

Duct Design Input

Model OPT BR 4 **Mfg.** CMH-MFG 929 **Date** 4/3/2019 **Source** 29m161

Design Type	Flow Direction	Plenum Connection	Plenum Location	Plenum Width X Plenum Length
Double-section	Down Flow	Direct to a Trunk	Floor B	13 X 13 (Sqr. in)

Note: all the unspecified dimensions are in inches.

Crossover	Supply	To	Material	H / D	Width	Length (ft)	Offset Dir.	Offset
1	Floor B	Floor A	Flex	12	N/A	18	Center	0

Floor A	Vertical	Material	Trunk H	Trunk W					
	First Floor	Aluminum	5	14					
	Direction	Distance(ft)	Boot Type	Boot H/D	Boot W	Boot L (ft)	Reg. Type	Register H	Register W
	Left 1	13.25	Reg. Boot	4	10	0.5	Boot Reg.	4	10
	Left 2	1.5	Reg. Boot	4	10	0.5	Boot Reg.	4	10
	Left 3	13	Reg. Boot	4	10	0.5	Boot Reg.	4	10
	Right 1	3	Reg. Boot	4	10	0.5	Boot Reg.	4	10
	Right 2	1.25	Reg. Boot	4	10	0.5	Boot Reg.	4	10
	Right 3	19.25	Reg. Boot	4	10	0.5	Boot Reg.	4	10
	Right 4	1.5	Reg. Boot	4	10	0.5	Boot Reg.	4	10
	Right 5	12	Reg. Boot	4	10	0.5	Boot Reg.	4	10

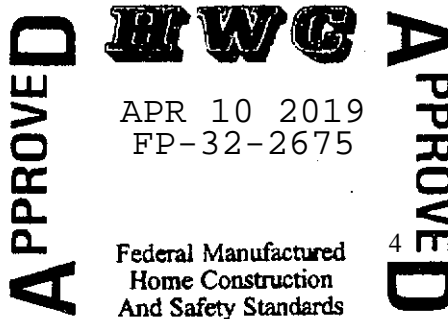
Floor B	Vertical	Material	Trunk H	Trunk W					
	First Floor	Aluminum	5	14					
	Direction	Distance(ft)	Boot Type	Boot H/D	Boot W	Boot L (ft)	Reg. Type	Register H	Register W
	Left 1	10	Reg. Boot	4	10	0.5	Boot Reg.	4	10
	Left 2	16.5	Reg. Boot	4	10	0.5	Boot Reg.	4	10
	Left 3	9.5	Reg. Boot	4	10	0.5	Boot Reg.	4	10
	Right 1	7	Flex (Inline)	6	N/A	3	Boot Reg.	4	10
	Right 2	6.75	Reg. Boot	4	10	0.5	Boot Reg.	4	10
	Right 3	10.25	Reg. Boot	4	10	0.5	Boot Reg.	4	10

Duct Design Performance

The refrigerated air cooling supply duct system including registers must be capable of handling at least 300 cfm per 10,000 Btuh with a static pressure no greater than 0.3 inches of water when measured at room temperature-HUD Manufactured Home Construction and Safety Standards, Part 3280.715 (a) (3) (ii)

Performance Calculated at a Static Pressure of 0.3 in. wc.

Air Flow Rate (SCFM)	2550	Duct Capacity (Btu/Hr)	85000
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Duct Design Input

Model _____ **Mfg.** CMH-MFG 929 **Date** 3/27/2019 **Source** 29m161

Design Type	Flow Direction	Plenum Connection	Plenum Location	Plenum Width X Plenum Length
Double-section	Down Flow	Direct to a Trunk	Floor B	13 X 13 (Sqr. in)

Note: all the unspecified dimensions are in inches.

