



- ### NOTES:
1. REFER TO PLUMBING FIXTURE SCHEDULE FOR ROUGH-IN PIPE SIZES TO FIXTURES.
 2. PROVIDE THE APPROPRIATE AMOUNT OF WATER DRAINS AND CAPPED PIPES TO THOROUGHLY BLOW OUT THE WATER PIPING FOR WINTERIZATION. PIPES TO BE SLOPE TO GRAVITY DRAIN.
 3. PVC INTAKE AND EXHAUST PIPES UP TO CONCENTRIC ROOF TERMINAL.
 4. PIPING/DUCTWORK TO BE INSTALLED AS HIGH AS POSSIBLE AND TIGHT TO WALLS.
 5. ALL FIXTURES TO BE FED/SERVICED FROM MECHANICAL CHASE.

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STATE OF MICHIGAN

DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
PROCUREMENT AND REAL ESTATE SERVICES ADMINISTRATION
DESIGN AND CONSTRUCTION DIVISION
ROBERT C. HALL, RA, NCARB, DIRECTOR



01/24/2020	Phase 500 - 50% Review
10/07/2019	Phase 500 - 30% Review
DATE	REVIEW

PROJECT DESCRIPTION

BRIMLEY STATE PARK - TOILET
SHOWER BUILDING IMPROVEMENTS

SUPERIOR TOWNSHIP, CHIPPEWA COUNTY

FLOOR PLAN - VENTILATION,
UNDERGROUND DRAINAGE &
ABOVEGROUND PIPING
WEST AREA

PROJECT NO. 751/19154.TAP
INDEX --
PCA 00-0000
DRAWN BY RG
DESIGNED BY GRS
JC/ENG BY GRS

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Job No.: 423-19116 WEST

M101

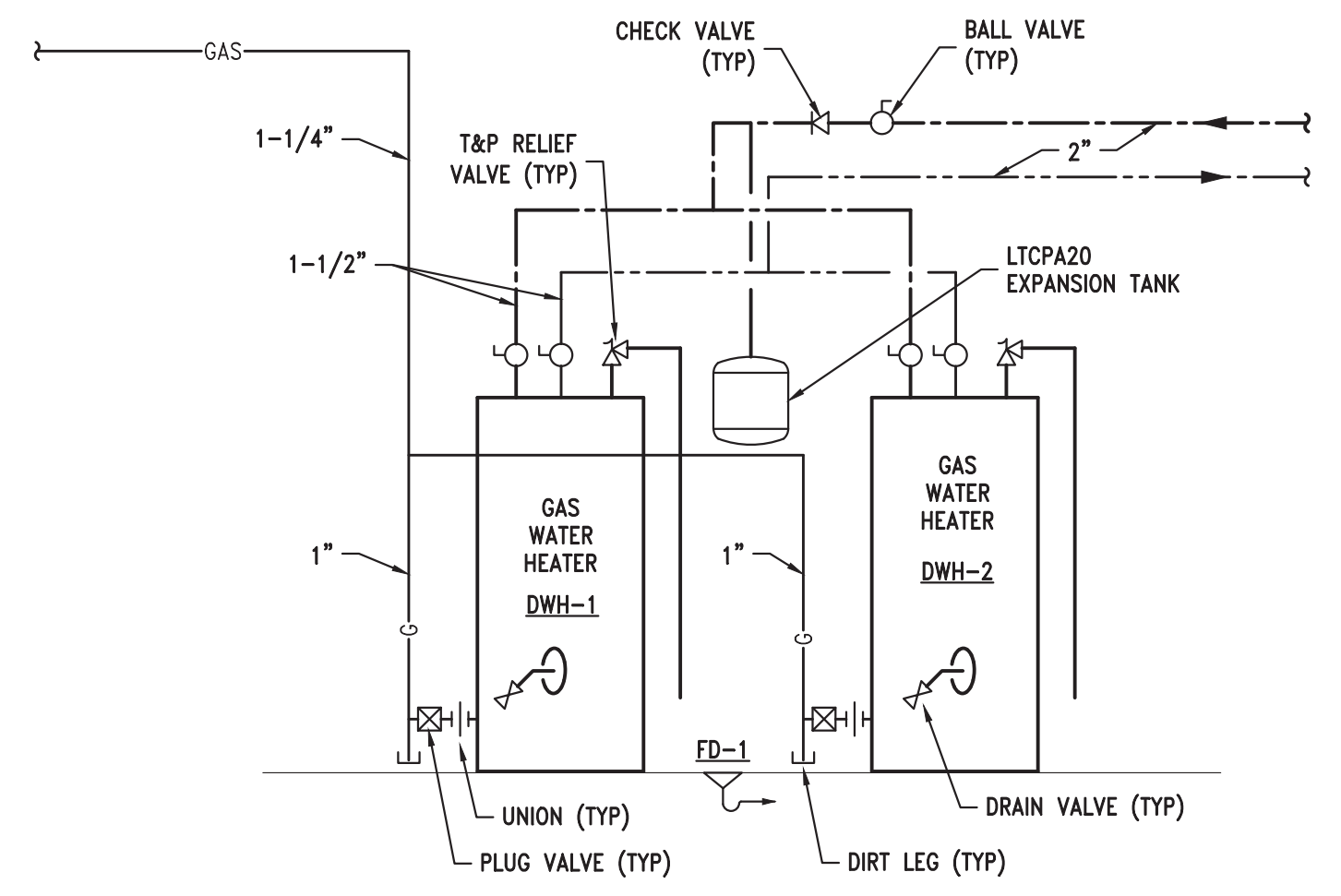
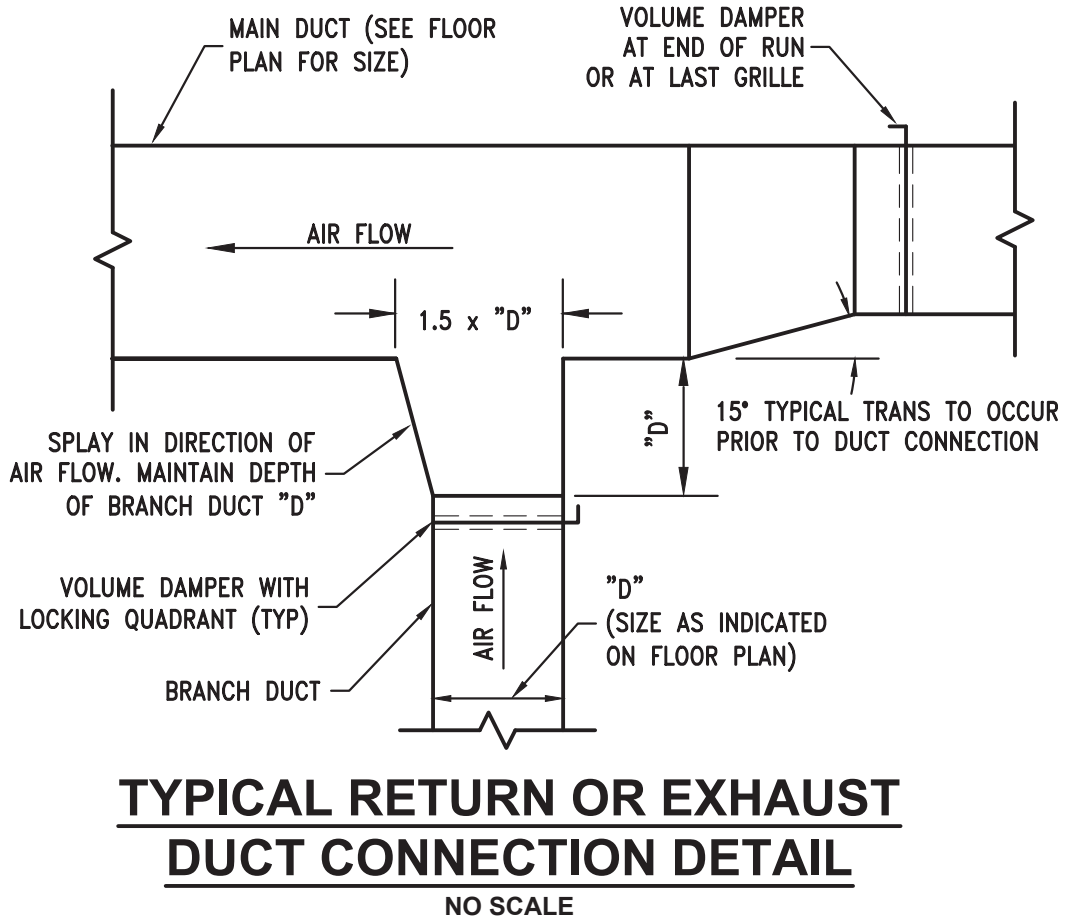
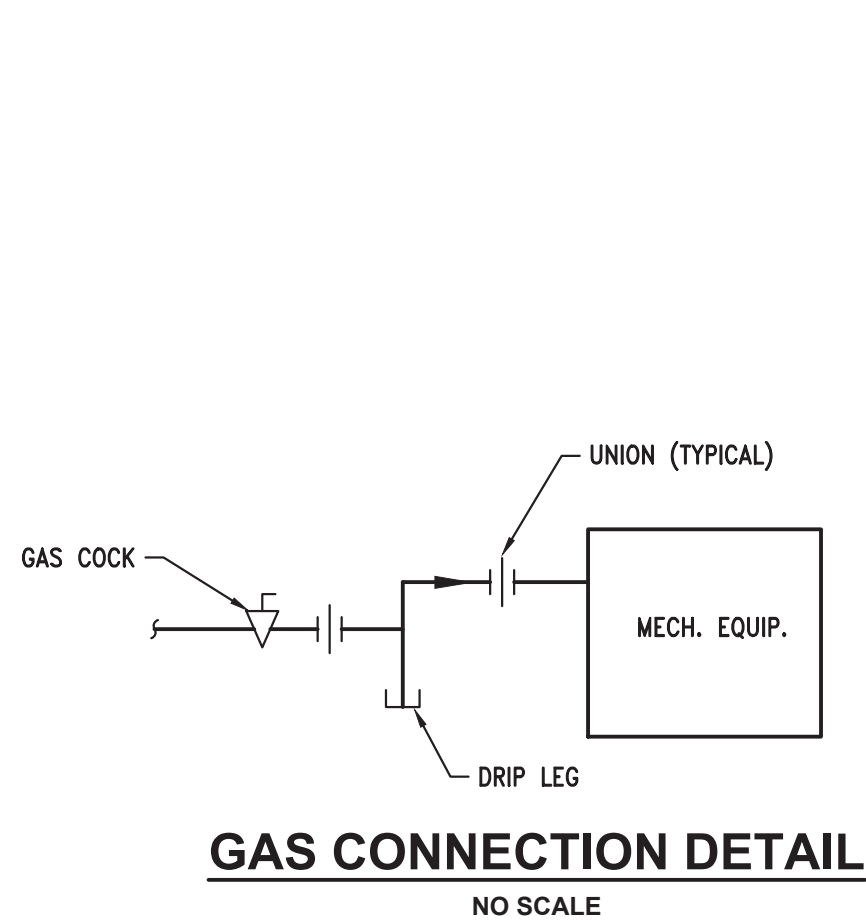
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GAS WATER HEATER SCHEDULE													
TAG	MANUFACTURER AND MODEL NUMBER	UNIT SERVING	LOCATION	FUEL TYPE	RECOVERY GPH 100 °F RISE	INPUT M.B.H.	THERMAL EFF.	TURNDOWN RATIO	STORAGE CAPACITY	COMB.AIR DIA.	VENT DIA.	VENT MAT.	NOTES
DWH-1 & 2	LOCHINVAR COMMERCIAL SHIELD-SLR-201-100	PLUMBING	UTILITY 118	L.P.	228	199.9	96%	5:1	90	3"	3"	PVC	1-5, PROPANE

- NOTES:
1. PROVIDE OPTIONAL SEALED COMBUSTION CONNECTION.
 2. ASME TEMPERATURE AND PRESSURE RELIEF VALVE.
 3. PROVIDE INTEGRAL HEAT TRAPS ON INLET & OUTLET PIPING.
 4. CONDENSATE NEUTRALIZATION KIT.
 5. 8'-FOOT POWER CORD.

GRILLE, REGISTER AND DIFFUSER SCHEDULE					
TAG	SERVICE	MANUFACTURER AND MODEL NUMBER	FINISH	CONSTRUCTION	NOTES/ACCESSORIES
ER-1	EXHAUST	PRICE 535	BAKED OFF WHITE	STEEL	3/4" BLADE SPACING. 10x4 FOR UP TO 110 CFM
ER-2	EXHAUST	PRICE 535	BAKED OFF WHITE	STEEL	3/4" BLADE SPACING. 10x6 115 TO 140 CFM
ER-3	EXHAUST	PRICE 535	BAKED OFF WHITE	STEEL	3/4" BLADE SPACING. 12x8 FOR OVER 140 CFM

NOTE:
CONTRACTOR SHALL COORDINATE THE INSTALLATION OF DIFFUSERS, GRILLES AND REGISTERS WITH THE ARCHITECTURAL PLANS.



PLUMBING FIXTURE SCHEDULE									
TAG	ITEM	MAKE	MODEL NAME	MODEL NUMBER	PIPE CONNECTION SIZES				NOTES/ACCESSORIES
					W	V	CW	HW	
AAV-1	AIR ADMITTANCE VALVE	STUDOR	MINI-VENT	20301	-	SEE PLANS	-	-	KK
DF-1	DRINKING FOUNTAIN	ELKAY	WALL MOUNT	LK-4405FRK	1-1/2"	1-1/2"	1/2"	-	G
DF-2	DRINKING FOUNTAIN	ELKAY	WALL MOUNT	LK-4405FRK	1-1/2"	1-1/2"	1/2"	-	G, ADA
FD-1	FLOOR DRAIN	MIFAB	-	F1100	SEE PLANS	-	-	-	A, B, Q, NN, OO
HB-1	HOSE BIBB	WOODFORD	-	B65	-	-	3/4"	-	VACUUM BREAKER, FLUSH WALL BOX W/KEY, NICKEL BRONZE
HB-2	HOSE BIBB	WOODFORD	-	B65	-	-	3/4"	-	VACUUM BREAKER, FLUSH WALL BOX W/KEY, NICKEL BRONZE
LAV-1	LAVATORY (WALL MTD, ADA)	KOHLER	CHESAPEAKE	K-1722	1-1/2"	1-1/2"	1/2"	1/2"	A, B, D, E, K, R, S, BB, DD
LAV-2	LAVATORY COUNTERTOP	KOHLER	CAXTON	K-2210	1-1/2"	1-1/2"	1/2"	1/2"	A, B, D, E, K, R, S, DD, UNDERMOUNT
MS-1	MOP SINK	FIAT	-	MSB2424 (MOLDED STONE)	3"	-	1/2"	1/2"	A, B, O, P, GG, OO, PP
SH-1	SHOWER	SYMMONS	HYDAPIPE	1-901S-56 270-C-1.5	-	-	1/2"	1/2"	H, M, N, PACKAGED SHOWER PANEL WALL MTD W/HEAD & CONTROLS
SH-2	SHOWER (ADA)	SYMMONS	HYDAPIPE	1-901S-56-270-C-1.5-FS	-	-	1/2"	1/2"	H, M, N, PACKAGED SHOWER PANEL WALL MTD W/HEAD & CONTROLS
UR-1	URINAL	AM.STD.	WASHBROOK	6590.00105	2"	1-1/2"	3/4"	-	A, B, J, CC
UR-2	URINAL (ADA)	AM.STD.	WASHBROOK	6590.00105	2"	1-1/2"	3/4"	-	A, B, J, BB
WC-1	WATER CLOSET (WALL MTD, ADA)	AM.STD.	AFWALL	3351.128	4"	2"	1"	-	A, B, C, I
WC-2	WATER CLOSET (WALL MTD)	AM.STD.	AFWALL	-	4"	2"	1"	-	A, B, C, I
WS-1	SINK (1-COMP)	JUST	SPECIAL SERVICE	A-46712	1-1/2"	1-1/2"	1/2"	1/2"	A, B, D, F, L, T, W, DD

