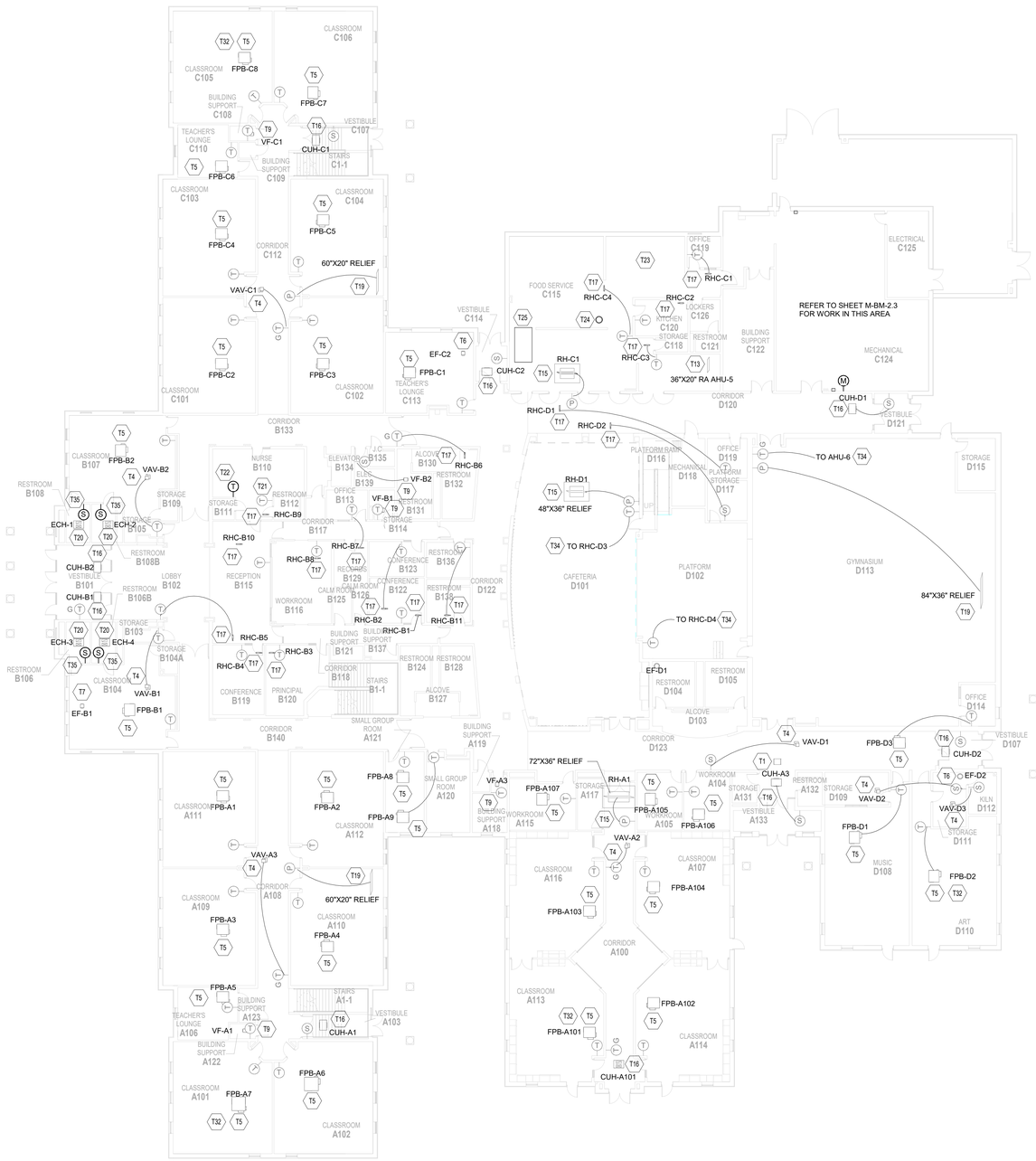

BOONE MEADOW FIRST FLOOR TEMPERATURE CONTROL PLAN

1

SCALE: 1/16" = 1'-0"

TEMPERATURE CONTROL PLAN GENERAL NOTES

A. ALL DUCT MOUNTED PRESSURE SENSORS AND PIPE MOUNTED DIFFERENTIAL PRESSURE SENSORS SHALL BE REPLACED WITH NEW.
B. REFER TO SPECIFICATION SECTIONS 230900 AND 230993 FOR TEMPERATURE CONTROL SPECIFICATIONS AND SEQUENCE OF OPERATIONS.
C. ALL THERMOSTATS/SENSORS TO BE MOUNTED WITH BOTTOM AT 44" AFF UNLESS OTHERWISE NOTED.
D. OUTDOOR STATIC PRESSURE AND TEMPERATURE SENSORS TO BE LOCATED PER MANUFACTURER'S RECOMMENDATIONS.
E. ALL CONTROL WIRING SHALL BE REPLACED WITH NEW.
F. ALL TEMPERATURE CONTROL VALVES AND ACTUATORS ARE TO BE REPLACED WITH NEW.
G. ALL COMMUNICATION WIRING SHALL BE REPLACED WITH NEW COMMUNICATION WIRING.
H. ALL WALL MOUNTED THERMOSTATS/SENSORS SHALL BE REPLACED WITH NEW THERMOSTATS/SENSORS.

2

TEMPERATURE CONTROLS PLAN NOTES

X

(ALL NOTES MAY NOT BE INDICATED ON THIS SHEET)

NO.	DESCRIPTION
T1	EXISTING DUCT MOUNTED PRESSURE SENSOR TO BE REMOVED AND REPLACED WITH NEW DUCT MOUNTED PRESSURE SENSOR. VERIFY EXACT LOCATION OF EXISTING SENSOR.
T4	EXISTING VAV TERMINAL UNIT TO REMAIN IN PLACE. ALL EXISTING TEMPERATURE CONTROLS SHALL BE REMOVED AND REPLACED WITH NEW DDC CONTROLS.
T5	EXISTING FAN POWERED TERMINAL UNIT TO REMAIN IN PLACE. ALL EXISTING TEMPERATURE CONTROLS SHALL BE REMOVED AND REPLACED WITH NEW DDC CONTROLS.
T6	EXISTING EXHAUST FAN AND MANUAL CONTROLS TO REMAIN IN PLACE.
T7	EXISTING EXHAUST FAN TO REMAIN IN PLACE. ALL EXISTING TEMPERATURE CONTROLS SHALL BE REMOVED AND REPLACED WITH NEW DDC CONTROLS. PROVIDE NEW CONTROLS TO OPERATE ON/OFF BASED ON CONTROL ZONE.
T9	EXISTING VENTILATION FAN TO REMAIN IN PLACE. ALL EXISTING TEMPERATURE CONTROLS SHALL BE REMOVED AND REPLACED WITH NEW DDC CONTROLS.
T13	EXISTING RETURN/OUTSIDE AIR DAMPER TO REMAIN IN PLACE. EXISTING CONTROL DAMPER OPERATOR TO BE REMOVED AND DISPOSED OF OFF SITE. PROVIDE NEW CONTROL DAMPER OPERATOR. CONTRACTOR SHALL ENSURE PROPER OPERATION OF THE DAMPER AND REPORT ANY DEFICIENCIES TO THE CONSTRUCTION MANAGER AND THE ARCHITECT/ENGINEER.
T15	EXISTING RELIEF ROOF VENTILATOR AND ASSOCIATED CONTROL DAMPER TO REMAIN IN PLACE. EXISTING CONTROL DAMPER OPERATOR TO BE REMOVED AND DISPOSED OF OFF SITE. PROVIDE NEW RELIEF CONTROL DAMPER OPERATOR. CONTRACTOR SHALL ENSURE PROPER OPERATION OF THE DAMPER AND REPORT ANY DEFICIENCIES TO THE CONSTRUCTION MANAGER AND THE ARCHITECT/ENGINEER.
T16	EXISTING CABINET UNIT HEATER TO REMAIN IN PLACE. ALL EXISTING TEMPERATURE CONTROLS SHALL BE REMOVED AND REPLACED WITH NEW DDC CONTROLS.
T17	EXISTING DUCT MOUNTED HEATING WATER COIL TO REMAIN IN PLACE. ALL EXISTING TEMPERATURE CONTROLS SHALL BE REMOVED AND REPLACED WITH NEW DDC CONTROLS.
T19	EXISTING BUILDING RELIEF DAMPER TO REMAIN IN PLACE. ALL EXISTING CONTROLS SHALL BE REMOVED AND REPLACED WITH NEW DDC CONTROLS. CONTRACTOR SHALL ENSURE PROPER OPERATION OF THE DAMPER AND REPORT ANY DEFICIENCIES TO THE CONSTRUCTION MANAGER AND THE ARCHITECT/ENGINEER.
T20	EXISTING CABINET UNIT HEATER TO REMAIN IN PLACE. EXISTING LINE VOLTAGE THERMOSTAT TO REMAIN.
T21	EXISTING SENSOR TO BE REMOVED. PATCH EXISTING WALL WITH BLANK COVER PLATE.
T22	PROVIDE NEW SENSOR FOR REHEAT COIL IN THIS APPROXIMATE LOCATION. COORDINATE EXACT LOCATION WITH EXISTING CONDITIONS.
T23	PROVIDE NEW TEMPERATURE SENSOR IN EXISTING WALK-IN COOLER/FREEZER FOR MONITORING THROUGH BAS.
T24	EXISTING KITCHEN EXHAUST FAN TO REMAIN IN PLACE. SEQUENCE WITH EXISTING KITCHEN EQUIPMENT.
T25	EXISTING MAKE-UP AIR UNIT TO REMAIN. PROVIDE AND INSTALL NEW DDC CONTROLLER, DISCHARGE AIR SENSOR, ETC. PROVIDE CURRENT SENSOR TO REPORT FAN STATUS. SEQUENCE WITH EXISTING KITCHEN HOOD(S) AND EXHAUST FANS. SEE SPECIFICATIONS AND SEQUENCE OF OPERATION FOR ADDITIONAL REQUIREMENTS AND POINT LIST REQUIREMENTS.
T32	3-WAY HEATING WATER CONTROL VALVE AT THIS APPROXIMATE LOCATION.
T34	EXISTING THERMOSTAT/SENSOR TO BE REMOVED AND REPLACED WITH THERMOSTAT/SENSOR. VERIFY EXACT LOCATION OF EXISTING THERMOSTAT/SENSOR. CONNECT TO EXISTING EQUIPMENT INDICATED.
T35	PROVIDE NEW TEMPERATURE SENSOR FOR REMOTE MONITORING. TIE IN TO NEW BUILDING AUTOMATION SYSTEM. COORDINATE EXACT LOCATION OF NEW SENSOR WITH EXISTING CONDITIONS.

VERIFICATION NOTE

CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CLEARANCES AND ALL EXISTING FIELD CONDITIONS BEFORE STARTING CONSTRUCTION. COMMENCEMENT OF WORK CONSTITUTES ACCEPTANCE OF CONDITIONS.

SHOULD DIFFERENT CONDITIONS BE ENCOUNTERED, CONTACT THE ARCHITECT BEFORE PROCEEDING WITH WORK.

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ZIONSVILLE CS - STONEGATE ES AND BOONE MEADOW ES TEMPERATURE CONTROL UPGRADES

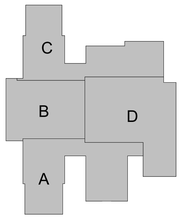
Stonegate Elementary School:
7312 W. Stonegate Dr,
Zionsville, IN 46077

Boone Meadow Elementary School:
5555 S. Main St,
Whitestown, IN 46075

ZIONSVILLE COMMUNITY SCHOOLS

ARCHITECT

FANNING HOWEY
317.848.0966 WWW.FHAI.COM
350 EAST NEW YORK ST, STE 300, INDIANAPOLIS, IN 46204



KEY PLAN

CONSTRUCTION DOCUMENTS

MARK Z. HOFF REGISTERED No. PE 12000601 STATE OF INDIANA PROFESSIONAL ENGINEER

DRAWN BY: MZH
PROJECT NUMBER: 224154.00
PROJECT ISSUE DATE: 12.30.2024

REV. NO.	DESCRIPTION	DATE
2	ADDENDUM #2	01/20/25

BOONE MEADOW FIRST FLOOR TEMPERATURE CONTROL PLAN

M-BM1

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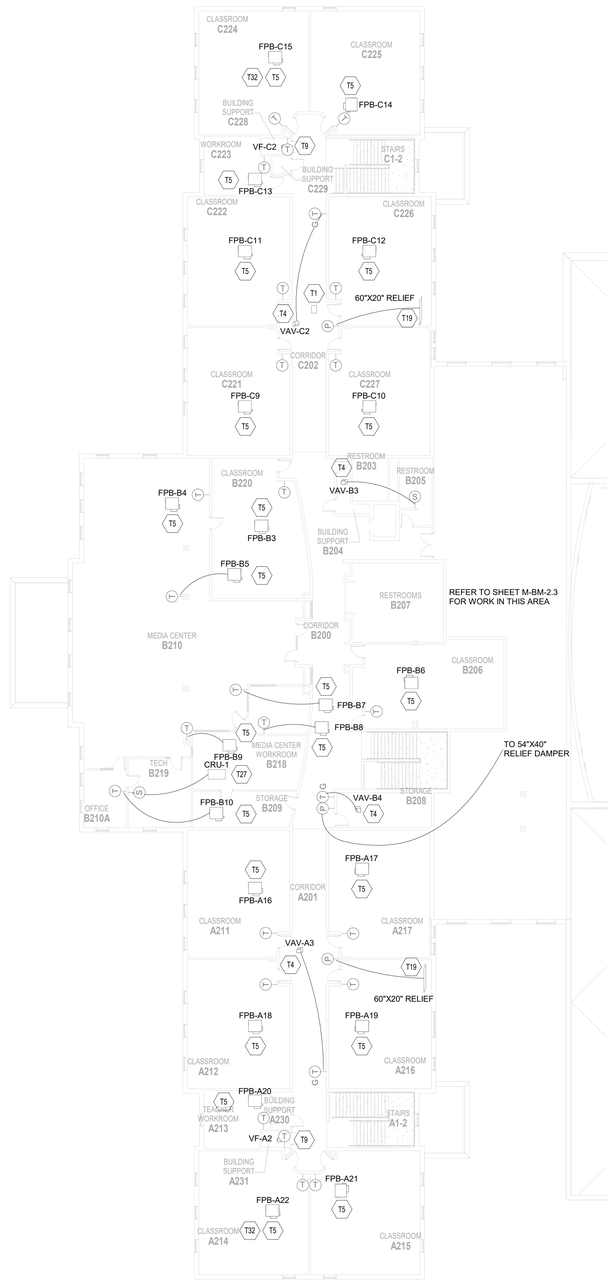

1 **BOONE MEADOW SECOND FLOOR TEMPERATURE CONTROL PLAN**

SCALE: 1/16" = 1'-0"

TEMPERATURE CONTROL PLAN GENERAL NOTES

2

A. ALL DUCT MOUNTED PRESSURE SENSORS AND PIPE MOUNTED DIFFERENTIAL PRESSURE SENSORS SHALL BE REPLACED WITH NEW.
B. REFER TO SPECIFICATION SECTIONS 230900 AND 230993 FOR TEMPERATURE CONTROL SPECIFICATIONS AND SEQUENCE OF OPERATIONS.
C. ALL THERMOSTATS/SENSORS TO BE MOUNTED WITH BOTTOM AT 44" AFF UNLESS OTHERWISE NOTED.
D. OUTDOOR STATIC PRESSURE AND TEMPERATURE SENSORS TO BE LOCATED PER MANUFACTURER'S RECOMMENDATIONS.
E. ALL CONTROL WIRING SHALL BE REPLACED WITH NEW.
F. ALL TEMPERATURE CONTROL VALVES AND ACTUATORS ARE TO BE REPLACED WITH NEW.
G. ALL COMMUNICATION WIRING SHALL BE REPLACED WITH NEW COMMUNICATION WIRING.
H. ALL WALL MOUNTED THERMOSTATS/SENSORS SHALL BE REPLACED WITH NEW THERMOSTATS/SENSORS.

TEMPERATURE CONTROLS PLAN NOTES (X)

(ALL NOTES MAY NOT BE INDICATED ON THIS SHEET)

NO.	DESCRIPTION
T1	EXISTING DUCT MOUNTED PRESSURE SENSOR TO BE REMOVED AND REPLACED WITH NEW DUCT MOUNTED PRESSURE SENSOR. VERIFY EXACT LOCATION OF EXISTING SENSOR.
T4	EXISTING VAV TERMINAL UNIT TO REMAIN IN PLACE. ALL EXISTING TEMPERATURE CONTROLS SHALL BE REMOVED AND REPLACED WITH NEW DDC CONTROLS.
T5	EXISTING FAN POWERED TERMINAL UNIT TO REMAIN IN PLACE. ALL EXISTING TEMPERATURE CONTROLS SHALL BE REMOVED AND REPLACED WITH NEW DDC CONTROLS.
T9	EXISTING VENTILATION FAN TO REMAIN IN PLACE. ALL EXISTING TEMPERATURE CONTROLS SHALL BE REMOVED AND REPLACED WITH NEW DDC CONTROLS.
T19	EXISTING BUILDING RELIEF DAMPER TO REMAIN IN PLACE. ALL EXISTING CONTROLS SHALL BE REMOVED AND REPLACED WITH NEW DDC CONTROLS. CONTRACTOR SHALL ENSURE PROPER OPERATION OF THE DAMPER AND REPORT ANY DEFICIENCIES TO THE CONSTRUCTION MANAGER AND THE ARCHITECT/ENGINEER.
T27	EXISTING COMPUTER ROOM AIR CONDITIONER TO REMAIN IN PLACE. INSTALL NEW DDC TEMPERATURE SENSOR TO MONITOR SPACE TEMPERATURE THROUGH BAS.
T32	3-WAY HEATING WATER CONTROL VALVE AT THIS APPROXIMATE LOCATION.

VERIFICATION NOTE

CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CLEARANCES AND ALL EXISTING FIELD CONDITIONS BEFORE STARTING CONSTRUCTION. COMMENCEMENT OF WORK CONSTITUTES ACCEPTANCE OF CONDITIONS.

SHOULD DIFFERENT CONDITIONS BE ENCOUNTERED, CONTACT THE ARCHITECT BEFORE PROCEEDING WITH WORK.

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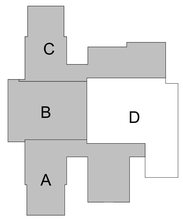

KEY PLAN

NORTH

CONSTRUCTION DOCUMENTS

MARK Z. HOFF
REGISTERED
No.
PE 12000001
STATE OF
INDIANA
PROFESSIONAL ENGINEER

DRAWN BY: MZH
PROJECT NUMBER: 224154.00
PROJECT ISSUE DATE: 12.30.2024

REV. NO.	DESCRIPTION	DATE
2	ADDENDUM #2	01/20/25

BOONE MEADOW SECOND FLOOR TEMPERATURE CONTROL PLAN

M-BM2

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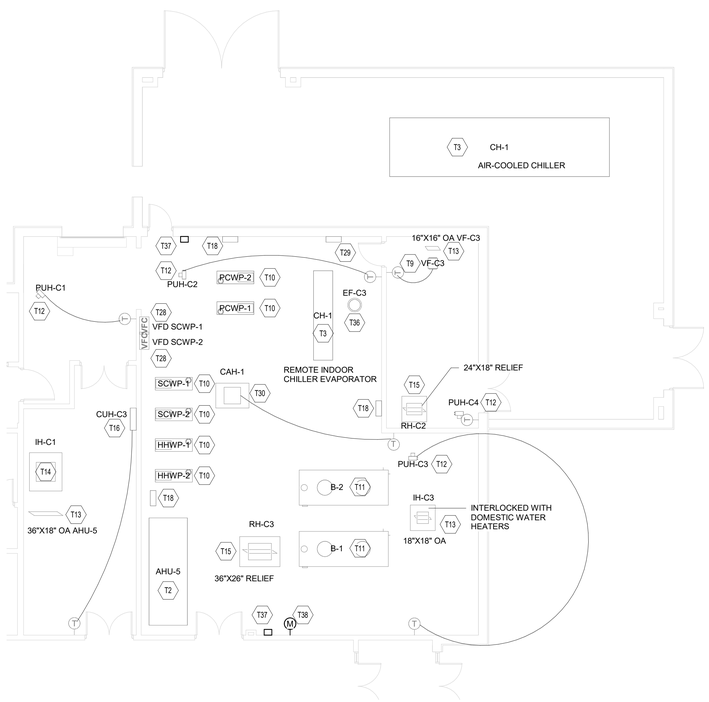
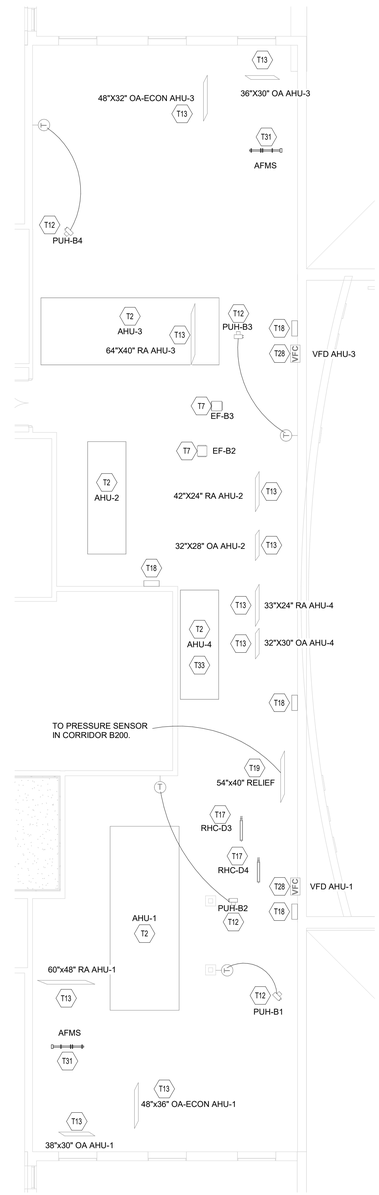
3 BOONE MEADOW ENLARGED SECOND FLOOR TEMPERATURE CONTROL PLAN

SCALE: 1/8" = 1'-0"



1 BOONE MEADOW ENLARGED FIRST FLOOR TEMPERATURE CONTROL PLAN

SCALE: 1/8" = 1'-0"



2 BOONE MEADOW ENLARGED SECOND FLOOR TEMPERATURE CONTROL PLAN

SCALE: 1/8" = 1'-0"

TEMPERATURE CONTROL PLAN GENERAL NOTES

A. ALL DUCT MOUNTED PRESSURE SENSORS AND PIPE MOUNTED DIFFERENTIAL PRESSURE SENSORS SHALL BE REPLACED WITH NEW.
B. REFER TO SPECIFICATION SECTIONS 230900 AND 230993 FOR TEMPERATURE CONTROL SPECIFICATIONS AND SEQUENCE OF OPERATIONS.
C. ALL THERMOSTATS/SENSORS TO BE MOUNTED WITH BOTTOM AT 44" AFF UNLESS OTHERWISE NOTED.
D. OUTDOOR STATIC PRESSURE AND TEMPERATURE SENSORS TO BE LOCATED PER MANUFACTURER'S RECOMMENDATIONS.
E. ALL CONTROL WIRING SHALL BE REPLACED WITH NEW.
F. ALL TEMPERATURE CONTROL VALVES AND ACTUATORS ARE TO BE REPLACED WITH NEW.
G. ALL COMMUNICATION WIRING SHALL BE REPLACED WITH NEW COMMUNICATION WIRING.
H. ALL WALL MOUNTED THERMOSTATS/SENSORS SHALL BE REPLACED WITH NEW THERMOSTATS/SENSORS.

