

BUILDING 1171 ROOF SYSTEM REPLACEMENT

SECTIONS A, B, & C

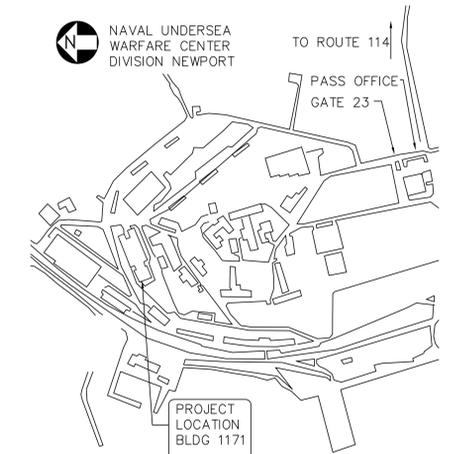
AT THE NAVAL UNDERSEA WARFARE CENTER
DIVISION NEWPORT R.I.



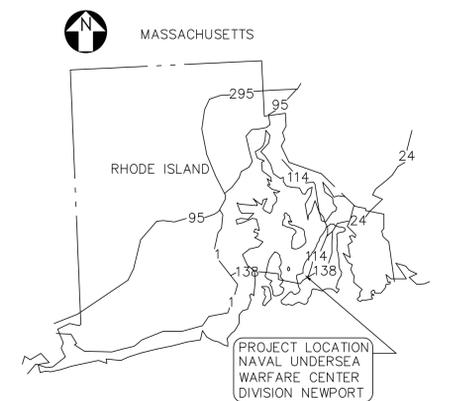
LIST OF DRAWINGS	
SHEET 1 OF 8	TITLE
SHEET 2 OF 8	ROOF DEMOLITION PLAN
SHEET 2 OF 8	ROOF DEMOLITION DETAILS
SHEET 4 OF 8	ROOF DEMOLITIONS DETAILS
SHEET 5 OF 8	NEW ROOFING PLAN
SHEET 6 OF 8	NEW ROOFING DETAILS
SHEET 7 OF 8	NEW ROOFING DETAILS
SHEET 8 OF 8	EXISTING ROOF PHOTOS



SITE LAYDOWN AREA NOT TO SCALE



LOCATION MAP NOT TO SCALE



AREA MAP NOT TO SCALE

GENERAL NOTES

- ALL WORK INCLUDED IN THIS CONTRACT SHALL CONFORM TO ALL NUWCDIVNPT, STATE, FEDERAL AND OTHER CODES AND ORDINANCES WHICH APPLY TO THIS PROJECT.
- THE CONTRACTOR SHALL IDENTIFY AND FIELD VERIFY POINT OF CONNECTION WHERE EXISTING AND NEW CONSTRUCTION MEET AND REPORT ANY DISCREPANCY(IES) TO THE CONTRACTING OFFICER. THE CONTRACTOR SHALL PROCEED WITH THE WORK ONLY AFTER THE DISCREPANCY(IES) HAS(HAVE) BEEN RESOLVED BY THE GOVERNMENT.
- ALL COMPONENTS AND WORK ARE NEW UNLESS NOTED OR LABELED AS EXISTING AND SHALL BE PROVIDED BY THE CONTRACTOR UNLESS OTHERWISE NOTED.
- VERIFY ALL DIMENSIONS IN THE FIELD PRIOR TO ORDERING MATERIALS OR STARTING CONSTRUCTION.
- CARE SHALL BE TAKEN BY THE CONTRACTOR TO PROTECT EXISTING SYSTEMS AND SURFACES TO REMAIN. ALL DAMAGE RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED OR REPLACED AS APPROVED BY THE CONTRACTING OFFICER AT NO ADDITIONAL COST TO THE GOVERNMENT.
- THE CONSTRUCTION SITE SHALL BE LEFT IN A NEAT, CLEAN AND ORGANIZED CONDITION AT THE END OF EACH WORKING DAY.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS WHICH ARE REQUIRED FOR THE SATISFACTORY COMPLETION OF THE WORK.
- THE CONTRACTOR SHALL RESTORE EXISTING TURFED AREAS AND CONCRETE AND ASPHALT CONCRETE PAVED AREAS DAMAGED BY HIS OPERATIONS TO A CONDITION ACCEPTABLE TO THE CONTRACTING OFFICER AT NO ADDITIONAL COST TO THE GOVERNMENT.
- THE CONTRACTOR SHALL OBTAIN APPROVAL FROM THE CONTRACTING OFFICER FOR THE SEQUENCE AND TIMING OF OPERATIONS PRIOR TO COMMENCING WORK. THE BUILDING WILL BE OCCUPIED DURING CONSTRUCTION.
- THE CONTRACTOR SHALL DISPOSE OF AND/OR RECYCLE ANY CONSTRUCTION DEBRIS FROM THE PROJECT SITE AS REQUIRED BY THE STATE OF RHODE ISLAND. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING DISPOSAL PERMITS WHICH ARE REQUIRED. CONSTRUCTION DEBRIS FROM THE PROJECT SITE SHALL BE DISPOSED OF IN A STATE APPROVED MANNER.
- EXISTING BUILDING ENTRANCES SHALL REMAIN CLEAR TO PEDESTRIAN TRAFFIC AND PROTECTED FROM CONSTRUCTION ABOVE THESE AREAS.
- CONTRACTOR SHALL PROVIDE METHOD OF REPLACEMENT FOR APPROVAL.
- PRIOR TO THE INITIATION OF THE PROJECT, THE CONTRACTOR SHALL PROVIDE NAMES, MATERIALS AND SAFETY DATA SHEETS (MSDS), AS WELL AS ESTIMATED QUANTITIES OF HAZARDOUS MATERIALS (PRIMERS, SOLVENTS, SEALERS, ETC.) WHICH WILL BE USED OR BROUGHT ON SITE. ANY ALTERNATIVE HAZARDOUS MATERIALS WILL BE ASSESSED WHEN MSDS'S ARE APPROVED.
- THE CONTRACTOR SHALL ENSURE THE EACH CONTRACTOR EMPLOYEE READS THE DOCUMENT ENTITLED "NUWC ENVIRONMENTAL POLICY" PRIOR TO COMMENCING PERFORMANCE AT ANY NUWCDIVNPT SITE. A COPY OF THE POLICY WILL BE GIVEN OUT AT THE PRECONSTRUCTION MEETING.

ABBREVIATIONS

&	AND	MFG,MFR	MANUFACTURER
AT	AMERICAN CONCRETE INSTITUTE	MIN	MINIMUM
ACI	AMERICAN CONCRETE INSTITUTE	MPH	MILES PER HOUR
AFF	ABOVE FINISH FLOOR	MTD	MOUNTED
ALT	ALTERNATE	MTL	METAL
ALUM	ALUMINUM	N	NORTH
ASTM	AMERICAN SOCIETY OF TESTING MATERIALS	NIC	NOT IN CONTRACT
BLDG	BUILDING	NO.#	NUMBER
BOF	BOTTOM OF FOOTING	OC	ON CENTER
CL	CENTERLINE	OH	OVERHEAD
CLG	CEILING	P	PAINT
CMU	CONCRETE MASONRY UNIT	PSF	POUNDS PER SQUARE FOOT
CONC	CONCRETE	PSI	POUNDS PER SQUARE INCH
CONT	CONTINUOUS	PT	PRESSURE TREATED
DIA,Ø	DIAMETER	REINF	REINFORCING
DWG	DRAWING	S	SOUTH
E	EAST	SIM	SIMILAR
EA	EACH	STL	STEEL
ELEV	ELEVATION	T & G	TONGUE AND GROOVE
EPDM	ETHYLENE PROPYLENE DIENE MONOMER	TOW	TOP OF WALL
EQ	EQUAL	TYP	TYPICAL
EXIST	EXISTING	VCB	VINYL COVE BASE
EWC	ELECTRIC WATER COOLER	VCT	VINYL COMPOSITION TILE
FF	FINISH FLOOR	VERT	VERTICAL
GA	GAUGE	W	WEST
GALV	GALVANIZED	W/	WITH
GYP BD	GYP SUM BOARD	WD	WOOD
HM	HOLLOW METAL	WH	WATER HEATER
MAX	MAXIMUM	WWF	WELDED WIRE FABRIC

LEGEND

SYMBOL	DESCRIPTION
	DETAIL NUMBER
	SHEET WHERE DETAIL IS DRAWN
	SHEET WHERE DETAIL IS TAKEN
	DENOTES ADDITIONAL SHEETS WHERE DETAIL IS TAKEN
	INDICATES ELEVATION OR DETAIL
	ELEVATION OR DETAIL NUMBER
	SHEET WHERE ELEVATION OR DETAIL IS DRAWN
	SHEET WHERE ELEVATION OR DETAIL IS TAKEN
	DENOTES ADDITIONAL SHEETS WHERE ELEVATION OR DETAIL IS TAKEN
	INDICATES BUILDING SECTION
	BUILDING SECTION LETTER
	SHEET WHERE BUILDING SECTION IS DRAWN
	SHEET WHERE BUILDING SECTION IS TAKEN
	DENOTES ADDITIONAL SHEETS WHERE BUILDING SECTION IS TAKEN
	ROOM NAME AND NUMBER
	SHEET WHERE ELEVATIONS ARE DRAWN
	DOOR NUMBER
	COLUMN GRID LINE
	WINDOW TYPE

REVISIONS		DATE	APPROVED BY
09-17A	DEPARTMENT OF THE NAVY NAVAL UNDERSEA WARFARE CENTER DIVISION NEWPORT, RHODE ISLAND		
DRAWN BY ADS/J. DIMAIO	1/15		
DESIGNED BY J. DIMAIO	1/15		
CHECKED BY J. DIMAIO/ R. NELSON	1/15		
SATISFACTORY TO	SIZE F	CODE IDENT NO. 80091	NAV. FAC. DRAWING NO.
APPROVED	DATE	CONTRACT NO.	SHEET 1 OF 8
	SCALE NOTED	SPEC. NO.	

GENERAL NOTES

1. REMOVE, CLEAR AND CLEAN ENTIRE ROOF SYSTEM TO EXISTING ROOF DECK INCLUDING MEMBRANE, INSULATION, FLASHINGS & ADHESIVES.
2. REMOVE ALL ALUMINUM FASCIAS, TRIM AND MISC. HARDWARE ASSOCIATED W/ EXISTING ROOF SYSTEM
3. REMOVE ALL FLASHING, FASTENERS AND ROOFING CEMENTS.
4. REMOVE ALL WOOD NAILERS, CANTS AND MISC. WOOD BLOCKING. UNLESS OTHERWISE NOTED
5. REMOVE ALL PITCH POCKETS AND FLASHINGS THRU-OUT IN PREPARATION OF NEW ROOF SYSTEM.
6. CONTRACTOR SHALL ENSURE THAT ALL ROOF OPENINGS ARE WATERTIGHT SEALED BEFORE ANY NEW ROOF WORK IS TO BEGIN.
7. APPROXIMATE HEIGHT OF ROOF SECTION "A" (3 STORY OFFICE TOWER) IS 45' ABOVE GRADE. APPROXIMATE HEIGHT OF ROOF SECTION "B" (MAIN LOBBY ENTRANCE) IS 20' ABOVE GRADE. APPROXIMATE HEIGHT OF ROOF SECTION C (HIGH BAY) IS 25' ABOVE GRADE.
8. IF MECHANICAL UNITS ARE TO BE DISCONNECTED, ALL SUCH WORK SHALL BE DONE BY QUALIFIED AIR CONDITIONING AND REFRIGERATION TECHNICIANS. EQUIPMENT SHALL BE RECONNECTED AS SOON AS POSSIBLE. ALL REFRIGERANT SHALL BE RECLAIMED BEFORE REFRIGERANT LINES ARE CUT. THE CONTRACTOR SHALL BE LIABLE FOR ANY LOST REFRIGERANT; UNDER NO CIRCUMSTANCES SHALL ANY REFRIGERANT BE VENTED OR LOST TO THE ATMOSPHERE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER OPERATION OF ALL HVAC UNITS UPON COMPLETION OF ALL ROOF WORK.
9. WHERE REQUIRED, ROOFTOP EQUIPMENT SHALL BE TEMPORARILY DISCONNECTED & LIFTED DURING DEMOLITION & REINSTALLED AT THEIR RESPECTIVE HEIGHTS & POSITIONS IN FULL OPERATING CONDITION AFTER INSTALLATION OF NEW ROOF.
10. ALL ITEMS NOTED IN DEMOLITION SHALL BE DISPOSED OF UNLESS OTHERWISE NOTED.

11. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGE TO EXISTING EQUIPMENT, SYSTEMS AND STRUCTURE DUE TO HIS WORK.
12. AFTER REMOVING DAILY AREA OF ROOFING MATERIALS TO BE REPLACED, CONTRACTOR SHALL INSPECT THE CONDITION OF ALL EXISTING WOOD CURBS, SLEEPERS & ROOF DECK. CONTRACTOR SHALL REMOVE AND REPLACE ALL WOOD FOUND TO BE IN DETERIORATED CONDITION IN LIKE KIND.
13. ROOF DEMOLITION PLAN SHOWS ALL MAJOR COMPONENTS OF DEMOLITION WORK. PLAN DOES NOT SHOW ALL MINOR PIPES, CONNECTIONS, ETC. THAT MAY BE NECESSARY TO WORK AROUND.
14. AT THE CONCLUSION OF ROOF DEMOLITION ALL ROOF DECKS AND EDGES SHALL BE CLEAR AND CLEAN OF ALL DEBRIS AND MATERIALS AS REQUIRED FOR INSTALLATION OF A NEW ROOFING SYSTEM AND ALL RELATED TRIM, COPING, FASCIAS & SOFFITS.
15. CONTRACTOR SHALL BE AWARE THAT BASED ON THE EXISTING AS-BUILT DRAWINGS OF 1992 THERE IS NO NONE ASBESTOS TO EXIST IN THE ROOFING MATERIALS BEING REMOVED UNDER THIS CONTRACT.

ROOF AREAS

ROOF "A" 13,664 SF
 ROOF "B" 3,182 SF
 ROOF "C" 41,480 SF
 TOTAL: 58,326 SF

THIS AREA IS APPROXIMATE - VIF

ENERGY CONSERVATION

IECC CODE REQUIREMENT R-VALUE TOTAL
 CLIMATE ZONE 12A
 MINIMUM R-VALUE R-24

CODE INFORMATION

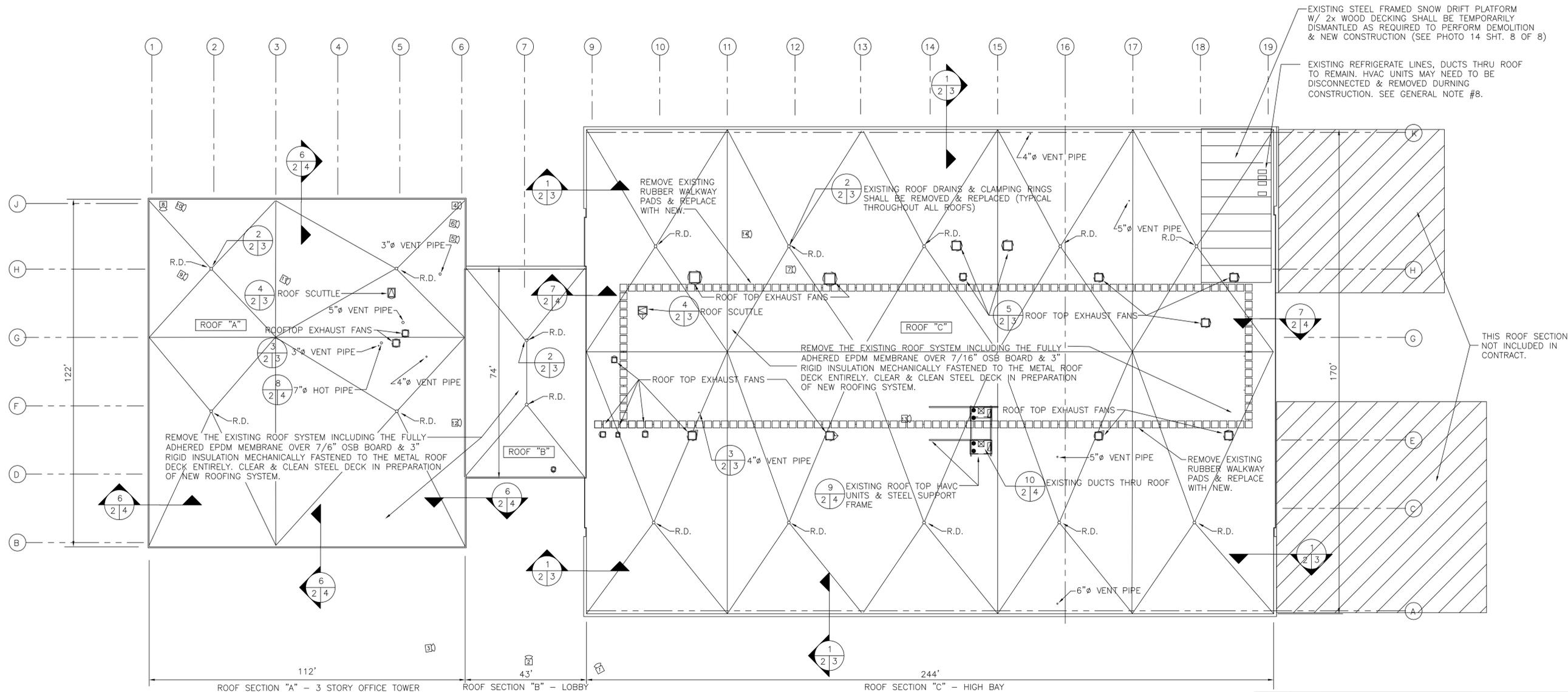
PRIMARY USE GROUP: B
 CONSTRUCTION CLASS: 2B

ROOFS "A", "B", & "C"

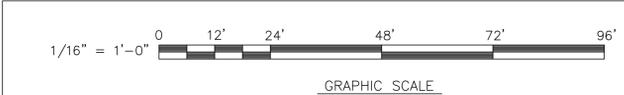
OUTSIDE AIR		0.17
EPDM .060	(0.048)	0.050
5/8 GYPSUM BOARD		0.67
AVG. 3" POLYISO INSUL		18.5
STEEL DECK		0.0
INSIDE AIR		0.61
R TOTAL:		20.00

LEGEND

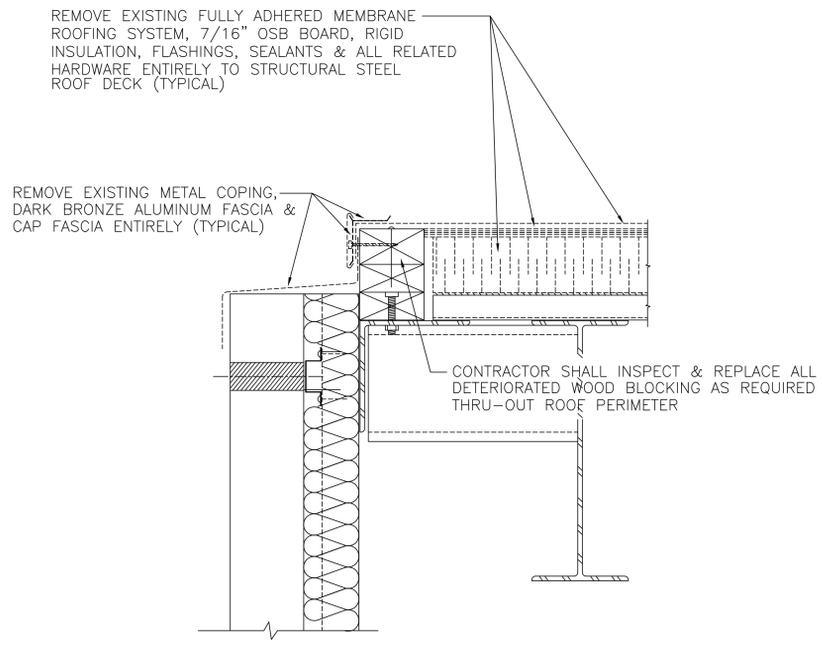
SYMBOL	DESCRIPTION
—	ROOF PERIMETER
○ R.D.	ROOF DRAIN
○ A	COLUMN LINE
□	ROOFTOP EXHAUST FAN
○	VENT THRU ROOF
⊞	PHOTO IDENTIFICATION (See Sheet 8 of 8)



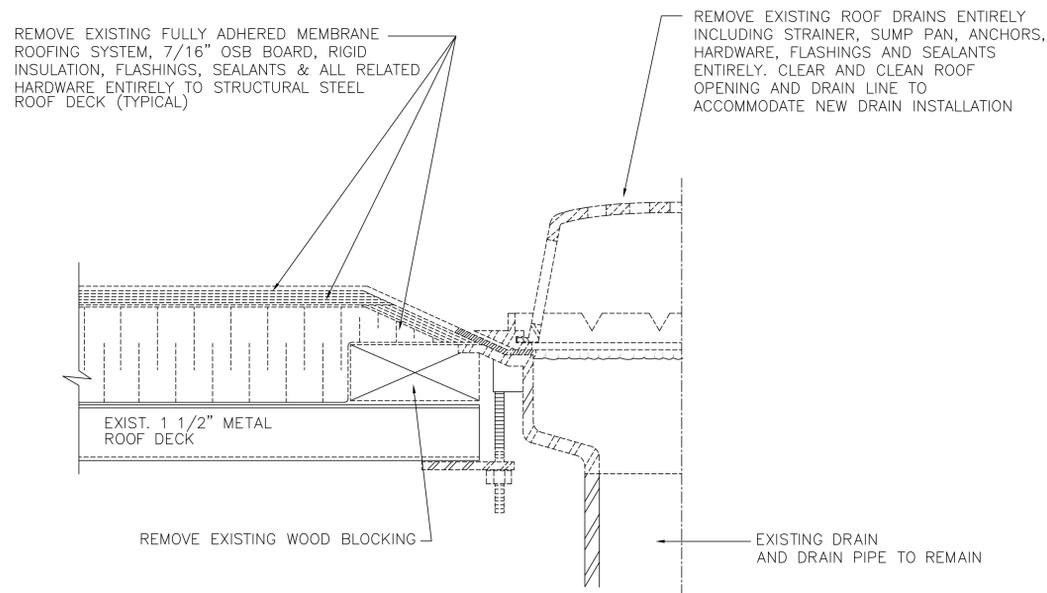
ROOF DEMOLITION PLAN
 SCALE: 1/16"=1'-0"



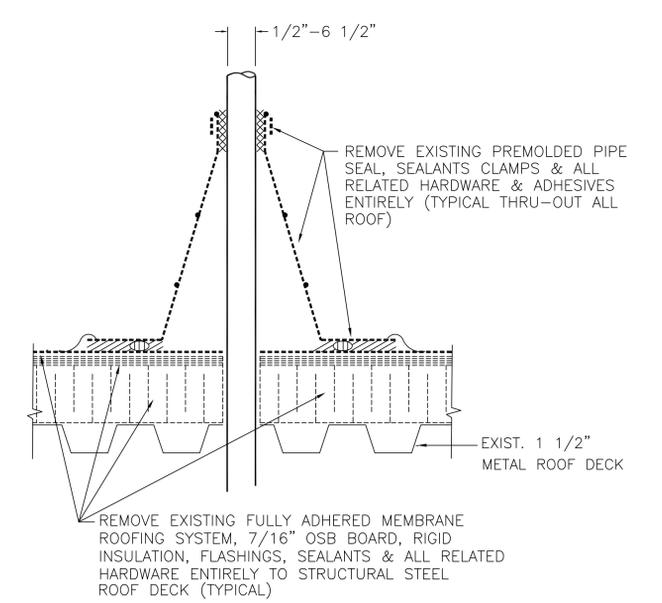
SYMBOL	DESCRIPTION	DATE	APPROVED BY
REVISIONS			
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NUWCDIVNPT DWG. NO.		NAVAL FACILITIES ENGINEERING COMMAND	
		NAVAL UNDERSEA WARFARE CENTER DIVISION	
		NEWPORT, RHODE ISLAND	
		FACILITIES DEVELOPMENT DIVISION	
DRAWN BY: ADS/J. DIMAIO 1/15			
DESIGNED BY: J. DIMAIO 1/15			
CHECKED BY: J. DIMAIO/R. NELSON 1/15			
DIV. NO.:			
SATISFACTORY TO:		SIZE: F	CODE IDENT NO.: 80091
APPROVED:		DATE:	NAV. FAC. DRAWING NO.:
		SCALE NOTED:	CONTRACT NO.:
		SPEC. NO.:	SHEET 2 OF 8



