NO ADDITIONAL COST TO THE OWNER.

16. CONNECT NEW WORK TO EXISTING WORK IN A NEAT AND ACCEPTABLE MANNER. RESTORE EXISTING DISTURBED WORK TO ITS ORIGINAL CONDITION, INCLUDING MAINTENANCE OF WIRING CONTINUITY AS REQUIRED.

17. CONNECT NEW WORK TO EXISTING WORK WITH MINIMUM INTERFERENCE TO EXISTING FACILITIES. TEMPORARY SHUTDOWNS ARE PERMISSIBLE ONLY WITH WRITTEN CONSENT OF THE OWNER. ALARM AND EMERGENCY SYSTEMS ARE NOT TO BE INTERRUPTED.

18. FIRESTOPPING SHALL BE INSTALLED WHENEVER PIPING CROSSES FIRE RATED PARTITIONS. FIRE DAMPERS SHALL BE INSTALLED WHENEVER DUCTWORK CROSSES A FIRE RATED PARTITION. REFER TO THE ARCHITECTURAL PLANS FOR FIRE RATED PARTITION LOCATIONS. THE FIRESTOPPING SHALL MATCH OR EXCEED THE FIRE RATING OF THE PARTITION PENETRATED. ALL FIRESTOPPING SHALL BE A UL LISTED ASSEMBLY.

19. THE CONTRACTOR SHALL BRING ANY CONFLICTS IN THE DRAWINGS TO THE ATTENTION OF THE ENGINEER DURING THE BIDDING PROCESS. IF NOT BROUGHT UP TO THE ENGINEER DURING THE BIDDING PROCESS THE MORE EXPENSIVE OPTION SHALL BE CHOSEN FOR BIDDING PURPOSES.

20. HVAC CONTRACTOR IS RESPONSIBLE TO PROVIDE ACCESS PANELS FOR ANY CONCEALED HVAC WORK THAT MUST BE ACCESSIBLE EITHER BY CODE OR AS INDICATED IN THE DOCUMENTS. ALL ACCESS DOOR LOCATIONS SHALL BE REVIEWED AND APPROVED BY ARCHITECT PRIOR TO INSTALLATION OF DEVICE REQUIRING THE ACCESS PANEL. ALL ACCESS DOORS MUST MATCH THE FIRE RATING AND CONSTRUCTION TYPE OF THE CEILING OR WALL PENETRATION AS DESIGNATED ON THE ARCHITECTURAL DRAWINGS.

AIR SYSTEMS

21. REFER TO THE ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LOCATIONS OF AIR DEVICES.

22. INTERNAL AIRFLOW DIMENSIONS ARE SHOWN FOR DUCTS. INCREASE DUCT SIZE AS NECESSARY TO MAINTAIN FREE FLOW AREA INDICATED.

23. USE FLAT TRANSVERSE SEAM FOR DUCTWORK WHERE SPACE AVAILABLE DICTATES.

24. DIFFUSER SIZES SHOWN ARE NECK SIZES. REGISTERS AND GRILLE SIZES ARE NOMINAL.

25. PROVIDE VOLUME DAMPERS OR OTHER APPROVED BALANCING DEVICES AT DUCT BRANCHES AND RUN OUTS, AND AT REGISTER GRILLE AND DIFFUSER NECKS IN SUPPLY, RETURN AND EXHAUST DUCTWORK, WHETHER SHOWN OR NOT.

26. DUCTWORK DOWNSTREAM OF ALL AC UNITS SHALL BE ACOUSTICALLY LINED WITH 1" ACOUSTICAL LINING FOR A MINIMUM OF 15 FEET.

27. PROVIDE CLEARANCE IN FRONT OF ALL ELECTRIC CONTROL PANELS PER N.E.C. AND MFG. REQUIREMENTS.

CONSUMABLES

28. THE CONTRACTOR SHALL REPLACE ALL CONSUMABLE EQUIPMENT ON THIS PROJECT AFTER FINAL TESTING AND RIGHT BEFORE THE EQUIPMENT IS TURNED OVER TO THE OWNER. THIS INCLUDES BUT IS NOT LIMITED TO ALL WATER AND AIR FILTERS ON THE PROJECT.

CODE COMPLIANCE

29. ALL WORK PERFORMED MUST MEET ALL APPLICABLE CODES AS REQUIRED BY THE AUTHORITY HAVING JURISDICTION.

GENERAL NOTES

AAV	AUTOMATIC AIR VENT
AC	AIR CONDITIONING
ACU	AIR CONDITIONING UNIT
AD	ACCESS DOOR
AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
BG	BOTTOM GRILLE
BFC	BELOW FINISHED CEILING
BHP	BRAKE HORSEPOWER
BR	BOTTOM REGISTER
BT	BOTTOM THROAT
BTU	BRITISH THERMAL UNIT
BTUH	BTU PER HOUR
CD	CEILING DIFFUSER
CFM	CUBIC FEET PER MINUTE
CG	CEILING GRILLE
CLG	CEILING
COND	CONDENSATE
CR	CEILING REGISTER
CUH	CABINET UNIT HEATER
CV	CONSTANT VOLUME
DB	DRY BULB
DIAM	DIAMETER
DMPR	DAMPER
DX	DIRECT EXPANSION
EG	EXHAUST GRILLE
EX	EXISTING TO REMAIN
EAT	ENTERING AIR TEMPERATURE
EDB	ENTERING DRY BULB TEMPERATURE
EF	EXHAUST FAN
EL	ELEVATION
EWB	ENTERING WET BULB
LO	LOUVER
AF	AIR FILTER
BDD	BACKDRAFT DAMPER
GF	GREASE FILTER
SWEG	SIDEWALL EXHAUST GRILLE
SWS	SIDEWALL SUPPLY GRILLE
EWT	ENTERING WATER TEMPERATURE
EXH	EXHAUST
°F	DEGREES FAHRENHEIT
FA	FREE AREA (SQ.FT.)
FAI	FRESH AIR INTAKE
FC	FLEXIBLE CONNECTION
FD	FIRE DAMPER
FIN FL	FINISHED FLOOR
FLA	FULL LOAD AMPERES
FPM	FEET PER MINUTE
GAL	GALLON
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
HT	HEIGHT
HR	HOUR
HV	HEATING AND VENTILATING
HX	HEAT EXCHANGER
HZ	FREQUENCY
IN	INCH OR INCHES
LAT	LEAVING AIR TEMPERATURE
LD	LINEAR DIFFUSER
LF	LINEAR FEET
LWB	LEAVING WET BULB TEMPERATURE
LWT	LEAVING WATER TEMPERATURE
MBH	THOUSAND BTU PER HOUR
MER	MECHANICAL EQUIPMENT ROOM
MIN	MINIMUM
NC, N.C.	NORMALLY CLOSED
NIC	NOT IN CONTRACT
NO, N.O.	NORMALLY OPEN
NTS, N.T.S.	NOT TO SCALE
NO.	NUMBER
OA	OUTSIDE AIR
OAI	OUTSIDE AIR INTAKE
OED	OPEN END DUCT
PSI	POUNDS PER SQUARE INCH
PSIA	PSI ABSOLUTE
PSIG	PSI GAUGE
RA	RETURN AIR
RE	EXISTING TO BE REMOVED
REX	EXISTING TO BE RELOCATED
RE	REMOVE EXISTING
RF	RETURN FAN
RG	RETURN GRILLE
RH	RELATIVE HUMIDITY
RHC	REHEAT COIL
RLA	RUNNING LOAD AMPS
RPM	REVOLUTIONS PER MINUTE
(RRO)	EXISTING TO BE REMOVED AND RETURN TO OWNER
SA	SUPPLY AIR
SD	SMOKE DAMPER
SF	SUPPLY FAN
SP	STATIC PRESSURE
SPEC	SPECIFICATION
TDH	TOTAL DYNAMIC HEAD
TEMP	TEMPERATURE
TG	TOP GRILLE
TYP	TYPICAL
TR	TOP REGISTER
UH	UNIT HEATER
VFD	VARIABLE FREQUENCY DRIVE
VAV	VARIABLE AIR VOLUME UNIT
VIV	VARIABLE INLET VANES
W	WIDTH
w/	WITH
WB	WET BULB
WMS	WIRE MESH SCREEN

