PERMITTING CONTACT LIST

UPON NOTIFICATION OF CONTRACT AWARD, CONTRACTOR SHALL CONTACT THE ENGINEER OF RECORD'S PERMIT COORDINATOR REGARDING BUILDING PERMIT STATUS. CONTRACTOR SHALL NOT CONTACT AHJ PRIOR TO CONTACTING PERMIT COORDINATOR TO VERIFY BUILDING PERMIT STATUS. WHEN NECESSARY, THE CONTRACTOR SHALL DELIVER PERMIT PLAN SETS AND PAY PERMIT FEES TO THE AHJ IN ORDER TO RECEIVE CONSTRUCTION PERMITS. UPON REVIEW OF PROJECT SCOPE THE AHJ MAY REQUIRE THE CONTRACTOR TO COMPLETE ADDITIONAL PERMITTING REQUIREMENTS FOR OR SUBMIT ADDITIONAL PLAN SETS FOR REVIEW TO ADDITIONAL LOCAL, COUNTY, STATE, AND/OR FEDERAL AUTHORITIES WHICH MAY NOT BE LOCATED WITHIN THE LOCAL AHJ 'S OFFICES. SUBMIT ANY PLAN REVIEW COMMENTS OR QUESTIONS THROUGH THE WALMART APPROVED RFI PROCESS. CONTRACTOR SHALL OBTAIN PERMIT(S) THE GREATER OF 10 WORKING DAYS OR 2 WEEKS PRIOR TO THE START OF CONSTRUCTION TO AVOID UNNECESSARY DELAYS AND ADDITIONAL ENGINEERING FEES. CONTRACTOR SHALL PICK UP AND PAY FOR ANY REQUIRED PERMIT(S) AND ALL ANCILLARY FEES. COST OF REQUIRED PERMIT(S) WILL BE DETERMINED AT THE TIME OF PERMIT ISSUANCE. EXACT AMOUNT SHALL BE COORDINATED WITH THE WALMART CONSTRUCTION MANAGER. CONTRACTOR SHALL EMAIL A COPY OF PERMIT(S) WHEN OBTAINED TO PERMIT COORDINATOR LISTED BELOW. CONTRACTOR SHALL UPLOAD A COPY OF PERMIT(S) WHEN OBTAINED TO EVOCO WORKSPACE SUPPORT FOLDER. UPON COMPLETION OF THE PROJECT, CONTRACTOR SHALL EMAIL APPROVED FINAL INSPECTION REPORT AND CERTIFICATE OF COMPLETION TO PERMIT COORDINATOR LISTED BELOW. UPON COMPLETION OF THE PROJECT, CONTRACTOR SHALL UPLOAD APPROVED FINAL INSPECTION REPORT AND CERTIFICATE OF COMPLETION TO EVOCO WORKSPACE SUPPORT FOLDER.

CONTACT	EMAIL	PHONE
KIMBERLY ZACHARY	PERMITADMIN@DCENGINEERING.NET	(208) 288-2181 EXT. 355

4 HOURS PRIOR TO SHUTTING DOWN ANY REFRIGERATION SYSTEMS, HVAC SYSTEMS, OR ENERGY MANAGEMENT CONTROLS SYSTEMS, SEND E-MAIL TO NSRM@WALMART.COM. THE E-MAIL SHALL STATE WHAT, WHY, AND WHEN IS BEING SHUT DOWN AND HOW LONG IT IS ANTICIPATED TO BE DOWN. THEN SEND A FOLLOW UP E-MAIL TO NSRM@WALMART.COM AFTER THE WORK IS COMPLETE AND THE

SYSTEM IS BACK UP AND RUNNING.

REFRIGERATION CAPX-SUS RWH USMV-###### PUYALLUP, WA STORE #2403-### REFRIGERATION OPTIMIZATION-LPA/HR

INDEX OF DRAWINGS

SHEET NUMBER	SHEET NAME			
T1	TITLE SHEET			
R1	REFRIGERATION PLAN			
R1.1	REFRIGERATION SCHEMATICS			
R1.2	REFRIGERATION DETAILS			
R2	HYDRONIC PLAN			
R2.1	HYDRONIC SCHEMATICS			
R2.2	HYDRONIC DETAILS			
R3	OEM SUBMITTALS			
R4	EQUIPMENT SCHEDULES			
RE1	LPA ELECTRICAL PLAN			
RE2	HRU ELECTRICAL PLAN			

Sportsman's Warehouse Total Wine & More Kandi Renard, Novement Mortgage V RAM Restaurant Takeout - Delivery il Salon & Spa

ACCESSIBILITY: LIFE SAFETY:

> City of Puyallup Development & Permitting Services **ISSUED PERMIT** Public Works Engineering

Walmart Supercenter The Home Depot

Traffic Fire

CHECKED BY:

DRAWN BY:

DOCUMENT DATE: 05/08/23

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EXISTING CONDITIONS WERE TAKEN FROM ORIGINAL DRAWINGS OR SURVEY DOCUMENTS AND MAY NOT REFLECT EXACT "AS-BUILT" CONDITIONS. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO SUBMITTING FINAL BIDS. CONTRACTOR SHALL CAREFULLY COORDINATE NEW AND EXISTING CONDITIONS.

EACH SUBCONTRACTOR IS RESPONSIBLE FOR HAVIN A THOROUGH KNOWLEDGE OF ALL DRAWINGS AND SPECIFICATIONS IN THEIR RELATED FIELD. THE FAILURE TO ACQUAINT HIMSELF WITH THIS KNOWLEDGE DOES NOT RELIEVE THE RESPONSIBILIT OF PERFORMING HIS WORK PROPERLY. NO WORK AND DEMOLITION WITH ALL OTHER DISCIPLINES ADDITIONAL COMPENSATION SHALL BE ALLOWED BECAUSE OF CONDITIONS THAT OCCUR DUE TO FAILURE TO FAMILIARIZE WORKERS WITH THIS

THE PLANS SHOWN THROUGHOUT THESE DOCUMENTS ARE 9 THE CONTRACTOR SHALL KEEP THIS AREA CLEAN AND FREE OF DEBRIS AND IS TO REMOVE ALL TRASH AND DEBRIS FROM THE CONSTRUCTION AREA DAILY. NO FLAMMABLE MATERIALS OR LIQUIDS MAY BE STORED IN THE EXISTING BUILDING OR IN THE NEW ADDITION. 10 REMOVE ANY EXISTING ITEMS, SERVICES, FINISHES/OR

SURFACES AS REQUIRED FOR THE INSTALLATION OF NEW CONSTRUCTION.

GENERAL REQUIREMENTS

BASED ON LIMITED INFORMATION PROVIDED BY WALMART

AND A LIMITED SITE OBSERVATION SURVEY; THE DESIGN

THE CONTRACTOR IS TO INSPECT THE STORE PRIOR TO

MECHANICAL CONSTRUCTION PROJECT MANAGER AND

SUBMIT AN RFI FO ANY DISCREPANCIES BETWEEN

THESE PLANS AND THE EXISTING CONDITIONS.

CODES, REGULATIONS AND ORDINANCES HAVING

THE CONTRACTOR IS RESPONSIBLE FOR HAVING A

SPECIFICATIONS. THE FAILURE TO ACQUAINT HIMSELF

WITH ALL DRAWINGS AND SPECIFICATIONS DOES NOT

THE EXISTING BUILDING SHALL BE PROTECTED FROM

COMPENSATION SHALL BE ALLOWED DUE TO FAILURE TO

MOISTURE, DUST AND DEBRIS. INSTALL DUST PARTITIONS

OR DRAPES AS SHOWN OR AS REQUIRED TO KEEP DUST

ANY DAMAGE TO WALMART PROPERTY WHICH OCCURS

REPAIRED AT NO ADDITIONAL COST TO WALMART; THIS

INCLUDES ALL MERCHANDISE. CONTRACTOR SHALL PAY

WALMART THE COST FOR ALL DAMAGED MERCHANDISE.

HANDLING, AND STORAGE OF OWNER FURNISHED

OWNER FURNISHED EQUIPMENT AND ANY OTHER

EQUIPMENT LAYDOWN AREA WITH WALMART STORE

MANAGEMENT PRIOR TO PLACEMENT. CONTRACTOR IS

RESPONSIBLE FOR SECURITY AND CONDITION OF OWNER

FURNISHED EQUIPMENT KEPT IN STORAGE AND SHALL

ORDERING OF MATERIALS TO PROHIBIT DELAYS OF THE

CONSTRUCTION SCHEDULE OF THIS PROJECT. IT IS THE

RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE

DELIVERY OF MATERIALS IN A TIMELY MANNER.

KEEPING THE BUILDING SECURE OF PERSONS,

ENVIRONMENTAL ELEMENTS OR HAZARDS. THE

(DEMOLITION) OF ANY EXTERIOR WALL.

PROVIDE PERSONNEL TO RECEIVE AND MOVE EQUIPMENT.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE TIMELY

THE CONTRACTOR SHALL MAINTAIN THE INTEGRITY OF THE

CONTRACTOR SHALL BE RESPONSIBLE TO MAINTAIN THE I

NTEGRITY OF ALL EXISTING SECURITY SYSTEMS. THE

OF ANY EXISTING SECURITY SYSTEM FOR THE OPENING

SCOPE OF WORK SUMMARY

CONTRACTOR SHALL OBTAIN PERMISSION FROM THE WALMART STORE MANAGER PRIOR TO THE MODIFICATION

THE CONTRACTOR SHALL BE RESPONSIBLE FOR RECEIVING

ADMINISTRATOR. CONTRACTOR SHALL PROVIDE EITHER ON-

LAYDOWN AREA ON-SITE, AND/OR OFF-SITE STORAGE FOR

LOCATION OF ANY ON-SITE STORAGE CONTAINERS AND/OR

EQUIPMENT. CONTRACTOR SHALL COORDINATE DELIVERY

DATE CHANGES WITH WALMART HVAC/REFRIGERATION

SITE STORAGE CONTAINERS, COORDINATE EQUIPMENT

CONSTRUCTION ITEMS. CONTRACTOR SHALL COORDINATE

DURING THE PROCESS OF CONSTRUCTION SHALL BE

THOROUGH KNOWLEDGE OF ALL DRAWINGS AND

RELIEVE THE CONTRACTOR'S RESPONSIBILITY OF

PERFORMING HIS WORK PROPERLY. NO ADDITIONAL

FAMILIARIZE WORKERS WITH ALL DRAWINGS AND

AND MOISTURE FROM WALMART PREMISES.

SPECIFICATIONS.

COMMENCING WITH ANY WORK AND NOTIFY THE WALMART

ALL WORK SHALL BE DONE IN A SAFE AND WORKMANLIKE

MANNER AND IN STRICT ACCORDANCE WITH THE LOCAL

ADA-ADAAGS. OSHA REGULATIONS. AND ALL APPLICABLE

GOVERNING BUILDING CODE, NATIONAL ELECTRIC CODE,

PROFESSIONAL CANNOT BE HELD RESPONSIBLE FOR

THE ACCURACY OF THE EXISTING CONDITIONS

11 PROVIDE FURRING FOR CONDUITS AND PIPING, SHOWN OR NOT, AND FINISH OUT FURRING TO MATCH ADJACENT EXISTING FINISHES. 12 REPAIR, REROUTE, AND EXTEND ALL SERVICES, PIPING,

CONDUIT OF EXISTING ITEMS AND EQUIPMENT AS

REQUIRED DURING THE CONSTRUCTION PROCESS FOR

THE COMPLETE INSTALLATION AND OPERATION OF NEW

EQUIPMENT. THIS INCLUDES ALL ITEMS SHOWN OR NOT

SHOWN ON THE DRAWINGS. 13 RESET EXISTING EQUIPMENT OR RELATED ITEMS AS REQUIRED FOR PROPER OPERATION. WHERE EXISTING FINISHES ARE TO REMAIN, CLEAN, REPAIR, PATCH, AND/OR RE-PAINT AS NECESSARY TO BLEND WITH ADJACENT

14 CONSULT WALMART MECHANICAL CONSTRUCTION PROJECT MANAGER FOR COMPLETE APPLICABLE SCOPE THE CONTRACTOR SHALL MAINTAIN THE REQUIRED NUMBER OF EXITS WITHIN THE STORE. MAINTAIN EXIT

SIGNS AND EMERGENCY LIGHTING AT ALL TIMES, AS

15 WALMART SHALL OCCUPY THE BUILDING DURING CONSTRUCTION. THE CONTRACTOR SHALL COORDINATE WITH WALMART STORE MANAGER AND THE WALMART MECHANICAL CONSTRUCTION MANAGER ALL CONSTRUCTION PROCEDURES WHICH WILL INTERFERE WITH THE NORMAL DAILY OPERATIONS OF THE STORE.

REQUIRED BY THE LOCAL BUILDING OFFICIAL.

16 THE CONTRACTOR SHALL OBTAIN PERMISSION FROM WALMART FOR ALL INTERRUPTIONS OF UTILITY SERVICES TO THE EXISTING BUILDING PRIOR TO THE INTERRUPTION. ACCIDENTAL INTERRUPTIONS SHALL BE REMEDIED IMMEDIATELY WITH APPROPRIATE FORCES. 17 THE CONTRACTOR SHALL COORDINATE WITH THE

ITEMS SPECIFIED IN THESE CONSTRUCTION DOCUMENTS. 19 REPORT ANY DISCREPANCIES FOUND IN THE FIELD IMMEDIATELY TO WALMART AND THE ENGINEER PRIOR TO

ENGINEER OF RECORD ON DEVIATIONS IN INSTALLATION

AND CONSTRUCTION OF FIXTURES, PIPING, AND OTHER

MAKING ANY STRUCTURAL MODIFICATIONS OR ORDERING OF ANY MATERIALS. 20 THE GENERAL CONTRACTOR SHALL RESPOND TO ALL REQUIREMENTS OF THE ENGINEER FOR VERIFICATIONS,

RESPONSES, AND SUBMISSIONS. ALL ADJACENT BUILDINGS EXISTING BUILDING SECURITY AT ALL TIMES. THIS INCLUDES (IF APPLICABLE) SHALL REMAIN IN SERVICE DURING DEMOLITION/CONSTRUCTION. 21 MUD AND DEBRIS TRACKED ONTO OWNER PAVING OR CITY

STREETS TO BE CLEANED IMMEDIATELY. 22 BUILDING COMPONENTS AFFECTED BY THE SCOPE OF

WORK AND ALLOWED TO REMAIN SHALL BE SECURED TO PREVENT FALLING, LOOSENING, OR CREATING DAMAGE OF ANY KIND IN THE FUTURE.

NOTE TO BIDDING CONTRACTORS

THESE PLANS ARE TYPICALLY ISSUED FOR BID AS REDUCED

1/2 (HALF) SIZE" DOCUMENTS. SCALES SHOWN APPLY TO

ORIGINAL "FULL SIZE" DOCUMENTS ONLY. DO NOT SCALE

INSTALLATION OF HEAT RECLAIM SKID AND ANCILLARY EQUIPMENT ON RACK 'C' INSTALLATION OF ACCOMPANYING AHU HEATING COILS AND HYRDRONIC PIPNG ON AHU-1 AND AHU-2. INSTALLATION OF LIQUID PRESSURE AMPLIFICATION PUMP

SKIDS AND ANCILLARY EQUIPMENT ON RACK 'A' AND RACK

THE AWARDED CONTRACTOR SHALL BE RESPONSIBLE FOR HE ENTIRE SCOPE OF WORK INDICATED ON THESE PLANS. HE ASSOCIATED SPECIFICATIONS AND WALMART SCOPE OF WORK DOCUMENT. THIS CAPITAL EXPENDITURE SHALL BE COMPLETED AS A "TURN KEY" PROJECT BY THE AWARDED CONTRACTOR AND SHALL INCLUDE BUT NOT LIMITED TO

DRAWINGS, FIELD VERIFY ALL DIMENSIONS.

ALL SHEETS ON THIS PRINT: HVAC, REFRIGERATION, LUMBING, ELECTRICAL EMS CONTROLS SYSTEMS, ARCHITECTURAL AND STRUCTURAL DISCIPLINES. THIS IS A CAP-X SUS PROJECT. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.