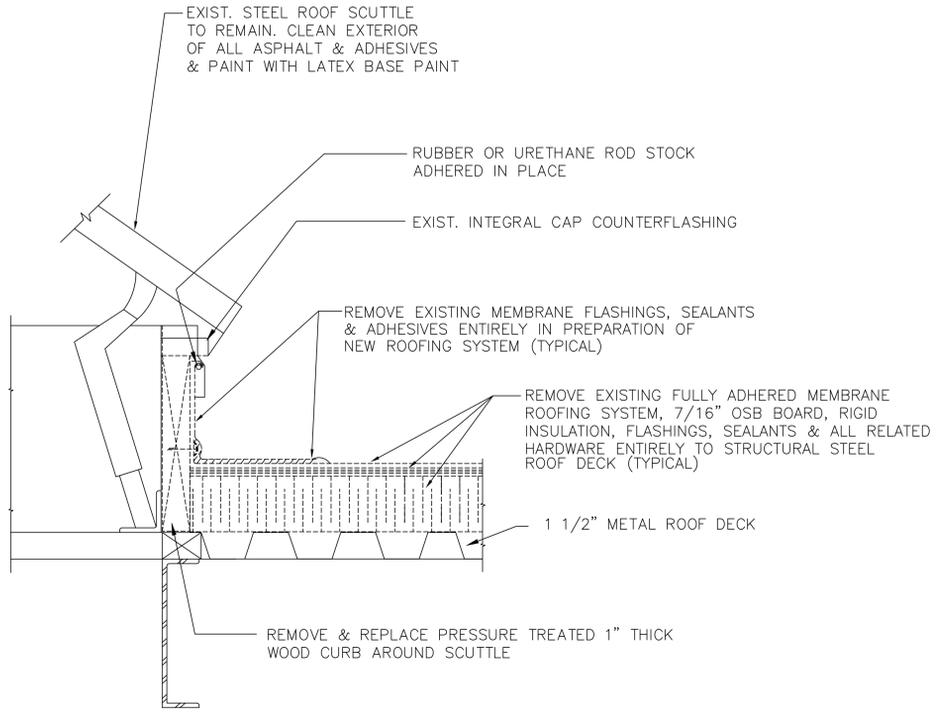
1
2 | 3
DEMOLITION ROOF EDGE @
METAL BUILDING SIDING
NOT TO SCALE



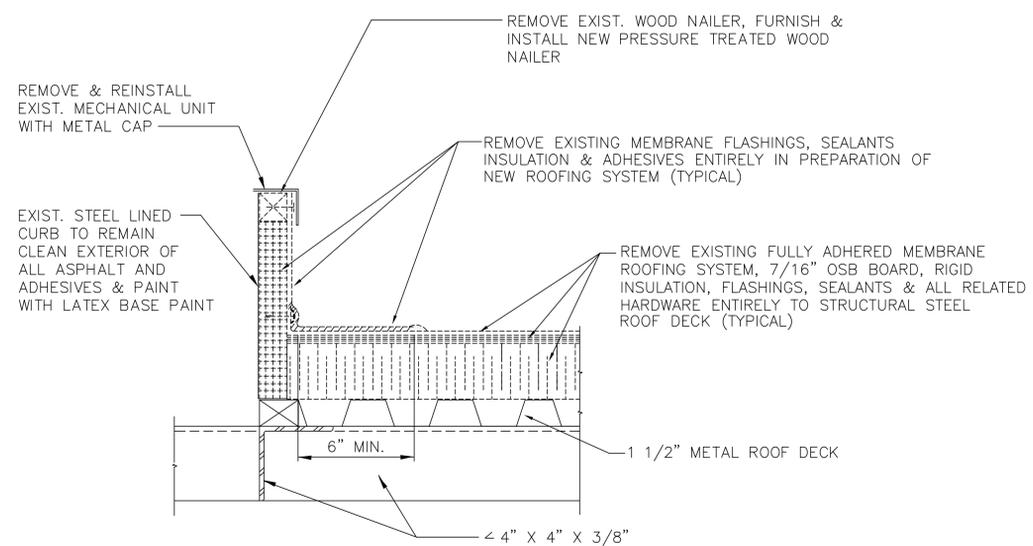
2
2 | 3
DEMOLITION @ ROOF DRAINS
NOT TO SCALE



3
2 | 3
DEMOLITION @ PIPE FLASHING
NOT TO SCALE



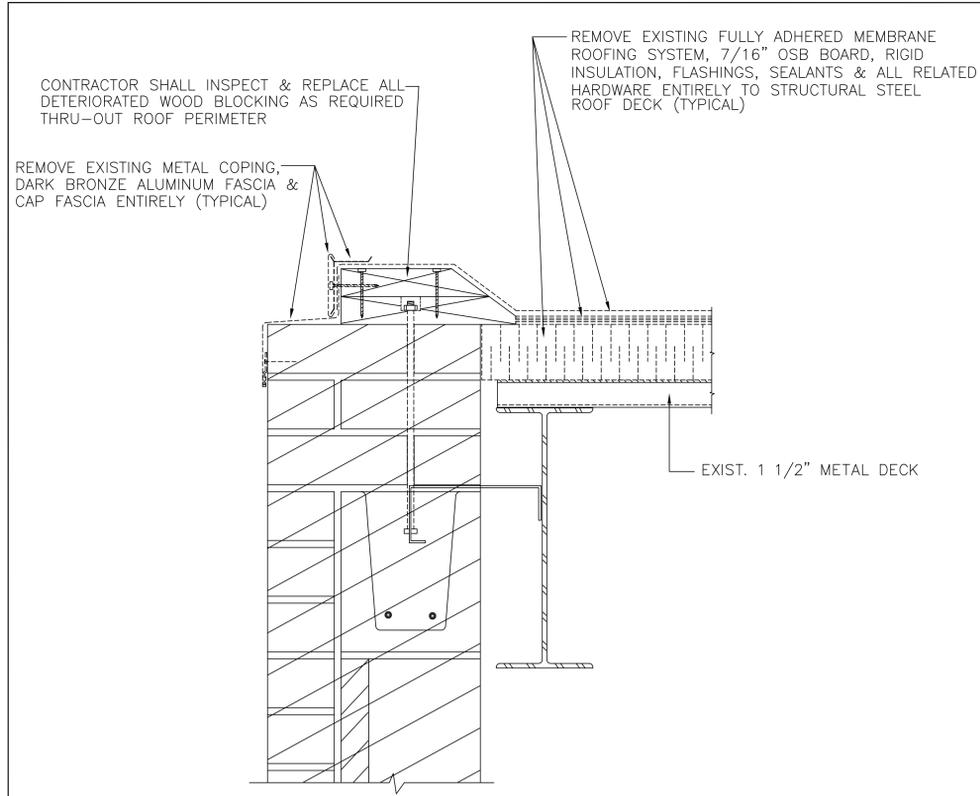
4
2 | 3
DEMOLITION @ ROOF SCUTTLE
NOT TO SCALE



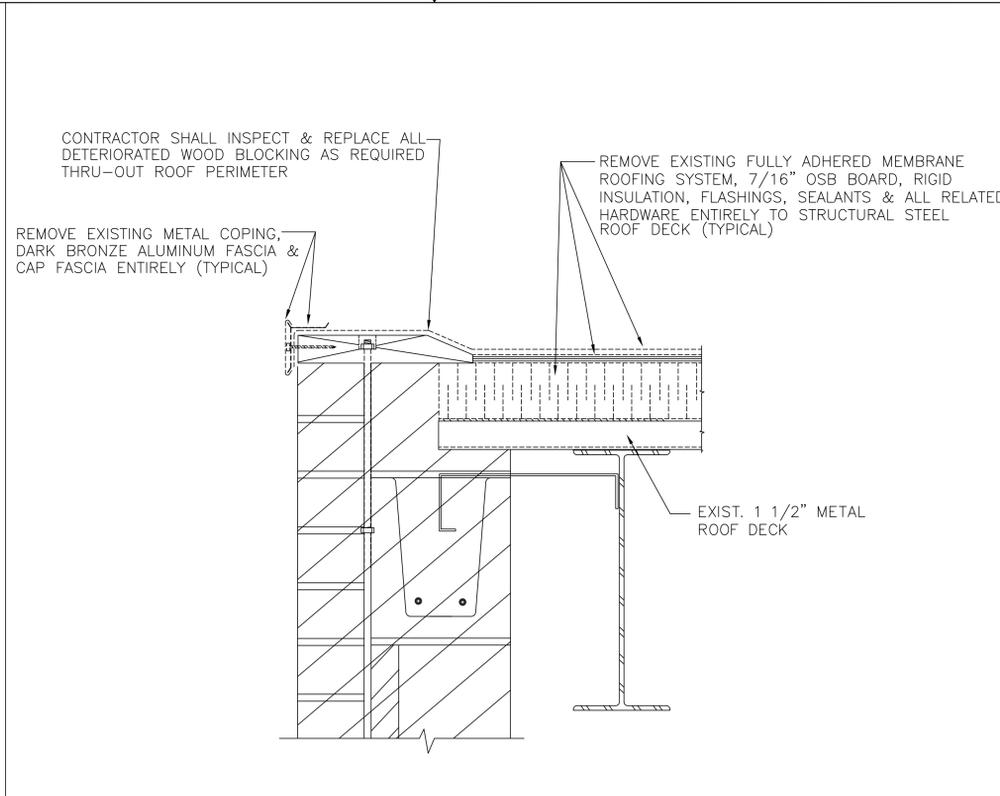
5
2 | 3
DEMOLITION @ EQUIPMENT CURB
TYPICAL
NOT TO SCALE

FINAL SUBMISSION 04/09

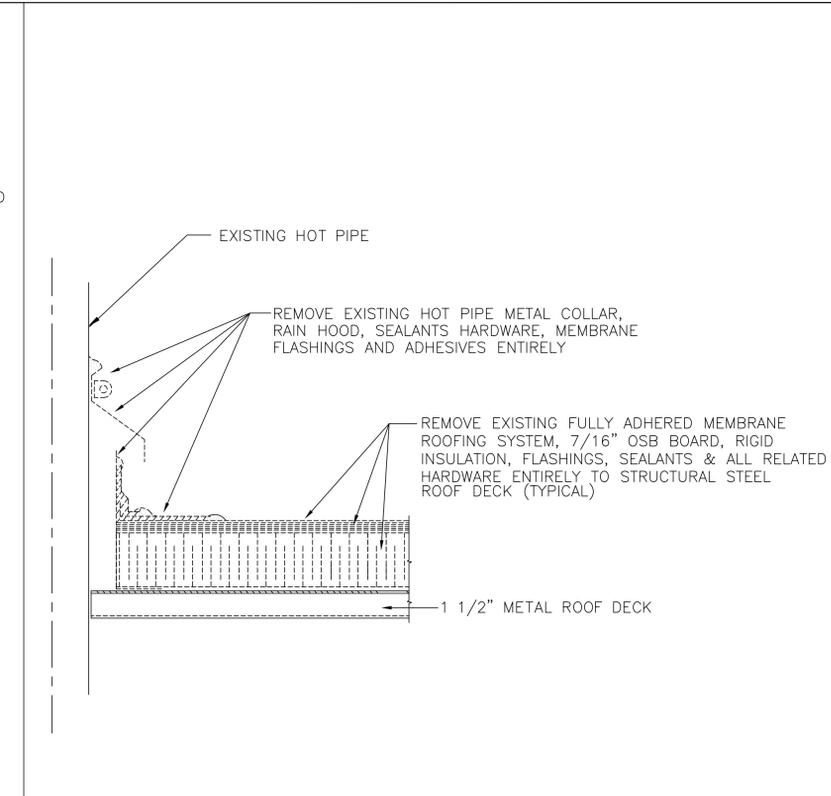
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REVISIONS			
09-17A		DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND	
NUWCDIVNPT DWG. NO.		NEWPORT, RHODE ISLAND FACILITIES DEVELOPMENT DIVISION	
DRAWN BY	ADS/J. DIMAIO 1/15	BUILDING 1171 ROOF SYSTEM REPLACEMENT SECTIONS A, B, & C	
DESIGNED BY	J. DIMAIO 1/15		
CHECKED BY	J. DIMAIO/R. NELSON 1/15		
DIV. HD.		ROOF DEMOLITION DETAILS	
SATISFACTORY TO	DATE	SIZE	CODE IDENT NO.
APPROVED		F	80091
SCALE NOTED		CONTRACT NO.	NAV. FAC. DRAWING NO.
		SPEC. NO.	SHEET 3 OF 8