2

TEMPERATURE CONTROLS PLAN NOTES (X)

(ALL NOTES MAY NOT BE INDICATED ON THIS SHEET)

NO.	DESCRIPTION
T2	REMOVE ALL EXISTING AIR HANDLING UNIT INTERNAL SENSORS, CONTROL DAMPER ACTUATORS, CONTROL VALVES/ACTUATORS, SAFETIES AND CONTROL ACCESSORIES. EXISTING UNIT, AND CONTROL DAMPERS TO REMAIN IN PLACE. PROVIDE NEW INTERNAL SENSORS, CONTROL DAMPER ACTUATORS, CONTROL VALVES/ACTUATORS, SAFETIES AND CONTROL ACCESSORIES.
T3	EXISTING CHILLER TO REMAIN IN PLACE. ALL EXISTING CONTROLS SHALL BE REMOVED AND REPLACED WITH NEW DDC CONTROLS.
T7	EXISTING EXHAUST FAN TO REMAIN IN PLACE. ALL EXISTING TEMPERATURE CONTROLS SHALL BE REMOVED AND REPLACED WITH NEW DDC CONTROLS. PROVIDE NEW CONTROLS TO OPERATE ON/OFF BASED ON CONTROL ZONE.
T9	EXISTING VENTILATION FAN TO REMAIN IN PLACE. ALL EXISTING TEMPERATURE CONTROLS SHALL BE REMOVED AND REPLACED WITH NEW DDC CONTROLS.
T10	EXISTING PUMPS TO REMAIN IN PLACE. ALL EXISTING TEMPERATURE CONTROLS SHALL BE REMOVED AND REPLACED WITH NEW DDC CONTROLS.
T11	EXISTING BOILER/BURNER TO REMAIN IN PLACE. REMOVE ALL EXISTING HEATING WATER ELECTRONIC TEMPERATURE SENSORS, ASSOCIATED CONTROLS, SAFETIES AND CONTROL ACCESSORIES SHALL BE REMOVED AND DISPOSE OF OFF SITE. PROVIDE NEW COMBUSTION AIR INTERLOCK, CONTROLS, SENSORS, SAFETIES AND CONTROL ACCESSORIES.
T12	EXISTING PROPELLER UNIT HEATER TO REMAIN IN PLACE. ALL EXISTING TEMPERATURE CONTROLS SHALL BE REMOVED AND REPLACED WITH DDC CONTROLS.
T13	EXISTING RETURN/OUTSIDE AIR DAMPER TO REMAIN IN PLACE. EXISTING CONTROL DAMPER OPERATOR TO BE REMOVED AND DISPOSED OF OFF SITE. PROVIDE NEW CONTROL DAMPER OPERATOR. CONTRACTOR SHALL ENSURE PROPER OPERATION OF THE DAMPER AND REPORT ANY DEFICIENCIES TO THE CONSTRUCTION MANAGER AND THE ARCHITECT/ENGINEER.
T14	EXISTING INTAKE ROOF VENTILATOR TO REMAIN IN PLACE.
T15	EXISTING RELIEF ROOF VENTILATOR AND ASSOCIATED CONTROL DAMPER TO REMAIN IN PLACE. EXISTING CONTROL DAMPER OPERATOR TO BE REMOVED AND DISPOSED OF OFF SITE. PROVIDE NEW RELIEF CONTROL DAMPER OPERATOR. CONTRACTOR SHALL ENSURE PROPER OPERATION OF THE DAMPER AND REPORT ANY DEFICIENCIES TO THE CONSTRUCTION MANAGER AND THE ARCHITECT/ENGINEER.
T16	EXISTING CABINET UNIT HEATER TO REMAIN IN PLACE. ALL EXISTING TEMPERATURE CONTROLS SHALL BE REMOVED AND REPLACED WITH NEW DDC CONTROLS.
T17	EXISTING DUCT MOUNTED HEATING WATER COIL TO REMAIN IN PLACE. ALL EXISTING TEMPERATURE CONTROLS SHALL BE REMOVED AND REPLACED WITH NEW DDC CONTROLS.
T18	EXISTING TEMPERATURE CONTROL PANEL.
T19	EXISTING BUILDING RELIEF DAMPER TO REMAIN IN PLACE. ALL EXISTING CONTROLS SHALL BE REMOVED AND REPLACED WITH NEW DDC CONTROLS. CONTRACTOR SHALL ENSURE PROPER OPERATION OF THE DAMPER AND REPORT ANY DEFICIENCIES TO THE CONSTRUCTION MANAGER AND THE ARCHITECT/ENGINEER.
T28	EXISTING VARIABLE FREQUENCY CONTROLLER (VFC) TO REMAIN IN PLACE. INSTALL NEW DDC CONTROLS. REFER TO SCHEMATICS.
T29	EXISTING REFRIGERANT MONITORING PANEL TO REMAIN IN PLACE. ALL EXISTING CONTROLS SHALL BE REMOVED AND REPLACED WITH NEW DDC CONTROLS FOR INTEGRATION IN TO THE BAS.
T30	EXISTING COMBUSTION AIR HEATER TO REMAIN IN PLACE. ALL EXISTING CONTROLS SHALL BE REMOVED AND REPLACED WITH NEW DDC CONTROLS. FACE AND BYPASS DAMPER OPERATORS SHALL BE REMOVED AND REPLACED WITH NEW DDC CONTROLS. CONTRACTOR SHALL ENSURE PROPER OPERATION OF THE DAMPER AND REPORT ANY DEFICIENCIES TO THE CONSTRUCTION MANAGER AND THE ARCHITECT/ENGINEER.
T31	EXISTING AIRFLOW MEASURING STATION TO BE REMOVED AND REPLACED WITH NEW AIRFLOW MEASURING STATION. INCORPORATE IN TO NEW TEMPERATURE CONTROL SYSTEM.
T32	3-WAY HEATING WATER CONTROL VALVE AT THIS APPROXIMATE LOCATION.
T33	3-WAY CHILLED WATER CONTROL VALVE AT THIS APPROXIMATE LOCATION.
T36	EXISTING EXHAUST FAN TO REMAIN IN PLACE. ALL EXISTING TEMPERATURE CONTROLS SHALL BE REMOVED AND REPLACED WITH NEW DDC CONTROLS. PROVIDE NEW CONTROLS TO OPERATE BASED ON REFRIGERANT EXHAUST ACTIVATION.
T37	EMERGENCY GAS-FIRED EQUIPMENT SHUT-DOWN SWITCH PROVIDED AND INSTALLED BY TEMPERATURE CONTROL CONTRACTOR. COORDINATE EXACT LOCATION WITH EXISTING CONDITIONS.
T38	TEMPERATURE CONTROL CONTRACTOR SHALL PROVIDE CARBON MONOXIDE DETECTOR. REFER TO PROJECT MANUAL. COORDINATE EXACT LOCATION WITH EXISTING CONDITIONS.

VERIFICATION NOTE

CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CLEARANCES AND ALL EXISTING FIELD CONDITIONS BEFORE STARTING CONSTRUCTION. COMMENCEMENT OF WORK CONSTITUTES ACCEPTANCE OF CONDITIONS.

SHOULD DIFFERENT CONDITIONS BE ENCOUNTERED, CONTACT THE ARCHITECT BEFORE PROCEEDING WITH WORK.

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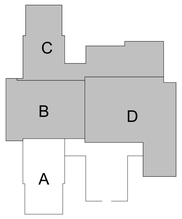
350 EAST NEW YORK ST, STE 300, INDIANAPOLIS, IN 46204



KEY PLAN

CONSTRUCTION DOCUMENTS

DRAWN BY: MZH

PROJECT NUMBER: 224154.00

PROJECT ISSUE DATE: 12.30.2024

REV. NO.	DESCRIPTION	DATE
2	ADDENDUM #2	01/20/25

BOONE MEADOW ENLARGED TEMPERATURE CONTROL PLANS

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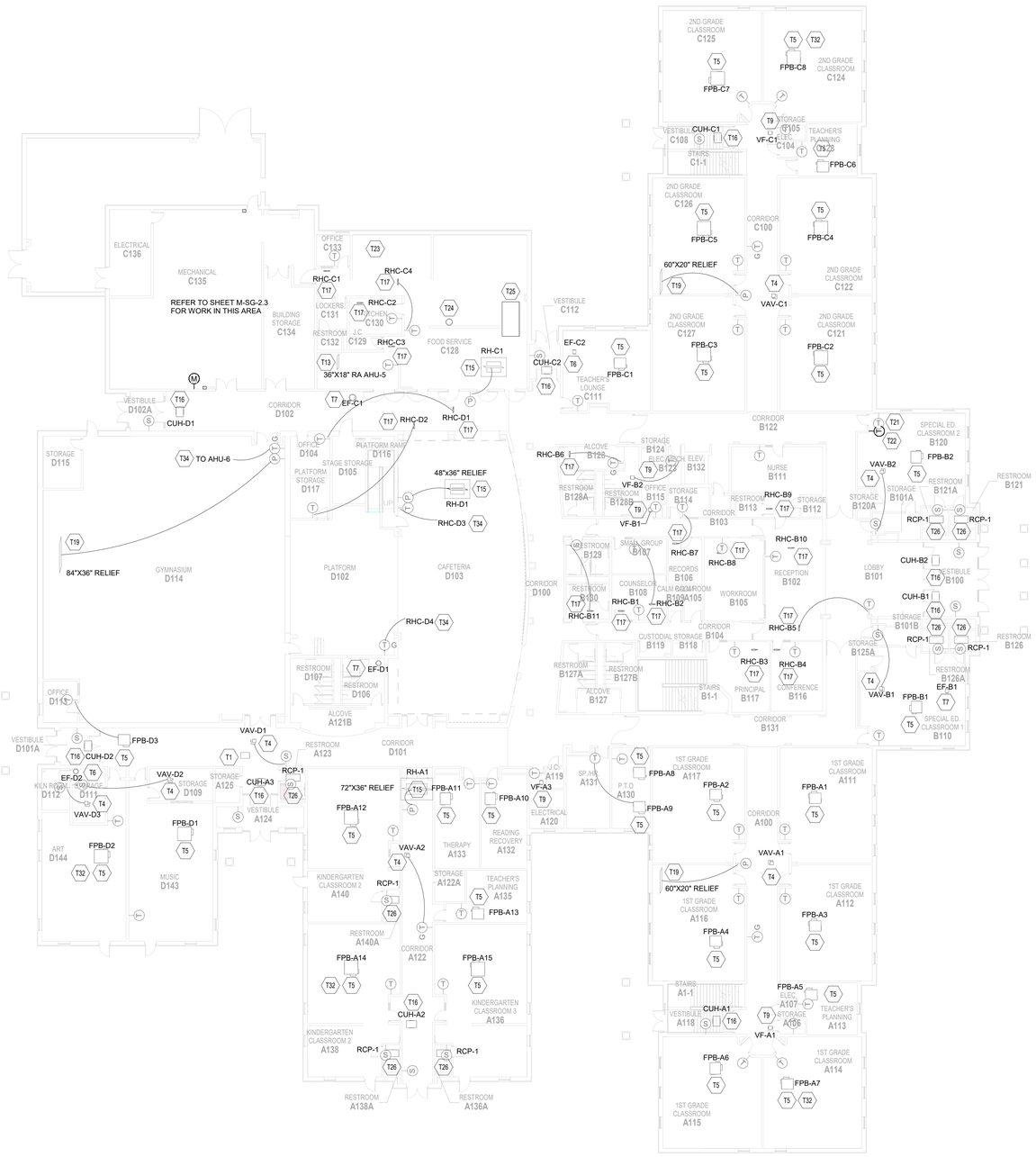

1 STONEGATE FIRST FLOOR TEMPERATURE CONTROL PLAN

SCALE: 1/16" = 1'-0"

TEMPERATURE CONTROL PLAN GENERAL NOTES

A. ALL DUCT MOUNTED PRESSURE SENSORS AND PIPE MOUNTED DIFFERENTIAL PRESSURE SENSORS SHALL BE REPLACED WITH NEW.
B. REFER TO SPECIFICATION SECTIONS 230900 AND 230993 FOR TEMPERATURE CONTROL SPECIFICATIONS AND SEQUENCE OF OPERATIONS.
C. ALL THERMOSTATS/SENSORS TO BE MOUNTED WITH BOTTOM AT 44" AFF UNLESS OTHERWISE NOTED.
D. OUTDOOR STATIC PRESSURE AND TEMPERATURE SENSORS TO BE LOCATED PER MANUFACTURER'S RECOMMENDATIONS.
E. ALL CONTROL WIRING SHALL BE REPLACED WITH NEW.
F. ALL TEMPERATURE CONTROL VALVES AND ACTUATORS ARE TO BE REPLACED WITH NEW.
G. ALL COMMUNICATION WIRING SHALL BE REPLACED WITH NEW COMMUNICATION WIRING.
H. ALL WALL MOUNTED THERMOSTATS/SENSORS SHALL BE REPLACED WITH NEW THERMOSTATS/SENSORS.

2

TEMPERATURE CONTROLS PLAN NOTES (X)

(ALL NOTES MAY NOT BE INDICATED ON THIS SHEET)

NO.	DESCRIPTION
T1	EXISTING DUCT MOUNTED PRESSURE SENSOR TO BE REMOVED AND REPLACED WITH NEW DUCT MOUNTED PRESSURE SENSOR. VERIFY EXACT LOCATION OF EXISTING SENSOR.
T4	EXISTING VAV TERMINAL UNIT TO REMAIN IN PLACE. ALL EXISTING TEMPERATURE CONTROLS SHALL BE REMOVED AND REPLACED WITH NEW DDC CONTROLS.
T5	EXISTING FAN POWERED TERMINAL UNIT TO REMAIN IN PLACE. ALL EXISTING TEMPERATURE CONTROLS SHALL BE REMOVED AND REPLACED WITH NEW DDC CONTROLS.
T6	EXISTING EXHAUST FAN AND MANUAL CONTROLS TO REMAIN IN PLACE.
T7	EXISTING EXHAUST FAN TO REMAIN IN PLACE. ALL EXISTING TEMPERATURE CONTROLS SHALL BE REMOVED AND REPLACED WITH NEW DDC CONTROLS. PROVIDE NEW CONTROLS TO OPERATE ON/OFF BASED ON CONTROL ZONE.
T9	EXISTING VENTILATION FAN TO REMAIN IN PLACE. ALL EXISTING TEMPERATURE CONTROLS SHALL BE REMOVED AND REPLACED WITH NEW DDC CONTROLS.
T13	EXISTING RETURN/OUTSIDE AIR DAMPER TO REMAIN IN PLACE. EXISTING CONTROL DAMPER OPERATOR TO BE REMOVED AND DISPOSED OF OFF SITE. PROVIDE NEW CONTROL DAMPER OPERATOR. CONTRACTOR SHALL ENSURE PROPER OPERATION OF THE DAMPER AND REPORT ANY DEFICIENCIES TO THE CONSTRUCTION MANAGER AND THE ARCHITECT/ENGINEER.
T15	EXISTING RELIEF ROOF VENTILATOR AND ASSOCIATED CONTROL DAMPER TO REMAIN IN PLACE. EXISTING CONTROL DAMPER OPERATOR TO BE REMOVED AND DISPOSED OF OFF SITE. PROVIDE NEW RELIEF CONTROL DAMPER OPERATOR. CONTRACTOR SHALL ENSURE PROPER OPERATION OF THE DAMPER AND REPORT ANY DEFICIENCIES TO THE CONSTRUCTION MANAGER AND THE ARCHITECT/ENGINEER.
T16	EXISTING CABINET UNIT HEATER TO REMAIN IN PLACE. ALL EXISTING TEMPERATURE CONTROLS SHALL BE REMOVED AND REPLACED WITH NEW DDC CONTROLS.
T17	EXISTING DUCT MOUNTED HEATING WATER COIL TO REMAIN IN PLACE. ALL EXISTING TEMPERATURE CONTROLS SHALL BE REMOVED AND REPLACED WITH NEW DDC CONTROLS.
T19	EXISTING BUILDING RELIEF DAMPER TO REMAIN IN PLACE. ALL EXISTING CONTROLS SHALL BE REMOVED AND REPLACED WITH NEW DDC CONTROLS. CONTRACTOR SHALL ENSURE PROPER OPERATION OF THE DAMPER AND REPORT ANY DEFICIENCIES TO THE CONSTRUCTION MANAGER AND THE ARCHITECT/ENGINEER.
T21	EXISTING SENSOR TO BE REMOVED. PATCH EXISTING WALL WITH BLANK COVER PLATE.
T22	PROVIDE NEW SENSOR FOR REHEAT COIL IN THIS APPROXIMATE LOCATION. COORDINATE EXACT LOCATION WITH EXISTING CONDITIONS.
T23	PROVIDE NEW TEMPERATURE SENSOR IN EXISTING WALK-IN COOLER/FREEZER FOR MONITORING THROUGH BAS.
T24	EXISTING KITCHEN EXHAUST FAN TO REMAIN IN PLACE. SEQUENCE WITH EXISTING KITCHEN EQUIPMENT.
T25	EXISTING MAKE-UP AIR UNIT TO REMAIN. PROVIDE AND INSTALL NEW DDC CONTROLLER, DISCHARGE AIR SENSOR, ETC. PROVIDE CURRENT SENSOR TO REPORT FAN STATUS. SEQUENCE WITH EXISTING KITCHEN HOOD(S) AND EXHAUST FANS. SEE SPECIFICATIONS AND SEQUENCE OF OPERATION FOR ADDITIONAL REQUIREMENTS AND POINT LIST REQUIREMENTS.
T26	EXISTING RADIANT CEILING PANEL TO REMAIN IN PLACE. ALL EXISTING CONTROLS SHALL BE REMOVED AND REPLACED WITH NEW DDC CONTROLS.
T32	3-WAY HEATING WATER CONTROL VALVE AT THIS APPROXIMATE LOCATION.
T34	EXISTING THERMOSTAT/SENSOR TO BE REMOVED AND REPLACED WITH THERMOSTAT/SENSOR. VERIFY EXACT LOCATION OF EXISTING THERMOSTAT/SENSOR. CONNECT TO EXISTING EQUIPMENT INDICATED.

VERIFICATION NOTE

CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CLEARANCES AND ALL EXISTING FIELD CONDITIONS BEFORE STARTING CONSTRUCTION. COMMENCEMENT OF WORK CONSTITUTES ACCEPTANCE OF CONDITIONS.

SHOULD DIFFERENT CONDITIONS BE ENCOUNTERED, CONTACT THE ARCHITECT BEFORE PROCEEDING WITH WORK.

