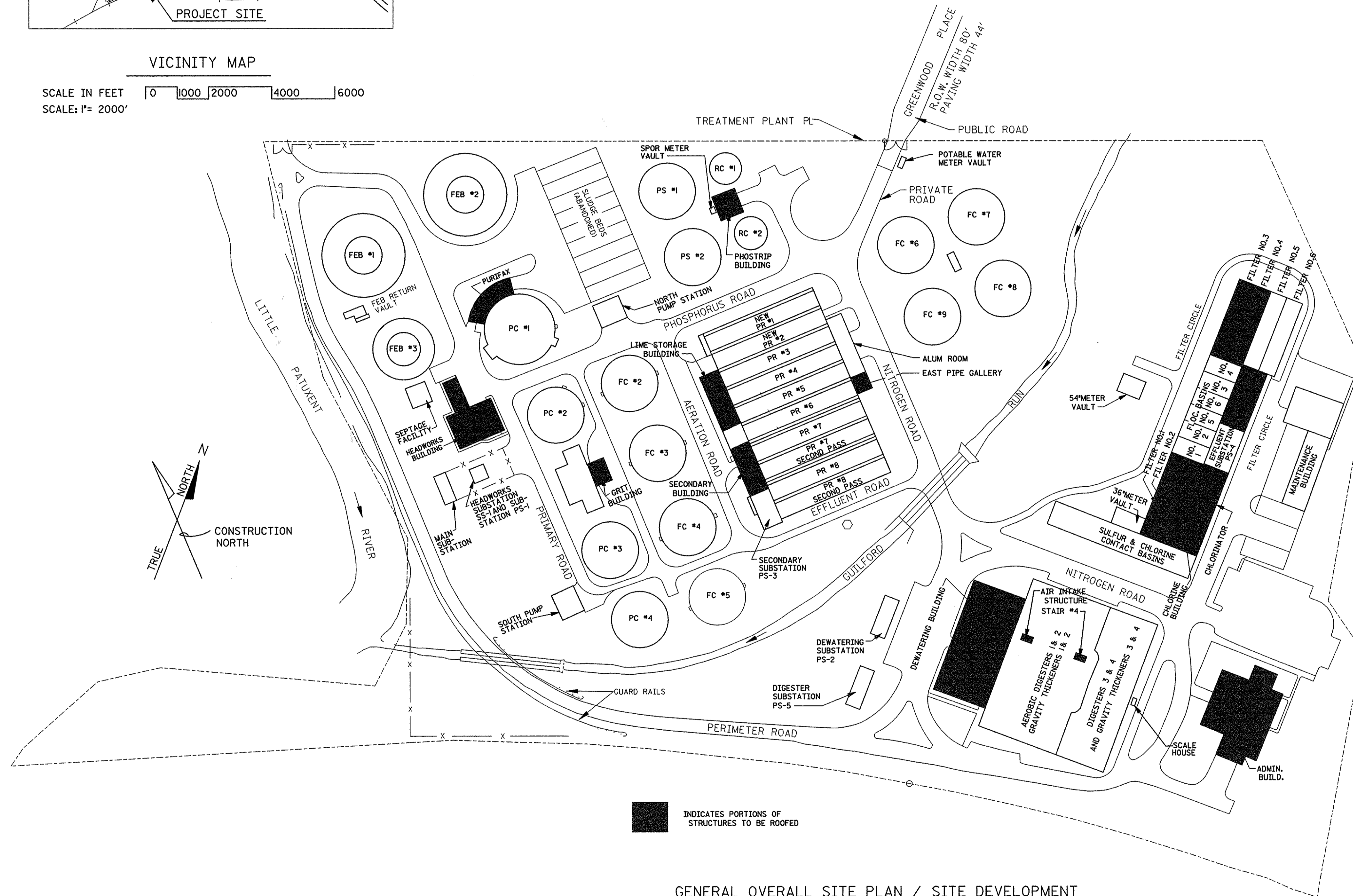
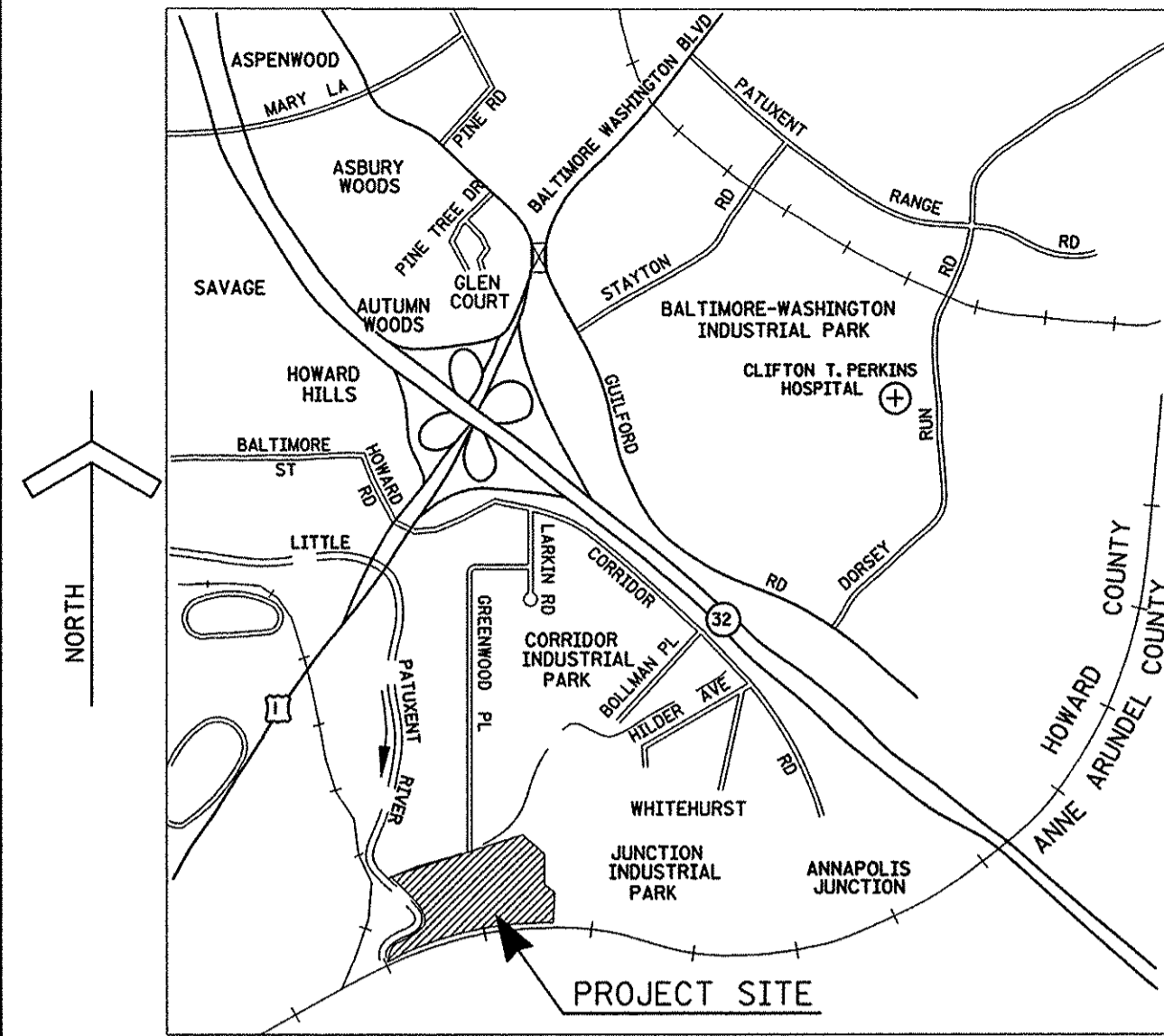


LITTLE PATUXENT WATER RECLAMATION PLANT HOWARD COUNTY, MARYLAND REROOFING OF PLANT BUILDINGS



DRAWING NUMBER	SHEET NUMBER	DRAWING TITLE
T-1	1 OF 9	TITLE SHEET
A-1	2 OF 9	DEWATERING BUILDING ROOF PLAN GENERAL NOTES
A-2	3 OF 9	ADMINISTRATION, GRIT, PHOSTRIP AND PURIFAX BUILDING ROOF PLANS
A-3	4 OF 9	FILTRATION AND DISINFECTION BUILDING ROOF PLANS
A-4	5 OF 9	HEADWORKS, AIR INTAKE STRUCTURE, STAIR #4, EAST PIPE GALLERY, LIME AND SECONDARY BUILDING ROOF PLANS
A-5	6 OF 9	ROOF DETAILS
A-6	7 OF 9	ROOF DETAILS
A-7	8 OF 9	ROOF DETAILS
A-8	9 OF 9	ROOF DETAILS

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Jan P. K. *John R. B.* 2-12-98
DIRECTOR OF PUBLIC WORKS CHIEF, BUREAU OF UTILITIES

bh
BUCHART HORN, INC.
Engineers, Architects and Planners

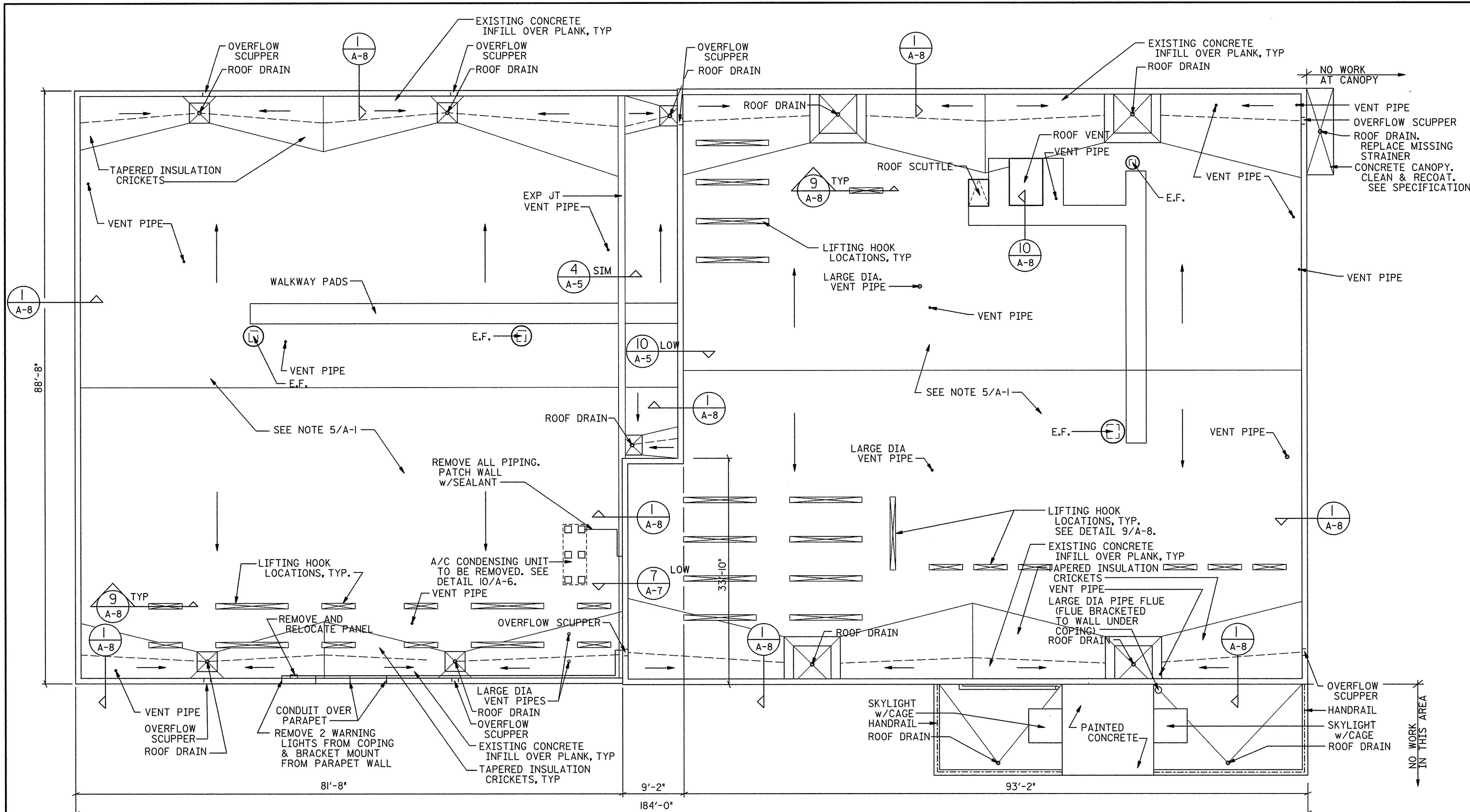
ARCHITECTURAL REGISTRATION BOARD
5231-A
JRS
STATE OF MARYLAND

DES:					
DRN:					
CHK:					
DATE:	BY	NO.	REVISION	DATE	

TITLE SHEET

LITTLE PATUXENT WATER RECLAMATION PLANT
REROOFING OF PLANT BUILDINGS
CAPITAL PROJECT
CONTRACT NO. S6153.PI
HOWARD COUNTY, MARYLAND

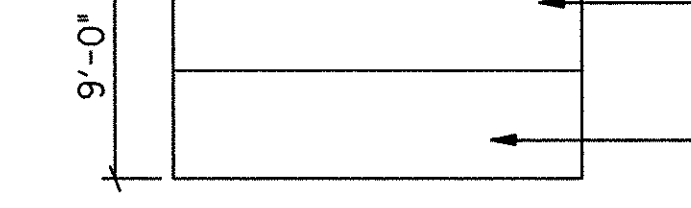
SCALE AS SHOWN SHEET
1 OF 9
T-1



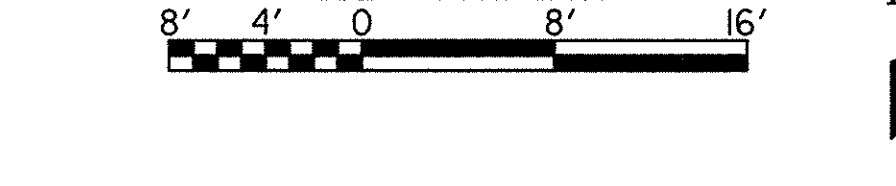
**DEWATERING BUILDING
ROOF PLAN**



**AIR INTAKE STRUCTURE
ROOF PLAN**



**STAIR #4 DEWATERING BLDG
ROOF PLAN**



GENERAL NOTES

1. FOR TYPICAL ROOF DRAIN DETAIL, SEE DETAIL 1/A-5.
2. FOR TYPICAL PIPE PENETRATION DETAIL, SEE DETAIL 2/A-5.
3. FOR TYPICAL SKYLIGHT DETAIL, SEE DETAIL 9/A-5.
4. FOR TYPICAL VENT PIPE DETAIL, SEE DETAIL 2/A-5.
5. REMOVE EXISTING AGGREGATE SURFACED BUILT UP ROOFING OVER RIGID INSULATION OVER CONCRETE DECK, LEAVING DECK CLEAN AND FREE OF ALL FOREIGN MATERIAL. RE-ROOF W/MODIFIED BITUMEN CAP SHEET OVER 2 PLYS BUILT UP ROOFING OVER 1" RIGID PERLITE INSULATION.
6. ROOF W/MODIFIED BITUMEN CAP SHEET OVER 2 PLYS BUILT-UP ROOFING OVER 1" RIGID PERLITE INSULATION.
7. REMOVE EXISTING AGGREGATE SURFACED BUILT UP ROOFING OVER RIGID INSULATION OVER METAL DECK OVER STEEL STRUCTURE, LEAVING DECK CLEAN AND FREE OF ALL FOREIGN MATERIAL. RE-ROOF W/MODIFIED BITUMEN CAP SHEET OVER 2 PLYS BUILT UP ROOFING OVER 1" PERLITE INSULATION OVER 1/2" POLY-ISOCYANURATE INSULATION.
8. DRAWINGS AND SPECIFICATIONS FOR THE ROOFING SYSTEMS ARE COMPLIMENTARY, THAT IS, THEY ARE TO BE USED TOGETHER AND NEITHER ARE TO BE TAKEN OUT OF THAT CONTEXT. THE CONTRACTOR SHALL CAREFULLY STUDY AND COMPARE THE DRAWINGS, SPECIFICATIONS, AND OTHER INSTRUCTIONS PRIOR TO SUBMITTING A BID FOR THE WORK.
9. REPLACE ALL EXISTING ROOF DRAIN STRAINERS, CLAMP RINGS, NUTS AND BOLTS. CLEAN AND UNCLUG ALL DRAINS. REMOVE ASPHALT FROM DRAINS.
10. SUMP ALL ROOF DRAINS 4'-0" SQUARE AND 18" TAPERED EDGE STRIP AND CHAMFER ADJACENT INSULATION IN ACCORDANCE WITH DETAIL 1/A-5.
11. RAISE ALL SUPPORTS TO ACCOMMODATE NEW SYSTEMS OR AS REQUIRED BY THE INSPECTOR TO MAINTAIN 8" CLEAR ABOVE ROOF SURFACE TO TOP OF FLASHING.
12. THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS PRIOR TO SUBMITTING BID. THE CONTRACTOR SHALL FIELD VERIFY ALL QUANTITIES.
13. REPLACE ALL DOWNSPOUTS FROM GUTTERS.

LEGEND

B.U.R.	BUILT UP ROOF	R.D.	ROOF DRAIN
C.O.	CLEAN OUT	S.B.	SPLASH BLOCK
DIA	DIAMETER	SC	SCUPPER
DS	DOWNSPOUT	SO	SQUARE
E.C.	ELECTRICAL CONDUIT	SS	STAINLESS STEEL
E.F.	EXHAUST FAN	S.W.	STORM WATER
ELEV.	ELEVATION		
EQ	EQUAL		
EX	EXISTING		
EXP.JT.	EXPANSION JOINT		
GN	GOOSE NECK		
G.V.	GRAVITY VENT		
O.A.I.	OUTSIDE AIR INTAKE		
P.P.	PITCH POCKET		
P.R.V.	PRESSURE RELIEF VENTILATOR		
P.T.	PRESSURE TREATED		

SYMBOLS

- VENT PIPE, DIAMETERS VARY, SEE TYPICAL DETAIL 2/A-5.
- ⊠ ROOF HATCH OR SCUTTLE, SEE TYPICAL DETAIL 5/A-7
- ⊞ EXHAUST FAN OR ROOF VENT. SEE TYPICAL DETAIL 8/A-5.
- ⊞ EXIST ROOF DRAIN W/SUMP AT PERLITE INSULATION, SEE TYPICAL DETAIL 1/A-5.
- ⊞ EXIST ROOF DRAIN W/SUMP AT POLYISO/PERLITE INSULATION, SEE TYPICAL DETAIL 1/A-5.
- SCUPPER* ITALICIZED TEXT INDICATES EXISTING TO REMAIN (DETAIL SHEETS ONLY)
- SCUPPER STANDARD TEXT INDICATES NEW WORK (DETAIL SHEETS ONLY)

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Sam J. Van 2/16/98 *R. D. B...* 2-12-98
DIRECTOR OF PUBLIC WORKS DATE CHIEF, BUREAU OF UTILITIES DATE

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Engineers, Architects and Planners

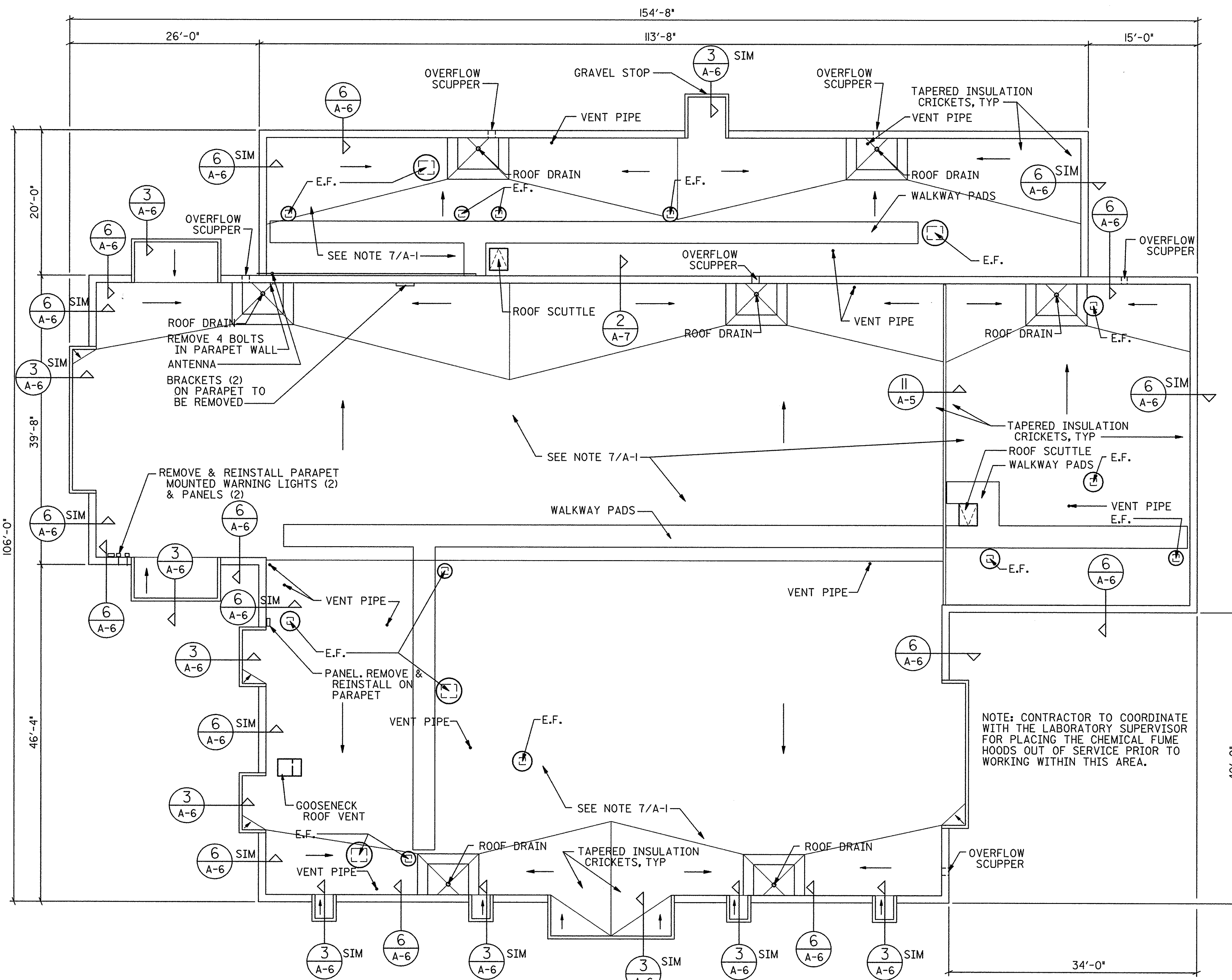
ARCHITECTURAL REGISTRATION BOARD
5231-A
STATE OF MARYLAND

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BY NO.	
REVISION	
DATE	

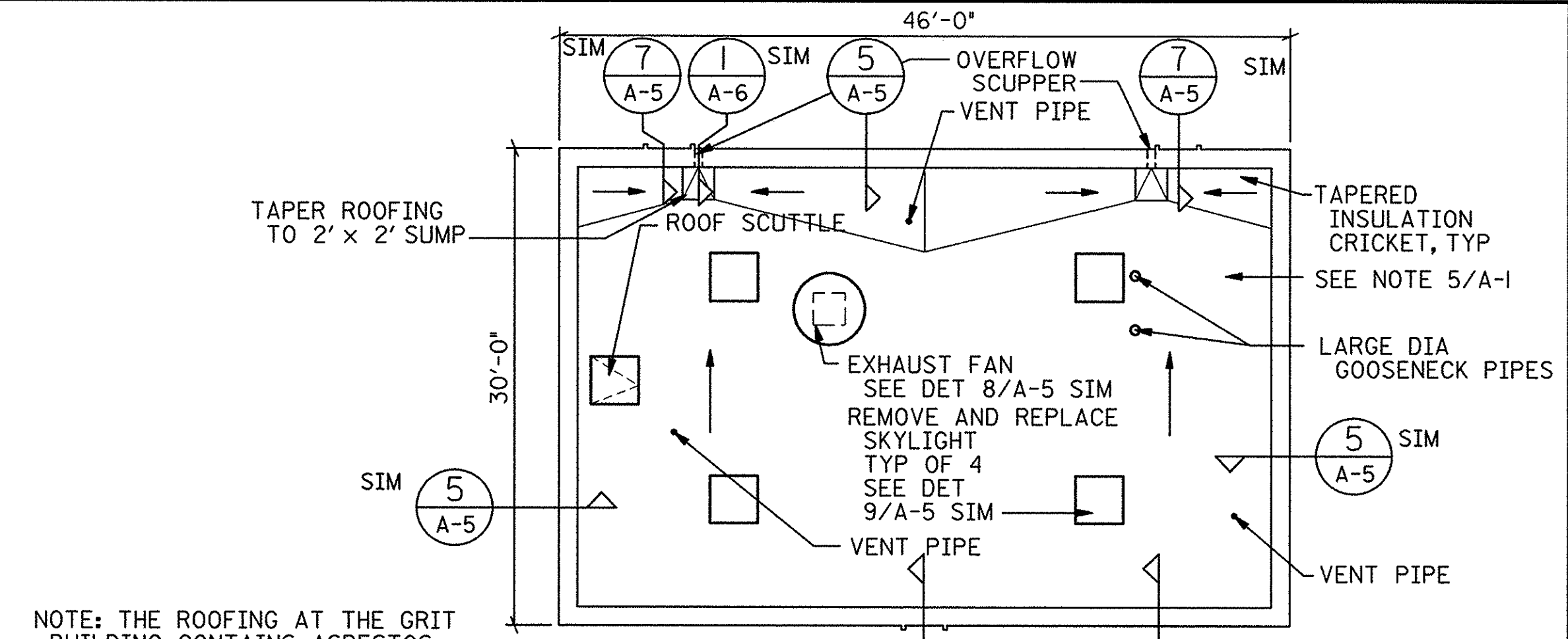
DEWATERING BUILDING
ROOF PLAN
GENERAL NOTES
AIR INTAKE STRUCTURE
STAIR # 4

LITTLE PATUXENT WATER RECLAMATION PLANT
REROOFING OF PLANT BUILDINGS
CAPITAL PROJECT
CONTRACT NO. S6153.PI
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET 2 OF 9
A-1

