

WESTWOOD RECREATION DEPT.

POOL AHU PROJECT

240 NAHATAN ST WESTWOOD, MA 02090

#REC-20-B-005



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At the request of IDENTIFY PARTY, this [NAME OF DELIVERABLE REPORT, DRAWING, ETC.] has been updated to [Client Name, Client] in hereby notified that N|V|5 did not have an opportunity to conduct its regular program quality control procedures. Accordingly, Client agrees that the [NAME OF DELIVERABLE] is subject to revision, including but not limited to contractor change orders or owner claims, in connection with [NAME OF DELIVERABLE].

REVISIONS

▲	DATE	CHK	DESCRIPTION

SEAL

PROJECT

NUMBER
0190207

DATE
01/08/2020

WESTWOOD RECREATION
DEPT. POOL RTU
#REC-20-B-005

DRAWING

DRAWN BY
NG

CHECKED BY
CH

SCALE

TITLE SHEET

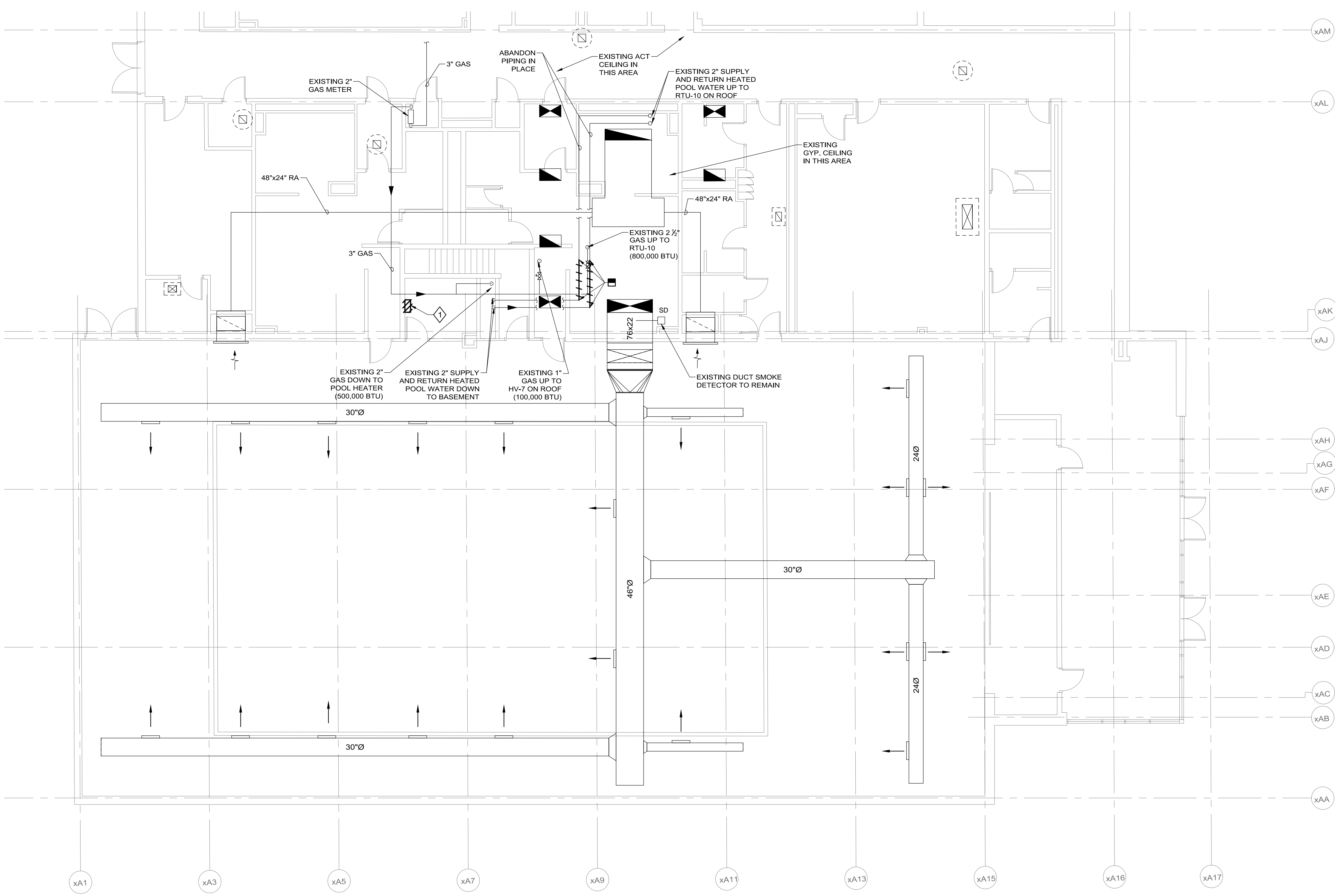
LOCUS PLAN



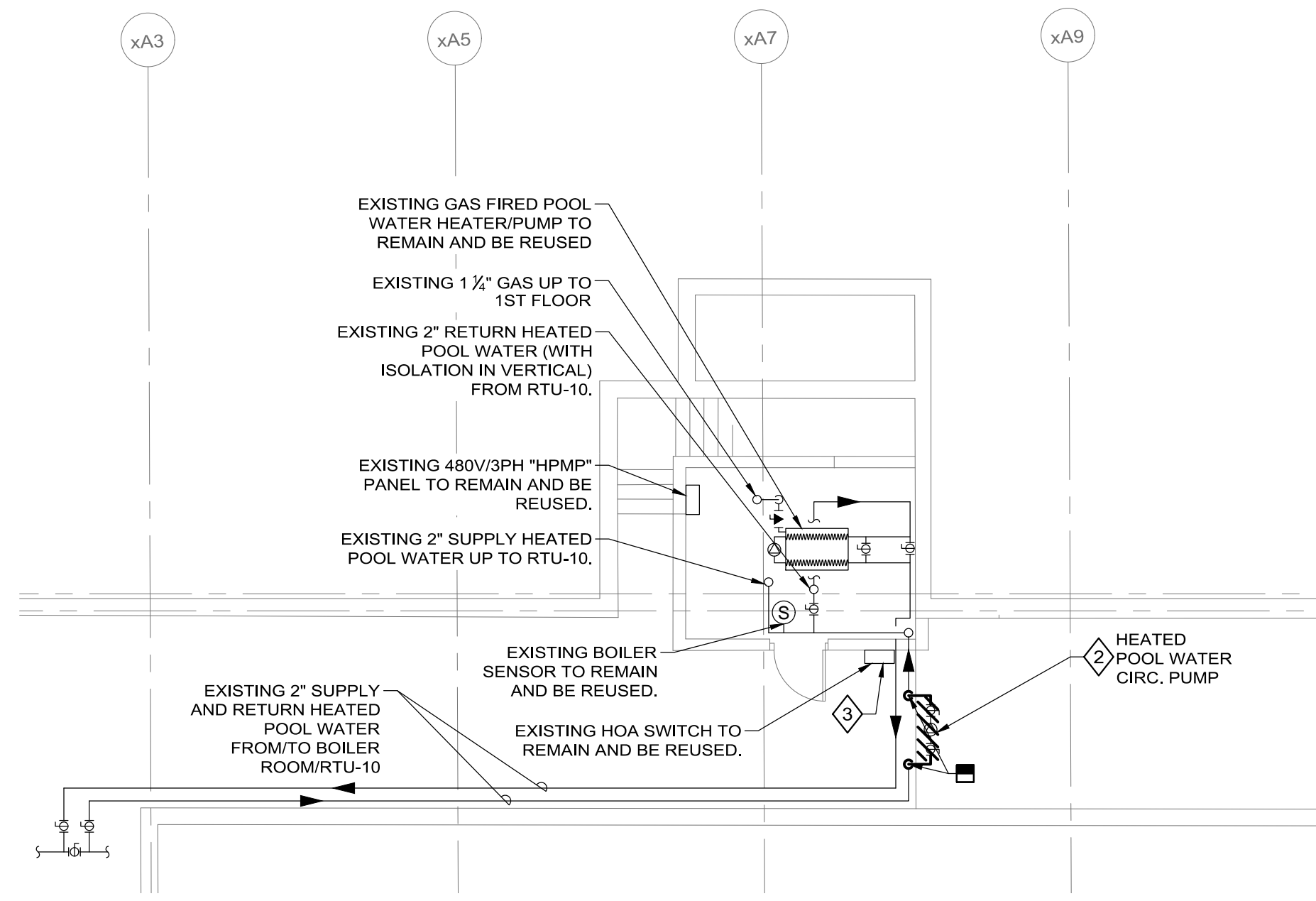
DRAWING LIST

Sheet Number	Sheet Title
TITLE SHEET T0.0	TITLE SHEET
HVAC H100	HVAC LEGENDS, NOTES AND ABBREVIATIONS
HD200	HVAC FIRST FLOOR DEMOLITION WORK PLAN
HD201	HVAC ROOF DEMOLITION WORK PLAN
H200	HVAC FIRST FLOOR NEW WORK PLAN
H201	HVAC ROOF NEW WORK PLAN
H700	HVAC CONTROLS
H800	HVAC SCHEDULES AND DETAILS

T0.0



**FLOOR PLAN - POOL
MAIN LEVEL**
SCALE: 1/8" = 1'-0"



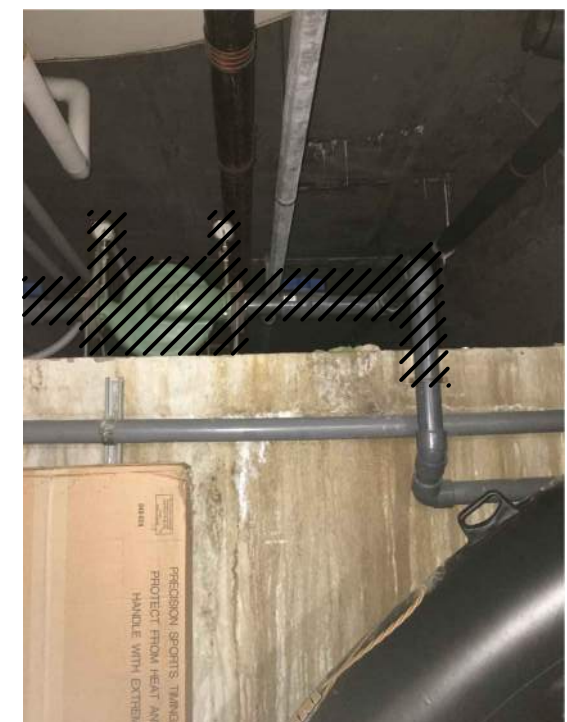
**FLOOR PART PLAN - POOL
BASEMENT**
SCALE: 1/8" = 1'-0"

