

A PHASE 01 FACILITY RENOVATION & EXPANSION FOR:
FBC WINDERMERE LAKESIDE CAMPUS
 NOTE: PERSPECTIVE RENDERINGS ARE FOR ILLUSTRATION PURPOSES ONLY AND ARE NOT INTENDED FOR REFERENCE DURING CONSTRUCTION.

VICINITY MAP



LOCATION MAP



DRAWING SHEET INDEX

GENERAL	STRUCTURAL	ARCHITECTURAL	FIRE PROTECTION	PLUMBING	ELECTRICAL
G-001 COVER SHEET G-002 PROJECT STANDARDS, LEGENDS AND CODE REVIEW G-101 LIFE SAFETY PLAN - FIRST FLOOR	BRITT, PETERS & ASSOCIATES, INC. 101 FALLS PARK DRIVE, SUITE 601 GREENVILLE, SC 29601 FRANK REPP 864-271-8869 FREPPI@BRITTPETERS.COM	EQUIP STUDIO 245 NORTH MAIN STREET, SUITE 200 GREENVILLE, SC 29601 CONTACT: STEPHEN TROUTMAN 864-520-2086 STEPHENTROUTMAN@EQUIPSTUDIO.COM	DEVITA & ASSOCIATES, INC. 33 VILLA ROAD, SUITE 300 GREENVILLE, SC 29615 TREY MORAN 864-232-6642 TMORAN@DEVITAINC.COM	DEVITA & ASSOCIATES, INC. 33 VILLA ROAD, SUITE 300 GREENVILLE, SC 29615 TREY MORAN 864-232-6642 TMORAN@DEVITAINC.COM	DEVITA & ASSOCIATES, INC. 33 VILLA ROAD, SUITE 300 GREENVILLE, SC 29615 TRAVIS WALKER 864-232-6642 TWALKER@DEVITAINC.COM
	S-000 GENERAL NOTES S-101 FOUNDATION PLAN - WORSHIP BUILDING S-102 ROOF FRAMING PLAN - WORSHIP BUILDING S-201 FOUNDATION PLAN - CHILDREN'S BUILDING S-202 ROOF FRAMING PLAN - CHILDREN'S BUILDING S-300 SECTIONS AND ELEVATIONS S-400 CONCRETE DETAILS - REINFORCING S-410 CONCRETE DETAILS - SLAB ON GRADE S-500 STRUCTURAL STEEL DETAILS S-510 METAL DECKING DETAILS	AD051 DEMO PLAN - SITE AND MODULARS AD101 DEMO PLAN - FIRST FLOOR A-051 ARCHITECTURAL SITE PLAN A-100 OVERALL FIRST FLOOR PLAN A-101 FIRST FLOOR PLAN (WORSHIP) A-102 FIRST FLOOR PLAN (EDUCATION) A-121 FIRST FLOOR RCP (WORSHIP) A-122 FIRST FLOOR RCP (EDUCATION) A-151 ROOF PLAN A-201 EXTERIOR ELEVATIONS A-202 EXTERIOR ELEVATIONS A-251 INTERIOR ELEVATIONS A-252 INTERIOR ELEVATIONS A-253 INTERIOR ELEVATIONS A-301 BUILDING SECTIONS A-302 BUILDING SECTIONS A-401 RESTROOMS A-411 CASEWORK DETAILS A-421 ENLARGED PLANS & DETAILS A-501 WALL TYPES, FLOOR & ROOF TYPES A-601 DOOR, HARDWARE AND GLAZING SCHEDULES & DETAILS A-700 FINISH SPECIFICATIONS A-701 FIRST FLOOR FINISH PLAN (WORSHIP) A-702 FIRST FLOOR FINISH PLAN (EDUCATION)	FP-101 FIRE PROTECTION NOTES & FLOOR PLAN	P-001 PLUMBING LEGEND AND NOTES P-002 PLUMBING DETAILS P-101 PLUMBING SANITARY WASTE & VENT PLAN (WORSHIP) P-102 PLUMBING SANITARY WASTE & VENT PLAN (EDUCATION) P-111 PLUMBING DOMESTIC WATER PLAN (WORSHIP) P-112 PLUMBING DOMESTIC WATER PLAN (EDUCATION) P-151 PLUMBING ROOF PLAN P-151 SANITARY WASTE & VENT RISER DIAGRAM P-162 DOMESTIC WATER RISER DIAGRAM	E-001 ELECTRICAL LEGEND AND NOTES E-002 ELECTRICAL DETAILS E-101 ELECTRICAL POWER PLAN (WORSHIP) E-102 ELECTRICAL POWER PLAN (EDUCATION) E-121 ELECTRICAL LIGHTING PLAN (WORSHIP) E-122 ELECTRICAL LIGHTING PLAN (EDUCATION) E-151 ELECTRICAL ROOF PLAN E-161 ELECTRICAL PANELS AND RISER DIAGRAM
			MECHANICAL DEVITA & ASSOCIATES, INC. 33 VILLA ROAD, SUITE 300 GREENVILLE, SC 29615 TREY MORAN 864-232-6642 TMORAN@DEVITAINC.COM	M-001 MECHANICAL SCHEDULES, LEGEND, AND NOTES M-002 MECHANICAL DETAILS M-101 MECHANICAL FLOOR PLAN (WORSHIP) M-102 MECHANICAL FLOOR PLAN (EDUCATION) M-151 MECHANICAL ROOF PLAN	
	CIVIL (UNDER SEPARATE CONTRACT WITH OWNER)				

A PHASE 01 FACILITY RENOVATION & EXPANSION FOR:
FBC WINDERMERE LAKESIDE CAMPUS
 8464 WINTER GARDEN VINELAND ROAD
 ORLANDO, FL 32836

#	DESCRIPTION	DATE
B	DESIGN DEVELOPMENT	11/01/2019
A	SCHEMATIC DESIGN	08/09/2019

SCHEDULE OF REVISIONS

DESIGN DEVELOPMENT
 PROJECT NUMBER: 190106
 PROJECT DATE: 11/01/2019
 PROJECT MANAGER: SLT
 PROJECT TEAM: RSK, HWB

COVER SHEET

G-001

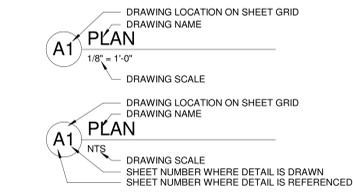
NOTICE: DO NOT SCALE DRAWINGS. USE DIMENSIONS SHOWN.

ABBREVIATIONS

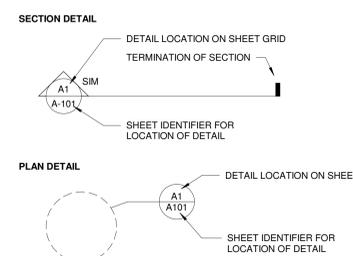
Table of abbreviations for various building components and materials, including AIR CONDITIONING, ADMINISTRATION, ALUMINUM, etc.