HVAC ABBREVIATIONS

SYMBOL	DESCRIPTION
	SINGLE LINE DUCTWORK OR EQUIPMENT - NEW
	SINGLE LINE DUCTWORK OR EQUIPMENT - EXISTING
	DUCTWORK TO BE REMOVED
	DUCTWORK WITH ACOUSTIC LINING
	DUCT UNDER POSITIVE PRESSURE (SUPPLY AIR OR FAN DISCHARGE)
	DUCT UNDER NEGATIVE PRESSURE (RETURN, EXHAUST OR OUTSIDE AIR)
VD	VOLUME DAMPER - THE "VD" MAY NOT BE SHOWN ON THE PLANS.
FD	FIRE DAMPER AND ACCESS DOOR
BDD	BACK DRAFT DAMPER
M	MOTORIZED DAMPER
R	RISE IN DUCTWORK (IN DIRECTION OF AIR FLOW)
D	DROP IN DUCTWORK (IN DIRECTION OF AIR FLOW)
§ OR CFM	CUBIC FEET PER MINUTE
Ø	DIAMETER
⌀	SQUARE FEET
	POINT OF CONNECTION
	POINT OF DISCONNECTION
DD	DUCT SMOKE DETECTOR
	DOOR LOUVER L
	DOOR LOUVER R
U	UNDERCUT
T	THERMOSTAT
H	HUMIDISTAT
	VARIABLE AIR VOLUME BOX
	UNIT HEATER

SYMBOL	DESCRIPTION
CD-X X" Ø NECK XXX CFM	SUPPLY DIFFUSER
RG-X -or- EG-X X" Ø NECK XXX CFM	RETURN -OR- EXHAUST GRILLE
	SUPPLY DIFFUSER WITH BLANKING PLATE
	LINEAR DIFFUSER -OR- LINEAR RETURN
	SIDE WALL -OR- DUCT MOUNTED DIFFUSER
	VANED ELBOW (SEE DETAIL) OR RADIUS ELBOW
	FLEXIBLE DUCT
	FLEXIBLE DUCT CONNECTION
	VERTICAL DUCT DROP (IN DIRECTION OF AIRFLOW)
	VERTICAL DUCT RISE (IN DIRECTION OF AIRFLOW)
	SLOTTED LINEAR DIFFUSER WITH PLENUM
	ROOFTOP EXHAUST FAN
XXX X	EQUIPMENT IDENTIFICATION TAG
RTU-X	ASSOCIATED EQUIPMENT TAG I.E.: THERMOSTAT ASSOCIATED WITH RTU-X
X	DRAWING NOTE - 'X' DENOTES NOTE NUMBER SHOWN ON PLAN.
X	KEY NOTE - 'X' DENOTES NOTE NUMBER SHOWN FOR ALL HVAC PLANS.
X	DEMOLITION NOTE - 'X' DENOTES NOTE NUMBER SHOWN ON PLAN

SYMBOL LEGEND

NOT ALL SYMBOLS AND ABBREVIATIONS SHOWN ON THIS PLAN
ARE USED IN THE PROCEEDING DRAWINGS.

PROJECT NOTES:

THE CONTRACTOR SHALL RECEIVE AND REVIEW ALL OF THE PROJECTS DRAWINGS AND SPECIFICATIONS SUCH AS ARCHITECTURAL, STRUCTURAL, HVAC, ELECTRICAL, PLUMBING, FIRE ALARM, SPRINKLER, SITE, ETC. TO UNDERSTAND THE FULL SCOPE OF WORK. FAILURE TO RECEIVE AND REVIEW THOSE PLANS DURING BIDDING WILL RESULT IN THE DENIAL OF EXTRA'S.

COMMON PLENUM NOTE:

THIS PROJECT UTILIZES AN ABOVE CEILING COMMON PLENUM RETURN FOR THE HVAC SYSTEM. ALL ABOVE CEILING WIRING, PIPING, INSULATION, ETCETERA MUST BE RATED FOR PLENUM USE.

ALL CONTRACTOR WORK MUST COMPLY WITH THE GOVERNING CODES & REFERENCES:

1. NJIBC 2021, NJIMC 2021, NJIEC 2021, NSPC 2021, NJIFC 2021, NJIFGC 2021

SUMMER OUTDOOR DESIGN CONDITIONS:

1. DESIGN REGION: LOWER TOWNSHIP, NJ
2. DRY BULB: 90.1°F
3. WET BULB: 76.6°F

SUMMER INDOOR DESIGN CONDITIONS:

1. DRY BULB: 72°F
2. RELATIVE HUMIDITY: 50% MAXIMUM

WINTER OUTDOOR DESIGN CONDITIONS:

1. DESIGN REGION: LOWER TOWNSHIP, NJ
2. DRY BULB: 15.7°F

WINTER INDOOR DESIGN CONDITIONS:

1. DRY BULB: 70°F
2. RELATIVE HUMIDITY: NO MINIMUM RH CONTROL PROVIDED

VENTILATION REQUIREMENTS:

1. PER THE APPLICABLE MECHANICAL CODE LISTED ABOVE.

FILTRATION:

1. 30% PLEATED PRE-FILTER MEDIA

SEISMIC DESIGN CRITERIA:

PROVIDE SEISMIC RESTRAINTS IN ACCORDANCE WITH THE APPLICABLE BUILDING CODE STATED ABOVE.

ALL ROOF MOUNTED EQUIPMENT SHALL BE ABLE TO WITHSTAND THE FOLLOWING WIND SPEEDS PER THE BUILDING CODE SECTION 1609. WIND SPEED: 140 MPH TIMES ASCE STANDARD 07-16 FORCE FACTOR OF 1.9 = 266MPH

CODE REVIEW

ALL DUCTWORK LOCATED ABOVE ELECTRICAL PANELS MUST BE SUPPLIED WITH A DRIP PAN THAT IS PIPED TO THE NEAREST AVAILABLE DRAIN
AS PER NEC SEC.110.26 (F)(1)(b).

Sheet Number	Sheet Name
M1-1	HVAC COVER SHEET
M2-1	HVAC FLOOR PLAN
M3-1	HVAC SCHEDULES
M3-2	HVAC PIPING & WIRING DIAGRAMS
M3-3	HVAC DETAILS

DRAWING LIST

BD engineering

NJ CERTIFICATE OF AUTHORIZATION - 24GA28116100
BD Engineering, LLC
44 MAIN STREET FARMINGDALE NJ 07727 732-886-5432

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10/20/2025

NJ PROFESSIONAL ENGINEER
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revisions

