

Tower Dimensions

WIDTH
210'-0"

HEIGHT
1,386'-0"

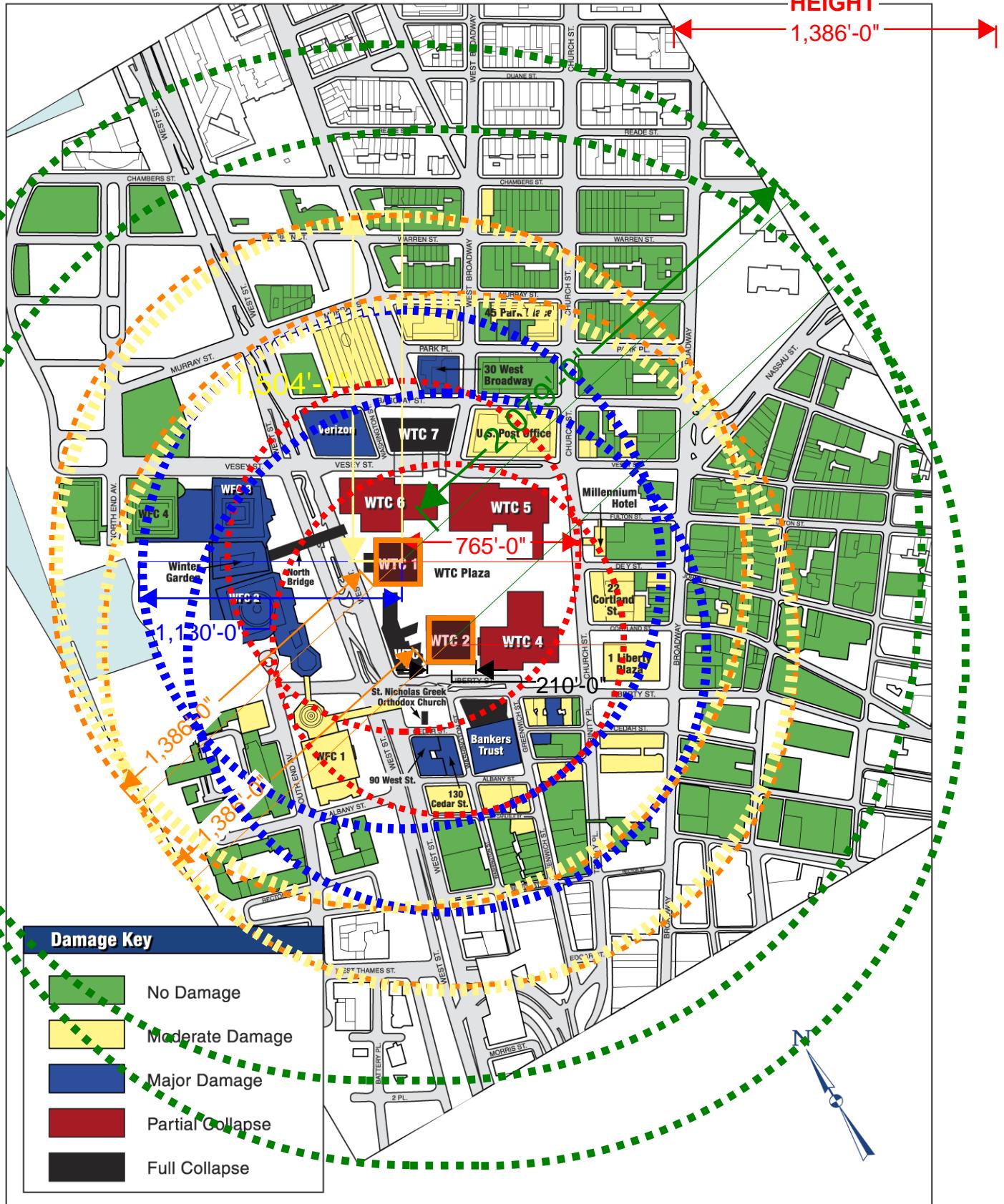


Figure 7-1 New York City DDC/DoB Cooperative Building Damage Assessment Map of November 7, 2001 (based on SEAoNY inspections of September and October 2001).