GRAPHIC SYMBOL LEGEND

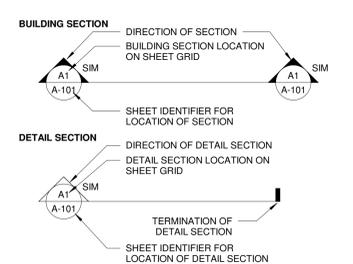
DRAWING TITLE SYMBOLS



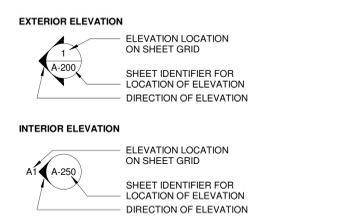
DETAIL SYMBOLS



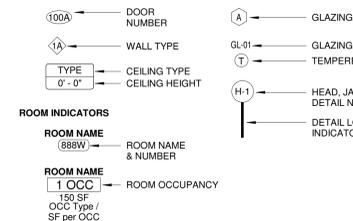
SECTION SYMBOLS



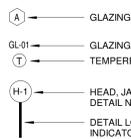
ELEVATION SYMBOLS



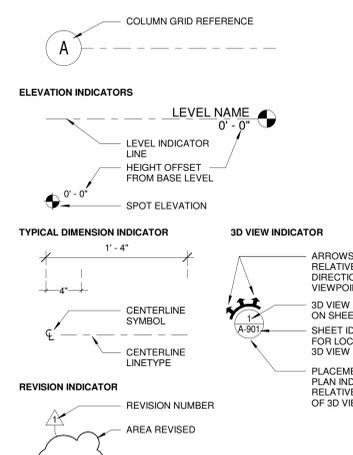
PLAN SYMBOLS



GLAZING SYMBOLS



GENERAL ANNOTATION SYMBOLS



CODE REVIEW

Codes in Use

2017 Florida Building Code - Building, 8th Edition
2017 Florida Building Code - Building, 8th Edition - Chapter 27
2017 Florida Building Code - Mechanical, 8th Edition
2017 Florida Building Code - Plumbing, 8th Edition
2017 Florida Building Code - Fuel Gas, 8th Edition
2017 Florida Building Code - Accessibility, 8th Edition
2017 Florida Building Code - Energy Conservation, 8th Edition
2017 Florida Building Code - Test Protocols, 8th Edition
2015 NFPA 101 Life Safety Code

Project Description and Scope of Work

Scope of Work Description.

Occupancy Classification

Primary: Assembly Group A-3 (FBC 303.4), Place of Religious Worship
Educational Group E (FBC 305.2), Day Care Facilities
Storage (Reference)

FEMA Flood Zone Designation

Zone: X (Area of Minimal Flood Hazard)

Type of Construction

Type IIB Sprinklered (FBC 602.2)

Platform Construction (FBC 410.4): Permanent platforms shall be constructed of materials as required for the type of construction of the building in which the permanent platform is located.

FBC (Building) Chapter 5 - Height and Area Modifications

508.2.2 Mixed Occupancy, one-story buildings.

508.3 Nonseparated occupancies. Per Table 508.4, no separation requirement between Groups A and E.

508.3.2 Allowable building area and height. The allowable building area and height of the building or portion thereof shall be based on the most restrictive allowances for the occupancy groups under consideration for the type of construction of the building in accordance with Section 503.1.

Table showing Actual Building Area, Existing (First Floor), New Additions (First Floor), and Total Building area.

Table showing Building Height (FBC Table 504.3), Number of Stories (FBC Table 504.4), Area (A1 - FBC Table 506.2), and Total Area Per Story (w/ modifications).

FBC (Building) Chapter 6 - Types of Construction

FBC - Table 601 Fire - Resistance Requirements For Building Elements (hours)

Table showing Building Element, Type I, Type II, Type III, Type IV, and Type V fire resistance requirements.

c. In all occupancies, heavy timber shall be allowed where a 1-hour or less fire-resistance rating is required.

FBC (Building) Chapter 6 - Types of Construction (cont.)

Table showing Fire Separation Distance = X (feet), Type of Construction, Group H-1, M, S-1g, and Group A, B, E, F-2, I, R, S-2a, Ub.

a. Load-bearing exterior walls shall comply with the fire-resistance rating requirements of Table 601.
b. The fire-resistance rating of an exterior wall is determined based upon the fire separation distance of the exterior wall and the story in which the wall is located.

FBC (Building) Chapter 7 - Fire and Smoke Protection Features

Table showing Fire Separation Distance (feet), Degree of Opening Protection, and Allowable Area.

a. Values indicated are the percentage of the area of the exterior wall, per story.
b. For the requirements for fire walls of buildings with differing heights, see Section 706.6.1.
c. For openings in a fire wall for buildings on the same lot, see Section 706.6.

Table 706.4 Fire Wall Fire-resistance Rating: In Type I construction, Group A, walls shall be permitted to have a 2-hour fire resistance rating.
706.5 Horizontal Continuity: (Ex 3) Fire walls shall be permitted to terminate at the interior surface of noncombustible exterior sheathing where the building on each side of the fire wall is protected by an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2.
706.6 Vertical Continuity: (Ex 3) Walls shall be permitted to terminate at the underside of noncombustible roof sheathing, deck or slabs where both buildings are provided with not less than a Class B roof covering. Openings in the roof shall not be located within 4 feet of the fire wall.

FBC - Table 716.5 Opening Fire Protection Assemblies, Ratings and Markings (partial table)

Table showing Type of Assembly, Required Wall Assembly Rating, Maximum Free Door and Fire Shutters, Door Vision Panel Size, Fire Rated Glazing Marking, Minimum Sidelight Transom Assembly Rating, and Fire-Rated Glazing Marking.

f. For places of religious worship, wood used for ornamental purposes, trusses, purling or chancel furnishing shall be permitted.

Finish Classification (LSC Chapter 12)

LSC 12.3.3 Interior Wall and Ceiling Finish Requirements by Occupancy (Ch. 12 - New Assembly)

Corridors and Lobbies: Class B
Enclosed Stairways: Class A
General Assembly Areas with < 300 occupants: Class C
All Other Enclosed Spaces: Class A

Fire Protection Systems (LSC Chapter 12)

Project is located in: Fire District
NFPA 13 Automatic Sprinkler System: Provided throughout Building

LSC 12.3.4 Detection, Alarm, and Communications Systems. Assembly Occupancies with > 300 occupants shall be equipped with a fire alarm system installed, tested, and maintained in accordance with the applicable requirements of NFPA 70, National Electrical Code, NFPA 72, and National Fire Alarm Code.
LSC 12.3.4.2.1 Exception 2: Initiation. Manual means of alarm initiation shall not be required where the fire alarm system is initiated by means of an approved automatic sprinkler system in accordance with LSC 9.6.2.1 (3).
LSC 12.3.5.1 Extinguishing Requirements. Assembly Occupancies with > 300 occupants shall be protected by an approved, supervised automatic sprinkler system in accordance with Section 9.7. NOTE: Existing Sprinkler System to be maintained. (Refer to Fire Protection drawings).

