

SCOREBOARD DIMENSIONS AND SPECIFICATIONS						
MODEL	WIDTH	HEIGHT	WEIGHT	WEIGHT W/ETN	Max "A"	Min "A"
1604	28'	8' 3/16"	650	712	22'	14'
1606, 3615, 3617, 3618, 3619, 7630, 7631, 7632	24'	8' 3/16"	570	632	20'	13'
3685, 7685	24'	8' 3/16"	N/A	740	20'	13'
7605, 7615, 7625	24'	10' 6 9/32"	730	792	20'	13'
8601, 8602	24'	8' 3/16"	970	1032	20'	13'
3621	20'	8' 3/16"	520	582	18'	12'
3682	20'	8' 3/16"	N/A	690	18'	12'

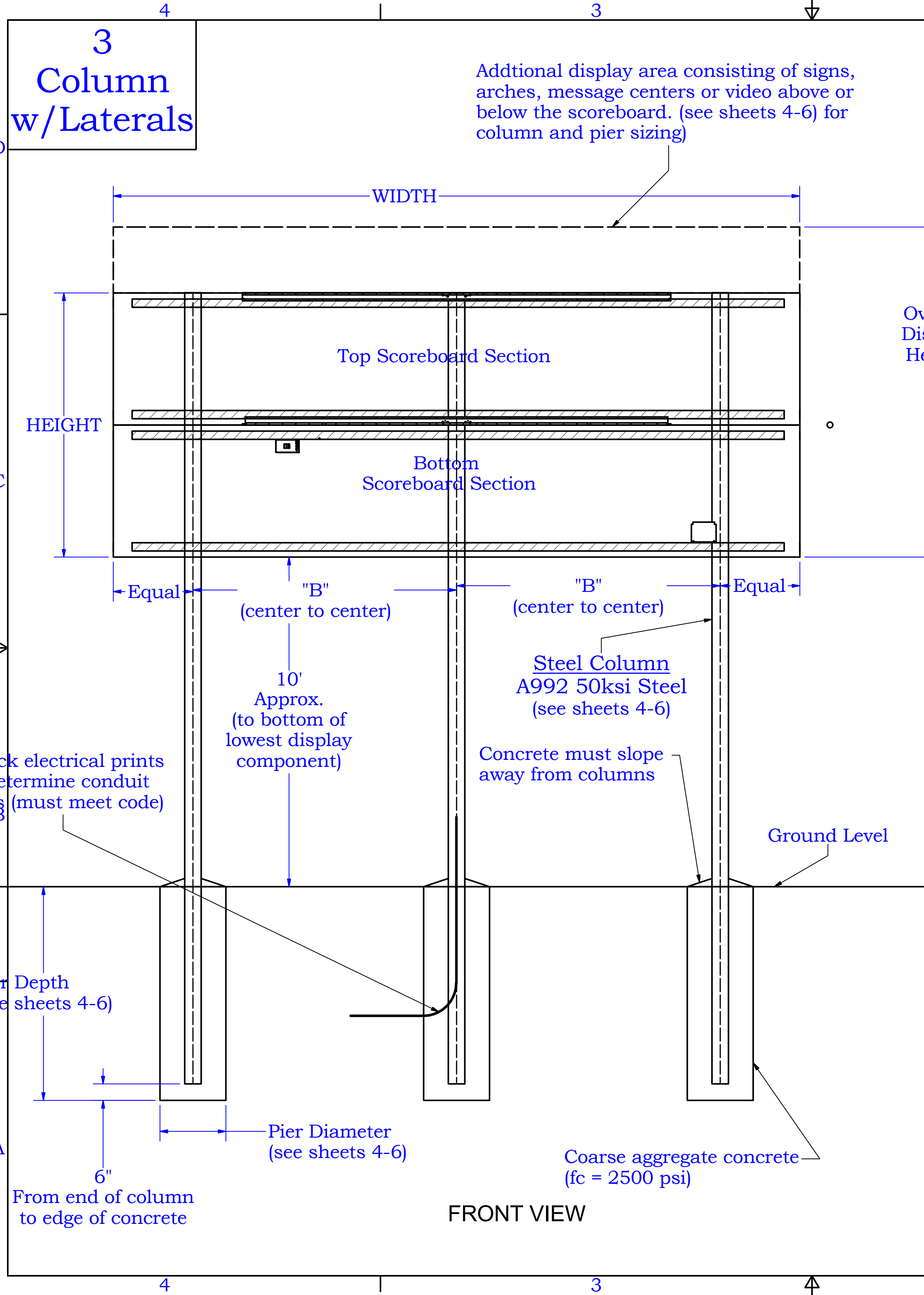
- General Notes:**
- Column steel to be grade A992 (50 ksi steel minimum).
  - Laterals and bracing steel to be ASTM A500 Grade B minimum (see note 1 on sheets 4-6).
  - Minimum bolt grade: A307
  - All welds to conform to AWS standards
  - The dimensions in the charts on sheets 4-6 are calculated using the requirements specified in IBC 2009, and the Manual of Steel Construction (13th Edition). Soil lateral bearing pressure is considered to be 150 psf/f.
  - The weights of signs to be calculated using 4.3 lb/sq. ft of sign area.
  - The weights of Nevco message centers to be calculated using 8.5 lb/sq. ft.
  - The weights of Nevco video displays to be calculated using 9.5 lbs/sq. ft.
  - The weights of Nevco arches to be calculated using 7.7 lbs/sq. ft.

**Important. Read before installation.**

This is not an engineered drawing. It is intended for representational purposes only. The dimensions called out on this drawing are intended to be used as a guide only, and are not intended to be suitable for all conditions. Adding signs or other components around the scoreboard beyond the scope of this drawing or increasing the display height from the ground will affect the installation requirements. Nevco recommends that you consult a professional engineer or architect familiar with the area before attempting installation. They can verify that the selected mounting beams or posts along with the brackets, screws, and other hardware items provided by others or Nevco are adequate for your local soil conditions, wind loads and other local codes. If procedures are used that are not covered in this drawing, careful analysis of the installation is urged.

Outdoor Scoreboard Installation 2/3 Column With Laterals		<p><b>NEVCO</b></p> <p>Nevco, Inc. Greenville, Illinois 62246</p>
Drawn DBB	Date 3/10/2016	Sheet 1 of 10

Rev A




**3**  
**Column**  
**w/Laterals**

Additional display area consisting of signs, arches, message centers or video above or below the scoreboard. (see sheets 4-6) for column and pier sizing)

SCOREBOARD DIMENSIONS AND SPECIFICATIONS						
Model	WIDTH	HEIGHT	WEIGHT	WEIGHT W/ETN	MAX "B"	MIN "B"
1603	36'	9' 3/16"	930	992	17'	12'
3616, 7616	36'	10' 3/16"	1020	1220	17'	12'
3657	32'	10' 3/16"	890	952	15'	11'
3688, 7688	32'	8' 3/16"	N/A	930	15'	11'
3620, 7620	32'	8' 3/16"	760	822	15'	11'

- General Notes:
- Column steel to be grade A992 (50 ksi steel minimum).
  - Laterals and bracing steel to be ASTM A500 Grade B minimum (see note 1 on sheets 4-6).
  - Minimum bolt grade: A307
  - All welds to conform to AWS standards
  - The dimensions in the charts on sheets 4-6 are calculated using the requirements specified in IBC 2009, and the Manual of Steel Construction (13th Edition). Soil lateral bearing pressure is considered to be 150 psf/f.
  - The weights of signs to be calculated using 4.3 lb/sq. ft of sign area.
  - The weights of Nevco message centers to be calculated using 8.5 lb/sq ft.
  - The weights of Nevco video displays to be calculated using 9.5 lbs/sq. ft.
  - The weights of Nevco arches to be calculated using 7.7 lbs/sq. ft.


**Important. Read before installation.**  
This is not an engineered drawing. It is intended for representational purposes only. The dimensions called out on this drawing are intended to be used as a guide only, and are not intended to be suitable for all conditions. Adding signs or other components around the scoreboard beyond the scope of this drawing or increasing the display height from the ground will affect the installation requirements. Nevco recommends that you consult a professional engineer or architect familiar with the area before attempting installation. They can verify that the selected mounting beams or posts along with the brackets, screws, and other hardware items provided by others or Nevco are adequate for your local soil conditions, wind loads and other local codes. If procedures are used that are not covered in this drawing, careful analysis of the installation is urged.