PLUMBING FIXTURE NOTES/ACCESSORIES					
A	VERIFY COLOR/FINISH WITH ARCHITECT	B	PROVIDE ALL SLEEVES, TEMPLATES, ETC. AS REQUIRED FOR ROUGH-IN OF FIXTURES. COORDINATE WITH ARCHITECTURAL TRADES.	C	PROVIDE SEAT: BEMIS: 195SS5TFR W/ STA-TITE FASTENERS
D	PROVIDE BRASSCRAFT COMMERCIAL ANGLE SUPPLY WITH RISER	E	PROVIDE SYMONS "HYDAPIPE" UNDER SINK PIPE COVERS	F	PROVIDE BRASSCRAFT 1-1/2" CAST BRASS "P" TRAP
G	OPTIONAL STAINLESS STEEL BACKSPASH	H	HIGH AND LOW VANDAL-RESISTENT ADJUSTABLE SHOWER HEADS	I	FLUSH VALVE: MANUAL OPERATION SLOAH 111-ES-S, 1.6 GPF
J	FLUSH VALVE: MANUAL OPERATION SLOAH 186-ES-S	K	LAVATORY FAUCET: DELTA: 22C101	L	FAUCET: JUST JLK-400
M		N	SHOWER PANEL WITH MANUAL TEMP CONTROL AND PUSH BUTTON AT 48" A.F.F.	O	HOSE AND HOSE BRACKET: DELTA: 28T911
P	MOP HANGER: DELTA: 28T910	Q	PROVIDE J.R. SMITH 2692 TRAP SEALER SIZED TO MATCH DRAINING OUTLET	R	PROVIDE BRASSCRAFT 1-1/4" CAST BRASS "P" TRAP
S	PROVIDE BRASSCRAFT 1-1/4" OFFSET DRAIN WITH TAILPIECE	T	DRAIN OUTLET WITH TAILPIECE: JONES STEPHENS CORP.: S14-014T	U	
V		W	SINK FAUCET: JUST JLK-400 WHA HOSE END	X	
Y		Z		AA	
BB	PROVIDE CHAIR CARRIER W/ FOOT SUPPORTS, MOUNT PER ADA REQUIREMENTS	CC	PROVIDE WATTS CHAIR CARRIER WITH FOOT SUPPORTS	DD	TEMPERING VALVE: POWERS: LFe480, ASSE 1070
EE		FF		GG	VINYL BUMPERGUARD: FIAT: E-77-AA (2 REQUIRED)
HH		II		JJ	
KK	MOUNT AIR ADMITTANCE VALVE IN STUDOR MULTI-PURPOSE RECESS BOX, MODEL 20306 AT HEIGHT RECOMMENDED BY MFR.	LL		MM	
NN	USE F1100C WHERE MEMBRANE FLOOR IS USED	OO	PROVIDE DEEP SEAL TRAP UNLESS OTHERWISE NOTED	PP	FAUCET WITH VACUUM BREAKER: FIAT 830-AA

MECHANICAL LEGEND		
—	HOSE BIBB (HB)	HB HOSE BIBB
└─┘	AIR BALANCING DAMPER	HW HOT WATER
○	BALL VALVE	LAV LAVATORY
⋈	GATE VALVE	MS MOP SINK
	UNION	S SINK
└─┘	PIPE DOWN	SAN SANITARY
○	PIPE UP	SH SHOWER
⊗	FLOOR DRAIN	UR URINAL
A.F.F.	ABOVE FINISHED FLOOR	W WASTE
CFH	CUBIC FEET PER HOUR	— -- DOMESTIC COLD WATER
CFM	CUBIC FEET PER MINUTE	— - - DOMESTIC HOT WATER
CW	COLD WATER (DOMESTIC)	— - - - DOMESTIC HOT WATER RETURN
DN	DOWN	—C NATURAL GAS
EF	EXHAUST FAN	—SAN SANITARY SEWER
FD	FLOOR DRAIN	— V VENT PIPING

PROJECT NO. 751/19154.TAP	
INDEX	
PCA	00-0000
DRAWN BY	RG
DESIGNED BY	GRS
JIC/ENG BY	GRS

PROJECT DESCRIPTION	
BRIMLEY STATE PARK - TOILET SHOWER BUILDING IMPROVEMENTS	
SUPERIOR TOWNSHIP, CHIPPEWA COUNTY	
01/24/2020	Phase 500 - 50% Review
10/07/2019	Phase 500 - 30% Review
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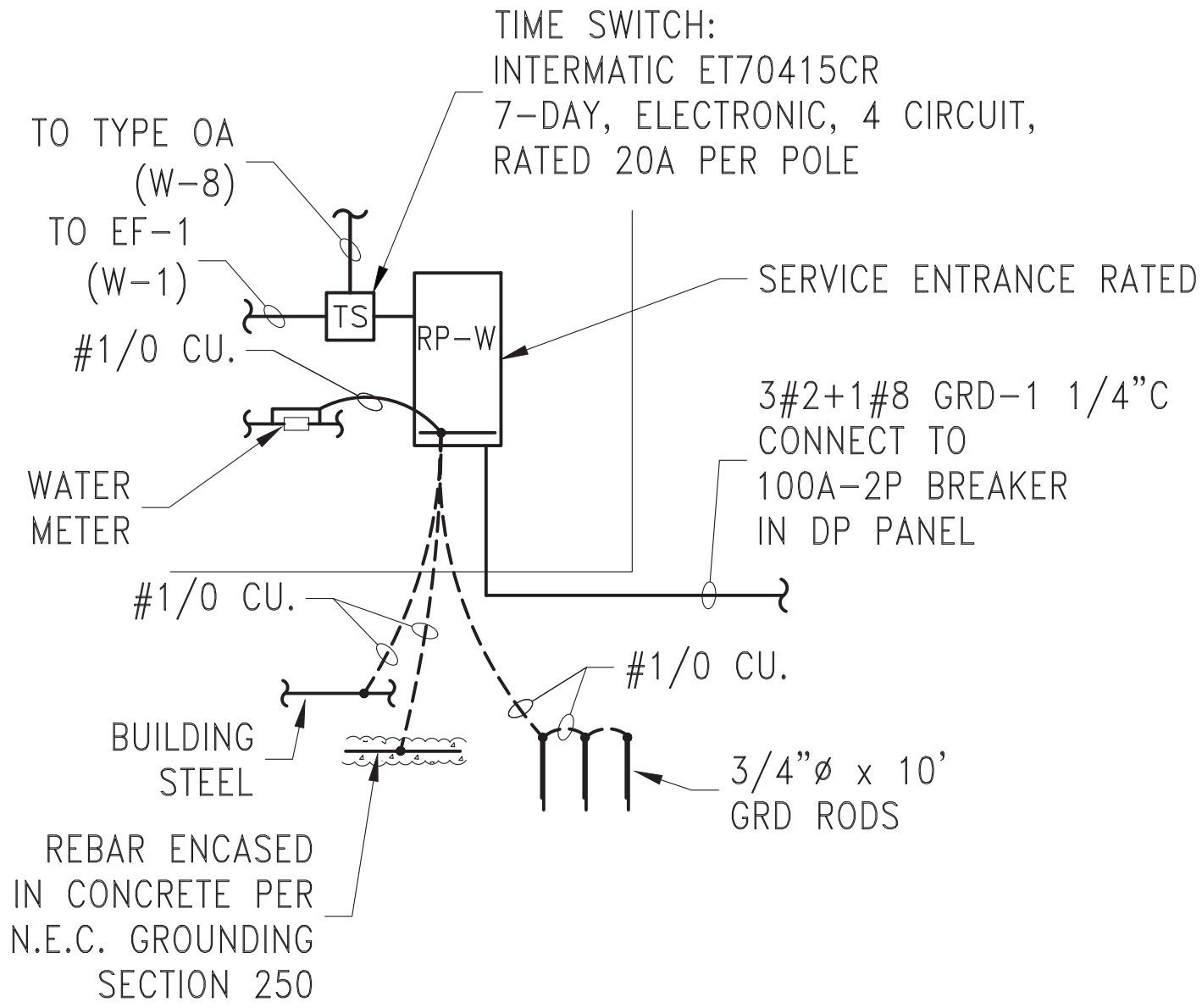
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DESIGN AND CONSTRUCTION DIVISION
ROBERT C. HALL, RA, NCARB, DIRECTOR



- FIRST FLOOR PLAN - LIGHTING**
SCALE: 1/4"=1'-0"

LIGHT FIXTURE SCHEDULE				
ITEM #	DESCRIPTION	MANUFACTURER	MODEL	REMARKS
LA	SURFACE LINEAR LED, 0-10V DIMMING	FAILSAFE	HVL8-BR-4-LD3-1STD-27K-UNV-O-ED1C-S-HVL8CBD	VERIFY LENGTH AS CONTINUOUS PER RUN
LB	SURFACE CEILING MOUNTED LED FIXTURE	LUMINAIRELED	ARV13-25W-LED-2700K-120-OP-WHT-DIM	VANDAL RESISTANT
LC	SURFACE LED AMBIENT FIXTURE	CREE	LS4-40L-27K-10V	DIMMABLE
EMA	INDOOR/OUTDOOR LED EMERGENCY LIGHTING	DUALITE	PG-W-120	OR AS SELECTED BY OWNER
OA	WALL MOUNTED LED FIXTURE	LUMARK	XTOR2B-Y	1997 LUMENS, 3000K, 70 CRI, 18W



ELECTRICAL RISER DIAGRAM
NO SCALE 120/240V-1Ø-3W

NOTE 1: APPROVED EQUALS WILL BE CONSIDERED; HOWEVER, ANY SUBMISSION MUST PROVIDE EQUAL PERFORMANCE IN DELIVERED LUMEN OUTPUT, DISTRIBUTION AND MEET THE DIMENSIONAL CRITERIA.

NOTE 2: PROVIDE WARM COLOR LED (2700K)

PROJECT: BRIMLEY STATE PARK			100A		M.C.B.		CLASS: 120/240V-1PH-3W+GRD.			RP-W
PROJ NO: 423-19116							MOUNTING: SURFACE			
BRANCH CIRC.			WATTS		CODE		REMARKS			
NO.	POLES	BKR.	BUS A	BUS B	L	R	E			
1	1	25	1600				E	EF-1	HACR	
3	1	20		250			E	DWH-1		
5	1	20	800			R		REC MENS	GFI	
7	1	20		400		R		REC WOMENS	GFI	
9	1	20	250				E	DWH-2		
11	1	20		200			E	TIME CLOCK		
13	1	20					E	Spare		
15	1	20		1500			E	HAND DRYER		
17	1	20	1500				E	HAND DRYER		
19	1	20		1500			E	HAND DRYER		
21	1	20	1500				E	HAND DRYER		
23	1	20		1500			E	HAND DRYER		
2	1	20	1200		R			REC EXTERIOR	GFI	
4	1	20		400	R			REC MENS	GFI	
6	1	20	800		R			REC WOMENS	GFI	
8	1	20		120	L			LIGHTING-EXTERIOR		
10	1	20	400		L			LIGHTING-SHOWERS		
12	1	20		800	L			LIGHTING-MENS		
14	1	20	800		L			LIGHTING-WOMENS		
16	1	20		400	L			LIGHTING-UTILITY ROOM		
18	1	20						SPARE		
20	1	20						SPARE		
22	1	20						SPARE		
24	1	20						SPARE		
LIGHTING LOAD			1,200	1,320	2520 W		125%	3150 W		
RECEPTACLE LOAD			2,800	800	3600 W		NEC 220.14	3600 W		
EQUIPMENT LOAD			4,850	4,950	9800 W		100%	9800 W		
TOTAL LOAD			8,850	7,070	15920 W			16550 W		
					66.3 AMPS			69.0 AMPS		
					CONNECTED LOAD			DEMAND LOAD		

PROJECT NO. 75119154.TAP
INDEX
PCA 00-0000
DRAWN BY JLV
DESIGNED BY RRT
JC/ENG BY

ELECTRICAL RISER
AND SCHEDULES
WEST AREA

PROJECT DESCRIPTION
BRIMLEY STATE PARK - TOILET
SHOWER BUILDING IMPROVEMENTS
SUPERIOR TOWNSHIP - CHIPPEWA COUNTY

01/24/2020	Phase 500 - 50% Review		
10/07/2019	Phase 500 - 30% Review		
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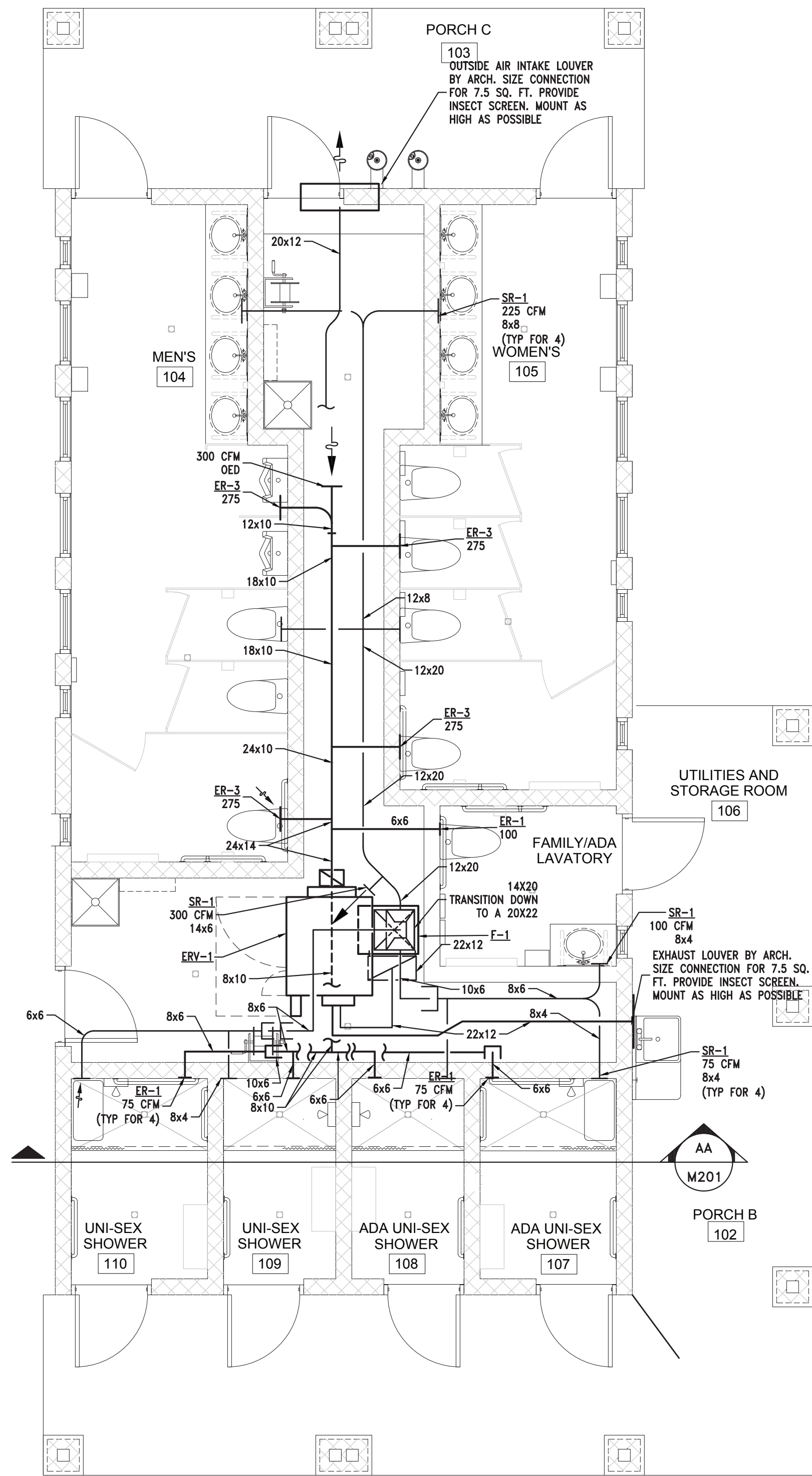
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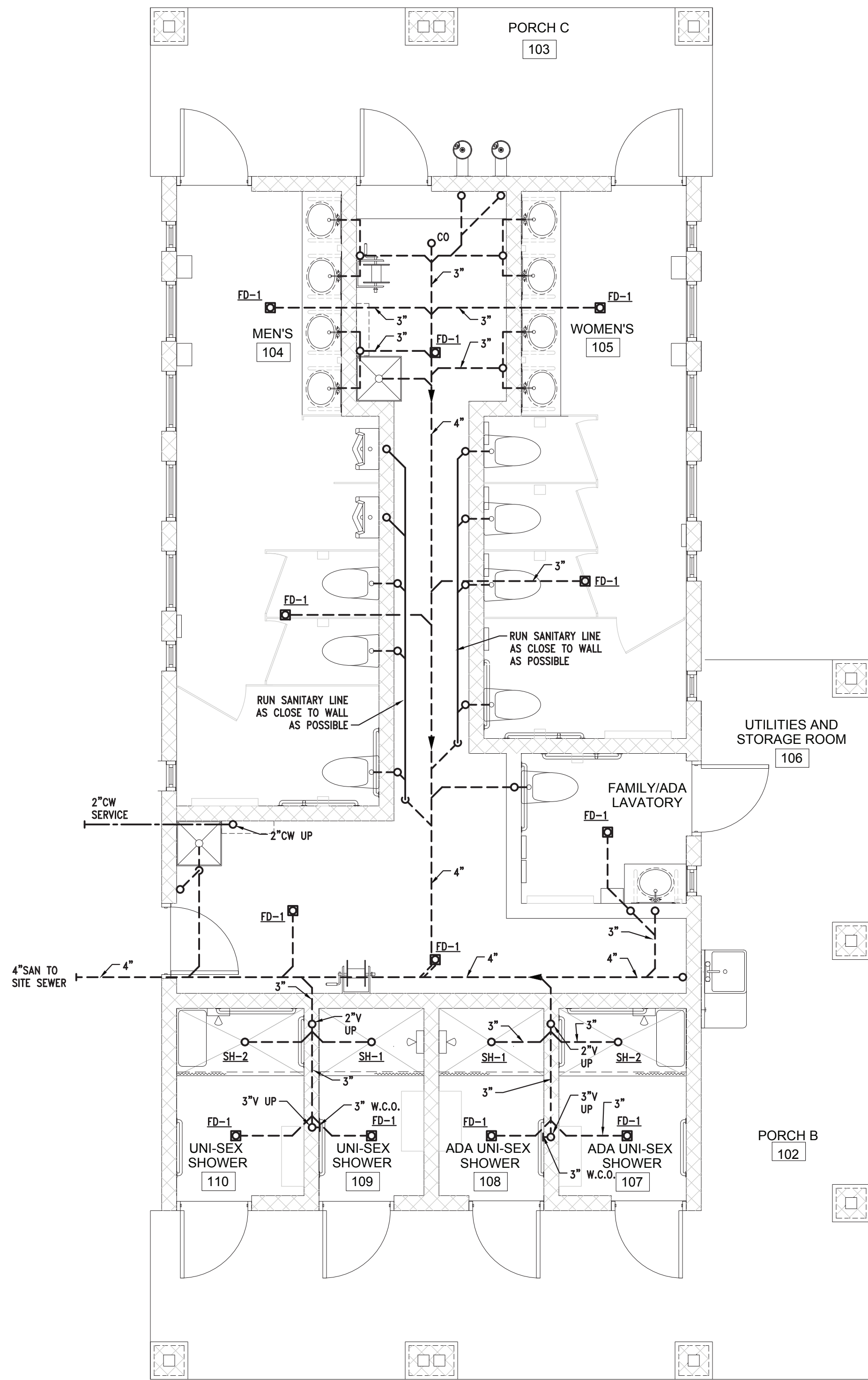


