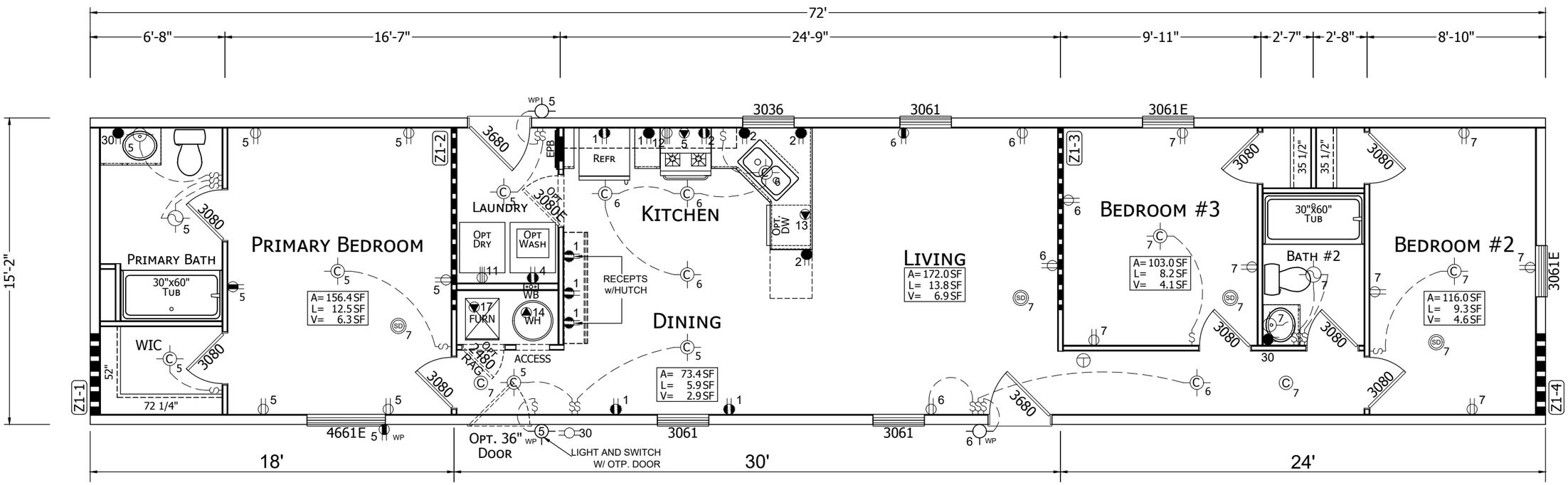

DESIGN CRITERIA
ZONES: WIND 1, ROOF MIDDLE, TEMP III
TOTAL ROUGH WINDOW OPENINGS: 92.6 SF

CHAMPION
HOME BUILDERS
755 W. BIG BEAVER ROAD, SUITE 1000 TROY, MI 48084
PHONE: 248-614-8200

PFS #23 Conforms to HUD MHCSS 12/15/25

MODIFICATIONS
1 2025 CODE UPDATE 2/14/2025 JR

PROJECT: 112AP-1672H32087 3 BD 2 BTH
DRAWN BY: A.GOULD
DATE: 08-21-23
SCALE: 3/16" = 1'-0"

TITLE: FLOOR PLAN ELECTRICAL PLAN
FILENAME: 112AP-1672H32087

SHEET: AE-101

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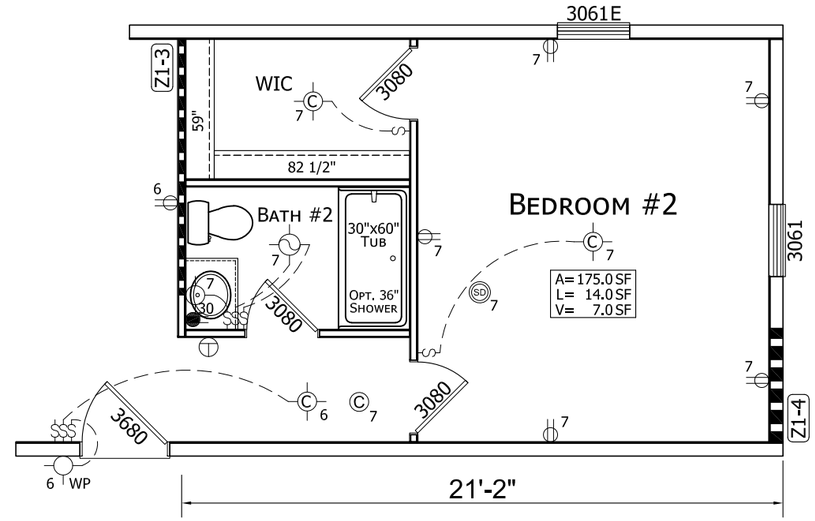
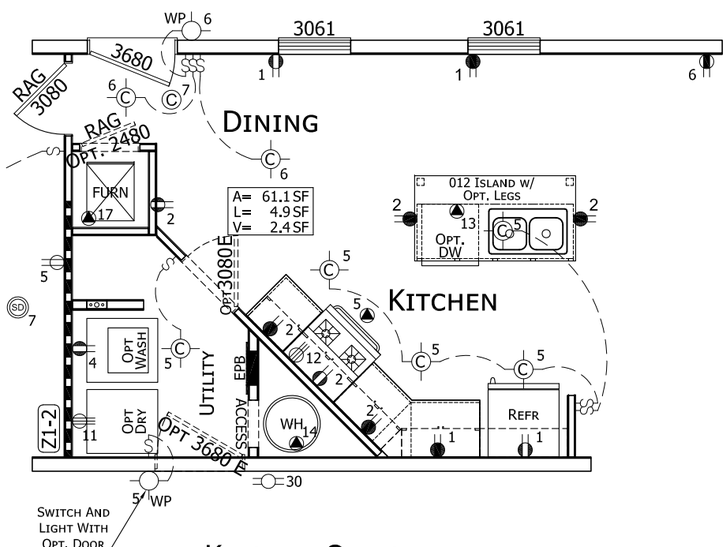
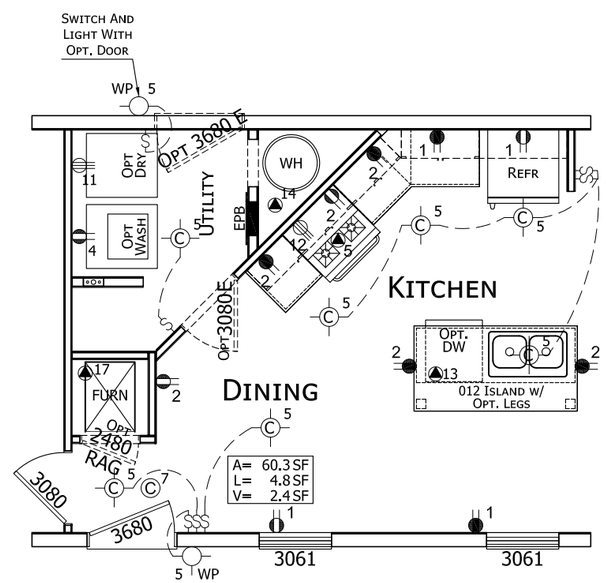
PFS certifies this document is current as of 12/15/2025



