

DRAWING INDEX

SHEET NO TITLE

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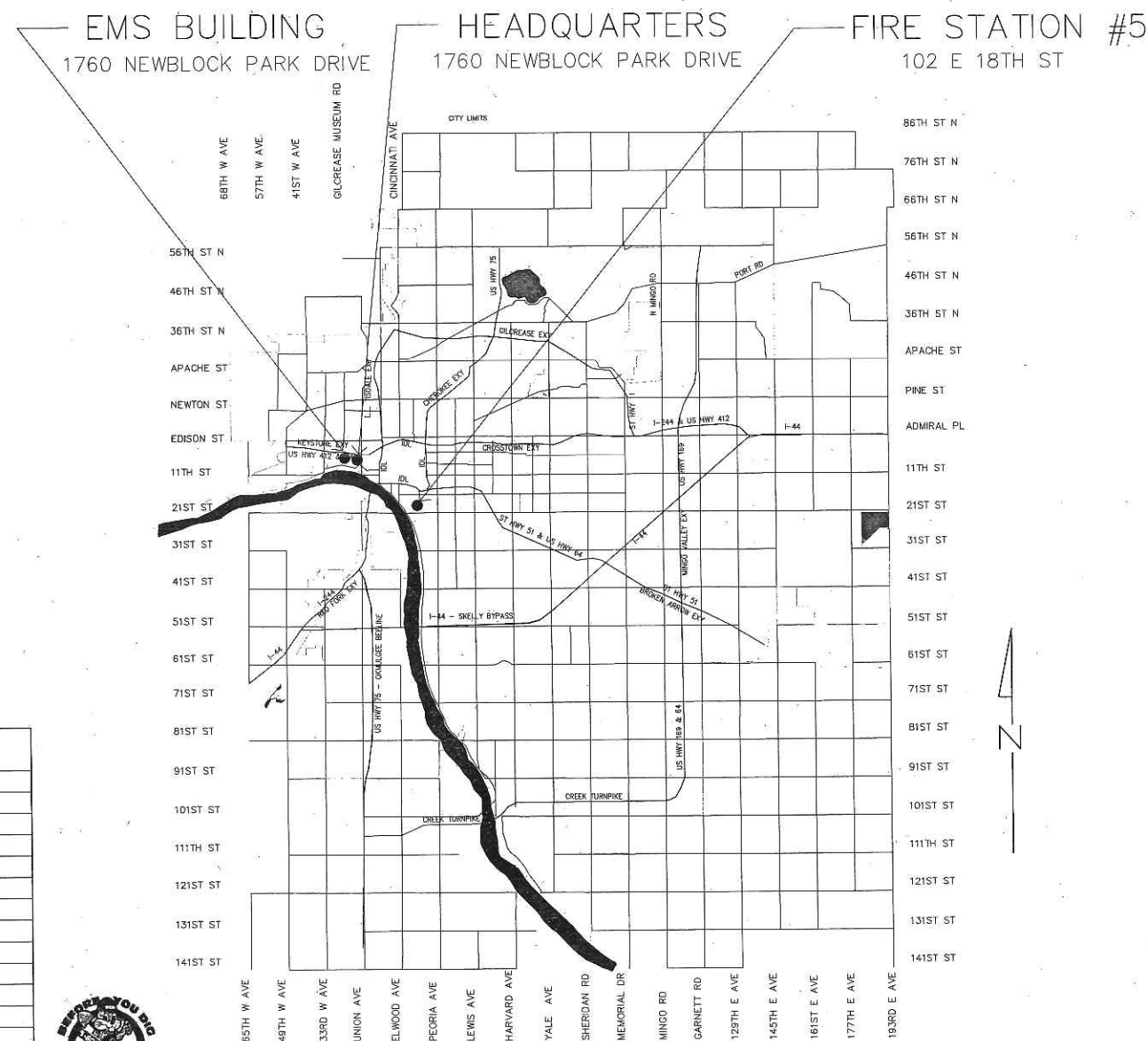
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ENGINEERING SERVICES		
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WASTEWATER DESIGN	918-596-9564	
TRANSPORTATION DESIGN	918-596-9636	
TRAFFIC ENGINEERING DESIGN	918-596-9749	
STORMWATER DESIGN	918-596-9498	
OKLAHOMA NATURAL GAS CO.		
COX COMMUNICATIONS	918-831-8293	
PUBLIC SERVICE CO. / AEP	918-286-4666	
AT&T	918-599-2233	
	918-576-2142	



CONSTRUCTION PLANS FOR
TULSA FIRE DEPARTMENT
ROOF REPLACEMENTS
TFD HEADQUARTERS - EMS BUILDING - STATION #5
TFD HQ - 1760 NEWBLOCK PARK DRIVE
EMS BUILDING - 1760 NEWBLOCK PARK DRIVE
STATION #5 - 102 EAST 18TH STREET

PROJECT NUMBER: SP 17-12
ACCOUNT NO: **145400.BUILDINGS.5452101-4035122-541104**

CITY OF TULSA
ENGINEERING SERVICES DEPARTMENT



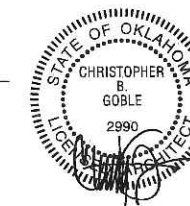
GENERAL NOTES

1. ALL CONSTRUCTION SHALL BE IN STRICT ACCORDANCE WITH CURRENT CITY OF TULSA ORDINANCES, ENGINEERING SERVICES STANDARDS SPECIFICATIONS AND STANDARD DETAILS. (CITY OF TULSA ORDINANCE AND CODES AMENDMENTS SUPERCEDE NATIONAL CODES)
2. CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO ALL STRUCTURES, LANDSCAPING, PAVING AND ANY OTHER ITEMS LOCATED WITHIN AND OUTSIDE THE WORK AREA. ANY DAMAGE TO PERMANENT ITEMS INCURRED BY THE CONTRACTOR THROUGH HIS WORK IN THIS CONTRACT SHALL BE REPAIRED TO ORIGINAL CONDITION, BY THE CONTRACTOR AT HIS OWN EXPENSE.
3. CONTRACTORS WILL COORDINATE WITH IDENTIFIED MAINTENANCE OPERATIONS PERSONNEL FOR APPLICATION, SHUT OFF AND REMOVAL OF ALL UTILITIES.
4. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND QUANTITIES.

PLANS PREPARED BY:

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06/14/2019

DATE/STAMP/SIGNATURE

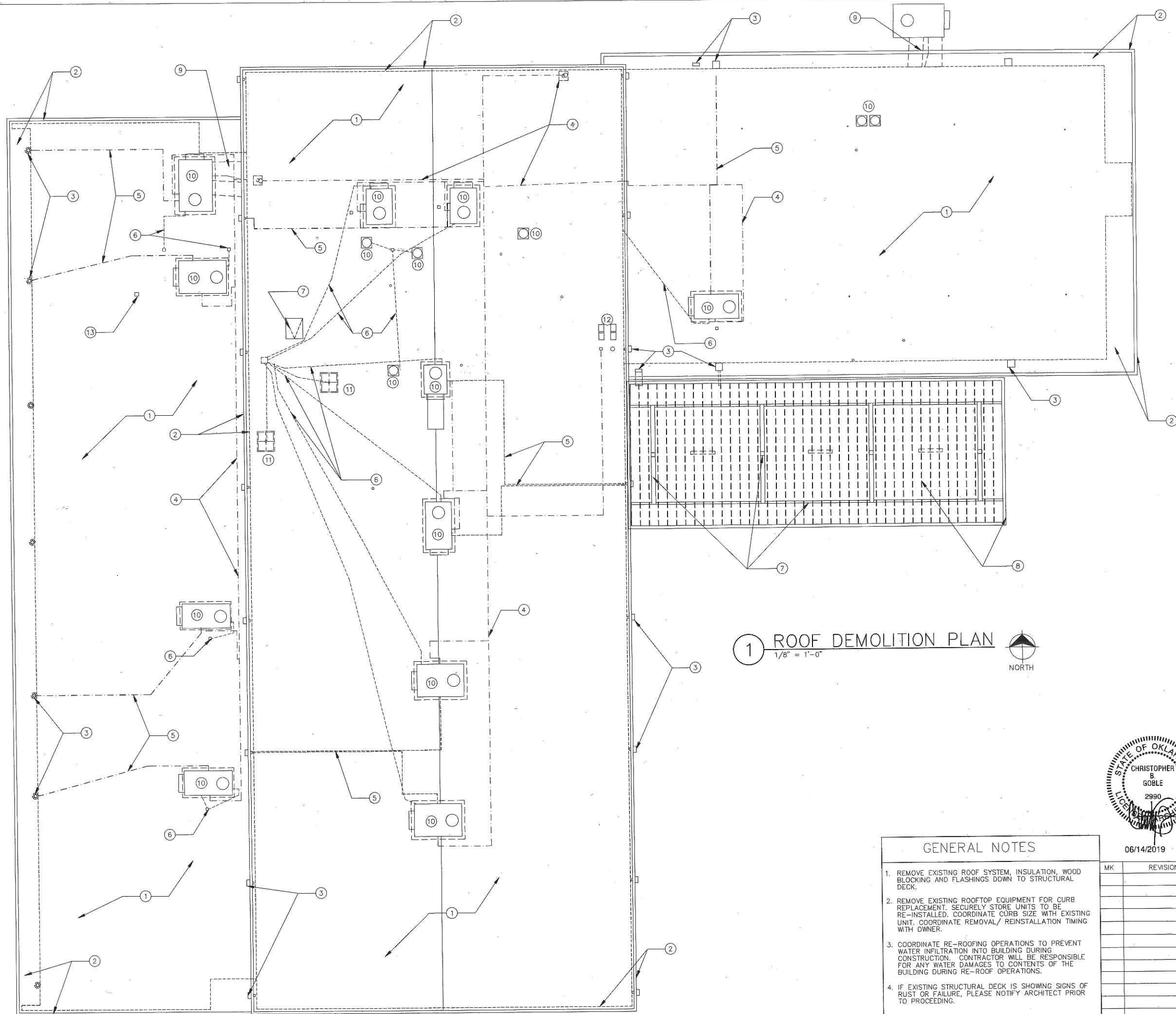


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Tulsa
A New Kind of Energy™

APPROVED BY

[Signature]
CITY ENGINEER

6/24/19
DATE



- # KEYNOTES NOTES
1. DEMOLISH EXISTING GRAVEL BALLASTED BUILT UP AND MODIFIED ROOFS IN THEIR ENTIRETY. DEMOLISH ALL RELATED BASE FLASHING, FLASHING, COUNTER FLASHING AND APURTENANCES. PATCH AND REPAIR REMAINING SURFACES FOR ROOF INSTALLATION, TYP.
 2. DEMOLISH EXISTING FASCIA, SOFFIT PANELS, COOPING AND ASSOCIATED TRIM. DEMOLISH ALL SUPPORT FRAMING.
 3. DEMOLISH EXISTING ROOF DRAINS, DRAIN GUARDS, PIPING, SCUPPERS, SCUPPER BOXES, DOWNSPOUTS, AND ASSOCIATED HARDWARE. TYP.
 4. DEMO EXISTING GAS LINE PENETRATION SHROUDS. CLEAN, DESCALE ALL EXISTING GAS LINES. APPLY RUST INHIBITING PRIMER. PREPARE ALL GAS LINES FOR PAINT.
 5. DEMOLISH ALL CONDENSATE DRAINS. DEMOLISH ABANDONED CONDENSATION DRAIN LINES TO BELOW DECK. TYP.
 6. DEMOLISH ALL EXISTING ELECTRICAL LINES AND SHROUDS. TYP.
 7. DE-SCALE ALL EXTERIOR CANOPY FRAMING, ROOF HATCH AND OTHER EXPOSED STEEL WHERE RUST IS PRESENT. APPLY RUST INHIBITING PRIMER. PREPARE ALL PAINTED SURFACES FOR PAINT.
 8. DEMOLISH FASCIA, GUTTER, AND METAL CANOPY SOFFIT PANELS. EXISTING STEEL TO REMAIN. REPAIR EXISTING STEEL. CLEAN DESCALE AND INSTALL RUST INHIBITING PRIMER.
 9. DEMOLISH EXISTING EXTERIOR DUCTWORK AND TRIM.
 10. REMOVE ALL HVAC UNITS. DEMOLISH ALL CURBS AND CURB ADAPTERS. DEMOLISH UNIT GAS LINE AND SHUT OFF BACK TO MAIN.
 11. REMOVE ANTENNA UNITS. STORE FOR RE-INSTALLATION.
 12. DEMOLISH EXISTING ROOF AIR INTAKE VENTS TO BELOW DECK.
 13. PHOTO CELL, PROTECT AND PREPARE FOR REPLACEMENT.

1 ROOF DEMOLITION PLAN
1/8" = 1'-0"
NORTH



06/14/2019

- GENERAL NOTES
1. REMOVE EXISTING ROOF SYSTEM, INSULATION, WOOD BLOCKING AND FLASHINGS DOWN TO STRUCTURAL DECK.
 2. REMOVE EXISTING ROOFTOP EQUIPMENT FOR CURB REPLACEMENT. SECURELY STORE UNITS TO BE RE-INSTALLED. COORDINATE CURB SIZE WITH EXISTING UNIT. COORDINATE REMOVAL/ REINSTALLATION TIMING WITH OWNER.
 3. COORDINATE RE-ROOFING OPERATIONS TO PREVENT WATER INFILTRATION INTO BUILDING DURING CONSTRUCTION. CONTRACTOR WILL BE RESPONSIBLE FOR ANY WATER DAMAGES TO CONTENTS OF THE BUILDING DURING RE-ROOF OPERATIONS.
 4. IF EXISTING STRUCTURAL DECK IS SHOWING SIGNS OF RUST OR FAILURE, PLEASE NOTIFY ARCHITECT PRIOR TO PROCEEDING.

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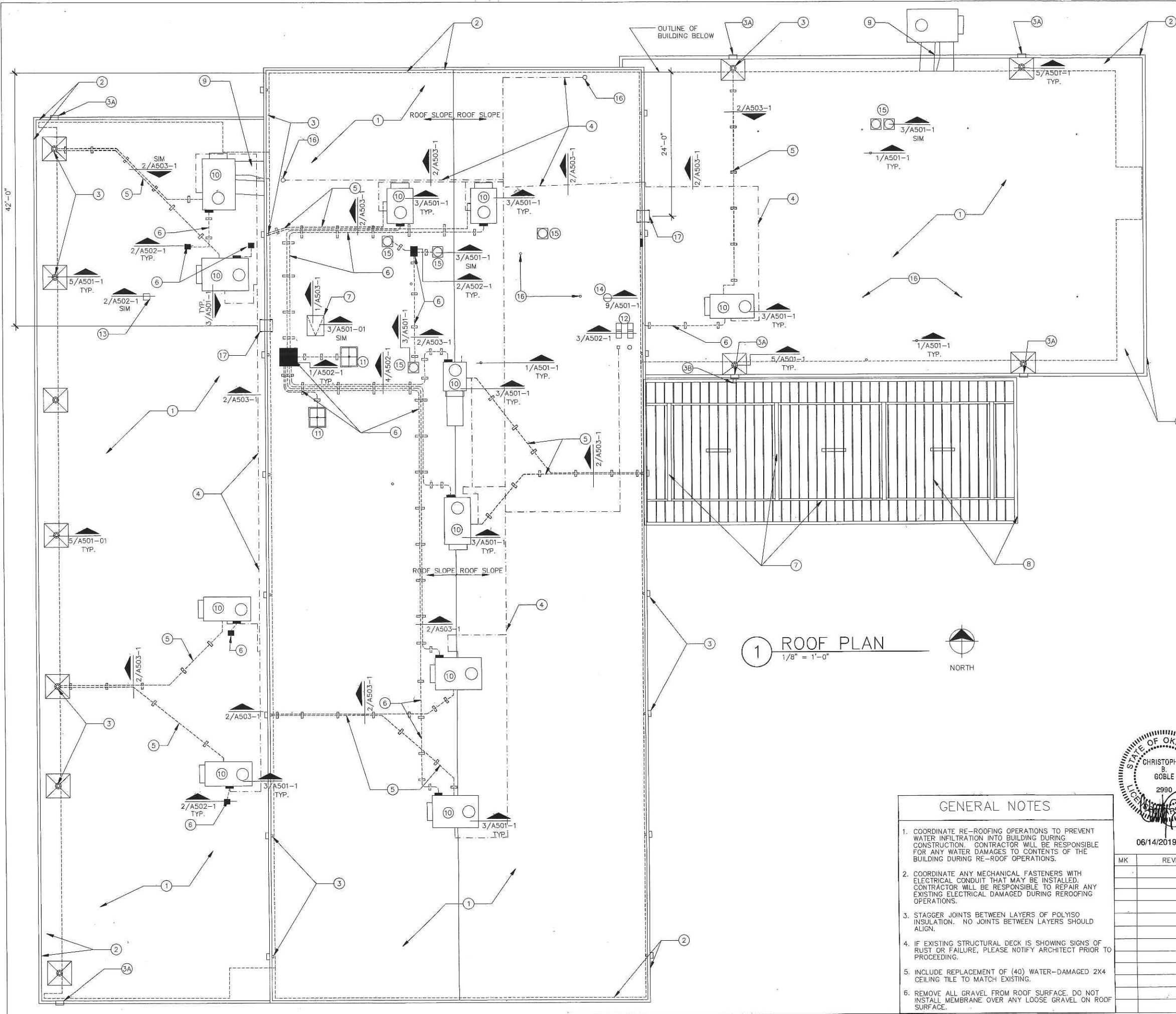
TULSA FIRE DEPARTMENT
ROOF REPLACEMENTS
TFD HEADQUARTERS

PROJECT NO.: SP 17-12

CITY OF TULSA, OKLAHOMA
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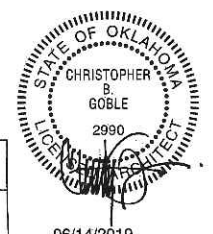


