

# Addendum 1

<b>Owner Information</b>	INDIANA DEPARTMENT OF ADMINISTRATION
<b>Contractor Information</b>	N/A

<b>DATE</b>	10/18/2024
<b>PROJECT NAME</b>	INDIANA STATE POLICE POST #16 (PERU) HVAC RENOVATION
<b>INTROBA PROJECT #</b>	2035.0012550
<b>PUBLIC WORKS PROJECT #</b>	52011001-24-019-C1
<b>PWP CONTRACT #</b>	81698
<b>DISTRIBUTION</b>	Owner
<b>ADDENDUM CONSIST OF</b>	(6) 8.5 X 11 PAGES AND (1) 30X42 FULL-SIZE SHEETS

The following additions, revisions, and modifications are part of the contract documents, which shall be amended accordingly. Acknowledge receipt of addenda on the bid form. Failure to acknowledge receipt of this addendum may result in the rejection of your offer.

## GENERAL


1. Pre-Bid Meeting Agenda:
  - a. Updated the agenda to include meeting notes taken during the meeting.
2. Pre-Bid Meeting Sign-in Sheet:
  - a. Pre-Bid Meeting sign-in sheet is included in Addendum 1 documentation.

## SPECIFICATIONS

1. 235233 HYDRONIC BOILERS:
  - a. Paragraph 2.1, Subparagraph A., add the following subparagraph:  
"2. Fulton"

## DRAWINGS

1. M600 – MECHANICAL SCHEDULES:
  - a. Boiler Schedule. Updated boiler GPM.
  - b. Pump Schedule. Updated pump information based on updated boiler GPM.

SIGNATURE Christopher Hawk 

## Pre-Bid Meeting Agenda

Meeting Name	Indiana State Police Posts – Peru, Post 16 HVAC Replacement DAPW Project # 52011001-24-019-C1
Meeting Date(s)	October 8, 2024
Meeting Time	10:00 AM EST
Meeting Location	Peru State Police Post 16, 1451 N. Eel River Cemetery Road, Peru, IN 46970
By	Christopher Hawk

### **Meeting Agenda**

- A. Sign-In Sheet
- B. Contacts/Project Team
  - 1. Indiana State Police – Peru, Post 16
    - a. Mike Gaddis, DAPW: [mgaddis2@idoa.in.gov](mailto:mgaddis2@idoa.in.gov), (317) 233-2540
    - b. Dan Hayes, Maintenance Foreman II, ISP: [dhayes@isp.in.gov](mailto:dhayes@isp.in.gov), (463) 276-3016
  - 2. Introba, MEP Engineers
    - a. Christopher Hawk: [christopher.hawk@introba.com](mailto:christopher.hawk@introba.com), (317) 638-8383
    - b. Samuel Hubbe: [samuel.hubbe@introba.com](mailto:samuel.hubbe@introba.com), (317) 638-8383
- C. General Project Scope Overview
  - 1. Replacements of a major mechanical equipment and systems including an air handling unit, boilers, condensing units, pumps, fans, and air devices.
  - 2. Selective demolition of ductwork, piping, and air devices. Full removal of mixing boxes and existing controls.
  - 3. New variable air volume (VAV) boxes and digital controls for all existing and newly installed equipment.
  - 4. Selective demolition of electrical devices, starters, disconnects, electrical panels, and conduit.
  - 5. Remove and reinstall lighting fixtures and other electrical ceiling devices as part of construction.
  - 6. Installation of one new electrical panel. Providing new starters, disconnects, drives, junction boxes, conduit, and wiring for new mechanical equipment.
- D. Refer to “Notice to Bidders”
  - 1. Bid documents are available online:  
[https://distribution.easternengineering.com/View/ViewJob.aspx?job\\_id=30423](https://distribution.easternengineering.com/View/ViewJob.aspx?job_id=30423)

2. Bids are due 1:31 PM (local time) on October 30, 2024. Bid opening will follow and can be viewed using the link below.
  - a. <https://on.in.gov/b6apt>
3. Submit bids to [publicworks bids@idoa.in.gov](mailto:publicworks bids@idoa.in.gov).
4. Refer to specifications for all bidder requirements and instructions including insurance, bidder qualifications, security and bonding.

#### E. Project Schedule

1. Preliminary overall construction phases are indicated in documents.
  - a. Onsite work can start from the date that the contract is signed.
  - b. Onsite work to be completed one year (365 days) from the signed contract date.
2. Contractor to submit detailed construction schedule as part of bid.

