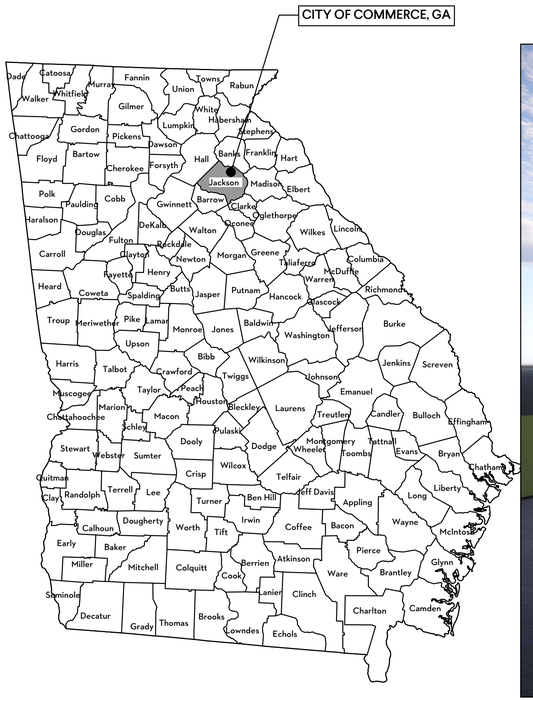
GROVE CREEK WPCP

CITY OF COMMERCE, GA
GMC PROJECT # CATL230033

CITY OF COMMERCE, GA



LOCATION MAP

MARCH 2025

BID SET

GEORGIA811
www.Georgia811.com

Georgia One-Call Center
1-800-282-7411
Call at Least Two Working Days
Before You Dig
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CLIENT PROJECT TEAM

DR. J. CLARK HILL, III	MAYOR
KEITH BURCHETT	MAYOR PRO-TEM
MATTHEW HAILEY	CITY MANAGER
JOSH ALLISON	WATER & SEWER SUPERINTENDENT
TADD EDMONDSON	WASTEWATER SUPERINTENDENT

DESIGN PROJECT TEAM

GOODWYN MILLS CAWOOD, LLC	CIVIL, PROCESS, ARCHITECTURAL
BFIELD ENGINEERING	ELECTRICAL, MECHANICAL, PLUMBING
DAY STRUCTURES	STRUCTURAL

I CERTIFY THAT I HAVE BEEN IN RESPONSIBLE CHARGE OF THE DESIGN OF THIS PROJECT IN ACCORDANCE WITH THE RULES OF THE GEORGIA STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND LAND SURVEYORS. I FURTHER CERTIFY, TO THE BEST OF MY KNOWLEDGE AND BELIEF, THAT THESE PLANS AND SPECIFICATION WERE PREPARED IN ACCORDANCE WITH CURRENT STANDARD ENGINEERING PRACTICES AND ACCURATELY REFLECT THE DESIGN DEVELOPMENT REPORT (DDR) PREVIOUSLY REVIEWED AND CONCURRED IN BY EPD. I FURTHER CERTIFY THAT THE SYSTEM AS DESIGNED CAN REASONABLY BE EXPECTED TO CONSISTENTLY MEET ALL CURRENTLY APPLICABLE PERMIT LIMITS, CONDITIONS, AND REGULATORY REQUIREMENTS, PROVIDED THE FACILITY IS CONSTRUCTED AS DESIGNED AND PROPERLY OPERATED AND MAINTAINED.

ENGINEER'S SIGNATURE Graham S. Sizemore

GMC
6120 Powers Ferry Road NW, Suite 200
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STATE OF GEORGIA — NO ALTERATION — CERTIFICATE OF AUTHORIZATION — GOODWYN MILLS CAWOOD LLC — No. PEF007888 — Exp.06.30.2026

1" 0" 1" .5"

ISSUE	DATE
30% Submittal	05.30.2024
60% Submittal	08.29.2024
90% Submittal	11.27.2024
Bid Set	03.19.2025

Project Manager: CW
Engineer: GS
Designer:
Drawn By: GS

COMMERCE 2.0 MGD
GROVE CREEK WPCP
COMMERCE, GA

CATL230033

GEORGIA REGISTERED No. PE051452 PROFESSIONAL ENGINEER GRAHAM S. SIZEMORE 03.19.2025

TITLE SHEET

G-001

GENERAL

SHT #	SHEET TITLE
G-001	TITLE SHEET
G-002	DRAWING INDEX
G-003	DRAWING INDEX
G-004	ABBREVIATIONS
G-005	GENERAL NOTES, LEGENDS, & SYMBOLS
G-006	PROCESS FLOW DIAGRAM
G-007	HYDRAULIC PROFILE (1 OF 2)
G-008	HYDRAULIC PROFILE (2 OF 2)
G-009	PROCESS PIPING SCHEDULE
G-011	PROCESS DESIGN CRITERIA

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SHT #	SHEET TITLE
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I-102	P&ID - INFLUENT SCREENS
I-103	P&ID - GRIT REMOVAL
I-211	P&ID - EQUALIZATION BASIN
I-221	P&ID - FLOW CONTROL VALVE VAULT
I-301	P&ID - AERATION BASIN
I-401	P&ID - CLARIFIERS
I-402	P&ID - RAS/WAS PUMP STATION
I-501	P&ID - FILTERS
I-601	P&ID - UV DISINFECTION
I-602	P&ID - PLANT REUSE WATER PUMP STATION & POST AERATION
I-701	P&ID - AEROBIC DIGESTER
I-702	P&ID - DIGESTER BLOWERS
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SHT #	SHEET TITLE
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SHT #	SHEET TITLE
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B-003	CIVIL SITE PLAN GEOTECHNICAL EXPLORATION
B-004	CIVIL SITE PLAN GEOTECHNICAL EXPLORATION
B-005	CIVIL SITE PLAN GEOTECHNICAL EXPLORATION
B-006	CIVIL SITE PLAN GEOTECHNICAL EXPLORATION
B-007	CIVIL SITE PLAN GEOTECHNICAL EXPLORATION
B-008	CIVIL SITE PLAN GEOTECHNICAL EXPLORATION
B-009	CIVIL SITE PLAN GEOTECHNICAL EXPLORATION
B-010	CIVIL SITE PLAN GEOTECHNICAL EXPLORATION
B-011	CIVIL SITE PLAN GEOTECHNICAL EXPLORATION
B-012	CIVIL SITE PLAN GEOTECHNICAL EXPLORATION
B-013	CIVIL SITE PLAN GEOTECHNICAL EXPLORATION
B-014	CIVIL SITE PLAN GEOTECHNICAL EXPLORATION
B-015	CIVIL SITE PLAN GEOTECHNICAL EXPLORATION
B-016	CIVIL SITE PLAN GEOTECHNICAL EXPLORATION
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SHT #	SHEET TITLE
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C-101	CIVIL SITE PLAN - EXISTING CONDITIONS
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C-103	CIVIL SITE PLAN - ENLARGED GEOMETRIC CONTROLS
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C-607	ES & PC STANDARD DETAILS
C-608	ES & PC STANDARD DETAILS
C-609	ES & PC STANDARD DETAILS
C-610	ES & PC STANDARD DETAILS
C-611	ES & PC STANDARD DETAILS
C-612	ES & PC STANDARD DETAILS
C-613	ES & PC STANDARD DETAILS
C-614	ES & PC STANDARD DETAILS
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C-618	SOILS MAP
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C-905	CIVIL - CIVIL SITE DETAILS
C-906	CIVIL - CIVIL SITE DETAILS
C-907	CIVIL - CIVIL SITE DETAILS
C-908	CIVIL - CIVIL SITE DETAILS
C-909	CIVIL - CIVIL SITE DETAILS
C-910	CIVIL - CIVIL SITE DETAILS
C-911	CIVIL - CIVIL SITE DETAILS
C-912	CIVIL - CIVIL SITE DETAILS
C-913	CIVIL - CIVIL SITE DETAILS
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SHT #	SHEET TITLE
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CU-314	CIVIL SITE PLAN - INFFLUENT FORCE MAIN STATION 0+00 TO 11+00
CU-315	CIVIL SITE PLAN - EFFLUENT FORCE MAIN STATION 11+00 TO 22+00
CU-316	CIVIL SITE PLAN - EFFLUENT FORCE MAIN STATION 22+00 TO 33+00
CU-317	CIVIL SITE PLAN - EFFLUENT FORCE MAIN STATION 33+00 TO 44+00
CU-318	CIVIL SITE PLAN - EFFLUENT FORCE MAIN STATION 44+00 TO 53+00
CU-319	CIVIL SITE PLAN - EFFLUENT FORCE MAIN STATION 53+00 TO 63+50
CU-320	CIVIL SITE PLAN - EFFLUENT FORCE MAIN STATION 63+50 TO 74+50
CU-321	CIVIL SITE PLAN - EFFLUENT FORCE MAIN STATION 74+50 TO 85+50
CU-322	CIVIL SITE PLAN - EFFLUENT FORCE MAIN STATION 85+50 TO 96+50
CU-323	CIVIL SITE PLAN - EFFLUENT FORCE MAIN STATION 96+50 TO 107+00
CU-324	CIVIL SITE PLAN - EFFLUENT FORCE MAIN STATION 95+50 TO 110+00
CU-325	CIVIL SITE PLAN - EFFLUENT FORCE MAIN STATION 114+21 TO HARDEN BRIDGE RD.
CU-401	WATER MAIN LAYOUT (HAGGARD RD.) STA. 0+00 TO 27+10
CU-605	EROSION, SEDIMENTATION & POLLUTION CONTROL PLAN CHECKLIST
CU-606	ES & PC GENERAL NOTES, LEGENDS & SCHEDULE
CU-607	ES & PC STANDARD DETAILS
CU-608	ES & PC STANDARD DETAILS
CU-609	ES & PC STANDARD DETAILS
CU-610	ES & PC STANDARD DETAILS
CU-611	ES & PC STANDARD DETAILS
CU-612	ES & PC STANDARD DETAILS
CU-614	COMPREHENSIVE MONITORING PROGRAM GENERAL NOTES
CU-615	WATERSHED MAP, DRAINAGE AREA & MONITORING LOCATIONS
CU-616	SOILS MAP
CU-617	SOILS MAP
CU-618	FEMA FLOODPLAIN MAP
CU-619	FEMA FLOODPLAIN MAP
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CU-902	STANDARD DETAILS
CU-903	STANDARD DETAILS
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SHT #	SHEET TITLE
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S-305	ORBAL AERATION - ENLARGED PLANS
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S-307	ORBAL AERATION - SECTIONS
S-308	ORBAL AERATION - SECTIONS
S-309	ORBAL AERATION - SECTIONS
S-310	ORBAL AERATION - SECTIONS
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S-601	ULTRAVIOLET DISINFECTION - PLAN & SECTION
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S-614	PLANT REUSE WATER PUMP STATION & POST AERATION - SECTIONS
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S-702	AEROBIC DIGESTERS - SECTION
S-711	BLOWERS BUILDING - PLANS
S-712	BLOWERS BUILDING - SECTIONS
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S-722	DEWATERIING BUILDING - ROOF FRAMING PLAN
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S-724	DEWATERIING BUILDING - SECTIONS
S-801	CHEMICAL TANK FARM - PLAN & SECTION
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SHT #	SHEET TITLE
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A-003	ADMINISTRATION & LAB BUILDING LIFE SAFETY PLAN
A-004	BLOWER BUILDING - LIFE SAFETY PLAN
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A-102	ADMINISTRATION & LAB BUILDING - DETAILED PLAN & REFLECTED CEILING PLAN
A-103	ADMINISTRATION & LAB BUILDING - ENLARGED FLOOR PLAN
A-104	ADMINISTRATION & LAB BUILDING - ENLARGED FLOOR PLAN
A-105	ADMINISTRATION & LAB BUILDING - EXTERIOR ELEVATIONS
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A-107	ADMINISTRATION & LAB BUILDING - INTERIOR ELEVATIONS
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A-109	ADMINISTRATION & LAB BUILDING - WALL SECTIONS
A-110	ADMINISTRATION & LAB BUILDING - SCHEDULES
A-111	ADMINISTRATION & LAB BUILDING - DETAILS
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A-712	BLOWER BUILDING - ELEVATION
A-713	BLOWER BUILDING - SECTIONS
A-714	BLOWER BUILDING - SCHEDULES
A-715	BLOWER BUILDING - DETAILS
A-721	DEWATERING BUILDING - PLAN
A-722	DEWATERING BUILDING - ROOF PLAN
A-723	DEWATERING BUILDING - ELEVATION
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A-725	DEWATERING BUILDING - WALL SECTIONS
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SHT #	SHEET TITLE
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SHT #	SHEET TITLE
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SHT #	SHEET TITLE
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D-122	HEADWORKS - UPPER PLAN
D-123	HEADWORKS - SECTIONS
D-124	HEADWORKS - SECTIONS
D-125	HEADWORKS - SECTIONS
D-201	EQUALIZATION BASIN - PLAN, SECTION, & DETAILS
D-211	FLOW CONTROL VAULT - PLAN & SECTION
D-301	ORBAL AERATION - LOWER PLAN
D-302	ORBAL AERATION - UPPER PLAN
D-303	ORBAL AERATION - CENTER ISLAND PLAN & SECTIONS
D-304	ORBAL AERATION - INFLUENT PIPING PLAN & SECTIONS
D-305	ORBAL AERATION - EFFLUENT PIPING PLAN & SECTIONS
D-306	ORBAL AERATION - RETURN SLUDGE PLAN & SECTIONS
D-307	AERATION BASIN - DRIVE PLAN & SECTIONS
D-308	ORBAL AERATION SECTIONS
D-401	CLARIFIERS - PLAN
D-402	CLARIFIERS - SPLITTER BOX DETAIL

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STATE OF GEORGIA CERTIFICATE OF AUTHORIZATION
GOODWYN MILLS CAWOOD, LLC
No.PEF007898
Exp.06.30.2026

ISSUE	DATE
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GRAHAM S. SIZEMORE

DRAWING INDEX

G-002

PROCESS

SHT #	SHEET TITLE
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D-404	CLARIFIERS - EFFLUENT DETAIL
D-411	RAS WAS PUMP STATION - PLAN
D-412	RAS WAS PUMP STATION - SECTIONS
D-501	TERTIARY FILTERS - LOWER PLAN & ENLARGED PLAN
D-502	TERTIARY FILTERS - UPPER PLAN & ROOF PLAN
D-503	TERTIARY FILTERS - SECTIONS
D-504	TERTIARY FILTERS - SECTIONS
D-601	ULTRAVIOLET DISINFECTION - PLANS & SECTIONS
D-611	PLANT REUSE WATER PUMP STATION AND POST AERATION - LOWER PLAN
D-612	PLANT REUSE WATER PUMP STATION AND POST AERATION - UPPER PLAN
D-613	PLANT REUSE WATER PUMP STATION AND POST AERATION - PIPING DETAIL PLAN
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D-615	PLANT REUSE WATER PUMP STATION AND POST AERATION - SECTIONS
D-701	AEROBIC DIGESTER - PLAN & SECTION
D-702	AEROBIC DIGESTER - UPPER PLAN & SECTION
D-703	AEROBIC DIGESTER - PIPING PLAN & SECTION
D-704	AEROBIC DIGESTER - SECTIONS
D-711	BLOWER BUILDING - PLAN & SECTIONS
D-721	DEWATERING BUILDING - PLAN
D-722	DEWATERING BUILDING - SECTIONS
D-723	DEWATERING BUILDING - SECTIONS
D-724	DEWATERING BUILDING - SECTIONS
D-801	YARD DRAIN PUMP STATION - PLANS
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D-902	PROCESS PIPE SUPPORT DETAILS
D-903	PROCESS PIPE SUPPORT DETAILS
D-904	PROCESS PIPE STRUCTURAL ATTACHMENTS DETAILS (1 OF 2)
D-905	PROCESS PIPE STRUCTURAL ATTACHMENTS DETAILS (2 OF 2)
D-906	PROCESS DETAILS (1 OF 2)
D-907	PROCESS DETAILS (2 OF 2)
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D-921	VALVE SCHEDULE
D-922	VALVE SCHEDULE