TDG #15-946

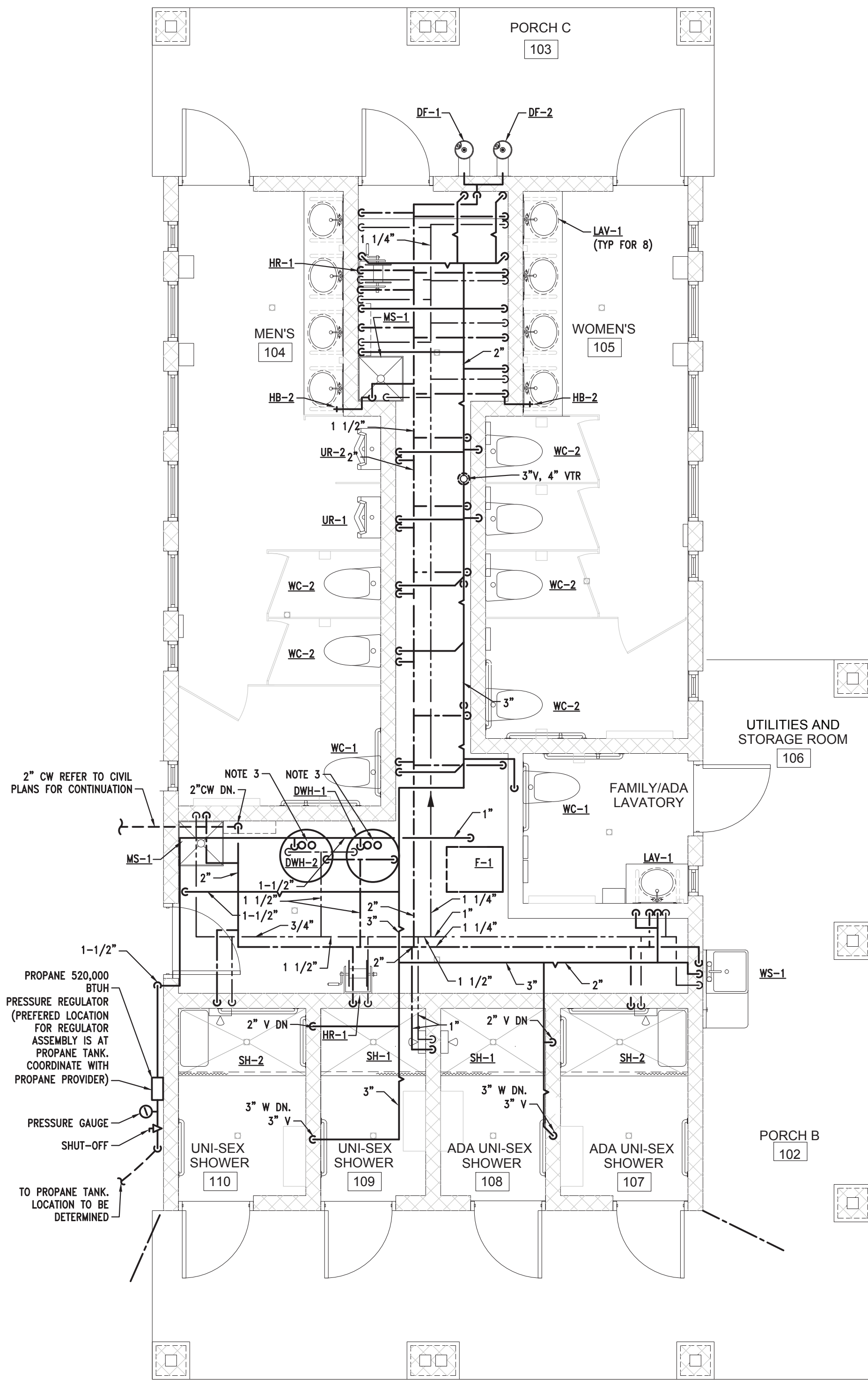
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FLOOR PLAN - VENTILATION
SCALE: 1/4"=1'-0"



FLOOR PLAN - UNDERGROUND DRAINAGE
SCALE: 1/4"=1'-0"



FLOOR PLAN - ABOVEGROUND PIPING
SCALE: 1/4"=1'-0"

- NOTES:**
1. REFER TO PLUMBING FIXTURE SCHEDULE FOR ROUGH-IN PIPE SIZES TO FIXTURES.
 2. PROVIDE THE APPROPRIATE AMOUNT OF WATER DRAINS AND CAPPED PIPES TO THOROUGHLY BLOW OUT THE WATER PIPING FOR WINTERIZATION. PIPES TO BE SLOPE TO GRAVITY DRAIN.
 3. PVC INTAKE AND EXHAUST PIPES UP TO CONCENTRIC ROOF TERMINAL.
 4. PIPING/DUCTWORK TO BE INSULATED, INSTALLED AS HIGH AS POSSIBLE (MIN. 7'-0") AND TIGHT TO WALLS TO ALLOW MAXIMUM TRAVEL CLEARANCE.
 5. ALL FIXTURES TO BE FED/SERVED FROM MECHANICAL CHASE.
 6. FLR DF-1, PROVIDE SHUT-OFF VALVE IN THE PIPE GALLERY AND ADD AIR SHIFTER ON THE LINE AND A TRAP WITH A PLUG IN THE FOUNTAIN HOUSING. TO WINTERIZE, SHUT-OFF THE WATER, BLOW THE LINE AND PULL THE PLUG.
 7. PROVIDE SHUT-OFF VALVES AT EACH PLUMBING FIXTURE. REFER TO SPECIFICATIONS.
 8. REFER TO WATER HEATER PIPING DIAGRAM ON SHEET M201S.
 9. INSTALL ALL SANITARY/VENT PIPING IN SERVICE CORRIDOR AS CLOSE TO WALL AS POSSIBLE TO ALLOW FOR MAXIMUM TRAVEL CLEARANCE.
 10. ERV SHALL BE SUPPORTED FROM UNI-STRUT ABOVE. REFER TO SHEET A401 FOR MOUNTING INFORMATION. ALL DUCT SHALL BE MOUNTED ATLEAST 7'-0" A.F.F.

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Job No.: 423-19116 CENTRAL

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TDG #15-946

CNF ENGINEERS

PROJECT NO. 75119154.TAP	
INDEX	
PCA	00-0000
DRAWN BY	RG
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M101

PROJECT DESCRIPTION
**BRIMLEY STATE PARK - TOILET
SHOWER BUILDING IMPROVEMENTS**
SUPERIOR TOWNSHIP, CHIPPEWA COUNTY

FLOOR PLAN - VENTILATION,
UNDERGROUND DRAINAGE &
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CENTRAL AREA

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GAS WATER HEATER SCHEDULE													
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DWH-1 & 2	LOCHINVAR COMMERCIAL SHIELD-SLR-201-100	PLUMBING	UTILITY 118	L.P.	228	199.9	96%	5:1	90	3"	3"	PVC	1-5, PROPANE















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GRILLE, REGISTER AND DIFFUSER SCHEDULE					
TAG	SERVICE	MANUFACTURER AND MODEL NUMBER	FINISH	CONSTRUCTION	NOTES/ACCESSORIES
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ER-2	EXHAUST	PRICE 535	BAKED OFF WHITE	STEEL	3/4" BLADE SPACING. 10x6 115 TO 140 CFM
ER-3	EXHAUST	PRICE 535	BAKED OFF WHITE	STEEL	3/4" BLADE SPACING. 12x10 FOR OVER 140 CFM
SR-1	SUPPLY AIR	PRICE 520D	BAKED OFF WHITE	STEEL	DOUBLE DEF REGISTER, VERTICAL FRONT BLADES



TAG	ITEM	MAKE	MODEL NAME	MODEL NUMBER	PIPE CONNECTION SIZES				NOTES/ACCESSORIES
					W	V	CW	HW	
AAV-1	AIR ADMITTANCE VALVE	STUDOR	MINI-VENT	20301	–	SEE PLANS	–	–	KK
DF-1	DRINKING FOUNTAIN	ELKAY	WALL MOUNT	LK-4405	1-1/2"	1-1/2"	1/2"	–	G
DF-2	DRINKING FOUNTAIN	ELKAY	WALL MOUNT	LK-4405	1-1/2"	1-1/2"	1/2"	–	G, ADA
FD-1	FLOOR DRAIN	MIFAB	–	F1100	SEE PLANS	–	–	–	A, B, Q, NN, OO
LAV-1	LAVATORY INTEGRAL TO COUNTERTOP BY OTHERS		–	–	1-1/2"	1-1/2"	1/2"	1/2"	A, B, D, E, K, R, S, DD
MS-1	MOP SINK	FIAT	–	MSB2424 (MOLDED STONE)	3"	–	1/2"	1/2"	A, B, O, P, GG, OO, PP
SH-1	SHOWER	SYMMONS	HYDAPIPE	1-901S-56 270-C-1.5	–	–	1/2"	1/2"	H, M, N, PACKAGED SHOWER PANEL WALL MTD W/HEAD & CONTROLS
SH-2	SHOWER (ADA)	SYMMONS	HYDAPIPE	1-901S-56-270-C-1.5-FS	–	–	1/2"	1/2"	H, M, N, PACKAGED SHOWER PANEL WALL MTD W/HEAD & CONTROLS
UR-1	URINAL	AM.STD.	WASHBROOK	6590.00105	2"	1-1/2"	3/4"	–	A, B, J, CC
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WC-1	WATER CLOSET (WALL MTD, ADA)	AM.STD.	AFWALL	3351.128	4"	2"	1"	–	A, B, C, I, LL
WC-2	WATER CLOSET (WALL MTD)	AM.STD.	AFWALL	–	4"	2"	1"	–	A, B, C, I, FF
WS-1	SINK (1-COMP)	JUST	SPECIAL SERVICE	A-46712	1-1/2"	1-1/2"	1/2"	1/2"	A, B, D, F, L, T, W, DD, EE
HR-1	HOSE REEL	PROVIDED BY OWNER	–	–	–	–	1/2"	1/2"	PP, MOUNT ON WALL ABOVE HOSE REEL

PLUMBING FIXTURE NOTES/ACCESSORIES					
A	VERIFY COLOR/FINISH WITH ARCHITECT	B	PROVIDE ALL SLEEVES, TEMPLATES, ETC. AS REQUIRED FOR ROUGH-IN OF FIXTURES. COORDINATE WITH ARCHITECTURAL TRADES.	C	PROVIDE SEAT: BEWIS: 1955SSTRF W/ STA-TITE FASTENERS
D	PROVIDE BRASSCRAFT COMMERCIAL ANGLE SUPPLY WITH RISER	E	PROVIDE SYMONS "HYDAPIPE" UNDER SINK PIPE COVERS	F	PROVIDE BRASSCRAFT 1-1/2" CAST BRASS "P" TRAP
G	OPTIONAL STAINLESS STEEL BACKSPASH	H	HIGH AND LOW VANDAL-RESISTENT ADJUSTABLE SHOWER HEADS	I	FLUSH VALVE: MANUAL OPERATION SLOAH 111-ES-S, 1.6 GPF
J	FLUSH VALVE: MANUAL OPERATION SLOAH 186-ES-S	K	LAVATORY FAUCET: DELTA: Z2C101	L	FAUCET: JUST JLK-400
M	CARTRIDGES TO BE COMMERCIAL GRADE (SOLID BRASS)	N	SHOWER PANEL WITH MANUAL TEMP CONTROL AND PUSH BUTTON AT 48" A.F.F.	O	HOSE AND HOSE BRACKET: DELTA: Z8T911
P	MOP HANGER: DELTA: Z8T910	Q	PROVIDE J.R. SMITH 2692 TRAP SEALER SIZED TO MATCH DRAINING OUTLET	R	PROVIDE BRASSCRAFT 1-1/4" CAST BRASS "P" TRAP
S	PROVIDE BRASSCRAFT 1-1/4" OFFSET DRAIN WITH TAILPIECE	T	DRAIN OUTLET WITH TAILPIECE: JONES STEPHENS CORP.: S14-014T	U	
V		W	SINK FAUCET: JUST JLK-400 WHA HOSE END	X	
Y		Z		AA	
BB	PROVIDE CHAIR CARRIER W/ FOOT SUPPORTS, MOUNT PER ADA REQUIREMENTS	CC	PROVIDE WATTS CHAIR CARRIER WITH FOOT SUPPORTS	DD	TEMPERING VALVE: POWERS: Lf6480, ASSE 1070
EE	PROVIDE WITH FRONT LEGS	FF	PROVIDE NARROW WALL CHAIR CARRIER WITH FOOT SUPPORTS, ZURN MODEL ZN-1201-4N	GG	VINYL BUMPERGUARD: FIAT: E-77-AA (2 REQUIRED)
HH		II		JJ	
KK	MOUNT AIR ADMITTANCE VALVE IN STUDOR MULTI-PURPOSE RECESS BOX, MODEL 20306 AT HEIGHT RECOMMENDED BY MFR.	LL	PROVIDE NARROW WALL CHAIR CARRIER W/ FOOT SUPPORTS, MOUNT PER ADA REQUIREMENTS, ZURN MODEL ZN-1201-4N	MM	
NN	USE F1100C WHERE MEMBRANE FLOOR IS USED	OO	PROVIDE DEEP SEAL TRAP UNLESS OTHERWISE NOTED	PP	FAUCET WITH VACUUM BREAKER: FIAT 830-AA