Outdoor Scoreboard Installation 2/3 Column With Laterals		 <b>Nevco, Inc.</b> Greenville, Illinois 62246	
Drawing No. 241-0360		Sheet 2 of 10	
Drawn DBB	Date 3/10/2016		

LATERAL REQUIREMENTS						
Model	90mph Lateral	130mph Lateral	150mph Lateral	# Laterals Req.	Lateral Length	Bracing Laterals
1603, 3616, 7616	TS 3 x 3 x 1/8	TS 3.5 x 3.5 x 3/16	TS 3.5 x 3.5 x 1/4	4	31' 6"	TS 4 x 3 x 3/16
3657, 3688, 7688	TS 2.25 x 2.25 x 1/4	TS 3 x 3 x 3/16	TS 3 x 3 x 1/4	4	25' 6"	TS 4 x 3 x 3/16
3620, 7620	TS 2.25 x 2.25 x 3/16	TS 3 x 3 x 1/8	TS 3 x 3 x 3/16	4	25' 6"	TS 4 x 3 x 3/16
1604	TS 2.5 x 2.5 x 3/16	TS 3 x 3 x 1/8	TS 3 x 3 x 3/16	4	21' 6"	TS 4 x 3 x 3/16
7605, 7615, 7625	TS 2.5 x 2.5 x 1/4	TS 3.5 x 3.5 x 3/16	TS 3.5 x 3.5 x 1/4	6	17' 6"	TS 4 x 3 x 3/16
1606, 3615, 3617 3618, 3619, 3685, 7630, 7631, 7632, 7685, 8601, 8602	TS 2.5 x 2.5 x 3/16	TS 3 x 3 x 3/16	TS 3.5 x 3.5 x 3/16	4	17' 6"	TS 4 x 3 x 3/16
3621, 3682	TS 2.5 x 2.5 x 3/16	TS 3 x 3 x 3/16	TS 3 x 3 x 3/16	4	19' 6"	TS 4 x 3 x 3/16

Notes:

- 1) Lateral material to be ASTM A500 Grade B minimum.
- 2) Quantity of laterals in the chart above includes the quantity required to mount the scoreboard only and does not include bracing laterals. (See detail on sheet 7 to determine required amount of bracing laterals).
- 3) Additional display components such as signs, message centers or video displays will require additional laterals. See separate installation print for details.

Outdoor Scoreboard Installation 2/3 Column With Laterals		 <b>NEVCO</b> Nevco, Inc. Greenville, Illinois 62246	
			Drawing No. 241-0360
Drawn	DBB	Date	3/10/2016
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**90 MPH WIND ZONES**

Rev A

Column and Pier Requirements (Based on ASCE 7-05)

Display Height	Pier Dia	Pier Depth	Column Length	Column *
8	2' (3')	10' (8'6")	27' (25'6")	W10 x 22
10	2' (3')	11' (9'6")	30' (28'6")	W10 x 26
12	2' (3')	12' (10')	33' (31')	W12 x 26
14	2' (3')	13' (11')	36' (34')	W14 x 30
16	2' (3')	14' (11'6")	39' (36'6")	W14 x 34
18	2' (3')	15'6" (12')	42'6" (39')	W16 x 36
20	2' (3')	17' (13')	46' (42')	W16 x 40
22	2' (3')	19' (14'6")	50' (45'6")	W16 x 50
25	3' (4')	16'6" (13'6")	50'6" (47'6")	W18 x 55
30	3' (4')	19' (16')	58' (55')	W21 x 62
35	3' (4')	21'6" (18')	65'6" (62')	W24 x 68
40	3' (4')	24'6" (20'6")	73'6" (69'6")	W24 x 84

Column and Pier Requirements (Based on ASCE 7-05)

Display Height	Pier Dia	Pier Depth	Column Length	Column *
8	2' (3')	8'6" (7'6")	25'6" (24'6")	W8 x 18
10	2' (3')	9'6" (8')	28'6" (27')	W8 x 21
12	2' (3')	10'6" (9')	31'6" (30')	W14 x 22
14	2' (3')	11' (9'6")	34' (32'6")	W10 x 26
16	2' (3')	11'6" (10')	36'6" (35')	W12 x 26
18	2' (3')	12'6" (10'6")	39'6" (37'6")	W12 x 30
20	2' (3')	13'6" (11')	42'6" (40')	W14 x 34
22	2' (3')	15' (12')	46' (43')	W16 x 36
25	3' (4')	13' (11'6")	47' (45'6")	W14 x 43
30	3' (4')	15'6" (13')	54'6" (52')	W18 x 50
35	3' (4')	17'6" (15')	61'6" (59')	W21 x 55
40	3' (4')	20' (17')	69' (66')	W21 x 68

**130 MPH WIND ZONES**

Column and Pier Requirements (Based on ASCE 7-05)

Display Height	Pier Dia	Pier Depth	Column Length	Column *
8	2' (3')	14' (11'6")	31' (28'6")	W14 x 30
10	2' (3')	16' (12'6")	35' (31'6")	W18 x 35
12	2' (3')	18'6" (14'6")	39'6" (35'6")	W14 x 43
14	2' (3')	20'6" (16')	43'6" (39')	W16 x 50
16	2' (3')	23' (17'6")	48' (42'6")	W18 x 55
18	2' (3')	25' (19')	52' (46')	W21 x 55
20	2' (3')	27'6" (21')	56'6" (50')	W21 x 62
22	2' (3')	31' (23'6")	62' (54'6")	W24 x 68
25	3' (4')	26' (21'6")	60' (55'6")	W24 x 84
30	3' (4')	30'6" (25')	69'6" (64')	W21 x 101
35	3' (4')	35' (29')	79' (73')	W24 x 117
40	3' (4')	39'6" (32'6")	88'6" (81'6")	W24 x 146

Column and Pier Requirements (Based on ASCE 7-05)

Display Height	Pier Dia	Pier Depth	Column Length	Column *
8	2' (3')	11'6" (9'6")	28'6" (26'6")	W10 x 26
10	2' (3')	12'6" (10'6")	31'6" (29'6")	W12 x 30
12	2' (3')	14'6" (11'6")	35'6" (32'6")	W14 x 34
14	2' (3')	16' (12'6")	39' (35'6")	W16 x 36
16	2' (3')	18' (14')	43' (39')	W14 x 43
18	2' (3')	19'6" (15')	46'6" (42')	W16 x 50
20	2' (3')	21'6" (16'6")	50'6" (45'6")	W18 x 50
22	2' (3')	24' (18'6")	55' (49'6")	W21 x 55
25	3' (4')	20'6" (17'6")	54'6" (51'6")	W21 x 68
30	3' (4')	24'6" (20')	63'6" (59')	W24 x 76
35	3' (4')	28' (23'6")	72' (67'6")	W24 x 94
40	3' (4')	31'6" (26'6")	80'6" (75'6")	W24 x 104

**150 MPH WIND ZONES**

Column and Pier Requirements (Based on ASCE 7-05)


Display Height	Pier Dia	Pier Depth	Column Length	Column *
8	2' (3')	16'6" (13')	33'6" (30')	W16 x 36
10	2' (3')	19'6" (15')	38'6" (34')	W21 x 44
12	2' (3')	22'6" (17')	43'6" (38')	W18 x 50
14	2' (3')	25' (19')	48' (42')	W21 x 55
16	2' (3')	28' (21')	53' (46')	W21 x 62
18	2' (3')	30'6" (23')	57'6" (50')	W21 x 68
20	2' (3')	33'6" (25')	62'6" (54')	W24 x 76
22	2' (3')	37'6" (28'6")	68'6" (59'6")	W24 x 84
25	3' (4')	31'6" (26')	65'6" (60')	W21 x 101
30	3' (4')	37' (30'6")	76' (69'6")	W24 x 131
35	3' (4')	42'6" (35')	86'6" (79')	W24 x 162
40	3' (4')	48'6" (39'6")	97'6" (88'6")	W24 x 192

Column and Pier Requirements (Based on ASCE 7-05)

Display Height	Pier Dia	Pier Depth	Column Length	Column *
8	2' (3')	13' (11')	30' (28')	W12 x 30
10	2' (3')	15' (12')	34' (31')	W14 x 34
12	2' (3')	17'6" (13'6")	38'6" (34'6")	W16 x 40
14	2' (3')	19'6" (15')	42'6" (38')	W21 x 44
16	2' (3')	21'6" (16'6")	46'6" (41'6")	W18 x 50
18	2' (3')	23'6" (18')	50'6" (45')	W21 x 55
20	2' (3')	26' (20')	55' (49')	W21 x 62
22	2' (3')	29'6" (22'6")	60'6" (53'6")	W21 x 68
25	3' (4')	25' (20'6")	59' (54'6")	W24 x 76
30	3' (4')	29'6" (24'6")	68'6" (63'6")	W24 x 94
35	3' (4')	34' (28')	78' (72')	W24 x 117
40	3' (4')	38'6" (31'6")	87'6" (80'6")	W24 x 146

**Chart Notes:**

- \* It is required that 4x3x3/16 steel tubing be welded to back of columns 10' from the ground and every 10' to the top of the column for bracing. (See detail on sheet 7)
- Wind loading figured at **Exposure "C" - Open terrain** with scattered obstructions having heights generally less than 30 feet. This category includes flat open country, grasslands, and all water surfaces in hurricane prone areas.
- Wind loading figured at **Exposure "B" - Urban and suburban areas**, wooded areas, or other terrain with numerous closely spaced obstructions having the size of single-family dwellings or larger. These areas prevail in the upwind direction for a distance of 2600 feet or 20 times the structure height, whichever is greater.