HVAC DEMOLITION NOTES

1. THE DEMOLITION PLANS INDICATE THE GENERAL INTENT AND ARE NOT INTENDED TO SHOW ALL ITEMS TO BE REMOVED OR RETAINED.
2. THE LOCATIONS OF EXISTING EQUIPMENT INCLUDING PIPING, DUCTWORK, EQUIPMENT, CONDUNTS, ETC ARE SHOWN IN AN APPROXIMATE WAY ONLY. VISIT THE SITE PRIOR TO SUBMISSION OF THE BIDS AND COMMENCEMENT OF WORK TO BECOME FAMILIAR WITH THE ACTUAL CONDITIONS AND EXTENT OF THE WORK.
3. TRACE AND LABEL ALL EXISTING SYSTEMS WITHIN THE DEMOLITION AREA AND BEYOND PRIOR TO DISCONNECTION AND REMOVAL TO ENSURE THAT NO AREA OUTSIDE THE DEMOLITION AREA IS AFFECTED. REVIEW IN DETAIL WITH ALL PARTIES AND OWNER WHAT IS TO BE REMOVED AND REMAIN PRIOR TO WORK COMMENCING THE DEMOLITION. THERE SHALL BE NO INTERRUPTION OF SERVICES OUTSIDE THE DEMOLITION AREA WITHOUT APPROVAL FROM THE OWNER'S REPRESENTATIVE.
4. COORDINATE EQUIPMENT REMOVAL WITH ALL PARTIES TO PROVIDE DISCONNECTION. REMOVE EQUIPMENT BY UNFASTENING AT THE SUPPORTS OR ATTACHMENTS. ALSO REMOVE THE ATTACHMENTS FROM THE BUILDING, LEAVING NO COMPONENT OF THE ORIGINAL INSTALLATION.
5. EXERCISE CARE WITH EQUIPMENT THAT IS TO BE RELOCATED OR TURNED OVER TO THE OWNER. EXAMINE THE EQUIPMENT BEFORE REMOVAL IN THE PRESENCE OF THE OWNER'S REPRESENTATIVE TO DETERMINE ITS CONDITION. DELIVER OWNER-RETAINED EQUIPMENT TO AN ON-SITE LOCATION DESIGNATED BY THE OWNER AND OBTAIN ACKNOWLEDGMENT OF RECEIPT IN ORIGINAL CONDITION.
6. INSTALL RELOCATED EQUIPMENT IN ORIGINAL CONDITION ENSURING NO DAMAGE.
7. PROMPTLY REPAIR ANY DAMAGE CAUSED DURING/BY THE EXECUTION OF WORK. DAMAGE INCLUDES BUT IS NOT LIMITED TO DESTRUCTION OF ITEMS INTENDED TO REMAIN OR TO BE SALVAGED.
8. NOTIFY THE OWNER'S REPRESENTATIVE IMMEDIATELY OF ANY UNANTICIPATED HIDDEN CONDITIONS ENCOUNTERED DURING THE DEMOLITION.
9. ALL ITEMS REMOVED SHALL BE OFFERED TO THE OWNER FOR SALVAGE. IF THE OWNER DOES NOT TAKE POSSESSION, DISPOSE OF THE ITEMS IN A SAFE AND LEGAL MANNER. ALL ITEMS CLASSIFIED AS HAZARDOUS SHALL BE DISPOSED AS HAZARDOUS WASTES AND A UNIFORM HAZARDOUS WASTE MANIFEST SHALL BE PROVIDED TO THE OWNER.
10. ENSURE THE SAFE PASSAGE OF PERSONS IN AND AROUND THE BUILDING DURING DEMOLITION. PREVENT INJURY TO PERSONS AND DAMAGE TO PROPERTY. PROVIDE ADEQUATE SHORING AND BRACING TO PREVENT COLLAPSE. IMMEDIATELY REPAIR DAMAGED PROPERTY TO THE CONDITION BEFORE BEING DAMAGED. TAKE EFFECTIVE MEASURES TO PREVENT WINDBLOWN DUST.
11. DO NOT USE CUTTING TORCHES UNTIL WORK AREA IS CLEARED OF FLAMMABLE MATERIALS. AT CONCEALED SPACES, SUCH AS PIPE INTERIORS OR SHAFTS. VERIFY CONDITION AND CONTENTS OF HIDDEN SPACE BEFORE STARTING FLAME-CUTTING OPERATIONS. MAINTAIN FIRE WATCH AND PORTABLE FIRE-SUPPRESSION DEVICES DURING FLAME-CUTTING OPERATIONS. MAINTAIN ADEQUATE VENTILATION WHEN USING CUTTING TORCHES.
12. DRAIN, PURGE, OR OTHERWISE REMOVE, COLLECT, AND PROPERLY DISPOSE OF CHEMICALS, LIQUIDS, GASES, EXPLOSIVES, ACIDS, FLAMMABLES, OR OTHER DANGEROUS MATERIALS BEFORE PROCEEDING WITH DEMOLITION OPERATIONS.
13. PROPERLY LABEL ALL UNLABELED PIPES THAT REMAIN WITH COLOR PIPE MARKERS AND VALVE TAGS. MOUNT A VALVE AND SERVICE CHART IN THE AREA OF DEMOLITION THAT IDENTIFIES ALL LABELED SERVICES. TURN ONE COPY OF SAME OVER TO THE OWNER.
14. ALL DEMOLITION SCOPE ASSOCIATED WITH LOW VOLTAGE WIRING FOR CONTROLS AND ASSOCIATED INTERLOCKS SHALL BE INCLUDED IN THIS CONTRACT.

KEYNOTES

- ◊ REMOVE THE EXISTING POOLPAK CONTROLLER AND CONTROL WIRING IN THEIR ENTIRETY BACK TO THE ROOFTOP UNIT SERVED.
- ◊ REMOVE THE EXISTING 480V HEATED POOL WATER CIRCULATOR PUMP. PRESSURE GAUGES AND ASSOCIATED ISOLATION VALVES BACK TO POINT SHOWN. REMOVE THE WIRING BACK TO THE HAND-OFF-AUTO SWITCH.
- ◊ DISCONNECT THE EXISTING 480V/3PH HAND-OFF-AUTO SWITCH SERVING THE POOL HEATING CIRCULATOR PUMP. EXISTING 480V/3PH HAND-OFF-AUTO SWITCH TO REMAIN AND BE REUSED. PROVIDE NEW LOCKABLE DISCONNECT ON THE LINE SIDE



PHOTOGRAPH NO. 1
REMOVE THE EXISTING POOL CIRCULATING PUMP.



PHOTOGRAPH NO. 2
EXISTING HAND-OFF-AUTO SWITCH FOR THE EXISTING POOL CIRCULATING PUMP TO REMAIN AND BE REUSED. PROVIDE NEW LOCKABLE DISCONNECT ON THE LINE SIDE

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As the request of IDENTIFY PARTY, this NAME OF DELIVERABLE (REPORT, DRAWINGS, ETC.) has been updated to [Client Name, Client]. It hereby notified that N|V|5 did not have an opportunity to conduct its required standard quality control procedures. Accordingly, Client agrees that the [NAME OF DELIVERABLE] is subject to revision, including but not limited to, connector change (sizes or color claims), in connection with [NAME OF DELIVERABLE].

