



CITY OF
PORTLAND, OREGON
 BUREAU OF DEVELOPMENT SERVICES
 1900 SW 4th Ave., Suite 5000
 Portland, OR 97201



FACILITY PERMIT

12-184532-000-00-FA

Site Address: 111 SW COLUMBIA ST

Issued: 9/20/12

FA-Fire Alarms:SUITE 1150 3202057:Columbia Sq:Melvin Mark

PROJECT INFORMATION		Occ. Group	Const. Type
Fire Alarms	Alteration	B	I-A
Project Description: REMOVE (5) STROBES AND INSTALL (6) NEW STROBES. RELOCATE (2) EXISTING SMOKE DETECTORS. NEW TI.			

APPLICANT	CHRISTENSON ELECTRIC	Phone (503) 241-4812
PROPERTY OWNER	COLUMBIA SQUARE LLC	Phone
CONTRACTOR	No Contractor	Phone

Project Details		Project Details	
Building/Mechanical Inspector	KEOGANT	Code Edition (Year)	2010 OSSC
Electrical Inspector	HARTFIEL	Energy Code Edition	2010 Oregon Energy
Fire Marshal	BOYLESG	Folder Name	Fire Alarms
Plumbing Inspector	COOKEW	Project Reference Number	X5790
Return Plans/Permit to?	MICROFILM	Zoning - Property (1)	CXdCC

Permit Final 09/20/12

FOR INSPECTION CONTACT Boyles,Gary at 503-823-3778

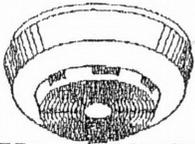
This permit expires if, at any time, 180 days pass without an approved inspection. If you are not able to obtain an inspection approval within 180 days, you may request a one-time only extension of 180 days by calling 503-823-5996.

BEFORE YOU DIG ATTENTION: Oregon law requires you to follow rules adopted by the Oregon Utility Notification Center. Those rules are set forth in OAR 952-001-0010 through OAR 952-001-0090. You may obtain copies of the rules by calling the center. (Note: the telephone number for the Oregon Utility Notification Center is 1-800-332-2344).

CITY CONTACT E-Mail: Phone: Fax: (503) 823-7425

INSPECTION REQUEST PHONE NUMBERS TDD: (503) 823-6868
IVR Inspection Request Number:

Contact your inspector directly for inspection requests.
 Gary T. Boyles
 Deputy Fire Marshal
 Fire & Life Safety Plans Examiner
 1900 SW 4th Ave.
 Portland, Oregon 97201
 Ph: (503) 823-3778 Fax: (503) 823-7425
 gboyles@fire.ci.portland.or.us



FACILITIES PERMIT
APPLICATION TO INSTALL FIRE ALARM SYSTEM
CITY OF PORTLAND, OREGON
(503) 823-0652

CITY OF PORTLAND FPP
OFFICE OF PLANNING & REVIEW
1900 SW 4TH SUITE 5000 97201
CEI:JOB# 25314

For PFB Use Only
12-184532
Permit Number

CODE: _____ VALUATION OF WORK: \$ _____ DATE: 9-19-2012

PLANS MUST BE SUBMITTED TO THE FIRE PREVENTION DIVISION AND APPROVED BEFORE INSTALLATION.

LOCATION

BUILDING NAME: Columbia Square OCCUPIED AS: Office
ADDRESS 111 SW Columbia PORTLAND, OR ZIP 97201
SUITE # 1141 SE LEVELS (#) Goldberg & Jones
BUILDING/FACILITIES PERMIT NO.: 12-163540-000-00-FA APPEAL NO.: _____