KEYNOTES NOTES

1. INSTALL FULLY ADHERED 80 MIL TPO ROOFING SYSTEM ON COVER BOARD OVER TAPERED INSULATION AND BASE OF R-25 POLYISO INSULATION. PROVIDE MANUFACTURERS FLASHINGS AND ACCESSORIES FOR COMPLETE INSTALLATION. INSTALL MINIMUM 2" BASE LAYER OF POLYISO UNDER TAPERED AREAS.
2. INSTALL PARAPET CAP FLASHING, FASCIA, SOFFIT PANELS AND ASSOCIATED TRIM.
3. INSTALL ROOF DRAINS, DRAIN GUARDS, PIPING, PIPING INSULATION, SCUPPERS, SCUPPER BOXES, DOWNSPOUTS, AND ASSOCIATED HARDWARE. TYP.
- 3A INSTALL 8X16 ROOF OVERFLOW SCUPPER 3" ABOVE THE PRIMARY DRAINS.
- 3B ROUTE ROOF DRAIN AND SCUPPER TO DRAIN ONTO CANOPY ROOF AT THIS LOCATION.
4. PAINT ALL GAS LINES SAFETY YELLOW.
5. INSTALL PVC CONDENSATE DRAINS LINES AND P-TRAPS AT RTU UNITS.
6. INSTALL WEATHER TIGHT ELECTRICAL CONDUITS AND REPLACE ALL RTU DISCONNECTS. ROUTE AS SHOWN ON DRAWINGS. SET AND SECURE CONDUITS ON UNI-STRUT TYPE BLOCKING. TERMINATE LINES IN NEMA 3R PREMANUFACTURED WEATHER TIGHT ROOF PENETRATION HOUSING. PROVIDE AND INSTALL ADDITIONAL WATER TIGHT WIRE J-BOXES INSIDE HOUSING AS REQUIRED FOR COMPLETE INSTALLATION. TYP.
7. PAINT ALL EXPOSED METAL APPURTENANCES WITH COLD APPLIED ZINC GALVANIZED COATING.
8. INSTALL FASCIA, GUTTER, AND METAL CANOPY SOFFIT PANELS. COAT EXISTING STEEL TO REMAIN.
9. INSTALL EXTERIOR WATERTIGHT INSULATED DUCTWORK AND ASSOCIATED TRIM. WRAP DUCTWORK WITH EXTERIOR WEATHER TIGHT WHITE CLAD VINYL DUCT WRAP.
10. INSTALL STEEL CURBS TO MATCH EXISTING UNITS. REWORK DUCT WORK TO MATCH UNIT WHERE POSSIBLE. PROVIDE FABRICATED CURB ADAPTERS IF REQUIRED. PROVIDE AND INSTALL PREFABRICATED WEATHER TIGHT CONDUIT HOUSINGS. PROVIDE AND INSTALL UNIT DISCONNECTS AND REROUTE UNITS PROVIDING GFI SERVICE RECEPTACLE AT EACH UNIT. NEW POWER AND LOCATION OF DISCONNECT PER LOCAL CODE REQUIREMENTS. REPLACE ALL GAS LINES AND UNIT SHUT OFF VALVES BACK TO GAS MAIN LINE. PAINT SAFETY YELLOW.
11. REINSTALL ANTENNA UNITS.
12. FABRICATE WEATHER TIGHT AIR INTAKE VENTS TO MATCH EXISTING. RECONNECT TO EXISTING DUCTS.
13. PROVIDE WEATHER TIGHT J-BOX AND CONDUIT. REPLACE PHOTO CELL. VERIFY OPERATION WITH EXISTING SYSTEM. TYP.
14. INSTALL ROOF HYDRANT. TIE TO EXISTING COLD WATER LINE BELOW DECK.
15. REINSTALL EXISTING EXHAUST FANS ON STEEL CURBS. PROVIDE AND INSTALL WEATHER TIGHT CONDUIT HOUSING FOR UNITS ON UPPER ROOF. VERIFY OPERATION OF ALL UNITS.
16. INSTALL FLASHING AT EXISTING VENT OR PIPES RE: 1/A501-1 TYP.
17. INSTALL ACCESS LADDER FROM UPPER ROOF TO LOWER ROOF. RE 5/A502-1
18. REFER TO SPECIFICATION SECTION 075423 FOR TPO WALKPAD REQUIREMENTS

1 ROOF PLAN
1/8" = 1'-0"
NORTH

- GENERAL NOTES**
1. COORDINATE RE-ROOFING OPERATIONS TO PREVENT WATER INFILTRATION INTO BUILDING DURING CONSTRUCTION. CONTRACTOR WILL BE RESPONSIBLE FOR ANY WATER DAMAGES TO CONTENTS OF THE BUILDING DURING RE-ROOF OPERATIONS.
 2. COORDINATE ANY MECHANICAL FASTENERS WITH ELECTRICAL CONDUIT THAT MAY BE INSTALLED. CONTRACTOR WILL BE RESPONSIBLE TO REPAIR ANY EXISTING ELECTRICAL DAMAGED DURING REROOFING OPERATIONS.
 3. STAGGER JOINTS BETWEEN LAYERS OF POLYISO INSULATION. NO JOINTS BETWEEN LAYERS SHOULD ALIGN.
 4. IF EXISTING STRUCTURAL DECK IS SHOWING SIGNS OF RUST OR FAILURE, PLEASE NOTIFY ARCHITECT PRIOR TO PROCEEDING.
 5. INCLUDE REPLACEMENT OF (40) WATER-DAMAGED 2X4 CEILING TILE TO MATCH EXISTING.
 6. REMOVE ALL GRAVEL FROM ROOF SURFACE. DO NOT INSTALL MEMBRANE OVER ANY LOOSE GRAVEL ON ROOF SURFACE.



06/14/2019

**TULSA FIRE DEPARTMENT
ROOF REPLACEMENTS
TFD HEADQUARTERS**

PROJECT NO.: SP 17-12

**CITY OF TULSA, OKLAHOMA
ENGINEERING SERVICES DEPARTMENT**

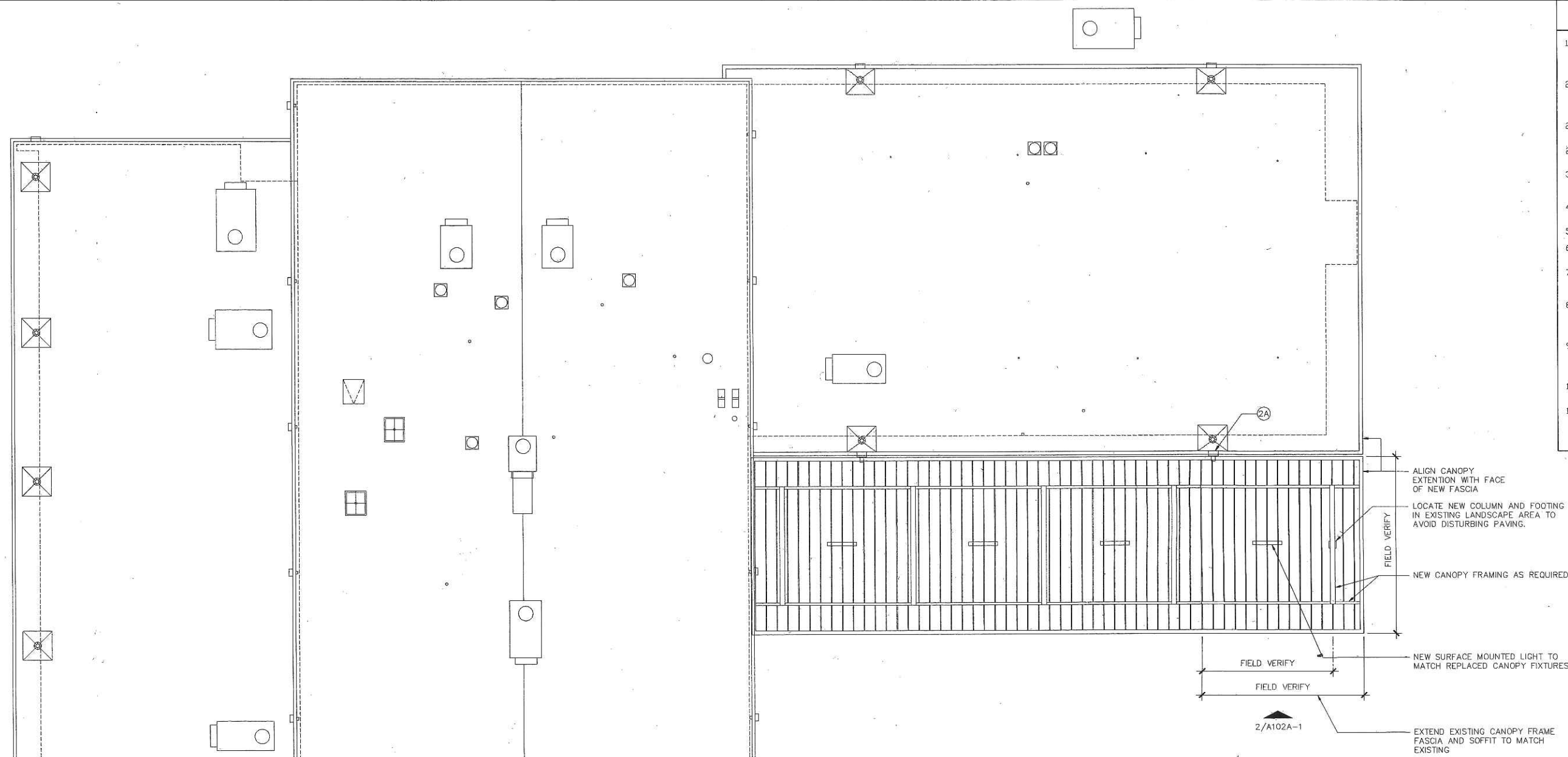
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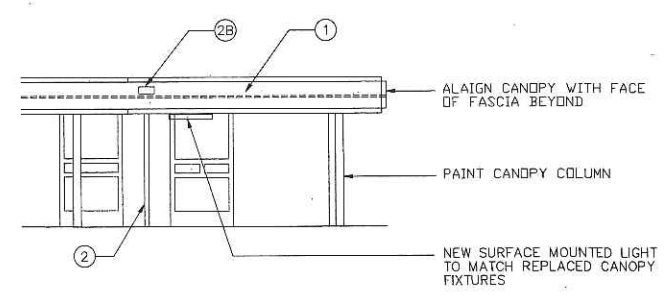
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					ATLAS PAGE NO:		SHEET 3 OF 13 SHEETS
					SHEET NAME:		SHEET NO.

KEYNOTES NOTES

1. INSTALL METAL FASCIA PANEL AND METAL SOFFIT PANELS AND ASSOCIATED TRIM. TYP. INSTALL METAL STUD STRUCTURAL SUPPORT FRAMING SYSTEM. COLOR: M1.
2. INSTALL ROOF DRAINS, DRAIN GUARDS, PIPING, PIPING INSULATION, SCUPPERS, SCUPPER BOXES, DOWNSPOUTS, AND ASSOCIATED HARDWARE TO MATCH EXISTING. TYP., PAINT P1.
- 2A INSTALL 8X16 ROOF OVERFLOW SCUPPER 3" ABOVE PRIMARY ROOF DRAIN. TYP.
- 2B ROUTE ROOF DRAIN AND SCUPPER TO DRAIN ONTO CANOPY ROOF THIS LOCATION.
3. INSTALL GUTTER AND COUNTER FLASHING TO MATCH EXISTING LOCATIONS AND SLOPE. TYP., PAINT P1.
4. INSTALL SEALANT AROUND WINDOWS, DOORS, AND MASONRY CONTROL JOINTS. TYP.
5. PAINT ALL PAINTED SURFACES, PAINT P1
6. CLEAN, REPAIR AND REINSTALL LIGHTING FIXTURES.
7. REPLACE ALL SOFFIT MOUNTED LED LIGHT FIXTURES TO MATCH EXISTING SIZE AND LUMENS.
8. PAINT EXISTING COLUMNS, STEEL BEAMS, NEW GUTTERS, AND DOWNSPOUTS. P1. INSTALL METAL SOFFIT PANELS COLOR: M2; METAL FASCIA COLOR: M1.
9. INSTALL EXTERIOR WATERTIGHT INSULATED DUCTWORK AND ASSOCIATED TRIM. WRAP DUCTWORK WITH EXTERIOR WEATHER TIGHT WHITE CLAD VINYL DUCT WRAP.
10. INSTALL EXTERIOR RATED DISCONNECTS AND WEATHER TIGHT CONDUIT.
11. REPAINT FLAGPOLE WITH COLD APPLIED ZINC GALVANIZED COATING. INCLUDING IN PAY ITEM 025 PAINTING & COATING.



1 ALTERNATE CANOPY PLAN
1/8" = 1'-0"



2 ALTERNATE CANOPY ELEVATION
1/8" = 1'-0"



06/14/2019

TULSA FIRE DEPARTMENT
ROOF REPLACEMENTS
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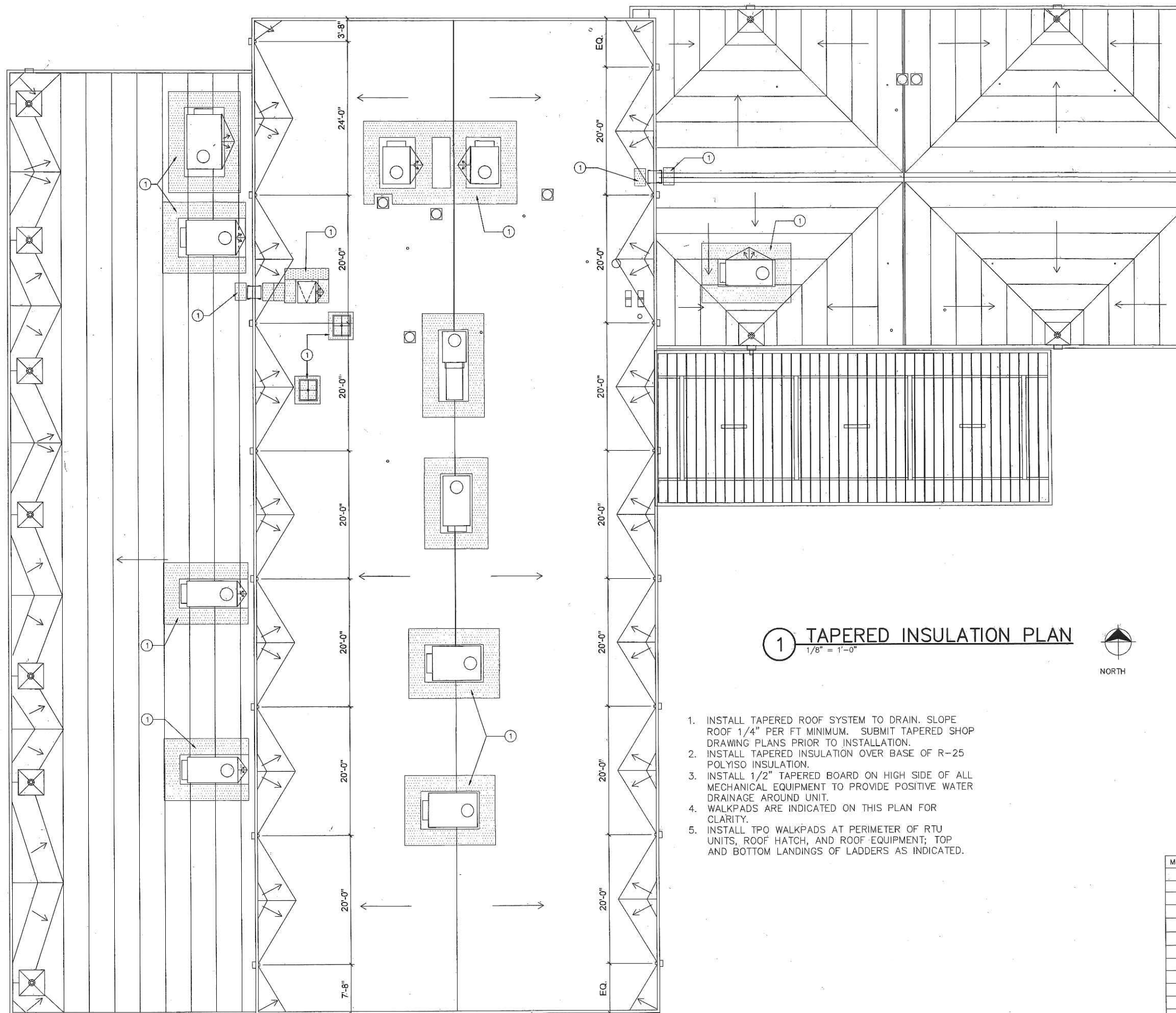
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				ALTERNATE CANOPY ROOF PLAN			A102A-1

KEYNOTES

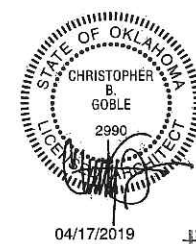
1. ROOFING SYSTEM WALKWAY PAD.



1 TAPERED INSULATION PLAN
1/8" = 1'-0"



1. INSTALL TAPERED ROOF SYSTEM TO DRAIN. SLOPE ROOF 1/4" PER FT MINIMUM. SUBMIT TAPERED SHOP DRAWING PLANS PRIOR TO INSTALLATION.
2. INSTALL TAPERED INSULATION OVER BASE OF R-25 POLYISO INSULATION.
3. INSTALL 1/2" TAPERED BOARD ON HIGH SIDE OF ALL MECHANICAL EQUIPMENT TO PROVIDE POSITIVE WATER DRAINAGE AROUND UNIT.
4. WALKPADS ARE INDICATED ON THIS PLAN FOR CLARITY.
5. INSTALL TPO WALKPADS AT PERIMETER OF RTU UNITS, ROOF HATCH, AND ROOF EQUIPMENT; TOP AND BOTTOM LANDINGS OF LADDERS AS INDICATED.