REVISIONS

▲	DATE	CHK	DESCRIPTION

SEAL

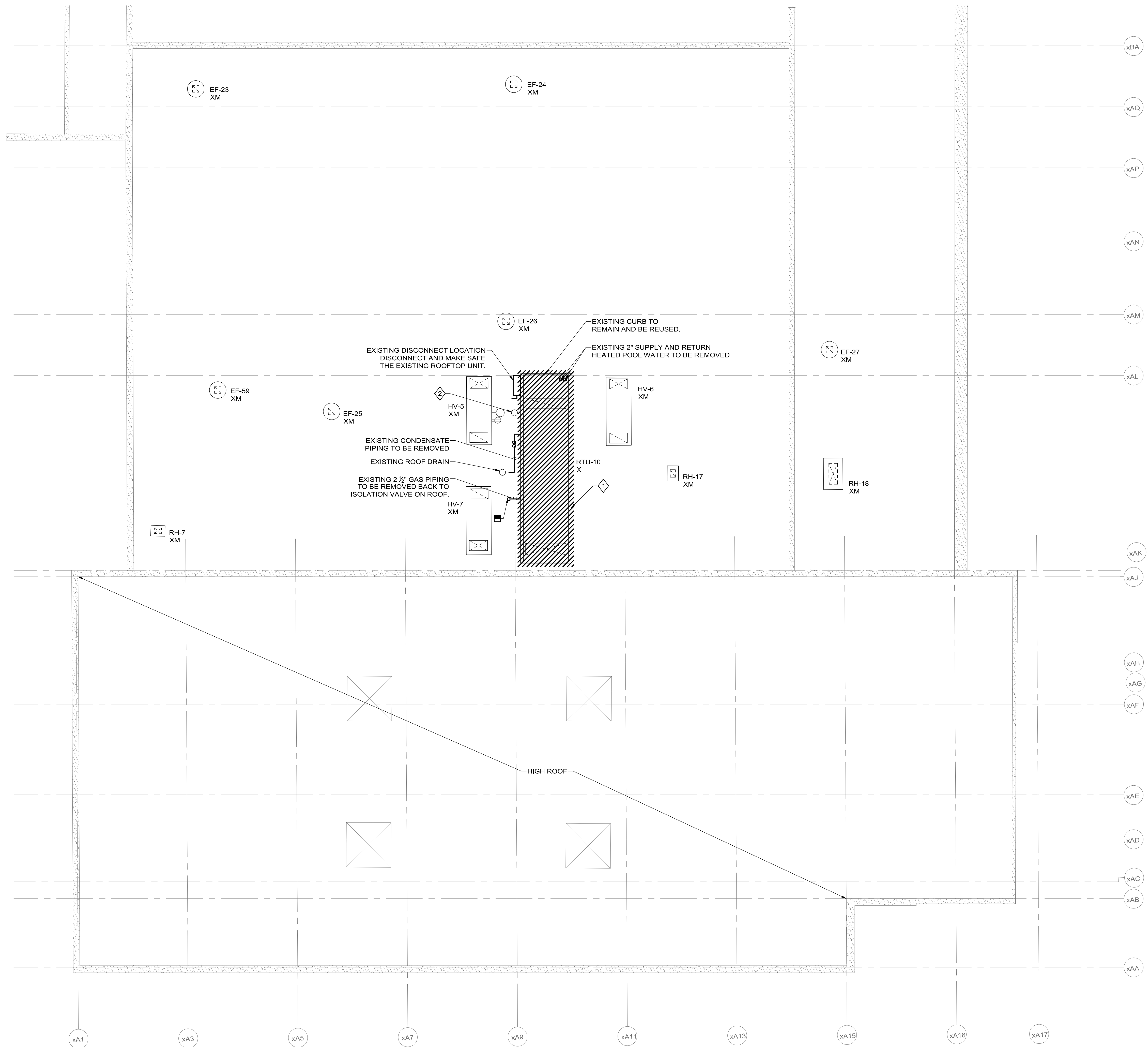
PROJECT

NUMBER: 0190207
DATE: 01/08/2020
WESTWOOD RECREATION
DEPT. POOL RTU
#REC-20-B-005

DRAWING

DRAWN BY: NG
CHECKED BY: CH
SCALE: 1/8" = 1'-0"
HVAC
FIRST FLOOR
DEMOLITION WORK PLAN

KEYNOTES	
◇	REMOVE THE EXISTING ROOFTOP UNIT IN ITS ENTIRETY. REMOVE ASSOCIATED CONDENSATE PIPING AND SLEEPERS. REMOVE GAS PIPING BACK TO ISOLATION VALVE ON THE ROOF. REMOVE THE CONTROL WIRING BACK TO THE REMOTE CONTROLLER. THE EXISTING CURB IS TO REMAIN AND BE REUSED. REMOVE THE EXISTING SUPPLY AND RETURN POOL HEATING WATER PIPING BACK TO POINT SHOWN ON HD200.
◇	TEMPORARILY DISCONNECT AND REMOVE THE EXISTING ELECTRICAL SERVICE RECEPTACLE AND CONDUIT SERVING THE SERVICE OUTLETS AND LIGHT MOUNTED TO HV-5.



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

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As the recipient (IDENTIFY PARTY), this (NAME OF DELIVERABLE REPORT, DRAWINGS, ETC.) has been prepared to (Client Name, Client) in hereby warrant that N|V|5 did not have an opportunity to conduct an independent quality control procedure. Accordingly, Client agrees that the (NAME OF DELIVERABLE) is subject to revision, including but not limited to contractor change orders or owner claims, in connection with (NAME OF DELIVERABLE).