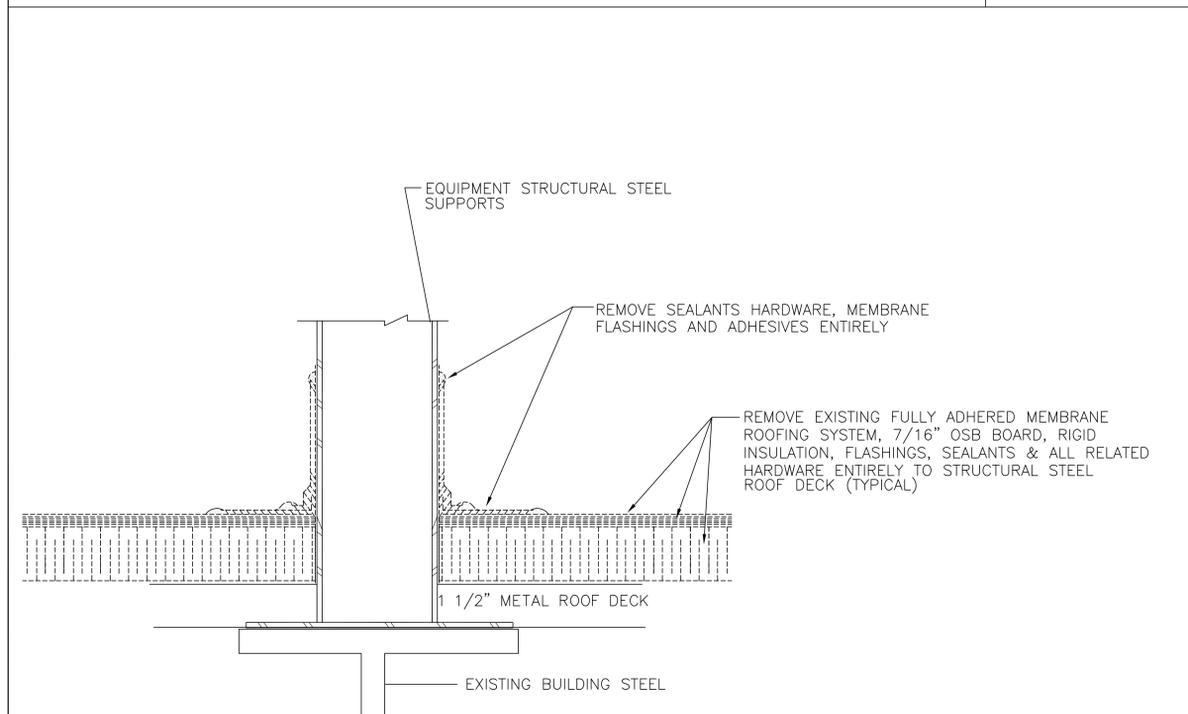
6 DEMOLITION ROOF EDGE @
2 | 4 OFFICE TOWER
NOT TO SCALE



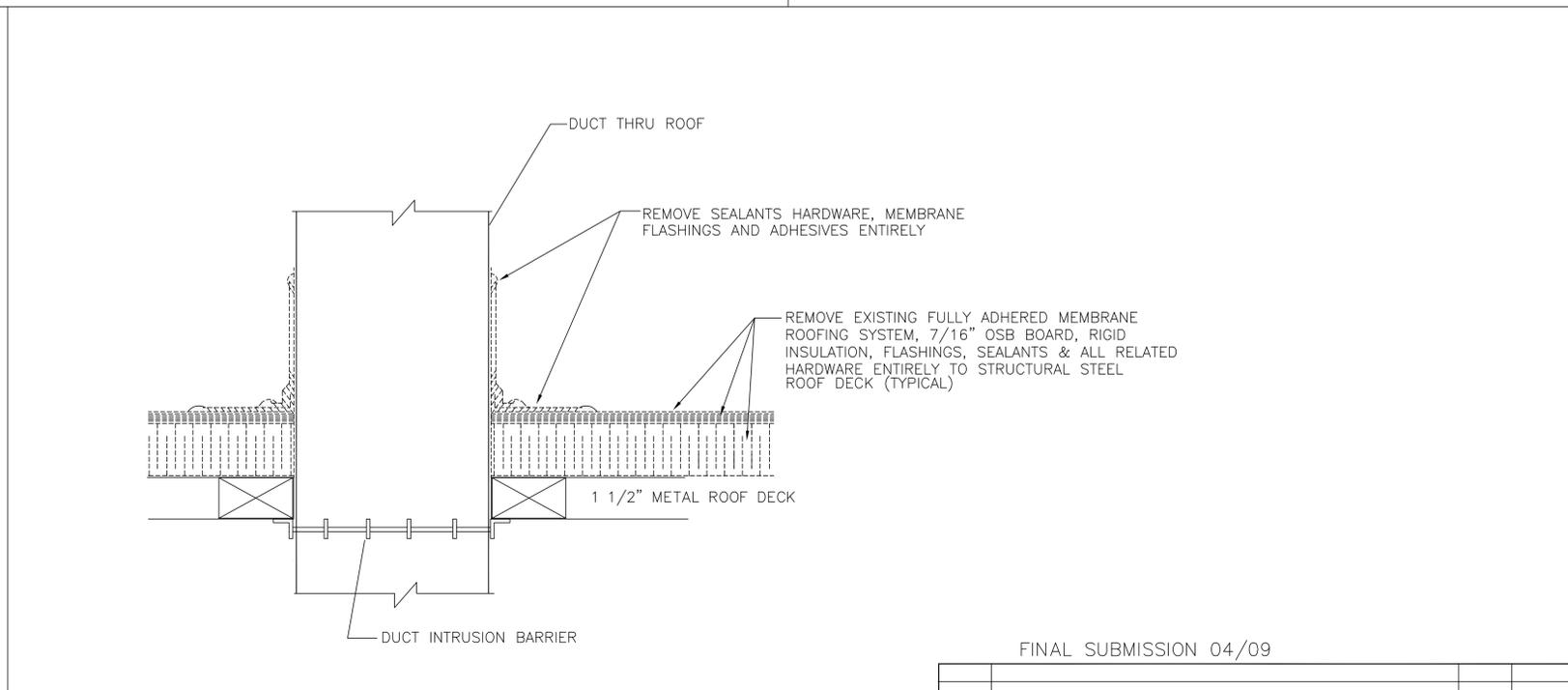
7 DEMOLITION ROOF EDGE @
2 | 4 HIGH BAY MASONRY
NOT TO SCALE



8 DEMOLITION @ HOT PIPE
2 | 4 NOT TO SCALE



9 DEMOLITION @ EQUIPMENT STEEL
2 | 4 NOT TO SCALE



10 DEMOLITION @ DUCT THRU ROOF
2 | 4 NOT TO SCALE

FINAL SUBMISSION 04/09

SYMBOL	DESCRIPTION	DATE	APPROVED BY
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09-17A		DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND	
NUWCDIVNPT DWG. NO.		NEWPORT, RHODE ISLAND FACILITIES DEVELOPMENT DIVISION	
DESIGNED BY	ADS/J. DIMAIO	1/15	BUILDING 1171 ROOF SYSTEM REPLACEMENT SECTIONS A, B, & C ROOF DEMOLITION DETAILS
CHECKED BY	J. DIMAIO	1/15	
DIV. HD.	J. DIMAIO/R. NELSON	1/15	
SATISFACTORY TO		SIZE	CODE IDENT NO.
APPROVED	DATE	F	80091
SCALE NOTED		SPEC. NO.	SHEET 4 OF 8

GENERAL NOTES

- THE CONTRACTOR SHALL INSTALL A NEW FULLY ADHERED, SINGLE-PLY .090-MIL NON-REINFORCED EPDM MEMBRANE ROOFING SYSTEM. WORK SHALL INCLUDE, BUT NOT LIMITED TO, INSTALLATION OF FULLY ADHERED (TAPERED) RIGID INSULATION AND 5/8" FIBER REINFORCED GYPSUM PROTECTION BOARD, (SECUROCK) MEMBRANE AND METAL FLASHINGS, TREATED WOOD NAILERS, AND BLOCKING, CRICKETS, CANTS, METAL FASCIA AND FLASHING, PREFORMED PIPE SEALS AND ALL INCIDENTALS ACCESSORIES REQUIRED FOR A COMPLETE WATERTIGHT WARRANTED ROOF SYSTEM.
- THE ENTIRE ROOFING SYSTEM, INCLUDING THE MEMBRANE, ALL MEMBRANE AND METAL FLASHING, METAL FASCIA, COPING AND FLASHING, RIGID INSULATION, FIBER REINFORCED GYPSUM PROTECTION BOARD AND ALL FASTENERS AND ACCESSORIES SHALL BE WARRANTED BY THE MANUFACTURER FOR NOT LESS THAN 20 YEARS. SEE SPECIFICATION SECTION 07 53 23.
- NEW ROOFING SYSTEM AT METAL DECK SHALL BE FULLY ADHERED & MECHANICALLY FASTENED AS TO PROVIDE A COMPLETE ROOF SYSTEM ASSEMBLY, INCLUDING INSULATION, MUST BE RATED FM CLASS I-120 IN FIELD, FM CLASS I-195 AT PERIMETERS, AND PRESCRIPTIVE CORNER ENHANCEMENTS IN ACCORDANCE WITH FM APP GUIDE, ASCE 7 OR MANUFACTURERS 120 MPH WIND SPEED WARRANTY REQUIREMENTS, WHICH EVER IS GREATER. ROOF COVERING ASSEMBLY SHALL BE CAPABLE OF WITHSTANDING AN UPLIFT PRESSURE OF 60 PSF. AND VALIDATED BY UPLIFT RESISTANCE TESTING IN ACCORDANCE WITH FACTORY MUTUAL (FM) TEST PROCEDURES.
- DETAILS DESIGNATIONS INDICATE A TYPICAL LOCATION FOR DETAIL APPLICATION. ROOFING CONTRACTOR SHALL EXERCISE THESE PRACTICES THRU-OUT NEW ROOF CONSTRUCTION.
- DETAILS DEPICT AN ACCEPTABLE PRACTICE FOR VARIOUS ROOF CONDITIONS. ALTERNATIVE PRACTICES FOR ROOF WORK AROUND ROOFTOP EQUIPMENT, PERIMETER EDGE, WALL TERMINATIONS AND PENETRATIONS SHALL BE IN ACCORDANCE WITH ROOFING MANUFACTURERS RECOMMENDATIONS AND WARRANTY REQUIREMENTS. NOTE: FOR ROOFING PROJECTS SPECIFIED WITH WARRANTIES 20 YEARS OR GREATER, WITH A .090-MIL NON-REINFORCED MEMBRANE OR WIND SPEED GREATER THAN 72 MPH, MAY REQUIRE ADDITIONAL ENHANCEMENTS BY THE ROOFING MANUFACTURER SPECIFICATIONS.
- CONTRACTOR SHALL PROVIDE AND INSTALL NEW RIGID INSULATION SYSTEM THAT PROVIDES AN MINIMUM OVERALL "R" VALUE OF 25.
- ALL NEW WOOD NAILERS AND WOOD BLOCKING SHALL BE PRESSURE TREATED.
- ALL NEW CONSTRUCTION HARDWARE SHALL BE GALVANIZED.

- NEW CANTS AND CRICKETS, WERE REQUIRED SHALL BE SOLID IN CONSTRUCTION WITH NO HOLLOWES.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT THE ROOF DECK IS WEATHER TIGHT AT ALL TIMES.
- CONTRACTOR SHALL ENSURE THAT ALL ROOFS HAVE A POSITIVE PITCH TO DRAINS AND SUPPERS, WERE REQUIRED.
- CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN FIELD PRIOR TO ORDERING MATERIALS.
- CONTRACTOR SHALL BE AWARE, ADDITIONAL ENHANCEMENTS ARE RECOMMENDED BY THE ROOFING MANUFACTURER FOR .090-MIL MEMBRANE OR 20, 25, & 30-YEAR WARRANTIES.