Means of Egress (LSC and FBC references noted below)

Occupancy Calculation: Assembly (A-3)
Total Occupants (See Life Safety Plans): 1,900 Occupants
Common Path of Egress Travel: 20' for any number of occupants (LSC 12.2.5.1)
75' for not more than 50 occupants (LSC 12.2.5.1)
Maximum Travel Distance: 250' w/ sprinklers (LSC 12.2.5 Exception 1), 0 HR (FBC - Table 1020.1)
Exit Access Corridor Rating: No Requirements (LSC 12.2.5 Exception 2), 0 HR (FBC - Table 1020.1)
Minimum Required Corridor Width: 36" (LSC 7.3.4.1)
44" for corridors serving > 50 occupants (LSC 12.2.3.8)
Maximum Dead End Corridor Length: 20' (LSC 12.2.5.1.3)
Minimum Number of Exits: Not less than 2 for occupant load > 500 and < 1,000 (LSC 7.4.1.2 (1))
Not less than 4 for occupant load > 1,000 (LSC 7.4.1.2 (2))
Headroom Requirements: Not less than 7'-6" clear height (LSC 7.1.5.1)
Not less than 8'-0" clear height to ceiling projections (LSC 7.1.5.1)
Stairways < 0.2' per person (LSC Table 7.3.3.1)
Egress Capacity Factors: Level Components and Ramps > 0.2' per person (LSC Table 7.3.3.1)

FBC (Accessibility)

TBD Sixty percent of all public entrances shall be accessible.
Exception 2: Loading and Service Entrances that are not the only entrance to a tenant space.
TBD Sinks: > 5% but not less than one provided in accessible spaces shall comply with ICC A117.1.
TBD Drinking Fountains: Required.
TBD Directional Signage: Required at accessible building entrances and at each separate sex toilet indicating the nearest family/assisted use toilet.

FBC (Building) Chapter 15 - Roof Assemblies And Rooftop Structures

Roof Covering Classification: Class C or Better (FBC Table 1505.1)

FBC (Building) Chapter 17 - Special Inspections - Required

(See Structural Specification)

FBC (Plumbing) Chapter 4 - Fixtures, Faucets and Fixture Fittings

Table 403.1 Minimum Number of Plumbing Fixtures

Table showing Occupants, Fixture, Required, and Provided for Male, Female, and Unisex.

* Occupant load based on Life Safety Plans (See sheet G-101).
** 403.1.2 Family or assisted-use toilet and bath fixtures. Fixtures located within assisted-use toilet... are permitted to be included in the number of required fixtures for either the male or female occupants in assembly... occupancies.
*** 419.2 Substitution for water closets. In each bathroom or toilet room, urinals shall not be substituted for more than 67 percent of the required water closets in assembly... occupancies.

FBC (Energy Conservation) Table C402.1.3 BUILDING ENVELOPE REQUIREMENTS - OPAQUE ASSEMBLIES

Table showing Description, Min. Req., and Provided for Roofs, Walls, Above Grade, Walls, Below Grade, Floors, and Slab-on-Grade Floors.

NOTE: FINAL CODE REVIEW ANALYSIS IN PROGRESS - NOT FOR CONSTRUCTION OR PERMIT.

MATERIAL LEGEND

Table showing Plan and Section, Elevation, and Material Legend for various materials like Earth, Concrete, Brick, Metal Panel, etc.

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A PHASE 01 FACILITY RENOVATION & EXPANSION FOR: FBC WINDERMERE LAKESIDE CAMPUS 8464 WINTER GARDEN VINELAND ROAD ORLANDO, FL 32836

SCHEDULE OF REVISIONS table with columns for revision number, description, and date.

DESIGN DEVELOPMENT PROJECT NUMBER: 190106 PROJECT DATE: 11/01/2019 PROJECT MANAGER: SLT PROJECT TEAM: RSK, HWB

PROJECT STANDARDS, LEGENDS AND CODE REVIEW G-002

PACKAGED ROOFTOP DX UNITS WITH ELECTRIC HEAT SCHEDULE															
TAG	MANUFACTURER MODEL NO.	FAN SELECTION					NOMINAL TONS	COOLING CAPACITY		ELECTRIC HEAT CAPACITY		ELECTRICAL	MINIMUM EER	ESTIMATED WEIGHT (LBS.)	NOTES
		DESIGN CFM	OUTSIDE AIR (CFM)	ESP IN. WG	MOTOR HP	RPM		TOTAL COOLING (MBH)	SENSIBLE COOLING (MBH)	NOMINAL KW	STAGES				
RTU-1	TRANE EBC210A4	7000	---	0.75	5.0	835	17.5	203.62	157.05	54.0	2	SEE ELECTRICAL DRAWINGS FOR ELECTRICAL CHARACTERISTICS	11.0	2000	1 THRU 13
RTU-2	TRANE EBC210A4	7000	---	0.75	5.0	835	17.5	203.62	157.05	54.0	2		11.0	2000	1 THRU 13
RTU-3	TRANE EBC180A4	6000	---	0.75	3.0	722	15.0	170.92	136.62	54.0	2		11.0	1900	1 THRU 13

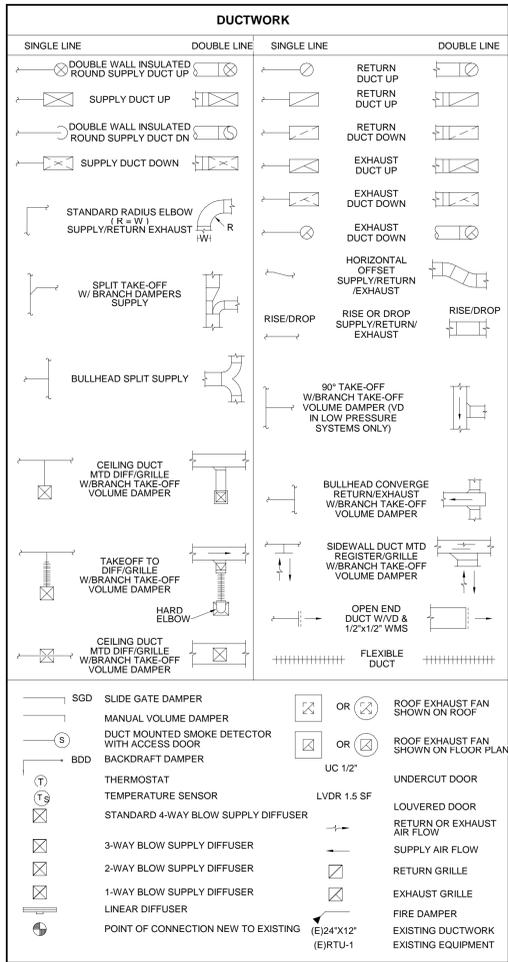
NOTES:
1. ACCEPTABLE ALTERNATE MANUFACTURERS SHALL BE BETTER THAN OR EQUAL TO TRANE.
2. COOLING CAPACITIES BASED ON 80°F DB / 67°F WB ENTERING COIL AND 105°F ENTERING CONDENSER.
3. PROVIDE WITH 7 DAY PROGRAMMABLE THERMOSTAT.
4. PROVIDE FACTORY INSTALLED DIRTY FILTER SWITCH AND BLOWER PROVING SWITCH.
5. PROVIDE WITH FACTORY FURNISHED 14" HIGH INSULATED ROOF CURB.
6. PROVIDE WITH CONDENSER COIL HAIL GUARDS.
7. PROVIDE 1 YEAR PARTS AND LABOR WARRANTY.
8. PROVIDE 5 YEAR PARTS WARRANTY ON COMPRESSORS.
9. PROVIDE FACTORY INSTALLED SMOKE DETECTORS ON THE SUPPLY DUCT DISCHARGE.
10. PROVIDE FACTORY INSTALLED REFERENCE ENTHALPHY ECONOMIZER AND BAROMETRIC RELIEF.
11. PROVIDE MOTORIZED OUTSIDE AIR DAMPER.
12. UNIT SHALL USE R-410A REFRIGERANT (NO EXCEPTIONS).
13. STENCIL TAG NUMBER OF SIDE OF UNITS WITH 3" HIGH LETTERS AND BLACK EXTERIOR PAINT.