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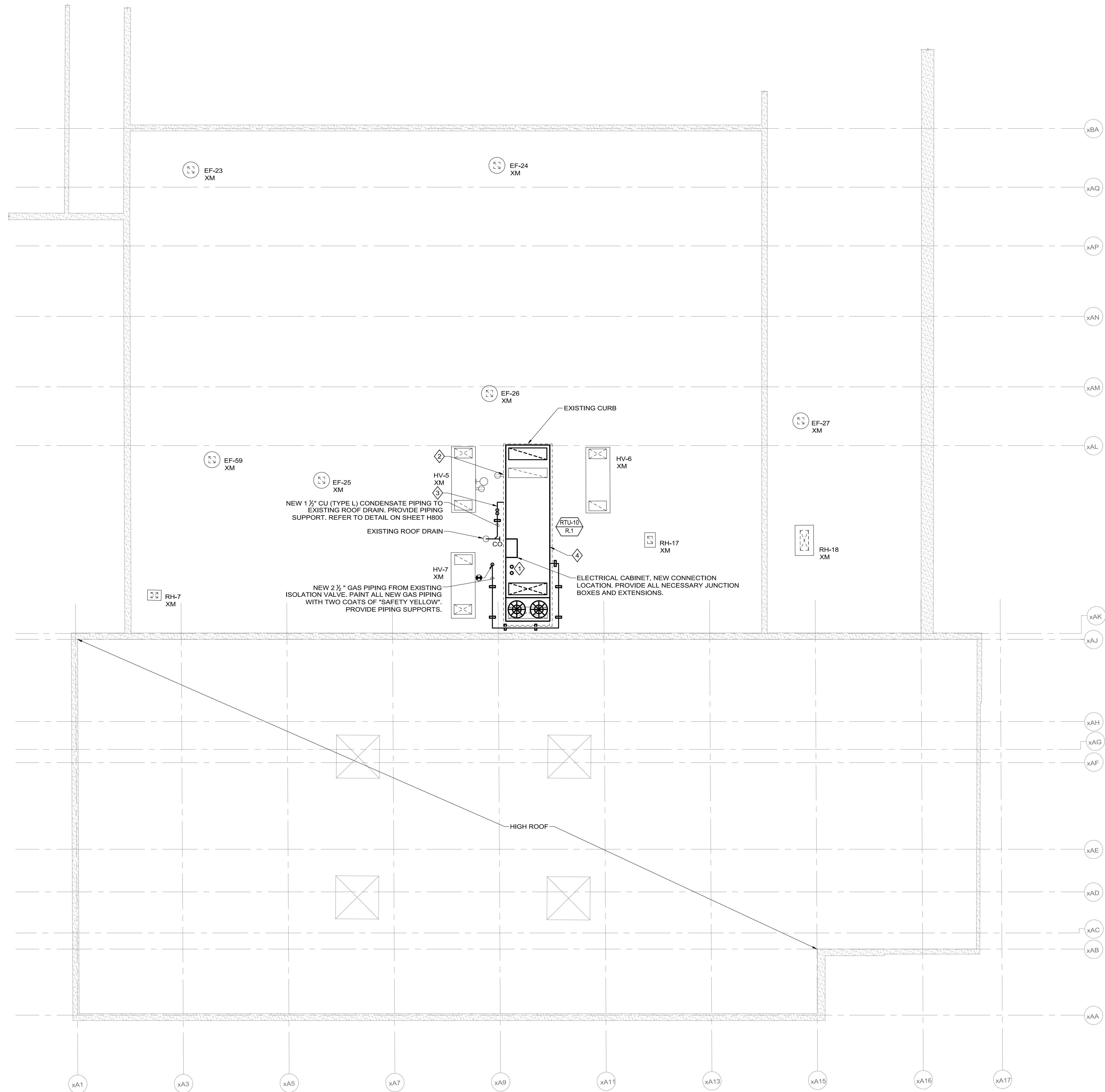
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DRAWN BY: NG
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SCALE: 1/8"=1'-0"

HVAC ROOF DEMOLITION WORK PLAN

KEYNOTES	
◆	CONNECT NEW POOL DEHUMIDIFIER UNIT TO SUPPLY AND RETURN HEATED POOL WATER PIPING. PROVIDE LINE SIZED ISOLATION BALL VALVES (FOR SUPPLY AND RETURN) AT UNIT. PROVIDE HIGH POINT VACUUM BREAKER ON PIPING FOR DRAINING UNIT.
◆	REINSTALL THE CONVENIENCE OUTLET, CONDUIT AND SLEEPERS.
◆	INSULATE CONDENSATE PIPING. PROVIDE WITH WEATHERPROOF HEAT TRACE/CONTROLLER. ACTIVATE HEAT TRACE WHEN AMBIENT TEMPERATURE DROPS BELOW 38°F. PROVIDE NEW PIPING SUPPORTS.
◆	PROVIDE NEW POOL DEHUMIDIFIER UNIT AS SCHEDULED. MOUNT UNIT ON EXISTING CURB AND PROVIDE INSULATED CURB TRANSITION ADAPTER. PROVIDE NEW CONTROL WIRING BACK TO SOURCE. THE UNIT IS TO BE RIGGED ON A WEEKEND WITH THE STRUCTURAL ENGINEER (MGBRIE LLC - 978-646-0087) AND EXISTING ROOFING CONTRACTOR (COORDINATE WITH OWNER).



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

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At the request of [IDENTIFY PARTY], this [NAME OF DELIVERABLE] (REPORT, DRAWINGS, ETC.) has been prepared by [Identified Person, Ident] in hereby notified that N|V|5 did not have an opportunity to conduct an independent quality control procedure. Accordingly, Client agrees that the [NAME OF DELIVERABLE] is subject to revision, including but not limited to contractor change orders or owner claims, in connection with [NAME OF DELIVERABLE].

REVISIONS

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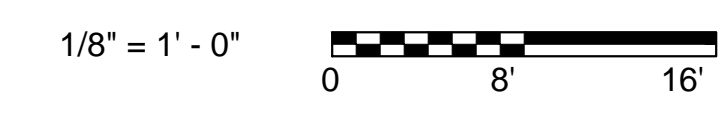
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DRAWN BY: NG
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HVAC ROOF
NEW WORK PLAN



PROVIDE AD-ALT PRICING FOR THIS OPTION.