<input checked="" type="checkbox"/> IN EXISTING BUILDING		<input type="checkbox"/> IN NEW CONSTRUCTION	
INSTALLATION		COVERAGE	ALARM TYPE
<input type="checkbox"/> NEW	<input type="checkbox"/> REMOVE	<input type="checkbox"/> TOTAL	<input checked="" type="checkbox"/> CENTRAL STATION
<input type="checkbox"/> ADDITION	<input type="checkbox"/> REPAIR	<input checked="" type="checkbox"/> PARTIAL	<input type="checkbox"/> SPRINKLER MONITORING
<input checked="" type="checkbox"/> ALTERATION		<input type="checkbox"/> EXITWAY	<input type="checkbox"/> OTHER _____

NO. SMOKE DETECTORS: _____ NO. STROBES: 7 NO. PULL STATIONS: _____
NO. HEAT DETECTORS: _____ NO. HORN STROBES: _____ NO. AUXILIARY PANELS: _____
DESCRIPTION OF WORK: Removed (5) strobes - installed (7) strobes
Moved (2) smoke detectors

INSTALLING COMPANY INFORMATION

APPLICANT NAME: CHRISTENSON ELECTRIC, INC.
COMPANY NAME: CHRISTENSON ELECTRIC, INC.
ADDRESS: 111 SW Columbia ST Suite 480
CITY, STATE, ZIP: PORTLAND, OR 97201
PHONE/FAX: (503) 419-3600 (503) 419-3636 FAX

OWNER INFORMATION

NAME: Melvin Mark Properties
PHONE/FAX: 503-228-4777
MAIL PERMIT TO: CHRISTENSON ELECTRIC, INC.
ADDRESS: 111 SW Columbia ST Suite 480
CITY, STATE, ZIP: PORTLAND, OR 97201
DATE: 9-19-2012

APPLICANT SIGNATURE: Ryan Havel

APPROVED PERMIT INCLUDES ONLY WORK DESCRIBED ABOVE AND/OR ON PLANS AND SPECIFICATIONS BEARING THE SAME PERMIT NUMBER AND WILL COMPLY WITH ALL APPLICABLE CODES AND ORDINANCES OF THE CITY OF PORTLAND, OREGON.

BY: Gary Bayh INSPECTOR DATE: 9-20-2012

12-184532

AZ AFAA
 NAC Voltage Drop Calculator
 for Audio / Visual devices

This calculator provided voltage drop calculations in three formats (Point to Point, End of Line, and Load Centering).													
Make sure that you know what method is accepted by, and the results do not exceed the limits set by the respective jurisdiction													
Project Name		Columbia Square			Point to Point Method			End of Line Method			Load Centering Method		
Date		9/19/2012			CIRCUIT IS WITHIN LIMITS			CIRCUIT IS WITHIN LIMITS			CIRCUIT IS WITHIN LIMITS		
Circuit Number		11th Floor Loop 2 East			Totals		Voltage	Totals		Voltage	Totals		Voltage
Area Covered					Current	Distance	Drop	Current	Distance	Drop	Current	Distance	Drop
Nominal System Voltage		20.4			1.411	317	1.43	1.411	317	2.746	1.411	317	1.373
Minimum Device Voltage		16			End of Line Voltage		18.97	End of Line Voltage		17.65	End of Line Voltage		19.03
Total Circuit Current		1.411			Wire Gauge		Ohm's Per 1000	Percent Drop		7.03%	Percent Drop		13.46%
Distance from source to 1st device		17			14		3.07	End of Line and Load Centering Methods use only the wire gauge for the first device to source		Standard Wire Resistance in Ohms per 1000 feet.			
Wire Gauge for balance of circuit		14			3.07		3.07	18=7.77		16=4.89	14=3.07	12=1.98	10=1.24
Enter current in amps.		Distance from previous device			Voltage			18-14 Awg = Solid Conductors		12-10 Awg = Stranded Conductors			
.150 = 150 ma								Notes:					
Device Number	Device Current	Distance from previous device	At Device	Drop from source	Percent Drop	Wire resistance is doubled in the calculations for two wires (Positive and Negative)							
						The voltage calculated to the last device in any method must not be lower then the manufactures listed minimum operating voltage (IE: rated operating voltage 20-32 VDC).							
Device 1	0.049	17	20.25	0.147	0.72%	Device Manufacturer		Wheelok		Device Manufacturer		Wheelok	
Device 2	0.082	25	20.04	0.356	1.75%								
Device 3	0.082	21	19.88	0.521	2.56%	Horn Strobes				Strobe Only			
Device 4	0.082	13	19.78	0.617	3.02%	Model #		Candela		Model #		Candela	
Device 5	0.107	13	19.69	0.706	3.46%								
Device 6	0.184	29	19.51	0.886	4.34%					RSS-24MCW-FR		15cd	
Device 7	0.082	14	19.44	0.957	4.69%					RSS-24MCW-FR		30cd	
Device 8	0.184	43	19.25	1.153	5.65%					RSS-24MCW-FR		75cd	
Device 9	0.085	32	19.14	1.263	6.19%					RSS-24MCW-FR		100cd	
Device 10	0.085	19	19.08	1.318	6.46%								
Device 11	0.085	15	19.05	1.354	6.64%					NS-24MCC		15cd	
Device 12	0.085	15	19.02	1.382	6.77%					NS-24MCC		30cd	
Device 13	0.049	16	19.00	1.403	6.88%					NS-24MCC		75cd	
Device 14	0.085	15	18.98	1.419	6.96%					NS-24MCC		110cd	
Device 15	0.085	30	18.97	1.435	7.03%								
END			18.97	1.435	7.03%								
END			18.97	1.435	7.03%								
END			18.97	1.435	7.03%								
END			18.97	1.435	7.03%								
END			18.97	1.435	7.03%								
Totals	1.411	317	End of Line Voltage		18.97								