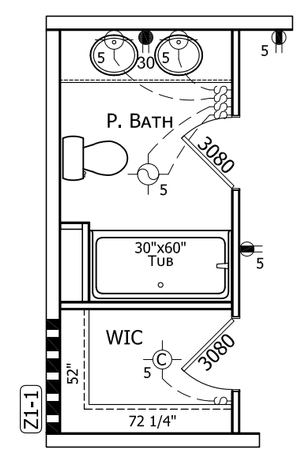
2 Bedroom Option



Kitchen Option



Kitchen Option(Reverse Aisle)



Primary Bath Option

CHAMPION HOME BUILDERS

755 W. BIG BEAVER ROAD, SUITE 1000 TROY, MI 48084
PHONE: 248-614-8200

PFS #23 Conforms to HUD MHCSS 12/15/25

MODIFICATIONS

1 2025 CODE UPDATE 2/14/2025 JR

PROJECT: 112AP-1672H32087 3 BD 2 BTH

TITLE: FLOOR PLAN ELECTRICAL PLAN

SHEET: AE-102

DRAWN BY: A.GOULD

FILENAME: 112AP-1672H32087

DATE: 08-21-23

SCALE: 3/16" = 1'-0"

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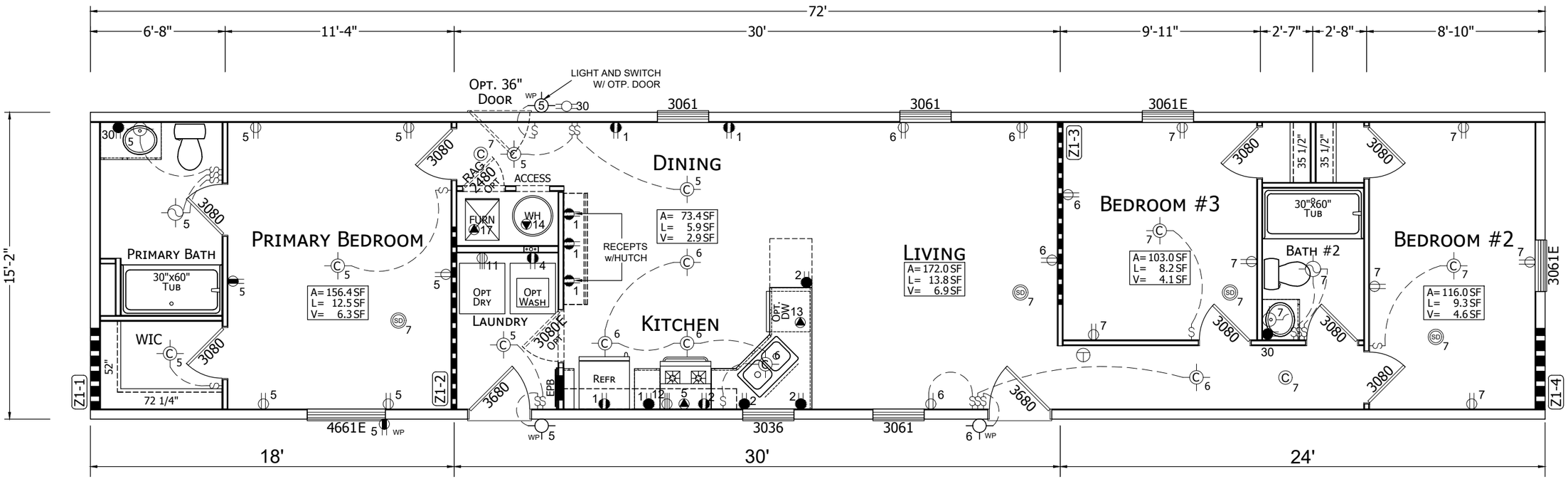

OPT. REVERSE AISLE

DESIGN CRITERIA
ZONES: WIND 1, ROOF MIDDLE, TEMP III
TOTAL ROUGH WINDOW OPENINGS: 92.6 SF

CHAMPION HOME BUILDERS
755 W. BIG BEAVER ROAD, SUITE 1000 TROY, MI 48084
PHONE: 248-614-8200

PFS #23 Conforms to HUD MHCSS 12/15/25

MODIFICATIONS
1 2025 CODE UPDATE 2/14/2025 JR

PROJECT: 112AP-1672H32087 3 BD 2 BTH
DRAWN BY: A.GOULD
DATE: 08-21-23
SCALE: 3/16" = 1'-0"

TITLE: FLOOR PLAN ELECTRICAL PLAN
FILENAME: 112AP-1672H32087

SHEET: AE-103

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Overall Check =	PASS	CHB Shear Wall - Layout / Design	Model#:	112AP-1672H32087std

Wind Zone =	I	
Wind Load =	15	psf
Module Width =	182	in
Number of Boxes =	1	
Wall Height =	96	in
Roof Pitch =	4.36	:12
Angle =	20.0	°
Roof Overhang =	4	in
Floor Joist Spacing =	16	in o.c.
Rim Joist Plies =	1	
Frame Spacing =	99.5	in
Beam Depth =	12	in
Open Porch =	0.00	ft.
Home Length =	72.00	ft.

Diaphragm Construction:

Diaphragm Type =	Gypsum Ceiling	
Foam Brand =	F-2100	
Minimum Width =	182	in
Max plf =	228	plf
Max. End Wall Reaction =	3,458	lbs
Max. Interior Reaction =	6,916	lbs
Max. Span =	48.00	ft.

Floor Construction:

Floor Joist Size =	2x8
Floor Joist Species =	SPF
Floor Joist Grade =	#3
Decking Glued to Joists =	Yes

Wall Construction:

Bottom Plate Thickness =	2x	
Top Plate Thickness =	2x	
Wall to Floor Joist =	#10	x 3.5''
Wall to Ceiling Framing =	#10	x 3.5''
Wall to Wall Fastener =	#10	x 3.50''

Ground Tie Chart

Peir Height (in.)	Near Beam Angle (Deg.)	Far Beam Angle (Deg.)	Ground Tie Spacing (ft)	Max. Spacing (ft.)
12	32.79		13.08	13'-0''
20	40.66		11.80	11'-9''
28	47.04		10.60	10'-7''
36	52.19		9.54	9'-6''
44	56.37		8.62	8'-7''
52	59.80		7.82	7'-9''
60	62.64	27.77	12.60	12'-7''
68	65.03	30.33	12.68	12'-8''