TULSA FIRE DEPARTMENT
ROOF REPLACEMENTS
TFD HEADQUARTERS

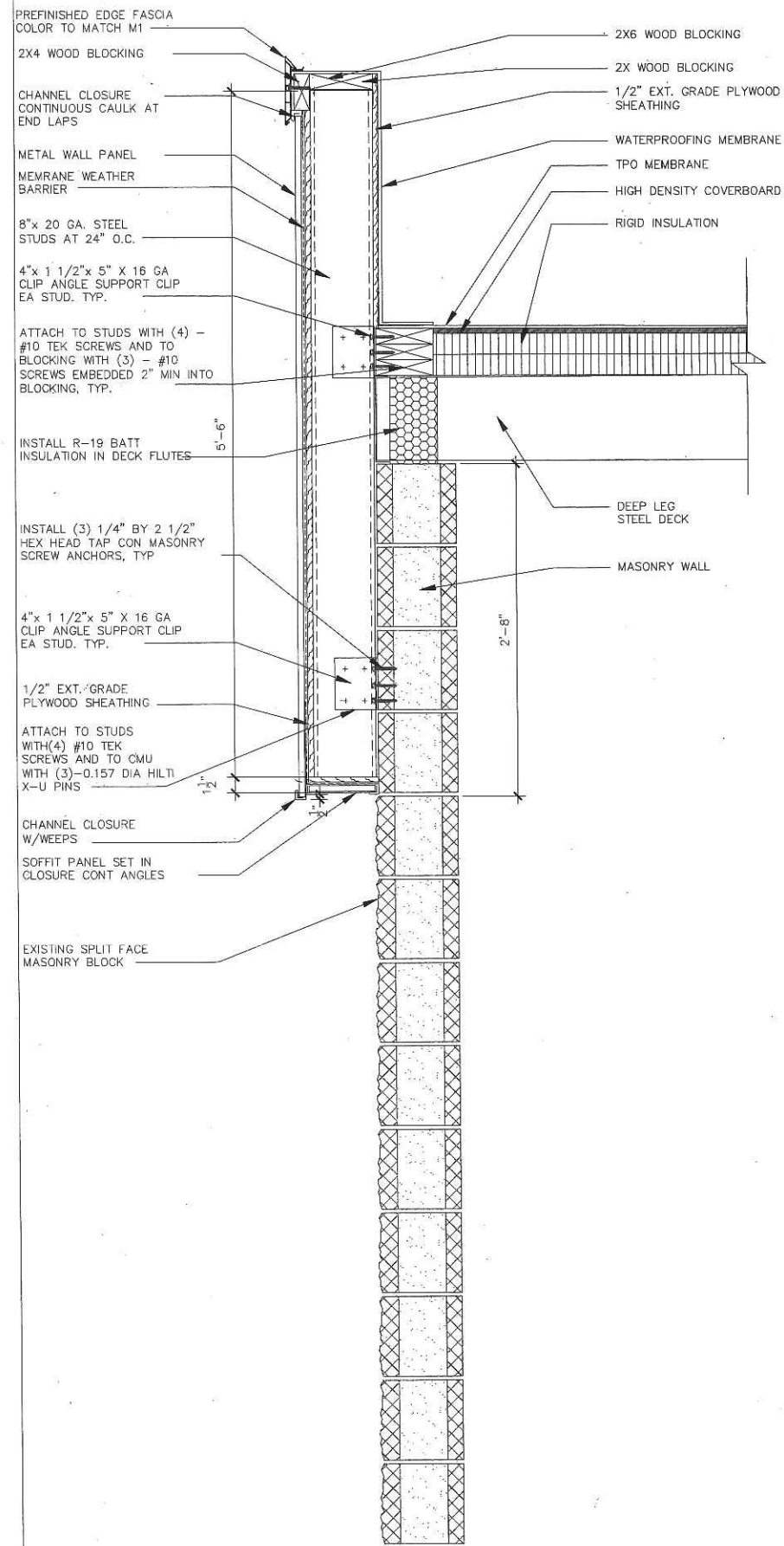
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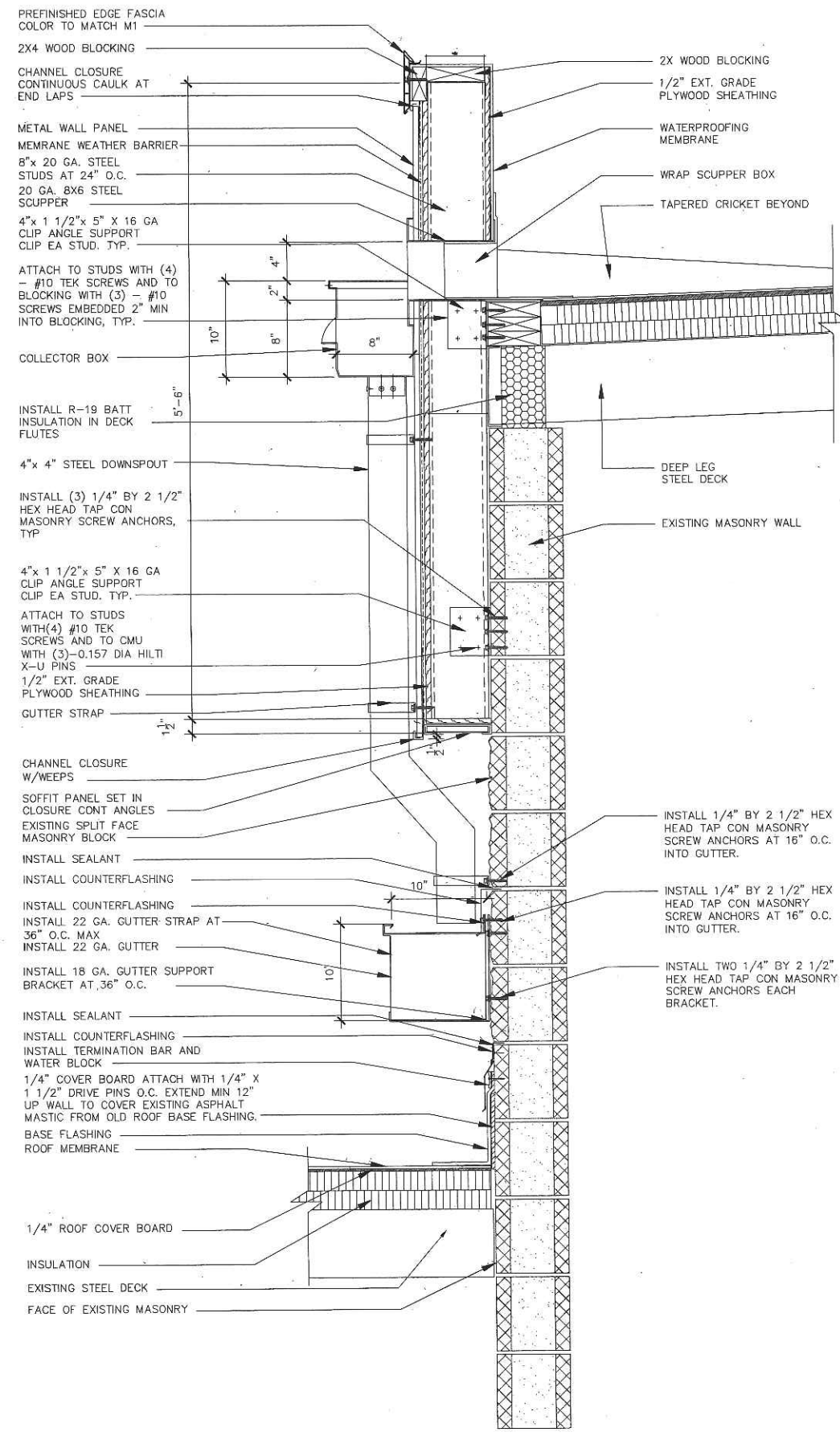
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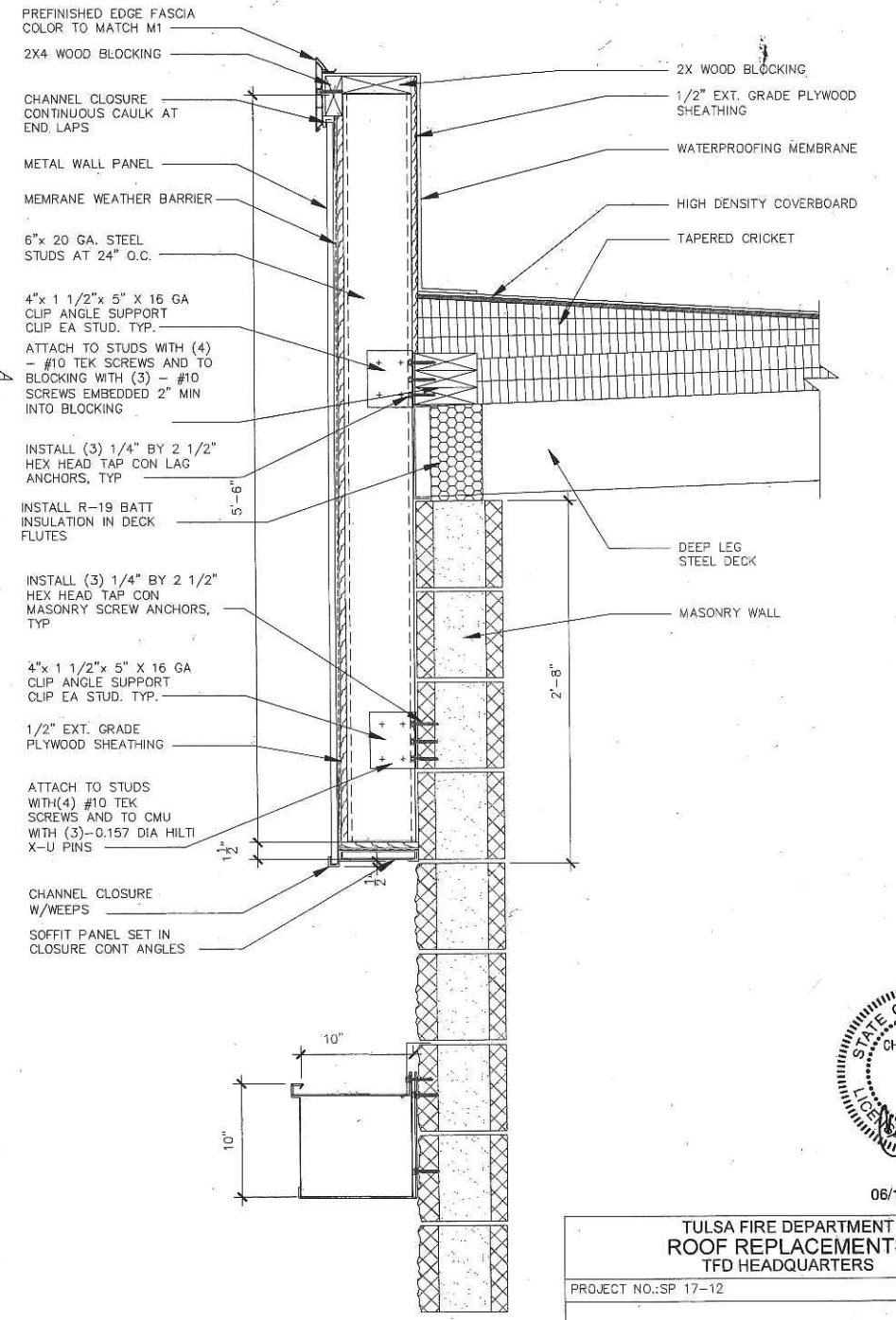
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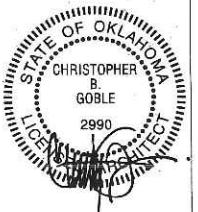
1 WALL SECTION
1 1/2"=1'-0"



2 WALL SECTION
1 1/2"=1'-0"



3 WALL SECTION
1 1/2"=1'-0"



06/14/2019

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ROOF REPLACEMENTS
TFD HEADQUARTERS
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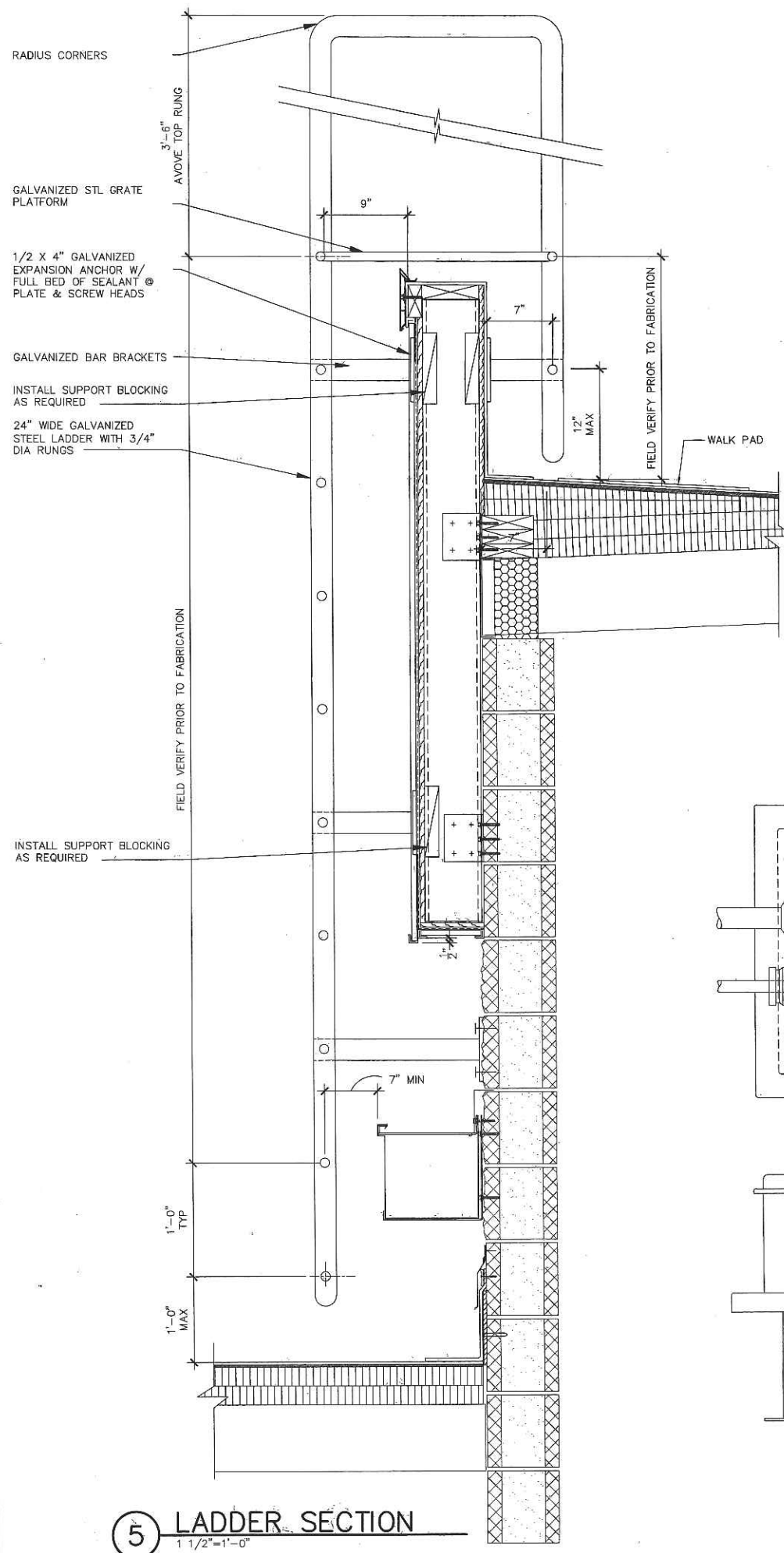
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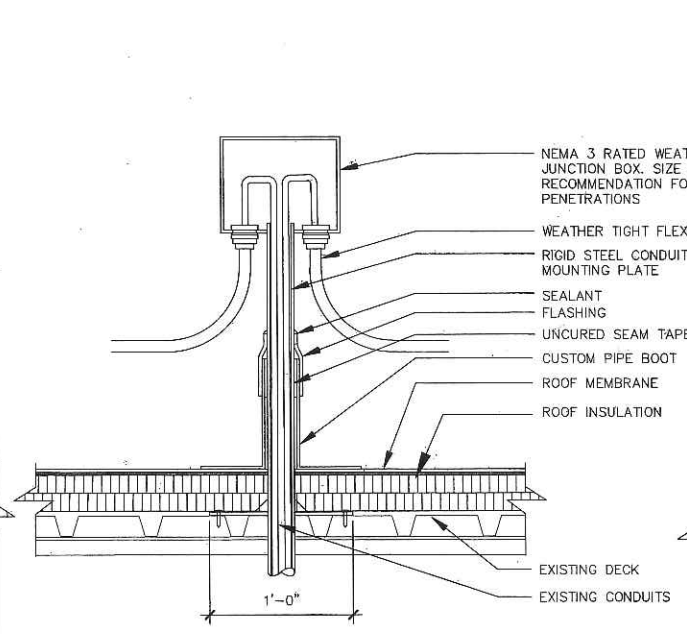
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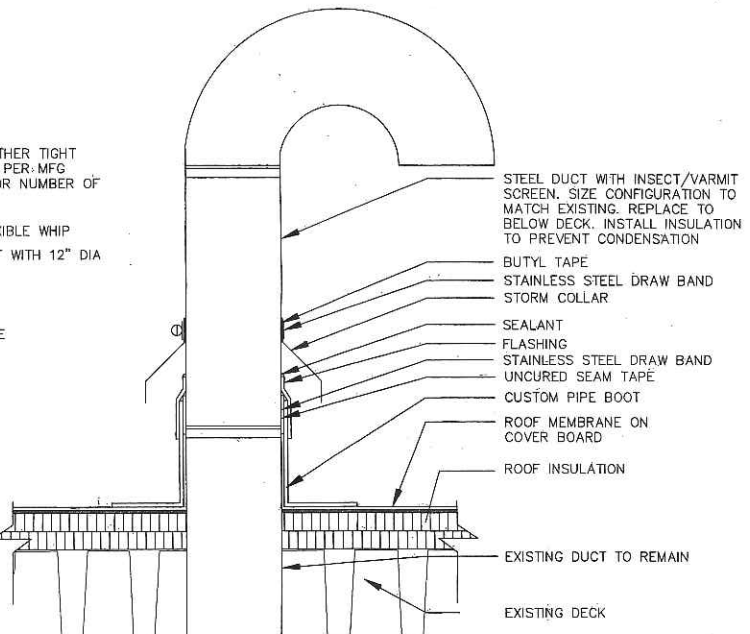
SECTIONS A401-1



5 LADDER SECTION
1 1/2" = 1'-0"



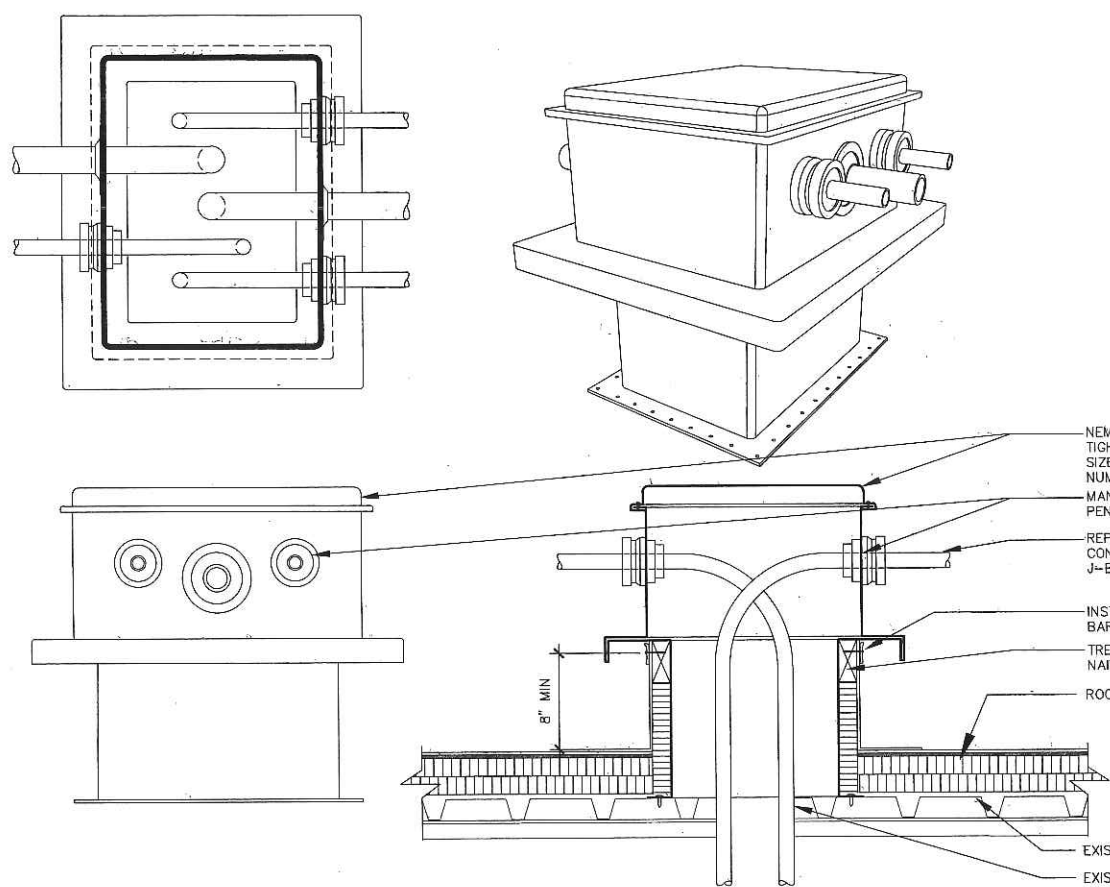
2 RTU CONDUIT INSTALLATION
1 1/2" = 1'-0"



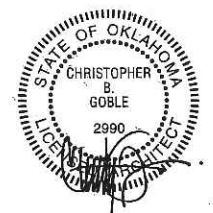
3 ROOF VENT REPLACEMENT
1 1/2" = 1'-0"

4 NOT USED

NOTE:
DEPTH OF INSULATION VARIES AT ALL DETAIL CONDITIONS REPRESENTED. REFER TO ROOF PLAN AND TAPERED INSULATION PLAN FOR REQUIRED SLOPES THAT DICTATE DEPTH.