#### F. Logistics Overview

1. Contractor to protect all existing finishes and major furnishings.
2. Dumpster to be provided by Contractor, location to be coordinated with ISP staff.
3. Clean-up will be required after each shift.
4. Access and work hours.

#### G. Alternates

1. Trane RAUB-506 and associated condensing unit CUV-1 serving Training Room 106 will be removed and replaced with new fan coil unit, associated condensing unit, and reheat coil. New digital controls for equipment will be installed.

#### H. Questions

1. Submit questions via email to Christopher Hawk at Introba, CC Samuel Hubbe and Beth Fitzsimmons.
  - a. [christopher.hawk@introba.com](mailto:christopher.hawk@introba.com)
  - b. [samuel.hubbe@introba.com](mailto:samuel.hubbe@introba.com)
  - c. [beth.fitzsimmons@introba.com](mailto:beth.fitzsimmons@introba.com)

2. All questions must be received by noon on October 18, 2024.

#### I. Bidder Questions

#### J. Site Walkthrough

#### K. Notes from Pre-Bid Meeting

1. Access and working hours tentatively established as 7am-4:30pm M-F. Coordinate working hours schedule with state holidays.

2. Primary and sub-contractors shall be pre-certified with DAPW prior to start of work.
3. XBE requirements established by DAPW must be followed by contractors.
4. Preconstruction meeting shall be held to address construction phases with users and consultants, protecting existing finishes and furnishings, and other coordination items.
5. Extended warranties on specific mechanical equipment will be researched by Introba.

BY	DATE	CHECKED	DATE
PROJECT #	PROJECT NAME	SHEET	OF

ISP - Peru

<u>Name</u>	<u>Company</u>	<u>Email</u>
Chuck Lee	Irish Mechanical Services	chee@irishmechanicalservices.com
Gary Hardwick	Irish Mechanical Services	ghardwick@irishmechanicalservices.com
Tim Bryherdo	Ellis Mechanical	tim@ellismechanicalinc.com
Joe Swaim	Ideal Consolidated	
Kevin Kozlowski	Ideal	KKozlowski@idealconsolidated.com
Andrew Miller	OSD Controls	Amiller@osbsi.com
Jason Cox	Benchmark Mechanical	jcox@benchmarkmechanical.com
Dan Hayes	ISP	dhayes@ISP.IN.GOV
Darrick Scott	ISP	DSCOTT2@ISP.IN.GOV
Randy Hodge	ISP	rhodge@ISP.IN.GOV
Gary D. Murphy	ISP	Gmurphy@ISP.IN.GOV
Mike Gaddis	IDOA	mgaddis2@idoe.in.gov
Chris Hawk	Introba	christopher.hawk@introba.com
Sam Hubbe	Introba	samuel.hubbe@introba.com

AIR HANDLING UNIT SCHEDULE																													
NOTES: 1. PROVIDE WITH INVERTER-READY OR INVERTER-DUTY MOTOR FOR VARIABLE SPEED OPERATION. PROVIDE WITH VFD AND DISCONNECT. 2. FILTERS FOR FAN TOTAL PRESSURE CALCULATIONS SHALL BE EVALUATED AT MID LIFE CONDITION PER THE FILTER MANUFACTURER RATINGS. 3. UNIT STATIC PRESSURE CAPABILITY SHALL INCLUDE SCHEDULED EXTERNAL STATIC PRESSURE PLUS ALL SCHEDULED INTERNAL PRESSURE DROPS, INCLUDE VALVE FOR WETTED COILS AND DIRTY FILTERS.																													
MARK		MFR.	MODEL	LOCATION	MIN. OA (CFM)	MAX SIZE (LxWxH)	MAX OPERATING WEIGHT (LBS)	TOTAL AIRFLOW (CFM)	SUPPLY FAN				FILTERS		MAX SOUND POWER RATING (DISCHARGE / INLET / RADIATED)						ELECTRICAL DATA			NOTES					
ID	#								STATIC PRESSURE		TYPE	DRIVE	MAX FAN SPEED (RPM)	MOTOR SPEED (RPM)	MIN. FAN EFF. (%)	PRE	DESIGN APD (IN WC)	63	125	250	500	1000	2000		4000	8000	FLA	VOLTS	PHASE
AHU	1	CARRIER	AERO 39MN21W	156 MECH ROOM	3000	148"x92"x61"	3031	10000	4.00	2.00	PLENUM	DIRECT	1747	1200	63	MERV-8	0.9	82	84	91	82	74	73	72	69	33	208	3	1, 2, 3

