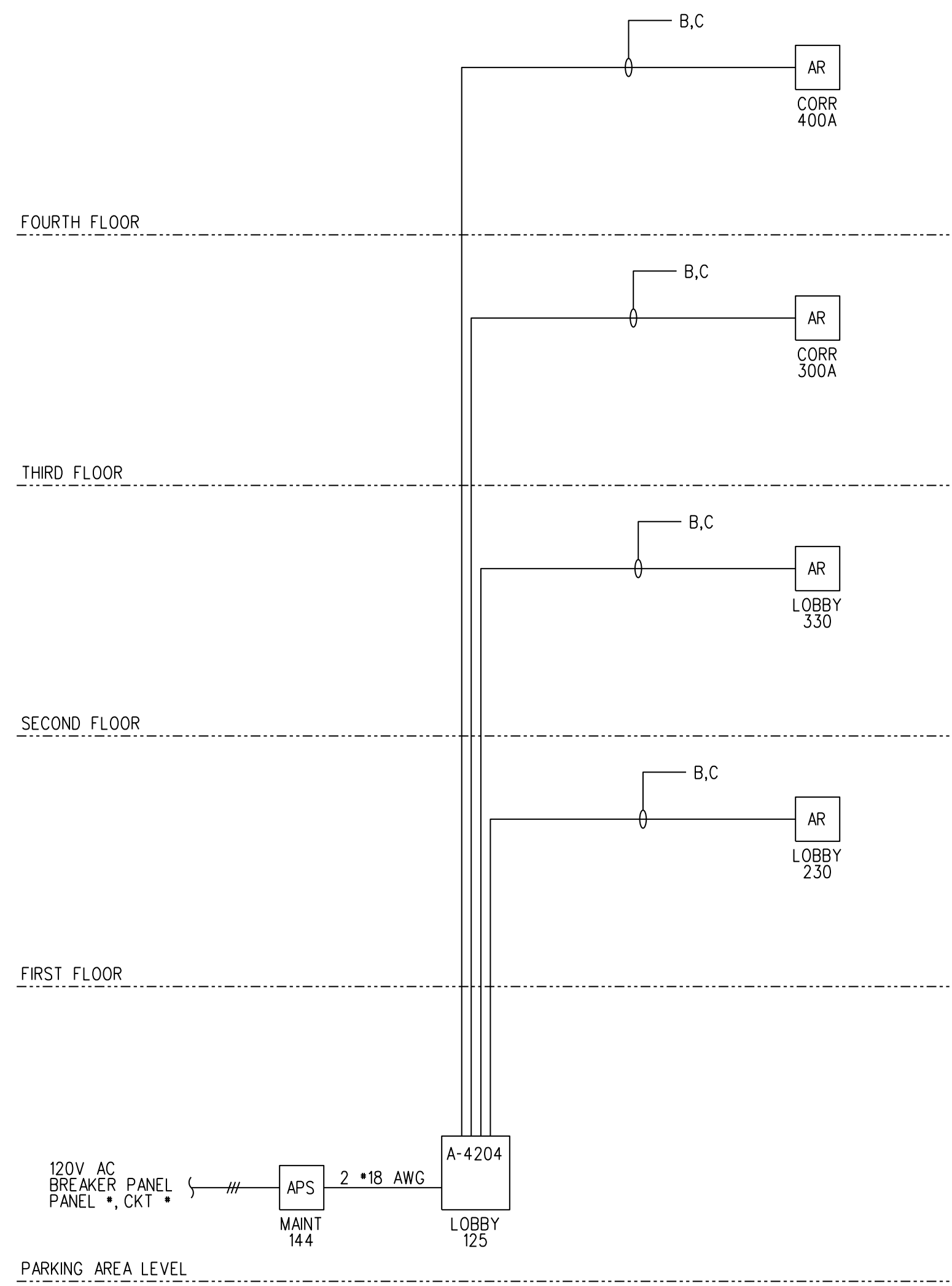


AREA OF REFUGE SYSTEM SYMBOL LEGEND			
A-4204	AREA OF REFUGE ANNUNCIATOR (5-ZONE)	CORNELL A-4204	CORNELL BB-
APS	AREA OF REFUGE 24VDC POWER SUPPLY	CORNELL B-5243A	SUPPLIED WITH UNIT
AR	AREA OF REFUGE STATION	CORNELL 4201B/V	2-GANG BOX