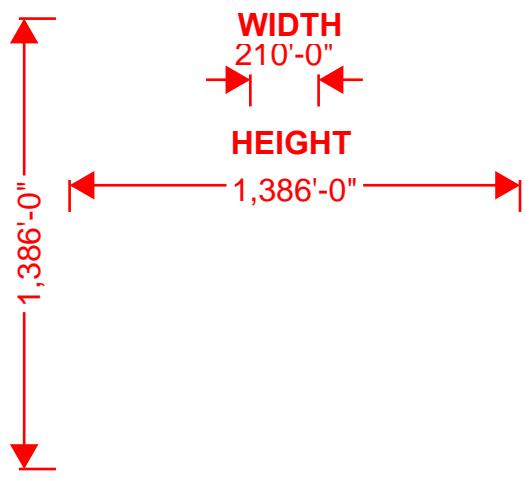
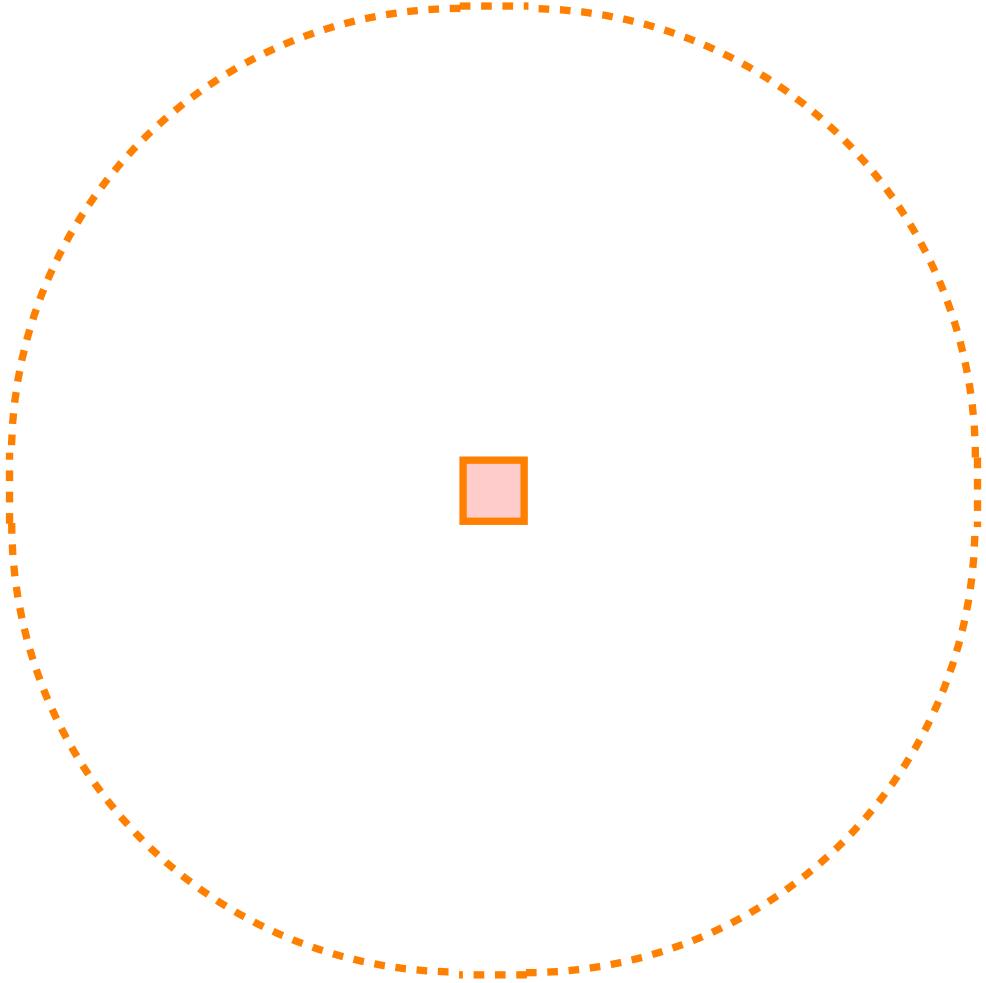


