ROOF REPLACEMENT, HVAC UPGRADE & MOLD REMEDIATION

MVC WINSLOW SPECIALTY INSPECTION FACILITY
CAMDEN COUNTY, N.J.

DPMC PROJECT NO. T0678-00

STATE OF NEW JERSEY

HONORABLE PHILIP D. MURPHY, GOVERNOR

HONORABLE TAHESHA L. WAY, LIEUTENANT GOVERNOR

DEPARTMENT OF THE TREASURY
ELIZABETH MAHER MUOIO, STATE TREASURER

DIVISION OF PROPERTY MANAGEMENT AND CONSTRUCTION
CHRISTOPHER CHIANESE, DIRECTOR

ARCHITECT:

ARMM ARCHITECTURE ASSOCIATES, INC.

41 GROVE STREET
HADDONFIELD, NJ 08033
856-665-8484

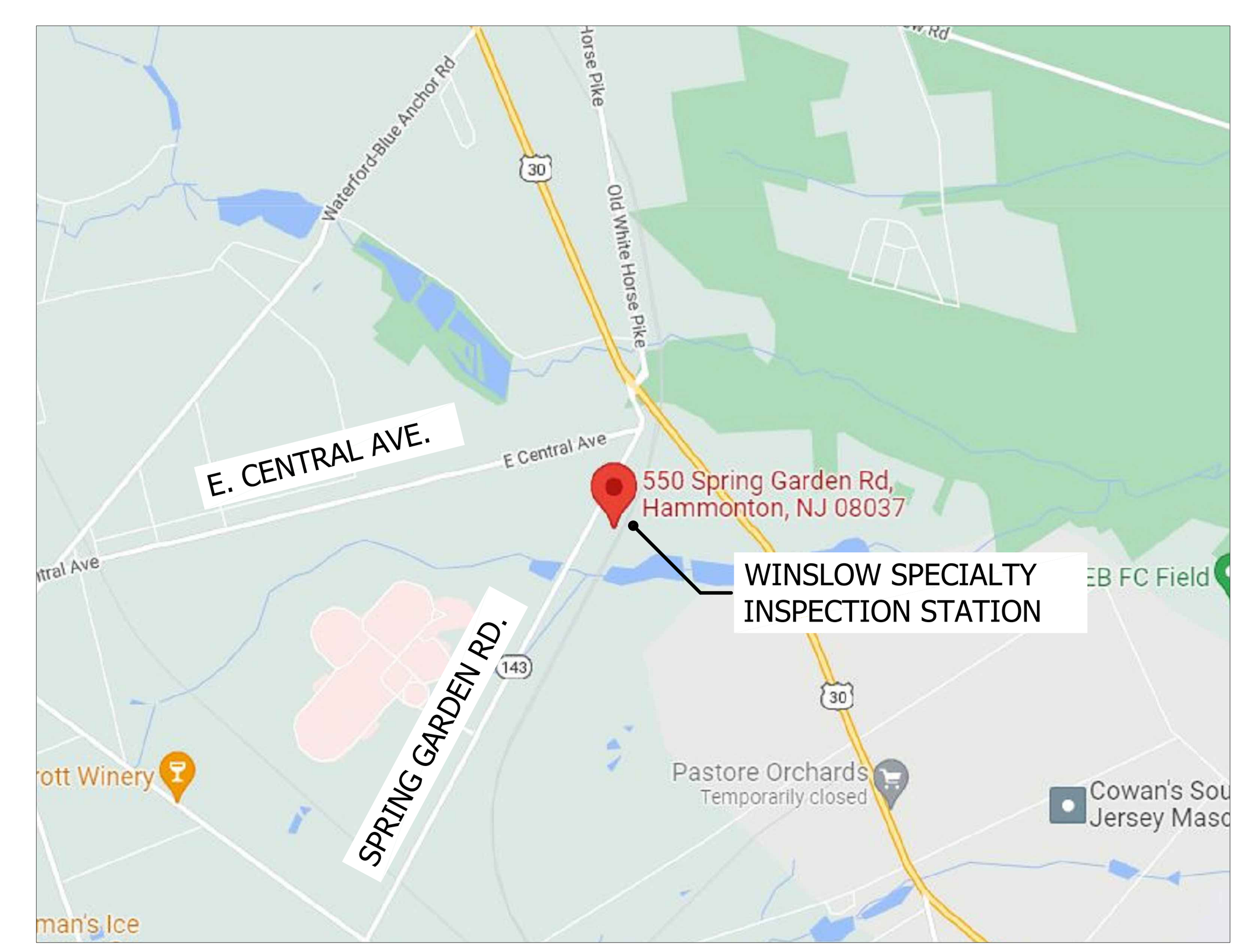
DCA SUBMISSION
MAY 31, 2024

PROFESSIONAL SEAL
FRANK J. MOORE R.A.
NJ # 21AIO1637700

STATE OF NEW JERSEY
FRANK J. MOORE
21AIO1637700
REGISTERED ARCHITECT

FRANK J. MOORE
NJ # 21AIO1637700

DATE:
02-16-23



PROJECT SITE LOCATION

BUILDING CRITERIA

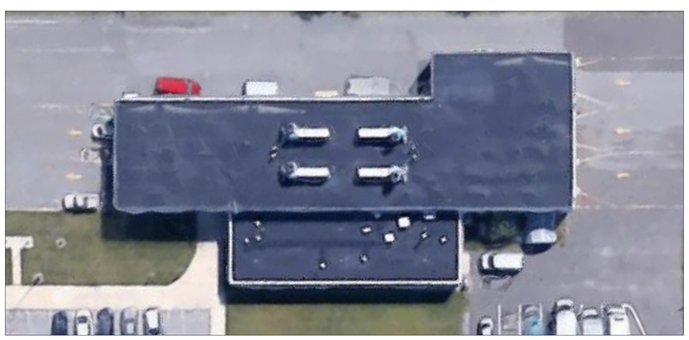
APPLICABLE CODE:	2021 INTERNATIONAL BUILDING CODE, NEW JERSEY EDITION
USE GROUP:	B-BUSINESS
CONSTRUCTION CLASS:	IIB
BUILDING HEIGHT:	1 STORIES, ±23'-0"
AREA OF ROOF:	±3,040 SQ. FT.
WIND CRITERIA: mph	DESIGN WIND SPEED OF 126 EXPOSURE C IMPORTANCE FACTOR 1.15

NOTE: THE BUILDING IS PROTECTED THROUGHOUT WITH AN AUTOMATIC FIRE SUPPRESSION (SPRINKLER) SYSTEM.

CONSTRUCTION CODES

THE UNIFORM CONSTRUCTION CODE - NJAC 5:23 - 2.15(a)3
REHABILITATION SUBCODE - NJAC 5:23-6 RENOVATION: 5:23-6
LEAD HAZARD EVALUATION AND ABATEMENT SUBCODE NJAC 5.17
ASBESTOS HAZARD EVALUATION AND ABATEMENT SUBCODE NJAC 5.23-8
INTERNATIONAL BUILDING CODE - NJ EDITION 2021
NATIONAL STANDARD PLUMBING CODE - 2021
NATIONAL ELECTRICAL CODE - 2020 (NFPA 70)
INTERNATIONAL MECHANICAL CODE - 2021

PROJECT LOCATION AERIAL VIEW



PROJECT SITE AERIAL VIEW

LIST OF DRAWINGS

GENERAL NOTES

1. SHEET GN DEMOLITION KEY NOTES AND THE GENERAL DEMOLITION NOTES PROVIDES INFORMATION OBTAINED FROM AVAILABLE DOCUMENTS. INFORMATION OBTAINED FROM AVAILABLE DOCUMENTS HOWEVER, MAY NOT ACCURATELY REPRESENT EXISTING CONSTRUCTION.
2. SHEET GN KEY NOTES AND THESE GENERAL NOTES ARE INTENDED AS A SUMMARY ONLY, PROVIDED FOR THE CONVENIENCE OF THE BIDDER/CONTRACTOR. ADDITIONAL INFORMATION AND REQUIREMENTS ARE CONTAINED ON THE DRAWINGS AND IN THE SPECIFICATIONS.
3. ALL EXISTING ROOFTOP MECHANICAL AND ELECTRICAL EQUIPMENT, INCLUDING BUT NOT LIMITED TO, EXHAUST FANS, CONDUIT, ETC., SHALL BE EXAMINED AND TESTED AS REQUIRED BY THE CONTRACTOR'S LICENSED MECH./ELECT. SUB-CONTRACTOR, PRIOR TO START OF WORK. THE EXAMINATION AND TESTING SHALL BE PERFORMED IN THE PRESENCE OF THE FACILITY MAINTENANCE PERSONNEL. THE CONTRACTOR SHALL SUBMIT WRITTEN NOTIFICATION TO THE ARCHITECT, PRIOR TO START OF WORK, IDENTIFYING ALL DAMAGED OR IMPROPERLY FUNCTIONING ITEMS ENCOUNTERED. ANY DAMAGED OR IMPROPERLY FUNCTIONING ITEMS, WHICH WERE NOT IDENTIFIED IN WRITING PRIOR TO THE START OF WORK, SHALL BE REPAIRED OR REPLACED AS REQUIRED, NON-PRORATED, AT THE CONTRACTOR'S EXPENSE.
4. ALL ROOFTOP ITEMS THAT ARE IN CONFLICT WITH THE NEW ROOF SYSTEM FLASHINGS, INCLUDING BUT NOT LIMITED TO MECHANICAL EQUIPMENT, CONDUIT, LIGHT FIXTURES, ETC., SHALL BE DISCONNECTED, REMOVED, MODIFIED AS REQUIRED AND RE-INSTALLED TO ELIMINATE ANY CONFLICT PER INDUSTRY STANDARDS. THE INSTALLATION OF ALL EQUIPMENT IS TO PROVIDE 8" MINIMUM FLASHING HEIGHT OR AS INDICATED BY DRAWINGS AND SPECIFICATIONS, WHICHEVER IS GREATER. ALL MECHANICAL, ELECTRICAL AND PLUMBING WORK SHALL BE PERFORMED BY SUB-CONTRACTORS LICENSED IN THE APPROPRIATE TRADE.
5. ALL EXISTING ROOF SYSTEM MATERIALS ARE TO BE REMOVED DOWN TO THE EXISTING SUBSTRATE, UNLESS NOTED OTHERWISE. EXISTING ROOF SYSTEM MATERIALS INCLUDE; BUT ARE NOT LIMITED TO, ROOF MEMBRANES, INSULATION BOARDS, FILL MATERIALS, FASTENERS, FLASHINGS AND ACCESSORIES. THE CONTRACTOR SHALL ONLY REMOVE AS MUCH EXISTING MATERIAL AS CAN BE REPLACED WITH THE COMPLETE NEW ROOF SYSTEM, INCLUDING FLASHINGS, THE SAME DAY OR BEFORE THE ONSET OF INCLEMENT WEATHER, WHICHEVER IS SOONER. ALL DEBRIS SHALL BE REMOVED FROM THE ROOFTOP BY TRASH CHUTES ONLY AND PLACED INTO APPROVED CONTAINERS AS SOON AS POSSIBLE, BUT NOT LATER THAN THE END OF THE WORK SHIFT. THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT ACCUMULATED DEBRIS ON THE ROOFTOP DOES NOT EXCEED THE SAFE STRUCTURAL CAPACITY OF THE ROOF DECK. ALL FILLED CONTAINERS SHALL BE REMOVED PROMPTLY FROM THE PROJECT SITE.
6. THE CONTRACT DOCUMENTS, INCLUDING SPECIFIC INSTALLATION DETAILS SHOWN ON THE DRAWINGS, ESTABLISH THE MINIMUM INSTALLATION REQUIREMENTS FOR THIS PROJECT. IF DETAILS SHOWN ARE MORE STRINGENT THAN THE ROOFING MANUFACTURER'S STANDARD DETAILS, THE DETAILS SHOWN WILL GOVERN THE INSTALLATION OF THAT PORTION OF WORK. IF THE ROOFING MANUFACTURER'S STANDARD DETAILS ARE MORE STRINGENT THAN DETAILS SHOWN, THE MANUFACTURER'S DETAILS WILL GOVERN THE INSTALLATION OF THAT PORTION OF WORK. ALL MANUFACTURER REQUIREMENTS IN EXCESS OF THAT REQUIRED BY THE CONTRACT DOCUMENTS SHALL BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER. THE CONTRACTOR SHALL REVIEW THE DRAWINGS WITH THE MANUFACTURER, PRIOR TO SUBMITTING THE BID. ANY MANUFACTURER OBJECTIONS TO DETAILS SHOWN SHALL BE SUBMITTED TO THE ARCHITECT, PRIOR TO SUBMITTING A BID.
7. THE CONTRACTOR SHALL PROVIDE ALL LABOR AND MATERIAL REQUIRED FOR A COMPLETE AND WATERTIGHT INSTALLATION, THAT IS FULLY WARRANTED/GUARANTEED BY THE ROOFING MANUFACTURER. ANY DETAILS OR WORK REQUIRED, BUT NOT SHOWN OR SPECIFIED, IS TO BE PROVIDED IN ACCORDANCE WITH THE ROOFING MANUFACTURER'S RECOMMENDATIONS AND/OR REQUIREMENTS AT NO ADDITIONAL COST TO THE OWNER.
8. PROVIDE BARRICADES, WARNING SIGNS AND LIGHTS AT OPENINGS AND OTHER AREAS HAZARDOUS TO PEDESTRIANS AND TRAFFIC. KEEP CONSTRUCTION DEBRIS CLEAR OF TRAFFIC AREAS.
9. ALL WORK PERFORMED SHALL BE IN ACCORDANCE WITH THE REGULATIONS AND GUIDELINES SET FORTH BY ALL AGENCIES HAVING JURISDICTION OVER THE WORK. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) RULES AND REGULATIONS.
10. ALL WORK SHALL BE EXECUTED IN A CAREFUL AND ORDERLY MANNER WITH THE LEAST POSSIBLE NOISE, DUST, OR DISTURBANCE TO OCCUPANTS, ADJACENT SITES OR BUILDINGS.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING WATERTIGHT INTEGRITY OF THE BUILDING AT ALL TIMES. ALL WATER DAMAGE SHALL BE REPAIRED AT NO ADDITIONAL COST AND TO THE SATISFACTION OF THE OWNER.
12. THE CONTRACTOR SHALL PROVIDE PROTECTION FOR THE GENERAL PUBLIC AND CONSTRUCTION WORKERS IN AND AROUND THE CONSTRUCTION SITE. ADEQUATE BARRIERS SHALL BE PROVIDED TO EXERCISE CONTROL OF SAFE INGRESS AND EGRESS OF PREMISES. FIRE EXITS SHALL AT NO TIME BE BLOCKED.
13. ALL ITEMS, SYSTEMS AND PRODUCTS NOTED ON THE DRAWINGS SHALL BE NEW UNLESS NOTED AS EXISTING.
14. THE APPROVAL OF SUBMITTALS BY THE ENGINEER SHALL NOT BE CONSTRUED AS A COMPLETE CHECK, BUT WILL INDICATE ONLY THAT THE GENERAL METHOD OF CONSTRUCTION, MATERIALS, DETAILING AND OTHER INFORMATION ARE SATISFACTORY. APPROVAL WILL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY FOR ANY ERROR, WHICH MAY EXIST IN HIS SUBMITTALS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DIMENSIONS AND DESIGN OF ADEQUATE CONNECTIONS, DETAILS AND SATISFACTORY CONSTRUCTION OF ALL WORK.
15. SUBMITTALS SHALL BE IN COMPLIANCE WITH CONTRACT REQUIREMENTS AND ACTUAL FIELD CONDITIONS. INCOMPLETE SUBMITTALS WILL NOT BE REVIEWED BY THE ENGINEER AND WILL BE RETURNED TO THE CONTRACTOR. REPRODUCED CONTRACT DRAWINGS WILL NOT BE ACCEPTED AS SHOP DRAWINGS. FIELD VERIFY CONSTRUCTION AND INSTALLATION REQUIREMENTS PRIOR TO SUBMITTAL PREPARATION AND SUBMISSION.
16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SITE RESTORATION CONSISTING OF REPLACEMENT OR RESTORATION OF ALL AREAS TO A CONDITION EQUAL TO OR BETTER THAN ORIGINAL, INCLUDING ALL SHRUBS, TREES, FENCES, PAVEMENT, CURBS, SIDEWALK AND GRASS AREAS OR ANY OTHER PROPERTY IMPACTED AS A RESULT OF THE PROJECT.
17. PRIOR TO THE START OF DEMOLITION, THE CONTRACTOR SHALL FLOOD TEST ALL ROOF DRAIN PIPING TO VERIFY IF THEY ARE CLEAR OF ANY OBSTRUCTIONS. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT IF ANY PIPE BLOCKAGES ARE PRESENT PRIOR TO THE START OF DEMOLITION.
18. AT THE END OF CONSTRUCTION AND AFTER THE ROOF WARRANTY HAS BEEN PERFORMED, THE CONTRACTOR SHALL FLOOD TEST ALL ROOF DRAIN PIPING TO VERIFY IF THEY ARE CLEAR OF ANY OBSTRUCTIONS. ANY OBSTRUCTIONS SHALL BE CLEARED BY THE CONTRACTOR'S PLUMBING SUBCONTRACTOR AT NO ADDITIONAL COST TO THE ARCHITECTS.
19. THE USE OF TORCHES, FLAME CUTTING AND WELDING IS PROHIBITED UNTIL A FIRE WATCH PROGRAM HAS BEEN SUBMITTED BY THE CONTRACTOR AND HAS BEEN APPROVED BY THE STATE AND THE ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE TO PERFORM THE FIRE WATCH.
20. TEMPORARY CONSTRUCTION FENCES AND GATES SHALL BE INSTALLED AT THE CONTRACTOR STORAGE AND STAGING AREA AND THE CONTRACTOR DUMPSTER AREA. TEMPORARY FENCING SHALL CONSIST OF 8 FOOT HIGH CHAIN LINK FENCING W/BASES AT POSTS. POSTS SHALL NOT BE DRIVEN INTO THE GROUND. SAND BAGS SHALL BE SET AT EACH FENCE POST BASE. EACH SECTION OF FENCE SHALL BE SECURED TO THE ADJACENT FENCE SECTION. ALL GATES SHALL BE PAD LOCKED.
21. TAPERED INSULATION: THE MANUFACTURER OF THE ROOFING SYSTEM SHALL TAKE FULL RESPONSIBILITY FOR THE TAPERED INSULATION PLANS TO MEET THE R-30 AVERAGE INSULATION VALUE (HEATED / COOLED AREAS) AND MUST FOLLOW THEIR PLANS AND SPECIFICATIONS. ARMM ASSOCIATES TAPERING PLAN IS TO BE USES AS A GUIDE ONLY. CONTRACTOR TO VERIFY ALL EDGE PLATE HEIGHTS.

BUILDING SQUARE FOOTAGES

ROOF AREA #	SQUARE FOOTAGE
A	+/- 3,040 S.F.
TOTAL	+/- 3,040 S.F.

PROFESSIONAL SEAL
FRANK J. MOORE R.A.
NJ # 21AIO1637700

STATE OF NEW JERSEY · FRANK J. MOORE · 21AIO1637700 · REGISTERED ARCHITECT

ROOFNAV ASSEMBLY NO.

471601-0-0

ABBREVIATIONS

A/C	AIR CONDITIONER	INS	INSULATION	RD	ROOF DRAIN
A.S.	ALONG SLOPE	JT	JOINT	SECT	SECTION
ALUM	ALUMINUM	L	LEAD	SL	SKYLIGHT
BLKG	BLOCKING	LB.	POUND	SPEC	SPECIFICATION
CEM	CEMENT	L.C.C.	LEAD COATED COPPER	□	SQUARE
C.I.	CAST IRON	LT	LIGHT	S.S.	STAINLESS STEEL
CO	CLEAN OUT	MAX	MAXIMUM	T & B	TOP & BOTTOM
CONC	CONCRETE	MIN	MINIMUM	TC	TERRA COTTA
CONT	CONTINUOUS	M.R.V.	MOISTURE RELIEF VALVE	T & G	TOUNGE & GROOVE
COP	COPPER	MTL	METAL	TYP	TYPICAL
D	DOWN	O/C	ON CENTER	TWS	THRU-WALL SCUPPER
Ø	DIAMETER	OD	OUTSIDE DIAMETER	V	VALLEY
DS	DOWNSPOUT	OZ.	OUNCE	VENT	VENTILATOR
D.SL.	DRAIN SLEEVE	PLYW.	PLYWOOD	VS	VENT STACK
E.J.	EXPANSION JOINT	PP	PITCH POCKET	W/	WITH
E.S.	EDGE SCUPPER	PS	PIPE SUPPORT	WD	WOOD
EXIST.	EXISTING	PREFAB.	PREFABRICATED	WH	WEEP HOLE
FT	FOOT	R	RIDGE		
GNV	GOOSE NECK VENTILATOR	RA	ROOF AREA		
GV	GRAVITY VENT				
GYP	GYPSUM				
H	HEIGHT				
HP	HOT PIPE				

SYMBOLS LEGEND

- X — ROOF AREA DESIGNATION
- EF — EXHAUST FAN
- T — TURBINE VENTILATOR
- D — DUCT THRU ROOF
- GV — GOOSENECK VENT
- VS — VENT STACK
- HS — HOT STACK
- HVAC — HVAC UNIT
- RD — ROOF DRAIN
- OF — OVERFLOW ROOF DRAIN
- RD — ROOF DRAIN WITH TAPERED SUMP
- SL — SKYLIGHT
- RH — ROOF HATCH
- PP — PITCH POCKET
- RL — ROOF LADDER
- P — POST
- CURB RAIL
- PC — PIPE CURB
- SP — SUPPORT PIPE
- S — SCUPPER & LEADER HEAD
- OS — OVERFLOW SCUPPER
- DS — GUTTER & DOWNSPOUT
- AC — AC UNIT ON RAIL CURBS
- E — ELECTRICAL CONDUIT
- G — GAS PIPE
- CONDUIT OR GAS LINE WITH SUPPORTS
- EJ — EXPANSION JOINT
- 1/4" DECK SLOPE
- 1/8" — 1/8" DECK SLOPE
- CRICKET - SLOPE 1/4" / FT.
- CRICKETS AT DRAINS
- 1/4" : 12" SLOPE
- WALKWAY PADS

DRAWING SYMBOLS

OWNER:
STATE OF NEW JERSEY
HONORABLE PHILIP D. MURPHY, GOVERNOR
DEPARTMENT OF THE TREASURY
DIVISION OF PROPERTY MANAGEMENT & CONSTRUCTION
20 WEST STATE STREET, 3RD FLOOR
P.O. BOX 038
TRENTON, NEW JERSEY 08625-0038

CHRISTOPHER CHIANESE, DIRECTOR

DPMC PROJECT NO. T0678-00

REV.	DESCRIPTION	DATE
3	DCA SUBMISSION	05-31-24
2	FINAL DESIGN RESUBMISSION	01-15-24
1	FINAL DESIGN PHASE	10-04-23

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WINSLOW SPECIALTY INSPECTION STATION
550 SPRING GARDEN STREET
WINSLOW, NJ 08037

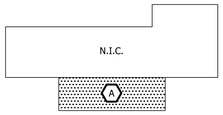
SHEET TITLE: SITE PLANS, GENERAL NOTES & CODE INFORMATION
REF. NO. T0678-00
SHEET NO. 2 OF 8
DCA REF. No.

ARCHITECT:
ARMM ARCHITECTURE ASSOCIATES, INC.
41 GROVE STREET
HADDONFIELD, NEW JERSEY 08033
DRAWING NUMBER: A1

FRANK J. MOORE
NJ # 21AIO1637700
Frank J. Moore
DATE: 02-16-23

DRAWN BY: AI | APPROVED BY: FRANK J. MOORE | SCALE: AS NOTED

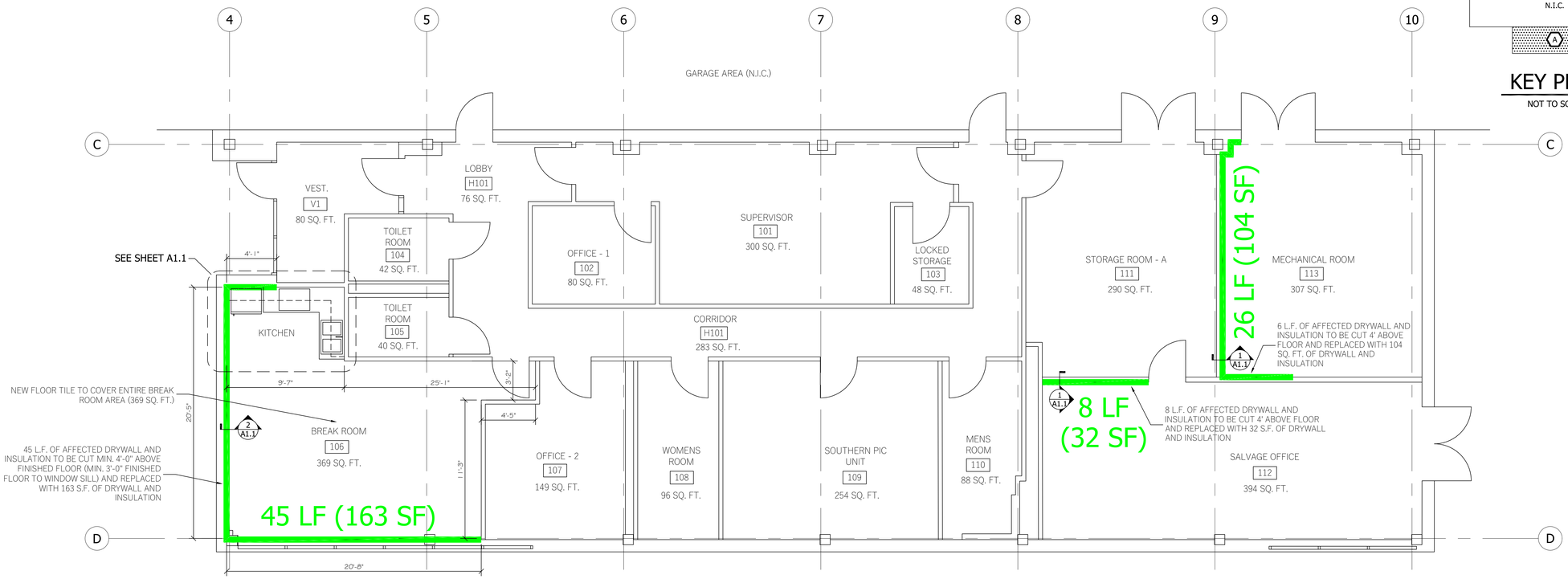
SHADED AREAS INDICATE ROOF AREAS ON THIS SHEET.



TRUE NORTH

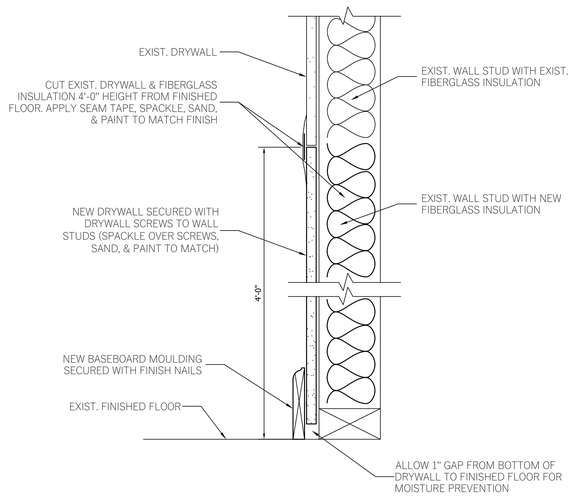
KEY PLAN

NOT TO SCALE



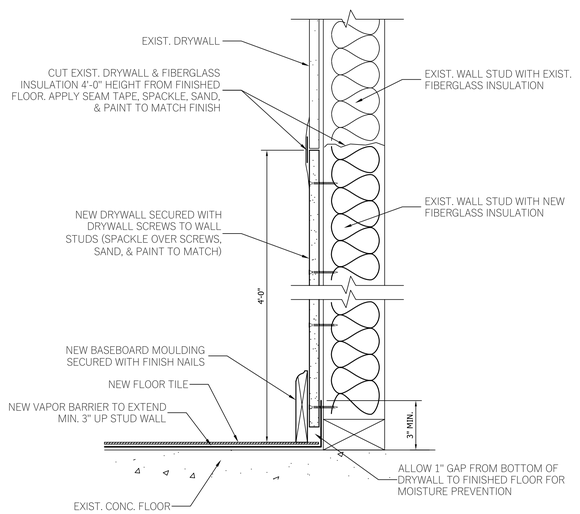
1 A1.1 EXISTING FIRST FLOOR PLAN

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



1 A1.1 WALL SECTION

DRAWING NOT TO SCALE



2 A1.1 WALL SECTION

DRAWING NOT TO SCALE

GENERAL NOTE:

1. PREP AND PAINT ALL NEW AND EXIST. WALLS AND BASE TRIM IN ROOMS 106, 112, & 113

ANY WORK OR MATERIALS INCLUDED IN THE SPECIFICATION WITH A SIMILAR WORK ITEM OR MATERIAL OF A LESSER QUALITY INCLUDED ON THE DRAWINGS AND/OR VICE VERSA, THE MORE STRINGENT OR BETTER QUALITY WORK OR MATERIAL ITEM SHALL BE PERFORMED OR PROVIDED

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20 WEST STATE STREET, 3RD FLOOR
P.O. BOX 038
TRENTON, NEW JERSEY 08625-0038

CHRISTOPHER CHIANESE, DIRECTOR

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WINSLOW, NJ 08037

SHEET TITLE: EXISTING FIRST FLOOR PLAN
REF. NO. T0678-00
DCA REF. No.
SHEET NO. 3 OF 8

ARCHITECT:
ARMM ARCHITECTURE ASSOCIATES, INC.
41 GROVE STREET
HADDONFIELD, NEW JERSEY 08033
DRAWING NUMBER: A1.1

FRANK J. MOORE
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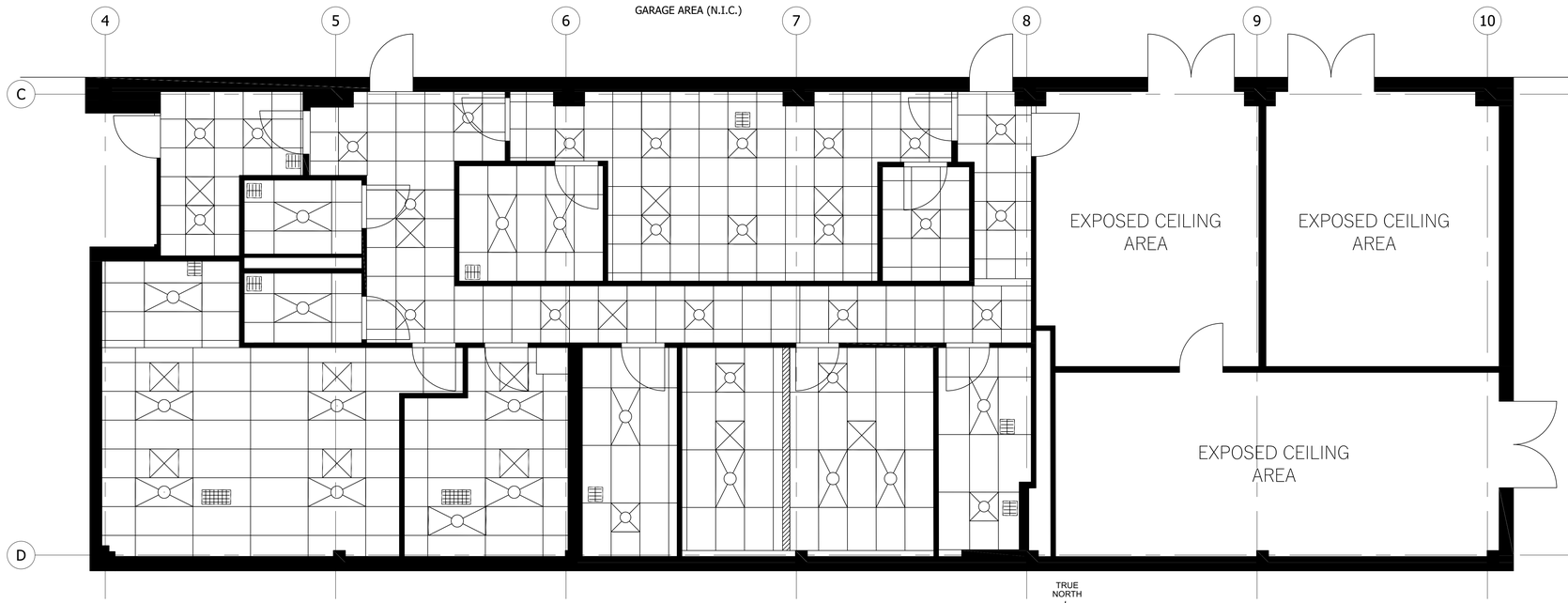


1 / A1.2 EXISTING REFLECTIVE CEILING PLAN
SCALE: 1/4" = 1'-0" +/-

2' X 2' ACUSTICAL CEILING TILES:
APPROX. 160 (640 SQ. FT.)

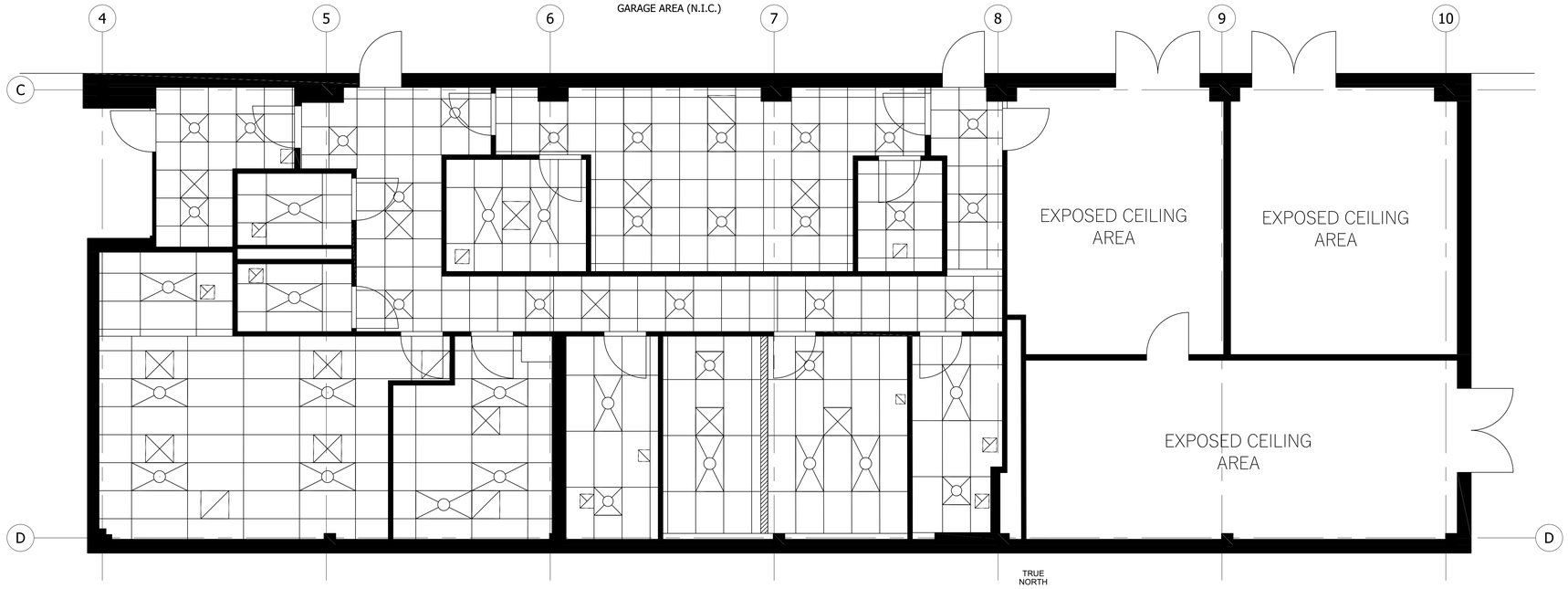
2' X 4' ACUSTICAL CEILING TILES:
APPROX. 139 (1,112 SQ. FT.)

SYMBOL LEGEND:

- 2' X 4' ACOUSTIC CEILING TILE GRID (TO REMAIN)
- 2' X 2' ACOUSTIC CEILING TILE GRID (TO REMAIN)
- 2' X 4' EXIST. FLUORESCENT LIGHT FIXTURE (TO REMAIN)
- 2' X 2' EXIST. FLUORESCENT LIGHT FIXTURE (TO REMAIN)
- 2' X 2' AIR REGISTER (TO BE DEMOLISHED & REPLACED (SEE HVAC DWGS.)
- 1' X 2' EXIST. AIR VENTILATION (TO BE DEMOLISHED)
- 1' X 1' EXIST. AIR VENTILATION (TO BE DEMOLISHED)
- NEW CEILING AIR SUPPLY (SEE HVAC DWGS.)

NOTES:

1. ALL EXIST. ACOUSTIC CEILING TILES TO BE DEMOLISHED & REPLACED WITH NEW CEILING TILES.
2. EXIST. FLUORESCENT LIGHT FIXTURES TO REMAIN.
3. EXIST. AIR REGISTERS TO BE DEMOLISHED & REPLACED WITH NEW AIR REGISTERS. (SEE HVAC DWGS.)
4. EXIST. AIR VENTILATION TO BE DEMOLISHED & REPLACED WITH NEW CEILING AIR SUPPLY UNITS (SEE HVAC DWGS.)
5. EXIST. CEILING GRID TO REMAIN.



2 / A1.2 PROPOSED REFLECTIVE CEILING PLAN
SCALE: 1/4" = 1'-0" +/-

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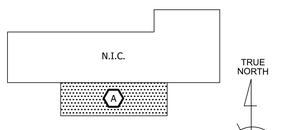
SHADED AREAS INDICATE ROOF AREAS ON THIS SHEET.



KEY PLAN
NOT TO SCALE

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NJ # 21AIO1637700

STATE OF NEW JERSEY FRANK J. MOORE 21AI01637700 REGISTERED ARCHITECT

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SHEET NO. 3 OF 8
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41 GROVE STREET
HADDONFIELD, NEW JERSEY 08033
DRAWING NUMBER: A1.2

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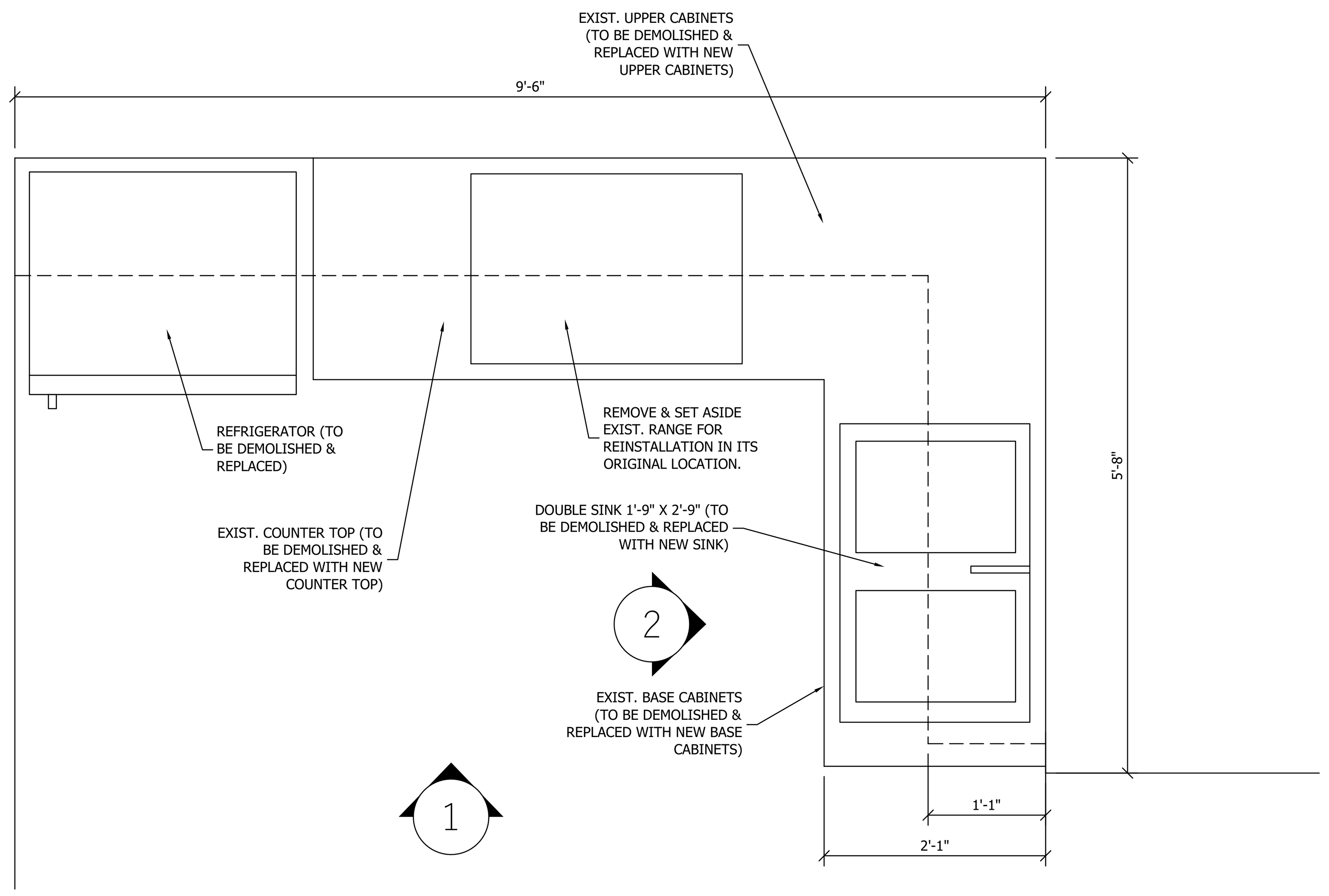
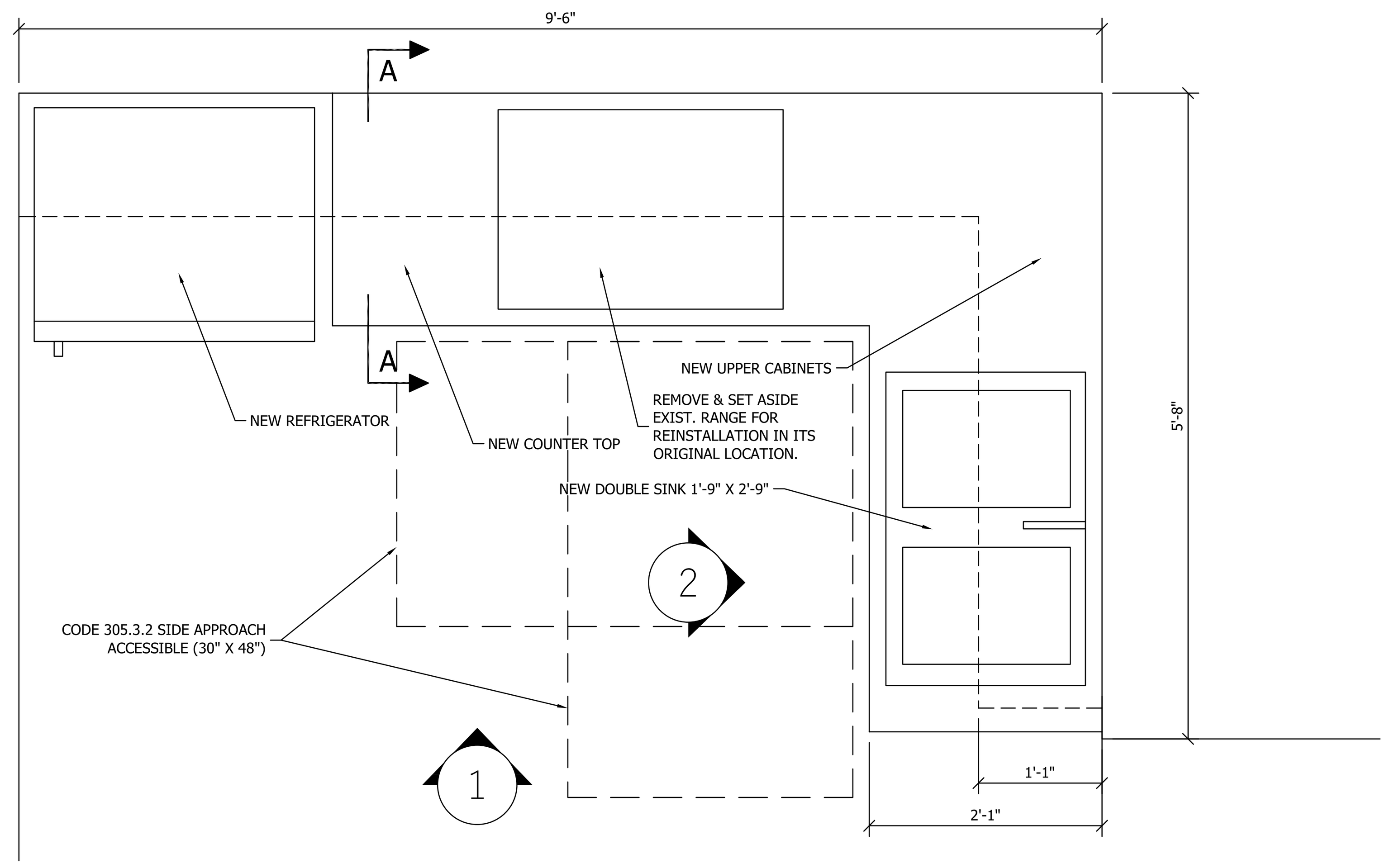
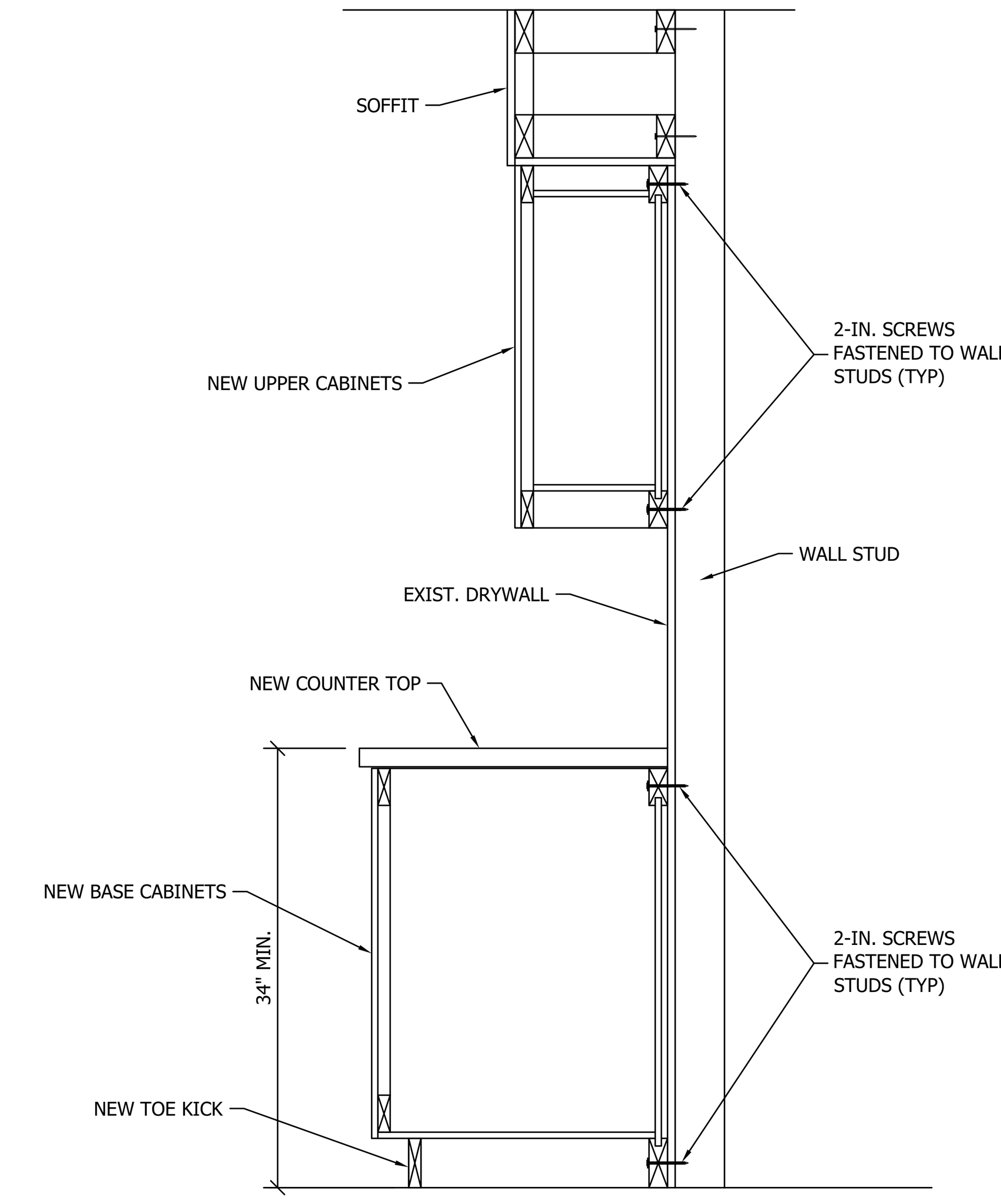
DRAWN BY: AI
APPROVED BY: FRANK J. MOORE
SCALE: AS NOTED



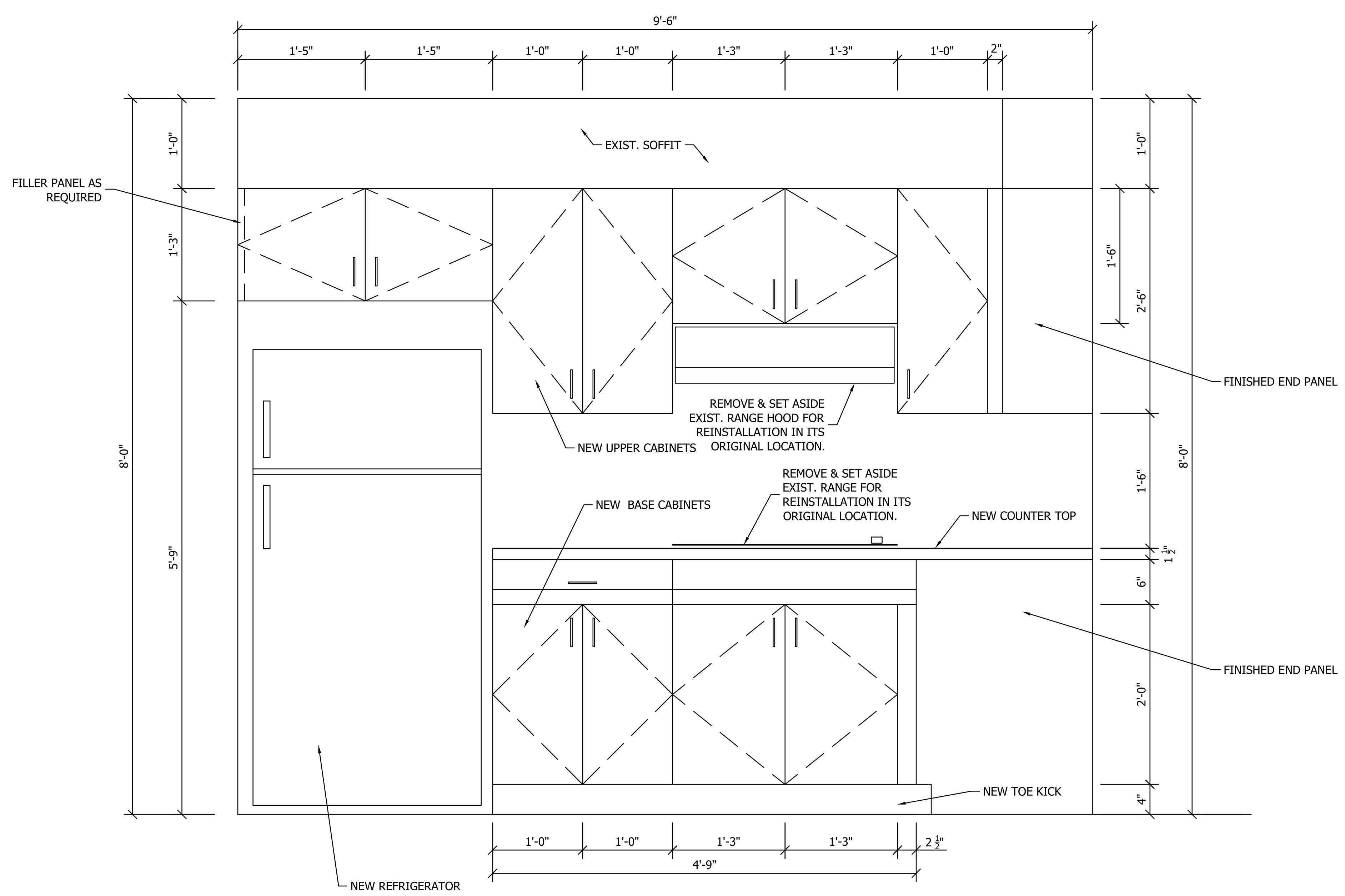
1 / A1.3 KITCHEN DEMOLITION PLAN
SCALE: 1/4" = 1'-0" +/-