CODE COMPLIANCE

STORE #2403, PUYALLUP, WASHINGTON NAME OF PROJECT: 310 31ST AVE SE, PUYALLUP, WA 98374 STREET ADDRESS:

PROPOSED USE: RETAIL

BUILDING CODE: 2018 WASHINGTON STATE BUILDING CODE MECHANICAL CODE: 2018 WASHINGTON STATE MECHANICAL CODE PLUMBING CODE: 2018 UNIFORM PLUMBING CODE ELECTRICAL CODE: 2020 NATIONAL ELECTRICAL CODE FIRE CODE:

2018 WASHINGTON STATE FIRE CODE ENERGY CONSERVATION: 2018 WASHINGTON STATE ENERGY CODE

PRMH20230621

FULL SIZED LEDGIBLE COLOR PLANS ARE REQUIRED TO BE PROVIDED BY THE PERMITTEE ON CORRECT PLAN SET SITE FOR ALL INSPECTIONS (MIN. PLAN SIZE 24" X 36")

City of Puyallup Building **Montgomery** 07/07/2023

ACCEPTED 2:22:20 PM

> TITLE SHEET

MECHANICAL ENGINEER ARED MILLER, P.E. C ENGINEERING PC 40 E. CORPORATE DR. SUITE 103

MERIDIAN, ID 83642

SEE THIS REVISED SET FOR INSTALLATION AND INSPECTIONS

DISGAURD APPROVED SET DATED

- RACK D

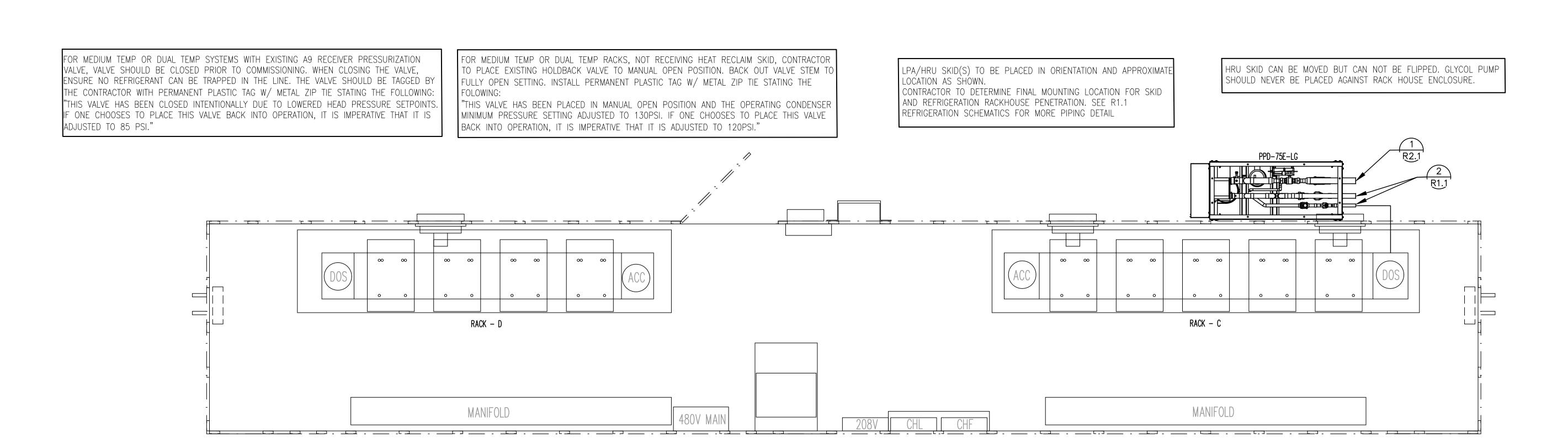
- RACK (

— RACK B

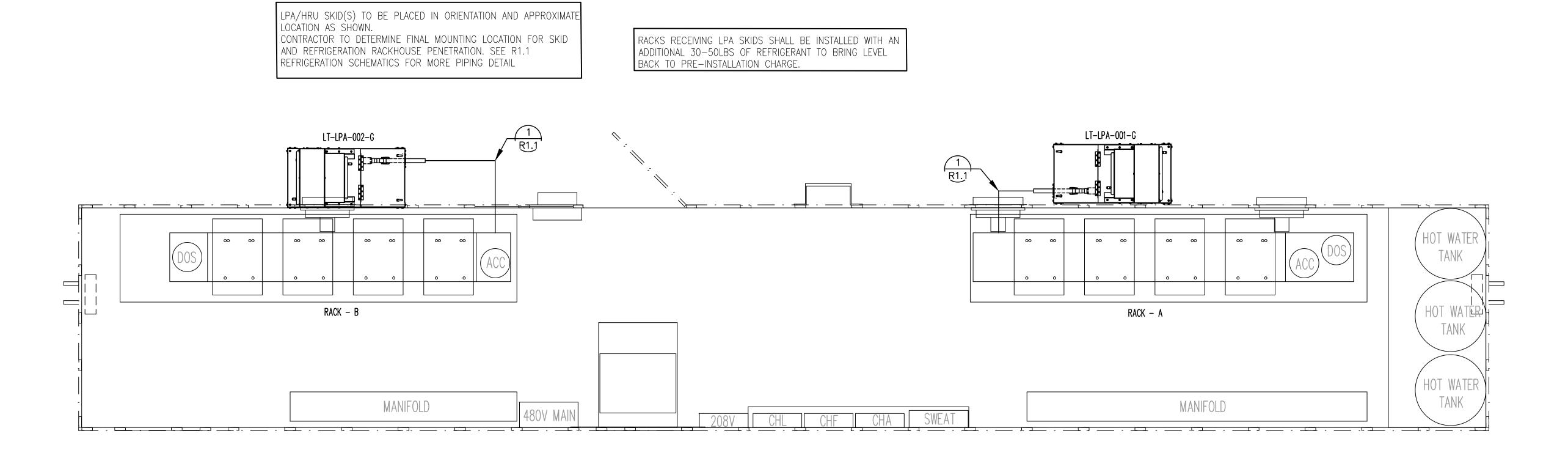
---- RACK A

|AHU-|1-

04/15/2022/







1) RACKHOUSE #1 REFRIGERATION EQUIPMENT PLAN

GENERAL NOTES

- PLAN INDICATES GENERAL LOCATION OF NEW SKIDS. REF R1.1 FOR ADDITIONAL PIPING
- REFRIGERATION SYSTEM INSTALLATION SHALL BE IN COMPLETE CONFORMANCE WITH SPECIFICATIONS, AND WITH ALL REQUIREMENTS OF REFRIGERATION
- EQUIPMENT MANUFACTURER. REFRIGERATION DRAWINGS ARE PROVIDED AS AN AID TO BIDDERS AND TO INDICATE DESIRED ROUTING OF REFRIGERATION LINES; CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR CORRECT INSTALLATION OF PIPING AND ACCESSORIES TO PROVIDE A COMPLETE AND FULLY OPERATING SYSTEM.
- PIPE INSULATION SHALL BE BLACK. ANY EXISTING INSULATION THAT IS REMOVED SHALL BE REPLACED WITH NEW BLACK
- INSULATION. REFER TO SPECIFICATION 15600 INSTALL PIPE INSULATION IN STRICT ACCORDANCE WITH MANUFACTURER'S

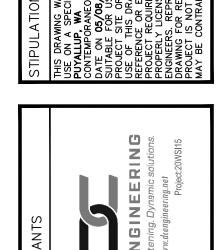
INSTALLATION INSTRUCTIONS.

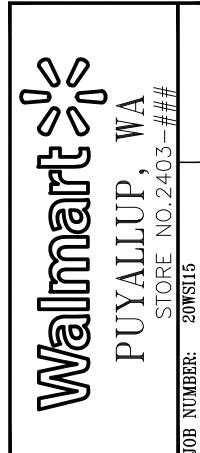
- BUILDING COMPONENTS ABANDONED BY THE SCOPE OF WORK SHALL BE SECURED TO PREVENT FALLING, LOOSENING, OR CREATING DAMAGE OF ANY KIND IN THE FUTURE.
- REFERENCE RAE CORP PROVIDED INSTALLATION AND EQUIPMENT SUBMITTALS FOR ADDITIONAL DETAILS ON INSTALLATION REQUIREMENTS.
- LIQUID LINES TO AND FROM THE LPA PUMP DO NOT NEED TO BE INSULATED. ANY LIQUID LINES INSIDE THE RACK HOUSE THAT ARE INSULATED WILL NEED TO BE RE-INSULATED AFTER CONNECTION OF NEW PIPING.
- USE OF SWIVEL TEES FOR PRESSURE SENSORS IS NOT ACCEPTABLE. PLEASE UTILIZE SHIPPED LOOSE PRESSURE SENSOR VALVE BRAZED TO EXISTING PIPING AS REQUIRED. STEMS ON ALL TRANSDUCER VALVES TOUCHE OR INSTALLED AS PART OF THIS PROJECT SHALL BE BACKED OUT FULLY AND PACKINGS TIGHTENED UPON COMPLETION OF
- IO. DO NOT USE NYLOG. ONLY "BLUE MONSTER" TEFLON TAPE IS ACCEPTABLE.

INSTALLATION.

- CONTRACTOR TO PROVIDE AND REPLACE THE LIQUID FILTER DRIER CORES ON ALL RACKS UPON COMPLETION OF PROJECT.
- CONTRACTOR TO ESTABLISH LIQUID LEVEL IS SUFFICIENT IN THE SYSTEM PRIOR TO STARTING WORK. SIMULATE SUMMER CONDITION TO ACHIEVE DROPLEG TEMP. OF >80F IN FULL CONDENSER MODE FOR 30 MINUTES. REFRIGERANT LEVEL SHOULD BE MINIMUM 1-BALL ON VERTICAL RECEIVER OR 30% ON HORIZONTAL RECEIVER. IF LEVEL IS LOW SEND DOCUMENTATION TO ED TARR, PATTY JERABECK INDICATING LEVEL.
- 5. PRIOR TO BEGINNING WORK PROVIDE A LEAK CHECK OF RACK SYSTEM WITH WALMART TEC OR DESIGNATED SERVICE PROVIDED TO ENSURE RACK IS 100% LEAK FREE EXCLUDING CASES AND INTERIOR PIPING. REPORT ANY LEAKS FOUND TO ED TARR. VERIFY THE RECIEVER LEVEL ALARM IS FULLY FUNCTIONAL.
- . PRIOR TO BEGINNING WORK TAKE A PHOTO OF THE REFRIGERANT LEVEL TRACKING SHEET AND RECEIVER LEVEL FOR EACH RACK. THE PHOTO WILL BE UPLOADED TO CX ALLOY AND REQUIRED ALONG WITH CLOSE OUT DOCUMENTATION (ATTACHED TO FINAL PAY APPLICATION).
- . ADDITIONAL REFRIGERATION CHARGE WILL BE REQUIRED TO BRING THE SYSTEM BACK TO PRE-CONSTRUCTION LEVELS. REFRIGERANT IS TO BE CONTRACTOR PROVIDED. THE GC SHALL COMPLETE THE REFRIGERANT FORM E WITHIN 5 BUSINESS DAYS OF ADDING THE REFRIGERANT AND EMAILED TO: MCEQUIP@WAL-MART.COM, CC; PATTY JERABECK AND ED TARR AND THE HVAC/R SENIOR MANAGER
- . ALL RFI'S SHALL BE SUBMITTED THROUGH WALMART WORKSPACE TO THE EOR DC ENGINEERING. DLILYA@DCENGINEERING.NET.



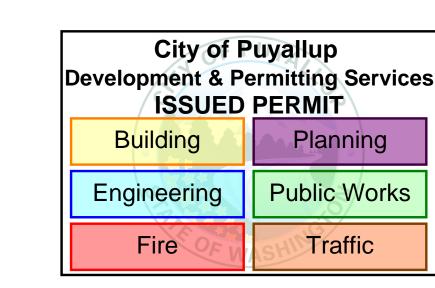


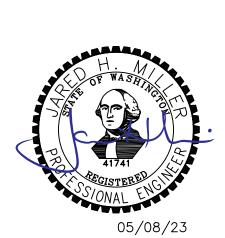


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NOTE: ALL WORK ON THIS SHEET IS TO BE COMPLETED BY A WALMART APPROVED

CONTRACTOR.

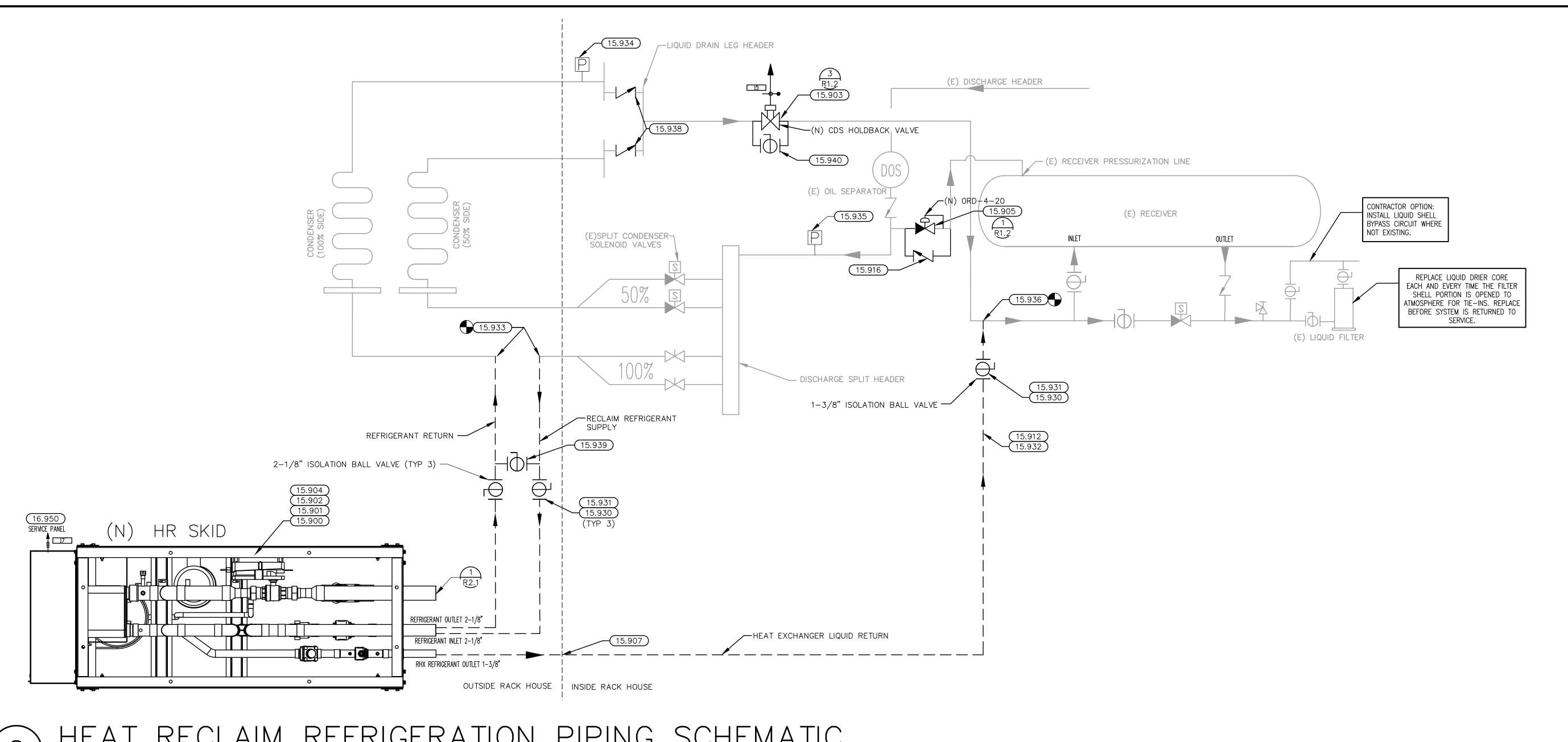
NOTE: REFRIGERATION CONTRACTOR IS RESPONSIBLE FOR ALL FINAL REFRIGERATION ELECTRICAL TERMINATIONS TO REFRIGERATION

24 HOURS PRIOR TO SHUTTING DOWN ANY REFRIGERATION SYSTEMS, HVAC SYSTEMS, OR ENERGY MANAGEMENT CONTROLS SYSTEMS, SEND E-MAIL TO NSRM@WALMART.COM. THE E-MAIL SHALL STATE WHAT, WHY, AND WHEN IT IS BEING SHUT DOWN AND HOW LONG IT IS ANTICIPATED TO BE DOWN. THEN SEND A FOLLOW UP E-MAIL TO NSRM@WALMART.COM AFTER THE WORK IS COMPLETE AND THE SYSTEM IS BACK UP AND RUNNING.

REFRIGERATION

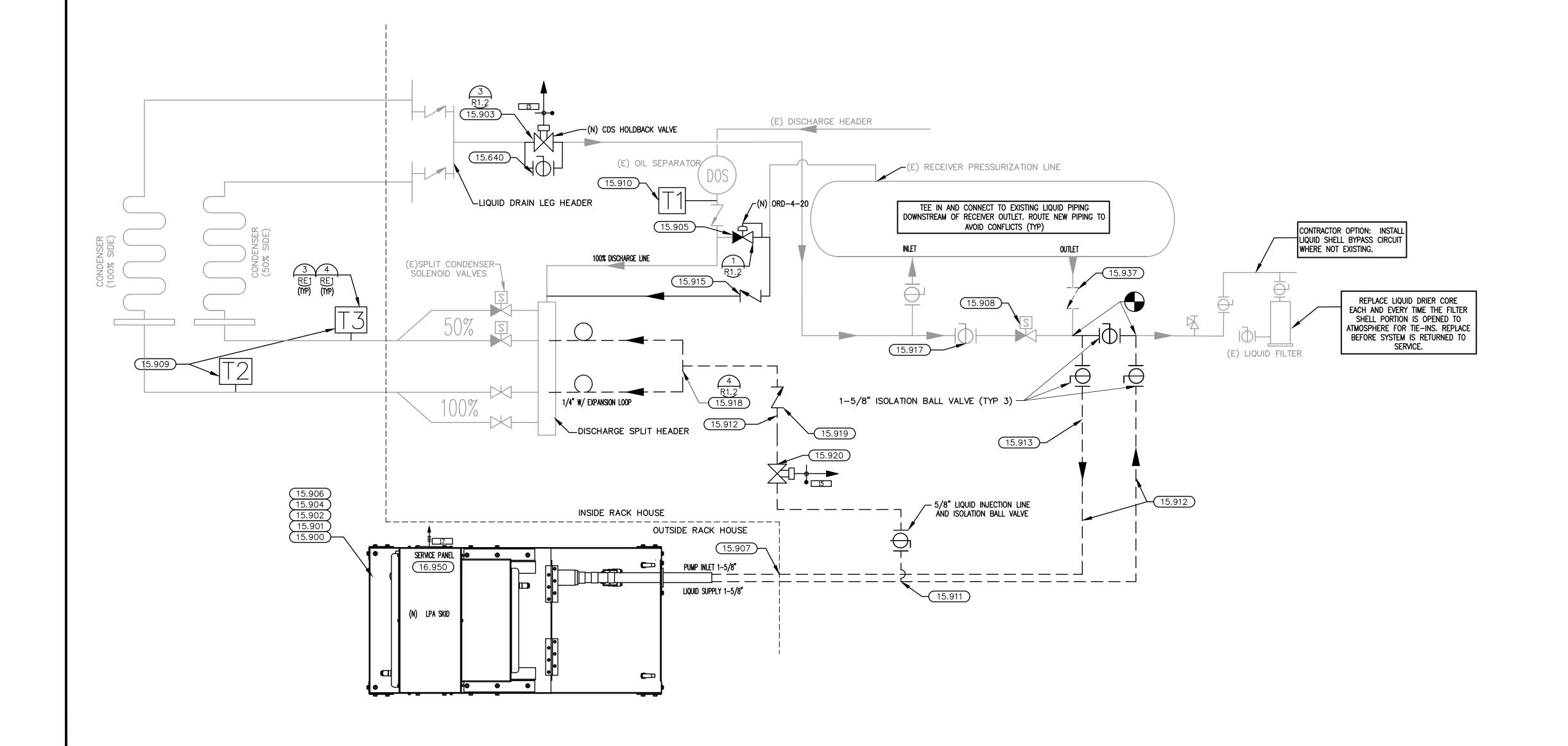
EXISTING CONDITIONS WERE TAKEN FROM ORIGINAL DRAWINGS OR SURVEY DOCUMENTS AND MAY NOT REFLECT EXACT "AS-BUILT" CONDITIONS. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO SUBMITTING FINAL BIDS. CONTRACTOR SHALL CAREFULLY COORDINATE NEW OF PERFORMING HIS WORK PROPERLY. NO WORK AND DEMOLITION WITH ALL OTHER DISCIPLINES ADDITIONAL COMPENSATION SHALL BE ALLOWED AND EXISTING CONDITIONS.