FAN SCHEDULE													
TAG	MANUFACTURER MODEL NO.	AREA SERVED	SERVICE	TYPE	CFM	STATIC PRESSURE IN. WG	NOMINAL RPM	DRIVE TYPE	ELECTRICAL V/PH/Hz	MOTOR WATTS	SONES	CONTROL	NOTES
EF-1	GREENHECK CSP-A710	GROUP RESTROOMS	EXHAUST	CABINET	600	0.125	961	DIRECT	SEE ELECTRICAL DRAWINGS FOR ELECTRICAL CHARACTERISTICS	223	1.3	WITH LIGHTS	1 THRU 8
EF-2	GREENHECK SP-A90	SINGLE RESTROOM	EXHAUST	CEILING	75	0.125	747	DIRECT		9	0.3	WITH LIGHTS	1 THRU 8
EF-3	GREENHECK SP-A90	SINGLE RESTROOM	EXHAUST	CEILING	75	0.125	747	DIRECT		9	0.3	WITH LIGHTS	1 THRU 8
EF-4	GREENHECK SP-A90	SINGLE RESTROOM	EXHAUST	CEILING	75	0.125	747	DIRECT		9	0.3	WITH LIGHTS	1 THRU 8
EF-5	GREENHECK SP-A90	SINGLE RESTROOM	EXHAUST	CEILING	75	0.125	747	DIRECT		9	0.3	WITH LIGHTS	1 THRU 8
EF-6	GREENHECK SP-A90	SINGLE RESTROOM	EXHAUST	CEILING	75	0.125	747	DIRECT		9	0.3	WITH LIGHTS	1 THRU 8

NOTES:
1. PROVIDE UNIT WITH ROOF CAP, BACKDRAFT DAMPER, AND BIRD SCREEN.
2. PROVIDE VIBRATION ISOLATION.
3. UNIT SHALL BE U.L LISTED AND AMCA CERTIFIED.
4. PROVIDE WITH ROUND DISCHARGE COLLAR.
5. PROVIDE WITH SPEED CONTROL.
6. PROVIDE MOTOR WITH THERMAL OVERLOAD PROTECTION.
7. PROVIDE INSULATED HOUSING FOR SOUND ATTENUATION.
8. ACCEPTABLE EQUALS SHALL BE CARNES, COOK, AND PENN.

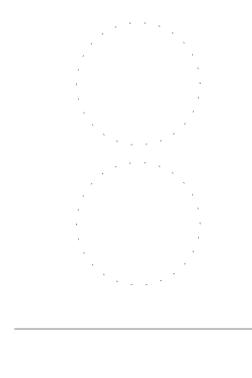
AIR DISTRIBUTION SCHEDULE					
MARK	TYPE	DESCRIPTION	DESIGN BASIS		NOTES
			MANUFACTURER	MODEL	
S-1	SUPPLY	CEILING MOUNT, 12x12 IN. FACE, 6"Ø NECK	PRICE	SCD	1,2,3,4,5,6
S-2	SUPPLY	CEILING MOUNT, 24x24 IN. FACE, 10"Ø NECK	PRICE	SCD	1,2,3,4,5,6
S-3	SUPPLY	CEILING MOUNT, 24x24 IN. FACE, 12"Ø NECK	PRICE	SCD	1,2,3,4,5,6
S-4	SUPPLY	DUCT MOUNT, 12x10 IN. FACE, 45° DOUBLE DEFLECTION	PRICE	SDGE	2,3,4,6
S-5	SUPPLY	SURFACE MOUNT, 10x4 IN. FACE, 45° DOUBLE DEFLECTION	PRICE	520	2,3,4,6
S-6	SUPPLY	SURFACE MOUNT, 12x8 IN. FACE, 45° DOUBLE DEFLECTION	PRICE	520	2,3,4,6
R-1	RETURN	CEILING MOUNT, 24x24 IN. FACE, 14"Ø NECK	PRICE	PDDR	1,2,3,4,5,6
R-2	RETURN	CEILING MOUNT, 24x24 IN. FACE, 14x14 IN. NECK	PRICE	PDDR	2,3,4,5,6
R-3	RETURN	CEILING MOUNT, 24x24 IN. FACE, 18x18 IN. NECK	PRICE	PDDR	2,3,4,5,6
R-4	RETURN	SURFACE MOUNT, 14x10 IN. FACE	PRICE	530	2,3,4,6
R-5	RETURN	SURFACE MOUNT, 28x20 IN. FACE	PRICE	530	2,3,4,6
R-6	RETURN	SURFACE MOUNT, 40x24 IN. FACE	PRICE	530	2,3,4,6
E-1	EXHAUST	CEILING MOUNT, 12x12 IN. FACE	PRICE	80	2,3,4,5,6

NOTES:
1. PROVIDE SQUARE TO ROUND TRANSITIONS WHERE APPLICABLE.
2. PROVIDE OPPOSED BLADE DAMPERS IN NECK OF DIFFUSER OR REGISTER, WITH ACCESS TO DAMPER THROUGH FACE OF DIFFUSER OR REGISTER.
3. FINISH SHALL BE COORDINATED WITH ARCHITECTURAL PLANS.
4. STEEL CONSTRUCTION.
5. SEE ARCHITECTURAL CEILING PLANS FOR MOUNTING TYPE.
6. ACCEPTABLE EQUALS SHALL BE CARNES, NAILOR, AND TITUS.



GENERAL MECHANICAL NOTES:

- WORK SHALL CONFORM WITH THE 2017 FLORIDA MECHANICAL CODE, 2017 FLORIDA PLUMBING CODE, THE 2017 FLORIDA BUILDING CODE AND ALL OTHER APPLICABLE STATE AND LOCAL CODES.
- THE MECHANICAL CONTRACTOR SHALL PROVIDE A WRITTEN GUARANTEE THAT SHALL WARRANT ALL WORKMANSHIP AND MATERIALS FOR ONE YEAR FROM DATE OF FINAL ACCEPTANCE BY THE OWNER. ANY BREAKDOWN OCCURRING IN THE FIRST YEAR SHALL BE AT NO EXPENSE TO THE OWNER. ALL REFRIGERATION COMPRESSORS SHALL HAVE A FIVE YEAR (PARTS ONLY) WARRANTY.
- DRAWINGS ARE SCHEMATIC. NOT ALL RISES AND DROPS ARE SHOWN. TRADES ARE TO COORDINATE THEIR WORK WITH ALL OTHER TRADES TO AVOID CONFLICTS. GENERALLY, DUCTWORK SHALL BE KEPT AS HIGH AS POSSIBLE.
- CONTRACTOR SHALL COORDINATE ELECTRICAL CHARACTERISTICS AND REQUIREMENTS OF ALL MECHANICAL EQUIPMENT WITH ELECTRICAL DRAWINGS PRIOR TO ORDERING EQUIPMENT OR SUBMITTING SHOP DRAWINGS AND SHALL FURNISH EQUIPMENT WIRED FOR VOLTAGES SHOWN THEREIN. CONTRACTOR SHALL BEAR ALL COST(S) ASSOCIATED WITH FAILURE TO COORDINATE ELECTRICAL CHARACTERISTICS.
- CONTRACTOR SHALL COORDINATE THE INSTALLATION OF MECHANICAL EQUIPMENT, DUCTWORK, ETC. TO FIT WITHIN THE SPACE ALLOWED BY THE ARCHITECTURAL AND STRUCTURAL CONDITIONS. CUTTING OR OTHERWISE ALTERING ANY STRUCTURAL MEMBERS SHALL NOT BE PERMITTED WITHOUT WRITTEN PERMISSION FROM THE STRUCTURAL ENGINEER OF RECORD AND COORDINATION WITH THE GENERAL CONTRACTOR.
- CONTRACTOR SHALL KEEP A SET OF MARKED UP PRINTS WITH ANY FIELD CHANGES MADE DURING CONSTRUCTION TO CREATE AN "AS-BUILT" SET OF PRINTS TO BE TURNED OVER TO THE OWNER AT THE COMPLETION OF THE PROJECT.
- PROVIDE ACCESS PANELS IN CEILINGS AND WALLS TO ALLOW ACCESS TO VALVES, TRAPS, DAMPERS, CLEANOUTS, CONTROLS, ETC. MINIMUM ACCESS SIZE - 12"x12" UNLESS LIMITED BY PHYSICAL CONSTRAINTS.
- ALL CONDENSATE DRAIN PIPING SHALL BE TYPE L HARD DRAWN COPPER, ASTM B-88, WITH TYPE DWV FITTINGS, ASME B16.23, OR SCHEDULE 40 PVC, ASTM D1785, WITH TYPE DWV FITTINGS, ASTM D2672. COPPER DRAIN PIPE AND FITTINGS SHALL BE JOINED USING 95% SILVER SOLDER, AND PVC PIPE AND FITTINGS SHALL BE JOINED USING SOLVENT CEMENT. PROVIDE TRAP WITH CLEANOUT AND UNIONS. SLOPE CONDENSATE DRAIN LINES A MINIMUM OF 1/8" PER FOOT AWAY FROM THE MECHANICAL EQUIPMENT.
- MECHANICAL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
- ROOFTOP UNITS SHALL BE FACTORY FURNISHED WITH SMOKE DETECTORS LOCATED IN THE SUPPLY SECTIONS FOR ALL UNITS. SMOKE DETECTORS SHALL BE WIRED TO TO THE FAC.
- OUTSIDE AIR FOR AIR CONDITIONING UNITS SHALL BE A MINIMUM OF 10 FEET FROM EXHAUST FANS, EXHAUST OPENINGS AND PLUMBING VENTS.
- ALL DUCT DIMENSIONS SHOWN ARE INSIDE CLEAR DIMENSIONS.
- ALL SUPPLY AND RETURN DUCTWORK SHALL BE CONSTRUCTED AND INSTALLED IN ACCORDANCE WITH THE LATEST SMACNA AND ASHRAE STANDARDS. DUCTWORK SHALL BE FABRICATED OF GALVANIZED STEEL FOR A PRESSURE RATING OF (1) 2" WG FOR RETURN AND (4) 2" WG FOR SUPPLY DUCTWORK. ALL EXHAUST DUCTWORK SHALL CONSTRUCTED AND INSTALLED IN ACCORDANCE WITH THE LATEST SMACNA AND ASHRAE STANDARDS. EXHAUST DUCTWORK SHALL BE FABRICATED OF GALVANIZED STEEL FOR A PRESSURE RATING OF 1" WG IN EXCESS OF THE SYSTEM FAN TOTAL STATIC PRESSURE RATING AT DESIGN FLOW RATE, UNLESS NOTED OTHERWISE.
- SUPPORT DUCTWORK FROM BUILDING STRUCTURE IN ACCORDANCE WITH SMACNA STANDARDS.
- ANY ADDITIONAL/SUPPLEMENTAL STEEL MEMBERS REQUIRED TO SUPPORT DUCTWORK OR EQUIPMENT FROM MAIN STRUCTURE SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND WILL COORDINATE WITH THE GENERAL CONTRACTOR AND STRUCTURAL ENGINEER.
- RADIUSED DUCTWORK ELBOWS SHALL HAVE A CENTERLINE RADIUS OF 1.5 TIMES THE DUCT WIDTH (OR DIAMETER) UNLESS NOTED OTHERWISE.
- ALL MITERED ELBOWS (RECTANGULAR AND ROUND) SHALL HAVE SINGLE THICKNESS TURNING VANES INSTALLED UNLESS NOTED OTHERWISE ON DRAWINGS.
- SECURELY SEAL ALL JOINTS LONGITUDINAL AND TRANSVERSE SEAMS AND CONNECTIONS IN DUCTWORK USING WELDMENTS, MECHANICAL FASTENERS WITH SEALS OR GASKETS OR MASTICS, MESH AND MASTIC SEALING SYSTEMS OR TAPES, TAPES AND MASTICS MUST BE LISTED AND LABELED IN ACCORDANCE WITH UL181A OR UL181B.
- DUCT CONNECTIONS TO FANS AND OTHER AIR DISTRIBUTION EQUIPMENT SHALL BE MADE USING MECHANICAL FASTENERS WITH SEALS, MASTICS OR GASKETS.
- SUPPLY AIR AND RETURN AIR DUCTWORK SHALL BE INSULATED WITH A MINIMUM 2" THICK, 3/4 LB. PER CUBIC FOOT, FIBERGLASS DUCTWRAP, WITH FOIL FACED VAPOR BARRIER AND AN INSTALLED THERMAL RESISTANCE OF 5.7 (R VALUE). ALTERNATE INSULATION FOR RECTANGULAR SUPPLY AND RETURN DUCT SHALL BE AN INTERIOR DUCT LINING WITH A MINIMUM 1-1/2" THICK, 1.5 LB. PER CUBIC FOOT DUCT LINER. DUCT LINER SHALL CONTAIN AN ANTI-MICROBIAL AGENT WITHIN THE DUCT LINING ITSELF. MINIMUM "R" VALUE SHALL BE R-6.3. INCREASE DUCT SHEET METAL SIZE AS REQUIRED TO MEET INSIDE CLEAR DIMENSIONS GIVEN ON DRAWINGS.
- ALL DUCT INSULATION SHALL MEET THE MINIMUM REQUIREMENTS OF U.L. 181 FOR FLAME SPREAD AND SMOKE DEVELOPMENT, AND SHALL BE U.L. LISTED.
- TRANSFER DUCTS SHALL BE INTERNALLY LINED TO AID IN CANCELING NOISE TRANSFER.
- EXHAUST DUCTWORK SHALL BE INSULATED UNLESS NOTED OTHERWISE.
- COORDINATE LOCATIONS OF GRILLES, REGISTERS AND DIFFUSERS WITH ARCHITECTURAL REFLECTED CEILING PLAN. LOCATIONS SHOWN ARE APPROXIMATE, ADJUST LOCATIONS IN THE FIELD AS REQUIRED BY CONSTRUCTION CONSTRAINTS.
- PROVIDE EACH SUPPLY AIR OUTLET OR DIFFUSER WITH ITS OWN BALANCING DEVICE. DEVICES CAN BE LOCATED IN DUCTWORK OR SUPPLY AIR DEVICE ITSELF.
- ALL MANUAL BALANCING DAMPERS SHALL HAVE A LOCKING QUADRANT.
- FLEXIBLE DUCTWORK SHALL BE CLASSIFIED UNDER UL 181. PROVIDE A MINIMUM OF 3 FEET IN LENGTH AND A MAXIMUM OF 10 FEET IN LENGTH, SUPPORTED WITH 3" GALVANIZED SHEET METAL STRAPS AT 4 FEET CENTERS (MAX). FLEXIBLE DUCT RUNOUTS SHALL BE ROUND DUCTWORK REINFORCED WITH A WIRE HELIX AND INSULATED WITH 1-1/2" THICK FIBERGLASS (WITH A 6.0" R" VALUE MINIMUM) COVERED WITH FLAMEPROOF VAPOR BARRIER OF ALUMINUM METALIZED POLYESTER FILM LAMINATED TO GLASS MESH. DUCT SHALL BE ATCO'S UPC #036 VALUFLEX CLASS 1 AIR DUCT OR EQUAL. CONNECTIONS TO DUCT MAINS SHALL BE MADE WITH FITTINGS PROVIDED WITH TWIST RINGS, BUTTERFLY DAMPERS, LOCKING HAND QUADRANTS, AND INSULATION GUARDS.
- ELECTRICAL CONTRACTOR SHALL FURNISH, ROUTE, AND INSTALL CONTROL WIRING FOR ALL MECHANICAL SYSTEMS. CONTROLS AND CONTROL WIRING TERMINATION FOR ALL MECHANICAL SYSTEMS SHALL BE FURNISHED AND INSTALLED BY THE MECHANICAL CONTRACTOR. THE MECHANICAL CONTRACTOR SHALL PROVIDE THERMOSTATS AND CONTROLS WIRING FOR SPECIFIED EQUIPMENT.
- INSTALL THERMOSTATS AT 4'-0" A.F.F. UNLESS NOTED OTHERWISE. THERMOSTAT LOCATIONS SHALL BE COORDINATED WITH FINAL LOCATIONS OF WALL-MOUNTED ARCHITECTURAL AND ELECTRICAL EQUIPMENT. FINAL LOCATIONS MUST BE APPROVED BY THE ARCHITECT AND OWNER. THERMOSTATS SHALL NOT BE INSTALLED ON EXTERIOR WALLS IF INTERIOR WALLS ARE AVAILABLE WITHIN SPACE SERVED BY THERMOSTAT. SHOULD THE THERMOSTAT REQUIRE INSTALLATION ON AN EXTERIOR WALL AN INSULATED BACKING PLATE MUST BE PROVIDED TO PREVENT FALSE READINGS BY THE THERMOSTAT.
- MECHANICAL CONTRACTOR SHALL PROVIDE A COMPLETE TEST AND BALANCE REPORT OF THE HVAC SYSTEMS. A COPY OF THE TEST AND BALANCE REPORT SHALL BE TRANSMITTED TO THE LOCAL CODE OFFICIALS AS REQUIRED.