AIR HANDLING UNIT SCHEDULE 2																						
NOTES: 1. PROVIDE WITH INVERTER-READY OR INVERTER-DUTY MOTOR FOR VARIABLE SPEED OPERATION. PROVIDE WITH VFD AND DISCONNECT. 2. FILTERS FOR FAN TOTAL PRESSURE CALCULATIONS SHALL BE EVALUATED AT MID LIFE CONDITION PER THE FILTER MANUFACTURER RATINGS. 3. UNIT STATIC PRESSURE CAPABILITY SHALL INCLUDE SCHEDULED EXTERNAL STATIC PRESSURE PLUS ALL SCHEDULED INTERNAL PRESSURE DROPS, INCLUDE VALVE FOR WETTED COILS AND DIRTY FILTERS.																						
MARK		HEATING HOT WATER COIL								DIRECT EXPANSION COIL										ELECTRICAL DATA		NOTES
ID	#	CAPACITY (MBH)	MAX FACE VEL. (FPM)	EAT (°F)	LAT (°F)	WATER FLOW (GPM)	EWT (°F)	LWT (°F)	ROWS	MAX PD		CAPACITY (MBH)		MAX FACE VEL. (FPM)	EAT		LAT (°F)	REFRIGERANT TYPE	# OF CIRCUITS	MAX PD AIR (IN WC)	CONDENSING UNIT ID #	
AHU	1	280.87	466	44.6	69.3	26	140	120	1	AIR (IN WC)	WATER (FT)	SENS.	TOTAL	466	DB (°F)	WB (°F)	53.7	R-410A	2	0.82	CU-1	1, 2, 3

FAN SCHEDULE																											
NOTES: 1. PROVIDE WITH MOTORIZED BACKDRAFT DAMPER. 2. PROVIDE WITH FACTORY MOUNTED DISCONNECT SWITCH. 3. PROVIDE GALVANIZED STEEL BIRDSCREEN. 4. BACKWARD INCLINED UTILITY SET EXHAUST FAN WITH MOTOR COVER AND SLIP FIT INLET AND OUTLET CONNECTIONS. 5. PROVIDE WITH VARI-GREEN CONTROL DIAL ON EXTERIOR OF FAN HOUSING, MOUNTED AND WIRED.																											
MARK		MFR.	MODEL	TYPE	LOCATION	SERVICE	DRIVE	AIRFLOW (CFM)	ESP (IN WC)	MAX FAN SPEED (RPM)	MOTOR SPEED (RPM)	MIN STATIC EFF (%)	MAX SOUND POWER RATING (INLET / OUTLET)						MAX WEIGHT (LBS)	ELECTRICAL DATA			NOTES				
ID	#												63	125	250	500	1000	2000		4000	8000	HP		VOLTS	PHASE		
EF	1	GREENHECK	G-098-A	DOWNBLAST	ROOF	106 TRAINING ROOM	DIRECT	750	0.25	1725	1725	19	82	80	78	70	67	62	57	53	48	1/4	120	1	1, 2, 3		
EF	2	GREENHECK	G-095-G	DOWNBLAST	ROOF	114 TOILET	DIRECT	270	0.25	1300	1300	40	79	71	67	59	53	46	39	33	1/12	120	1	1, 2, 3			
EF	3	GREENHECK	G-095-G	DOWNBLAST	ROOF	102 WOMEN TOILET, 103 MEN TOILET	DIRECT	360	0.375	1300	1300	40	78	71	67	58	53	47	40	33	1/12	120	1	1, 2, 3			
EF	4	GREENHECK	G-095-G	DOWNBLAST	ROOF	147 EVIDENCE	DIRECT	270	0.25	1300	1300	40	79	71	67	59	53	46	39	33	1/12	120	1	1, 2, 3			
EF	5	GREENHECK	G-080-D	DOWNBLAST	ROOF	145 RADIO ROOM	DIRECT	350	0.25	1550	1550	31	65	73	69	61	60	57	53	46	27	1/20	120	1	1, 2, 3		
EF	6	GREENHECK	G-080-D	DOWNBLAST	ROOF	134 PHOTO	DIRECT	200	0.25	1550	1550	34	69	74	69	61	60	57	51	46	27	1/20	120	1	1, 2, 3		
EF	7	GREENHECK	G-080-D	DOWNBLAST	ROOF	133 SMELL ROOM	DIRECT	210	0.25	1550	1550	34	69	74	69	61	60	57	51	46	27	1/20	120	1	1, 2, 3		
EF	8	GREENHECK	G-099-B	DOWNBLAST	ROOF	132 WORK ROOM	DIRECT	600	0.375	1140	1140	47	70	71	70	62	56	54	49	44	56	1/6	120	1	1, 2, 3		
EF	9	GREENHECK	G-095-G	DOWNBLAST	ROOF	126 MEN TOILET, 127 WOMEN TOILET	DIRECT	300	0.375	1300	1300	39	79	71	67	59	53	46	39	33	1/12	120	1	1, 2, 3			
EF	10	GREENHECK	G-070-G	DOWNBLAST	ROOF	122 MUG & PRINT, 123 DET	DIRECT	220	0.125	1300	1300	38	66	63	59	47	42	40	34	30	22	1/60	120	1	1, 2, 3		
EF	11	GREENHECK	G-098-B	DOWNBLAST	ROOF	153 RADIO PARTS	DIRECT	440	0.25	1140	1140	35	72	69	67	59	55	50	43	40	56	1/6	120	1	1, 2, 3		
EF	12	GREENHECK	G-120-B	DOWNBLAST	ROOF	165 GARAGE	DIRECT	1000	0.25	1140	1140	43	68	73	72	66	59	57	52	50	53	1/6	120	1	1, 2, 3		
EF	13	GREENHECK	G-140-B	DOWNBLAST	ROOF	156 MECH ROOM	DIRECT	1600	0.25	1140	1140	31	76	77	75	68	62	62	55	49	59	1/4	120	1	1, 2, 3		
EF	14	GREENHECK	G-095-G	DOWNBLAST	ROOF	159 STORAGE	DIRECT	250	0.375	1300	1300	36	79	71	67	59	53	54	46	39	33	1/12	120	1	1, 2, 3		
EF	15	GREENHECK	USF-12	UTILITY SET	156 MECH ROOM	165 GARAGE	DIRECT	1800	2.5	2487	3500	64	94	87	83	83	77	76	71	66	228	2	208	3	1, 2, 3, 4		
EF	16	GREENHECK	G-070-G	DOWNBLAST	ROOF	160 TOILET	DIRECT	220	0.125	1300	1300	38	66	63	59	47	42	40	34	30	22	1/60	120	1	1, 2, 3		
EF	17	GREENHECK	G-095-G	DOWNBLAST	ROOF	164 STORAGE	DIRECT	250	0.375	1300	1300	36	79	71	67	59	53	54	46	39	33	1/12	120	1	1, 2, 3		
RF	1	GREENHECK	SQ-02-VG	INLINE CENTRIFUGAL	156 MECH ROOM	AHU-1	DIRECT	7000	2.0	1522	1550	62	80	78	92	86	82	78	77	72	206	5	208	3	2, 5		