MECHANICAL LEGEND			
	HOSE BIBB (HB)	HB	HOSE BIBB
	AIR BALANCING DAMPER	HW	HOT WATER
	BALL VALVE	LAV	LAVATORY
	GATE VALVE	MS	MOP SINK
	UNION	S	SINK
	PIPE DOWN	SAN	SANITARY
	PIPE UP	SH	SHOWER
	FLOOR DRAIN	UR	URINAL
A.F.F.	ABOVE FINISHED FLOOR	W	WASTE
CFH	CUBIC FEET PER HOUR		DOMESTIC COLD WATER
CFM	CUBIC FEET PER MINUTE		DOMESTIC HOT WATER
CW	COLD WATER (DOMESTIC)		DOMESTIC HOT WATER RETURN
DN	DOWN		NATURAL GAS
EF	EXHAUST FAN		SANITARY SEWER
FD	FLOOR DRAIN		VENT PIPING

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Civil Engineers
Land Surveyors
Land Planners

TDG Architects

STATE OF MICHIGAN
DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
PROCUREMENT AND REAL ESTATE SERVICES ADMINISTRATION
DESIGN AND CONSTRUCTION DIVISION
ROBERT C. HALL, RA, NCARB, DIRECTOR

01/24/20
10/07/20

PROJECT DESCRIPTION

BRIMLEY STATE PARK - TOILET
SHOWER BUILDING IMPROVEMENTS

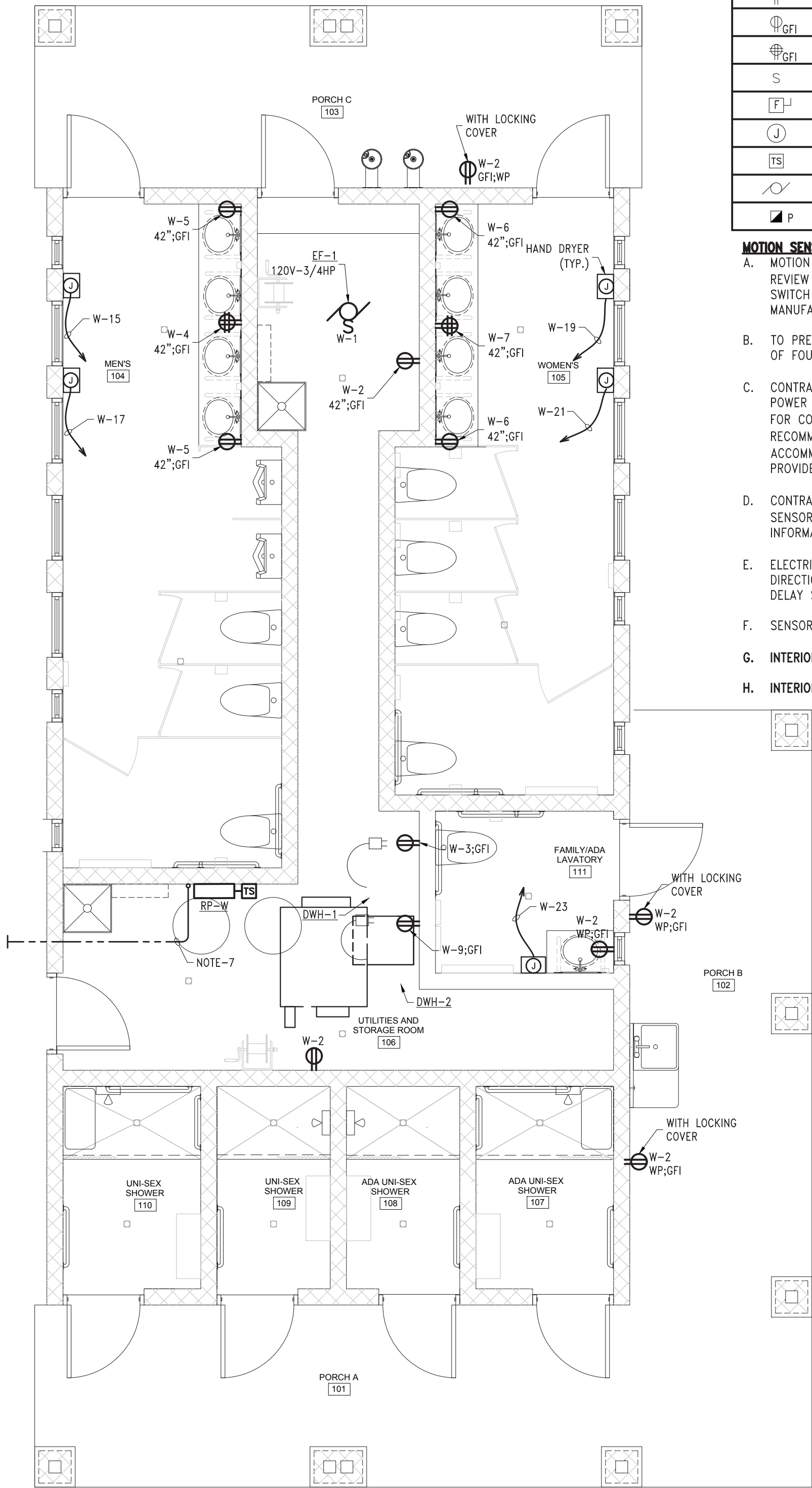
MECHANICAL SCHEDULES & DETAILS
CENTRAL AREA

PROJECT NO. 751/19154.TAP

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DESIGNED BY	GRS

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FIRST FLOOR PLAN - POWER
SCALE: 1/4"=1'-0"

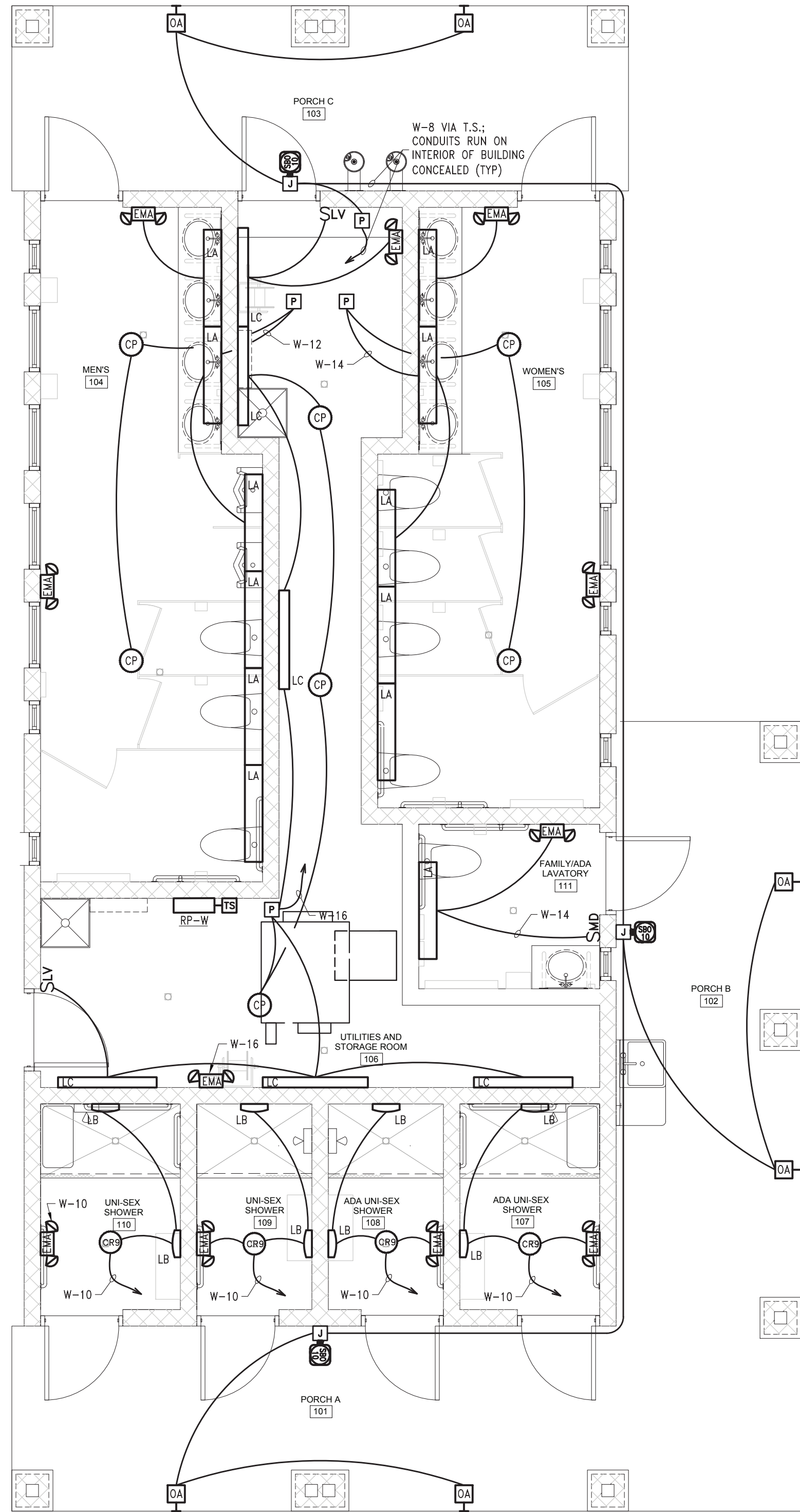
POWER NOTES:

1. NO MECHANICAL DUCTS, PIPING OR EQUIPMENT SHALL BE INSTALLED IN OR ABOVE ELECTRICAL EQUIPMENT SPACE PER N.E.C. COORDINATE PANEL INSTALLATION LOCATIONS WITH MECHANICAL CONTRACTOR.
2. REFER TO MECHANICAL FLOOR PLANS, SCHEDULES AND DIAGRAMMS FOR EXACT LOCATION OF EQUIPMENT AND WIRING REQUIREMENTS.
3. ELECTRICAL TRADES CONTRACTOR SHALL COORDINATE ELECTRICAL OUTLET LOCATIONS WITH THE OWNER, ARCHITECTURAL TRADES ELEVATIONS AND/OR EQUIPMENT MANUFACTURER'S REQUIREMENTS PRIOR TO ROUGH-IN.
4. OUTLETS IN AREAS THAT ARE WITHIN 6'-0" OF A SINK SHALL ALSO BE GFI TYPE.
5. ON ALL EXHAUST FANS (EF'S), 120 VOLT SERVICE DISCONNECT SWITCHES SHALL BE FURNISHED AND INSTALLED BY MECHANICAL TRADES AND WIRED BY ELECTRICAL TRADES.
6. ALL RECEPTACLES IN PUBLIC AREAS SHALL BE RECESSED.
7. PROVIDE A 1" CONDUIT UNDER SLAB FOR FUTURE INTERNET, CAP BOTH ENDS.
8. ALL CONDUIT TO BE HIDDEN FOR EXTERIOR INSTALLATION.

ELECTRICAL SYMBOL LIST			
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	LIGHT FIXTURE		CM-PDT-9-R-D Small Motion 360° Sensor, Ceiling Mount, Low Voltage, Dual Technology (PD): w/Dimming (SENSOR SWITCH)
	WALL MOUNTED EXTERIOR FIXTURE		SBO-10-DOP-Dw-P-BK-SV Exterior 360 Sensor, Low Voltage, Passive Infrared (PIR): w/Dimming (SENSOR SWITCH)
	DUPLEX RECEPTACLE - GROUNDING TYPE		CMR-PDT-9-D Small Motion 360° Sensor-Ceiling Mount, Line Voltage, Dual Technology (PD): w/Dimming (SENSOR SWITCH)
	DOUBLE DUPLEX RECEPTACLE - W/GROUND FAULT PROTECTION		SPDOM (WHITE) (2-BUTTON) Low Voltage Wall Switchpod (1 SWITCH/AUTO ON) (SENSOR SWITCH)
	DUPLEX RECEPTACLE - W/GROUND FAULT PROTECTION		WSX-PDT-D-120/277 (WHITE) Dimming Wall Switch, Dual Technology (PD), (AUTOMATIC ON MODE) (SENSOR SWITCH)
	SINGLE POLE SWITCH		PP20 Power Pass-Relay Circuit Protection: 120/277 VAC (SENSOR SWITCH)
	DISCONNECT SWITCH (F=FUSED)		INDICATES 48" ABOVE FINISHED FLOOR
	JUNCTION BOX		EXHAUST FAN
	TIME SWITCH		GROUND FAULT INTERRUPTER
	MOTOR		WATER HEATER
	MANUAL MOTOR STARTER (P=PILOT)		WEATHERPROOF

MOTION SENSOR NOTES:

- A. MOTION SENSORS AND POWER PACKS INDICATED ARE DESIGN INTENT ONLY, IT IS THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO REVIEW MANUFACTURER'S INSTALLATION INSTRUCTIONS PRIOR TO ROUGH-IN. PROVIDE POWER PACKS AND ASSOCIATED WIRING FOR MULTIPLE SWITCH LEG LOCATIONS. SEE PLAN FOR EXACT SWITCH LEGS WITH-IN EACH AREA OR ROOM. ELECTRICAL CONTRACTOR SHALL PROVIDE MANUFACTURER DEVICE LAYOUT AS PART OF SHOP DRAWINGS SUBMITTALS.
- B. TO PREVENT FALSE ACTIVATION, CEILING MOUNT SENSORS SHALL BE MOUNTED AWAY FROM THE PATH OF STRONG AIR TURBULENCE A MINIMUM OF FOUR FEET FOR STANDARD SENSITIVITY AND SIX FEET FOR MAXIMUM SENSITIVITY. FOR TYPICAL PLACEMENT, REFER TO LOCATION DIAGRAMS.
- C. CONTRACTOR SHALL FOLLOW MANUFACTURER'S RECOMMENDED OF PLACEMENT, COVERAGE, FREQUENCY AND VERIFY CIRCUITS WITH RESPECT TO POWER PACKS ETC., NEEDED IN THE FIELD PER MANUFACTURER OF CHOICE. LOCATE AND AIM SENSORS IN THE CORRECT LOCATION REQUIRED FOR COMPLETE AND PROPER VOLUMETRIC COVERAGE WITHIN THE RANGE OF COVERAGE(S) OF CONTROLLED AREAS PER THE MANUFACTURER'S RECOMMENDATIONS. ROOMS SHALL HAVE ONE HUNDRED (100%) PERCENT COVERAGE TO COMPLETELY COVER THE CONTROLLED AREA TO ACCOMMODATE ALL OCCUPANCY HABITS OF SINGLE OR MULTIPLE OCCUPANTS AT ANY LOCATION WITHIN THE ROOM(S). THE CONTRACTOR SHALL PROVIDE ADDITIONAL SENSORS IF REQUIRED TO PROPERLY AND COMPLETELY COVER THE RESPECTIVE ROOM.
- D. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION OF THE NUMBER OF POWER PACKS/ROOM CONTROLLERS NEEDED. MAXIMUM # OF SENSOR PER POWER PACK/ROOM CONTROLLER, SLAVES, NETWORK BRIDGES, GATEWAYS, ETC. DEPENDENT ON SENSOR TYPE, SEE PRODUCT INFORMATION. MULTIPLE CIRCUITS MAY BE CONTROLLED BY ONE SENSOR BY USING ADDITIONAL POWER PACKS.
- E. ELECTRICAL CONTRACTOR SHALL FIELD ADJUST EACH AREAS MOTION SENSOR'S TIME DELAY FROM 5 MINUTES TO 30 MINUTES PER OWNER'S DIRECTION. PRIOR TO INSTALLATION OF MOTION SENSORS, ELECTRICAL CONTRACTOR SHALL MEET WITH OWNER TO DETERMINE EACH AREAS TIME DELAY SETTINGS.
- F. SENSORS SHALL BE SET AT 30% MINIMUM THEN FULL ON WHEN SENSOR IS ACTIVATED THEN BACK TO 30%.
- G. INTERIOR MEN'S, WOMEN'S AND FAMILY RESTROOM LIGHTING TO DIM TO 10% AT NIGHT AND WHEN NOT OCCUPIED.
- H. INTERIOR MOTION SENSORS, IN PUBLIC AREAS, TO BE DEACTIVATED DURING WINTER SHUT DOWN.