EACH SUBCONTRACTOR IS RESPONSIBLE FOR HAVING A THOROUGH KNOWLEDGE OF ALL DRAWINGS AND SPECIFICATIONS IN THEIR RELATED FIELD. THE FAILURE TO ACQUAINT HIMSELF WITH THIS KNOWLEDGE DOES NOT RELIEVE THE RESPONSIBILITY BECAUSE OF CONDITIONS THAT OCCUR DUE TO FAILURE TO FAMILIARIZE WORKERS WITH THIS KNOWLEDGE.



HEAT RECLAIM REFRIGERATION PIPING SCHEMATIC

LPA INSTALLATION PIPING SCHEMATIC



REFRIGERATION KEYNOTES

15.900	RACK HOUSE. CONTRACTOR TO VERIFY EXACT FIELD LOCATION TO AVOID CONFLICT WITH EXISTING EQUIPMENT AND ALLOW FOR PIPING AND ELECTRICAL CONNECTIONS. MAINTAIN ADEQUATE ELECTRICAL CLEARANCES FOR SKID PANEL AND PLACE SKID UNIT LEFT/RIGHT ORIENTATION TO ENSURE PUMP IS	15.
	NEVER AGAINST THE RACK HOUSE.	

15.901 INSTALL SKID ON 6"X6" RUBBER EQUIPMENT ISOLATION PADS AT 4 MOUNTING LOCATIONS.

15.902 MOUNT SKID TO CONCRETE SLAB USING (4) HILTI KWIK BOLT-TZ WITH 3-1/4" EFFECTIVE EMBEDMENT DEPTH AVOID CONFLICT WITH ANY BELOW SLAB PIPING OR CONDUITS. REF EQUIPMENT SUBMITTAL FOR MOUNTING HOLE LOC.

15.903 REPLACE EXISTING A8 VALVE WITH NEW CDS VALVE AND 1-3/8" BYPASS BALL VALVE. WIRE CDS VALVE TO CONTROLLER LOCATED IN THE SKID CONTROL CABINET ASSOCIATED WITH THE RACK. REF. RAE SUBMITTAL FOR TERMINATION. INSTALL SHIPPED LOOSE B-35593 TRANSDUCER VALVE

FOR THE NEW TRANSDUCER. 15.904 INSTALL SKID ON GROUND EXTERIOR TO RACK HOUSE IN BEST LIQUID LINE CONNECTIONS.

15.905 REPLACE EXISTING A9 OR ORD RECEIVER PRESSURIZATION VALVE WITH NEW ORD-4-20 VALVE.

15.906 FIELD WIRE ALL PRESSURE AND TEMPERATURE SENSORS TO TERMINATION POINTS REFERENCED IN OEM WIRING DIAGRAM.

15.907 TURN LPA PIPING INTO RACK HOUSE AT OPTIMAL LOCATION TO ASSIST WITH PIPING CONNECTIONS INSIDE THE RACK. MAINTAIN PIPING AT LOWEST ELEVATION POSSIBLE BUT SECURELY SUPPORTED. PIPING FROM THE RECEIVER TO THE LPA PUMP INLET IS 1-5/8". MINIMIZE THE NUMBER OF TEES AND ELBOWS FROM RECEIVER TO LPA PUMP INLET. INSTALL UNI-SEAL FOR ALL PIPE PENETRATIONS INTO RACK HOUSE

15.908 DISCONNECT 208v SOLENOID COIL AND RUN SOLENOID VALVE MANUAL LIFT STEM IN FORCING THE SOLENOID OPEN TO 15.933 AVOID TRAPPING LIQUID BETWEEN BALL VALVE AND SOLENOID. (RUPTURE OF LINE COULD OCCUR IF NOT DONE). TAG THE VALVE AS "RECEIVER BYPASS DISABLED. VALVE STEM TO REMAIN IN MANUAL OPEN POSITION" WITH PERMANENT TAGS. PULL BACK WIRE TO NEAREST JUNCTION BOX AND TERMINATE WITH APPROPRIATE ELECTRICAL CRIMP

END CAP.

15.909 INSTALL TEMPERATURE SENSORS ON THE 100% DISCHARGE LINE (T2) AND THE 50% DISCHARGE LINE (T3) NEAR THE POINT OF CONNECTION TO THE CONDENSER HEADER. WIRES SHOULD BE SECURED WITH STAINLESS STEEL ZIP TIES. DO NOT ATTACHED WIRES TO HOT GAS PIPE. AND UTILIZE UV RESISTANT WIRE, WIRE SPLICES MUST BE COMPLETED USING SOLDER AND HEAT SHRINK. WIRE NUTS ARE NOT ALLOWED. REF. SHEET RE1 FOR INSTALLATION AND TERMINATION DETAIL.

15.910 INSTALL TEMPERATURE SENSOR ON THE 100% DISCHARGE LINE (T1) NEAR THE EXIT OF THE EXISTING OIL SEPARATOR. REF. SHEET RE1 FOR INSTALLATION AND TERMINATION DETAIL.

15.911 IT IS CRITICAL THAT THE LIQUID INJECTION PIPING CONNECTS INSIDE THE RACKHOUSE ON THE LIQUID SUPPLY LINE FROM THE LPA PUMP.

15.912 SUPPORT ALL LIQUID PIPING WITH UNI-STRUT AND CUSH-A-CLAMP BOLTED TO THE RACKHOUSE FLOOR.

15.913 ROUTE PUMP INLET PIPING WITH AS FEW 15.939 BYPASS BALL VALVE TO REMAIN CLOSED ELBOWS AS POSSIBLE AND KEEP LEVEL. DO NOT OFFSET PIPING.

5.915 INSTALL NEW 5/8" 4-BOLT PARALLEL CHECK VALVE AROUND NEW ORD VALVE AS SHOWN. THE CHECK VALVE SHOULD FLOW TOWARDS

CONDENSER AND SHOULD CONNECT AT 100% DISCHARGE LINE BEFORE SPLIT HEADER AND DOWN STREAM OF ANY 3-WAY HEAT RECLAIM VALVES. REF. MUELLER INSTALLATION INSTRUCTIONS. DO NOT USE NYLOG. 15.916 INSTALL NEW 5/8" 4-BOLT PARALLEL CHECK VALVE AROUND NEW ORD VALVE

AS SHOWN. THE CHECK VALVE SHOULD

FLOW TOWARDS CONDENSER AND SHOULD

CONNECT AS SHOWN ADJACENT TO BOTH

SIDES OF THE ORD-4-20. REF. MUELLER

INSTALLATION INSTRUCTIONS. CLOSE ISOLATION BALL VALVE ON RECEIVER BYPASS LINE. TO AVOID TRAPPING LIQUID BETWEEN BALL VALVE AND SOLENOID. (RUPTURE OF LINE COULD OCCUR IF NOT DONE). TAG THE VALVE AS "RECEIVER BYPASS

DISABLED. VALVE TO REMAIN CLOSED"

WITH PERMANENT TAGS. 15.918 CONNECT TWO 1/4" TUBING WITH EXPANSION LOOP TO 5/8" INJECTION PIPING AND CONNECT TUBING TO SPLIT HEADER USING A BRAZED IN FITTING.

LOCATION TO ACCOMMODATE PIPING OF 15.919 INSTALL 5/8" 4-BOLT CHECK ON INJECTION LIQUID SUPPLY LINE. REF. MUELLER INSTALLATION INSTRUCTIONS.

PRACTICAL TO INJECTION HEADER. WIRE

BACK TO SPORLAN CONTROLLER IN LT

15.920 INSTALL 5/8" CDS-4 VALVE NEAR AS

LPA SKID. 15.930 INSTALL MANUAL BYPASS ISOLATION BALL VALVES PRIOR TO HEAT RECLAIM SKID TIE-IN TO MINIMIZE DOWN TIME. REFERENCE R3 OEM

SUBMITTALS FOR PIPE SIZE. DO NOT CLOSE ISOLATION BALL VALVES EXCEPT FOR SERVICE AFTER SYSTEM HAS BEEN

EVACUATED. VALVES TO REMAIN OPEN ROUTE (N) LEAVING LIQUID LINE THROUGH RACK HOUSE. DO NOT OBSTRUCT ACCESS TO EXISTING EQUIPMENT. DRAWING IS SCHEMATIC IN NATURE AND DOES NOT DICTATE ACTUAL ROUTING. LEAVE PIPING LEVEL AS MUCH AS

CONNECT (N) HEAT RECLAIM REFRIGERATION INLET AND OUTLET PIPING TO 100% SIDE OF DISCHARGE CONDENSER PIPING EXTERIOR TO RACK HOUSE. DRAWING IS SCHEMATIC IN NATURE AND DOES NOT DICTATE ACTUAL ROUTING. LEAVE PIPING LEVEL AS MUCH AS

POSSIBLE.

TRANSDUCER. LOCATION IS CRITICAL AND MUST BE INSTALLED UPSTREAM OF CHECK VALVE. TERMINATE THE NEW DROP LEG TRANSDUCER IN THE SMART DRIVE VFD OR RIM FOR DUMB DRIVE APPLICATIONS. COORDINATE RE-PROGRAMMING OF THE BAS WITH THE WALMART BUILDING PERFORMANCE TEAM AT wmbpteam@wal-mart.com. SEE RE2 FOR WIRING DETAIL.

INSTALL (N) DROP LEG PRESSURE

15.935 INSTALL (N) DISCHARGE PRESSURE

CONTROL MODULE, IN CONDENSER CONTROL CABINET. EXISTING DISCHARGE TRANSDUCER MAY BE RE-USED IF CORRECTLY TERMINATED IN CONDENSER CONTROL MODULE AND CORRECT TYPE. SEE RE2 FOR MORE DETAIL. 15.936 CONNECT (N) LEAVING LIQUID LINE TO MAIN

TRANSDUCER AND TERMINATE IN CONDENSER

LIQUID DRAIN LEG DOWNSTREAM OF HOLDBACK VALVE AND UPSTREAM OF RECEIVER INLET. EXISTING CHECK VALVE CAN BE REMOVED ON RECEIVER OUTLET FOR HORIZONTAL RECEIVER RACKS RECEIVING LPA SKIDS, IF IT AIDS IN NEW PIPING CONNECTIONS.

15.938 REPLACE BOTH DROP LEG CHECK VALVES ON ALL RACKS GETTING HEAT RECLAIM SKID WITH MUELLER 4 BOLT STYLE SERVICEABLE CHECK VALVES.

AFTER STARTUP.

15.940 CONTRACTOR TO PROVIDE AND INSTALL FULL PORT ISOLATION BALL VALVE ONE NOMINAL SIZE SMALLER THAN NEW CDS VALVE SIZE. INSTALL BALL VALVE AROUND CDS VALVE AS A BYPASS. TYPICAL FOR ALL RACKS RECEIVING CDS VALVE REPLACEMENT.

ELECTRICAL KEYNOTES

16.950 TERMINATE NEW HOME RUN TO 208V/3PH BREAKER INSTALLED IN 208V PANEL IN RACKHOUSE. REF. CIRCUIT SCHEDULE BELOW FOR WIRE, BREAKER AND CONDUIT SIZE

CIRCUIT SCHEDULE

15 LOW VOLTAGE - CDS WIRING 17 15A, (3)#12, (1)#12G, 1/2" C

ALL CONDUCTOR SIZES ARE BASED ON 75 DEG C RATED TERMINATIONS AND TYPE THHN/THWN-2 INSULATION; FOR TERMINATIONS OR INSULATION TYPES RATED LESS THAN 75 DEG C, MODIFY SIZES ACCORDING TO NFPA 70.

City of Puyallup Development & Permitting Service ISSUED PERMIT			
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Engineering	Public Works		
Fire OF W	Traffic		

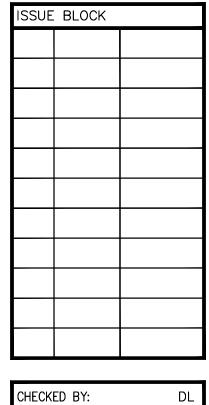
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EACH SUBCONTRACTOR IS RESPONSIBLE FOR HAVING A THOROUGH KNOWLEDGE OF ALL DRAWINGS AND SPECIFICATIONS IN THEIR RELATED FIELD. THE FAILURE TO ACQUAINT HIMSELF WITH THIS KNOWLEDGE DOES NOT RELIEVE THE RESPONSIBILIT BECAUSE OF CONDITIONS THAT OCCUR DUE TO FAILURE TO FAMILIARIZE WORKERS WITH THIS







