

**IN BUILDING FIELD SIGNAL STRENGTH TEST  
WITH BDA INSTALLED**

**Inn At Diamond Cove  
Diamond Cove  
Great Diamond Island, Maine**

**Prepared by: Kermit Beaulieu**

7/6/2015



**Method:**

This documentation covers the newly constructed Inn At Diamond Cove building located on Great Diamond Island, part of Portland, Maine. The structure was identified previously by Radio Communications Management to require a bi-directional amplifier system in order to facilitate communications for public services during times of need. The Portland Fire Department requires a minimum inbound/outbound signal level of -95dBm, with 90% coverage in all areas with 99% coverage in critical areas, as defined in NFPA 1 annex 0 (NFPA 72).

Radio Communications Management Inc. (RCM) performed a radio frequency field strength study on June 30<sup>th</sup> of 2015 which covered the all accessible areas. The results of testing are included in this document.

Measurements were taken with a Kenwood NX-410 with calibrated RSSI meter; calibration took place on 10/29/2014 by Hayes Instrument which will expire on 10/29/2015. RSSI measurements were registered in dBm as a measured average from within a specific area defined by a grid of (20) locations. The grid is made up of segments of the same size and was placed over the floor plans provided by the customer. Areas which were measured at less than -95dBm where further scrutinized by testing at least four additional locations within that grid area.

**Results:**

Our test used frequency: 851.2875 – (control channel on the day of testing)

Measurements taken are represented by the range of readings below for all floors:

Sub Floor (90% below grade): -70 to -91dBm

First Floor: -70 to -88dBm

Second Floor: -70 to -86dBm

Third Floor: -72 to -86dBm

Based on the measurements obtained at the time of testing RCM has found that the current facility, with bi-directional amplifier system will provide the City of Portland with a safe level of signal as outlined in the NFPA guide and city ordinance. Documentation of readings in the associated areas of each reading is included in the following pages.

Signed:  Date: 7.6.15  
Mike Gryskwicz



## Radio Communications Management Inc.

### In Building Radio Test Recording Sheet

<b>Location And SO#:</b>	Great Diamond Island 42703	<b>Address:</b>	Inn at Diamond Cove	<b>POC:</b>	Chris 305-240-5492 Seabee Electric
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Floor # SUB		Floor # 1ST		Floor # 2ND		Floor # 3RD		Floor # NA	
Location	Reading	Location	Reading	Location	Reading	Location	Reading	Location	Reading
A1	-91	A1	-87	A1	-82	A1	-72	A1	
A2	-91	B1	-83	A2	-86	A2	-74	A2	
B1	-70	C1	-70	B1	-85	B1	-73	A3	
B2	-70	D1	-77	B2	-74	B2	-75	A4	
C1	-87	A2	-88	C1	-79	C1	-75	A5	
C2	-84	B2	-80	C2	-80	C2	-75	B1	
C3	-70	C2	-70	C3	-70	C3	-82	B2	
D3	-77	D2	-70	B3	-70	D3	-83	B3	
A4	-78	A3	-72	B4	-74	A4	NA	B4	
B4	-87	B3	-76	C4	-70	B4	NA	B5	
C4	-83	C3	-82	C5	-74	C4	-75	B6	
D4	-86	D3	-75	C6	-76	D4	-80	C1	
C5	-70	A4	-78	C7	-70	C5	-86	C5	
D5	-73	B4	-82	C8	-70	D5	-83	C6	
A6	-90	C4	-70	A9	-88	A6	NA	C7	
A7	-90	D4	-70	A10	-84	A7	NA	D6	
B6	-82	A5	-84	B9	-80	B6	NA	E6	
B7	-90	B5	-82	B10	-82	B7	NA	E7	
C6	-70	C5	-76	C9	-70	C6	NA	F7	
C7	-82	D5	-78	C10	-83	C7	NA	G7	