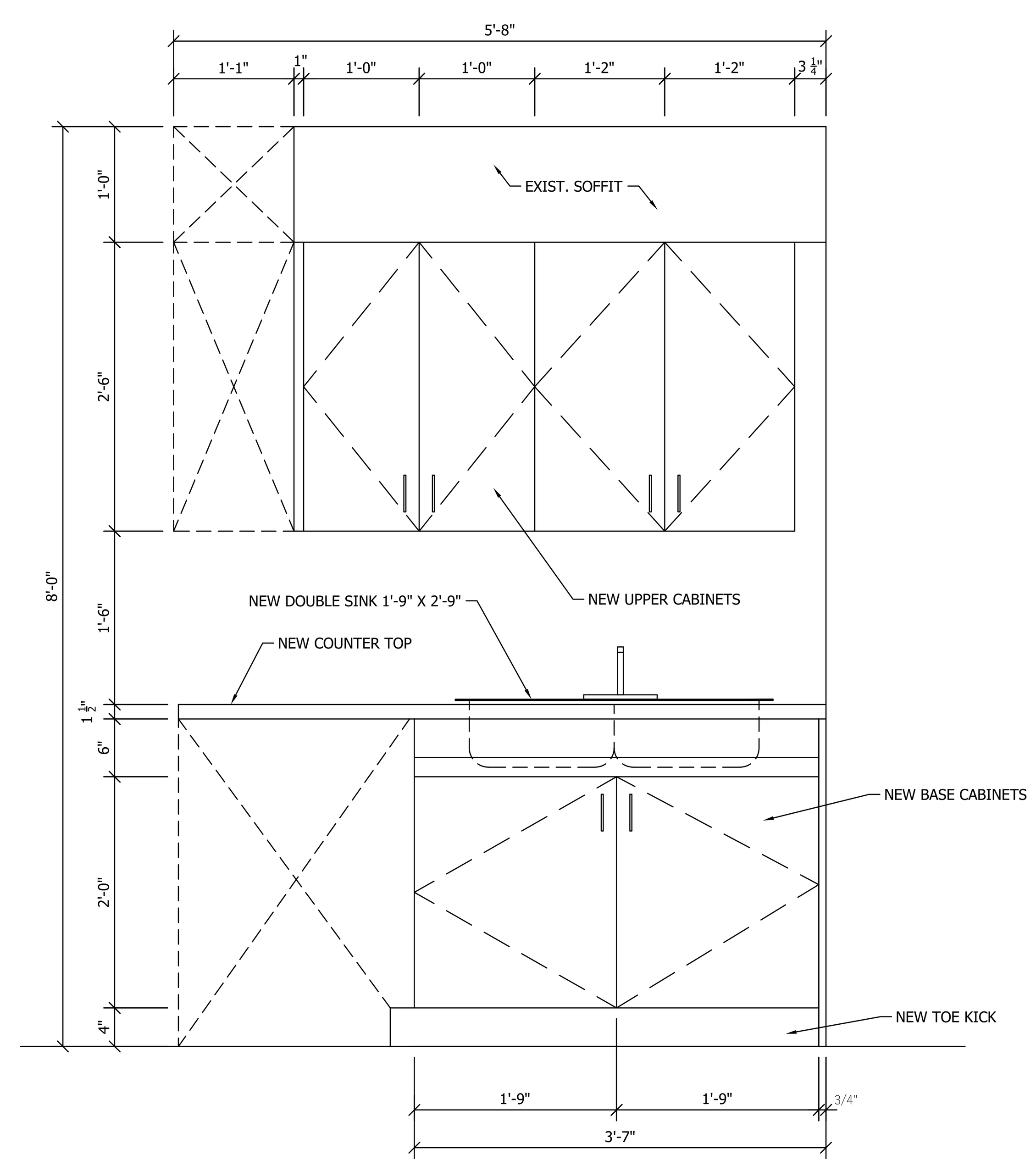
2 / A1.3 NEW KITCHEN PLAN
SCALE: 1/4" = 1'-0" +/-



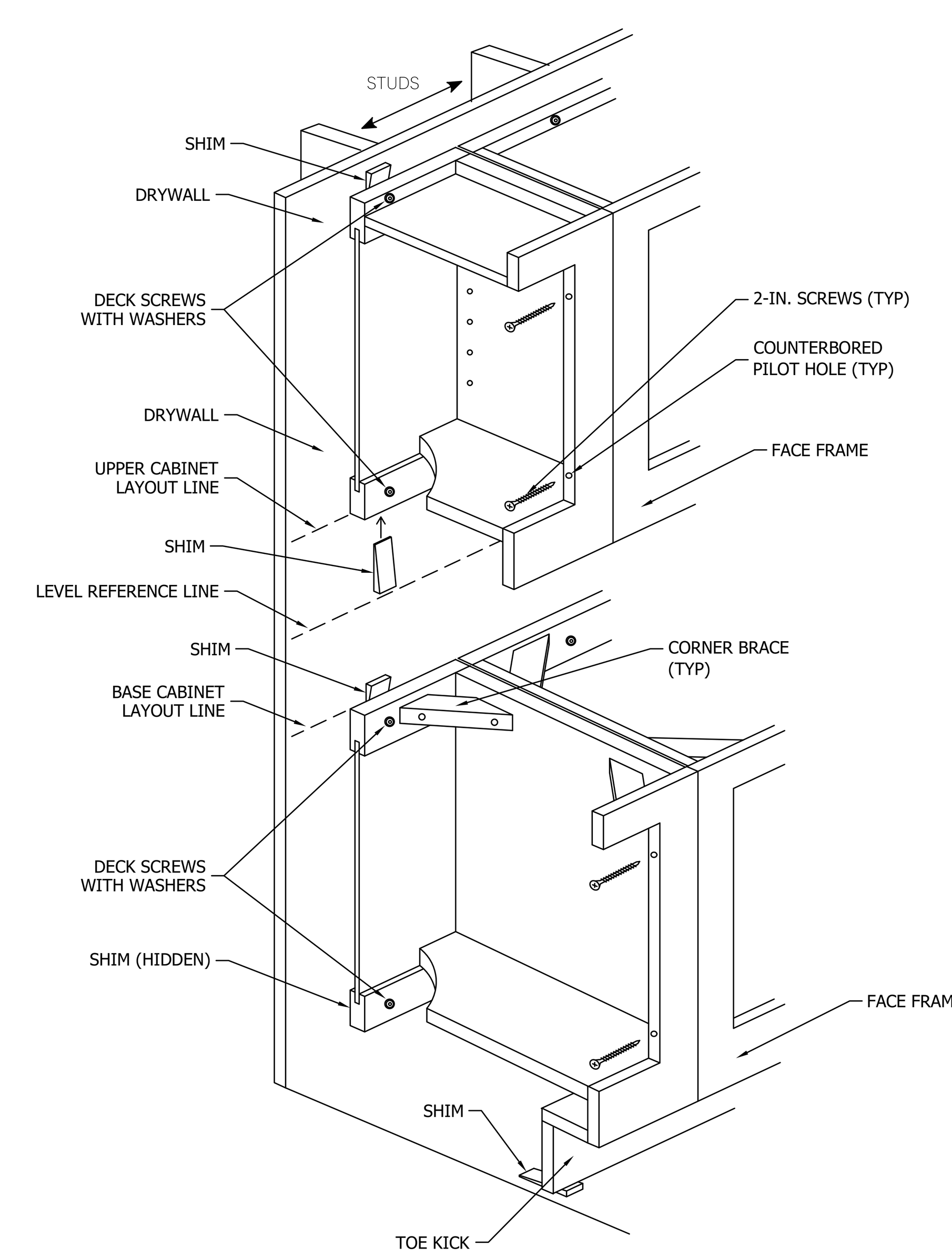
4 / A1.3 SECTION A-A
SCALE: 1/4" = 1'-0" +/-



1 ELEVATION VIEW
SCALE: 1/4" = 1'-0" +/-



2 ELEVATION VIEW
SCALE: 1/4" = 1'-0" +/-



5 / A1.3 KITCHEN CABINET ASSEMBLY
SCALE: NOT T SCALE

ANY WORK OR MATERIALS INCLUDED IN THE SPECIFICATION WITH A SIMILAR WORK ITEM OR MATERIAL OF A LESSER QUALITY INCLUDED ON THE DRAWINGS AND/OR VICE VERSA, THE MORE STRINGENT OR BETTER QUALITY WORK OR MATERIAL ITEM SHALL BE PERFORMED OR PROVIDED

3 / A1.3 BREAK ROOM KITCHEN ELEVATIONS
SCALE: 1/4" = 1'-0" +/-

PLUMBING FIXTURE SCHEDULE

DESIG.	FIXT. TYPE	MFR.	MODEL No.	CWS	HWS	DRAIN SIZE	FAUCET	DRAIN	VALVES	SEAT	MOUNT	REMARKS
S-1	COUNTERTOP SINK	ELKAY	ECTSR33229TBG	1/2"	1/2"	1-1/2"	MOEN 7402	INCLUDE	NEW	---	TOP	New Trap - 33" S.S. double SS sink w/ rack & strainers

PROFESSIONAL SEAL
FRANK J. MOORE R.A.
NJ # 21AIO1637700

STATE OF NEW JERSEY FRANK J. MOORE 21AI01637700 REGISTERED ARCHITECT

OWNER:
STATE OF NEW JERSEY
HONORABLE PHILIP D. MURPHY, GOVERNOR
DEPARTMENT OF THE TREASURY
DIVISION OF PROPERTY MANAGEMENT & CONSTRUCTION
20 WEST STATE STREET, 3RD FLOOR
P.O. BOX 038
TRENTON, NEW JERSEY 08625-0038

CHRISTOPHER CHIANESE, DIRECTOR

DPMC PROJECT NO. T0678-00

REV.	DESCRIPTION	DATE
3	DCA SUBMISSION	05-31-24
2	FINAL DESIGN RESUBMISSION	01-15-24
1	FINAL DESIGN PHASE	10-04-23

JOB TITLE: ROOF REPLACEMENT, HVAC UPGRADE & MOLD REMEDIATION PROJECT
WINSLOW SPECIALTY INSPECTION STATION
550 SPRING GARDEN STREET
WINSLOW, NJ 08037

SHEET TITLE: EXISTING BREAKROOM KITCHEN PLAN & ELEVATIONS

REF. NO. T0678-00
SHEET NO. 3 OF 8
DCA REF. No.

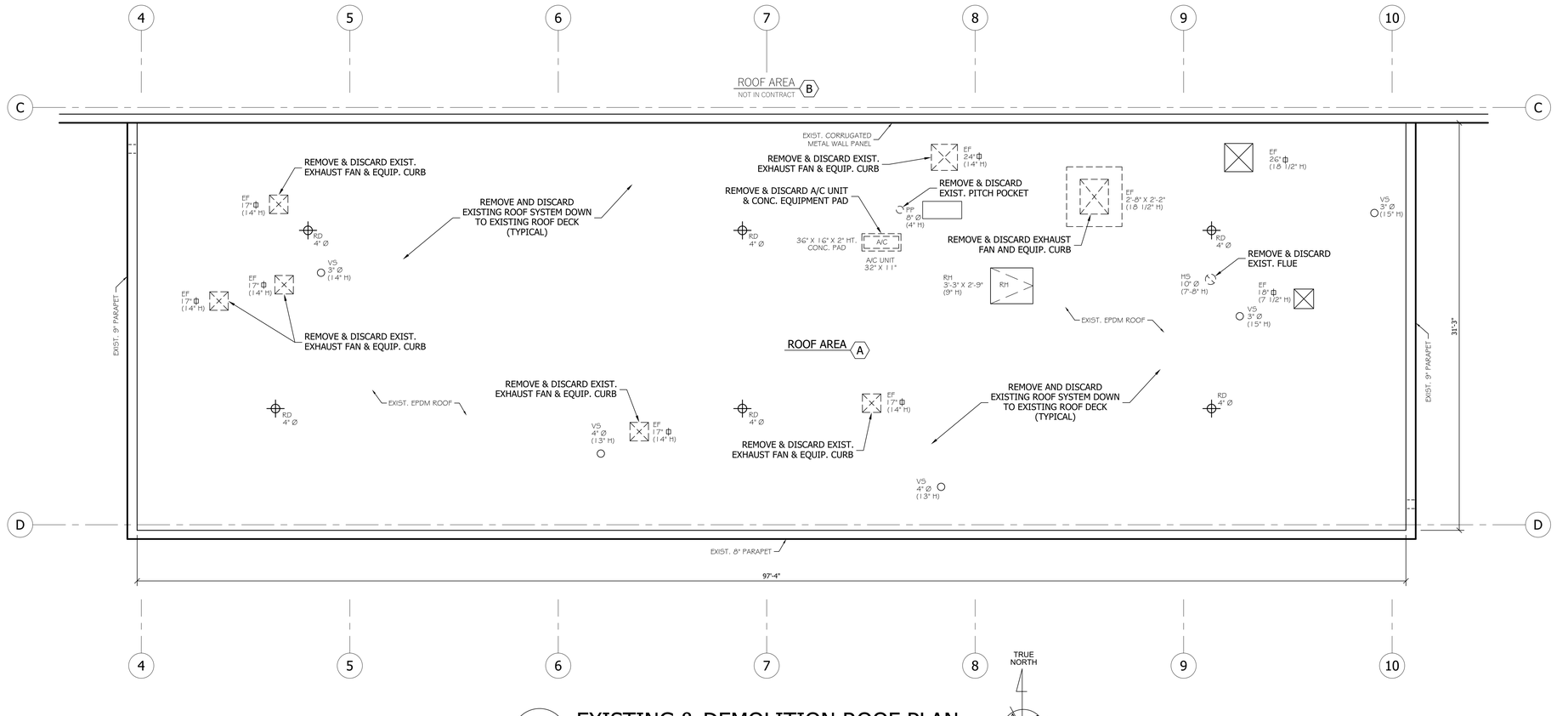
ARCHITECT:
ARMM ARCHITECTURE ASSOCIATES, INC.
41 GROVE STREET
HADDONFIELD, NEW JERSEY 08033

DRAWING NUMBER: A1.3

FRANK J. MOORE
NJ # 21AIO1637700

DATE: 02-16-23

DRAWN BY: AI
APPROVED BY: FRANK J. MOORE
SCALE: AS NOTED

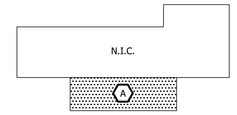


1 A1.4 EXISTING & DEMOLITION ROOF PLAN

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

TRUE NORTH

SHADED AREAS INDICATE ROOF AREAS ON THIS SHEET.



KEY PLAN

NOT TO SCALE

TRUE NORTH

GENERAL DEMOLITION NOTES:

1. THE SCOPE OF DEMOLITION WORK, SPECIFICALLY CUTTING AD PATCHING, SHALL NOT BE LIMITED TO AREAS BEING RENOVATED, BUT SHALL INCLUDE ALL WORK NECESSARY TO COMPLETE THE FINISHED PROJECT TO THE SATISFACTION OF THE OWNER.
2. PRIOR TO THE START OF DEMOLITION, INSPECT AREAS IN WHICH WORK WILL BE PERFORMED. NOTE EXISTING CONDITIONS OF STRUCTURAL SURFACES, EQUIPMENT, OR SURROUNDING PROPERTY THAT COULD BE MISCONSTRUED AS DAMAGED RESULTING FROM SELECTIVE DEMOLITION WORK; FILE WITH THE STATE, PRIOR TO STARTING WORK.
3. THE OWNER ASSUMES NO RESPONSIBILITY FOR ACTUAL CONDITION OF ITEMS OR STRUCTURES TO BE DEMOLISHED OR REMOVED.
4. THE CONTRACTOR SHALL MAKE CONTINUOUS OBSERVATIONS OF THE EXISTING STRUCTURE DURING THE PERFORMANCE OF THE WORK AND SHALL NOTIFY THE ARCHITECT OF ANY CRACKS, DEFLECTIONS, ETC. THAT MAY REQUIRE FURTHER INVESTIGATION.
5. ALL DEMOLITION ACTIVITIES, CUTTING AND PATCHING REQUIRED IN CONNECTION WITH THE WORK SHALL BE PERFORMED BY A MECHANIC OF THE SPECIFIC TRADE INVOLVED AS A REQUIRED TO EXECUTE EACH LINE OF WORK. ALL PATCHING SHALL BE FINISHED TO MATCH ADJACENT SURFACES EITHER NEW OR EXISTING TO REMAIN.
6. CONDUCT DEMOLITION OPERATING AND REMOVAL OF DEBRIS IN A MANNER TO ENSURE MINIMUM INTERFERENCE WITH WALKS AND OTHER ADJACENT OCCUPIED AND USED FACILITIES.
7. PROVIDE BARRICADES, WARNING SIGNS AND LIGHTS AT THE OPENINGS AND OTHER HAZARDOUS TO PEDESTRIANS AND TRAFFIC. KEEP CONSTRUCTION DEBRIS CLEAR OF TRAFFIC AREAS.
8. ALL DEBRIS SHALL BE CLEARED OF THE AREA IN WHICH WORK IS PERFORMED AT THE END OF EACH WORK DAY PERIOD.
9. ALL WORK TO BE IN ACCORDANCE WITH THE REGULATIONS AND GUIDELINES SET FORTH BY ALL AGENCIES HAVING JURISDICTION OVER THE WORK.
10. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) RULES AND REGULATIONS.
11. ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE NATIONAL FIRE PROTECTION (NFPA) CODE, LATEST EDITION.
12. CONTRACTOR SHALL REMOVE ALL EXISTING CONSTRUCTION, CONDUIT, PIPING, WIRING, UTILITIES, ETC. THE MAY INTERFERER WITH NEW CONSTRUCTION AT NO COST TO THE OWNER.
13. THE CONTRACTOR SHALL PROTECT AND PRESERVE ALL EXISTING ITEMS TO REMAIN AND SHALL AND/OR REPLACE ANY ITEMS DAMAGED DURING THE COURSE OF WORK TO THE SATISFACTION OF THE STATE AT NO ADDITIONAL COST.
14. ALL DEMOLITION MATERIALS AND DEBRIS SHALL BE LEGALLY DEPOSED OF OFF THE PROPERTY.
15. ANY EXISTING CONSTRUCTION THAT IS TO REMAIN IN PLACE IF DAMAGED DURING THE PERFORMANCE OF WORK UNDER THIS CONTRACT, SHALL BE RESTORED TO ITS ORIGINAL CONDITION TO THE SATISFACTION OF THE OWNER AND AT THE CONTRACTOR'S SOLE EXPENSE.
16. EXISTING PENETRATIONS SHOWN ARE NOT ALL-INCLUSIVE. CONTRACTOR SHALL VERIFY IN THE FIELD PRIOR TO SUBMISSION OF BID.

COMPOSITION OF EXISTING ROOF MATERIALS (ROOF AREA A)

EXIST. 1 1/2" METAL B DECK

EXIST. 1" FLAT ISOCYANURATE INSULATION BOARD, MECHANICALLY FASTENED

EXIST. 2 1/2" TAPERED ISOCYANURATE INSULATION BOARD, MECHANICALLY FASTENED

EXIST. 2 1/2" TAPERED CRICKETS AT DRAIN LOCATIONS

EXIST. EPDM ROOF MEMBRANE, FULLY ADHERED

DEMOLITION OF EXISTING ROOF MATERIALS (ROOF AREA A)

EXIST. 1" FLAT ISOCYANURATE INSULATION BOARD, MECHANICALLY FASTENED

EXIST. 2 1/2" TAPERED ISOCYANURATE INSULATION BOARD, MECHANICALLY FASTENED

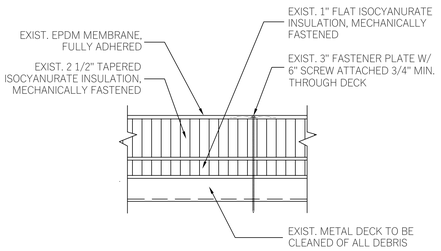
EXIST. 2 1/2" TAPERED CRICKETS AT DRAIN LOCATIONS

EXIST. EPDM ROOF MEMBRANE, FULLY ADHERED

ALL METAL FLASHINGS, TERMINATION BARS, PVC PIPES, PIPE BOOTS, GAS PIPE SUPPORTS AND ANY OTHER RELATED MATERIALS

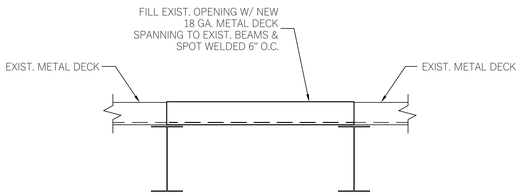
REPLACE ROTTED OR DAMAGED WOOD BLOCKING AND PLYWOOD SHEATHING AS NECESSARY. REPLACE ROTTED METAL DECKING AS NECESSARY.

CLEAN METAL DECKING OF ALL DEBRIS



1 EXISTING ROOF ASSEMBLY

SCALE: N.T.S.



2 A1.4 TYP. ABANDONED OPENING DETAIL

DRAWING NOT TO SCALE

ROOF CONDITIONS / DEMOLITION NOTES:

1. PIPE PENETRATIONS ARE 4" UNLESS OTHERWISE NOTED
2. FIELD VERIFY ALL CONDITIONS INCLUDED BUT NOT LIMITED TO HVAC LINES, CONDESOR LINES, VENT PIPES, FLUES, WOOD FRAMING, ETC.
3. REMOVE AND DISCARD ANY ROTTED METAL DECKING AND REPLACE WITH NEW METAL B ROOF DECK

ANY WORK OR MATERIALS INCLUDED IN THE SPECIFICATION WITH A SIMILAR WORK ITEM OR MATERIAL OF A LESSER QUALITY INCLUDED ON THE DRAWINGS AND/OR VICE VERSA, THE MORE STRINGENT OR BETTER QUALITY WORK OR MATERIAL ITEM SHALL BE PERFORMED OR PROVIDED

Department of Community Affairs
Code Enforcement Service
Project No: 1000-2
Part. Rel. Exterior Bldg.
building review
Raffaele Persico
Code Official
N.J.S.A. 52:27D-119 ET SEQ., AS AMENDED

PROFESSIONAL SEAL
FRANK J. MOORE R.A.
NJ # 21AIO1637700

STATE OF NEW JERSEY · FRANK J. MOORE · 21AI01637700 · REGISTERED ARCHITECT

OWNER:
STATE OF NEW JERSEY
HONORABLE PHILIP D. MURPHY, GOVERNOR
DEPARTMENT OF THE TREASURY
DIVISION OF PROPERTY MANAGEMENT & CONSTRUCTION
20 WEST STATE STREET, 3RD FLOOR
P.O. BOX 038
TRENTON, NEW JERSEY 08625-0038

CHRISTOPHER CHIANESE, DIRECTOR

DPMC PROJECT NO. T0678-00

REV.	DESCRIPTION	DATE
3	DCA SUBMISSION	05-31-24
2	FINAL DESIGN RESUBMISSION	01-15-24
1	FINAL DESIGN PHASE	10-04-23

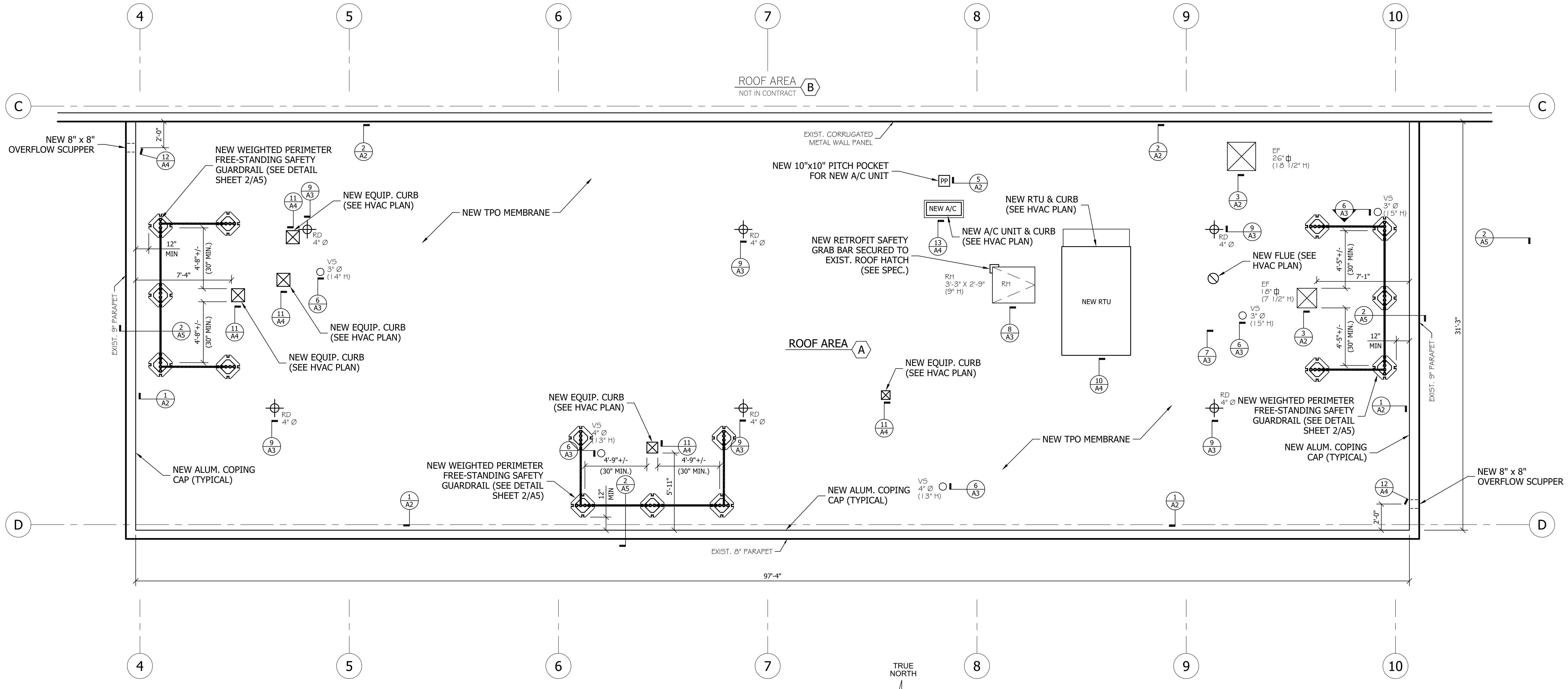
JOB TITLE: ROOF REPLACEMENT, HVAC UPGRADE & MOLD REMEDIATION PROJECT
WINSLOW SPECIALTY INSPECTION STATION
550 SPRING GARDEN STREET
WINSLOW, NJ 08037

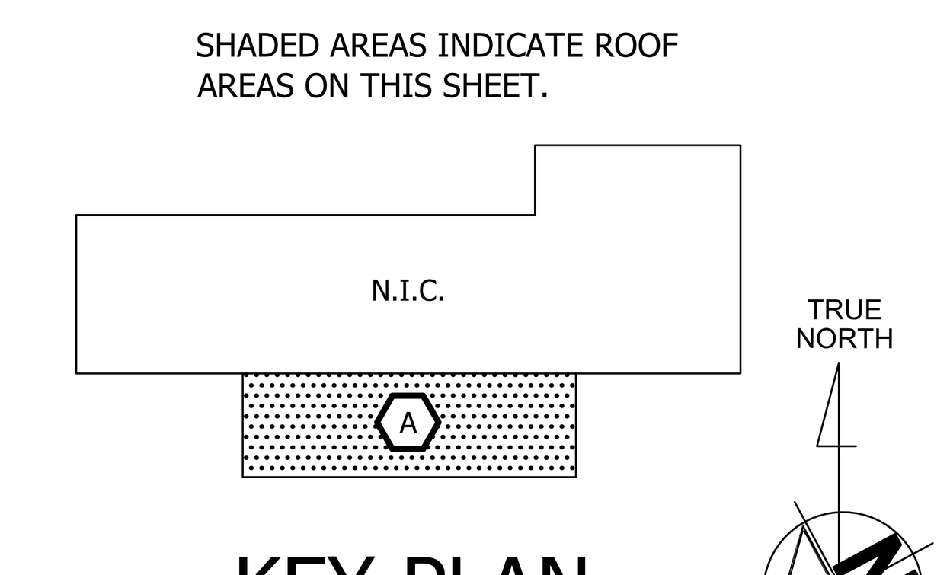
SHEET TITLE: EXISTING & DEMOLITION ROOF PLAN
REF. NO. T0678-00
DCA REF. No.
SHEET NO. 4 OF 8

ARCHITECT:
ARMM ARCHITECTURE ASSOCIATES, INC.
41 GROVE STREET
HADDONFIELD, NEW JERSEY 08033
DRAWING NUMBER: A1.4

FRANK J. MOORE
NJ # 21AIO1637700
DATE: 02-16-23

DRAWN BY: AJ
APPROVED BY: FRANK J. MOORE
SCALE: AS NOTED



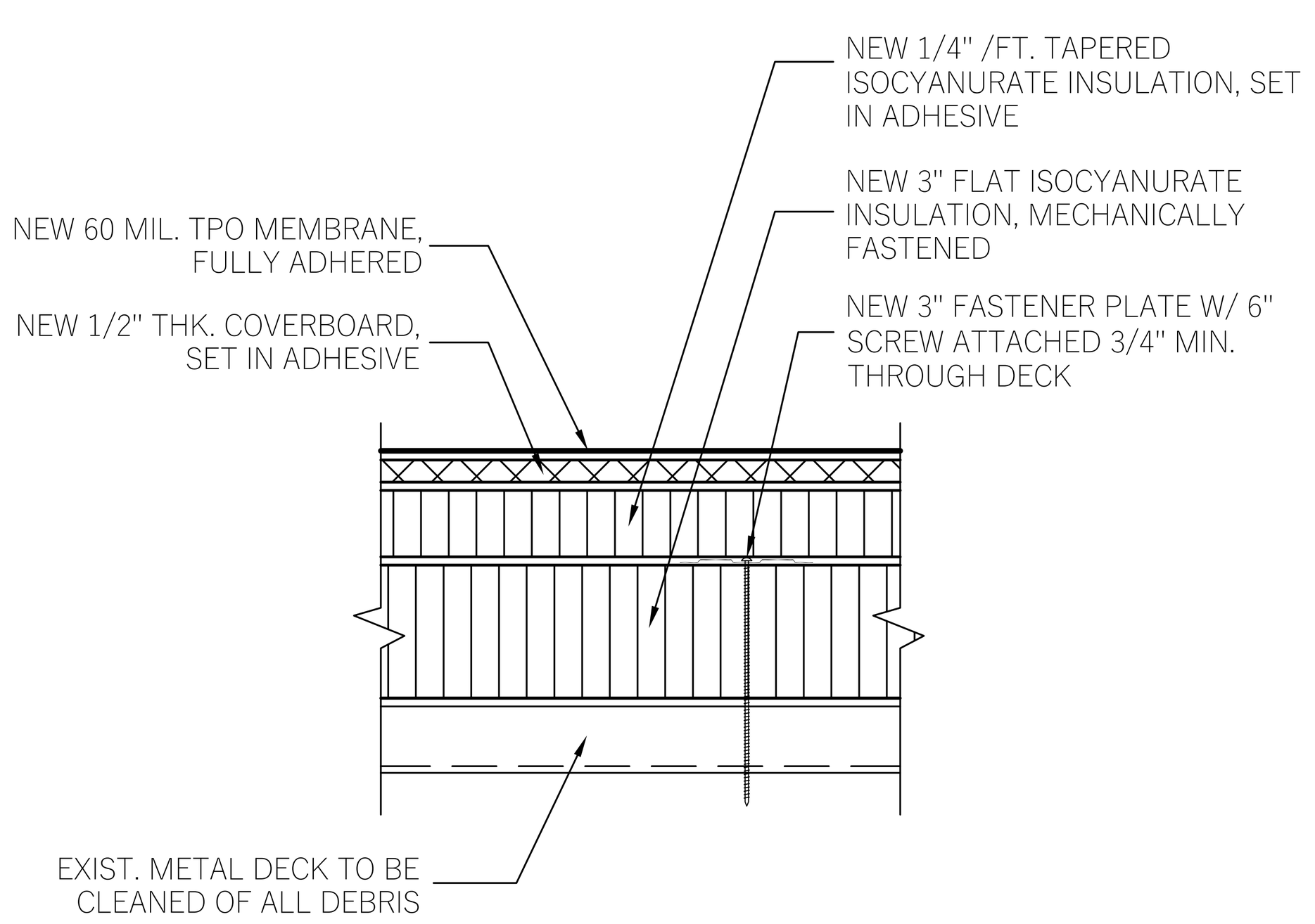


KEY PLAN

NOT TO SCALE

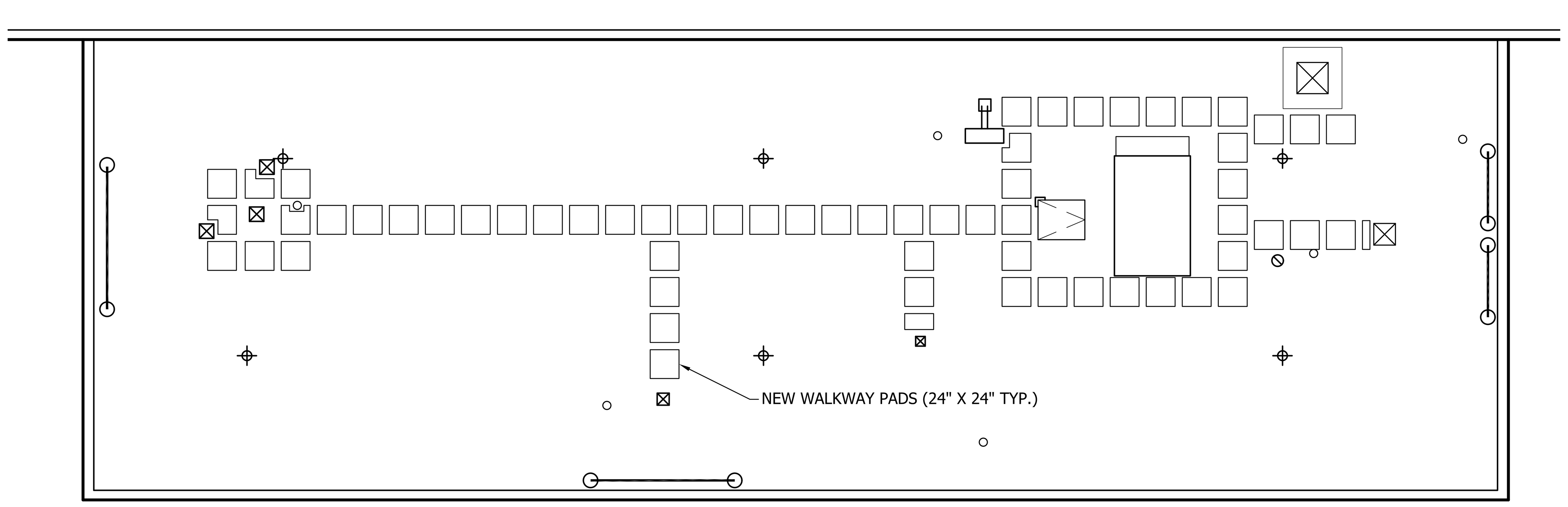
1 / A1.5 NEW ROOF PLAN

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



1 NEW ROOF ASSEMBLY

SCALE: N.T.S.



2 / A1.5 WALKWAY PAD PLAN

SCALE: N.T.S.

NEW ROOF COMPOSITION (ROOF AREA A)

CLEAN DEBRIS ON EXISTING METAL DECK AND REPLACE ANY AREAS OF ROTTED METAL DECK

NEW 3" FLAT ISOCYANURATE INSULATION, MECHANICALLY FASTENED

NEW 1/4" /FT. TAPERED ISOCYANURATE INSULATION BOARD, SET IN ADHESIVE

NEW 1/2" THK. COVERBOARD, SET IN ADHESIVE

NEW 60 MIL. TPO MEMBRANE, FULLY AHHERED

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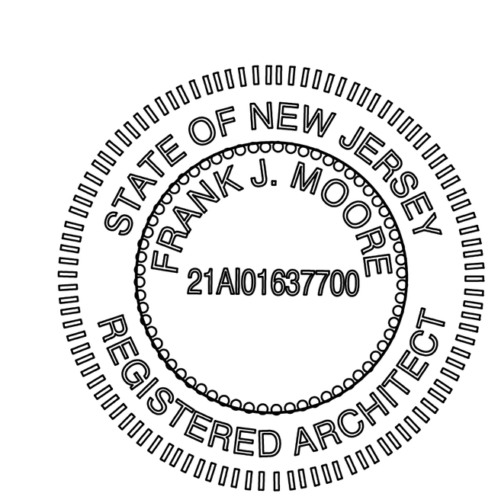
PROFESSIONAL SEAL
FRANK J. MOORE R.A.
NJ # 21AIO1637700



OWNER:
STATE OF NEW JERSEY
HONORABLE PHILIP D. MURPHY, GOVERNOR
DEPARTMENT OF THE TREASURY
DIVISION OF PROPERTY MANAGEMENT & CONSTRUCTION
20 WEST STATE STREET, 3RD FLOOR
P.O. BOX 038
TRENTON, NEW JERSEY 08625-0038

CHRISTOPHER CHIANESE, DIRECTOR

DPMC PROJECT NO. T0678-00

REV.	DESCRIPTION	DATE
3	DCA SUBMISSION	05-31-24
2	FINAL DESIGN RESUBMISSION	01-15-24
1	FINAL DESIGN PHASE	10-04-23

JOB TITLE: ROOF REPLACEMENT, HVAC UPGRADE & MOLD REMEDIATION PROJECT
WINSLOW SPECIALTY INSPECTION STATION
550 SPRING GARDEN STREET
WINSLOW, NJ 08037

SHEET TITLE: NEW ROOF PLAN

REF. NO. T0678-00

SHEET NO. 5 OF 8

DCA REF. No.

ARCHITECT:
ARMM ARCHITECTURE ASSOCIATES, INC.
41 GROVE STREET
HADDONFIELD, NEW JERSEY 08033

DRAWING NUMBER: A1.5

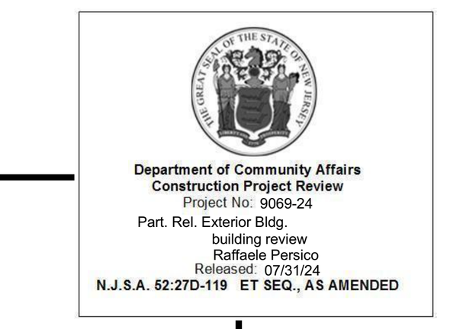
FRANK J. MOORE
NJ # 21AIO1637700

DATE: 02-16-23

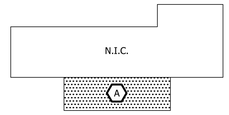
DRAWN BY: AI

APPROVED BY: FRANK J. MOORE

SCALE: AS NOTED



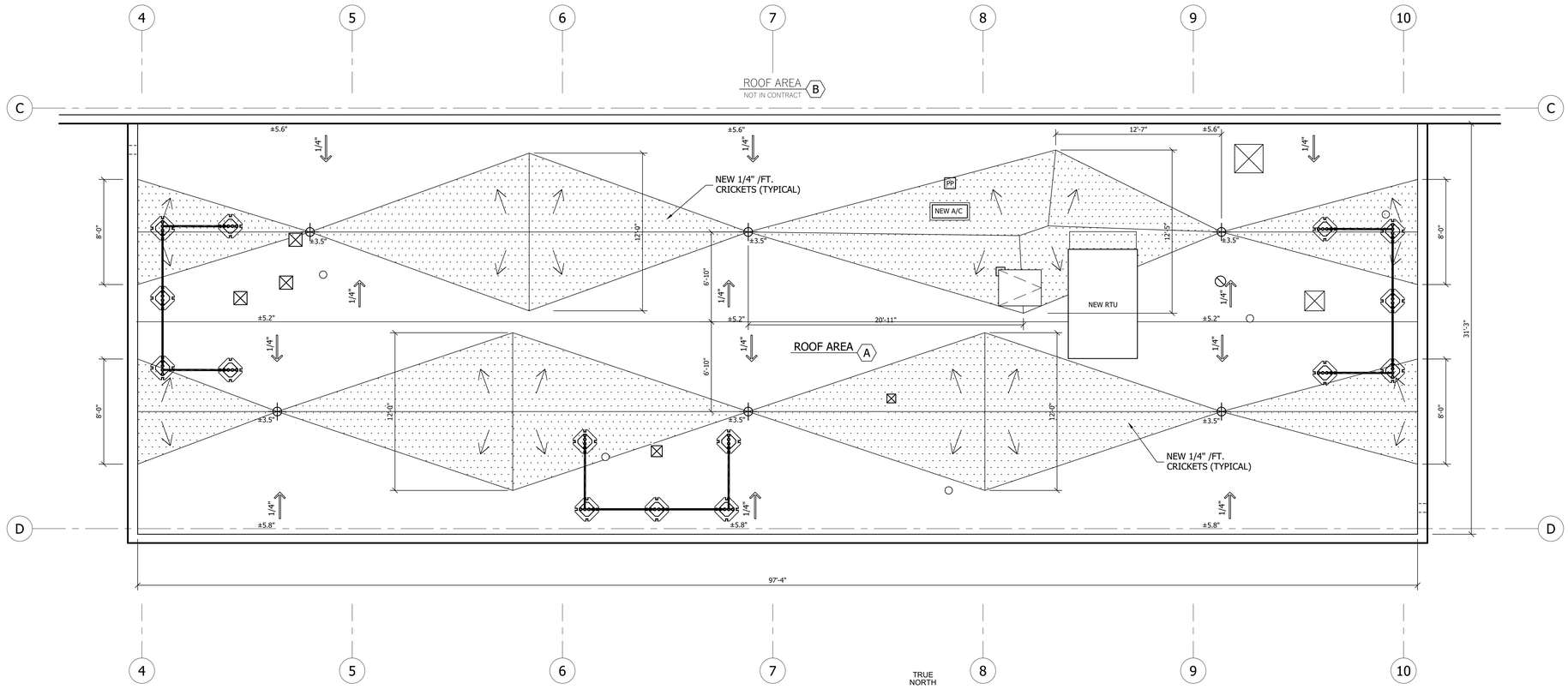
SHADED AREAS INDICATE ROOF AREAS ON THIS SHEET.



TRUE NORTH

KEY PLAN

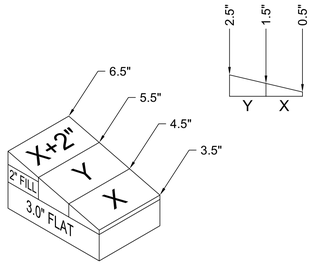
NOT TO SCALE



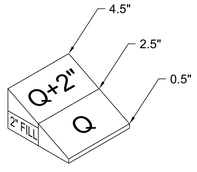
TRUE NORTH

1 / A1.6 ROOF TAPER PLAN

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



TAPERED SECTION
1/4"/FT. SLOPE
2 PANEL SYSTEM
NOT TO SCALE



CRICKET SECTION
1/2"/FT. SLOPE
1 PANEL SYSTEM
NOT TO SCALE

TAPERED INSULATION NOTES:

1. THE MANUFACTURER OF THE ROOFING SYSTEM SHALL TAKE FULL RESPONSIBILITY FOR THE TAPERED INSULATION CRICKET PLANS TO MEET THE INSULATION VALUE (HEATED / COOLED SPACES) AND MUST FOLLOW THEIR PLANS AND SPECIFICATIONS. ARMM ASSOCIATES TAPERING PLANS ARE TO BE USE AS A GUIDE ONLY. CONTRACTOR TO VEFIFY ALL EDGE PLATE HEIGHTS

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PROFESSIONAL SEAL
FRANK J. MOORE R.A.
NJ # 21AIO1637700

STATE OF NEW JERSEY · FRANK J. MOORE · 21AI01637700 · REGISTERED ARCHITECT

OWNER:
STATE OF NEW JERSEY
HONORABLE PHILIP D. MURPHY, GOVERNOR
DEPARTMENT OF THE TREASURY
DIVISION OF PROPERTY MANAGEMENT & CONSTRUCTION
20 WEST STATE STREET, 3RD FLOOR
P.O. BOX 038
TRENTON, NEW JERSEY 08625-0038

CHRISTOPHER CHIANESE, DIRECTOR

DPMC PROJECT NO. T0678-00

REV.	DESCRIPTION	DATE
3	DCA SUBMISSION	05-31-24
2	FINAL DESIGN RESUBMISSION	01-15-24
1	FINAL DESIGN PHASE	10-04-23

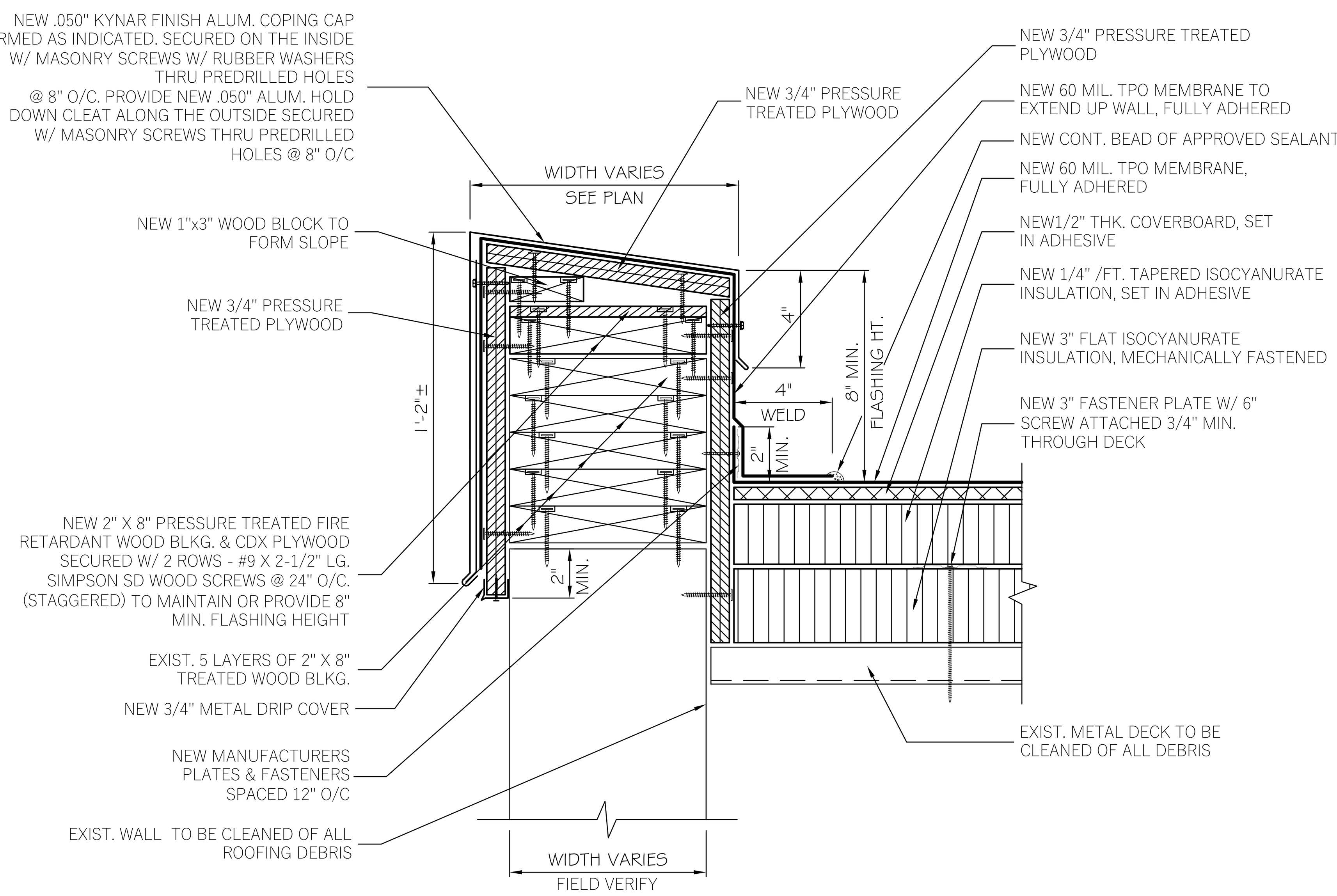
JOB TITLE: ROOF REPLACEMENT, HVAC UPGRADE & MOLD REMEDIATION PROJECT
WINSLOW SPECIALTY INSPECTION STATION
550 SPRING GARDEN STREET
WINSLOW, NJ 08037

SHEET TITLE: ROOF TAPER PLAN
REF. NO. T0678-00
DCA REF. No.
SHEET NO. 6 OF 8

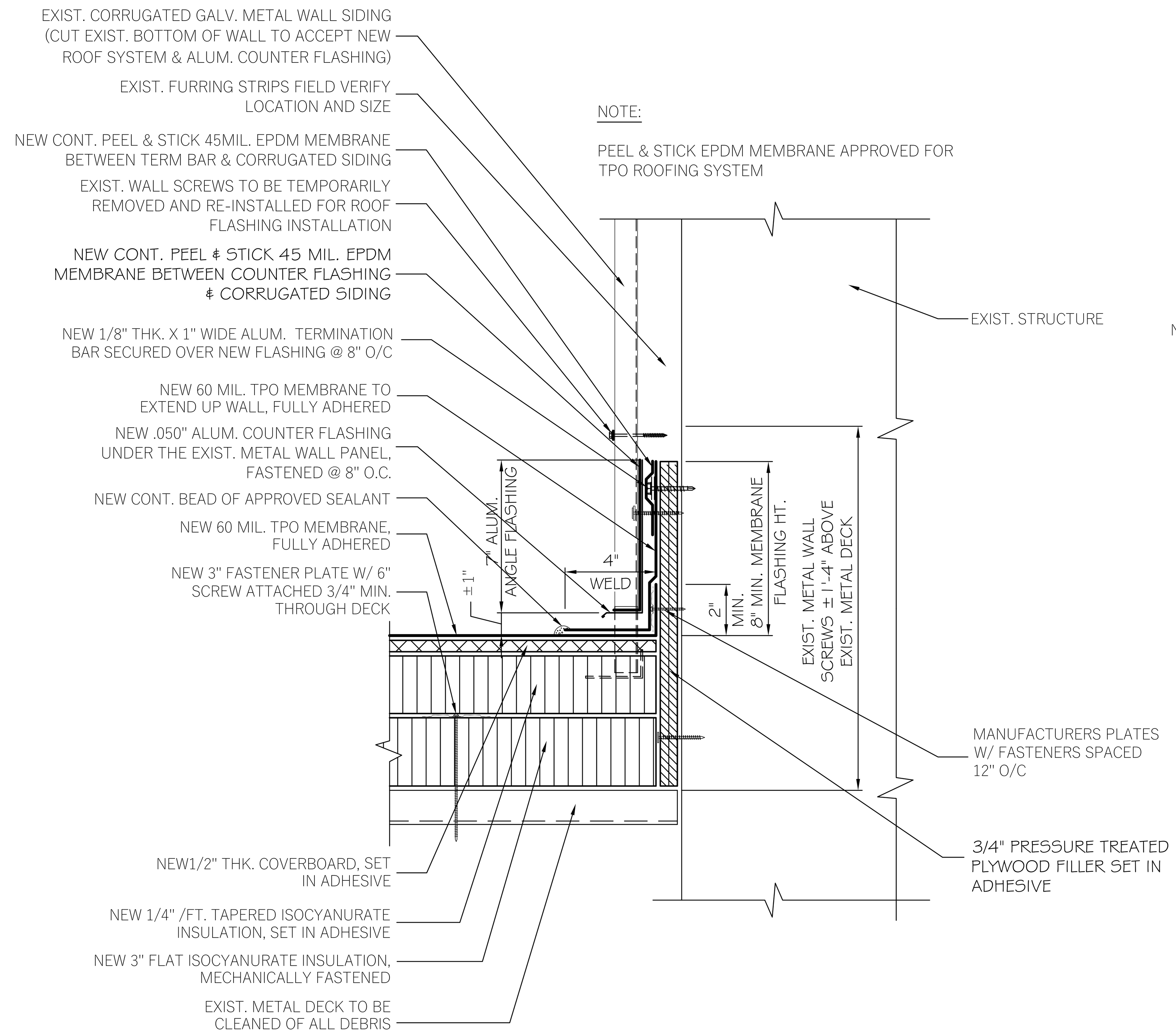
ARCHITECT:
ARMM ARCHITECTURE ASSOCIATES, INC.
41 GROVE STREET
HADDONFIELD, NEW JERSEY 08033
DRAWING NUMBER: A1.6