1 RTU CONDUIT INSTALLATION
1 1/2" = 1'-0"



04/17/2019

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							A502-1

TULSA FIRE DEPARTMENT
ROOF REPLACEMENTS
TFD HEADQUARTERS

PROJECT NO.: SP 17-12

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ENGINEERING SERVICES DEPARTMENT

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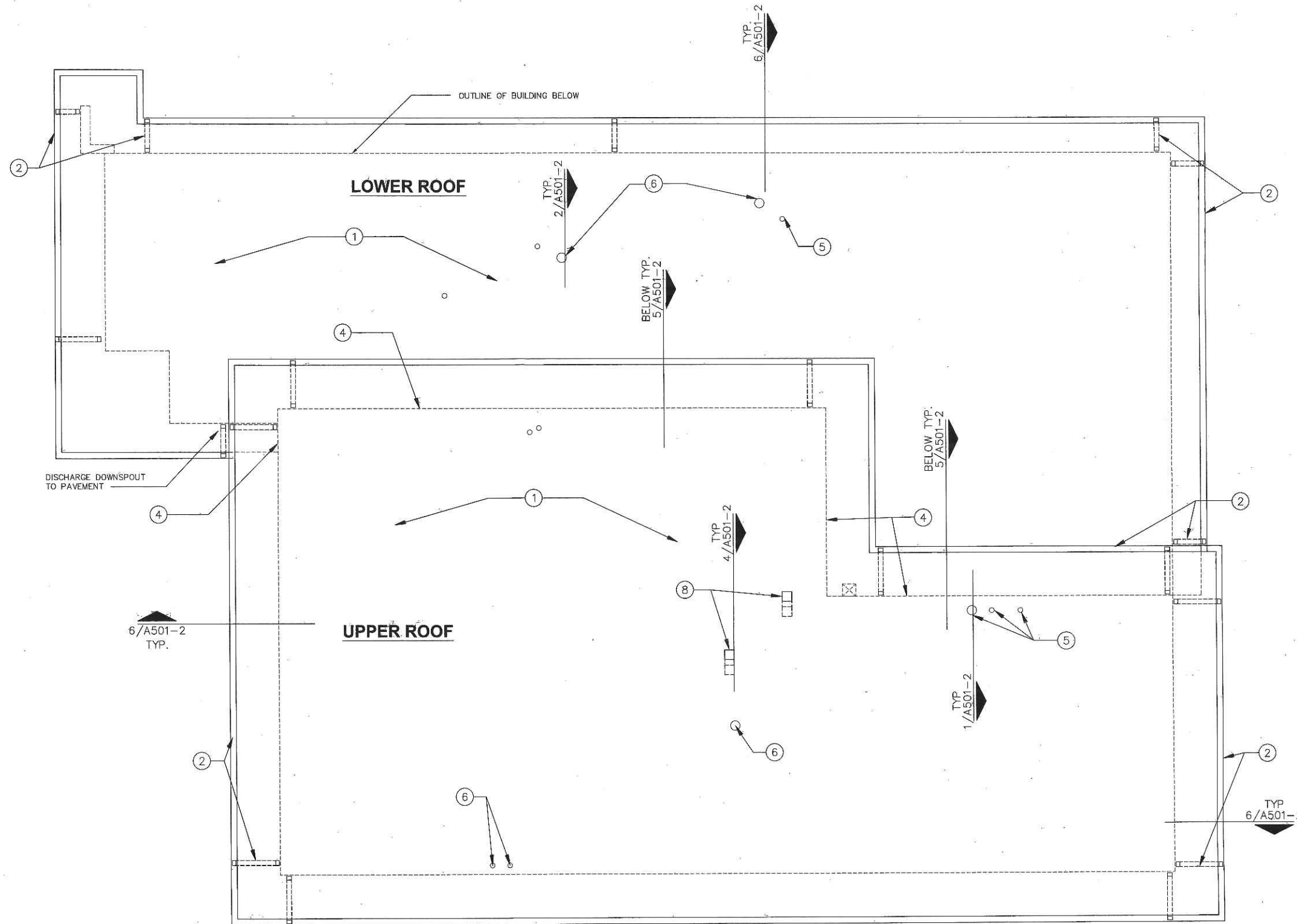
Christopher B. Goble, Architect
1457 South Boulder, Suite 350
Tulsa, Oklahoma 74119-3409
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F: 918.587.8601
www.sga-designgroup.com

GENERAL NOTES

- COORDINATE RE-ROOFING OPERATIONS TO PREVENT WATER INFILTRATION INTO BUILDING DURING CONSTRUCTION. CONTRACTOR WILL BE RESPONSIBLE FOR ANY WATER DAMAGES TO CONTENTS OF THE BUILDING DURING RE-ROOF OPERATIONS.
- COORDINATE ANY MECHANICAL FASTENERS WITH ELECTRICAL CONDUIT THAT MAY BE INSTALLED. CONTRACTOR WILL BE RESPONSIBLE TO REPAIR ANY EXISTING ELECTRICAL DAMAGED DURING REROOFING OPERATIONS.
- STAGGER JOINTS BETWEEN LAYERS OF POLYISO INSULATION. NO JOINTS BETWEEN LAYERS SHOULD ALIGN.
- INSTALL ALL TAPERED ROOF INSULATION TO PROVIDE 1/4" PER FOOT COUNTER SLOPE MINIMUM. INSTALL 1/2" TAPERED BOARD ON HIGH SIDE OF ANY MECHANICAL EQUIPMENT TO PROVIDE POSITIVE WATER DRAINAGE AROUND UNIT.
- IF EXISTING STRUCTURAL DECK IS SHOWING SIGNS OF CRACKING, NOTIFY ARCHITECT PRIOR TO PROCEEDING.
- DO NOT INSTALL MEMBRANE OVER ANY LOOSE GRAVEL OR DEBRIS ON ROOF SURFACE.
- INSTALL BASE LAYERS OF POLY ISO TO PROVIDE A TOTAL R-VALUE OF R-25 UNDER TAPERED INSULATION.
- ROOF SLOPE TO BE NO LESS THAN 1/4" PER FOOT TOWARD DRAINS.
- FLASH ALL ELECTRICAL PENETRATIONS THRU ROOF PER 3/A501-2.

KEYNOTES NOTES

- INSTALL FULLY ADHERED 80 MIL TPO ROOFING SYSTEM OVER 1/4" DENSDECK OR HIGH IMPACT RECOVERY BOARD. INSTALL 1/4" PER FOOT TAPERED POLY ISO INSULATION SYSTEM TO DIRECT WATER TO EXISTING ROOF DRAINS. INSTALL 1 1/2" BASE LAYER OF POLY ISO INSULATION OVER EXISTING DECK.
- INSTALL 4"x4" GUTTERS AND 4"x4" DOWNSPOUTS WITH PRE-FINISHED METAL. COLOR - BERRIDGE CHARCOAL GREY. PROVIDE NEW CONCRETE SPLASH BLOCKS AT ALL TERMINATIONS AT LOWER ROOF AND AT GRADE, UNLESS NOTED OTHERWISE.
- NOT USED.
- INSTALL 1/4" COVER BOARD OVER EXISTING BITUMEN MASTIC AT BASE FLASHINGS. INSTALL BASE FLASHING AND COUNTERFLASHINGS.
- INSTALL FLASHING BOOTS AT ALL PLUMBING PENETRATIONS. RAISE PLUMBING VENTS AS REQUIRED TO MEET MINIMUM HEIGHT ABOVE ROOFING REQUIRED FOR WARRANTY.
- REPLACE ALL FLUE CAPS WITH NEW.
- NOT USED.
- INSTALL ALL NEW AIR DUCTWORK TO MATCH EXISTING. PROVIDE BIRD/INSECT SCREENS.



1 ROOF PLAN
1/4" = 1'-0"



TULSA FIRE DEPARTMENT
ROOF REPLACEMENTS
TFD EMS BUILDING
PROJECT NO.: SP 17-12
CITY OF TULSA, OKLAHOMA
ENGINEERING SERVICES DEPARTMENT

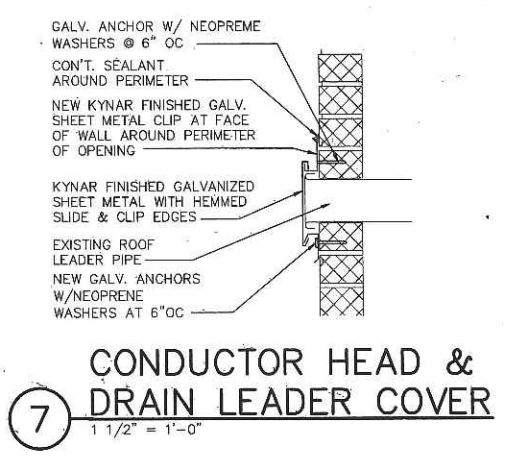


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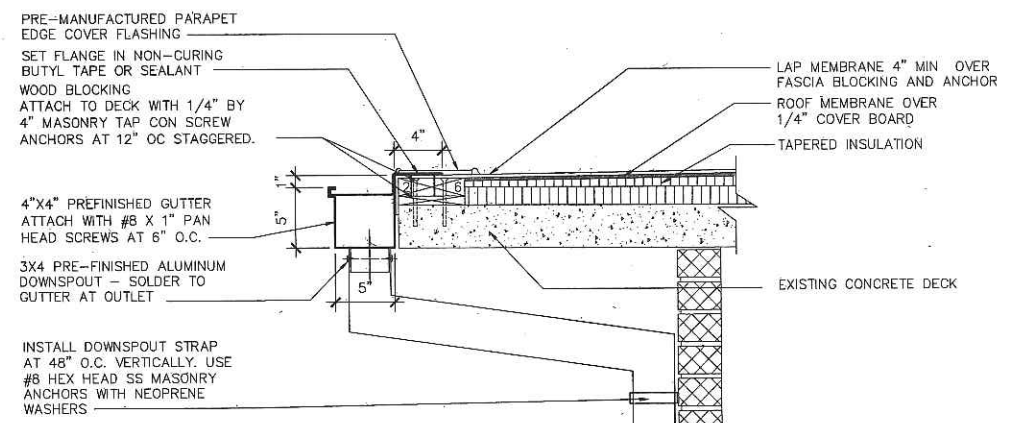
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04/17/2019

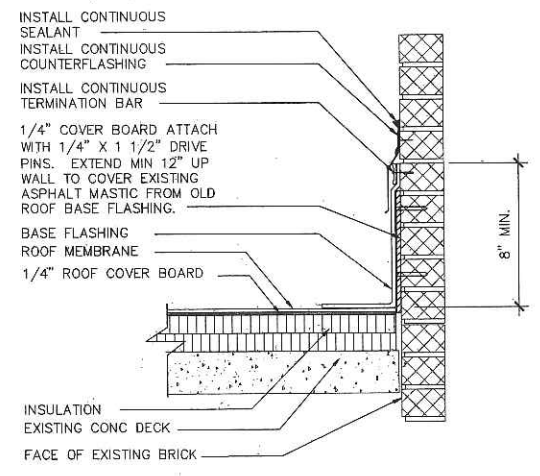
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					ATLAS PAGE NO:		SHEET 3 OF 5 SHEETS
					SHEET NAME:		SHEET NO.
					ROOF PLAN		A102-2



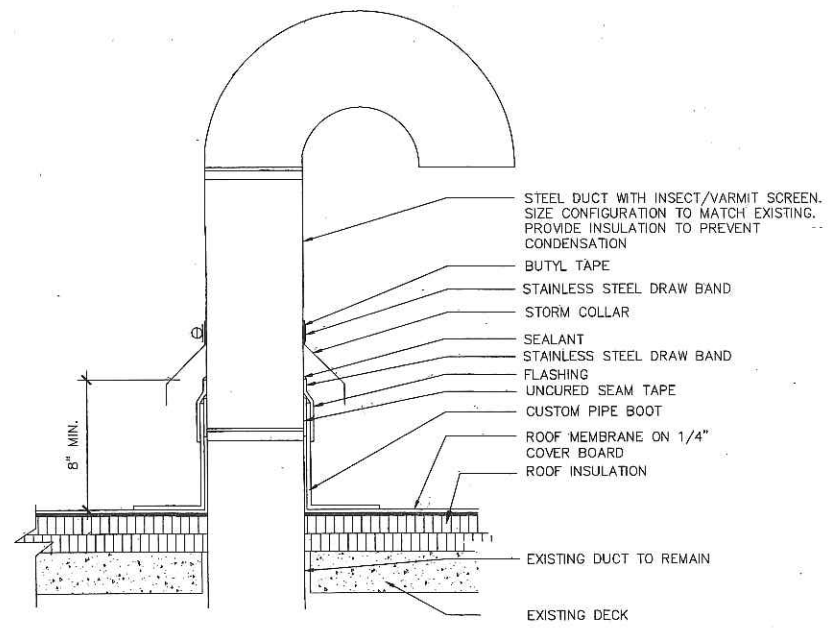
7 CONDUCTOR HEAD & DRAIN LEADER COVER
1 1/2" = 1'-0"



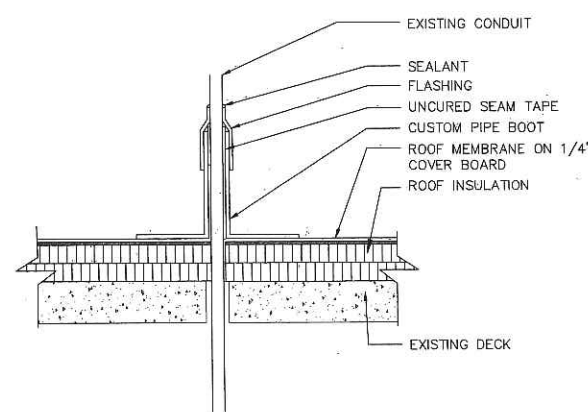
6 EDGE FLASHING
1 1/2" = 1'-0"



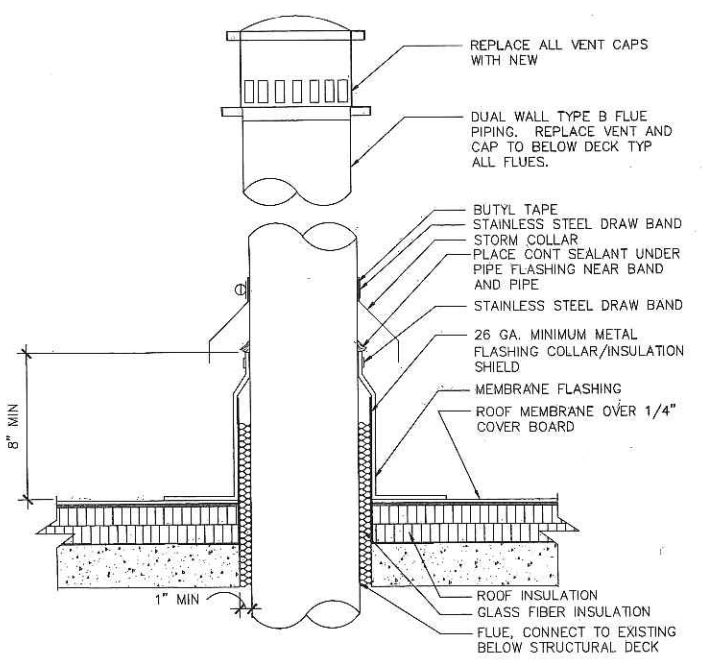
5 FLASHING MEMBRANE
1 1/2" = 1'-0"



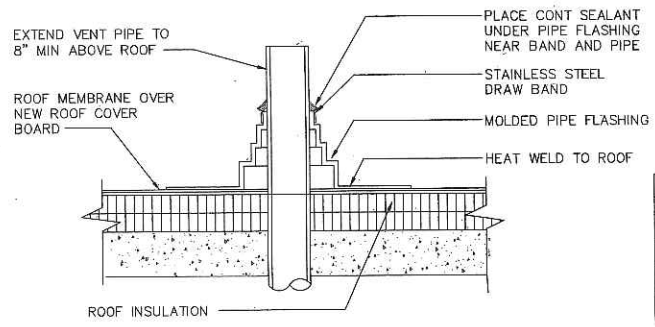
4 ROOF VENT REPLACEMENT
1 1/2" = 1'-0"



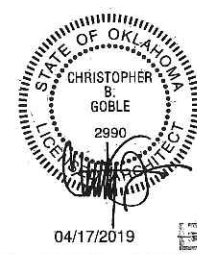
3 CONDUIT PENETRATION
1 1/2" = 1'-0"



2 FLUE PENETRATION
1 1/2" = 1'-0"



1 PENETRATION
1 1/2" = 1'-0"



TULSA FIRE DEPARTMENT
ROOF REPLACEMENTS
TFD EMS BUILDING
PROJECT NO.: SP 17-12

CITY OF TULSA, OKLAHOMA
ENGINEERING SERVICES DEPARTMENT

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MK	REVISION	BY	DATE	PLAN SCALE:	DRAWN	DATE	APPROVED:
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					nwe	04/2019	
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				1" =	LEAD ENGR.	5/19	
				HORIZONTAL:	FIELD MGR.	5/19	
				1" =	RECOMMENDED:		
				VERTICAL:	HAR	6-17	
				1" =	DESIGN MANAGER		
				FILE:	DRAWING:		DATE: 6/14/19
				ATLAS PAGE NO:			SHEET 5 OF 5 SHEETS
				SHEET NAME:			SHEET NO.
				ROOF DETAILS			A501-2

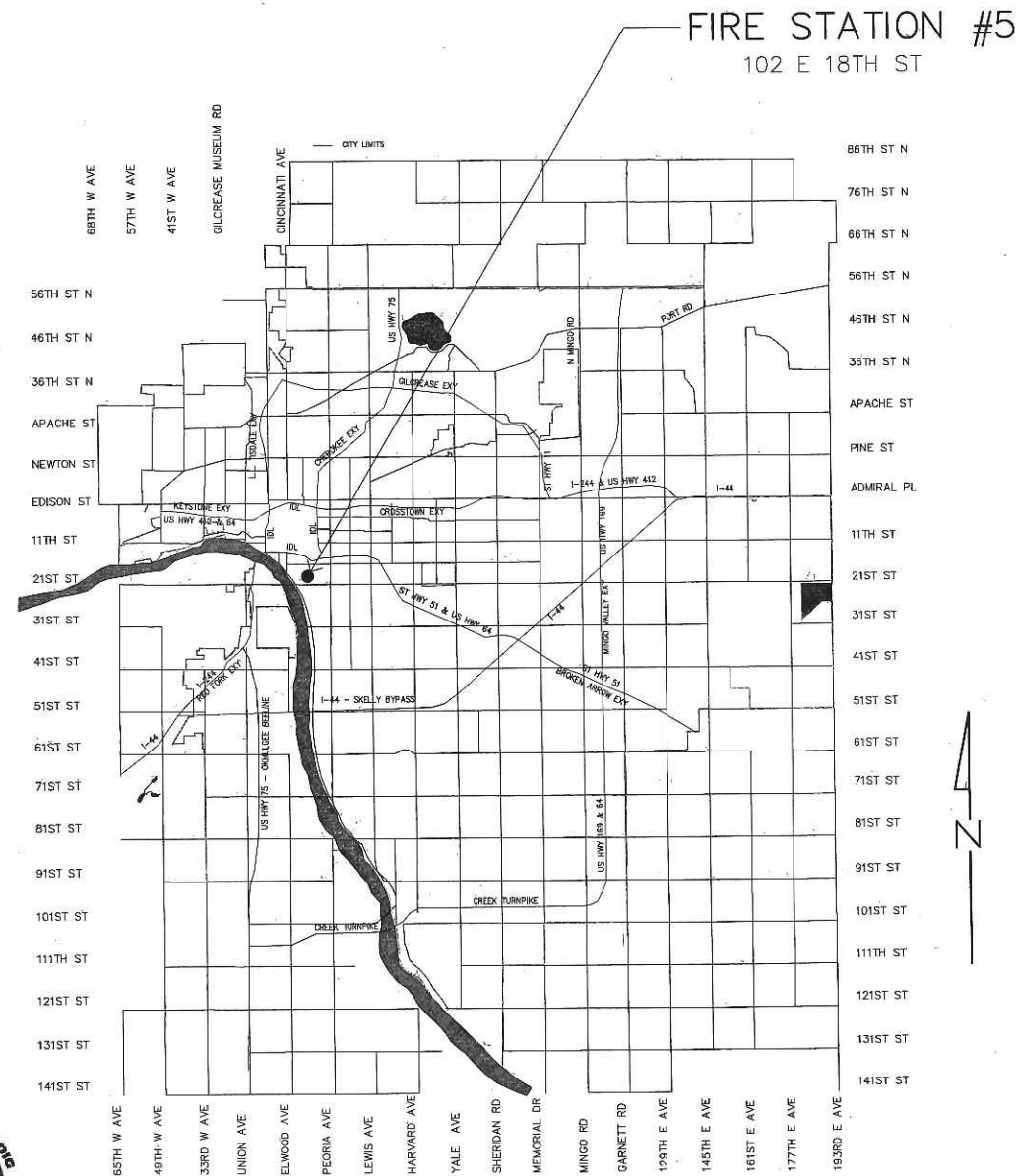
DRAWING INDEX

SHEET NO	TITLE
FIRE STATION #5	
CS-3	BUILDING COVER SHEET
A101-3	ROOF PLANS
A501-3	ROOF DETAILS
A502-3	ROOF DETAILS
STRUCTURAL	
S001-3	GENERAL NOTES
S002-3	SPECIAL INSPECTIONS
S101-3	ROOF FRAMING PLAN & DETAILS
MECHANICAL	
M100-3	HVAC NOTES
M101-3	HVAC PLANS