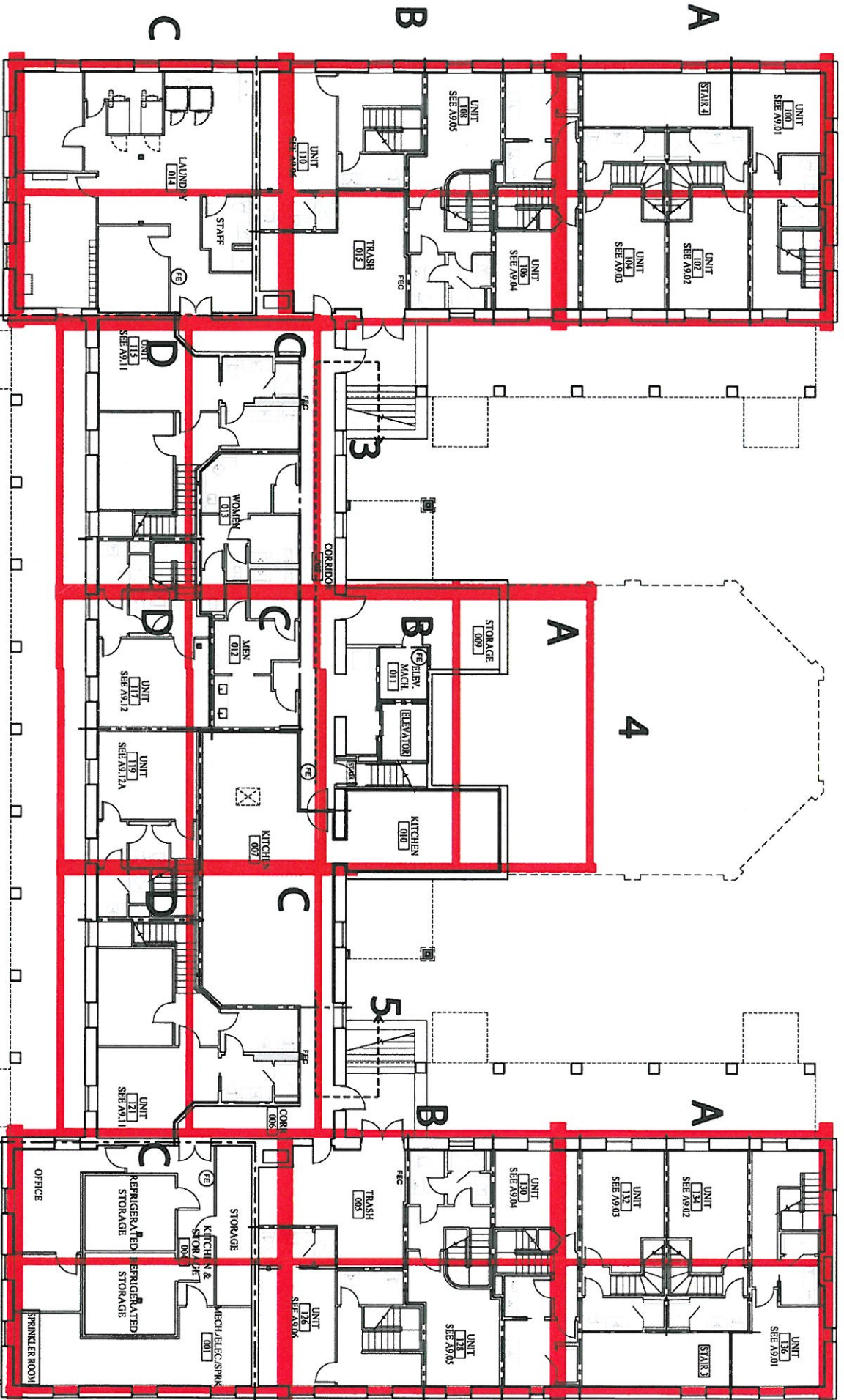
**Notes:** Building with BDA operational, all areas accessible pass signal with greater than -95dBm

Construction nearly complete, RCM believes that the readings and conclusion in this document represents the completed building RF coverage, which is better than required by the NFPA documentation.