ROOF AREAS

ROOF "A" 13,664 SF
 ROOF "B" 3,182 SF
 ROOF "C" 41,480 SF
 TOTAL: 58,326 SF

THIS AREA IS APPROXIMATE - VIF

ENERGY CONSERVATION

IECC CODE REQUIREMENT R-VALUE TOTAL
 CLIMATE ZONE 12A
 MINIMUM R-VALUE R-24

CODE INFORMATION

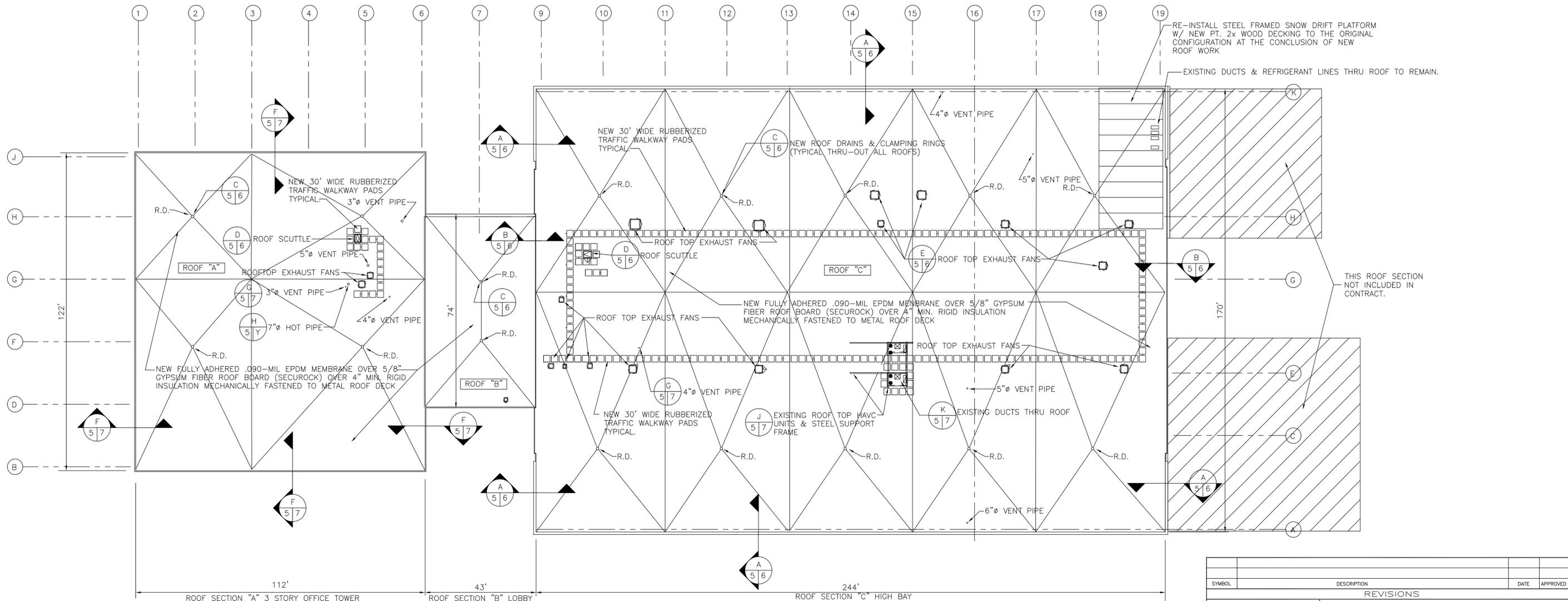
PRIMARY USE GROUP: B
 CONSTRUCTION CLASS: 2B

ROOFS "A", "B", & "C"

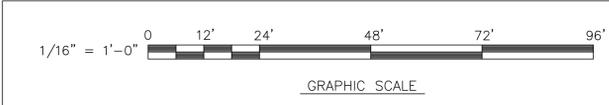
OUTSIDE AIR	0.17
EPDM .090	0.090
5/8" GYPSUM FIBER ROOF BD	0.50
AVG. 4" POLYISO INSUL	25.0
STEEL DECK	0.0
INSIDE AIR	0.61
R TOTAL:	26.37

LEGEND

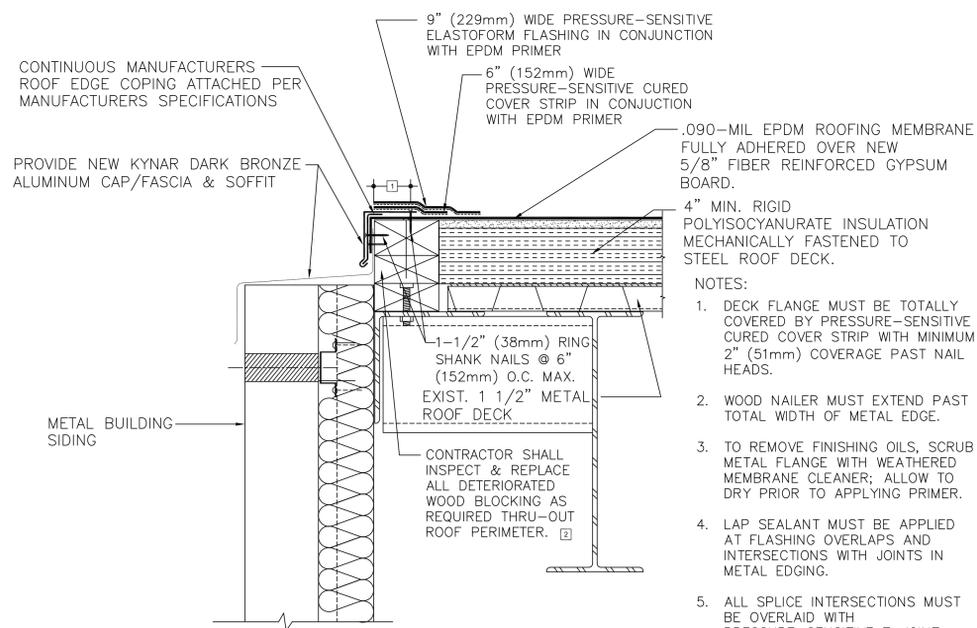
SYMBOL	DESCRIPTION
—	ROOF PERIMETER
○ R.D.	ROOF DRAIN
— (A)	COLUMN LINE
■	ROOT TOP EXHAUST FAN



NEW ROOF PLAN
 SCALE: 1/16"=1'-0"



SYMBOL	DESCRIPTION	DATE	APPROVED BY
REVISIONS			
09-17A		DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND	
NUWCDIVNPT DWG. NO.		NAVAL UNDERSEA WARFARE CENTER DIVISION	
DESIGNED BY ADS/ J. DIMAIO 1/15		NEWPORT, RHODE ISLAND FACILITIES DEVELOPMENT DIVISION	
CHECKED BY J. DIMAIO/R. NELSON 1/15		BUILDING 1171 ROOF SYSTEM REPLACEMENT SECTIONS A, B, & C	
DIV. NO.		NEW ROOF PLAN	
SATISFACTORY TO		SIZE F	CODE IDENT NO. 80091
APPROVED		DATE	NAV. FAC. DRAWING NO.
SCALE NOTED		SPEC. NO.	CONTRACT NO.
		SHEET 5	OF 8



A NEW ROOF EDGE @ METAL BUILDING SIDING NOT TO SCALE

CONTINUOUS MANUFACTURERS ROOF EDGE COPING ATTACHED PER MANUFACTURERS SPECIFICATIONS

PROVIDE NEW KYNAR DARK BRONZE ALUMINUM CAP/FASCIA & SOFFIT

9" (229mm) WIDE PRESSURE-SENSITIVE ELASTOFORM FLASHING IN CONJUNCTION WITH EPDM PRIMER

6" (152mm) WIDE PRESSURE-SENSITIVE CURED COVER STRIP IN CONJUNCTION WITH EPDM PRIMER

.090-MIL EPDM ROOFING MEMBRANE FULLY ADHERED OVER NEW 5/8" FIBER REINFORCED GYPSUM BOARD.

4" MIN. RIGID POLYISOCYANURATE INSULATION MECHANICALLY FASTENED TO STEEL ROOF DECK.

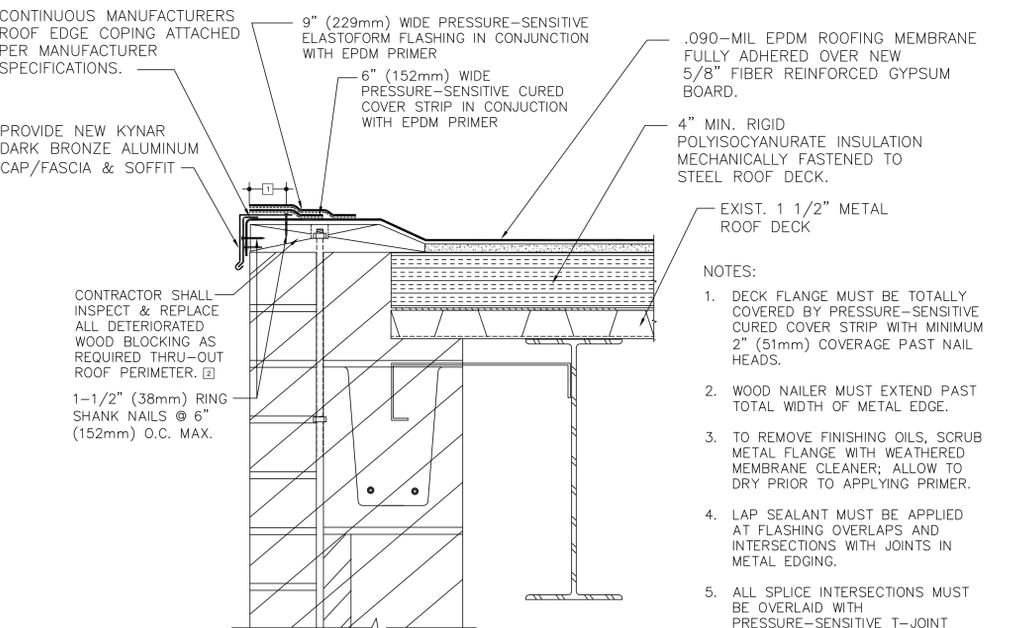
1-1/2" (38mm) RING SHANK NAILS @ 6" (152mm) O.C. MAX. EXIST. 1 1/2" METAL ROOF DECK

CONTRACTOR SHALL INSPECT & REPLACE ALL DETERIORATED WOOD BLOCKING AS REQUIRED THRU-OUT ROOF PERIMETER. [2]

NOTE: ADDITIONAL ENHANCEMENTS ARE RECOMMENDED BY THE ROOFING MANUFACTURER FOR .090-MIL MEMBRANE OR 20, 25 & 30-YEAR WARRANTIES.

NOTES:

1. DECK FLANGE MUST BE TOTALLY COVERED BY PRESSURE-SENSITIVE CURED COVER STRIP WITH MINIMUM 2" (51mm) COVERAGE PAST NAIL HEADS.
2. WOOD NAILER MUST EXTEND PAST TOTAL WIDTH OF METAL EDGE.
3. TO REMOVE FINISHING OILS, SCRUB METAL FLANGE WITH WEATHERED MEMBRANE CLEANER; ALLOW TO DRY PRIOR TO APPLYING PRIMER.
4. LAP SEALANT MUST BE APPLIED AT FLASHING OVERLAPS AND INTERSECTIONS WITH JOINTS IN METAL EDGING.
5. ALL SPLICE INTERSECTIONS MUST BE OVERLAID WITH PRESSURE-SENSITIVE T-JOINT COVERS AND SEALED WITH CONTINUOUS LAP SEALANT. PRIOR TO DOING SO, APPLY LAP SEALANT ALONG THE LEADING EDGE OF THE MEMBRANE SPLICE (UNDER THE 6"x6" T-JOINT COVER) COVERING THE EXPOSED SPLICE TAPE 2" (51mm) IN ALL DIRECTIONS FROM THE SPLICE INTERSECTION.
6. REFER TO APPLICABLE METAL EDGING INSTRUCTION MANUAL



B NEW ROOF EDGE @ HIGH BAY MASONRY WALL NOT TO SCALE

CONTINUOUS MANUFACTURERS ROOF EDGE COPING ATTACHED PER MANUFACTURER SPECIFICATIONS.

PROVIDE NEW KYNAR DARK BRONZE ALUMINUM CAP/FASCIA & SOFFIT

9" (229mm) WIDE PRESSURE-SENSITIVE ELASTOFORM FLASHING IN CONJUNCTION WITH EPDM PRIMER

6" (152mm) WIDE PRESSURE-SENSITIVE CURED COVER STRIP IN CONJUNCTION WITH EPDM PRIMER

.090-MIL EPDM ROOFING MEMBRANE FULLY ADHERED OVER NEW 5/8" FIBER REINFORCED GYPSUM BOARD.

4" MIN. RIGID POLYISOCYANURATE INSULATION MECHANICALLY FASTENED TO STEEL ROOF DECK.