FRANK J. MOORE
NJ # 21AIO1637700
DATE: 02-16-23

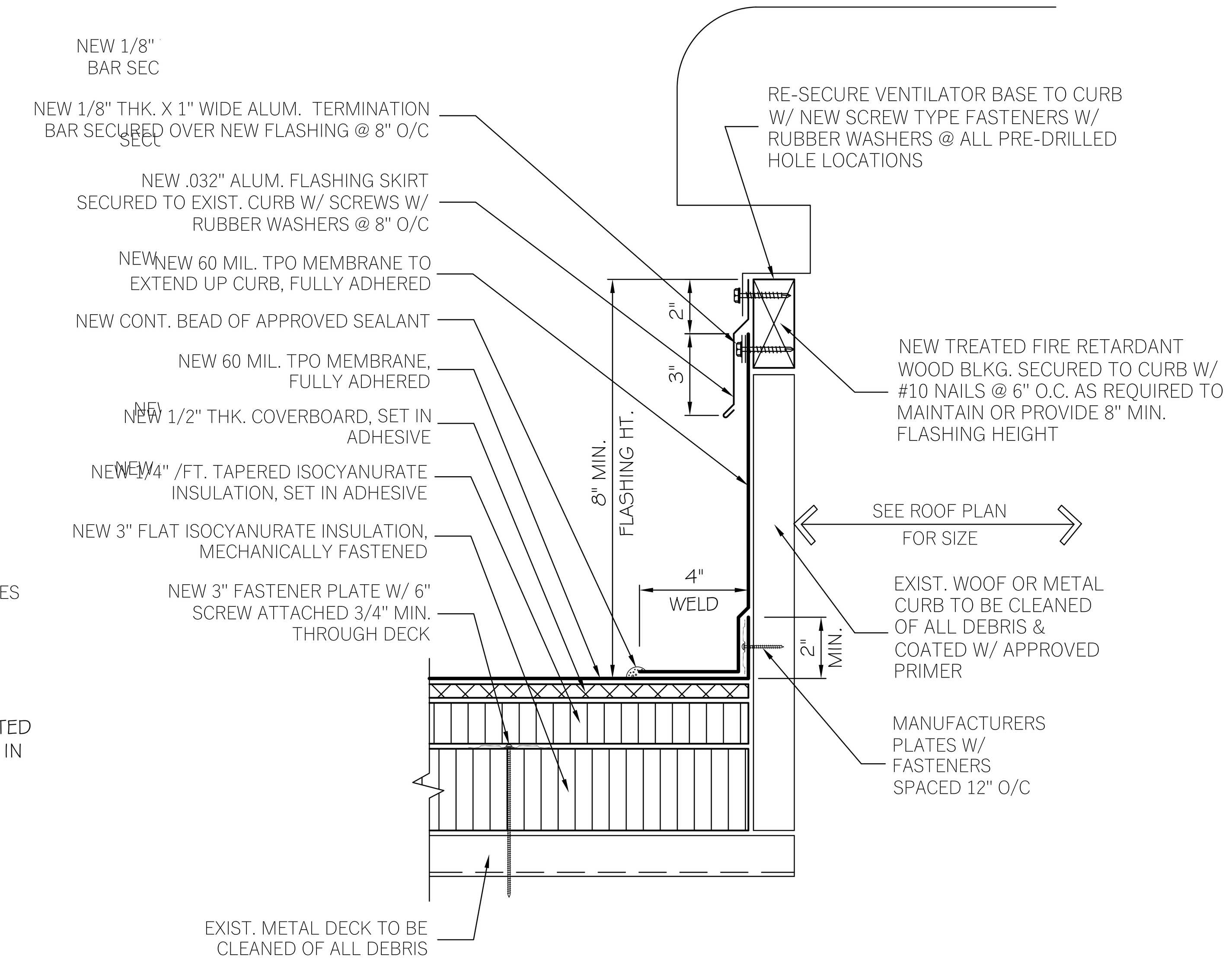
DRAWN BY: AI
APPROVED BY: FRANK J. MOORE
SCALE: AS NOTED



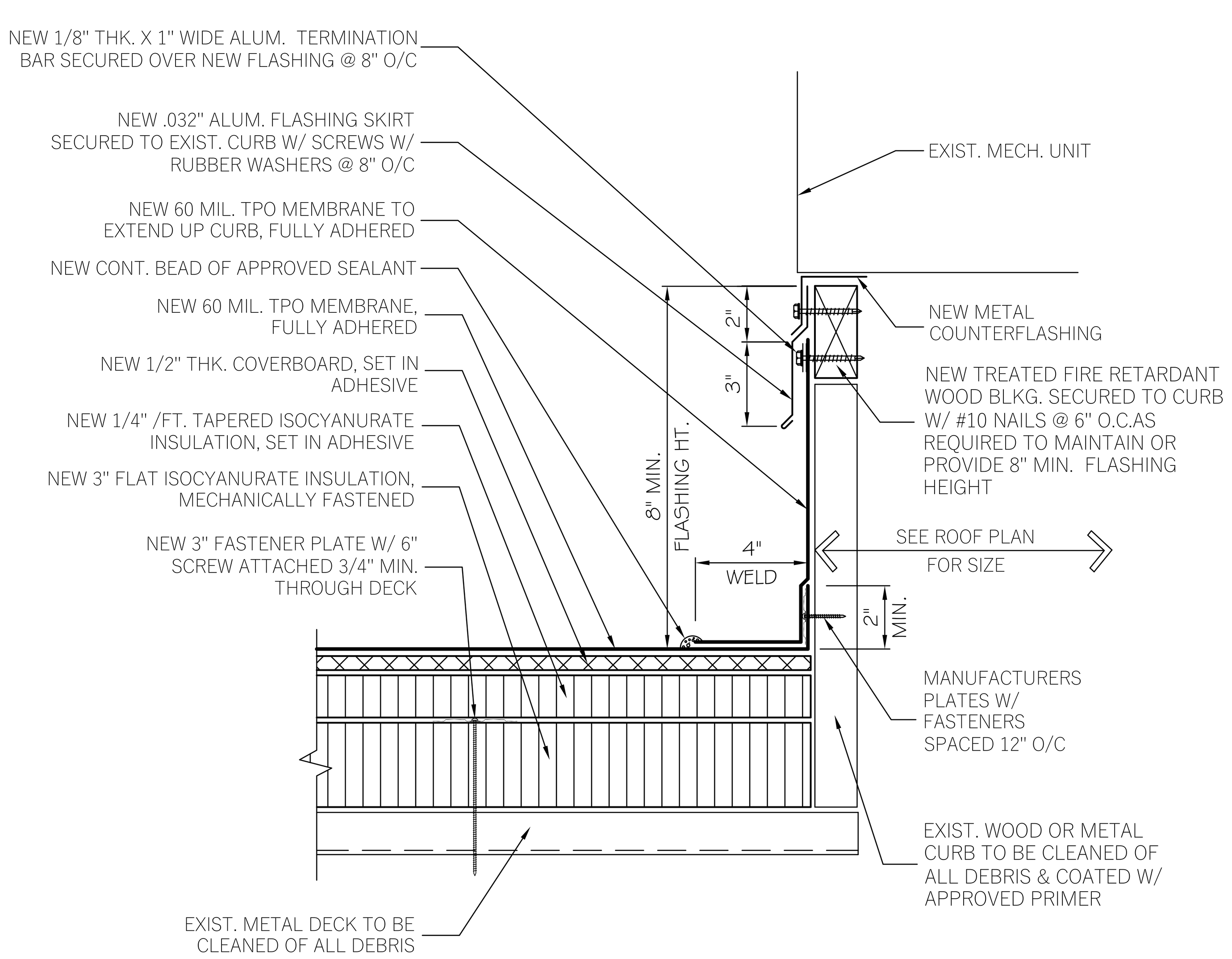
1
A2
PARAPET DETAIL
DRAWING NOT TO SCALE



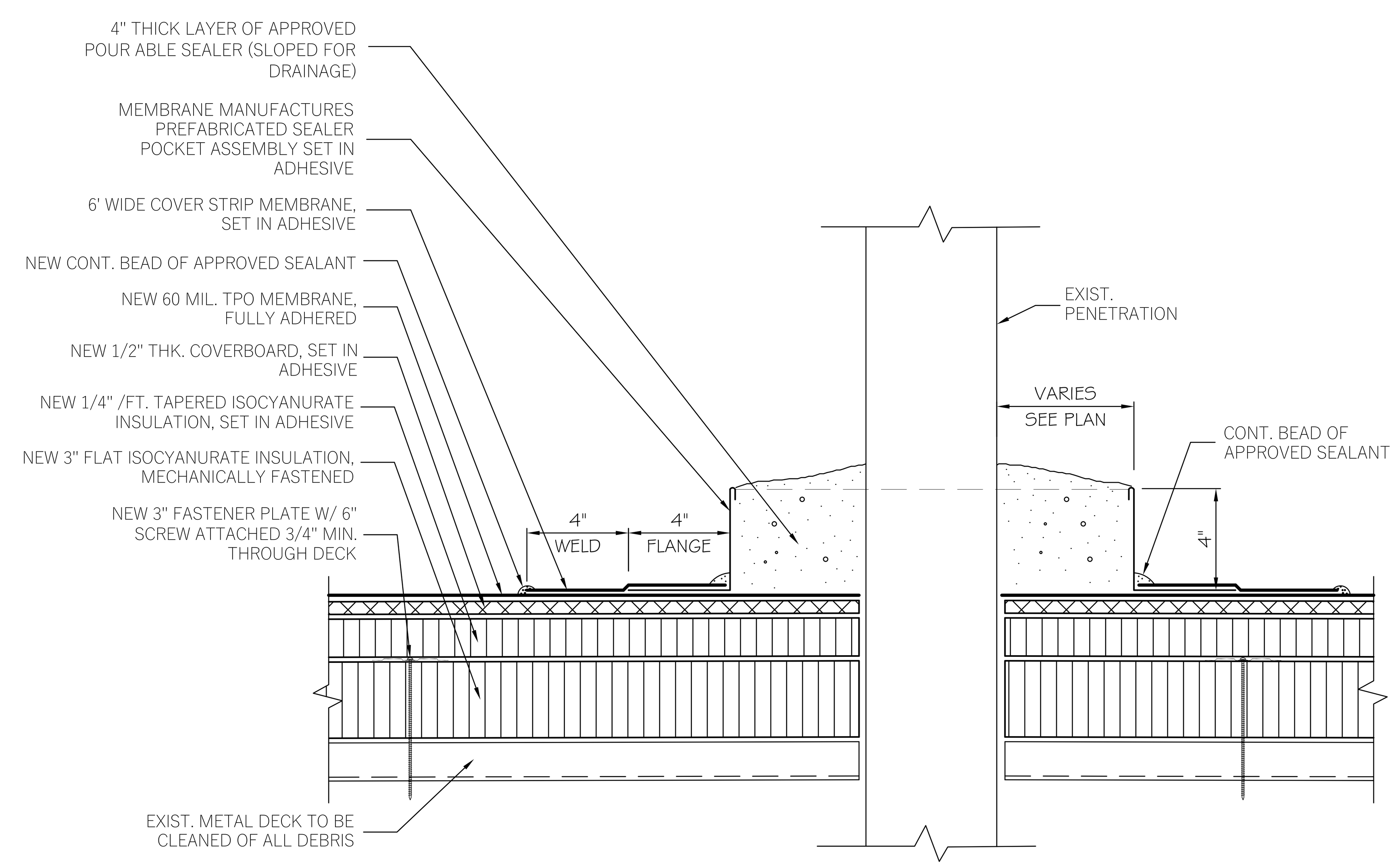
2
A2
METAL WALL FLASHING DETAIL
DRAWING NOT TO SCALE



3
A2
TYPICAL EXHAUST FAN CURB DETAIL
DRAWING NOT TO SCALE



4
A3
TYPICAL EQUIPMENT CURB DETAIL
DRAWING NOT TO SCALE



5
A2
PITCH POCKET DETAIL
DRAWING NOT TO SCALE

PROFESSIONAL SEAL FRANK J. MOORE R.A. NJ # 21AIO1637700	OWNER: STATE OF NEW JERSEY HONORABLE PHILIP D. MURPHY, GOVERNOR DEPARTMENT OF THE TREASURY DIVISION OF PROPERTY MANAGEMENT & CONSTRUCTION 20 WEST STATE STREET, 3RD FLOOR P.O. BOX 038 TRENTON, NEW JERSEY 08625-0038	JOB TITLE: ROOF REPLACEMENT, HVAC UPGRADE & MOLD REMEDIATION PROJECT WINSLOW SPECIALTY INSPECTION STATION 550 SPRING GARDEN STREET WINSLOW, NJ 08037
STATE OF NEW JERSEY FRANK J. MOORE 21AI01637700 REGISTERED ARCHITECT	CHRISTOPHER CHIANESE, DIRECTOR DPMC PROJECT NO. T0678-00	SHEET TITLE: TYPICAL DETAILS — REF. NO. T0678-00 — SHEET NO. 7 OF 8 DCA REF. No. ARCHITECT: ARMM ARCHITECTURE ASSOCIATES, INC. 41 GROVE STREET HADDONFIELD, NEW JERSEY 08033 — DRAWING NUMBER: A2 FRANK J. MOORE NJ # 21AIO1637700 — DATE: 02-16-23

REV.	DESCRIPTION	DATE
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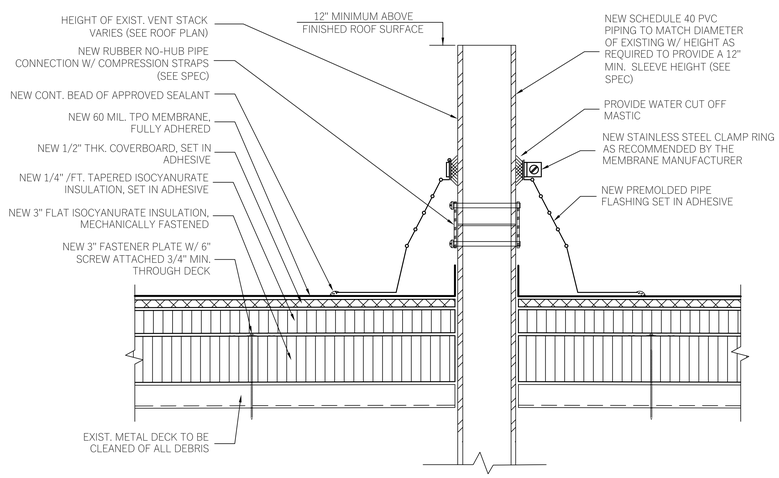
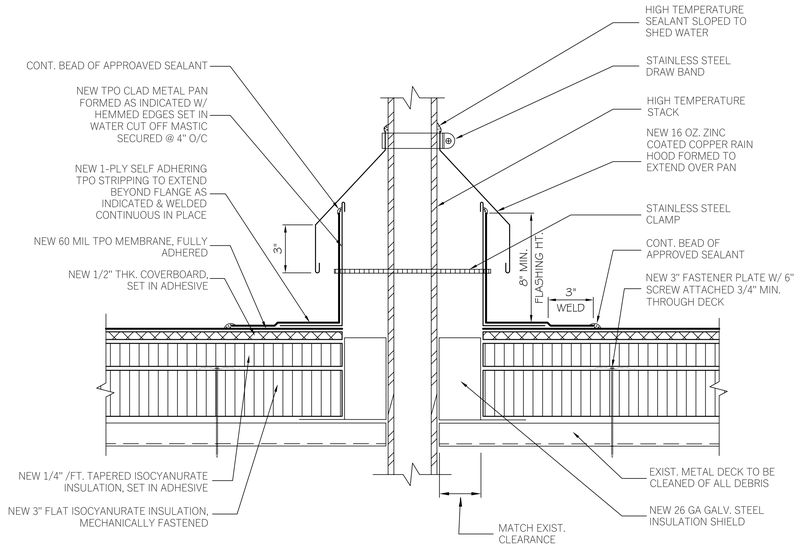
1	FINAL DESIGN PHASE	10-04-23

DRAWN BY:	APPROVED BY:	SCALE:
AI	FRANK J. MOORE	AS NOTED



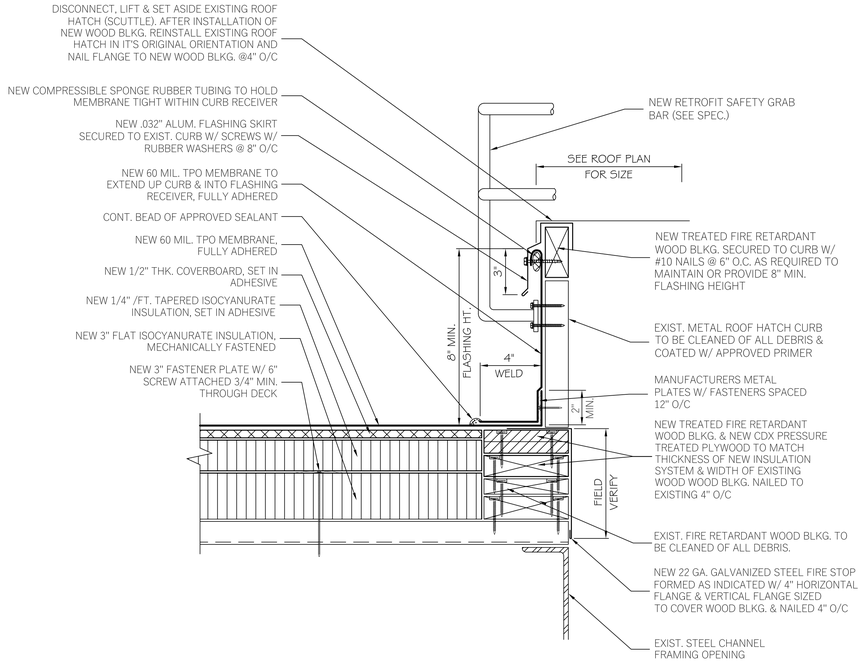
6 / A3 PIPE PENETRATION DETAIL

DRAWING NOT TO SCALE



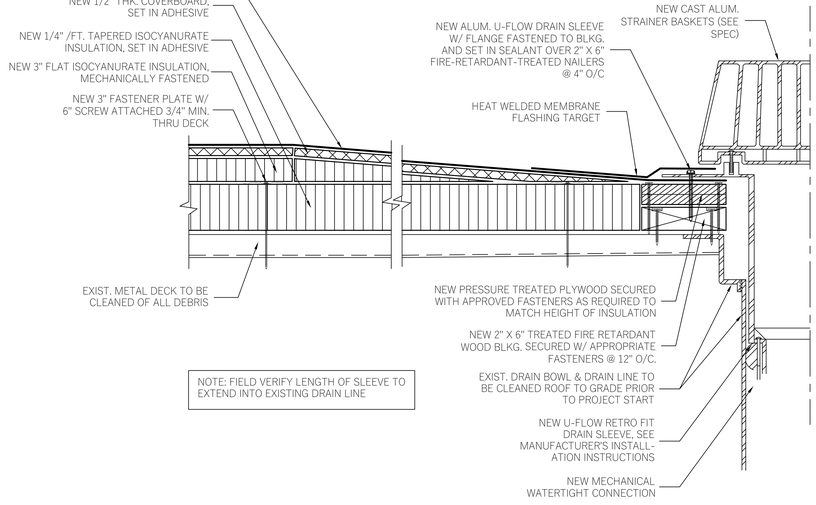
7 / A3 HOT STACK DETAIL

DRAWING NOT TO SCALE



8 / A3 ROOF HATCH DETAIL

DRAWING NOT TO SCALE



NOTE: FIELD VERIFY LENGTH OF SLEEVE TO EXTEND INTO EXISTING DRAIN LINE

9 TYPICAL DRAIN SLEEVE ASSEMBLY

DRAWING NOT TO SCALE

PROFESSIONAL SEAL
FRANK J. MOORE R.A.
NJ # 21AIO1637700

STATE OF NEW JERSEY · FRANK J. MOORE · 21AIO1637700 · REGISTERED ARCHITECT

OWNER:
STATE OF NEW JERSEY
HONORABLE PHILIP D. MURPHY, GOVERNOR
DEPARTMENT OF THE TREASURY
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20 WEST STATE STREET, 3RD FLOOR
P.O. BOX 038
TRENTON, NEW JERSEY 08625-0038

CHRISTOPHER CHIANESE, DIRECTOR

DPMC PROJECT NO. T0678-00

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WINSLOW SPECIALTY INSPECTION STATION
550 SPRING GARDEN STREET
WINSLOW, NJ 08037

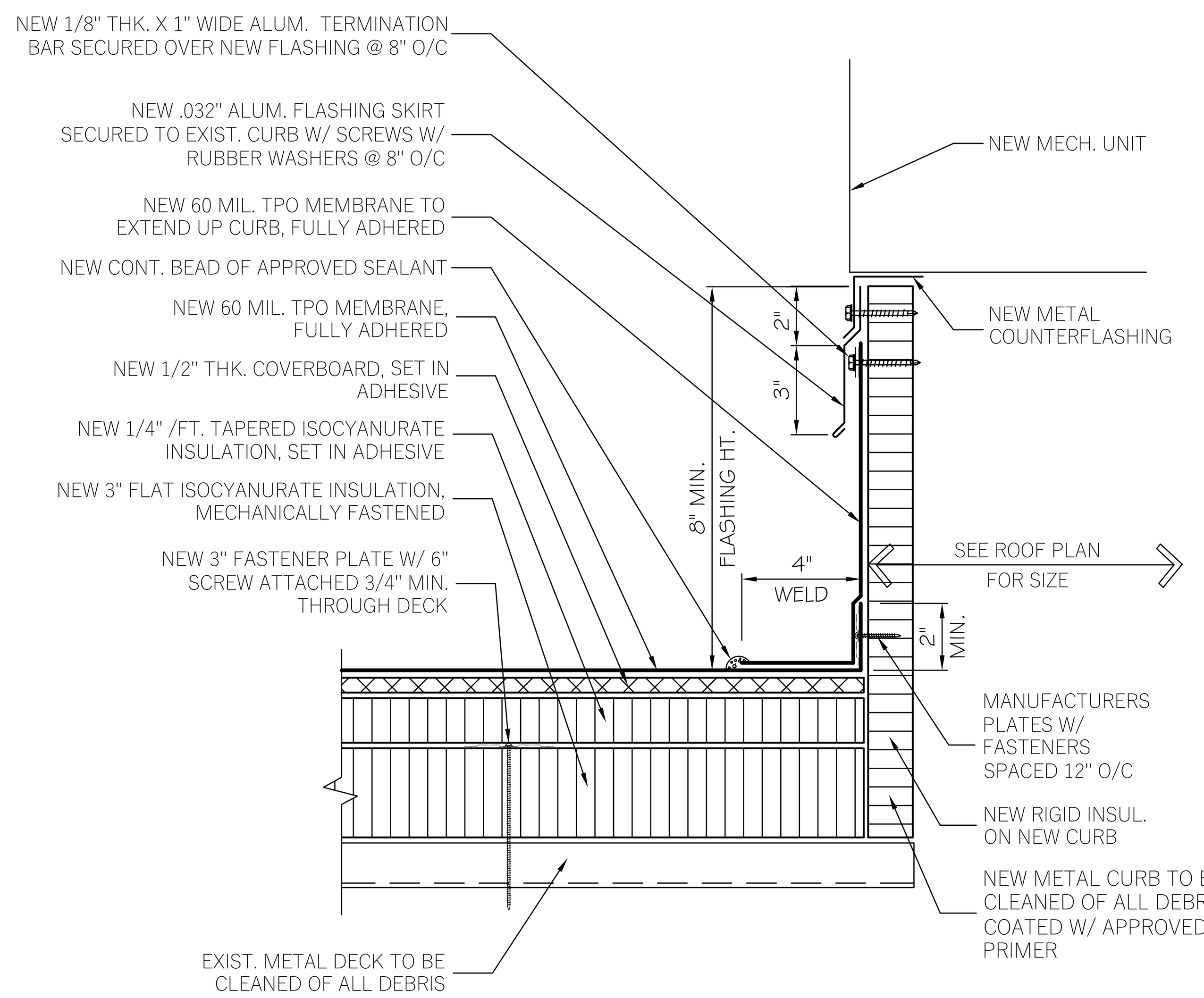
SHEET TITLE: TYPICAL DETAILS
REF. NO. T0678-00
SHEET NO. 8 OF 8
DCA REF. No.

ARCHITECT:
ARMM ARCHITECTURE ASSOCIATES, INC.
41 GROVE STREET
HADDONFIELD, NEW JERSEY 08033
DRAWING NUMBER: A3

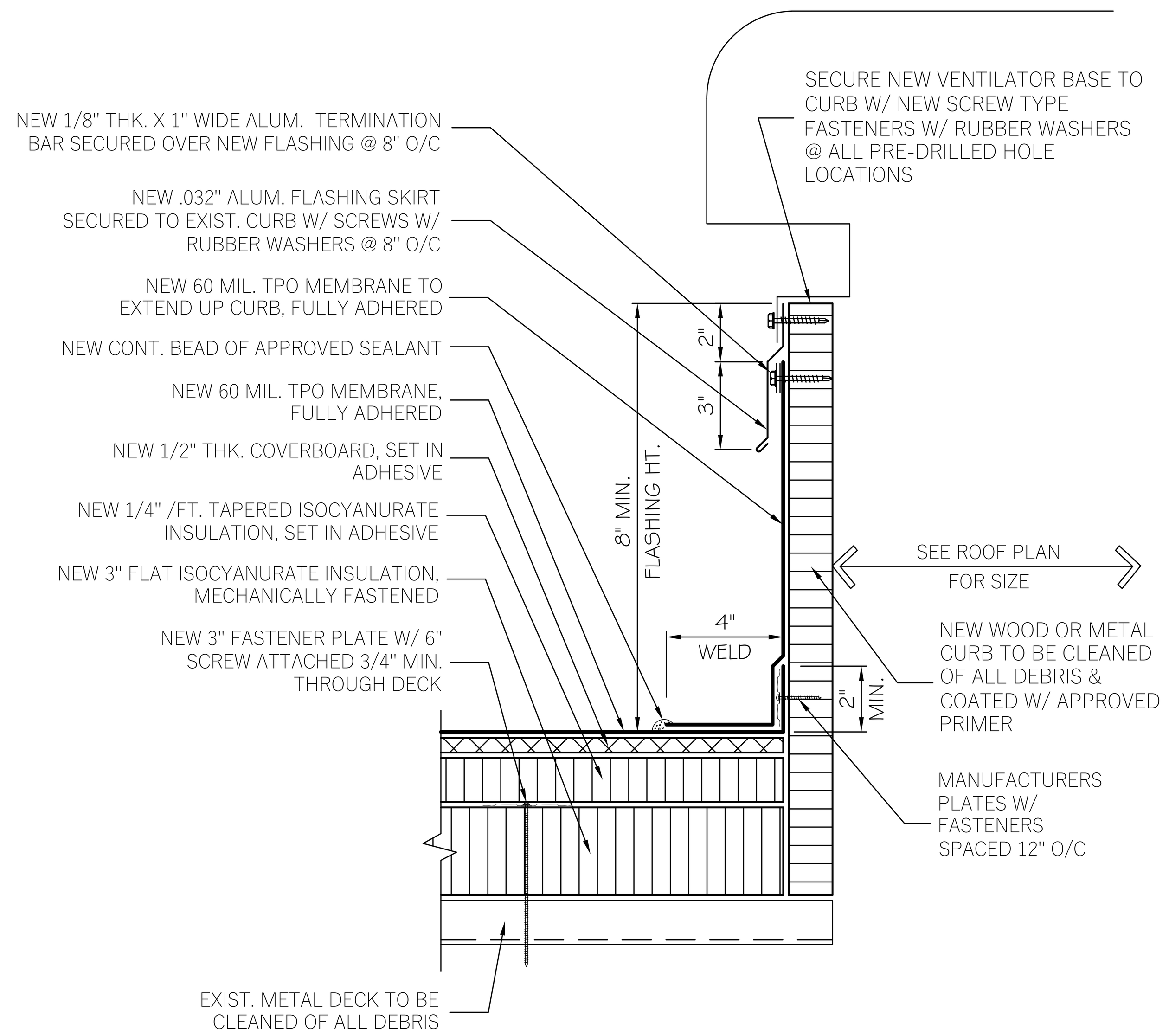
FRANK J. MOORE
NJ # 21AIO1637700
DATE: 02-16-23

DRAWN BY: AI
APPROVED BY: FRANK J. MOORE
SCALE: AS NOTED

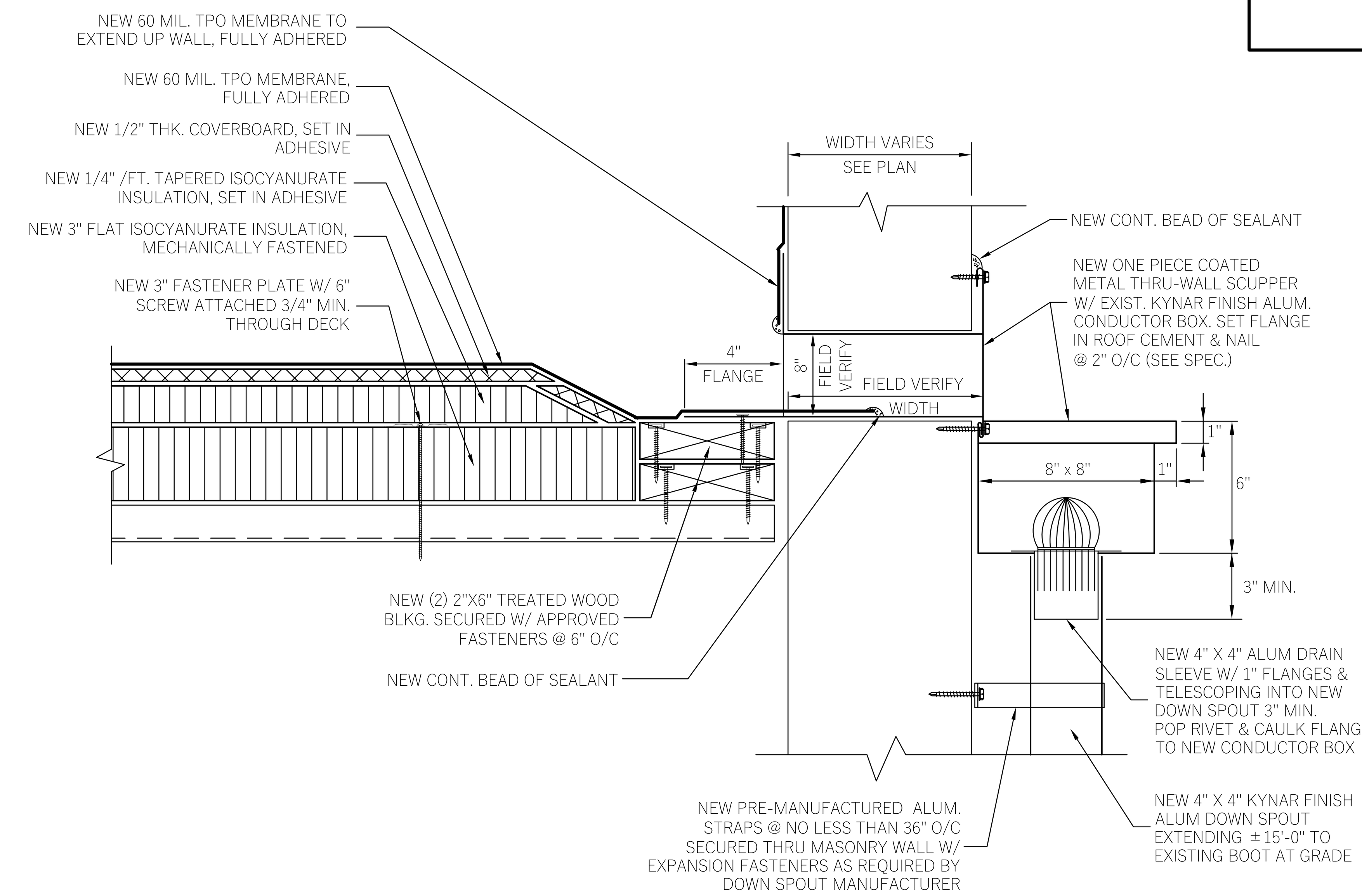
Department of Community Affairs
Construction Project Review
Project No: 9069-24
Part. Rel. Exterior Bldg.
building review
Raffaele Persico
Released: 07/31/24
N.J.S.A. 52:27D-119 ET SEQ., AS AMENDED



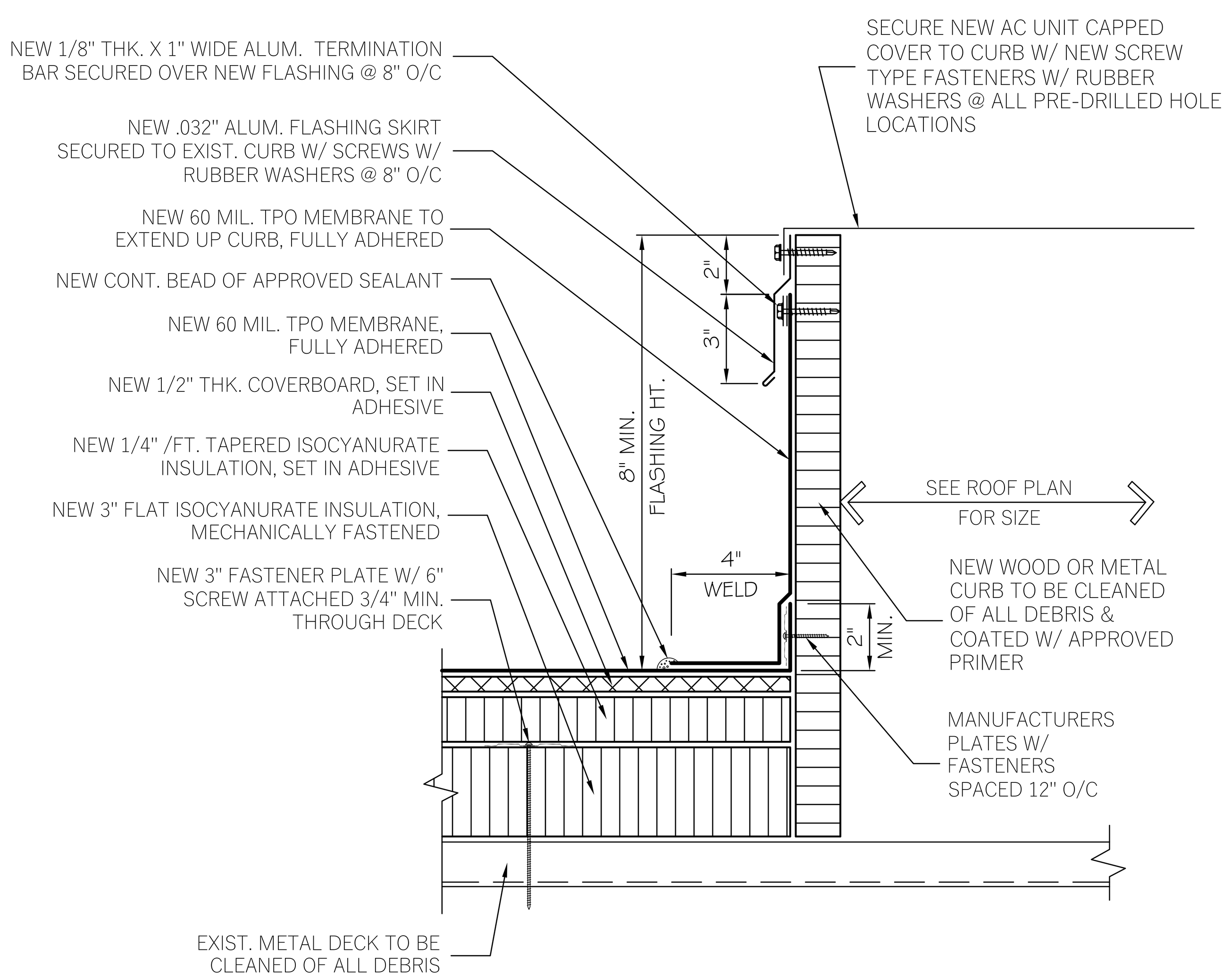
10 / A4 NEW EQUIPMENT CURB DETAIL
DRAWING NOT TO SCALE



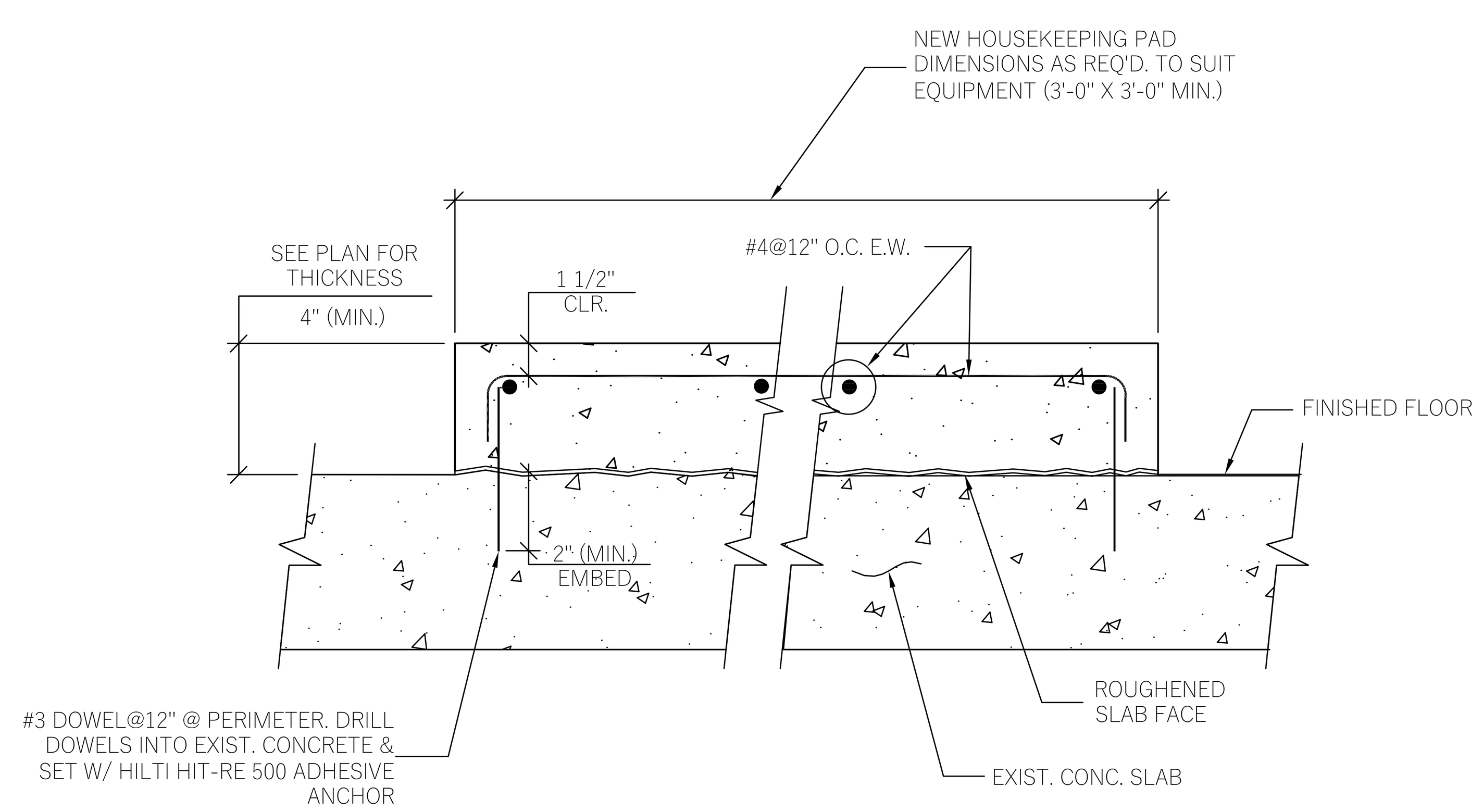
11 / A4 NEW EXHAUST FAN CURB DETAIL
DRAWING NOT TO SCALE



12 / A4 NEW OVERFLOW THRU-WALL SCUPPER DETAIL
DRAWING NOT TO SCALE



13 / A4 NEW EQUIP. SUPPORT CURB DETAIL
DRAWING NOT TO SCALE



14 / A4 MECH. RM. CONC. PAD DETAIL
DRAWING NOT TO SCALE

SEE HVAC DWGS. FOR LOCATION OF NEW BOILER EQUIPMENT IN MECHANICAL ROOM.

PROFESSIONAL SEAL
FRANK J. MOORE R.A.
NJ # 21AIO1637700

STATE OF NEW JERSEY · FRANK J. MOORE · 21AI01637700 · REGISTERED ARCHITECT

OWNER:
STATE OF NEW JERSEY
HONORABLE PHILIP D. MURPHY, GOVERNOR
DEPARTMENT OF THE TREASURY
DIVISION OF PROPERTY MANAGEMENT & CONSTRUCTION
20 WEST STATE STREET, 3RD FLOOR
P.O. BOX 038
TRENTON, NEW JERSEY 08625-0038

CHRISTOPHER CHIANESE, DIRECTOR
DPMC PROJECT NO. T0678-00

REV.	DESCRIPTION	DATE
3	DCA SUBMISSION	05-31-24
2	FINAL DESIGN RESUBMISSION	01-15-24
1	FINAL DESIGN PHASE	10-04-23

JOB TITLE: ROOF REPLACEMENT, HVAC UPGRADE & MOLD REMEDIATION PROJECT
WINSLOW SPECIALTY INSPECTION STATION
550 SPRING GARDEN STREET
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SHEET TITLE: TYPICAL DETAILS
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SHEET NO. 8 OF 8
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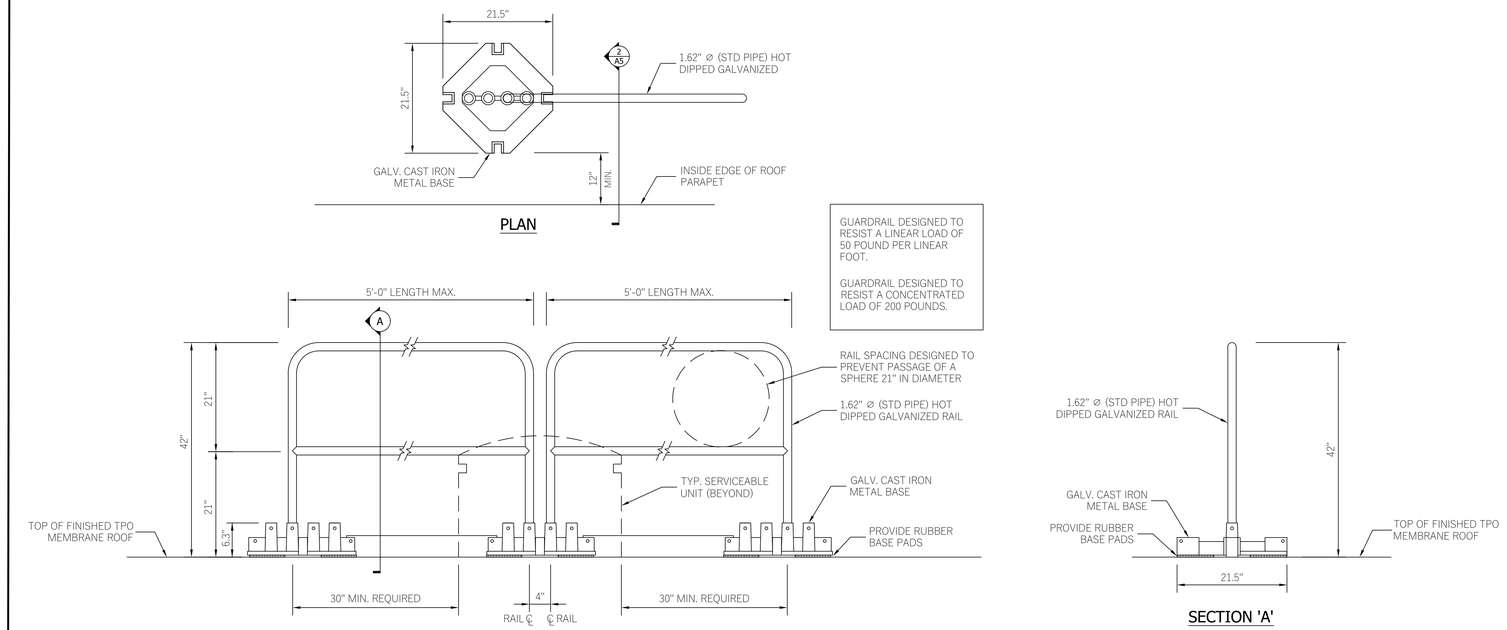
ARCHITECT:
ARMM ARCHITECTURE ASSOCIATES, INC.
41 GROVE STREET
HADDONFIELD, NEW JERSEY 08033

DRAWING NUMBER: A4

FRANK J. MOORE
NJ # 21AIO1637700

DATE: 02-16-23

DRAWN BY: AI
APPROVED BY: FRANK J. MOORE
SCALE: AS NOTED

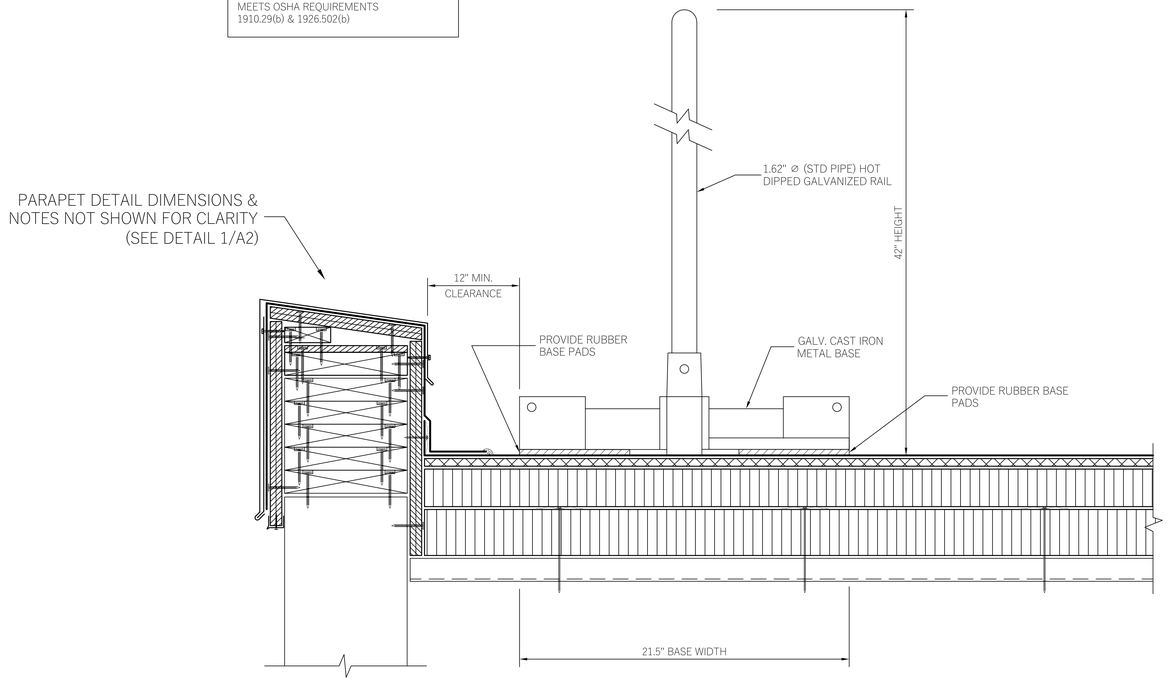


1 / A5 GAURDRAIL DETAIL

SCALE: NOT TO SCALE

GARLOCK "RailGuard 200™"

MEETS OSHA REQUIREMENTS
1910.29(b) & 1926.502(b)



2 / A5 GAURDRAIL DETAIL

DRAWING NOT TO SCALE

GARLOCK "RailGuard 200™"

MEETS OSHA REQUIREMENTS
1910.29(b) & 1926.502(b)

SPECIFICATIONS (RailGuard Components)	
411-002-000	Set & Prevent Base, OSHA compliant-lowest cost-best value
156324	Set & Prevent custom fit rubber pad, integrated water drainage, black
155160	Base, without pads, safety yellow
407724	Base, with adhesive pads, safety yellow
155159	Base, without pads, galvanized
407724	Base, with adhesive pads, galvanized
402335S	10.0 ft. Rail - safety yellow
404977S	8.0 ft. Rail - safety yellow
402337S	5.0 ft. Rail - safety yellow
404654G	10.0 ft. Rail - galvanized
406930G	8.0 ft. Rail - galvanized
404656G	5.0 ft. Rail - galvanized
155278	Pin with bail, zinc plated

SPECIFICATIONS (Metal Base)	
Weight	90 lbs.
Finish	Galv., powder coated yellow or custom colors
H X W X D	6.3" X 21.5" X 21.5"
Rail ports	Four
Rail mounting options	Powder coated plate or galvanized
Toe-board ports	Four
Material	Cast iron
Auxilliary mounting bolt holes	Two
Lifting handles	Two

SPECIFICATIONS (Rail)	
Material	16 gauge Steel
Top rail height	42"
Mid-rail height	21"
Outer diameter	1.62"

PROFESSIONAL SEAL
FRANK J. MOORE R.A.
NJ # 21AIO1637700

STATE OF NEW JERSEY · FRANK J. MOORE · 21AIO1637700 · REGISTERED ARCHITECT

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P.O. BOX 038
TRENTON, NEW JERSEY 08625-0038

CHRISTOPHER CHIANESE, DIRECTOR

DPMC PROJECT NO. T0678-00

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ARCHITECT:
ARMM ARCHITECTURE ASSOCIATES, INC.
41 GROVE STREET
HADDONFIELD, NEW JERSEY 08033
DRAWING NUMBER: A5

FRANK J. MOORE
NJ # 21AIO1637700
DATE: 02-16-23

DRAWN BY: AI
APPROVED BY: FRANK J. MOORE
SCALE: AS NOTED

ABBREVIATIONS

ø	DIAMETER
AD	ACCESS DOOR
A/E	ARCHITECT/ENGINEER
AFG	ABOVE FINISHED GRADE
AFF	ABOVE FINISHED FLOOR
AHJ	AUTHORITIES HAVING JURISDICTION
ALUM	ALUMINUM
AMP	AMPERES
ATC	AUTOMATIC TEMPERATURE CONTROL
AUTO	AUTOMATIC
AV	AIR VENT
BD	BLOW DOWN
BDD	BACK DRAFT DAMPER
BDT	BLOW DOWN TANK
BFP	BACKFLOW PREVENTER
BFU	BOILER FEED UNIT
BHP	BRAKE HORSEPOWER OR BOILER HORSEPOWER
BOD	BOTTOM OF DUCT (FROM FIN FLR)
BOP	BOTTOM OF PIPE (FROM FIN FLR)
BTU	BRITISH THERMAL UNITS
CAP	CAPACITY
CF	CUBIC FEET
CFM	CUBIC FEET PER MINUTE
CO	CLEAN–OUT
CONC	CONCRETE
DB	DRY BULB TEMPERATURE OR DECIBELS
HW	HOT WATER
HWR	HOT WATER RETURN
HWS	HOT WATER SUPPLY
DIAG	DIAGRAM
DIM	DIMENSION
DISCH	DISCHARGE
DN	DOWN
DR	DRAIN
DWG	DRAWING
DWH	DOMESTIC HOT WATER HEATER
(E)	EXISTING TO REMAIN
EA	EXHAUST AIR
EAT	ENTERING AIR TEMPERATURE
EF	EXHAUST FAN
ELEV	ELEVATION
ESP	EXTERNAL STATIC PRESSURE
EXIST	EXISTING
EXP	EXPANSION
°F	DEGREES FAHRENHEIT
FD	FLOOR DRAIN
FLEX	FLEXIBLE CONNECTION
FPM	FEET PER MINUTE
FPS	FEET PER SECOND
FT	FEET
G	GAS (NATURAL)
GA	GAUGE
GAL	GALLONS (U.S.)
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
HP	HORSEPOWER
HVAC	HEATING, VENTILATING & AIR CONDITIONING
ID	INSIDE DIAMETER
IN	INCHES
KW	KILOWATTS
L	LENGTH
LAT	LEAVING AIR TEMPERATURE
LB	POUNDS
LF	LINEAR FEET
LWT	LEAVING WATER TEMPERATURE
MAX	MAXIMUM
MBH	THOUSAND BTU PER HOUR
MER	MECHANICAL EQUIPMENT ROOM
MFR	MANUFACTURER
MIN	MINIMUM OR MINUTE
MOD	MOTOR OPERATED DAMPER
NC	NORMALLY CLOSED
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
NOM	NOMINAL
NTS	NOT TO SCALE
OA	OUTDOOR AIR
OAI	OUTDOOR AIR INTAKE
OED	OPEN END DUCT
OD	OUTSIDE DIAMETER
PD	PRESSURE DROP
PRV	PRESSURE REDUCING VALVE
PSI	POUNDS PER SQUARE INCH
(R)	RELOCATE/RELOCATED
RA	RETURN AIR
RPM	REVOLUTIONS PER MINUTE
SA	SUPPLY AIR
SEC	SECOND
SECT	SECTION
SF	SQUARE FEET
SP	STATIC PRESSURE
SPEC	SPECIFICATION
SQ	SQUARE
SS	STAINLESS STEEL
STD	STANDARD
STM	STEAM
SUCT	SUCTION
SYS	SYSTEM
TA	TRANSFER AIR
TAD	INTERNALLY LINED TRANSFER AIR DUCT w/WMS
TEMP	TEMPERATURE
T'STAT	THERMOSTAT
TYP	TYPICAL
UON	UNLESS OTHERWISE NOTED
UV	UNIT VENT/VENTILATOR
VD	VOLUME DAMPER
VEL	VELOCITY
VFD	VARIABLE FREQUENCY DRIVE
VIF	VERIFY IN FIELD
VOL	VOLUME
VTR	VENT THRU ROOF
W	WATT
WB	WET BULB
WC	WATER COLUMN
WG	WIRE GUARD
WMS	WIRE MESH SCREEN

GENERAL SYMBOLS

- BREAK LINE (SINGLE LINE)
- BREAK LINE (DOUBLE LINE DUCTWORK)
- BREAK LINE (DOUBLE LINE PIPING)
- LEADER ARROWHEAD
- REVISION INDICATOR
- INSERT INDICATES SECTION NUMBER / INSERT INDICATES DRAWING NUMBER — SECTION INDICATOR
- INSERT INDICATES EQUIPMENT NAME
- INSERT INDICATES EQUIPMENT NUMBER
- INDICATES CONNECTION POINT OF NEW TO EXISTING
- INDICATES POINT OF DISCONNECTION
- EMERGENCY BURNER SHUT–OFF SWITCH
- THERMOSTAT w CLEAR PLASTIC COVER & LOCK
- DETAIL REFERENCE (NO. / DWG NO.)
- FENCE

GENERAL NOTES (DEMOLITION)

1. THE CONTRACTOR SHALL COORDINATE DEMOLITION OF BUILDING HEATING SYSTEM INCLUDING BOILER, ASSOCIATED EQUIPMENT INCLUDING BUT NOT LIMITED TO PUMPS, CONTROL VALVES, PIPING WITH NEW WORK IN PHASES SUCH THAT BUILDING HEATING & DOMESTIC HOT WATER & OTHER UTILITIES ARE NOT INTERRUPTED.
2. THE CONTRACTOR SHALL REMOVE ALL CONCRETE PADS ASSOCIATED WITH THE DEMOLISHED EQUIPMENT & GRIND SMOOTH & FINISH TO MATCH EXISTING ADJACENT SURFACE.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ABATEMENT OF HAZARDOUS MATERIALS AS INDICATED IN THE CONTRACT DOCUMENTS.
4. THE CONTRACTOR SHALL PATCH WALL/SLAB/FLOOR/ROOF TO MATCH EXISTING AFTER REMOVAL & INSTALLATION OF ANY MECHANICAL EQUIPMENT & ASSOCIATED PIPING, SUPPORTS, ETC. REFER TO STRUCTURAL AND ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION.
5. CONTRACTOR SHALL MAINTAIN HEATING IN THE BUILDING THROUGHOUT THE CONSTRUCTION.
6. PRIOR TO DEMOLITION & START OF NEW WORK THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING DUCTWORK, PIPING INCLUDING BUT LIMITED TO HWS/R, DOMESTIC COLD, HOT & HOT WATER RETURN & ASSOCIATED EQUIPMENT INCLUDING BUT NOT LIMITED TO EXPANSION TANKS, PRESSURE REGULATIONS & SUBMIT ¼"=1'–0" SCALE DRAWINGS FOR REVIEW BY THE EOR/AOR.