Crossover	Supply	To	Material	H / D	Width	Length (ft)	Offset Dir.	Offset
1	Floor B	Floor A	Flex	12	N/A	18	Center	0

Floor A	Vertical	Material	Trunk H	Trunk W					
	First Floor	Aluminum	5	14					
	Direction	Distance(ft)	Boot Type	Boot H/D	Boot W	Boot L (ft)	Reg. Type	Register H	Register W
	Left 1	13.25	Reg. Boot	4	10	0.5	Boot Reg.	4	10
	Left 2	1.5	Reg. Boot	4	10	0.5	Boot Reg.	4	10
	Left 3	13	Reg. Boot	4	10	0.5	Boot Reg.	4	10
	Right 1	3	Reg. Boot	4	10	0.5	Boot Reg.	4	10
	Right 2	1.25	Reg. Boot	4	10	0.5	Boot Reg.	4	10
	Right 3	19.25	Reg. Boot	4	10	0.5	Boot Reg.	4	10
	Right 4	1.5	Reg. Boot	4	10	0.5	Boot Reg.	4	10
	Right 5	12	Reg. Boot	4	10	0.5	Boot Reg.	4	10

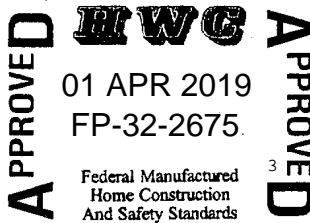
Floor B	Vertical	Material	Trunk H	Trunk W					
	First Floor	Aluminum	5	14					
	Direction	Distance(ft)	Boot Type	Boot H/D	Boot W	Boot L (ft)	Reg. Type	Register H	Register W
	Left 1	10	Reg. Boot	4	10	0.5	Boot Reg.	4	10
	Left 2	16.5	Reg. Boot	4	10	0.5	Boot Reg.	4	10
	Left 3	9.5	Reg. Boot	4	10	0.5	Boot Reg.	4	10
	Right 1	7	Flex (Inline)	6	N/A	3	Boot Reg.	4	10
	Right 2	4.75	Reg. Boot	4	10	0.5	Boot Reg.	4	10
	Right 3	12	Reg. Boot	4	10	0.5	Boot Reg.	4	10