DEVITA
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Drawn By: DTL Checked By: KFM
FL Firm License # 9687

A PHASE 01 FACILITY RENOVATION & EXPANSION FOR:
**FBC WINDERMERE
LAKESIDE CAMPUS**
8464 WINTER GARDEN VINELAND ROAD
ORLANDO, FL 32836

#	DESCRIPTION	DATE
SCHEDULE OF REVISIONS		

DESIGN DEVELOPMENT

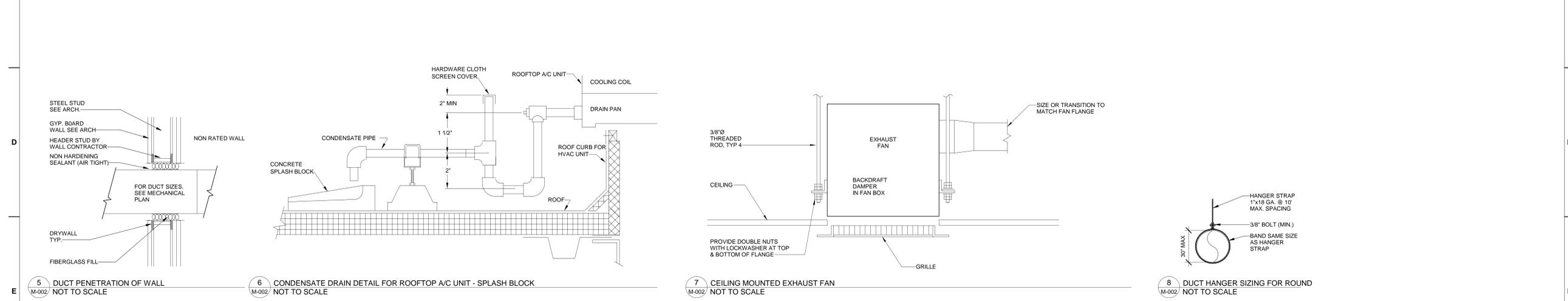
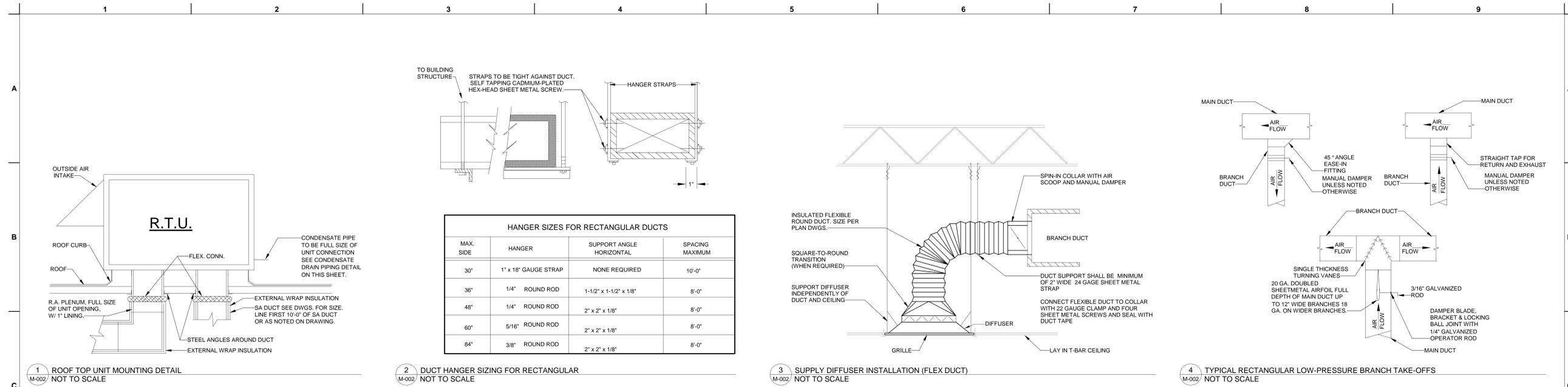
PROJECT NUMBER: 190106
PROJECT DATE: 10/24/2019
PROJECT ENGINEER: KFM
PROJECT TEAM: DTL

**MECHANICAL
SCHEDULES,
LEGEND, AND
NOTES**

M-001

(NOT FOR CONSTRUCTION)

NOTICE: DO NOT SCALE DRAWINGS. USE DIMENSIONS SHOWN.