Outdoor Scoreboard Installation 2/3 Column With Laterals		 <b>NEVCO</b> Nevco, Inc. Greenville, Illinois 62246	
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90 MPH WIND ZONES

Rev A

Column and Pier Requirements (Based on ASCE 7-05)

Display Height	Pier Dia	Pier Depth	Col Length	Column *
8	2' (3')	9'6" (7'6")	27'6" (25'6")	W14 x 22
10	2' (3')	11' (9')	31' (29')	W12 x 26
12	2' (3')	13' (10')	35' (32')	W12 x 30
14	2' (3')	14'6" (11'6")	38'6" (35'6")	W14 x 34
16	2' (3')	16' (12'6")	42' (38'6")	W16 x 36
18	2' (3')	17'6" (13'6")	45'6" (41'6")	W14 x 43
20	2' (3')	19' (14'6")	49' (44'6")	W14 x 48
22	2' (3')	20'6" (16')	52'6" (48')	W18 x 50
25	3' (4')	18'6" (15'6")	53'6" (50'6")	W21 x 55
30	3' (4')	21'6" (18')	61'6" (58')	W24 x 68
35	3' (4')	24'6" (20'6")	69'6" (65'6")	W24 x 84
40	3' (4')	27'6" (23')	77'6" (73')	W24 x 94

Column and Pier Requirements (Based on ASCE 7-05)

Display Height	Pier Dia.	Pier Depth	Col. Length	Column*
8	2' (3')	11' (9'6")	29' (27'6")	W10 x 26
10	2' (3')	12'6" (10'6")	32'6" (30'6")	W12 x 30
12	2' (3')	14' (11'6")	36' (33'6")	W14 x 34
14	2' (3')	15'6" (12')	39'6" (36')	W16 x 36
16	2' (3')	17'6" (13'6")	43'6" (39'6")	W16 x 40
18	2' (3')	19'6" (15')	47'6" (43')	W14 x 48
20	2' (3')	21' (16')	51' (46')	W18 x 50
22	2' (3')	22'6" (17'6")	54'6" (49'6")	W18 x 55
25	3' (4')	19'6" (16')	54'6" (51')	W21 x 62
30	3' (4')	23'6" (19'6")	63'6" (59'6")	W24 x 76
35	3' (4')	27' (22'6")	72' (67'6")	W24 x 94
40	3' (4')	30'6" (25'6")	80'6" (75'6")	W24 x 104

Column and Pier Requirements (Based on ASCE 7-05)

Display Height	Pier Dia.	Pier Depth	Col. Length	Column*
8	2' (3')	10' (8'6")	28' (26'6")	W10 x 22
10	2' (3')	11' (9'6")	31' (29'6")	W10 x 26
12	2' (3')	11'6" (10')	33'6" (32')	W12 x 26
14	2' (3')	12'6" (11')	36'6" (35')	W12 x 30
16	2' (3')	14' (11'6")	40' (37'6")	W14 x 34
18	2' (3')	15'6" (12')	43'6" (40')	W16 x 36
20	2' (3')	17' (13')	47' (43')	W16 x 40
22	3' (4')	14' (12')	46' (44')	W21 x 44
25	3' (4')	15'6" (13')	50'6" (48')	W18 x 50
30	3' (4')	18' (15'6")	58' (55'6")	W21 x 62
35	3' (4')	21'6" (18')	66'6" (63')	W24 x 68
40	3' (4')	24'6" (20'6")	74'6" (70'6")	W24 x 84

Column and Pier Requirements (Based on ASCE 7-05)

Display Height	Pier Dia	Pier Depth	Col. Length	Column*
9	2' (3')	11' (9'6")	30' (28'6")	W10 x 26
10	2' (3')	11'6" (10')	31'6" (30')	W12 x 26
11	2' (3')	12' (10'6")	33' (31'6")	W12 x 26
12	2' (3')	12'6" (10'6")	34'6" (32'6")	W12 x 30
13	2' (3')	13'6" (11')	36'6" (34')	W14 x 30
14	2' (3')	14' (11'6")	38' (35'6")	W14 x 34
15	2' (3')	15' (12')	40' (37')	W18 x 35
20	3' (4')	14'6" (12'6")	44'6" (42'6")	W14 x 48
25	3' (4')	17'6" (14'6")	52'6" (49'6")	W21 x 55
30	3' (4')	20'6" (17')	60'6" (57')	W21 x 68
35	3' (4')	23' (19'6")	68' (64'6")	W24 x 76
40	3' (4')	27'6" (23')	77'6" (73')	W24 x 94

Column and Pier Requirements (Based on ASCE 7-05 Exposure B for 90mph Wind)

Display Height	Pier Dia.	Pier Depth	Col. Length	Column *
8	2' (3')	7'6" (6')	25'6" (24')	W8 x 21
10	2' (3')	9' (7')	29' (27')	W10 x 22
12	2' (3')	10' (8')	32' (30')	W10 x 26
14	2' (3')	11'6" (9')	35'6" (33')	W12 x 26
16	2' (3')	12'6" (10')	38'6" (36')	W14 x 30
18	2' (3')	14' (11')	42' (39')	W14 x 34
20	2' (3')	15' (12')	45' (42')	W16 x 36
22	2' (3')	16'6" (12'6")	48'6" (44'6")	W16 x 40
25	3' (4')	14'6" (12'6")	49'6" (47'6")	W16 x 50
30	3' (4')	17' (14'6")	57' (54'6")	W21 x 55
35	3' (4')	20' (16'6")	65' (61'6")	W21 x 68
40	3' (4')	22'6" (18'6")	72'6" (68'6")	W24 x 76

Column and Pier Requirements (Based on ASCE 7-05 Exposure B for 90mph Wind L)

Display Height	Pier Dia.	Pier Depth	Col. Length	Column *
8	2' (3')	9'6" (8'6")	27'6" (26'6")	W10 x 22
10	2' (3')	10'6" (9')	30'6" (29')	W10 x 26
12	2' (3')	11'6" (10')	33'6" (32')	W12 x 26
14	2' (3')	12'6" (10'6")	36'6" (34'6")	W12 x 30
16	2' (3')	14' (11'6")	40' (37'6")	W14 x 34
18	2' (3')	15'6" (12')	43'6" (40')	W16 x 36
20	2' (3')	16'6" (13')	46'6" (43')	W16 x 40
22	2' (3')	18' (14')	50' (46')	W21 x 44
25	3' (4')	15'6" (13')	50'6" (48')	W18 x 50
30	3' (4')	19' (16')	59' (56')	W21 x 62
35	3' (4')	22' (18')	67' (63')	W24 x 68
40	3' (4')	24'6" (20'6")	74'6" (70'6")	W24 x 84

Column and Pier Requirements (Based on ASCE 7-05 Exposure B 90mph Wind)

Display Height	Pier Dia.	Pier Depth	Col. Length	Column*
8	2' (3')	8'6" (7'6")	26'6" (25'6")	W8 x 18
10	2' (3')	9'6" (8')	29'6" (28')	W8 x 21
12	2' (3')	10' (8'6")	32' (30'6")	W10 x 22
14	2' (3')	11' (9'6")	35' (33'6")	W10 x 26
16	2' (3')	11'6" (10')	37'6" (36')	W12 x 26
18	2' (3')	12'6" (10'6")	40'6" (38'6")	W12 x 30
20	2' (3')	13'6" (11')	43'6" (41')	W14 x 34
22	3' (4')	11'6" (10'6")	43'6" (42'6")	W18 x 35
25	3' (4')	12'6" (11'6")	47'6" (46'6")	W16 x 40
30	3' (4')	14'6" (12'6")	54'6" (52'6")	W16 x 50
35	3' (4')	17'6" (15')	62'6" (60')	W21 x 55
40	3' (4')	20' (16'6")	70' (66'6")	W21 x 68

Column and Pier Requirements (Based on ASCE 7-05)

Display Height	Pier Dia.	Pier Depth	Col. Length	Column*
2' (3')	9'6" (8')	9'6" (8')	28'6" (27')	W8 x 21
2' (3')	10' (8'6")	10' (8'6")	30' (28'6")	W10 x 22
2' (3')	10'6" (9')	10'6" (9')	31'6" (30')	W14 x 22
2' (3')	11' (9'6")	11' (9'6")	33' (31'6")	W10 x 26
2' (3')	11' (9'6")	11' (9'6")	34' (32'6")	W12 x 26
2' (3')	11'6" (10')	11'6" (10')	35'6" (34')	W12 x 26
2' (3')	12' (10'6")	12' (10'6")	37' (35'6")	W12 x 30
3' (4')	12' (10'6")	12' (10'6")	42' (40'6")	W16 x 36
3' (4')	14' (12')	14' (12')	49' (47')	W21 x 44
3' (4')	16'6" (14')	16'6" (14')	56'6" (54')	W18 x 55
3' (4')	19' (16')	19' (16')	64' (61')	W21 x 62
3' (4')	22' (18'6")	22' (18'6")	72' (68'6")	W24 x 76

Chart Notes:

- \* It is required that 4x3x3/16 steel tubing be welded to back of columns 10' from the ground and every 10' to the top of the column for bracing. (See detail on sheet 7)
- Wind loading figured at **Exposure "C" - Open terrain** with scattered obstructions having heights generally less than 30 feet. This category includes flat open country, grasslands, and all water surfaces in hurricane prone areas.
- Wind loading figured at **Exposure "B" - Urban and suburban areas**, wooded areas, or other terrain with numerous closely spaced obstructions having the size of single-family dwellings or larger. These areas prevail in the upwind direction for a distance of 2600 feet or 20 times the structure height, whichever is greater.