AREA OF REFUGE WIRE LIST			
B	RESCUE ASSISTANCE STATION - 22 AWG 4 CONDUCTOR NON-SHIELDED NON-PLENUM RATED: CMR ANIXTER SG2204N11 AREA = 0.0172 SQ. INCH	PLENUM RATED: CMP ANIXTER SG2204N22 AREA = 0.0160 SQ. INCH	
C	AUDIO RESCUE ASSISTANCE STATION - 22 AWG 2 CONDUCTOR SHIELDED NON-PLENUM RATED: CMR ANIXTER SG2202S41 AREA = 0.0255 SQ. INCH	PLENUM RATED: CMP ANIXTER SG2202S22 AREA = 0.0120 SQ. INCH	
CONDUIT SIZE	CONDUCTOR AREA	CONDUIT SIZE	CONDUCTOR AREA
1/2"	0.12 SQ INCH X	1-1/4"	0.60 SQ INCH X
3/4"	0.21 SQ INCH X	1-1/2"	0.82 SQ INCH X
1"	0.34 SQ INCH X	2"	1.34 SQ INCH X
X 40Z FILL 2005 N.E.C.			
CONTACT YOUR LOCAL SIMPLEXGRINNELL OFFICE FOR ANY CABLE SUBSTITUTIONS			



RISER DIAGRAM AREA OF REFUGE
NOT TO SCALE

PANEL HP (ELECTRICAL RM) SECTION 1 120/208 3PH 4W 400 AMP BUS - MLO 42K AIC NEMA TYPE 1 (SURFACE)													
CKT #	LOAD DESCRIPTION	AT	P	CA	DF	DA	CKT #	LOAD DESCRIPTION	AT	P	CA	DF	DA
1	ELEVATOR SHUNT TRIP	60	3	42	0.50	21	2	STAIR A LIGHTS	20	1			0
3				42	0.50	21	4	STAIR B LIGHTS	20	1			0
5				42	0.50	21	6	STAIR A RECEP	20	1			0
7	2ND FLR CORRDR CEILING LIGHTS	20	1			0	8	STAIR B RECEP	20	1			0
9	2ND FLR CORRDR WALL LIGHTS	20	1			0	10	ENTRY VEST RECEP	20	1	5	0.50	3
11	3RD FLR CORRDR CEILING LIGHTS	20	1			0	12	FACP	20	1	4	1.00	4
13	3RD FLR CORRDR WALL LIGHTS	20	1			0	14	INTERCOM PANEL	20	1	5	1.00	5
15	4TH FLR CORRDR CEILING LIGHTS	20	1			0	16						0
17	4TH FLR CORRDR WALL LIGHTS	20	1			0	18	RWH-4 (VEST)	30	2	19	0.70	13
19	RWH-4 (STAIR A FIRST FLOOR)	30	2	19	0.70	13	20	RWH-4 (ELEV LOBBY)	30	2	19	0.70	13
21				19	0.70	13	22						0
23	RWH-4 (STAIR B FIRST FLOOR)	30	2	19	0.70	13	24	ELEV PIT LIGHT AND RECEP	20	1	4	0.50	2
25				19	0.70	13	26	RWH-4 (MECHANICAL)	30	2	19	0.70	13
27	RWH-4 (TRASH)	30	2	19	0.70	13	28						0
29				19	0.70	13	30	RWH-4 (STORAGE)	30	2	19	0.70	13
31	MECHANICAL RM RECEP	20	1	9	0.50	5	32						0
33	STORAGE, TRASH & ELEC RECEP	20	1	9	0.50	5	34	QUAD ELECT RM	20	1	3	0.50	2
35				13	0.70	9	36	QUAD ELECT RM	20	1	3	0.50	2
37	EW (SPRINKLER)	20	2	13	0.70	9	38						0
39	2ND FLE CORRDR RECEP	20	1	8	0.50	4	40	RWH-4 (TRASH)	30	2	19	0.70	13
41	3RD FLR CORRDR RECEP	20	1	8	0.50	4	42	4TH FLR CORRDR RECEP	20	1	8	0.50	4

PROVIDE WITH FEED THRU LUGS FOR SECTION 2

Section 1	
Total Amps/PH - Connected Load	174.00
Demand Factor	63.81%
Total Amps/PH - Demand	110.50
Connected KVA	62.61
Demand KVA	39.76
Min. Panel Size (Demand x 1.25) - Amps	138.13