Duct Design Performance

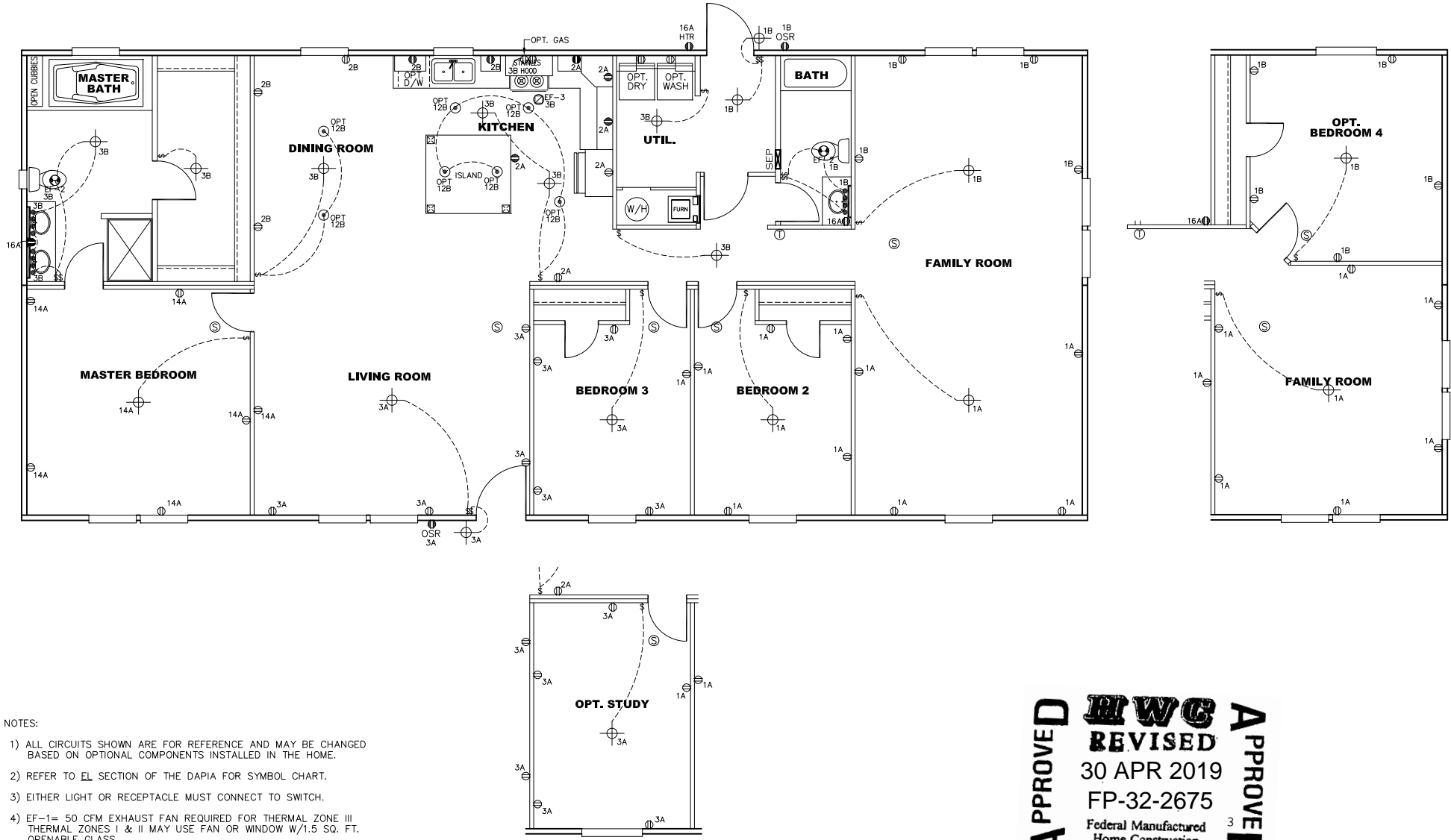
The refrigerated air cooling supply duct system including registers must be capable of handling at least 300 cfm per 10,000 Btuh with a static pressure no greater than 0.3 inches of water when measured at room temperature-HUD Manufactured Home Construction and Safety Standards, Part 3280.715 (a) (3) (ii)

Performance Calculated at a Static Pressure of 0.3 in. wc.