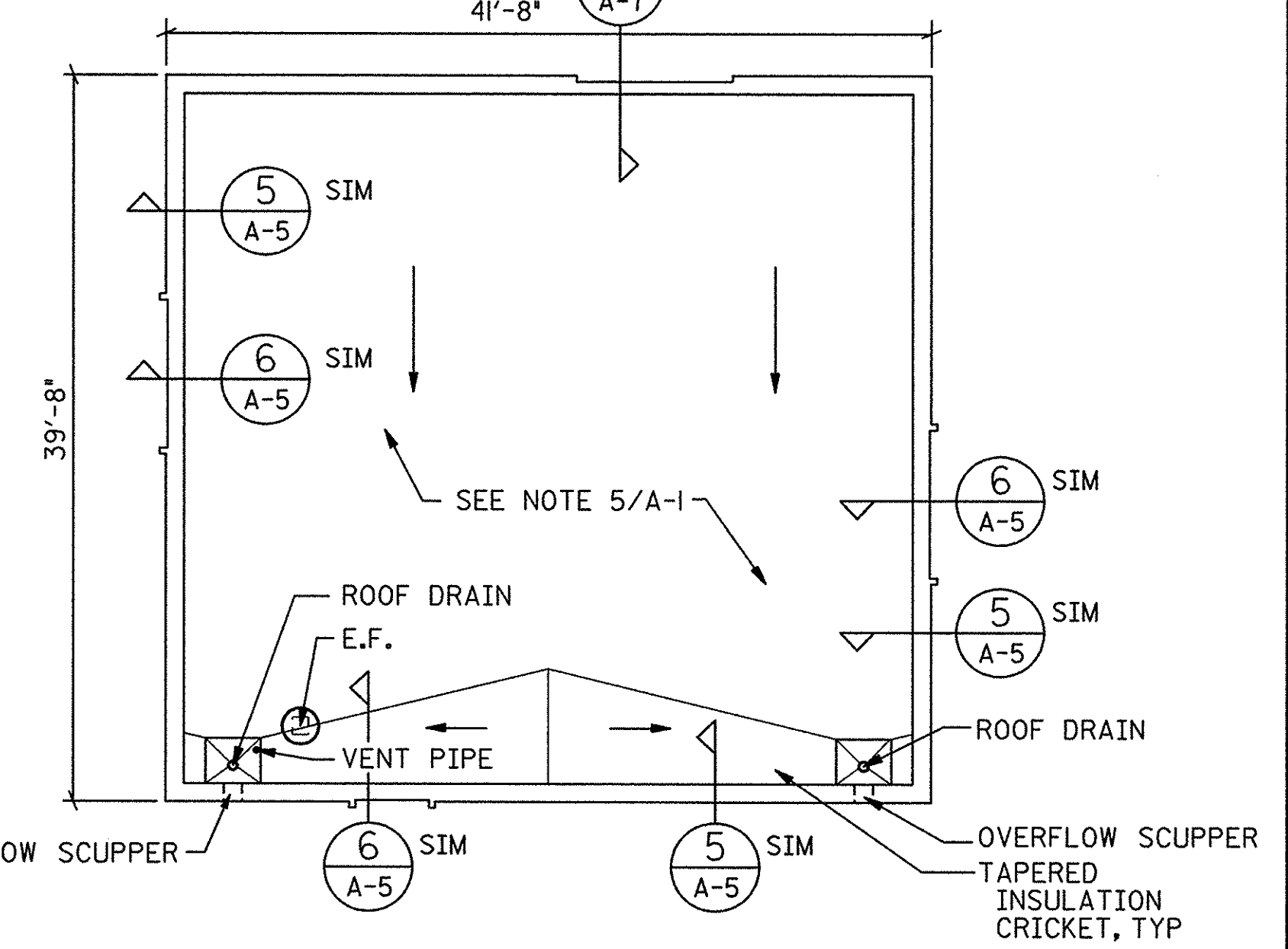


**ADMINISTRATION BUILDING
ROOF PLAN**
8' 4' 0 8' 16'

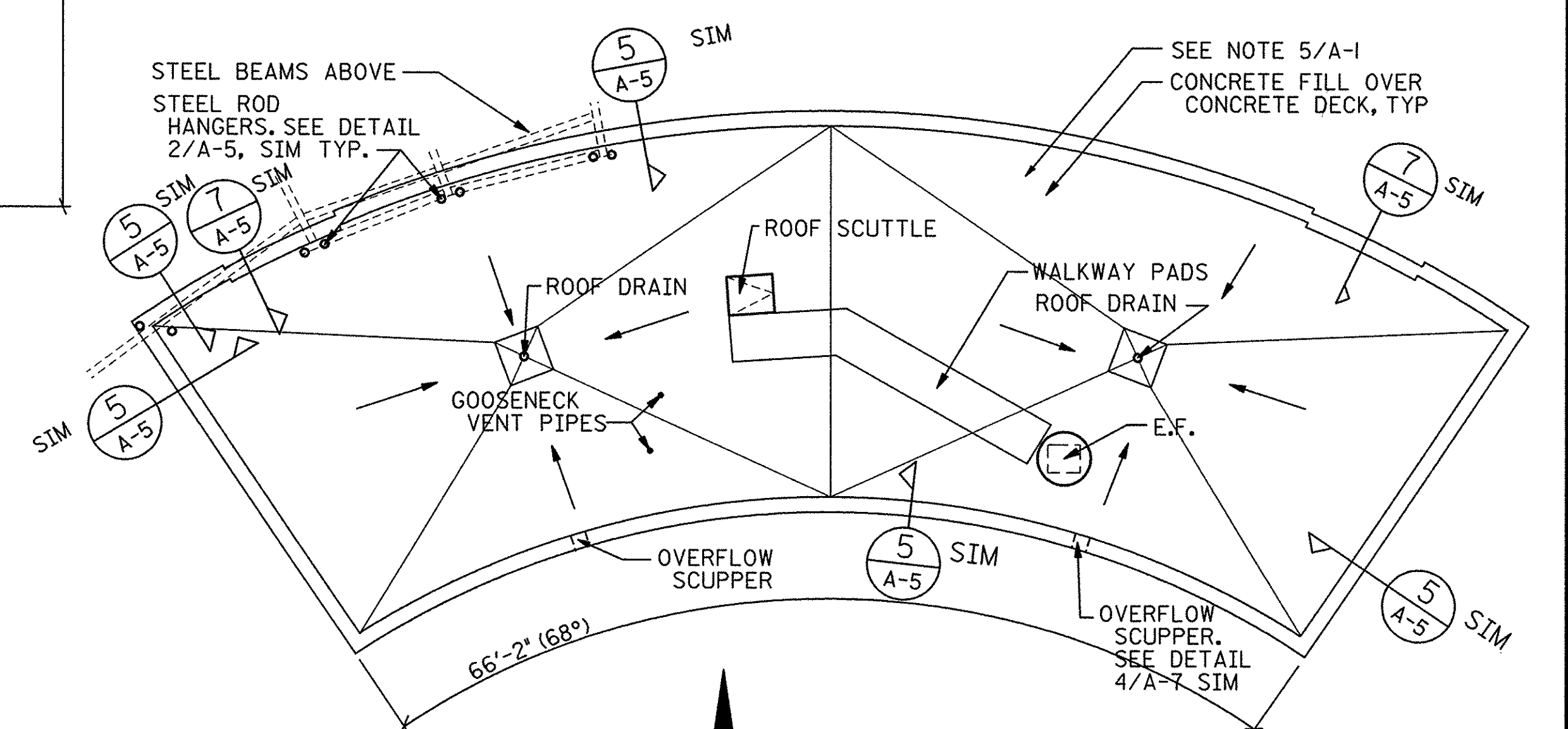


**GRIT BUILDING
ROOF PLAN**
8' 4' 0 8' 16'

NOTE: THE ROOFING AT THE GRIT BUILDING CONTAINS ASBESTOS. SEE SPECIFICATIONS FOR HANDLING PROCEDURES

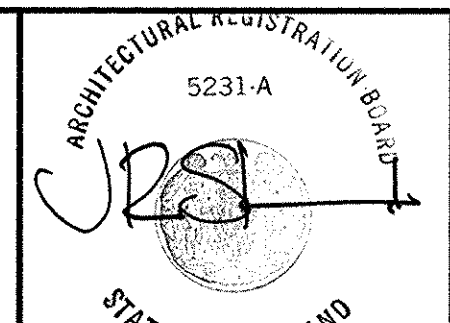


**PHOSTRIP BUILDING
ROOF PLAN**
8' 4' 0 8' 16'



**PURIFAX BUILDING
ROOF PLAN**
8' 4' 0 8' 16'

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

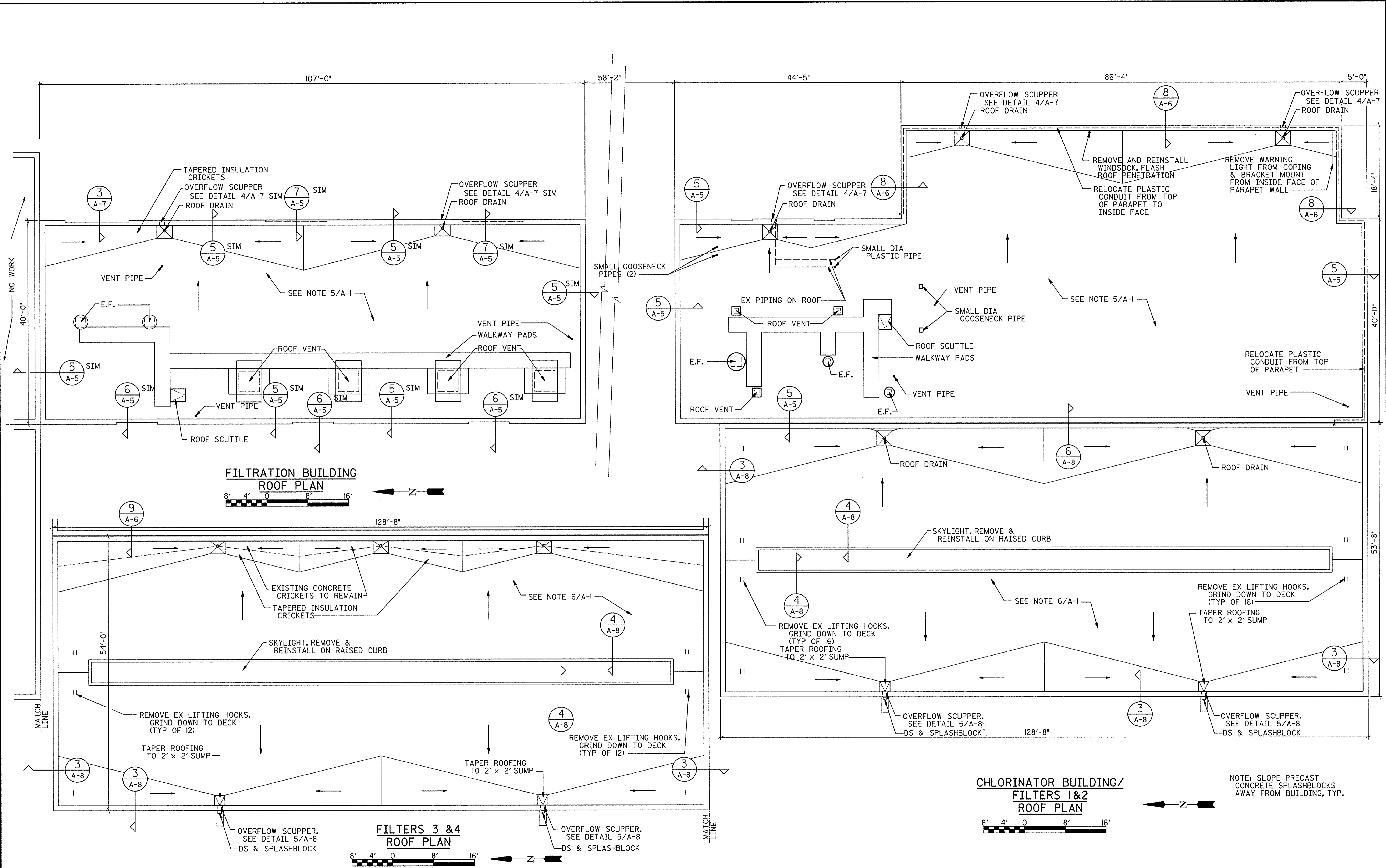


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CHK:	
DATE:	
BY NO.	
REVISION	
DATE	

ADMINISTRATION, GRIT
PHOSTRIP, AND PURIFAX
BUILDING ROOF PLANS

LITTLE PATUXENT WATER RECLAMATION PLANT
REROOFING OF PLANT BUILDINGS
CAPITAL PROJECT
CONTRACT NO. S6153.PI
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET 3 OF 9
A-2



**FILTRATION BUILDING
ROOF PLAN**
8' 4' 0' 8' 16'

**CHLORINATOR BUILDING/
FILTERS 1 & 2
ROOF PLAN**
8' 4' 0' 8' 16'

NOTE: SLOPE PRECAST CONCRETE SPLASHBLOCKS AWAY FROM BUILDING, TYP.

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

James P. Clark 2/18/98 *Robert J. ...* 2-12-98
DIRECTOR OF PUBLIC WORKS DATE CHIEF, BUREAU OF UTILITIES DATE

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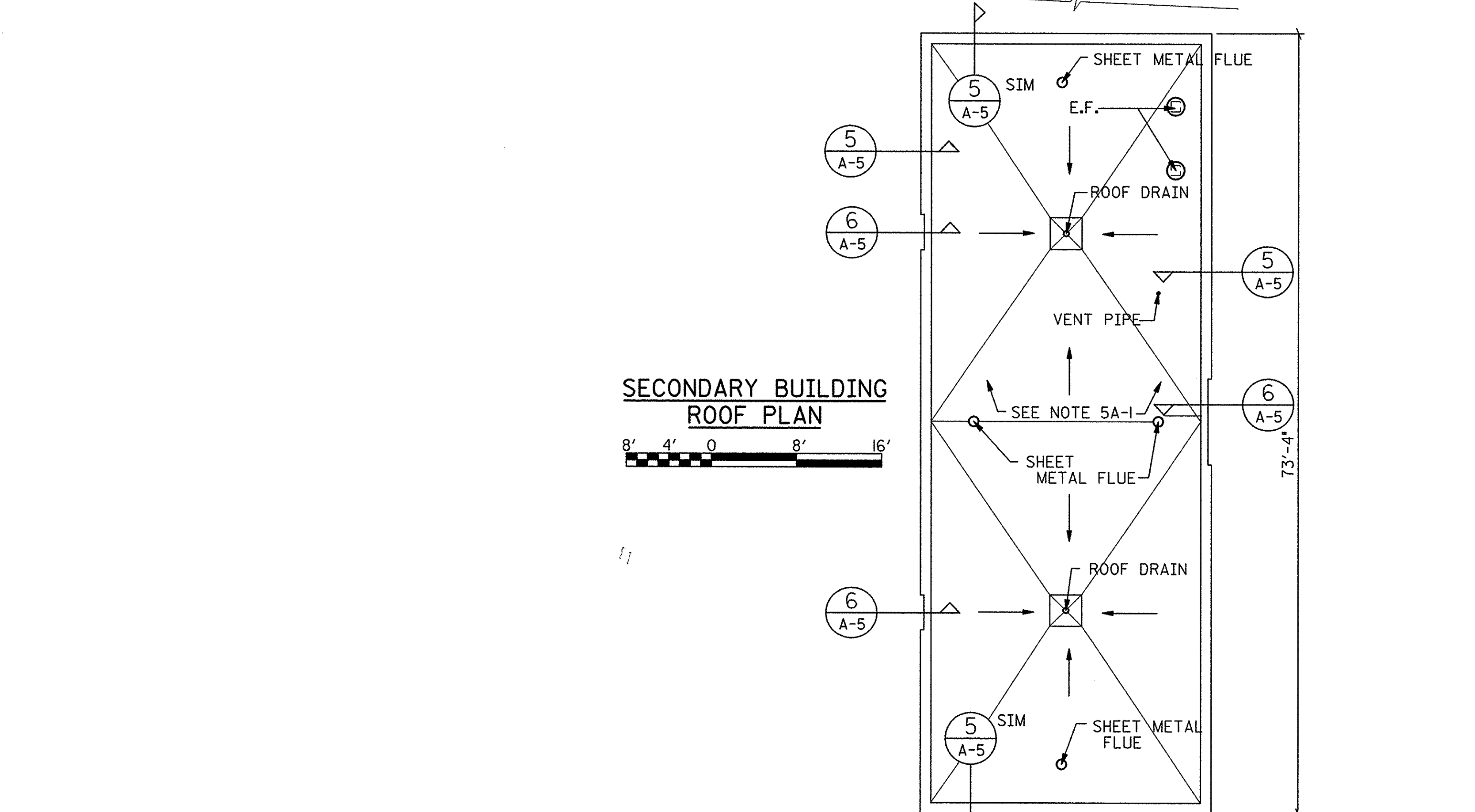
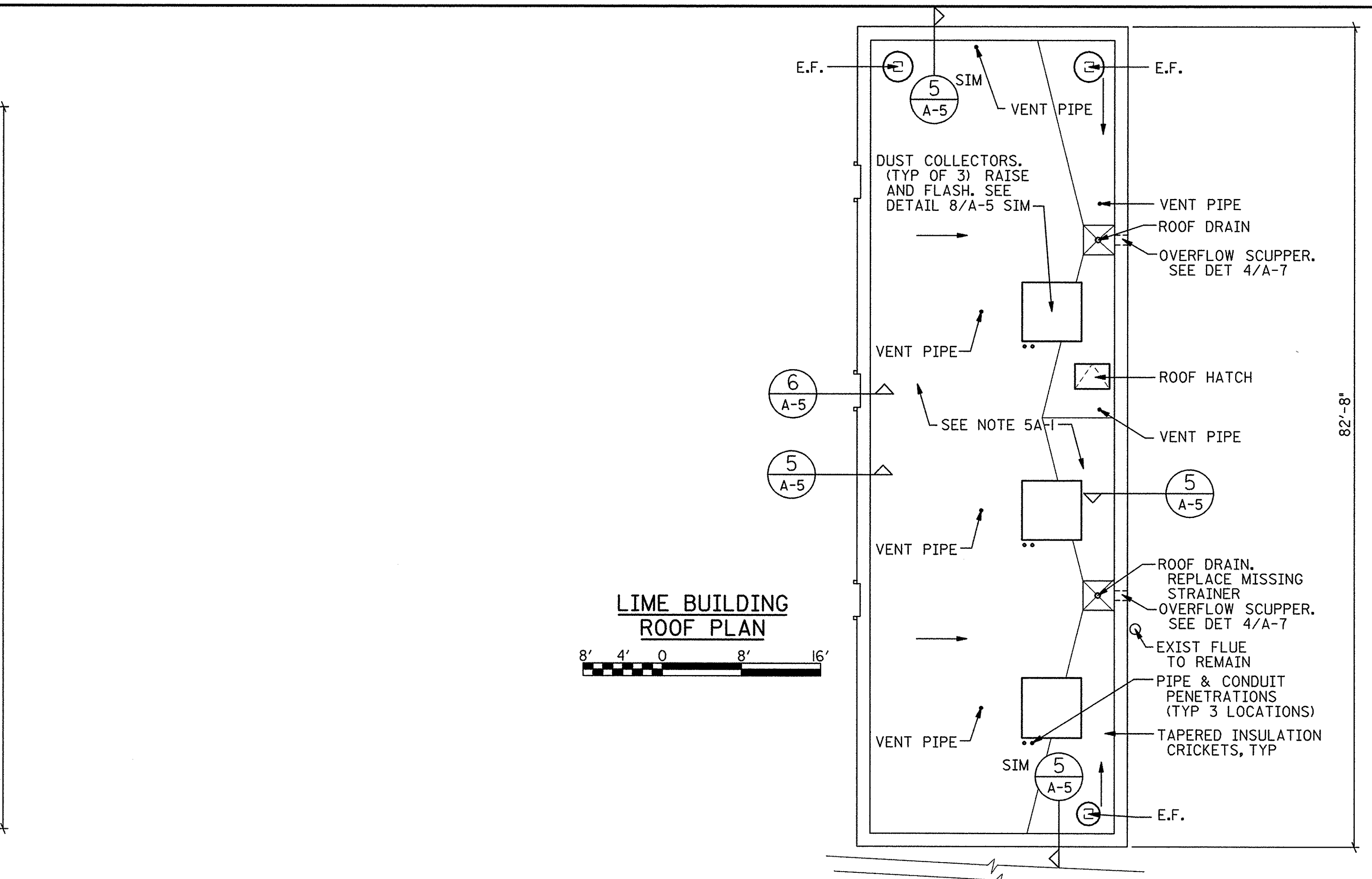
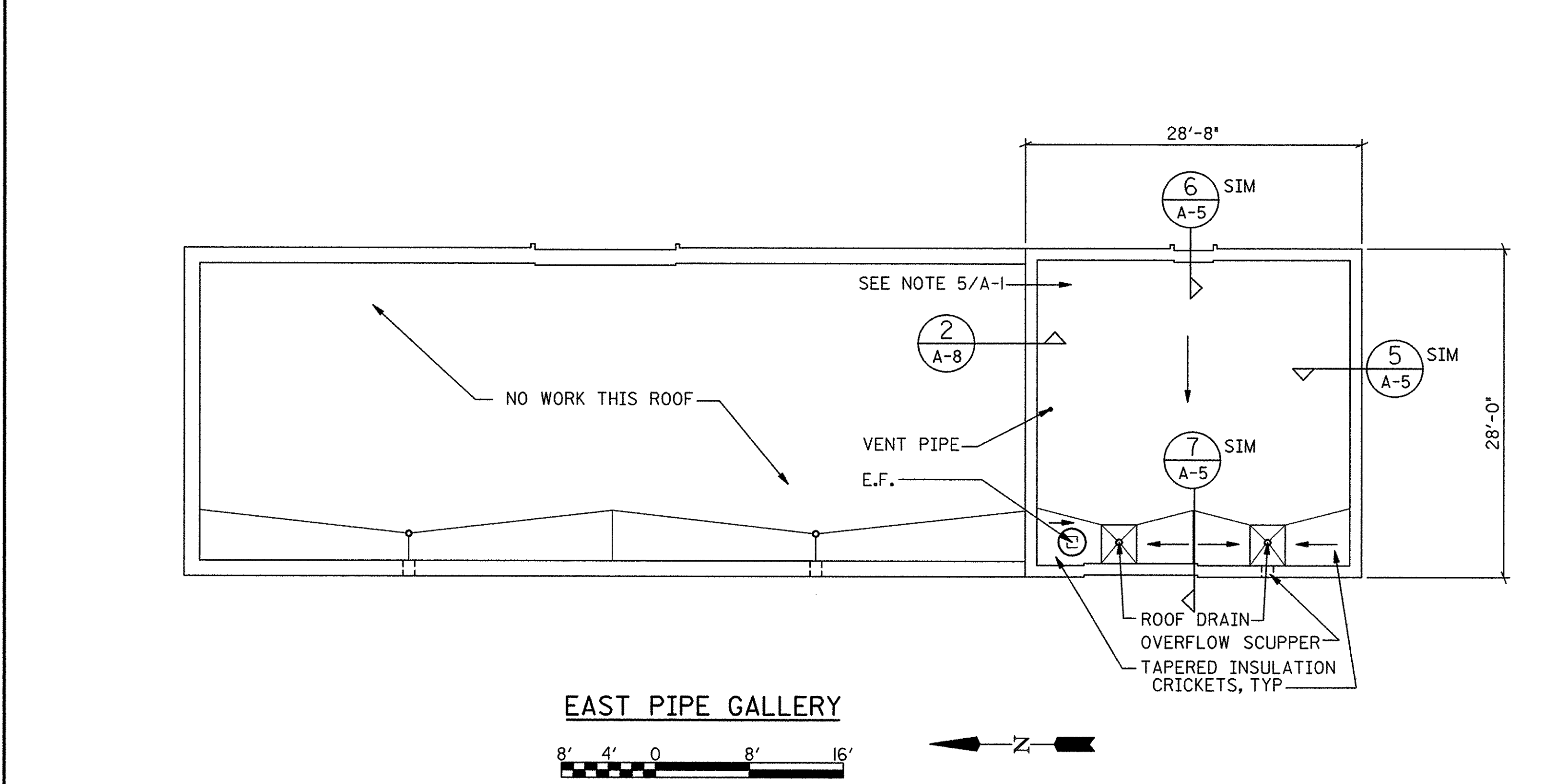
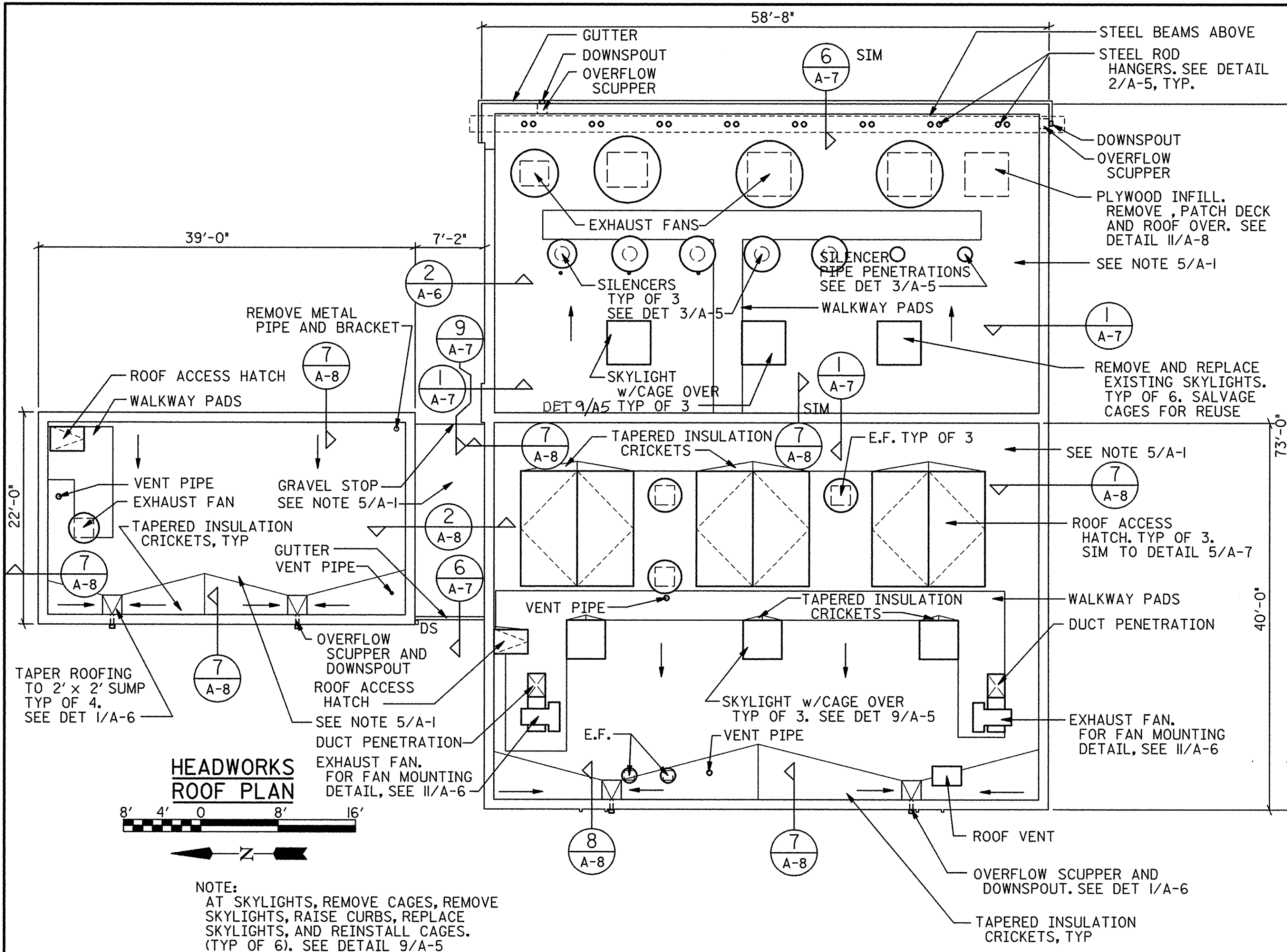
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FILTRATION AND
DISINFECTION BUILDING
ROOF PLANS

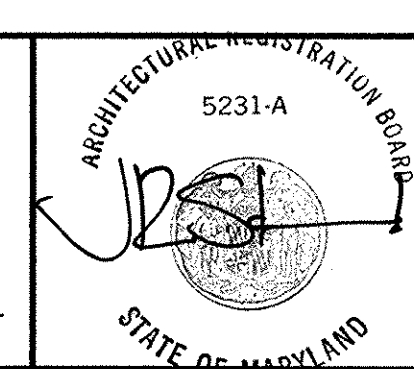
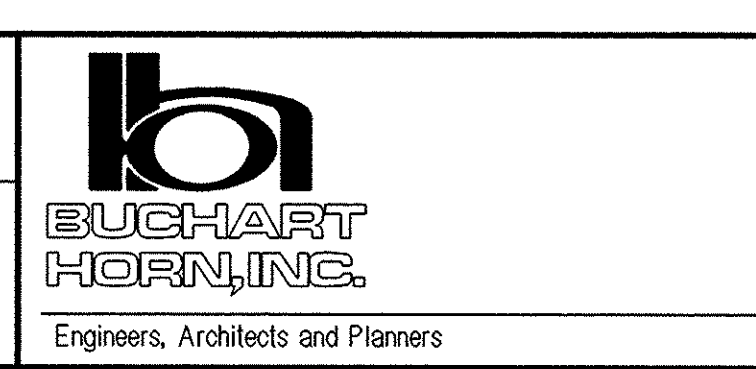
LITTLE PATUXENT WATER RECLAMATION PLANT
REROOFING OF PLANT BUILDINGS
CAPITAL PROJECT
CONTRACT NO. S6153.PI
HOWARD COUNTY, MARYLAND