AIR OUTLET SCHEDULE

TYPE	MODEL	SIZE	SYMBOL	CFM	NECK SIZE	NC LEVEL
CEILING SUPPLY & RETURN REGISTER WITH OPPOSED BLADE DAMPER	TUTTLE & BAILEY SERIES 1300 (4–WAY)	12"X12"	☒ ⊘	0–99	6"	
CEILING SUPPLY & REGISTER WITH OPPOSED BLADE DAMPER	TUTTLE & BAILEY SERIES 1300 (4–WAY)	24"x24"	☒	100–250	8"	< 15
				251–300	10"	< 15
				301–400	12"	< 20
				401–500	14"	< 20
				501–600	15"	< 20
CEILING RETURN	TUTTLE & BAILEY SERIES 1300 (4–WAY)	24"x24"	⊘	100–1000	15"	
SUPPLY GRILLES	TUTTLE & BAILEY T125 UNLESS NOTED OTHERWISE	AS NOTED ON HVAC PLANS	SG	AS NOTED ON HVAC PLANS		< 20
RETURN & EXHAUST GRILLE	TUTTLE & BAILEY T115 (12" SPACING, 40ø DEFLECTION) UNLESS NOTED OTHERWISE	AS NOTED ON HVAC PLANS	RG EG	AS NOTED ON HVAC PLANS		< 20
TRANSFER AND DOOR GRILLES	TUTTLE & BAILEY MODEL A980 (COORDINATE w/ARCHITECT FOR FINISH)	AS NOTED ON HVAC PLANS	TG	AS NOTED ON HVAC PLANS		< 20

NOTE: ALL CONNECTIONS TO AIR OUTLETS SHALL BE HARD CONNECTIONS.

DRAWING LIST:

DRAWING NO.	DRAWING TITLE
M001	MECHANICAL SYMBOLS, ABBREVIATIONS, NOTES AND DETAILS
M002	MECHANICAL SCHEDULES
M101	HVAC PLAN – FIRST FLOOR
M102	HVAC PLAN – ROOF
M103	MECHANICAL DETAILS
M104	HVAC CONTROLS & DETAILS
M105	HVAC POINTS LISTS

HVAC SYMBOLS

- BUTTERFLY VALVE
- CHECK VALVE
- DRAIN BALL VALVE w/HOSE BIBB
- GATE / SHUT–OFF / ISOLATION VALVE
- GLOBE VALVE
- AUTO THREE–WAY CONTROL VALVE
- AUTO TWO–WAY CONTROL VALVE
- BALL VALVE (FULL PORT)
- PLUG VALVE
- PRESSURE RELIEF OR SAFETY VALVE
- SHUT–OFF VALVE w/ GLOBE VALVE BYPASS
- SOLENOID VALVE
- AIR VENT ('A' INDICATES AUTO)
- FLOW SENSOR
- PRESSURE GAUGE
- PRESSURE GAUGE w/GAUGE COCK
- THERMOMETER
- PRESSURE or TEMPERATURE TEST WELL
- FLOW BALANCING VALVE
- FLOW SENSOR
- FLOW BALANCING VALVE w/FLOW SENSOR
- "Y" STRAINER
- "Y" STRAINER w/BLOWDOWN VALVE WITH CAP
- PIPE REDUCER – CONCENTRIC
- PIPE REDUCER – ECCENTRIC (FLAT ON BOTTOM or FLAT ON TOP)
- REDUCED PRESSURE ZONE BFP (W/ DRAIN PIPING)

- EXISTING TO REMAIN
- NEW WORK
- INDICATES EQUIPMENT AND/OR PIPING TO BE REMOVED
- INDICATES EQUIPMENT AND/OR PIPING TO BE REMOVED
- GAS LINE
- DRAIN
- HOT WATER SUPPLY
- HOT WATER RETURN
- PIPE DROP
- PIPE RISE
- PLUGGED OR CAPPED PIPE
- FLANGED CONNECTION
- STEAM LNE
- UNION
- OUTSIDE STEM & YOKE (OS&Y) VALVE
- TEE OUTLET DOWN
- TEE OUTLET UP
- PIPE PITCHING DOWNWARD IN DIRECTION OF ARROW
- FLOW ARROW
- PUMP
- FLOOR DRAIN w/TRAP
- METER
- PRESSURE REDUCING VALVE (PRV)
- CLEAN OUT
- STRAINER

GENERAL NOTES (NEW WORK)

1. THE WORK IN ACCORDANCE WITH DRAWINGS AND SPECIFICATIONS SHALL CONSIST OF FURNISHING ALL EQUIPMENT, MATERIALS, LABOR, SERVICES AND PERFORM ALL OPERATIONS TO COMPLETE THE INSTALLATION OF SYSTEMS. THE WORK SHALL BE PERFORMED IN COMPLIANCE WITH THE APPLICABLE CODES AND STANDARDS.
2. ALL EQUIPMENT SHALL BE HANDLED, STORED AND PROTECTED TO PREVENT DAMAGE BEFORE AND DURING INSTALLATION IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
3. ALL EQUIPMENT SHALL BE INSTALLED AND ADEQUATE CLEARANCES FOR MAINTENANCE AND SERVICING SHALL BE PROVIDED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND APPLICABLE CODES.
4. ALL CONTROLS SHALL BE AS SPECIFIED. THE CONTRACTOR SHALL PROVIDE ALL CONTROL WIRING, CONTROL COMPONENTS AND INTERLOCKING OF EQUIPMENT AS REQUIRED FOR THE OPERATION OF SYSTEMS. THIS CONTRACTOR SHALL ALSO PROVIDE POWER WIRING FROM EQUIPMENT CONTROL PANELS TO ALL MOTORS AND OTHER REMOTE DEVICES. THIS CONTRACTOR SHALL PROVIDE CONTROL WIRING BETWEEN THE MOTOR STARTERS, MOTORS OF THE EQUIPMENT, REMOTE CONTROL DEVICES AND EQUIPMENT CONTROL PANELS.
5. ALL NEW PIPING SHALL BE TESTED IN ACCORDANCE WITH APPLICABLE CODES AND STANDARDS. LEAKS, IF ANY SHALL BE REPAIRED AND THE PIPING SHALL BE RETESTED TO MEET THE REQUIREMENTS. (SEE SPECIFICATIONS)
6. ALL NEW PIPING AND EQUIPMENT IS SHOWN IN APPROXIMATE POSITION FOR DIAGRAMMATIC PURPOSES ONLY. THE CONTRACTOR SHALL FIELD VERIFY THE ROUTING OF NEW PIPING AND LOCATION OF ALL NEW EQUIPMENT. ALL NEW PIPING SHALL BE INSTALLED AND ADEQUATELY SUPPORTED IN ACCORDANCE WITH APPLICABLE CODES AND STANDARDS.
7. THE CONTRACTOR SHALL FIELD VERIFY ALL TIE–INS TO THE REMAINING EXISTING PIPING AND DUCT WORK.
8. THE CONTRACTOR SHALL BECOME FAMILIAR WITH THE EXISTING CONDITIONS AFFECTING THIS PROJECT AND COORDINATE WITH OTHER DISCIPLINES AND SHALL BE RESPONSIBLE FOR COORDINATING INSTALLATION OF ALL EQUIPMENT SHOWN ON PLAN, INCLUDING COORDINATION OF ANY EQUIPMENT OF ALTERNATE MANUFACTURER. THE CONTRACTOR SHALL PROVIDE COMPOSITE DRAWINGS/SKETCHES AS REQUIRED FOR THE INSTALLATION OF EQUIPMENT AS SHOWN ON PLAN FOR APPROVAL BY ENGINEER PRIOR TO PURCHASE & INSTALLATION OF ANY EQUIPMENT PRIOR TO CONNECTING TO NEW. ALL EXISTING CONDITIONS SHALL BE FIELD VERIFIED INCLUDING BUT NOT LIMITED TO EXISTING DOMESTIC COLD, HOT & HOT WATER RETURN PIPING, STEAM, HEATING HOT WATER SUPPLY AND RETURN PIPING, GAS PIPING, SANITARY, AND STORM, ETC.
9. ANY EQUIPMENT, LABOR OR SERVICES NOT SPECIFICALLY MENTIONED HEREIN WHICH MAY BE NECESSARY TO COMPLETE OR PERFECT ANY PART OF INSTALLATION OR TO RELOCATE EXISTING WORK INTERFERING WITH NEW WORK SHALL BE FURNISHED WITHOUT EXTRA COST TO THE OWNER.
10. ALL WORK PERFORMED SHALL COMPLY WITH LOCAL AND NATIONAL CODES AND STANDARDS, UNDERWRITERS LABORATORY APPROVAL AND ALL STATE AND FEDERAL OSHA SAFETY REQUIREMENTS AND THE LOCAL AUTHORITY HAVING JURISDICTION. IF CONFLICT EXISTS BETWEEN THE CODES THEN LOCAL CODES SHALL PREVAIL.
11. IN THE EVENT THE INSTALLING CONTRACTOR ENCOUNTERS ANY HAZARDOUS MATERIALS, THE CONTRACTOR SHALL REPORT TO THE OWNER'S REPRESENTATIVE & TAKE NECESSARY STEPS FOR REMEDIATION. ALL HAZMAT REMOVAL IS THE RESPONSIBILITY OF THE CONTRACTOR.
12. ON RECEIPT OF NTP (NOTICE TO PROCEED) THE CONTRACTOR SHALL SUBMIT FOR REVIEW & APPROVAL, LAYOUT SHOP DRAWINGS IN 1/2"=1'–0" SCALE DEPICTING NEW AND EXISTING CONDITIONS. THE CONTRACTOR SHALL ALSO SUBMIT AS A MINIMUM, THREE SECTIONS.
13. REFER TO CONTRACT SPECIFICATIONS FOR ADDITIONAL INFORMATION.
14. COORDINATE EXISTING–TO–REMAIN EQUIPMENT & ASSOCIATED CABLING, ANY EQUIPMENT AND CABLING DAMAGED BEYOND REPAIR DURING CONSTRUCTION SHALL BE REPLACED WITH SIMILAR OR APPROVED EQUAL AT CONTRACTOR'S EXPENSE, AND SHALL BE SUBMITTED TO OWNER FOR APPROVAL PRIOR TO CONSTRUCTION.
15. THE CONTRACTOR SHALL PATCH WALL/SLAB/FLOOR/ROOF TO MATCH EXISTING AFTER INSTALLATION OF ANY MECHANICAL EQUIPMENT & ASSOCIATED PIPING, SUPPORTS, ETC.

PIPING MATERIAL SCHEDULE

SYSTEM	SIZE	MATERIAL	FITTINGS
HOT WATER	2" OR LESS	TYPE "L" COPPER TUBING, SEAMLESS COPPER, ASTM B88	JOINTS: SOLDERED JOINT MATERIAL: GRADE SB5 SOLDER; ASTM B32 FITTING : WROUGHT COPPER, SOLDERED; ANSI B16.22
HOT WATER	2–1/2" TO 10"	SCHEDULE 40, WELDED OR SEAMLESS STEEL, BLACK; ASTM A53 OR A106, GRADE B.	JOINTS: BUTT–WELDED JOINT MATERIAL: WELDED; ANSI/AWS D1.1 FITTING : STEEL, IN WALL THICKNESS SPECIFIED FOR PIPE, BUTT–WELDED, FLANGED AT VALVE AND EQUIPMENT CONNECTIONS, LONG RADIUS ELBOWS; ASTM A234, ANSI B16.9.

PIPING SCHEDULE NOTES:

1. REFER TO THE SPECIFICATIONS SECTION 232113 FOR COMPLETE PIPING REQUIREMENTS.

PIPE INSULATION SCHEDULE

FLUID	PIPE SIZE	THICKNESS
HOT WATER	< 1–1/2" DIA.	1–1/2"
HOT WATER	1–1/2" – 8" DIA.	2"

PROFESSIONAL SEAL
SANJEEV AGARWAL
NJ LIC # 24GE04299600

STATE OF NEW JERSEY · SANJEEV AGARWAL · 24GE04299600 · LICENSED PROFESSIONAL ENGINEER

DocuSigned by: Sanjeev Agarwal

OWNER:
STATE OF NEW JERSEY
HONORABLE PHILIP D. MURPHY, GOVERNOR
DEPARTMENT OF THE TREASURY
DIVISION OF PROPERTY MANAGEMENT & CONSTRUCTION
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CHRISTOPHER CHIANESE, DIRECTOR

DPMC PROJECT NO. T0678-00

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WINSLOW SPECIALTY INSPECTION STATION
550 SPRING GARDEN STREET
WINSLOW, NJ 08037

SHEET TITLE: MECHANICAL NOTES, ABBREVIATIONS, AND LEGENDS
REF. NO. T0678-00
SHEET NO. 01 OF 07
DCA REF. No.

ARCHITECT:
ARMM ARCHITECTURE ASSOCIATES, INC. 41 GROVE STREET
HADDONFIELD, NEW JERSEY 08033

DRAWING NUMBER: M001

SANJEEV AGARWAL
NJ LIC # 24GE04299600

DATE: 02-16-2023

DRAWN BY: SACHIN FERNANDO
APPROVED BY: SANJEEV AGARWAL
SCALE: AS NOTED

ROOF TOP UNIT SCHEDULE (VAV)

UNIT NO. → RTU / X

						SUPPLY FAN			DX HEATING COIL PERFORMANCE			ELECTRIC HEATING COIL PERFORMANCE				DX COOLING COIL PERFORMANCE							POWER EXHAUST FAN					OUTDOOR AIR FAN					COMPRESSOR					UNIT ELECTRICAL								
							ELECTRICAL @ 60 Hz			AIRSIDE							AIRSIDE																					ELECTRICAL @ 60 HZ				UNIT WEIGHTS/DIMENSIONS				
UNIT NO.	LOCATION	SERVING	TOTAL AIR (CFM)	MIN OUTSIDE AIR (CFM)	EXTERNAL STATIC PRESSURE (IN WC)	HP	VOLTS	PHASE	HEATING OUTPUT (MBH)	EAT (°F)	DELTA T (°F)	HEATING OUTPUT (MBH)	KW	DELTA T (°F)	HEATING STAGES	MAXIMUM FACE VELOCITY (FPM)	ENTERING DB TEMP (°F)	LEAVING DB TEMP (°F)	ENTERING WB TEMP (°F)	LEAVING WB TEMP (°F)	TOTAL COOLING CAPACITY (MBH)	GROSS SENSIBLE CAPACITY (MBH)	QTY.	HP	FLA	VOLTS	PHASE	QTY.	HP	FLA	VOLTS	PHASE	QTY.	RLA CIRC. 1/ CIRC. 2	VOLTS	KW	PHASE	TOTAL MCA	MOCP	VOLTS	PHASE	OPERATING LBS	L' X W' X H'	AIR FILTER TYPE	BASIS OF DESIGN TRANE	TON
1	ROOF	FIRST FLOOR OFFICE	3,200	960	1.66	2.75	208	3	53.86	49	14.98	92.21	27	26.53	2	450	78.90	51.63	64.65	51.54	114.87	89.32	1	0.87	2.2	208	1	1	0.75	2.8	208	3	2	17.56/16.00	208	4.9	3	130	150	208	3	1,617	8.31X5.27X4.24	MERV 13	WHC120H3RKA	10

NOTES:

1. PROVIDE HINGED PANELS/2" PLEATED FILTERS MERV 13
2. PROVIDE STANDARD CONDENSER COIL W/ HAIL GUARD & THROUGH THE BASE ELECTRIC
3. PROVIDE UNIT MOUNTED FUSED DISCONNECT & SMOKE DETECTORS ON SUPPLY & RETURN.
4. PROVIDE POWER CONVENIENCE WEATHERPROOF RECEPTACLE & LIGHT.
5. PROVIDE OUTSIDE AIR INTAKE & EXHAUST HOOD.
6. PROVIDE POWER EXHAUST FAN FOR FIELD INSTALLATION.
7. PROVIDE FACTORY MANUFACTURED 24" HIGH INSULATED CURB.
8. PROVIDE 3 SETS OF ADDITIONAL FILTERS
9. ECONOMIZER SHALL BE EQUIPPED W/LOW LEAK DAMPER COMPLYING W/ASHRAE 90.1.
10. PROVIDE CONDENSATE TRAP & EXTEND DRAIN PIPING TO THE NEAREST ROOF DRAIN.
12. UNIT SHALL BE A VARIABLE AIRFLOW DRIVE – TRUE VAV.
13. PROVIDE OUTSIDE AIR COMPENSATION.
14. PROVIDE BACNET IP INTERFACE.
15. PROVIDE FACTORY INSTALLED COIL GUARD.
16. PROVIDE FOIL FACED INSULATION.
17. PROVIDE COIL FROST PROTECTION.

NEW SHOT FEEDER SCHEDULE

CBF / X ← UNIT NO.

UNIT No.	SERVICE & LOCATION	CAPACITY GALS	WORKING PRESSURE PSI	CONNECTION SIZE	DIMENSIONS DIA	DIMENSIONS HEIGHT	OPERATIONAL WEIGHT	BASIS OF DESIGN	REMARKS
CBF-1	MECHANICAL ROOM 113	5	60	1	10	15	80	NEPTUNE (DBF-5HP)	–

NOTES:

1. PROVIDE LEG STAND & FILTER CARTRIDGE.

HOT WATER BOILER SCHEDULE

UNIT NO. → B / x

UNIT NO.	LOCATION	MAKE & MODEL	INPUT, MBH MIN	INPUT, MBH MAX	HEATING CAP.	AFUE	BOILER CONNECTIONS	AIR INLET	VENT OUTLET	GAS CONNECTIONS	EWT	LWT	WEIGHT	AHRI COMBUSTION EFFICIENCY	GAS PRESSURE MIN, IN	GAS PRESSURE MAX, IN	TEMPERATURE (°F) ENT.	TEMPERATURE (°F) LVG.	ELECTRICAL DATA VOLTS	PHASE	HZ	AMPS	OPERATIONAL WEIGHT (LBS)
1	MECHANICAL ROOM	TRIANGLE INSFS 199S	25	185	161	95%	1"	3"	3"	3/4"	160 °F	180 °F	300 LBS.	94.6	4.0	14.0	153	180	115	1	60	20	2,200

NOTES:

1. CONTROL SHALL BE BACnet COMPATIBLE WITH EXTERNAL GATEWAY.
2. BOILER MANUFACTURER TO PROVIDE O/A SENSOR AND SUPPLY AND RETURN WATER TEMP SENSOR.
3. PROVIDE CONDENSATE NEUTRALIZER.
4. PROVIDE MANUFACTURER'S AUTHORIZED START-UP & (2) 2-HRS OWNER TRAINING (VIDEO RECORDED) AT 6-MONTHS INTERVAL THAT WOULD INCLUDE ALL BOILER OPERATION, MAINTAINANCE PROCEDURES, SAFETIES AND BOILER PLANT CONTROLS.

SPLIT SYSTEM DUCTLESS UNIT SCHEDULE

BASED ON: MITSUBISHI ELECTRIC HVAC ADVANCED PRODUCT DIVISION

OUTDOOR UNIT NO. → ACCU / X; AC / X ← INDOOR UNIT NO.

		GENERAL								INDOOR UNIT										OUTDOOR CONDENSING UNIT													
		CAPACITY			ENT. AIR					ELECTRICAL DATA												ENT. AIR	ELECTRICAL DATA					COMPRESSOR		REFRIGERANT LINES (IN)			
UNIT TAG	LOCATION	TOTAL COOLING MBH	SENSIBLE COOLING MBH	SEER	DB °F	WB °F	REFRIGERANT	REFRIGERANT SAFETY CLASS	TONNAGE	UNIT TAG	VOLTS	PHASE	Hz	MIN. AMPACITY	CFM	DRAIN CONNECTION	WEIGHT (LBS.)	SOUND (DBA) LOW-MED-HIGH	MODEL #	UNIT TAG	LOCATION	DB °F	VOLTS	PHASE	Hz	MOCP	MIN. AMPACITY	R.L.A	L.R.A	GAS	LIQUID	WEIGHT (LBS.)	MODEL #
1	SALVAGE OFFICE 112	34.2	23.9	14.0	80	67	R410A	A1	3.0	AC-1	208	1	60	1.0	920	1/2"	46	43-46-49	PKA-A36KA7.TH	ACCU-1	OUTSIDE ON GRADE	95	208	1	60	30	25	8.0	13.0	5/8"	3/8"	211	PUY-A36NKA7
2	LOCKED STORAGE 103	12	12	20.8	80	67	R410A	A1	1.0	AC-2	208	1	60	1.0	425	5/8"	29	36-40-43	TPKA0A0121LA00A	ACCU-2	ON ROOF	95	208	1	60	15	25	7.0	12.0	1/2"	1/4"	93	PUZ-A12NKA7

SPLIT SYSTEM NOTES:

1. THE DUCT FREE INDOOR UNITS SHALL BE MOUNTED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
2. PROVIDE REFRIGERANT PIPING AS RECOMMENDED BY THE UNIT MANUFACTURER BETWEEN INDOOR AND OUTDOOR UNITS. FINAL REFRIGERANT PIPE SIZE & ROUTING SHALL BE COORDINATED WITH EXISTING CONDITIONS & VERIFIED/CONFIRMED WITH THE MFR PRIOR TO INSTALLATION. EXACT SIZING SHALL BE CALCULATED BY THE APPROVED AC UNIT MFR IN ACCORDANCE WITH ACTUAL INSTALLATION & LATEST COORDINATED SHOP DRAWINGS.
3. DUCT FREE UNIT SHALL BE PROVIDED WITH WALL MOUNTING BRACKETS, CONTROLS. DRIP PAN & DRIP PAN SENSOR (DPLS2) AND WIRED STANDALONE REMOTE CONTROLLER.
4. THE UNIT SHALL BE RATED AT A DISCHARGED PRESSURE OF 450 PSIG AND A SUCTION PRESSURE OF 150 PSIG.
5. THE SYSTEM SHALL BE TESTED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS, BUT AT A MINIMUM IT SHALL BE TESTED BY MEANS OF REFRIGERANT CHARGED INTO THE SYSTEM AT A PRESSURE NOT LESS THAN THE SATURATED VAPOR PRESSURE AT 70°F (220 PSIA FOR R410A) PER ASHRAE STANDARD 15.
6. TESTING OF REFRIGERANT LINES SHALL BE COMPLETED PRIOR TO INSULATION.
7. INSTALL & SUPPORT UNITS AS RECOMMENDED BY THE MANUFACTURER.
8. EACH INDOOR AC UNIT SHALL BE PROVIDED WITH FILTER. PROVIDE TWO SPARE FILTERS PER UNIT.
9. VERIFY REFRIGERANT PIPE SIZING AND CHARGE QUANTITY WITH EQUIPMENT MANUFACTURER.
10. EACH ACCU COOLING COIL SHALL BE COATED WITH MANUFACTURER PROVIDED "BLUE FIN ANTI-CORROSION PROTECTION."
11. EACH ACCU ENCLOSURE SHALL BE PRE-COATED GALVANIZED STEEL.
12. EACH ACCU SHALL UTILIZE MODULAR VARIABLE REFRIGERANT FLOW ZONING (VRFZ) TECHNOLOGY.
13. PROVIDE INTERCONNECTING WIRING BETWEEN INDOOR AND OUTDOOR UNITS AS REQUIRED & RECOMMENDED BY THE EQUIPMENT MANUFACTURER.
14. PROVIDE THE FOLLOWING ACCESSORIES:
A. DRAIN PAN LEVEL SENSOR (SS610E)
B. M-NET CONVERTER (PAC-SJ95MA-E)
16. MAXIBLUE CONDENSATE PUMP MOUNTED ON WALL NEAR AC UNIT.
17. REFER TO THE SPECIFICATIONS FOR ADDITIONAL INFORMATION.

NEW AIR & DIRT SEPARATOR SCHEDULE

ADS / X ← UNIT NO.

UNIT No.	LOCATION	MODEL	FLOW (GPM)	PRESSURE DROP (FT)	SIZE (IN)	OPERATIONAL WEIGHT (LBS)	CONNECTION TYPE	NOTES
ADS-1	MER	ARMSTRONG DAS-2	20	0.6	2	550	FLANGED	1,2&3

NOTES:

1. MUST HAVE 304SS COALESCING SURFACE FOR REMOVAL OF AIR & DIRT. TANGENTIAL FLOW UNITS THAT RELY ON BUOYANCY FOR AIR REMOVAL ARE UNACCEPTABLE.
2. REFER TO THE SPECIFICATIONS FOR MORE INFORMATION.
3. ASME RATED.

HOT WATER FINNED TUBE RADIATION SCHEDULE

UNIT NO. → FTR / X

MARK	LOCATION	TYPE	ENCLOSURE TYPE	MOUNTING	ENCLOSURE LENGTH FT	CAPACITY BTUH	TEMPERATURES °F EWT	TEMPERATURES °F LWT	FLOW GPM	MAX WPD FT	BASIS OF DESIGN OR APPROVED EQUAL
1	SALVAGE OFFICE 112	SINGLE ROW	SLOPED LOUVERED	WALL	12	8640	180	170	1	3	VULCAN-LC209-VR02

NOTE:

1. FIELD-VERIFY ENCLOSURE LENGTHS. ENCLOSURE TO COME WITH ALL COMPONENTS FOR A COMPLETE INSTALLATION.
2. INSTALL PER THE MANUFACTURER.

VAV BOX w/HOT WATER REHEAT SCHEDULE

VAV / X ← UNIT NO.

UNIT NO.	AREAS SERVED	VALVE	MIN (CFM)	SPACE MAX/DESIGN (CFM)	MAX SP (IN WC)	INLET SIZE (ø")	OUTLET SIZE (H"XW")	AIR ΔT (°F)	HEATING CAPACITY (MBH)	FLUID TYPE	FLUID TEMP ENT/LVG (°F)	FPD (FT H2O)	FLUID FLOW (GPM)	# OF ROWS / FPI	WATER ΔT (°F)	BASIS OF DESIGN
VAV-1	STORAGE-A 111	4	150	215	1.0	4	8 1/4" X 10 1/4"	44.91	7.31	WATER	180/150.8	0.5	0.5	1	29.20	TRANE VCWF (HOT WATER HEATING)
VAV-2	SALVAGE OFFICE 112	8	400	700	1.0	8	10 1/4" X 11 1/4"	38.87	16.86	WATER	180/163.16	7.47	2	1	16.84	TRANE VCWF (HOT WATER HEATING)
VAV-3	SOUTHERN PIC UNIT 109	4	100	130	1.0	4	8 1/4" X 10 1/4"	56.72	6.15	WATER	180/155.42	0.5	0.5	1	24.58	TRANE VCWF (HOT WATER HEATING)
VAV-4	OFFICE-2 107	4	150	210	1.0	4	8 1/4" X 10 1/4"	44.91	7.31	WATER	180/150.8	0.5	0.5	1	29.20	TRANE VCWF (HOT WATER HEATING)
VAV-5	BREAK ROOM 106, VEST. V1	10	750	1350	1.0	10	12 1/4" X 14 1/4"	40	32.53	WATER	180/125.02	0.25	1.18	2	54.98	TRANE VCWF (HOT WATER HEATING)
VAV-6	CORRIDOR H101 & LOBBY H101 OFFICE-1 102	5	200	280	1.0	5	8 1/4" x 10 1/4"	33.92	40	WATER	180/152.1	0.73	0.62	1	27.9	TRANE VCWF (HOT WATER HEATING)
VAV-7	SUPERVISOR 101	5	150	275	1.0	5	8 1/4" X 10 1/4"	44.91	7.31	WATER	180/150.8	0.5	0.5	1	29.2	TRANE VCWF (HOT WATER HEATING)

NOTES FOR VAV BOXES:

1. PROVIDE FACTORY MOUNTED DDC CONTROLS AND COMMISSIONED WITH MAX COOLING AIRFLOW, MIN COOLING AIRFLOW & MIN HEATING AIRFLOW.
2. PROVIDE ROOM SENSOR WITH ADJUSTMENT, OVERRIDE & PROTECTIVE COVER WITH LOCK & KEY.
3. PROVIDE UNITS WITH FACTORY DISCONNECT SWITCH & CONTROL POWER TRANSFORMER.
4. BOXES SHALL BE PRESSURE INDEPENDENT FOR TRUE VAV AIRFLOW CFM SETTINGS.
5. PROVIDE BOTTOM ACCESS.
6. PROVIDE FACTORY MOUNTING AND AUTOMATIC AIRFLOW RE-CALIBRATION.
7. INTERFACE TO NEW BAS.

NEW EXPANSION TANK SCHEDULE

ET / X ← UNIT NO.

UNIT NUMBER	SERVICE	QTY.	TYPE	TEMPERATURE DATA MAXIMUM OPERATING (°F)	TEMPERATURE DATA MINIMUM OPERATING (°F)	PRESSURE DATA MAXIMUM OPERATING/ RELIEF (PSIG)	PRESSURE DATA MINIMUM OPERATING/ MAKE-UP (PSIG)	TANK DATA SYSTEM VOLUME (GALLONS)	TANK DATA MINIMUM ACCEPTANCE VOLUME (GALLONS)	TANK DATA NOMINAL TANK SIZE (GALLONS)	BASIS OF DESIGN (BELL & GOSSET)	OPERATIONAL WEIGHT (LBS)	REMARKS
1	MECHANICAL ROOM	1	VERTICAL	240	50	125	24	500	53		B-200	651	ASME RATED

ROOF FAN SCHEDULE

RF / X ← UNIT NO.

MARK	LOCATION	AREA AND/OR BLDG SERVED	SYSTEM AND/OR SERVICE	AIR FLOW CFM	ESP IN	FAN TYPE	FAN ARRANGEMENT, ROTATION AND DISCHARGE	FAN DRIVE	FAN MAX RPM	MOTOR ELECTRICAL HP	RPM	PHASE	VOLT	SPEED CONTROL	BASIS OF DESIGN OR APPROVED EQUAL
RF-1	ROOF	TOILET ROOM 105	TOILET EXHAUST	70	0.5	CENTRIFUGAL	DIRECT DRIVE	DIRECT	1545	1/6	1725	1	115	YES	G-090-VG
RF-2	ROOF	MENS ROOM 110	TOILET EXHAUST	140	0.5	CENTRIFUGAL	DIRECT DRIVE	DIRECT	1218	1/4	1725	1	115	YES	G-097-VG
RF-3	ROOF	WOMENS ROOM 108	TOILET EXHAUST	70	0.5	CENTRIFUGAL	DIRECT DRIVE	DIRECT	1545	1/6	1725	1	115	YES	G-090-VG
RF-4	ROOF	BREAK ROOM 106	EXHAUST	100	0.5	CENTRIFUGAL	DIRECT DRIVE	DIRECT	1545	1/6	1725	1	115	YES	G-090-VG
RF-5	ROOF	TOILET ROOM 104	TOILET EXHAUST	70	0.5	CENTRIFUGAL	DIRECT DRIVE	DIRECT	1545	1/6	1725	1	115	YES	G-090-VG

NOTE:

1. PROVIDE NEW ROOF CURB.
2. PROVIDE UNIT DISCONNECT.
3. PROVIDE VARIABLE SPEED CONTROL.
4. CONTRACTOR SHALL MEASURE EXISTING EXHAUST CFM OF EXISTING EXHAUST FAN SERVING THE BREAK ROOM PRIOR TO DEMOLITION & SUBMIT INFORMATION TO EOR.
5. PROVIDE TORK TIME SWITCH DG100A 365/7-DAY DIGITAL TIMER.
6. FANS SHALL BE CONTROLLED BY THE NEW BAS.

ROOM AIR BALANCE SCHEDULE

ROOM NO.	AIR HANDLING UNIT NO	TERMINAL UNIT	INDIVIDUAL ROOM TEMP CONTROL	SUPPLY AIR/OUTSIDE AIR: ROOM TOTAL AIR FLOW CFM	SUPPLY AIR/OUTSIDE AIR: OUTSIDE AIR	RETURN OR EXHAUST: RETURN OR EXHAUST (R/E)	RETURN OR EXHAUST: ROOM AIR FLOW (CFM)	RETURN OR EXHAUST: RETURN OR EXHAUST FAN	REMARKS
VEST. V1	RTU-1	VAV-5	YES	190	15	RETURN	90	RTU-1	
TOILET ROOM 104	RTU-1	–	YES	–		EXHAUST	70	RF5	TRANSFER FROM CORRIDOR
TOILET ROOM 105	RTU-1	–	YES	–		EXHAUST	70	RF1	TRANSFER FROM CORRIDOR
BREAK ROOM 106	RTU-1	VAV-5	YES	1160	72	RETURN	1160	RF4	
OFFICE-2 107	RTU-1	VAV-4	YES	210	16	RETURN	135	RTU-1	
SOUTHERN PIC UNIT 109	RTU-1	VAV-3	YES	130	35	RETURN	130	RTU-1	
MENS ROOM 110	RTU-1	–	YES	–		EXHAUST	140	RF-2	TRANSFER FROM CORRIDOR 09, 17, & LOBBY 03
SALVAGE OFFICE 112	RTU-1	VAV-2	YES	700	43	RETURN	580	RTU-1	
STORAGE ROOM-A 111	RTU-1	VAV-1	YES	215	17	RETURN	85	RTU-1	
LOCKED STORAGE 103	RTU-1	–	YES	–	–	RETURN	50	RTU-1	TRANSFER FROM SUPERVISOR 10
SUPERVISOR 101	RTU-1	VAV-7	YES	250	38	RETURN	130	RTU-1	
OFFICE-1 102	RTU-1	VAV-6	YES	40	10	RETURN	40	RTU-1	
CORRIDOR H101 & LOBBY H101	RTU-1	VAV-6	YES	240	65	–	–		
WOMENS ROOM 108	RTU-1		YES	–	–	EXHAUST	70	RF3	TRANSFER FROM CORRIDOR

BOILER PUMP SCHEDULE

P / x ← UNIT NO

UNIT No.	LOCATION	MANUFACTURER	MODEL	TYPE	FLOW (GPM)	HEAD (FT)	FLUID	ELECTRICAL DATA V	PH	HZ	MOTOR RPM	MOTOR HP	OPERATIONAL WEIGHT (LBS)
1	MECHANICAL ROOM	BELL & GOSSETT	1.25BC	BASE MOUNTED	20	60	WATER	230	3	60	1,800	2	182

NOTES:

1. BOILER PUMPS TO INCLUDE INTEGRAL SENSORLESS VFD, CONSTANT FLOW CONTROL & FLOW READOUT.
2. PUMPS TO INCLUDE WITH TRIPLE DUTY VALVES AND SUCTION DIFFUSERS.
3. BASE MOUNTED PUMPS TO BE SET ON A 6" THICK HOUSE KEEPING PAD.
4. VFD TO BE FACTORY PROGRAMMED AND TESTED FOR THE SCHEDULED FLOW AND HEAD.
5. PUMP SHALL HAVE VFD WITH INTEGRAL DISCONNECT.
6. PROVIDE MANUFACTURER'S AUTHORIZED START-UP, PROGRAMMING, & TRAINING.
7. PROVIDE REMOTE DISCONNECT & STARTER IF INTEGRAL NOT AVAILABLE.

PROFESSIONAL SEAL
SANJEEV AGARWAL
NJ LIC # 24GE04299600

OWNER:
STATE OF NEW JERSEY
HONORABLE PHILIP D. MURPHY, GOVERNOR
DEPARTMENT OF THE TREASURY
DIVISION OF PROPERTY MANAGEMENT & CONSTRUCTION
20 WEST STATE STREET, 3RD FLOOR
P.O. BOX 038
TRENTON, NEW JERSEY 08625-0038

CHRISTOPHER CHIANESE, DIRECTOR

DPMC PROJECT NO. T0678-00

REV.	DESCRIPTION	DATE
3	DCA SUBMISSION	05-31-24
2	FINAL DESIGN PHASE	01-15-24
1	FINAL DESIGN PHASE	10-04-23

JOB TITLE: ROOF REPLACEMENT, HVAC UPGRADE & MOLD REMEDIATION PROJECT
WINSLOW SPECIALTY INSPECTION STATION
550 SPRING GARDEN STREET
WINSLOW, NJ 08037

SHEET TITLE: MECHANICAL SCHEDULES

REF. NO. T0678-00

SHEET NO. 02 OF 07

DCA REF. No.

ARCHITECT:
ARMM ARCHITECTURE ASSOCIATES, INC. 41 GROVE STREET
HADDONFIELD, NEW JERSEY 08033

DRAWING NUMBER: M002

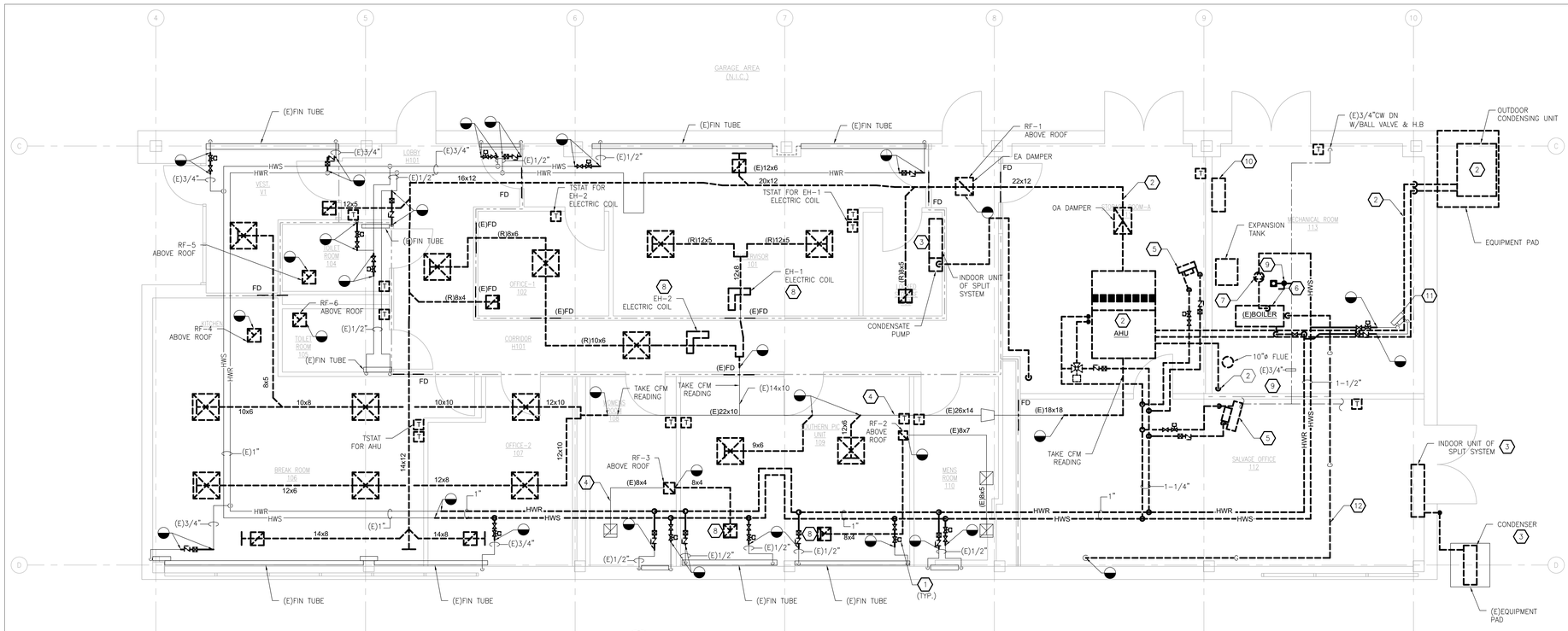
SANJEEV AGARWAL
NJ LIC # 24GE04299600

DATE: 02-16-2023

DRAWN BY: SACHIN FERNANDO

APPROVED BY: SANJEEV AGARWAL

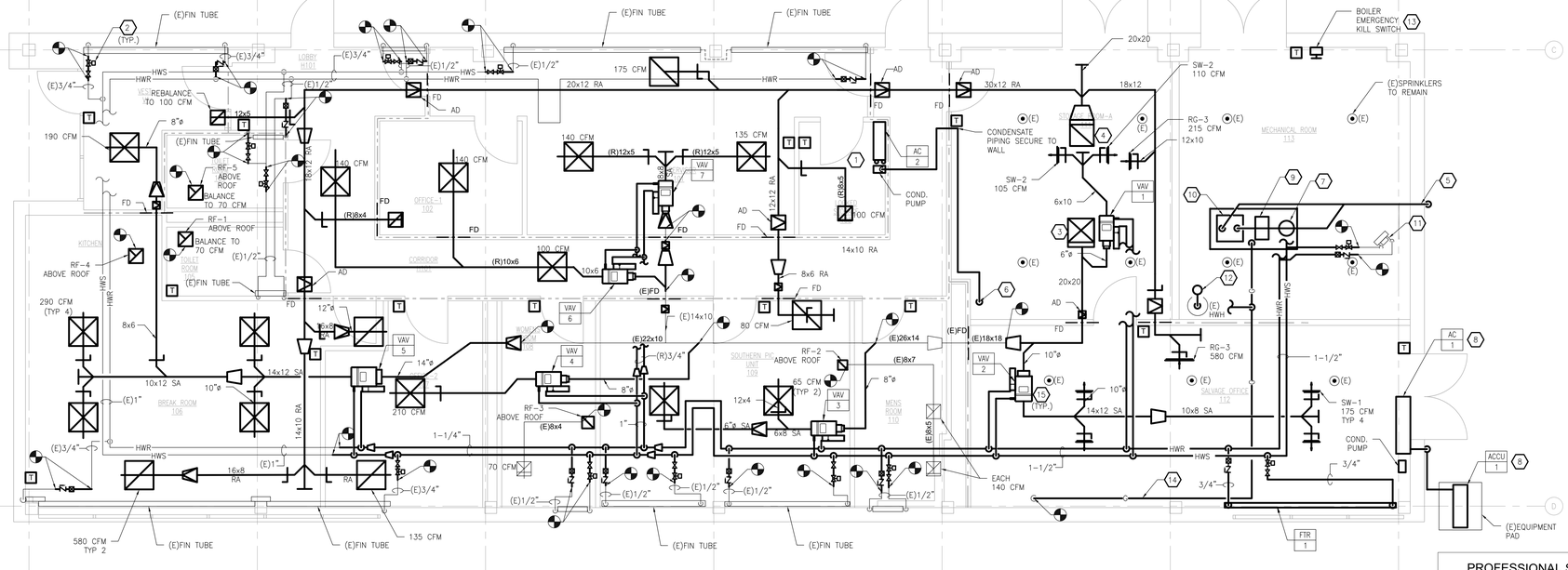
SCALE: AS NOTED



1 M101 HVAC DEMOLITION PLAN - FIRST FLOOR
SCALE: 1/4"-1'-0"

DEMOLITION KEY NOTES:

1. DISCONNECT & REMOVE EXISTING CONTROL VALVE, STRAINER, CHECK VALVE, BALANCING VALVE, & ISOLATION VALVE. SECURE PIPING FOR NEW CONNECTION. SEE DETAIL 11/M103.
2. DEMOLISH AHU, AHU DUCTWORK, CONDENSER & PIPING AS SHOWN. DEMOLISH HANGERS AND ALL APPURTENANCES.
3. DISCONNECT & REMOVE EXISTING OUTDOOR CONDENSING UNIT & ASSOCIATED REFRIGERANT PIPING. EXISTING PAD TO REMAIN. DISPOSE OF REFRIGERANT AS PER THE STATE & FEDERAL LAWS & GUIDELINES.
4. PATCH (E)DUCTWORK AIR TIGHT. MATCH EXISTING DUCTWORK GAUGE AND PRESSURE CLASS.
5. DEMOLISH UNIT HEATER & PIPING AS SHOWN. DEMOLISH HANGERS AND ALL APPURTENANCES.
6. DEMOLISH EXISTING BOILER & ASSOCIATED EXPANSION TANK, CHEMICAL FEED TANK & ASSOCIATED PIPING & SUPPORTS IN ITS ENTIRETY WITHIN THE BOILER ROOM. DRAIN & REFILL EXISTING SYSTEM AS REQUIRED. DEMOLISH EXISTING BOILER BREECHING UP TO THE VERTICAL FLUE RISER & CAP. EXISTING FLUE ASSOCIATED WITH EXISTING HOT WATER HEATER TO BE RECONNECTED TO NEW VERTICAL RISER & TERMINATED 3' ABOVE ROOF WITH RAIN CAP. DEMOLISH EXISTING GAS PIPING.
7. DEMOLISH EXISTING HOT WATER SYSTEM PUMP.
8. DISCONNECT & REMOVE EXISTING DUCT MOUNTED ELECTRICAL HEATING COIL.
9. DISCONNECT & REMOVE EXISTING BACKFLOW PREVENTOR. SECURE PIPING FOR NEW WORK.
10. DISCONNECT & REMOVE EXISTING ATC PANEL & ASSOCIATED POWER & CONTROL WIRING & CONDUIT IN ITS ENTIRETY.
11. EXISTING UNIT HEATER & ASSOCIATED BRANCH PIPING TO REMAIN.
12. DISCONNECT & REMOVE EXISTING GAS PIPING SERVING THE BOILER & PROVIDE NEW 2" GAS PIPING. DISCONNECT EXISTING GAS TO HOT WATER HEATER & RECONNECT TO NEW 2" GAS PIPING.



2 M101 HVAC CONSTRUCTION PLAN - FIRST FLOOR
SCALE: 1/4"-1'-0"

CONSTRUCTION KEY NOTES:

1. PROVIDE NEW INDOOR DUCTLESS SPLIT AC-1. PIPE UP TO NEW CONDENSER ACCU-2 ON THE ROOF.
2. PROVIDE NEW CONTROL VALVE, STRAINER, CHECK VALVE & ISOLATION VALVE. THE NEW VALVE SHALL BE TIED TO NEW BAS. SEE DETAIL 11/M103.
3. 20x20 SA DUCT DN UP TO RTU-1.
4. 20x20 RA DUCT UP TO RTU-1.
5. PROVIDE NEW FLUE & COMBUSTION AIR INTAKE FOR NEW BOILER.
6. TERMINATE THE NEW 1" DRAIN LINE AT THE EXISTING FLOOR DRAIN/ MOP SINK WITH AN AIR GAP.
7. PROVIDE SHOT FEEDER. INSTALL PER THE MANUFACTURER. PROVIDE 6" HIGH EQUIPMENT PAD 6" LARGER THEN THE EQUIPMENT IT SERVES. THE CONCRETE SHALL BE 3000 PSI.
8. PROVIDE NEW INDOOR AC UNIT & OUTDOOR CONDENSING UNIT & ASSOCIATED REFRIGERANT PIPING. ENCLOSE EXPOSED PIPING IN METAL POWDER COATED STEEL ENCLOSURE. REPAIR/EXTEND &/OR PROVIDE NEW CONCRETE PAD AS REQUIRED.
9. PROVIDE NEW PUMP.
10. PROVIDE NEW BOILER & ASSOCIATED FLUE & COMBUSTION AIR PIPING. PROVIDE NEW GAS PIPING. CONNECT TO NEW BMS.
11. RECONNECT EXISTING UNIT HEATER TO NEW 2" HWS/R PIPING. PROVIDE NEW 3/4" HWS/R BRANCH PIPING & ASSOCIATED CONTROL VALVES, ISOLATION VALVES, STRAINER, & BALANCING VALVE.
12. COORDINATE WITH EXISTING WATER HEATER MANUFACTURER & PROVIDE NEW 6" FLUE WITH RAIN CAP AS RECOMMENDED BY THE THE EXISTING HOT WATER HEATER MANUFACTURER.
13. BOILER EMERGENCY KILL SWITCH SHALL BE COORDINATED WITH BOILER MANUFACTURER & PROVIDE COMPONENTS AS REQUIRED TO SHUTDOWN BOILER & ASSOCIATED GAS VALVE WHENEVER THE KILL SWITCH IS PRESSED. PILLA ELECTRICAL ST120SN1BB2SLL - EMERGENCY BOILER SHUT DOWN.
14. PROVIDE NEW 2" GAS TO SERVE THE NEW BOILER. RECONNECT EXISTING HOT WATER HEATER GAS LINE TO THIS NEW 2" GAS LINE. SEE RISER DIAGRAM 9/M103.
15. PROVIDE NEW VAV BOX WITH HOT WATER REHEAT COIL. SEE DETAILS 1/M104 & 3/M104.