Outdoor Scoreboard  
Installation  
2/3 Column With  
Laterals



Nevco, Inc.  
Greenville, Illinois 62246

Drawing No. 241-0360

Drawn DBB Date 3/10/2016

Sheet 5 of 10



130 MPH WIND ZONES

Rev A

Column and Pier Requirements (Based on ASCE 7-05)

Display Height	Pier Dia	Pier Depth	Col Length	Column *
8	2' (3')	15'6" (12')	33'6" (30')	W14 x 34
10	2' (3')	18' (14')	38' (34')	W16 x 40
12	2' (3')	20'6" (15'6")	42'6" (37'6")	W16 x 50
14	3' (4')	18' (15')	42' (39')	W18 x 55
16	3' (4')	20' (16'6")	46' (42'6")	W21 x 55
18	3' (4')	21'6" (18')	49'6" (46')	W21 x 68
20	3' (4')	23'6" (19'6")	53'6" (49'6")	W24 x 68
22	3' (4')	25'6" (21')	57'6" (53')	W24 x 76
25	3' (4')	29'6" (24'6")	64'6" (59'6")	W24 x 94
30	3' (4')	34'6" (28'6")	74'6" (68'6")	W24 x 117
35	3' (4')	40' (32'6")	85' (77'6")	W24 x 146
40	3' (4')	45' (37')	95' (87')	W24 x 176

Column and Pier Requirements (Based on ASCE 7-05)

Display Height	Pier Dia.	Pier Depth	Col. Length	Column*
8	2' (3')	17' (13')	35' (31')	W16 x 36
10	2' (3')	20' (15')	40' (35')	W21 x 44
12	2' (3')	22'6" (17'6")	44'6" (39'6")	W18 x 50
14	3' (4')	19'6" (16')	43'6" (40')	W21 x 55
16	3' (4')	22' (18')	48' (44')	W21 x 68
18	3' (4')	24' (20')	52' (48')	W24 x 68
20	3' (4')	26' (21'6")	56' (51'6")	W24 x 76
22	3' (4')	28'6" (23'6")	60'6" (55'6")	W24 x 84
25	3' (4')	31'6" (26')	66'6" (61')	W21 x 101
30	3' (4')	38'6" (31'6")	78'6" (71'6")	W24 x 131
35	3' (4')	44'6" (36'6")	89'6" (81'6")	W24 x 162
40	3' (4')	50' (41')	100' (91')	W24 x 192

Column and Pier Requirements (Based on ASCE 7-05)

Display Height	Pier Dia.	Pier Depth	Col. Length	Column*
8	2' (3')	13'6" (11')	31'6" (29')	W14 x 30
10	2' (3')	16' (12')	36' (32')	W18 x 35
12	2' (3')	18' (14')	40' (36')	W16 x 40
14	3' (4')	15'6" (13')	39'6" (37')	W16 x 50
16	3' (4')	17' (14'6")	43' (40'6")	W18 x 55
18	3' (4')	19' (16')	47' (44')	W21 x 55
20	3' (4')	21' (17'6")	51' (47'6")	W21 x 62
22	3' (4')	22'6" (18'6")	54'6" (50'6")	W24 x 68
25	3' (4')	25' (20'6")	60' (55'6")	W24 x 76
30	3' (4')	29' (24')	69' (64')	W24 x 94
35	3' (4')	35' (29')	80' (74')	W24 x 117
40	3' (4')	39'6" (32'6")	89'6" (82'6")	W24 x 146

Column and Pier Requirements (Based on ASCE 7-05)

Display Height	Pier Dia	Pier Depth	Col. Length	Column*
9	2' (3')	16'6" (12'6")	35'6" (31'6")	W16 x 36
10	2' (3')	17'6" (13'6")	37'6" (33'6")	W16 x 40
11	2' (3')	19' (14'6")	40' (35'6")	W14 x 43
12	3' (4')	15'6" (13')	37'6" (35')	W21 x 44
13	3' (4')	16'6" (13'6")	39'6" (36'6")	W16 x 50
14	3' (4')	17'6" (14'6")	41'6" (38'6")	W18 x 55
15	3' (4')	18'6" (15')	43'6" (40')	W18 x 55
20	3' (4')	23'6" (19'6")	53'6" (49'6")	W24 x 68
25	3' (4')	28' (23')	63' (58')	W24 x 94
30	3' (4')	33' (27')	73' (67')	W24 x 104
35	3' (4')	37'6" (31')	82'6" (76')	W24 x 131
40	3' (4')	44'6" (36'6")	94'6" (86'6")	W24 x 176

Column and Pier Requirements (Based on ASCE 7-05)

Display Height	Pier Dia.	Pier Depth	Col. Length	Column *
8	2' (3')	12' (10'6")	30' (28'6")	W12 x 26
10	2' (3')	14' (11'6")	34' (31'6")	W14 x 34
12	2' (3')	16' (12'6")	38' (34'6")	W16 x 36
14	3' (4')	14' (12')	38' (36')	W14 x 43
16	3' (4')	15'6" (13')	41'6" (39')	W16 x 50
18	3' (4')	17' (14')	45' (42')	W18 x 55
20	3' (4')	18'6" (15'6")	48'6" (45'6")	W21 x 55
22	3' (4')	20' (16'6")	52' (48'6")	W21 x 62
25	3' (4')	23'6" (19'6")	58'6" (54'6")	W24 x 68
30	3' (4')	27'6" (22'6")	67'6" (62'6")	W24 x 94
35	3' (4')	31'6" (26')	76'6" (71')	W24 x 104
40	3' (4')	36' (29'6")	86' (79'6")	W24 x 131

Column and Pier Requirements (Based on ASCE 7-05)

Display Height	Pier Dia.	Pier Depth	Col. Length	Column *
8	2' (3')	13' (11')	31' (29')	W12 x 30
10	2' (3')	15'6" (12')	35'6" (32')	W14 x 34
12	2' (3')	17'6" (13'6")	39'6" (35'6")	W16 x 40
14	3' (4')	15' (12'6")	39' (36'6")	W14 x 48
16	3' (4')	17' (14'6")	43' (40'6")	W18 x 55
18	3' (4')	19' (15'6")	47' (43'6")	W21 x 55
20	3' (4')	20'6" (17')	50'6" (47')	W21 x 62
22	3' (4')	22' (18'6")	54' (50'6")	W21 x 68
25	3' (4')	25' (20'6")	60' (55'6")	W24 x 76
30	3' (4')	30'6" (25')	70'6" (65')	W21 x 101
35	3' (4')	35' (29')	80' (74')	W24 x 117
40	3' (4')	40' (33')	90' (83')	W24 x 146

Column and Pier Requirements (Based on ASCE 7-05 Exposure B 90mph Wind)

Display Height	Pier Dia.	Pier Depth	Col. Length	Column*
8	2' (3')	11'6" (9'6")	29'6" (27'6")	W10 x 26
10	2' (3')	12'6" (10'6")	32'6" (30'6")	W12 x 30
12	2' (3')	14' (11'6")	36' (33'6")	W14 x 34
14	3' (4')	12'6" (11')	36'6" (35')	W16 x 36
16	3' (4')	13'6" (12')	39'6" (38')	W16 x 40
18	3' (4')	15' (12'6")	43' (40'6")	W16 x 50
20	3' (4')	16'6" (14')	46'6" (44')	W18 x 50
22	3' (4')	18' (15')	50' (47')	W21 x 55
25	3' (4')	20' (16'6")	55' (51'6")	W21 x 62
30	3' (4')	23' (19'6")	63' (59'6")	W24 x 76
35	3' (4')	28' (23')	73' (68')	W24 x 94
40	3' (4')	31'6" (26')	81'6" (76')	W24 x 104

Column and Pier Requirements (Based on ASCE 7-05)

Display Height	Pier Dia.	Pier Depth	Col. Length	Column*
9	2' (3')	13' (11')	32' (30')	W12 x 30
10	2' (3')	13'6" (11'6")	33'6" (31'6")	W14 x 30
11	2' (3')	15' (12')	36' (33')	W14 x 34
12	3' (4')	12' (11')	34' (33')	W16 x 36
13	3' (4')	13' (11'6")	36' (34'6")	W16 x 40
14	3' (4')	13'6" (12')	37'6" (36')	W16 x 40
15	3' (4')	14'6" (12')	39'6" (37')	W21 x 44
20	3' (4')	18'6" (15'6")	48'6" (45'6")	W21 x 55
25	3' (4')	22' (18'6")	57' (53'6")	W24 x 68
30	3' (4')	26' (21'6")	66' (61'6")	W24 x 84
35	3' (4')	30' (25')	75' (70')	W21 x 101
40	3' (4')	35'6" (29'6")	85'6" (79'6")	W24 x 131

Chart Notes:

- \* It is required that 4x3x3/16 steel tubing be welded to back of columns 10' from the ground and every 10' to the top of the column for bracing. (See detail on sheet 7)
- Wind loading figured at **Exposure "C" - Open terrain** with scattered obstructions having heights generally less than 30 feet. This category includes flat open country, grasslands, and all water surfaces in hurricane prone areas.
- Wind loading figured at **Exposure "B" - Urban and suburban areas**, wooded areas, or other terrain with numerous closely spaced obstructions having the size of single-family dwellings or larger. These areas prevail in the upwind direction for a distance of 2600 feet or 20 times the structure height, whichever is greater.