Air Flow Rate (SCFM)	2553	Duct Capacity (Btu/Hr)	85100
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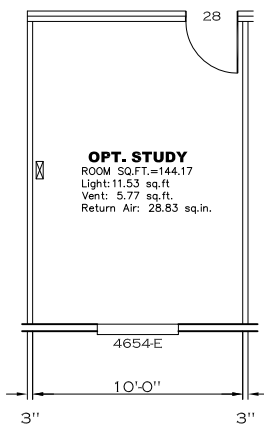
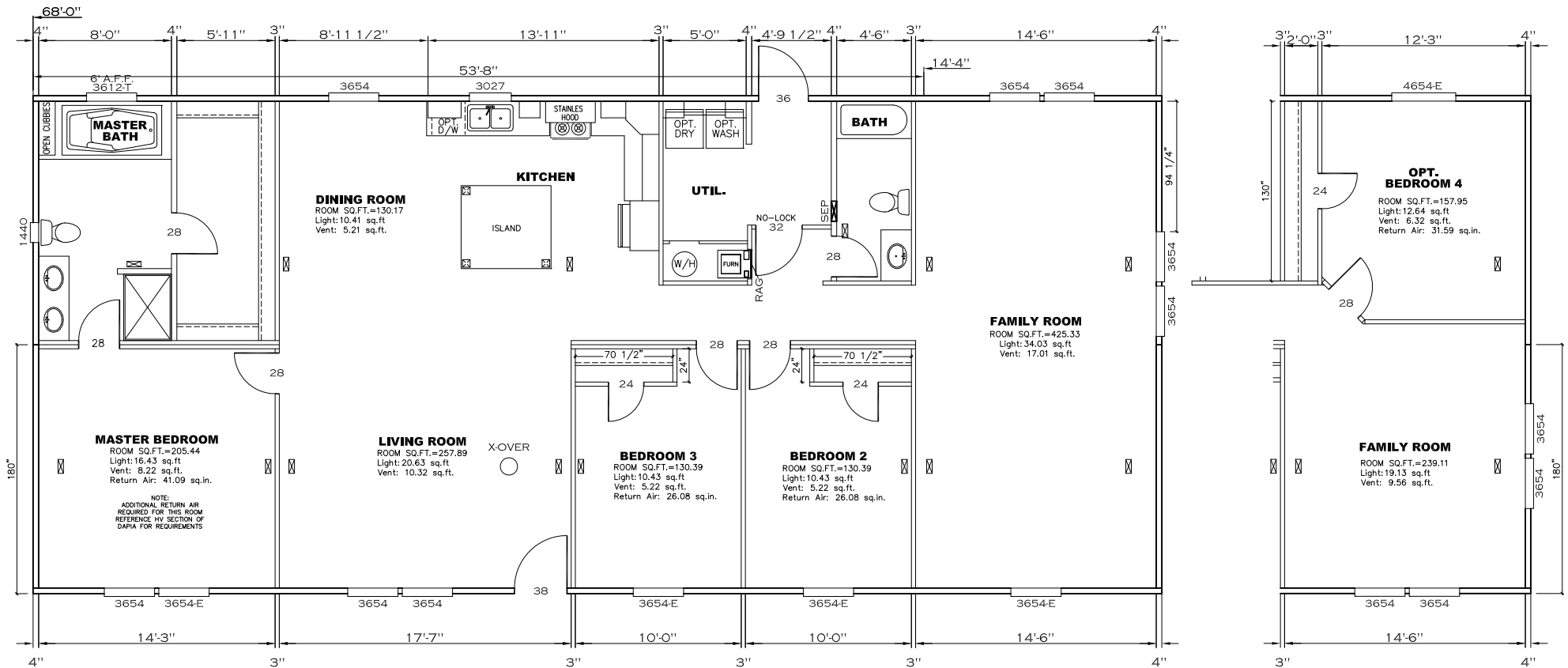
CIRCUIT	CIRCUIT #	WIRE	BREAKER	CIRCUIT	CIRCUIT #	WIRE	BREAKER	CIRCUIT	CIRCUIT #	WIRE	BREAKER
LIGHT/RECEP	1A,1B,3A,3B,14A,12B	14-2	15-SP	WATER HEATER	4A,6B	SEE NOTE #8		BATHROOM	16A	12-2	20-SP
KITCHEN	2A,2B	12-2	20-SP	RANGE	5B,7A	SEE NOTE #8		OPT G/DISP	9B	SEE NOTE #8	
WASHER	12A	12-2	20-SP	FURNACE	6A,8A,B,10A,B	SEE NOTE #8		OPT SPA/WP/JAC	11A,B	SEE NOTE #8	
DRYER	5A,7B	SEE NOTE #8		OPT D/WASH	9A	SEE NOTE #8		FREEZER	13A	SEE NOTE #8	
				SMOKE ALARM	4B	SEE NOTE #8					