# BASEMENT

1 2

6 7



# FIRST FLOOR

1

2

3

4

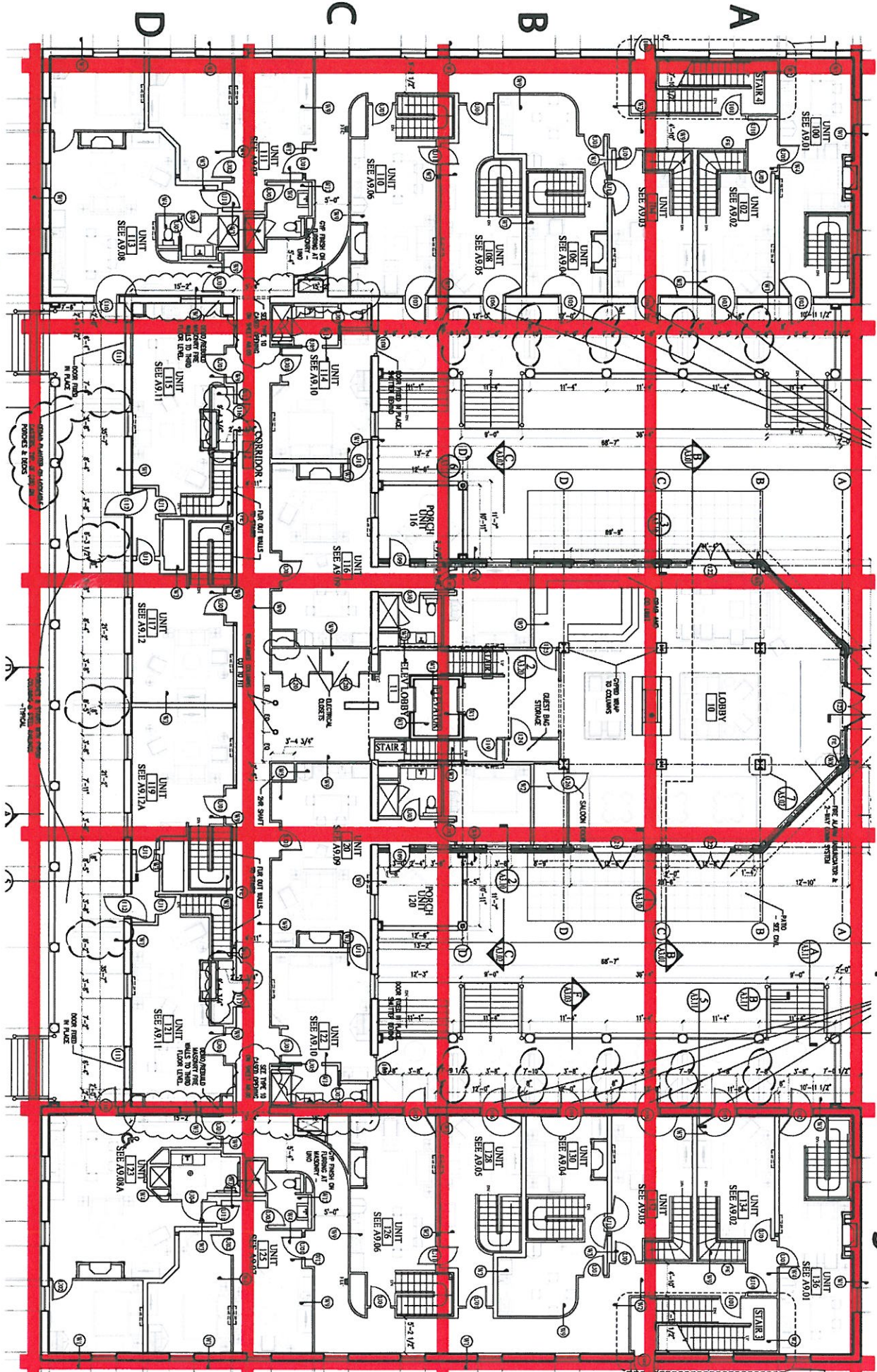
5

A

B

C

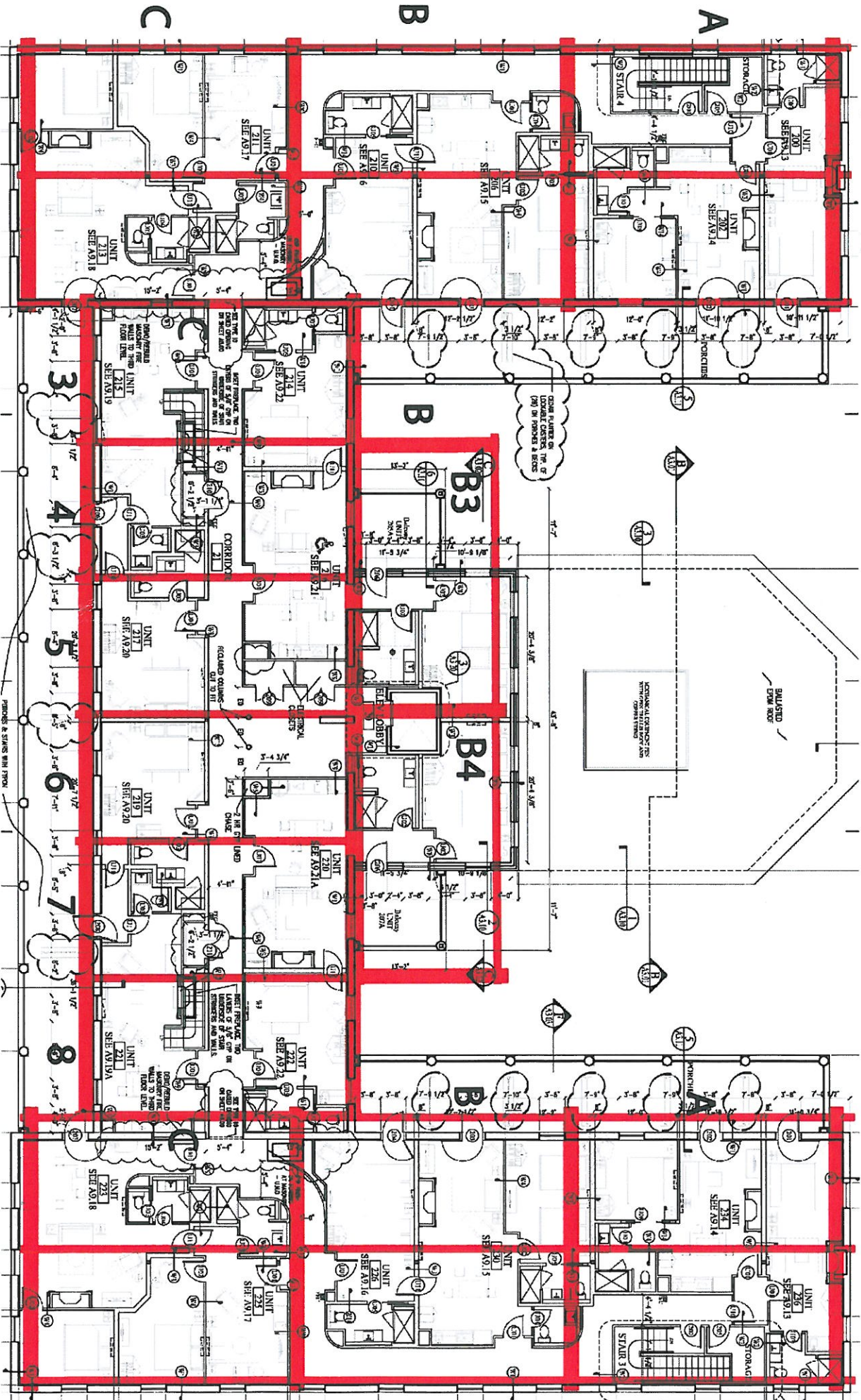
D



1 2

# 2ND FLOOR

9 10

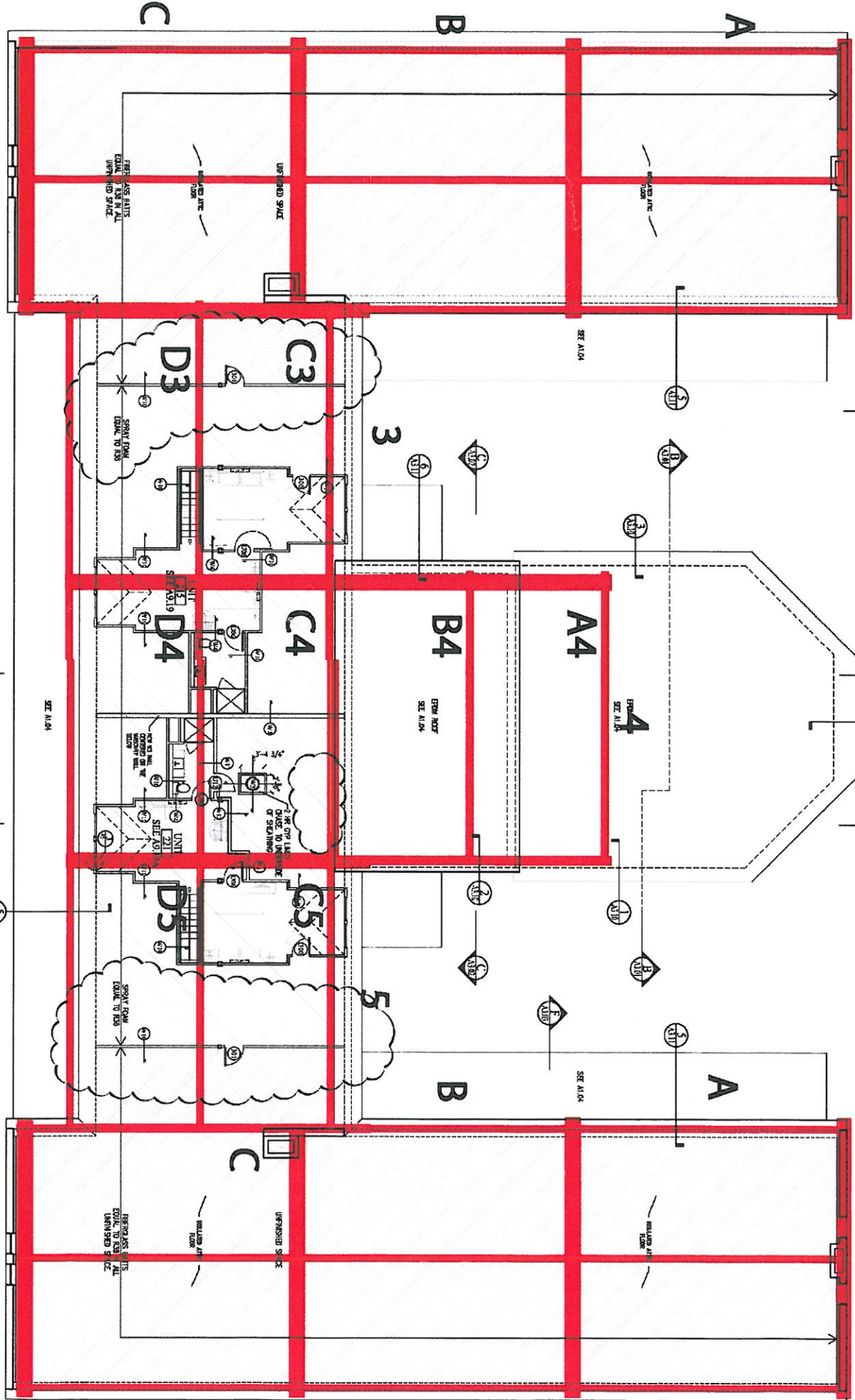


STAIRS & STAIRS WITH PROXY

1 2

# ATTIC /3RD FLOOR

6 7



**In-Building Coverage Solutions  
Certification Training**

**Certificate of Completion**

Date: May 11, 2015

Be it known that

Mire Gryskiewicz of

Radio Communications Management

has successfully completed the lecture, written exam, and  
lab practical exams.

**Global Educational Services**



**Minfei Leng  
Technical Trainer**