

October 15, 2018
BOARD OF COUNTY COMMISSIONERS
ORANGE COUNTY, FLORIDA
IFB Y19-705-JS/ADDENDUM #3
ORANGE COUNTY CONVENTION CENTER – CHILLED WATER PRODUCTION PLANT PIPE SAMPLING

This addendum is intended to be incorporated into the bid documents of the project referenced above. The following items are clarifications, corrections, additions, deletions and/or revisions to and shall take precedence over the original documents. Underlining indicates additions, deletions are indicated by ~~strikethrough~~.

A. Revised Changes to Drawings, Specifications, and IFB:

DRAWINGS: Updated in response to received Bid RFIs, Owner & Permit Comments:

1. Sheet M-001 - HVAC Symbols Legend and General Notes
 - a. Added Note 12.
2. Sheet M-101 – HVAC Plan – Phase 2 NEP
 - a. Removed all nodes.
 - b. Added new nodes 1 through 6.
3. Sheet M-102 – HVAC Plan – Phase 3 CEP
 - a. Removed all nodes.
4. Sheet M-103 – HVAC Plan – Phase 4 CEP
 - a. Removed all nodes.
 - b. Added new nodes 1 through 8.
5. Sheet M-201 – HVAC Schedules and Details
 - a. Revised Phase 2 NEP Ultrasonic Testing Location Schedule for 6 new nodes.
 - b. Revised Phase 4 CEP Ultrasonic Testing Location Schedule for 8 new nodes.

SPECIFICATIONS: Updated in response to received Bid RFIs, Owner & Permit Comments:

1. Revised Specifications Index (Part H)
2. Spec Section 011100 Summary of Work
 - a. Removed “56”, added “8”, removed “28”, added “6” to section 1.3.A.
 - b. Added “Additive: Provide a cost for 42 additional ultrasonic testing nodes within the chilled water distribution system of the West Building. These additional testing locations shall be determined by the Owner prior to construction.” to section 1.3.A – Ultrasonic Testing.
3. Added spec section 012300 – ADDITIVES.

INVITATION FOR BID (IFB)

1. Revised Bid Form sheet to include Additive

- B. All other terms and conditions of the documents remain the same.
- C. The Bidder shall acknowledge receipt of this addendum by completing the applicable section in the solicitation or by completion of the acknowledgement information on the addendum. Either form of acknowledgement must be completed and returned not later than the date and time for receipt of the proposal.

Receipt acknowledged by:

Authorized Signature

Date Signed

Title

Name of Firm

CONSULTANT:

CLIENT:



PROJECT NAME:

ORANGE COUNTY CONVENTION CENTER CHILLED WATER PRODUCTION PLANT PIPE SAMPLING

9800 International Drive, Orlando, FL 32819
100059859

No.	Date	Description
1	9/14/18	Addendum #1
2	10/9/18	Addendum #3

ISSUE LOG

PROFESSIONAL SEALS:

KELLIE RAMOS, P.E.
FL REG NO. 76996

SHEET TITLE:

HVAC SYMBOLS LEGEND AND GENERAL NOTES

SHEET INFORMATION:

JOB No. **100059859** Date Issued: 07/20/18

Designed By: KAR Sheet Number:

Checked By: DLH

OC Review: T.J.F.

Phase: **CD**

HVAC SYMBOL LEGEND				HVAC ABBREVIATIONS				HVAC GENERAL NOTES									
	REVISION REFERENCE		OUTSIDE AIR LOUVER		EXISTING DUCTWORK TO BE DEMOLISHED		ADJUSTABLE FREQUENCY DRIVE		MAKE-UP AIR UNIT	<p>1. PROVIDE ADDITIONAL SUPPORTS AS REQUIRED TO PROVIDE A VIBRATION-FREE, RIGID INSTALLATION.</p> <p>2. ALL PIPING IS SHOWN SCHEMATICALLY.</p> <p>3. CHILLED WATER PIPING ULTRASONIC TESTING LOCATIONS INDICATED AS NODES ON DRAWINGS ARE SCHEMATIC. CONTRACTOR TO FIELD VERIFY PIPE SIZE AND TESTING LOCATION PRIOR TO CONSTRUCTION. CONTRACTOR TO PROVIDE PHOTOGRAPHIC DOCUMENTATION OF ALL NODE LOCATIONS BEFORE AND AFTER TESTING.</p> <p>4.</p> <p>5. CONTRACTOR SHALL REMOVE AT LEAST A 12 INCH PORTION OF PIPING INSULATION NECESSARY TO PERFORM ULTRASONIC TESTING AT EACH NODE. CLEAN AND PREPARE EXTERIOR OF PIPING PRIOR TO ULTRASONIC TESTING. PROVIDE NEW INSULATION AFTER TESTING IS COMPLETED. PATCH AND SEAL PER SPECIFICATIONS.</p> <p>6.</p> <p>7. PROVIDE ULTRASONIC TESTING IN ACCORDANCE WITH ASTM E717 FOR THICKNESS AND ASTM E164 FOR SHEARWAVE AT 84 LOCATIONS AS SHOWN ON DRAWINGS. PROVIDE TESTING RESULTS FOR REVIEW BY THE OWNER AND ENGINEER.</p> <p>8.</p> <p>9. PROVIDE TESTING RESULTS INCLUDING ANALYSIS OF FINDINGS AND CONCLUSION OF PIPE CONDITION. SUBMIT A FULL REPORT DOCUMENTING EXAMINATION PROCEDURE, TYPE OF INSTRUMENTATION USED, MAXIMUM AND MINIMUM THICKNESS MEASUREMENTS, LOCATION OF MEASUREMENTS AND PHOTOGRAPHIC DOCUMENTATION OF RESULTS.</p> <p>10. THE ENERGY PLANTS SHALL REMAIN OPERATIONAL AND PROVIDE A MAXIMUM OF 42 HOURS OF CHILLED WATER. COORDINATE ANY INTERRUPTIONS OR EQUIPMENT SHUTDOWNS WITH THE OWNER AND OUC.</p> <p>11. PROVIDE WATER CHEMISTRY TESTING FOR EACH PLANT. PROVIDE ONE WATER SAMPLE PER PLANT TO TESTING AGENCY FOR CORROSION INDEX TESTING AND SULFUR REDUCING BACTERIA (SRB) TESTING. PROVIDE WATER CHEMISTRY TEST RESULTS TO THE OWNER.</p> <p>12. PROVIDE FOR AN ALLOWANCE OF 22 ADDITIONAL TESTING NODES IN PHASE 2 MEP AND 20 ADDITIONAL NODES IN PHASE 4 CEP.</p>							
	DETAIL REFERENCE: TOP-DETAIL# BOTTOM-DRAWING# SHOWN ON		EXHAUST AIR LOUVER		EXISTING DUCTWORK TO REMAIN		ABOVE FINISHED FLOOR		THOUSAND BTUH PER HOUR						MINIMUM CIRCUIT AMPS		MAXIMUM OVER CURRENT PROTECTION
	THERMOSTAT/TEMPERATURE SENSOR		DUCTWORK SOUND ATTENUATOR		HYDRONIC REHEAT COIL		ABOVE FINISHED ROOF		MOTOR OPERATED CONTROL DAMPER (MOC)						MEDIUM TEMP HOT WATER		NORMALLY CLOSED
	HUMIDITY/HUMIDITY SENSOR		DOOR GRILLE		IN-LINE CENTRIFRUGAL FAN		AIR HANDLING UNIT		NORMALLY OPEN						NOT TO SCALE		OUTSIDE AIR
	EMERGENCY SWITCH		UNDERCUT DOOR		CHANGE OF ELEVATION		CENTER LINE		OUTSIDE AIR LOUVER						PRESSURE REDUCING BACKFLOW PREVENTER		PRESSURE REDUCING VALVE
	CO2 SENSOR		ACCESS DOORS, VERTICAL OR HORIZONTAL		FLEXIBLE DUCT		CHANGE IN PRESSURE		POUNDS PER SQUARE INCH						PACKAGED TERMINAL AIR CONDITIONER		POLYVINYL CHLORIDE PIPE
	DUCT SMOKE DETECTOR		FLAT OVAL DUCT		TRANSITION, CONCENTRIC		CHANGE IN TEMPERATURE		RETURN AIR						REHEAT COIL		RETURN AIR
	CONNECT TO EXISTING		NEW DUCTWORK, FIRST DIMENSION IS SIDE SHOWN		TRANSITION, SQUARE TO ROUND		CUBIC FEET PER MINUTE		ROOFTOP HEAT PUMP						REVOLUTIONS PER MINUTE		ROOFTOP AIR HANDLING UNIT
	DEMOLISH TO POINT INDICATED		DUCT ELBOW, POSITIVE PRESSURE (SUPPLY), FIRST		TRANSITION, ECCENTRIC		ROOFTOP AIR HANDLING UNIT		SUPPLY AIR						STATIC PRESSURE		STAINLESS STEEL
	MOTORIZED CONTROL DAMPER		DUCT ELBOW, NEGATIVE PRESSURE, RETURN		SQUARE THROAT ELBOW W/TURNING VANES		ENERGY RECOVERY VENTILATOR		SUPPLY FAN						TEST AND BALANCE		TRANSFER AIR DUCT
	TEMPERATURE SENSOR		DUCT ELBOW UP THROUGH ROOF OR SLAB ABOVE		RADIUS ELBOW		EXTERNAL STATIC PRESSURE		FINAL FILTERS						FINAL FILTERS		TOTAL STATIC PRESSURE
	PRESSURE SENSOR		DUCT ELBOW UP THROUGH ROOF OR SLAB ABOVE		RECTANGULAR/ROUND CONICAL TAKE-OFF OR ROUND/ROUND CONICAL TAKE-OFF		ENTERING AIR TEMPERATURE		FULL LOAD AMPS						UNIT HEATER		UNLESS NOTED OTHERWISE
	BACKDRAFT DAMPER		DUCT ELBOW UP THROUGH ROOF OR SLAB ABOVE		SQUARE THROAT TEE		INFRARED GAS-FIRED HEATER		GALLONS PER MINUTE						VARIABLE AIR VOLUME		VARIABLE FREQUENCY DRIVE
	SHEET NOTE CALLOUT		RECTANGULAR DUCT SECTION UP, NEGATIVE PRESSURE, RETURN		RADIUS TEE		LEAVING AIR TEMPERATURE		VARIABLE VOLUME TERMINAL UNIT						LINEAR DIFFUSER		VARIABLE VOLUME TERMINAL UNIT
	SHEET NOTE CALLOUT		RECTANGULAR DUCT SECTION UP, EXHAUST		RECTANGLE-TO-ROUND TAKE-OFF		LEAVING WATER TEMPERATURE										
	SHEET NOTE CALLOUT		ROUND DUCT SECTION UP		STANDARD BRANCH TAKE-OFF												
	AIR DISTRIBUTION TAG		FLAT OVAL DUCT SECTION UP		SPIN-IN TAKE-OFF W/VOLUME DAMPER & FLEXIBLE DUCT												
	CEILING MOUNTED ACCESS DOOR		EXHAUST DUCT UP THROUGH SLAB W/FAN ON ROOF ABOVE		SPIN-IN TAKE-OFF W/VOLUME DAMPER & ROUND DUCT												
	CEILING DIFFUSER, ROUND OR RECTANGULAR NECK (CEILING DIFFUSERS ARE 4-WAY THROW UNO)		EXHAUST FAN ON ROOF W/DUCT DOWN THROUGH ROOF														
	ROUND DIFFUSER		OUTSIDE AIR DUCT UP THROUGH SLAB W/FAN ON ROOF ABOVE														
	CEILING RETURN		OUTSIDE AIR FAN ON ROOF W/DUCT DOWN THROUGH ROOF														
	CEILING EXHAUST		TERMINAL UNIT, VARIABLE/CONSTANT AIR VOLUME WITH HOT WATER HEAT														
	CEILING DIFFUSER, RECTANGULAR (CEILING DIFFUSERS ARE 4-WAY THROW UNO)																
	SUPPLY REGISTER OR GRILLE (VERTICAL MOUNT, SIDEWALL)																
	RETURN/EXHAUST REGISTER OR GRILLE (VERTICAL MOUNT, SIDEWALL)																
	STEEL BARS AS REQUIRED BY AIR-10-1																
	FIRE DAMPER (WITH ACCESS PANEL)																
	FIRE & SMOKE DAMPER (WITH ACCESS PANEL)																
	MANUAL BALANCING DAMPER																