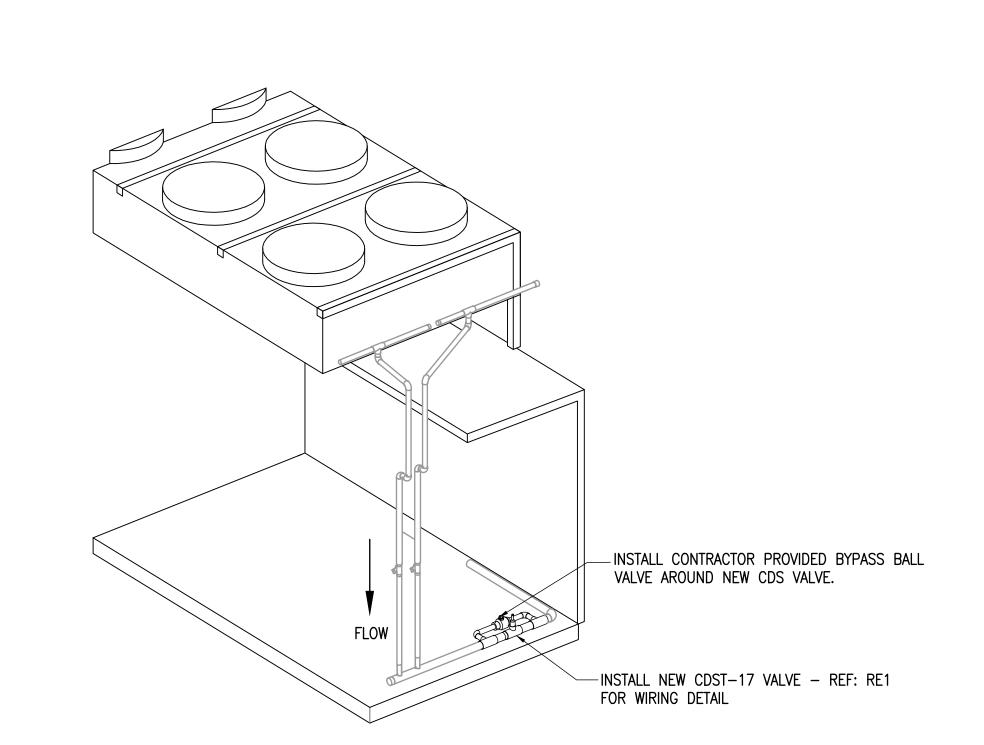


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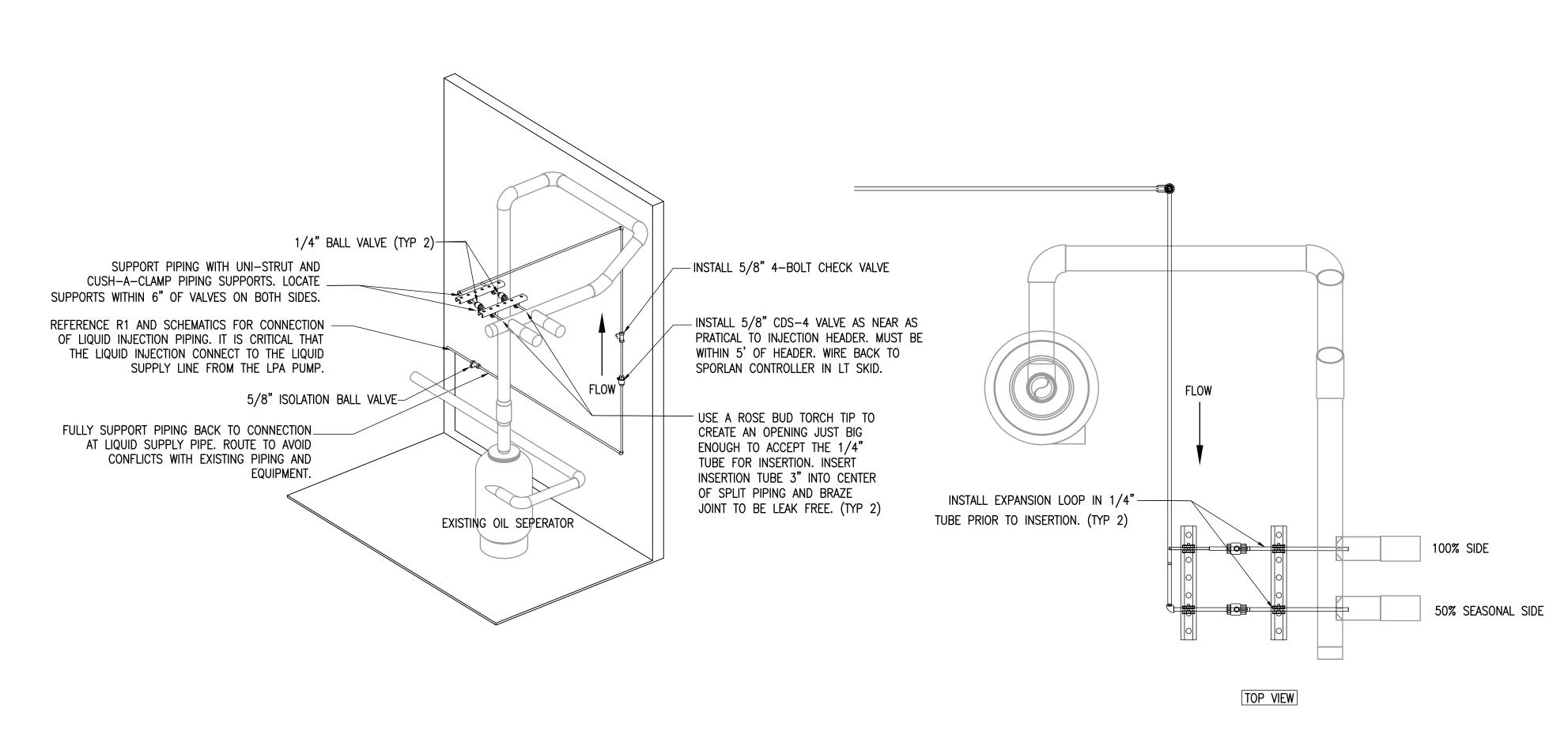
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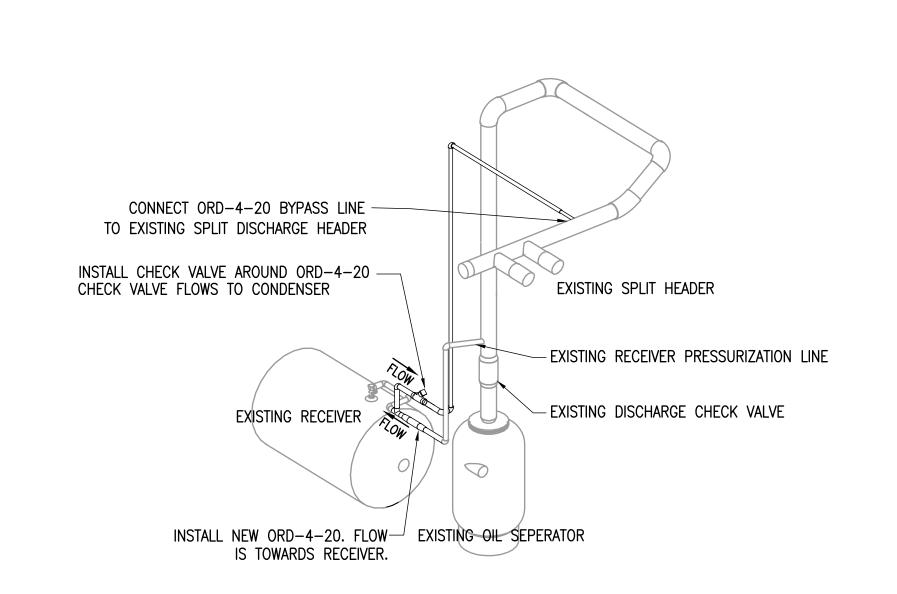
REFRIGERATION **SCHEMATICS**



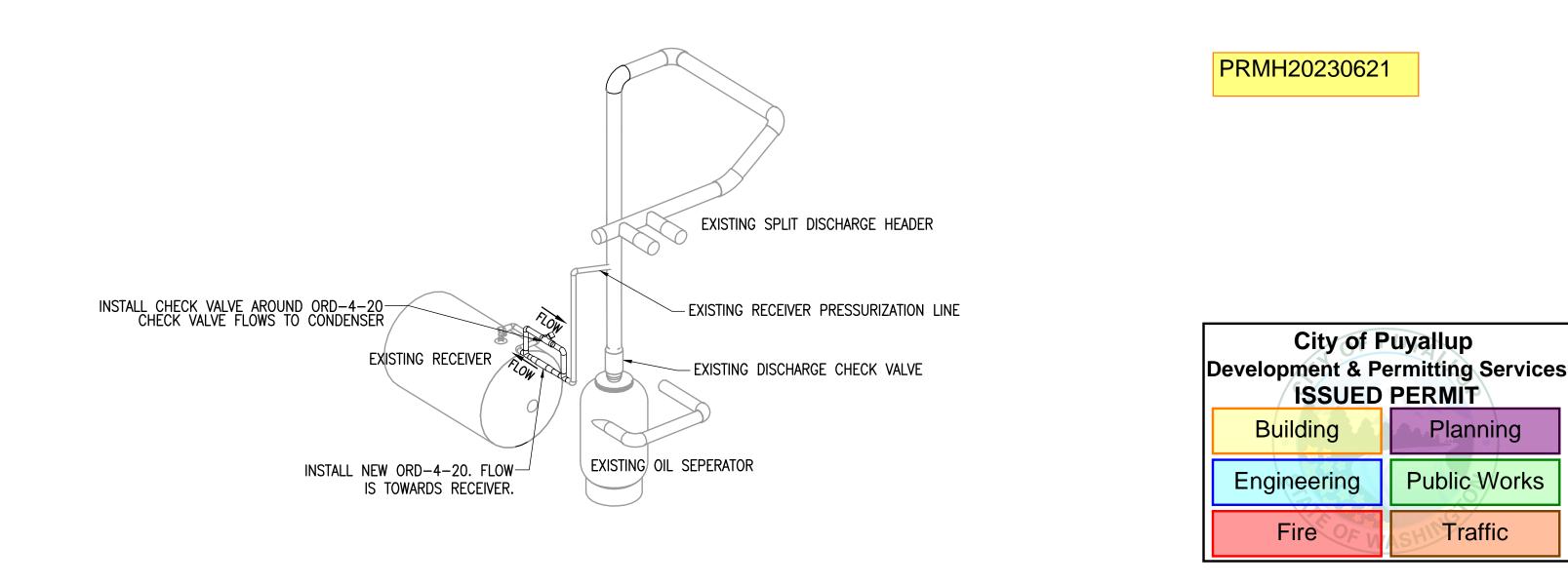
3 DRAIN LEG CDS VALVE REPLACEMENT



(4) LIQUID INJECTION CDS VALVE AND PIPING



) RECEIVER EQUALIZATION CHECK VALVE PIPING - LT



(2) RECEIVER EQUALIZATION CHECK VALVE PIPING — MT

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REFRIGERATION **DETAILS**

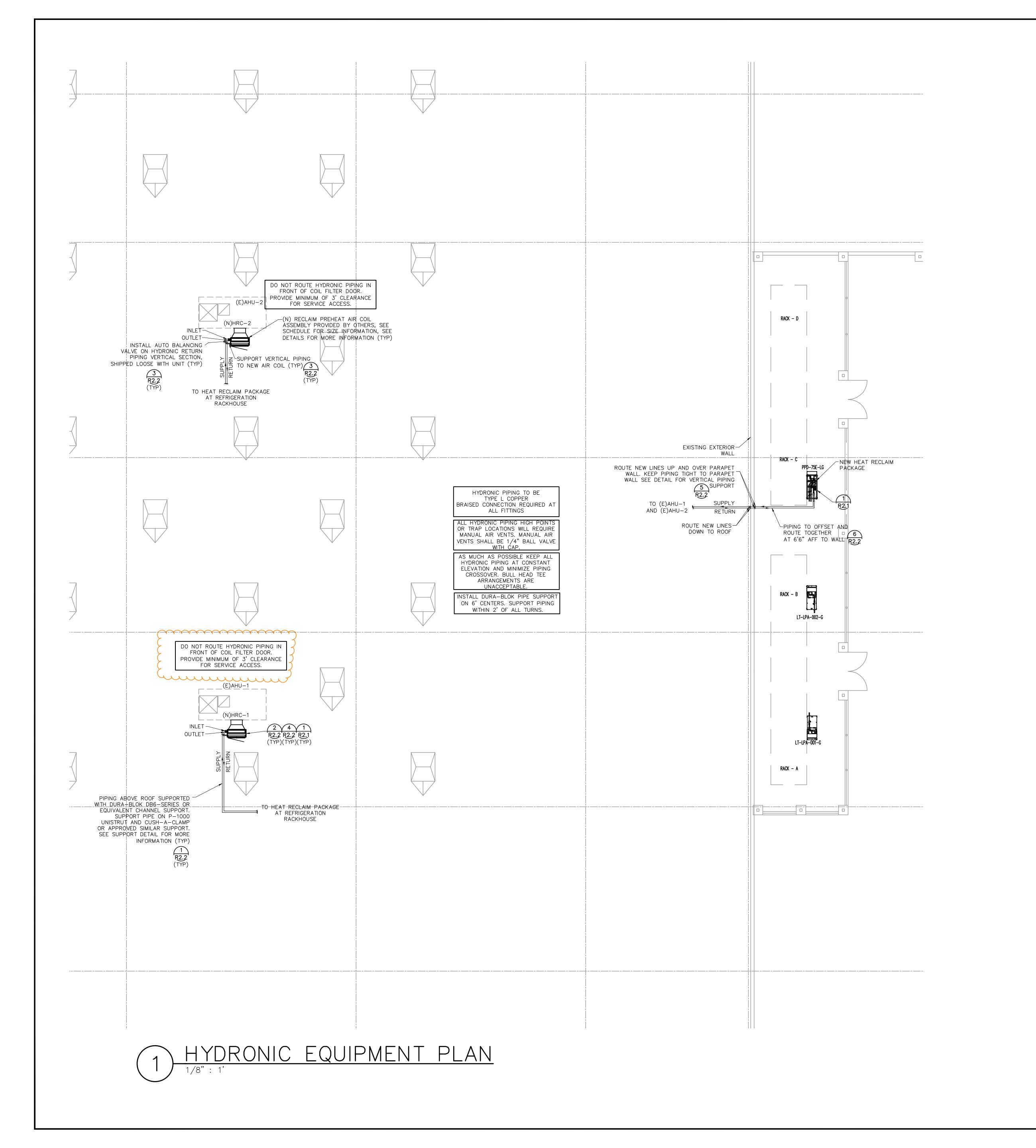
EXISTING CONDITIONS WERE TAKEN FROM ORIGINAL EACH SUBCONTRACTOR IS RESPONSIBLE FOR HAVING DRAWINGS OR SURVEY DOCUMENTS AND MAY NOT A THOROUGH KNOWLEDGE OF ALL DRAWINGS AND REFLECT EXACT "AS-BUILT" CONDITIONS. SPECIFICATIONS IN THEIR RELATED FIELD. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING FAILURE TO ACQUAINT HIMSELF WITH THIS KNOWLEDGE DOES NOT RELIEVE THE RESPONSIBILITY CONDITIONS PRIOR TO SUBMITTING FINAL BIDS. CONTRACTOR SHALL CAREFULLY COORDINATE NEW OF PERFORMING HIS WORK PROPERLY. NO WORK AND DEMOLITION WITH ALL OTHER DISCIPLINES ADDITIONAL COMPENSATION SHALL BE ALLOWED BECAUSE OF CONDITIONS THAT OCCUR DUE AND EXISTING CONDITIONS.

Traffic

KNOWLEDGE.

TO FAILURE TO FAMILIARIZE WORKERS WITH THIS

R1.2



GENERAL NOTES

PLAN INDICATES GENERAL LOCATION OF NEW SKIDS. REF R1.1 FOR ADDITIONAL PIPING

- REFRIGERATION SYSTEM INSTALLATION SHALL BE IN COMPLETE CONFORMANCE WITH SPECIFICATIONS, AND WITH ALL REQUIREMENTS OF REFRIGERATION
- EQUIPMENT MANUFACTURER. REFRIGERATION DRAWINGS ARE PROVIDED AS AN AID TO BIDDERS AND TO INDICATE DESIRED ROUTING OF REFRIGERATION LINES; CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR CORRECT INSTALLATION OF PIPING AND ACCESSORIES TO PROVIDE A COMPLETE

AND FULLY OPERATING SYSTEM.

INSTALLATION INSTRUCTIONS.

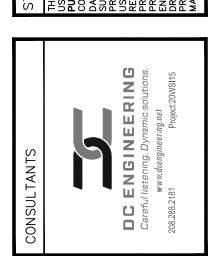
REQUIREMENTS.

- PIPE INSULATION SHALL BE BLACK. ANY EXISTING INSULATION THAT IS REMOVED SHALL BE REPLACED WITH NEW BLACK
- INSULATION. REFER TO SPECIFICATION 15600 INSTALL PIPE INSULATION IN STRICT ACCORDANCE WITH MANUFACTURER'S
- BUILDING COMPONENTS ABANDONED BY THE SCOPE OF WORK SHALL BE SECURED TO PREVENT FALLING, LOOSENING, OR CREATING
- DAMAGE OF ANY KIND IN THE FUTURE. REFERENCE RAE CORP PROVIDED INSTALLATION AND EQUIPMENT SUBMITTALS

FOR ADDITIONAL DETAILS ON INSTALLATION

- LIQUID LINES TO AND FROM THE LPA PUMP DO NOT NEED TO BE INSULATED. ANY LIQUID LINES INSIDE THE RACK HOUSE THAT ARE INSULATED WILL NEED TO BE RE-INSULATED AFTER CONNECTION OF NEW PIPING.
- USE OF SWIVEL TEES FOR PRESSURE SENSORS IS NOT ACCEPTABLE. PLEASE UTILIZE SHIPPED LOOSE PRESSURE SENSOR VALVE BRAZED TO EXISTING PIPING AS REQUIRED. STEMS ON ALL TRANSDUCER VALVES TOUCHE OR INSTALLED AS PART OF THIS PROJECT SHALL BE BACKED OUT FULLY AND PACKINGS TIGHTENED UPON COMPLETION OF INSTALLATION.
- 10. DO NOT USE NYLOG. ONLY "BLUE MONSTER" TEFLON TAPE IS ACCEPTABLE.
- CONTRACTOR TO PROVIDE AND REPLACE THE LIQUID FILTER DRIER CORES ON ALL RACKS UPON COMPLETION OF PROJECT.
- 2. CONTRACTOR TO ESTABLISH LIQUID LEVEL IS SUFFICIENT IN THE SYSTEM PRIOR TO STARTING WORK. SIMULATE SUMMER CONDITION TO ACHIEVE DROPLEG TEMP. OF >80F IN FULL CONDENSER MODE FOR 30 MINUTES. REFRIGERANT LEVEL SHOULD BE MINIMUM 1-BALL ON VERTICAL RECEIVER OR 30% ON HORIZONTAL RECEIVER. IF LEVEL IS LOW SEND DOCUMENTATION TO ED TARR, PATTY JERABECK INDICATING LEVEL.
- 3. PRIOR TO BEGINNING WORK PROVIDE A LEAK CHECK OF RACK SYSTEM WITH WALMART TECH OR DESIGNATED SERVICE PROVIDED TO ENSURE RACK IS 100% LEAK FREE EXCLUDING CASES AND INTERIOR PIPING. REPORT ANY LEAKS FOUND TO ED TARR. VERIFY THE RECIEVER LEVEL ALARM IS FULLY FUNCTIONAL.
- -. PRIOR TO BEGINNING WORK TAKE A PHOTO OF THE REFRIGERANT LEVEL TRACKING SHEET AND RECEIVER LEVEL FOR EACH RACK. THE PHOTO WILL BE UPLOADED TO CX ALLOY AND REQUIRED ALONG WITH CLOSE OUT DOCUMENTATION (ATTACHED TO FINAL PAY APPLICATION).
- 6. ADDITIONAL REFRIGERATION CHARGE WILL BE REQUIRED TO BRING THE SYSTEM BACK TO PRE-CONSTRUCTION LEVELS. REFRIGERANT IS TO BE CONTRACTOR PROVIDED. THE GC SHALL COMPLETE THE REFRIGERANT FORM E WITHIN 5 BUSINESS DAYS OF ADDING THE REFRIGERANT AND EMAILED TO: MCEQUIP@WAL-MART.COM, CC; PATTY JERABECK AND ED TARR AND THE HVAC/R SENIOR MANAGER
- 3. ALL RFI'S SHALL BE SUBMITTED THROUGH WALMART WORKSPACE TO THE EOR DC ENGINEERING. DLILYA@DCENGINEERING.NET.