12-184532

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Make sure that you know what method is accepted by, and the results do not exceed the limits set by the respective jurisdiction														
		Point to Point Method				End of Line Method				Load Centering Method				
Project Name		Columbia Square				CIRCUIT IS WITHIN LIMITS				CIRCUIT IS WITHIN LIMITS				
Date		9/19/2012												
Circuit Number		11th Floor Loop 1 West				Totals		Voltage		Totals		Voltage		
Area Covered						Current	Distance	Drop	Current	Distance	Drop	Current	Distance	Drop
Nominal System Voltage		20.4				0.995	358	1.18	0.995	358	2.187	0.995	358	1.094
Minimum Device Voltage		16				End of Line Voltage		19.22	End of Line Voltage		18.21	End of Line Voltage		19.31
Total Circuit Current		0.995				Percent Drop		5.79%	Percent Drop		10.72%	Percent Drop		5.36%
Distance from source to 1st device		25				Wire Gauge		14	Ohm's Per 1000		3.07			
Wire Gauge for balance of circuit		14						3.07	End of Line and Load Centering Methods use only the wire gauge for the first device to source					
Enter current in amps.		.150 = 150 ma							Standard Wire Resistance in Ohms per 1000 feet.					
Distance from									18=7.77 16=4.89 14=3.07 12=1.98 10=1.24					
Voltage									18-14 Awg = Solid Conductors 12-10 Awg = Stranded Conductors					
Device Number		Device Current		Distance previous device		Voltage At Device		Drop from source		Percent Drop		Notes:		
Device 1	0.049	25	20.25	0.153	0.75%	Wire resistance is doubled in the calculations for two wires (Positive and Negative)								
Device 2	0.085	23	20.11	0.286	1.40%	The voltage calculated to the last device in any method must not be lower then								
Device 3	0.085	45	19.88	0.524	2.57%	the manufactures listed minimum operating voltage (IE: rated operating voltage 20-32 VDC).								
Device 4	0.085	29	19.74	0.662	3.25%	Device Manufacturer		Wheelok		Device Manufacturer		Wheelok		
Device 5	0.180	25	19.63	0.768	3.77%	Horn Strobes		Current @Rated Voltage		Strobe Only		Current @Rated Voltage		
Device 6	0.049	50	19.47	0.925	4.54%	Model #		Candela		Model #		Candela		
Device 7	0.180	11	19.44	0.957	4.69%					RSS-24MCW-FR		15cd 0.049		
Device 8	0.049	85	19.30	1.104	5.41%					RSS-24MCW-FR		30cd 0.085		
Device 9	0.049	13	19.28	1.122	5.50%					RSS-24MCW-FR		75cd 0.137		
Device 10	0.184	52	19.22	1.181	5.79%					RSS-24MCW-FR		100cd 0.18		
END			19.22	1.181	5.79%									
END			19.22	1.181	5.79%					NS-24MCC		15cd 0.082		
END			19.22	1.181	5.79%					NS-24MCC		30cd 0.107		
END			19.22	1.181	5.79%					NS-24MCC		75cd 0.184		
END			19.22	1.181	5.79%					NS-24MCC		110cd 0.244		
END			19.22	1.181	5.79%									
END			19.22	1.181	5.79%									
END			19.22	1.181	5.79%									
END			19.22	1.181	5.79%									
Totals	0.995	358	End of Line Voltage		19.22									