ELECTRICAL

SHT #	SHEET TITLE
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E-003	ELECTRICAL DETAILS
E-004	ELECTRICAL DETAILS
E-005	ELECTRICAL DETAILS
E-006	ELECTRICAL DETAILS
E-007	POWER RISER DIAGRAMS
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E-013	TREATMENT PLANT ELECTRICAL SITE PLAN
E-014	ELECTRICAL DUCT BANK SCHEDULE
E-015	ELECTRICAL ELEVATIONS
E-016	ELECTRICAL PANEL SCHEDULES
E-017	ELECTRICAL PANEL SCHEDULES
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E-112	DRUM SCREEN LOWER ELECTRICAL PLAN
E-113	GRIT REMOVAL ELECTRICAL PLAN
E-114	HEADWORKS LIGHTNING PROTECTION PLAN
E-115	DRUM SCREEN ELECTRICAL SCHEMATICS
E-116	GRIT REMOVAL ELECTRICAL SCHEMATICS
E-201	EQ BASIN & FLOW CONTROL VALVE ELECTRICAL PLANS
E-202	EQ BASIN & FLOW CONTROL VALVE ELECTRICAL SCHEMATIC
E-301	AERATION BASIN ELECTRICAL PLAN
E-302	AERATION BASIN ELECTRICAL SCHEMATIC
E-401	CLARIFIERS ELECTRICAL PLAN
E-402	CLARIFIERS ELECTRICAL SCHEMATIC
E-403	RAS/WAS PUMP STATION ELECTRICAL PLAN
E-404	RAS/WAS PUMP STATION ELECTRICAL SCHEMATIC
E-405	RAS/WAS PUMP STATION ELECTRICAL SCHEMATIC
E-501	FILTERS ELECTRICAL BOTTOM PLAN
E-502	FILTERS ELECTRICAL TOP PLAN
E-503	FILTERS ELECTRICAL SCHEMATIC
E-601	UV DISINFECTION ELECTRICAL PLAN
E-602	UV DISINFECTION ELECTRICAL SCHEMATICS
E-603	UV DISINFECTION ELECTRICAL SCHEMATICS
E-604	PLANT REUSE PS & POST AERATION ELECTRICAL PLAN
E-605	PLANT REUSE PS ELECTRICAL SCHEMATIC
E-606	POST AERATION ELECTRICAL SCHEMATIC
E-701	DIGESTERS ELECTRICAL PLAN
E-711	BLOWER BUILDING LIGHTING PLAN
E-712	BLOWER BUILDING ELECTRICAL PLAN
E-713	BLOWER BUILDING ELECTRICAL SCHEMATICS
E-721	DEWATERING BUILDING LIGHTING PLAN
E-722	DEWATERING BUILDING STORAGE ROOM ELECTRICAL PLAN
E-723	DEWATERING BUILDING DEWATERING ROOM ELECTRICAL PLAN
E-724	DEWATERING BUILDING ELECTRICAL SCHEMATIC
E-801	YARD DRAIN PUMP STATION ELECTRICAL PLAN
E-802	CHEMICAL TANK FARM ELECTRICAL PLAN
E-803	CHEMICAL TANK FARM ELECTRICAL SCHEMATIC
E-901	ADMIN BUILDING LIGHTING PLAN
E-902	ADMIN BUILDING ELECTRICLA PLAN
E-903	ADMIN BUILDING ELECTRICAL SCHEMATIC

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DRAWING INDEX

G-003

COMMON ABBREVIATIONS

A	AIR	DISTR	DISTRIBUTION	HP	HORSEPOWER	OD	OUTSIDE DIAMETER	RR	RAILROAD	VERT	VERTICAL
AB	ANCHOR BOLT	DL	DEAD LOAD	HR	HOUR	OF	OUTSIDE FACE OR OVERFLOW	RTN	RETURN	VP	VENT PIPE
AC	AIR CONDITIONING	DMJ	DUCTILE MECHANICAL JOINT	HS	HIGH STRENGTH	OPNG	OPENING	SALV	SALVAGE	VTR	VENT THROUGH ROOF
ACP	ASPHALTIC CONCRETE PAVING	DN	DOWN	HVAC	HEATING, VENTILATION, AIR CONDITIONING	OPP	OPPOSITE	SCFM	STANDARD CUBIC FEET PER MINUTE	W/	WITH
ADDL	ADDITIONAL	DWG	DRAWING	HW	HOT WATER	OPT	OPTIONAL	SCH	SCHEDULE	W/O	WITHOUT
ADDM	ADDENDUM	EA	EACH	HWL	HIGH WATER LEVEL	PC	POINT OF CURVE OF PORTLAND CEMENT	SCN	SCREENINGS	WC	WATER CLOSET
ADJ	ADJUSTABLE	ECC	ECCENTRIC	HWY	HIGHWAY	P&C	PIN AND CAP	SDR	STANDARD DIMENSION RATIO	WCO	WALL CLEANOUT
AFF	ABOVE FINISHED FLOOR	EF	EACH FACE OR ELECTRICAL FAN	HYD	HYDRANT	PCO	PRESSURE CLEAN OUT	SECT	SECTION	WD	WIDTH OR WOOD
AFS	AIR FLOW SWITCH	EJ	EXPANSION JOINT	ID	INSIDE DIAMETER	PCP	PROGRESSIVE CAVITY PUMP	SHLDR	SHOULDER	WDW	WINDOW
AHU	AIR HANDLING UNIT	EL	ELEVATION	IF	INSIDE FACE	PCR	POINT OF CURVE RETURN	SHT	SHEET	WF	WIDE FLANGE
AL	ALUMINUM	ELEC	ELECTRICAL	INCL	INCLUDED	PE	PLAIN END	SIM	SIMILAR	WH	WALL HYDRANT
ALT	ALTERNATE	ENGR	ENGINEER	INCR	INCREASER	PERM	PERMANENT	SOTE	STANDARD OXYGEN TRANSFER EFFICIENCY	WL	WIND LOAD
APPROX	APPROXIMATE	EOA	EDGE OF ASPHALT	INF	INFLUENT	PERP	PERPENDICULAR	SP	SPACE (ING)	WP	WEIR PLATE
ARCH	ARCHITECT(URAL)	EOP	EDGE OF PAVEMENT	INSTL	INSTALLATION	PI	POINT OF INTERSECTION	SPEC	SPECIFICATION	WS	WETTED SURFACE
ARV	AIR RELIEF VALVE	EQ	EQUAL	INSTR	INSTRUMENT	PL	PLATE OR PROPERTY LINE	SQ	SQUARE	WT	WEIGHT
ASME	AMERICAN SOCIETY MECHANICAL ENGINEERS	EQUIP	EQUIPMENT	INSUL	INSULATION	PLBG	PLUMBING	SQ FT	SQUARE FOOT	WWF	WELDED WIRE FABRIC
ASPH	ASPHALT	EQUIV	EQUIVALENT	INV	INVERT	PLYWD	PLYWOOD	SQ IN	SQUARE INCH	WWTP	WASTEWATER TREATMENT PLANT
ASSY	ASSEMBLY	ESMT	EASEMENT	INT	INTERIOR	PNT	PAINT	SQ YD	SQUARE YARD	X SECT	CROSS SECTION
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	EST	ESTIMATE	INV EL	INVERT ELEVATION	POC	POINT ON VERTICAL CURVE	SRT	SOLIDS RETENTION TIME	XMR	TRANSFORMER
ATM	ATMOSPHERE	EUH	ELECTRIC UNIT HEATER	ISA	INSTRUMENT SOCIETY OF AMERICA	POLY	POLYETHYLENE	SST	STAINLESS STEEL	YCO	YARD CLEANOUT
ATS	AUTOMATIC TRANSFER SWITCH	EW	EACH WAY	JST	JOIST	PPM	PARTS PER MILLION	SST BT	STAINLESS STEEL BOLT	YH	YARD HYDRANT
AUTO	AUTOMATIC	EWS	EQUIPMENT WATER STATION	JTS	JOINTS	PREFAB	PREFABRICATED	ST	STREET		
AVS	AUTOMATIC VALVE STATION	EXP JT	EXPANSION JOINT	KO	KNOCKOUT	PREFIN	PREFINISHED	STA	STATION		
AWG	AMERICAN WIRE GAGE	EXST	EXISTING	KWY	KEYWAY	PRELIM	PRELIMINARY	STD	STANDARD		
BE	BELL END	EXST GR	EXISTING GRADE	L	LEFT OR LITER	PREP	PREPARATION	STL	STEEL		
BF	BOTTOM FACE	EXT	EXTERIOR	LAB	LABORATORY	PROJ	PROJECT	STL JST	STEEL JOIST		
BFD	BUTTERFLY DAMPER	F/F	FACE TO FACE	LAV	LAVATORY	PROP	PROPERTY	STL PL	STEEL PLATE		
BFV	BUTTERFLY VALVE	FA	FOUL AIR	LB(S)	POUND(S)	PRS	PRESSURE REDUCING STATION	STRUCT	STRUCTURAL		
BLDG	BUILDING	FAD	FOUL AIR DUCT	LEL	LOW EXPLOSIVE LIMIT	PRV	PRESS. REDUCING VALVE OR PRESS. RELIEF VALVE	SV	SOLENOID VALVE		
BLK	BLOCK	FCA	FLANGE COUPLING ADAPTER	LF	LINEAR FOOT	PS	PIPE SUPPORT	SVC	SERVICE		
BLM	BUREAU OF LAND MANAGEMENT	FCS	FLUSH CONTROL STATION	LL	LIVE LOAD OR LOOSE LINTEL	PSF	POUNDS PER SQUARE FOOT	SWD	SIDE WATER DEPTH		
BM	BENCH MARK	FD	FLOOR DRAIN	LOC	LOCATION	PSI	POUNDS PER SQUARE INCH	SYMM	SYMMETRICAL		
BOD	BIOCHEMICAL OXYGEN DEMAND	FDN	FOUNDATION	LP	LOW PRESSURE OR LIGHT POLE	PSIA	POUNDS PER SQUARE INCH ABSOLUTE	SYS	SYSTEM		
BOT	BOTTOM	FES	FLARED END SECTION	LR	LONG RADIUS	PSIG	POUNDS PER SQUARE INCH GAGE	T&B	TOP AND BOTTOM		
BU	BELL UP	FF EL	FINISH FLOOR ELEVATION	LS	LICENSED SURVEYOR	PSV	PRESSURE SUSTAINING VALVE	T&G	TONGUE AND GROOVE		
BV	BALL VALVE	FH	FIRE HYDRANT	LT	LIGHT	PT	POINT OR POINT OF TANGENCY	T&P	TEMPERATURE AND PRESSURE		
C/C	CENTER TO CENTER	FIN	FINISH	LT WT	LIGHTWEIGHT	PV	PLUG VALVE	T	TEE		
CCP	CONCRETE CYLINDER PIPE	FIN FL	FINISH FLOOR	LWL	LOW WATER LEVEL	PVC	POLYVINYL CHLORIDE OR POINT OF VERTICAL CURVE	TB	TOP OF BEAM		
CCW	COUNTER CLOCKWISE	FIN GR	FINISH GRADE	MAINT	MAINTENANCE	PVG	PAVING	TBM	TEMPORARY BENCH MARK		
CFM	CUBIC FEET PER MINUTE	FL	FLANGE	MAN	MANUAL	PVI	POINT OF VERTICAL CURVE INTERSECTION	TE	TOP ELEVATION		
CHKV	CHECK VALVE	FLR	FLOOR	MATL	MATERIAL	PVMT	PAVEMENT	TEMP	TEMPORARY		
CIP	CAST IRON PIPE	FPM	FEET PER MINUTE	MAX	MAXIMUM	Q AVG	AVERAGE DAILY FLOW	TFA	TO FLOOR ABOVE		
CISP	CAST IRON SOIL PIPE	FPS	FEET PER SECOND	MCC	MOTOR CONTROL CENTER	Q MAX	MAXIMUM DAILY FLOW	TFB	TO FLOOR BELOW		
CJ	CONSTRUCTION JOINT	FRP	FIBERGLASS REINFORCED PLASTIC	MECH	MECHANICAL	Q PEAK	PEAK HOUR FLOW	TFF	TOP OF FINISH FLOOW		
CL	CENTER LINE OR CHAIN LINK	FT	FEET	MED	MEDIUM	QTR	QUARTER	TH	TEST HOLE		
CLR	CLEAR	FTG	FOOTING OR FITTING	MFM	MAGNETIC FLOW METER	QTY	QUANTITY	THD	THREAD (ED)		
CMP	CORRUGATED METAL PIPE	G	GAS	MFR	MANUFACTURER	RAD	RADIUS	THK	THICK		
CMU	CONCRETE MASONRY UNIT	GA	GAUGE	MG	MILLION GALLONS OR MILLIGRAMS	RC	REINFORCED CONCRETE	TJ	TOP OF JOIST		
CO	CLEAN OUT	GAL	GALLON	MGD	MILLION GALLONS PER DAY	RCP	REINFORCED CONCRETE PIPE	TOA	TOP OF ASPHALT		
CONC	CONCRETE	GALV	GALVANIZED	MGMT	MANAGEMENT	RD	ROOF DRAIN	TOC	TOP OF CONCRETE OR TOP OF CURB		
CONN	CONNECTION	GND	GROUND	MH	MANHOLE	RECT	RECTANGULAR	TOE	THREADED ONE END		
CONSTR	CONSTRUCTION	GPD	GALLONS PER DAY	MIN	MINIMUM	RED	REDUCER	TOF	TOP OF FOOTING		
CONT	CONTINUOUS(ATION)	GPM	GALONS PER MINUTE	MISC	MISCELLANEOUS	RE:	REFER TO	TOS	TOP OF STEEL		
COR	CORNER	GR	GRIT	MJ	MECHANICAL JOINT	REF	REFERENCE	TOW	TOP OF WALL		
CPLG	COUPLING	GRC	GALVANIZED RIGID CONDUIT	MNPT	MALE NATIONAL PIPE THREAD	REHAB	REHABILITATION	TP	TOP OF PAVEMENT		
CPVC	CHLORINATED POLYVINYL CHLORIDE	GSP	GALVANIZED STEEL PIPE	MO	MASONRY OPENING	REINF	REINFORCE (D) (ING) (MENT)	TSL	TOP OF SLAB		
CTR	CENTER	GV	GATE VALVE	MRGB	MOISTURE RESISTANT GYPSUM WALL BOARD	REQD	REQUIRED	TSS	TOTAL SUSPENDED SOLIDS		
CV	CHECK VALVE	GW	GROUNDWATER	MTG	MOUNTING	RESIL	RESILIENT	TYP	TYPICAL		
CW	COLD WATER	GWB	GYPSUM WALL BOARD	NA	NOT APPLICABLE	RFCA	RESTRAINED FLANGED COUPLING ADAPTER	UBC	UNIFORM BUILDING CODE		
CY	CUBIC YARDS	GYP	GYPSUM	NIC	NOT IN CONTRACT	RH	RIGHT HAND	UGE	UNDERGROUND ELECTRIC		
DBIO	DEWATERED BIOSOLIDS	HB	HOSE BIBB	NPL	NAMEPLATE	RM	ROOM	ULT	ULTIMATE		
DEMO	DEMOLITION	HDWL	HEADWALL	NPT	NATIONAL PIPE THREAD	RO	ROUGH OPENING	UN	UNION		
DIA	DIAMETER	HNDRL	HAND RAIL	NRS	NON-RISING STEM	ROW	RIGHT OF WAY	UNGD	UNDERGROUND		
DIM	DIMENSION	HNDWL	HAND WHEEL	NTS	NOT TO SCALE	RPBP	REDUCED PRESSURE BACKFLOW PREVENTER	VB	VALVE BOX		
DIP	DUCTILE IRON PIPE	HORIZ	HORIZONTAL	OC	ON CENTER	RPM	REVOLUTIONS PER MINUTE	VCP	VITRIFIED CLAY PIPE		