EXIST. 1 1/2" METAL ROOF DECK

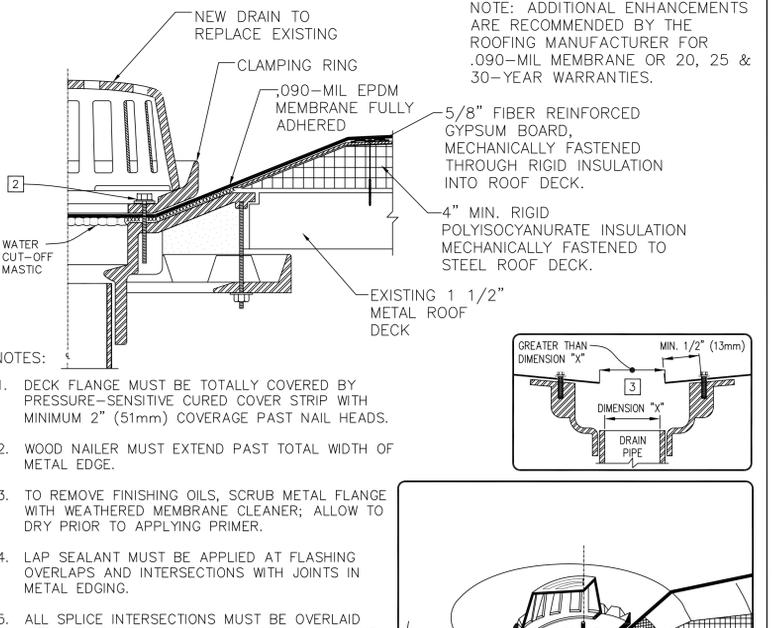
CONTRACTOR SHALL INSPECT & REPLACE ALL DETERIORATED WOOD BLOCKING AS REQUIRED THRU-OUT ROOF PERIMETER. [2]

1-1/2" (38mm) RING SHANK NAILS @ 6" (152mm) O.C. MAX.

NOTE: ADDITIONAL ENHANCEMENTS ARE RECOMMENDED BY THE ROOFING MANUFACTURER FOR .090-MIL MEMBRANE OR 20, 25 & 30-YEAR WARRANTIES.

NOTES:

1. DECK FLANGE MUST BE TOTALLY COVERED BY PRESSURE-SENSITIVE CURED COVER STRIP WITH MINIMUM 2" (51mm) COVERAGE PAST NAIL HEADS.
2. WOOD NAILER MUST EXTEND PAST TOTAL WIDTH OF METAL EDGE.
3. TO REMOVE FINISHING OILS, SCRUB METAL FLANGE WITH WEATHERED MEMBRANE CLEANER; ALLOW TO DRY PRIOR TO APPLYING PRIMER.
4. LAP SEALANT MUST BE APPLIED AT FLASHING OVERLAPS AND INTERSECTIONS WITH JOINTS IN METAL EDGING.
5. ALL SPLICE INTERSECTIONS MUST BE OVERLAID WITH PRESSURE-SENSITIVE T-JOINT COVERS AND SEALED WITH CONTINUOUS LAP SEALANT. PRIOR TO DOING SO, APPLY LAP SEALANT ALONG THE LEADING EDGE OF THE MEMBRANE SPLICE (UNDER THE 6"x6" T-JOINT COVER) COVERING THE EXPOSED SPLICE TAPE 2" (51mm) IN ALL DIRECTIONS FROM THE SPLICE INTERSECTION.
6. REFER TO APPLICABLE METAL EDGING INSTRUCTION MANUAL



C NEW ROOF DRAIN & CLAMPING RING SCALE: NONE

NEW DRAIN TO REPLACE EXISTING

CLAMPING RING

.090-MIL EPDM MEMBRANE FULLY ADHERED

5/8" FIBER REINFORCED GYPSUM BOARD, MECHANICALLY FASTENED THROUGH RIGID INSULATION INTO ROOF DECK.

4" MIN. RIGID POLYISOCYANURATE INSULATION MECHANICALLY FASTENED TO STEEL ROOF DECK.

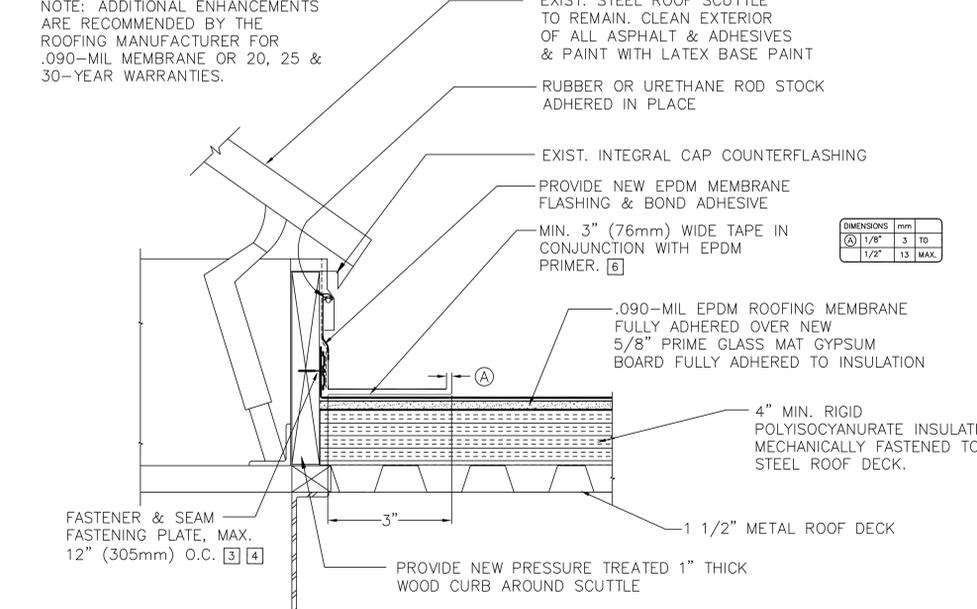
EXISTING 1 1/2" METAL ROOF DECK

WATER CUT-OFF MASTIC

NOTE: ADDITIONAL ENHANCEMENTS ARE RECOMMENDED BY THE ROOFING MANUFACTURER FOR .090-MIL MEMBRANE OR 20, 25 & 30-YEAR WARRANTIES.

NOTES:

1. DECK FLANGE MUST BE TOTALLY COVERED BY PRESSURE-SENSITIVE CURED COVER STRIP WITH MINIMUM 2" (51mm) COVERAGE PAST NAIL HEADS.
2. WOOD NAILER MUST EXTEND PAST TOTAL WIDTH OF METAL EDGE.
3. TO REMOVE FINISHING OILS, SCRUB METAL FLANGE WITH WEATHERED MEMBRANE CLEANER; ALLOW TO DRY PRIOR TO APPLYING PRIMER.
4. LAP SEALANT MUST BE APPLIED AT FLASHING OVERLAPS AND INTERSECTIONS WITH JOINTS IN METAL EDGING.
5. ALL SPLICE INTERSECTIONS MUST BE OVERLAID WITH PRESSURE-SENSITIVE T-JOINT COVERS AND SEALED WITH CONTINUOUS LAP SEALANT. PRIOR TO DOING SO, APPLY LAP SEALANT ALONG THE LEADING EDGE OF THE MEMBRANE SPLICE (UNDER THE 6"x6" T-JOINT COVER) COVERING THE EXPOSED SPLICE TAPE 2" (51mm) IN ALL DIRECTIONS FROM THE SPLICE INTERSECTION.
7. REFER TO APPLICABLE METAL EDGING INSTRUCTION MANUAL



D NEW ROOF @ ROOF SCUTTLE NOT TO SCALE

NOTE: ADDITIONAL ENHANCEMENTS ARE RECOMMENDED BY THE ROOFING MANUFACTURER FOR .090-MIL MEMBRANE OR 20, 25 & 30-YEAR WARRANTIES.

EXIST. STEEL ROOF SCUTTLE TO REMAIN. CLEAN EXTERIOR OF ALL ASPHALT & ADHESIVES & PAINT WITH LATEX BASE PAINT

RUBBER OR URETHANE ROD STOCK ADHERED IN PLACE

EXIST. INTEGRAL CAP COUNTERFLASHING

PROVIDE NEW EPDM MEMBRANE FLASHING & BOND ADHESIVE

MIN. 3" (76mm) WIDE TAPE IN CONJUNCTION WITH EPDM PRIMER. [6]

.090-MIL EPDM ROOFING MEMBRANE FULLY ADHERED OVER NEW 5/8" PRIME GLASS MAT GYPSUM BOARD FULLY ADHERED TO INSULATION

4" MIN. RIGID POLYISOCYANURATE INSULATION MECHANICALLY FASTENED TO STEEL ROOF DECK.

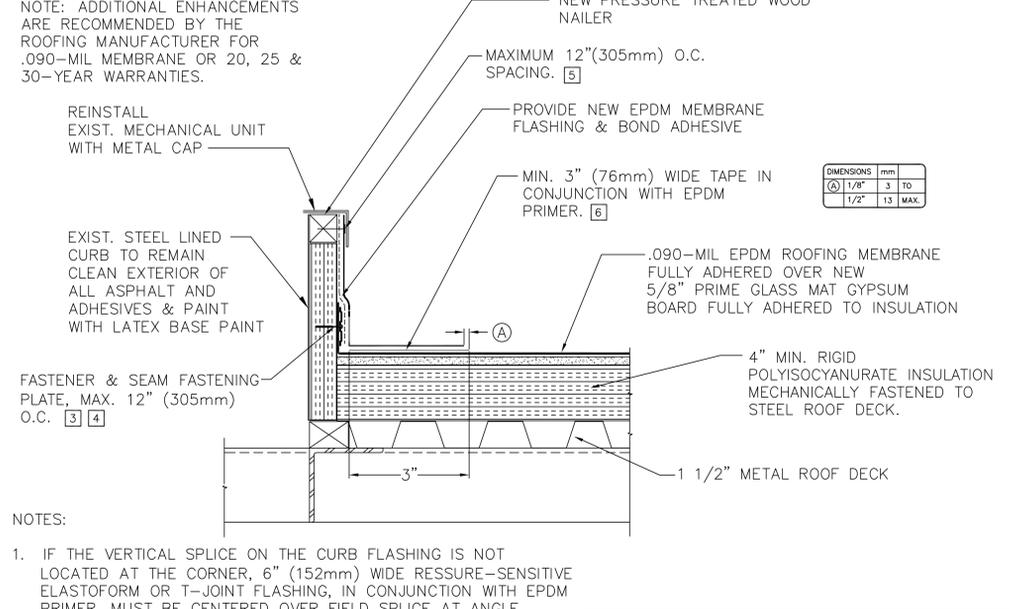
1 1/2" METAL ROOF DECK

PROVIDE NEW PRESSURE TREATED 1" THICK WOOD CURB AROUND SCUTTLE

FASTENER & SEAM FASTENING PLATE, MAX. 12" (305mm) O.C. [3] [4]

NOTES:

1. IF THE VERTICAL SPLICE ON THE CURB FLASHING IS NOT LOCATED AT THE CORNER, 6" (152mm) WIDE PRESSURE-SENSITIVE ELASTOFORM OR T-JOINT FLASHING, IN CONJUNCTION WITH EPDM PRIMER, MUST BE CENTERED OVER FIELD SPLICE AT ANGLE CHANGE.
2. LAP SEALANT IS REQUIRED ON CUT-EDGES OF REINFORCED MEMBRANE.
3. SEAM FASTENING PLATES/FASTENERS MAY BE INSTALLED INTO THE STRUCTURAL DECK.
4. WHEN SEAM FASTENING PLATES/FASTENERS ARE INSTALLED HORIZONTALLY, HP FASTENERS AND POLYMER SEAM PLATES ARE REQUIRED FOR MECHANICALLY-FASTENED ROOFING SYSTEMS OVER STEEL DECKS.
5. WHEN MECHANICAL FASTENERS ARE USED TO PENETRATE THE METAL COUNTER-FLASHING, USE EPDM WASHERS, APPLY WATER CUT-OFF MASTIC UNDER THE COUNTER-FLASHING OR CAULK THE FASTENER HEADS.
6. MEMBRANE SPLICES SHALL INCORPORATE 6" (152mm) WIDE FIELD APPLIED TAPE FOR PROJECTS WITH 20, 25 and 30-YEAR WARRANTIES.



E NEW @ EQUIPMENT CURB, TYPICAL NOT TO SCALE

NOTE: ADDITIONAL ENHANCEMENTS ARE RECOMMENDED BY THE ROOFING MANUFACTURER FOR .090-MIL MEMBRANE OR 20, 25 & 30-YEAR WARRANTIES.

NEW PRESSURE TREATED WOOD NAILER

MAXIMUM 12" (305mm) O.C. SPACING. [5]

PROVIDE NEW EPDM MEMBRANE FLASHING & BOND ADHESIVE

MIN. 3" (76mm) WIDE TAPE IN CONJUNCTION WITH EPDM PRIMER. [6]

.090-MIL EPDM ROOFING MEMBRANE FULLY ADHERED OVER NEW 5/8" PRIME GLASS MAT GYPSUM BOARD FULLY ADHERED TO INSULATION

4" MIN. RIGID POLYISOCYANURATE INSULATION MECHANICALLY FASTENED TO STEEL ROOF DECK.