MELVIN MARK PROPERTIES
111 SOUTHWEST COLUMBIA
PORTLAND, OREGON 97201
(503) 223-4777

11TH FL. GOLDBERG/JONES
COLUMBIA SQUARE BLDG.
111 SW COLUMBIA STE.

DRAWING NAME: 0811-GOLDBERG/JONES DWG CAD DWG FILE:

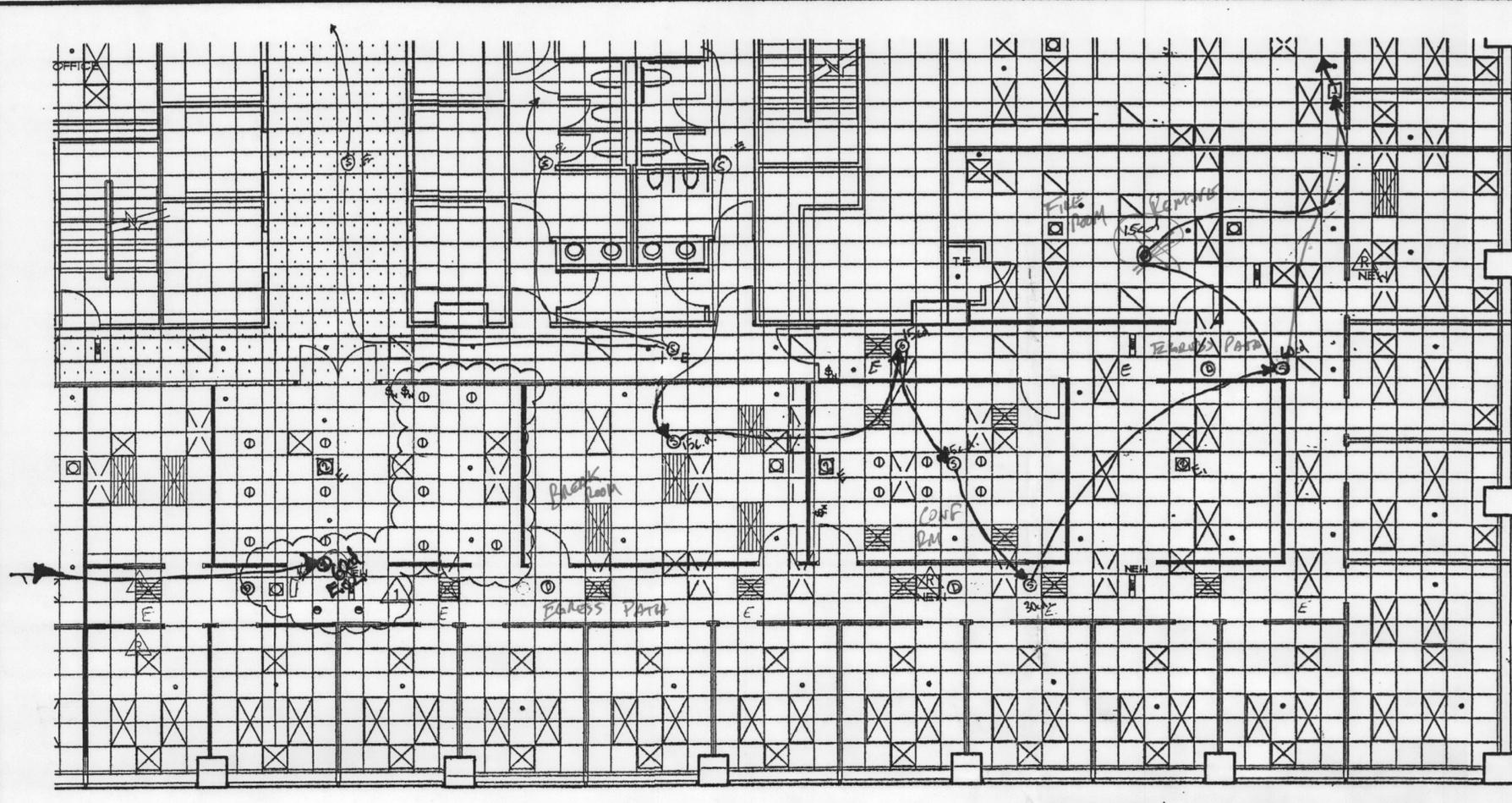
DATE: 5/22/12
REVISIONS:
1 8/7/12

SHEET NO.
3
OF 3
PROJECT NO: X5790

LEGEND

- Existing structural wall and non-load bearing partitions
- New non-load bearing partitions
- Existing 2'x4' building standard fluorescent light fixture
- New or relocated 2'x4' building standard light fixture
- Light fixture to be removed
- Emergency lighting
- New (unless noted) single pole switch up 48" from floor and 6" horizontally from knob side of door unless otherwise noted
- New 3 way switch
- Existing sprinkler head
- Existing HVAC diffuser - revise per building engineer's recommendations
- Remove existing HVAC diffuser
- Existing thermostat - relocate per building engineer's recommendations
- New (unless noted) lighted exit sign building standard