SCALE
AS
SHOWN
SHEET
4 OF 9
A-3



DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

James P. Shaw 2/16/98 *John D. ...* 2-12-98
DIRECTOR OF PUBLIC WORKS DATE CHIEF, BUREAU OF UTILITIES DATE

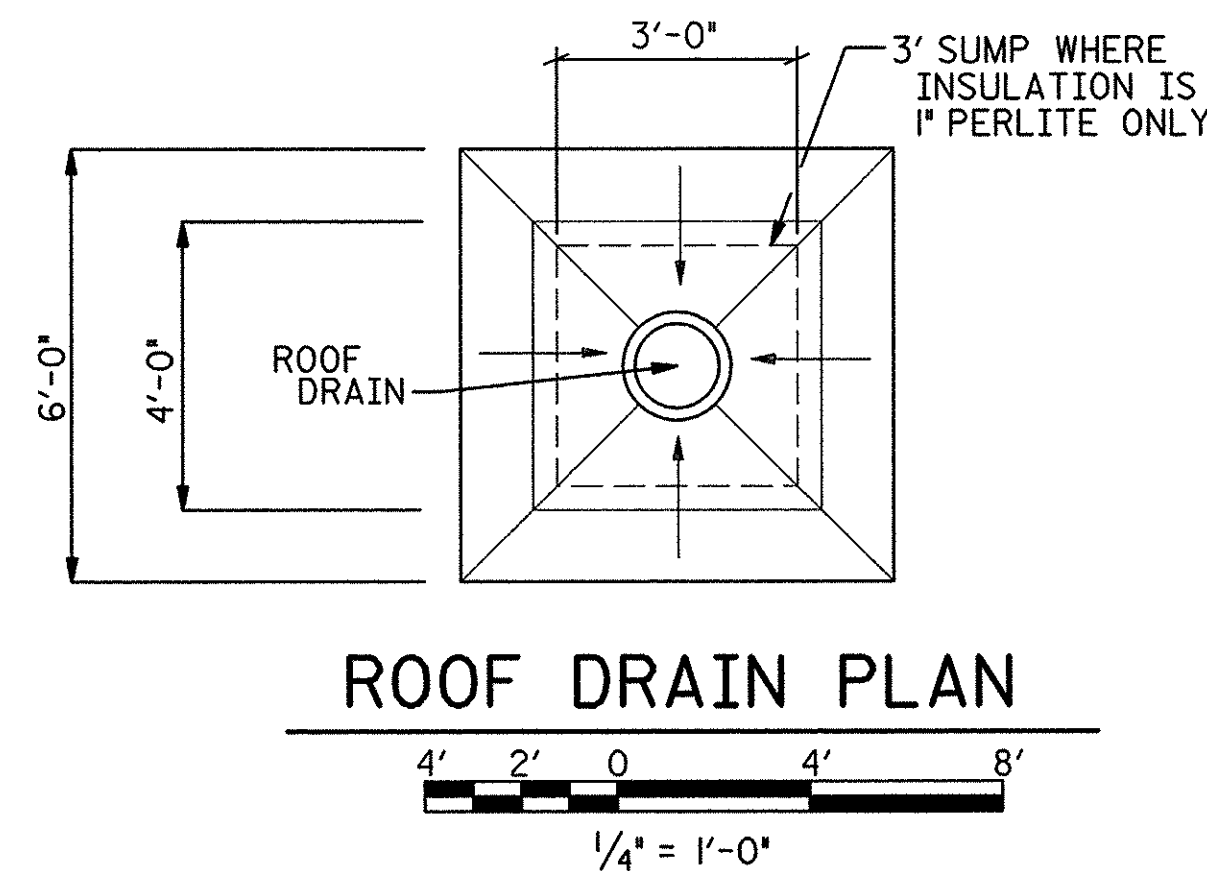


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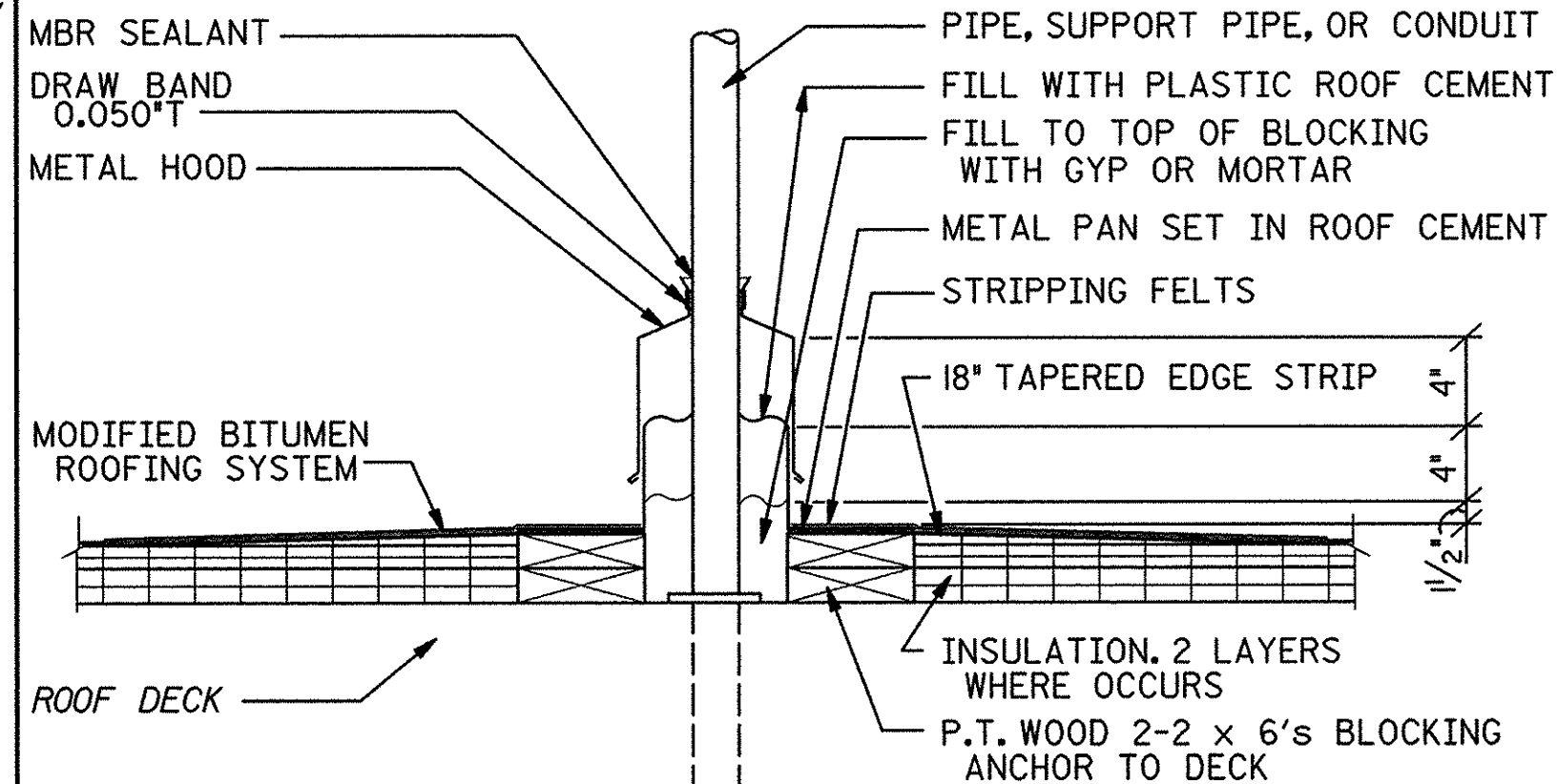
HEADWORKS, AIR INTAKE
STRUCTURE, STAIR #4, EAST PIPE
GALLERY, LIME AND SECONDARY
BUILDING ROOF PLANS

LITTLE PATUXENT WATER RECLAMATION PLANT
REROOFING OF PLANT BUILDINGS
CAPITAL PROJECT
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HOWARD COUNTY, MARYLAND

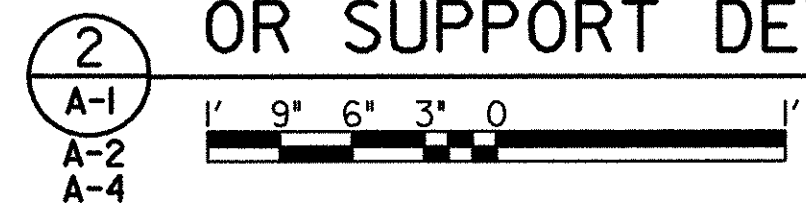
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SHEET 5 OF 9
A-4



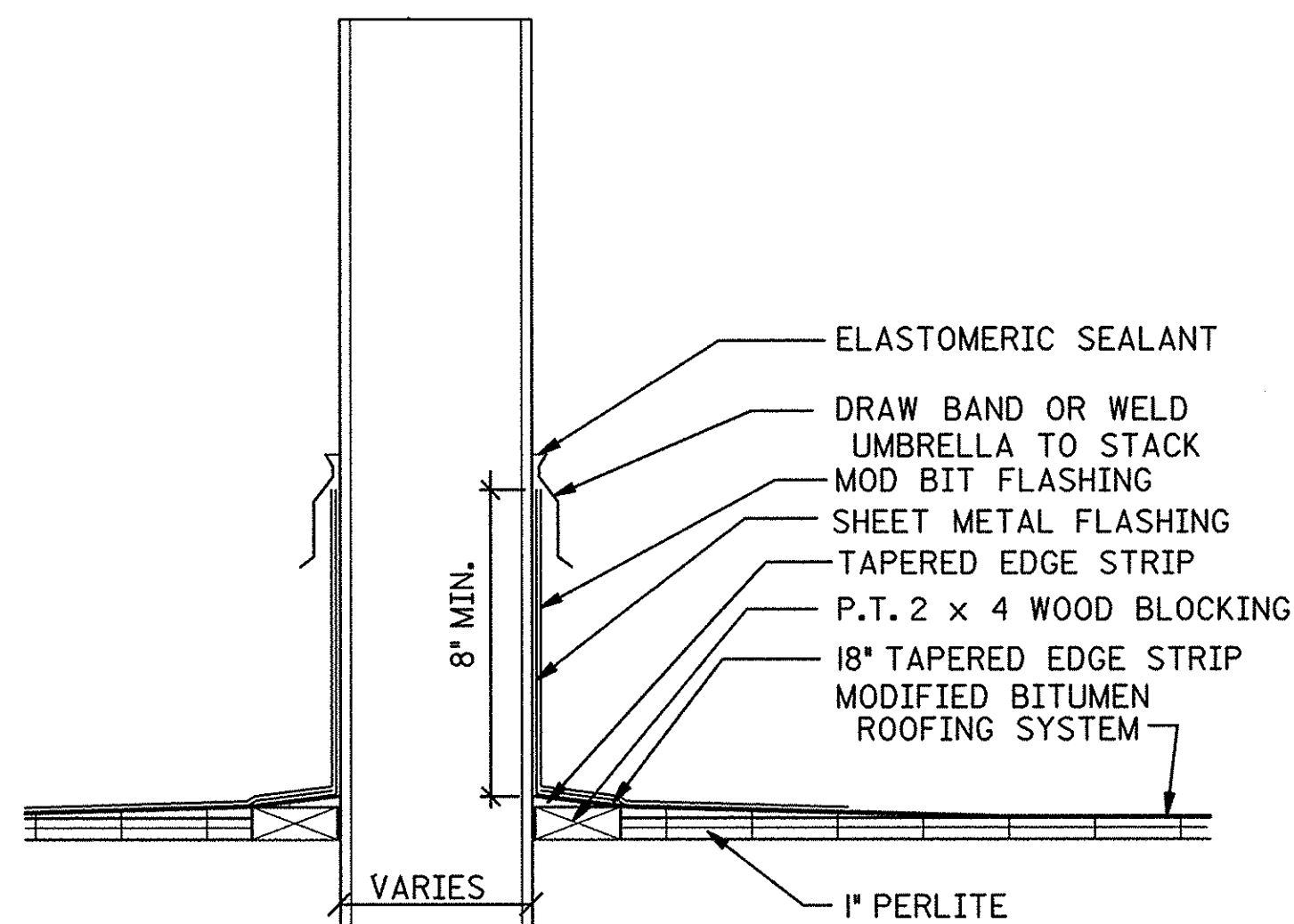
ROOF DRAIN PLAN



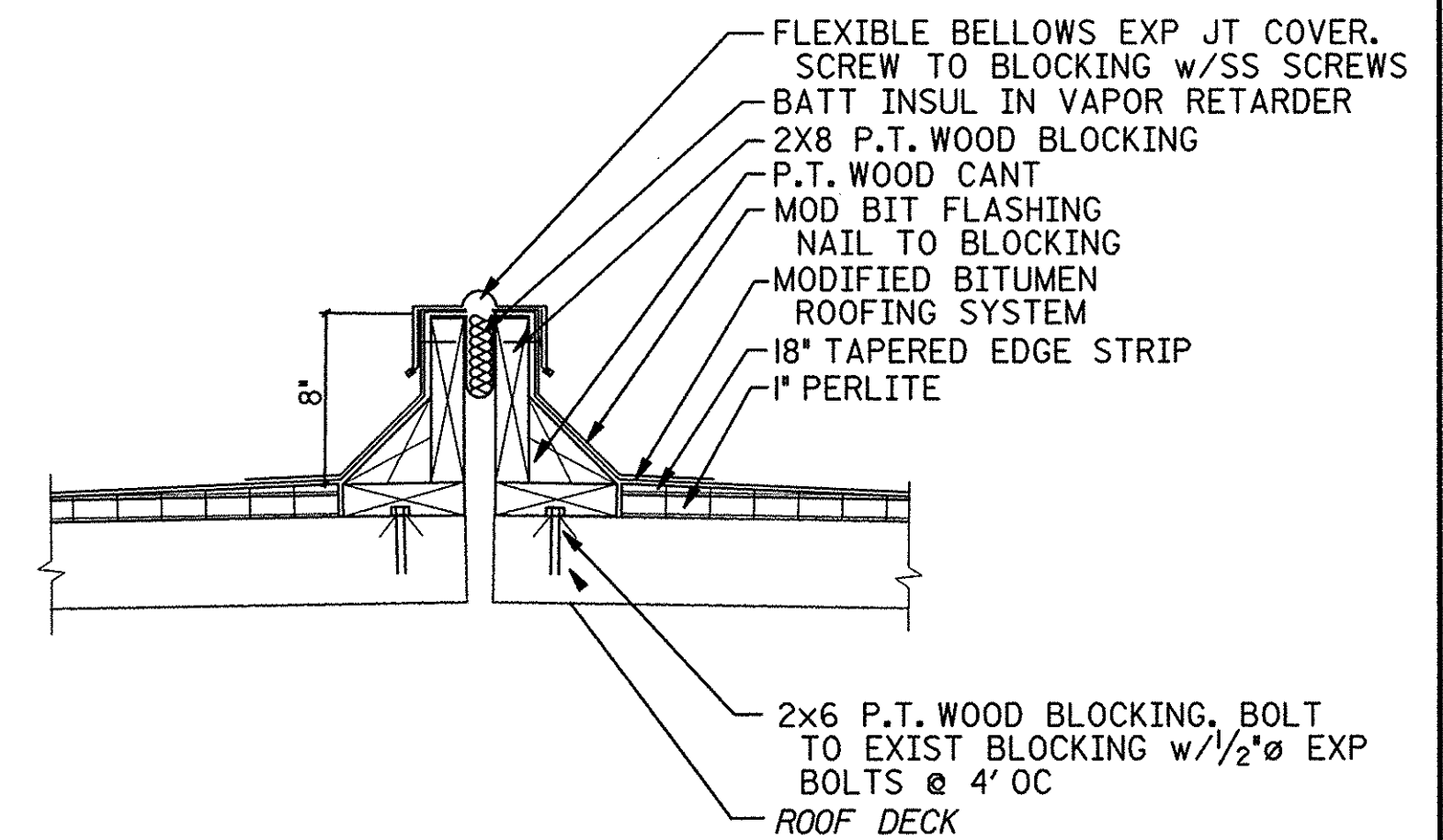
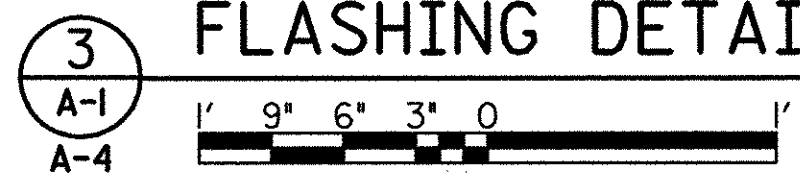
PIPE OR ROD PENETRATION OR SUPPORT DETAIL



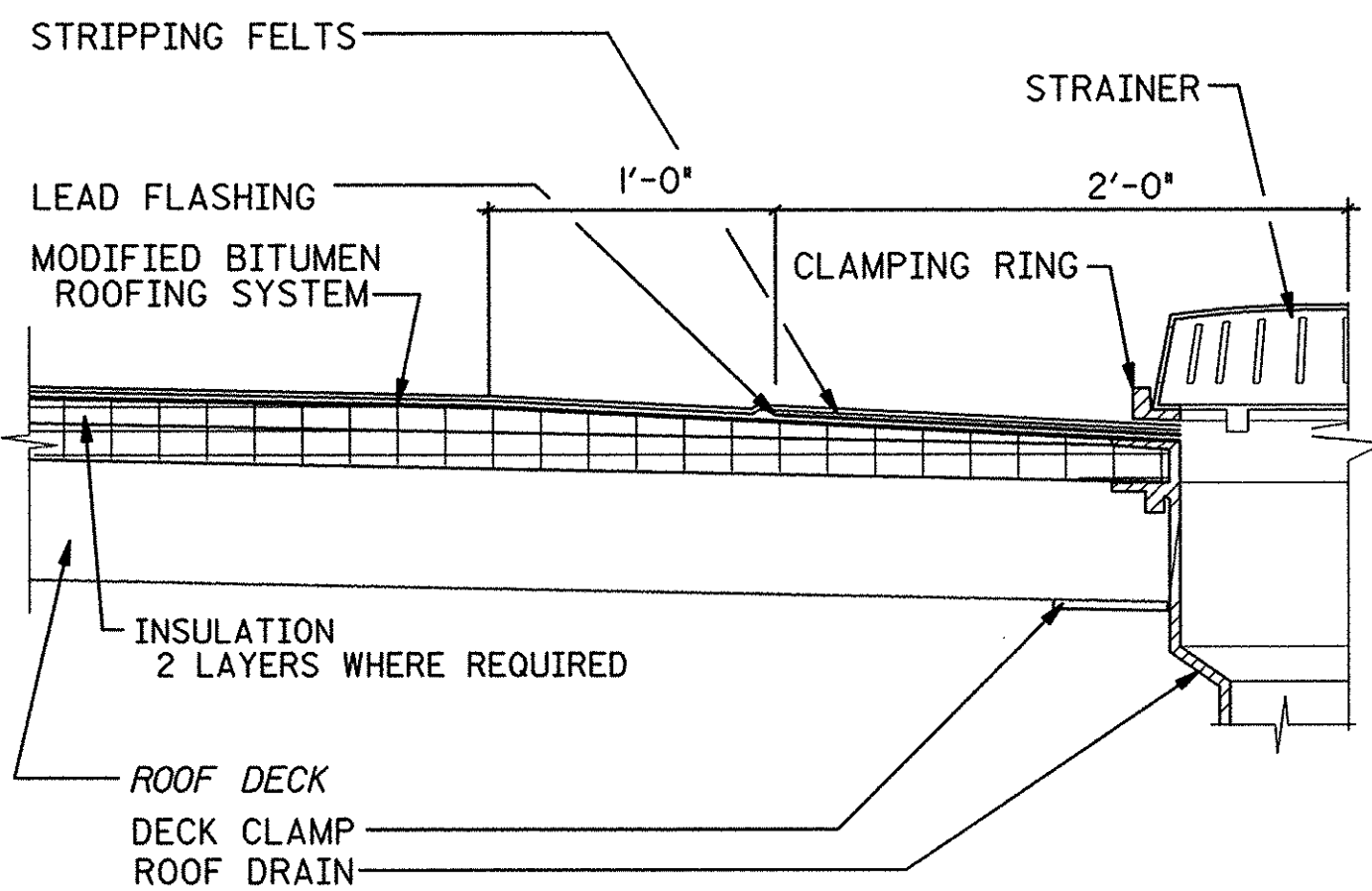
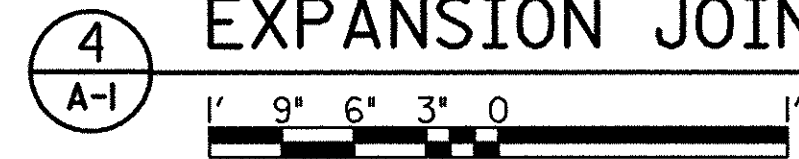
NOTE: WHERE INSULATION IS 1" PERLITE ONLY, DELETE 1-2x6 WOOD BLOCKING



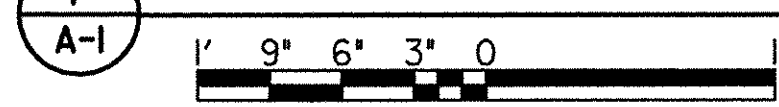
SILENCER FLASHING DETAIL



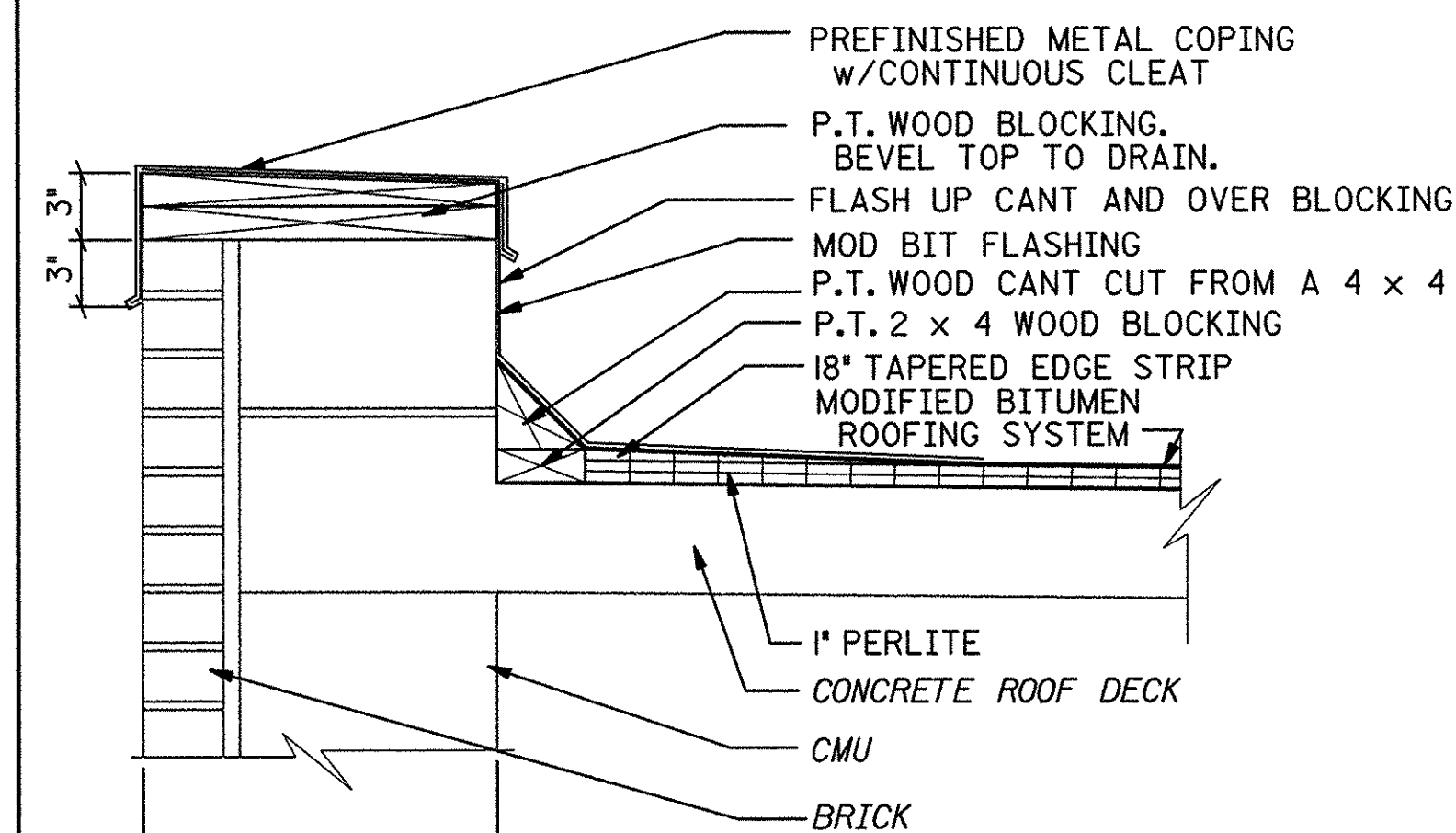
EXPANSION JOINT DETAIL



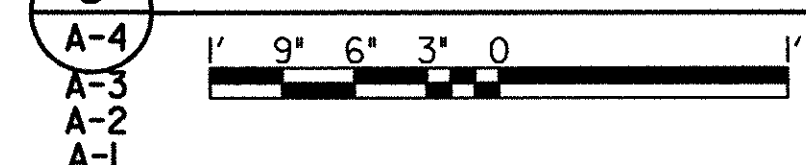
ROOF DRAIN DETAIL



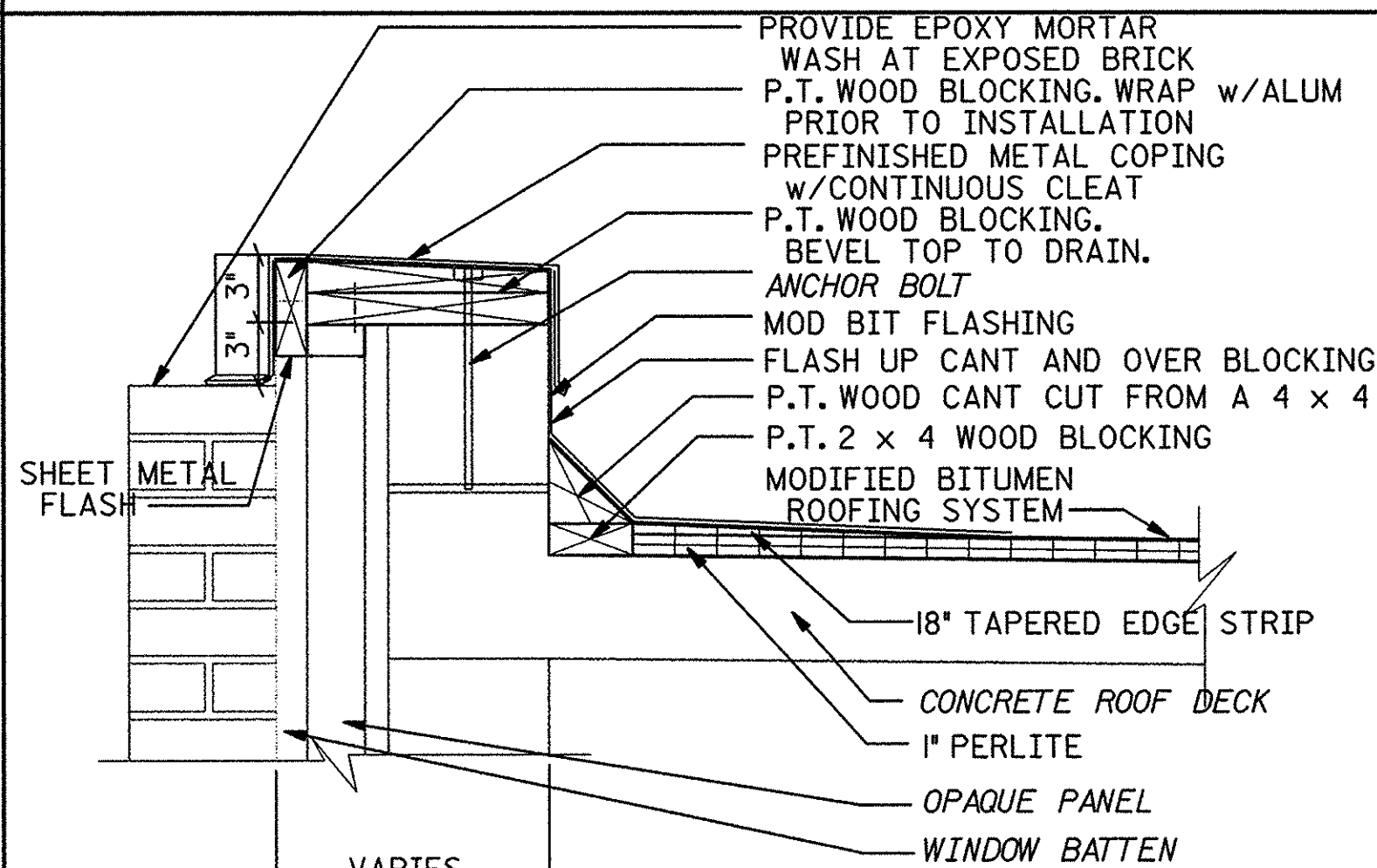
NOTE: WHERE ROOF DRAIN OCCURS IN DECKS INSULATED BY PERLITE ONLY, SUMP DRAINS IN AN AREA 3' x 3'. TAPER PERLITE TO DRAIN.