** For monoslope homes only*

	Left End Wall Shear Wall	Shear Wall 2	Shear Wall 3	Shear Wall 4	Shear Wall 5	Shear Wall 6
Vertical Trib =	4.00 ft	4.00 ft	4.00 ft	4.00 ft	4.00 ft	4.00 ft
King Post Height *=	in.	in.	in.	in.	in.	in.
Porch End Wall =	- -	- -	- -	- -	- -	- -
Dist. To Next SW =	18.00 ft.	30.00 ft.	24.00 ft.	ft.	ft.	
Manual Input =	- -	- -	- -	- -	- -	- -
Load to Shearwall =	540.0 lbs	1440.0 lbs	1620.0 lbs	720.0 lbs	0.0 lbs	0.0 lbs
Panel Layout						
From Module Edge =	6.00 in.	6.00 in.	6.00 in.	6.00 in.	in.	in.
Panel Length =	48.00 in.	108.00 in.	108.00 in.	48.00 in.	in.	in.
From Module Edge =	in.	in.	in.	in.	in.	in.
Panel Length =	in.	in.	in.	in.	in.	in.
Shearwall plf =	135.0 plf	160.0 plf	180.0 plf	180.0 plf	N/A plf	N/A plf
Shearwall Panel =	Gypsum	Gypsum	Gypsum	Gypsum		
Gyp. Brand =	U.S.G.	U.S.G.	U.S.G.	U.S.G.		
Fasteners =	Yes	Yes	Yes	Yes		
Adhesive =	PVA	PVA	PVA	PVA		
One Side or Two =	1	1	1	1		
Max. Shearwall plf =	247 plf	247 plf	247 plf	247 plf	plf	plf
	*Construct per Note 6 on SW01.35.XX	*Construct per Note 6 on SW01.35.XX	*Construct per Note 6 on SW01.35.XX	*Construct per Note 6 on SW01.35.XX	*Construct per SW01.25.01	*Construct per SW01.25.01

Zone - ID	Z1-1	Z1-2	Z1-3	Z1-4		
Joist	2	2	2	2		
Wall Conn.	8	8	8	8		
SC O.C.	6 @ 8''	16 @ 7''	18 @ 6''	8 @ 6''		
SF O.C.	10 @ 5''	18 @ 6''	20 @ 5.5''	12 @ 4''		
Beam Lag	1	2	2	1		
	May be 1 joist per Note 9.C. on SW01.00.04			*May be 1 joist per Note 9.C on SW01.00.04*		
Result =	PASS	PASS	PASS	PASS		

CHAMPION HOME BUILDERS
755 W. BIG BEAVER ROAD, SUITE 1000 TROY, MI 48084
PHONE: 248-614-8200

PFS #23 Conforms to HUD MHCSS 9/25/23

MODIFICATIONS

PROJECT: 112AP-1672H32087 3 BD 2 BTH	TITLE: SHEAR WALLS	SHEET: SW-101
DRAWN BY: J. RILEY	FILENAME: 112AP-1672H32087	PROPRIETARY AND CONFIDENTIAL
DATE: 09/18/23		THESE DRAWINGS AND SPECIFICATIONS ARE ORIGINAL, PROPRIETARY AND CONFIDENTIAL MATERIALS OF CHAMPION.
SCALE: NTS		COPYRIGHT © 1976-2023 BY CHAMPION

Overall Check =	PASS	CHB Shear Wall - Layout / Design	Model#:	112AP-1672H32087opt2bed

Wind Zone =	I	
Wind Load =	15	psf
Module Width =	182	in
Number of Boxes =	1	
Wall Height =	96	in
Roof Pitch =	4.36	:12
Angle =	20.0	°
Roof Overhang =	4	in
Floor Joist Spacing =	16	in o.c.
Rim Joist Plies =	1	
Frame Spacing =	99.5	in
Beam Depth =	12	in
Open Porch =	0.00	ft.
Home Length =	72.00	ft.

Diaphragm Construction:

Diaphragm Type =	Gypsum Ceiling	
Foam Brand =	F-2100	
Minimum Width =	182	in
Max plf =	228	plf
Max. End Wall Reaction =	3,458	lbs
Max. Interior Reaction =	6,916	lbs
Max. Span =	48.00	ft.

Floor Construction:

Floor Joist Size =	2x8
Floor Joist Species =	SPF
Floor Joist Grade =	#3
Decking Glued to Joists =	Yes

Wall Construction:

Bottom Plate Thickness =	2x	
Top Plate Thickness =	2x	
Wall to Floor Joist =	#10	x 3.5''
Wall to Ceiling Framing =	#10	x 3.5''
Wall to Wall Fastener =	#10	x 3.50''

Ground Tie Chart

Peir Height (in.)	Near Beam Angle (Deg.)	Far Beam Angle (Deg.)	Ground Tie Spacing (ft)	Max. Spacing (ft.)
12	32.79		13.08	13'-0''
20	40.66		11.80	11'-9''
28	47.04		10.60	10'-7''
36	52.19		9.54	9'-6''
44	56.37		8.62	8'-7''
52	59.80		7.82	7'-9''
60	62.64	27.77	12.60	12'-7''
68	65.03	30.33	12.68	12'-8''

** For monoslope homes only*

	Left End Wall Shear Wall	Shear Wall 2	Shear Wall 3	Shear Wall 4	Shear Wall 5	Shear Wall 6
Vertical Trib =	4.00 ft	4.00 ft	4.00 ft	4.00 ft	4.00 ft	4.00 ft
King Post Height *=	in.	in.	in.	in.	in.	in.
Porch End Wall =	- -	- -	- -	- -	- -	- -
Dist. To Next SW =	18.00 ft.	32.83 ft.	21.16 ft.	ft.	ft.	
Manual Input =	- -	- -	- -	- -	- -	- -
Load to Shearwall =	540.0 lbs	1524.9 lbs	1619.7 lbs	634.8 lbs	0.0 lbs	0.0 lbs
Panel Layout						
From Module Edge =	6.00 in.	6.00 in.	6.00 in.	6.00 in.	in.	in.
Panel Length =	48.00 in.	108.00 in.	108.00 in.	48.00 in.	in.	in.
From Module Edge =	in.	in.	in.	in.	in.	in.
Panel Length =	in.	in.	in.	in.	in.	in.
Shearwall plf =	135.0 plf	169.4 plf	180.0 plf	158.7 plf	N/A plf	N/A plf
Shearwall Panel =	Gypsum	Gypsum	Gypsum	Gypsum		
Gyp. Brand =	U.S.G.	U.S.G.	U.S.G.	U.S.G.		
Fasteners =	Yes	Yes	Yes	Yes		
Adhesive =	PVA	PVA	PVA	PVA		
One Side or Two =	1	1	1	1		
Max. Shearwall plf =	247 plf	247 plf	247 plf	247 plf	plf	plf
	*Construct per Note 6 on SW01.35.XX	*Construct per Note 6 on SW01.35.XX	*Construct per Note 6 on SW01.35.XX	*Construct per Note 6 on SW01.35.XX	*Construct per SW01.25.01	*Construct per SW01.25.01