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STATE OF GEORGIA CERTIFICATE OF AUTHORIZATION — GOODWYN, MILLS, CAWOOD, LLC No. PEF007898 Exp. 06.30.2026

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30% Submittal	05.30.2024
60% Submittal	08.29.2024
90% Submittal	11.27.2024
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Engineer:	GS
Designer:	GS
Drawn By:	

COMMERCE 2.0 MGD
GROVE CREEK WPCP
COMMERCE, GA

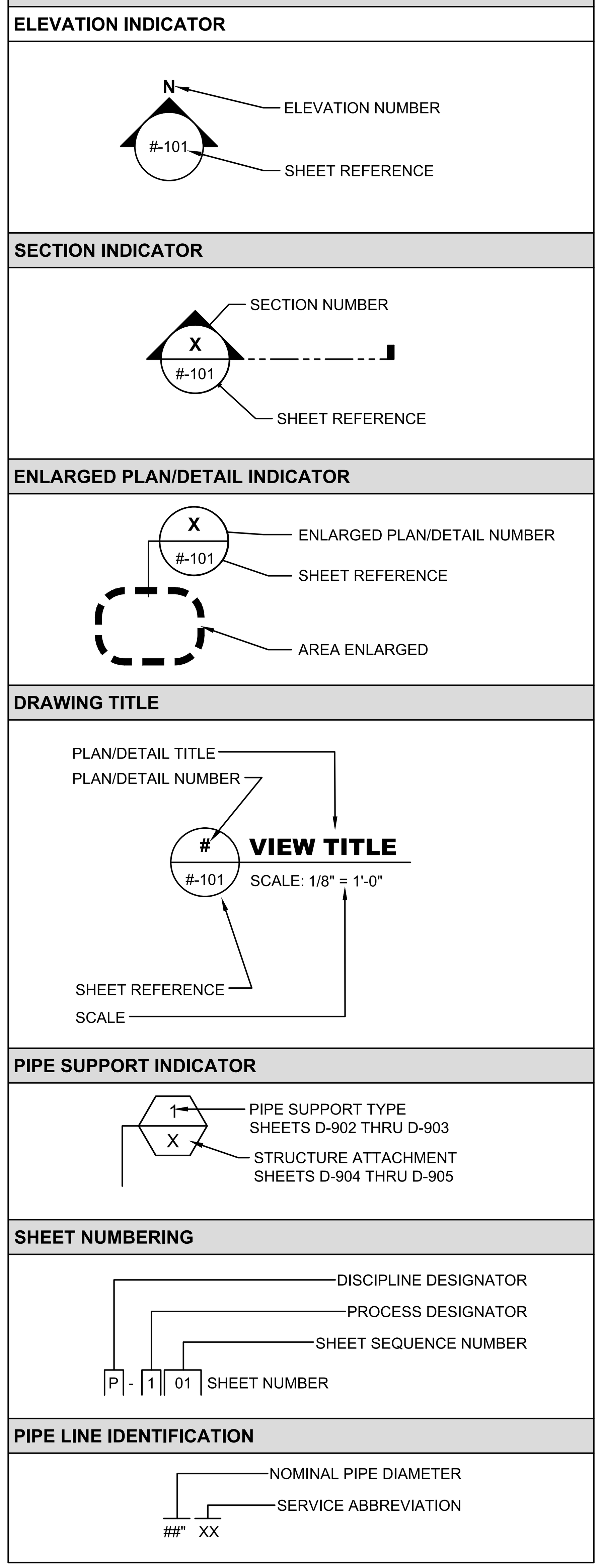
CATL230033

GEORGIA REGISTERED PROFESSIONAL ENGINEER No. PE051452 GRAHAM S. SIZEMORE 03.19.2025

ABBREVIATIONS

G-004

GRAPHICS LEGEND



PROCESS DESIGNATORS

PROCESS SHEETS (WASTEWATER)	DESIGNATOR
NOTES, LEGEND, ABBREVIATIONS, DEMOLITION, EXISTING CONDITIONS, ETC.	0
PRELIMINARY TREATMENT	1
PRIMARY TREATMENT	2
BIOLOGICAL TREATMENT	3
SECONDARY TREATMENT	4
TERTIARY TREATMENT	5
DISINFECTION AND EFFLUENT PUMPING	6
SLUDGE STORAGE AND PROCESSING	7
MISCELLANEOUS SYSTEMS	8
DETAILS / SCHEDULES	9

CIVIL DESIGNATORS

CIVIL	DESIGNATOR
NOTES, LEGEND, ABBREVIATIONS, DEMOLITION, EXISTING CONDITIONS, ETC.	0
SITE PLAN AND GEOMETRIC CONTROLS	1
GRADING AND DRAINAGE	2
UTILITIES/YARD PIPING	3
ROAD PLAN AND PROFILES (IF REQUIRED)	4
ROAD CROSS SECTIONS (IF REQUIRED)	5
SEDIMENT AND EROSION CONTROL	6
RESERVED	7
RESERVED	8
DETAILS / SCHEDULES	9

OWNER

DESCRIPTION	NAME	PHONE NUMBER	EMAIL ADDRESS
CITY MANAGER	MATTHEW HAILEY	706.423.5125	MHAILEY@COMMERCEGA.GOV
WWTP SUPERINTENDENT	TAD EDMONSON	770.374.3288	TEDMONSON@COMMERCEGA.GOV

CONTRACTOR

DESCRIPTION	NAME	PHONE NUMBER	EMAIL ADDRESS
PROJECT MANAGER	TBD		
SUPERINTENDENT	TBD		

ENGINEER

DESCRIPTION	NAME	PHONE NUMBER	EMAIL ADDRESS
PROJECT MANAGER	CHARLES WELCH	770.952.2481 EXT. 103	CHARLES.WELCH@GMCNETWORK.COM
ENGINEER	GRAHAM SIZEMORE, PE	770.952.2481 EXT. 143	GRAHAM.SIZEMORE@GMCNETWORK.COM
INSPECTOR	TONY VAN DE RYT	770.952.2481 EXT. 110	TONY.VANDERYT@GMCNETWORK.COM

PIPE SYMBOLS

DESCRIPTION	SINGLE LINE	DOUBLE LINE
EXISTING BURIED PIPE		
EXISTING ABOVE GRADE PIPE		
NEW BURIED PIPE		
NEW ABOVE GRADE PIPE		
WELDED JOINT		
FLANGED JOINT		
FLANGED ADAPTOR		
FLANGED COUPLING		
MECHANICAL JOINT		
JOINT		
EXPANSION JOINT		

HATCHING LEGEND

DESCRIPTION	EXISTING	PROPOSED
ASPHALT PAVING (PLAN)		
ALUMINUM GRATING		
CONCRETE (ELEVATION)		
CONCRETE (PLAN)		
CONCRETE (SECTION)		
CRUSHED STONE (SECTION)		
EARTH OR BACKFILL (SECTION)		
GRAVEL DRIVE (PLAN)		
GROUT FILL (PLAN & SECTION)		
LAKE, RIVER OR POND (PLAN)		
REMOVAL OR DEMOLITION (PLAN & SECTION)		
UNPAVED DRIVE (PLAN)		

DISCIPLINE DESIGNATORS

DISCIPLINE	DESIGNATOR
GENERAL	G
HAZARDOUS MATERIALS	H
INSTRUMENTATION	I
DEMOLITION	X
SURVEY/MAPPING	V
GEOTECHNICAL	B
CIVIL	C
LANDSCAPE	L
STRUCTURAL	S
ARCHITECTURAL	A
FIRE PROTECTION	F
MECHANICAL	M
PLUMBING	P
PROCESS	D
ELECTRICAL	E

GENERAL NOTES

1. THE CONTRACTOR IS EXPECTED TO CAREFULLY EXAMINE THE PLANS, PROPOSAL AND SITE OF THE WORK. THEREFORE, IT WILL BE ASSUMED THAT THE BIDDER HAS SATISFIED HIMSELF AS TO THE CONDITIONS TO BE ENCOUNTERED IN REGARDS TO THE CHARACTER, QUALITY, AND QUANTITIES OF WORK TO BE PERFORMED AND MATERIALS TO BE FURNISHED, AND AS TO THE REQUIREMENTS OF THE PLANS, SPECIFICATIONS, SPECIAL PROVISIONS AND CONTRACT. THE SUBMISSION OF A PROPOSAL BY A BIDDER WILL BE CONSIDERED PRIMA FACIE EVIDENCE THAT THE BIDDER HAS MADE SUCH AN EXAMINATION.
2. THE CONTRACTOR IS REQUIRED TO MAINTAIN AN AS-BUILT SET OF DRAWINGS DURING PROJECT CONSTRUCTION. THE COMPLETE AS-BUILT MAP WILL CONTAIN ALL INSTALLED ELECTRICAL, STRUCTURAL ENTITIES, LINES, VALVES, METERS, AND CONNECTIONS WITH REFERENCE DISTANCES TO PERMANENT ABOVE GROUND STRUCTURES.
3. ALL EXISTING UTILITIES SHOWN ABOVE AND BELOW GROUND ARE APPROXIMATE AND ARE NOT NECESSARILY ALL THAT EXIST. THE DETERMINATION OF THE EXISTENCE, LOCATION, AND DEPTH OF ALL UTILITIES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
4. ALL MATERIALS AND WORKMANSHIP SHALL BE GUARANTEED BY CONTRACTOR FOR ONE YEAR AFTER ACCEPTANCE BY THE OWNER PER SPECIFICATION 1030.
5. IN THE EVENT THAT THERE IS A DISCREPANCY BETWEEN THE CIVIL DRAWINGS AND THE ARCHITECTURAL/STRUCTURAL DRAWINGS, THE ARCHITECTURAL/STRUCTURAL DRAWINGS SHALL HAVE PRECEDENCE. THE CONTRACTOR SHALL ADVISE THE ENGINEER OF ANY CONFLICT IN THE PLANS/SPECS FOR CLARIFICATION PRIOR TO BID. SHOULD CONFLICTING DOCUMENTS NOT BE CLARIFIED AT THE REQUEST OF THE BIDDING CONTRACTOR, THE MORE COSTLY ALTERNATIVE AS IDENTIFIED IN THE PLAN & SPECS SHALL BE INCLUDED IN THE PRICE BID.
6. ALL HAZARDOUS SUBSTANCES USED FOR THIS PROJECT, INCLUDING, BUT NOT LIMITED TO, PAINT, OIL, GREASE, AND OTHER PETROLEUM PRODUCTS SHALL BE STORED IN ACCORDANCE WITH "SPILL PREVENTION, CONTROL & COUNTERMEASURE" REGULATIONS. THESE SUBSTANCES SHALL BE STORED AWAY FROM STORM DRAINS, DITCHES, AND GUTTERS IN WATERTIGHT CONTAINERS. DISPOSAL OF THESE SUBSTANCES SHALL BE IN ACCORDANCE WITH STATE & FEDERAL AGENCY REGULATIONS. CONTRACTOR SHALL PROVIDE ADEQUATE TRASH CONTAINERS ON SITE FOR THE DISPOSAL OF CONSTRUCTION MATERIALS WASTE. CONTRACTOR SHALL BE RESPONSIBLE FOR PREVENTING ANY TRASH OR OTHER POLLUTANTS FROM ENTERING STORM DRAINS & WATERS OF THE STATE.

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Designer:	GS
Drawn By:	

COMMERCE 2.0 MGD
GROVE CREEK WPCP
COMMERCE, GA

CATL230033

GENERAL NOTES, LEGENDS, & SYMBOLS

G-005

SPECIFICATIONS

CEILING FAN:

CEILING MOUNTED EXHAUST FANS SHALL BE OF THE CENTRIFUGAL DIRECT DRIVE TYPE. THE FAN HOUSING SHALL BE CONSTRUCTED OF STEEL. THE PLASTIC DUCT COLLAR SHALL BE A TAPERED SLEEVE FOR EASE OF CONNECTION TO 3 IN AND 4 IN ROUND DUCTWORK AND SHALL INCLUDE A BACKDRAFT DAMPER. THE GRILLE SHALL BE CONSTRUCTED OF NON-YELLOWING HIGH STRENGTH POLYMER AND ATTACHED TO THE HOUSING WITH TORSION SPRINGS. THE WHEELS SHALL BE CONSTRUCTED OF HIGH STRENGTH POLYMER. THE ACCESS FOR WIRING SHALL BE EXTERNAL. THE MOTOR DISCONNECT SHALL BE INTERNAL AND OF THE PLUG IN TYPE.

ALL FANS SHALL BEAR THE AMCA CERTIFIED RATINGS SEALS FOR SOUND AND AIR PERFORMANCE AND SHALL BE U.L. LISTED.

WALL LOUVERS:

THE WALL LOUVER SHALL BE AMCA CERTIFIED. THE WALL LOUVER SHALL BE OPERABLE, DRAINABLE BLADE TYPE. THE LOUVER SHALL INCORPORATE DRAIN GUTTERS IN THE HEAD MEMBER AND HORIZONTAL BLADES TO CHANNEL WATER TO THE JAMBS WHERE WATER IS FURTHER CHANNELED THROUGH VERTICAL DOWNSPOUTS AND OUT A SLOPED SILL.

THE FRAME AND BLADES SHALL BE CONSTRUCTED FROM HEAVY GAUGE, EXTRUDED, ALUMINUM. THE LOUVER SHALL BE OF MECHANICALLY FASTENED CONSTRUCTION.

REFER TO THE EQUIPMENT SCHEDULE FOR A FULL LISTING OF REQUIRED LOUVER ACCESSORIES.

ELECTRIC WALL HEATER:

HEATER ASSEMBLY WHICH FITS INTO THE BACK BOX SHALL CONSIST OF A FAN PANEL UPON WHICH IS MOUNTED ALL OF THE OPERATIONAL PARTS OF THE HEATER.