Table 7.1 DoB/SEAoNY Cooperative Building Damage Assessment – November 7, 2001¹

No.	Block	Lot	Address	Name	Building Color Code ²	Building Rating
1	16	100	395 South End Ave.	Gateway	Yellow	Moderate Damage
2	16	120	120 West St.	1 WFC Tower A	Yellow	Moderate Damage
3	16	120	120 West St.	South Bridge	Yellow	Moderate Damage
4	16	120	120 West St.	1-2 WFC Link Bridge	Yellow	Moderate Damage
5	16	125	125 West St.	2 WFC Tower B	Blue	Major Damage
6	16	140	200 Vesey St.	3 WFC Tower C - Annex	Blue	Major Damage
7	16	140	201 Vesey St.	Winter Garden Building	Blue	Major Damage
8	48	1	2 Wall St.		Yellow	Moderate Damage
9	49	2	111 Broadway		Yellow	Moderate Damage
10	51	14	125 Greenwich St.		Yellow	Moderate Damage
11	51	15	90 Trinity Pl.		Yellow	Moderate Damage
12	52	10	120 Cedar St.		Blue	Major Damage
13	52	15	110 Trinity Pl.		Yellow	Moderate Damage
14	52	21	120 Liberty St.		Yellow	Moderate Damage
15	52	22	124 Liberty St.	Fire Station	Yellow	Moderate Damage
16	52	30	106 Liberty St.		Yellow	Moderate Damage
17	52	7501	110 Liberty St.		Yellow	Moderate Damage
18	52	7502	114 Liberty St.	Engineering Building	Blue	Major Damage
19	53	23	5 Carlisle		Yellow	Moderate Damage
20	53	28	1 Carlisle		Yellow	Moderate Damage
21	53	33	110 Greenwich St.		Yellow	Moderate Damage
22	54	1	130 Liberty St.	Bankers Trust	Blue	Major Damage
23	56	1	130 Cedar St.		Blue	Major Damage
24	56	20	155 Cedar St.	Greek Orthodox Church	Black	Collapse
25	56	4	90 West St.		Blue	Major Damage
26	58		WTC 1	North Tower	Black	Collapse
27	58		WTC 2	South Tower	Black	Collapse
28	58		WTC 3	Marriott International Hotel	Black	Collapse
29	58	1	WTC 4	South East Plaza	Red	Partial Collapse
30	58	1	WTC 5	North East Plaza	Red	Partial Collapse
31	58	1	WTC 6	Custom House	Red	Partial Collapse
32	84		WTC 7		Black	Collapse
33	62	1	1 Liberty Plaza		Yellow	Moderate Damage
34	63	1	10 Cortland St.		Yellow	Moderate Damage
35	63	3	22 Cortland St.		Yellow	Moderate Damage
36	63	6	27 Church St.	Century 21	Yellow	Moderate Damage
37	63	13	189 Broadway		Yellow	Moderate Damage
38	63	15	187 Broadway		Yellow	Moderate Damage
39	65	10	9 Maiden Ln.	Jeweler's Building	Yellow	Moderate Damage
40	65	16	174 Broadway		Yellow	Moderate Damage
41	80	4	47 Church St.	Millennium Hotel	Yellow	Moderate Damage
42	84	1	140 West St.	Verizon	Blue	Major Damage
43	86	1	90 Church St.	Post Office	Yellow	Moderate Damage
44	88	2	12 Vesey St.		Yellow	Moderate Damage
45	88	8	26 Vesey St.		Yellow	Moderate Damage
46	88	10	28 Vesey St.		Yellow	Moderate Damage
47	88	13	14 Barclay St.		Yellow	Moderate Damage
48	125	20	100 Church St.		Yellow	Moderate Damage
49	126	2	110 Church St.		Yellow	Moderate Damage
50	126	9	45 Park Pl.		Blue	Major Damage
51	126	27	120 Church St.		Yellow	Moderate Damage
52	127	1	30 West Broadway		Blue	Major Damage
53	127	18	75 Park Pl.		Yellow	Moderate Damage
54	128	2	224 Greenwich St.		Yellow	Moderate Damage
55	136	15	60 Warren St.		Yellow	Moderate Damage
56	136	16	128 Chambers St.		Yellow	Moderate Damage

¹ Adapted from SEAoNY inspections of September and October 2001 – Building Ratings and Actions table.² Based on DDC/SEAoNY inspections of September and October 2001 and DoB inspections of October 22, 2001.

The following buildings suffered the most severe collateral damage from the collapse of the WTC towers:

Major Damage (shoring and large debris removal required):

WFC 3, American Express

Verizon

30 West Broadway

45 Park Place

Bankers Trust

90 West Street

130 Cedar Street

Partial Collapse

WTC 4

WTC 5

WTC 6

Winter Garden building (later revised to Major Damage)

Full Collapse

WTC 3

WTC 7

North Bridge from Winter Garden to WTC 1

St. Nicholas Greek Orthodox Church

Damage to the WTC and Bankers Trust buildings has been covered in previous chapters, and no inspection was made of St. Nicholas Greek Orthodox Church, because it was completely destroyed by falling debris. The damage to and performance of the remaining buildings is briefly presented. Immediately after the collapse of the towers, One Liberty Plaza was reported to be near collapse, but was later found to have no structural damage. The events leading up to this misunderstanding are briefly discussed.

7.2 World Financial Center

The World Financial Center (WFC) complex is located immediately west of the WTC Plaza, and includes four office towers, pedestrian walkways, and the Winter Garden (Figure 7-1). The buildings are of contemporary construction dating from 1985 to the present, have large floor plans, and are steel-framed structures with granite-clad curtain wall facades.

These buildings sustained varying degrees of façade and structural damage from the debris, with the eastern elevations experiencing the heaviest damages. The north and south elevations sustained lesser debris damage. WFC 1, 2, and 3 suffered glazing and façade damage, but WFC 4 was undamaged. Debris and dust penetrated nearly the full floor areas of WFC 2 and WFC 3 at several levels.

7.2.1 The Winter Garden

The Winter Garden lies between WFC 2 and WFC 3. It is a large greenhouse structure with a glass and steel telescopic barrel vault roof and is one of the largest public spaces in New York. The structure covers an area of approximately 200 feet by 270 feet and includes a public space of 120 feet by 270 feet. The largest vault has a clear height of about 130 feet and a span of 110 feet. The west elevation is made entirely of glass panels. The east end of the building has five composite steel floors that support a glass dome that