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ZIONZVILLE CS - STONEGATE ES AND BOONE MEADOW ES TEMPERTAURE CONTROL UPGRADES

Stonegate Elementary School:
7312 W. Stonegate Dr,
Zionsville, IN 46077

Boone Meadow Elementary School:
5555 S. Main St,
Whitestown, IN 46075

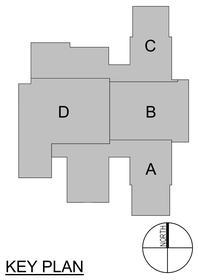
ZIONSVILLE COMMUNITY SCHOOLS

ZIONSVILLE COMMUNITY SCHOOLS

ARCHITECT

FANNING HOWEY

317.848.0966 WWW.FHAI.COM
350 E. New York St. #300, Indianapolis, IN 46204



KEY PLAN

CONSTRUCTION DOCUMENTS

DRAWN BY: MZH

PROJECT NUMBER: 224154.00

PROJECT ISSUE DATE: 12.30.2024

REV. NO.	DESCRIPTION	DATE
2	ADDENDUM #2	01/20/25

STONEGATE FIRST FLOOR TEMPERATURE CONTROLS PLAN

M-SG1

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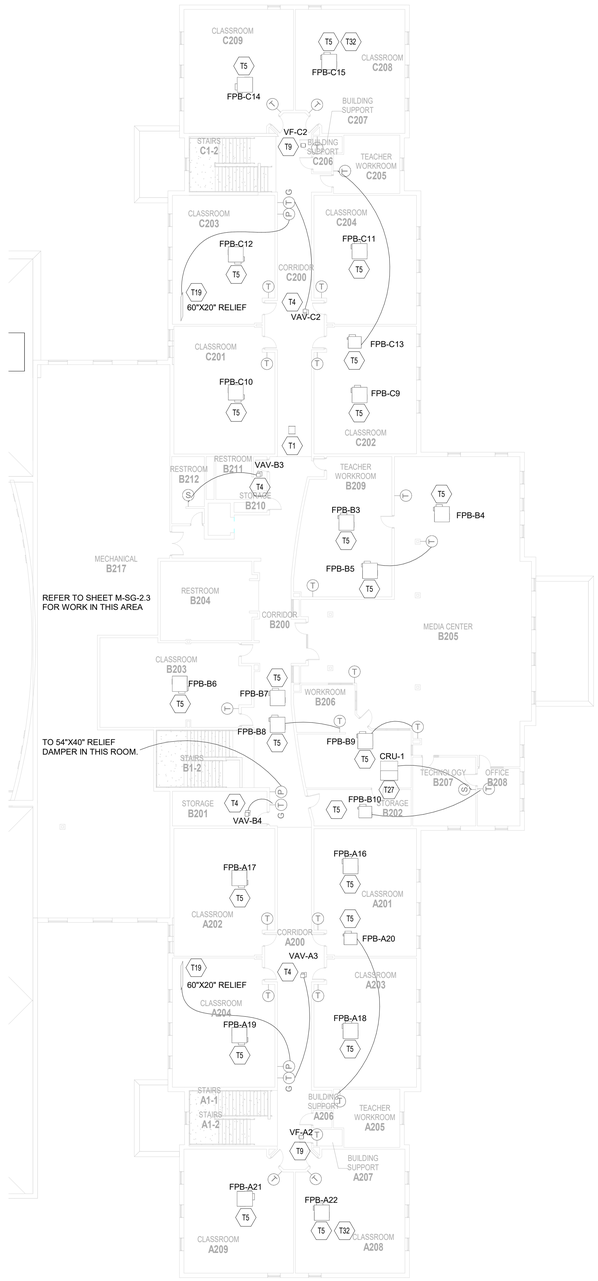

1 STONEGATE SECOND FLOOR TEMPERATURE CONTROL PLAN

SCALE: 1/16" = 1'-0"

TEMPERATURE CONTROL PLAN GENERAL NOTES

A. ALL DUCT MOUNTED PRESSURE SENSORS AND PIPE MOUNTED DIFFERENTIAL PRESSURE SENSORS SHALL BE REPLACED WITH NEW.
B. REFER TO SPECIFICATION SECTIONS 230900 AND 230993 FOR TEMPERATURE CONTROL SPECIFICATIONS AND SEQUENCE OF OPERATIONS.
C. ALL THERMOSTATS/SENSORS TO BE MOUNTED WITH BOTTOM AT 44" AFF UNLESS OTHERWISE NOTED.
D. OUTDOOR STATIC PRESSURE AND TEMPERATURE SENSORS TO BE LOCATED PER MANUFACTURER'S RECOMMENDATIONS.
E. ALL CONTROL WIRING SHALL BE REPLACED WITH NEW.
F. ALL TEMPERATURE CONTROL VALVES AND ACTUATORS ARE TO BE REPLACED WITH NEW.
G. ALL COMMUNICATION WIRING SHALL BE REPLACED WITH NEW COMMUNICATION WIRING.
H. ALL WALL MOUNTED THERMOSTATS/SENSORS SHALL BE REPLACED WITH NEW THERMOSTATS/SENSORS.

2

TEMPERATURE CONTROLS PLAN NOTES (X)

(ALL NOTES MAY NOT BE INDICATED ON THIS SHEET)

NO.	DESCRIPTION
T1	EXISTING DUCT MOUNTED PRESSURE SENSOR TO BE REMOVED AND REPLACED WITH NEW DUCT MOUNTED PRESSURE SENSOR. VERIFY EXACT LOCATION OF EXISTING SENSOR.
T4	EXISTING VAV TERMINAL UNIT TO REMAIN IN PLACE. ALL EXISTING TEMPERATURE CONTROLS SHALL BE REMOVED AND REPLACED WITH NEW DDC CONTROLS.
T5	EXISTING FAN POWERED TERMINAL UNIT TO REMAIN IN PLACE. ALL EXISTING TEMPERATURE CONTROLS SHALL BE REMOVED AND REPLACED WITH NEW DDC CONTROLS.
T9	EXISTING VENTILATION FAN TO REMAIN IN PLACE. ALL EXISTING TEMPERATURE CONTROLS SHALL BE REMOVED AND REPLACED WITH NEW DDC CONTROLS.
T19	EXISTING BUILDING RELIEF DAMPER TO REMAIN IN PLACE. ALL EXISTING CONTROLS SHALL BE REMOVED AND REPLACED WITH NEW DDC CONTROLS. CONTRACTOR SHALL ENSURE PROPER OPERATION OF THE DAMPER AND REPORT ANY DEFICIENCIES TO THE CONSTRUCTION MANAGER AND THE ARCHITECT/ENGINEER.
T27	EXISTING COMPUTER ROOM AIR CONDITIONER TO REMAIN IN PLACE. INSTALL NEW DDC TEMPERATURE SENSOR TO MONITOR SPACE TEMPERATURE THROUGH BAS.
T32	3-WAY HEATING WATER CONTROL VALVE AT THIS APPROXIMATE LOCATION.

VERIFICATION NOTE

CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CLEARANCES AND ALL EXISTING FIELD CONDITIONS BEFORE STARTING CONSTRUCTION. COMMENCEMENT OF WORK CONSTITUTES ACCEPTANCE OF CONDITIONS.

SHOULD DIFFERENT CONDITIONS BE ENCOUNTERED, CONTACT THE ARCHITECT BEFORE PROCEEDING WITH WORK.

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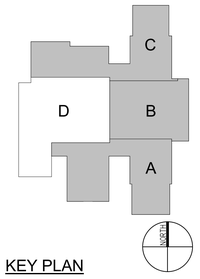

KEY PLAN

CONSTRUCTION DOCUMENTS

DRAWN BY: MZH

PROJECT NUMBER: 224154.00

PROJECT ISSUE DATE: 12.30.2024

REV. NO.	DESCRIPTION	DATE
2	ADDENDUM #2	01/20/25

STONEGATE SECOND FLOOR TEMPERATURE CONTROLS PLAN

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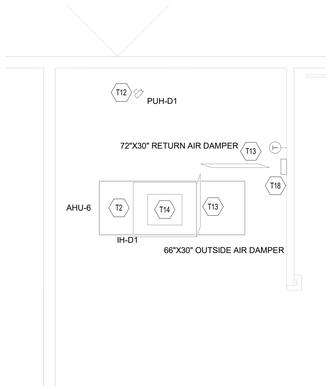
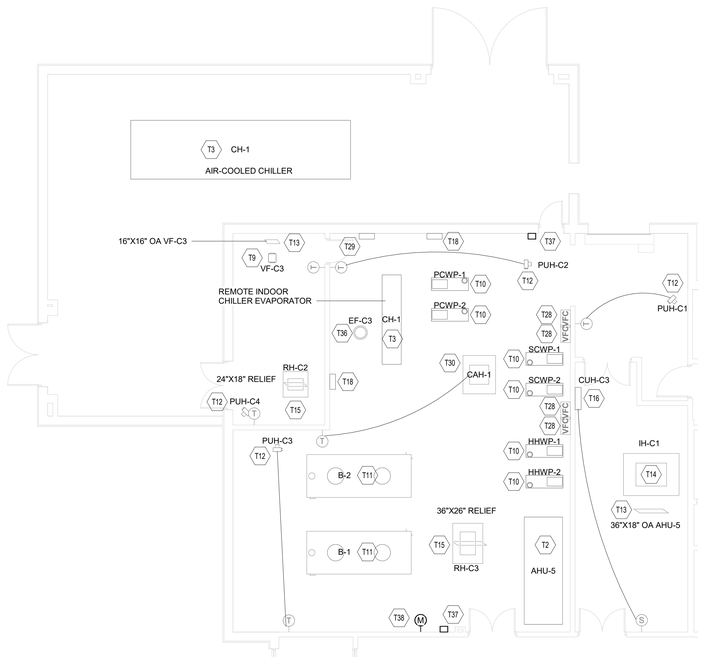


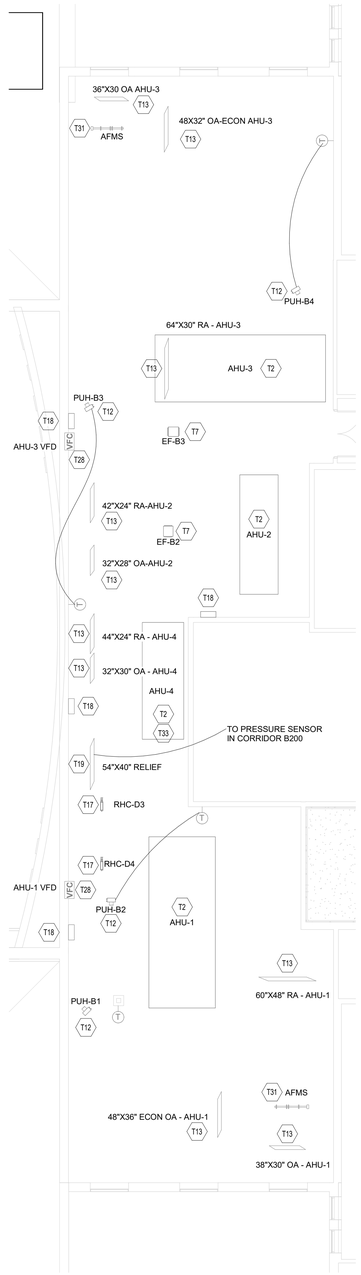
3 STONEGATE ENLARGED SECOND FLOOR TEMPERATURE CONTROL PLAN

SCALE: 1/8" = 1'-0"



1 STONEGATE ENLARGED FIRST FLOOR TEMPERATURE CONTROL PLAN

SCALE: 1/8" = 1'-0"



2 STONEGATE ENLARGED SECOND FLOOR TEMPERATURE CONTROL PLAN

SCALE: 1/8" = 1'-0"

TEMPERATURE CONTROL PLAN GENERAL NOTES

A. ALL DUCT MOUNTED PRESSURE SENSORS AND PIPE MOUNTED DIFFERENTIAL PRESSURE SENSORS SHALL BE REPLACED WITH NEW.
B. REFER TO SPECIFICATION SECTIONS 230900 AND 230993 FOR TEMPERATURE CONTROL SPECIFICATIONS AND SEQUENCE OF OPERATIONS.
C. ALL THERMOSTATS/SENSORS TO BE MOUNTED WITH BOTTOM AT 44" AFF UNLESS OTHERWISE NOTED.
D. OUTDOOR STATIC PRESSURE AND TEMPERATURE SENSORS TO BE LOCATED PER MANUFACTURER'S RECOMMENDATIONS.
E. ALL CONTROL WIRING SHALL BE REPLACED WITH NEW.
F. ALL TEMPERATURE CONTROL VALVES AND ACTUATORS ARE TO BE REPLACED WITH NEW.
G. ALL COMMUNICATION WIRING SHALL BE REPLACED WITH NEW COMMUNICATION WIRING.
H. ALL WALL MOUNTED THERMOSTATS/SENSORS SHALL BE REPLACED WITH NEW THERMOSTATS/SENSORS.

2

TEMPERATURE CONTROLS PLAN NOTES (X)

(ALL NOTES MAY NOT BE INDICATED ON THIS SHEET)

2

NO.	DESCRIPTION
T2	REMOVE ALL EXISTING AIR HANDLING UNIT INTERNAL SENSORS, CONTROL DAMPER ACTUATORS, CONTROL VALVES/ACTUATORS, SAFETIES AND CONTROL ACCESSORIES. EXISTING UNIT, AND CONTROL DAMPERS TO REMAIN IN PLACE. PROVIDE NEW INTERNAL SENSORS, CONTROL DAMPER ACTUATORS, CONTROL VALVES/ACTUATORS, SAFETIES AND CONTROL ACCESSORIES.
T3	EXISTING CHILLER TO REMAIN IN PLACE. ALL EXISTING CONTROLS SHALL BE REMOVED AND REPLACED WITH NEW DDC CONTROLS.
T7	EXISTING EXHAUST FAN TO REMAIN IN PLACE. ALL EXISTING TEMPERATURE CONTROLS SHALL BE REMOVED AND REPLACED WITH NEW DDC CONTROLS. PROVIDE NEW CONTROLS TO OPERATE ON/OFF BASED ON CONTROL ZONE.
T9	EXISTING VENTILATION FAN TO REMAIN IN PLACE. ALL EXISTING TEMPERATURE CONTROLS SHALL BE REMOVED AND REPLACED WITH NEW DDC CONTROLS.
T10	EXISTING PUMPS TO REMAIN IN PLACE. ALL EXISTING TEMPERATURE CONTROLS SHALL BE REMOVED AND REPLACED WITH NEW DDC CONTROLS.
T11	EXISTING BOILER/BURNER TO REMAIN IN PLACE. REMOVE ALL EXISTING HEATING WATER ELECTRONIC TEMPERATURE SENSORS, ASSOCIATED CONTROLS, SAFETIES AND CONTROL ACCESSORIES SHALL BE REMOVED AND DISPOSE OF OFF SITE. PROVIDE NEW COMBUSTION AIR INTERLOCK, CONTROLS, SENSORS, SAFETIES AND CONTROL ACCESSORIES.
T12	EXISTING PROPELLER UNIT HEATER TO REMAIN IN PLACE. ALL EXISTING TEMPERATURE CONTROLS SHALL BE REMOVED AND REPLACED WITH DDC CONTROLS.
T13	EXISTING RETURN/OUTSIDE AIR DAMPER TO REMAIN IN PLACE. EXISTING CONTROL DAMPER OPERATOR TO BE REMOVED AND DISPOSED OF OFF SITE. PROVIDE NEW CONTROL DAMPER OPERATOR. CONTRACTOR SHALL ENSURE PROPER OPERATION OF THE DAMPER AND REPORT ANY DEFICIENCIES TO THE CONSTRUCTION MANAGER AND THE ARCHITECT/ENGINEER.
T14	EXISTING INTAKE ROOF VENTILATOR TO REMAIN IN PLACE.
T15	EXISTING RELIEF ROOF VENTILATOR AND ASSOCIATED CONTROL DAMPER TO REMAIN IN PLACE. EXISTING CONTROL DAMPER OPERATOR TO BE REMOVED AND DISPOSED OF OFF SITE. PROVIDE NEW RELIEF CONTROL DAMPER OPERATOR. CONTRACTOR SHALL ENSURE PROPER OPERATION OF THE DAMPER AND REPORT ANY DEFICIENCIES TO THE CONSTRUCTION MANAGER AND THE ARCHITECT/ENGINEER.
T16	EXISTING CABINET UNIT HEATER TO REMAIN IN PLACE. ALL EXISTING TEMPERATURE CONTROLS SHALL BE REMOVED AND REPLACED WITH NEW DDC CONTROLS.
T17	EXISTING DUCT MOUNTED HEATING WATER COIL TO REMAIN IN PLACE. ALL EXISTING TEMPERATURE CONTROLS SHALL BE REMOVED AND REPLACED WITH NEW DDC CONTROLS.
T18	EXISTING TEMPERATURE CONTROL PANEL.
T19	EXISTING BUILDING RELIEF DAMPER TO REMAIN IN PLACE. ALL EXISTING CONTROLS SHALL BE REMOVED AND REPLACED WITH NEW DDC CONTROLS. CONTRACTOR SHALL ENSURE PROPER OPERATION OF THE DAMPER AND REPORT ANY DEFICIENCIES TO THE CONSTRUCTION MANAGER AND THE ARCHITECT/ENGINEER.
T28	EXISTING VARIABLE FREQUENCY CONTROLLER (VFC) TO REMAIN IN PLACE. INSTALL NEW DDC CONTROLS. REFER TO SCHEMATICS.
T29	EXISTING REFRIGERANT MONITORING PANEL TO REMAIN IN PLACE. ALL EXISTING CONTROLS SHALL BE REMOVED AND REPLACED WITH NEW DDC CONTROLS FOR INTEGRATION IN TO THE BAS.
T30	EXISTING COMBUSTION AIR HEATER TO REMAIN IN PLACE. ALL EXISTING CONTROLS SHALL BE REMOVED AND REPLACED WITH NEW DDC CONTROLS. FACE AND BYPASS DAMPER OPERATORS SHALL BE REMOVED AND REPLACED WITH NEW DDC CONTROLS. CONTRACTOR SHALL ENSURE PROPER OPERATION OF THE DAMPER AND REPORT ANY DEFICIENCIES TO THE CONSTRUCTION MANAGER AND THE ARCHITECT/ENGINEER.
T31	EXISTING AIRFLOW MEASURING STATION TO BE REMOVED AND REPLACED WITH NEW AIRFLOW MEASURING STATION. INCORPORATE IN TO NEW TEMPERATURE CONTROL SYSTEM.
T33	3-WAY CHILLED WATER CONTROL VALVE AT THIS APPROXIMATE LOCATION.
T36	EXISTING EXHAUST FAN TO REMAIN IN PLACE. ALL EXISTING TEMPERATURE CONTROLS SHALL BE REMOVED AND REPLACED WITH NEW DDC CONTROLS. PROVIDE NEW CONTROLS TO OPERATE BASED ON REFRIGERANT EXHAUST ACTIVATION.
T37	EMERGENCY GAS-FIRED EQUIPMENT SHUT-DOWN SWITCH PROVIDED AND INSTALLED BY TEMPERATURE CONTROL CONTRACTOR. COORDINATE EXACT LOCATION WITH EXISTING CONDITIONS.
T38	TEMPERATURE CONTROL CONTRACTOR SHALL PROVIDE CARBON MONOXIDE DETECTOR. REFER TO PROJECT MANUAL. COORDINATE EXACT LOCATION WITH EXISTING CONDITIONS.

VERIFICATION NOTE

CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CLEARANCES AND ALL EXISTING FIELD CONDITIONS BEFORE STARTING CONSTRUCTION. COMMENCEMENT OF WORK CONSTITUTES ACCEPTANCE OF CONDITIONS.

SHOULD DIFFERENT CONDITIONS BE ENCOUNTERED, CONTACT THE ARCHITECT BEFORE PROCEEDING WITH WORK.

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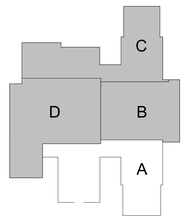

KEY PLAN

NORTH

CONSTRUCTION DOCUMENTS

DRAWN BY: MZH

PROJECT NUMBER: 224154.00

PROJECT ISSUE DATE: 12.30.2024

REV. NO.	DESCRIPTION	DATE
2	ADDENDUM #2	01/20/25

STONEGATE ENLARGED TEMPERATURE CONTROL PLANS

M-SG3

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EXISTING BOONE MEADOW AIR HANDLING UNIT SCHEDULE

UNIT NO.	UNIT LOCATION	AREA SERVED	SUPPLY FAN DATA: CFM	FAN TYPE	DRIVE	WHEEL DIA.	RPM	EXT. S.P.	TOTAL S.P.	MOTOR DATA: BHP	MOTOR HP	VOLT	PH.
AHU-1	UNIT B FAN ROOM	UNITS A&D VAV SYSTEM	22,000	PLENUM AF SWSI	DIRECT	40"	1160	2.3	5.73	28.5	40	460	3
AHU-2	UNIT B FAN ROOM	UNIT B ADMIN. AREA	5700	PLENUM AF SWSI	BELT	22"	1804	0.90	3.25	4.1	5	460	3
AHU-3	UNIT B FAN ROOM	UNITS B&C VAV COOLING SYSTEM	19,000	PLENUM AF SWSI	DIRECT	36.5"	1160	2.15	5.6	24.6	30	460	3
AHU-4	UNIT B FAN ROOM	CAFETERIA	6300	BI DWDI	BELT	18"	1670	0.85	3.4	5.0	7.5	460	3
AHU-5	UNIT C MECH. ROOM	KITCHEN	4400	BI DWDI	BELT	13"	2470	0.75	3.10	3.4	5	460	3
AHU-6	UNIT D MEZZANINE	GYMNASIUM	12,000	PLENUM AF SWSI	BELT	33"	989	0.75	2.5	7.7	10	460	3

UNIT NO.	COOLING COIL DATA: UNIT SENS. MBH	UNIT TOTAL MBH	NO. OF COILS	E.A.T. (°F)	L.A.T. (°F)	TOTAL GPM	E.W.T. / L.W.T.	COIL FACE AREA	MAX. VEL. FPM	ROWS / FIN/IN.	MAX. APD IN.	MAX. WPD FT.
AHU-1	732.0	1167.0	2	82.4 / 68.9	52.0 / 52.0	208	45 / 56	44	500	8 / 10	0.93	20
AHU-2	170	245	1	79.5 / 66.3	52.0 / 52.0	45	45 / 56	11.6	489	8 / 10	0.71	12
AHU-3	638.0	1013.0	2	82.4 / 68.9	51.6 / 51.5	180	45 / 56	41	460	8 / 12	0.95	7
AHU-4	208	324	1	82.3 / 68.6	52.0 / 52.0	59	45 / 56	12.7	495	8 / 12	0.84	7
AHU-5	138	208	1	80.5 / 67.3	52.0 / 52.0	37	45 / 56	9.2	480	8 / 11	0.74	12
AHU-6	COOLING COIL WAS PROVIDED AFTER THE PROJECT. COORDINATE CAPACITIES AND FLOW RATES WITH EXISTING CONDITIONS.											