- NOTES:
- 1) ALL CIRCUITS SHOWN ARE FOR REFERENCE AND MAY BE CHANGED BASED ON OPTIONAL COMPONENTS INSTALLED IN THE HOME.
 - 2) REFER TO EL SECTION OF THE DAPIA FOR SYMBOL CHART.
 - 3) EITHER LIGHT OR RECEPTACLE MUST CONNECT TO SWITCH.
 - 4) EF-1= 50 CFM EXHAUST FAN REQUIRED FOR THERMAL ZONE III. THERMAL ZONES I & II MAY USE FAN OR WINDOW W/1.5 SQ. FT. OPENABLE GLASS.
 - 5) EF-2= 50 CFM EXHAUST FAN REQUIRED THERMAL ZONE I, II, AND III.
 - 6) EF-3= 100 CFM RANGE EXHAUST FAN, SWITCH AT HOOD.
 - 7) EF-4= WHOLE HOUSE VENTILATION PER REQUIREMENTS IN S-HV-10 & 10A OR M-HV-11 & 11A OF DAPIA.
 - 8) REFER TO EL SECTION OF THE DAPIA OR THE MFG. INSTALLATION INSTRUCTIONS FOR PROPER WIRE SIZE AND BREAKER SIZE FOR SPECIFIC APPLIANCE AND MODEL BEING INSTALLED.
 - 9) ALL SMOKE ALARMS TO BE LOCATED ON THE CEILING.
 - 10) DIMENSIONS SHOWN ON PRINT ARE APPROXIMATE AND TO BE USED ONLY AS A GUIDELINE.

APPROVED **REVISED** **APPROVED**
IWGC
 30 APR 2019
 FP-32-2675
 Federal Manufactured
 Home Construction
 And Safety Standards

2040 SQ.FT. (STD PLAN "CONDITIONED") N/A SQ.FT. (W/OPT. PORCH/RECESS "CONDITIONED")	
CMH MANUFACTURING	Model #: ULT32G83A Date: 3/26/19 Scale: NTS
Product Designer: E HARDWICK	29M161
32 x 68 Ultra Pro	
ELECTRICAL PLAN-06	



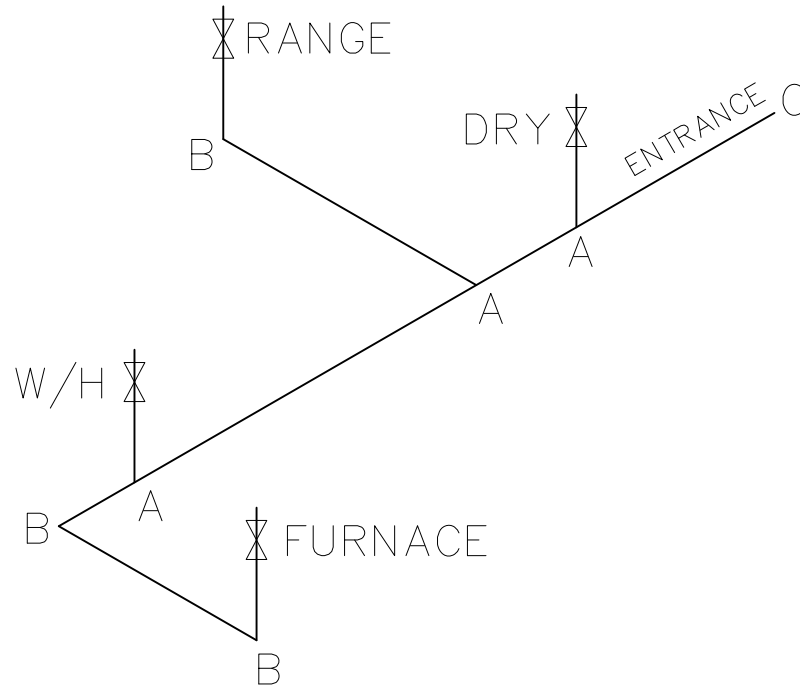
APPROVED **RWC** **APPROVED**
REVISED
 30 APR 2019
 FP-32-2675
 Federal Manufactured
 Home Construction
 And Safety Standards