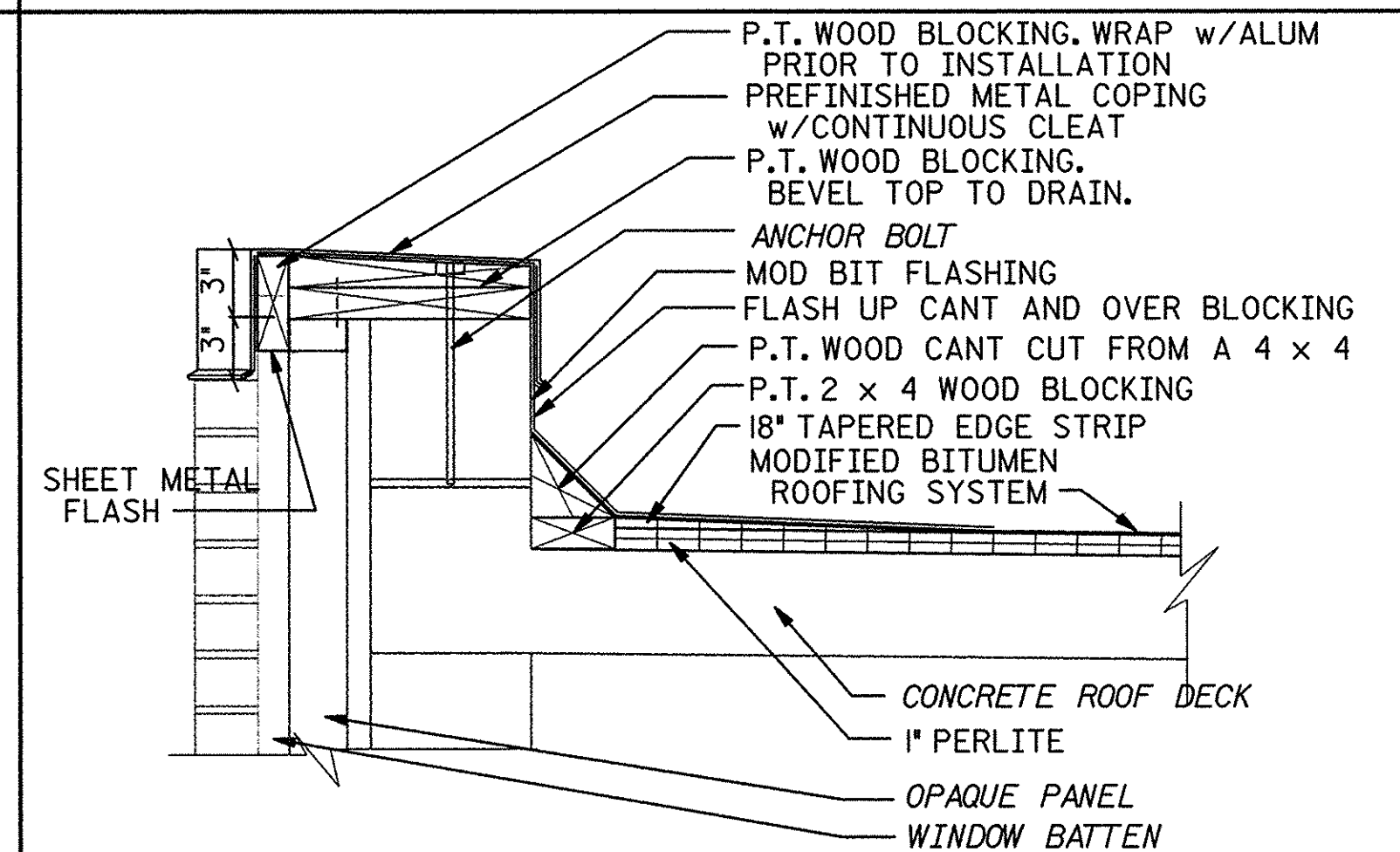
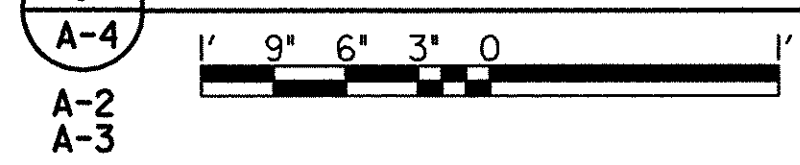
PARAPET DETAIL



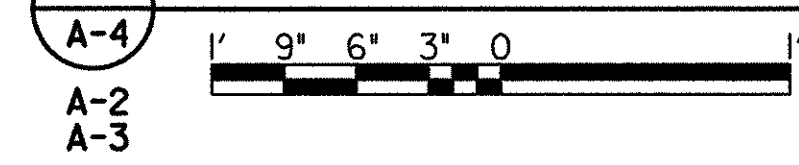
NOTE: AT HEADWORKS BUILDING PROVIDE 2-2x4 P.T. BLOCKING BELOW CANT



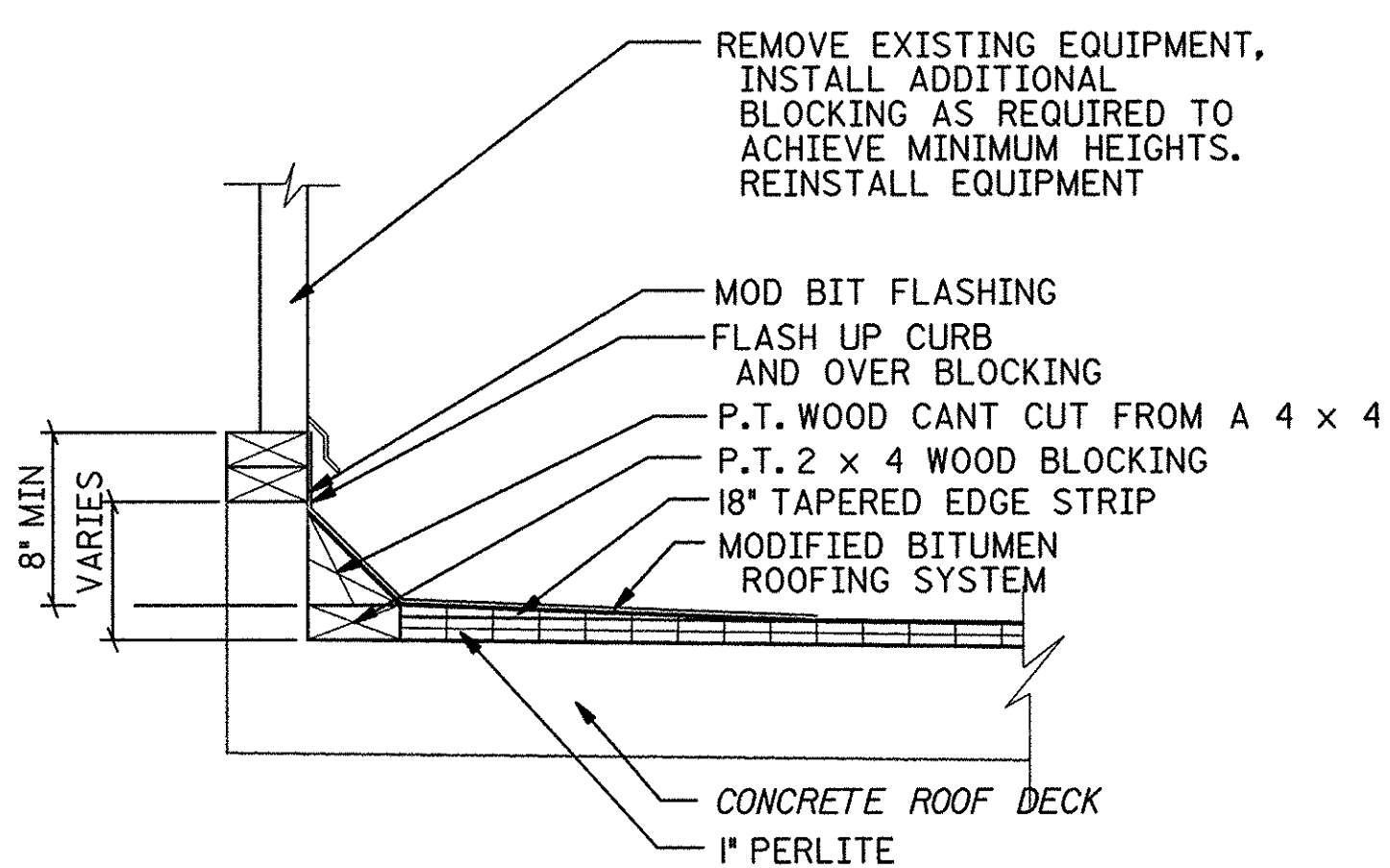
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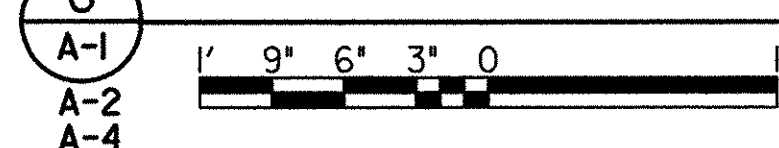
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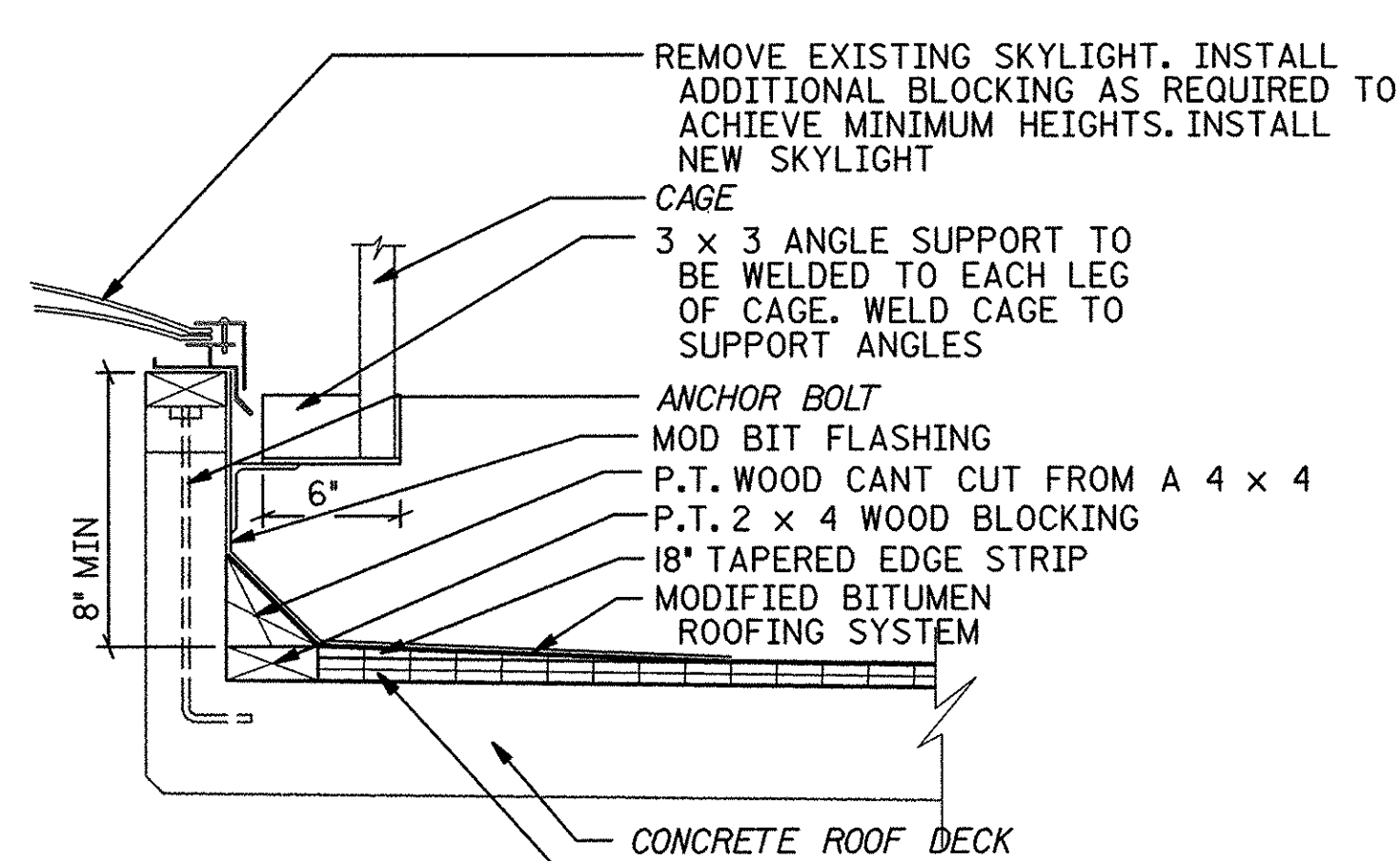
NOTE: SIMILAR CONDITION OCCURS AT PURIFAX BUILDING AT METAL WALL PANELS



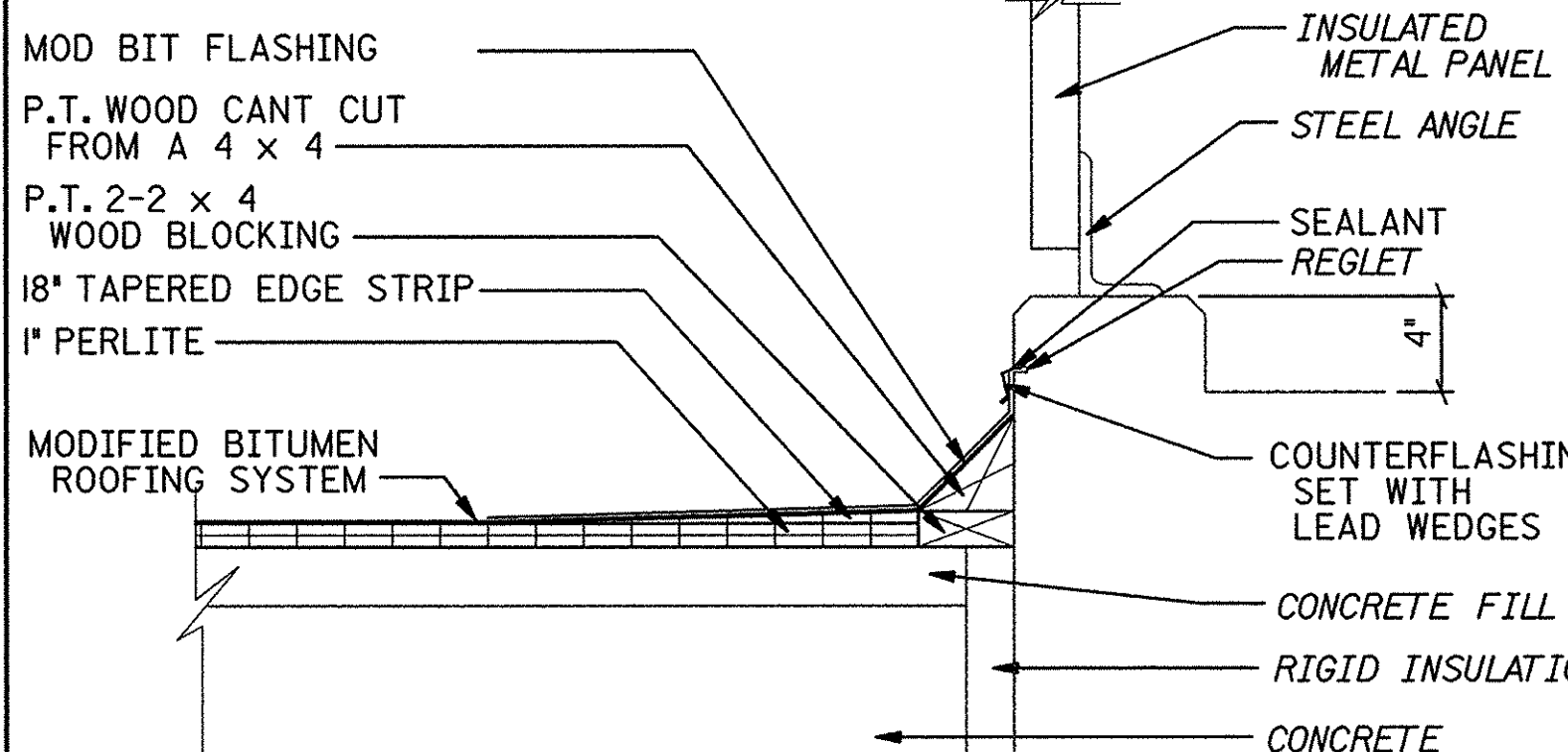
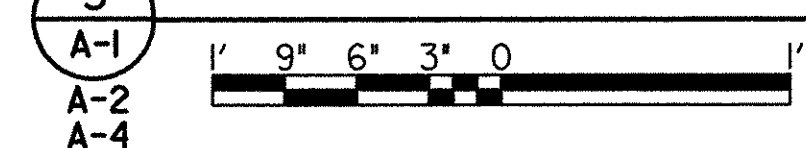
EQUIPMENT FLASHING DETAIL



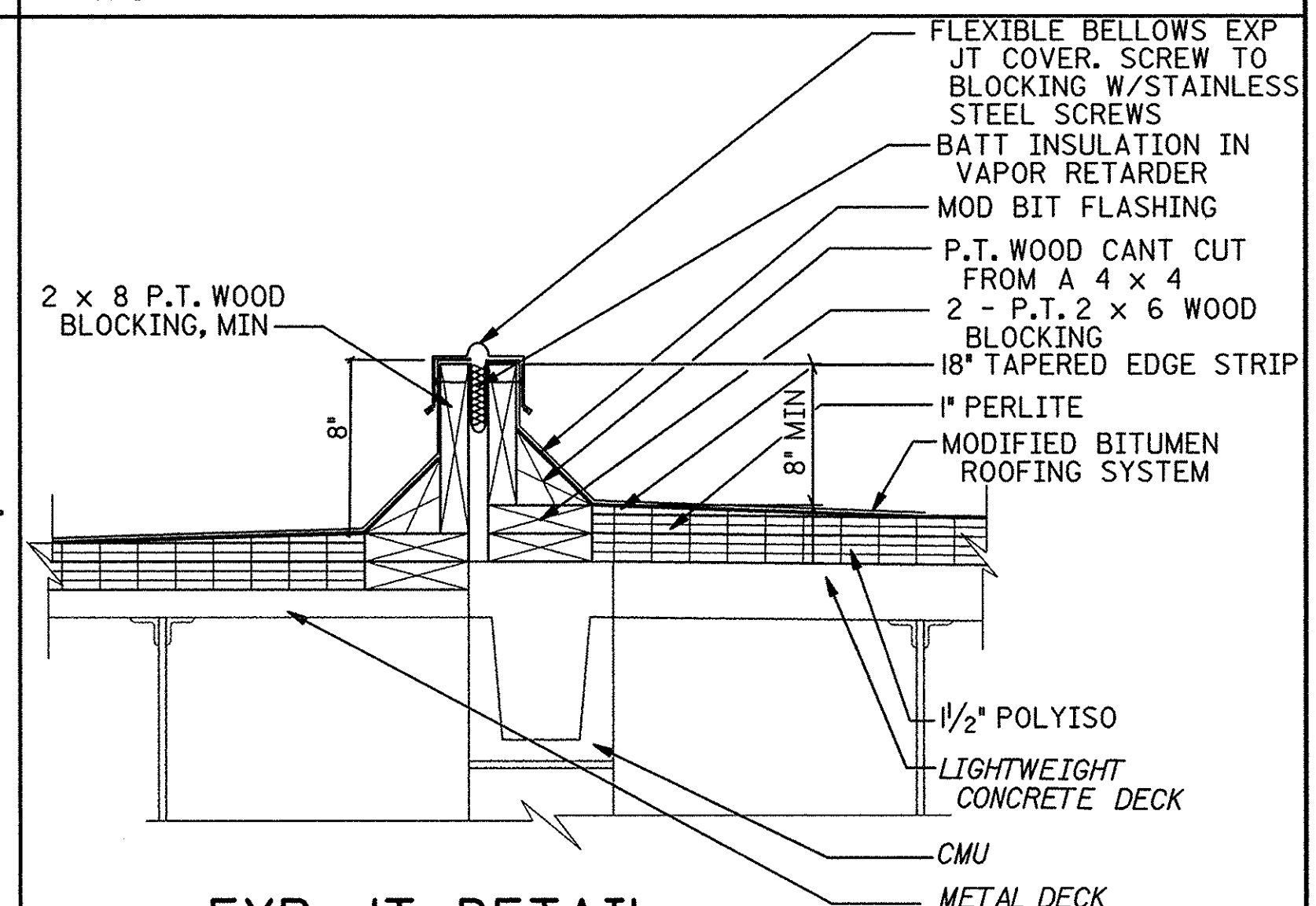
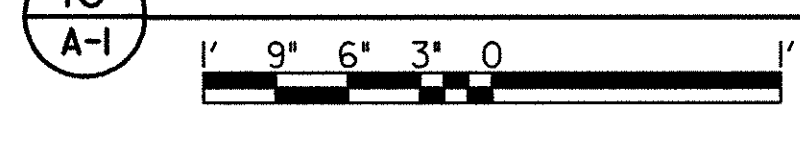
NOTE: WHERE THIS DETAIL EXISTS AT AREA WHERE POLYISO INSULATION IS SPECIFIED, ADD 1-2x4 P.T. BLOCKING ALL AROUND



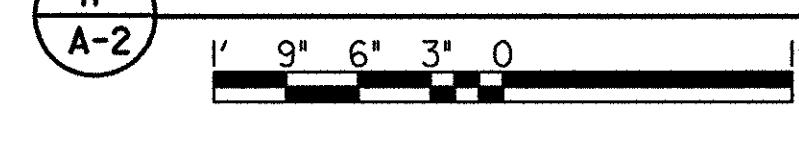
TYPICAL SKYLIGHT DETAIL



VERTICAL WALL DETAIL



EXP JT DETAIL



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HOWARD COUNTY, MARYLAND

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Engineers, Architects and Planners