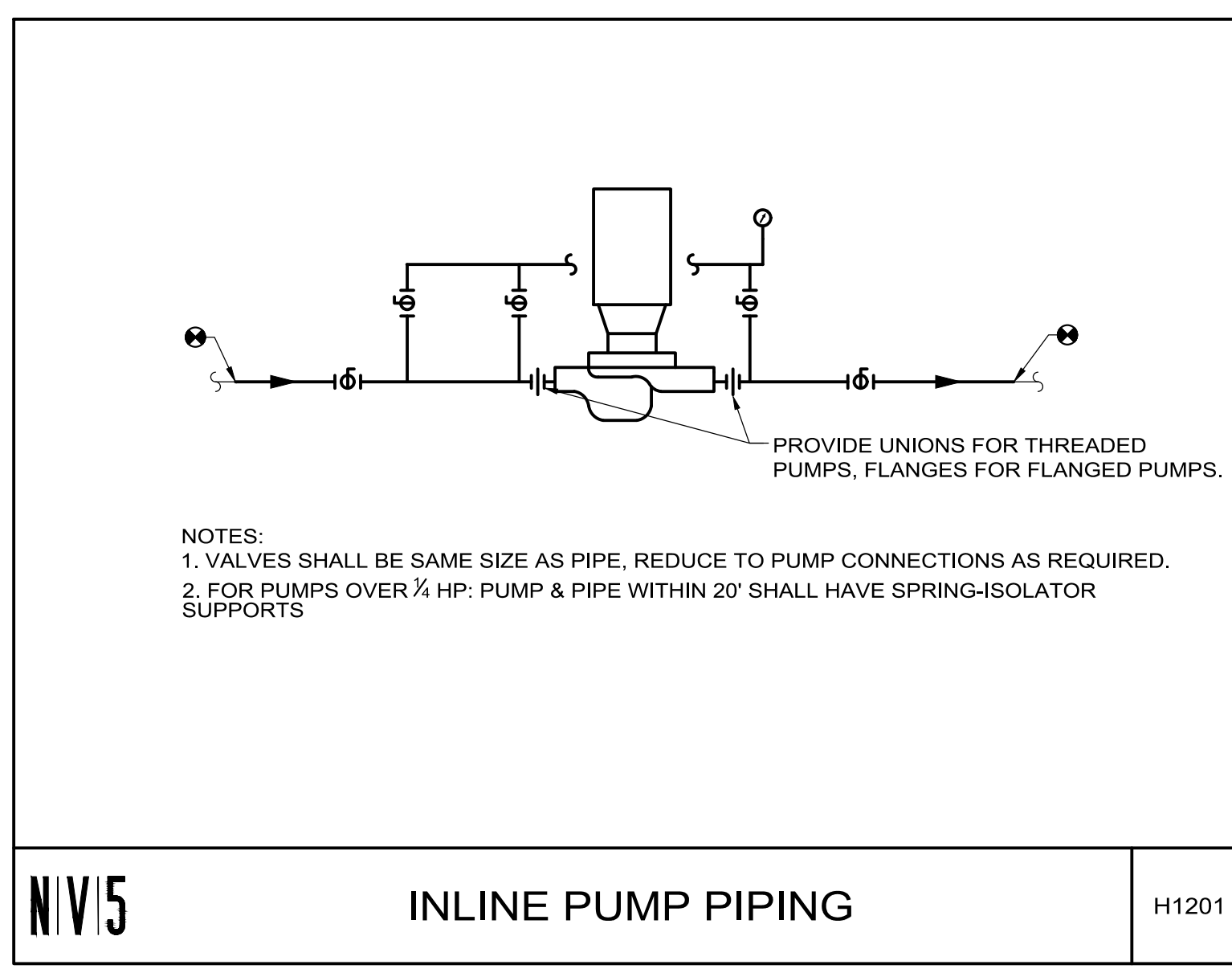
TAG	REFRIGERANT		MIN. O.A. CONDITIONS		ROOM CONDITIONS		SUPPLY FAN				EXHAUST FAN				PURGE FAN			COMPRESSORS		EVAPORATOR COIL			REHEAT COIL		GLYCOL PUMP	POOL HEATING COIL				GAS HEATING SECTION					AIR FLUID COOLER			ELECTRICAL DATA					WEIGHT (LBS) EXCLUDING CURB ADAPTER	ESTIMATED UNIT WEIGHT (LBS)	MANUFACTURER AND MODEL NUMBER (AS STANDARD)	REMARKS									
	TYPE	CFM	SUMMER DB (°F)	WINTER WB (°F)	DB (°F)	RH (%)	TOTAL	MIN. O.A.	TYPE	EXT.	HP	FLA	TOTAL	RANGE	TYPE	EXTERNAL	HP	FLA	TOTAL	EXTERNAL	HP	FLA	TYPE	NO.	CAPACITY (MBH)	SENS.	MOISTURE REMOVAL LBS/H	TOTAL HEAT REJECTION (MBH)	CONTROL TYPE	HP	CAPACITY (MBH)	HOT WATER DATA				CAPACITY (MBH)			AIR DATA		CAPACITY CONTROL	CAPACITY (MBH)					MOTORS			V	PH	MCA (A)	MOCP (A)	EXISTING BREAKER (A)	
																																GPM	EWT (°F)	LWT (°F)	P.D. (FT.)	INPUT (MBH)	OUTPUT (MBH)	MIN. EFF (%)	EAT (°F)	LAT (°F)							NO	HP	FLA (A)						
																																IN	OUT	EFF	IN	OUT	EFF	IN	OUT	EFF															
RTU-10	R-410A	4075	90.8	73.3	12.4	84	60	15000	4075	VFD	1.5	20	25.9	4775	4775	ECM	0.5	3.9	3.7	10925	.5	5.3	4.7	SCROLL	2	395.1	199.4	181.1	493.9	MOD.	.75	273	45	82	94.1	13.86	800	640	80	61	100	MOD.	493.9	2	3.4	4.2	460	3	101	125	150	9600	11000	POOLPAK MODEL PPK-120	SEE NOTES