UNIT NO.	HEATING COIL DATA: UNIT TOTAL MBH	NO. OF COILS	E.A.T. (°F)	L.A.T. (°F)	TOTAL GPM	E.W.T. / L.W.T.	COIL FACE AREA	MAX. VEL. FPM	ROWS / FIN/IN.	MAX. APD IN.	MAX. WPD FT.	UNIT WEIGHT LBS.	MIN. O.A. SETTING CFM	MANUFACTURER AND MODEL NO.	NOTES	UNIT NO.
AHU-1	REFER TO "INTEGRAL FACE AND BYPASS HEATING COIL SCHEDULE"											12,000	7200	HEATEX	1 2 3 5 7 8	AHU-1
AHU-2	130.0	1	54	75	9	180 / 150	10.7	530	1 / 6	0.1	2	3500	1100	HEATEX	1 4 7 8	AHU-2
AHU-3	REFER TO "INTEGRAL FACE AND BYPASS HEATING COIL SCHEDULE"											12,000	6600	HEATEX	1 2 3 5 7 8	AHU-3
AHU-4	250	1	42	78	16	180 / 150	10.7	586	1 / 10	0.1	6	3500	600 / 2100	HEATEX	1 4 6 7	AHU-4
AHU-5	120	1	50	75	8	180 / 150	8.3	528	1 / 8	0.06	2	3200	1100	HEATEX	1 4 7	AHU-5
AHU-6	986.0	1	42	105	64	180 / 150	29.7	485	2 / 10	0.17	15	5500	1200 / 4200	HEATEX	1 4 6 7	AHU-6

NOTES:

1. ALL AIR HANDLING UNIT WATER COILS SHALL HAVE 5/8" DIA. TUBES WITH MINIMUM .024" WALL THICKNESS.
2. VARIABLE AIR VOLUME UNIT; VARIABLE FREQUENCY DRIVE PROVIDED BY T.C.C.
3. HEATING COIL SHALL BE AN INTEGRAL FACE & BYPASS HEATING WATER COIL AS SCHEDULED ELSEWHERE ON THIS DRAWING.
4. CONSTANT AIR VOLUME UNIT.
5. MINIMUM OUTDOOR AIR VOLUMES SHALL BE MAINTAINED BY USE OF AIR MONITORING STATION FOR THIS AIR HANDLER.
6. TWO MINIMUM AIR VOLUMES LISTED: LOWER NUMBER INDICATES "NORMAL MODE" AIR VOLUME, HIGHER NUMBER INDICATES "EVENT MODE" AIR VOLUME.
7. TOTAL STATIC PRESSURE INCLUDES 1.2" S.P. FOR DIRTY FILTER ALLOWANCE.
8. TOTAL STATIC PRESSURE INCLUDES 0.5" S.P. FOR BELLMOUTH FITTING PLENUM LOSS.

EXISTING BOONE MEADOW INTEGRAL FACE AND BYPASS HEATING COIL

MARK	CAPACITY MBH	E.A.T. (°F)	L.A.T. (°F)	GPM	E.W.T. / L.W.T.	MIN. FLOW VEL. (FPM)	MIN. FLOW CFM	A.P.D. @ MIN. FLOW	MAX. FLOW CFM	A.P.D. @ MAX. FLOW	ROWS / FIN/IN.	MAX. WPD	MANUFACTURER & MODEL NO.	NOTES
AHU-1	648.0	4	68	68	180 / 160	332	9300	0.21	22,000	.55	2 / 10	2.0'	CONTROL AIR VIFB SIZE C-6-2	1,2,3
AHU-3	569.0	2	69	49	180 / 156	279	7800	0.16	19,000	.50	2 / 10	2.0'	CONTROL AIR VIFB SIZE C-6-2	1,2,3

NOTES:

1. CAPACITY AND OTHER HEATING PERFORMANCE DATA IS BASED UPON THE MINIMUM AIRFLOW OF 8000 CFM.
2. COIL SHALL BE FURNISHED TO AIR HANDLING UNIT MANUFACTURER FOR FACTORY MOUNTING IN AIR HANDLER.
3. COIL SHALL BE AN INTEGRAL FACE & BYPASS HEATING WATER COIL WITH FULL BYPASS OPTION, AS MANUFACTURED BY CONTROL AIR; ACTUATORS PROVIDED BY T.C.C.

EXISTING BOONE MEADOW AIR-COOLED WATER CHILLER SCHEDULE

MARK NO.	TYPE	TONS OUTPUT	AMB. TEMP. °F	EVAPORATOR DATA: EWT °F	LWT °F	GPM	WPD FT.	FLUID	CONDENSER FAN DATA: QUAN.	DIA.	MAX. RPM	FLA EACH	MIN. EER: 100% LOAD	80% LOAD	50% LOAD	20% LOAD	UNIT ELEC. DATA: MAX. INPUT KW	MCA	VOLT	PH	MANUFACTURER AND MODEL NUMBER	REMARKS
CH-1	ROTARY SCREW	246	95	56	44	470	12	WATER	12	35"	840	4.0	10.1	11.9	15.7	16.1	295	464	460	3	YORK YCAS SIZE 0250 WITH REMOTE EVAPORATOR	SEE NOTES

NOTES:

1. PROVIDE UNIT MOUNTED STARTER AND DISCONNECT.
2. R-22 REFRIGERANT.
3. 14,000 LB. UNIT OPERATING WEIGHT.
4. ISOLATION WITH SUPPORT PLATE MOUNTED ON SHEAR FLEX PAD BY CHILLER MANUFACTURER.
5. CHILLER MANUFACTURER SHALL PROVIDE A %%212" AUTOMATIC CONTROL VALVE FOR OIL COOLING PURGE LINE.
6. IKW INCLUDES STARTER AND MOTOR INEFFICIENCIES.
7. MANUFACTURERS TO PROVIDE APLV AND MAXIMUM IKW WITH SHOP DRAWINGS.
8. PROVIDE CHILLER INTERFACE PANEL FOR CONNECTION TO BUILDING AUTOMATION SYSTEM.
9. PART LOAD RATINGS SHALL BE IN ACCORDANCE WITH ARI STANDARD 550/590.

EXISTING BOONE MEADOW COMBUSTION AIR HEATER SCHEDULE

MARK	FAN DATA: FAN TYPE	NORMAL AIR FLOW (LOW SPEED)	SUMMER VENTILATION AIR FLOW (HIGH SPEED)	FAN RPM	FAN DIA.	FAN MOTOR DATA: HP	VOLT	PH.	MOTOR SPEEDS	INTEGRAL FACE & BYPASS HEATING COIL: CAPACITY MBH	E.A.T. (°F)	L.A.T. (°F)	GPM	E.W.T. / L.W.T.	ROWS	COIL FACE AREA	COIL OUTLET AREA	MIN. FLOW VEL. (FPM)	MAX. FLOW VEL. (FPM)	MANUFACTURER & MODEL NO.	NOTES
CAH-1	PROPELLER	2500	5000	1140	24"	1/2	115	1	2	289	-10	97	24	180 / 160	2	4.5	8.45	555	592	CONTROL AIR AMP SIZE 45-6	1,2,3

NOTES:

1. CAPACITY AND OTHER HEATING PERFORMANCE DATA IS BASED UPON THE NORMAL (MINIMUM) AIRFLOW.
2. COIL SHALL BE FURNISHED TO AIR HANDLING UNIT MANUFACTURER FOR FACTORY MOUNTING IN AIR HANDLER.
3. COIL SHALL BE AN INTEGRAL FACE & BYPASS HEATING WATER COIL WITH FULL BYPASS OPTION, AS MANUFACTURED BY CONTROL AIR; ACTUATORS PROVIDED BY T.C.C.

EXISTING BOONE MEADOW PUMP SCHEDULE (HVAC)

MARK	SERVICE	TYPE	GPM	HEAD FT.	MIN EFF. %	MOTOR: RPM	HP	VOLT	PH	MANUFACTURER	NOTES
PCWP-1	PRIMARY CHILLED WATER PUMP	BASE MOUNTED END SUCTION	470	35	80	1750	7.5	460	3	TACO MODEL FE SIZE 3007	
PCWP-2	PRIMARY CHILLED WATER PUMP (STANDBY)	BASE MOUNTED END SUCTION	470	35	80	1750	7.5	460	3	TACO MODEL FE SIZE 3007	
SCWP-1	SECONDARY CHILLED WATER PUMP	BASE MOUNTED END SUCTION	235	85	63	1750	15	460	3	TACO MODEL FE SIZE 3010	1,2
SCWP-2	SECONDARY CHILLED WATER PUMP	BASE MOUNTED END SUCTION	235	85	63	1750	15	460	3	TACO MODEL FE SIZE 3010	1,2
HHWP-1	HEATING HOT WATER PUMP	BASE MOUNTED END SUCTION	200	90	65	1750	15	460	3	TACO MODEL FE SIZE 2510	1
HHWP-2	HEATING HOT WATER PUMP	BASE MOUNTED END SUCTION	200	90	65	1750	15	460	3	TACO MODEL FE SIZE 2510	1

NOTES:

1. SECONDARY PUMPS WILL OPERATE IN PARALLEL. PUMP SHALL BE SIZED SUCH THAT IT DOES NOT RUN OFF ITS CURVE, WHEN OPERATING ALONE OUT AT THE SYSTEM CURVE.
2. PUMP TO BE USED WITH VARIABLE FREQUENCY DRIVE; PROVIDE HIGH EFFICIENCY MOTOR MEETING REQUIREMENTS OF NEMA MG-1, PART 3.

EXISTING BOONE MEADOW GAS FIRED BOILER SCHEDULE

MARK	TYPE	BOILER HP	GAS INPUT MBH	HEATING OUTPUT MBH	HEATING MEDIA	HEATING SURFACE SQ. FT.	BOILER RATED PRES. PSIG	OPERATING PRESSURE PSIG	ENT. WTR °F	LVG. WTR °F	BOILER WATER VOLUME (GAL.)	NATURAL GAS BURNER DATA: INLET PRESSURE	GAS TRAIN TYPE	ELECTRIC DATA: BURNER HP	VOLTS	PH.	MANUFACTURER MODEL NO.	NOTES
B-1	FLEXIBLE WATER TUBE	84	3500	2800	HOT WATER	419	125	75	150	180	146	1 PSI	FM	1.5	460	3	BRYAN RV-350-W	1,2
B-2	FLEXIBLE WATER TUBE	84	3500	2800	HOT WATER	419	125	75	150	180	146	1 PSI	FM	1.5	460	3	BRYAN RV-350-W	1,2

NOTES:

1. 8300 LBS. OPERATING WEIGHT, 7000 LBS. SHIPPING WEIGHT
2. PROVIDE FULLY MODULATING BURNER.

EXISTING BOONE MEADOW COMPUTER ROOM AIR CONDITIONING UNIT

MARK	EVAPORATOR BLOWER: CFM	EXT. S.P.	MOTOR HP	DX COOLING COIL: SENS. (MBH)	TOTAL (MBH)	EAT (DB/WB)	COIL AREA	COIL ROWS	CONDENSER SECTION: CFM	MOTOR HP	EAT	COIL AREA	COIL ROWS	UNIT ELEC. DATA: VOLTS	PH.	FLA	MCA	MANUFACTURER AND MODEL No.	NOTES
CRU-1	850	0.35"	1/5	19.8	23.1	75.0/62.5	1.8	4	1200	1/2	78	2.0	5	277	1	31.0	37.0	DATA AIRE MINI CEILING SYSTEM MODEL DAMA-02	1,2,3,4

NOTES:

1. UNIT SHALL BE PROVIDED WITH A 4.0 KW ELECTRIC REHEAT COIL.
2. UNIT SHALL BE PROVIDED WITH A CONDENSATE PUMP, MOUNTED WITHIN THE UNIT COIL PAN. 120v./1□ POWER; 8 FT. HEAD PUMP PRESSURE.
3. EVAPORATOR AND THE CONDENSER SECTIONS SHALL BE PROVIDED AS A SINGLE PACKAGED UNIT, WITH A SINGLE POINT POWER CONNECTION.
4. UNIT SHALL BE ARRANGED FOR A DUCTED EVAPORATOR DISCHARGE AND A DUCTED CONDENSER FAN DISCHARGE.

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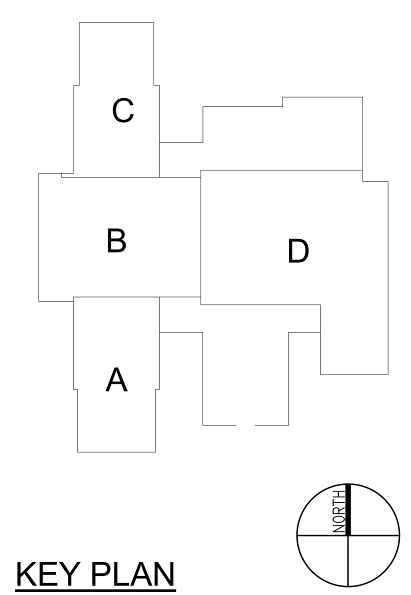
Stonegate Elementary School:
7312 W. Stonegate Dr,
Zionsville, IN 46077

Boone Meadow Elementary School:
5555 S. Main St,
Whitestown, IN 46075

ZIONSVILLE COMMUNITY SCHOOLS

ARCHITECT

FANNING HOWEY
317.848.0966 WWW.FHAI.COM
350 EAST NEW YORK ST, STE 300, INDIANAPOLIS, IN 46204



KEY PLAN

CONSTRUCTION DOCUMENTS

DRAWN BY: MZH
PROJECT NUMBER: 224154.00
PROJECT ISSUE DATE: 12.30.2024

REV. NO.	DESCRIPTION	DATE
2	ADDENDUM #2	01/20/25

EXISTING BOONE MEADOW MECHANICAL SCHEDULES

M-601

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EXISTING BOONE MEADOW FAN POWERED VAV TERMINAL UNIT SCHEDULE

FPB No.	UNIT CFM	MINIMUM PRIMARY AIR (CFM)	EXT. S.P.	HEATING COIL MBH	GPM	EAT / LAT	EWT / LWT	MIN ROWS	ELECTRICAL FAN HP	VOLT	PH.	INLET SIZE	INLET S.P.	N.C.@ INLET S.P.	AIR HANDLING SYSTEM	MANUFACTURER & MODEL NUMBER	REMARKS
FPB-A1	1100	400	0.5"	49.5	4.0	63 / 105	180 / 155	2	3/4	277	1	14"□	1.06	33	AHU-1	ENVIRO-TEC CFR-WC	- -
FPB-A2	1100	400	0.5"	49.5	4.0	63 / 105	180 / 155	2	3/4	277	1	14"□	.73	32	AHU-1	ENVIRO-TEC CFR-WC	- -
FPB-A3	1100	400	0.5"	49.5	4.0	63 / 105	180 / 155	2	3/4	277	1	14"□	.77	31	AHU-1	ENVIRO-TEC CFR-WC	- -
FPB-A4	1100	400	0.5"	49.5	4.0	63 / 105	180 / 155	2	3/4	277	1	12"□	.42	33	AHU-1	ENVIRO-TEC CFR-WC	- -
FPB-A5	350	100	0.5"	15.7	1.5	63 / 105	180 / 159	2	1/6	277	1	6"□	.38	27	AHU-1	ENVIRO-TEC CFR-WC	- -
FPB-A6	1100	400	0.5"	49.5	4.0	63 / 105	180 / 155	2	3/4	277	1	12"□	.44	32	AHU-1	ENVIRO-TEC CFR-WC	- -
FPB-A7	1100	400	0.5"	49.5	4.0	63 / 105	180 / 155	2	3/4	277	1	12"□	.27	32	AHU-1	ENVIRO-TEC CFR-WC	- -
FPB-A8	300	100	0.5"	13.5	1.0	63 / 105	180 / 155	2	1/6	277	1	6"□	.40	29	AHU-1	ENVIRO-TEC CFR-WC	- -
FPB-A9	300	100	0.5"	13.5	1.0	63 / 105	180 / 155	2	1/6	277	1	6"□	.22	29	AHU-1	ENVIRO-TEC CFR-WC	- -
FPB-A101	1525	763	0.5"	69.38	4.22	63 / 104	180 / 146	2	3/4	277	1	14"□	.30	28	AHU-1	ENVIRO-TEC CFR-WC-0811	- -
FPB-A102	1400	700	0.5"	65.44	3.87	63 / 106	180 / 145	2	3/4	277	1	14"□	.30	25	AHU-1	ENVIRO-TEC CFR-WC-0811	- -
FPB-A103	1375	688	0.5"	64.72	5.02	63 / 106	180 / 153	2	3/4	277	1	14"□	.40	25	AHU-1	ENVIRO-TEC CFR-WC	- -
FPB-A104	1475	738	0.5"	67.83	4.08	63 / 105	180 / 145	2	3/4	277	1	14"□	.40	26	AHU-1	ENVIRO-TEC CFR-WC	- -
FPB-A105	200	100	0.5"	9.18	0.73	63 / 105	180 / 154	1	1/3	277	1	6"□	.40	16	AHU-1	ENVIRO-TEC CFR-WC	- -
FPB-A106	200	100	0.5"	9.18	0.73	63 / 105	180 / 154	1	1/3	277	1	6"□	.40	16	AHU-1	ENVIRO-TEC CFR-WC	- -
FPB-A107	300	150	0.5"	13.42	1.10	63 / 104	180 / 154	1	1/3	277	1	6"□	.40	16	AHU-1	ENVIRO-TEC CFR-WC	- -
FPB-A16	1100	400	0.5"	49.5	4.0	63 / 105	180 / 155	2	3/4	277	1	14"□	1.05	33	AHU-1	ENVIRO-TEC CFR-WC	- -
FPB-A17	1100	400	0.5"	49.5	4.0	63 / 105	180 / 160	2	3/4	277	1	14"□	.50	33	AHU-1	ENVIRO-TEC CFR-WC	- -
FPB-A18	1100	400	0.5"	49.5	4.0	63 / 105	180 / 160	2	3/4	277	1	14"□	.77	32	AHU-1	ENVIRO-TEC CFR-WC	- -
FPB-A19	1100	400	0.5"	49.5	4.0	63 / 105	180 / 160	2	3/4	277	1	12"□	.43	33	AHU-1	ENVIRO-TEC CFR-WC	- -
FPB-A20	350	100	0.5"	15.7	1.5	63 / 105	180 / 159	2	1/6	277	1	6"□	.38	28	AHU-1	ENVIRO-TEC CFR-WC	- -
FPB-A21	1100	400	0.5"	49.5	4.0	63 / 105	180 / 155	2	3/4	277	1	12"□	.43	32	AHU-1	ENVIRO-TEC CFR-WC	- -
FPB-A22	1100	400	0.5"	49.5	4.0	63 / 105	180 / 160	2	3/4	277	1	14"□	.60	30	AHU-1	ENVIRO-TEC CFR-WC	- -
FPB-B1	1100	400	0.5"	49.5	4.0	63 / 105	180 / 155	2	1/2	277	1	14"□	.82	32	AHU-1	ENVIRO-TEC CFR-WC	- -
FPB-B2	1100	400	0.5"	49.5	4.0	63 / 105	180 / 155	2	1/2	277	1	14"□	.76	32	AHU-2	ENVIRO-TEC CFR-WC	- -
FPB-B3	1500	450	0.5"	60.0	3.5	63 / 104	180 / 140	2	3/4	277	1	14"□	1.09	32	AHU-2	ENVIRO-TEC CFR-WC	- -
FPB-B4	900	275	0.5"	40.5	3.5	63 / 105	180 / 157	2	1/2	277	1	12"□	.17	29	AHU-2	ENVIRO-TEC CFR-WC	- -
FPB-B5	625	200	0.5"	28.1	2.5	63 / 105	180 / 157	2	1/6	277	1	8"□	.54	34	AHU-2	ENVIRO-TEC CFR-WC	- -
FPB-B6	1100	400	0.5"	49.5	4.0	63 / 105	180 / 155	2	1/2	277	1	12"□	.23	33	AHU-2	ENVIRO-TEC CFR-WC	- -
FPB-B7	1000	300	0.5"	45.0	3.5	63 / 105	180 / 154	2	1/6	277	1	12"□	.17	32	AHU-2	ENVIRO-TEC CFR-WC	- -
FPB-B8	950	225	0.5"	42.7	3.5	63 / 105	180 / 156	2	1/6	277	1	10"□	.25	34	AHU-2	ENVIRO-TEC CFR-WC	- -
FPB-B9	900	275	0.5"	40.5	3.5	63 / 105	180 / 157	2	3/4	277	1	10"□	.43	32	AHU-2	ENVIRO-TEC CFR-WC	- -
FPB-B10	275	100	0.5"	12.4	1.0	63 / 105	180 / 160	2	3/4	277	1	6"□	.35	28	AHU-2	ENVIRO-TEC CFR-WC	- -