Outdoor Scoreboard  
Installation  
2/3 Column With  
Laterals



Nevco, Inc.  
Greenville, Illinois 62246

Drawing No. 241-0360

Drawn DBB Date 3/10/2016

Sheet of 6 10



150 MPH WIND ZONES

Rev A

Column and Pier Requirements (Based on ASCE 7-05)

Display Height	Pier Dia	Pier Depth	Col Length	Column *
8	2' (3')	18'6" (14')	36'6" (32')	W16 x 40
10	2' (3')	22' (16'6")	42' (36'6")	W16 x 50
12	2' (3')	25' (19')	47' (41')	W18 x 55
14	2' (3')	28'6" (21'6")	52'6" (45'6")	W21 x 62
16	2' (3')	32' (24')	58' (50')	W24 x 68
18	2' (3')	35' (26')	63' (54')	W24 x 76
20	2' (3')	38' (28'6")	68' (58'6")	W24 x 84
22	3' (4')	31' (25'6")	63' (57'6")	W24 x 94
25	3' (4')	36' (29'6")	71' (64'6")	W24 x 117
30	3' (4')	42'6" (34'6")	82'6" (74'6")	W24 x 146
35	3' (4')	48'6" (40')	93'6" (85')	W24 x 176
40	3' (4')	55' (45')	105' (95')	W18 x 283

Column and Pier Requirements (Based on ASCE 7-05)

Display Height	Pier Dia.	Pier Depth	Col. Length	Column*
8	2' (3')	20'6" (15'6")	38'6" (33'6")	W21 x 44
10	2' (3')	24' (18'6")	44' (38'6")	W18 x 55
12	2' (3')	28' (21')	50' (43')	W21 x 62
14	2' (3')	31'6" (23'6")	55'6" (47'6")	W21 x 68
16	2' (3')	35'6" (26'6")	61'6" (52'6")	W24 x 76
18	2' (3')	39' (29')	67' (57')	W24 x 84
20	2' (3')	42'6" (32')	72'6" (62')	W24 x 94
22	3' (4')	34'6" (28')	66'6" (60')	W24 x 104
25	3' (4')	38'6" (31'6")	73'6" (66'6")	W24 x 117
30	3' (4')	47'6" (38'6")	87'6" (78'6")	W24 x 162
35	3' (4')	54'6" (44'6")	99'6" (89'6")	W24 x 207
40	3' (4')	62' (50')	112' (100')	W18 x 311

Column and Pier Requirements (Based on ASCE 7-05)

Display Height	Pier Dia.	Pier Depth	Col. Length	Column*
8	2' (3')	16'6" (12'6")	34'6" (30'6")	W16 x 36
10	2' (3')	19' (14'6")	39' (34'6")	W14 x 43
12	2' (3')	22' (16'6")	44' (38'6")	W18 x 50
14	2' (3')	24'6" (19')	48'6" (43')	W21 x 55
16	3' (4')	21' (17')	47' (43')	W21 x 62
18	3' (4')	23' (19')	51' (47')	W24 x 68
20	3' (4')	25' (21')	55' (51')	W24 x 76
22	3' (4')	27' (22'6")	59' (54'6")	W24 x 84
25	3' (4')	30'6" (25')	65'6" (60')	W24 x 94
30	3' (4')	35'6" (29')	75'6" (69')	W24 x 117
35	3' (4')	42'6" (35')	87'6" (80')	W24 x 162
40	3' (4')	48' (39'6")	98' (89'6")	W24 x 192

Column and Pier Requirements (Based on ASCE 7-05)

Display Height	Pier Dia	Pier Depth	Col. Length	Column*
9	2' (3')	20' (15')	39' (34')	W21 x 44
10	2' (3')	21'6" (16'6")	41'6" (36'6")	W16 x 50
11	2' (3')	23' (17'6")	44' (38'6")	W18 x 50
12	2' (3')	24'6" (18'6")	46'6" (40'6")	W18 x 55
13	3' (4')	20' (16'6")	43' (39'6")	W21 x 55
14	3' (4')	21' (17'6")	45' (41'6")	W21 x 62
15	3' (4')	22' (18'6")	47' (43'6")	W21 x 62
20	3' (4')	28'6" (23'6")	58'6" (53'6")	W24 x 84
25	3' (4')	34' (28')	69' (63')	W24 x 104
30	3' (4')	40' (32'6")	80' (72'6")	W24 x 131
35	3' (4')	46' (37'6")	91' (82'6")	W24 x 162
40	3' (4')	54'6" (44'6")	104'6" (94'6")	W18 x 283

Column and Pier Requirements (Based on ASCE 7-05)

Display Height	Pier Dia.	Pier Depth	Col. Length	Column *
8	2' (3')	14'6" (11'6")	32'6" (29'6")	W14 x 34
10	2' (3')	17' (13')	37' (33')	W16 x 36
12	2' (3')	19'6" (15')	41'6" (37')	W21 x 44
14	2' (3')	22' (17')	46' (41')	W18 x 50
16	2' (3')	24'6" (18'6")	50'6" (44'6")	W21 x 55
18	2' (3')	27' (20'6")	55' (48'6")	W21 x 62
20	2' (3')	29'6" (22'6")	59'6" (52'6")	W21 x 68
22	3' (4')	24' (20')	56' (52')	W18 x 76
25	3' (4')	28' (23'6")	63' (58'6")	W24 x 94
30	3' (4')	33' (27'6")	73' (67'6")	W24 x 104
35	3' (4')	38'6" (31'6")	83'6" (76'6")	W24 x 131
40	3' (4')	43'6" (36')	93'6" (86')	W24 x 162

Column and Pier Requirements (Based on ASCE 7-05)

Display Height	Pier Dia.	Pier Depth	Col. Length	Column *
8	2' (3')	13' (11')	31' (29')	W12 x 30
10	2' (3')	15'6" (12')	35'6" (32')	W14 x 34
12	2' (3')	17'6" (13'6")	39'6" (35'6")	W16 x 40
14	3' (4')	15' (12'6")	39' (36'6")	W14 x 48
16	3' (4')	17' (14'6")	43' (40'6")	W18 x 55
18	3' (4')	19' (15'6")	47' (43'6")	W21 x 55
20	3' (4')	20'6" (17')	50'6" (47')	W21 x 62
22	3' (4')	22' (18'6")	54' (50'6")	W21 x 68
25	3' (4')	25' (20'6")	60' (55'6")	W24 x 76
30	3' (4')	30'6" (25')	70'6" (65')	W21 x 101
35	3' (4')	35' (29')	80' (74')	W24 x 117
40	3' (4')	40' (33')	90' (83')	W24 x 146

Column and Pier Requirements (Based on ASCE 7-05 Exposure B 90mph Wind)

Display Height	Pier Dia.	Pier Depth	Col. Length	Column*
8	2' (3')	13' (11')	31' (29')	W12 x 30
10	2' (3')	15' (12')	35' (32')	W14 x 34
12	2' (3')	17' (13')	39' (35')	W16 x 40
14	2' (3')	19' (14'6")	43' (38'6")	W21 x 44
16	3' (4')	16'6" (13'6")	42'6" (39'6")	W18 x 50
18	3' (4')	18' (15')	46' (43')	W21 x 55
20	3' (4')	20' (16'6")	50' (46'6")	W21 x 62
22	3' (4')	21'6" (18')	53'6" (50')	W21 x 68
25	3' (4')	24' (20')	59' (55')	W24 x 76
30	3' (4')	28' (23')	68' (63')	W24 x 94
35	3' (4')	34' (28')	79' (73')	W24 x 117
40	3' (4')	38'6" (31'6")	88'6" (81'6")	W24 x 146

Column and Pier Requirements (Based on ASCE 7-05)

Display Height	Pier Dia.	Pier Depth	Col. Length	Column*
9	2' (3')	15'6" (12')	34'6" (31')	W14 x 34
10	2' (3')	16'6" (12'6")	36'6" (32'6")	W16 x 36
11	2' (3')	18' (13'6")	39' (34'6")	W16 x 40
12	2' (3')	19' (14'6")	41' (36'6")	W21 x 44
13	3' (4')	15'6" (13')	38'6" (36')	W14 x 48
14	3' (4')	16'6" (13'6")	40'6" (37'6")	W18 x 50
15	3' (4')	17'6" (14'6")	42'6" (39'6")	W18 x 55
20	3' (4')	22' (18'6")	52' (48'6")	W21 x 68
25	3' (4')	27' (22')	62' (57')	W24 x 84
30	3' (4')	31'6" (26')	71'6" (66')	W24 x 103
35	3' (4')	36' (30')	81' (75')	W24 x 131
40	3' (4')	43' (35'6")	93' (85'6")	W24 x 162

Chart Notes:

- \* It is required that 4x3x3/16 steel tubing be welded to back of columns 10' from the ground and every 10' to the top of the column for bracing. (See detail on sheet 7)
- Wind loading figured at **Exposure "C" - Open terrain** with scattered obstructions having heights generally less than 30 feet. This category includes flat open country, grasslands, and all water surfaces in hurricane prone areas.
- Wind loading figured at **Exposure "B" - Urban and suburban areas**, wooded areas, or other terrain with numerous closely spaced obstructions having the size of single-family dwellings or larger. These areas prevail in the upwind direction for a distance of 2600 feet or 20 times the structure height, whichever is greater.