HVAC PIPING SYMBOL LEGEND					
	CONDENSER WATER SUPPLY		CONTROL VALVE		BINARY / DIGITAL INPUT
	CONDENSER WATER RETURN		CHECK VALVE		BINARY / DIGITAL OUTPUT
	CHILLED WATER SUPPLY		CALIBRATING BALANCING VALVE		ANALOG INPUT
	CHILLED WATER RETURN		GAS COCK		ANALOG OUTPUT
	CONDENSATE		UNION		DIFFERENTIAL PRESSURE SWITCH (DPS) OR TRANSMITTER (DPT)
	CONDENSATE RETURN		STRAINER		VARIABLE FREQUENCY DRIVE
	PUMPED CONDENSATE		PSI REG.		FLOW METER (FM)
	HOT WATER SUPPLY		SLOPE SWITCH		PRESSURE / TEMPERATURE (PT) PORT
	HOT WATER RETURN		SLOPE DIRECTION (DOWN)		TEMPERATURE SENSOR IN WELL
	BUILDING HOT WATER SUPPLY		FLEX CONNECTION		DUCT MOUNTED HUMIDITY SENSOR
	BUILDING HOT WATER RETURN		O.S.&Y. GATE VALVE		DUCT MOUNTED TEMPERATURE SENSOR
	MEDIUM TEMPERATURE WATER SUPPLY		STEAM TRAP		
	MEDIUM TEMPERATURE WATER RETURN		THREE-WAY CONTROL VALVE		
	HIGH PRESSURE STEAM SUPPLY		THERMOMETER		
	HIGH PRESSURE STEAM RETURN		P-TRAP		
	MEDIUM PRESSURE STEAM SUPPLY		TWO-WAY CHECK VALVE		
	MEDIUM PRESSURE STEAM RETURN		MODULATING CONTROL VALVE		
	LOW PRESSURE STEAM SUPPLY		MANUAL VENT		
	LOW PRESSURE STEAM RETURN		PRESSURE GAUGE		
	REFRIGERANT LIQUID		RELIEF VALVE		
	REFRIGERANT SUCTION		FLOW METER		
	FLOW DIRECTION		WATER METER		
	GATE VALVE				
	BALL VALVE				
	BUTTERFLY VALVE				

NOTE: SOME SYMBOLS SHOWN ON THIS LEGEND MAY NOT PERTAIN TO THIS PROJECT.