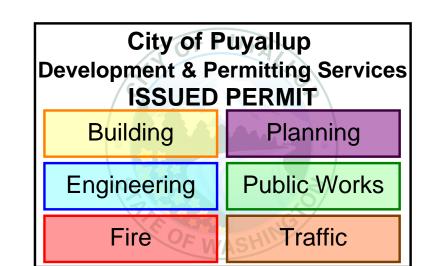


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NOTE: ALL WORK ON THIS SHEET IS TO BE COMPLETED BY A WALMART APPROVED CONTRACTOR.

NOTE: REFRIGERATION CONTRACTOR IS RESPONSIBLE FOR ALL FINAL REFRIGERATION ELECTRICAL TERMINATIONS TO REFRIGERATION

24 HOURS PRIOR TO SHUTTING DOWN ANY REFRIGERATION SYSTEMS, HVAC SYSTEMS, OR ENERGY MANAGEMENT CONTROLS SYSTEMS, SEND E-MAIL TO NSRM@WALMART.COM. THE E-MAIL SHALL STATE WHAT, WHY, AND WHEN IT IS BEING SHUT DOWN AND HOW LONG IT IS ANTICIPATED TO BE DOWN. THEN SEND A FOLLOW UP E-MAIL TO NSRM@WALMART.COM AFTER THE WORK IS COMPLETE AND THE SYSTEM IS BACK UP AND RUNNING.

HYDRONIC PLAN

EXISTING CONDITIONS WERE TAKEN FROM ORIGINAL DRAWINGS OR SURVEY DOCUMENTS AND MAY NOT REFLECT EXACT "AS-BUILT" CONDITIONS. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO SUBMITTING FINAL BIDS. CONTRACTOR SHALL CAREFULLY COORDINATE NEW OF PERFORMING HIS WORK PROPERLY. NO WORK AND DEMOLITION WITH ALL OTHER DISCIPLINES ADDITIONAL COMPENSATION SHALL BE ALLOWED AND EXISTING CONDITIONS.

EACH SUBCONTRACTOR IS RESPONSIBLE FOR HAVING A THOROUGH KNOWLEDGE OF ALL DRAWINGS AND SPECIFICATIONS IN THEIR RELATED FIELD. THE FAILURE TO ACQUAINT HIMSELF WITH THIS KNOWLEDGE DOES NOT RELIEVE THE RESPONSIBILITY BECAUSE OF CONDITIONS THAT OCCUR DUE TO FAILURE TO FAMILIARIZE WORKERS WITH THIS KNOWLEDGE.

MECHANICAL KEYNOTES

15.941 INSTALL AUTOMATIC BALANCE VALVE IN VERTICAL SECTION OF RETURN PIPING FROM COIL. BALANCE VALVE SUPPLIED

BY OWNER, SHIPPED LOOSE.

15.942 CONTRACTOR TO PROVIDE AND INSTALL PLUMBING GRADE ISOLATION BALL VALVES ON SUPPLY AND RETURN PIPING FOR EACH HRC AND FOR HEAT RECLAIM UNIT. UPON COMPLETION, CONTRACTOR TO LEAVE VALVES IN OPEN POSITION AND REMOVE HANDLES FROM EACH BALL

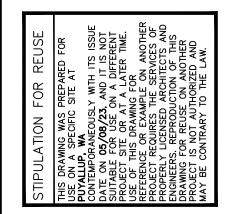
VALVE. ZIP TIE HANDLES TO VALVE BODY. 15.943 CONTRACTOR TO PROVIDE AND INSTALL SUPPLY AND RETURN GLYCOL HYDRONIC PIPING FROM HEAT RECLAIM SKID TO EACH HRC. ALL HYDRONIC PIPING SHALL

BE ASTM-B88 TYPE L COPPER. 15.944 HEAT RECLAIM SKID FURNISHED BY OWNER, INSTALLED BY CONTRACTOR. SEE R1 AND R2 SHEETS FOR MORE

INFORMATION.

15.945 HEAT RECOVERY COIL ASSEMBLY FURNISHED BY OWNER, INSTALLED BY CONTRACTOR. SEE HEAT RECLAIM COIL SCHEDULE AND R2.2 DETAILS FOR INSTALLATION.

15.946 NEW HEAT RECLAIM SKID AND COIL EQUIPMENT HAVE ACR COPPER CONNECTION SIZES. TRANSITION FROM ACR COPPER TO ASTM-B88 PIPING AT ALL EQUIPMENT CONNECTIONS.



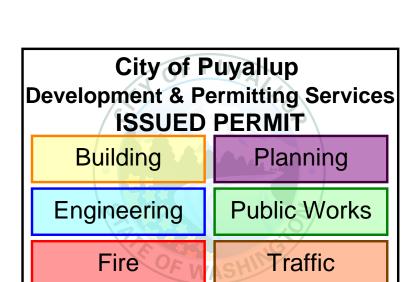




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HYDRONIC SCHEMATICS

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AND EXISTING CONDITIONS.

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KNOWLEDGE BOES NOT RELIEVE THE RESIGNABILE
OF PERFORMING HIS WORK PROPERLY. NO
ADDITIONAL COMPENSATION SHALL BE ALLOWED
BECAUSE OF CONDITIONS THAT OCCUR DUE TO FAILURE TO FAMILIARIZE WORKERS WITH THIS

1) HEAT RECLAIM HYDRONIC PIPING SCHEMATIC

OEM FURNISHED PETE'S PLUGS

OEM FURNISHED PETE'S PLUGS

NOTE: REFER TO SPECIFICATIONS FOR CHARGING PROCEDURES AND

ENSURE ALL AIR BLED FROM SYSTEM

INCLUDING DIFFERENTIAL PRESSURE
SWITCH. REFER TO RAE STARTUP GUIDE
FOR ADDITIONAL INSTALLATION AND

PIPING INFORMATION.

STARTUP DIRECTION.

AHU 2

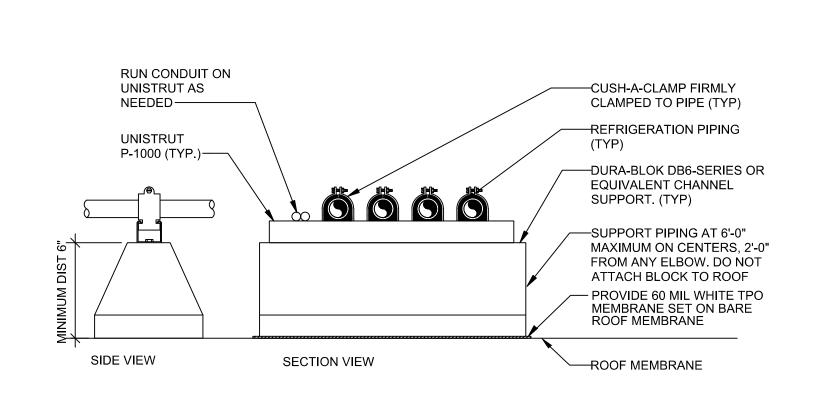
15.941)

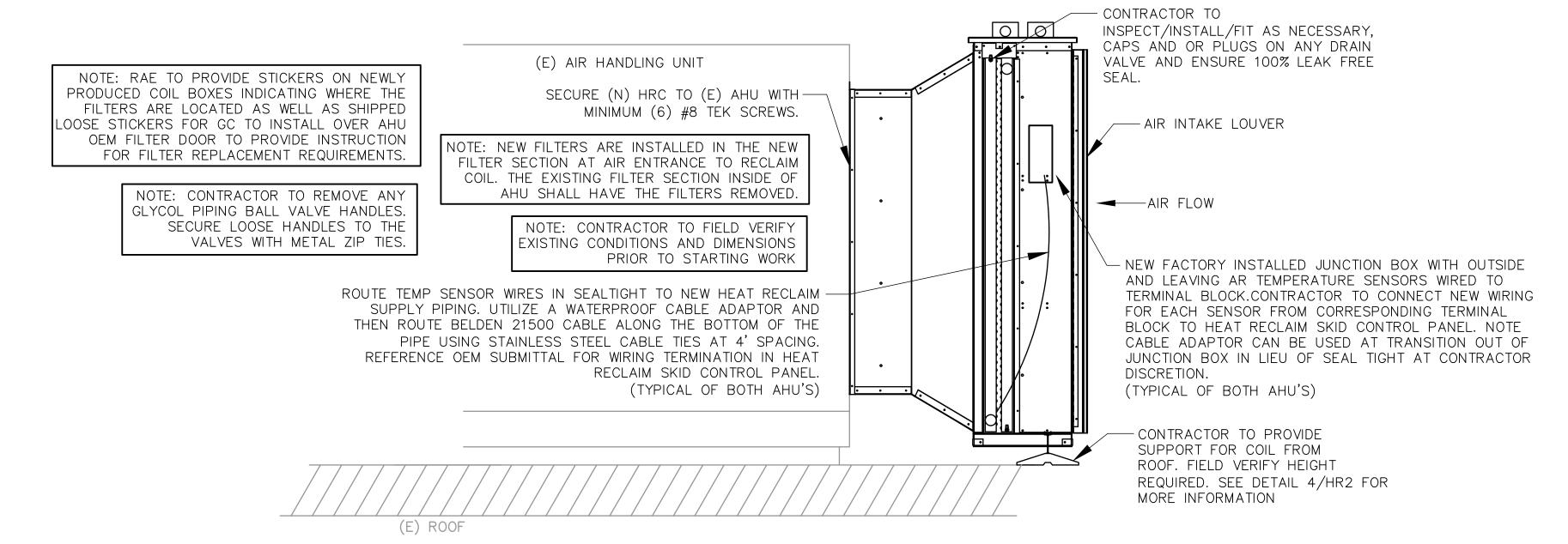
- 2" SUPPLY AND RETURN (15.943)

- 2-1/2" SUPPLY AND RETURN

(15.942)

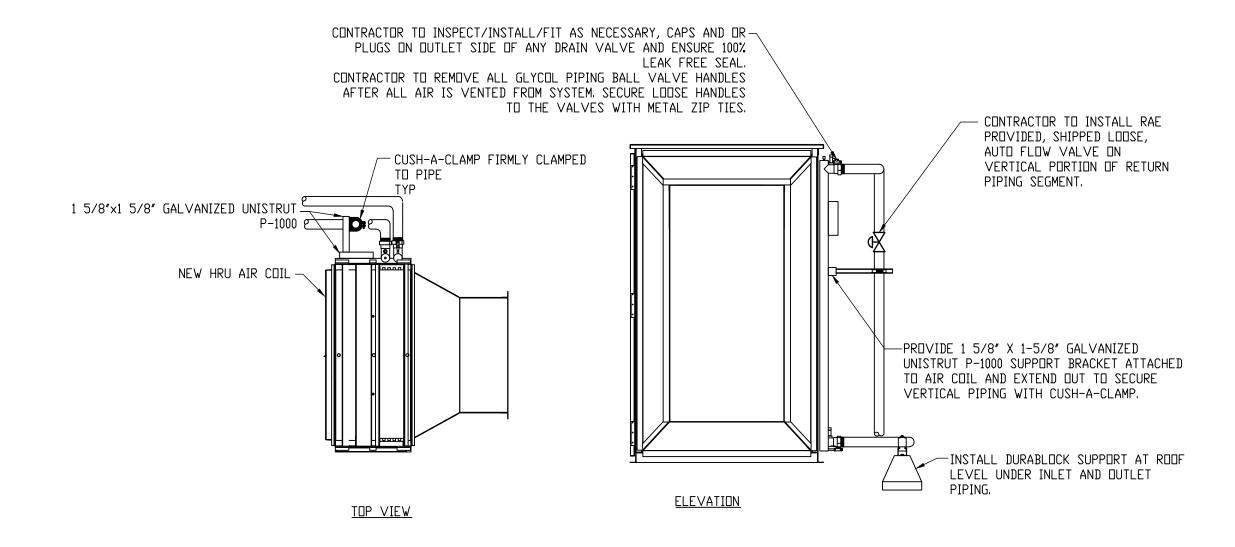
(15.942)



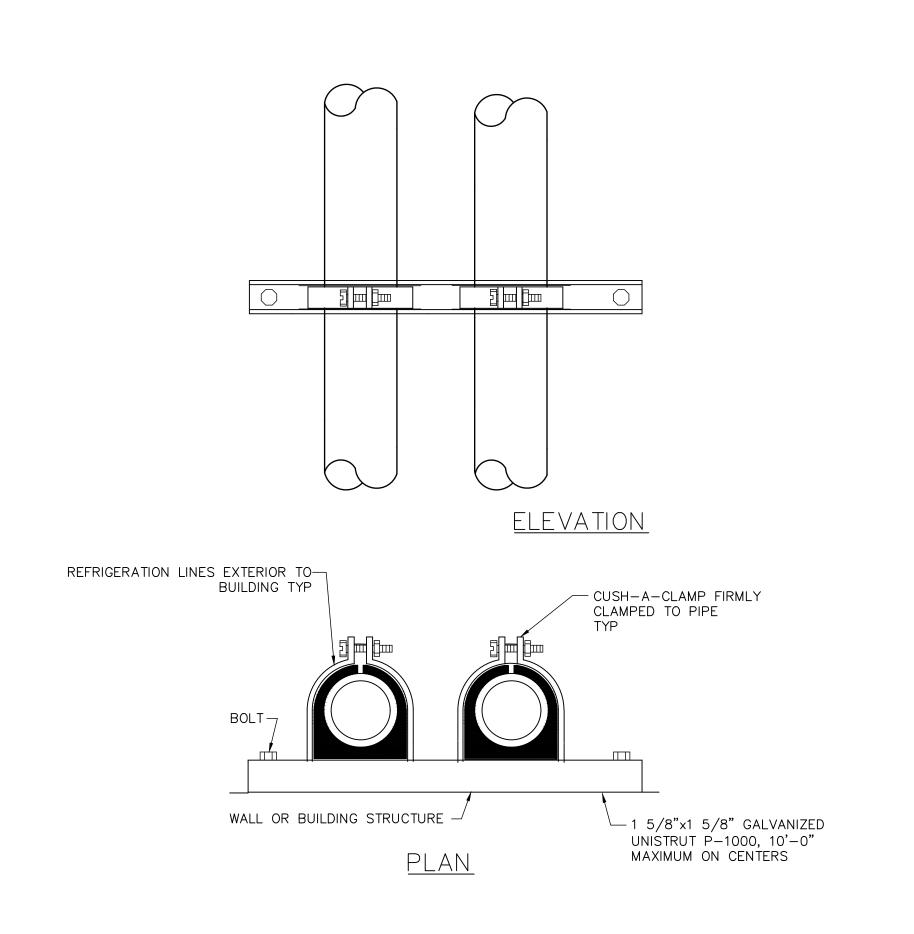


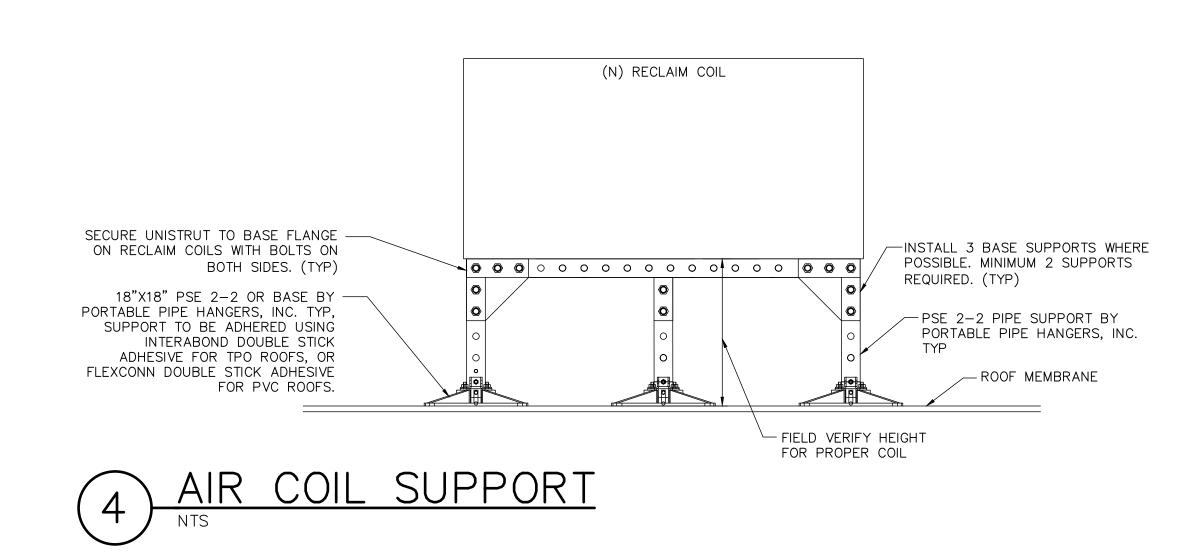
1 ROOFTOP PIPE SUPPORT

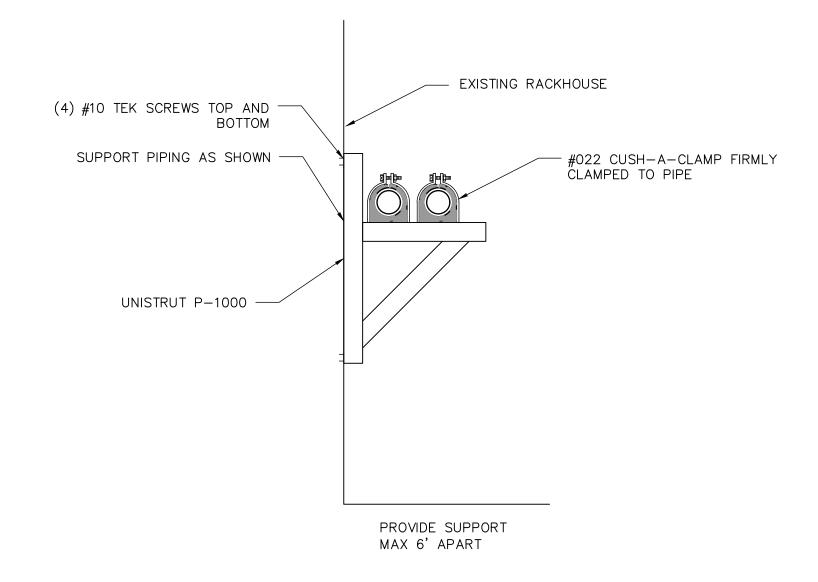
HEAT RECOVERY COIL INSTALLATION DETAIL



(3) VERTICAL PIPING SUPPORT ON AIR COIL







City of Puyallup Development & Permitting Services ISSUED PERMIT			
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Engineering	Public Works		
Fire	Traffic		