Outdoor Scoreboard  
Installation  
2/3 Column With  
Laterals

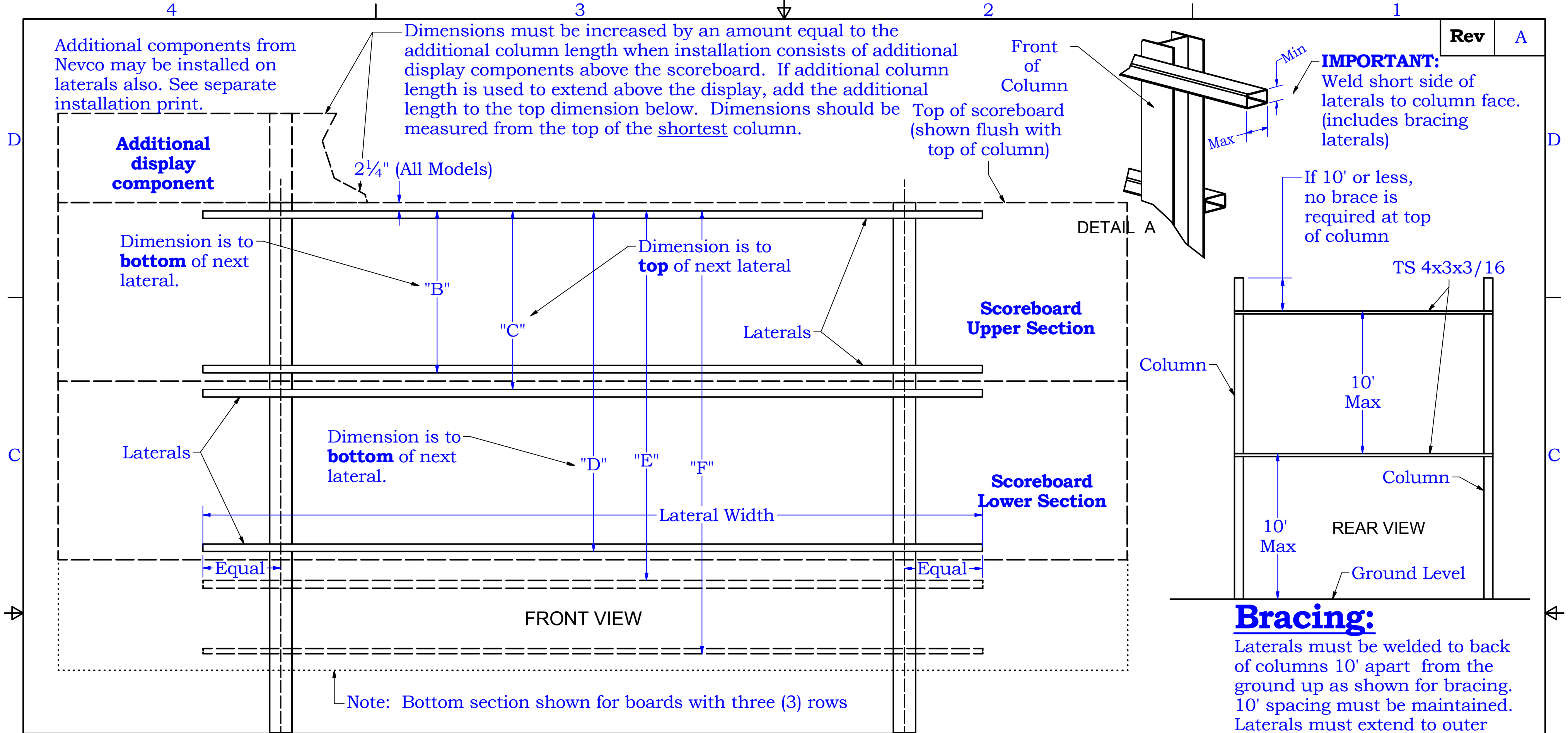


Nevco, Inc.  
Greenville, Illinois 62246

Drawing No. 241-0360

Drawn DBB Date 3/10/2016

Sheet of 7 10



Lateral and Hardware Requirements for 3 row Boards(hardware supplied by others)

Model Number	Dim "B"	C	D	E	F	Lateral Width	3/8 Washers	3/8 Lock	3/8 Nuts
7605,7615, 7625	25 7/8	30 1/16	73 15/16	78 3/16	122	17'6"	72	36	36

Lateral and Hardware Requirements for 2 row Boards(hardware supplied by others)

Model #	Dim "B"	Dim "C"	Dim "D"	Lateral Width	3/8 Washers	3/8 Lock Washers	3/8 Nuts
3616, 7616	55 3/4"	60 1/8"	115 7/8"	31' 6"	64	32	32
1603	43 3/4"	48 1/8"	103 7/8"	31' 6"	64	32	32
3657	55 3/4"	60 1/8"	115 7/8"	25' 6"	64	32	32
3620, 7620, 3688, 7688	43 3/4"	48 1/8"	91 7/8"	25' 6"	64	32	32
1604	43 3/4"	48 1/8"	91 7/8"	21' 6"	48	24	24
1606, 3615, 3617 3618, 3619, 3685, 7630, 7631, 7632, 7685	43 3/4"	48 1/8"	91 7/8"	17' 6"	48	24	24
8601, 8602	43 3/4"	48 1/8"	91 7/8"	17' 6"	48	24	24

- Required Hand Tools:**
1. Drill with phillips driver.
  2. 9/16" wrench
  3. Ratchet wrench and 9/16" socket
  4. Level
  5. Tape measure

- Hardware Notes:**
- 1) Minimum bolt grade: A307.
  - 2) Hardware above is not required if welding brackets to laterals.
  - 3) **Consider lateral size when choosing bolt length.**

- General Notes:**
- 1) See sheet 3 for lateral size requirements.
  - 2) Center and weld Laterals to front face of columns (weld around full perimeter of contact surface with 3/16 fillet).
  - 3) Dimensions above should be taken from the top of the SHORTEST column, marked and leveled across to other column.
  - 4) Mounting Brackets shipped in separate container.

Outdoor Scoreboard Installation 2/3 Column With Laterals		<p>NeVco, Inc. Greenville, Illinois 62246</p>	
Drawn DBB	Date 3/10/2016	Sheet 8 of 10	



Serrated Flange bolts (supplied by Nevco)