2040 SQ.FT. (STD PLAN "CONDITIONED")
 N/A SQ.FT. (W/OPT. PORCH/RECESS "CONDITIONED")

CMH MANUFACTURING	Model #: ULT32683A Date: 3/26/19 Scale: NTS	Drawing #: 29M161
Product Designer: E HARDWICK		32 x 68 Ultra Pro
FLOOR PLAN		

LEGEND		APPLIANCE BTU'S RATINGS MAX. INPUT	
SYM	FITTINGS		
A	TEE	FURNACE	65,000 BTU'S
B	90 ELL	W/H	37,000 BTU'S
X	VALVE	RANGE	52,000 BTU'S
C	CAP	DRYER	22,000 BTU'S

MDL=20'



NOTES:

- 1) ALL PIPE IS 3/4" I.D.CAST (EXCEPT WHERE NOTED OTHERWISE)
- 2) MDL=MAX. DETERMINED LENGTH OF PIPE
- 3) FITTING MAY BE ADDED OR SUBTRACTED TO TRAVERSE VARIATIONS IN AXLE QUANTITY, PLACEMENT, AND FRAME TYPE.
- 4) INLET LOCATION MAY VARY TO STAY WITHIN MAX. DETERMINED LENGTH

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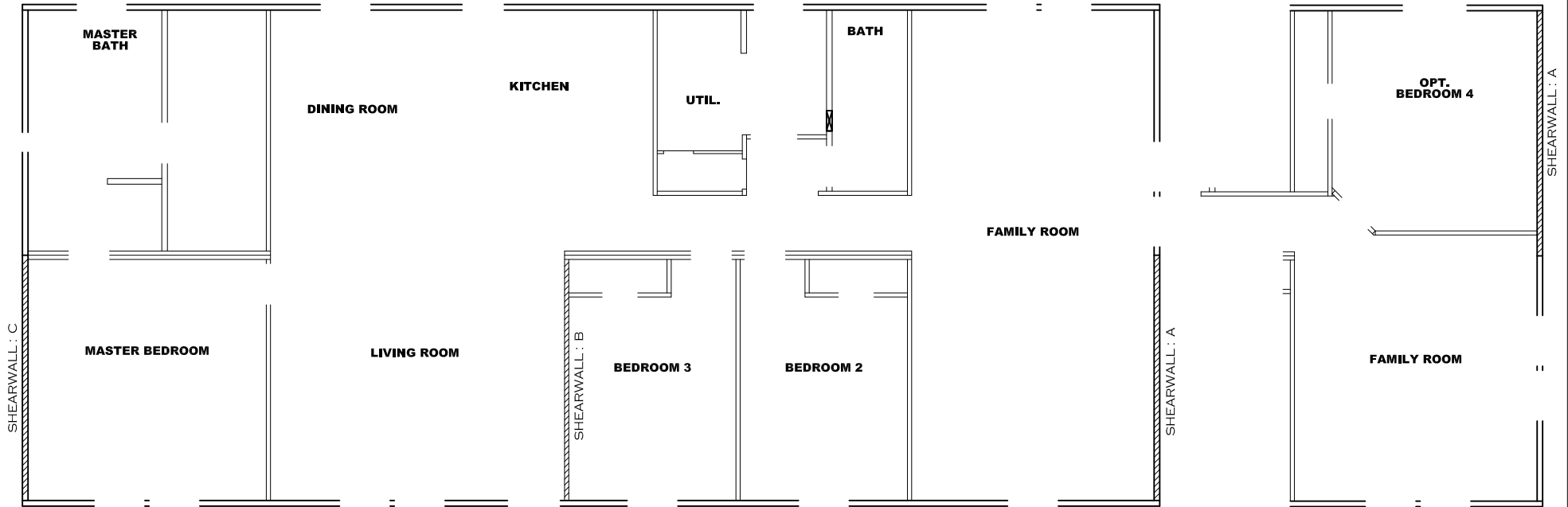
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FP-32-2675