	Left End Wall Shear Wall	Shear Wall 2	Shear Wall 3	Shear Wall 4	Shear Wall 5	Shear Wall 6
Zone - ID	Z1-1	Z1-2	Z1-3	Z1-4		
Joist	2	2	2	2		
Wall Conn.	8	8	8	8		
SC O.C.	6 @ 8''	16 @ 7''	18 @ 6''	8 @ 6''		
SF O.C.	10 @ 5''	18 @ 6''	20 @ 5.5''	12 @ 4''		
Beam Lag	1	2	2	1		
	*May be 1 joist per Note 9.C. on SW01.00.04			*May be 1 joist per Note 9.C on SW01.00.04		
Result =	PASS	PASS	PASS	PASS		

CHAMPION HOME BUILDERS
755 W. BIG BEAVER ROAD, SUITE 1000 TROY, MI 48084
PHONE: 248-614-8200

PFS #23 Conforms to HUD MHCSS 9/25/23

MODIFICATIONS

PROJECT: 112AP-1672H32087 3 BD 2 BTH
DRAWN BY: J. RILEY
DATE: 09/18/23
SCALE: NTS

TITLE: SHEAR WALLS OPT 2 BEDROOM
FILENAME: 112AP-1672H32087

SHEET: SW-102

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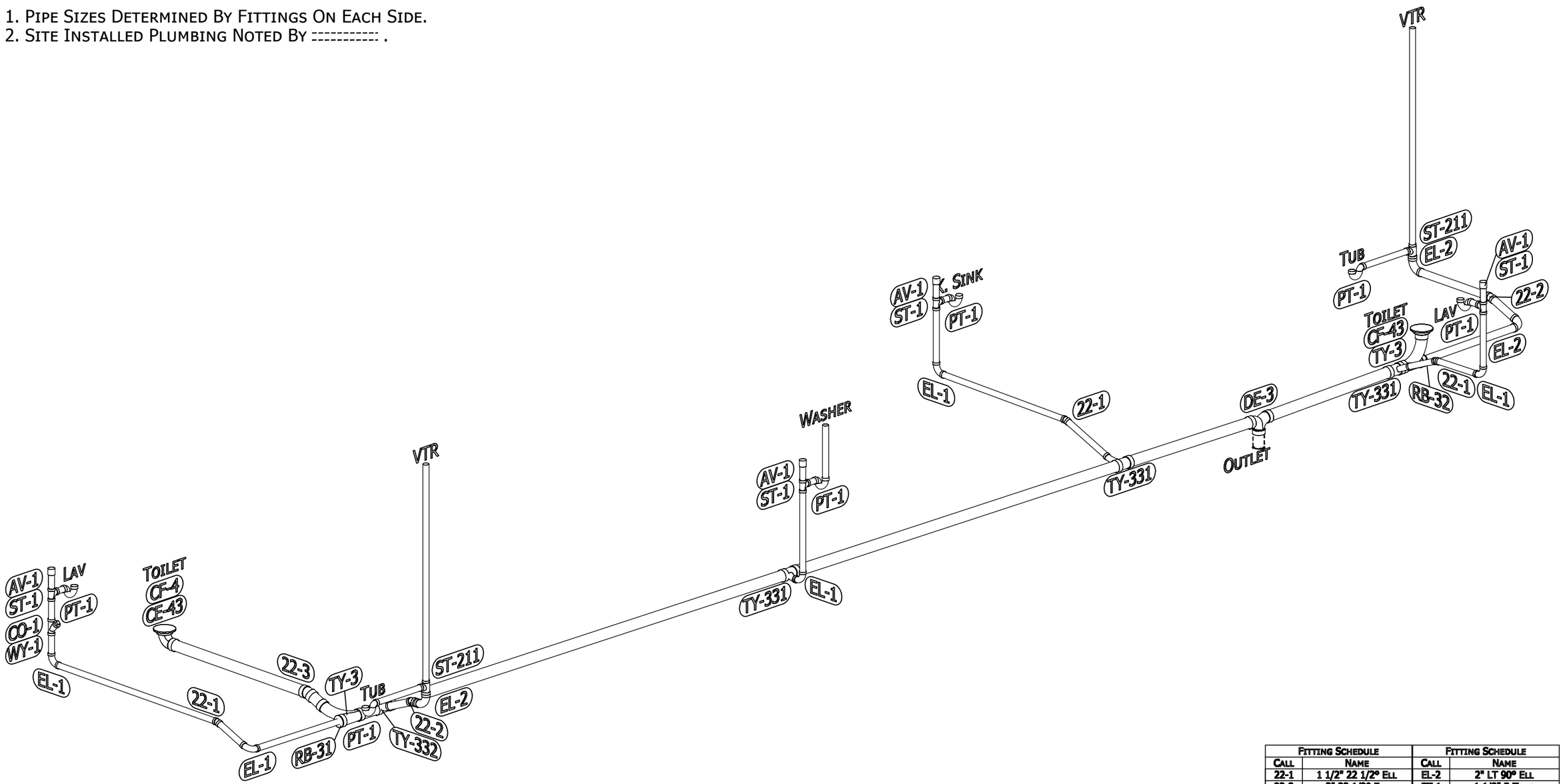
NOTES:

1. Pipe Sizes Determined By Fittings On Each Side.
2. Site Installed Plumbing Noted By ---------- .



Fitting Schedule		Fitting Schedule	
Call	Name	Call	Name
22-1	1 1/2" 22 1/2° Ell	EL-2	2" LT 90° Ell
22-2	2" 22 1/2° Ell	PT-1	1 1/2" P-Trap
22-3	3" 22 1/2° Ell	RB-31	3" x 1 1/2" Bushing
AV-1	1 1/2" Auto Vent	RB-32	3" x 2" Bushing
CE-43	4" x 3" Closet Ell	ST-1	1 1/2" Tee
CF-4	4" Closet Flange	ST-211	2" x 1 1/2" x 1 1/2" Tee
CF-43	4" x 3" Closet Flange	TY-3	3" Ltty
CO-1	1 1/2" Cleanout	TY-331	3" x 3" x 1 1/2" Ltty
DE-3	3" Double Ell	TY-332	3" x 3" x 2" Ltty
EL-1	1 1/2" LT 90° Ell	WY-1	1 1/2" Wye