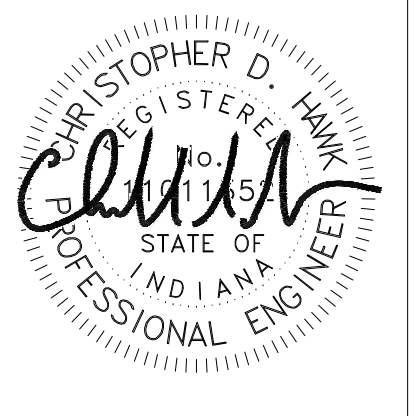
BOILER SCHEDULE															
NOTES: 1. PROVIDE WITH FLUE CONDENSATE DRAIN TRAP. 2. PROVIDE WITH CONDENSATE NEUTRALIZATION KIT. 3. PROVIDE WITH VARIABLE SPEED BOILER PUMP TO BE USED AS PRIMARY BOILER PUMP.															
MARK		MFR.	MODEL	TYPE	LOCATION	SERVICE	NOM. BOILER HP	CAPACITY (MBH)		DESIGN WATER FLOW (GPM)	MAX WATER PD (FT)	WATER TEMP (°F)	ELECTRICAL DATA		NOTES
ID	#							GROSS INPUT	GROSS OUTPUT				SUPPLY	VOLTS	
B	1	LOCHINVAR	FBN-1001	CONDENSING	156 MECH ROOM	HEATING HOT WATER	28	999	961	100	8.3	140	120	1	1, 2, 3
B	2	LOCHINVAR	FBN-1001	CONDENSING	156 MECH ROOM	HEATING HOT WATER	28	999	961	100	8.3	140	120	1	1, 2, 3

CONDENSING UNIT SCHEDULE																		
NOTES: 1. CAPACITY CONTROL FOR AHU SHALL BE WITH APR VALVE (BY RAWAL DEVICES) ON LEAD CIRCUIT. 2. PROVIDE WITH SINGLE POINT POWER, HAIL GUARDS, AND DISCONNECT.																		
MARK		MFR.	MODEL	TYPE	LOCATION	SERVICE	COOLING CAP (MBH)	OA TEMP DESIGN AMB (°F)	COMPRESSOR QTY	TONS	AIR COOLED CONDENSER QTY FANS	UNIT EER	REFRIGERANT	ELECTRICAL DATA			NOTES	
ID	#													AMPS (MCA)	AMPS (MOCP)	VOLTS		PHASE
CU	1	CARRIER	38APD	AIR COOLED	SOUTH SIDE EXTERIOR	AHU-1	480	95	2	20	3	11.8	R-410A	165	200	208	3	1, 2