CONSULTANT:

CLIENT:

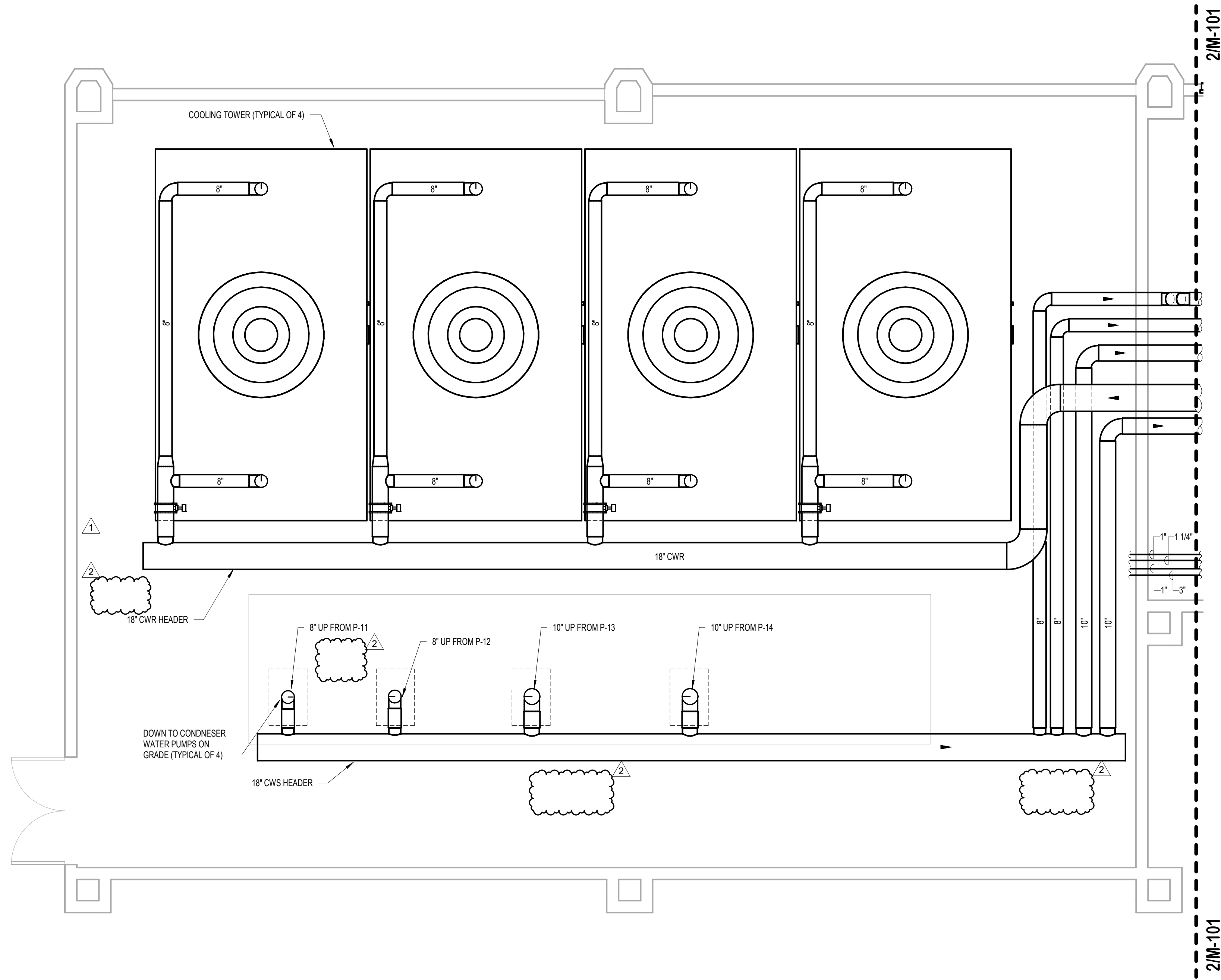


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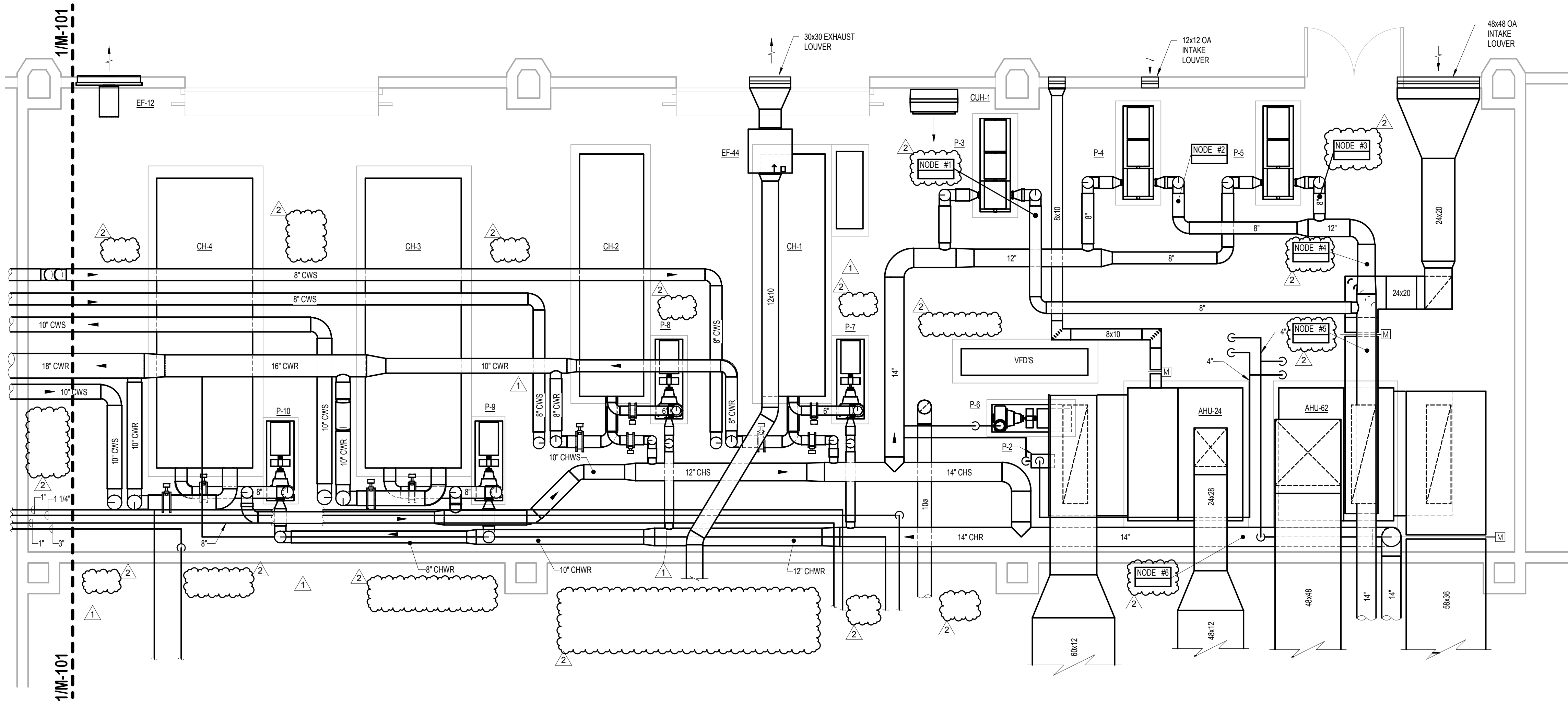
ORANGE COUNTY CONVENTION CENTER CHILLED WATER PRODUCTION PLANT PIPE SAMPLING

9800 International Drive, Orlando, FL 32819

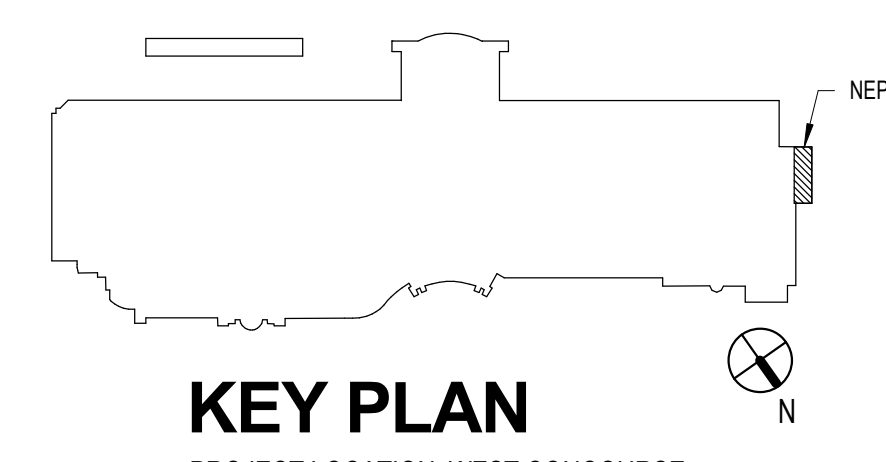
100059859



1 COOLING TOWER PLAN
SCALE: 1/4" = 1'-0"
NORTH



2 NEP MECHANICAL ROOM PLAN
SCALE: 1/4" = 1'-0"
NORTH



No.	Date	Description
1	9/14/18	Addendum #1
2	10/9/18	Addendum #3

ISSUE LOG
PROFESSIONAL SEALS:

KELLIE RAMOS, P.E.
FL REG NO. 76996

SHEET TITLE:
HVAC PLAN - PHASE 2 NEP

SHEET INFORMATION:		
JOB No. 100059859	Date Issued:	07/20/18
Designed By: KAR	Sheet Number:	
Checked By: DLH		
OC Review: T,JF		
Phase: CD		

M-101

CONSULTANT:

CLIENT:



PROJECT NAME:

ORANGE COUNTY CONVENTION CENTER CHILLED WATER PRODUCTION PLANT PIPE SAMPLING

9800 International Drive, Orlando, FL 32819

100059859

No.	Date	Description
1	9/14/18	Addendum #1
2	10/9/18	Addendum #3

ISSUE LOG

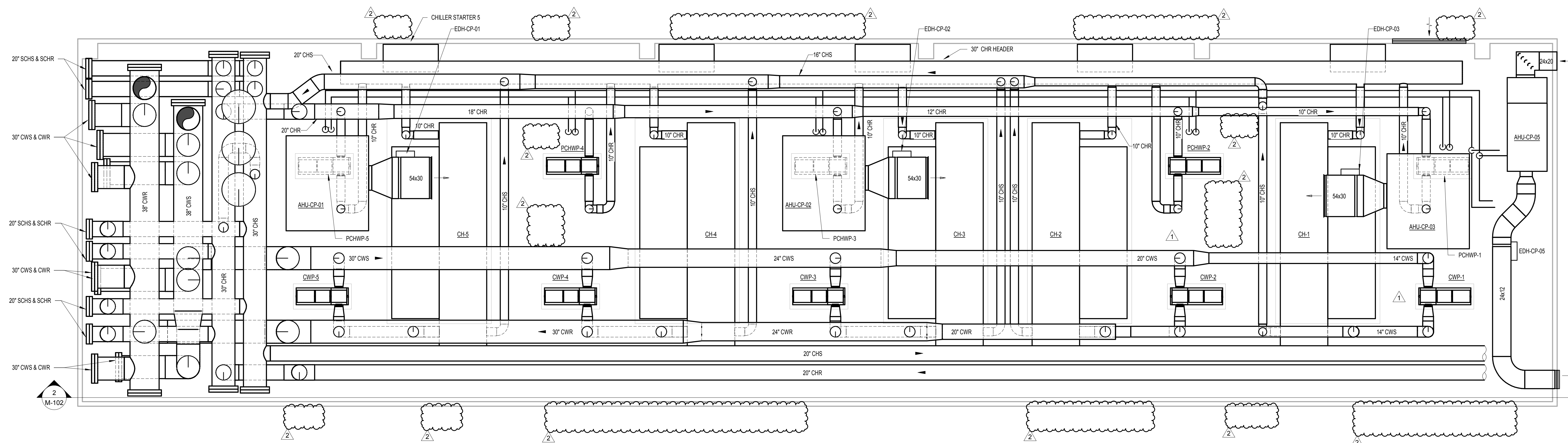
PROFESSIONAL SEALS:

KELLIE RAMOS, P.E.
FL REG NO. 76996

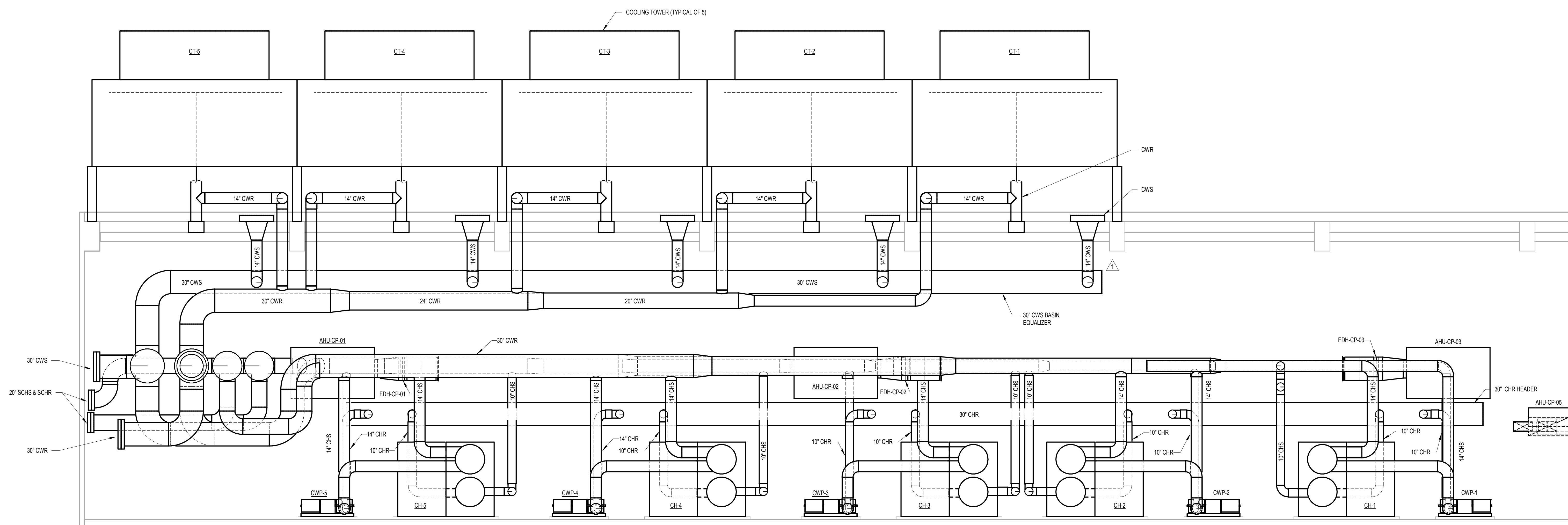
SHEET TITLE:

HVAC PLAN - PHASE 3 CEP

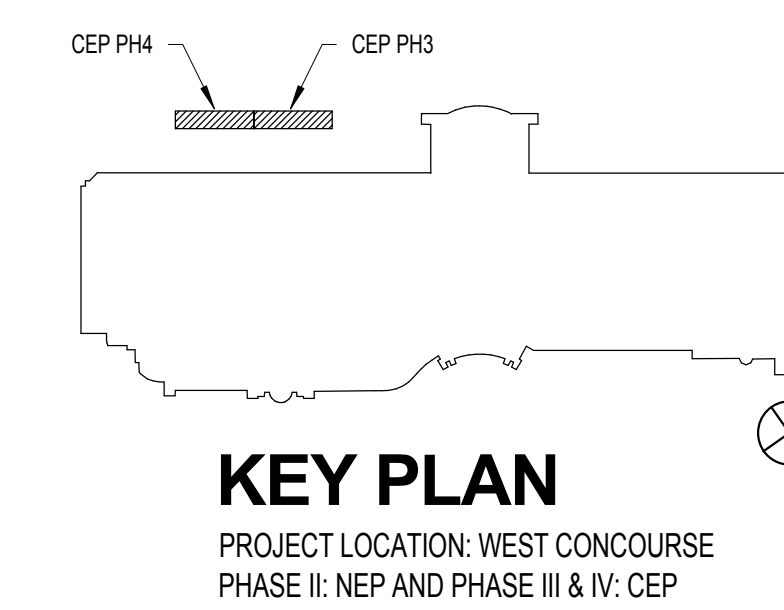
SHEET INFORMATION:	
JOB No. 100059859	Date Issued: 07/20/18
Designed By: KAR	Sheet Number:
Checked By: DLH	M-102
OC Review: T,J,F	Phase: CD