CHAMPION
HOME BUILDERS
755 W. BIG BEAVER ROAD, SUITE 1000 TROY, MI 48084
PHONE: 248-614-8200

PFS #23
Conforms to HUD MHCSS
9/25/23

MODIFICATIONS

PROJECT: 112AP-1672H32087
3 BD 2 BTH

TITLE: DRAIN LINE PLAN

SHEET: D-101

DRAWN BY: A.GOULD
DATE: 08-21-23
SCALE: NTS

FILENAME: 112AP-1672H32087

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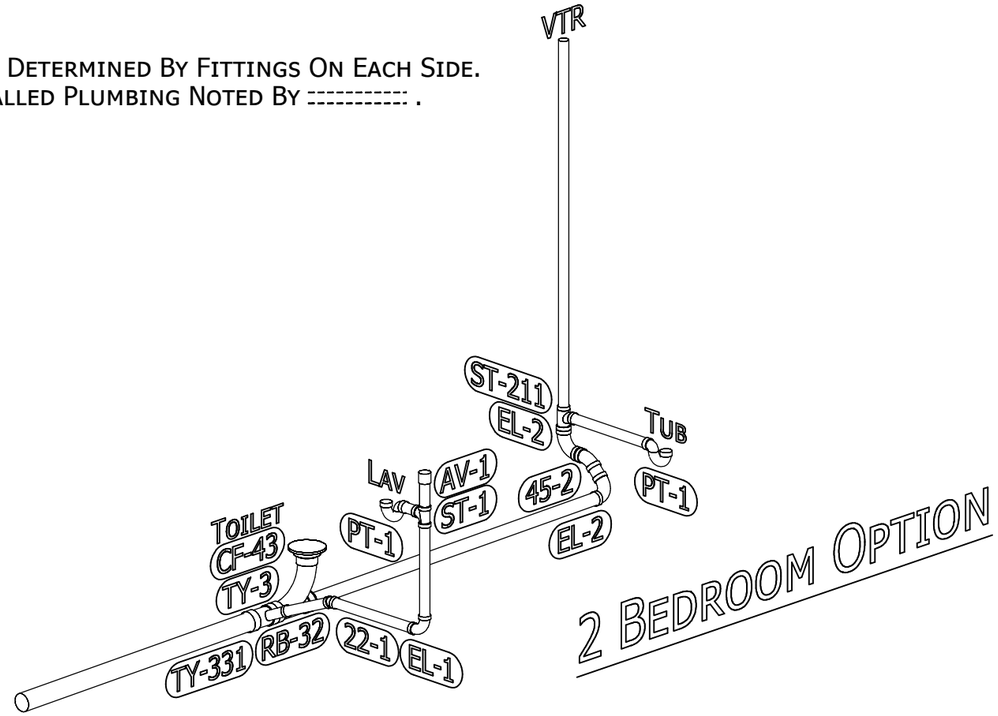
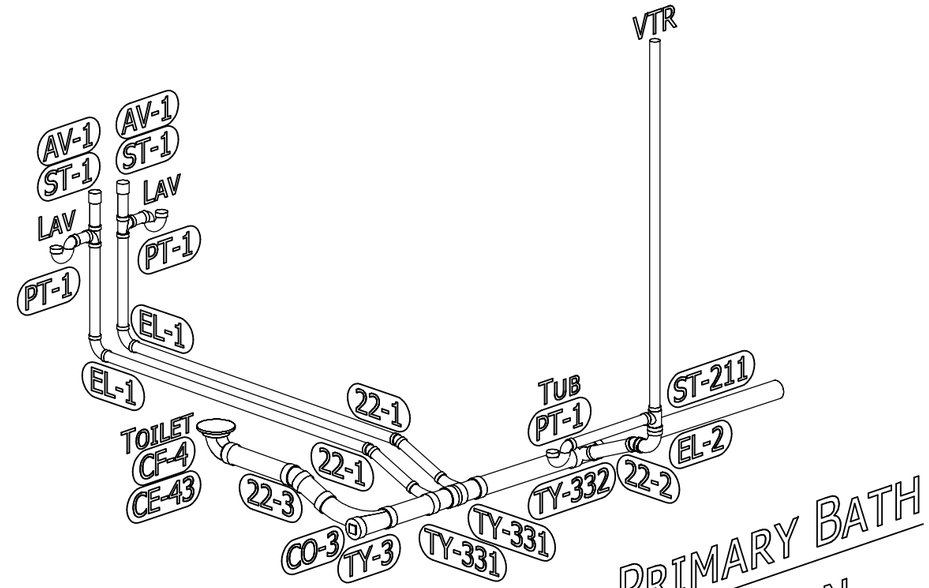
NOTES:

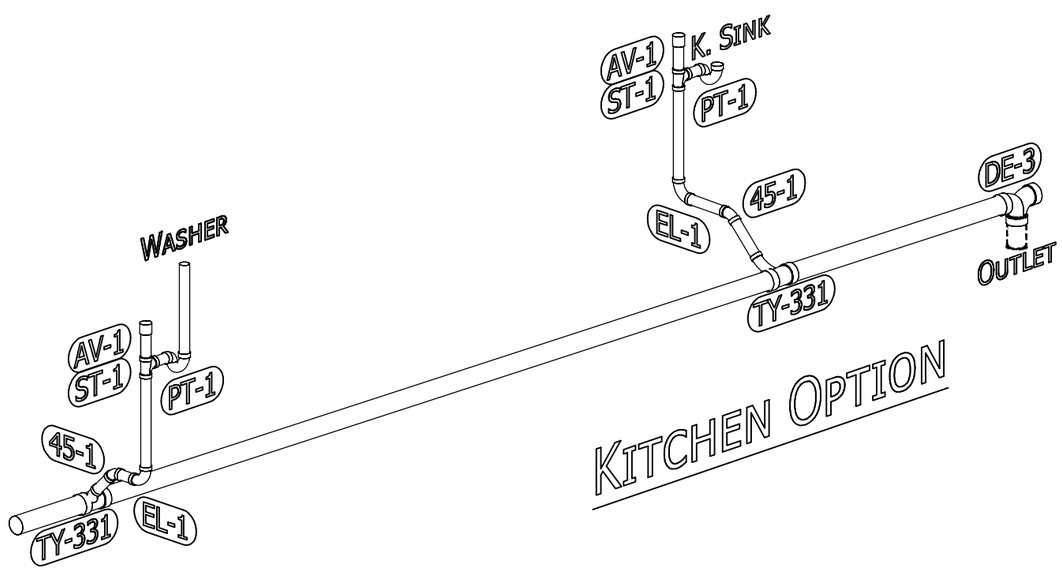
1. Pipe Sizes Determined By Fittings On Each Side.
2. Site Installed Plumbing Noted By ========== .