- NOTES:**
- REFER TO SPECIFICATIONS, DETAILS, AND CONTROL DRAWINGS FOR ADDITIONAL INFORMATION.
 - COORDINATE WITH MANUFACTURER PRIOR TO PURCHASING UNIT SO SUPPLY AND RETURN LOCATION/ARRANGEMENT MATCHES THE EXISTING ROOFTOP UNIT. PROVIDE CURB TRANSITION ADAPTER AS REQUIRED. CONFIRM COIL PULL, CONDENSATE PIPING, GAS PIPING AND SERVICE SIDE HANDING PRIOR TO ORDERING.
 - CABINET SHALL INCLUDE FULL PERIMETER BASE RAILS FOR SHIPPING AND RIGGING. FACTORY DAMPERS SHALL BE INSULATED LOW LEAKAGE TYPE.
 - PROVIDE DOUBLE WALL CONSTRUCTION GALVANIZED STEEL, FULLY INSULATED CABINET WITH 2" OF INSULATION. PROVIDE HINGED ACCESS DOORS WITH SINGLE LEVER LATCH MECHANISM AND DOOR HOLDER. INTERIOR PANELS SHOULD BE SUITABLE FOR CHLORINE AND POOL CHEMICAL RESISTANCE. EXTERIOR PANELS SHOULD BE DESIGNED FOR OUTDOOR INSTALLATION.
 - PROVIDE NON CORRODING PROTECTIVE MESH SCREENS ON ALL AIR INTAKE OPENINGS.
 - PROVIDE UNIT WITH REMOTE CONTROL PANEL AND COLD WALL SENSOR AS INDICATED ON PLANS. ADDITIONALLY, PROVIDE UNIT WITH AIR FLOW SWITCH, FREEZE-STAT, AND DIRTY FILTER SWITCH.
 - UNIT TO BE SINGLE POINT POWER CONNECTION. PROVIDE WITH FACTORY INSTALLED DISCONNECT. PROVIDE FACTORY PHASE FAILURE/UNDER VOLTAGE PROTECTION.
 - PROVIDE FACTORY INTERNAL FILTER RACK (NON-METALLIC), 2" 30% MERV 8 ON SUPPLY AIR, EXHAUST AIR AND OUTSIDE AIR.
 - PROVIDE WITH AIR FLOW MONITORING STATIONS AND ALL CONTROLS AND SENSORS AS SHOWN ON H700.
 - PROVIDE FACTORY START-UP OF ROOFTOP UNIT.
 - PROVIDE PREMIUM EFFICIENCY VFD FAN MOTORS WITH SHAFT GROUNDING.
 - PROVIDE WITH 90-DAY COMPLETE UNIT WARRANTY (PARTS AND LABOR), 2 YEAR PARTS WARRANTY, AND 6 YEAR COMPRESSOR WARRANTY.
 - THE NEW RTU IS TO HAVE LESS THAN 10 PERCENT INCREASE IN TOTAL OPERATING WEIGHT OVER EXISTING UNIT (INCLUDING ANY REQUIRED CURB ADAPTERS).
 - THE NEW RTU IS TO HAVE LESS THAN OR EQUAL TO THE EXISTING MAXIMUM OVER CURRENT PROTECTION RATINGS.
 - PROVIDE HEAT TRACE FOR CONDENSATE PIPING.
 - ALL CONTROLS ARE TO BE OPEN. ALL REPAIRABLE PARTS SHALL BE REASONABLY AVAILABLE LOCALLY, BY LOCAL WHOLESALERS IN THE U.S.

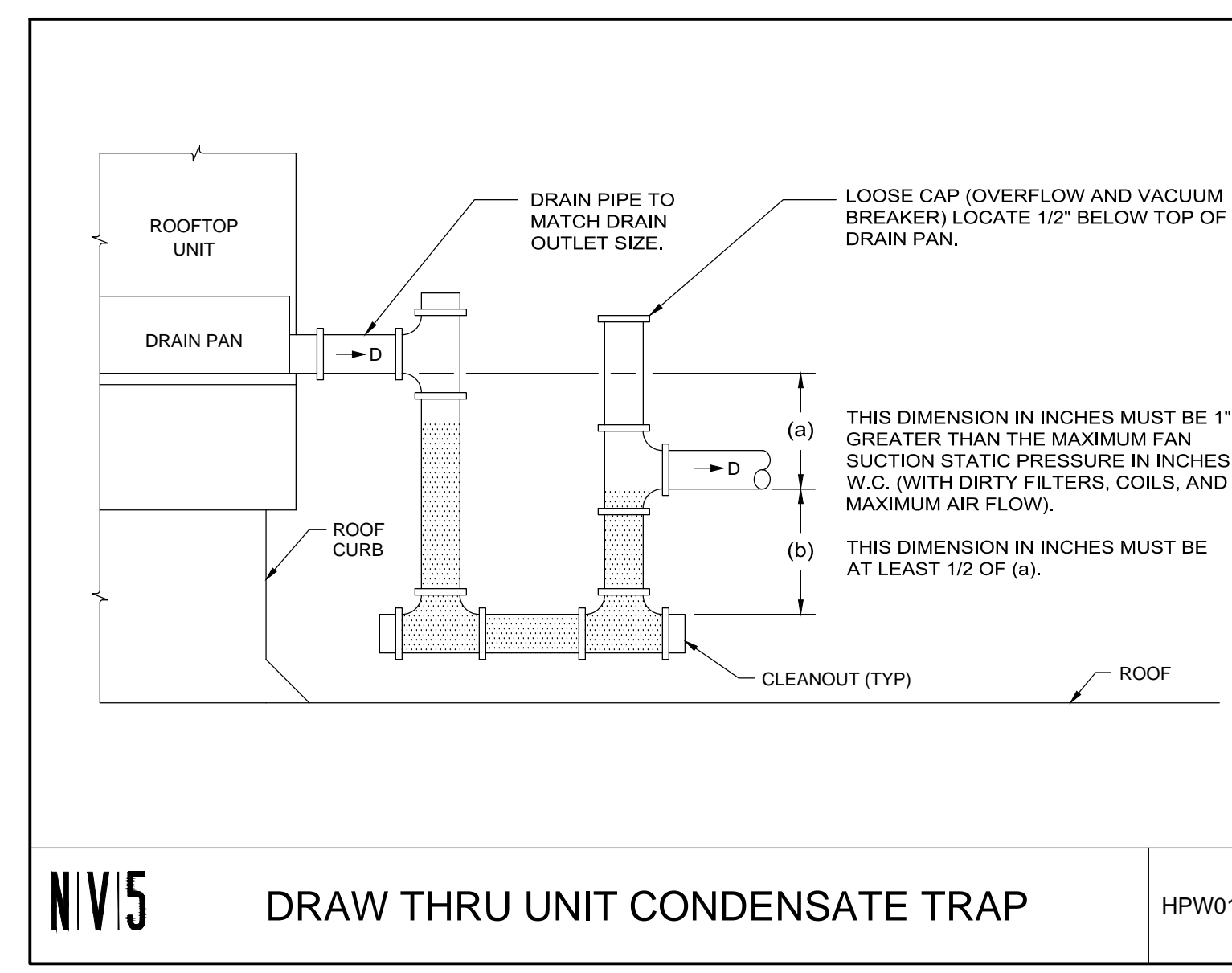
TAG	SERVICE	LOCATION	CASING TYPE	FLUID					MOTOR					MANUFACTURER AND MODEL NUMBER (AS STANDARD)	REMARKS		
				TYPE	TEMP (°F)	GPM	NPSHR (FT.)	HEAD (FT.)	SHUT-OFF HEAD (FT.)	IMPELLER SIZE (IN.)	RPM	BHP	HP			V	PH
P-1	POOL	BASEMENT	CAST IRON	WATER	85	45	4.3	50	55	7	1725	1	2	460	3	BELL AND GOSSETT E-90 1.5AB	SEE NOTES