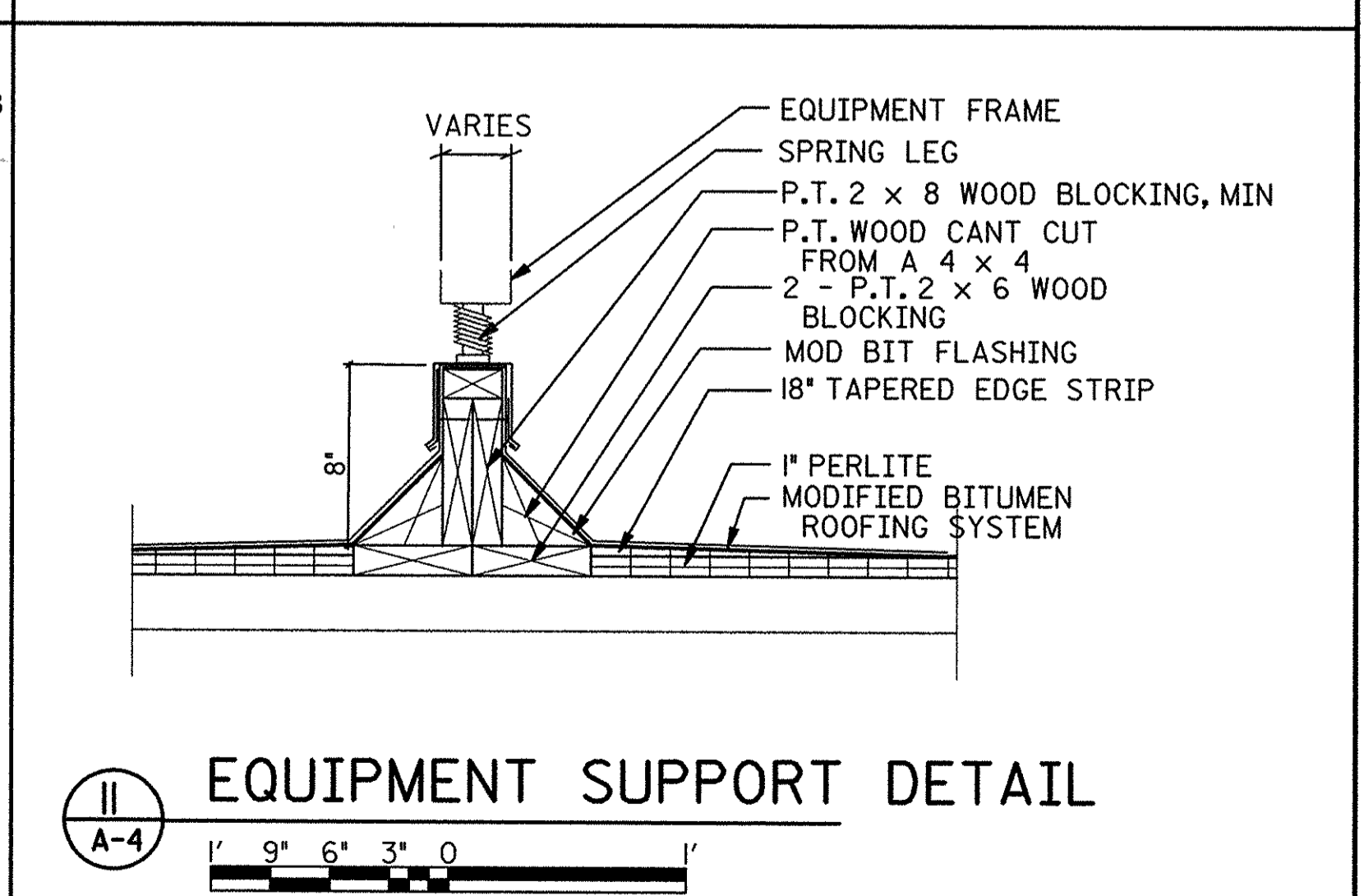
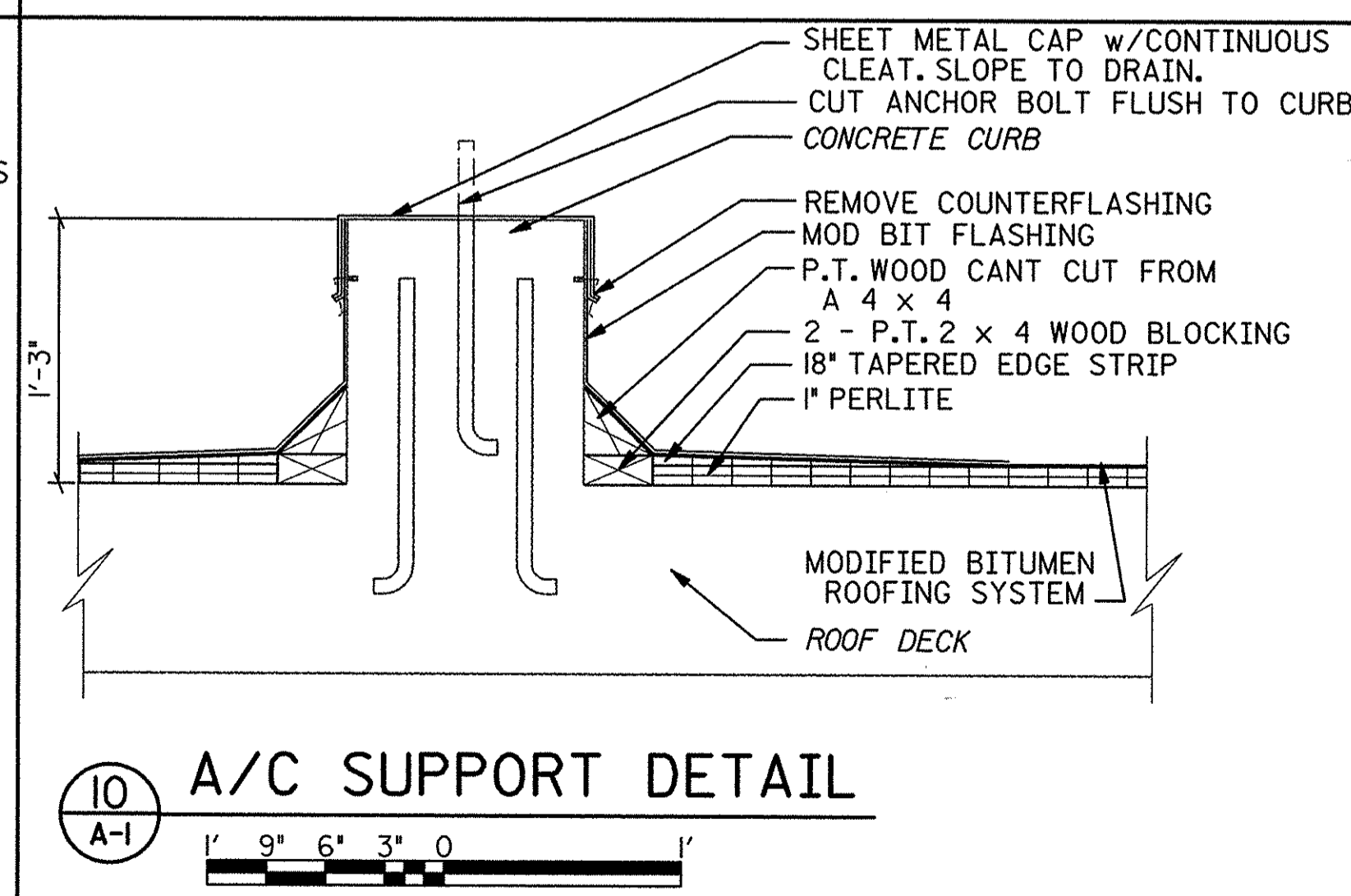
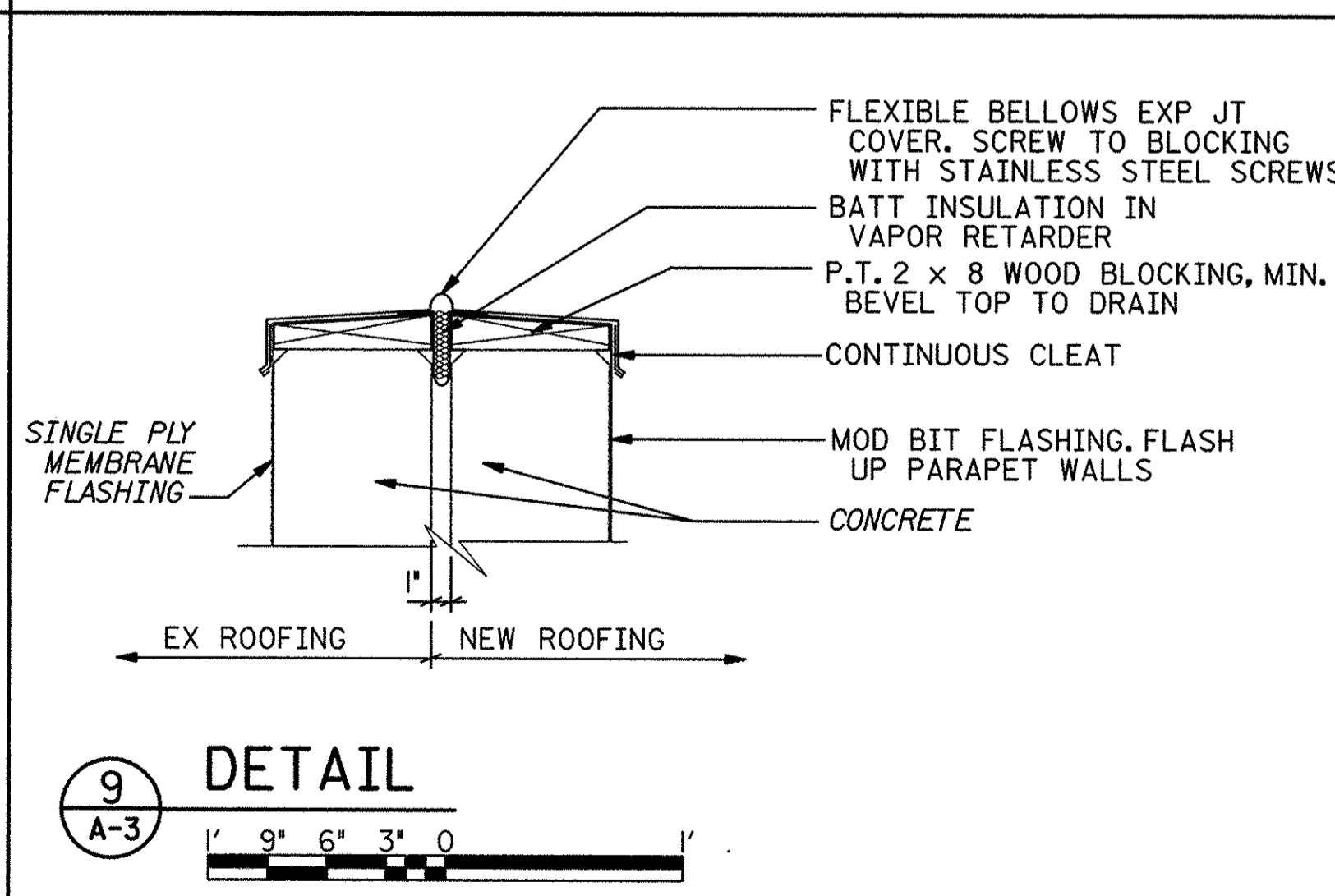
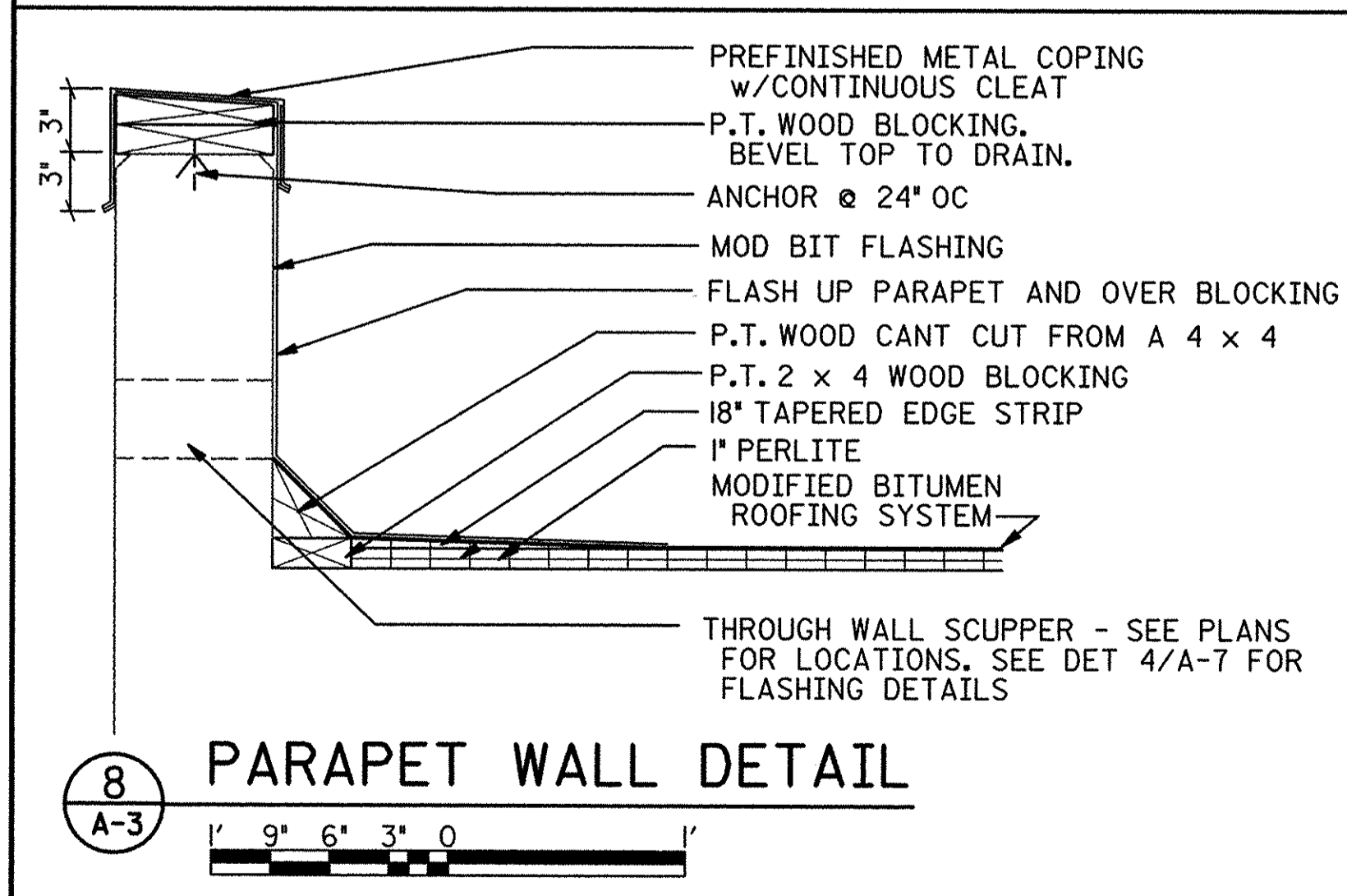
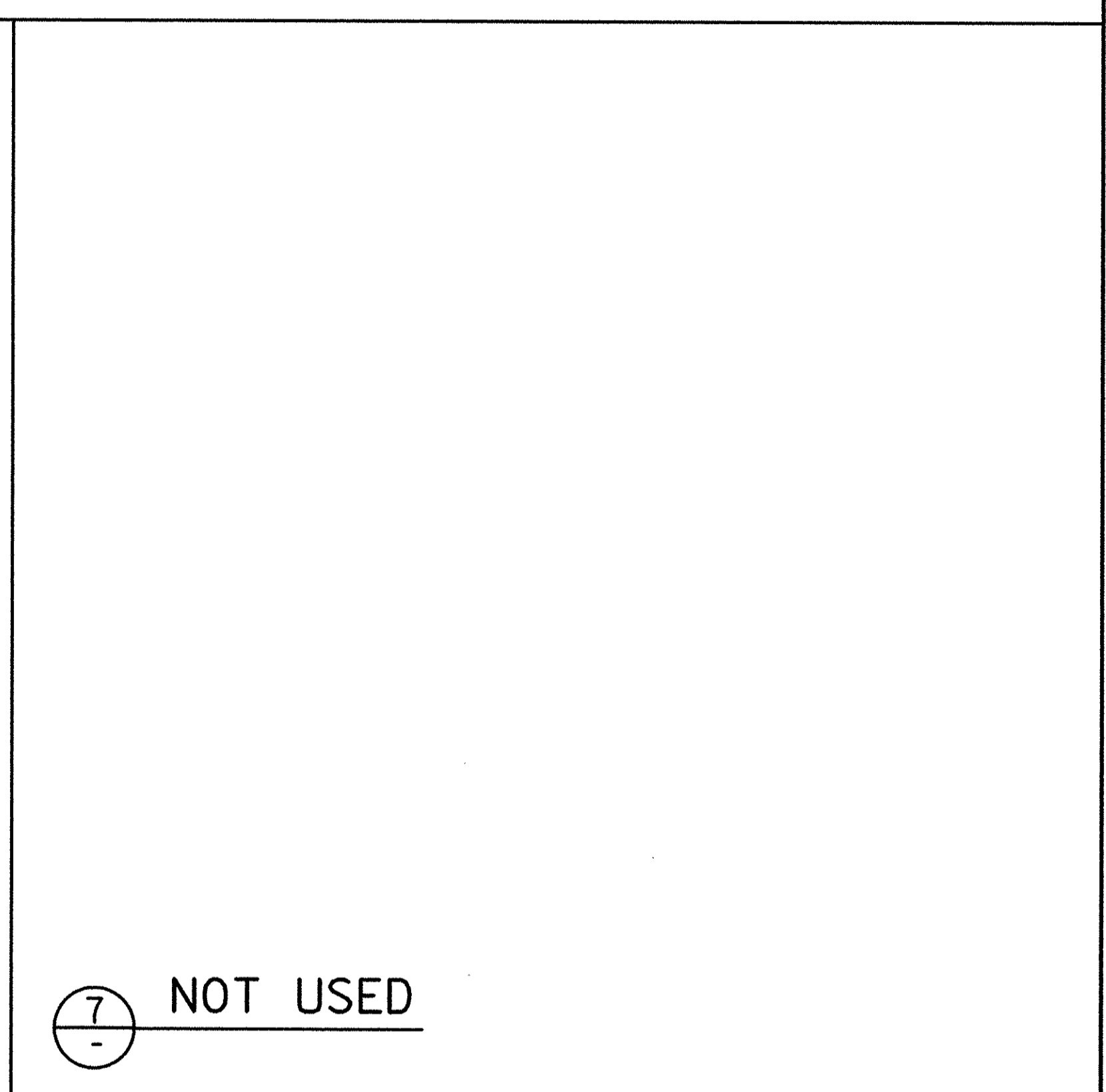
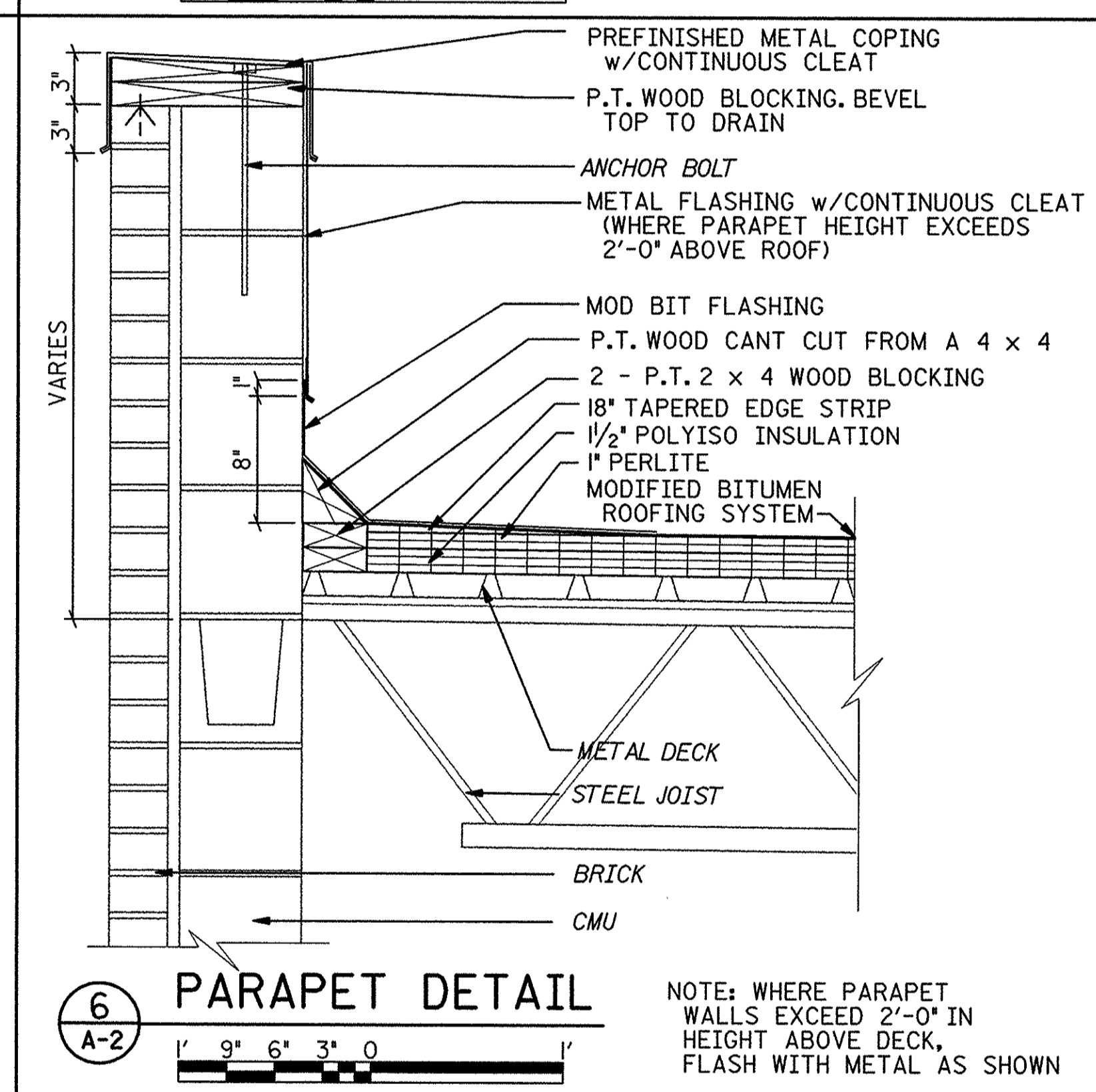
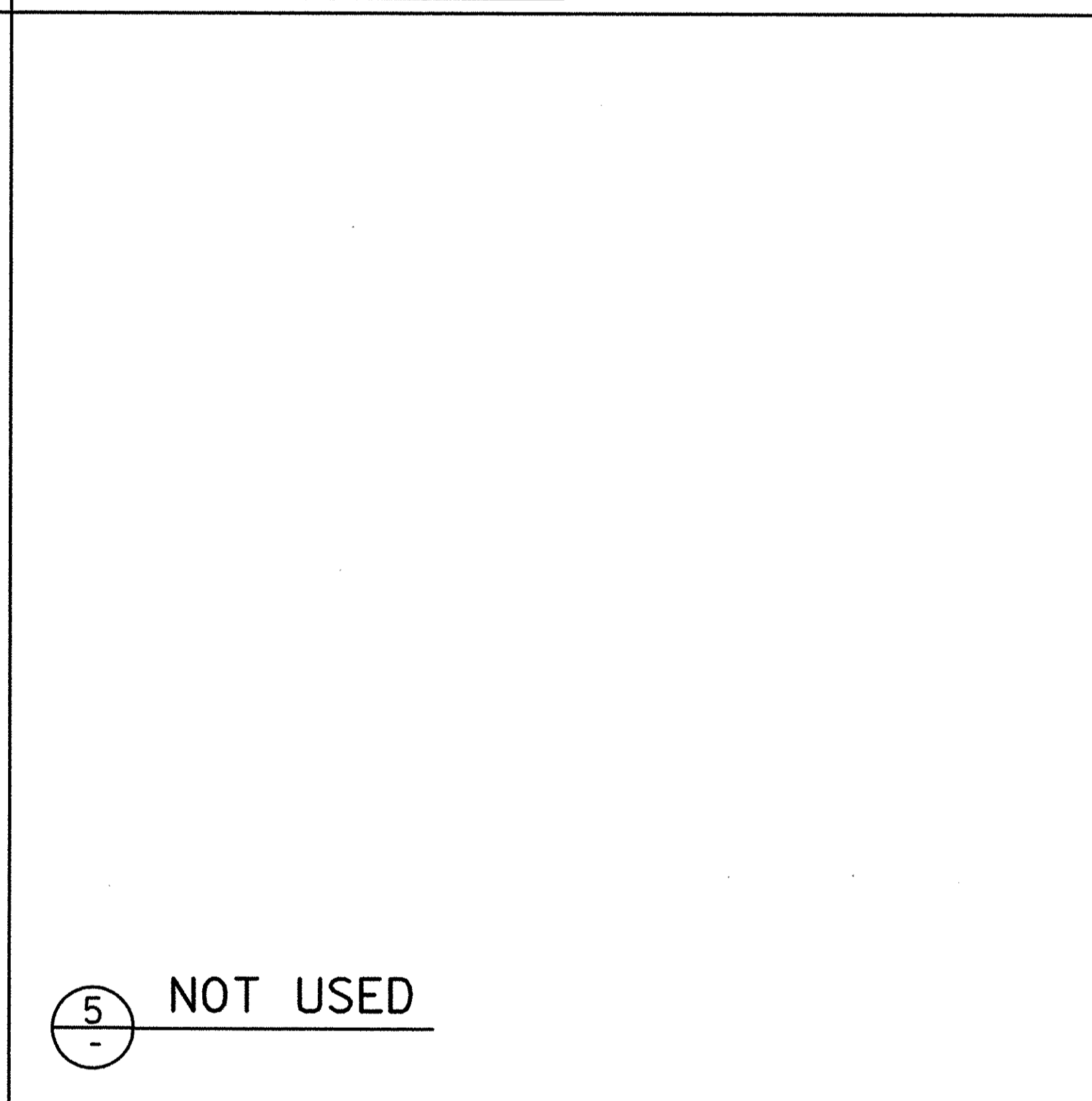
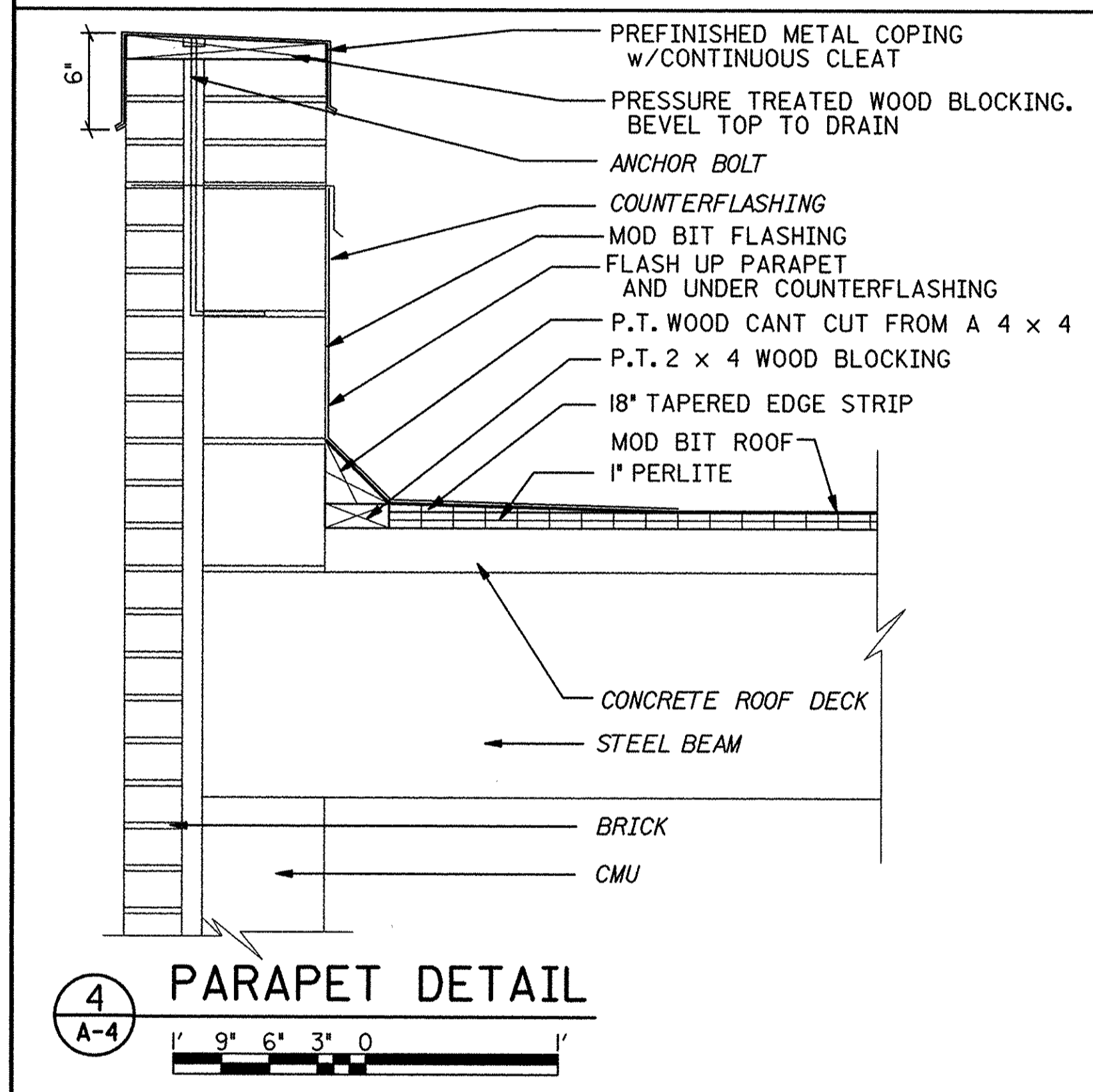
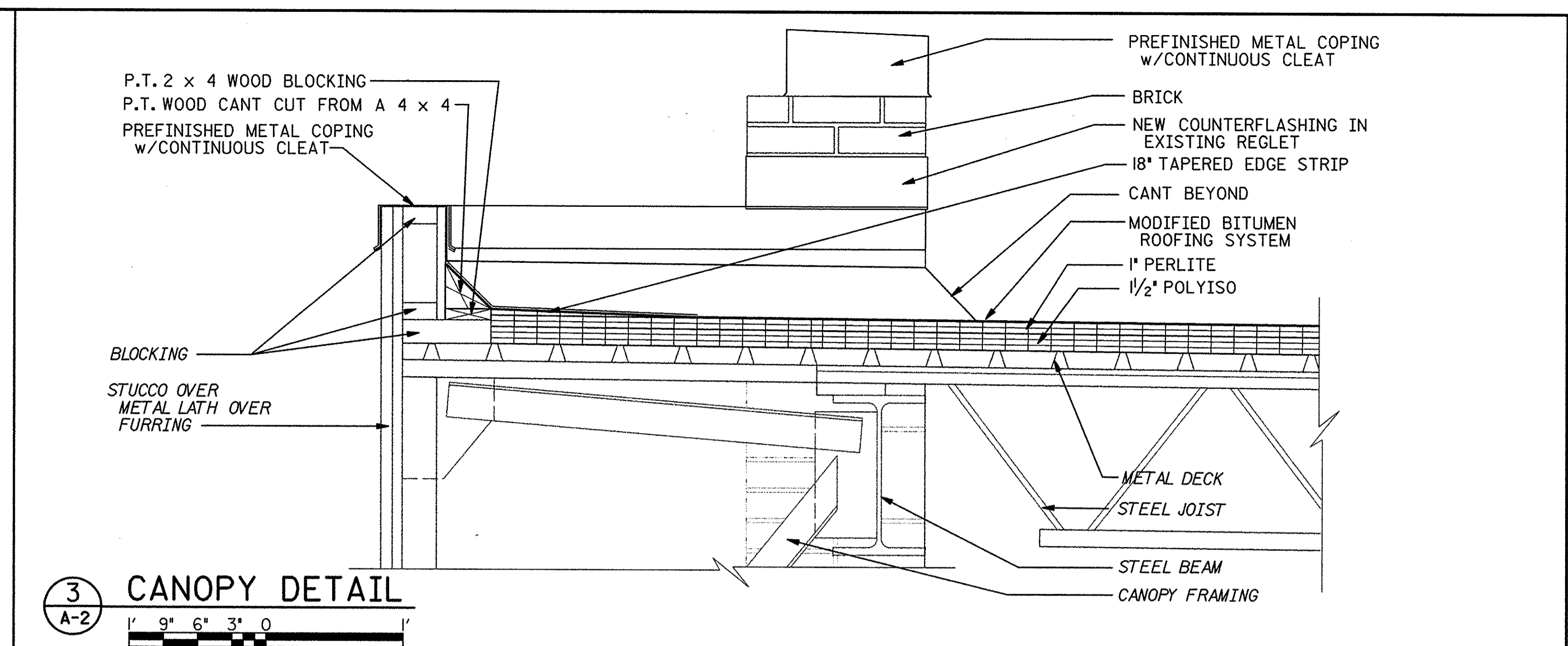
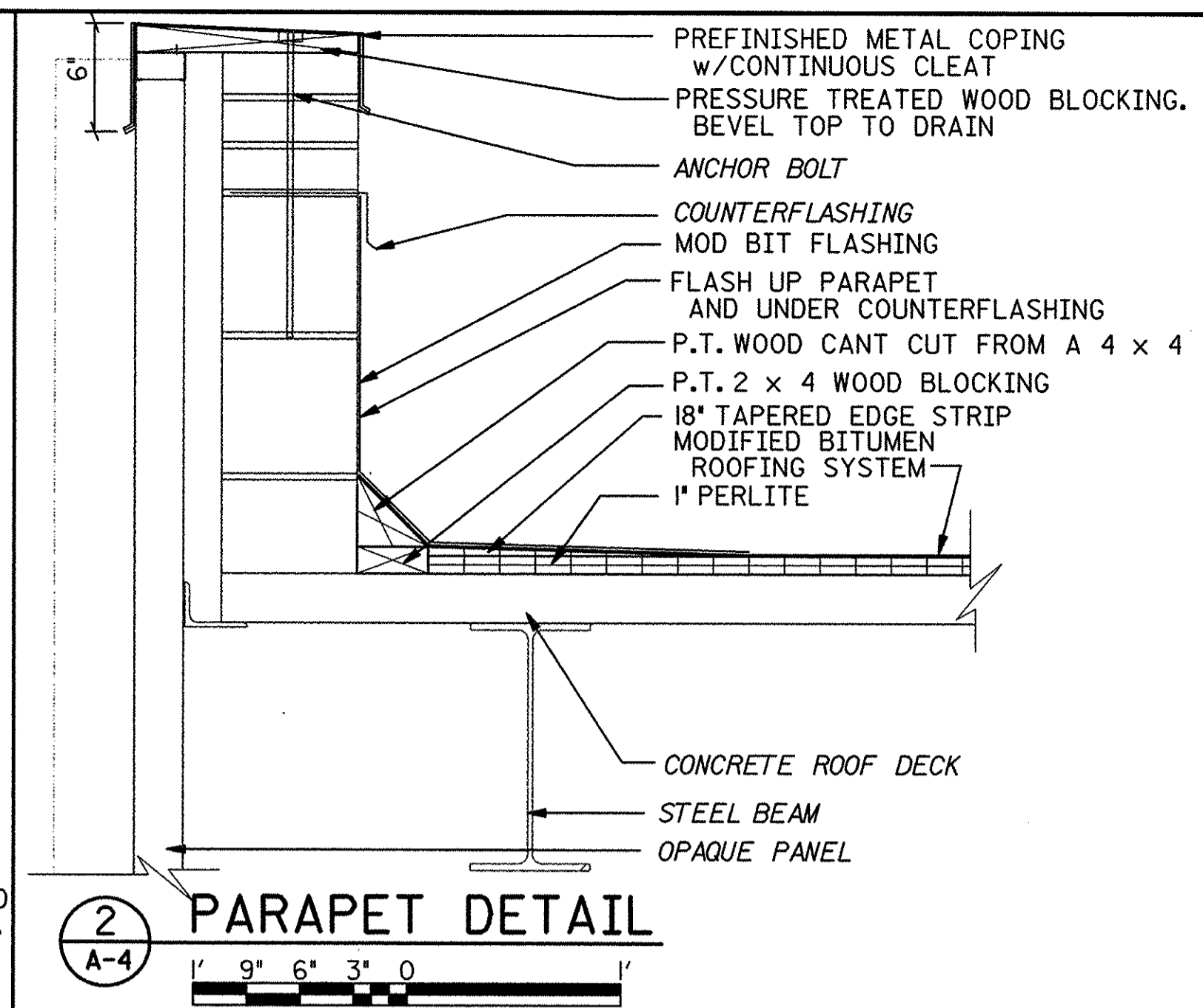
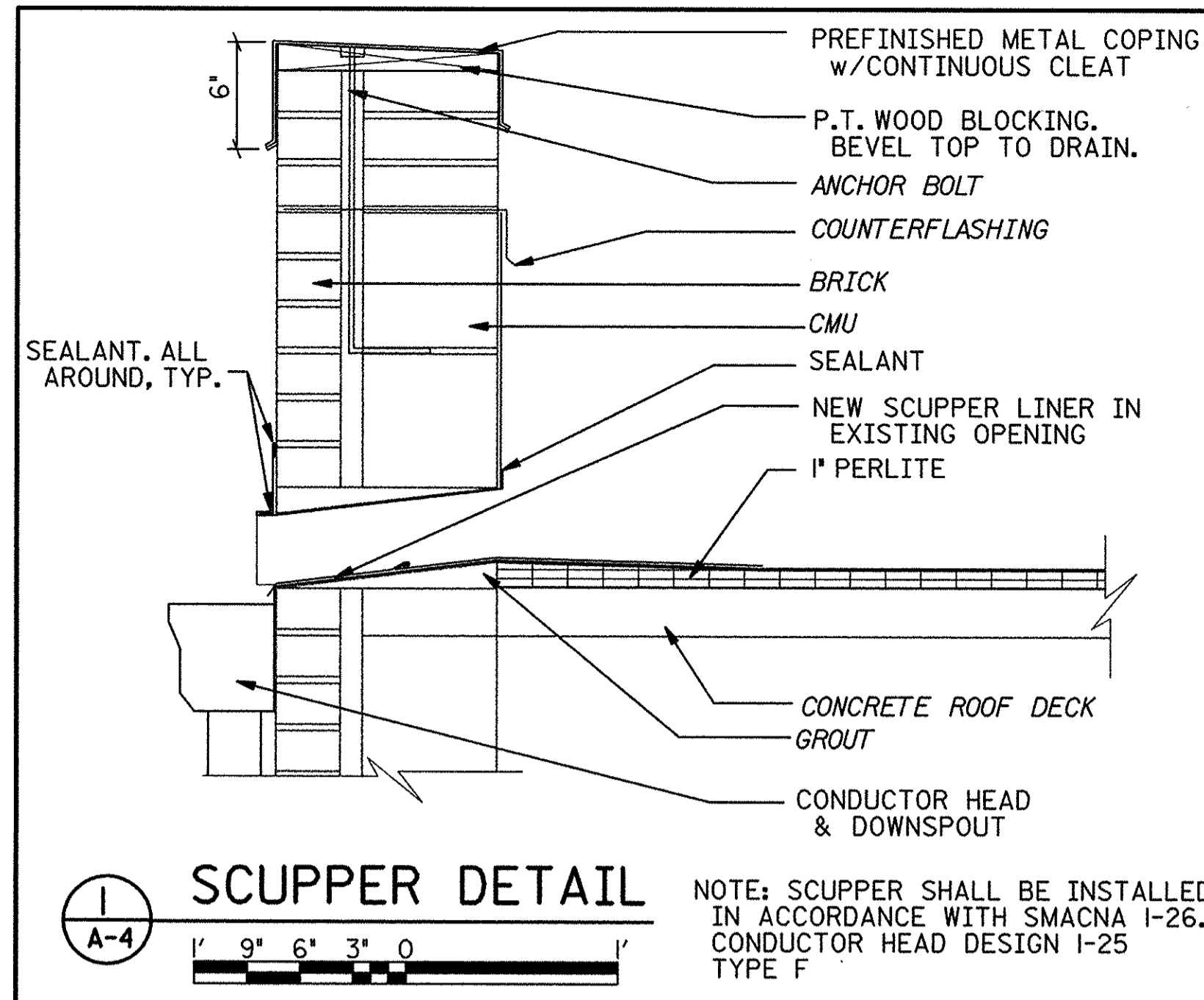
ARCHITECTURAL REGISTRATION BOARD
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STATE OF MARYLAND