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(5) VERTICAL PIPING SUPPORT

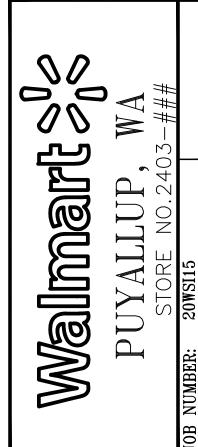
HORIZONTAL PIPING SUPPORT

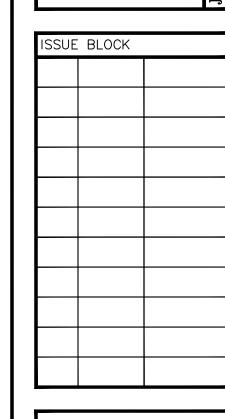
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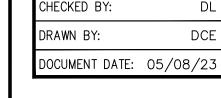
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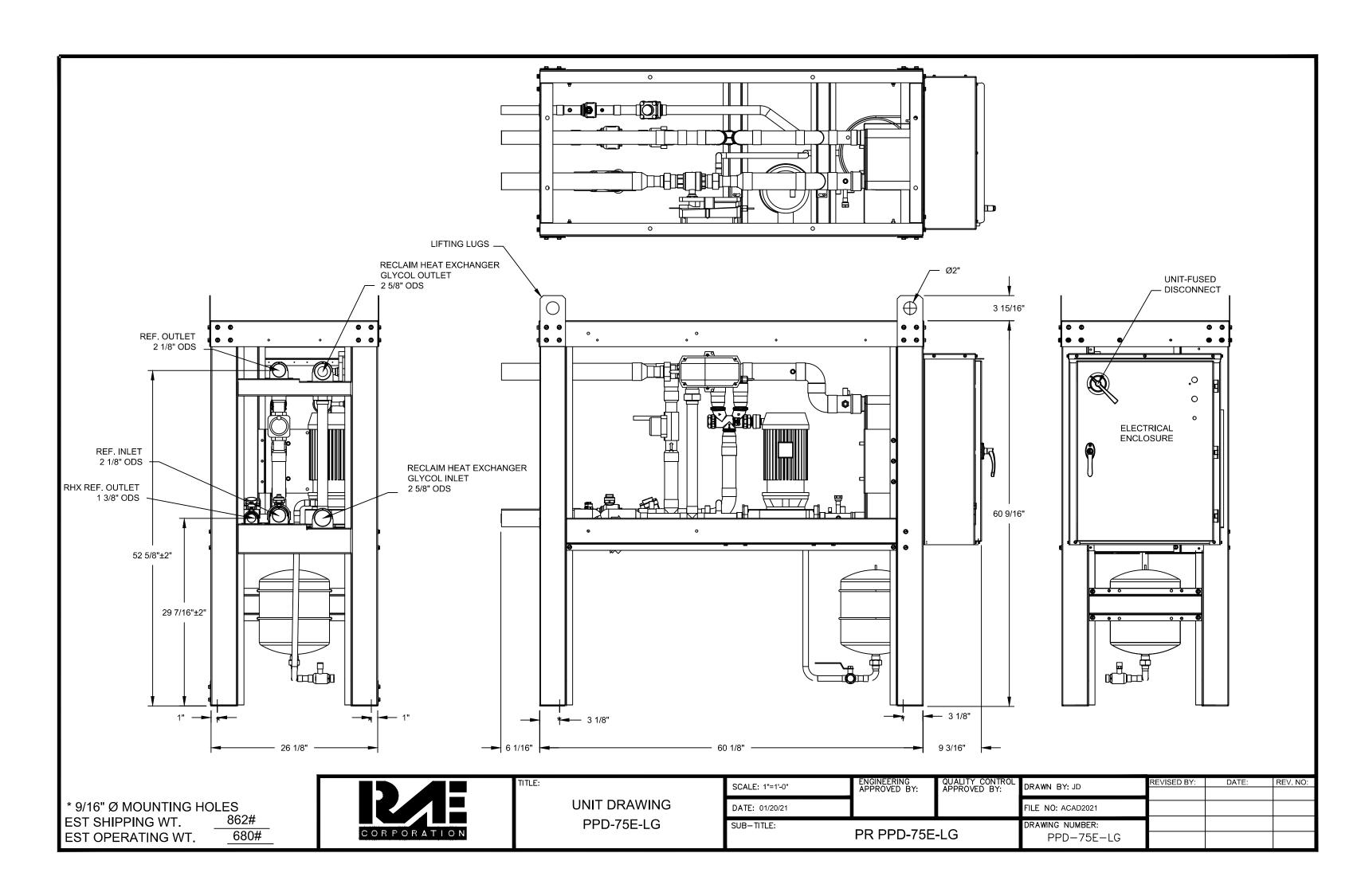




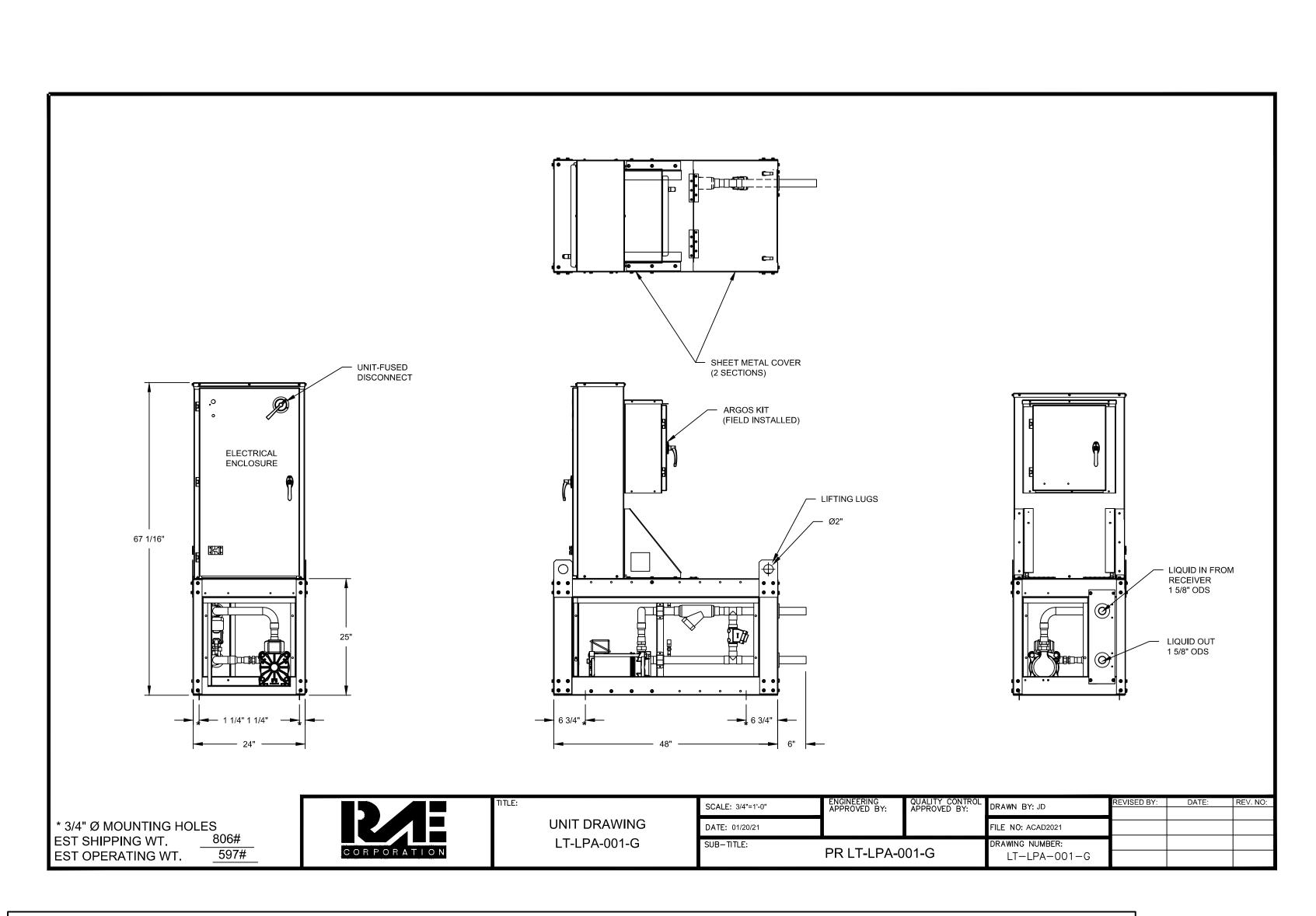






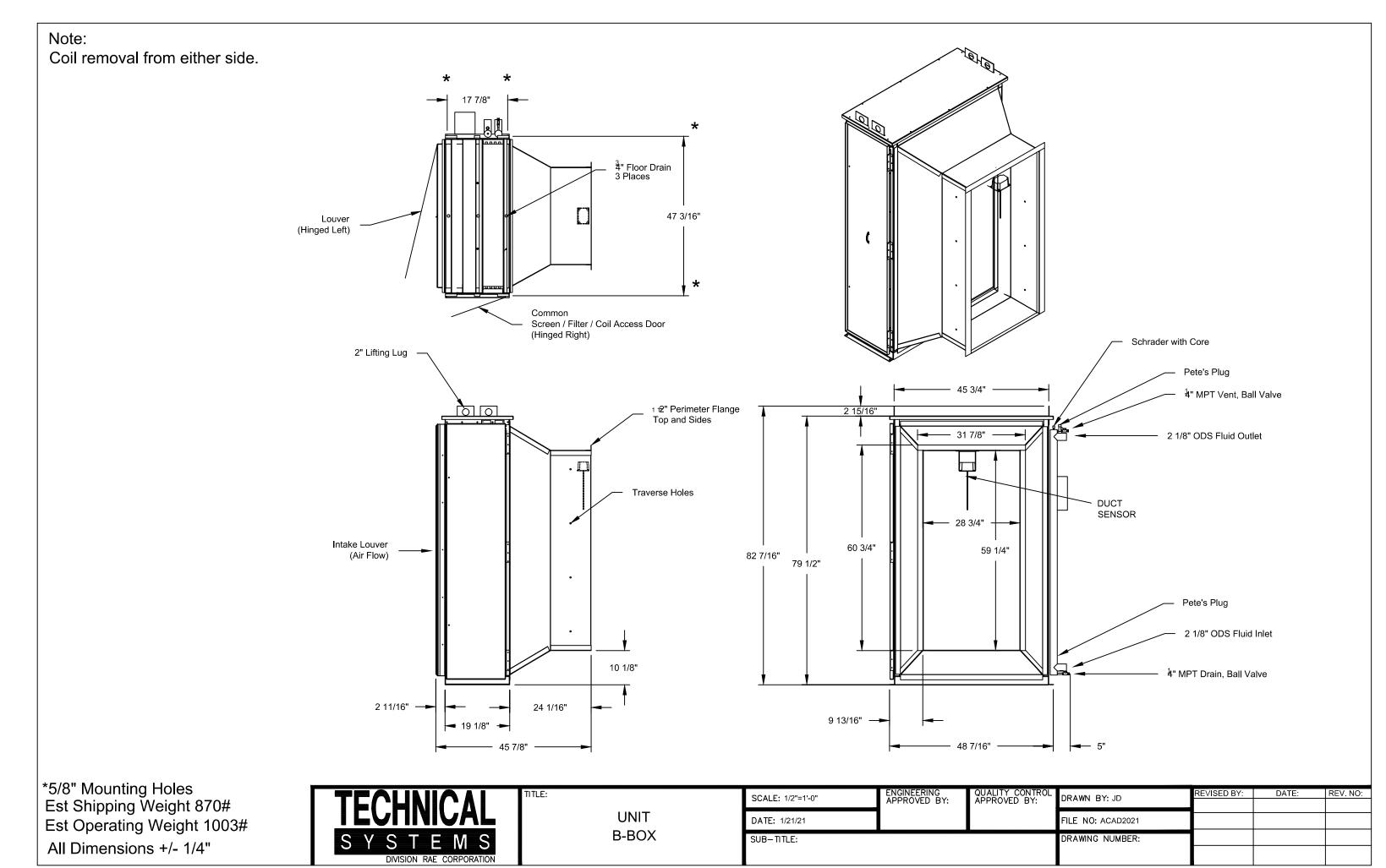






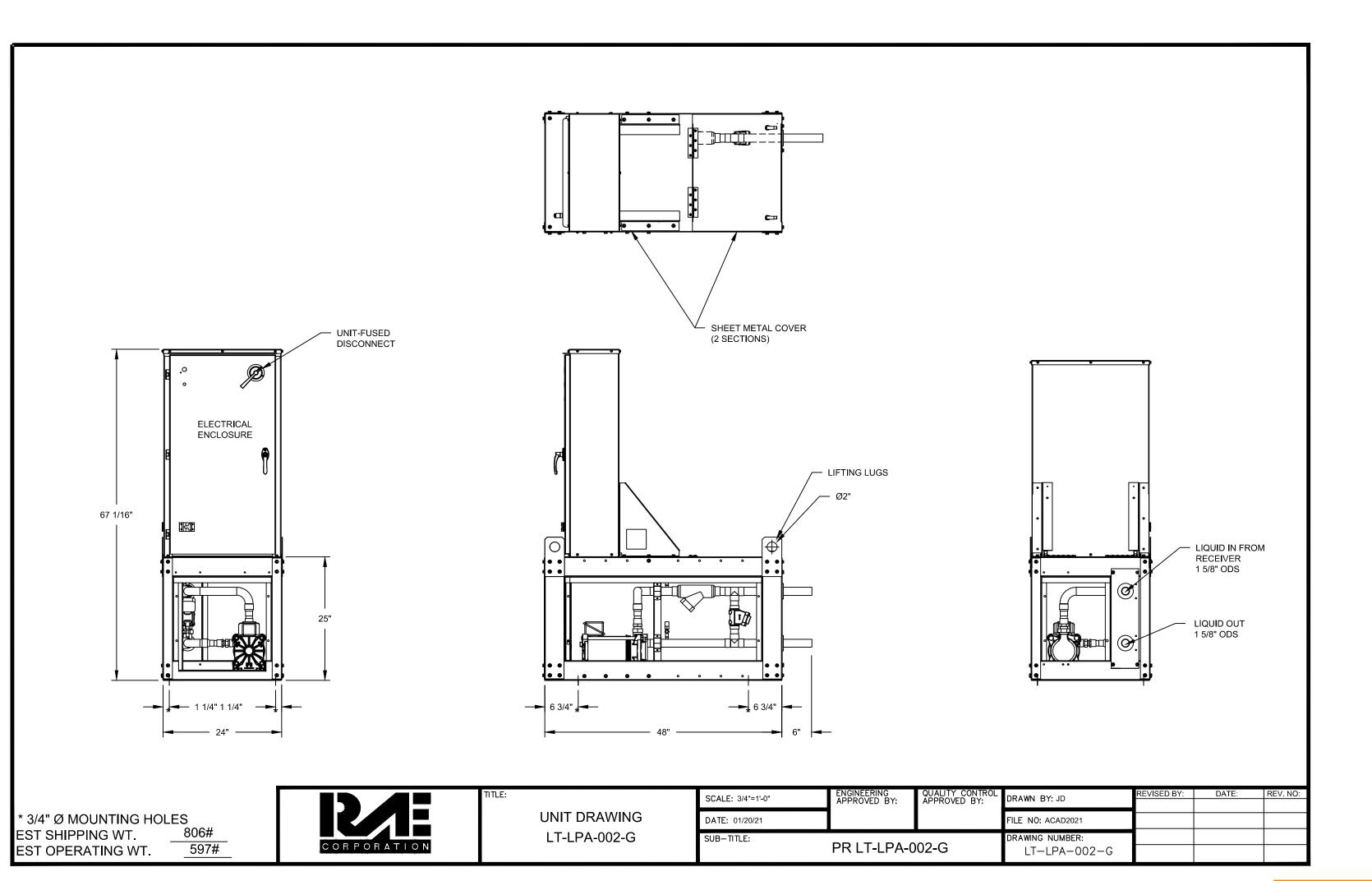
LPA SKIDS ARE SHIPPED WITH FACTORY MOUNTED LIFTING LUGS. PER MANUFACTURER INSTALLATION REQUIREMENTS, THESE LUGS WILL NEED TO BE REMOVED AND RE-INSTALLED, ROTATED 180 DEGREES, UPON INSTALLATION OF THE SKIDS. THIS ALLOWS FOR FULL DOOR SWING CAPABILITIES OF THE ELECTRICAL CABINET AND ELIMINATES SHARP EDGES ON THE SKID. TYPICAL OF 4 LIFTING LUG LOCATIONS PER SKID.