2 BEDROOM OPTION



PRIMARY BATH OPTION



KITCHEN OPTION

Fitting Schedule		Fitting Schedule	
Call	Name	Call	Name
22-1	1 1/2" 22 1/2° Ell	DE-3	3" Double Ell
22-2	2" 22 1/2° Ell	EL-1	1 1/2" LT 90° Ell
22-3	3" 22 1/2° Ell	EL-2	2" LT 90° Ell
45-1	1 1/2" 45° Ell	PT-1	1 1/2" P-Trap
45-2	2" 45° Ell	RB-32	3" x 2" Bushing
AV-1	1 1/2" Auto Vent	ST-1	1 1/2" Tee
CE-43	4" x 3" Closet Ell	ST-211	2" x 1 1/2" x 1 1/2" Tee
CF-4	4" Closet Flange	TY-3	3" Ltty
CF-43	4" x 3" Closet Flange	TY-331	3" x 3" x 1 1/2" Ltty
CO-3	3" Cleanout	TY-332	3" x 3" x 2" Ltty

CHAMPION
HOME BUILDERS
755 W. BIG BEAVER ROAD, SUITE 1000 TROY, MI 48084
PHONE: 248-614-8200

PFS #23
Conforms to HUD MHCSS
9/25/23

MODIFICATIONS

PROJECT: 112AP-1672H32087 3 BD 2 BTH

DRAWN BY: A.GOULD
DATE: 08-21-23
SCALE: NTS

TITLE: DRAIN LINE PLAN

FILENAME: 112AP-1672H32087

SHEET: D-102

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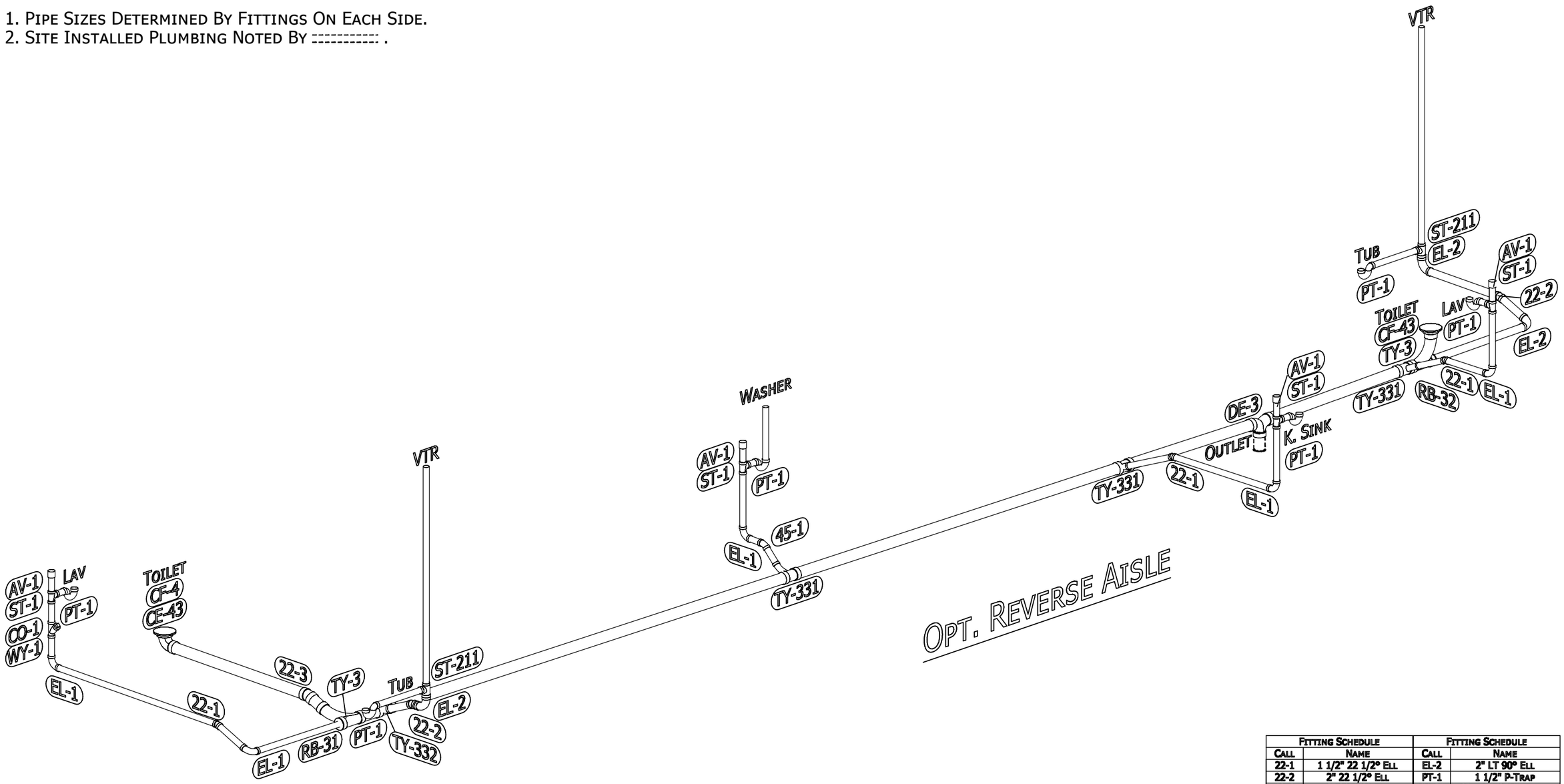
NOTES:

1. Pipe Sizes Determined By Fittings On Each Side.
2. Site Installed Plumbing Noted By ========== .



Fitting Schedule		Fitting Schedule	
Call	Name	Call	Name
22-1	1 1/2" 22 1/2° Ell	EL-2	2" LT 90° Ell
22-2	2" 22 1/2° Ell	PT-1	1 1/2" P-Trap
22-3	3" 22 1/2° Ell	RB-31	3" x 1 1/2" Bushing
45-1	1 1/2" 45° Ell	RB-32	3" x 2" Bushing
AV-1	1 1/2" Auto Vent	ST-1	1 1/2" Tee
CE-43	4" x 3" Closet Ell	ST-211	2" x 1 1/2" x 1 1/2" Tee
CF-4	4" Closet Flange	TY-3	3" Ltty
CF-43	4" x 3" Closet Flange	TY-331	3" x 3" x 1 1/2" Ltty
CO-1	1 1/2" Cleanout	TY-332	3" x 3" x 2" Ltty
DE-3	3" Double Ell	WY-1	1 1/2" Wye
EL-1	1 1/2" LT 90° Ell		