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DRN:					
CHK:					
DATE:					
BY:		NO.	REVISION	DATE	

DETAILS

LITTLE PATUXENT WATER RECLAMATION PLANT
REROOFING OF PLANT BUILDINGS
CAPITAL PROJECT
CONTRACT NO. S6153.PI
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET
6 OF 9
A-5

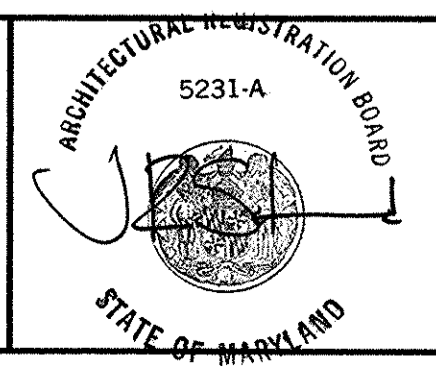


DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

James W. [Signature] 2/18/98
DIRECTOR OF PUBLIC WORKS DATE

R. [Signature] 2-12-98
CHIEF, BUREAU OF UTILITIES DATE

b
BUCHART HORN, INC.
Engineers, Architects and Planners

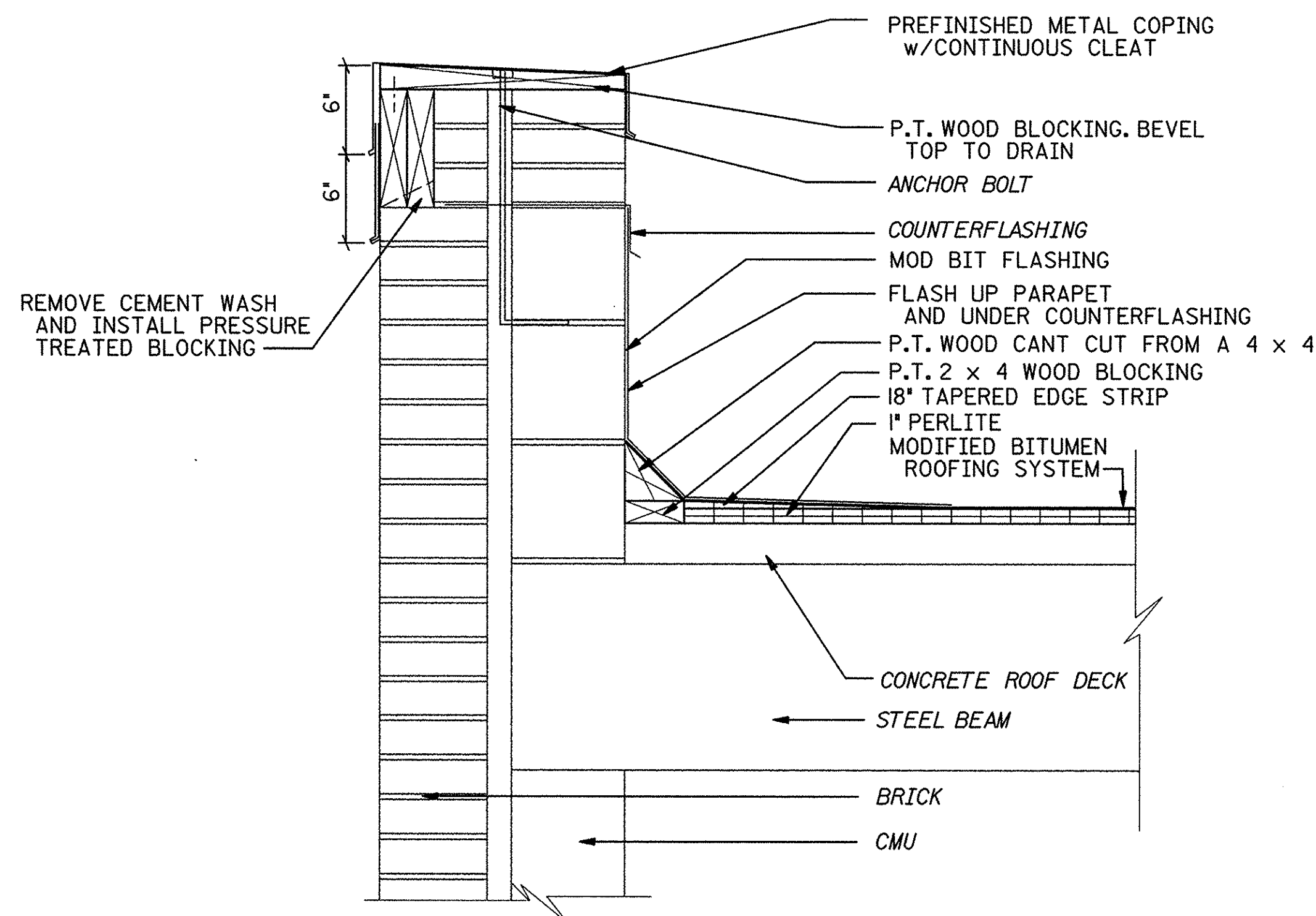


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DETAILS

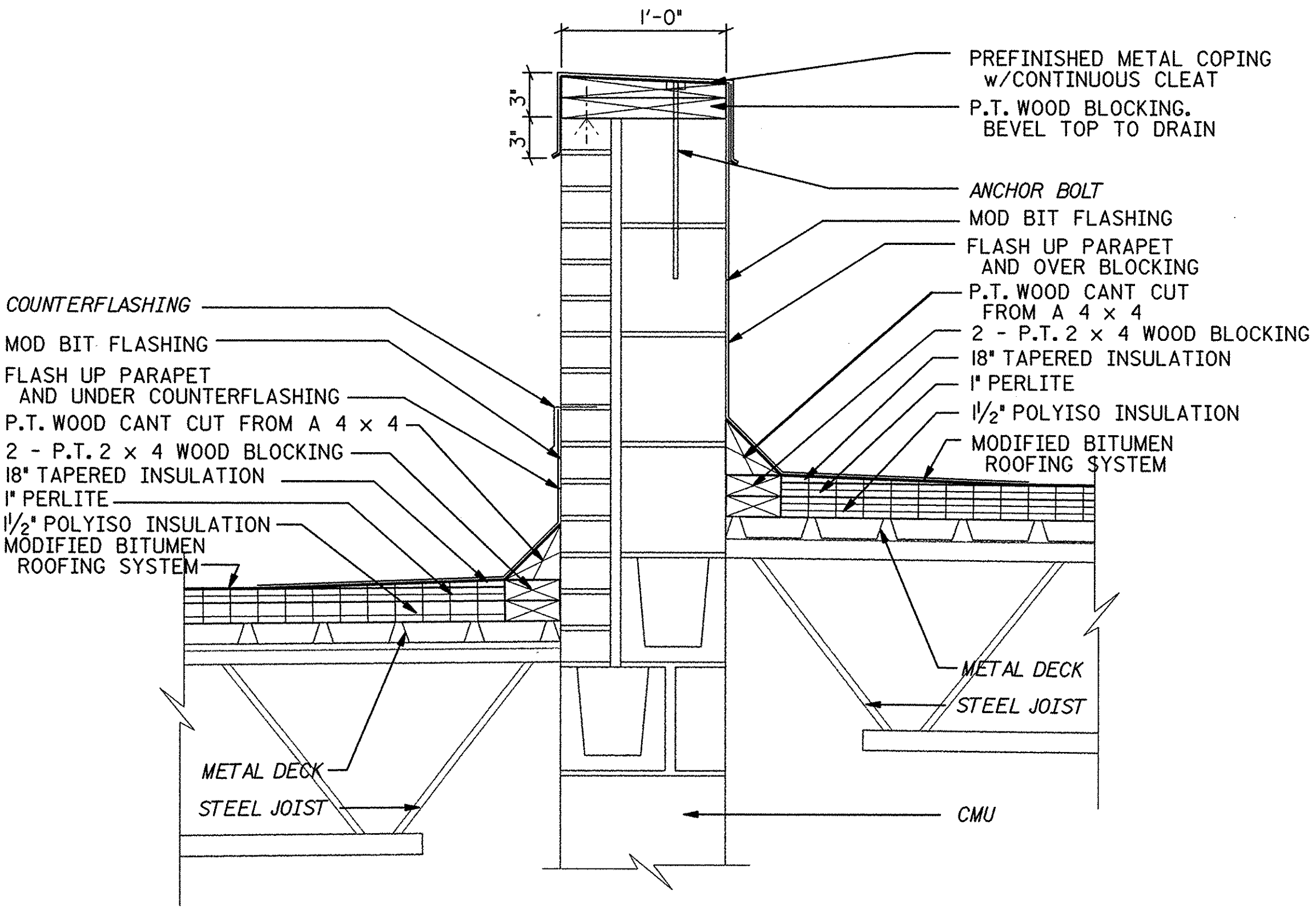
LITTLE PATUXENT WATER RECLAMATION PLANT
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SCALE AS SHOWN
SHEET I OF 9
A-6

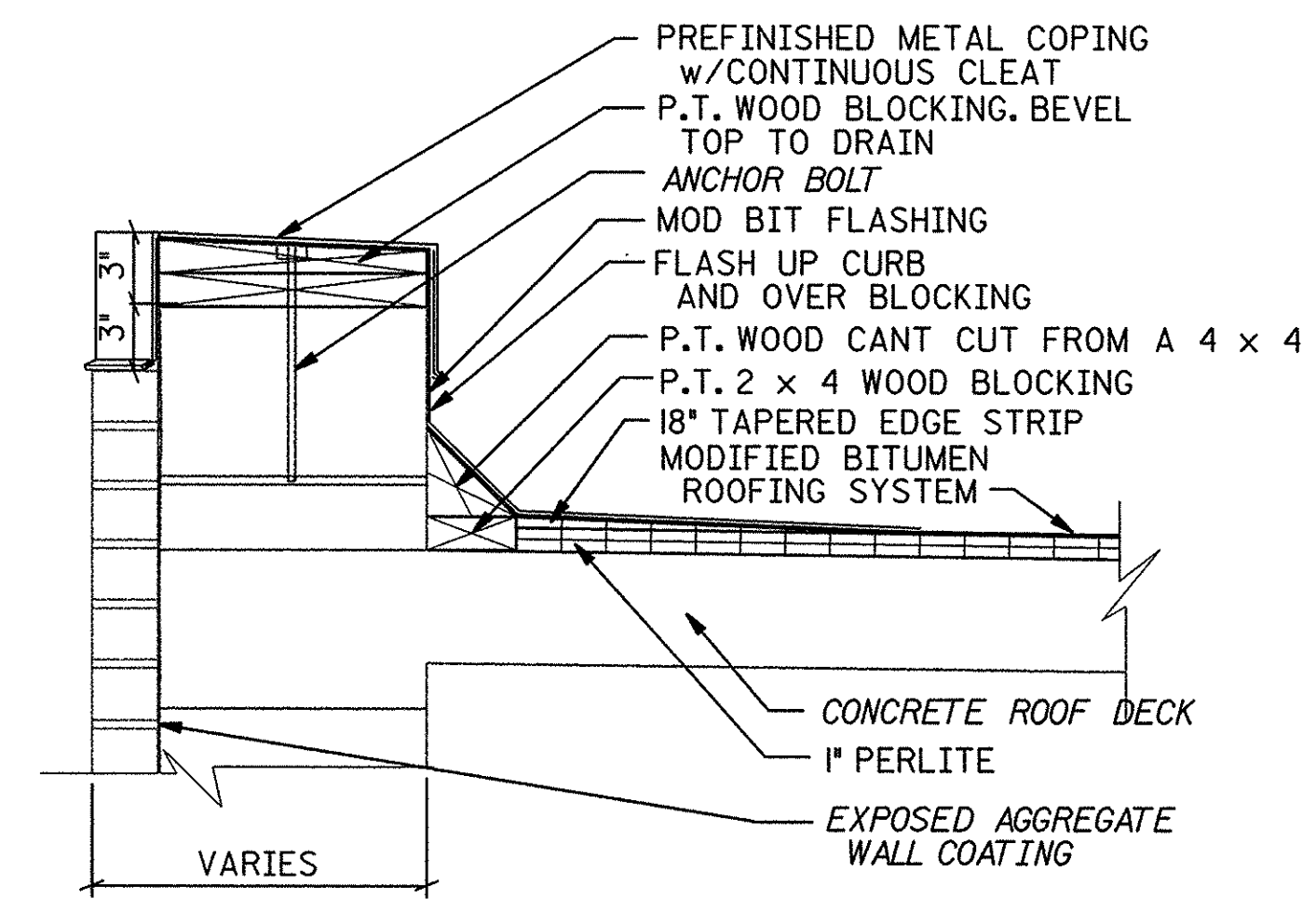


1 PARAPET DETAIL
A-4
1' 9" 6" 3" 0"

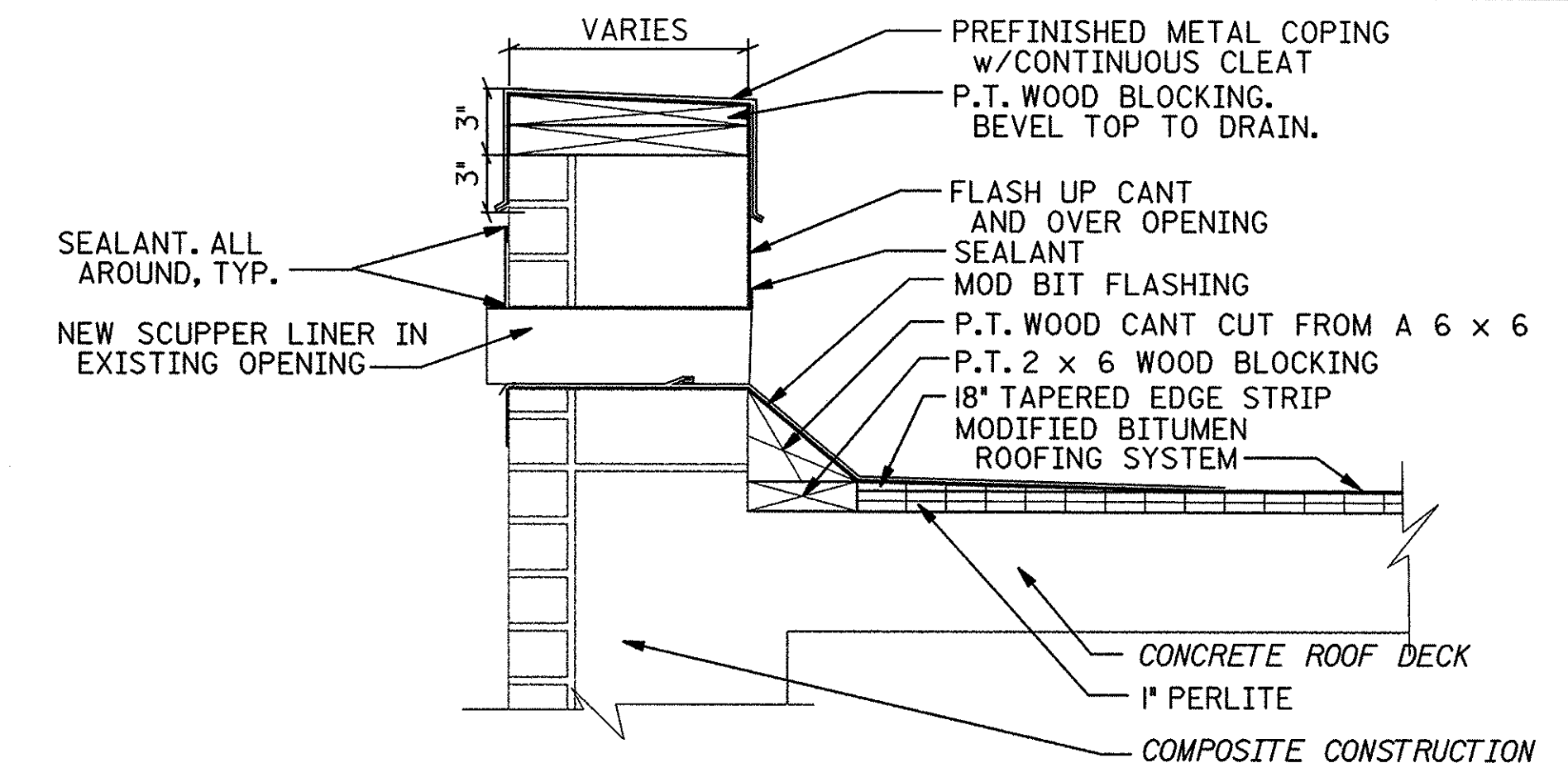
NOTE: AT THE CONTRACTOR'S OPTION HE MAY ELIMINATE THE VERTICAL 2x BLOCKING AT THE BRICK, LEAVE THE CEMENT WASH IN PLACE, AND PROVIDE COPING THAT MATCHES THE EXISTING PROFILE.



2 PARAPET DETAIL
A-2
1' 9" 6" 3" 0"

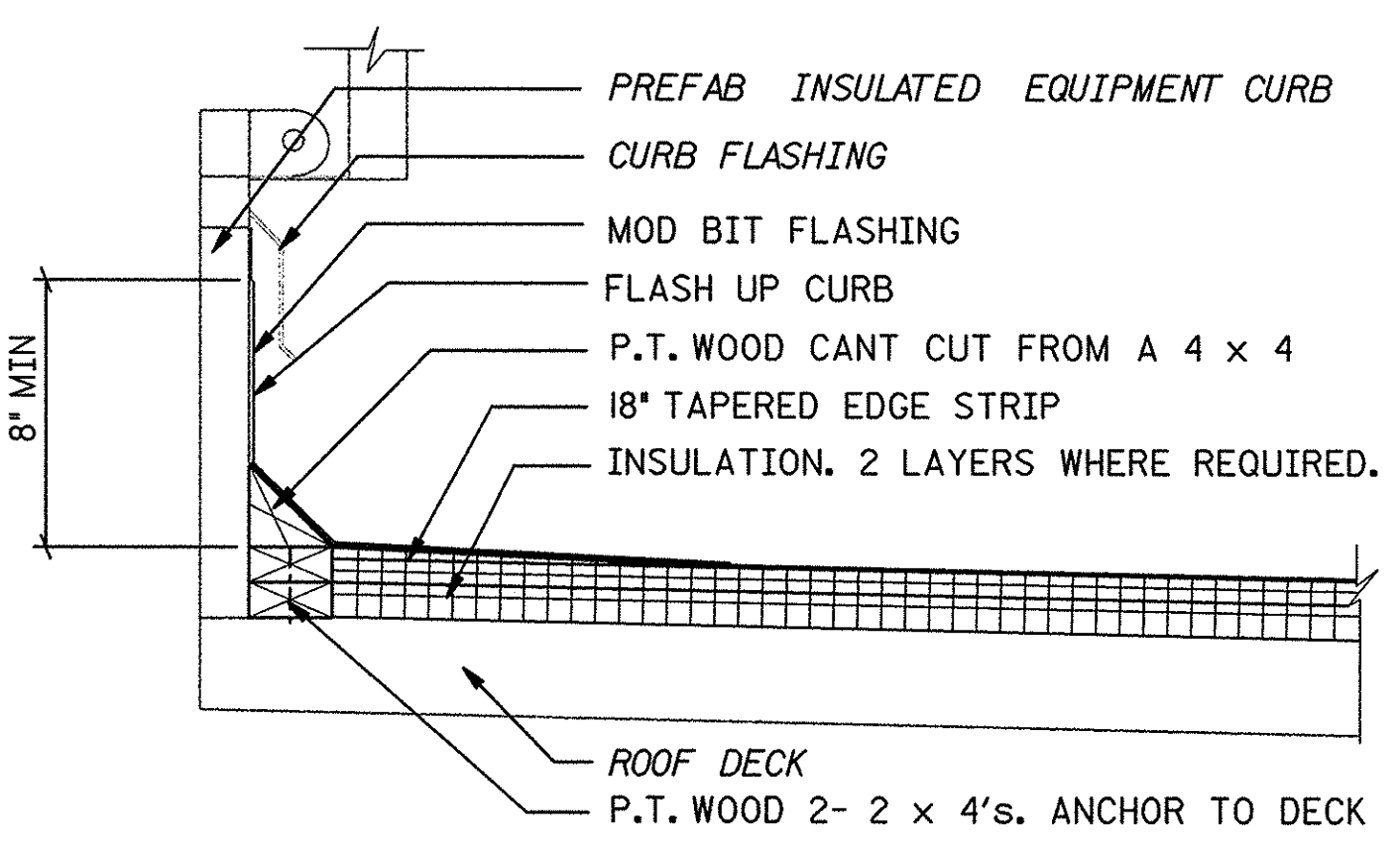


3 PARAPET DETAIL
A-3
A-2
1' 9" 6" 3" 0"



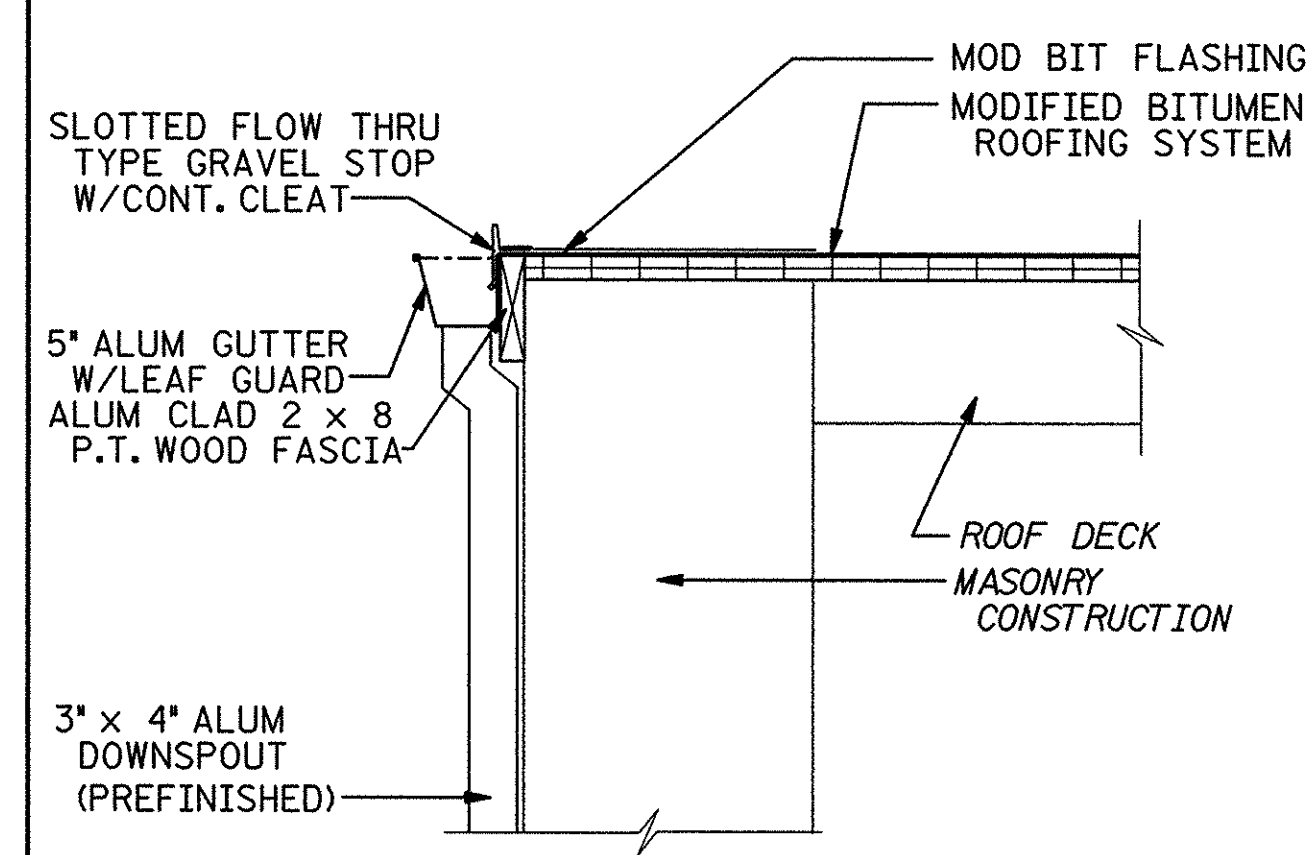
4 SCUPPER DETAIL
A-3
1' 9" 6" 3" 0"

NOTE: SIMILAR DETAIL OCCURS AT FILTRATION BUILDING IN 18" WIDE WALL
NOTE: SIMILAR DETAIL OCCURS IN CONCRETE WALL OF CHLORINATOR BUILDING
NOTE: SCUPPER SHALL BE INSTALLED IN ACCORDANCE WITH SMACNA I-26.