PANEL HP (ELECTRICAL RM) SECTION 2 120/208 3PH 4W 400 AMP BUS - MLO 42K AIC NEMA TYPE 1 (SURFACE)													
CKT #	LOAD DESCRIPTION	AT	P	CA	DF	DA	CKT #	LOAD DESCRIPTION	AT	P	CA	DF	DA
43	HEAT TRACE	20	1	1	0.70	1	44	RWH-4 (3RD FLOOR STAIRWAY)	30	2	19	0.70	13
45	HEAT TRACE	20	1	1	0.70	1	46						0
47	HEAT TRACE	20	1	1	0.70	1	48	HEAT TRACE	20	1	15	0.70	11
49	HEAT TRACE	20	1	1	0.70	1	50	HEAT TRACE	20	1	15	0.70	11
51				13	0.70	9	52						0
53	EW (ELECTRICAL ROOM)	20	2	13	0.70	9	54	EW (SPRINKLER CLOSET)	20	2	13	0.70	9
55	SPARE	20	1			0	56	SPARE	20	1			0
57	SPARE	20	1			0	58	SPARE	20	1			0
59	SPARE	20	1			0	60	SPARE	20	1			0
61	SPARE	20	1			0	62	SPARE	20	1			0
63	SPARE	20	1			0	64	SPARE	20	1			0
65	SPARE	20	1			0	66	SPARE	20	1			0
67	SPARE	20	1			0	68	TIME CLOCK & PHOTOCELL (LC)	20	1			0
69	SPARE	20	1			0	70	CORRIDOR LIGHTS FLOOR 2	20	1			0
71	SPARE	20	1			0	72	CORRIDOR LIGHTS FLOOR 3	20	1			0
73	SPARE	20	1			0	74	CORRIDOR LIGHTS FLOOR 4	20	1			0
75	TIME CLOCK & PHOTOCELL (LC)	20	1			0	76	LC SPARE	20	1			0
77				2		0	78	LC CIRCUIT	20	1			0
79	LC CIRCUIT	20	2			0	80	LC CIRCUIT	20	1			0
81	LC CIRCUIT	20	1			0	82	LC CIRCUIT	20	1			0
83	LC CIRCUIT	20	1			0	84	LC CIRCUIT	20	1			0

PROVIDE WITH FEED THRU LUGS FOR SECTION 2

Section 2	
Total Amps/PH - Connected Load	41.33
Demand Factor	70.00%
Total Amps/PH - Demand	28.93
Connected KVA	14.87
Demand KVA	10.41
Min. Panel Size (Demand x 1.25) - Amps	36.17

NOTES:
1. PROVIDE ARC FAULT TYPE CIRCUIT BREAKERS IN ACCORDANCE WITH NEC 210.12
2. PROVIDE TAMPER RESISTANT OUTLETS PER NEC 406.11 SECTION 210.52

PANEL LC (UNIT 2.7 1BR) (UNIT WALL) 120/208 1PH 3W 125 AMP BUS - MLO 22K AIC NEMA TYPE 1 (RECESSED)													
CKT #	LOAD DESCRIPTION	AT	P	CA	DF	DA	CKT #	LOAD DESCRIPTION	AT	P	CA	DF	DA
1	REFRIGERATOR	20	1	14	1.00	14	2	RANGE	50	2	32	0.50	16
3	COUNTER RECEP	20	1	2	0.50	1	4						0
5	COUNTER RECEP AND RANGE HOOD	20	1	3	0.50	2	6	ISLAND RECEP	20	1	2	0.50	1
7	GARBAGE DISPOSAL	20	1	10	0.50	5	8						0
9	LIVING ROOM RECEP & FIREPLACE	20	1	11	0.50	5	10	BEDROOM RECEP	20	1	11	0.50	6
11	HALL RECEP	20	1	6	0.50	3	12	BATHROOM RECEP	20	1	2	0.50	1
13	LOW VOLTAGE BOARD	20	1	4	1.00	4	14	WASHER & DBF	20	1	12	0.50	6
15				22	0.50	11	16	DISHWASHER	20	1	12	0.50	6
17	DRYER	30	2	22	0.50	11	18	MICROWAVE	20	1	14	0.50	7
19				24	0.50	12	20	WATER HEATER & CIRC PUMP	20	1	15	0.70	11
21	EBB	30	2	24	0.50	12	22	UNIT LIGHTS	20	1	12	1.00	12
23	LIVING ROOM RECEP	20	1	6	0.50	3	24	BEDROOM 2 RECEP	20	1	6	0.50	3
25				18	0.70	13	26	BEDROOM 3 RECEP	20	1	9	0.50	5
27	UNIT SCU AND ALL INDOOR SACS	20	2	18	0.70	13	28	BATHROOM 2 RECEP	20	1	2	0.50	1
29				18	0.70	13	30	BATHROOM 3 RECEP	20	1	2	0.50	1
31				15	0.70	11	32	UNIT SCU AND ALL INDOOR SACS	20	2	18	0.70	13
33				15	0.70	11	34						0
35						0	36						0
37						0	38						0
39						0	40						0
41						0	42						0

Section 1	
Total Amps/PH - Connected Load	175.00
Demand Factor	58.81%
Total Amps/PH - Demand	103.10
Connected KVA	42.00
Demand KVA	24.74
Min. Panel Size (Demand x 1.25) - Amps	128.88

NOTES:
1. PROVIDE ARC FAULT TYPE CIRCUIT BREAKERS IN ACCORDANCE WITH NEC 210.12
2. PROVIDE TAMPER RESISTANT OUTLETS PER NEC 406.11 SECTION 210.52
3. INSTALL PER ADA REQUIREMENTS IN ALL ADA UNITS.