CHAMPION
HOME BUILDERS
755 W. BIG BEAVER ROAD, SUITE 1000 TROY, MI 48084
PHONE: 248-614-8200

PFS #23
Conforms to HUD MHCSS
9/25/23

MODIFICATIONS

PROJECT: 112AP-1672H32087
3 BD 2 BTH

DRAWN BY: A.GOULD
DATE: 08-21-23
SCALE: NTS

TITLE: DRAIN LINE PLAN

FILENAME: 112AP-1672H32087

SHEET: D-103

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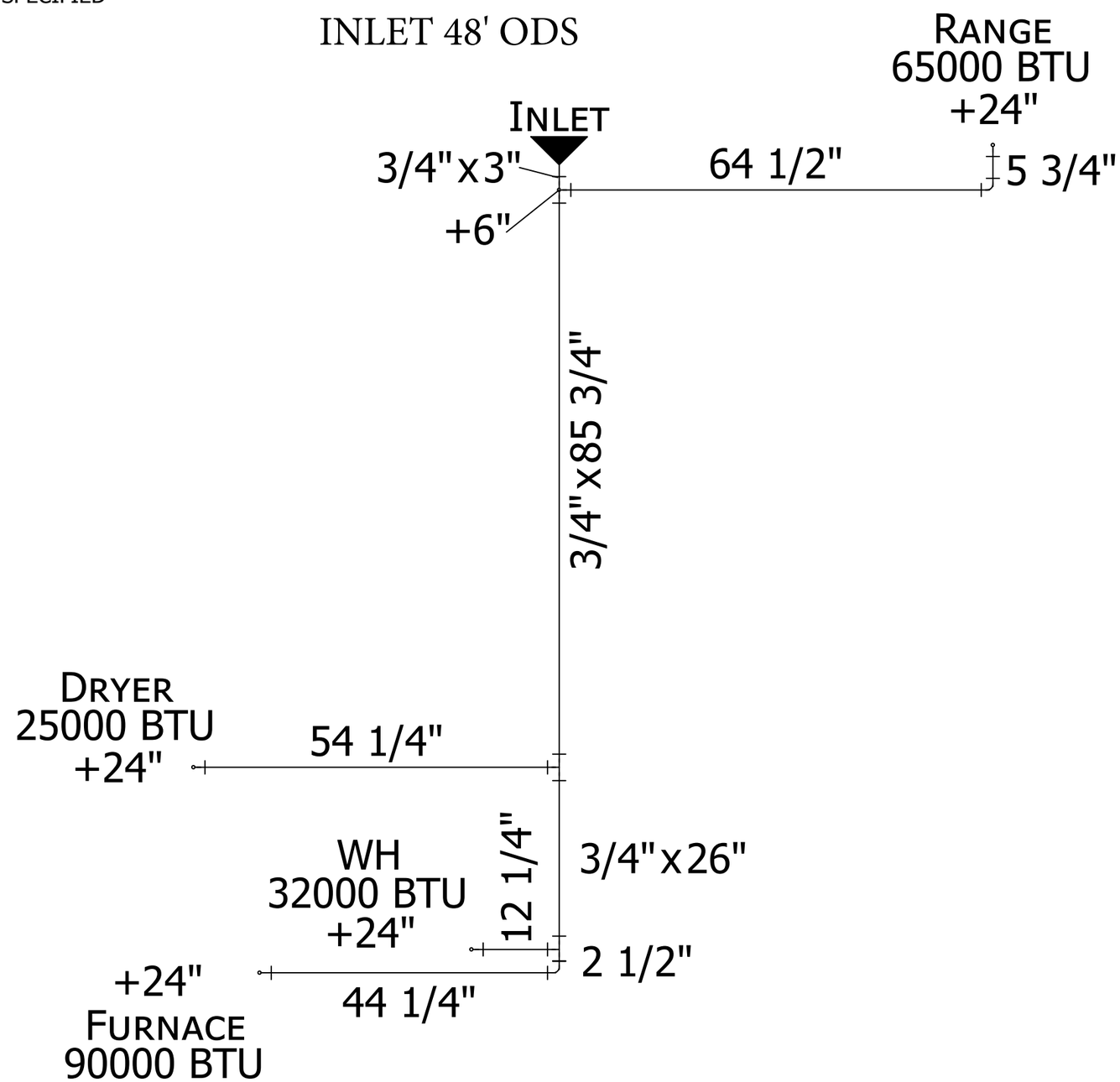
NOTES:

1. ALL PIPE SIZES 1/2" UNLESS OTHERWISE SPECIFIED
2. TOTAL BTU = 212,000
3. COLUMN LENGTH = 20'-0"



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HOME BUILDERS
755 W. BIG BEAVER ROAD, SUITE 1000 TROY, MI 48084
PHONE: 248-614-8200

PFS #23 Conforms to HUD MHCSS 9/25/23

MODIFICATIONS

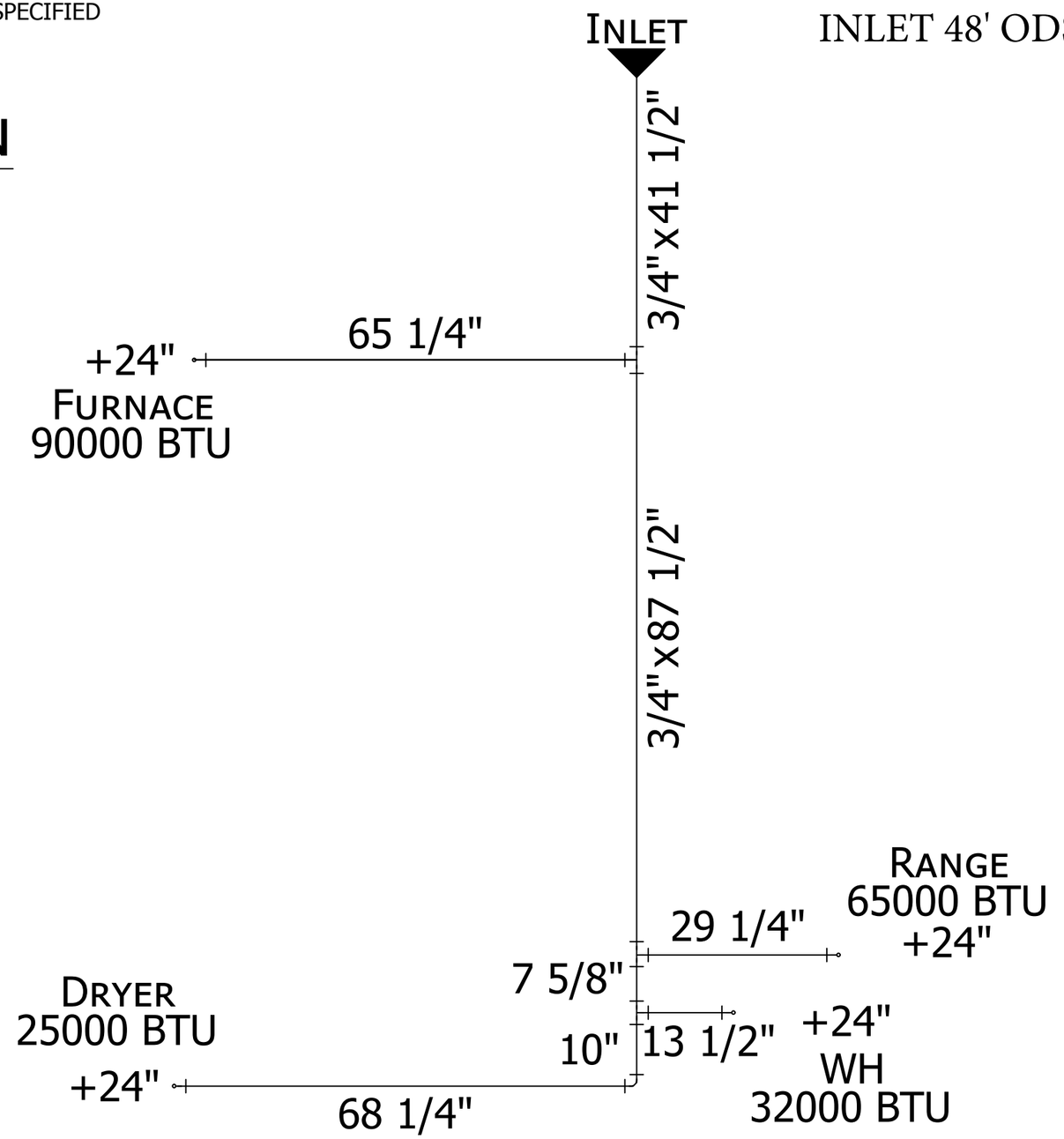
PROJECT: 112AP-1672H32087 3 BD 2 BTH	TITLE: GAS LINE PLAN	SHEET: G-101	
DRAWN BY: A.GOULD	FILENAME: 112AP-1672H32087	PROPRIETARY AND CONFIDENTIAL	
DATE: 08-21-23		THESE DRAWINGS AND SPECIFICATIONS ARE ORIGINAL, PROPRIETARY AND CONFIDENTIAL MATERIALS OF CHAMPION.	
SCALE: NTS		COPYRIGHT © 1976-2023 BY CHAMPION	