CONSTRUCTION PLANS FOR
TULSA FIRE DEPARTMENT
ROOF REPLACEMENTS
STATION #5
 102 EAST 18TH STREET

GENERAL NOTES

1. ALL CONSTRUCTION SHALL BE IN STRICT ACCORDANCE WITH CURRENT CITY OF TULSA ORDINANCES, ENGINEERING SERVICES STANDARDS SPECIFICATIONS AND STANDARD DETAILS, (CITY OF TULSA ORDINANCE AND CODES AMENDMENTS SUPERCEDE NATIONAL CODES)
2. CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO ALL STRUCTURES, LANDSCAPING, PAVING AND ANY OTHER ITEMS LOCATED WITHIN AND OUTSIDE THE WORK AREA. ANY DAMAGE TO PERMANENT ITEMS INCURRED BY THE CONTRACTOR THROUGH HIS WORK IN THIS CONTRACT SHALL BE REPAIRED TO ORIGINAL CONDITION, BY THE CONTRACTOR AT HIS OWN EXPENSE.
3. CONTRACTORS WILL COORDINATE WITH IDENTIFIED MAINTENANCE OPERATIONS PERSONNEL FOR APPLICATION, SHUT OFF AND REMOVAL OF ALL UTILITIES.
4. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND QUANTITIES.



UTILITY COORDINATION BOX		
	NUMBER	NOTIFIED
ENGINEERING SERVICES		
WATER DESIGN	918-596-9566	
WASTEWATER DESIGN	918-596-9564	
TRANSPORTATION DESIGN	918-596-9636	
TRAFFIC ENGINEERING DESIGN	918-596-9749	
STORMWATER DESIGN	918-596-9498	
OKLAHOMA NATURAL GAS CO.		
COX COMMUNICATIONS	918-831-8293	
PUBLIC SERVICE CO. / AEP	918-286-4666	
AT&T	918-599-2233	
	918-576-2142	



TULSA FIRE DEPARTMENT
 ROOF REPLACEMENTS
 STATION #5

PROJECT NO.: SP 17-12

CITY OF TULSA, OKLAHOMA
 ENGINEERING SERVICES DEPARTMENT

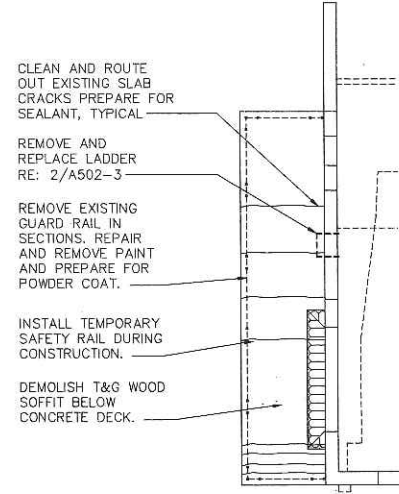
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 1437 South Boulder, Suite 550
 Tulsa, Oklahoma 74119-3609
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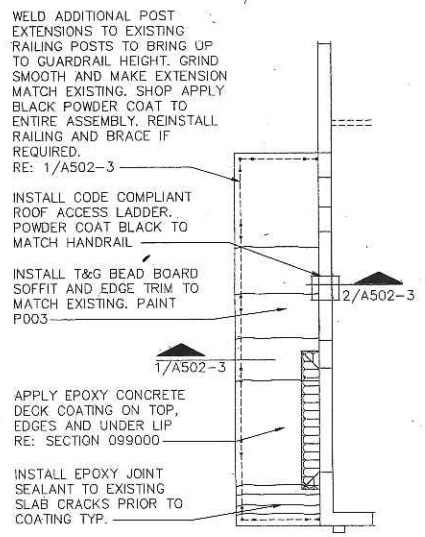
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				HORIZONTAL:	FIELD MGR.	05/19	
				VERTICAL:	RECOMMENDED:		
				1" =	DESIGN MANAGER		
				FILE:	DRAWING:		
				ATLAS PAGE NO:			
				SHEET NAME:	BUILDING COVER SHEET		

COLOR SCHEDULE	
P001	SAFETY YELLOW
P002	BLACK
P003	SHERWIN WILLIAMS #7564 POLAR BEAR

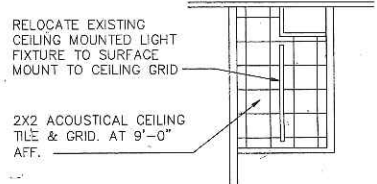
- | GENERAL NOTES | |
|---------------|--|
| 1. | REMOVE EXISTING ROOF SYSTEM, INSULATION, WOOD BLOCKING AND FLASHINGS DOWN TO STRUCTURAL DECK. |
| 2. | PROVIDE NOT LESS THAN 72 HOURS' NOTICE TO OWNER OF ACTIVITIES THAT WILL AFFECT OWNER'S OPERATIONS. |
| 3. | REMOVE EXISTING ROOFTOP EQUIPMENT FOR CURB REPLACEMENT. SECURELY STORE UNITS TO BE RE-INSTALLED. COORDINATE CURB SIZE WITH EXISTING UNIT, SHEET METAL CURB ADAPTOR, ROOF OPENING AND EXISTING DUCTWORK. COORDINATE REMOVAL/REINSTALLATION TIMING WITH OWNER. |
| 4. | COORDINATE RE-ROOFING OPERATIONS TO PREVENT WATER INFILTRATION INTO BUILDING DURING CONSTRUCTION. CONTRACTOR WILL BE RESPONSIBLE FOR ANY WATER DAMAGES TO CONTENTS OF THE BUILDING DURING RE-ROOF OPERATIONS. |
| 5. | COORDINATE ANY MECHANICAL FASTENERS WITH ELECTRICAL CONDUIT THAT MAY BE INSTALLED. CONTRACTOR WILL BE RESPONSIBLE TO REPAIR ANY EXISTING ELECTRICAL DAMAGED DURING REROOFING OPERATIONS. |
| 6. | STAGGER JOINTS BETWEEN LAYERS OF POLYISO INSULATION. NO JOINTS BETWEEN LAYERS SHOULD ALIGN. |
| 7. | INSTALL ALL TAPERED ROOF INSULATION TO PROVIDE 1/4" PER FOOT COUNTER SLOPE MINIMUM. INSTALL 1/2" TAPERED BOARD ON HIGH SIDE OF ALL MECHANICAL EQUIPMENT TO PROVIDE POSITIVE WATER DRAINAGE AROUND UNIT. |
| 8. | IF EXISTING STRUCTURAL DECK IS SHOWING SIGNS OF DEGRADATION OR CRACKING, NOTIFY ARCHITECT PRIOR TO PROCEEDING. |
| 9. | ALL METAL OR PVC PIPING, AND CONDUITS SHALL BE ELEVATED ABOVE ROOF MEMBRANE AT ALL POINTS ON SUPPORT UNITS, REF 3/A502-3 |
| 10. | ELECTRICAL CONDUCTORS AND CONDUITS SHALL NOT BE IN CONTACT WITH GAS PIPING. |
| 11. | ALL ROOF TOP EQUIPMENT EXPOSED SCREW FASTENERS SHALL BE PROVIDED WITH NEOPRENE GASKETS. |



3 2ND FLOOR PATIO DEMOLITION PLAN
1/8" = 1'-0"

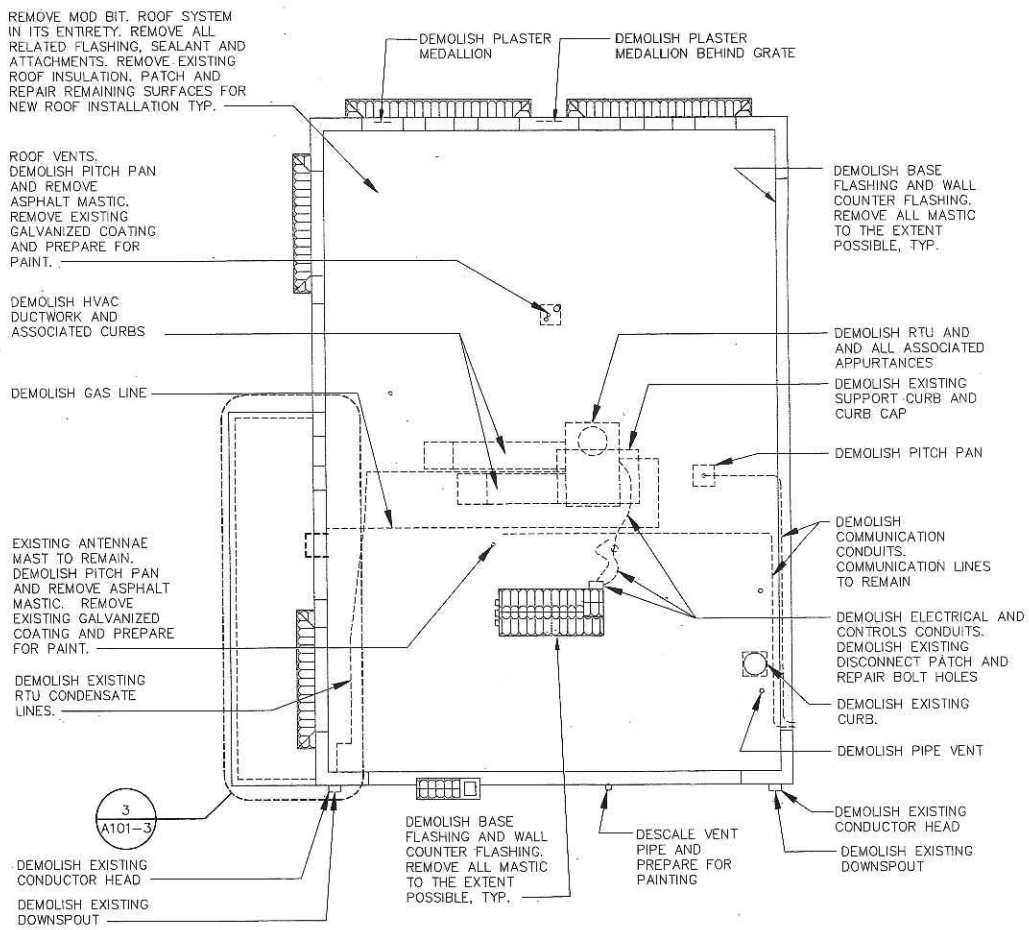


4 2ND FLOOR PATIO PLAN
1/8" = 1'-0"

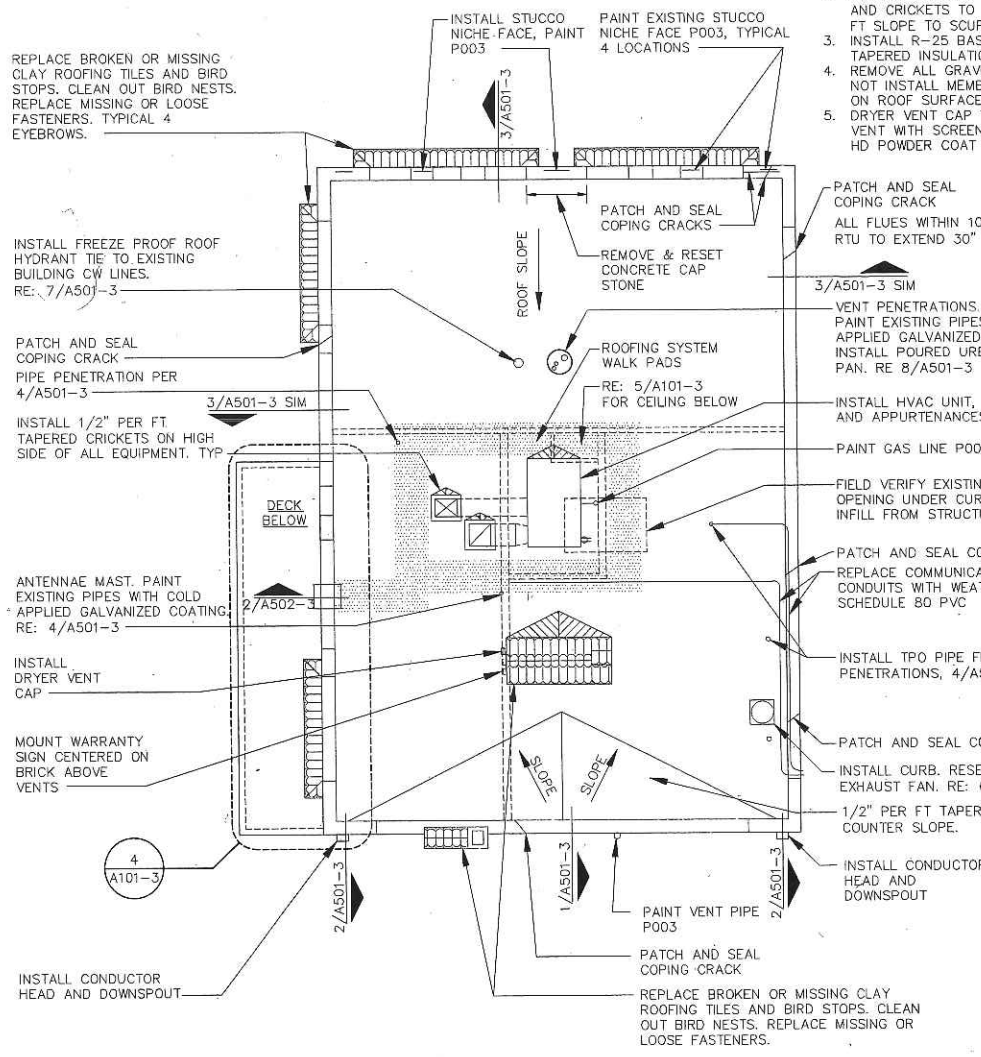


5 2ND FLOOR STAIRWELL CEILING
1/8" = 1'-0"

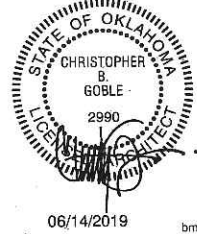
- NOTES:
1. INCLUDE REPLACEMENT OF (16) WATER-DAMAGED 2X4 CEILING TILE TO MATCH EXISTING.
 2. PROVIDE TAPERED INSULATION OVER ENTIRE ROOF AND CRICKETS TO RESULT IN MINIMUM 1/4" PER FT SLOPE TO SCUPPERS
 3. INSTALL R-25 BASE LAYER OF POLY ISO UNDER TAPERED INSULATION.
 4. REMOVE ALL GRAVEL FROM ROOF SURFACE. DO NOT INSTALL MEMBRANE OVER ANY LOOSE GRAVEL ON ROOF SURFACE.
 5. DRYER VENT CAP TO BE: FAMCO HOODED WALL VENT WITH SCREEN, DAMPER, SPRING & GASKET. HD POWDER COAT BLACK.



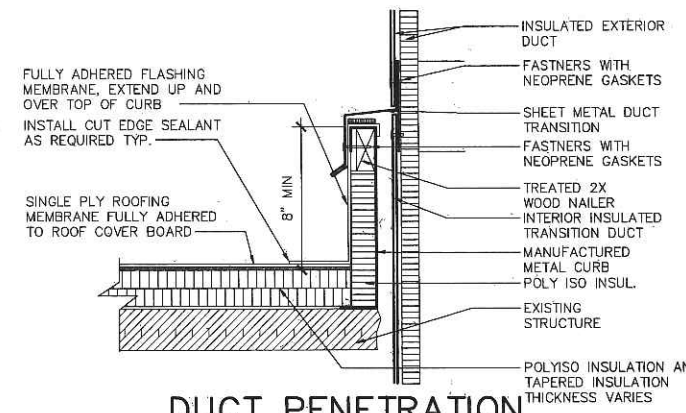
1 ROOF DEMOLITION PLAN
1/8" = 1'-0"



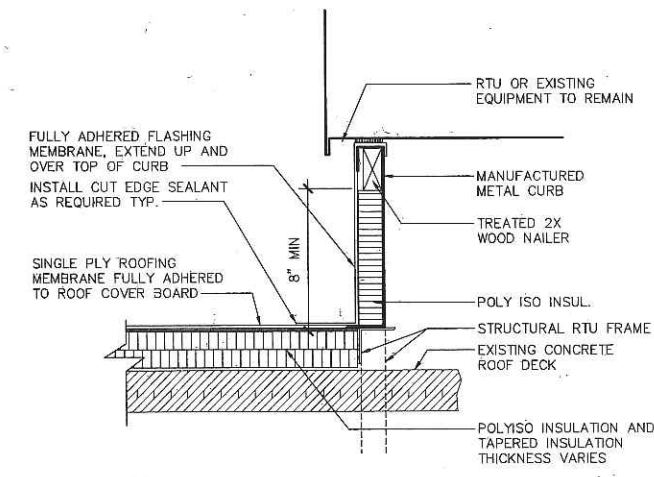
2 ROOF PLAN
1/8" = 1'-0"



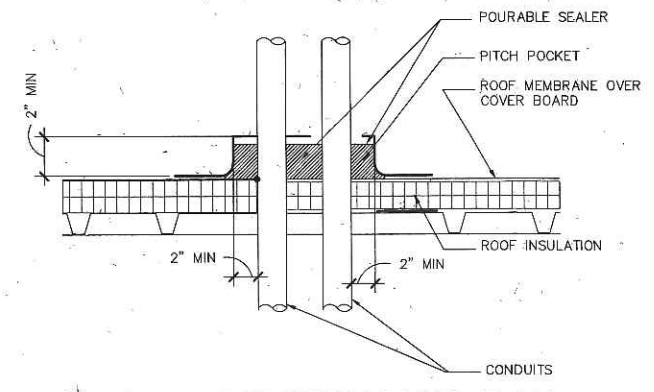
TULSA FIRE DEPARTMENT ROOF REPLACEMENTS STATION #5								
PROJECT NO.: SP 17-12								
CITY OF TULSA, OKLAHOMA ENGINEERING SERVICES DEPARTMENT								
Christopher B. Goble, Architect 1437 South Boulder, Suite 550 Tulsa, Oklahoma 74119-3509 p: 918.587.8600 f: 918.587.8501 www.sgadesigngroup.com								
SGA Design Group, P.C.								
06/14/2019 bnm								
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							SHEET NO.	
							A101-3	