EXISTING BOONE MEADOW FAN POWERED VAV TERMINAL UNIT SCHEDULE (CONTINUED)

FPB No.	UNIT CFM	MINIMUM PRIMARY AIR (CFM)	EXT. S.P.	HEATING COIL MBH	GPM	EAT / LAT	EWT / LWT	MIN ROWS	ELECTRICAL FAN HP	VOLT	PH.	INLET SIZE	INLET S.P.	N.C.@ INLET S.P.	AIR HANDLING SYSTEM	MANUFACTURER & MODEL NUMBER	REMARKS
FPB-C1	700	225	0.5"	31.5	2.5	63 / 105	180 / 155	2	3/4	277	1	10"□	.15	29	AHU-3	ENVIRO-TEC CFR-WC	- -
FPB-C2	1100	400	0.5"	49.5	4.0	63 / 105	180 / 155	2	3/4	277	1	14"□	.92	33	AHU-3	ENVIRO-TEC CFR-WC	- -
FPB-C3	1100	400	0.5"	49.5	4.0	63 / 105	180 / 155	2	3/4	277	1	14"□	.63	32	AHU-3	ENVIRO-TEC CFR-WC	- -
FPB-C4	1100	400	0.5"	49.5	4.0	63 / 105	180 / 155	2	3/4	277	1	14"□	.68	31	AHU-3	ENVIRO-TEC CFR-WC	- -
FPB-C5	1100	400	0.5"	49.5	4.0	63 / 105	180 / 155	2	3/4	277	1	12"□	.30	33	AHU-3	ENVIRO-TEC CFR-WC	- -
FPB-C6	350	100	0.5"	15.7	1.5	63 / 105	180 / 159	2	1/6	277	1	6"□	.26	29	AHU-3	ENVIRO-TEC CFR-WC	- -
FPB-C7	1100	400	0.5"	49.5	4.0	63 / 105	180 / 155	2	3/4	277	1	12"□	.34	33	AHU-3	ENVIRO-TEC CFR-WC	- -
FPB-C8	1100	400	0.5"	49.5	4.0	63 / 105	180 / 155	2	3/4	277	1	12"□	.45	33	AHU-3	ENVIRO-TEC CFR-WC	- -
FPB-C9	1100	400	0.5"	49.5	4.0	63 / 105	180 / 155	2	3/4	277	1	14"□	.99	33	AHU-3	ENVIRO-TEC CFR-WC	- -
FPB-C10	1100	400	0.5"	49.5	4.0	63 / 105	180 / 155	2	3/4	277	1	14"□	.70	32	AHU-3	ENVIRO-TEC CFR-WC	- -
FPB-C11	1100	400	0.5"	49.5	4.0	63 / 105	180 / 155	2	3/4	277	1	14"□	.75	32	AHU-3	ENVIRO-TEC CFR-WC	- -
FPB-C12	1100	400	0.5"	49.5	4.0	63 / 105	180 / 155	2	3/4	277	1	12"□	.38	33	AHU-3	ENVIRO-TEC CFR-WC	- -
FPB-C13	350	100	0.5"	15.7	1.5	63 / 105	180 / 159	2	1/6	277	1	6"□	.31	28	AHU-3	ENVIRO-TEC CFR-WC	- -
FPB-C14	1100	400	0.5"	49.5	4.0	63 / 105	180 / 155	2	3/4	277	1	12"□	.40	33	AHU-3	ENVIRO-TEC CFR-WC	- -
FPB-C15	1100	400	0.5"	49.5	4.0	63 / 105	180 / 155	2	3/4	277	1	12"□	.26	33	AHU-3	ENVIRO-TEC CFR-WC	- -
FPB-D1	1200	425	0.5"	54.0	4.5	63 / 105	180 / 156	2	3/4	277	1	14"□	.35	28	AHU-1	ENVIRO-TEC CFR-WC	- -
FPB-D2	1200	425	0.5"	54.0	4.5	63 / 105	180 / 156	2	3/4	277	1	14"□	.67	32	AHU-1	ENVIRO-TEC CFR-WC	- -
FPB-D3	400	120	0.5"	18.0	1.5	63 / 105	180 / 156	2	1/6	277	1	6"□	.44	28	AHU-1	ENVIRO-TEC CFR-WC	- -

EXISTING BOONE MEADOW VAV TERMINAL UNIT SCHEDULE

VAV No.	COOLING CFM	HEATING CFM	EXT. S.P.	HEATING COIL MBH	GPM	EAT / LAT	EWT / LWT	MIN ROWS	ELECTRICAL (CONTROL POWER) VOLT/PH.	INLET SIZE	INLET S.P.	N.C.@ INLET S.P.	AIR HANDLING SYSTEM	MANUFACTURER & MODEL NUMBER
VAV-A1	600	300	0.5"	13.0	1.0	55 / 95	180 / 155	2	277/1	8"□	.81	30	AHU-1	ENVIRO-TEC SDR-WC
VAV-A2	650	325	0.5"	14.0	1.0	55 / 95	180 / 152	2	277/1	8"□	.75	30	AHU-1	ENVIRO-TEC SDR-WC
VAV-A3	600	300	0.5"	13.0	1.0	55 / 95	180 / 155	2	277/1	8"□	.71	31	AHU-1	ENVIRO-TEC SDR-WC
VAV-B1	200	100	0.5"	4.3	0.5	55 / 95	180 / 163	2	277/1	5"□	.70	28	AHU-1	ENVIRO-TEC SDR-WC
VAV-B2	200	100	0.5"	4.3	0.5	55 / 95	180 / 163	2	277/1	5"□	.61	29	AHU-3	ENVIRO-TEC SDR-WC
VAV-B3	500	250	0.5"	10.8	1.0	55 / 95	180 / 158	2	277/1	6"□	.57	34	AHU-3	ENVIRO-TEC SDR-WC
VAV-B4	650	325	0.5"	14.0	1.0	55 / 95	180 / 152	2	277/1	8"□	1.03	31	AHU-3	ENVIRO-TEC SDR-WC
VAV-C1	600	300	0.5"	13.0	1.0	55 / 95	180 / 155	2	277/1	8"□	.76	32	AHU-3	ENVIRO-TEC SDR-WC
VAV-C2	600	300	0.5"	13.0	1.0	55 / 95	180 / 155	2	277/1	8"□	.83	31	AHU-3	ENVIRO-TEC SDR-WC
VAV-D1	750	375	0.5"	16.2	1.5	55 / 95	180 / 158	2	277/1	10"□	.81	30	AHU-1	ENVIRO-TEC SDR-WC
VAV-D2	350	175	0.5"	7.6	1.0	55 / 95	180 / 165	2	277/1	6"□	.54	29	AHU-1	ENVIRO-TEC SDR-WC
VAV-D3	250	125	0.5"	5.4	0.5	55 / 95	180 / 158	2	277/1	5"□	.52	27	AHU-1	ENVIRO-TEC SDR-WC

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7312 W. Stonegate Dr,
Zionsville, IN 46077

Boone Meadow Elementary School:
5555 S. Main St,
Whitestown, IN 46075

ZIONSVILLE COMMUNITY SCHOOLS

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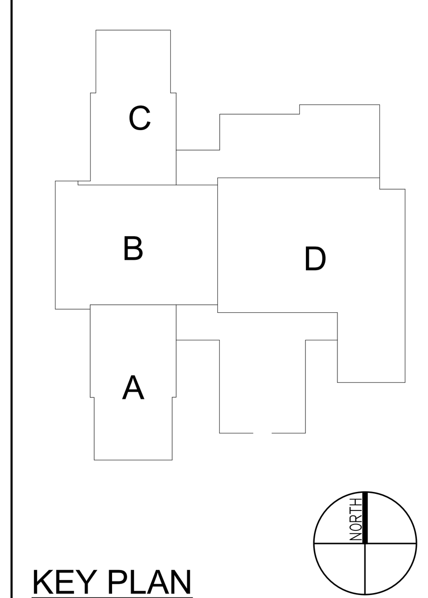
ARCHITECT

FANNING HOWEY

317.848.0966 WWW.FHAI.COM
350 EAST NEW YORK ST, STE 300, INDIANAPOLIS, IN 46204



KEY PLAN

CONSTRUCTION DOCUMENTS

MARK Z. HOPF
REGISTERED
No.
PE 12000601
STATE OF
INDIANA
PROFESSIONAL ENGINEER

DRAWN BY: MZH
PROJECT NUMBER: 224154.00
PROJECT ISSUE DATE: 12.30.2024

REV. NO.	DESCRIPTION	DATE
2	ADDENDUM #2	01/20/25

EXISTING BOONE MEADOW MECHANICAL SCHEDULES

M-602

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EXISTING BOONE MEADOW HOT WATER TERMINAL HEATING UNIT SCHEDULE

MARK	UNIT TYPE	L"xH"xD"	EQUIPMENT ARRANGEMENT	CAPACITY (MBH)	CFM	E.S.P. (IN.)	EWT / LWT	EAT	GPM	MOTOR DATA HP	MOTOR DATA VOLTS	MOTOR DATA PH.	MANUFACTURER AND MODEL NO.	REMARKS
CUH-A1 CUH-A2	CABINET UNIT HEATER	49x25x10	CONCEALED ABV. CEILING; BTM. INLET, TOP OUTLET	28.0	435	.25	180 / 160	60	3.0	0.4	115	1	MODINE MODEL CW SIZE 4	1,3
CUH-A3	CABINET UNIT HEATER	49x25x10	CONCEALED ABV. CEILING; BTM. INLET, TOP OUTLET	28.0	550	.25	180 / 160	60	3.0	0.4	115	1	MODINE MODEL CW SIZE 6	1,3
CUH-B1 CUH-B2	CABINET UNIT HEATER	49x25x10	CONCEALED ABV. CEILING; BTM. INLET, TOP OUTLET	28.0	435	.25	180 / 160	60	3.0	0.4	115	1	MODINE MODEL CW SIZE 4	1,3
CUH-C1 CUH-C2	CABINET UNIT HEATER	49x25x10	CONCEALED ABV. CEILING; BTM. INLET, TOP OUTLET	28.0	435	.25	180 / 160	60	3.0	0.4	115	1	MODINE MODEL CW SIZE 4	1,3
CUH-C3	CABINET UNIT HEATER	49x25x10	WALL MOUNTED BTM. INLET, TOP OUTLET	28.0	400	0	180 / 160	60	3.0	1/20	115	1	MODINE MODEL CW SIZE 4	.
CUH-D1 CUH-D2	CABINET UNIT HEATER	49x25x10	CONCEALED ABV. CEILING; BTM. INLET, TOP OUTLET	28.0	550	.25	180 / 160	60	3.0	0.4	115	1	MODINE MODEL CW SIZE 6	1,3
PUH-B1 PUH-B4	PROPELLER UNIT HEATER	-	HORIZONTAL	55.0	1340	0	180 / 165	60	8.0	1/8	115	1	MODINE HS-86	2,4
PUH-B2 PUH-B3	PROPELLER UNIT HEATER	-	HORIZONTAL	29.2	730	0	180 / 165	60	6.0	1/12	115	1	MODINE HS-47	2,4
PUH-C1	PROPELLER UNIT HEATER	-	HORIZONTAL	55.0	1340	0	180 / 165	60	8.0	1/8	115	1	MODINE HS-86	2,4
PUH-C2 PUH-C3	PROPELLER UNIT HEATER	-	HORIZONTAL	55.0	1340	0	180 / 165	60	8.0	1/8	115	1	MODINE HS-86	2,4
PUH-C4	PROPELLER UNIT HEATER	-	HORIZONTAL	29.2	730	0	180 / 165	60	6.0	1/12	115	1	MODINE HS-47	2,4
PUH-D1	PROPELLER UNIT HEATER	-	HORIZONTAL	29.2	730	0	180 / 165	60	6.0	1/12	115	1	MODINE HS-47	2,4

NOTES:
1. UNIT SHALL HAVE DUCT COLLAR CONNECTIONS FOR BOTH DISCHARGE AND INTAKE. UNIT SHALL BE COMPLETELY CONCEALED ABOVE CEILING.
2. PROVIDE HORIZONTAL AND VERTICAL DISCHARGE LOUVERS.
3. PROVIDE HIGH STATIC MOTOR FOR 0.3" E.S.P.
4. PROVIDE VIBRATION ISOLATING HANGERS.

EXISTING BOONE MEADOW EXHAUST FAN/VENTILATION FAN SCHEDULE

MARK	FAN TYPE	CFM	TOTAL S.P. (IN.)	FAN RPM	MAX. TIP SPEED (FPM)	MAX. NOISE LEVEL (SONES)	DRIVE TYPE	MOTOR DATA HP	MOTOR DATA VOLTS	MOTOR DATA PH.	SERVICE	EXAMPLE MANUFACTURER MODEL NO.	FAN CONTROL *	NOTES
VF-A1	INLINE CENTRIFUGAL	175	0.5	1460	4160	7.0	DIRECT	1/12	115	1	VENTILATION	GREENHECK SQ-85-D	T	1,3
VF-A2	INLINE CENTRIFUGAL	175	0.5	1460	4160	7.0	DIRECT	1/12	115	1	VENTILATION	GREENHECK SQ-85-D	T	1,3
VF-A3	INLINE CENTRIFUGAL	500	0.5	1350	3957	10.0	BELT	1/4	115	1	VENTILATION	GREENHECK BSQ-90	T	1
EF-B1	INLINE CENTRIFUGAL	300	0.625	1409	4127	10.0	BELT	1/4	115	1	TOILET EXHAUST	GREENHECK BSQ-80	A	1
EF-B2	INLINE CENTRIFUGAL	2325	0.85	1144	5017	12	BELT	3/4	460	3	TOILET EXHAUST	GREENHECK BSQ-160	A	1
EF-B3	INLINE CENTRIFUGAL	1250	0.70	1373	4718	12	BELT	1/3	115	1	TOILET EXHAUST	GREENHECK BSQ-130	A	1
VF-B1	INLINE CENTRIFUGAL	250	0.5	1469	4182	7	DIRECT	1/10	115	1	VENTILATION	GREENHECK SQ-90-D	T	1,3
VF-B2	INLINE CENTRIFUGAL	350	0.5	1372	4018	10	BELT	1/4	115	1	VENTILATION	GREENHECK BSQ-80	T	1
VF-B3	INLINE CENTRIFUGAL	-	-	-	-	-	-	-	-	-	FAN ROOM VENTILATION	-	-	
EF-C1	ROOF MOUNTED CENTRIFUGAL	1100	0.625	1268	4336	10	BELT	1/4	115	1	GENERAL EXHAUST	GREENHECK GB-120	A	2
EF-C2	INLINE CENTRIFUGAL	600	0.5	1223	3582	8	BELT	1/4	115	1	GENERAL EXHAUST	GREENHECK BSQ-100	M	1
EF-C3	ROOF MOUNTED UPBLAST CENTRIFUGAL	2700	0.5	1127	4905	14	BELT	3/4	460	3	REFRIGERANT ALARM EXHAUST	GREENHECK CUBE-160	A	2
VF-C1	INLINE CENTRIFUGAL	175	0.5	1460	4160	7	DIRECT	1/12	115	1	VENTILATION	GREENHECK SQ-85-D	T	1,3
VF-C2	INLINE CENTRIFUGAL	175	0.5	1460	4160	7	DIRECT	1/12	115	1	VENTILATION	GREENHECK SQ-85-D	T	1,3
VF-C3	INLINE CENTRIFUGAL	1400	0.625	1402	4817	12.5	BELT	1/2	115	1	ELECTRIC ROOM VENTILATION	GREENHECK BSQ-130	T	1
EF-D1	ROOF MOUNTED CENTRIFUGAL	1325	0.75	1325	4546	11	BELT	1/3	115	1	TOILET EXHAUST	GREENHECK GB-130	A	2

NOTES:
1. PROVIDE HANGING VIBRATION ISOLATORS.
2. PROVIDE BACKDRAFT DAMPER.
3. PROVIDE VARIABLE SPEED CONTROLLER FOR DIRECT DRIVE FAN.

* FAN CONTROL LEGEND

M - MANUAL STARTER BY E.C.
T - THERMOSTAT TO CONTROL FAN OPERATION; CONTROL BY T.C.C.
A - AUTOMATIC CONTROL BY T.C.C.; REFER TO SEQUENCE OF OPERATION.

EXISTING BOONE MEADOW DUCT MOUNTED REHEAT COIL SCHEDULE

COIL NUMBER	COIL SIZE	HEATING COIL CFM / MBH	EAT / LAT	EWT / LWT	MIN ROWS / FACE VEL.	MAX APD / MAX WPD	GPM
RHC-B1	10"x6"	225 / 12.6	55 / 106	180 / 163	2 / 540	0.2" / 0.4'	1.5
RHC-B2	8"x6"	200 / 10.7	55 / 104	180 / 166	2 / 600	0.2" / 0.4'	1.5
RHC-B3	12"x12"	600 / 34.1	55 / 107	180 / 160	2 / 600	0.2" / 3.3'	3.5
RHC-B4	10"x9"	300 / 15.1	55 / 101	180 / 160	2 / 480	0.11" / 0.9'	2.0
RHC-B5	16"x12"	900 / 49.8	55 / 106	180 / 160	2 / 675	0.25" / 7.4'	5.0
RHC-B6	10"x9"	375 / 20.3	55 / 105	180 / 160	2 / 600	0.2" / 0.9'	2.0
RHC-B7	11"x9"	400 / 21.9	55 / 105	180 / 158	2 / 580	0.2" / 1.0'	2.0
RHC-B8	11"x9"	400 / 21.9	55 / 105	180 / 158	2 / 580	0.2" / 1.0'	2.0
RHC-B9	11"x9"	400 / 21.9	55 / 105	180 / 158	2 / 580	0.2" / 1.0'	2.0
RHC-B10	12"x12"	550 / 32.0	55 / 107	180 / 159	2 / 550	0.17" / 2.6'	3.0
RHC-B11	10"x6"	250 / 12.6	55 / 102	180 / 163	2 / 600	0.2" / 0.4'	1.5
RHC-C1	6"x6"	100 / 5.4	55 / 105	180 / 160	2 / 400	0.11" / 0.1'	0.5
RHC-C2	10"x6"	200 / 11.2	55 / 106	180 / 160	2 / 480	0.14" / 0.22'	1.0
RHC-C3	12"x12"	650 / 35.6	55 / 105	180 / 160	2 / 650	0.23" / 3.6'	3.5
RHC-C4	30"x24"	3400 / 184.3	55 / 105	180 / 159	2 / 650	0.3" / 0.4'	18.0
RHC-D1	16"x12"	900 / 39.8	55 / 95	180 / 160	2 / 675	0.2" / 5.0'	4.0
RHC-D2	11"x9"	400 / 17.4	55 / 95	180 / 156	2 / 580	0.16" / 0.6'	1.5
RHC-D3	36"x24"	4100 / 222.3	55 / 105	180 / 155	2 / 680	0.3" / 8.5'	18.0
RHC-D4	24"x18"	2100 / 113.8	55 / 105	180 / 159	2 / 700	0.3" / 2.3'	11.0

EXISTING BOONE MEADOW RELIEF HOOD/INTAKE HOOD SCHEDULE

MARK	TYPE	CFM	THROAT VEL.(FPM)	THROAT SIZE (INCHES)	OVERALL SIZE (INCHES)	HEIGHT (INCHES)	MANUFACTURER AND MODEL NO.	REMARKS
RH-A1	RELIEF	11,000	600	72x36	96x54	19	GREENHECK FABRAHOOD "FHR"	1
RH-C1	RELIEF	7200	600	48x36	60x58	19	GREENHECK FABRAHOOD "FHR"	1
RH-C2	RELIEF	1400	600	24x18	36x28	19	GREENHECK FABRAHOOD "FHR"	1
RH-D1	RELIEF	3000	600	48x36	60x58	8	GREENHECK FABRAHOOD "FHR"	1
RH-D2	EXHAUST	500	916	10"□	20"□	8	GREENHECK "GRS-10"	1
IH-C1	INTAKE	4400	700	30x30	48x56	19	GREENHECK FABRAHOOD "FHI"	1,3
IH-C2	INTAKE	-	-	18x18	36x28	16	GREENHECK FABRAHOOD "FHI"	1,3
IH-D1	INTAKE	14,400	750	54x48	84x81	23	GREENHECK FABRAHOOD "FHI"	1,3

NOTES:
1. MOTORIZED TEMPERATURE CONTROL DAMPER(S) FURNISHED BY T.C.C., INSTALLED BY SHEETMETAL CONTRACTOR.
2. GRAVITY BACK-DRAFT DAMPER FURNISHED BY HOOD MANUFACTURER, INSTALLED BY SHEETMETAL CONTRACTOR.
3. INTAKE AREA OF THE HOOD SHALL BE TWICE THE THROAT AREA.