Slide bottom bracket up and tighten one bolt to hold in place

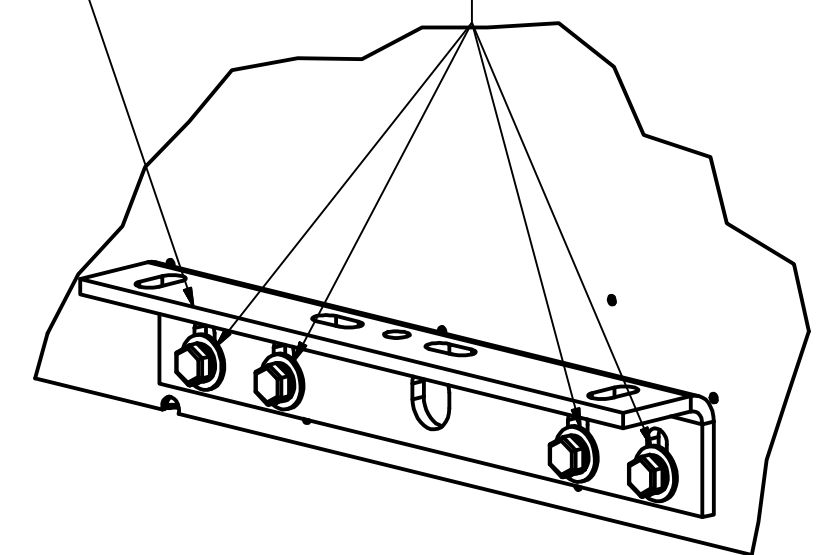
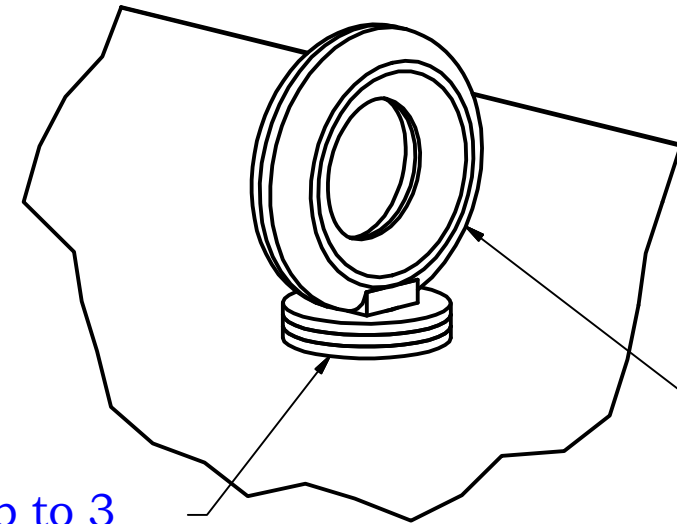
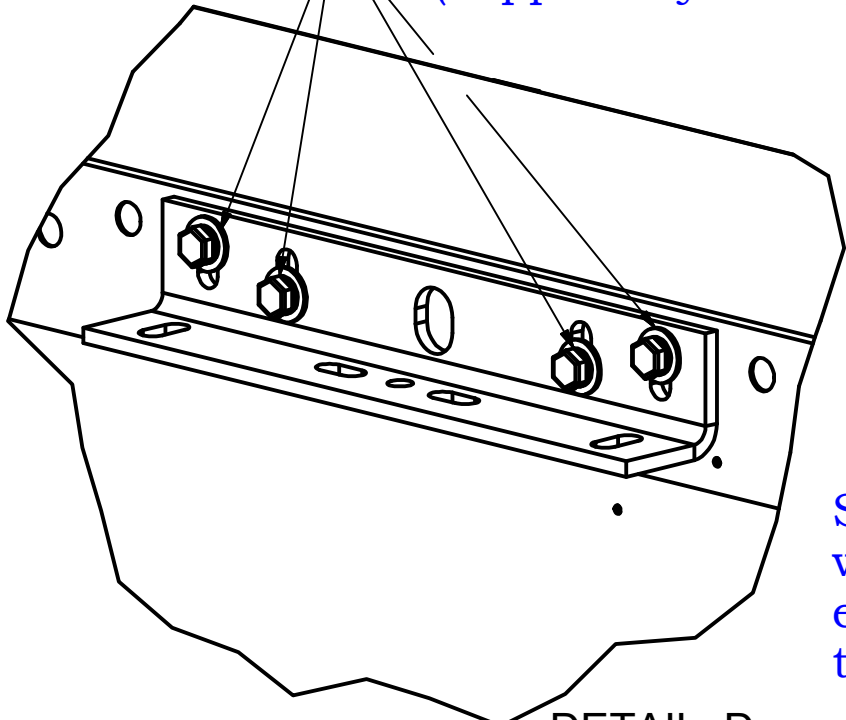
1" Maximum

Install 3/8-16 eye bolts into top of board (lower row of cabinets 1st) for lifting. (eye bolts and washers supplied by others)

Threads: 3/8" -16

Stack up to 3 washers under eye bolt if longer than 1"

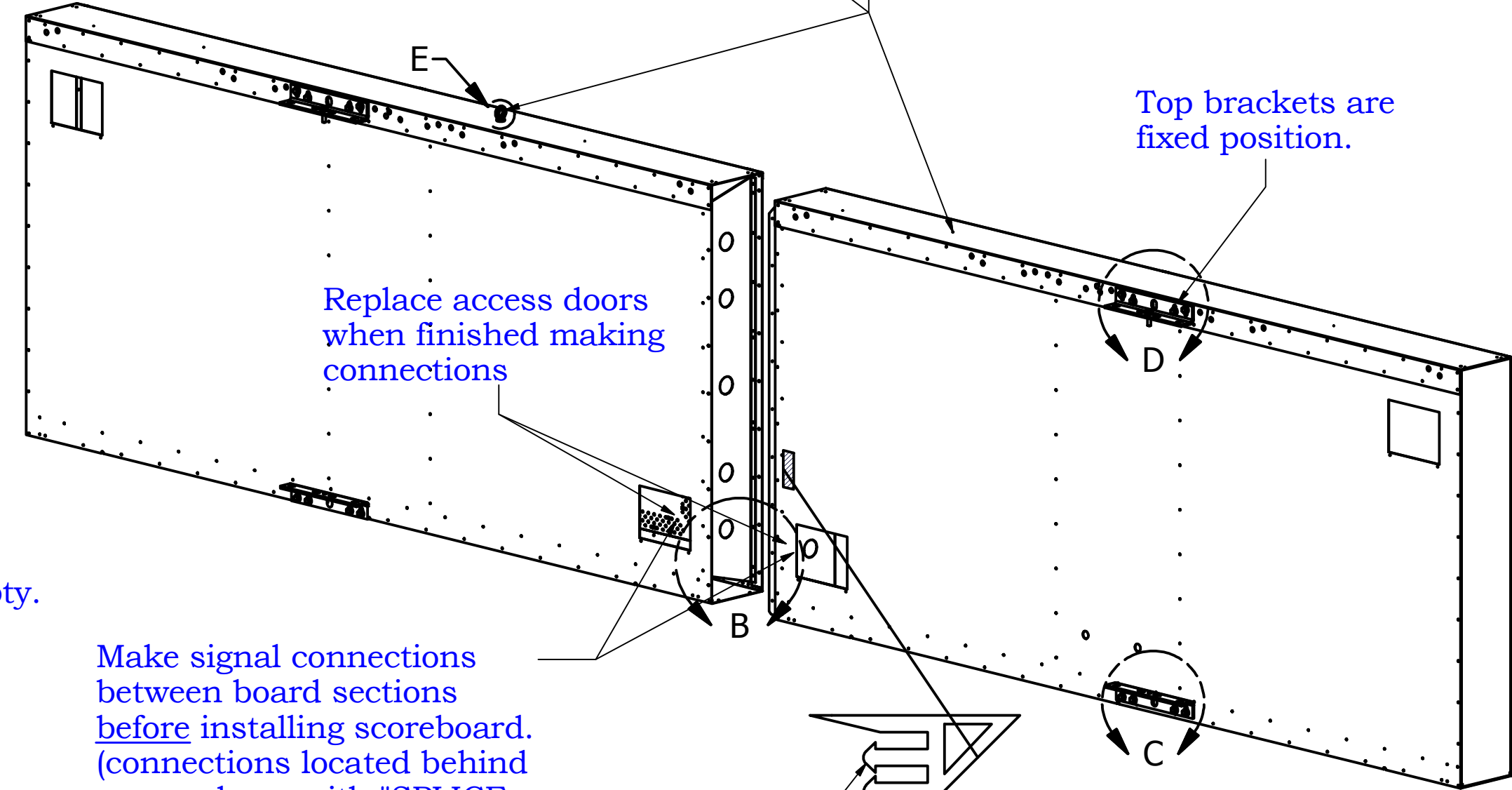
Serrated Flange bolts (supplied by Nevco)



DETAIL D

DETAIL E

DETAIL C



Replace access doors when finished making connections

Top brackets are fixed position.