PUBLIC WORKS BUILDING
LOWER TOWNSHIP
771 SEASHORE ROAD
CAPE MAY COUNTY, NJ

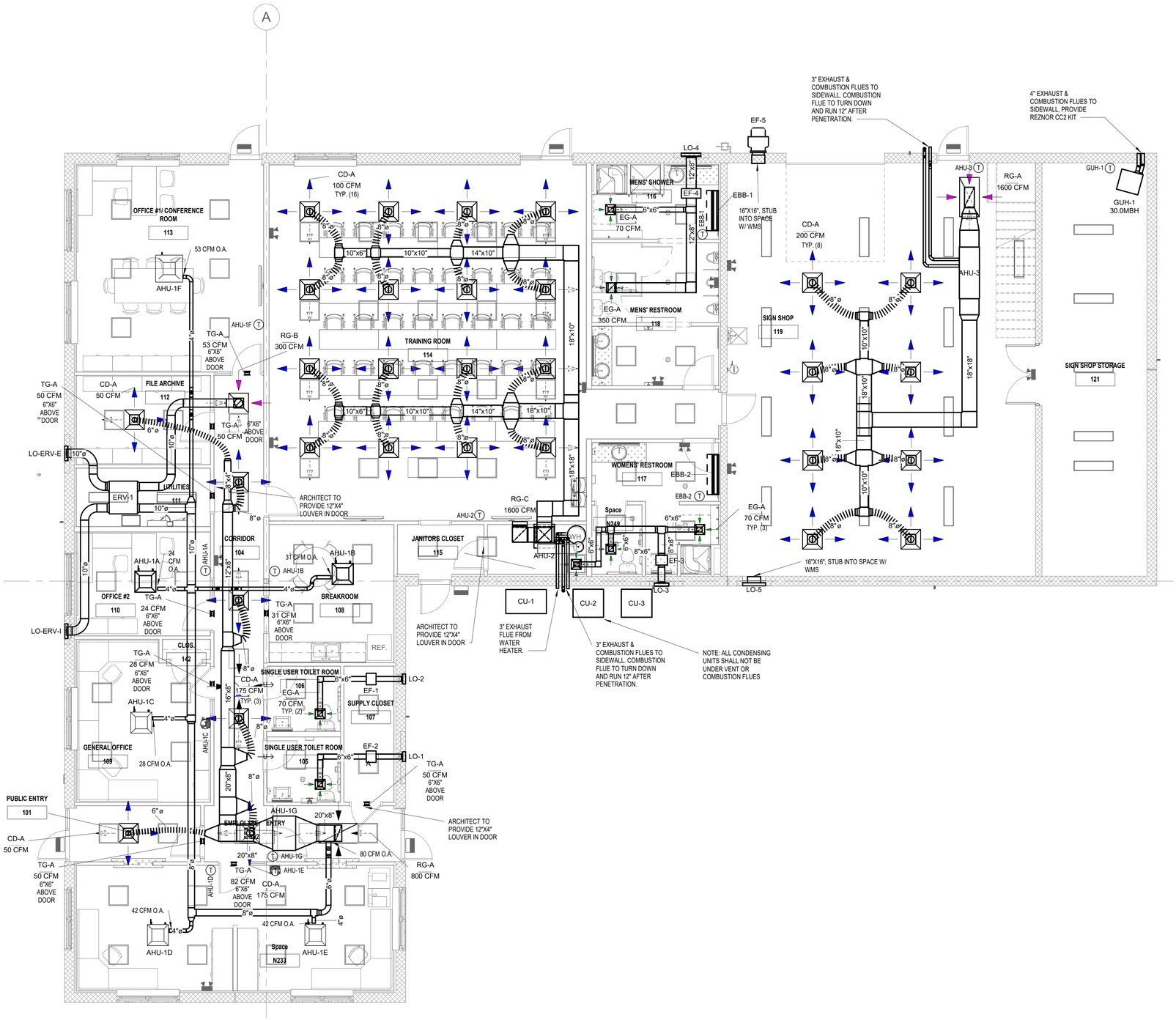
project title

HVAC COVER SHEET
drawing name

scale

date 11/20/24
drawn by Author
project no. 240093

M1-1
drawing no.



1 HVAC GROUND FLOOR PLAN
3/16" = 1'-0"

GENERAL NOTES:

1. THE EXACT MOUNTING HEIGHTS AND LOCATIONS OF ALL HVAC EQUIPMENT SHALL BE FIELD VERIFIED AND COORDINATED WITH ALL OTHER MECHANICAL, ELECTRICAL, ARCHITECTURAL AND STRUCTURAL SYSTEMS.
2. VERIFY ALL EQUIPMENT VOLTAGES WITH THE ELECTRICAL CONTRACTOR PRIOR TO ORDERING EQUIPMENT.
3. PROVIDE DISCONNECT SWITCHES FOR ALL HVAC EQUIPMENT INCLUDING WEATHERPROOF DISCONNECT AS REQUIRED.
4. PROVIDE PHASE LOSS PROTECTION FOR ALL POLY-PHASE MOTOR DEVICES.
5. THE FINAL LOCATION OF AIR DEVICES MUST BE COORDINATED WITH THE REFLECTED CEILING PLAN AND ALL OTHER MECHANICAL, ELECTRICAL, FIRE PROTECTION, ARCHITECTURAL, AND STRUCTURAL SYSTEMS.
6. PROVIDE FLEXIBLE CONNECTIONS AT ALL DUCT CONNECTIONS TO VIBRATING EQUIPMENT. THESE CONNECTIONS SHALL BE INSTALLED IN CLOSE PROXIMITY TO SUCH EQUIPMENT.
7. ALL CEILING MOUNTED EQUIPMENT MUST BE SUPPORTED DIRECTLY FROM BUILDING STRUCTURE WITH COMBINATION SPRING AND NEOPRENE-IN-SHEAR HANGERS AND ROD. PROVIDE SUPPLEMENTARY STEEL AS REQUIRED TO ADEQUATELY SUPPORT THE LOAD.
8. ALL ROOFTOP HVAC EQUIPMENT SHALL BE INSTALLED SUFFICIENTLY AWAY FROM EDGE OF ROOF SO AS TO ALLOW FOR THE INSTALLATION OF PROPER FLASHING TO ENSURE A WEATHER TIGHT SEAL. IN ADDITION, ADEQUATE CLEARANCES SHALL BE PROVIDED FOR CLEANING AND MAINTENANCE REQUIREMENTS. THE FINAL LOCATION OF ALL ROOFTOP UNITS MUST ALSO COMPLY WITH ALL OSHA SAFETY REQUIREMENTS. WHEN MINIMUM REQUIRED DISTANCE CAN NOT BE MAINTAINED, IT SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO PROVIDE AND INSTALL CODE COMPLIANT SAFETY RAILS.

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PUBLIC WORKS BUILDING
LOWER TOWNSHIP
771 SEASHORE ROAD
CAPE MAY COUNTY, NJ

project title

HVAC FLOOR PLAN
drawing name

scale As indicated

date 11/20/24
drawn by Author
project no. 240093

M2-1
drawing no.

MITSUBISHI ELECTRIC TRANE HVAC US: CITY MULTI VRF OUTDOOR UNIT SCHEDULE

System Tag	Tag Reference	M-NET Address	Model Number	Modules	Nominal Cooling Capacity (BTUH)	Nominal Heating Capacity (BTUH)	Cooling Efficiency (SEER/ EER/%	EER2 (SEER2)	Heating COP @ 47°F (H3PH)	Nom System Connected Capacity (% of NOM)	Design Cooling Outdoor Temp DB (°F)	Design Heating Outdoor Temp WB (°F)	Max Pipe Length from BC or 1st Joint (feet)	Refrig Pipe Dim - High/Low Pressure (inch) (See Note 4)	Corrected Cooling Total Capacity (BTUH)	Corrected Heating Capacity (BTUH)	Sound Pressure (dBA)	Inverter Driven Compressor Type	Preliminary Added Field Charge (See Note 5)	Electrical Per Module 208/230 or 460V3				Notes / Options
																				Voltage / Phase	MCA 208/230 or 460V3	RFS	MOCP	
CU-1	CU-1	51	TUHYP036GAN4AANP56		96,000	108,000	22.15 / 12.4	0	4.175	97.9 %	95.0	2.0	2.0	3/8 / 7/8	96,191.0	106,560.8	56/58.5	SCROLL/1	6.6	208/230V / 3-phase 3-wire	83/57	70/60	100/90	1, 2, 3, 4, 5, 6, 7, 8, 9