PROFESSIONAL SEAL
SANJEEV AGARWAL
NJ LIC # 24GE04299600

STATE OF NEW JERSEY · SANJEEV AGARWAL · 24GE04299600 · LICENSED PROFESSIONAL ENGINEER

DocuSigned by: Sanjeev Agarwal

OWNER:
STATE OF NEW JERSEY
HONORABLE PHILIP D. MURPHY, GOVERNOR
DEPARTMENT OF THE TREASURY
DIVISION OF PROPERTY MANAGEMENT & CONSTRUCTION
20 WEST STATE STREET, 3RD FLOOR
P.O. BOX 038
TRENTON, NEW JERSEY 08625-0038

CHRISTOPHER CHIANESE, DIRECTOR

DPMC PROJECT NO. T0678-00

JOB TITLE: ROOF REPLACEMENT, HVAC UPGRADE & MOLD REMEDIATION PROJECT
WINSLOW SPECIALTY INSPECTION STATION
550 SPRING GARDEN STREET
WINSLOW, NJ 08037

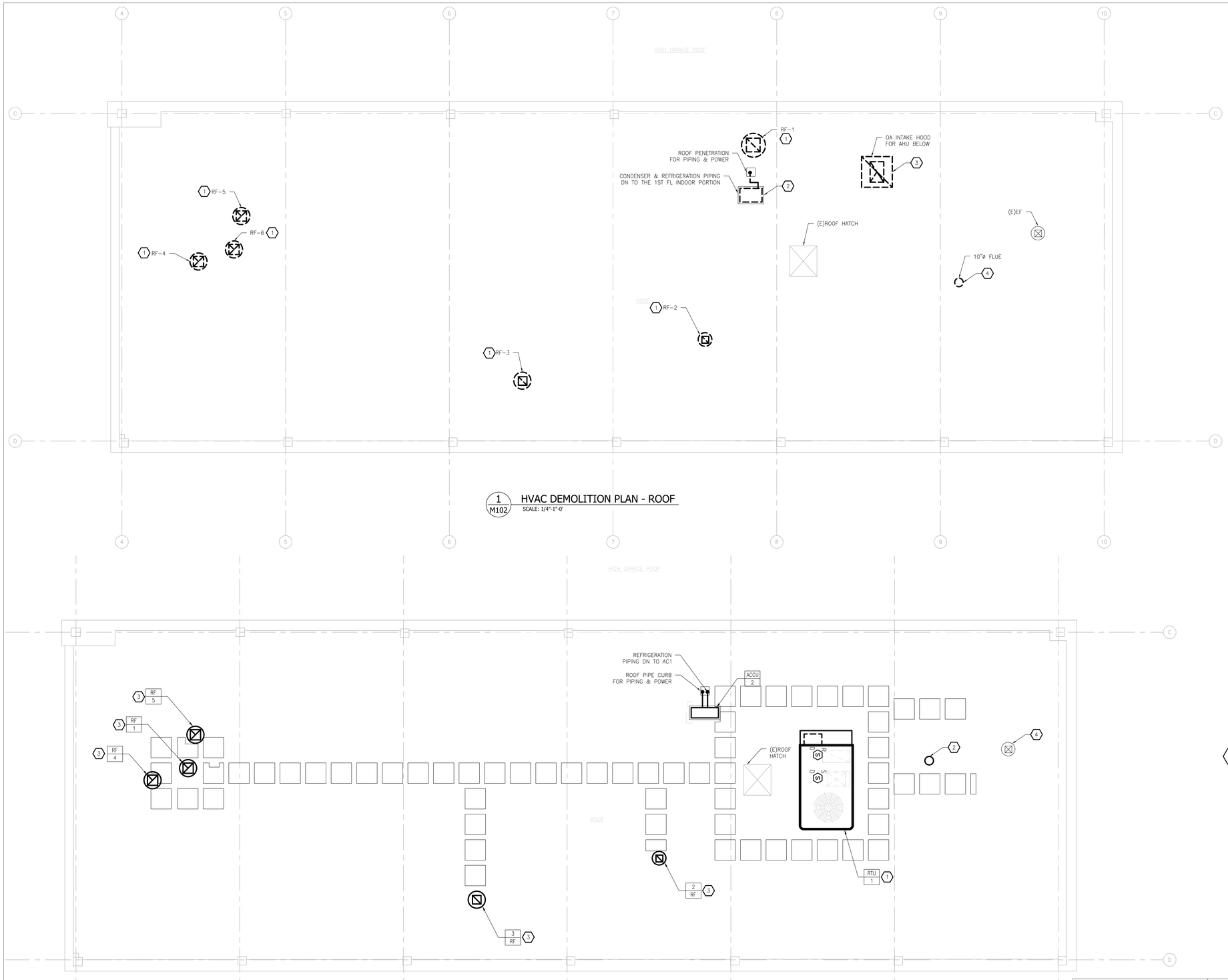
SHEET TITLE: HVAC PLAN – FIRST FLOOR
REF. NO. T0678-00
SHEET NO. 03 OF 07
DCA REF. No.

ARCHITECT:
ARMM ARCHITECTURE ASSOCIATES, INC. 41 GROVE STREET
HADDONFIELD, NEW JERSEY 08033
DRAWING NUMBER: M101

SANJEEV AGARWAL
NJ LIC # 24GE04299600
DATE: 02-16-2023

REV.	DESCRIPTION	DATE
3	DCA SUBMISSION	05-31-24
2	FINAL DESIGN PHASE	01-15-24
1	FINAL DESIGN PHASE	10-04-23

DRAWN BY: SACHIN FERNANDO | APPROVED BY: SANJEEV AGARWAL | SCALE: AS NOTED



1 / M102 HVAC DEMOLITION PLAN - ROOF
SCALE: 1/4"-1"-0"

DEMOLITION KEY NOTES:

1. DISCONNECT & DEMOLISH EXHAUST FAN & ROOF CURB IN ITS ENTIRETY.
2. DEMOLISH SPLIT SYSTEM & ASSOCIATED REFRIGERANT PIPING & EQUIPMENT PAD SECURE ROOT CURB FOR NEW WORK. IN ITS ENTIRETY DN TO THE FIRST FL.
3. DISCONNECT & DEMOLISH OA INTAKE HOOD AND ROOF CURB.
4. REMOVE EXISTING FLUE & REPLACE WITH NEW TO SERVE EXISTING HOT WATER HEATER.

CONSTRUCTION KEY NOTES:

1. PROVIDE NEW ROOF TOP UNIT ON NEW 24" HIGH INSULATED CURB. COORDINATE EXACT LOCATION WITH STRUCTURAL DRAWINGS. COORDINATE SUPPLY & RETURN AIR DUCT OPENING WITH NEW DUCTWORK LAYOUT.
2. PROVIDE NEW FLUE TO SERVE EXISTING HOT WATER HEATER. EXTEND 3" ABOVE ROOF & PROVIDE RAIN CAP.
3. PROVIDE NEW ROOF FAN AND ASSOCIATED CURB. FIELD VERIFY & MODIFY & EXTEND EXISTING DUCTWORK TO RECONNECT TO THE NEW ROOF FAN.
4. EXISTING FAN & ASSOCIATED WIRING TO REMAIN. REMOVE & REINSTALL IF REQUIRED TO REMOVE EXISTING & PROVIDE NEW ROOF.

2 / M102 HVAC CONSTRUCTION PLAN - ROOF
SCALE: 1/4"-1"-0"

PROFESSIONAL SEAL
SANJEEV AGARWAL
NJ LIC # 24GE04299600

STATE OF NEW JERSEY · SANJEEV AGARWAL · 24GE04299600 · LICENSED PROFESSIONAL ENGINEER

DocuSigned by: Sanjeev Agarwal

OWNER:
STATE OF NEW JERSEY
HONORABLE PHILIP D. MURPHY, GOVERNOR
DEPARTMENT OF THE TREASURY
DIVISION OF PROPERTY MANAGEMENT & CONSTRUCTION
20 WEST STATE STREET, 3RD FLOOR
P.O. BOX 038
TRENTON, NEW JERSEY 08625-0038

CHRISTOPHER CHIANESE, DIRECTOR

DPMC PROJECT NO. T0678-00

REV.	DESCRIPTION	DATE
3	DCA SUBMISSION	05-31-24
2	FINAL DESIGN PHASE	01-15-24
1	FINAL DESIGN PHASE	10-04-23

JOB TITLE: ROOF REPLACEMENT, HVAC UPGRADE & MOLD REMEDIATION PROJECT
WINSLOW SPECIALTY INSPECTION STATION
550 SPRING GARDEN STREET
WINSLOW, NJ 08037

SHEET TITLE: HVAC PLAN – ROOF
REF. NO. T0678-00
SHEET NO. 04 OF 07
DCA REF. No.

ARCHITECT:
ARMM ARCHITECTURE ASSOCIATES, INC. 41 GROVE STREET
HADDONFIELD, NEW JERSEY 08033

DRAWING NUMBER: M102

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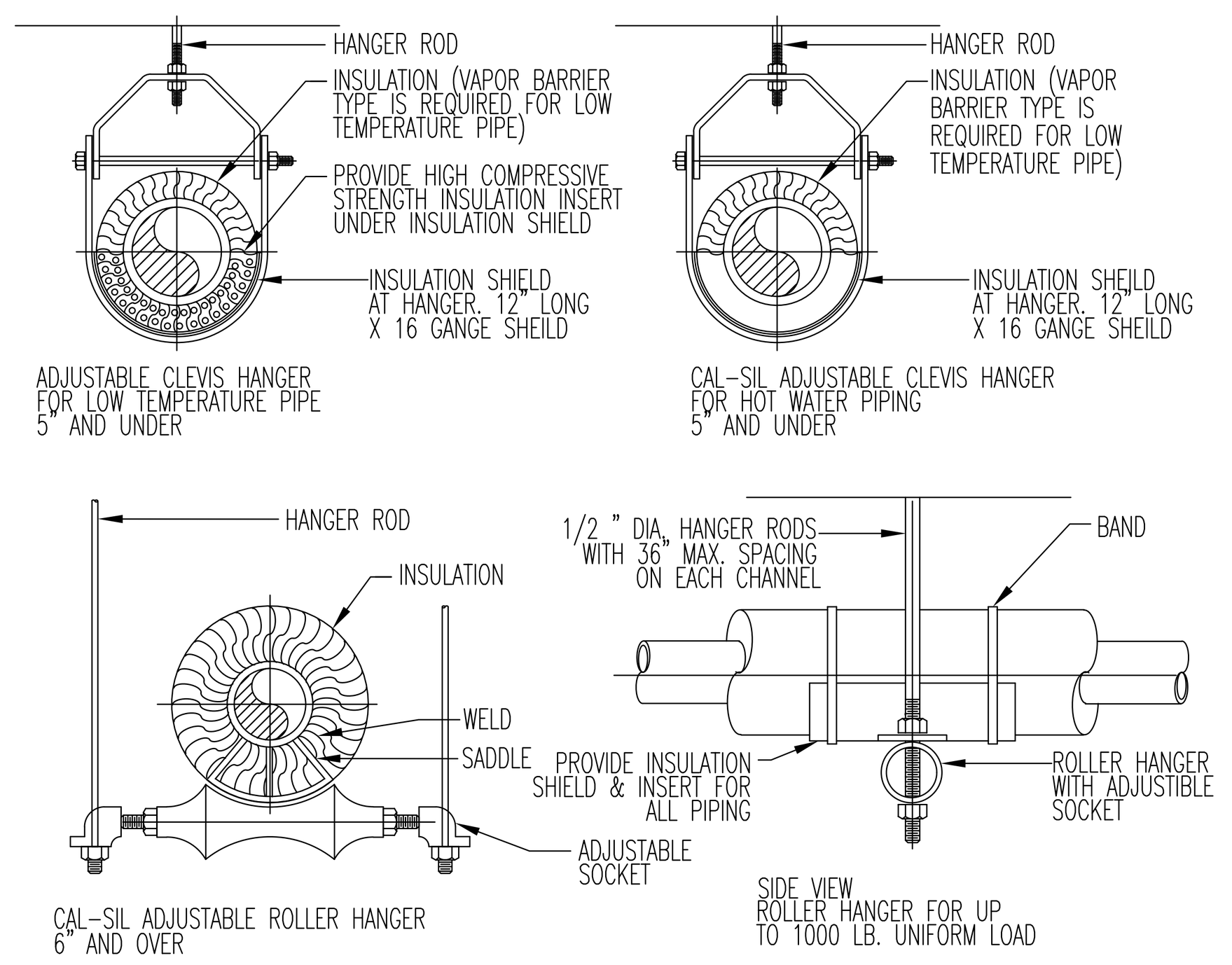
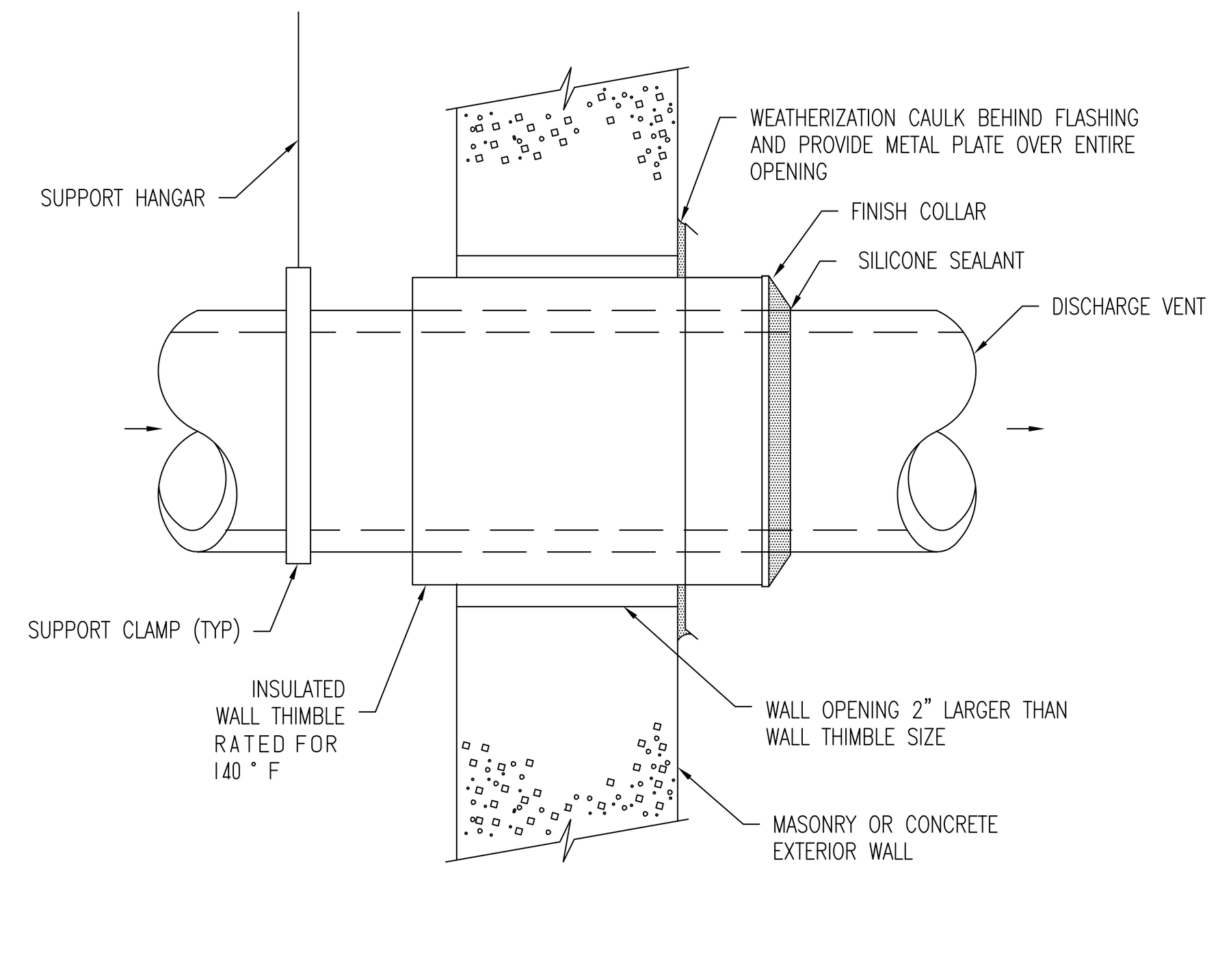
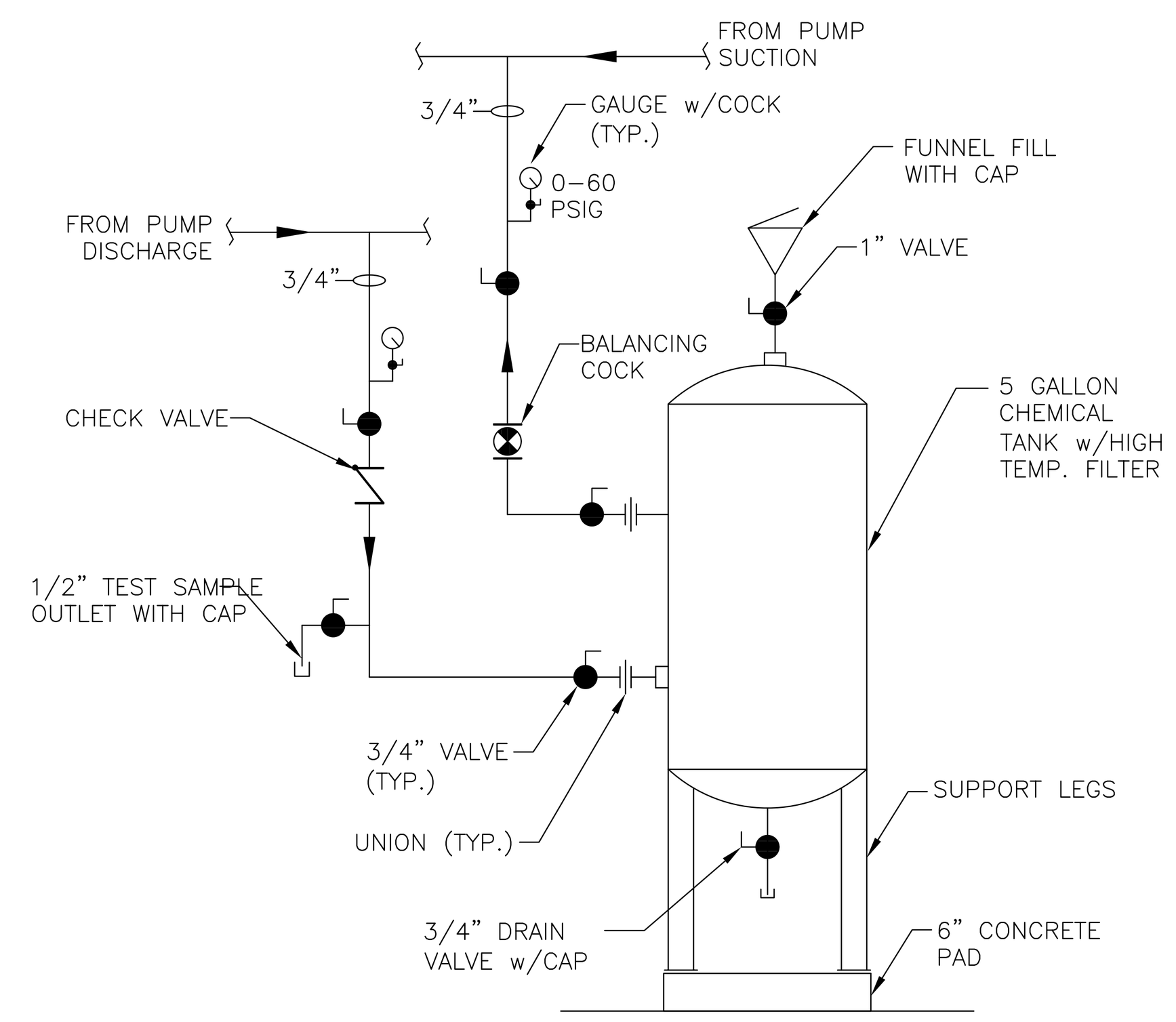
DRAWN BY: SACHIN FERNANDO
APPROVED BY: SANJEEV AGARWAL
SCALE: AS NOTED



1 M103 PIPE HANGERS (SINGLE PIPES)
SCALE: NONE

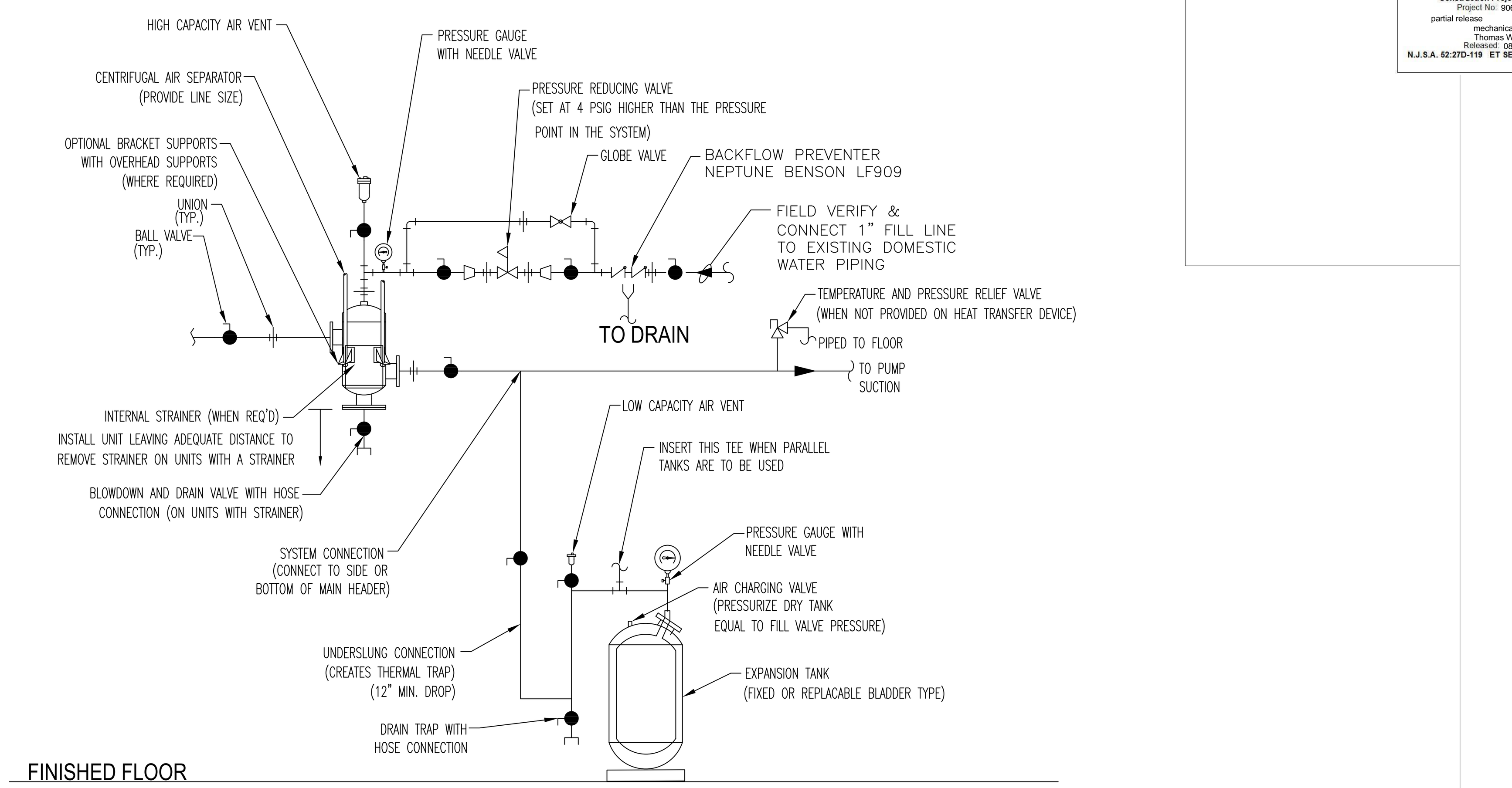


2 M103 VENT PENETRATION THRU EXTERIOR WALL DETAIL
SCALE: NONE

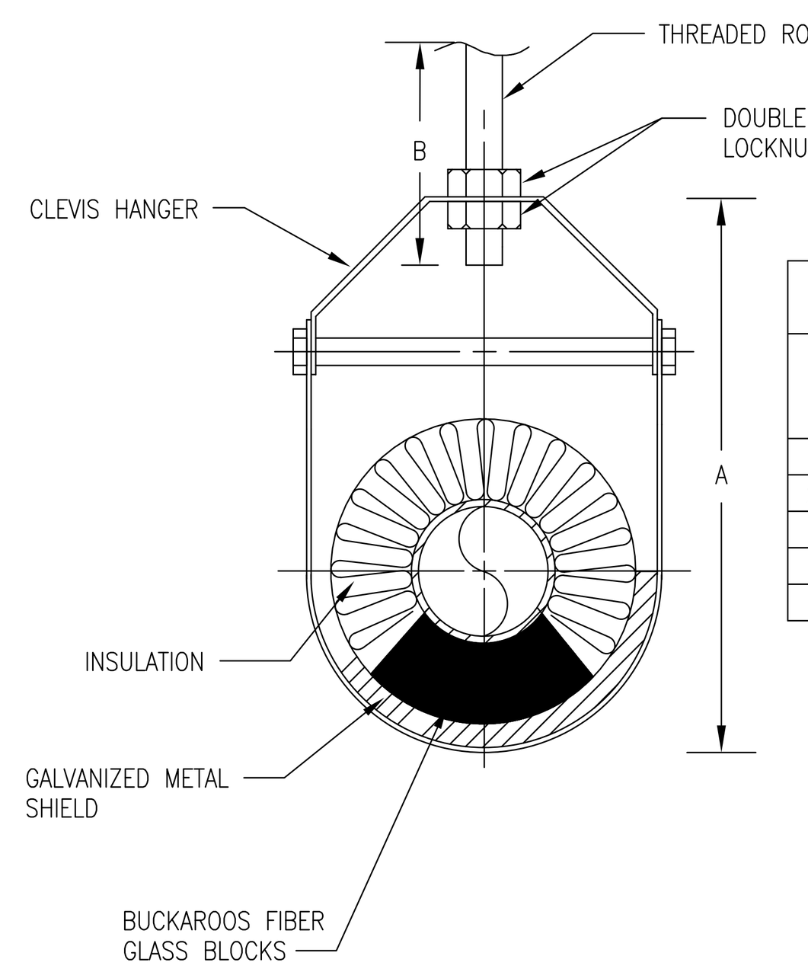


3 M103 CHEMICAL SHOT FEEDER PIPING DETAIL
SCALE: NONE

NOTES:
1. SEE SCHEDULE/SPECIFICATIONS FOR CAPACITY & ACCESSORIES
2. REFER TO FLOOR PLANS FOR LOCATION



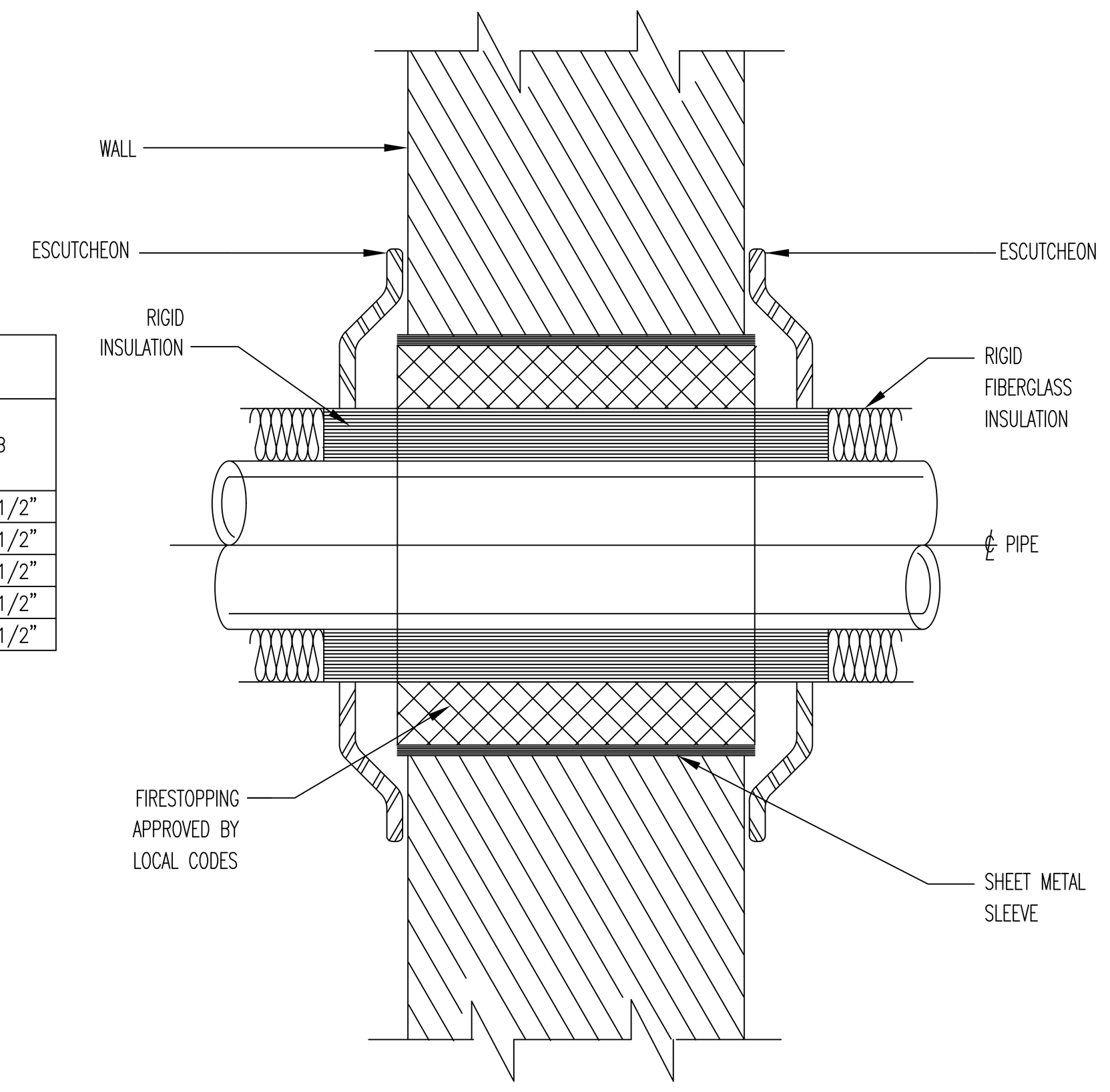
4 M103 FLOOR MOUNTED EXPANSION TANK AND AIR SEPARATOR PIPING DETAIL
SCALE: NONE



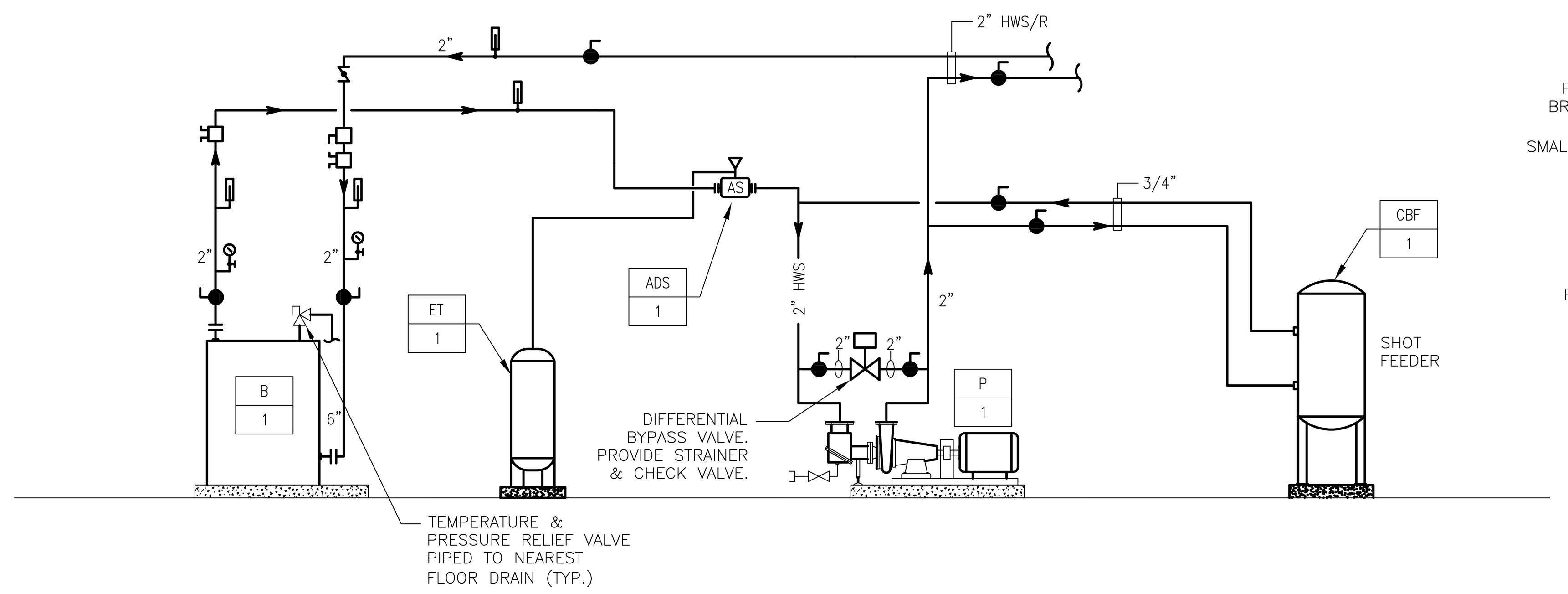
APPROXIMATE DIMENSIONS WITH INCOMPRESSIBLE INSULATING BLOCK AT HANGER					
PIPE DIAMETER	INSULATION THICKNESS	SHIELD LENGTH	SHIELD THICKNESS USSG	A	B
1-1/4" - 2"	1.0"	6"	18	7-3/4"	2-1/2"
2-1/2" - 3"	1.5"	6"	18	10-5/16"	2-1/2"
4"-5"	1.5"	8"	16	12-3/4"	3-1/2"
6"	1.5"	8"	16	15-1/8"	3-1/2"
8"	1.5"	8"	16	17-1/2"	3-1/2"

5 M103 TYPICAL INSULATED PIPE SUPPORT
SCALE: NONE

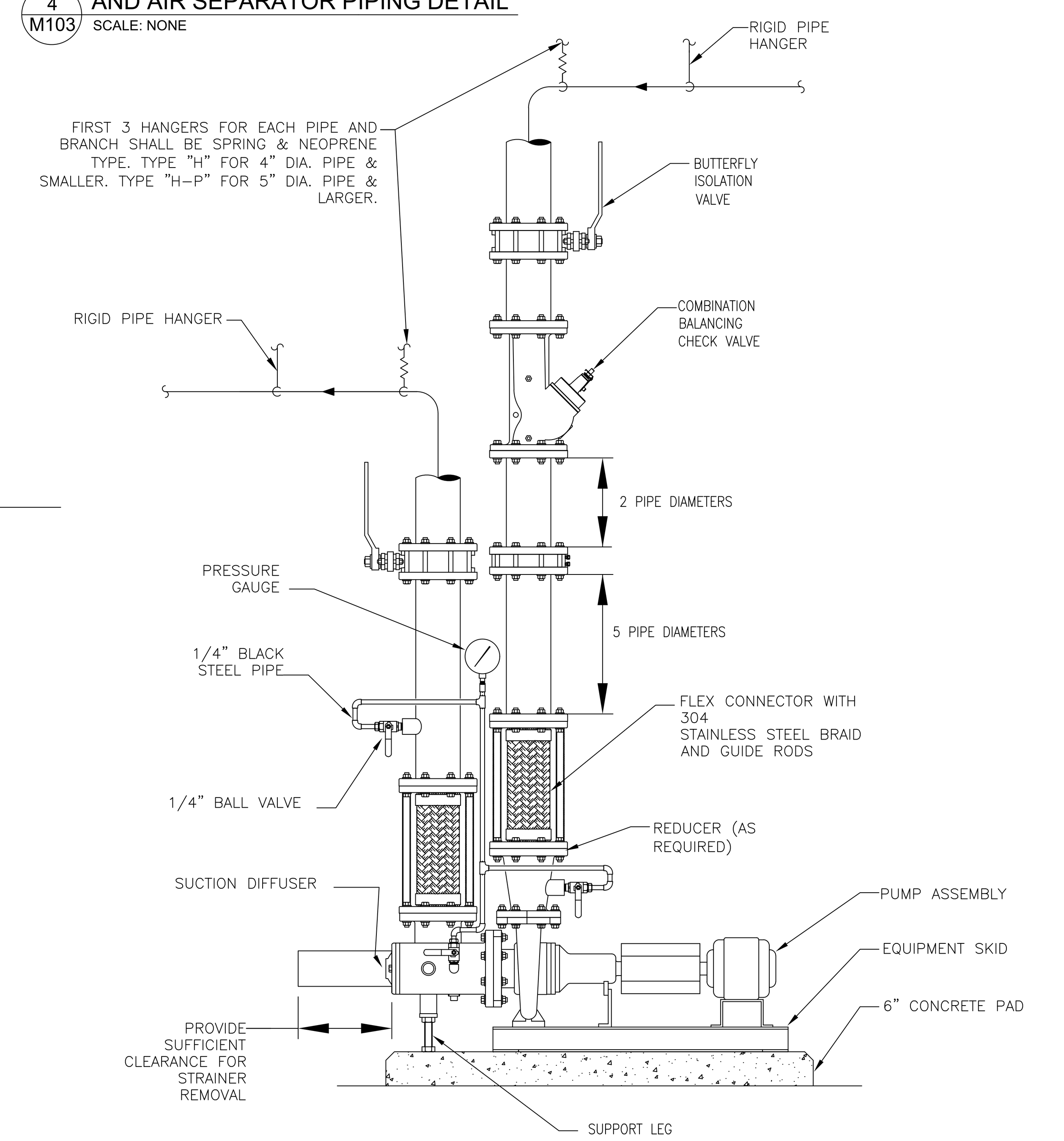
NOTE:
1. HANGER, ROD & INSERT SHALL BE DIPPED IN ZINC CHROMATE PRIMER PRIOR TO INSTALLATION.



6 M103 PIPE SLEEVE FOR INSIDE WALLS
SCALE: NONE

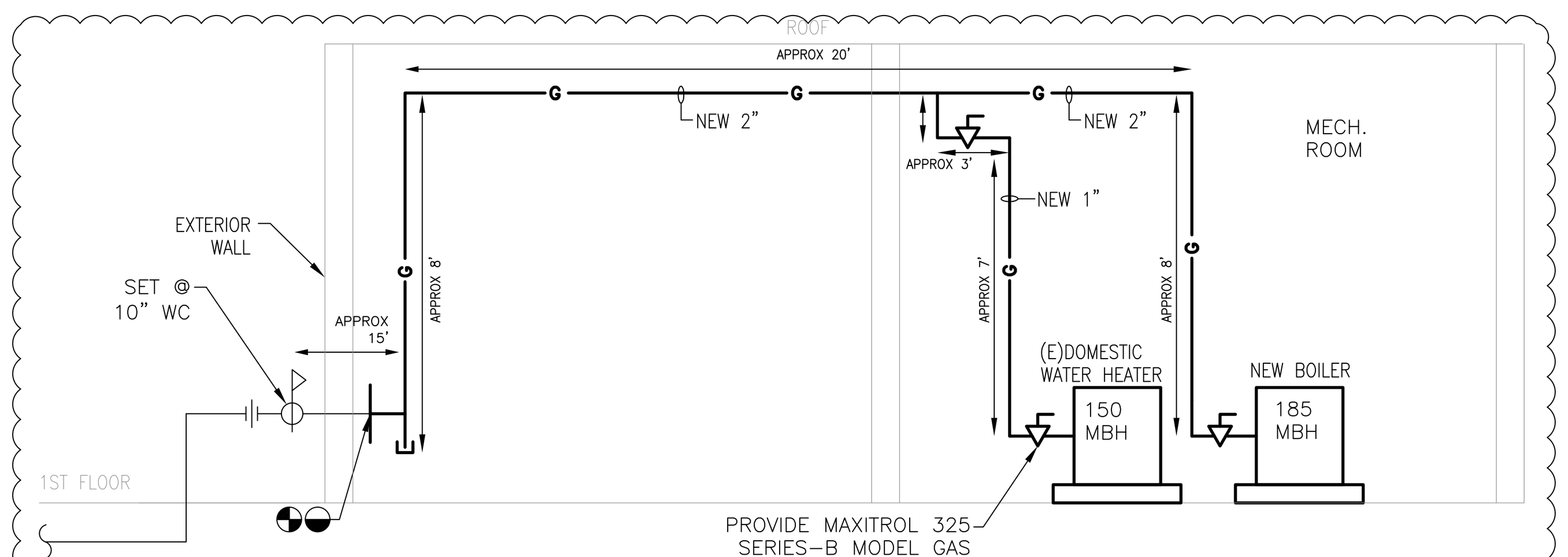


7 M103 HWS/R FLOW DIAGRAM
SCALE: NONE



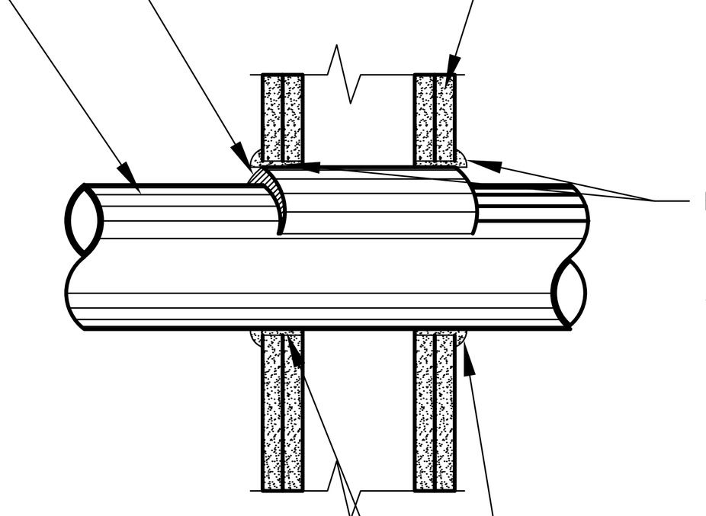
8 M103 END SUCTION PUMP, PIPING & INSTALLATION DETAIL
SCALE: NONE

1. PROVIDE SEPARATE ISOLATION VALVE AND TRIPLE DUTY VALVE ON PUMP DISCHARGE.
2. PROVIDE CIRCUIT SENSOR w/READOUT KIT FOR CIRCUIT SENSOR.
3. PROVIDE SINGLE PRESSURE GAUGE AND MANIFOLD PIPING. PIPING SHALL BE MINIMUM 1/4" BLACK STEEL. PROVIDE (1) ADDITIONAL SPARE GAUGE FOR EACH PUMP INSTALLATION. USE FACTORY PROVIDED PORTS OR WELD-O-LET CONNECTIONS ON PIPING.
4. PROVIDE BELL AND GOSSET MODEL RO-2 READOUT KIT FOR CIRCUIT SENSOR. OTHER MODEL READOUT KITS (RO-3, 4, AND 5) ARE NOT ACCEPTABLE.



9 M103 GAS RISER DIAGRAM
SCALE: NONE

1. COORDINATE DISCONNECTION OF EXISTING BOILER & RECONNECTION W/SOUTH JERSEY GAS COMPANY & REFER TO GAS COMPANY INSTALLATION MANUAL FOR ADDITIONAL REQUIREMENTS.
2. CONTACT INFORMATION (888)-766 9900.
3. PROVIDE NEW PRESSURE REGULATOR SET @ 10"WC AT THE NEW BOILER & EXISTING HOT WATER HEATER. PROVIDE 1" VENT AT EACH REGULATOR AND EXTEND TO OUTSIDE & TERMINATE 12" ABOVE THE EXISTING ROOF WITH GOOSE NECK.



STEEL SLEEVE (OPTIONAL) — NOM 3 IN. (76 MM) DIAM (OR SMALLER) SCHEDULE 40 (OR THINNER) STEEL PIPE FRICTION-FIT INTO WALL ASSEMBLY, FLUSH WITH BOTH SURFACES OF WALL. WHEN STEEL SLEEVE IS USED, T RATING IS 1 HR.

THROUGH PENETRANTS — ONE NONMETALLIC PIPE OR CONDUIT TO BE CENTERED WITHIN THE FIRESTOP SYSTEM. THE ANNULAR SPACE SHALL BE MIN 1/4 IN. (6 MM) TO MAX 1-1/4 IN (32 MM). PIPE OR CONDUIT TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF THE WALL ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF NONMETALLIC PIPES OR CONDUITS MAY BE USED:

A. POLYVINYL CHLORIDE (PVC) PIPE — NOM 3 IN. (76 MM) DIAM (OR SMALLER) SCHEDULE 40 CELLULAR OR SOLID CORE PVC PIPE FOR USE IN CLOSED (PROCESS OR SUPPLY) OR VENTED (DRAIN, WASTE OR VENT) PIPING SYSTEMS.

B. CHLORINATED POLYVINYL CHLORIDE (CPVC) PIPE — NOM 3 IN. (76 MM) DIAM (OR SMALLER) SDR 13.5 CPVC PIPE FOR USE IN CLOSED (PROCESS OR SUPPLY) PIPING SYSTEMS.

C. RIGID NONMETALLIC CONDUIT+ — NOM 3 IN. (76 MM) DIAM (OR SMALLER) SCHEDULE 40 PVC CONDUIT INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NFPA NO. 70).

D. ACRYLONITRILE BUTADIENE STYRENE (ABS) PIPE — NOM 3 IN. (76 MM) DIAM (OR SMALLER) SCHEDULE 40 CELLULAR OR SOLID CORE ABS PIPE FOR USE IN CLOSED (PROCESS OR SUPPLY) OR VENTED (DRAIN, WASTE OR VENT) PIPING SYSTEMS.

E. FLAME RETARDANT POLYPROPYLENE (FRPP) PIPE — NOM 2 IN. (51 MM) DIAM (OR SMALLER) SCHEDULE 40 FRPP PIPE FOR USE IN CLOSED (PROCESS OR SUPPLY) OR VENTED (DRAIN, WASTE OR VENT) PIPING SYSTEMS.

F . POLYPROPYLENE (PP) PIPE — NOM 1 IN. (25 MM) DIAM (OR SMALLER) SCHEDULE 80 PP PIPE FOR USE IN CLOSED (PROCESS OR SUPPLY) PIPING SYSTEMS .

G. POLYVINYLIDENE FLUORIDE (PVDF) PIPE — NOM 2 IN. (51 MM) DIAM (OR SMALLER) SCHEDULE 40 PVDF PIPE FOR USE IN CLOSED (PROCESS OR SUPPLY) PIPING SYSTEMS .

Type of Through Penetrant	Hourly Rating of Wall Hr	Type of Wrap Strip	T Rating Hr
PVC, CPVC, PVDF, RNC, PP or FRPP	1	SpecSeal BLU, SpecSeal BLU2 or SpecSeal RED,RED2	1
ABS	1	SpecSeal BLU, SpecSeal BLU2 or SpecSeal RED,RED2	1
PVC, CPVC, PVDF, RNC, PP or FRPP	2	SpecSeal BLU, SpecSeal BLU2 or SpecSeal RED, RED2	2
ABS	2	SpecSeal BLU or SpecSeal BLU2	2
ABS	2	SpecSeal RED, RED2	1-3/4

UL DESIGN NO: XHEZ.W-L-2048 - 1 HOUR RATED
F RATING: 1HR & 2HRT RATING: 1HR, 1-3/4 & 2HR

WALL ASSEMBLY - THE 1 OR 2 HR. FIRE RATED GYPSUM
WALL BOARD/STUD ASSEMBLY SHALL BE CONSTRUCTED
OF MATERIALS AND IN MANNER DESCRIBED IN THE INDIVIDUAL
U300 OR U400 SERIES WALL PARTITION DESIGN IN THE UL FIRE
RESISTANCE DIRECTORY & SHALL INCLUDE THE FOLLOWING
CONSTRUCTION FEATURES:
A. STUDS - WALL FRAMING MAY CONSIST OF EITHER WOOD STUDS OR STEEL CHANNEL STUDS. WOOD STUDS TO CONSIST OF NOM 2X4" LUMBER SPACED 16" O.C. STEEL STUDS TO BE MIN. 3-1/2" WIDE AND SPACED MAX 24" O.C.
B. GYPSUM BOARD -THE GYPSUM BOARD TYPE, THICKNESS, NUMBER OF LAYERS, FASTENER TYPE AND SHEET ORIENTATION SHALL BE AS SPECIFIED IN THE INDIVIDUAL U300 OR U400 SERIES DESIGN. MAX DIAM. OF OPENING IS 5" THE HOURLY F RATING OF THE FIRESTOP SYSTEM IS EQUAL TO THE HOURLY FIRE RATING OF THE WALL ASSEMBLY IN WHICH IT IS INSTALLED.

FIRESTOP SYSTEM — THE FIRESTOP SYSTEM SHALL CONSIST OF THE FOLLOWING:

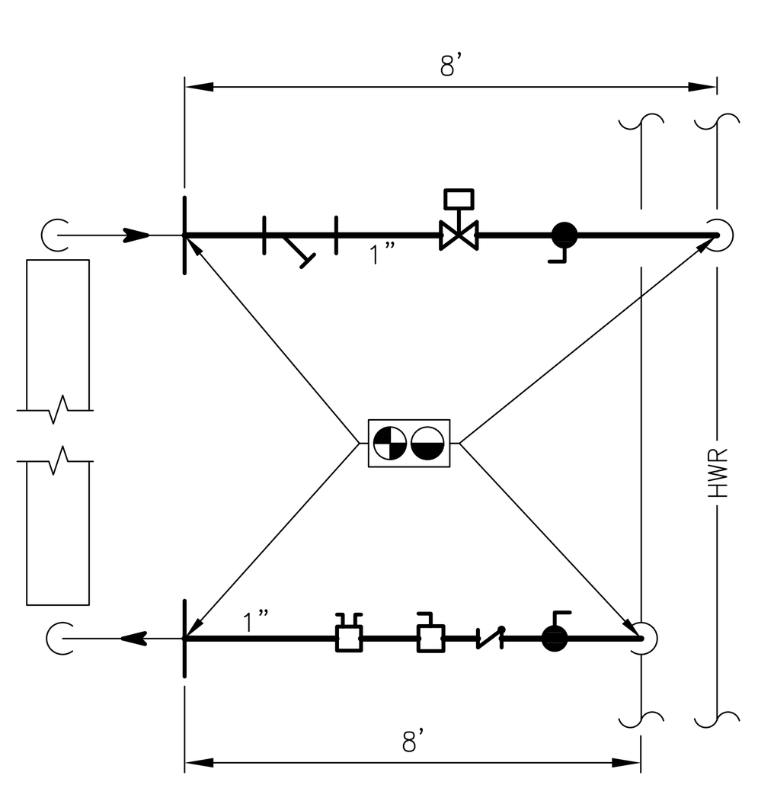
A. A. FILL, VOID OR CAVITY MATERIAL* — WRAP STRIP — NOM 1/8 IN. (3.2 MM) OR 3/16 IN. (4.8 MM) THICK INTUMESCENT MATERIAL FACED ON BOTH SIDES WITH A PLASTIC FILM, SUPPLIED IN 2 IN. (51 MM) WIDE STRIPS OR 1/8 OR 1/4 IN. (3.2 OR 6 MM) THICK INTUMESCENT MATERIAL FACED ON BOTH SIDES WITH A PLASTIC FILM, SUPPLIED IN 1-1/2 IN. (38 MM) WIDE STRIPS. SINGLE LAYER OF WRAP STRIP WRAPPED AROUND THE THROUGH PENETRANT WITH THE ENDS BUTTED AND HELD IN PLACE BY MEANS OF FOIL TAPE. THE WRAP STRIP IS SLID ALONG THE THROUGH PENETRANT INTO ANNULUS SUCH THAT 1/4 IN. (6 MM) OF THE WRAP STRIP PROTRUDES FROM THE WALL. ONE SET OF WRAP STRIPS TO BE INSTALLED ON EACH SIDE OF WALL. AS AN OPTION WHEN 1/8 IN. (3.2 MM) THICK WRAP STRIP (BLU2) IS USED, THE STRIPS MAY BE CUT TO A WIDTH OF 1-1/2 IN. (38 MM).
THE T RATING OF THE FIRESTOP SYSTEM IS DEPENDENT UPON THE HOURLY RATING OF THE WALL, THE TYPE OF THROUGH PENETRANT AND TYPE OF WRAP STRIP USED. SEE THE CHART.