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GAS LINE SIZE CHART	
	= 1"
	= 3/4"

2040 SQ.FT. (STD PLAN "CONDITIONED")
N/A SQ.FT. (W/OPT. PORCH/RECESS "CONDITIONED")

CMH MANUFACTURING	Model #: ULT32683A	Drawing #:
	Date: 3/26/19	Scale: NTS 29M161
Product Designer: E HARDWICK		32 x 68 Ultra Pro
GAS LINE DETAIL		



Model # 29M161-8FT Minimum Joist Spacing 16 "

Box Width = 180 " Double wide No Offset Box
 Box Length = 68 ft. 95.5" 12" MIN. IBEAM No Clerestory
 No Skylights No Origami Dormer
 No Porches No Sunken Floor
 Joist Size = #2 sp 2x6 Lags 9Mx3" No Parapet Roof

Version R13.4

Wind Zone 1 Standard Roof		(3/8" sheathing only with 15 gax 1.5" at 5"/10" oc. (197 plf) Chords: #3 2x4 plate w/ 2x4 rail spliced w/ 12" glue block.				96 inch sidewall
Diaphragm Construction:						
Shearwall	Dist./ Hitch	Length	PLF	# of Joists	Lags	Notes
A	0'	152"	162	2	2/1	
C	68'	152"	162	2	2/1	
Wind Zone 2 Standard Roof		(3/8" sheathing only with 15 gax 1.5" at 5"/10" oc. (197 plf) Chords: #3 2x4 plate w/ 2x4 rail spliced w/ 12" glue block.				96 inch sidewall
Diaphragm Construction:						
Shearwall	Dist./ Hitch	Length	PLF	# of Joists	Lags	Notes
A	0'	Full	425	2	5/5	
B	35.46'	Full	425	2	3/3	
C	68'	Full	425	2	5/5	
Wind Zone 3 Standard Roof		(3/8" sheathing only with 15 gax 1.5" at 5"/10" oc. (197 plf) Chords: #3 2x4 plate w/ 2x4 rail spliced w/ 12" glue block.				96 inch sidewall
Diaphragm Construction:						
Shearwall	Dist./ Hitch	Length	PLF	# of Joists	Lags	Notes
A	0'	Full	425	2	5/5	
B	35.46'	Full	515	2	5/5	
C	68'	Full	425	2	5/5	