NOTES:

1. ALL PIPE SIZES 1/2" UNLESS OTHERWISE SPECIFIED
2. TOTAL BTU = 212,000
3. COLUMN LENGTH = 20'-0"

KITCHEN OPTION

INLET 48' ODS



CHAMPION HOME BUILDERS
755 W. BIG BEAVER ROAD, SUITE 1000 TROY, MI 48084
PHONE: 248-614-8200

PFS #23 Conforms to HUD MHCSS 9/25/23

MODIFICATIONS

PROJECT: 112AP-1672H32087 3 BD 2 BTH	TITLE: GAS LINE PLAN	SHEET: G-102
DRAWN BY: A.GOULD	FILENAME: 112AP-1672H32087	
DATE: 08-21-23		
SCALE: NTS		

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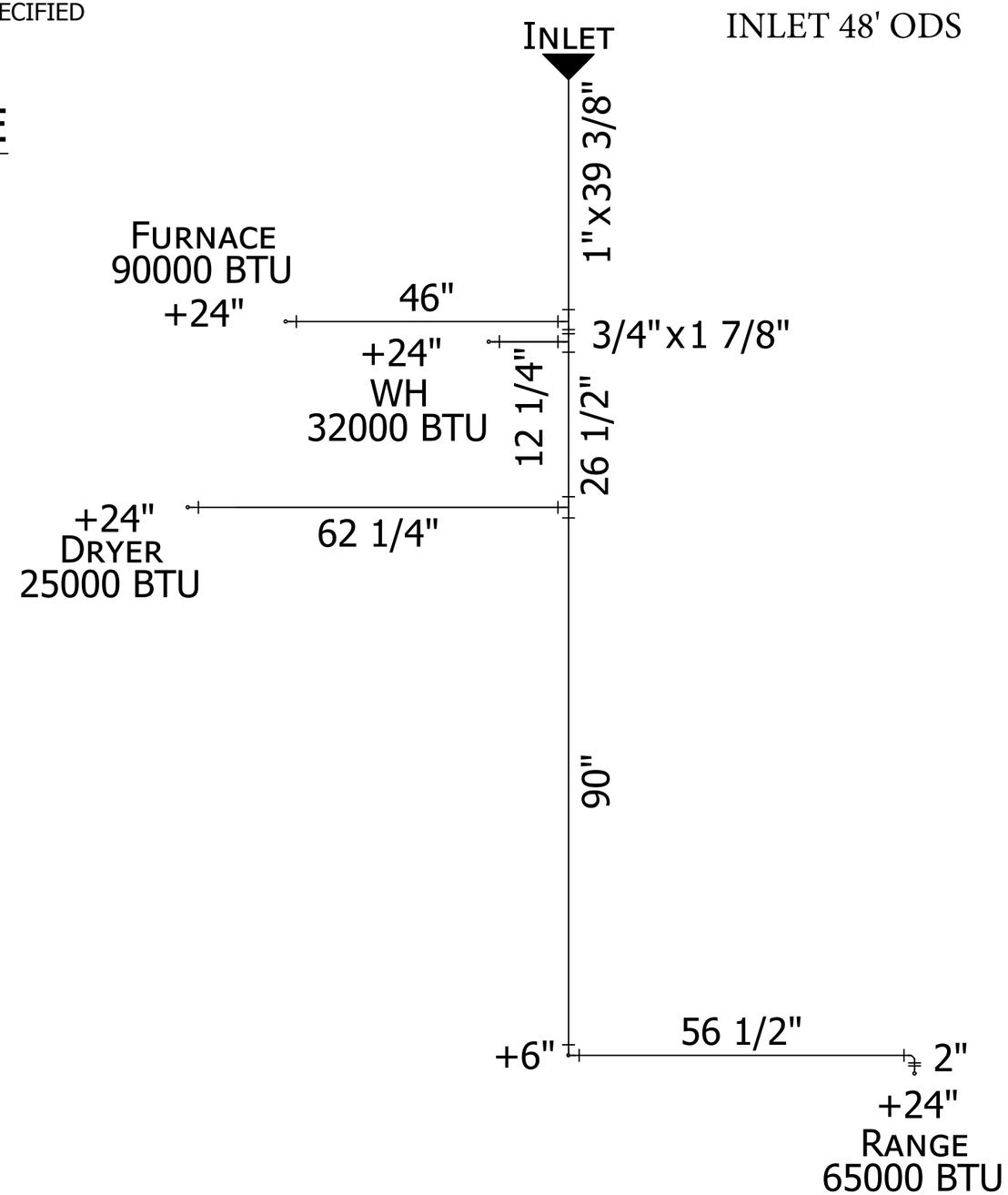
NOTES:

1. ALL PIPE SIZES 1/2" UNLESS OTHERWISE SPECIFIED
2. TOTAL BTU = 212,000
3. COLUMN LENGTH = 30'-0"

OPT. REVERSE AISLE



CHAMPION HOME BUILDERS
755 W. BIG BEAVER ROAD, SUITE 1000 TROY, MI 48084
PHONE: 248-614-8200

PFS #23 Conforms to HUD MHCSS 9/25/23

MODIFICATIONS

PROJECT: 112AP-1672H32087 3 BD 2 BTH	TITLE: GAS LINE PLAN	SHEET: G-103	
DRAWN BY: A.GOULD	FILENAME: 112AP-1672H32087	PROPRIETARY AND CONFIDENTIAL	
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