FIRESTOP SYSTEM — THE FIRESTOP SYSTEM SHALL CONSIST OF THE FOLLOWING:

B. FILL, VOID OR CAVITY MATERIAL* — SEALANT — WHEN AN ANNULAR SPACE IS PRESENT BETWEEN THE WRAP STRIP AND THE EDGE OF THE OPENING, A MIN 5/8 IN. (16 MM) DEPTH OF SEALANT SHALL BE INSTALLED IN THE ANNULAR SPACE FLUSH WITH EACH SURFACE OF THE WALL. A MIN 1/4 IN. (6 MM) DIAM BEAD OF SEALANT SHALL BE APPLIED AT THE GYPSUM BOARD/WRAP STRIP INTERFACE ON BOTH SURFACES OF WALL.

SPECIFIED TECHNOLOGIES INC — SPECSEAL 100, 101, 102, 105, 120 OR 129 SEALANT, SPECSEAL LCI SEALANT, PENSIL 300 SEALANT OR SPECSEAL SERIES SIL300 SEALANT

10 M103 PENETRATION FIRE STOPPING DETAIL
SCALE: NONE
1. PROVIDE FIRE STOPPING AT ALL PIPE & CONDUIT PENETRATIONS.



11 M103 FIN TUBE CONTROL VALVE PIPING DETAIL
SCALE: NONE

NOTES:
1. DEMOLISH EXISTING STRAINER, CONTROL VALVE, FLOW SENSOR & BALANCE VALVE & ISOLATION BALL VALVES (SUPPLY & RETURN) & PROVIDE NEW.
2. CALCULATE & BALANCE GPM AT EACH EXISTING FTR @ 0.085 GPM PER FT. LENGTH.
3. PROVIDE SPECIFICATION ON EXISTING FTR SIZE, FINS PER FT& LENGTH TO EOR BEFORE BALANCING.

PROFESSIONAL SEAL
SANJEEV AGARWAL
NJ LIC # 24GE04299600

STATE OF NEW JERSEY SANJEEV AGARWAL 24GE04299600 LICENSED PROFESSIONAL ENGINEER

DocuSigned by: Sanjeev Agarwal DDFFFBD66ED9402...

OWNER:
STATE OF NEW JERSEY
HONORABLE PHILIP D. MURPHY, GOVERNOR
DEPARTMENT OF THE TREASURY
DIVISION OF PROPERTY MANAGEMENT & CONSTRUCTION
20 WEST STATE STREET, 3RD FLOOR
P.O. BOX 038
TRENTON, NEW JERSEY 08625-0038

CHRISTOPHER CHIANESE, DIRECTOR

DPMC PROJECT NO. T0678-00

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WINSLOW SPECIALTY INSPECTION STATION
550 SPRING GARDEN STREET
WINSLOW, NJ 08037

SHEET TITLE: MECHANICAL DETAILS
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ARMM ARCHITECTURE ASSOCIATES, INC. 41 GROVE STREET
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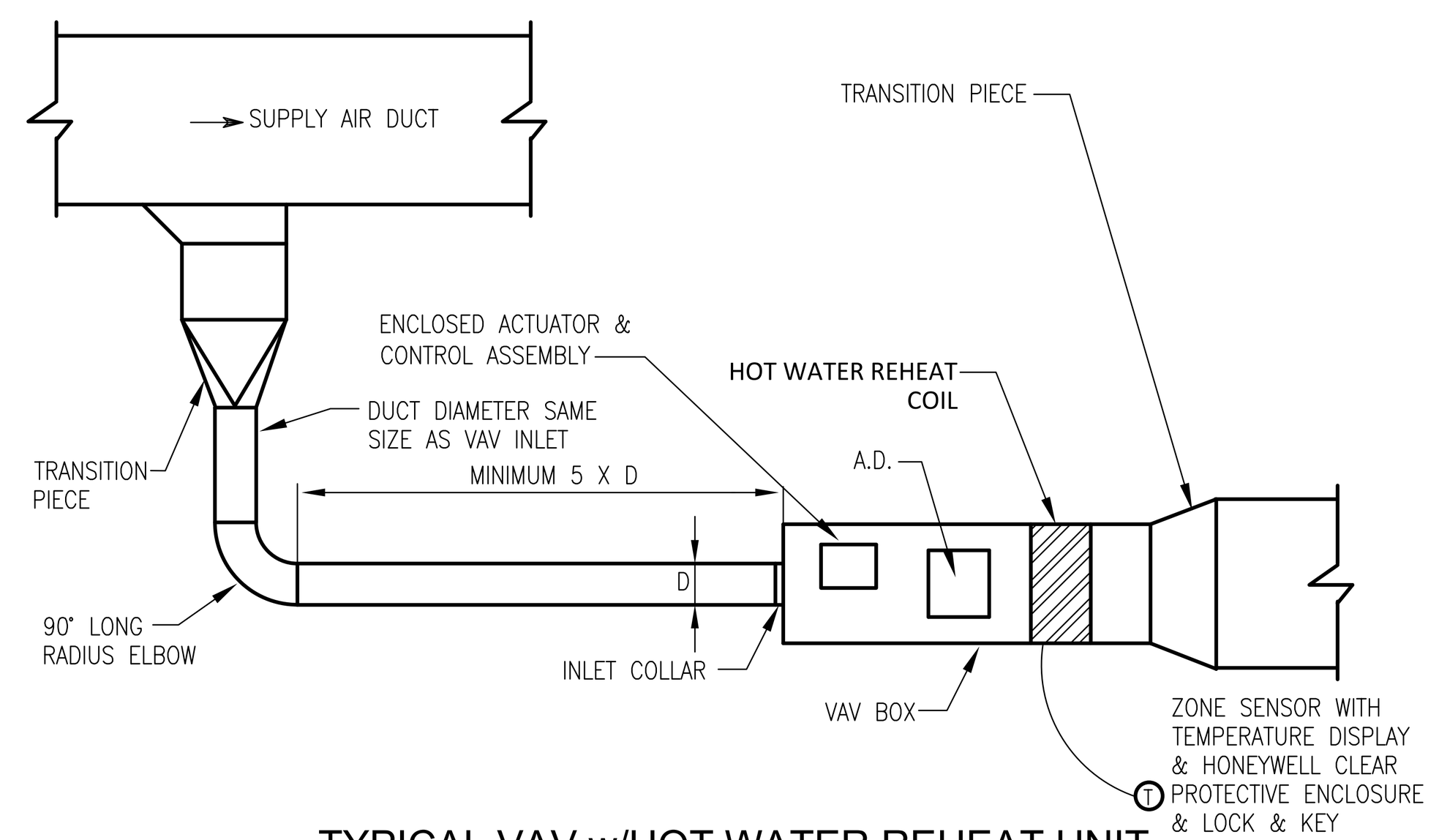
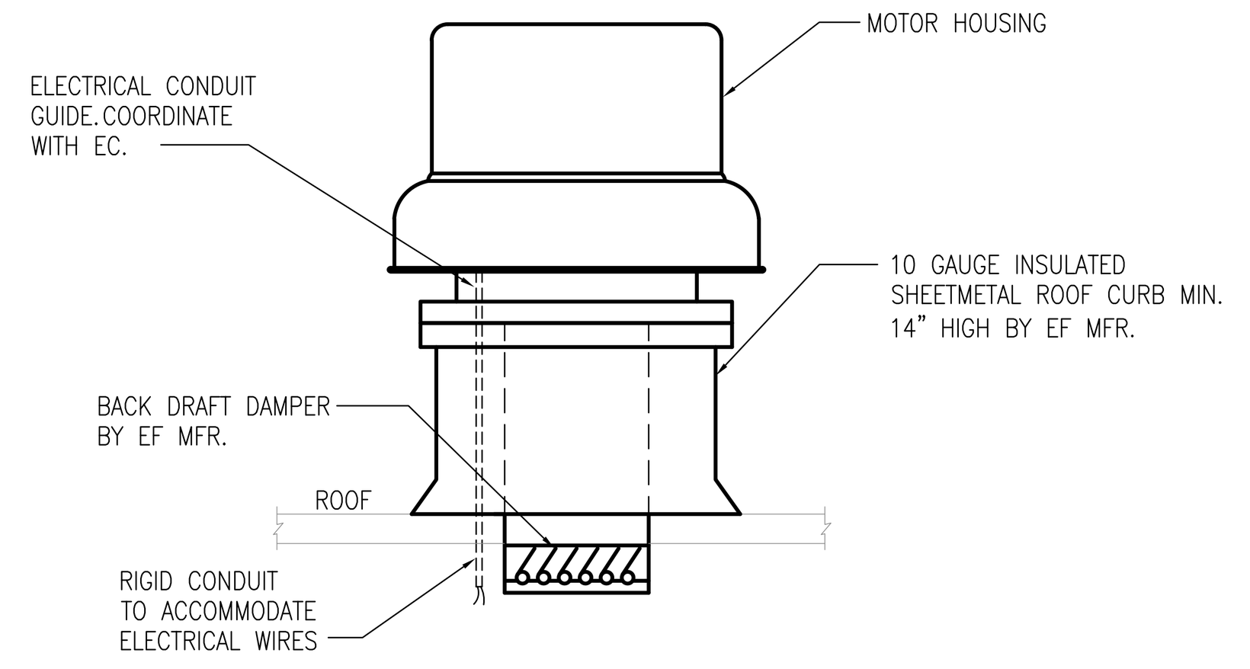


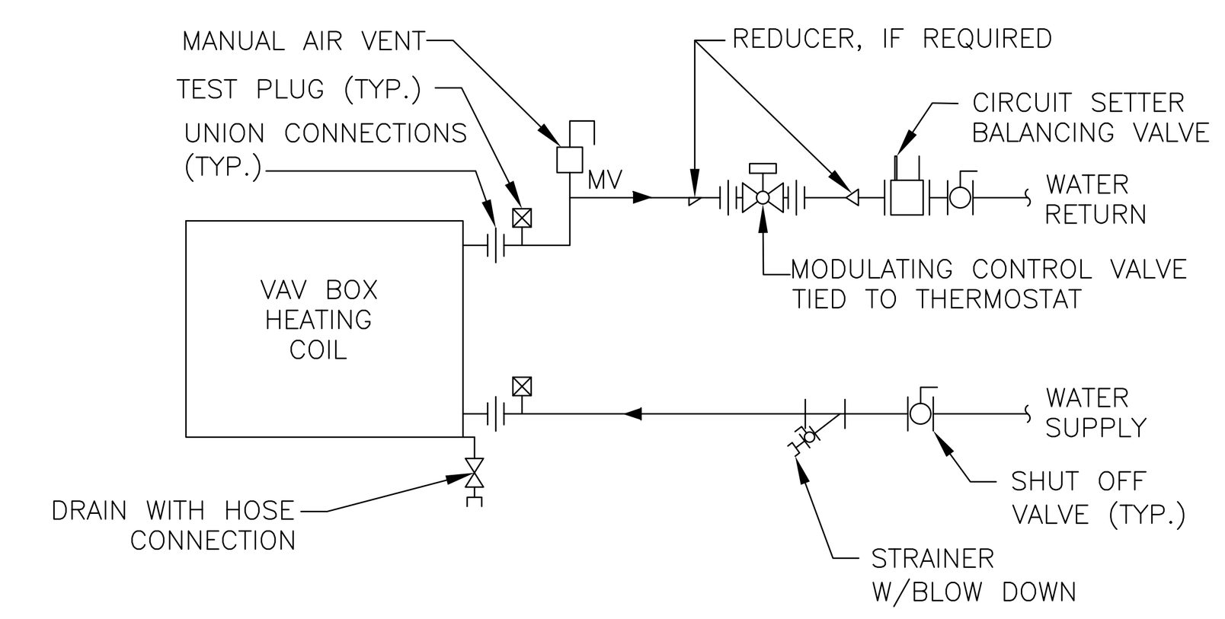
1 / M104 TYPICAL VAV w/HOT WATER REHEAT UNIT INSTALLATION DETAIL
SCALE: NONE



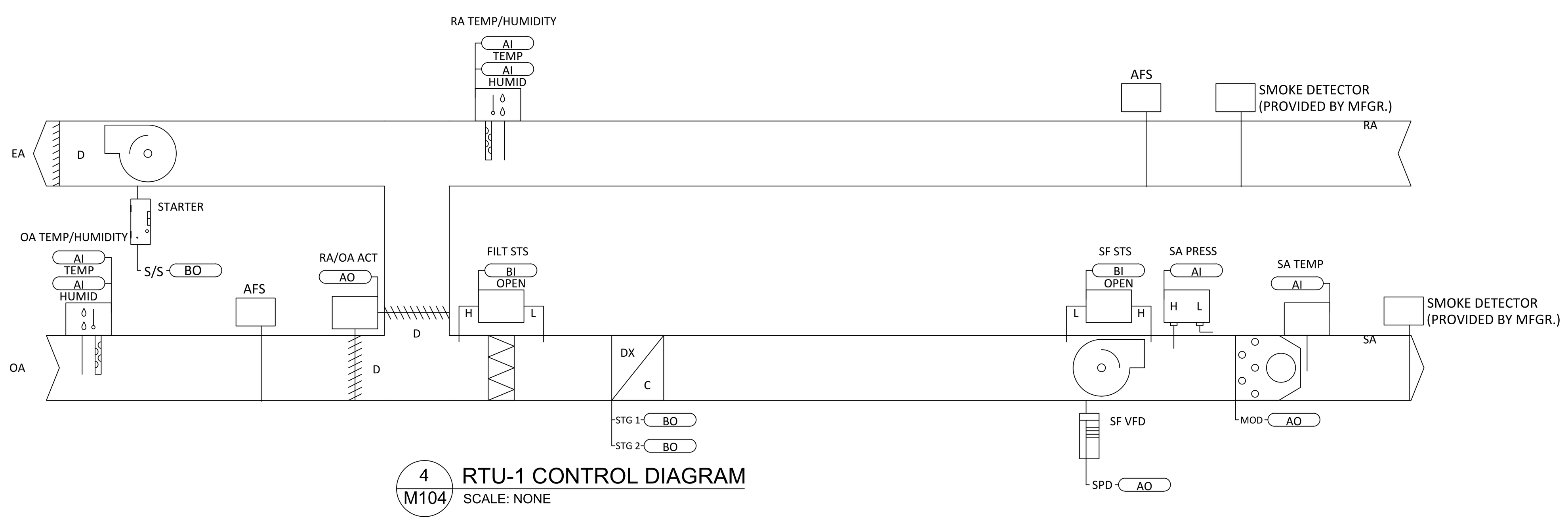
2 / M104 TYPICAL ROOF EXHAUST FAN INSTALLATION DETAIL
SCALE: NONE

NOTES:

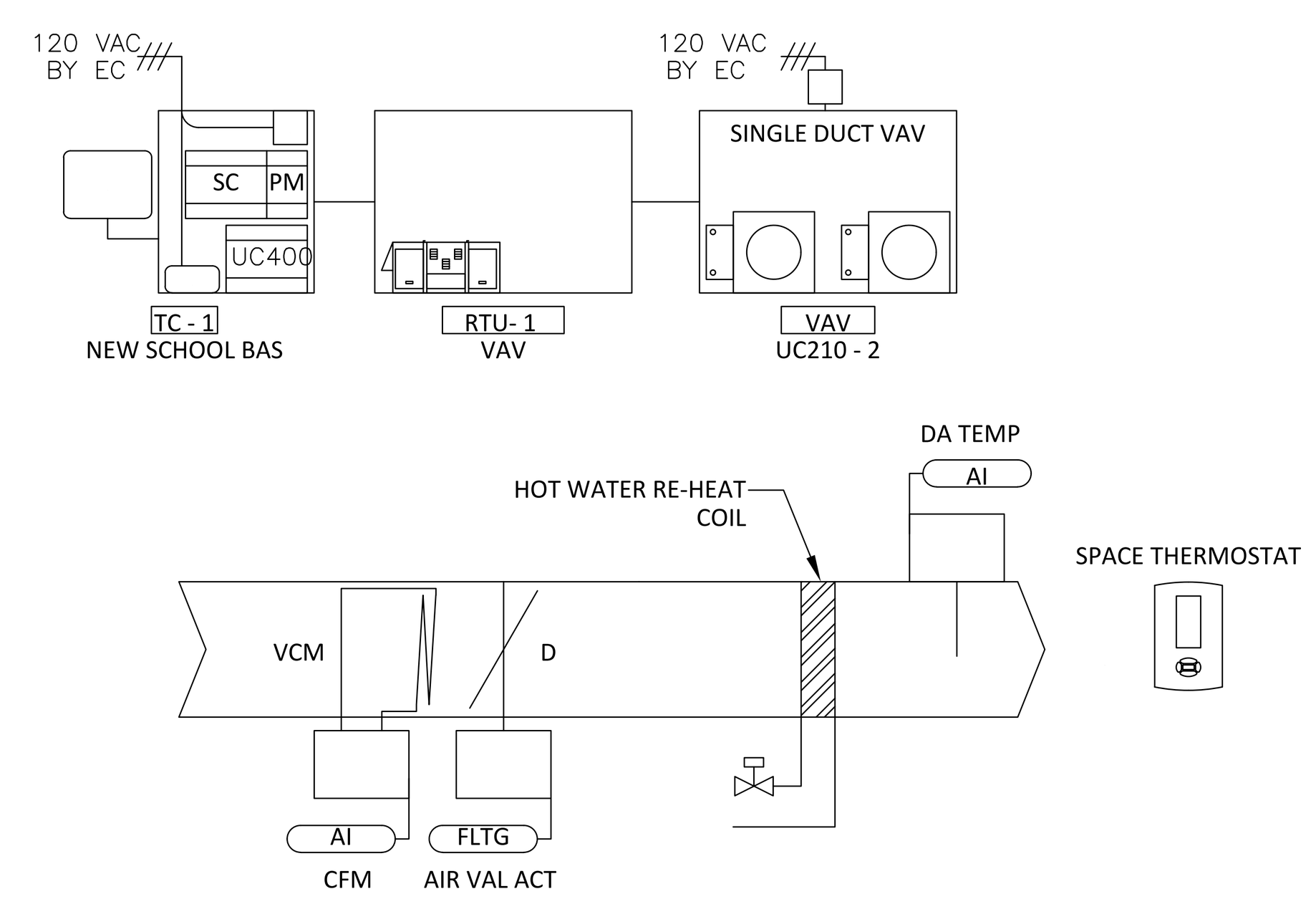
1. PROVIDE NEW ROOF OPENING, ROOF CURB, STRUCTURAL STEEL SUPPORT IN ROOF, BACKDRAFT DAMPER & CONTROL WIRING, AND ALL ELECTRICAL CONNECTIONS.
2. PROVIDE ADDITIONAL DUCTWORK & TRANSITION AS REQUIRED FOR CONNECTION TO EF.



3 / M104 HEATING COIL PIPING DIAGRAM
SCALE: NONE



4 / M104 RTU-1 CONTROL DIAGRAM
SCALE: NONE



5 / M104 VAV BOXES CONTROL DIAGRAM
SCALE: NONE

VAV BOX SEQUENCE OF OPERATION:

BUILDING AUTOMATION SYSTEM INTERFACE:

THE BUILDING AUTOMATION SYSTEM (BAS) SHALL SEND THE CONTROLLER OCCUPIED, AND UNOCCUPIED COMMANDS. THE BAS MAY ALSO SEND A HEAT/COOL MODE, PRIORITY SHUTDOWN COMMANDS, SPACE TEMPERATURE AND/OR SPACE TEMPERATURE SETPOINT. IF COMMUNICATION IS LOST WITH THE BAS, THE CONTROLLER SHALL OPERATE USING ITS LOCAL SETPOINTS.

OCCUPIED:

NORMAL OPERATING MODE FOR OCCUPIED SPACES OR DAYTIME OPERATION. WHEN THE UNIT IS IN THE OCCUPIED MODE THE VAV SHALL MAINTAIN THE SPACE TEMPERATURE AT THE ACTIVE OCCUPIED HEATING OR COOLING SETPOINT. APPLICABLE VENTILATION AND AIRFLOW SETPOINTS SHALL BE ENFORCED. THE OCCUPIED MODE SHALL BE THE DEFAULT MODE OF THE VAV.

UNOCCUPIED:

NORMAL OPERATING MODE FOR UNOCCUPIED SPACES OR NIGHTTIME OPERATION. WHEN THE UNIT IS IN UNOCCUPIED MODE THE VAV CONTROLLER SHALL MAINTAIN THE SPACE TEMPERATURE AT THE STORED UNOCCUPIED HEATING OR COOLING SETPOINT REGARDLESS OF THE PRESENCE OF A HARDWIRED OR COMMUNICATED SETPOINT. WHEN THE SPACE TEMPERATURE EXCEEDS THE ACTIVE UNOCCUPIED SETPOINT THE VAV SHALL MODULATE FULLY CLOSED.

OCCUPIED BYPASS:

MODE USED TO TEMPORARILY PLACE THE UNIT INTO THE OCCUPIED OPERATION. TENANTS SHALL BE ABLE TO OVERRIDE THE UNOCCUPIED MODE FROM THE SPACE SENSOR. THE OVERRIDE SHALL LAST FOR A MAXIMUM OF 4 HOURS (ADJ.). THE TENANTS SHALL BE ABLE TO CANCEL THE OVERRIDE FROM THE SPACE SENSOR AT ANY TIME. DURING THE OVERRIDE THE UNIT SHALL OPERATE IN OCCUPIED MODE.

HEAT/COOL MODE:

THE HEAT/COOL MODE SHALL BE SET BY A COMMUNICATED VALUE OR AUTOMATICALLY BY THE VAV. IN STANDALONE OR AUTO MODE THE VAV SHALL COMPARE THE PRIMARY AIR TEMPERATURE WITH THE CONFIGURED AUTO CHANGEOVER SETPOINT TO DETERMINE IF THE AIR IS "HOT"" OR ""COLD"". HEATING MODE IMPLIES THE PRIMARY AIR TEMPERATURE IS HOT. COOLING MODE IMPLIES THE PRIMARY AIR TEMPERATURE IS COLD."

HEAT/COOL SETPOINT:

THE SPACE TEMPERATURE SETPOINT SHALL BE DETERMINED EITHER BY A LOCAL (E.G., THUMBWHEEL) SETPOINT, THE VAV DEFAULT SETPOINT OR A COMMUNICATED VALUE. THE VAV SHALL USE THE LOCALLY STORED DEFAULT SETPOINTS WHEN NEITHER A LOCAL SETPOINT NOR COMMUNICATED SETPOINT IS PRESENT. IF BOTH A LOCAL SETPOINT AND COMMUNICATED SETPOINT EXIST, THE VAV SHALL USE THE COMMUNICATED VALUE.

COOLING MODE:

WHEN THE UNIT IS IN COOLING MODE, THE VAV CONTROLLER SHALL MAINTAIN THE SPACE TEMPERATURE AT THE ACTIVE COOLING SETPOINT BY MODULATING THE AIRFLOW BETWEEN THE ACTIVE COOLING MINIMUM AIRFLOW SETPOINT TO THE MAXIMUM COOLING AIRFLOW SETPOINT. THE VAV SHALL USE THE MEASURED SPACE TEMPERATURE AND THE ACTIVE COOLING SETPOINT TO DETERMINE THE REQUESTED COOLING CAPACITY OF THE UNIT. THE OUTPUTS WILL BE CONTROLLED BASED ON THE UNIT CONFIGURATION AND THE REQUESTED COOLING CAPACITY. WHEN IN THE OCCUPIED MODE, THE CONTROLLER SHALL USE THE MEASURED SPACE TEMPERATURE AND THE ACTIVE COOLING SETPOINT TO DETERMINE THE REQUESTED COOLING CAPACITY OF THE UNIT. THE OUTPUTS SHALL BE CONTROLLED BASED ON THE UNIT CONFIGURATION AND THE REQUESTED COOLING CAPACITY.

HEATING MODE:

WHEN THE UNIT IS IN HEATING MODE, THE VAV CONTROLLER SHALL MAINTAIN THE SPACE TEMPERATURE AT THE ACTIVE HEATING SETPOINT BY MODULATING THE AIRFLOW BETWEEN THE ACTIVE HEATING MINIMUM AIRFLOW SETPOINT TO THE MAXIMUM HEATING AIRFLOW SETPOINT. THE VAV CONTROLLER SHALL USE THE MEASURED SPACE TEMPERATURE AND THE ACTIVE HEATING SETPOINT TO DETERMINE THE REQUESTED HEATING CAPACITY OF THE UNIT. THE OUTPUTS WILL BE CONTROLLED BASED ON THE UNIT CONFIGURATION AND THE REQUESTED HEATING CAPACITY.

LOCAL REHEAT CONTROL:

REHEAT WILL ONLY BE ALLOWED WHEN THE PRIMARY AIR TEMPERATURE IS 5.0 DEG. F BELOW THE CONFIGURED REHEAT ENABLE SETPOINT OF 70.0 DEG. F (ADJ.). THE REHEAT SHALL BE ENABLED WHEN THE SPACE TEMPERATURE DROPS BELOW THE ACTIVE HEATING SETPOINT AND THE MINIMUM AIRFLOW REQUIREMENTS ARE MET. DURING REHEAT THE VAV SHALL OPERATE AT ITS MINIMUM HEATING AIRFLOW SETPOINT AND ENERGIZE THE HEAT AS FOLLOWS:

REMOTE HEAT CONTROL:

THE REMOTE HEAT WILL CONTROL AND ACT AS THE FIRST STAGE OF HEATING WHEN THE SPACE TEMPERATURE IS BELOW THE OCCUPIED SPACE TEMPERATURE SETPOINT.

HOT WATER MODULATING REHEAT:

IF THE SPACE TEMPERATURE IS BELOW THE HEATING SETPOINT THE HOT WATER REHEAT VALVE SHALL MODULATE OPEN AND CLOSE AS REQUIRED TO MAINTAIN THE ACTIVE HEATING SETPOINT.

DEMAND CONTROL VENTILATION:

WHEN THE UNIT IS IN UNOCCUPIED MODE, THE VENTILATION AIRFLOW SETPOINT WILL BE ZERO. WHEN THE UNIT IS IN OCCUPIED MODE, THE VENTILATION AIRFLOW SETPOINT SHALL EQUAL THE DESIGN OUTDOOR AIRFLOW (SEE VAV SCHEDULE).

THE CURRENT VENTILATION AIRFLOW SETPOINT SHALL BE COMMUNICATED TO THE BAS FOR CONTROL OF THE SYSTEM OUTDOOR-AIR INTAKE.

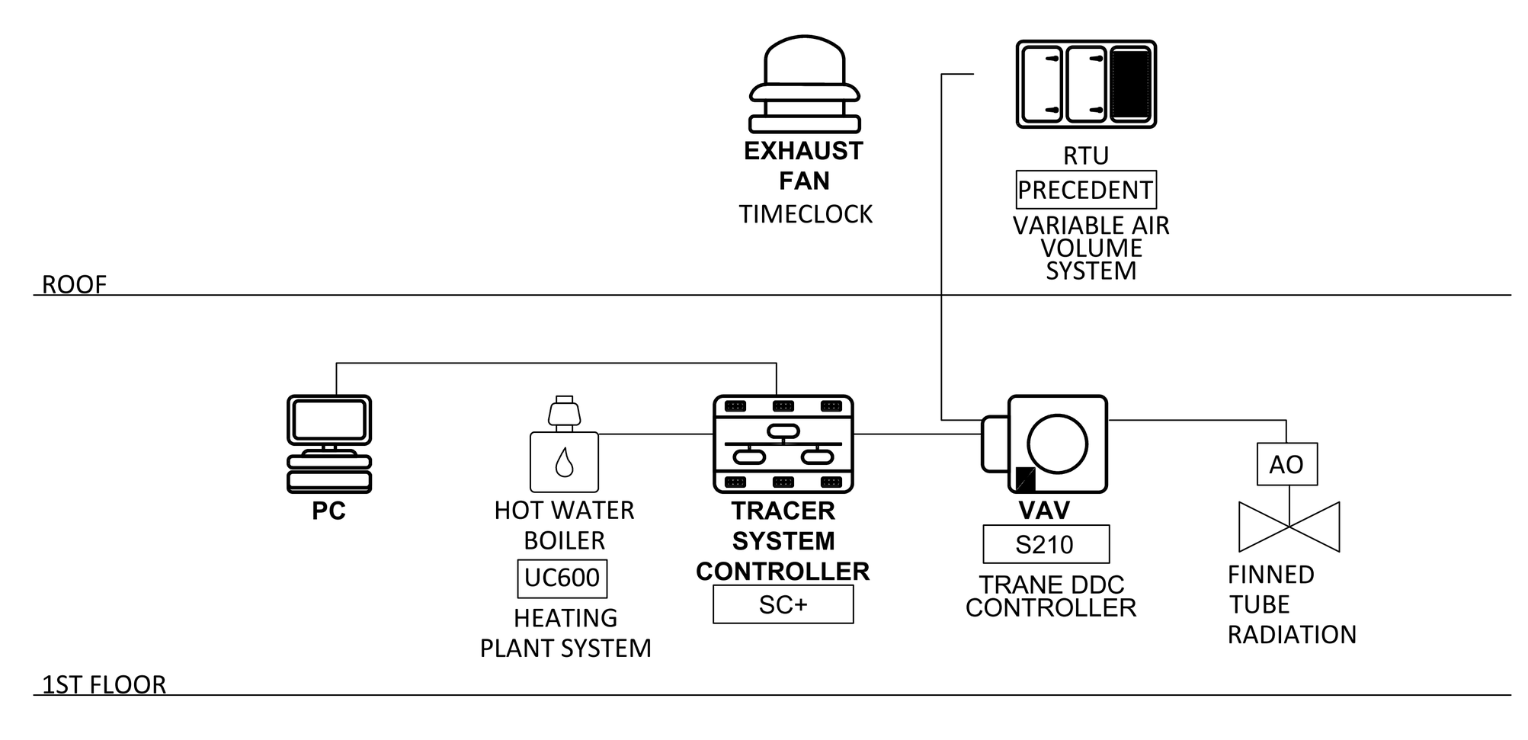
SPACE SENSOR FAILURE:

IF THERE IS A FAULT WITH THE OPERATION OF THE ZONE SENSOR AN ALARM SHALL BE ANNUNCIATED AT THE BAS. SPACE SENSOR FAILURE SHALL CAUSE THE VAV TO DRIVE THE DAMPER TO MINIMUM AIR FLOW IF THE VAV IS IN THE OCCUPIED MODE, OR DRIVE IT CLOSED IF THE VAV IS IN THE UNOCCUPIED MODE.

BOILER SEQUENCE OF OPERATION

HOT WATER SYSTEM

1. THE HOT WATER SYSTEM SHALL BE ENABLED WHENEVER OUTSIDE AIR TEMPERATURE DROPS BELOW 65°F (ADJUSTABLE). HOT WATER PUMP P-1 IS ENABLED, FLOW IS PROVEN AND THE BOILER IS ALLOWED TO FIRE. THE BOILER THEN FIRES TO MAINTAIN THE FOLLOWING RESET SCHEDULE (ADJUSTABLE).
   BOILER WATER TEMPERATURE
   180 F
   140 F
2. THE BOILER MODULATES FROM LOW TO HIGH FIRE TO MAINTAIN SCHEDULE.
3. IF SUPPLY PUMP DOES NOT PROVE STATUS AFTER A 30 SECOND TIME DELAY, A SYSTEM ALARM IS GENERATED. THE ALARM REQUIRES MANUAL RESET ONCE THE CONDITION HAS CLEARED.
4. THE SYSTEM SHALL PROVIDE AN OCCUPIED OR UNOCCUPIED CYCLE OF OPERATION BASED ON THE 7 DAY PROGRAM AND INTEGRAL REAL TIME CLOCK. DURING UNOCCUPIED OPERATION, A REDUCED SETPOINT IS MAINTAINED (ADJUSTABLE).
5. MODULATE DIFFERENTIAL BYPASS VALVE AS REQUIRED.
6. EMERGENCY SHUTDOWN SWITCHES LOCATED AT THE ENTRANCES TO THE BOILER ROOM SHALL SHUTDOWN THE SYSTEM WHEN DEPRESSED.



6 / M104 BAS ARCHITECTURE (TYPICAL)
SCALE: NONE

NOTES:
1. BUILDING AUTOMATION SYSTEM SHALL NOT BE ON OWNER'S NETWORK AND SHALL BE CAPABLE OF COMMUNICATING WITH NEW PC USING CAT6 WIRING.
2. CONTRACTOR SHALL PROVIDE PC AS PER BAS MANUFACTURER REQUIREMENT. COORDINATE WITH THE OWNER FOR LOCATION OF NEW PC.

RTU SEQUENCE OF OPERATION:

BUILDING AUTOMATION SYSTEM INTERFACE:

THE BUILDING AUTOMATION SYSTEM (BAS) SHALL SEND THE CONTROLLER OCCUPIED BYPASS, MORNING WARM-UP/PRE-COOL, OCCUPIED/UNOCCUPIED AND HEAT/COOL MODES. THE BAS SHALL ALSO SEND THE DISCHARGE AIR TEMPERATURE SETPOINT AND THE DUCT STATIC PRESSURE SETPOINT. IF COMMUNICATION IS LOST WITH THE BAS THE CONTROLLER SHALL OPERATE USING DEFAULT MODES AND SETPOINTS.

OCCUPIED:

DURING OCCUPIED PERIODS, THE SUPPLY FAN SHALL RUN CONTINUOUSLY AND THE MIXED AIR DAMPERS SHALL OPEN TO MAINTAIN MINIMUM VENTILATION REQUIREMENTS. THE UNIT CONTROLLER SHALL CONTROL THE SUPPLY FAN SPEED TO MAINTAIN THE CURRENT SUPPLY DUCT STATIC PRESSURE SETPOINT (ADJ.). UPON A CALL FOR DX COOLING, THE UNIT CONTROLLER SHALL ENABLE THE FIXED SPEED COMPRESSOR. THE COMPRESSOR SHALL BE CYCLED ON AND OFF TO MAINTAIN THE ACTIVE DISCHARGE TEMPERATURE SETPOINT. IF ECONOMIZING IS ENABLED, THE OUTDOOR AIR OR MIXED AIR DAMPERS SHALL MODULATE TO MAINTAIN THE DISCHARGE AIR TEMPERATURE SETPOINT AND THE RELIEF AIR DAMPER SHALL TRACK THE MIXED AIR DAMPERS. IF THE DISCHARGE AIR TEMPERATURE SENSOR FAILS, THE DX COOLING AND ELECTRIC HEAT SHALL BE DISABLED AND AN ALARM SHALL ANNUNCIATE AT THE BAS.

UNOCCUPIED:

WHEN THE SPACE TEMPERATURE IS BELOW THE UNOCCUPIED HEATING SETPOINT OF 60.0 DEG. F (ADJ.) THE SUPPLY FAN SHALL BE COMMANDED ON, THE OUTSIDE AIR DAMPER SHALL REMAIN CLOSED AND THE ELECTRIC HEAT SHALL BE ENABLED. WHEN THE SPACE TEMPERATURE RISES ABOVE THE UNOCCUPIED HEATING SETPOINT OF 60.0 DEG. F (ADJ.) PLUS THE UNOCCUPIED DIFFERENTIAL OF 4.0 DEG. F (ADJ.) THE SUPPLY FAN SHALL STOP AND THE ELECTRIC HEAT SHALL BE DISABLED. WHEN THE SPACE TEMPERATURE IS ABOVE THE UNOCCUPIED COOLING SETPOINT OF 85.0 DEG. F (ADJ.) THE SUPPLY FAN SHALL BE COMMANDED ON, THE OUTSIDE AIR DAMPER SHALL OPEN IF ECONOMIZING IS ENABLED AND REMAIN CLOSED IF ECONOMIZING IS DISABLED AND THE DX COOLING SHALL BE ENABLED. WHEN THE SPACE TEMPERATURE FALLS BELOW THE UNOCCUPIED COOLING SETPOINT OF 85.0 DEG. F MINUS THE UNOCCUPIED DIFFERENTIAL OF 4.0 DEG. F (ADJ.) THE SUPPLY FAN SHALL STOP, THE DX COOLING SHALL BE DISABLED AND THE OUTSIDE AIR DAMPER SHALL CLOSE.

OPTIMAL START:

THE BAS SHALL MONITOR THE SCHEDULED OCCUPIED TIME, OCCUPIED SPACE SETPOINTS AND SPACE TEMPERATURE TO CALCULATE WHEN THE OPTIMAL START OCCURS.

MORNING WARM-UP MODE:

DURING OPTIMAL START, IF THE AVERAGE SPACE TEMPERATURE IS BELOW THE OCCUPIED HEATING SETPOINT A MORNING WARM-UP MODE SHALL BE ACTIVATED. WHEN MORNING WARM-UP IS INITIATED THE UNIT SHALL ENABLE THE HEATING AND FAN(S). THE OUTSIDE AIR DAMPER SHALL REMAIN CLOSED. WHEN THE SPACE TEMPERATURE REACHES THE OCCUPIED HEATING SETPOINT (ADJ.), THE UNIT SHALL TRANSITION TO THE OCCUPIED MODE.

HEAT/COOL MODE:

COOLING: THE UNIT CONTROLLER SHALL USE THE DISCHARGE AIR TEMPERATURE SENSOR AND DISCHARGE AIR TEMPERATURE COOLING SETPOINT TO DETERMINE WHEN TO INITIATE REQUESTS FOR COOLING. DISCHARGE AIR SETPOINT SHALL BE MAINTAINED BY CONTROLLING THE COOLING AS REQUIRED.

HEATING: THE UNIT CONTROLLER SHALL USE THE DISCHARGE AIR TEMPERATURE SENSOR AND DISCHARGE AIR TEMPERATURE HEATING SETPOINT TO DETERMINE WHEN TO INITIATE REQUESTS FOR HEATING. DISCHARGE AIR SETPOINT SHALL BE MAINTAINED BY CONTROLLING THE HEATING AS REQUIRED. DURING UNOCCUPIED HEATING OR MORNING WARM-UP MODE, THE UNIT HEAT REQUEST SHALL BE COMMUNICATED TO THE SYSTEM VAVS PRIOR TO COMMENCING HEATING OPERATION TO ALLOW VAV UNITS TO OPEN. THE VARIABLE SPEED DRIVE SHALL BE COMMANDED TO 100% AND THE HEAT SHALL BE STAGED ON AND OFF TO SATISFY THE ZONE TEMPERATURE SETPOINT.

DISCHARGE AIR TEMPERATURE RESET CONTROL:

THE DISCHARGE AIR TEMPERATURE SETPOINT SHALL BE RESET TO THE OPTIMAL SETPOINT COMMUNICATED BY THE BAS. THE BAS SHALL RESET THE DISCHARGE AIR TEMPERATURE SETPOINT BASED ON THE CURRENT OUTSIDE AIR TEMPERATURE, BUT SHALL OVERRIDE THIS RESET FUNCTION AND RETURN THE DISCHARGE AIR TEMPERATURE SETPOINT TO 55.0 DEG. F (ADJ.) IF MORE THAN TWO (ADJ.) ZONES BEGIN TO OVERHEAT. ALSO, THE BAS SHALL OVERRIDE THIS RESET FUNCTION WHENEVER OUTDOOR DEW POINT IS HIGHER THAN 60.0 DEG. F (ADJ.) OR INDOOR HUMIDITY IS HIGHER THAN 60% RH (ADJ.). IF THE DISCHARGE AIR TEMPERATURE DROPS BELOW THE MINIMUM LIMIT, A LOW TEMPERATURE ALARM SHALL ANNUNCIATE AND THE UNIT SHALL SHUT DOWN. IF THE DISCHARGE AIR TEMPERATURE RISES ABOVE THE MAXIMUM LIMIT, A HIGH TEMPERATURE ALARM SHALL ANNUNCIATE.

ECONOMIZER:

ENABLE (COMPARATIVE ENTHALPY): OUTSIDE AIR (OA) ENTHALPY SHALL BE COMPARED WITH RETURN AIR (RA) ENTHALPY POINT. THE ECONOMIZER SHALL ENABLE WHEN OA ENTHALPY IS LESS THAN RA ENTHALPY – 2.0 BTU/LB. THE ECONOMIZER SHALL DISABLE WHEN OA ENTHALPY IS GREATER THAN RA ENTHALPY.

OPERATION: THE SUPPLY AIR SENSOR SHALL MEASURE THE DRY BULB TEMPERATURE OF THE AIR LEAVING THE EVAPORATOR COIL WHILE ECONOMIZING. WHEN ECONOMIZING IS ENABLED AND THE UNIT IS OPERATING IN THE COOLING MODE, THE ECONOMIZER DAMPER SHALL BE MODULATED BETWEEN ITS MINIMUM POSITION AND 100% TO MAINTAIN THE DISCHARGE AIR TEMPERATURE SETPOINT. THE ECONOMIZER DAMPER SHALL MODULATE TOWARD MINIMUM POSITION IN THE EVENT THE DISCHARGE AIR TEMPERATURE FALLS BELOW THE DISCHARGE LOW LIMIT TEMPERATURE SETPOINT. COMPRESSORS SHALL BE DELAYED FROM OPERATING UNTIL THE ECONOMIZER HAS OPENED TO 100%.

SUPPLY FAN:

THE SUPPLY FAN SHALL BE ENABLED WHILE IN THE OCCUPIED MODE AND CYCLED ON DURING THE UNOCCUPIED MODE.

SUPPLY DUCT STATIC PRESSURE CONTROL:

DURING THE OCCUPIED MODE THE UNIT CONTROLLER SHALL MODULATE THE OUTPUT TO THE VARIABLE SPEED DRIVE AS REQUIRED TO MAINTAIN THE SUPPLY DUCT STATIC PRESSURE SETPOINT OF 1.5 INCHES OF W.C. (ADJ.). IF THE SUPPLY DUCT STATIC PRESSURE FALLS BELOW 1.3 INCHES OF W.C. (ADJ.) THE UNIT CONTROLLER SHALL INCREASE THE OUTPUT TO THE VARIABLE SPEED DRIVE TO MAINTAIN SETPOINT. IF THE SUPPLY DUCT STATIC PRESSURE RISES ABOVE 1.7 INCHES OF W.C. (ADJ.) THE UNIT CONTROLLER SHALL DECREASE THE OUTPUT TO THE VARIABLE SPEED DRIVE TO MAINTAIN SETPOINT. UPON A CALL FOR HEATING OR COOLING IN THE UNOCCUPIED MODE THE UNIT CONTROLLER SHALL MODULATE THE SPEED OF THE VARIABLE SPEED DRIVE TO 100%.

STATIC PRESSURE HIGH LIMIT:

IF FOR ANY REASON THE SUPPLY AIR PRESSURE EXCEEDS THE SUPPLY AIR PRESSURE HIGH LIMIT, THE SUPPLY FAN SHALL SHUT DOWN. THE UNIT SHALL BE ALLOWED TO RESTART THREE TIMES AFTER A 15 MINUTE OFF PERIOD. IF THE OVERPRESSURIZATION CONDITION OCCURS ON THE FOURTH RESTART, THE UNIT SHALL SHUT DOWN AND A MANUAL RESET DIAGNOSTIC IS DISPLAYED AT THE REMOTE PANEL AND/OR THE BAS SYSTEM.

FILTER STATUS:

A DIFFERENTIAL PRESSURE SWITCH SHALL MONITOR THE DIFFERENTIAL PRESSURE ACROSS THE FILTER(S) WHEN THE FAN IS RUNNING. IF THE SWITCH CLOSES DURING NORMAL OPERATION A DIRTY FILTER ALARM SHALL ANNUNCIATE AT THE BAS.

CONDENSATE OVERFLOW SHUTDOWN:

THE UNIT SHALL SHUT DOWN IN RESPONSE TO A SIGNAL FROM THE CONDENSATE OVERFLOW SENSOR. THE SENSOR SHALL BE INTERLOCKED TO THE UNIT COOLING CONTROLLER FOR IMMEDIATE SHUTDOWN OF COOLING.

PROFESSIONAL SEAL
SANJEEV AGARWAL
NJ LIC # 24GE04299600

STATE OF NEW JERSEY SANJEEV AGARWAL 24GE04299600 LICENSED PROFESSIONAL ENGINEER

DocuSigned by: Sanjeev Agarwal DDFFFBD66ED9402...

OWNER:
STATE OF NEW JERSEY
HONORABLE PHILIP D. MURPHY, GOVERNOR
DEPARTMENT OF THE TREASURY
DIVISION OF PROPERTY MANAGEMENT & CONSTRUCTION
20 WEST STATE STREET, 3RD FLOOR
P.O. BOX 038
TRENTON, NEW JERSEY 08625-0038

CHRISTOPHER CHIANESE, DIRECTOR

DPMC PROJECT NO. T0678-00

REV.	DESCRIPTION	DATE
3	DCA SUBMISSION	05-31-24
2	FINAL DESIGN PHASE	01-15-24
1	FINAL DESIGN PHASE	10-04-23

JOB TITLE: ROOF REPLACEMENT, HVAC UPGRADE & MOLD REMEDIATION PROJECT
WINSLOW SPECIALTY INSPECTION STATION
550 SPRING GARDEN STREET
WINSLOW, NJ 08037

SHEET TITLE: HVAC CONTROLS & DETAILS
REF. NO. T0678-00
SHEET NO. 06 OF 07
DCA REF. No.

ARCHITECT:
ARMM ARCHITECTURE ASSOCIATES, INC. 41 GROVE STREET
HADDONFIELD, NEW JERSEY 08033

DRAWING NUMBER: M104

SANJEEV AGARWAL
NJ LIC # 24GE04299600

DATE: 02-16-2023

DRAWN BY: SACHIN FERNANDO
APPROVED BY: SANJEEV AGARWAL
SCALE: AS NOTED

Department of Community Affairs
Construction Project Review
Project No: 9069-24
partial release
mechanical
Thomas Williams
Released: 08/08/24
N.J.S.A. 52:27D-119 ET SEQ., AS AMENDED

Points List: RTU

System Point Description	POINTS									ALARMS					
	GRAPHIC	ANALOG HARDWARE INPUT (AI)	BINARY HARDWARE INPUT (BI)	ANALOG HARDWARE OUTPUT (AO)	BINARY HARDWARE OUTPUT (BO)	SOFTWARE POINT (SFT)	HARDWARE INTERLOCK (HDW)	WIRELESS (WLS)	NETWORK (NET)	HIGH ANALOG LIMIT	LOW ANALOG LIMIT	BINARY	LATCH DIAGNOSTIC	SENSOR FAIL	COMMUNICATION FAIL
COMPRESSOR 1 COMMAND **CMP1**	X				X										
CONDENSATE OVERFLOW DETECTION LOCAL **CND OVRFL**	X		X									X			
COOLING OUTPUT COMMAND **CLG**	X			X											
DISCHARGE AIR STATIC PRESSURE LOCAL **DA SP**		X								X	X		X		
DISCHARGE AIR TEMPERATURE **DAT**	X	X												X	
DX COIL FROST STAT **FROSTAT**	X		X									X			
ELECTRIC HEAT STAGE 1 **EH1**	X				X										
ELECTRIC HEAT STAGE 2 **EH2**	X				X										
MIXED AIR DAMPER **MAD**	X			X											
OUTSIDE AIR DAMPER COMMAND **OAD**	X			X											
OUTSIDE AIR HUMIDITY LOCAL **OAH**	X	X												X	
OUTSIDE AIR TEMPERATURE LOCAL **OAT**	X	X												X	
PRIMARY FILTER STATUS LOCAL **FIL**	X		X									X			
RETURN AIR HUMIDITY LOCAL **RAH**	X	X												X	
RETURN AIR TEMPERATURE LOCAL **RAT**	X	X												X	
SUPPLY FAN SPEED **SAF**				X											
SUPPLY FAN START/STOP **SAF**	X				X										
SUPPLY FAN STATUS LOCAL **SAF**	X		X												
APPLICATION MODE **APP MODE**						X									
BAS COMMUNICATION STATE **BAS COM**						X									X
COMPRESSOR ENABLE **CMP ENA**	X					X									
COMPRESSOR LOCKOUT STATUS **CMP LCK**						X									
COOL OUTPUT **CLG**						X									
DISCHARGE AIR STATIC PRESSURE SETPOINT **DA SP SPT**	X					X									
ECONOMIZER ENABLE **ECON ENA**						X									
ECONOMIZER MINIMUM POSITION SETPOINT **ECON MIN POS SP**	X					X									
FAN MODE COMMAND **FAN MODE**						X									
FILTER TIMER HOURS **FIL HRS**						X									
HEAT / COOL MODE REQUEST **H/C REQ**	X					X									
HEAT OUTPUT **HTG**						X									
OCCUPANCY **OCC**	X					X									
OCCUPIED COOLING SETPOINT **OCC CLG SP**	X					X									
TIMED OVERRIDE STATUS **TOV**						X									
UNOCCUPIED COOLING SETPOINT **UNOCC CLG SP**	X					X									
UNOCCUPIED HEATING SETPOINT **UNOCC HTG SP**	X					X									

Points List: VAV [QTY: 7]

System Point Description	POINTS									ALARMS					
	GRAPHIC	ANALOG HARDWARE INPUT (AI)	BINARY HARDWARE INPUT (BI)	ANALOG HARDWARE OUTPUT (AO)	BINARY HARDWARE OUTPUT (BO)	SOFTWARE POINT (SFT)	HARDWARE INTERLOCK (HDW)	WIRELESS (WLS)	NETWORK (NET)	HIGH ANALOG LIMIT	LOW ANALOG LIMIT	BINARY	LATCH DIAGNOSTIC	SENSOR FAIL	COMMUNICATION FAIL
AIR VALVE MODULATION COMMAND **AIR VLV**	X			X											
LOCAL HEAT VALVE COMMAND **HW VLV**	X				X										
REMOTE HEAT HOT WATER VALVE **RMT HW VLV**	X				X										
SPACE TEMPERATURE LOCAL **SPT**	X	X													
SPACE TEMPERATURE SETPOINT LOCAL **SPT SP**	X	X													
SUPPLY AIRFLOW **DA FLW**	X	X								X	X				
BAS COMMUNICATION STATE **BAS COM**						X									X
MAXIMUM COOLING AIRFLOW SETPOINT **MAX CLG FLW SP**						X									
MINIMUM COOLING AIRFLOW SETPOINT **MIN CLG FLW SP**						X									
MAXIMUM HEATING AIRFLOW SETPOINT **MAX HTG FLW SP**						X									
MINIMUM HEATING AIRFLOW SETPOINT **MIN HTG FLW SP**						X									
OCCUPIED BYPASS TIMER **OCC TMR**	X					X									
OCCUPIED COOLING SETPOINT **OCC CLG SP**	X					X									
OCCUPIED HEATING SETPOINT **OCC HTG SP**	X					X									
UNOCCUPIED COOLING SETPOINT **UNOCC CLG SP**	X					X									
SPACE OCCUPANCY **OCC SP**	X		X												
UNOCCUPIED HEATING SETPOINT **UNOCC HTG SP**	X					X									
SUPPLY FAN COMMAND **SF CMD**	X				X										

Points List: HOT WATER BOILER

System Point Description	POINTS									ALARMS					
	GRAPHIC	ANALOG HARDWARE INPUT (AI)	BINARY HARDWARE INPUT (BI)	ANALOG HARDWARE OUTPUT (AO)	BINARY HARDWARE OUTPUT (BO)	SOFTWARE POINT (SFT)	HARDWARE INTERLOCK (HDW)	WIRELESS (WLS)	NETWORK (NET)	HIGH ANALOG LIMIT	LOW ANALOG LIMIT	BINARY	LATCH DIAGNOSTIC	SENSOR FAIL	COMMUNICATION FAIL
BOILER ALARM **BLR ALM**					X										
BOILER ENABLE COMMAND **BLR**			X												
BAS COMMUNICATION PROTOCOL - BACNET MS/TP **BAS BACNET MS/TP**									X						
BOILER DEDICATED OUTDOOR AIR TEMPERATURE **BLR OAT**							X								
BOILER DEDICATED SUPPLY HEADER TEMPERATURE **BLR HDR ST**							X								
BOILER LOW WATER CUT - OFF **BLR LOW WTR**							X								
BOILER MASTER / MEMBER CONTROL **BLR M/M**							X								
BOILER SUPPLY TEMPERATURE SETPOINT **BLR ST SP**							X								

PROFESSIONAL SEAL
SANJEEV AGARWAL
NJ LIC # 24GE04299600

STATE OF NEW JERSEY
LICENSED
PROFESSIONAL ENGINEER
SANJEEV AGARWAL
24GE04299600

DocuSigned by:
Sanjeev Agarwal

OWNER:
STATE OF NEW JERSEY
HONORABLE PHILIP D. MURPHY, GOVERNOR
DEPARTMENT OF THE TREASURY
DIVISION OF PROPERTY MANAGEMENT & CONSTRUCTION
20 WEST STATE STREET, 3RD FLOOR
P.O. BOX 038
TRENTON, NEW JERSEY 08625-0038

CHRISTOPHER CHIANESE, DIRECTOR

DPMC PROJECT NO. T0678-00

REV.	DESCRIPTION	DATE
3	DCA SUBMISSION	05-31-24
2	FINAL DESIGN PHASE	01-15-24
1	FINAL DESIGN PHASE	10-04-23

JOB TITLE: ROOF REPLACEMENT, HVAC UPGRADE & MOLD REMEDIATION PROJECT
WINSLOW SPECIALTY INSPECTION STATION
550 SPRING GARDEN STREET
WINSLOW, NJ 08037

SHEET TITLE: HVAC POINTS LISTS
REF. NO. T0678-00
SHEET NO. 07 OF 07
DCA REF. No.