1 CEP MECHANICAL PLAN - PHASE 3
SCALE: 3/16" = 1'-0"



2 COOLING TOWER SECTION
SCALE: 3/16" = 1'-0"



KEY PLAN

PROJECT LOCATION: WEST CONCOURSE
PHASE II: NEP AND PHASE III & IV: CEP

CONSULTANT:

CLIENT:



PROJECT NAME:

ORANGE COUNTY CONVENTION CENTER CHILLED WATER PRODUCTION PLANT PIPE SAMPLING

9800 International Drive, Orlando, FL 32819

100059859

No.	Date	Description
1	9/14/18	Addendum #1
2	10/9/18	Addendum #3

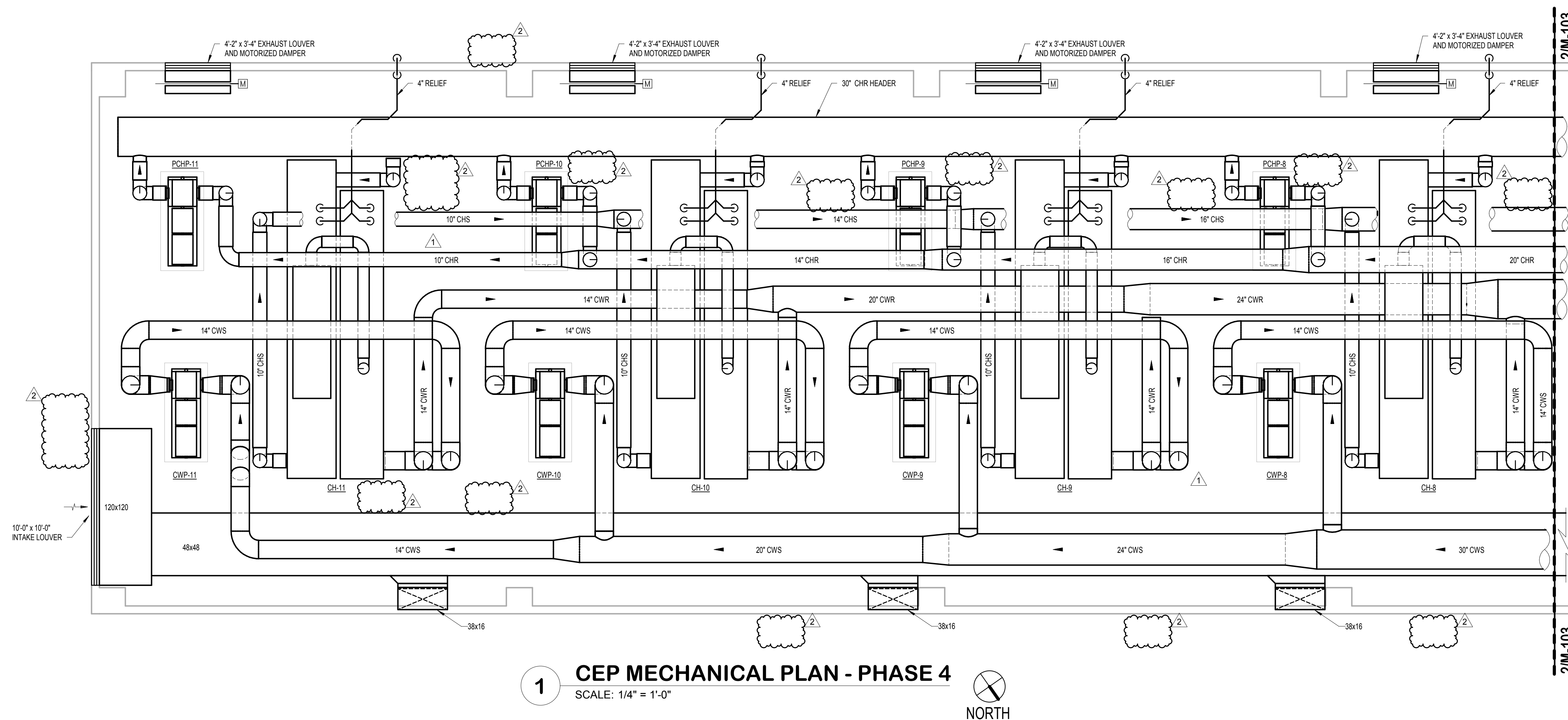
ISSUE LOG
PROFESSIONAL SEALS:

KELLIE RAMOS, P.E.
FL REG NO. 76996

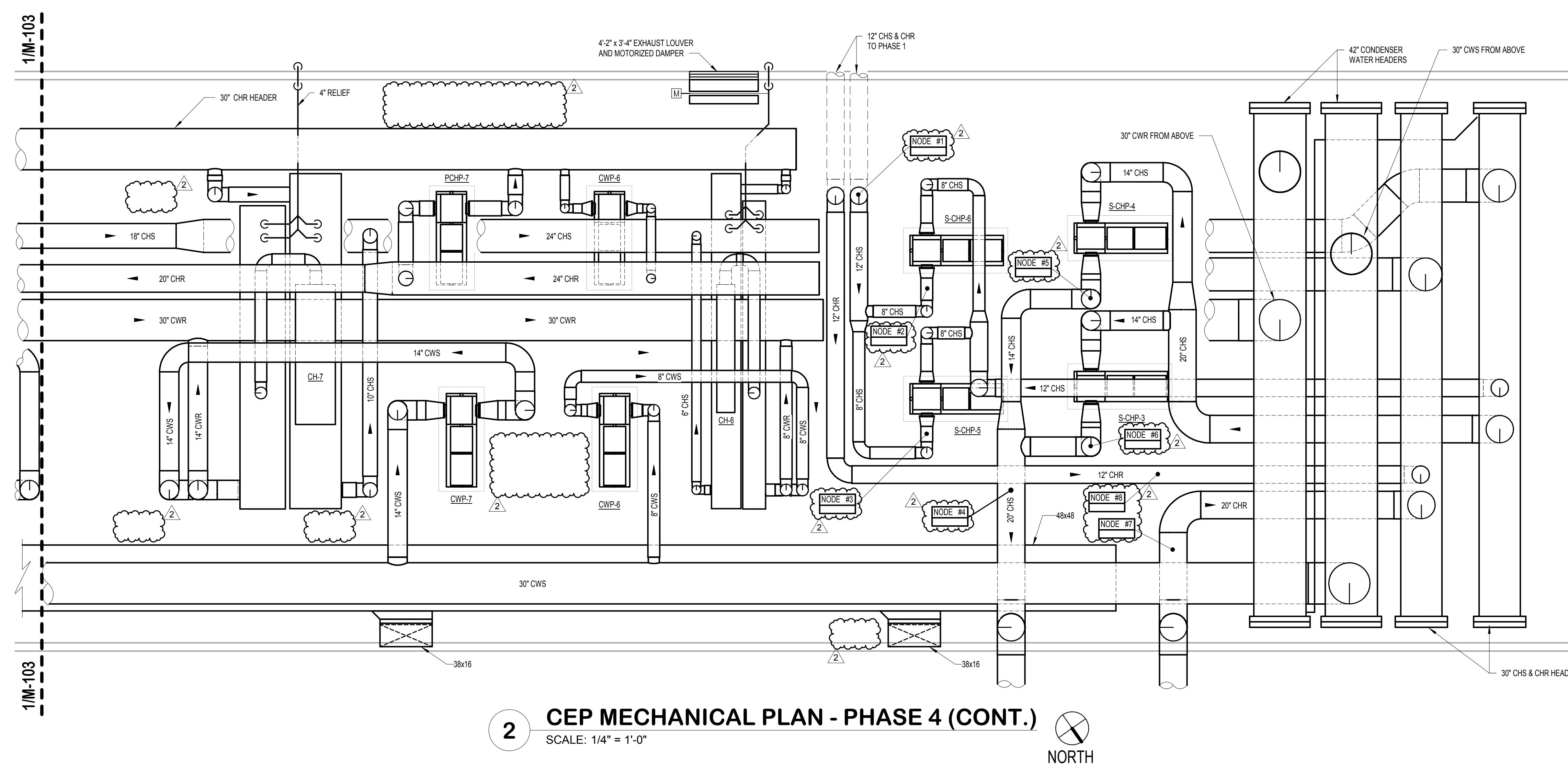
SHEET TITLE:

HVAC PLAN - PHASE 4 CEP

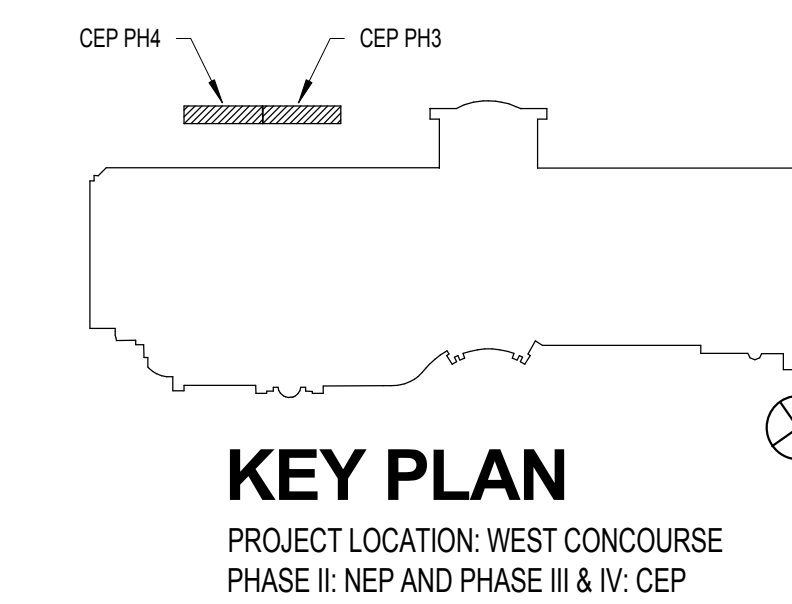
SHEET INFORMATION:	
JOB No. 100059859	Date Issued: 07/20/18
Designed By: KAR	Sheet Number:
Checked By: DLH	M-103
OC Review: T,JF	
Phase: CD	



1 CEP MECHANICAL PLAN - PHASE 4
SCALE: 1/4" = 1'-0"



2 CEP MECHANICAL PLAN - PHASE 4 (CONT.)
SCALE: 1/4" = 1'-0"



KEY PLAN

PROJECT LOCATION: WEST CONCOURSE
PHASE II: NEP AND PHASE III & IV: CEP

CONSULTANT:

CLIENT:



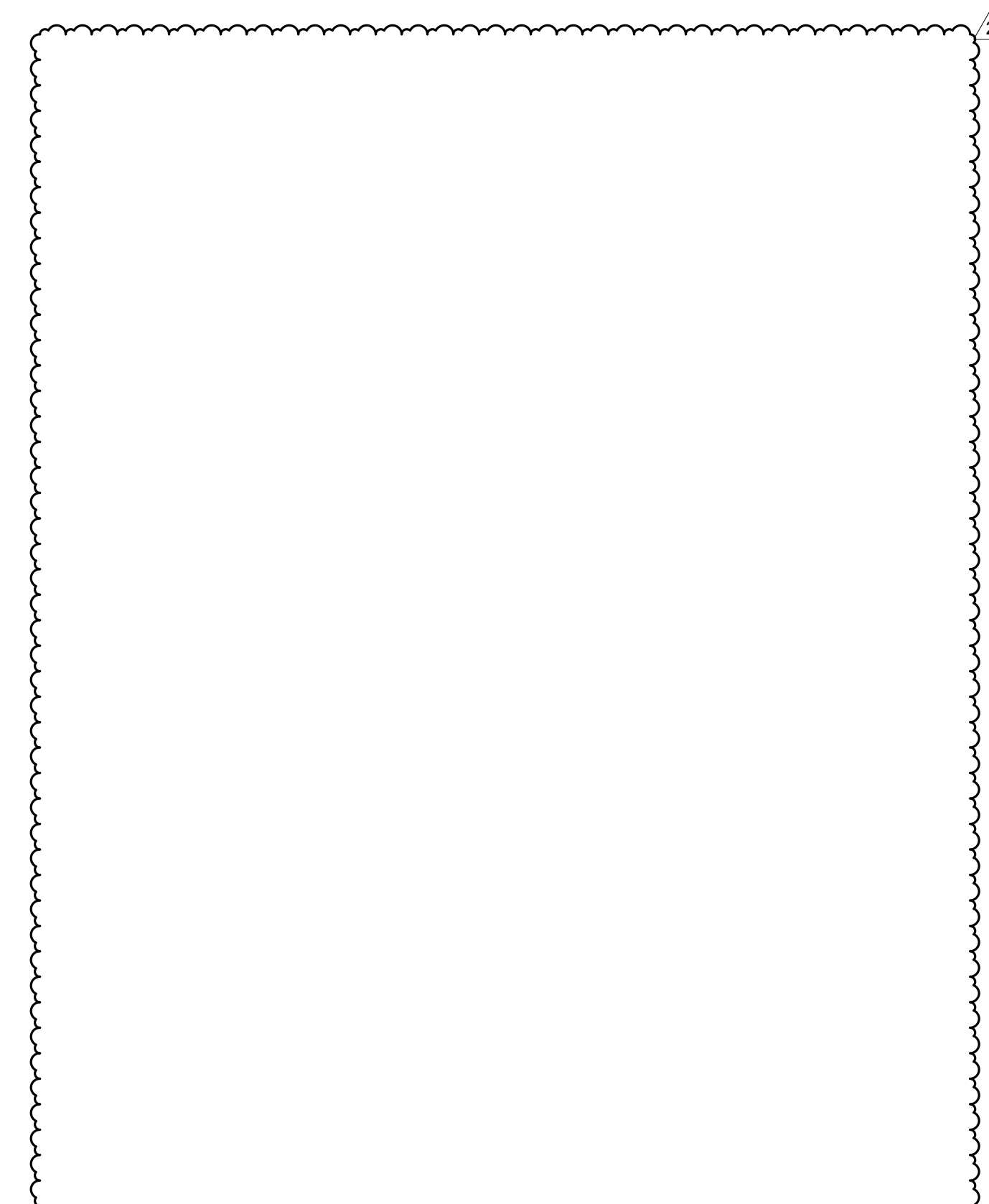
PROJECT NAME:

ORANGE COUNTY CONVENTION CENTER CHILLED WATER PRODUCTION PLANT PIPE SAMPLING

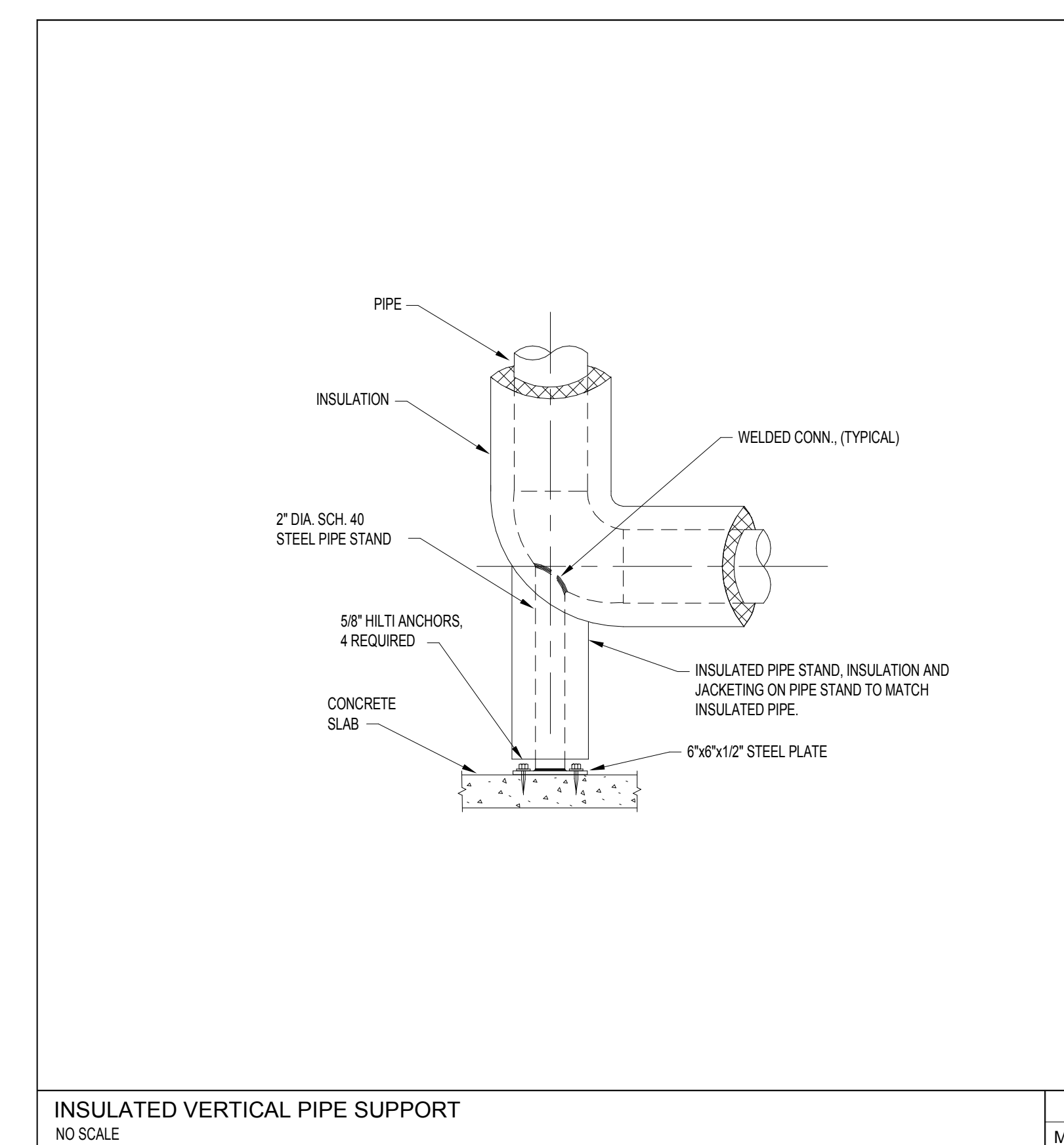
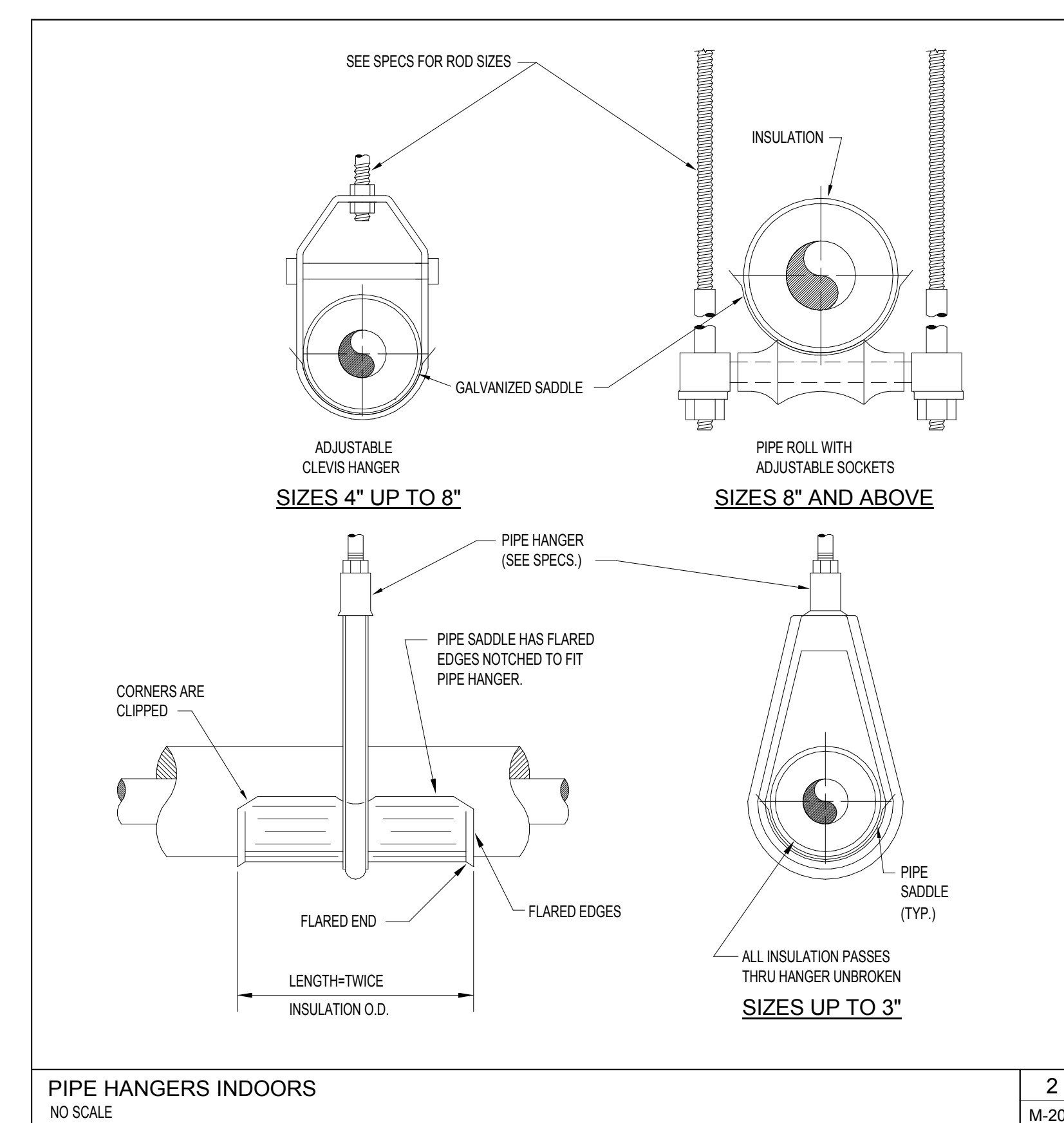
9800 International Drive, Orlando, FL 32819

100059859

Node #	Phase	Pipe Size	System	Location
1	2-NEP	8"	CHWS	P-3 outlet
2	2-NEP	8"	CHWS	P-4 outlet
3	2-NEP	8"	CHWS	P-5 outlet
4	2-NEP	12"	CHWS	P-4 & P-5 header
5	2-NEP	14"	CHWS	Main CHWS
6	2-NEP	14"	CHWR	Main CHWR



Node #	Phase	Pipe Size	System	Location
1	4-CEP	12"	CHWS	Main CHWS to Phase I
2	4-CEP	8"	CHWS	S-CHP-6 outlet
3	4-CEP	8"	CHWS	S-CHP-5 outlet
4	4-CEP	20"	CHWS	Main CHWS to Phase IV
5	4-CEP	14"	CHWS	S-CHP-4 outlet
6	4-CEP	14"	CHWS	S-CHP-3 outlet
7	4-CEP	20"	CHWS	Main CHWR to Phase IV
8	4-CEP	12"	CHWR	Main CHWR to Phase I



No.	Date	Description
1	9/14/18	Addendum #1
2	10/9/18	Addendum #3

ISSUE LOG

PROFESSIONAL SEALS:

KELLIE RAMOS, P.E.
FL REG NO. 76996

SHEET TITLE:

HVAC SCHEDULES AND DETAILS

SHEET INFORMATION:			
JOB No.	100059859	Date Issued:	10/05/18
Designed By:	KAR	Sheet Number:	
Checked By:	DLH		
OC Review:	TJF		
Phase:	CD		

M-201

ORANGE COUNTY CONVENTION CENTER

CHILLED WATER PRODUCTION PLANT

PIPE SAMPLING



INDEXES

100% CONSTRUCTION DOCUMENTS

JULY 20, 2018

PREPARED BY:

ATKINS

482 SOUTH KELLER ROAD
ORLANDO, FLORIDA 32810

INDEX OF SPECIFICATIONS

SECTION 000115 - LIST OF DRAWING SHEETS

DIVISION 01 - GENERAL REQUIREMENTS

SECTION 011100 – SUMMARY OF WORK (OCCC)

SECTION 012300 – ADDITIVES

SECTION 012500 – SUBSTITUTION PROCEDURES

SECTION 012600 – CONTRACT MODIFICATION PROCEDURES

SECTION 012900 – PAYMENT PROCEDURES

SECTION 013100 – PROJECT MANAGEMENT AND COORDINATION

SECTION 013119 – PROJECT MEETINGS

SECTION 013300 – SUBMITTAL PROCEDURES

SECTION 017329 – CUTTING AND PATCHING

SECTION 017700 – CLOSEOUT PROCEDURES

SECTION 017800 – WARRANTIES AND BONDS

DIVISION 02 through DIVISION 22 – NOT USED

DIVISION 23 – HEATING, VENTILATING AND AIR CONDITIONING

SECTION 230519 - METERS AND GAGES FOR HVAC PIPING

SECTION 230523 – GENERAL DUTY VALVES FOR HVAC PIPING

SECTION 230529 - HANGERS AND SUPPORTS FOR HVAC PIPING AND EQUIPMENT

SECTION 230719 - HVAC PIPING INSULATION

SECTION 232113 - HYDRONIC PIPING

SECTION 232116 - HYDRONIC PIPING SPECIALTIES

DIVISION 24 through DIVISION 35 – NOT USED

**ORANGE COUNTY CONVENTION CENTER
CHILLED WATER PRODUCTION PLANT PIPE SAMPLING
100% CONSTRUCTION DOCUMENTS
INDEX OF DRAWING SHEETS**

SHEET No	DRAWING TITLE	SCALE
M-000	COVER SHEET AND SHEET INDEX	No Scale
M-001	HVAC SYMBOLS LEGEND AND GENERAL NOTES	No Scale
M-101	HVAC PLAN - PHASE 2 NEP	1/4"=1'-0"
M-102	HVAC PLAN - PHASE 3 CEP	1/4"=1'-0"
M-103	HVAC PLAN - PHASE 4 CEP	1/4"=1'-0"
M-201	HVAC SCHEDULES AND DETAILS	No Scale

SECTION 011100 - SUMMARY OF WORK (OCCC)

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and other Division-1 Specification Sections, apply to this Section.
- B. When the titles such as Engineer, Project Engineer, or Owner are used throughout this specification, this implies Orange County as property owner and/or an officially appointed County Representative.
- C. The term "Engineer" shall also refer to the Architect of Record, or any other Designer/Consultant of Record on the Project.

1.2 PROJECT DESCRIPTION

- A. Performance of all tasks specified in the contract documents shall be the responsibility of the contractor unless specified otherwise.

1.3 SCOPE OF WORK

- A. ~~Phase 1~~— Ultrasonic Testing:
 - Contractor shall perform ultrasonic thickness testing at each node shown on drawings. There are ~~56~~ 8 locations in the Central Energy Plant (CEP) and ~~28~~ 6 locations in the North Energy Plant (NEP).
 - Additive: Provide a cost for 42 additional ultrasonic testing nodes within the chilled water distribution system of the West Building. These additional testing locations shall be determined by the Owner prior to construction.
 - Testing shall be in accordance with ASTM E797 for thickness and ASTM E164 for shear wave. The entire circumference of the pipe shall be tested at each node.
 - At least 12 inches of insulation shall be removed per node. The exterior of the pipe shall be cleaned and prepared prior to testing. New insulation of like kind shall be replaced after testing.
 - Provide test results including nominal thickness, and high and low thickness measurements at each node for review ~~and Phase 2 direction~~ by the owner.
- B. ~~Phase 2~~— Destructive Testing:
 - ~~Perform destructive testing at 6 sample locations in each plant (NEP & CEP). Sections of piping shall be removed and new piping and insulation of like kind shall be replaced where instructed by the owner after review of Phase 1 results. Each pipe sample shall be at least 3 feet long.~~
 - Perform water chemistry testing for each plant ~~prior to phase 2 samples being removed~~. Provide one water sample for the CEP and one for the NEP to the metallurgical testing agency for corrosive index testing and sulfur reducing bacteria (SRB) testing. Provide test results to the owner.
 - ~~Piping and water samples shall be transported to a subcontracted testing agency for visual, stereomicroscopy, metallurgical, energy spectroscopy (EDS), scale analysis and full chemistry analysis in accordance with ASTM A53.~~

SECTION 012300 – ADDITIVES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements for additives.

1.2 DEFINITIONS

- A. Additives: An amount proposed by bidders and stated on the Bid Form for certain work defined in the bidding requirements that may be added the base bid amount if Owner decides to accept a corresponding change in the amount of construction to be completed as described in the Contract Documents.
 - 1. Additives described in this Section are part of the Work only if enumerated in the Agreement.
 - 2. The cost or credit for each additive is the net addition to the Contract Sum to incorporate additional Work. No other adjustments are made to the Contract Sum.

1.3 PROCEDURES

- A. Coordination: Revise or adjust affected adjacent work as necessary to completely integrate work of the additive into Project.
 - 1. Include as part of each additive, miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation whether or not indicated as part of additive.
- B. Notification: Immediately following award of the Contract, notify each party involved, in writing, of the status of each additive. Indicate if additives have been accepted, rejected, or deferred for later consideration. Include a complete description of negotiated revisions to additives.
- C. Execute accepted additives under the same conditions as other work of the Contract.
- D. Schedule: A schedule of additives is included at the end of this Section. Specification Sections referenced in schedule contain requirements for materials necessary to achieve the work described under each additive.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 SCHEDULE OF ADDITIVES

A. Additive No. 1: Additional Testing Locations.

1. Base Bid: Eight (8) testing locations in the Central Energy Plant (CEP) and six (6) testing locations in the North Energy Plant (NEP) as indicated in Construction Documents.
2. Additive: Forty-two (42) additional testing locations within the chilled water distribution system of the West Building. Locations to be determined by the Owner prior to construction.

END OF SECTION 012300

**To the Board of County Commissioners
Orange County, Florida**

The Undersigned, hereinafter called "Bidder", having visited the site of the proposed project and familiarized himself with the local conditions, nature and extent of the work, and having examined carefully the Contract Form, General Conditions, Supplementary Conditions, Plans and Specifications and other Contract Documents, with the Bond requirements herein, proposes to furnish all labor, materials, equipment and other items, facilities and services for the proper execution and completion of: **ORANGE COUNTY CONVENTION CENTER NORTH/SOUTH BUILDING SMOKE CONTROL SYSTEM UPGRADES** in full accordance with the drawings and specifications prepared in accordance with the Contract Documents and, if awarded the Contract, to complete the said work within the time limits specified for the following **LUMP SUM TOTAL BASE BID**.

TOTAL BASE BID:

_____ DOLLARS
(In Words)

ADDITIVE #1: Provide a cost for 42 additional ultrasonic testing nodes within the chilled water distribution system of the West Building. These additional testing locations shall be determined by the Owner prior to construction.

_____ DOLLARS
(In Words)

TOTAL BASE BID AND ADDITIVE #1:

_____ DOLLARS
(In Words)

In the event the Contract is awarded to this Bidder, he/she will enter into a formal written agreement with the County in accordance with the accepted bid within ten (10) calendar days after said Contract is submitted to him/her and will furnish to the County a Contract Payment and Performance Bond with good and sufficient sureties, satisfactory to the County, in the amount of 100% of the accepted bid. The Bidder further agrees that in the event of the Bidder's default or breach of any of the agreements of this proposal, the said bid deposit shall be forfeited as liquidated damages.

Failure of the Bidder to provide pricing for all unit priced items and/or the Base Bid and ALL requested additive/deductive bid items, or alternate bids shall be cause for rejection of the bid as non-responsive.