PANEL LC (UNIT 1.3 2BR) (UNIT WALL) 120/208 1PH 3W 125 AMP BUS - MLO 22K AIC NEMA TYPE 1 (RECESSED)													
CKT #	LOAD DESCRIPTION	AT	P	CA	DF	DA	CKT #	LOAD DESCRIPTION	AT	P	CA	DF	DA
1	REFRIGERATOR	20	1	14	1.00	14	2	RANGE	50	2	32	0.50	16
3	COUNTER RECEP	20	1	2	0.50	1	4						0
5	COUNTER RECEP AND RANGE HOOD	20	1	3	0.50	2	6	ISLAND RECEP	20	1	2	0.50	1
7	GARBAGE DISPOSAL	20	1	10	0.50	5	8						0
9	LIVING ROOM RECEP & FIREPLACE	20	1	11	0.50	5	10	BEDROOM 1 RECEP	20	1	11	0.50	6
11	HALL RECEP	20	1	6	0.50	3	12	BATHROOM 1 RECEP	20	1	2	0.50	1
13	LOW VOLTAGE BOARD	20	1	4	1.00	4	14	WASHER & DBF	20	1	12	0.50	6
15				22	0.50	11	16	DISHWASHER	20	1	12	0.50	6
17	DRYER	30	2	22	0.50	11	18	MICROWAVE	20	1	14	0.50	7
19				24	0.50	12	20	WATER HEATER & CIRC PUMP	20	1	15	0.70	11
21	EBB	30	2	24	0.50	12	22	UNIT LIGHTS	20	1	12	1.00	12
23	UPSTAIR HALL RECEP (SEE NOTE 4)	20	1	9	0.50	5	24	BEDROOM 2 RECEP	20	1	11	0.50	6
25				18	0.70	13	26	BATHROOM 2 RECEP	20	1	2	0.50	1
27	UNIT SCU AND ALL INDOOR SACS	20	2	18	0.70	13	28	DINING ROOM & BEN RECEP	20	1	11	0.50	6
29				15	0.70	11	30	BATHROOM 3 RECEP (SEE NOTE 4)	20	1	2	0.50	1
31	RWH-1	20	2	15	0.70	11	32	UNIT SCU AND ALL INDOOR SACS	20	2	18	0.70	13
33						0	34						0
35						0	36						0

Section 1	
Total Amps/PH - Connected Load	210.00
Demand Factor	59.14%
Total Amps/PH - Demand	124.20
Connected KVA	50.40
Demand KVA	29.81
Min. Panel Size (Demand x 1.25) - Amps	155.25

NOTES:
1. PROVIDE ARC FAULT TYPE CIRCUIT BREAKERS IN ACCORDANCE WITH NEC 210.12
2. PROVIDE TAMPER RESISTANT OUTLETS PER NEC 406.11 SECTION 210.52
3. INSTALL PER ADA REQUIREMENTS IN ALL ADA UNITS.

NOTES:
1. PROVIDE ARC FAULT TYPE CIRCUIT BREAKERS IN ACCORDANCE WITH NEC 210.12
2. PROVIDE TAMPER RESISTANT OUTLETS PER NEC 406.11 SECTION 210.52
3. INSTALL PER ADA REQUIREMENTS IN ALL ADA UNITS.
4. CIRCUIT NOT REQUIRED IN ALL 2 BEDROOM UNITS. CONFIRM UNIT REQUIREMENTS WITH ARCHITECTURAL PLAND PRIOR TO ROUGH-IN.

PANEL LC (UNIT 2.2 3BR) (UNIT WALL) 120/208 1PH 3W 125 AMP BUS - MLO 22K AIC NEMA TYPE 1 (RECESSED)													
CKT #	LOAD DESCRIPTION	AT	P	CA	DF	DA	CKT #	LOAD DESCRIPTION	AT	P	CA	DF	DA
1	REFRIGERATOR	20	1	14	1.00	14	2	RANGE	50	2	32	0.50	16
3	COUNTER RECEP	20	1	2	0.50	1	4						0
5	COUNTER RECEP AND RANGE HOOD	20	1	3	0.50	2	6	ISLAND RECEP	20	1	2	0.50	1
7	GARBAGE DISPOSAL	20	1	10	0.50	5	8						0
9	LIVING ROOM RECEP & FIREPLACE	20	1	11	0.50	5	10	BEDROOM 1 RECEP	20	1	11	0.50	6
11	HALL RECEP	20	1	6	0.50	3	12	BATHROOM 1 RECEP	20	1	2	0.50	1
13	LOW VOLTAGE BOARD	20	1	4	1.00	4	14	WASHER & DBF	20	1	12	0.50	6
15				22	0.50	11	16	DISHWASHER	20	1	12	0.50	6
17	DRYER	30											