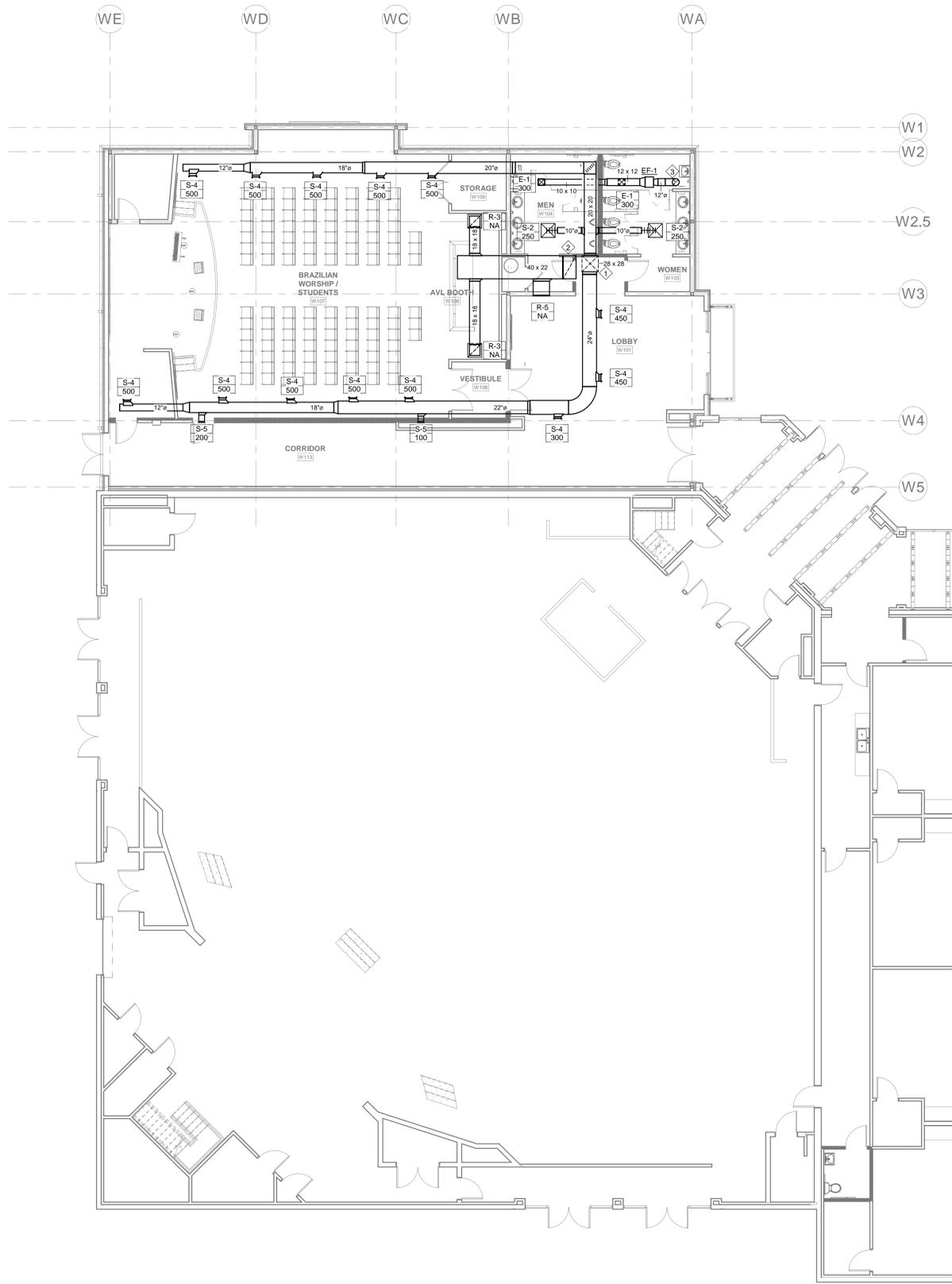


#	DESCRIPTION	DATE
SCHEDULE OF REVISIONS		
DESIGN DEVELOPMENT		
PROJECT NUMBER: 190106		
PROJECT DATE: 10/24/2019		
PROJECT ENGINEER: KFM		
PROJECT TEAM: DTL		
MECHANICAL DETAILS		
M-002		

A PHASE 01 FACILITY RENOVATION & EXPANSION FOR:
FBC WINDERMERE
LAKESIDE CAMPUS
8464 WINTER GARDEN VINELAND ROAD
ORLANDO, FL 32836

MECHANICAL KEY NOTES:

- 28 x 28 SUPPLY AIR DUCT UP TO RTU-1 ON ROOF.
- 40 x 22 RETURN AIR DUCT UP TO RTU-1 ON ROOF.
- 12"Ø EXHAUST AIR DUCT UP THRU ROOF. PROVIDE WITH BACKDRAFT DAMPER, ROOF CAP, AND BIRD SCREEN. MAINTAIN A MINIMUM OF 10 FT. CLEARANCE TO ALL FRESH AIR INTAKES.



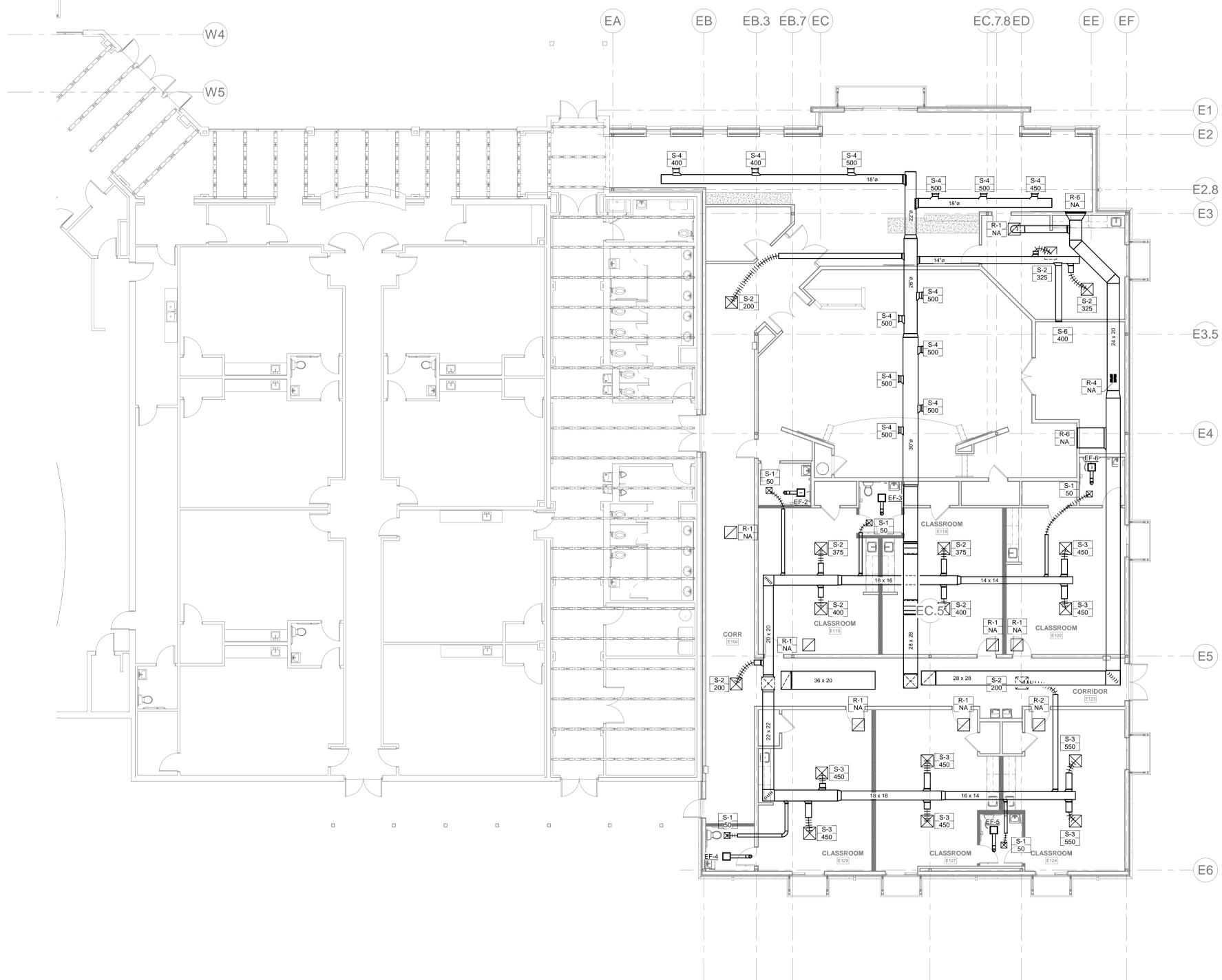
1 MECHANICAL FLOOR PLAN (WORSHIP)
M-101
1/8" = 1'-0"
0 8 16 24