Notes & Options:
1Nominal cooling capacities are based on indoor coil EAT of 80/67°F (DB/WB), outdoor of 95°F (DB)
2Nominal heating capacities are based on indoor coil EAT of 70°F (DB), outdoor of 43°F (WB)
3Efficiency values for EER, IEER, COP are based on AHRI 1230 test method for mixture of ducted & non-ducted indoor units.
4For systems with multiple modules, refrigerant pipe dimensions indicate total system combined piping downstream of module twinning.
5Added field charge listed is in addition to factory charge, this must be updated based upon final as-built piping layout.
6Factory representatives shall review the project prior to and throughout the installation of CITY MULTI equipment
7Factory representatives shall startup and commission CITY MULTI equipment upon completion of equipment installations
8Factory representatives shall provide on-site assistance for the BMS integration of the CITY MULTI equipment
9Factory representatives shall provide end-user training on the CITY MULTI equipment upon completion of the installation of equipment

MITSUBISHI ELECTRIC TRANE HVAC US: CITY MULTI VRF INDOOR UNIT SCHEDULE

System Tag	Room Name	Tag Reference	M-NET Address	Model	Type	Nominal Cooling Capacity (BTUH)	Nominal Heating Capacity (BTUH)	Cooling Design Entering Temp DB/WB (°F) / [Water in temp]	Heating Design Entering Temp DB/WB (°F) / [Water in temp]	Corrected Capacity: Cooling Diversity Full/Partial (See Note 5, 6)	Cooling Total Capacity (BTUH)	Cooling Sensible Capacity (BTUH)	Heating Diversity Full/Partial (See Note 5, 6)	Heating Capacity (BTUH)	Estimated Cooling Coil LAT (°F) / [LWT]	Estimated Heating Coil LAT (°F) / [LWT]	Refrig Pipe Dim Liquid/Suction (inch)	Fan Speed Setting	Peak Fan Airflow (cfm) / [Design gpm Q(US)min]	Max Fan ESP (Setting 208V/230V) (IN WG)	Sound Pressure Per Fan Speed 208V/230V (dBA)	Voltage / Phase	Power Cooling 208V/230V (kW)	Power Heating 208V/230V (kW)	Electrical MCA/MFS	Condensate Removal Rate (gal/hr)	Actual Port Assignments	Notes / Options
CU-1		AHU-1A	1	TPLFYP009EMY4ZA	Ceiling-Cassette (Four-Way)	9,000	9,000	80.0/67.0	70	FULL DEMAND	8,013.3	6,453.3	FULL DEMAND	8,991.7	69.8	93.9	1/4 / 1/2	HIGH	600		27-29-30-31	208/230/1-phase	0.03	0.02	0.39/0.39/15	0.19		1, 2, 3, 4
CU-1		AHU-1B	2	TPLFYP009EMY4ZA	Ceiling-Cassette (Four-Way)	9,000	9,000	80.0/67.0	70	FULL DEMAND	8,013.3	6,453.3	FULL DEMAND	8,991.7	69.8	93.9	1/4 / 1/2	HIGH	600		27-29-30-31	208/230/1-phase	0.03	0.02	0.39/0.39/15	0.19		1, 2, 3, 4
CU-1		AHU-1C	3	TPLFYP012EMY4ZA	Ceiling-Cassette (Four-Way)	12,000	13,500	80.0/67.0	70	FULL DEMAND	12,019.9	9,725.2	FULL DEMAND	13,487.5	64.7	90.8	1/4 / 1/2	HIGH	600		27-29-30-31	208/230/1-phase	0.03	0.02	0.39/0.39/15	0.26		1, 2, 3, 4
CU-1		AHU-1D	4	TPLFYP012EMY4ZA	Ceiling-Cassette (Four-Way)	12,000	13,500	80.0/67.0	70	FULL DEMAND	12,019.9	9,725.2	FULL DEMAND	13,487.5	64.7	90.8	1/4 / 1/2	HIGH	600		27-29-30-31	208/230/1-phase	0.03	0.02	0.39/0.39/15	0.26		1, 2, 3, 4
CU-1		AHU-1E	6	TPLFYP012EMY4ZA	Ceiling-Cassette (Four-Way)	12,000	13,500	80.0/67.0	70	FULL DEMAND	12,019.9	9,725.2	FULL DEMAND	13,487.5	64.7	90.8	1/4 / 1/2	HIGH	600		27-29-30-31	208/230/1-phase	0.03	0.02	0.39/0.39/15	0.26		1, 2, 3, 4
CU-1		AHU-1F	7	TPLFYP024EMY4ZA	Ceiling-Cassette (Four-Way)	24,000	27,000	80.0/67.0	70	FULL DEMAND	24,039.8	18,878.5	FULL DEMAND	26,975.0	60.4	100.8	3/8 / 5/8	HIGH	812		28-30-32-34	208/230/1-phase	0.04	0.03	0.54/0.54/15	0.85		1, 2, 3, 4
CU-1		AHU-1G	5	TPEFYP018MA1A5A	Ceiling-Concealed (Ducted)	18,000	20,000	80.0/67.0	70	FULL DEMAND	18,029.9	16,967.6	FULL DEMAND	19,981.5	61.9	91.0	1/4 / 1/2	HIGH	883	0.6/0.6	31-35-39	208/230/1-phase	0.082	0.14	2.88/15	0.11		1, 2, 3, 4

Notes & Options:
1Nominal cooling capacities are based on indoor coil EAT of 80/67°F (DB/WB), outdoor of 95°F (DB)
2Nominal heating capacities are based on indoor coil EAT of 70°F (DB), outdoor of 43°F (WB)
3See outdoor unit schedule for outdoor ambient conditions, connected capacity, and other factors associated with corrected capacities
4See schematic piping/control diagram for indication of required indoor unit remote controllers, system controllers, and integration devices.
5Full demand corrected capacity includes de-rate associated with indoor vs. outdoor connected capacity indicated on outdoor unit schedule for associated system.
Partial corrected capacity assumes sufficient diversity exists such that the connected capacity de-rate does not apply.
It is the designer's responsibility to ensure "Diamond System Builder" is set in the appropriate output capacity setting (full demand/partial demand) prior to generating this schedule.
6It is recommended to always base heating corrected capacity on full demand.

LOSSNAY ENERGY RECOVERY VENTILATOR SCHEDULE

Lossnay Tag	Model Number	Interlocked or Stand Alone	Core Type	Nominal Airflow (cfm)	Max ESP (INWG)	Nominal Recovery Effectiveness (Extra High Fan Speed) Temperature Recovery	Enthalpy Cooling	Enthalpy Heating	Voltage / Phase	MCA / MOCP	Notes / Options
ERV-1	TLGHF030DPV5GZA	Stand-Alone	Paper Permeable Cross Plate	300	1.00	65.5%	50.0%	63.0%	208-230/1-phase	5	1, 2, 3

Notes & Options:
1Max external static pressure is at airflow listed with fan set on extra high speed.
2See schematic piping/control diagram for indication of required lossnay local remote controller (stand alone operation) and M-NET connection points of associated systems.
3Washable factory standard pre-filter on return and O/A intake side of cross plate core.