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ZIONSVILLE CS - STONEGATE ES AND BOONE MEADOW ES TEMPERATURE CONTROL UPGRADES

Stonegate Elementary School:
7312 W. Stonegate Dr,
Zionsville, IN 46077

Boone Meadow Elementary School:
5555 S. Main St,
Whitestown, IN 46075

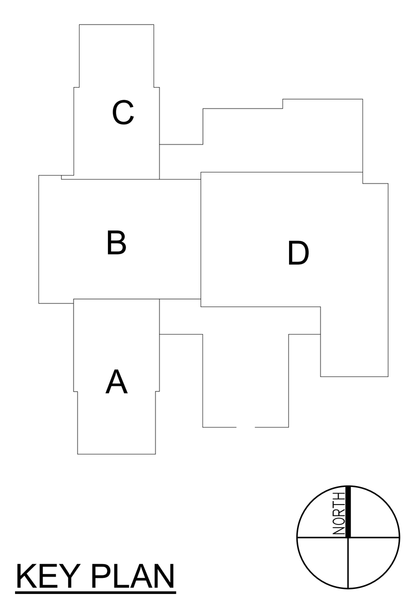
ZIONSVILLE COMMUNITY SCHOOLS

ZIONSVILLE
COMMUNITY SCHOOLS

ARCHITECT

FANNING HOWEY

317.848.0966 WWW.FHAI.COM
350 EAST NEW YORK ST, STE 300, INDIANAPOLIS, IN 46204



KEY PLAN

CONSTRUCTION DOCUMENTS

MARK Z. HOPF
REGISTERED
No.
PE 12000601
STATE OF
INDIANA
PROFESSIONAL ENGINEER

DRAWN BY: MZH
PROJECT NUMBER: 224154.00
PROJECT ISSUE DATE: 12.30.2024

REV. NO.	DESCRIPTION	DATE
2	ADDENDUM #2	01/20/25

EXISTING BOONE MEADOW MECHANICAL SCHEDULES

M-603

EXISTING STONEGATE AIR HANDLING UNIT SCHEDULE

UNIT NO.	UNIT LOCATION	AREA SERVED	SUPPLY FAN DATA: CFM	FAN TYPE	DRIVE	WHEEL DIA.	RPM	EXT. S.P.	TOTAL S.P.	MOTOR DATA: BHP	MOTOR HP	VOLT	PH.
AHU-1	UNIT B FAN ROOM	UNITS A&D VAV SYSTEM	22,000	PLENUM AF SWSI	BELT	40.25"	1105	3.25	6.17	30.7	40	460	3
AHU-2	UNIT B FAN ROOM	UNIT B ADMIN. AREA	5700	PLENUM AF SWSI	BELT	22"	1526	0.90	2.54	3.8	5	460	3
AHU-3	UNIT B FAN ROOM	UNITS B&C VAV COOLING SYSTEM	19,000	PLENUM AF SWSI	BELT	36.5"	1267	3.1	5.73	25.7	30	460	3
AHU-4	UNIT B FAN ROOM	CAFETERIA	6300	PLENUM AF SWSI	BELT	24"	1346	0.85	2.7	4.3	7.5	460	3
AHU-5	UNIT C MECH. ROOM	KITCHEN	4400	BI DWDI	BELT	16"	1677	0.75	2.03	2.3	5	460	3
AHU-6	UNIT D MEZZANINE	GYMNASIUM	14,400	PLENUM AF SWSI	BELT	36"	888	0.75	2.5	8.7	10	460	3

UNIT NO.	COOLING COIL DATA: UNIT SENS. MBH	UNIT TOTAL MBH	NO. OF COILS	E.A.T. (°F)	L.A.T. (°F)	TOTAL GPM	E.W.T. / L.W.T.	COIL FACE AREA	MAX. VEL. FPM	ROWS / FIN/IN.	MAX. APD IN.	MAX. WPD FT.
AHU-1	724	1172	2	82.4 / 68.9	52.1 / 51.8	208	45 / 56	44	495	6 / 12	1.2	15.3
AHU-2	170	253	1	79.5 / 66.3	51.9 / 51.6	45	45 / 56	13.5	421	6 / 10	0.78	10.6
AHU-3	635	1037	2	82.4 / 68.9	51.6 / 51.3	180	45 / 57	44	427	6 / 12	1.0	11.6
AHU-4	205	326	1	82.3 / 68.6	52.3 / 51.9	59	45 / 56	13.5	465	8 / 8	0.95	8
AHU-5	136	211	1	80.5 / 67.3	51.9 / 51.5	37	45 / 56	13.8	320	6 / 8	0.44	11.6
AHU-6	COOLING COIL WAS PROVIDED AFTER THE PROJECT. COORDINATE CAPACITIES AND FLOW RATES WITH EXISTING CONDITIONS.											

UNIT NO.	HEATING COIL DATA: UNIT TOTAL MBH	NO. OF COILS	E.A.T. (°F)	L.A.T. (°F)	TOTAL GPM	E.W.T. / L.W.T.	COIL FACE AREA	MAX. VEL. FPM	ROWS / FIN/IN.	MAX. APD IN.	MAX. WPD FT.	UNIT WEIGHT LBS.	MIN. O.A. SETTING CFM	MANUFACTURER AND MODEL NO.	NOTES	UNIT NO.
AHU-1	REFER TO "INTEGRAL FACE AND BYPASS HEATING COIL SCHEDULE"											12,000	7200	TEMTROL WF	1 2 3 5 7	AHU-1
AHU-2	151	1	54	78	9	180 / 146	13.5	421	1 / 6	0.04	2	3500	1100	TEMTROL ITF	1 4 7 8	AHU-2
AHU-3	REFER TO "INTEGRAL FACE AND BYPASS HEATING COIL SCHEDULE"											12,000	6600	TEMTROL WF	1 2 3 5 7	AHU-3
AHU-4	250	1	42	79	16	180 / 148	13.5	465	1 / 9	0.08	6	3500	600 / 2100	TEMTROL ITF	1 4 6 8	AHU-4
AHU-5	138	1	50	79	8	180 / 145	13.8	320	1 / 6	0.03	2	3200	1100	TEMTROL ITF	1 4 8	AHU-5
AHU-6	1019	1	42	107	64	180 / 147	30.4	473	2 / 10	0.19	7.5	5500	1200 / 4200	TEMTROL ITF	1 4 6 8	AHU-6

NOTES:

1. ALL AIR HANDLING UNIT WATER COILS SHALL HAVE 5/8" DIA. TUBES WITH MINIMUM .024" WALL THICKNESS.
2. VARIABLE AIR VOLUME UNIT; VARIABLE FREQUENCY DRIVE PROVIDED BY T.C.C.
3. HEATING COIL SHALL BE AN INTEGRAL FACE & BYPASS HEATING WATER COIL AS SCHEDULED ELSEWHERE ON THIS DRAWING.
4. CONSTANT AIR VOLUME UNIT.
5. MINIMUM OUTDOOR AIR VOLUMES SHALL BE MAINTAINED BY USE OF AIR MONITORING STATION FOR THIS AIR HANDLER.
6. TWO MINIMUM AIR VOLUMES LISTED: LOWER NUMBER INDICATES "NORMAL MODE" AIR VOLUME, HIGHER NUMBER INDICATES "EVENT MODE" AIR VOLUME.
7. UNIT INTERNAL STATIC PRESSURE SHALL INCLUDE A TOTAL OF 1.2" S.P. FOR THE FILTER BANK.
8. UNIT INTERNAL STATIC PRESSURE SHALL INCLUDE A TOTAL OF 0.75" S.P. FOR THE FILTER BANK.

EXISTING STONEGATE INTEGRAL FACE AND BYPASS HEATING COIL

MARK	CAPACITY MBH	E.A.T. (°F)	L.A.T. (°F)	GPM	E.W.T. / L.W.T.	MIN. FLOW VEL. (FPM)	MIN. FLOW CFM	A.P.D. @ MIN. FLOW	MAX. FLOW CFM	A.P.D. @ MAX. FLOW	ROWS / FIN/IN.	MAX. WPD	MANUFACTURER & MODEL NO.	NOTES
AHU-1	647.0	4	68	68	180 / 160	325	9300	0.08	22,000	0.34	2 / 9	2.0'	WING VIFB SIZE VC-8W	1,2
AHU-3	555.0	2	68	49	180 / 157	273	7800	0.06	19,000	0.25	2 / 9	2.0'	WING VIFB SIZE VC-8W	1,2

NOTES:
1. CAPACITY AND OTHER HEATING PERFORMANCE DATA IS BASED UPON THE SCHEDULED MINIMUM AIRFLOW CFM.
2. COIL SHALL BE FURNISHED TO AIR HANDLING UNIT MANUFACTURER FOR FACTORY MOUNTING IN AIR HANDLER.

EXISTING STONEGATE AIR-COOLED WATER CHILLER SCHEDULE

MARK NO.	TYPE	TONS OUTPUT	AMB. TEMP. °F	EVAPORATOR DATA: EWT °F	LWT °F	GPM	WPD FT.	FLUID	CONDENSER FAN DATA: QUAN.	DIA.	MAX. RPM	FLA EACH	MIN. EER: 100% LOAD	80% LOAD	50% LOAD	20% LOAD	UNIT ELEC. DATA: MAX. INPUT KW	MCA	VOLT	PH	MANUFACTURER AND MODEL NUMBER	REMARKS
CH-1	ROTARY SCREW	246	95	56	44	470	12	WATER	12	35"	840	4.0	10.1	11.9	15.7	16.1	295	464	460	3	YORK YCAS SIZE 0250 WITH REMOTE EVAPORATOR	SEE NOTES

NOTES:

1. PROVIDE UNIT MOUNTED STARTER AND DISCONNECT.
2. R-22 REFRIGERANT.
3. 14,000 LB. UNIT OPERATING WEIGHT.
4. ISOLATION WITH SUPPORT PLATE MOUNTED ON SHEAR FLEX PAD BY CHILLER MANUFACTURER.
5. CHILLER MANUFACTURER SHALL PROVIDE A %%212" AUTOMATIC CONTROL VALVE FOR OIL COOLING PURGE LINE.
6. IKW INCLUDES STARTER AND MOTOR INEFFICIENCIES.
7. MANUFACTURERS TO PROVIDE APLV AND MAXIMUM IKW WITH SHOP DRAWINGS.
8. PROVIDE CHILLER INTERFACE PANEL FOR CONNECTION TO BUILDING AUTOMATION SYSTEM.
9. PART LOAD RATINGS SHALL BE IN ACCORDANCE WITH ARI STANDARD 550/590.

EXISTING STONEGATE COMBUSTION AIR HEATER SCHEDULE

MARK	FAN DATA: FAN TYPE	NORMAL AIR FLOW (LOW SPEED)	SUMMER VENTILATION AIR FLOW (HIGH SPEED)	FAN RPM	FAN DIA.	FAN MOTOR DATA: HP	VOLT	PH.	MOTOR SPEEDS	INTEGRAL FACE & BYPASS HEATING COIL: CAPACITY MBH	E.A.T. (°F)	L.A.T. (°F)	GPM	E.W.T. / L.W.T.	ROWS	COIL FACE AREA	COIL OUTLET AREA	MIN. FLOW VEL. (FPM)	MAX. FLOW VEL. (FPM)	MANUFACTURER & MODEL NO.	NOTES
CAH-1	PROPELLER	2500	5000	1140	24"	1/2	460	3	2	289	-10	97	24	180 / 160	2	4.5	8.45	555	592	CONTROL AIR AMP SIZE 45-6	1,2,3

EXISTING STONEGATE PUMP SCHEDULE (HVAC)

MARK	SERVICE	TYPE	GPM	HEAD FT.	MIN EFF. %	MOTOR: RPM	HP	VOLT	PH	MANUFACTURER	NOTES
PCWP-1	PRIMARY CHILLED WATER PUMP	BASE MOUNTED END SUCTION	470	30	80	1750	5	460	3	TACO MODEL FE SIZE 3007	
PCWP-2	PRIMARY CHILLED WATER PUMP (STANDBY)	BASE MOUNTED END SUCTION	470	30	80	1750	5	460	3	TACO MODEL FE SIZE 3007	
SCWP-1	SECONDARY CHILLED WATER PUMP	BASE MOUNTED END SUCTION	235	85	63	1750	15	460	3	TACO MODEL FE SIZE 3010	1,2
SCWP-2	SECONDARY CHILLED WATER PUMP	BASE MOUNTED END SUCTION	235	85	63	1750	15	460	3	TACO MODEL FE SIZE 3010	1,2
HHWP-1	HEATING HOT WATER PUMP	BASE MOUNTED END SUCTION	200	90	65	1750	15	460	3	TACO MODEL FE SIZE 2510	1,2
HHWP-2	HEATING HOT WATER PUMP	BASE MOUNTED END SUCTION	200	90	65	1750	15	460	3	TACO MODEL FE SIZE 2510	1,2

NOTES:
1. PUMP WILL OPERATE BOTH IN PARALLEL AND ALONE. PUMP SHALL BE SIZED SUCH THAT IT DOES NOT RUN OFF ITS PUMP CURVE, WHEN OPERATING ALONE OUT AT THE SYSTEM CURVE.
2. PUMP TO BE USED WITH VARIABLE FREQUENCY DRIVE; PROVIDE HIGH EFFICIENCY MOTOR MEETING REQUIREMENTS OF NEMA MG-1, PART 3.

EXISTING STONEGATE GAS FIRED BOILER SCHEDULE

MARK	TYPE	BOILER HP	GAS INPUT MBH	HEATING OUTPUT MBH	HEATING MEDIA	HEATING SURFACE SQ. FT.	BOILER RATED PRES. PSIG	OPERATING PRESSURE PSIG	ENT. WTR °F	LVG. WTR °F	BOILER WATER VOLUME (GAL.)	NATURAL GAS BURNER DATA: INLET PRESSURE	GAS TRAIN TYPE	ELECTRIC DATA: BURNER HP	VOLTS	PH.	MANUFACTURER MODEL NO.	NOTES
B-1	FLEXIBLE WATER TUBE	84	3500	2800	HOT WATER	419	125	75	150	180	146	1 PSI	FM	1.5	460	3	BRYAN RV-350-W	1,2
B-2	FLEXIBLE WATER TUBE	84	3500	2800	HOT WATER	419	125	75	150	180	146	1 PSI	FM	1.5	460	3	BRYAN RV-350-W	1,2

NOTES:

1. 8300 LBS. OPERATING WEIGHT, 7000 LBS. SHIPPING WEIGHT
2. PROVIDE FULLY MODULATING BURNER.

EXISTING STONEGATE COMPUTER ROOM AIR CONDITIONING UNIT

MARK	EVAPORATOR BLOWER: CFM	EXT. S.P.	MOTOR HP	DX COOLING COIL: SENS. (MBH)	TOTAL (MBH)	EAT (DB/WB)	COIL AREA	COIL ROWS	CONDENSER SECTION: CFM	MOTOR HP	EAT	COIL AREA	COIL ROWS	UNIT ELEC. DATA: VOLTS	PH.	FLA	MCA	MANUFACTURER AND MODEL No.	NOTES
CRU-1	850	0.35"	1/5	19.8	23.1	75.0/62.5	1.8	4	1200	1/2	78	2.0	5	277	1	31.0	37.0	DATA AIRE MINI CEILING SYSTEM MODEL DAMA-02	1,2,3,4

NOTES:
1. UNIT SHALL BE PROVIDED WITH A 4.0 KW ELECTRIC REHEAT COIL.
2. UNIT SHALL BE PROVIDED WITH A CONDENSATE PUMP, MOUNTED WITHIN THE UNIT COIL PAN. 120v./1□ POWER; 8 FT. HEAD PUMP PRESSURE.
3. EVAPORATOR AND THE CONDENSER SECTIONS SHALL BE PROVIDED AS A SINGLE PACKAGED UNIT, WITH A SINGLE POINT POWER CONNECTION.
4. UNIT SHALL BE ARRANGED FOR A DUCTED EVAPORATOR DISCHARGE AND A DUCTED CONDENSER FAN DISCHARGE.

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7312 W. Stonegate Dr,
Zionsville, IN 46077

Boone Meadow Elementary School:
5555 S. Main St,
Whitestown, IN 46075

ZIONSVILLE COMMUNITY SCHOOLS

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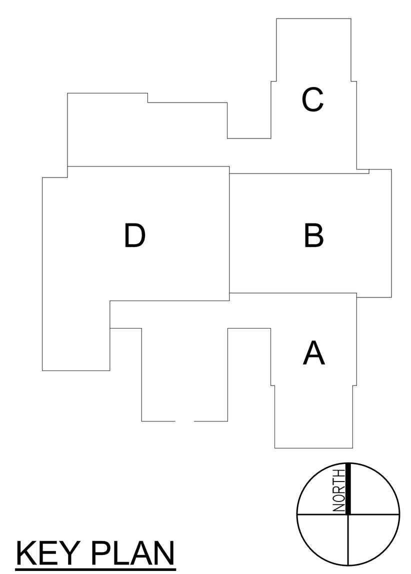
ARCHITECT

FANNING HOWEY

317.848.0966 WWW.FHAI.COM
350 E. New York St. #300, Indianapolis, IN 46204



KEY PLAN

CONSTRUCTION DOCUMENTS

MARK Z. HOPF REGISTERED No. PE 12000601 STATE OF INDIANA PROFESSIONAL ENGINEER

DRAWN BY: MZH
PROJECT NUMBER: 224154.00
PROJECT ISSUE DATE: 12.30.2024

REV. NO.	DESCRIPTION	DATE
2	ADDENDUM #2	01/20/25

EXISTING STONEGATE MECHANICAL SCHEDULES

M-604

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EXISTING STONEGATE FAN POWERED VAV TERMINAL UNIT SCHEDULE (CONTINUED)

FPB No.	UNIT CFM	MINIMUM PRIMARY AIR (CFM)	EXT. S.P.	HEATING COIL MBH	GPM	EAT LAT	EWT LWT	MIN ROWS	ELECTRICAL FAN HP	VOLT	PH.	INLET SIZE	INLET S.P.	N.C.@ INLET S.P.	AIR HANDLING SYSTEM	MANUFACTURER & MODEL NUMBER	REMARKS
FPB-C1	700	225	0.5"	31.5	2.5	63 105	180 155	2	1/4	277	1	10"□	.15	29	AHU-3	ENVIRO-TEC CFR-WC SIZE 1011	- -
FPB-C2	1100	400	0.5"	49.5	4.0	63 105	180 155	2	3/4	277	1	14"□	.92	33	AHU-3	ENVIRO-TEC CFR-WC SIZE 1421	- -
FPB-C3	1100	400	0.5"	49.5	4.0	63 105	180 155	2	3/4	277	1	14"□	.63	32	AHU-3	ENVIRO-TEC CFR-WC SIZE 1421	- -
FPB-C4	1100	400	0.5"	49.5	4.0	63 105	180 155	2	3/4	277	1	14"□	.68	31	AHU-3	ENVIRO-TEC CFR-WC SIZE 1421	- -
FPB-C5	1100	400	0.5"	49.5	4.0	63 105	180 155	2	3/4	277	1	14"□	.30	33	AHU-3	ENVIRO-TEC CFR-WC SIZE 1421	- -
FPB-C6	350	100	0.5"	15.7	1.5	63 105	180 159	2	1/6	277	1	6"□	.26	29	AHU-3	ENVIRO-TEC CFR-WC SIZE 0606	- -
FPB-C7	1100	400	0.5"	49.5	4.0	63 105	180 155	2	3/4	277	1	14"□	.34	33	AHU-3	ENVIRO-TEC CFR-WC SIZE 1421	- -
FPB-C8	1100	400	0.5"	49.5	4.0	63 105	180 155	2	3/4	277	1	14"□	.45	33	AHU-3	ENVIRO-TEC CFR-WC SIZE 1421	- -
FPB-C9	1100	400	0.5"	49.5	4.0	63 105	180 155	2	3/4	277	1	14"□	.99	33	AHU-3	ENVIRO-TEC CFR-WC SIZE 1421	- -
FPB-C10	1100	400	0.5"	49.5	4.0	63 105	180 155	2	3/4	277	1	14"□	.70	32	AHU-3	ENVIRO-TEC CFR-WC SIZE 1421	- -
FPB-C11	1100	400	0.5"	49.5	4.0	63 105	180 155	2	3/4	277	1	14"□	.75	32	AHU-3	ENVIRO-TEC CFR-WC SIZE 1421	- -
FPB-C12	1100	400	0.5"	49.5	4.0	63 105	180 155	2	3/4	277	1	14"□	.38	33	AHU-3	ENVIRO-TEC CFR-WC SIZE 1421	- -
FPB-C13	350	100	0.5"	15.7	1.5	63 105	180 159	2	1/6	277	1	6"□	.31	28	AHU-3	ENVIRO-TEC CFR-WC SIZE 0606	- -
FPB-C14	1100	400	0.5"	49.5	4.0	63 105	180 155	2	3/4	277	1	14"□	.40	33	AHU-3	ENVIRO-TEC CFR-WC SIZE 1421	- -
FPB-C15	1100	400	0.5"	49.5	4.0	63 105	180 155	2	3/4	277	1	14"□	.26	33	AHU-3	ENVIRO-TEC CFR-WC SIZE 1421	- -
FPB-D1	1200	425	0.5"	54.0	4.5	63 105	180 156	2	3/4	277	1	14"□	.35	28	AHU-1	ENVIRO-TEC CFR-WC SIZE 1421	- -
FPB-D2	1200	425	0.5"	54.0	4.5	63 105	180 156	2	3/4	277	1	14"□	.67	32	AHU-1	ENVIRO-TEC CFR-WC SIZE 1421	- -
FPB-D3	400	120	0.5"	18.0	1.5	63 105	180 156	2	1/6	277	1	6"□	.44	28	AHU-1	ENVIRO-TEC CFR-WC SIZE 0606	- -