THE HEATING ELEMENT SHALL BE OF NON-GLOWING DESIGN CONSISTING OF AN 80/20 NICKEL-CHROMIUM RESISTANCE WIRE ENCLOSED IN A STEEL SHEATH TO WHICH PLATE FINS ARE COPPER BRAZED. IT SHALL BE WARRANTED FOR 5 YEARS.

THE FAN SHALL BE FIVE-BLADED ALUMINUM. THE FAN MOTOR SHALL BE TOTAL ENCLOSED.

FAN CONTROL SHALL BE OF BI-METALLIC, SNAP-ACTION TYPE AND SHALL ACTIVATE FAN AFTER HEATING ELEMENT REACHES OPERATING TEMPERATURE. THE FAN SHALL CONTINUE TO OPERATE AFTER THE THERMOSTAT IS SATISFIED AND UNTIL THE HEATING ELEMENT IS COOL.

THE TAMPER-PROOF THERMOSTAT SHALL BE OF BI-METALLIC, SNAP-ACTION TYPE WITH ENCLOSED CONTACTS. IT SHALL BE COMPLETELY CONCEALED BEHIND THE FRONT COVER TO BECOME TAMPER PROOF.

A THERMAL CUTOUT SHALL BE BUILT INTO THE SYSTEM TO SHUT OFF THE HEATER IN THE EVENT OF OVERHEATING.

A DOUBLE-POLE SINGLE THROW DISCONNECT SWITCH SHALL BE MOUNTED ON THE BACK BOX FOR POSITIVE DISCONNECT OF POWER SUPPLY. IT WILL BE COMPLETELY CONCEALED BEHIND THE FRONT GRID PANEL.

WHERE SCHEDULED, NORMALLY OPEN 24-VOLT AND 120-VOLT LOW VOLTAGE HOLDING COIL RELAYS SHALL BE AVAILABLE TO CONTROL HEATERS IN CONJUNCTION WITH CENTRAL ENERGY CONTROL SYSTEMS. THE BUILT-IN THERMOSTAT CAN THEN BE USED AS ONE OF THE THERMOSTATS IN AN AUTOMATIC NIGHT SET BACK OPERATION.

THE BACK BOX SHALL BE DESIGNED FOR DUTY AS RECESSED ROUGH-IN BOX IN EITHER MASONRY OR FRAME INSTALLATIONS AND IS ALSO USED WITH THE SURFACE MOUNTING FRAME IN SURFACE MOUNTING INSTALLATIONS. THE BACK BOX SHALL BE 20-GAUGE GALVANIZED STEEL AND SHALL CONTAIN KNOCKOUTS THROUGH WHICH POWER LEADS ARE BROUGHT.

THE FRONT PANEL SHALL BE OF THE BAR GRILLE TYPE AND SHALL BE CONSTRUCTED OF 16-GAUGE COLD-ROLLED STEEL, WELDED INTO A UNIFORM GRILLE AND FINISHED IN BAKED ENAMEL TO DIRECT THE WARMED AIR TOWARD THE FLOOR. THE FRONT GRILLE SHALL BE SURROUNDED BY A DECORATIVE SATIN-FINISH ALUMINUM FRAME.

THE HEATER SHALL BE MADE OF A BACK BOX, A HEATER ASSEMBLY, AND A FRONT PANEL.

DIFFUSERS, GRILLES, & REGISTERS:

EGGCRATE GRILLE:

RETURN GRILLES SHALL BE TITUS MODEL 50F FOR THE SIZES AND MOUNTING TYPES AS SHOWN ON THE PLANS AND OUTLET SCHEDULE. RETURN GRILLES MUST PROVIDE A FREE AREA OF AT LEAST 90%. OUTER BORDERS SHALL BE CONSTRUCTED OF HEAVY EXTRUDED ALUMINUM WITH A THICKNESS OF 0.040-0.050 INCH AND SHALL HAVE COUNTERSUNK SCREW HOLES FOR A NEAT APPEARANCE. BORDER WIDTH SHALL BE 1¼ INCHES ON ALL SIDES AND SHALL BE INTERLOCKED AT THE FOUR CORNERS AND MECHANICALLY STAKED TO FORM A RIGID FRAME. CHOICE OF THREE SIZES OF ALUMINUM GRID: ½ X ½ X ½ INCH, ½ X ½ X 1 INCH, OR 1 X 1 X 1 INCH SHALL BE AVAILABLE.

OPTIONAL OPPOSED-BLADE VOLUME DAMPER SHALL BE CONSTRUCTED OF HEAVY GAUGE STEEL OR ALUMINUM. DAMPER MUST BE OPERABLE FROM THE FACE OF THE GRILLE.

PLAQUE DIFFUSERS:

ARCHITECTURAL SQUARE PANEL CEILING DIFFUSERS SHALL BE OF THE SIZES AND MOUNTING TYPES SHOWN ON THE PLANS AND OUTLET SCHEDULE. THE FACE PANEL IS REMOVABLE BY MEANS OF FOUR HANGER BRACKETS. THE EXPOSED SURFACE OF THE FACE PANEL SHALL BE SMOOTH, FLAT, AND FREE OF VISIBLE FASTENERS.
THE BACK OF THE FACE PANEL SHALL HAVE AN AERODYNAMICALLY SHAPED, ROLLED EDGE TO ENSURE A TIGHT HORIZONTAL DISCHARGE PATTERN. CEILING DIFFUSERS WITH A 24 X 24-INCH FULL FACE SHALL HAVE NO LESS THAN AN 18 X 18-INCH FACE PANEL SIZE. CEILING DIFFUSERS WITH A 12 X 12-INCH FULL FACE SHALL HAVE NO LESS THAN A 9 X 9-INCH FACE PANEL SIZE.

THE BACKPAN SHALL BE ONE PIECE PRECISION DIE-STAMPED AND SHALL INCLUDE AN INTEGRALLY DRAWN INLET. THE DIFFUSER NECK SHALL HAVE A MINIMUM OF 1¼-INCH DEPTH AVAILABLE FOR DUCT CONNECTION.

THE FINISH SHALL BE #26 WHITE. THE FINISH SHALL BE AN ANODIC ACRYLIC PAINT, BAKED AT 315°F FOR 30 MINUTES. THE PENCIL HARDNESS MUST BE HB TO H.

THE PAINT MUST PASS A 100-HOUR ASTM B117 CORROSIVE ENVIRONMENTS SALT SPRAY TEST WITHOUT CREEPAGE, BLISTERING OR DETERIORATION OF FILM. THE PAINT MUST PASS A 250-HOUR ASTM D870 WATER IMMERSION TEST. THE PAINT MUST ALSO PASS THE ASTM D2794 REVERSE IMPACT CRACKING TEST WITH A 50-INCH POUND FORCE APPLIED.

OPTIONAL ROUND DAMPER SHALL BE CONSTRUCTED OF HEAVY GAUGE STEEL. DAMPER MUST BE OPERABLE FROM THE FACE OF THE DIFFUSER. OPTIONAL DIRECTIONAL BLOW CLIPS SHALL BE AVAILABLE TO RESTRICT THE DISCHARGE AIR IN CERTAIN DIRECTIONS.

OPTIONAL MOLDED INSULATION BLANKET SHALL BE AVAILABLE. THE INSULATION WILL BE R-6, FOIL-BACKED, AND PROVIDE AN ADDITIONAL 1-INCH GAP AROUND THE NECK TO INSTALL INSULATED FLEX DUCT.

THE MANUFACTURER SHALL PROVIDE PUBLISHED PERFORMANCE DATA FOR THE SQUARE PANEL DIFFUSER. THE DIFFUSER SHALL BE TESTED IN ACCORDANCE WITH ANSI/ASHRAE STANDARD 70-1991.

SPECIFICATIONS

ROOFTOP UNITS:

OUTDOOR, ROOFTOP MOUNTED, ELECTRICALLY CONTROLLED, HEATING AND COOLING UNIT UTILIZING A FULLY HERMETIC SCROLL COMPRESSOR(S) FOR COOLING DUTY AND GAS COMBUSTION FOR HEATING DUTY. FACTORY ASSEMBLED, SINGLE-PIECE HEATING AND COOLING ROOFTOP UNIT. CONTAINED WITHIN THE UNIT ENCLOSURE SHALL BE ALL FACTORY WIRING, PIPING, CONTROLS, AND SPECIAL FEATURES REQUIRED PRIOR TO FIELD START-UP. UNIT SHALL USE ENVIRONMENTALLY SOUND, PURON® REFRIGERANT. UNIT SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. UNIT MUST BE SELECTED AND INSTALLED IN COMPLIANCE WITH LOCAL, STATE, AND FEDERAL CODES.

UNIT CABINET SHALL BE CONSTRUCTED OF GALVANIZED STEEL, AND SHALL BE BONDERIZED AND COATED WITH A PRE-PAINTED BAKED ENAMEL FINISH ON ALL EXTERNALLY EXPOSED SURFACES.

STANDARD HEAT EXCHANGER CONSTRUCTION: HEAT EXCHANGER SHALL BE OF THE TUBULAR-SECTION TYPE CONSTRUCTED OF A MINIMUM OF 20-GAUGE STEEL COATED WITH A NOMINAL 1.2 MIL ALUMINUM-SILICONE ALLOY FOR CORROSION RESISTANCE. BURNERS SHALL BE OF THE IN-SHOT TYPE CONSTRUCTED OF ALUMINUM-COATED STEEL. BURNERS SHALL INCORPORATE ORIFICES FOR RATED HEAT OUTPUT UP TO 2000 FT (610M) ELEVATION. ADDITIONAL ACCESSORY KITS MAY BE REQUIRED FOR APPLICATIONS ABOVE 2000 FT (610M) ELEVATION, DEPENDING ON LOCAL GAS SUPPLY CONDITIONS. EACH HEAT EXCHANGER TUBE SHALL CONTAIN MULTIPLE DIMPLES FOR INCREASED HEATING EFFECTIVENESS.

STANDARD EVAPORATOR AND CONDENSER COILS SHALL HAVE ALUMINUM LANCED PLATE FINS MECHANICALLY BONDED TO SEAMLESS INTERNALLY GROOVED COPPER TUBES WITH ALL JOINTS BRAZED. EVAPORATOR COILS SHALL BE LEAK TESTED TO 150 PSIG, PRESSURE TESTED TO 450 PSIG, AND QUALIFIED TO UL 1995 BURST TEST AT 1775 PSIG. CONDENSER COILS SHALL BE LEAK TESTED TO 150 PSIG, PRESSURE TESTED TO 650 PSIG, AND QUALIFIED TO UL 1995 BURST TEST AT 1980 PSIG.

COMPRESSORS: UNIT SHALL USE FULLY HERMETIC, SCROLL COMPRESSOR FOR EACH INDEPENDENT REFRIGERATION CIRCUIT.

FILTERS ACCESS IS SPECIFIED IN THE UNIT CABINET SECTION OF THIS SPECIFICATION. FILTERS SHALL BE HELD IN PLACE BY A PIVOTING FILTER TRAY, FACILITATING EASY REMOVAL AND INSTALLATION. SHALL CONSIST OF FACTORY-INSTALLED, LOW VELOCITY, THROW-AWAY 2-IN. THICK FIBERGLASS FILTERS. FILTERS SHALL BE STANDARD, COMMERCIALLY AVAILABLE SIZES.

EVAPORATOR FAN MOTOR SHALL HAVE PERMANENTLY LUBRICATED BEARINGS. SHALL HAVE INHERENT AUTOMATIC-RESET THERMAL OVERLOAD PROTECTION OR CIRCUIT BREAKER. SHALL HAVE A MAXIMUM CONTINUOUS BHP RATING FOR CONTINUOUS DUTY OPERATION; NO SAFETY FACTORS ABOVE THAT RATING SHALL BE REQUIRED.

BELT-DRIVEN EVAPORATOR FAN: BELT DRIVE SHALL INCLUDE AN ADJUSTABLE-PITCH MOTOR PULLEY. SHALL USE SEALED, PERMANENTLY LUBRICATED BALL-BEARING TYPE. BLOWER FAN SHALL BE DOUBLE-INLET TYPE WITH FORWARD-CURVED BLADES. SHALL BE CONSTRUCTED FROM STEEL WITH A CORROSION RESISTANT FINISH AND DYNAMICALLY BALANCED.

CONDENSER FAN MOTORS SHALL BE A TOTALLY ENCLOSED MOTOR. SHALL USE PERMANENTLY LUBRICATED BEARINGS. SHALL HAVE INHERENT THERMAL OVERLOAD PROTECTION WITH AN AUTOMATIC RESET FEATURE. SHALL USE A SHAFT-DOWN DESIGN ON 04 TO 12 MODELS AND SHAFT-UP ON 14 SIZE WITH RAIN SHIELD.

CONDENSER FANS SHALL BE A DIRECT-DRIVEN PROPELLER TYPE FAN. SHALL HAVE ALUMINUM BLADES RIVETED TO CORROSION-RESISTANT STEEL SPIDERS AND SHALL BE DYNAMICALLY BALANCED.

REFER TO THE EQUIPMENT SCHEDULE FOR A COMPLETE LISTING OF REQUIRED ACCESSORIES.

SMOKE DETECTORS SHALL BE A FOUR-WIRE CONTROLLER AND DETECTOR. SHALL BE ENVIRONMENTAL COMPENSATED WITH DIFFERENTIAL SENSING FOR RELIABLE, STABLE, AND DRIFT-FREE SENSITIVITY. SHALL USE MAGNET-ACTIVATED TEST/RESET SENSOR SWITCHES. SHALL HAVE TOOL-LESS CONNECTION TERMINAL ACCESS. SHALL HAVE A RECESSED MOMENTARY SWITCH FOR TESTING AND RESETTING THE DETECTOR.
CONTROLLER SHALL INCLUDE:
(1.) ONE SET OF NORMALLY OPEN ALARM INITIATION CONTACTS FOR CONNECTION TO AN INITIATING DEVICE CIRCUIT ON A FIRE ALARM CONTROL PANEL.
(2.) TWO FORM-C AUXILIARY ALARM RELAYS FOR INTERFACE WITH ROOFTOP UNIT OR OTHER EQUIPMENT.
(3.) ONE FORM-C SUPERVISION (TROUBLE) RELAY TO CONTROL THE OPERATION OF THE TROUBLE LED ON A REMOTE TEST/RESET STATION.
(4.) CAPABLE OF DIRECT CONNECTION TO TWO INDIVIDUAL DETECTOR MODULES.
(5.) CAN BE WIRED TO UP TO 14 OTHER DUCT SMOKE DETECTORS FOR MULTIPLE FAN SHUTDOWN APPLICATIONS

THERMOSTATS: ELECTRIC, SOLID-STATE, MICROCOMPUTER-BASED ROOM THERMOSTAT. AUTOMATIC SWITCHING FROM HEATING TO COOLING. PREFERENTIAL RATE CONTROL TO MINIMIZE OVERSHOOT AND DEVIATION FROM SET POINT. SET UP FOR FOUR SEPARATE TEMPERATURES PER DAY. INSTANT OVERRIDE OF SET POINT FOR CONTINUOUS OR TIMED PERIOD FROM 1 HOUR TO 31 DAYS. SHORT-CYCLE PROTECTION. PROGRAMMING BASED ON EVERY DAY OF WEEK. SELECTION FEATURES INCLUDE DEGREE F DISPLAY, 12- OR 24-HOUR CLOCK, KEYBOARD DISABLE, REMOTE SENSOR, AND FAN ON-AUTO. BATTERY REPLACEMENT WITHOUT PROGRAM LOSS.