ARCHITECT:
ARMM ARCHITECTURE ASSOCIATES, INC. 41 GROVE STREET
HADDONFIELD, NEW JERSEY 08033

DRAWING NUMBER: M105

SANJEEV AGARWAL
NJ LIC # 24GE04299600

DATE: 02-16-2023

DRAWN BY: SACHIN FERNANDO
APPROVED BY: SANJEEV AGARWAL
SCALE: AS NOTED

ELECTRICAL ABBREVIATIONS:

AC	ALTERNATING CURRENT OR ARMORED CABLE
ARP	AMPERES, RATING PLUG
AS	AMPERES, SENSOR
AWG	AMERICAN WIRE GAUGE
BHP	BRAKE HORSEPOWER
C	CONDUIT
CFM	CUBIC FEET PER MINUTE
CM	CONTROL MODULE
DC	DIRECT CURRENT
DDC	DIRECT DIGITAL CONTROL
DPDT	DOUBLE POLE DOUBLE THROW
(E)	EXISTING
EM	EMERGENCY
(ER)	EXISTING TO BE RELOCATED
FAAP	FIRE ALARM ANNUNCIATOR PANEL
FACP	FIRE ALARM CONTROL PANEL
FSE	FOOD SERVICE EQUIPMENT
FSS	FIRE SUPPRESSION SYSTEM
FVNR	FULL VOLTAGE NON-REVERSING
G	GROUND
GFCI OR GFI	GROUND FAULT CIRCUIT INTERRUPTER
HP	HORSEPOWER
Hz	HERTZ
IT	INFORMATION TECHNOLOGY
KA	KILO AMPERES
KCMIL	KILO CIRCULAR MILS
KHFSS	KITCHEN HOOD FIRE SUPPRESSION SYSTEM
KVA	KILO VOLT AMPERES
KW	KILO WATTS
MTR	MOTOR
MUA	MAKE-UP AIR UNIT
NAC	NOTIFICATION APPLIANCE(S) CIRCUIT
NE	NORMAL/EMERGENCY PANEL
NEC	NATIONAL ELECTRICAL CODE
P	POLE(S)
PH, ø	PHASE
POTS	PLAIN OLD TELEPHONE SERVICE LINES
(RE)	RELOCATED EXISTING
RMC	RIGID METAL CONDUIT
RMS	ROOT-MEAN-SQUARE
RNC	RIGID NON-METALLIC CONDUIT
RPM	REVOLUTIONS PER MINUTE
SCCR	SHORT CIRCUIT CURRENT RATING
SF	SUPPLY FAN
SLC	SIGNALING LINE CIRCUIT
SMR	SURFACE METAL RACEWAY
TBD	TO BE DETERMINED
TCOM	TELECOMMUNICATIONS
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSION
UON	UNLESS OTHERWISE NOTED
V	VOLTS
VT	VOLTAGE TRANSFORMER
WCR	WITHSTAND CURRENT RATING
WG	WIREGUARD
WP	WEATHERPROOF
XFMR	TRANSFORMER
Z	IMPEDANCE
EX	EXISTING WORK TO REMAIN & MAINTAINED
(E)	EXISTING TO REMAIN AND MAINTAINED IN SERVICE
(R)	DEMOLITION/REMOVAL WORK TO BE PROVIDED UNDER THIS CONTRACT
(N)	NEW WORK/EQUIPMENT

ELECTRICAL GENERAL NOTES (NEW WORK):

1. ALL WORK SHALL COMPLY WITH THE NATIONAL ELECTRICAL CODE (NEC) NFPA 70, 2020 (OR LATEST ADOPTED ADDITION) AND WITH THE REQUIREMENTS OF THE LOCAL AUTHORITY HAVING JURISDICTION (AHJ) STATE OF NEW JERSEY DIVISION OF PROPERTY MANAGEMENT AND CONSTRUCTION (DPMC) AND/OR DEPARTMENT OF COMMUNITY AFFAIRS (DCA).
2. ALL ELECTRICAL INSTALLATION SHALL BE PERFORMED IN A NEAT WORKMANLIKE MANNER, IN ACCORDANCE WITH ESTABLISHED INDUSTRY STANDARDS AND PRACTICE
3. EACH FEEDER AND BRANCH CIRCUIT SHALL INCLUDE AN (INSULATED) EQUIPMENT GROUNDING CONDUCTOR. EACH INFORMATION TECHNOLOGY DISTRIBUTION FEEDER AND BRANCH CIRCUIT SHALL ADDITIONALLY INCLUDE AN (INSULATED) ISOLATED GROUND CONDUCTOR.
4. MULTI-WIRE BRANCH CIRCUITS SHALL NOT BE PERMITTED EXCEPT WHERE INDICATED FOR SERVICE TO SYSTEMS (MODULAR) FURNITURE. EACH 120V AND 240V BRANCH CIRCUIT SHALL INCLUDE DEDICATED NEUTRAL AND (INSULATED) EQUIPMENT GROUNDING CONDUCTORS.
5. TRUNKING OR GROUPING OF BRANCH CIRCUITS AND FEEDERS SHALL BE PERMITTED, PROVIDED THAT NEC RULES PERTAINING TO MAXIMUM ALLOWABLE PERCENT FILL OF RACEWAYS, AND AMPACITY ADJUSTMENT FACTORS FOR MORE THAN THREE CURRENT-CARRYING CONDUCTORS IN A RACEWAY, ARE STRICTLY COMPLIED WITH. A MAXIMUM OF 9-120V STANDARD OR INFORMATION TECHNOLOGY TYPE BRANCH CIRCUITS (18 No. 10 AWG CURRENT-CARRYING CONDUCTORS) SHALL BE GROUPED. THE ASSOCIATED EQUIPMENT GROUNDING AND ISOLATED GROUND CONDUCTORS NECESSITATE 18#10, 9#10 G AND 9#10 IG IN 1 1/2"C. THE CONTRACTOR SHALL EXERCISE GREAT CAUTION IN PROVIDING AN EQUAL NUMBER OF A, B, AND C PHASE CONDUCTORS WHEN GROUPING BRANCH CIRCUITS.
6. JUNCTION AND PULL BOXES ARE NOT NECESSARILY INDICATED, BUT SHALL BE PROVIDED WHERE MANDATED BY THE NEC, AND AS REQUIRED FOR EASE OF INSTALLATION. BOXES SHALL BE SIZED (MINIMUM) IN ACCORDANCE WITH ARTICLE 314 OF THE NEC.
7. BRANCH CIRCUIT WIRING IS DEPICTED BY ASSIGNMENT OF CIRCUIT NUMBERS OR INTERCONNECTING WIRING AND HOMERUNS, OR HOMERUNS ONLY (FOR SINGULAR LOAD CIRCUITS). ALL FEEDERS AND BRANCH CIRCUITS ARE NEW TO BE PROVIDED UNDER THIS CONTRACT, UNLESS OTHERWISE NOTED. INTERIOR WIRING SHALL BE INSTALLED IN RMC (GRS) AND EMT, 3/4" MINIMUM, AND SMR. BUILDING EXTERIOR WIRING SHALL BE INSTALLED IN RMC (GRS), 3/4" MINIMUM. FMC AND LFMC SHALL BE UTILIZED IN LIMITED LENGTHS AS NECESSARY, OR AS REQUIRED BY CODE. MC AND HCF-AC SHALL BE UTILIZED IN LIMITED LENGTHS, TO THE EXTENT ALLOWED BY CODE. UNDERGROUND WIRING SHALL BE INSTALLED IN RNC (PVC SCHEDULE 40) WITH RMC (GRS) SWEEPS/STUB-UPS, 1 1/2" MINIMUM, CONCRETE ENCASED IF INDICATED.
8. ALL CIRCUIT BREAKERS, DISCONNECT SWITCHES, CONTACTORS, STARTERS, ETC. ARE THREE POLE UNLESS OTHERWISE NOTED.
9. ALL 600V OR LESS OVERCURRENT PROTECTIVE DEVICES SHALL HAVE INTERRUPTING CAPACITIES OR RATINGS (AIC OR AIR), IN AMPERES ROOT-MEAN-SQUARE SYMMETRICAL. DISTRIBUTION AND CONTROL EQUIPMENT (SWITCHBOARDS, PANELBOARDS, MOTOR CONTROLLERS, MOTOR CONTROL CENTERS, ETC.) SHALL HAVE SHORT CIRCUIT CURRENT RATINGS (SCCR) IN AMPERES ROOT-MEAN- SQUARE SYMMETRICAL. THE INTERRUPTING RATINGS OF MAIN AND BRANCH DEVICES, AND BUS WITHSTAND CAPABILITY (BRACING), SHALL EACH MEET OR EXCEED THE INDICATED SCCR (FULLY RATED EQUIPMENT).
10. ALL BUILDING WIRE SHALL BE COPPER CONDUCTORS, TYPE THHN-2/THHN (DUAL LISTED) 90 DEGREE CELSIUS RATED INSULATION, No. 12 AWG MINIMUM. UTILIZE No. 10 AWG FOR ANY 20A, 120V BRANCH CIRCUIT THAT EXCEEDS 100 FT. FROM SOURCE TO LAST DEVICE OR FIXTURE, AND FOR ANY 20A, 277V BRANCH CIRCUIT THAT EXCEEDS 200 FT. FROM SOURCE TO LAST DEVICE OR FIXTURE.
11. COORDINATE WITH ALL TRADE TO PROVIDE REQUISITE ROUGH-IN/SUPPORT WORK.
12. PROVIDE BRANCH CIRCUIT WIRING, DISCONNECTS, RECEPTACLES AND CONNECTIONS AS REQUIRED FOR HVAC.
13. ALL MAGNETIC MOTOR STARTERS SHALL BE PROVIDED WITH 100VA MINIMUM CONTROL POWER TRANSFORMERS (CPT) WITH PRIMARY AND SECONDARY FUSES, (3) SETS OF NO/NC AUXILIARY CONTACTS, H-O-A SELECTOR SWITCH AND RED PILOT LIGHT. THE CPT MUST ACCEPT THE AVAILABLE LINE VOLTAGE AND THE CONTROL VOLTAGE SHALL NOT EXCEED 120V.
14. ALL EQUIPMENT AND WORK SHALL COMPLY WITH NEC ARTICLE 110.14, 110.16, 110.21, 110.22, 110.24, AND 110.26.
15. CONTRACTOR SHALL VERIFY THE WIRING AND OCPD REQUIREMENTS OF ALL EQUIPMENT WITH MANUFACTURER'S NAMEPLATE DATA.
16. CLEAN AND RELAMP EXISTING LIGHT FIXTURES IN ALL SPACES WHERE NEW EQUIPMENT IS BEING INSTALLED.
17. ALL CONDUITS SHALL BE 3/4" U.O.N.
18. ALL NEW PANEL BOARDS SHALL BE 120/208V, 3PH, 4W+G U.O.N.

ELECTRICAL DEMOLITION NOTES:

1. WHERE SPECIFIED OR REQUIRED, EXTEND EXISTING SYSTEMS OR TIE INTO SAME TO PROVIDE A COMPLETE COORDINATED ELECTRICAL SYSTEM TO SATISFACTION OF OWNER AND ENGINEER.
2. ALL EXISTING WORK TO REMAIN, BUT DISTURBED OR DISCONNECTED BECAUSE OF ALTERATIONS AND NEW CONSTRUCTION SHALL BE REPLACED AND PUT IN OPERATING CONDITION UNLESS INSTRUCTED OTHERWISE IN WRITING BY OWNER OR ENGINEER.
3. ALL DISCONNECTED OR ABANDONED WIRE, CABLE AND CONDUIT SHALL BE REMOVED.
4. ALL EXISTING BUILDING MATERIALS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED AND REPLACED BY THE CONTRACTOR. THIS SHALL INCLUDE, BUT NOT LIMITED TO CEILING TILES, GRID, FLOORING, PARTIONS AND SIMILAR BUILDING ITEMS. ALL DAMAGE SHALL BE REPAIRED TO A QUALITY AND FINISH LEVEL OF ADJACENT AREAS AND SUBJECT TO THE APPROVAL OF OWNER AND ENGINEER.
5. PROVIDE A FINISH GRADE COVERPLATE FOR ALL DEVICES TO BE REMOVED.
6. THE CONTRACTOR SHALL PROVIDE TOUCH-UP AND FINISH PAINTING AS REQUIRED IN AREAS AFFECTED BY REMOVAL OF EXISTING EQUIPMENT OR INSTALLATION OF NEW. FINISH AND QUALITY LEVEL SHALL MATCH ADJACENT AREAS AND BE SUBJECT TO APPROVAL OF OWNER AND ENGINEER.
7. EACH PANEL SHALL BE PROVIDED WITH A TYPED DIRECTORY CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL EXISTING CIRCUITS AND IDENTIFYING THEM IN THE PANEL DIRECTORIES BY ROOM NUMBER SERVED AND THE TYPE OF DEVICE OR SYSTEM (LIGHTING, RECEPTACLE ETC.). ALL DEVICE CIRCUIT NUMBERS SHALL BE INDICATED ON AS-BUILT DRAWINGS.
8. REFER TO MECHANICAL DRAWINGS FOR EXISTING PUMPS, HEATING COILS, UNIT HEATERS, SPLIT AIR CONDITIONERS, AND AHU TO BE DEMOLISHED. ELECTRICAL CONTRACTOR SHALL REMOVE DISCONNECT SWITCHES, STARTERS, CONDUIT AND WIRING ASSOCIATED WITH THE EXISTING EQUIPMENT TO BE DEMOLISHED.

DRAWING LIST:

DRAWING NO.	DRAWING TITLE
E001	ELECTRICAL SYMBOLS, ABBREVIATIONS, NOTES AND DETAILS
E101	POWER PLAN - FIRST FLOOR
E102	POWER PLAN - ROOF
E103	FIRE ALARM CONSTRUCTION PLAN - FIRST FLOOR & RISER DIAGRAM
E401	ELECTRICAL PANEL SCHEDULES AND SINGLE LINE DIAGRAM

FIRE ALARM SYMBOLS:

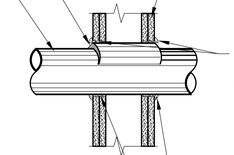
- CO — CARBON MONOXIDE DETECTOR
- H_AC — HEAT DETECTOR; 'AC' INDICATES 'ABOVE CEILING'
- S_D^R — RETURN DUCT SMOKE DETECTOR
- S_D^S — SUPPLY DUCT SMOKE DETECTOR
- RT — REMOTE TEST SWITCH FOR DUCT DETECTOR
- COMBINATION HORN AND STROBE
- STROBE
- FACP — FIRE ALARM CONTROL PANEL

ELECTRICAL SYMBOLS:

- SINGLE RECEPTACLE, NEMA 5-20R, 20A, 125V, 2P, 3W
- DUPLEX RECEPTACLE, NEMA 5-20R, 20A, 125V, 2P, 3W
- CEILING MOUNTED DUPLEX RECEPTACLE, NEMA 5-20R, 20A, 125V
- QUADRAPLEX RECEPTACLE, NEMA 5-20R, 20A, 125V, 2P, 3W
- SPECIAL PURPOSE RECEPTACLE, AS NOTED
- INDICATES DEVICE MOUNTED AT 42" AFF, 48" AFF, OR 84" AFF
- J — JUNCTION BOX
- A — AMMETER
- M — MOTOR
- DISCONNECT SWITCH, 30A/3P UON
- FUSIBLE DISCONNECT SWITCH, 30A/3P UON WITH DUAL-ELEMENT TIME-DELAY FUSES AS NOTED
- COMBINATION FUSIBLE DISCONNECT SWITCH AND MAGNETIC MOTOR STARTER SIZE 1 FVNR UON
- ENCLOSED CIRCUIT BREAKER, SIZE AS INDICATED
- VFD — VARIABLE FREQUENCY DRIVE WITH INTEGRAL DISCONNECT SWITCH
- SURFACE MOUNTED PANELBOARD - REFER TO PANEL SCHEDULES FOR TYPE AND RATINGS
- RECESSED (FLUSH) MOUNTED PANELBOARD - REFER TO PANEL SCHEDULES FOR TYPE AND RATINGS
- HOME RUN TO PANELBOARD. ARROW HEADS INDICATE NUMBER OF HOMERUN CIRCUITS. CHARACTERISTICS INDICATED ON PANEL SCHEDULES.
- S — 20A, 120 VAC, SINGLE POLE TOGGLE SWITCH
- S_M — 20A, 120 VAC, SINGLE POLE MOTOR RATED TOGGLE SWITCH
- S_K — 20A, 120 VAC, SINGLE POLE KEY-OPERATED SWITCH
- S^3 — 20A, 120/277 VAC, THREE-WAY (SPOT) SWITCH, UON
- TRANSFORMER
- CURRENT TRANSFORMER
- S_{HP} — FRACTIONAL HORSEPOWER MANUAL MOTOR STARTER WITH OVERLOAD RELAY AND PILOT LIGHT
- EMERGENCY BURNER SHUT-OFF SWITCH

LIGHTING FIXTURE SCHEDULE

TYPE	DESCRIPTION/MODEL NO.	VOLT.	WATT
A	LITHONIA LIGHTING LED VAPOR TIGHT,4000K, GREY,WALL MOUNT. MODEL NO.: OLVTWM--- OR APPROVED EQUAL	MVOLT.	15



STEEL SLEEVE (OPTIONAL) — NOM 3 IN. (76 MM) DIAM (OR SMALLER) SCHEDULE 40 (OR THINNER) STEEL PIPE FRICTION-FIT INTO WALL ASSEMBLY, FLUSH WITH BOTH SURFACES OF WALL. WHEN STEEL SLEEVE IS USED, T RATING IS 1 HR.

THROUGH PENETRANTS — ONE NONMETALLIC PIPE OR CONDUIT TO BE CENTERED WITHIN THE FIRESTOP SYSTEM. THE ANNULAR SPACE SHALL BE MIN 1/4 IN. (6 MM) TO MAX 1-1/4 IN (32 MM). PIPE OR CONDUIT TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF THE WALL ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF NONMETALLIC PIPES OR CONDUITS MAY BE USED:

A. POLYVINYL CHLORIDE (PVC) PIPE — NOM 3 IN. (76 MM) DIAM (OR SMALLER) SCHEDULE 40 CELLULAR OR SOLID CORE PVC PIPE FOR USE IN CLOSED (PROCESS OR SUPPLY) OR VENTED (DRAIN, WASTE OR VENT) PIPING SYSTEMS.

B. CHLORINATED POLYVINYL CHLORIDE (CPVC) PIPE — NOM 3 IN. (76 MM) DIAM (OR SMALLER) SDR 13.5 CPVC PIPE FOR USE IN CLOSED (PROCESS OR SUPPLY) PIPING SYSTEMS.

C. RIGID NONMETALLIC CONDUIT+ — NOM 3 IN. (76 MM) DIAM (OR SMALLER) SCHEDULE 40 PVC CONDUIT INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NFPA NO. 70).

D. ACRYLONITRILE BUTADIENE STYRENE (ABS) PIPE — NOM 3 IN. (76 MM) DIAM (OR SMALLER) SCHEDULE 40 CELLULAR OR SOLID CORE ABS PIPE FOR USE IN CLOSED (PROCESS OR SUPPLY) OR VENTED (DRAIN, WASTE OR VENT) PIPING SYSTEMS.

E. FLAME RETARDANT POLYPROPYLENE (FRPP) PIPE — NOM 2 IN. (51 MM) DIAM (OR SMALLER) SCHEDULE 40 FRPP PIPE FOR USE IN CLOSED (PROCESS OR SUPPLY) OR VENTED (DRAIN, WASTE OR VENT) PIPING SYSTEMS.

F . POLYPROPYLENE (PP) PIPE — NOM 1 IN. (25 MM) DIAM (OR SMALLER) SCHEDULE 80 PP PIPE FOR USE IN CLOSED (PROCESS OR SUPPLY) PIPING SYSTEMS .

G. POLYVINYLIDENE FLUORIDE (PVDF) PIPE — NOM 2 IN. (51 MM) DIAM (OR SMALLER) SCHEDULE 40 PVDF PIPE FOR USE IN CLOSED (PROCESS OR SUPPLY) PIPING SYSTEMS .

Type of Through Penetrant	Hourly Rating of Wall Hr	Type of Wrap Strip	T Rating Hr
PVC, CPVC, PVDF, RNC, PP or FRPP	1	SpecSeal BLU, SpecSeal BLU2 or SpecSeal RED,RED2	1
ABS	1	SpecSeal BLU, SpecSeal BLU2 or SpecSeal RED,RED2	1
PVC, CPVC, PVDF, RNC, PP or FRPP	2	SpecSeal BLU, SpecSeal BLU2 or SpecSeal RED, RED2	2
ABS	2	SpecSeal BLU or SpecSeal BLU2	2
ABS	2	SpecSeal RED, RED2	1-3/4

UL DESIGN NO: XHEZ.W-L-2048 - 1 HOUR RATED
F RATING: 1HR & 2HRT RATING: 1HR, 1-3/4 & 2HR

WALL ASSEMBLY - THE 1 OR 2 HR. FIRE RATED GYPSUM
WALL BOARD/STUD ASSEMBLY SHALL BE CONSTRUCTED
OF MATERIALS AND IN MANNER DESCRIBED IN THE INDIVIDUAL
U300 OR U400 SERIES WALL PARTITION DESIGN IN THE UL FIRE
RESISTANCE DIRECTORY & SHALL INCLUDE THE FOLLOWING
CONSTRUCTION FEATURES:

A. STUDS — WALL FRAMING MAY CONSIST OF EITHER WOOD STUDS OR STEEL CHANNEL STUDS. WOOD STUDS TO CONSIST OF NOM 2X4" LUMBER SPACED 16" O.C. STEEL STUDS TO BE MIN. 3-1/2" WIDE AND SPACED MAX 24" O.C.

B. GYPSUM BOARD —THE GYPSUM BOARD TYPE, THICKNESS, NUMBER OF LAYERS, FASTENER TYPE AND SHEET ORIENTATION SHALL BE AS SPECIFIED IN THE INDIVIDUAL U300 OR U400 SERIES DESIGN. MAX DIAM. OF OPENING IS 5" THE HOURLY F RATING OF THE FIRESTOP SYSTEM IS EQUAL TO THE HOURLY FIRE RATING OF THE WALL ASSEMBLY IN WHICH IT IS INSTALLED.

FIRESTOP SYSTEM — THE FIRESTOP SYSTEM SHALL CONSIST OF THE FOLLOWING:

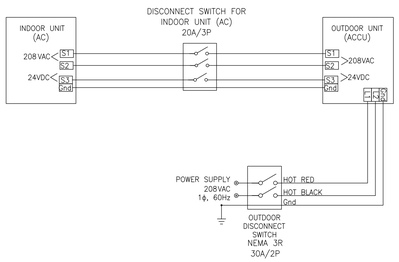
A. A. FILL, VOID OR CAVITY MATERIAL* — WRAP STRIP — NOM 1/8 IN. (3.2 MM) OR 3/16 IN. (4.8 MM) THICK INTUMESCENT MATERIAL FACED ON BOTH SIDES WITH A PLASTIC FILM, SUPPLIED IN 2 IN. (51 MM) WIDE STRIPS OR 1/8 OR 1/4 IN. (3.2 OR 6 MM) THICK INTUMESCENT MATERIAL FACED ON BOTH SIDES WITH A PLASTIC FILM, SUPPLIED IN 1-1/2 IN. (38 MM) WIDE STRIPS. SINGLE LAYER OF WRAP STRIP WRAPPED AROUND THE THROUGH PENETRANT WITH THE ENDS BUTTED AND HELD IN PLACE BY MEANS OF FOIL TAPE. THE WRAP STRIP IS SLID ALONG THE THROUGH PENETRANT INTO ANNULUS SUCH THAT 1/4 IN. (6 MM) OF THE WRAP STRIP PROTRUDES FROM THE WALL. ONE SET OF WRAP STRIPS TO BE INSTALLED ON EACH SIDE OF WALL. AS AN OPTION WHEN 1/8 IN. (3.2 MM) THICK WRAP STRIP (BLU2) IS USED, THE STRIPS MAY BE CUT TO A WIDTH OF 1-1/2 IN. (38 MM).
THE T RATING OF THE FIRESTOP SYSTEM IS DEPENDENT UPON THE HOURLY RATING OF THE WALL, THE TYPE OF THROUGH PENETRANT AND TYPE OF WRAP STRIP USED. SEE THE CHART.

FIRESTOP SYSTEM — THE FIRESTOP SYSTEM SHALL CONSIST OF THE FOLLOWING:

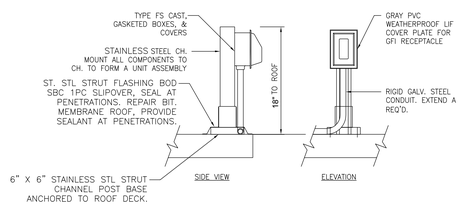
B. FILL, VOID OR CAVITY MATERIAL* — SEALANT — WHEN AN ANNULAR SPACE IS PRESENT BETWEEN THE WRAP STRIP AND THE EDGE OF THE OPENING, A MIN 5/8 IN. (16 MM) DEPTH OF SEALANT SHALL BE INSTALLED IN THE ANNULAR SPACE FLUSH WITH EACH SURFACE OF THE WALL. A MIN 1/4 IN. (6 MM) DIAM BEAD OF SEALANT SHALL BE APPLIED AT THE GYPSUM BOARD/WRAP STRIP INTERFACE ON BOTH SURFACES OF WALL.

SPECIFIED TECHNOLOGIES INC — SPECSEAL 100, 101, 102, 105, 120 OR 129 SEALANT, SPECSEAL LCI SEALANT, PENSIL 300 SEALANT OR SPECSEAL SERIES SIL300 SEALANT

3 E001 **PENETRATION FIRE STOPPING DETAIL**
SCALE: NONE
1. PROVIDE FIRE STOPPING AT ALL PIPE & CONDUIT PENETRATIONS.



1 E001 **TYPICAL MITSUBISHI ELECTRIC SPLIT AC UNIT WIRING DETAIL (FOR REFERENCE ONLY)**
SCALE: N.T.S
NOTE:
1. WIRE AND CONDUIT SIZES ARE INDICATED ON CONSTRUCTION PLANS.



2 E001 **OUTDOOR EQUIPMENT & RECEPTACLE DETAIL**
SCALE: N.T.S

Department of Community Affairs
Construction Project Review
Project No: 9069-24
PARTIAL RELEASE
ELECTRICAL
David Godbolt
Released 08/07/24
N.J.S.A. 52:27D-119 ET SEQ., AS AMENDED

PROFESSIONAL SEAL
SANJEEV AGARWAL
NJ LIC # 24GE04299600

STATE OF NEW JERSEY · SANJEEV AGARWAL · 24GE04299600 · LICENSED PROFESSIONAL ENGINEER

DocuSigned by: Sanjeev Agarwal

OWNER:
STATE OF NEW JERSEY
HONORABLE PHILIP D. MURPHY, GOVERNOR
DEPARTMENT OF THE TREASURY
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P.O. BOX 038
TRENTON, NEW JERSEY 08625-0038

CHRISTOPHER CHIANESE, DIRECTOR

DPMC PROJECT NO. T0678-00

REV.	DESCRIPTION	DATE
3	DCA SUBMISSION	05-31-24
2	FINAL DESIGN PHASE	01-15-24
1	FINAL DESIGN PHASE	10-04-23

JOB TITLE: ROOF REPLACEMENT, HVAC UPGRADE & MOLD REMEDIATION PROJECT
WINSLOW SPECIALTY INSPECTION STATION
550 SPRING GARDEN STREET
WINSLOW, NJ 08037

SHEET TITLE: ELECTRICAL SYMBOLS, ABBREVIATIONS, NOTES AND DETAILS
REF. NO. T0678-00
SHEET NO. 01 OF 05
DCA REF. No.

ARCHITECT:
ARMM ARCHITECTURE ASSOCIATES, INC. 41 GROVE STREET
HADDONFIELD, NEW JERSEY 08033

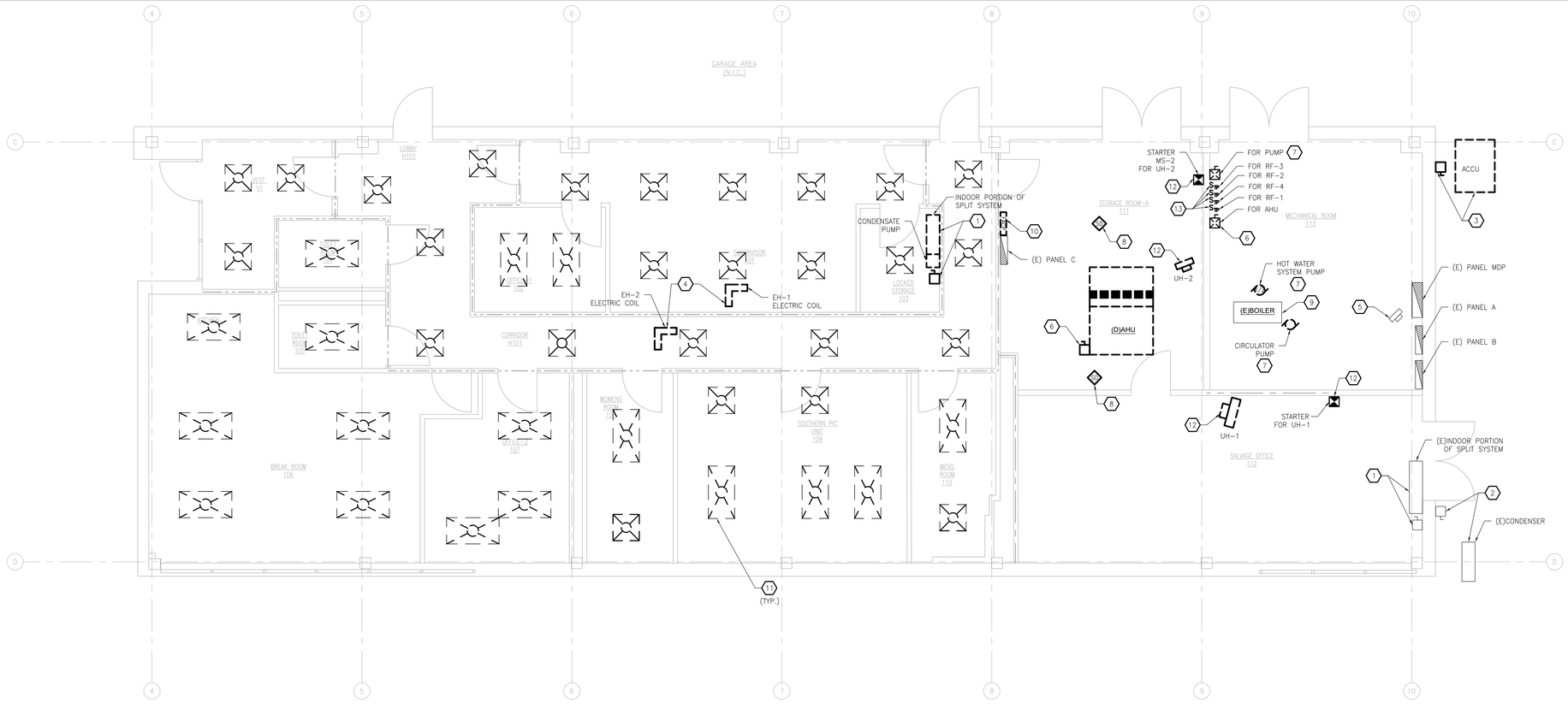
DRAWING NUMBER: E001

SANJEEV AGARWAL
NJ LIC # 24GE04299600

DATE: 02-16-2023

DRAWN BY: SACHIN FERNANDO
APPROVED BY: SANJEEV AGARWAL
SCALE: AS NOTED

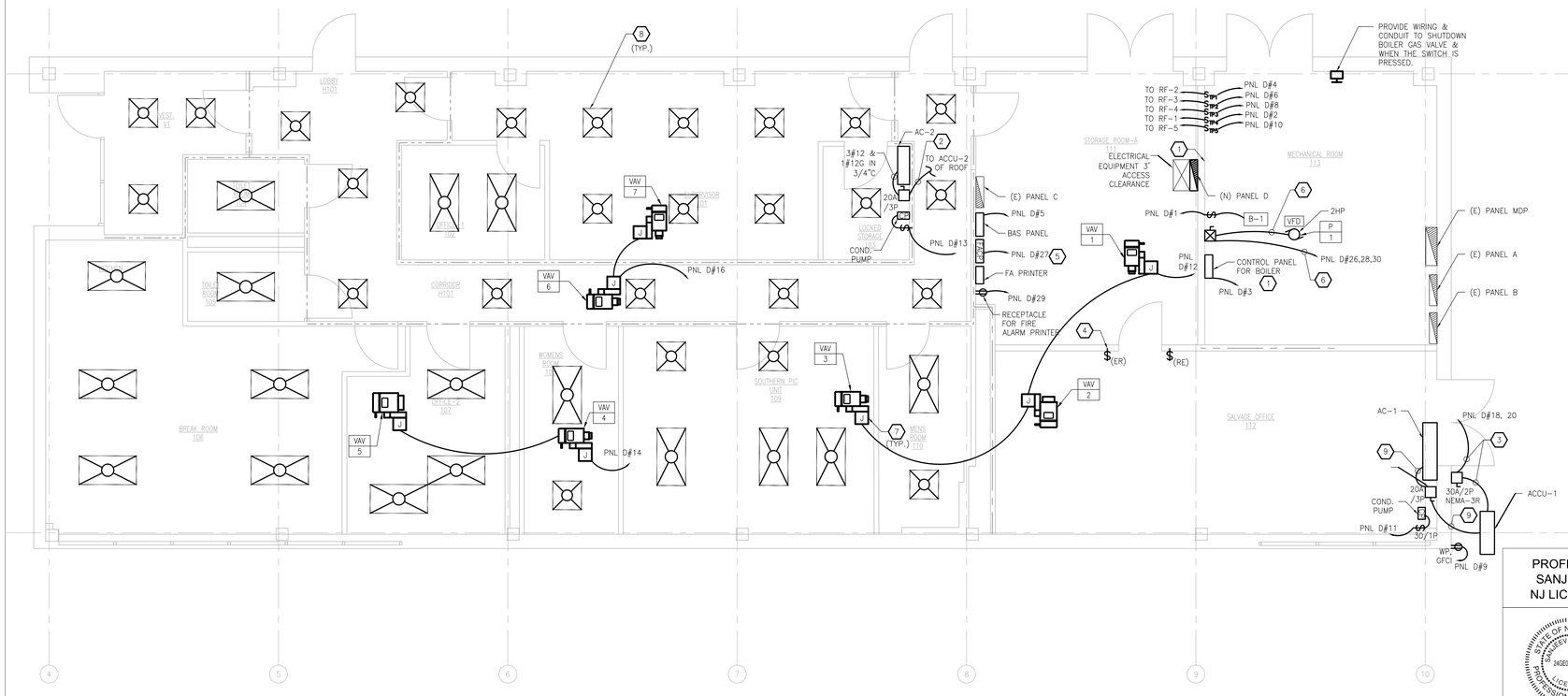
Department of Community Affairs
Construction Project Review
Project No: 9069-24
PARTIAL RELEASE
ELECTRICAL
David Godbolt
Released 08/07/24
N.J.S.A. 52:27D-119 ET SEQ., AS AMENDED



1 E101 POWER DEMOLITION PLAN - FIRST FLOOR
SCALE: 1/4"-1"-0"

DEMOLITION KEY NOTES:

1. DISCONNECT & REMOVE EXISTING MITSUBISHI SPLIT-TYPE WALL MOUNTED INDOOR PORTION OF AIR HANDLING UNIT, ASSOCIATED DISCONNECT SWITCH, WIRING, CONDUITS AND COMPONENTS.
2. DISCONNECT & REMOVE EXISTING MITSUBISHI SPLIT-TYPE CONDENSER UNIT SERVING EXISTING INDOOR AIR HANDLER. REMOVE ASSOCIATED DISCONNECT SWITCH, WIRING CONDUITS AND COMPONENTS.
3. DISCONNECT & REMOVE EXISTING DISCONNECT SWITCH, WIRING, CONDUITS AND COMPONENTS SERVING EXISTING ACCU BACK TO SOURCE. COORDINATE ALL WORK WITH MECHANICAL CONTRACTOR.
4. DISCONNECT & REMOVE EXISTING DISCONNECT SWITCH, WIRING, CONDUITS AND COMPONENTS SERVING EXISTING ELECTRIC HEATERS BACK TO SOURCE PANEL 'C', LOCATED IN STORAGE ROOM A. COORDINATE ALL WORK WITH MECHANICAL CONTRACTOR.
5. EXISTING STARTER AND DISCONNECT SWITCH, WIRING, CONDUITS AND COMPONENTS CURRENTLY SERVING UNIT HEATER TO REMAIN.
6. DISCONNECT & REMOVE EXISTING STARTER AND DISCONNECT SWITCH, WIRING, CONDUITS AND COMPONENTS SERVING EXISTING AHU BACK TO SOURCE PANEL 'MDP'. COORDINATE ALL WORK WITH MECHANICAL CONTRACTOR.
7. DISCONNECT & REMOVE EXISTING MOTOR DISCONNECT SWITCH, WIRING, CONDUIT AND COMPONENTS SERVING CIRCULATING PUMP BACK TO SOURCE.
8. DISCONNECT & REMOVE EXISTING DUCT SMOKE DETECTOR AND CIRCUIT BACK TO POINT OF ORIGIN.
9. DISCONNECT & REMOVE POWER WIRING & CONDUIT UP TO THE SOURCE PANEL ASSOCIATED WITH EXISTING BOILER.
10. DISCONNECT & REMOVE EXISTING FIRE ALARM PANEL & ASSOCIATED DEVICES FIRE ALARM CIRCUITS AND POWER SUPPLY CIRCUIT. FIELD VERIFY AND CONFIRM THAT THE FIRE ALARM PANEL DOES NOT SERVE &/OR TIED TO DEVICES OUTSIDE THE AREA OF SCOPE OF WORK.
11. DISCONNECT & REMOVE EXISTING LIGHTS, EMERGENCY LIGHTS & OTHER CEILING MOUNTED DEVICES & SECURE ASSOCIATED WIRING & CONDUIT FOR RECONNECTION. CONTRACTOR SHALL SECURE REMOVED LIGHT FIXTURES & OTHER DEVICES IN CARDBOARD BOXES AT A SAFE & SECURE LOCATION.
12. DISCONNECT & REMOVE EXISTING STARTER, DISCONNECT SWITCH, WIRING, CONDUITS AND COMPONENTS CURRENTLY SERVING UNIT HEATER.
13. DISCONNECT & REMOVE EXISTING MANUAL MOTOR STARTERS FOR ROOF FANS AND ASSOCIATED WIRING, CONTROLS ETC.



2 E101 POWER CONSTRUCTION PLAN - FIRST FLOOR
SCALE: 1/4"-1"-0"

CONSTRUCTION KEY NOTES:

1. PROVIDE POWER CIRCUIT FOR HEAT-TIMER BOILER CONTROL PANEL. COORDINATE FINAL CONTROL PANEL LOCATION AND ALL RELATED WORK WITH MECHANICAL CONTRACTOR.
2. 3#12 & 1#12G IN 3/4"C TO ACCU-2 ON ROOF. SEE WIRING DETAIL NO. 1 ON DRAWING E001 FOR MORE INFORMATION.
3. PROVIDE 2#10 & 1#10G IN 3/4"C POWER SUPPLY CIRCUIT TO ACCU-1.
4. RELOCATE EXISTING SWITCH, ASSOCIATED WIRING AND CONDUIT THAT OBSTRUCT NEW MECHANICAL DUCT WORK, TO WALL ON OTHER SIDE OF DOOR WITHIN THE SAME ROOM. COORDINATE WITH MECHANICAL CONTRACTOR.
5. PROVIDE NEW FIRE ALARM PANEL. SEE FIRE ALARM CONSTRUCTION PLAN FOR ADDITIONAL INFORMATION.
6. PROVIDE 3#12 & 1#12G IN 3/4"C.
7. PROVIDE POWER FOR VAV BOX CONTROLLER. PROVIDE STEP DOWN TRANSFORMER AS REQUIRED.
8. RE-INSTALL FIXTURES & OTHER DEVICES AFTER THE NEW CEILING IS INSTALLED & RECONNECT TO EXISTING WIRING. EXTEND WIRING & CONDUIT AS REQUIRED & VERIFY & CONFIRM THE FIXTURES/DEVICES ARE FULLY FUNCTIONAL AFTER RE-INSTALLATION.
9. PROVIDE 3#12 & 1#12G IN 3/4"C FROM ACCU-1 TO AC-1. SEE WIRING DETAIL NO.1 ON DRAWING E001 FOR MORE INFORMATION.

PROFESSIONAL SEAL
SANJEEV AGARWAL
NJ LIC # 24GE04299600

STATE OF NEW JERSEY · SANJEEV AGARWAL · 24GE04299600 · LICENSED PROFESSIONAL ENGINEER

DocuSigned by: Sanjeev Agarwal

OWNER:
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HONORABLE PHILIP D. MURPHY, GOVERNOR
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20 WEST STATE STREET, 3RD FLOOR
P.O. BOX 038
TRENTON, NEW JERSEY 08625-0038

CHRISTOPHER CHIANESE, DIRECTOR

DPMC PROJECT NO. T0678-00

REV.	DESCRIPTION	DATE
3	DCA SUBMISSION	05-31-24
2	FINAL DESIGN PHASE	01-15-24
1	FINAL DESIGN PHASE	10-04-23

JOB TITLE: ROOF REPLACEMENT, HVAC UPGRADE & MOLD REMEDIATION PROJECT
WINSLOW SPECIALTY INSPECTION STATION
550 SPRING GARDEN STREET
WINSLOW, NJ 08037

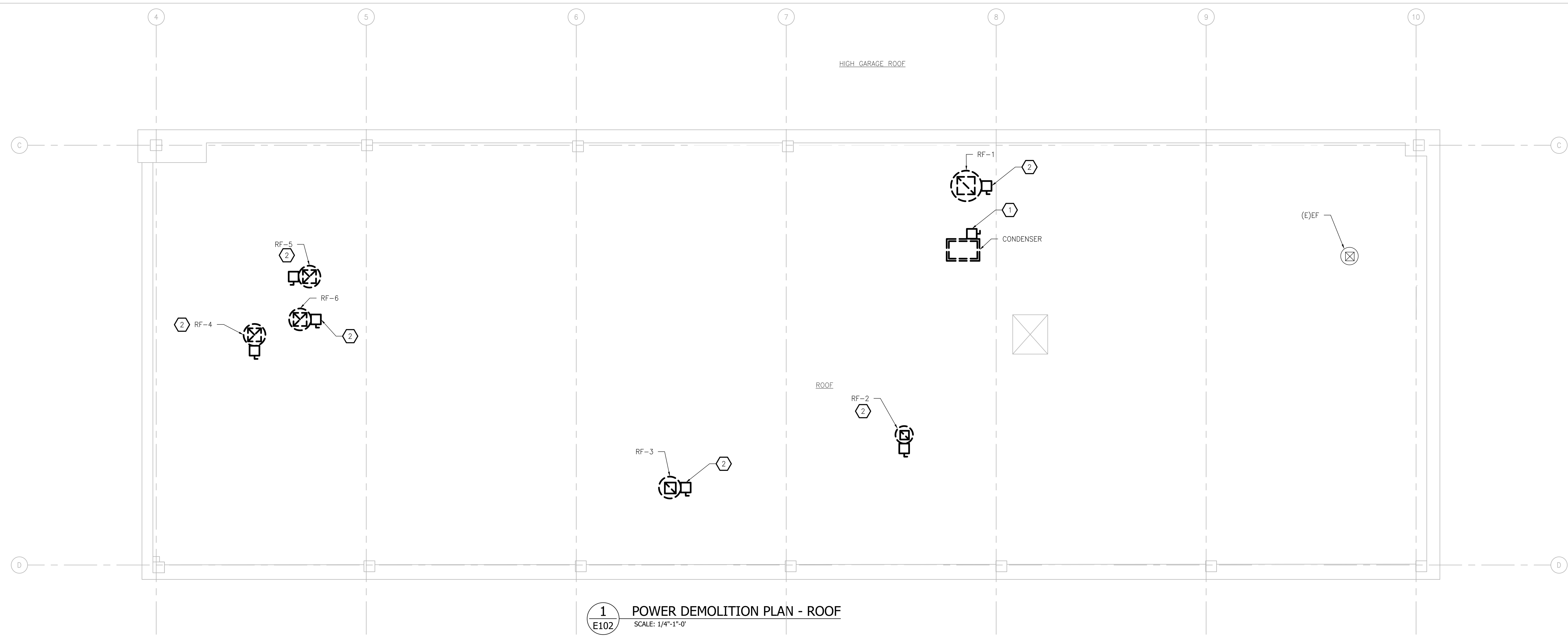
SHEET TITLE: POWER PLAN - FIRST FLOOR
REF. NO. T0678-00
DCA REF. No.
SHEET NO. 02 OF 05

ARCHITECT:
ARMM ARCHITECTURE ASSOCIATES, INC. 41 GROVE STREET
HADDONFIELD, NEW JERSEY 08033
DRAWING NUMBER: E101

SANJEEV AGARWAL
NJ LIC # 24GE04299600
DATE: 02-16-2023

DRAWN BY: SACHIN FERNANDO | APPROVED BY: SANJEEV AGARWAL | SCALE: AS NOTED

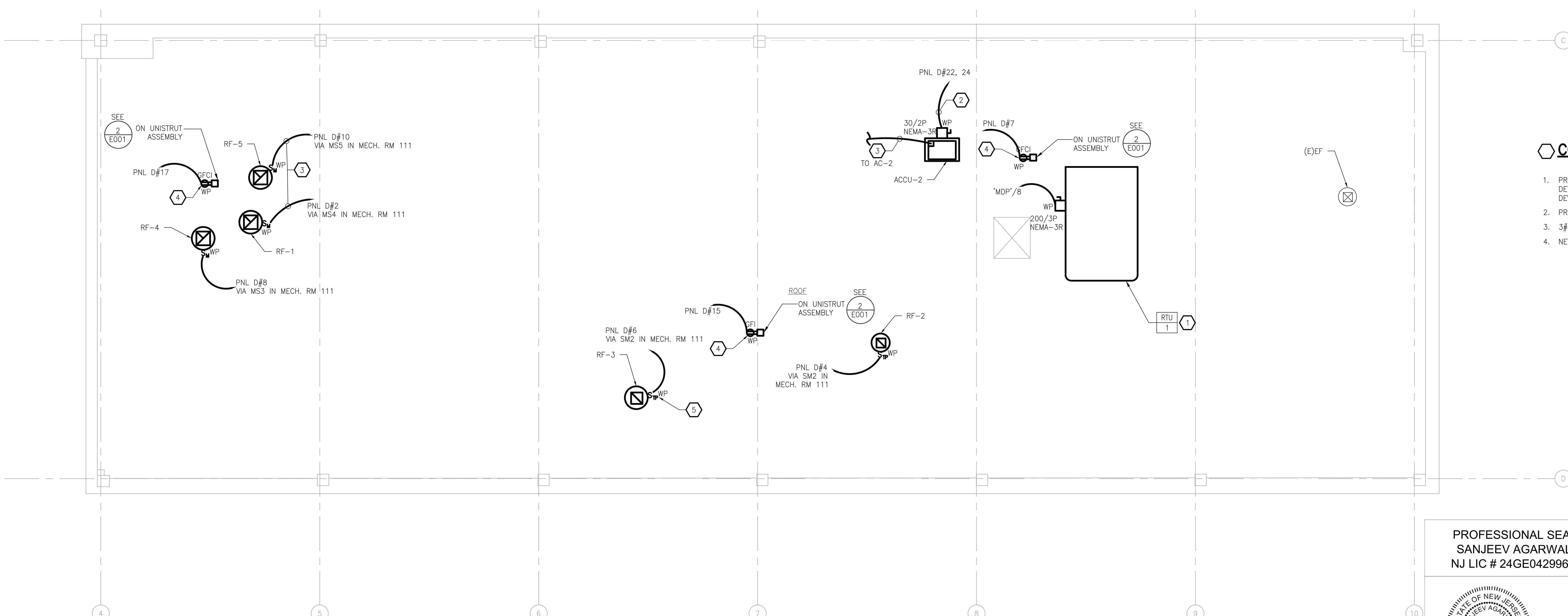
Department of Community Affairs
Construction Project Review
Project No: 9069-24
PARTIAL RELEASE
ELECTRICAL
David Godbolt
Released: 08/07/24
N.J.S.A. 52:27D-119 ET SEQ., AS AMENDED



1 E102 POWER DEMOLITION PLAN - ROOF
SCALE: 1/4"-1'-0"

DEMOLITION KEY NOTES:

1. DISCONNECT & REMOVE EXISTING MITSUBISHI SPLIT-TYPE ROOF TOP MOUNTED CONDENSER, ASSOCIATED DISCONNECT SWITCH, WIRING CONDUITS AND COMPONENTS BACK TO SOURCE. COORDINATE ALL WORK WITH MECHANICAL CONTRACTOR.
2. DISCONNECT & REMOVE EXISTING DISCONNECT SWITCH, WIRING CONDUITS AND COMPONENTS SERVING EXISTING EXHAUST FAN BACK TO SOURCE. COORDINATE ALL WORK WITH MECHANICAL CONTRACTOR.