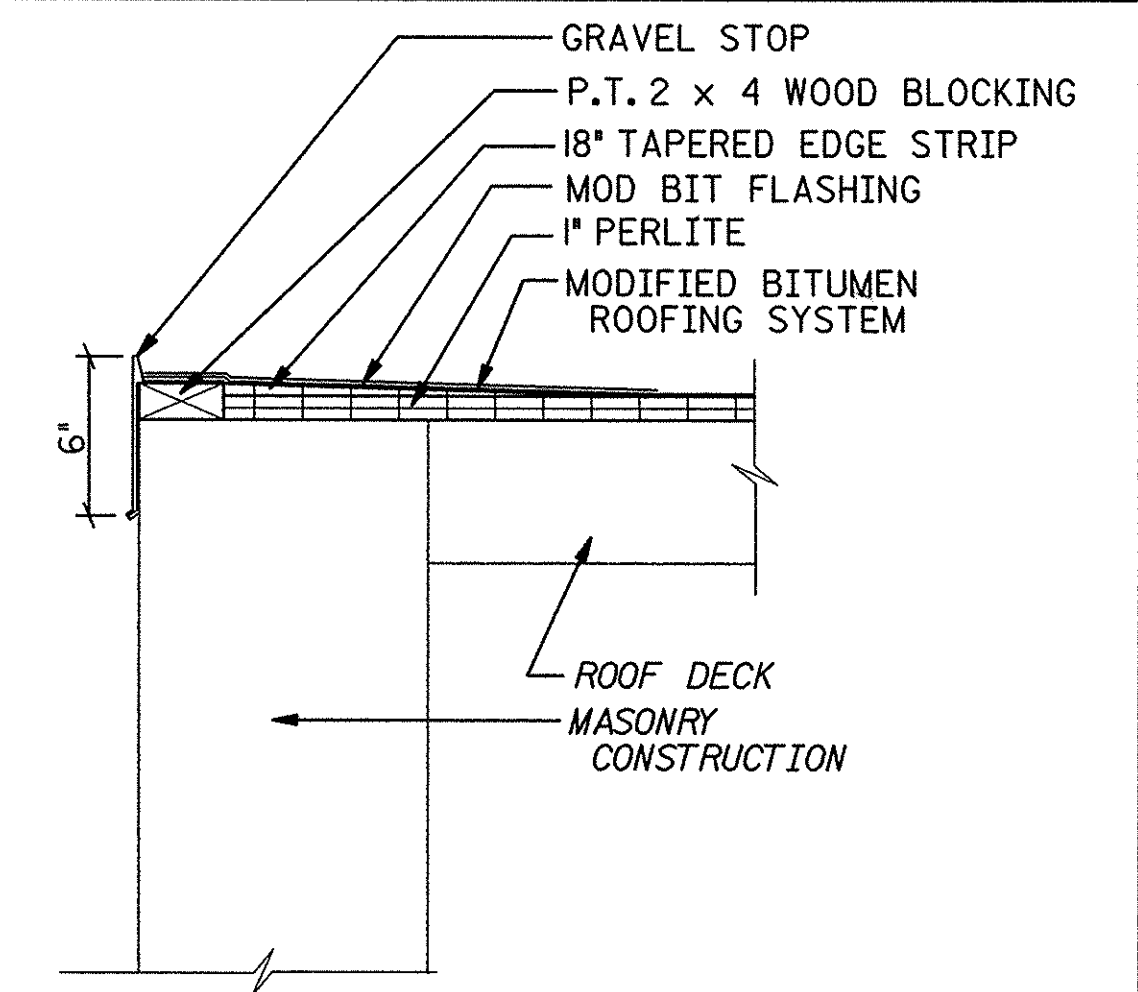
5 TYP SCUTTLE DETAIL
A-1
A-4
1' 9" 6" 3" 0"

NOTE: RAISE UP ON BLOCKING IF REQUIRED TO MAINTAIN CLEARANCE ABOVE ROOF
NOTE: WHERE INSULATION IS 1" PERLITE ONLY, DELETE 1-2x4 WOOD BLOCKING

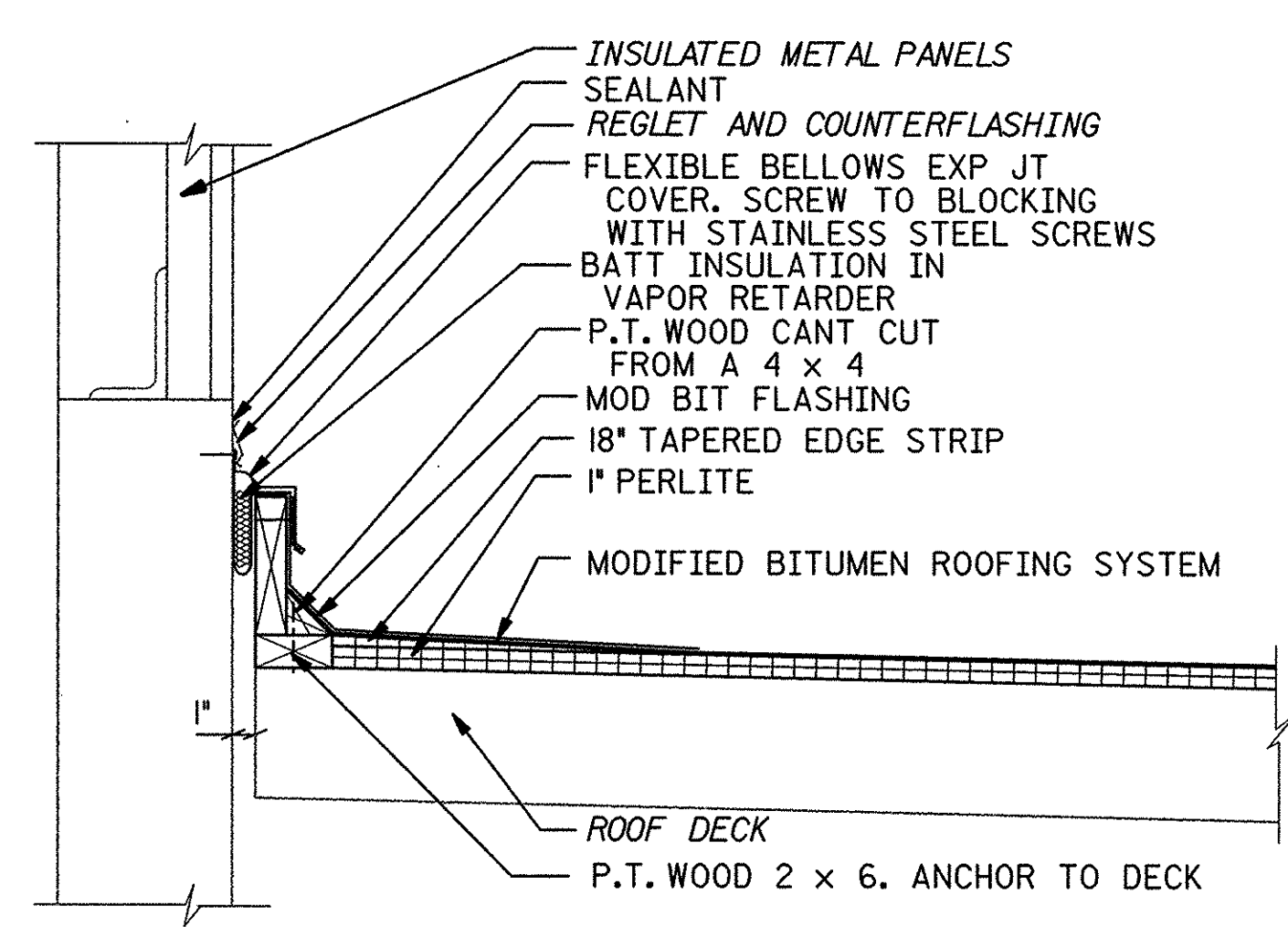


6 GUTTER DETAIL
A-4
1' 9" 6" 3" 0"

NOTE: SIMILAR CONDITION ON HEADWORKS BUILDING. WALL IS METAL PANELS

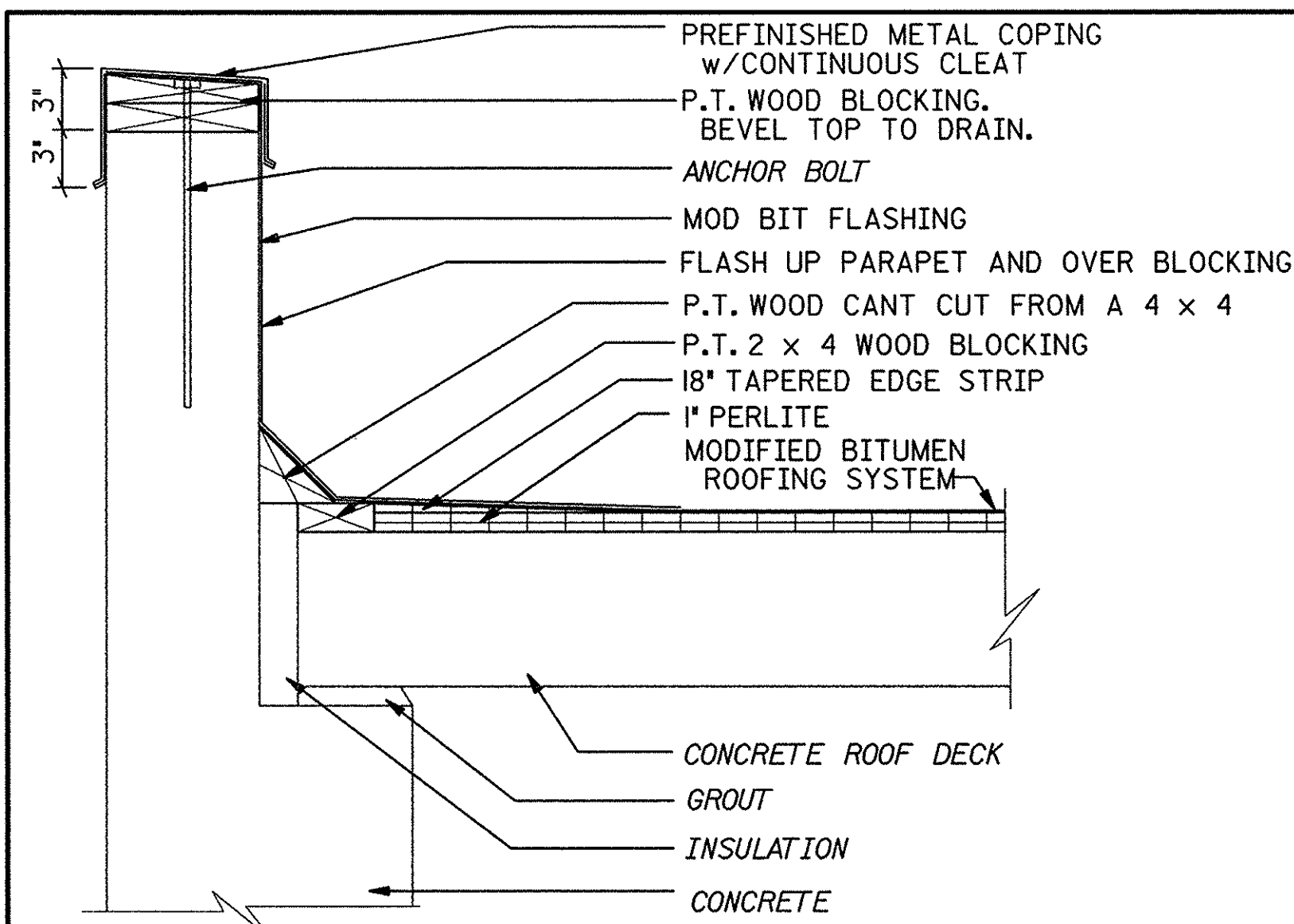


9 GRAVEL STOP DETAIL
A-4
1' 9" 6" 3" 0"

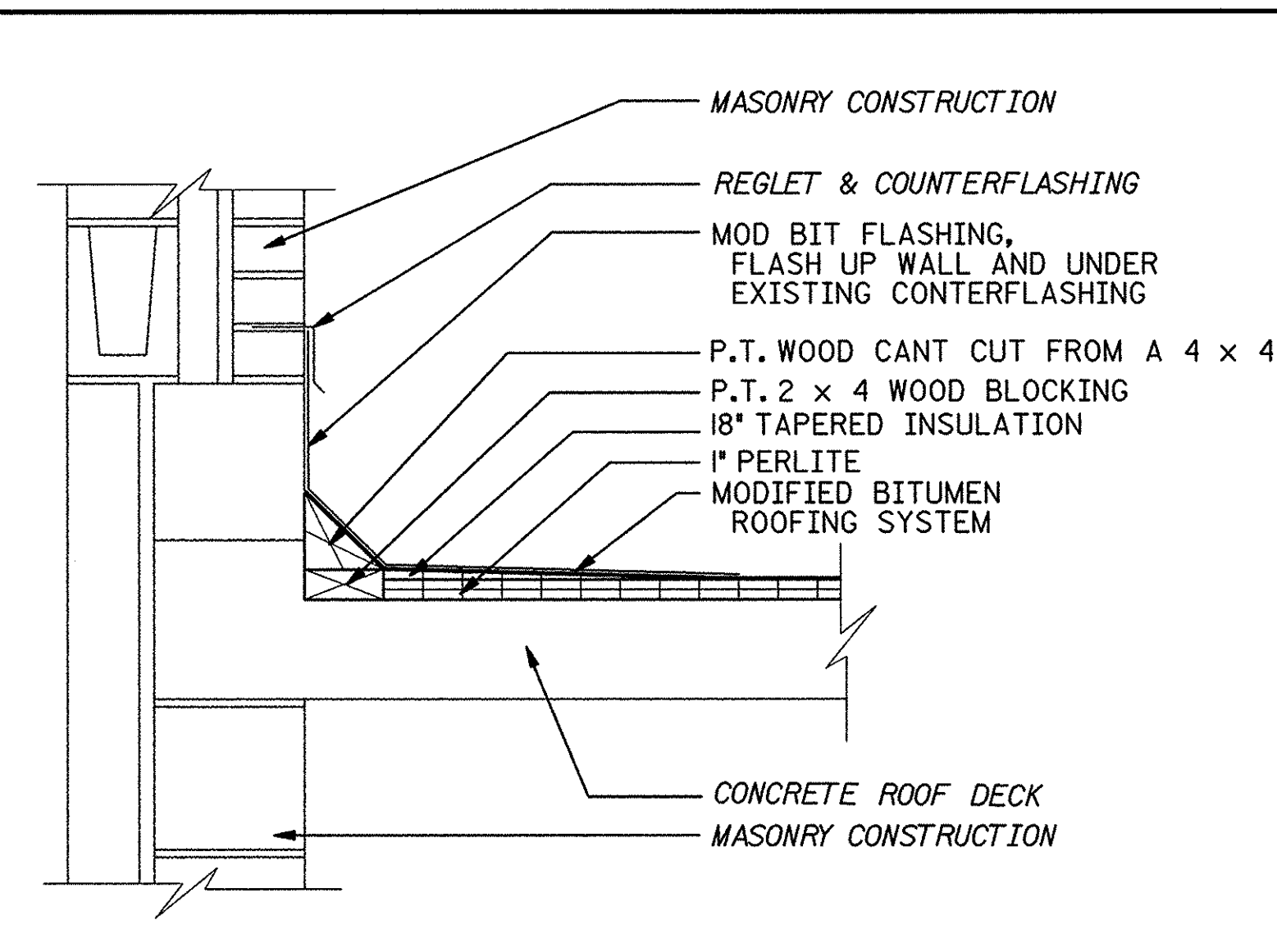


7 EXP JT COVER DETAIL
A-1
1' 9" 6" 3" 0"

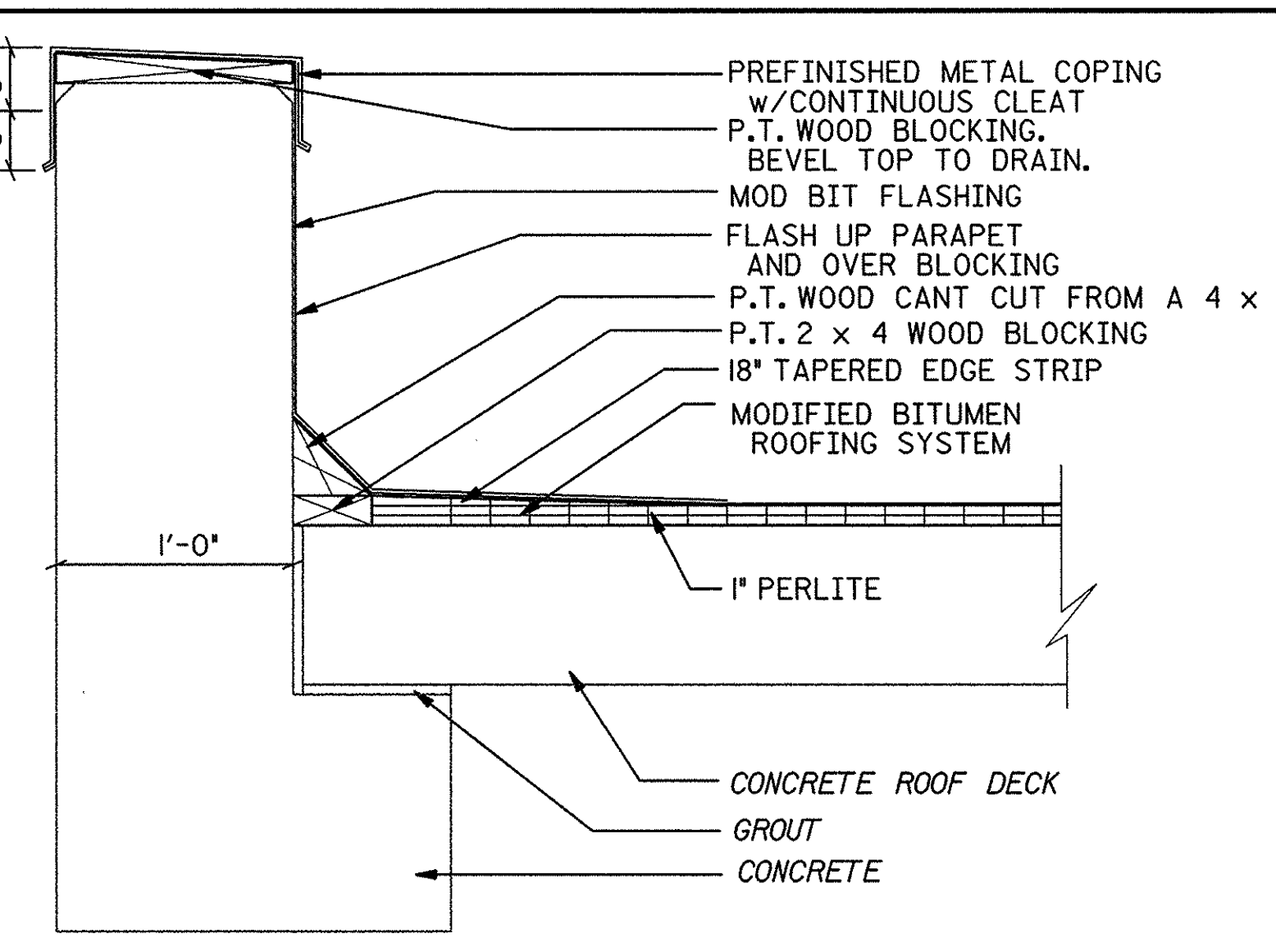
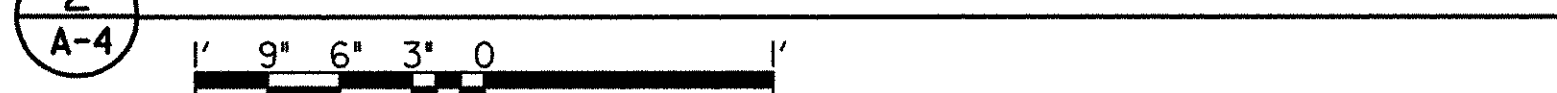
8 NOT USED



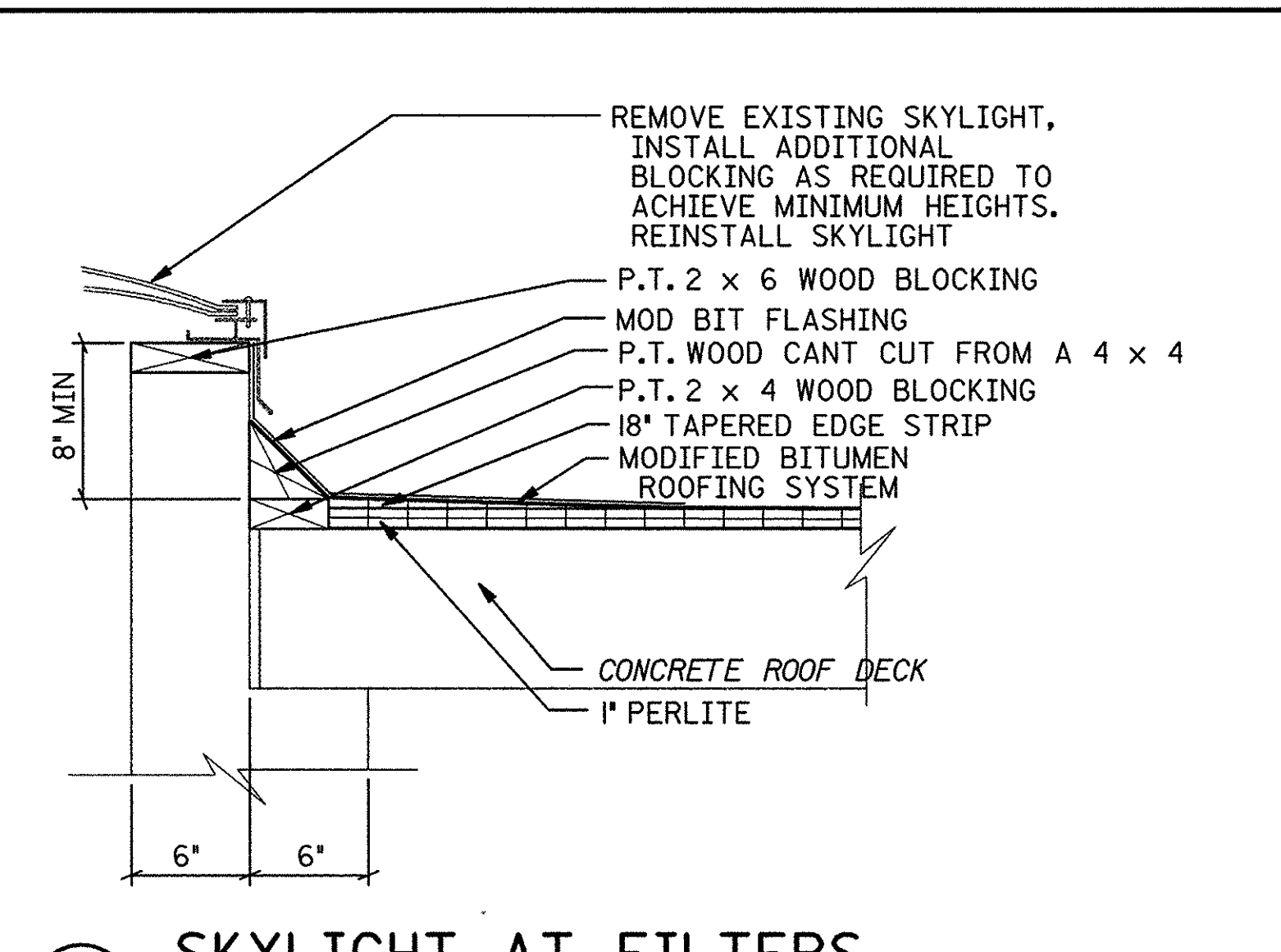
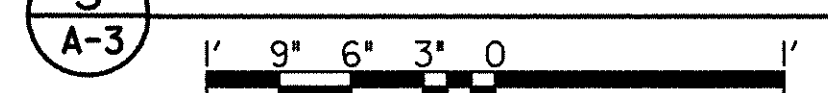
1 PARAPET DETAIL