THERMOSTAT DISPLAY FEATURES INCLUDE THE FOLLOWING: TIME OF DAY. ACTUAL ROOM TEMPERATURE. PROGRAMMED TEMPERATURE. PROGRAMMED TIME. DURATION OF TIMED OVERRIDE. DAY OF WEEK. SYSTEM MODE INDICATIONS INCLUDE "HEATING," "OFF," "FAN AUTO," AND "FAN ON."

ELECTRIC HEAT: HEATER ELEMENT OPEN COIL RESISTANCE WIRE, NICKEL-CHROME ALLOY, 0.29 INCHES INSIDE DIAMETER, STRUNG THROUGH CERAMIC INSULATORS MOUNTED ON METAL FRAME. COIL ENDS ARE STAKED AND WELDED TO TERMINAL SCREW SLOTS.

HEATER ASSEMBLIES ARE PROVIDED WITH INTEGRAL FUSING FOR PROTECTION OF INTERNAL HEATER CIRCUITS NOT EXCEEDING 48 AMPS EACH. AUTO RESET THERMO LIMIT CONTROLS, MAGNETIC HEATER CONTACTORS (24 V COIL) AND TERMINAL BLOCK ALL MOUNTED IN ELECTRIC HEATER CONTROL BOX (MINIMUM 18 GA GALVANIZED STEEL) ATTACHED TO END OF HEATER ASSEMBLY.

DIRECT DRIVE SIDEWALL PROPELLER FANS:

THE PROPELLER SHALL BE FABRICATED STEEL BLADES AND HUBS. THE WHEEL SHALL BE SECURELY ATTACHED TO THE FAN SHAFT WITH STANDARD SQUARE KEY AND SET SCREW OR TAPERED BUSHING. THE WHEEL SHALL BE STATICALLY AND DYNAMICALLY BALANCED IN ACCORDANCE WITH AMCA STANDARD 204-05. THE PROPELLER AND FAN INLET SHALL BE MATCHED.

THE MOTOR ENCLOSURE SHALL BE OPEN DRIPROOF. THE MOTOR SHALL BE PERMANENTLY LUBRICATED, HEAVY DUTY BALL BEARING TYPE. THE MOTOR SHALL BE FURNISHED AT THE SPECIFIC VOLTAGE AND PHASE. REFER TO THE ELECTRICAL DOCUMENTS FOR REQUIRED FAN ELECTRICAL CHARACTERISTICS.

THE FRAMES AND PANELS SHALL BE BOLTED CONSTRUCTION. THE DRIVE FRAME ASSEMBLIES AND FAN PANELS SHALL BE GALVANIZED STEEL. THE DRIVE FRAME SHALL HAVE WELDED WIRE OR FORMED CHANNELS. THE FAN PANELS SHALL HAVE PREPUNCHED MOUNTING HOLES, FORMED FLANGES AND A DEEP FORMED ONE PIECE INLET VENTURI.

REFER TO THE EQUIPMENT SCHEDULE FOR A FULL LISTING OF REQUIRED FAN ACCESSORIES.

SPECIFICATIONS

APPLICABLE CODES:

INTERNATIONAL FIRE CODE, 2018 EDITION - 2020 IFC GA AMENDMENTS
INTERNATIONAL PLUMBING CODE, 2018 - 2020, 2022, 2023 & 2024 IPC GA AMENDMENTS
INTERNATIONAL MECHANICAL CODE, 2018 - 2020 & 2024 IMC GA AMENDMENTS
INTERNATIONAL FUEL GAS CODE (IFGC), 2018 EDITION - 2020 & 2022 IFGC GA AMENDMENTS
INTERNATIONAL ENERGY CONSERVATION CODE (IECC), 2015 EDITION - 2020, 2022 & 2023 SUPPLEMENTS AND AMENDMENTS

TEST AND BALANCE:

TEST AND BALANCE (TAB) CONTRACTOR SHALL HOLD A CURRENT NATIONAL BALANCING COUNCIL (NBC) CERTIFICATION AND POSSESS ACCURATE AND CALIBRATED INSTRUMENTS. TAB WORK AND REPORTS SHALL BE PER NBC PRACTICAL STANDARDS, PROCEDURES AND FORMS. ACCEPTIBLE ALTERNATIVE TAB FIRM CERTIFICATIONS/PROCEDURES: NEBB, AABC, OR TABB.

PRIOR TO COMMENCEMENT OF THE TAB WORK, THE MECHANICAL SYSTEMS ARE TO BE STARTED AND FULLY FUNCTIONING. A CHECKLIST PRIOR TAB WORK IS TO BE SENT TO THE INSTALLING CONTRACTOR AND RETURNED ATTESTING TO THE READINESS OF THE SYSTEMS FOR BALANCING.

GENERAL NOTES:

REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LOCATION OF ALL CEILING MOUNTED EQUIPMENT.

ALL DUCT DIMENSIONS INDICATED IN THESE DOCUMENTS ARE INSIDE-CLEAR DIMENSIONS.

PORTIONS OF DUCTWORK OR PIPING VISIBLE THROUGH GRILLES AND REGISTERS IN FINISHED AREAS SHALL BE PAINTED FLAT BLACK. PAINT BLACK BEHIND ALL GRILLES.

ALL WIRING IN THE CEILING PLENUM SHALL BE PLENUM RATED CABLE. ALL FIRE SEPARATIONS MUST BE PROTECTED WHEN APPLICABLE. ALL MATERIAL IN PLENUM MUST MEET FIRE AND SMOKE SPREAD AS REQUIRED BY NFPA 90A.

MOUNTING FRAME OF CEILING MOUNTED AIR DISTRIBUTION DEVICES SHALL BE COMPATIBLE WITH CEILING TYPE. REFER TO ARCHITECTURAL DRAWINGS FOR CEILING TYPE.

PROVIDE NEW FILTERS (MERV 7 OR BETTER PER OWNER) FOR ALL APPLICABLE HVAC EQUIPMENT AT THE END OF CONSTRUCTION.

ALL ROOF PENETRATIONS TO BE 12" APART AND AT LEAST 12" AWAY FROM CURBS, WALLS, AND DRAIN SUMPS TO PROVIDE ROOFING CONTRACTOR WITH SUFFICIENT ACCESS FOR FLASHING EACH ROOF PENETRATION.

SUBSTITUTIONS MUST BE APPROVED IN WRITING BY ARCHITECT PRIOR TO BID SUBMISSION.

CONTRACTOR SHALL REVIEW ALL CONTRACT DOCUMENTS AND SHALL BE FAMILIAR WITH THE SCOPE AND REQUIREMENTS OF THIS PROJECT. ANY DISCREPANCIES OR LACK OF CLARITY IN THE DOCUMENTS SHALL BE IDENTIFIED TO THE ARCHITECT OR ENGINEER PRIOR TO THE SUBMISSION OF PRICING BIDS. WITH A SUBMITTED BID, CONTRACTOR IS ACCEPTING THESE DOCUMENTS AS SUFFICIENT DEFINITION OF THE SCOPE OF WORK, AND ANY ADDITIONAL COSTS BASED ON UNCLARITY OF CONTRACT DOCUMENTS WILL NOT BE CONSIDERED.

THE CONTRACTOR SHALL REFERENCE THE FULL SET OF CONSTRUCTION DOCUMENTS DURING PRICING AND CONSTRUCTION FOR COORDINATION BETWEEN DISCIPLINES RELATIVE TO THE MECHANICAL SCOPE.

DUCTWORK AND ACCESSORIES:

INDUSTRY STANDARDS: COMPLY WITH SMACNA (SHEET METAL AND AIR CONDITIONING CONTRACTORS' NATIONAL ASSOCIATION) HVAC DUCT CONSTRUCTION STANDARDS, RECOMMENDATIONS FOR FABRICATION, GAUGES, CONSTRUCTION AND DETAILS, AND INSTALLATION PROCEDURES, EXCEPT AS OTHERWISE INDICATED.

COMPLY WITH ASHRAE FUNDAMENTALS HANDBOOK RECOMMENDATIONS, EXCEPT AS OTHERWISE INDICATED.

DUCTWORK METAL AND GAUGES: EXCEPT AS OTHERWISE INDICATED, FABRICATE DUCTWORK FROM GALVANIZED SHEET STEEL COMPLYING WITH ASTM A527, LOCKFORMING QUALITY, WITH ASTM A525 G90 ZINC COATING, MILL PHOSPHATIZED. GAUGES TO COMPLY WITH SMACNA STANDARDS.

DUCT SEALANT: NON-HARDENING, NON-MIGRATING MASTIC OR LIQUID ELASTIC SEALANT (TYPE APPLICABLE FOR THE FABRICATION/INSTALLATION DETAIL) AS COMPOUNDED AND RECOMMENDED BY THE MANUFACTURER SPECIFICALLY FOR SEALING JOINTS AND SEAMS IN DUCTWORK.

DUCTWORK SUPPORT MATERIALS: EXCEPT AS OTHERWISE INDICATED, PROVIDE UPPER ATTACHMENT, HANGERS OF GALVANIZED STEEL STRAPS, OR STEEL RODS AND LOWER ATTACHMENT FOR SUPPORT OF DUCTWORK. HANGING/SUPPORT SYSTEMS SHALL BE IN ACCORDANCE WITH SMACNA REQUIREMENTS.

EXPOSED DUCTWORK SHALL BE DOUBLE-WALL SPIRAL PIPE WITH PAINT GRIP UNLESS OTHERWISE NOTED OR SUBSTITUTION APPROVED BY OWNER. VOLUNTARY ALTERNATE EXPOSED DUCTWORK SHALL BE SINGLE-WALL SPIRAL PIPE UNLESS OTHERWISE NOTED OR SUBSTITUTION APPROVED BY OWNER. ALL EXPOSED DUCTWORK SHALL BE LINED IN LIEU OF WRAPPED. DUCT LINER THERMAL RESISTANCE SHALL MEET THE MINIMUM VALUES SPECIFIED IN PARAGRAPH 'DUCT INSULATION' BELOW.

DUCTWORK LOCATED OUTSIDE OF THE BUILDING ENVELOPE SHALL BE THERMADUCT PRODUCTS OR COVERED WITH 3M VENTURECLAD JACKETING, OR EQUAL PRODUCT, AND SEALED WEATHER-TIGHT.

DUCT INSULATION: R-6 SUPPLY, OUTSIDE AND RETURN AIR DUCT INSULATION IN CONDITIONED AND UNCONDITIONED SPACES. R-8 SUPPLY AND RETURN AIR DUCT INSULATION OUTSIDE THE BUILDING. R-8 INSULATION BETWEEN DUCTS AND THE BUILDING EXTERIOR WHEN DUCTS ARE PART OF A BUILDING ASSEMBLY.

ROOF CENTRIFUGAL EXHAUST FAN:

ROOF EXHAUST FANS SHALL BE CENTRIFUGAL DIRECT DRIVE TYPE. THE FAN WHEEL SHALL BE CENTRIFUGAL BACKWARD INCLINED, CONSTRUCTED OF ALUMINUM AND SHALL INCLUDE A WHEEL CONE CAREFULLY MATCHED TO THE INLET CONE FOR PRECISE RUNNING TOLERANCES. WHEELS SHALL BE STATICALLY AND DYNAMICALLY BALANCED. THE FAN HOUSING AND SHROUD SHALL BE CONSTRUCTED OF HEAVY GAUGE ALUMINUM AND SHALL INCLUDE A WHEEL CONE CAREFULLY MATCHED TO THE INLET CONE FOR PRECISE RUNNING TOLERANCES. WHEELS SHALL BE STATICALLY AND DYNAMICALLY BALANCED.

THE FAN HOUSING AND SHROUD SHALL BE CONSTRUCTED OF HEAVY GAUGE ALUMINUM WITH A RIGID INTERNAL SUPPORT STRUCTURE. THE FAN SHROUD SHALL HAVE A ROLLED BEAD FOR ADDED STRENGTH. MOTORS SHALL BE MOUNTED OUT OF THE AIRSTREAM ON VIBRATION ISOLATORS. FRESH AIR FOR MOTOR COOLING SHALL BE DRAWN INTO THE MOTOR COMPARTMENT FROM AN AREA FREE OF DISCHARGE CONTAMINANTS. MOTORS SHALL BE READILY ACCESSIBLE FOR MAINTENANCE. A DISCONNECT SWITCH SHALL BE FACTORY INSTALLED AND WIRED FROM THE MOTOR COMPARTMENT FOR EASE OF ELECTRICAL WIRING.

ALL FANS SHALL BEAR THE AMCA CERTIFIED RATINGS SEAL FOR SOUND AND AIR PERFORMANCE.

EACH FAN SHALL BEAR A PERMANENTLY AFFIXED MANUFACTURER'S NAMEPLATE CONTAINING THE MODEL NUMBER AND INDIVIDUAL SERIAL NUMBER FOR FUTURE IDENTIFICATION.

LEGEND

SYMBOLS	DESCRIPTION
X1 / X2	DIFFUSER, GRILLE, REGISTER OR LOUVER TAG X1 = TYPE, X2 = CFM
⊠	POSITIVE PRESSURE (AIR GOES OUT) DIFFUSER OR REGISTER, 4-WAY AIR PATTERN (UNLESS OTHERWISE NOTED)
⊘	NEGATIVE PRESSURE (AIR GOES IN) GRILLE
→	POSITIVE PRESSURE AIRFLOW (TYP. SUPPLY)
→|→	NEGATIVE PRESSURE AIRFLOW (TYP. RETURN/EXHAUST)
||||||	FLEXIBLE DUCT
⌜	MANUAL VOLUME DAMPER (MVD)
T	THERMOSTAT
H	HUMIDISTAT
S	REMOTE TEMPERATURE SENSOR
◐	DUCT UP
⊠	DUCT UP
⊘	DUCT DOWN
⏢	SUPPLY DUCT
UNIT #	EQUIPMENT TYPE EQUIPMENT NUMBER. WHERE A LETTER IS USED, THERE ARE MULTIPLE INSTANCES.

ABBREVIATIONS

DB	DRY BULB	MAV	MANUAL AIR VENT
DH	DEHUMIDIFIER	MBH	1,000 BTU PER HR
EA	EXHAUST AIR	MFCU	MINI FAN COIL UNIT
EAT	ENTERING AIR TEMPERATURE	MHP	MINI HEAT PUMP
EDH	ELECTRIC DUCT HEATER	MVD	MANUAL VOLUME DAMPER
EF	EXHAUST FAN	OA	OUTSIDE AIR
ESP	EXTERNAL STATIC PRESSURE	RTU	ROOFTOP UNIT
EWH	ELECTRIC WALL HEATER	SA	SUPPLY AIR
F	DEGREES FAHRENHEIT	SP	STATIC PRESSURE
FCU	FAN COIL UNIT	U.N.O	UNLESS NOTED OTHERWISE
FD	FIRE DAMPER	WB	WET BULB
LAT	LEAVING AIR TEMPERATURE	WL	WALL LOUVER

SPECIFICATIONS

SHOP DRAWINGS:

SUBMIT SHOP DRAWINGS FOR REVIEW. PDF FILES PREFERRED. SHOP DRAWINGS SHALL BE BOUND INTO VOLUMES (FILES), WITH EACH VOLUME (FILE) CONTAINING ONE COPY OF ALL SHOP DRAWINGS. ALL SHOP DRAWINGS SHALL BE SUBMITTED SIMULTANEOUSLY; NO SHOP DRAWINGS WILL BE CHECKED UNTIL ALL HAVE BEEN SUBMITTED.