2 E102 POWER CONSTRUCTION PLAN - ROOF
SCALE: 1/4"-1'-0"

CONSTRUCTION KEY NOTES:

1. PROVIDE POWER TO NEW RTU. PROVIDE REMOTE TESTING SWITCH FOR DUCT SMOKE DETECTORS ON FLOOR BELOW, VISIBLY ACCESSIBLE WITHIN THREE (3) FEET OF DEVICE.
2. PROVIDE 2#10 & 1#10G IN 3/4"C POWER SUPPLY CIRCUIT TO ACCU-2.
3. 3#12 & 1#12G IN 3/4"C TO AC-2 IN LOCKER STORAGE RM 103.
4. NEW RECEPTACLE. SEE DETAIL 2/E001.

PROFESSIONAL SEAL
SANJEEV AGARWAL
NJ LIC # 24GE04299600

STATE OF NEW JERSEY SANJEEV AGARWAL 24GE04299600 LICENSED PROFESSIONAL ENGINEER

DocuSigned by: Sanjeev Agarwal DDFFFBD66ED9402...

OWNER:
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HONORABLE PHILIP D. MURPHY, GOVERNOR
DEPARTMENT OF THE TREASURY
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TRENTON, NEW JERSEY 08625-0038

CHRISTOPHER CHIANESE, DIRECTOR

DPMC PROJECT NO. T0678-00

REV.	DESCRIPTION	DATE
3	DCA SUBMISSION	05-31-24
2	FINAL DESIGN PHASE	01-15-24
1	FINAL DESIGN PHASE	10-04-23

JOB TITLE: ROOF REPLACEMENT, HVAC UPGRADE & MOLD REMEDIATION PROJECT
WINSLOW SPECIALTY INSPECTION STATION
550 SPRING GARDEN STREET
WINSLOW, NJ 08037

SHEET TITLE: POWER PLAN - ROOF
REF. NO. T0678-00
SHEET NO. 03 OF 05
DCA REF. No.

ARCHITECT:
ARMM ARCHITECTURE ASSOCIATES, INC. 41 GROVE STREET
HADDONFIELD, NEW JERSEY 08033

DRAWING NUMBER: E102

SANJEEV AGARWAL
NJ LIC # 24GE04299600

DATE: 02-16-2023

DRAWN BY: SACHIN FERNANDO
APPROVED BY: SANJEEV AGARWAL
SCALE: AS NOTED

1 E103 FIRE ALARM CONSTRUCTION PLAN - FIRST FLOOR
SCALE: 1/4"-1"-0'

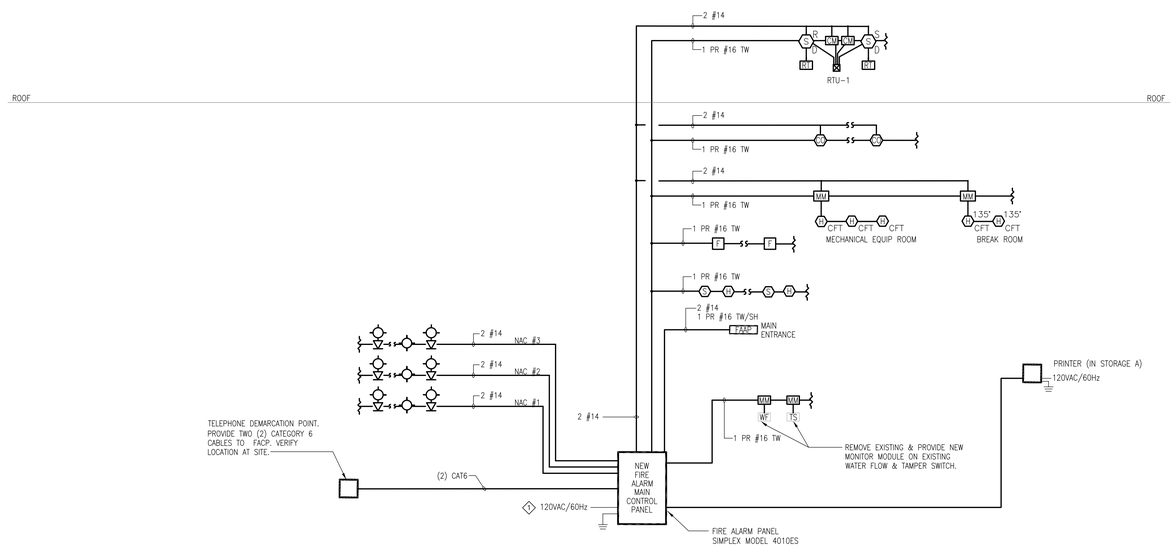
CONSTRUCTION KEY NOTES

SYMBOL	DESCRIPTION
C1	PROVIDE NEW FIRE STROBE
C2	PROVIDE NEW SMOKE DETECTOR
C3	PROVIDE NEW FIRE HORN STROBE
C4	PROVIDE NEW FIRE PULL STATION
C5	PROVIDE NEW HEAT DETECTOR ABOVE CEILING
C6	PROVIDE NEW CO DETECTOR WITH SOUNDER BASE
C7	PROVIDE NEW FIRE ALARM SYSTEM CONTROL PANEL.
C8	PROVIDE NEW FLOW SWITCH
C9	PROVIDE NEW TAMPER SWITCH
C10	PROVIDE NEW FIRE ALARM SYSTEM PRINTER

Department of Community Affairs
Construction Project Review
Project No: 9069-24
PARTIAL RELEASE
ELECTRICAL
David Godbolt
Released: 08/07/24
N.J.S.A. 52:27D-119 ET SEQ., AS AMENDED

FIRE ALARM SYSTEM - EVENT MATRIX

EVENT	SOUND AUDIBLE/VISUAL APPLIANCES	ALARM ON CONTROL PANEL	ALARM ON ANNUNCIATORS	TROUBLE ON CONTROL PANEL	TROUBLE ON ANNUNCIATORS	SUPERVISORY ON CONTROL PANEL	SUPERVISORY ON ANNUNCIATOR	SHUT DOWN LOCAL AIR HANDLER	SHUT DOWN ALL AIR HANDLERS	REPORT TO OFF-SITE MONITORING/PRINTER	OPEN GRAVITY VENTILATORS & TURN ON SMOKE EXHAUST FANS	SOUND LOCAL ALARM BY SOUNDER BASE OF CO
	RESPONSE											
MANUAL PULL STATION	X	X	X							X		
AREA SMOKE DETECTOR	X	X	X							X		
AREA HEAT DETECTOR	X	X	X							X		
DUCT DETECTOR						X	X	X		X		
FIRE ALARM SYSTEM TROUBLE				X	X					X		
FIREMANS AIR HANDLER SHUTDOWN SWITCH AT ANNUNCIATOR								X	X	X		
AREA C.O. DETECTOR		X	X							X		X



2 E103 FIRE ALARM RISER DIAGRAM
NO SCALE

RISER NOTES:
1. RISER IS A DIAGRAMMATICAL REPRESENTATION OF THE SYSTEM ARCHITECTURE IN BUILDING CROSS SECTION. IT IS NOT INTENDED TO REPRESENT ACTUAL WIRE RUNS, PANEL CONFIGURATIONS OR PENETRATIONS. REFER TO FLOOR PLANS AND PANEL DETAILS FOR CIRCUIT ROUTING AND CONFIGURATION INFORMATION.
2. ALL WIRING SHALL COMPLY WITH APPLICABLE ELECTRICAL CODES. REFER TO "APPLICABLE CODES & STANDARDS" ON SHEET E001 FOR SPECIFIC CODE REFERENCES.
3. FIRE ALARM RISER DOES NOT INDICATE ALL DEVICES. REFER TO THE FIRE ALARM PLAN FOR QUANTITIES AND LOCATIONS OF THE DEVICES.

KEYED NOTES:
1. 120VAC PRIMARY POWER SOURCE SHALL BE A MECHANICALLY PROTECTED BRANCH CIRCUIT. THE CIRCUIT DISCONNECTING MEANS SHALL HAVE A RED MARKING, AND BE IDENTIFIED AS "FIRE ALARM CIRCUIT"

SYMBOL	DESCRIPTION	BRAND	MODEL	BOX CODE	WIRE TYPE
PANELS & ANNUNCIATORS					
FACP	4100ES FIRE ALARM CONTROL PANEL, 120 VAC	SIMPLEX	4100-9311	MFG	
TPR#	4100ES TRANSPONDER FIRE ALARM TRANSPONDER PANEL, 120 VAC	SIMPLEX	4100-9600	MFG	
FAA	REMOTE ANNUCIATOR W/ REMOTE MIC	SIMPLEX	4100-9610	MFG	BP
INITIATING DEVICES					
F	DOUBLE ACTION MANUAL PUSH/PULL STATION	SIMPLEX	4099-9006	4G1E	M
S	ADDRESSABLE PHOTOELECTRIC SMOKE SENSOR WITH STANDARD BASE	SIMPLEX	4098-9714 HEAD 4098-9792 BASE	4K4R	M
H AC	HEAT SENSOR WITH STANDARD BASE	SIMPLEX	4098-9733 HEAD 4098-9792 BASE	4A1B	MP
S D	ADDRESSABLE SMOKE DETECTOR WITH RELAY OUTPUT	SIMPLEX	4098-9756	MDW	MP
NOTIFICATION APPLICANCES					**TAP ALL SPEAKERS AT 70.7 VOLTS**
	ADDRESSABLE STROBE, WALL MOUNTED, RED, FIRE, CLEAR LENS	SIMPLEX	49V0-WRF0	MFG	A
CO	ADDRESSABLE CARBON MONOXIDE DETECTOR WITH SOUNDER BASE	SIMPLEX	4098-9714 HEAD 4098-9733 HEAD 4098-9771 BASE	4K4R	M
TS	FLOW SWITCH	COMPATIBLE WITH FACP		FBO	Z
FS	VALVE TAMPER SWITCH	COMPATIBLE WITH FACP		FBO	Z

PROFESSIONAL SEAL
SANJEEV AGARWAL
NJ LIC # 24GE04299600

STATE OF NEW JERSEY · SANJEEV AGARWAL · 24GE04299600 · LICENSED PROFESSIONAL ENGINEER

DocuSigned by: Sanjeev Agarwal

OWNER:
STATE OF NEW JERSEY
HONORABLE PHILIP D. MURPHY, GOVERNOR
DEPARTMENT OF THE TREASURY
DIVISION OF PROPERTY MANAGEMENT & CONSTRUCTION
20 WEST STATE STREET, 3RD FLOOR
P.O. BOX 038
TRENTON, NEW JERSEY 08625-0038

CHRISTOPHER CHIANESE, DIRECTOR

DPMC PROJECT NO. T0678-00

REV.	DESCRIPTION	DATE
3	DCA SUBMISSION	05-31-24
2	FINAL DESIGN PHASE	01-15-24
1	FINAL DESIGN PHASE	10-04-23

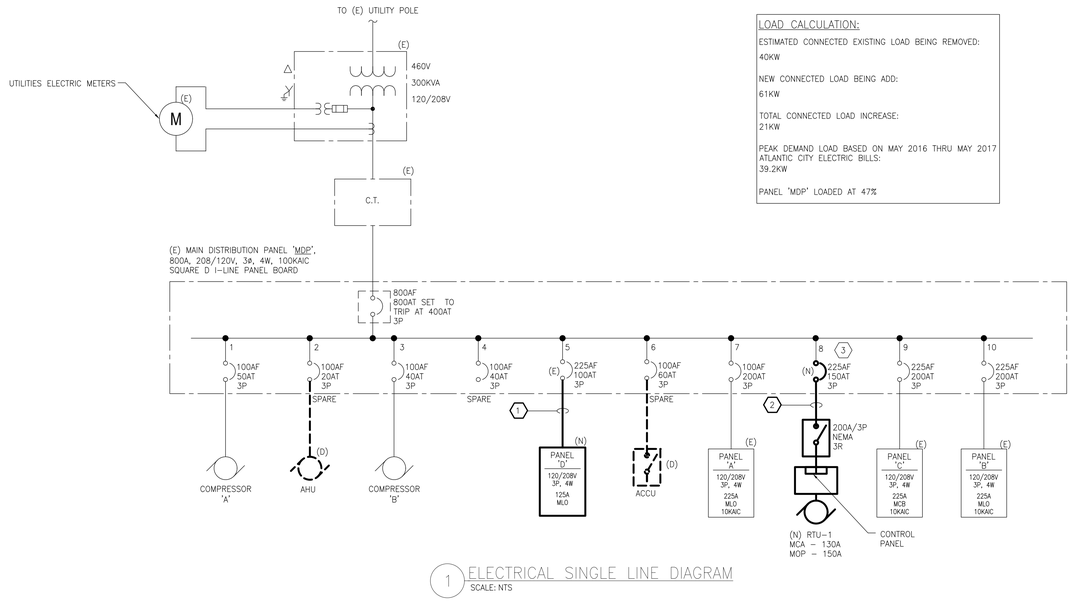
JOB TITLE: ROOF REPLACEMENT, HVAC UPGRADE & MOLD REMEDIATION PROJECT
WINSLOW SPECIALTY INSPECTION STATION
550 SPRING GARDEN STREET
WINSLOW, NJ 08037

SHEET TITLE: FIRE ALARM CONSTRUCTION PLAN -FIRST FLOOR & RISER DIAGRAM
REF. NO. T0678-00
DCA REF. No.
SHEET NO. 04 OF 05

ARCHITECT:
ARMM ARCHITECTURE ASSOCIATES, INC. 41 GROVE STREET
HADDONFIELD, NEW JERSEY 08033
DRAWING NUMBER: E103

SANJEEV AGARWAL
NJ LIC # 24GE04299600
DATE: 02-16-2023

DRAWN BY: SACHIN FERNANDO
APPROVED BY: SANJEEV AGARWAL
SCALE: AS NOTED



1 ELECTRICAL SINGLE LINE DIAGRAM
SCALE: NTS

LOAD CALCULATION:

ESTIMATED CONNECTED EXISTING LOAD BEING REMOVED:
40KW

NEW CONNECTED LOAD BEING ADD:
61KW

TOTAL CONNECTED LOAD INCREASE:
21KW

PEAK DEMAND LOAD BASED ON MAY 2016 THRU MAY 2017
ATLANTIC CITY ELECTRIC BILLS:
39.2KW

PANEL 'MDP' LOADED AT 47%

KEY NOTES:

1. PROVIDE 4#2 & 1#8 IN 1-1/4" CONDUIT
2. PROVIDE 3#1/0 & 1#6G IN 1-1/2" CONDUIT
3. PROVIDE NEW 225AF/150AT BREAKER INTO EXISTING 3 POLE SPACE. BREAKER SHALL BE RATED AT 100KAIC.

GENERAL SHEET NOTES:

1. REFER TO DRAWINGS E-001 FOR SYMBOLS, ABBREVIATIONS, GENERAL AND DEMOLITION NOTES.
2. E.C. SHALL COORDINATE UNIT SELECTION FUSE AND/OR CIRCUIT BREAKER SIZE AND ELECTRICAL REQUIREMENTS WITH EQUIPMENT MANUFACTURER, MECHANICAL CONTRACTOR AND OWNER. REPORT ANY DISCREPANCY TO PRINCETON ENGINEERING SERVICES BEFORE PURCHASE OF ANY EQUIPMENT.
3. ALL DEVICES SHOWN ARE NEW U.O.N..

Department of Community Affairs
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N.J.S.A. 52:27D-119 ET SEQ., AS AMENDED

Designation: **PANEL C** | Panel Voltage: 208Y/120Volt 3 Phase 4 wire | AIC Rating: 10KAIC | **Existing Panel** | Main Circuit Breaker **225** / **42**

LOAD TYPE	CIR NO	FEEDER DATA No.	WIRE	GND	LOAD DESCRIPTION	C.B. POLE NO.	C.B. TRIP A	C.B. LOAD VA	PHASE A	PHASE B	PHASE C	C.B. LOAD VA	C.B. TRIP A	C.B. POLE NO.	LOAD DESCRIPTION	FEEDER DATA No.	WIRE	GND	CIR. NO.	LOAD TYPE
EX	1	2	12	12	(E) RECEPTACLE LOBBY, BATHROOM	1	20						20	1	(E) EMERGENCY LIGHTS FROM DOOR	2	12	12	2	EX
EX	3	2	12	12	(E) LIGHTS HALL, OFFICE	1	20						20	1	(E) RECEPTACLE LOCKER ROOM	2	12	12	4	EX
EX	5	2	12	12	(E) RECEPTACLE OFFICE HALLWAY	1	20						20	1	SPARE				6	
EX	7	2	12	12	(E) LIGHTS KITCHEN (2) LOCKER ROOM	1	20						20	1	(E) REFRIGERATOR	2	12	12	8	EX
EX	9	2	12	12	(E) WATER COOLER	1	20						20	1	(E) RECEPTACLE CLE STORAGE, MENS BATHROOM	2	12	12	10	EX
EX	11	2	12	12	(E) RECEPTACLE KITCHEN	1	20						20	1	SPARE				12	
EX	13	2	12	12	(E) CLOCK RECEPTACLES	1	20						20	1	(E) CCTV (CAMERAS) OUTLET IN OFFICE	2	12	12	14	EX
EX	15	2	12	12	(E) CONTROL VALVES	1	20						20	1	(E) LIGHTING STORAGE ROOM	2	12	12	16	EX
EX	17	2	12	12	(E) CONTROL VALVES	1	20						20	1	(E) HVAC PHONE ROOM	2	12	12	18	EX
	19				SPARE	1	20						20	1	SPARE				20	EX
	21				SPARE	1	20						20	1	SPARE				22	EX
	23				SPARE	1	20						20	1	SPARE				24	EX
	25				SPARE	1	20												26	
EX	27	3	8	10	(E) COUNTER TOP STOVE	2	40						20	3	SPARE				28	
EX	29																		30	
	31	2	12	12	SPARE	1	20												32	
EX	33	2	10	10	(E) WALL HEATER BY JOE	2	30						20	3	SPARE				34	
EX	35																		36	
	37																		38	EX
	39				SPARE	3	20						20	3	(E) WELL PUMP	3	12	12	40	EX
	41																		42	EX

Panel Type: Nema 1 | Mounting: Surface | Location: STORAGE ROOM 111 | Fed From: MDP
Phase Conn. | Total Connected Load | Bus Size 225 | Voltage 208

Remarks:
PROVIDE NEW TYPE WRITTEN CIRCUIT DIRECTORY INDICATING ALL EXISTING CONNECTED LOADS AND SPARE CIRCUITS.

Designation: **PANEL A** | Panel Voltage: 208Y/120Volt 3 Phase 4 wire | AIC Rating: 10KAIC | **Existing Panel** | Main Lugs Only **225** / **42**

LOAD TYPE	CIR NO	FEEDER DATA No.	WIRE	GND	LOAD DESCRIPTION	C.B. POLE NO.	C.B. TRIP A	C.B. LOAD VA	PHASE A	PHASE B	PHASE C	C.B. LOAD VA	C.B. TRIP A	C.B. POLE NO.	LOAD DESCRIPTION	FEEDER DATA No.	WIRE	GND	CIR. NO.	LOAD TYPE
	1				SPACE										SPACE				2	
EX	3	2	10	10	(E)	2	30								SPACE				4	
EX	5												20	1	(E) DOOR #4	2	12	12	6	EX
EX	7	2	12	12	(E) LANE 2 EXIT	1	20						20	1	(E) DOOR #5	2	12	12	8	EX
EX	9	2	12	12	(E) EMISSION ANALYZER	1	20						20	1	(E) FLOOD LIGHTS	2	12	12	10	EX
	11				SPARE	1	20						20	1	(E) FLOOD LIGHTS	2	12	12	12	EX
EX	13	2	12	12	(E) BOILER ROOM LIGHTS	1	20												14	
	15				SPARE	1	20						20	3	SPARE				16	
EX	17	2	12	12	RP-1	1	20												18	
	19				SPARE	1	20												20	EX
	21				SPARE	1	20						20	2	(E) SITE LIGHTS	2	12	12	22	EX
EX	23	2	12	12	(E) TELEPHONE RECEPTACLE	1	20												24	EX
EX	25	2	12	12	(E) FLOOD LIGHTS	1	20						20	2	(E) SITE LIGHTS	2	12	12	26	EX
EX	27	2	12	12	(E) AIR DRYER	1	20												28	EX
EX	29	2	12	12	(E) SIGHT LIGHTS	2	20						20	2	(E) SITE LIGHTS	2	12	12	30	EX
EX	31												20	1	(E) TIME CLOCK LLC	2	12	12	32	EX
EX	33	2	12	12	(E) SIGHT LIGHTS	2	20						20	1	(E) OUTSIDE REAR RECEPTACLE	2	12	12	34	EX
EX	35												20	1	(E) ANALYZER RECEPTACLE 2	2	12	12	36	EX
EX	37	2	12	12	(E) ANALYZER RECEPTACLE 2	1	20						20	1	(E) ANALYZER RECEPTACLE 3	2	12	12	38	EX
	39				SPACE	1	20						20	1	(E) ANALYZER RECEPTACLE 1	2	12	12	40	EX
	41				SPACE	1	20						20	1	(E) ANALYZER RECEPTACLE 1	2	12	12	42	EX

Panel Type: Nema 1 | Mounting: Surface | Location: MECHANICAL ROOM 113 | Fed From: MDP
Phase Conn. | Total Connected Load | Bus Size 225 | Voltage 208

Remarks:
PROVIDE NEW TYPE WRITTEN CIRCUIT DIRECTORY AND INDICATE ALL CONNECTED LOADS AND SPARE CIRCUITS.

Designation: **PANEL D** | Panel Voltage: 208Y/120Volt 3 Phase 4 wire | AIC Rating: 10KAIC | **New Panel** | Main Lugs Only **125** | Number of Poles: **30**

LOAD TYPE	CIR NO	FEEDER DATA No.	WIRE	GND	LOAD DESCRIPTION	C.B. POLE NO.	C.B. TRIP A	C.B. LOAD VA	PHASE A	PHASE B	PHASE C	C.B. LOAD VA	C.B. TRIP A	C.B. POLE NO.	LOAD DESCRIPTION	FEEDER DATA No.	WIRE	GND	CIR. NO.	LOAD TYPE
	1	2	12	12	BOILER	1	20	1200	1728			528	20	1	RF-1	2	12	12	2	
	3	2	12	12	BOILER CONTROL PANEL	1	20	300		828		528	20	1	RF-2	2	12	12	4	
	5	2	12	12	BAS PANEL	1	20	200			728	528	20	1	RF-3	2	12	12	6	
	7	2	12	12	UTILITY RECEPTACLE	1	20	180	708			528	20	1	RF-4	2	12	12	8	
	9	2	12	12	OUTDOOR RECEPTACLE AT ACCU-1	1	20	180		708		528	20	1	RF-5	2	12	12	10	
	11	2	12	12	CONDENSING PUMP AC-1	1	20	100			175	75	20	1	VAV - 1, 2 & 3	2	12	12	12	
	13	2	12	12	CONDENSING PUMP AC-2	1	20	100	150			50	20	1	VAV - 4 & 5	2	12	12	14	
	15	2	12	12	UTILITY RECEPTACLE	1	20	180		230		50	20	1	VAV 6 & 7	2	12	12	16	
	17	2	12	12	UTILITY RECEPTACLE	1	20	180			2008	1828	20	1	ACCU-1/AC-1	2	10	10	18	
	19	2	12	12	SPARE	1	20		1828			1828	20	1					20	
	21	2	12	12	SPARE	1	20			1828		1828	20	1	ACCU-2/AC-2	2	10	10	22	
	23	2	12	12	SPARE	1	20				1828	1828	20	1					24	
	25	2	12	12	SPARE	1	20		900			900	20	1					26	
	27	2	12	12	FIRE ALARM CONTROL PANEL	1	20	800		1700		900	20	1	CIRCULATING PUMP - P1, 2 HP	3	12	12	28	
	29	2	12	12	FIRE ALARM PRINTER	1	20	100			1000	900	20	1					30	

Panel Type: Nema 1 | Mounting: Surface | Location: STORAGE ROOM 111 | Fed From: MDP
Phase Conn. 5314 | 5294 | 5739 VA | Total Connected Load 16 KVA | 45 AMPS | Bus Size 125 | Voltage 208

Remarks:
PANEL WITH INTEGRAL TVSS, DOOR-IN-DOOR HINGED FRONT, METAL DIRECTORY HOLDER.
CIRCUIT #27 & 29 - PROVIDE RED HANDLE LOCKS ON BREAKERS.

PROFESSIONAL SEAL
SANJEEV AGARWAL
NJ LIC # 24GE04299600

STATE OF NEW JERSEY · SANJEEV AGARWAL · 24GE04299600 · LICENSED PROFESSIONAL ENGINEER

Docusigned by: Sanjeev Agarwal

OWNER:
STATE OF NEW JERSEY
HONORABLE PHILIP D. MURPHY, GOVERNOR
DEPARTMENT OF THE TREASURY
DIVISION OF PROPERTY MANAGEMENT & CONSTRUCTION
20 WEST STATE STREET, 3RD FLOOR
P.O. BOX 038
TRENTON, NEW JERSEY 08625-0038

CHRISTOPHER CHIANESE, DIRECTOR

DPMC PROJECT NO. T0678-00

REV.	DESCRIPTION	DATE
3	DCA SUBMISSION	05-31-24
2	FINAL DESIGN PHASE	01-15-24
1	FINAL DESIGN PHASE	10-04-23

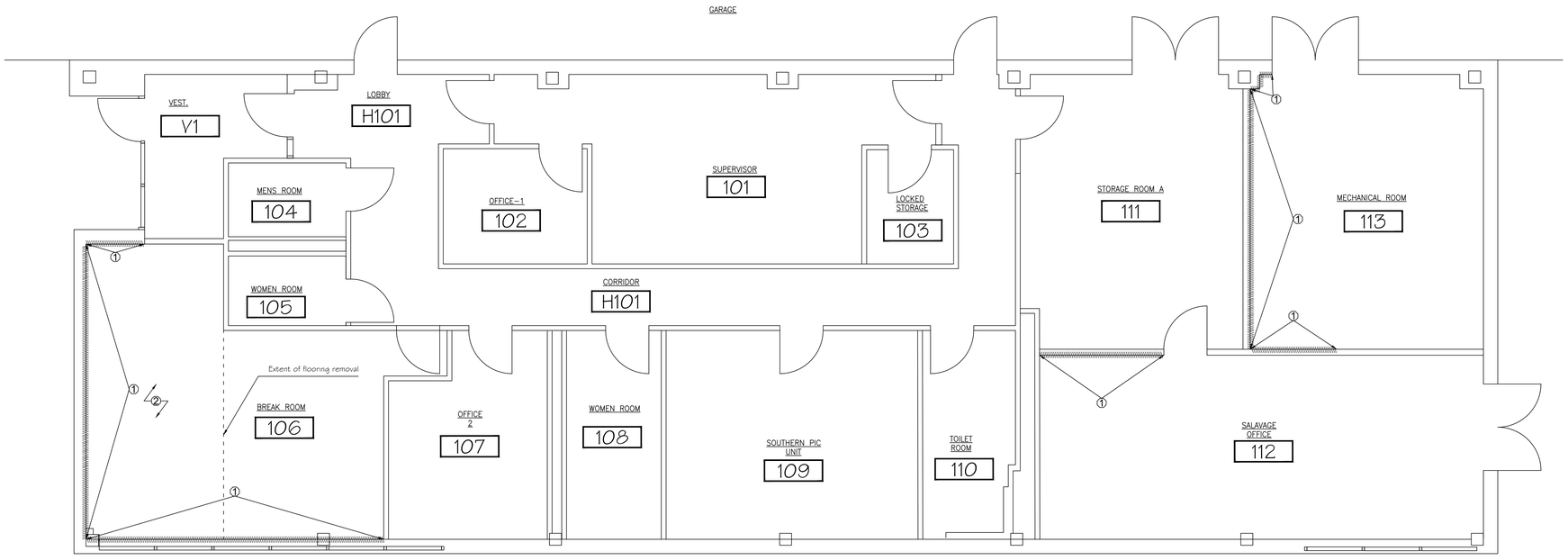
JOB TITLE: ROOF REPLACEMENT, HVAC UPGRADE & MOLD REMEDIATION PROJECT
WINSLOW SPECIALTY INSPECTION STATION
550 SPRING GARDEN STREET
WINSLOW, NJ 08037

SHEET TITLE: ELECTRICAL PANEL SCHEDULES AND SINGLE LINE DIAGRAM
REF. NO. T0678-00
SHEET NO. 05 OF 05
DCA REF. No.

ARCHITECT:
ARMM ARCHITECTURE ASSOCIATES, INC. 41 GROVE STREET
HADDONFIELD, NEW JERSEY 08033
DRAWING NUMBER: E401

SANJEEV AGARWAL
NJ LIC # 24GE04299600
DATE: 02-16-2023

DRAWN BY: SACHIN FERNANDO | APPROVED BY: SANJEEV AGARWAL | SCALE: AS NOTED



1 HA1 Mold Remediation First Floor Plan

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

- KEY REMEDIATION NOTES -

① REMOVE WATER-IMPACTED/DAMAGED DRYWALL FROM THE FLOOR TO A MINIMUM HEIGHT OF FOUR FEET (4') AND ONE (1) FOOT BEYOND ANY VISIBLE MOLD GROWTH OR STAINING. REMOVE ALL CELLULOSE-BASED ITEMS AND FIBERGLASS INSULATING MATERIALS WITHIN THE WALL CAVITY. CLEAN AND DISINFECT ALL EXPOSED SURFACES WITHIN THE WALL CAVITY. APPLY AN ANTI-MICROBIAL COATING TO ALL EXPOSED SURFACES WITHIN THE WALL CAVITY, EXCLUDING THE FLOOR.

② REMOVE AND REPLACE APPROXIMATELY TWO HUNDRED (200) SQUARE FEET OF WATER IMPACTED FLOOR TILE; AND CLEAN AND DISINFECT ALL EXPOSED SURFACES, I.E., FLOOR, CABINETS, CHAIRS, TABLES, ETC.

- GENERAL REMEDIATION NOTES -

1. CLEAN AND DISINFECT ALL HVAC DIFFUSERS AND REGISTERS SCHEDULED TO REMAIN.

2. REMOVE ALL MICROBIAL IMPACTED CEILING TILES SURROUNDING ANY DIFFUSERS AND REGISTERS.

3. ALL REMEDIATION WORK SHALL BE CONDUCTED WITHIN A NEGATIVE PRESSURE ENCLOSURE.

4. WORK SHALL BE CONDUCTED AS SPECIFIED IN THE GENERAL PROVISIONS OF THE CONTRACT, INCLUDING GENERAL AND SUPPLEMENTARY CONDITIONS, AND IN ACCORDANCE WITH:

   a. INSTITUTE OF INSPECTION CLEANING AND RESTORATION, *STANDARD AND REFERENCE GUIDE FOR PROFESSIONAL MOLD REMEDIATION - S520; AND*
   b. THE JOINT INFORMATION BULLETIN OF THE NEW JERSEY, DEPARTMENT OF HEALTH / NEW JERSEY, DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT, *MOLD IN THE WORKPLACE PREVENTION AND CONTROL* AS PREPARED BY THE PUBLIC EMPLOYEES OCCUPATIONAL SAFETY AND HEALTH PROGRAM.

- PROJECT SCHEDULE -

1. IT IS THE INTENTION OF THE CLIENT TO COMPLETE THE WORK WITHIN 02 8500 WITHIN TEN (10), EIGHT (8) HOUR WORK SHIFTS, MONDAY - FRIDAY, BETWEEN THE HOURS OF 7:00 AM - 4:30 PM, EXCLUDING WEEKENDS AND STATE OF NEW JERSEY HOLIDAYS.

2. THE WORK SCHEDULE SHALL BE MAINTAINED BY THE CONTRACTOR AT ALL TIMES. THERE SHALL BE NO PROVISIONS ALLOWED FOR THE CONTRACTOR TO EXTEND OR ALTER THE SCHEDULE.

3. THE SCHEDULE SHALL INCLUDE SATISFACTORY CLEARANCE SAMPLING, FINAL INSPECTION OF THE WORK AREA, AND DEMOBILIZATION OF ALL CONTRACTOR EQUIPMENT.

4. THE CONTRACTOR IS REQUIRED TO PROVIDE ACCEPTABLE CREW SIZES, ALONG WITH ADEQUATE SUPPLY OF MATERIALS AND EQUIPMENT TO ALLOW WORK TO PROCEED UNINTERRUPTED AND AT AN APPROPRIATE PACE TO COMPLETE ALL WORK WITHIN 02 8500 WITHIN TEN (10), EIGHT (8) HOUR WORK SHIFTS, MONDAY - FRIDAY, DURING THE HOURS OF 7:00 AM - 4:30 PM, EXCLUDING WEEKENDS AND STATE OF NEW JERSEY HOLIDAYS. THE CONTRACTOR WILL BE RESPONSIBLE TO PAY FOR THE COSTS OF THE PROJECT CONSULTANT (THROUGH A CREDIT CHANGE ORDER) AT A COST OF $880.00 PER WORK SHIFT FOR EACH WORK SHIFT THAT WORK IS PERFORMED BEYOND THIS DURATION.

CONSULTANT:

USA Environmental Management, Inc.
344 West State Street
Trenton, NJ 08618
609.656.8101
Environmental, Engineering & Construction

OWNER:

STATE OF NEW JERSEY
HONORABLE PHILIP D. MURPHY, GOVERNOR
DEPARTMENT OF THE TREASURY
DIVISION OF PROPERTY MANAGEMENT & CONSTRUCTION
20 WEST STATE STREET, 3RD FLOOR
P.O. BOX 038
TRENTON, NEW JERSEY 08625-0038

CHRISTOPHER CHIANESE, DIRECTOR

DPMC PROJECT NO. T0678-00

REV.	DESCRIPTION	DATE
2	FINAL DESING PHASE	10-04-23
1	DESIGN DEVELOPMENT PHASE	05-01-23

JOB TITLE: ROOF REPLACEMENT, HVAC UPGRADE & MOLD REMEDIATION PROJECT
WINSLOW SPECIALTY INSPECTION STATION
550 SPRING GARDEN STREET
WINSLOW, NJ 08037

SHEET TITLE: MOLD REMEDIATION FIRST FLOOR PLAN

REF. NO. T0678-00

SHEET NO. 1 OF 1

DCA REF. No.

ARCHITECT:
ARMM ARCHITECTURE ASSOCIATES, INC.
41 GROVE STREET
HADDONFIELD, NEW JERSEY 08033

DRAWING NUMBER: HA1

FRANK J. MOORE
NJ # 21AIO1637700

DATE: 10-04-23

DRAWN BY: WWJ | APPROVED BY: JD | SCALE: AS NOTED

Department of Community Affairs
Construction Project Review
Project No: 9069-24
Part. Structural
building review
Raffaele Persico
Released: 07/31/24
N.J.S.A. 52:27D-119 ET SEQ., AS AMENDED

GENERAL

1. STRUCTURAL CONSTRUCTION DOCUMENTS SHALL BE USED WITH OTHER CONSTRUCTION DOCUMENTS, INCLUDING ARCHITECTURAL, M/E/P, AND SITE DOCUMENTS. COORDINATE WITH THESE DOCUMENTS FOR LOCATIONS AND DIMENSIONS OF OPENINGS, CHASES, INSERTS, REGLETS, SLEEVES, DEPRESSIONS, ETC., NOT INDICATED ON THE STRUCTURAL DOCUMENTS. ALL DIMENSIONS AND CONDITIONS, EXISTING AND NEW, SHALL BE FIELD VERIFIED. THE ENGINEER SHALL BE NOTIFIED OF DISCREPANCIES PRIOR TO PROCEEDING WITH THE AFFECTED PORTION OF THE WORK.
2. SECTIONS AND DETAILS SHOWN ON ANY STRUCTURAL DOCUMENTS SHALL BE CONSIDERED TYPICAL FOR SIMILAR CONDITIONS THAT DO NOT HAVE A SPECIFIC SECTION INDICATED, AND SHALL BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER.
3. APPLICABLE FEDERAL, STATE AND MUNICIPAL REGULATIONS SHALL BE FOLLOWED, INCLUDING THE FEDERAL DEPARTMENT OF LABOR OSHA.
4. THE CONTRACTOR IS RESPONSIBLE FOR LIMITING THE AMOUNT OF CONSTRUCTION LOAD IMPOSED ON THE STRUCTURE. CONSTRUCTION LOADS SHALL NOT EXCEED THE SPECIFIED DESIGN LIVE LOADS.
5. IN THE ABSENCE OF SPECIFIC INSTRUCTIONS TO THE CONTRARY IN THE CONTRACT DOCUMENTS, THE TRADE PRACTICES THAT ARE DEFINED IN ANY CODE OF STANDARD PRACTICE SHALL GOVERN.

EXISTING CONSTRUCTION

1. BEFORE PROCEEDING WITH ANY WORK WITHIN THE EXISTING FACILITY, THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE EXISTING STRUCTURAL AND OTHER CONDITIONS. THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE ALL NECESSARY BRACING, SHORING AND OTHER SAFEGUARDS TO MAINTAIN ALL PARTS OF THE EXISTING WORK IN A SAFE CONDITION DURING THE PROCESS OF DEMOLITION AND CONSTRUCTION, AND TO PROTECT FROM DAMAGE THOSE PORTIONS OF THE EXISTING WORK WHICH ARE TO REMAIN.
2. THE CONTRACTOR SHALL FIELD VERIFY THE DIMENSIONS, ELEVATIONS, AND CONDITIONS NECESSARY FOR THE PROPER CONSTRUCTION AND ALIGNMENT OF THE NEW PORTIONS OF THE WORK. THE CONTRACTOR SHALL MAKE ALL MEASUREMENTS NECESSARY FOR FABRICATION AND ERECTION OF STRUCTURAL MEMBERS. ANY DISCREPANCY SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ENGINEER.
3. WELDING TO AND WITHIN AN EXISTING FACILITY REPRESENTS POTENTIAL HAZARDS, INCLUDING:
   A. FIRE HAZARD - DUE TO EXISTING CONSTRUCTION AND COMBUSTIBLE BUILDING CONTENTS
   B. STRUCTURAL LIQUEFACTION - DUE TO WELDING ACROSS THE FULL SECTION OF STRUCTURAL STEEL MEMBERS.
   RECOMMENDATIONS TO MINIMIZE THESE HAZARDS INCLUDE:
   A. FIRE HAZARD - PROTECT EXISTING COMBUSTIBLES PRIOR TO WELDING. KEEP A SEPARATE WATCHMAN & SEVERAL FIRE EXTINGUISHERS ON HAND.
   B. STRUCTURAL LIQUEFACTION - WELD IN SMALL INCREMENTS. ALLOW WELDS TO HARDEN BEFORE CONTINUING ON TO THE NEXT INCREMENT.
   C. DO NOT LEAVE THE SITE WHILE THE RISK OF FIRE HAZARD IS STILL PRESENT.
4. INFORMATION USED IN PREPARING THESE DRAWINGS WAS TAKEN FROM DRAWINGS PREPARED BY ARMM ARCHITECTURE ASSOCIATES, INC. DATED OCTOBER 4, 2023 AND A LIMITED SITE SURVEY PERFORMED BY BAKER, INGRAM & ASSOCIATES ON OCTOBER 17, 2023.

STRUCTURAL DESIGN CRITERIA

1. DESIGN LOADS ARE IN ACCORDANCE WITH THE 2021 INTERNATIONAL BUILDING CODE, NEW JERSEY EDITION, ASCE 7-16 AND LOCAL CODE.
2. RISK CATEGORY II
3. LIVE LOADS ARE AS FOLLOWS. LIVE LOAD REDUCTIONS HAVE BEEN TAKEN WHERE APPLICABLE, UNO.
   ROOF 20 PSF
4. SNOW LOADING IS BASED ON THE FOLLOWING.

GROUND SNOW LOAD (Pg)	20 PSF
FLAT-ROOF SNOW LOAD (Pf)	20 PSF
SNOW EXPOSURE FACTOR (Ce)	1.0
SNOW LOAD IMPORTANCE FACTOR (I)	1.0
SNOW THERMAL FACTOR (ct)	1.0

5. WIND LOADING IS BASED ON THE FOLLOWING:

ULTIMATE WIND SPEED (3 SEC GUST)	120 MPH
NOMINAL WIND SPEED	93 MPH
IMPORTANCE FACTOR	1.0
WIND EXPOSURE	B
INTERNAL PRESSURE COEFF.	±0.18
COMPONENTS & CLADDING (ULTIMATE PRESSURES, 10 SF)	
WALLS	+19.4, -21.1 PSF
WALL CORNERS	+19.4, -25.9 PSF
ROOF ZONE 1	+16.0, -33.9 PSF
ROOF ZONE 1'	+16.0, -19.4 PSF
ROOF ZONE 2	+16.0, -44.7 PSF
ROOF ZONE 3	+16.0, -60.9 PSF

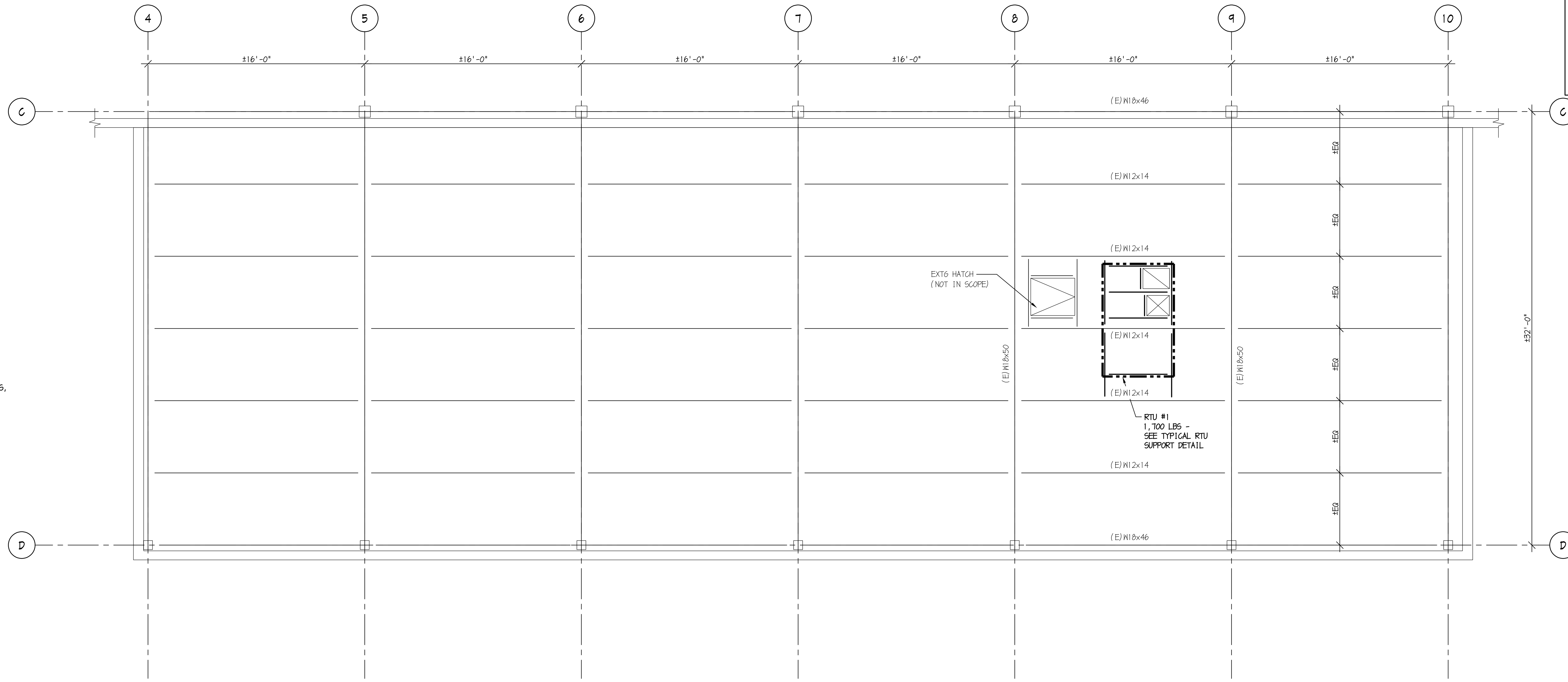
6. HANDRAILS AND GUARDS SHALL BE DESIGNED TO RESIST A LINEAR LOAD OF 50 POUNDS PER LINEAR FOOT AND A CONCENTRATED LOAD OF 200 POUNDS IN ACCORDANCE WITH IBC SECTION 1607.9.

STRUCTURAL STEEL

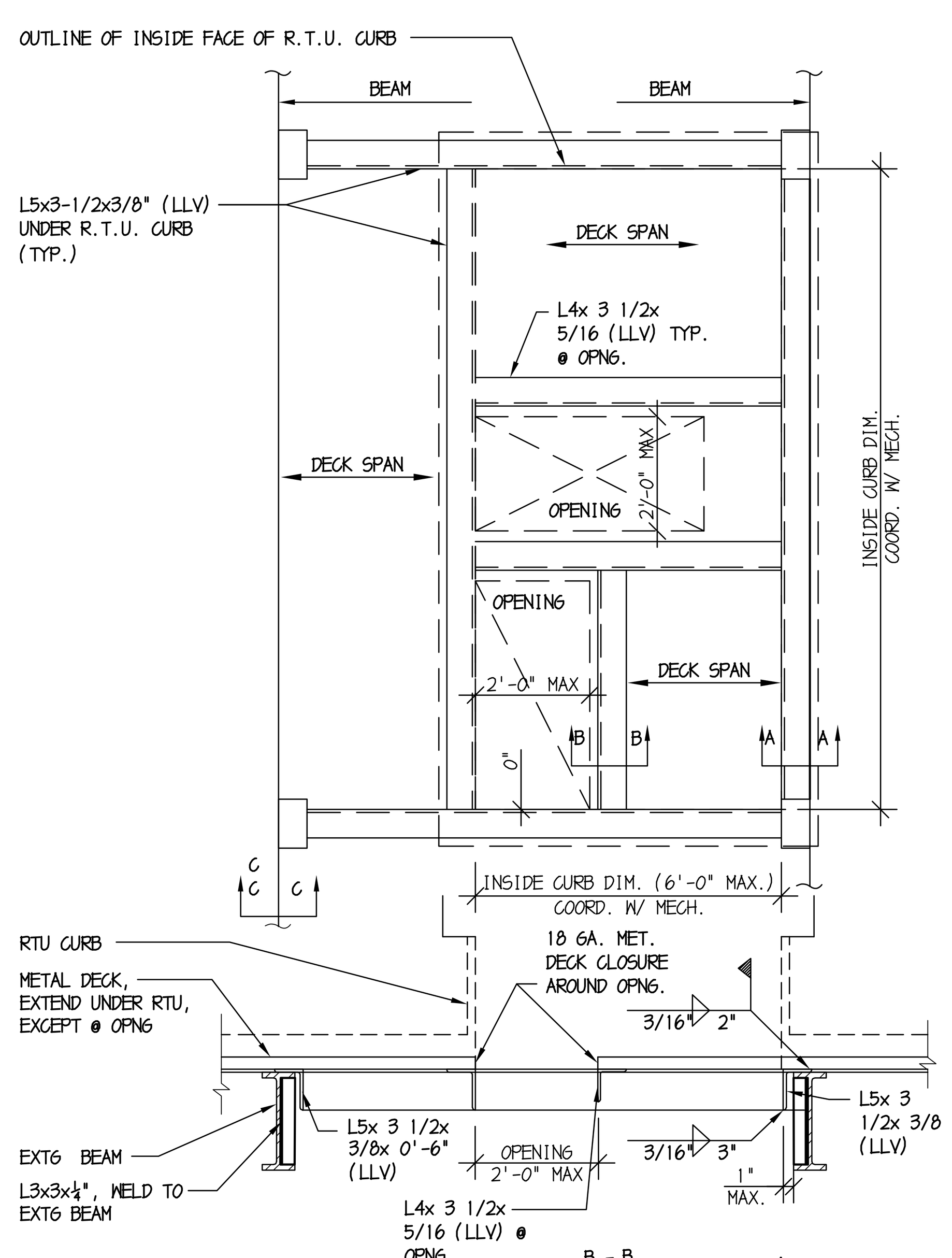
1. STRUCTURAL STEEL FABRICATION, ERECTION AND CONNECTION DESIGN SHALL CONFORM TO AISC'S "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS, 360-16.
2. STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING DESIGNATIONS:

STRUCTURAL STEEL WF SHAPES	ASTM A992
OTHER STRUCTURAL STEEL SHAPES	ASTM A36, UNO
STEEL BARS, ANGLES AND PLATES	ASTM A36, UNO

3. BOLTS SHALL BE MINIMUM 3/4 IN. DIA. AND SHALL CONFORM TO THE FOLLOWING DESIGNATIONS, UNO:
   HIGH STRENGTH BOLTS ASTM A325
4. BOLTED CONNECTIONS SHALL CONFORM TO RCSC'S "SPECIFICATIONS FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS."
5. WELDING, WELDING ELECTRODES, AND FLUXES SHALL CONFORM TO AWS D1.1-17 "STRUCTURAL WELDING CODE - STEEL". ELECTRODES SHALL HAVE A MINIMUM TENSILE STRENGTH OF 70 KSI.
6. HIGH STRENGTH BOLTED CONNECTIONS SHALL BE TIGHTENED TO THE SNUG-TIGHT CONDITION, UNO.
7. CONNECTIONS SHALL BE DESIGNED PER AISC TO CARRY FULL CAPACITY OF UNIFORMLY LOADED MEMBER, UNLESS THE ACTUAL REACTION IS NOTED ON DRAWINGS.
8. PRIOR TO DETAILING CONNECTIONS FOR STRUCTURAL STEEL, THE STEEL FABRICATOR SHALL SUBMIT FOR APPROVAL REPRESENTATIVE DETAILS FOR EACH TYPE OF PROPOSED STRUCTURAL CONNECTION. SUCH DETAILS SHALL INDICATE DESIGN CAPACITIES. AFTER APPROVAL, THE CONNECTIONS SHALL BE INCORPORATED INTO SHOP DRAWINGS.



1 / S1.1 ROOF FRAMING PLAN 'SERVICE CENTER'
SCALE: 1/4" = 1'-0"



NOTE:
1. COORDINATE SIZE & LOCATION OF CURBS & OPENINGS W/ MECHANICAL CONTRACTOR.
2. EXTEND METAL ROOF DECK UNDER R.T.U. CURBS, EXCEPT AT OPENINGS.

2 / S1.1 RTU SUPPORT DETAIL
SCALE: NOT TO SCALE

CONSULTANT: BIA PROJECT #: H14871-2023	OWNER:	JOB TITLE:
BAKER, INGRAM, & ASSOCIATES STRUCTURAL ENGINEERS TWO WHITE HORSE PIKE HADDON HEIGHTS, NJ 08035 (856)-310-1491 www.bakeringram.com NJ CERT. OF AUTHORIZATION #24GA28010400	STATE OF NEW JERSEY HONORABLE PHILIP D. MURPHY, GOVERNOR DEPARTMENT OF THE TREASURY DIVISION OF PROPERTY MANAGEMENT & CONSTRUCTION 20 WEST STATE STREET, 3RD FLOOR P.O. BOX 038 TRENTON, NEW JERSEY 08625-0038	ROOF REPLACEMENT, HVAC UPGRADE & MOLD REMEDIATION PROJECT WINSLOW SPECIALTY INSPECTION STATION 550 SPRING GARDEN STREET WINSLOW, NJ 08037
STATE OF NEW JERSEY MATTHEW R. YOUNG No. 24GE051923 LICENSED PROFESSIONAL ENGINEER Matthew R Young 2024.06.12 16:36:38-04'00'	CHRISTOPHER CHIANESE, DIRECTOR DPMC PROJECT NO. T0678-00	SHEET TITLE: STRUCTURAL NOTES, ROOF FRAMING PLAN & DETAILS REF. NO. T0678-00 SHEET NO. 1 OF 1 DCA REF. No.
Matthew R. Young, PE New Jersey PE #51923		ARCHITECT: ARMM ARCHITECTURE ASSOCIATES, INC. 41 GROVE STREET HADDONFIELD, NEW JERSEY 08033 FRANK J. MOORE NJ # 21AIO1637700 DRAWING NUMBER: S1.1 DATE: 10-20-23

REV.	DESCRIPTION	DATE
2	RE-ISSUED	05-29-24
1	ISSUED	10-25-23

DRAWN BY:	APPROVED BY:	SCALE:
AM/JBW	MRY	AS NOTED