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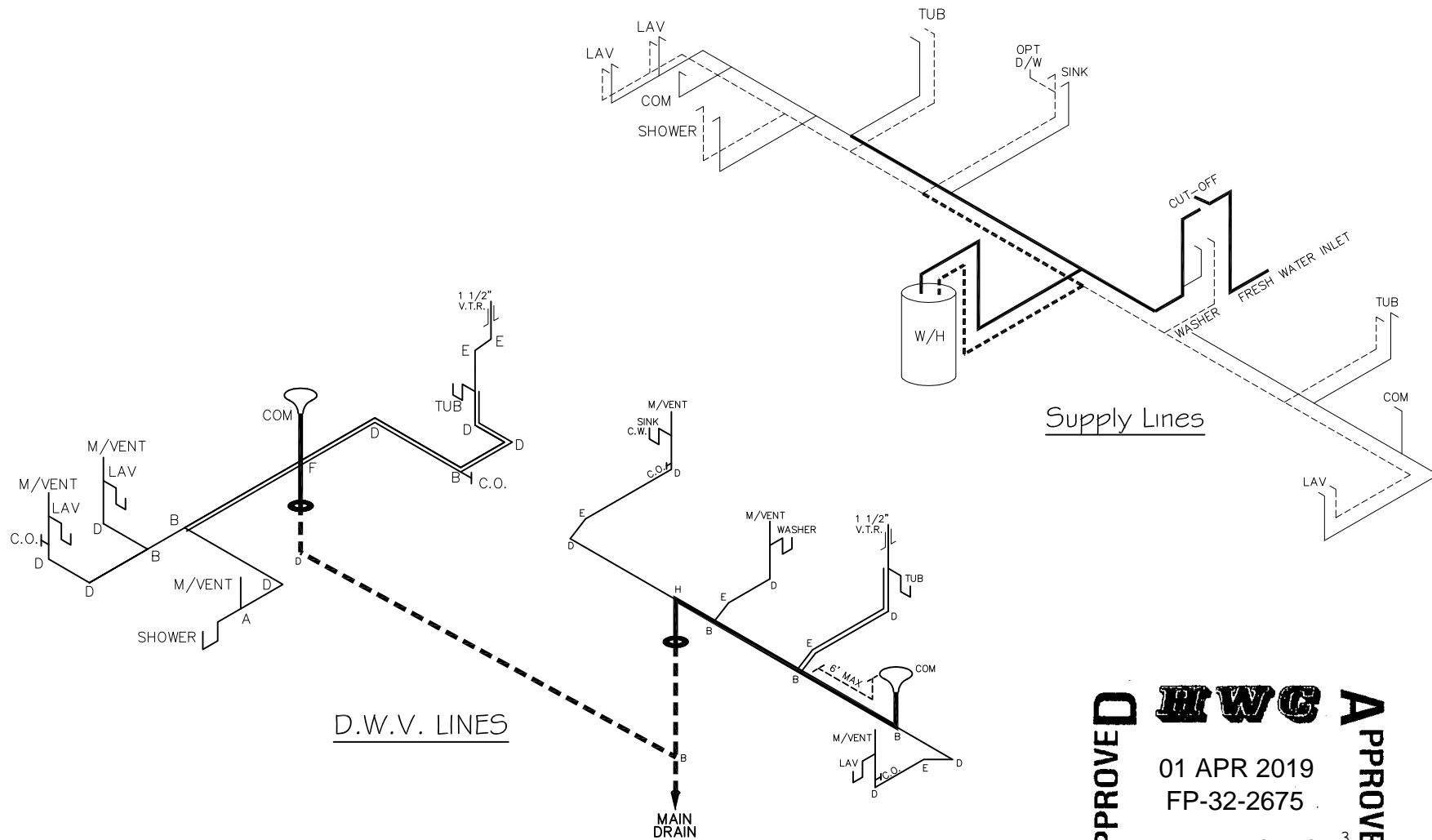
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2040 SQ.FT. (STD PLAN "CONDITIONED")
 N/A SQ.FT. (W/OPT. PORCH/RECESS "CONDITIONED")

CMH MANUFACTURING	Model #: ULT32G83A	Drawing #:
	Date: 3/26/19	Scale: NTS 29M161
Product Designer: E HARDWICK		32 x 68 Ultra Pro
8' SHEARWALL		

NOTE:
DASHED LINES INDICATE HOT WATER
SOLID LINES INDICATE COLD WATER

— = 3/4"
— = 1/2"



Supply Lines

D.W.V. LINES

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LEGEND	
A	SHORT TURN T-Y
B	LONG TURN T-Y
C	1/4 BEND
D	LONG SWEEP 1/4 BEND
E	45 ELL
F	DBL. SANITARY TEE
G	4x3 CLOSET ELL
H	DOUBLE ELL
I	22 1/2" ELL
J	45° Y
K	LONG TURN STREET ELBOW
L	45 FTG ELL

DWV LINE SIZE CHART	
—	= 3"
—	= 2"
—	= 1 1/2"

2040 SQ.FT. (STD PLAN "CONDITIONED")
N/A SQ.FT. (W/OPT. PORCH/RECESS "CONDITIONED")

CMH MANUFACTURING Product Designer: E HARDWICK	Model #: ULT32683A Date: 3/26/19 Scale: NTS	Drawing #: 29M161
	32 x 68 Ultra Pro	
D.W.V. and Supply Lines		