SUBMITTALS SHALL BE SUPPORTED BY DESCRIPTIVE MATERIAL, SUCH AS CATALOG CUTS, DIAGRAMS, PERFORMANCE CURVES AND CHARTS PUBLISHED BY THE MANUFACTURER, TO SHOW CONFORMANCE TO SPECIFICATION AND DRAWING REQUIREMENTS; MODEL NUMBERS ALONE WILL NOT BE ACCEPTABLE. ALL LITERATURE SHALL CLEARLY INDICATE THE SPECIFIED MODEL NUMBER, DIMENSIONS, ARRANGEMENT, RATING AND CHARACTERISTICS OF THE PROPOSED EQUIPMENT. CAPACITIES AND RATINGS SHALL BE BASED ON CONDITIONS INDICATED OR SPECIFIED HEREIN. ANY DEVIATIONS FROM SPECIFIED EQUIPMENT (PARTICULARLY THOSE WHICH REQUIRE COORDINATION WITH OTHER TRADES) SHALL BE CLEARLY NOTED IN A CONCISE LIST ON A SEPARATE SHEET.

GUARANTEE:

GUARANTEE THAT EACH PIECE OF APPARATUS SHALL BE OF THE CUSTOMARY STANDARD AND QUALITY FURNISHED BY THE DESIGNED MANUFACTURER FOR THAT CATALOG NUMBER.

GUARANTEE THAT THE AIR SYSTEMS SHALL OPERATE WITHOUT AERODYNAMIC NOISE GENERATED FROM THE FAULTY INSTALLATION OF DUCT WORK OR ANY COMPONENT OF THE AIR DISTRIBUTION SYSTEM.

GUARANTEE THAT ALL SYSTEMS AND COMPONENTS SHALL BE PROVIDED WITH A ONE YEAR WARRANTY FROM THE TIME OF DATE OF SUBSTANTIAL COMPLETION. THE WARRANTY SHALL COVER ALL MATERIALS AND WORKMANSHIP. DURING THIS WARRANTY PERIOD, ALL DEFECTS IN MATERIALS AND WORKMANSHIP SHALL BE CORRECTED BY REPAIR OR REPLACEMENT WITHOUT INCURRING ADDITIONS TO THE CONTRACT.

PROFICIENT ENGINEERING
3150 Holcomb Bridge Road
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~~404.330.9798~~
PROJECT # 125178

GMC
6120 Powers Ferry Road NW, Suite 200
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STATE OF GEORGIA — NOT INCORPORATED — GOODWYN MILLS CAWOOD, LLC — No. PEF007898 Exp.06.30.2024 — CERTIFICATE OF AUTHORITY

ISSUE	DATE	DESIGNER:	DRAWN BY:
Bid Set	03.19.2025	AB	PK

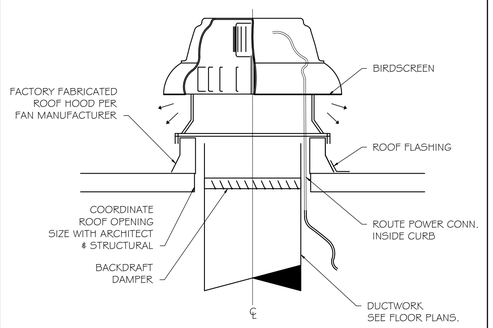
Commerce 2.0 MGD
Grove Creek WPCP
Commerce, GA
GMC PROJ.# CATL230033
NOT - RELEASED FOR CONSTRUCTION

GEORGIA REGISTERED No. 033199 PROFESSIONAL ENGINEER PAUL KENNEY

GENERAL
M-001

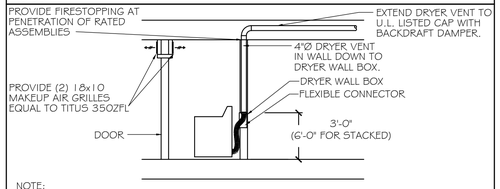
ROOF CENTRIFUGAL EXHAUST FAN DETAIL

NO SCALE



DRYER EXHAUST DETAIL

NO SCALE

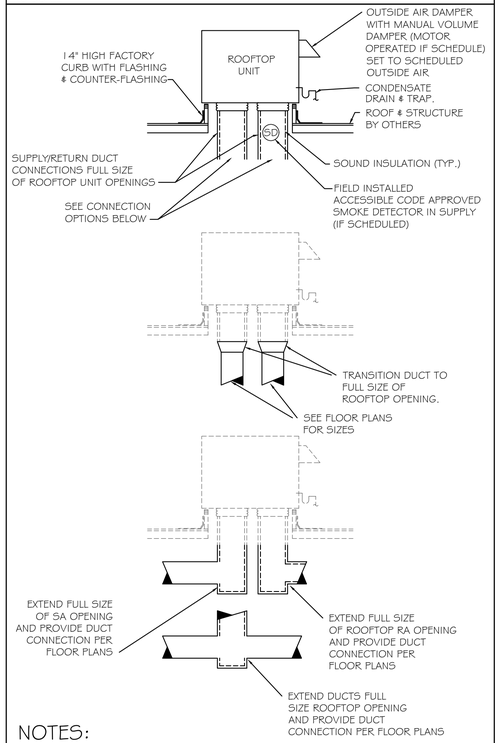


NOTE:

1. EXHAUST DUCT VENT PIPE FOR CLOTHES DRYERS SHALL BE SHEET METAL, MINIMUM 26 GAUGE, AND HAVE A SMOOTH INTERIOR FINISH AND SHALL BE MINIMUM OF 4"Ø. THE ENTIRE EXHAUST SYSTEM SHALL BE SUPPORTED AND SECURED IN PLACE WITH NO PENETRATIONS OF THE DUCTWORK. THE MALE END OF THE DUCT AT OVERLAPPED DUCT JOINTS SHALL EXTEND IN THE DIRECTION OF AIRFLOW.
2. DRYER EXHAUST DUCT SHALL TERMINATE IN WALL AT A DRYER WALL BOX. THE BOX SHALL HAVE A CONNECTION IN THE VERTICAL POSITION FOR FLEXIBLE CONNECTOR TO DRYER COLLAR.
3. CLEAN-OUT OF THE DRYER VENT EXHAUST SYSTEM CAN BE ACCOMPLISHED BY REMOVING THE FLEXIBLE CONNECTOR AND REMOVING ANY EXCESS DRYER LINT.
4. THE ENTIRE DRYER EXHAUST VENT SYSTEM SHALL BE IN ACCORDANCE WITH THE LATEST LOCAL MECHANICAL CODES AND AMENDMENTS.
5. IF LAUNDRY CLOSET DOOR IS LOUVERED, MAKEUP AIR GRILLES MAY BE OMITTED.

ROOFTOP UNIT DETAIL

NO SCALE

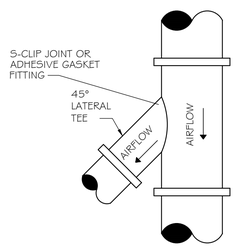


NOTES:

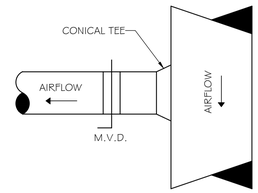
1. REFER TO FLOOR PLANS TO DETERMINE WHICH CONNECTION SHALL BE INSTALLED.
2. COORDINATE EXACT LOCATION OF ROOF OPENING WITH ARCHITECT AND STRUCTURAL.
3. WHERE SUPPLY AIR BY-PASS IS SCHEDULED, PROVIDE BY-PASS IN ROOF CURB WITH MANUAL VOLUME DAMPER ACCESSIBLE FROM ROOF.
4. CONSTANT VOLUME RTUs WITH ECONOMIZERS SHALL INCLUDE MOTORIZED DAMPERS IN BOTH THE OUTDOOR AIR AND RETURN FOR ECONOMIZER CONTROL.
5. CONSTANT VOLUME RTUs WITHOUT ECONOMIZERS SHALL INCLUDE A MOTORIZED OUTDOOR AIR INTAKE DAMPER AND A MANUAL VOLUME DAMPER IN RETURN DUCT FOR BALANCING. MANUAL VOLUME DAMPER IN OUTDOOR AIR INTAKE IS ONLY ACCEPTABLE WHERE MOTORIZED IS NOT OFFERED BY THE RTU MANUFACTURER.

DUCTWORK DETAILS

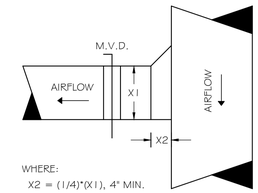
NO SCALE



ROUND - ROUND



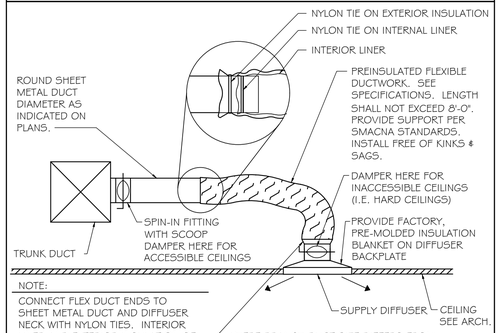
RECTANGULAR - ROUND



RECTANGULAR - RECTANGULAR

DIFFUSER TAKE-OFF DETAIL

NO SCALE



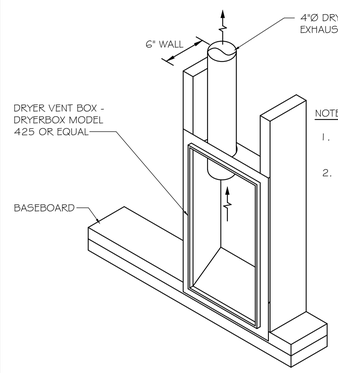
NOTE:

CONNECT FLEX DUCT ENDS TO SHEET METAL DUCT AND DIFFUSER NECK WITH NYLON TIES. INTERIOR LINER AND EXTERIOR INSULATION OF FLEX DUCT TO BE TIED INDIVIDUALLY. INSTALL USING TENSIONING TOOL AS PER MANUFACTURERS RECOMMENDATIONS.

WHERE BRANCH DUCT SIZE DIFFERS FROM SCHEDULED DIFFUSER NECK SIZE, CONTRACTOR SHALL PROVIDE NECESSARY TRANSITION.

DRYER VENT WALL BOX DETAIL

NO SCALE

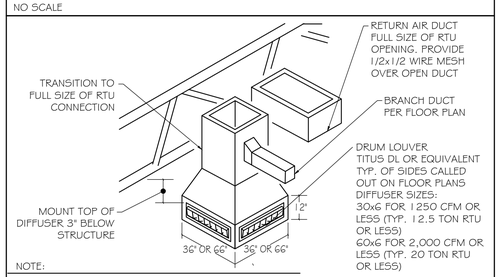


NOTES:

1. INSTALL DRYER VENT BOX PER MANUFACTURER'S RECOMMENDATIONS.
2. DRYER BOX IS RATED TO BE INSTALLED IN A 1-HOUR WALL WHEN INSTALLED IN ACCORDANCE WITH U.L. SYSTEM NO. W-L-7129.

DROP BOX DETAIL

NO SCALE



NOTE:

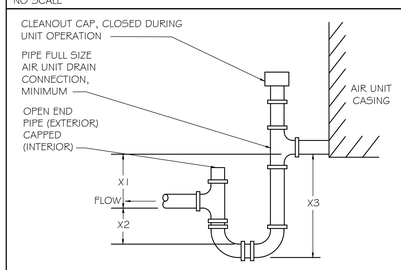
SUPPLY AIR DROP BOX ASSEMBLY SHALL BE CONSTRUCTED OF 18-GAUGE GALVANIZED SHEET AND SHIPPED TO CONSTRUCTION SITE COMPLETE WITH 1" TOP FLANGE, 1" ACOUSTICAL DUCT LINER INSULATION, AIR DIVERTER PYRAMID, ADJUSTABLE DOUBLE DEFLECTION DRUM LOUVERS, AND MOUNTING BRACKETS FOR FIELD INSTALLATION. THE CONTRACTOR SHALL PROVIDE DUCT TRANSITION AS REQUIRED TO COMPLETE CONNECTION TO RTU.

DROP BOX SHALL BE SHOP PRIMED AND FINISHED TO MATCH THE COLOR OF THE STRUCTURE. SEE ARCHITECTURAL.

DROP BOX SHALL BE SHIPPED WITH A SCHEDULE REFERENCING EACH DROP BOX WITH ITS ASSOCIATED RTU.

CONDENSATE TRAP (DRAW THROUGH UNIT)

NO SCALE



WHERE:

X1 =1" PLUS MAXIMUM NEGATIVE STATIC PRESSURE

X2 =HALF OF X1

X3 =X1+X2+PIPE Ø+INSULATION

NOTES

1. LOCATE TRAPS SO AS TO BE ACCESSIBLE FOR CLEANING.

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STATE OF GEORGIA — NOT VALID WITHOUT — GOODWYN MILLS CAWOOD, LLC — No. PEF007898 Exp.06.30.2024 — CERTIFICATE OF AUTHORITY

ISSUE	DATE
Bid Set	03.19.2025

DESIGNER: AB
DRAWN BY: PK

Commerce 2.0 MGD
Grove Creek WPCP
Commerce, GA

GMC PROJ.# CATL230033

NOT - RELEASED FOR CONSTRUCTION

GEORGIA REGISTERED No. 033199 PROFESSIONAL ENGINEER J PAUL KENNEY

DETAILS

M-002

LOUVERS

SYMBOL	MODEL / SERIES	SERVES	SIZE (WxH) (IN)	MIN FREE AREA (SF)	CFM	MAX PRESS. DROP (IN WC)	OPERATOR	INTERLOCK	FRAME	REMARKS			
										1	2	3	4
WL-1	EAD-635	DEWATERING STORAGE	24x18	1.1	870	0.1	MOD	EF-4	ALUMINUM	X	X	X	
WL-2	EAD-635	DEWATERING ROOM	42x30	4.4	3,600	0.1	MOD	EF-5	ALUMINUM	X	X	X	X
WL-3	EAD-635	CHEMICAL FEED BUILDING	18x18	0.5	450	0.1	MOD	EF-6	ALUMINUM	X	X	X	X
WL-4	EAD-635	BLOWER BUILDING	48X48	7.9	6,500	0.1	MOD	EF-7	ALUMINUM	X	X	X	
WL-5	EAD-635	BLOWER BUILDING	48X48	7.9	6,500	0.1	MOD	BLOWERS	ALUMINUM	X	X	X	

NOTES (APPLY TO ALL):

A. FINAL COLOR SELECTION SHALL BE MADE BY ARCHITECT AT TIME OF SHOP DRAWING APPROVAL. PROVIDE COLOR/FINISH CHARTS AS PART OF SUBMITTAL.
B. DESIGN IS BASED ON PRODUCTS BY GREENHECK. ACCEPTABLE ALTERNATES SHALL BE BY UNITED ENERTECH, ARROW, RUSKIN.