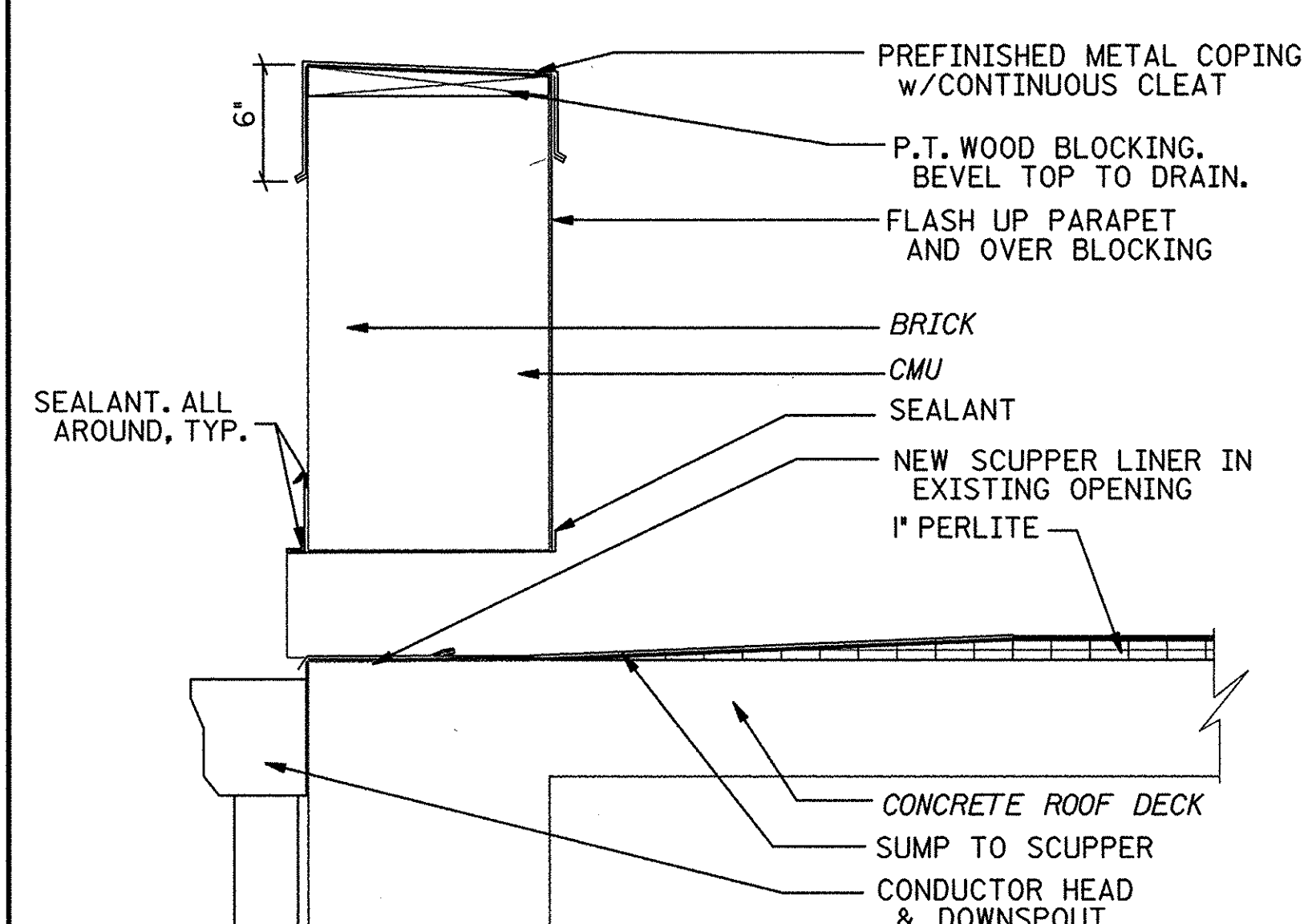
2 FLASHING @ VERTICAL WALL DETAIL



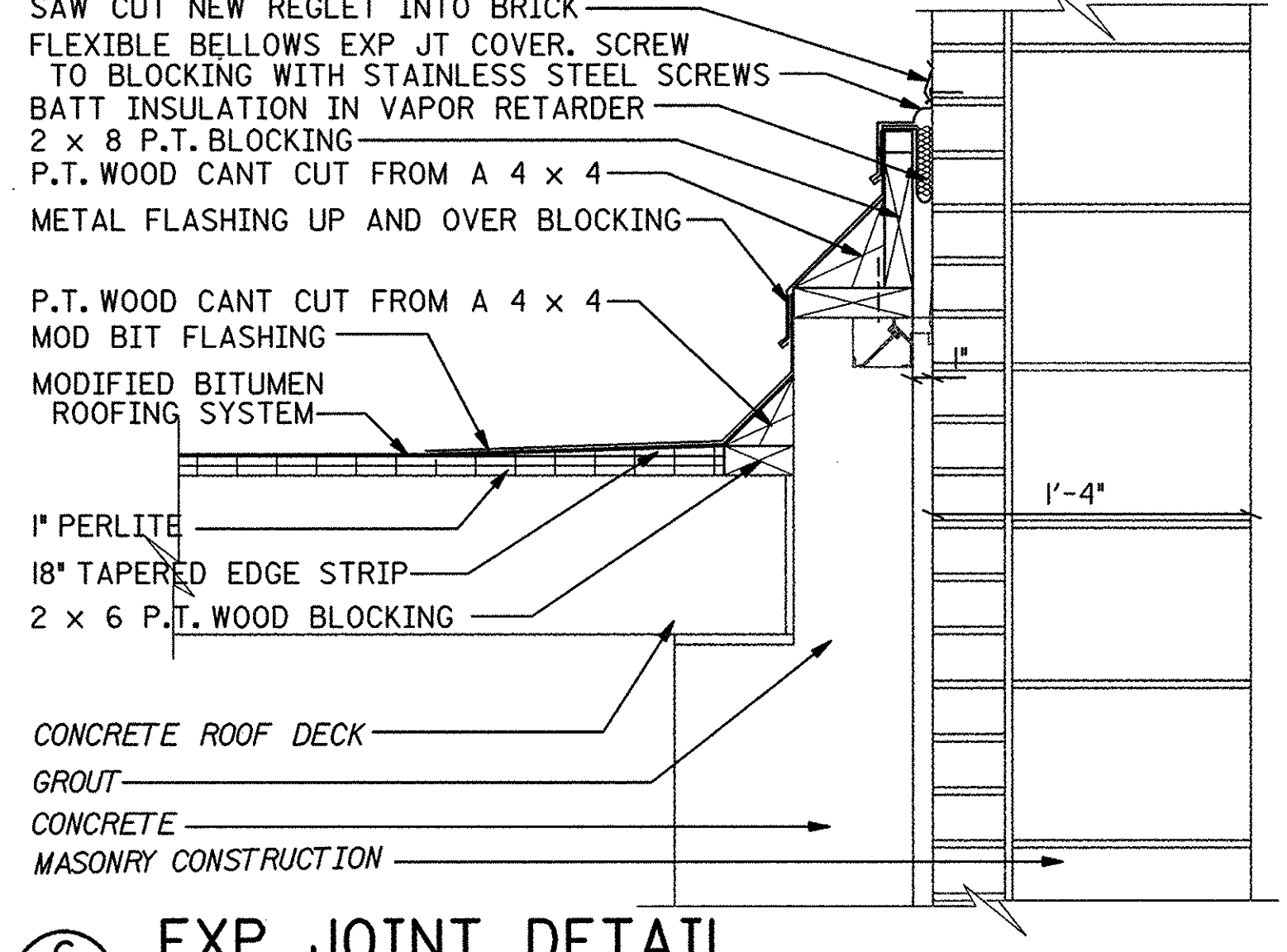
3 PARAPET DETAIL



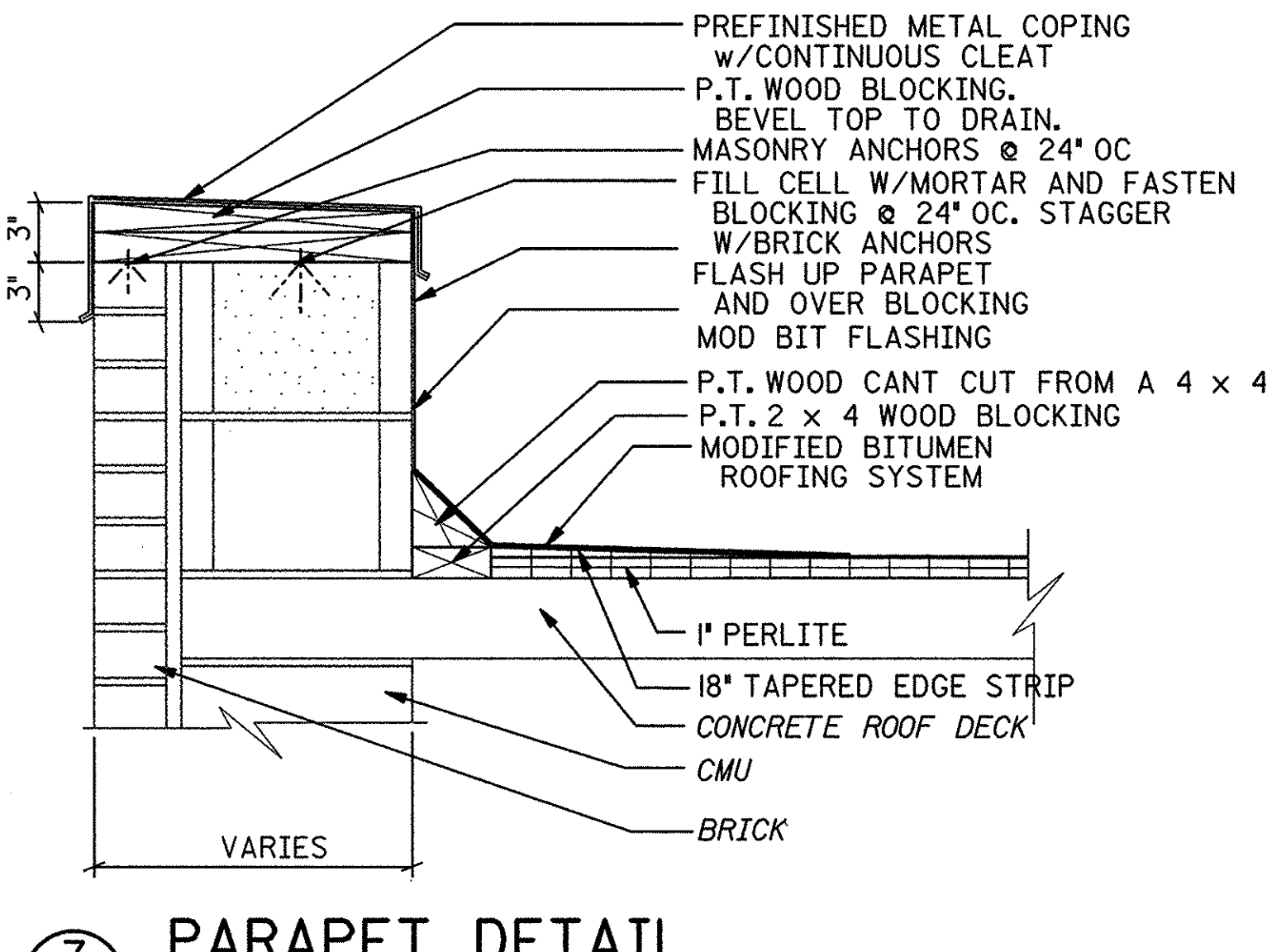
4 SKYLIGHT AT FILTERS



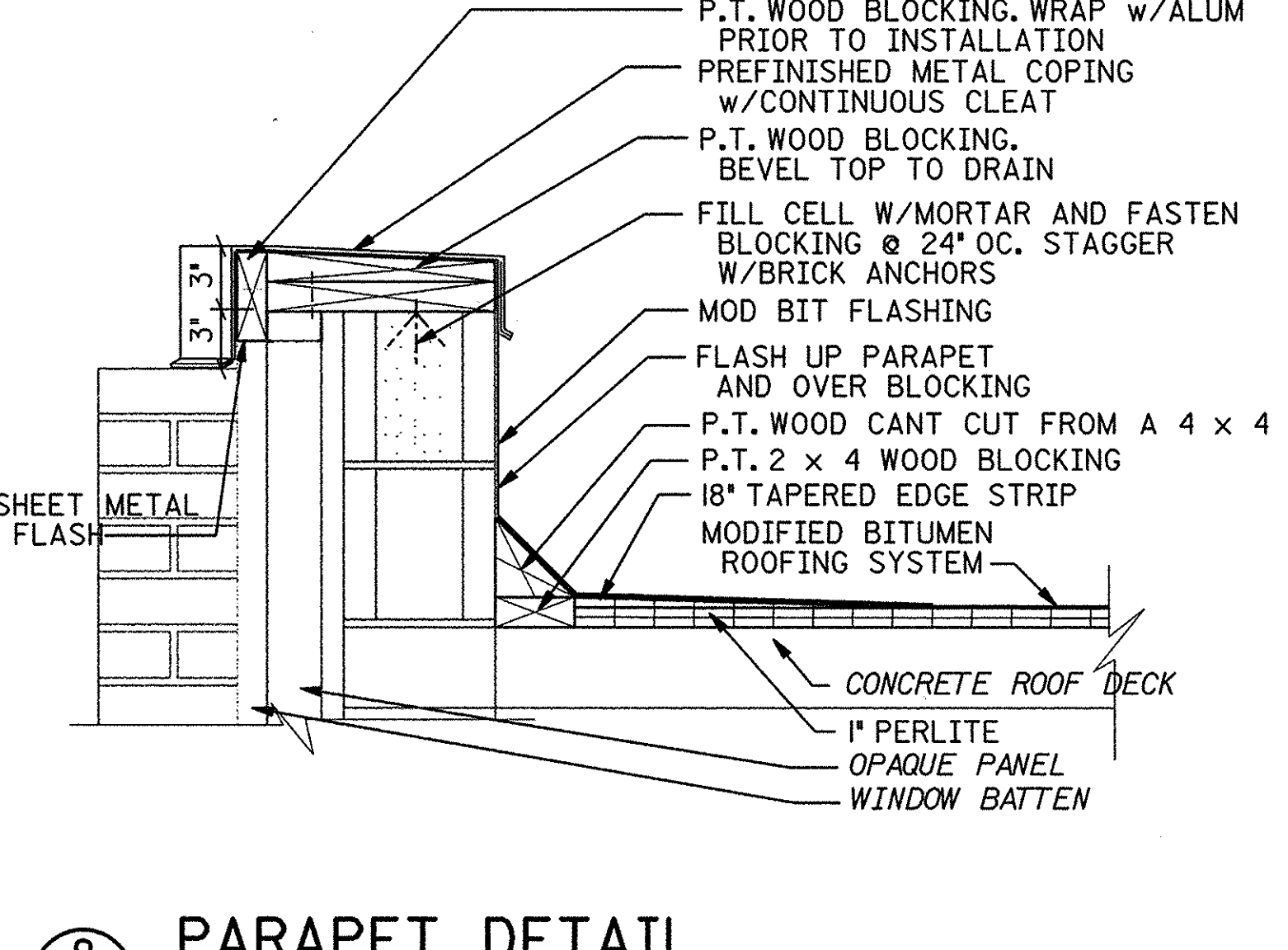
5 PARAPET/SCUPPER DETAIL



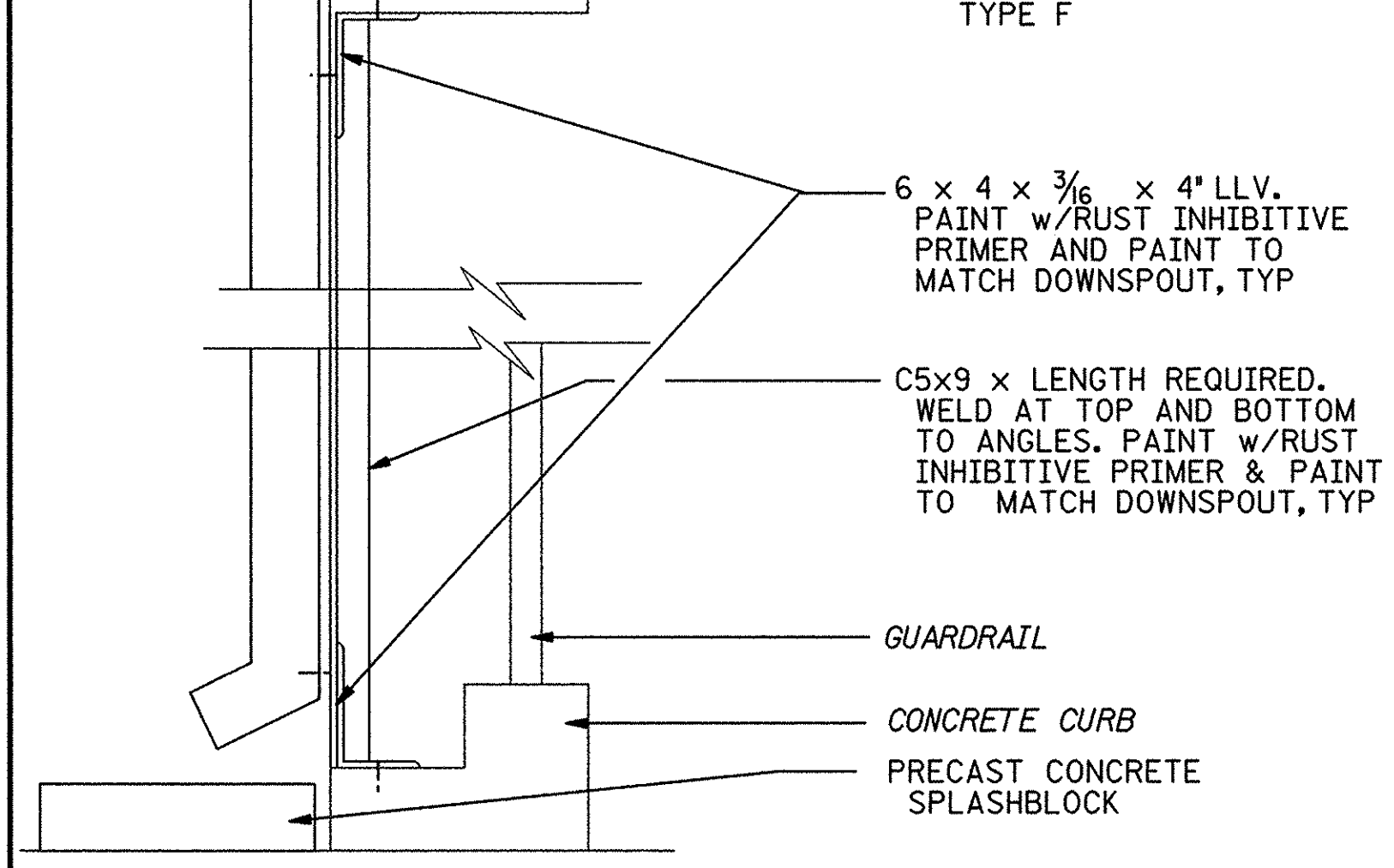
6 EXP JOINT DETAIL



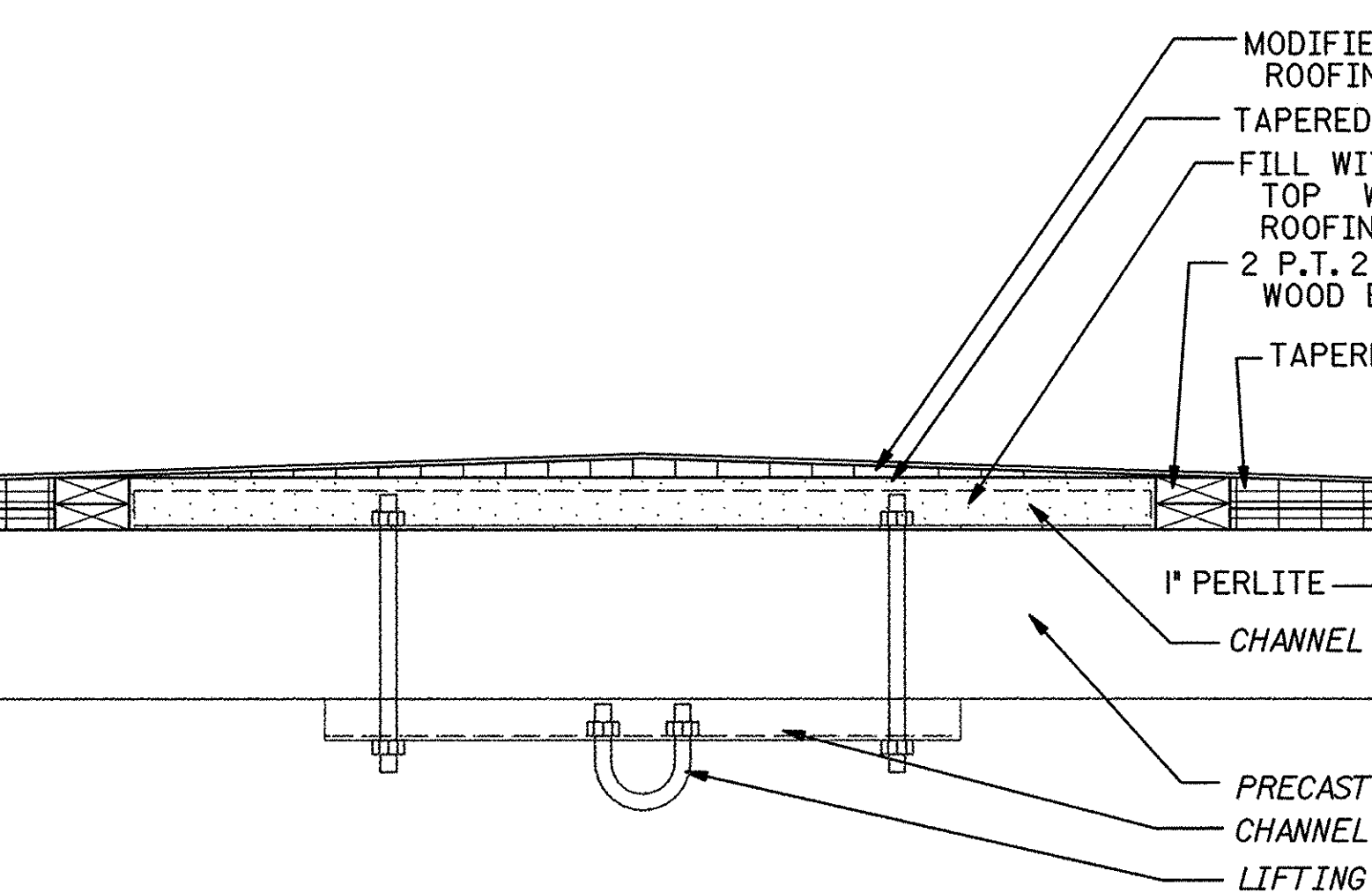
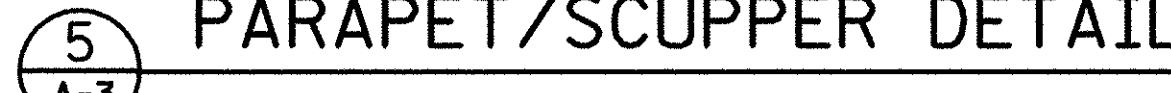
7 PARAPET DETAIL



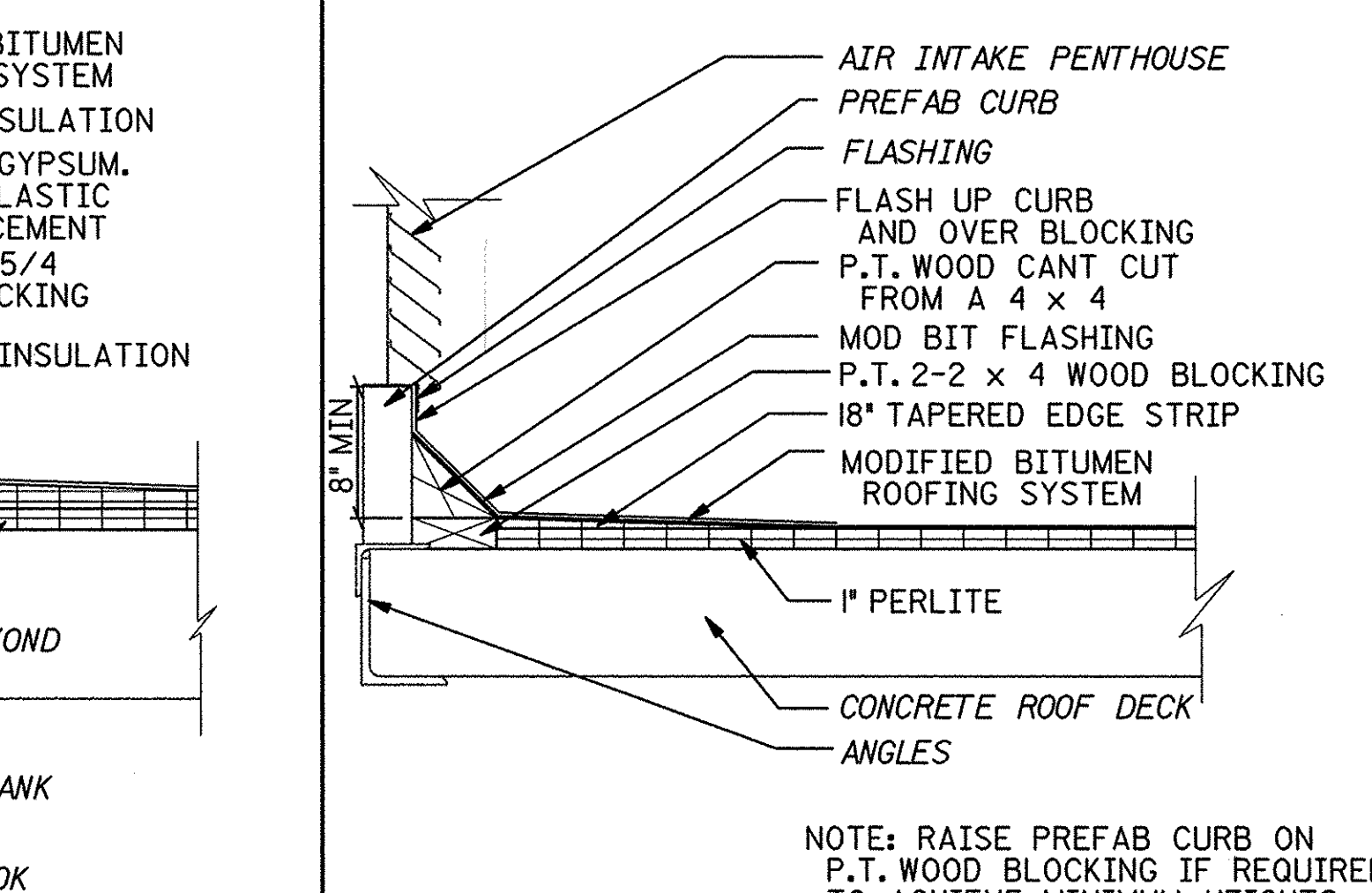
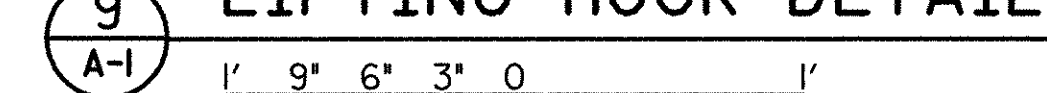
8 PARAPET DETAIL



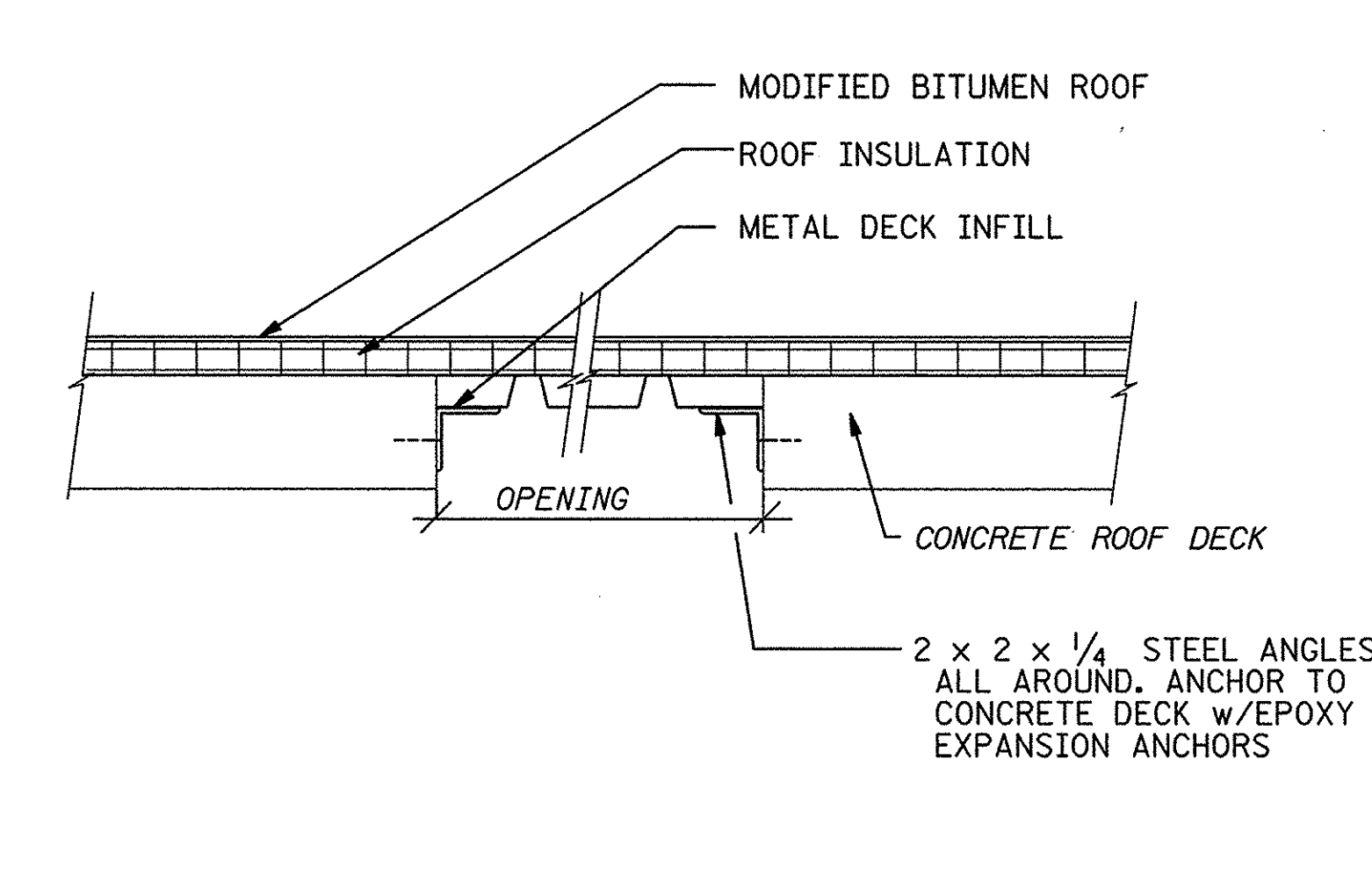
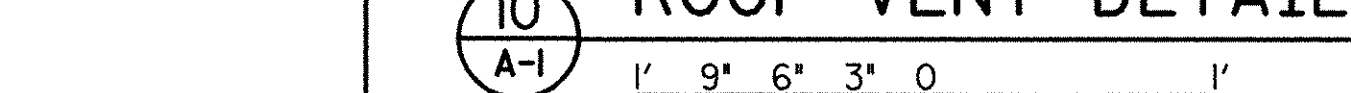
5 PARAPET/SCUPPER DETAIL



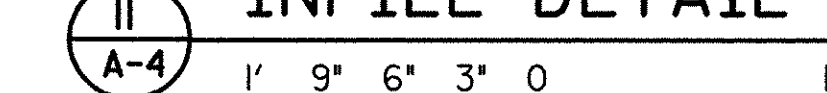
9 LIFTING HOOK DETAIL



10 ROOF VENT DETAIL



11 INFILL DETAIL



DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 [Signature] 2-12-98
 DATE CHIEF, BUREAU OF UTILITIES

BUCHART HORN, INC.
 Engineers, Architects and Planners

ARCHITECTURAL REGISTRATION BOARD
 5231-A
 STATE OF MARYLAND

DES:	
DRN:	
CHK:	
DATE:	
BY:	
NO.:	
REVISION:	
DATE:	

LITTLE PATUXENT WATER RECLAMATION PLANT
 REROOFING OF PLANT BUILDINGS
 CAPITAL PROJECT
 CONTRACT NO. S6153.PI
 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
 SHEET 9 OF 9
 A-8