VENTILATION UNITS

Ventilation Unit Tag	Serving ILks	Zone Supply	Fan Speed Setting	Actual Supply Airflow (CFM)	Zone Airflow (CFM)	Indoor Unit Airflow (CFM)	Leaving Air Conditions: Dry Bulb Cooling (FDB)	Wet Bulb Cooling (FWB)	Dry Bulb Heating (FDB)	Served By Unit Tag	M-NET Address	Model	Type	Airflow (CFM)	Mixed Air Conditions: Dry Bulb Cooling (FDB)	Wet Bulb Cooling (FWB)	Dry Bulb Heating (FDB)
ERV-1	Rm	Yes		300	300		81.9	69.2	45.9								

HVAC DIFFUSER SCHEDULE

TAG	SERVICE	DESCRIPTION	DIFFUSER SIZE	MANUFACTURER	NOTES
CD-A	SUPPLY	ALUMINUM SQUARE PLAQUE DIFFUSER, FIXED DISCHARGE, OPPOSED BLADE DAMPER	24" X 24"	TITUS OMNI-AA	1-6
EG-A	EXHAUST	PERFORATED FACE DIFFUSER, 3/16" HOLES, OPPOSED BLADE DAMPER	12"X12"	TITUS PAR-AA	1-6
RG-A	RETURN	PERFORATED FACE DIFFUSER, 3/16" HOLES, OPPOSED BLADE DAMPER	48" X 24"	TITUS PAR-AA	1-6
RG-B	RETURN	PERFORATED FACE DIFFUSER, 3/16" HOLES, OPPOSED BLADE DAMPER	24" X 24"	TITUS PAR-AA	1-6
RG-C	RETURN	ALUMINUM, 3/4" BLADE SPACING, FULL LOUVERED FACE, 35 DEGREE FIXED DEFLECTION, OPPOSED BLADE DAMPERS AND FRONT BLADE PARALELL TO LONG DIMENSION.	18" X 18"	TITUS 350FL-AA	1-5
TG-A	TRANSFER	ALUMINUM, 3/4" BLADE SPACING, FULL LOUVERED FACE, 35 DEGREE FIXED DEFLECTION, OPPOSED BLADE DAMPERS AND FRONT BLADE PARALELL TO LONG DIMENSION.	SEE DWG	TITUS 350FL-AA	1-5

NOTES:
1. COORDINATE DIFFUSER MOUNTING TYPE WITH CEILING, DUCT OR WALL TYPE
2. COORDINATE DIFFUSER FINISH WITH OWNER OR OWNER'S REPRESENTATIVE
3. ORIENT DIFFUSER TO DIRECT AIRFLOW AT WINDOW OR WALL AND AVOID DISCHARGING DIRECTLY ON OCCUPANTS.
4. MAXIMUM NOISE CRITERION RATING <20
5. MOUNTING FRAME TYPE SHALL BE COORDINATED WITH CEILING CONSTRUCTION TYPE
6. NECK DIAMETER SHALL BE AS SCHEDULED IN TABLE 1

TABLE 1 -ROUND NECK SIZE SCHEDULE
1 TO 150 CFM - 6" DIAMETER
151 TO 275 CFM - 8" DIAMETER
276 TO 380 CFM - 10" DIAMETER
381 TO 500 CFM - 12" DIAMETER
501 TO 700 CFM - 14" DIAMETER
701 TO 900 CFM - 16" DIAMETER

HVAC EXHAUST FAN SCHEDULE

TAG	SERVICE	MANUFACTURER	MODEL	AIR FLOW	E.S.P (W.C)	RPM	DRIVE	HP	ELECTRICAL SECTION: VOLTAGE	PHASE	MCA	MOP	CONTROL	MISCELLANEOUS SECTION: WEIGHT	NOTES
EF-1	SINGLE USER TOILET ROOM	GREENHECK	CSP-A200	70 CFM	0.71	825	DIRECT		115	1	0.6	15.0	TIMECLOCK	23.0 lb	7
EF-2	SINGLE USER TOILET ROOM	GREENHECK	CSP-A200	70 CFM	0.71	825	DIRECT		115	1	0.6	15.0	TIMECLOCK	23.0 lb	7
EF-3	WOMENS RESTROOM & JANITORS CLOSET	GREENHECK	CSP-A250	210 CFM	0.31	1000	DIRECT		115	1	0.7	15.0	TIMECLOCK	23.0 lb	7
EF-4	MENS RESTROOM	GREENHECK	CSP-A700	420 CFM	0.87	1035	DIRECT		115	1	4.1	15.0	TIMECLOCK	34.0 lb	7
EF-5	SIGN SHOP	GREENHECK	CUBE-120	1400 CFM	0.3	1331	BELT	0.25	115	1	7.2	15.0	SWITCH	74.0 lb	1.5

1. WEATHERPROOF DISCONNECT SWITCH
2. ROOF CURB
3. BACKDRAFT DAMPER
4. PROVIDE VFD FOR CONTROL
5. PROVIDE A CURB AND POSITIVELY ATTACH THE UNIT TO THE STRUCTURE. COORDINATE WITH THE ARCHITECT AND/OR STRUCTURAL ENGINEER. THE CURB AND UNIT SHALL WITHSTAND THE WIND LOAD AS SHOWN IN THE CODE REVIEW SECTION ON THE HVAC COVERSHEET.
6. PROVIDE WITH MOTORIZED DAMPER WITH ACTUATOR AND END SWITCH. INTERLOCK ASSOCIATED EXHAUST FAN WITH END SWITCH TO START FAN ONCE DAMPER IS PROVED TO BE FULLY OPEN VIA ENDSWITCH, HVAC TO PROVIDE FUSED CONTROL XFMR IN HOFFMAN BOX FOR MOTORIZED DAMPER TO BE INSTALLED BY EC.
7. INLINE FAN MOUNTED ABOVE CEILING

HVAC ELECTRIC HEATER SCHEDULE

TAG	SERVICE	MANUFACTURER	MODEL	ELECTRICAL SECTION: KW	OUTPUT MBH	AMPS	VOLTAGE	PHASE	CONTROL	NOTES
EBB-1	MENS SHOWER	QMARK	2513	1	3412.0	8.4	120	1	THERMOSTAT	2
EBB-2	WOMENS SHOWER	QMARK	2513	1	3412.0	8.4	120	1	THERMOSTAT	2

1. INTEGRAL TSTAT
2. REMOTE WALL TSTAT

HVAC GAS FIRED UNIT HEATER SCHEDULE

TAG	SERVICE	MANUFACTURER	MODEL	AIR FLOW	INPUT MBH	OUTPUT MBH	REQUIRED GAS PRESSURE ("WC)	HP	ELECTRICAL SECTION: VOLTAGE	PHASE	FLA	MAXIMUM OVERCURRENT PROTECTION	CONTROL	EFFICIENCY	MISC. SECTION: WEIGHT	NOTES
GUH-1	SIGN SHOP STORAGE	REZNOR	UDXC-30	456 CFM	30.0	24.6	5-14" WC	0.06	115	1	1.9	15.0	THERMOSTAT	82	57.0 lb	1,2,3,5,6

1. ELECTRONIC IGNITION AND ENCLOSED MOTOR
2. 4-POINT SUSPENSION KIT
3. SINGLE STAGE COMBINATION GAS VALVE AND SEPARATED COMBUSTION
4. PROVIDE WITH CC-2 VERTICAL -OR- CC6 HORIZONTAL CONCENTRIC COMBUSTION AIR INTAKE FLUE VENT KIT
5. PROVIDE WITH DIFFERENTIAL AIR PRESSURE SWITCH TO VERIFY COMBUSTION AIR FLOW, POLISHED ALUMINUM REFLECTORS
6. PROVIDE WITH STEP-DOWN TRANSFORMER FOR 24V CONTROLS
7. FURNISH AND INSTALL CONDENSATE PIPING AND ACID NEUTRALIZER TO NEAREST AVAILABLE DRAIN OR STANDPIPE
8. ATTACH AXIOM NEUTRALIZATION CAPSULE NC-1
9. SUPPLY WITH CONDENSATE PUMP, LITTLE GIANT VCMA-15 OR EQUAL PIPED TO NEAREST DRAIN OR STANDPIPE