FIRST FLOOR PLAN - LIGHTING
SCALE: 1/4"=1'-0"

LIGHTING NOTES:

1. COORDINATE LIGHTING LAYOUT WITH ARCHITECTURAL ELEVATIONS, MECHANICAL FLOOR PLANS, AND MECHANICAL DUCT WORK PRIOR TO ROUGH-IN.
2. ELECTRICAL TRADES CONTRACTOR SHALL PROVIDE ALL JUNCTION BOXES, C-CHANNELS AND SUPPORTING METHOD FOR SURFACE MOUNTED LIGHT FIXTURES.
3. ELECTRICAL CONTRACTOR SHALL PROVIDE POWER PACKS AND VERIFY WIRING FOR THE CEILING MOUNTED MOTION SENSOR WITH THE MANUFACTURER'S REQUIREMENTS.
4. EMERGENCY LIGHTING TO BE CONNECTED TO NORMAL LIGHTING AHEAD OF ANY LOCAL SWITCHES.
5. ALL EXTERIOR LIGHTING CONDUIT TO BE CONCEALED.
6. COORDINATE LIGHTING SENSORS WITH OTHER TRADES.

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DESIGNED BY	RRT
JC/ENG BY	RRT

FLOOR PLAN-
POWER AND LIGHTING
CENTRAL AREA

PROJECT DESCRIPTION

**BRIMLEY STATE PARK - TOILET
SHOWER BUILDING IMPROVEMENTS**
SUPERIOR TOWNSHIP, CHIPPEWA COUNTY

01/24/2020	Phase 500 - 50% Review		
10/07/2019	Phase 500 - 30% Review		
DATE			REVIEW

STATE OF MICHIGAN
DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
PROCUREMENT AND REAL ESTATE SERVICES ADMINISTRATION
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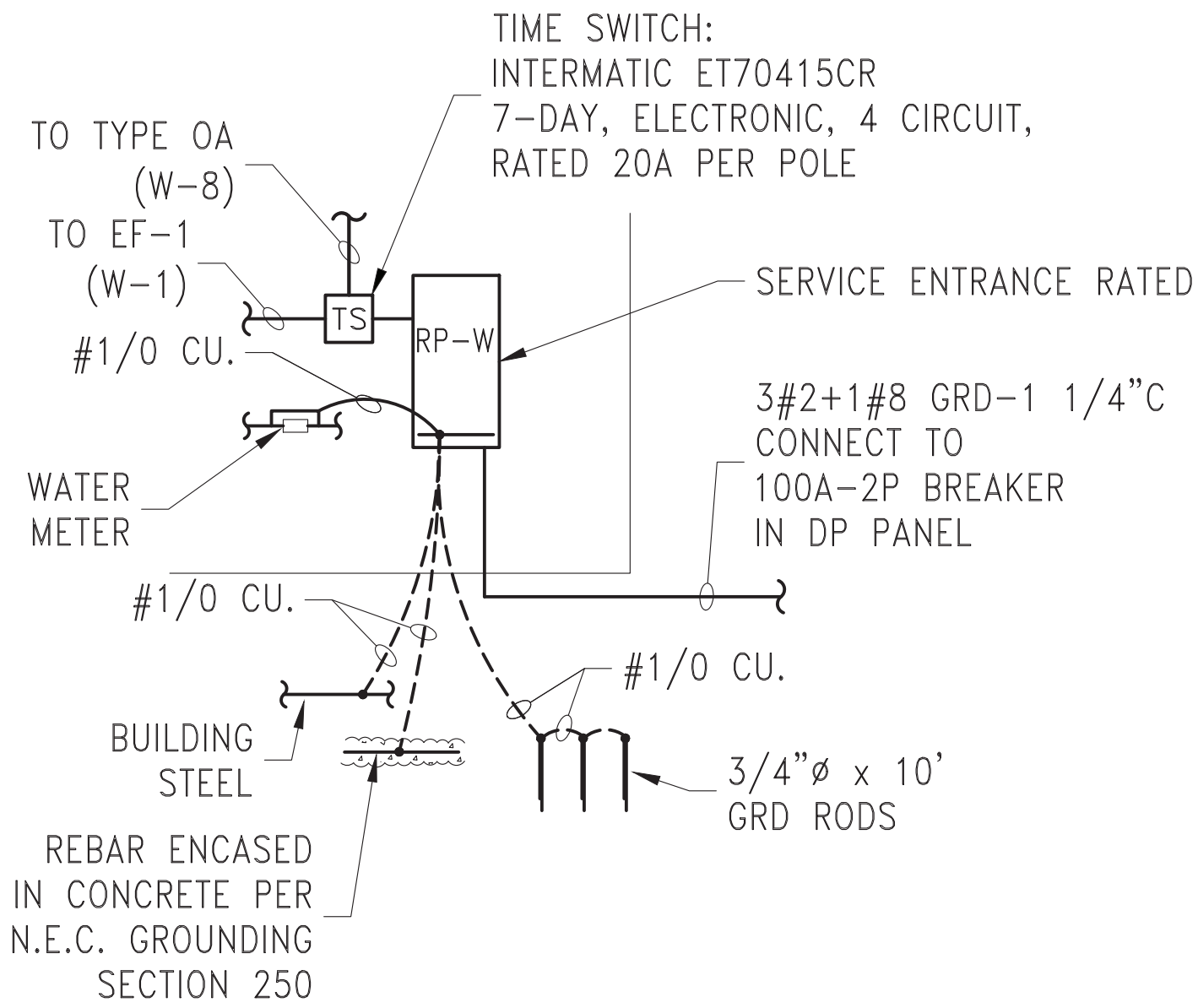
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LIGHT FIXTURE SCHEDULE				
ITEM #	DESCRIPTION	MANUFACTURER	MODEL	REMARKS
LA	SURFACE LINEAR LED, 0-10V DIMMING	FAILSAFE	HVL8-BR-4-LD3-1STD-27K-UNV-O-ED1C-S-HVL8CBD	VERIFY LENGTH AS CONTINUOUS PER RUN
LB	SURFACE CEILING MOUNTED LED FIXTURE	LUMINAIRELED	ARV13-25W-LED-2700K-120-OP-WHT-DIM	VANDAL RESISTANT
LC	SURFACE LED AMBIENT FIXTURE	CREE	LS4-40L-27K-10V	DIMMABLE
EMA	INDOOR/OUTDOOR LED EMERGENCY LIGHTING	DUALITE	PG-W-120	OR AS SELECTED BY OWNER
OA	WALL MOUNTED LED FIXTURE	LUMARK	XTOR2B-Y	1997 LUMENS, 3000K, 70 CRI, 18W



ELECTRICAL RISER DIAGRAM
NO SCALE 120/240V-1Ø-3W

NOTE 1: APPROVED EQUALS WILL BE CONSIDERED; HOWEVER, ANY SUBMISSION MUST PROVIDE EQUAL PERFORMANCE IN DELIVERED LUMEN OUTPUT, DISTRIBUTION AND MEET THE DIMENSIONAL CRITERIA.

NOTE 2: PROVIDE WARM COLOR LED (2700K)

PROJECT: BRIMLEY STATE PARK			100A		M.C.B.		CLASS: 120/240V-1PH-3W+GRD.			RP-W
PROJ NO: 423-19116							MOUNTING: SURFACE			
BRANCH CIRC.			WATTS		CODE		REMARKS			
NO.	POLES	BKR.	BUS A	BUS B	L	R	E			
1	1	25	1600				E	EF-1	HACR	
3	1	20		250			E	DWH-1		
5	1	20	800			R		REC MENS	GFI	
7	1	20		400		R		REC WOMENS	GFI	
9	1	20	250				E	DWH-2		
11	1	20		200			E	TIME CLOCK		
13	1	20					E	Spare		
15	1	20		1500			E	HAND DRYER		
17	1	20	1500				E	HAND DRYER		
19	1	20		1500			E	HAND DRYER		
21	1	20	1500				E	HAND DRYER		
23	1	20		1500			E	HAND DRYER		
2	1	20	1200		R			REC EXTERIOR	GFI	
4	1	20		400	R			REC MENS	GFI	
6	1	20	800		R			REC WOMENS	GFI	
8	1	20		120	L			LIGHTING-EXTERIOR		
10	1	20	400		L			LIGHTING-SHOWERS		
12	1	20		800	L			LIGHTING-MENS		
14	1	20	800		L			LIGHTING-WOMENS		
16	1	20		400	L			LIGHTING-UTILITY ROOM		
18	1	20						SPARE		
20	1	20						SPARE		
22	1	20						SPARE		
24	1	20						SPARE		
LIGHTING LOAD			1,200	1,320	2520 W		125%	3150 W		
RECEPTACLE LOAD			2,800	800	3600 W		NEC 220.14	3600 W		
EQUIPMENT LOAD			4,850	4,950	9800 W		100%	9800 W		
TOTAL LOAD			8,850	7,070	15920 W			16550 W		
					66.3 AMPS			69.0 AMPS		
					CONNECTED LOAD			DEMAND LOAD		

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P&A 00-0000
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DESIGNED BY RRT
JC/ENG BY

ELECTRICAL RISER
AND SCHEDULES
CENTRAL AREA

PROJECT DESCRIPTION
BRIMLEY STATE PARK - TOILET
SHOWER BUILDING IMPROVEMENTS
SUPERIOR TOWNSHIP - CHIPPEWA COUNTY

01/24/2020	Phase 500 - 50% Review		
10/07/2019	Phase 500 - 30% Review		
DATE			REVIEW



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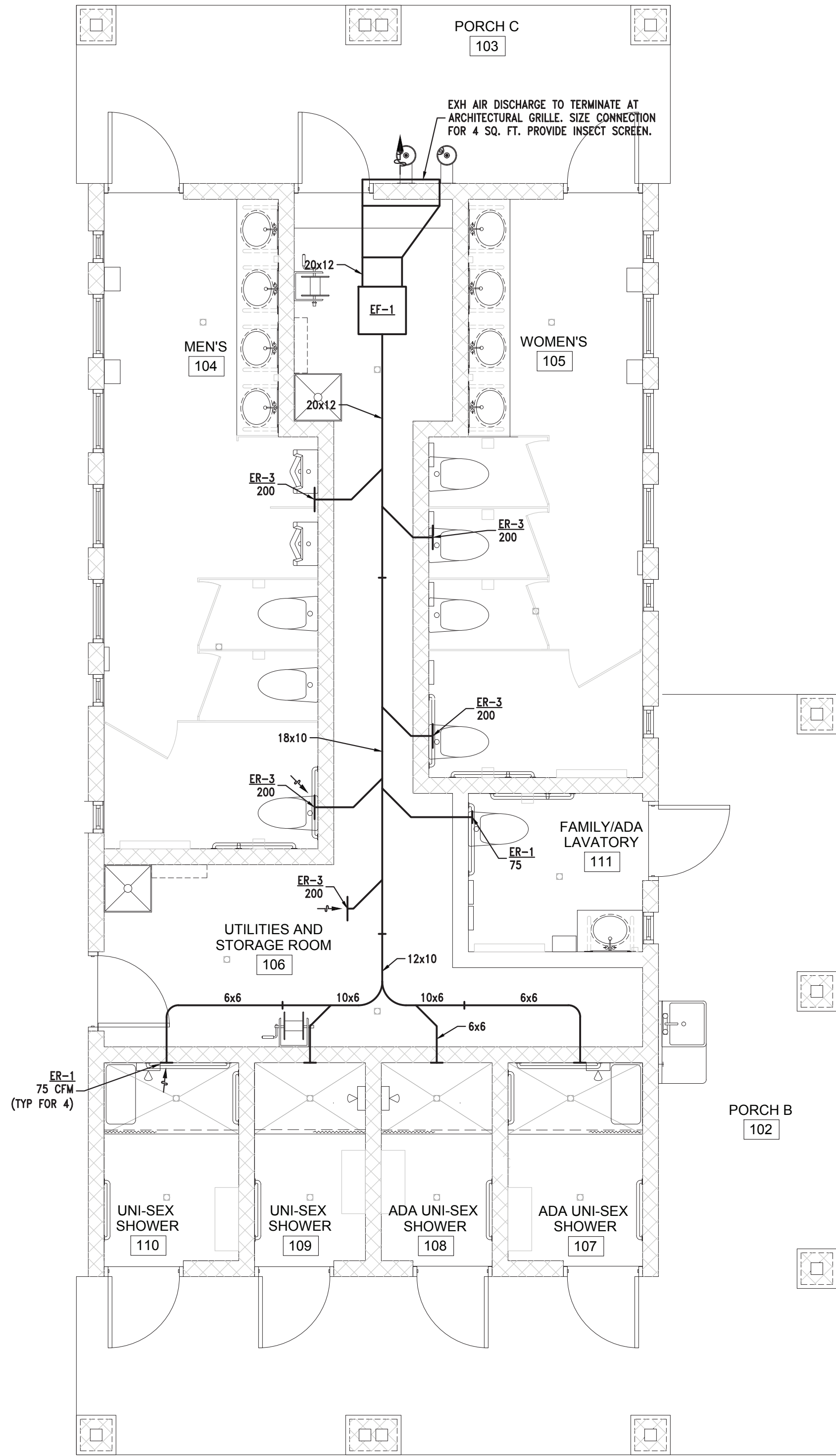
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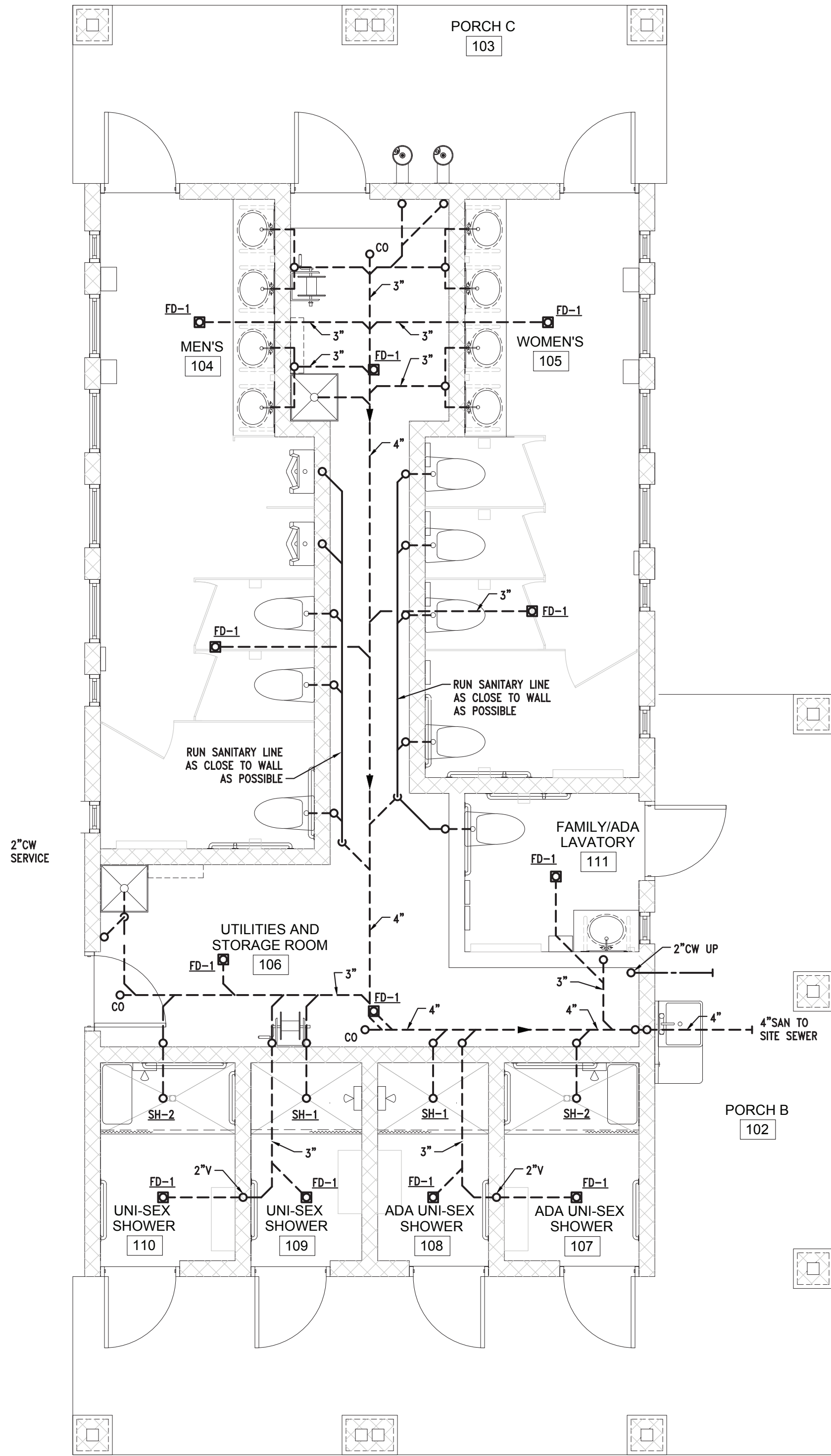