NOTES:

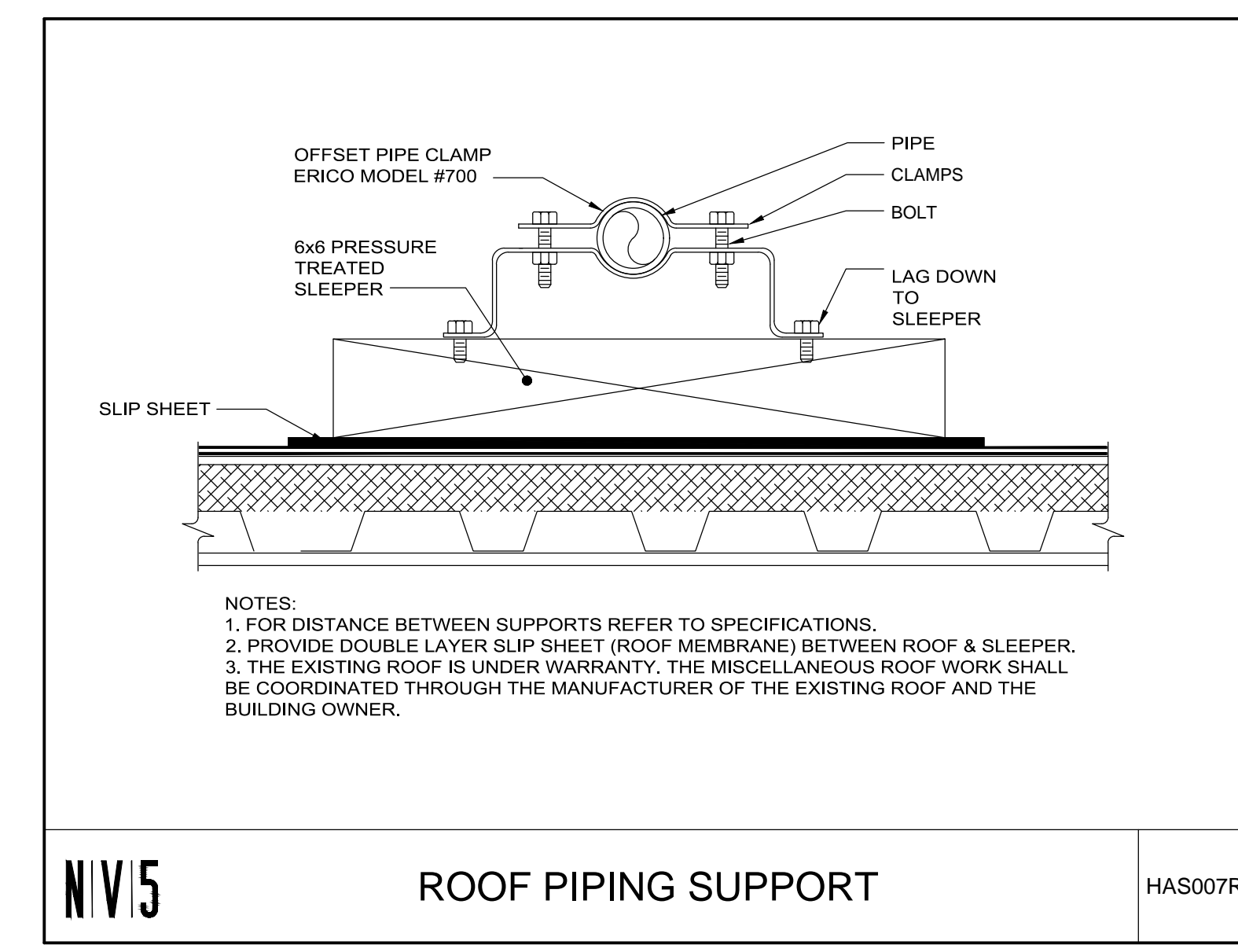
- REFER TO SPECIFICATIONS, DETAILS, AND CONTROL DRAWINGS FOR ADDITIONAL INFORMATION.
- PROVIDE ALL NECESSARY FITTINGS, COUPLINGS AND STANDS FOR A COMPLETE INSTALLATION.
- PROVIDE WITH DISCONNECT, INTEGRATE WITH EXISTING HAND-OFF-AUTO SWITCH/STARTER/THERMAL OVERLOAD.
- PROVIDE WITH 2HP THREE PHASE MOTOR.
- THE CONTRACTOR SHALL CONFIRM WITH THE MANUFACTURER THE USE OF PUMP WITH CHLORINATED WATER.



N|V|5 INLINE PUMP PIPING H1201



N|V|5 DRAW THRU UNIT CONDENSATE TRAP HPW010



N|V|5 ROOF PIPING SUPPORT HAS007R

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DRAWING

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HVAC
SCHEDULES AND DETAILS