HVAC LOUVER SCHEDULE

TAG	MANUFACTURER	MODEL	SERVICE	AIR FLOW	Dimensions	FREE AREA VELOCITY	Free Area	CONTROL	NOTES
LO-1	GREENHECK	ESD-202	EXHAUST	70 CFM	10"X10"	467	0.1 SF	INTERLOCK W/ CORRESPONDING EF	1,2
LO-2	GREENHECK	ESD-202	EXHAUST	70 CFM	10"X10"	467	0.1 SF	INTERLOCK W/ CORRESPONDING EF	1,2
LO-3	GREENHECK	ESD-635	EXHAUST	210 CFM	18"x14"	442	0.5 SF	INTERLOCK W/ CORRESPONDING EF	1,2
LO-4	GREENHECK	ESD-635	EXHAUST	420 CFM	24"X16"	459	0.9 SF	INTERLOCK W/ CORRESPONDING EF	1,2
LO-5	GREENHECK	EDJ-401	INTAKE	1400 CFM	28"X28"	518	2.7 SF	INTERLOCK W/ CORRESPONDING EF	1,2,4
LO-ERV-E	GREENHECK	ESD-635	ERV EXHAUST	300 CFM	18"X16"	457	0.17 SF	INTERLOCK W/ ERV	1,2
LO-ERV-I	GREENHECK	ESD-635	ERV INTAKE	300 CFM	18"X16"	457	0.17 SF	INTERLOCK W/ ERV	1,2,4

1. MOTORIZED DAMPER
2. PROVIDE END SWITCHES
3. PROVIDE BELIMO AF12D-S-US 120-VOLT DAMPER ACTUATOR, KH-AF CRANKARM AND ZG-108 MOUNTING BRACKET.
INTERLOCK DAMPER WITH FIRE ALARM SYSTEM.
4. PROVIDE INSECT SCREENS

HVAC INDOOR AIR HANDLER UNIT SCHEDULE

TAG	SERVICE	MANUFACTURER	MODEL	SUPPLY CFM'S	FAN SECTION: SUPPLY FAN HP/QTY	TOTAL COOLING CAPACITY(MBH)	HEATING SECTION: FUEL	STAGES	OUTPUT MBH	ELECTRICAL SECTION: VOLTAGE	PHASE	MAXIMUM OVERCURRENT PROTECTION	MINIMUM CIRCUIT AMP	MISCELLANEOUS SECTION: WEIGHT	REFRIGERANT USED	EFFICIENCY SEER/EER/AFUE%	MISCELLANEOUS SECTION: NOTES
AHU-2	TRAINING ROOM	TRANE	5TXC+S9V2D	1600	1/1	46.3	NAT GAS	2	113.2	120	1	15.0	13.9	156.0 lb	R-454B	17.1/12.5/97%	1-5
AHU-3	SIGN SHOP	TRANE	5TXC+S9V2D	1600	1/1	46.3	NAT GAS	2	113.2	120	1	15.0	13.9	156.0 lb	R-454B	17.1/12.5/97%	1-5

1. TO BE SUPPLIED WITH STANDARD 2" THROWAWAY FILTERS
2. SUPPLY WITH CONDENSATE PUMP, LITTLE GIANT VCMA-15 OR EQUAL PIPED TO NEAREST AVAILABLE DRAIN
3. SUPPLY WITH 7-DAY PROGRAMMABLE THERMOSTAT
4. PROVIDE FRESH AIR INTAKE KIT UTZ-VXAA
5. 120 MBH INPUT
6. PROVIDE CONVERSION MODULE UTY-TTRX TO USE WIRED TSTATS

HVAC AIR COOLED CONDENSING UNIT SCHEDULE

TAG	SERVICE	MANUFACTURER	MODEL	TOTAL COOLING CAPACITY MBH	TOTAL HEATING CAPACITY MBH	ELECTRICAL SECTION: VOLTAGE	PHASE	MINIMUM CIRCUIT AMP	MAXIMUM OVERCURRENT PROTECTION	MISCELLANEOUS SECTION: WEIGHT	REFRIGERANT USED	EFFICIENCY SEER/EER/HSPF/COP/AFUE%	MISCELLANEOUS SECTION: NOTES
CU-2	TRAINING ROOM	TRANE	5TTR7048A1000A	48.0		208	1	36.0	50.0	226.0 lb	R-454B	17.1/12.5	1-3
CU-3	SIGN SHOP	TRANE	5TTR7048A1000A	48.0		208	1	36.0	50.0	226.0 lb	R-454B	17.1/12.5	1-3

1. PROVIDE LOW AMBIENT KIT, THERMAL EXPANSION VALVE AND ACCUMULATOR WITH ALL UNITS
2. PROVIDE WITH ANTI-SHORT CYCLE TIMER, DISCONNECT SWITCH AND RUBBER ISOLATORS
3.POSITIVELY ATTACH THE UNIT TO GRADE. COORDINATE WITH THE ARCHITECT AND/OR STRUCTURAL ENGINEER. THE MEANS OF POSITIVE ATTACHMENT SHALL WITHSTAND THE WIND LOAD AS SHOWN IN THE CODE REVIEW SECTION ON THE HVAC COVERSHEET.
4. PROVIDE EQUIPMENT RAILS LONG ENOUGH TO SPAN THE REQUIRED # OF EXISTING ROOF JOUSTS AS DETERMINED BY THE ARCHTECT AND STRUCTURAL ENGINEER.

BD engineering
NJ CERTIFICATE OF AUTHORIZATION - 24GA28116100
BD Engineering, LLC
44 MAIN STREET FARMINGDALE NJ 07727 732-886-5432

BRIAN D. TANNENHAUS

ISSUED FOR BIDDING
NOT FOR CONSTRUCTION
10/29/2025

NJ PROFESSIONAL ENGINEER
NO. GE 45801
DATE: XX/XX/XXXX

No.	Description	Date
	ISSUED FOR CLIENT REVIEW	11/20/24
	ISSUED FOR BID	03/21/25
	ISSUED FOR CLIENT REVIEW	04/16/25
	ISSUED FOR BIDDING	10/29/25

revisions

PUBLIC WORKS BUILDING
LOWER TOWNSHIP
771 SEASHORE ROAD
CAPE MAY COUNTY, NJ

project title

drawing name: HVAC SCHEDULES

scale: As indicated
date: 11/20/24
drawn by: Author
project no.: 240093

M3-1
drawing no.