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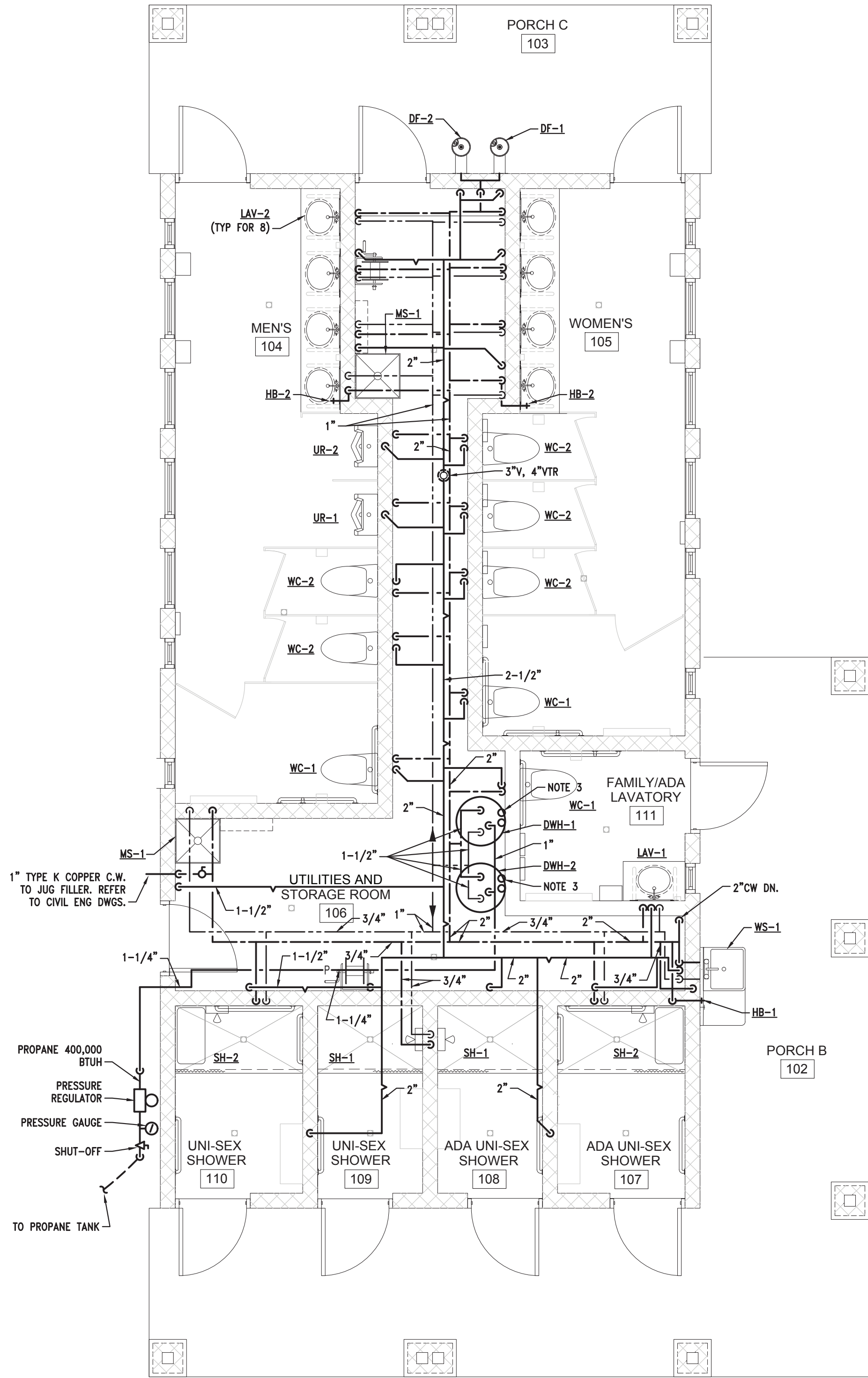
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FLOOR PLAN - VENTILATION
SCALE: 1/4"=1'-0"



FLOOR PLAN - UNDERGROUND DRAINAGE
SCALE: 1/4"=1'-0"



FLOOR PLAN - ABOVEGROUND PIPING
SCALE: 1/4"=1'-0"

- NOTES:**
1. REFER TO PLUMBING FIXTURE SCHEDULE FOR ROUGH-IN PIPE SIZES TO FIXTURES.
 2. PROVIDE THE APPROPRIATE AMOUNT OF WATER DRAINS AND CAPPED PIPES TO THOROUGHLY BLOW OUT THE WATER PIPING FOR WINTERIZATION. PIPES TO BE SLOPE TO GRAVITY DRAIN.
 3. PVC INTAKE AND EXHAUST PIPES UP TO CONCENTRIC ROOF TERMINAL.
 4. PIPING/DUCTWORK TO BE INSTALLED AS HIGH AS POSSIBLE AND TIGHT TO WALLS.
 5. ALL FIXTURES TO BE FED/SERVICED FROM MECHANICAL CHASE.

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DESIGNED BY	GRS
JIC/ENG BY	GRS

PROJECT DESCRIPTION
**BRIMLEY STATE PARK - TOILET
SHOWER BUILDING IMPROVEMENTS**
SUPERIOR TOWNSHIP, CHIPPEWA COUNTY

**FLOOR PLAN - VENTILATION,
UNDERGROUND DRAINAGE &
ABOVEGROUND PIPING
EAST AREA**

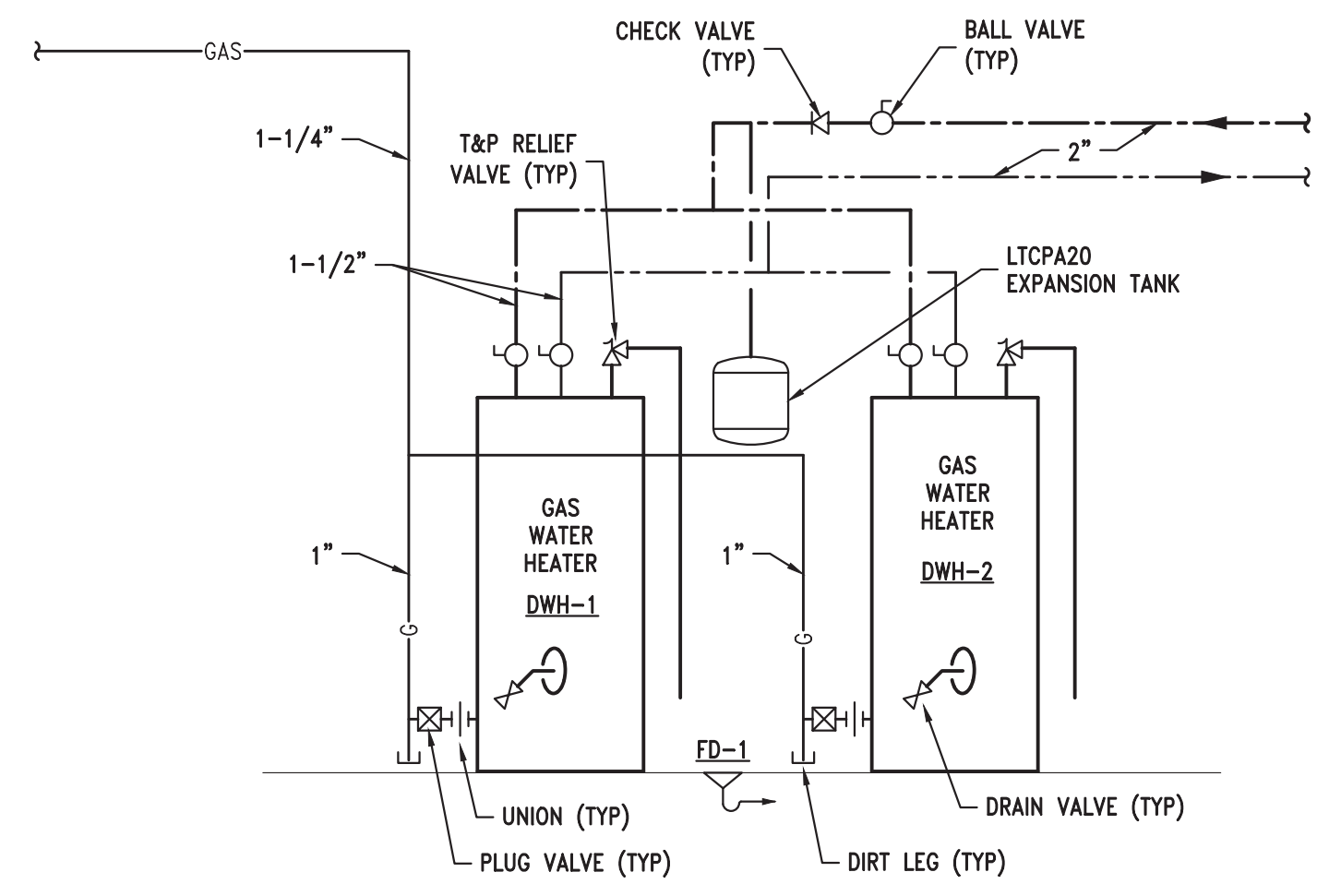
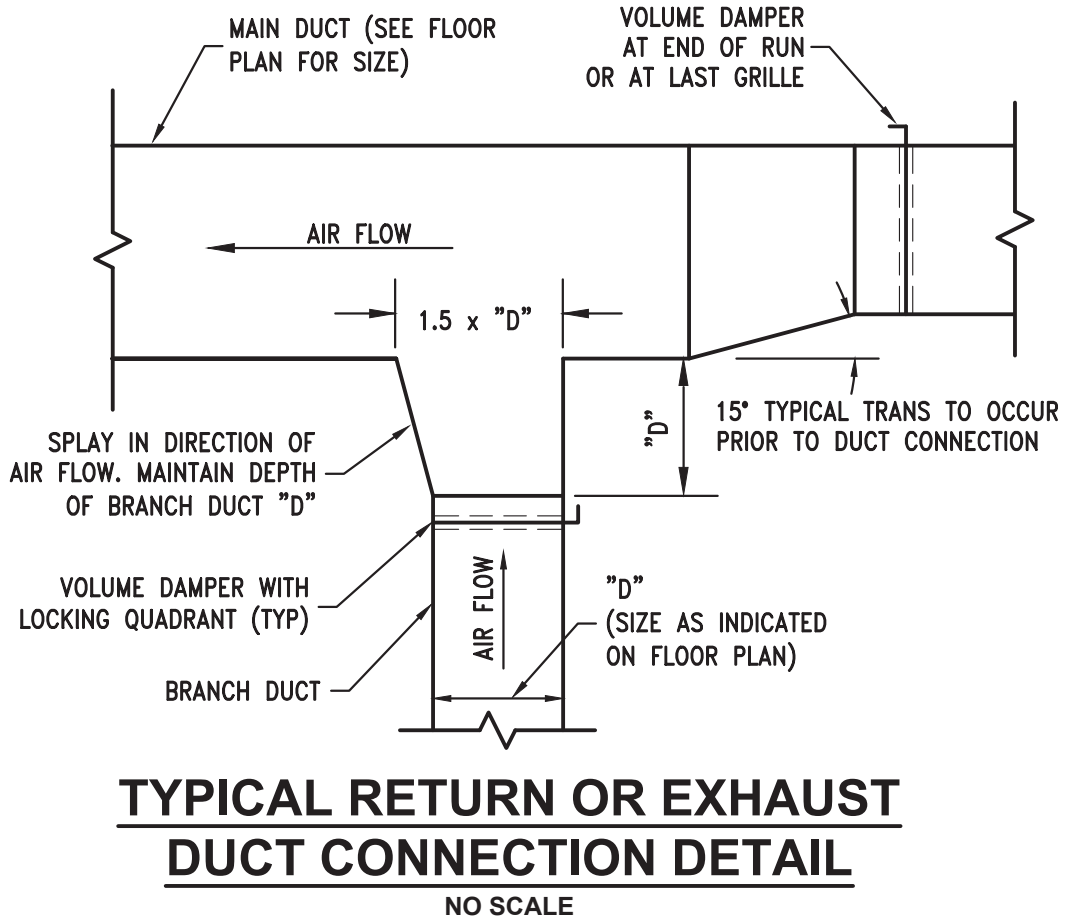
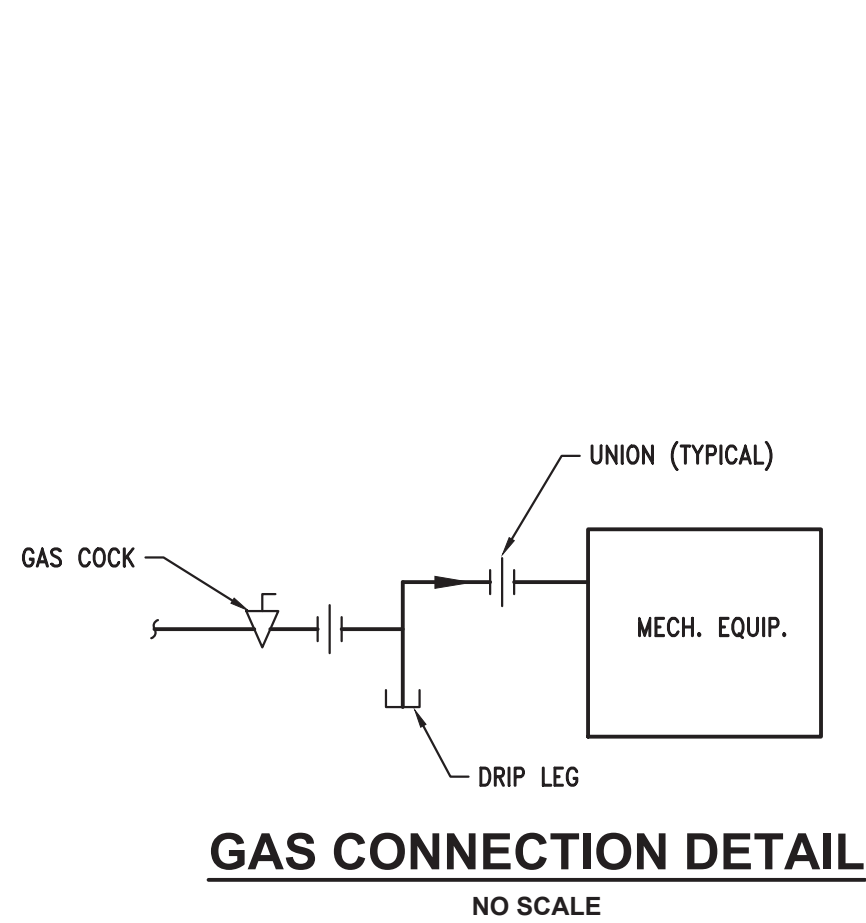
01/24/2020	Phase 500 - 50%	Review		
10/07/2019	Phase 500 - 30%	Review		
DATE				

GAS WATER HEATER SCHEDULE													
TAG	MANUFACTURER AND MODEL NUMBER	UNIT SERVING	LOCATION	FUEL TYPE	RECOVERY GPH 100 °F RISE	INPUT M.B.H.	THERMAL EFF.	TURNDOWN RATIO	STORAGE CAPACITY	COMB.AIR DIA.	VENT DIA.	VENT MAT.	NOTES
DWH-1 & 2	LOCHINVAR COMMERCIAL SHIELD-SLR-201-100	PLUMBING	UTILITY 118	L.P.	228	199.9	96%	5:1	90	3"	3"	PVC	1-5, PROPANE

- NOTES:
1. PROVIDE OPTIONAL SEALED COMBUSTION CONNECTION.
 2. ASME TEMPERATURE AND PRESSURE RELIEF VALVE.
 3. PROVIDE INTEGRAL HEAT TRAPS ON INLET & OUTLET PIPING.
 4. CONDENSATE NEUTRALIZATION KIT.
 5. 8'-FOOT POWER CORD.