1 1/2" METAL ROOF DECK

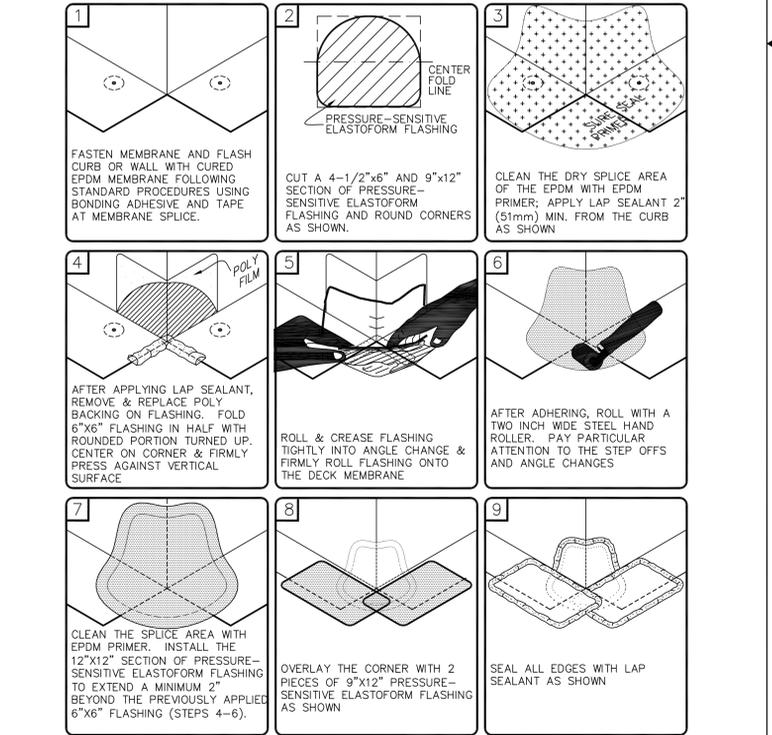
FASTENER & SEAM FASTENING PLATE, MAX. 12" (305mm) O.C. [3] [4]

REINSTALL EXIST. MECHANICAL UNIT WITH METAL CAP

EXIST. STEEL LINED CURB TO REMAIN CLEAN EXTERIOR OF ALL ASPHALT AND ADHESIVES & PAINT WITH LATEX BASE PAINT

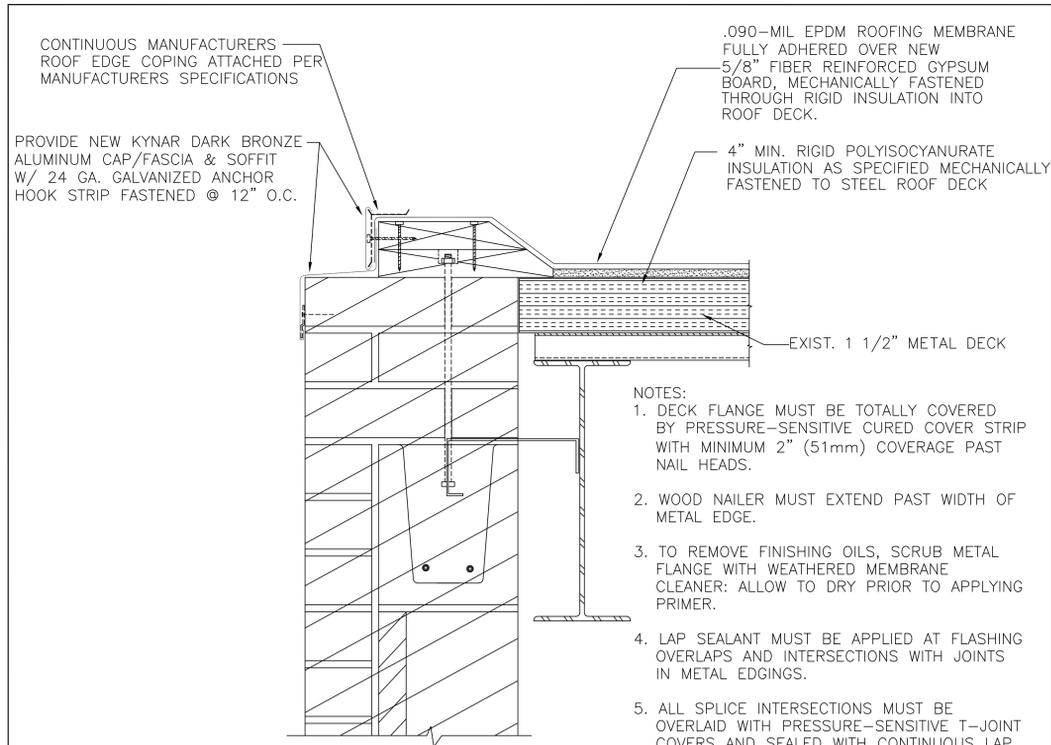
NOTES:

1. IF THE VERTICAL SPLICE ON THE CURB FLASHING IS NOT LOCATED AT THE CORNER, 6" (152mm) WIDE PRESSURE-SENSITIVE ELASTOFORM OR T-JOINT FLASHING, IN CONJUNCTION WITH EPDM PRIMER, MUST BE CENTERED OVER FIELD SPLICE AT ANGLE CHANGE.
2. LAP SEALANT IS REQUIRED ON CUT-EDGES OF REINFORCED MEMBRANE.
3. SEAM FASTENING PLATES/FASTENERS MAY BE INSTALLED INTO THE STRUCTURAL DECK.
4. WHEN SEAM FASTENING PLATES/FASTENERS ARE INSTALLED HORIZONTALLY, HP FASTENERS AND POLYMER SEAM PLATES ARE REQUIRED FOR MECHANICALLY-FASTENED ROOFING SYSTEMS OVER STEEL DECKS.
5. WHEN MECHANICAL FASTENERS ARE USED TO PENETRATE THE METAL COUNTER-FLASHING, USE EPDM WASHERS, APPLY WATER CUT-OFF MASTIC UNDER THE COUNTER-FLASHING OR CAULK THE FASTENER HEADS.
6. MEMBRANE SPLICES SHALL INCORPORATE 6" (152mm) WIDE FIELD APPLIED TAPE FOR PROJECTS WITH 20, 25 and 30-YEAR WARRANTIES.

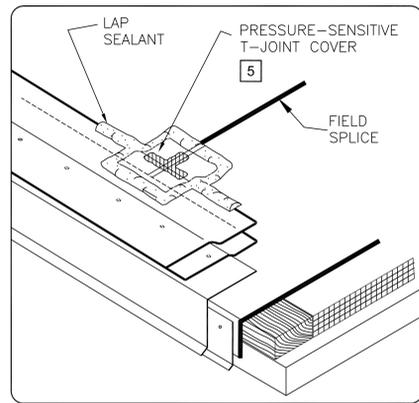


F OUTSIDE CORNER FLASHING FOR 90-MIL MEMBRANE OR 20, 25 & 30-YR WARRANTIES

SYMBOL	DESCRIPTION	DATE	APPROVED BY
REVISIONS			
09-17A		DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND	
NUWC/DIVNPT DWG. NO.		NAVAL UNDERSEA WARFARE CENTER DIVISION	
NEWPORT, RHODE ISLAND		FACILITIES DEVELOPMENT DIVISION	
BUILDING 1171 ROOF SYSTEM REPLACEMENT SECTIONS A, B, & C			
NEW ROOF DETAILS			
DRAWN BY	ADS / J. DIMAIO	1/15	
DESIGNED BY	J. DIMAIO	1/15	
CHECKED BY	J. DIMAIO/R. NELSON	1/15	
DIV. NO.			
SATISFACTORY TO			
APPROVED			
DATE			
SIZE	CODE IDENT NO.	NAV. FAC. DRAWING NO.	
F	80091		
SCALE NOTED		CONTRACT NO.	
		SPEC. NO.	
		SHEET 6	OF 7

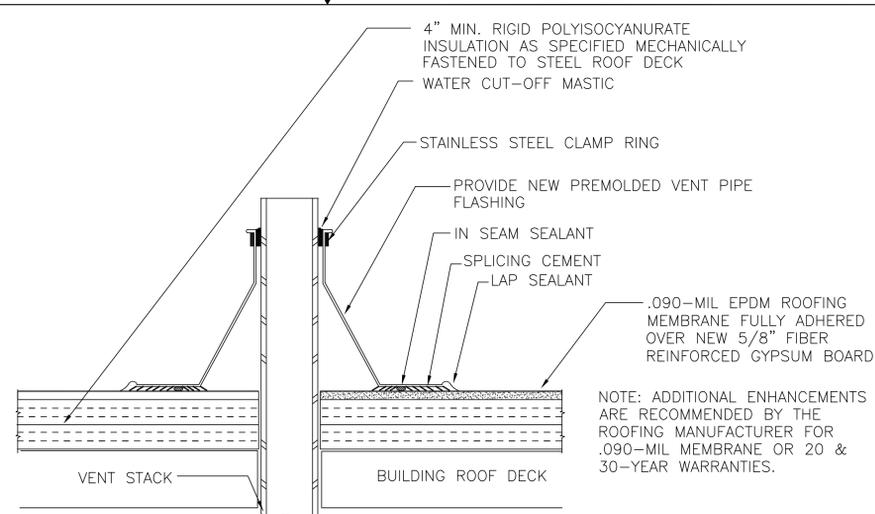


- NOTES:
1. DECK FLANGE MUST BE TOTALLY COVERED BY PRESSURE-SENSITIVE CURED COVER STRIP WITH MINIMUM 2" (51mm) COVERAGE PAST NAIL HEADS.
 2. WOOD NAILER MUST EXTEND PAST WIDTH OF METAL EDGE.
 3. TO REMOVE FINISHING OILS, SCRUB METAL FLANGE WITH WEATHERED MEMBRANE CLEANER; ALLOW TO DRY PRIOR TO APPLYING PRIMER.
 4. LAP SEALANT MUST BE APPLIED AT FLASHING OVERLAPS AND INTERSECTIONS WITH JOINTS IN METAL EDGINGS.
 5. ALL SPlice INTERSECTIONS MUST BE OVERLAID WITH PRESSURE-SENSITIVE T-JOINT COVERS AND SEALED WITH CONTINUOUS LAP SEALANT. PRIOR TO DOING SO, APPLY LAP SEALANT ALONG THE LEADING EDGE OF THE MEMBRANE SPlice (UNDER THE 6"x6" T-JOINT COVER) COVERING THE EXPOSED SPlice TAPE 2" (51mm) IN ALL DIRECTIONS FROM THE SPlice INTERSECTION.
 6. REFER TO MANUFACTURERS METAL EDGING INSTRUCTION MANUAL.

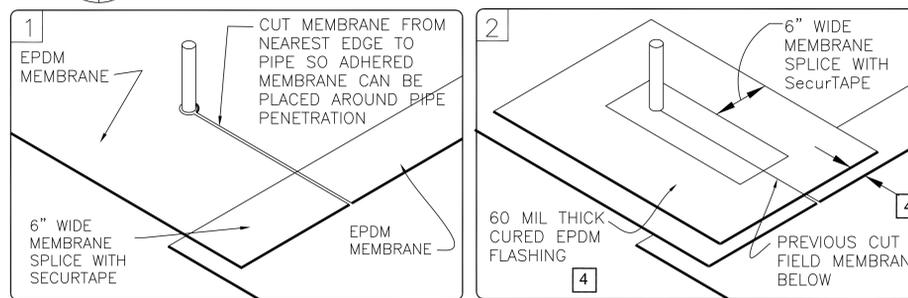


NOTE: ADDITIONAL ENHANCEMENTS ARE RECOMMENDED BY THE ROOFING MANUFACTURER FOR .090-MIL MEMBRANE OR 20 & 30-YEAR WARRANTIES.