REMARKS (APPLY AS SCHEDULED):

1. BIRD SCREEN
2. BAKED ON ENAMEL FINISH.
3. 120V MOTORIZED DAMPER.
4. CORROSION-RESISTANT COATING.

UNIT HEATER - ELECTRIC

MARK	SERVES	FAN		HEATING		BASIS OF DESIGN	WEIGHT (LBS)
		AIRFLOW (CFM)	MOTOR (HP)	KW	STAGES		
EUH-A	DEWATERING	350	1/100	5.0	2	CHROMALOX HD3D	27.0
EUH-B	BLOWER ROOM	1,320	1/10	20.0	4	CHROMALOX HD3D	60.0
EUH-1	CHEMICAL FEED	350	1/100	3.0	2	CHROMALOX HD3D	27.0

NOTES: (APPLY TO ALL)

A. DISCONNECT SWITCH PROVIDED BY THE ELECTRICAL SUBCONTRACTOR.
B. 24V CONTROL TRANSFORMER AND REMOTE / WALL MOUNTED THERMOSTAT SET TO 40°F (ADJ.).
C. AUTOMATIC THERMAL CUT-OUT.
D. FAN DELAY.
E. ADJUSTABLE DISCHARGE LOUVERS.
F. CORROSION-RESISTANT CONSTRUCTION.

DIFFUSER, GRILLE, AND REGISTER SCHEDULE

CALLOUT	DESCRIPTION	FACE SIZE (IN)	INLET SIZE (IN)	NOISE CRITERIA @ MAX CFM	MODEL
RC2424	EGGCRATE GRILLE	24x24	24x24	25	TITUS 50F
RS1206	EGGCRATE GRILLE	12x6	12x6	25	TITUS 50F
RS1212	EGGCRATE GRILLE	12x12	12x12	25	TITUS 50F
SCEC1212	EGGCRATE GRILLE	12x12	12x12	25	TITUS 50F
SCEC2424	EGGCRATE GRILLE	24x24	24x24	25	TITUS 50F
SCP06	SUPPLY CEILING PLAQUE DIFFUSER	24x24	6Ø	25	TITUS OMNI
SCP08	SUPPLY CEILING PLAQUE DIFFUSER	24x24	8Ø	25	TITUS OMNI
SCP10	SUPPLY CEILING PLAQUE DIFFUSER	24x24	10Ø	25	TITUS OMNI
SCP14	SUPPLY CEILING PLAQUE DIFFUSER	24x24	14Ø	25	TITUS OMNI

A. AIR DEVICE (I.E. DIFFUSERS, REGISTERS AND GRILLES) COLOR SELECTION SHALL BE MADE BY ARCHITECT. CONTRACTOR SHALL SUBMIT COLOR/FINISH CHARTS FOR ARCHITECTURAL REVIEW AND SELECTION.
B. THE CONTRACTOR SHALL COORDINATE AIR DEVICE FRAME AND/OR SUSPENSION TYPE WITH THE ARCHITECTURAL REFLECTED CEILING PLAN.

ROOFTOP DIRECT EXPANSION (DX) EQUIPMENT

MARK	SERVES	TOTAL S.A. (CFM)	O.A. (CFM)	E.S.P. (IN WG)	AUX. ELEC. HEATER (KW)	WEIGHT (LBS.)	CARRIER BASIS OF DESIGN	NOMINAL TONNAGE	MINIMUM COOLING CAPACITY						REMARKS									
									TOTAL (MBH)	SENS (MBH)	LAT (MBH)	Ent. Tdb (°F)	Ent. Twb (°F)	Lvg. Tdb (°F)	Lvg. Twb (°F)	1	2	3	4	5	6	7	8	9	10
RTU-1	LABORATORY	1,990	400	0.50	12.0	584.0	50GEQ	5.0	63.0	44.9	18.1	78.6	66.6	57.0	56.0	X	X	X	X			X	X	X	
RTU-2	ADMIN BUILDING	3,000	750	0.50	18.6	885.0	50GEQ	7.5	89.0	65.6	23.4	79.5	67.3	58.5	57.5	X	X	X	X		X	X	X	X	
RTU-3	BLOWER BLDG ELEC ROOM	3,400	0	0.50	7.8	910.0	50GEQ	8.5	101.7	73.2	28.5	75.0	64.0	54.5	53.5	X	X	X	X		X	X	X	X	

NOTES (APPLY TO ALL):

A. SEE ELECTRICAL DRAWINGS FOR ELECTRICAL POWER INFORMATION.
B. SUBMITTED UNIT CAPACITIES SHOULD BE WITHIN +/-10% OF SCHEDULED CAPACITIES.
C. DESIGN IS BASED ON PRODUCTS BY CARRIER. ACCEPTABLE ALTERNATES SHALL BE BY TRANE, LENNOX, DAIKIN, OR JCI. SHOULD AN ALTERNATE MANUFACTURER BE PROVIDED, THE MECHANICAL CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR COORDINATING EQUIPMENT'S ELECTRICAL HARACTERISTICS WITH THE ELECTRICAL CONTRACTOR.
D. ALL UNITS SHALL BE INSTALLED WITH AN ELECTRONIC WATER LEVEL DETECTOR IN THE PRIMARY DRAIN PAN. WATER LEVEL DETECTOR SHALL BE INSTALLED AT A POINT HIGHER THAN THE PRIMARY DRAIN LINE AND LOWER THAN THE DRAIN PAN OVERFLOW RIM. THE WATER LEVEL DETECTOR SHALL BE WIRED TO SHUT DOWN THE UNIT UPON DETECTION OF WATER.
E. UNITS SHALL BE DOE 2023 COMPLIANT.

REMARKS (APPLY AS SCHEDULED):

1. NON POWERED WEATHER PROOF GFCI RECEPTICLE.
2. FACTORY DISCONNECT SWITCH.
3. AIRSIDE ENTHALPY ECONOMIZER WITH MOTORIZED RETURN AND OUTDOOR AIR DAMPERS.
4. POWERED EXHAUST. POWERED EXHAUST SHALL RUN ONLY WHEN UNIT IS IN ECONOMIZER MODE.
5. MOTORIZED OUTDOOR AIR DAMPER.
6. FIELD PROVIDED AND FIELD INSTALLED SMOKE DETECTOR. SMOKE DETECTOR SHALL BE MOUNTED IN THE SUPPLY DUCT.
7. FACTORY INSULATED ROOF CURB.
8. LOW AMBIENT COOLING KIT.
9. 2 STAGE COOLING.

FAN SCHEDULE

MARK	SERVES	DUTY	TYPE	CFM	ESP (IN WG)	MOTOR (W / HP*)	DRIVE	MAX NOISE (SONES)	CONTROL BY	BASIS OF DESIGN MODEL	REMARKS							
											1	2	3	4	5	6	7	8
EF-1	MENS RESTROOM	EXHAUST	CEILING CABINET	190	0.5	155	DIRECT	4.5	OCCUPANCY SENSOR	GREENHECK SP	X	X	X					
EF-2	WOMENS RESTROOM	EXHAUST	CEILING CABINET	190	0.5	155	DIRECT	4.5	OCCUPANCY SENSOR	GREENHECK SP	X	X	X					
EF-3	DEWATERING RESTROOM	EXHAUST	CEILING CABINET	120	0.5	150	DIRECT	3.5	OCCUPANCY SENSOR	GREENHECK SP	X	X	X					
EF-4	DEWATERING STORAGE	EXHAUST	PROPELLER WITH LOUVER	750	0.5	1/12*	DIRECT	7.9	THERMOSTAT	GREENHECK AER	X	X	X	X	X		X	
EF-5	DEWATERING ROOM	EXHAUST	PROPELLER WITH LOUVER	3600	0.5	1*	DIRECT	14.1	THERMOSTAT	GREENHECK AER	X	X	X	X	X	X	X	
EF-6	CHEMICAL FEED BUILDING	EXHAUST	PROPELLER WITH LOUVER	450	0.5	1/4*	DIRECT	6.4	THERMOSTAT	GREENHECK AER	X	X	X	X	X	X	X	
EF-7	BLOWER ROOM	EXHAUST	ROOF CENTRIFUGAL	5600	0.5	2 *	DIRECT	22.0	THERMOSTAT	GREENHECK G	X	X	X					X

NOTES (APPLY TO ALL):

A. SEE ELECTRICAL PLANS FOR POWER CHARACTERISTICS
B. DESIGN IS BASED ON PRODUCTS BY GREENHECK. ACCEPTABLE ALTERNATES SHALL BE BY LOREN-COOK, TWIN-CITY, PENN BARRY.

REMARKS (APPLY AS SCHEDULED):

1. FAN SPEED CONTROLLER.
2. FACTORY DISCONNECT SWITCH/PLUG.
3. GRAVITY BACKDRAFT DAMPER.
4. WALL HOUSING.
5. OSHA GUARD.
6. CORROSION-RESISTANT COATING.
7. MOTORIZED LOUVER, FULL SIZE OF FAN. INTERLOCKED WITH FAN TO OPEN WHEN FAN IS ENERGIZED AND TO CLOSE WHEN FAN IS OFF.
8. FACTORY INSULATED ROOF CURB.

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PROJECT # 125178

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STATE OF GEORGIA — NOT FOR CONSTRUCTION UNTIL SEALED — GOODWYN MILLS CAWOOD, LLC — No. PEF007898 Exp.06.30.2024 — CERTIFICATE OF AUTHORIZATION

ISSUE	DATE	DESIGNER:	AB
Bid Set	03.19.2025	DRAWN BY:	PK

Commerce 2.0 MGD
Grove Creek WPCP
Commerce, GA

GMC PROJ.# CATL230033

NOT - RELEASED FOR CONSTRUCTION

GEORGIA REGISTERED No. 033199 PROFESSIONAL ENGINEER J PAUL KENNEY

SCHEDULES

M-003

LAB FAN SCHEDULE

MARK	SERVES	DUTY	TYPE	CFM	ESP (IN WG)	MOTOR (W / HP*)	DRIVE	CONTROL BY	BASIS OF DESIGN MODEL	REMARKS						
										1	2	3	4	5	6	7	8
LEF-1	LABORATORY FUME HOOD	EXHAUST	HIGH PLUME LABORARY EXHAUST	630	0.3	1/2*	DIRECT	INTERLOCKED WITH HOOD	GREENHECK VEKTOR-H-10	X	X	X	X	X	X	X	

NOTES (APPLY TO ALL):

A. SEE ELECTRICAL PLANS FOR POWER CHARACTERISTICS

B. DESIGN IS BASED ON PRODUCTS BY GREENHECK. ACCEPTABLE ALTERNATES SHALL BE BY LOREN-COOK, TWIN-CITY, PENN BARRY.

REMARKS (APPLY AS SCHEDULED):

1. FAN SPEED CONTROLLER.
2. MOUNTED AND WIRED DISCONNECT TOGGLE SWITCH (NEMA-3R) FOR INDOOR AND OUTDOOR USE.
3. GRAVITY BACKDRAFT DAMPER.
4. HEAVY LOAD ROOF CURB.
5. VARIABLE FREQUENCY DRIVE MOTOR.
6. CORROSION-RESISTANT COATING. GREENHECK LABCOAT OR EQUAL.
7. SPARK RESISTANCE: SPARK B.

ELECTRIC WALL HEATER

MARK	SERVES	WATTS	HEAT (BTU/H)	BASIS OF DESIGN	REMARKS					
					1	2	3	4	5	6
EWH-1	ADMIN UTILITY ROOM	1500	5120	QMARK AWH	X	X	X	X	X	X
EWH-2	DEWATERING RESTROOM	1500	5120	QMARK AWH	X	X	X	X	X	X

REMARKS:

1. INTEGRAL THERMOSTAT TO MAINTAIN MINIMUM 45°F (ADJUSTABLE).
2. COORDINATE ELECTRICAL CHARACTERISTICS WITH ELECTRICAL CONTRACTOR.
3. FAN DELAY SWITCH.
4. THERMAL CUTOUT.
5. FACTORY DISCONNECT SWITCH.
6. SURFACE MOUNTING KIT.

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ISSUE	DATE
Bid Set	03.19.2025

DESIGNER: AB
DRAWN BY: PK

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Commerce, GA

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GEORGIA REGISTERED No. 033199 PROFESSIONAL ENGINEER PAUL KENNEY

SCHEDULES

M-004

GENERAL NOTES

A. EACH SUPPLY DIFFUSER/REGISTER RUNOUT SHALL BE PROVIDED WITH A VOLUME DAMPER. REFER TO THE DIFFUSER TAKE-OFF DETAIL FOR ADDITIONAL INFORMATION.

B. DRAWINGS ARE DIAGRAMMATIC ONLY; FINAL ROUTING OF DUCTWORK AND EQUIPMENT LOCATIONS SHALL BE DETERMINED IN THE FIELD. ADDITIONAL OFFSETS, ELBOWS, ETC. SHALL BE PROVIDED AND INSTALLED WITHOUT ADDITIONAL COST TO THE OWNER.

C. ALL EXHAUST TERMINATIONS SHALL BE LOCATED A MINIMUM OF 10'-0" AWAY FROM MECHANICAL AIR INTAKES AND A MINIMUM OF 3'-0" AWAY FROM OPERABLE BUILDING OPENINGS.

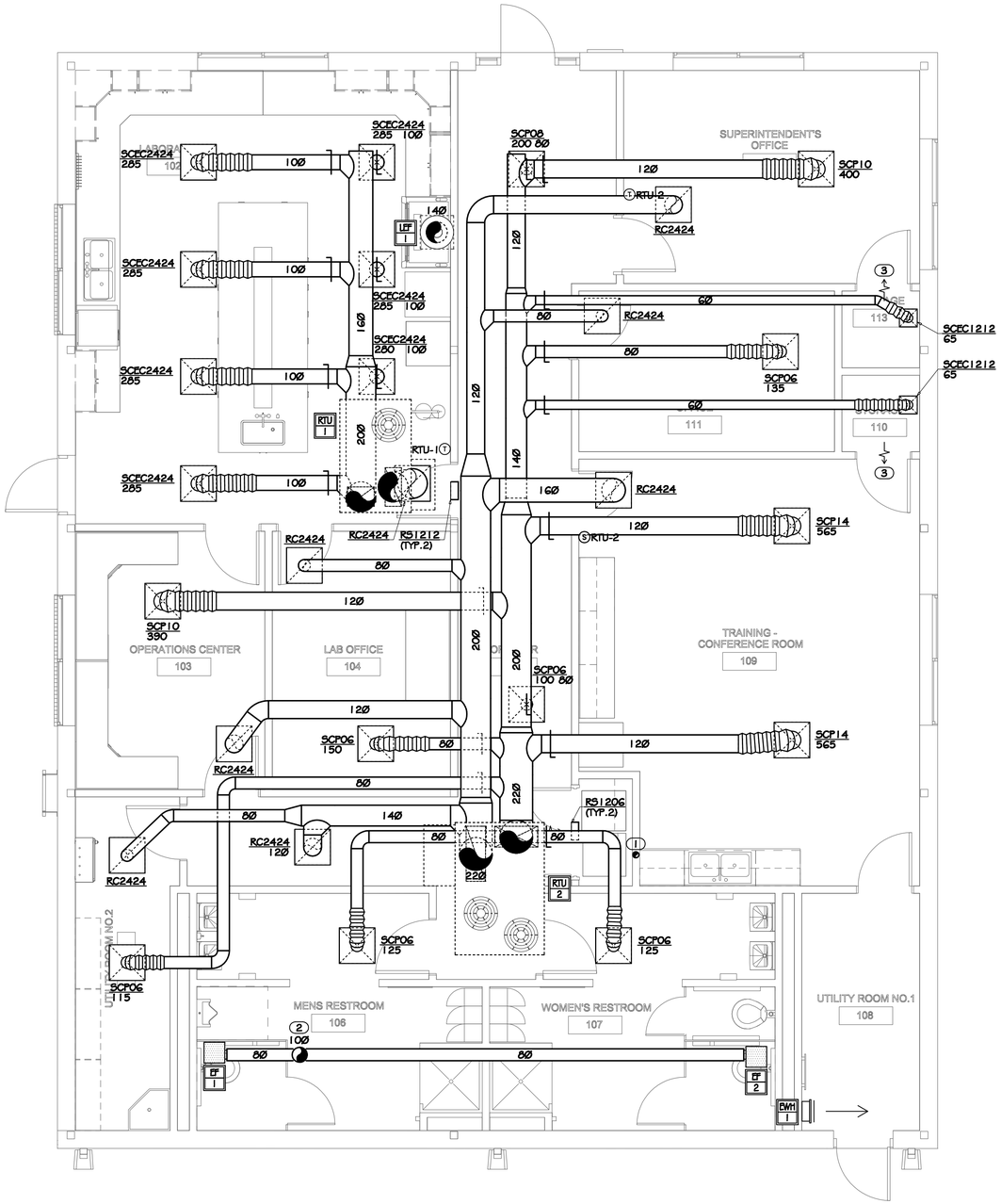
D. ALL ROOFTOP EQUIPMENT SHALL BE LOCATED A MINIMUM OF 10'-0" AWAY FROM ROOF EDGE. WHERE CLEARANCE CANNOT BE MET, FALL PROTECTION SHALL BE REQUIRED.