GRILLE, REGISTER AND DIFFUSER SCHEDULE					
TAG	SERVICE	MANUFACTURER AND MODEL NUMBER	FINISH	CONSTRUCTION	NOTES/ACCESSORIES
ER-1	EXHAUST	PRICE 535	BAKED OFF WHITE	STEEL	3/4" BLADE SPACING. 10x4 FOR UP TO 110 CFM
ER-2	EXHAUST	PRICE 535	BAKED OFF WHITE	STEEL	3/4" BLADE SPACING. 10x6 115 TO 140 CFM
ER-3	EXHAUST	PRICE 535	BAKED OFF WHITE	STEEL	3/4" BLADE SPACING. 12x8 FOR OVER 140 CFM

NOTE:
CONTRACTOR SHALL COORDINATE THE INSTALLATION OF DIFFUSERS, GRILLES AND REGISTERS WITH THE ARCHITECTURAL PLANS.



PLUMBING FIXTURE SCHEDULE									
TAG	ITEM	MAKE	MODEL NAME	MODEL NUMBER	PIPE CONNECTION SIZES				NOTES/ACCESSORIES
					W	V	CW	HW	
AAV-1	AIR ADMITTANCE VALVE	STUDOR	MINI-VENT	20301	-	SEE PLANS	-	-	KK
DF-1	DRINKING FOUNTAIN	ELKAY	WALL MOUNT	LK-4405FRK	1-1/2"	1-1/2"	1/2"	-	G
DF-2	DRINKING FOUNTAIN	ELKAY	WALL MOUNT	LK-4405FRK	1-1/2"	1-1/2"	1/2"	-	G, ADA
FD-1	FLOOR DRAIN	MIFAB	-	F1100	SEE PLANS	-	-	-	A, B, Q, NN, OO
HB-1	HOSE BIBB	WOODFORD	-	B65	-	-	3/4"	-	VACUUM BREAKER, FLUSH WALL BOX W/KEY, NICKEL BRONZE
HB-2	HOSE BIBB	WOODFORD	-	B65	-	-	3/4"	-	VACUUM BREAKER, FLUSH WALL BOX W/KEY, NICKEL BRONZE
LAV-1	LAVATORY (WALL MTD, ADA)	KOHLER	CHESAPEAKE	K-1722	1-1/2"	1-1/2"	1/2"	1/2"	A, B, D, E, K, R, S, BB, DD
LAV-2	LAVATORY COUNTERTOP	KOHLER	CAXTON	K-2210	1-1/2"	1-1/2"	1/2"	1/2"	A, B, D, E, K, R, S, DD, UNDERMOUNT
MS-1	MOP SINK	FIAT	-	MSB2424 (MOLDED STONE)	3"	-	1/2"	1/2"	A, B, O, P, GG, OO, PP
SH-1	SHOWER	SYMMONS	HYDAPIPE	1-901S-56 270-C-1.5	-	-	1/2"	1/2"	H, M, N, PACKAGED SHOWER PANEL WALL MTD W/HEAD & CONTROLS
SH-2	SHOWER (ADA)	SYMMONS	HYDAPIPE	1-901S-56-270-C-1.5-FS	-	-	1/2"	1/2"	H, M, N, PACKAGED SHOWER PANEL WALL MTD W/HEAD & CONTROLS
UR-1	URINAL	AM.STD.	WASHBROOK	6590.00105	2"	1-1/2"	3/4"	-	A, B, J, CC
UR-2	URINAL (ADA)	AM.STD.	WASHBROOK	6590.00105	2"	1-1/2"	3/4"	-	A, B, J, BB
WC-1	WATER CLOSET (WALL MTD, ADA)	AM.STD.	AFWALL	3351.128	4"	2"	1"	-	A, B, C, I
WC-2	WATER CLOSET (WALL MTD)	AM.STD.	AFWALL	-	4"	2"	1"	-	A, B, C, I
WS-1	SINK (1-COMP)	JUST	SPECIAL SERVICE	A-46712	1-1/2"	1-1/2"	1/2"	1/2"	A, B, D, F, L, T, W, DD

PLUMBING FIXTURE NOTES/ACCESSORIES					
A	VERIFY COLOR/FINISH WITH ARCHITECT	B	PROVIDE ALL SLEEVES, TEMPLATES, ETC. AS REQUIRED FOR ROUGH-IN OF FIXTURES. COORDINATE WITH ARCHITECTURAL TRADES.	C	PROVIDE SEAT: BEMIS: 195SS5TFR W/ STA-TITE FASTENERS
D	PROVIDE BRASSCRAFT COMMERCIAL ANGLE SUPPLY WITH RISER	E	PROVIDE SYMONS "HYDAPIPE" UNDER SINK PIPE COVERS	F	PROVIDE BRASSCRAFT 1-1/2" CAST BRASS "P" TRAP
G	OPTIONAL STAINLESS STEEL BACKSPLASH	H	HIGH AND LOW VANDAL-RESISTENT ADJUSTABLE SHOWER HEADS	I	FLUSH VALVE: MANUAL OPERATION SLOAH 111-ES-S, 1.6 GPF
J	FLUSH VALVE: MANUAL OPERATION SLOAH 186-ES-S	K	LAVATORY FAUCET: DELTA: 22C101	L	FAUCET: JUST JLK-400
M		N	SHOWER PANEL WITH MANUAL TEMP CONTROL AND PUSH BUTTON AT 48" A.F.F.	O	HOSE AND HOSE BRACKET: DELTA: 28T911
P	MOP HANGER: DELTA: 28T910	Q	PROVIDE J.R. SMITH 2692 TRAP SEALER SIZED TO MATCH DRAINING OUTLET	R	PROVIDE BRASSCRAFT 1-1/4" CAST BRASS "P" TRAP
S	PROVIDE BRASSCRAFT 1-1/4" OFFSET DRAIN WITH TAILPIECE	T	DRAIN OUTLET WITH TAILPIECE: JONES STEPHENS CORP.: S14-014T	U	
V		W	SINK FAUCET: JUST JLK-400 WHA HOSE END	X	
Y		Z		AA	
BB	PROVIDE CHAIR CARRIER W/ FOOT SUPPORTS, MOUNT PER ADA REQUIREMENTS	CC	PROVIDE WATTS CHAIR CARRIER WITH FOOT SUPPORTS	DD	TEMPERING VALVE: POWERS: LFe480, ASSE 1070
EE		FF		GG	VINYL BUMPERGUARD: FIAT: E-77-AA (2 REQUIRED)
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KK	MOUNT AIR ADMITTANCE VALVE IN STUDOR MULTI-PURPOSE RECESS BOX, MODEL 20306 AT HEIGHT RECOMMENDED BY MFR.	LL		MM	
NN	USE F1100C WHERE MEMBRANE FLOOR IS USED	OO	PROVIDE DEEP SEAL TRAP UNLESS OTHERWISE NOTED	PP	FAUCET WITH VACUUM BREAKER: FIAT 830-AA

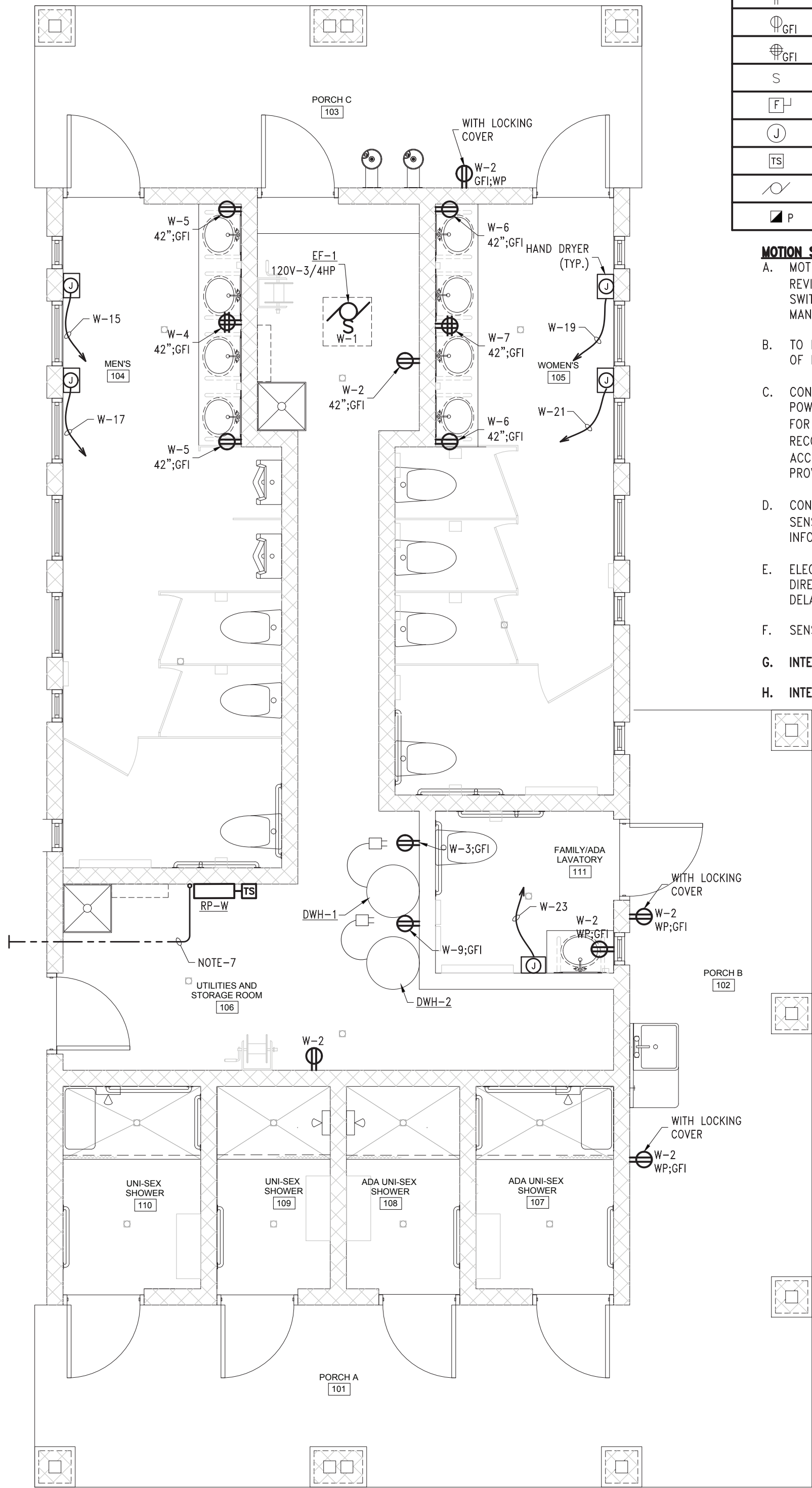
MECHANICAL LEGEND		
—	HOSE BIBB (HB)	HB HOSE BIBB
└─	AIR BALANCING DAMPER	HW HOT WATER
○	BALL VALVE	LAV LAVATORY
⋈	GATE VALVE	MS MOP SINK
	UNION	S SINK
└─	PIPE DOWN	SAN SANITARY
○	PIPE UP	SH SHOWER
⊞	FLOOR DRAIN	UR URINAL
A.F.F.	ABOVE FINISHED FLOOR	W WASTE
CFH	CUBIC FEET PER HOUR	— -- DOMESTIC COLD WATER
CFM	CUBIC FEET PER MINUTE	— - - DOMESTIC HOT WATER
CW	COLD WATER (DOMESTIC)	— - - - DOMESTIC HOT WATER RETURN
DN	DOWN	—G NATURAL GAS
EF	EXHAUST FAN	—SAN SANITARY SEWER
FD	FLOOR DRAIN	— V VENT PIPING

PROJECT NO. 751/19154.TAP	
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PCA	00-0000
DRAWN BY	RG
DESIGNED BY	GRS
JIC/ENG BY	GRS

01/24/2020	Phase 500 - 50% Review	
10/07/2019	Phase 500 - 30% Review	
DATE	REVIEW	



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FIRST FLOOR PLAN - POWER
SCALE: 1/4"=1'-0"

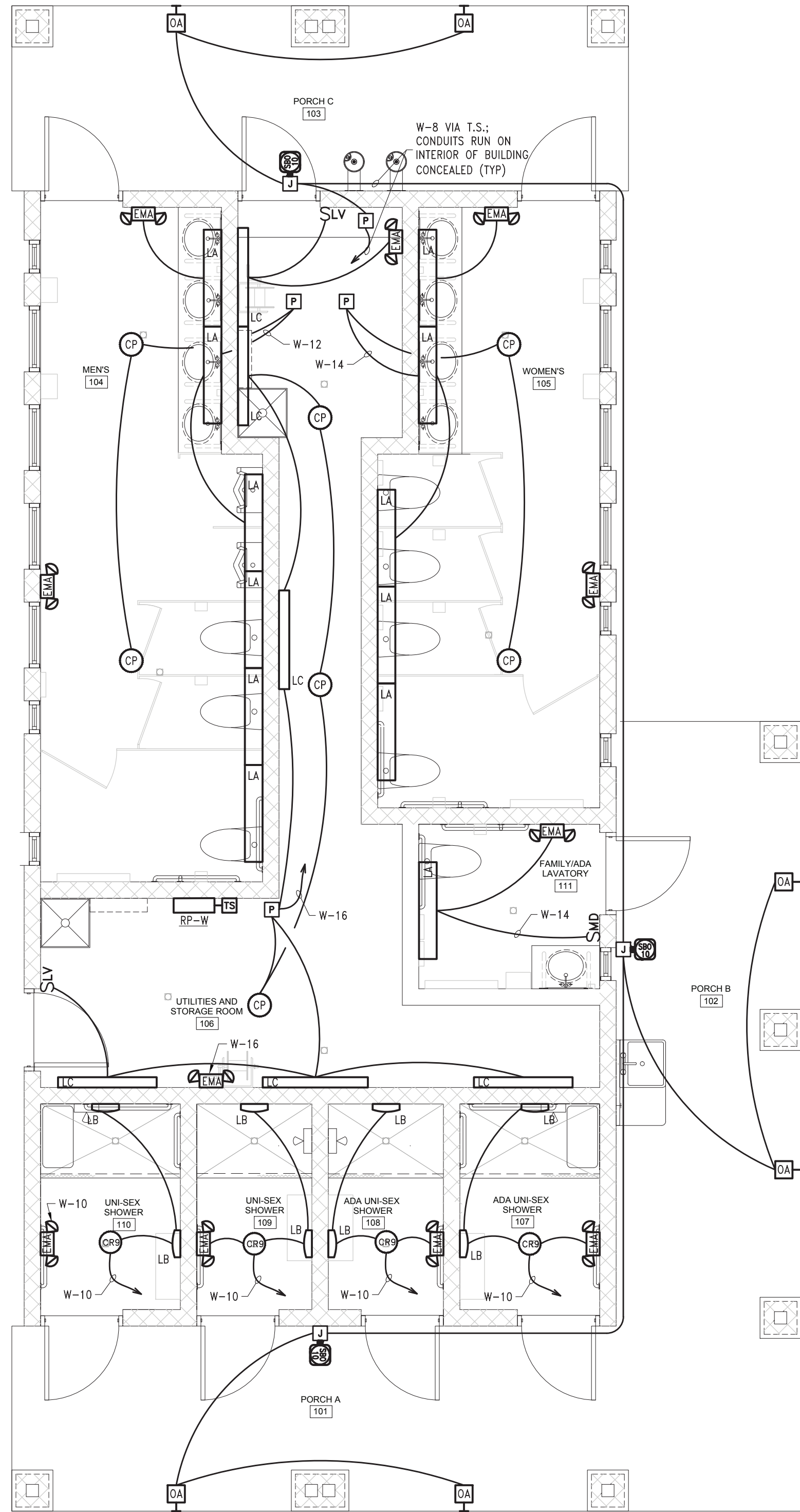
POWER NOTES:

1. NO MECHANICAL DUCTS, PIPING OR EQUIPMENT SHALL BE INSTALLED IN OR ABOVE ELECTRICAL EQUIPMENT SPACE PER N.E.C. COORDINATE PANEL INSTALLATION LOCATIONS WITH MECHANICAL CONTRACTOR.
2. REFER TO MECHANICAL FLOOR PLANS, SCHEDULES AND DIAGRAM FOR EXACT LOCATION OF EQUIPMENT AND WIRING REQUIREMENTS.
3. ELECTRICAL TRADES CONTRACTOR SHALL COORDINATE ELECTRICAL OUTLET LOCATIONS WITH THE OWNER, ARCHITECTURAL TRADES ELEVATIONS AND/OR EQUIPMENT MANUFACTURER'S REQUIREMENTS PRIOR TO ROUGH-IN.
4. OUTLETS IN AREAS THAT ARE WITHIN 6'-0" OF A SINK SHALL ALSO BE GFI TYPE.
5. ON ALL EXHAUST FANS (EF'S), 120 VOLT SERVICE DISCONNECT SWITCHES SHALL BE FURNISHED AND INSTALLED BY MECHANICAL TRADES AND WIRED BY ELECTRICAL TRADES.
6. ALL RECEPTACLES IN PUBLIC AREAS SHALL BE RECESSED.
7. PROVIDE A 1" CONDUIT UNDER SLAB FOR FUTURE INTERNET, CAP BOTH ENDS.
8. ALL CONDUIT TO BE HIDDEN FOR EXTERIOR INSTALLATION.