EXISTING STONEGATE FAN POWERED VAV TERMINAL UNIT SCHEDULE

FPB No.	UNIT CFM	MINIMUM PRIMARY AIR (CFM)	EXT. S.P.	HEATING COIL MBH	GPM	EAT LAT	EWT LWT	MIN ROWS	ELECTRICAL FAN HP	VOLT	PH.	INLET SIZE	INLET S.P.	N.C.@ INLET S.P.	AIR HANDLING SYSTEM	MANUFACTURER & MODEL NUMBER	REMARKS
FPB-A1	1100	400	0.5"	49.5	4.0	63 105	180 155	2	3/4	277	1	14"□	1.06	33	AHU-1	ENVIRO-TEC CFR-WC SIZE 1421	- -
FPB-A2	1100	400	0.5"	49.5	4.0	63 105	180 155	2	3/4	277	1	14"□	.73	32	AHU-1	ENVIRO-TEC CFR-WC SIZE 1421	- -
FPB-A3	1100	400	0.5"	49.5	4.0	63 105	180 155	2	3/4	277	1	14"□	.77	31	AHU-1	ENVIRO-TEC CFR-WC SIZE 1421	- -
FPB-A4	1100	400	0.5"	49.5	4.0	63 105	180 155	2	3/4	277	1	14"□	.42	33	AHU-1	ENVIRO-TEC CFR-WC SIZE 1421	- -
FPB-A5	350	100	0.5"	15.7	1.5	63 105	180 159	2	1/6	277	1	6"□	.38	27	AHU-1	ENVIRO-TEC CFR-WC SIZE 0606	- -
FPB-A6	1100	400	0.5"	49.5	4.0	63 105	180 155	2	3/4	277	1	14"□	.44	32	AHU-1	ENVIRO-TEC CFR-WC SIZE 1421	- -
FPB-A7	1100	400	0.5"	49.5	4.0	63 105	180 155	2	3/4	277	1	14"□	.27	32	AHU-1	ENVIRO-TEC CFR-WC SIZE 1421	- -
FPB-A8	300	100	0.5"	13.5	1.0	63 105	180 155	2	1/6	277	1	5"□	.40	29	AHU-1	ENVIRO-TEC CFR-WC SIZE 0506	- -
FPB-A9	300	100	0.5"	13.5	1.0	63 105	180 155	2	1/6	277	1	5"□	.22	29	AHU-1	ENVIRO-TEC CFR-WC SIZE 0506	- -
FPB-A10	350	100	0.5"	15.7	1.5	63 105	180 159	2	1/6	277	1	6"□	.48	30	AHU-1	ENVIRO-TEC CFR-WC SIZE 0606	- -
FPB-A11	350	100	0.5"	15.7	1.5	63 105	180 159	2	1/6	277	1	6"□	.36	28	AHU-1	ENVIRO-TEC CFR-WC SIZE 0606	- -
FPB-A12	1200	425	0.5"	54.0	4.5	63 105	180 155	2	3/4	277	1	14"□	.61	32	AHU-1	ENVIRO-TEC CFR-WC SIZE 1421	- -
FPB-A13	350	100	0.5"	15.7	1.5	63 105	180 159	2	1/6	277	1	6"□	.41	28	AHU-1	ENVIRO-TEC CFR-WC SIZE 0606	- -
FPB-A14	1200	425	0.5"	57.4	4.5	63 105	180 155	2	3/4	277	1	14"□	.15	29	AHU-1	ENVIRO-TEC CFR-WC SIZE 1421	- -
FPB-A15	1200	425	0.5"	57.4	4.5	63 105	180 155	2	3/4	277	1	14"□	.17	29	AHU-1	ENVIRO-TEC CFR-WC SIZE 1421	- -
FPB-A16	1100	400	0.5"	49.5	4.0	63 105	180 155	2	3/4	277	1	14"□	1.05	33	AHU-1	ENVIRO-TEC CFR-WC SIZE 1421	- -
FPB-A17	1100	400	0.5"	49.5	4.0	63 105	180 160	2	3/4	277	1	14"□	.50	33	AHU-1	ENVIRO-TEC CFR-WC SIZE 1421	- -
FPB-A18	1100	400	0.5"	49.5	4.0	63 105	180 160	2	3/4	277	1	14"□	.77	32	AHU-1	ENVIRO-TEC CFR-WC SIZE 1421	- -
FPB-A19	1100	400	0.5"	49.5	4.0	63 105	180 160	2	3/4	277	1	14"□	.43	33	AHU-1	ENVIRO-TEC CFR-WC SIZE 1421	- -
FPB-A20	350	100	0.5"	15.7	1.5	63 105	180 159	2	1/6	277	1	6"□	.38	28	AHU-1	ENVIRO-TEC CFR-WC SIZE 0606	- -
FPB-A21	1100	400	0.5"	49.5	4.0	63 105	180 155	2	3/4	277	1	14"□	.43	32	AHU-1	ENVIRO-TEC CFR-WC SIZE 1421	- -
FPB-A22	1100	400	0.5"	49.5	4.0	63 105	180 160	2	3/4	277	1	14"□	.60	30	AHU-1	ENVIRO-TEC CFR-WC SIZE 1421	- -
FPB-B1	1000	350	0.5"	45.0	3.5	63 105	180 154	2	3/4	277	1	14"□	.82	32	AHU-1	ENVIRO-TEC CFR-WC SIZE 1421	- -
FPB-B2	1000	350	0.5"	45.0	3.5	63 105	180 154	2	3/4	277	1	14"□	.76	32	AHU-2	ENVIRO-TEC CFR-WC SIZE 1421	- -
FPB-B3	1400	450	0.5"	60.0	3.5	63 104	180 140	2	1	277	1	14"□	1.09	32	AHU-2	ENVIRO-TEC CFR-WC SIZE 1424	- -
FPB-B4	900	275	0.5"	40.5	3.5	63 105	180 157	2	1/2	277	1	12"□	.17	29	AHU-2	ENVIRO-TEC CFR-WC SIZE 1218	- -
FPB-B5	625	200	0.5"	28.1	2.5	63 105	180 157	2	1/4	277	1	10"□	.54	34	AHU-2	ENVIRO-TEC CFR-WC SIZE 1011	- -
FPB-B6	1200	400	0.5"	49.5	4.0	63 105	180 155	2	3/4	277	1	14"□	.23	33	AHU-2	ENVIRO-TEC CFR-WC SIZE 1421	- -
FPB-B7	1000	300	0.5"	45.0	3.5	63 105	180 154	2	3/4	277	1	14"□	.17	32	AHU-2	ENVIRO-TEC CFR-WC SIZE 1421	- -
FPB-B8	950	225	0.5"	42.7	3.5	63 105	180 156	2	1/2	277	1	12"□	.25	34	AHU-2	ENVIRO-TEC CFR-WC SIZE 1218	- -
FPB-B9	900	275	0.5"	40.5	3.5	63 105	180 157	2	1/2	277	1	12"□	.43	32	AHU-2	ENVIRO-TEC CFR-WC SIZE 1218	- -
FPB-B10	275	100	0.5"	12.4	1.0	63 105	180 160	2	1/10	277	1	5"□	.35	28	AHU-2	ENVIRO-TEC CFR-WC SIZE 0504	- -

EXISTING STONEGATE VAV TERMINAL UNIT SCHEDULE

VAV No.	COOLING CFM	HEATING CFM	EXT. S.P.	HEATING COIL MBH	GPM	EAT LAT	EWT LWT	MIN ROWS	ELECTRICAL (CONTROL POWER) VOLT/PH.	INLET SIZE	INLET S.P.	N.C.@ INLET S.P.	AIR HANDLING SYSTEM	MANUFACTURER & MODEL NUMBER
VAV-A1	600	300	0.5"	13.0	1.0	55 95	180 155	2	277/1	8"□	.81	30	AHU-1	ENVIRO-TEC SDR-WC SIZE 08
VAV-A2	650	325	0.5"	14.0	1.0	55 95	180 152	2	277/1	8"□	.75	30	AHU-1	ENVIRO-TEC SDR-WC SIZE 08
VAV-A3	600	300	0.5"	13.0	1.0	55 95	180 155	2	277/1	8"□	.71	31	AHU-1	ENVIRO-TEC SDR-WC SIZE 08
VAV-B1	175	100	0.5"	4.3	0.5	55 95	180 163	2	277/1	5"□	.70	28	AHU-1	ENVIRO-TEC SDR-WC SIZE 05
VAV-B2	175	100	0.5"	4.3	0.5	55 95	180 163	2	277/1	5"□	.61	29	AHU-3	ENVIRO-TEC SDR-WC SIZE 05
VAV-B3	500	250	0.5"	10.8	1.0	55 95	180 158	2	277/1	6"□	.57	34	AHU-3	ENVIRO-TEC SDR-WC SIZE 06
VAV-B4	650	325	0.5"	14.0	1.0	55 95	180 152	2	277/1	8"□	1.03	31	AHU-3	ENVIRO-TEC SDR-WC SIZE 08
VAV-C1	600	300	0.5"	13.0	1.0	55 95	180 155	2	277/1	8"□	.76	32	AHU-3	ENVIRO-TEC SDR-WC SIZE 08
VAV-C2	600	300	0.5"	13.0	1.0	55 95	180 155	2	277/1	8"□	.83	31	AHU-3	ENVIRO-TEC SDR-WC SIZE 08
VAV-D1	750	375	0.5"	16.2	1.5	55 95	180 158	2	277/1	10"□	.81	30	AHU-1	ENVIRO-TEC SDR-WC SIZE 10
VAV-D2	425	175	0.5"	-	-	55 95	180 165	2	277/1	8"□	.54	29	AHU-1	ENVIRO-TEC SDR-WC SIZE 08
VAV-D3	250	125	0.5"	5.4	0.5	55 95	180 158	2	277/1	5"□	.52	27	AHU-1	ENVIRO-TEC SDR-WC SIZE 05

2

EXISTING EQUIPMENT SCHEDULES PROVIDED FOR REFERENCE ONLY. THESE SCHEDULES ARE COPIED OVER FROM THE ORIGINAL CONSTRUCTION PROJECT AND INTENDED FOR REFERENCE ONLY. NO NEW MECHANICAL EQUIPMENT IS TO BE PROVIDED AS PART OF THIS PROJECT UNLESS OTHERWISE STATED.

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ZIONZVILLE CS - STONEGATE ES AND BOONE MEADOW ES TEMPERTAURE CONTROL UPGRADES

Stonegate Elementary School:
7312 W. Stonegate Dr,
Zionsville, IN 46077

Boone Meadow Elementary School:
5555 S. Main St,
Whitestown, IN 46075

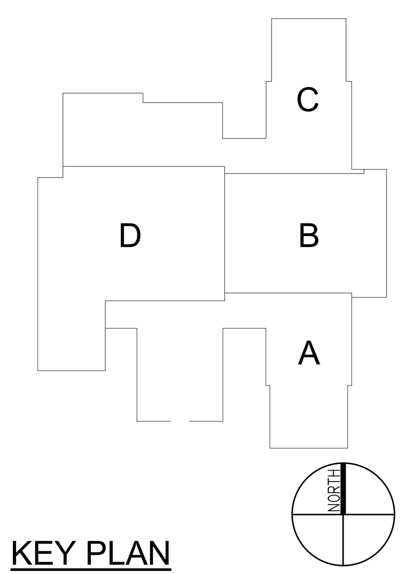
ZIONSVILLE COMMUNITY SCHOOLS

ZIONSVILLE COMMUNITY SCHOOLS

ARCHITECT

FANNING HOWEY

317.848.0966 WWW.FHAI.COM
350 E. New York St. #300, Indianapolis, IN 46204



KEY PLAN

CONSTRUCTION DOCUMENTS

MARK Z. HOPF REGISTERED No. PE 12000601 STATE OF INDIANA PROFESSIONAL ENGINEER

DRAWN BY: MZH
PROJECT NUMBER: 224154.00
PROJECT ISSUE DATE: 12.30.2024

REV. NO.	DESCRIPTION	DATE
2	ADDENDUM #2	01/20/25

EXISTING STONEGATE MECHANICAL SCHEDULES

M-605

EXISTING STONEGATE HOT WATER TERMINAL HEATING UNIT SCHEDULE

MARK	UNIT TYPE	L"xH"xD"	EQUIPMENT ARRANGEMENT	CAPACITY (MBH)	CFM	E.S.P. (IN.)	EWT / LWT	EAT	GPM	MOTOR DATA HP	MOTOR DATA VOLTS	MOTOR DATA PH.	MANUFACTURER AND MODEL NO.	REMARKS
CUH-A1 CUH-A2	CABINET UNIT HEATER	49x25x10	CONCEALED ABV. CEILING; BTM. INLET, TOP OUTLET	28.0	435	.25	180 160	60	3.0	0.4	115	1	MODINE MODEL CW SIZE 4	1,3
CUH-A3	CABINET UNIT HEATER	49x25x10	CONCEALED ABV. CEILING; BTM. INLET, TOP OUTLET	28.0	550	.25	180 160	60	3.0	0.4	115	1	MODINE MODEL CW SIZE 6	1,3
CUH-B1 CUH-B2	CABINET UNIT HEATER	49x25x10	CONCEALED ABV. CEILING; BTM. INLET, TOP OUTLET	28.0	435	.25	180 160	60	3.0	0.4	115	1	MODINE MODEL CW SIZE 4	1,3
CUH-C1 CUH-C2	CABINET UNIT HEATER	49x25x10	CONCEALED ABV. CEILING; BTM. INLET, TOP OUTLET	28.0	435	.25	180 160	60	3.0	0.4	115	1	MODINE MODEL CW SIZE 4	1,3
CUH-C3	CABINET UNIT HEATER	49x25x10	WALL MOUNTED BTM. INLET, TOP OUTLET	28.0	400	0	180 160	60	3.0	1/20	115	1	MODINE MODEL CW SIZE 4	.
CUH-D1 CUH-D2	CABINET UNIT HEATER	49x25x10	CONCEALED ABV. CEILING; BTM. INLET, TOP OUTLET	28.0	550	.25	180 160	60	3.0	0.4	115	1	MODINE MODEL CW SIZE 6	1,3
PUH-B1 PUH-B4	PROPELLER UNIT HEATER	-	HORIZONTAL	55.0	1340	0	180 165	60	8.0	1/8	115	1	MODINE HS-86	2,4
PUH-B2 PUH-B3	PROPELLER UNIT HEATER	-	HORIZONTAL	29.2	730	0	180 165	60	6.0	1/12	115	1	MODINE HS-47	2,4
PUH-C1	PROPELLER UNIT HEATER	-	HORIZONTAL	55.0	1340	0	180 165	60	8.0	1/8	115	1	MODINE HS-86	2,4
PUH-C2 PUH-C3	PROPELLER UNIT HEATER	-	HORIZONTAL	55.0	1340	0	180 165	60	8.0	1/8	115	1	MODINE HS-86	2,4
PUH-C4	PROPELLER UNIT HEATER	-	HORIZONTAL	29.2	730	0	180 165	60	6.0	1/12	115	1	MODINE HS-47	2,4
PUH-D1	PROPELLER UNIT HEATER	-	HORIZONTAL	29.2	730	0	180 165	60	6.0	1/12	115	1	MODINE HS-47	2,4

NOTES:

1. UNIT SHALL HAVE DUCT COLLAR CONNECTIONS FOR BOTH DISCHARGE AND INTAKE. UNIT SHALL BE COMPLETELY CONCEALED ABOVE CEILING.
2. PROVIDE HORIZONTAL AND VERTICAL DISCHARGE LOUVERS.
3. PROVIDE HIGH STATIC MOTOR FOR 0.3" E.S.P.
4. PROVIDE VIBRATION ISOLATING HANGERS.

EXISTING STONEGATE DUCT MOUNTED REHEAT COIL SCHEDULE

COIL NUMBER	COIL SIZE	HEATING COIL CFM / MBH	EAT / LAT	EWT / LWT	MIN ROWS / FACE VEL.	MAX APD / MAX WPD	GPM
RHC-B1	10"x6"	225 12.6	55 106	180 163	2 540	0.2" 0.4'	1.5
RHC-B2	8"x6"	200 10.7	55 104	180 166	2 600	0.2" 0.4'	1.5
RHC-B3	12"x12"	600 34.1	55 107	180 160	2 600	0.2" 3.3'	3.5
RHC-B4	10"x9"	300 15.1	55 101	180 160	2 480	0.11" 0.9'	2.0
RHC-B5	16"x12"	900 49.8	55 106	180 160	2 675	0.25" 7.4'	5.0
RHC-B6	10"x9"	375 20.3	55 105	180 160	2 600	0.2" 0.9'	2.0
RHC-B7	11"x9"	400 21.9	55 105	180 158	2 580	0.2" 1.0'	2.0
RHC-B8	11"x9"	400 21.9	55 105	180 158	2 580	0.2" 1.0'	2.0
RHC-B9	11"x9"	400 21.9	55 105	180 158	2 580	0.2" 1.0'	2.0
RHC-B10	12"x12"	550 32.0	55 107	180 159	2 550	0.17" 2.6'	3.0
RHC-B11	10"x6"	250 12.6	55 102	180 163	2 600	0.2" 0.4'	1.5
RHC-C1	6"x6"	100 5.4	55 105	180 160	2 400	0.11" 0.1'	0.5
RHC-C2	10"x6"	200 11.2	55 106	180 160	2 480	0.14" 0.22'	1.0
RHC-C3	12"x12"	650 35.6	55 105	180 160	2 650	0.23" 3.6'	3.5
RHC-C4	30"x24"	3400 184.3	55 105	180 159	2 650	0.3" 0.4'	18.0
RHC-D1	16"x12"	900 39.8	55 95	180 160	2 675	0.2" 5.0'	4.0
RHC-D2	11"x9"	400 17.4	55 95	180 156	2 580	0.16" 0.6'	1.5
RHC-D3	36"x24"	4100 222.3	55 105	180 155	2 680	0.3" 8.5'	18.0
RHC-D4	24"x18"	2100 113.8	55 105	180 159	2 700	0.3" 2.3'	11.0

EXISTING STONEGATE RADIANT CEILING PANEL SCHEDULE

MARK NO.	DIMENSIONS LENGTH (FEET)	DIMENSIONS WIDTH (INCHES)	HEATING PERFORMANCE MEAN WATER TEMP. °F	GPM	ROOM AIR TEMP °F	BTUH/ LINEAL FT	MAX. WPD FT.	MANUFACTURER AND MODEL NUMBER	REMARKS
RCP-1	48	24	175	1.0	70	389	2.0	AIRTEX LINEAR HEF-2	FLUTED FACE

EXISTING STONEGATE EXHAUST FAN/VENTILATION FAN SCHEDULE

MARK	FAN TYPE	CFM	TOTAL S.P. (IN.)	FAN RPM	MAX. TIP SPEED (FPM)	MAX. NOISE LEVEL (SONES)	DRIVE TYPE	MOTOR DATA HP	MOTOR DATA VOLTS	MOTOR DATA PH.	SERVICE	EXAMPLE MANUFACTURER MODEL NO.	FAN CONTROL *	NOTES
VF-A1	INLINE CENTRIFUGAL	175	0.5	1460	4160	7.0	DIRECT	1/12	115	1	VENTILATION	GREENHECK SQ-85-D	T	1,3
VF-A2	INLINE CENTRIFUGAL	175	0.5	1460	4160	7.0	DIRECT	1/12	115	1	VENTILATION	GREENHECK SQ-85-D	T	1,3
VF-A3	INLINE CENTRIFUGAL	500	0.5	1350	3957	10.0	BELT	1/4	115	1	VENTILATION	GREENHECK BSQ-90	T	1
EF-B1	INLINE CENTRIFUGAL	300	0.625	1409	4127	10.0	BELT	1/4	115	1	TOILET EXHAUST	GREENHECK BSQ-80	A	1
EF-B2	INLINE CENTRIFUGAL	2325	0.85	1144	5017	12	BELT	3/4	460	3	TOILET EXHAUST	GREENHECK BSQ-160	A	1
EF-B3	INLINE CENTRIFUGAL	1250	0.70	1373	4718	12	BELT	1/3	115	1	TOILET EXHAUST	GREENHECK BSQ-130	A	1
VF-B1	INLINE CENTRIFUGAL	250	0.5	1469	4182	7	DIRECT	1/10	115	1	VENTILATION	GREENHECK SQ-90-D	T	1,3
VF-B2	INLINE CENTRIFUGAL	350	0.5	1372	4018	10	BELT	1/4	115	1	VENTILATION	GREENHECK BSQ-80	T	1
VF-B3	INLINE CENTRIFUGAL	-	-	-	-	-	-	-	-	-	FAN ROOM VENTILATION	-	-	
EF-C1	ROOF MOUNTED CENTRIFUGAL	1100	0.625	1268	4336	10	BELT	1/4	115	1	GENERAL EXHAUST	GREENHECK GB-120	A	2
EF-C2	INLINE CENTRIFUGAL	600	0.5	1223	3582	8	BELT	1/4	115	1	GENERAL EXHAUST	GREENHECK BSQ-100	M	1
EF-C3	ROOF MOUNTED UPBLAST CENTRIFUGAL	2700	0.5	1127	4905	14	BELT	3/4	460	3	REFRIGERANT ALARM EXHAUST	GREENHECK CUBE-160	A	2
VF-C1	INLINE CENTRIFUGAL	175	0.5	1460	4160	7	DIRECT	1/12	115	1	VENTILATION	GREENHECK SQ-85-D	T	1,3
VF-C2	INLINE CENTRIFUGAL	175	0.5	1460	4160	7	DIRECT	1/12	115	1	VENTILATION	GREENHECK SQ-85-D	T	1,3
VF-C3	INLINE CENTRIFUGAL	1400	0.625	1402	4817	12.5	BELT	1/2	115	1	ELECTRIC ROOM VENTILATION	GREENHECK BSQ-130	T	1
EF-D1	ROOF MOUNTED CENTRIFUGAL	1325	0.75	1325	4546	11	BELT	1/3	115	1	TOILET EXHAUST	GREENHECK GB-130	A	2
EF-D2	ROOF MOUNTED CENTRIFUGAL	850	0.625	1429	4162	7.5	BELT	1/4	115	1	KILN HOOD EXHAUST	GREENHECK GB-100	M	2

NOTES:

1. PROVIDE HANGING VIBRATION ISOLATORS.
2. PROVIDE BACKDRAFT DAMPER.
3. PROVIDE VARIABLE SPEED CONTROLLER FOR DIRECT DRIVE FAN.