KEYNOTES

(1) 4"Ø DRYER EXHAUST DUCT ROUTED FROM WALL BOX TO EXTERIOR ROOF CAP WITH INTEGRAL BACKDRAFT DAMPER. REFER TO DETAILS.

(2) EXHAUST DUCT ROUTED TO EXTERIOR ROOF CAP WITH INSECT SCREEN.

(3) UNDERCUT DOOR 3/4".



1 ADMIN BUILDING FLOOR PLAN
M-101 SCALE: 1/4" = 1 '- 0"

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		DRAWN BY: PK

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GEORGIA REGISTERED No. 033199 PROFESSIONAL ENGINEER PAUL KENNEY

ADMIN BUILDING FLOOR PLAN

M-101

KEYNOTES

(1) EXHAUST DUCT ROUTED TO EXTERIOR ROOF CAP WITH INSECT SCREEN.

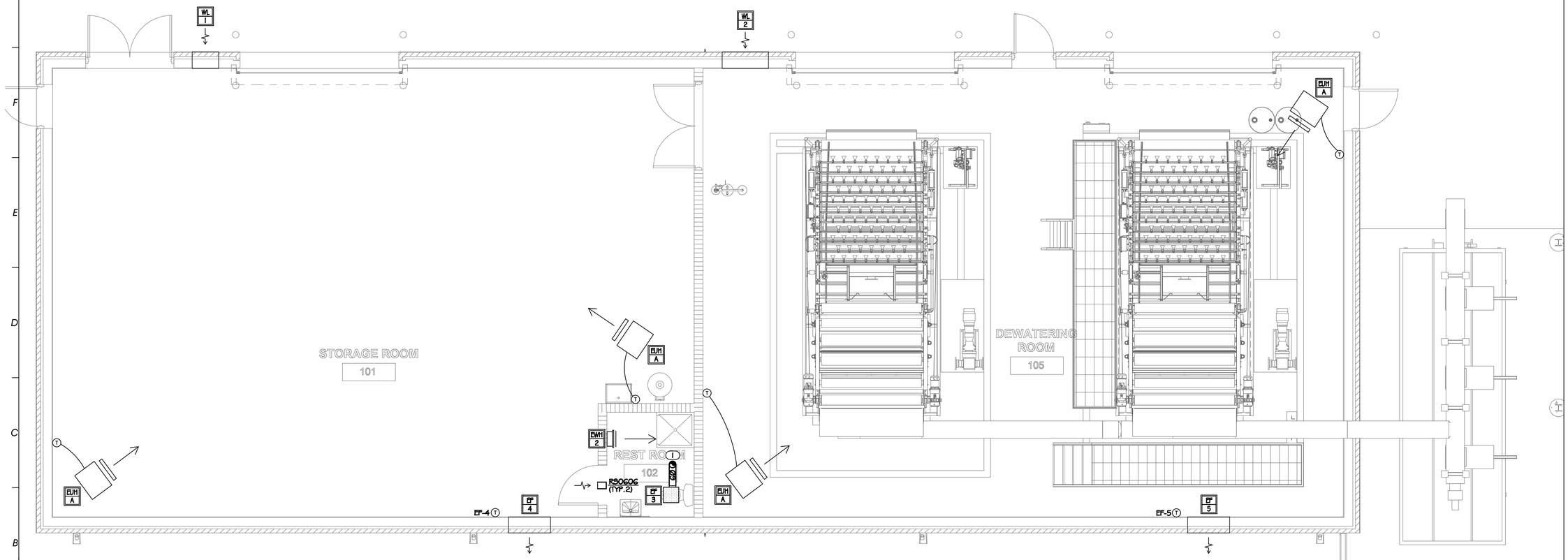
GENERAL NOTES

A. EACH SUPPLY DIFFUSER/REGISTER RUNOUT SHALL BE PROVIDED WITH A VOLUME DAMPER. REFER TO THE DIFFUSER TAKE-OFF DETAIL FOR ADDITIONAL INFORMATION.

B. DRAWINGS ARE DIAGRAMMATIC ONLY; FINAL ROUTING OF DUCTWORK AND EQUIPMENT LOCATIONS SHALL BE DETERMINED IN THE FIELD. ADDITIONAL OFFSETS, ELBOWS, ETC. SHALL BE PROVIDED AND INSTALLED WITHOUT ADDITIONAL COST TO THE OWNER.

C. ALL EXHAUST TERMINATIONS SHALL BE LOCATED A MINIMUM OF 10'-0" AWAY FROM MECHANICAL AIR INTAKES AND A MINIMUM OF 3'-0" AWAY FROM OPERABLE BUILDING OPENINGS.

D. ANY THERMOSTATS LOCATED ON EXTERIOR WALLS SHALL BE MOUNTED ON THERMALLY INSULATED BACK PLATE.



1 M-102 **DEWATERING BUILDING FLOOR PLAN**

SCALE: 1/4" = 1 '- 0"

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Bid Set	03.19.2025

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GEORGIA REGISTERED No. 033199 PROFESSIONAL ENGINEER PAUL KENNEY

DEWATERING BUILDING FLOOR PLAN

M-102

GENERAL NOTES

A. EACH SUPPLY DIFFUSER/REGISTER RUNOUT SHALL BE PROVIDED WITH A VOLUME DAMPER. REFER TO THE DIFFUSER TAKE-OFF DETAIL FOR ADDITIONAL INFORMATION.

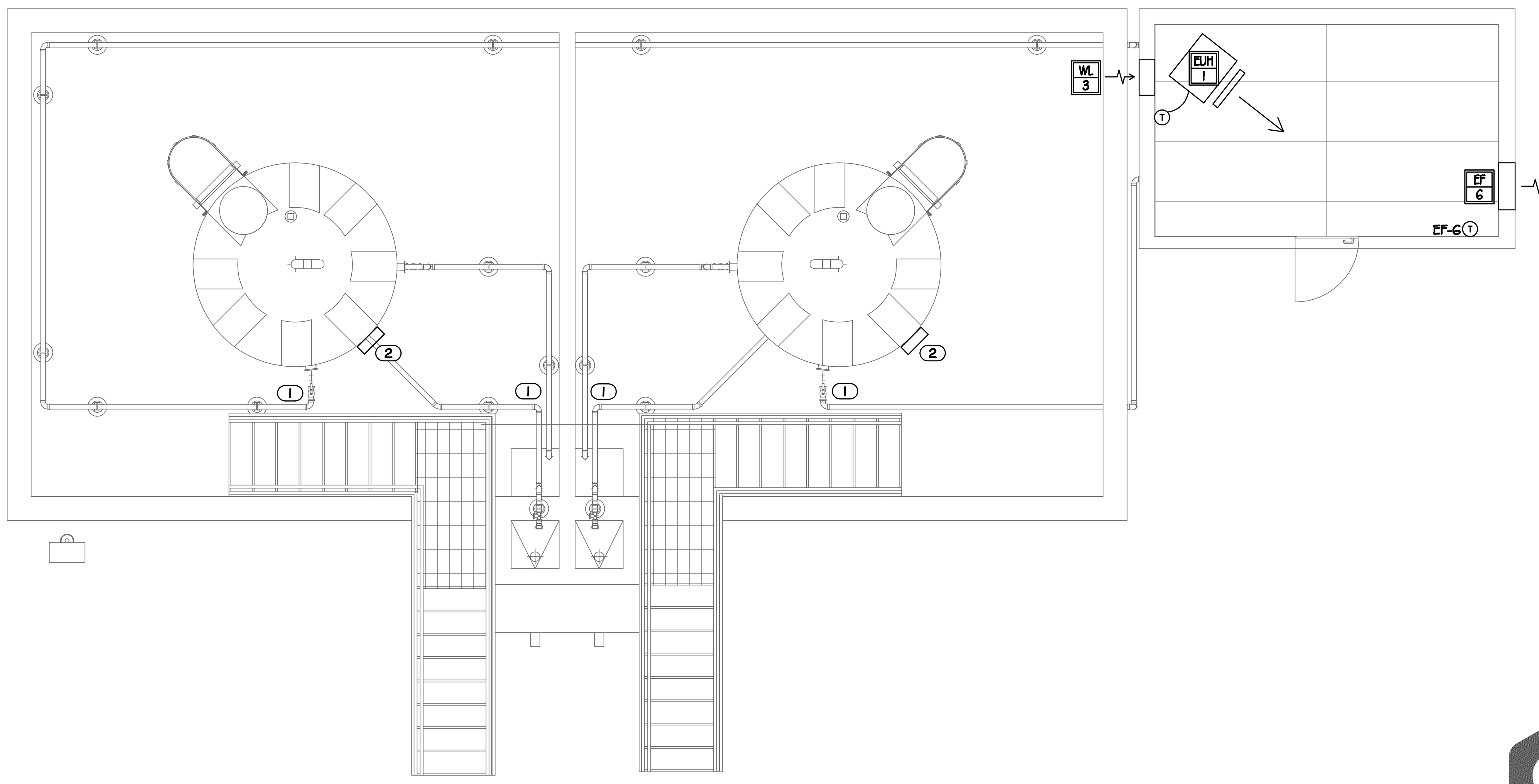
B. DRAWINGS ARE DIAGRAMMATIC ONLY; FINAL ROUTING OF DUCTWORK AND EQUIPMENT LOCATIONS SHALL BE DETERMINED IN THE FIELD. ADDITIONAL OFFSETS, ELBOWS, ETC. SHALL BE PROVIDED AND INSTALLED WITHOUT ADDITIONAL COST TO THE OWNER.

C. ANY THERMOSTATS LOCATED ON EXTERIOR WALLS SHALL BE MOUNTED ON THERMALLY INSULATED BACK PLATE.

KEYNOTES

(1) CHEM LINES SHALL BE HEAT TRACED AND INSULATED.

(2) TANK INSULATION PANEL.



1 / M-103 CHEMICAL FEED FLOOR PLAN

SCALE: 1/4" = 1 '- 0"

PROFICIENT ENGINEERING
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GEORGIA REGISTERED PROFESSIONAL ENGINEER No. 033199 J. PAUL KENNEY

CHEMICAL FEED FLOOR PLAN

M-103

GENERAL NOTES

A. EACH SUPPLY DIFFUSER/REGISTER RUNOUT SHALL BE PROVIDED WITH A VOLUME DAMPER. REFER TO THE DIFFUSER TAKE-OFF DETAIL FOR ADDITIONAL INFORMATION.

B. DRAWINGS ARE DIAGRAMMATIC ONLY; FINAL ROUTING OF DUCTWORK AND EQUIPMENT LOCATIONS SHALL BE DETERMINED IN THE FIELD. ADDITIONAL OFFSETS, ELBOWS, ETC. SHALL BE PROVIDED AND INSTALLED WITHOUT ADDITIONAL COST TO THE OWNER.

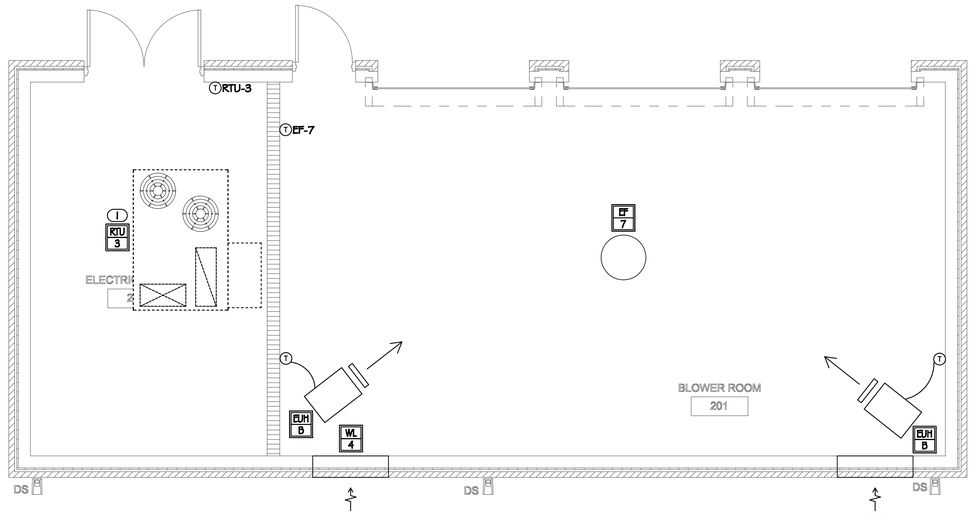
C. ALL EXHAUST TERMINATIONS SHALL BE LOCATED A MINIMUM OF 10'-0" AWAY FROM MECHANICAL AIR INTAKES AND A MINIMUM OF 3'-0" AWAY FROM OPERABLE BUILDING OPENINGS.

D. ANY ROOF-MOUNTED EQUIPMENT LOCATED WITHIN 10'-0" OF ROOF EDGE SHALL BE PROVIDED WITH FALL PROTECTION.

E. ANY THERMOSTATS LOCATED ON EXTERIOR WALLS SHALL BE MOUNTED ON THERMALLY INSULATED BACK PLATE.

KEYNOTES

(1) REFER TO DROP BOX DETAIL.



1 M-104 **BLOWER BUILDING FLOOR PLAN**
SCALE: 1/4" = 1 '- 0"

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ISSUE	DATE
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DESIGNER:	AB
DRAWN BY:	PK

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GMC PROJ.# CATL230033

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GEORGIA REGISTERED No. 033199 PROFESSIONAL ENGINEER PAUL KENNEY

BLOWER BUILDING PLANS

M-104