City of Puyallup Development & Permitting Service ISSUED PERMIT		
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Fire OF W	Traffic	



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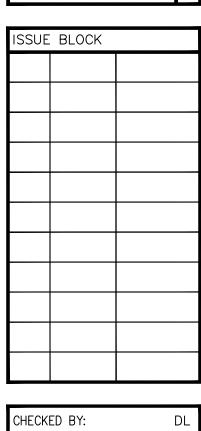
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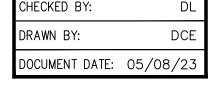
KNOWLEDGE.

STIPULATION FOR REUSE
THIS DRAWING WAS PREPARED FOR USE ON A SPECIFIC SITE AT PUYALLUP, WA CONTEMPORANEOUSLY WITH ITS ISSUNTABLE FOR USE ON A DIFFERENT PROJECT SITE OR AT A LATER TIME. USE OF THIS DRAWING FOR REFERENCE OR EXAMPLE ON ANOTHE PROJECT REQUIRES THE SERVICES OF PROPERLY LICENSED ARCHIECT'S AND ENGINEERS. REPRODUCTION OF THIS DRAWING FOR REUSE ON ANOTHER PROJECT IS NOT AUTHORIZED AND MAY BE CONTRARY TO THE LAW.







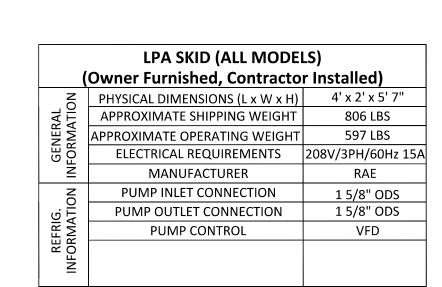




OEM SUBMITTALS

SHEET: R3





	t Reclaim Package (PPD-75E- Owner Furnished, Contractor	
	PHYSICAL DIMENSIONS (L x W x H)	5'8" x 2' 2" x 5
ATIC	APPROXIMATE SHIPPING WEIGHT	862 LBS
Ä,	APPROXIMATE OPERATING WEIGHT	680 LBS
GENERAL INFORMATION	ELECTRICAL REQUIREMENTS	208V/3PH/60Hz
Z	MANUFACTURER	RAE
	DISCHARGE GAS PIPING CONNECTION	(2) 2 1/8" 0[
E	LIQUID OUTLET CONNECTION	1 3/8" ODS
REFRIG. INFORMATION		
. NO	*FLUID TYPE	40% PG BY V
NIC ATIC	DESIGN FLOW RATE	75 GPM
S S	HYDRONIC CONNECTIONS	(2) 2 5/8" OI
HYDRONIC INFORMATION	HYDRONIC PUMP HP	3.0HP

HEAT RECOVERY COIL ASSEMBLY SCHEDULE (OWNER FURNISHED, CONTRACTOR INSTALLED)							
COIL ASSEMBLY	MANUFACTURER	MODEL DESIGNATION	NOMINAL CFM COIL ASSEMBLY	COIL PRESSURE DROP AT NOMINAL CFM	OPERATING WEIGHT		
HRC-1	RAE	В	5000	.45 IN	1003 LBS		
HRC-2	RAE	В	5000	.45 IN	1003 LBS		

2 EQUIPMENT SCHEDULES

STANDARD RAE PROVIDED PARTS KIT - GROUND (2 LPA SKIDS)

CDS VALVE LIPGRADE FOR AS HOLDBACK VALVES (REFERENCE PLANS FOR APPLICATION)

CDS VALVE UPGRADE FOR AS HOLDBACK VALVES (REFERENCE PLANS FOR APPLICATION)						
PART	MANUFACTURER	QTY	SIZE	ITEM	PROVIDED BY	INSTALLED BY
CDS-17	SPORLAN	*SEE ABOVE FOR QTY	*SEE ABOVE FOR SIZE	FIELD INSTALLED CDS VALVE	RAE	CONTRACTOR
953474	SPORLAN	1		FIELD INSTALLED SPORLAN PRESSURE CONTROLLER (HRU SKID)	RAE	CONTRACTOR
HCT-05D0BB06114		1		208V TO 24V 50VA TRANSFORMER WITH FUSE AND FUSE BLOCK (FOR SPORLAN CONTROLLER)	RAE	CONTRACTOR
SPKCO	SPORLAN	3		WIRING HARNESS WITH PLUG FOR SPORLAN PRESSURE CONTROLLER	RAE	CONTRACTOR
9525576	SPORLAN	3		SPORLAN PRESSURE TRANSDUCERS - (FOR HOLDBACK VALVES)	RAE	CONTRACTOR
B-35593	MUELLER	3	3/8"ODS X 1/4" NPTFI	TRANSDUCER VALVE FOR NEW PRESSURE SENSORS	RAE	CONTRACTOR
100EP514120R		1		120 OHM RESISTOR - MODBUS TERMINATION	RAE	CONTRACTOR

LPA/LPI PIPING (LPA SKIDS)

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PART	MANUFACTURER	QTY	SIZE	ITEM	PROVIDED BY	INSTALLED BY
AQ17862C	MUELLER	6	1-5/8"	BALL VALVE FOR ISOLATION OF LPA PIPING TO/FROM SKID	RAE	CONTRACTOR
CDS-4	SPORLAN	2	5/8"	CDS-4 VALVE FOR INJECTION (FIELD LOCATED)	RAE	CONTRACTOR
803B10ST	MUELLER	2	5/8"	4-BOLT CHECK VALVE FOR LPI PIPING AT INJECTION HEADER	RAE	CONTRACTOR
586WBS4SW	SUPERIOR	4	1/4"	BALL VALVES FOR INJECTION HEADER PIPING	RAE	CONTRACTOR
AQ17862C	MUELLER	2	5/8"	BALL VALVE FOR ISOLATION OF INJECTION PIPING	RAE	CONTRACTOR
NTC060HT41	CAREL	6		FIELD WIRED STRAP ON TEMP SENSORS (3METER) FOR INJECTION W/ PIPE CLAMPS	RAE	CONTRACTOR

RECEIVER EQUILIZATION BYPASS UPGRADE (REFERENCE PLANS FOR APPLICATION)

PART	MANUFACTURER	QTY	SIZE	ITEM	PROVIDED BY	INSTALLED BY
ORD-4-20	VARIES	3	5/8"	ORD-4-20 RECEIVER PRESSURIZATION VALVE	RAE	CONTRACTOR
803B10ST	MUELLER	3	5/8"	4-BOLT CHECK VALVE - BYPASS AROUND ORD-4-20	RAE	CONTRACTOR

HEAT RECLAIM PIPING (HRU SKIDS)

PART	MANUFACTURER	QTY	SIZE	ITEM	PROVIDED BY	INSTALLED BY
AC17868	MUELLER	3	2-1/8"	ISO. BALL VALVES FOR SUPPLY/RETURN/BYPASS CONNECTION OF HOT GAS PIPING TO HRU SKID	RAE	CONTRACTOR
AQ17866	MUELLER	1	1-3/8"	ISO BALL VALVE FOR LIQUID RETURN LINE CONNECTION	RAE	CONTRACTOR
		2		AHU FILTER STICKERS (FIELD APPLIED BY GC) - SHIPPED INSIDE COIL BOX	RAE	CONTRACTOR
2530	HAYS	2	1-1/2"	37.5 GPM AUTOFLOW VALVE FIELD INSTALLED AT EACH AHU COIL	RAE	CONTRACTOR

SHIPPED LOOSE PARTS LIST

CHARGING PROCEDURE:

- SYSTEM TO BE COMPLETELY FLUSHED PER TYPICAL SPECIFICATIONS
- PRIOR TO FILLING THE SYSTEM WITH GLYCOL, ADJUST THE GAUGE PRESSURE OF THE EXPANSION TANK TO 18 psig
- FILL THE SYSTEM WITH GLYCOL TO A FILL PRESSURE BASED ON THE FLUID TEMPERATURE AT TIME OF FILL. (DO NOT OVER-FILL)

FLUID TEMP (F)	FILL PRESSURE (PSIg)
20	24
25	24
30	25
35	25
40	26
45	27
50	28
55	29
60	31
65	33
70	36
75	40
80	45
85	50
-	·

DO NOT FILL SYSTEM WITH GLYCOL ABOVE 85F FLUID TEMPERATURE

 AFTER FILL, CIRCULATE THE PUMP AND BLEED ALL AIR FROM SYSTEM AND ENSURE THAT DURING PUMP OPERATION THE INLET PRESSURE TO PUMP REMAINS ABOVE 20 PSIg. ALSO CONFIRM THE STATIC FILL PRESSURE REMAINS AT THE SET POINT PER THE ABOVE TABLE OR ADD GLYCOL TO RETURN TO PROPER FILL PRESSURE.



City of Puyallup Development & Permitting Services ISSUED PERMIT						
Building	Planning					
Engineering	Public Works					
Fire OF W	Traffic					

PRMH20230621

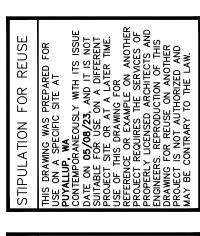
EXISTING CONDITIONS WERE TAKEN FROM ORIGINAL | EACH SUBCONTRACTOR IS RESPONSIBLE FOR HAVING DRAWINGS OR SURVEY DOCUMENTS AND MAY NOT REFLECT EXACT "AS-BUILT" CONDITIONS. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO SUBMITTING FINAL BIDS. CONTRACTOR SHALL CAREFULLY COORDINATE NEW OF PERFORMING HIS WORK PROPERLY. NO WORK AND DEMOLITION WITH ALL OTHER DISCIPLINES ADDITIONAL COMPENSATION SHALL BE ALLOWED AND EXISTING CONDITIONS.

BECAUSE OF CONDITIONS THAT OCCUR DUE AND EXISTING CONDITIONS.

A THOROUGH KNOWLEDGE OF ALL DRAWINGS AND SPECIFICATIONS IN THEIR RELATED FIELD. THE FAILURE TO ACQUAINT HIMSELF WITH THIS KNOWLEDGE DOES NOT RELIEVE THE RESPONSIBILITY TO FAILURE TO FAMILIARIZE WORKERS WITH THIS

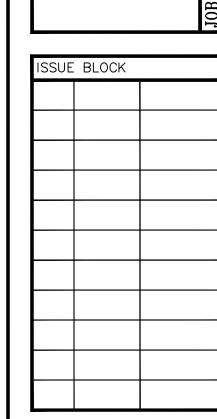
EQUIPMENT

SCHEDULES



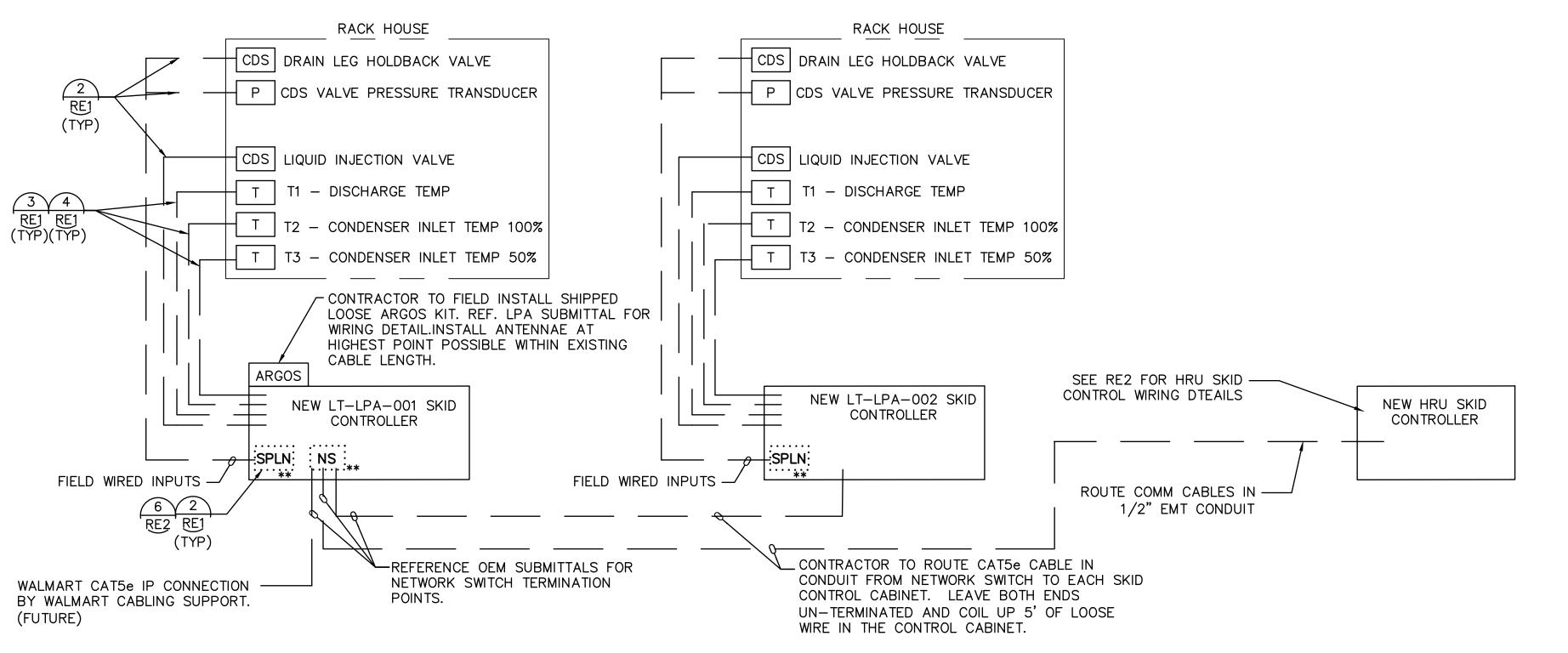


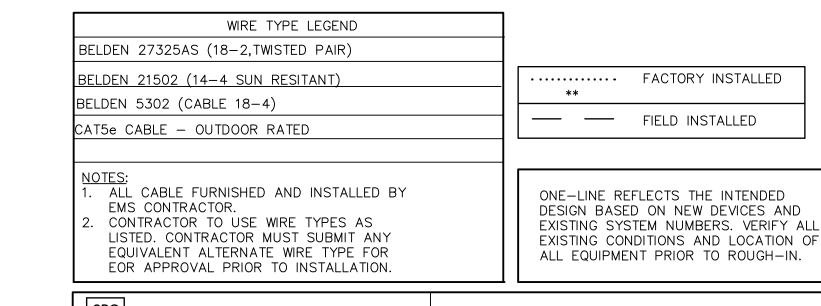




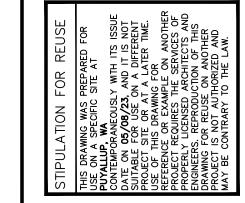
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DOCUMENT DATE:	05/08/23



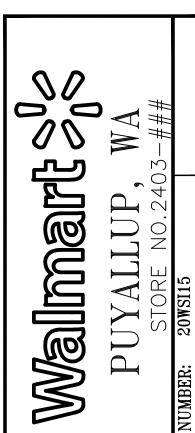




CDS	CDS VALVE POWER HEAD WIRING	BELDEN 5302 (CABLE 18-4)
Т	TEMPERATURE SENSOR	BELDEN 27325AS (18-2, TWISTED PAIR)
TS	TEMPERATURE SENSOR (DUCT MOUNT)	BELDEN 21502 (14-4 - SUN RESISTANT)
Р	PRESSURE TRANSDUCER	BELDEN 5302 (CABLE 18-4)
SPLN	SPORLAN CONTROLLER MODBUS	BELDEN 27325AS (18-2, TWISTED PAIR)

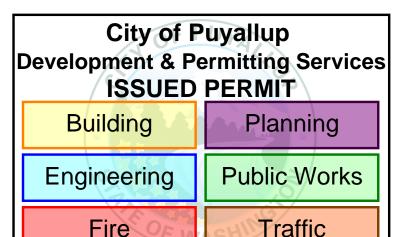






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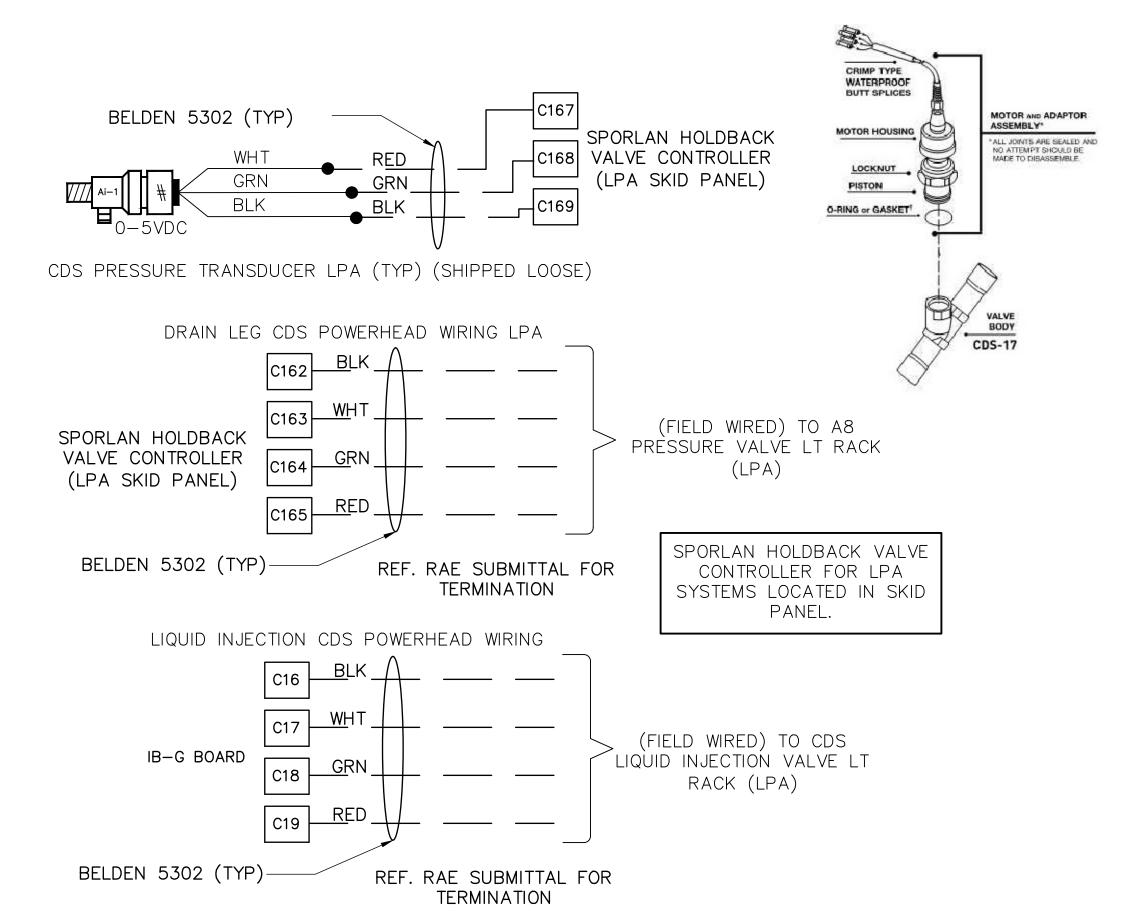
ELECTRICAL PLAN

EXISTING CONDITIONS WERE TAKEN FROM ORIGINAL EACH SUBCONTRACTOR IS RESPONSIBLE FOR HAVING DRAWINGS OR SURVEY DOCUMENTS AND MAY NOT A THOROUGH KNOWLEDGE OF ALL DRAWINGS AND SPECIFICATIONS IN THEIR RELATED FIELD. THE REFLECT EXACT "AS-BUILT" CONDITIONS. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING FAILURE TO ACQUAINT HIMSELF WITH THIS KNOWLEDGE DOES NOT RELIEVE THE RESPONSIBILITY CONDITIONS PRIOR TO SUBMITTING FINAL BIDS. CONTRACTOR SHALL CAREFULLY COORDINATE NEW OF PERFORMING HIS WORK PROPERLY. NO WORK AND DEMOLITION WITH ALL OTHER DISCIPLINES ADDITIONAL COMPENSATION SHALL BE ALLOWED BECAUSE OF CONDITIONS THAT OCCUR DUE AND EXISTING CONDITIONS.