ELECTRICAL SYMBOL LIST			
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	LIGHT FIXTURE		CMR-PDT-9-R-D Small Motion 360° Sensor, Ceiling Mount, Low Voltage, Dual Technology (PDT); w/Dimming (SENSOR SWITCH)
	WALL MOUNTED EXTERIOR FIXTURE		SBO-10-DOP-D-P-BK-5V Exterior 360 Sensor, Low Voltage, Passive Infrared (PIR); w/Dimming (SENSOR SWITCH)
	DUPLEX RECEPTACLE - GROUNDING TYPE		CMR-PDT-9-D Small Motion 360° Sensor-Ceiling Mount, Line Voltage, Dual Technology (PDT); w/Dimming (SENSOR SWITCH)
	DOUBLE DUPLEX RECEPTACLE - W/GROUND FAULT PROTECTION		SPDOM (WHITE) (2-BUTTON) Low Voltage Wall Switchpod (1 SWITCH/AUTO ON) (SENSOR SWITCH)
	DUPLEX RECEPTACLE - W/GROUND FAULT PROTECTION		WSX-PDT-D-120/277 (WHITE) Dimming Wall Switch, Dual Technology (PDT), (AUTOMATIC ON MODE) (SENSOR SWITCH)
	SINGLE POLE SWITCH		PP20 Power Pass-Relay Circuit Protection: 120/277 VAC (SENSOR SWITCH)
	DISCONNECT SWITCH (F=FUSED)		INDICATES 48" ABOVE FINISHED FLOOR
	JUNCTION BOX		EXHAUST FAN
	TIME SWITCH		GROUND FAULT INTERRUPTER
	MOTOR		WATER HEATER
	MANUAL MOTOR STARTER (P=PILOT)		WEATHERPROOF

MOTION SENSOR NOTES:

- A. MOTION SENSORS AND POWER PACKS INDICATED ARE DESIGN INTENT ONLY. IT IS THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO REVIEW MANUFACTURER'S INSTALLATION INSTRUCTIONS PRIOR TO ROUGH-IN. PROVIDE POWER PACKS AND ASSOCIATED WIRING FOR MULTIPLE SWITCH LEG LOCATIONS. SEE PLAN FOR EXACT SWITCH LEGS WITH-IN EACH AREA OR ROOM. ELECTRICAL CONTRACTOR SHALL PROVIDE MANUFACTURER DEVICE LAYOUT AS PART OF SHOP DRAWINGS SUBMITTALS.
- B. TO PREVENT FALSE ACTIVATION, CEILING MOUNT SENSORS SHALL BE MOUNTED AWAY FROM THE PATH OF STRONG AIR TURBULENCE A MINIMUM OF FOUR FEET FOR STANDARD SENSITIVITY AND SIX FEET FOR MAXIMUM SENSITIVITY. FOR TYPICAL PLACEMENT, REFER TO LOCATION DIAGRAMS.
- C. CONTRACTOR SHALL FOLLOW MANUFACTURER'S RECOMMENDED OF PLACEMENT, COVERAGE, FREQUENCY AND VERIFY CIRCUITS WITH RESPECT TO POWER PACKS ETC., NEEDED IN THE FIELD PER MANUFACTURER OF CHOICE. LOCATE AND AIM SENSORS IN THE CORRECT LOCATION REQUIRED FOR COMPLETE AND PROPER VOLUMETRIC COVERAGE WITHIN THE RANGE OF COVERAGE(S) OF CONTROLLED AREAS PER THE MANUFACTURER'S RECOMMENDATIONS. ROOMS SHALL HAVE ONE HUNDRED (100%) PERCENT COVERAGE TO COMPLETELY COVER THE CONTROLLED AREA TO ACCOMMODATE ALL OCCUPANCY HABITS OF SINGLE OR MULTIPLE OCCUPANTS AT ANY LOCATION WITHIN THE ROOM(S). THE CONTRACTOR SHALL PROVIDE ADDITIONAL SENSORS IF REQUIRED TO PROPERLY AND COMPLETELY COVER THE RESPECTIVE ROOM.
- D. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION OF THE NUMBER OF POWER PACKS/ROOM CONTROLLERS NEEDED. MAXIMUM # OF SENSOR PER POWER PACK/ROOM CONTROLLER, SLAVES, NETWORK BRIDGES, GATEWAYS, ETC. DEPENDENT ON SENSOR TYPE, SEE PRODUCT INFORMATION. MULTIPLE CIRCUITS MAY BE CONTROLLED BY ONE SENSOR BY USING ADDITIONAL POWER PACKS.
- E. ELECTRICAL CONTRACTOR SHALL FIELD ADJUST EACH AREAS MOTION SENSOR'S TIME DELAY FROM 5 MINUTES TO 30 MINUTES PER OWNER'S DIRECTION. PRIOR TO INSTALLATION OF MOTION SENSORS, ELECTRICAL CONTRACTOR SHALL MEET WITH OWNER TO DETERMINE EACH AREAS TIME DELAY SETTINGS.
- F. SENSORS SHALL BE SET AT 30% MINIMUM THEN FULL ON WHEN SENSOR IS ACTIVATED THEN BACK TO 30%.
- G. INTERIOR MEN'S, WOMEN'S AND FAMILY RESTROOM LIGHTING TO DIM TO 10% AT NIGHT AND WHEN NOT OCCUPIED.
- H. INTERIOR MOTION SENSORS, IN PUBLIC AREAS, TO BE DEACTIVATED DURING WINTER SHUT DOWN.



FIRST FLOOR PLAN - LIGHTING
SCALE: 1/4"=1'-0"

LIGHTING NOTS:

1. COORDINATE LIGHTING LAYOUT WITH ARCHITECTURAL ELEVATIONS, MECHANICAL FLOOR PLANS, AND MECHANICAL DUCT WORK PRIOR TO ROUGH-IN.
2. ELECTRICAL TRADES CONTRACTOR SHALL PROVIDE ALL JUNCTION BOXES, C-CHANNELS AND SUPPORTING METHOD FOR SURFACE MOUNTED LIGHT FIXTURES.
3. ELECTRICAL CONTRACTOR SHALL PROVIDE POWER PACKS AND VERIFY WIRING FOR THE CEILING MOUNTED MOTION SENSOR WITH THE MANUFACTURER'S REQUIREMENTS.
4. EMERGENCY LIGHTING TO BE CONNECTED TO NORMAL LIGHTING AHEAD OF ANY LOCAL SWITCHES.
5. ALL EXTERIOR LIGHTING CONDUIT TO BE CONCEALED.
6. COORDINATE LIGHTING SENSORS WITH OTHER TRADES.

PROJECT NO. 751/19116 EAST	INDEX
PCA	00-0000
DRAWN BY	JLW
DESIGNED BY	RRT
JC/ENG BY	RRT

**FLOOR PLAN-
POWER AND LIGHTING
EAST AREA**

**BRIMLEY STATE PARK - TOILET
SHOWER BUILDING IMPROVEMENTS**
SUPERIOR TOWNSHIP, CHIPPEWA COUNTY

DATE	REVIEW
10/07/2019	Phase 500 - 30% Review
01/24/2020	Phase 500 - 50% Review

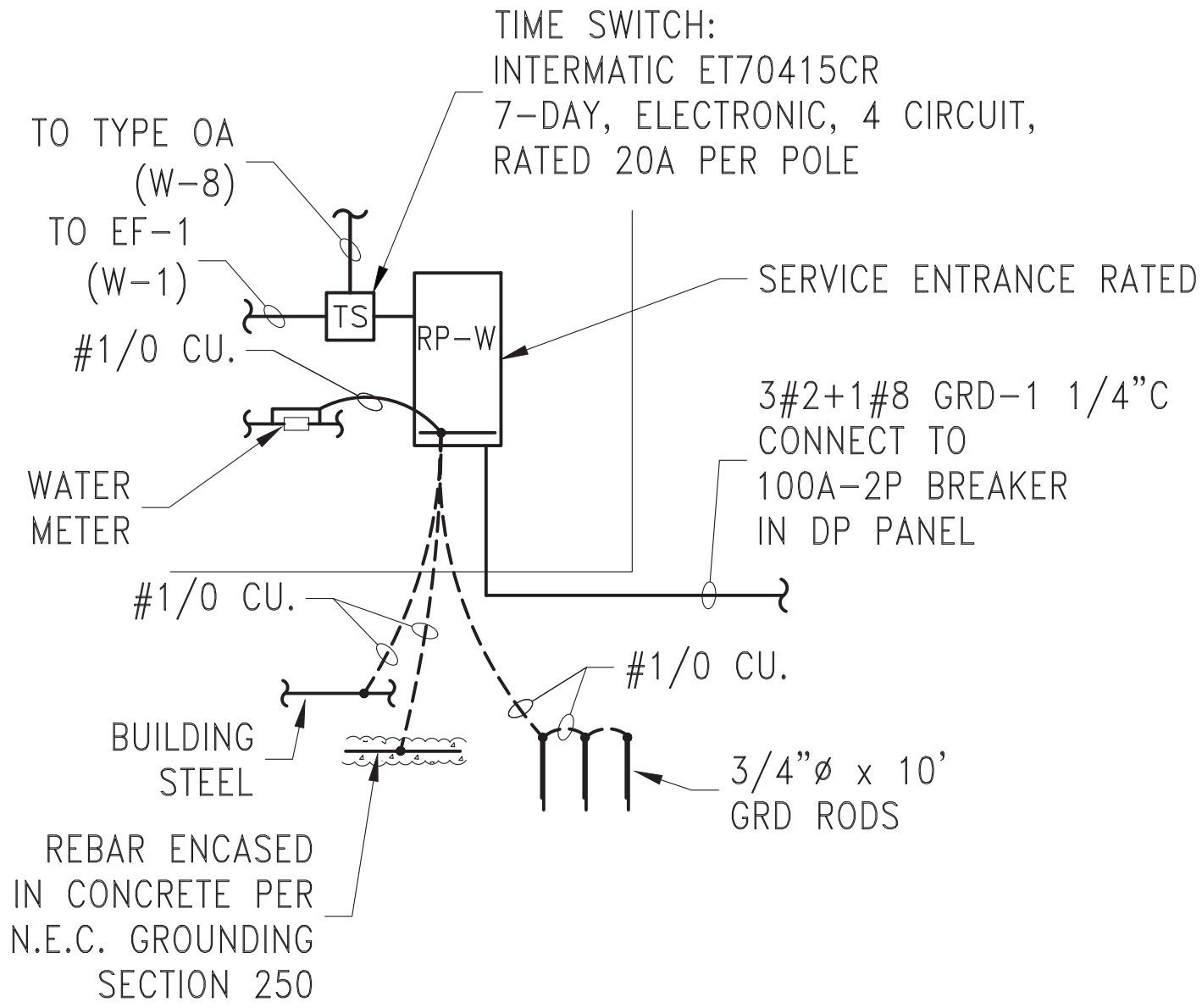
STATE OF MICHIGAN
DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
PROCUREMENT AND REAL ESTATE SERVICES ADMINISTRATION
DESIGN AND CONSTRUCTION DIVISION
ROBERT C. HALL, RA, NCARB, DIRECTOR

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LIGHT FIXTURE SCHEDULE				
ITEM #	DESCRIPTION	MANUFACTURER	MODEL	REMARKS
LA	SURFACE LINEAR LED, 0-10V DIMMING	FAILSAFE	HVL8-BR-4-LD3-1STD-27K-UNV-O-ED1C-S-HVL8CBD	VERIFY LENGTH AS CONTINUOUS PER RUN
LB	SURFACE CEILING MOUNTED LED FIXTURE	LUMINAIRELED	ARV13-25W-LED-2700K-120-OP-WHT-DIM	VANDAL RESISTANT
LC	SURFACE LED AMBIENT FIXTURE	CREE	LS4-40L-27K-10V	DIMMABLE
EMA	INDOOR/OUTDOOR LED EMERGENCY LIGHTING	DUALITE	PG-W-120	OR AS SELECTED BY OWNER
OA	WALL MOUNTED LED FIXTURE	LUMARK	XTOR2B-Y	1997 LUMENS, 3000K, 70 CRI, 18W



ELECTRICAL RISER DIAGRAM
NO SCALE 120/240V-1Ø-3W

NOTE 1: APPROVED EQUALS WILL BE CONSIDERED; HOWEVER, ANY SUBMISSION MUST PROVIDE EQUAL PERFORMANCE IN DELIVERED LUMEN OUTPUT, DISTRIBUTION AND MEET THE DIMENSIONAL CRITERIA.

NOTE 2: PROVIDE WARM COLOR LED (2700K)

PROJECT: BRIMLEY STATE PARK			100A		M.C.B.		CLASS: 120/240V-1PH-3W+GRD.		RP-W
PROJ NO: 423-19116							MOUNTING: SURFACE		
BRANCH CIRC.			WATTS		CODE		REMARKS		
NO.	POLES	BKR.	BUS A	BUS B	L	R	E		
1	1	25	1600				E	EF-1	HACR
3	1	20		250			E	DWH-1	
5	1	20	800			R		REC MENS	GFI
7	1	20		400		R		REC WOMENS	GFI
9	1	20	250				E	DWH-2	
11	1	20		200			E	TIME CLOCK	
13	1	20					E	Spare	
15	1	20		1500			E	HAND DRYER	
17	1	20	1500				E	HAND DRYER	
19	1	20		1500			E	HAND DRYER	
21	1	20	1500				E	HAND DRYER	
23	1	20		1500			E	HAND DRYER	
2	1	20	1200			R		REC EXTERIOR	GFI
4	1	20		400		R		REC MENS	GFI
6	1	20	800			R		REC WOMENS	GFI
8	1	20		120	L			LIGHTING-EXTERIOR	
10	1	20	400		L			LIGHTING-SHOWERS	
12	1	20		800	L			LIGHTING-MENS	
14	1	20	800		L			LIGHTING-WOMENS	
16	1	20		400	L			LIGHTING-UTILITY ROOM	
18	1	20						SPARE	
20	1	20						SPARE	
22	1	20						SPARE	
24	1	20						SPARE	
LIGHTING LOAD			1,200	1,320	2520 W		125%	3150 W	
RECEPTACLE LOAD			2,800	800	3600 W		NEC 220.14	3600 W	
EQUIPMENT LOAD			4,850	4,950	9800 W		100%	9800 W	
TOTAL LOAD			8,850	7,070	15920 W			16550 W	
					66.3 AMPS			69.0 AMPS	
					CONNECTED LOAD			DEMAND LOAD	

PROJECT NO. 75119154.TAP
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PCA 00-0000
DRAWN BY JLW
DESIGNED BY RRT
JC/ENG BY

ELECTRICAL RISER
AND SCHEDULES
EAST AREA

PROJECT DESCRIPTION
BRIMLEY STATE PARK - TOILET
SHOWER BUILDING IMPROVEMENTS
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