* FAN CONTROL LEGEND

M - MANUAL STARTER BY E.C.
T - THERMOSTAT TO CONTROL FAN OPERATION; CONTROL BY T.C.C.
A - AUTOMATIC CONTROL BY T.C.C.; REFER TO SEQUENCE OF OPERATION.

EXISTING STONEGATE RELIEF HOOD/INTAKE HOOD SCHEDULE

MARK	TYPE	CFM	THROAT VEL.(FPM)	THROAT SIZE (INCHES)	OVERALL SIZE (INCHES)	HEIGHT (INCHES)	MANUFACTURER AND MODEL NO.	REMARKS
RH-A1	RELIEF	11,000	600	72x36	96x54	19	GREENHECK FABRAHOOD "FHR"	1
RH-C1	RELIEF	7200	600	48x36	60x58	19	GREENHECK FABRAHOOD "FHR"	1
RH-C2	RELIEF	1400	600	24x18	36x28	19	GREENHECK FABRAHOOD "FHR"	1
RH-C3	RELIEF	5000	770	36x26	-	-	GREENHECK FABRAHOOD "FHR"	1
RH-D1	RELIEF	3000	600	48x36	60x58	8	GREENHECK FABRAHOOD "FHR"	1
IH-C1	INTAKE	4400	700	30x30	48x56	19	GREENHECK FABRAHOOD "FHI"	1,3
IH-D1	INTAKE	14,400	750	54x48	84x81	23	GREENHECK FABRAHOOD "FHI"	1,3

NOTES:

1. MOTORIZED TEMPERATURE CONTROL DAMPER(S) FURNISHED BY T.C.C., INSTALLED BY SHEETMETAL CONTRACTOR.
2. GRAVITY BACK-DRAFT DAMPER FURNISHED BY HOOD MANUFACTURER, INSTALLED BY SHEETMETAL CONTRACTOR.
3. INTAKE AREA OF THE HOOD SHALL BE TWICE THE THROAT AREA.

2

EXISTING EQUIPMENT SCHEDULES PROVIDED FOR REFERENCE ONLY. THESE SCHEDULES ARE COPIED OVER FROM THE ORIGINAL CONSTRUCTION PROJECT AND INTENDED FOR REFERENCE ONLY. NO NEW MECHANICAL EQUIPMENT IS TO BE PROVIDED AS PART OF THIS PROJECT UNLESS OTHERWISE STATED.

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ZIONZVILLE CS - STONEGATE ES AND BOONE MEADOW ES TEMPERTAURE CONTROL UPGRADES

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Zionsville, IN 46077

Boone Meadow Elementary School:
5555 S. Main St,
Whitestown, IN 46075

ZIONSVILLE COMMUNITY SCHOOLS

ARCHITECT

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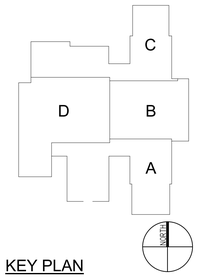

KEY PLAN

CONSTRUCTION DOCUMENTS

MARK Z. HOFF REGISTERED No. PE 12000001 STATE OF INDIANA PROFESSIONAL ENGINEER

DRAWN BY: MZH
PROJECT NUMBER: 224154.00
PROJECT ISSUE DATE: 12.30.2024

REV. NO.	DESCRIPTION	DATE
2	ADDENDUM #2	01/20/25

EXISTING STONEGATE MECHANICAL SCHEDULES

M-606

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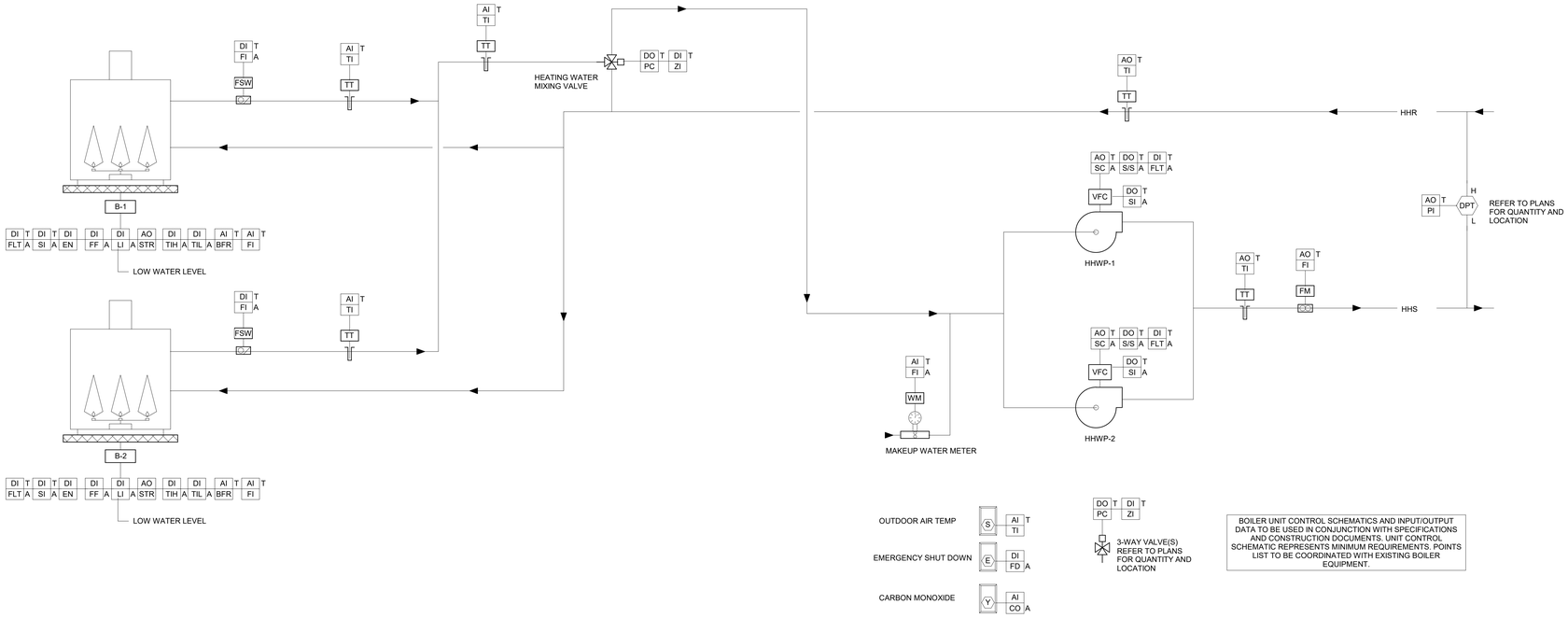
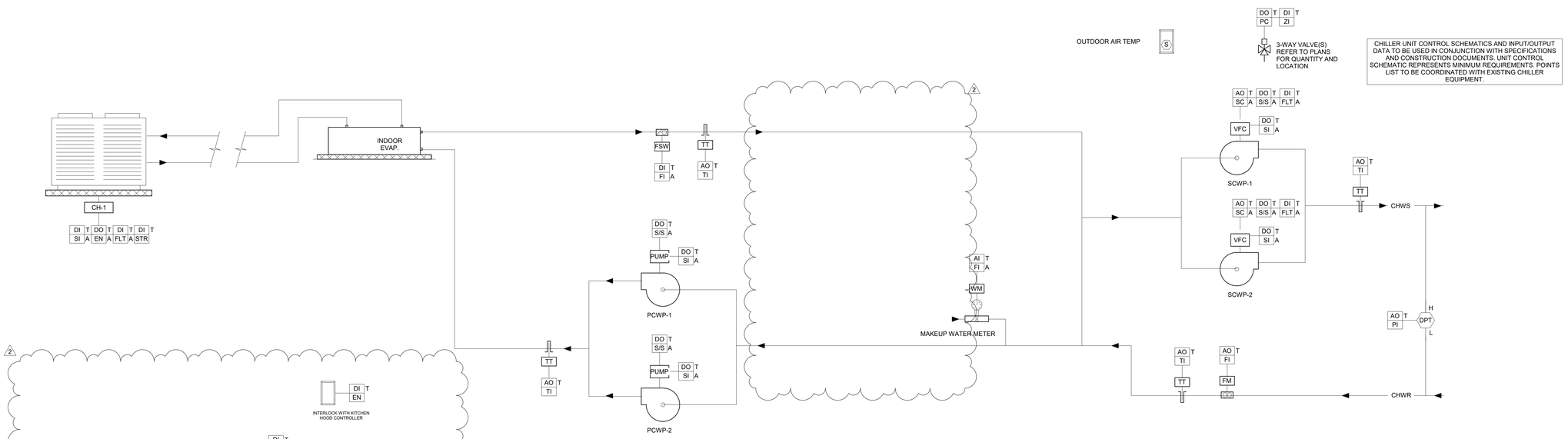


1 HEATING WATER PLANT SCHEMATIC

N.T.S.



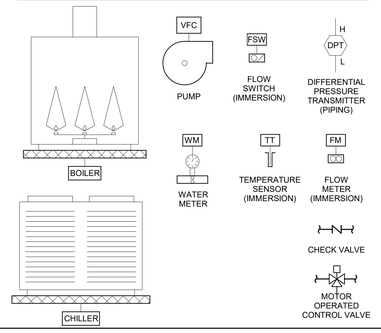
2 CHILLED WATER PLANT SCHEMATIC

N.T.S.

3 MAKE-UP AIR SCHEMATIC

N.T.S.

CONTROL SYMBOLS



TEMPERATURE CONTROL SYMBOLS & ABBREVIATIONS

CONTROL ABBREVIATIONS

AFM - AIR FLOW MONITORING STATION
BSP - BUILDING STATIC PRESSURE
CO2 - CO2 LEVEL TRANSMITTER
CO - CO LEVEL TRANSMITTER
DPS - DIFFERENTIAL PRESSURE SWITCH
DPT - DIFFERENTIAL PRESSURE TRANSMITTER
FM - FLOW METER
FS - FILTER STATUS
FSW - FLOW SWITCH
FT - FLOW TRANSMITTER
FZ - FREEZESTAT
GCV - GAS CONTROL VALVE
HT - HUMIDITY TRANSMITTER
HTG - HEATING ELEMENT
LT - LEVEL TRANSMITTER
M - MOTOR
MD - MOTORIZED DAMPER
OCC - OCCUPANCY SENSOR
PKG - PACKAGED EQUIPMENT CONTROLLER
SMK - SMOKE DETECTOR
SNW - SNOW/ICE SENSOR
TCV - TEMPERATURE CONTROL VALVE
TT - TEMPERATURE TRANSMITTER
WM - WATER METER
VFC - VARIABLE FREQUENCY CONTROLER

BMS POINT TYPE

BFR - BOILER FIRE RATE %
CAP - EQUIPMENT CAPACITY SIGNAL
CO2 - CARBON DIOXIDE LEVEL
CO - CARBON MONOXIDE LEVEL
EN - EQUIPMENT ENABLE
FF - FLAME FAILURE
FI - FLOW INDICATE
FD - FAULT DETECTOR OR ALARM
HI - HUMIDITY INDICATE
LI - LEVEL INDICATE
O/C - OPEN/CLOSE (DAMPER/VALVE)
OI - OCCUPIED/UNOCCUPIED INDICATE
PC - POSITION CONTROL (DAMPER/VALVE)
PI - PRESSURE INDICATE
SC - SPEED CONTROL
SI - STATUS INDICATOR
SMK - SMOKE DETECTOR
SNW - SNOW/ICE INDICATE
SO - SPACE OVERRIDE (OCCU./UNOCCU.)
SPT - SETPOINT SIGNAL
S/S - START/STOP
STR - SETPOINT RESET
TI - TEMPERATURE INDICATE
TIH - HIGH TEMPERATURE INDICATE
TIL - LOW TEMPERATURE INDICATE
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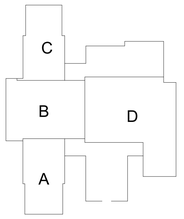

KEY PLAN

CONSTRUCTION DOCUMENTS

DRAWN BY: MZH

PROJECT NUMBER: 224154.00

PROJECT ISSUE DATE: 12.30.2024

REV. NO.	DESCRIPTION	DATE
2	ADDENDUM #2	01/20/25

MECHANICAL SCHEMATICS

M-701

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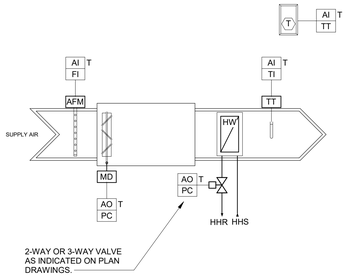
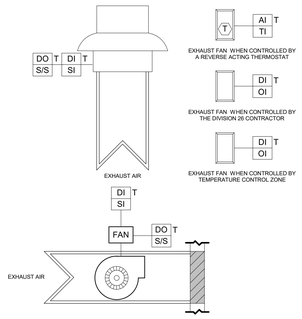


1 VAV REHEAT BOX SCHEMATIC
N.T.S.



2 EXHAUST FAN SCHEMATIC
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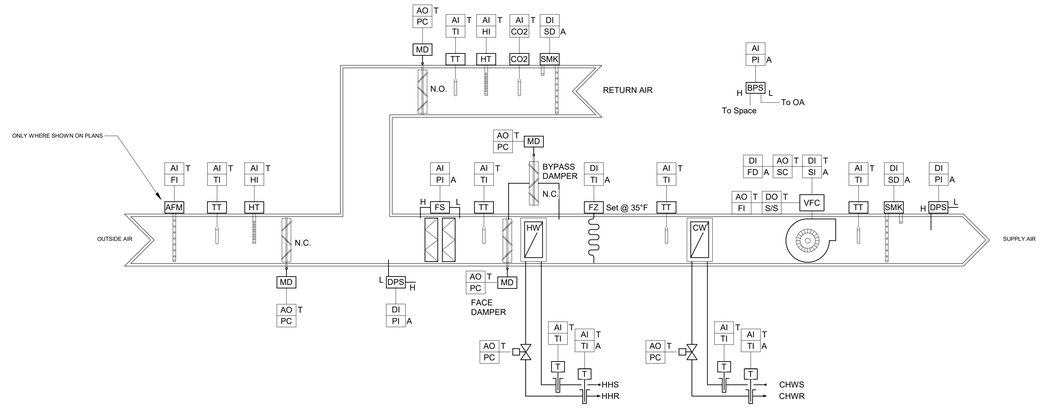
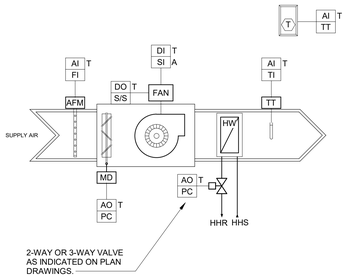
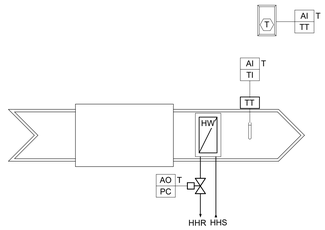


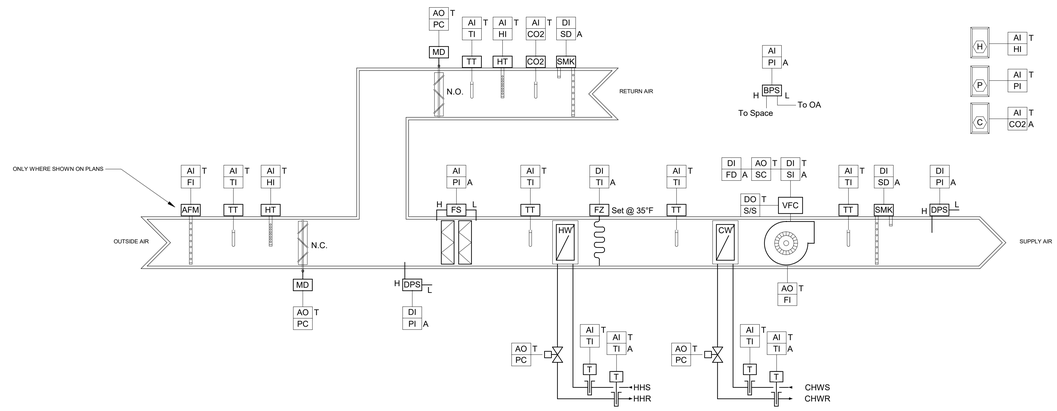
8 AHU SCHEMATIC WITH FACE/BYPASS DAMPERS
N.T.S.



3 FAN POWERED VAV BOX SCHEMATIC
N.T.S.



4 HYDRONIC DUCT HEATER SCHEMATIC
N.T.S.



9 AHU SCHEMATIC
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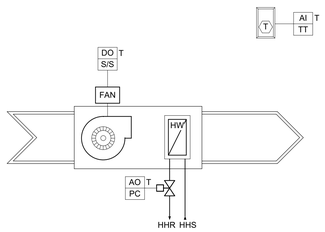
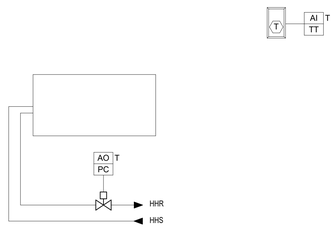
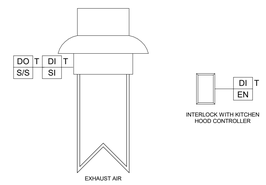


5 HYDRONIC CABINET HEATER SCHEMATIC
N.T.S.



6 HYDRONIC RADIANT CEILING PANEL CONTROL SCHEMATIC
N.T.S.



10 KITCHEN HOOD EXHAUST FAN SCHEMATIC
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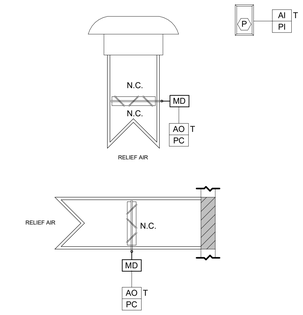
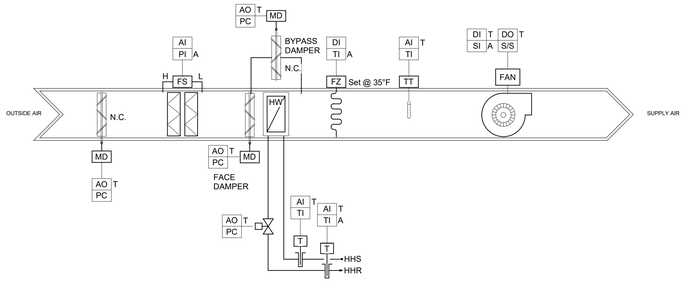
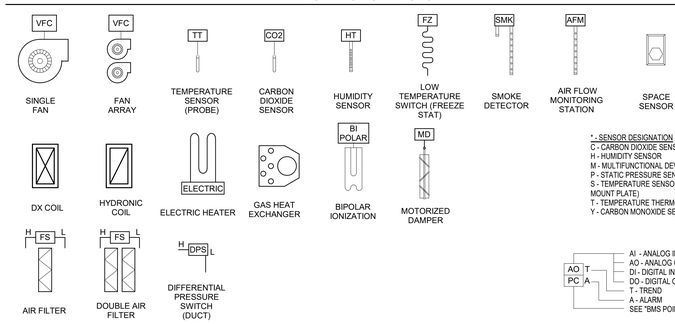


11 RELIEF ROOFTOP VENTILATOR AND WALL LOUVER SCHEMATIC
N.T.S.



7 COMBUSTION AIR SCHEMATIC
N.T.S.

CONTROL SYMBOLS



* - SENSOR DESIGNATION
C - CARBON DIOXIDE SENSOR
H - HUMIDITY SENSOR
M - MULTIFUNCTIONAL DEVICE
P - STATIC PRESSURE SENSOR
S - TEMPERATURE SENSOR (S.S. FLUSH MOUNT PLATE)
T - TEMPERATURE THERMOSTAT
Y - CARBON MONOXIDE SENSOR

AO T
PC A
AI - ANALOG INPUT
AO - ANALOG OUTPUT
DI - DIGITAL INPUT
DO - DIGITAL OUTPUT
T - TREND
A - ALARM
SEE "BMS POINT TYPE" LIST

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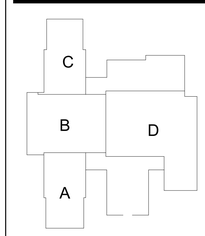

KEY PLAN

CONSTRUCTION DOCUMENTS

DRAWN BY: MZH
PROJECT NUMBER: 224154.00
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2	ADDENDUM #2	01/20/25

MECHANICAL SCHEMATICS

M-702

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