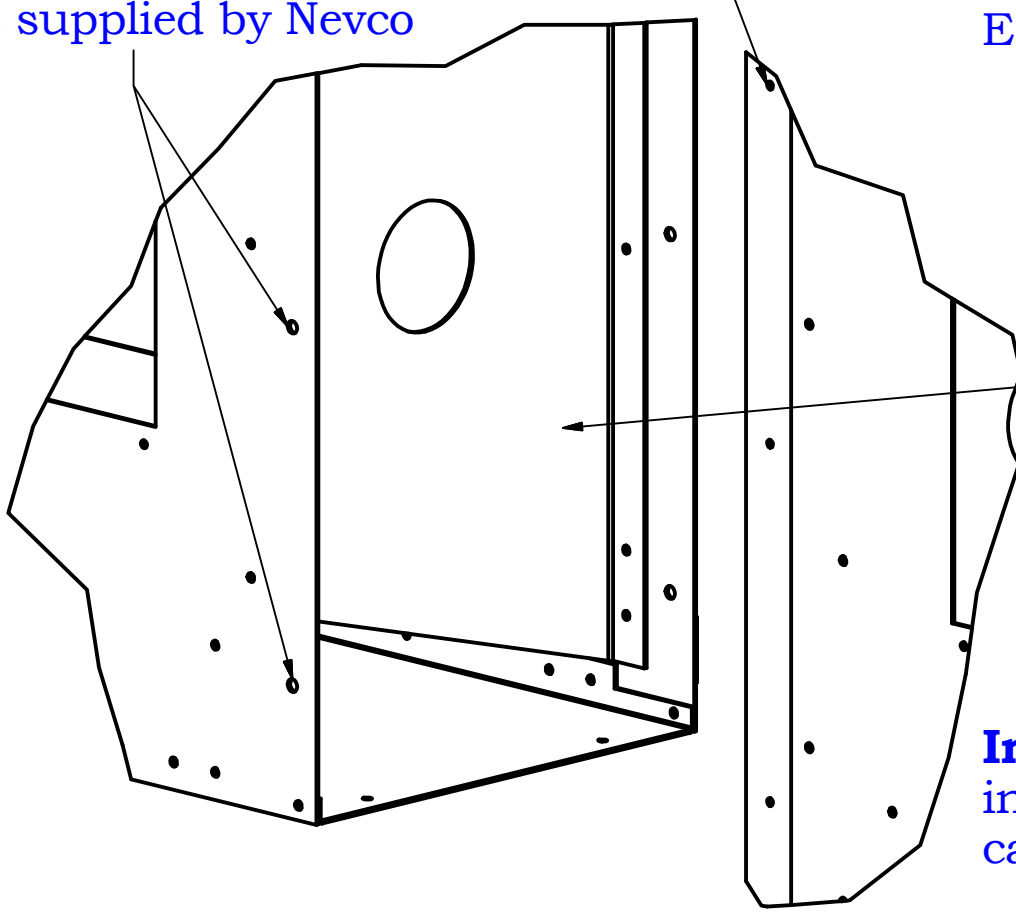
CABLE HANGER

**WARNING:**  
Do not leave any screw locations empty.

Make signal connections between board sections before installing scoreboard. (connections located behind access doors with "SPlice ENCLOSURE" label)

Secure connections to hangers located inside cabinets.

Screw sections together front and back using screws supplied by Nevco




Insert extended flange into mating section (make sure both flanges of male end go to inside of female end)

**Important:** Screw sections together prior to installing board onto columns. (Upper row of cabinets and lower row of cabinets do not connect)

- Notes:
- 1) Signal connections from lower row of cabinets to upper row should be made after both rows have been installed on columns. (see sheet 8 for details)
  - 2) Make sure all bracket bolts are tight before installing scoreboard.

DETAIL B

Outdoor Scoreboard Installation 2/3 Column With Laterals		 Nevco, Inc. Greenville, Illinois 62246
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Remove eye bolts from first row and install on second row

Spreader bar preferred for lifting (see installation instructions for more details)

Make power/signal connections between upper and lower rows of cabinets after board has been installed.  
 - connections located behind access doors labeled "splice enclosure"  
 - Pull cables from lower section into upper section (connections must be made and permanently located in upper section)

CABLE HANGER

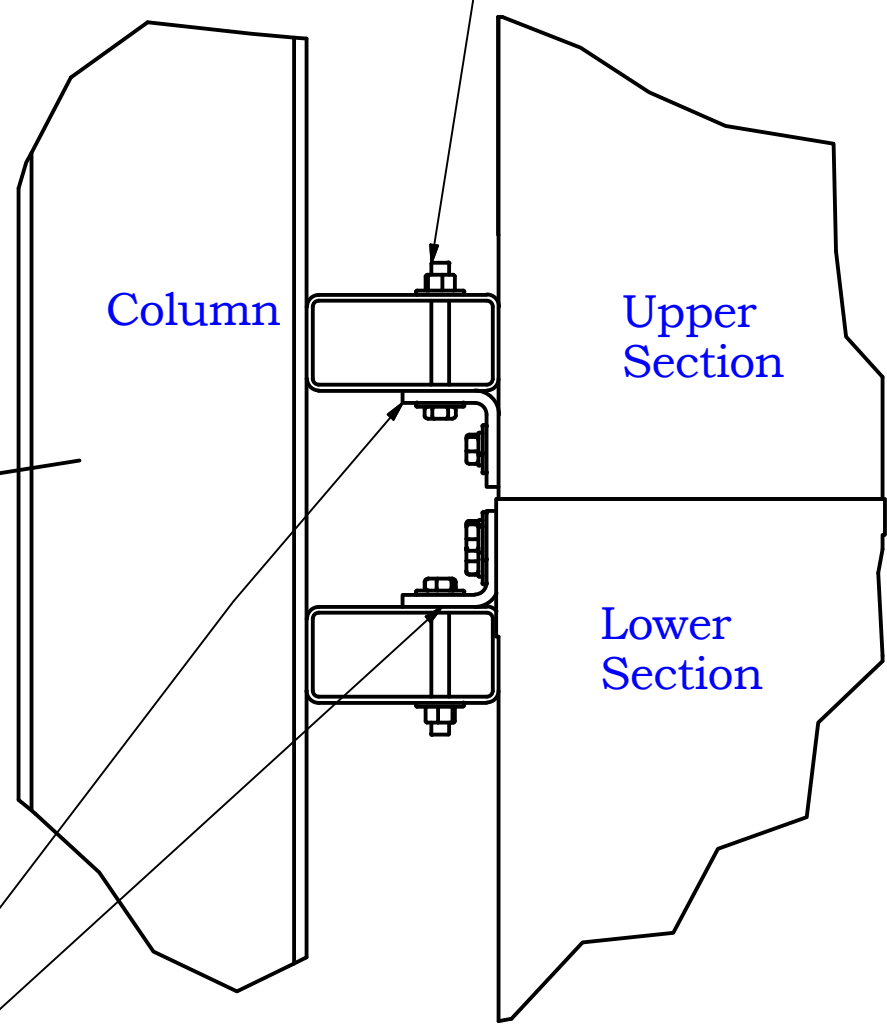
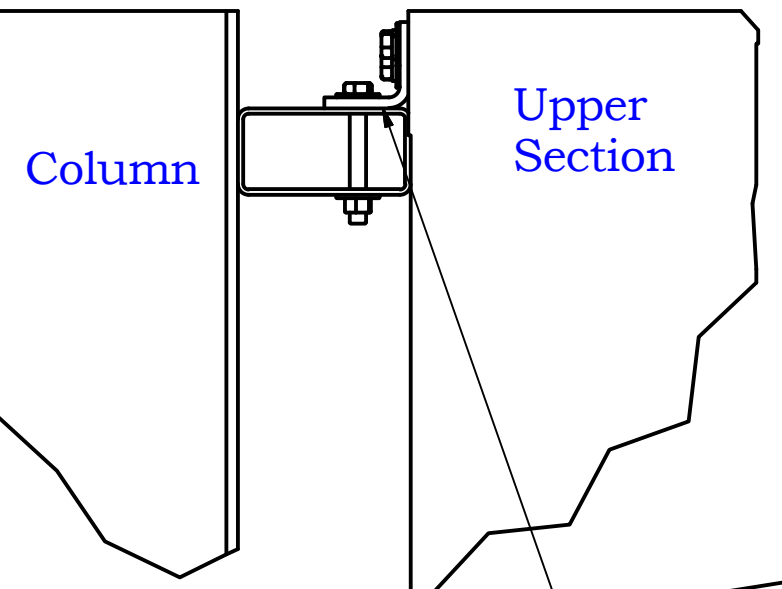
DETAIL I

**WARNING:**

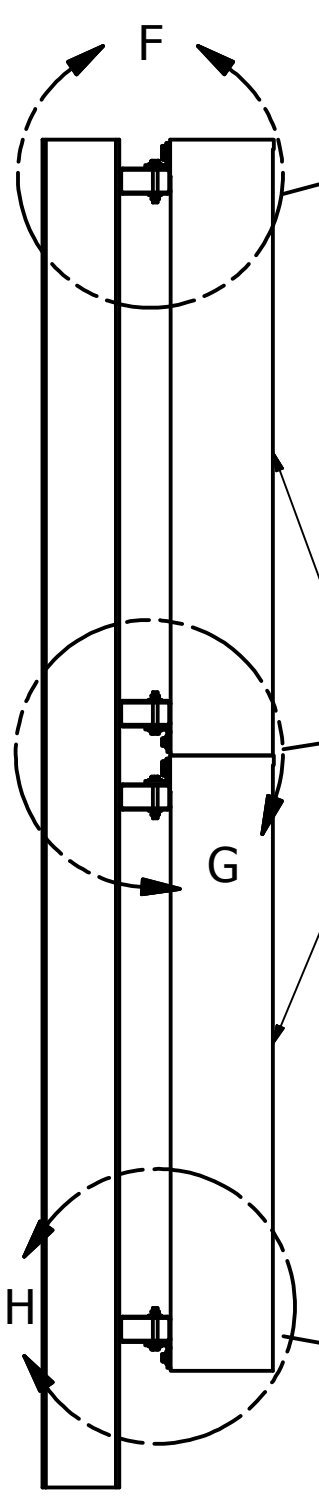
Do not lift scoreboards with any additional weight attached such as laterals or other structural components

Step 1  
Install Bottom Row

Step 2  
Install Top Row



(2) 3/8 bolts required to bolt bracket to lateral.



Weld (3/16 fillet) or Bolt brackets to laterals using 3/8 bolts, nuts, washers and lock washers supplied by others. (bolt length to be determined by installer; See lateral size required on sheets 3-5)

Outdoor Scoreboard Installation 2/3 Column With Laterals	
Drawn DBB	Date 3/10/2016

Neveco, Inc.  
Greenville, Illinois 62246

Drawing No.	241-0360
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