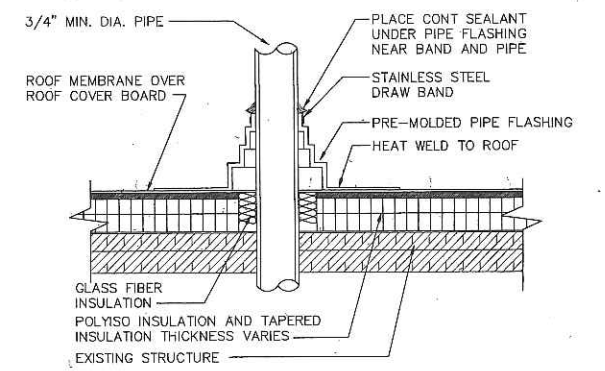
5A DUCT PENETRATION CURB DETAIL
1 1/2" = 1'-0"



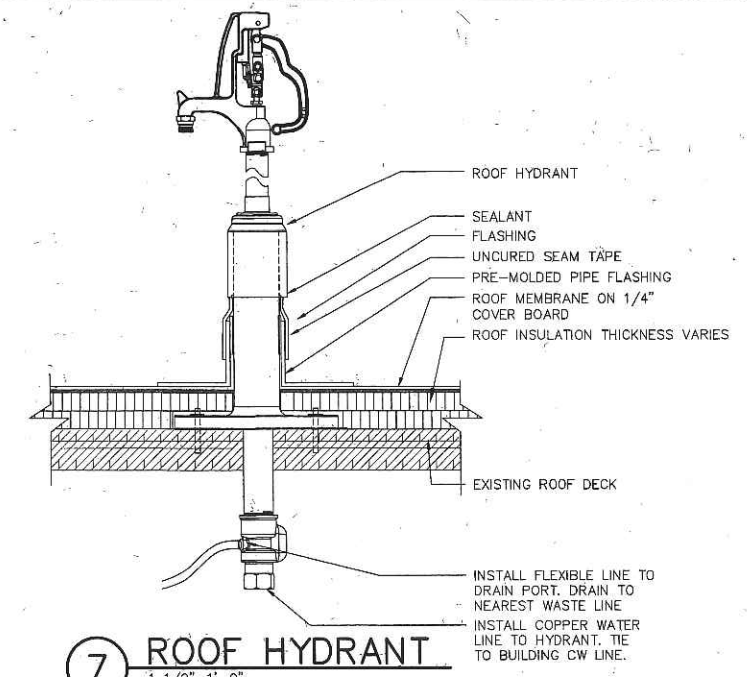
5 EQUIPMENT CURB DETAIL
1 1/2" = 1'-0"



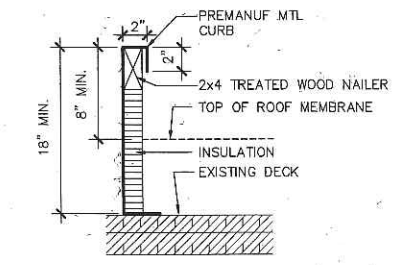
8 PIPE PENETRATION PAN
1-1/2" = 1'-0"



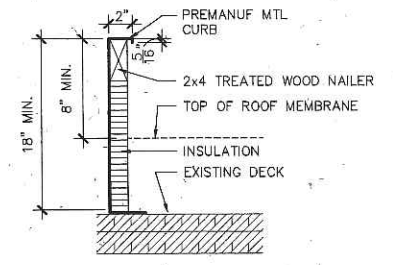
4 PENETRATION
1 1/2" = 1'-0"



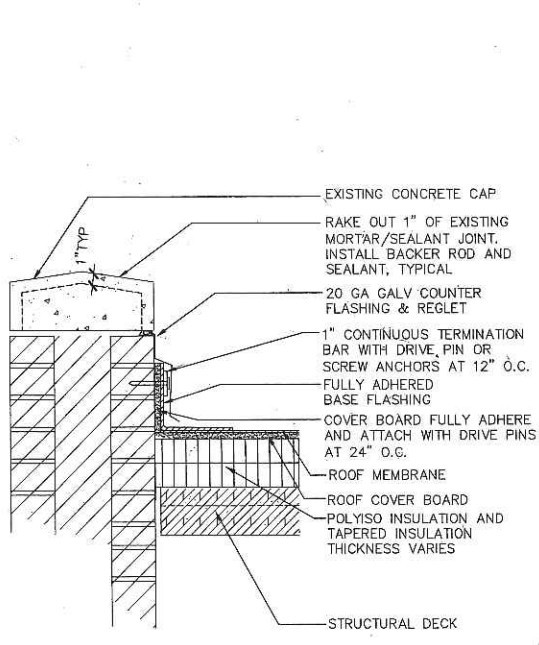
7 ROOF HYDRANT
1 1/2" = 1'-0"



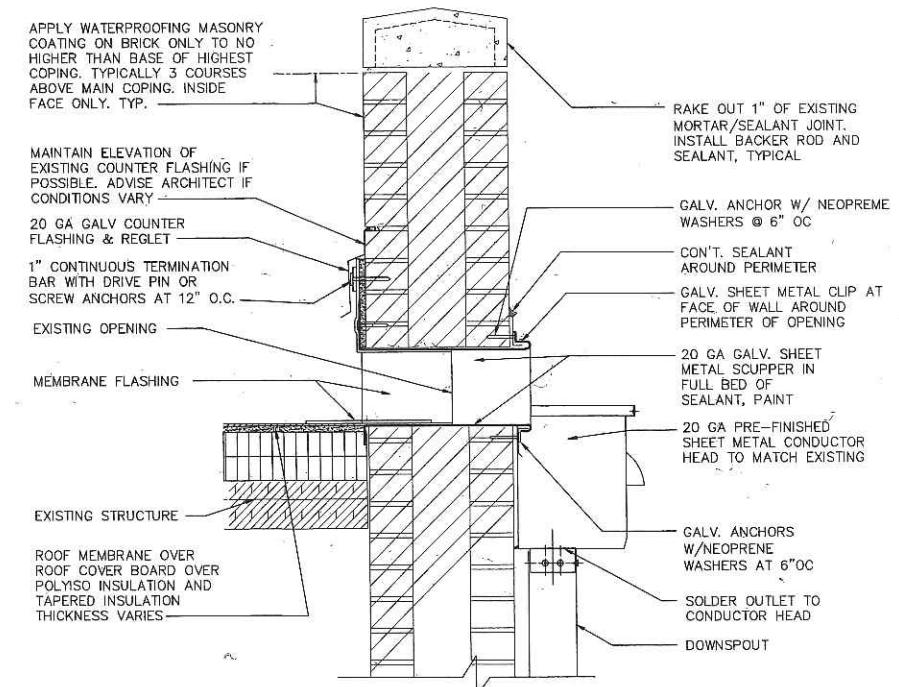
6 STRUCTURAL CURB (RTU)
RTU's AND LARGE MECHANICAL EQUIPMENT
IDENTIFY AND DIMENSIONALLY LOCATE EXISTING STRUCTURAL FRAMING IN CURB SUBMITTAL TO ARCHITECT



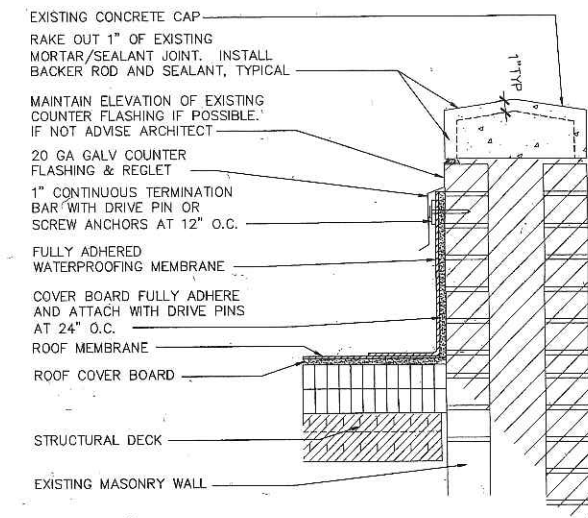
6 NON-STRUCTURAL CURB
EXHAUST FANS AND UNITS UNDER 150 LBS
ROOF INSULATION NOT SHOWN FOR CLARITY



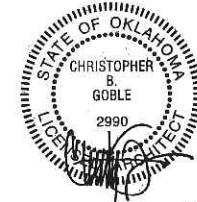
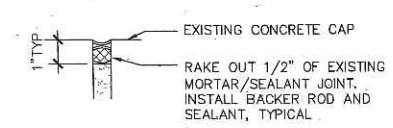
3 FLASHING MEMBRANE
1 1/2" = 1'-0"



2 THROUGH WALL SCUPPER AND DOWNSPOUT DETAIL
1 1/2" = 1'-0"



1 FLASHING MEMBRANE
1 1/2" = 1'-0"

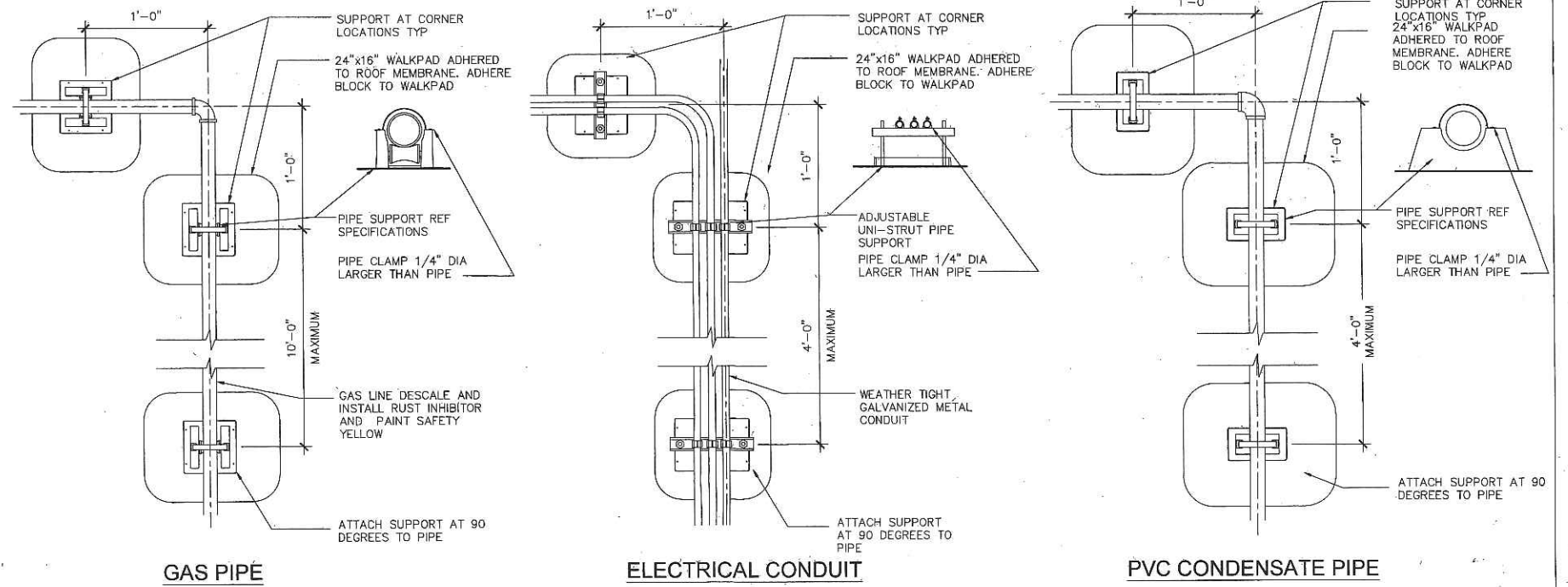


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				ATLAS PAGE NO:			SHEET 3 OF 9 SHEETS
				SHEET NAME:			SHEET NO.
					ROOF DETAILS		A501-3

TULSA FIRE DEPARTMENT
ROOF REPLACEMENTS
STATION #5
PROJECT NO.: SP 17-12
CITY OF TULSA, OKLAHOMA
ENGINEERING SERVICES DEPARTMENT

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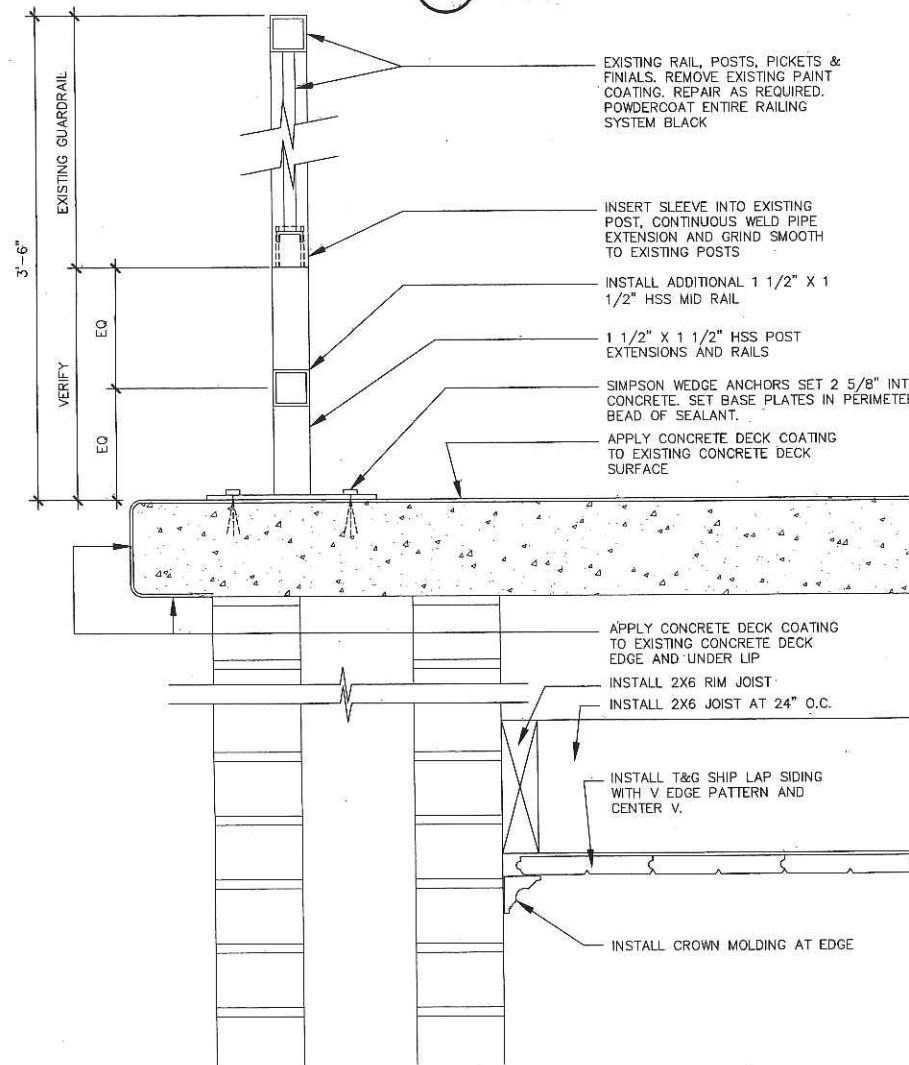


GAS PIPE

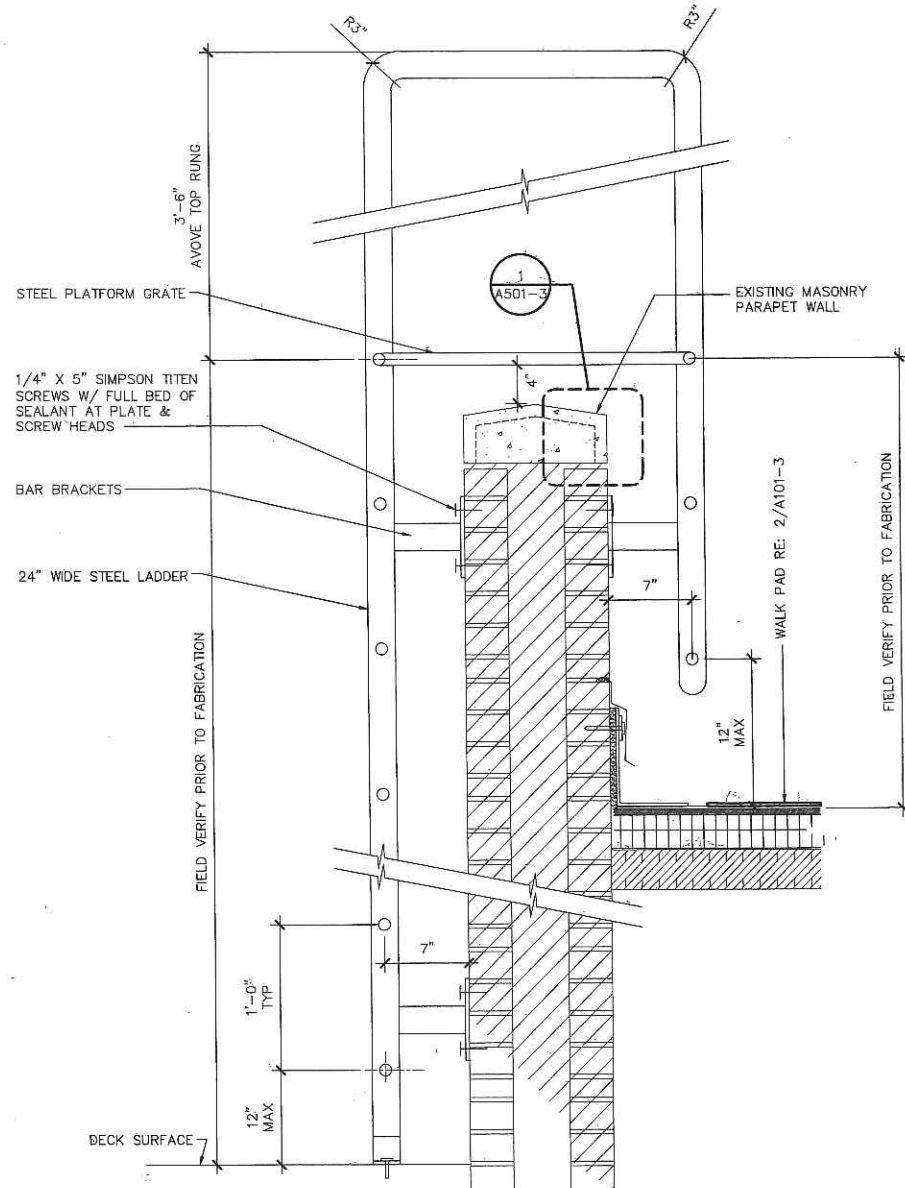
ELECTRICAL CONDUIT

PVC CONDENSATE PIPE

3 PIPING SUPPORT PLAN
1"=1'-0"



1 GUARDRAIL POST EXTENSION
3"=1'-0"



2 ROOF ACCESS LADDER
1 1/2"=1'-0"



04/17/2019

**TULSA FIRE DEPARTMENT
ROOF REPLACEMENTS
STATION #5**

PROJECT NO.: SP 17-12

**CITY OF TULSA, OKLAHOMA
ENGINEERING SERVICES DEPARTMENT**

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MK	REVISION	BY	DATE	PLAN SCALE:	DRAWN	nwe	04/2019	APPROVED:
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				1" =				
				FILE:	DRAWING:			
				ATLAS PAGE NO:				
				SHEET NAME:				
					ROOF DETAILS			