PUMP SCHEDULE																
NOTES: 1. PROVIDE WITH INVERTER-READY OR INVERTER-DUTY MOTOR FOR VARIABLE SPEED OPERATION.																
MARK		MFR.	MODEL	TYPE	LOCATION	SERVICE	WATER FLOW (GPM)	TDH (FT)	MIN INLET / OUTLET SIZES (IN)	MAX NPSH REQD (FT)	MIN EFF (%)	MOTOR SPEED (RPM)	ELECTRICAL DATA			NOTES
ID	#												HP	VOLTS	PHASE	
HWP	1	BELL & GOSSETT	E-1510	BASE MOUNTED	156 MECH ROOM	HEATING HOT WATER	100	52	1.5	5.99	54.6	1800	2	208	3	1
HWP	2	BELL & GOSSETT	E-1510	BASE MOUNTED	156 MECH ROOM	HEATING HOT WATER	100	52	1.5	5.99	54.6	1800	2	208	3	1

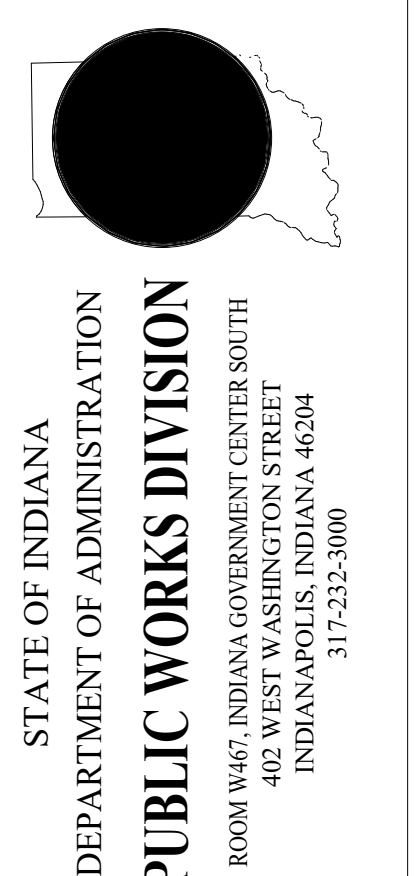
EXPANSION TANK SCHEDULE												
NOTES: 1. BLADDER TYPE EXPANSION TANK.												
MARK		MFR.	MODEL	LOCATION	SERVICE	NOMINAL SIZE (DIAxLGTH)	ORIENTATION	CAPACITY (GAL)		MINIMUM REQUIRED FILL PRESSURE (PSIG)	DESIGN OPERATING PRESSURE (PSIG)	NOTES
ID	#							REQUIRED TANK VOLUME	REQUIRED ACCEPTANCE VOLUME			
ET	1	BELL & GOSSETT	B130	156 MECH ROOM	HEATING HOT WATER	20"x37"	VERTICAL	28.81	22.1	12	125	1

AIR SEPARATOR SCHEDULE									
NOTES: 1. PROVIDE WITH HIGH CAPACITY, AUTOMATIC AIR VENT.									
MARK		MFR.	MODEL	TYPE	LOCATION	SERVICE	FLOW (GPM)	MAX WATER PD (FT)	NOTES
ID	#								
AS	1	BELL & GOSSETT	RL-3F	INLINE CENTRIFUGAL	156 MECH ROOM	HEATING HOT WATER	120	0.72	1



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INDIANA STATE POLICE POST  
HVAC RENOVATION  
INDIANA DEPARTMENT OF ADMINISTRATION  
1451 N. EEL RIVER CEMETERY RD.  
PERU, IN 46970



Revisions:

1	Addendum 1	10/18/2024
NO	REVISION	DATE

Introba Project Number:  
2035.0012550.000  
Public Works Project Number:  
52011001-24-019-C1  
State of Indiana PWP Contract Number:  
81698

Designer: S/JH  
Drawing Date: 08-16-2024  
Drafter: S/JH  
Drawing Scale: AS NOTED  
DAPW Approval:  
Client Approval:  
Drawing Number:  
**M600**

PROJECT STATUS: 100% CONSTRUCTION DOCUMENTS