#	DESCRIPTION	DATE
SCHEDULE OF REVISIONS		

DESIGN DEVELOPMENT

PROJECT NUMBER: 190106
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PROJECT TEAM: DTL

A PHASE 01 FACILITY RENOVATION & EXPANSION FOR:
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1 MECHANICAL FLOOR PLAN (EDUCATION)
M-102 1/8" = 1'-0"



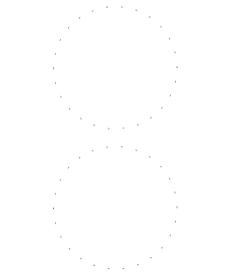
#	DESCRIPTION	DATE
	SCHEDULE OF REVISIONS	

DESIGN DEVELOPMENT

PROJECT NUMBER: 190106
PROJECT DATE: 10/24/2019
PROJECT ENGINEER: KFM
PROJECT TEAM: DTL

MECHANICAL FLOOR PLAN (EDUCATION)

M-102



A PHASE 01 FACILITY RENOVATION & EXPANSION FOR:
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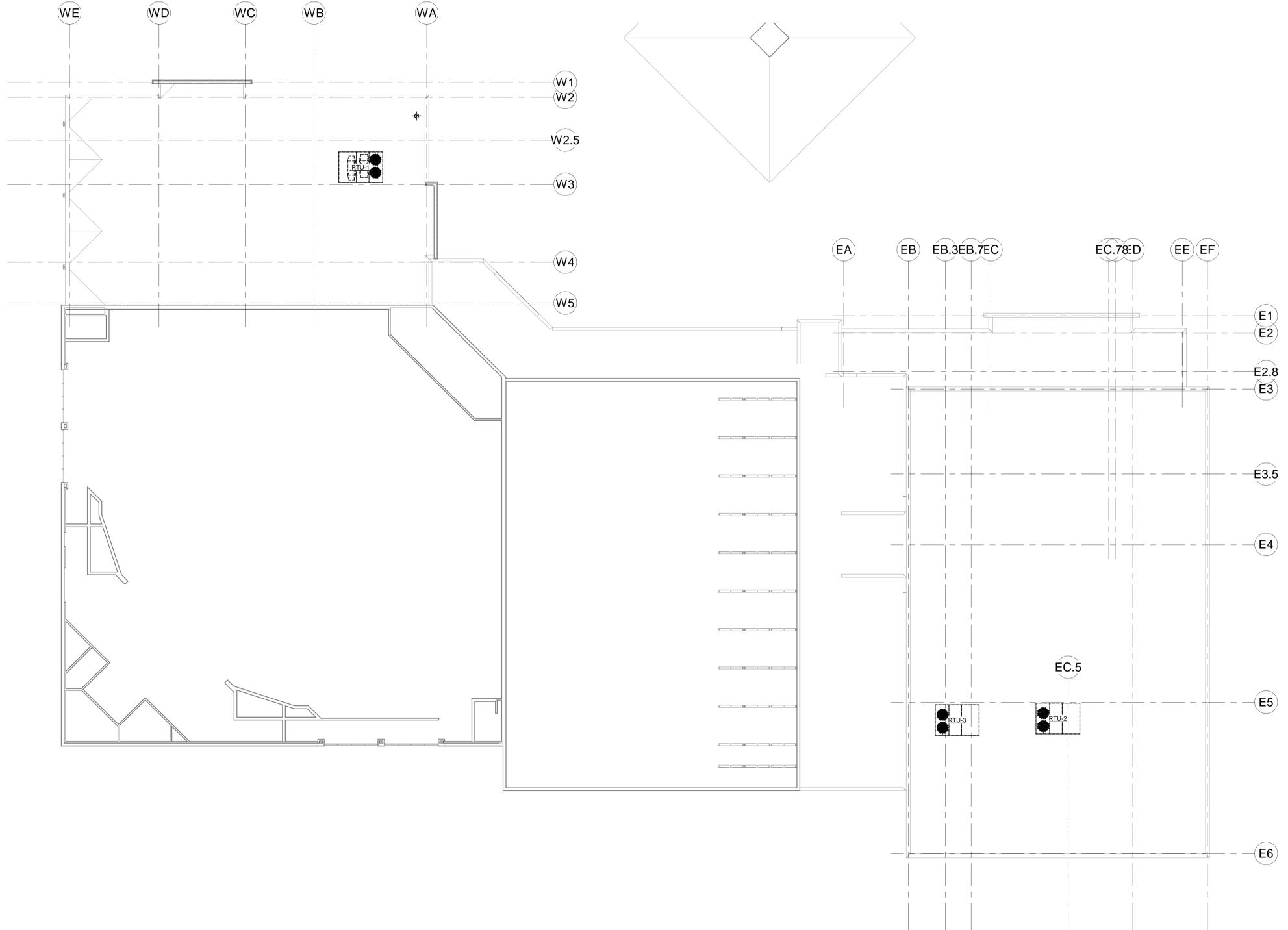
#	DESCRIPTION	DATE
SCHEDULE OF REVISIONS		

DESIGN DEVELOPMENT

PROJECT NUMBER: 190106
PROJECT DATE: 10/24/2019
PROJECT ENGINEER: KFM
PROJECT TEAM: DTL

MECHANICAL
ROOF PLAN

M-151



1 MECHANICAL ROOF PLAN
M-151 3/32" = 1'-0"
0 6 12 24 30