GENERAL NOTES

DESIGN PARAMETERS

- BUILDING CODE:** 2015 INTERNATIONAL BUILDING CODE
- DEAD LOADS:**
 - ROOF: 20 PSF
- LIVE LOADS:**
 - ROOF: 20 PSF (UNIFORM)
- SNOW LOADS:**
 - GROUND SNOW LOAD, F_g : 10 PSF
- WIND LOADS:**
 - BASIC WIND SPEED (3 SECOND GUST): 115 MPH
 - RISK CATEGORY: II
 - EXPOSURE CLASSIFICATION: C

GENERAL

- STRUCTURAL DRAWINGS ARE NOT STAND-ALONE DOCUMENTS AND ARE INTENDED TO BE USED IN CONJUNCTION WITH CIVIL, ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND DRAWINGS FROM OTHER DISCIPLINES. THE CONTRACTOR SHALL COORDINATE ALL REQUIREMENTS OF THE CONTRACT DOCUMENTS INTO THE SHOP DRAWINGS AND FIELD WORK.
- WHERE CONFLICT EXISTS AMONG VARIOUS PARTS OF THE STRUCTURAL CONTRACT DOCUMENTS, STRUCTURAL DRAWINGS, GENERAL NOTES, AND SPECIFICATIONS, THE STRICTEST REQUIREMENTS, AS INDICATED BY THE ENGINEER, SHALL GOVERN.
- WHERE MEMBER LOCATIONS ARE NOT SPECIFICALLY DIMENSIONED, THE FOLLOWING RULES SHALL APPLY:
 - COLUMNS ARE CENTERED ON GRID LINES.
 - FOOTINGS ARE CENTERED BENEATH COLUMNS.
 - CONTINUOUS FOOTINGS ARE CENTERED BENEATH WALLS.
 - FRAMING MEMBERS ARE EITHER LOCATED ON GRID LINES OR ARE EQUALLY SPACED BETWEEN LOCATED MEMBERS.
- ALL STRUCTURAL ELEMENTS OF THE PROJECT HAVE BEEN DESIGNED BY THE STRUCTURAL ENGINEER TO RESIST THE REQUIRED CODE VERTICAL AND LATERAL FORCES THAT COULD OCCUR IN THE FINAL COMPLETED STRUCTURE ONLY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE ALL REQUIRED BRACING DURING CONSTRUCTION TO MAINTAIN THE STABILITY AND SAFETY OF ALL STRUCTURAL ELEMENTS DURING THE CONSTRUCTION PROCESS UNTIL THE LATERAL LOAD RESISTING OR STABILITY-PROVIDING SYSTEM IS COMPLETELY INSTALLED AND THE STRUCTURE IS COMPLETELY TIED TOGETHER.
- THE STRUCTURE HAS BEEN DESIGNED FOR THE LOADS IDENTIFIED WITHIN THESE STRUCTURAL DRAWINGS THAT ARE ANTICIPATED TO BE APPLIED TO THE FINAL STRUCTURE ONE COMPLETED AND OCCUPIED. THE CONTRACTOR SHALL NOT OVERLOAD THE STRUCTURE DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING THE ADEQUACY OF THE STRUCTURE TO SUPPORT ANY APPLIED CONSTRUCTION LOADS, INCLUDING THOSE DUE TO CONSTRUCTION VEHICLES OR EQUIPMENT, MATERIAL HANDLING OR STORAGE, SHORING AND RESHORING, OR ANY OTHER PROPOSED CONSTRUCTION LOADS THAT ARE IN EXCESS OF THE STATED DESIGN LOADS. THE STRUCTURAL ENGINEER IS NOT RESPONSIBLE TO DESIGN OR CHECK THE STRUCTURE FOR LOADS APPLIED TO THE STRUCTURE FOR ANY CONSTRUCTION ACTIVITY.
- WEIGHTS OF MECHANICAL EQUIPMENT SHOWN ON THE STRUCTURAL PLANS ARE FOR UNITS SPECIFIED BY THE MECHANICAL ENGINEER. CONTRACTOR SHALL VERIFY THE WEIGHTS. ANY SUBSTITUTIONS THAT RESULT IN INCREASED WEIGHT SHALL BE APPROVED BY THE STRUCTURAL ENGINEER OF RECORD.
- THE SIZE AND LOCATION OF EQUIPMENT PADS AND PENETRATIONS THROUGH THE STRUCTURE FOR MECHANICAL, ELECTRICAL, AND PLUMBING WORK SHALL BE VERIFIED BY THE CONTRACTOR. OPENINGS AND PENETRATIONS NOT SPECIFICALLY SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE SUBJECT TO APPROVAL BY THE STRUCTURAL ENGINEER OF RECORD.
- PRIOR TO FABRICATION AND/OR ERECTION OF ANY MATERIALS, THE CONTRACTOR SHALL FIELD VERIFY ALL PERTINENT EXISTING DIMENSIONS, ELEVATIONS, AND CONDITIONS AND SHALL REPORT ANY DISCREPANCIES TO THE STRUCTURAL ENGINEER OF RECORD OR THE ARCHITECT IMMEDIATELY UPON DISCOVERY.
- BACKFILL BOTH SIDES OF ALL FOUNDATION AND RETAINING WALLS EQUALLY UNTIL LOW SIDE IS UP TO FINISH GRADE. DO NOT BACKFILL ANY WALLS UNTIL CONCRETE HAS REACHED ITS SPECIFIED 28-DAY COMPRESSIVE STRENGTH.
- CONNECTIONS OF SYSTEMS DESIGNED BY THE CONTRACTOR'S ENGINEER SUCH AS, BUT NOT LIMITED TO, CLADDING, STAIRS, ELEVATORS AND MEP LOADS ARE ASSUMED TO IMPOSE VERTICAL AND/OR HORIZONTAL LOADS ON THE BASE BUILDING STRUCTURAL MEMBERS WITHOUT GENERATING TORSION IN THE SUPPORTING STRUCTURAL MEMBERS. CONTRACTOR IS RESPONSIBLE FOR FURNISHING AND INSTALLING ALL SUPPLEMENTARY BRACING MEMBERS AS REQUIRED TO PREVENT TORSION ON THE BASE BUILDING STRUCTURE.
- ANY MATERIALS OR PRODUCTS SUBMITTED FOR APPROVAL THAT ARE DIFFERENT FROM THE MATERIAL OR PRODUCTS SPECIFIED IN THE STRUCTURAL CONTRACT DOCUMENTS WILL BE APPROVED ONLY IF THE FOLLOWING CRITERIA ARE SATISFIED:
 - A COST SAVINGS TO THE OWNER IS DOCUMENTED AND SUBMITTED WITH THE REQUEST.
 - THE MATERIAL OR PRODUCT HAS BEEN APPROVED BY THE INTERNATIONAL CODE COUNCIL (ICC) AND THE ICC REPORT IS SUBMITTED WITH THE REQUEST.
- THE ENGINEER SHALL NOT HAVE CONTROL NOR CHARGE OF, AND SHALL NOT BE RESPONSIBLE FOR, CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, OR PROCEDURES, FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK, FOR THE ACTS OR OMISSION OF THE CONTRACTOR, SUBCONTRACTOR, OR ANY OTHER PERSONS PERFORMING ANY OF THE WORK, OR FOR THE FAILURE OF ANY OF THEM TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
- PERIODIC SITE OBSERVATION BY FIELD REPRESENTATIVES OF 360 ENGINEERING GROUP, PLLC, IS SOLELY FOR THE PURPOSE OF BECOMING GENERALLY FAMILIAR WITH THE PROGRESS AND QUALITY OF THE WORK COMPLETED AND DETERMINING, IN GENERAL, IF THE WORK OBSERVED IS BEING PERFORMED IN A MANNER INDICATING THAT THE WORK, WHEN FULLY COMPLETED, WILL BE IN ACCORDANCE WITH THE STRUCTURAL CONTRACT DOCUMENTS. THIS LIMITED SITE OBSERVATION SHOULD NOT BE CONSTRUED AS AN EXHAUSTIVE OR CONTINUOUS CHECK OF THE QUALITY OR QUANTITY OF THE WORK, BUT RATHER PERIODIC IN AN EFFORT TO GUARD THE OWNER AGAINST DEFECTS OR DEFICIENCIES IN THE WORK OF THE CONTRACTOR.

DIVISION 5 - STRUCTURAL STEEL

- STRUCTURAL STEEL SHALL MEET THE FOLLOWING MINIMUM YIELD STRENGTHS (F_y):

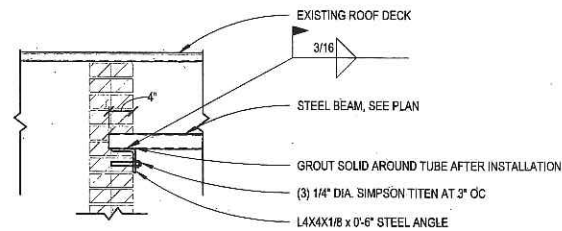
	YIELD	ASTM SPECIFICATION
A. WIDE FLANGE SHAPES	50 KSI	A992
B. OTHER SHAPES, BARS, PLATES AND RODS	36 KSI	A36
C. SQUARE AND RECTANGULAR HSS	46 KSI	A500, GRADE B
D. ROUND HSS	42 KSI	A500, GRADE A
E. STRUCTURAL STEEL PIPE	35 KSI	A53, TYPE E, GRADE B
F. ANCHOR RODS	50 KSI	F1554
G. ALL-THREAD RODS	36 KSI	A36
H. HEADED STUD ANCHORS	65 KSI (TENSILE)	A108 (GRADE DESIGNATIONS 1010-1020 INCLUSIVE)
- BOLTS FOR STEEL BEAM AND COLUMN CONNECTIONS SHALL BE 3/4" DIAMETER ASTM A325 HIGH-STRENGTH BOLTS INSTALLED SNUG TIGHT, UNO.
- WHERE FIELD AND SHOP WELDS ARE INDICATED ON THE DRAWINGS, THEY SHALL BE THE SIZE AND TYPE NOTED. ALL WELDING OF STRUCTURAL STEEL SHALL BE DONE IN ACCORDANCE WITH LATEST EDITION OF AWS D1.1 CORRESPONDING TO THE AISC SPECIFICATION USED, AND ALL WELDS INCLUDING FIELD WELDS SHALL BE MADE BY CERTIFIED WELDERS USING E70XX ELECTRODES.
- WHERE FILLED WELD SIZES ARE NOT INDICATED ON WELD SYMBOLS, FILLET SIZE SHALL BE 1/16TH INCH SMALLER THAN THICKNESS OF THINNER MATERIALS BEING JOINED.
- COMPLETE PENETRATION WELDS ARE INDICATED BY NOTATION "CP" ON WELD SYMBOLS, PARTIAL PENETRATION BY "PP".
- PROVIDE DOUBLE NUTS AND DOUBLE WASHERS FOR STEEL COLUMN ANCHOR BOLTS TO ALLOW FOR ADJUSTMENT IN BASE PLATE ELEVATION.
- COMPOSITE CONSTRUCTION STEEL BEAMS AND GIRDERS DO NOT REQUIRE SHORING.
- STUD CONNECTORS FOR COMPOSITE BEAMS AND GIRDERS SHALL BE 3/4" DIA. X 3 3/4" AND SHALL BE WELDED THROUGH METAL DECK DIRECTLY TO THE STEEL MEMBER.
- STUD SPACINGS ON COMPOSITE BEAMS AND GIRDERS SHALL NOT BE LESS THAN 4 1/2" ALONG THE LENGTH OF ANY MEMBER AND SHALL NOT EXCEED 32". MINIMUM STUD SPACING ACROSS THE WIDTH OF ANY FLANGE SHALL NOT BE LESS THAN 3".
- DO NOT PAINT SURFACES WHICH RECEIVE WELDED STUDS.
- EXPOSED STEEL LABELED AS ARCHITECTURALLY EXPOSED STEEL REQUIRES HIGHER TOLERANCES FOR CONSTRUCTION. REFER TO SPECIFICATIONS SECTION 051200 FOR REQUIREMENTS. FLARE BEVEL WELDS FOR ARCHITECTURALLY EXPOSED TUBE SHAPED SECTIONS SHALL BE BEVELED 45 DEGREES, WELDED AND GRINDED SMOOTH.
- ALL STEEL MEMBERS NOTED OR INDICATED ON PLANS, ELEVATIONS, SECTIONS OR DETAILS SHALL BE SHOP ROLLED BY THE STEEL FABRICATOR. SHOP DRAWINGS SHALL INDICATED CURVATURE DATA AND FULL PENETRATION SPLICE LOCATIONS.
- REFERENCE SPECIFICATIONS FOR MISC. STEEL REQUIREMENTS NOT SHOWN ON STRUCTURAL PLANS.
- TOUCH UP ALL FIELD WELDS ON GALVANIZED SURFACES WITH GALVANIZING REPAIR PAINT.
- THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR INCLUDING THE COSTS FOR ALL MISCELLANEOUS STEEL IN THEIR BID, REGARDLESS OF WHETHER THOSE ITEMS ARE INDICATED ON THE STRUCTURAL DRAWINGS. THESE COSTS SHALL INCLUDE, BUT NOT LIMITED TO, MISCELLANEOUS STEEL ITEMS SHOWN ON ARCHITECTURAL, CIVIL, MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS.
- UNLESS DETAILED OTHERWISE OR REACTIONS ARE INDICATED, BEAM CONNECTIONS SHALL BE SELECTED TO SUPPORT ONE-HALF THE TOTAL UNIFORM LOAD CAPACITY SHOWN IN THE "ALLOWABLE UNIFORM LOAD TABLES" IN PART 2 OF THE AISC STEEL CONSTRUCTION MANUAL, 13TH EDITION, FOR THE GIVEN BEAM SIZE, SPAN AND STEEL SPECIFICATION OR FOR THE BEAM REACTION SHOWN ON THE DRAWINGS, WHICHEVER IS GREATER. THE MINIMUM BEAM CONNECTION SHALL NOT BE SMALLER THAN THOSE LISTED IN TABLES 10-1 AND 10-2 OF THE AISC STEEL CONSTRUCTION MANUAL, 13TH EDITION, FOR THE GIVEN BEAM DEPTH, BOLT DIAMETER AND WELD SPECIFICATION.
- THE FABRICATOR SHALL BE RESPONSIBLE FOR THE DESIGN AND ADEQUACY OF ALL CONNECTIONS THAT ARE NOT DESIGNED OR FULLY DETAILED ON THE CONTRACT DOCUMENTS. SHOP DRAWINGS, DEPICTING THE CONFIGURATIONS AND FABRICATION DETAILS, ALONG WITH CALCULATIONS, SEALED BY A REGISTERED PROFESSIONAL ENGINEER, LICENSED TO PRACTICE IN THE STATE IN WHICH THE PROJECT IS LOCATED, SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER OF RECORD FOR REVIEW.
- UNLESS OTHERWISE INDICATED, BEAM REACTIONS SHOWN ON THE PLANS ARE DESIGN SERVICE LEVEL (ASD) GRAVITY (DEAD LOAD PLUS LIVE LOAD) SHEAR LOADS. ANY AXIAL OR OTHER LOADS REQUIRED MUST BE CONSIDERED IN ADDITION TO THE VERTICAL REACTIONS SHOWN.
- THE MINIMUM DESIGN LOAD FOR ANY CONNECTION SHALL BE 6 KIPS (ASD) OR 10 KIPS (LRFD), REGARDLESS OF THE BEAM REACTION(S) SHOWN ON THE PLANS.
- STEEL FRAMES ARE NON SELF-SUPPORTING AND COLUMN ANCHOR RODS ARE DESIGNED FOR A COMPLETED CONDITION ONLY. METAL ROOF DECK, BEAM-TO-COLUMN MOMENT CONNECTIONS, PORTAL FRAMES, AND DIAGONAL BRACES ARE REQUIRED TO PROVIDE LATERAL STABILITY FOR THE FRAME AND BUILDING. THIS INCLUDES RESISTANCE TO WIND AND SEISMIC FORCES DURING AND AFTER CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY BRACING REQUIRED TO MAINTAIN STABILITY UNTIL THE LATERAL FORCE RESISTING SYSTEM FOR THE BUILDING IS COMPLETE.
- STAIR SUPPLIER TO PROVIDE POSTHANGER SUPPORTS AT INTERMEDIATE LANDINGS AS REQUIRED. POSTHANGERS ARE TO CONCENTRICALLY LOAD BEAMS.
- AT ROOF ACCESS LADDERS, PROVIDE (2) 06X10.2 VERTICALS IN STUD WALL. SEE ARCH FOR LOCATIONS.
- FIELD CUTTING, DRILLING OR OTHER MODIFICATION OF STRUCTURAL STEEL COMPONENTS IS NOT PERMITTED WITHOUT WRITTEN APPROVAL OF THE STRUCTURAL ENGINEER OF RECORD. WHERE BEAM PENETRATIONS CANNOT BE AVOIDED OR WHERE CUTTING IS REQUIRED, THE CONTRACTOR SHALL SUBMIT TO THE STRUCTURAL ENGINEER OF RECORD ALL PERTINENT INFORMATION INCLUDING PENETRATION SHAPE, SIZE, LOCATION AND METHOD OF CUTTING OPENINGS.
- ALL STEEL MEMBERS EXPOSED TO WEATHER SHALL BE GALVANIZED OR PAINTED WITH TNEPEC EPOXY SYSTEM OR SIMILAR SYSTEM MEETING THE REQUIREMENT FOR PAINTING STRUCTURAL STEEL IN THE PROJECT SPECIFICATIONS. ALL OTHER STEEL MEMBERS SHALL BE FURNISHED WITH A SHOP COAT OF TNEPEC RED OR GRAY OXIDE PRIMER OR SIMILAR SYSTEM MEETING THE REQUIREMENT FOR PAINTING STRUCTURAL STEEL IN THE PROJECT SPECIFICATIONS. ALL PRIMERS SHALL BE COMPATIBLE WITH TOP COATINGS SPECIFIED.