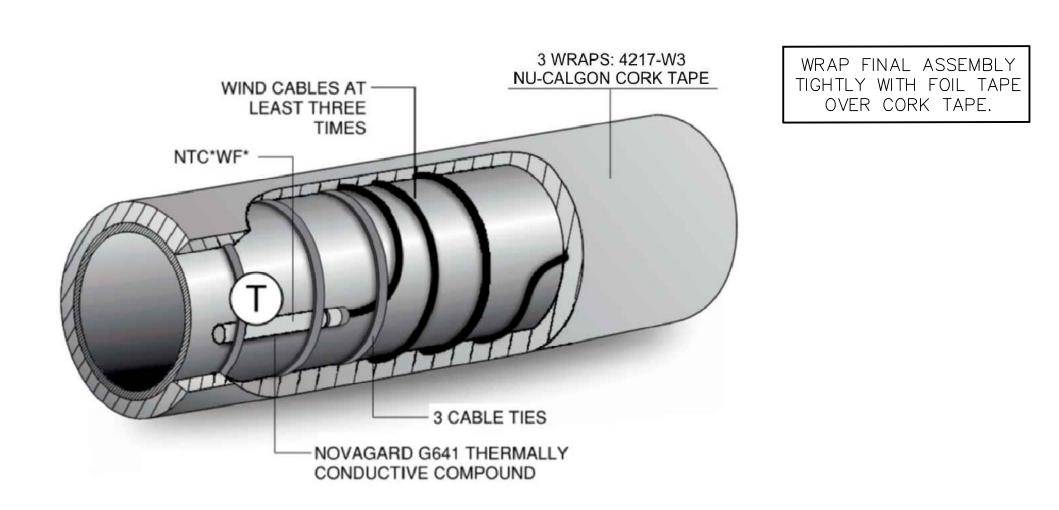
KNOWLEDGE.

TO FAILURE TO FAMILIARIZE WORKERS WITH THIS

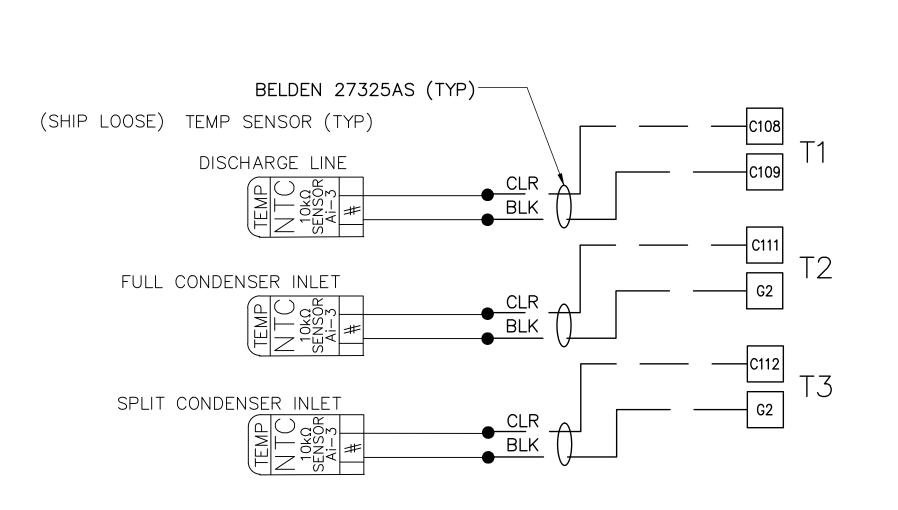
LPA SINGLE LINE LOW VOLTAGE WIRING DIAGRAM



LPA CDS VALVE POWER AND TRANSDUCER WIRING



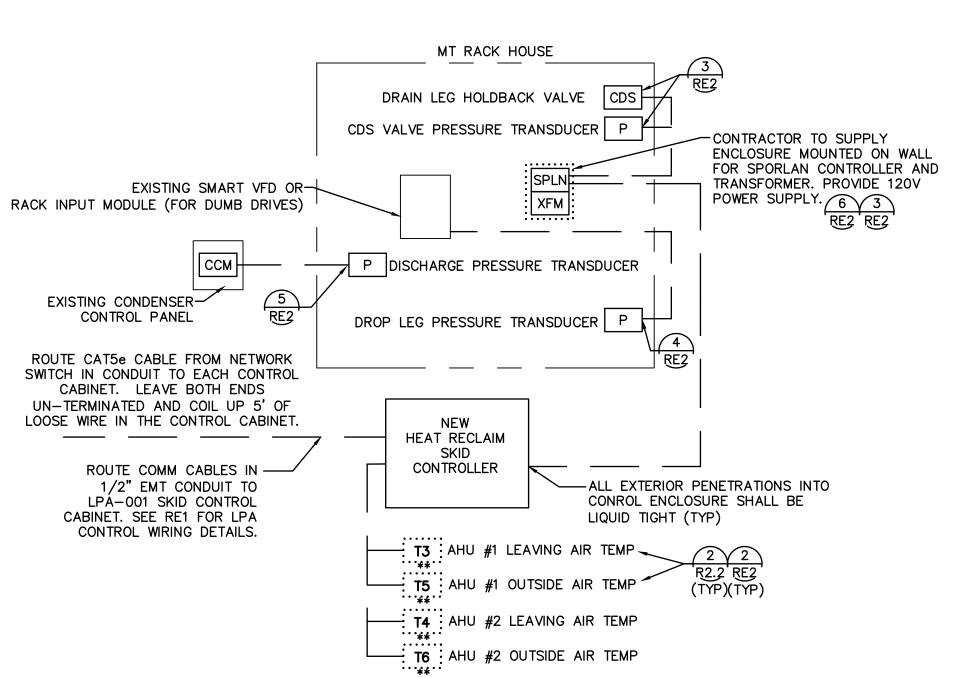
4) PIPE TEMP SENSOR INSTALLATION DETAIL



REF. RAE SUBMITTAL FOR ADDITIONAL WIRING DETAIL

TEMPERATURE SENSOR WIRING DIAGRAM

City of P Development & Po ISSUED	_
Building	Planning
Engineering	Public Works
Fire OF W	Traffic

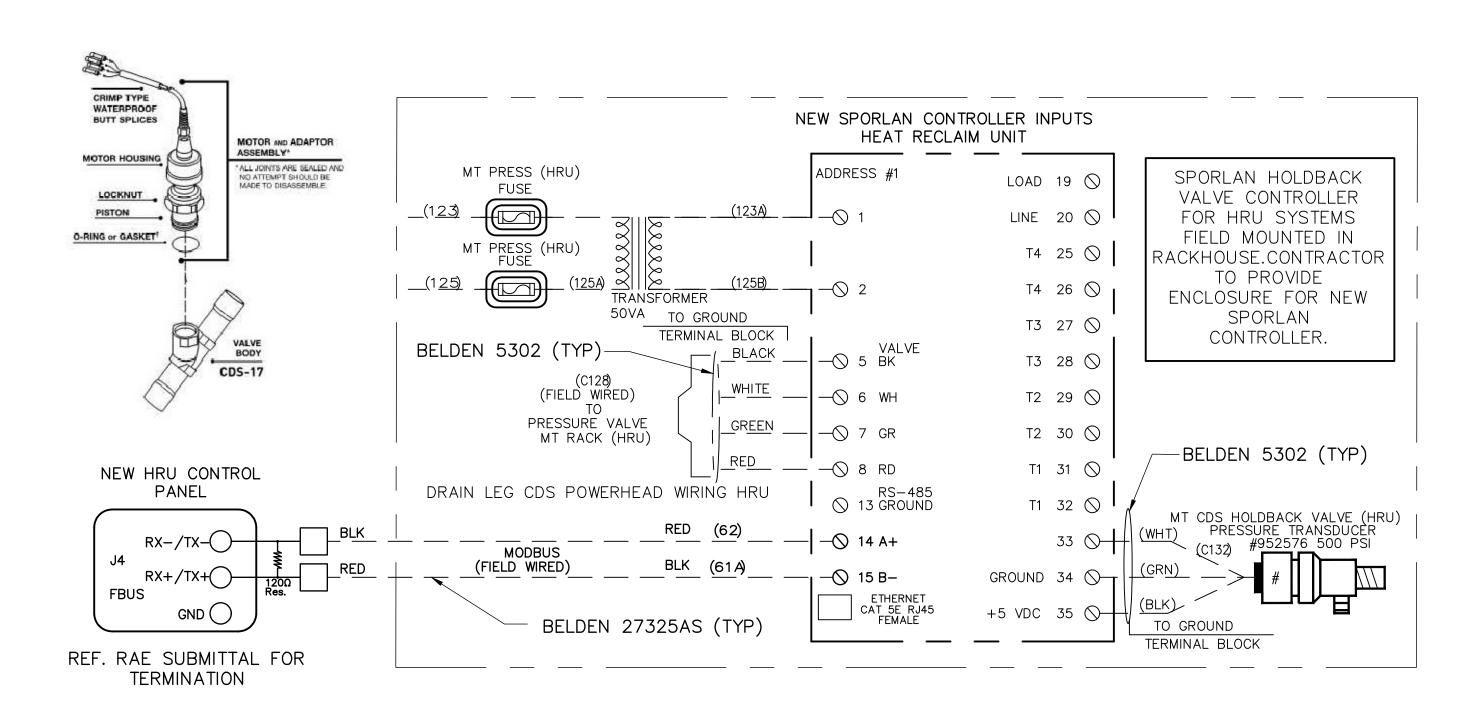


WIRE TYPE LEGEND		
BELDEN 27325AS (18-2,TWISTED PAIR)		
BELDEN 21502 (14-4 SUN RESITANT)	_	····· FACTORY INSTALLED
BELDEN 5302 (CABLE 18-4)		**
CAT5e CABLE — OUTDOOR RATED		FIELD INSTALLED
2. CONTRACTOR TO USE WIRE TYPES AS LISTED. CONTRACTOR MUST SUBMIT ANY EQUIVALENT ALTERNATE WIRE TYPE FOR EOR APPROVAL PRIOR TO INSTALLATION.		DESIGN BASED ON NEW DEVICES AND EXISTING SYSTEM NUMBERS. VERIFY AL EXISTING CONDITIONS AND LOCATION O ALL EQUIPMENT PRIOR TO ROUGH—IN.
CDS CDS VALVE POWER HEAD WIRING	BELDEN 5	302 (CABLE 18-4)
T TEMPERATURE SENSOR	BELDEN 2	7325AS (18-2, TWISTED PAIR)
	1	
TS TEMPERATURE SENSOR (DUCT MOUNT)	BELDEN 2	1502 (14–4 – SUN RESISTANT)

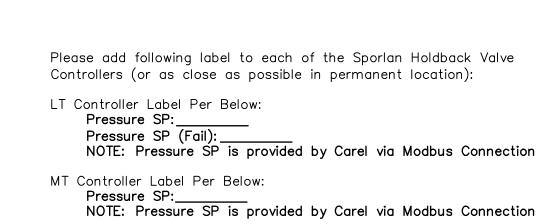
BELDEN 27325AS (18-2, TWISTED PAIR)

SPLN SPORLAN CONTROLLER MODBUS

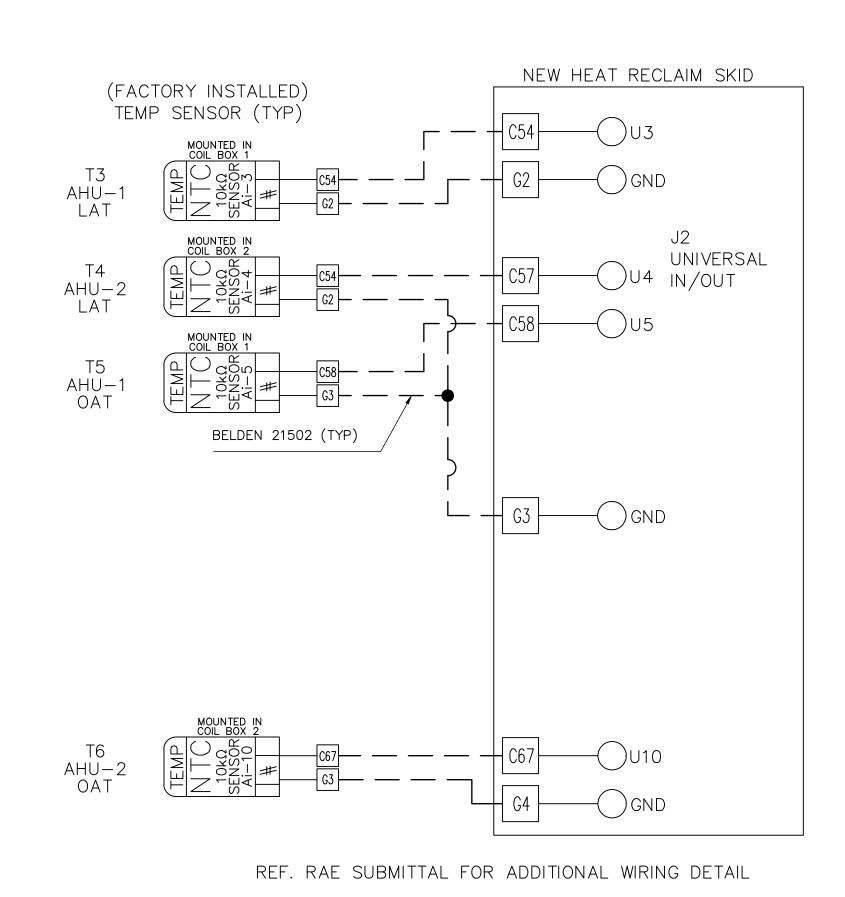
1 HRU SINGLE LINE LOW VOLTAGE WIRING DIAGRAM



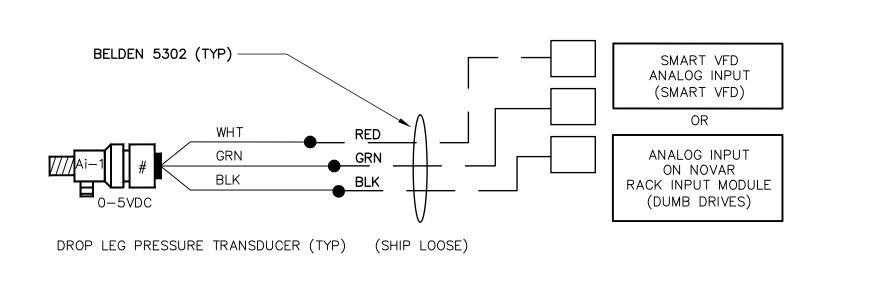
(3) HRU SPORLAN CDS CONTROLLER WIRING



(6) SPORLAN VALVE CONTROLLER LABELING



(2) AHU HR COIL AIR TEMP SENSOR WIRING



(4) CONDENSER VFD DROP LEG TRANSDUCER TERMINATION

BELDEN 5302 (TYP)	
WHT RED GRN GRN BLK BLK	CCM IN CONDENSER CONTROL CABINET
DISCHARGE PRESSURE TRANSDUCER (TYP) (SHIP LOOS	SE)

(5) DISCHARGE TRANSDUCER TERMINATION

City of Puyallup Development & Permitting Services ISSUED PERMIT	
Building	Planning
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Fire OF W	Traffic

PRMH20230621

HRU ELECTRICAL PLAN

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DOCUMENT DATE: 05/08/23

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