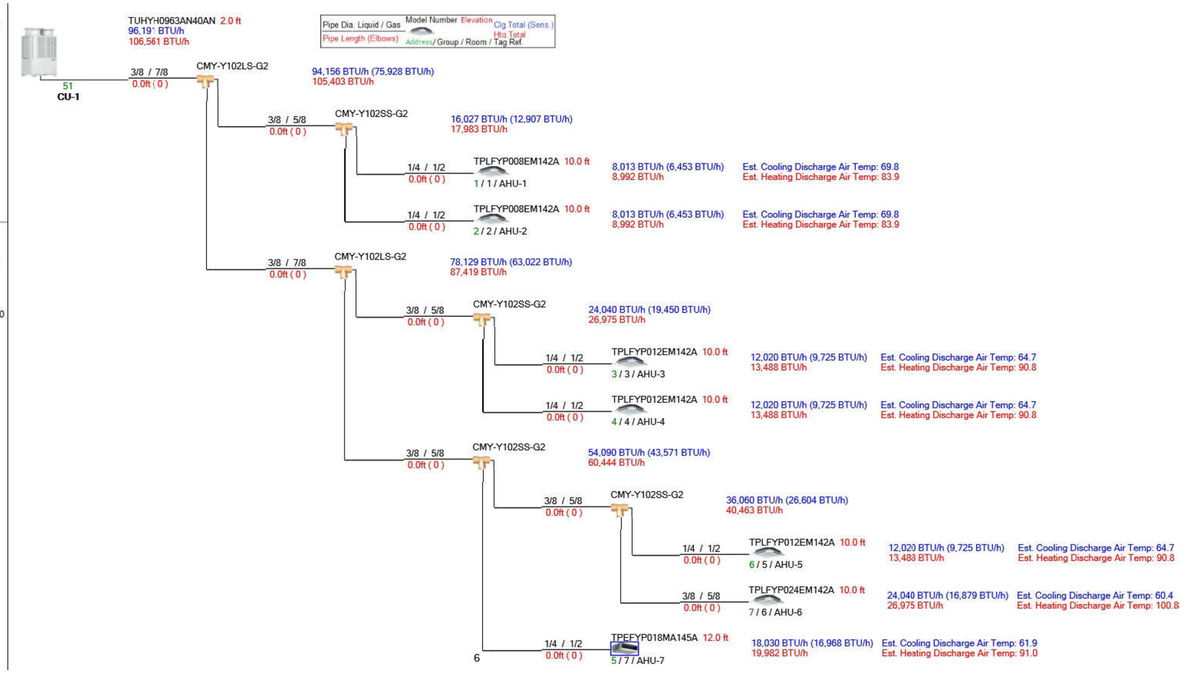
Design View Piping Diagrams

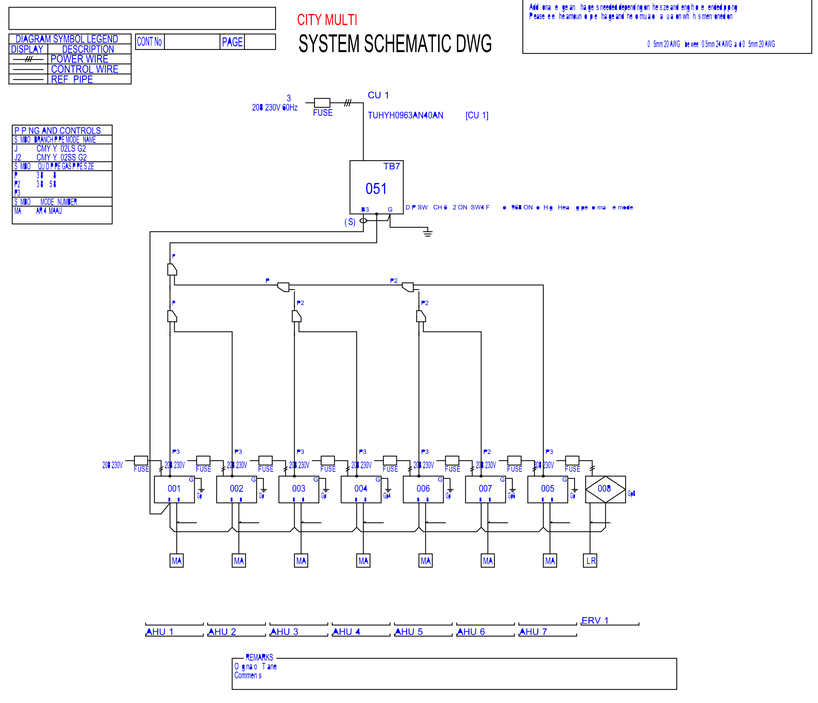
Indoor Units:	7 / 1 to 24	
Capacity:	94 / 48 to 124	(97.9%)
* Connectable capacity is not actual capacity.		
Total Pipe Length:	0.0 / 3280.0	feet
Furthest Actual:	0.0 / 541.0	feet
Furthest Equiv.:	0.0 / 623.0	feet
After 1st Branch Actual:	0.0 / 295.0	feet
After 1st Branch Equiv.:	0.0 / 295.0	feet
Correction Factors		
Outdoor Unit Capacity:	1.00	1.00
Temperature:	1.00	1.04
Piping Length:	1.00	1.00
Defrosting:	-	0.95
User Derate:	1.00	1.00
Total Derate:	1.00	0.99
Additional Refrigerant:	6.63	lb
Total Refrigerant Amount:	30.43	lb

Conditions (°F)

Cooling
Indoor DB 80.0 Humidity 51.8% Indoor WB 67.0
Outdoor DB 95.0

Heating
Indoor DB 70.0
Outdoor DB 0.0 Humidity 30.4% Outdoor WB -2.0





BD engineering

NJ CERTIFICATE OF AUTHORIZATION - 24GA28116100
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44 MAIN STREET FARMINGDALE NJ 07727 732-886-5432

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	ISSUED FOR BIDDING	10/29/25

revisions

PUBLIC WORKS BUILDING
LOWER TOWNSHIP
771 SEASHORE ROAD
CAPE MAY COUNTY, NJ

project title

drawing name: HVAC PIPING & WIRING DIAGRAMS

scale: 12" = 1'-0"

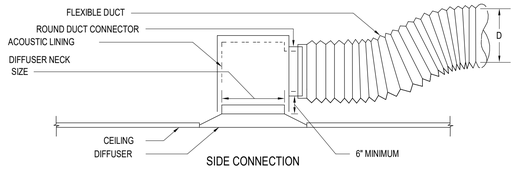
date: 11/20/24

drawn by: Author

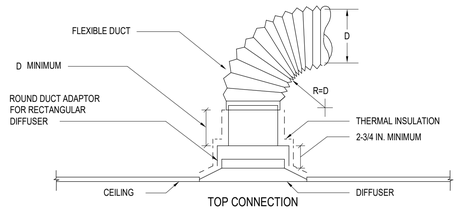
project no.: 240093

M3-2

drawing no.



SIDE CONNECTION



TOP CONNECTION

NOTE: MAXIMUM FLEXIBLE DUCT LENGTH IS 5'-0". PROVIDE HARD DUCT AS REQUIRED TO NOT EXCEED THIS MAXIMUM FLEX DUCT LENGTH

DIFFUSER CONNECTION DETAIL
SCALE: NONE

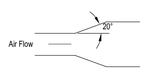


Fig. "B"

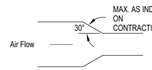


Fig. "C"

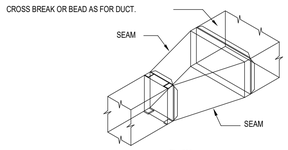
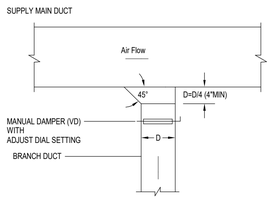


Fig. "A"

LARGEST DIMENSION GOVERNS CONSTRUCTION

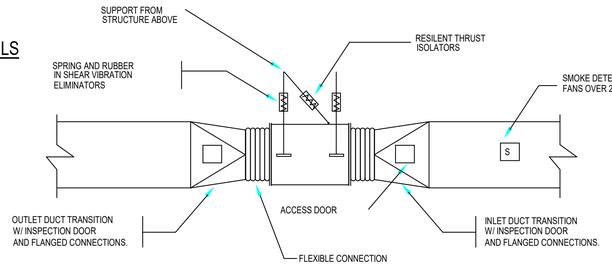
DUCT TRANSITIONS

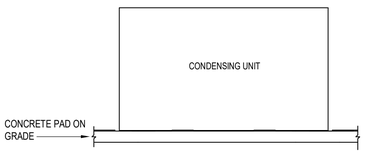


TAP-IN TAKE-OFF

NOTE:
1. DUCT TRANSITIONS TYPICAL AFTER EACH TAKE-OFF(S) WHERE CHANGE IN DUCT SIZE IS INDICATED.

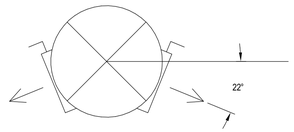
DUCT TRANSITION DETAILS
SCALE: NONE





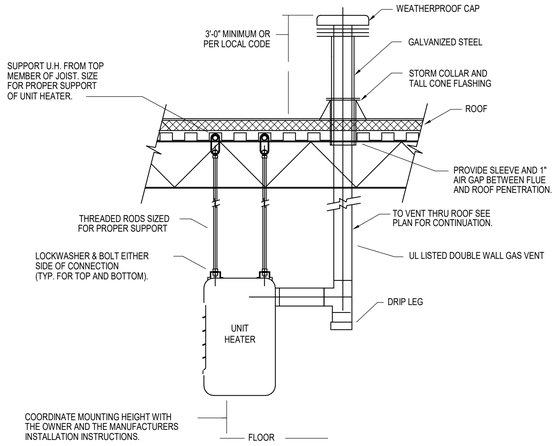
NOTE:
1. THIS DETAIL SHALL SERVE AS A STANDARD FOR INSTALLATION OF ALL ROOFTOP UNITS REFER TO FLOOR PLANS FOR EXACT REQUIREMENTS FOR EACH UNIT.