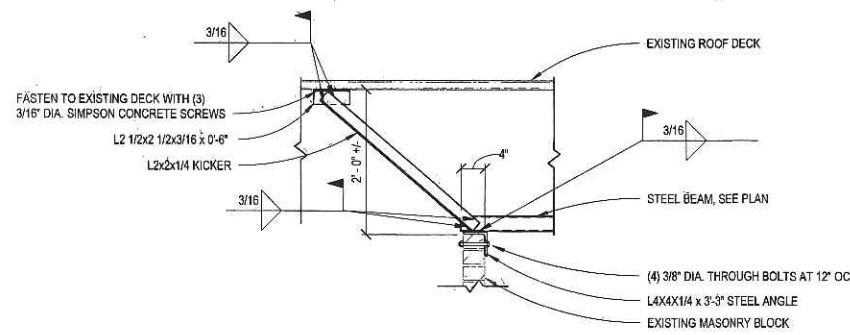
4/15/19

ROOF REPLACEMENT FIRE STATION #5 TULSA FIRE DEPARTMENT	
PROJECT NO.: SP 17-12	
CITY OF TULSA, OKLAHOMA ENGINEERING SERVICES DEPARTMENT	
SGA Design Group, P.C.	
Christopher B. Goble, Architect 1437 South Boulder, Suite 550 Tulsa, Oklahoma 74119-3609 p: 918.587.8600 f: 918.587.8601 www.sgadesigngroup.com	
360 Engineering Group, PLLC www.360engr.com 1201 East 3rd Street Tulsa, OK 74120 918.518.1124	
Certificate of Authorization: OK #5996 EXP. 6.30.2020	

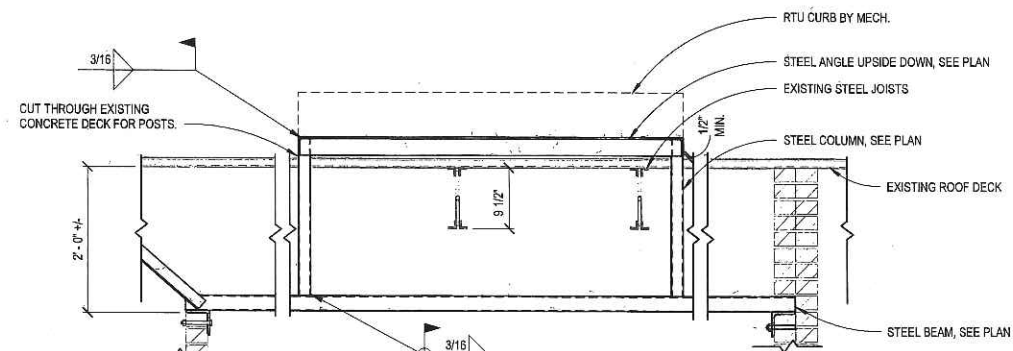
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				HORIZONTAL: 1" =	LEAD ENGR.	WJ	5/19	
				VERTICAL: 1" =	FIELD MGR.	WJ	5/19	
					RECOMMENDED:	WJ	6-19	
					DESIGN MANAGER			
				FILE:	DRAWING:		DATE:	6/14/19
				ATLAS PAGE NO:			SHEET	5 OF 9 SHEETS
				SHEET NAME:				SHEET NO.
				GENERAL NOTES				S001-3



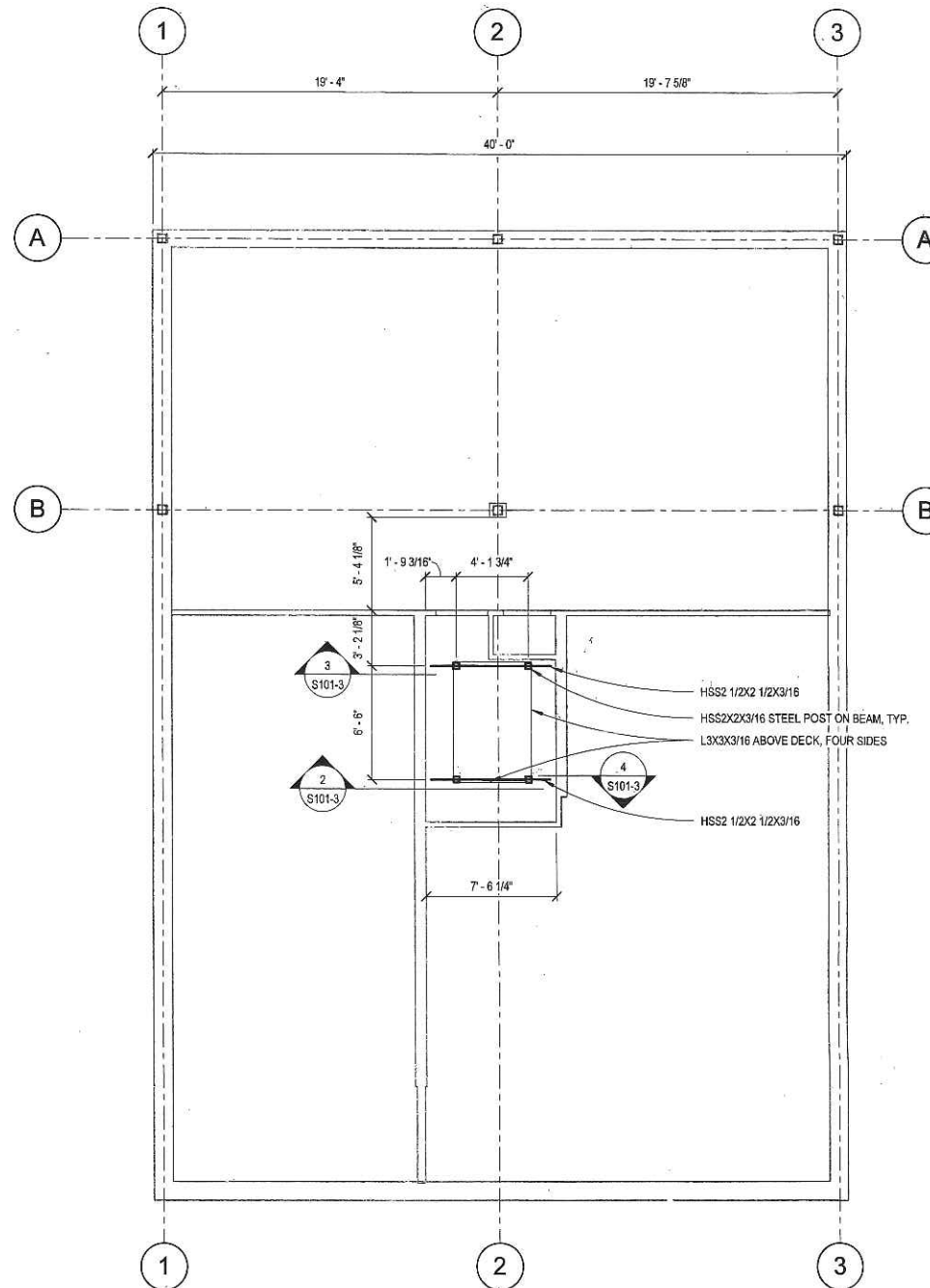
4 BRICK BEARING
3/4" = 1'-0"



3 BLOCK BEARING
3/4" = 1'-0"



2 RTU FRAMING
3/4" = 1'-0"



1 ROOF FRAMING PLAN
3/16" = 1'-0"

FIELD VERIFICATION NOTE

VERIFY ALL DIMENSIONS AND EXISTING STRUCTURAL MEMBER SIZES IN THE FIELD PRIOR TO FABRICATION OF STRUCTURAL ITEMS. EXISTING PORTION OF THE PLANS ARE FROM A PRELIMINARY FIELD SURVEY, WHICH MAY OR MAY NOT REFLECT ACTUAL AS-BUILT CONDITIONS AND DIMENSIONS. IF ANY DISCREPANCIES ARE FOUND BETWEEN WHAT IS SHOWN ON THE DRAWINGS AND WHAT EXISTS IN THE FIELD, CONTACT THE ARCHITECT TO DETERMINE WHAT SHOULD BE DONE TO MATCH EXISTING CONDITIONS AS REQUIRED. BEGINNING OF FABRICATION MEANS ACCEPTANCE OF EXISTING CONDITIONS.



4/15/19

ROOF REPLACEMENT FIRE STATION #5 TULSA FIRE DEPARTMENT			
PROJECT NO.: SP 17-12			
CITY OF TULSA, OKLAHOMA ENGINEERING SERVICES DEPARTMENT			
SGA Design Group, P.C.		Christopher B. Goble, Architect 1437 South Boulder, Suite 550 Tulsa, Oklahoma 74119.3609 p: 918.587.8600 f: 918.587.8601 www.sgadesigngroup.com	
360°		360 Engineering Group, PLLC www.360engr.com 1301 East 3rd Street Tulsa, OK 74102 918.518.1124 Certificate of Authorization: OK 85996 EXP 6.30.2020	
MK	REVISION	BY	DATE
	PLAN SCALE:	DRAWN	isw 04/2019
	1" =	DESIGNED	erj 04/2019
		SURVEY	N/A
	PROFILE SCALE:	PROJ. MGR.	W 4/19
	1" =	LEAD ENGR.	mm 5/19
	HORIZONTAL:	FIELD MGR.	eev 5/19
	1" =	RECOMMENDED:	
	VERTICAL:	DESIGN MANAGER	HAI 6-9
	1" =	FILE:	DRAWING:
		ATLAS PAGE NO:	
		SHEET NAME:	ROOF PLANS
		APPROVED:	<i>[Signature]</i> CITY ENGINEER
		DATE:	6/14/19
		SHEET 7 OF 9 SHEETS	
		SHEET NO.	S101-3

PACKAGE UNIT SCHEDULE

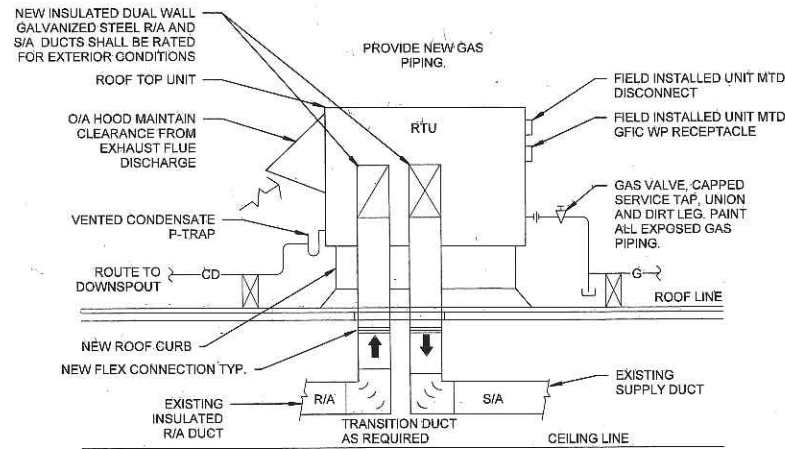
MARK	MANUFACTURER & MODEL	NOMINAL CAPACITY (TONS)	S/A CFM	O/A CFM	GAS HEAT IN / OUT (MBH)	NET COOLING CAPACITY TOTAL / SEN (MBH)	EER	ESP	VOLTAGE	PHASE	MCA	MOCP	WEIGHT	REMARKS
RTU1	TRANE YSC090	7.5	3000	300	200.00 / 160.00	86.95 / 65.61	11.2	0.5	230 V	3	44 A	60 A	1167 lb	ALL

NOTES:

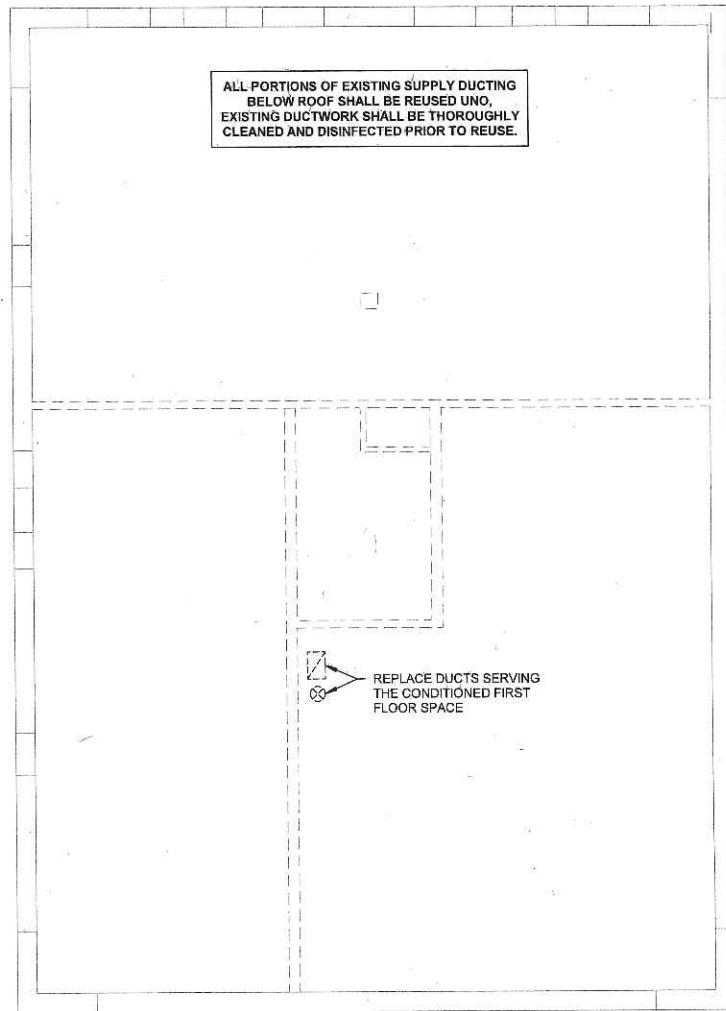
- GAS FIRED, SIDE SUPPLY & RETURN, ROOF MOUNTED UNIT (RTU).
- UNITS MUST BE UL OR ETL APPROVED.
- EQUIPMENT SHALL BE SUPPLIED AS COMPLETE SYSTEM AND INSTALLED ACCORDING TO MANUFACTURER'S INSTRUCTIONS.
- PROVIDE TWO SETS OF REPLACEMENT FILTERS, OPERATION AND MAINTENANCE MANUALS, AND WARRANTY REGISTRATION PER ARCHITECT'S SPECIFICATIONS.
- WARRANTY: 5 YR ON COMPRESSOR AND HEAT EXCHANGER, 1 YR ON ALL OTHER COMPONENTS.
- CONTRACTOR TO PROVIDE AND INSTALL HVAC SYSTEM IN ACCORDANCE WITH REQUIREMENTS OF AUTHORITY HAVING JURISDICTION.
- INSTALLING CONTRACTOR IS RESPONSIBLE FOR INSTALLING & WIRING ALL CONTROLS, PROVIDE SUPPLY AIR TEMPERATURE SENSORS AND SPACE TEMPERATURE SENSORS.
- RTU'S SHALL BE 10 FT MINIMUM FROM ANY EXHAUST OUTLET, BUILDING OPENING, OR AIR INTAKE.
- CONTRACTOR SHALL TEST AND BALANCE SYSTEM TO ACHIEVE SPECIFIED AIRFLOW. REFER TO SPECIFICATIONS.
- CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS, EQUIPMENT CLEARANCES, GAS AND ELECTRICAL REQUIREMENTS BEFORE NEW EQUIPMENT INSTALLATION.
- PROVIDE VENTED CONDENSATE DRAIN, TRAP AND INDIRECT DISCHARGE INTO DOWNSPOUT.
- INSTALLING CONTRACTOR SHALL MAINTAIN UNIT MANUFACTURER'S RECOMMENDED SERVICE CLEARANCES FOR ALL EQUIPMENT.
- PROVIDE AND REPLACE AHU FILTERS ON ALL EXISTING UNITS PRIOR TO OCCUPANCY. PROVIDE 2" THICK MERV 8 FILTERS.
- PROVIDE UNIT WITH OPTIONAL NON-FUSED DISCONNECT, RETURN AIR SMOKE DETECTOR, AND CONDENSATE SWITCH. UNIT SHALL BE EQUIPPED TO SHUT DOWN UPON SENSING SMOKE.

REMARKS:

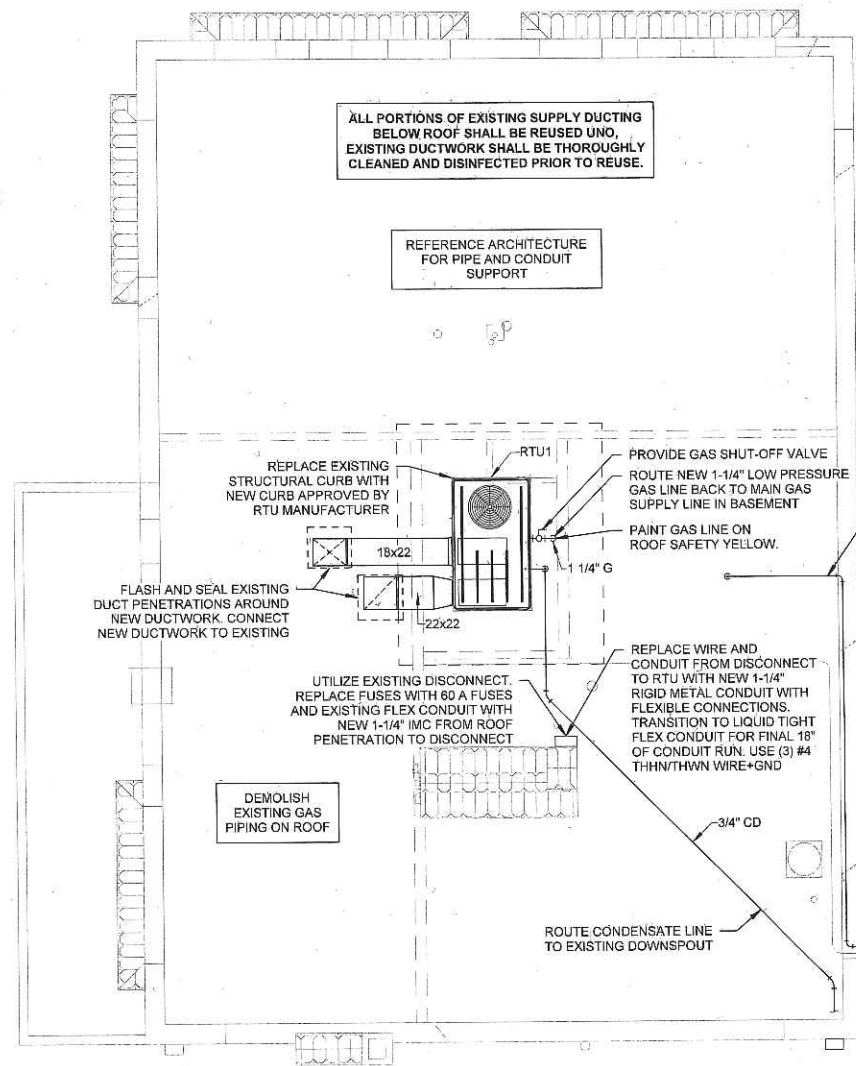
- HIGH EFFICIENCY BLOWER MOTORS ALL UNITS.
- UNIT MOUNTED, 115V GFI WP CONVENIENCE OUTLETS, FURNISHED AND FIELD INSTALLED BY DIV. 28 ELECTRICAL CONTRACTOR.
- REPLACE EXISTING THERMOSTAT WITH NEW 7-DAY, 4 PERIOD, PROGRAMMABLE THERMOSTATS WITH EXPOSED OVER-RIDE BUTTON, ISOLATION SUB-BASE AND PROTECTIVE COVER.
- STANDARD MANUFACTURER'S BAKED ENAMEL FINISH.



ROOF MOUNTED RTU CONNECTION DETAILS



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



ROOF HVAC PLAN
3/16" = 1'-0"



TULSA FIRE DEPARTMENT
ROOF REPLACEMENTS
STATION #5

PROJECT NO.: SP 17-12

CITY OF TULSA, OKLAHOMA
ENGINEERING SERVICES DEPARTMENT

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MK	REVISION	BY	DATE	PLAN SCALE:	DRAWN	RAP	04/2019	APPROVED:
				1" =	DESIGNED	MMM	04/2019	
					SURVEY	NAM	6-25-18	
				PROFILE SCALE:	PROJ. MGR.	ML	4/10	
				1" =	LEAD ENGR.	mtt	5/19	
				HORIZONTAL:	FIELD MGR.	PBV	5/19	
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				1" =	FILE:	DRAWING:		DATE: 6/14/19
					ATLAS PAGE NO:			SHEET 9 OF 9 SHEETS
					SHEET NAME:			SHEET NO.

HVAC PLANS

M101