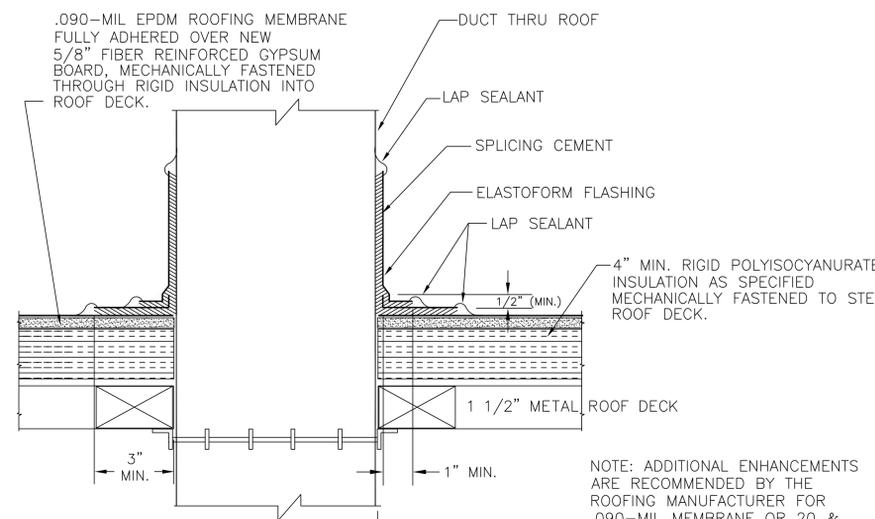
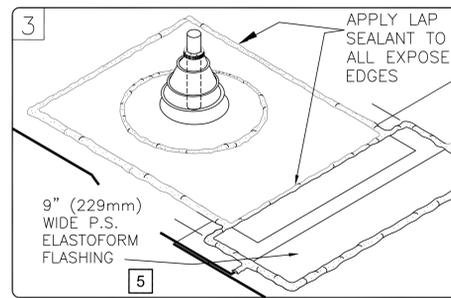
F ROOF EDGE @ OFFICE TOWER
5/7 NOT TO SCALE



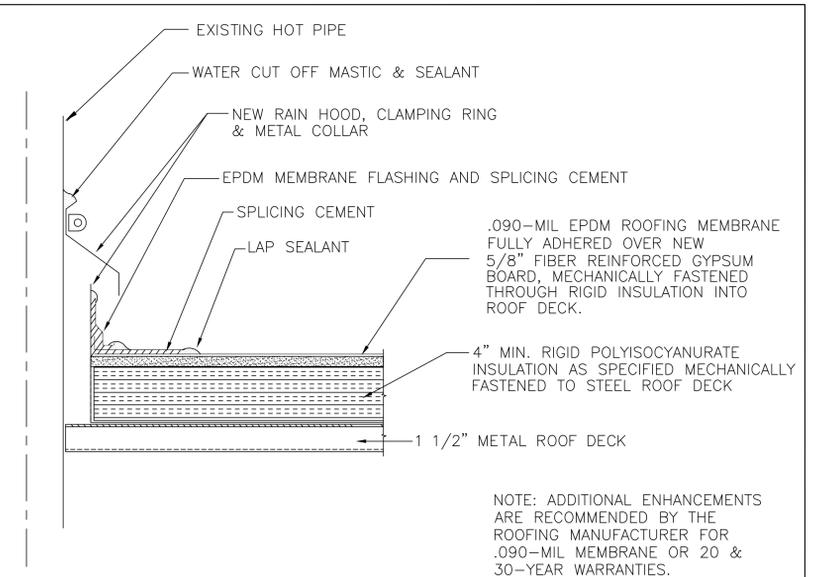
G PIPE FLASHING DETAIL
5/7 NOT TO SCALE



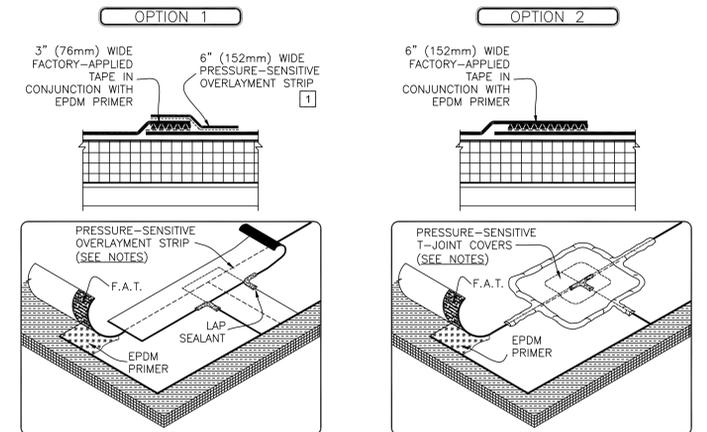
- NOTES:
1. REMOVE ALL LEAD AND OTHER FLASHING BEFORE INSTALLING PRESSURE-SENSITIVE PIPE SEAL.
 2. PIPE SEAL MUST HAVE INTACT RIB AT TOP EDGE, REGARDLESS OF PIPE DIAMETER.
 3. DECK FLANGES OF THE MOLDED PIPE SEAL SHALL NOT BE OVERLAPPED, CUT OR APPLIED OVER ANY ANGLE CHANGE.
 4. AT THE CUT IN THE FIELD MEMBRANE, 60-MIL THICK CURED EPDM FLASHING OVERLAY MUST EXTEND 3" (76mm) BEYOND THE MOLDED PIPE FLASHING FLANGE ON 3 SIDES AND WITHIN 1" (25mm) OF THE EDGE OF THE FIELD MEMBRANE, AS SHOWN.
 5. CENTER 9" (229mm) WIDE PRESSURE-SENSITIVE ELASTOFORM FLASHING OVER THE MEMBRANE SPlice EDGE AND EXTEND 3" (76mm) BEYOND THE MEMBRANE OVERLAY, AS SHOWN.
 6. SEAL ALL EDGES WITH CONTINUOUS LAP SEALANT.



K DUCT THRU ROOF DETAIL
5/7 NOT TO SCALE



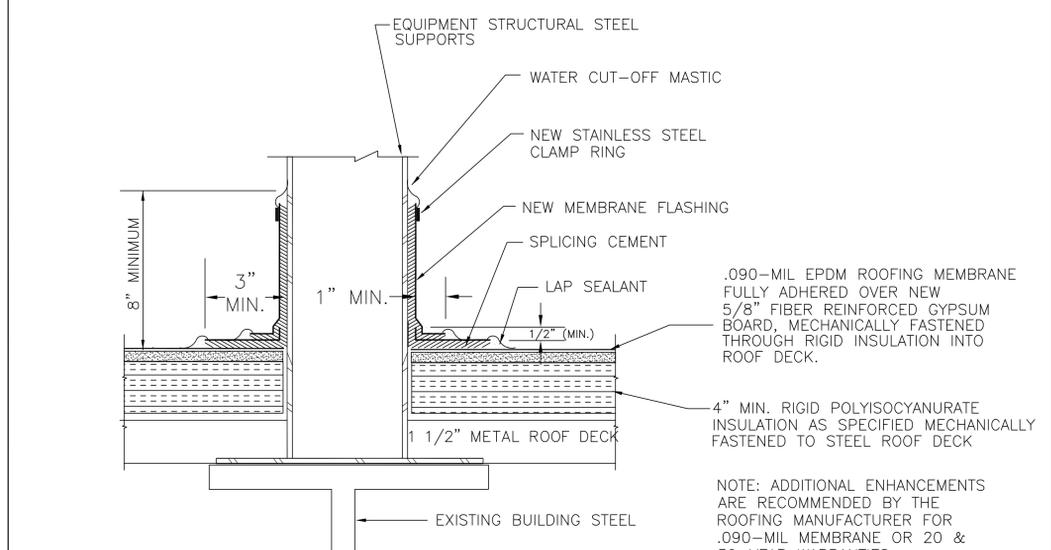
H HOT PIPE FLASHING
5/7 NOT TO SCALE



- NOTES:
1. PROJECTS WITH 25-YEAR WARRANTIES OR PROJECTS WITH 90-MIL EPDM MEMBRANE (REGARDLESS OF WARRANTY), TAPE SPICES MAY BE A MINIMUM 6" (152mm) WIDE FACTORY APPLIED TAPE (FAT). IN ADDITION, AND IN LIEU OF THE CONTINUOUS OVERLAYMENT STRIP, ALL SPlice INTERSECTIONS MUST BE OVERLAID WITH TWO LAYERS OF PRESSURE-SENSITIVE ELASTOFORM FLASHING. APPLY LAP SEALANT ALONG THE LEADING EDGE OF THE MEMBRANE SPlice COVERING 2" (51mm) IN ALL DIRECTIONS FROM THE SPlice INTERSECTION AND OVERLAY WITH A 6"x6" (152mm X 152mm) T-JOINT COVER A SECOND LAYER OF 12"x12" (305mm X 305mm) PRESSURE-SENSITIVE ELASTOFORM FLASHING IS REQUIRED. BOTH LAYERS SHALL BE CENTERED OVER THE SPlice INTERSECTION AND SEALED WITH CONTINUOUS LAP SEALANT.
 2. APPLY LAP SEALANT AT ALL INTERSECTIONS BETWEEN PRESSURE-SENSITIVE OVERLAYMENT STRIP.

NOTE: ADDITIONAL ENHANCEMENTS ARE RECOMMENDED BY THE ROOFING MANUFACTURER FOR .090-MIL MEMBRANE OR 20 & 30-YEAR WARRANTIES.

L EPDM MEMBRANE SPlice
7/7 NOT TO SCALE



J EQUIPMENT STEEL DETAIL
5/7 NOT TO SCALE

SYMBOL	DESCRIPTION	DATE	APPROVED BY
REVISIONS			
09-17A		DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND	
NUWCDIVNPT DWG. NO.		NAVAL UNDERSEA WARFARE CENTER DIVISION	
DRAWN BY: ADS / J. DIMAIO 1/15		NEWPORT, RHODE ISLAND FACILITIES DEVELOPMENT DIVISION	
DESIGNED BY: J. DIMAIO 1/15		BUILDING 1171 ROOF SYSTEM REPLACEMENT SECTIONS A, B, & C	
CHECKED BY: J. DIMAIO/R. NELSON 1/15			
SATISFACTORY TO:		SIZE: F	CODE IDENT NO.: 80091
APPROVED:		DATE:	NAV. FAC. DRAWING NO.:
SCALE NOTED:		CONTRACT NO.:	SHEET 7 OF 7



BLDG 1171 ROOF SECTION "A" THREE STORY STRUCTURE PHOTO 1 OF SOUTHEAST CORNER



BLDG 1171 ROOF SECTION "B" ROOF OVER MAIN LOBBY PHOTO 2



BLDG 1171 ROOF SECTION "C" HIGH BAY PHOTO 3 SOUTHWEST CORNER



BLDG 1171 ROOF SECTION "C" HIGH BAY PHOTO 04 NORTH EAST ROOF SECTION



BLDG 1171 ROOF SECTION "C" HIGH BAY PHOTO 05 SHOWING SOUTH EAST ROOF SECTION



BLDG 1171 ROOF SECTION "C" HIGH BAY PHOTO 06 SHOWING NORTH EAST ROOF SECTION



BLDG 1171 ROOF SECTION "C" HIGH BAY PHOTO 07 SHOWING SNOW DRIFT PLATFORM ON NORTH EAST ROOF SECTION



BLDG 1171 ROOF SECTION "A" THREE STORY STRUCTURE PHOTO 08 SHOWING SOUTH WEST ROOF SECTION



BLDG 1171 ROOF SECTION "A" THREE STORY STRUCTURE PHOTO 09



BLDG 1171 ROOF SECTION "A" THREE STORY STRUCTURE PHOTO 10 SHOWING NORTH EAST ROOF SECTION



BLDG 1171 ROOF SECTION "A" THREE STORY STRUCTURE PHOTO 11 ROOF ACCESS SCUTTLE, EXHAUST FANS & VENT PIPE PENETRATIONS THROUGH ROOF



BLDG 1171 ROOF SECTION "C" HIGH BAY PHOTO 12 SHOWING VARIOUS ROOF TOP EXHAUST FANS & VENT PIPES ALONG CENTER OF ROOF



BLDG 1171 ROOF SECTION "C" HIGH BAY PHOTO 13 SHOWING ROOF TOP EXHAUST FANS, SUPPORTS & PENETRATIONS



BLDG 1171 ROOF SECTION "C" HIGH BAY PHOTO 14 SHOWING CLOSE UP OF SNOW DRIFT PLATFORM.

SYMBOL	DESCRIPTION	DATE	APPROVED BY
REVISIONS			
09-17A		DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND	
NUWC/DIVNPT DWG. NO.		NEWPORT, RHODE ISLAND	
DRAWN BY ADS/J. DIMAIO 1/15		NAVAL UNDERSEA WARFARE CENTER DIVISION	
DESIGNED BY J. DIMAIO 1/15		FACILITIES DEVELOPMENT DIVISION	
CHECKED BY J. DIMAIO/R.NELSON 1/15		BUILDING 1171 ROOF SYSTEM REPLACEMENT	
DW. HD.		SECTIONS A, B, & C	
		EXISTING ROOF PHOTOS	
SATISFACTORY TO	SIZE	CODE IDENT NO.	NAV. FAC. DRAWING NO.
	F	80091	
APPROVED	DATE	CONTRACT NO.	
	SCALE NOTED	SPEC. NO.	SHEET 8 OF 8