CONDENSING UNIT DETAIL
SCALE: NONE



NOTE:
SUPPLY REGISTERS TO POINT DOWN AT ANGLE SHOWN

ROUND DUCTWORK REGISTER DETAIL
SCALE: NONE



* ALL GAS PIPING BY PLUMBING CONTRACTOR

UNIT HEATER DETAIL
SCALE: NONE

(ANSI) VENT SYSTEM CATEGORIES

	NON-CONDENSING		
NEGATIVE PRESSURE	Category I Vent Type: B-Vent Double Wall	Category III Vent Type: Forced Draft: UL P-Stack Double Wall Direct Vent: AL29-4C Double Wall	POSITIVE PRESSURE
	Category II Vent Type: AL-294C Double Wall	Category IV Vent Type: AL-294C Double Wall	
	CONDENSING		

NOTES:

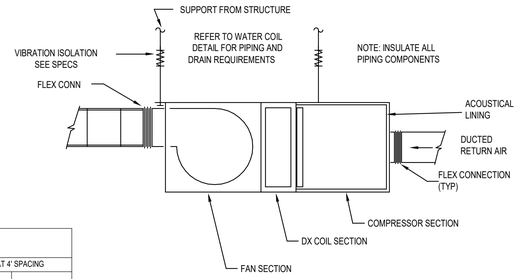
1. THIS VENT SYSTEM CATEGORY MATRIX IS PROVIDED TO INDICATE THE VENT MATERIAL TYPE THAT WILL BE REQUIRED BASED UPON THE APPLIANCE VENTING REQUIREMENTS.

2. VENTING MATERIAL SHALL MATCH THE APPLIANCE TYPE AND BE PER THE MANUFACTURERS REQUIREMENTS.

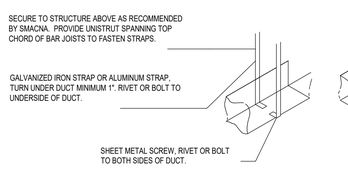
3. THE VENT TYPE SHOWN IS THE TYPE REQUIRED UNLESS OTHERWISE NOTED ON THE PLANS. ALTERNATES WILL BE REVIEWED IF THE MANUFACTURER OF THE APPLIANCE APPROVES A DIFFERENT VENTING MATERIAL. THIS SHOULD BE BROUGHT TO THE ATTENTION OF THE ENGINEER DURING THE BIDDING PROCESS. FAILURE TO PROVIDE THIS DURING THE BIDDING PROCESS WILL RESULT IN THE DENIAL OF ANY ADDITIONAL CHARGES.

RECTANGULAR DUCT HANGER SCHEDULE (MINIMUM SIZES)

HALF DUCT PERIMETER RANGE	PAIR AT 10' SPACING		PAIR AT 8' SPACING		PAIR AT 5' SPACING		PAIR AT 4' SPACING	
	STRAP	WIRE/ROD	STRAP	WIRE/ROD	STRAP	WIRE/ROD	STRAP	WIRE/ROD
P/2 < 30"	1"x 22 GA.	10 GA. (0.135")	1"x 22 GA.	10 GA. (0.135")	1"x 22 GA.	12 GA. (0.106")	1"x 22 GA.	12 GA. (0.106")
P/2 < 72"	1"x 18 GA.	3/8"	1"x 20 GA.	1/4"	1"x 22 GA.	1/4"	1"x 22 GA.	1/4"
P/2 < 96"	1"x 16 GA.	3/8"	1"x 18 GA.	3/8"	1"x 20 GA.	3/8"	1"x 22 GA.	1/4"
P/2 < 120"	1-1/2"x 16 GA.	1/2"	1"x 16 GA.	3/8"	1"x 18 GA.	3/8"	1"x 20 GA.	1/4"
P/2 < 168"	1-1/2"x 16 GA.	1/2"	1"x 16 GA.	1/2"	1"x 16 GA.	3/8"	1"x 18 GA.	3/8"
P/2 < 192"	-	1/2"	1-1/2"x 16 GA.	1/2"	1"x 16 GA.	3/8"	1"x 16 GA.	3/8"

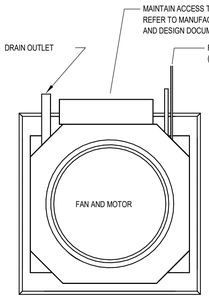


TYPICAL HEAT PUMP UNIT DETAIL
SCALE: NONE

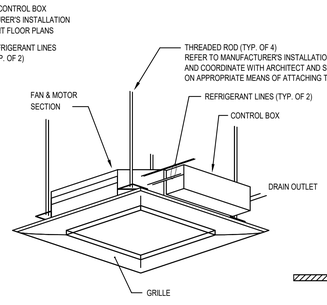


DUCT HANGER DETAILS
SCALE: NONE

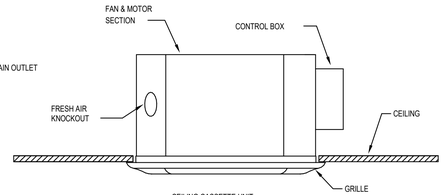
VANE-AXIAL FAN INSTALLATION DETAIL



CEILING CASSETTE UNIT PLAN VIEW

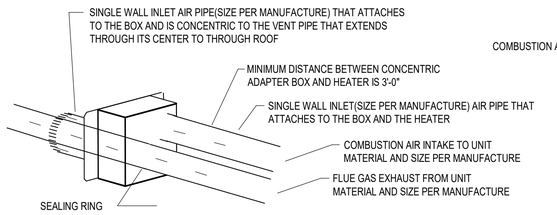


CEILING CASSETTE UNIT ISOMETRIC VIEW

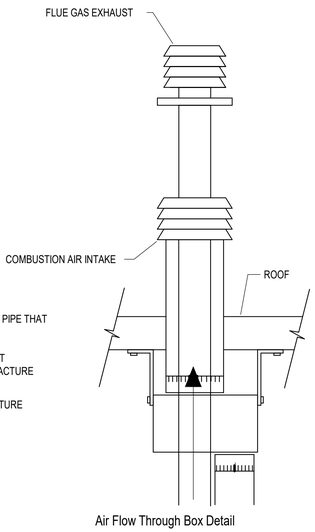


CEILING CASSETTE UNIT SECTION VIEW

CEILING CASSETTE UNIT DETAIL
SCALE: NONE



REZNOR OPTION CC2 CONCENTRIC COMBUSTION AIR/GAS FLUE DETAILS
SCALE: NONE



Air Flow Through Box Detail

BD engineering
NJ CERTIFICATE OF AUTHORIZATION - 24GA28116100
BD Engineering, LLC
44 MAIN STREET FARMINGDALE NJ 07727 732-886-5432

BRIAN D. TANNENHAUS

ISSUED FOR BIDDING
NOT FOR CONSTRUCTION
10/20/2025

NJ PROFESSIONAL ENGINEER
NO. GE 45801
DATE: XX/XX/XXXX

No.	Description	Date
	ISSUED FOR CLIENT REVIEW	11/20/24
	ISSUED FOR BID	03/21/25
	ISSUED FOR CLIENT REVIEW	04/16/25
	ISSUED FOR BIDDING	10/29/25

revisions

PUBLIC WORKS BUILDING
LOWER TOWNSHIP
771 SEASHORE ROAD
CAPE MAY COUNTY, NJ

project title

HVAC DETAILS
drawing name

scale As indicated
date 11/20/24
drawn by Author
project no. 240093

M3-3
drawing no.