- Existing HVAC R/A diffuser - revise per building engineer's recommendations
- Remove existing HVAC R/A grille
- New or relocated 2'x2' building standard light fixture
- New can light as shown on plan
- New Wall washers for signage

- strobe
- smoke detector
- speaker
- J-box for strobe



11TH FLOOR CEILING PLAN

SCALE: 1/8"=1'-0"

GENERAL NOTES

- EXISTING CEILING HEIGHT IS 8'6"
- CLEAN EXISTING CEILING AS REQUIRED
- NEW THERMOSTAT LOCATIONS PER BUILDING ENGINEER'S RECOMMENDATION
- REPAIR OR REPLACE DAMAGED CEILING TILE OR GRID AS REQUIRED
- REVISE SPRINKLER HEAD LOCATIONS PER CODE REQUIREMENT
- NEW HVAC LOCATIONS PER BUILDING ENGINEER'S RECOMMENDATION
- NEW GANG SWITCHING LOCATIONS AS SHOWN ON PLAN
- NEW CAN LIGHTS IN RECEPTION AREA AND CONF. RM AS SHOWN ON PLAN
- INSULATE CONF. RM AND ALL OFFICE WALLS SEE NOTE ON PG. 1

APPROVED
FOR CONDITIONS SHOWN
AND SUBJECT TO FINAL INSPECTION
FIRE MARSHAL
PORTLAND, OREGON
BY: *J. Bayl* DATE: 9-20-2012

[Signature]
52155